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Our dreams of a smart life
and a better future for Türkiye
continue to grow.

2025



Turkish Electronics Industry Almanac

2026

TESİD
Türk Elektronik
Sanayicileri Derneği
Turkish Electronics
Manufacturers Association

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We are also involved in Turkey's visionary projects

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Türkiyenin savunma, havacılık, otomotiv ve enerji sanayilerine test ve ölçüm çözümleri sunuyoruz. Kalitesi kanıtlanmış; dünya standartlarındaki sistem, donanım ve yazılımlarımızla Türkiyede ve dünyada ürünlerin gücüne güç katıyoruz.

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FORWARD



Yaman Tunaoğlu
Chairman of the Board, TESİD

Dear Stakeholders of the Electronics Sector,

We are delighted to greet you with TESİD ALMANAC 2025, the new edition of our publication, which has been the established reference source of the Turkish electronics industry and has kept its finger on the pulse of the sector since 1990.

This year, we have focused on strategic initiatives that will strengthen our position in the global arena. In this edition, we address a wide range of innovative topics, from high value-added technology export strategies to the digital product passport, and from our country's regional leadership vision to disaster management systems that protect critical infrastructure. We have also brought together, under a single vision, the latest developments in 5G/6G technologies, the transformation of smart home ecosystems, small modular reactors as the future of the energy sector, and our country's semiconductor roadmap. The outstanding projects that won the 2024 TESİD Awards, which embody the innovative strength of our sector, form the inspiring sections of this issue.

The period behind us has put the electronics sector's adaptability and R&D muscle to a serious test with game-changing technological disruptions. By adapting quickly to this dynamic process, the Turkish electronics industry has once again demonstrated its determination to pursue qualified technology production and export-oriented growth.

Achieving sustainable development and becoming a leading actor in global supply chains is only possible by acting with a common mind. This almanac aims to guide us in accurately analysing our current position and building strong strategies and lasting sectoral partnerships for the future.

As TESİD, we will continue to lead every collective effort that will grow our ecosystem. I hope that the knowledge shared here will open new horizons for the vision of all our stakeholders.

Sincerely,
Yaman Tunaoğlu
Chairman of the Board, TESİD

ABOUT TESID

TESID (Turkish Electronics Manufacturers Association) was founded in 1989 by 24 members pursuing the initiatives of the representatives of the electronics industry companies and electronics faculty members in of the universities with the encouragement of the Turkish Ministry of Industry and Trade officials. The association started its activities under ESID title then the name was registered as the Turkish Electronics Manufacturers Association (TESID) in 1992 with the decision of the Council of Ministers. All organizations conducting R&D work and production in electronics industry, information technologies and related service sector in Türkiye are eligible for membership. TESID currently has 147 members from 80 industrial organizations.

OUR MISSION

Leading the Turkish Electronics Industry, Information Technologies and related service sectors towards continuous competitiveness and increasing its contributions to the national economy and the people.

OUR GOALS

1. Encouraging and supporting technological creativity to achieve a common goal among universities, industry and the government so that competitive, flexible, productive and highquality goods and services are produced.

2. To support:
   a) the development of a worldwide competitive electronics industry.
   b) the expansion of capacity and productivity as well as the enchancement of the investment opportunities of the industry.
   c) the improvement of the standard of living of employees, for greater employee satisfaction.

3. Concerning policies, strategies, standards and development within the electronics industry;
   (a) Leading their implementation for the benefit of the country,
   (b) Forming opinions and policies,
   (c) Compiling the necessary data.

4. Supporting the Electronics Industry to develop into a strong, environmentally aware, safety conscious establishment that is an overall positive contributor to the community.

It is our wish to develop TESİD into an organisation which is perceived as

* Reliable, innovative,
* Independent, continuous
* liberal and participative

by its members and the community.

TESİD
Türk Elektronik Sanayicileri Derneği
Turkish Electronics Manufacturers Association

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Berrin BENLİ

TESİD members came together at the "Farewell to Summer" gathering held in Eskişehir on 17 October 2025, TESİD's traditional "Welcome Summer" event was held in Bursa on 22 May 2025. The first event involved a visit to the SAVRONİK facilities, and the second to the EMKO facilities.

TESİD Members Met in Eskişehir

TESİD members came together at the "Farewell to Summer" gathering held in Eskişehir on 17 October 2025. During the event, the SAVRONİK facilities were visited, and Board Member Sıddık Yarman and General Manager Tarkan Uygunuçarlar briefed participants on the company's activities and facilities.

Speaking at the event, TESİD Chairman of the Board Yaman Tunaoğlu emphasised that the now-traditional "Welcome Summer" and "Farewell to Summer" gatherings create opportunities for communication, networking and cooperation among members. Tunaoğlu also provided information on TESİD's summer activities, plans for the coming period, the importance of membership dues, the work on the "Smart Living" supplement and the ongoing TESİD Strategy Document.

Ender Arslan, Chair of the TESİD Strategy Preparation Working Group, gave a presentation on the strategy work and the planned working model. It was stated that the working groups to be formed under four main strategic headings would play an active role in achieving the set objectives. In addition, Secretary General Suat Bengür presented a video summarising the strategy work, highlighting the importance of members contributing their views and suggestions to the draft strategy document.

TESİD "Welcome Summer" Gathering Held in Bursa

TESİD's traditional "Welcome Summer" event was held in Bursa on 22 May 2025. The programme included a visit to the EMKO facilities and continued with a dinner at Taş Mahal in Tirilye.

Representatives of BARKO, C3 Teknoloji, Elektrotel, EMKO, EMT, Entes, Karel, Letta, Savronik, Tüm Elektronik Mühendislik, Udea and VHS attended the gathering.

During the visit to the EMKO facilities, TESİD Chairman of the Board Yaman Tunaoğlu gave a brief update on the Association's current activities. Ayhan İspalar then introduced EMKO's fields of activity and work. During the facility tour, Ayhan İspalar, Duygu İspalar and Coşku İspalar provided participants with detailed information on production processes and the facility's infrastructure.

TESİD Talks – 15 "The Third Wave: Climate Technologies, Opportunities and Needs for Türkiye"

The topic of the 15th TESİD Talks, held on 29 January 2025, was "The Third Wave: Climate Technologies, Opportunities and Needs for Türkiye".

Due to Hakan Güldağ's last-minute illness, the session was moderated this time by Vahap Munyar, General Coordinator of Nasıl Bir Ekonomi newspaper. We wish Hakan Güldağ a speedy recovery, and we sincerely thank Vahap Munyar for standing by us at TESİD Talks and for his valuable moderation.

The talk was opened by TESİD Chairman of the Board Yaman Tunaoğlu. He emphasised that climate technologies, which are becoming increasingly important worldwide, will also create significant opportunities for our sector, and spoke about how the twin transitions—digital and green—should be carried out.

Our guest, TTGV Chairman of the Board Değerhan Usluel, focused his talk on climate technologies, assessing recent developments around the world and the opportunities they create for the electronics industry. He shared innovative approaches to energy storage and energy efficiency. He stressed that Türkiye missed the Internet-driven IT wave of the 1980s because its ecosystem was not ready, and the biotechnology wave of the 2000s because the different components of its ecosystem could not work in harmony and generate the necessary value. Today, he noted, Türkiye faces a third wave—climate technologies—and as a producing

and exporting country it cannot afford to miss it. He also underlined the importance of a skilled workforce, particularly in climate technologies, and of cooperation within the sector.

TESİD Talks – 16
Productivity and Competitiveness in the Electronics Sector: The 'Artificial Intelligence' Factor

The 16th TESİD Talk was held on 12 May 2025. Moderated by Hakan Güldağ, the talk's guest was Efe Erdem, General Manager of MEXT. The talk was sponsored by TESİD members ENTES and KAREL.

In his opening speech, TESİD Chairman of the Board Yaman Tunaoğlu spoke about China's rapid rise, drew attention to the fast spread of artificial intelligence, and emphasised the importance of the steps that need to be taken in terms of competitiveness and productivity.

At the beginning of the talk, MEXT General Manager Efe ERDEM gave information about MEXT, which has Türkiye's first production facility supported end-to-end by 5G technology. He explained that MEXT is the most comprehensive digital transformation and competence centre, consisting of four components: a Digital Factory, a Maturity Assessment Centre, an Ecosystem, and a Competence Development Centre. Regarding the contributions of artificial intelligence to the electronics sector, he presented:

- Examples from Global Lighthouse Network factories of the productivity gains provided by AI applications in manufacturing,
- Examples of applications emerging in product development that accelerate chip design and product design processes,
- And, looking at China's electronics sector, examples of automation, robot use and the use of AI for productivity.

Taking these global developments into account, he shared his recommendations on what Türkiye should do..

TESİD Talks – 17
5G & 6G in Türkiye and the World

At the 17th TESİD Talks, organised by the Turkish Electronics Industrialists' Association (TESİD) on 3 December 2025, the development, industrial impact and strategic importance of 5G and 6G technologies in Türkiye and around the world were discussed. The session was moderated by Hakan Güldağ, with Prof. Dr. Hüseyin Arslan and Hasan Ersin Öztürk as speakers.

Delivering the opening speech, TESİD Chairman Yaman Tunaoğlu stated that 5G infrastructure work has accelerated and that services are expected to start in 2026. Tunaoğlu drew particular attention to the critical role of private 5G networks used in the defence industry and production facilities for secure communications.

Prof. Dr. Hüseyin Arslan emphasised that 5G will accelerate digital transformation not only in personal communications but also in sectors such as agriculture, health and industry. Stating that Türkiye should play an active role in the process of setting 6G standards, Arslan said that communication technologies are of strategic importance for national security and economic competitiveness.

Hasan Ersin Öztürk noted that the low latency and high reliability offered by 5G create new opportunities in industrial automation, remote control systems and healthcare applications. Pointing out that private 5G networks deliver significant productivity gains in production and logistics, Öztürk emphasised that national communication technologies are critical for data sovereignty and supply security.

▸ Prof. Dr. Hüseyin Arslan emphasised that 5G will accelerate digital transformation not only in personal communications but also in sectors such as agriculture, health and industry. Stating that Türkiye should play an active role in the process of setting 6G standards, Arslan said that communication technologies are of strategic importance for national security and economic competitiveness.

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TESID 2025

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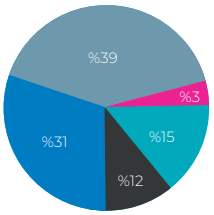
TURKISH ELECTRONICS INDUSTRY

2025 OVERVIEW OF THE ELECTRONICS INDUSTRY IN TÜRKİYE

OVERVIEW OF 2025 TÜRKİYE ELECTRONICS INDUSTRY

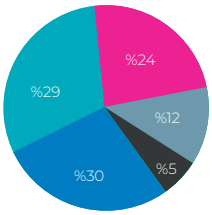
TOTAL EXPORTS OF THE SECTOR 2025



Components	3.172.318
Consumption Devices	947.133
Telecommunication Devices	2.576.635
Industrial Electronics	1.203.314
Computer Devices	259.062

TOTAL 8.158.462 THOUSAND USD DOLLAR

TOTAL IMPORTS OF THE SECTOR 2025



Components	2.797.193
Consumption Devices	1.190.977
Telecommunication Devices	6.879.289
Industrial Electronics	6.545.270
Computer Devices	5.330.353

TOTAL 22.743.082 THOUSAND USD DOLLAR

ELECTRONIC INDUSTRY PRODUCTION IMPORT AND EXPORT BY YEARS

YEARS	Import (Thousand $)	Export (Thousand $)
2008	13.775.958	5.955.081
2009	12.227.079	4.885.754
2010	14.510.748	5.585.804
2011	16.726.134	6.498.182
2012	16.109.973	6.838.803
2013	17.373.695	6.574.173
2014	18.198.691	6.632.417
2015	17.286.392	5.767.682
2016	18.643.639	5.317.274
2017	20.234.296	5.384.779
2018	19.064.372	5.987.131
2019	18.176.382	6.108.196
2020	18.101.749	4.832.091
2021	18.960.334	5.771.766
2022	18.579.308	5.796.818
2023	21.094.732	6.865.262
2024	20.049.008	7.247.267
2025	22.743.082	8.158.462

THOUSAND US DOLLARS

BREAKDOWN OF ELECTRONIC INDUSTRY PRODUCTION BY SUBSECTORS

	2019	2020	2021	2022	2023	2024	2025
Total Import	202.703	219.4	260.6	363.7	339.05	344.20	344.104
Electronics Industry	18.176	18.101	18.960	18.579	21.094	20.049	22.743
% Share of the Electronics Industry	8,9	8,25	8,25	5,11	5,04	5,81	6.61
Total Export	171.480	169.5	213.6	254.1	232.3	261.8	248.715
Electronics Industry Export	6.108	4.832	5.771	5.796	6.865	7.247	8.861
% SHARE	**3,56**	**2,56**	**2,56**	**2,56**	**2,68**	**2,68**	**3,56**

MILLION US DOLLARS

DISTRIBUTION OF EXPORT AND IMPORT OF THE ELECTRONICS INDUSTRY OVER YEARS

	Import (THOUSAND $)			Export (THOUSAND $)		
SUB SECTORS	2023	2024	2025	2023	2024	2025
Components	4.587.247	3.172.758	2.797.193	2.140.839	2.609.731	3.172.318
Consumption Devices	1.116.901	1.190.977	1.190.977	1.133.670	947.133	947.133
Telecommunication Devices	5.608.263	6.132.514	6.879.289	2.238.707	2.324.034	2.576.635
Other Prod. End. Devices	5.498.972	5.987.852	6.545.270	1.097.655	1.135.811	1.203.314
Computer Devices	4.283.349	3.564.907	5.330.353	254.391	230.558	259.062
TOTAL	21.094.732	20.049.008	22.743.082	6.865.262	7.247.267	8.158.462

Export and Import Figures have been obtained from TÜİK.
Average of 2025 year was 1 $ = 39,63 TL.

DISTRIBUTION OF EXPORT AND IMPORT OF THE ELECTRONICS INDUSTRY BY COUNTRIES 2025

Group Name	Country Name	Ratio (%)	Import (Thousand $)	Ratio (%)	Export (Thousand $)
North America	U.s.a	2,15	335.890	3,46	148.168
	Canada	1,17	181.879	20,25	867.190
European Union	**Subtotal**	**3,32**	**517.769**	**23,71**	**1.015.358**
	Germany	10,22	1.593.003	14,61	625.572
	England	0,16	25.632	0,16	7.000
	France	0,10	15.900	0,05	2.100
	Italy	0,22	34.675	0,14	5.912
	Czech Repuplic	0,38	59.760	0,14	5.900
	Poland	0,32	49.410	0,28	12.000
	Bulgaria	0,11	17.465	0,17	7.296
	Spain	1,35	209.800	0,68	29.000
	Hungary	0,51	79.598	0,95	40.570
	Netherlands	0,46	71.672	1,27	54.580
	Sweden	0,27	41.900	0,30	12.940
	Ireland	0,47	73.106	0,94	40.270
	Romania	0,69	107.060	2,33	99.827
	Austria	0,80	124.935	1,25	53.695
	Belgium	9,27	1.446.067	0,47	20.203
	Slovakia	0,23	35.700	0,09	3.750
	Finland	0,49	76.785	0,84	36.150

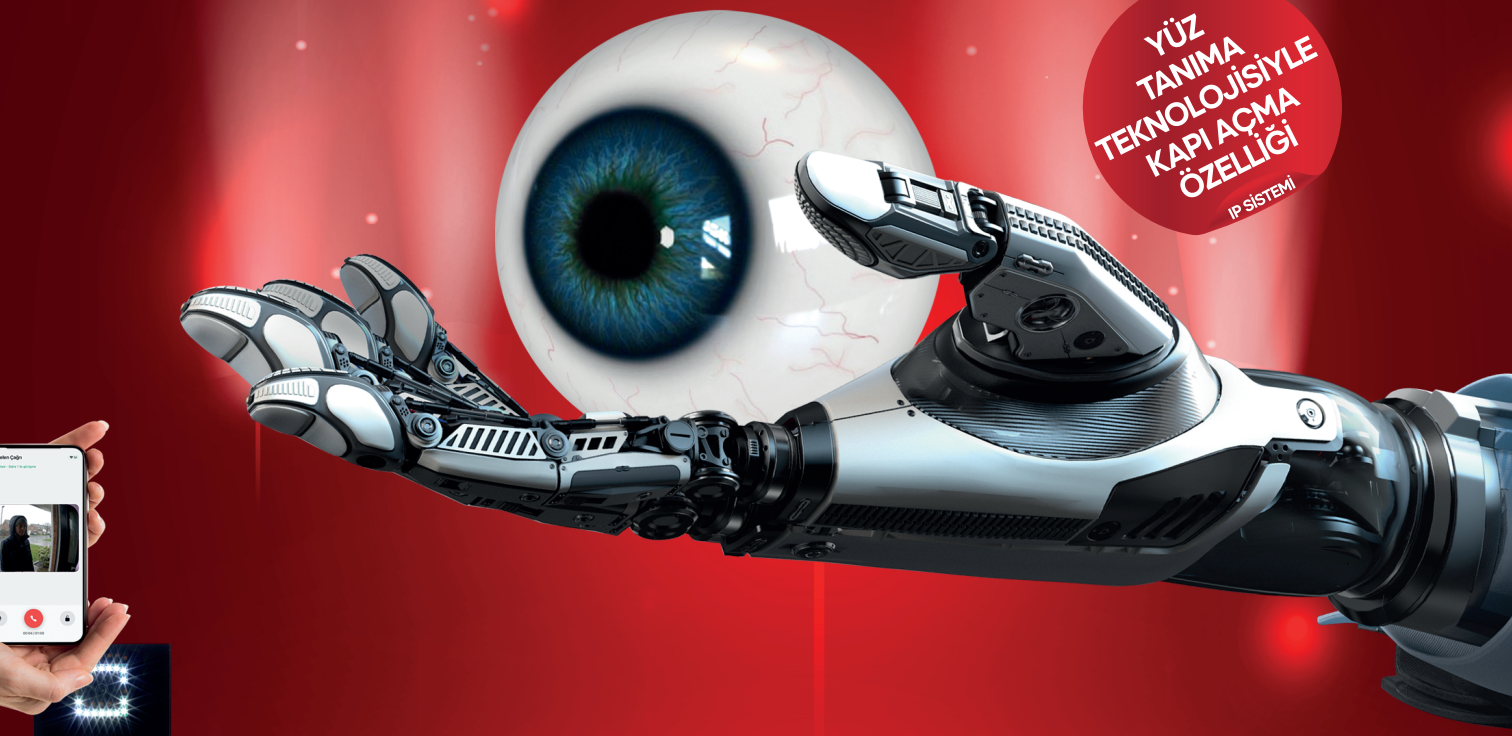
Group Name	Country Name	Ratio (%)	Import (Thousand $)	Ratio (%)	Export (Thousand $)
	Estonia	0,35	55.045	0,04	1.650
	Potugal	0,37	57.170	0,10	4.080
	Greece	0,00	230	0,79	33.720
	Denmark	0,24	37.939	0,15	6.364
	Crotia	0,04	6.412	0,23	10.023
	Other Countries	1,11	173.534	1,52	64.973
Non-EU Countries	**Subtotal**	**28,17**	**4.392.798**	**27,50**	**1.177.575**
	Switzerland	2,17	337.732	13,16	563.767
	Tr Of Northern Cyprus	0,02	3.512	0,69	29.750
	Norway	0,02	2.700	0,03	1.250
	Russian Federation	0,04	6.257	0,50	21.334
	Macedonia	0,05	8.495	0,80	34.288
	Ukranie	0,01	2.100	0,04	1.800
	Serbia	0,00	445	0,51	21.973
	Other Countries	0,06	9.300	1,39	59.400
North Africa & M.East	**Subtotal**	**2,38**	**370.541**	**17,13**	**733.562**
	Saudi Arabia	0,01	1.000	0,06	2.390
	Israel	0,01	1.100	0,26	11.000
	Iraq	0,01	912	0,40	17.127
	U.a.e	0,05	8.355	0,10	4.390
	Iran	0,00	105	0,72	30.630
	Algeria	0,00	7	0,42	17.900
	Egypt	0,00	25	4,63	198.320
	Tunusia	0,01	2.000	0,09	4.000
	Morocco	0,06	9.300	0,76	32.497
	Qatar	0,00	450	1,05	45.120
	Syria	0,00	0	0,73	31.300
	Libya	0,00	34	0,37	15.950
	Other Countries	0,12	18.425	1,63	69.765
Central Asia & Caucasus	**Subtotal**	**0,27**	**41.713**	**11,22**	**480.389**
	Turkmenistan	0,00	106	4,97	212.975
	Azerbaijan	0,00	105	1,25	53.412
	Georgia	0,00	550	0,73	31.219
	Kazakhstan	0,00	0	0,24	10.287

Group Name	Country Name	Ratio (%)	Import (Thousand $)	Ratio (%)	Export (Thousand $)
	Other Countries	0,00	330	1,79	76.641
Central & South America	**Subtotal**	**0,01**	**1.091**	**8,98**	**384.534**
	Mexico	0,44	68.260	0,15	6.331
	Costa Rica	0,11	17.640	0,00	15
	Brazil	0,02	3.800	0,04	1.800
	Other Countries	0,02	3.555	0,74	31.879
Far East	**Subtotal**	**0,60**	**93.255**	**0,93**	**40.025**
	China	48,66	7.587.562	1,62	69.542
	South Korea	6,06	944.250	0,02	700
	Vietnam	0,14	21.974	0,21	9.000
	Taiwan	2,71	423.311	0,51	21.695
	Japan	0,66	102.322	0,02	900
	Malaysia	1,11	173.452	0,18	7.620
	Thailand	3,13	488.140	0,05	1.985
	Singapore	0,16	25.503	0,22	9.225
	Indonesia	0,53	83.157	0,83	35.495
	Philippines	0,41	64.371	0,11	4.853
	Hong Kong	0,13	19.779	0,38	16.194
	Other Countries	0,39	60.095	0,21	8.960
Free Trade Zones	**Subtotal**	**64,09**	**9.993.916**	**4,35**	**186.169**
	Istanbul Ind. & Trade Free Zone	0,00	450	0,06	2.460
	Aegean Free Zone	0,10	15.530	0,48	20.650
	Bursa Free Zone	0,41	63.900	0,13	5.400
	Other Free Zone	0,11	17.380	1,28	54.710
Other Countries	**Subtotal**	**0,62**	**97.260**	**1,94**	**83.220**
	India	0,41	63.655	0,00	82
	Australia	0,03	4.900	0,36	15.489
	Gana	0,00	23	0,46	19.800
	Pakistan	0,00	250	0,34	14.550
	Other Countries	0,10	16.269	3,08	132.067
Subtotal		**0,55**	**85.097**	**4,25**	**181.988**
COMPONENTS TOTAL		**100,00**	**15.593.441**	**100,00**	**4.282.820**

ÜRETİM VE TECRÜBEDE 37 YIL

Netelsan, Güvenli Yaşam Teknolojileri İle Size Gözümüz Gibi Bakıyoruz.

YÜZ TANIMA TEKNOLOJİSİYLE KAPI AÇMA ÖZELLİĞİ
IP SİSTEMİ



SMARTEYE®



EQMAX / KARVOX



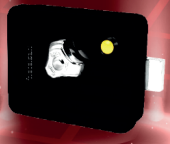
SİRENO



DETECT



SPOTTER



SMART LOCK



BLAZE



OBSERVER



LUCIANO



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güvenli yaşam teknolojileri

1989'dan beri gururla üretiyoruz.

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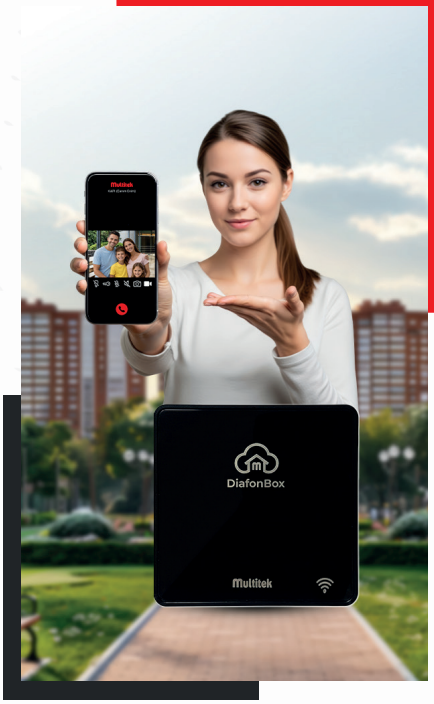
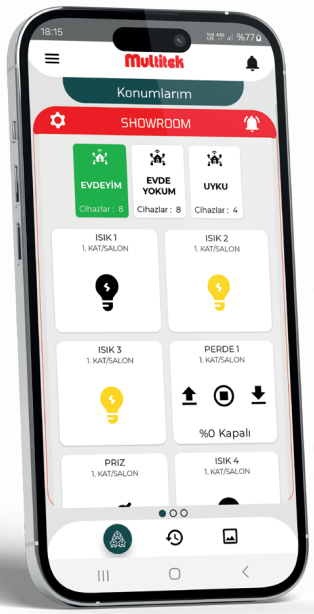
GÜCÜNÜ YERLİ TEKNOLOJİ VE
YERLİ ÜRETİMDEN ALAN AKILLI SİSTEMLER

IP İnterkom ve Akıllı Ev Sistemlerimizi, TÜBİTAK desteği
ve %100 yerli yazılım altyapısıyla geliştiriyoruz.



Diafonbox ile mevcut sisteminizi değiştirmeden kapınızı cep telefonunuzdan açın.







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SECTORAL OVERVIEW

ESCAPING THE MIDDLE-INCOME TRAP THROUGH TECHNOLOGY: HİGH VALUE-ADDED EXPORTS

MODERNISATION OF THE CUSTOMS UNION AND PREPARING FOR THE DIGITAL PRODUCT PASSPORT

REGIONAL LEADERSHIP: THE TURKISH ELECTRONICS SECTOR'S OPENING TO THE MIDDLE EAST AND CENTRAL ASIA

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SMART HOME MANAGEMENT

THE FABLESS BUSINESS MODEL: TÜRKİYE'S SEMİCONDUCTOR ROADMAP

IOT CYBERSECURITY: FROM REGULATION TO STRATEGIC NECESSITY

SMALL MODULAR REACTORS (SMRS)

Escaping the Middle-Income Trap through Technology: High Value-Added Exports

This article is based on “A New Economic Model for Türkiye” by İbrahim Uğurlu, TESİD member and Chairman of the Board of UDEA.



Today, the rational solution for Türkiye is considered to be a new approach that preserves the liberal market framework while going beyond sector-neutral policies and focusing clearly on “Guided Industrial Capitalism”. The success of this model is expected to come from providing “deep incentives to a small number of strategic sectors” rather than “equal incentives for every sector”.

Over the last 35–40 years, Türkiye is considered to have reached a new stage in overcoming the middle-income trap and turning its human and material resource potential into lasting prosperity. This situation appears to stem from the structural limits of the current development approach. In particular, intensifying competition from China at the global level has increased pressure on traditional industrial structures and heightened the need to update the existing model. Türkiye is therefore expected to reshape its model and priorities from a strategic perspective.

Today, the rational solution for Türkiye is considered to be a new approach that preserves the liberal market framework while going beyond sector-neutral policies and focusing clearly on “Guided Industrial Capitalism”. The success of this model is expected to come from providing “deep incentives to a small number of strategic sectors” rather than “equal incentives for every sector”. It is strongly emphasised that sectors identified as strategic should be supported sustainably and that resources should be concentrated in these areas.

Accordingly, the strategic areas identified for high value-added exports and a technological leap are considered to be the following:

- Defence and Aerospace: This area shows strong potential for success thanks to the presence of a public buyer, a steep high-technology learning curve and continuous domestic demand.

- Automotive, Machinery and White Goods: The existing production

infrastructure is strong, and value added can be raised further by targeting the production of domestic components and critical subsystems.

- Health Technologies: The domestic market is protected by a strong public buyer and regulations, and the domestic production threshold can be raised through clinical validation support and long-term purchase guarantees.

- Energy, Batteries and Power Electronics: In this area, which is critical for reducing the current account deficit, economies of scale are necessary, and domestic products such as batteries and inverters should be prioritised in projects through selective capital support.

It is considered that the institutional structure of this model could be built through the Industrialisation Executive Committee (SAİK), established in 2020 and inspired by the successful model in the defence industry. It would be beneficial for SAİK to take on, in addition to strategic guidance, the role of transferring technological gains from the defence industry to civilian sectors (pharmaceuticals, medical devices, rail systems, cybersecurity) and ensuring synchronisation between sectors.

In conclusion, it is vital that development plans remain binding for the public sector and guiding for the private sector. The effective implementation of the defined industrial guidance and performance criteria is expected to bring Türkiye to a high value-added export structure in the medium and long term.

It would be beneficial for SAİK to take on, in addition to strategic guidance, the role of transferring technological gains from the defence industry to civilian sectors (pharmaceuticals, medical devices, rail systems, cybersecurity) and ensuring synchronisation between sectors.



Modernisation of the Customs Union and Preparing for the Digital Product Passport

This article was prepared by TESİD member EMPA.



Although there is not yet a direct legal requirement for the DPP in Türkiye, this mechanism is expected to become a de facto requirement for access to the EU market.

Since 1996, the Customs Union between Türkiye and the European Union has been a powerful driver, both facilitating trade and increasing trade volume between the parties. However, in the face of the transformation of global trade, digitalisation and green transition policies, the Customs Union in its current form is no longer sufficient.

Structural problems such as Türkiye's obligation to automatically follow the EU's free trade agreements with third countries—that is, Türkiye's inability to establish symmetrical trade relations with those third countries—create a competitive disadvantage.

The current Customs Union framework does not meet today's needs in areas such as digital trade, data governance and supply chain traceability.

Instruments such as the European Green Deal and the Carbon Border Adjustment Mechanism are reshaping trade on the basis of its carbon content, and the current Customs Union contains no mechanisms to integrate this transformation.

The Digital Product Passport (DPP), introduced under the Ecodesign for Sustainable Products Regulation (ESPR), is a mandatory infrastructure enabling the digital management of sustainability, technical compliance and supply chain data for products in the EU. The DPP is not a standalone regulation, but the key instrument that puts ESPR's product requirements into practice.

ESPR is designed to cover almost all physical products, with limited exceptions such as food and pharmaceuticals. However, ESPR does not contain product-specific ecodesign requirements; it sets the basic framework for implementation. Sector-specific secondary legislation (delegated acts) will be adopted in line with ESPR. Sectors including electronics, fashion and textiles, furniture, batteries, and construction materials such as iron, steel and aluminium are among the priority target sectors under ESPR. The first concrete application is the regulation on batteries: from 2027, the DPP becomes mandatory for batteries. A gradual implementation timeline is foreseen for other product groups.

Unless otherwise specified, ESPR sets a minimum data set applicable to all products. This data set covers product identification, manufacturer/importer information, technical specifications, compliance references, environmental performance, and use/recycling information. However, delegated acts may require additional product-specific information to be added to the DPP.

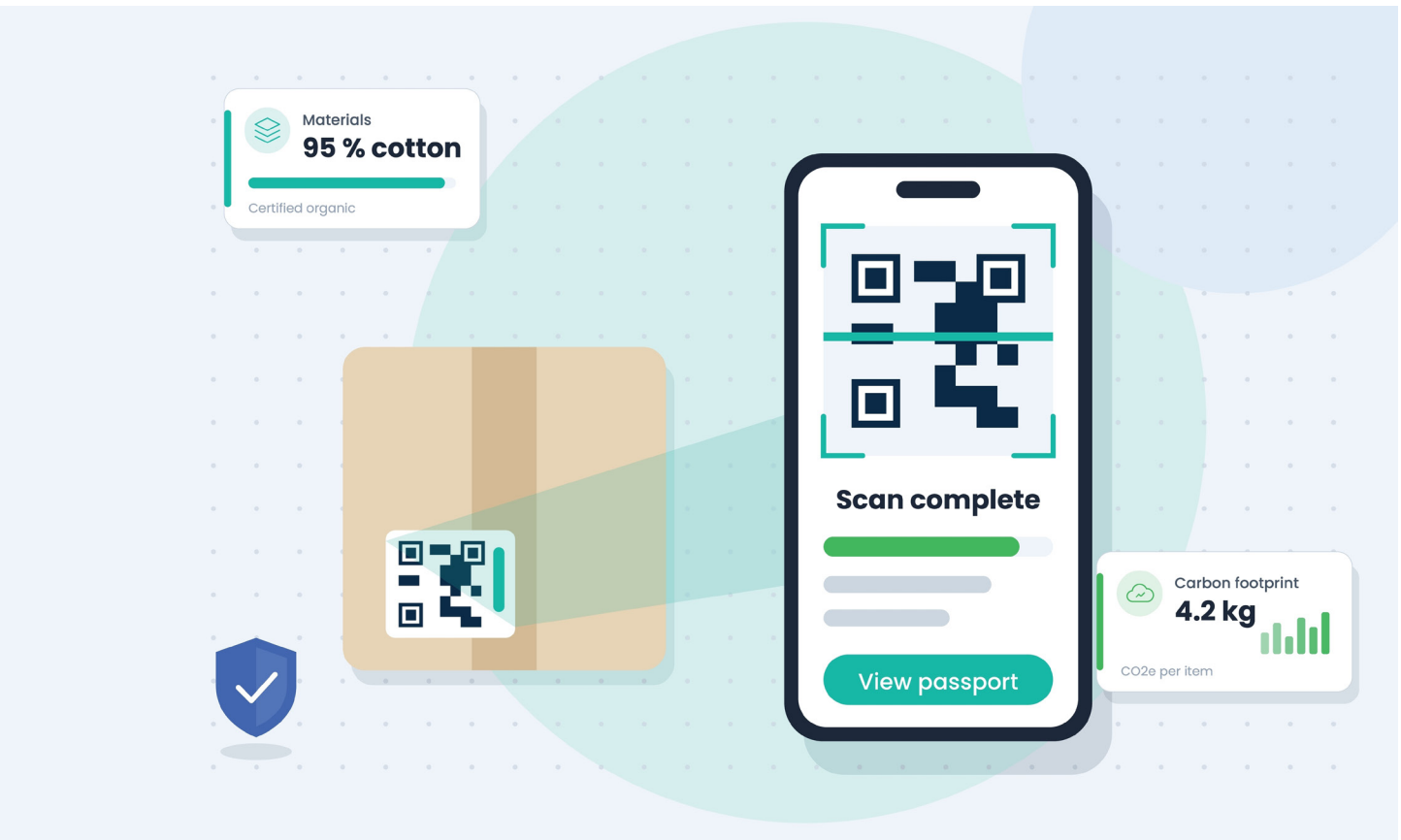
The economic operator placing the product on the EU market (usually the importer or manufacturer) is responsible for creating DPP data and integrating it into the system.

It would be appropriate to consider the DPP approach together with the EU Customs Data Hub foreseen under the Union Customs Code, which is expected to change soon. This structure aims to strengthen data-driven risk analysis and market surveillance processes, and the DPP will function as a complementary component of this system.

Although there is not yet a direct legal requirement for the DPP in Türkiye, this mechanism is expected to become a de facto requirement for access to the EU market. Türkiye has an infrastructure that is largely aligned with EU legislation in areas such as CE marking and ecodesign. In this context, working groups have been set up by ministries, sectoral associations and private sector representatives to align with digital product passport regulations, and preparatory work on data infrastructure, traceability and compliance processes has begun.

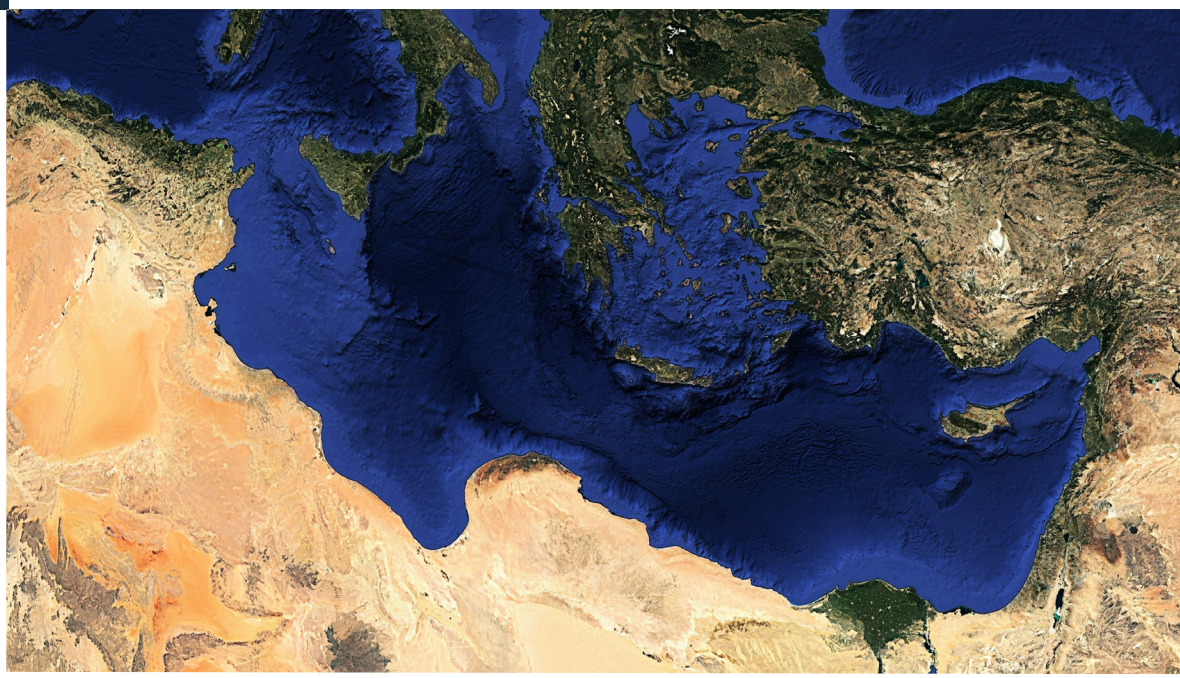
When the modernisation of the Customs Union and DPP preparations are considered together, it is clear that trade compliance is evolving from a document-based approach to data-driven ecosystems. Companies that adapt early to this transformation will secure their market access, reduce friction in border procedures and gain a sustainability-driven competitive advantage.

In conclusion, aligning Türkiye's trade and data infrastructures with EU standards will increase the resilience of bilateral trade, strengthen transparency and pave the way for more digital, sustainable and integrated economic cooperation.



Regional Leadership: The Turkish Electronics Sector's Opening to the Middle East and Central Asia

This article was prepared with the support of the GEMINI artificial intelligence application, using the source "2030 Industry and Technology Strategy, Ministry of Industry and Technology".



For the Turkish electronics sector, becoming a production and trade hub for the Middle East, North Africa, Europe and Central Asia is defined as one of the core axes of this vision. In line with the strategies set, it is envisaged to establish target country-based trade mechanisms and to increase bilateral and regional cooperation agreements.

The world is going through a transformation in which the global industrial and trade order is marked by protectionist policies, a search for self-sufficiency and struggles for strategic independence. In this new era, in which countries prioritise their economic security in the face of trade wars and supply chain disruptions, the importance of the "National Technology Move" vision, which symbolises Türkiye's determination to achieve technological autonomy, is further reinforced. The 2030 Industry and Technology Strategy, prepared in this direction, aims to position Türkiye not only within its own borders but, through its historical heritage, geopolitical responsibility and regional strategies, as a leader in science, industry and technology in its neighbouring regions.

For the Turkish electronics sector, becoming a production and trade hub for the Middle East, North Africa, Europe and Central Asia is defined as one of the core axes of this vision. In line with the strategies set, it is envisaged to establish target country-based trade mechanisms and to increase bilateral and regional cooperation agreements. Türkiye is taking the lead in spreading prosperity to its surrounding regions by sharing its industrialisation experience with Turkic States and Islamic countries, particularly in regions undergoing reconstruction, in order to strengthen their research and production ecosystems. To make this integration permanent at the institutional level, it is stated that Türkiye will lead the establishment of a "Turkic States Research Area" and an "Islamic Countries Research Area", maximising knowledge transfer through joint research funds and mobility programmes. In addition, extending TEKNOFEST Aviation, Space and Technology Festival—the global showcase of the National Technology Move—to these regions

One of the most critical infrastructure steps supporting the regional leadership goal is the construction of new trade and logistics corridors. The Development Road centred on Al Faw in Basra and the Zangezur-centred trade corridors in the Caspian will strengthen the connection between Asia, the Middle East and Europe directly through Türkiye.



as well as the Balkans and the Black Sea is a strategic move that strengthens social awareness.

One of the most critical infrastructure steps supporting the regional leadership goal is the construction of new trade and logistics corridors. The Development Road centred on Al Faw in Basra and the Zangezur-centred trade corridors in the Caspian will strengthen the connection between Asia, the Middle East and Europe directly through Türkiye. Supported by the digitalisation of manufacturing, the reinforcement of cybersecurity infrastructures and the development of blockchain-based logistics platforms, these physical corridors will have a direct multiplier effect on the product and service exports of our electronics sector.

In addition, strengthening the conformity assessment, testing laboratory and certification infrastructure of the Turkish Standards Institution (TSE) to a level that can serve countries in the region and overcome non-tariff technical barriers is a critical turning point. Exporting TSE's standard-setting competence in digital transformation, the Internet of Things (IoT) and sustainability to the region will reinforce Türkiye's role as a rule-maker.

In conclusion, making Science, Technology, Innovation, Industry and Investment (STI) Diplomacy functional is the key to achieving the goal of raising our manufacturing exports to USD 400 billion. With high-technology-focused HIT-30 investments, deep-tech competencies such as domestic chips and quantum, and the regional cooperation bridges that have been built, the Turkish electronics sector is moving decisively towards becoming the leading architect of technological transformation in the Middle East and Central Asia.

Uninterrupted Communication in Disaster Management and “Earthquake Electronics”

This article was prepared by TESİD member ELEKTROTEL.



One of the most concrete and innovative examples of this vision is the “Smart Earthquake Assembly Area Kiosk System”. The system consists of digital terminals connected to a central management platform, remotely controllable and equipped with high-visibility industrial displays. Its most distinctive and vital feature is the integrated Small Cell (small cell base station) technology.

The fact that rapid access to accurate information saves lives during disasters is increasing the importance of digital and technological infrastructures in modern urban planning day by day. Solutions that guide and inform citizens correctly during crises—and, most importantly, keep communication going—are considered to have become an integral part of smart city ecosystems. Smart systems developed for this purpose play a critical role in facilitating disaster management and increasing social resilience.

One of the most concrete and innovative examples of this vision is the “Smart Earthquake Assembly Area Kiosk System”. The system consists of digital terminals connected to a central management platform, remotely controllable and equipped with high-visibility industrial displays. Its most distinctive and vital feature is the integrated Small Cell (small cell base station) technology. This technology directly supports the mobile network to prevent network congestion, particularly in cases of infrastructure damage or extreme traffic after major disasters. As a result, mobile communication capacity is increased during disasters, and citizens’ data access and the communications of emergency coordination teams can be maintained without interruption.

The key technical features of the system architecture and earthquake electronics are as follows:

- An industrial LCD panel with high brightness and a wide viewing angle provides clear visibility outdoors.



- With remote content management and instant message broadcasting, large crowds can be reached within seconds during a crisis.

- An automatic content-triggering mechanism configured specifically for disaster scenarios is activated.

- The integrated Small Cell module ensures uninterrupted critical mobile communication support.

- It features a metal body design that is highly resistant to outdoor conditions, impacts and environmental factors.

- Terminals equipped with IoT (Internet of Things) infrastructure enable real-time remote monitoring and status checks.

- An optional GPS-based positioning mechanism and backup power solutions that protect against power outages further enhance system reliability.

This advanced electronic infrastructure can be deployed effectively in earthquake assembly areas, as well as municipalities, public buildings, universities, shopping centres, large residential complexes and all public spaces with heavy foot traffic. Thanks to central management, all devices can be controlled synchronously from a single point, greatly accelerating crisis management operations.

In conclusion, Smart Earthquake Assembly Area Kiosks should not be seen merely as standard information boards; rather, they are strategic defence mechanisms that keep the communication infrastructure running during disasters. Expanding such domestic and smart technology investments is expected to help cities become much safer, better organised and more resilient to disasters.



A New Era in Communication Technologies: Preparing for 5G and 6G

This article was prepared by TESİD member KAREL.



In conclusion, 5G and 6G do not create equal value in all use cases, but they have transformative power in the right application areas. For Türkiye to benefit fully from this process, it must strengthen its fibre backbone capacity, make effective use of the low-latency advantage in industrial and defence applications, and participate early in 6G standardisation processes. Communication infrastructure is the cornerstone of digital sovereignty.

In Türkiye, the 5G spectrum auctions have been completed, and operators launched commercial services as of 1 April 2026. However, this is only the first step of the transformation. To deliver 5G's real performance to users, the fibre infrastructure connecting base stations to the backbone and the internal capacity of the backbone must be upgraded at the same time. Where investment on the radio side is not supported by backbone capacity, bottlenecks will be inevitable.

5G stands out with three key features, but the value each creates in practice differs. High bandwidth, when used with existing devices and applications, creates limited value on its own. Although the broadband offered by 5G and 6G encourages consuming more data in less time, the real gain will only be realised when new high-bandwidth applications, such as three-dimensional image transmission, become widespread.

Massive device connectivity is not delivering the expected value in the short term. In IoT applications, lower-cost unlicensed wireless technologies and gateway architectures generally remain more advantageous; large numbers of devices can connect to cellular networks via gateways. Low latency, by contrast, is 5G's strongest and most concrete value proposition. Autonomous vehicles, smart manufacturing, the defence industry and the gaming sector can turn this feature directly into a critical benefit.

6G: New Capabilities and New Threats

6G work, shaped around a 2030 target, is gaining momentum through research programmes in the EU, Japan, South Korea and the USA. 6G goes beyond being just a faster communication network: its radar function for detecting objects within the coverage area (ISAC – Integrated Sensing and Communication) stands out as a unique capability that takes this technology beyond previous generations. Smart transport, environmental monitoring and defence applications will be able to benefit directly from this feature.

On the other hand, low Earth orbit (LEO) satellites constitute one of the most significant competitive threats to 6G. Offering low-latency connectivity over wide geographical areas, these systems call into question the investment rationale of traditional cellular networks and deepen bandwidth competition. Nevertheless, satellite systems will play a complementary role rather than replacing cellular networks. 6G is being designed to work not as a competitor to satellite systems but in an integrated structure with them.

In conclusion, 5G and 6G do not create equal value in all use cases, but they have transformative power in the right application areas. For Türkiye to benefit fully from this process, it must strengthen its fibre backbone capacity, make effective use of the low-latency advantage in industrial and defence applications, and participate early in 6G standardisation processes. Communication infrastructure is the cornerstone of digital sovereignty.





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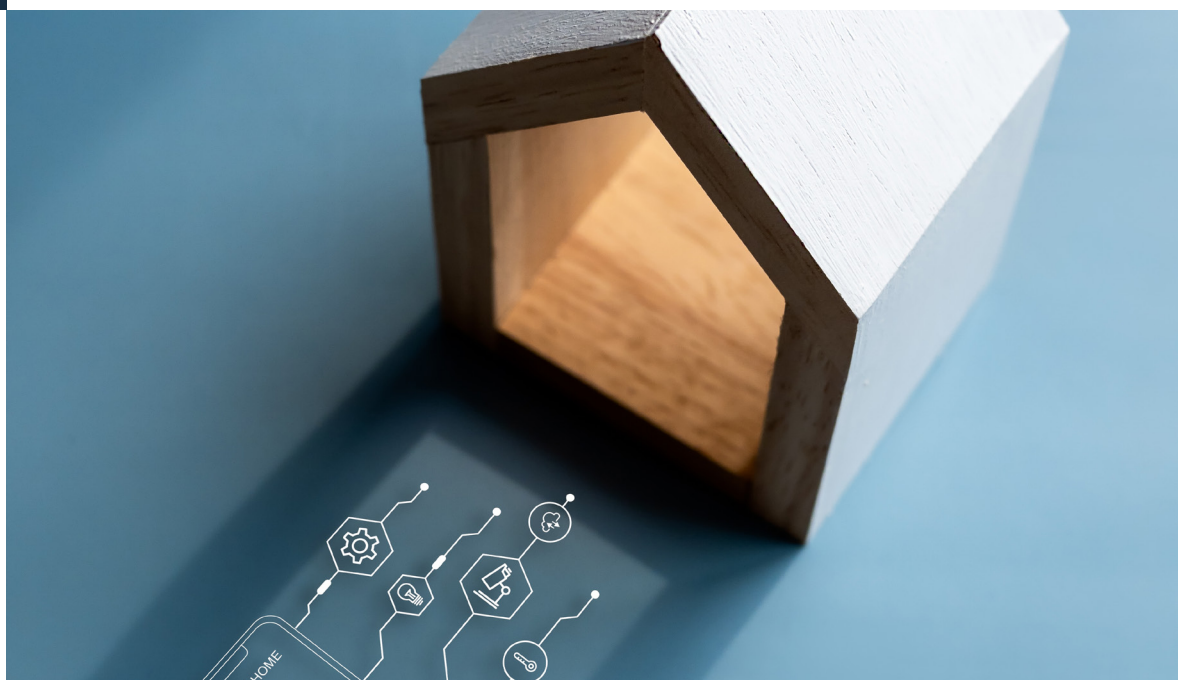
Smart Home Management

This article was prepared by TESİD member MULTITEK.



Rising regional tensions and conflicts around the world are rapidly increasing demand for domestic and trustworthy technology in countries that do not want their critical infrastructure to depend on foreign components. Domestic production capacity in smart building management, access control and security systems offers a concrete response to these countries' goals of building independent and resilient infrastructure.

Smart home technologies have gone far beyond being a consumer product that simply increases comfort. Having become an integral part of energy efficiency, urban security and disaster resilience, these systems are no longer a luxury but an essential infrastructure of modern life. The global smart home market is expected to exceed USD 230 billion in 2028. Türkiye has the potential to become an influential manufacturer in this transformation.

The question is no longer "Will we use this technology?" but "Who will produce this technology?"

Advanced economies now treat the smart home field not only in terms of market size but as a matter of policy and standards. With the revision of the Energy Performance of Buildings Directive (EPBD) that entered into force in 2024, the European Union has introduced a "smart readiness indicator" requirement for every major renovation; this step turns building automation systems from an option into a compliance condition. At the same time, a Building Automation and Control System (BACS) requirement has been introduced for commercial buildings above 290 kW, and energy consumption reduction targets covering 2030–2035 have become binding for the housing stock. Meanwhile, the EU's Cyber Resilience Act (CRA) requires connected devices to meet cybersecurity requirements throughout their entire life cycle, from design to end-of-life management; this act covers every connected product, from baby monitors to smart lock systems.

In the United States, the Federal Communications Commission (FCC)

has launched the “Cyber Trust Mark”, a voluntary certification programme based on NIST standards. This label certifies the cybersecurity compliance of consumer products such as smart cameras, voice assistants and security systems, and aims to guide consumers’ purchasing decisions. The participation of major retailers such as Amazon and Best Buy effectively shortens the shelf life of unlabelled products. Both the EU and the US are developing mutual recognition agreements between these programmes, making it increasingly difficult for non-compliant products to enter either of these two major markets.

This picture serves as a warning for Turkish manufacturers: the doors of target export markets are now opened not only by price competitiveness, but by certified security and energy standards.

The IoT Ecosystem: Everything Talks to Everything

The Internet of Things (IoT) has fundamentally transformed the smart home concept. Instead of devices working independently of one another, we now have learning and adaptive ecosystems in which all components—from lighting to climate control, from security systems to energy management—communicate with each other in real time. Managing functions such as IP video intercom, access control, earthquake early warning, fire detection and energy monitoring on a common platform lowers installation and maintenance costs while increasing reliability. Turkish manufacturers need to design this ecosystem with a holistic infrastructure vision rather than piece by piece.

Data Security: The Invisible Foundation of the Smart Home

Smart home systems generate highly sensitive data flows, such as movement patterns, voice recordings, energy consumption data and personal access information. Where this data is stored, who processes it and which security protocols protect it is no longer just a technical matter; it is a question of home ownership rights and sovereignty.

At this point, domestic software development capacity plays a decisive role. Systems dependent on foreign software infrastructure leave users at the mercy of third parties regarding update policies, licensing restrictions and source code access. Smart home systems developed with domestic software, on the other hand, allow the manufacturer to retain full control over end-to-end encryption, device authentication and security updates. A company that writes its own software can respond quickly to threats, close vulnerabilities and transparently define how user data is processed. This capability is not just a technical choice; it is the cornerstone of a brand’s trustworthiness.

Risks: Material Dependency and the Threat of Cheap Imported Products

Akıllı ev ürünlerinin kalbinde flash bellek ve RAM Flash memory and RAM lie at the heart of smart home products. The global chip crisis after the pandemic and the geopolitical tensions that followed have made the costs of these components fluctuate unpredictably. Sudden increases in flash and RAM prices directly affect production costs, complicate pricing and disrupt inventory planning. Depending on a single supplier or region means placing competitiveness on fragile ground.

In addition to material dependency, another serious threat facing the sector is imported products that do not comply with quality and data security standards trying to dominate the market through price advantage. Coming from low-cost, uncontrolled production processes, these products carry weak encryption, software with security vulnerabilities and risks of personal data breaches. Consumers without sufficient awareness, choosing these devices solely for their low price, can turn their home network, personal data and building infrastructure into an open target. For domestic manufacturers, this is not only unfair competition but also the erosion of an environment of trust built through effort and investment. Strengthening standards, making inspection mechanisms effective and raising consumer awareness are priorities that the sector must own together with the public sector in tackling this threat.

Geopolitical Position and Disaster Management

Türkiye is a bridge between East and West not only geographically but also technologically and commercially. Its proximity to the markets of Central Asia, the Gulf, the Balkans and the Middle East gives Turkish manufacturers significant access opportunities. Rising regional tensions and conflicts around the world are rapidly increasing demand for domestic and trustworthy technology in countries that do not want their critical infrastructure to depend on foreign components. Domestic production capacity in smart building management, access control and security systems offers a concrete response to these countries’ goals of building independent and resilient infrastructure.

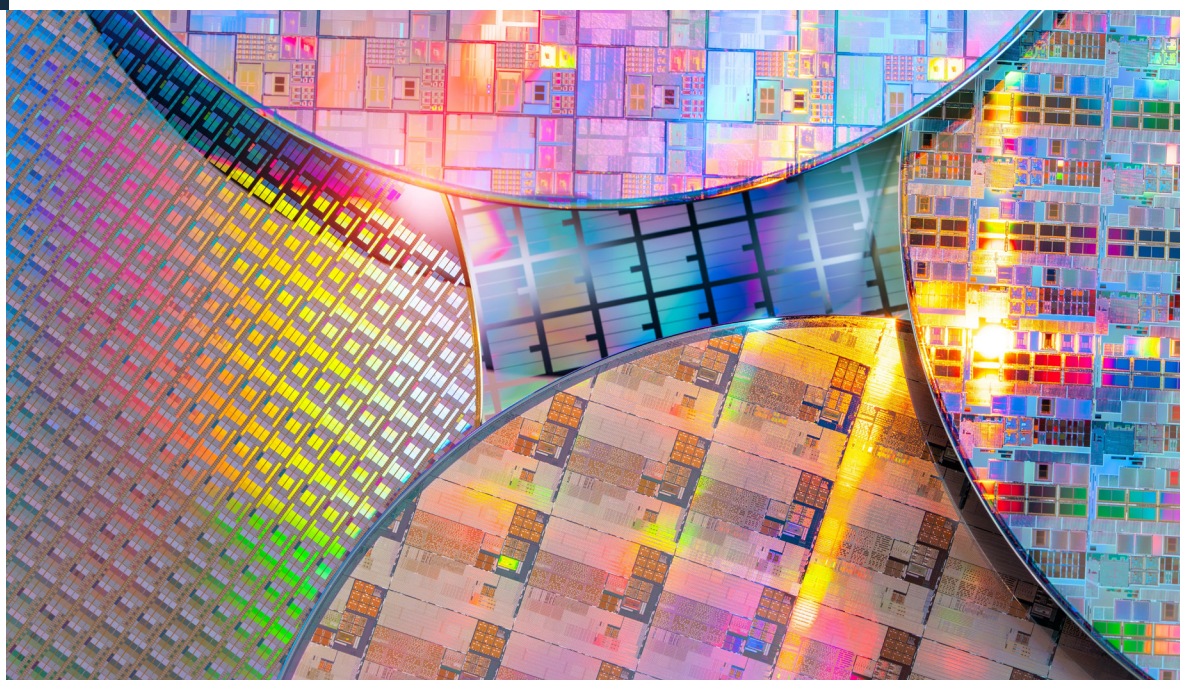
Türkiye is also among the countries that face the reality of earthquakes most severely. Integrating functions such as earthquake early warning, automatic gas shut-off and emergency evacuation guidance into smart home systems should be seen both as a public responsibility and as a product opportunity with high export value.

In conclusion, “Being a Manufacturer Is Not a Choice, It Is a Necessity”. Smart home management is no longer an optional technology layer; it is the fundamental infrastructure on which security, energy, health and urban resilience are built. While Europe and the US shape this field through standards, for Türkiye to gain a competitive and trustworthy manufacturer identity requires ecosystem-oriented product development, domestic design investments that reduce material dependency, and effective inspection mechanisms against low-quality imports.

It is time for us as a sector to go beyond the question “How do we produce?” and ask “What should we be a trustworthy manufacturer of?”

The Fabless Business Model: Türkiye's Semiconductor Roadmap

This article was prepared with the support of the GEMINI artificial intelligence application, using the source "Chip Wars and Rare Earth Elements, Dr. Celal Erbay, National Intelligence Academy, January 2026".



Indispensable in chip-making machines and precision optical-magnetic components, REEs have become a highly strategic balancing factor in the semiconductor world. It is strongly emphasised that Türkiye, which according to map data holds a significant REE reserve of 12.5 million tonnes, should aim to process this resource domestically into high value-added products such as permanent magnets rather than exporting it only as a raw material.

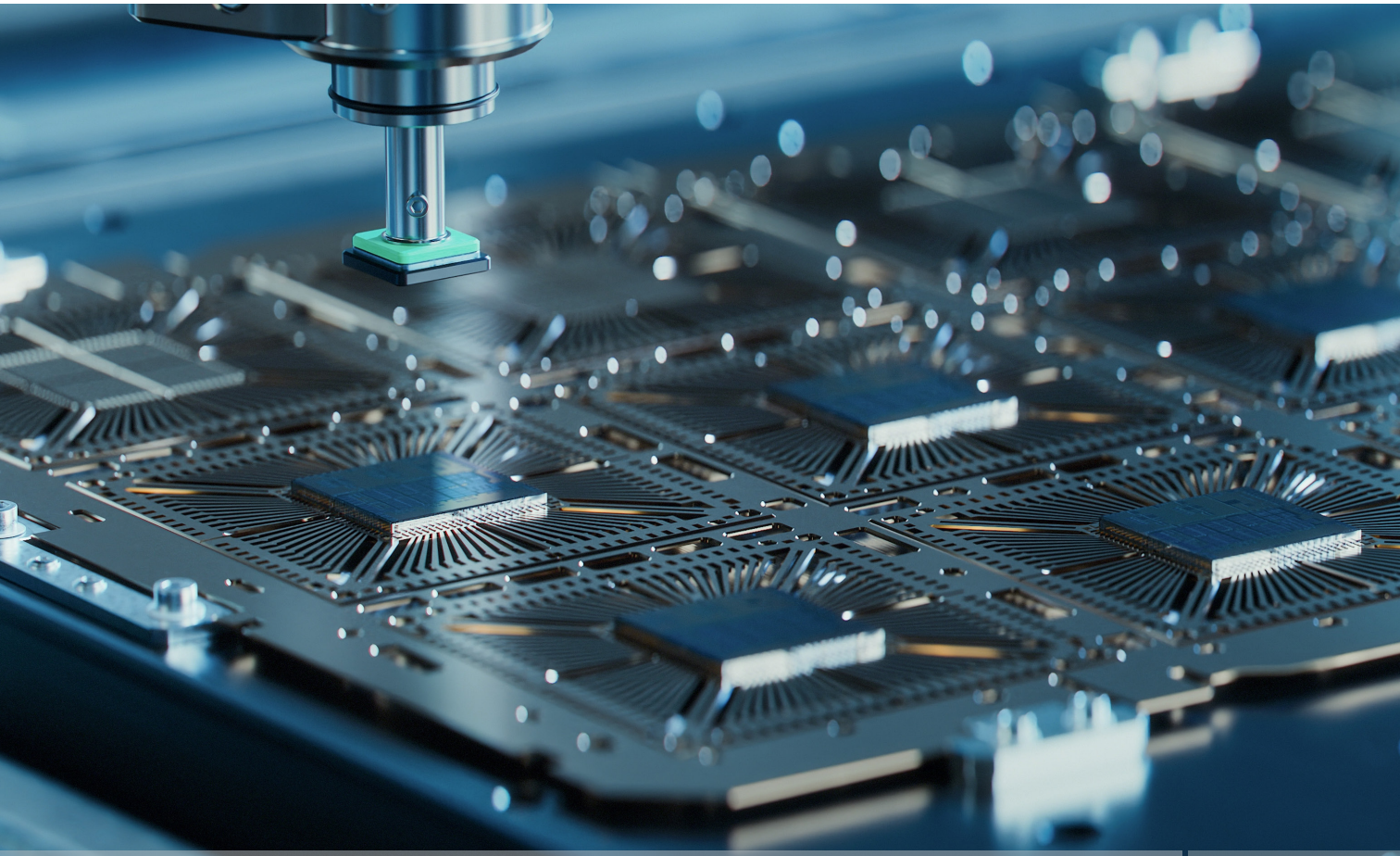
Semiconductor integrated circuits (chips) are considered to be elements that form the invisible infrastructure of the modern world, from artificial intelligence to defence systems, and are directly linked to sovereignty and strategic autonomy. The global chip ecosystem—from design to production, packaging to raw materials—has a complex network structure that is highly specialised and geographically concentrated. In this environment, trying to build advanced chip fabrication plants (foundries) from scratch is known to require high capital, atomic-scale precision and enormous infrastructure investment. Therefore, the most realistic and value-adding strategy for Türkiye is considered to be focusing on the design-oriented Fabless (designing rather than manufacturing) business model and on strategic layers in which it can be strong, rather than a production-oriented vertical model.

In Türkiye's semiconductor roadmap, supporting chip design activities, which form the brain of smart devices and systems, is considered the priority step. Accordingly, the design ecosystem should be strengthened with accessible software tools (EDA) and shared laboratory infrastructure. In addition to design competence, building regional capacity in the advanced packaging and test stages that directly determine chip performance—especially centres compliant with automotive and industrial standards—is defined as a strategic necessity. Developing modules suited to areas with rapidly growing global demand, such as power electronics, is expected to give Türkiye flexible room for manoeuvre in the global supply chain.

In Türkiye's semiconductor roadmap, supporting chip design activities, which form the brain of smart devices and systems, is considered the priority step. Accordingly, the design ecosystem should be strengthened with accessible software tools (EDA) and shared laboratory infrastructure.

The second and most critical lever of the roadmap is considered to be Rare Earth Elements (REE) and critical raw material policies. Indispensable in chip-making machines and precision optical-magnetic components, REEs have become a highly strategic balancing factor in the semiconductor world. It is strongly emphasised that Türkiye, which according to map data holds a significant REE reserve of 12.5 million tonnes, should aim to process this resource domestically into high value-added products such as permanent magnets rather than exporting it only as a raw material. With this approach, Türkiye is expected to rise to the position of a critical, trusted and leading supply partner in the global semiconductor value chain without directly entering advanced production lines.

In conclusion, close alignment with the European Union on standards and certification could make Türkiye a trusted logistics hub close to the continental market. Increasing the supply of qualified human resources in focus areas such as "semiconductor design, materials science and system architecture" is seen as an indispensable condition for the sustainability of this technological leap. Türkiye's ultimate goal is considered to be building an ecosystem that is competent in design, strong in packaging and testing, and resilient in REE inputs, thereby reaching the position of a strategic hub capable of flexibly shifting production during regional crises.



IoT Cybersecurity: From Regulation to Strategic Necessity

This article was prepared by TESİD member CYBERWHIZ.



The most important steps in this transformation was the RED Delegated Act (RED DA), which entered into force on 1 August 2025. With RED DA, cybersecurity requirements have become mandatory for internet-connected and radio communication devices. A wide range of products—from smart home devices to industrial equipment, and from wearable technologies to electric vehicle charging systems—must now meet specific cybersecurity criteria.

With accelerating digitalisation, smart devices are no longer just products that improve the individual user experience; they have become core components of city infrastructures, energy systems, transport networks, healthcare services and industrial production processes. Today, millions of connected devices operating in our streets, homes, factories and vehicles have reached a critical position for countries' economic continuity and national security.

This transformation has turned the cybersecurity of IoT (Internet of Things) devices from a purely technical matter into a strategic state policy. Countries now want to guarantee that connected devices operating in their cities, critical infrastructure or public spaces will not be used as part of a cyber attack. After land, air and sea defence, cyber defence has become one of the most important strategic domains for states.

In particular, supply chain attacks, cyber operations targeting critical infrastructure and IoT botnet attacks in recent years have shown that the software inside smart devices must be more visible, traceable and manageable. It is no longer considered sufficient for a device simply to function. Which software a device runs, how its vulnerabilities are managed, how updates are distributed and how the device will be protected throughout its life cycle have moved to the centre of regulation.

Accordingly, many countries and regions have begun to create their own IoT cybersecurity regulations. In the European Union, one of

the most important steps in this transformation was the RED Delegated Act (RED DA), which entered into force on 1 August 2025. With RED DA, cybersecurity requirements have become mandatory for internet-connected and radio communication devices. A wide range of products—from smart home devices to industrial equipment, and from wearable technologies to electric vehicle charging systems—must now meet specific cybersecurity criteria.

The European Union's approach will be expanded further with the Cyber Resilience Act (CRA), which will come into effect in September 2026. The CRA will cover not only specific device categories but a much broader ecosystem of products with digital elements. More importantly, the CRA requires manufacturers to ensure not only compliance at the time the product is placed on the market but also, throughout the product's.

life cycle in the field—for at least 5 years for many product groups—to run security updates, vulnerability management and continuous compliance processes. This will require our manufacturers not only to develop secure devices, but also to have infrastructures capable of securely managing millions of connected devices in the field for many years.

From Türkiye's perspective, these developments are of great importance not only for access to the European market, but also for our country's digital sovereignty and critical infrastructure security. Owing to commercial integration and harmonisation processes with the European Union, it seems inevitable that similar regulations will also come into force in Türkiye.

In particular, our electronics, white goods, automotive, defence, energy and IoT manufacturers exporting to Europe need to view this transformation not merely as a "compliance obligation" but as a new requirement for global competitiveness. In the near future, cybersecurity will become an evaluation criterion as fundamental as product quality and energy efficiency.

At this point, domestic cybersecurity technologies developed in Türkiye are gaining strategic importance. As a TESİD member technology company, CyberWhiz develops domestic technologies covering edge device, mobile application and cloud infrastructure security that our manufacturers need to achieve full and continuous compliance with regulations such as RED DA and the CRA. Developing many critical competencies domestically—from secure software update infrastructures to vulnerability management, and from device security testing to continuous compliance management—has also become an important requirement for our country's technological independence.

In the coming period, what will be decisive is not simply producing "connected devices", but developing secure, sustainable and regulation-compliant digital products.





Small Modular Reactors (SMRs)

This article was prepared by Dr. Orkun Hasekioğlu, Member of the TESİD High Advisory Council.



Türkiye imports 99% of the natural gas and 93% of the oil it consumes. This results in a trade deficit of approximately USD 66 billion per year. Therefore, the commissioning of Nuclear Power Plants (NPPs), and SMRs in particular, will significantly reduce the trade deficit and give considerable momentum to economic growth.

As classified by the International Atomic Energy Agency (IAEA), nuclear power reactors producing less than 300 MW of electrical power are considered Small Modular Reactors.

The IAEA and the OECD Nuclear Energy Agency (NEA) encourage the development of SMRs as a baseload electricity source to meet COP decarbonisation and clean energy targets. These targets, to which Türkiye has also committed, envisage zero carbon emissions in global industry by 2050.

Türkiye imports 99% of the natural gas and 93% of the oil it consumes. This results in a trade deficit of approximately USD 66 billion per year. Therefore, the commissioning of Nuclear Power Plants (NPPs), and SMRs in particular, will significantly reduce the trade deficit and give considerable momentum to economic growth.

A typical conventional-scale NPP installation costs tens of billions of dollars, with a construction period of 5–10 years. This is mainly due to site-specific design and installation, which lead to long-term certification and financing costs. The SMR business model, on the other hand, differs significantly: production takes place in a factory, in modules to be assembled at the customer's site. This substantially reduces installation and certification time.

Other advantages of SMRs include installation in remote locations, repowering of coal-fired power plants, and complementing intermittent renewable energy sources such as photovoltaics and wind turbines.

Türkiye'nin doğal kaynak olarak bol miktarda sahip olduğu Th-232 gibi, nükleer reaktörlerde bölünebilir yakıt malzemelerine dönüştürülebilen başka radyoizotop türleri de vardır



SMRs can also be classified according to the specific nuclear fission technology adopted. Classic nuclear power plants and SMRs, generally referred to as Gen 3 and Gen 3+, use water as coolant and moderator and solid U-235 as fuel. The coolant is the material used to remove the heat energy generated by fission in the reactor. The moderator is the material used to lower the energy of the neutrons produced during fission to thermal levels (about 0.025 eV), thereby increasing the fission rate of the U-235 fuel.

Modern designs known as Gen 4 fission reactors, on the other hand, use alternative coolant, moderator and fuel materials to achieve sustainable, lower-cost, inherently safe and proliferation-resistant nuclear power plants. These SMR designs also use passive safety systems that require no active human intervention or electricity for safe shutdown. Six such designs have been identified as Gen 4 advanced reactors by the NEA's Generation IV International Forum (GIF).

Only a limited number of radioisotopes are suitable as fuel in nuclear reactors: U-235, U-233 and Pu-239. Of these, only U-235 occurs in nature; the others are produced as by-products of nuclear reactions in reactors. These are called fissile materials. There are also other radioisotopes, such as Th-232—which Türkiye has in abundance as a natural resource—that can be converted into fissile fuel materials in nuclear reactors. Reactors that can produce or convert their own fuel in nuclear power generation are called breeder reactors. Some Gen 4 designs, such as Molten Salt Reactors (MSRs), have this feature.



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From the Best of the Sector: TESİD Innovation Award-Winning Projects

Award-Winning Projects of 2025

More Information with Less Data: Listening Smartly to Propeller Noise

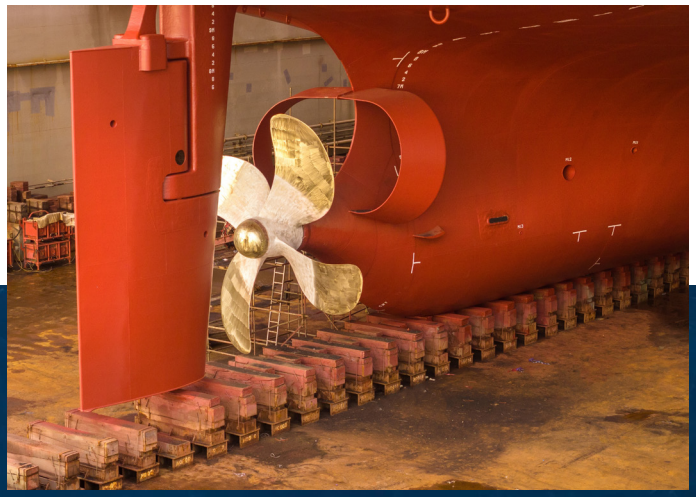
This article was prepared by Dr. Umut Fırat, winner of the TESİD 2024 Innovation and Creativity Doctoral Thesis Award.



Marine vessels leave traces underwater, and one of the most important is the sound produced by their propellers. This sound carries important clues about a ship's type, size and even location. However, obtaining this information usually requires collecting very large amounts of data at very high rates, which places a serious burden in terms of both cost and energy.

My TESİD 2024 award-winning doctoral study, "Compressive Sensing of Cyclostationary Propeller Noise", proposes a smarter solution to this problem: obtaining the same information by collecting less data. We show that propeller sounds actually contain specific, repetitive, rhythmic structures. As a result, instead of collecting all the data, we can capture only the "important pieces" and reconstruct the rest using mathematical methods.

This approach makes it possible to work with fewer sensors and lower energy, reduces the big data



We show that propeller sounds actually contain specific, repetitive, rhythmic structures. As a result, instead of collecting all the data, we can capture only the “important pieces” and reconstruct the rest using mathematical methods.

burden, and makes real-time monitoring and analysis easier.

The study also shows that more advanced analyses—not just detecting the sound, but also finding the ship’s direction and distinguishing between different sources—can be performed with less data.

These methods are not limited to the maritime field. Similar principles can be used in 5G/6G communication systems, smart sensors, radar and defence technologies, and even machine fault detection.

From the perspective of Türkiye’s goals for high value-added technology production, approaches that use data more efficiently are of great importance. Systems that generate more information with fewer resources may be decisive in the digital and competitive world of the future.

A New Era in Safety and Efficiency at Fuel Stations with Artificial Intelligence and Image Processing

This article was prepared by ASİS, winner of the 22nd TESİD Innovation and Creativity Award (Product Development and Commercialisation Award).



One of the most striking features of the solution, which sets it apart in the global sector, is its ability to prevent wrong-fuel filling with 100% accuracy. The system compares the fuel type defined for the vehicle with the information on the nozzle lifted from the pump through a cloud-based check and does not allow fuel transfer in the event of a mismatch. This feature prevents engine damage and operational losses that cause billions of dollars in material damage worldwide every year.

The energy and fuel distribution sector is undergoing a major transformation driven by digitalisation, automation and artificial intelligence. This transformation is speeding up operational processes, increasing safety and making decision-making data-driven. Especially at high-transaction sites such as fuel stations, smart solutions that go beyond classic automation systems have become a critical need.

As ASİS Otomasyon A.Ş., with our deep experience since 1990 and the engineering strength of our R&D centre registered in 2018, we develop end-to-end automation solutions for the fuel distribution sector. We manage all processes—from hardware design to embedded software, and from central management platforms to field service infrastructure—with 100% domestic resources. Our solution, which received the “Product Development and Commercialisation Award in the SME Category” at the 22nd TESİD Innovation and Creativity Awards, is an innovative, globally relevant output of this domestic engineering know-how.

Our FUELEYE / PETECH AI solution is a revolutionary system that enables real-time recognition of vehicles and critical elements on the fuel station forecourt using AI-supported image processing. Using deep learning algorithms, the system can detect vehicles’ licence plate, make, model, colour and type through standard cameras, while simultaneously identifying elements such as pump nozzles, hoses, fuel caps, jerry cans and hazardous objects. In this way, the system goes beyond simple vehicle recognition and can instantly analyse risks and autonomous event patterns that may



arise during refuelling.

One of the most striking features of the solution, which sets it apart in the global sector, is its ability to prevent wrong-fuel filling with 100% accuracy. The system compares the fuel type defined for the vehicle with the information on the nozzle lifted from the pump through a cloud-based check and does not allow fuel transfer in the event of a mismatch. This feature prevents engine damage and operational losses that cause billions of dollars in material damage worldwide every year. In addition, innovative capabilities such as detecting unauthorised sales into jerry cans and detecting flammable materials on site make facility safety autonomous and independent of human initiative.

The technological superiority of FUELEYE / PETECH AI comes from its structure, which minimises on-site installation costs and requires no additional hardware per vehicle (tags, rings, etc.). This flexibility allows the solution to be integrated quickly into existing station infrastructures and offers a competitive cost advantage in international markets. The fact that the software can be updated remotely and can communicate with different automation protocols ensures the system's sustainability and global scalability.

At ASİS Otomasyon, we believe this solution is not just a product, but a strong representative of AI-based digital transformation in the fuel sector. In line with Türkiye's goals of high value-added technology production and export, we will continue with determination to develop innovative solutions and shape the sector.



Shaping Tomorrow's Technology with Edge AI: EMPA Elektronik's TIREMO® and AIoT Vision

This article was prepared by EMPA, winner of the 22nd TESİD Innovation and Creativity Award (Jury Special Award).



Our award-winning project TIREMO® is an autonomous edge AI platform customised for TinyML applications, running on resource-constrained microcontrollers (MCUs) with ARM Cortex-M cores. This user-friendly platform completely removes the need for AI expertise and complex code development.

We are very proud to have received the TESİD Innovation and Creativity Jury Special Award in 2024 for our project developed to contribute to Türkiye's semiconductor roadmap and high value-added technology export vision. In the age of digital transformation, the future of industrial processes is determined by data communication, cybersecurity and making sense of data with artificial intelligence. In response to these needs, the TIREMO® platform, which we brought to life as a product of the innovative and entrepreneurial R&D Centre culture within our company, stands out with a structure that transforms traditional cloud-based solutions.

Our award-winning project TIREMO® is an autonomous edge AI platform customised for TinyML applications, running on resource-constrained microcontrollers (MCUs) with ARM Cortex-M cores. This user-friendly platform completely removes the need for AI expertise and complex code development—one of the biggest barriers in the sector—and enables data to be processed in the field, at the edge, without being transferred to the cloud. In this way, it minimises latency, maximises data security and eliminates data transfer costs. Working integrated with AWS cloud infrastructure, this autonomous mechanism automatically collects data from sensor hardware developed and produced by EMPA Elektronik, generates machine learning models and transfers them to edge unit boards. This environmentally friendly approach extends operating time in battery-powered devices thanks to low energy consumption, while also supporting businesses' economic efficiency and increasing our competitiveness in the global market.

However, at Empa, our vision is not limited to the project in its current form. To shed light on critical areas shaping the future of our sector, such as smart home ecosystems, 5G/6G technologies and disaster management, we have already taken steps to transform TIREMO® into a much more integrated TIREMO®AIoT ecosystem. At the heart of our future agenda is a modular system consisting of sensor and communication (Wi-Fi/GSM) boards that can be added to a microprocessor-based motherboard on a plug-and-play basis. While connecting this structure, which will enable rapid prototyping, to the cloud via the MQTTS protocol, we are developing a resilient design pre-aligned with the CRA (Cyber Resilience Act) guidelines to raise cybersecurity to the highest level.

In this new architecture, which will support digital product passport standards, advanced device management and over-the-air (OTA) software updates will be run from our scalable cloud infrastructure, while our autonomous AutoML mechanism will offer users flexibility for prediction at the edge.

With this new AIoT vision, which will accelerate the development of secure IoT applications, we are determined to contribute to raising our country's technology development capacity to the level of regional leadership. We would once again like to thank TESİD and all our sector stakeholders for considering us worthy of this award.



Next-Generation Technology in Door Entry Systems: DiafonBox and Smart Diafon

This article was prepared by MULTİTEK, winner of the 22nd TESİD Innovation and Creativity Award (Jury Special Award).

Without any infrastructure changes in the apartment building, adding a single device makes the entire block's door system smart. When someone rings the doorbell, the Multitek Cloud mobile app rings instantly, allowing residents to make a video call and open the door remotely. All family members' phones ring at the same time; users can accept deliveries remotely even when they are not at home and see who is at their door.

Technological transformation often does not require starting from scratch. Multitek's new-generation products, DiafonBox and Smart Diafon, are a concrete reflection of this approach: two domestic solutions that add smart features to door entry systems by being installed on existing wiring, without changing the current infrastructure.

DiafonBox: A Smart Layer on the Installed System

Most of Türkiye's housing stock has door entry systems that have been in operation for years. Replacing these systems entirely is both costly and logistically challenging. DiafonBox is added on top of the existing wiring without disrupting the installed system. It works with many other brands of door entry systems as well as Multitek's own.

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Smart Diafon: The Flat Gets Smart Even If the Building Doesn't Change

Even if other residents of the building do not want to change the system, a single flat can gain smart home features. Smart Diafon is installed on the existing door entry wiring, while the remaining flats continue to use whatever they already have. There is no need to get permission from neighbours or reach agreement with the building management.

Once the device is installed, the flat becomes an integrated smart home system covering wireless lighting, shutters, the boiler, alarm and security sensors as well as door management. No renovation is required and no extra cabling is needed. One of the most common barriers to smart home technology—the perception that "everyone has to switch at the same time"—is overcome with this product. Thanks to the wireless smart home devices developed by Multitek, a home becomes safer and more comfortable within minutes.

Domestic Software, Real Security

Both products were developed at the TÜBİTAK-supported Multitek R&D Centre and feature 100% domestic software and hardware. The way user and building data are processed, security protocols and software updates are kept entirely within domestic engineering. In a sensitive area such as residential security, this is as much an indication of a sense of responsibility as it is a technical choice.

The award TESİD gave to DiafonBox this year is regarded as the sector's recognition of this approach that carries existing infrastructure into the future.

TESİD'in bu yıl DiafonBox'a verdiği ödül, mevcut altyapıyı geleceğe taşıyan bu yaklaşımın sektörce tanınması olarak değerlendiriliyor.

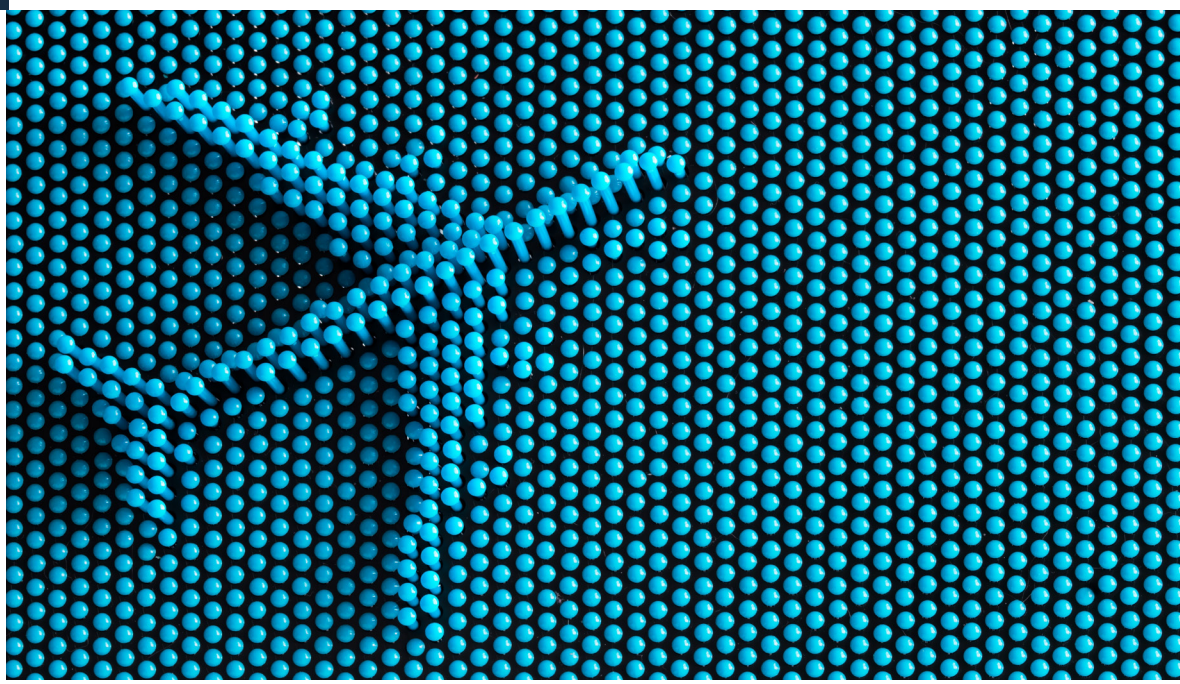






A Domestic Solution in Avionics Data Communication: DEICO Aviolinks

This article was prepared by DEICO, winner of the 22nd TESİD Innovation and Creativity Award (Innovative and Creative Product Award).



As TESİD also emphasises in this year's almanac theme, regional leadership and reducing external dependency start with mastery of core technologies. Developing Aviolinks entirely with our own engineering resources, domestically from design to production, has not only provided import substitution but also allowed us to build deep in-house technical expertise in avionics communication standards.

As the complexity of systems in defence and aerospace projects increases, development and verification processes become more challenging. Testing avionics data buses such as MIL-STD-1553 and ARINC 429 inherently requires high precision and reliability. Our "Aviolinks USB/Ethernet Converter" project, which received the 2024 TESİD Innovation and Creativity Award, was born from the search for a portable and flexible solution to practical engineering problems we encountered in the field and in the laboratory.

Our main goal in designing Aviolinks was to overcome the physical limitations of test systems and make them easier to use. By converting complex avionics protocols into standard USB and Ethernet interfaces, the device allows engineers to test directly on the flight line or in the integration laboratory with just a standard laptop. Moreover, the Aviolinks family was designed as a continuously expanding product ecosystem that is not limited to specific protocols but covers all other common interfaces needed in industry; in addition to USB and Ethernet, products supporting different form factors such as PCIe, PXIe and mini PCIe are also part of this family. This modular and inclusive structure allows us to run different communication protocols simultaneously on the same hardware infrastructure.

We also believe that for hardware to be used efficiently in the field, software tools must be as practical and accessible as the hardware. With this approach, the Aviolinks Analyser and Simulator software we developed offers functions such as monitoring network traffic in real time, decoding raw data packets into meaningful formats and





creating specific error injection scenarios through a visual user interface. Enabling test specialists to get the system up and running quickly without having to write their own scripts from scratch saves considerable time in debugging.

As TESİD also emphasises in this year's almanac theme, regional leadership and reducing external dependency start with mastery of core technologies. Developing Aviolinks entirely with our own engineering resources, domestically from design to production, has not only provided import substitution but also allowed us to build deep in-house technical expertise in avionics communication standards. The device's standard Ethernet- and USB-based architecture provides a practical basis for test systems to integrate easily into modern, distributed test infrastructures. As DEICO, our main goal is to turn this product family, which covers all avionics interfaces, into a universal solution that can compete and be exported not only domestically but also globally.

Electronic Activation Unit Product Family

This article was prepared by SAVRONİK, winner of the TESİD SUMMIT Special Award within the 22nd TESİD Innovation and Creativity Awards.



When our “Electronic Activation Unit” project, whose foundations we laid in 2012, was successfully completed and entered into inventory in 2017, potential supply problems, high-cost imports and technological dependency in this field were prevented.

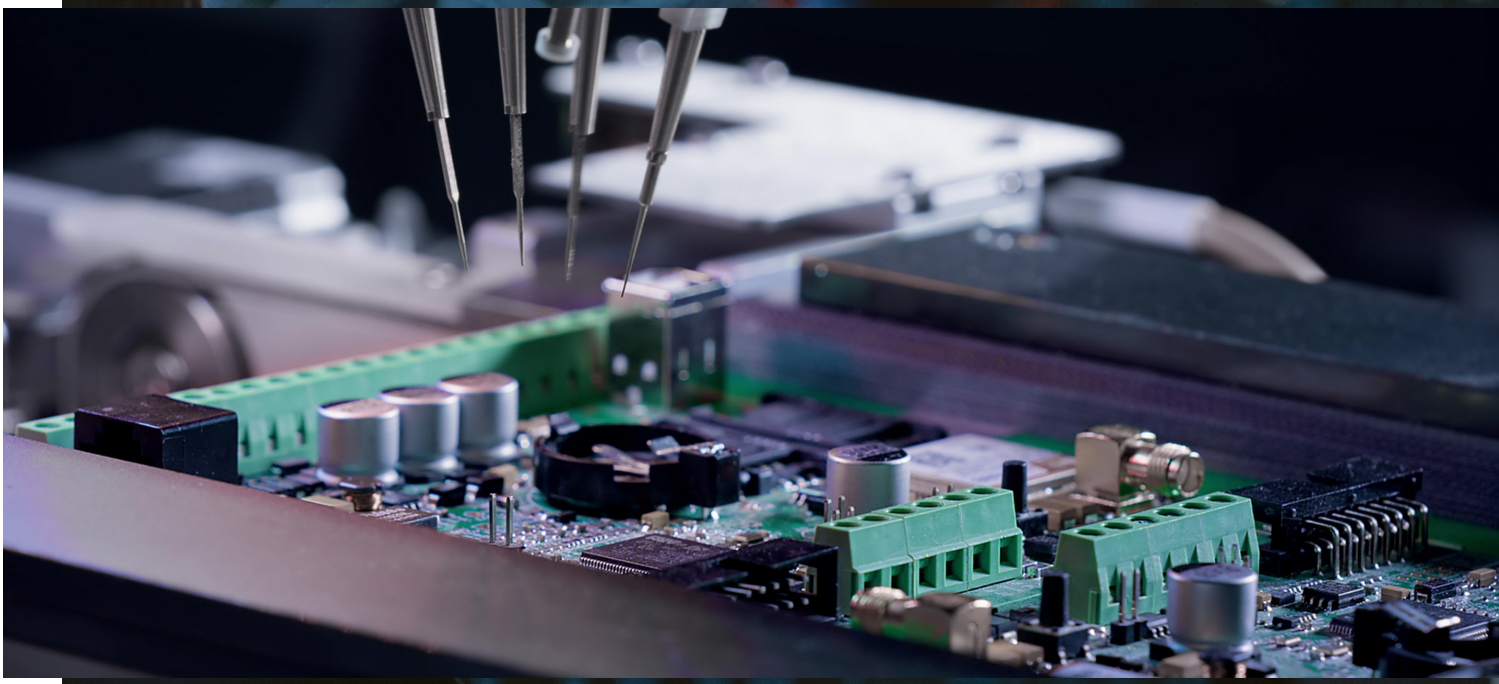
In our sector, working on projects with high technical entry barriers, producing original R&D-based solutions in critical technologies whose procurement processes are bound by regulations, and bringing technology readiness levels to the highest point are highly risky and costly processes. However, taking part in such work is indispensable for technological independence and development. As SAVRONİK, having overcome such difficult processes in many areas of technology since our foundation, we are celebrating our 40th anniversary this year.

Our “Electronic Activation Unit Product Family” project, deemed worthy of the Summit Special Award by TESİD, was born precisely within this visionary framework and has been a strategic R&D effort that represents a national mission before a financial success goal.

When our “Electronic Activation Unit” project, whose foundations we laid in 2012, was successfully completed and entered into inventory in 2017, potential supply problems, high-cost imports and technological dependency in this field were prevented.

By reinvesting the technological and financial gains achieved through this project into our R&D activities, we created a sustainable growth model. Thanks to the structural know-how we built, we continued our product development work on similar critical technologies without interruption. Today, our company has reached a depth of knowledge and capability in this critical field possessed by only a few organisations in the world.







The greatest need for turning all this work into a structural success and ensuring its continuity is highly qualified executives, engineers, researchers and specialists. Protecting and developing this qualified ecosystem is of critical importance for spreading and deepening knowledge across the sector.

On this occasion, we would also like to thank the TESİD organisation for making such a prestigious award programme a tradition, one that increases our sector's R&D motivation and makes this qualified ecosystem visible.

We will continue with determination to contribute to our country's advanced technology solution needs.

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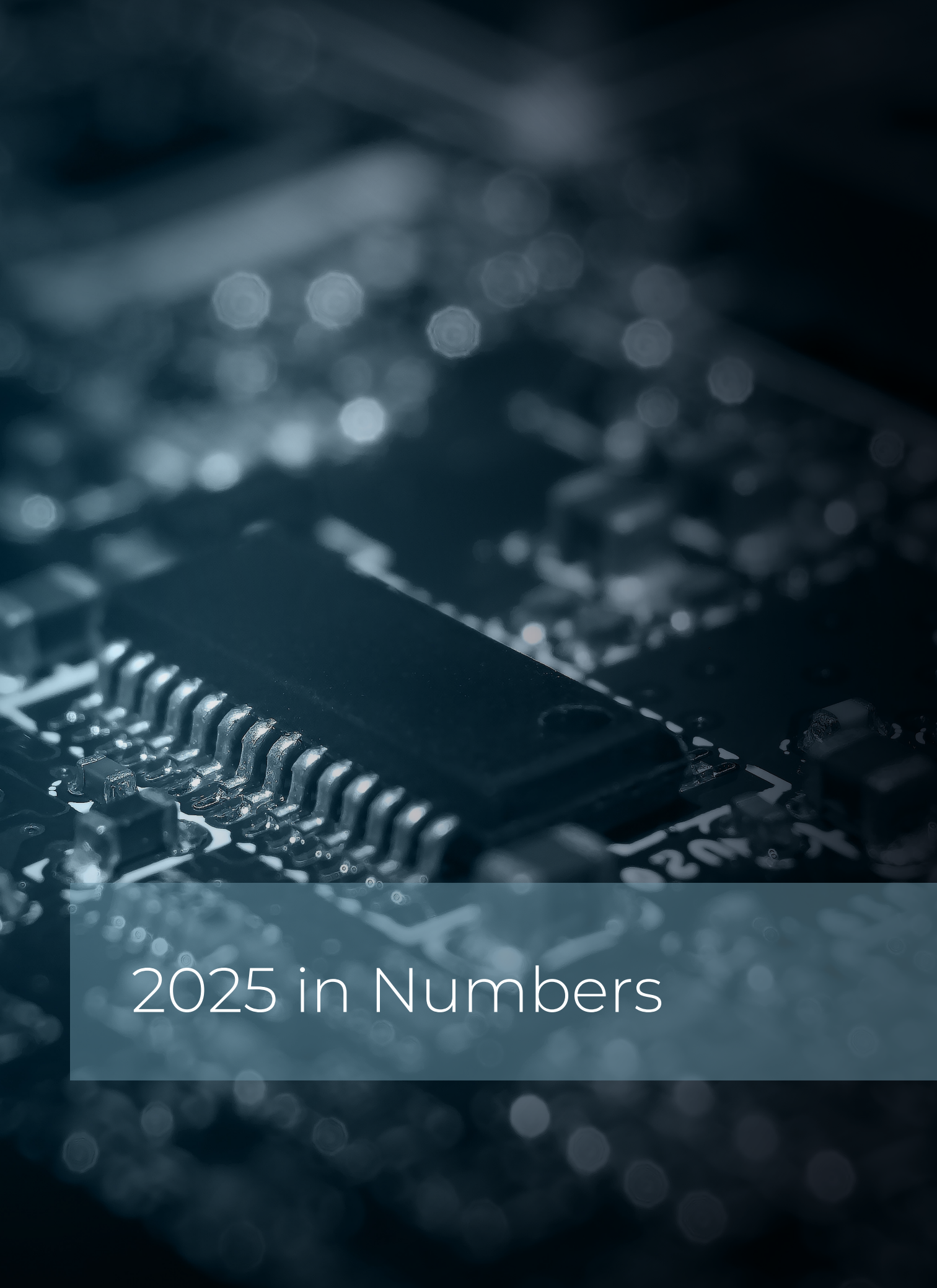
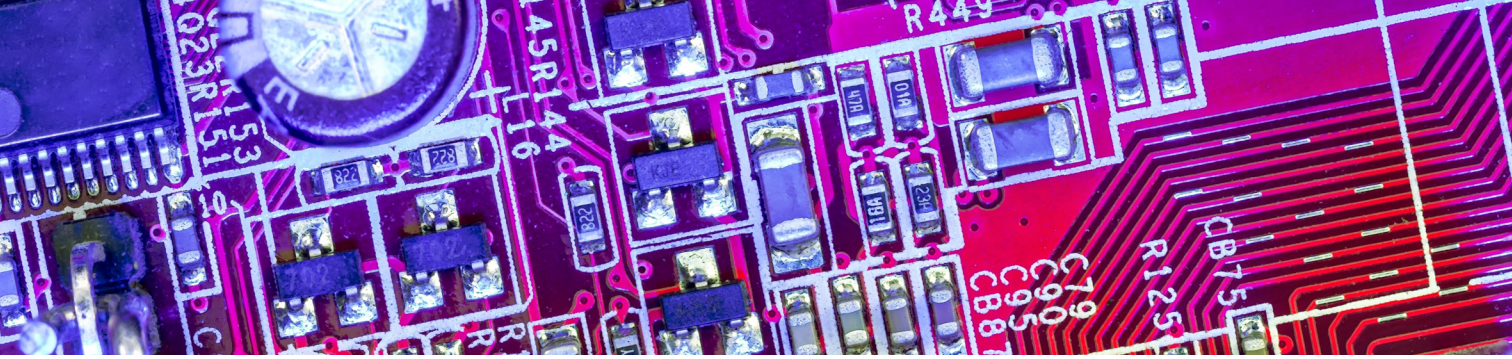


2025 in Numbers



TURKISH ELECTRONICS INDUSTRY
COMPONENTS SUB-SECTOR

In 2025, the electrical and electronics sector set an export record. Sector exports rose by approximately 6% to USD 18 billion, with a target of USD 20 billion set for 2026 [1].

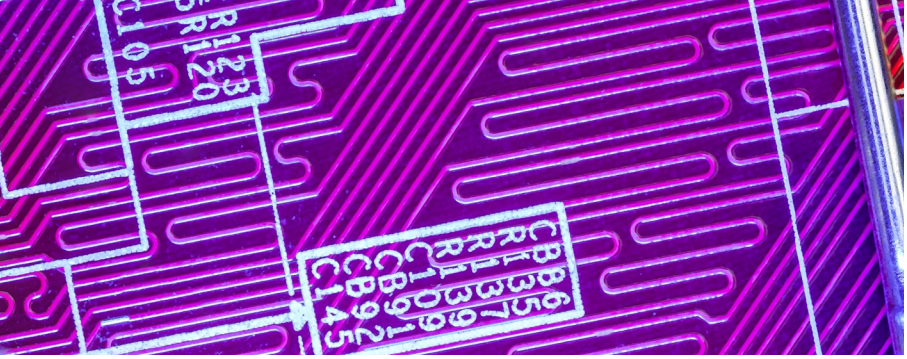
According to TİM data, the sector was Türkiye's third-largest exporting sector after automotive and chemicals; more than half of its exports originated from Istanbul [2].

The sub-sector's main structural problem remained its dependence on imports for critical components such as microchips and sensors [3].

In this area, the HIT-30 High Technology Investment Programme set the goal of establishing 65-nanometre-and-below chip production capacity in Türkiye [4].

1. CNBC-e – USD 20 billion export target from the electrical and electronics sector (TET)
2. Forbes Türkiye – Electrical and electronics sector sets a record with USD 14.5 billion in exports in 10 months (TİM data)
3. Ekonomi Gazetesi – The road to a smart future runs through electronics
4. Sanayi Gazetesi – HIT-30 High Technology Investment Programme

PRODUCT TYPE	IMPORT ($ Thousand)			EXPORT ($ Thousand)		
	2023	2024	2025	2023	2024	2025
1. Circuit Elements	3.948.843			211.190		
Capacitors	142.127	143.541	91.023	9.715	10.829	10.688
Electrical Resistances	83.726	73.917	81.815	12.050	13.917	17.159
Solar Cells, Diode, Transistor (etc.)	2.876.946	1.648.518	1.189.433	150.355	157.672	167.930
Integrated Circuits	396.044	299.178	330.406	39.070	42.469	42.958
2. Picture Tube	95.220	86.788	58.075	5.078	3.190	3.158
3. Coils and Transformers	137.607	119.373	86.548	1.460.510	1.860.981	2.801.464
4. Acoustic Elements Microphone, Speaker	192.017	201.229	219.360	18.688	14.776	12.582
5. Fasteners and Electronic Relays	510.995	467.725	600.529	430.731	489.534	804.720
6. Printed Circuits	152.565	132.489	140.004	14.642	16.363	14.685
TOTAL	4.587.247	3.172.758	2.797.193	2.140.839	2.609.731	3.875.344



COMPONENTS

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
8504	**Electrical transformers, static converters (e.g. rectifiers) and inductors**	**119.373,00**	**86.548,00**	**1.860.981,00**	**2.098.438,00**
850410201000	Inductors; for use in civil aircraft	5	5	43	20
850410209000	Inductors; EXCLUDING those for use in civil aircraft	405	1.377	194	440
850410801000	Other ballasts for discharge lamps or tubes; for use in civil aircraft	669	815	156	264
850410809000	Other ballasts for discharge lamps or tubes; EXCLUDING those for use in civil aircraft	1.786	1.897	430	712
850421000000	Liquid dielectric transformers; power <= 650 kVA	3.417	1.961	252.988	245.400
850422100000	Liquid dielectric transformers; 650 kVA < power <= 1 600 kVA	1.034	2.403	135.775	144.712
850422901000	Liquid dielectric transformers; 1 600 kVA < power <= 2 000 kVA and less than 35 000 volts	667	2.387	36.006	25.490
850422902000	Liquid dielectric transformers; 2 000 kVA < power <= 10 000 kVA and less than 35 000 volts	3.444	7.355	271.753	270.693
850422909000	Liquid dielectric transformers; 2 000 kVA < power <= 10 000 kVA and more than 35 000 volts	14.567	2.726	73.692	114.255
850423000011	Liquid dielectric transformers; 10 000 kVA < power <= 50 000 kVA	2.183	2.902	191.814	441.639
850423000019	Liquid dielectric transformers; power > 50 000 kVA	23.264	16.129	590.977	691.110
850431210000	Voltage transformers; power =< 1 kVA	5.557	5.321	25.255	31.732
850431290000	Other measuring transformers; power =< 1 kVA, other	11.552	15.498	22.739	63.452
850431801000	Other transformers for toys; power =< 1 kVA, other	50,576	676	681	2.147
850431809011	Ferrite core transformers; power =< 1 kVA	10.285	7.304	109,044	292
850431809019	Other transformers; power =< 1 kVA, other	15.755	17.792	40.876	18.688
850432001000	Other transformers for toys; 1 kVA < power <= 16 kVA	334	779	805	808
850432008000	Other transformers; 1 kVA < power <= 16 kVA	2.377	4.464	2.889	3.501
850433000000	Other transformers; 16 kVA < power =< 500 kVA	5.418	5.328	21.619	21.811
850434000000	Other transformers; power > 500 kVA	16.602	13.945	192.182	21.271
8518	**Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets**	**201.229,00**	**219.360,00**	**14.776,00**	**12.582,00**
851810000000	Microphones and stands therefor	17.646	22.330	647	742
851821000000	Single loudspeakers, mounted in their enclosures	33.360	38.341	1.292	948
851822000000	Multiple loudspeakers, mounted in the same enclosure	47.426	55.747	2.444	1.088
851829001000	Loudspeakers for use in civil aircraft (EXCLUDING those mounted in their enclosures)	122	369	12,511	5.151

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
851829009000	Loudspeakers; EXCLUDING those for use in civil aircraft and those mounted in their enclosures	52.972	53.472	1.375	100
851830009000	Headphones and sets consisting of a microphone and one or more loudspeakers; EXCLUDING those for civil aircraft	8.461	9.493	2838	114
851830001000	Headphones and sets consisting of a microphone and one or more loudspeakers; for civil aircraft	13.351	26.295	5.602	3.828
851850000000	Electric sound amplifier sets	1.133	2.323	150	32
851890003000	Parts of microphones and stands therefor	245	320	64	35
851890005000	Parts of loudspeakers	8.146	7.909	112	159
851890009000	Parts of other headphones, audio-frequency electric amplifiers and amplifier sets of heading 8518	18.366	2.760	240	386
8532	**Electrical capacitors, fixed, variable or adjustable (pre-set)**	**143.541,00**	**91.023,00**	**10.829,00**	**10.688,00**
853210000000	Fixed capacitors (power capacitors) designed for use in 50/60 Hz circuits and having a reactive power handling capacity of not less than 0.5 kvar	23.067	26.788	2.102	2.008
853221000000	Tantalum fixed electrical capacitors	12446,3	17.096	886	45
853222000000	Aluminium electrolytic fixed electrical capacitors	72108,1	22.635	239	1.025
853223000000	Ceramic dielectric fixed capacitors (single layer)	6989,5	3.875	305	92
853224000000	Ceramic dielectric fixed capacitors (multilayer)	10.838	4.131	3.004	5.028
853225000000	Paper or plastic dielectric fixed capacitors	1336,48	13.322	1.364	238
853229000000	Other fixed capacitors	16.265	1.890	1.924	1.568
853230000000	Variable or adjustable (pre-set) capacitors	222	1.242	578	117
853290000000	Parts of electrical capacitors, fixed, variable or adjustable (pre-set)	269	45	427	567
8533	**Electrical resistors (including rheostats and potentiometers), other than heating resistors**	**73.917**	**81.815**	**13.917**	**17.159**
853310000000	Fixed carbon resistors (composition or film types)	1.306	1.308	481	100
853321000000	Other fixed electrical resistors; power handling capacity <= 20 W	34.888	39.171	462	2.515
853329000000	Other fixed resistors; power handling capacity > 20 W	8.973	10.162	6.452	9.941
853331000000	Wirewound variable electrical resistors (including rheostats and potentiometers); power handling capacity <= 20 W	6.490	7.641	1.994	1.253
853339000000	Wirewound variable electrical resistors (including rheostats and potentiometers); power handling capacity > 20 W	764	770	2.038	1.655
853340100000	Other variable electrical resistors (including rheostats and potentiometers); power handling capacity <= 20 W	12.161	12.635	1.015	94
853340900000	Other variable electrical resistors (including rheostats and potentiometers); power handling capacity > 20 W	9.190	9.746	757	923
853390000000	Parts of electrical resistors (including rheostats and potentiometers), other than heating resistors	140	383	719	679
8534	**Printed Circuits**	**132.489**	**140.006**	**16.363**	**14.686**
853400110000	Multilayer flexible circuits containing only conductor elements and contacts	55.275	57.172	4.121	3.039
853400190000	EXCLUDING other flexible circuits containing only conductor elements and contacts	52.573	54.085	2.452	3.118
853400900000	Other thick-film circuits with passive elements	24.641	28.749	9.790	8.529
8536	**Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (e.g. switches, relays, fuses, surge suppressors, plugs, sockets, lamp holders and other connectors, junction boxes), for a voltage not exceeding 1 000 volts; connectors for optical fibres, optical fibre bundles or cables**	**467.725**	**600.529**	**489.534**	**804.720**

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
853641100000	Relays (rated voltage =< 60 V, rated current =< 2 A)	5.322	5.200	1.044	1.653
853641900000	Relays (rated voltage =< 60 V, rated current > 2 A)	62.698	62.372	4.083	4.640
853649000013	Overcurrent thermal relays; 60 V < rated voltage <= 1000 V	7.826	7.862	1.397	2.012
853649000014	Synchronous motor time relays; 60 V < rated voltage <= 1000 V	3600,6	8.776	30	8.301
853649000019	Other time relays; 60 V < rated voltage <= 1000 V	1.204	1.357	1.991	2.178
853649000029	Other relays; 60 V < rated voltage <= 1000 V	77.429	88.829	47.483	58.255
853650030000	Electronic AC switches consisting of optically coupled input and output circuits (insulated thyristor AC switches)	723	699	146	71
853650050000	Electronic switches incorporating a transistor and a logic chip (chip-on-chip technology)	3.155	3.839	67	120
853650800011	Complete starters for fluorescent lamps; 60 V < rated voltage <= 1000 V	224	21	642	123
853650800013	Commutators; for circuits with 60 V < rated voltage <= 1000 V	5.181	10.849	7.522	12.026
853650800014	Microswitches; for circuits with 60 V < rated voltage <= 1000 V	8.689	8.151	695	698
853650800015	Domestic switches; for circuits with 60 V < rated voltage <= 1000 V	5.618	7.176	18.565	24.448
853669100000	Plugs and sockets for coaxial cables; rated voltage <= 1000 V	20.077	23.173	2.005	1.825
853669300000	Plugs and sockets for printed circuits; rated voltage <= 1000 V	77.628	102.503	1.864	1.813
853669900011	Domestic plugs and sockets; rated voltage <= 1000 V	13.216	14.609	63.317	74.525
853669900013	Screwless, solderless, self-stripping insulation-displacement connection modules; rated voltage <= 1000 V	19.098	25.417	1.341	1.545
853669900018	Other plugs and sockets; rated voltage <= 1000 V	152.090	224.789	46.826	56.251
853690010000	Prefabricated elements for electrical circuits; voltage <= 1000 V	3.947	4.906	290.517	554.233
8540	**Thermionic, cold cathode or photo-cathode valves and tubes (e.g. vacuum or vapour or gas-filled valves and tubes, mercury arc rectifying valves and tubes, cathode-ray tubes, television camera tubes), other than those of heading 85.39**	**86.788**	**58.075**	**3.190**	**3.158**
854011000000	Black-and-white or other monochrome cathode-ray picture tubes for television receivers [cathode-ray picture (video	40	23	611	11
854020800000	Image converter, intensifier and other photo-cathode tubes	7.715	4.176	409	1.291
854040000000	Monochrome data/graphic display tubes and colour data/graphic display tubes with a phosphor dot screen pitch < 0.4 mm	0	14	9	5
854060000000	Other cathode-ray tubes	64	82	1.394	341
854071000000	Magnetrons	2.794	3.030	102	135
854079000000	Other microwave tubes (e.g. klystrons, travelling wave tubes, carcino-trons) (EXCLUDING magnetrons and grid-controlled tubes)	1.173	1.171	107	13
854081000000	Receiver/amplifier valves and tubes	19.650	29.406	91	12
854089000011	Vacuum display tubes	105	100	218	220
854089000019	Other display tubes	51.874	17.215	8	173
854089000000	Other valves and tubes	2.686	2.478	221	175
854091000000	Parts of cathode-ray tubes; EXCLUDING deflection coils	41	31	17	773
854099000000	Parts of thermionic, cold cathode or photo-cathode valves and tubes	647	350	3	9

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
8541	**Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices (including photovoltaic cells, whether or not assembled in modules or made up into panels); light-emitting diodes; mounted piezoelectric crystals**	**1.648.518**	**1.189.433**	**157.672**	**167.930**
854110000000	Diodes (other than photosensitive or light-emitting diodes (LED))	31.592	40.032	3.330	1.390
854121000000	Transistors (other than photosensitive transistors); power < 1 W	8.339	6.577	953,98	207
854129000000	Transistors (other than photosensitive transistors); power >= 1 W	45.738	45.994	2.501	32.783
854142000000	Photovoltaic cells not assembled in modules or made up into panels	415.389	77.675	118.817	54.972
854143000000	Photovoltaic cells assembled in modules or made up into panels	934.160	843.796	5907	7.252
854130000000	Thyristors (other than photosensitive devices)	88.771	48.063	7.023	39.045
854141000000	Light-emitting diodes (LED)	30.975	31.011	13.051	25.332
854159000000	Other semiconductor devices	3.917	3.248	244	309
854160000000	Mounted crystal and ceramic filters	71.647	82.337	1.630	1.904
854190000019	Parts of diodes, semiconductor devices, light-emitting diodes (LED) and mounted piezoelectric crystals	17.989	10.700	4.215	4.736
8542	**Electronic integrated circuits**	**299.178**	**330.406**	**42.469**	**42.958**
854231900000	Other electronic integrated circuits used as processors and controllers	243.384	262.191	9.883	9.667
854232310000	Dynamic random-access memories (D-RAMs); storage capacity <= 512 Mbit	308	562	459	3.313
854232390000	Dynamic random-access memories (D-RAMs); storage capacity > 512 Mbit	9.204	13.887	1240	1.676
854232450000	Static random-access memories (S-RAMs), including cache random-access memories (cache-RAMs)	6.771	5.281	706	972
854232550000	UV-erasable, programmable, read-only memories (EPROMs)	348	244	6640	6.974
854232610000	Electrically erasable, programmable, read-only flash memories (E2PROMs); storage capacity <= 512 Mbit	2.514	2.651	5604	1.764
854232690000	Electrically erasable, programmable, read-only flash memories (E2PROMs); storage capacity > 512 Mbit	1.272	2.389	292	293
854232750000	Other electrically erasable, programmable, read-only memories (E2PROMs)	3.808	6.451	698	169
854232900000	Other memories with electronic integrated circuits	3.417	4.840	147	325
854239900000	Other integrated circuits	25.472	28.678	13.079	12.614
854290000000	Parts of electronic integrated circuits	2.680	3.232	3722,15	5.191
Components Total		3.172.758,00	2.797.193,56	2.609.731,00	3.172.318,33

DISTRIBUTION OF IMPORT AND EXPORT OF THE COMPONENETS IN 2025 BY COUNTRIES

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
North America	USA		165.490		134.720
	Canada		39.460		850.690
European Union	**Sub Total**	**2,10**	**204.950**	**0,28**	**985.410**
	Germany		305.690		164.960

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	France		60.450		330.540
	Italy		59.630		24.650
	England		49.458		12.147
	Spain		24.630		45.520
	Hungary		15.400		38.710
	Czech Republic		16.174		6.409
	Poland		10.640		21.213
	Bulgaria		12.741		95.520
	Austria		15.165		8.410
	Finland		16.897		10.400
	Romania		5.120		36.330
	Netherlands		1.960		18.258
	Sweden		2.100		11.740
	Croatia		6.400		500
	Greece		110		18
	Denmark		1.800		15
	Portugal		8.150		880
	Belgium		1.419.478		530
	Ireland		5.000		2.640
	Other Countries		10.000		19.400
Non-EU Countries	**Sub Total**	**14,01**	**2.046.993**	**23,17**	**848.790**
	Switzerland		16.780		132.597
	Ukraine		1.423		1.450
	Russian Federation		950		13.500
	Macedonia		6.300		1.450
	Other Countries		1.100		32.000
North Africa & Middle East	**Sub Total**	**0,41**	**26.553**	**5,46**	**180.997**
	UAE		5		155.920
	Iraq		1		194.640
	Iran		100		37.264
	Egypt		25		198.320
	Israel		1.100		11.000
	Other Countries		35		90
Central Asia & Caucasus	**Sub Total**	**0,14**	**1.266**	**48,42**	**597.234**

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Turkmenistan		0		92.470
	Azerbaijan		5		38.412
	Other Countries		0		63.471
Central and South America	**Sub Total**	**0,00**	**5**	**9,25**	**194.353**
	Mexico		21.740		5.691
	Other Countries		1.110		12.650
Far East	**Sub Total**	**0,46**	**22.850**	**1,34**	**18.341**
	China		213.874		300
	Malaysia		47.950		6.840
	Taiwan		59.780		7.125
	Thailand		39.784		90.854
	Japan		45.896		40
	South Korea		40.874		50
	Vietnam		21.974		9.000
	Singapore		4.367		1.500
	Philippines		5.708		1.950
	Indonesia		3.125		7.345
	Hong Kong		5.879		4.154
	Other Countries		200		500
Free Trade Zones	**Sub Total**	**81,35**	**489.411**	**3,57**	**129.658**
	Istanbul Ind. & Trade Free Zone		80		60.000
	Çorlu European Free Zone		27		1.000
	Aegean Free Zone		640		4.200
	Other Free Zones		1.878		61.785
Other Countries	**Sub Total**	**1,06**	**2.625**	**2,65**	**126.985**
	Diğer Ülkeler		2.500		90.550
Sub Total		**0,47**	**2.500**	**5,86**	**90.550**
Sum of Components		**100,00**	**2.797.153**	**100,00**	**3.172.318**

PRIMARY COMPANIES OPERATING IN THE COMPONENTS SUB-SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ANSAL Endüstriyel Test San. Tic. A.Ş.- İSTANBUL	Akcaburgaz Mah. 592 Sok. No.10-12/2 Esenyurt - İSTANBUL	212 549 80 45	
AYDIN YAZILIM (AYESAŞ) ve Elektronik Sanayi A.Ş.	Oğuz Caddesi No:7 Organize Sanayi Bölgesi 06935 Sincan-ANKARA	312 267 27 27	
BARFAS Otomasyon Teknolojileri San. ve tic .Ltd Şti.	Yukarı Dudullu Mh. Tavukçu Yolu Cd., Anıl Sokak No:5 Ümraniye/İSTANBUL	216 466 46 36	

COMPANY	ADDRESS	TELEPHONE	FAX
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216 4601720	
DAİİCHİ Elektronik San. Tic A.Ş.	Aşirefendi Cad. No:15 Imar Han Kat:4 Sirkeci / Fatih / Istanbul, 34112	216 4711442	
DEICO Mühendislik San. Tic A.Ş.	Serhat Mah. Ankara Teknopark Yerleşkesi 224. cad No:1 F blok, z-12, Yenimahalle, Ankara	312 395 68 44	312 395 68 45
ELEKTRA Elektronik Sanayi ve Ticaret Ltd. Şti.	Akçaburgaz Mah. 155. Sok. No:3 Esenyurt-İS- TANBUL	212 886 20 80	212 886 97 85
ELİMKO Elektronik İmalat ve Kontrol Ticaret Ltd. Şti.	8. Cadde 21. Sokak No:16 06510 Emek-ANKARA	312 2126450	312 2124143
EMPA Elektronik Sanayi ve Ticaret A.Ş.	İstanbul Dünya Ticaret Merkezi A1 Blok Kat:4 No:200 34149 Yeşilköy –İST.	212 465 71 99	212 465 71 88
ENTES Elektronik Cihazlar İmalat ve Tic. A.Ş.	Dudullu Org.San.Böl. 1. Cadde No:23 34776 Ümraniye-İSTANBUL	216 313 01 10	216 314 16 15
EVREKA Yazılım Donanım Danışmanlık Eğitim Sanayi ve Tic. A.Ş.	Üniversiteler Mah. İhsan Doğramacı Bulvarı No:33 Odtu Teknokent Ankara	312 988 03 06	
FEINMETALL Turkey Bağlantı Teknolojileri Ltd. Şti.	Yenişehir Mah. Ankara Cad. No:405 360 Office Plaza Kat:5 Ofis:134 Pendik 34912 İstanbul		
GESK Elektrik Elektronik Yazılım Sanayi ve Tcaret Ltd. Şti.	Yıldız Teknik Uni. Teknopark B1 No:405 Esenler Istanbul	212 220 22 34	
İMCA Elektronik ve Bilişim San. Tic. A.Ş.	İşçi Blokları Mah. Muhsin Yazıcıoğlu Cad. No:57/115 Çankaya/Ankara, Türkiye	312 483 35 85	
İNTERDATA Veri Merkezi Ve Entegrasyon Hizmetleri A.Ş.	Üniversiteler Mah. Hacettepe Teknokent 6. ARGE F Blok No:1 Çankaya - Ankara	312 2992056	312 2992057
LENI'S Technologies Limited	Unit Da2 Sutherland House, 43 Sutherland Road, London, United Kingdom, E17 6BU	212 220 22 34	212 483 70 35
MYSIA Elektrik Elektronik Bilgisayar Yazılım San. Tic. A.Ş.	Alaaddin Bey Mah. Nilüfer Ticaret Merkezi 622 Sk. Sera Plaza 8/B Nilüfer - BURSA	224 443 24 65	
ORHUN Kimya Boya Sanayi Ticaret Ltd. Şti.	Mermerciler Sanayi Sitesi 13. Cadde No: 25 Beylikdüzü, 34524 Beylikdüzü/İstanbul	0532 358 15 64	
PCI ELEKTRONİK SAN VE TİC A.Ş.	YAKUPLU MAH. DEREBOYU CAD NO:17/4 BEYLİKDÜZÜ İSTANBUL	212 423 02 00	
POLAR Araştırma Teknoloji İletişim Sanayi ve Ticaret A.Ş.	Oğuzlar mahallesi 1372 Cad. 3/4 Balgat Çankaya Ankara	312 999 06 06	
SAME Elektronik San. ve Tic. Anonim Şirket	Mutlukent Mah. 2010 Cad. Beysuvillakent sitesi No:1 Beysukent Cankaya	312 212 22 11	
SDT Uzay ve Savunma Teknolojileri Bilişim Üretim Danışmanlık Ticaret A.Ş.	Üniversiteler Mahallesi İhsan Doğramacı Bulvarı No:37/1 Çankaya -ANKARA	312 210 10 151	
TELEGRAPHER LABS Ses Sistemleri San. Tic. A.Ş.	Tekokent Arı-3 No:4 Sarıyer/İstanbul		
TELPA Teknoloji Hizmetleri A.Ş..	Hamidiye, Anadolu Cd. No:14, 34408 Kâğıthane/İstanbul	212 371 00 00	212 371 11 99
TUNİK Elektromekanik Sanayi A.Ş.	İstanbul Cad. No:27/1-2 Kavaklıköy-Büyükçek- mece-İSTANBUL	212 624 31 44	212 579 02 32
UDEA Elektronik A.Ş.	Ankara Teknopark 2224 Cad. B Blok No:1/142 İvedik OSB Yenimahalle/ANKARA	312 3956875	312 3956877
ÜNA ENERJİ Yapı Sistemleri A.Ş.	ÜNALLAR Binası Ankara Devlet Karayolu 5. KM KASTAMONU	212 2204788	
VEMUS Endüstriyel Elektronik San. ve Tic. Ltd.Şti.	NOSAB, Organize Sanayi Bölgesi Zeytin Cad. No:14 16140 Nilüfer-BURSA	224 411 10 30	224 411 10 31
WHILONE Teknoloji Yazılım Danışmanlık Ltd. Şti.	Cevat Dündar Cad. Ostim OSB Mah. No:1/1-43 OSTİM TEKNOPARK YENİMAHALLE/ANKARA		
ZER Elektronik Sanayi ve Ticaret Ltd. Şti.	Eskişehir Yolu 9.Km. (Eskişehir Yönü Bilk- ent-Hacettepe Köprüleri arası) 06520-ANKARA	312 286 03 04	312 286 50 06



TURKISH ELECTRONICS INDUSTRY
COMPUTER SUB-SECTOR

In 2025, Türkiye's computer market diverged from the global trend. While worldwide PC shipments rose by 8.1% to 285 million units, the Turkish market contracted by approximately 5% to 2.5 million units [1].

High financing costs weighed on consumer demand, while the end of Windows 10 support on 14 October 2025 supported corporate replacement demand.

Among domestic manufacturers, Casper and Monster stood out in the gaming and corporate segments, while Technopc stood out with computers for defence, energy and industrial projects. In the last quarter of the year, the sharp rise in memory prices driven by artificial intelligence demand put cost pressure on domestic manufacturers that import their components and strengthened expectations of price increases for 2026 [2].

1. Capital – Lenovo announced its 2025 financial results (IDC data)
2. Ekonomi Gazetesi – Memory costs reflected as a 40% price increase on computers

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
8443	**Printing machinery used for printing by means of plates, cylinders and other printing components of heading 84.42; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof**	**207.365,00**	**153.448,00**	**26.166,00**	**28.481,00**
844331000000	Machines which perform two or more of the functions of printing, copying or facsimile transmission; capable of connecting to a data-processing machine or network	106.651	142.241	11.733	7.691
844332109011	Dot-matrix printers capable of connecting to an automatic data-processing machine or network; EXCLUDING those for civil aircraft	10.222	128	44	45
844332109012	Laser printers capable of connecting to an automatic data-processing machine or network; EXCLUDING those for civil aircraft	12.858	2.218	1.891	1.621
844332109013	Line printers capable of connecting to an automatic data-processing machine or network; EXCLUDING those for civil aircraft	280	227	6	11
844332109019	Other printers capable of connecting to an automatic data-processing machine or network; EXCLUDING those for civil aircraft	42.018	5.690	4.447	12.519
844339000000	Other printing, copying and facsimile machines capable of connecting to an automatic data-processing machine or network	7.028	689	720	898
844332800000	Other machines capable of connecting to an automatic data-processing machine or network	3.285	381	4.301	3.526
844399100000	Assembled electronic parts of printing machines	8.169	678	1.254	656
844399901000	Parts and accessories of photocopying apparatus incorporating an optical system	16.855	1.195	1.770	1.514



COMPUTER

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
8471	**Automatic data-processing machines and units thereof, not elsewhere specified or included in the tariff; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data**	**2.763.271**	**4.609.793**	**128.792**	**138.274**
847130000000	Portable automatic data-processing machines (consisting of at least a central processing unit, a keyboard and a display, weighing	1.389.151	1.794.490	26.605	30.004
847141001000	Other automatic data-processing machines comprising in the same housing at least a central processing unit and an input and output unit	1.756	2.984	651	38
847141009000	Other automatic data-processing machines comprising in the same housing at least a central processing unit and an input and output unit	40.608	73.507	10.995	9.180
847149001000	Other automatic data-processing machines presented in the form of systems; for use in civil aircraft	203	1.578	449	763
847149009000	Other automatic data-processing machines presented in the form of systems; EXCLUDING those for use in civil aircraft	80.635	87.118	13.784	16.742
847150001000	Processing units for other automatic data-processing machines; for use in civil aircraft	250	259	64	225
847150009000	Processing units for other automatic data-processing machines; EXCLUDING those for use in civil aircraft	535.003	776.859	23.399	24.757
847160601000	Keyboards for automatic data-processing machines; for use in civil aircraft	367	845	69	50
847160609000	Keyboards for automatic data-processing machines; EXCLUDING those for use in civil aircraft	55.664	63.896	1.433	2.715
847160701000	Other input units and other output units for automatic data-processing machines; not for use in civil aircraft	167	94	844	385
847160709011	Optical readers for automatic data-processing machines; EXCLUDING those for use in civil aircraft	9.454	14.365	3.712	1.802
847160709012	Magnetic code readers for automatic data-processing machines; EXCLUDING those for use in civil aircraft	444	817	452	362
847160709013	Light pens for automatic data-processing machines; EXCLUDING those for use in civil aircraft	1.007	599	10.099	10.838
847160709014	Mice for automatic data-processing machines; EXCLUDING those for use in civil aircraft	35.593	54.854	719	796
847160709016	Digitisers for automatic data-processing machines; EXCLUDING those for use in civil aircraft	1.328	795	549	217
847160709019	Other input units and other output units for automatic data-processing machines; not for use in civil aircraft	31.917	43.171	1.956	1.848
847170201000	Main storage units for automatic data-processing machines; for use in civil aircraft	144	297	566	13
847170209000	Main storage units for automatic data-processing machines; EXCLUDING those for use in civil aircraft	34.121	39.575	788	1.301
847170309000	Optical disk storage units (including magneto-optical) for automatic data-processing machines; for use in civil aircraft	10.512	13.814	1.922	410
847170501000	Hard disk drives for automatic data-processing machines; for use in civil aircraft	74710,2	1.030.571	1.702	859
847170509000	Hard disk drives for automatic data-processing machines; EXCLUDING those for use in civil aircraft	73.116	95.751	3.183	3.529
847170701000	Other disk storage units for automatic data-processing machines; for use in civil aircraft	6	91	0	0
847170709000	Other disk storage units for automatic data-processing machines; EXCLUDING those for use in civil aircraft	42.207	53.969	1.107	1.420

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
847170809000	Magnetic tape storage units for automatic data-processing machines; EXCLUDING those for use in civil aircraft	18.681	4.060	1.574	444
847170989000	Other storage units for automatic data-processing machines; EXCLUDING those for use in civil aircraft	130.014	153.480	4.506	4.954
847180000000	Other units of automatic data-processing machines	151.010	248.675	10.828	17.914
847190000000	Magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data	45.202	53.278	6.837	6.709
8473	**Parts and accessories suitable for use solely or principally with machines of headings 84.69 to 84.72 (other than covers, carrying cases and the like)**	**150.346**	**75.648**	**15.434**	**31.412**
847329900019	Other parts and accessories of other calculating machines of heading 84.70	636	1.458	764	749
847330200000	Assembled electronic parts equally suitable for use with machines of two or more of headings 84.70 to 84.72	114.147	45.381	11.677	27.220
847330800000	Other parts equally suitable for use with machines of two or more of headings 84.70 to 84.72	34.337	27.705	2.520	2.612
847350200000	Assembled electronic parts used in two or more other typewriting, calculating, data-processing and office machines	528	584	6	334
847350800000	Other assembled parts used in two or more other typewriting, calculating, data-processing and office machines	698	520	467	496
8523	**Discs, tapes, solid-state non-volatile storage devices, smart cards and other media for the recording of sound or of other phenomena, whether or not recorded (including matrices and masters for the production of discs, but excluding products of Chapter 37)**	**322.609**	**347.928**	**27.927**	**32.268**
852329190000	Magnetic tapes and magnetic discs for the recording of sound or of other phenomena; recorded	174	174	13	22
852329900000	Other magnetic media for the recording of sound or of other phenomena; whether or not recorded	295	219	325	348
852341100000	Optical discs for laser reading systems; unrecorded, non-erasable, recording capacity <= 900 megabytes	465	305	20	30
852341300000	Optical discs for laser reading systems; unrecorded, non-erasable, 900 megabytes < recording capacity <= 18	241	267	855	708
852341900000	Other unrecorded optical media for the recording of sound or of other phenomena	133	218	388	122
852349100000	Digital versatile discs (DVD) for laser reading systems; recorded	6.315	4.786	3.708	3.532
852349200000	Other optical discs for laser reading systems; recorded	7.211	20.508	1.025	453
852349900000	Other recorded optical media for the recording of sound or of other phenomena	1.534	6.418	717	912
852351100000	Solid-state non-volatile semiconductor storage devices for the recording of sound or of other phenomena; unrecorded	37.098	51.812	2.288	958
852351900000	Solid-state non-volatile semiconductor storage devices for the recording of sound or of other phenomena; recorded	28.752	26.432	1.368	3.208
852352001000	Semiconductor smart cards with two or more electronic integrated circuits for the recording of sound or of other phenomena	37.191	32.490	6.693	5.479
852352009000	Other semiconductor smart cards for the recording of sound or of other phenomena	201.890	203.745	7.102	9.751
852359100000	Other semiconductor media for the recording of sound or of other phenomena; unrecorded	584	397	2.277	2.421
852359900000	Other semiconductor media for the recording of sound or of other phenomena; recorded	621	39	1.131	4.283
852380100000	Other media for the recording of sound or of other phenomena; unrecorded	106	118	18	43
8528	**Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus:**	**121.316**	**143.536**	**32.239**	**28.627**
852849000000	Other cathode-ray tube monitors	37	591	111	107
852862000000	LCD monitors; designed for use with automatic data-processing machines of heading 84.71 and capable of directly connecting thereto	57.194	71.738	22.616	15.729

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
852852910000	Other monitors; designed for use with automatic data-processing machines of heading 84.71 and capable of directly connecting thereto	8.873	7.208	794	1.574
852852990000	Other monitors	36.461	41.751	7.207	10.554
852859000000	Projectors; designed for use with automatic data-processing machines of heading 84.71 and capable of directly connecting thereto	18.752	22.248	1.512	663
Sum of Computer		**3.564.907**	**5.330.353**	**230.558**	**259.062**

DISTRIBUTION OF IMPORT AND EXPORT OF THE COMPUTER IN 2025 BY COUNTRIES

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
North America	USA		148.750		12.798
	Canada		19.800		950
European Union	**Subtotal**	**3,85**	**168.550**	**9,68**	**13.748**
	Czech Republic		294.200		25.900
	Ireland		148.750		6.000
	Germany		81.456		22.400
	Poland		94.632		2.734
	Hungary		69.380		7.500
	Sweden		12.000		50
	Netherlands		35.600		20.209
	France		15.900		2.100
	Italy		34.675		5.912
	Austria		28.850		8.453
	United Kingdom		25.632		7.000
	Spain		154.800		3.500
	Other Countries		49.500		6.700
Non-EU Europe	**Subtotal**	**23,71**	**1.045.375**	**42,23**	**118.458**
	Turkish Rep. of Northern Cyprus		3.479		29.000
	Other Countries		1.890		3.000
North Africa & Middle East	**Subtotal**	**0,33**	**5.369**	**11,42**	**32.000**
	Israel		14.895		4.978
	UAE		8.300		3.800
	Other Countries		7.500		21.925
Central Asia & Caucasus	**Subtotal**	**0,74**	**30.695**	**15,97**	**30.703**
	Turkmenistan		0		15.200
	Azerbaijan		0		5.100

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Georgia		0		1.940
	Other Countries		0		920
Central and South America	**Subtotal**	**0,00**	**0**	**8,92**	**23.160**
	Mexico		45.680		150
	Other Countries		135		134
Far East	**Subtotal**	**0,90**	**45.815**	**0,08**	**284**
	China		2.670.539		100
	Vietnam		135.981		550
	Thailand		85.789		55
	Taiwan		142.789		6.390
	Singapore		38.427		280
	South Korea		944.250		700
	Japan		52.480		350
	Malaysia		59.785		255
	Philippines		44.630		90
	Indonesia		21.475		1.150
	Hong Kong		7.000		7.300
	Other Countries		500		1.000
Free Zones	**Subtotal**	**70,34**	**4.203.645**	**3,30**	**18.220**
	Other Free Zones		380		9.000
Other Countries	**Subtotal**	**0,04**	**380**	**4,04**	**9.000**
	India		29.140		3.000
	Pakistan		90		1.150
	Republic of South Africa		75		3.150
	Other Countries		69		6.189
Sub Total		**0,09**	**30.524**	**4,36**	**13.489**
Sum of Computer		**100,00**	**5.530.353**	**100,00**	**259.062**

PRIMARY COMPANIES OPERATING IN THE COMPUTER SUB-SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ADAM-ARGE	GOSB Teknopark Kemal Nehrozoğlu Cad. 400. Sok. High Tech Binası Gebze-KOCAELİ	262/ 678 72 44	262/ 751 52 71
ARKSİGNER Yazılım ve Donanım San. Tic. Ltd. Şti.	Üniversiteler Mah. 1606 Cad. Bilkent Cyber-park Cyberplaza No:4 A Blok No:603 06800 Çankaya/ Ankara	312/ 4847933	

COMPANY	ADDRESS	TELEPHONE	FAX
AYDIN Yazılım ve Elektronik Sanayi A.Ş.	Oğuz Cad. No:7 06935 Sincan-ANKARA	312/ 589 30 00	312/ 589 30 60
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216/ 4601720	
BİNK Teknoloji San. Tic. Ltd. Şti.	Sahabiye Mah. Ahmet Paşa Cad. Kalender İş Mrk. No:41/602 Kocasinan/KAYSERİ	850 242 25 43	
BLC İletişim ve Güvenlik Sistemleri A.Ş.	OSTİM OSB Mah. 100.yıl Cad. 55/E/14 Yeni- mahalle		
DEVİNNO Teknoloji Yatırımları A.Ş.	Atatürk Mah. Ertuğrul Gazi Sokak, Metropol İstanbul Sitesi C1 Blok No: 2B/111 34758 Ataşe- hir/İSTANBUL	216/ 7062111	216/ 7062216
EGEBİMTES Bilgi Teknolojileri San ve Tic A.Ş.	1370 sokak, no:42/403 Yalay İş Merkezi, Montrö, Konak, İzmir, 35230	232 489 00 60	
EMPA Elektronik Elektronik San. ve Tic.A.Ş.	İstanbul Dünya Ticaret Merkezi A1 Blok Kat:4 No:200 34149 Yeşilköy İSTANBUL	212/ 465 71 99	212/ 465 71 88
ENTES Elektronik Cihazlar İmalat ve Tic. A.Ş.	Y.Dudullu Org.San.Böl. 1. Cadde No:23 34776 Ümraniye-İSTANBUL	216/ 313 01 10	216/ 314 16 1
ETA Bilgisayar Sanayi ve Tic. Ltd. Şti	Samanyolu Sok. No:75 a 3-4 34360 Şişli-İSTANBUL	212/ 444 13 82	212/ 232 39 21
ERGÜNLER İnşaat Petrol Ürün. Otomotiv Tekstil Madencilik Su Ürün. San. ve Tic. Ltd. Şti.	Pirimehmet Mh. 113 Cd. No: 75 32100 Merkez/ ISPARTA	216/ 631 88 86	
E3TAM End Ve Bil. Test Tek. Arge Otomasyon Tic. A.Ş.	Barbaros Bulvarı No:167/5 Esentepe/Şişli	212 275 22 80	
FEINMETALL Turkey Bağlantı Teknolojileri Ltd. Ştii.	Yenişehir Mah. Ankara Cad. No:405 360 Office Plaza Kat:5 Ofis:134 Pendik 34912 İstanbul	536 477 21 37	
İNTERDATA Veri Merkezi Ve Entegrasyon Hizmetleri A.Ş.	Üniversiteler Mah. Hacettepe Teknokent 6. ARGE F Blok No:1 Çankaya - Ankara	312 2992056	312 2992057
KÖSTEBEK Araştırma Teknoloji Ticaret A.Ş.	Kızıldereb Mah. Eski Ankara Cad. No:4 /3 İç Kapı No:14 Çekmeköy- İstanbul	850 308 97 14	
LENI'S Technologies Limited	Unit Da2 Sutherland House, 43 Sutherland Road, London, United Kingdom, E17 6BU	+44 20 3923 7000	
LOTEC Teknoloji Ltd. Şti.	Hacettepe Teknokent 6. AR-GE C Blok Kat:2 No:28	312 227 03 06	
LOTHBROG Makine Ltd. Şti.	Alaadinbey mh. 648. Sk. No:2/C D:A3 PK16285 Nilüfer/Bursa/Türkiye	224 908 04 14	
MİKROSAY Yazılım ve Elektronik Enerji San. Tic. A.Ş	Şerifali Mah. Alptekin Cad. No:73/2 34775 Ümraniye-İSTANBUL	216 459 86 60	
NETAŞ Telekomünikasyınon A.Ş.	Yenişehir Mah. Osmanlı Bulvarı No:11 Kurtköy- İSTANBUL	216/ 522 20 22	216/522 22 22
N2MOBİL TAKİP SİSTEMLERİ A.Ş	Bulvar Park, Ergazi, 1818. Sk. no2: 16, 06200 Yenimahalle/Ankara		
ONUR Yüksek Teknoloji A.Ş.	Mutlukent Mahallesi 1942. Cadde No: 39 Ümit- köy, Çankaya / ANKARA	312 235 15 50	312 235 15 40
PAVOTEK Tasarım Üretim Elektronik Ticaret A.Ş.	Teknopark İst. Teknoloji Geliştirme Bölgesi Ar-Ge Binaları 1. Blok Zemin Kat 34912 Pendik-İSTANBUL	216 354 72 86	
POLAR Araştırma Teknoloji İletişim Sanayi ve Ticaret A.Ş.	Oğuzlar mahallesi 1372 Cad. 3/4 Balgat Çankaya Ankara	312 999 06 06	
RFT Araştırma Sanayi ve Ticaret A.Ş.	Teknopark Bulvarı No:1 C Blok 34609 Pendik-İSTANBUL	216/ 999 70 00	216/ 999 70 01
SAME Elektronik San. ve Tic. Anonim Şirket	Mutlukent Mah. 2010 Cad. Beysuvillakent sitesi No:1 Beysukent Cankaya	312 212 22 11	
SDT Uzay ve Savunma Teknolojileri Bilişim Üretim Danışmanlık Ticaret A.Ş.	Üniversiteler Mahallesi İhsan Doğramacı Bulvarı No:37/1 Çankaya -ANKARA	312 210 10 15	
TELEGRABHERLABS Ses Sistemleri Sanayi ve Ticaret A.Ş.	Reşitpaşa Mahallesi Katar Caddesi Teknokent ARI-3 No:4 Sarıyer-İSTANBUL	216/ 999 70 00	216/ 999 70 00
TİBET Tech Solutions	49 Sugar Mill Way M2L 1R5 Toronto, ON Canada		
ULAK Haberleşme A.Ş.	Mustafa Kemal Mah. Şehit Öğretmen Şenay Aybüke Yalçın Cad. NO:13/A ÇANKAYA/ANKARA	312/ 2869486	312 /2869488

PRIMARY COMPANIES OPERATING IN THE COMPUTER SUB-SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
VHS Elektronik Yazılım Ltd. Şti.	İvedik OSB 1548 Cadde No:7 Yenimahalle / ANKARA	312 230 15 61	
VMS VMS Elektronik Sanayi ve Ticaret A.Ş.	NOSAB Zeytin Cad.No:14 16220 Nilüfer BURSA	224 411 10 30	
WHILONE Teknoloji Yazılım Danışmanlık Ltd. Şti.	Cevat Dündar Cad. Ostim OSB Mah. No:1/1-43 OSTİM TEKNOPARK YENİMAHALLE/ANKARA		
YONGA Teknoloji Mikroelektronik A.Ş.	Teknopark İstanbul Sanayi Mah. Teknopark Bul. No:1/9A Kat:3, 34906 Pendik/İstanbul	216 504 14 10	

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Yüksek Teknoloji Endüstriyel Kontrol Cihazlarımızı, %100 Yerli Sermayemiz ile,
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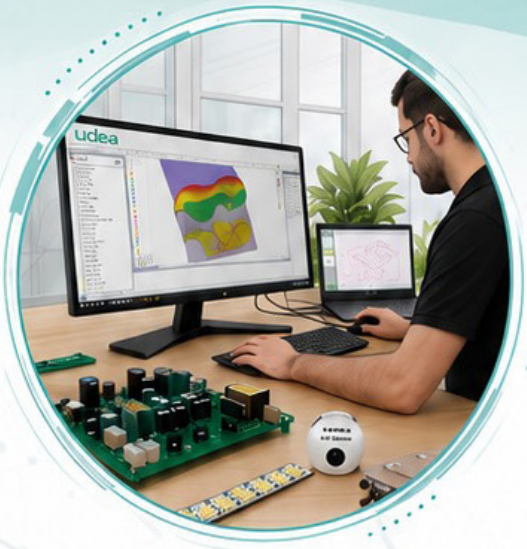
Profesyonel Operatör Panelleri (PROOP)
PLC ve Genişleme Modülleri (IPERTU)
Uygulamaya Yönelik Kontrol Cihazları
Sıcaklık Kontrol Cihazları
Proses Kontrol Cihazları
Sıcaklık ve Nem Sensörleri
Sayıcılar ve Zaman Röleleri
Jeneratör Kontrol ve Koruma Cihazları
Fırın Kontrol Cihazları

%100 YERLİ YAZILIM + DONANIM



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Ürün tasarım ve üretimi konusunda 20 yılı aşkın bir süredir; faaliyet yürüten firmamız; havacılık, otomotiv, beyaz eşya gibi birçok sektöre yönelik elektronik kart tasarım/üretimi, elektromekanik alt sistem tasarımı/üretimi, entegrasyonu ve testleri gibi alanlarda müşterilerimize hizmet vermekte ve tasarım ve üretim tecrübesini müşterilerimizin nihai ürün taleplerini gerçekleştirmek için kullanmaktadır.

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TURKISH ELECTRONICS INDUSTRY
TELECOM SUB-SECTOR

2025 was a turning point for the telecom sector. With the 5G spectrum auction held on 16 October 2025, frequencies were allocated to Turkcell, Türk Telekom and Vodafone, clearing the way for 5G services to be offered from 1 April 2026 [1].

Türk Telekom expanded its fibre network to 535 thousand km and its fibre household coverage to 34.2 million; with 4.1 million net subscriber additions, it increased its mobile subscriber base to 31.5 million. The company's revenues rose by 14.5% to TRY 242.2 billion and its EBITDA by 20.2% to TRY 99.4 billion [2].

In foreign trade, imports of telecom products increased by 12.2% to USD 6.88 billion and exports by 10.9% to USD 2.58 billion. The 5G investments starting in 2026 offer a significant opportunity for domestic network equipment manufacturers.

1. Forbes Türkiye – Auction completed, Türkiye to get 5G in 2026
2. Türk Telekom – 2025 Year-End Financial and Operational Results

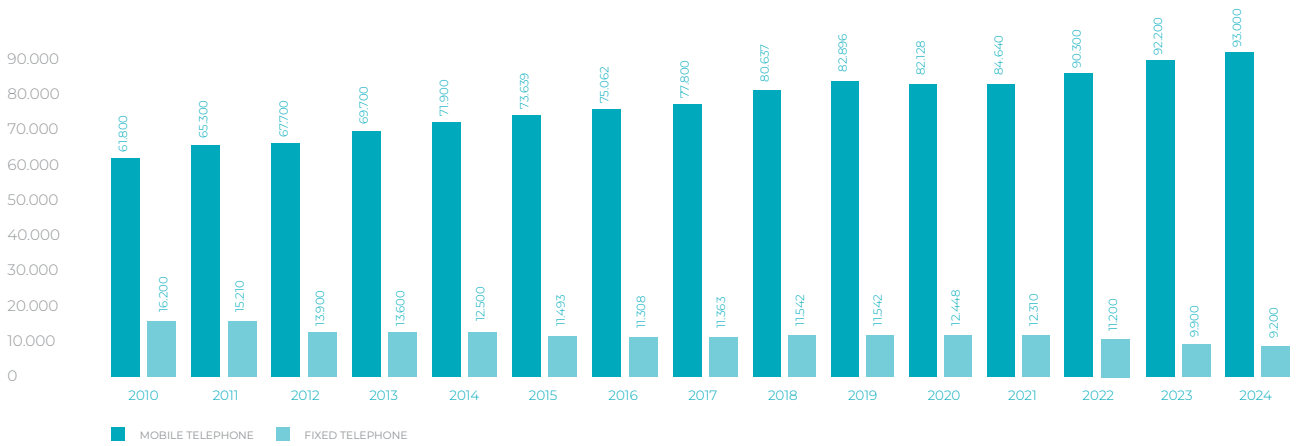
Foreign trade ratios are calculated from the TESİD table in the almanac.

PRODUCT TYPE	IMPORT ($ Thousand)			EXPORT ($ Thousand)		
	2023	2024	2025	2023	2024	2025
1. Device for connecting Telephone and Telegraph Lines (automatic telephone exchange etc.)	5.410	5.225	4.291	4.457	4.682	7.964
2. End Devices (telephone, teleprinter, telefax etc.)	41.642	49.225	38.871	5.299	4.965	6.077
3. Transmission Devices (analog digital multiplex device, TV transmitter)	1.709.835	1.420.587	1.601.511	129.269	103.435	89.254
4. Wireless-Telephone / Wireless Telegraph Transceiver	2.182.748	2.419.839	3.022.032	75.163	117.658	230.815
5. Wireless-Telephone / Wireless Telegraph Transceiver satellite etc. Antennas Components and Parts	170.254	162.425	161.995	16.835	19.901	25.806
6. Cables						
Telecom Cables	1.051.827	1.371.030	1.438.130	1.425.958	1.224.876	1.163.438
Energy Cables	199.331	489.610	378.908	441.627	745.077	920.695
Fiber Optic Cables	247.216	214.573	233.551	140.099	103.440	132.586
TOTAL	5.608.263	6.132.514	6.879.289	2.238.707	2.324.034	2.576.635



TELECOM

Distribution of GSM (Mobile) and Fixed Telephone Subscribers by Years



HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
8517	**Telephone sets, including smartphones and other telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 84.43, 85.25, 85.27 or 85.28**	**3.603.606**	**4.245.405**	**150.943**	**150.353**
851711000000	Line telephone sets with cordless handsets	2.165	2.197	371	362
851713000011	Smartwatches (other than those of subheading 8517.62); for cellular networks or other wireless networks	2.097.909	2.579.718	1.330	1.406
851714000012	Vehicle-mounted (cellular) radiotelephones incorporating reception apparatus	81	51	112	52
851714000019	Other telephones for cellular networks or for other wireless networks	4.506	8.266	127	135
851718000019	Other telephone sets; other	12.539	15.549	2.404	3.033
851761001000	Base stations for the reception or transmission of voice, images or other data; for cellular networks	3.828	2.231	489	459
851761009000	Base stations for the reception or transmission of voice, images or other data; EXCLUDING those for cellular networks	1.397	2.060	4.193	7.505
851762001000	Machines for the reception, conversion and transmission or regeneration of voice, images or other data; for cellular networks	144.585	251.668	4.926	673
851762009000	Machines for the reception, conversion and transmission or regeneration of voice, images or other data; other	1.276.002	1.349.843	98.508	88.580
851769100000	Videophones	12.457	18.784	865	751
851769200000	Entry-phone (intercom) systems	36.768	4.538	1.149	2.293
851769909017	Marine satellite transmission apparatus incorporating reception apparatus	590	2.319	71	38
851769909024	Citizens' band (CB) and 49 MHz low-power (< 100 milliwatt) radio transmission apparatus incorporating reception apparatus	229	333	58	122
851769909029	Other apparatus for the reception or transmission of voice, images or other data	10.549	7.848	36.340	44.943

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
8518	**Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets**	**0**	**0**	**0**	0
851890001000	Parts of line telephone sets	0	0	0	0
851890002000	Parts of microphones of line telephone sets	0	0	0	0
8525	**Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders**	**18.583**	**40.549**	**1.174**	**1.779**
852550000011	Transmission apparatus for television broadcasting	193	59	13	66
852550000012	Transmission apparatus for radio broadcasting	129	229	44	21
852550000013	Radio-relay and satellite transmission apparatus (including uplink apparatus)	307	351	13	89
852550000019	Other transmission apparatus	764	1.829	186	227
852560000015	Television transmission apparatus incorporating reception apparatus (transposers)	312	218	354	32
852560000017	Terrestrial radio-relay or satellite transmission apparatus incorporating reception apparatus (including uplink apparatus)	291	2.034	239	284
852560000029	Other transmission apparatus incorporating reception apparatus	16.587	35.829	325	1.061
8526	**Radar apparatus, radio navigational aid apparatus and radio remote control apparatus**	**302.893**	**380.750**	**78.075**	**181.978**
852610000011	Radio altimeters	3.171	8.468	645	509
852610000012	Weather radars	181	5.694	265	221
852610000019	Other radars	86.935	111.692	20.808	80.639
852691200000	Radio navigational receivers	59.335	59.417	6.378	7.287
852691800011	Radio direction finders for navigation	10.103	13.802	453	1.061
852691800013	Satellite radio navigational receivers	1.349	865	1.367	1.038
852691800019	Other radio navigational aid apparatus	89.986	114.866	14.969	46.559
852692002000	Radio remote control apparatus; for use in civil aircraft	36	66	23	58
852692009014	Wireless ignition/triggering systems for remote control	197	477	89	277
852692009019	Other radio remote control apparatus	51.598	65.404	33.078	44.327
8529	**Parts suitable for use solely or principally with the apparatus of headings 85.25 to 85.28**	**120.390**	**141.115**	**18.925**	**24.426**
852910651000	Built-in aerials for radio and television receivers (including those mounted); for use in civil aircraft	404	346	47	21
852910691000	Other aerials; for use in civil aircraft	14.004	13.455	2.109	1.926
852910699011	Radio and television transmission aerials	1,931	3.081	22	25
852910699013	Aerials for satellite and radio-relay reception and transmission apparatus	7.755	5.741	2.743	3.403
852910699018	Other aerials	20.986	34.446	3.560	6.390
852910801000	Aerial filters and separators; for use in civil aircraft	93	49	3	3
852910809000	Aerial filters and separators; EXCLUDING those for use in civil aircraft	3.013	2.371	139	84
852910951000	Other apparatus used with aerials and other parts of aerials; for use in civil aircraft	1.293	3.219	428	281

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
852910959011	Aerial rotor systems; EXCLUDING those for use in civil aircraft	436	1.167	103	886
852910959019	Other apparatus used with aerials and other parts of aerials; for use in civil aircraft	5.688	13.287	678	833
852990651000	Electronic assemblies formed by connecting or assembling two or more parts of the apparatus of heading 85.26	3.177	3.487	494	517
852990659000	Assembled electronic parts for other apparatus of headings 85.25 to 85.28, used solely or principally therewith	56.804	54.206	387	394
852990971000	Other assemblies formed by connecting or assembling two or more parts of the apparatus of heading 85.26	2.659	2.480	1.520	1.700
852990979000	Other parts for other apparatus used solely or principally with headings 85.25 and 85.26	4.076	3.781	6.693	7.965
8536	**Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (e.g. switches, relays, fuses, surge suppressors, plugs, sockets, lamp holders and other connectors, junction boxes), for a voltage not exceeding 1 000 volts; connectors for optical fibres, optical fibre bundles or cables**	**160.262**	**174.672**	**59.456**	**64.383**
853670001000	Plastic connectors for optical fibres, optical fibre bundles or cables	12.568	13.888	3.752	3.203
853670002000	Ceramic connectors for optical fibres, optical fibre bundles or cables	230	117	55	5
853670003000	Copper connectors for optical fibres, optical fibre bundles or cables	90	320	197	94
853670005000	Iron or steel connectors for optical fibres, optical fibre bundles or cables	4.792	5.117	654	111
853690100000	Connection and contact elements for wires and cables; voltage <= 1000 V	142.582	155.230	54.797	60.970
8544	**Insulated (including enamelled or anodised) wire, cable (including coaxial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors**	**1.914.951**	**1.875.918**	**1.873.514**	**2.152.336**
854411100011	Copper winding wire; lacquered or enamelled, diameter <= 0.05 mm	1.183	367	364	1.182
854411100012	Copper winding wire; lacquered or enamelled, 0.05 mm < diameter <= 0.1 mm	454	1.375	12	45
854411100019	Copper winding wire; lacquered or enamelled, diameter > 0.1 mm	94.113	63.377	58.717	100.306
854411900000	Insulated copper winding wire; EXCLUDING lacquered or enamelled	9.927	44.877	24.869	29.012
854419000000	Insulated winding wire; EXCLUDING copper	12.510	17.612	14.400	12.845
854420001011	Underground and submarine cables for telegraph and telephone lines; several insulated cores assembled, with coils	560	629	2.652	2.920
854420001019	Other underground and submarine cables; several insulated cores assembled, fitted with tubes/strips	1.726	1.919	684	714
854420009011	Other coaxial cables and other coaxial electric conductors for telegraph and telephone lines; insulated	21.114	23.412	8.749	8.742
854420009019	Other insulated coaxial cables and other coaxial electric conductors	43.424	45.412	38.986	42.550
854430000000	Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	205.862	228.817	468.375	714.117
854442100000	Other electric conductors fitted with connectors (voltage < 1000 V); used for telecommunications	2.316	2.478	74.583	75.954
854442900000	Other electric conductors fitted with connectors (voltage < 1000 V); used elsewhere	211.574	91.571	310.197	77.278
854449200000	Underground and submarine cables for telegraph and telephone lines (voltage =< 80 V)	91.671	112.985	35.876	48.080
854449910000	Cables and wires with individual conductor wires of a diameter exceeding 0.51 mm, voltage not exceeding 1000 V; with connectors	674.597	803.299	45.988	49.692
854449931119	Other underground and submarine cables (other, voltage <= 80 V)	1.292	29.587	3.478	4.794
854449931911	Other cables for the transmission of electric power (other, voltage <= 80 V)	4.646	12.071	888	1.673

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
854449931919	Other insulated electric conductors; voltage <= 80 V, not fitted with connectors	25.050	51.760	79.930	92.677
854460100000	Other insulated copper electric conductors; voltage > 1000 V, whether or not fitted with connectors	183.028	92.677	466.070	518.750
854460900000	Other insulated electric conductors; voltage > 1000 V, whether or not fitted with connectors	275.594	192.812	194.710	302.801
854470000000	Optical fibre cables	54.311	58.880	43.984	68.203
9030	**Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 90.28; instruments and apparatus for measuring or detecting alpha, beta, gamma, X-ray, cosmic or other ionising radiations**	**11.829**	**20.880**	**976**	**1.380**
903040001000	Other instruments and apparatus for telecommunications (e.g. hypsometers and kerdometers, gain measuring instruments); civil aircraft	43	99	4	7
903040009000	Other instruments and apparatus for telecommunications (e.g. hypsometers and kerdometers, gain measuring instruments); civil aircraft	11.786	20.781	972	1.373
Sum of Telecommunication		**6.132.514**	**6.879.289**	**2.324.034**	**2.576.635**

DISTRIBUTION OF IMPORT AND EXPORT OF THE TELECOM IN 2025 BY COUNTRIES

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
North America	USA		605.990		46.970
	Canada		54.579		14.872
European Union	**Sub Total**	**2,98**	**660.569**	**1,11**	**61.842**
	England		41.671		280.350
	Germany		230.210		233.872
	Bulgaria		326.489		156.520
	France		119.671		146.741
	Italy		89.200		38.125
	Poland		68.541		28.675
	Netherlands		35.540		37.030
	Estonia		38.120		1.200
	Belgium		3.489		11.000
	Romania		51.540		11.400
	Czech Republic		59.760		5.900
	Ireland		62.820		28.700
	Spain		55.000		25.500
	Finland		15.000		19.600
	Hungary		42.600		30.120
	Other Countries		84.984		17.350
Non-EU Europe	**Sub Total**	**15,72**	**1.324.635**	**49,30**	**1.072.083**
	Switzerland		7.900		386.210

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Turkish R. of Northern Cyprus		340		38.500
	Norway		88.330		19.587
	Macedonia		395		27.963
	Albania		810		17.000
	Serbia		445		21.973
	Russian Federation		800		15.760
	Other Countries		3.900		13.400
North Africa & Middle East	**Sub Total**	**0,42**	**102.920**	**3,46**	**540.393**
	Iraq		2.560		95.620
	Israel		19.242		88.125
	Saudi Arabia		360		70.147
	UAE		7.400		63.690
	Algeria		510		43.512
	Egypt		17.903		45.758
	Morocco		9.300		32.497
	Qatar		450		45.120
	Iran		105		30.630
	Jordan		27		31.400
	Syria		0		22.800
	Libya		34		14.852
	Other Countries		9.600		28.750
Central Asia & Caucasus	**Sub Total**	**0,65**	**67.491**	**25,05**	**612.901**
	Turkmenistan		95		38.182
	Georgia		7.850		33.455
	Azerbaijan		100		15.000
	Uzbekistan		300		8.800
	Other Countries		200		4.550
Central and South America	**Sub Total**	**0,17**	**8.545**	**7,59**	**99.987**
	Mexico		68.240		1.500
	Argentina		3.000		5.000
	Other Countries		1.900		13.000
Far East	**Sub Total**	**1,06**	**73.140**	**1,01**	**19.500**
	China		3.292.675		19.125
	Vietnam		842.910		6.740

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	South Korea		172.365		980
	Taiwan		64.890		7.920
	Malaysia		47.614		6.410
	Indonesia		7.130		16.300
	Japan		49.842		550
	Thailand		41.500		950
	Singapore		8.200		5.700
	Other Countries		2.900		3.980
Free Zones	**Sub Total**	**77,86**	**4.530.026**	**4,42**	**68.655**
	Bursa Free Zone		63.900		5.400
	Aegean Free Zone		14.890		15.900
	Çorlu European Free Zone		880		7.273
	Other Free Zones		14.300		12.000
Other Countries	**Sub Total**	**0,84**	**93.970**	**2,71**	**40.573**
	Australia		4.900		15.489
	Ghana		23		19.800
	India		18.000		12
	Pakistan		160		13.400
	Other Countries		1.700		12.000
Sub Total		**0,29**	**85.484**	**5**	**60701,00**
Sum of Telecom Devices		**100,00**	**6.879.289**	**100,00**	**2.576.635**

PRIMARY COMPANIES OPERATING IN THE TELECOM SUB-SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ADAM Elektronik Ltd.Şti.	Uzunayna Cad. Çelenk Sok. No:1	216/ 481 48 20	216/ 365 64 76
AYDIN Yazılım ve Elektronik Sanayi A.Ş.	Oğuz Cad. Organize Sanayi Bölgesi No:7 06935 Sincan -ANKARA	312/ 589 30 00	312/ 589 30 60
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216/ 4601720	
BLC İletişim ve Güvenlik Sistemleri A.Ş.	OSTİM OSB Mah. 100.yıl Cad. 55/E/14 Yenimahalle		
DEVİNNO Teknoloji Yatırımları A.Ş.	Atatürk Mah. Ertuğrul Gazi Sokak, Metropol İstanbul Sitesi C1 Blok No: 2B/111 34758 Ataşe- hir/İSTANBUL	216 706 21 11	216/ 7062216
ERGÜNLER İnşaat Petrol Ürün. Otomotiv Tekstil Madencilik Su Ürün. San. ve Tic. Ltd. Şti.	Pirimehmet Mh. 113 Cd. No: 75 32100 Merkez/ ISPARTA	216 631 88 86	
EXENTECH Sav. Med. Hav. Bil. Ldt. Şti.	Ankara Teknopark TGB Yerleşkesi 2224. Cd No:1 B Blok Zemin Kat No:B-ÜZ29/B İvedik OSB Mh. Yenimahalle/ANKARA	312 395 07 64	
İNTERDATA Veri Merkezi Ve Entegrasyon Hizmetleri A.Ş.	Üniversiteler Mah. Hacettepe Teknokent 6. ARGE F Blok No:1 Çankaya - Ankara	312 2992056	312 2992057
KAREL Elektronik Sanayi ve Ticaret A.Ş.	Kore Şehitleri Cad. Yzb. Kaya Aldoğan Sok. No:16 34394 Zincirlikuyu-İSTANBUL	212/ 355 48 00	212/ 275 40 01
LENI'S Technologies Limited	Unit Da2 Sutherland House, 43 Sutherland Road, London, United Kingdom, E17 6BU	+44 20 3923 7000	
LEONARDO Turkey Havacılık Savunma ve Güvenlik Sistemleri A.Ş.	Karaoğlan Mah. Ankara Cad. No:225 Gölbaşı – ANKARA	312/ 484 51 81	312/ 484 43 32
LOTEC Teknoloji Ltd. Şti.	Hacettepe Teknokent 6. AR-GE C Blok Kat:2 No:28	312 227 03 06	
MİKROSAY Yazılım ve Elektronik Enerji San. Tic. A.Ş.	Şerifali Mah. Alptekin Cad. No:73/2 34775 Ümraniye-İSTANBUL	216/ 459 86 60	
MULTİTEK Elektronik Sanayi ve Ticaret A.Ş.	Meclis Mah. Atatürk Cad. No:47 34785 Sancaktepe-İSTANBUL	216/ 420 38 38	216/ 415 79 18
NETAŞ Telekomünikasyon A.Ş.	Yenişehir Mah. Osmanlı Bulvarı No:11 34912 Kurtköy-Pendik-İSTANBUL	216/ 522 20 00	216/ 522 22 22
NETELSAN Elektrik Elektronik Sistemleri San. Tic. A.Ş.	Sincan 1. Organize Sanayi Bölgesi Karakoyunlu Caddesi No:4 Sincan/ANKARA	312 257 11 63	
NEXUS Diyafon Akıllı Ev Sistemleri İç ve Dış Ticaret A.Ş	Oruçreis Mah. Giyimkent 4. Sok. No:40 Esenler İstanbul	212 909 88 76	
PAVO Tasarım Üretim Elektronik Ticaret A.Ş.	Teknopark İstanbul Teknoloji Geliştirme Bölgesi, Ar-Ge Binaları (Sabiha Gökçen Havalimanı yanı) 1. Blok Zemin Kat 34912 Pendik-İSTANBUL	216/ 354 72 86	216/ 354 76 77
ONUR Yüksek Teknoloji A.Ş.	Mutlukent Mahallesi 1942. Cadde No: 39 Ümit- köy, Çankaya / ANKARA	312 235 15 50	
POLAR Araştırma Teknoloji İletişim Sanayi ve Ticaret A.Ş.	Oğuzlar mahallesi 1372 Cad. 3/4 Balgat Çankaya Ankara	312/ 999 06 06	
RFT Araştırma Sanayi ve Ticaret A.Ş.	Teknopark Bulvarı No:1 C Blok 34609 Pen- dik-İSTANBUL	216/ 999 70 00	216/ 999 70 01
TALES Elektronik A.Ş.	İTOB OSB Mahallesi İTOB Dokuzeylül Bulvarı No:10 Menderes/İZMİR	232/ 433 86 63	
TEKNOLİNE Teknolojik Sistemleri A.Ş.	Koza Mah. 1678 sok. No:29 Esenyurt	212 620 41 11	
TELPA Teknoloji Hizmetleri A.Ş	Hamidiye, Anadolu Cd. No:14, 34408 Kâğıthane/İstanbul	212 371 00 00	212 371 11 99
UDEA Elektronik A.Ş.	Ankara Teknopark 2224 Cad. B Blok No:1/142 İvedik OSB Yenimahalle/ANKARA	312/ 3956875	312/ 3956877
ULAK Haberleşme A.Ş.	Mustafa Kemal Mah. Şehit Öğretmen Şenay Aybüke Yalçın Cad. NO:13/A ÇANKAYA/ANKARA	312/ 2869486	312 /2869488
YONGA Teknoloji Mikroelektronik A.Ş.	Teknopark İstanbul Sanayi Mah. Teknopark Bul. No:1/9A Kat:3, 34906 Pendik/İstanbul	216/ 504 14 10	
ZEROTECH Elektronik Sistemler Ür. Paz. İnş. San ve Tic. Ltd. Şti.-	Batı Sitesi Mah., Gersan Sanayi Sitesi, 2306 Cad., No:51 Yenimahalle, ANKARA	312 394 52 66	



TURKISH ELECTRONICS INDUSTRY
CONSUMER ELECTRONICS SUB-SECTOR

2025 was a year of contraction for the white goods sector. According to TÜRKBESD data, domestic sales fell by 3% to 9.9 million units and exports declined by 10% to 20.2 million units, returning to 2017 levels; production decreased by 9% [1].

Nevertheless, with a 7% share of production, Türkiye maintained its position as Europe's largest and the world's second-largest white goods production hub.

Domestic companies stood out in sustainability and innovation. Beko's off-grid solar-powered refrigerator was included in TIME's "Best Inventions of 2025" list [2].

Arçelik, meanwhile, achieved the highest score in its industry in the S&P Global Corporate Sustainability Assessment for the seventh consecutive year [3].

1. Bloomberg HT – White goods export volume returns to levels of 8 years ago (TÜRKBESD data)
2. Arçelik – Awards and Achievements
3. Ekonomi Gazetesi – Arçelik on the list of the world's most sustainable companies

DISTRIBUTION OF EXPORT AND IMPORT BY YEARS IN THE CONSUMER ELECTRONICS SUB-SECTOR

PRODUCTS	IMPORT (THOUSAND $)			EXPORT (THOUSAND $)		
	2023	2024	2025	2023	2024	2025
Color TV	335.484	400.634	421.517	1.059.660	876.443	794.604
Audio Equipment	140.995	109.164	136.698	11.886	13.504	9.784
Video Players	10.715	9.921	9.786	2.951	3.282	3.748
Cash Registers	125.565	97.846	93.110	3.517	1.830	3.245
Electronic Calculators	7.728	8.340	8.652	3.603	1.627	2.064
Audio,Video Casettes	272.361	310.580	359.858	22.683	21.764	21.247
Radio and TV Receivers and Antenna Trans	200.855	229.555	259.917	19.916	18.715	18.580
Electronic Scales and Equp.	23.198	24.937	31.674	9.454	9.968	8.948
TOTAL	1.116.901	1.190.977	1.321.212	1.133.670	947.133	862.220



CONSUMER ELECTRONICS

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
8423	**Weighing machinery (excluding balances of a sensitivity of 5 cg or better), including weight-operated counting or checking machines; weighing machine weights of all kinds**	**24.937**	**31.674**	**9.968**	**8.948**
842320100000	Scales for continuous weighing of goods on conveyors; using electronic means for gauging weight	5.011	7.395	114	127
842310900011	Personal weighing machines, including baby scales; electric and electronic	3.184	4.331	324	881
842381210000	Electric/electronic scales for weighing goods and filling them into containers	4.816	4.413	4.395	4.897
842381230000	Instruments and apparatus for electronically weighing and labelling pre-packaged goods; maximum weighing capacity <= 30	1.913	4.699	116	746
842381290000	Other weighing machinery using electronic means for gauging weight; maximum weighing capacity <= 30 kg	3.299	5.483	265	236
842381250000	Shop scales using electronic means for gauging weight; maximum weighing capacity <= 30 kg	1.608	2.195	1.611	1.168
842381800000	Other weighing machinery; maximum weighing capacity <= 30 kg	18	56	80	74
842382200000	Other weighing machinery using electronic means for gauging weight (EXCLUDING machines for weighing motor vehicles); 30 kg < weighing	2.931	2.694	1.913	491
842382810000	Check weighers and automatic control machines operating by reference to a predetermined weight; 30 kg < weighing	760	103	701	215
842382891000	Other scales; 30 kg < maximum weighing capacity <= 5000 kg	1.397	305	449	112
8470	**Calculating machines and pocket-size data recording, reproducing and displaying machines with calculating functions; accounting machines, postage-franking machines, ticket-issuing machines and similar machines, incorporating a calculating device; cash registers:**	**102.570**	**98.097**	**2.366**	**3.449**
847010000000	Electronic calculators capable of operation without an external source of electric power; with recording function, pocket-size	4.462	4.754	74	102
847021000000	Electronic calculating machines incorporating a printing device	31	48	394	12
847029000000	Other electronic calculating machines	34	21	33	21
847030000000	Other calculating machines	198	164	65	65
847050000011	Point-of-sale terminals (POS machines)	54.417	62.943	1.391	2.742
847050000019	Other cash registers	43.428	30.175	409	504
8473	**Parts and accessories suitable for use solely or principally with machines of headings 84.69 to 84.72 (other than covers, carrying cases and the like)**	**3.615**	**3.665**	**1.061**	**1.059**
847321100000	Assembled electronic parts and accessories of electronic calculating machines (8470.10, 8470.21, 8470.29)	555	161	35	1
847321900000	Other parts and accessories of electronic calculating machines (8470.10, 8470.21, 8470.29)	128	181	5	72
847329100000	Assembled electronic parts and accessories of other machines of heading 84.70	1.925	2.363	52	32
847329900012	Other parts and accessories of cash registers of heading 84.70	371	319	205	200
847329900019	Other parts and accessories of other calculating machines of heading 84.70	636	641	764	754

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
8519	**Sound recording or reproducing apparatus**	**27.899**	**33.928**	**5.291**	**1.864**
851930000000	Record decks (turntables); EXCLUDING those operated by coins or tokens	2.126	2.724	56	120
851981000000	Sound recording or reproducing apparatus using magnetic, optical or semiconductor media	21.532	30.225	613	243
852290000000	Other parts of sound recording or reproducing apparatus and of video recording or reproducing apparatus	4.241	979	4.622	1.501
8521	**Video recording or reproducing apparatus, whether or not incorporating a video tuner**	**9.922**	**9.786**	**3.282**	**3.748**
852110200000	Magnetic tape-type video recording/reproducing apparatus; tape width =< 1.3 cm, tape speed =< 50 mm/s	26	30	18	10
852110950000	Other magnetic tape-type video recording and reproducing apparatus	33	25	1.802	1.870
852190000000	Other video recording and reproducing apparatus	9.863	9.731	1461	1.868
8523	**Discs, tapes, solid-state non-volatile storage devices, smart cards and other media for the recording of sound or of other phenomena, whether or not recorded (including matrices and masters for the production of discs, but excluding products of Chapter 37)**	**310.580**	**359.858**	**21.764**	**21.247**
852321000000	Cards incorporating a magnetic stripe; whether or not recorded	276	3.351	266	266
852329190000	Magnetic tapes and discs for reproducing phenomena other than sound or image; recorded	1899	1.544	80	0
852351100000	Solid-state non-volatile semiconductor storage devices for the recording of sound or of other phenomena; unrecorded	37.098	13.676	2.289	2.348
852351900000	Solid-state non-volatile semiconductor storage devices for the recording of sound or of other phenomena; recorded	28.752	17.454	1.368	2.153
852352001000	Semiconductor smart cards with two or more electronic integrated circuits for the recording of sound or of other phenomena	37.191	51.812	6.693	9.579
852352009000	Other semiconductor smart cards for the recording of sound or of other phenomena	201.890	264.325	7.102	3.208
852359100000	Other semiconductor media for the recording of sound or of other phenomena; unrecorded	584	734	2.277	2.421
852359900000	Other semiconductor media for the recording of sound or of other phenomena; recorded	621	3.936	1.131	438
852380100000	Other media for the recording of sound or of other phenomena; unrecorded	106	118	18	6
852380900000	Other media for the recording of sound or of other phenomena; recorded	2.163	2.906	541	827
8527	Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock	275	106	23	18
852380900000	Sesleri ve diğer fenomenleri kaydetmeye mahsus diğer mesnetler; kayıt yapılmış	2.069	2.163	393	541
8527	**Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock**	**81.265**	**102.770**	**8.213**	**7.920**
852712000000	Pocket-size radio cassette players	38	17.687	280	12
852713000000	Radio-broadcast receivers capable of operating without an external source of power; with sound recording/reproducing	4.097	5.892	94	13
852721200000	Radio sets with laser reading system for motor vehicles; capable of receiving and decoding Radio Data System signals, external power source	47.327	48.479	1906	1.854
852721520000	Cassette-type radio sets for motor vehicles with analogue and digital reading system, sound recording/reproducing, Radio Data System, external power source	7.625	6.487	0	0
852721590000	Other apparatus for motor vehicles, external power source, sound recording or reproducing, capable of receiving and decoding Radio Data System signals	18.582	19.732	723	720
852721700000	Other radio-broadcast receivers for motor vehicles, external power source, with laser reading system, sound recording or reproducing	319	1.204	3.609	1.079
852721920000	Cassette-type radio sets for motor vehicles; analogue and digital reading system, sound recording/reproducing, external power source	20	8	1.165	3.307

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2.024	2.025	2.024	2.025
852721980000	Other radio sets for motor vehicles; sound recording/reproducing, external power source	1.338	1.115	8	15
852729000000	Radio-broadcast receivers for motor vehicles not capable of operating without an external source of power	347	450	41	70
852791000000	Other radio-broadcast receivers operating with an external source of power; with sound recording/reproducing	1.320	1.450	72	70
852792000000	Other radio-broadcast receivers operating with an external source of power; with sound recording/reproducing apparatus	52	58	137	199
852799000000	Other radio-broadcast receivers	200	208	178	582
8528	**Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus**	**400.634**	**421.517**	**876.473**	**794.604**
8529842000000	Cathode-ray tube monitors; designed for use with automatic data-processing machines of heading 84.71 and capable of directly connecting thereto	7,827	6.954	8545,1	9.420
852849000000	Other cathode-ray tube monitors	87.592	59.173	11185,6	107.296
852852100000	Other monitors; used solely or principally with automatic data-processing machines of heading 84.71	127.591	146.955	3.716	3.877
852862000000	Projectors; designed for use with automatic data-processing machines of heading 84.71 and capable of directly connecting thereto	18.752	22.248	1.512	663
852871110000	Electronic assemblies of video tuners for incorporation into automatic data-processing machines	27	25	0	0
852871150000	Apparatus with a microprocessor-based device incorporating a modem for internet access and having a function of interactive information exchange, capable of receiving television signals	3.616	3.541	3550,98	3.785
852871190011	Video tuners for receiving satellite television broadcasts, not designed to incorporate a video display or screen	1.378	1.378	3.005	3.248
852871190019	Other video tuners, not designed to incorporate a video display or screen	7.389	7.422	1.809	1.970
852871910000	Other apparatus with a microprocessor-based device incorporating a modem for internet access and having a function of interactive information exchange, capable of receiving television signals	16.130	20.353	1.817	1.976
852871990000	Other television reception apparatus, not designed to incorporate a video display or screen	151	154	57.405	60.694
852872100000	Colour video projectors	1.404	1.002	8.317	7.349
852872200000	Other colour television receivers incorporating a video recorder or reproducer	134.273	150.646	697.157	535.181
852872300000	Colour television receivers with integral picture tube	0	3	124	105
852872400000	Other colour television receivers with a liquid crystal display (LCD) screen	826	811	58.568	37.782
852872600000	Other colour television receivers with a plasma display panel (PDP) screen	66	39	73	105
852872800000	Other colour television receivers	491	301	14.290	11.572
852873000000	Other black-and-white or other monochrome television receivers	950	512	5398,4	9.581
8529	**Parts suitable for use solely or principally with the apparatus of headings 85.25 to 85.28**	**229.555**	**259.917**	**18.715**	**19.381**
852910659000	Built-in aerials for radio and television receivers (including those mounted); for use in civil aircraft	259	479	1.614	930
852990920000	Parts of television cameras of subheadings 8525.80.11 and 8525.80.19 and of apparatus of headings 85.27 and 85.28, other than	229.295	252.438	17.101	18.451
Consumer Electronics Total		**1.190.977**	**1.321.212**	**947.133**	**862.220**

DISTRIBUTION OF IMPORT AND EXPORT OF THE CONSUMER ELECTRONICS IN 2025 BY COUNTRY

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
North America	USA		21.650		650
	Canada		2.300		28
European Union	**Sub Total**	**0,89**	**23.950**	**0,02**	**678**
	Germany		29.260		157.980
	England		6.790		120.745
	France		5.340		65.599
	Poland		85.675		34.497
	Spain		1.800		40.208
	Czech Republic		32.113		3.120
	Italy		4.900		48.046
	Sweden		810		42.390
	Slovakia		25.897		2.000
	Portugal		37.020		400
	Netherlands		34.112		16.113
	Romania		600		19.550
	Hungary		36.998		10.450
	Greece		120		33.702
	Austria		3.420		29.532
	Bulgaria		3.765		1.706
	Croatia		12		9.523
	Ireland		5.286		8.930
	Finland		6.388		5.025
	Denmark		450		4.399
	Belgium		2.100		1.523
	Other Countries		50		7.523
Non-EU Countries	**Sub Total**	**20,34**	**322.906**	**90,04**	**662.961**
	Switzerland		480		2.000
	Serbia		1.300		13.750
	Turkish R. of Northern Cyprus		0		6.125
	Macedonia		1.800		4.875
	Bosnia and Herzegovina		6		8.000
	Norway		2.700		1.250
	Kosova		0		4.300

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Other Countries		450		6.000
North Africa & Middle East	**Sub Total**	**0,24**	**6.736**	**3,23**	**46.300**
	Tunisia		23.200		50.621
	Iran		300		380
	Morocco		0		9.126
	Israel		3.580		700
	Egypt		1.450		8.400
	Algeria		0		2.100
	Iraq		900		2.897
	Libya		0		1.098
	Lebanon		350		2.010
	UAE		55		590
	Saudi Arabia		1.000		2.390
	Other Countries		890		3.000
Central Asia & Caucasus	**Sub Total**	**0,99**	**31.725**	**4,32**	**83.312**
	Azerbaijan		15		15.000
	Turkmenistan		0		9.000
	Georgia		250		5.600
	Other Countries		0		850
Central and South America	**Sub Total**	**0,00**	**265**	**1,37**	**30.450**
	Mexico		840		490
	Other Countries		10		795
Far East	**Sub Total**	**0,05**	**850**	**0,04**	**1.285**
	China		356.689		1.127
	South Korea		339.372		225
	Taiwan		65.300		40
	Vietnam		24.675		195
	Japan		9.678		4
	Malaysia		10.581		65
	Philippines		6.133		13
	Indonesia		3.631		5.100
	Singapore		2.136		25
	Thailand		13.750		35
	Hong Kong		2.900		740

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Other Countries		53.495		480
Free Zones	**Sub Total**	**75,68**	**827.895**	**0,18**	**8.506**
	Istanbul Ind. & Trade Free Zone		550		11.500
	Aegean Free Zone		0		550
	Other Free Zones		0		8.000
Other Countires	**Sub Total**	**0,00**	**550**	**0,24**	**20.050**
	India		45.655		70
	Other countries		500		9.065
Sub Total		**1,81**	**46.155**	**0,56**	**9.135**
Consumer Device Total		**100,00**	**1.321.212**	**100,00**	**862.220**

PRIMARY COMPANIES OPERATING IN THE CONSUMER ELECTRONICS SUB SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ANSAL Endüstriyel Test San. Tic. A.Ş.- İSTANBUL	Akcaburgaz Mah. 592 Sok. No.10-12/2 Esenyurt - İSTANBUL	212 549 80 45	
ATMACA (SUNNY) Elektronik Sanayi ve Ticaret A.Ş.	Namık Kemal Mah. 177.Sok No:2 34522 Esenyurt-İSTANBUL	212/ 412 12 12	212/ 4121499
BARFAS Otomasyon Teknolojileri San. ve tic .Ltd Şti.	Yukarı Dudullu Mh. Tavukçu Yolu Cd., Anıl Sokak No:5 Ümraniye/İSTANBUL	216 466 46 36	
BARKO- MED Elektronik Sanayi ve Ticaret A.Ş.	İvedik OSB Mah. 145 Cad. No:4 Yenimahalle- ANKARA	312/ 442 92 57	312/442 92 58
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216/ 4601720	
ENTES Elektronik Cihazlar İmalat ve Tic. A.Ş.	Y.Dudullu Org.San.Böl. 1. Cadde No:23 34776 Ümraniye-İSTANBUL	216/ 313 01 10	216/ 314 16 15
ERGÜNLER İnşaat Petrol Ürün. Otomotiv Tekstil Madencilik Su Ürün. San. ve Tic. Ltd. Şti.	Pirimehmet Mh. 113 Cd. No: 75 32100 Merkez/ ISPARTA	216 631 88 86	
EXENTECH Sav. Med. Hav. Bil. Ldt. Şti.	Ankara Teknopark TGB Yerleşkesi 2224. Cd No:1 B Blok Zemin Kat No:B-ÜZ29/B İvedik OSB Mh. Yenimahalle/ANKARA	312 395 07 64	
MYSIA Elektrik Elektronik Bilgisayar Yazılım San. Tic. A.Ş.	Alaaddin Bey Mah. Nilüfer Ticaret Merkezi 622 Sk. Sera Plaza 8/B Nilüfer - BURSA	224 443 24 65	
NETA Elektronik Cihazlar San. ve Tic. A.Ş.	Y.Dudullu Org.San. Bölgesi And Sitesi No:18 34775 Ümraniye-İSTANBUL	216/ 420 43 43	216/ 420 43 49
NETELSAN Elektrik Elektronik Sistemleri San. Tic. A.Ş.	Sincan 1. Organize Sanayi Bölgesi Karakoyunlu Caddesi No:4 Sincan/ANKARA	312 257 11 63	
PAVO Tasarım Üretim Elektronik Ticaret A.Ş.	Teknopark İst Teknoloji Geliştirme Bölgesi Ar-Ge Binaları 1. Blok Zemin Kat 34912 Pendik-İstanbul	216/ 354 72 86	216/ 354 76 77
TELPA Teknoloji Hizmetleri A.Ş..	Hamidiye, Anadolu Cd. No:14, 34408 Kâğıthane/İstanbul	212 371 00 00	212 371 11 99
TOGİ Teknoloji San. ve Tic. Ltd. Şti.	Balmumcu Mah Gazi Umur Paşa Sokak No:12/ B1 Beşiktaş / İSTANBUL	8502551155	
ÜNA ENERJİ Yapı Sistemleri A.Ş.	ÜNALLAR Binası Ankara Devlet Karayolu 5. KM KASTAMONU	212 / 2204788	
VMS Elektronik Sanayi ve Ticaret A.Ş.	NOSAB Zeytin Cad.No:14 16220 Nilüfer BURSA	224 411 10 30	
WHILONE Teknoloji Yazılım Danışmanlık Ltd. Şti.	Cevat Dündar Cad. Ostim OSB Mah. No:1/1-43 OSTİM TEKNOPARK YENİMAHALLE/ANKARA		
ZEROTECH Elektronik Sistemler Ür. Paz. İnş. San ve Tic. Ltd. Şti.	Batı Sitesi Mah., Gersan Sanayi Sitesi, 2306 Cad., No:51 Yenimahalle, ANKARA / TR	312 394 52 66	



TURKISH ELECTRONICS INDUSTRY
DEFENSE ELECTRONICS SUB SECTOR

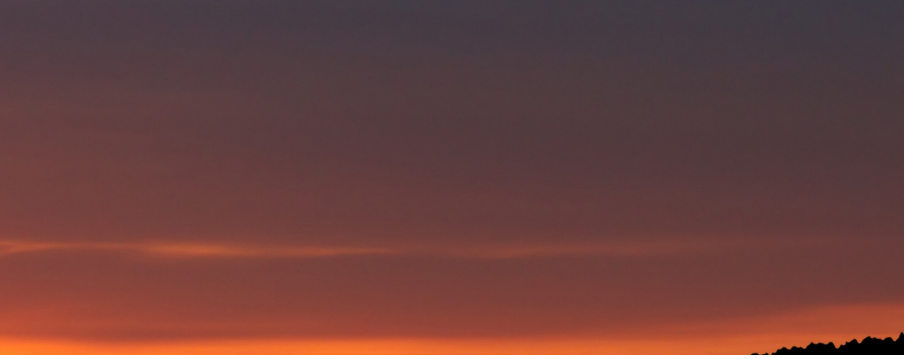
Defence and aerospace industry exports rose by 48% in 2025 to USD 10.054 billion, exceeding USD 10 billion for the first time; the volume of new contracts reached USD 17.9 billion. ARCA Savunma was the export champion of the year, followed by Baykar, TUSAŞ, TEI, ROKETSAN and ASELSAN; ASELSAN and Boğaziçi Savunma received awards in the “Electronics-Radar” category [1].

ASELSAN closed 2025, its 50th anniversary year, with records. The company’s turnover increased by 15% in real terms to TRY 180.4 billion; total new orders amounted to USD 9.6 billion, while new export contracts rose by 104% to exceed USD 2 billion [2].

1. Ekonomi Gazetesi – SSB’s Görgün: USD 17.9 billion in new contracts signed in 2025
2. Forbes Türkiye – TRY 180.4 billion turnover from ASELSAN in 2025

PRIMARY COMPANIES OPERATING IN THE DEFENSE ELECTRONICS SUB SECTOR (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ADAM AR-GE Haberleşme Teknolojileri Araştırma Geliştirme Ltd.Şti.	GOSB Teknopark Kemal Nehrozoğlu Cad. 400 Sok. High Tech Binası ,Gebze-KOCAELİ	2262/ 678 72 44	262/ 751 52 71
ARTI Endüstiyel Elektronik A.Ş.	İvedikOSB Mahallesi, 2224. Cadde, No: 1/258, 06378 Yenimahalle -ANKARA	312 257 26 83	
AYDIN YAZILIM (AYESAŞ) ve Elektronik Sanayi A.Ş.	Oğuz Cad. No:7 Organize Sanayi Bölgesi 06935 Sincan-ANKARA	312/ 589 30 00	312/ 589 30 60
BARKO- MED Elektronik Sanayi ve Ticaret A.Ş.	İvedik OSB Mah. 145 Cad. No:4 Yenimahalle- ANKARA	312/ 442 92 57	312/442 92 58
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216/ 4601720	
BRENSAN Enerji Savunma San. Tic. Ltd. Şti.	Teknopark Ankara İvedik OSB Mah. 2224. Cad. No:1 Yenimahalle- Ankara	312/ 219 46 10	
C3 TEKNOLOJİ Bilişim Elektronik San. ve Tic. Ltd. Şti.	Ümit Mah. 2531. Sokak No:4 Çankaya/ Ankara	312/ 241 27 69	
DEICO Mühendislik San. Tic A.Ş.	Serhat Mah. Ankara Teknopark Yerleşkesi 224. cad No:1 F blok, z-12, Yenimahalle, Ankara	312 395 68 44	312 395 68 45
DEVİNNO Teknoloji Yatırımları A.Ş	Atatürk Mah. Ertuğrul Gazi Sokak, Metropol İstanbul Sitesi C1 Blok No: 2B/111 34758 Ataşehir/İSTANBUL	216/ 7062111	216/ 7062216



DEFENCE ELECTRONICS

COMPANY	ADDRESS	TELEPHONE	FAX
ELİMKO Elektronik İmalat ve Kontrol Ticaret Ltd. Şti.	8. Cadde 21. Sokak No:16 06510 Emek-ANKARA	312 2126450	312 2124143
ELEKTRROTEL			
EMGE			
EMPA Elektronik Sanayi ve Ticaret A.Ş.	İstanbul Dünya Ticaret Merkezi A1 Blok Kat:4 No:200 34149 Yeşilköy-İSTANBUL	212/ 465 71 99	212/ 465 71 88
ETA Elektronik Tasarım Sanayi ve Ticaret A.Ş.	ODTÜ İkizleri B Blok Zemin Kat 06531 ODTÜ Teknokent-ANKARA	312/ 210 16 16	312/ 210 16 13
EXENTECH Sav. Med. Hav. Bil. Ldt. Şti.	Ankara Teknopark TGB Yerleşkesi 2224. Cd No:1 B Blok Zemin Kat No:B-ÜZ29/B İvedik OSB Mh. Yenimahalle/ANKARA	312 395 07 64	
E3			
FEINMETALL FEINMETALL Turkey Bağlantı Teknolojileri Ltd. Ştıı.	Yenişehir Mah. Ankara Cad. No:405 360 Office Plaza Kat:5 Ofis:134 Pendik 34912 İstanbul	536 477 21 37	
GESK Elektrik Elektronik Yazılım Sanayi ve Tcaret Ltd. Şti.	Yıldız Teknik Uni. Teknopark B1 No:405 Esenler Istanbul.	212 220 22 34	212 483 70 35
İMCA Elektronik ve Bilişim San. Tic. A.Ş.	İşçi Blokları Mah. Muhsin Yazıcıoğlu Cad. No:57/115 Çankaya/Ankara, Türkiye	312/ 483 35 85	
İSTANBUL SAVUNMA SİSTEMLERİ Tasarım Entegrasyon San. Ve Tic. A.Ş.	Muallimköy Mahallesi, Deniz Caddesi, Bilişim Vadisi No:143, Gebze KOCAELİ		
İNTERDATA Veri Merkezi Ve Entegrasyon Hizmetleri A.Ş.	Üniversiteler Mah. Hacettepe Teknokent 6. ARGE F Blok No:1 Çankaya - Ankara	312 2992056	312 2992057
KAREL Elektronik Sanayi ve Ticaret A.Ş.	Esentepe Mah. Kore Şehitleri Cad. Yzb.Kaya Aldoğan Sok. No:16 34394 Şişli-İSTANBUL	212/ 355 48 00	212/ 275 40 01
LENİ'S Technologies Limited	Unit Da2 Sutherland House, 43 Sutherland Road, London, United Kingdom, E17 6BU	+44 20 3923 7000	
LEONARDO Turkey Havacılık Savunma ve Güvenlik Sistemleri A.Ş.	Karaoğlan Mah. Ankara Cad. No:225 Gölbaşı – ANKARA	312/ 484 51 81	312/ 484 43 32
LOTEC Teknoloji Ltd. Şti.	Hacettepe Teknokent 6. AR-GE C Blok Kat:2 No:28	312/ 227 03 06	
NETAŞ Telekomünikasyon A.Ş.	Yenişehir Mah. Osmanlı Bulvarı No:11 34912 Kurtköy-Pendik-İSTANBUL	216/ 522 20 00	216/522 22 22
MYLASER Mekanik Elektronik Optik ve Medikal Sistemleri A.Ş.	Malıköy Başkent OSB Mah. 22. Cad. No:2, Sincan-Ankara	312/ 210 01 35	
ONUR Yüksek Teknoloji .Ş.	Mutlukent Mahallesi 1942. Cadde No: 39 Ümit-köy, Çankaya / ANKARA	312 235 15 50	312 235 15 40

COMPANY	ADDRESS	TELEPHONE	FAX
PAVO Tasarım Üretim Elektronik Ticaret A.Ş.	Teknopark İstanbul Teknoloji Geliştirme Bölgesi, Ar-Ge Binaları 1. Blok Zemin Kat 34912 Pendik-İSTANBUL	216/ 354 72 86	216/ 354 76 77
RFT Araştırma Sanayi ve Ticaret A.Ş.	Teknopark Bulvarı No:1 C Blok 34609 Pendik-İSTANBUL	216/ 999 70 00	216/ 999 70 01
SAME Elektronik San. ve Tic. Anonim Şirket	Mutlukent Mah. 2010 Cad. Beysuvillakent sitesi No:1 Beysukent Cankaya	312 212 22 11	
SAVRONİK Elektronik San. ve Tic. A.Ş.	Organize Sanayi Bölgesi 20.Cad. No:19 26110 ESKİŞEHİR	222/ 236 15 90	222/ 236 15 89
SDT Uzay ve Savunma Teknolojileri Bilişim Üretim Danışmanlık Ticaret A.Ş.	Üniversiteler Mahallesi İhsan Doğramacı Bulvarı No:37/1 Çankaya -ANKARA	312 210 10 15	
TALES Elektronik A.Ş.	İTOB OSB Mahallesi İTOB Dokuzeylül Bulvarı No:10 Menderes/İZMİR	232/ 433 86 63	
TEKNOPAR Endüstriyel Otomasyon San. ve Tic. A.Ş	İvedik OSB 1471. Cad. No: 3-5 06370 Yenimahalle / ANKARA		
TUALCOM Elektronik A.Ş.	Mustafa Kemal Mah. 2119. Cad. No:11/1 06530 Çankaya/ANKARA	312/ 485 22 85	
UÇ SAVUNMA Elektronik Mühendislik İmalat Mümessillik Tic. ve San. LTD Şti.	Ergazi Mah. 1819 Cad. No:1 Kat:4 Yenimahalle Ankara	312/ 250 51 00	
UDEA Elektronik A.Ş.	Ankara Teknopark 2224 Cad. B Blok No:1/142 İvedik OSB Yenimahalle/ANKARA	312/ 3956875	312/ 3956877
ULAK Haberleşme A.Ş.	Mustafa Kemal Mah. Şehit Öğretmen Şenay Aybüke Yalçın Cad. NO:13/A ÇANKAYA/ANKARA	312/ 2869486	312 /2869488
VMS Elektronik Sanayi ve Ticaret A.Ş	NOSAB Zeytin Cad.No:14 16220 Nilüfer BURSA	224 411 10 30	
WHILONE Teknoloji Yazılım Danışmanlık Ltd. Şti.	Cevat Dündar Cad. Ostim OSB Mah. No:1/1-43 OSTİM TEKNOPARK YENİMAHALLE/ANKARA		
ZER Elektronik San. ve Tic. Ltd.Şti.	Mustafa Kemal Mah. 2127 Sokak 18/7 06520 Balgat-Ankara	312/219 46 47	
ZEROTECH Elektronik Sistemler Ür. Paz. İnş. San ve Tic. Ltd. Şti.	Batı Sitesi Mah., Gersan Sanayi Sitesi, 2306 Cad., No:51 Yenimahalle, ANKARA	312 394 52 66	

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GENİŞ ÜRÜN YELPAZESİ

GES Trafoları
Trifaze Transformatörleri
Toroid Transformatörleri
Medikal İzolasyon Transformatörleri
Kontrol Panosu Transformatörleri
İzolasyon Transformatörleri

Monofaze Şönt Reaktörleri
Monofaze Harmonik Filtre Reaktörle
Trifaze Şönt Reaktörleri
Hat Reaktörleri
Trifaze Harmonik Filtre Reaktörleri
134Hz - 189Hz - 210Hz



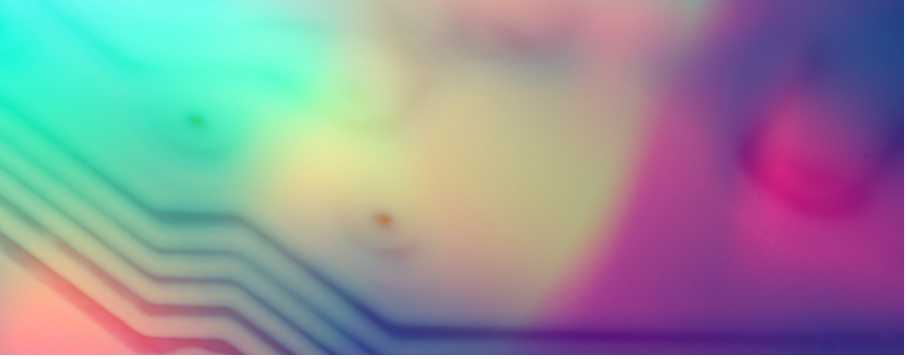
TURKISH ELECTRONICS INDUSTRY
OTHER PROFESSIONAL INDUSTRIAL ELECTRONIC DEVICES SUB SECTOR

The sub-sector's exports rose by 10.7% in 2025 to USD 1.07 billion, while imports increased by 6.9% to USD 5.91 billion. Automation equipment (24%) and medical electronics (13.8%) made the largest contribution to export growth; imports being roughly five times exports shows that import dependence persists in high value-added equipment.

Although new industrial robot installations in Türkiye fell by 9% in 2025 to 3,194 units, the total robot stock reached a record 30,990 units [1]. Medical sector exports, meanwhile, rose by 5.2% to USD 1.2 billion [2].

1. Dünya – Historic record in Türkiye's factories: Robot count exceeds 30,000
2. İKMİB – Medical Sector 2025 Export Report

PRODUCTS	IMPORT (THOUSAND $)			EXPORT (THOUSAND $)		
	2023	2024	2025	2023	2024	2025
1. Audio and Visual Systems	506.394	498.372	518.924	17.184	15.375	15.998
2. Industrial Electronic Devices						
a. Static Converters	1.361.177	1.532.510	1.349.321	330.746	306.263	325.945
b. Automation Devices	775.907	778.130	833.490	137.056	122.482	151.929
c. Signaling and Alarm Device	137.985	164.943	205.220	37.472	41.719	47.775
d. Induction Furnaces	76.729	89.189	97.998	54.369	62.009	64.996
3. Medical Electronics	848.563	828.088	991.789	197.332	193.635	220.278
4. Test and Measuring Instrumentsi	1.124.124	1.305.018	1.575.016	230.717	202.053	219.727



OTHER PROFESSIONAL INDUSTRIAL ELECTRONIC DEVICES

5. Automotive Electronics (Taximeter, Tachometer)	264.226	335.785	339.559	17.473	18.449	18.665
6. Electronical Clocks	0	0		0	0	
7. Other Devices	403.867	455.817	633.953	113.462	173.826	138.001
TOTAL	5.498.972	5.987.852	6.545.270	1.135.811	1.135.811	1.203.314

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
8443	**Printing machinery used for printing by means of plates, cylinders and other printing components of heading 84.42; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof**	**126**	**120**	**82**	**80**
844391100000	Parts of machines and apparatus used for the manufacture of semiconductors	126	120	82	80
8486	**Machines and apparatus of a kind used solely or principally for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays; machines and apparatus specified in Note 9(C) to this Chapter; parts and accessories**	**84.749**	**84.749**	**1.207**	**1.207**
848610000000	Machines and apparatus for the manufacture of boules or wafers	8.101	3.904	0	14
848620000000	Machines and apparatus for the manufacture of semiconductor devices or of electronic integrated circuits	60.969	226.777	506	211
848640001000	Apparatus for the production of masks and reticles from photoresist-coated substrates	0	609	1	105
848640009000	Other machines and apparatus specified in Note 9(C) to this Chapter	12.989	9.998	141	440
848690000000	Other parts of machines for semiconductor wafers, electronic integrated circuits and flat panel displays	2.690	3.379	559	621
8504	**Electrical transformers, static converters (e.g. rectifiers) and inductors**	**1.447.761**	**1.264.452**	**304.974**	**324.576**
850440959011	Uninterruptible power supplies (EXCLUDING accumulator chargers, rectifiers and inverters); for use in civil aircraft	59.010	62.772	37.708	44.203
850440839019	Rectifiers; for use in civil aircraft, LED drivers and charging stations for electric vehicles	17.794	19.523	15.603	19.598
850440831000	Rectifiers; for use in civil aircraft	722	2.529	592	336
850440951000	Static converters (EXCLUDING accumulator chargers, rectifiers and inverters)	5.536	6.878	1.270	8.863
850440839019	Rectifiers; EXCLUDING those for use in civil aircraft, LED drivers and those for electric vehicles	177.940	193.523	15.603	16.598
850440859000	Inverters, power <= 7.5 kVA; EXCLUDING those for use in civil aircraft	74.203	104.576	10.861	6.591
850440869000	Inverters, power > 7.5 kVA; EXCLUDING those for use in civil aircraft	483	412	16.238	15.458
850440959019	Other static converters	36.760	39.966	37.915	42.235
850440601000	Accumulator chargers; for use in civil aircraft	1.588	1.309	905	440
850440831000	Rectifiers; for use in civil aircraft	722	2.529	592	34
850440839012	Rectifiers; EXCLUDING LED drivers and those for use in civil aircraft	67.057	51.691	1.558	1.826

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
850440851000	Inverters; power <= 7.5 kVA, for use in civil aircraft	874	193.523	1.096	16.598
850440859000	Inverters; power <= 7.5 kVA, EXCLUDING those for use in civil aircraft	74.202	2.376	1.969	357
850440869000	Inverters; power > 7.5 kVA, EXCLUDING those for use in civil aircraft	484.399	104.577	10.207	6.592
850440951000	Other static converters; for use in civil aircraft	5.536	6.878	1.270	886
850440959011	Other uninterruptible power supplies; EXCLUDING those for use in civil aircraft	59.010	62.772	37.708	44.204
850440959019	Other static converters; EXCLUDING those for use in civil aircraft	367.609	396.990	37.915	42.235
850490110000	Ferrite cores for transformers and inductors	14.316	11.626	75.965	57.522
8514	**Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss**	**89.189**	**97.998**	**62009**	**64.996**
851419800011	Other resistance-heated industrial furnaces and ovens	33.830	39.669	17.701	14.241
851419800012	Other resistance-heated laboratory furnaces and ovens	6.671	7.571	1.902	1.828
851420100011	Industrial furnaces and ovens functioning by induction	16.534	19.993	15.356	18.132
851420100012	Laboratory furnaces and ovens functioning by induction	1633,24	2.724	75	345
851420800011	Industrial furnaces and ovens functioning by dielectric loss	8.033	2.721	1.817	1.331
851420800012	Laboratory furnaces and ovens functioning by dielectric loss	506	562	263	251
851440000000	Equipment for heat treatment by induction/dielectric loss	8.298	14.223	1.360	1.081
851490700000	Parts of other furnaces, ovens and equipment of heading 8514	13.683	10.534	23.535	27.788
8518	**Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets**	**5.790**	**7.364**	**1792**	**1873**
851840300000	Telephonic and measurement amplifiers	1.658	1.487	124	120
851840000000	Other audio-frequency electric amplifiers	2.925	3.554	1.454	1.433
851850000000	Electric sound amplifier sets	1.207	2.323	1821	320
8519	**Sound recording or reproducing apparatus**	**2.026**	**2.351**	**1821**	**882**
851920910000	Sound recording or reproducing apparatus with laser reading system; operated by coins, banknotes, bank cards	1.832	2.214	333	390
851920990019	Other sound recording or reproducing apparatus; operated by coins, banknotes, bank cards, tokens, etc.	194	137	1.488	492
8525	**Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders**	**490.556**	**509.209**	**11762**	**13243**
852580110011	Television cameras transmitting images only (with three or more camera tubes)	143.741	145.367	40	37
852580110012	Television cameras transmitting both sound and images (with three or more camera tubes)	1.949	1.478	26	25
852580190011	Other television cameras transmitting images only; EXCLUDING those with three or more camera tubes	77.620	81.672	240	250
852580190012	Television cameras transmitting both sound and images; EXCLUDING those with three or more camera tubes	55.974	50.963	2.341	2.487
852580300000	Digital cameras	40.264	41.785	30	31
852580910000	Cameras recording only sound and images taken by television cameras	157.954	155.487	7.965	9.874

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
852589000000	Other television cameras, other digital cameras and other video camera recorders	13.054	32.457	1.120	539
8530	**Electrical signalling, safety or traffic control equipment for railways, tramways, roads, inland waterways, parking facilities, port installations or airfields (other than those of heading 86.08)**	**55.861**	**71.681**	**14.414**	**16.281**
853010000000	Electrical signalling, safety or traffic control equipment for railways or tramways	40.596	60.499	524	749
853080000011	Electrical equipment for automatic control and management of traffic in ports and airfields	9.336	6.209	2.336	3.483
853080000012	Electrical signalling, safety or traffic control equipment for roads	564	675	5.031	7.158
853080000019	Electrical signalling, safety or traffic control equipment for inland waterways and parking facilities	1.853	1.741	5.692	2.906
853090000000	Parts of apparatus of heading 85.30	3.512	2.556	831	1.985
8531	**Electric sound or visual signalling apparatus (e.g. bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 85.12 or 85.30**	**109.082**	**133.539**	**27305**	**31494**
853110300011	Gas alarm apparatus for buildings	1.124	1.113	2.619	1.467
853110300019	Burglar or fire alarms and similar apparatus for use in buildings; EXCLUDING gas alarm apparatus	38.928	48.513	8.524	9.926
853110950000	Burglar or fire alarms and similar apparatus; EXCLUDING those for use in buildings	19.592	17.364	5.309	5.999
853120200000	Indicator panels incorporating light-emitting diodes (LED)	35.023	50.125	5.919	9.185
853120400011	Colour indicator panels incorporating active-matrix liquid crystal devices (LCD)	4.354	5.816	1.535	1.718
853120400012	Black-and-white or other monochrome indicator panels incorporating active-matrix liquid crystal devices (LCD)	2.053	2.356	413	207
853120950000	Other indicator panels incorporating liquid crystal devices (LCD)	8.009	8.251	2.987	2.991
8543	**Electrical machines and apparatus having individual functions, not specified or included elsewhere in this Chapter**	**455.817**	**633.953**	**173.826**	**138.001**
854310000000	Particle accelerators	1.729	1.385	60	256
854320000000	Signal generators	12.421	13.466	1.567	2.064
854370100000	Electrical machines with translation or dictionary functions	345	1.288	0	2
854370300000	Aerial amplifiers	5.606	3.526	6562	5.566
854370500000	Sunbeds, sunlamps and similar suntanning equipment	294	201	158	78
854370600000	Electric fence energisers	770	3.866	300	375
854370900011	Mine detectors	8.341	11.008	169	130
854370900012	High-frequency (RF) or intermediate-frequency (IF) amplifiers	87.030	84.024	1.628	1.528
854370900013	Sound mixing units	8.679	6.780	299	215
854370900014	Noise reduction units used in sound recording apparatus	74	75	27	20
854370900015	Infrared remote control devices	32.704		1.461	
854370900019	Other electrical machines and apparatus having individual functions	277.076	482.350	155.502	120.298
854390001000	Electronic microassemblies of electrical apparatus having individual functions	569	591	885	206
854390009000	Other parts of electrical apparatus having individual functions	20.177	25.394	5.208	7.263
9018	**Instruments and appliances used in medical, surgical, dental or veterinary sciences, including scintigraphic apparatus, other electro-medical apparatus and sight-testing instruments**	**536.043**	**693.330**	**141.264**	**169.093**

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
901812000000	Ultrasonic scanning apparatus	49.795	55.528	2.865	5.297
901813000000	Magnetic resonance imaging apparatus	57.393	88.744	6.432	566
901814000000	Scintigraphic apparatus	11.487	9.205	66	1.171
901819100000	Apparatus used in medical, surgical, dental or veterinary sciences for the simultaneous monitoring of two or more parameters	24.488	28.876	5.547	7.222
901819900011	Electroencephalographs (EEG)	1.351	2.393	116	218
901819900012	Fibrescopes (whether or not with monitor and camera)	28	8	27	9
901819900013	Phonocardiographs and cardioscopes	54	48	0	0
901819900014	Electromyographs (EMG)	879	2.341	61	124
901819900019	Other electro-diagnostic apparatus used in medical, surgical, dental or veterinary sciences	20.455	17.039	5.225	5.497
901890300011	Artificial kidney machines	10.118	22.822	632	655
901890300013	Dialysis and fistula sets	23.506	25.783	3.046	2.935
901890300019	Other renal dialysis equipment (artificial kidneys and dialysers)	795	935	1.926	3.332
901890500019	Transfusion and infusion apparatus used in medical, surgical, dental or veterinary sciences	6.321	7.752	2.552	3.078
901890750000	Nerve stimulation apparatus used in medical, surgical, dental or veterinary sciences	3.859	4.026	280	320
901890840012	Scalpels of all kinds	1.351	1.452	170	153
901890840018	Intrauterine devices	1.654	1.483	231	145
901890840019	Other instruments and appliances used in medical, surgical, dental or veterinary sciences	322.511	424.896	112.090	138.370
9022	**Apparatus based on the use of X-rays or of alpha, beta or gamma radiations, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus, X-ray tubes and other X-ray generators, high-tension generators, control panels and desks, screens, examination or treatment tables, chairs and the like**	**292.045**	**298.459**	**52.371**	**51.267**
902212000000	Computed tomography apparatus	46.060	49.325	1.156	407
902213000000	X-ray apparatus for dental use	22.231	20.782	1.138	2.360
902214000000	X-ray apparatus for medical, surgical or veterinary use	87.071	96.107	13.145	5.550
902219000000	Other X-ray apparatus	57.529	65.547	11.572	13.777
902221000000	Alpha, beta or gamma radiation apparatus for medical, surgical, dental or veterinary use	1.438	288	598	17
902229000000	Alpha, beta or gamma radiation apparatus for other uses	3.933	15.196	1.039	3.899
902230000000	X-ray tubes	35.637	37.724	14.868	12.344
902290200000	Parts and accessories of X-ray apparatus	30.427	3.249	5.328	10.161
902290800019	Other parts and accessories of other X-ray generators and other alpha, beta or gamma radiation apparatus, tubes, etc.	7.719	10.241	3.526	2.752
9024	**Machines and appliances for testing the hardness, strength, compressibility, elasticity or other mechanical properties of materials (e.g. metals, wood, textiles, paper, plastics)**	**46.302**	**34.073**	**18767**	**32959**
902410200000	Electronic universal/tensile testing machines for determining the mechanical properties of metals	7.949	4.657	626	1.022
902410400000	Electronic synthetic testing machines for determining the mechanical properties of metals	3.072	4.084	769	2.396
902410801000	Other electronic testing machines for determining the mechanical properties of metals	3.207	2.789	1.735	1.214

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
902410809000	Electrical machines and appliances for determining the mechanical properties of metals	774	1.136	814	547
902480001000	Electrical appliances for testing the hardness, strength, compressibility or other mechanical properties of materials	21.492	14.874	8.452	20.734
902480009000	Machines and appliances for testing the hardness, strength, compressibility or other mechanical properties of materials	5.213	2.757	4.045	5.323
902490001000	Parts of electric/electronic appliances for testing material properties	1.923	1.144	1.239	765
902490009000	Parts of other appliances for testing material properties	2.672	2.633	1.087	958
9025	**Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments**	**139.612**	**151.400**	**26.754**	**28.636**
902511200000	Clinical or veterinary thermometers	23	13	28	85
902511800011	Ovulation liquid-filled thermometers (single glass body, mercury)	269	14	1042	404
902511800019	Other liquid-filled thermometers	970	1.655	638	985
902519001100	Other thermometers and other pyrometers (not combined with other instruments); for civil aircraft	8.607	8.854	2.550	2.617
902519001900	Other thermometers and other pyrometers (not combined with other instruments); EXCLUDING those for civil aircraft	71.242	81.823	8.489	9.345
902580201000	Barometers (not combined with other instruments); electronic or electric	108	23	32	28
902580209000	Barometers (not combined with other instruments); EXCLUDING electronic or electric	174	20	136	113
902580409000	Electronic hydrometers and similar floating instruments, hygrometers, psychrometers and combinations thereof; c	17.471	17.002	1.149	1.179
902580802000	Electric hydrometers and similar floating instruments, hygrometers, psychrometers and combinations thereof; c	174	450	185	214
902580809000	Other hydrometers and similar floating instruments, hygrometers, psychrometers and combinations thereof; civil	4.879	4.657	1.169	1.576
902590001100	Parts of electric/electronic hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers; civil air	80	106	80	14
902590001900	Parts of other hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers; for use in civil aircraft	1.067	1.442	200	205
902590002111	Resistance elements for other electric/electronic hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers	3.637	5.194	189	337
902590002112	Sensors for other electric or electronic optical pyrometers	12	70	1484	1.530
902590002113	Thermocouples for other electric or electronic hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers	16.975	17.332	6.693	7.711
902590002119	Other parts of other electric or electronic hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers	7.124	6.033	1.125	894
902590002900	Other parts of other hydrometers, thermometers, pyrometers, barometers, hygrometers, psychrometers	6.800	6.712	1.566	1.398
9026	**Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (e.g. flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 90.14, 90.15, 90.28 or 90.32**	**430.711**	**506.691**	**78.645**	**78.365**
902610211000	Electronic flow meters; for use in civil aircraft	557	354	80	57
902610219000	Electronic flow meters; EXCLUDING those for use in civil aircraft	32.097	30.223	4.985	7.052
902610291000	Electronic instruments and apparatus for measuring or checking the flow or level of liquids (EXCLUDING flow meters); c	4.180	7.095	789	1.433
902610299000	Electronic instruments and apparatus for measuring or checking the flow or level of liquids (EXCLUDING flow meters); c	43.965	59.126	5.997	6.329
902610819000	Flow meters (EXCLUDING electronic); EXCLUDING those for use in civil aircraft	6.299	22.748	1.335	1.274
902610891000	Instruments and apparatus for measuring or checking the flow or level of liquids (EXCLUDING electronic and flow meters	4.376	4875	1.541	1.704

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
902610899000	Instruments and apparatus for measuring or checking the flow or level of liquids (EXCLUDING electronic and flow meters)	28.131	10.780	12.320	14.204
902620201000	Electronic instruments and apparatus for measuring or checking the pressure of liquids and gases; for civil aircraft	86.693	121.399	1.713	1.420
902620209000	Electronic instruments and apparatus for measuring or checking the pressure of liquids and gases; for civil aircraft	111.301	135.880	12.605	3.041
902620409000	Spiral or metal diaphragm type pressure gauges for liquids and gases; EXCLUDING those for use in civil aircraft	10.354	9.578	2.299	1.267
902620801000	Other instruments and apparatus for measuring or checking the pressure of liquids and gases; EXCLUDING electronic, civ	2.034	3.011	200	348
902620802000	Pressure control switches for liquids and gases; EXCLUDING electronic and those for use in civil aircraft	10.546	10.331	1.784	1.639
902620808000	Other instruments and apparatus for measuring or checking the pressure of liquids and gases; EXCLUDING electronic and civil aircraft	34.420	33.430	8.547	9.396
902680201000	Electronic instruments and apparatus for measuring or checking other variables of liquids and gases; c	766	1.062	84	30
902680209000	Electronic instruments and apparatus for measuring or checking other variables of liquids and gases; c	24.778	30.778	9.031	13.567
902680801000	Instruments and apparatus for measuring/checking other variables of liquids and gases; EXCLUDING electronic	793	89	31	88
902680809000	Instruments and apparatus for measuring/checking other variables of liquids and gases; EXCLUDING electronic and civil aircraft	9.113	1.095	6.851	5.419
902690001000	Parts of instruments and apparatus for measuring/checking the flow, level, pressure or other variables of liquids and gases	1.048	1.936	1.497	1.736
902690009000	Parts of instruments and apparatus for measuring/checking the flow, level, pressure or other variables of liquids and gases;	19.260	22.901	6.955	8.358
9027	**Instruments and apparatus for physical or chemical analysis (e.g. polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes**	**435.959**	**579.720**	**43.668**	**53.835**
902710100000	Gas or smoke analysis apparatus; electronic	159.752	184.584	9.553	10.910
902710900000	Gas or smoke analysis apparatus; EXCLUDING electronic	9.719	13.585	5.606	6.051
902720000000	Chromatographs and electrophoresis instruments	12.313	15.036	2.755	3.026
902730000011	Spectrometers using optical radiations (UV, visible, IR)	31.811	33.530	3.880	3.537
902730000019	Spectrophotometers and spectrographs using optical radiations (UV, visible, IR)	5.264	6.842	1.297	1.799
902750000000	Other instruments and apparatus for physical or chemical analysis using optical radiations (UV, visible, IR)	75.817	128.701	4.626	6.858
902789100000	Exposure meters	135	203	29	18
902789300000	pH meters, rH meters and other apparatus for measuring conductivity	10.571	11.990	2.053	2.446
902789900000	Instruments and apparatus for physical and chemical analysis, or for measuring or checking viscosity, porosity, expansion, surface tension or the like	130.576	185.249	13.870	19.191
9029	**Revolution counters, production counters, taximeters, mileometers, pedometers and the like; speed indicators and tachometers, other than those of heading 90.14 or 90.15; stroboscopes**	**335.785**	**339.559**	**18.449**	**18.665**
902910001000	Electric or electronic revolution counters for use in civil aircraft	3.104	960	20	12
902910002000	Electronic or electric revolution counters, production counters, taximeters, mileometers, pedometers and the like	39.545	36.540	5.788	6.636
902910009000	Revolution counters, production counters, taximeters, mileometers, pedometers and the like; 9029.10.00.10.00 and 90	44.863	5.867	1.558	1.201
902920311000	Speed indicators for land vehicles; electronic or electric	154.161	143.465	4.361	4.667
902920319000	Speed indicators for land vehicles; EXCLUDING electronic or electric	67.640	128.134	1.114	1.698

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
902920381000	Electronic or electric speed indicators for use in civil aircraft	791	492	294	207
902920389000	Speed indicators and tachometers; EXCLUDING speed indicators for land vehicles and civil aircraft	17.758	17.622	3.815	2.666
902920901000	Stroboscopes; electronic or electric	123	99	21	17
902920909000	Stroboscopes; EXCLUDING electronic or electric	216	174	194	179
902990000000	Parts of revolution counters, production counters, taximeters, mileometers, pedometers and the like, speed indicators, tachometers and stroboscopes	7.585	6.206	1.285	1.382
9030	**Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 90.28; instruments and apparatus for measuring or detecting alpha, beta, gamma, X-ray, cosmic or other ionising radiations**	**89.584**	**163.564**	**11.840**	**10.623**
903010009000	Instruments and apparatus for measuring or detecting ionising radiations; EXCLUDING those for use in civil aircraft	30.232	91.744	2.069	2.088
903020001000	Oscilloscopes and oscillographs; for use in civil aircraft	60	39	500	0
903020009000	Electronic multimeters (without a recording device); EXCLUDING those for use in civil aircraft	3.856	3.790	1.483	1.006
903031009011	Electric multimeters (without a recording device); EXCLUDING those for use in civil aircraft	10.430	18.240	889	1.700
903031009012	Electronic multimeters (with a recording device); EXCLUDING those for use in civil aircraft	3.456	3.458	320	389
903032009011	Electric multimeters (with a recording device); EXCLUDING those for use in civil aircraft	11.103	19.281	2.660	938
903032009012	Electric multimeters for other uses (with a recording device)	659	650	54	14
903039001100	Other electronic instruments and apparatus for measuring/checking voltage, current or power (with a recording device)	127	135	12	30
903039001900	Other electronic instruments and apparatus for measuring/checking voltage, current or power (with a recording device)	17.972	13.015	2.557	3.029
903039002100	Other instruments and apparatus for measuring/checking voltage, current or power (with a recording device)	98	95	1	4
903039002900	Other instruments and apparatus for measuring/checking voltage, current or power (with a recording device)	3.108	2.478	1.213	1.350
903082000000	Apparatus for measuring or checking semiconductor wafers or devices	1.682	1.790	65	60
903084001000	Other instruments and apparatus for civil aircraft (with a recording device)	7	4	2,5	3
903084009000	Other instruments and apparatus for measuring or checking electrical quantities (with a recording device);	6.794	8.846	14	12
9031	**Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this Chapter; profile projectors**	**162.724**	**139.568**	**22.379**	**15.309**
903110001000	Machines for balancing mechanical parts; electronic or electric	10.474	7.068	1.975	1.819
903110009000	Machines for balancing mechanical parts; EXCLUDING electronic or electric	600	190	308	470
903120001000	Test benches; electronic or electric	21.067	20.970	2.578	3.238
903120009000	Test benches; EXCLUDING electronic or electric	10.079	5.111	2.198	1.551
903141000000	Instruments for inspecting semiconductor wafers or devices, or for inspecting photomasks or reticles used in manufacturing semiconductor devices	27.978	2.427	33	9
903149100000	Profile projectors	4.581	3.225	180	145
903149900000	Other optical instruments and appliances for measuring or checking, not specified or included elsewhere in this Chapter	87.946	100.667	15.107	8.078
9032	**Automatic regulating or controlling instruments and apparatus**	**778.130**	**833.490**	**122.482**	**151.929**
903210201000	Electronic thermostats; for use in civil aircraft	2.318	1.537	674	552

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
903210209000	Non-electronic thermostats; EXCLUDING those for use in civil aircraft	31.942	34.979	7.683	7.620
903210801000	Manostats (pressure control apparatus); for use in civil aircraft	624	286	109	41
903210809000	Electronic manostats (pressure control apparatus); EXCLUDING those for use in civil aircraft	35.655	34.703	14.505	14.156
903220001000	Manostats (pressure control apparatus); EXCLUDING electronic and those for use in civil aircraft	4.644	4.909	2.623	2.768
903220009011	Hydraulic or pneumatic regulating or controlling instruments and appa-ratus; for use in civil aircraft	4.317	4.945	1.883	844
903220009019	Hydraulic or pneumatic level control apparatus; EXCLUDING those for use in civil aircraft	9.827	12.101	3.096	3.365
903281001000	Automatic chimney draught regulators	461	953	349	574
903281009011	Other hydraulic or pneumatic regulating or controlling instruments and apparatus; for use in civil aircraft	952	1.281	561	602
903281009012	Other regulating or controlling instruments and apparatus	67	51	41	7
903281009019	Parts of automatic regulating or controlling instruments and apparatus; for electronic or electric ones	173.576	195.706	2.399	3.323
903289000000	Parts of automatic regulating or controlling instruments and apparatus; EXCLUDING those for electronic or electric ones	495.706	528.060	83.160	111.695
903290001000	Parts and accessories of electric/electronic automatic regulating and controlling instruments and apparatus	6.920	7.479	581	2.800
903290009000	Parts and accessories of other automatic regulating and controlling instruments and apparatus	11.120	11.500	4.817	3.582
9101	**Wrist-watches, pocket-watches and other watches, including stop-watches, with case of precious metal or of metal clad with pre-cious metal**	**0**	**0**	**0**	**0**
910111000000	Electrically operated wrist-watches with mechanical display only	0	0	0	0
910119000000	Other electrically operated wrist-watches	0	0	0	0
910121000000	Wrist-watches with automatic winding	0	0	0	0
910129000000	Other wrist-watches	0	0	0	0
910191000012	Other electrically operated stop-watches	0	0	0	0
910191000019	Other pocket-watches and other watches	0	0	0	0
910199000012	Other stop-watches (case clad with precious metal)	0	0	0	0
910199000019	Other watches (case clad with precious metal)	0	0	0	0
9102	**Wrist-watches, pocket-watches and other watches, including stop-watches, other than those of heading 91.01**	**0**	**0**	**0**	**0**
910211000000	Wrist-watches; electrically operated, with mechanical display only	0	0	0	0
910212000000	Wrist-watches; electrically operated, with opto-electronic display only	0	0	0	0
910219000000	Wrist-watches; other, electrically operated	0	0	0	0
910221000000	Wrist-watches; other, with automatic winding	0	0	0	0
910229000000	Wrist-watches; electrically operated; other	0	0	0	0
910291000011	Pocket-watches; electrically operated	0	0	0	0
910291000012	Stop-watches; electrically operated	0	0	0	0
910291000019	Other watches; electrically operated	0	0	0	0
910299000011	Other pocket-watches; otherwise operated	0	0	0	0

HS Code No.	PRODUCT TYPE	IMPORT		EXPORT	
		2024	2025	2024	2025
910299000012	Other stop-watches; otherwise operated	0	0	0	0
910299000019	Other watches; otherwise operated	0	0	0	0
9103	**Clocks with watch movements, including alarm clocks (excluding clocks of heading 91.04)**	**0**	**0**	**0**	**0**
910310001000	Alarm clocks with watch movements; electrically operated	0	0	0	0
910310009000	Table clocks with watch movements; electrically operated	0	0	0	0
910390001000	Alarm clocks with watch movements; otherwise operated	0	0	0	0
910390009000	Table clocks with watch movements; otherwise operated	0	0	0	0
9104	**Instrument panel clocks and clocks of a similar type for vehicles, aircraft, spacecraft or vessels**	**0**	**0**	**0**	**0**
910400000011	Clocks and the like for electronic/electric instrument panels of vehicles	0	0	0	0
910400000019	Clocks and the like for other instrument panels of vehicles	0	0	0	0
9105	**Other Clocks**	**0**	**0**	**0**	**0**
910511000000	Alarm clocks; electrically operated	0	0	0	0
910519000000	Alarm clocks; battery operated	0	0	0	0
910521000000	Wall clocks; electrically operated	0	0	0	0
910529000000	Wall clocks; battery operated	0	0	0	0
910591000000	Other clocks; electrically operated (including stop-watches)	0	0	0	0
910599000000	Other non-electrically operated clocks	0	0	0	0
9107	**Time switches with clock or watch movement or with synchronous motor (apparatus for operating a mechanism at a given time)**	**0**	**0**	**0**	**0**
910700000011	Electric/electronic time switches and clocks	0	0	0	0
910700000019	Other types of clocks operating a mechanism	0	0	0	0
9108	**Watch movements, complete and assembled**	**0**	**0**	**0**	**0**
910811000000	Watch movements; battery operated, with mechanical display	0	0	0	0
910812000000	Watch movements; with opto-electronic display, battery operated, etc.	0	0	0	0
910819000000	Watch movements; other, battery operated	0	0	0	0
910820000000	Watch movements; with automatic winding	0	0	0	0
910890000000	Watch movements; other (complete/assembled)	0	0	0	0
Industrial Total		**4.570.574**	**6.545.270**	**804.643**	**1.203.314**

DISTRIBUTION OF IMPORT AND EXPORT OF OTHER PROFESSIONAL INDUSTRIAL ELECTRONIC DEVICES in 2025 BY COUNTRY

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
North America	USA		627.450		37.650
	Canada		65.740		650
European Union	**Subtotal**	**10,59**	**693.190**	**3,18**	**38.300**
	Germany		946.387		46.360
	Italy		417.630		29.222
	France		263.860		19.550
	United Kingdom		209.478		25.000
	Czech Republic		160.951		5.200
	Hungary		153.498		19.540
	Spain		127.900		17.369
	Netherlands		88.651		35.650
	Romania		49.800		32.547
	Austria		77.500		7.300
	Poland		49.410		12.000
	Finland		38.500		1.125
	Slovakia		35.700		3.750
	Sweden		39.800		1.200
	Denmark		35.689		1.950
	Belgium		21.000		7.150
	Bulgaria		13.700		5.590
	Estonia		16.925		450
	Slovenia		13.800		560
	Portugal		12.000		2.800
	Other Countries		29.000		14.000
Non-EU Europe	**Subtotal**	**42,80**	**2.801.179**	**23,96**	**288.313**
	Switzerland		312.572		42.960
	Norway		1.550		650
	North Macedonia		1.930		2.100
	Russian Federation		5.457		5.574
	Turkish Rep. of Northern Cyprus		33		750
	Ukraine		2.100		1.800
	Other Countries		1.960		5.000
North Africa & Middle East	**Subtotal**	**4,97**	**325.602**	**4,89**	**58.834**

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
	Israel		89.654		6.874
	Iran		350		2.800
	Saudi Arabia		220		85.689
	UAE		6.800		260.981
	Egypt		920		15.891
	Iraq		12		14.230
	Algeria		7		17.900
	Syria		0		8.500
	Tunisia		2.000		4.000
	Other Countries		400		16.000
Central Asia & Caucasus	**Subtotal**	**1,53**	**100.363**	**35,97**	**432.865**
	Turkmenistan		11		58.123
	Azerbaijan		34		49.820
	Georgia		300		23.679
	Kazakhstan		0		10.287
	Other Countries		130		6.850
Central and South America	**Subtotal**	**0,01**	**475**	**12,36**	**148.759**
	Mexico		86.478		41.000
	Costa Rica		17.640		15
	Dominican Republic		7.100		15
	Brazil		3.800		1.800
	Other Countries		400		5.300
Far East	**Subtotal**	**1,76**	**115.418**	**4,00**	**48.130**
	China		1.053.785		48.890
	Japan		350.470		2.300
	South Korea		325.650		6.000
	Taiwan		90.552		220
	Thailand		432.890		1.000
	Malaysia		55.472		890
	Indonesia		47.796		5.600
	Singapore		10.800		2.000
	Philippines		7.900		2.800
	Hong Kong		4.000		4.000
	Other Countries		3.000		3.000

Group Name	Country Name	Ratio (%)	Import ($ Thousand)	Ratio (%)	Export ($ Thousand)
Free Zones	**Subtotal**	**36,40**	**2.382.315**	**8,14**	**97.968**
	Aegean Free Zone		4.130		6.850
	Çorlu European Free Zone		3.698		2.897
	Istanbul Ind. & Trade Free Zone		450		2.460
	Other Free Zones		2.700		25.710
Other Countries	**Subtotal**	**0,17**	**10.978**	**3,15**	**37.917**
	India		92.250		24.000
	Bangladesh		7.000		1.900
	Republic of South Africa		4.500		3.000
	Other Countries		12.000		23.328
Sub Total		**1,77**	**115.750**	**4,34**	**52.228**
Other Professional and Industrial Electronic Devices		**100,00**	**6.545.270**	**100,00**	**1.203.314**

PRIMARY COMPANIES OPERATING IN THE SUB SECTOR OF OTHER PROFESSIONAL INDUSTRIAL ELECTRONIC DEVICES (TESİD MEMBERS)

COMPANY	ADDRESS	TELEPHONE	FAX
ALFAMAKS Elektronik Elektrik İmalat San. Tic. A.Ş	Dağyaka Mah. 20289 Cad.No:7 Kahramankazan/ ANKARA	312 814 55 77	
ANSAL Endüstriyel Test San. Tic. A.Ş.- İSTANBUL	Akcaburgaz Mah. 592 Sok. No.10-12/2 Esenyurt - İSTANBUL	212 549 80 45	
ARTI Endüstiyel Elektronik A.Ş.	İvedikOSB Mahallesi, 2224. Cadde, No: 1/258, 06378 Yenimahalle -ANKARA	312 257 26 83	
BARKO- MED Elektronik Sanayi ve Ticaret A.Ş.	İvedik OSB Mah. 145 Cad. No:4 Yenimahalle- ANKARA	312/ 442 92 57	312/ 442 92 57
BATKON Batarya Kontrol Teknolojileri A.Ş.	Reşitpaşa Mah. Katar Cd. Arı-6 Teknokent No:2/49 D:209 Sarıyer/istanbul	212 286 33 35	
BARFAS Otomasyon Teknolojileri San. ve tic .Ltd Şti.	Yukarı Dudullu Mh. Tavukçu Yolu Cd., Anıl Sokak No:5 Ümraniye/İSTANBUL	216 466 46 36	
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti.	Güzeltepe Mah. Pembegül Sok. No 7 D 8 34680 Üsküdar-İstanbul	216/ 4601720	
BİLGİ Elektronik Sanayi ve Ticaret A.Ş.Ş.	Dudullu Organize Sanayi Bölgesi 1.Cadde İsmet Tarman İş Merkezi No:1/32 Ümraniye-İSTANBUL	216 455 88 46	
BRC Test ve Otomaston Sist. San. Tic. Ltd. Şti..A.Ş.	İkitelli OSB Giyim San. Sitesi 4 Ada A Blok Kat:3 No: 304 Başakşehir / İstanbul	212 320 59 45	212 320 59 45
C3 TEKNOLOJİ Bilişim Elektronik San. ve Tic. Ltd. Şti.	Ümit Mah. 2531. Sokak No:4 Çankaya/ Ankara	312/ 241 27 69	
DAİİCHİ Elektronik San. Tic A.Ş.	Aşirefendi Cad. No:15 Imar Han Kat:4 Sirkeci / Fatih / Istanbul, 34112	216/ 4711442	
DANNIE Elektronik ve Elektronik Şirketi	Yedigöl Orkide Sok. No: 44 Muratpaşa / Antalya		
DEICO Mühendislik San. Tic A.Ş.	Serhat Mah. Ankara Teknopark Yerleşkesi 224. cad No:1 F blok, z-12, Yenimahalle, Ankara	312 395 68 44	312 395 68 45
DEVİNNO Teknoloji Yatırımları A.Ş	Atatürk Mah. Ertuğrul Gazi Sokak, Metropol İstanbul Sitesi C1 Blok No: 2B/111 34758 Ataşehir/İSTANBUL	216/ 7062111	216/ 7062216

COMPANY	ADDRESS	TELEPHONE	FAX
EGES Elektrik ve Elektronik Gereçleri Sanayi ve Ticaret A.Ş.	Taşocağı Yolu Yelken Sok. No:10 / 3 34550 Bağcılar-İSTANBUL	212/ 446 41 21	212/ 446 41 27
ELİMKO Elektronik, İmalat ve Kontrol Ticaret Ltd. Şti.	8. Cad. 21. Sok. No:16 06510 Emek- ANKARA	312/ 212 64 50	312/ 212 41 43
ELİAR Elektronik Sanayi A.Ş.	Sağlam Fikir Sokak No:1 ESENTEPE ŞİŞLİ ISTANBUL	212/ 274 30 31	212/ 274 20 30
ELKOTEK Mühendislik ve Danışmanlık Hizmetleri A.Ş.	Yıldız Posta Cad. Emekli Subay Evleri No28/3 34394 Esentepe-Şişli-İSTANBUL	212/ 970 39 00	212/ 212 29 17
ELEKTROTEL Elektronik Ve Telekomünikasyon San.Tic.Ltd.Şti.	Yukarı Dudullu Mah. 3.Cadde No:5/34-35-36 Saraçoğlu İş Merkezi Ümraniye/İSTANBUL	216 420 90 92	
EMKO Elektronik Sanayi ve Ticaret A.Ş.	Demirtaş Organize Sanayi Bölgesi Karanfil Sok. 16369 BURSA	224/ 261 19 00	224/ 261 19 12
EMT Elektronik Mühendislik San. Tic. Ltd. Şti.	Çamlıca Mahallesi, Anadolu Bulvarı No:16, Regnum Ticaret Merkezi B Blok No: 5 06200 Yenimahalle ANKARA	312/ 472 20 60	
EMPA Elektronik Sanayi ve Ticaret A.Ş.	İstanbul Dünya Ticaret Merkezi A1 Blok Kat:4 No:200 34149 Yeşilköy-İSTANBUL.	212/ 465 71 99	212/ 465 71 88
ENWAİR Enerji Teknolojileri A.Ş.	Reşitpara Mah. Katar Cad. ARI 6 Enerji Tek- nokent 2/49 Ofis: 208 Sarıyer- İSTANBUL	212/ 328 40 41	
ERA Elektronik Sanayi ve Ticaret A.Ş.	Dudulu OSB, 4. Cadde 11 34776 Ümraniye-İSTANBUL	216/ 466 88 07	216/ 415 35 74
ERGÜNLER İnşaat Petrol Ürün. Otomotiv Tekstil Madencilik Su Ürün. San. ve Tic. Ltd. Şti.	Pirimehmet Mh. 113 Cd. No: 75 32100 Merkez/ ISPARTA	216 631 88 86	
EXENTECH Sav. Med. Hav. Bil. Ldt. Şti.	Ankara Teknopark TGB Yerleşkesi 2224. Cd No:1 B Blok Zemin Kat No:B-ÜZ29/B İvedik OSB Mh. Yenimahalle/ANKARA	312 395 07 64	
GESK Elektrik Elektronik Yazılım Sanayi ve Tcaret Ltd. Şti.	Yıldız Teknik Uni. Teknopark B1 No:405 Esenler Istanbul.	212 220 22 34	212 483 70 35
KAREL Elektronik Sanayi ve Ticaret A.Ş.	Esentepe Mah. Kore Şehitleri Cad. Yzb.Kaya Aldoğan Sok. No:16 34394 Şişli-İSTANBUL	212/ 355 48 00	212/ 275 40 01
LOTEC Teknoloji Ltd. Şti.	Hacettepe Teknokent 6. AR-GE C Blok Kat:2 No:28	312/ 227 03 06	
MYSIA Elektrik Elektronik Bilgisayar Yazılım San. Tic. A.Ş.	Alaaddin Bey Mah. Nilüfer Ticaret Merkezi 622 Sk. Sera Plaza 8/B Nilüfer - BURSA	224 443 24 65	
MAKELSAN Makine Kimya Elektrik San. Tic. Ltd.Şti.	İstanbul Deri Org. San. Bölg. 2. Yol 1-5 Parsel 34957 Orhaneli Mevkii Tuzla-İSTANBUL	216/ 428 65 80	216/ 327 51 64
MİKROSAY Yazılım ve Bilgisayar San. Ve Tic.A.Ş.	Şerifali Mah. Alptekin Cad. No:73/2 34775 Ümraniye-İSTANBUL	216/ 459 86 60	216/ 459 83 70
MULTİTEK Elektronik Sanayi ve Ticaret A.Ş..	Meclis Mah. Atatürk Cad. No:47 Sancaktepe-İSTANBUL	216/ 420 38 38	216/ 415 79 18
PAVO Tasarım Üretim Elektronik Ticaret A.Ş.	Teknopark İstanbul Tekn. Gel. Bölg. Ar-Ge Bin. 1. Blok Zemin Kat 34912 Pendik-İSTANBUL	216/ 354 72 86	216/ 354 76 77
POLAR Araştırma Teknoloji İletişim Sanayi ve Ticaret A.Ş.	Oğuzlar mahallesi 1372 Cad. 3/4 Balgat Çankaya Ankara	312/ 999 06 06	
POWER Elektronik San. Tic. A.Ş.	Armağan Evler Mah. diriliş Cad. İpekçi Sokak NO:12 Ümraniye/ İstanbul	216 /4816699	216/ 4816609
SANEL Sanayi Elektroniği İmalat ve Ticaret A.Ş	Orta Mh. Yetkin Sk. No: 4 34956 Tuzla / Istanbul	216 / 4272650	
SDT Uzay ve Savunma Teknolojileri Bilişim Üretim Danışmanlık Ticaret A.Ş.	Üniversiteler Mahallesi İhsan Doğramacı Bulvarı No:37/1 Çankaya -ANKARA	312 210 10 15	
TALES Elektronik A.Ş.	İTOB OSB Mahallesi İTOB Dokuzeylül Bulvarı No:10 Menderes/İZMİR	232/ 433 86 63	
TEKNOPAR Endüstriyel Otomasyon San. ve Tic. A.Ş	İvedik OSB 1471. Cad. No: 3-5 06370 Yenimahalle / ANKARA		
TELEGRABHERLABS Ses Sistemleri Sanayi ve Ticaret A.Ş.	Reşitpaşa Mahallesi Katar Caddesi Teknokent ARI-3 No:4 Sarıyer-İSTANBUL		

COMPANY	ADDRESS	TELEPHONE	FAX
TİBET Tech Solutions	49 Sugar Mill Way M2L 1R5 Toronto, ON Canada		
TOGİTEK Teknoloji San. ve Tic. Ltd. Şti.	Balmumcu Mah Gazi Umur Paşa Sokak No:12/B1 Beşiktaş / İSTANBUL		
VEMUS Endüstriyel Elektronik San. ve Tic. Ltd.Şti.	Nilüfer Organize Sanayi Bölgesi Zeytin Cad. No:14 16140 Nilüfer-BURSA	224/ 411 10 30	224/ 411 10 31
VHS Elektronik Yazılım Ltd. Şti.	İvedik OSB 1548 Cadde No:7 Yenimahalle / ANKARA	312/230 15 61	
WHILONE Teknoloji Yazılım Danışmanlık Ltd. Şti.	Cevat Dündar Cad. Ostim OSB Mah. No:1/1-43 OSTİM TEKNOPARK YENİMAHALLE/ANKARA		
YILMAZ KABLO Sanayi A.Ş.	Maltepe Cad. No:2 Bayrampaşa-İSTANBUL	212/ 544 76 00	212/ 567 81 24
ZER Elektronik Sanayi ve Ticaret Ltd. Şti.	Mustafa Kemal Mah. 2127 Sokak 18/7 06520 Balgat-Çankaya ANKARA	312/ 219 46 47	
ZEROTECH Elektronik Sistemler Ür. Paz. İnş. San ve Tic. Ltd. Şti.	Batı Sitesi Mah., Gersan Sanayi Sitesi, 2306 Cad., No:51 Yenimahalle, ANKARA	312 394 52 66	

TESID MEMBER COMPANIES

ADAM Elektronik Ltd.Şti.- İSTANBUL
ALFAMAKS Elektronik Elektrik İmalat San. Tic. A.Ş. – ANKARA
ANSAL Endüstriyel Test San. Tic. A.Ş.- İSTANBUL
ARGOSAİ Teknologi A.Ş.- ANKARA
ARKSİGNER Yazılım ve Donanım San. Tic. Ltd. Şti. – ANKARA
ARTI Endüstiyel Elektronik A.Ş. - ANKARA
ARTRON Tasarım Üretim Elektronik Ticaret A.Ş. – ANKARA
ARVENTO Mobil Sitemleri A.Ş.- ANKARA
ASİS Otomasyon ve Akaryakıt Sistemleri A.Ş. - İSTANBUL
ATMACA Elektronik Sanayi ve Ticaret A.Ş.- İSTANBUL
AYDIN Yazılım ve Elektronik Sanayi A.Ş. – ANKARA
AYTEMİZ Kesintisiz Güç Kaynakları A.Ş. - İSTANBUL
BARFAS Otomasyın Teknolojileri San. Tic. Ltd. Şti. - İSTANBUL
BARKO-MED Elektronik Tic. A.Ş.- ANKARA
BERRİN ERDEN NEO Mühendislik Danışmanlık Gıda San. Tic. Ltd. Şti. – İSTANBUL
BİNK Teknoloji San. Tic. Ltd. Şti. -KAYSERİ
BLC İletişim ve Güvenlik Sistemleri A.Ş. – ANKARA
BRENSAN Enerji Savunma San. Tic. Ltd. Şti. – ANKARA
CEMTEK Mühendislik San. Tic A.Ş. - KOCAELİ
CYBERWHIZ Siber Güvenlik A.Ş. - İSTANBUL
C3 TEKNOLOJİ Bilişim Elektronik San. ve Tic. Ltd. Şti. – ANKARA
DAİİCHİ Elektronik Sanayi ve Ticaret A.Ş. -İSTANBUL
DEICO Mühendislik Sanayi ve Ticaret A.Ş. -ANKARA
DEVİNNO Teknoloji Yatırımları A.Ş. - İSTANBUL
EGEBİMTES Bilgi Teknolojileri Sa. ve Tic A.Ş. - İZMİR
EKA Transformatör Elektrik İnşaat Turizm İthalat İhracat Ltd. Şti. - ANKARA
ELDOR Elektronik ve Plastik Malzeme Üretim ve Ticaret Ltd. Şti. -İZMİR
ELEKTRA Elektronik Sanayi ve Ticaret A.Ş.-İSTANBUL
ELEKTRA IC Arge A.Ş.-İSTANBU
ELEKTROTEL Elektronik ve Telekomünikasyon San. Tic Ltd. Şti. – İSTANBUL
ELİAR Elektronik Sanayi A.Ş. İSTANBUL
ELİMKO Elektronik, İmalat ve Kontrol Ticaret Ltd. Şti.-ANKARA
EMGE Elektro Mekanik Gereçler Endüstrisi A.Ş.
EMKO Elektronik Sanayi ve Ticaret A.Ş.-BURSA
EMPA Elektronik Sanayi ve Ticaret A.Ş. A.Ş. – İSTANBUL
EMT ELEKTRONİK San. Tic. Ltd. Şti.-ANKARA
ENTES Elektronik Cihazlar İmalat ve Ticaret A.Ş.-İSTANBUL
ENWAİR Enerji Tekonolojileri A.Ş. - İSTANBUL
ERA Elektronik Sanayi ve Ticaret A.Ş.-İSTANBUL

ERGÜNLER İnşaat Petrol Ürün Otomotic Teskstil Madencilik Su Ürünleri San. Ve Tic. Ltd. Şti.- ISPARTA
ETA Elektronik Tasarım Sanayi ve Ticaret A.Ş.-ANKARA
EVREKA Yazılım Donanım Danışmanlık Eğitim Sanayi ve Tic. A.Ş. -ANKARA
EXTENTECH Savunma Medikal Havacılık Bilişim Ltd.Şti. - ANKARA
E3TAM Endüstri ve Bilişim Test Teknik Tasarım Arge Otomasyon Mühendislik Sanayi Ticaret A.Ş. – İSTANBUL
E3TAM End. ve Bil. Test Tek. Arge Otomasyon Tic. A.Ş.
FEINMETALL Turkey Bağlantı Teknolojileri Ltd. Şti.- İSTANBUL
FİPRONET Elektronik İmalat San. Tic. AŞ. -İSTANBUL
GCLAB Mühendislik Ltd. Şti. – ANKARA
GENTEK Elektronik San. Tic. A.Ş. -İSTANBUL
GESK Elektrik Elektronik Yazılım Sanayi ve Tcaret Ltd. Şti. – İSTANBUL
İMCA Elektronik ve Bilişim San. Tic. A.Ş. - ANKARA
İNNOVATİVE Siber Güvenlik Yazılım A.Ş. -İSTANBUL
İNTERDATA Veri Merkezi Ve Entegrasyon Hizmetleri A.Ş.- ANKARA
İSTANBUL SAVUNMA SİSTEMLERİ Tasarım Entegrasyon San. Ve Tic. A.Ş.- İSTANBUL
KABSAN Elektronik San. ve Ticaret Ltd.Şti -ANKARA
KAEL Mühendislik Elektronik San. Tic. Ltd. Şti - İZMİR
KAREL Elektronik Sanayi ve Ticaret A.Ş.-İSTANBUL
KÖSTEBEK Araştırma Teknoloji Ticaret A.Ş.- İSTANBUL
KRON Telekomünikasyon Hizmetleri A.Ş. –İSTANBUL
LENİ'S Technologies Limited -İNGİLTERE
LEONARDO Turkey Havacılık Savunma ve Güvenlik Sistemleri A.Ş. - ANKARA
LETTA Teknoloji A.Ş. -KOCAELİ
LOTEC Teknoloji Ltd. Şti. - ANKARA
LOTHBROG Makine Ltd. Şti.- BURSA
MARMARA TANITIM FUAR Org. Rekl. Tic. A.Ş. -İSTANBUL
MANSİS Yazılım Elektronik Limited Şirketi – ANKARA
MİKROSAY Yazılım ve Elektronik Enerji San. Tic. A.Ş.-İSTANBUL
MULTİTEK Elektronik Sanayi ve Ticaret A.Ş..-İSTANBUL
MYLASER Mekanik Elektronik Optik ve Medikal Sistemleri A.Ş. - ANKARA
MYSİA Elektrik Elektronik Bilgisayar Yazılım San. Tic. A.Ş .- BURSA
NETA Elektronik Cihazlar Sanayi ve Ticaret A.Ş.-İSTANBUL
NETAŞ Telekomünikasyon -İSTANBUL
NETELSAN Elektrik Elektronik Sistemleri San. Tic. A.Ş. – ANKARA
NEXUS Diyafon Akıllı Ev Sistemleri İç ve Dış Ticaret A.Ş. - İSTANBUL
N2MOBİL Takip sistemleri A.Ş. - ANKARA
ONUR Yüksek Teknoloji A.Ş. – ANKARA
ORHUN Kimya Boya San. Tic. Ltd. Şti .- İSTANBUL
ORTEM Elektronik A.Ş. – KOCAELİ

PAVOTEK Tasarım Üretim Elektronik Ticaret A.Ş. - İSTANBUL
PCI Elektronik San. Tic. A.Ş. - İSTANBUL
PETAŞ Profesyonel Elektronik Sanayi ve Ticaret A.Ş.-ANKARA
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40 YILDIR

HAYATIN ARKASINDAKİ TEKNOLOJİ

Türkiye'nin iletişim dönüşümüne öncülük ederek çıktığımız yolda, **bugün hayatın her anına dokunan bir teknoloji gücüne dönüştük.**

Yeni nesil iletişim teknolojilerinden telekomünikasyon altyapılarına, beyaz eşya elektroniğinden araçların bilgi-eğlence sistemlerine ve ülkemizin savunma teknolojilerinin kritik unsurlarına kadar birçok alanda Karel'in imzası var.

40 yıllık Ar-Ge ve üretim tecrübemizi köklü mühendislik gücümüzle birleştirerek dün olduğu gibi bugün ve gelecekte de hayatı birbirine bağlayan teknolojilerin arkasındayız.



KAREL 40