



REED
ELECTRONICS
RESEARCH

THE YEARBOOK OF WORLD ELECTRONICS DATA

Components
Computers
Consumer
Control and Instrumentation
Medical and Industrial
Office Equipment
Radio Communications
Telecommunications

Volume Two
AMERICAS, JAPAN, ASIA PACIFIC

2023

Yearbook of World Electronics Data Volume 2 2023 – An Overview of Electronics Production & Markets in the Americas, Japan & Asia Pacific

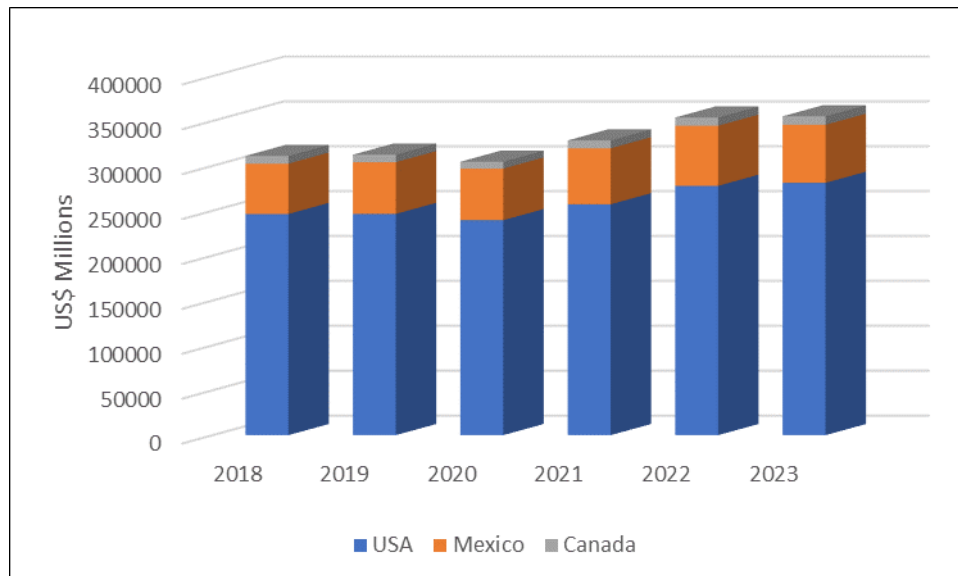
In providing the forecasts for the current study, which were made in October 2023, we have considered developments in the global economy. However, significant downside risks remain which could lead to growth in 2023 and 2024 being lower than forecast. We currently expect growth to ease over the final months of 2023 and into 2024 before gaining momentum in the latter half of the year and then accelerate. Component shortages have continued to ease over the course of 2023 and are expected to normalise in 2024. The forecasts for 2023 through to 2026 are based on constant 2022 exchange rates and prices and therefore exclude the impact of inflation.

Americas

Within the Yearbook series the Americas covers Brazil and the three countries making-up North America.

In 2022, electronics production in North America amounted to US\$354 billion in 2022 with the US dominating accounting for 78.5% of the total. Mexico, which acts as the low-cost production base for the region, accounted for 18.9% while Canada accounted for only 2.6%. After increasing in US dollars by 7.8% in both 2021 and 2022, growth is forecast to ease to 0.4% in 2023.

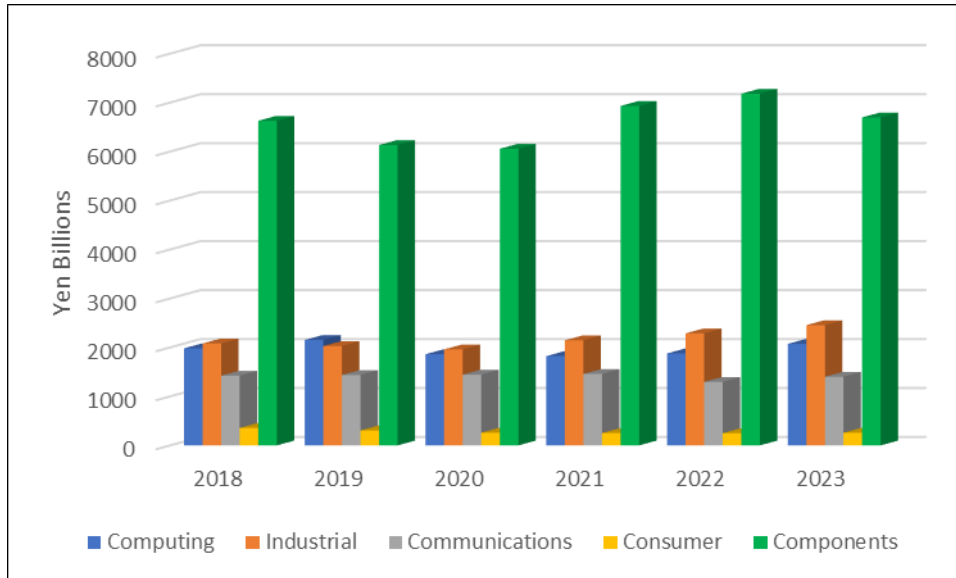
The Brazilian electronics industry is focused on the production of electronics equipment with computing, including office equipment, the dominant sector accounting for 48% of total electronics equipment output in 2022 and was followed by communications and radar with a 28% share. Electronic component production at US\$2.0 billion accounted for 9.9% of electronics output in 2022.



North American Electronics Production by Country 2018-2023

Japan

After three years of declining output between 2018 and 2020 electronics production posted its second year of consecutive growth in 2022, although at 2.2% it was below the prior year's increase of 8.9%. Based on official figures for the first six months of the year overall electronics output, is forecast to be flat in 2023 an 8.4% rise in electronic equipment production offset by a 6.7% decline in electronics component output.

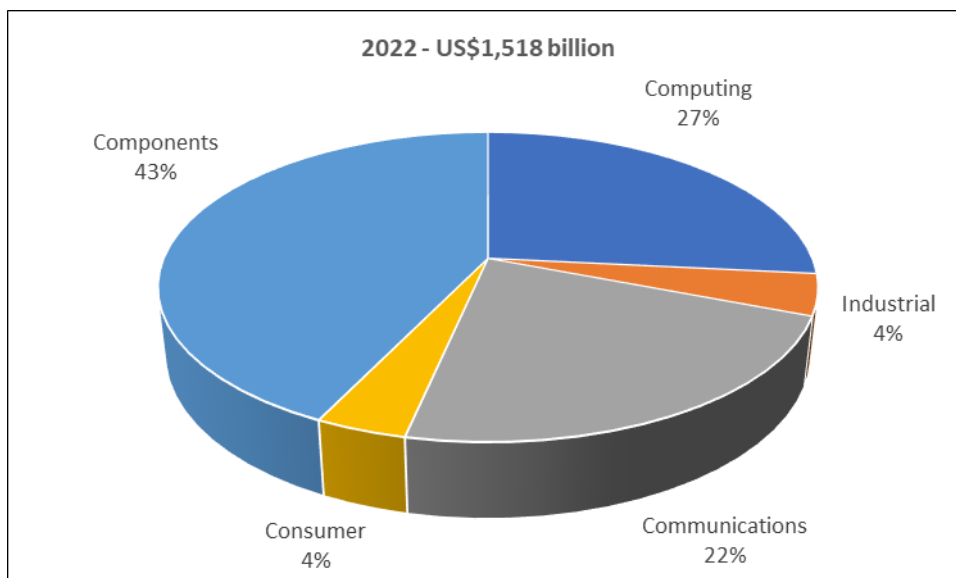


Japan Electronics Production by Sector 2018-2023

The semiconductor and passive components sectors will continue to be the principal drivers of the Japanese electronics industry over the medium-term with the focus on products based on the latest technologies and continued investment in new capacity. The component sector will be supported by growth in the industrial segment and with the emergence of the Internet of Things a sustained recovery in the production of communications equipment.

Asia

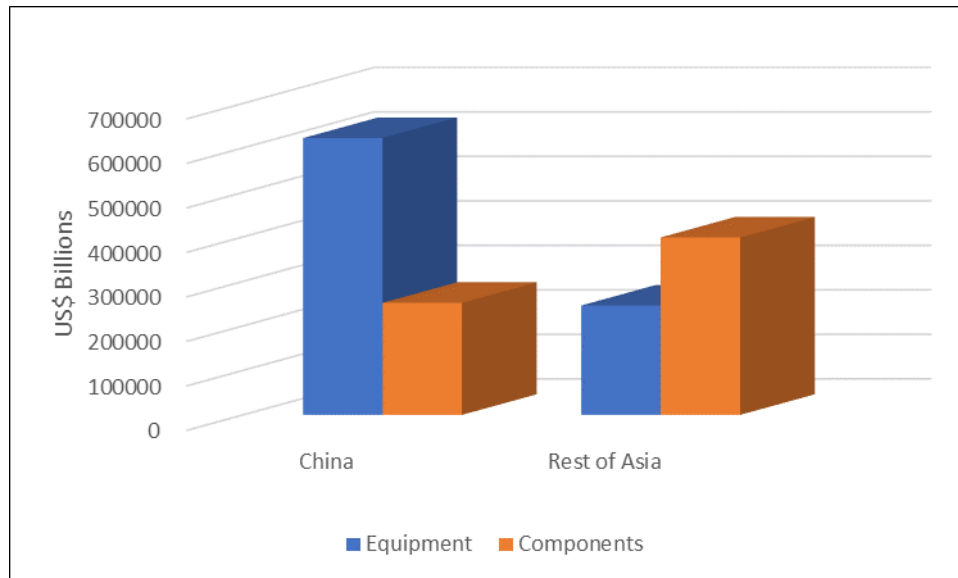
In 2022, the production of electronics equipment and components in Asia was valued at US\$1,518 billion of which components accounted for 43%. Electronics equipment production, which accounted for 57% of the total, is dominated by computing and communications.



Asian Electronics Production by Sector 2022

China dominates electronics production in the region with total electronics output valued at US\$874 billion in 2022. South Korea and Taiwan, with their strong focus on semiconductors, both reported electronics production of over US\$100 billion in 2021 at US\$153 billion and US\$142 billion, respectively while Singapore with output of

US\$99 billion and Malaysia US\$79 billion also benefited from an established semiconductor industry. Vietnam, which due to its low-costs has seen explosive growth in recent years, is a major centre for the production of mobile phones with overall electronics output of US\$78 billion in 2022. Electronics production in India was valued at US\$34 billion in 2021 growth being supported by government incentives as the country looks to establish itself as a major global manufacturing hub.



China Electronics Production 2022

The Yearbook of World Electronics Data – tracking developments in the global electronics industry

With a history spanning 50 years the Yearbook of World Electronics Data has provided an invaluable insight into the global trends, regional variations and the underlying state of the global electronics market for all stages of the supply chain - OEM, contract manufacturing and design, components and materials suppliers to financial /industry analysts and government and academia.

Although encompassing a range of published and bespoke products the core of RER's research programme is one of the most comprehensive statistical databases covering the global electronics industry, with the resulting analysis being published through three concise and clear demographic volumes, as a series of individual country reports, through customised solutions to meet specific client requirements and, from 2012, as a series of Excel databases providing the combination of both historical and forecasted data.

Yearbook of World Electronics Data - Volume 2 Americas, Japan, Asia Pacific

Published since 1983 the Volume 2 of the Yearbook of World Electronics Data provides:

- A single source solution allowing you to track the electronics industry in 16 countries in Western Europe.
- 13 major product groups.
- Market and production forecasts.
- Summaries provided in US dollars and Euros.
- CD-option allows you to manipulate the data quickly and easily: produce your own subsets or summaries of the data, create your own forecasts or cut and paste the data into your own in-house reports and presentations.

Who will benefit ?

The Yearbook is essential research providing key data for all areas of the electronics industry including:

- Distributors and manufacturers of electronic components and materials.
- Suppliers of electronic production equipment.
- OEMs.
- EMS Providers.
- Government, including investment organizations.
- Financial and industry analysts.
- Academic institutes & universities tracking developments in the electronics industry.

The Yearbook of World Electronics Data

The Yearbook of World Electronics Data series presents market and production statistics for the GLOBAL electronics industry. Available in four published volumes covering 53 countries and 13 major product groups, the yearbook is used in the formulation of business and market planning, in tracking trends based on a clear understanding on how the industry has developed historically and to provide a basis for medium and long-term forecasting.

53 country coverage, 13 major product groups

... comparable **country by country** and **product by product**.

Methodology

The Yearbooks highlight market trends and opportunities and offer corroborative evidence for individual research. Each new edition is fully revised and updated. Trade statistics are analyzed in detail, with over 500 separate categories being employed. Production statistics are collected from Government and Manufacturer's Association sources where these are available. Extensive use is also made of research reports, company reports, news items and work by other consultants to supplement and cross check the official and semi-official sources.

Markets are forecast in real terms for the next five years, with production forecast for the next two years, using constant exchange rates and excluding inflation. These are based on our extensive knowledge of the historical performance of each product, the general economic outlook and the major growth influencing factors.

2023 Series

Volume 1 2023 West Europe

Synopsis: Economic Overview; Electronics Market Overview; Imports 2020-2021; Exports 2020-2021; Production Data 2020-2023; Market Data 2020-2026

16 country coverage

Austria; Belgium; Denmark; Finland; France; Germany; Greece; Ireland; Italy; Netherlands; Norway; Portugal; Spain; Sweden; Switzerland; UK

Publication Data: July 2023

Volume 2 2023 America, Japan, Asia Pacific

Synopsis: Economic Overview; Electronics Market Overview; Imports 2020-2021; Exports 2020-2021; Production Data 2020-2023; Market Data 2020-2026

19 country coverage

Australia; Brazil; Canada; China, Hong Kong; India; Indonesia; Israel; Japan; Malaysia; Mexico, Philippines; Singapore; South Africa; South Korea; Taiwan Thailand; Vietnam, USA

Publication Data: October 2023

Volume 3 2023 East Europe & World Summary

Synopsis: Economic Overview; Electronics Market Overview; Imports 2020-2021; Exports 2020-2021; Production Data 2020-2023; Market Data 2020-2026

53 Country World Summary covering production data 2020-2023 and market data for 2020-2026

13 country coverage

Bulgaria; Croatia; Czech Republic; Estonia; Hungary; Lithuania; Poland; Romania; Russia; Slovakia; Slovenia; Turkey, Ukraine

Publication Data: October 2023

For each country production and market data is supplied for the following product groups:

- Computers
- Consumer – Video; Audio; Personal
- Control & Instrumentation
- Medical & Industrial
- Office Equipment
- Radio Communications
- Telecommunications
- Components – Passive Components; Semiconductors; Other Components

Related Products & Services

European Electronics Production 2000-2026

As part of its program of research covering developments in the European electronics industry RER has released a new statistical database providing a medium-term outlook for electronics production in Europe. Covering the period 2000-2026 the research allows you to track developments both geographically and by major product group.

The database is provided as an Excel spreadsheet providing production data for 13 product groups and 29 countries split by Western Europe and Central and Eastern Europe.

Global Electronics Production & Markets

Launched in 2012, Global Electronics Production & Markets provides top line analysis on the global electronics industry for the period 1995 to 2026 for markets and 1995-2023 for production. Through two Excel databases you can quickly analyze the structure of the global industry and how it has changed both geographically, through RER's unique coverage of 53 countries, and by thirteen major product groups. The new database will be available in November 2023.

Country Reports

Drawing on data from its core statistical database RER provides a quick, reliable and cost-effective assessment of the electronics industry for an individual country. For a full listing please visit www.rer.co.uk

Custom Research

Building on the flexibility of the two databases and the Yearbook series we can quickly search data by product or country/region to provide solutions tailored to your specific needs or budgets. Ideal for input into internal presentations/ documents the data is supplied via email.

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For additional information on the above publications or Reed Electronics Research's complete range of research products please contact or visit www.rer.co.uk

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SAMPLE DATA

Over the following pages we provide sample data from the **current** edition of the report. This includes summary data for both production and markets, and sample data from several countries.

CONSOLIDATED SUMMARY OF PRODUCTION 2022

Country	\$M Computing	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Australia	604	4	965	240	1111	708	23	420	4076
Brazil	8506	227	1416	332	5100	900	1755	2008	20244
Canada	536	5	3154	992	3538	181	7	758	9172
China	312000	3720	19600	13200	179000	54300	40070	251869	873759
Hong Kong	117	9	46	123	107	89	239	381	1113
India	3791	61	2449	740	18969	1781	4076	1853	33722
Indonesia	1900	40	290	512	2350	1250	2948	4040	13330
Israel	1300	9	3850	1800	1400	1630	20	5124	15133
Japan	13749	532	10243	7156	8266	1589	1894	54616	98046
Malaysia	11477	66	6364	1080	1216	1773	2697	53976	78648
Mexico	37450	212	2800	1950	2580	2900	13737	5267	66896
Philippines	4500	149	800	163	810	260	225	10454	17361
Singapore	8873	101	6123	1183	3406	480	175	78182	98523
South Africa	317	2	122	76	195	209	164	106	1191
South Korea	10550	131	2450	2700	14320	1151	1107	120174	152583
Taiwan	18322	10	671	4054	6913	1644	472	109586	141672
Thailand	12821	81	755	342	798	2564	1513	10620	29494
USA	27012	860	47945	33730	86030	7905	704	73481	277667
Vietnam	14750	220	659	875	38285	9713	4002	9367	77871
TOTAL	488577	6440	110703	71248	374395	91028	75827	792282	2010499

CONSOLIDATED SUMMARY OF MARKETS 2022

Country	\$M Computing	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Australia	8227	216	2669	1319	5097	1598	1878	3278	24282
Brazil	12177	154	4434	1204	5975	1514	2180	13283	40921
Canada	10961	263	3651	2298	5051	2907	2367	4742	32238
China	126690	857	37636	13792	41550	15779	13730	334985	585019
Hong Kong	3633	33	321	225	991	313	604	1244	7364
India	10132	167	6359	1632	16382	2427	4848	23968	65914
Indonesia	3850	143	1582	836	6475	1661	1321	5072	20940
Israel	3387	41	1006	1119	1765	295	467	3291	11371
Japan	29202	738	4449	4821	24433	7224	5848	55688	132403
Malaysia	2851	45	1761	437	1835	344	591	24891	32754
Mexico	11181	117	3710	1265	5822	767	1924	39139	63925
Philippines	2040	28	1366	287	1247	554	379	4953	10854
Singapore	10726	125	3266	441	3067	625	941	14698	33889
South Africa	2678	126	634	263	1905	845	275	882	7608
South Korea	6597	94	7164	2697	5893	1838	1768	31181	57232
Taiwan	5621	45	6145	1026	2813	574	616	21327	38168
Thailand	4899	66	2791	744	4082	953	1208	12339	27081
USA	133081	1018	43212	34905	140271	26141	24333	119723	522684
Vietnam	2366	69	3219	650	4281	943	1098	50968	63594
TOTAL	390298	4344	135376	69960	278935	67300	66376	765652	1778241

3.6 India

3.6.1 Economic Overview

GDP

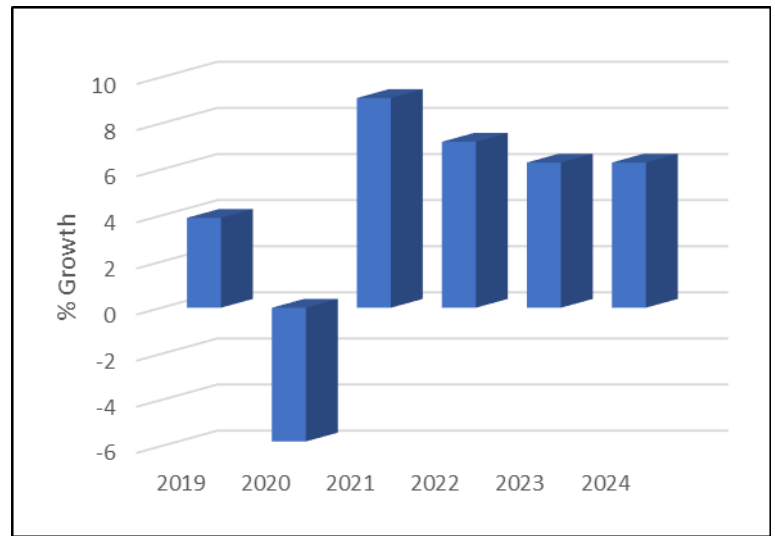
India was one of the fastest-growing major economies in FY22/23 at 7.2%. India's growth rate was the second highest among G20 countries and almost twice the average for emerging market economies. This resilience was underpinned by robust domestic demand, strong public infrastructure investment and a strengthening financial sector. Growth is expected to moderate to 6.3% in FY 2023/24 and FY 2024/2025 due to challenging external conditions and waning pent-up demand.

Inflation

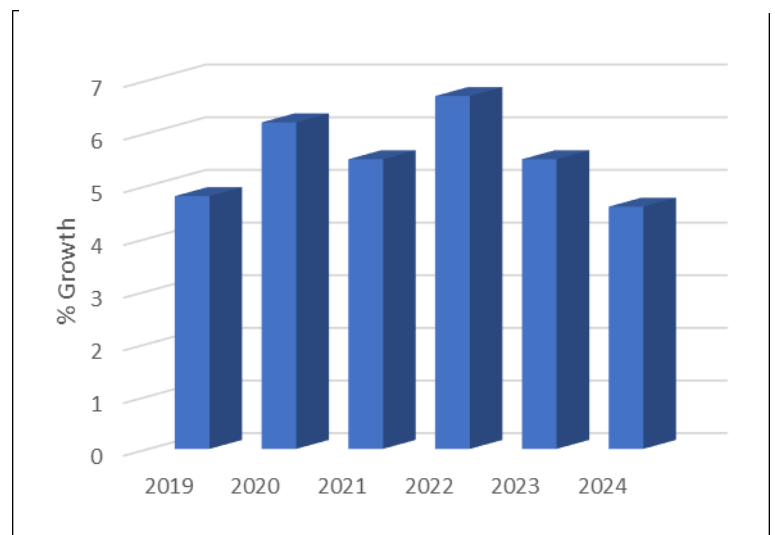
Consumer inflation averaged 5.3% during April-July FY2023/24, much lower than 7.1% in the corresponding period of FY2022/23. The broad moderation in inflation was led by cooling global energy prices, particularly for crude oil and coal, which has helped lower fuel inflation and input costs.

Employment

The unemployment Rate in India decreased to 7.1% in September from 8.1% in August of 2023 according to the *Centre for Monitoring Indian Economy (CMIE)*. Between 2018 and 2023 the unemployment rate has averaged 8.2% and is forecast to trend around 7.7% in 2024.



GDP 2019-2024



Consumer Prices 2019-2024

India Leading Economic Indicators

% Increase	Actual			Forecast		
	2019	2020	2021	2022	2023	2024
Real GDP Growth*	3.9	-5.8	9.1	7.2	6.3	6.3
Consumer Prices	4.8	6.2	5.5	6.7	5.5	4.6

Note: * Fiscal year ending March
 Source: IMF October 2023

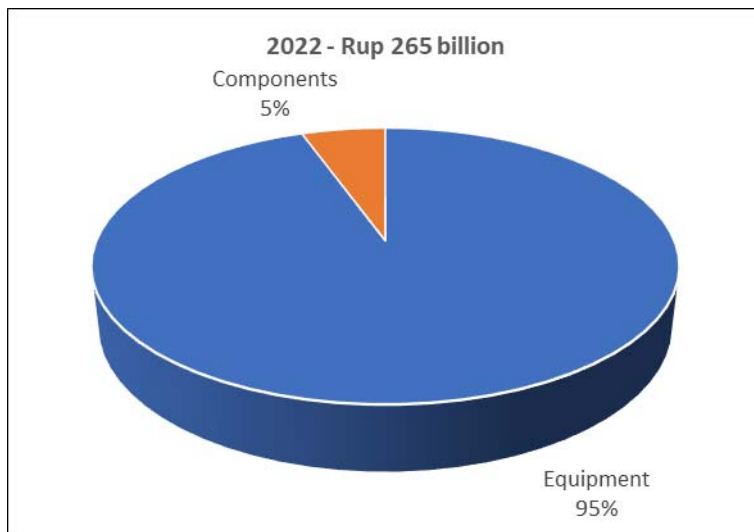
3.6.2 Electronics Industry Overview

Overview

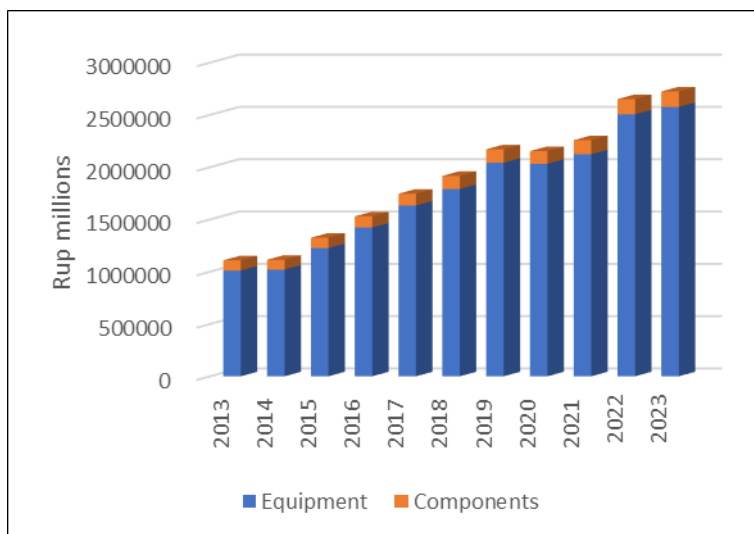
Summary of Indian Electronics Production 2018-2023

Rupees Millions	2018	2019	2020	2021	2022	2023
Computing	215700	218720	224600	227380	302810	287814
Industrial	224500	239000	210000	234300	250700	263565
Communications	1165000	1379500	1355000	1382000	1631000	1697640
Consumer	185728	204400	241850	279350	320350	326522
Components	125775	129145	122030	135275	145660	147958
Total	1916703	2170765	2153480	2258305	2650520	2723499

Notes: Computing includes office equipment; Industrial combines control and instrumentation and medical and industrial; and communications combines fixed and wireless communications (inc. defence). Due to computer rounding the summary figures above may differ slightly from the figures presented in the main tables.



Indian Electronics Production 2022



Indian Electronics Production 2013-2023

In 2020, the Indian electronics industry declined for the first time since *Reed Electronics Research* started tracking developments in 1985, production declining by a modest 0.7% as a result of the COVID-19 global pandemic. Following a modest rebound of 4.8% in 2021 growth was a robust 17.4% in 2022 but is forecast to ease to low-single-digits in 2023.

Growth in the electronics industry is being supported by favourable government policies including the “Make in India” programme and the adoption of the National Policy on Electronics with the aim “to create a globally competitive electronics design and manufacturing industry to meet the county’s needs and serve the international market”.

Electronics Equipment

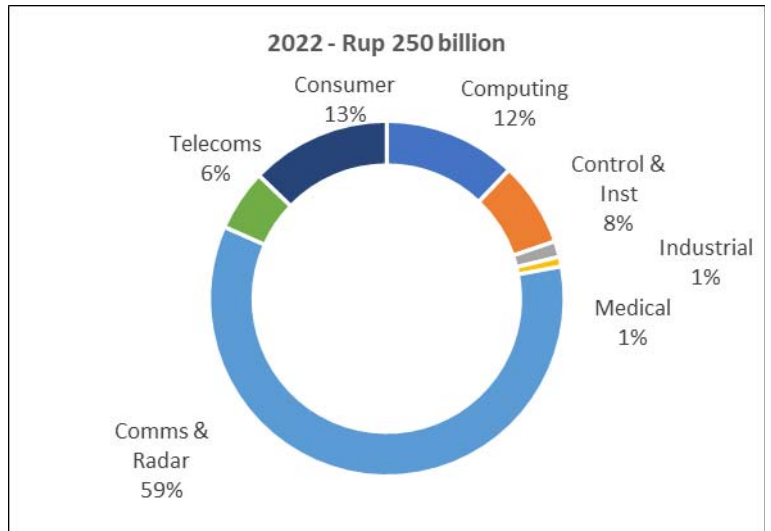
The Indian electronics industry is dominated by the production of electronics equipment – 94.5% of total output in 2022 – with the focus on the production of mobile phones (59.5%) and to a lesser extent computing (11.9%) and consumer video (11.2%).

The production of computer related equipment surged in 2022 increasing by 33.8%, growth supported by the pass through of higher component costs during the year. With the demand for PCs falling sharply in the first half of the year computer equipment output is forecast to decline by 5% in 2023. Policies to increase the proportion of computer related manufacturing in the country – the government is looking to ban the import of PCs by the end of 2023 – and a stronger PC market will see growth resume in 2024 and over the period to 2026.

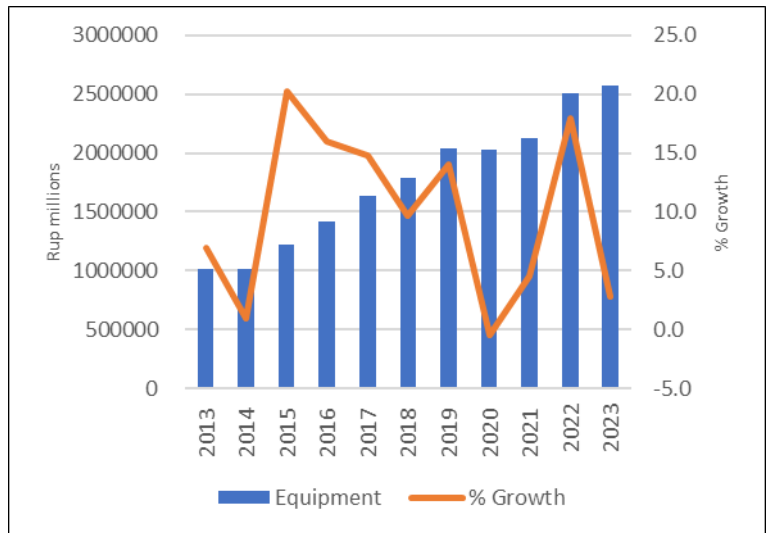
The production of mobile phones has benefited from the “Make in India” campaign with most of the major brands (both foreign and Indian) either setting up their own manufacturing facilities or have sub-contracted manufacturing to Electronics Manufacturing Services (EMS) companies.

In value terms the production of communications and radar equipment increased by 18.2% in 2022 growth boosted by the pass through of higher component costs and the opening of new production facilities in the core mobile phone segment. Growth is forecast to ease to 4.0% in 2023. High double-digit growth was also achieved in both the telecommunications and LCD TV segments, the pass through of higher component costs again a contributing factor.

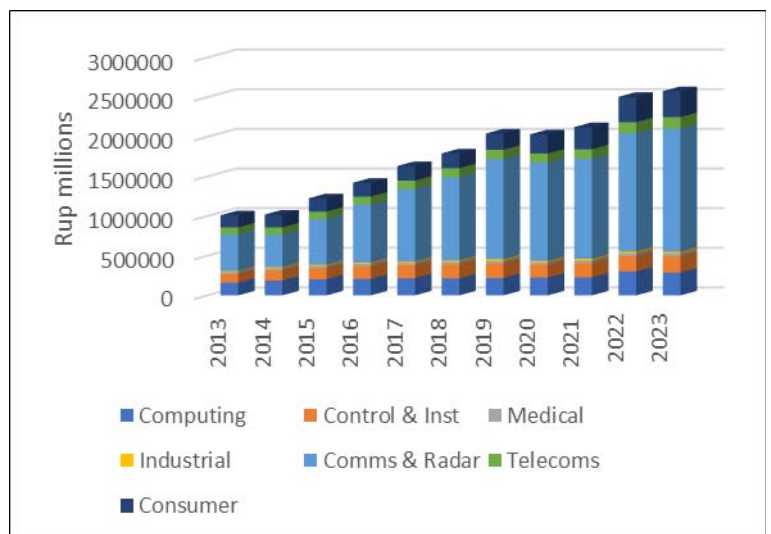
TV production has also been identified as one in which India can become a global manufacturing hub and as such the government has taken a series of initiatives to boost output including introducing higher duties on imported TVs and measures to support foreign direct investment.



Indian Electronics Equipment Production by Sector 2022



Indian Electronics Equipment Production 2013-2023



Indian Electronics Equipment Production by Sector 2013-2023

Equipment continued

The long-term growth in industrial electronics and process control will be on the back of strong demand from several industries including power, automotive, chemicals, petroleum and steel. Growth in the industrial segment increased by 11.6% in 2021, following the prior year's pandemic led decline of 12.1%, by 7.0% in 2022 and a forecasted 5.1% in 2023 as demand weakens in-line with the moderation in the domestic and global economy.

Components

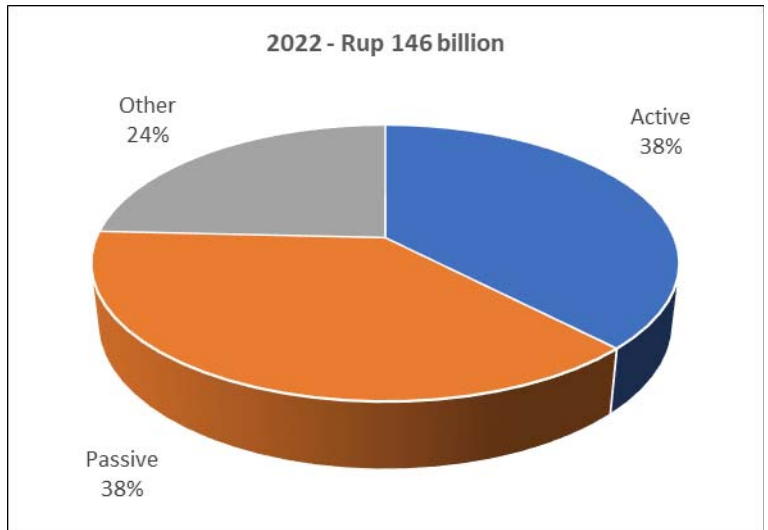
The production of electronic components accounted for 5.5% of electronics output in 2022, After posting growth of 9.9% and 7.7% in 2021 and 2022, respectively growth is forecast to ease to 1.6% in 2023.

At the end of 2021, the Indian government announced its latest US\$10 billion PLI incentive scheme for manufacturing semiconductors and flat panel displays in India. Aside from two wafer fabs and two panel makers, the PLI scheme for semiconductor includes 15 suppliers of compound semiconductor, silicon photonics, sensors, discrete semiconductors, back-end assembly and services and 100 IC design houses.

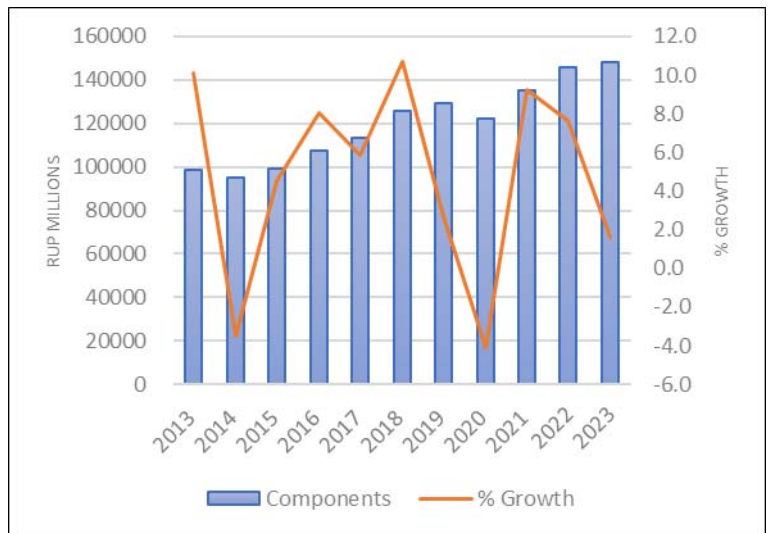
Outlook

The "Make in India" program has led to a surge in domestic output with the initial focus on the production of mobile phones. The potential for the leading mobile phone suppliers to utilise their Indian operations to also serve global markets, especially in the wake of the US-China trade dispute, has and will provide a further boost to production in the country.

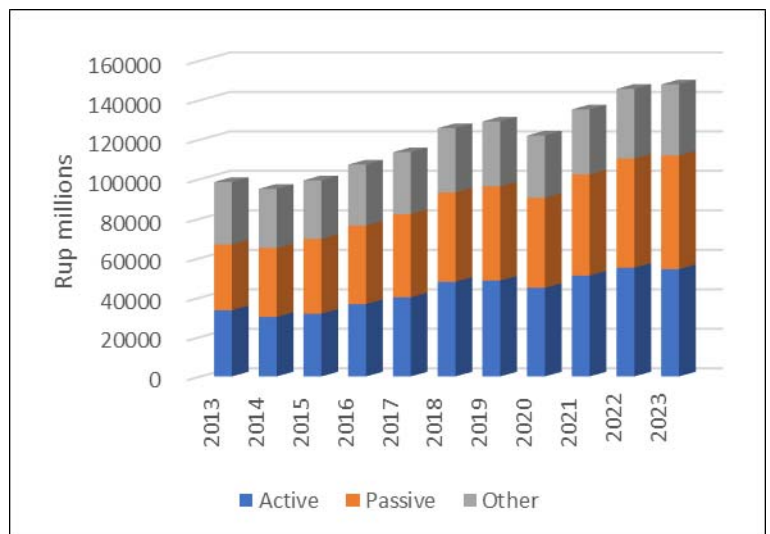
Additional government support is expected to boost other sectors including LCD TVs and semiconductors and if passed the domestic production of PCs and laptops.



Indian Electronics Component Production 2022



Indian Electronics Component Production 2013-2023



Indian Electronics Component Production by Sector 2013-2023

3.11.3 MEXICO PRODUCTION

COMPUTING		2020	2021	2022	2023
Complete Systems	PsM	593278	581225	663960	627372
	\$M	27620	28660	33000	31182
Peripherals	PsM	68414	73008	76456	75486
	\$M	3185	3600	3800	3752
Accessories & Parts	PsM	11599	11255	13078	12961
	\$M	540	555	650	644
Computing Total	PsM	673291	665488	753494	715819
	\$M	31345	32815	37450	35578

OFFICE EQUIPMENT		2020	2021	2022	2023
Office Equipment Total	PsM	4468	3204	4265	4095
	\$M	208	158	212	204

CONTROL & INSTRUMENTATION		2020	2021	2022	2023
Control & Instrumentation Total	PsM	50478	50700	56336	58308
	\$M	2350	2500	2800	2898

MEDICAL & INDUSTRIAL		2020	2021	2022	2023
Medical X-Ray Equipment	PsM	1396	1217	1308	1308
	\$M	65	60	65	65
Industrial X-Ray Equipment	PsM	172	243	241	233
	\$M	8	12	12	12
Radiation Equipment	PsM	64	852	905	898
	\$M	3	42	45	45
Other Electromedical Equipment	PsM	16540	19063	22333	23117
	\$M	770	940	1110	1149
X-Ray & Medical Equipment Total	PsM	18172	21375	24788	25556
	\$M	846	1054	1232	1270
Industrial Equipment					
Railway & Traffic Signalling Equipment	PsM	967	1014	1066	1304
	\$M	45	50	53	65
Other Signalling Equipment (inc Security & Fire Alarms)	PsM	12888	12979	13380	13619
	\$M	600	640	665	677
Industrial Equipment Total	PsM	13855	13993	14446	14923
	\$M	645	690	718	742

MEXICO PRODUCTION (ctd)

MEDICAL & INDUSTRIAL (ctd)		2020	2021	2022	2023
Medical & Industrial Total	PsM	32027	35368	39234	40479
	\$M	1491	1744	1950	2012
COMMUNICATIONS & RADAR		2020	2021	2022	2023
Communications & Radar Total	PsM	49404	50700	51910	53415
	\$M	2300	2500	2580	2655
TELECOMMUNICATIONS		2020	2021	2022	2023
Telecommunications Total	PsM	51552	54756	58348	60332
	\$M	2400	2700	2900	2999
CONSUMER		2020	2021	2022	2023
Video Equipment					
Colour Television	PsM	245624	267899	241440	231897
	\$M	11435	13210	12000	11526
DVD Players & Recorders	PsM	644	507	443	311
	\$M	30	25	22	15
Video Equipment Total	PsM	246268	268406	241883	232207
	\$M	11465	13235	12022	11541
Audio Equipment					
Audio Equipment Total	PsM	30588	33320	33460	31787
	\$M	1424	1643	1663	1580
Personal Consumer Equipment					
Electronic Musical Instruments	PsM	816	852	885	874
	\$M	38	42	44	43
Electric/Electronic Watches	PsM	64	101	101	93
	\$M	3	5	5	5
Electric/Electronic Watches	PsM	64	61	60	59
	\$M	3	3	3	3
Personal Consumer Equip Total	PsM	945	1014	1046	1025
	\$M	44	50	52	51
Consumer Total	PsM	277801	302740	276388	265019
	\$M	12933	14928	13737	13172

MEXICO PRODUCTION (ctd)

COMPONENTS		2020	2021	2022	2023
Active Components					
Discrete Semiconductors	PsM	7303	8112	8551	8330
	\$M	340	400	425	414
ICs & Other Microcircuits	PsM	15036	18252	19114	18551
	\$M	700	900	950	922
Active Components Total	PsM	22339	26364	27665	26880
	\$M	1040	1300	1375	1336
Passive Components					
Fixed Capacitors	PsM	18473	19672	20120	19416
	\$M	860	970	1000	965
Variable Capacitors	PsM	21	20	20	17
	\$M	1	1	1	1
Fixed Resistors	PsM	967	1318	1348	1308
	\$M	45	65	67	65
Variable Resistors	PsM	859	913	845	825
	\$M	40	45	42	41
Connectors	PsM	24487	26364	27162	26558
	\$M	1140	1300	1350	1320
Small Transformers	PsM	1568	1724	1811	1771
	\$M	73	85	90	88
Relays	PsM	129	162	161	161
	\$M	6	8	8	8
Switches	PsM	3179	3143	3340	3259
	\$M	148	155	166	162
Printed Circuit Boards	PsM	6874	7301	7847	7585
	\$M	320	360	390	377
Passive Components Total	PsM	56557	60617	62654	60900
	\$M	2633	2989	3114	3027
Other Components					
Microphones	PsM	1074	1420	1610	1529
	\$M	50	70	80	76
Loudspeakers	PsM	6165	5983	6338	6128
	\$M	287	295	315	305
Amplifiers	PsM	2148	2332	2374	2315
	\$M	100	115	118	115
Unrecorded Media	PsM	859	750	704	629
	\$M	40	37	35	31

MEXICO PRODUCTION (ctd)

COMPONENTS (ctd)		2020	2021	2022	2023
Other Components (ctd)					
Accessories & Parts for Consumer Equipment	PsM	4726	4867	4628	4506
	\$M	220	240	230	224
Other Components Total	PsM	14972	15352	15653	15105
	\$M	697	757	778	751
Components Total	PsM	93868	102333	105972	102886
	\$M	4370	5046	5267	5114
		2020	2021	2022	2023
TOTAL PRODUCTION	PsM	1232888	1265289	1345948	1300353
	\$M	57397	62391	66896	64630

Notes: 2020 and 2021 are current figures at current exchange rates. 2022 is an estimate and 2023 a forecast at 2022 constant values and exchange rates (i.e. inflation is not included). Base year 2022

3.16.4 TAIWAN MARKETS

COMPUTING		2020	2021	2022	2023	2024	2025	2026
Computing Total	NT\$M	147342	161519	167519	160818	164035	168135	172003
	\$M	4995	5789	5621	5397	5505	5642	5772
OFFICE EQUIPMENT		2020	2021	2022	2023	2024	2025	2026
Office Equipment Total	NT\$M	1387	1356	1345	1286	1241	1186	1124
	\$M	47	49	45	43	42	40	38
CONTROL & INSTRUMENTATION		2020	2021	2022	2023	2024	2025	2026
Control & Instrumentation Total	NT\$M	133456	160665	183131	175806	182662	190699	198709
	\$M	4524	5759	6145	5900	6130	6399	6668
MEDICAL & INDUSTRIAL		2020	2021	2022	2023	2024	2025	2026
X-Ray & Medical Equipment								
X-Ray & Medical Equipment Total	NT\$M	16861	20817	23978	23498	24391	25440	26509
	\$M	572	746	805	789	819	854	890
Industrial Equipment Total	NT\$M	6162	6301	6589	6457	6690	6971	7256
	\$M	209	226	221	217	224	234	244
Medical & Industrial Total	NT\$M	23023	27118	30567	29956	31081	32411	33765
	\$M	780	972	1026	1005	1043	1088	1133
COMMUNICATIONS & RADAR		2020	2021	2022	2023	2024	2025	2026
Communications & Radar Total	NT\$M	73559	78517	83825	85669	89096	93105	97109
	\$M	2494	2814	2813	2875	2990	3124	3259
TELECOMMUNICATIONS		2020	2021	2022	2023	2024	2025	2026
Telecommunications Total	NT\$M	15299	16184	17102	17461	18142	18922	19717
	\$M	519	580	574	586	609	635	662
CONSUMER		2020	2021	2022	2023	2024	2025	2026
Video Equipment								
Colour Television	NT\$M	9060	9458	9259	8981	9062	9116	8934
	\$M	307	339	311	301	304	306	300

TAIWAN MARKETS (ctd)

CONSUMER (ctd)		2020	2021	2022	2023	2024	2025	2026
Video Equipment (ctd)								
DVD Recorders & Players	NT\$M	357	331	309	284	267	251	231
	\$M	12	12	10	10	9	8	8
Video & Digital Still Cameras	NT\$M	1250	1300	1300.0	1261	1211	1150	1081
	\$M	42	47	44	42	41	39	36
Video Equipment Total	NT\$M	10667	11089	10868	10527	10540	10518	10246
	\$M	362	397	365	353	354	353	344
Audio Equipment								
Audio Equipment Total	NT\$M	5809	5559	5508	5067	4890	4670	4460
	\$M	197	199	185	170	164	157	150
Personal Consumer Equipment								
Electronic Musical Instruments	NT\$M	574	589	797	733	748	770	792
	\$M	19	21	27	25	25	26	27
Electric/Electronic Watches	NT\$M	786	890	864	804	824	844	863
	\$M	27	32	29	27	28	28	29
Electric/Electronic Clocks	NT\$M	313	318	325	299	305	312	318
	\$M	11	11	11	10	10	10	11
Personal Consumer Equipment Total	NT\$M	1673	1797	1986	1836	1876	1926	1973
	\$M	57	64	67	62	63	65	66
Consumer Total	NT\$M	18149	18445	18362	17430	17306	17114	16679
	\$M	615	661	616	585	581	574	560
COMPONENTS		2020	2021	2022	2023	2024	2025	2026
Active Components								
Valves & Tubes	NT\$M	90	106	115	104	95	87	79
	\$M	3	4	4	3	3	3	3
Diodes	NT\$M	13167	15862	16428	15771	16339	17009	17706
	\$M	446	569	551	529	548	571	594
Transistors	NT\$M	13263	15700	19909	19312	20065	20948	21869
	\$M	450	563	668	648	673	703	734
Other Discrete Semiconductors	NT\$M	17483	21253	25000	27000	29700	33264	37256
	\$M	593	762	839	906	997	1116	1250
ICs & Other Microcircuits	NT\$M	274799	351473	409649	395721	411550	430070	449423
	\$M	9315	12598	13747	13279	13810	14432	15081
Active Components Total	NT\$M	318802	404394	471101	457907	477749	501376	526332
	\$M	10807	14494	15809	15366	16032	16825	17662

TAIWAN MARKETS (ctd)

CONSUMER (ctd)		2020	2021	2022	2023	2024	2025	2026
Passive Components								
Capacitors	NT\$M	22670	28968	30284	28164	29263	30521	31742
	\$M	768	1038	1016	945	982	1024	1065
Resistors	NT\$M	4312	5205	5418	5147	5327	5540	5751
	\$M	146	187	182	173	179	186	193
Connectors	NT\$M	24716	31474	35529	34818	36142	37696	39241
	\$M	838	1128	1192	1168	1213	1265	1317
Transformers	NT\$M	2551	2867	3341	3207	3304	3432	3556
	\$M	86	103	112	108	111	115	119
Chokes, Coils & Other Inductors	NT\$M	1857	1983	2009	1909	1964	2039	2110
	\$M	63	71	67	64	66	68	71
Relays	NT\$M	1245	1423	1502	1427	1470	1527	1584
	\$M	42	51	50	48	49	51	53
Switches	NT\$M	3910	4200	4311	4139	4259	4416	4575
	\$M	133	151	145	139	143	148	154
Printed Circuit Boards	NT\$M	49066	60215	65111	62767	65152	67889	70604
	\$M	1663	2158	2185	2106	2186	2278	2369
Passive Components Total	NT\$M	110327	136335	147505	141578	146879	153059	159162
	\$M	3740	4887	4950	4751	4929	5136	5341
Other Components								
Microphones, Loudspeakers & Amplifiers	NT\$M	4320	4642	5175	4916	5039	5190	5336
	\$M	146	166	174	165	169	174	179
Aerials	NT\$M	924	952	982	943	914	889	858
	\$M	31	34	33	32	31	30	29
Unrecorded Media	NT\$M	1050	1010	980	921	875	840	781
	\$M	36	36	33	31	29	28	26
Accessories & Parts for Consumer Equipment	NT\$M	8686	9377	9816	9423	9612	9852	10079
	\$M	294	336	329	316	323	331	338
Other Components Total	NT\$M	14980	15981	16953	16204	16441	16771	17053
	\$M	508	573	569	544	552	563	572
Components Total	NT\$M	444109	556710	635559	615689	641068	671207	702548
	\$M	15055	19954	21327	20661	21512	22524	23575
		2020	2021	2022	2023	2024	2025	2026
TOTAL MARKET	NT\$M	856324	1020514	1137410	1104114	1144631	1192780	1241654
	\$M	29028	36578	38168	37051	38410	40026	41666

Notes: 2020 and 2021 are current figures at current exchange rates
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