

Section 5 Trends Related to Equipment and Terminals

1. Trends in the Information Terminals Market

Global shipments of information terminals have been increasing since 2016 and reached 79.6625 trillion yen (10.4% increase year-on-year) in 2021 (**Figure 3-5-1-1**). In breakdown, smartphones and personal computers account for a major part.

Japan's production of information terminals was on the decrease up to 2017, turned to increase in 2018, but

decreased again in 2020 and fell to 1.0370 trillion yen (3.2% decrease year-on-year) in 2021 (**Figure 3-5-1-2**). In breakdown, mobile phones and PHS⁵⁴ accounted for a major part up to the mid-2010s, but their ratio decreased later. Now, desktop computers, laptop computers and information terminals⁵⁵ take a leading part.

Figure 3-5-1-1 Changes in shipment of information terminals in the world⁵⁶

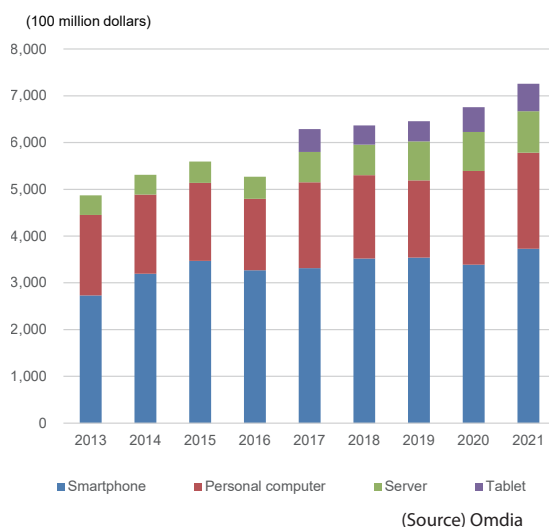
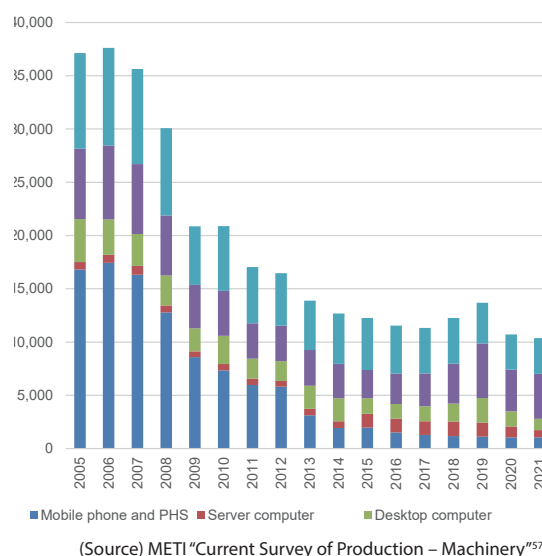


Figure 3-5-1-2 Changes in Japan's production of information terminals



2. Trends in the network equipment market

Global shipments of network equipment have been increasing since 2017 and reached 13.4520 trillion yen (10.9% increase year-on-year) in 2021 (**Figure 3-5-2-1**). Mobile phone base stations and switches for enterprises accounted for a major part of the shipments.

Japan's production of network equipment had been decreasing from the first half of the 2000s, started to gradually increase in 2018, but again decreased to 774.3 billion yen (0.5% decrease year-on-year) in 2021 (**Figure 3-5-2-2**). In detail, telephone application equipment⁵⁸ and exchangers decreased with the shift from fixed telephone to mobile/IP telephones. Today, wireless applica-

tion devices⁵⁹ and other wireless communication equipment⁶⁰ are major segments. Production of base station communication equipment has greatly fluctuated. It had stagnated since 2016 when investments in 4G had completed, but turned to increase in 2020. Network connection devices⁶¹ used for IP communication turned to increase in 2019 but decreased in 2021. Carrier devices⁶² have been increasing since 2019 mainly with the contribution of digital transmission devices.

⁵⁴ Because production of mobile phones and PHS is not disclosed since fiscal 2019, the values of radio communication equipment (including satellite communication equipment) are used after deducting the values of broadcasting equipment, fixed communication equipment (satellite and terrestrial), other terrestrial mobile communication equipment, maritime/aeronautical mobile communication equipment, base station communication equipment, other radio communication equipment and associated radio equipment.

⁵⁵ External memories, printers, monitors, etc. Information kiosk terminal devices are excluded because their production was not disclosed in some years.

⁵⁶ Tablets have been included since 2017.

⁵⁷ <https://www.meti.go.jp/statistics/tyo/seidou/index.html>

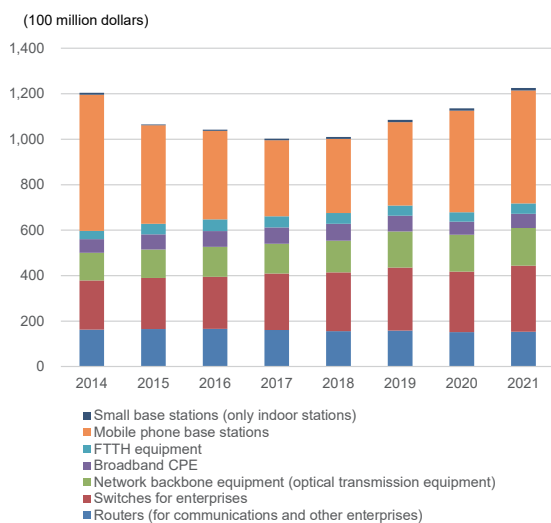
⁵⁸ Key telephone systems and interphones

⁵⁹ Maritime/aeronautical radars, wireless location measuring devices, telemeter/telecontrol apparatus, etc.

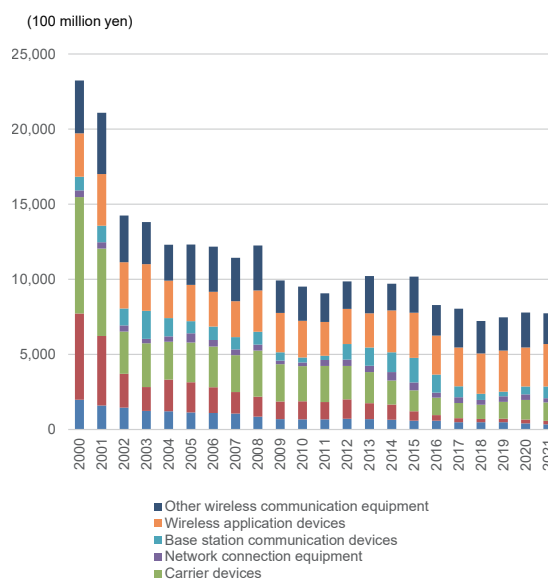
⁶⁰ Satellite/terrestrial fixed communication equipment, maritime/aeronautical communication equipment, transceivers, etc.

⁶¹ Routers, hubs, gateways, etc.

⁶² Digital transmission devices, power line carrier devices, CATV carrier devices, optical transmission devices, etc.

Figure 3-5-2-1 Changes in the global shipments of network equipment

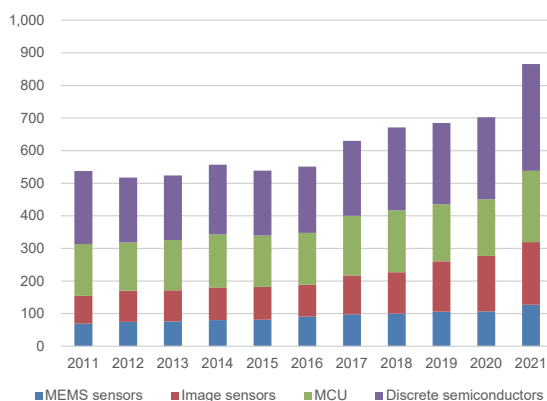
(Source) Omdia

Figure 3-5-2-2 Changes in Japan's production of network equipment(Source) MIC "Current Survey of Production – Machinery"⁶³

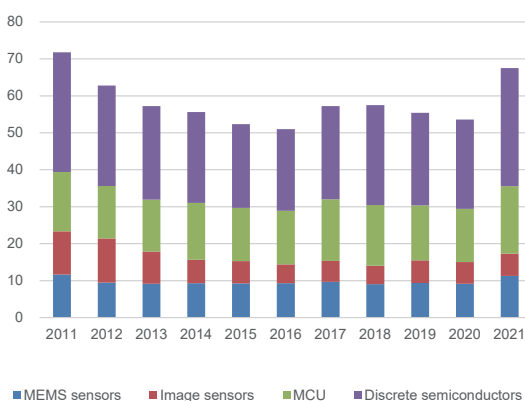
3. Trends in the semiconductor⁶⁴ market

The global shipments of semiconductors have been increasing since 2015 and reached 9.4999 trillion yen (26.7% increase year-on-year) in 2021 (**Figure 3-5-3-1**). In detail, discrete semiconductors accounted for the largest part of the shipments, while image sensors have grown greatly in recent years.

Japan's shipments of semiconductors had been decreasing from 2018 but turned to increase to 741.2 billion yen (29.6% increase year-on-year) in 2021 (**Figure 3-5-3-2**). In detail, discrete semiconductors accounted for the largest part (nearly half) of the production as is the case with the world market.

Figure 3-5-3-1 Changes in global semiconductor shipments

(Source) Omdia

Figure 3-5-3-2 Changes in Japan's semiconductor shipments

(Source) Omdia

⁶³ <https://www.meti.go.jp/statistics/tyo/seidou/index.html>

⁶⁴ In this section, the term refers to discrete semiconductors that are used for image sensors, MCU, MEMS sensors and indispensable power sources. These are key devices of IoT and electronic equipment mounted with AI, introduction of which is advancing toward digital transformation.

4. Changes in exports/imports of ICT equipment

China's exports of ICT equipment⁶⁵ are rapidly increasing. Exports of the United States and Japan turned to increase after the decrease in the early 2000s and remained almost unchanged before decreasing again in 2009. After 2010, the United States maintained a high level, whereas Japan experienced a decreasing trend. Imports of ICT equipment significantly increased in China and the US. Imports increased only slightly in Japan: the difference between China and the US has increased.

In 2020, Japan's exports of ICT equipment were 6.0871 trillion yen (1.1% decrease year-on-year), while imports were 9.5804 trillion yen (0.5% decrease year-on-year), resulting in a 3.4932 trillion yen import surplus (0.5% increase year-on-year). The excess of imports over exports of the United States was 22.3201 trillion yen (8.8% increase year-on-year), while the excess of exports over imports of China was 19.8044 trillion yen (7.8% decrease year-on-year).



Related data
Changes in ICT exports/imports of various countries
Source: UNCTAD, "UNCTAD STAT"
URL: https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-5-7 (Data Collection)

5. Global and Japanese market share by business operator

(1) Global market

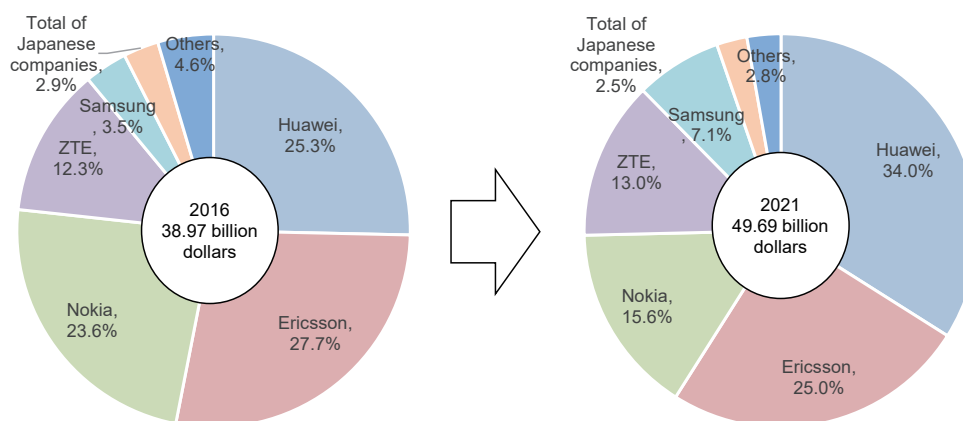
In the 2021 global market, Samsung had the top smartphone market share (20.3%: number of sales), followed by Apple (17.5%) and Xiaomi (14.2%).

Huawei (34.0%) had the top share in macro cell base stations in value of shipment, followed by Ericsson (25.0%) and Nokia (15.6%) (**Figure 3-5-5-1**). Cisco

(64.6%) had the top share in routers for enterprises (in value of shipments) followed by H3C (8.3%) and Huawei (6.3%).

In semiconductor shipment value, Intel had the top share (13.0%) followed by Samsung Electronics (12.8%) and SK Hynix (6.3%).

Figure 3-5-5-1 Changes in macro cell base station share in the global market



(Source) Omdia



Related data
Changes in global share of the smartphone, router for enterprises and semiconductor markets
Source: Omdia
URL: https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-5-9 (Data Collection)

⁶⁵ Computers, communicators, electric appliances for consumers, electronic components, etc.

(2) Japanese market

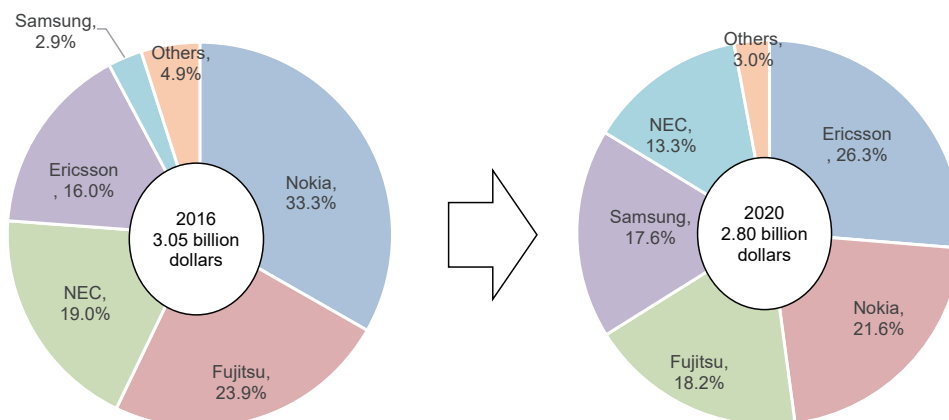
In the 2020 Japanese market, Apple had the top smartphone share (67.4%: number of sales) followed by Samsung (9.4%) and Sharp (9.0%).

In the network equipment segment, Ericsson (26.3%) had the top share in macro cell base stations (in value of shipments), followed by Nokia (21.6%) and Fujitsu (18.2%)

(Figure 3-5-5-2). Cisco (28.8%) had the top share in routers for enterprises followed by Yamaha (28.1%) and NEC (27.1%).

In terms of semiconductor shipment, Intel had the top share (8.6%) followed by Renesas Electronics (8.3%) and Samsung Electronics (6.5%).

Figure 3-5-5-2 Changes in the macro cell base station share in the Japanese market



(Source) Omdia



Related data

Changes in share of the smartphone, router for enterprises and semiconductor markets in Japan

Source: Omdia

URL: https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2022/data_collection.pdf#3-5-13 (Data Collection)