

2024 Global Innovative Markets Forecast

5G Chipset Market

Market - Industrial Machinery



Product Code - PHP310022

© Perry/Hope Partners



perry hope
partners

Copyright © 2024 By Perry/Hope Partners
Printed in USA

All rights reserved. This publication may not be reproduced, stored in any information or retrieval system or transmitted in whole or in part, in any form or by any means - electronic, mechanical, photocopying, recording or otherwise - without the express written permission of Perry/Hope Partners.

Note: Every effort has been made to verify and ensure the accuracy of the information within this publication. However, if any errors exist in this publication Perry/Hope Partners disclaims any liability for any loss or damage to any party as a result of the information or errors in this publication.

Table of Contents

Market - 5G Chipset Market

Industry - Industrial Machinery

User's Guide

Methodology

Global Markets

(Historical Data Trends)

Country Markets

(Historical Data Trends and Geographic Data)

Regional Markets

(Historical Data Trends)

Country Name	Code
Argentina	ARG
Australia	AUS
Austria	AUT
Bangladesh	BGD
Belgium	BEL
Brazil	BRA
Canada	CAN
Chile	CHL
China	CHN
Czech Republic	CZE
Denmark	DNK
Egypt, Arab Rep.	EGY
Finland	FIN
France	FRA
Germany	DEU
Hungary	HUN
India	IND
Indonesia	IDN
Ireland	IRL
Israel	ISR
Italy	ITA
Japan	JPN
Korea, Rep.	KOR
Malaysia	MYS

Country Name	Code
Mexico	MEX
Netherlands	NLD
Nigeria	NGA
Norway	NOR
Pakistan	PAK
Philippines	PHL
Poland	POL
Puerto Rico	PRI
Romania	ROU
Russian Federation	RUS
Saudi Arabia	SAU
Singapore	SGP
South Africa	ZAF
Spain	ESP
Sweden	SWE
Switzerland	CHE
Thailand	THA
Turkey	TUR
United Arab Emirates	ARE
United Kingdom	GBR
United States	USA
Venezuela, RB	VEN
Vietnam	VNM

Users' Guide

Market - 5G Chipset Market

Industry - Industrial Machinery

Scope of the Report

Market - Machinery

The market study aims at estimating the market size and the growth potential of this market. Topics analyzed within the report include a detailed breakdown of the global markets for 5g chipset market by geography and historical trend. The scope of the report extends to sizing of the 5g chipset market and global market trends with market data for 2022 as the base year, 2023 and 2023 as the estimate years and forecast for 2025 with projection of CAGR from 2025 to 2030.

Product shipments include the total value of all products produced and shipped by all producers. For selected products, this can represent value of receipts, value of production, or value of work done. Market data is provided in U.S. dollar value at global and regional levels, as well as local currencies for all countries.

Users' Guide

Report Coverage

The report focuses a detailed calculation of original equipment manufacturers and the related system providers. The study forecasts the market value of the 5g chipset market market.

Published annually, this report provides a unique and accurate estimate on market sizing for this equipment/material using a proprietary economic model that integrates historical trends (horizontal analysis) and longitudinal analysis of incorporated industries (vertical analysis).

Regional summaries include North America, Europe, Asia-Pacific, Latin America, Africa, and Middle East. Percent shares are presented for each region as a share of the global market.

Product shipments values are also broken down by geographic areas in the countries in the report for regions, districts, provinces, states and cities.

This report does not list key players/companies in the market but focuses on a top-down and outlook view of the market despite the existing and entering of market companies.

Benefits of the Report

This report is primarily aimed at business professionals in fields related to the market. These may include manufacturers and their suppliers, financiers and investors, researchers with backgrounds in the market, marketing and sales professionals, and others.

This report may also prove valuable to professional analysts, investors, public policy advisors and others who are seeking a better understanding and definition of how 5g chipset market fit into the broader global market.

The report will help the market leaders and new entrants in this market with information on the closest approximations of the revenue numbers for the overall market. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and to plan market strategies. The report also helps stakeholders understand the opportunities of the market.

Methodology

Market - 5G Chipset Market

Industry: Industrial Machinery

Sector: Machinery

Definition: A 5G chipset happens to be an essential component for 5G-enabled smartphones, laptops, routers, and telecom base stations.

The chip can also be used for massive MIMO, which is used to transfer data through targeted 5G beams, speeding up data rates, and lifting throughout.

Methodology

Market - 5G Chipset Market

Methodology

The Global Innovative Markets Forecast report series by Perry/Hope Partners features market sales of thousands of high-tech products and services in various industries such as transportation, hardware, electronics, electrical products, printing services and food products. The reports are published annually based on a unique methodology that uses robust data sources and detailed logarithms to estimate global markets for manufactured products. The main steps in the methodology are:

- Products and services definitions and historical data are primarily based on secondary data collected from Internet research which is updated annually. Data sources include trade association databases, trade journal articles, press releases, published research reports, and annual reports.
- Market sales for the global countries are used as a ratio to all other countries in the report by GDP and the percent of the total manufacturing sector as percent of the countries total GDP.
- Adjustments to estimates are both vertical (industry) analysis and horizontal (trend) analysis.
- Demographic breakdowns of regions, cities, states, districts and provinces are based on historical population and regional GDP data projected forward.

Global Sales

Market - 5G Chipset Market

Market Sales by Countries (USD Millions)

Country Name	2019	2020	2021	2022	2023	2024	2025	2030
Argentina	52.6	67.8	84.1	105.0	135.3	165.4	204.3	585.8
Australia	71.5	85.0	96.1	120.2	156.5	192.9	239.0	660.8
Austria	67.1	79.8	88.6	114.0	147.4	180.5	222.0	618.8
Bangladesh	52.0	87.2	98.6	142.6	207.5	284.2	388.4	1,606.5
Belgium	58.9	73.1	81.6	105.1	138.6	172.9	216.3	645.6
Brazil	172.8	158.5	188.1	223.2	275.9	324.1	385.3	927.8
Canada	194.4	229.1	274.5	347.8	461.7	579.7	729.2	2,242.4
Chile	25.7	25.5	30.3	36.4	45.1	53.6	64.1	156.3
China	3,470.0	4,370.8	5,474.7	7,174.7	9,822.9	12,680.9	16,295.8	53,317.9
Czech Republic	51.8	60.8	66.2	87.9	117.3	147.7	185.4	551.0
Denmark	43.2	56.3	53.1	72.0	96.1	121.4	153.3	460.8
Egypt, Arab Rep.	43.8	67.7	73.3	104.6	145.5	190.8	248.9	849.2
Finland	35.2	43.9	48.6	62.8	82.1	101.6	126.1	358.9
France	247.9	279.7	292.9	377.2	477.8	573.1	690.6	1,787.7
Germany	684.5	791.2	895.8	1,134.3	1,456.2	1,768.9	2,154.6	5,730.1
Hungary	26.2	31.1	34.3	44.5	59.0	73.7	92.0	267.6
India	347.2	413.3	508.4	634.1	833.2	1,035.8	1,290.4	3,708.0
Indonesia	200.1	238.2	254.6	334.9	438.3	542.7	673.4	1,955.1
Ireland	116.0	166.4	194.6	276.3	397.0	537.5	725.4	2,870.4
Israel	38.9	52.2	55.4	73.3	92.2	110.8	133.4	356.3
Italy	270.8	317.9	356.2	446.7	581.3	717.2	891.0	2,579.5
Japan	948.9	1,126.8	1,143.2	1,500.8	1,912.8	2,311.7	2,812.3	7,543.1
Korea, Rep.	378.4	460.1	514.2	639.3	808.6	968.8	1,166.9	3,018.8
Malaysia	71.0	85.0	97.6	128.7	173.2	220.5	281.6	909.6
Mexico	199.6	212.2	256.6	319.9	419.1	520.4	650.2	1,931.2
Netherlands	89.0	111.4	122.3	161.3	215.7	272.7	345.1	1,067.5
Nigeria	46.9	62.0	71.8	103.3	144.6	191.2	253.9	946.0
Norway	23.2	26.7	30.7	38.7	49.5	60.0	73.0	196.5
Pakistan	31.5	38.8	46.3	56.7	73.1	89.2	109.3	302.0
Philippines	63.3	72.3	77.5	102.8	134.6	167.5	208.5	594.6
Poland	90.0	108.2	126.7	166.0	223.8	284.9	361.8	1,139.5
Puerto Rico	45.0	56.3	54.3	72.4	92.0	111.0	134.6	356.0
Romania	38.7	45.9	52.6	69.5	92.3	115.6	145.3	430.3
Russian Federation	199.0	226.3	263.7	339.0	414.0	479.9	561.7	1,285.7
Saudi Arabia	90.2	96.5	131.2	163.1	221.7	284.9	366.6	1,197.2
Singapore	66.1	78.0	98.2	127.5	173.4	223.8	289.3	977.7

Global Sales

Market - 5G Chipset Market

Market Sales by Countries (USD Millions)

Country Name	2019	2020	2021	2022	2023	2024	2025	2030
South Africa	37.6	44.6	55.1	68.2	89.4	110.9	138.2	400.8
Spain	138.4	160.0	183.6	230.6	300.3	370.8	460.9	1,336.0
Sweden	62.0	74.3	87.6	107.5	139.5	171.2	210.6	588.9
Switzerland	121.0	154.5	160.6	216.8	290.1	367.0	464.7	1,432.6
Thailand	126.6	144.2	153.2	205.5	265.0	323.8	397.6	1,109.5
Turkey	126.3	155.9	202.8	248.7	323.1	399.8	498.8	1,486.6
United Arab Emirates	33.3	39.3	48.0	61.2	80.6	100.7	126.6	387.7
United Kingdom	223.0	271.5	302.8	387.6	503.4	618.9	763.2	2,188.5
United States	2,125.4	2,646.4	2,784.9	3,774.4	4,917.8	6,064.8	7,501.4	21,833.8
Venezuela, RB	33.9	40.1	37.6	47.2	58.6	69.3	82.7	213.0
Vietnam	39.2	64.1	100.5	136.9	200.1	275.1	377.2	1,583.8
Rest of World	651.0	772.4	914.2	1,177.4	1,554.6	1,946.7	2,450.3	7,530.1
GLOBAL	12,369.1	15,069.4	17,368.2	22,668.7	30,037.7	37,676.6	47,341.2	144,223.6

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Global

Industry - 5G Chipset Market

Industry Sales (Turnover) by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Industry</u>	<u>Year-to-Year Change</u>	
2019	12,369,106.8	0.47%		
2020	15,069,414.2	0.61%	2019-2020	21.8%
2021	17,368,173.4	0.77%	2020-2021	15.3%
2022	22,668,652.1	0.98%	2021-2022	30.5%
2023	30,037,708.8	1.23%	2022-2023	32.5%
2024	37,676,588.9	1.50%	2023-2024	25.4%
2025	47,341,202.6	1.83%	2024-2025	25.7%
2030	144,223,550.6	5.43%	CAGR 2025-2030	40.9%

<u>Market Sales</u>			
<u>Year</u>		<u>Year-to-Year Change</u>	
2019			
2020		2019-2020	
2021		2020-2021	
2022		2021-2022	
2023		2022-2023	
2024		2023-2024	
2025		2024-2025	
2030		CAGR 2025-2030	

In 2024, sales for this industry worldwide is forecast to be \$37,676.6 million dollars. Sales are forecast to change by 25.7 percent in the next year (2024 to 2025).

In 2030, sales for this industry worldwide is forecast to be \$144,223.6 million dollars. The compound annual growth rate is projected to change by 40.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Regional Sales

Market - 5G Chipset Market

The market for this equipment in North America is estimated to be \$7.2 billion dollars in 2024 and is expected to change by 23.6 percent from 2023 to 2024. The market in the Asia-Pacific region for this equipment is estimated to be \$19.2 billion in 2024 and is forecast to change by 26.5 percent from 2024 to 2025. The European market is \$5.8 billion in 2024.

Market Size by Year (US\$ Millions)

	2019	2020	2021	2022	2023	2024	2025	2030
North America	2,519.3	3,087.7	3,316.0	4,442.1	5,798.6	7,164.9	8,880.8	26,007.3
Latin America	225.4	226.3	272.2	328.2	411.2	489.6	589.6	1,513.8
Europe	2,069.6	2,472.6	2,753.7	3,556.6	4,657.4	5,775.4	7,185.8	21,077.2
Asia-Pacific	5,973.5	7,338.7	8,727.8	11,364.4	15,205.5	19,237.5	24,325.8	75,382.6
Middle East	126.3	155.9	202.8	248.7	323.1	399.8	498.8	1,486.6
Africa	84.5	106.7	127.0	171.6	234.2	302.3	392.3	1,347.7
GLOBAL	10,914.2	13,281.3	15,272.6	19,940.1	26,395.7	33,067.2	41,480.7	125,467.6

Regional Distribution

	2019	2020	2021	2022	2023	2024	2025	2030
North America	23.1%	23.2%	21.7%	22.3%	22.0%	21.7%	21.4%	20.7%
Latin America	2.1%	1.7%	1.8%	1.6%	1.6%	1.5%	1.4%	1.2%
Europe	19.0%	18.6%	18.0%	17.8%	17.6%	17.5%	17.3%	16.8%
Asia-Pacific	54.7%	55.3%	57.1%	57.0%	57.6%	58.2%	58.6%	60.1%
Middle East	1.2%	1.2%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%
Africa	0.8%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%	1.1%
GLOBAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Year-to-Year Change

	CAGR						
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2030
North America	22.6%	7.4%	34.0%	30.5%	23.6%	23.9%	192.8%
Latin America	0.4%	20.3%	20.6%	25.3%	19.1%	20.4%	156.7%
Europe	19.5%	11.4%	29.2%	30.9%	24.0%	24.4%	193.3%
Asia-Pacific	22.9%	18.9%	30.2%	33.8%	26.5%	26.4%	209.9%
Middle East	23.4%	30.1%	22.6%	29.9%	23.7%	24.8%	198.1%
Africa	26.3%	19.0%	35.1%	36.5%	29.1%	29.8%	243.5%
GLOBAL	21.7%	15.0%	30.6%	32.4%	25.3%	25.4%	202.5%

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Argentina

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	52,566.7	0.42%		
2020	67,788.3	0.45%	2019-2020	29.0%
2021	84,108.9	0.48%	2020-2021	24.1%
2022	104,984.3	0.46%	2021-2022	24.8%
2023	135,255.8	0.45%	2022-2023	28.8%
2024	165,375.2	0.44%	2023-2024	22.3%
2025	204,281.8	0.43%	2024-2025	23.5%
2030	585,823.0	0.41%	CAGR 2025-2030	37.4%

<u>Pesos</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Pesos 000s)</u>	<u>Year-to-Year Change</u>	
2019	4,257,899.6		
2020	5,490,849.9	2019-2020	29.0%
2021	6,812,823.3	2020-2021	24.1%
2022	8,503,730.9	2021-2022	24.8%
2023	10,955,720.9	2022-2023	28.8%
2024	13,395,388.9	2023-2024	22.3%
2025	16,546,826.6	2024-2025	23.5%
2030	47,451,659.4	CAGR 2025-2030	37.4%

In 2024, sales for this product in Argentina is forecast to be \$165.4 million dollars. Sales are forecast to change by 23.5 percent in the next year (2024 to 2025). In 2024, sales will be 13395.4 million Pesos and will change by 22.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in Argentina is forecast to be \$585.8 million dollars. The compound annual growth rate is projected to change by 37.4 percent from 2025 to 2030. In 2030, sales will be 13395.4 million Pesos and will change by 22.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Argentina

Product - 5G Chipset Market

Market Sales by Regional Provinces (USD 000s)

	2023	2024	2025	2030
Buenos Aires	52,239.1	63,863.2	78,875.3	225,942.2
Catamarca	1,330.2	1,635.6	2,031.6	5,988.7
Chaco	3,617.4	4,425.3	5,469.0	15,717.3
Chubut	1,832.4	2,257.2	2,809.1	8,358.4
Ciudad Autónoma de Buenos Aires (8,759.1	10,589.5	12,933.9	35,042.6
Córdoba	11,003.3	13,428.2	16,555.8	47,012.9
Corrientes	3,392.4	4,148.5	5,125.0	14,701.1
Entre Ríos	4,129.4	5,041.4	6,217.9	17,690.0
Formosa	1,891.9	2,321.9	2,879.0	8,410.4
Jujuy	2,345.7	2,875.6	3,561.4	10,344.4
La Pampa	1,080.1	1,319.7	1,629.1	4,654.3
La Rioja	1,259.1	1,554.9	1,939.9	5,845.0
Mendoza	5,871.0	7,176.4	8,862.1	25,367.7
Misiones	3,939.1	4,843.8	6,017.3	17,746.7
Neuquén	2,027.5	2,497.4	3,108.0	9,246.7
Río Negro	2,168.5	2,654.5	3,282.8	9,465.1
Salta	4,394.3	5,405.6	6,718.0	19,852.9
San Juan	2,358.6	2,889.2	3,575.5	10,345.0
San Luis	1,626.8	2,009.2	2,507.0	7,558.2
Santa Cruz	1,081.5	1,345.5	1,691.2	5,289.0
Santa Fe	10,355.3	12,607.4	15,506.9	43,513.2
Santiago del Estero	3,006.8	3,682.6	4,556.7	13,173.7
Tierra del Fuego	537.0	670.2	845.1	2,684.4
Tucumán	5,009.3	6,132.3	7,584.1	21,872.7

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Australia

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global		
Year	(USD 000s)	Market	Year-to-Year Change	
2019	71,540.6	0.58%		
2020	84,951.8	0.56%	2019-2020	18.7%
2021	96,084.5	0.55%	2020-2021	13.1%
2022	120,211.5	0.53%	2021-2022	25.1%
2023	156,483.5	0.52%	2022-2023	30.2%
2024	192,946.0	0.51%	2023-2024	23.3%
2025	238,960.7	0.50%	2024-2025	23.8%
2030	660,765.3	0.46%	CAGR 2025-2030	35.3%

Dollars	Market Sales		
Year	(Dollars 000s)	Year-to-Year Change	
2019	95,864.4		
2020	113,835.4	2019-2020	18.7%
2021	128,753.2	2020-2021	13.1%
2022	161,083.4	2021-2022	25.1%
2023	209,687.9	2022-2023	30.2%
2024	258,547.7	2023-2024	23.3%
2025	320,207.3	2024-2025	23.8%
2030	885,425.5	CAGR 2025-2030	35.3%

In 2024, sales for this product in Australia is forecast to be \$192.9 million dollars. Sales are forecast to change by 23.8 percent in the next year (2024 to 2025). In 2024, sales will be 258.5 million Dollars and will change by 23.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in Australia is forecast to be \$660.8 million dollars. The compound annual growth rate is projected to change by 35.3 percent from 2025 to 2030. In 2030, sales will be 258.5 million Dollars and will change by 23.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Australia

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Adelaide	9,273.4	11,357.8	13,971.7	37,320.9
Brisbane	17,724.9	21,987.3	27,394.4	77,990.1
Cairns (Northern Beaches)	1,232.2	1,525.8	1,897.8	5,356.4
Canberra (NSW)	3,421.1	4,210.6	5,205.1	14,248.0
Central Coast (Gosford)	2,649.4	3,261.6	4,032.9	11,053.1
Darwin	883.9	1,087.2	1,343.2	3,665.0
Geelong	1,216.3	1,490.0	1,833.5	4,904.4
Gold Coast (NSW)	5,227.0	6,514.4	8,154.3	23,763.2
Hobart	1,439.5	1,763.2	2,169.3	5,798.3
Melbourne	33,391.5	41,176.8	51,000.2	140,959.7
Newcastle	2,524.9	3,083.1	3,781.1	9,948.1
Perth	15,839.4	19,678.7	24,555.8	70,448.7
Sunshine Coast (Caloundra)	2,050.1	2,549.9	3,185.4	9,190.0
Sydney	33,286.3	40,824.6	50,289.6	135,267.5
Toowoomba	807.8	987.7	1,212.9	3,211.9
Townsville (Thuringowa)	1,475.9	1,829.9	2,278.7	6,470.4
Wollongong	2,020.6	2,468.9	3,030.0	7,998.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Austria

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	67,119.6	0.54%		
2020	79,776.0	0.53%	2019-2020	18.9%
2021	88,639.4	0.51%	2020-2021	11.1%
2022	113,968.0	0.50%	2021-2022	28.6%
2023	147,352.2	0.49%	2022-2023	29.3%
2024	180,458.9	0.48%	2023-2024	22.5%
2025	221,996.9	0.47%	2024-2025	23.0%
2030	618,770.2	0.43%	CAGR 2025-2030	35.7%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	55,038.1		
2020	65,416.3	2019-2020	18.9%
2021	72,684.3	2020-2021	11.1%
2022	93,453.8	2021-2022	28.6%
2023	120,828.8	2022-2023	29.3%
2024	147,976.3	2023-2024	22.5%
2025	182,037.4	2024-2025	23.0%
2030	507,391.6	CAGR 2025-2030	35.7%

In 2024, sales for this product in Austria is forecast to be \$180.5 million dollars.

Sales are forecast to change by 23 percent in the next year (2024 to 2025). In 2024, sales will be 148 million Euros and will change by 22.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Austria is forecast to be \$618.8 million dollars.

The compound annual growth rate is projected to change by 35.7 percent from 2025 to 2030. In 2030, sales will be 148 million Euros and will change by 22.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Austria

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Amstetten	882.2	1,079.7	1,327.4	3,686.2
Baden	985.9	1,208.5	1,488.0	4,164.2
Bregenz	1,129.8	1,386.8	1,709.9	4,818.2
Dornbirn	1,766.9	2,169.4	2,675.4	7,548.5
Feldkirch	1,316.7	1,624.4	2,013.0	5,817.3
Graz	8,115.4	9,883.4	12,090.3	32,753.3
Hallein	841.6	1,037.9	1,285.8	3,709.3
Innsbruck	4,237.0	5,170.1	6,336.9	17,334.9
Judenburg	337.0	408.3	497.0	1,312.9
Kapfenberg	816.0	991.6	1,210.3	3,243.4
Klagenfurt am Wörthersee	3,562.1	4,360.7	5,362.3	14,909.2
Klosterneuburg	1,029.0	1,262.6	1,556.1	4,375.7
Krems an der Donau	923.3	1,130.1	1,389.3	3,859.3
Kufstein	670.7	826.2	1,022.4	2,933.5
Leoben	806.0	974.6	1,183.7	3,094.3
Leonding	972.1	1,196.3	1,478.6	4,218.8
Linz	6,603.0	8,036.2	9,824.3	26,529.1
Lustenau	847.6	1,042.5	1,287.9	3,664.6
Mödling	830.3	1,017.8	1,253.1	3,506.4
Saalfelden am Steinernen Meer	742.0	919.6	1,144.8	3,385.9
Salzburg	5,624.3	6,882.5	8,459.8	23,475.6
Spittal an der Drau	664.7	815.9	1,005.9	2,834.4
St. Pölten	1,835.3	2,240.3	2,746.8	7,527.3
Steyr	1,521.4	1,860.5	2,285.3	6,319.7
Telfs	798.7	1,001.2	1,260.6	3,945.4
Traun	974.0	1,195.8	1,474.6	4,159.3
Villach	2,382.5	2,924.7	3,606.4	10,167.0
Wels	2,360.6	2,899.8	3,578.2	10,122.1
Wien [Vienna]	59,964.0	73,336.1	90,090.8	249,267.8
Wiener Neustadt	1,524.3	1,869.8	2,303.9	6,470.8
Wolfsberg	1,006.0	1,232.5	1,516.7	4,232.3

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Bangladesh

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	51,987.7	0.42%		
2020	87,193.5	0.58%	2019-2020	67.7%
2021	98,582.3	0.57%	2020-2021	13.1%
2022	142,568.7	0.63%	2021-2022	44.6%
2023	207,477.8	0.69%	2022-2023	45.5%
2024	284,224.7	0.75%	2023-2024	37.0%
2025	388,390.5	0.82%	2024-2025	36.6%
2030	1,606,457.7	1.11%	CAGR 2025-2030	62.7%

<u>Takas</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Takas 000s)</u>	<u>Year-to-Year Change</u>	
2019	4,403,357.8		
2020	7,385,289.6	2019-2020	67.7%
2021	8,349,918.3	2020-2021	13.1%
2022	12,075,569.6	2021-2022	44.6%
2023	17,573,370.8	2022-2023	45.5%
2024	24,073,832.8	2023-2024	37.0%
2025	32,896,678.2	2024-2025	36.6%
2030	136,066,966.9	CAGR 2025-2030	62.7%

In 2024, sales for this product in Bangladesh is forecast to be \$284.2 million dollars. Sales are forecast to change by 36.6 percent in the next year (2024 to 2025). In 2024, sales will be 24073.8 million Takas and will change by 37 percent in the next year (2024 to 2025).

In 2030, sales for this product in Bangladesh is forecast to be \$1,606.5 million dollars. The compound annual growth rate is projected to change by 62.7 percent from 2025 to 2030. In 2030, sales will be 24073.8 million Takas and will change by 37 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Bangladesh

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Barisal	5,519.6	7,481.7	10,115.7	39,645.5
Chittagong	20,558.2	28,169.5	38,500.6	159,272.7
Brahmanbaria	1,992.3	2,724.0	3,715.0	15,203.1
Chittagong	5,668.0	7,781.0	10,654.8	44,494.6
Comilla	3,808.6	5,209.3	7,107.0	29,137.0
Noakhali	2,242.3	3,074.3	4,204.3	17,445.8
Dhaka	27,314.7	37,602.3	51,633.0	218,637.8
Dhaka	10,452.6	14,610.5	20,370.5	93,092.5
Gazipur	2,823.1	3,949.6	5,511.5	25,298.5
Kishoreganj	2,017.5	2,751.7	3,743.5	15,132.8
Narayanganj	2,286.9	3,164.0	4,366.4	18,957.3
Tangail	2,440.8	3,320.7	4,506.3	17,988.7
Mymensingh	7,634.7	10,413.3	14,166.9	57,273.8
Jalapur	1,573.7	2,142.9	2,910.7	11,673.1
Mymensingh	3,573.0	4,878.7	6,644.7	27,012.1
Netrakona (Netrokona)	1,564.2	2,135.6	2,908.2	11,814.9
Khulna	10,911.2	14,866.2	20,203.4	81,241.9
Jessore	1,963.3	2,682.9	3,657.0	14,925.7
Khulna	1,592.0	2,161.5	2,927.3	11,567.8
Satkhira	1,386.9	1,890.1	2,569.5	10,347.0
Rajshahi	13,011.7	17,773.1	24,215.2	98,615.5
Bogra	2,364.7	3,226.7	4,391.7	17,793.1
Naogaon	1,773.7	2,414.1	3,277.3	13,109.0
Pabna	1,772.4	2,422.2	3,301.9	13,481.9
Rajshahi	1,888.2	2,586.4	3,533.7	14,592.9
Sirajganj	2,236.9	3,063.2	4,184.1	17,257.2
Rangpur	11,160.7	15,253.7	20,794.7	84,932.1
Dinajpur	2,126.3	2,906.8	3,963.8	16,211.4
Gaibandha	1,618.8	2,204.2	2,993.6	11,999.3
Kurigram	1,439.5	1,965.5	2,677.0	10,881.2
Rangpur	2,057.8	2,814.3	3,839.2	15,733.3
Sylhet	7,262.4	9,979.1	13,677.3	57,381.1
Habiganj	1,492.0	2,043.2	2,790.9	11,510.9
Sunamganj	1,804.0	2,477.0	3,392.6	14,183.3
Sylhet	2,587.6	3,570.7	4,914.9	21,062.3

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Belgium

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	58,853.2	0.48%		
2020	73,139.4	0.49%	2019-2020	24.3%
2021	81,627.2	0.47%	2020-2021	11.6%
2022	105,142.5	0.46%	2021-2022	28.8%
2023	138,602.2	0.46%	2022-2023	31.8%
2024	172,917.5	0.46%	2023-2024	24.8%
2025	216,314.2	0.46%	2024-2025	25.1%
2030	645,565.0	0.45%	CAGR 2025-2030	39.7%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	48,259.6		
2020	59,974.3	2019-2020	24.3%
2021	66,934.3	2020-2021	11.6%
2022	86,216.8	2021-2022	28.8%
2023	113,653.8	2022-2023	31.8%
2024	141,792.3	2023-2024	24.8%
2025	177,377.6	2024-2025	25.1%
2030	529,363.3	CAGR 2025-2030	39.7%

In 2024, sales for this product in Belgium is forecast to be \$172.9 million dollars. Sales are forecast to change by 25.1 percent in the next year (2024 to 2025). In 2024, sales will be 141.8 million Euros and will change by 24.8 percent in the next year (2024 to 2025).

In 2030, sales for this product in Belgium is forecast to be \$645.6 million dollars. The compound annual growth rate is projected to change by 39.7 percent from 2025 to 2030. In 2030, sales will be 141.8 million Euros and will change by 24.8 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Belgium

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Vlaams Gewest [Flanders]	40,127.9	50,067.9	62,639.4	187,025.9
Antwerpen [Antwerp]	11,161.4	13,925.9	17,422.4	52,015.2
Limburg	5,499.5	6,874.0	8,615.2	25,951.5
Oost-Vlaanderen	9,067.8	11,302.9	14,127.2	41,974.5
Vlaams-Brabant	7,033.6	8,788.9	11,012.1	33,123.8
West-Vlaanderen	7,377.3	9,192.4	11,485.2	34,063.4
Wallonia	22,364.7	27,892.5	34,881.1	103,923.6
Brabant Wallon	2,635.7	3,309.7	4,167.3	12,847.2
Hainaut	8,138.3	10,122.6	12,624.8	37,111.7
Liège	6,770.4	8,438.9	10,547.1	31,332.1
Luxembourg	1,782.5	2,231.3	2,800.7	8,500.5
Namur	3,087.2	3,858.1	4,834.6	14,551.7
Brussels Gewest [Brussels]	6,777.9	8,456.2	10,578.6	31,571.9
Bruxelles-Capitale [Brussels]	6,777.9	8,456.2	10,578.6	31,571.9

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Brazil

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	172,824.7	1.40%		
2020	158,475.9	1.05%	2019-2020	-8.3%
2021	188,073.4	1.08%	2020-2021	18.7%
2022	223,216.0	0.98%	2021-2022	18.7%
2023	275,877.2	0.92%	2022-2023	23.6%
2024	324,125.5	0.86%	2023-2024	17.5%
2025	385,283.3	0.81%	2024-2025	18.9%
2030	927,844.0	0.64%	CAGR 2025-2030	28.2%

<u>Reals</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Reals 000s)</u>	<u>Year-to-Year Change</u>	
2019	881,406.1		
2020	808,227.0	2019-2020	-8.3%
2021	959,174.5	2020-2021	18.7%
2022	1,138,401.7	2021-2022	18.7%
2023	1,406,973.5	2022-2023	23.6%
2024	1,653,040.3	2023-2024	17.5%
2025	1,964,944.9	2024-2025	18.9%
2030	4,732,004.4	CAGR 2025-2030	28.2%

In 2024, sales for this product in Brazil is forecast to be \$324.1 million dollars.

Sales are forecast to change by 18.9 percent in the next year (2024 to 2025). In 2024, sales will be 1653 million Reals and will change by 17.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Brazil is forecast to be \$927.8 million dollars.

The compound annual growth rate is projected to change by 28.2 percent from 2025 to 2030. In 2030, sales will be 1653 million Reals and will change by 17.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Brazil

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Acre	1,200.0	1,429.9	1,723.7	4,451.6
Alagoas	4,374.5	5,124.9	6,074.5	14,415.7
Amapá	1,208.5	1,456.4	1,775.6	4,852.2
Amazonas	5,592.3	6,643.4	7,984.6	20,314.0
Bahia	19,337.7	22,604.4	26,732.7	62,734.8
Ceará	12,102.8	14,219.1	16,901.3	40,679.5
Distrito Federal	4,053.2	4,808.9	5,772.3	14,591.0
Espírito Santo	5,251.5	6,183.3	7,365.9	17,925.2
Goiás	9,298.8	10,999.3	13,163.2	32,777.2
Maranhão	9,385.0	11,029.3	13,113.7	31,609.7
Mato Grosso	4,643.5	5,490.9	6,568.9	16,329.4
Mato Grosso do Sul	3,645.7	4,296.0	5,121.7	12,513.0
Minas Gerais	27,680.1	32,436.7	38,456.3	91,378.5
Pará	11,573.1	13,692.5	16,389.8	40,856.0
Paraíba	5,199.1	6,078.8	7,190.6	16,894.0
Paraná	14,860.1	17,415.9	20,650.3	49,098.0
Pernambuco	12,434.1	14,571.5	17,276.6	41,062.3
Piauí	4,289.5	5,017.6	5,938.1	13,983.7
Rio de Janeiro	22,570.0	26,455.1	31,372.3	74,637.6
Rio Grande do Norte	4,596.7	5,402.4	6,423.6	15,487.9
Rio Grande do Sul	14,769.8	17,256.7	20,398.6	47,757.7
Rondônia	2,338.9	2,755.3	3,283.9	8,011.5
Roraima	810.2	973.7	1,183.8	3,190.7
Santa Catarina	9,371.8	11,045.5	13,170.6	32,206.3
São Paulo	60,135.5	70,658.0	83,994.9	202,270.3
Sergipe	3,047.0	3,588.6	4,276.1	10,419.8
Tocantins	2,107.6	2,491.4	2,979.7	7,396.6

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Canada

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global		
Year	(USD 000s)	Market	Year-to-Year Change	
2019	194,400.1	1.57%		
2020	229,114.5	1.52%	2019-2020	17.9%
2021	274,534.3	1.58%	2020-2021	19.8%
2022	347,816.8	1.53%	2021-2022	26.7%
2023	461,677.8	1.54%	2022-2023	32.7%
2024	579,701.3	1.54%	2023-2024	25.6%
2025	729,190.7	1.54%	2024-2025	25.8%
2030	2,242,359.1	1.55%	CAGR 2025-2030	41.5%

Dollars	Market Sales		
Year	(Dollars 000s)	Year-to-Year Change	
2019	252,720.1		
2020	297,848.8	2019-2020	17.9%
2021	356,894.5	2020-2021	19.8%
2022	452,161.9	2021-2022	26.7%
2023	600,181.2	2022-2023	32.7%
2024	753,611.7	2023-2024	25.6%
2025	947,947.9	2024-2025	25.8%
2030	2,915,066.8	CAGR 2025-2030	41.5%

In 2024, sales for this product in Canada is forecast to be \$579.7 million dollars.

Sales are forecast to change by 25.8 percent in the next year (2024 to 2025). In 2024, sales will be 753.6 million Dollars and will change by 25.6 percent in the next year (2024 to 2025).

In 2030, sales for this product in Canada is forecast to be \$2,242.4 million dollars.

The compound annual growth rate is projected to change by 41.5 percent from 2025 to 2030. In 2030, sales will be 753.6 million Dollars and will change by 25.6 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Canada

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Alberta	55,875.4	70,875.2	90,059.8	291,250.1
British Columbia	60,496.4	75,964.6	95,555.7	293,788.6
Manitoba	16,636.0	20,867.4	26,221.2	80,191.0
New Brunswick	9,286.8	11,548.9	14,387.3	42,142.5
Newfoundland and Labrador	6,470.3	8,051.5	10,036.7	29,492.7
Northwest Territories	550.8	687.0	858.4	2,551.5
Nova Scotia	11,657.1	14,500.6	18,069.4	53,000.9
Nunavut	489.9	620.0	786.0	2,512.7
Ontario	178,404.6	223,972.8	281,674.5	865,089.5
Prince Edward Island	1,881.5	2,354.4	2,951.4	8,919.1
Québec [Quebec]	104,933.1	131,422.8	164,889.2	500,439.2
Saskatchewan	14,500.5	18,210.4	22,909.6	70,479.9
Yukon	495.5	625.7	791.4	2,501.3

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Chile

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	25,710.0	0.21%		
2020	25,486.2	0.17%	2019-2020	-0.9%
2021	30,293.1	0.17%	2020-2021	18.9%
2022	36,387.8	0.16%	2021-2022	20.1%
2023	45,121.4	0.15%	2022-2023	24.0%
2024	53,647.6	0.14%	2023-2024	18.9%
2025	64,134.7	0.14%	2024-2025	19.5%
2030	156,262.9	0.11%	CAGR 2025-2030	28.7%

<u>Pesos</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Pesos 000s)</u>	<u>Year-to-Year Change</u>	
2019	19,282,522.5		
2020	19,114,617.2	2019-2020	-0.9%
2021	22,719,818.7	2020-2021	18.9%
2022	27,290,855.8	2021-2022	20.1%
2023	33,841,018.5	2022-2023	24.0%
2024	40,235,701.7	2023-2024	18.9%
2025	48,101,032.1	2024-2025	19.5%
2030	117,197,160.3	CAGR 2025-2030	28.7%

In 2024, sales for this product in Chile is forecast to be \$53.6 million dollars.

Sales are forecast to change by 19.5 percent in the next year (2024 to 2025). In 2024, sales will be 40235.7 million Pesos and will change by 18.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in Chile is forecast to be \$156.3 million dollars.

The compound annual growth rate is projected to change by 28.7 percent from 2025 to 2030. In 2030, sales will be 40235.7 million Pesos and will change by 18.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Chile

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Antofagasta	1,564.1	1,866.6	2,239.8	5,558.4
Arica y Parinacota	566.9	673.0	803.2	1,940.9
Atacama	745.0	885.2	1,057.6	2,568.8
Aisén	266.6	316.9	378.8	922.0
Biobío (Bío Bío)	5,165.4	6,113.9	7,276.2	17,329.7
Coquimbo	1,958.9	2,338.9	2,807.9	6,985.4
La Araucanía	2,428.9	2,877.3	3,427.2	8,197.5
O'Higgins	2,341.0	2,783.0	3,326.6	8,097.8
Los Lagos	2,116.9	2,515.8	3,006.2	7,306.2
Los Ríos	960.4	1,134.9	1,348.3	3,184.5
Magallanes y de la Antártica	411.4	486.2	577.7	1,365.6
Maule	2,638.4	3,128.8	3,730.6	8,969.4
Región Metro. de Santiago	18,466.3	21,987.2	26,322.7	64,580.3
Tarapacá	905.4	1,093.9	1,329.0	3,508.3
Valparaíso	4,585.6	5,445.8	6,502.7	15,748.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

China

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	3,469,959.7	28.05%		
2020	4,370,773.2	29.00%	2019-2020	26.0%
2021	5,474,661.0	31.52%	2020-2021	25.3%
2022	7,174,711.5	31.65%	2021-2022	31.1%
2023	9,822,866.9	32.70%	2022-2023	36.9%
2024	12,680,885.6	33.66%	2023-2024	29.1%
2025	16,295,824.9	34.42%	2024-2025	28.5%
2030	53,317,918.7	36.97%	CAGR 2025-2030	45.4%

<u>RMBs</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(RMBs 000s)</u>	<u>Year-to-Year Change</u>	
2019	22,554,738.0		
2020	28,410,025.6	2019-2020	26.0%
2021	35,585,296.8	2020-2021	25.3%
2022	46,635,624.5	2021-2022	31.1%
2023	63,848,635.1	2022-2023	36.9%
2024	82,425,756.4	2023-2024	29.1%
2025	105,922,861.6	2024-2025	28.5%
2030	346,566,471.8	CAGR 2025-2030	45.4%

In 2024, sales for this product in China is forecast to be \$12,680.9 million dollars.

Sales are forecast to change by 28.5 percent in the next year (2024 to 2025). In 2024, sales will be 82425.8 million RMBs and will change by 29.1 percent in the next year (2024 to 2025).

In 2030, sales for this product in China is forecast to be \$53,317.9 million dollars.

The compound annual growth rate is projected to change by 45.4 percent from 2025 to 2030. In 2030, sales will be 82425.8 million RMBs and will change by 29.1 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

China

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Anhui	413,349.7	531,522.6	680,337.9	2,180,987.9
Beijing	155,800.3	204,486.7	267,153.5	948,754.2
Chongqing	198,667.0	254,856.5	325,435.2	1,030,914.6
Fujian	271,990.4	352,005.6	453,465.6	1,501,178.6
Gansu	185,419.3	239,266.2	307,331.3	1,002,645.0
Guangdong	815,901.0	1,065,359.3	1,384,693.4	4,792,421.4
Guangxi	322,344.1	415,151.4	532,221.2	1,719,626.8
Guizhou	246,231.8	316,902.5	405,981.2	1,307,137.5
Hainan	63,277.2	81,994.3	105,759.3	352,296.0
Hebei	516,444.4	667,017.2	857,530.2	2,810,121.4
Heilongjiang	257,619.8	331,008.9	423,349.4	1,351,789.8
Henan	664,826.2	856,488.2	1,098,331.7	3,553,922.3
Hubei	407,052.2	523,676.4	670,617.3	2,155,000.1
Hunan	453,806.9	583,807.8	747,597.0	2,401,982.0
Jiangsu	553,749.7	714,261.9	917,065.4	2,985,578.2
Jiangxi	315,199.5	406,908.6	522,886.1	1,709,512.1
Jilin	191,231.9	246,133.9	315,341.9	1,015,654.6
Liaoning	302,459.3	389,270.1	498,693.9	1,605,693.7
Nei Menggu [Inner Mongolia]	173,982.7	224,305.0	287,853.0	934,854.7
Ningxia	48,259.8	62,735.3	81,177.9	274,777.0
Qinghai	40,266.9	52,111.3	67,129.6	222,196.7
Shaanxi	263,958.4	340,291.2	436,681.6	1,417,913.5
Shandong	673,744.3	868,528.2	1,114,478.2	3,617,627.4
Shanghai	176,974.7	231,566.6	301,605.9	1,054,805.8
Shanxi	260,030.0	336,417.3	433,243.6	1,431,907.5
Sichuan	465,617.2	591,518.5	748,008.5	2,256,895.0
Tianjin	94,479.1	122,890.7	159,111.4	540,164.4
Xinjiang	167,787.2	218,421.2	283,028.1	964,755.4
Xizang [Tibet]	22,794.6	29,618.2	38,307.6	129,369.3
Yunnan	336,967.4	436,022.1	561,601.1	1,857,543.7
Zhejiang	381,317.0	493,170.9	634,903.5	2,094,946.0
Zhejiang	381,317.0	493,170.9	634,903.5	2,094,946.0

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Czech Republic

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	51,838.7	0.42%		
2020	60,848.8	0.40%	2019-2020	17.4%
2021	66,242.3	0.38%	2020-2021	8.9%
2022	87,870.6	0.39%	2021-2022	32.7%
2023	117,263.8	0.39%	2022-2023	33.5%
2024	147,656.3	0.39%	2023-2024	25.9%
2025	185,400.5	0.39%	2024-2025	25.6%
2030	551,032.0	0.38%	CAGR 2025-2030	39.4%

<u>Korunas</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Korunas 000s)</u>	<u>Year-to-Year Change</u>	
2019	1,124,899.6		
2020	1,320,418.1	2019-2020	17.4%
2021	1,437,457.7	2020-2021	8.9%
2022	1,906,792.4	2021-2022	32.7%
2023	2,544,624.3	2022-2023	33.5%
2024	3,204,141.0	2023-2024	25.9%
2025	4,023,189.8	2024-2025	25.6%
2030	11,957,393.7	CAGR 2025-2030	39.4%

In 2024, sales for this product in Czech Republic is forecast to be \$147.7 million dollars. Sales are forecast to change by 25.6 percent in the next year (2024 to 2025). In 2024, sales will be 3204.1 million Korunas and will change by 25.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in Czech Republic is forecast to be \$551.0 million dollars. The compound annual growth rate is projected to change by 39.4 percent from 2025 to 2030. In 2030, sales will be 3204.1 million Korunas and will change by 25.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Czech Republic

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
South Bohemian Region	7,109.1	8,951.7	11,239.9	33,402.7
South Moravian Region	13,061.1	16,451.0	20,661.9	61,487.5
Karlovy Vary Region	3,302.2	4,149.3	5,199.0	15,288.6
Hradec Králové Region	6,072.6	7,630.0	9,559.6	28,102.6
Liberecký kraj [Liberec Region]	4,899.5	6,170.4	7,749.1	23,048.5
Moravian-Silesian Region	13,365.7	16,771.3	20,984.9	61,283.5
Olomouc Region	7,038.1	8,849.7	11,095.9	32,739.8
Pardubice Region	5,788.6	7,292.6	9,161.4	27,294.5
Plzeňský kraj [Plzeň Region]	6,402.2	8,063.4	10,126.7	30,126.6
Praha [Prague]	14,106.9	17,787.2	22,364.2	66,911.9
Central Bohemian Region	14,903.2	18,874.1	23,835.2	72,896.6
Ústecký kraj [Ústí Region]	9,094.8	11,433.7	14,333.4	42,254.8
Vysočina	5,637.9	7,085.0	8,878.3	26,121.8
Zlínský kraj [Zlín Region]	6,481.7	8,147.0	10,211.1	30,072.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Denmark

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	43,241.5	0.35%		
2020	56,263.3	0.37%	2019-2020	30.1%
2021	53,108.9	0.31%	2020-2021	-5.6%
2022	72,018.9	0.32%	2021-2022	35.6%
2023	96,138.4	0.32%	2022-2023	33.5%
2024	121,356.0	0.32%	2023-2024	26.2%
2025	153,343.4	0.32%	2024-2025	26.4%
2030	460,823.9	0.32%	CAGR 2025-2030	40.1%

<u>Kroners</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Kroners 000s)</u>	<u>Year-to-Year Change</u>	
2019	263,773.2		
2020	343,205.9	2019-2020	30.1%
2021	323,964.2	2020-2021	-5.6%
2022	439,315.0	2021-2022	35.6%
2023	586,444.2	2022-2023	33.5%
2024	740,271.4	2023-2024	26.2%
2025	935,394.7	2024-2025	26.4%
2030	2,811,025.9	CAGR 2025-2030	40.1%

In 2024, sales for this product in Denmark is forecast to be \$121.4 million dollars. Sales are forecast to change by 26.4 percent in the next year (2024 to 2025). In 2024, sales will be 740.3 million Kroners and will change by 26.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Denmark is forecast to be \$460.8 million dollars. The compound annual growth rate is projected to change by 40.1 percent from 2025 to 2030. In 2030, sales will be 740.3 million Kroners and will change by 26.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Denmark

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Hovedstaden [Capital Region]	30,131.0	38,111.4	48,254.2	146,476.5
Midtjylland [Mid Jutland]	21,861.7	27,610.7	34,906.7	105,172.4
Nordjylland [North Jutland]	9,829.2	12,383.4	15,617.0	46,476.1
Sjælland [Zealand]	13,932.0	17,558.6	22,151.6	66,040.5
Syddanmark [South Denmark]	20,384.4	25,691.9	32,413.8	96,658.4

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Egypt

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	43,769.9	0.35%		
2020	67,723.2	0.45%	2019-2020	54.7%
2021	73,339.1	0.42%	2020-2021	8.3%
2022	104,606.8	0.46%	2021-2022	42.6%
2023	145,506.4	0.48%	2022-2023	39.1%
2024	190,794.6	0.51%	2023-2024	31.1%
2025	248,854.2	0.53%	2024-2025	30.4%
2030	849,220.6	0.59%	CAGR 2025-2030	48.3%

<u>Pounds</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Pounds 000s)</u>	<u>Year-to-Year Change</u>	
2019	682,810.4		
2020	1,056,482.1	2019-2020	54.7%
2021	1,144,090.2	2020-2021	8.3%
2022	1,631,866.8	2021-2022	42.6%
2023	2,269,900.2	2022-2023	39.1%
2024	2,976,396.4	2023-2024	31.1%
2025	3,882,125.0	2024-2025	30.4%
2030	13,247,841.0	CAGR 2025-2030	48.3%

In 2024, sales for this product in Egypt is forecast to be \$190.8 million dollars.

Sales are forecast to change by 30.4 percent in the next year (2024 to 2025). In 2024, sales will be 2976.4 million Pounds and will change by 31.1 percent in the next year (2024 to 2025).

In 2030, sales for this product in Egypt is forecast to be \$849.2 million dollars.

The compound annual growth rate is projected to change by 48.3 percent from 2025 to 2030. In 2030, sales will be 2976.4 million Pounds and will change by 31.1 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Egypt

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Ad-Daqahiyah [Dakahlia]	9,864.8	12,910.3	16,806.4	56,787.4
Al-Baḥr al-Aḥmar [Red Sea]	595.2	791.5	1,047.0	3,833.0
Al-Buḥayrah [Beheira]	9,418.5	12,330.8	16,057.8	54,357.0
Al-Fayyūm [Fayoum]	5,588.9	7,372.1	9,672.7	33,995.2
Al-Gharbiyah [Gharbia]	7,578.0	9,894.7	12,851.1	42,926.6
Al-Iskandariyah [Alexandria]	7,889.2	10,322.8	13,435.4	45,352.6
Al-Ismā'īliyah [Ismailia]	2,038.8	2,688.7	3,527.1	12,384.6
Al-Jīzah [Giza]	13,441.2	17,717.5	23,230.2	81,358.7
Al-Minūfiyah [Monufia]	6,551.1	8,579.9	11,177.3	37,905.2
Al-Minyā	8,511.4	11,179.4	14,605.8	50,251.7
Al-Qāhirah [Cairo]	14,379.6	18,733.2	24,275.3	80,171.7
Al-Qalyūbyah [Qalyubia]	8,711.0	11,453.6	14,979.9	51,811.6
Al-Uqṣor [Luxor]	1,921.8	2,520.4	3,287.9	11,227.2
Al-Wādī al-Jadīd [New Valley]	375.0	492.9	644.3	2,222.8
Ash-Sharqiyah [Sharqia]	11,036.0	14,498.7	18,946.6	65,260.4
As-Suways [Suez]	1,119.3	1,473.8	1,930.2	6,723.0
Aswān	2,262.8	2,960.5	3,852.6	12,996.0
Asyūt	6,747.0	8,837.1	11,513.3	39,060.5
Banī Suwayf [Beni Suef]	4,869.4	6,403.8	8,377.0	29,002.0
Būr Sa'īd [Port Said]	1,140.2	1,494.0	1,947.3	6,620.0
Dumyāṭ [Damietta]	2,286.4	3,001.5	3,919.3	13,448.9
Kafr ash-Shaykh [Kafr el-Sheikh]	5,113.6	6,687.5	8,699.5	29,291.2
Maṭrūḥ [Matrouh]	693.4	918.4	1,210.2	4,343.8
Qinā [Qena]	4,868.7	6,375.9	8,305.2	28,151.2
Sawḥāj [Sohag]	7,624.2	9,996.9	13,038.4	44,475.7
Sīnā' al-Janūbiyah [South Sinai]	176.9	231.9	302.3	1,029.1
North Sinai	703.9	927.0	1,214.3	4,233.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Finland

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	35,179.5	0.28%		
2020	43,879.0	0.29%	2019-2020	24.7%
2021	48,635.0	0.28%	2020-2021	10.8%
2022	62,800.3	0.28%	2021-2022	29.1%
2023	82,116.0	0.27%	2022-2023	30.8%
2024	101,621.1	0.27%	2023-2024	23.8%
2025	126,115.2	0.27%	2024-2025	24.1%
2030	358,899.4	0.25%	CAGR 2025-2030	36.9%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	28,847.2		
2020	35,980.8	2019-2020	24.7%
2021	39,880.7	2020-2021	10.8%
2022	51,496.3	2021-2022	29.1%
2023	67,335.1	2022-2023	30.8%
2024	83,329.3	2023-2024	23.8%
2025	103,414.4	2024-2025	24.1%
2030	294,297.5	CAGR 2025-2030	36.9%

In 2024, sales for this product in Finland is forecast to be \$101.6 million dollars.

Sales are forecast to change by 24.1 percent in the next year (2024 to 2025). In 2024, sales will be 83.3 million Euros and will change by 23.8 percent in the next year (2024 to 2025).

In 2030, sales for this product in Finland is forecast to be \$358.9 million dollars.

The compound annual growth rate is projected to change by 36.9 percent from 2025 to 2030. In 2030, sales will be 83.3 million Euros and will change by 23.8 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Finland

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Åland [Åland Islands]	440.3	546.3	679.8	1,959.2
Etelä-Karjala [South Karelia]	1,894.5	2,328.1	2,869.0	7,879.0
South Ostrobothnia	2,784.3	3,424.6	4,223.9	11,650.1
Etelä-Savo [South Savonia]	2,133.1	2,611.8	3,206.9	8,646.8
Kainuu	1,062.8	1,298.9	1,591.9	4,253.7
Kanta-Häme [Tavastia Proper]	2,586.4	3,196.0	3,960.5	11,181.6
Central Ostrobothnia	1,008.8	1,243.5	1,537.2	4,287.5
Keski-Suomi [Central Finland]	4,104.5	5,071.2	6,283.2	17,726.3
Kymenlaakso (Kymmenedalen)	2,565.8	3,150.8	3,879.9	10,615.3
Lappi [Lapland]	2,592.4	3,181.2	3,914.7	10,674.3
Päijät-Häme [Päijänne Tavastia]	2,973.1	3,667.4	4,536.5	12,694.9
Pirkanmaa	7,670.8	9,518.4	11,844.0	34,138.8
Pohjanmaa [Ostrobothnia]	2,664.1	3,289.3	4,072.5	11,447.6
Pohjois-Karjala [North Karelia]	2,368.9	2,910.4	3,585.7	9,833.8
North Ostrobothnia	6,183.9	7,667.0	9,532.3	27,362.2
Pohjois-Savo [North Savonia]	3,592.3	4,418.8	5,450.8	15,041.4
Satakunta	3,207.5	3,939.9	4,853.2	13,298.9
Uusimaa (Nyland)	25,157.1	31,338.6	39,148.1	115,066.8
Southwest Finland	7,125.5	8,818.8	10,945.0	31,141.4

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

France

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	247,853.6	2.00%		
2020	279,663.1	1.86%	2019-2020	12.8%
2021	292,906.3	1.69%	2020-2021	4.7%
2022	377,216.6	1.66%	2021-2022	28.8%
2023	477,801.2	1.59%	2022-2023	26.7%
2024	573,131.3	1.52%	2023-2024	20.0%
2025	690,585.9	1.46%	2024-2025	20.5%
2030	1,787,707.9	1.24%	CAGR 2025-2030	31.8%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	203,240.0		
2020	229,323.7	2019-2020	12.8%
2021	240,183.2	2020-2021	4.7%
2022	309,317.6	2021-2022	28.8%
2023	391,797.0	2022-2023	26.7%
2024	469,967.7	2023-2024	20.0%
2025	566,280.4	2024-2025	20.5%
2030	1,465,920.5	CAGR 2025-2030	31.8%

In 2024, sales for this product in France is forecast to be \$573.1 million dollars. Sales are forecast to change by 20.5 percent in the next year (2024 to 2025). In 2024, sales will be 470 million Euros and will change by 20 percent in the next year (2024 to 2025).

In 2030, sales for this product in France is forecast to be \$1,787.7 million dollars. The compound annual growth rate is projected to change by 31.8 percent from 2025 to 2030. In 2030, sales will be 470 million Euros and will change by 20 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

France

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Auvergne - Rhône - Alpes	57,928.8	69,547.5	83,873.1	218,050.9
Bourgogne [Burgundy]	20,641.7	24,672.2	29,622.8	75,325.6
Bretagne [Brittany]	24,111.1	28,933.5	34,877.1	90,461.6
Centre - Val de Loire	19,457.5	23,319.8	28,074.9	72,361.5
Corse [Corsica]	2,350.7	2,828.7	3,419.2	8,991.7
Grand Est	41,047.7	49,088.4	58,969.0	150,340.2
Hauts-de-France	44,112.3	52,733.2	63,323.3	161,133.5
Île-de-France	90,120.5	108,126.5	130,315.1	337,704.6
Normandie [Normandy]	24,994.7	29,929.5	36,000.1	92,375.0
Nouvelle-Aquitaine	43,076.7	51,656.3	62,224.2	160,830.2
Pyrénées-Méditerranée	43,465.1	52,345.6	63,324.8	167,213.6
Pays de la Loire	27,394.3	32,914.9	39,726.4	103,690.9
Provence - Alpes - Côte d'Azur	39,100.1	47,035.2	56,836.0	149,228.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Germany

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	684,475.3	5.53%		
2020	791,237.3	5.25%	2019-2020	15.6%
2021	895,764.6	5.16%	2020-2021	13.2%
2022	1,134,330.7	5.00%	2021-2022	26.6%
2023	1,456,201.4	4.85%	2022-2023	28.4%
2024	1,768,850.1	4.69%	2023-2024	21.5%
2025	2,154,622.0	4.55%	2024-2025	21.8%
2030	5,730,146.9	3.97%	CAGR 2025-2030	33.2%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	561,269.7		
2020	648,814.6	2019-2020	15.6%
2021	734,527.0	2020-2021	13.2%
2022	930,151.2	2021-2022	26.6%
2023	1,194,085.1	2022-2023	28.4%
2024	1,450,457.1	2023-2024	21.5%
2025	1,766,790.1	2024-2025	21.8%
2030	4,698,720.4	CAGR 2025-2030	33.2%

In 2024, sales for this product in Germany is forecast to be \$1,768.9 million dollars. Sales are forecast to change by 21.8 percent in the next year (2024 to 2025). In 2024, sales will be 1450.5 million Euros and will change by 21.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Germany is forecast to be \$5,730.1 million dollars. The compound annual growth rate is projected to change by 33.2 percent from 2025 to 2030. In 2030, sales will be 1450.5 million Euros and will change by 21.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Germany

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Baden-Württemberg	194,888.0	237,248.5	289,619.8	778,550.9
Bayern [Bavaria]	230,972.8	281,407.4	343,808.7	928,022.1
Berlin	62,085.1	75,482.9	92,027.3	245,805.3
Brandenburg	43,969.6	53,323.7	64,847.8	171,042.3
Bremen	11,855.6	14,397.0	17,531.9	46,552.9
Hamburg	32,069.3	39,044.4	47,668.8	128,216.9
Hessen [Hesse]	109,833.6	133,550.9	162,841.3	435,200.4
Western Pomerania	27,719.8	33,459.9	40,501.0	104,353.8
Niedersachsen [Lower Saxony]	140,983.1	171,315.4	208,752.8	556,092.2
North Rhine-Westphalia	315,597.0	383,137.5	466,426.1	1,236,685.2
Rheinland-Pfalz	72,228.7	87,782.6	106,982.7	285,216.0
Saarland	17,329.6	20,955.9	25,411.5	66,066.8
Sachsen [Saxony]	70,244.3	84,842.8	102,760.3	265,589.9
Sachsen-Anhalt [Saxony-Anhalt]	37,916.0	45,596.3	54,984.9	139,041.9
Schleswig-Holstein	51,451.0	62,626.7	76,442.0	205,366.8
Thüringen [Thuringia]	37,057.8	44,678.1	54,015.2	138,343.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Hungary

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	26,235.3	0.21%		
2020	31,111.5	0.21%	2019-2020	18.6%
2021	34,335.8	0.20%	2020-2021	10.4%
2022	44,515.2	0.20%	2021-2022	29.6%
2023	58,958.8	0.20%	2022-2023	32.4%
2024	73,715.6	0.20%	2023-2024	25.0%
2025	91,993.8	0.19%	2024-2025	24.8%
2030	267,580.5	0.19%	CAGR 2025-2030	38.2%

<u>Forints</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Forints 000s)</u>	<u>Year-to-Year Change</u>	
2019	7,686,930.8		
2020	9,115,655.7	2019-2020	18.6%
2021	10,060,375.6	2020-2021	10.4%
2022	13,042,958.8	2021-2022	29.6%
2023	17,274,940.7	2022-2023	32.4%
2024	21,598,668.0	2023-2024	25.0%
2025	26,954,171.7	2024-2025	24.8%
2030	78,401,098.3	CAGR 2025-2030	38.2%

In 2024, sales for this product in Hungary is forecast to be \$73.7 million dollars.

Sales are forecast to change by 24.8 percent in the next year (2024 to 2025). In 2024, sales will be 21598.7 million Forints and will change by 25 percent in the next year (2024 to 2025).

In 2030, sales for this product in Hungary is forecast to be \$267.6 million dollars.

The compound annual growth rate is projected to change by 38.2 percent from 2025 to 2030. In 2030, sales will be 21598.7 million Forints and will change by 25 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Hungary

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Bács-Kiskun	3,057.5	3,818.1	4,758.7	13,748.3
Baranya	2,207.2	2,751.0	3,422.4	9,794.9
Békés	2,033.8	2,528.7	3,138.2	8,873.2
Borsod-Abaúj-Zemplén	3,914.6	4,873.8	6,056.7	17,241.2
Budapest	10,149.6	12,647.3	15,729.8	44,963.8
Csongrád	2,427.1	3,030.0	3,775.4	10,891.5
Fejér	2,548.5	3,191.0	3,988.0	11,678.1
Győr-Moson-Sopron	2,778.4	3,487.6	4,369.6	12,957.8
Hajdú-Bihar	3,233.2	4,044.8	5,050.7	14,727.2
Heves	1,784.3	2,224.8	2,768.9	7,941.6
Jász-Nagykun-Szolnok	2,233.2	2,782.8	3,461.1	9,894.3
Komárom-Esztergom	1,798.3	2,246.9	2,802.0	8,118.5
Nógrád	1,150.9	1,432.3	1,779.2	5,054.0
Pest	7,915.1	10,017.1	12,653.4	39,087.2
Somogy	1,828.4	2,279.5	2,836.4	8,127.6
Szabolcs-Szatmár-Bereg	3,367.6	4,212.6	5,259.8	15,331.0
Tolna	1,323.8	1,649.1	2,050.4	5,851.7
Vas	1,514.6	1,890.8	2,356.1	6,798.0
Veszprém	2,062.3	2,574.3	3,207.2	9,246.4
Zala	1,630.4	2,032.9	2,529.9	7,254.3

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

India

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	347,198.7	2.81%		
2020	413,259.4	2.74%	2019-2020	19.0%
2021	508,447.2	2.93%	2020-2021	23.0%
2022	634,128.4	2.80%	2021-2022	24.7%
2023	833,204.9	2.77%	2022-2023	31.4%
2024	1,035,783.8	2.75%	2023-2024	24.3%
2025	1,290,370.5	2.73%	2024-2025	24.6%
2030	3,707,985.8	2.57%	CAGR 2025-2030	37.5%

<u>Rupees</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Rupees Mills)</u>	<u>Year-to-Year Change</u>	
2019	25,623.3		
2020	30,498.5	2019-2020	19.0%
2021	37,523.4	2020-2021	23.0%
2022	46,798.7	2021-2022	24.7%
2023	61,490.5	2022-2023	31.4%
2024	76,440.8	2023-2024	24.3%
2025	95,229.3	2024-2025	24.6%
2030	273,649.3	CAGR 2025-2030	37.5%

In 2024, sales for this product in India is forecast to be \$1,035.8 million dollars.

Sales are forecast to change by 24.6 percent in the next year (2024 to 2025). In 2024, sales will be 76.4 million Rupees and will change by 24.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in India is forecast to be \$3,708.0 million dollars.

The compound annual growth rate is projected to change by 37.5 percent from 2025 to 2030. In 2030, sales will be 76.4 million Rupees and will change by 24.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

India

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Andhra Pradesh	32,918.9	40,693.2	50,410.5	140,816.6
Arunāchal Pradesh	968.0	1,207.7	1,510.0	4,416.7
Assam	21,227.9	26,356.2	32,792.9	93,628.1
Bihār	73,263.2	91,436.6	114,361.0	335,121.6
Chandīgarh	774.6	968.2	1,212.7	3,579.2
Chhattīsgarh	17,309.7	21,516.5	26,802.7	76,973.9
Goa	980.1	1,212.5	1,503.1	4,214.6
Gujarāt	41,681.2	51,843.7	64,621.3	186,169.4
Haryāna	17,854.1	22,251.5	27,791.0	80,866.0
Himāchal Pradesh	4,649.7	5,764.1	7,160.7	20,287.6
Jammu & Kashmīr	8,873.1	11,074.0	13,850.3	40,584.8
Jhārkhand	22,791.1	28,376.4	35,405.8	102,516.4
Karnātaka	41,348.0	51,292.7	63,764.8	181,277.0
Kerala	21,943.4	27,064.8	33,452.5	92,402.8
Madhya Pradesh	50,371.4	62,701.9	78,217.0	226,223.9
Mahārāshtra	77,581.5	96,418.3	120,083.9	344,545.6
Manipur	1,983.1	2,471.5	3,086.8	8,982.0
Meghālaya	2,101.9	2,626.5	3,289.1	9,697.5
Odisha (Orissa)	28,278.8	35,050.9	43,537.4	123,256.5
Punjab	18,974.3	23,547.9	29,286.3	83,436.4
Rājasthān	48,254.9	60,160.7	75,163.6	219,087.0
Tamil Nādu	47,706.5	59,061.4	73,274.5	206,222.0
Telangana	23,757.9	29,462.5	36,614.8	103,926.3
Tripura	2,472.5	3,065.0	3,807.6	10,786.7
Uttarākhnd (Uttaranchal)	6,869.4	8,533.9	10,624.3	30,422.3
Uttar Pradesh	139,430.2	173,647.8	216,723.4	628,381.1
West Bengal	61,866.3	76,717.7	95,336.9	270,534.3

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Indonesia

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	200,118.0	1.62%		
2020	238,194.8	1.58%	2019-2020	19.0%
2021	254,634.0	1.47%	2020-2021	6.9%
2022	334,880.6	1.48%	2021-2022	31.5%
2023	438,271.9	1.46%	2022-2023	30.9%
2024	542,667.4	1.44%	2023-2024	23.8%
2025	673,386.9	1.42%	2024-2025	24.1%
2030	1,955,054.5	1.36%	CAGR 2025-2030	38.1%

<u>Rupiahs</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Rupiahs Mill.)</u>	<u>Year-to-Year Change</u>	
2019	2,831,870.4		
2020	3,370,694.4	2019-2020	19.0%
2021	3,603,325.5	2020-2021	6.9%
2022	4,738,895.3	2021-2022	31.5%
2023	6,201,985.9	2022-2023	30.9%
2024	7,679,286.4	2023-2024	23.8%
2025	9,529,098.3	2024-2025	24.1%
2030	27,665,976.4	CAGR 2025-2030	38.1%

In 2024, sales for this product in Indonesia is forecast to be \$542.7 million dollars. Sales are forecast to change by 24.1 percent in the next year (2024 to 2025). In 2024, sales will be 7679.3 million Rupiahs and will change by 23.8 percent in the next year (2024 to 2025).

In 2030, sales for this product in Indonesia is forecast to be \$1,955.1 million dollars. The compound annual growth rate is projected to change by 38.1 percent from 2025 to 2030. In 2030, sales will be 7679.3 million Rupiahs and will change by 23.8 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Indonesia

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Aceh	8,674.1	10,769.0	13,398.5	39,398.5
Bali	7,398.1	9,202.0	11,470.3	34,043.7
Banten	20,422.0	25,395.9	31,648.7	93,827.9
Bengkulu	3,377.5	4,208.0	5,253.9	15,722.6
Gorontalo	1,925.3	2,386.2	2,963.7	8,639.9
Jakarta	17,092.0	21,091.7	26,083.0	74,405.5
Jambi	6,184.2	7,727.8	9,677.1	29,392.0
Jawa Barat [West Java]	78,989.7	97,760.6	121,250.3	350,991.8
Jawa Tengah [Central Java]	57,018.9	70,195.5	86,601.7	244,133.6
Jawa Timur [East Java]	65,837.1	81,114.9	100,151.4	283,436.7
West Borneo	8,486.9	10,538.7	13,114.5	38,599.6
South Borneo	7,052.9	8,778.2	10,948.8	32,598.3
Central Borneo	4,589.7	5,742.5	7,200.2	22,008.2
East Borneo	6,324.9	7,922.8	9,945.7	30,578.9
North Borneo	995.5	1,225.2	1,511.0	4,252.7
Bangka Belitung Islands	2,368.3	2,949.8	3,681.9	11,002.5
Kepulauan Riau [Riau Islands]	3,523.3	4,430.4	5,583.0	17,498.9
Lampung	14,050.7	17,394.3	21,579.5	62,551.2
Maluku [Moluccas]	2,456.1	2,999.9	3,672.0	9,951.2
Northern Moluccas	1,971.3	2,447.5	3,045.4	8,957.8
Western Lesser Sunda Islands	8,523.2	10,574.6	13,147.6	38,528.4
Eastern Lesser Sunda Islands	9,143.4	11,389.8	14,218.4	42,514.3
Papua (Irian Jaya)	5,813.7	7,318.4	9,232.2	29,092.3
Papua Barat [West Papua]	1,516.3	1,894.7	2,372.5	7,203.8
Riau	11,687.2	14,686.3	18,494.4	57,769.2
Sulbar [West Sulawesi]	2,193.1	2,724.6	3,392.1	10,007.7
[South Sulawesi]	14,293.8	17,628.8	21,788.3	61,978.6
Central Sulawesi	5,277.6	6,590.9	8,248.5	24,977.1
Southeast Sulawesi	4,667.9	5,850.2	7,347.6	22,648.8
North Sulawesi	3,726.0	4,557.2	5,585.8	15,240.8
Sumatera Barat [West Sumatra]	8,840.4	10,929.4	13,540.8	38,985.9
South Sumatra	13,485.6	16,668.4	20,646.4	59,376.4
North Sumatra	24,123.2	29,866.5	37,056.1	107,462.0
Yogyakarta	6,241.7	7,706.6	9,535.6	27,277.7

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Ireland

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	115,950.5	0.94%		
2020	166,424.2	1.10%	2019-2020	43.5%
2021	194,632.5	1.12%	2020-2021	16.9%
2022	276,263.8	1.22%	2021-2022	41.9%
2023	396,992.6	1.32%	2022-2023	43.7%
2024	537,460.3	1.43%	2023-2024	35.4%
2025	725,443.1	1.53%	2024-2025	35.0%
2030	2,870,391.3	1.99%	CAGR 2025-2030	59.1%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	95,079.4		
2020	136,467.9	2019-2020	43.5%
2021	159,598.7	2020-2021	16.9%
2022	226,536.3	2021-2022	41.9%
2023	325,533.9	2022-2023	43.7%
2024	440,717.4	2023-2024	35.4%
2025	594,863.3	2024-2025	35.0%
2030	2,353,720.9	CAGR 2025-2030	59.1%

In 2024, sales for this product in Ireland is forecast to be \$537.5 million dollars.

Sales are forecast to change by 35 percent in the next year (2024 to 2025). In 2024, sales will be 440.7 million Euros and will change by 35.4 percent in the next year (2024 to 2025).

In 2030, sales for this product in Ireland is forecast to be \$2,870.4 million dollars.

The compound annual growth rate is projected to change by 59.1 percent from 2025 to 2030. In 2030, sales will be 440.7 million Euros and will change by 35.4 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Ireland

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Connacht	45,858.9	61,973.6	83,498.8	327,390.8
Leinster	221,080.5	299,894.0	405,579.3	1,620,443.4
Munster	105,078.4	141,793.6	190,761.4	742,468.2
Ulster (part of)	24,974.7	33,799.1	45,603.5	180,089.0

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Israel

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	38,939.8	0.31%		
2020	52,190.0	0.35%	2019-2020	34.0%
2021	55,379.7	0.32%	2020-2021	6.1%
2022	73,347.9	0.32%	2021-2022	32.4%
2023	92,217.4	0.31%	2022-2023	25.7%
2024	110,770.2	0.29%	2023-2024	20.1%
2025	133,407.0	0.28%	2024-2025	20.4%
2030	356,344.0	0.25%	CAGR 2025-2030	33.4%

<u>Shekels</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Shekels 000s)</u>	<u>Year-to-Year Change</u>	
2019	124,607.3		
2020	167,007.9	2019-2020	34.0%
2021	177,214.9	2020-2021	6.1%
2022	234,713.2	2021-2022	32.4%
2023	295,095.7	2022-2023	25.7%
2024	354,464.7	2023-2024	20.1%
2025	426,902.5	2024-2025	20.4%
2030	1,140,300.7	CAGR 2025-2030	33.4%

In 2024, sales for this product in Israel is forecast to be \$110.8 million dollars.

Sales are forecast to change by 20.4 percent in the next year (2024 to 2025). In 2024, sales will be 354.5 million Shekels and will change by 20.1 percent in the next year (2024 to 2025).

In 2030, sales for this product in Israel is forecast to be \$356.3 million dollars.

The compound annual growth rate is projected to change by 33.4 percent from 2025 to 2030. In 2030, sales will be 354.5 million Shekels and will change by 20.1 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Israel

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
HaDarom [Southern District]	14,587.8	17,630.0	21,361.9	58,775.4
HaMerkaz [Central District]	24,251.0	29,294.5	35,478.8	97,387.2
HaZafon [Northern District]	15,925.5	19,132.5	23,045.0	61,548.2
Hefa [Haifa]	10,836.9	12,935.7	15,481.1	40,038.3
Tel Aviv	14,435.6	17,115.3	20,345.1	50,868.9
Yerushalayim [Jerusalem]	12,180.5	14,662.1	17,695.1	47,725.9

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Italy

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global		
Year	(USD 000s)	Market	Year-to-Year Change	
2019	270,838.8	2.19%		
2020	317,944.9	2.11%	2019-2020	17.4%
2021	356,240.6	2.05%	2020-2021	12.0%
2022	446,728.7	1.97%	2021-2022	25.4%
2023	581,321.5	1.94%	2022-2023	30.1%
2024	717,237.0	1.90%	2023-2024	23.4%
2025	890,991.7	1.88%	2024-2025	24.2%
2030	2,579,498.4	1.79%	CAGR 2025-2030	37.9%

Euros	Market Sales		
Year	(Euros 000s)	Year-to-Year Change	
2019	222,087.8		
2020	260,714.8	2019-2020	17.4%
2021	292,117.3	2020-2021	12.0%
2022	366,317.5	2021-2022	25.4%
2023	476,683.6	2022-2023	30.1%
2024	588,134.3	2023-2024	23.4%
2025	730,613.2	2024-2025	24.2%
2030	2,115,188.6	CAGR 2025-2030	37.9%

In 2024, sales for this product in Italy is forecast to be \$717.2 million dollars.

Sales are forecast to change by 24.2 percent in the next year (2024 to 2025). In 2024, sales will be 588.1 million Euros and will change by 23.4 percent in the next year (2024 to 2025).

In 2030, sales for this product in Italy is forecast to be \$2,579.5 million dollars.

The compound annual growth rate is projected to change by 37.9 percent from 2025 to 2030. In 2030, sales will be 588.1 million Euros and will change by 23.4 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Italy

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Abruzzo	12,686.1	15,643.9	19,423.4	56,077.8
Basilicata	5,390.4	6,613.7	8,170.2	23,000.5
Calabria	18,486.3	22,695.3	28,053.4	79,213.1
Campania	55,915.8	68,892.2	85,460.9	245,652.9
Emilia-Romagna	43,191.0	53,422.9	66,531.0	195,016.2
Friuli-Venezia Giulia	11,667.9	14,369.3	17,817.2	51,100.5
Lazio [Latium]	55,994.8	69,266.9	86,271.2	253,007.5
Liguria	14,664.2	17,997.2	22,239.0	62,694.3
Lombardia [Lombardy]	96,953.0	119,900.5	149,294.1	437,238.1
Marche	14,971.2	18,487.0	22,984.7	66,813.7
Molise	2,927.8	3,593.1	4,439.7	12,513.4
Piemonte [Piedmont]	41,871.8	51,571.3	63,952.3	183,511.9
Puglia [Apulia]	38,780.7	47,730.0	59,146.6	169,117.0
Sardegna [Sardinia]	15,717.2	19,340.1	23,960.9	68,438.4
Sicilia [Sicily]	48,110.0	59,226.9	73,411.6	210,164.8
Toscana [Tuscany]	35,816.0	44,178.8	54,867.2	158,625.8
Trentino-Alto Adige	10,445.5	12,946.2	16,155.5	47,837.7
Umbria	8,616.9	10,642.9	13,235.3	38,517.9
Valle d'Aosta (Vallée d'Aoste)	1,233.7	1,523.6	1,894.6	5,510.6
Veneto [Venetia]	47,881.5	59,195.3	73,683.1	215,446.2

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Japan

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	948,892.4	7.67%		
2020	1,126,813.6	7.48%	2019-2020	18.8%
2021	1,143,210.0	6.58%	2020-2021	1.5%
2022	1,500,832.2	6.62%	2021-2022	31.3%
2023	1,912,824.1	6.37%	2022-2023	27.5%
2024	2,311,696.7	6.14%	2023-2024	20.9%
2025	2,812,336.9	5.94%	2024-2025	21.7%
2030	7,543,051.2	5.23%	CAGR 2025-2030	33.6%

<u>Yen</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Yen Bills)</u>	<u>Year-to-Year Change</u>	
2019	97,735.9		
2020	116,061.8	2019-2020	18.8%
2021	117,750.6	2020-2021	1.5%
2022	154,585.7	2021-2022	31.3%
2023	197,020.9	2022-2023	27.5%
2024	238,104.8	2023-2024	20.9%
2025	289,670.7	2024-2025	21.7%
2030	776,934.3	CAGR 2025-2030	33.6%

In 2024, sales for this product in Japan is forecast to be \$2,311.7 million dollars. Sales are forecast to change by 21.7 percent in the next year (2024 to 2025). In 2024, sales will be 238.1 million Yen and will change by 20.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in Japan is forecast to be \$7,543.1 million dollars. The compound annual growth rate is projected to change by 33.6 percent from 2025 to 2030. In 2030, sales will be 238.1 million Yen and will change by 20.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Japan

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Aichi	114,756.9	139,184.9	169,933.8	463,894.5
Akita	14,928.4	17,880.0	21,557.4	55,263.5
Aomori	19,358.4	23,239.9	28,085.0	72,839.9
Chiba	95,473.3	115,734.4	141,227.0	384,498.3
Ehime	20,396.1	24,526.7	29,689.8	77,651.0
Fukui	11,701.5	14,095.5	17,092.0	45,087.8
Fukuoka	76,032.2	91,908.2	111,836.9	300,221.7
Fukushima	29,008.1	34,885.1	42,231.3	110,486.4
Gifu	30,518.1	36,803.4	44,677.9	118,527.1
Gumma (Gunma)	29,655.7	35,788.1	43,475.4	115,737.0
Hiroshima	41,875.0	50,504.9	61,317.8	162,761.5
Hokkaidō	79,522.1	95,744.5	116,041.6	305,362.2
Hyōgo	84,391.7	102,052.0	124,227.4	334,116.9
Ibaraki	43,800.7	52,863.0	64,223.9	171,049.7
Ishikawa	17,078.3	20,594.0	24,998.3	66,292.9
Iwate	18,878.8	22,681.0	27,429.9	71,406.9
Kagawa	14,370.3	17,304.1	20,975.2	55,232.7
Kagoshima	24,350.2	29,282.3	35,447.3	92,720.3
Kanagawa	141,561.1	171,886.9	210,095.1	576,744.0
Kōchi	10,842.7	13,025.7	15,752.1	40,994.3
Kumamoto	26,353.6	31,749.4	38,503.9	101,637.4
Kyōto	38,875.0	46,916.0	56,996.3	151,765.9
Mie	27,497.4	33,197.2	40,344.6	107,622.8
Miyagi	34,792.1	42,000.5	51,039.0	136,095.2
Miyazaki	16,310.7	19,633.9	23,791.2	62,539.9
Nagano	31,414.2	37,855.5	45,920.4	121,364.8
Nagasaki	19,962.5	23,960.6	28,950.4	75,014.0
Nara	20,338.6	24,502.7	29,715.2	78,434.3
Niigata	33,923.3	40,803.4	49,404.7	129,369.6
Ōita	17,248.7	20,773.2	25,184.0	66,363.8
Okayama	28,597.6	34,503.3	41,905.1	111,428.4
Okinawa	21,795.0	26,457.5	32,330.7	88,643.9
Ōsaka	130,644.6	157,717.4	191,664.8	511,160.4
Saga	12,190.0	14,670.3	17,772.5	46,666.0
Saitama	110,149.5	133,453.3	162,760.9	441,931.8

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

South Korea

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	378,444.0	3.06%		
2020	460,065.1	3.05%	2019-2020	21.6%
2021	514,235.8	2.96%	2020-2021	11.8%
2022	639,266.5	2.82%	2021-2022	24.3%
2023	808,562.5	2.69%	2022-2023	26.5%
2024	968,843.5	2.57%	2023-2024	19.8%
2025	1,166,880.5	2.46%	2024-2025	20.4%
2030	3,018,799.6	2.09%	CAGR 2025-2030	31.7%

<u>Won</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Won Mills)</u>	<u>Year-to-Year Change</u>	
2019	412,882.4		
2020	501,931.0	2019-2020	21.6%
2021	561,031.2	2020-2021	11.8%
2022	697,439.8	2021-2022	24.3%
2023	882,141.6	2022-2023	26.5%
2024	1,057,008.3	2023-2024	19.8%
2025	1,273,066.6	2024-2025	20.4%
2030	3,293,510.4	CAGR 2025-2030	31.7%

In 2024, sales for this product in South Korea is forecast to be \$968.8 million dollars. Sales are forecast to change by 20.4 percent in the next year (2024 to 2025). In 2024, sales will be 1057 million Won and will change by 19.8 percent in the next year (2024 to 2025).

In 2030, sales for this product in South Korea is forecast to be \$3,018.8 million dollars. The compound annual growth rate is projected to change by 31.7 percent from 2025 to 2030. In 2030, sales will be 1057 million Won and will change by 19.8 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

South Korea

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Busan (Pusan)	48,695.8	57,434.0	68,077.9	162,194.0
North Chungcheong	24,370.6	29,093.5	34,904.7	88,342.7
South Chungcheong	31,292.4	37,417.1	44,963.6	114,724.9
Daegu (Taegu)	37,743.6	44,838.6	53,532.7	132,221.1
Daejeon (Taejŏn)	26,021.4	31,261.9	37,744.9	98,609.4
Gangwon-do (Kangwŏn-do)	22,632.9	26,890.4	32,108.1	79,349.6
Gwangju (Kwangju)	25,428.4	30,534.4	36,848.5	96,031.8
Gyeonggi-do (Kyŏnggi-do)	233,730.9	285,262.6	349,891.6	989,050.3
North Gyeongsang	39,000.8	46,220.4	55,049.7	134,338.0
South Gyeongsang	51,696.9	61,804.6	74,256.8	189,302.2
Incheon (Inch'ŏn)	44,907.9	53,843.7	64,879.5	167,807.0
Jeju-do (Cheju-do)	8,561.0	10,210.8	12,239.3	30,837.4
Jeollabuk-do [North Jeolla]	25,815.6	30,514.4	36,248.3	87,306.2
Jeollanam-do [South Jeolla]	23,679.0	27,796.6	32,792.9	76,306.9
Sejong	1,268.0	1,508.6	1,803.7	4,487.4
Seoul (Sŏul)	145,703.6	172,648.6	205,596.6	501,327.6
Ulsan	18,013.6	21,563.5	25,941.7	66,563.2

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Malaysia

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global	Year-to-Year Change	
Year	(USD 000s)	Market		
2019	70,968.8	0.57%		
2020	85,002.4	0.56%	2019-2020	19.8%
2021	97,618.0	0.56%	2020-2021	14.8%
2022	128,723.1	0.57%	2021-2022	31.9%
2023	173,206.0	0.58%	2022-2023	34.6%
2024	220,516.0	0.59%	2023-2024	27.3%
2025	281,626.4	0.59%	2024-2025	27.7%
2030	909,557.3	0.63%	CAGR 2025-2030	44.6%

Ringgits	Market Sales	Year-to-Year Change	
Year	(Ringgits 000s)		
2019	288,843.0		
2020	345,959.7	2019-2020	19.8%
2021	397,305.2	2020-2021	14.8%
2022	523,903.0	2021-2022	31.9%
2023	704,948.6	2022-2023	34.6%
2024	897,500.2	2023-2024	27.3%
2025	1,146,219.3	2024-2025	27.7%
2030	3,701,898.4	CAGR 2025-2030	44.6%

In 2024, sales for this product in Malaysia is forecast to be \$220.5 million dollars.

Sales are forecast to change by 27.7 percent in the next year (2024 to 2025). In 2024, sales will be 897.5 million Ringgits and will change by 27.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in Malaysia is forecast to be \$909.6 million dollars.

The compound annual growth rate is projected to change by 44.6 percent from 2025 to 2030. In 2030, sales will be 897.5 million Ringgits and will change by 27.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Malaysia

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Johor	20,003.1	25,417.9	32,396.6	103,446.5
Kedah	11,374.7	14,406.4	18,301.6	57,487.6
Kelantan	9,285.7	11,746.4	14,904.5	46,536.8
Kuala Lumpur	9,398.6	11,876.3	15,052.8	46,742.8
Labuan	533.2	678.0	864.8	2,770.9
Melaka [Malacca]	4,905.1	6,238.3	7,957.9	25,519.9
Negeri Sembilan	5,930.2	7,508.0	9,534.6	29,895.4
Pahang	8,705.6	11,013.6	13,976.0	43,658.1
Perak	12,742.9	16,015.7	20,190.4	61,030.7
Perlis	1,289.6	1,623.3	2,049.5	6,242.0
Pinang (Pulau Pinang) [Penang]	9,189.7	11,638.8	14,785.4	46,438.2
Putrajaya	587.1	796.9	1,085.0	4,820.1
Sabah	21,090.5	26,995.2	34,658.2	114,766.5
Sarawak	14,629.2	18,545.1	23,580.6	74,406.0
Selangor	37,346.9	48,184.8	62,356.8	214,866.8
Terengganu	6,193.9	7,831.3	9,931.6	30,929.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Mexico

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	199,553.5	1.61%		
2020	212,209.4	1.41%	2019-2020	6.3%
2021	256,577.5	1.48%	2020-2021	20.9%
2022	319,867.9	1.41%	2021-2022	24.7%
2023	419,094.2	1.40%	2022-2023	31.0%
2024	520,416.0	1.38%	2023-2024	24.2%
2025	650,194.3	1.37%	2024-2025	24.9%
2030	1,931,189.5	1.34%	CAGR 2025-2030	39.4%

<u>New Pesos</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(New Pesos 000s)</u>	<u>Year-to-Year Change</u>	
2019	3,951,159.2		
2020	4,201,745.3	2019-2020	6.3%
2021	5,080,234.8	2020-2021	20.9%
2022	6,333,385.3	2021-2022	24.7%
2023	8,298,065.8	2022-2023	31.0%
2024	10,304,235.8	2023-2024	24.2%
2025	12,873,847.7	2024-2025	24.9%
2030	38,237,552.0	CAGR 2025-2030	39.4%

In 2024, sales for this product in Mexico is forecast to be \$520.4 million dollars.

Sales are forecast to change by 24.9 percent in the next year (2024 to 2025). In 2024, sales will be 10304.2 million New Pesos and will change by 24.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Mexico is forecast to be \$1,931.2 million dollars.

The compound annual growth rate is projected to change by 39.4 percent from 2025 to 2030. In 2030, sales will be 10304.2 million New Pesos and will change by 24.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Mexico

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Aguascalientes	4,770.6	5,965.5	7,505.2	23,063.6
Baja California	13,620.6	17,122.9	21,656.6	68,339.5
Baja California Sur	2,891.1	3,666.4	4,677.8	15,419.8
Campeche	3,151.5	3,921.7	4,909.8	14,725.0
Chiapas	18,811.5	23,472.3	29,466.2	89,573.0
Chihuahua	12,749.1	15,809.8	19,724.5	58,133.2
Ciudad de México	29,601.0	36,330.3	44,860.5	125,561.3
Coahuila	10,365.6	12,887.8	16,121.1	48,139.2
Colima	2,501.0	3,117.1	3,908.7	11,815.1
Durango	5,698.2	7,035.2	8,738.8	25,195.7
Guanajuato	20,190.5	25,063.2	31,301.0	92,721.7
Guerrero	11,935.3	14,743.5	18,323.3	52,969.1
Hidalgo	9,845.0	12,230.5	15,286.5	45,460.7
Jalisco	27,178.8	33,720.1	42,090.2	124,352.3
México	58,782.8	73,173.2	91,640.5	275,283.0
Michoacán	14,837.1	18,285.8	22,673.1	64,790.5
Morelos	6,533.6	8,103.3	10,111.2	29,821.3
Nayarit	3,859.4	4,781.0	5,958.7	17,471.4
Nuevo León	18,025.6	22,464.1	28,165.8	85,094.9
Oaxaca	13,567.8	16,776.3	20,869.6	60,620.8
Puebla	21,824.6	27,103.5	33,863.9	100,533.7
Querétaro	7,633.9	9,583.4	12,104.0	37,929.8
Quintana Roo	6,801.5	8,692.2	11,176.1	38,292.1
San Luis Potosí	9,285.0	11,485.5	14,293.8	41,606.3
Sinaloa	9,744.0	12,027.4	14,936.3	43,014.2
Sonora	10,067.6	12,523.3	15,672.7	46,912.3
Tabasco	8,410.9	10,458.5	13,083.9	39,091.0
Tamaulipas	12,686.9	15,799.0	19,794.2	59,579.0
Tlaxcala	4,600.0	5,737.6	7,199.9	21,844.4
Veracruz	26,612.9	32,838.7	40,767.4	117,210.6
Yucatán	7,434.9	9,242.3	11,559.0	34,485.6
Zacatecas	5,075.8	6,254.5	7,753.9	22,139.2

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Netherlands

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global		
Year	(USD 000s)	Market	Year-to-Year Change	
2019	89,002.3	0.72%		
2020	111,384.4	0.74%	2019-2020	25.1%
2021	122,318.3	0.70%	2020-2021	9.8%
2022	161,278.7	0.71%	2021-2022	31.9%
2023	215,688.2	0.72%	2022-2023	33.7%
2024	272,732.3	0.72%	2023-2024	26.4%
2025	345,127.0	0.73%	2024-2025	26.5%
2030	1,067,513.0	0.74%	CAGR 2025-2030	41.9%

Euros	Market Sales		
Year	(Euros 000s)	Year-to-Year Change	
2019	72,981.9		
2020	91,335.2	2019-2020	25.1%
2021	100,301.0	2020-2021	9.8%
2022	132,248.6	2021-2022	31.9%
2023	176,864.3	2022-2023	33.7%
2024	223,640.5	2023-2024	26.4%
2025	283,004.2	2024-2025	26.5%
2030	875,360.7	CAGR 2025-2030	41.9%

In 2024, sales for this product in Netherlands is forecast to be \$272.7 million dollars. Sales are forecast to change by 26.5 percent in the next year (2024 to 2025). In 2024, sales will be 223.6 million Euros and will change by 26.4 percent in the next year (2024 to 2025).

In 2030, sales for this product in Netherlands is forecast to be \$1,067.5 million dollars. The compound annual growth rate is projected to change by 41.9 percent from 2025 to 2030. In 2030, sales will be 223.6 million Euros and will change by 26.4 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Netherlands

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Drenthe	6,198.3	7,820.3	9,874.3	30,202.7
Flevoland	5,384.1	6,868.2	8,768.0	28,335.0
Fryslân (Friesland)	8,128.6	10,249.6	12,933.9	39,443.3
Gelderland	25,835.9	32,647.4	41,285.9	127,263.3
Groningen	7,300.5	9,207.2	11,620.6	35,471.8
Limburg	13,842.6	17,405.0	21,900.8	65,845.3
Noord-Brabant [North Brabant]	31,660.4	40,007.4	50,593.2	155,950.2
Noord-Holland [North Holland]	35,588.9	45,093.5	57,179.8	178,655.8
Overijssel	14,502.9	18,322.2	23,164.9	71,321.6
Utrecht	16,536.9	21,009.6	26,712.3	84,587.8
Zeeland [Zealand]	4,787.9	6,034.7	7,612.0	23,165.2
Zuid-Holland [South Holland]	45,921.2	58,067.2	73,481.5	227,271.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Nigeria

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	46,860.8	0.38%		
2020	61,994.9	0.41%	2019-2020	32.3%
2021	71,830.5	0.41%	2020-2021	15.9%
2022	103,261.5	0.46%	2021-2022	43.8%
2023	144,647.4	0.48%	2022-2023	40.1%
2024	191,189.4	0.51%	2023-2024	32.2%
2025	253,865.1	0.54%	2024-2025	32.8%
2030	945,973.9	0.66%	CAGR 2025-2030	54.5%

<u>Nairas</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Nairas 000s)</u>	<u>Year-to-Year Change</u>	
2019	17,853,948.1		
2020	23,620,058.3	2019-2020	32.3%
2021	27,367,419.9	2020-2021	15.9%
2022	39,342,624.3	2021-2022	43.8%
2023	55,110,676.8	2022-2023	40.1%
2024	72,843,171.8	2023-2024	32.2%
2025	96,722,603.3	2024-2025	32.8%
2030	360,416,068.0	CAGR 2025-2030	54.5%

In 2024, sales for this product in Nigeria is forecast to be \$191.2 million dollars.

Sales are forecast to change by 32.8 percent in the next year (2024 to 2025). In 2024, sales will be 72843.2 million Nairas and will change by 32.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Nigeria is forecast to be \$946.0 million dollars.

The compound annual growth rate is projected to change by 54.5 percent from 2025 to 2030. In 2030, sales will be 72843.2 million Nairas and will change by 32.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Nigeria

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Abia	2,641.0	3,453.3	4,535.9	15,997.4
Adamawa	3,157.8	4,162.2	5,510.8	20,226.9
Akwa Ibom	4,095.2	5,416.9	7,197.7	26,893.8
Anambra	4,106.2	5,408.6	7,156.3	26,179.9
Bauchi	4,888.1	6,466.6	8,593.6	32,131.9
Bayelsa	1,695.2	2,234.7	2,959.3	10,870.9
Benue	4,280.1	5,646.9	7,483.9	27,604.1
Borno	4,394.0	5,815.3	7,731.2	28,964.8
Cross River	2,874.4	3,788.7	5,016.5	18,415.4
Delta	4,229.8	5,588.4	7,416.9	27,551.7
Ebonyi	2,326.9	3,101.9	4,153.7	16,134.1
Edo	3,150.9	4,148.7	5,487.4	20,037.9
Ekiti	2,439.0	3,219.8	4,269.9	15,798.0
Enugu	3,284.4	4,332.5	5,741.0	21,158.3
Federal Capital Territory	2,851.2	3,939.1	5,466.8	25,390.1
Imo	4,035.1	5,330.3	7,073.2	26,253.7
Jigawa	4,335.1	5,714.3	7,566.6	27,786.4
Kaduna	6,159.6	8,128.0	10,774.2	39,777.1
Kano	9,789.0	12,944.8	17,195.7	64,164.2
Katsina	5,838.4	7,702.9	10,208.9	37,658.3
Kebbi	3,317.1	4,380.2	5,810.3	21,526.8
Kogi	3,333.6	4,397.9	5,828.4	21,493.0
Lagos	9,379.8	12,393.8	16,450.5	61,137.7
Niger	4,159.0	5,502.8	7,314.0	27,368.4
Ogun	3,899.6	5,155.6	6,847.1	25,520.3
Ondo	3,478.8	4,589.1	6,081.1	22,413.3
Osun	3,512.2	4,639.9	6,157.5	22,862.7
Oyo	5,854.5	7,743.5	10,288.5	38,430.4
Plateau	3,142.3	4,140.7	5,481.1	20,095.5
Rivers	5,465.2	7,230.9	9,610.3	35,952.2
Sokoto	3,717.5	4,903.0	6,496.0	23,922.4
Taraba	2,281.5	3,007.4	3,982.4	14,625.7
Yobe	2,469.2	3,269.6	4,349.1	16,336.8
Zamfara	3,377.9	4,463.9	5,925.8	22,038.1

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Norway

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	23,235.6	0.19%		
2020	26,691.7	0.18%	2019-2020	14.9%
2021	30,685.3	0.18%	2020-2021	15.0%
2022	38,655.5	0.17%	2021-2022	26.0%
2023	49,478.4	0.16%	2022-2023	28.0%
2024	59,967.2	0.16%	2023-2024	21.2%
2025	72,973.6	0.15%	2024-2025	21.7%
2030	196,510.0	0.14%	CAGR 2025-2030	33.9%

<u>Krones</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Krones 000s)</u>	<u>Year-to-Year Change</u>	
2019	202,149.6		
2020	232,218.0	2019-2020	14.9%
2021	266,962.5	2020-2021	15.0%
2022	336,303.2	2021-2022	26.0%
2023	430,461.8	2022-2023	28.0%
2024	521,715.0	2023-2024	21.2%
2025	634,870.1	2024-2025	21.7%
2030	1,709,637.3	CAGR 2025-2030	33.9%

In 2024, sales for this product in Norway is forecast to be \$60.0 million dollars.

Sales are forecast to change by 21.7 percent in the next year (2024 to 2025). In 2024, sales will be 521.7 million Krones and will change by 21.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Norway is forecast to be \$196.5 million dollars.

The compound annual growth rate is projected to change by 33.9 percent from 2025 to 2030. In 2030, sales will be 521.7 million Krones and will change by 21.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Norway

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Akershus	5,798.7	7,067.9	8,649.6	23,952.9
Aust-Agder	1,091.7	1,320.9	1,604.8	4,285.0
Buskerud	2,625.3	3,181.1	3,870.1	10,405.6
Finnmark (Finnmárku)	697.0	838.3	1,012.3	2,622.4
Hedmark	1,820.3	2,192.0	2,650.3	6,907.5
Hordaland	4,884.5	5,922.6	7,210.2	19,451.8
Møre og Romsdal	2,464.6	2,974.0	3,603.1	9,487.9
Nordland	2,237.5	2,690.3	3,247.7	8,400.9
Oppland	1,757.2	2,115.1	2,556.1	6,647.5
Oslo	6,333.6	7,718.3	9,443.7	26,125.0
Østfold	2,752.0	3,333.8	4,054.8	10,888.1
Rogaland	4,496.9	5,472.7	6,687.0	18,375.1
Sogn og Fjordane	1,017.9	1,224.8	1,479.5	3,840.0
Telemark	1,608.1	1,937.1	2,342.7	6,115.5
Troms (Romsa)	1,541.7	1,861.2	2,256.0	5,955.2
Trøndelag	4,256.7	5,152.5	6,262.0	16,749.3
Vest-Agder	1,750.4	2,123.4	2,586.1	6,992.1
Vestfold	2,344.2	2,841.2	3,457.5	9,308.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Pakistan

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global	Year-to-Year Change	
Year	(USD 000s)	Market		
2019	31,454.3	0.25%		
2020	38,827.6	0.26%	2019-2020	23.4%
2021	46,265.5	0.27%	2020-2021	19.2%
2022	56,727.2	0.25%	2021-2022	22.6%
2023	73,069.9	0.24%	2022-2023	28.8%
2024	89,157.6	0.24%	2023-2024	22.0%
2025	109,292.3	0.23%	2024-2025	22.6%
2030	301,985.7	0.21%	CAGR 2025-2030	35.3%

Rupees	Market Sales	Year-to-Year Change	
Year	(Rupees 000s)		
2019	5,032,688.7		
2020	6,212,411.8	2019-2020	23.4%
2021	7,402,487.5	2020-2021	19.2%
2022	9,076,349.5	2021-2022	22.6%
2023	11,691,183.9	2022-2023	28.8%
2024	14,265,212.2	2023-2024	22.0%
2025	17,486,771.5	2024-2025	22.6%
2030	48,317,709.6	CAGR 2025-2030	35.3%

In 2024, sales for this product in Pakistan is forecast to be \$89.2 million dollars. Sales are forecast to change by 22.6 percent in the next year (2024 to 2025). In 2024, sales will be 14265.2 million Rupees and will change by 22 percent in the next year (2024 to 2025).

In 2030, sales for this product in Pakistan is forecast to be \$302.0 million dollars. The compound annual growth rate is projected to change by 35.3 percent from 2025 to 2030. In 2030, sales will be 14265.2 million Rupees and will change by 22 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Pakistan

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Balochistān	4,487.5	5,519.4	6,820.2	19,608.6
Tribal Areas	1,578.1	1,908.5	2,318.6	6,125.1
Islāmābād	735.9	917.7	1,149.9	3,543.5
Khyber Pakhtūnkhwā	10,657.5	13,036.5	16,020.3	44,809.7
Punjāb	38,589.4	46,988.3	57,480.1	157,145.6
Sindh	17,021.6	20,787.1	25,503.3	70,753.2

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Philippines

Market - 5G Chipset Market

Market Sales by Country

US Dollars	Market Sales	Pct. of Global		
Year	(USD 000s)	Market	Year-to-Year Change	
2019	63,324.1	0.51%		
2020	72,318.6	0.48%	2019-2020	14.2%
2021	77,527.6	0.45%	2020-2021	7.2%
2022	102,844.1	0.45%	2021-2022	32.7%
2023	134,624.3	0.45%	2022-2023	30.9%
2024	167,514.6	0.44%	2023-2024	24.4%
2025	208,476.9	0.44%	2024-2025	24.5%
2030	594,612.4	0.41%	CAGR 2025-2030	37.0%

Pesos	Market Sales		
Year	(Pesos 000s)	Year-to-Year Change	
2019	3,039,554.6		
2020	3,471,292.2	2019-2020	14.2%
2021	3,721,324.4	2020-2021	7.2%
2022	4,936,518.4	2021-2022	32.7%
2023	6,461,967.2	2022-2023	30.9%
2024	8,040,703.2	2023-2024	24.4%
2025	10,006,889.3	2024-2025	24.5%
2030	28,541,397.1	CAGR 2025-2030	37.0%

In 2024, sales for this product in Philippines is forecast to be \$167.5 million dollars. Sales are forecast to change by 24.5 percent in the next year (2024 to 2025). In 2024, sales will be 8040.7 million Pesos and will change by 24.4 percent in the next year (2024 to 2025).

In 2030, sales for this product in Philippines is forecast to be \$594.6 million dollars. The compound annual growth rate is projected to change by 37 percent from 2025 to 2030. In 2030, sales will be 8040.7 million Pesos and will change by 24.4 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Philippines

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Luzon	77,276.6	96,282.4	119,983.0	344,430.2
Mindanao	32,223.6	40,114.2	49,945.4	142,758.1
Visayas	25,124.1	31,118.0	38,548.5	107,424.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Poland

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	89,980.3	0.73%		
2020	108,239.7	0.72%	2019-2020	20.3%
2021	126,699.1	0.73%	2020-2021	17.1%
2022	165,989.2	0.73%	2021-2022	31.0%
2023	223,798.6	0.75%	2022-2023	34.8%
2024	284,872.5	0.76%	2023-2024	27.3%
2025	361,848.8	0.76%	2024-2025	27.0%
2030	1,139,541.4	0.79%	CAGR 2025-2030	43.0%

<u>Zlotys</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Zlotys 000s)</u>	<u>Year-to-Year Change</u>	
2019	323,929.2		
2020	389,662.9	2019-2020	20.3%
2021	456,116.6	2020-2021	17.1%
2022	597,560.9	2021-2022	31.0%
2023	805,674.9	2022-2023	34.8%
2024	1,025,541.0	2023-2024	27.3%
2025	1,302,655.7	2024-2025	27.0%
2030	4,102,349.1	CAGR 2025-2030	43.0%

In 2024, sales for this product in Poland is forecast to be \$284.9 million dollars.

Sales are forecast to change by 27 percent in the next year (2024 to 2025). In 2024, sales will be 1025.5 million Zlotys and will change by 27.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in Poland is forecast to be \$1,139.5 million dollars.

The compound annual growth rate is projected to change by 43 percent from 2025 to 2030. In 2030, sales will be 1025.5 million Zlotys and will change by 27.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Poland

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Dolnośląskie [Lower Silesia]	16,901.2	21,507.1	27,310.4	85,875.1
Kujawsko-Pomorskie	12,159.0	15,478.6	19,663.0	61,950.3
Łódzkie [Łódź]	14,443.3	18,343.2	23,247.1	72,382.7
Lubelskie [Lublin]	12,428.7	15,798.0	20,038.3	62,655.5
Lubuskie [Lubusz]	5,933.6	7,553.9	9,596.3	30,239.6
Małopolskie [Lesser Poland]	19,700.9	25,113.7	31,946.0	101,334.0
Mazowieckie [Mazovia]	31,215.8	39,796.1	50,627.8	160,672.1
Opolskie [Opole]	5,760.9	7,310.4	9,257.2	28,705.2
Podkarpackie [Subcarpathia]	12,400.5	15,790.7	20,065.3	63,310.1
Podlaskie [Podlachia]	6,912.2	8,790.1	11,154.7	34,960.9
Pomorskie [Pomerania]	13,509.4	17,233.9	21,938.8	69,849.0
Śląskie [Silesia]	26,488.8	33,655.1	42,669.8	133,131.1
Świętokrzyskie [Holy Cross]	7,297.9	9,274.5	11,761.5	36,740.6
Warmińsko-Mazurskie	8,389.0	10,679.0	13,565.4	42,731.8
Wielkopolskie [Greater Poland]	20,290.6	25,860.9	32,890.9	104,241.2
West Pomerania	9,966.9	12,687.3	16,116.3	50,762.3

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Puerto Rico

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	44,997.6	0.36%		
2020	56,331.0	0.37%	2019-2020	25.2%
2021	54,260.6	0.31%	2020-2021	-3.7%
2022	72,379.5	0.32%	2021-2022	33.4%
2023	92,040.8	0.31%	2022-2023	27.2%
2024	110,967.5	0.29%	2023-2024	20.6%
2025	134,644.2	0.28%	2024-2025	21.3%
2030	356,006.3	0.25%	CAGR 2025-2030	32.9%

<u>Dollars</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Dollars 000s)</u>	<u>Year-to-Year Change</u>	
2019	44,997.6		
2020	56,331.0	2019-2020	25.2%
2021	54,260.6	2020-2021	-3.7%
2022	72,379.5	2021-2022	33.4%
2023	92,040.8	2022-2023	27.2%
2024	110,967.5	2023-2024	20.6%
2025	134,644.2	2024-2025	21.3%
2030	356,006.3	CAGR 2025-2030	32.9%

In 2024, sales for this product in Puerto Rico is forecast to be \$111.0 million dollars. Sales are forecast to change by 21.3 percent in the next year (2024 to 2025). In 2024, sales will be 111 million Dollars and will change by 20.6 percent in the next year (2024 to 2025).

In 2030, sales for this product in Puerto Rico is forecast to be \$356.0 million dollars. The compound annual growth rate is projected to change by 32.9 percent from 2025 to 2030. In 2030, sales will be 111 million Dollars and will change by 20.6 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Puerto Rico

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Culebra	49.2	59.7	72.9	198.8
Puerto Rico	91,754.9	110,621.8	134,223.5	354,877.0
Vieques	236.7	286.0	347.8	930.4

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Romania

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	38,743.3	0.31%		
2020	45,936.8	0.30%	2019-2020	18.6%
2021	52,627.1	0.30%	2020-2021	14.6%
2022	69,461.4	0.31%	2021-2022	32.0%
2023	92,295.1	0.31%	2022-2023	32.9%
2024	115,639.6	0.31%	2023-2024	25.3%
2025	145,347.7	0.31%	2024-2025	25.7%
2030	430,342.2	0.30%	CAGR 2025-2030	39.2%

<u>New Leus</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(New Leus 000s)</u>	<u>Year-to-Year Change</u>	
2019	155,360.6		
2020	184,206.5	2019-2020	18.6%
2021	211,034.8	2020-2021	14.6%
2022	278,540.3	2021-2022	32.0%
2023	370,103.4	2022-2023	32.9%
2024	463,714.8	2023-2024	25.3%
2025	582,844.3	2024-2025	25.7%
2030	1,725,672.0	CAGR 2025-2030	39.2%

In 2024, sales for this product in Romania is forecast to be \$115.6 million dollars. Sales are forecast to change by 25.7 percent in the next year (2024 to 2025). In 2024, sales will be 463.7 million New Leus and will change by 25.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in Romania is forecast to be \$430.3 million dollars. The compound annual growth rate is projected to change by 39.2 percent from 2025 to 2030. In 2030, sales will be 463.7 million New Leus and will change by 25.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Romania

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Alba	1,535.7	1,917.6	2,402.0	6,987.9
Arad	1,977.7	2,477.6	3,113.6	9,207.4
Argeş	2,789.1	3,494.5	4,392.2	12,997.6
Bacău	2,777.8	3,468.9	4,345.5	12,648.0
Bihor	2,661.2	3,337.9	4,199.8	12,494.2
Botoşani	1,849.8	2,314.7	2,905.6	8,543.8
Braşov	2,553.5	3,198.0	4,017.9	11,866.2
Bucureşti [Bucharest]	8,656.7	10,860.9	13,669.2	40,722.9
Buzău	2,005.8	2,507.4	3,144.4	9,199.7
Cluj	3,313.8	4,168.9	5,261.1	15,889.2
Constanţa	3,194.9	4,010.3	5,049.6	15,079.3
Dâmboviţa	2,373.8	2,977.7	3,746.9	11,151.9
Dolj	2,988.4	3,737.6	4,689.2	13,751.5
Galaţi	2,403.4	3,000.3	3,757.3	10,917.0
Gorj	1,521.4	1,900.1	2,380.4	6,931.4
Hunedoara	1,803.7	2,242.6	2,797.1	7,964.7
Iaşi	3,741.1	4,707.5	5,942.2	17,965.6
Ifov	2,260.3	2,905.9	3,747.7	12,614.3
Maramureş	2,189.2	2,742.5	3,446.5	10,191.3
Mureş	2,546.6	3,193.8	4,018.0	11,946.4
Neamţ	2,099.6	2,618.0	3,274.6	9,459.0
Olt	1,903.3	2,374.0	2,970.4	8,593.2
Prahova	3,441.1	4,305.2	5,403.2	15,872.7
Sălaj	1,005.2	1,255.9	1,573.9	4,590.6
Satu Mare	1,566.6	1,960.5	2,461.3	7,241.7
Sibiu	1,863.3	2,336.4	2,938.9	8,731.9
Suceava	2,964.5	3,718.1	4,678.0	13,914.5
Teleorman	1,610.4	2,002.4	2,497.7	7,114.8
Timiş	3,317.4	4,181.3	5,286.7	16,116.5
Tulcea	929.1	1,155.9	1,442.7	4,122.2
Vâlcea	1,666.8	2,082.7	2,610.5	7,619.7
Vaslui	1,796.4	2,245.3	2,815.3	8,231.5
Vrancea	1,541.4	1,927.1	2,416.9	7,075.2

Note: Sales for 2023-2024 are forecasts and sales †

Russia

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	198,956.2	1.61%		
2020	226,333.9	1.50%	2019-2020	13.8%
2021	263,670.1	1.52%	2020-2021	16.5%
2022	339,025.6	1.50%	2021-2022	28.6%
2023	413,977.3	1.38%	2022-2023	22.1%
2024	479,917.9	1.27%	2023-2024	15.9%
2025	561,724.9	1.19%	2024-2025	17.0%
2030	1,285,735.6	0.89%	CAGR 2025-2030	25.8%

<u>Rubles</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Rubles 000s)</u>	<u>Year-to-Year Change</u>	
2019	14,802,339.8		
2020	16,839,238.8	2019-2020	13.8%
2021	19,617,053.0	2020-2021	16.5%
2022	25,223,506.7	2021-2022	28.6%
2023	30,799,914.1	2022-2023	22.1%
2024	35,705,888.9	2023-2024	15.9%
2025	41,792,332.6	2024-2025	17.0%
2030	95,658,729.9	CAGR 2025-2030	25.8%

In 2024, sales for this product in Russia is forecast to be \$479.9 million dollars.

Sales are forecast to change by 17 percent in the next year (2024 to 2025). In 2024, sales will be 35705.9 million Rubles and will change by 15.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in Russia is forecast to be \$1,285.7 million dollars.

The compound annual growth rate is projected to change by 25.8 percent from 2025 to 2030. In 2030, sales will be 35705.9 million Rubles and will change by 15.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Russia

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Central Russia	109,848.9	127,346.9	149,053.5	341,091.5
Dal'nevostočnyj Federal'nyj	17,627.1	20,328.8	23,670.4	52,774.6
[Southern Russia	41,006.0	47,633.2	55,864.1	129,124.7
Volga	85,115.9	98,467.3	115,009.6	260,437.9
Northern Caucasus	30,464.3	35,703.6	42,246.8	102,084.7
Northwestern Russia	38,257.8	44,215.2	51,592.2	116,253.8
Siberia	55,466.1	64,195.7	75,014.4	170,254.8
Ural'skij Federal'nyj Okrug [Ural]	36,191.2	42,027.1	49,273.8	113,713.6

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Saudi Arabia

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	90,245.7	0.73%		
2020	96,473.7	0.64%	2019-2020	6.9%
2021	131,154.5	0.76%	2020-2021	35.9%
2022	163,094.2	0.72%	2021-2022	24.4%
2023	221,697.4	0.74%	2022-2023	35.9%
2024	284,909.5	0.76%	2023-2024	28.5%
2025	366,557.5	0.77%	2024-2025	28.7%
2030	1,197,243.0	0.83%	CAGR 2025-2030	45.3%

<u>Rials</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Rials 000s)</u>	<u>Year-to-Year Change</u>	
2019	338,421.5		
2020	361,776.4	2019-2020	6.9%
2021	491,829.2	2020-2021	35.9%
2022	611,603.3	2021-2022	24.4%
2023	831,365.4	2022-2023	35.9%
2024	1,068,410.8	2023-2024	28.5%
2025	1,374,590.6	2024-2025	28.7%
2030	4,489,661.4	CAGR 2025-2030	45.3%

In 2024, sales for this product in Saudi Arabia is forecast to be \$284.9 million dollars. Sales are forecast to change by 28.7 percent in the next year (2024 to 2025). In 2024, sales will be 1068.4 million Rials and will change by 28.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Saudi Arabia is forecast to be \$1,197.2 million dollars. The compound annual growth rate is projected to change by 45.3 percent from 2025 to 2030. In 2030, sales will be 1068.4 million Rials and will change by 28.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Saudi Arabia

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Al-Bāḥah	3,101.8	3,940.0	5,010.4	15,434.9
Northern Frontier	2,492.4	3,182.5	4,068.1	12,863.5
Al-Jawf (incl. Al-Qurayyāt)	3,580.9	4,604.3	5,926.7	19,404.4
Medina	14,645.7	18,832.8	24,244.0	79,405.7
Al-Qaṣīm [Al-Qaseem]	9,903.1	12,726.9	16,374.0	53,471.7
Ar-Riyād [Riyadh]	57,021.1	73,590.0	95,079.4	317,119.3
Eastern Region	33,298.0	42,778.9	55,020.5	179,390.7
'Asīr [Aseer]	15,011.6	19,183.2	24,541.3	77,907.5
Ḥā'il	4,717.0	6,032.2	7,722.8	24,607.3
Jīzān	11,059.9	14,192.7	18,233.3	59,109.8
Mecca	56,236.8	72,180.7	92,748.4	300,975.0
Najrān	4,155.2	5,347.5	6,889.8	22,659.9
Tabūk [Tabouk]	6,474.0	8,317.9	10,698.8	34,893.4

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Singapore

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	66,101.3	0.53%		
2020	78,007.6	0.52%	2019-2020	18.0%
2021	98,238.8	0.57%	2020-2021	25.9%
2022	127,547.0	0.56%	2021-2022	29.8%
2023	173,389.4	0.58%	2022-2023	35.9%
2024	223,844.9	0.59%	2023-2024	29.1%
2025	289,263.2	0.61%	2024-2025	29.2%
2030	977,690.1	0.68%	CAGR 2025-2030	47.6%

<u>Dollars</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Dollars 000s)</u>	<u>Year-to-Year Change</u>	
2019	87,914.7		
2020	103,750.1	2019-2020	18.0%
2021	130,657.6	2020-2021	25.9%
2022	169,637.5	2021-2022	29.8%
2023	230,607.9	2022-2023	35.9%
2024	297,713.8	2023-2024	29.1%
2025	384,720.0	2024-2025	29.2%
2030	1,300,327.9	CAGR 2025-2030	47.6%

In 2024, sales for this product in Singapore is forecast to be \$223.8 million dollars. Sales are forecast to change by 29.2 percent in the next year (2024 to 2025). In 2024, sales will be 297.7 million Dollars and will change by 29.1 percent in the next year (2024 to 2025).

In 2030, sales for this product in Singapore is forecast to be \$977.7 million dollars. The compound annual growth rate is projected to change by 47.6 percent from 2025 to 2030. In 2030, sales will be 297.7 million Dollars and will change by 29.1 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Singapore

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Central Region	26,803.5	33,886.3	42,869.6	129,716.5
East Region	19,948.3	25,238.8	31,953.8	97,054.2
North-East Region	27,246.9	35,274.9	45,698.8	155,711.9
North Region	16,759.9	21,550.2	27,728.3	91,307.4
West Region	27,312.0	34,861.1	44,526.7	141,331.9
Non-Resident Population	55,318.9	73,033.6	96,485.9	362,568.2

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

South Africa

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	37,573.2	0.30%		
2020	44,597.4	0.30%	2019-2020	18.7%
2021	55,072.3	0.32%	2020-2021	23.5%
2022	68,197.1	0.30%	2021-2022	23.8%
2023	89,397.0	0.30%	2022-2023	31.1%
2024	110,948.0	0.29%	2023-2024	24.1%
2025	138,173.5	0.29%	2024-2025	24.5%
2030	400,848.5	0.28%	CAGR 2025-2030	38.0%

<u>Rands</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Rands 000s)</u>	<u>Year-to-Year Change</u>	
2019	567,356.1		
2020	673,420.7	2019-2020	18.7%
2021	831,592.4	2020-2021	23.5%
2022	1,029,776.3	2021-2022	23.8%
2023	1,349,894.0	2022-2023	31.1%
2024	1,675,314.8	2023-2024	24.1%
2025	2,086,420.5	2024-2025	24.5%
2030	6,052,812.2	CAGR 2025-2030	38.0%

In 2024, sales for this product in South Africa is forecast to be \$110.9 million dollars. Sales are forecast to change by 24.5 percent in the next year (2024 to 2025). In 2024, sales will be 1675.3 million Rands and will change by 24.1 percent in the next year (2024 to 2025).

In 2030, sales for this product in South Africa is forecast to be \$400.8 million dollars. The compound annual growth rate is projected to change by 38 percent from 2025 to 2030. In 2030, sales will be 1675.3 million Rands and will change by 24.1 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

South Africa

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Eastern Cape	9,894.7	12,111.1	14,874.4	40,200.9
Free State (Oranje Free State)	4,379.3	5,369.4	6,605.8	18,006.2
Gauteng	23,449.1	29,437.4	37,080.6	113,737.5
KwaZulu-Natal	17,320.9	21,389.9	26,504.6	74,886.1
Limpopo (Northern Transvaal)	8,855.9	10,918.6	13,507.6	37,856.1
Mpumalanga (Eastern Transvaal)	6,994.9	8,683.8	10,817.1	31,378.9
Northern Cape	1,855.5	2,286.8	2,827.9	7,910.2
North West	6,128.4	7,607.5	9,475.7	27,477.7
Western Cape	10,518.3	13,143.6	16,480.0	49,394.9

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Spain

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	138,439.2	1.12%		
2020	159,978.2	1.06%	2019-2020	15.6%
2021	183,623.9	1.06%	2020-2021	14.8%
2022	230,605.5	1.02%	2021-2022	25.6%
2023	300,347.0	1.00%	2022-2023	30.2%
2024	370,844.7	0.98%	2023-2024	23.5%
2025	460,859.8	0.97%	2024-2025	24.3%
2030	1,336,022.8	0.93%	CAGR 2025-2030	38.0%

<u>Euros</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Euros 000s)</u>	<u>Year-to-Year Change</u>	
2019	113,520.1		
2020	131,182.1	2019-2020	15.6%
2021	150,571.6	2020-2021	14.8%
2022	189,096.5	2021-2022	25.6%
2023	246,284.6	2022-2023	30.2%
2024	304,092.6	2023-2024	23.5%
2025	377,905.0	2024-2025	24.3%
2030	1,095,538.7	CAGR 2025-2030	38.0%

In 2024, sales for this product in Spain is forecast to be \$370.8 million dollars. Sales are forecast to change by 24.3 percent in the next year (2024 to 2025). In 2024, sales will be 304.1 million Euros and will change by 23.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Spain is forecast to be \$1,336.0 million dollars. The compound annual growth rate is projected to change by 38 percent from 2025 to 2030. In 2030, sales will be 304.1 million Euros and will change by 23.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Spain

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Andalucía [Andalusia]	53,810.4	66,422.0	82,519.4	238,778.8
Aragón	8,349.4	10,272.6	12,720.5	36,212.0
Asturias	6,426.3	7,856.5	9,667.2	26,660.1
Canarias [Canary Islands]	13,976.5	17,362.0	21,707.1	64,837.5
Cantabria	3,692.1	4,542.0	5,623.7	15,999.2
Castilla-La Mancha	13,272.0	16,399.8	20,395.7	59,328.8
Castilla y León	15,118.9	18,492.7	22,765.7	62,935.9
Cataluña [Catalonia]	48,798.6	60,336.3	75,084.0	219,085.6
Ceuta	545.4	674.4	839.2	2,448.0
Comunitat Valenciana	32,385.9	40,087.2	49,940.6	146,526.2
Extremadura	6,750.0	8,274.9	10,209.8	28,543.9
Galicia	16,901.7	20,701.5	25,519.5	71,030.2
Illes Balears [Balearic Islands]	7,564.5	9,438.4	11,852.8	36,194.5
La Rioja	2,038.9	2,516.8	3,126.7	9,047.2
Madrid	42,555.9	52,719.3	65,732.3	193,661.8
Melilla	565.4	703.9	882.0	2,663.3
Murcia	9,755.8	12,115.6	15,143.4	45,168.8
Navarra [Navarre]	4,161.6	5,143.0	6,396.9	18,619.1
País Vasco [Basque Country]	13,677.8	16,785.9	20,733.5	58,281.8

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Sweden

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	62,040.6	0.50%		
2020	74,341.1	0.49%	2019-2020	19.8%
2021	87,629.1	0.50%	2020-2021	17.9%
2022	107,499.6	0.47%	2021-2022	22.7%
2023	139,459.9	0.46%	2022-2023	29.7%
2024	171,169.6	0.45%	2023-2024	22.7%
2025	210,579.1	0.44%	2024-2025	23.0%
2030	588,850.3	0.41%	CAGR 2025-2030	35.9%

<u>Kronas</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Kronas 000s)</u>	<u>Year-to-Year Change</u>	
2019	523,622.7		
2020	627,438.7	2019-2020	19.8%
2021	739,589.5	2020-2021	17.9%
2022	907,296.4	2021-2022	22.7%
2023	1,177,041.9	2022-2023	29.7%
2024	1,444,671.8	2023-2024	22.7%
2025	1,777,287.6	2024-2025	23.0%
2030	4,969,896.5	CAGR 2025-2030	35.9%

In 2024, sales for this product in Sweden is forecast to be \$171.2 million dollars. Sales are forecast to change by 23 percent in the next year (2024 to 2025). In 2024, sales will be 1444.7 million Kronas and will change by 22.7 percent in the next year (2024 to 2025).

In 2030, sales for this product in Sweden is forecast to be \$588.9 million dollars. The compound annual growth rate is projected to change by 35.9 percent from 2025 to 2030. In 2030, sales will be 1444.7 million Kronas and will change by 22.7 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Sweden

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Blekinge län	2,172.4	2,654.8	3,252.0	8,896.0
Dalarnas län	3,848.8	4,691.8	5,732.8	15,487.7
Gävleborgs län	3,840.4	4,681.0	5,718.7	15,438.3
Gotlands län	800.2	976.8	1,195.0	3,249.4
Hallands län	4,537.3	5,583.3	6,886.5	19,499.5
Jämtlands län	1,739.1	2,117.3	2,583.5	6,933.3
Jönköpings län	4,940.8	6,057.0	7,442.4	20,678.6
Kalmar län	3,278.1	3,998.6	4,888.8	13,248.4
Kronobergs län	2,676.5	3,276.7	4,020.6	11,095.1
Norrbottnens län	3,391.0	4,127.7	5,035.9	13,503.9
Örebro län	4,057.2	4,964.1	6,087.8	16,752.1
Östergötlands län	6,266.6	7,678.0	9,429.0	26,126.2
Skåne län	18,722.9	23,031.9	28,398.0	80,276.5
Södermanlands län	3,967.5	4,862.1	5,972.3	16,566.7
Stockholms län	32,418.5	40,034.9	49,555.0	142,837.0
Uppsala län	5,152.5	6,345.5	7,832.8	22,267.8
Värmlands län	3,786.3	4,615.8	5,639.9	15,238.4
Västerbottens län	3,677.1	4,494.6	5,506.6	15,078.5
Västernorrlands län	3,298.9	4,014.4	4,896.4	13,111.5
Västmanlands län	3,673.4	4,496.5	5,516.8	15,214.5
Västra Götalands län	23,214.7	28,467.0	34,988.3	97,350.9

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Switzerland

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	121,034.8	0.98%		
2020	154,485.8	1.03%	2019-2020	27.6%
2021	160,639.6	0.92%	2020-2021	4.0%
2022	216,772.8	0.96%	2021-2022	34.9%
2023	290,094.2	0.97%	2022-2023	33.8%
2024	367,041.5	0.97%	2023-2024	26.5%
2025	464,713.7	0.98%	2024-2025	26.6%
2030	1,432,598.9	0.99%	CAGR 2025-2030	41.7%

<u>Swiss Francs</u>	<u>Market Sales</u>		
<u>Year</u>	<u>Swiss Francs 000s)</u>	<u>Year-to-Year Change</u>	
2019	107,721.0		
2020	137,492.3	2019-2020	27.6%
2021	142,969.3	2020-2021	4.0%
2022	192,927.8	2021-2022	34.9%
2023	258,183.8	2022-2023	33.8%
2024	326,667.0	2023-2024	26.5%
2025	413,595.2	2024-2025	26.6%
2030	1,275,013.0	CAGR 2025-2030	41.7%

In 2024, sales for this product in Switzerland is forecast to be \$367.0 million dollars. Sales are forecast to change by 26.6 percent in the next year (2024 to 2025). In 2024, sales will be 326.7 million Swiss Francs and will change by 26.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Switzerland is forecast to be \$1,432.6 million dollars. The compound annual growth rate is projected to change by 41.7 percent from 2025 to 2030. In 2030, sales will be 326.7 million Swiss Francs and will change by 26.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Switzerland

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Aargau [Argovia]	23,079.8	29,272.7	37,152.1	115,904.1
Appenzell Outer Rhodes	1,851.9	2,328.5	2,929.6	8,750.6
Appenzell Inner Rhodes	555.7	701.6	886.4	2,702.3
Basel-Landschaft	9,799.4	12,366.9	15,617.5	47,519.7
Basel-Stadt [Basel-City]	6,332.5	7,938.8	9,959.1	29,313.1
Bern	34,634.2	43,610.6	54,950.1	165,335.2
Fribourg	10,966.7	13,964.5	17,793.5	56,619.6
Genève [Geneva]	17,122.9	21,707.3	27,537.6	85,711.3
Glarus	1,345.4	1,691.5	2,128.1	6,353.5
Graubünden [Grisons]	6,811.3	8,589.8	10,839.7	32,863.6
Jura	2,478.2	3,122.0	3,935.7	11,871.5
Luzern	13,937.2	17,635.8	22,330.8	68,859.6
Neuchâtel	6,022.7	7,582.3	9,552.1	28,715.2
Nidwalden [Nidwald]	1,511.4	1,915.9	2,430.3	7,561.5
Obwalden [Obwald]	1,314.5	1,666.0	2,112.8	6,566.2
Schaffhausen	2,734.0	3,446.7	4,348.0	13,159.2
Schwyz	5,568.0	7,078.8	9,005.6	28,429.9
Solothurn	9,230.2	11,652.0	14,718.8	44,849.9
St. Gallen	17,268.1	21,808.0	27,559.8	84,157.1
Thurgau [Thurgovia]	9,389.7	11,901.2	15,094.4	46,930.8
Ticino	12,244.1	15,499.0	19,632.3	60,647.6
Uri	1,227.4	1,544.0	1,943.5	5,819.4
Valais	11,861.4	15,065.8	19,148.5	60,168.1
Vaud	27,063.6	34,319.0	43,548.4	135,730.5
Zug	4,414.1	5,618.8	7,157.1	22,736.1
Zürich [Zurich]	51,329.6	65,014.0	82,401.5	255,323.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Thailand

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	126,590.6	1.02%		
2020	144,197.3	0.96%	2019-2020	13.9%
2021	153,232.4	0.88%	2020-2021	6.3%
2022	205,544.9	0.91%	2021-2022	34.1%
2023	265,013.8	0.88%	2022-2023	28.9%
2024	323,772.6	0.86%	2023-2024	22.2%
2025	397,626.6	0.84%	2024-2025	22.8%
2030	1,109,470.9	0.77%	CAGR 2025-2030	35.8%

<u>Bahts</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Bahts 000s)</u>	<u>Year-to-Year Change</u>	
2019	3,810,378.5		
2020	4,340,338.4	2019-2020	13.9%
2021	4,612,295.8	2020-2021	6.3%
2022	6,186,902.8	2021-2022	34.1%
2023	7,976,915.9	2022-2023	28.9%
2024	9,745,554.3	2023-2024	22.2%
2025	11,968,561.4	2024-2025	22.8%
2030	33,395,074.4	CAGR 2025-2030	35.8%

In 2024, sales for this product in Thailand is forecast to be \$323.8 million dollars. Sales are forecast to change by 22.8 percent in the next year (2024 to 2025). In 2024, sales will be 9745.6 million Bahts and will change by 22.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Thailand is forecast to be \$1,109.5 million dollars. The compound annual growth rate is projected to change by 35.8 percent from 2025 to 2030. In 2030, sales will be 9745.6 million Bahts and will change by 22.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Thailand

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Bangkok Metropolitan	65,612.5	81,352.8	101,385.3	303,906.5
Central	12,017.4	14,610.0	17,852.7	48,498.7
Eastern	22,885.9	28,241.1	35,027.9	102,524.0
Northeastern (Isan)	70,371.2	84,998.5	103,191.5	271,369.4
Northern	43,950.8	53,323.9	65,027.0	174,866.0
Southern	36,347.1	44,439.8	54,612.4	152,629.2
Western	13,828.8	16,806.4	20,529.7	55,677.1

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Turkey

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	126,312.9	1.02%		
2020	155,903.8	1.03%	2019-2020	23.4%
2021	202,845.8	1.17%	2020-2021	30.1%
2022	248,680.8	1.10%	2021-2022	22.6%
2023	323,077.5	1.08%	2022-2023	29.9%
2024	399,780.2	1.06%	2023-2024	23.7%
2025	498,761.8	1.05%	2024-2025	24.8%
2030	1,486,598.9	1.03%	CAGR 2025-2030	39.6%

<u>Liras</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Liras 000s)</u>	<u>Year-to-Year Change</u>	
2019	982,714.1		
2020	1,212,931.5	2019-2020	23.4%
2021	1,578,140.3	2020-2021	30.1%
2022	1,934,736.4	2021-2022	22.6%
2023	2,513,542.8	2022-2023	29.9%
2024	3,110,289.8	2023-2024	23.7%
2025	3,880,366.6	2024-2025	24.8%
2030	11,565,739.3	CAGR 2025-2030	39.6%

In 2024, sales for this product in Turkey is forecast to be \$399.8 million dollars.

Sales are forecast to change by 24.8 percent in the next year (2024 to 2025). In 2024, sales will be 3110.3 million Liras and will change by 23.7 percent in the next year (2024 to 2025).

In 2030, sales for this product in Turkey is forecast to be \$1,486.6 million dollars.

The compound annual growth rate is projected to change by 39.6 percent from 2025 to 2030. In 2030, sales will be 3110.3 million Liras and will change by 23.7 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Turkey

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Adana	8,879.9	10,968.2	13,657.3	40,240.5
Ankara	21,919.0	27,234.0	34,111.7	103,517.0
Antalya	9,904.5	12,390.8	15,626.8	49,075.6
Aydın	4,194.1	5,160.2	6,400.3	18,492.7
Balıkesir	4,690.2	5,761.6	7,135.0	20,454.8
Bursa	12,129.3	15,120.1	19,000.9	58,615.9
Denizli	3,970.1	4,892.9	6,079.2	17,715.6
Diyarbakır	6,829.6	8,458.1	10,559.7	31,528.0
Erzurum	2,883.7	3,496.0	4,272.6	11,467.0
Eskişehir	3,305.9	4,072.3	5,057.0	14,700.1
Gaziantep	8,223.7	10,285.2	12,967.8	40,668.9
Hatay	6,226.6	7,691.0	9,576.6	28,217.9
İstanbul	63,931.9	80,111.6	101,199.2	320,424.8
İzmir	17,327.7	21,482.6	26,849.6	80,599.4
Kahramanmaraş	4,353.8	5,349.9	6,627.1	19,027.4
Kayseri	5,394.3	6,668.6	8,310.6	24,590.3
Kocaeli	7,698.7	9,635.3	12,156.6	38,255.8
Konya	8,474.3	10,394.9	12,853.9	36,581.5
Malatya	3,019.4	3,688.4	4,542.2	12,663.0
Manisa	5,450.8	6,692.4	8,283.4	23,685.3
Mardin	3,247.9	4,011.0	4,993.5	14,699.8
Mersin (İçel)	7,142.9	8,807.2	10,947.2	31,973.0
Muğla	3,778.1	4,691.0	5,871.7	17,757.7
Sakarya	3,841.0	4,746.6	5,913.2	17,465.3
Samsun	4,984.7	6,102.2	7,530.8	21,220.7
Şanlıurfa	8,181.0	10,216.1	12,860.7	40,022.9
Tekirdağ	4,085.7	5,120.7	6,469.9	20,505.0
Trabzon	2,969.7	3,608.4	4,419.8	11,996.0
Van	4,676.3	5,818.0	7,297.0	22,291.0

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United Arab Emirates

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	33,331.9	0.27%		
2020	39,343.6	0.26%	2019-2020	18.0%
2021	47,988.9	0.28%	2020-2021	22.0%
2022	61,194.6	0.27%	2021-2022	27.5%
2023	80,647.8	0.27%	2022-2023	31.8%
2024	100,711.0	0.27%	2023-2024	24.9%
2025	126,599.8	0.27%	2024-2025	25.7%
2030	387,675.1	0.27%	CAGR 2025-2030	41.2%

<u>Dirhams</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Dirhams 000s)</u>	<u>Year-to-Year Change</u>	
2019	122,328.1		
2020	144,391.1	2019-2020	18.0%
2021	176,119.1	2020-2021	22.0%
2022	224,584.1	2021-2022	27.5%
2023	295,977.5	2022-2023	31.8%
2024	369,609.4	2023-2024	24.9%
2025	464,621.4	2024-2025	25.7%
2030	1,422,767.6	CAGR 2025-2030	41.2%

In 2024, sales for this product in United Arab Emirates is forecast to be \$100.7 million dollars. Sales are forecast to change by 25.7 percent in the next year (2024 to 2025). In 2024, sales will be 369.6 million Dirhams and will change by 24.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in United Arab Emirates is forecast to be \$387.7 million dollars. The compound annual growth rate is projected to change by 41.2 percent from 2025 to 2030. In 2030, sales will be 369.6 million Dirhams and will change by 24.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United Arab Emirates

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Abū Ḥaby [Abu Dhabi]	25,020.0	30,958.8	38,559.2	112,654.2
'Ajmān	4,242.9	5,325.6	6,728.4	21,113.1
Al-Fujayrah [Fujairah]	2,268.3	2,818.9	3,526.2	10,528.4
Ash-Shāriqah [Sharjah]	16,142.6	20,256.2	25,585.1	80,173.9
Dubayy [Dubai]	28,278.0	35,550.7	44,987.9	142,308.2
Rā's al-Khaymah	3,848.5	4,753.7	5,910.5	17,118.8
Umm al-Qaywayn	847.5	1,047.2	1,302.4	3,778.4

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United Kingdom

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	223,034.5	1.80%		
2020	271,473.4	1.80%	2019-2020	21.7%
2021	302,750.1	1.74%	2020-2021	11.5%
2022	387,582.3	1.71%	2021-2022	28.0%
2023	503,436.3	1.68%	2022-2023	29.9%
2024	618,914.9	1.64%	2023-2024	22.9%
2025	763,157.4	1.61%	2024-2025	23.3%
2030	2,188,544.7	1.52%	CAGR 2025-2030	37.4%

<u>Pounds</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Pounds 000s)</u>	<u>Year-to-Year Change</u>	
2019	165,045.5		
2020	200,890.3	2019-2020	21.7%
2021	224,035.0	2020-2021	11.5%
2022	286,810.9	2021-2022	28.0%
2023	372,542.9	2022-2023	29.9%
2024	457,997.0	2023-2024	22.9%
2025	564,736.5	2024-2025	23.3%
2030	1,619,523.0	CAGR 2025-2030	37.4%

In 2024, sales for this product in United Kingdom is forecast to be \$618.9 million dollars. Sales are forecast to change by 23.3 percent in the next year (2024 to 2025). In 2024, sales will be 458 million Pounds and will change by 22.9 percent in the next year (2024 to 2025).

In 2030, sales for this product in United Kingdom is forecast to be \$2,188.5 million dollars. The compound annual growth rate is projected to change by 37.4 percent from 2025 to 2030. In 2030, sales will be 458 million Pounds and will change by 22.9 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United Kingdom

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
England	424,159.6	521,651.5	643,469.4	1,848,774.2
Northern Ireland	14,437.7	17,760.3	21,912.8	63,031.2
Scotland	41,040.2	50,309.2	61,855.9	174,851.2
Wales (Cymru)	23,798.8	29,194.0	35,919.4	101,888.0

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United States

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	2,125,356.4	17.18%		
2020	2,646,392.4	17.56%	2019-2020	24.5%
2021	2,784,867.4	16.03%	2020-2021	5.2%
2022	3,774,400.4	16.65%	2021-2022	35.5%
2023	4,917,834.3	16.37%	2022-2023	30.3%
2024	6,064,758.8	16.10%	2023-2024	23.3%
2025	7,501,408.0	15.85%	2024-2025	23.7%
2030	21,833,777.8	15.14%	CAGR 2025-2030	38.2%

<u>Dollars</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Dollars 000s)</u>	<u>Year-to-Year Change</u>	
2019	2,125,356.4		
2020	2,646,392.4	2019-2020	24.5%
2021	2,784,867.4	2020-2021	5.2%
2022	3,774,400.4	2021-2022	35.5%
2023	4,917,834.3	2022-2023	30.3%
2024	6,064,758.8	2023-2024	23.3%
2025	7,501,408.0	2024-2025	23.7%
2030	21,833,777.8	CAGR 2025-2030	38.2%

In 2024, sales for this product in United States is forecast to be \$6,064.8 million dollars. Sales are forecast to change by 23.7 percent in the next year (2024 to 2025). In 2024, sales will be 6064.8 million Dollars and will change by 23.3 percent in the next year (2024 to 2025).

In 2030, sales for this product in United States is forecast to be \$21,833.8 million dollars. The compound annual growth rate is projected to change by 38.2 percent from 2025 to 2030. In 2030, sales will be 6064.8 million Dollars and will change by 23.3 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

United States

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Alabama	73,095.7	89,815.9	110,684.0	316,078.2
Arizona	113,866.4	142,315.3	178,393.1	554,705.2
Arkansas	45,485.5	56,006.6	69,163.4	199,577.4
California	594,982.3	733,561.2	907,066.6	2,634,540.3
Colorado	87,699.5	109,094.4	136,106.3	413,341.5
Connecticut	52,845.8	64,700.2	79,445.7	222,816.6
Florida	323,307.3	401,541.4	500,167.7	1,506,932.3
Georgia	163,507.6	203,060.3	252,919.7	761,766.8
Illinois	190,867.8	233,856.0	287,365.7	808,943.8
Indiana	99,490.9	122,221.6	150,585.5	429,546.9
Iowa	46,133.1	56,543.0	69,504.9	195,996.8
Kentucky	66,592.1	81,826.9	100,841.6	288,011.7
Louisiana	68,428.2	83,788.2	102,896.6	288,764.9
Maryland	90,506.9	111,397.4	137,511.5	396,013.8
Massachusetts	100,063.6	122,651.6	150,779.0	425,334.4
Michigan	146,326.3	178,937.0	219,456.4	611,843.9
Minnesota	83,505.7	102,792.1	126,903.6	365,675.8
Mississippi	44,704.8	54,842.5	67,476.3	191,149.2
Missouri	91,400.8	112,265.6	138,297.3	394,185.3
Nevada	51,809.6	65,394.4	82,783.1	270,394.6
New Jersey	133,696.8	164,033.0	201,842.2	572,093.0
New York	290,688.0	355,900.0	437,018.1	1,225,766.6
North Carolina	159,222.3	197,483.0	245,655.4	735,123.2
Ohio	170,804.9	208,935.2	256,326.4	715,737.8
Oklahoma	58,593.7	72,084.7	88,941.7	255,545.7
Oregon	63,267.6	78,260.0	97,088.8	286,659.6
Pennsylvania	187,714.1	229,684.2	281,861.5	788,153.6
South Carolina	76,088.1	94,108.3	116,737.4	344,485.8
Tennessee	102,151.1	126,117.3	156,162.5	456,708.1
Texas	436,458.1	542,693.6	676,764.2	2,050,700.3
Utah	48,878.5	60,953.6	76,234.5	234,402.5
Virginia	128,436.5	158,558.9	196,319.5	573,955.9
Washington	113,165.7	140,206.4	174,217.4	518,513.9
Wisconsin	86,590.9	106,317.5	130,920.6	372,455.8

Note: Sales for 2023-2024 are forecasts and sales 1

Venezuela

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	33,873.6	0.27%		
2020	40,142.7	0.27%	2019-2020	18.5%
2021	37,566.4	0.22%	2020-2021	-6.4%
2022	47,182.1	0.21%	2021-2022	25.6%
2023	58,627.9	0.20%	2022-2023	24.3%
2024	69,272.2	0.18%	2023-2024	18.2%
2025	82,738.4	0.17%	2024-2025	19.4%
2030	213,039.9	0.15%	CAGR 2025-2030	31.5%

<u>Bolivars</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Bolivars 000s)</u>	<u>Year-to-Year Change</u>	
2019	338,058.9		
2020	400,624.0	2019-2020	18.5%
2021	374,912.2	2020-2021	-6.4%
2022	470,877.1	2021-2022	25.6%
2023	585,106.8	2022-2023	24.3%
2024	691,336.1	2023-2024	18.2%
2025	825,728.9	2024-2025	19.4%
2030	2,126,137.8	CAGR 2025-2030	31.5%

In 2024, sales for this product in Venezuela is forecast to be \$69.3 million dollars. Sales are forecast to change by 19.4 percent in the next year (2024 to 2025). In 2024, sales will be 691.3 million Bolivars and will change by 18.2 percent in the next year (2024 to 2025).

In 2030, sales for this product in Venezuela is forecast to be \$213.0 million dollars. The compound annual growth rate is projected to change by 31.5 percent from 2025 to 2030. In 2030, sales will be 691.3 million Bolivars and will change by 18.2 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Venezuela

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
Amazonas	371.8	451.4	553.9	1,631.8
Anzoátegui	3,277.9	3,889.3	4,664.7	12,257.0
Apure	1,083.2	1,286.7	1,544.9	4,081.9
Aragua	3,431.1	4,042.4	4,814.1	12,210.3
Barinas	1,818.1	2,165.4	2,607.0	6,981.7
Bolívar	3,302.6	3,916.8	4,695.5	12,309.7
Carabobo	4,738.9	5,594.0	6,675.0	17,095.9
Cojedes	700.3	831.3	997.5	2,627.5
Delta Amacuro	378.1	452.6	547.5	1,502.9
Dependencias Federales	4.6	5.4	6.5	17.3
Distrito Capital	3,641.5	4,235.2	4,979.1	11,839.6
Falcón	1,944.1	2,296.0	2,741.1	7,038.2
Guárico	1,665.0	1,970.2	2,356.5	6,107.7
Lara	3,759.2	4,433.1	5,284.6	13,468.1
Mérida	1,830.5	2,161.8	2,580.7	6,624.6
Miranda	5,856.5	6,910.4	8,242.2	21,064.6
Monagas	1,999.3	2,379.6	2,862.8	7,639.4
Nueva Esparta	1,131.5	1,348.7	1,624.9	4,367.9
Portuguesa	1,898.6	2,244.0	2,681.0	6,909.6
Sucre	1,891.8	2,224.4	2,643.9	6,640.0
Táchira	2,362.0	2,779.4	3,306.1	8,334.8
Trujillo	1,508.8	1,779.0	2,120.4	5,399.5
Vargas	676.8	792.1	937.2	2,300.3
Yaracuy	1,330.0	1,574.3	1,883.7	4,891.2
Zulia	8,025.9	9,508.6	11,387.3	29,698.5

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Vietnam

Market - 5G Chipset Market

Market Sales by Country

<u>US Dollars</u>	<u>Market Sales</u>	<u>Pct. of Global</u>		
<u>Year</u>	<u>(USD 000s)</u>	<u>Market</u>	<u>Year-to-Year Change</u>	
2019	39,181.0	0.32%		
2020	64,051.2	0.43%	2019-2020	63.5%
2021	100,519.5	0.58%	2020-2021	56.9%
2022	136,897.8	0.60%	2021-2022	36.2%
2023	200,067.0	0.67%	2022-2023	46.1%
2024	275,136.0	0.73%	2023-2024	37.5%
2025	377,183.6	0.80%	2024-2025	37.1%
2030	1,583,808.6	1.10%	CAGR 2025-2030	64.0%

<u>Dongs</u>	<u>Market Sales</u>		
<u>Year</u>	<u>(Dongs Mill.)</u>	<u>Year-to-Year Change</u>	
2019	905,512.6		
2020	1,480,286.9	2019-2020	63.5%
2021	2,323,105.0	2020-2021	56.9%
2022	3,163,844.6	2021-2022	36.2%
2023	4,623,747.9	2022-2023	46.1%
2024	6,358,667.1	2023-2024	37.5%
2025	8,717,089.3	2024-2025	37.1%
2030	36,603,400.4	CAGR 2025-2030	64.0%

In 2024, sales for this product in Vietnam is forecast to be \$275.1 million dollars.

Sales are forecast to change by 37.1 percent in the next year (2024 to 2025). In 2024, sales will be 6358.7 million Dongs and will change by 37.5 percent in the next year (2024 to 2025).

In 2030, sales for this product in Vietnam is forecast to be \$1,583.8 million dollars.

The compound annual growth rate is projected to change by 64 percent from 2025 to 2030. In 2030, sales will be 6358.7 million Dongs and will change by 37.5 percent from 2025 to 2030.

Source: Perry/Hope Partners

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Vietnam

Product - 5G Chipset Market

Market Sales by Regions (USD 000s)

	2023	2024	2025	2030
An Giang	4,624.1	6,318.7	8,606.7	34,957.0
Bắc Giang	3,519.0	4,816.9	6,572.3	26,923.8
Bến Tre	2,664.8	3,628.8	4,925.6	19,662.0
Bình Định	3,235.1	4,417.8	6,013.4	24,341.8
Bình Dương	4,706.1	6,687.1	9,471.4	46,768.6
Cần Thơ	2,697.1	3,696.4	5,049.6	20,812.0
Đắk Lắk	4,124.1	5,692.0	7,830.9	33,435.4
Đồng Nai	6,410.6	8,876.8	12,252.4	53,173.1
Đồng Tháp	3,622.0	4,953.4	6,752.4	27,535.7
Gia Lai	3,136.9	4,343.6	5,995.1	26,014.4
Hải Dương	3,791.7	5,184.9	7,067.4	28,807.7
Hải Phòng	4,236.0	5,813.3	7,952.3	33,001.1
Hà Nội (incl. Hà Tây) [Hanoi]	16,009.3	22,150.5	30,549.1	132,051.0
Hà Tĩnh	2,658.2	3,622.8	4,921.7	19,729.6
Kiên Giang	3,844.1	5,277.5	7,222.1	30,028.5
Lâm Đồng	2,796.3	3,851.4	5,287.6	22,341.9
Long An	3,208.0	4,397.2	6,007.7	24,777.4
Nam Định	3,894.1	5,303.6	7,200.2	28,766.0
Nghệ An	6,554.5	8,963.0	12,217.2	49,801.0
Phú Thọ	2,941.9	4,025.2	5,489.6	22,437.8
Quảng Nam	3,155.8	4,315.3	5,882.0	23,974.6
Quảng Ngãi	2,666.7	3,643.1	4,961.1	20,126.9
Sóc Trăng	2,835.9	3,884.5	5,303.9	21,803.7
Thái Bình	3,796.2	5,175.9	7,034.3	28,254.2
Thái Nguyên	2,631.0	3,610.1	4,937.8	20,476.8
Thanh Hóa	7,417.9	10,117.7	13,755.7	55,354.7
Ho Chi Minh City	18,520.6	25,764.1	35,725.5	158,657.0
Tiền Giang	3,708.4	5,072.1	6,915.0	28,214.9

Note: Sales for 2023-2024 are forecasts and sales for 2025-2030 projections

Appendix

Market - 5G Chipset Market

Overview

PRODCOM statistics aim at providing a full picture at EU level of developments in industrial production for a given product or for an industry in a comparable manner across countries. This aim became more important together with the establishment of the single market in 1992, and with rapid changes occurring in Europe the statistical system had to adapt to these changes.

The acronym PRODCOM comes from the French “PRODUCTION COMMUNAUTAIRE” (Community Production). The PRODCOM list is updated each year by the PRODCOM Expert Group. The headings of the PRODCOM list are linked to those from the Combined Nomenclature (CN) used to compile International Trade in Goods statistics, which thus enables direct comparisons between industrial production statistics and trade statistics (see below). PRODCOM headings are coded using an eight-digit numerical code, the first six digits of which are identical to those of the Statistical Classification of Products by Activity (CPA) code. The PRODCOM list is therefore also fully consistent with the CPA, while further detailing the CPA product categories.

PRODCOM statistics are broken down to a detail level of almost 3900 products available in the PRODCOM list. The main indicators of the production sold during the calendar year are collected and published both in monetary (EUR) and physical (kg, m², number of items, etc.) terms.

Eurostat releases in its database PRODCOM statistics for the EU as a whole as well as by Member State. The EU total excludes currently three EU Member States which are exempt from transmitting industrial production data given their small share in the EU total; these are Cyprus, Malta and Luxembourg.

How are PRODCOM statistics measured?

As mentioned above, PRODCOM statistics are based upon data on manufacturing of goods produced by the enterprises on the national territory. These enterprises carry out one or more activities at one or more locations and may comprise one or more legal units. When an enterprise is active in more than one economic activity, then the value added and turnover that it generates, the persons it employs, and the values of all other statistical variables will be classified under the enterprise’s principal activity. The principal activity is normally the one that generates the largest amount of value added. For PRODCOM statistics, the survey population consists of enterprises whose principal activity or one of its secondary activities was manufacturing of goods during the reference period.

PRODCOM statistics are compiled from the enterprises that cover at least 90 % of the national production per NACE class and employ at least 20 people (different thresholds may nonetheless be adopted by countries in exceptional cases). The territory covered in each country refers to the specifications of the Nomenclature of Countries and Territories for the External Trade Statistics of the Community and Statistics of Trade between Member States.

Indicator definitions for key PRODCOM statistics

PRODCOM statistics consist of the following set of indicators:

the physical volume of production sold during the survey period,
the value of production sold during the survey period,

the physical volume of actual production during the survey period, including any production which is incorporated into the manufacture of other products from the same undertaking.

The national statistical institutes transmit this set of indicators to Eurostat on an annual basis, six months after the end of the reference year. Data are available in both NACE Rev. 1.1 and NACE Rev. 2 classifications until 2008 reference year and from reference year 2009 onwards only in NACE Rev.2.

Appendix

Which parts of the economy does PRODCOM cover?

The PRODCOM statistics cover the industrial production (with the exception of military products and some energy products) carried out by enterprises classified within the Sections B to C of NACE Rev. 2, which include:

- Section B - Mining and quarrying
 - Division 07 - Mining of metal ores
 - Division 08 - Other mining and quarrying
 - Division 09 - Mining support service activities
- Section C - Manufacture
 - Division 10 - Manufacture of food products
 - Division 11 - Manufacture of beverages
 - Division 12 - Manufacture of tobacco products
 - Division 13 - Manufacture of textiles
 - Division 14 - Manufacture of wearing apparel
 - Division 15 - Manufacture of leather and related products
 - Division 16 - Manufacture of wood and of products of wood and cork, except furniture
 - Division 17 - Manufacture of paper and paper products
 - Division 18 - Printing and reproduction of recorded media
 - Division 19 - Manufacture of coke and refined petroleum products
 - Division 20 - Manufacture of chemicals and chemical products
 - Division 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations
 - Division 22 - Manufacture of rubber and plastic products
 - Division 23 - Manufacture of other non-metallic mineral products
 - Division 24 - Manufacture of basic metals
 - Division 25 - Manufacture of fabricated metal products, except machinery and equipment
 - Division 26 - Manufacture of computer, electronic and optical products
 - Division 27 - Manufacture of electrical equipment
 - Division 28 - Manufacture of machinery and equipment n.e.c.
 - Division 29 - Manufacture of motor vehicles, trailers and semi-trailers
 - Division 30 - Manufacture of other transport equipment
 - Division 31 - Manufacture of furniture
 - Division 32 - Other manufacturing
 - Division 33 - Repair and installation of machinery and equipment

Legislation

PRODCOM statistics are compiled under the legal basis provided by Council Regulation (EEC) NO 3924/1991 of 19 December 1991 and by Commission Regulation (EC) No 0912/2004 of 29 April 2004 implementing the Council Regulation (EEC) No 3924/91 on the establishment of a Community survey of industrial production. Additionally, a Commission Regulation updating the PRODCOM classification is available annually since 2003.

Methodology

A summary of the methodology applied for PRODCOM statistics accompanies the data on Eurostat's website as a European Statistics Metadata System (ESMS) metadata file (prodcom_esms). The national European Statistics Metadata System (ESMS) metadata files, employed by countries for PRODCOM statistics are available under the ESMS metadata file (prodcom_esms).

Classifications

Appendix

As mentioned above, the enterprises which are surveyed for PRODCOM statistics are classified according to their activity and assigned to a particular NACE code. The revised NACE Rev. 2 classification was adopted at the end of 2006, and is applicable to the PRODCOM Statistics since 2008 reference year. These changes in the classifications allowed a broader and more detailed collection of information to be compiled on industry, and provided the possibility to better identify new products from new areas of economic activity (such as technology-producing sectors).

Existing PRODCOM statistics presented in terms of NACE Rev. 1.1 will be maintained in the database for those users wishing to analyse historical series.

Before industrial production data collection could start, it was necessary to draw up a common list of products to be covered. Drawing up the PRODCOM list was a unique opportunity for Eurostat, the National Statistical Institutes and the European Trade Associations to work together to produce a classification that would work on the micro, national and European levels. The two main objectives of this work were to enable measuring the industrial production and to allow linking production statistics to trade statistics. As PRODCOM statistics have to be comparable with trade statistics, which are based on the CN, there had to be a close relationship between the two nomenclatures. Furthermore, the basic building blocks for PRODCOM are NACE (Rev. 2, as from 2008) and the CPA. Therefore, the PRODCOM list had to be developed in close association with these nomenclatures.

To understand how the different nomenclatures fit together, and their links to world-wide nomenclatures, it is useful to consider the diagram below which gives an overview of the revised system of integrated statistical classifications. This diagram shows the clear links between the PRODCOM list and the CN, which then links up to the HS at a world-wide level.

Diagram links: PRODCOM list, CN and HS

Policy context

Industrial production statistics collected within PRODCOM are used as one of the data sources in a number of policy areas covered mainly by the work of the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW). The European Commission's enterprise policies aim to create a favourable environment for business to thrive within the EU, creating higher productivity, economic growth, jobs and wealth. Many of the policies that have been introduced in recent years have been aimed at reducing administrative burdens, stimulating innovation, encouraging sustainable production, and ensuring the smooth functioning of the EU's internal market.

At the European Council meeting of 26 March 2010, EU leaders set out their plan for Europe 2020, a strategy to enhance the competitiveness of the EU and to create more growth and jobs. The latest revision of the integrated economic and employment guidelines (revised as part of the Europe 2020 strategy for smart, sustainable and inclusive growth) includes a guideline to improve the business and consumer environment and modernise Europe's industrial base. Additional information about the Europe 2020 strategy can be found on the Europe 2020 website.

In October 2010, the European Commission presented a Communication on "An industrial policy for the globalisation era", establishing a strategic agenda and proposing broad cross-sectoral measures, as well as tailor-made actions for specific industries, mainly targeting so-called "green innovation" performance of various sectors. Prodcum statistics represent an important data input in order to take informed political decisions in these areas.

The central principles governing the internal market for services guarantee EU enterprises the freedom to establish themselves in other Member States, and the freedom to provide services on the territory of another EU Member State other than the one in which they are established. These central principles governing the internal market were set out in the EC Treaty. The objective of the Directive 0123/2006 of 12 December 2006 is to eliminate obstacles to trade in services, thus allowing the development of cross-border operations. It is intended to improve competitiveness, not just of service enterprises but also of European industry as a whole. In December 2006, the Directive was adopted by the European Parliament and the Council with transposition by the Member States required by the end of 2009. A comprehensive and structured listing of the legislative acts in force relating to industrial policy is available on Eurlex's website.