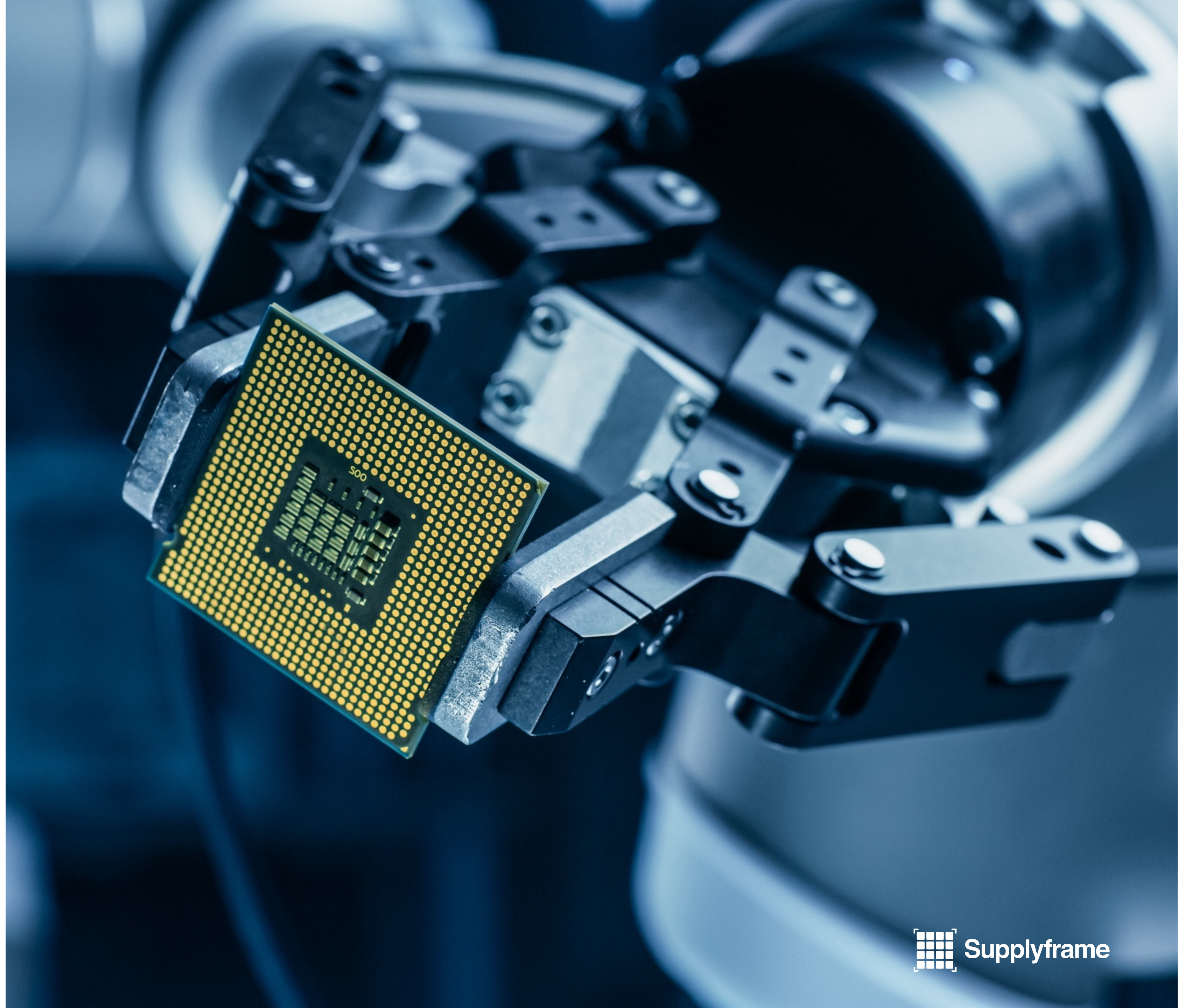


Supplyframe
Design-to-Source
Intelligence

Design-to-Source Monthly Insights

January 2024



Methodology

The following report was compiled using data available from Supplyframe's Design to Source Intelligence (DSI) Network. The DSI Network consists of more than 70+ web properties, attracting 11M+ engineers and procurement professionals from around the world on a monthly basis. Engineers and procurement professionals visit and interact with the DSI Network specifically for their work (research, consider, design, and buy), enabling Supplyframe to understand design trends, sourcing trends, and extrapolate indicators of overall market conditions and trends.

What this report provides the advertiser?

1. A proxy for "market" condition by evaluating trends in engineering design activities and procurement sourcing activities
2. Understand what product categories are in demand by engineers and buyers
3. Anticipate future sourcing demand based on where design activities are concentrated (categories and regions)

Customers can leverage the insights provided in this report to support the development of their Go-To-Market strategy, as well as campaign planning and execution to drive their organization's objectives.

To protect sensitive information, as well as provide a mechanism for insights - we have normalized and indexed much of the data used in this analyses. There are two specific indices utilized to provide trend and comparative insights:

Design Activity Index

Based on part level activity by engineers on the DSI Network. Activities included are related to part evaluation and part placement in designs via EDAs. Activities, are normalized, weighted, and scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum volume of activities in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Sourcing Activity Index

Based on part level activity by buyers on the DSI Network. Activities included are related to buy clicks on the the DSI Network. Index is scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum value in the given data set. A value of 50 reflects half of the maximum value in the given data set.

What We Saw Across The Network

JANUARY 2024

- Global design activities slowed while global sourcing activities rebounded month-over-month in January
- Global design activities decreased -3% month-over-month in January as activities softened in the APAC region. Activity levels increased nominally in the EMEA and Americas regions. Compared to January 2023, global design activities grew 3% year-over-year
- Global sourcing activities increased +27% month-over-month in January. Activity levels increased across all regions. Compared to January 2023, global demand continued to remain soft, recording a -13% decrease in sourcing activities worldwide
- Capacitors, inductors, filters, and switches observed significant increases in activity from both engineers and buyers in January following the news of the new year's day earthquake in Japan that impacted certain suppliers in the country

Q1 2024 outlook

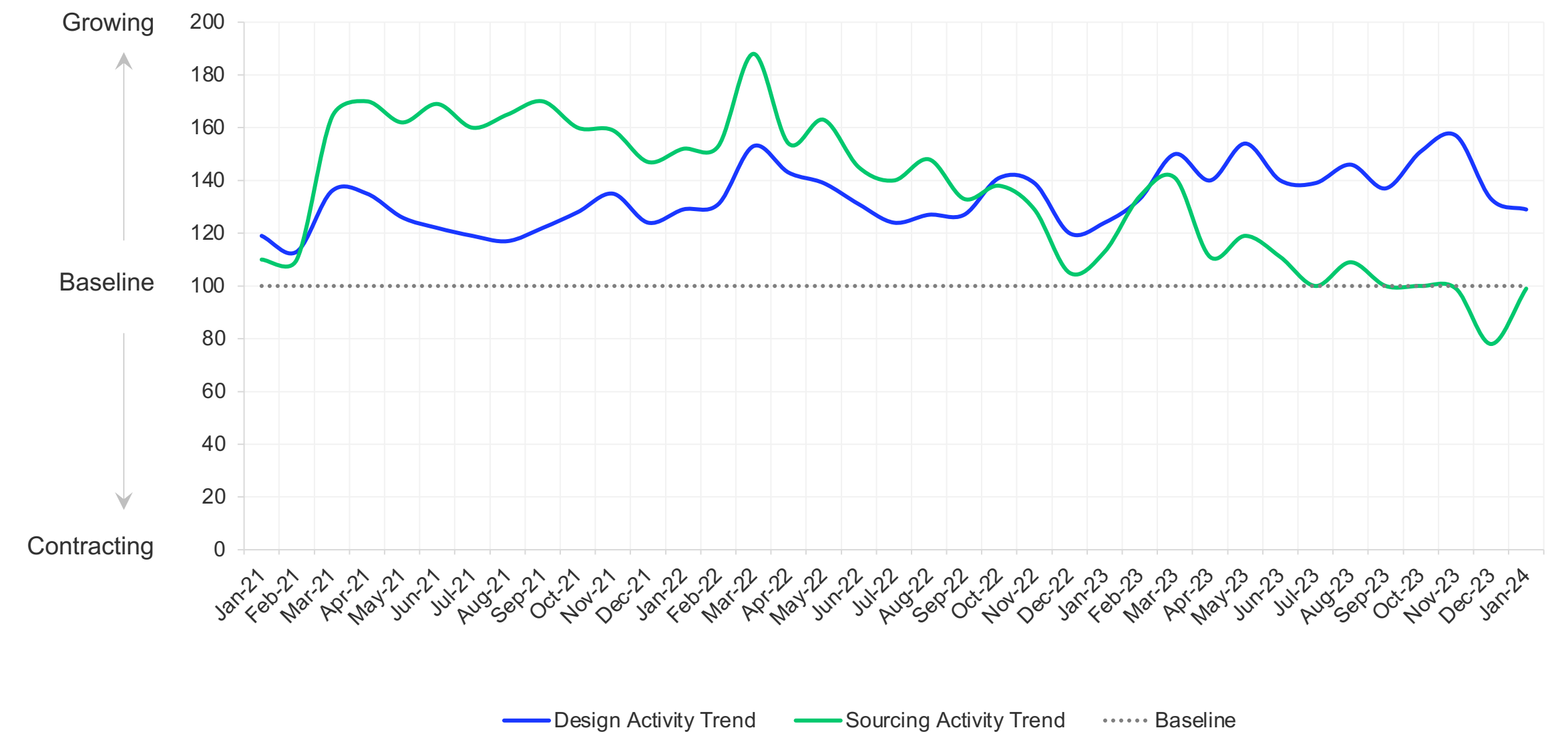
- Global design activities: With the slower than expected start in January, projections have been adjusted down to being flat quarter-over-quarter for calendar Q1 2024 vs. growing +2%
- Global sourcing activities: Projections remain unchanged. Global sourcing activities are expected to grow +3% quarter-over-quarter

Global Performance

Design Activities ⚡ -3.2% M/M
⚡ +3.4% Y/Y

Sourcing Activities ⚡ +27.0% M/M
⚡ -12.5% Y/Y

Chart 1. Design and Sourcing Activity Trends



How to read this chart:

Design and sourcing activities have been baselined to 2020 monthly median. Baseline is indicated as a value of 100. Above the baseline indicates growth, while below the baseline indicates decrease in activities.

Design Activity Overview

JANUARY 2024

Design Activity Index

Based on part level activity by engineers on the DSI Network. Activities included are related to part evaluation and part placement in designs via EDAs. Activities, are normalized, weighted, and scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum volume of activities in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Global design activities slowed in January but continued to growth compared to prior year.

Global design activities decreased -3% vs. prior month this year. Historically, global design activities have increased between +2% to +5% from December to January as Europe and the Americas regions observed an uptick in activities in January. This year however, global design activities remained flat in Europe and only nominally increased in the Americas. Although global design activities slowed this January, when compared to prior year, we continued to see growth in activities driven by growth in the APAC region.

In the APAC region, China, South Korea, Taiwan, Australia, and Vietnam observed notable increases in design activities compared to prior year. Increase in design activities were observed across all product categories, but most notably in capacitors (+111% Y/Y); resistors (+106% Y/Y); diodes (+74% Y/Y); power circuits (+64% Y/Y); and inductors (+214% Y/Y).

In the EMEA region, design activities remained flat month-over-month. Historically, design activities have increased +10% from December to January. The lack of growth in design activities in the region were primarily driven by a slow down in activities from the United Kingdom (-10% Y/Y); France (-6%Y/Y); and Italy (-12% Y/Y).

In the Americas region, design activities increased a nominal +4% month-over-month vs. the +15% month-over-month growth we've typically experienced in past years. All product categories observed less than expected month-over-month increase design activities.

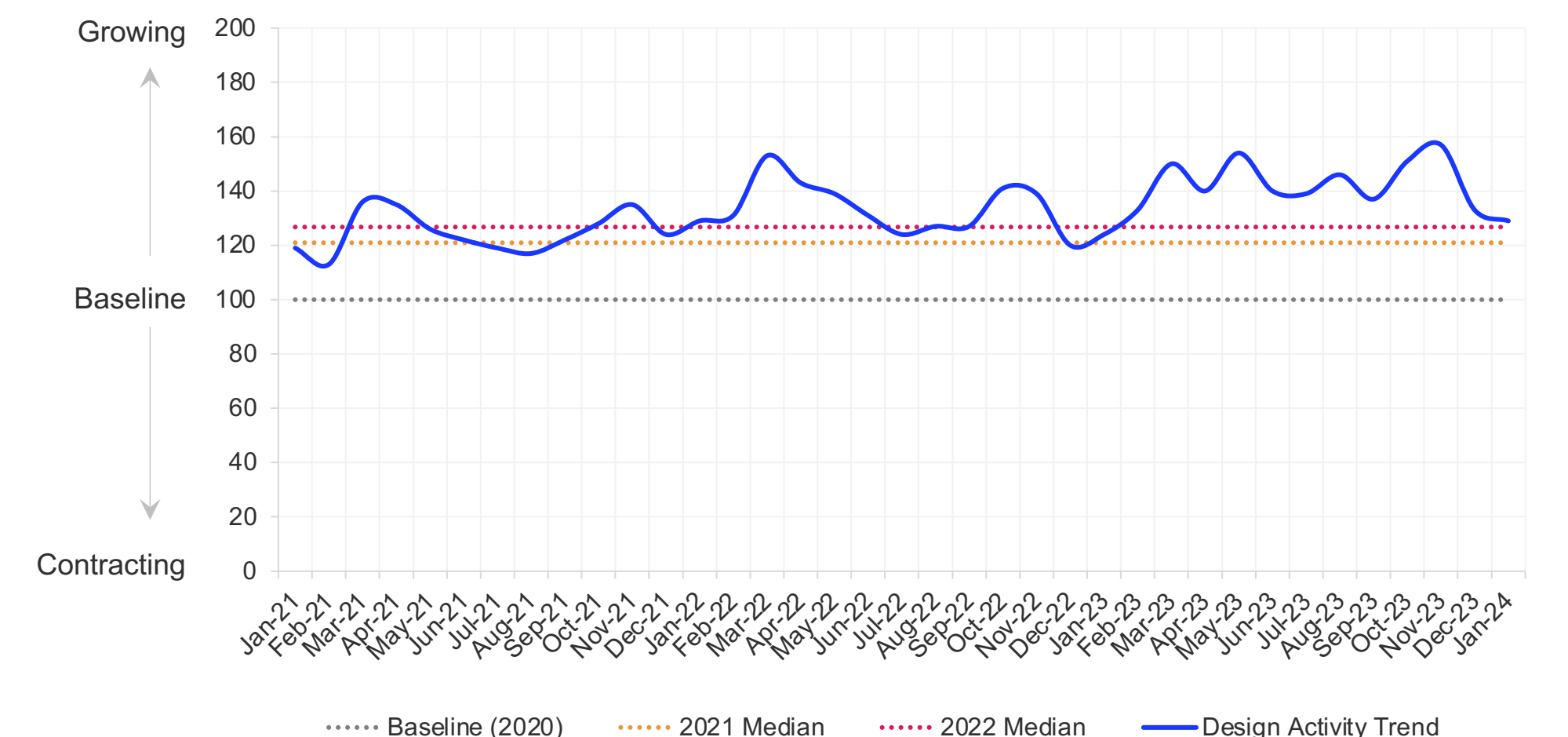
Table 1. Design Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		-3.2%	3.4%	-1.3%
Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	1%	-7%	0%
APAC	73.1	-12%	23%	-3%
AMER	46.1	4%	4%	-1%

Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	10%	4%	0%
China (incl. Hong Kong)	69.7	-11%	79%	-2%
Germany	48.1	7%	1%	0%
India	46.4	-15%	-8%	-4%
United Kingdom	31.9	21%	-10%	-2%
France	25.7	8%	-6%	-1%
Republic of Korea	23.3	2%	39%	0%
Italy	23.1	4%	-12%	-1%
Japan	21.6	-35%	-19%	-9%
Turkey	17.2	-29%	-19%	-2%

Chart 2. Global Design Activity Trends



Design Activity: Americas Trends

JANUARY 2024

Design Activity Index
 Based on part level activity by engineers on the DSI Network. Activities included are related to part evaluation and part placement in designs via EDAs. Activities, are normalized, weighted, and scored on a scale of 0 – 100.
 Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum volume of activities in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of design activities across the DSI Network in the Americas region.

Chart 3. Americas Design Activity Trends

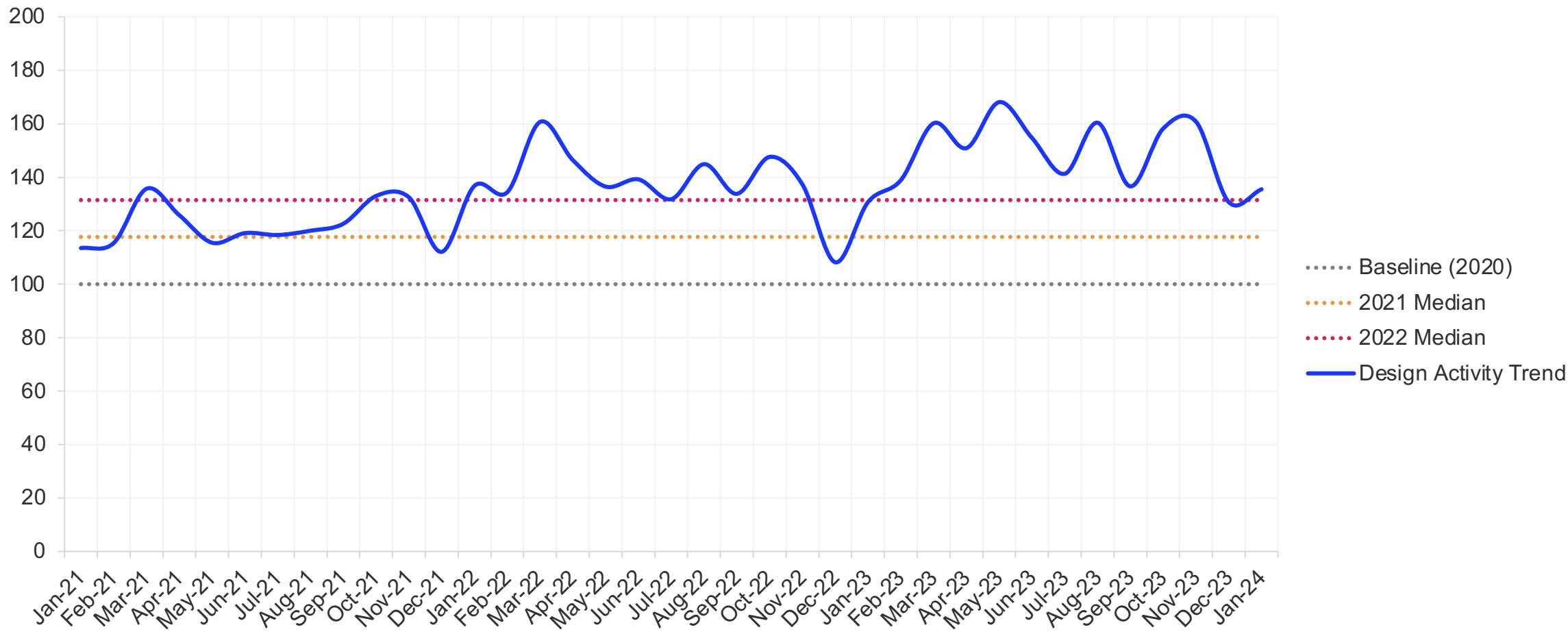


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	13%	6%	-1%
Power Circuits	57.8	15%	9%	-1%
Capacitors	57.7	-30%	0%	-1%
Resistors	55.8	9%	7%	0%
Diodes	38.6	10%	1%	1%
Transistors	29.9	18%	-6%	-1%
Optoelectronics	24.0	4%	-4%	-2%
Terminal Blocks	22.9	9%	14%	3%
Microcontrollers and Processors	21.9	5%	-14%	-1%
Drivers And Interfaces	18.2	20%	-1%	-3%
Inductors	18.0	15%	78%	0%
Amplifier Circuits	16.3	-17%	1%	0%
Switches	14.6	12%	1%	-2%
Logic	14.2	12%	-16%	-1%
Signal Circuits	13.8	-2%	-4%	-3%

Design Activity: EMEA Trends

JANUARY 2024

Design Activity Index
 Based on part level activity by engineers on the DSI Network. Activities included are related to part evaluation and part placement in designs via EDAs. Activities, are normalized, weighted, and scored on a scale of 0 – 100.
 Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum volume of activities in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of design activities across the DSI Network in the EMEA region.

Chart 4. EMEA Design Activity Trends

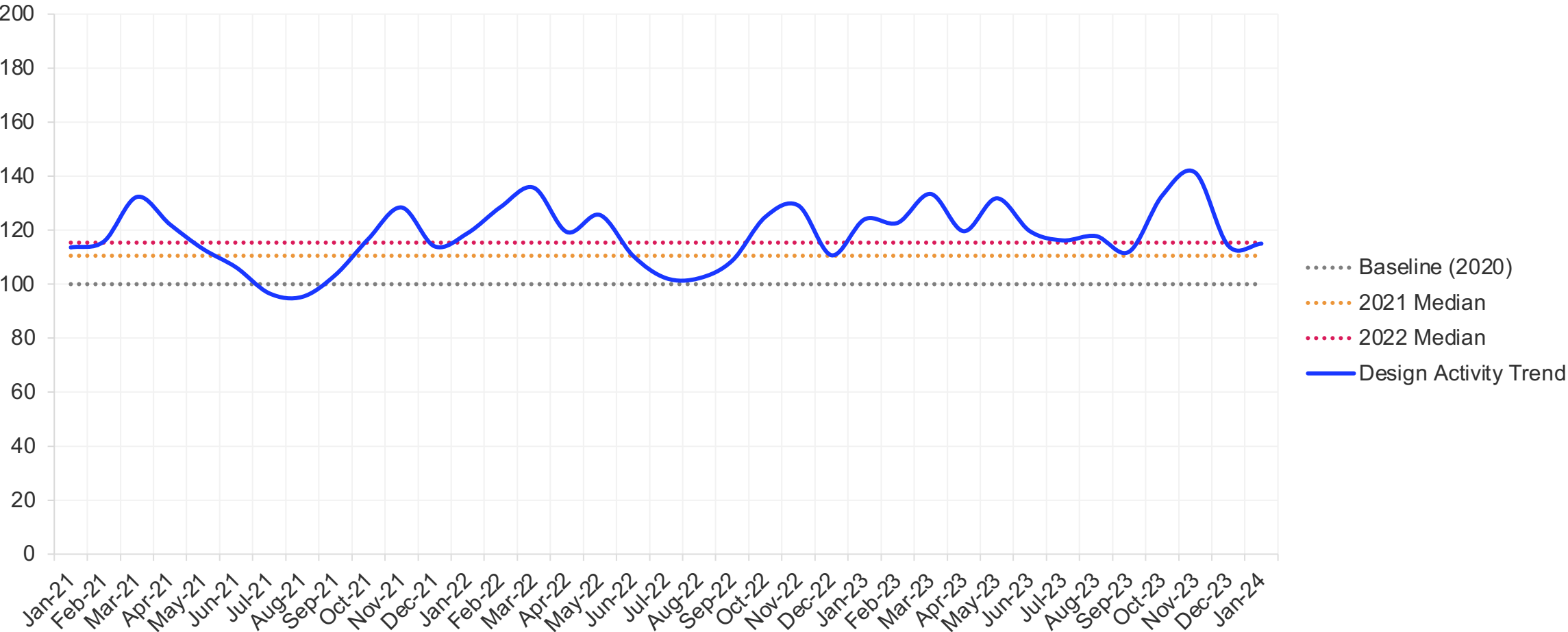


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	9%	-5%	0%
Power Circuits	62.6	0%	-13%	-1%
Capacitors	53.2	-4%	-3%	0%
Resistors	48.8	-5%	1%	0%
Diodes	43.3	-1%	-5%	-1%
Transistors	33.8	-4%	-13%	0%
Terminal Blocks	28.6	18%	4%	2%
Microcontrollers and Processors	26.9	-5%	-24%	-1%
Optoelectronics	26.7	-3%	-10%	1%
Inductors	23.8	2%	45%	1%
Drivers And Interfaces	20.3	6%	-16%	-1%
Amplifier Circuits	16.6	-4%	-10%	-2%
Logic	16.6	5%	-19%	0%
Signal Circuits	15.6	-4%	-21%	-1%
Switches	14.9	2%	3%	1%

Design Activity: APAC Trends

JANUARY 2024

Design Activity Index
 Based on part level activity by engineers on the DSI Network. Activities included are related to part evaluation and part placement in designs via EDAs. Activities, are normalized, weighted, and scored on a scale of 0 – 100.
 Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum volume of activities in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of design activities across the DSI Network in the APAC region.

Chart 5. APAC Design Activity Trends

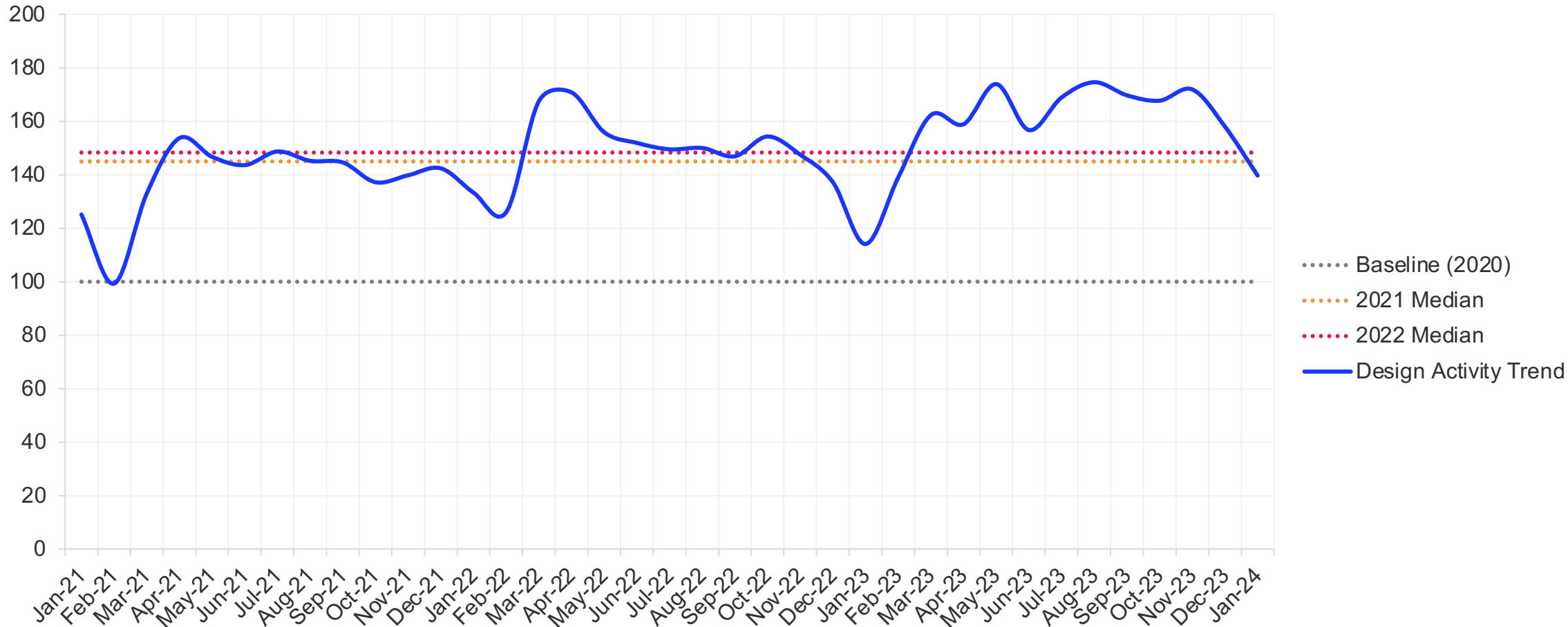


Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-16%	19%	-3%
Power Circuits	75.5	-17%	19%	-5%
Capacitors	67.5	-7%	37%	-3%
Diodes	56.4	-10%	24%	-3%
Resistors	56.3	-2%	33%	-3%
Transistors	40.4	-11%	15%	-3%
Microcontrollers and Processors	38.3	-16%	5%	-4%
Optoelectronics	27.7	-16%	15%	-3%
Drivers And Interfaces	26.5	-17%	13%	-4%
Amplifier Circuits	24.9	-10%	30%	-3%
Inductors	24.2	-7%	99%	-3%
Signal Circuits	21.9	-8%	33%	-2%
Logic	19.8	-15%	-14%	-4%
Terminal Blocks	16.3	-7%	26%	-2%
Filters	14.8	-15%	21%	-4%

Sourcing Activity Overview

JANUARY 2024

Sourcing Activity Index

Based on part level activity by buyers on the DSI Network. Activities included are related to buy clicks on the the DSI Network. Index is scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum value in the given data set. A value of 50 reflects half of the maximum value in the given data set.

After a slow December, global sourcing activities increased +27% month-over-month in January.

Following a slower than expected December, global sourcing activities rebounded in January, growing +27% month-over-month. Increase in sourcing activities were observed across all regions.

Compared to prior year, both the Americas and EMEA regions continued to show decrease in sourcing activities, while the APAC region observed a +13% year-over-year growth in sourcing activities.

In the APAC region, the following countries observed the most notable growth in year-over-year sourcing activities: China (+48%); Taiwan (+8%); Malaysia (+18%); Singapore (+12%) and Vietnam (+84%). Top product categories that observed growth in these countries included the following: connectors (+78%); capacitors (+82%); resistors (+69%); power circuits (+15%); and inductors (+268%).

In the EMEA region, while sourcing activities continued to remain below the levels observed in 2023, the following countries experienced strong month-over-month performance: Germany (+76%); France (+50%); Italy (+68%); the United Kingdom (+61%); and Poland (+51%). In these countries, the following product categories observed notable growth in sourcing activities: capacitors (+70%); diodes (+75%); inductors (+138%); connectors (+63%); and drivers and interfaces (+91%).

In the Americas region, product category performance mirrored closely that of what we observed in the EMEA region.

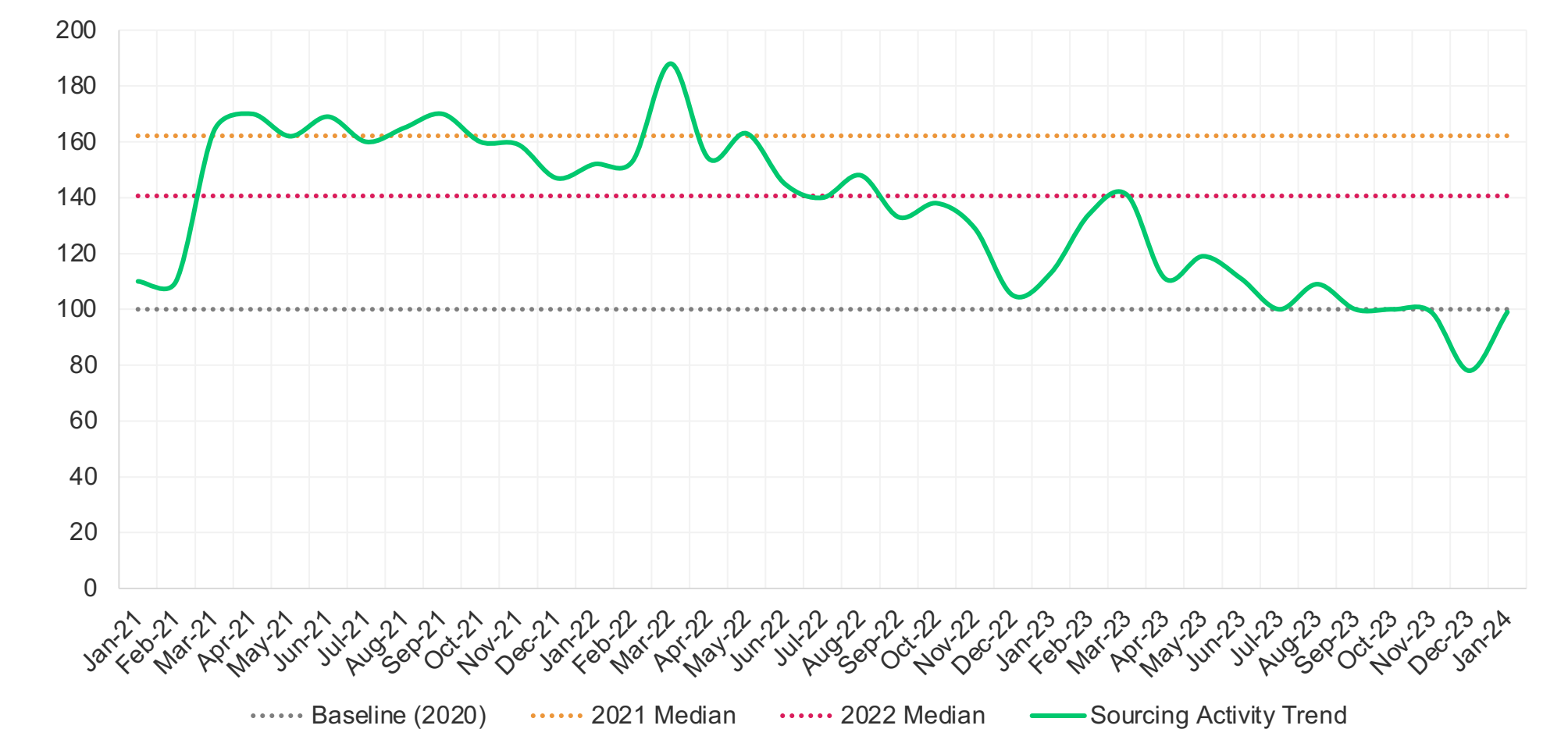
Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		27.0%	-12.5%	-0.1%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	17.4%	13.2%	0.0%
AMER	54.7	36.3%	-26.1%	0.0%
EMEA	36.3	44.7%	-35.2%	-0.3%

Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
China (incl. Hong Kong)	100.0	11%	48%	0%
United States	82.6	35%	-27%	0%
India	27.4	17%	-27%	-1%
Republic of Korea	23.0	33%	-8%	1%
Germany	16.1	77%	-33%	0%
Taiwan	12.8	23%	8%	-1%
Canada	9.6	53%	-21%	1%
France	7.4	50%	-41%	1%
Malaysia	7.4	16%	19%	-1%
Singapore	7.1	35%	12%	-3%

Chart 6. Global Sourcing Activity Trends



Sourcing Activity: Americas Trends

JANUARY 2024

Sourcing Activity Index

Based on part level activity by buyers on the DSI Network. Activities included are related to buy clicks on the the DSI Network. Index is scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum value in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of sourcing activities across the DSI Network in the Americas region.

Chart 7. Americas Sourcing Activity Trends

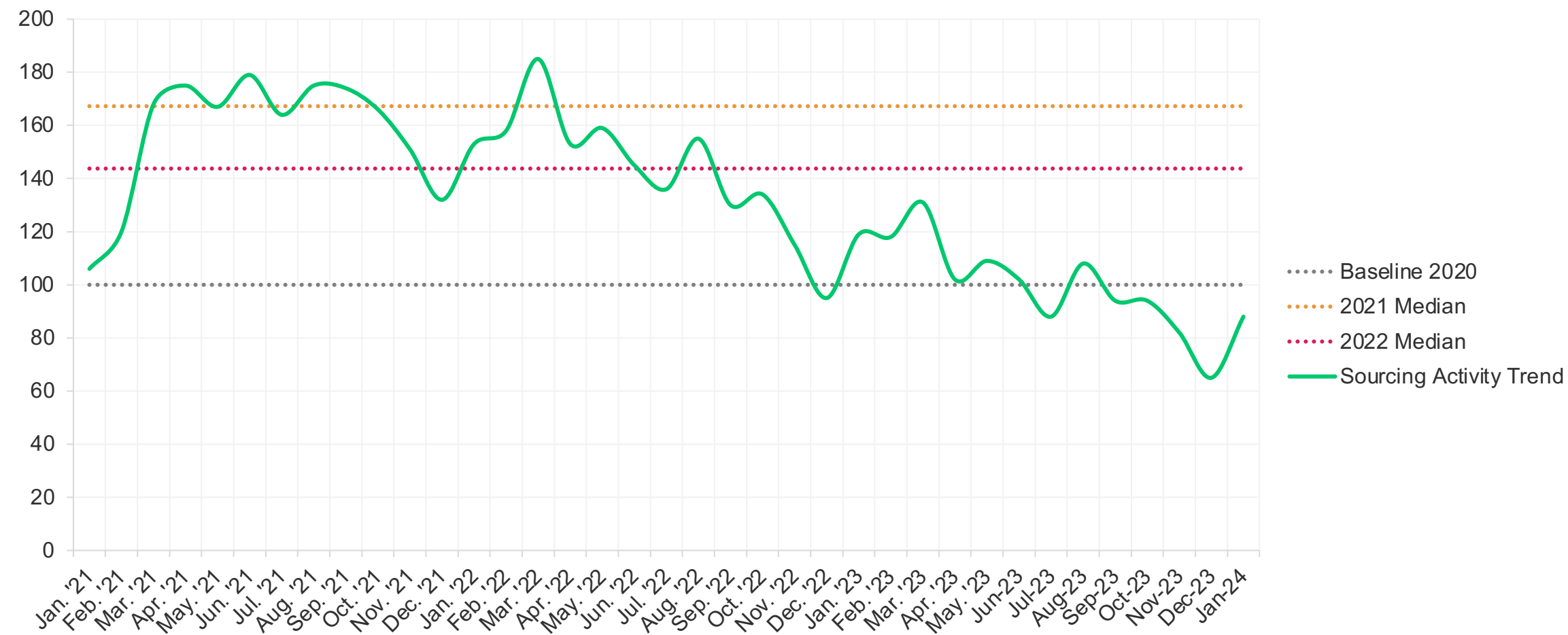


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	36%	-11%	2%
Capacitors	85.7	42%	-5%	1%
Resistors	74.9	38%	-13%	0%
Power Circuits	48.4	30%	-46%	-2%
Diodes	42.9	36%	-25%	0%
Transistors	34.9	40%	-43%	-2%
Connector Support	34.4	32%	-10%	3%
Microcontrollers and Processors	24.5	19%	-60%	-6%
Inductors	23.0	70%	29%	7%
Terminal Blocks	20.9	25%	-20%	1%
Optoelectronics	20.8	41%	-17%	2%
Amplifier Circuits	17.3	32%	-43%	-5%
Logic	15.9	33%	-34%	0%
Drivers And Interfaces	15.4	34%	-50%	-3%
Memory	12.0	33%	-41%	-2%

Sourcing Activity: EMEA Trends

JANUARY 2024

Sourcing Activity Index

Based on part level activity by buyers on the DSI Network. Activities included are related to buy clicks on the the DSI Network. Index is scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum value in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of sourcing activities across the DSI Network in the EMEA region.

Chart 8. EMEA Sourcing Activity Trends

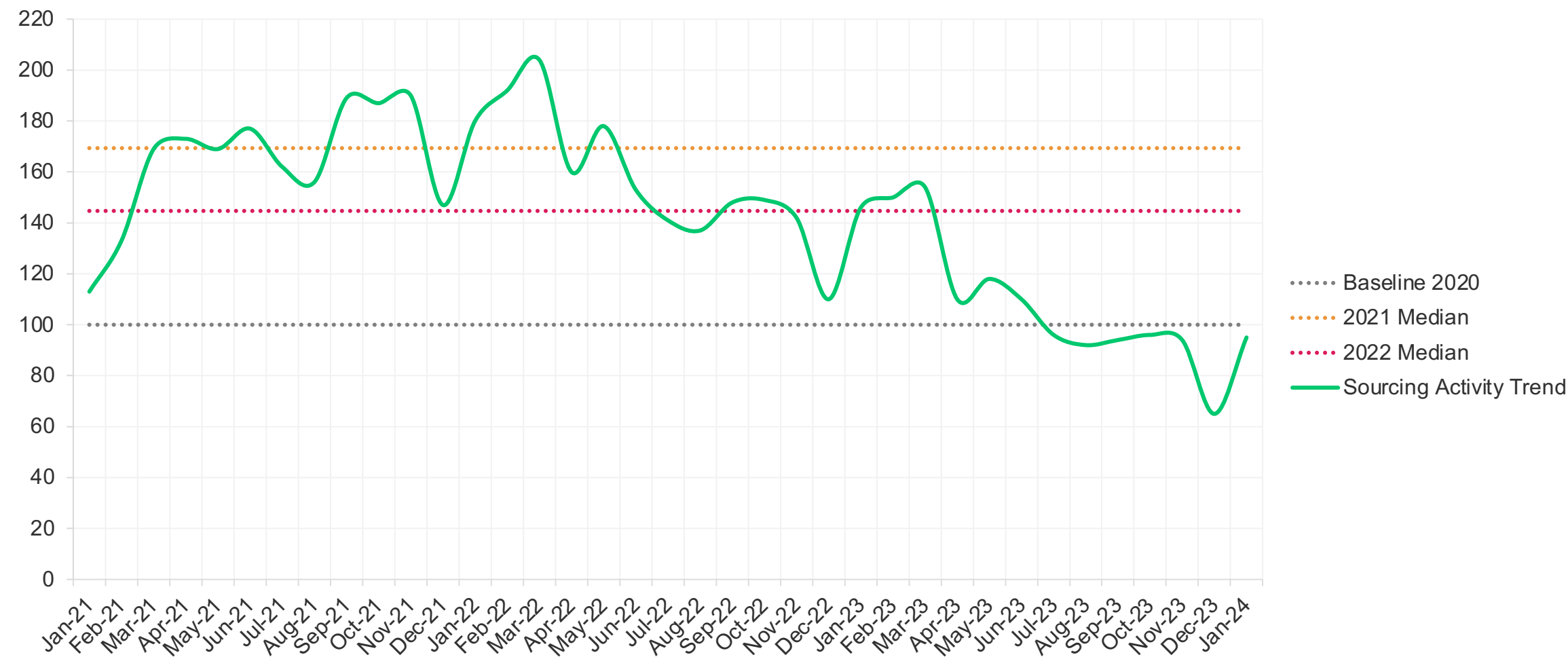


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Capacitors	100.0	41%	-12%	1%
Connectors	97.5	44%	-10%	3%
Power Circuits	79.2	41%	-50%	-2%
Resistors	78.6	40%	-16%	0%
Diodes	62.5	52%	-37%	-1%
Transistors	56.8	44%	-56%	-2%
Microcontrollers and Processors	49.3	41%	-60%	-5%
Inductors	35.5	90%	17%	7%
Amplifier Circuits	33.6	23%	-42%	-3%
Optoelectronics	31.9	48%	-29%	1%
Drivers And Interfaces	31.2	57%	-51%	-3%
Connector Support	28.0	41%	-1%	3%
Logic	22.6	39%	-39%	0%
Memory	20.1	35%	-50%	-2%
Filters	19.7	76%	8%	5%

Sourcing Activity: APAC Trends

JANUARY 2024

Sourcing Activity Index

Based on part level activity by buyers on the DSI Network. Activities included are related to buy clicks on the the DSI Network. Index is scored on a scale of 0 – 100.

Index scores are relative to the dimensions of data being included in the analyses (ie. Country, manufacturer, categories). A value of 100 reflects maximum value in the given data set. A value of 50 reflects half of the maximum value in the given data set.

Following data provides a breakdown of sourcing activities across the DSI Network in the APAC region.

Chart 9. APAC Sourcing Activity Trends

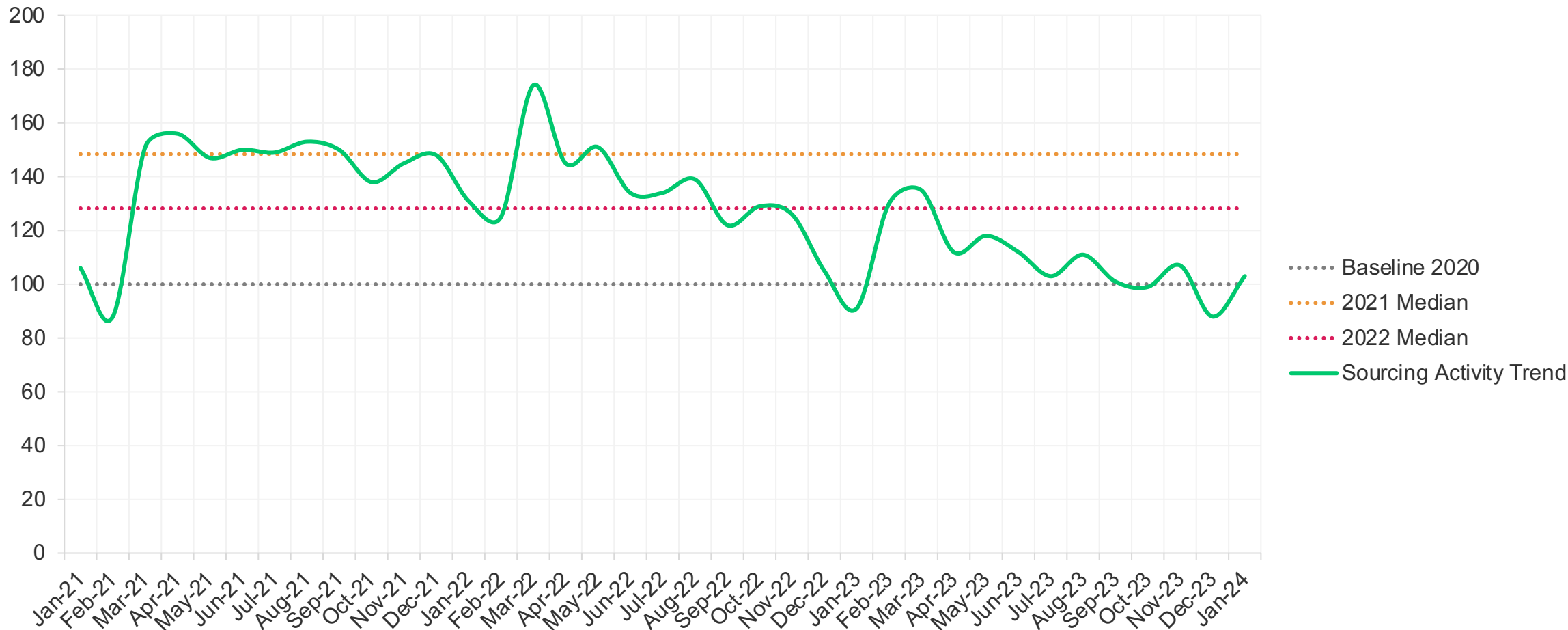


Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	12%	38%	2%
Capacitors	84.7	16%	38%	1%
Power Circuits	79.0	14%	-7%	-2%
Resistors	66.4	19%	23%	1%
Diodes	61.5	15%	7%	0%
Transistors	60.7	18%	-20%	-2%
Microcontrollers and Processors	57.9	12%	-14%	-5%
Inductors	39.0	87%	144%	11%
Connector Support	28.9	13%	44%	1%
Drivers And Interfaces	28.9	15%	-22%	-2%
Optoelectronics	26.8	19%	33%	1%
Memory	26.7	24%	4%	0%
Amplifier Circuits	25.9	17%	-5%	-5%
Logic	24.6	25%	-3%	1%
Signal Circuits	19.7	19%	0%	-1%

Recap

JANUARY 2024

- In January, global design activities slowed while global sourcing activities improved vs. December.
- Global sourcing activities decreased -3% vs. prior month (vs. +2% to +5% seasonal average), while Global sourcing activities increased +27% vs. prior month (vs. +13% seasonal average)
- Capacitors, inductors, filters, and switches observed significant increases in activity by both engineers and buyers in January due to potential availability concerns following the earthquake in Japan and its impact on suppliers in the country
- Calendar Q1 2024 projections have been adjusted based on January performance. Global design activities are now expected to remain flat quarter-over-quarter vs. growing. Outlook for global sourcing activities remain unchanged – expected to grow +3% quarter-over-quarter
- First half of 2024 is expected to remain somewhat slower with modest growth rates. We expect the second half of the calendar year to post stronger growth across regions and product categories driven by growth in the following sectors: AI, cloud computing, content growth in automotive, and wireless communications

