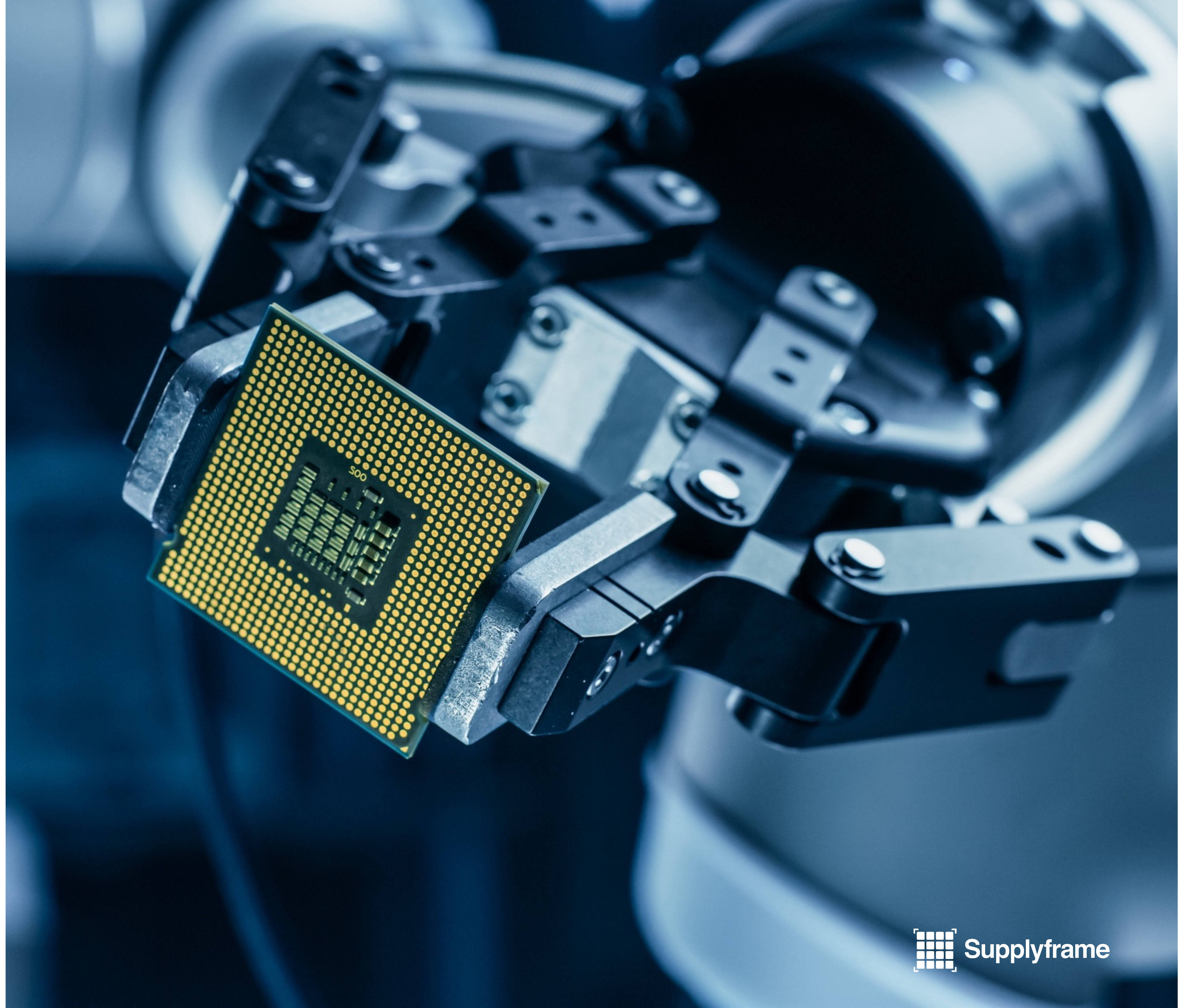


Supplyframe
Design-to-Source
Intelligence

Design-to-Source Monthly Insights

October 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

OCTOBER 2024

- Global design and sourcing activities increased month-over-month in October, aligned to seasonal trends
- Global design activities increased +16% month-over-month. Activity increased across all regions with the EMEA region observing the largest increase in design activities vs. prior month. Compared to prior year, global design activities increased +8%
- Global sourcing activities also increased in October vs. prior month (+5%). Growth in sourcing demand was observed across the Americas and EMEA regions, while the APAC region remained flat. Compared to prior year, sourcing activities remained lower across all regions. Globally, sourcing activities were -15% lower this October compared to prior year
- Globally, we observed strong increases in both design and sourcing activities in the following product categories: power circuits; capacitors; inductors; drivers and interfaces; and logic. These growth in activities were observed across the following verticals: computer equipment / data centers; industrial machinery and equipment; aerospace & defense; and automotive

Q4 2024 outlook:

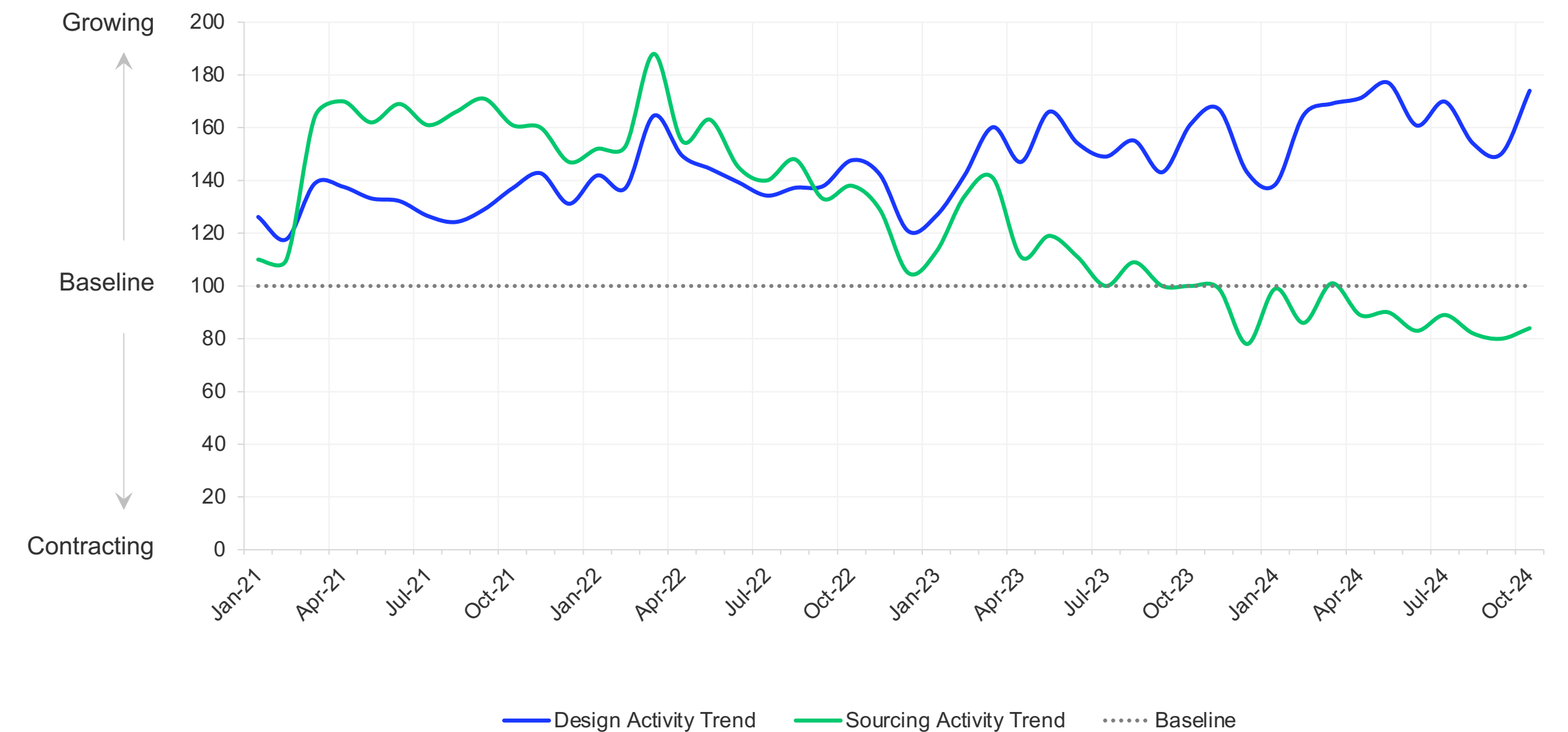
- For calendar Q4, we expect global design activities to grow between +3% to +5% quarter-over-quarter. Global sourcing activities are expected to decrease between -7% to -10% quarter-over-quarter. These projections are aligned to what we have observed in the last five years

Global Performance

Design Activities ⬆️ +15.9% M/M
⬆️ +7.9% Y/Y

Sourcing Activities ⬆️ +4.7% M/M
⬆️ -14.9% 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

OCTOBER 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 continued to remain stable and strong, despite continued weaker sourcing demand.

Following seasonal trends, global design activities increased +16% month-over-month and +8% year-over-year. Design activities increased across all regions, with the EMEA region observing the largest increase in activities vs. prior month. The Americas region observed a +19% month-over-month increase in design activities, while the APAC region observed a more modest +3% month-over-month increase.

In the EMEA region, the following countries observed strong month-over-month and year-over-year increases in design activities to drive the region’s overall trend: Germany (+25% M/M, +16% Y/Y); the United Kingdom (+15% M/M, +9% Y/Y); Turkey (+25% M/M, +39% Y/Y); Spain (+20% M/M, +17% Y/Y); and Poland (+64% M/M, +43% Y/Y). In these countries, the following product categories observed the largest increases in design activities: power circuits (+41% M/M, +31% Y/Y); inductors (+31% M/M, 32% Y/Y); terminal blocks (+39% M/M, +29% Y/Y); optoelectronics (+30% M/M, +19% Y/Y); and diodes (+29% M/M, +15% Y/Y).

In the APAC region, the following countries observed both month-over-month and year-over-year increases in design activities: South Korea (+12% M/M, +24% Y/Y); Taiwan (+6% M/M, +13% Y/Y); Vietnam (+50% M/M, +9% Y/Y); Thailand (+14% M/M, +51% Y/Y); and Singapore (+18% M/M, +9% Y/Y). In these countries, the following product categories drove the growth trends: connectors (+8% M/M, +17% Y/Y); transistors (+22% M/M, +25% Y/Y); microcontrollers and processors (+36% M/M, +28% Y/Y); inductors (+33% M/M, +43% Y/Y); and logic (+15% M/M, +25% Y/Y).

In the Americas region, the following product categories drove the region’s growth trend: capacitors (+25% M/M, 19% Y/Y); power circuits (+21% M/M, +13% Y/Y); diodes (+23% M/M, +10% Y/Y); microcontrollers and processors (+16% M/M, +11% Y/Y); and drivers and interfaces (+15% M/M, +13% Y/Y).

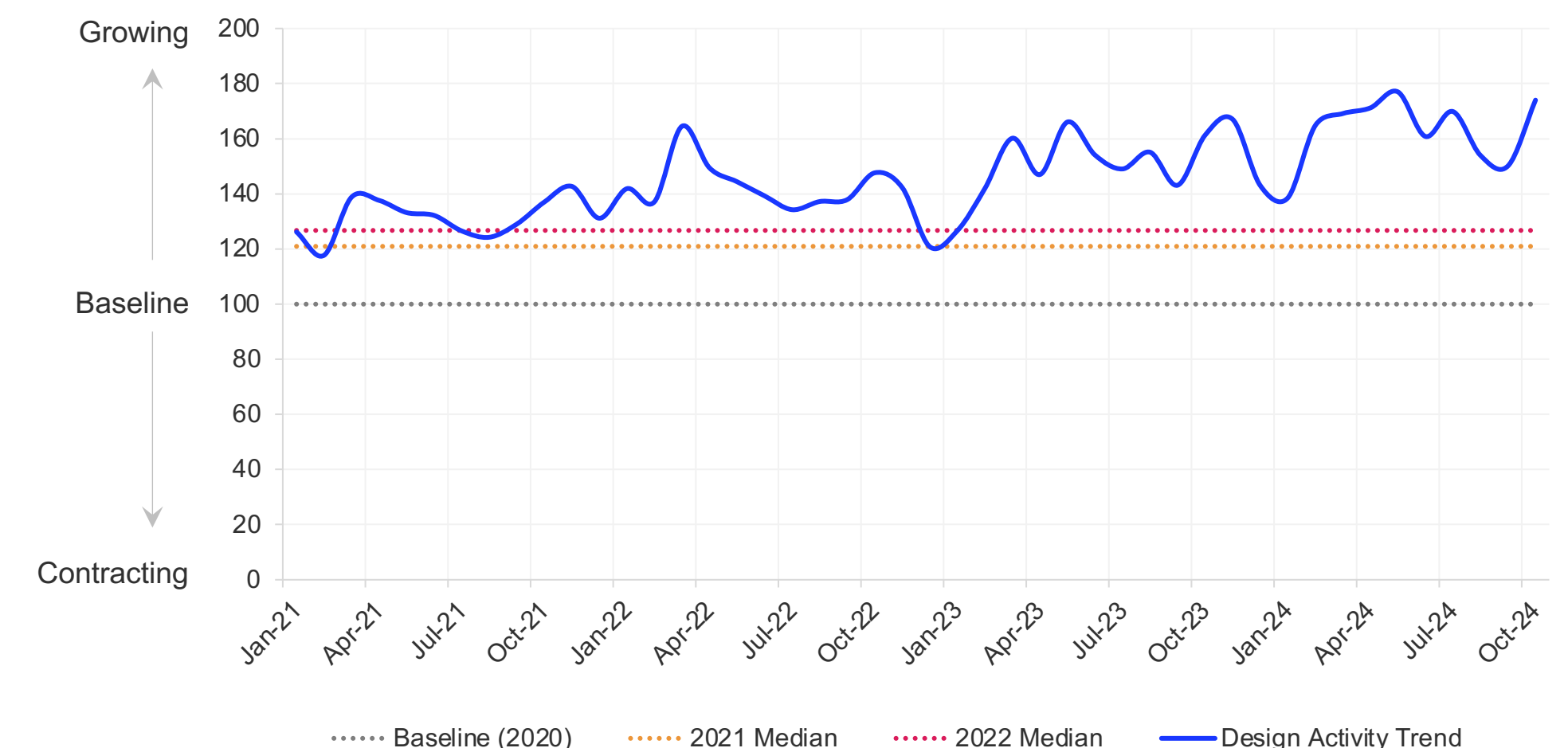
Table 1. Design Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		15.9%	7.9%	0.3%
Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	24.7%	8.2%	0.5%
APAC	64.1	2.9%	4.5%	-1.4%
AMER	48.3	18.6%	11.8%	2.3%

Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	21.2%	9.4%	1.9%
China (incl. Hong Kong)	49.4	4.7%	-5.4%	-4.4%
Germany	47.7	24.8%	16.3%	2.4%
India	45.6	-10.6%	7.2%	-0.9%
United Kingdom	29.6	15.1%	8.6%	-0.1%
France	24.1	19.7%	-2.6%	-0.2%
Italy	21.9	25.3%	-9.2%	0.1%
Turkey	20.0	24.6%	38.5%	6.6%
Republic of Korea	19.3	11.9%	23.8%	0.3%
Spain	18.5	20.0%	16.6%	0.9%

Chart 2. Global Design Activity Trends



Design Activity: Americas Trends

OCTOBER 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

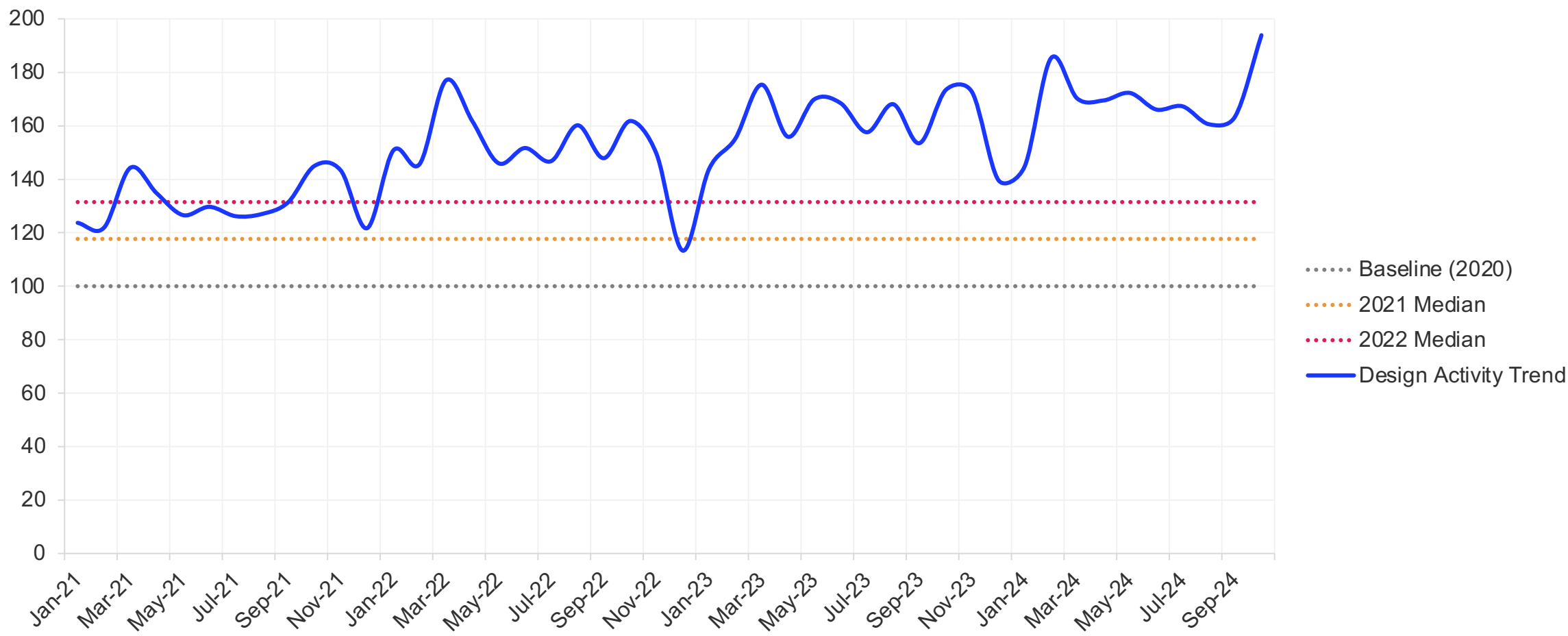


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	16%	5%	0%
Capacitors	66.3	25%	19%	5%
Power Circuits	62.2	21%	13%	3%
Resistors	61.5	13%	3%	3%
Diodes	42.2	23%	10%	2%
Transistors	29.9	22%	4%	3%
Optoelectronics	26.3	23%	7%	3%
Terminal Blocks	24.1	46%	10%	4%
Microcontrollers and Processors	24.0	16%	11%	2%
Inductors	19.9	7%	6%	3%
Drivers And Interfaces	19.0	15%	13%	2%
Amplifier Circuits	17.8	27%	2%	1%
Signal Circuits	16.3	16%	2%	3%
Switches	15.6	17%	10%	3%
Logic	14.3	-5%	1%	0%

Design Activity: EMEA Trends

OCTOBER 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

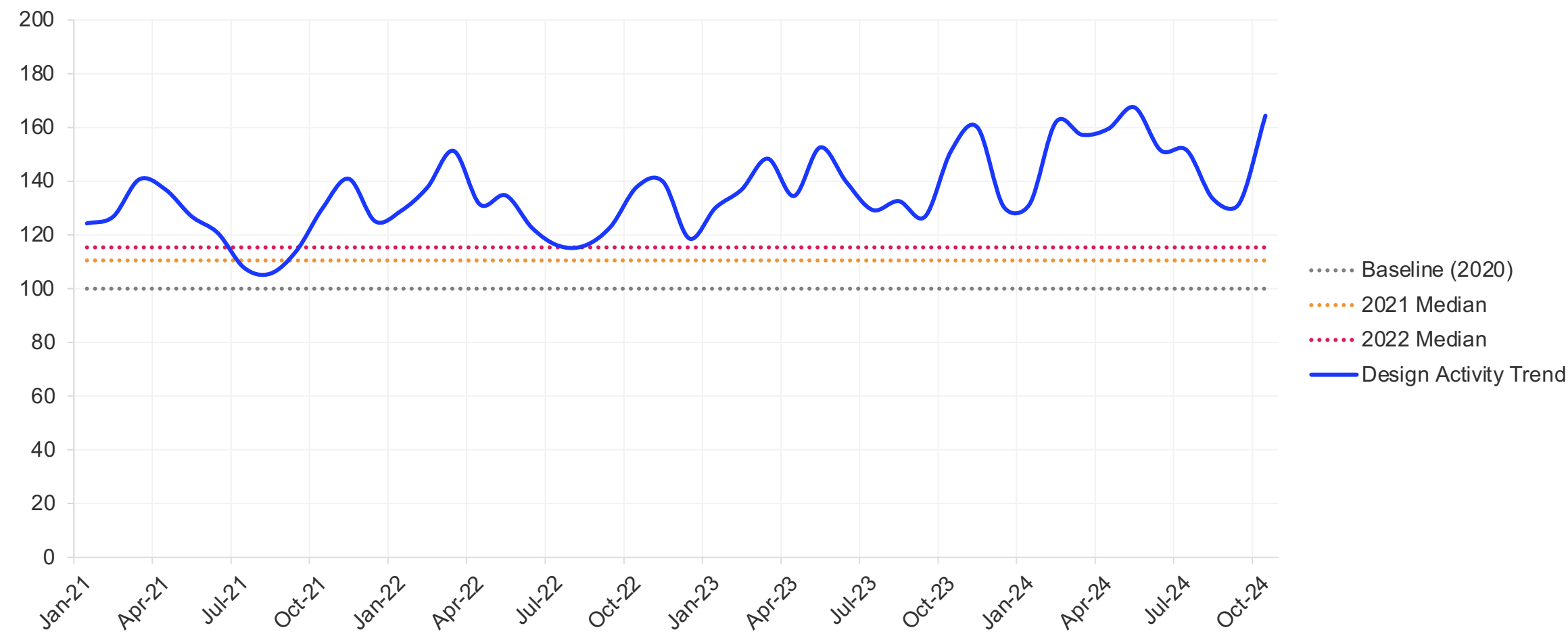


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	21%	5%	0%
Power Circuits	69.6	34%	16%	2%
Capacitors	57.4	23%	7%	0%
Resistors	54.1	23%	10%	1%
Diodes	44.1	22%	-1%	0%
Transistors	31.1	23%	-1%	1%
Microcontrollers and Processors	27.5	23%	-1%	0%
Optoelectronics	27.3	31%	14%	3%
Terminal Blocks	26.8	30%	-1%	0%
Inductors	25.1	24%	2%	0%
Drivers And Interfaces	20.0	19%	7%	0%
Amplifier Circuits	16.9	25%	-2%	-1%
Logic	15.7	29%	4%	-1%
Switches	15.4	27%	13%	3%
Signal Circuits	15.0	21%	5%	-1%

Design Activity: APAC Trends

OCTOBER 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.

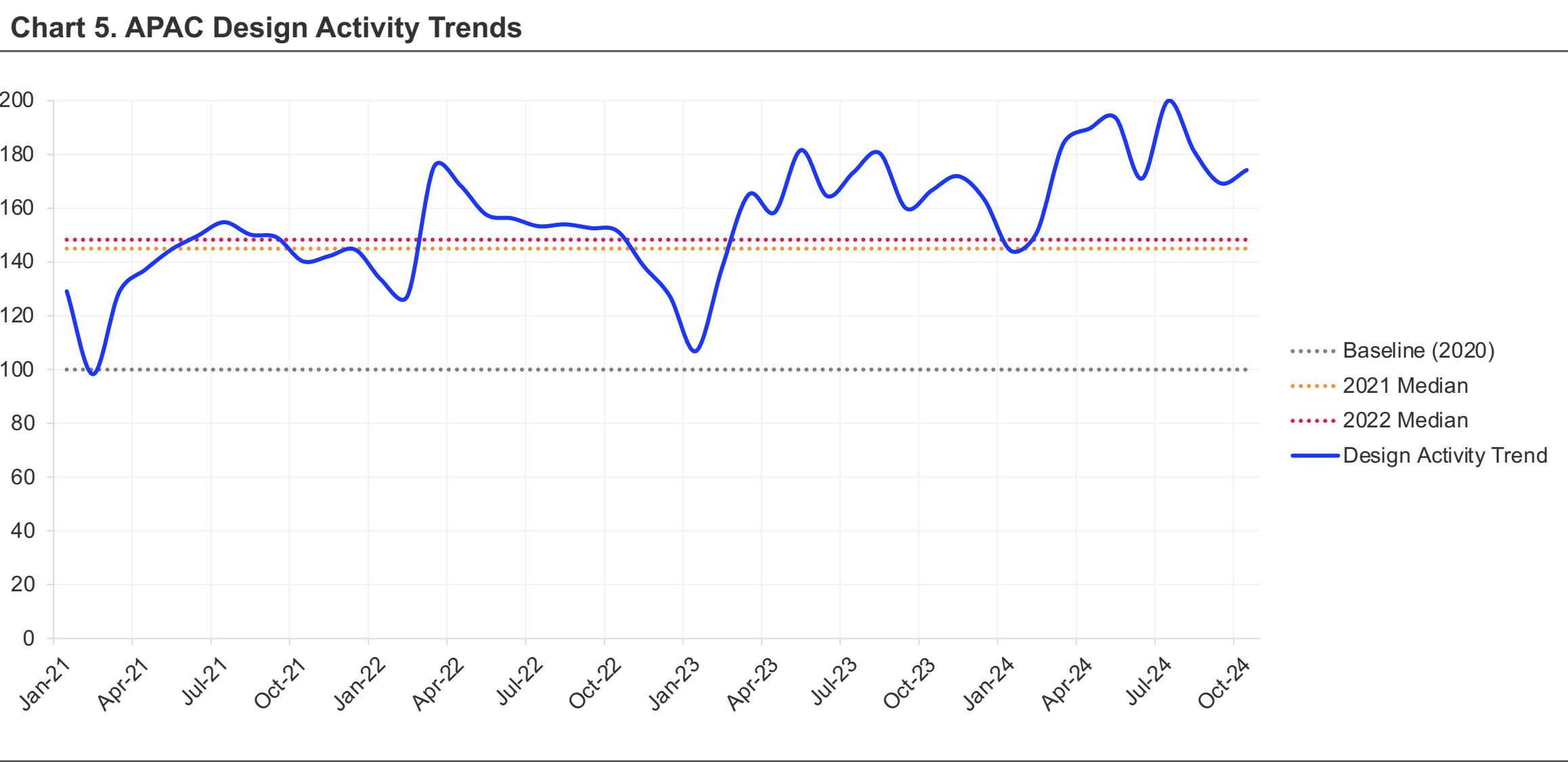


Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-2%	6%	-1%
Power Circuits	75.3	9%	-3%	-1%
Capacitors	62.0	-4%	-3%	-2%
Diodes	51.9	-6%	-2%	-2%
Resistors	51.8	-1%	-1%	-3%
Transistors	39.4	8%	3%	0%
Microcontrollers and Processors	33.9	13%	1%	-2%
Drivers And Interfaces	27.0	10%	8%	0%
Inductors	24.9	16%	17%	2%
Optoelectronics	24.7	-9%	-6%	-3%
Amplifier Circuits	23.2	11%	-3%	-1%
Logic	18.3	5%	2%	-2%
Signal Circuits	16.7	-13%	-8%	-4%
Terminal Blocks	16.4	0%	0%	-1%
Filters	13.7	1%	1%	-2%

Sourcing Activity Overview

OCTOBER 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.

Global sourcing activities continued to remain stable for 11 months straight. Demand increased +5% month-over-month.

October 2024 was the 11th consecutive month that global sourcing activity remained stable. Demand increased +5% month-over-month and continued to remain below the average demand observed in the last four years. Regionally speaking, the APAC region remained flat month-over-month, while the Americas and EMEA regions both observed month-over-month increase in demand.

In the APAC, mirroring the trend in design activities, the following countries also observed growth in month-over-month sourcing activities: South Korea (+12%); Taiwan (+2%); and Singapore (+18%). Vietnam remained flat in month-over-month sourcing activities. In addition to these countries, Japan (+6%) and Malaysia (+18%) also observed strong growth in sourcing activities in October. In these countries, the following product categories observed growth in month-over-month sourcing activities: power circuits (+20%); inductors (+14%); optoelectronics (+21%); drivers and interface (+15%); and logic (+25%).

In the EMEA region, the following countries influenced the overall region’s performance in sourcing activities: France (+16%); Spain (+48%); Poland (+10%); Italy (+8%); and the United Kingdom (+4%). In these countries, the following product categories observed growth in month-over-month sourcing activities: power circuits (+21%); resistors (+25%); capacitors (+16%); diodes (16%) and transistors (+20%).

In the Americas region, sourcing demand increased month-over-month in all product categories. Among the product categories, the following categories observed the most significant growth in sourcing activities: power circuits (+12%); microcontrollers and processors (+12%); connectors (+12%); terminal blocks (+17%); and inductors (+12%).

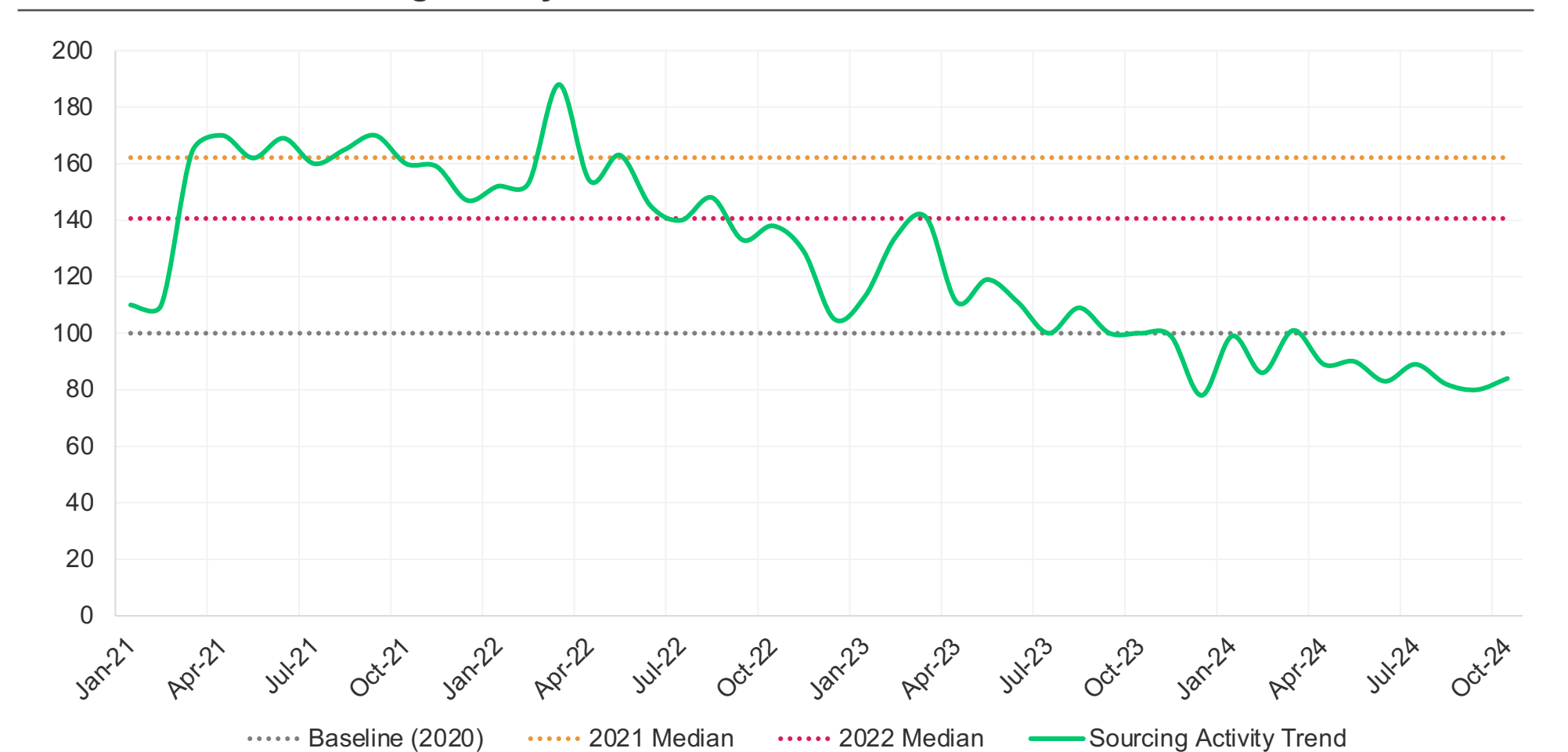
Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		4.7%	-14.9%	-1.1%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	0.9%	-15.7%	-1.4%
AMER	64.0	10.8%	-11.8%	-0.9%
EMEA	37.2	5.4%	-17.9%	-0.3%

Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	11%	-12%	-1%
China (incl. Hong Kong)	94.1	-4%	-17%	-3%
India	30.0	-2%	-16%	0%
Republic of Korea	23.4	12%	-16%	-2%
Germany	14.9	0%	-18%	-2%
Taiwan	14.3	2%	-10%	2%
Malaysia	11.5	18%	13%	3%
Canada	11.1	9%	-8%	-2%
Singapore	9.4	18%	-17%	0%
France	7.5	16%	-24%	1%

Chart 6. Global Sourcing Activity Trends



Sourcing Activity: Americas Trends

OCTOBER 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

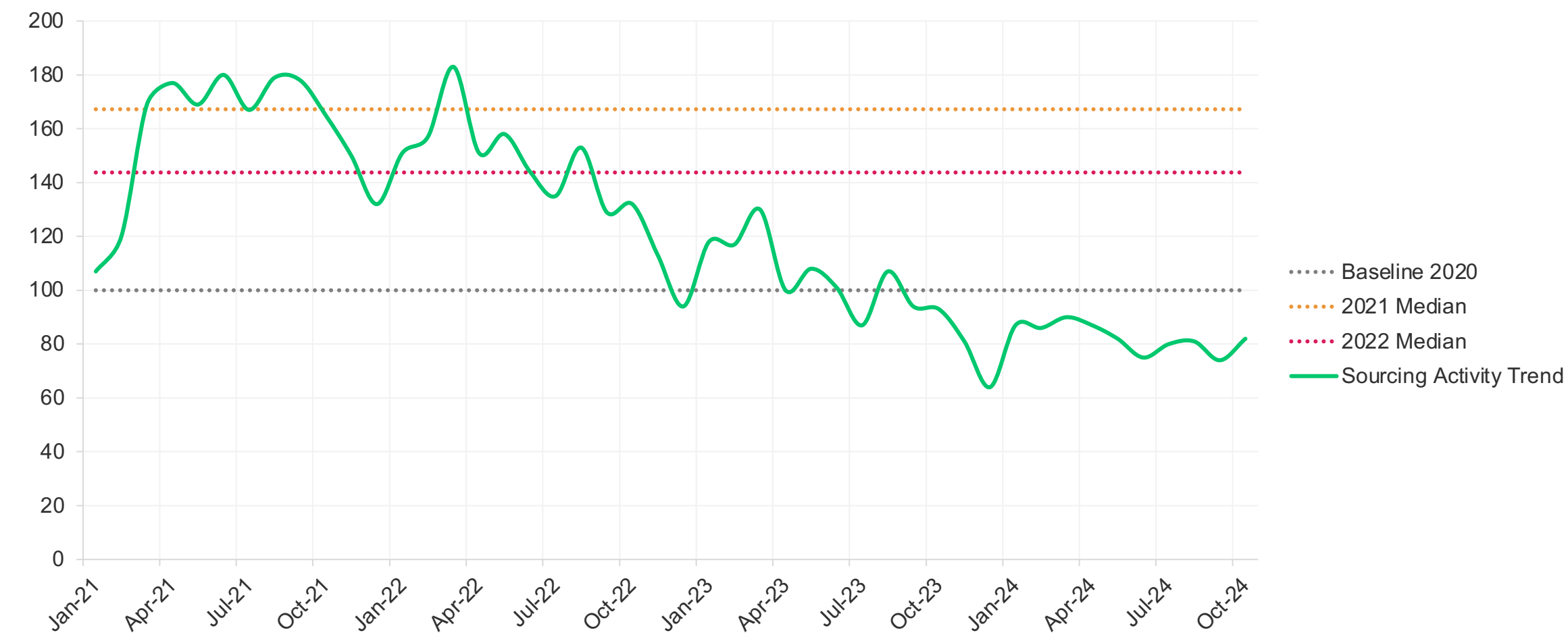


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	12%	-4%	-1%
Capacitors	78.1	8%	-3%	0%
Resistors	65.9	7%	-8%	-1%
Power Circuits	40.1	12%	-18%	0%
Connector Support	37.4	19%	3%	-1%
Diodes	32.3	8%	-23%	-3%
Transistors	25.4	5%	-28%	-2%
Terminal Blocks	21.4	17%	-4%	-1%
Microcontrollers and Processors	19.0	12%	-33%	-2%
Inductors	17.6	12%	8%	0%
Optoelectronics	17.3	9%	-9%	-2%
Drivers And Interfaces	12.8	13%	-20%	0%
Amplifier Circuits	12.7	18%	-31%	-1%
Logic	12.3	11%	-24%	-2%
Filters	10.3	13%	9%	1%

Sourcing Activity: EMEA Trends

OCTOBER 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

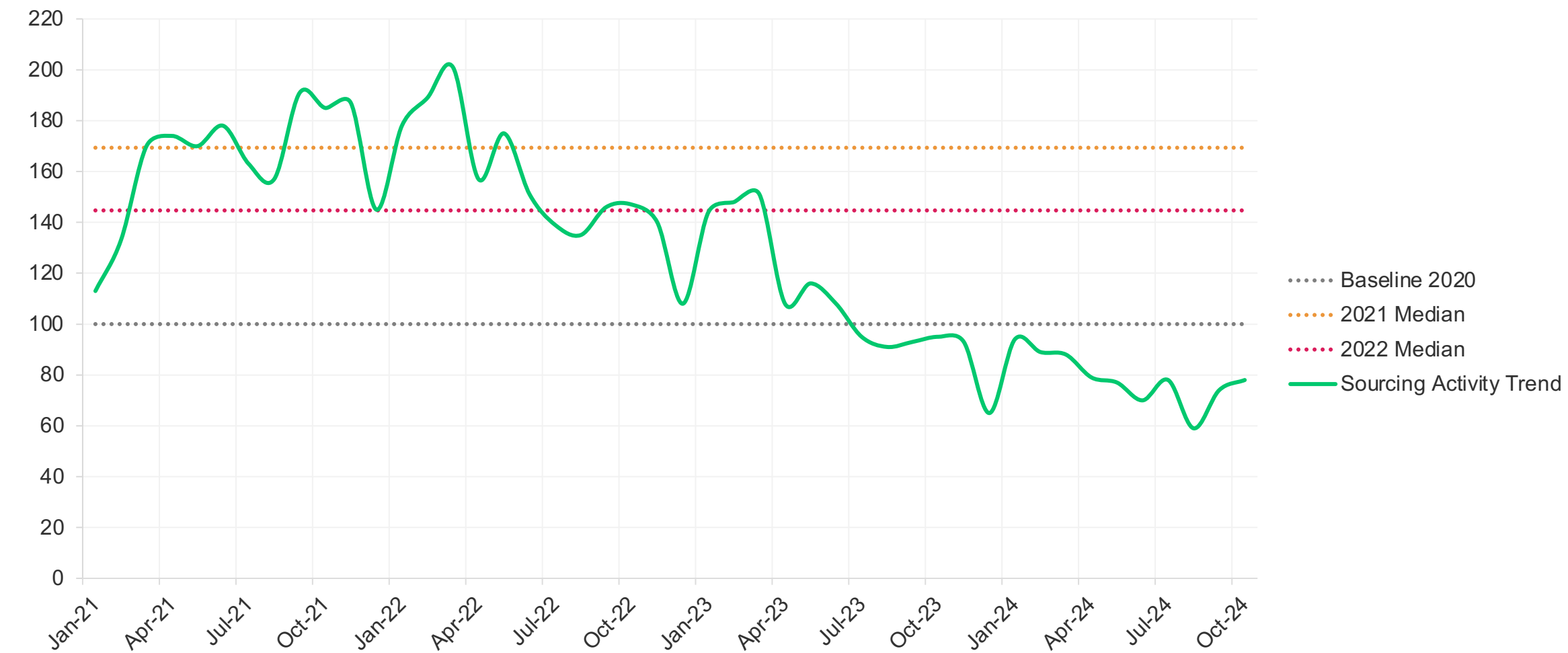


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Capacitors	100.0	11%	8%	2%
Connectors	91.6	-2%	-11%	-1%
Resistors	75.7	8%	-2%	0%
Power Circuits	62.9	3%	-25%	1%
Diodes	46.4	9%	-29%	-3%
Transistors	40.9	6%	-31%	-1%
Microcontrollers and Processors	36.2	0%	-38%	-2%
Connector Support	28.2	6%	-5%	1%
Inductors	27.0	4%	10%	-1%
Optoelectronics	25.9	4%	-17%	-2%
Amplifier Circuits	24.4	5%	-40%	-1%
Drivers And Interfaces	22.6	8%	-33%	-1%
Memory	16.5	14%	-28%	0%
Logic	16.4	0%	-27%	-1%
Filters	15.9	14%	2%	0%

Sourcing Activity: APAC Trends

OCTOBER 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

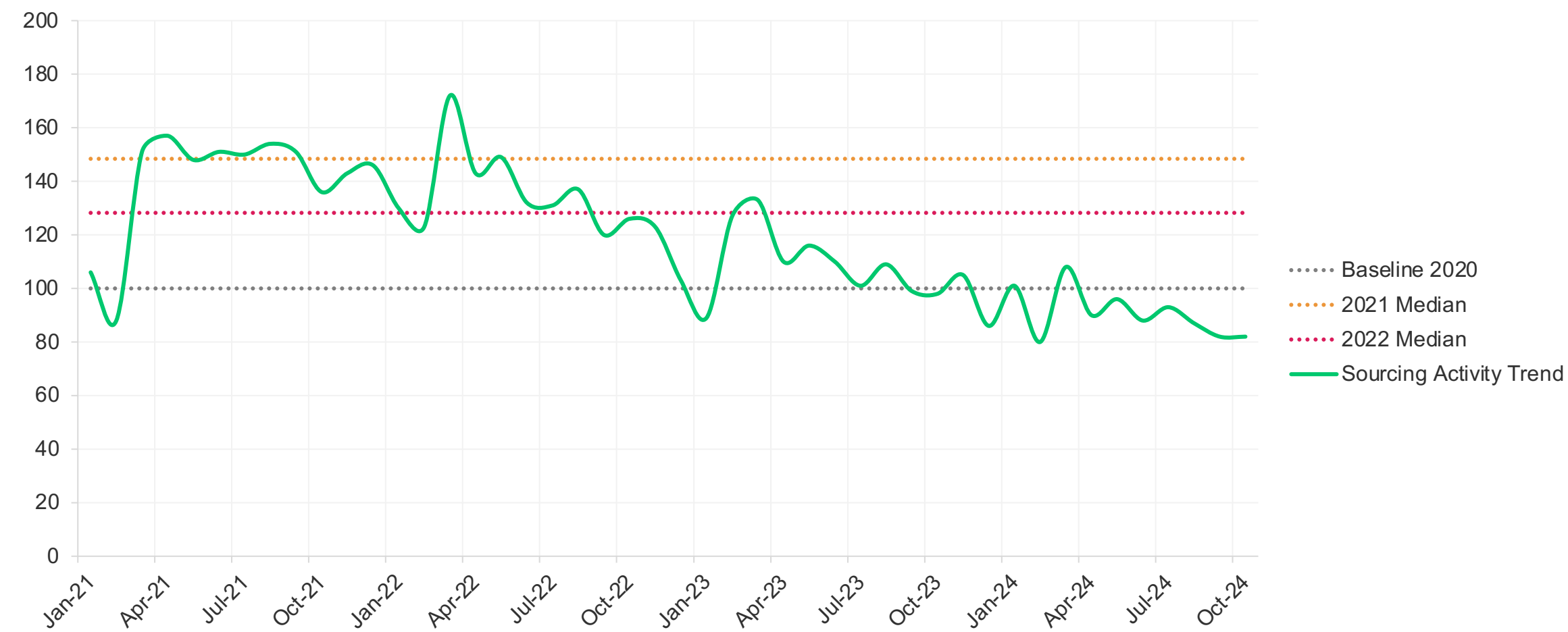


Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-2%	3%	0%
Capacitors	79.8	4%	6%	1%
Power Circuits	60.5	5%	-22%	-1%
Resistors	57.0	3%	-7%	-1%
Diodes	41.7	-5%	-32%	-3%
Microcontrollers and Processors	37.8	-2%	-39%	-4%
Transistors	36.2	-6%	-39%	-5%
Connector Support	30.4	-2%	9%	0%
Inductors	22.6	3%	7%	-1%
Optoelectronics	21.1	3%	-14%	-2%
Drivers And Interfaces	20.5	2%	-27%	-2%
Memory	16.7	1%	-29%	-3%
Amplifier Circuits	16.6	-1%	-38%	-3%
Logic	15.8	8%	-29%	-3%
Converters	15.5	14%	-21%	0%

Recap

OCTOBER 2024

- Global design and sourcing activities increased month-over-month in October as expected. Global design activities increased by +16% month-over-month, while global sourcing activities increased by 5% month-over-month
- Both global design and sourcing activities continued to show signs of stability, following the seasonal trends we have observed in previous years (prior to the pandemic)
- Globally, we observed strong increases in both design and sourcing activities in the following product categories: power circuits; capacitors; inductors; drivers and interfaces; and logic. These growth were observed across the following verticals: computer equipment / data centers; industrial machinery and equipment; aerospace & defense; and automotive
- For calendar Q4, we expect global design activities to grow between +3% to +5% quarter-over-quarter. Global sourcing activities are expected to decrease between -7% to -10% quarter-over-quarter. These projections are aligned to what we have observed in the last five years

