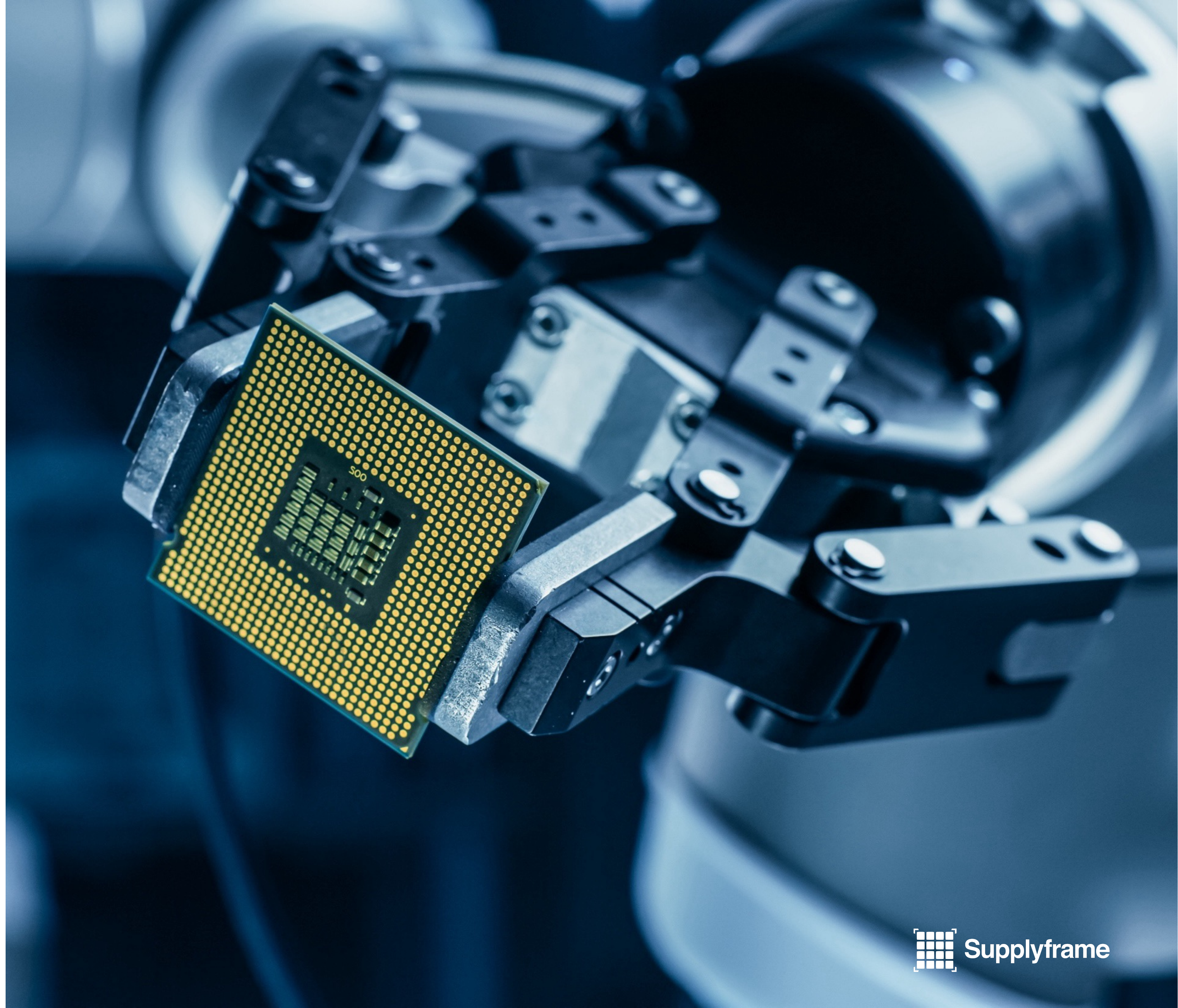


Supplyframe  
Design-to-Source  
Intelligence

## Design-to-Source Monthly Insights

November 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

NOVEMBER 2024

- Global design and sourcing activity trends remained consistent with expectations for November
- Global design activities decreased -8% month-over-month and -4% year-over-year for November. While all regions observed decreases activity levels, design activities continued to remain well above the baseline and prior years levels for calendar year 2024 year to date
- Global sourcing activities decreased -5% month-over-month and -19% year-over-year for November. Decrease in sourcing activities were observed across the Americas and EMEA regions, while the APAC region observed a +4% month-over-month growth. Overall sourcing activities continued to remain below prior years activity levels, but remained stable over the last 12 months
- In November, we observed that engineers and buyers from the following industries were more active than others: computing / networking / data centers, industrial, and aerospace and defense. Design activities from the automotive and consumer electronics sectors continued to remain stable as well

## Q4 2024 outlook:

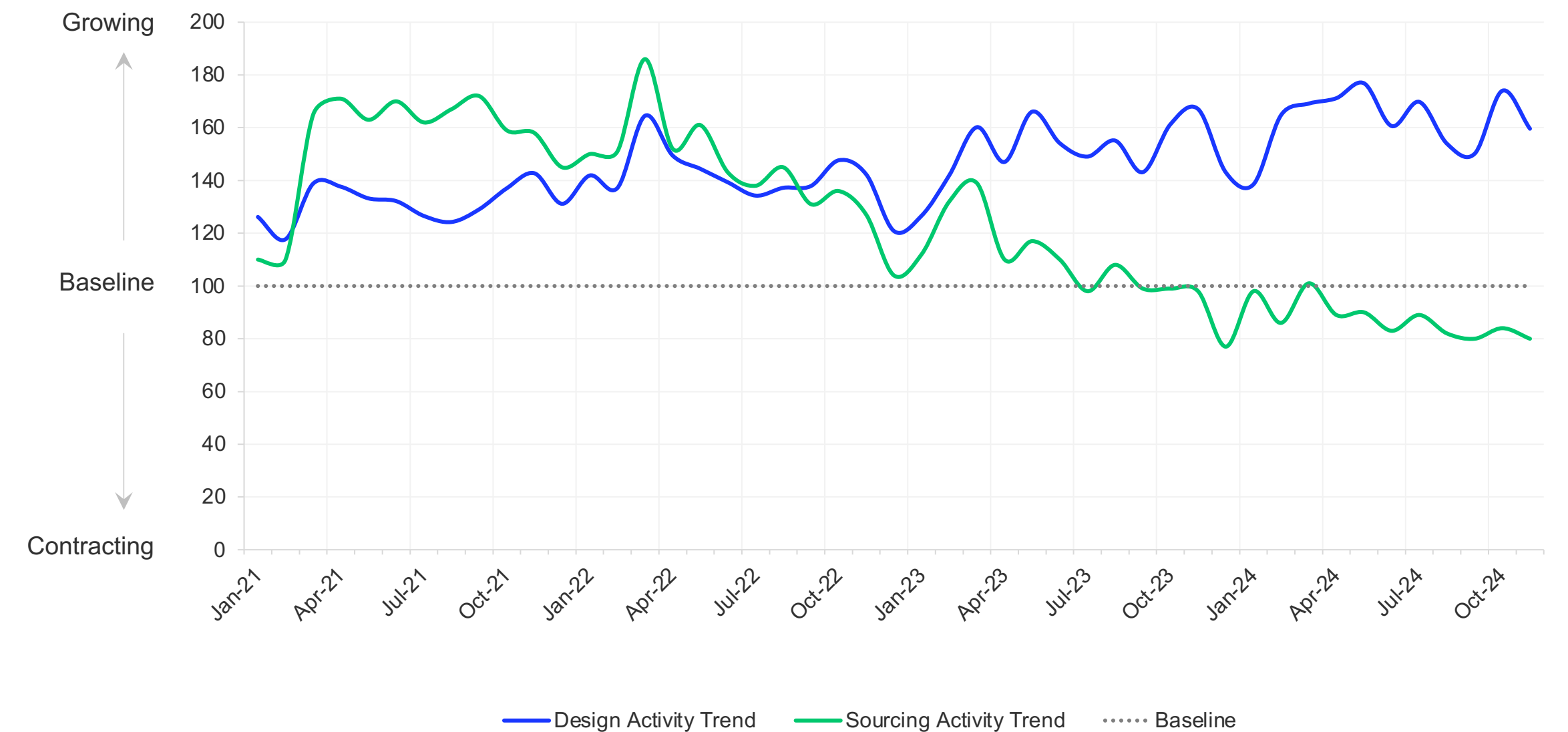
- Calendar Q4 projections remain unchanged
- Global design activities are expected to grow between +3% to +5% quarter-over-quarter
- Global sourcing activities are expected to decrease between -7% to -10% quarter-over-quarter
- These projections are aligned to what we have observed in the last five years

## Global Performance

**Design Activities** ⚡ **-8.3% M/M**  
⚡ **-4.4% Y/Y**

**Sourcing Activities** ⚡ **-4.8% M/M**  
⚡ **-18.5% 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

NOVEMBER 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 decreased in November, consistent with seasonal trends.

Global design activities decreased -8% month-over-month and -4% year-over-year. Decrease in activities were observed across all regions. Although design activities decreased month-over-month, overall activities continued to remain consistently well above the baseline and prior years' overall medians.

Top countries that observed month-over-month increase in design activities included the following: China (+9%); Italy (+2%); Canada (+2%); and Switzerland (+6%). In these countries, the following product categories observed the largest increase in design activities: resistors (+14%); transistors (+19%); capacitors (+19%); amplifier circuits (+11%); connectors (+7%); and drivers and interfaces (+6%).

Top countries that continued to show strong year-over-year growth in design activities included the following: South Korea (+7%); Spain (+3%); Taiwan (+10%); Canada (+7%); Poland (+6%); and Turkey (+24%). In these countries, the following product categories observed the largest increase in design activities: amplifier circuits (+14%); resistors (+11%); optoelectronics (+9%); and connectors (+1%).

Inversely, countries that observed the largest decrease in design activities included: India (-14%); the United Kingdom (-12%); France (-10%); Japan (-8%); Brazil (-27%); and Vietnam (-22%). In these countries, the following product categories observed the largest decreases in design activities: power circuits (-21%); transistors (-21%); microcontrollers and processors (-21%); optoelectronics (-24%); amplifier circuits (-23%); and drivers and interfaces (-20%). Product categories that remained stronger in these countries during the same period included: terminal blocks (+8%); signal circuits (+2%); and signal circuits (-1%).

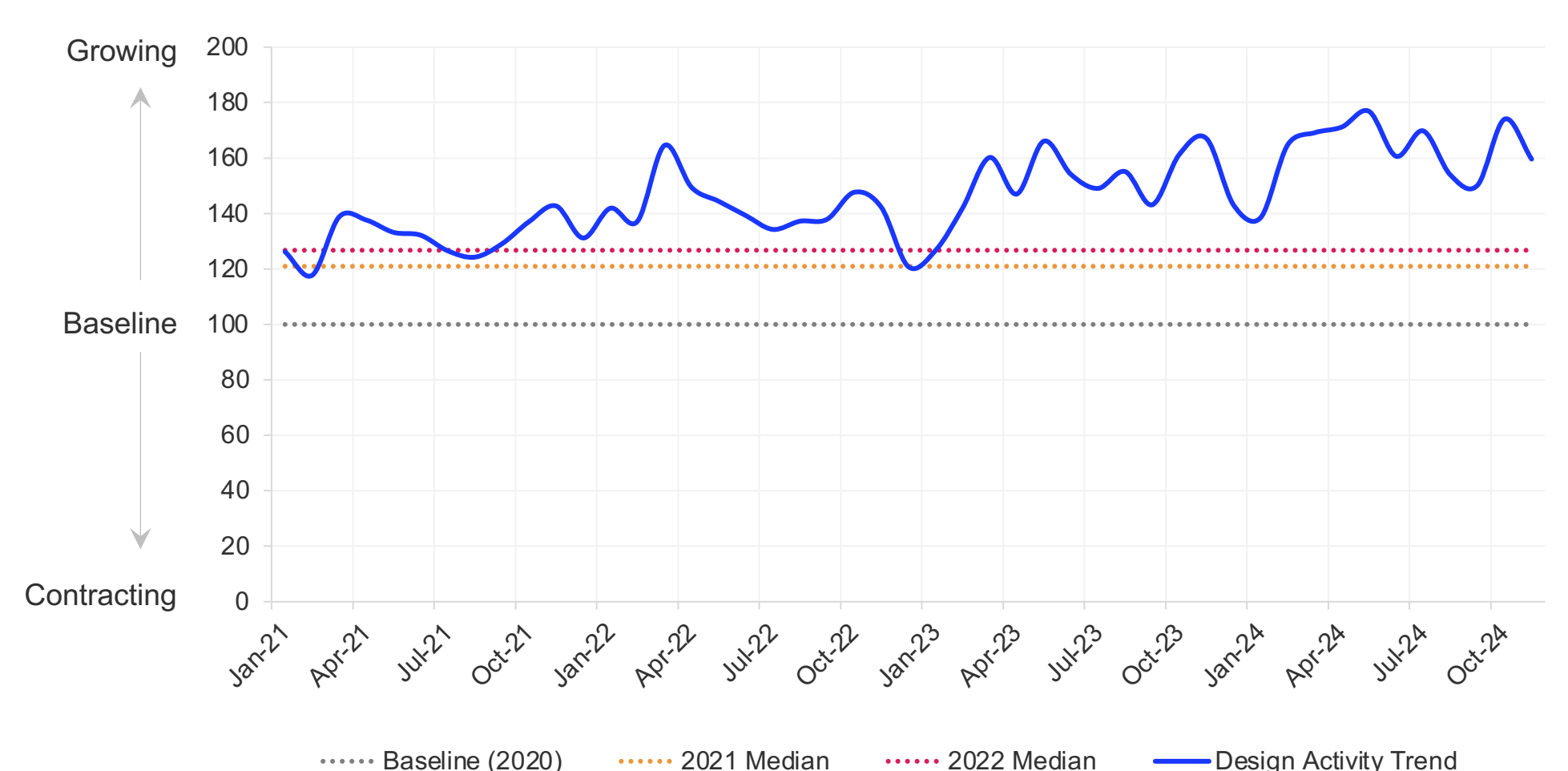
Table 1. Design Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
<b>Global</b>		-8.3%	-4.4%	-1.7%
Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	-8.1%	-5.9%	-1.7%
APAC	64.8	-7.1%	-5.8%	-2.9%
AMER	47.1	-10.3%	0.7%	0.2%

### Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	-9.3%	-0.8%	-0.2%
China (incl. Hong Kong)	59.2	8.6%	-11.1%	-3.2%
Germany	49.5	-5.8%	-1.5%	0.5%
India	43.3	-13.9%	0.5%	-3.2%
United Kingdom	28.8	-11.7%	-11.2%	-1.5%
Italy	24.7	2.2%	-11.4%	-5.6%
France	24.0	-9.9%	-5.3%	-1.1%
Republic of Korea	21.3	0.3%	6.5%	-1.0%
Turkey	19.9	-9.8%	24.2%	-0.5%
Spain	18.9	-7.4%	2.8%	-0.1%

Chart 2. Global Design Activity Trends



# Design Activity: Americas Trends

NOVEMBER 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

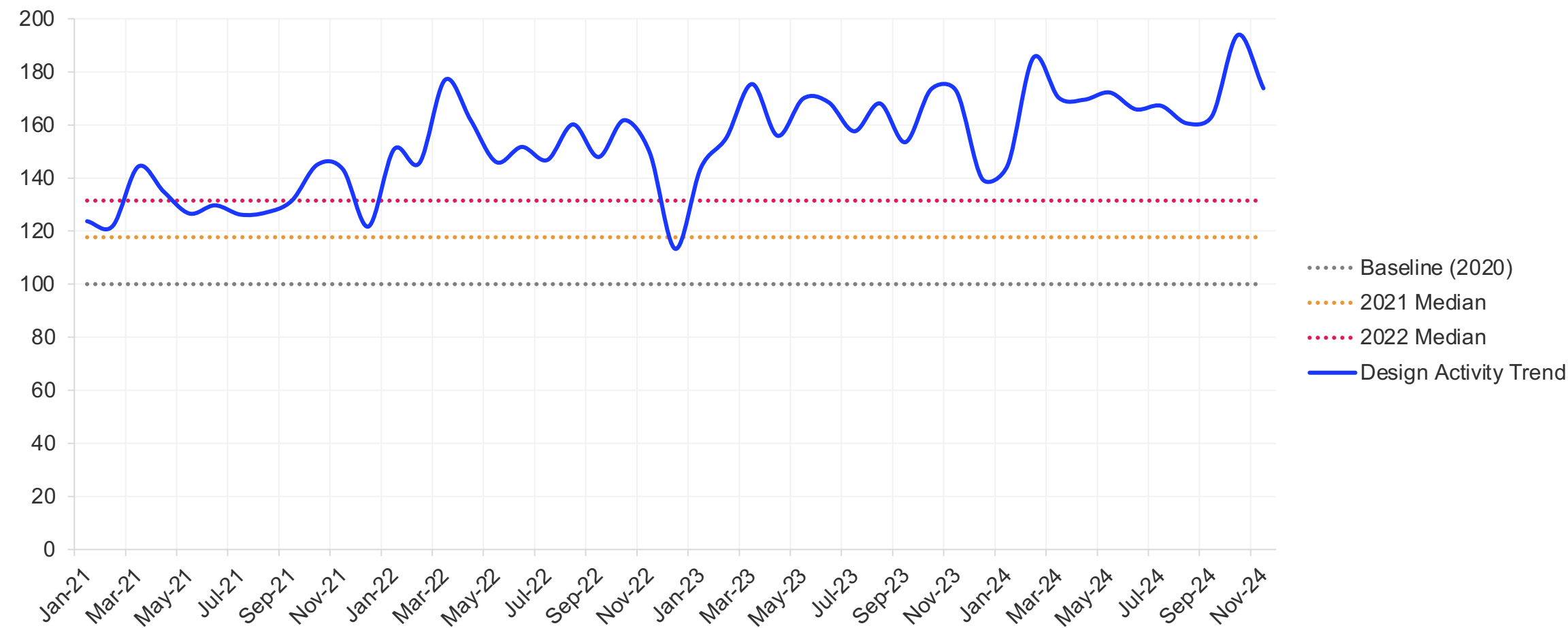


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-12%	-6%	-2%
Capacitors	70.1	-8%	3%	2%
Resistors	66.7	-5%	3%	3%
Power Circuits	60.0	-15%	-3%	-1%
Diodes	41.1	-14%	1%	0%
Transistors	33.0	-3%	-2%	2%
Optoelectronics	26.8	-10%	-5%	0%
Terminal Blocks	24.9	-9%	10%	1%
Microcontrollers and Processors	23.9	-12%	-11%	-2%
Inductors	20.8	-10%	5%	0%
Drivers And Interfaces	20.2	-6%	4%	2%
Amplifier Circuits	17.0	-16%	-22%	0%
Logic	16.6	2%	9%	-2%
Signal Circuits	15.3	-17%	-15%	-2%
Switches	14.6	-17%	-9%	-2%

# Design Activity: EMEA Trends

NOVEMBER 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

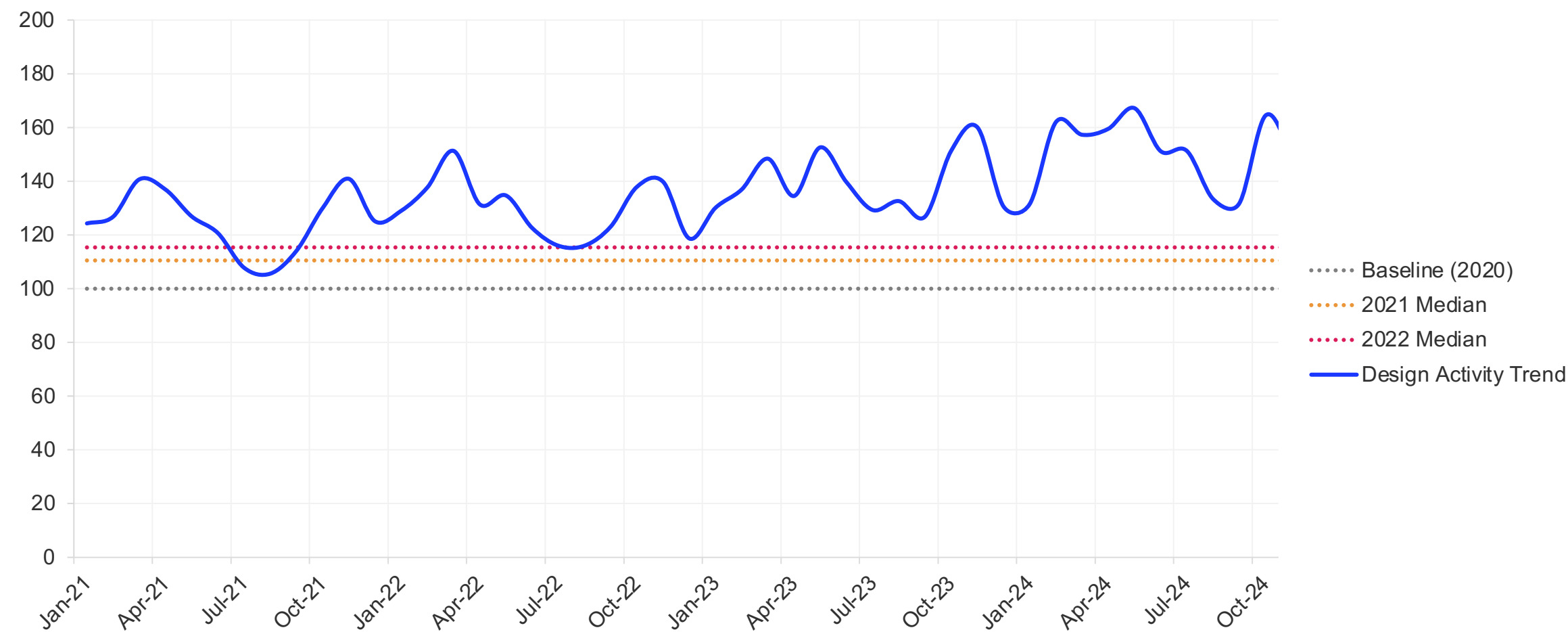


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-7%	-10%	-1%
Power Circuits	63.1	-16%	-4%	-2%
Capacitors	60.4	-4%	-3%	-3%
Resistors	55.8	-4%	-7%	-2%
Diodes	44.0	-7%	-5%	-2%
Transistors	31.7	-5%	-15%	-1%
Microcontrollers and Processors	26.5	-11%	-13%	-3%
Optoelectronics	26.3	-10%	-11%	-2%
Terminal Blocks	25.4	-12%	-14%	-1%
Inductors	25.1	-8%	-6%	-1%
Drivers And Interfaces	18.5	-14%	-14%	-4%
Amplifier Circuits	18.1	0%	-2%	-2%
Logic	15.0	-11%	-9%	-3%
Signal Circuits	14.7	-8%	-18%	-2%
Switches	13.3	-20%	-17%	-2%

# Design Activity: APAC Trends

NOVEMBER 2024

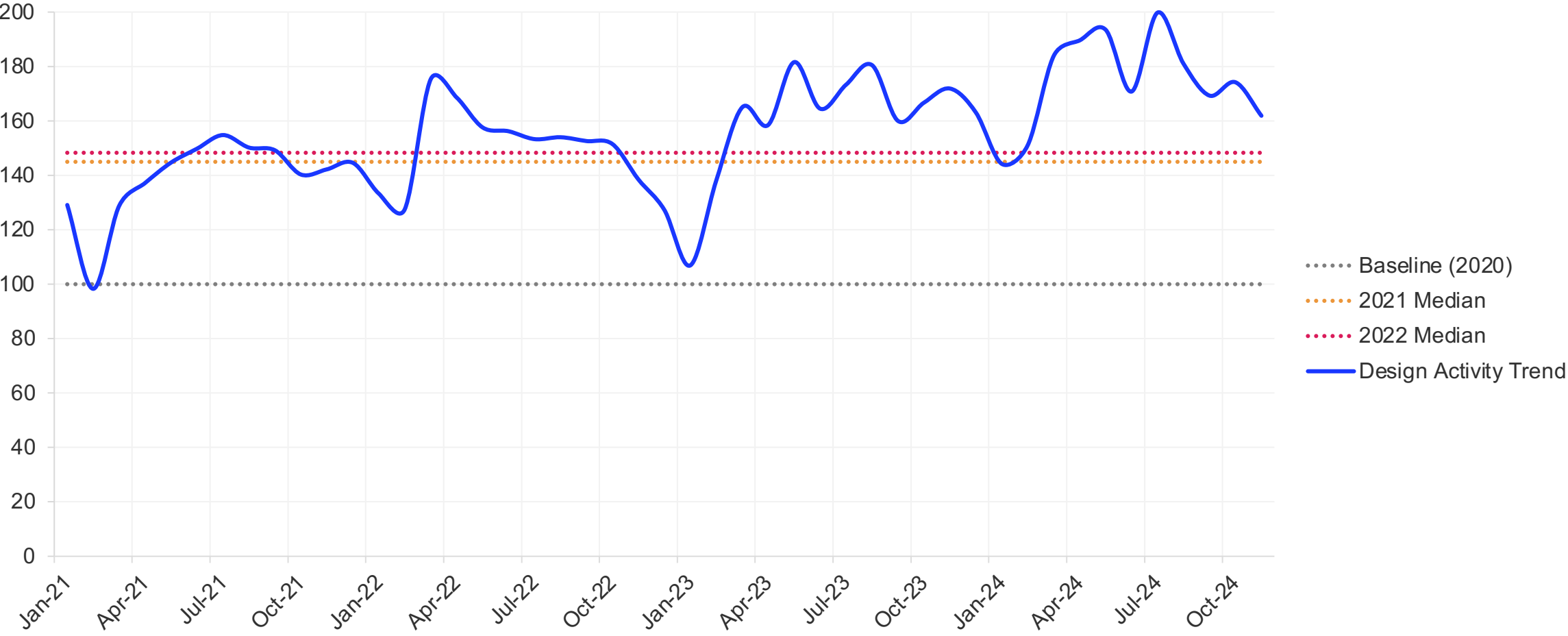
**Design Activity Index**

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	-7%	-7%	-4%
Power Circuits	72.5	-11%	-11%	-3%
Capacitors	66.1	-2%	-9%	-3%
Resistors	58.6	5%	1%	-3%
Diodes	55.7	0%	-4%	-3%
Transistors	39.1	-8%	-3%	-2%
Microcontrollers and Processors	31.5	-14%	-9%	-5%
Inductors	24.4	-10%	-5%	-1%
Optoelectronics	24.4	-8%	-9%	-4%
Drivers And Interfaces	24.2	-17%	-16%	-4%
Amplifier Circuits	23.8	-5%	-7%	-2%
Logic	19.8	1%	-10%	-2%
Signal Circuits	17.8	-1%	-15%	-4%
Terminal Blocks	16.1	-9%	0%	-2%
Filters	14.7	-4%	-9%	-4%

# Sourcing Activity Overview

NOVEMBER 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 decreased -5% month-over-month and -19% year-over-year.

Global sourcing activities continued to remain stable in November and trended consistent to what we would expect seasonally for this time of the year. Americas and EMEA both observed month-over-month decrease in sourcing demand, while the APAC region observed a +4% month-over-month increase. All regions continued to trend below prior years activity levels.

In the APAC region, the following countries observed month-over-month increase in sourcing demand: China (+7%); South Korea (+7%); Thailand (+5%); Vietnam (+9%); and Taiwan (+1%). Sourcing demand in India remained flat month-over-month. In these countries, the following product categories observed that largest increase in sourcing demand: microcontroller and processors (+12%); transistors (+11%); diodes (+7%); connectors (+6%); and power circuits (+5%).

In the EMEA region, while the overall region observed a -11% decrease in sourcing activities compared to prior month, the following countries observed increase in activities during the same period: the United Kingdom (+3%); Israel (+25%); Norway (+14%); and Ireland (+10%). In these countries, the following product categories observed the largest increase in sourcing activities: diodes (+29%); logic (+28%); power circuits (+15%); resistors (+33%); and (transistors (+13%).

Top countries that observed the largest month-over-month decreases in sourcing activities included: the United States (+15%); Canada (-16%); France (-19%); Brazil (-21%); and Spain (-43%). In these countries, the following product categories observed the largest decreases in sourcing activities: power circuits (-22%); diodes (-17%); terminal blocks (-19%); inductors (-18%); and connectors (-16%).

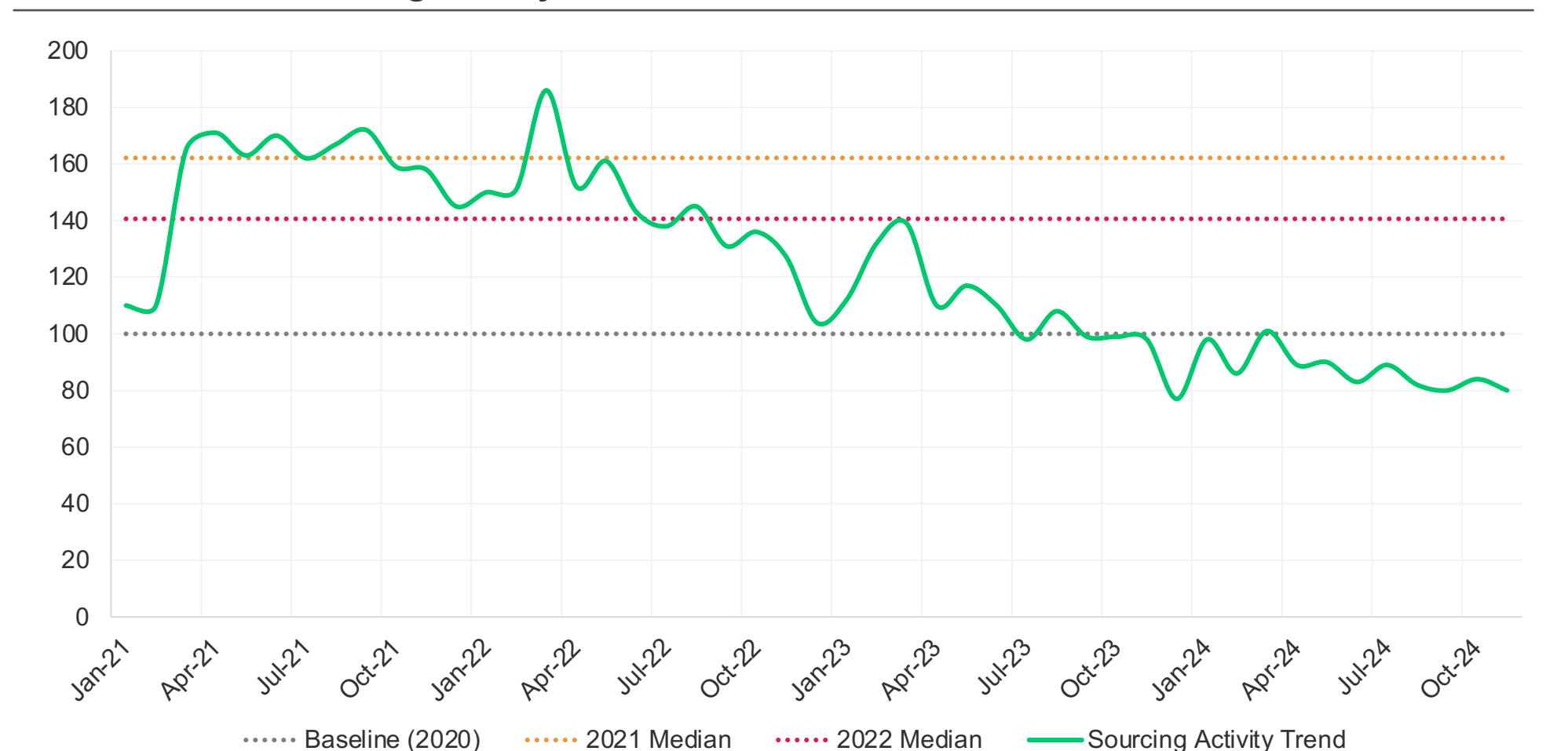
Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
<b>Global</b>		-4.8%	-18.5%	-2.0%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	4.1%	-18.4%	-1.8%
AMER	52.0	-15.4%	-14.1%	-2.7%
EMEA	31.9	-10.6%	-25.1%	-1.7%

## Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
China (incl. Hong Kong)	100.0	7%	-25%	-3%
United States	83.8	-15%	-13%	-3%
India	30.0	1%	-6%	-2%
Republic of Korea	24.7	7%	-21%	1%
Germany	14.5	-2%	-23%	0%
Taiwan	14.4	1%	-7%	-1%
Malaysia	11.0	-4%	12%	0%
Canada	9.2	-16%	-24%	-3%
Singapore	8.9	-5%	-21%	-4%
France	6.0	-19%	-37%	-1%

Chart 6. Global Sourcing Activity Trends





# Sourcing Activity: Americas Trends

NOVEMBER 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

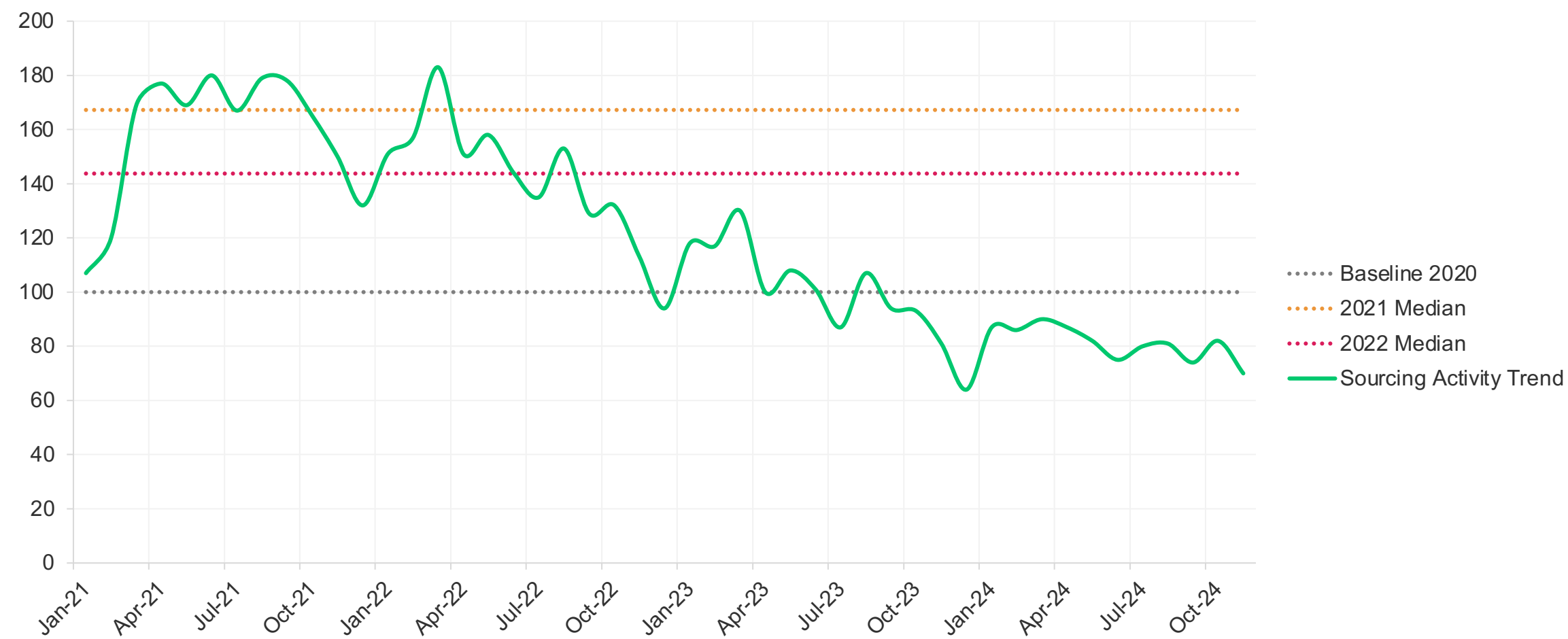


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-14%	-8%	-3%
Capacitors	80.8	-12%	2%	-1%
Resistors	68.6	-11%	-6%	-2%
Power Circuits	37.7	-20%	-24%	-4%
Connector Support	36.1	-18%	-3%	-2%
Diodes	31.5	-17%	-25%	-5%
Transistors	25.9	-13%	-27%	-3%
Terminal Blocks	20.7	-17%	-7%	-3%
Microcontrollers and Processors	18.8	-15%	-34%	-3%
Inductors	17.4	-15%	3%	-3%
Optoelectronics	16.6	-18%	-14%	-3%
Drivers And Interfaces	12.6	-16%	-26%	-3%
Amplifier Circuits	11.6	-22%	-35%	-7%
Logic	11.2	-23%	-31%	-4%
Filters	10.1	-16%	8%	-2%

# Sourcing Activity: EMEA Trends

NOVEMBER 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

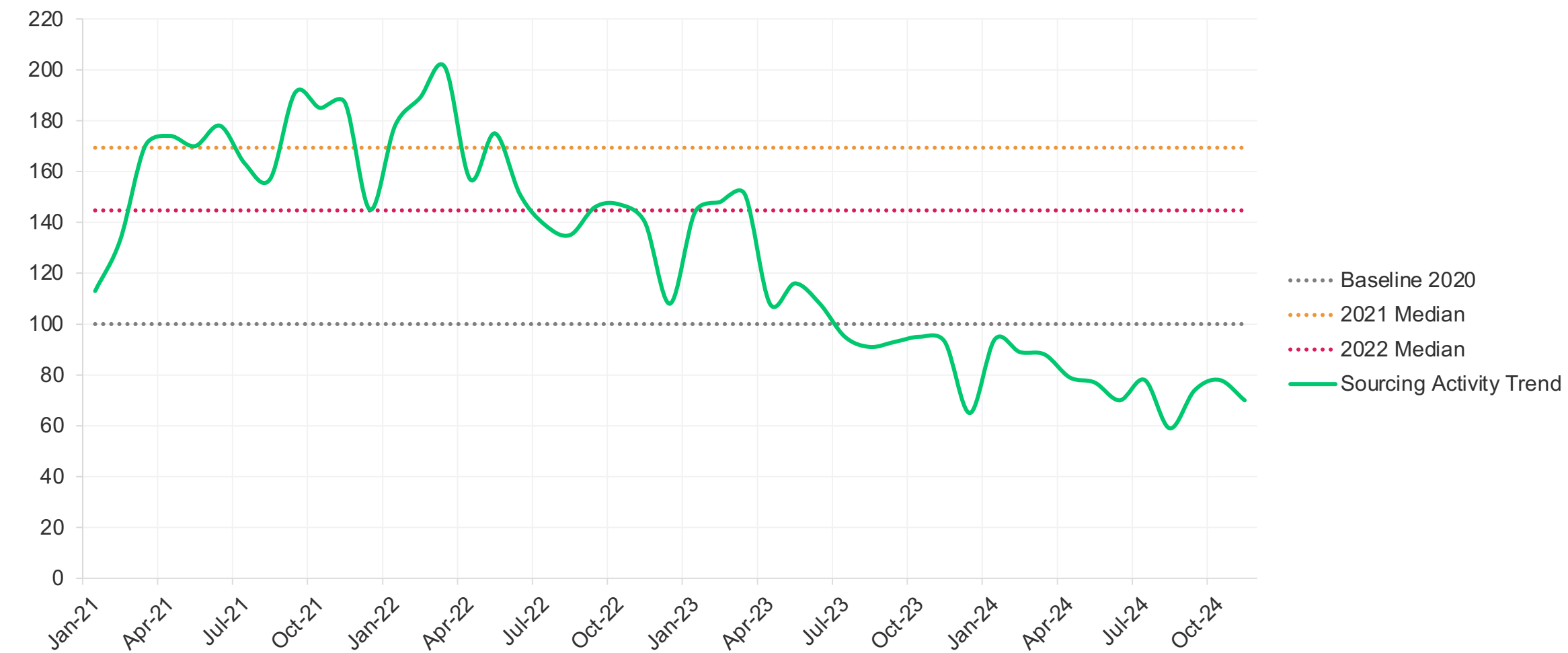


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-5%	-18%	-1%
Capacitors	99.3	-14%	-9%	-1%
Resistors	73.8	-15%	-19%	-3%
Power Circuits	63.8	-12%	-31%	-2%
Diodes	50.9	-5%	-27%	-1%
Transistors	44.0	-6%	-33%	-1%
Microcontrollers and Processors	38.8	-7%	-37%	-2%
Connector Support	30.9	-5%	-11%	1%
Optoelectronics	26.7	-11%	-25%	-2%
Inductors	24.8	-20%	-13%	-3%
Drivers And Interfaces	23.0	-12%	-33%	-3%
Amplifier Circuits	22.0	-21%	-51%	-6%
Filters	16.9	-8%	-10%	-1%
Memory	16.5	-13%	-34%	-1%
Logic	16.3	-14%	-35%	-4%

# Sourcing Activity: APAC Trends

NOVEMBER 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

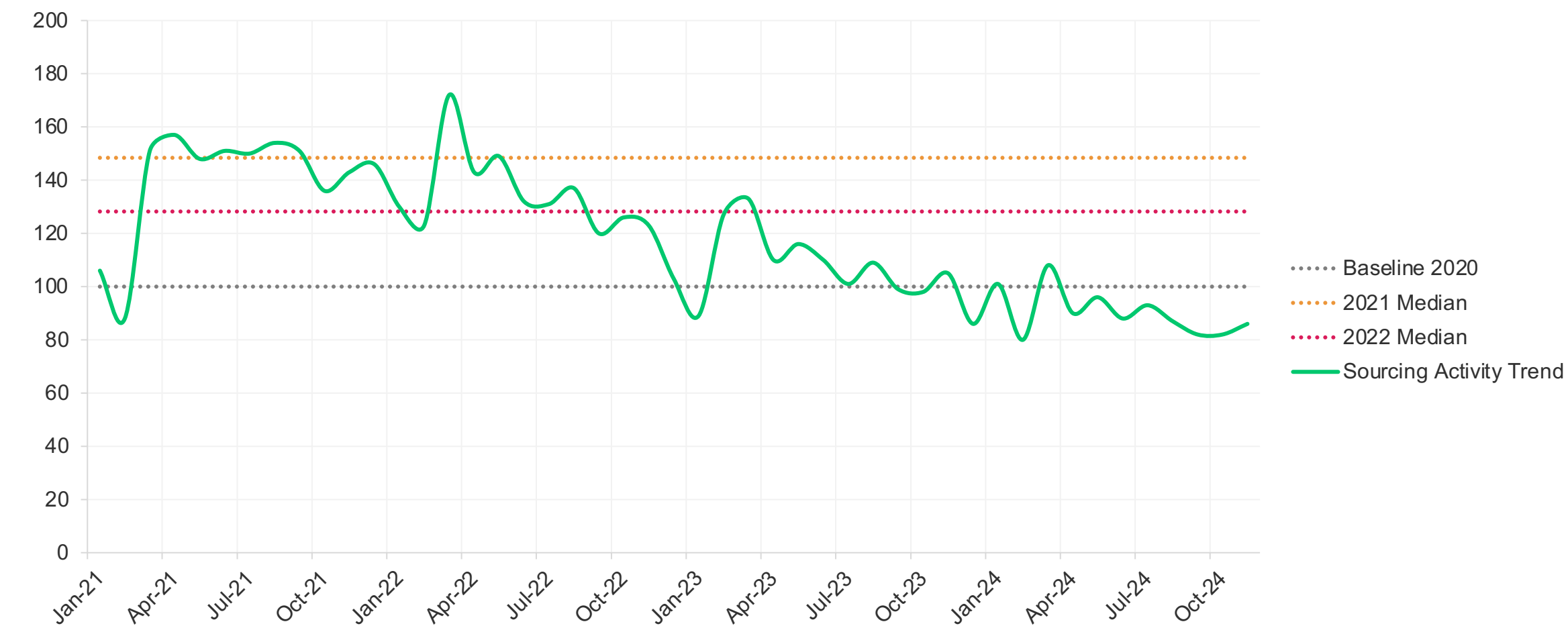


Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	5%	-8%	0%
Capacitors	77.0	1%	-2%	-1%
Power Circuits	58.8	2%	-25%	-2%
Resistors	56.4	4%	-11%	-1%
Diodes	42.7	7%	-28%	-3%
Microcontrollers and Processors	39.6	10%	-34%	-3%
Transistors	37.1	7%	-35%	-4%
Connector Support	30.0	3%	-2%	0%
Inductors	22.2	3%	-1%	-3%
Optoelectronics	20.9	3%	-18%	-2%
Drivers And Interfaces	20.4	4%	-29%	-2%
Memory	16.4	2%	-30%	-3%
Amplifier Circuits	16.3	3%	-36%	-4%
Converters	16.0	8%	-20%	-1%
Logic	15.5	3%	-32%	-3%

# Recap

NOVEMBER 2024

- Global design and sourcing activities trended as expected in November. Global design activities decreased by -8% while global sourcing activities decreased by -5% month-over-month
- Compared to prior year, global design activities decreased by -4%, while global sourcing activities decreased by -19%
- Global design activities remained stronger for passives and interconnects vs. power and embedded processors and controllers in November. Top performing countries for design activities included: China, Italy, Canada, Switzerland, South Korea, Spain, Taiwan, Canada, Poland, and Turkey.
- Global sourcing activities observed a nominal uptick in embedded processors and controllers and RF and wireless components. Passives and interconnect components performed similarly as observed in global design activities for components that fall within these product groupings
- Calendar Q4 projections remain unchanged. 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

