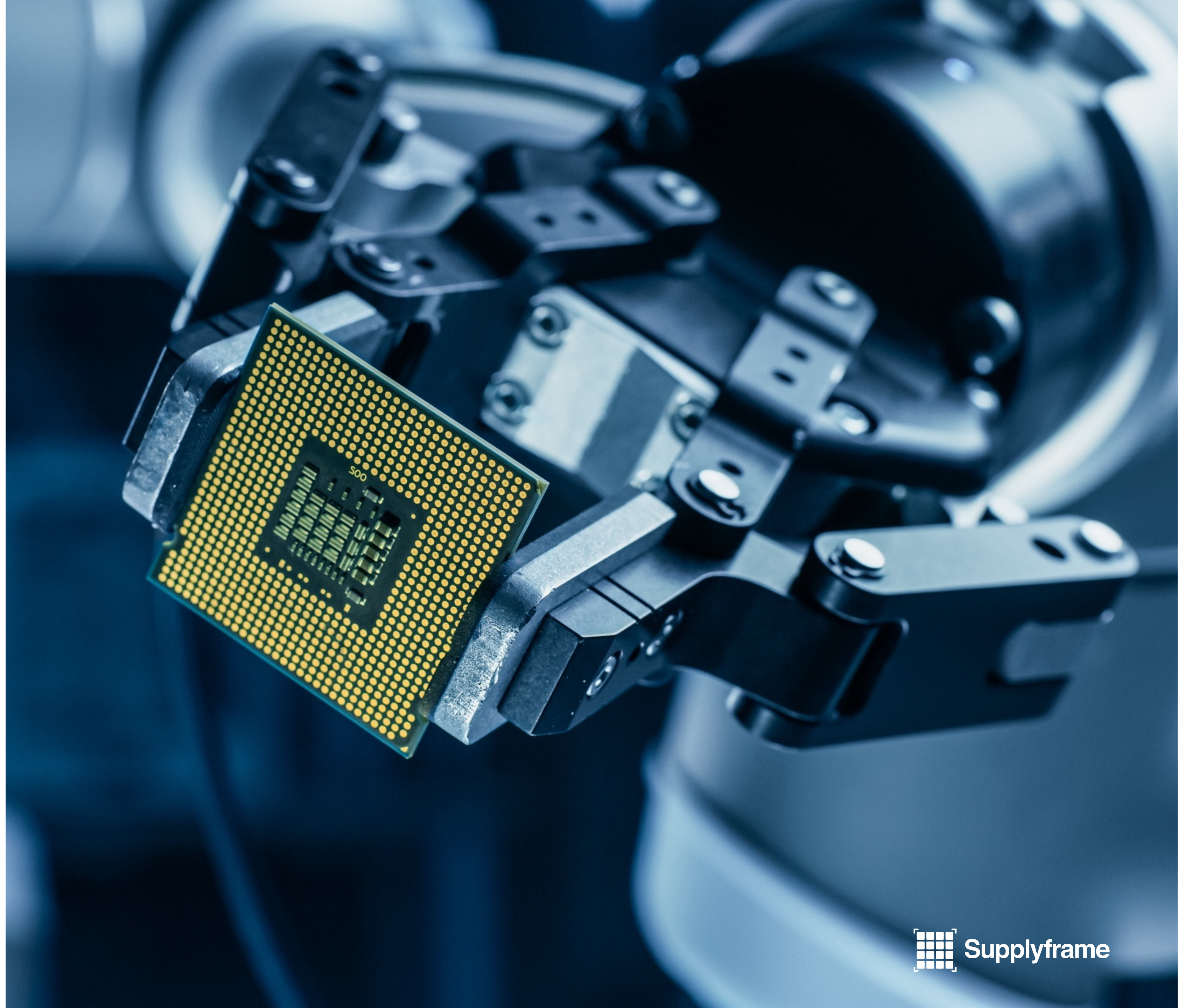


Supplyframe  
Design-to-Source  
Intelligence

## Design-to-Source Monthly Insights

October 2023



# 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 2023

- Global design activities continued to remain active and strong in October, while global sourcing activities continued to remain soft
- Global design activities increased +11% month-over-month and +7% year-over-year in October. The month-over-month growth in activities were in line with seasonal trends
- Global sourcing activities remained flat month-over-month but decreased -24% year-over-year in October. Seasonally, global sourcing activities have historically increased from September to October. The lack of growth in activities in October highlight the continuing challenges in the market

## 2023 Year-To-Date (January – October)

- Calendar year-to-date, global design activities grew +5%, while global sourcing activities decreased -25% vs. the first ten months in 2022

## Q4 2023 Outlook

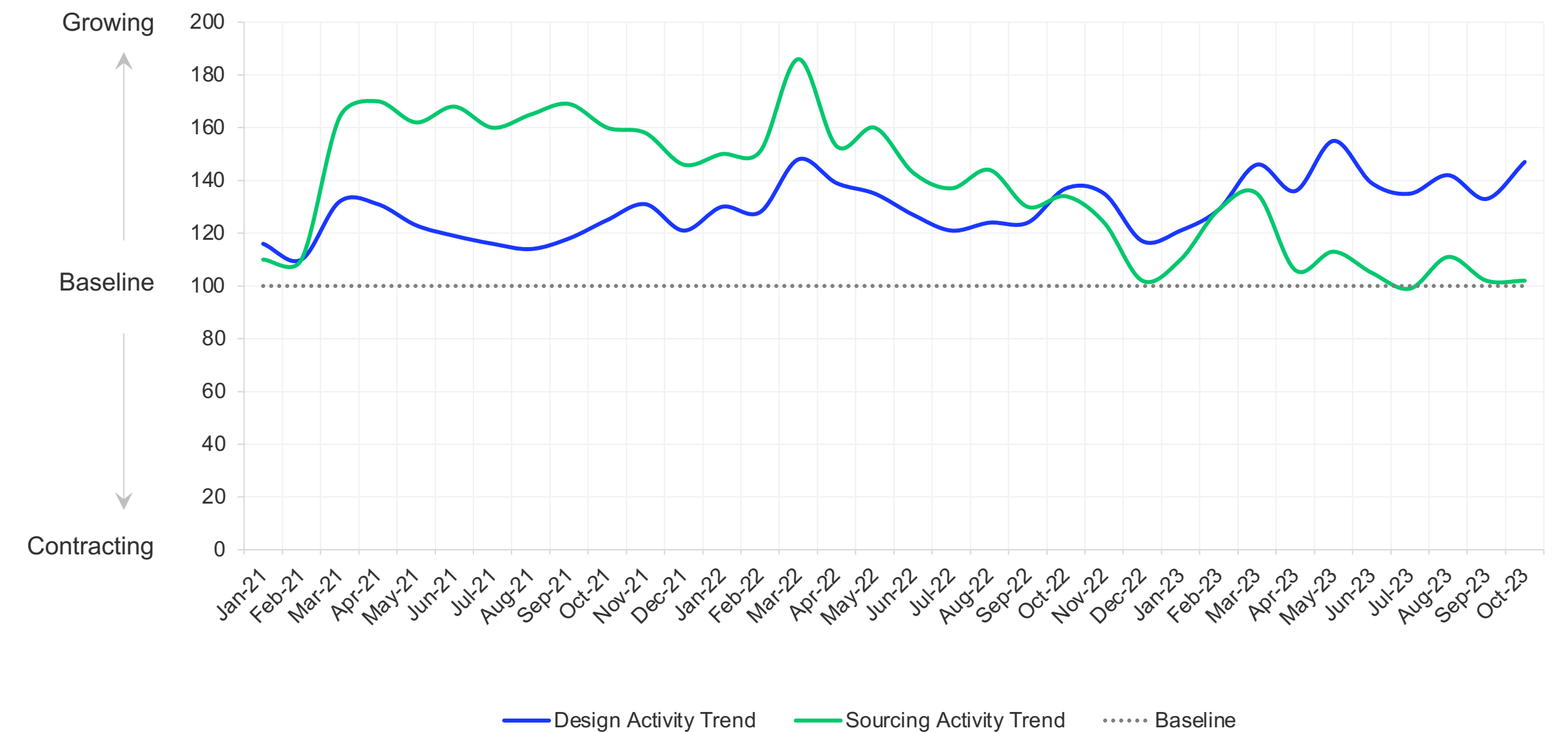
- Looking ahead to calendar Q4, we project global design activities to grow +4% to +8% as activities in Europe recover from the summer slow down. Global sourcing activities are expected to decrease -3% to -6% driven primarily by decrease in activities in the Americas region

## Global Performance

**Design Activities** ⬆️ +10.5% M/M  
⬆️ +7.3% Y/Y

**Sourcing Activities** ⬆️ -0.2% M/M  
⬆️ -24.1% 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 2023

## 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 strong, growing +7% year-over-year and +5% year-to-date.**

October global design activity trends were in line with seasonal patterns, increasing month-over-month from September. Since March 2023, global design activities have continued to remain active, steadily growing at an average of +2% monthly since beginning of the calendar year. Compared to the first 10 months of 2022, global design activities have grown +5% in 2023.

Growth in design activities were observed across all three regions, with the APAC region experiencing the most growth vs. prior year. Countries driving growth in design activities in the APAC region included India (+40%); Taiwan (+32%); South Korea (+20%); Australia (+7%); and Japan (+4%). Top product categories in these countries included: connectors (+23%); power circuits (+30%); capacitors (+26%); diodes (+24%); and resistors (+34%).

In the EMEA region, France (+10%); Italy (+18%); Spain (+2%); Switzerland (+32%); and Poland (+11%) all experienced year-over-year growth in design activities. Germany and the United Kingdom observed flat to -5% decrease in design activities for the same period.

For Q4, we anticipate that global design activities will increase quarter-over-quarter between +4% to +8%, with growth coming from the Americas and EMEA regions, while APAC is expected to remain flat vs. Q3.

Table 1. Design Activity Summary

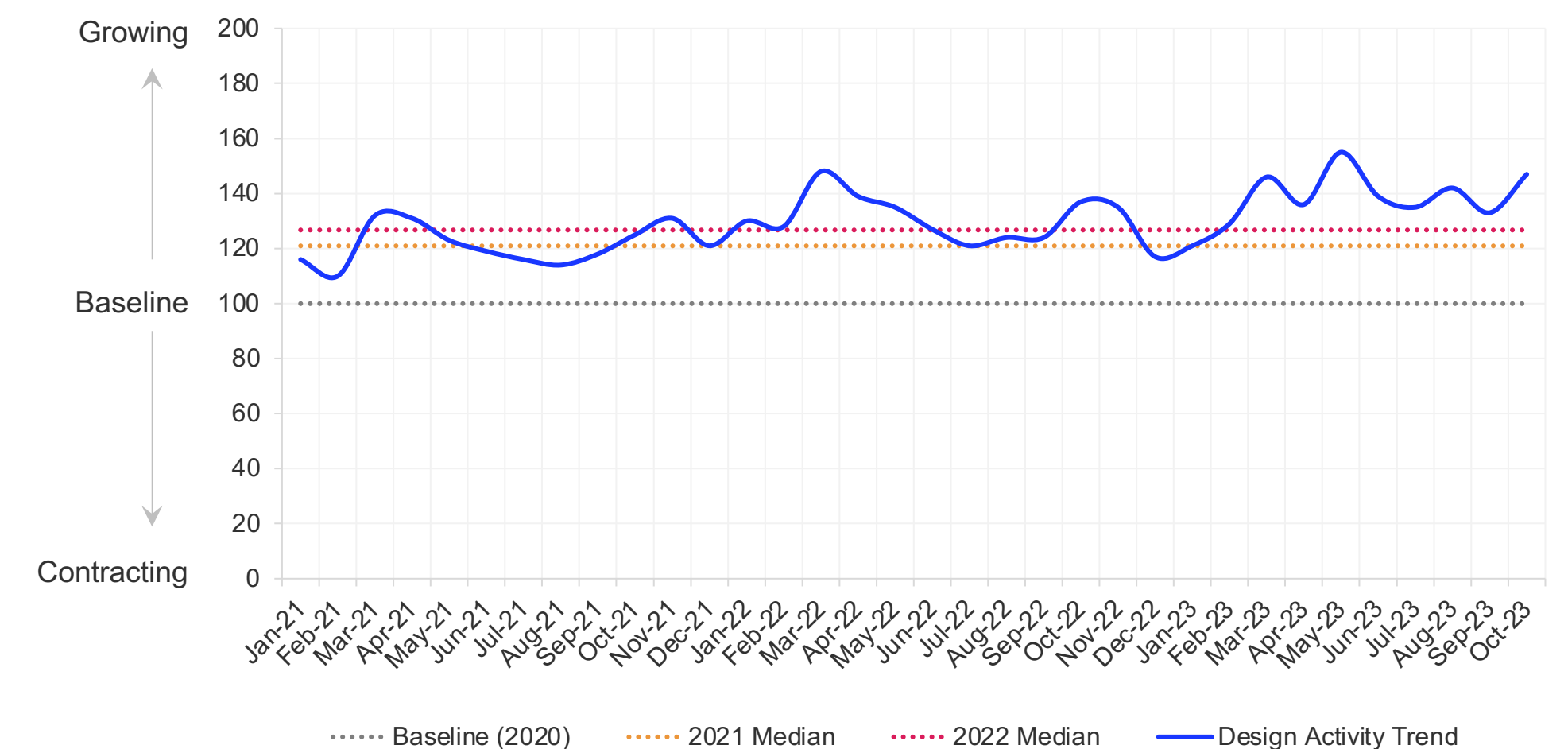
		vs. Prior Month	vs. Prior Year	6mo. CMGR
<b>Global</b>		10.5%	7.3%	1.2%

Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	19%	6%	2%
APAC	75.6	-1%	9%	1%
AMER	46.3	16%	7%	1%

## Top 10 Countries

Country	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	11%	5%	1%
China (incl. Hong Kong)	70.6	-20%	-5%	-3%
India	57.0	15%	40%	4%
Germany	47.0	8%	0%	2%
United Kingdom	32.8	12%	-5%	2%
Japan	32.8	6%	4%	2%
France	28.3	24%	10%	1%
Italy	27.7	19%	18%	3%
Republic of Korea	20.0	-2%	20%	3%
Spain	17.4	30%	2%	4%

Chart 2. Global Design Activity Trends



# Design Activity: Americas Trends

OCTOBER 2023

## 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

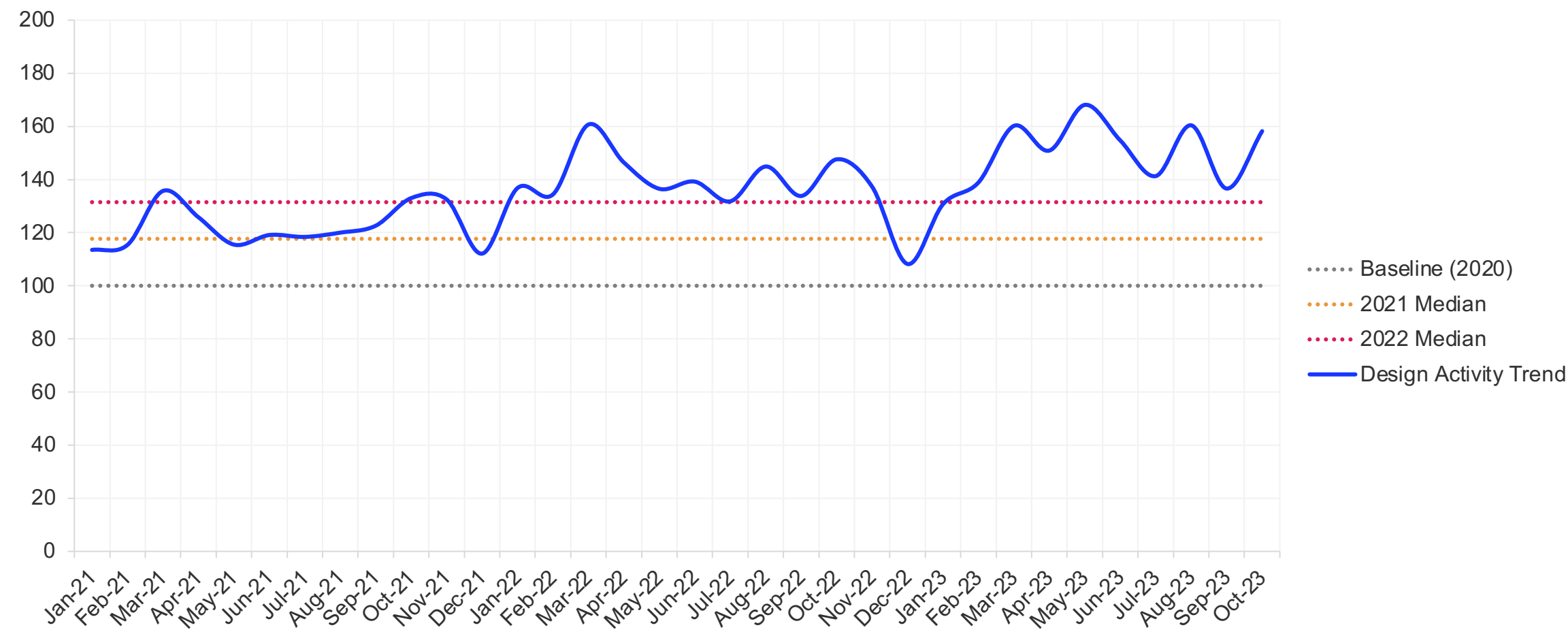


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	16%	13%	1%
Power Circuits	62.4	11%	8%	1%
Resistors	57.8	40%	18%	1%
Capacitors	52.7	19%	0%	-1%
Diodes	39.1	22%	8%	-3%
Transistors	35.1	29%	8%	2%
Microcontrollers and Processors	26.2	10%	-9%	2%
Optoelectronics	25.9	15%	0%	2%
Terminal Blocks	22.0	22%	15%	5%
Inductors	21.1	32%	95%	-3%
Signal Circuits	19.1	31%	1%	5%
Amplifier Circuits	18.2	14%	-10%	-3%
Drivers And Interfaces	17.2	-13%	-10%	-1%
Logic	16.7	-6%	-15%	1%
Switches	14.6	23%	-2%	1%

# Design Activity: EMEA Trends

OCTOBER 2023

**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

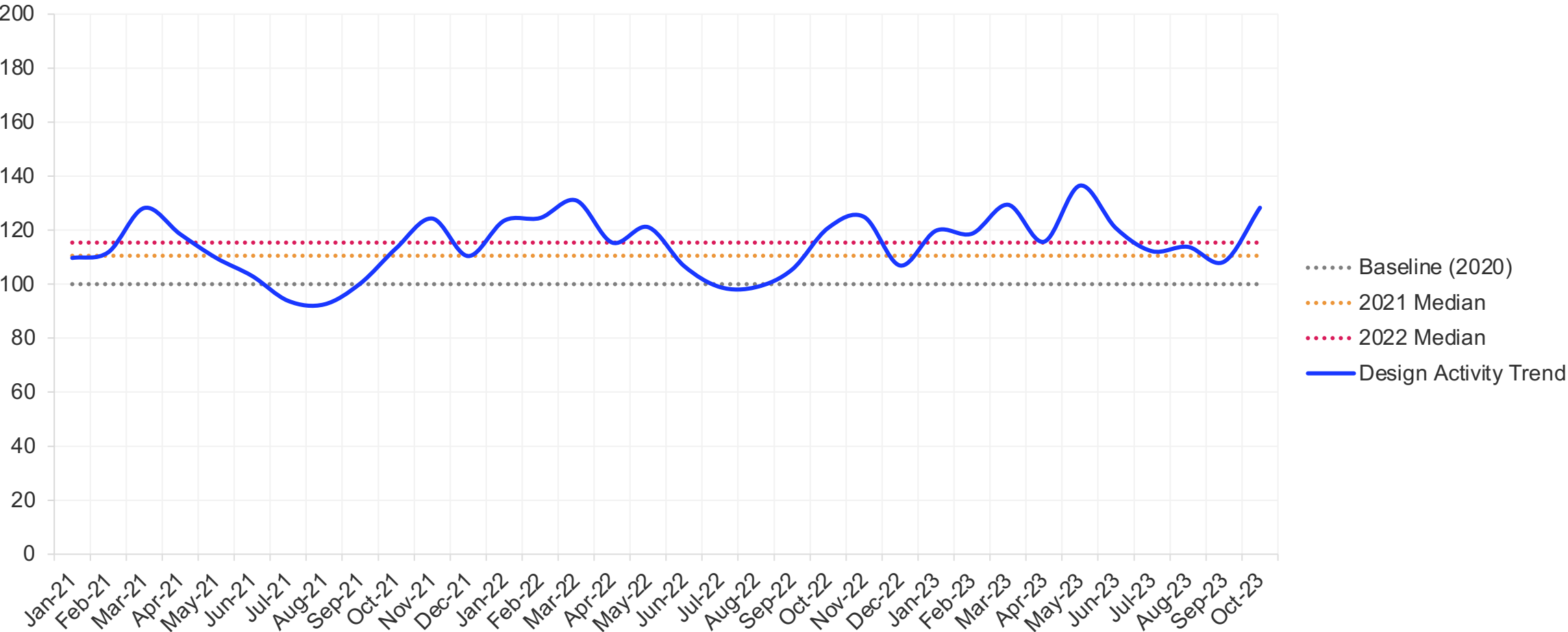


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	16%	13%	1%
Power Circuits	62.4	11%	8%	1%
Resistors	57.8	40%	18%	1%
Capacitors	52.7	19%	0%	-1%
Diodes	39.1	22%	8%	-3%
Transistors	35.1	29%	8%	2%
Microcontrollers and Processors	26.2	10%	-9%	2%
Optoelectronics	25.9	15%	0%	2%
Terminal Blocks	22.0	22%	15%	5%
Inductors	21.1	32%	95%	-3%
Signal Circuits	19.1	31%	1%	5%
Amplifier Circuits	18.2	14%	-10%	-3%
Drivers And Interfaces	17.2	-13%	-10%	-1%
Logic	16.7	-6%	-15%	1%
Switches	14.6	23%	-2%	1%

# Design Activity: APAC Trends

OCTOBER 2023

**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

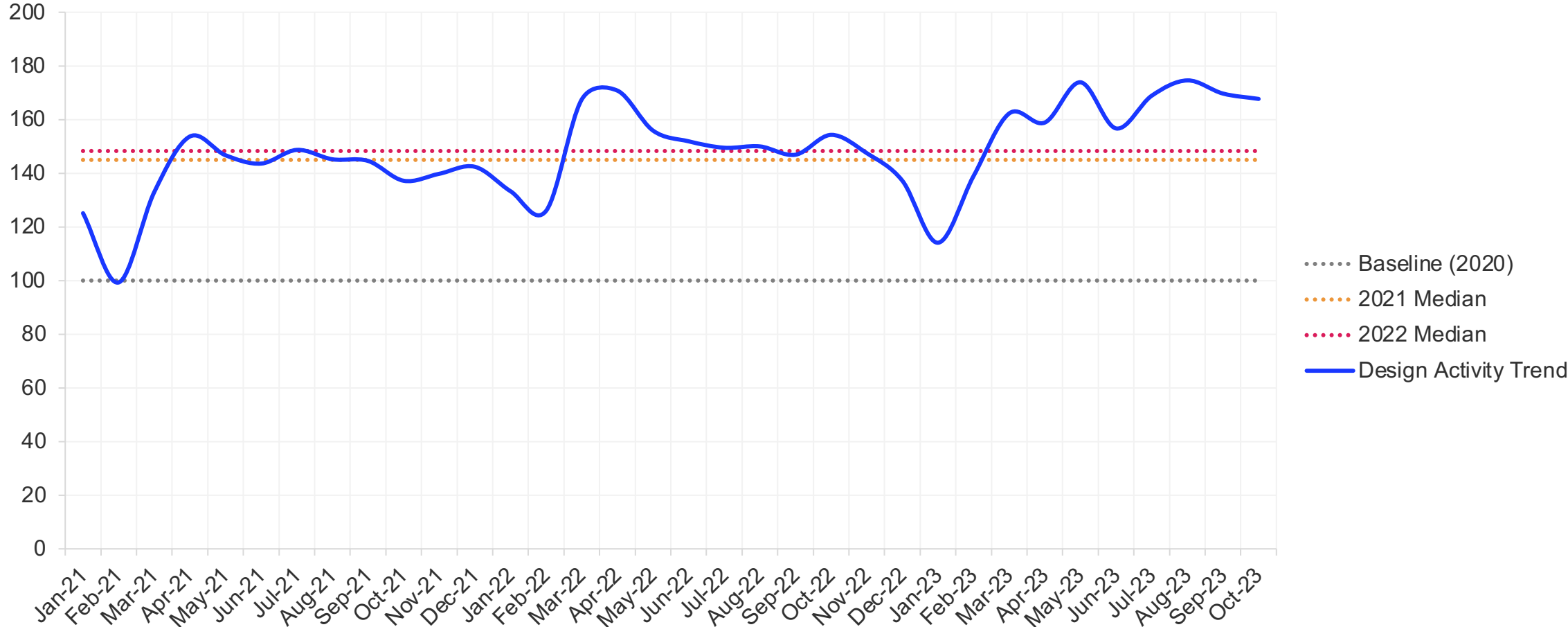


Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	2%	18%	2%
Power Circuits	84.7	13%	12%	1%
Capacitors	58.8	-8%	12%	2%
Diodes	55.2	3%	11%	3%
Resistors	51.1	7%	25%	3%
Microcontrollers and Processors	45.1	12%	-6%	-4%
Transistors	44.0	0%	6%	2%
Drivers And Interfaces	28.9	2%	-3%	2%
Optoelectronics	27.4	1%	7%	-1%
Amplifier Circuits	25.5	-21%	3%	-1%
Inductors	22.6	3%	56%	2%
Logic	21.5	-3%	-24%	1%
Signal Circuits	21.5	3%	1%	-1%
Terminal Blocks	16.3	17%	16%	3%
Filters	15.6	3%	10%	0%

# Sourcing Activity Overview

OCTOBER 2023

## 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 soft in October.

Global sourcing activities remained flat month-over-month in October and contracted by -24% vs. prior year. In previous years, we have observed global sourcing activities increase an average +2% month-over-month from September to October.

In the APAC region, sourcing activities decreased -1% in October due to the Golden Week holiday that occurred in China (Oct. 1 – Oct. 7). Month-over-month demand increased in other key countries in the region: India (+2%); South Korea (+8); Taiwan (+5%); Singapore (+6%); and Malaysia (+21%).

In the Americas region, demand decreased -1% in the United States, while Canada experienced a +5% increase in month-over-month demand. Mexico and Brazil also observed month-over-month increase in demand.

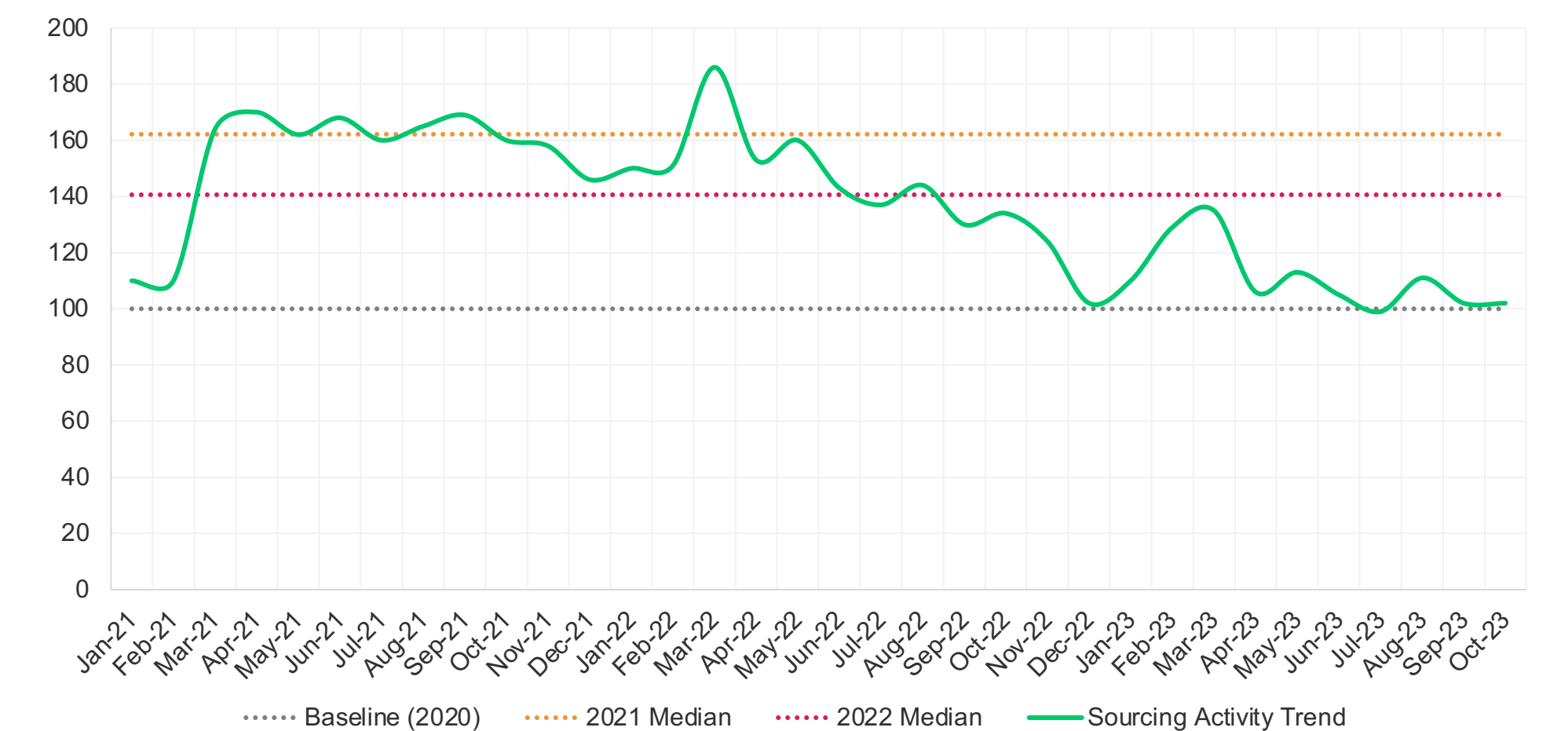
In the EMEA region, demand increased for the second consecutive month in October (+3% month-over-month). Increase in activities were observed in Germany (+1%); France (+11%); Italy (+2%); Israel (+14%); the United Kingdom (+15%); and Sweden (+14%). Year-over-year, the region observed a -33% contraction in demand compared to the same period last year.

Looking ahead to calendar Q4, global sourcing activities are expected to decrease between -3% to -6% quarter-over-quarter. The Americas and APAC regions are expected to see quarter-over-quarter decrease in activities, while EMEA is expected to remain flat.

Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
<b>Global</b>		-0.2%	-24.1%	-0.6%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	-1.2%	-18.6%	-0.7%
AMER	60.5	-0.3%	-26.4%	-0.2%
EMEA	38.2	2.7%	-32.6%	-1.1%
Top 10 Countries				
Country	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
China (incl. Hong Kong)	100.0	-8%	-22%	-2%
United States	99.0	-1%	-28%	-1%
India	31.8	2%	-17%	-2%
Republic of Korea	24.9	8%	-16%	-1%
Germany	16.1	1%	-37%	-3%
Taiwan	13.9	5%	-27%	0%
Canada	10.6	5%	-16%	2%
Singapore	10.1	6%	-3%	6%
Malaysia	9.1	21%	3%	7%
France	8.8	11%	-34%	-2%

Chart 6. Global Sourcing Activity Trends





# Sourcing Activity: Americas Trends

OCTOBER 2023

## 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

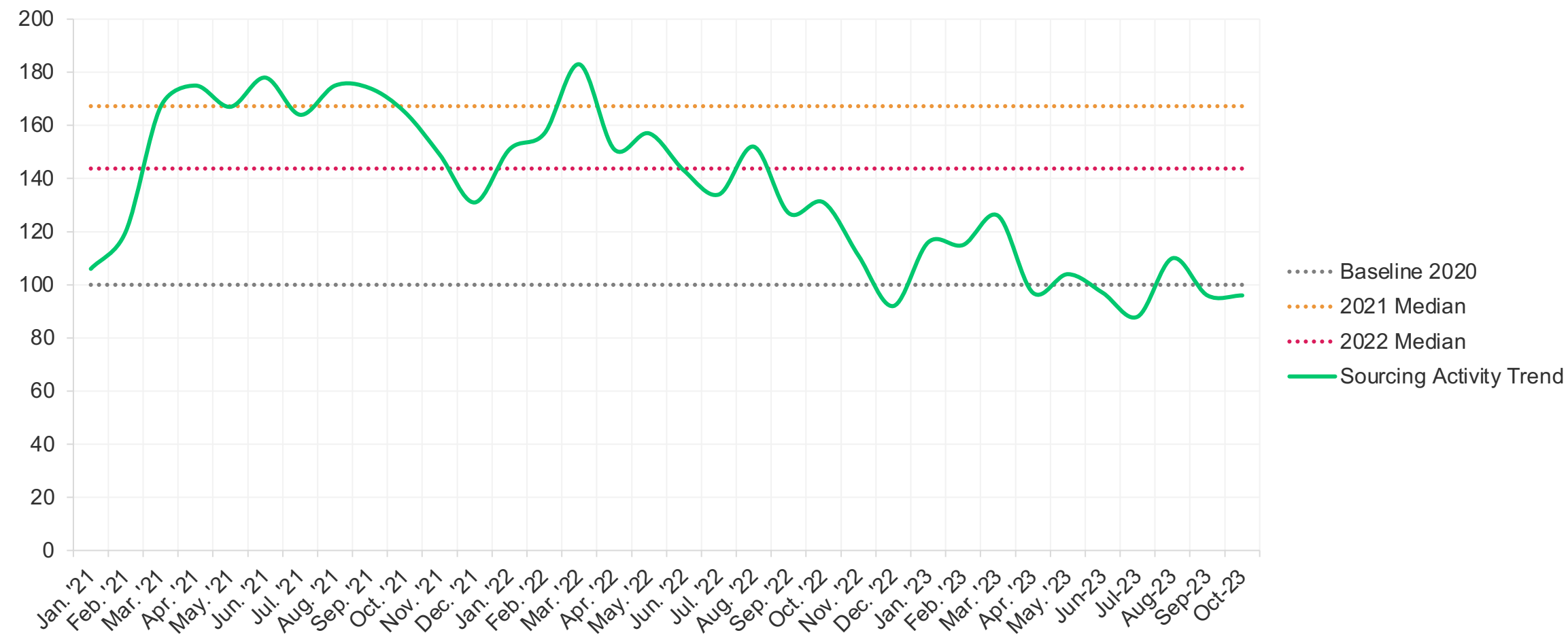


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	4%	-10%	2%
Capacitors	85.9	10%	-6%	2%
Resistors	76.3	8%	-16%	1%
Power Circuits	51.6	-8%	-44%	-3%
Diodes	45.0	-9%	-26%	2%
Transistors	38.1	-9%	-42%	-2%
Connector Support	32.2	1%	6%	3%
Microcontrollers and Processor	29.8	-14%	-52%	-6%
Terminal Blocks	22.0	7%	-21%	1%
Amplifier Circuits	19.9	-8%	-42%	-5%
Optoelectronics	19.9	-4%	-23%	-1%
Inductors	17.6	3%	-1%	2%
Logic	17.5	2%	-35%	2%
Drivers And Interfaces	17.1	1%	-50%	-4%
Memory	13.0	-6%	-34%	0%

# Sourcing Activity: EMEA Trends

OCTOBER 2023

## 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

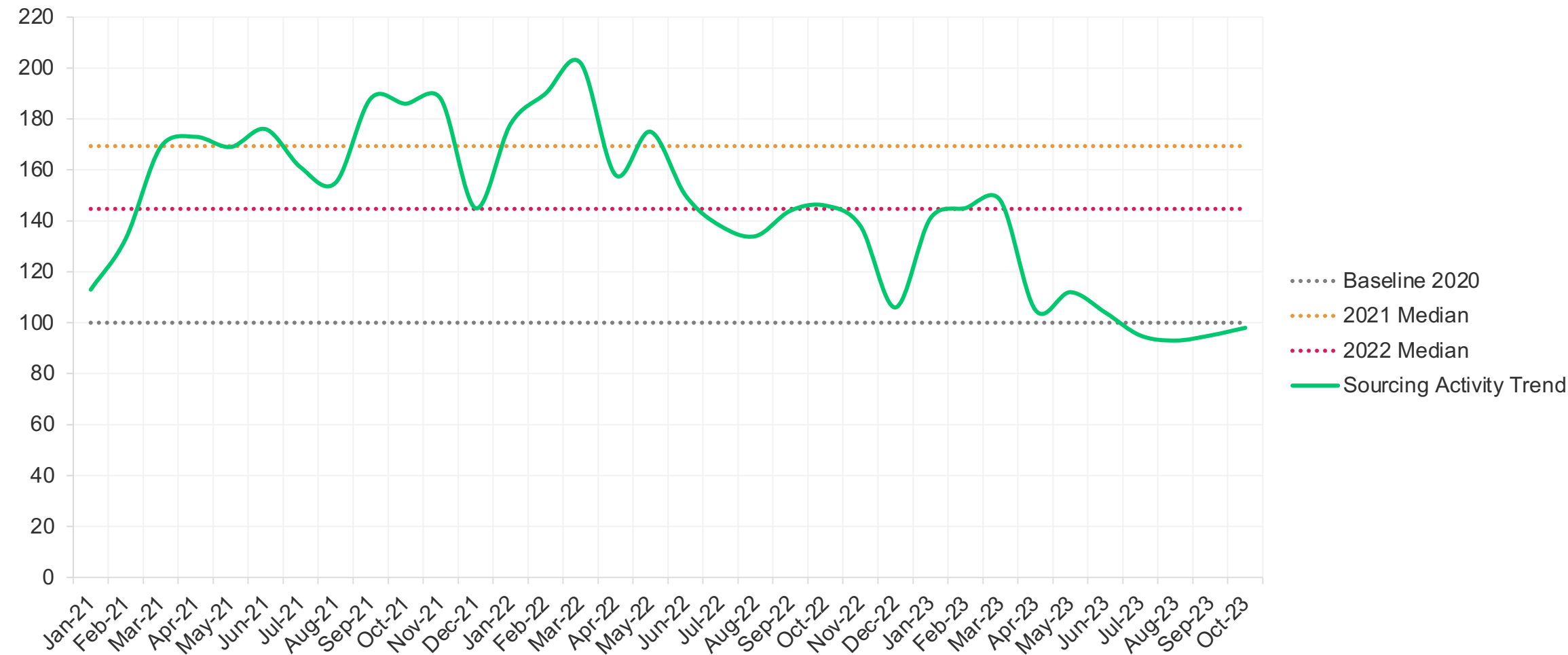


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	15%	-8%	4%
Capacitors	96.9	-3%	-16%	0%
Power Circuits	88.1	0%	-46%	-4%
Resistors	82.5	2%	-9%	2%
Diodes	69.1	-1%	-34%	-1%
Transistors	63.3	-7%	-46%	-4%
Microcontrollers and Processor	60.7	-5%	-54%	-5%
Amplifier Circuits	43.6	5%	-30%	-3%
Drivers And Interfaces	35.1	11%	-50%	-4%
Optoelectronics	32.0	0%	-31%	-2%
Inductors	26.1	-1%	-11%	2%
Connector Support	25.8	20%	11%	6%
Logic	23.9	6%	-44%	-1%
Memory	23.3	1%	-41%	-2%
Signal Circuits	22.0	10%	-48%	-3%

# Sourcing Activity: APAC Trends

OCTOBER 2023

## 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

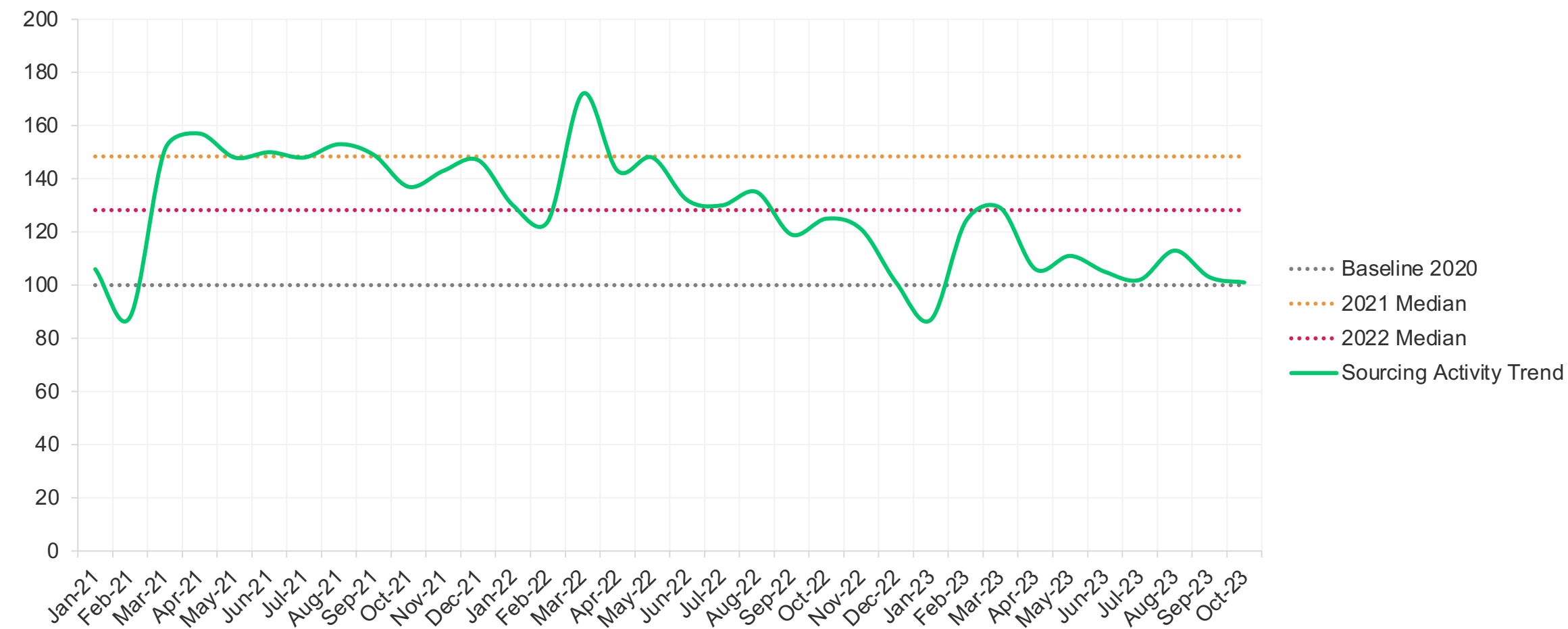


Table 8. Top 15 Product Categories in APAC

### Top 15 Product Categories | APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	0%	-1%	2%
Power Circuits	85.7	2%	-33%	-3%
Capacitors	84.6	-3%	-2%	1%
Diodes	69.2	2%	-11%	0%
Resistors	69.2	0%	0%	1%
Microcontrollers and Processor	68.9	-6%	-37%	-4%
Transistors	67.2	-7%	-30%	-3%
Drivers And Interfaces	31.7	2%	-43%	-5%
Amplifier Circuits	30.1	-7%	-31%	-4%
Optoelectronics	27.3	1%	-7%	0%
Connector Support	26.5	-1%	9%	4%
Memory	25.7	-6%	-26%	0%
Logic	25.0	1%	-33%	0%
Inductors	24.0	-2%	11%	2%
Signal Circuits	23.4	9%	-35%	-3%

# Recap

OCTOBER 2023

- Global design activities continued to remain strong, while global sourcing activities remained soft in October
- October global design activities followed seasonal trends, while global sourcing activities performed worse than seasonal trends
- Year-to-date, global design activities grew +5%, while global sourcing activities decreased -25% vs. the first ten months in 2022
- Q4 projections remain unchanged. Global design activities are expected to grow +4% to +8% and global sourcing activities are expected to decreased -3% to -6%

