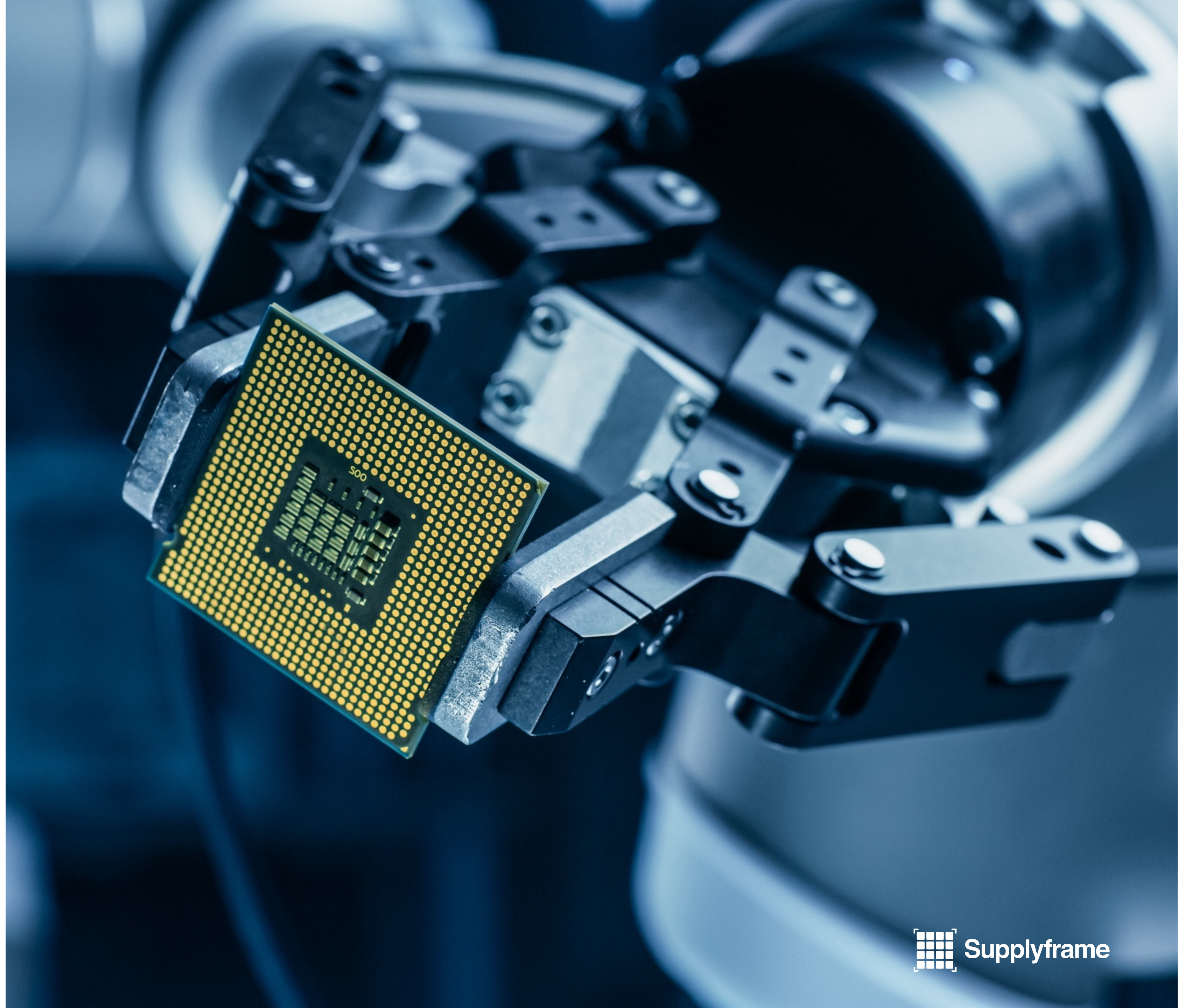


Supplyframe
Design-to-Source
Intelligence

Design-to-Source Monthly Insights

August 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

AUGUST 2024

August performance:

- Global design and sourcing activities both decreased in August after better-than-expected performance in July. Even with this month-over-month decrease, design and sourcing activity trends remained relatively stable for the 7th consecutive month (see chart 1)
- Compared to same period last year, global design activities remained flat, while global sourcing activities continued to remain well below last year's activity levels (-23%)
- Global design activities decreased across all regions, with the largest decrease in activities observed in the EMEA region (-12% month-over-month). Decrease in design activities were observed across all product categories, with the largest month-over-month decrease observed across power circuits and microcontrollers and processors categories
- Global sourcing activities decreased across the APAC and EMEA regions, with the largest decrease in sourcing activities observed in the EMEA region (-23% month-over-month). The Americas region observed a +2% month-over-month increase in activities due to growth in sourcing activities in the United States and Canada

Q3 2024 outlook

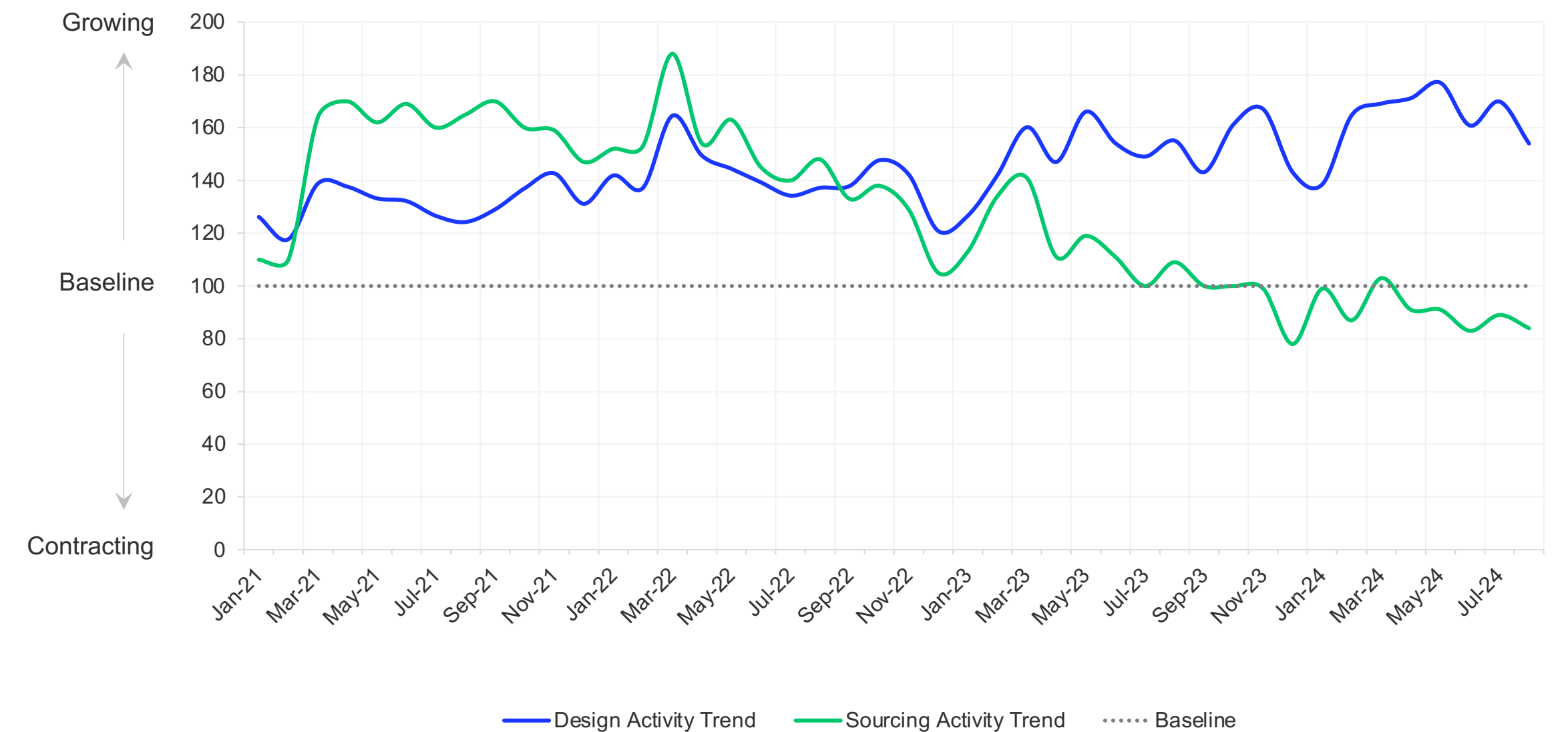
- For calendar Q3, global design and sourcing activities are expected to decrease between -5% to -7% quarter-over-quarter

Global Performance

Design Activities  **-9.4% M/M**
 **-0.7% Y/Y**

Sourcing Activities  **-6.4% M/M**
 **-23.4% 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

AUGUST 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 -9% month-over-month while remaining flat year-over-year.

Global design activities decreased month-over-month but continued to remain stable and within expected levels. Decrease in activities were observed across all regions but the EMEA region observed the largest month-over-month decrease in design activities due to the seasonal slow down we experience in the region during this time of the year. Overall, design activities across all regions continued to remain strong and exhibit signs of growth compared to prior four years.

In the EMEA region, all the top countries where design activities are concentrated in the region observed decrease activity levels compared to the prior month: Germany (-16%); the United Kingdom (-17%); France (-25%); Italy (-32%); and Spain (-36%). Two countries in Europe where we observed increases in design activities included Turkey (+7%) and Switzerland (+22%). In the region, all product categories observed month-over-month decrease in design activities, however when compared to the prior year, components in the following product groups observed growth: passives (+5%); electromechanicals (+2%); optoelectronics (+9%); and sensors (+6%).

In the Americas region, design activities were down month-over-month across most product categories, but components in the following product groups observed year-over-year growth: power (+1%); memory (+11%); and rf and wireless (+13%), and circuit protection devices (+2%).

In the APAC region, similar trends were observed for August as the other two regions. Most product categories observed decreases in design activities compared to prior months, but components in the following product groups observed year-over-year growth: discrete semiconductors (+1%); electromechanicals (+11%); memory (+1%); rf and wireless (+33%); and circuit protection devices (+22%). Growth in design activities for these components were observed primarily in India, South Korea, and Taiwan.

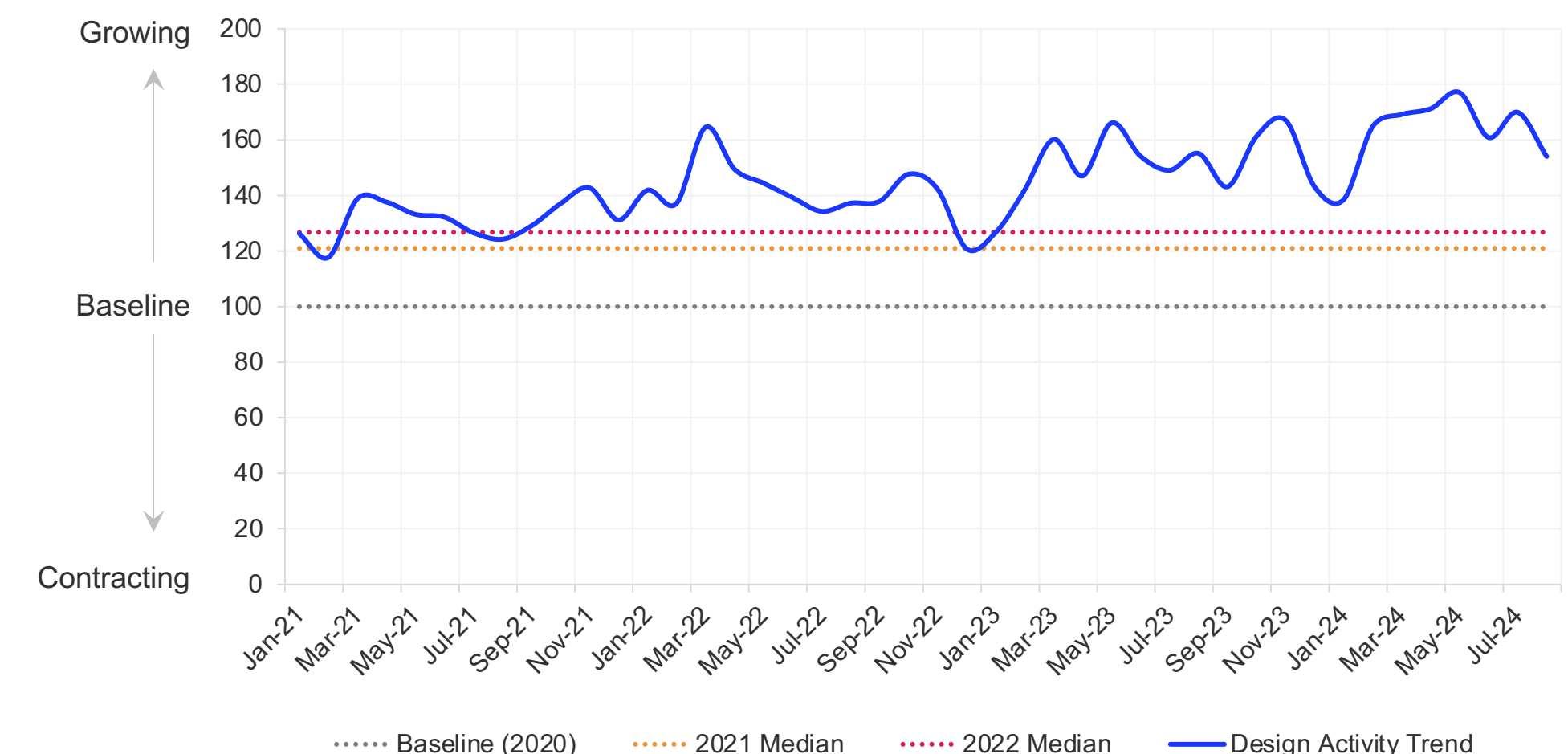
Table 1. Design Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		-9.4%	-0.7%	-1.1%
Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	-12%	0%	-3%
APAC	82.0	-9%	0%	3%
AMER	49.3	-4%	-5%	-2%

Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	-5%	-7%	-3%
China (incl. Hong Kong)	66.3	-12%	-6%	8%
India	58.7	-2%	13%	0%
Germany	45.8	-16%	-5%	-3%
United Kingdom	28.3	-17%	-18%	-5%
Republic of Korea	23.1	-13%	12%	4%
France	20.8	-25%	-8%	-5%
Turkey	20.7	7%	12%	1%
Italy	18.9	-32%	-6%	-6%
Taiwan	18.8	-13%	11%	10%

Chart 2. Global Design Activity Trends



Design Activity: Americas Trends

AUGUST 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

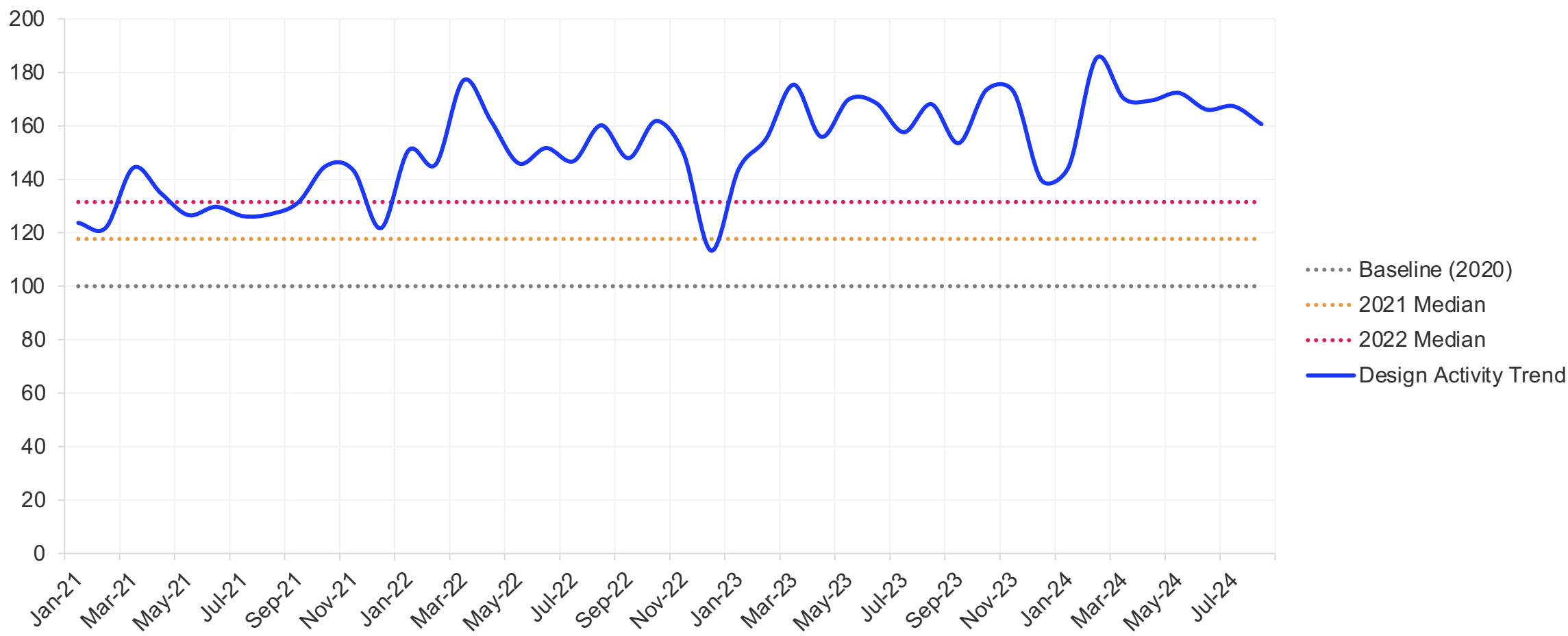


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-8%	-9%	-1%
Capacitors	58.2	2%	-2%	-4%
Power Circuits	55.6	-7%	-1%	-4%
Resistors	54.7	-1%	-8%	-4%
Diodes	38.3	-4%	2%	-2%
Transistors	26.5	-3%	-11%	-2%
Optoelectronics	23.4	-10%	0%	-3%
Microcontrollers and Processors	21.6	-9%	-9%	-2%
Terminal Blocks	20.1	-5%	-6%	-5%
Inductors	19.3	-4%	10%	-2%
Drivers And Interfaces	17.3	-3%	-30%	-2%
Switches	15.9	7%	4%	-1%
Signal Circuits	15.3	7%	-6%	-1%
Amplifier Circuits	14.6	-3%	-17%	-5%
Logic	13.9	-2%	-10%	-3%

Design Activity: EMEA Trends

AUGUST 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

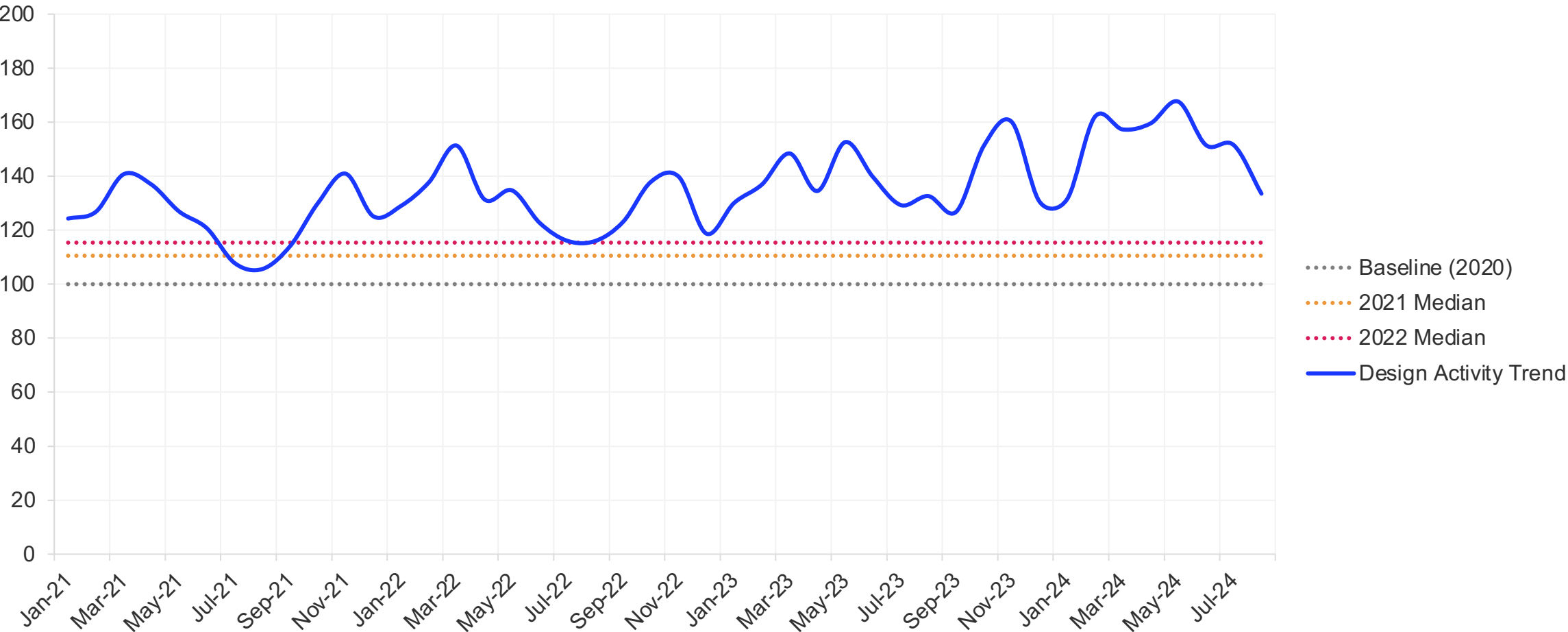


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-18%	-5%	-3%
Power Circuits	61.8	-17%	-3%	-4%
Capacitors	60.1	-6%	3%	-3%
Resistors	58.2	-6%	11%	-2%
Diodes	44.3	-9%	1%	-4%
Transistors	28.1	-14%	-15%	-5%
Microcontrollers and Processors	28.0	-10%	-4%	-3%
Terminal Blocks	25.4	-12%	-14%	-5%
Optoelectronics	25.2	-2%	7%	-3%
Inductors	24.9	-12%	1%	-3%
Drivers And Interfaces	18.6	-16%	-14%	-4%
Amplifier Circuits	15.5	-16%	-4%	-6%
Switches	15.3	-2%	17%	-1%
Logic	14.9	-15%	-1%	-4%
Signal Circuits	14.0	-17%	-8%	-6%

Design Activity: APAC Trends

AUGUST 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

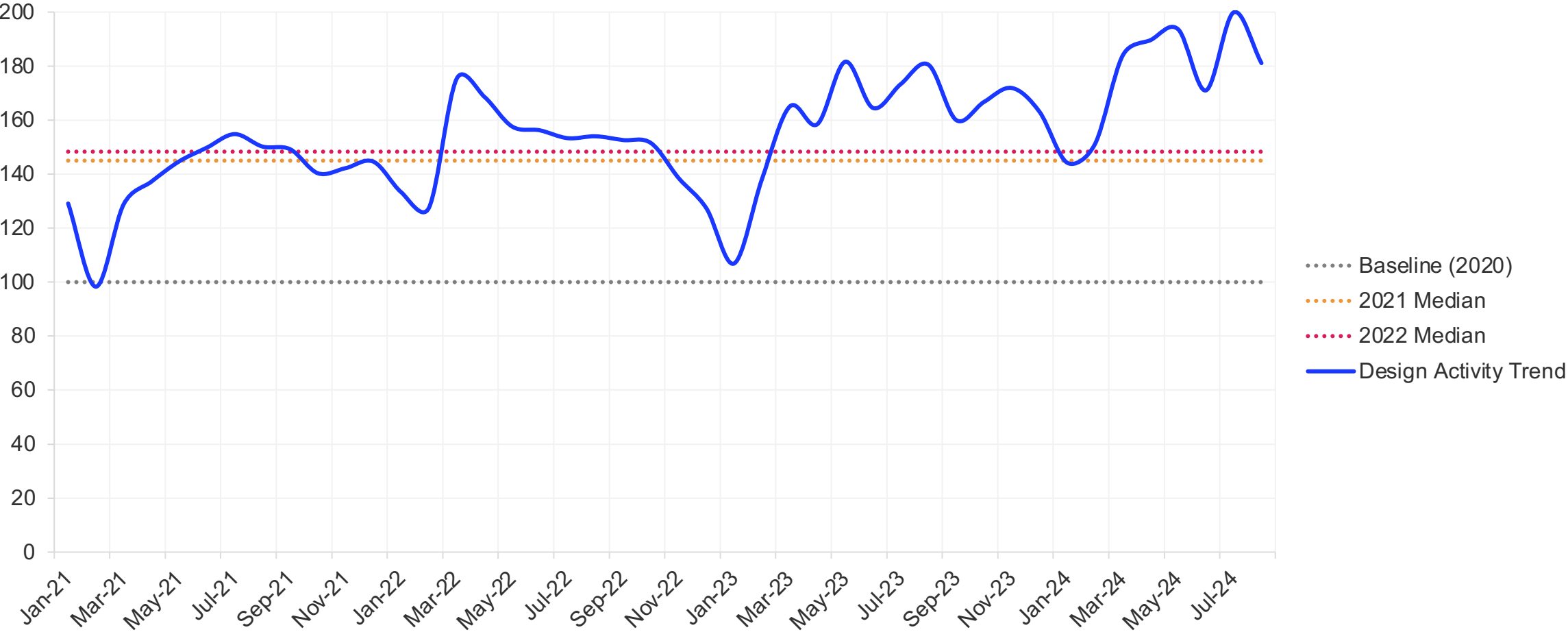


Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-12%	-2%	2%
Power Circuits	75.3	-17%	-3%	4%
Capacitors	66.7	-11%	-6%	3%
Diodes	57.5	-1%	0%	3%
Resistors	54.6	-10%	-7%	2%
Transistors	40.0	-1%	1%	2%
Microcontrollers and Processors	33.0	-10%	0%	3%
Amplifier Circuits	25.2	-11%	0%	5%
Optoelectronics	25.1	-7%	-8%	2%
Inductors	24.6	-6%	12%	4%
Drivers And Interfaces	24.6	-9%	-8%	2%
Logic	19.4	-12%	1%	4%
Terminal Blocks	18.1	-11%	18%	2%
Signal Circuits	16.3	-21%	-17%	0%
Filters	15.8	-4%	-1%	4%

Sourcing Activity Overview

AUGUST 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 -6% vs. prior month and -23% compared to prior year.

Following seasonal trends, global sourcing activities decreased -6% month-over-month. Similar to design activity trends, this decrease in demand was primarily due to seasonal slow down in business activities from the EMEA region. The APAC region also observed a moderate month-over-month decrease in sourcing activities, while the Americas region observed a slight increase in demand driven by growth in the United States and Canada.

In the EMEA region, decrease in sourcing activities were observed across all top countries and product categories. Among the top 10 countries within the region by volume of activity, Israel (-4%) and the United Kingdom (-5%) fared better than the other countries. Outside of these two top 10 countries, the Nordic region also performed better than the global average in terms of sourcing activities.

In the APAC region, while the overall region experienced a month-over-month decrease in sourcing activities, the following countries observed growth in demand vs prior month: Taiwan (+3%); Malaysia (+3%); and the Philippines (+7%). In these countries, the following product categories observed growth in demand: capacitors (+4%); diodes (+9%); microcontrollers and processors (+7%); and inductors (+8%).

In the Americas region, growth in sourcing activities were observed across all product categories except for diodes (-5%); transistors (-5%); amplifier circuits (-13%); and logics (-8%).

Q3 2024 forecast remains unchanged, we expect sourcing activities to decrease between -5% to -7% quarter-over-quarter.

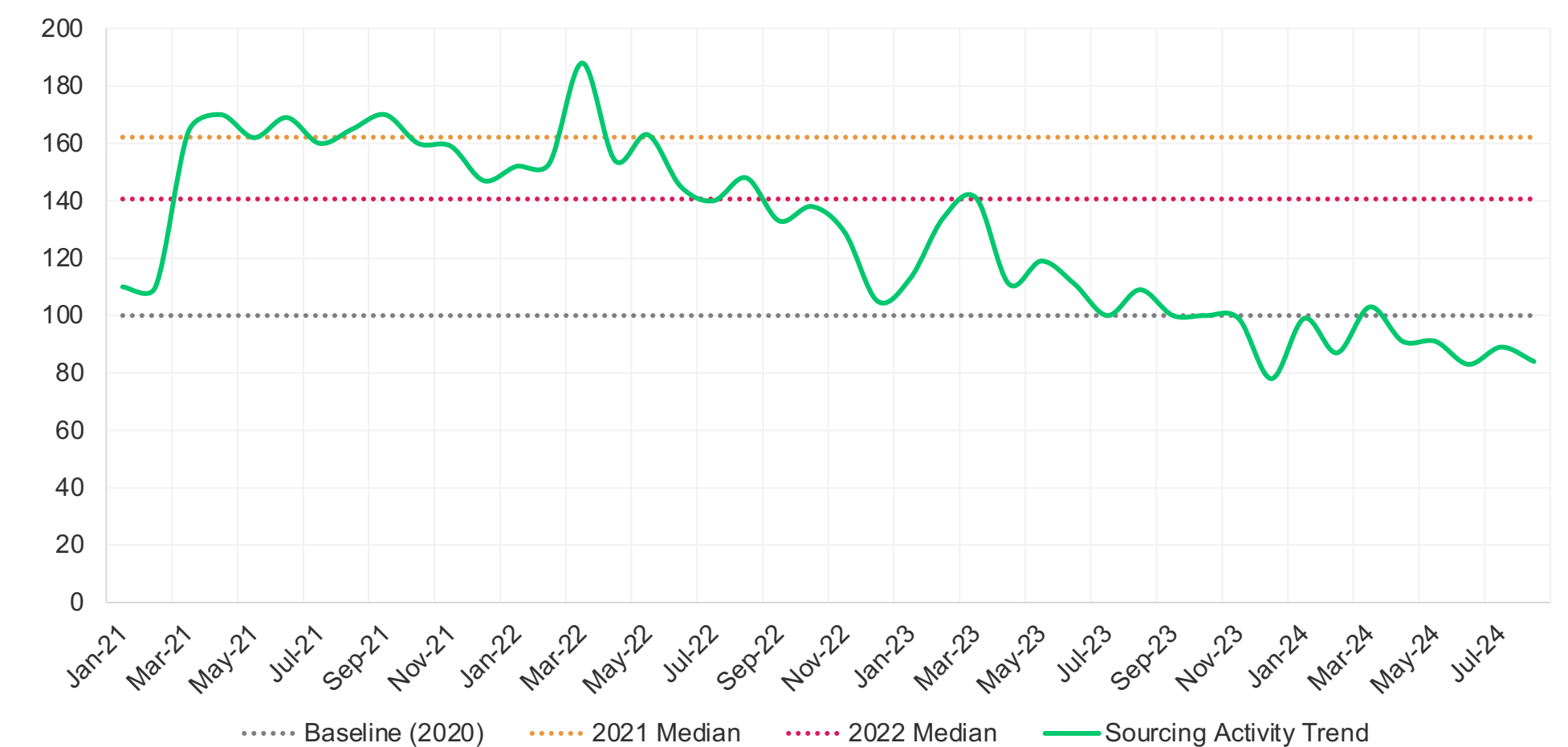
Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		-6.4%	-23.4%	-0.6%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	-5.8%	-19.8%	1.6%
AMER	58.7	2.3%	-23.8%	-1.0%
EMEA	26.7	-22.8%	-34.1%	-6.4%

Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
China (incl. Hong Kong)	100.0	-6%	-25%	3%
United States	94.7	3%	-24%	-1%
India	32.5	-3%	-9%	-1%
Republic of Korea	21.5	-20%	-19%	-3%
Taiwan	14.6	2%	-19%	4%
Germany	12.9	-21%	-38%	-6%
Malaysia	11.3	3%	11%	6%
Canada	10.2	3%	-15%	-2%
Singapore	8.2	-3%	-31%	1%
Brazil	6.4	10%	-12%	3%

Chart 6. Global Sourcing Activity Trends



Sourcing Activity: Americas Trends

AUGUST 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

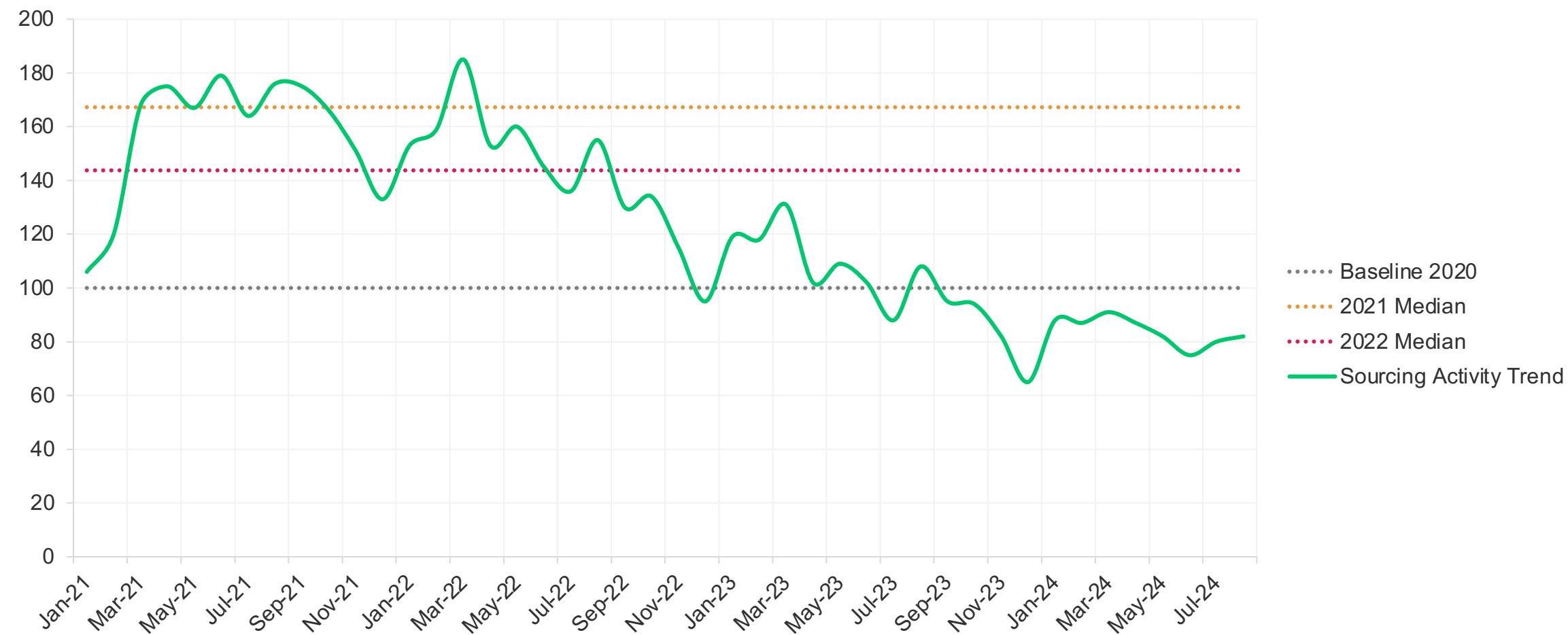


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	3%	-10%	-1%
Capacitors	84.7	5%	-9%	0%
Resistors	70.4	-1%	-16%	-1%
Power Circuits	41.4	0%	-37%	-1%
Connector Support	38.2	17%	-3%	2%
Diodes	34.7	-5%	-38%	-3%
Transistors	27.4	-2%	-42%	-2%
Terminal Blocks	21.6	12%	-7%	1%
Microcontrollers and Processors	20.6	5%	-52%	-3%
Inductors	18.5	2%	3%	-2%
Optoelectronics	18.2	3%	-19%	-2%
Amplifier Circuits	14.8	-10%	-41%	-1%
Drivers And Interfaces	13.7	6%	-37%	-2%
Logic	12.8	-6%	-35%	-3%
Memory	10.7	2%	-33%	-1%

Sourcing Activity: EMEA Trends

AUGUST 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

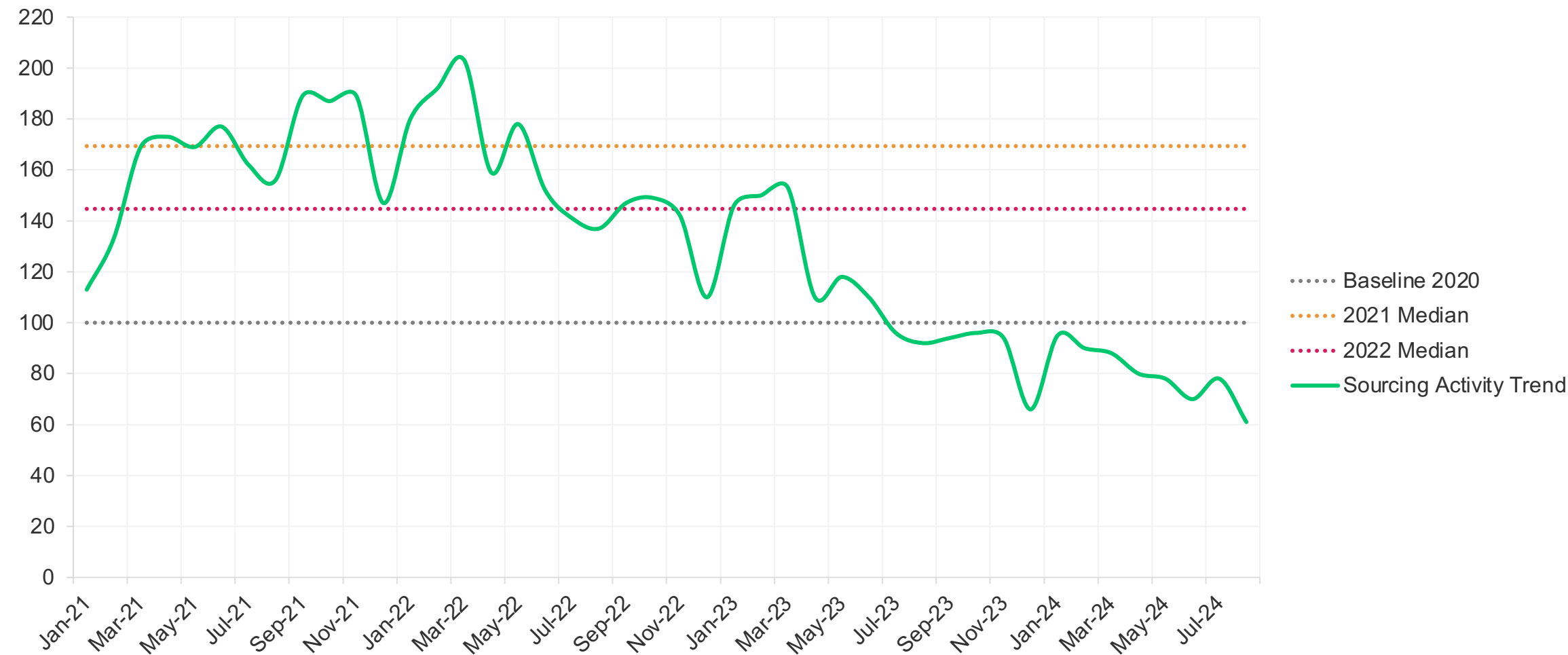


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Capacitors	100.0	-23%	-18%	-4%
Connectors	92.2	-20%	-19%	-5%
Resistors	78.9	-22%	-21%	-5%
Power Circuits	62.2	-24%	-47%	-7%
Diodes	46.5	-27%	-44%	-8%
Transistors	43.0	-21%	-48%	-8%
Amplifier Circuits	38.1	-22%	-24%	-2%
Microcontrollers and Processors	37.8	-24%	-57%	-8%
Connector Support	27.6	-19%	-14%	-4%
Inductors	27.3	-21%	-10%	-9%
Optoelectronics	25.2	-26%	-37%	-8%
Drivers And Interfaces	22.3	-24%	-49%	-10%
Memory	16.6	-21%	-45%	-6%
Terminal Blocks	15.6	-19%	1%	-4%
Filters	15.1	-28%	-17%	-9%

Sourcing Activity: APAC Trends

AUGUST 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.

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

Chart 9. APAC Sourcing Activity Trends

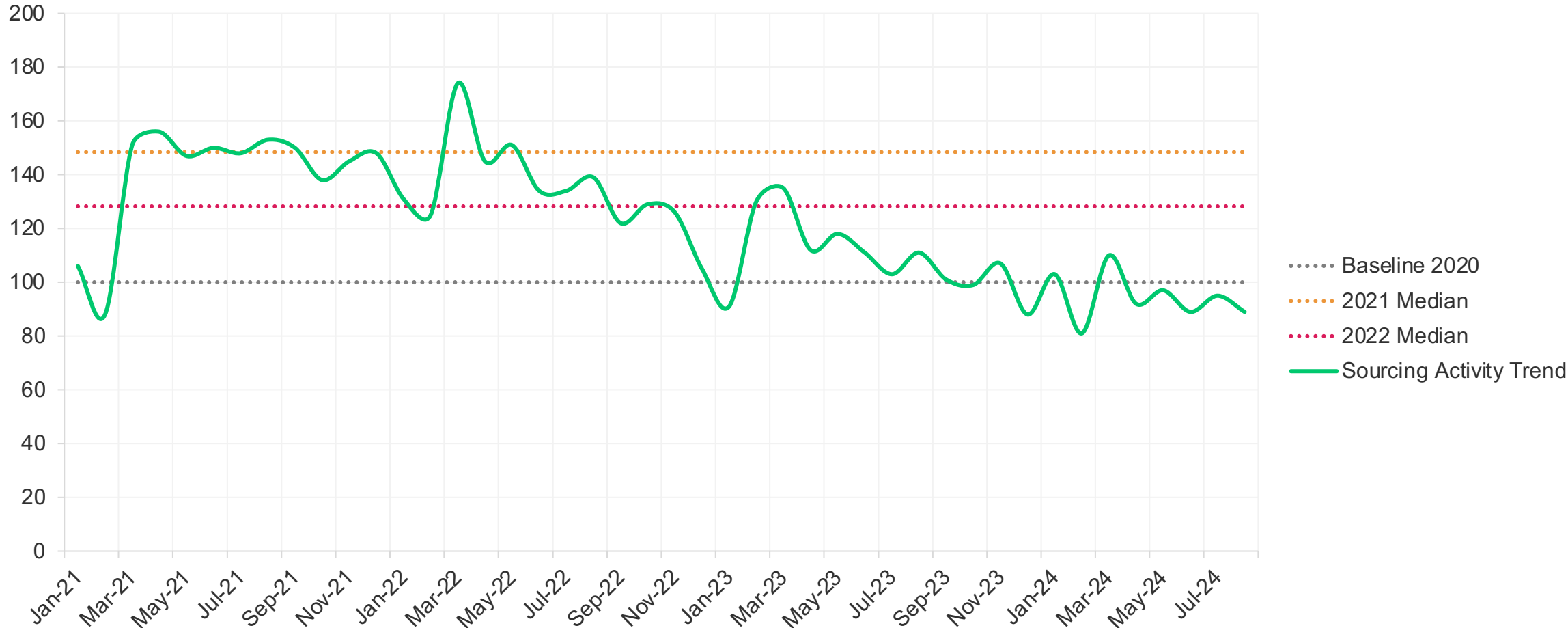


Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-4%	6%	4%
Capacitors	82.2	-3%	2%	3%
Power Circuits	59.6	-10%	-32%	1%
Resistors	59.3	-8%	-8%	2%
Diodes	45.9	-5%	-27%	0%
Microcontrollers and Processors	42.6	-6%	-45%	0%
Transistors	39.8	-8%	-41%	-1%
Connector Support	29.9	-2%	9%	4%
Inductors	24.7	-3%	15%	1%
Optoelectronics	22.4	-6%	-11%	2%
Drivers And Interfaces	21.3	-8%	-34%	0%
Memory	17.7	-7%	-35%	2%
Amplifier Circuits	17.2	-12%	-45%	-3%
Logic	15.5	-10%	-32%	-2%
Signal Circuits	15.0	-8%	-24%	2%

Recap

AUGUST 2024

- Global design and sourcing activity trends fell within seasonal expectations for August and forecast for the quarter remains unchanged (expect to be down -5% to -7% vs. Q2)
- Design and sourcing activities decreased the most in the EMEA region for the month due to summer slow down in business activities. Design activities decreased -12% month-over-month, while sourcing activities decreased -23% month-over-month
- Despite the month-over-month decrease in global design and sourcing activities, design activities continued to remain strong compared to previous years. Global sourcing activities remained below previous years demand, but continued to remain stable when trended over the last 7 months
- Components in the passives and interconnect product groups continued to outperform all other product groups in terms of design and sourcing activities. Memory has started to show signs of recovery in terms of design and sourcing activities, while demand for ICs, discrete semiconductors, and embedded controllers and processors remained mixed

