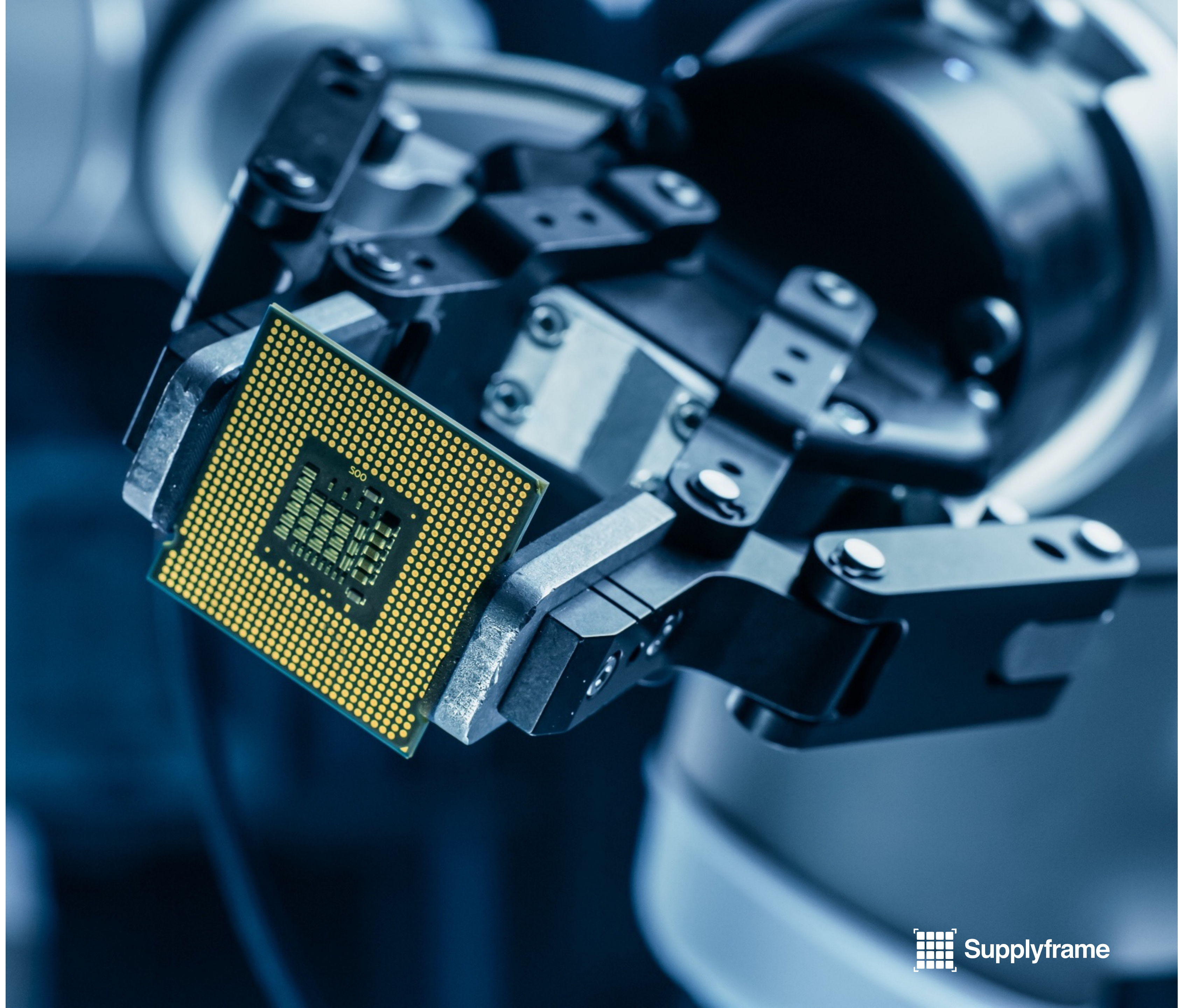**Supplyframe**
Design-to-Source
Intelligence

Design-to-Source
Monthly Insights

May 2024

Supplyframe

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

MAY 2024

- For the month of May, global design activities increased +3% month-over-month while global sourcing activities remained flat. Compared to prior year, global design activities increased +7% while global sourcing activities decreased -23%

- Growth in design activities were observed across all regions with growth concentrated namely in passive components (+11% Y/Y); power components (+7% Y/Y); memory (+13% Y/Y); RF and wireless (+18% Y/Y); and circuit protection devices (+16% Y/Y)

- Sourcing activities grew +6% month-over-month in the APAC region, while decreasing in both the EMEA (-3% M/M) and Americas (-6% M/M) regions in May. In the APAC region, passive components (+12% M/M, +7% Y/Y); interconnects (+3%M/M, +7% Y/Y); rf and wireless (+14% M/M, +15% Y/Y); and circuit protection devices (+12% M/M, +12% Y/Y) observed growth in demand both compared to prior month and prior year

- Growth in design and sourcing activities were driven largely by increases in engineering and procurement activities from the following industries / applications: computing (includes cloud, AI); industrial (includes automation, IIoT, and machinery); aerospace and defense; and automotive
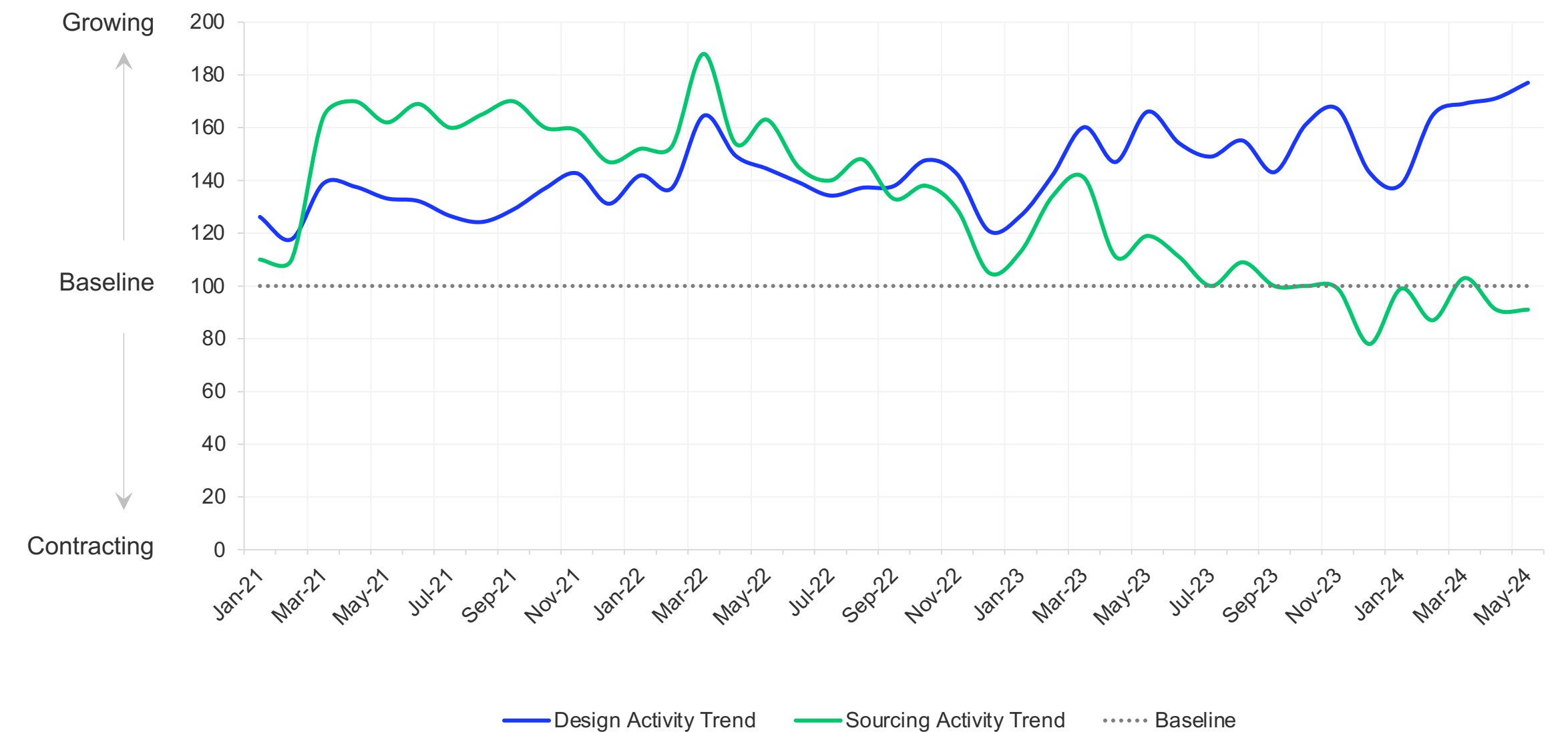
Q2 2024 outlook

- No change in quarterly projections from prior months. Global design activities are projected to grow +5% quarter-over-quarter, while global sourcing activities are projected to decrease -5% quarter-over-quarter

Global Performance

Design Activities		
	⌃	+3.4% M/M
	⌃	+6.6% Y/Y

Sourcing Activities		
	⌃	+0.9% M/M
	⌄	-23.0% 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.

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Design Activity Overview

MAY 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 increased +3% vs. prior month and +7% vs. prior year.

Overall, design activities from engineers remained strong and grew in May. The EMEA region observed a +5% month-over-month growth in design activities, while the APAC and Americas regions both observed +2% month-over-month growth. Compared to prior year, design activities grew +9% in EMEA, while APAC and Americas grew +7% and +1% respectively.

Globally, the following countries exhibited sustained growth trends over the last 6 months: China (+1); India (+3%); Italy (+4%); South Korea (+2%); and Turkey (+4%). Over the same period, the United States, the United Kingdom, and France remained flat, while Germany and Japan observed nominal decreases in design activities.

Product groups that experienced growth in design activities included passive components (+11% Y/Y); power components (+7% Y/Y); memory (+13% Y/Y); RF and wireless (+18% Y/Y); and circuit protection devices (+16% Y/Y).

Calendar Q2 forecast remains unchanged – we anticipate global design activities to grow +5% quarter-over-quarter.


Table 1. Design Activity Summary

	vs. Prior Month	vs. Prior Year	6mo. CMGR
Global	3.4%	6.6%	1.0%

Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	5%	9%	1%
APAC	69.9	2%	7%	2%
AMER	42.1	2%	1%	0%

Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	3%	5%	0%
China (incl. Hong Kong)	70.9	0%	-4%	1%
India	51.9	-1%	23%	3%
Germany	47.6	5%	2%	-1%
Italy	34.6	46%	35%	4%
United Kingdom	31.4	-3%	7%	0%
France	25.3	-5%	10%	0%
Republic of Korea	22.4	8%	32%	2%
Turkey	20.3	36%	36%	4%
Japan	19.1	-17%	-25%	-1%

Chart 2. Global Design Activity Trends

Legend: ···· Baseline (2020)   ···· 2021 Median   ···· 2022 Median   —— Design Activity Trend
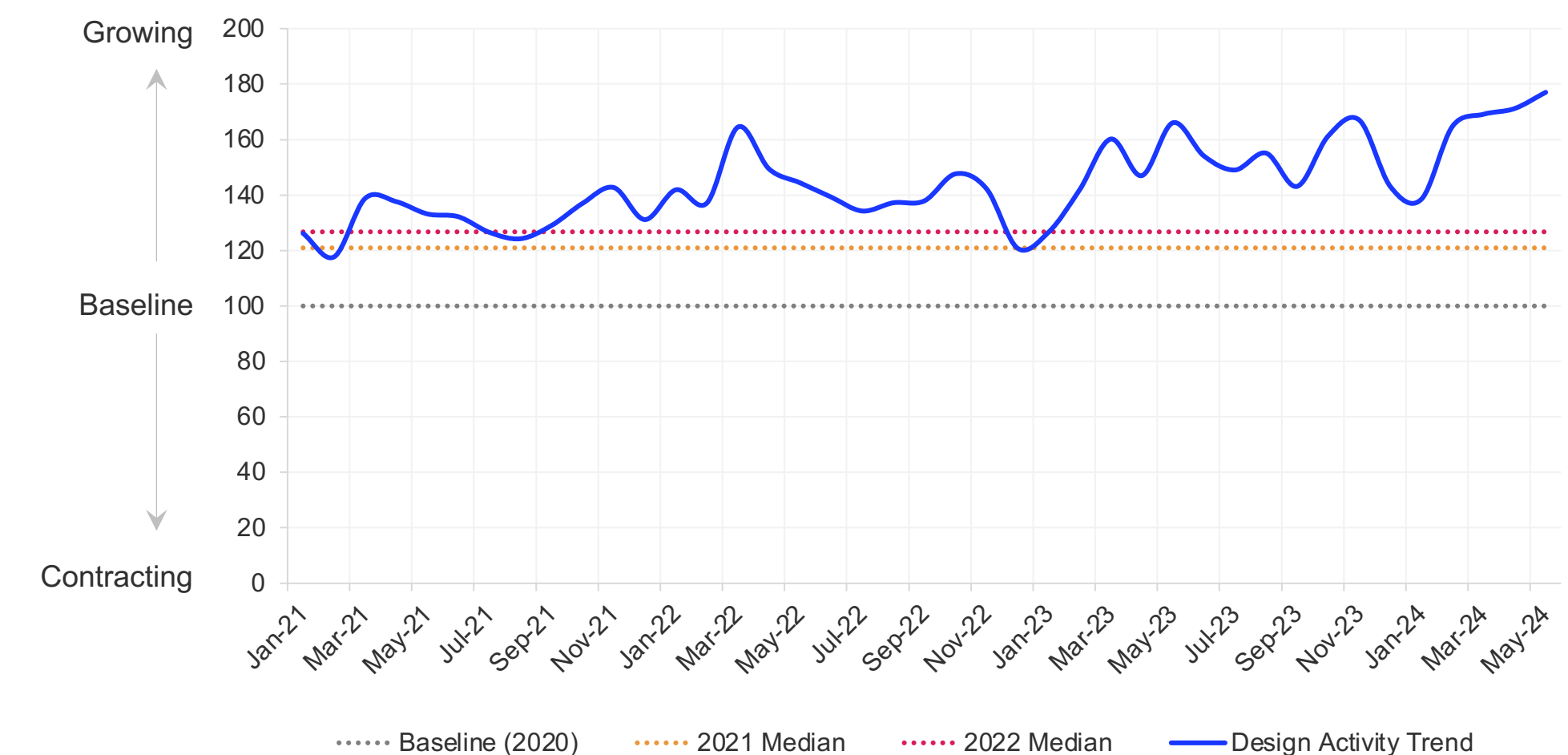
Design Activity: Americas Trends

MAY 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.
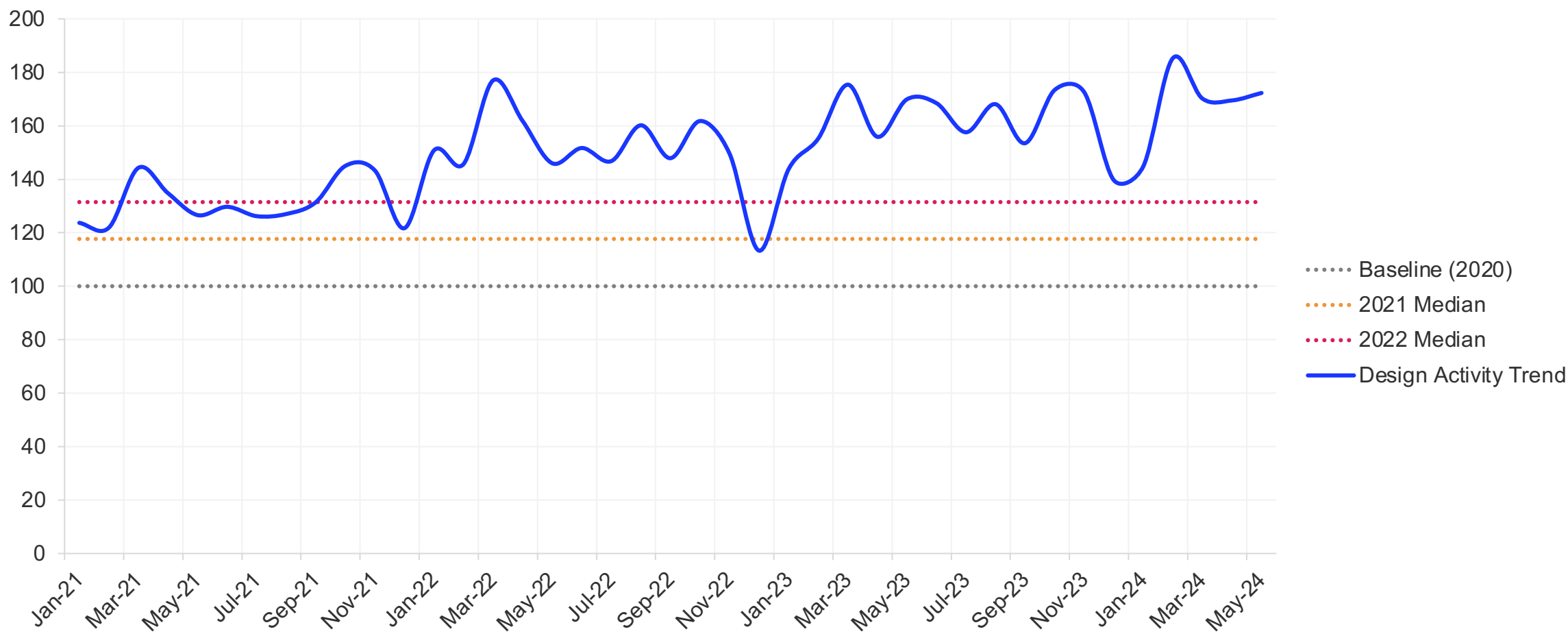
Chart 3. Americas Design Activity Trends

Legend:
- Baseline (2020)
- 2021 Median
- 2022 Median
- Design Activity Trend

Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-3%	-2%	1%
Power Circuits	56.0	7%	8%	0%
Capacitors	53.1	4%	4%	-2%
Resistors	50.0	-5%	-1%	-2%
Diodes	35.6	-3%	-1%	0%
Transistors	25.4	3%	-11%	-3%
Microcontrollers and Processors	23.0	4%	3%	-1%
Optoelectronics	22.9	3%	-8%	-1%
Terminal Blocks	21.1	8%	14%	1%
Inductors	18.1	5%	0%	1%
Logic	16.3	13%	11%	3%
Drivers And Interfaces	16.1	-5%	-30%	-1%
Signal Circuits	15.6	13%	-1%	0%
Amplifier Circuits	14.7	-13%	1%	-5%
Switches	14.6	9%	-1%	0%

Design Activity: EMEA Trends

MAY 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.
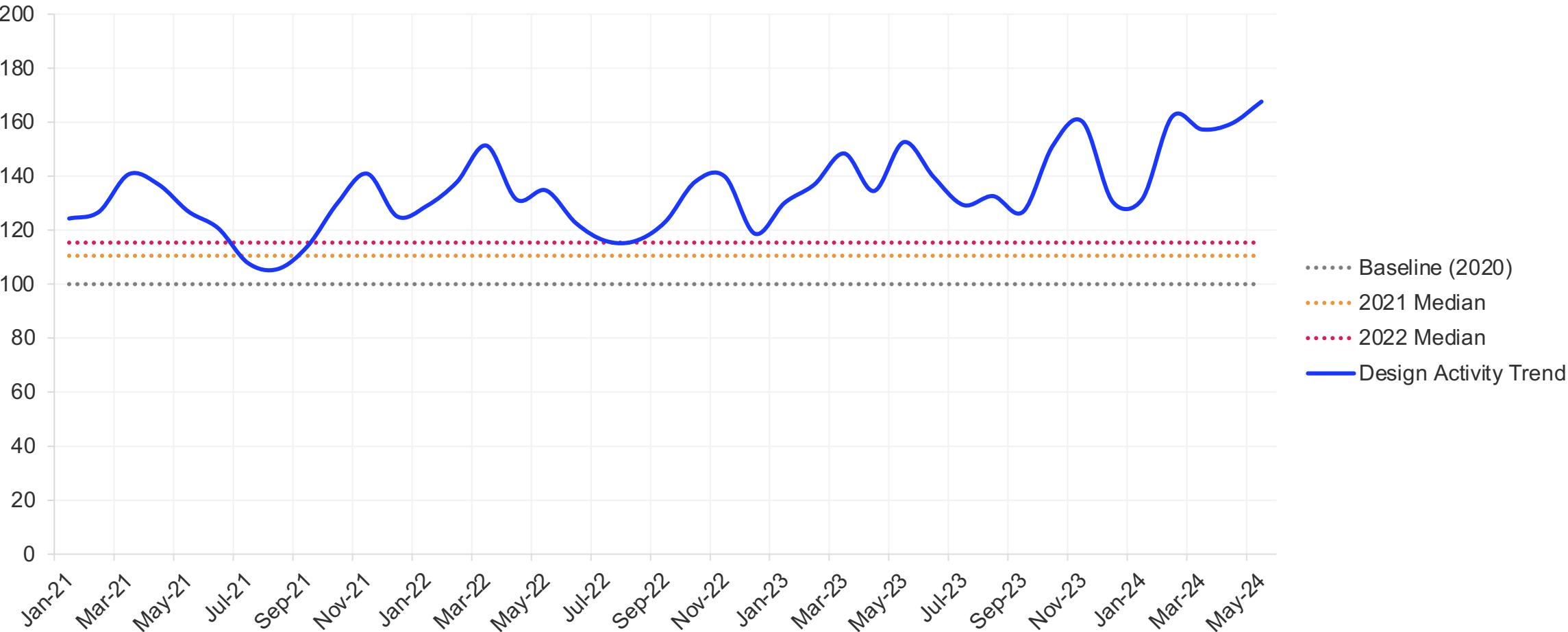
Chart 4. EMEA Design Activity Trends

Legend:
- Baseline (2020)
- 2021 Median
- 2022 Median
- Design Activity Trend

Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	2%	1%	-1%
Power Circuits	66.7	6%	8%	2%
Capacitors	64.0	9%	15%	2%
Resistors	57.1	10%	19%	0%
Diodes	44.9	2%	2%	1%
Transistors	31.5	7%	0%	-2%
Microcontrollers and Processors	28.7	3%	9%	0%
Optoelectronics	26.7	16%	3%	-1%
Terminal Blocks	25.5	-3%	1%	-1%
Inductors	24.7	-2%	8%	0%
Drivers And Interfaces	21.6	6%	6%	1%
Amplifier Circuits	19.4	12%	15%	2%
Logic	16.5	-1%	14%	1%
Signal Circuits	15.7	1%	6%	-1%
Switches	14.0	6%	0%	-1%

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Design Activity: APAC Trends

MAY 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.
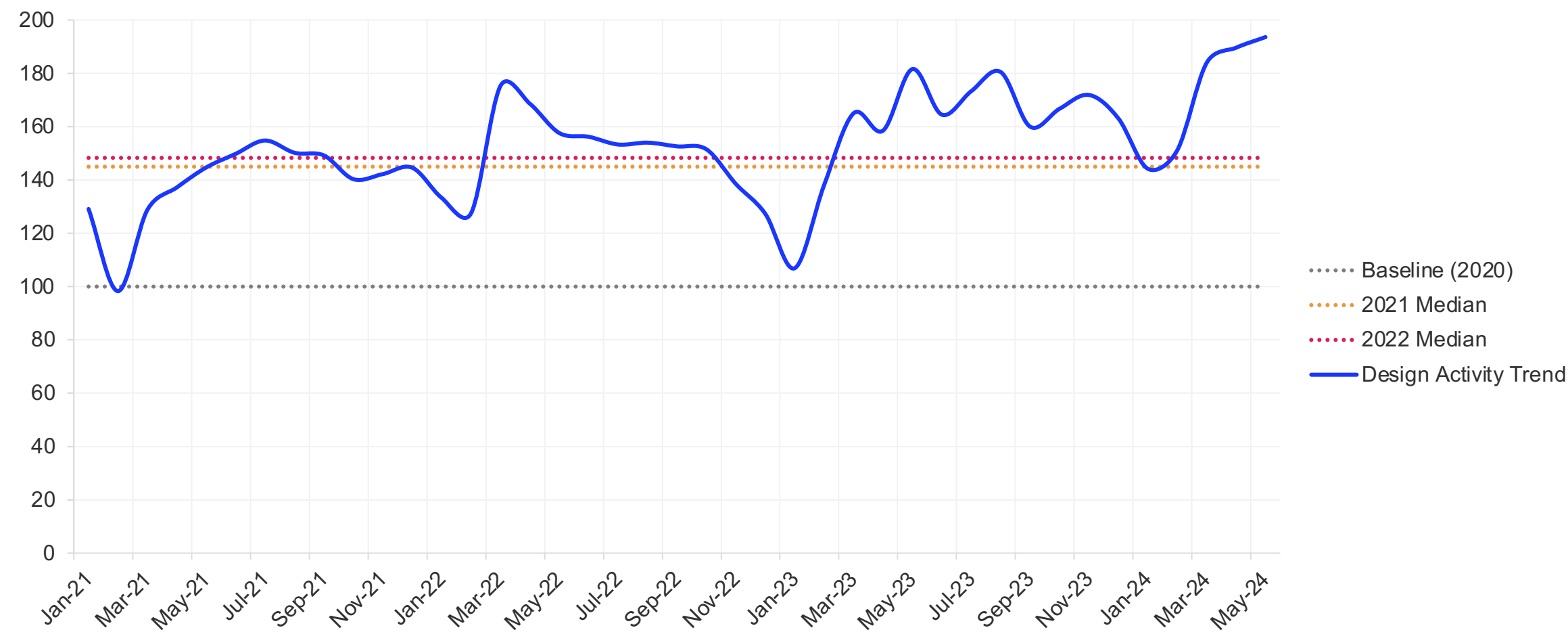
Chart 5. APAC Design Activity Trends

Legend:
- Baseline (2020)
- 2021 Median
- 2022 Median
- Design Activity Trend

Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	6%	6%	3%
Power Circuits	71.4	2%	7%	2%
Capacitors	61.1	0%	3%	1%
Resistors	55.4	4%	18%	3%
Diodes	52.4	3%	12%	2%
Transistors	35.8	2%	0%	2%
Microcontrollers and Processors	34.1	1%	0%	4%
Optoelectronics	24.4	-3%	-1%	2%
Drivers And Interfaces	24.2	0%	-3%	1%
Amplifier Circuits	22.0	0%	5%	1%
Inductors	20.3	3%	6%	0%
Logic	18.4	1%	-14%	1%
Signal Circuits	18.3	0%	0%	2%
Filters	15.1	12%	26%	3%
Terminal Blocks	14.8	-4%	3%	2%

Supplyframe

Sourcing Activity Overview

MAY 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 remained flat month-over-month but continued to trail last year.

Global sourcing activities across the DSI Network have remained stable for the past 11 months, indicating that the market may have hit the bottom. Overall, sourcing activities remain in the contraction territory with monthly global sourcing activities trending below the baseline.

For the month of May, only the APAC region observed growth in demand with sourcing activities increasing +6% compared to prior month. Within the region, China (+4%); India (+12%); Taiwan (+20%); Singapore (+16%); and Malaysia (+13%) were the top countries driving the growth.

In EMEA, while the region observed a decrease in demand, Italy (+12%); Israel (+16%); and Poland (+3%) observed increases in sourcing activities driven by increased demand for passive components, interconnects, ICs, embedded processors and controllers, electromechanicals, memory, and sensors. Industries driving the growth in sourcing activities included computing, industrial machinery, and aerospace and defense.

For calendar Q2 2024, global sourcing activities are projected to decrease -5% quarter-over-quarter following seasonal trends.

Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		0.9%	-23.0%	-1.4%

Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	6.3%	-17.7%	-1.6%
AMER	54.1	-5.6%	-24.5%	0.1%
EMEA	31.4	-3.3%	-34.1%	-3.1%

Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
China (incl. Hong Kong)	100.0	4%	-18%	-2%
United States	83.6	-5%	-25%	0%
India	29.2	12%	-25%	1%
Republic of Korea	20.4	-8%	-26%	-5%
Taiwan	13.4	20%	-22%	0%
Germany	12.1	-15%	-37%	-5%
Singapore	9.5	16%	13%	0%
Canada	9.4	-8%	-22%	-1%
Malaysia	9.2	13%	7%	1%
Italy	7.1	12%	-28%	1%

Chart 6. Global Sourcing Activity Trends

Legend: Baseline (2020) · 2021 Median · 2022 Median · Sourcing Activity Trend

Supplyframe
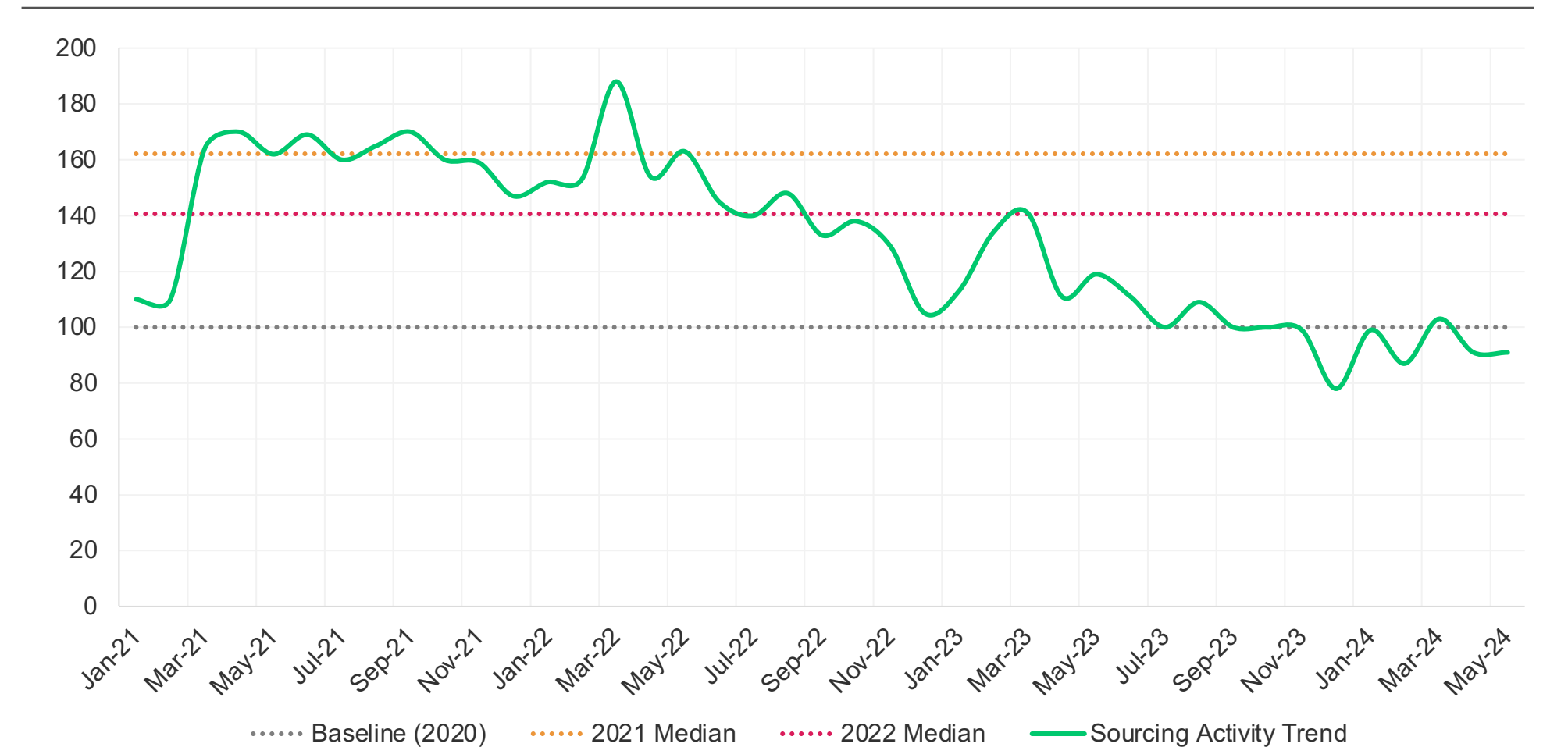
Sourcing Activity: Americas Trends

MAY 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.

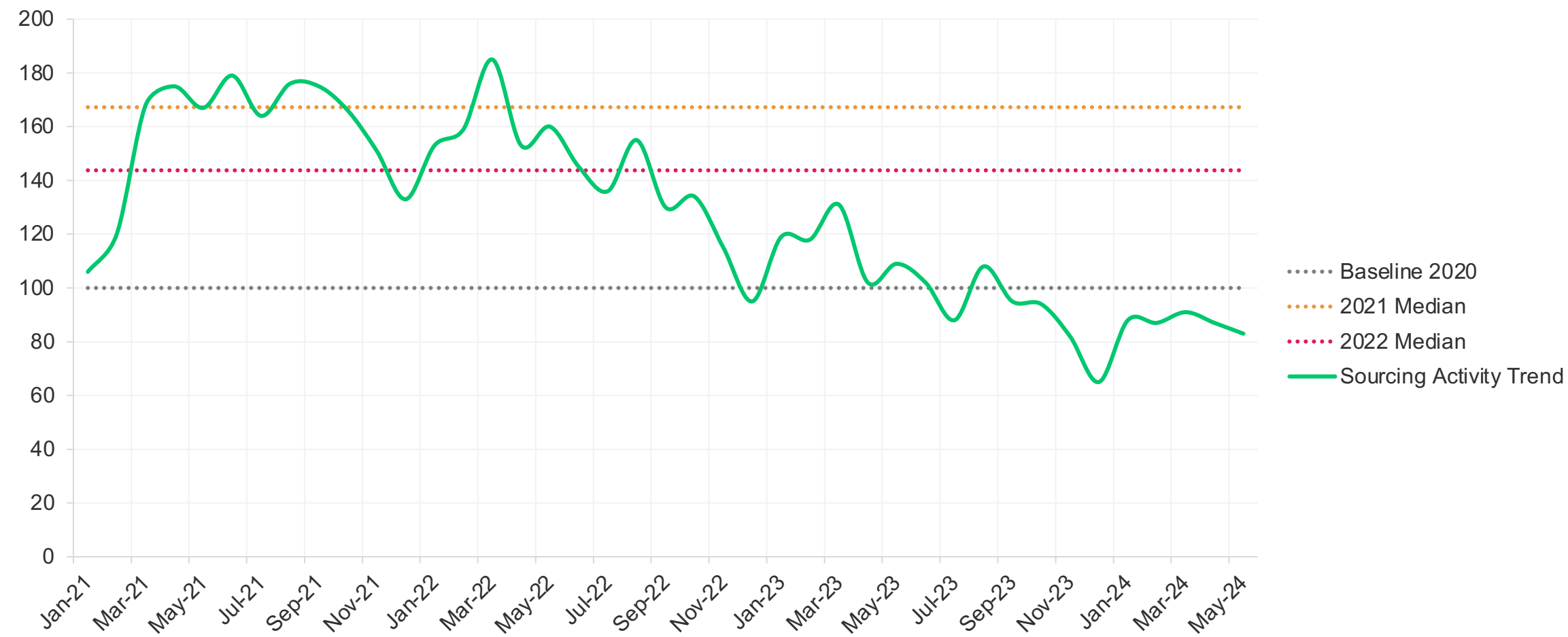### Chart 7. Americas Sourcing Activity Trends

Baseline 2020
2021 Median
2022 Median
Sourcing Activity Trend

Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-5%	-8%	1%
Capacitors	78.7	-6%	-11%	1%
Resistors	69.6	-10%	-16%	1%
Power Circuits	43.8	-1%	-41%	-1%
Diodes	38.5	-6%	-24%	0%
Connector Support	33.9	-9%	-9%	1%
Transistors	28.5	-9%	-41%	-3%
Microcontrollers and Processors	20.5	-11%	-59%	-4%
Terminal Blocks	20.4	-9%	-17%	1%
Inductors	19.7	4%	3%	4%
Optoelectronics	18.6	-10%	-21%	1%
Amplifier Circuits	17.0	15%	-44%	0%
Drivers And Interfaces	14.0	-1%	-42%	-2%
Logic	13.5	-12%	-34%	-2%
Memory	11.2	-4%	-35%	0%

Sourcing Activity: EMEA Trends

MAY 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.
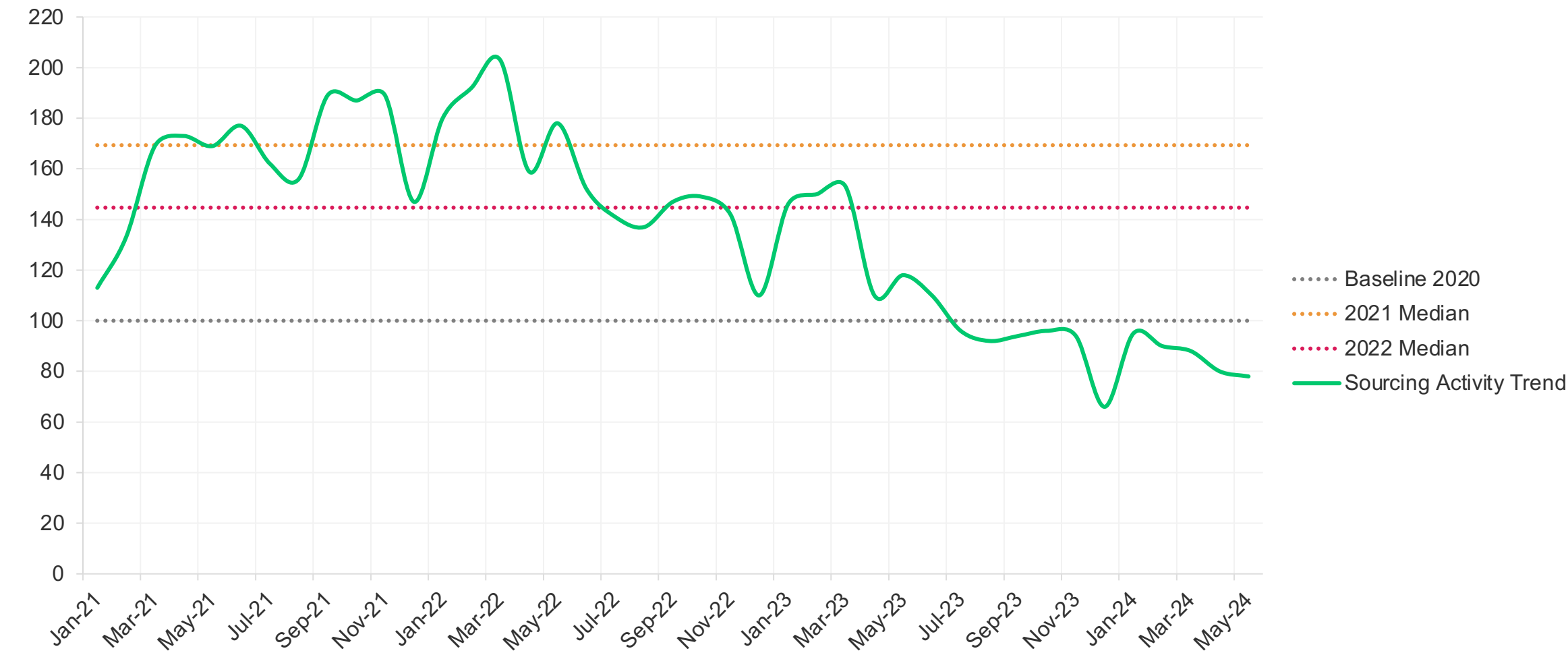
Chart 8. EMEA Sourcing Activity Trends

Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Capacitors	100.0	2%	-15%	-1%
Connectors	97.0	-2%	-12%	-2%
Resistors	84.1	-2%	-11%	-1%
Power Circuits	68.3	1%	-49%	-5%
Diodes	52.0	-14%	-41%	-4%
Transistors	45.4	-8%	-50%	-6%
Microcontrollers and Processors	43.1	-4%	-55%	-5%
Amplifier Circuits	31.0	9%	-45%	-5%
Optoelectronics	29.3	-11%	-28%	-3%
Inductors	28.5	-9%	-3%	1%
Connector Support	26.1	-4%	-16%	-3%
Drivers And Interfaces	26.0	0%	-51%	-4%
Logic	20.1	7%	-36%	-3%
Filters	17.3	-5%	-8%	-1%
Memory	16.6	-11%	-53%	-6%

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Sourcing Activity: APAC Trends

MAY 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

- ·········· Baseline 2020
- ·········· 2021 Median
- ·········· 2022 Median
- ——— Sourcing Activity Trend
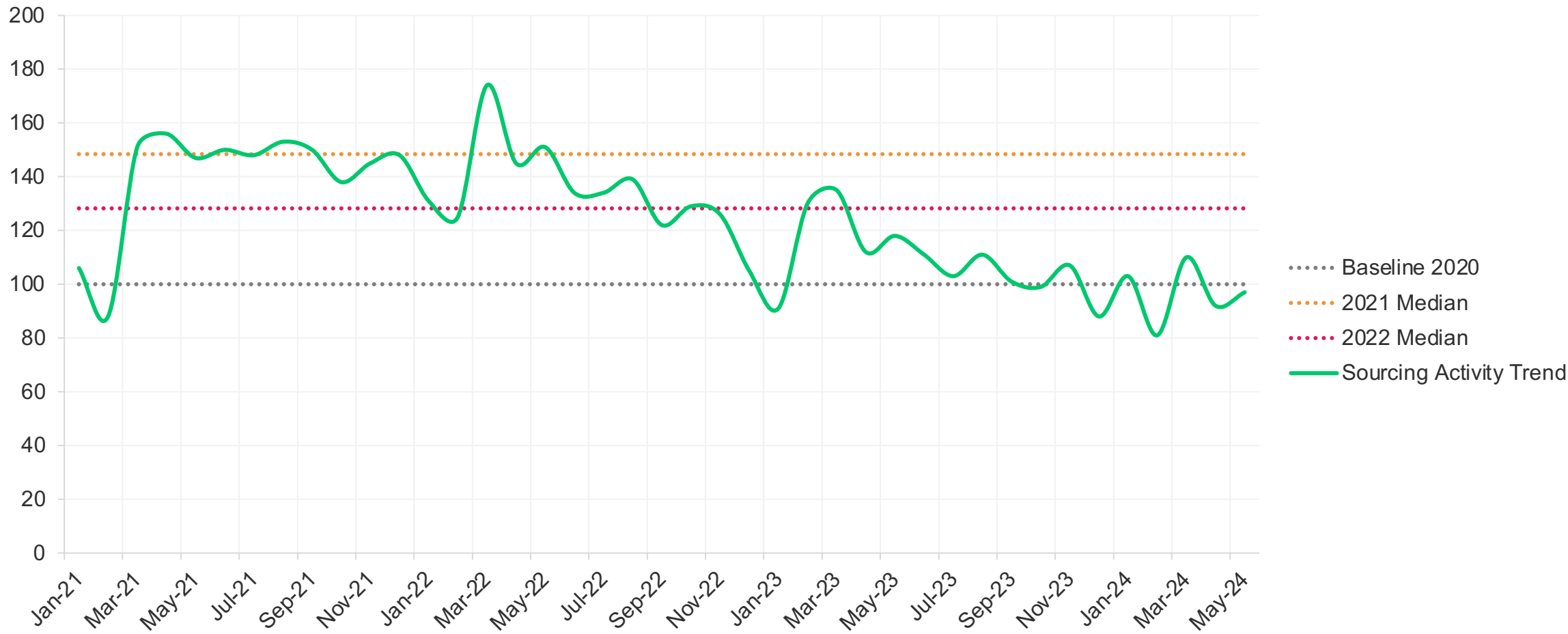
Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	4%	9%	-1%
Capacitors	85.0	16%	9%	1%
Power Circuits	67.6	6%	-34%	-3%
Resistors	60.5	1%	-5%	-1%
Diodes	51.1	7%	-21%	-3%
Transistors	47.7	3%	-34%	-3%
Microcontrollers and Processors	47.7	5%	-47%	-4%
Connector Support	28.3	-3%	5%	-1%
Inductors	26.6	14%	23%	3%
Optoelectronics	24.5	8%	-7%	-1%
Drivers And Interfaces	24.0	7%	-38%	-3%
Amplifier Circuits	20.8	11%	-46%	-4%
Memory	20.3	5%	-30%	-3%
Logic	18.3	1%	-25%	-4%
Converters	17.5	18%	-33%	-3%

Recap

- Global design activities remained strong and grew in May. All regions observed growth with the EMEA region observing the most growth

- Global sourcing activities across the DSI Network have remained stable for the past 11 months, suggesting that the market may have hit the bottom. Overall, sourcing activities remained in the contraction territory with monthly global sourcing activities trending below the baseline

- We are seeing increase in design and sourcing activities from the computing, industrial machinery, industrial automation, and aerospace and defense sectors. The automotive sector continues to drive consistent levels of design and sourcing activities across the DSI Network

- Q2 forecasts remain unchanged. Global design activities are projected to grow +5% quarter-over-quarter, while global sourcing activities are projected to decrease -5% quarter-over-quarter

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