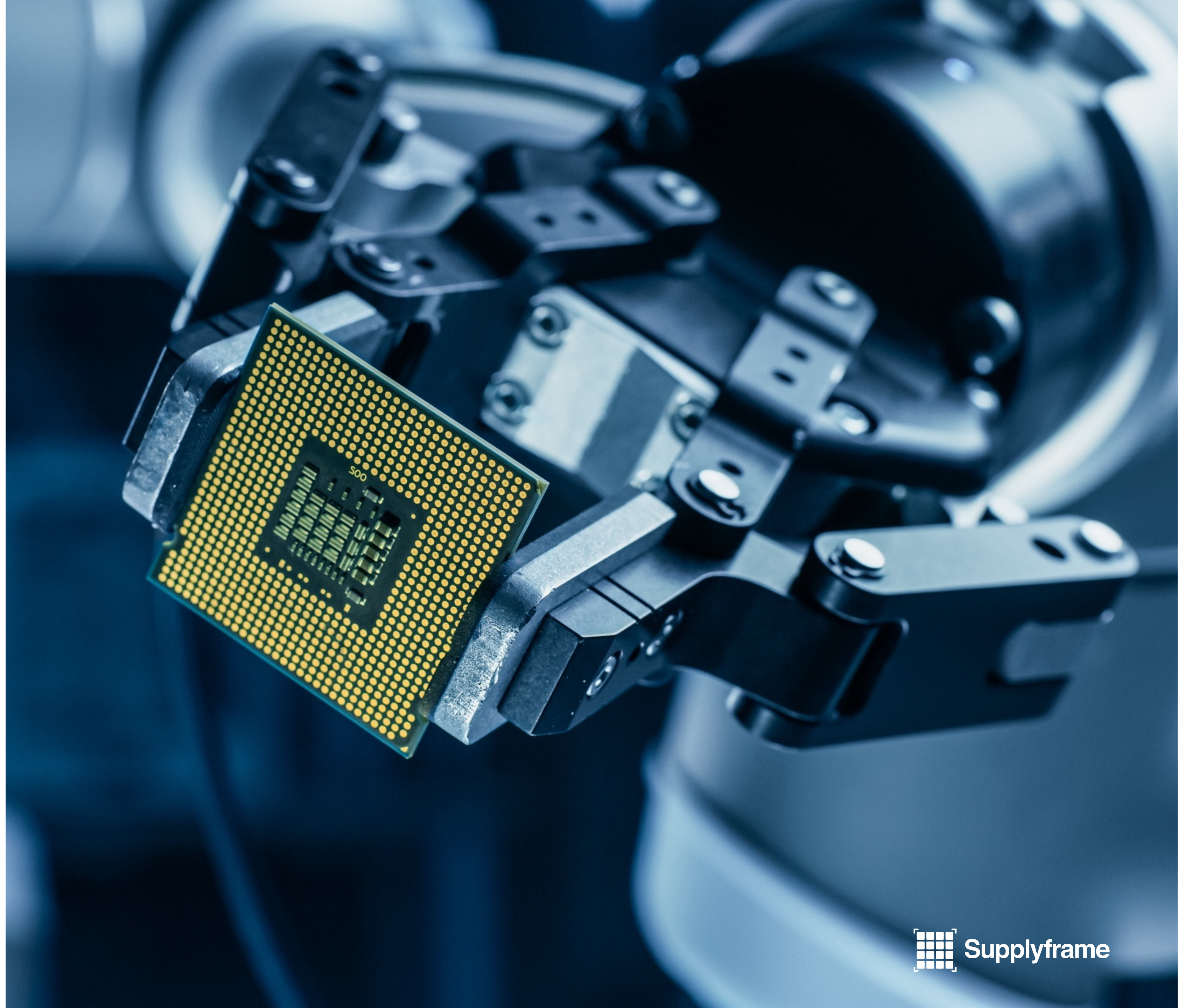


Supplyframe
Design-to-Source
Intelligence

Design-to-Source Monthly Insights

February 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

FEBRUARY 2024

- Global design activities improved in February, while global sourcing activities decreased for the same period compared to prior month and prior year
- Global design activities grew +19% in February following a slow start in January. Design activities grew in all regions. Year-over-year, global design activities grew +16%
- Global sourcing activities decreased -12% in February, aligned to seasonal trends. Buyer activities decreased across all regions, with the APAC region observing the largest decrease (-21% month-over-month)
- Interconnects and passives observed the largest growth rates in design activities, while showing resilience in demand with buyers compared to prior month and prior year

Q1 2024 outlook

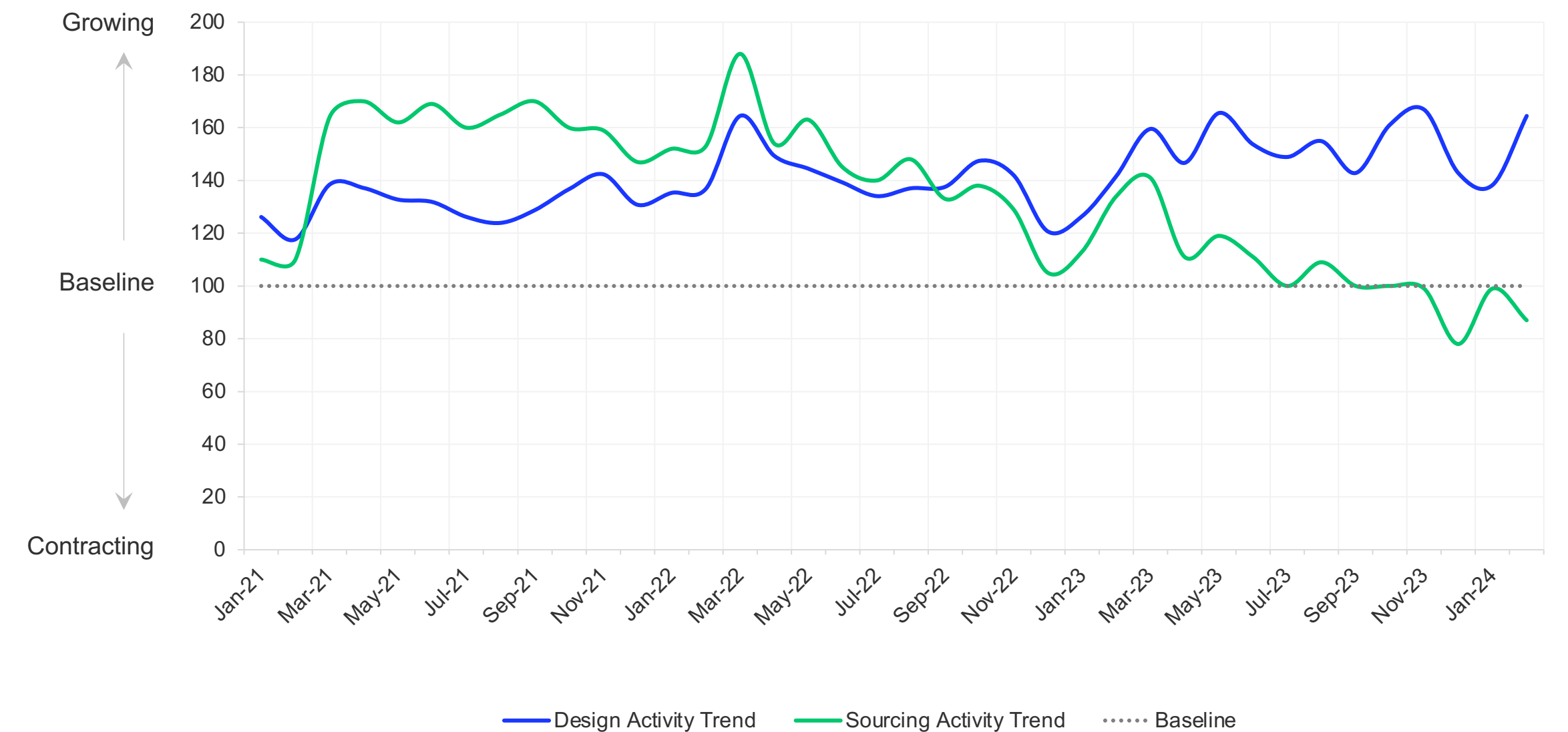
- Projections for global design activities remain unchanged for Q1. We project global design activities to grow +2% quart-over-quarter
- Projections for global sourcing activities also remain unchanged for Q1. We project global sourcing activities to grow +3% quarter-over-quarter

Global Performance

Design Activities ⬆️ +19.2% M/M
⬆️ +16.2% Y/Y

Sourcing Activities ⬇️ -12.4% M/M
⬇️ -34.9% 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

FEBRUARY 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 improved in February after a slow start in January.

Global design activities increased +19% month-over-month and +16% year-over-year in February. Growth was observed across all regions with the Americas region posting the largest growth in activities (see table 1).

Following seasonal trends, the APAC region observed the lowest growth in design activities in February due to the Lunar New Years celebration in the region.

All product categories observed an increase in design activities globally in February. Among the product categories, capacitors (+34%); resistors (+23%); and interconnects (+21%) observed the largest growth in global design activities month-over-month. Semiconductor devices observed an +18% growth in global design activities month-over-month.

Countries that observed the largest growth in month-over-month design activities included: India (+47%); Japan (+39%); the United Kingdom (+28%); Spain (+20%); and Italy (+19%). The United States observed an +18% month-over-month increase in design activities, while China experienced a -32% decrease in design activities.

Projections for the quarter remain unchanged from last month. We anticipate global design activities to grow +2% quarter-over-quarter.

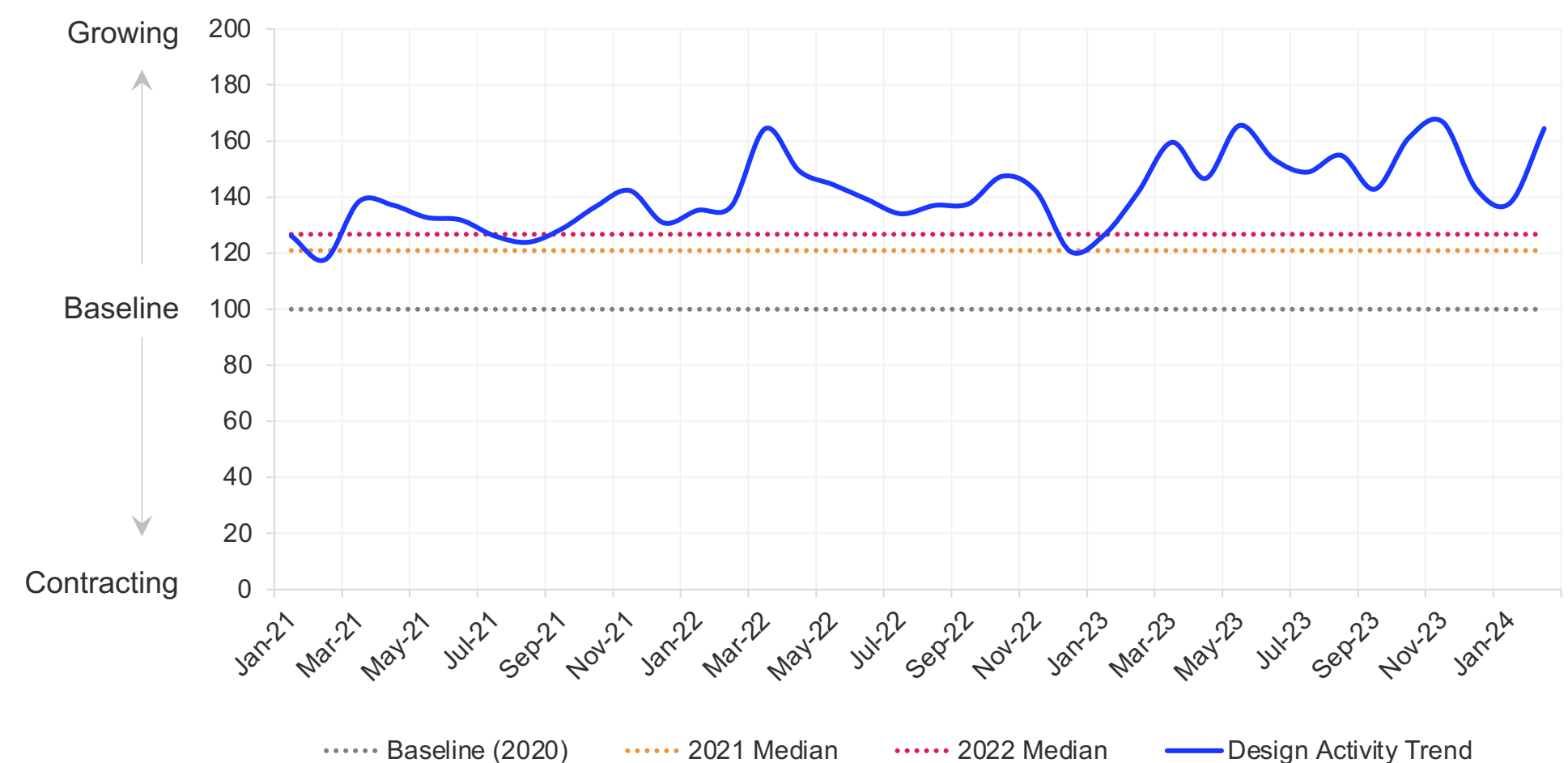
Table 1. Design Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		19.2%	16.3%	1.0%
Region	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
EMEA	100.0	23%	19%	4%
APAC	55.9	5%	10%	-3%
AMER	46.4	28%	20%	2%

Top 10 Countries / Territories

Country / Territory	Design Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	18%	18%	2%
India	48.8	47%	43%	2%
Germany	44.6	15%	14%	2%
China (incl. Hong Kong)	34.9	-32%	-25%	-9%
United Kingdom	31.6	28%	12%	2%
France	23.7	18%	14%	4%
Italy	22.8	19%	-5%	5%
Japan	17.0	39%	-8%	-4%
Spain	16.3	20%	18%	11%
Turkey	16.2	15%	41%	1%

Chart 2. Global Design Activity Trends



Design Activity: Americas Trends

FEBRUARY 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

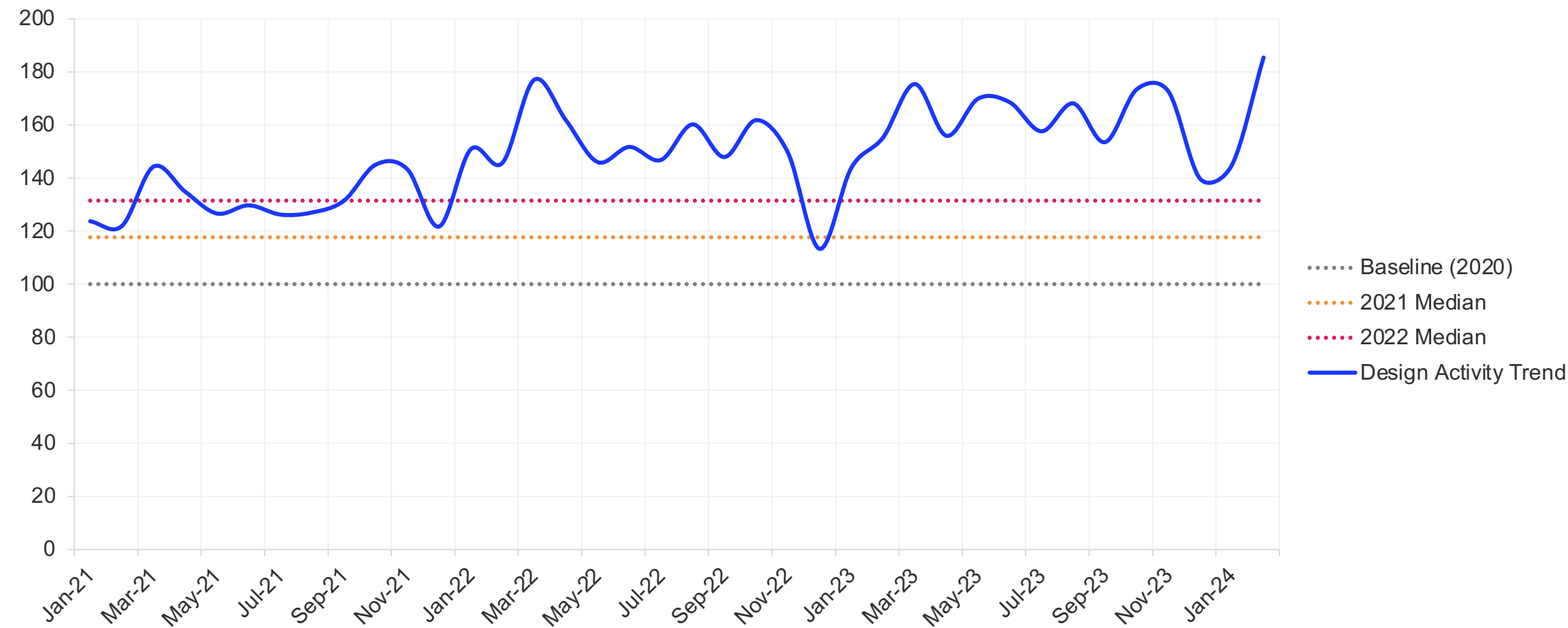


Table 2. Top 15 Product Categories in Americas

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	8%	11%	0%
Capacitors	68.6	108%	31%	4%
Resistors	65.3	28%	34%	3%
Power Circuits	64.5	35%	27%	4%
Diodes	40.4	14%	19%	3%
Transistors	28.1	6%	1%	0%
Optoelectronics	25.7	25%	13%	3%
Terminal Blocks	24.7	22%	42%	4%
Microcontrollers and Processors	22.3	15%	8%	1%
Inductors	19.4	15%	100%	3%
Amplifier Circuits	18.0	9%	-3%	2%
Drivers And Interfaces	17.8	69%	6%	-4%
Logic	15.7	28%	9%	2%
Signal Circuits	15.3	16%	1%	0%
Switches	15.1	23%	20%	1%

Design Activity: EMEA Trends

FEBRUARY 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

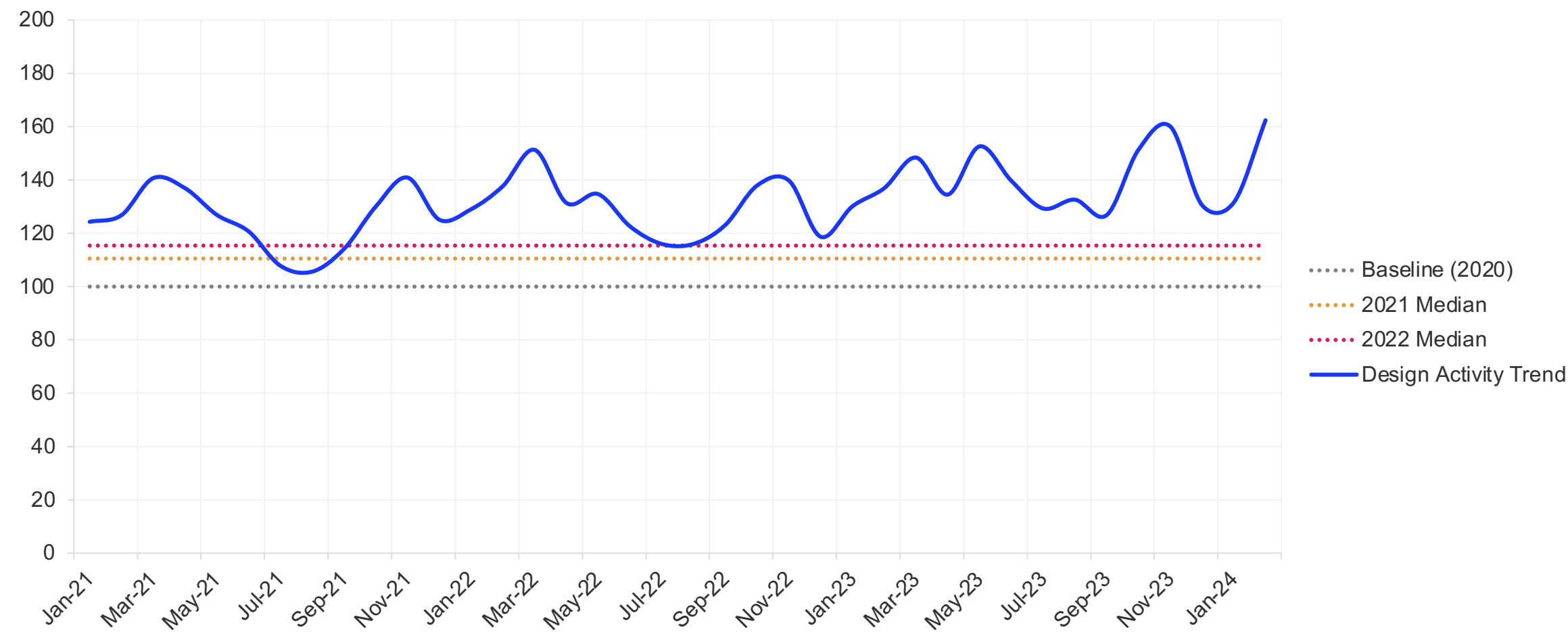


Table 3. Top 15 Product Categories in EMEA

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	20%	18%	3%
Power Circuits	65.5	28%	23%	4%
Capacitors	58.8	29%	20%	3%
Resistors	53.3	28%	20%	4%
Diodes	45.0	24%	16%	4%
Transistors	31.8	19%	13%	3%
Terminal Blocks	28.8	32%	26%	3%
Microcontrollers and Processors	28.0	29%	16%	3%
Optoelectronics	25.0	5%	10%	5%
Inductors	25.0	25%	86%	4%
Drivers And Interfaces	19.8	21%	5%	2%
Amplifier Circuits	17.9	35%	15%	5%
Signal Circuits	16.4	18%	20%	5%
Logic	15.2	22%	-2%	4%
Switches	13.2	13%	6%	4%

Design Activity: APAC Trends

FEBRUARY 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

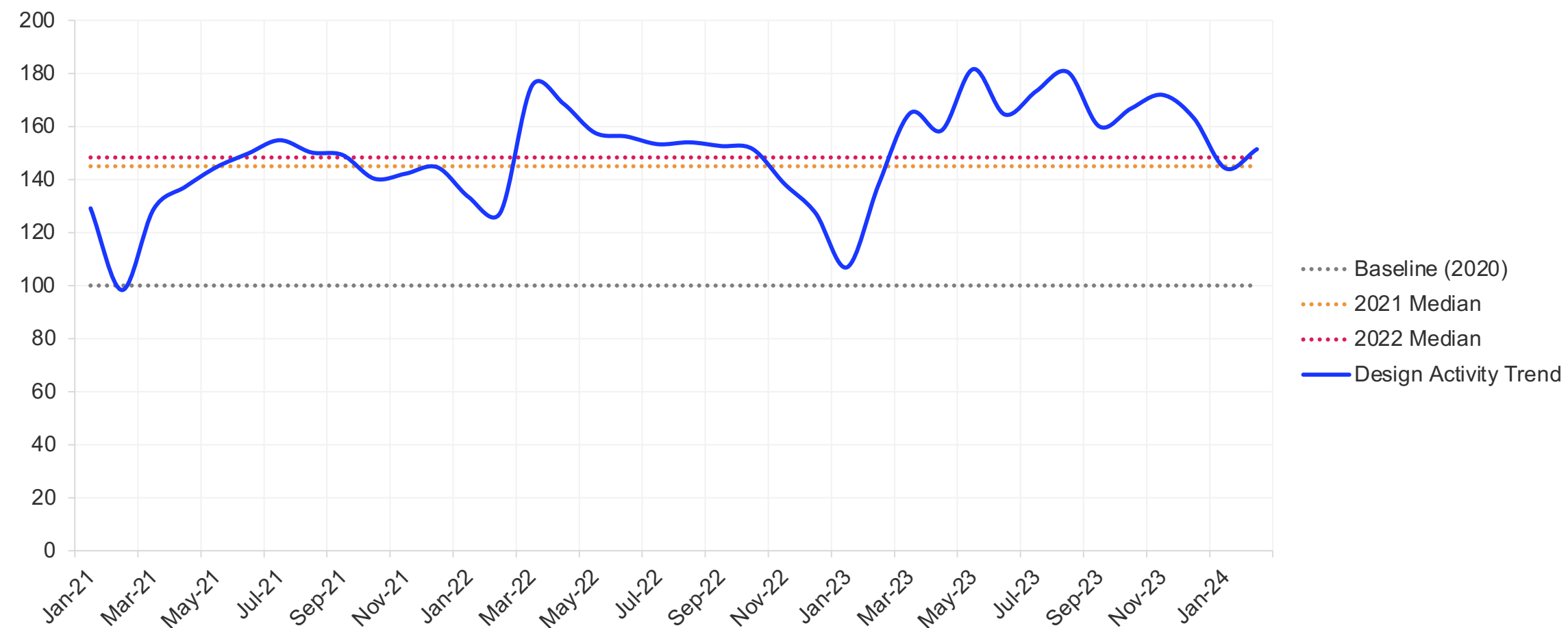


Table 4. Top 15 Product Categories in APAC

Product Class	Design Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	10%	5%	-3%
Power Circuits	67.2	-1%	4%	-4%
Capacitors	63.6	0%	11%	-4%
Diodes	55.0	10%	18%	-3%
Resistors	54.3	5%	19%	-3%
Transistors	40.7	15%	16%	-2%
Microcontrollers and Processors	32.1	9%	3%	-3%
Optoelectronics	25.5	3%	9%	-3%
Drivers And Interfaces	25.4	7%	1%	-3%
Inductors	22.5	-3%	101%	-2%
Amplifier Circuits	21.7	-4%	-11%	-5%
Terminal Blocks	18.5	1%	8%	1%
Signal Circuits	18.1	1%	0%	-3%
Logic	17.7	30%	-1%	-4%
Filters	14.5	-1%	11%	-4%

Sourcing Activity Overview

FEBRUARY 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 seasonal trends, global sourcing demands decreased month-over-month in February.

Global sourcing activities decreased -12% month-over-month and -35% year-over-year in February. Decrease in sourcing activities were observed across all regions but was most pronounced in the APAC region due to the Lunar New Year holiday.

While sourcing activities decreased across most key countries, the following six countries observed month-over-month increase in demand: India (+4%); Italy (+5%); Brazil (+8%); Poland (+15%); Sweden (+9%); and Netherlands (+7%). In these countries, the following product categories observed notable growth in sourcing activities: capacitors (+6%); connectors (+9%); resistors (+12%); optoelectronics (+7%); and drivers and interfaces (+8%). Sourcing activities were predominantly concentrated in the automotive and industrial / factory automation verticals.

Projections for the quarter remain unchanged from last month. We anticipate global sourcing activities to grow +3% quarter-over-quarter.

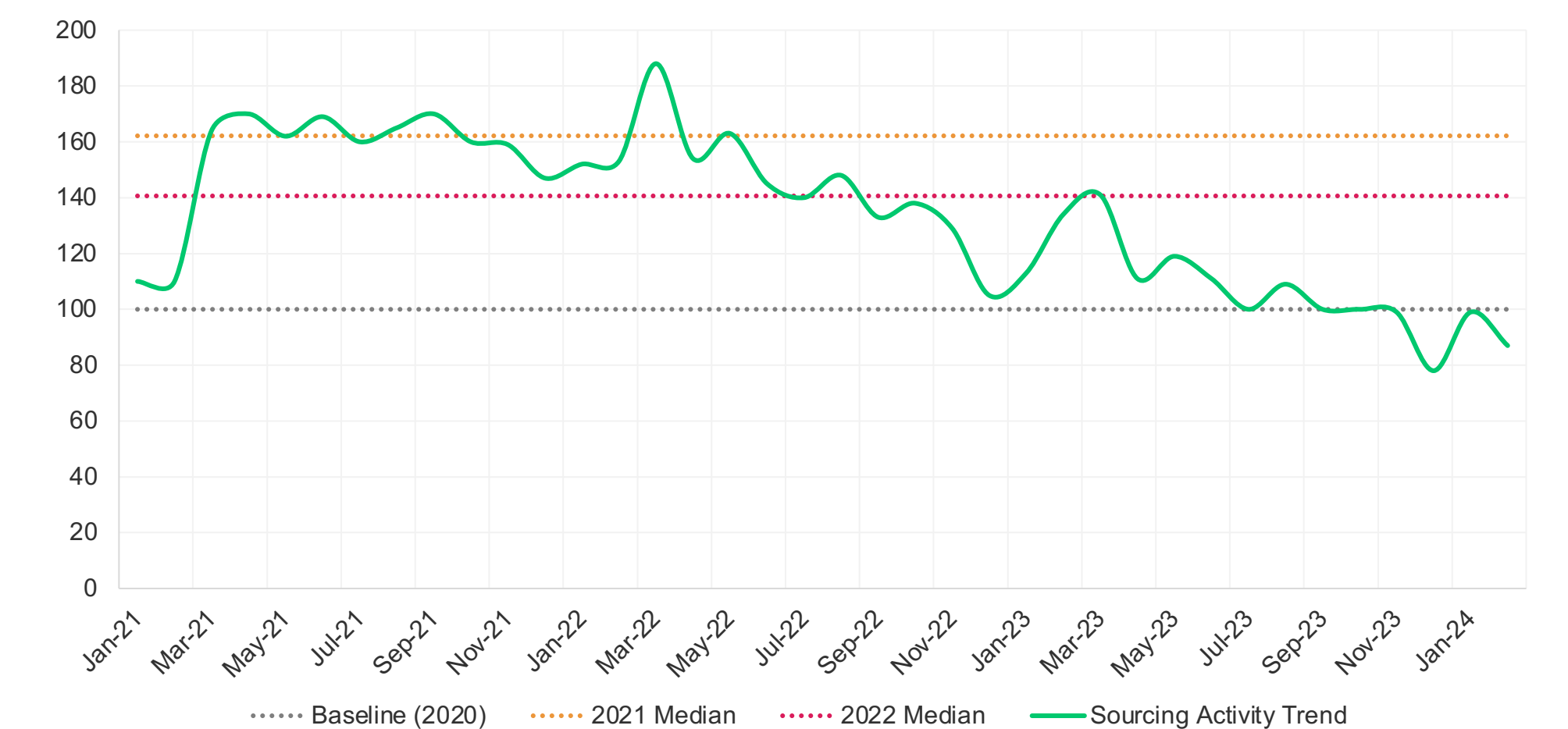
Table 5. Sourcing Activity Summary

		vs. Prior Month	vs. Prior Year	6mo. CMGR
Global		-12.4%	-34.9%	-3.7%
Region	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
APAC	100.0	-21.2%	-37.5%	-5.1%
AMER	68.7	-1.1%	-26.4%	-3.5%
EMEA	43.7	-5.1%	-40.2%	-0.4%

Top 10 Countries / Territories

Country / Territory	Sourcing Activity Index	vs. Prior Month	vs. Prior Year	6mo. CMGR
United States	100.0	-1%	-27%	-4%
China (incl. Hong Kong)	81.6	-33%	-45%	-8%
India	34.9	4%	-25%	0%
Republic of Korea	26.1	-7%	-30%	0%
Germany	18.1	-8%	-39%	-2%
Canada	11.7	-1%	-19%	0%
Taiwan	11.4	-27%	-44%	-7%
France	8.8	-4%	-35%	6%
Italy	8.2	5%	-41%	11%
Singapore	8.0	-8%	-29%	-7%

Chart 6. Global Sourcing Activity Trends



Sourcing Activity: Americas Trends

FEBRUARY 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

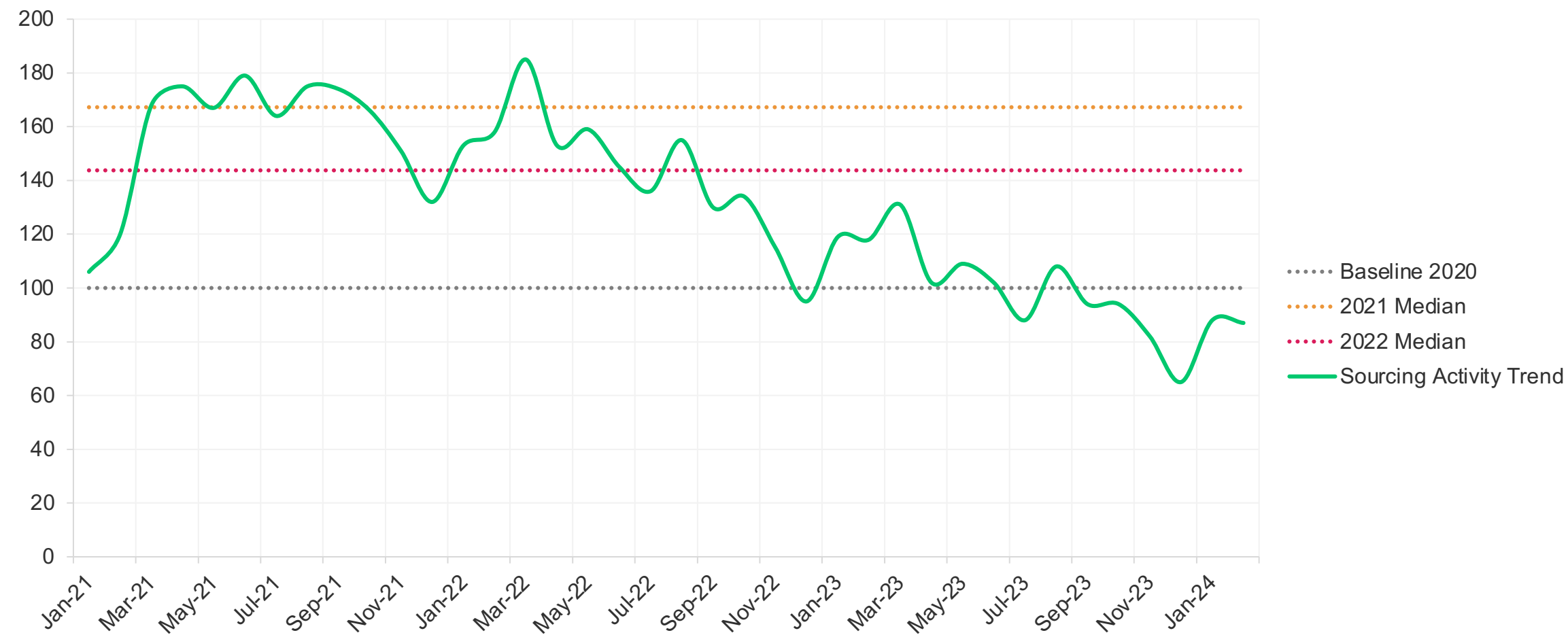


Table 6. Top 15 Product Categories in Americas

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	6%	-6%	-1%
Capacitors	79.6	-2%	-8%	-2%
Resistors	71.1	0%	-14%	-2%
Power Circuits	43.1	-6%	-47%	-6%
Diodes	40.0	-2%	-23%	-5%
Connector Support	32.6	0%	-10%	-2%
Transistors	30.8	-7%	-46%	-6%
Microcontrollers and Processors	24.4	5%	-59%	-9%
Inductors	20.1	-8%	19%	2%
Optoelectronics	19.8	1%	-18%	-2%
Terminal Blocks	19.7	-1%	-17%	-2%
Amplifier Circuits	15.4	-6%	-43%	-7%
Logic	15.1	0%	-32%	-4%
Drivers And Interfaces	14.6	-1%	-48%	-6%
Filters	11.4	1%	-1%	2%

Sourcing Activity: EMEA Trends

FEBRUARY 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

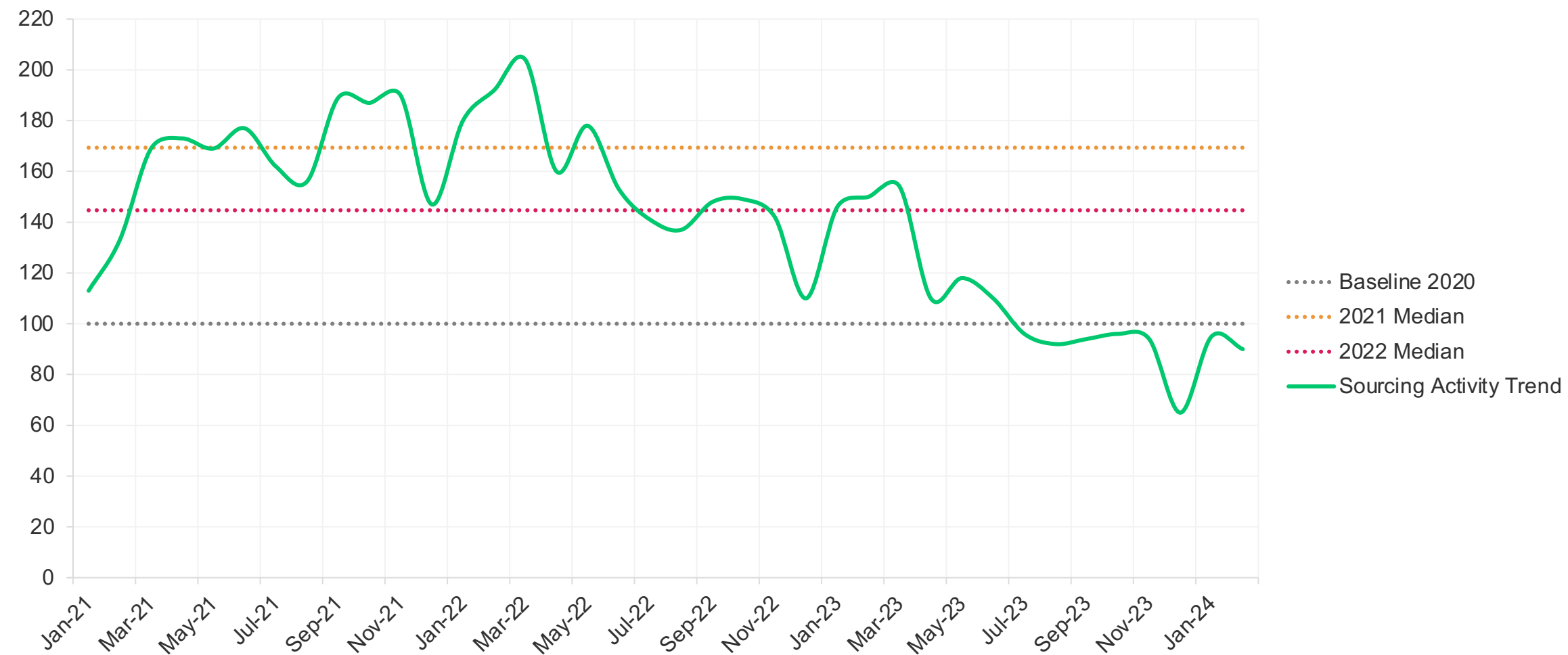


Table 7. Top 15 Product Categories in EMEA

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Capacitors	100.0	-5%	-23%	1%
Connectors	98.1	-5%	-21%	2%
Resistors	83.2	0%	-21%	1%
Power Circuits	76.2	-9%	-55%	-3%
Diodes	61.2	-7%	-42%	-1%
Transistors	54.2	-9%	-59%	-3%
Microcontrollers and Processors	48.9	-6%	-62%	-5%
Inductors	36.4	-3%	14%	8%
Amplifier Circuits	32.9	-7%	-47%	-3%
Optoelectronics	32.8	-3%	-35%	1%
Drivers And Interfaces	31.4	-5%	-54%	-1%
Connector Support	27.5	-7%	-14%	2%
Logic	21.9	-8%	-43%	0%
Filters	21.1	2%	-2%	7%
Memory	19.1	-10%	-57%	-3%

Sourcing Activity: APAC Trends

FEBRUARY 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

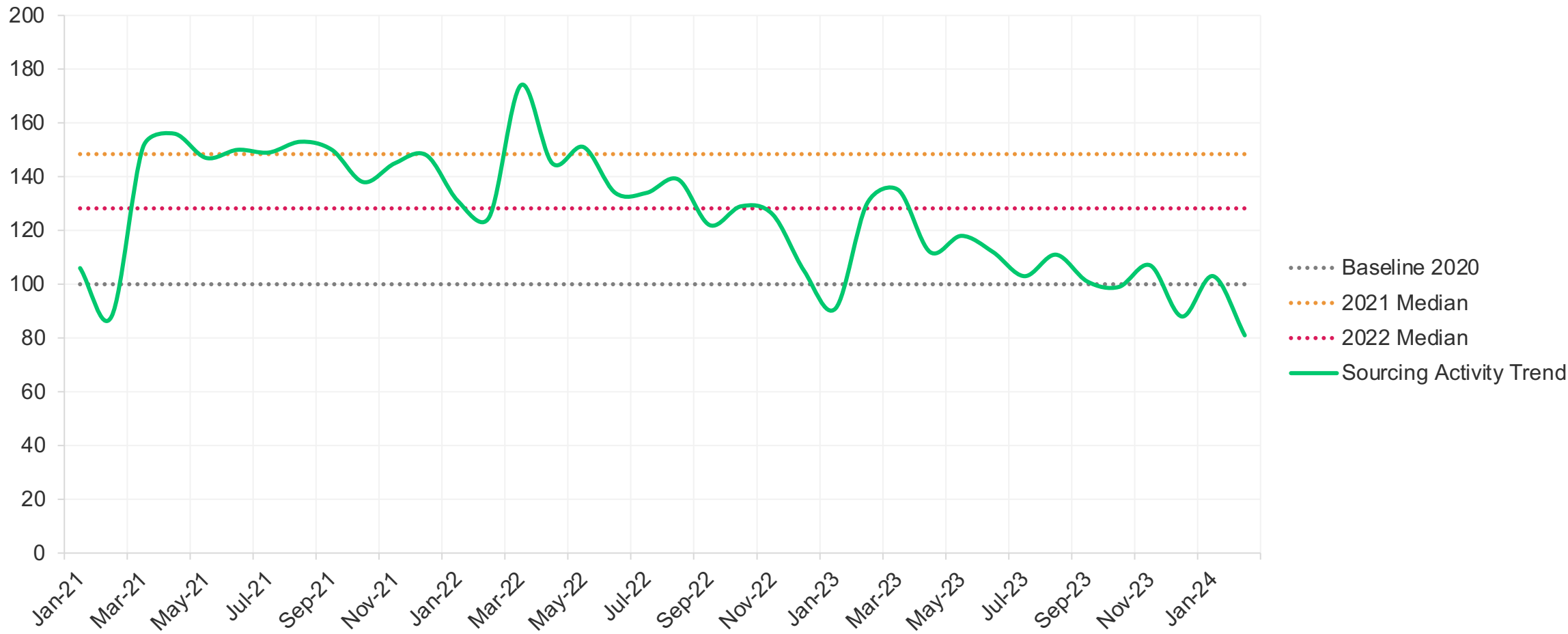


Table 8. Top 15 Product Categories in APAC

Product Class	Sourcing Activity Index	M/M%	Y/Y %	6mo. CMGR
Connectors	100.0	-14%	-12%	-2%
Capacitors	85.0	-14%	-13%	-3%
Power Circuits	68.8	-25%	-51%	-7%
Resistors	63.7	-17%	-23%	-4%
Diodes	56.5	-21%	-37%	-5%
Transistors	52.2	-26%	-57%	-8%
Microcontrollers and Processors	51.5	-23%	-60%	-10%
Inductors	29.6	-35%	11%	2%
Connector Support	28.8	-14%	-15%	-3%
Drivers And Interfaces	25.8	-23%	-59%	-7%
Amplifier Circuits	25.8	-14%	-43%	-7%
Optoelectronics	24.0	-23%	-30%	-4%
Logic	22.0	-23%	-42%	-4%
Memory	20.0	-36%	-53%	-8%
Filters	18.0	-21%	2%	1%

Recap

FEBRUARY 2024

- In February, global design activities improved while global sourcing activities decreased vs. prior month
- Global design activities increased +19% vs. prior month, while global sourcing activities decreased -12% month-over-month
- Decrease in global sourcing activities were expected due to the annual Lunar New Year holiday in the APAC region
- Interconnects and passives observed the largest growth rates in design activities, while showing resilience in demand with buyers compared to prior month and prior year
- Calendar Q1 2024 projections remain unchanged from prior month. Global design activities are expected to grow +2% quarter-over-quarter, while global sourcing activities are expected to grow +3% quarter-over-quarter
- First half of 2024 is expected to remain somewhat slower with modest growth rates. We expect the second half of the calendar year to post stronger growth across regions and product categories driven by growth in the following sectors: AI, cloud computing, content growth in automotive, industrial automation, and wireless communications

