

Ivent Solutions Market Trend Update

October 2019

**GO THE MIGHTY
ALL BLACKS!**



Electronic Industry and Leadtime Review

As we pass the midway point of 2019, the supply chains of electronics manufacturers around the world continue to be challenged by the ongoing impact of component shortages, allocation, capacity and lead-time issues. However there are also some distinct signs of stabilisation, recovery and growth. We here at Ivent have certainly seen signs of the market pressure easing, however are still cautious about a full recovery. As such we continue to preserve stock through additional buffers and scheduled purchase orders. Let's look at some specific areas of the industry thus far in 2019.

MLCCs:

- Multilayer Ceramic Capacitor (MLCC) inventory is beginning to build up, possibly due to over-ordering in the marketplace by end users and distributors
- A number of key European distributors are now holding stock on lines that have been on allocation over the past 18 months
- The problem of allocation has not resolved itself fully, but it is becoming a less critical issue as the market improves and smaller case sizes become more readily available
- Larger case sizes are still problematic, in part due to TDK and Murata obsoleting a large proportion of their MLCC catalogue (over 241,000 and 9,000 product lines respectively)

5G:

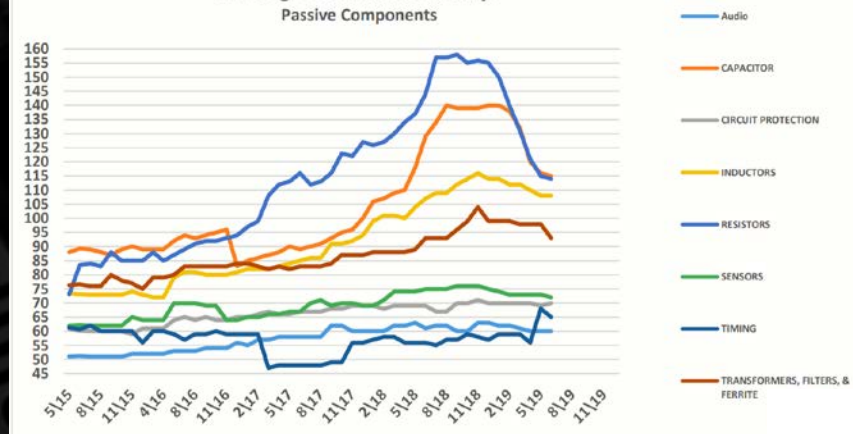
- 5G networks are being rolled out in China with five of their top carriers now being issued licences, having spent the last year testing these networks
- Around 12,000 MLCC's are required for each 5G base station and China are expected to require 90,000
- Availability of smaller case size MLCC's is predicted to decrease as rapid growth of global 5G networks is forecast through till 2024

Sales and Acquisitions:

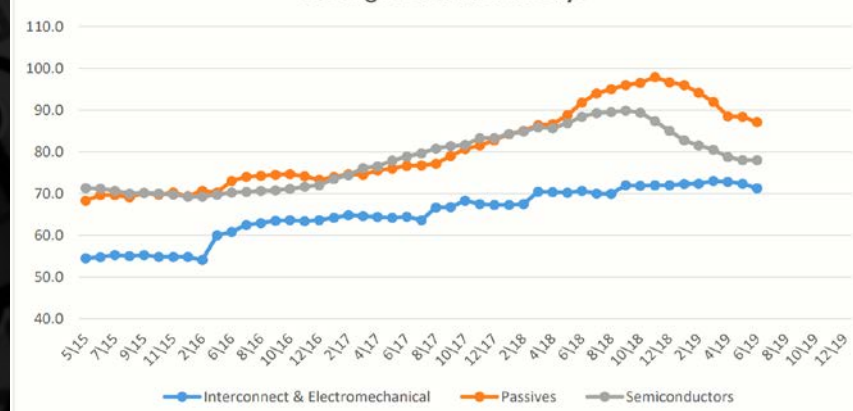
- Infineon are set to acquire semi-conductor company Cypress in a \$10 billion deal. This will allow them to compete in the Electric Vehicle (EV) market and become a significant chip-maker in the global market. The deal is set to be completed by early 2020; with Infineon raising £1.4million in an accelerated capital increase during mid-June
- Marvell have sold their wireless and Bluetooth business to NXP for \$1.76billion which is set to complete by Q1 2020
- GlobalFoundries have agreed the sale of their New York based 300mm fab to ON Semiconductor for \$430million. ON Semi will gain full operational control of the fab by the end of 2022, with GlobalFoundries manufacturing 300mm wafers on site until hand-over is completed
- RS Components are investing €65million in expanding their Bad Hersfeld distribution centre in Germany to accommodate future growth, expansion plans and reduce waste

Average Lead Time In Days

Passive Components



Average Leadtimes in Days



Important Dates:

- Ivent Christmas Closure – 20th December till 6th January
- Chinese New Year – January 25th till 8th February



Ivent Solutions Market Trend Update

October 2019

**GO THE MIGHTY
ALL BLACKS!**



Capacity and Lead-Time Issues:

- There is a global shortage of Silicon Carbide (SiC) due to a limited number of vendors being able to produce the wafers. ST Microelectronics are strategically investing to ensure they have a supply chain that will be able to support the growing use of SiC in high power/high efficiency needed in consumer markets such as EV's and the Internet of Things (IoT)
- TDK and KOA have closed their order books whilst they battle to ensure continuity of supply to their customers with MLCC's and commodity resistors. This is the same response as Murata, Rohm (resistor networks) and Vishay (passives)
- Samsung continue to cite allocation on many of their MLCC lines however there is still evidence of stock availability in the marketplace
- Diodes Inc. are seeing allocation on many of their Zener diodes, bipolar and digital transistor and some general-purpose transistors
- Infineon MOSFETs are on allocation with short supply globally
- Yageo lines are more readily available with lead-times around 20 weeks. The best way to protect the supply chain is to utilise 'generic' descriptions for resistors and capacitors allowing a larger selection of product choice
- TE connectors are experiencing lengthy lead-times and relays are on allocation. This is most notable with circular connectors, TE's Deutsch line and automotive connectors
- ST Microelectronics have partnered with Cree to supply Wolfspeed SiC wafers during a period of growth
- Analogue Devices are experiencing production delays with lead-times on certain lines extending beyond 24 weeks and in some cases over 32 weeks
- MLCC pricing is stable despite the ongoing market conditions but is not decreasing significantly
- Analog Devices pricing (including Linear Technology lines) is expected to increase, and lead-times are still beyond those that are usually observed
- Infineon MOSFETs are on allocation (fuelled further by the SiC shortage) and pricing is unstable, with increases observed during the last 6 months
- Murata filter pricing is set to increase

PCB Technology:

- Copper pricing is fluctuating within a small range and is currently at the lower end of the previous 12 months pricing with IHS Purchasing Manager Index showing a 7% fall
- Overall the global PCB market has grown with early indicators suggesting 2019 will be another growth year but at a lesser rate than 2017 and 2018
- The mobile phone market is now saturated, with many people owning more than one handset, slowing growth in this area until 5G handsets are introduced to the consumer market in 2020
- Chinese PCB manufacturing equates to over 50% of the global market

Global Economy:

- The trade war between the USA and China continues, with the U.S. recently naming Huawei as a threat to national security and placing the company on an export blacklist. In retaliation, China may stop shipping rare earth metals to the U.S. These metals are used in a range of electronic and electrical components including semi-conductors and fibre optic cables
- Gold pricing has increased by £53.19 per ounce (was £995.24), falling slightly since the January and February 2019 highs
- Silver prices have maintained £11.60 per ounce
- Oil pricing is at a three-month low of \$60.75 per barrel having seen slow increases since January 2019
- European Stainless Steel pricing is stable this week with mills wanting to maintain margins, despite coming under pressure from market factors
- The European Unions Competition Commission has halted a deal between Tata Steel and ThyssenKrupp amid fears it would increase pricing on steel and would have significantly reduced competition within the marketplace

Important Dates:

- *Ivent Christmas Closure – 20th December till 6th January*
- *Chinese New Year – January 25th till 8th February*



0402 MLCC Lead-Times



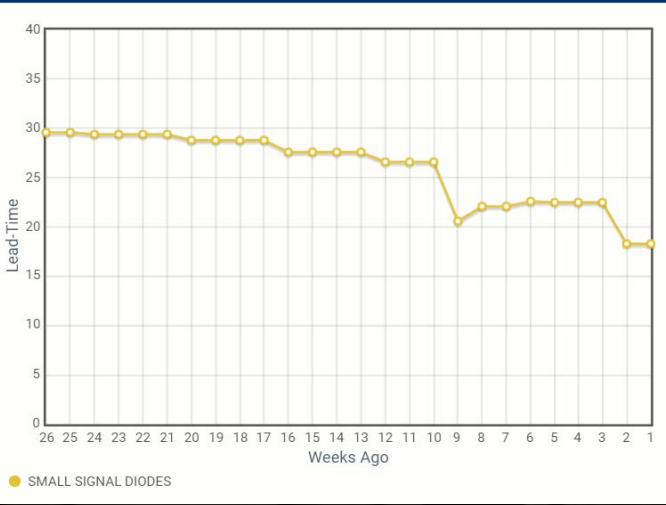
0603 MLCC Lead-Times



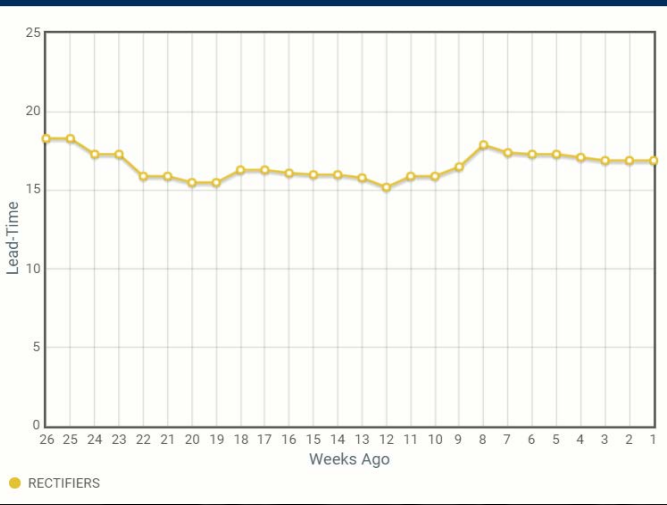
0805 MLCC Lead-Times



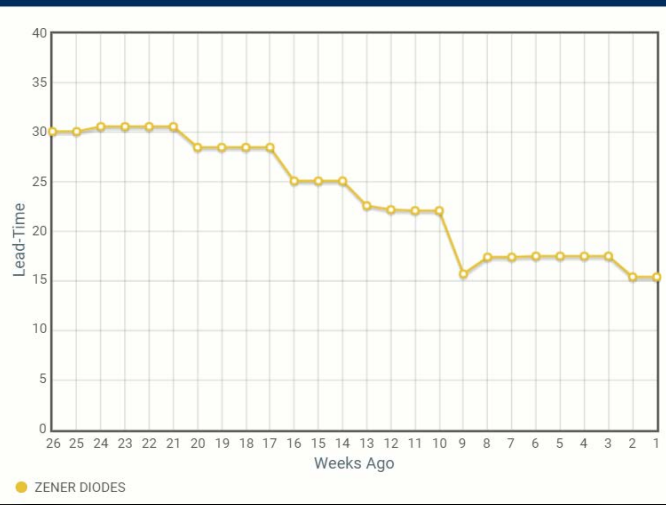
SMALL SIGNAL DIODES Lead-Times



RECTIFIERS Lead-Times



ZENER DIODES Lead-Times



Important Dates:

- Ivent Christmas Closure – 20th December till 6th January
- Chinese New Year – January 25th till 8th February



Ivent Solutions Market Trend Update

October 2019

NZD versus AUD - AU\$0.935 vs NZ\$1.00



NZD versus USD - US\$0.630 vs NZ\$1.00



NZD versus EUR - EU\$0.570 vs. NZ\$1.00



Copper - USD5700 / tonne



Lead - USD2150 / tonne



Nickel - USD17900 / tonne



Important Dates:

- Ivent Christmas Closure – 20th December till 6th January
- Chinese New Year – January 25th till 8th February

