

Purchasing & Technical Intelligence

While we may not have connected directly before, I've been part of the Charcroft team for many years. Over the past four years, my role has evolved to focus more actively on enhancing our organisational efficiency, which is something that remains at the core of how we deliver long-term, value-driven solutions.

This commitment helps us to support your procurement and design processes more effectively, both now and in the future.

I welcome any thoughts you have on how we can continue to develop the tailored support that we provide to you.

Vicky Mellor, Director vicky.mellor@charcroft.com



Purchasing Intelligence

- Lead time trends
- Metal price trends
- Last Time Buy (LTB)
- End-of-Life (EOLs)
- Part Change Notices (PCNs)

Industry Intelligence

- Acquisition of Sensor Techniques
- Two new Quantic franchises added
- Sensor specialist joins Charcroft

Technical Intelligence

- MML capacitors from Exxelia support SWaP
- Anti-vandal switch from E-Switch offers high current
- Five LED colours for light-up E-Switch mini-switch
- New dielectric for Exxelia Temex RF ferrites
- Direct Writing on Exxelia Ohmcraft HV resistors
- Automotive Vishay thick film power resistor with NTC
- Small VPG foil resistors with long-term stability

Lead Time Trends

Many lead times are remaining stable although there has been a little movement in some technologies.

The minimum lead time for polypropylene capacitors has extended slightly, but PPS and polyester film capacitors are steady now following

a small rise. There are also steady lead times following rises in surface-mount resistors and metal film axial resistors, as well as for power supplies.

A rise in lead times is being seen for current-sense metal strip resistors as well as for filters.

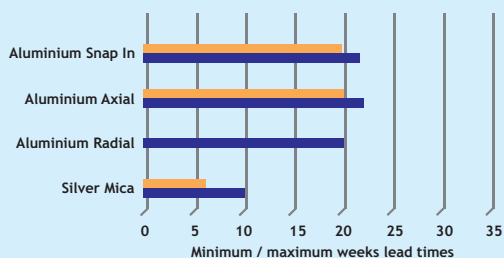
Alternative options can be recommended.



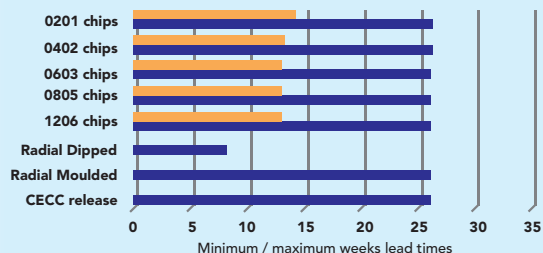
Capacitors

Minimum Maximum Extending Reducing

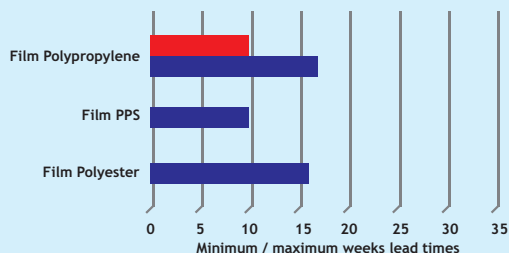
Aluminium & Silver Mica Capacitors



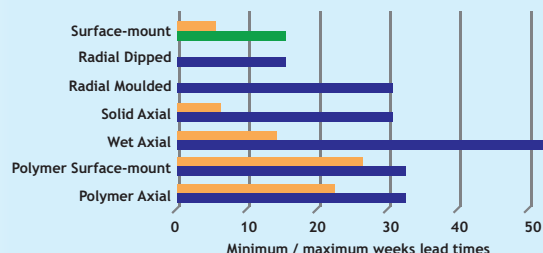
Ceramic Capacitors



Film Capacitors

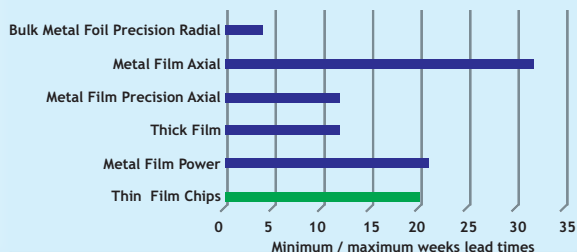


Tantalum Capacitors

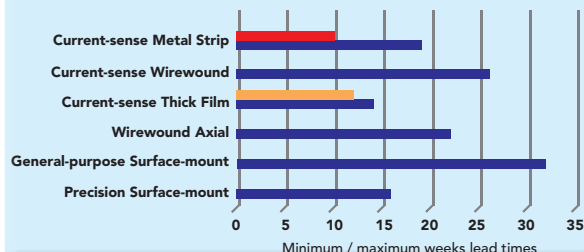


Resistors

Film Resistors

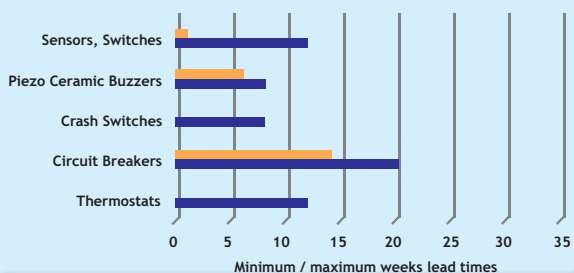


Surface-mount, Wirewound & Current-sense Resistors



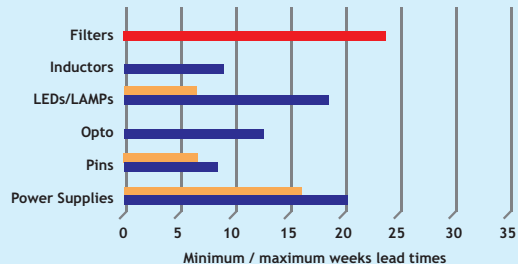
Emech

Electromechanical



Power Supplies

Power, Opto, Inductors, Filters

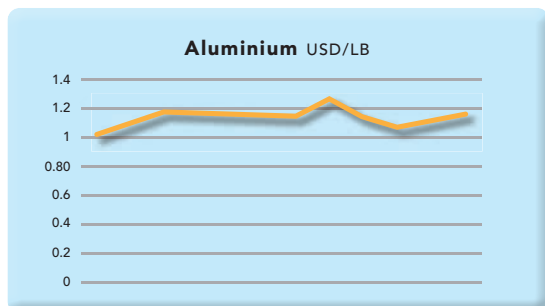


Metal Price Trends

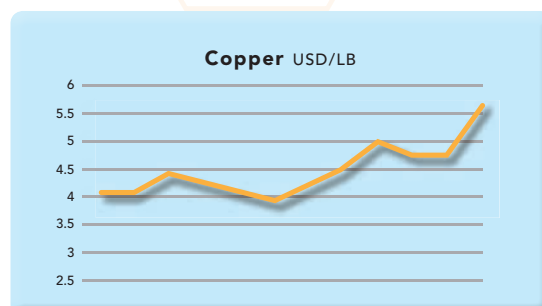
The cost of base and precious metals has seen some rises, with the exception of copper, lead and palladium. The cost of tantalum concentrate is lower than it was this time last year.

This metal is not listed on commodity exchanges, so the cost of tantalum concentrate is through negotiations between buyers and sellers.

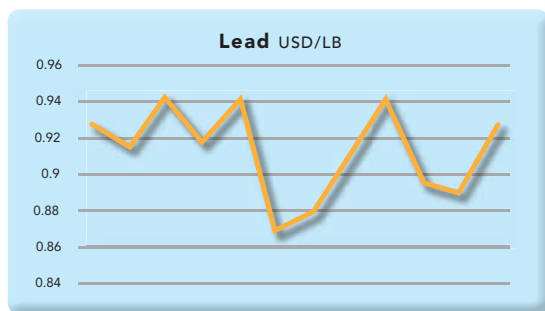
Base Metals



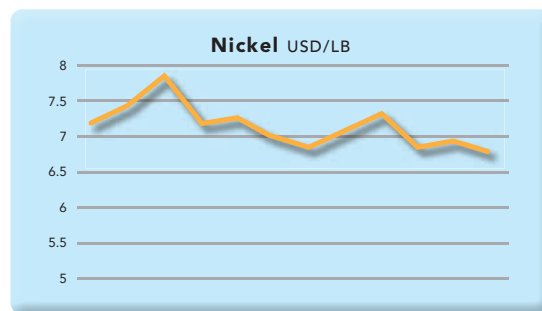
Capacitors: Aluminium Resistors: Trimmers, Networks



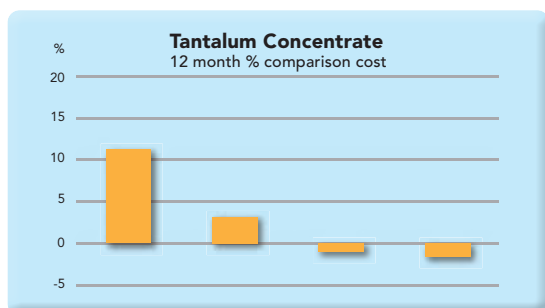
Capacitors: Film, Mica Resistors: Carbon, Metal film, Wirewound



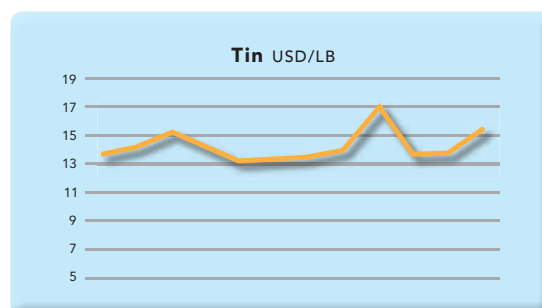
Capacitors: Mica Resistors: Non-RoHS



Capacitors: Surface-mount

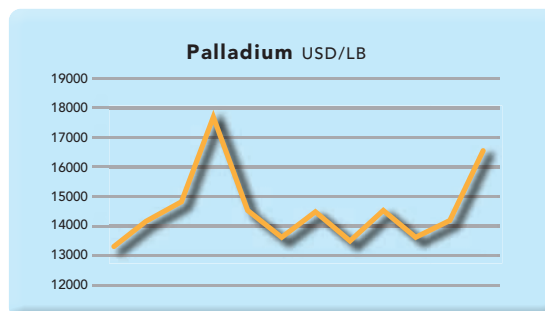


Capacitors: Tantalum

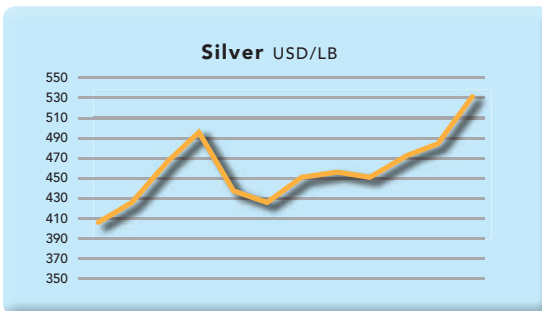


Capacitors: Mica

Precious Metals



Capacitors: Ceramic Resistors: Surface-mount

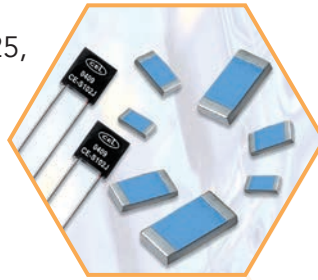


Capacitors: Metal clad, Mica Resistors: Networks

Last Time Buy, End of Life, & Part Change Notices

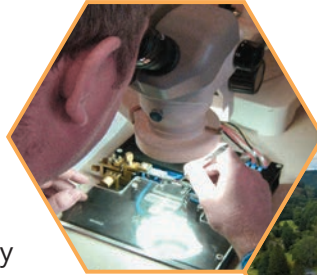
Last Time Buy (LTB)

- The LTB for the **VSMP/VFCP** resistors from VPG is Sept 2025, but these resistors will continue to be manufactured by CEL in the approved Charcroft UK-based VPG Precision Centre.



Approved VPG Precision Centre

The Precision Centre is based in the UK and manufactures 0.005%+ radial and 0.01%+ surface-mount resistors based on the VPG Bulk Metal® Foil resistor technology. The availability of Precision Express® delivery enables these resistors to be delivered in 5 to 15 days.



End of Life (EOL)

- E-Switch **5500 series** switches with a green cap have been withdrawn from manufacture.
- Vishay **EDGA**, **EDGF** and **EDGU** series of resistors are now discontinued.
- Ohmite **TKH45** and **TKH55** thick film resistors are discontinued pending re-design.



Charcroft Intelligence

Part Change Notices (PCNs)

- E-Switch **PVB3** anti-vandal switch now has raised 1.12mm terminal barrier, and update to IP67.



For more information on LTBs, EOLs and PCNs email: request@charcroft.com



Industry Intelligence

Acquisition of Sensor Techniques adds established sensors to line card

The acquisition of Sensor Techniques brings 20 years of specialist expertise in load cells and strain gauges to the support offered to Charcroft customers in weighing and force measurement applications. The Sensor Techniques founder, **Rob Forrest**, will work closely with customers in industrial, harsh and ATEX-rated environments, as well as automotive and transport

weighbridges, elevated platforms, or scissor lifts in construction and agriculture.



Two new Quantic franchises added to Charcroft line card

Quantic Evans manufactures the most power-dense hybrid wet tantalum capacitors, and **Quantic Paktron** is a leader in multilayer polymer film (MLP) stacked capacitors offering the highest ripple current per CV, covering the Angstor®, Capstick®, Surfilm® and Quencharc® brands.

Already franchised for Quantic UTC multilayer ceramic capacitors (MLCC), Charcroft expects to add another Quantic franchise imminently.



Sensor specialist joins Charcroft team of UK-based field engineers

Matt Fellows is known for providing specialist technical support on sensors, load cells and strain gauges used to measure pressure, force, position, current and voltage, as well as temperature, speed, liquid level, liquid flow, weight and tilt or incline. Based in the East Midlands, Matt will deliver design solutions for customers designing

weighing and force measurement applications in industrial, aerospace, defence, oil and gas, process manufacturing, and off-road transport applications.



Technical Intelligence

It's been a busy time for the launch of new components, as well as industry events. New developments in power electronics support carbon-reduction through further electrification across core sectors which include industrial, automotive and aerospace.

In the UK, we promoted Exxelia Alcon and Sensata Technologies, at the IMAPS Centre for Power Electronics (CPE) 2025 Annual Conference in Sheffield. I also met with our franchised manufacturers at the European Battery Show in Stuttgart, and the International Paris Airshow in France. Exciting times to be working in this industry!

Contact us to learn how these latest technologies can help to meet your design challenges.

Roger Tall, Director roger.tall@charcroft.com



Game-changing Exxelia MML technology for SWaP capacitors

With **MML™ technology**, the MML film capacitors from Exxelia offer unmatched ultra-high energy density of 400J/dm³, to support size, weight, and power (SWaP) applications. Compared to conventional polypropylene or polyester dielectrics, size

reduction is up to 50%, and the weight is 50% lighter than film capacitors, in addition to being up to 90% lighter than ceramic capacitors.



New higher-current rating for anti-vandal switch from E-Switch

The **PVHC4** anti-vandal switch from E-Switch introduces a higher-current version of the 20A, 250VAC switch. With current of 25A, and 30VDC, the PVHC4 anti-vandal switch is suitable for many higher power applications, which includes marine systems. With a 19mm diameter

panel cutout, the switch offers LED-illuminated or non-illuminated options and is IP67 rated. The SPST switch offers latching or momentary functions.



Light-up mini-switch from E-Switch for audio and user interfaces

An attractive and eye-catching **PB350** mini-switch from E-Switch is a white 12.4mm² switch which offers five LED colour options of red, white, yellow, blue or green for illumination. With 2mm travel, the switch is SPST or SPDT with double-action. The double action closes the

first circuit at 600gf and closes the second circuit at 1150gf. The high actuation force also adds a tactile response.

Watch the PB350 video to see more.



New dielectric offered by Exxelia Temex high-epsilon ferrite for RF

In addition to a short, 8 to 10 week lead time for evaluation, the **YK21** and **DK21** high-epsilon microwave ferrites have high permittivity of 21 Eps to support smaller isolator and circulator applications. The size of a circulator is 15% smaller with YK21 and DK21, compared to using

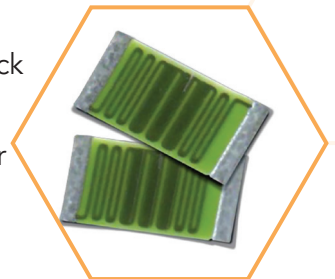
18 Eps ferrites. The two power levels are 4.5 and 8.5 Δ Hk, 1250 to 1900 Gauss, and up to 12 GHz frequency.



Direct Write technology supports Ohmcraft high-voltage chip resistors

The proprietary **Direct Write** technology used in the manufacture of Ohmcraft high-voltage **MCH chip resistors** is based on the Exxelia Micropen to give higher fidelity and accuracy, with improved repeatability and thickness accuracy. The printed lines feature smoother

edges and enable long, narrow traces without neck downs, to enable longer pattern lengths in smaller areas and on irregular surfaces.



Automotive-grade thick-film power resistor with optional NTC

The **ISOA200** offers an optional negative temperature coefficient (NTC) thermistor for internal temperature monitoring and pre-applied phase change thermal interface material (PC-TIM) for mounting efficiency. High pulse handling is combined with power dissipation up

to 200 W, and resistance is 10 Ω to 1 M Ω , with operating voltage up to 1500 V, and operating temperature of -55°C to 150°C.



Small foil resistors with long-term stability used in laser-diode applications

In 0402 and 0603 cases, the VPG foil resistors are being used in specialist laser-diode applications, such as fibre-optic comms, as well as in photonics and hi-fi headphone amplifiers

due to the tight tolerance, long-term stability and low noise performance.



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