

Components

Analogue and Discretes

Tantalum capacitor price set to rise

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Tantalum capacitor could cost more as raw material prices react to the closure of Australian mines.

"The suspension of tantalum production at the Wodgina mine means that the industry is entering uncertain times for tantalum," said Edmund Coady, sales director of **component distributor Charcroft Electronics**. "Capacitor manufacturers can renew their contracts with the tantalum powder manufacturers and accept a significant price increase in return for a reliable and continuous source of supply, or they can play a waiting game."

Mining firm Talison Minerals suspended operations at what it claims is the world's largest tantalum mine at Wodgina in early December 2008.

"During 2008, Wodgina supplied more than 30% of the world's tantalum," said Talison. "The recent global financial crisis has seen a severe downturn in worldwide demand for consumer electronics, resulting in lower demand for tantalum. As a consequence, Talison's customers have sufficient tantalum for the near future and have not needed to extend their current contracts."

Talison is also being under-cut by African mining. "A second factor is a long-term and increasing trend to reduce material costs in the electronics supply chain, which strongly encourages increased tantalum supply from central Africa, and particularly from the Democratic Republic of Congo (DRC)," it said.

The supply of tantalum from the DRC, where it is known as coltan - the local name for its ore - is controversial.

Australia is not the only source of tantalum ore, said Charcroft's Coady: "Together Brazil, Canada, China and central Africa supply around 48% of new ore, in addition to the 22% supplied by Talison's [still open] Greenbushes mine. Typically, the cost of ore mined in central Africa is cheaper, but the continuity of supply is less certain. There are also ethical concerns as mining in central Africa is often carried out illegally, with little regard for the safety of the miners, and with profits suspected of filtering through to fund armed militia rather than benefitting local communities."

There has been one more reservoir, said Coady: "Excess stock of tantalum from the US Defense Logistics Agency (DLA) has been a useful secondary source, although a depleted inventory now means that this no longer provides a safety net against tantalum shortages."

He sees ore prices rising.

"Even in a depressed market, the suspension of 30% of the world production of tantalum ore is almost certain to have a significant impact on the electronics industry," said Coady. "The spot price for tantalum will inevitably rise and only the manufacturers which have already committed to a new supply contract, such as the tantalum specialist Firadec, will have a safe-guard against the uncertainty into which the tantalum market is heading."

And capacitors will follow.

"At the close of 2008, capacitor manufacturers were advising that the price of tantalum capacitors was expected to rise by between 13% and 40%," he said. "This was in response to predictions by Talison, and the producers of tantalum powder that new contracts for the raw tantalum ore would be subject to price increases of up to 85%."
