



ABOUT EPITACTIX

THE NEED FOR HIGHER DATA RATES AND GREATER CONNECTIVITY IS PUSHING NETWORK PROVIDERS TO USE INCREASINGLY HIGHER FREQUENCIES WHERE GREATER BANDWIDTHS ARE AVAILABLE. WHEN MIGRATION TO HIGHER FREQUENCIES IS NOT POSSIBLE THOUGH, THERE IS A PRESSING NEED FOR TECHNOLOGIES THAT ALLOW MORE DATA TO BE PACKED INTO EXISTING BANDWIDTHS.

> According to Shaun Cunningham, Founder of EpiTactix, the shift to higher frequencies and faster data transfer rates requires a corresponding increase in radio transmission power. In addition, this increase in power has to be accompanied by increased signal fidelity in order to cram as many bits of data as possible per hertz of radio spectrum. These demands can only be met by new classes of radio systems and these, in turn,

require new novel semiconductor technologies to make them.

A NEW PERSPECTIVE

> “Radio engineers are struggling to meet system specifications using standard chips,” Cunningham says. “What we’re doing is coming in with the perspective of radio system engineers and fixing the deficiencies in the foundations of the semiconductor technologies. If we

succeed, our technologies will have a profound effect on the market for compound semiconductor radio frequency chips.”

> The global semiconductor industry generates revenues of around US\$200 billion per annum and is one of the most competitive sectors of the information technology industry. EpiTactix is focused on a US\$2 billion niche relating to compound semiconductors. Cunningham says its compound

[continued overleaf]

EPITACTIX

WWW.EPITACTIX.COM



“[EPICORP]
PROVIDES AN
ENVIRONMENT
WHERE EARLY
STAGE COMPANIES
CAN THRIVE AND
IT HAS A MINDSET
WHICH POSITIONS
THE COMPANY
FOR SUCCESS”
— SHAUN
CUNNINGHAM,
FOUNDER

semiconductor technologies are positioned to change the way that semiconductors are made in this segment.

BIG OPPORTUNITY

- > Every year, 600 million telephone handsets are manufactured and each has a tiny gallium-arsenide power amplifier inside to transmit the radio signal back to the base station. Cunningham says all of these devices will eventually need more powerful and higher performance power amplifiers, and this is the opportunity which EpiTactix' technology can assist with.
- > EpiTactix (whose name comes from Epitaxy: the science of growing semiconductor layers) was spun off from CSIRO's ICT Centre in August 2004 to accelerate the commercial potential of its technology. Cunningham had been working as a researcher at CSIRO, in radio frequency technology for 12 years. Previously he had spent eight years in the product design groups of the

telecommunications equipment maker Alcatel.

SOLID BACKING

- > The company has received \$4.6 million in funding, along with an in-kind contribution from CSIRO. Investors include Epicorp, SciVentures Investments, Seaspin and EIR. Cunningham says Epicorp has been involved since EpiTactix' foundation, providing valuable assistance in establishing and guiding the company.
- > “Epicorp has a very constructive view towards investing,” Cunningham says. “It has a genuine desire to find out where it can best add value to the company and is prepared to get in and help. Most importantly, it is prepared to stop and listen to the needs of the company. As a result it provides an environment where early stage companies can thrive and it has a mindset which positions the company for success.”

POSITIVE ABOUT THE FUTURE

- > “We're quite confident that our technology is strong and has significant commercial value. However what lies ahead of us is a little bit difficult to predict, because no-one has done what we are doing in Australia before,” Cunningham says.
- > “Some of the main players in this industry have billion dollar capitalisations. That is because there is a large market out there for these existing technologies.”
- > “Potentially our technology can come in and outperform these technologies. EpiTactix faces many challenges, but we have an exciting future.”

“EPITAXY:
THE SCIENCE
OF GROWING
SEMICONDUCTOR
LAYERS”