

bluechiip corporate overview



Bluechiip (ASX:BCT) provides unique patented technology that combines secure wireless sample tracking with integrated temperature reading for use in extreme environments

The company

Founded in 2003 and ASX listed in 2011, Bluechiip has its head office in Melbourne, Australia and distribution channels around the globe.

Bluechiip's strong IP portfolio includes 24 granted patents in seven families, including the core MEMS (Micro Electro Mechanical System) memory device and sample storage and monitoring systems that include sample level ID & temperature tracking.

Our product

The core Bluechiip system consists of a wireless tracking/measuring chip, a reader, and associated software.

- The chip: The Micro Electro Mechanical Systems (MEMS) chip is a purely mechanical device with no powered electronics. It is different from labels, barcodes and radio-frequency identification (RFID) technology in that it performs in extreme environments, operating reliably at -196°C , resistant to gamma sterilisation, is extremely difficult to clone or corrupt and provides temperature reading. It can be attached to any plastic for a variety of uses (e.g. in vials or consumables).
- The reader: The reader can be handheld or multi-point. It enables instant tracking of ID and temperature sensing, increasing productivity and reducing human error.
- The software: The easy-to-use software database has wireless connectivity and keeps a chain of custody data record for samples in one location.

Primary target market

Bluechiip's initial target is the \$2b biopreservation and cryopreservation market which processes more than 300 million samples per year of tissue, blood, serum, plasma, etc. for industries such as pharmaceuticals,

Additional markets

The Bluechiip technology also has applications in cold chain logistics, food, manufacturing, security and defence.

Strategy

With a maturing core technology, Bluechiip is now actively engaged in commercialization and, to date, has secured three OEM Agreements with entities in Australia and the USA. The company has a team with extensive experience in taking technology products to market. The company is initially targeting companies which handle high-value samples (where the cost of failure is high), such as IVF, regenerative medicine, protein crystallography, cryo transport and pharmaceutical applications. These industries must take all possible steps to minimise the risk of sample failure, and they quickly grasp the value of the Bluechiip system in mitigating this risk.

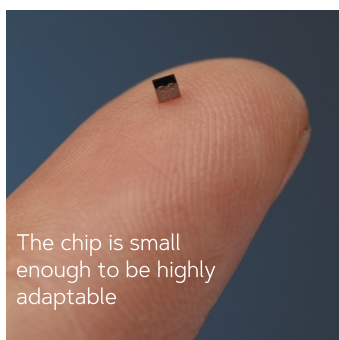
Competitive advantages

There are few technologies that work in extreme environments, and no other technologies provide integrated wireless temperature reading and tracking. Traditional tracking technologies are not suited for the abovementioned industries because:

- Labels and barcodes cannot be read through frost, and removing frost to take a reading can damage the sample.
- RFID technologies typically do not survive in low temperatures or sterilization.

Conventional temperature-sensing technologies are limited because:

- They sense the environmental temperature, not the temperature of the specific samples.
- They require wiring and electronics, which do not work in harsh environments.



The chip is small enough to be highly adaptable



Senses temperature and reads ID through frost



Frost is a real problem for labs working in extreme environments



Progress thus far

The team has made good progress in FY17 and is accelerating in FY18; Bluechiip is receiving revenue and orders from select clients.

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Key accomplishments:

- The Bluechiip reader has been configured for OEM adoption and has now been adopted by a two OEM partners.
- The team has established a technical sales and support team and crafted a developer kit. It is now training and assisting OEM companies to integrate the chips and readers into their own systems.
- Bluechiip has engaged several lead customers to evaluate and validate Bluechiip's products.
- A visible revenue stream has been established through OEM licensing fees in the IVF sector which is expected to grow significantly as existing in market equipment is upgraded to be "Bluechiip enabled". Bluechiip has also received initial revenue from license fees, service and product sales.
- Received initial order from US partner for over \$1 million in December 2017.

Projects in progress:

- Bluechiip is engaged in Government co-funded projects with the University of Melbourne and Swinburne University to make our technology adaptable and suitable for various formats.
- Bluechiip is now standardizing its chip reader for direct customer sales. It now has a mature mobile handheld reader and a prototype multi-vial reader.
- Bluechiip is aggressively developing its pipeline of partners with more than 30 partners, up from two in 2015, with initial revenue from developer kits and validation customers.
- Bluechiip is building a track record of real product applications for OEM partners:
 - Supply agreements executed with fertility treatment specialists Genea Biomedx in the high-value IVF market, with global distribution through a major pharmaceutical company.
 - Development and supply agreement executed with Planet Innovation, BRW Australia's most Innovative company in 2014, 2015 and 2016.
 - Supply and development agreement executed with Labcon North America to apply Bluechiip into its consumables. In 2016, Labcon molded over 1.4 billion products in the life science sector.



Single and multi-point readers to read vials and racks

For more information

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