

# Sample traceability and efficient workflows to -196°C



Millions of high-value, temperature sensitive biological samples are collected, shipped, tested and stored in laboratories and biobanks all over the world each year. Bluechiip technology combines robust ID and temperature sensing that works in ultra low and cryogenic environments to enable greater sample traceability and improved productivity for managing samples.

## High Throughput Sample Accessioning

Finally, a fast and reliable solution to identifying samples through frost. Using the Multi-Vial Reader users can now read a full rack of up to 81 cryovials even with heavy frost build up in less than 30s. Save time accessioning, consolidating or auditing samples whilst also reducing temperature excursion risk.



## Accurate Inventory Management

Bluechiip enabled consumables, readers and sample management software communicate seamlessly with one another to eliminate confusion and ensure every single sample is accounted for in your inventory. Send electronic picklists instantly to your Handheld Reader and use the Guided Storage and Retrieval functions to help you find what you are looking for quicker and with less risk to surrounding samples.



## Complete Audit Trail

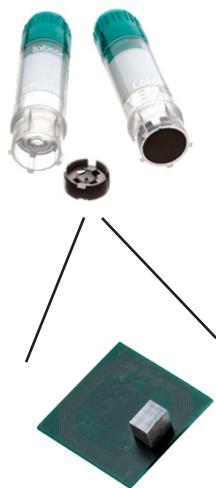
Read and monitor samples in the harshest environments, including at liquid nitrogen temperatures. WiFi enabled Bluechiip readers allow you to timestamp and record ID, Temperature, User, and Location data at the sample level for complete sample history and traceability when moving samples around your facility.



## Get set up now with a Bluechiip Starter Kit!

Talk to our Bluechiip representatives and get started with a solution for your lab. The Starter Kit is comprised of Readers, Sample Management Software and a range of Bluechiip Enabled Consumables





## Partner with us

Bluechiip technology is highly differentiated and a world first with patent protected IP focussed on addressing the unmet needs in biological sample tracking across many applications. Bluechiip's miniature chips are attached to storage bags and vials, and information from these chips is read by a wireless reader.

Partnering with the world's largest consumable and equipment manufacturers, Bluechiip embeds its technology into a range of products including storage consumables, readers and automation platforms. The unique capabilities of Bluechiip products allow end-users to better manage samples helping to improve productivity, quality and traceability throughout key processes.

## Bluechiip Technology

The chip, a Micro Electro Mechanical System (MEMS), measuring 1mm x 1mm x 1mm, is a purely mechanical device with no powered electronics. Unlike other labelling technology – such as labels, barcodes and radio-frequency identification (RFID) technology – Bluechiip's chips perform in extreme environments like liquid nitrogen, operating reliably at -196°C. They are also resistant to gamma sterilisation, they are extremely difficult to clone or corrupt, and provide the temperature of samples when read.

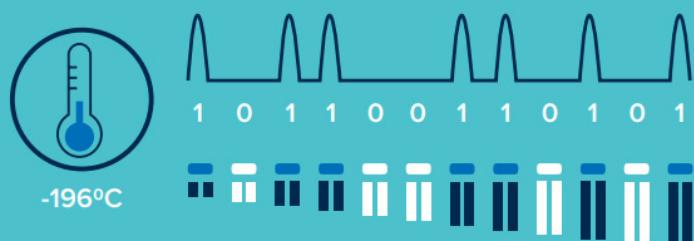
### Resonating Micro Beams Shifting with Temperature

Each chip is a unique micro electro mechanical system (MEMS) containing multiple beams



### Miniature Chip

The beams resonate at different frequencies which are translated to an ID. The frequency of the beams is directly related to the temperature



### Billions of ID Combinations

Billions of unique ID combinations can be captured in this miniaturised chip

