Bluechiip® CryoTag

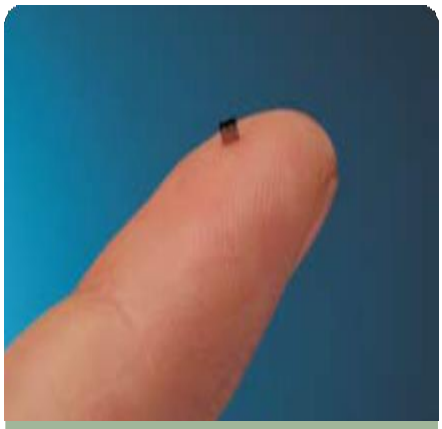
PRODUCT NAME
Bluechiip® CryoTag

GENERAL DESCRIPTION
Bluechiip® offers a passive chain-of-custody and identification solution for wireless tracking and management of cryogenic storage equipment such as samples, cassettes, racks, freezers and tanks in biobanks.

The CryoTag™ incorporates the Bluechiip® Cryogenic Delta tag, and all the benefits of the tag are available for racks, cassettes and tanks. These tags are read using the retriever wand attached to a Matchbox™ reader.

The Bluechiip® Cryogenic Delta Tag is designed to be compatible with most plastic tubes, vials, racks and cassettes typically used in cryogenic applications for which both very high reliability in extreme environments and resistance to gamma irradiation are required. Once the CryoTag™ is inserted into a rack, tower or cassette it cannot be removed.

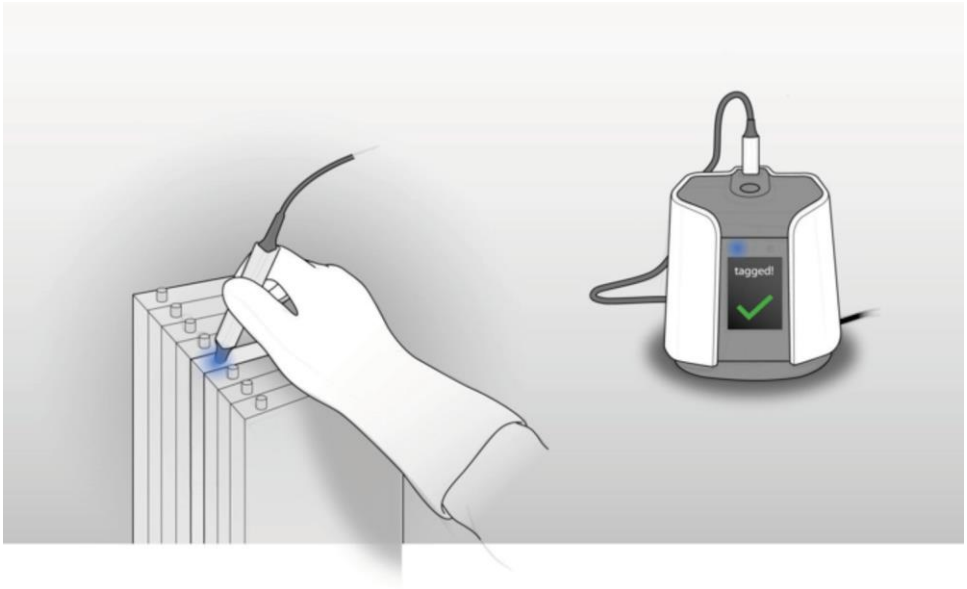
BENEFITS OF USING THE CRYOTAG SYSTEM
- Monitor temperature to the rack and cassette level
- Faster and more reliable sample retrieval
- Reduce the exposure time to liquid nitrogen for sample handlers and improve OH&S
- Easy electronic identification of your racks, cassettes, towers and hierarchy information
- Streamline the inventory management system in the biobanking process
- Bright colour tip to increase visibility
- Manage your storage system in real time - real time location and tracking of your cassettes and racks at the tank where it happens and matters
- Complete chain-of-custody and temperature history of racks, cassettes and samples
- Ambient temperature monitoring via the Matchbox reader
- Associate barcodes or a human readable code as a secondary identifier



The Bluechiip® CryoTag™ uses micro-electro-mechanical systems (MEMS), a relatively new technology that does not necessarily require electronic devices, transistors, capacitors etc., for operation. The tag communicates to the reader in the radio frequency spectrum but not the same way as typical RFID systems.

WHAT ARE MEMS?

MEMS bring together many diverse techniques to fabricate electronics, miniaturized sensors, actuators, as well as systems made up from these elements. It is primarily focused on the miniaturization of mechanical systems and the exploitation of the unique attributes of silicon in these miniature systems. Examples of other common MEMS devices include accelerometers used in air bag systems and hand held games. Other examples include inkjet printer heads and micro-mirrors used for digital projection displays.



PERFORMANCE

1. Operating temperature: from -196°C to +60°C
2. Instantaneous temperature measurement
3. Storage temperature from -196°C to +200°C
4. Immune to gamma irradiation sterilization
5. Survives autoclaving
6. Frost resistant
7. Constructed of medical grade polycarbonate

TEMPERATURE MEASUREMENT

Every time a tag is read, the instantaneous temperature is measured, time stamped and recorded. This allows a temperature history to be recorded, giving you peace of mind with no extra effort. This temperature profile can be retrieved at any time through the Stream™ web application software.

SAFE AND STERILE

All encapsulated products are supplied pre-sterilized. They can be re-sterilized at any time by autoclaving or gamma irradiation, the tag will survive both operations with no degradation or loss of function.

TYPICAL CONFIGURATIONS AND ORDERING INFORMATION

The Bluechiip® CryoTag™ can be inserted into Bluechiip® racks, towers and cassettes. A mounting module is available for attaching to your tank, cryocart or other cryogenic storage equipment.

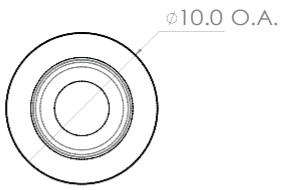
CryoTags™ are sold in minimum quantities of 50 and each box contains 5 trays of 10 CryoTags™. The product code for the box of 50 CryoTags™ is CRY-201.

APPLICATIONS

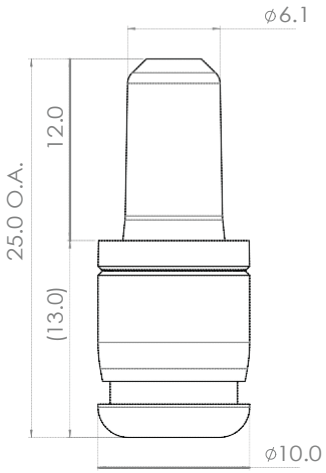
- Biobanks, bio-repositories and cryo-preservation facilities
- Cryogenic stored samples
- Stem cell storage
- Clinical trials
- Cell lines
- In Vitro Fertilization (IVF)
- General laboratory use
- Pharmaceuticals
- Blood products

PARAMETERS	TYPICAL VALUE	UNITS	MINIMUM	MAXIMUM
Read Time	<1	sec	0.3	0.8
Tag Coil dimensions (Ø x L)	Ø4.3 x 6.5	mm	Ø4.2 x 6.4	Ø4.4 x 6.6
Tag dimensions (Ø x L)	Ø10 x 23.8	mm	Ø9.9 x 23.7	Ø10.1 x 23.9
Tag Storage Temperature	-196	°C	-196	150
Tag Operating Temperature	-196 to 60	°C	-196	60
Gamma Irradiation Survivability	80	kGy		100
Temperature measurement range	-196 to 80	°C	-196	80

TOP VIEW



FRONT VIEW



Scale 2:1
All dimensions are in millimetres

HOW DO I KNOW IF AN ITEM HAS A BLUECHIIP®?

Look for this symbol:

PLEASE READ CAREFULLY

Information in this document is provided solely in connection with Bluechiip Ltd products. Bluechiip Ltd and its subsidiaries ("BLUECHIIP LTD") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All Bluechiip Ltd products are sold pursuant to Bluechiip Ltd's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the Bluechiip Ltd products and services described herein, and Bluechiip Ltd assumes no liability whatsoever relating to the choice, selection or use of the Bluechiip Ltd products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by Bluechiip Ltd for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN Bluechiip Ltd'S TERMS AND CONDITIONS OF SALE Bluechiip Ltd DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF Bluechiip Ltd PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZE REPRESENTATIVE OF Bluechiip Ltd, Bluechiip Ltd PRODUCTS ARE NOT DESIGNED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYTEMS, WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE.

Resale of Bluechiip Ltd products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by Bluechiip Ltd for the Bluechiip Ltd product or service described herein and shall not create or extend in any manner whatsoever, any liability of Bluechiip Ltd.

Bluechiip Ltd and the Bluechiip Ltd logo are trademarks or registered trademarks of Bluechiip Ltd in various countries.

Information in this document supersedes and replaces all information previously supplied.

The Bluechiip Ltd logo is a registered trademark of Bluechiip Ltd. All other names are the property of their respective owners.

© 2015 Bluechiip Ltd - All rights reserved

Australia - United Kingdom - United States of America

www.bluechiip.com

bluechiip
TRACKING SOLUTIONS