bluechiip®
Advanced Sample Management

Bluechiip Enabled Product Range 2021



DOMINIQUE DUTSCHER SAS

REDEFINE QUALITY• DRIVE PRODUCTIVITY

CONFIDENCE IN EVERY SAMPLE

REVISION 1.0

bluechiip®
Advanced Sample Management

Bluechiip understands that every sample is critical, our objective is to manage each one with optimal quality in the most efficient way.

Bluechiip's advanced sample management solution is the only system providing sample temperature with ID in cryogenic environments. **Bluechiip delivers confidence in every sample.**

bluechiip ENABLED

Bluechiip - advancing sample management

Bluechiip's unique and patented technology is designed to operate across a wide temperature range from -196°C to over +100°C, creating the perfect system for managing sensitive samples. Bluechiip Enabled Sample Storage, Readers and Software combine to provide an unparalleled ability to track and store sample level data, including temperature across the cold chain process.

Drive Productivity

- Reduce manual processes and eliminate double witnessing
- Identify multiple samples instantly through frost
- Simplify inventory management for faster processing
- Enhance efficiency at every step of the workflow

Redefine Quality

- Capture sample level ID and temperature for cold chain integrity
- Minimize the risk of cryogenic temperatures moving outside prescribed levels
- Provide key workflow information to drive continuous improvement
- Eliminate errors through advanced location control
- Support compliance to industry standards and quality procedures



CONFIDENCE IN EVERY SAMPLE

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Bluechiip Enabled Solution

Bluechiip® enabled sample storage
The cryo-safe, tamper-proof chip is embedded into vials, boxes or attached to storage equipment

Multiple reader formats
Available in mobile, benchtop, single and multi-vial for bulk reading

Easy to use Sample Management Software
Bluechiip® Stream Sample Manager™ keeps sample data accessible in one location via a web interface

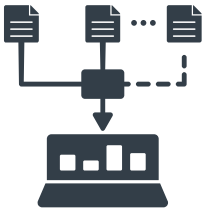
Superior Service and Support across sample containers, readers, and software

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Software



STREAM SAMPLE MANAGER



DATA AND SYSTEMS INTEGRATION

Readers



HANDHELD READER



MULTIVIAL READER

Sample Storage



CRYOTAGS



UNIVERSAL CRYOBOX



CRYOBOX



CRYOVIALS

Bluechiip Enabled Workflow

Streamlined collection and handling

- Streamlined batch receiving with multivial readers and intuitive software compatible with barcodes
- Sample certainity provided with every unique hard-coded Bluechiip® ID
- Automatically record temperature when receiving and handling samples
- Multi-site capable solution for enhanced traceability



Simplified cryostorage

- Optimize freezer capacity using Bluechiip Guided Storage™ to automatically identify free space and consolidate samples
- Eliminate errors by utilizing Bluechiip readers to update inventory automatically
- With every read, Sample ID is linked with temperature, time, user and storage location
- Designed to operate in cryogenic conditions down to -196°C



Advanced retrieval and handling

- Eliminate paper picklists and double witnessing with Bluechiip Guided Retrieval™
- Identify and retrieve samples in bulk without defrosting
- Reduce temperature excursions by locating and indentifying samples while remaining in the cold
- Confirm sample integrity during handling outside of storage by monitoring temperature and ID



Unparalleled quality assurance

- Complete the Audit Trail by adding sample level temperature to chain of custody and identity
- Standardize and de-risk sample handling and cryopreservation processes
- Support compliance to quality procedures and industry standards including CFR21, ISO20387, CAP, GMP, and GTP
- Bluechiip Cryovials are CE-IVD certified and FDA registered. Bluechiip Ltd is ISO9001 certified



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HANDHELD READER

MOBILE, SINGLE-POINT, BLUECHIIP READER WITH BARCODE SCANNER

› The Bluechiip Handheld Reader™ is part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software.





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Overview and Features

The Bluechiip Handheld Reader is a portable and powerful single point reader that captures critical sample information quickly in cryogenic environments, driving productivity, redefining quality, and providing **confidence in every sample**.

- Sample level identification and temperature down to -196°C
- Bluechiip Guided Storage and Retrieval™ in your hand
- View and automatically update sample status and location with interactive touch screen
- Electronic witnessing to eliminate resource duplication and human error
- Supports multiple ID including barcodes
- Identify samples instantly even covered in frost

BLUECHIIP ENABLED HANDHELD READER	
Part Number	BRHR-BB-001
Description	Mobile, single-point, Bluechiip reader with barcode scanner
Contents	Handheld Reader, charger, User Key
Communication	WiFi, Bluetooth
Package Dimensions	540x400x280mm
MoQ	1 unit



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MULTIVIAL READER

BENCHTOP MULTI-POINT CRYOBOX BLUECHIIP READER

› The Bluechiip Multivial Reader™ is part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software.







ColdTop Accessory

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Overview and Features

The Bluechiip Multivial Reader is the answer to high throughput vial ID, temperature and position within the Cryobox driving productivity, redefining quality, and providing **confidence in every sample**.

- Scale accessioning and data input when combined with Stream Sample Manager
- High throughput Bluechiip Guided Storage and Retrieval™
- Identify and sense sample temperature in bulk straight out of -196°C without defrosting
- Reduce errors with automatic vial position updates with every read
- Streamline vial consolidation and batch auditing
- The ColdTop™ accessory provides a low temperature environment for samples during identification

BLUECHIIP ENABLED MULTIVIAL READER 9X9	
Part Number	BRMV-81-001
Description	Benchtop Multi-Point 9x9 Cryobox Bluechiip Reader
Contents	Multivial Reader, Power cords, Instructions, User Key
Package Dimensions	Matchbox 400x300x400 mm Multivial 540x400x280 mm
MoQ	1 unit
Accessories	BRAC-T1-001 Bluechiip ColdTop (400x300x500)

CRYOBOX TRACKER

CONTINUOUS TEMPERATURE MONITOR + ID FOR BLUECHIIP ENABLED CRYOBOXES

› The Bluechiip CryoBox Tracker™ is part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software.







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Overview and Features

The Bluechiip CryoBox Tracker provides continuous monitoring and tracking of Bluechiip Enabled Cryoboxes while outside of storage. It links temperature to chain-of-custody during critical handling processes in dry ice or LN2 temperatures driving productivity, redefining quality, and providing **confidence in every sample**.

- Sense Bluechiip Enabled Cryobox level temperature instead of the environment
- Visual and audible critical temperature threshold alarms
- Timestamp critical touchpoints and transitions outside of storage
- Automatically capture and link Bluechiip Enabled Cryobox temperature and chain of custody data
- Access data via Bluechiip Stream Sample Manager for reporting and analysis
- Portable single point reader specifically designed for cryogenic environments

BLUECHIIP ENABLED CRYOBOX TRACKER	
Part Number	BRHR-BT-001
Description	Mobile, Continuous Temp and ID Reader for Bluechiip CryoBoxes
Contents	Handheld Reader, CryoBox Tracker accessory, charger, User Key
Package Dimensions	540x400x280mm
MoQ	1 unit

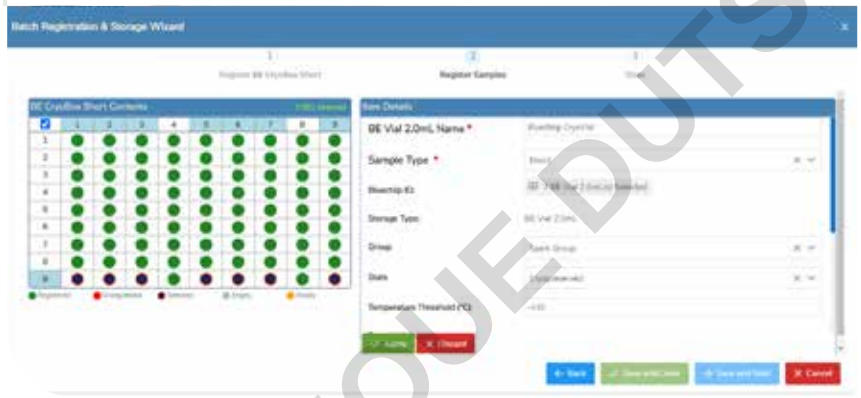
BLUECHIIP STREAM SAMPLE MANAGER

SAMPLE MANAGEMENT SOFTWARE

- Bluechiip Stream™ Sample Manager is the software component of Bluechiip's Advanced Sample Managment solution.









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Overview and Features

Bluechiip's Stream™ Sample Manager is designed to work seamlessly with Bluechiip Enabled readers and sample storage to drive productivity and deliver unparalleled quality assurance. Stream™ Sample Manager has an intuitive user interface that can be easily set up and adapted to your sample inventory and laboratory workflow needs. Stream™ Sample Manager is a simple solution for new and existing sample inventories that maintains inventory accuracy and automatically captures chain-of-custody and chain-of-identity, including sample level temperature, to deliver **confidence in every sample**.

BLUECHIIP STREAM SAMPLE MANAGER SOFTWARE AND BLUECUBE	
Part Number	BRHR-BB-001
Description	Software License and Data server
Contents	BlueCube, Power cords
Package Dimensions	300x200x200mm (BlueCube)
MoQ	1x BlueCube (includes 1 year license for base configuration)
Compliance	FDA CFR 21 Part 11

BLUECHIIP STREAM USER KEY	
Part Number	BAFO-01-001
Description	Additional User for Stream Sample Manager Software
Contents	1 User ID Key
Package Dimensions	100x50x120mm
MoQ	1 Unit

BLUECHIIP STREAM SAMPLE MANAGER

SAMPLE MANAGEMENT SOFTWARE

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Advanced Inventory and Sample Data Management

- Chain-of-Custody, Identity and Temperature at the sample level
- Automatic inventory updates through seamlessly connected Bluechiip Readers
- Support for multiple ID's including Bluechiip ID, barcodes and labels
- Customize forms and templates to support any sample management workflow
- Legacy data migration and configuration support through web API



Enhanced productivity

- Bulk sample registration for improved productivity
- Bluechiip Guided Storage™ and Guided Retrieval ™ eliminates paper and simplifies sample handling
- Optimize storage utilization by easily identifying spare capacity to consolidate samples



Unparalleled Quality Assurance

- Sample level tracking in ultra-low and cryogenic environments made possible with Bluechiip technology
- Advanced sample level tempreature reporting captured with chain-of-custody and chain-of-identity
- Bluechiip Stream supports FDA CFR 21 Part 11 enabling adherence to quality and regulatory standards



Intuitive Interface

- Seamless integration with Bluechiip Enabled Readers and Sample Storage
- Simple to set up and scalable for any size operation
- Graphical interface to visualize storage capacity and sample level data



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Bluechiip Enabled Internal Thread Cryovial Range



1.2 ml 2.0 ml 4.0 ml 5.0 ml

INTERNAL CAP - BAG OF 50				
CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Packaging
BCVE-12-050	1.2	4.27	Self Standing	bag / 50
BCVE-20-050	2.0	4.82	Self Standing	bag / 50
BCVE-40-050	4.0	7.62	Self Standing	bag / 50
BCVE-50-050	5.0	9.03	Self Standing	bag / 50

INTERNAL CAP - CASE OF 500					
CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale Unit
BCVE-12-500	1.2	4.27	Self Standing	bag / 50	case / 500
BCVE-20-500	2.0	4.82	Self Standing	bag / 50	case / 500
BCVE-40-500	4.0	7.62	Self Standing	bag / 50	case / 500
BCVE-50-500	5.0	9.03	Self Standing	bag / 50	case / 500

Bluechiip Enabled External Thread Cryovial Range



1.2 ml 2.0 ml 3.0 ml 4.0 ml 5.0 ml

EXTERNAL CAP - BAG OF 50				
CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Packaging
BCVI-12-050	1.2	4.02	Self Standing	bag / 50
BCVI-20-050	2.0	4.56	Self Standing	bag / 50
BCVI-30-050	3.0	6.92	Self Standing	bag / 50
BCVI-40-050	4.0	7.36	Self Standing	bag / 50
BCVI-50-050	5.0	8.76	Self Standing	bag / 50

EXTERNAL CAP - CASE OF 500					
CAT. NO.	Vol. (ml)	Height (cm)	Bottom style	Internal packaging	Sale Unit
BCVI-12-500	1.2	4.02	Self Standing	bag / 50	case / 500
BCVI-20-500	2.0	4.56	Self Standing	bag / 50	case / 500
BCVI-30-500	3.0	6.92	Self Standing	bag / 50	case / 500
BCVI-30-500	4.0	7.36	Self Standing	bag / 50	case / 500
BCVI-30-500	5.0	8.76	Self Standing	bag / 50	case / 500

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CRYOVIALS

BLUECHIIP ENABLED CRYOVIALS

- Human DNA, DNase, RNase, Pyrogen, ATP, PCR inhibitors free certified*
- Sterile SAL 10-6 *
- CE IVD marked and FDA registered*
- Certified IATA PI 650
- Manufactured in Clean Room Class ISO 7 (UNI EN ISO 14644-1). Class 10000 (US FED STD 209E)
- Working Temperature: suitable for storage from general cold storage refrigeration (+4°C) down to the vapor phase of liquid nitrogen
- Tubes in Polypropylene / Caps in Polyethylene and TPV

* Certificate of analysis, Certificate of validated Beta rays treatment and Declaration of conformity CE-IVD available

Color coded inserts are available to fit both internal and external caps for quick sample identification **(see page 24)**

Innovative screw caps are produced from medical grade polyethylene (PE) and are comolded with a thermoplastic elastomer (TPV) to provide a 100% leak-proof seal

Produced from medical grade raw materials that will not discolor after re-sterilizing

Printed graduations for accurate measurements

White writing surface for specimen identification



Bluechiip Tag embedded for secure identification and temperature sensing

Star shaped top cavity is engineered for use with automatic decapping equipment

Chemical resistant caps

Slim profile external caps ensure better fit in standard racks and boxes

Vials and caps are **autoclavable**

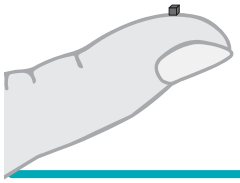
Standard code 128 barcode on each vial includes human readable characters printed in both left and right hand orientation for easy readability by all users.

Chemical resistant polypropylene (PP) vial

Vial interlock in base for one-handed capping using workstations and cryoboxes

bluechiip ENABLED

Every Bluechiip Enabled Cryovial contains a Bluechiip tag to work seamlessly with Bluechiip Readers and Stream Sample Manager to provide an unparalleled ability to track and store sample level data, including temperature, across the cold chain process.



Bluechiip's tags are specifically designed to

- **Perform in cryogenic environments at -196°C**
- **Have a unique, hard-coded, and tamper proof ID**
- **Sense temperature**
- **Survive ionizing radiation and autoclaves**

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Certificate of Compliance

Catalogue number(s)	**BCVE-20-500 (case of 500) / BCVE-20-050 (bag of 50)**
Description	**Bluechiip Enabled Cryovial, 2mL, External Thread**
Lot ID	**21P1084400**
Manufacturing Date	**08/2021**
Expiry Date	**08/2026**

Bluechiip Enabled™ Cryovials are produced in an ISO Class 8 Clean Room, in accordance with ISO 14644. An independent accredited Laboratory performs periodic tests on the various purity parameters.

Human DNA Free – Tested by Polymerase Chain Reaction (PCR) method and found to be free of detectable of Human DNA contamination. The assay detection limit is hDNA 2pg (less than one human cell).

DNase/RNase Free – Tested by nuclease assay method and found to be free of detectable DNase/RNase contamination. The assay detection limit is 10^{-6} Kunitz-units/ul for DNase and 10^{-9} Kunitz-units/ul for RNase.

PCR Inhibitors Free – Tested by PCR. The assay detection limit is less than 10 targets amplifiable.

Endotoxin Free – Tested by Kinetic turbidimetric LAL test (FDA Guideline). The assay detection limit is <0.001 EE(EU;I.E.; I.U.)/ml

ATP Free – Tested by Pre-sterilization test / Bioburden test. The assay detection limit is $< 5.5 \times 10^{-12}$ mg

Non-Pyrogenic - Validated per European Pharmacopoeia criteria for pyrogens and meets the requirements for classification as non-pyrogenic. The acceptance level for product is ≤ 0.1 EU/mL.

Non-Cytotoxic / Non-Haemolytic - The raw material used has passed the United States Pharmacopeia (USP) testing including Class VI tests. The raw material used has successfully passed the biological tests according to ISO 10993 - external communicating devices for indirect blood contact for a prolonged period. The raw material does not use or intentionally incorporate any of the following materials: Cadmium, Chromium (VI), Lead, Mercury.

Sterilization - Product has been sterilized and dosimetrically released per the requirements of ANSI/AAMI/ISO 11137. Products meet a minimum Sterility Assurance Level (SAL) of 10^{-6}.

Product Attribute - Validated for compliance to IATA PI 650; does not leak at a pressure differential of 95kPa in the range of -40°C to +55°C.

CE Conformity – Product meets the essential requirements of Council Directive 98/79/EC pertaining to in-vitro diagnostics (IVDD). Pathway of conformity per Annex III

FDA registered business and products – Bluechiip Limited is registered in the FDA database and Bluechiip Enabled Cryovials are registered under the FMH Product Code, Regulation Number 864.3250 (sterile specimen container)

Quality Control Testing - Representative production samples are collected and inspected in accordance with current applicable product specifications. Inspection records are reviewed and approved by qualified personnel for product release. This product met Bluechiip Limited high standards of quality at the time of batch/lot release, in accordance with our ISO9001 certified quality management system.

Scott Turner

Engineering and Quality Manager

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Writing cap disks

- 6 Colors available
- In medical grade raw material
- Wide surface for easy writing and labeling
- For both internal and external cap



WRITING CAP DISKS FOR FOR BLUECHIIP CRYOVIALS

CAT. NO.	Color	Internal packaging	Sale unit
BCCD-BL-001	Blue	1 / bag	bag / 1000
BCCD-RE-001	Red	1 / bag	bag / 1000
BCCD-GR-001	Green	1 / bag	bag / 1000
BCCD-YE-001	Yellow	1 / bag	bag / 1000
BCCD-PU-001	Purple	1 / bag	bag / 1000
BCCD-WH-001	White	1 / bag	bag / 1000

Workstation for Cryovials

Workstation for Bluechiip CryoVials, 40 holes, in polycarbonate, availabe in blue, autoclavable.

Useful for screwing and unscrewing the tube directly on the bench with a single hand, avoiding possible contamination.

- In polycarbonate
- 40 positions
- Locking mechanism



WORKSTATION FOR BLUECHIIP CRYOVIALS

CAT. NO.	Color	Dimensions (mm)	Sale unit
BACH-40-001	Blue	L 21.5 P 10.0 H 2.50	1 unit

Single Channel Decapper for Bluechiip CryoVials

Versatile and easy to use tool specifically designed to decap and recap Bluechiip Enabled CryoVials as well as pick a place them from CryoBoxes



Features

- Rapid decapping and capping
- Very simple to use
- USB Battery charger
- Closing intensity adjustment
- Light weight

Package Contents

- Electric Decapper/ Recapper
- USB cable
- USB charger



ELECTRIC DECAPPER AND CRYOVIAL PICKER

CAT. NO.	Description	Internal packaging	Sale Unit
BASD-TS-001	Single screw decapper	1	1

Bluechiip CryoVial Picker

- For an easy vial removal after freezing
- For both internal and external cap
- Supplied with cryoboxes inner packs









BLUECHIIP CRYOVIAL PICKER

CAT. NO.	Color	Internal packaging	Sale unit
BAPI-BS-001	Blue	1	1

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CRYOBOXES

BLUECHIIP ENABLED CRYOBOX 9X9 (SHORT AND TALL)

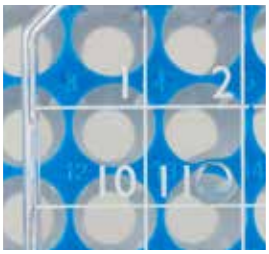
› The Bluechiip CryoBoxes are part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software.



Bluechiip enabled



Decap and move with a single hand



Numbered lid and grid



Writing and labeling area



Barcode lasered



CryoBox 9x9 Short



CryoBox 9x9 Tall

BLUECHIIP ENABLED CRYOBOX 9X9 SHORT	
Part Number	BCBE-91-005
Description	Polycarbonate CryoBoxes for Bluechiip Enabled 2mL Cryovials
Dimensions	132x132x52mm
Inclusions	1 Vial Picker per Sale Unit
Sale Unit	1 pack of 5 units

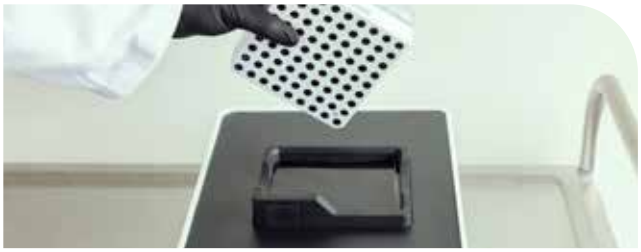
BLUECHIIP ENABLED CRYOBOX 9X9 TALL	
Part Number	BCBE-92-004
Description	Polycarbonate CryoBoxes for Bluechiip Enabled 5mL Cryovials
Dimensions	132x132x94 mm
Inclusions	1 Vial Picker per Sale Unit
Sale Unit	1 pack of 4 units

Overview and Features

Bluechiip Enabled CryoBoxes feature a Bluechiip Tag for ID and temperature sensing in cryogenic environments. When scanned with a Bluechiip Reader, they provide instant identification driving productivity, redefining quality, and providing **confidence in every sample**.

- Compatible with Bluechiip CryoBox Tracker to deliver continuous temperature monitoring at the sample level.
- Works with the Bluechiip Multivial Reader for sample level indentification and temperature without defrosting
- Designed to withstand temperatures from -196°C to over +100°C
- Multiple identifiers including Bluechiip ID, Barcode, and human readable characters
- Numbered grid on cryobox and lid with anti-smudge writing area
- Includes vial rotation locking mechanism to support capping and decapping with one hand

Compatible with Bluechiip Handheld Reader, CryoBox Tracker and Multivial Reader



CryoBox on an MVR



CryoBox



CryoBox being read with a CryoBox Tracker

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BLUECHIIP ENABLED UNIVERSAL CRYOBOX 9X9

› The Bluechiip Universal CryoBox is part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software



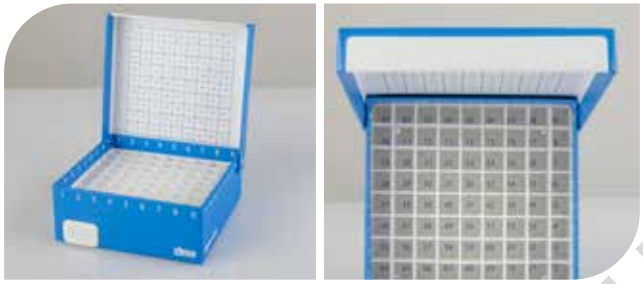
Bluechiip enabled



Writing and labeling area



Water resistant finish for durability



Numbered grid inside and outside with hinged lid

BLUECHIIP ENABLED UNIVERSAL CRYOBOX 9X9	
Part Number	BCUC-91-005
Description	Water Resistant 9x9 CryoBoxes for 2mL vials
Dimensions	132x132x52mm
Inclusions	1 Vial Picker per Sale Unit
Sale Unit	1 pack of 5 units

Overview and Features

The Bluechiip Universal CryoBox is compatible with 2mL or smaller cryovials. It features a Bluechiip CryoTag for ID and temperature sensing. Bluechiip CryoBoxes allow quick identification through frost straight out of LN2 temperatures, driving productivity, redefining quality, and providing **confidence in every sample**:

- Designed to be used at temperatures down to -196°C (LN2 vapor)
- Bluechiip CryoTag for ID and temperature sensing with dedicated writing area
- Allows storage of a wide range of existing sample inventory
- Compatible with Bluechiip Enabled Handheld reader and CryoBox Tracker
- Hinged lid design and numbered grid inside and outside of the box for easy vial location



Compatible with Bluechiip Handheld Reader and CryoBox Tracker



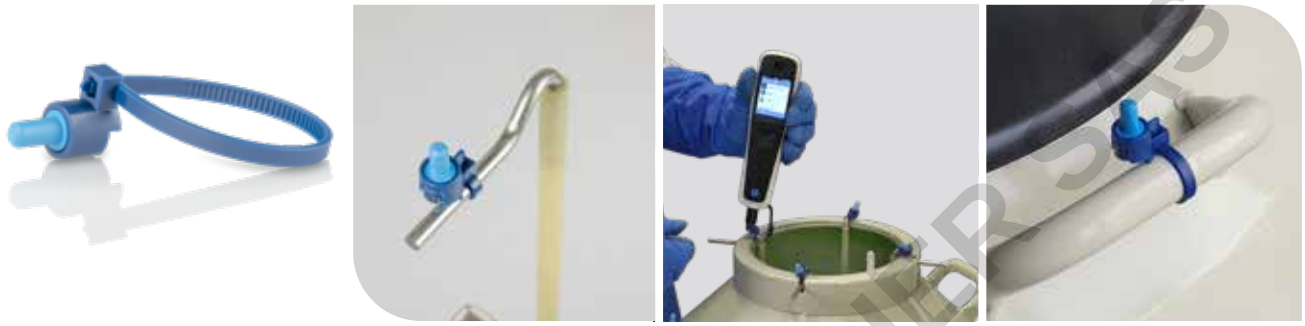
Universal CryoBox being read with a CryoBox Tracker

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BLUECHIIP ENABLED CRYOZIP AND CRYOLABEL

- Bluechiip Enabled CryoTags are designed to manage a wide range of sample and storage equipment
- The Bluechiip CryoTags are part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software

Bluechiip Enabled CryoZip



Bluechiip Enabled CryoLabel







BLUECHIIP ENABLED CRYOZIP	
Part Number	BCZT-BL-050
Grid Colour	Blue
Dimensions	Zip diameter: up to 33 mm
Sale Unit	1 Box of 50 units

BLUECHIIP ENABLED CRYOLABEL	
Part Number	BCCL-SM-020
Grid Colour	White
Dimensions	80x23x2 mm
Sale Unit	Sheet of 20 units

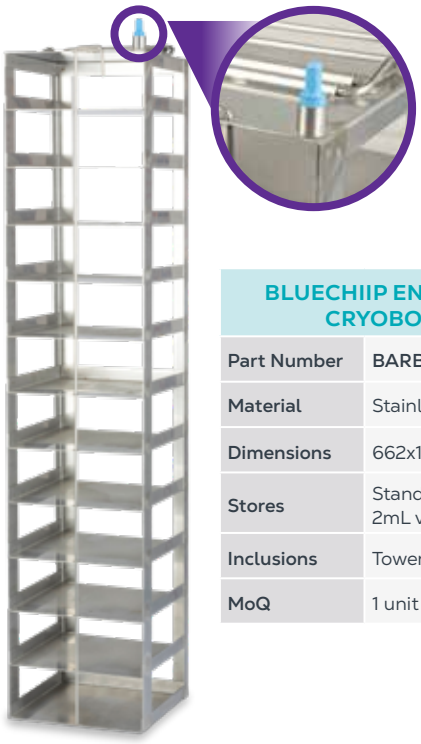
Overview and Features

The Bluechiip CryoTags are designed to be retrofitted to storage equipment such as tanks, towers, freezers, drawers or other cryo-containers including bags, boxes and bottles. This allows users to identify storage location enabling Guided Storage™ and Guided Retrieval™ with Bluechiip Stream™ software and Readers. The Bluechiip CryoTags allow quick identification through frost straight out of LN2 temperatures, driving productivity, redefining quality, and providing **confidence in every sample**.

- All CryoTags are designed to withstand -196°C (LN2 vapor)
- All CryoTags are compatible with Bluechiip Readers to provide instant ID and Temperature
- Cryotags provide the ID for Bluechiip Enabled Towers and Frames
- The CryoLabel provides additional ID security with space for handwriting and pre-printed barcodes
- The CryoZip provides a versatile attachment to uniquely shaped storage

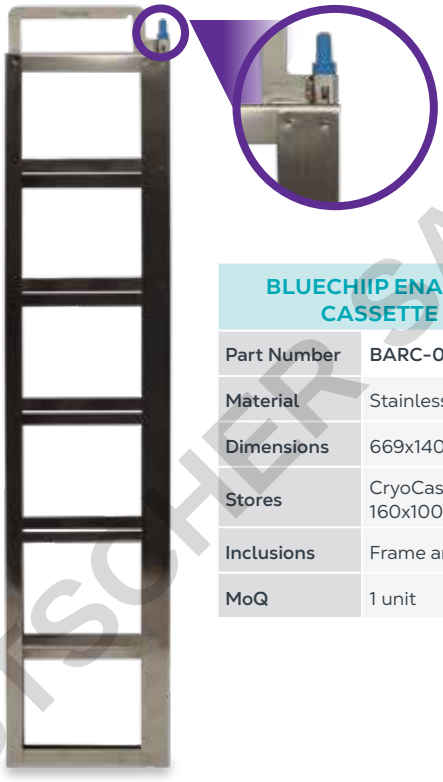
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Bluechiip Enabled 12-Bay CryoBox Tower



BLUECHIIP ENABLED 12-BAY CRYOBOX TOWER	
Part Number	BARB-12-001
Material	Stainless Steel
Dimensions	662x142x142
Stores	Standard CryoBoxes for 2mL vials
Inclusions	Tower and CryoTag
MoQ	1 unit

Bluechiip Enabled 6-bay Cassette Frame



BLUECHIIP ENABLED 6-BAY CASSETTE FRAME	
Part Number	BARC-06-001
Material	Stainless Steel
Dimensions	669x140x18
Stores	CryoCassettes of 160x100x17 (50mL bags)
Inclusions	Frame and CryoTag
MoQ	1 unit

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Bluechiip Enabled Towers and Frames have a dedicated built-in holder for the CryoTag





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Bluechiip Enabled CryoBag Cassette

- Bluechiip Enabled CryoBag Cassettes protect and allow 50mL CryoBags to be stored securely in frames.
- The Bluechiip CryoBag Cassettes are part of the Sample Management Solution comprised of Bluechiip Enabled™ Sample Storage, Readers and Software.







BLUECHIIP ENABLED CRYOBAG CASSETTE		
Part Number	BCCR-BL-001	Blue
	BCCR-RE-001	Red
	BCCR-YE-001	Yellow
	BCCR-GR-001	Green
Dimensions	158x10 mm	
Stores	50mL Cryobags	
Inclusions	CryoCasette and CryoTag	
Sale Unit	1 unit	

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Overview and Features

The Bluechiip Enabled CryoBag Cassettes are designed to accommodate 50mL or smaller CryoBags. The polycarbonate construction protects the sample from rapid warming events while the transparent cover allows for quick content checks. The external Bluechiip CryoTag embedded in the Cassette allows for easy sample identification and temperature checking with a Handheld Reader, driving productivity, redefining quality, and providing **confidence in every sample**.

- Designed to provide insulation to the CryoBag preventing temperature excursions
- Identify the CryoBag without opening the Cassette
- Anti-slip feature preventing the cassette to slip out of the storage frame
- Transparent cover with multiple backing Colors for visual identification
- Simple locking mechanism to secure the cassette

Bluechiip Enabled CryoBag Cassettes are compatible with 6-bay Cassette Frame

Bluechiip Enabled technology

Bluechiip's unique patented chip is a Micro Electro-Mechanical System (MEMS) with ID and temperature sensing capabilities. It is a passive mechanical device not affected by frost or cryo temperatures unlike other identification technologies.

Bluechiip's tags are specifically designed to

- Perform in cryogenic environments at -196°C
- Have a unique, hard-coded, and tamper proof ID
- Sense and record temperature
- Survive ionizing radiation and autoclaves

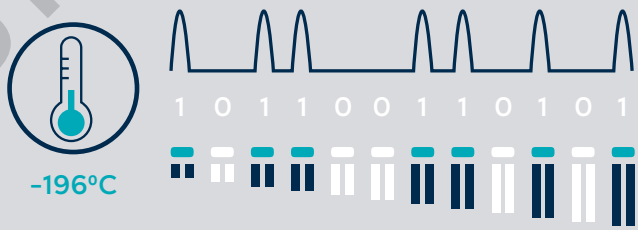
Resonating Micro Beams Shifting with Temperature

Each chip is a unique micro electro mechanical system (MEMS) containing multiple beams. Bluechiip tests every chip in LN2 during the manufacturing process.



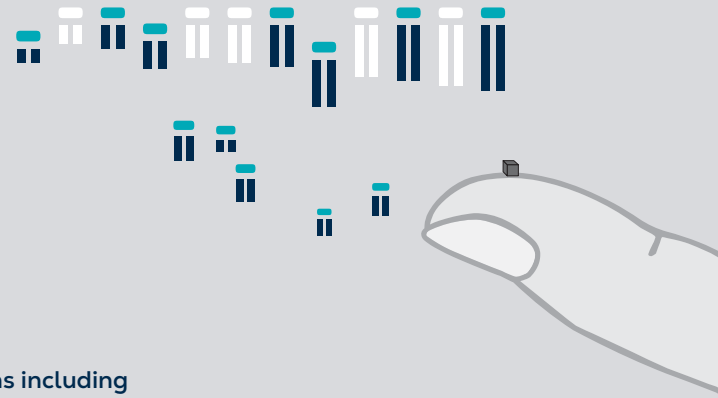
Miniature Chip

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



Partnership Opportunities

Bluechiip technology can be configured for a variety of applications including integration into partner's products. Contact us for more information.

Bluechiip Limited
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Customer Service and Sales

Email sales@bluechiip.com

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