Biomark®

SPECIALISTS IN ELECTRONIC IDENTIFICATION

2015 PRODUCT CATALOG

FISH & WILDLIFE

INNOVATION & DEVELOPMENT

RESEARCH & TECHNOLOGY

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V1.06.6.15 W

Biomark was founded in 1990 by Donn and Retta Park. Donn worked at the National Marine Fisheries Service in Seattle, Washington where he was employed as a research biologist for 34 years. Upon his retirement from the NMFS, he saw a need in the fisheries research area for an expanded role of RFID technology. Biomark was founded with the intent to develop a premiere fish tagging organization using RFID tag technology. It quickly adapted into a company that not only tagged fish, but also sold RFID tag products, and developed and built RFID tag data recovery systems based on customers' research needs.

Biomark first opened its shop and office in July, 1990 in Kennewick, Washington. The company quickly added its first employee, Scott McCutcheon, who continues to work with Biomark today. Biomark's current President, Dean Park, joined the company in 1991 as a fisheries technician. He worked in a variety of positions with the company until he became President in 2001. In 1991, Biomark moved to Boise, Idaho. The founding employees chose Boise for its accessibility to the Rocky Mountains and its great quality of life. Because of Boise's strong technology business and research community Biomark quickly adopted it as its permanent home. As a result of the company growth Biomark has occupied several locations in and around the Boise area and prides itself in being a valuable member of Idaho's Treasure Valley community.

Product innovation has always had a strong foundation at Biomark. In the 1990s Biomark pioneered the first commercially available custom PIT tag detection systems as well as tagging and data collection tables. During the next decade Biomark played a major role in designing and developing fabrication techniques to reliably operate PIT tag antennas underwater (a major breakthrough in evaluation and monitoring technique). Biomark has emerged as a worldwide leader in RFID products for fish and wildlife research. From innovative, first of their kind, stream, river, and hydro facility RFID tag detection systems, to tag injection systems and production tagging services, Biomark delivers the best in products and services to its customers.

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BIOMARK, INC.
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With over 25 years of experience in fisheries biology and electronic identification, Biomark, Inc. is a worldwide leader in unique animal identification through radio frequency identification (RFID). We specialize in PIT (Passive Integrated Transponder) technology providing a broad variety of identification and monitoring solutions for fish and wildlife research. Our extensive product line, as presented in this catalog, provides options for the most simple scale mark-recapture projects to large scale, long-term monitoring solutions.

Biomark provides specialized design, construction and installation of custom PIT-tag monitoring systems. We work directly with the researchers and end users to tailor systems for specific, and often unique applications. PIT-tag technology is a powerful tool for fish and wildlife monitoring and research. We see every project as an opportunity to expand our knowledge and develop and improve our product offering. Our goal is to supply tags, readers, systems and reliable components that result in quality data. Contact us today to discuss your project and find out how Biomark can help you reach your research goals.

A PIT system on the Imnaha River, Oregon, where a hybrid thermoelectric generator (TEG) is in use that utilizes solar power to help reduce fuel consumption.

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Pre-loaded PIT Tags

PRE-LOADED NEEDLES & TRAYS

Pre-loaded tags are available individually or in trays of 100. The trays or individual needles, coupled with MK25 implant gun, make tagging fast and efficient. Each needle comes pre-loaded with your choice of either the HPT12™ (High Performance Tag, 12.5mm 134.2 kHz), HPT9™ (High Performance Tag, 9mm 134.2 kHz) or HDX12™ (12mm tag). The tags are secured inside the needle, preventing the tags from falling out before being implanted. It eliminates the need to disinfect between implants, making it a very efficient and safe tagging system. All Biomark PIT tags are ISO 11784/11785 compliant and ICAR approved. Requires the MK25 implant gun. Used trays, lids and needles can be sent back to Biomark to be recycled.

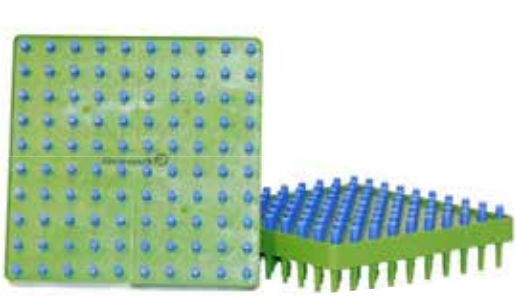
Pre-loaded Trays

Biomark HPT12 Pre-load Tray
12.5mm, 134.2 kHz

Biomark HPT9 Pre-load Tray
9mm, 134.2 kHz

Biomark HDX12 Pre-load Tray
12mm, 134.2 kHz

(100 pre-loaded needles per tray)



Tray

Pre-loaded Individual

Biomark HPT12 Pre-load
12.5mm, 134.2 kHz

Biomark HPT9 Pre-load
9mm, 134.2 kHz

Biomark HDX12 Pre-load
12mm, 134.2 kHz

Individual (includes safety cap)

Pre-loaded PIT Tag Pricing
All tags are ISO Compliant 134.2 kHz

Price dependent on quantity and product combinations. Biomark strives to provide the most competive pricing and product combination packages to meet your individual needs and budget. Please call or email for details.

Please visit the Biomark website to view our fish tagging tutorial video: www.biomark.com/products/videos/

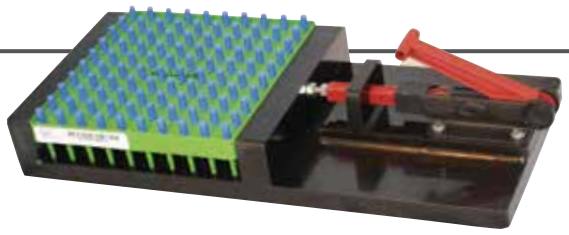
CLIENT TAGS PRE-LOADED

Send in your tags to be loaded in trays or bulk.
Please call for quantities over 10,000.

Please call for pricing.

PRE-LOAD TRAY CLAMP

The tray clamp holds each pre-loaded tray firmly in place, ideal for a tag station and mass marking. $120



All prices in US Dollars

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High Performance PIT Tags, HDX & Pre-loaded Sterile Needles

HIGH PERFORMANCE PIT TAGS

Biomark FDX-B PIT tags are the highest performing RFID tags on the market today for fish and wildlife research. These tags are encapsulated in biocompatible glass and provide 100% unique identification. The tags are available in different sizes, performance levels and packaging options to meet your specific application needs and budget. **All Biomark PIT tags are ISO 11784/11785 compliant and ICAR approved.** 12mm 125 kHz tags are available upon request.

Biomark MiniHPT8™	Biomark HPT9™	Biomark HPT12™	Biomark HPT23™
8.4mm x 1.4mm 134.2 kHz	9mm x 2.1mm 134.2 kHz	12.5mm x 2.1mm 134.2 kHz	23mm x 3.85mm 134.2 kHz

Price dependent on quantity and product combinations. Biomark strives to provide the most competitive pricing and product combination packages to meet your individual needs and budget. Please call or email for details.

BIOTHERMO13™ PIT TAGS

The BioThermo tag is a temperature sensing transponder in conjunction with a standard 13mm x 2.12mm FDX-B 134.2 kHz tag. The temperature monitoring range is 33C to 43C. When read using the Biomark HPR Plus™ Reader, Pocket Reader or Pocket Reader EX, the tag code and tag temperature are displayed and stored in the memory.

Please call for pricing and availability.

HDX BULK PIT TAGS

High performance HDX tags

Biomark HDX12™	Biomark HDX23™
12mm x 2.12mm 134.2 kHz	23.1mm x 3.85mm 134.2 kHz

Please call for pricing and availability.

PRE-LOADED STERILE TAGS


GPT12 PLS


MK15

GPT12™ Pre-load Sterile LL* (12.5mm 134.2 kHz)	HPT9 Pre-load Sterile 25**
Please call for pricing.	

* Includes 1 MK15™ luer-lock fit implanter in each box of 25
** Requires the MK25™ implanter —see page 6

Each tag comes pre-loaded in a sealed, sterilized pack. There are four peel off labels on the back with the tag code, perfect for affixing to data sheets. Packaged in boxes of 25.

All prices in US Dollars

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MK25™ IMPLANT GUN

For use with the pre-loaded trays, pre-loaded bulk, and HPT12™ pre-load Sterile 25. MK25 $40

MK15™ IMPLANT GUN

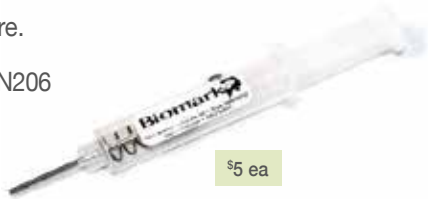
For use with the GPT12™ Pre-Load Sterile LL. MK15 $5

MK10™/MK165™ IMPLANTER

Syringe style implanter with corrosion resistant stainless steel spring and hardware.

MK10: Requires N125™ needle (for the Biomark HPT12, HPT9™, 12mm HDX) or N206 needle (for Biomark HPT23™) and HDX 23mm.

MK165: Requires the N165 (for the Biomark HPT8 MiniChip™).



$5 ea

MK7™ IMPLANTER

Plastic syringe-style implanter with 1.25 inch non-replaceable needles. Needle size is 12 gauge. For the Biomark HPT12, HPT9 and 12mm HDX tags. $2.50 ea

N125/N165 & N206™ NEEDLES

These stainless steel replacement needles are designed to be used with the MK10 and MK165 implanter.

N125: 2 inches long, 12 gauge needle for the Biomark HPT12, HPT9 and 12mm HDX.

N206: 2 inches long, 6 gauge needle for use with the Biomark HPT23 and HDX 23mm.

N165: 2 inches long, 16 gauge needle for the Biomark HPT8 MiniChip.

	Qty: 1–49	Qty: 50–499	Qty: >499
N125	$2.25	$2	$1.75
N165	$2.25	$2	$1.75
N206	$8		


N165


N125


N206

All prices in US Dollars

BIOMARK TAG MANAGER™ SOFTWARE 3.0

With Biomark's Tag Manager Software, you can download tag codes directly from your reader to Excel.

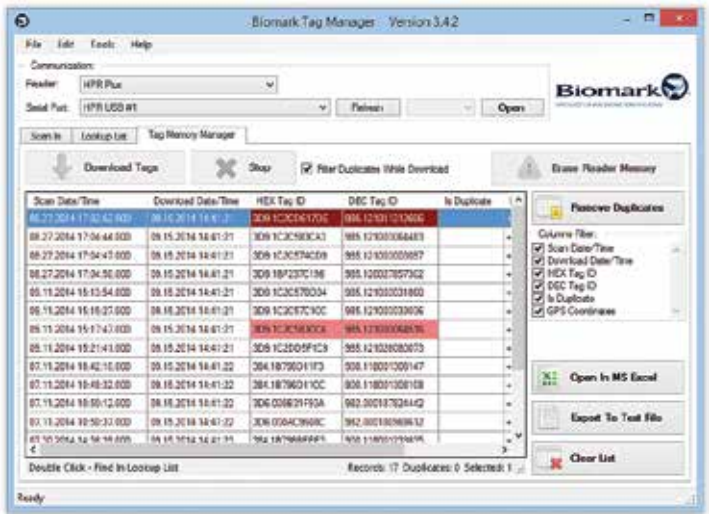
This program allows you to connect easily to any Biomark reader, download tag codes to either Excel or an internal table. You can scan tags in "real time" into the table. The software includes a tag code look up function that alerts the user when a desired tag code is found. Tag Manager is compatible with the HPR Plus™ Reader, 601™ Reader, Pocket Reader, Pocket Reader EX and FS2001 in conjunction with ISO11784/11785 compliant tags [FDX-B, FDX-A & HDX tags]. The software is compatible with Windows XP, Windows 7 and Windows 8. The package includes Biomark Tag Manager Software loaded on a 4GB flash drive, Quick Start Guide and USB to serial adapter. $120

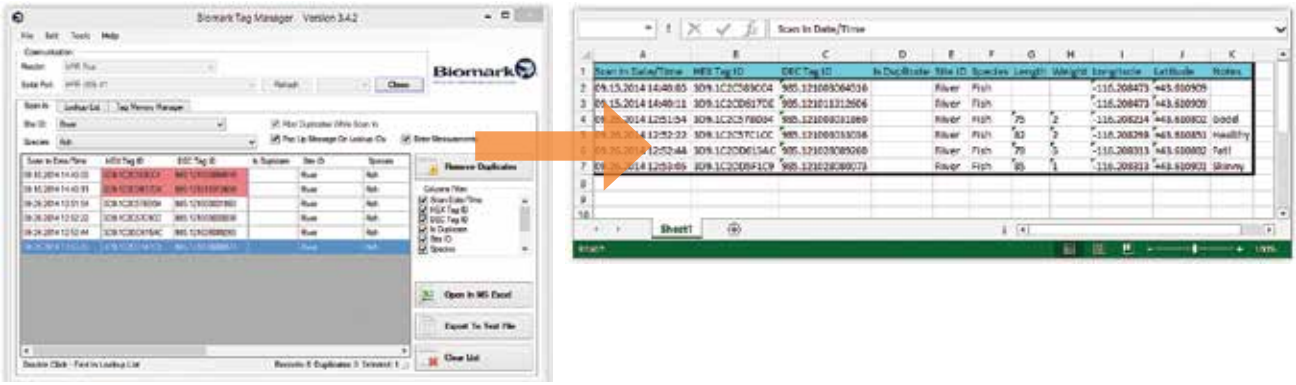
Memory Download

Download easily and directly to Excel, including Date/Time Stamp and GPS coordinate.

Real Time Scan

Scan tag codes directly into a table with date/time stamp (see below), with the option of additional data entry such as site, species and special notes. Real Time Scan has the ability to look up specific tag codes, allowing particular individuals to be found during a tag reading session.

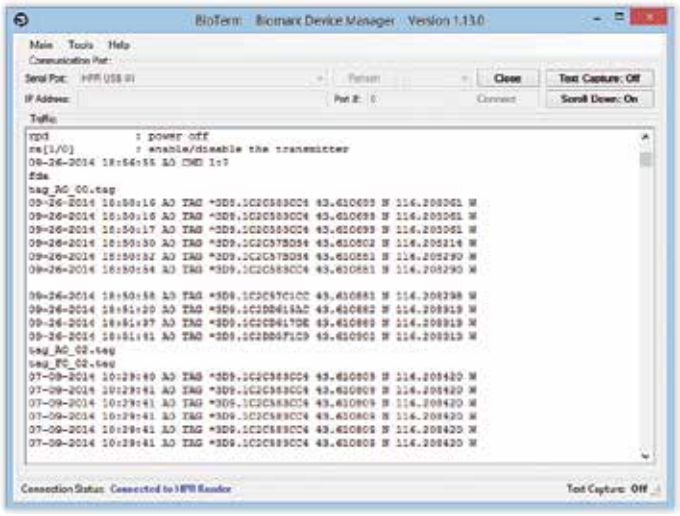




All prices in US Dollars

BIOTERM™

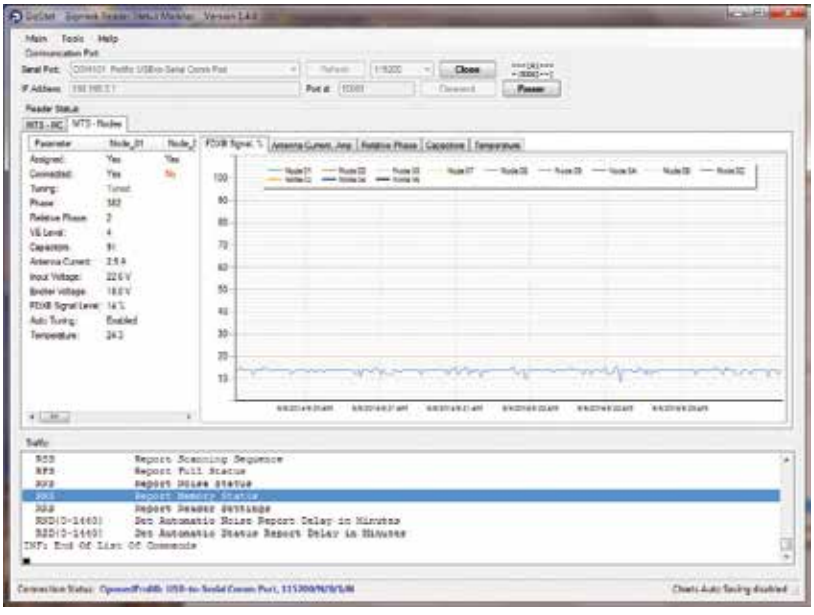
BioTerm is a simple communication program that allows users to download reader files, delete reader files, adjust reader settings, view current reader status, and perform reader firmware updates. It has a convenient feature for logging data from a reader directly to a computer by enabling the "Capture" function. When connected to a reader with diagnostic reporting capability, BioTerm can be an effective data logging solution. This feature is useful for evaluating system and tag detection performance while running a system in the field. Use BioTerm to set up a connection via serial or IP address.



Download BioTerm for FREE from our website.

BIOSTAT™

BioStat is a charting and communication software designed to display and retrieve real-time data from Biomark readers. This data includes parameters such as antenna current, noise level, tuning status, and other key values of high-performance systems. Monitoring these values during system installation and operation will ensure reliability and confidence in system performance.



Reader parameters, displayed in line charts, give users a simple and visual way of understanding those values over time. BioStat allows users to adjust the data gathering speed and configure automatic chart saving to a PC. The charting process may be set up to collect data in real-time for hours or days when necessary. Like BioTerm, BioStat supports all connection types of Biomark readers and command communication.

Download BioStat for FREE from our website.

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Biomark 601™ Reader

BIOMARK 601™ READER

The Biomark 601 Reader is a versatile handheld reader that withstands the elements. It is water resistant, durable and designed exclusively for the researcher that needs the highest quality and performance in a light-weight, simple operation handheld device. This reader detects FDX-B (134.2 kHz), FDX-A (125 kHz) and HDX tags. It includes features such as a time/date stamp with each tag read and decimal or hexadecimal display. The 601 has a 1500 tag code memory capacity that is easily downloaded using Biomark Tag Manager™ (see page 7). The Biomark 601 Reader comes with a combined battery charger/AC Power Supply/RS-232 communication cable, rechargeable NiMH batteries, AA batteries, test tag and a user manual.

601 Reader

Qty: 1–4	Qty: 5–9	Qty: >10
$595	$550	$525

ACCESSORIES FOR THE BIOMARK 601™ READER

Description	Price
AC Power Supply/Charger	$39
Communication Cable w/Endcap	$59
International AC Power Supply/Charger	$69
USB to Serial Adapter	$20

AC Power Supply/Charger

Comm Cable w/Endcap

601™ READER HOLSTER

Keep your 601 at the ready with this awesome holster that slides onto a belt up to 2" wide. $22.50

COMING SOON

TEST TAG KEY CHAIN

Biomark HPT12™ high performance PIT tag in a fish key chain. Keeping one of these handy is the best way to test your readers and antennas prior to use or when performing maintenance on a remote site. $5.50

Please call for special quantity pricing.

All prices in US Dollars

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HPR plus™

BIOMARK HPR PLUS™ READER

Biomark developed the HPR Plus reader from the ground up to incorporate features gleaned from feedback from the fish and wildlife community and our own Biological Services Department. The reader provides detection of ISO 11784/11785 FDX-B and HDX PIT tags, expanded tag storage (~1.6M), simple data retrieval via USB port or Bluetooth and large display. It is waterproof (IP67), and it floats. With the HPR Plus, location information (GPS) can be appended to tag codes in real time to provide reach level accuracy. The reader features auto-tuning capability, eliminating the need for a tuning box and making it ideal for small scale monitoring applications using any off-the-shelf antennas or a custom antenna built specifically for your requirements. The HPR Plus is compatible with all Biomark antennas operated by the FS2001 F-ISO reader.

SPECIFICATIONS	HPR plus
Tags read	134.2 FDX-B, HDX
Tag memory storage	1.6 million
Bluetooth	Yes
GPS	Yes
Comm. port	USB
Auto tuning	Yes
Status report	Yes
Noise report	Yes
Water proof	Yes
Display	24 bit color 5.5 cm x 9.5 cm

INCLUDED ACCESSORIES WITH THE HPR PLUS
Custom carrying case
Battery charger
Loop antenna
2 meter antenna cable
USB PC communication cable
USB to flash drive communication cable
Test tag
User manual loaded on 4GB flash drive
Hand strap

	Qty: 1–4	Qty: 5–9	Qty: >10
HPR Plus	$2,995	$2,885	$2,750

Accessories	Price
HPR Custom Protective Case	$295
HPR Loop Antenna	$175
HPR Loop Antenna Cable	$120
HPR Charger/Power Kit	$110
HPR USB Flash Comm. Cable	$29
HPR USB PC Comm. Cable	$29
HPR DC Power Cable	$85
20' Antenna Cable (for custom antennas)	$250
50' Antenna Cable (for custom antennas)	$375
HPR Legacy Antenna Cable Adapter	$95
HPR Soft Carry Case	$99
HPR Hand Strap	$12
HPR Reader Desk Stand	$39

All prices in US Dollars

POCKET READER AND POCKET READER EX

The Pocket Reader and Pocket Reader EX detect both 125 kHz and 134.2 kHz tags. They have an internal memory of 500 tag codes, which can be easily uploaded to your computer using Biomark Tag Manager™ (see page 7). The Pocket Reader line is designed for easy operation with a one-function button. The Pocket Reader EX incorporates all the standard features of the Pocket Reader with a larger antenna for greater read range and an AC power port for continuous operation without internal batteries. Both readers display tag codes in a decimal format. The readers come with a waterproof AquaPac, communication cable, factory manual and test tag. The Pocket Reader uses four AAA batteries and the Pocket Reader EX uses four AA batteries. Note: The Pocket Reader and Pocket Reader EX **are not waterproof.** Please use the provided AquaPac when in the field. Store out of AquaPac in dry environment when not in use. Condensation will cause permanent damage to circuitry.

Pocket Reader

	Qty: 1–7
Pocket Reader	$425
Pocket Reader EX	$645

Please 8 or more, call for large quantity pricing.

ACCESSORIES FOR THE POCKET READER AND POCKET READER EX


Pocket Reader EX

The Pocket Reader and Pocket Reader EX have a variety of accessories to aid the researcher. When in the field, we recommend using an Aqua Pac and soft cover to protect your reader from the elements.

Description	Price
AC Power Supply (PREX)	$99
Communication Cable (PR & PREX)	$45
Waterproof AquaPac - Pocket Reader	$29
Waterproof AquaPac - Pocket Reader EX	$39
USB to Serial Adapter	$20


Pocket Reader Communication Cable

All prices in US Dollars

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IS1001 MTS™

The Multiplexing Transceiver System (MTS) is Biomark's newest stationary reader platform. The MTS consists of a Master Controller (MC) and up to 12 IS1001™ readers. The MC acts as the command, control, and data collection center for the PIT-tag monitoring system. It directs each IS1001 to activate its antenna and send stored tag IDs and diagnostic information. Power and communication transfers between IS1001 and MC via CAN (Controller Area Network) Bus cable.

SPECIFICATIONS ›› Master Controller Specifications

Input Voltage	18–30 V DC (standard) or 10-15 V DC (optional), jumper-selectable
Input Fuse	4A, resettable
Reverse Polarity Protection	Yes
Under Voltage Protection	Yes
Over Voltage Protection	Yes
In-rush Current Limiting	Yes
Synchronization Capability	IS1001 activation synchronization, chain configuration, hardwired twisted-pair interface
Tag Technologies Supported	ISO FDX-B, ISO HDX
Virtual Tag Test	Detection self-diagnostic, electronically adjustable level
Internal Data Storage	16MB of real-time information
External Data Storage	Up to 32Gb of real-time information on USB flash drive
IS1001 Ports	Two, supporting up to 12 nodes
Communication Ports	USB (Mini-B) ASCII protocol; Ethernet (RJ45) ASCII protocol; fiber optics (ST), ASCII protocol
External Status LEDs	Power on (Green), system ready (Yellow), tag detected (Red)
Buzzer	Piezo indicator, 4 kHz, 70 dB **
Display	Graphical LCD, backlit
Keypad	9 Keys, content-sensitive
Operating Temp. Range	-4°F – 158°F (-20°C – 70°C)
Operating Humidity Range	10% – 90%, non-condensing
Enclosure	NEMA 4x, IP66 rated steel box
Weight	16.6 lbs. (7.5 kg)
Dimensions	21.0" L x 8.0" W x 6.0" H (53.5 cm x 20.5 cm x 15.5 cm)
Agency Approvals	No

The Master Controller polls IS1001s in a user-selectable sequence and is able to activate one or two IS1001s at a time. Tag data and system information is stored in the MC internal memory, sent to a removable memory device, or communicated in real time. The system allows for the synchronization of multiple Master Controllers for large-scale systems requiring more than 12 antennas. The MTS is highly adaptive and effective for many applications.

See the following page for IS1001 details.

Features:

- CAN Bus ports for single or dual IS1001 reader branches
- USB storage and communication ports
- Fiber optic ports
- Ethernet port
- Auxiliary port for site-specific actions (e.g. gate operation or visual indicator when specific tags are detected)
- Easily manage and control multiple IS1001 readers
- Integrated self-tests and diagnostics

All prices in US Dollars

IS1001™

The IS1001 is a high performance reader designed for applications requiring low power consumption and high adaptability to environmental changes. Its powerful antenna circuitry is capable of operating a large, low inductance antenna. The IS1001 operates in standalone or synchronized system configurations without the need for a Master Controller (MC). This adaptable functionality makes the IS1001 ideal for small-scale monitoring systems requiring one or two antennas. For applications requiring multiple antennas use the IS1001 with an MC in an MTS™ configuration.

IS1001-24v	$1,385
IS1001-12v	$1,385
IS1001 MC	$3,500

Features:

- Scalable and expandable
- Dynamic antenna auto-tuning
- 12V and 24V DC models available
- Adjustable antenna output power (24V model)
- Detection of ISO-compliant FDX-B and HDX PIT tags
- Automatic system performance diagnostics
- Internal memory for up to 100,000 tags and 1,000 reports
- USB port for local operation
- Field upgradeable firmware

SPECIFICATIONS ›› Biomark IS1001

Input Voltage	Model IS1001: 18–28 V DC. Model IS1001-12V: 10-15 V DC
Input Fuse	3A, resettable
Reverse Polarity Protection	Yes
Under Voltage Protection	Yes
Over Voltage Protection	Yes
In-rush Current Limiting	Yes
Antenna Exciter Voltage	Model IS1001: 12-20 V DC, electronically adjustable, 5 steps. Model IS1001-12V: Fixed to 10 V DC
Antenna Exciter Configuration	Full bridge
Antenna Current Limit	11.0 Ap-p, firmware enforced
Antenna Tuning	10 capacitors, electronically switched
Operating Frequency	134.2 kHz
Synchronization Capability	Antenna exciter clock synchronization, network configuration, hardwired twisted-pair interface *
Tag Technologies Decoding	ISO FDX-B, ISO HDX, Half-telegram™ FDX-B (non-ISO)
Self Diagnostics	Virtual-test tag, electronically adjustable level
Internal Data Storage	100,000 tag IDs, 1,000 status reports *
External Data Storage (with optional accessory board)	Up to 64Gb of real-time information on USB flash drive * **
Communication Ports	USB (Mini-B). Ethernet (RJ45), BIOTERM protocol. Fiber optics (ST), BIOTERM protocol * **
External Status LEDs (with optional accessory board)	Power (green). Tuned (red). Scan (yellow). Tag (white) **
Buzzer (with optional accessory board)	Piezo indicator, 4 kHz, 70 dB **
Operating Temp. Range	-4°F – 158°F (-20°C – 70°C)
Operating Humidity Range	10% – 90%, non-condensing
Weight & Dimensions	1.0 lbs. (0.45 kg) (w/o enclosure). 12.25"L x 3.75"W x 2.00"H (31 cm x 9.5 cm x 5 cm) (w/o enclosure)

*supported in standalone operation mode **with optional Accessory Board

All prices in US Dollars

IS1001™ ACCESSORIES

The following accessory boards add functionality to the IS1001 reader. Typically used in standalone or synchronized system configurations, accessory boards expand the communication capability of individual IS1001 readers.

The LED board incorporates status LEDs, a buzzer with adjustable volume, and a reset button. $75

LED User Interface Board

The Data Logger board stores real-time data on an external USB flash drive. It provides the ability to synchronize pairs of IS1001s and access data locally via the on-board RS-232 port. This board contains status LEDs, a buzzer, and a reset button. $225


Data Logger Board

The Remote Communications board incorporates Ethernet and fiber optic communication interface. This board contains status LEDs, a buzzer, and a reset button. $375

Remote Communications Board

QUBE-IS1001

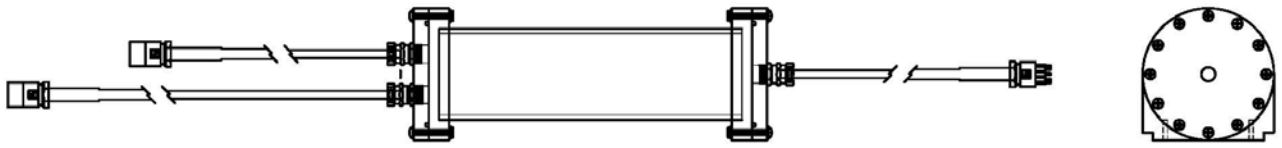
The QuBE IS1001 manages and provides integral information for IS1001-24V readers and associated antennas. By using the unique three wire communication system we have eliminated the requirement of CANBUS cables, or serial connections between antenna readers. The QuBE can multiplex from two to 48 individual IS1001 readers, operate multiple types of environmental probes, manage data capture, storage, and backup and provide integration of remote communications. $2,500

All prices in US Dollars

IS1001™ SUBMERSIBLE ENCLOSURE

For optimal performance, the IS1001 should be placed as close to its respective antenna as possible. Biomark designed the IS1001 submersible enclosure for in-river systems operating with the Master Controller (MC). Each IS1001 is accessed via the MC by way of the CAN Bus cable. Submersible enclosures interconnect with each other and the MC to create the MTS™ network. The last IS1001 can be located as much as 1,000' from the MC. They include cables with underwater connectors. One cable plugs into the antenna while the others plug into neighboring submersible enclosures or the MC. The first submersible enclosure in a system includes a fixed CAN Bus cable that connects to the MC. The CAN bus cable length depends on the distance between the MC and the first submersible enclosure as well as the antenna size. Contact us for more information and pricing for first-in-line submersible enclosures.

Note: The IS1001 is not included in the price of the submersible enclosure.



IS1001 Submersible Enclosure

IS1001SUB™ 20ft

The submersible enclosure for the 20 foot antenna includes a 2.5 foot CAN bus cable with male connector on one end. The opposite end includes a 2.5 foot antenna cable and 18 foot CAN Bus cable with female connectors. $1775

IS1001SUB™ 10ft

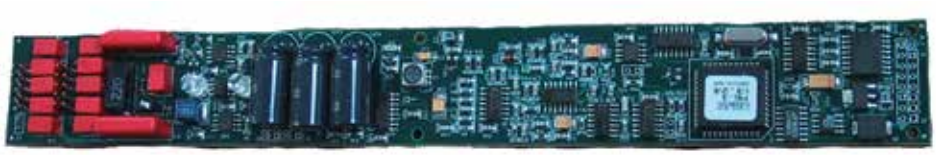
The submersible enclosure for the 10 foot antenna includes a 2.5 foot CAN bus cable with male connector on one end. The opposite end includes a 2.5 foot antenna cable and 8 foot CAN Bus cable with female connectors. $1750

IS1001SUB™ FLOAT

The submersible enclosure for the floating antenna includes a 2.5 foot CAN bus cable with male connector on one end. The opposite end includes a 5 foot antenna cable and 10 foot CAN Bus cable with female connectors. The flanges on the submersible enclosure end caps are round for floating antennas. $1750

All prices in US Dollars

RM310™ READER MODULE



The RM310 Reader Module is designed to read both FDX-B and HDX technologies. The RM310-3 Module comprises a printed circuit board assembly device that requires the addition of a loop antenna, a DC power source, and (optionally) a data collection or data communications device for recording identification code data. $495

Reader board only. All other components must be sourced. Please visit our website: RM310 FAQ

SM302™ SYNC MODULE

The Biomark SM302 Synchronization/Multiplexer Module provides RM310 Reader activation signal synchronization for installations where multiple readers and antennas are in use. The SM302 has 12 identical synchronized outputs, each of which can synchronize up to 16 RM310 Readers. Each sync signal output provides an isolated 134.2 kHz signal with synchronized frequency and phase, and with 80 msec on / 20 msec off cadence. A visual red LED indicator on each output provides assurance of the presence of the synchronization signal. By synchronizing readers in frequency, phase, and cadence, readers can be arranged to collaboratively create a single reading zone for reading a single tag, as well as being arranged to create multiple reading zones, each for reading a single tag. Using the SM302 for synchronization signal generation is an alternative to designating one RM310 Reader as the synchronization signal source, and consequently provides increased reliability and flexibility for installations having numerous readers and antennas. $550

Synch board in case only, all other components must be sourced. Please contact us for more details.

All prices in US Dollars

Biomark
SPECIALISTS IN ELECTRONIC IDENTIFICATION

Antennas

Biomark fabricates a variety of antenna designs at our Boise, Idaho location. Every antenna is welded, pressure tested, and function tested in our radio frequency screened room as part of our 17 step QA/QC process to ensure optimal performance. We offer variety of antenna designs and dimensions to meet the needs of multiple PIT-tag monitoring applications. If you need a custom antenna for your project, let us know. We specialize in the design and fabrication of unique antenna systems and look forward to these custom projects.

The best antenna for a PIT-tag monitoring system depends on the application. There are essentially two categories: pass through and pass by. Pass-through antennas detect PIT tags that move through the antenna opening. Pass-by antennas detect tags within a certain distance above or below the antenna surface.

BP Plus™ in use on the Boise River, Idaho.

Biomark Stout™ antenna installation. East Fork of the South Fork of the Salmon River, Idaho.

Biomark Lite™ Antenna system installation Dry Creek, Idaho.

Pass through antenna on the Stornorrfors fish ladder, Sweden.

All prices in US Dollars

Biomark®
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HPR plus™ Antennas

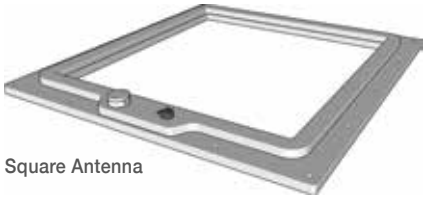
ANTENNAS FOR THE HPR PLUS™

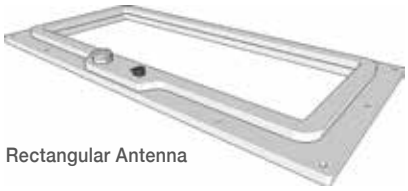
The newly designed Biomark small scale antennas are milled from a special thermo-plastic material. The two part construction results in a solid antenna that is impact resistant and provides a high level of performance and reliability. These readers are designed for use with both the HPR Plus reader (see page 10) and the IS1001 (see page 13) and provide some simple solutions for smaller scale monitoring in pass through or pass-by orientation. These antennas are all manufactured in-house to ensure quality, performance and durability.

Don't see what you need? Custom sizes are available on special order. Call us to discuss your project needs and we can help you formulate a plan and system design.

Readers and cables sold separately.

Antenna Type	Price
Square Antennas 18" (45.7 cm) 24" (60.9 cm)	 $850 $985
Rectangular 12" x 24" (30.4 cm x 60.9 cm) 12" x 32" (30.4 cm x 81.2 cm)	 $915 $985
Circular 10" (25.4 cm) 12" (30.4 cm 18" (45.7 cm)	 $925 $985 $1,095
BP PLUS Portable Antenna (Includes cable)	$985
20' Antenna Cable	$150
50' Antenna Cable	$375


Square Antenna


Rectangular Antenna


Circular Antenna

BP PLUS™ PORTABLE


BP Plus Portable

The BP Plus Portable antenna provides a great solution for walking surveys in water or for terrestrial detection. The updated design features collapsible, light-weight, ergo-dynamic handle with adjustable length, light-weight antenna and a padded shoulder and chest harness. For use with the HPR Plus reader.

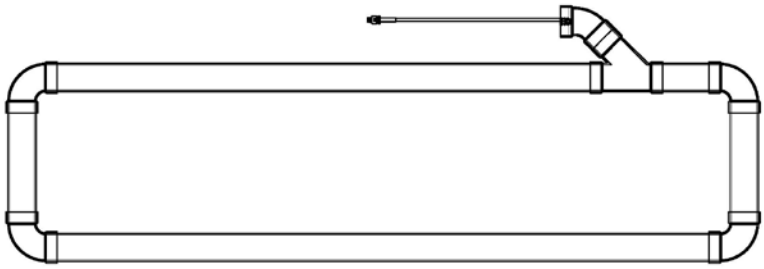
All prices in US Dollars

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

IS1001 Lite™ Antennas

BIOMARK LITE™

For smaller scale, temporary monitoring applications, Biomark designed Lite Antennas. They are available in standard 10 and 20-foot lengths. Each antenna includes a fixed 2.5 foot cable with underwater connector where the antenna cable connects. Biomark offers anchor assemblies for Lite antenna installation. Assemblies include anchors, ratchet straps, and tie-down straps to secure antennas to the streambed. We offer brackets for mounting antennas in pass-through orientation. Please contact us if your project requires a custom antenna size.



Product Options

20' Lite Antenna Outside dimensions: 239.5' L x 32" W x 5" H, Weight: 90 lbs (excluding connector)
10' Lite Antenna Outside dimensions: 120' L x 32" W x 5" H, Weight: 50 lbs
20' Lite Antenna Kit Includes: 15-anchor assemblies, ratchet straps (3), 6' straps (10), cable ties (10)
10' Lite Antenna Kit Includes: 9-anchor assemblies, ratchet straps (3), 6' straps (6), cable ties (5)
IS1001 reader, submersible enclosure and cabling all sold separately.

Please call for pricing and availability.

ANTENNA CABLES

Biomark offers antenna cables with underwater connectors in various lengths. Bare antenna and CAN Bus cable are available for purchase by the foot.

Product Options

100' Antenna Cable
50' Antenna Cable
20' Antenna Cable
Antenna Exciter Cable
CAN Bus Cable

Please call for pricing and availability.

Top Left: Deep Creek, Idaho
Top Right: Green River Canal, Utah
Bottom Left: Methow Hatchery, Washington

All prices in US Dollars

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

IS1001™ Stout Antennas

BIOMARK STOUT™

For large-scale, more permanent systems, Biomark designed the Stout Antenna. Stout Antenna assemblies are robust enough to withstand high-flow events. This allows for continuous monitoring and year-round data collection. Substrate channels protect the internal antenna, and heavy-duty anchors secure Stout Antenna assemblies in the streambed. Stout Antennas are available in 10 and 20-foot lengths. As with Lite™ Antennas, Stout Antennas include a fixed 2.5 foot cable with underwater connector. Stout Antennas come pre-assembled in a substrate channel and include stout anchor assemblies and hardware. Please contact Biomark for information about installation services for Stout Antenna systems.

Product Options

20' Stout Antenna Outside dimensions: 144' L x 44" W x 6" H, Weight: 435 lbs
10' Stout Antenna Outside dimensions: 121' L x 44" W x 6" H, Weight: 207 lbs
IS1001 reader, submersible enclosure and cabling all sold separately.

Please call for pricing and availability.

Top Left: Wallowa River, Oregon
Top Right: Lewis River, Washington
Bottom Left: Walla Walla River, Washington

All prices in US Dollars

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

IS1001 Float™ Antennas

FLOATING ANTENNAS

Biomark floating antennas, designed to detect PIT-tagged fish as they swim underneath, are an innovative approach to PIT-tag monitoring. In response to challenging research needs, Biomark incorporated UV resistant inflatable raft material in our floating antenna design. The result is a durable, multipurpose antenna. Use floating antennas together in a fixed array or alone as a mobile detection device. Biomark offers two models, fixed and inflatable, available in 10-foot lengths. The fixed design is ideal for semi-permanent, multi-antenna arrays. The inflatable design easily deflates and rolls up for mobility. Rigging kits are available for both antenna models. The fixed rigging kit includes PVC framework that incorporates into the antenna base, pulleys, string lines, and carabiners for stream and river systems. The inflatable rigging kit comes with string lines, carabiners, and straps.

Specifically designed for the IS1001, each antenna has locations on the downstream flap for attachment of the submersible enclosure. Inflatable antennas operate with the HPR Plus™ Reader and IS1001 antenna cables.

Boise River, Idaho

Boise River, Idaho

Product Options

Fixed Floating Antenna
Dimensions – 120" L x 48" W x 2" H
Weight – 75 lbs

Inflatable Floating Antenna
Dimensions – 120" L x 48" W x 2" H
Weight – 50 lbs

Fixed Rigging Kit
Includes: PVC framework, 9' loop straps (3), 6' straps (3), locking carabiners (5), pulleys (3), 2' straps (2), and zip ties

Inflatable Rigging Kit
Includes: 9' loop straps (3), 6' straps (3), locking carabiners (3), 2' straps (2), and zip ties

IS1001 reader, submersible enclosure and cabling all sold separately.

Please call for pricing and availability.

Okanagan River, British Columbia, Canada

All prices in US Dollars

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

IS1001 Cord™ Antennas

CORD™ ANTENNA SYSTEM

The cord system, designed for a variety of monitoring applications, is a portable PIT-tag system with a flexible cord antenna. This versatile system includes three components: portable enclosure, J-box, and cord antenna. The portable enclosure houses the IS1001, the reader platform of the cord system. The J-box provides the junction between the portable enclosure and the cord antenna. The durable cord antenna, with waterproof connectors and protective housing, can take on a variety of shapes and sizes. Arrange the cord antenna in pass-by or pass-through orientation to best suit the monitoring location. Quick and easy to deploy, use the cord system to detect PIT-tagged fish and wildlife in streams, caves, wildlife crossings, and other unique places. Whether you have one, two, or multiple antenna locations, the cord system is a versatile PIT-tag monitoring solution.

Please call for pricing and availability.

J-Box, cord antenna and portable enclosure.

Components

- **Portable Enclosure** – The portable enclosure houses the IS1001 reader. It includes external DC power ports, an internal power switch, antenna cable connector, vents, reader mount and cover plate. The IS1001 reader, available in 12V or 24V models, is not included in the price of the portable enclosure.
  Dimensions: 19" x 13.5" x 6.7"
  (48.26 x 34 x 17 cm)
  Weight: 11.5 lbs *with IS1001
- **J-Box** – The J-Box provides the junction between the portable enclosure and the cord antenna. It includes a 30-inch antenna cable and heavy-duty connectors for the cord antenna. Weight: 3 lbs
- **Cord Antenna** – The cord antenna includes a 50-foot long cable in protective conduit with waterproof connectors. Each end of the cord antenna plugs into the J-Box creating an antenna loop up to 25 feet in length.
  Weight: 18 lbs

Options

- **IS1001 Reader** – Choose between the 12V or 24V IS1001 reader (not included). We will install the IS1001 in the portable enclosure prior to shipping.
- **IS1001 Accessory Board** – Select an LED or Data Logger Board (not included). The accessory board visually indicates power to the system, tuned antenna, and tag detections. We will install the IS1001 in the portable enclosure prior to shipping.
- **DC Power Cable** – Biomark provides custom DC power cables for application of DC power to the external power ports on the portable enclosure.
- **CAN Bus Ports** – Synchronize or multiplex cord systems when multiple antennas are in close proximity. Contact us for more information about configuration options.

All prices in US Dollars

TAGGING

Biomark provides tagging services to the fisheries community. Trained biologists can visit your site to provide custom training for fish tagging, conduct small-scale tagging projects using our portable tagging equipment, or conduct large-scale tagging projects using our custom built tagging trailer.

We also provide detailed tagging workshops. These workshops can be done onsite with facility personal and cover tagging methods, hands-on tagging training and basic software use. These workshops can be customized to meet your organization's specific needs and protocols and help ensure compliance.

The Biomark Biological Services group has tagged over 10 million fish at locations throughout the world.

The Biomark tagging crew using the HPT12 PLT (Pre-load System) in our custom tagging trailer.

Tagging training in Newport, Ireland.

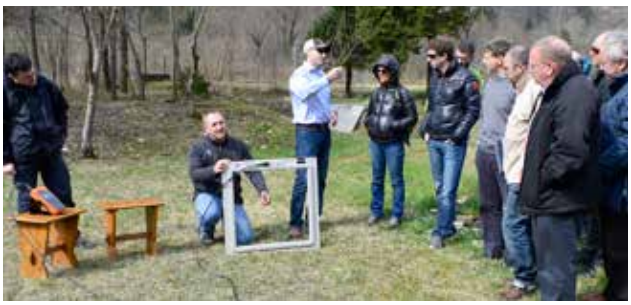
Biomark tagging trailer on-site at a hatchery where the PIT tagged fish to return to the raceway via a release pipe immediately after implant. Washington, USA

TECHNICAL WORKSHOPS

Biomark is now offering technical workshops covering the functionality of our IS1001 MTS reader platform, RFID history, RFID theory, site components, reader configuration, antenna design and data collection and management.

These workshops are designed to be interactive and provide customized information most relative to the group we are presenting to regardless of their experience with RFID technology and PIT systems.

If your organization or collaborative group might benefit from a workshop in your region please contact us.



Biomark staff instruct a group in Italy at one of our technical workshops that includes hands-on demonstrations and equipment testing.

All prices in US Dollars

QCI
Quantitative Consultants Inc.

QCI was founded to apply quantitatively rigorous methods to solve problems in fisheries and aquatic ecosystem management. Our goal is to provide solutions that help to restore and conserve aquatic and riparian populations and ecosystems.

QCI staff combine substantial field experience with expertise in quantitative fields including population biology, biometry, conservation genetics, and bioengineering. We provide our clients with technical expertise in population and ecosystem monitoring, including the design, installation, and operation of remote sensors for environmental monitoring. Our analytical services include design of research and monitoring programs, comprehensive data analysis, ecosystem modeling, cost-benefit and decision analysis, and development of software applications. We work closely with natural resource managers to meet their information needs and implement management actions that work in real world conditions.

Solar powered PIT system. Big Springs, Lemhi Basin, Idaho

Services Include:

- Design of efficient research and monitoring programs for aquatic and riparian ecosystems
- Design, installation, and operation of remote sensors for fish population monitoring
- Statistical analysis of environmental data
- Development of computational models to support scientific analysis and decisions
- Cost-benefit and decision analysis
- Development of software applications
- Assisting resource managers with implementing pragmatic and cost-effective management actions

Please contact the QCI Principal Scientists for further information:

Chris Beasley
(360) 620-2883
chris@qcinc.org

Jody White
(208) 860-5269
jody@qcinc.org

All prices in US Dollars

Biomark
SPECIALISTS IN ELECTRONIC IDENTIFICATION

READER SPECIFICATIONS AND TAG READ RANGES » Biomark Readers

	HPR Plus™	Biomark 601™	Pocket Reader	Pocket Reader EX
Type	Portable or stationary	Portable handheld	Portable handheld	Portable handheld
Operating Frequencies (primary frequency in bold, in kHz)	134.2, HDX	125, 134.2, HDX	125, 134.2	125, 134.2
Read Range (new batteries or fully charged)	See chart below	See chart below	See chart below	See chart below
Dimensions	23 x 15 x 7.5cm	27.5 x 6.8 x 8.3cm	17 x 8 x 3.2cm	28.5 x 8 x 3.2cm
Weight	4.4 lbs w/antenna	350 g	11 oz / 308 g	14.5 oz / 406 g
Antenna Design	Attachable by cable	Internal	Internal	Internal
Antenna Power Adjustable	Yes	No	No	No
External Power Requirements	12V DC (8 – 18V DC)	Optional	No	Optional
Internal Battery Life (room temp.)	6 hours	Battery dependent	Battery dependent	Battery dependent
Internal Battery Type	LiFePO4	Rechargeable NiMH (included) or (4) AA	(4) AAA	(4) AA
12 Volt DC Capable (external battery)	Optional	No	No	No
AC Power Capable	Included	Included	No	Optional
Operating Temperature Range	-20 – 70 C	5 – 40 C	0 – 50 C	0 – 50 C
Storage Temperature	-20 – 70 C	-10 – 55 C	-20 – 65 C	-20 – 65 C
Humidity (non-condensing)	10% – 90%	0 – 95 %	10% – 90%	10% – 90%
Display Type	24 bit color, 5.5 x 9.5cm	LCD	LCD	LCD
Tag Code Storage Memory	1.6 million	1600	500	500
Date & Time Stamp Option	Yes	Yes	No	No
Waterproof	Yes (IP67)	Resistant	No	No
Shockproof	Yes	Per IEC 68-2-27	No	No
Communication Options	USB, Bluetooth, thumb drive	RS232 Port	RS232 Port	RS232 Port
GPS Capable	Yes	No	No	No
Automatic Power Shut Off	Programmable	Programmable	Yes	Yes
Trovan Tag Detection	No	No	Yes	Yes
ISO Compliant	Yes	Yes	Yes	Yes
Soft Carrying Case	Included	No	No	No
Continuous Operation Capability	Programmable	No	No	No
Remote Monitoring/ Protective Case or Aquapac	Optional	No	Aquapac	Aquapac
Warranty (from date of purchase)	1 Year	1 Year	1 Year	1 Year

Read Distance**				
Biomark HPT8 8mm 134.2 kHz FDX-B	5.75 – 7.75” (15 – 20cm)	3.5 – 5.0” (9 – 13cm)	1.0 – 1.5” (2.5 – 4cm)	2.5 – 3.5” (6 – 9cm)
Biomark HPT9™, 9mm 134.2 kHz FDX-B	8.0 – 10.5” (20 – 27cm)	4.5 – 6.5” (11 – 6.5cm)	1.0 – 1.5” (2.5 – 4cm)	1.0 – 2.0” (2.5 – 5cm)
Biomark HPT 12, 12.5mm 134.2 kHz FDX-B	9.5 – 12.75” (24 – 32cm)	6.5 – 8.0” (16.5 – 20cm)	2.0 – 4.0” (5 – 10cm)	2.0 – 4.5” (5 – 11cm)
Biomark HPT22, 22mm 134.2 kHz FDX-B	12.0– 16.25” (30 – 41cm)	7.0 – 11.0” (18 – 28cm)	2.5 – 4.5” (6 – 11cm)	2.5 – 5.0” (6 – 13cm)
Biomark Biothermo 13mm 134.2 kHz FDX-B	6 – 9” (15 – 23cm)	n/a	0.5 – ±5” (1.5 – 4cm)	2.25 – 3” (6 – 8cm)
Biomark HDX23, 23mm HDX	13.0 – 17.25” (33 – 44cm)	7.0 – 9.0” (18 – 23cm)	n/a	n/a
Biomark HDX12, 12mm HDX	6 – 9.6” (15 – 24cm)	4.0 – 5.5” (10 – 14cm)	1.4 – 2.75” (3.5 – 7cm)	2.4 – 3.2” (6 – 8cm)

** Read range is affected by tag orientation and environmental noise. When a range is present the smaller number represents approximate read distance when tag is parallel to the antenna face (worst orientation) while the larger number represents approximate read distance when tag is perpendicular to the antenna face (best orientation). Environmental noise can be caused by power lines, dirty AC power, over head lights, pumps, etc.

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

ANTENNA READ RANGES

	11" I.D. Round	24" Sq. Low Pro	12" x 31.5" I.D. Rectangular	BP Plus™ Antenna	27" x 13" O.D. Flat Plate	6" O.D. Round "Puck"
Type	Pass through	Pass through	Pass through	Pass by	Pass by	Pass by
Waterproof	Yes	Yes	Yes	Yes	Yes	Yes
Warranty (from date of purchase)	1 year	1 year	1 year	1 year	1 year	1 year
*Read Distance: 8' Cable (approximate)** BP Plus Antenna only*						
Biomark HPT8, 8mm 134.2 kHz				6" – 8" (15.24 – 20.32cm)		6.63" – 10" (16.84 – 25.4cm)
Biomark HPT9™, 9mm 134.2 kHz				6.45" – 9" (16.38 – 22.86cm)		8.75" – 13.75" (22.23 – 34.93cm)
Biomark HPT 12, 12.5mm 134.2 kHz				9.75" – 12.5" (24.77 – 31.75cm)		10" – 15" (25.40 – 38.1cm)
Biomark HPT23™, 23mm 134.2 kHz				13" – 17" (33.02 – 43.18cm)		11.75" – 19.75" (29.85 – 50.17cm)
Biomark 12mm HDX, 134.2 kHz				11" – 14" (27.94 – 35.56cm)		10.375" – 15" (26.37 – 38.1cm)
Biomark 23mm HDX, 134.2 HDX				15" – 20.5" (38.10 – 52.07cm)		13" – 20.75" (33.02 – 52.71cm)
*Read Distance: 20' Cable (approximate)***						
Biomark HPT8, 8mm 134.2 kHz	6.5" – 10.38" (16.51 – 26.37cm)	7.25" – 11.25" (18.42 – 28.58cm)	5.5" – 10.25" (13.97 – 26.04cm)		8" – 12.88" (20.32 – 32.72cm)	6.38" – 8.13" (16.21 – 20.65cm)
Biomark HPT9, 9mm 134.2 kHz	9.75" – 15" (24.77 – 38.10cm)	11.38" – 18.5" (28.91 – 46.99cm)	9.5" – 16.38" (24.13 – 41.61cm)		11.88" – 18.25" (29.97 – 46.36cm)	7.5" – 11.38" (19.05 – 28.91cm)
Biomark HPT 12, 12.5mm 134.2 kHz	12.13" – 18.38" (30.81 – 46.69cm)	15.25" – 23" (38.74 – 58.42cm)	13.38" – 20.88" (33.99 – 53.04cm)		14.25 – 21.38" (36.20 – 54.31cm)	8.63" – 13.63" (21.92 – 34.62cm)
Biomark HPT22, 22mm 134.2 kHz	17" – 22.38" (43.18 – 56.85cm)	21.75" – 30" (55.25 – 76.20cm)	19.38" – 26.88" (49.23 – 68.28cm)		20.25" – 28.13" 51.44 – 71.45cm)	10.5" – 16" (26.67 – 40.64cm)
Biomark 12mm HDX, 134.2 kHz	12.75" – 18.5" (32.39 – 46.99cm)	17.13" – 24.75" (43.51 – 62.87cm)	15.25" – 21.13" (38.74 – 53.67cm)		15.5" – 22" (39.37 – 55.88cm)	9.5" – 14.63" (24.13 – 37.16cm)
Biomark 23mm HDX, 134.2 HDX	18.38" – 27.5" (46.69 – 69.85cm)	27.63" – 37" (70.18 – 93.98cm)	24.13" – 33" (61.29 – 83.82cm)		22.5" – 31" (57.15 – 78.74cm)	12.38" – 20" (31.45 – 50.80cm)
*Read Distance: 50' Cable (approximate)***						
Biomark HPT8, 8mm 134.2 kHz	4.88" – 8.38" (12.40– 21.29cm)	4.25" – 9" (10.80 – 22.86cm)	4" – 7.88" (10.16 – 20.02cm)		6" – 10.38" (15.24 – 26.37cm)	5.5" – 8.13" (13.97 – 20.65cm)
Biomark HPT9, 9mm 134.2 kHz	7.25" – 12.25" (18.42 – 31.12cm)	8" – 16.75" (20.32 – 42.55cm)	8.75" – 14" (22.23 – 35.56cm)		9.38" – 14.25 (23.83 – 36.20cm)	7.25" – 10.75" (18.42 – 27.31cm)
Biomark HPT 12, 12.5mm 134.2 kHz	10.5" – 15.5" (26.67 – 39.37cm)	13.5" – 20.5" (34.29– 52.07cm)	11" – 17.5" (27.94 – 44.45cm)		11.88" – 18" (30.18 – 45.72cm)	8.38" – 12.88" (21.29 – 32.72cm)
Biomark HPT22, 22mm 134.2 kHz	14.13" – 19.88" (35.89 – 50.50cm)	19" – 27.75" (48.26 – 70.49cm)	17.25" – 24" (43.82 – 60.96cm)		16" – 21.63" (40.64 – 54.94cm)	10.38" – 15.13" (26.37 – 38.43cm)
Biomark 12mm HDX, 134.2 kHz	10.88" – 17" (27.64 – 43.18cm)	12.25" – 22" (31.12 – 55.88cm)	11.75" – 18.88" (29.85 – 47.96cm)		13.75" – 20.13" (34.93 – 51.13cm)	8.25" – 13" (20.96 – 33.02cm)
Biomark 23mm HDX, 134.2 HDX	16.13" – 24" (40.97 – 60.69cm)	23.5" – 32.38" (59.69 – 82.25cm)	21" – 29.63" (53.34 – 75.26cm)		20.25" – 27.25" (51.44 – 69.22cm)	11.25" – 17.38" (28.58 – 44.13cm)

* Using an HPR Plus reader configured as follows: FDX-B & HDX on; antenna power 100%; battery fully charged in a low noise environment.

** Read range is affected by tag orientation and environmental noise. When a range is present in the table the smaller number represents approximate read distance when the tag is parallel to the antenna face (worst orientation) while the larger number represents the approximate read distance when the tag is perpendicular to the antenna face (best orientation). Environmental noise can reduce read range. It can be caused by power lines, dirty AC power, overhead lights, pumps, etc.

*** HPR Plus reader does not read 125 kHz tags.

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

Terms and Conditions

Terms and Conditions: Prices are subject to change and are shown in US Dollars. Shipping is not included in pricing. Shipping cost will depend on weight, quantity of items and requested delivery time. All product returns must have prior written authorization. All product returns are subject to a 20% restocking fee. Standard payment terms are Net 30 days for approved accounts.

We accept VISA and MasterCard for orders shipped to the U.S. and Canada.

International order terms are pre-pay with direct funds transfers unless otherwise approved. International customers are responsible for all import fees, taxes and duties.

Warranty Statement: Biomark Inc. warrants that each part or equipment is free from defects in materials and workmanship. The warranty period for parts and equipment is 12 months from the date of purchase. A valid proof of purchase may be required. If you do not have a valid proof of purchase, the warranty period will be measured from the date of sale from Biomark Inc. or its distributor. If, during the warranty period, the part or equipment is not in good working order, Biomark Inc. will, at its option, repair or replace it at no additional charge.

After replacement or repair, the original part or equipment purchase date will be the originating term of the warranty. The warranty does not extend to cover the repaired or replaced part or equipment. All parts that are manufactured by someone other than Biomark, Inc. are subject to the manufacturer's warranty.

It is Biomark policy that we do not accept for return, exchange, or refund, tags that are sold in partial units or complete vials that have been opened and have had tags removed. The purpose of this policy is to allow us to maintain the integrity of the unique tag code database for our customers in a cost effective manner.

If you have questions regarding this policy please contact your sales or customer service representative at 208-275-0011 or *customerservice@biomark.com.*

www.biomark.com

customerservice@biomark.com
P 208-275-0011
F 208-275-0031

705 S. 8th Street
Boise, ID 83702

Biomark®
SPECIALISTS IN ELECTRONIC IDENTIFICATION

QCI

QST