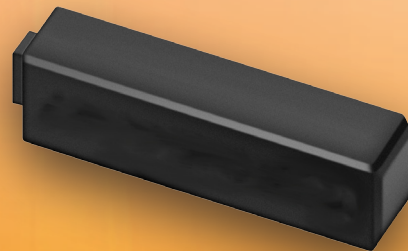


SPECIAL RFID TAG BIT ALPHA TAG



APPLICATIONS

- Hand Tools Tracking
- Weapon Management
- Surgical Instruments Tracking
- Mould Assets Management
- On Metal Asset Tracking

FEATURES

- Robust Ceramic Housing
- Up to 2.5 Meters Reading Range
- Adhesive Fixing, Moulding Embedded or Heat-Shrinkable Tubing
- IP68 Protection Class

RFID OPTIONS

- UHF: ISO 18000-63, EPC Class 1 Gen2
- 865 – 868 MHz (EU); 902 – 928 MHz (US)

PRODUCT DESCRIPTION

The Bit Alpha Tag from iDTRONIC is designed for small asset trackings such as hand tools, surgical instruments, weapons, mould and on metal applications.

The integrated RFID UHF reader supports ISO 18000-63, EPC Class 1 Gen2 in the frequency areas 865 – 868 MHz (EU); 902 – 928 MHz (US). It achieves a reading range of up to 2.5 meters.

Its robust IP68 ceramic housing has a good resistance against salt water, bleach, bleaching solutions, formic acid, gasoline, oil, shocks and falls from a height of up to 1.2 meters.

Optionally we offer a self-adhesive sticker on the bottom. We can encode your RFID tags using Standard, NDEF or Crypto-Coding.

APPLICATION EXAMPLE



TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

| | |
|----------------------|--|
| Operating Frequency | UHF: 865 – 868 MHz (EU) 902 – 928 MHz (US) |
| RF Protocol | ISO 18000-63, EPC Class 1 Gen2 |
| Chip Type | Alien Higgs-3 |
| Memory Configuration | 96-EPC Bits extensible to 480 Bits 512 User Bits 64 Bit Unique TID |
| Reading Range | Up to 2.5 Meters* |
| Polarization | Linear |

MECHANICAL SPECIFICATIONS

| | |
|------------------|--|
| Dimensions | 10.2 × 3.0 × 2.2 mm ±0.2 |
| Weight | 0.36 g |
| Housing Material | Ceramic |
| Housing Colour | Painted Black |
| Mounting Options | <u>Adhesive Fixing</u> <ul style="list-style-type: none">• VHB Tape• Silicone sealants• Epoxy <u>Others</u> <ul style="list-style-type: none">• Moulding embedded• Heat-shrinkable tubing |

*READING DISTANCE DEPENDS ON ANTENNA AND ENVIRONMENTAL CONDITIONS.

ENVIRONMENTAL SPECIFICATIONS

| | |
|---------------------------|--|
| Operating Temperature | - 40 °C to + 85 °C |
| Survivability Temperature | - 50 °C to + 200 °C |
| Protection Class | IP 68 (20 °C, 2 m, 48 h) |
| Humidity | 5% to 95% non-condensing |
| Shock & Vibration | MIL STD 810-G |
| Drop Specifications | Multiple drops to concrete: 1.2 m across the operating temperature range |
| Withstands exposure to | Salt water, Bleach, Cleaning solutions, Formic acid, Gaso- line, Oil |

APPLICABLE STANDARDS

| | |
|--------------|---|
| RoHS 2 | EC Guideline 2011/65/EU and amendment 2015/863/EU, updated by 2017/2102/EU EN 50581:2012 (valid till 2024-07-07) EN 63000:2018 |
| REACH | EU Guideline 1907/2006, updated by 2020/171/EU |
| Certificates | CE, FCC |
| ATEX | Optional |

AVAILABLE ICS

UHF: 865 – 868 MHz (EU) | 902 – 928 MHz (US)

| IC TYPE | MEMORY | MODE |
|----------|----------|-------------------------------------|
| Higgs® 3 | 512 bits | EPC Global Gen2 ISO/IEC 18000-63 |

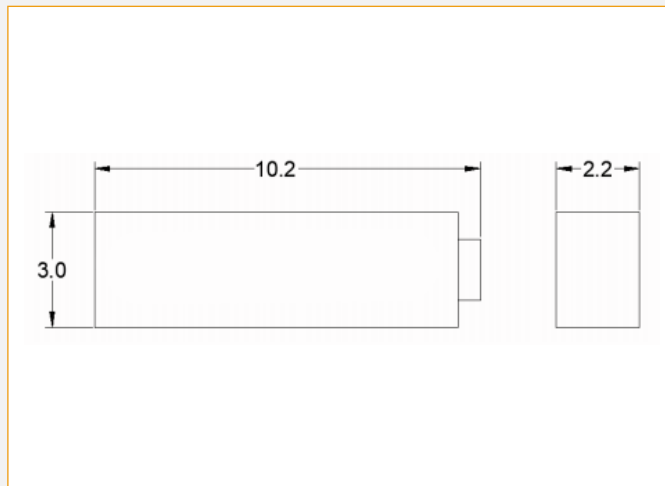
PERSONALIZATION OPTIONS

- Self-Adhesive Sticker
- Encoding (Standard / NDEF / Crypto Encoding)

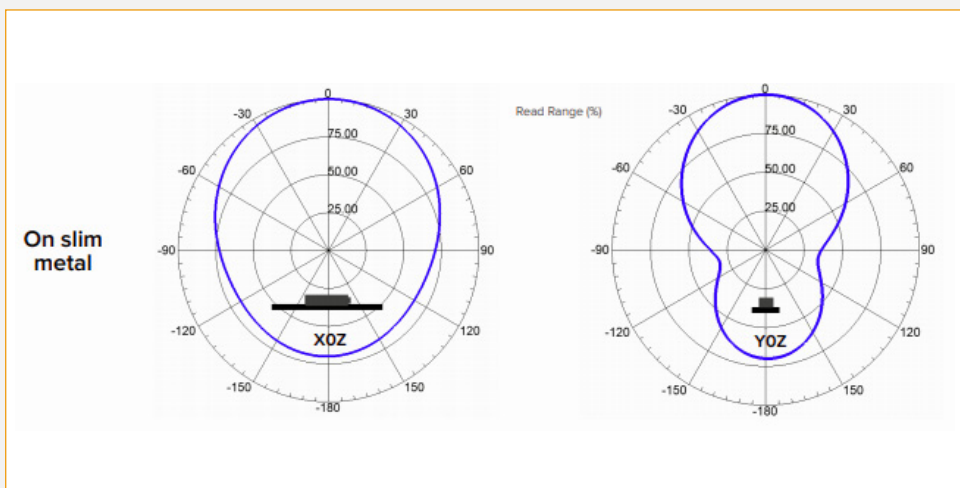
PRODUCT PICTURES



MECHANICAL VIEW



RADIATION PATTERN



ORDER CODES

| VERSIONS | ORDER CODES |
|-----------------------------|--------------|
| Bit Alpha EU: 865 – 868 MHz | HCT-C0300-EU |
| Bit Alpha US: 902 – 928 MHz | HCT-C0300-US |

iDTRONIC GmbH
Ludwig-Reichling Straße 4
67059 Ludwigshafen
GERMANY

Phone: +49 (0) 621 66 90 09 4-0
Fax: +49 (0) 621 66 90 09 4-9
E-Mail: info@idtronic-rfid.com
Web: idtronic-rfid.com

For further information & prices, please contact info@idtronic-rfid.com

Subject to alteration without prior notice
©2020 iDTRONIC GmbH