HID®

Embeddable RFID

LOW FREQUENCY TRANSPONDERS THAT EMBED EFFECTIVELY INTO CUSTOM ENCLOSURES

- **Customizable** – choose a size, chip and a disc or rod to fit any custom enclosure; available in FDX and HDX protocols
- **Unsurpassed quality** – fully automated manufacturing and direct-bonding technology ensure tag reliability
- **Reliable operation** – built to withstand the rigors of tag processing, including plastic injection molding

TECHNOLOGY HIGHLIGHTS:
- ISO 11784 and 11785 compliant
- Available in FDX and HDX variants
- Many different form factors
- Embeddable in a broad spectrum of materials

HID Embeddable RFID transponders can be housed in virtually any form factor and a variety of materials to create effective low frequency tags for animal identification applications.

HID employs fully automated production processes to ensure consistent component quality and reliability. Patented DBond™ technology enables more compact tag designs and optimized read ranges, delivering exceptional size to performance ratios. In addition, automation allows HID to cost-effectively meet growing demand, making possible the distribution of more than a billion HID radio frequency identification (RFID) tags worldwide.

E-Unit Disc transponders are ideal for embedding in livestock female ear tags, and similar applications where a combination of visual and RFID reader solutions are desirable. Each disc is

built with the knowledge that it must withstand the mechanical stresses of tag manufacturing and assembly. Further, each transponder must perform reliably in the field, despite potentially harsh conditions, while delivering the read range necessary for effective monitoring of cattle, sheep, goats and other farm animals. Packaged e-units are designed to withstand harsh injection molding processes and are for example embedded into wristbands around the leg ankle of horses or cattle.

E-Unit Rod transponders embed easily into space-restricted applications, such as small ovine ear tags, or subcutaneous enclosures for implanting into animals of any size.

Whatever your application requires, HID will help you identify a standard Embeddable RFID transponder, or develop a customized RFID tag to meet your needs.

APPLICATION AREAS:

- **Companion animals**
  - Cats
  - Dogs
  - Horses

- **Livestock**
  - Cattle
  - Goats
  - Sheep

- **Laboratory and exotic animals**
  - Ferrets
  - Fish
  - Mice and rats
  - Pigeons

SPECIFICATIONS

	Embeddable RFID Discs and Rods										
	E-Unit Disc				**E-Unit Packaged**				**E-Unit Rod**		
Base Model Number	728694	728693	684680	212445	728910	7B7910	728912	7B7912	201047	201045	6B7660
ELECTRONIC											
Operating Frequency	134.2 kHz										
Chip Type	EM 4305			HDX	EM 4305	HDX	EM 4305	HDX	EM 4305	HITAG S	HDX
Memory	512 bit EEPROM			128 bit OTP	512 bit EEPROM	128 bit OTP	512 bit EEPROM	128 bit OTP	512 Bit EEPROM	256 bit EEPROM	128 bit OTP
Reading Distance	Dependent upon reader, environment and application										
PHYSICAL											
Inner Coil Diameter	Ø 0.77 in (Ø 19.5 mm)	Ø 0.94 in (Ø 23.8 mm)	Ø 0.90 in (Ø 23.5 mm)	0.86 in (22 mm)	0.13 in (3.3 mm) hole		0.79 in (20 mm) hole				
Outer Coil Diameter	Ø 0.92 in (Ø 24.3 mm)	Ø 1.1 in (Ø 28 mm)	Ø 1.06 in (Ø 27.8 mm)	1.08 in (27.5 mm)	Ø 0.68 in (Ø 17.4 mm)		Ø 1.14 in (Ø 29mm)				
Thickness	0.05 in (1.2 mm)	0.05 in (1.4 mm)	0.08 in (2.2 mm)	0.06 in (1.5 mm)	0.12 in (3 mm)		0.08 in (2.8 mm)				
Diameter x Length									0.06 x 0.35 in (1.55 x 9 mm)	0.04 x 0.6 in (1.8 x 15 mm)	0.15 x 0.6 in (3.8 x 15 mm)
Tagging Method	Ear tag or custom application								Custom application		
CHEMICAL AND MECHANICAL											
Depends on finished product											
THERMAL											
Storage	-40° to +140° F (-40° to +60° C), 1000 h										
Operating Temperature	-13° to +140° F (-25° to +60° C)										
OTHER											
Standards	ISO 11784, ISO 11785										
Box Size	7200 pcs		1000 pcs	5.760 per box	6.000 per box		3600 pcs		769/tray 36.912 per box		
Options	Custom sizes and chip types available										
Warranty	2 Years										

HID can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials.

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