FIT Ceramic Tag

Miniature tags that can be mounted or embedded discreetly onto tools, equipment, medical instruments and more.



HID FIT Ceramic Tag passive contactless transponders easily integrate into RFID applications requiring discreet placement of small, featherweight tags that deliver sustainable performance.

FIT Ceramic units are optimized for placement on metal assets, such as tools, weaponry and surgical instrumentation. The hard shells encasing these tiny UHF transponders shield them from exposure to autoclave sterilization and demanding industrial environments.

Options in this range boast the highest size to performance ratio in the industry and are some of the smallest, lowest profile RFID tags on the market. The range offers the flexibility of on/off metal performance and the ability to embed at the point of manufacture while surviving cycling applications at temperatures of up to 437° F (225° C).

With a read range of up to 32.8 ft (10m), these tags deliver an excellent size / performance ratio when placed on metallic objects.

The FIT ceramic tags are typically embedded or affixed with industrial glue or Epoxy glob top. Alternative tag options include versions with sticker (up to 85°C) or ATEX/IECEx,/C1D1 certification.

These tags are an ideal, cost-effective solution for consistency during the rigors of auto and other types of manufacturing, specifically through paint shops and processes.

A range of tags that allow you to identify and track individual vehicles, tools or small items of equipment through a variety of manufacturing processes from assembly to painting, welding or molding and in a range of industries including healthcare or even covert surveillance.

For the special case of long-thin metallic objects which requires long read range, the new Fit Micro series allows greater than 1m read range even on small assets.



KEY BENEFITS

- **Small footprints –** Embeddable in space-restricted applications.
- **Exceptional durability –** Withstand physical stress, are dust tight, and resistant to water, chemicals, acids and temperature extremes.
- **Versatility –** May be customized to fit special application requirements.

TECHNOLOGY HIGHLIGHTS:

- Resistant to chemicals, shock and vibration
- Tiny footprints
- Heat resistant
- Waterproof

APPLICATION AREAS:

Asset tracking and logistics

- Tool or weapon inventory and management
- Cable identification

Medical and health

- Surgical instrumentation tracking
- Medical equipment status and utilization



	FIT Tag Ceramic				
	Micro 100	220HT	400HT	1000HT	400P
					
Base Model Number	CP20401 (EU) CP20400 (US)	CP16350 (EU) CP16351 (US)	CP16360 (EU) CP16361 (US)	CP18990 (EU) CP18995 (US)	CP15706 (EU) CP15707 (US)
	ELECTRONIC				
Operating Frequency	(EU) - 865-868 MHz (ETSI) / (US) - 902-928 MHz (FCC)				
Chip Type	Monza M830	Monza R6-P		Higgs 3	EM 4124
Memory	128 bit EPC	28/96 bit EPC, 32/64 bit UM		96 bit EPC, 512 bit UM	96 bit EPC, 64 bit UM
Anti-Collision	Yes				
Reading Distance	5.2 ft (1.6 m)	7.2 ft (2.2 m)	13.1 ft (4 m)	32.8 ft (10m)	13.1 ft (4.1 m)
	PHYSICAL				
Dimensions	0.28 x 0.08 x 0.09 in (7 x 2 x 2.3 mm)	0.3 x 0.3 x 0.1 in (7.8 x 6.8 x 2.7 mm)	0.5 x 0.3 x 0.1 in (13.1 x 7.8 x 3.1 mm)	0.6 x 0.6 x 0.22 in (15.3 x 15.3 x 5.6 mm)	0.7 x 0.28 x 0.16 in (17.6 x 7.1 x 4.1 mm)
Mounting Method	Adhesive or Epoxy				
Affixes to	Metal surfaces				Plastic and Non-Metal Surfaces
Housing Material	Ceramic painted				
Color	White	Black			
Weight	0.005 oz (0.13 g)	0.02 oz (0.6 g)	0.05 oz (1.5 g)	0.18 oz (5 g)	0.09 oz (2.6 g)
	CHEMICAL AND MECHANICAL RESISTANCE				
Water	IP68, 68° F (20° C), 1 m x 24 h				
Withstands Exposure To	5% caustic soda, 10% salt water, vegetable oil, Motor oil 68° F (20° C), 168hr				
Vibration & Shock	MIL STD 810-G				
	THERMAL				
Storage	-40° to +185° F (-40° to +85° C)				
Operating	-40° to +185° F (-40° to +85° C)				
Shock/Fatigue	-40° to +185° F (-40° to +85° C), 100 x 5 min with 30 sec transition				
Peak Temperature		437° F (225° C), 700 h, Ambient to 437° F (225° C) 230 Cycles			
	OTHER				
Standards	UHF EPC Class 1Gen 2, ISO 18000-6C				
Options	ATEX/IECEx, C1D1, Custom Label, Encoding				
Quantity Per Box	300 pcs.	500 pcs.			
Warranty	2 years				

Supports GEN2X IMPINJ CONNECTED UKCA CE RAIN

For more information, contact tagsales@hidglobal.com

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