

# 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 like surgical instruments, the sleek (2x2x12, 15 or 27mm) Sentry Instrument Tags may be an alternative option to suit your needs. See separate datasheet for the [HID Sentry Family](#).



## 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 Ceramic Tag



	FIT Tag Ceramic			
	220HT	400HT	1000HT	400P
				
<b>Base Model Number</b>	CP16350 (EU) CP16351 (US)	CP16360 (EU) CP16361 (US)	CP18990 (EU) CP18995 (US)	CP15706 (EU) CP15707 (US)
<b>ELECTRONIC</b>				
<b>Operating Frequency</b>	(EU) - 865-868 MHz (ETSI) / (US) - 902-928 MHz (FCC)			
<b>Chip Type</b>	Monza R6-P		Higgs 3	EM 4124
<b>Memory</b>	28/96 bit EPC, 32/64 bit UM		96 bit EPC, 512 bit UM	96 bit EPC, 64 bit UM
<b>Anti-Collision</b>	Yes			
<b>Reading Distance</b>	7.2 ft (2.2 m)	13.1 ft (4 m)	32.8 ft (10m)	13.1 ft (4.1 m)
<b>PHYSICAL</b>				
<b>Dimensions</b>	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)
<b>Mounting Method</b>	Adhesive or enclosure			
<b>Affixes to</b>	Metal surfaces			Plastic and Non-Metal Surfaces
<b>Housing Material</b>	Ceramic painted			
<b>Color</b>	Black			
<b>Weight</b>	0.02 oz (0.6 g)	0.05 oz (1.5 g)	0.18 oz (5 g)	0.09 oz (2.6 g)
<b>CHEMICAL AND MECHANICAL RESISTANCE</b>				
<b>Water</b>	IP68, 68° F (20° C), 1 m x 24 h			
<b>Withstands Exposure To</b>	5% caustic soda, 10% salt water, vegetable oil, Motor oil 68° F (20° C), 168hr			
<b>Vibration &amp; Shock</b>	MIL STD 810-G			
<b>THERMAL</b>				
<b>Storage</b>	-40° to +185° F (-40° to +85° C)			
<b>Operating</b>	-40° to +185° F (-40° to +85° C)			
<b>Shock/Fatigue</b>	-40° to +185° F (-40° to +85° C), 100 x 5 min with 30 sec transition			
<b>Peak Temperature</b>	437° F (225° C), 700 h			
<b>OTHER</b>				
<b>Standards</b>	EPC C1G1, ISO 18000-6C, RAIN			
<b>Options</b>	Self-adhesive sticker (for placement only in applications exceeding +85°C), ATEX/IECEx, C1D1			
<b>Quantity Per Box</b>	500 pcs.			
<b>Warranty</b>	1 year			

