IronTag®

Compact UHF RFID tags that enable tracking of metal assets in harsh environments

IronTag® UHF transponders deliver exceptional performance on metal surfaces, and they are built to withstand vibration, shock, chemical exposure and fluctuating temperatures. The transponders enable radio frequency identification (RFID) tagging of metal equipment and components that are subject to severe conditions.

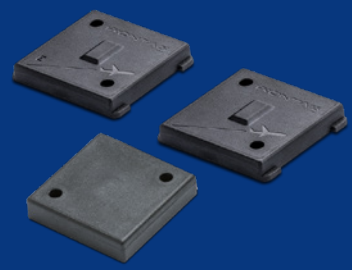
Designed for tracking aircraft parts, IronTag devices tolerate the harsh conditions of vehicle and equipment manufacturing, processing and operation. They handle temperatures from -40° F (-40° C) to 428° F (220° C), are waterproof, resist high-pressure/high-temperature washing and withstand exposure to fuels, oils, salt water and ultraviolet light. They are resistant to pressure (<100 bar), vibration and steady flame for short periods. IronTag 206 units deliver the highest flame resistance rating available.

Compact and powerful, these tags offer robust performance with read ranges of up to 8.2 ft (2.5 m), and large user memory capacities up to 8192 bits.

Durable IronTag RFID tags mount to any metal surface with industrial glues or optional high-temperature stickers, making them ideal for logistics applications that track metal components through assembly, operation, maintenance and repair.

The smaller, lighter-weight IronTag 206 device features flanges on two sides and pre-drilled holes, enabling additional secure fixation options via clamps or screws. Also available in a fully flat 206F version.

Patent-pending designs meet standards for the most demanding industries, including aircraft manufacturing and fleet management. They are ideal for metallic asset tracking applications where a small form factor and durability are vital.



KEY BENEFITS:

- Extreme durability – waterproof, and resistant to flame, chemicals, vibration, shock and temperature fluctuations
- Exceptional size-to-performance ratio – reliably read-write when mounted on metal objects from up to 8.2 ft (2.5 m)
- Advanced technology – UHF permits anti-collision capability and fast data rate communication

TECHNOLOGY HIGHLIGHTS:

- 865-868 MHz (ETSI) or 865-928 MHz (Global)
- Up to 8192 bit read-write memory, 128 bit EPC
- Reliable performance on metal surfaces
- Waterproof even under high pressure or high temperature; chemical, UV and flame resistant
- Thermal protection from -40° F (-40° C) to 428° F (220° C)
- Standards compliant

APPLICATION AREAS:

- Asset tracking and logistics
  - Equipment
  - Fleet management
  - Machinery
  - Metal tools
- Automation and manufacturing
  - Assembly line management
  - Aircraft parts tracking
  - Industrial component tracking

	Iron Tag®		
	206		206F
			
Base Model Number	6D3903 (8 kbits)	6D3902 (8 kbits)	6D3905 (8 kbits)
	ELECTRONIC		
Operating Frequency	(EU) - 865-868 MHz (ETSI)	865-928 MHz (Global)	
Chip Type	Monza X		
User Memory	8192 bit		
Memory	128 bit EPC, 96 bit TID		
Anti-Collision	Yes		
Reading Distance (2W reader ERP, free space)	Up to 8.2 ft (2.5 m), on-metal		Up to 6.6 ft (2 m), on-metal
	PHYSICAL		
Dimensions	1.32 x 1.22 x 0.24 in (33.7 x 31.1 x 6.1 mm)		1.22 x 1.22 x 0.24 in (31 x 31 x 6.9 mm)
Mounting Method	Clamp, glue, screw; optional sticker		
Screw Fixation Hole	Ø 0.13 in (3.3 mm)		
Affixes To	Metal surfaces		
Housing Material	PPS, Polyphenylene Sulfide		
Color	Black		
Weight	0.35 oz (9.9 g)		0.03 oz (13 g)
	CHEMICAL AND MECHANICAL		
Water	IP67, 68° F (20° C), 3.3 ft (1 m) x 1 h		IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h; IP69K (100 bar at 80°C, 30 sek., 16 l/min)
Withstands Exposure To	Fuel B, mineral oil, petroleum, salt mist, vegetable oil; UV (ISO 4892-2)		
Environmental Test Conditions	68° F (20° C), 100 h		
Flame resistance	UL 94 V0		
Vibration	IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]		
Shock	IEC 60068-2-27:2008 [40 g, 18 ms, 6 axis, 2000 times]		
Impact	IEC 62262-IK06		
Axial / Radial Force	800 N / 500 N, 10 sec		
	THERMAL		
Storage	-40° to +194° F (-40° to +90° C), 1000 h		
Operating	-40 °to +185° F (-40° to +85° C)		
Shock/Fatigue	-67° to +302° F (-55° to +150° C), 500 x 5 min with 30 sec transition		-67° to + 212° F (-55° to +100° C), 200 x 5 min with 30 sec transition
Peak (one time)	302° F (150° C) 1000h, 356° F (180° C) 400 h, 392° F (200° C) 24 h, 428° F (220° C) 10 h		212° F (100° C) 1000 h
	OTHER		
Standards	UHF EPC Class 1 Gen 2; ISO/IEC 18000-6C; GS1 EPC TDS 1.6; ATA Spec 2000; SAE AS5678; DIN 40050-9		UHF EPC Class 1 Gen 2; ISO/IEC 18000-6C; GS1 EPC TDS 1.6; DIN 40050-9
Box Size	250 pcs		
Options	High bond, high temperature adhesive (add "-001" after part number); alternate embossed logo		
Warranty	2 Years		

For further information, contact tagsales@hidglobal.com

hidglobal.com

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