



# IN Tag™



## ROBUST LOW, HIGH AND ULTRAHIGH FREQUENCY RFID TAGS THAT PERFORM IN TOUGH CONDITIONS

- **Durable** - built to withstand the rigors of industrial processing, transportation and outdoor use
- **Versatile** - mounts anywhere without compromising performance: glass, plastic, or wood, with options for on metal mounting
- **Diverse selection** - broad spectrum of available frequencies, memory sizes and diameters with multiple fixation methods

IN Tag™ passive contactless RFID transponders are highly water, chemical and shock resistant, ATEX certified for use in explosive environments, withstand peak temperatures up to 285° F (140° C) and are UL94-HB flame resistant.

Low frequency (LF) IN Tag discs perform well affixed to virtually any surface. They offer reliable, cost-effective tagging for near-proximity reader applications, with data storage from a 64-bit user ID, up to 2048-bit read-write capability.

High frequency (HF) discs offer anti-collision technology for faster data processing, larger memory storage, and improved read ranges. HF IN Tag devices are available with up to 1 kbit EEPROM or 8 kilobyte FRAM - the highest memory specified by ISO/IEC 15693. FRAM tags are radiation resistant to survive Gamma sterilization and offer an exceptional speed with up to 10 billion write cycles.

Ultrahigh frequency (UHF) IN Tag RFID tags can be read from up to 9.8 ft (3 m). Entire pallets of individual containers or equipment may be identified and item level status updated, as articles roll through distribution and receiving points. They are compliant to EPC Global Class 1 Gen 2 standards and readers.

HID IN Tag RFID tags come in a variety of sizes. For LF and HF applications, tiny 0.79 in (20 mm) discs may be glued or embedded virtually anywhere. If a larger read range is required, HID offers 1.18 in (30 mm) and 1.97 in (50 mm) options, which include pre-drilled holes for screw attachment. UHF tags come in 1.97 in (50 mm) and 2.17 in (55 mm) discs.

HID IN Tag transponders are an excellent performance-level tag. For lighter-duty applications, consider HID Epoxy Disc or World Tag™ transponders.

### TECHNOLOGY HIGHLIGHTS:

- Low Frequency (125 kHz), up to 2048 bit read-write memory
- High frequency (13.56 MHz), up to 8 kilobyte read-write memory
- Ultrahigh frequency (865 to 915 MHz), 240 bit EPC, 512 bit read-write memory
- Food compatible
- Flame and UV resistant
- Disc diameters of 20, 30, 50 mm (55 mm with spacer)
- Optional configurations for mounting on metal



# IN Tag™



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



II 1G Ex ia IIC T4 Ga  
I M1 Ex ia I Ma

## SPECIFICATIONS

IN Tag™							
Low Frequency							
	200		300		500		
<b>Base Model Number</b>	623182	601182	623183	624183	601183	624185	601185
<b>ELECTRONIC</b>							
<b>Operating Frequency</b>	125 kHz						
<b>Chip Type</b>	Hitag S	Unique	Hitag S		Unique	Hitag S	Unique
<b>Memory</b>	256 bit EEPROM	64 bit read-only	256 bit EEPROM	2048 bit EEPROM	64 bit read-only	2048 bit EEPROM	64 bit read-only
<b>Anti-collision</b>	Yes		Yes			Yes	
<b>Reading Distance</b> 2 W reader ERP, free space	Dependent upon reader, environment and application						
<b>PHYSICAL</b>							
<b>Dimensions</b>	Ø 0.79 x 0.12 in (Ø 20 x 3 mm)		Ø 1.18 x 0.12 in (Ø 30 x 3 mm)		Ø 1.97 x 0.12 in (Ø 50 x 3 mm)		
<b>Mounting Method</b>	Embed, glue		Embed, glue, screw				
<b>Fixation Hole Size</b>	Ø 0.20 in (5.2 mm)						
<b>Affixes To</b>	Glass, plastic, wood, metal						
<b>Housing Material</b>	PPA Polyphthalamide [ISO 1874: PA6T/6I-GF50]						
<b>Color</b>	Black						
<b>Weight</b>	0.04 oz (1.3 g)		0.11 oz (3 g)		0.34 oz (9.5 g)		
<b>CHEMICAL AND MECHANICAL</b>							
<b>Water</b>	IP68, IP69K, 176° F (80° C), 100 bar, 30 sec. 16 l/min						
<b>Withstands Exposure To</b>	Fuel B, mineral oil, petroleum, salt mist, vegetable oil, [UV resistant ISO 4892-2], [food compatible, directive 02/72/EC], [flame resistant UL94-HB]*						
<b>Environmental Test Conditions</b>	68° F (20° C), 100 h						
<b>Vibration</b>	IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]						
<b>Shock</b>	IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]						
<b>Drop Test</b>	100 x 3.28 in (1 m)						
<b>Axial / Radial Force</b>	800 N / 500 N, 10 sec.						
<b>THERMAL</b>							
<b>Storage</b>	-40° to +194° F (-40° to +90° C), 1000 h						
<b>Operating</b>	-13° to +185° F (-25° to +85° C)						
<b>Shock/Fatigue</b>	-40° to +194° F (-40° to +90° C), 50x5 min with 30 sec transition						
<b>Peak</b>	284° F (140° C), 100 h						
<b>OTHER</b>							
<b>Standards</b>	EN 60079-0:2009; EN 60079-11:2007; EN 60079-26:2007						
<b>Options</b>	Custom embossed, printed or no logo						
<b>Warranty</b>	7 Years						

\*Flame Resistance UL94-HB not applicable for spacer of INTag 500 OM or INTag 500 UHF OM.

## INDUSTRY AND LOGISTICS:

- **Asset tracking and logistics**
  - Tool and equipment inventory
  - Maintenance management
- **Automation and manufacturing**
  - Process automation
  - Real-time materials inventory
  - Food processing
- **Returnable transport items**
  - Inventory and distribution tracking
  - Container maintenance
- **Waste management**
  - Bin tracking
  - Recycling compliance monitoring
  - Improved invoicing and service accuracy
  - Route optimization
  - Incentive-based waste and recycling programs

## SPECIFICATIONS

	IN Tag™												
	High Frequency							Ultrahigh Frequency					
	200	300	500	500 OM	200	300	300 8KB	500	500 EU	500 EU OM	500 US	500 US OM	
<b>Base Model Number</b>	629182	629183	629185	629185-300	634182	634183	6D1183-010	634185	692185	692185-300	692186	692186-300	
<b>ELECTRONIC</b>													
<b>Operating Frequency</b>	13.56 MHz							865 MHz (EU)		915 MHz (US)			
<b>Chip Type</b>	I-Code SLIX				F-Mem			G2XM					
<b>Memory</b>	1024 bit EEPROM				2 Kbyte FRAM		8 Kbyte FRAM	2 Kbyte FRAM	512 bit EEPROM (64 bit TID, 240 bit EPC)				
<b>Anti-collision</b>	Yes												
<b>Reading Distance</b> 2 W reader ERP, free space	Dependent upon reader, environment and application							Up to 9.8 ft (3 m)					
<b>PHYSICAL</b>													
<b>Dimensions</b>	Ø 0.79 x 0.12 in (Ø 20 x 3 mm)	Ø 1.18 x 0.12 in (Ø 30 x 3 mm)	Ø 1.97 x 0.12 in (Ø 50 x 3 mm)	Ø 2.17 x 0.51 in (Ø 55 x 13 mm)	Ø 0.79 x 0.12 in (Ø 20 x 3 mm)	Ø 1.18 x 0.12 in (Ø 30 x 3 mm)	Ø 1.97 x 0.12 in (Ø 50 x 3 mm)	Ø 1.97 x 0.14 in (Ø 50 x 3.5 mm)	Ø 2.17 x 0.51 in (Ø 55 x 13 mm)	Ø 1.97 x 0.14 in (Ø 50 x 3.5 mm)	Ø 2.17 x 0.51 in (Ø 55 x 13 mm)		
<b>Mounting Method</b>	Embed, glue	Embed, glue, screw			Embed, glue	Embed, glue, screw							
<b>Fixation Hole Size</b>	Ø 0.20 in (5.2 mm)				Ø 0.20 in (5.2 mm)								
<b>Affixes To</b>	Glass, plastic, wood			Metal, glass, plastic, wood	Glass, plastic, wood			Glass, plastic, wood	Metal, glass, plastic, wood	Glass, plastic, wood	Metal, glass, plastic, wood		
<b>Housing Material</b>	PPA Polyphthalamide [ISO 1874: PA6T/6I-GF50]												
<b>Color</b>	Black												
<b>Weight</b>	0.04 oz (1.3 g)	0.11 oz (3 g)	0.34 oz (9.5 g)	1.06 oz (30 g)	0.04 oz (1.3 g)	0.11 oz (3 g)	0.34 oz (9.5 g)	0.35 oz (10 g)	1.06 oz (30 g)	0.35 oz (10 g)	1.06 oz (30 g)		
<b>CHEMICAL AND MECHANICAL</b>													
<b>Water</b>	IP68, IP69K, 176° F (80° C), 100 bar, 30 sec. 16 l/min												
<b>Withstands Exposure To</b>	Fuel B, mineral oil, petroleum, salt mist, vegetable oil, [UV resistant ISO 4892-2], [food compatible, directive 02/72/EC], [flame resistant UL94-HB]*												
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<b>Axial / Radial Force</b>	800 N / 500 N, 10 sec.												
<b>THERMAL</b>													
<b>Storage</b>	-40° to +194° F (-40° to +90° C), 1000 h												
<b>Operating</b>	-40° to +185° F (-40° to +85° C)				-13° to +185° F (-25° to +85° C)				-4° to +185° F (-20° to +85° C)				
<b>Shock/Fatigue</b>	-40° to +194° F (-40° to +90° C), 50x5 min with 30 sec transition												
<b>Peak</b>	284° F (140° C), 100 h												
<b>OTHER</b>													
<b>Standards</b>	EN 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007; ISO 15693, ISO 18000-3							ISO 18000-6C, EPC C1G2 EN 60079-0:2009; EN 60079-11:2007; EN 60079-26:2007					
<b>Options</b>	Custom embossed, printed or no logo												
<b>Warranty</b>	7 Years												

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