

# Glass Tag



## VERSATILE LOW AND HIGH FREQUENCY ASSET TAGS WITH EXCEPTIONAL DURABILITY

- **Unsurpassed quality** – fully automated manufacturing and direct-bonding technology ensure tag reliability
- **Comprehensive portfolio** – choose from a broad range of standard sizes and integrated chips, or customize to fit any application
- **Rugged reliability** – high resistance to chemicals, thermal fluctuation, and immersion into liquid, ATEX Certified

HID Global's Glass Tag passive contactless transponders can be easily inserted or molded into a variety of materials, to enable automated asset identification and management applications using radio frequency identification (RFID).

Manufactured with patented HID Global direct-bonding technology, these tags deliver exceptional size to performance ratios, in both low frequency and high frequency applications.

HID uses fully automated processes to produce glass RFID tags, ensuring consistent quality and reliability. Additionally, automation allows HID to meet growing demand for value and innovation, optimal performance and low unit cost.

The glass enclosure ensures reliable transponder performance, despite potentially harsh conditions in finished tag production and field use.

The inherent properties of glass protect embedded electronics from exposure to harsh chemicals, ensure that tag readability is unaffected by immersion

in liquids, and provide excellent stability over fluctuating temperatures.

Glass Tag devices can be embedded into custom housings and mounted on virtually any surface, such as metal, plastic, wood, paper and water, making them ideal for tracking any form of asset, including but not limited to: tools, equipment, pharmaceuticals, production inventory, metallic kegs, gas cylinders or waste containers.

Among the latest HID innovations, Glass Tag Ultra transponders provide greater read-range performance than any low frequency tags of comparable size, and a generous 512 bits of read-write memory.

HF glass tags with patented direct bonding Vigo™ technology are fully ISO 15693 compliant, offering large 1,664 bit of user memory and excellent performance in a small form factor.

In addition, rod-shaped transponder units are also available without glass enclosures, for embedding in custom housings.

### TECHNOLOGY HIGHLIGHTS:

- Available anti-collision in LF and HF
- Memory storage options: from 64 bit read-only to 2048 bit read-write
- Standard lengths from 0.31 in (8 mm) to 0.86 in (22 mm); custom sizes available
- Embeddable in a broad spectrum of potential enclosure materials
- Unlimited resistance to water and chemical absorption
- High stability over fluctuating temperatures

# Glass 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

Glass Tag									
	Mini	Hitag S				Nova	Titan	Q5	
	8 mm	12 mm		13 mm		13 mm	13 mm	12 mm	13 mm
<b>Base Model Number</b>	684294	623201	624201	623203	624203	603200	602203	612201	612203
<b>ELECTRONIC</b>									
<b>Operating Frequency</b>	125 kHz								
<b>Chip Type</b>	EM4305	Hitag S				Nova	Titan	Q5	
<b>Memory</b>	512 bit EEPROM	256 bit EEPROM	2048 bit EEPROM	256 bit EEPROM	2048 bit EEPROM	160 bit EEPROM	1024 bit EEPROM	264 bit EEPROM	
<b>Anti-collision</b>	Yes								
<b>Reading Distance</b>	Dependent upon reader, environment and application								
<b>PHYSICAL</b>									
<b>Dimensions</b>	Ø 0.05 x 0.31 in (Ø 1.4 x 8 mm)	Ø 0.08 x 0.47 in (Ø 2.12 x 12 mm)		Ø 0.12 x 0.51 in (Ø 3.15 x 13.3 mm)			Ø 0.08 x 0.47 in (Ø 2.12 x 12 mm)	Ø 0.12 x 0.51 in (Ø 3.15 x 13.3 mm)	
<b>Tagging Method</b>	External housing								
<b>Housing Material</b>	Bioglass								
<b>CHEMICAL AND MECHANICAL</b>									
<b>Water</b>	IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h								
<b>Withstands Exposure To</b>	Alcohol, ammonium chloride 25%, fuel B, HCL 10%, salt water								
<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>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>Peak</b>	248° F (120° C), 100 h; 284° F (140° C), 10 h								
<b>OTHER</b>									
<b>Standards</b>	EN 60079-0:2009; EN 60079-11:2007; EN 60079-26:2007 (all glass tags)								
<b>Options</b>	Alternative sizes and chips (e.g. EM4200/4102, EM4305, custom programming)								
<b>Box Size</b>	5,000 pcs. for GT Mini 2,000 pcs. for all GT 12mm and 12.5, 22 and 22.5 mm 3,000 pcs. for all GT 9mm 300 pcs. for GT ICode SLix 629209								
<b>Warranty</b>	2 Years								












## INDUSTRY AND LOGISTICS:

- **Asset tracking and logistics**
  - Crate or carton fleet management
  - Waste management

- **Automation and manufacturing**
  - Inventory tracking
  - Warranty validation

- **Medical and health**
  - Equipment calibration
  - Perishable asset allocation

## SPECIFICATIONS

	Glass Tag											
	Unique			Ultra		FDX-b BDE		HDX BDE	Vigo		ICODE SLIX2	
	12 mm	22 mm	13 mm	9 mm	12.5 mm	13 mm	22 mm	22.5 mm	12 mm	13 mm	22 mm	
												
<b>Base Model Number</b>	601201-002	601209	601203	628230	684280	684244	684251	6B7252-001	6B0201	6B0203	629209-012	
<b>ELECTRONIC</b>												
<b>Operating Frequency</b>	127 kHz	125 kHz	131 kHz	134.2 kHz				13.56 MHz				
<b>Chip Type</b>	Unique			EM4305		FDX-b BDE		HDX BDE	Vigo		ICODE SLIX2	
<b>Memory</b>	64 bit read-only			512 bit EEPROM		128 bit read-only		1664 bit EEPROM		2560 bit UM		
<b>Anti-collision</b>									Yes			
<b>Reading Distance</b>	Dependent upon reader, environment and application			Up to 35% more than standard tag of same size		Dependent upon reader, environment and application						
<b>PHYSICAL</b>												
<b>Dimensions</b>	∅ 0.08 x 0.47 in (∅ 2.12 x 12 mm)	∅ 0.15 x 0.85 in (∅ 4 x 21.7 mm)	∅ 0.12 x 0.51 in (∅ 3.15 x 13.3 mm)	∅ 0.08 x 0.35 in (∅ 2.12 x 9 mm)	∅ 0.08 x 0.49 in (∅ 2.12 x 12.5 mm)	∅ 0.12 x 0.51 in (∅ 3.15 x 13.3 mm)	∅ 0.15 x 0.85 in (∅ 4 x 21.7 mm)	∅ 0.15 x 0.88 in (∅ 3.85 x 22.5 mm)	∅ 0.08 x 0.47 in (∅ 2.1 x 12.0 mm)	∅ 0.12 x 0.51 in (∅ 3.15 x 13.3 mm)	∅ 0.15 x 0.85 in (∅ 4 x 21.7 mm)	
<b>Tagging Method</b>	External housing											
<b>Housing Material</b>	Bioglass											
<b>CHEMICAL AND MECHANICAL</b>												
<b>Water</b>	IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h											
<b>Withstands Exposure To</b>	Alcohol, ammonium chloride 25%, fuel B, HCL 10%, saltwater											
<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>THERMAL</b>												
<b>Storage</b>	-40° to +194° F (-40° to +90° C)											
<b>Operating</b>	-40° to +194° F (-40° to +90° C)					-13° to +185° F (-25° to +85° C)						
<b>Peak</b>	248° F (120° C), 100 h; 284° F (140° C), 10 h											
<b>OTHER</b>												
<b>Standards</b>						EN14803			ISO 15693, ISO 18000-3			
<b>Options</b>	Alternative sizes and chips (e.g. EM4305, EM4200/4102, custom programming)											
<b>Box Size</b>	5,000 pcs for GT Mini 2,000 pcs for all 12 mm, 12.5 mm, 22 mm and 22.5 mm tags 1,000 pcs for 13 mm and 3,000 pcs for 9 mm tags 300 pcs for GT I-Code SLix 629209											
<b>Warranty</b>	2 years											