

## Windshield and Headlamp Mount Tags

Ultra High Frequency Global  
Passive Transponder



### Overview

The windshield Tag (PID- D4) is highperformance radio frequency transponders(RFID) designed to be used in automatic vehicle identification applications.

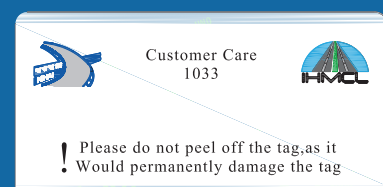
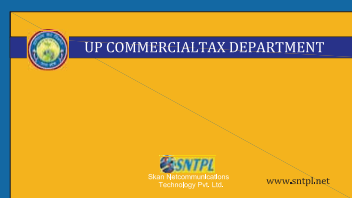
Designed to be mounted on a glass surface, such as a vehicle windshield, or directly on a motorcycle or vehicle headlamp, each tag contains a nonchangeable unique identification number, it has reading and writing capabilities and is passive - powered by utilizing energy from the reader, eliminating the requirement for a battery.

### Security

The tag is manufactured using a single substrate layer which contains the antenna and artwork. The tag does not contain multiple substrate layers glued together. The tag has a small form factor and is non-transferable providing tamper proof security.

### Applications

The Insigni tag is ideally suited for a number of transportation applications including Automatic Vehicle Identification (AVI), Automatic Vehicle Registration (EVR), Electronic Toll Collection (ETC), Parking and Access Control Systems (PACS), vehicle emissions testing and proof of insurance compliance. The Insigni tags allows secure identification of vehicles from a distance even when they are moving at high speeds.



## Specifications

<b>Substrate</b>	The tag is translucent polyester and both artwork and antenna are printed on the same substrate. The tag does not contain multiple substrate layers glued together and has no internal cuts.
<b>Transferable</b>	The tag is not transferable, ensuring that it can not be removed and transferred to a different vehicle. The tag stops working after it is removed from the vehicle and leaves evidence of detachment in both the tag and the windshield.
<b>Size</b>	Windshield tag is 100 mm X 50 mm.
<b>Artwork</b>	For windshield project's unique optional personalized graphic design printed with 3 colors on the substrate.
<b>Security</b>	The tag includes security microtext printing and the use of reflective pigments that change color under black light. Password authentication to data.
<b>Variable information</b>	Variable information such as barcode or text is printed directly on the same substrate of the tag. Barcode can be of different formats.
<b>Durability</b>	Durability of at least five years from the delivery of materials and proper installation according to the installation instructions under normal environmental conditions.
<b>Passive RFID Operation</b>	RFID passive type. No battery required.
<b>Flexibility</b>	The tag is flexible and thin.
<b>Chip Type</b>	Impinj Monza 4QT
<b>Operating Frequency</b>	902 – 928MHz Américas, 4 W EIRP. 869.4 – 869.56MHz Europa, 0.5 W ERP. 865.6 – 867.6MHz Europa, 2 W ERP
<b>Protocol</b>	ISO / IEC 18000-6C optimized to allow reads at more than 100 mph.
<b>Memory</b>	128-bit EPC, 512-bit User Memory, 16-bit TID header, and 48-bit serial number
<b>Data</b>	Up to 640 kbps data transfer rate. 32 Bit Access and 32 Bit Kill Passwords.
<b>EEPROM</b>	EEPROM write cycles to 100,000 cycles. EEPROM data retention of 10 years.
<b>Sensibility</b>	-19.5dBm in UHF frequency band from 902 to 928 MHZ.
<b>Operating Temperature</b>	-40°C to +85°C
<b>Storage Temperature</b>	-40°C to +100°C
<b>Relative Humidity</b>	100% condensing
<b>ESD Voltage Immunity</b>	+/- 3kV