



RFID Tag on Metal (TOM®) Labels

Identiv's Comprehensive Set of HF RFID Labels for Metallic Environments

Key Features

- 13.56 MHz HF RFID
- ISO/IEC 14443 or 15693 compliant
- Can be used on any metal surface, like mobile phones
- Large variety of shapes & sizes
- Completely customizable with logos, text, barcodes & more
- Durable for extreme indoor or outdoor use

Standard radio frequency identification (RFID) tags are not designed for placement near metal. The technology behind Identiv's RFID Tag on Metal (TOM®) Labels features substantial technical and economic benefits for a wide variety of applications with surrounding metal environments. These high frequency (HF) labels (ISO/IEC 14443 or 15693) are equipped with a unique shielding technology that provides an optimum read range when applied to metallic surfaces.

These 13.56 MHz HF labels deliver maximum performance for RFID applications running in harsh environments that include all types of metal. The tags can adhere to any type of surface, including mobile phone backings or parts containing metal. TOM® Labels are equipped with a ferrite backing that prevents RFID waves from reflecting off the target device. The labels are composed of an Identiv-developed inlay attached to the ferrite substrate and adhesive. The ferrite is embedded in the label to deliver maximum usability and performance with RFID readers in the field.

Due to their extreme flexibility and ease of application, Identiv's TOM® Labels can be used for automatic data capture on metallic surfaces and objects in the a large variety of applications.



Technical Specifications

TOM® Labels (Primary Specs)	
Standard Dimensions	45 x 45 mm (1.77 x 1.77 in) 40 x 40 mm (1.57 x 1.57 in) 45 x 25 mm (1.77 x 0.98 in) 40 x 20 mm (1.57 x 0.79 in) Diameter 28 mm (1.10 in) Diameter 23 mm (0.90 in) Diameter 18 mm (0.70 in) More sizes available upon request – minimum order quantities may apply
Antenna	PET with copper and aluminium -etched antenna; specialized substrate for various applications

TOM® Labels (Primary Specs)	
Adhesive/Liner	Acrylic adhesive/release paper liner
Insulator Layer	Ferrite
Total Antenna Thickness	Approximately 400 um (15.74 mils)
Nominal Chip Thickness	120 - 150 um (4.70 - 5.90 mils), depending on chip type
ESD	+2KV maximum peak, human body model (HBM) according to chip specification
Protocol & Chips	ISO/IEC 15693 and ISO/IEC 14443; NFC compliance chips Type 1, 2, 3, and 4; Broadcom, Infineon, STM, NXP, Sony, etc.

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Identiv's TOM® Labels are only for use on metal-mount surfaces. It is not recommended to apply the tags to non-metal surfaces or to use standard labels on metallic applications (as the presence of metal will detune the resonance frequency of a tag that is not designed to be placed on metal).

For applications that need customization, TOM® Labels can receive special printing, serial numbers, barcodes/QRcodes, or electrical chip personalization before shipping.



About the ISG

The Identification Systems Group (ISG) is a nationwide network of local experts in identification, security, tracking and card personalization technologies, providing high quality, cost-effective solutions backed by local support and the strength of our Professional Services Certification program. Each member company works together to provide seamless support and collaboration in the identification and issuance industries across the USA and Canada. www.IdentificationSystemsGroup.com

