

Overview

The TE45 features the Impinj Monza 5 chip, the Monza 5 provides a variety of models to suit diverse applications, ushering in new standards in RFID privacy, fast encoding, best and most consistent read/write performance, and memory capability.

Communication Protocol and Memory Specifications

Wireless Communication Protocol EPC Gen 2, ISO 18000-6C, ISO/IEC 15963 (UID standard).
Protocol Class 1. Component Used Impinj Monza 4

IC NAME	Monza 5
EPC MEMORY	128 bits
USER MEMORY	Na
SERIALIZED TID	48 bits
RESERVED MEMORY (password, kill)	64 bits
READ SENSIBILITY LIMIT	-20 dBm
WRITE SENSIBILITY LIMIT	-16 dBm

Features

- Optimized for item tracking in near-field and long range in far-field operation
- Enhanced anti-counterfeiting/anti-cloning capability.
- Applications include libraries, garments, and other assets.
- Aluminium inlay provides excellent performance at lower costs than silver ink or copper; RoHS compliant

Functional Specifications

EPC Class 1 Gen 2
ISO/IEC 18000-6C
Operating Frequency Band:860 - 960 MHz
Read Range Typical $\geq 4m$ with fixed reader and inlay mounted on cardboard
Mode of Operation Passive, Backscattering Modulation

Environmental Specifications

Operating Temperature Range -40° C to +65° C at 40-80% RH
Storage Temperature -40° C to +85° C at 40-80% RH
Electrostatic Discharge (ESD) tolerance: 2.000V HBM (Human Body Model)



“TE45 BOOKTRACE” Inlay

Produced by Trace-Tech Id Solutions S.L.
Tag for Far-Field and Long Range Item Tagging

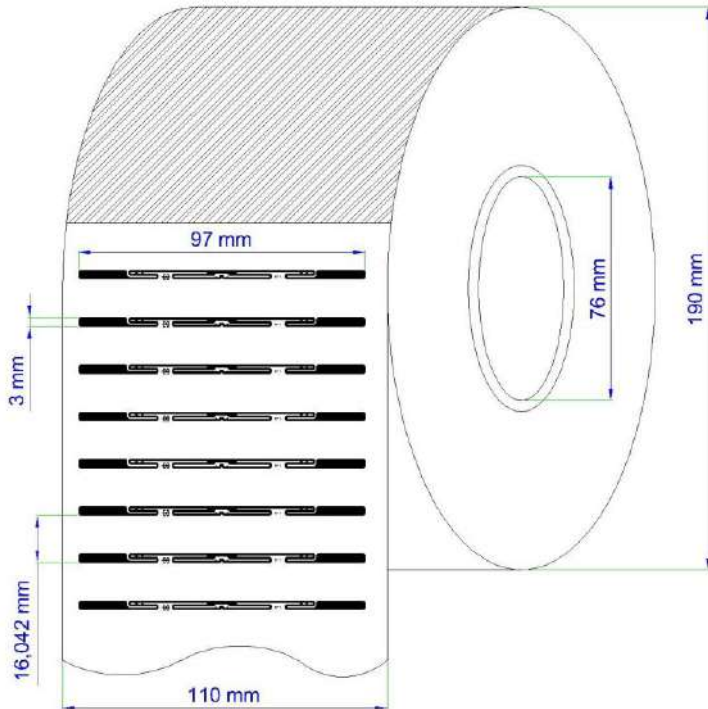
Dry Inlay Specifications

Substrate	50 micron PET
Metal Layer	Aluminum 99.8% pure
Pitch	16.042 mm
Overall Inlay Thickness with IC	Max 210 µm
Bending Diameter	≥ 15mm, tension less than 6 N

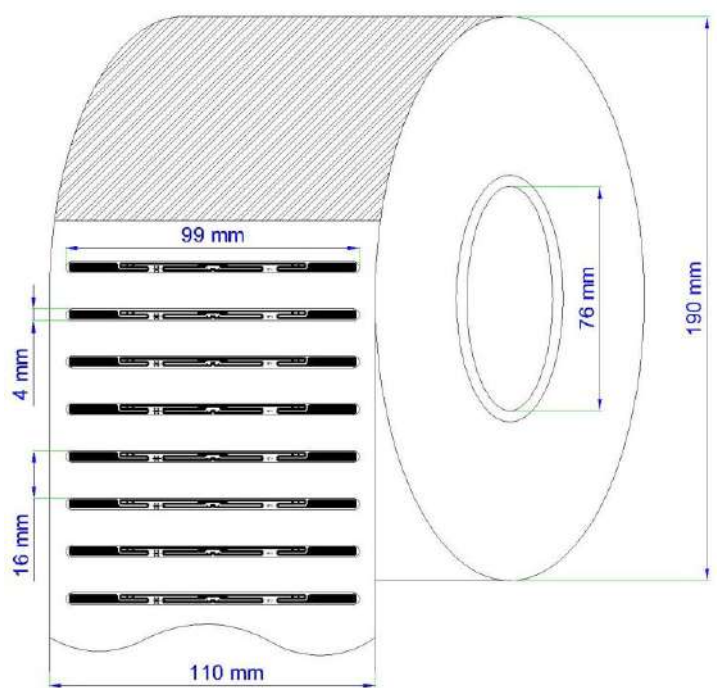
Wet Inlay Specifications

Die-cut size	99x4mm
Inlay Adhesive	Acrylic
Release liner	40#SCK
Pitch	16.042 mm

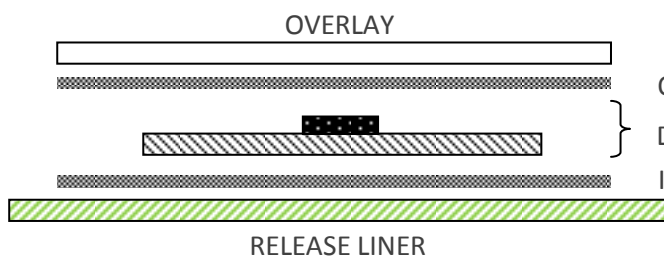
Dry Reel Layout



Wet Reel Layout



Wet Inlay or Labeltag Construction



Overlay Adhesive

DRY INLAY = 50 µm PET + Monza5 die

Inlay Adhesive

Customized solutions

Whatever size, material, shape and adhesive for:

- RFID Labeltags
- RFID Tickets
- RFID Hangtags
- RFID PVC cards
- Printing & codifying service
- High volumes and low volumes



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