

# “TE14 THINPROPELLER” Inlay

## Produced by Trace-Tech Id Solutions S.L.

### Tag for Far-Field and Long Range Item or pallet Tagging



## Overview

The TE14 features the Impinj Monza 4 chip, the Monza 4 family provides a variety of models to suit diverse applications, ushering in new standards in RFID privacy, tag orientation insensitivity, 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 4D	Monza 4E	Monza 4QT
<b>EPC MEMORY</b>	<b>128 bits</b>	<b>496 bits</b>	<b>128 bits</b>
<b>USER MEMORY</b>	<b>32 bits</b>	<b>128 bits</b>	<b>512 bits</b>
<b>SERIALIZED TID</b>	32 bits	32 bits	32 bits
<b>RESERVED MEMORY (password, kill)</b>	64 bits	64 bits	64 bits
<b>READ SENSIBILITY LIMIT</b>	-18 dBm	-18 dBm	-18 dBm
<b>WRITE SENSIBILITY LIMIT</b>	-14,6 dBm	-14,6 dBm	-14,6 dBm

## Functional Specifications

Operating Frequency Band 860 - 960 MHz  
 Read Range Typical  $\geq 7m$  (270") 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)

## Features

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

## Dry Inlay Specifications

Substrate	50 micron PET
Metal Layer	Aluminum 99.8% pure
Pitch	16.4224 mm
Overall Inlay Thickness with IC	Max 210 $\mu$ m
Bending Diameter	$\geq 15mm$ , tension less than 6 N (1.35 lbf)



## Wet Inlay Specifications

Die-cut size	97x12mm
Inlay Adhesive	Acrylic
Release liner	40#SCK
Pitch	16.4224 mm

