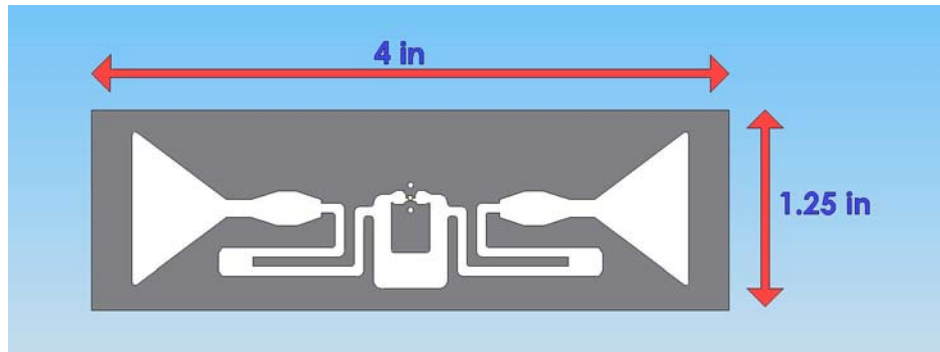


Authored by: Jamin He	Date: 4/05/07
Approved by: Fabrizio Montauti	Date: 4/05/07

Revision History			
Rev	ECO #	Date	Description of change
A	0194	4/05/07	Initial Release

Comments: Initial Release

DALLAS INLAY SPECIFICATIONS OVERVIEW



1.0 PURPOSE

Purpose of this document is to provide the minimum specification for the Dallas inlay.

2.0 OVERVIEW

The Dallas inlay is the final product of the RFID manufacturing process developed by WaveZero around its core technology based on vacuum deposition of pure metal on polymeric films. The Dallas applications include baggage tracking, supply chain management, warehousing, logistics and transportation.

3.0 REFERENCE DOCUMENTS

500788	Dallas Masking Roll
200227	Dallas Antenna Drawing
100166	Inlay Assembly Drawing
ASTM D4169	Environmental Specification, Temperature, Loose Trucking and Random Vibration.

4.0 DEFINITIONS

RFID	Radio Frequency Identification
EPC	Electronic Product Code, standard communication protocol for Radio Frequency Identification.

5.0 SPECIFICATIONS

5.1 Communication Protocol Specifications

Silicon Component:	RI-UHF-11111-01
Operating Frequency Band:	860Mhz - 950Mhz
Wireless Communication Protocol:	EPC Generation 2
Protocol Class:	Class 1
Memory Configuration:	3 Memory Banks: Bank 00: Kill/Access Password Bank 01: CRC-16 Protocol Control plus 96 bit EPC Code Bank 10: TID

Protocol Functions:	Multi-session Anti-collisions Inventory, Read, Write, Erase, Kill
Programming time:	100msec Max for 288 bit EPC code
Downlink Modulation:	90% SSB-ASK Asynchronous, DSB-ASK, PR-ASK (Partial Response pulse coding up to 128-Kbit)
Uplink Modulation:	Backscattering Modulation using FM0 or Miller coding (up to 640Kbit)
Reading Range:	Better than 20' in Free-Space Propagation and 33dBm EIRP at the reader antennas.
Circular Cross Polarization:	Better than 2 dB measured with 6.5dBi gain circular patch antennas.

5.2 Antenna Specifications

Substrate:	PET Melinex 516
Substrate Thickness:	3 mils (76 micron)
Metal:	Electrical Quality Aluminum (99.8%)
Metal Thickness:	1.2 micron minimum
Surface Resistivity:	lower than 60 milliohm per square
Resistance:	Lower than .4 ohm tip to tip measured with DC Tester.
Overall Dimensions:	4" length, .8" height
Packaging Information:	Single 4" web wide roll, 3" core

5.3 Environmental Specification

Compliant to ASTM D 4169, Loose Cargo, Commercial Temperature and Vibration Levels.

Compliant to RoHS normative.