MOUNT-ON-METAL TRANSPONDER
Numbering According to EN14803 for Waste Management Applications

Check for Samples: RI-TRP-0106

FEATURES

- **Best in Class Performance Through Patented HDX Technology**
- **64-Bit Read-Only Memory**
- **Insensitive to Almost All Non-Metallic Materials**

APPLICATIONS

- **Waste Management**

DESCRIPTION

Texas Instruments mount-on-metal transponder provides superior performance and operates at a resonance frequency of 134.2 kHz. Texas Instruments LF transponders are manufactured with TI's patented tuning process to provide consistent read and write performance. Prior to delivery, the transponders undergo complete functional and parametric testing, in order to provide the high quality customers have come to expect from TI. The transponder is well suited for usage in waste management applications.

For the most current package and ordering information, see the Package Option Addendum at the end of this document, or see the TI web site at www.ti.com.

NOTE

For more information, contact the sales office or distributor nearest you. This contact information can be found on our web site at http://www.ti.com/rfid.

Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of the Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

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ABSOLUTE MAXIMUM RATINGS

over operating free-air temperature range (unless otherwise noted)

	RI-TRP-0106
Operating Temperature	–25 to 70°C
Storage Temperature	–25 to 85°C

OPERATING CHARACTERISTICS

over operating free-air temperature range (unless otherwise noted)

	RI-TRP-0106(1)
Functionality	Read only
Memory (Bits)	64
Memory (Pages)	1
Operating Frequency	134.2 kHz
Modulation	FSK (frequency shift keying) 134.2 kHz / 123.2 kHz
Transmission Principle	HDX (half duplex)
Power Source	Powered from the reader signal (batteryless)
Typical Reading Range	≤120 cm(2)
Typical Reading Time	70 ms
Case Material	Polypropylene, black
Protection Class	IP 67
Mounting	With screws or rivets on aluminum, iron, or steel
EMC	Programmed code is not affected by normal electromagnetic interference or X-rays
Signal Penetration	Transponder can be read through almost all non-metallic material
Mechanical Shock	IEC 68-2-27, Test Ea; 200 g, half sine, 3 ms, 3 axes, 6 shocks per axis
Vibration	IEC 68-2-6, Test Fc; 20 g, 20 Hz to 500 Hz, 3 axes, 10 cycles per axis
Dimensions	102 mm ± 1 mm × 36 mm ± 1 mm × 16.5 mm ± 1 mm
Weight	43 g

(1) Number coding based on EN14803 standard
(2) Depending on RF regulation in country of use, the reader antenna configuration used, and the environmental conditions.

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PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead/ Ball Finish	MSL Peak Temp (3)	Samples (Requires Login)
RI-TRP-0106-30	ACTIVE	RFIDP	TEJ	0	50	Pb-Free (RoHS)	Call TI	N / A for Pkg Type	Purchase Samples

(1) The marketing status values are defined as follows:
ACTIVE: Product device recommended for new designs.
LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.
NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.
PREVIEW: Device has been announced but is not in production. Samples may or may not be available.
OBSOLETE: TI has discontinued the production of the device.

(2) Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check http://www.ti.com/productcontent for the latest availability information and additional product content details.
TBD: The Pb-Free/Green conversion plan has not been defined.
Pb-Free (RoHS): TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.
Pb-Free (RoHS Exempt): This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.
Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

(3) MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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