

Transponder DST+ Digital Signature Transponder Plus (12mm Wedge)



This new generation of secure RFID transponder provides additional levels of security. In addition to the proven TI encryption known from the DST transponder, mutual authentication increases security and sophisticated diagnostic features allow fraud prevention and after-theft diagnosis. It offers 50 bytes of EEPROM memory from which 26 bytes are free for user data. The DST+ can be operated in DST mode in which it is functional compatible to the DST.

Specifications:

Part Number	RI-TRP-V9WK
Security:	
Encryption Algorithm	TI Challenge/Response principle, Single Encryption or Mutual Authentication
Principle	TI Random Challenge/Response
Encryption	40-bit Mutual Authentication and Issuer Keys
Encryption response (signature)	24-bit
Data Transmission:	24 bits + 24 bits of SN with Cyclic Redundancy Check (CRC) on data
Transmission Principle	HDX (Half Duplex)
Operating Frequency	134.2 kHz
Modulation Downlink (to the TRP)	100% AM, Bit Coding PWM or PPM
Data Rate Downlink	PWM: 1,3 kbps (typ.), PPM: 2 kbps (typ.)
Uplink (from the TRP)	Frequency Shift Keying: Low Bit 134.2 kHz, High Bit 123.2 kHz
EEPROM Memory	
User memory, free	128 bits (lockable)
User memory for diagnostic	80 bits, Issuer Access Protection (encryption protected, lockable)
Configuration	2 x 8 bits (lockable) plus access mode byte plus selective address byte (lockable)
Increment counter	8-bit (non reset-able, lockable)
Serial number	24-bit + 8-bit Manufacturer Code (factory programmed and locked)
Encryption keys	3 x 40-bit
Read Time for an Encryption	PWM: 120 ms, PPM: 90ms (including 50ms charge time)
Read Time for Mutual Authentication	PWM: 160ms; PPM: 115ms (including 50ms charge time)
Protocol Transmission Security	16-bit Block Check Character
Activation Field Strength	141.5 dB μ Am ⁻¹
Operating Temperature (Read)	-40 to +85 °C
Storage Temperature	-40 to +100 °C (+175 °C for 5 minutes)
Case Material	Plastic
Protection Class	IP 68
EMC	Programmed code is not affected by natural electromagnetic interference or x-rays
Mechanical Shock	IEC 68-2-27, Test Ea; 200 g, half sine, 3 ms, 6 shocks per axis
Vibration	IEC 68-2-6, Test Fc; 10 - 500 Hz, 1.65 mm peak to peak, 10 g, 4 hours per axis
Dimensions	12.0 mm + 0.2 mm x 6.0 mm +0.2 mm x 3.0 mm \pm 0.05 mm
Weight	0.4 g
Packaging	Bulk (2000 units per box)

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

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