

Product Datasheet

OEM Reader

MODULE RW



The TECTUS TPM – 10 Reader Module is a full digital core module for high performance RFID readers in the low frequency area. It offers synchronous demodulation and binary selectable resonance frequency selection (100Khz to 150Khz).

The firmware supports all modern LF transponders with it's full functionality like anti-collision, fast read modes etc.

With the on board QAM demodulators, the TPM - 10 could be used to build multi-tag and multi-modulation readers (ASK,FSK,PSK) and overcomes limitations given by other reader modules.

Frequency

100 kHz to 150 kHz +/- 1,5 (at RT) / SRF settings controlled by software

Antenna

No int. antenna, external antennas and antenna design guide available

Read Distance

Up to long range, depending on external amplifiers and mainboard design

Housing

PCB with 40 x PIN-OUT

Dimensions

40,6mm x 50,8mm (1600mil x 2000mil)

Power Supply

5.0 VDC

Typ. Supply Current

30mA operating and 1mA standby @ 5V

Operating temperature

-20°C to +55°C (-4F to +122F)

Transponder types

Functions supported by the TLM-10				
	Read / Write	Anti collision	Baud rate	Modulation
UNIQUE (EM4x02)	R		2 / 4 Kbaud	ASK / PSK
ZOODIAC (ISO 11784 / 5 FDX-B)	R		4 Kbaud	ASK / FDX
HITAG 1 / 2	R+W	yes	2 Kbaud	ASK
HITAG- S- 32 / 256 / 2K	R+W	yes	2 / 4 / 8 Kbaud	ASK
ORION (EM4x25)	R	yes	4 Kbaud	ASK
MAGIC (EM 4x70)	R+W		custom	ASK
TITAN (EM4x50)	R+W		2 Kbaud	ASK
EM 4269	R+W		2 ... 8 Kbaud	ASK
Q5 / ATMEL E5551 - E5554	R+W		2 ... 10 Kbaud	A / P / F SK
Q6 / ATMEL E5557	R+W	yes	2 ... 8 Kbaud	ASK
TIRIS (ISO 11784 / 5 -HDX)	R		custom	FSK-HDX

implemented

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Technical Certificates

ISO 9001 manufactured, CE

Interface

Serial @ TTL levels

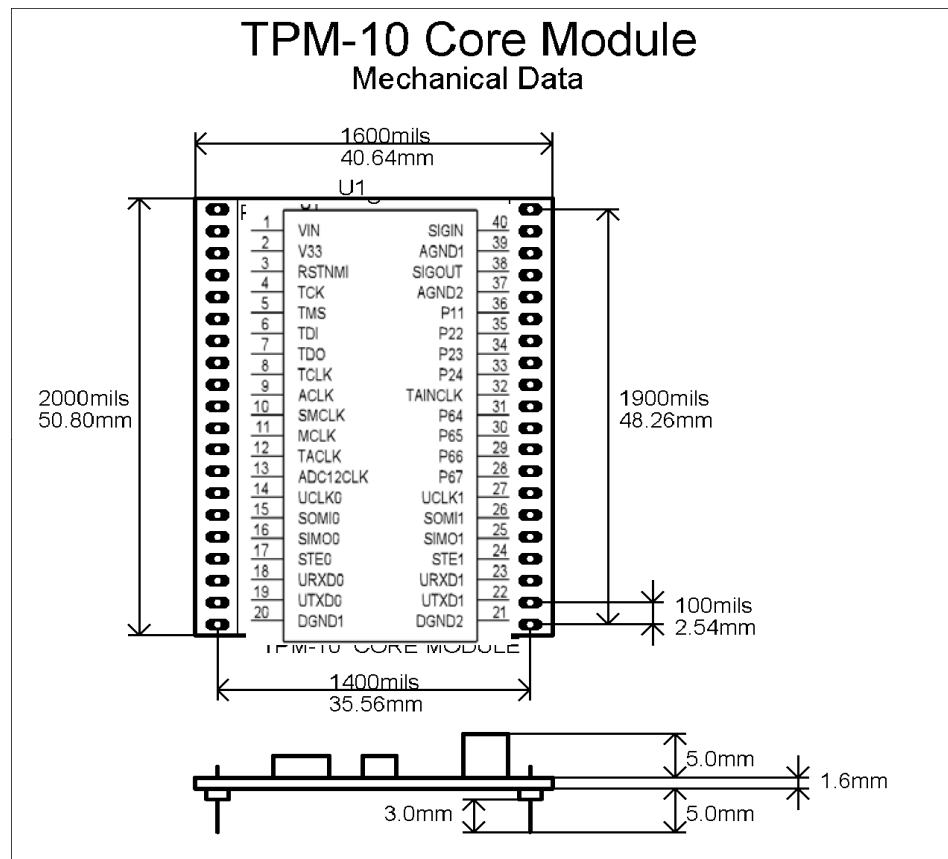
Features

- 5VDC supply, 3,3 VDC I/O voltages (analog/digital)
- On board voltage regulator delivers up to 5mA @3,3V for external consumers
- supports multiple carrier frequencies
- sinusoidal carrier signal output for serial and parallel LC-Antenna circuits
- programmable synchronous QAM demodulator on board
- true digital signal processing, signal quality analysis is possible
- supports ASK, PSK and FSK demodulation
- compact, but powerful C interpreter for programmable standalone functionality
- 2 independent serial interfaces (each can be configured as UART or SPI), they can drive RS232, RS485 adapters or serial-to-USB converters
- 5 general purpose digital input/output lines
- firmware updates via serial boot loader.
- contains routines for all common tags in the 125 kHz to 135KHz range
- Synchroisation signal to operate multiple readers with synchrous phases in close neighborhood.)

Order Number

TPM-10.aa

Pin Out and Dimensions



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