

Product Datasheet OEM Reader Board Aircoil R/W

Article No : TLM – 30



The TECTUS TLM-30 Reader Modules are multifunctional, fully integrated low cost reader modules at DIL-16 dimensions.

The TLM - 30 needs just an external antenna to read & write multiple low frequency Transponders by using its internal demodulator. The TLM-30 firmware can be field updated by the user via it's serial interface. Multiple firmware versions can be downloaded via internet.

With external demodulators, the TLM - 30 could be used to build multi-tag and multi-modulation readers (ASK,PSK, FSK) and overcomes limitations given by other reader modules.

Frequency	125 kHz or 134 kHz +/- 3.0 kHz (at RT) without external clock								
Antenna	External antennas, just add a coil (L=360μH, R < 10Ω) to the internal tuning cap								
Read Distance	Short Range, up to midrange with external circuitry (application note)								
Housing	Plastic, IP67 with 16 x PIN-OUT (DIL-16 /400mil)								
Dimensions	22,86 x 15,24 x 8 mm (0,9 x 0.6 x 0.31 inches)								
Power Supply	3.3 or 5.0 VDC;								
Typ. Supply current	< 60mA antenna ON and < 1mA (3mA) antenna OFF @ 3,3V (5,0V)								
Boot delay after POR	< 10mSec without loader ; > 0,5 Sec with integrated loader								
Operating temerature	-20°C to +65°C (-4F to +149F)								
Supported Transponders	<table> <tr> <th>Read only :</th><th>Read & Write</th></tr> <tr> <td>UNIQUE (EM4x02)</td><td>Q5</td></tr> <tr> <td>ISO 11784 /5, (FDX-B),EM4x05</td><td>HITAG 1</td></tr> <tr> <td>HITAG-S-32</td><td>HITAG-S-256 /2K</td></tr> </table> Other reader firmware for FDX-A, TROVAN, EM4x25, EM4x70, EM4x50, EM4269, TIRIS, ATMEL T555x are customized available upon request.	Read only :	Read & Write	UNIQUE (EM4x02)	Q5	ISO 11784 /5, (FDX-B),EM4x05	HITAG 1	HITAG-S-32	HITAG-S-256 /2K
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ISO 11784 /5, (FDX-B),EM4x05	HITAG 1								
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Firmware options	• software loader for later firmware updates via serial interface • C-interpreter, programmable offline functionality in C • -SM ; secure mode, AES crypto mode for Q5, HITAG-1, HITAG-S 256 /2K • -LO ; electronic lock firmware (under preparation) • -AC ; access control firmware (under preparation) • -AM ; animal modes, several FDX-A types, FDX-B & HDX (under preparation) The loader and the C-interpreter can be optional mixed with different transponder versions in order to offer a maximum of customization flexibility.								

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Technical Certificates

Interface

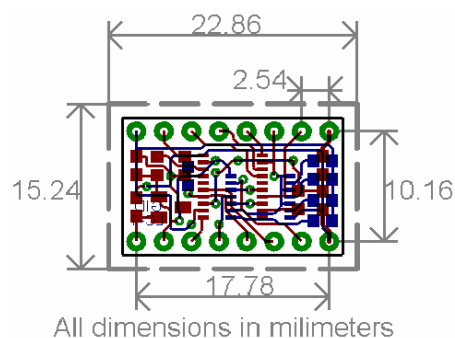
Features

CE / ISO9001 manufactured

serial (TTL)

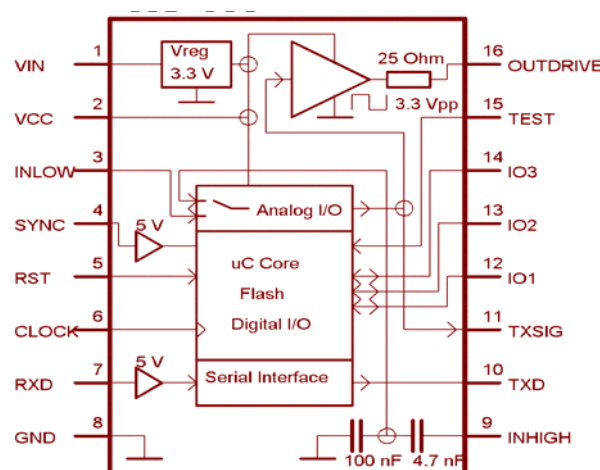
- Short-range reader, by connecting the Antenna direct to OUTDRIVE, INHIGH connectors at the TLM-30
- Up to mid-range reader by using external amplifiers und demodulators
- Adding of external amplifiers for higher performance via TXSIG
- External demodulators to increase sensitivity via INLOW
- Synchronization of multiple readers via SYNC
- 3 free configurable I/O ports, eg. LED / buzzer
- No crystal needed (int. resonator), external clock can be added via CLOCK
- 3,3 V and 5V input
- programmable offline functionality via C-interpreter
- Firmware updates via serial interface (loader required)
- application specific firmware versions (ASF) available over internet
- full customized firmware possible on volume demand
- Signal amplitude measurement to measure the signal strength
- Command timing at the air interface is adjustable by parameters
- Synchronous demodulation

Product dimensions



Pin Out and Block Diagram

TLM - 30



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