

## OEM READER MODULE READ-WRITE



<b>Frequency:</b>	125 kHz or 134 kHz +/- 3.0 kHz (at RT)										
<b>Antenna:</b>	External antennas, just add a coil (L=360µH, R < 10Ω) to the internal tuning cap										
<b>Read Distance:</b>	Short Range, up to midrange with external circuitry (application note)										
<b>Housing:</b>	Plastic, with 16 x PIN-OUT (DIL-16 /400mil)										
<b>Dimensions:</b>	22,86 x 15,24 x 8 mm (0,9 x 0.6 x 0.31 inches)										
<b>Power supply:</b>	5.0 VDC;										
<b>Typ. Supply current:</b>	< 60mA antenna ON and < 3mA antenna OFF										
<b>Boot delay after POR :</b>	< 10mSec without loader ; > 0,5 Sec with integrated loader										
<b>Operating temperature:</b>	-20°C to +65°C (-4F to +149F)										
<b>Interfaces:</b>	Serial TTL										
<b>Standard Firmware:</b>	<table border="0"> <tr> <td><u>Read only :</u></td> <td><u>Read &amp; Write</u></td> </tr> <tr> <td>UNIQUE (EM410x)</td> <td>Q5 , ATMEL 5577</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> <tr> <td colspan="2">Other reader firmware for EM4x25, EM4x70, EM4x5x, EM4269, are customized available upon request.</td> </tr> </table>	<u>Read only :</u>	<u>Read &amp; Write</u>	UNIQUE (EM410x)	Q5 , ATMEL 5577	ISO 11784 /5, (FDX-B),EM4x05	HITAG 1	HITAG-S-32	HITAG-S-256 /2K	Other reader firmware for EM4x25, EM4x70, EM4x5x, EM4269, are customized available upon request.	
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Other reader firmware for EM4x25, EM4x70, EM4x5x, EM4269, are customized available upon request.											
<b>Firmware features:</b>	<ul style="list-style-type: none"> <li>• software loader for later firmware updates via serial interface</li> <li>• Command-interpreter, including all diagnostic and I/O functions</li> <li>• -SM ; secure mode, AES crypto mode for HITAG-1, HITAG-S 256 /2K</li> <li>• -AM ; ISO11784/5 (FDX-B )</li> </ul> <p>The different firmware modules can be optional mixed in order to offer a maximum of customization flexibility. Custom tailored firmware can be designed upon request.</p>										
<b>Technical Certificates:</b>	CE										
<b>Interface:</b>	Serial (TTL)										
<b>Part number:</b>	TLM-30-AR										

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<p><b>Features:</b></p>	<ul style="list-style-type: none"> <li>• Short-range reader, by connecting the Antenna direct to OUTDRIVE, INHIGH connectors at the TLM-30</li> <li>• Up to mid-range reader by using external amplifiers und demodulators</li> <li>• Adding of external amplifiers for higher performance via TXSIG</li> <li>• External demodulators to increase sensitivity via INLOW</li> <li>• 3 free configurable I/O ports, eg. LED / buzzer</li> <li>• No crystal needed (int. resonator)</li> <li>• Firmware updates via serial interface (loader required)</li> <li>• full customized firmware possible on request</li> <li>• Signal amplitude measurement to measure the signal strength</li> <li>• Command timing at the air interface is adjustable by parameters</li> <li>• Synchronous demodulation</li> </ul>
<p><b>Product dimension:</b></p>	<p style="text-align: center;">All dimensions in millimeters</p>
<p><b>Pin out and Block Diagram:</b></p>	<p style="text-align: center;"><b>TLM - 30</b></p>

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