metraTec® QuasarMR1 RFID-Reader

The QuasarMR1 is a mid range RFID reader operating in the HF frequency range (13.56 MHz). With its RF power it is able to read tags from a distance of up to 40 cm (16 “) with a suitable combination of RFID tag and antenna. The reader supports a broad variety of protocols, including ISO14443A, ISO15693 and ISO18000-3 as well as selected proprietary protocols.

To communicate with the rest of the world the QuasarMR1 has a USB connection and an optional Ethernet interface. Both are addressed via a virtual COM port. Additionally there are 8 general purpose IO pins, which can be controlled via the reader software. These pins can be used to control external devices, such as multiplexers, alarms or other peripherals.

The QuasarMR1 is available in an industry aluminium housing incl. wall mounting kit. With its small size of only 10 x 12 cm and practically no heat development it can be installed in almost any industry location. Alternatively it is also available as a credit card sized module (board level product) to be integrated into OEM systems or other devices.

As with all metraTec products, a special focus was put on the ease of integration of the reader into an existing RFID infrastructure. The QuasarMR1 was therefore developed with the SkyeTek M1 reader as the underlying basis. For the system integrator this means that the QuasarMR1 is 100% compatible with the SkyeTek AURA platform. Customers with existing software solutions can continue to use their known system or develop new application for this widely used platform, which is known for its easy protocol. At the same time, using the SkyeTek firmware ensures a proven and reliable product which has an installed base worldwide.
Supported Tag Types

- ISO 15693
- I-Code (Philips)
- Tag-It (Texas Instruments)
- PicoTag (Inside Contactless)
- EM 4135 (EM Microelectronics)
- ISO 14443A

Technical Specifications

<table>
<thead>
<tr>
<th>Operating Principle</th>
<th>1.5 W ± 1 dB mid range HF Reader</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Impedance</td>
<td>50 Ohm</td>
</tr>
<tr>
<td>Operating Frequency</td>
<td>13.56 MHz</td>
</tr>
<tr>
<td>Connections</td>
<td>BNC (other, e.g. SMA on request)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>6.5 - 9 V DC</td>
</tr>
<tr>
<td>Power Consumption (USB)</td>
<td>idle: ca. 50 mA, RF active: ca. 650 mA</td>
</tr>
<tr>
<td>Power Consumption (Eth.)</td>
<td>idle: ca. 250 mA, RF active: ca. 800 mA</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-40 °C to +85 °C (-40 °F to +185 °F)</td>
</tr>
<tr>
<td>Housing, dimensions</td>
<td>Aluminium, 106 x 125 x 44 mm (4.2” x 4.9” x 1.7”)</td>
</tr>
<tr>
<td>Weight</td>
<td>ca. 500 g</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP 40 (higher on request)</td>
</tr>
<tr>
<td>Conformity</td>
<td>CE, including EN 60950-1, ETSI 300 330</td>
</tr>
</tbody>
</table>

Further RFID Components by metraTec

metraTec offers a comprehensive set of RFID products that enables its customers to set up RFID systems whose components work together seamlessly. This reader interfaces perfectly with our range of HF multiplexers, which enables you to connect up to 16 antennas to a single reader. For this you can use antennas from our PCB or Lambda series, custom built antennas or any other HF RFID antennas available on the market.

Applications

- Library & Document Management
- Live Inventory Management
- Logistics & Supply Chain Mgmt

About metraTec

metraTec is a producer of a comprehensive line of RFID products as well as similar electronic equipment. As such, we are able to deliver the entire hardware needed for your RFID projects from one single source - filling the gap between the tag and your software infrastructure.

Contact

metraTec GmbH
Werner-Heisenberg-Str. 1
39106 Magdeburg
Germany

Tel.: +49 (0)391 25 19 06 - 00
Fax: +49 (0)391 25 19 06 - 01
Email: sales@metratec.com
Web: www.metratec.com

Copyright © 2008 metraTec GmbH. metraTec is a registered trademark of metraTec GmbH. Design and technical specifications given here are subject to change without prior notice.
WEEE Reg.-ID: DE56060482