



metraTec® hfMux-16-MP RFID Multiplexer

The metraTec hfMux-16-MP is an RFID multiplexer for HF systems with an operating frequency of 13.56 MHz and a maximum power of 2 W. It allows connecting up to 16 antennas to a single RFID reader. This reduces system complexity and setup costs in cases where many antennas are needed and also lowers hardware system costs as the number of readers needed decreases.

The device works irrespective of the manufacturer of the antennas and readers used. Furthermore, the multiplexer has a very small size and a minimal power consumption which enables mobile operation. Versions with four and eight antenna ports are available under the corresponding order codes (-4-MP and -8-MP).

Application Suggestions

- Sequential reading of several areas (e.g. library shelves)
- Location tracking with antenna arrays
- Reading of tags independent of polarisation (3D reading)

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. The hfMux-16-MP interfaces e.g. with the antennas from our PCB or Lambda series as well as up to 16 custom antennas. On the reader side you can connect the QuasarSR as a short range reader or with the QuasarMR1 for medium range reading applications.



Technical Specifications

| | |
|---------------------------------|--------------------------------------------------|
| Operating Principle | 1 on 16 HF Multiplexer with reflective switches |
| System Impedance | 50 Ohm |
| Operating Frequency | 13.56 MHz |
| max. RF Input Power | 2 W (Medium Power, -HP for high power) |
| Connections | BNC (other, e.g. SMA on request) |
| Power Supply | 24 V DC |
| Current Consumption | 60 mA typical |
| Insertion loss, typ. | 0.45 dB |
| Cross talk, typ. | 43 dB |
| Return Loss, typ. | -27 dB |
| Features | Hot Switchable, Failsafe |
| Control Inputs (S1, S2, S3, S4) | TTL |
| Switching speed | 4 µs typical |
| Temperature Range | -40 °C to +85 °C (-40 °F to +185 °F) |
| Casing, dimensions | Aluminium, 151 x 81 x 50 mm (5.9" x 3.2" x 1.7") |
| Ingress Protection | IP 40 (higher on request) |
| Conformity | CE, including EN 60950-1, ETSI 301 489-3 |

At a Glance

- Simple set up and control
- Compatible with all HF readers up to 2 W RF power
- Low power consumption
- Small size

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

