

metraTec® DwarfZ metraZed SMD Module

With the metraZed products from metraTec you can build a wireless communication channel between two or more devices with minimal effort. A communication range of up to 60 m (line of sight) resp. 25 m (indoor with walls) can be bridged. Therefore, the modules are a great choice for exchanging status data between a central device and many mobile products or building a remote control with longer range than IR-based products.

Using the „Wireless UART“ firmware you will get a completely transparent point-to-point wireless connection between two modules just like using a cable. With the „Wireless Modbus“ version you have one master module and up to 247 slaves that can be addressed individually. In the „Mesh“ version up to 254 nodes create a big network where every module can communicate with every other node using a simple ASCII protocol. The creation of the network works automatically, nodes can join and leave the mesh on the fly. Each module that has a connection to only one single other module is reachable for all nodes in the mesh.

The DwarfZ has 6 digital Inputs/Outputs as well as one analog input that can be used to directly connect sensors to the module. The entire communication is based on the worldwide IEEE 802.15.4 standard working at 2.4 GHz. This SMD-solderable module allows you to develop your own wireless communication on no time using a tested hardware and firmware stack.

Further Hardware

- metraZed USB Stick
- Z2E Ethernet Gateway
- DwarfZ XR Extended Range Module



Technical Specification

Operating principle	IEEE 802.15.4 Communication Module
Operating Frequency	2.4 GHz
Antenna	Integrated linear antenna
Read Range	up to 25 m (indoor with walls) up to 60 m (line of sight)
Protocol	metraZed Wireless Mesh (proprietary)
Operating Voltage	3 V DC nom. (2.8 - 3.6 V DC)
Current Consumption	max. 30 mA
Inputs/Outputs	6 x digital Inputs/Outputs 3 V TTL 1 x analog Input - 0 to 3 V (Vcc)
Communication	Serial 3 V TTL (UART) (vias)
Operating temperature	-20 °C to +70 °C
Dimensions	22 x 39 mm

At a Glance

- Easy and Cost Effective Wireless Data Communication
- 1 to 1 & 1 to N Communication
- Up to 60 m Read Range (direct line)
- SMD-solderable with min. footprint

About metraTec

metraTec develops, manufactures and sells RF hardware for the product segments „Identification“, „Localization“, „Communication“ and „Wireless Power“. It serves a variety of industries, both with standard products as well as custom solutions. Our customers are system integrators, OEM customers as well as research institutes world wide.

Contact

metraTec GmbH
Niels-Bohr-Str. 5
39106 Magdeburg, Germany

Tel.: +49 (0)391 251906-00

Fax: +49 (0)391 251906-01

Email: sales@metratec.com

Web: www.metratec.com

