



The VersaRouter™ 1000 “Quark” is the world’s first standards-based Internet of Things IEEE 802.15.4g compliant router to receive certification in the US, Canada, Europe and Japan. VersaRouter 1000 users can have their devices securely sending commands and receiving data over the Internet in a matter of days, using 6LoWPAN and IPv6 connectivity and HTTP/CoAP based web services to integrate quickly to existing functionality.

The VersaRouter™ 1000 is a low cost entry router that supports up to 500 Smart Objects, with backhaul connectivity via Ethernet. It combines frequency hopping and time division along with path diversity in order to provide market leading data reliability and robustness to wireless interference. The device can be configured from any browser via its embedded web server and supports user selectable WLAN profiles to accommodate different application needs.

The VersaRouter™ 1000 is also available as an OEM component for inclusion in other products.

Key Benefits

- » Supports up to 500 Smart Objects
- » IEEE 802.15.4g compliant
- » Hardware cryptographic acceleration engine supports state of the art AES128 bit encryption
- » CoRe/REST compliant web services
- » Leverages proven standards: IPv6, RoLL/RPL, 6LoWPAN, 802.15.4e, 802.15.4g, CoAP, EXI

RADIO

| | |
|----------------------|--|
| Radio module | IEEE802.15.4g radio module |
| Frequency band | 902-928 MHz |
| Number of channels | 64 / 129 depending on data rate |
| Channel spacing | 200/400 kHz |
| Frequency accuracy | ± 15 PPM |
| Modulation | FSK |
| Data rate | 50/150/200 kbps |
| Receiver sensitivity | -100 dBm @ 50 kbps -94 dBm @ 150 kbps -92 dBm @ 200 kbps |
| Range | 1.2 mile line of sight |

ANTENNA

| | |
|--------------|--------------------------------------|
| Antenna type | 900MHz 2dBi 1/2 WAVE OMNI |
| Impedance | 50 Ω |
| Gain | +2.2 dBi |
| Pattern | Omni-directional |
| Maximum VSWR | 2:1 |
| Connector | MMCX connector, right angle on cable |

CERTIFICATIONS

| | |
|------------|---------------------------------|
| EMC US | FCC-Part 15 section 247 |
| EMC Canada | IC, must comply with FCC 15.247 |

The VersaRouter™ 1000-US model is compliant with EMC requirements for the following countries/geographical regions:

- Unites States of America (US)
- Canada

PROCESSOR / MEMORY

| | |
|--------------|---|
| Processor | ARM CORTEX A8, 720MHz |
| RAM memory | 512 MB DDR3 |
| Flash memory | 512 MB NAND |
| EEPROM | 4Kbyte serial EEPROM (used for factory settings/ configuration) |

PERIPHERALS / SOFTWARE

| | |
|------------------|---|
| Ethernet channel | 1x10/100Base-T Ethernet Channel, RJ45 connector |
| Operating System | Linux kernel 2.6 embedded |

ELECTRICAL / MECHANICAL

| | |
|--------------------------|--|
| Input voltage | 5 Vdc |
| Power consumption | ~3.5 W |
| Enclosure / dust & water | Custom aluminum, indoor use |
| Temperature range | -40 to +65 °C |
| Relative humidity | Maximum 95% |
| Dimensions | 4.8" x 4.5" x 1.5" (LxWxH) 123mm x 115mm x 39mm (LxWxH) Height 8.2"/208mm with antenna |