VersaRouter 1000-EU

Sub GHz Internet of Things Router

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.

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

Key Benefits

- » Supports up to 500 Smart Objects
- » IEEE 802.15.4g and ETSI EN300 220 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	863-870 MHz
Number of channels	64
Channel spacing	100 kHz
Frequency accuracy	± 15 PPM
Modulation	FSK
Data rate	40 kbps
Receiver sensitivity	-100 dBm @ 40 kbps
Range	1.1 Km line of sight
ANTENNA	
Antenna type	868MHz ISM, 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 EU	ETSI EN 300 220-1, ETSI EN 300 220-2

The VR1000-EU model is compliant with EMC regulations for the following countries/geographical regions:

- European Union (EU)