

DK1000 Smart Object Development Kit | Data sheet

Fast Track Your IoT Development with Nivis DK1000 Smart Object Development Kit

This standards-based turnkey solution allows users, integrators, developers and OEMs to shorten the time-to-market of their IoT products. The Nivis DK1000 provides a complete development environment that helps engineers have our solution up and running in a matter of minutes and reduces R&D costs.

Smart Object Platform GEN3 M2

This is the latest version of Nivis' IPv6-compliant solution that provides a foundation for the Internet of Things. It features - Enhanced DTLS-based end-to-end security with pre-shared keys, public keys and certificate-based authentication.

VN400 Radio

Nivis combines its open standards software stack with Freescale's Kinetis radio module to provide a high quality radio node that can be incorporated into wide range of sensing and control devices.

Versa Router™ 1000 Quark

The world's first standards-based IoT 802.15.4g compliant router to receive certification in the US, Canada, Europe and Japan uses IPv6 and CoAP-based OS services to integrate quickly to existing functionality and supports up to 500 devices.

Standards-based

Nivis DK1000 is fully compliant with 802.15.4g, 802.15.4e, IPv6, RoLL/RPL, SNMP, ICMP, UDP, CoAP, DTLS, PANA/EAP, thus ensuring seamless integration in existing networks and its usability in the EU, US and Japan.





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Package Content

1xVersa Router™ 1000 (Quark Router)



- Processor: ARM CORTEX A8, 720MHz
- RAM memory: 512 MB DDR3 Flash memory: 512 MB NAND
- EEPROM: 4Kbyte serial EEPROM (used for factory settings/configuration)
- Ethernet channel: 1x10/100Base-T Ethernet Channel, RJ45 connector
- OS: Linux kernel 2.6 embedded
- Input voltage: 5 Vdc
- Power consumption: ~3.5 W
- Temperature range: -40° to +65° C
- Expansion board for the VN400 radios
- **Enables SPI/USART connections**
- ADC simulation
- Power over micro USB or AA batteries
- IEEE802.15.4g radio module
- EU/US/Japan frequency: 863-870/902-928/922.3-928.1MHz
- Supply voltage: 3.3 V nominal
- Voltage on analog pins: 0 to Vcc V
- Voltage supply noise: max 200 mVpp 50Hz-15MHz
- Storage and operating temperature: 40° to 85° C
- Operating relative humidity: 10 to 90 %RH noncondensing
- Transmit current: 140 mA @ 17 dBm typical
- Receive current: 50 mA typical
- Hibernate current: less than µA typical
- +2dBi gain antenna

4xVN400 Radio

4xPower pack



12 AA batteries

USB cables

USB memory stick for documentation and NAMT application

The latest Nivis Smart Object platform, GEN 3 M2

For detailed documentation of each component of the kit, please visit www.nivis.com/products.