

RapidLink MeshCore

Embeddable Wireless Networking Platform for
OEM and System Device Developers



The RapidLink wireless mesh solution enhances products designed for a wide variety of applications including:

- Video surveillance networks
- RFID readers and bar code scanners
- Vehicle telematics systems
 - Robots and unmanned vehicles
- Unattended sensor networks
- Wireless voice and VOIP solutions
- PDAs and mobile devices

RapidLink MeshCore is the complete high performance, mobile, and portable wireless mesh solution.

Each RapidLink MeshCore node is a fully-functional, self-contained router with slots for two Mini-PCI radios. Factory equipped with the industry's widest range of input/output ports, RapidLink speeds development cycles and shortens time-to-market.

Instant mesh networks

RapidLink MeshCore automatically detects and connects with in-range peers to create a self-discovering, high performance wireless mesh network capable of 54 Mbps connection speeds.

Self-Healing

RapidLink mesh networks heal themselves. Failed nodes and other obstructions are automatically detected and bypassed.

Secure

RapidLink MeshCore uses military-grade 168-bit ciphers to ensure the security of your data.

Manageable

RapidLink offers both integrated web access and centralized RapidLink Manager network management tools. Choose the solution that works best for you.

Small and Mobile

RapidLink MeshCore can be ordered as an embeddable board or in a rugged aluminum enclosure. Either way, ready to go whether placed on your vehicle's dashboard or slipped into your pocket.

Rugged

Designed to military specifications, RapidLink MeshCore works within a variety of rugged enclosures designed for your application.

Interoperable

RapidLink MeshCore is plug-and-play compatible with the entire RapidLink product family as well as devices that conform to IETF open-standard OLSR routing protocol. Adapting or extending the RapidLink platform to your application is intuitively easy.

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RAPIDLINK MESHCORE SPECIFICATIONS

Wireless

Modes: 802.11a/b/g

Frequency Range:

- 2.400 - 2.483GHz
- 5.15 - 5.35Ghz
- 5.725 - 5.825GHz
- Military and Public Safety Bands available

Output Power:

- 18dBm(802.11b);
- 18dBm(802.11g)
- 17dBm (802.11a)

Antenna: 5.5 dBi Omnidirectional (2)

Input/Output

Antenna Connector: Reverse polarity SMA (2)

Ethernet: 10/100 Base-TX (1)

Serial: RS232 (1)

USB (1)

General Purpose Digital I/O: 12-bits

Lamps: Power, Radio, ethernet (3)

Processor and Memory

Processor: Intel XScale PXA 270 @ 520 MHz

SDRAM: 128 MB SDRAM

Flash: 512MB

Software

API: Java-based

Operating System: Embedded Linux

Security

WEP Keys: 40 bit, 104 bit

AES Keys: 128 bit, 256 bit

WPA2 encryption

VPN tunneling and filtering

NAT

FIPS 140-2 (certification pending)

Client Access

Roaming access enabled

Zero user configuration

VLAN support

Up to three SSIDs per radio

Management/Configuration

Embedded Management: WebAdmin system configurator

Centralized Management: MakaView Visual Network Manager

Remote firmware upgrade

Automatic AP discovery

Electrical

Input Voltage: 9-24 VDC

Consumption: 5 Watts maximum

Connector: Power Over Ethernet (PoE) capable

Certifications

Radio: FCC part 15 and part 27

RF Safety: FCC OET Bulletin 65

CE! Mark

Warranty

Hardware: One year limited

Software: 90 days limited

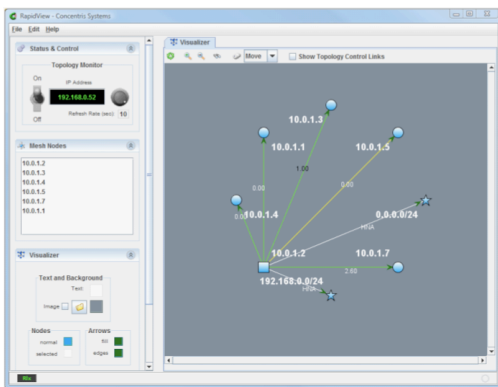
Physical

Dimensions: 18.9cm x 10.3cm x 5.4 cm

Weight: 790g

Operating Temperature: -10° to 55°C

Humidity: 10 to 90% (non-condensing)



Manage your RapidLink network via the RapidLink web administration tool or the powerful RapidLink Manager. RapidLink Manager optimizes node utilization, manages network traffic, and monitors the quality of RapidLink wireless network connections.

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