



## Qorvus QnodeJr™ Wireless Mesh Router for Outdoor Use

The Qorvus **QnodeJr™** wireless IP networking system utilizes robust and reliable 900 Mhz, 2.4 Ghz, or 5.8 Ghz single or dual-radio mesh technology. This proven solution allows you to offer your clients a dramatic improvement over traditional higher-priced wired or wireless Internet or LAN distribution methods.

QnodeJr comes pre-loaded with the highly-regarded **Qcode™** 4.0 Linux embedded mesh software. Qcode is an auto-routing mesh wireless networking and repeater technology that allows streaming IP video data packets to hop wirelessly over 1000's of feet from one QnodeJr to the next, until the data reaches the client's NVR, laptop, PDA, or VOIP phone. This approach produces consistent high signal strength, and allows a rapid and organic deployment of large numbers of low-powered low-level micro-cell wireless access points throughout the required coverage area, **without buried cable** or expensive high-tower centralized wireless distribution methods. Qorvus rewrote the original Linux code and added integral user-friendly SSL web-based and ssh console setup, central portal and server-based network management, monitoring, and provisioning, and numerous reliability enhancements to the original open-source code, thus creating an extremely robust, reliable, and easily installed industrial-strength wireless networking solution.

QnodeJr's remarkable technology can be used to provision up to 25+ mb/s net IP video payload at the customer's server (900 Mhz & 5 Ghz) or up to 5 mb/s (2.4 Ghz) and can be deployed with only minimal site preparation, little or no intermediate gateway and routing hardware, and no hardwired backhaul provisioning except at one gateway. The Qorvus Qnode™ wireless mesh system allows for greatly reduced site and system engineering, easy scalability, and is inherently hack-resistant, hidden-node resistant, remotely manageable, and fault-tolerant.

This amazing low-cost manageable device can also serve as a tower-mounted PtMP node, and a local NAT and DHCP WiFi hot-spot or serving up local and internet-based content in infrastructure mode, while simultaneously backhauling data via secure IP tunneling through its mesh routing architecture. It can even backhaul VOIP SIP sessions as a client or server in mesh or PtMP star topology, while performing all of its other functions, without any secondary radio hardware, software, or antennas.



**QnodeJr™** equipped with diversity 2.4 Ghz radio does double-duty for weather-data backhaul and internet service to Columbia River barge traffic (photo courtesy Stevenson Wifi Inc.)



**QnodeJr™** equipped with 5.8 Ghz backhaul and 2.4 Ghz diversity radios (photo courtesy Keener Technologies, Inc.)

### Major features of this design include:

- Serves both as a stand-alone access point and a mesh gateway or repeater
- Built-in captive portal, bandwidth management, firewall, VPN, antenna alignment and bandwidth-testing tools, and waterproof visible multi-LED window.
- Faraday-cage RF shielding with weather-proof gaskets designed to meet stringent FCC Class A and European CE regulations for emissions and high reliability
- Rugged cast-aluminum ribbed case coupled to cold-rolled steel mounting bracket and stainless-steel hardware.
- Versatile design supports several easy indoor and outdoor mounting options
- Epoxy-coated weather-resistant and hermetically-sealed case supports either captive or remote antenna options.
- Sustained end-to-end throughput of up to 25+ mb/s for IP Video and VOIP
- Built with proven components:
  - Supports most-wanted features:

Pentium-class Pc-engines CPU  
 128 or 256 meg dram  
 Field-programmable 256 meg  
 CF flash-memory  
 FCC certified radios  
 15watt switched supply  
 HD N-bulkheads  
 Built-in hardware watchdog  
 Integral waterproof ethernet  
 strain relief  
 Custom builds with client-  
 specified components,  
 software and radios available  
 18-volt PoE with injector

Encrypted client traffic using Blowfish  
 VPN client-to-node security  
 Multi-modal client authorization via built-in  
 Radius, open or captive portal with custom  
 redirects  
 Class-based bandwidth-shaping  
 Voice over IP SIP gateway  
 Wired or wireless NAT, DNS, and DHCP client  
 services  
 AODV and WDS based mesh routing  
 Built-in support for VPN and wormhole  
 tunnels  
 Adjustable RF output, 1 Mw up to 700 Mw  
 Complete management via GUI, VPN, SSH

Sold through VARs and qualified professional installers only

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