

Based on PowerQUICC® Architecture

MPC8377EWLAN Enterprise IEEE® 802.11N Access Point/Wireless Router



The MPC8377EWLAN access point/router is a complete production-ready, Bill of Materials (BOM)-optimized solution that can support single- or dual-radio 802.11 a/b/g/n devices through MiniPCI or Mini PCI Express® interfaces. The solution features a 3 x 3 MIMO design, dual Gigabit Ethernet ports, USB 2.0, and is backwards compatible with 802.11 a/b/g. IEEE® 802.11N WLAN radios are capable of supporting wireless data rates up to 600 Mbps and the MPC8377E communication processor is ideally suited to maximize performance while still meeting the required power and cost budgets required by this application. The MPC8377EWLAN can be powered over a single Ethernet cable in 3 x 3 MIMO mode using a single 802.3af Power over Ethernet (PoE) injector.

Based on the Freescale MPC8377E PowerQUICC® II Pro high-performance communication processor with hardware accelerated cryptographic processing, the MPC8377EWLAN can be used for wireless access, VPN router for secure remote access, intrusion detection or remote access point.

Hardware Features

- MPC8377E PowerQUICC II Pro processor built on Power Architecture® technology
 - Integrated hardware acceleration for wireless security
- MiniPCI or Mini PCI Express-based interfaces for 802.11N radio modules
- Dual-band concurrent operation with 3 x 3 MIMO
- Gigabit Ethernet LAN and WAN interfaces
- USB 2.0 host/device interface
- IEEE 802.3af PoE-compliant solution for dual-concurrent MIMO operation

The solution is based on the Linux® kernel 2.6.25 and leverages open source software applications to support:

- IPv4 and IPv6
- DHCP
- DNS
- VLAN
- NAT and PAT
- Static routing
- RIP v1, v2
- VRRP
- PPPoE
- IGMP
- UPnP
- SNMP
- QoS

Wireless Security

- Pre-Shared Key (PSK)
- Wi-Fi® Protected Access 2 (WPA2)
- 802.11i AES-CCMP
- Wired Equivalent Privacy (WEP) 128/256-bit
- 802.11i EAP authentication with RADIUS

Network Security

- Access control
- Stateful packet inspection firewall
- Intrusion detection
- Content filtering

Virtual Private Network (VPN)

- IPSec
- PPTP
- L2TP

Ordering Information

Ordering part number—MPC8377EWLAN

ODM Partners

For a list of ODM contacts that customize and/or supply volume quantities of this product, contact your local Freescale sales office. For more information, visit www.freescale.com.

Kit Content

- 1 x MPC8377EWLAN access point/router platform
 - Single radio plug-in card for 802.11N as well as SMA-based antennas
 - Universal AC adapter, cables and quick start guide
 - CD/DVD with the following design files
- Schematics (pdf and source files)
- Gerbers (PCB layout files in pdf and source format)
- Bill of Materials (detailed list of materials and suppliers)

Learn More:

For current information about Freescale products and documentation, please visit www.freescale.com.



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