Access Point/Wireless Router with Power over Ethernet (PoE) Open Source

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Created May 5 2009 - 08:41

The MPC8377E WLAN[1] access point/router is a complete production-ready, BOM (Bill of Materials)-optimized reference design solution capable of supporting wireless data rates up to 600 Mbps is suited to maximize performance while still meeting the required power and cost budgets required by this application.

Application Challenges

- WLAN market is highly competitive and customers are requiring turn-key solutions from vendors
- Ability to power devices over ethernet with maximum operating efficiencies
- Ability to stream data wirelessly with little interruption
- Ability to secure data streams using high levels of encryption

Device Advantages

- Time to market, class B certified production ready system
- Support for Power over Ethernet and 802.11N
- Based on market-proven open source software
- Atheros and Ralink Support for wireless
- Variable applications depending on configuration

MPC8377E WLAN - Hardware Features
Memory subsystem
- 256MB to 512MB DDR2 SDRAM
- 32MB to 64MB NOR FLASH

Interfaces (Internal)
- 2 x MiniPCI
- 2 x MiniPCI-Express
- RS232

Interfaces (External)
- 2 x 10/100/1000 Base-T
- USB 2.0 Type A connector

Power over Ethernet
- IEEE 802.3af compliant 3 x 3 MIMO solution

MPC8377E PQII Pro CPU
- 667MHz Core Frequency
- 400MHz DDR2 interface;
- CE/FCC Class B certified
- Lead Free (ROHS)
- 6-Layer mini-ITX form factor PCB
- BOM Cost <$119 for 25Ku+/yr

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
MPC8377EWLAN: Power over Ethernet (PoE)

- Eliminates the need to run 110/220 VAC power to Wireless Access Points.
- Single CAT5 Ethernet cable carries both power and data
- Allows greater flexibility in the locating of Access Points
- Significantly decreasing installation costs
- IEEE 802.3af specifies 12.95W maximum power

MPC8377E-WLAN Main Board Schematics
Click here [2] to see these schematics at high resolution

MPC8377E-WLAN Power Card Schematics
The **MPC8377EWLAN** can be used for intrusion detection or remote access point, wireless access, VPN router for secure remote access.

Read the Italian version: **Router wireless/Access point con PoE (Power on Ethernet) open source** [4]

**CONTACT REQUEST**

If you want to know more about this **Freescale** product, please submit your request to **Arrow Italy** using [this form] [5].

**NOTE:** this form is valid ONLY for Companies or Customers based in Italy and working in the Italian area.

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**Technology access point MPC8377EWLAN poe power over ethernet router**

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**Trademarks**

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**Source URL:** [http://dev.emcelettronica.com/access-pointwireless-router-power-over-ethernet-poe-open-source](http://dev.emcelettronica.com/access-pointwireless-router-power-over-ethernet-poe-open-source)

**Links:**

[1] [http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MPC8377EWLAN&amp;nodeId=0162468rH3bTdGJk19143](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MPC8377EWLAN&amp;nodeId=0162468rH3bTdGJk19143)


[5] [http://it.emcelettronica.com/contact/freescale](http://it.emcelettronica.com/contact/freescale)