# P1020 Enterprise Wireless Router



P1020 Enterprise Wireless Router Card is a high performance WLAN Access Point and enterprise routing application of **Freescale P1020** processor of P1 family Power Architecture e500v2 cores where the CPU provides the complete data and control path processing needs for multiple MAC/radio interfaces and system logic required for networking, wireless infrastructure and telecommunication applications. The P1020 is ideally suited for this application with its high performance system interfaces and best-in-class performance/watt to provide WLAN access point & routing capabilities.

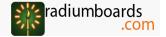
P1020 Enterprise Wireless Card has been successfully tested with Atheros 802.11 b/g/n and Broadcom 802.11 a/b/g/n & ac cards with Atheros-9.2.0\_U10.1020 driver and WL Broadcom driver respectively. It delivers upto 450 Mbps.

#### **TECHNICAL SPECIFICATIONS**

CPU	Dual (P1020) or single (P1011) Power Architecture e500v2 cores processor from QorlQ family operating on 800MHz
SRAM	32-Kbyte L1 instruction cache for each core and 32-Kbyte L1 data cache for each core 256-Kbyte L2 cache with ECC,
DDR3 Memory	x16/x32 bus width 256MB (2 X 128MB) DDR3 on board
Data Storage	32MB NOR Flash
Wireless	5 GHz 802.11 ac/a/n
	2.4 GHz 802.11 ac/b/g/n
Power Options	POE: 24/48 V on Ethernet Port 0

#### **INTERFACES**

Ethernet Interface	2 Ethernet ports ETHO & ETH1, each protected for ESD, CDE and lightening are terminated in right angled RJ45
Boot Flash Interface	16bit 32MB NOR Flash
USB Interface 2.0	USB3300-EZK, High speed Industrial Grade PHY with ULPI Interface of P1020 is used for providing mini-USB
Mini PCI Express Interface	Standard model (with P1 family processors P1011/1020/1012/1021) supports upto two x1 PCl express Interfaces; the high end model (with P2 family processors P2010/2020) supports upto three x1 PCl express interfaces
UART Interface	Supported DUART, consists of 2 universal asynchronous receiver/transmitters (UARTs) acting independently & terminated on a 4 pin header on board
JTAG Interface	16 pin dual raw header with a pin assignment compatible to the BDI TYPE B pin out
Buzzer	3.10 KHz, 83dB, Trough hole buzzer with inbuilt driver
Extras	Reset, Factory Default switch, Status & Signal LEDs
os	Linux kernel- 2.6.35



### WIRELESS SUPPORTED CONFIGURATIONS

Encryption	WEP Encryption - 64/128/152 Bit
	WPA/WPA2 Personal
	WPA/WPA2 Enterprise
Data Rate Supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48,54Mbps
	802.11a: 6,9,12,18,24,36,48,54Mbps
	802.11n: MCS 0-15 up to 300Mbps
Network Standard	802.11a, 802.11b, 802.11g, 802.11n
Wireless Medium	Direct Sequence Spread Spectrum (DSSS)
	Orthogonal Frequency Division Multiplexing (OFDM)
	Spatial Multiplexing (MIMO)

#### Network

- DHCP Server
- DDNS
- Static Routing
- VRRP
- VLAN
- IPV6 Support
- Netstats
- IP Table
- PTP Tunnel

## Security

- Firewall
- Intrusion Detection System
- Intrusion Prevention System
- IPSEC
- PPTP

## **Applications**

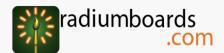
- NAS
- NVR

(Simple NAS, UPNP2, Samba, Ldap, NFS, FTP)

UPNP Services

(UPNP, dlna, bit torrent)

IPPBX (VOIP)



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