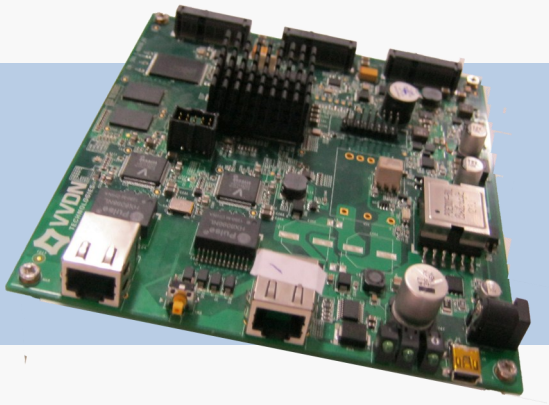
P1020 Enterprise Wireless Router



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 QorIQ 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 ETH0 & 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 PCI express Interfaces; the high end model (with P2 family processors P2010/2020) supports upto three x1 PCI 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)