

Model No : GN5-43UP Giga Ethernet Network Appliance Module (Preliminary)



GN5-43UP is a fully-featured reference appliance for based on the Atheros AR7161 network processor, targeting small and medium business and embedded computing applications. GN5-43UP enables rapid evaluation and development of converged “ solution in a box “ products – integrating Carrier-grade High Power wireless and WiMax outdoor bridge , enterprise-grade wireless access point , Medical Ethernet-enable equipment .

GN5-43UP is also targeted at general-purpose evaluation and development requirements in support of the Atheros product lines. The board is fully RoHS compliant and is in full production .

About AR7161

GN5-43UP based on Atheros AR7161 of MIPS- 680 MIPS SoC Processor architecture, It is cost effective solution for IEEE802.11n access point(AP) and WiMax CPE solution . That demand robust link quality with maximal throughput and range .

The AR7161 integrates a 32-bit MIPS processor, multi-protocol media access control(MAC) ,a baseband processor and analog-to-digital and digital-to-analog(ADC/DAC) converter. Other major modules include 2 GigaEthernet MAC, USB2.0 MAC/PHY.

Key Feature :

- **CPU- MIPS-680Mhz network processor**
- **Flash-8/16MB**
- **DRAM-32/64MB**
- **Mini PCI-**
 - **4 mini PCI Slot**
 - **High profile Socket (9.2mm in height)**



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- Support hi-power, up to 7 watt
- Provide both 3.3V and 5V power source
- Support mini PCI module with extra length, up to 65mm
- Provide 3 * RJ 45 (1WAN , 2LAN or 2WAN ,1 LAN)
- Provide 2 * USB 2.0 connector
- Support Real-time-clock
- PoE – Proprietary , 12V-60VDC
- Provides 5V Power Output pins (Optional for ODM request)
- Provides JTAG
- Console port with DB9 connector
- Support Over voltage protection
- Provide External Power Input thru STB (Screw Terminal Block)

Application :

- Outdoor/Indoor 3G Router
- Outdoor/Indoor WiMax CPE
- Outdoor/Indoor AP Bridge
- Outdoor/Indoor Point-to-Multi-Point
- Outdoor /Indoor Hot Spot
- Industrial-Use Wireless Access Point

Software and Tools Support

Bootloader	Rednoot v2.01
Operating Systems	Linux
Application Software	Cen-AP
	Wili-Mesh

Specifications	
Base Platform	Atheros AR7161
Clock Speed	680 MHz
Serial Port	RS-232 (DB9)
RTC	Yes
Reset Switch	Push-button momentary contact switch
Standards Conformance	IEEE 802.3 / IEEE 802.3u



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Fast-Ethernet Configuration	10/100/1000 BASE-TX auto-negotiation Ethernet port x 2 (RJ-45 connector) Auto MDI/MDI-X enabled LAN Port : 2 , WAN Port : 1
Mini PCI	4 * High Profile Socket (9.2mm in height)
Mini PCI Power Capacity	7W per slot
USB 2.0 Host	2
SDRAM	32 Mbytes /64Mbytes
Flash	8 Mbytes/16Mbytes
LED Indicators	8 LEDs, Power(1), Wireless(4) , LAN (2) , WAN(1)
RTC (optional)	Support Real-time-clock
5V Power Output	Provides 5V pins for application use (ex : Fan control) (optional)
External Power Input	DCJack , RJ45 PoE
Over Voltage Protection	Yes
JTAG reserved	On board connector to connect to off the shelf JTAG CPU emulator
Environmental & Mechanical Characteristics	
Operating Temperature	-30 °C ~ 75 °C
Storage Temperature	-40 °C ~ 85 °C
Operating Humidity	10% to 80% Non-Condensing
Storage Humidity	5% to 90% Non-Condensing
Power Consumption	4.32 W
Input Power	12-60 VDC
Connector	DC-In Jack , RJ 45 (Power Over Ethernet) , RJ11(Console)
Power Supply	AC Input : 110 – 220V AC Power DC Output : 12 VDC, 1.5A input
Unit Dimensions	180 x 120 (mm) (Width x Depth)
Certifications	ROHS compliant