DATASHEET

**2.4GHz, Wi-Fi HaLow, GPS, LoRa**

AP7622-WH1

5G/4G LTE Router Board
Functions by MT7622 w/2.4GHz

Description

The AP7622-WH1 is a versatile 5G/4G LTE router board powered by the MediaTek MT7622 chipset, featuring Wi-Fi 2.4GHz, Wi-Fi HaLow, GPS, and LoRaIoT capabilities. It supports Wi-Fi 6 speeds up to 5702 Mbps when equipped with the AW7915 series Wi-Fi modules. And it is also equipped with WiFi Halow module MM610X-001, which supports the construction of Wi-Fi HaLow networks based on the IEEE 802.11ah specification.

OPENWRT firmware is available for integration with Wi-Fi, Wi-Fi HaLow, LoRa WWAN module, and cellular modules, which are sold separately. The board measures 12 × 16 cm and includes a high-performance 1.35GHz ARM® Cortex-A53 MPCore™ CPU, multiple interfaces (UART, I2C, SPI, GPIO), and a variety of connectivity options (SGMII, RGMII, PCIe 2.0, USB 2.0/3.0, 5-port switch). It supports Bluetooth, 802.11n/ac/ax WLAN via PCIe, and prioritizes streaming services with its hardware NAT engine and QoS. Designed for smart Wi-Fi AP routers and home gateways, it's an ideal solution for advanced network applications.

160mm

120mm
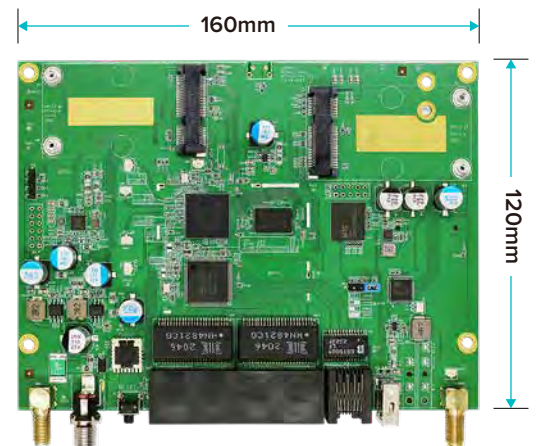
Features

- Mediatek MT7622 chipset with Interface UART, PWM, MDC, MDIO, JTAG, I2C, SPI, GPIOs and USB(LTE) port.
- Flash SPI NAND Flash 128MB (1Gb), Max 512MB (4Gb)
- DDR3 256MB (2Gb)
- Data Rate up to 5702 Mbps
- SIM card slot
- Security: 64/128-bits WEP, TKIP,WPA, WPA2,AES,WPS
- Multi-modes: MiFi, AP/Client
- 5 Giga LAN ports

SOFTWARE FEATURE

- Support OPENWRT, MTK SDK
- Network Features:
- Video, Storage
- DHCP Client/Relay/Server
- Dynamic DNS
- NTP Client
- DNS Cache/Proxy
- Firewall

- MAC/IP/Port Filter
- Virtual Server
- DMZ
- Content Filter

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MT7915 Wi-Fi 6 Modules supports 4×4 5GHz reach 2401Mbps.
With 2 x MT7915 modules is to be 3 bands backbone mesh router.

Hardware Features:

Wi-Fi	IEEE 802.11 a/b/g/n/ac standards compliant
	4T4R 2.4GHz 900Mbps, 2x5GHz modules is 4802Mbps
Wi-Fi HaLow	IEEE802.11ah standards compliant
	1T1R Sub-1GHz 20Mbps
BT	BT4.2/BLE5.0 integrated
4G/5G	Compatible with M.2 card
Memory	SPI Flash SOP8 128MB
	DDR3 256MB 16bits BUS
Interface	2 x mini PCIe slots
	1x M.2 slot (USB 3.0)
	5 x Giga Ethernet Ports
	1 x Micro SD-XC
	1x USB-A 2.0
	1x Wi-Fi HaLow module (MM610X-001)
	1 x GPS (Quectel L70B)
	1x 12C
	1 x SPI
	1xSIM Card slot
	GPIOs
Dimension	120 x 160 x 30 mm
Certifications	FCC/CF, IC by reauest
Power	DC Power Jack from 12v Barrel D=2.0mm (or 2 pins)

Additional information:

Weight	0.2 kg

ASiARF

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AP7622 IO Side

❶ SMA for GPS
❷ Power
❸ Reset
❹ LAN

❺ WAN
❻ USB-A Femal
❼ SMA for 4G/5G WWAN
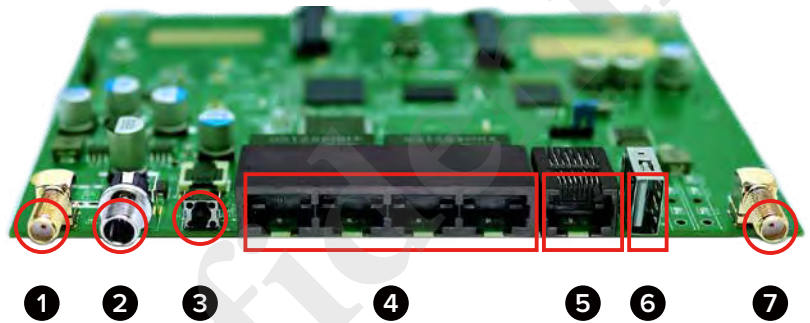

AP7622 Interface

This slot can accommodate an AW7916 or AW7615 series module.

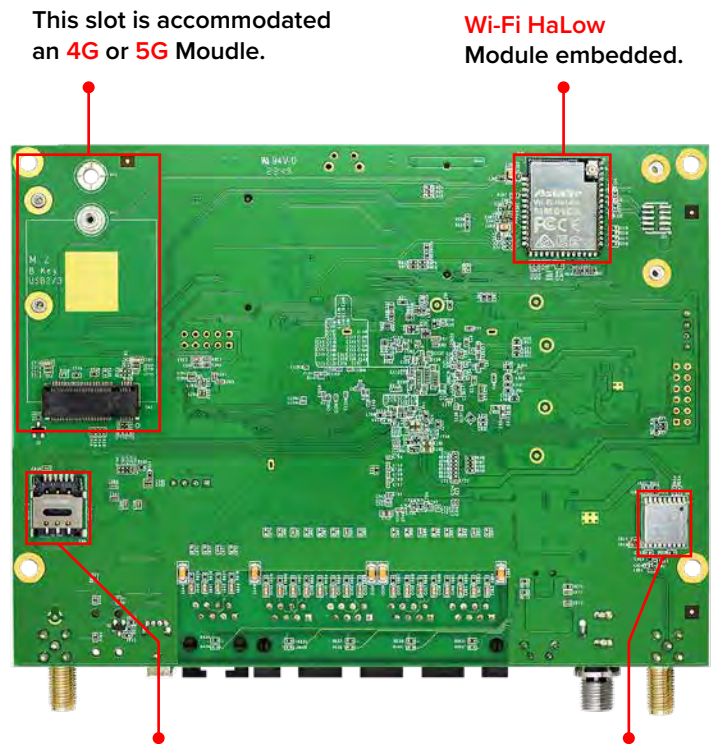This slot can accommodate an AW7916 or AW7915 series module.

NOTE: The default setting complies with the use of a 4G module. If you wish to install a 5G module on this platform, please inform us first, and we will adjust the lock hole position for you.

I-PEX Conn. for BT

This slot is accommodated an 4G or 5G Moudle.
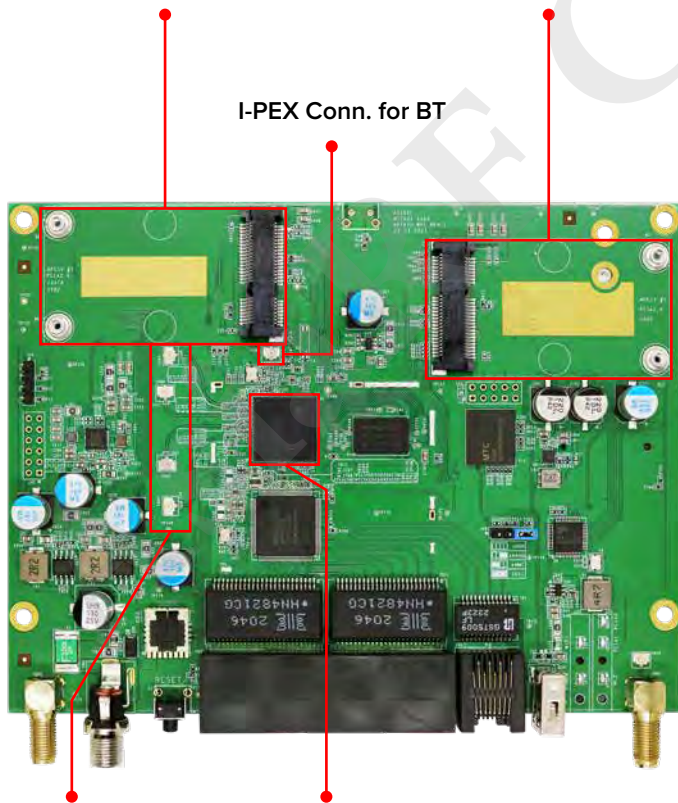
Wi-Fi HaLow Module embedded.

2.4GHz I-PEX

MEDIATEK MT7622 supports 802.11n (2.4GHz) and Bluetooth connectivity.

SIM Card slot

GPS Moudle embedded.