



5G NSA & SA



AX3000



Versatility



Management

BEC by **BILLION**

8116V

5G NR Wi-Fi 6 AX3000

Solution

- MCU: Qualcomm IPQ5018
- WiFi: Qualcomm QCN6102
- Modem: UNISOC UDX710 (V510)

Key Features

Key Benefits

- 5G NR
- MESH
- VoLTE/VoNR
- VPN
- WiFi6

High-Rate WiFi 6

- AX3000
- MESH
- MU-MIMO

High Performance

- UNISOC V510: 3GPP R15; LTE DL Cat12, UL Cat13
- NSA: 2.6Gbps (DL)/650Mbps (UL)
- SA: 2.0Gbps (DL)/1.0Gbps (UL)
- LTE: 600Mbps (DL)/150Mbps (UL)

Security Assurance

- Stable firewall
- Multiple filtering rules
- Multiple security protocols
- Support backup of configuration files
- Online upgrade

Ideal Use Case

- Home
- Enterprise
- Shop, Store

Overview

8116V is a high-performance CPE that support 5G NR and WiFi6 technology. It implements the conversion between 5G NR/LTE wireless data and wired Ethernet data. It supports 802.11ax WiFi6 and can be used independently.

High Performance

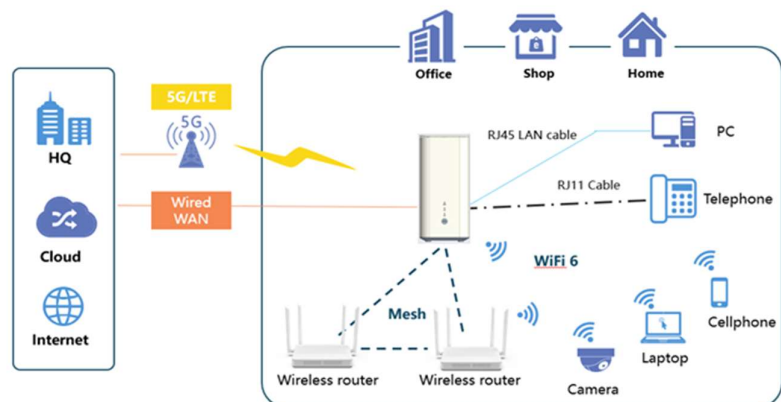
8116V supports the worldwide 5G NR/LTE network, the highest data rate can arrive 3.4Gbps. And the WLAN supports the newest IEEE 802.11ax standards. The AX3000 (2.4Ghz: 600Mbps. / 5Ghz:2400Mbps.) WiFi data rate can easily supply the HD video, online game, and high-quality network applications.

Versatility

8116V also support VoLTE/VoNR, SMS, firewall, VPN, QoS, etc. It satisfies the multi-directional requirements of users. Multiple management and maintenance methods (TR069/CLI) are convenient for checking and operating. The software online update tool will also constantly provide the upgrade of these functions.

High Availability

8116V Supports dual connection of 5G NR and wired WAN, backup between air and ground; automatic detects network faults and switches line, to ensure that network access never fails.



Features & Specification

Platform

- CPU: Dual Core A53, 1.0GHz
- FLASH: 128MB
- RAM: 512MB

5G NR/LTE Antennas

- Internal 4*4 5G/LTE antennas
- LB: 2dBi
- MHB: 4dBi
- External TS9 ports

WiFi Antennas

- Internal 2*2 2.4GHz antennas
- Internal 4*4 5GHz antennas
- Gain: 3dBi

Wireless Module

- Auto/manually network search
- Dual Link backup
- Traffic statistics
- SMS
- VoLTE/VoNR

Quality of Service Control

- 802.11e
- Classification of service flow*
- Port/VLAN/ IP rate limitation*

Management

- WebUI local management
- TR069 remote management
- Universal Plug and Play (UPnP)
- Online and local software upgrade

Network Protocols and Features

- Operation modes: Bridge or Routed
- Connection modes: PPPoE/DHCP/Static
- IPv4, IPv6, IPv4/IPv6
- DHCP v4/v6 server
- Static (v4/v6) routing
- NAT/ALG/DMZ/virtual server
- ARP/ICMP/DNS proxy
- IGMP snooping and IGMP proxy*
- NTP
- VLAN
- VPN: PPTP/L2TP/IPSec

Security

- Built-in firewall
- Defense of DoS, ARP attacks/Portscan
- MAC/Port filtering
- 802.1x

Wireless LAN

- Support 802.11 a/b/g/n/ac/ax standards
- 20/40/80/160 MHz bandwidth
- -2.4GHz: 574Mbps. (2x2,40MHz)
- -5GHz: 2402Mbps. (2x2,160MHz)
- Channel adaption
- WPS: PBC/PIN modes
- WPA/WPA2/WPA3 security
- Beamforming
- MSSID + Guest network
- DL MU-MIMO & OFDMA

MESH

- WiFi Son/EasyMESH*
- One-button Matching

Hardware Specification

Physical Interface

- 1×USB2.0
- 4×GE ports (1 WAN/LAN+ 3 LAN)
- 1×Power port
- 1×Phone port
- 1×SIM slot
- 2×TS-9 External antenna ports

Button

- WPS/MESH Button
- Reset Button
- Power Button

LED Indicators

- 5G NR indicator
- 4G LTE indicator
- Wi-Fi 5GHz indicator
- Wi-Fi 2.4GHz indicator
- Phone indicator
- Power indicator
- LAN port indicator

Physical Specification

- Dimensions: 113.8*95.4*186mm
- Operating temperature: -10°C to 45°C
- Storage temperature: -40°C to 70°C
- Humidity: 5% – 95% (non-condensing)

*: developing

		Main Frequency			
Model	Modem Chip	Area	Data rate	Frequency Band	Interface
8116V (AX3000)	UNISOC V510	EMEA/Asia-Pacific/ Brazil	NR SA: 2Gbps(DL) / 1Gbps (UL) NR NSA: 2.6Gbps(DL) / 650Mbps(UL) LTE: 600Mbps(DL) / 150Mbps(UL) WCDMA: 42Mbps(DL) / 11Mbps(UL)	5G NR NSA: n1/3/7/38/40/41/77/78/79 5G NR SA: n1/3/7/8/20/28/38/40/41/77/78/79 LTE-FDD: B1/2/3/4/5/7/8/20/28A/28B/66 LTE-TDD: B38/B40/B41 WCDMA: B1/B2/B5/B8	1×USB2.0 4×GE ports 1×Power port 1×Phone port 1×SIM slot 2×TS-9

Interface Diagram

