

5G & WiFi-6 AX1800 MODEM (CPE)

CP502 SPECIFICATION

5G & WiFi-6 Wireless Modem (CPE) , is developed based on a new hardware platform to meet the urgently growing access needs of mobile terminals and IoT nodes, and can greatly improve users' wireless Internet experience.

CPE is fully compatible with NSA/SA dual mode and complies with the Ministry of Industry and Information Technology's telecommunications product network access standards.

Provides up to gigabit-level aerial optical fiber access capabilities to meet the transmission bandwidth requirements of VR/AR/4K/8K online video streaming.

Thanks to the latest 802.11ax WiFi 6 technology platform, a single CPE can cover 200 square meters of space and provide better wireless signals and network bandwidth. Provides future security technology, higher network speed, faster Wi-Fi, larger coverage and longer power consumption to provide users with a better network experience



Make WiFi Smarter, Turn Life Easier

Core advantages

- **5G Cellular network access**

Integrated Qualcomm Snapdragon SDX55 baseband provides excellent 5G network access capabilities. Supporting full Netcom's true 5G standard, you only need to insert a SIM card to access Gigabit Internet

- **WiFi6 (802.11ax) augmentation technology**

POFDMA and DL MU-MUMI technology provide a more stable and higher-speed wireless transmission channel, synchronously schedule multiple users to send and receive in parallel, reduce network delay, and improve network utilization efficiency.

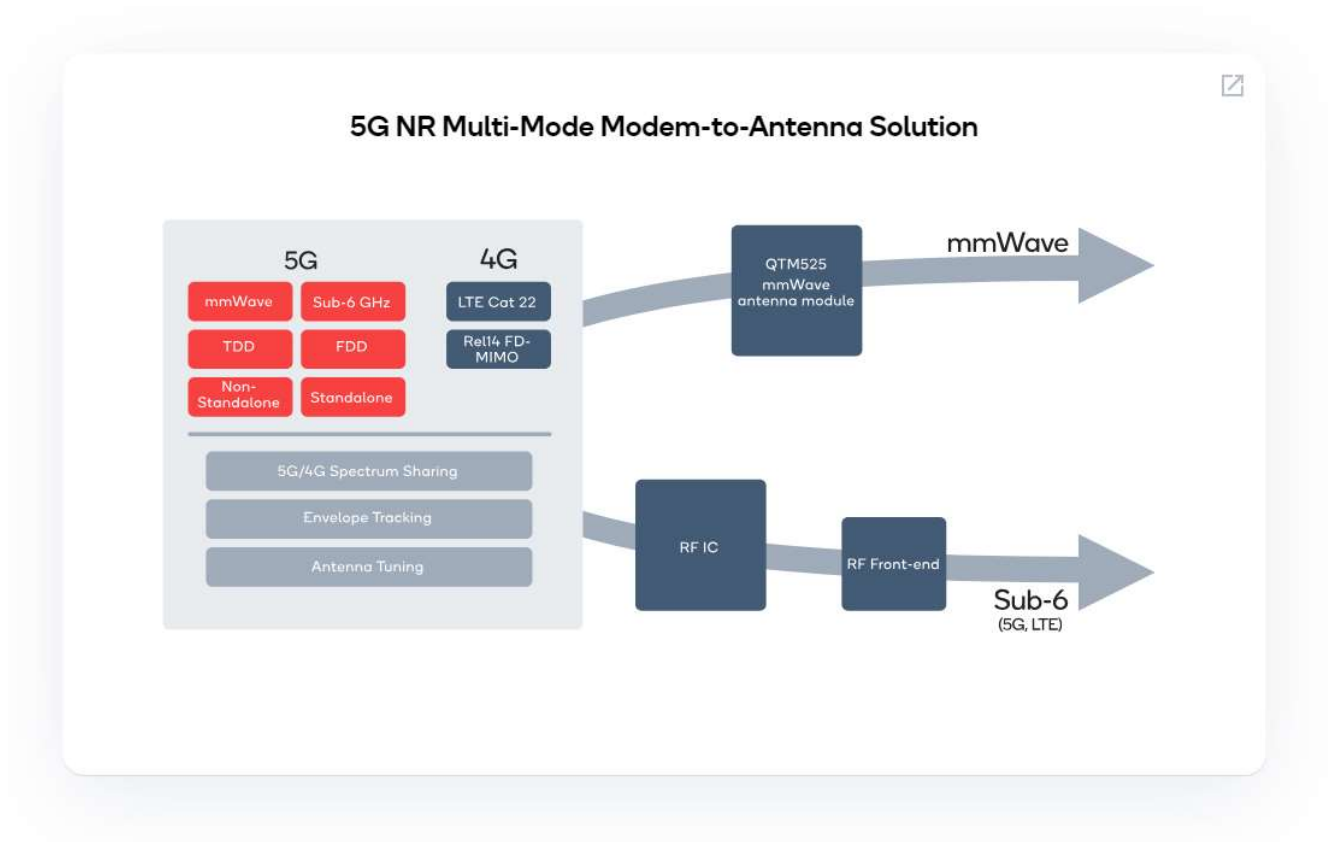
- **More spatial stream and greater capacity**

Dual-band 6 spatial streams with bandwidth up to 1800mbps (574+1201), allowing you to enjoy UHD streaming videos and real-time online games without worry. At the same time, it provides more mobile terminal access capabilities to meet the full-scenario access needs of rich nodes in smart homes in the future.

- **Seamless roaming under hybrid backhaul**

You can freely choose the MESH networking mode through wired backhaul and wireless backhaul to meet simple deployment in various indoor scenarios. At the same time, the seamless roaming function ensures that you get a more stable wireless connection while on the move.

Product Overview



Technical Specification

■ 5G internet

- 1) 5G module : Qualcomm® Snapdragon™ X55 Modem-RF System
- 2) Peak Download Speed: Up to 7.5 Gbps, Up to 2.5 Gbps
- 3) Peak Upload Speed: Up to 3 Gbps, Up to 0.316 Gbps
- 4) Supported bandwidth : 20Mhz / 40Mhz / 80Mhz
- 5) Cellular Modem-RF Specs: 7x20 MHz carrier aggregation (DL), 200 MHz bandwidth (sub-6 GHz), 8 carriers (mmWave), 3x20 MHz carrier aggregation (UL), 800 MHz bandwidth (mmWave)
- 6) Performance Enhancement Technologies: 100 MHz envelope tracking, Adaptive antenna tuning, Uplink Data Compression (UDC), 5G envelope tracking
- 7) Cellular Technology: LTE Broadcast, TD-SCDMA, GSM/EDGE, LAA, 5G NR, 5G/4G spectrum sharing, LTE FDD, SA (standalone), NSA (non-standalone), CDMA 1x, 5G NR TDD, NSA, WCDMA (DC-HSUPA), EV-DO, 5G NR FDD, sub-6 GHz, WCDMA (DB-DC-HSDPA), TDD, LTE TDD support for CBRS, FDD, mmWave, LTE TDD
- 8) 5G NR NSA: n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/78/ 79
- 9) 5G NR SA: n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/78/ 79
- 10) MIMO: Downlink: 4 × 4 MIMO on n1/n2/n3/n7/n25/n38/n40/n41/n48/n66/n77/n78/n79
NSA speed :2.5Gbps/650Mbps (up to ISPs)

■ 4G internet

- LTE Category: Downlink Cat 19/ Uplink Cat 18
- LTE-FDD: B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 66/ 71
- LTE-TDD: B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
- MIMO DL: 4 × 4 MIMO on B2/B4/B5/B12/B13/B14/B17/B25/B26/B29/B30/B66/B41/B42/B43/B48/B71
- WCDMA: B1/ 2/ 4/ 5/ 8/ 19
- LTE : Down 1.0 Gbps; UP 200 Mbps

■ WiFi

- Wireless RF: #1: 574Mbps @ 2.4GHz; #2: 1201Mbps @ 5.0-5.8GHz
- Coding and modulation technology: 1024-QAM / OFDMA
- Peak connection performance: no less than 64 terminals
- Wi-Fi standard: WiFi6 is backward compatible with WiFi5
- Antenna type: 6 high-performance Wi-Fi antennas, equipped with 12 signal amplifiers

■ Routing and Switching

- Mobile network (5G/4G) access (supports private network)
- Gigabit Ethernet access
- Cascading technology: MESH+ hybrid networking
- 2.4G/5Ghz WiFi adaptive
- Advanced firewall
- MAC address filtering
- WiFi encryption authentication
- VPN tunnel/VPN penetration
- IPv4/ipv6
- Web page/APP management
- Firmware upgrade

■ Hardware

- Main Processor and 5G chipset : Qualcomm X55
- RAM : 4GB + Flash : 4GB
- Port : 1 x WAN/LAN, 3 x LAN, 1 x USB, 1 x Nano-SIM slot
- Button : Reset
- LED light : Power ON, 4G, 5G and WiFi
- Power consumption : <23W
- Power input : 12VDC 2A
- Operation temperature : 0°C ~ 40°C
- Storage temperature : -20°C ~ +70°C
- Dimension : 230 x 150 x 25mm
- Weight : 900g
- Package item :
 - 1 x CP500
 - 2 x dual-band WiFi antenna
 - 4 x 4G/5G antenna
 - Power adapter