

**CPE**

Product  
Brochure



CATALOGUE  
**2026**

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5G Indoor CPE		
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WA562

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 16
- Worldwide 5G and LTE-A coverage
- Both SA and NSA are supported
- Built-in high gain wide bandwidth antennas
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Supports DMZ
- Support NAT, Bridge and Router operation mode
- Standard TR-069 Management
- Support Wi Fi6, 802.11b/g/n/ac/ax, 2\*2 MIMO@2.4GHz&5GHz
- Support DFOTA\* and VoLTE\* (optional)



<b>Category</b>	3GPP Release 16		
<b>Solution</b>	Qualcomm IPQ5018+SDX62		
<b>Frequency Bands</b>	5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78	
	Variant for Europe/Asia	LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32
		LTE-TDD	B38/B40/B41/B42/B43
	WCDMA	B1/B5/B8	
<b>Frequency Bands</b>	5G NR	n2/n5/n7/n12/n13/n14/n25/n26/n29/n30/n38/n41/n48/n66/n70/n71/n77/n78	
	Variant for North America	LTE-FDD	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71
		LTE-TDD	B38/B41/B42/B43/B48
	WCDMA	B1/B5/B8	
<b>5G/4G Tx / Rx</b>	1T2R/ 1T4R/2T4R		
<b>LTE Transmit Power</b>	5G NR: 23: 1.5dBm (Class3) * N41/77/78/79: 26: 1.5dBm (HPUE Class2) LTE: 23: 1.5dBm (Class3)		
<b>Peak throughput</b>	5G SA Sub-6 GHz: 2.4Gbps (DL)/ 900Mbps (UL) 5G NSA Sub-6 GHz: 3.2Gbps (DL)/ 600Mbps (UL) LTE: 1.6Gbps (DL)/ 200Mbps (UL) WCDMA: 42 Mbps (DL)/5.76 Mbps (UL)		
<b>Cellular Antenna</b>	4 Built-in 5G&4G antennas with peak 6dBi gain		
<b>Wi-Fi Frequency</b>	2.4GHz&5GHz dual bands with WiFi6 802.11 b/g/n/ac/ax		
<b>Wi-Fi Antenna</b>	Built-in 3dBi Wi-Fi antennas, 2.4GHz and 5GHz separate		
<b>Wi-Fi Transmit Power</b>	17dBm/2.4G and 18dBm/5G		
<b>Wi-Fi Channel Bandwidth</b>	2.4GHz: 20/40MHz 5GHz: 20/40/80/ 160MHz		
<b>Wi-Fi MIMO</b>	2x2 MIMO		

## Hardware Specifications

<b>Solution</b>	Qualcomm IPQ5018+SDX62
<b>Flash</b>	8Gb
<b>RAM</b>	8Gb
<b>External port</b>	2*Gigabit RJ45 LAN Ports 10/100/1000 auto-sensing, auto-MDI/MDIX 1*RJ11 voice port for VoIP or VoLTE
<b>LED Indicators</b>	8 LED Indicators (PWR, Wi-Fi, Internet, TEL, RF Signal*4)
<b>SIM</b>	1 3FF USIM/SIM slot(1.8V/3V)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>Power supply</b>	AC 100~240V DC 12V 2A
<b>Power consumption</b>	<20W
<b>Dimensions</b>	228mm x 190mm x 71mm
<b>Weight</b>	<650g
<b>Humidity</b>	5% - 95%
<b>Temperature</b>	Operating: -10°C~ 55°C Storage: -40°C ~ 85°C

## Appendix-Delivers

1*Assembled product
1*Ethernet cable, 1M
1*12V/2A
1*Quick User Guide

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN IPv4/v6 dual stack IP pass through
<b>LAN</b>	DHCP Server, Client DNS and DNS proxy DMZ Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069 SNMP v1, v2, v3 Web UI Software upgrade via WEB / FTP server / TR069 / FOTA Diagnostics USIM PIN management and card authentication
<b>Routing Mode</b>	Route Mode Bridge Mode NAT mode Static Route Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPV6 Dual Stack
<b>VPN</b>	IPSec PPTP GRE tunnel L2TPv2 and L2TPv3 VPN pass-through
<b>Security</b>	Firewall MAC Address Filtering IP Address Filtering URL Filtering Access Control HTTPS Login from WAN Dos attack protection Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery Auto rollback to previous version when upgrade fail

WA562M

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 16
- Worldwide 5G and LTE-A coverage
- Support 5G NSA and SA modes
- Built-in high gain wide bandwidth antennas
- Powerful software features, support NAT, Bridge and Route mode
- IPv4&IPv6 and Multiple PDN support
- Built-in VPN and L2/L3 GRE client support
- WEB, TR069 and SNMP based device management
- FOTA
- Wi-Fi6 @2.4GHz&5GHz , AX3000
- Powerful IPQ5018&SDX62 chip platform



<b>Category</b>	3GPP Release 16		
<b>Solution</b>	Qualcomm IPQ5018+SDX62		
<b>Frequency (Customized)</b>	5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78	
	Variant for Europe/Asia	LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32
		LTE-TDD	B38/B40/B41/B42/B43
	WCDMA	B1/B5/B8	
	Variant for North America	5G NR	n2/n5/n7/n12/n13/n14/n25/n26/n29/n30/n38/n41/n48/n66/n70/n71/n77/n78
LTE-FDD		B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71	
LTE-TDD		B38/B41/B42/B43/B48	
WCDMA		B1/B5/B8	
<b>5G/4G Tx / Rx</b>	1T2R/1T4R/2T4R		
<b>LTE Transmit Power</b>	5G NR: 23 : 1.5dBm (Class3) * N41/77/78/79: 26 : 1.5dBm (HPUE Class2) LTE: 23 : 1.5dBm (Class3)		
<b>Peak throughput</b>	5G SA Sub-6 GHz: 2.4Gbps (DL)/ 900Mbps (UL) 5G NSA Sub-6 GHz: 3.2Gbps (DL)/ 600Mbps (UL) LTE: 1.6Gbps (DL)/ 200Mbps (UL) WCDMA: 42 Mbps (DL)/5.76 Mbps (UL)		
<b>Cellular Antenna</b>	4 Built-in 5G&4G antennas with peak 6dBi gain		
<b>Wi-Fi Frequency</b>	2.4GHz&5GHz dual bands with WiFi6 802.11b/g/n/ac/ax		
<b>Wi-Fi Antenna</b>	Built-in 3dBi Wi-Fi antennas, 2.4GHz and 5GHz separate		
<b>Wi-Fi Transmit Power</b>	17dBm/2.4G and 18dBm/5G		
<b>Wi-Fi Channel Bandwidth</b>	2.4GHz: 20/40MHz 5GHz: 20/40/80/160MHz		
<b>Wi-Fi MIMO</b>	2x2 MIMO		

## Hardware Specifications

<b>Solution</b>	Qualcomm IPQ5018+SDX62
<b>Flash</b>	8Gb
<b>RAM</b>	8Gb
<b>External port</b>	2*Gigabit RJ45 LAN Ports 10/100/1000 auto-sensing, auto-MDI/MDIX
<b>LED Indicators</b>	8 LED Indicators (PWR, Wi-Fi, Internet, TEL, RF Signal*4)
<b>SIM</b>	1 3FF USIM/SIM slot(1.8V/3V) 1xeSIM Slot (optional)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>Power supply</b>	AC 100~240V DC 12V 2A
<b>Power consumption</b>	<20W
<b>Dimensions</b>	228mmx 173 mmx 71mm
<b>Weight</b>	<650g
<b>Humidity</b>	5% - 95%
<b>Temperature</b>	Operating: -10°C ~ 55°C Storage: -40°C ~ 85°C

## Appendix-Delivers

1*Assembled product
1*Ethernet cable, 1M
1*12V/2A
1*Quick User Guide

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN  IPv4/v6 dual stack IP pass through
<b>LAN</b>	DHCP Server, Client DNS and DNS proxy DMZ  Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069  SNMP v1, v2, v3 Web UI  Software upgrade via WEB / FTP server / TR069 / FOTA Diagnostics  USIM PIN management and card authentication
<b>Routing Mode</b>	Route Mode  Bridge Mode  NAT mode Static Route  Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPV6 Dual Stack
<b>VPN</b>	IPSec PPTP  GRE tunnel  L2TPv2 and L2TPv3 VPN pass-through
<b>Security</b>	Firewall  MAC Address Filtering IP Address Filtering  URL Filtering Access Control  HTTPS Login from WAN Dos attack protection  Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery  Auto rollback to previous version when upgrade fail

WA565

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 16
- Worldwide 5G and LTE-A coverage
- Both SA and NSA are supported
- Built-in high gain wide bandwidth antennas
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Supports DMZ
- Support NAT, Bridge and Router operation mode
- Standard TR-069 Management
- Support WiFi6, 802.11b/g/n/ac/ax, 2\*2 MIMO@2.4GHz&5GHz
- Support DFOTA\* and VoLTE/VoIP\* (optional)



<b>Category</b>	3GPP Release 16		
<b>Solution</b>	Qualcomm IPQ5018+SDX65		
<b>Frequency Bands</b>		5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78
	Variant for Europe/Asia	LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32
		LTE-TDD	B38/B40/B41/B42/B43
	WCDMA	B1/B5/B8	
<b>Frequency Bands</b>		5G NR	n2/n5/n7/n12/n13/n14/n25/n26/n29/n30/n38/n41/n48/n66/n70/n71/n77/n78
	Variant for North America	LTE-FDD	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71
		LTE-TDD	B38/B41/B42/B43/B48
	WCDMA	B1/B5/B8	
<b>5G/4G Tx / Rx</b>	1T2R/1T4R/2T4R		
<b>LTE Transmit Power</b>	5G NR: 23 : 1.5dBm (Class3) * N41/77/78/79: 26 : 1.5dBm (HPUE Class2) LTE: 23 : 1.5dBm (Class3)		
<b>Peak throughput</b>	5G SA Sub-6 GHz: 4.2Gbps (DL)/ 450Mbps (UL) 5G NSA Sub-6 GHz: 3.3Gbps (DL)/ 600Mbps (UL) LTE: 2.0Gbps (DL)/ 200Mbps (UL) WCDMA: 42 Mbps (DL)/5.76 Mbps (UL)		
<b>Cellular Antenna</b>	4 Built-in 5G&4G antennas with peak 6dBi gain		
<b>Wi-Fi Frequency</b>	2.4GHz&5GHz dual bands with WiFi6 802.11b/g/n/ac/ax		
<b>Wi-Fi Antenna</b>	Built-in 3dBi Wi-Fi antennas, 2.4GHz and 5GHz separate		
<b>Wi-Fi Transmit Power</b>	17dBm/2.4G and 18dBm/5G		
<b>Wi-Fi Channel Bandwidth</b>	2.4GHz: 20/40MHz 5GHz: 20/40/80/160MHz		
<b>Wi-Fi MIMO</b>	2x2 MIMO		

## Hardware Specifications

<b>Solution</b>	Qualcomm IPQ5018+SDX65
<b>Flash</b>	4Gb
<b>RAM</b>	4Gb
<b>External port</b>	1*GE RJ45 LAN Port 10/100/1000 auto-sensing, auto-MDI/MDIX 1*2.5GE RJ45 WAN/LAN Port 10/100/1000/2500 auto-sensing, auto-MDI/MDIX 1*RJ11 voice port for VoLTE/VoIP(Optional)
<b>LED Indicators</b>	8 LED Indicators (PWR, Wi-Fi, Internet, TEL, RF Signal*4)
<b>SIM</b>	1 3FF USIM/SIM slot(1.8V/3V) 1xeSIM Slot (optional)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>Power supply</b>	AC 100~240V DC 12V 2A
<b>Power consumption</b>	<20W
<b>Dimensions</b>	228mmx 190mmx 71 mm
<b>Weight</b>	<650g
<b>Humidity</b>	5% - 95%
<b>Temperature</b>	Operating: -10°C~ 55°C Storage: -40°C ~ 85°C

## Appendix-Delivers

1*Assembled product
1*Ethernet cable, 1M
1*12V/2A
1*Quick User Guide

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN  IPv4/v6 dual stack IP pass through
<b>LAN</b>	DHCP Server, Client DNS and DNS proxy DMZ  Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069  SNMP v1, v2, v3 Web UI  Software upgrade via WEB / FTP server / TR069 / FOTA Diagnostics  USIM PIN management and card authentication
<b>Routing Mode</b>	Route Mode  Bridge Mode  NAT mode Static Route  Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPV6 Dual Stack
<b>VPN</b>	IPSec PPTP  GRE tunnel  L2TPv2 and L2TPv3 VPN pass-through
<b>Security</b>	Firewall  MAC Address Filtering IP Address Filtering  URL Filtering Access Control  HTTPS Login from WAN Dos attack protection  Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery  Auto rollback to previous version when upgrade fail

WA566

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 16
- Advanced 4x4 MIMO with Category 19 throughput
- 4 GE LAN ports
- 1 VoLTE/VoIP/VoNR Line(Optional)
- 802.11b/g/n/ax multiband band MIMO Wi-Fi support
- VPN & full L2/L3 GRE Tunneling client' s support
- Router, bridge, and by-pass networking, IPv4 &v6 and Multiple PDN support
- FTP, HTTP, HTTPS and TR-069 management support
- Cost effective & compact design with built-in high gain 4x4 wide band antenna



<b>Physical</b>	Dimensions	183mmx 193mmx 56mm
	Weight	< 700g
	Power consumptions	< 18W
	Power Supply	12V/2.0A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Wireless Radio Interface</b>	Radio Access	3 GPP Release 16 5G NSA/SA 5G NR Sub-6G LTE-TDD/LTE-FDD/WCDMA
	Solution	Qualcomm SDX62+WCN6856
	Operation Mode	5G 4x4 MIMO LTE 4x4 MIMO 1700~3800MHz LTE 2x2 MIMO 617~960MHz
	Frequency Band	5G NSA n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n48/n77/n78/n79 5G SA n1/n3/n5/n7/n8/n20/n26/n28/n38/n40/n41/n48/n77/n78/n79 LTE-FDD B1/B3/B5/B7/B8/B18/B19/B20/B26/B28/B32 LTE-TDD B38/B39/B40/B41/B42/B43/B46*/B48 WCDMA B1/B5/B8
	Modulations	QPSK/QAM16/QAM64/QAM256
	CA Support	Up to 5CC
	Receive Sensitivity	Compliance with 3GPP standard
	Output Power	5G NR: 23 : 1.5dBm * N41/77/78: 26 : 1.5dBm LTE: 23 : 1.5dBm
	Antenna Gain	2-6dBi
	<b>Wi-Fi Interface</b>	Radio Access
MIMO		2 x 2 DBDC
Output Power		15dBm
Antenna		3-5dBi Built-in antenna
Connected Users		32
Security		64/128-bit WEP, WPA/WPA2

<b>User Interface</b>	Data Interface	4 RJ45 GE ETH Ports, 1 USB 3.0 Port
	Line Interface	1 RJ11 Port
	LED Indicators	SYS, NET, RF (4LEDs) , Wi-Fi, MESH, LINE
	SIM Support	1.8V/3.0V USIM 2FF 1xeSIM Slot (optional)
<b>VoLTE/VoIP/VoNR Support(Optional)</b>	Basic Call	AMR-NB & AMR-WB Caller ID Name & Number display
	Supplementary Call Features	Communication Forwarding Barring of Incoming/Outgoing Calls Communication Hold & Waiting Ad-Hoc 3-Party Conference Message Waiting Indication Communication Diversion/Forward
	DSP Processing	Adaptive Multi-Rate speech codec (AMR) AMR wideband codec Narrowband 8KHz & Wideband 16KHz Support DTMF Tone Generation and Detection Call Progress Tone Generation
<b>SW Specifications</b>	Networking Configuration	Router and L3 Bridge Operation Support Built-in DHCP Server for LAN Devices IPv4, and IPv6 DS-Lite Support for LTE Multiple PDN Interface Support
	Data Networking Features	VPN Pass-through support (PPTP, L2TP & IPsec) Built-in L2TP & GRE Tunneling Client Support DNS Proxy Support Firewall & Access Control DMZ and Virtual Server Support IP and Port Forwarding Support Local and Remote Management Restriction Application Firewall Support NTP Service Support LAN Device Access Control
	Device Management	CLI, Telnet, HTTP and HTTPS Management Interfaces Standard Based TR-069 Management FTP and HTTP OTA Firmware Upgrade USIM and PLMN Locking Support Device Factory Default Setting

WA2000

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain 4x4 wide band antenna (617-3800MHz)
- Compliant to 3GPP Release 15 specifications
- 802.11b/g/n/ac dual band MIMO WiFi support
- Router and IP-passthrough networking capability, IPv4 & IPv6, and Multiple PDN support
- VPN & full L2/L3 GRE Tunneling client' s support
- Wireless fallback support for networking redundancy
- FTP, HTTP, HTTPS and TR-069 management support
- 4 GE LAN ports
- 1 RJ11 Port



## Basic Introduction

WA2000 is a cost effective and high performance 5G NSA/SA 5G NR Sub-6G indoor Wi-Fi & VoLTE CPE product specially designed to enable quick and easy 5G/4G/3G fixed data service deployment for residential and SOHO customers. It provides high speed LAN, Wi-Fi and VoLTE/VoNR integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### **RELIABLE PERFORMANCE**

WA2000 is an advanced multiport indoor Wi-Fi & VoLTE/VoNR CPE based on the standard implementation of 3GPP Release 15 specifications. With built-in high gain LTE antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has 4 GE LAN ports, 1 RJ11 analog phone port, high performance 4x4 MIMO and CA capabilities, 802.11b/g/n/ac dual band Wi-Fi, advanced routing and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 1Gbps max data throughput which can be very competitive to wired broadband access service.

### **EASY USAGE & MANAGEMENT**

WA2000 is a user-friendly 5G CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The external antenna option gives user the capability to extend coverage using external high gain antenna. The LEDs on the WA2000 have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA2000 offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### **TECHNICAL FEATURES**

WA2000 is fully compliant to the LTE specification. It offers standard support for advanced features such as Carrier Aggregation, MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

<b>Physical</b>	Dimensions	180mmx 150mmx 48mm
	Weight	< 350g
	Power consumptions	< 15W
	Power Supply	12V/2A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Radio Interface</b>	Radio Access	3GPP Release 15, 5G NSA/SA 5G NR Sub-6G, LTE-TDD/LTE-FDD/WCDMA
	Chipset	UNISOC UDX710
	Operation Mode	5G DL 4 × 4 MIMO: n1/ 3/ 7/ 28 / 38/ 40/ 41/ 66/ 77/ 78 5G UL 2 × 2 MIMO: n38/ 40/ 41/ 77/ 78 5G DL 2 × 2 MIMO: n5/ 8/ 20 4G LTE DL 2x2 MIMO: B1/ 2/ 3/ 4/ 5/ 7/ 8/ 20/ 28/ 38/ 40/ 41/ 66
	Frequency Band (Customizable)	5G NSA n1/n3/n7/n28/n38/n40/n41/n77/n78 5G SA n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n66/n71*/n77/n78 LTE-FDD B1/B2/B3/B4/B5/B7/B8/B20/B28/B66 LTE-TDD B38/B40/B41 WCDMA B1/B2/B5/B8
	Modulations	QPSK/QAM16/QAM64/QAM256
	CA Support	Up to 3CC (DL CAT12, UL CAT13)
	Receive Sensitivity	Compliance with 3GPP standard
	Output Power	23dBm±2dB
	Antenna Gain	2-6dBi
	External Antenna	Optional
<b>WiFi Interface</b>	Radio Access	IEEE802.11b/g/n/ac
	MIMO	2 x 2 (1200Mbps)
	Output Power	15dBm
	Antenna	3-5dBi Built-in antenna
	Connected Users	32
	Security	64/128-bit WEP, WPA/WPA2
<b>User Interface</b>	Data Interface	4 RJ45 GE ETH Port
	Line Interface	1 RJ11 Port
	LED Indicators	SYS, NET, RF, 2.4GHz Wi-Fi, 5GHz Wi-Fi, LINE
	SIM Support	1.8V/3.0V USIM_2FF

<b>VoLTE Services (Optional)</b>	Basic Call	AMR-NB & AMR-WB, Caller ID Name & Number display
	Supplementary Call Features	Communication Forwarding
		Barring of Incoming/Outgoing Calls
		Communication Hold & Waiting
	Ad-Hoc 3-Party Conference	
	Message Waiting Indication	
	Communication Diversion/Forward	
DSP Processing	Adaptive Multi-Rate speech codec (AMR)	
	AMR wideband codec	
	Narrowband 8KHz & Wideband 16KHz Support	
	DTMF Tone Generation and Detection	
	Call Progress Tone Generation	
Networking Configuration	Router and L3 Bridge Operation Support	
	Built-in DHCP Server for LAN Devices	
	IPv4, and IPv6 DS-Lite Support for LTE	
	Multiple PDN Interface Support	
<b>SW Specifications</b>		VPN Pass-through support (PPTP, L2TP & IPsec)
		Built-in L2TP & GRE Tunneling Client Support
		DNS Proxy Support
		Firewall & Access Control
	Data Networking Features	DMZ and Virtual Server Support
		IP and Port Forwarding Support
		Local and Remote Management Restriction
		Application Firewall Support
	NTP Service Support	
	LAN Device Access Control	
Device Management		CLI, Telnet, HTTP and HTTPS Management Interfaces
		Standard Based TR-069 Management
		FTP and HTTP OTA Firmware Upgrade
		USIM and PLMN Locking Support
		Device Factory Default Setting

WA3000

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain 4 x 4 wide band antenna
- Compliant to 3GPP Release 15 specifications
- Advanced 4x4 MIMO
- Two GE LAN ports, VoLTE/ VoNR Line and Wi-Fi6 dual-band support
- Router and IP-passthrough networking capability, IPv4 & IPv6, and Multiple PDN support
- VPN & full L2/L3 GRE Tunneling clients support
- Wireless fallback support for networking redundancy
- FTP, HTTP, HTTPS and TR-069 management support



## Basic Introduction

WA3000 is a most advanced 5G NSA/SA 5G NR Sub-6G indoor Wi-Fi & VoLTE/VoNR CPE product specially designed to enable quick and easy 5G/4G/3G fixed data service deployment for residential and SOHO customers. It provides high speed LAN, Wi-Fi and VoLTE/VoNR integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### RELIABLE PERFORMANCE

WA3000 is an advanced multiport indoor Wi-Fi and VoLTE/VoNR CPE based on the standard implementation of 3GPP Release 15 specifications. With built-in high gain LTE antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has two Gigabit LAN ports, one RJ11 analog phone port, high performance 4x4 MIMO and CA capabilities, 802.11b/g/n/ax multiband Wi-Fi, advanced routing and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 1Gbps max data throughput which can be very competitive to wired broadband access service.

### EASY USAGE & MANAGEMENT

WA3000 is a user-friendly 5G NSA/SA 5G NR Sub-6G CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The LEDs on the WA3000 have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA3000 offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### TECHNICAL FEATURES

WA3000 is fully compliant to the 3GPP release 15 specifications. It offers standard support for advanced features such as Carrier Aggregation, MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

<b>Physical</b>	Dimensions	133mmx 75mmx 200mm
	Weight	< 700g
	Power consumptions	< 15W
	Power Supply	12V/2A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Wireless Radio Interface</b>	Radio Access	3GPP Release 15, 5G NSA/SA 5G NR Sub-6G, LTE-TDD/LTE-FDD/WCDMA
	Chipset	UNISOC UDX710
	Operation Mode	5G 4x4 MIMO (n1/3/7/38/40/41/77/78/79) LTE 2x2 MIMO
	Frequency Band	5G NSA n1/n3/n7/n38/n40/n41/n77/n78/n79 5G SA n1/n3/n5*/n7/n8/n20/n28/n38/n40/n41/n66/n71*/n77/n78 LTE-FDD B1/B2/B3/B4/B5/B7/B8/B20/B28A/B28B/B66 LTE-TDD B38/B40/B41, WCDMA B1/B2/B5/B8
	Modulations	QPSK/QAM16/QAM64/QAM256
	CA Support	4G: 5CC, and ENDC CA Support
	Receive Sensitivity	Compliance with 3GPP 15 standard
	Output Power	23dBm : 2dB
	Antenna Gain	2-6dBi
<b>Wi-Fi Interface</b>	Radio Access	IEEE802.11b/g/n/ax
	MIMO	2 x 2 DBDC (1.8Gbps, BW=160MHz)
	Output Power	15dBm
	Antenna	3-5dBi Built-in antenna
	Connected Users	32
	Security	64/128-bit WEP, WPA/WPA2/WPA3
<b>User Interface</b>	Data Interface	2 RJ45 GE ETH Port
	Line Interface	1 RJ11 Port
	LED Indicators	SYS, MOD, RF, Wi-Fi, LINE
	SIM Support	1.8V/3.0V USIM 3FF

<b>VoLTE/VoNR Support (Optional)</b>	Basic Call	AMR-NB & AMR-WB Caller ID Name & Number display
	Supplementary Call Features	Communication Forwarding Barring of Incoming/Outgoing Calls Communication Hold & Waiting Ad-Hoc 3-Party Conference Message Waiting Indication Communication Diversion/Forward
	DSP Processing	Adaptive Multi-Rate speech codec (AMR) AMR wideband codec Narrowband 8KHz & Wideband 16KHz Support DTMF Tone Generation and Detection Call Progress Tone Generation
<b>SW Specifications</b>	Networking Configuration	Router and L3 Bridge Operation Support Built-in DHCP Server for LAN Devices IPv4, and IPv6 DS-Lite Support for LTE Multiple PDN Interface Support
	Data Networking Features	VPN Pass-through support (PPTP, L2TP & IPsec) Built-in L2TP & GRE Tunneling Client Support DNS Proxy Support Firewall & Access Control DMZ and Virtual Server Support IP and Port Forwarding Support Local and Remote Management Restriction Application Firewall Support NTP Service Support LAN Device Access Control
	Device Management	CLI, Telnet, HTTP and HTTPS Management Interfaces Standard Based TR-069 Management FTP and HTTP OTA Firmware Upgrade USIM and PLMN Locking Support Device Factory Default Setting

WA510M

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 5G NR and LTE-A
- NSA and SA modes
- Support 5G 2CC 200M CA
- Worldwide Sub-6 5G and LTE-A coverage
- Built-in high gain wide bandwidth antennas
- Support 2x Gigabit Ethernet ports
- Wi-Fi 6 Supports 802.11ax, OFDMA, and MU-MIMO. Maximum 1.8Gbit/s throughputs
- Powerful software features, support NAT, Bridge and Route mode
- IPv4&IPv6 and Multiple PDN support
- Built-in VPN and L2/L3 GRE client support
- WEB, TR069 and SNMP based device management

## Performance & Parameters

<b>Chipset model</b>	MTK T750
<b>5G &amp; 4G Standard</b>	3GPP Release 15
<b>Peak throughput</b>	NSA TDD: Max. 3.74 Gbps (DL)/ 1.46 Gbps (UL)
	SA TDD: Max. 4.67 Gbps (DL)/ 2.5 Gbps (UL)
<b>Frequencies (Customized)</b>	5G: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78 4G: B1/B3/B5/B7/B8/B20/B28/B32/B38/B40/B41/B42/B43
<b>Output Power</b>	5G NR: 23: 1.5dBm * N41/77/78: 26: 1.5dBm LTE: 23: 1.5dBm
<b>MIMO</b>	5G DL 4 × 4 MIMO on n1/n3/n7/n38/n40/n41/n77/n78,2CA 5G UL 2 × 2 MIMO on n41/n77/n78 LTE DL 4×4 MIMO on B1/B3/B7/B38/B40/B41/B42/B43
<b>Modulation</b>	5G Sub-6 DL: 256QAM, UL: 256QAM LTE DL:256QAM, UL:256QAM
<b>5G/4G TX/RX</b>	1T2R/1T4R/2T4R
<b>WiFi</b>	802.11b/g/n/ac/ax, WiFi6 AX1800, 2.4G&5.8GHz dual freq bands, 2x2MIMO
<b>Security Support</b>	Wi-Fi Security: WPA3, WPA2, WEP
<b>I/O Port</b>	1*1GE LAN/WAN + 1*1GE LAN 1*USIM Slot (3FF) 1*RESET 1*DC JACK
<b>Basic Parameters</b>	Device Type: 5G Sub-6 Indoor CPE Size: 204 mm x 158mm x 41.5mm Working Temperature: 0~45 ° C Water / Dust Proof: IP3X

WA510MU

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 15
- Worldwide 5G and LTE-A coverage
- Support 5G NSA and SA modes
- Built-in high gain wide bandwidth antennas
- Powerful software features, support NAT, Bridge mode
- IPv4&IPv6 and Multiple PDN support
- Wi-Fi6 AX3000
- Build-in PPTP/IPSec/L2TPv2/L2TPv3/GRE VPN Client support
- WEB, TR069 and SNMP based device management
- FOTA



## Specifications

<b>Chipset model</b>	IPQ5018+Unisoc V510		
<b>5G &amp; 4G Standard</b>	3GPP Release 15		
<b>LTE Category</b>	DL CAT12, UL CAT13		
<b>Peak throughput</b>	SA: Max. 2 Gbps (DL)/ 1 Gbps (UL) NSA: Max. 2.6 Gbps (DL)/ 650Mbps (UL) LTE: Max. 600Mbps (DL)/ 150Mbps (UL) UMTS: Max. 42.2Mbps (DL)/ 11Mbps (UL)		
<b>Frequencies (Customized)</b>		EA	CNV
	5G NR NSA	n1/n3/n7/n28/n38/n40/n41/n77/n78	n41/n78/n79
	5G NR SA	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n66/n77/n78	n1/n3/n5/n8/n28A/n41/n66/n77/n78/n79
	5G DL 4 x 4 MIMO	n1/n3/n7/n28/n38/n40/n41/n66/n77/n78	n1/n28A/n41/n77/n78/n79
	5G UL 2 x 2 MIMO	n38/n40/n41/n77/n78	n41/n77/n78/n79
	LTE-FDD	B1/2/3/4/5/7/8/20/28/66	B1/3/5/8
	LTE-TDD	B38/B40/B41	B34/B38/B41
	WCDMA	B1/B2/B5/B8	B1/B5/B8
<b>Output Power</b>	5G NR: 23: 1.5dBm * N41/77/78: 26: 1.5dBm LTE: 23: 1.5dBm		
<b>Modulation</b>	5G Sub-6 DL: 256QAM, UL: 256QAM LTE DL:256QAM, UL:256QAM		
<b>5G/4G TX/RX</b>	1T2R/1T4R/2T4R		
<b>WiFi</b>	802.11b/g/n/ac/ax, WiFi6 AX 3000, 2.4G&5GHz dual freq bands, 2x2MIMO		
<b>Security Support</b>	Wi-Fi Security: WPA3, WPA2, WEP		
<b>I/O Port</b>	1*1GE LAN/WAN + 1*1GE LAN 1*USIM Slot (3FF) 1*RESET 1*DC JACK		
<b>Antenna</b>	Build-in Omni Separate 2.4G&5G WiFi antennas, 3dBi Peak Gain Build-in 4 Omni Cellular Antennas, and 6dBi Peak Gain		
<b>Basic Parameters</b>	Device Type: 5G Sub-6 Indoor CPE Size: 228mm x 173 mm x 71mm Working Temperature: 0~45 °C Water / Dust Proof: IP3X Power Supply: AC 100~240V, DC 12V 2A		

WA3200

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain 4x4 wide band antenna
- Compliant to 3GPP Release 15 specifications
- Advanced 4x4 MIMO
- Two GE LAN ports, VoNR Line and Wi-Fi6 dual-band support
- Router and IP-passthrough networking capability, IPv4 & IPv6, and Multiple PDN support
- VPN & full L2/L3 GRE Tunneling clients support
- Wireless fallback support for networking redundancy
- FTP, HTTP, HTTPS and TR-069 management support



## Basic Introduction

WA3200 is a most advanced 5G SA n78 only indoor Wi-Fi & VoNR CPE product specially designed to enable quick and easy 5G fixed data service deployment for residential and SOHO customers. It provides high speed LAN, Wi-Fi and VoNR integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### **RELIABLE PERFORMANCE**

WA3200 is an advanced multiport indoor Wi-Fi and VoNR CPE based on the standard implementation of 3GPP Release 15 specifications. With built-in high gain antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has two Gigabit LAN ports, one RJ11 analog phone port, high performance 4x4 MIMO capabilities, 802.11b/g/n/ax multiband Wi-Fi, advanced routing and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 1Gbps max data throughput which can be very competitive to wired broadband access service.

### **EASY USAGE & MANAGEMENT**

WA3200 is a user-friendly 5G SA n78 only CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The LEDs on the WA3200 have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA3200 offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### **TECHNICAL FEATURES**

WA3200 is fully compliant to the 3GPP release 15 specifications. It offers standard support for advanced features such as MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

## Technical Specifications

<b>Physical</b>	Dimensions	133mm x 75mm x 200mm
	Weight	< 700g
	Power consumptions	< 15W
	Power Supply	12V/2A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Wireless Radio Interface</b>	Radio Access	3GPP Release 15, 5G SA
	Chipset	UNISOC UDX710
	Operation Mode	5G 4x4 MIMO
	Frequency Band	5G SA n78
	Modulations	QPSK/QAM16/QAM64/QAM256
	Receive Sensitivity	Compliance with 3GPP 15 standard
	Output Power	23dBm: 2dB
Antenna Gain	2-6dBi	
<b>Wi-Fi Interface</b>	Radio Access	IEEE802.11b/g/n/ax
	MIMO	2 x 2 DBDC (1.8Gbps, BW=160MHz)
	Output Power	15dBm
	Antenna	3-5dBi Built-in antenna
	Connected Users	32
	Security	64/128-bit WEP, WPA/WPA2/WPA3
<b>User Interface</b>	Data Interface	2 RJ45 GE ETH Port
	Line Interface	1 RJ11 Port
	LED Indicators	SYS, MOD, RF, Wi-Fi, LINE
	SIM Support	1.8V/3.0V USIM 3FF

## Technical Specifications

<b>VoNR Support (Optional)</b>	Basic Call	AMR-NB & AMR-WB Caller ID Name & Number display
	Supplementary Call Features	Communication Forwarding Barring of Incoming/Outgoing Calls Communication Hold & Waiting Ad-Hoc 3-Party Conference Message Waiting Indication Communication Diversion/Forward
	DSP Processing	Adaptive Multi-Rate speech codec (AMR) AMR wideband codec Narrowband 8KHz & Wideband 16KHz Support DTMF Tone Generation and Detection Call Progress Tone Generation
<b>SW Specifications</b>	Networking Configuration	Router and L3 Bridge Operation Support Built-in DHCP Server for LAN Devices IPv4, and IPv6 DS-Lite Support Multiple PDN Interface Support
	Data Networking Features	VPN Pass-through support (PPTP, L2TP & IPsec) Built-in L2TP & GRE Tunneling Client Support DNS Proxy Support Firewall & Access Control DMZ and Virtual Server Support IP and Port Forwarding Support Local and Remote Management Restriction Application Firewall Support NTP Service Support LAN Device Access Control
	Device Management	CLI, Telnet, HTTP and HTTPS Management Interfaces Standard Based TR-069 Management FTP and HTTP OTA Firmware Upgrade USIM and PLMN Locking Support Device Factory Default Setting

WA510

# 5G Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 15
- 5G NR SA/NSA , LTE , WCDMA support
- 5G 2CC 200M CA
- Up to 4x4MIMO/2CA
- Up to 4.67Gbps of DL /2.5Gbps of UL speed
- Wi-Fi6 AX1800
- Build-in PPTP/IPSec/L2TPv2/L2TPv3/GRE VPN Client support
- DFOTA&VoLTE(Optional)



## Specifications

<b>Chipset model</b>	MTK T750		
<b>5G &amp; 4G Standard</b>	3GPP Release 15		
<b>Peak throughput</b>	NSA TDD: Max. 3.74 Gbps (DL)/ 1.46 Gbps (UL) SA TDD: Max. 4.67 Gbps (DL)/ 2.5 Gbps (UL)		
<b>Frequencies (Customized)</b>		EU	NA
	5G NR NSA	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78	n2/n5/n7/n12/n25/n38/n41/n48/n66/n71/n77/n78
	5G NR SA	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78	n2/n5/n7/n12/n25/n38/n41/n48/n66/n71/n77/n78
	5G DL CA	Supports 2CC CA	Supports 2CC CA
	5G DL 4 x 4 MIMO	n1/n3/n7/n38/n40/n41/n77/n78	n2/n7/n25/n38/n41/n48/n66/n77/n78
	5G UL 2 x 2 MIMO	n40/n41/n77/n78	n41/n48/n77/n78
	LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71
	LTE-TDD	B38/B40/B41/B42/B43	B38/B41/B42/B43/B48
	LTE-LAA	-	B46
	LTE DL 4 x 4 MIMO	B1/B3/B7/B38/B40/B41/B42/B43	B2/B4/B7/B25/B30/B38/B41/B42/B43/B48/B66
WCDMA	B1/B5/B8	-	
<b>Output Power</b>	5G NR: 23: 1.5dBm * N41/77/78: 26: 1.5dBm LTE: 23: 1.5dBm		
<b>MIMO</b>	5G DL 4 × 4 MIMO on n1/n3/n7/n38/n40/n41/n77/n78,2CA 5G UL 2 × 2 MIMO on n41/n77/n78 LTE DL 4×4 MIMO on B1/B3/B7/B38/B40/B41/B42/B43		
<b>Modulation</b>	5G Sub-6 DL: 256QAM, UL: 256QAM LTE DL:256QAM, UL:256QAM		
<b>5G/4G TX/RX</b>	1T2R/1T4R/2T4R		
<b>WiFi</b>	802.11b/g/n/ac/ax, WiFi6 AX1800, 2.4G&5GHz dual freq bands, 2x2MIMO		
<b>Security Support</b>	Wi-Fi Security: WPA3, WPA2, WEP		
<b>I/O Port</b>	1*1GE LAN/WAN + 1*1GE LAN 1*RJ11 (optional) 1*USIM Slot (3FF) 1*RESET 1*DC JACK		
<b>Basic Parameters</b>	Device Type: 5G Sub-6 Indoor CPE Size: 229mm x 191mm x 72mm Working Temperature: 0~45° C Water / Dust Proof: IP3X		

OWA500

# 5G Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 3GPP Release 15
- Worldwide 5G and LTE-A coverage
- Built-in high gain wide bandwidth antennas
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Supports DMZ
- Support NAT, Bridge and Router operation mode
- Standard TR-069 Management



## Cellular Specifications

<b>Category</b>	3GPP Release 15					
<b>Solution</b>	Qualcomm SDX55					
<b>Frequency Bands and CA and MIMO</b>	Variant for Europe/Asia	5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78/n79/			
		LTE-FDD	B1/B3/B5/B7/B8/B18/B19/B20/B26/B28/B32			
		LTE-TDD	B34/B38/39/B40/B41/B42/B43			
		WCDMA	B1/B3/B5/B6/B8/B19			
<b>Frequency Bands and CA and MIMO</b>	Variant for North America	5G NR	n2/n5/n7/n12/n25/n41/n48/n66/n71/n77/n78			
		LTE-FDD	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B29/B30/B66/B71			
		LTE-TDD	B41/B48			
		LAA	B46			
<b>Frequency Bands and CA and MIMO</b>		WCDMA	B2/B4/B5			
<b>Tx / Rx</b>	2Tx/6Rx					
<b>LTE Transmit Power</b>	Class 3 (23dBm : 2dB)					
<b>Peak throughput</b>	5G SA Sub-6GHz: Max 2.1Gbps (DL)/Max 900Mbps (UL) 5G NSA Sub-6GHz: Max 2.5Gbps (DL)/Max 650Mbps (UL) LTE: Max 1.0Gbps (DL)/Max 200Mbps (UL) WCDMA: Max 42Mbps (DL)/Max 5.76Mbps (UL)					
<b>Cellular Antenna</b>	6 Built-in high gain directional antennas	Antenna	Frequency Range	Gain	VSWR	Direction
		ANT1~2 (LTE)	600MHz ~ 5000MHz	617~960: 4dBi 1452~2690: 6dBi 3400~3800: 6dBi 4400~5000: 6dBi	<3	directional
		ANT3~6 (LTE)	1700MHz ~ 5000MHz	1700~2690: 4dBi 4400~5000: 6dBi	<3	directional

<b>Chipset</b>	Qualcomm SDX55
<b>External port</b>	1*RJ45 LAN Ports with PoE 10/100/1000M auto-sensing, auto-MDI/MDIX
<b>LED Indicators</b>	8 LED Indicators (RUN, SIM, ETH, SYS, RF Signal*4)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>SIM</b>	1 2FF USIM/SIM slot(1.8V/3V)
<b>Power supply</b>	AC 100~240V DC 24V 1A
<b>Power consumption</b>	<15W
<b>Dimensions</b>	288mmx 288mmx 88mm
<b>Weight</b>	<2000g
<b>Environment Specifications</b>	Operating: -30℃ ~ 55℃ Storage: -40℃ ~ 85℃ Humidity: 5% ~ 95% non-condensing Water & Dust proof: IP67

## Software Specifications

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN, IP pass through IPv4/v6 dual stack
<b>LAN</b>	DHCP Server, Client DNS Relay and DNS proxy DMZ Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069 SNMP v1, v2, v3 Web UI Software upgrade via WEB / FTP server / TR069 / FOTA USIM PIN authentication
<b>Routing Mode</b>	Route Mode Bridge Mode NAT mode Static Route Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPV6 Dual Stack
<b>VPN</b>	IPsec PPTP L2TPv2 and L2TPv3 GRE Tunnel
<b>Security</b>	Firewall MAC Address Filtering IP Address Filtering URL Filtering Access Control HTTPS Login from WAN Dos attack protection Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery Auto rollback to previous version when upgrade fail

## Appendix-Delivers

1\*Assembled product

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1\*CAT6 Ethernet Cable, 1M

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1\*24V/1A Power Adapter

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1\*PoE Switch

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1\*Mounting Accessories(Pole mounting and wall mounting)

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1\*Quick User Guide

OWA-500G

# 5G Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 3GPP Release 15
- Built-in high gain wide bandwidth antennas
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Supports DMZ
- Support NAT, Bridge and Router operation mode
- Standard TR-069 Management



## Cellular Specifications

<b>Category</b>	3GPP Release 15					
<b>Solution</b>	Qualcomm SDX55					
<b>Frequency Bands and CA and MIMO</b>	5G NR	n78				
<b>Tx / Rx</b>	2Tx/4Rx					
<b>LTE Transmit Power</b>	Class 2 (26dBm : 2dB)					
<b>Peak throughput</b>	5G SA Sub-6GHz: Max 2.1bps (DL)/Max 900Mbps (UL)					
<b>Cellular Antenna</b>	6 Built-in high gain directional antennas	Antenna	Frequency Range	Gain	VSWR	Direction
		ANT	3400MHz ~ 3800MHz	Max 16dBi	<3	directional

## Hardware Specifications

<b>Chipset</b>	Qualcomm SDX55
<b>External port</b>	1*2.5G RJ45 LAN Ports with PoE
<b>LED Indicators</b>	8 LED Indicators (RUN, SIM, ETH, SYS, RF Signal*4)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>SIM</b>	1 2FF USIM/SIM slot(1.8V/3V)
<b>Power supply</b>	AC 100~240V DC 24V 1A
<b>Power consumption</b>	<15W
<b>Dimensions</b>	288mm x 288mm x 88mm
<b>Weight</b>	<2000g
<b>Environment Specifications</b>	Operating: -30°C ~ 55°C Storage: -40°C ~ 85°C Humidity: 5% ~ 95% non-condensing Water & Dust proof: IP67

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN, IP pass through IPv4/v6 dual stack
<b>LAN</b>	DHCP Server, Client DNS Relay and DNS proxy DMZ Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069 / TR143 SNMP v1, v2, v3 Web UI Software upgrade via WEB / FTP server / TR069 / TR143 / FOTA USIM PIN authentication
<b>Routing Mode</b>	Route Mode Bridge Mode NAT mode Static Route Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPV6 Dual Stack
<b>VPN</b>	IPsec PPTP L2TPv2 and L2TPv3 GRE Tunnel
<b>Security</b>	Firewall MAC Address Filtering IP Address Filtering URL Filtering Access Control HTTPS Login from WAN Dos attack protection Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery Auto rollback to previous version when upgrade fail

## Appendix-Delivers

1*Assembled product
1*CAT6 Ethernet Cable, 1M
1*24V/1A Power Adapter
1*PoE Switch
1*Mounting Accessories(Pole mounting and wall mounting)
1*Quick User Guide

OWA500N

# 5G Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 3GPP Release 16
- Worldwide 5G and LTE-A coverage
- Support 5G NSA and SA modes
- Built-in high gain wide bandwidth antennas
- Support 2.5 Gigabit Ethernet port
- IPv4 & IPv6 and Multiple PDN support
- Built-in VPN and L2/L3 GRE client support
- WEB, TR069 and SNMP based device management



## Cellular Specifications

<b>Category</b>	3GPP Release 16					
	LTE Category 19					
<b>Solution</b>	Qualcomm Snapdragon x62(Quectel RG520N-EU)					
<b>Frequency Bands / MIMO / Modulation</b>	5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78				
	LTE FDD	B1/B3/B5/B7/B8/B20/B28/B32				
	LTE TDD	B38/B40/B41/B42/B43				
	WCDMA	B1/B5/B8				
	5G DL 4×4 MIMO	n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78				
	LTE DL 4×4 MIMO	B1/B3/B7/B38/B40/B41/B42/B43				
	Modulation	DL 256 QAM, UL 256 QAM				
<b>Tx / Rx</b>	1T2R/1T4R/2T4R					
<b>Transmit Power</b>	Class 3 (23dBm: 2dB)					
<b>Peak throughput</b>	5G SA Sub-6 GHz 2.4Gbps (DL)/ 900Mbps (UL)					
	5G NSA Sub-6 GHz 3.4Gbps (DL)/ 550Mbps (UL)					
	LTE 1.6Gbps (DL)/ 200Mbps (UL)					
	WCDMA 42 Mbps (DL)/5.76 Mbps (UL)					
<b>Cellular Antenna</b>	Built-in high gain directional antennas	Antenna	Frequency Range	Gain	VSWR	Direction
		ANT	700MHz ~ 5000MHz	0.7~ 0.96GHz: 4dBi 1.7 ~ 2.69GHz: 7dBi 3.4 ~ 3.8GHz: 9dBi 4.2 ~ 5GHz: 7dBi	<3	directional

## Hardware Specifications

<b>Chipset</b>	Qualcomm Snapdragon x62(Quectel RG520N-EU)
<b>External port</b>	1x RJ45 Port
<b>LED Indicators</b>	8 LED Indicators (RUN, SIM, ETH, SYS, RF Signal*4)
<b>Button</b>	Tact switch with Reset/Reboot button
<b>SIM</b>	1 2FF USIM/SIM slot(1.8V/3V)
<b>Power supply</b>	AC 100~240V DC 24V 1A
<b>Power consumption</b>	<24W
<b>Dimensions</b>	165mm x 280mm x 56mm
<b>Weight</b>	~750g
<b>Environment Specifications</b>	Operating: -30°C~ 55°C Storage: -40°C ~ 85°C Humidity: 5% ~ 95% non-condensing Water & Dust proof: IP65

## Appendix-Delivers

1*Assembled product
1*CAT6 Ethernet Cable, 1M
1*24V/1A Power Adapter
1*PoE Switch
1*Mounting Accessories(Pole mounting and wall mounting)
1*Quick User Guide

## Software Specifications

<b>WAN</b>	Multi-APN support, maximum four Multi-PDN IP pass through IPv4/v6 dual stack
<b>LAN</b>	DHCP Server, Client DNS Relay and DNS proxy DMZ Multicast/Multicast Proxy MAC Address Filtering
<b>Device Management</b>	TR069 SNMP v1, v2, v3 Web UI Software upgrade via WEB / FTP server / TR069 / FOTA USIM PIN authentication
<b>Routing Mode</b>	Route Mode Bridge Mode NAT mode Static Route Port Mirror and port forwarding ARP IPv4, IPv6 and IPV4/IPv6 Dual Stack
<b>VPN</b>	IPsec PPTP L2TPv2/v3 GRE
<b>Security</b>	Firewall MAC Address Filtering IP Address Filtering URL Filtering Access Control HTTPS Login from WAN Dos attack protection Three level of user authority
<b>Reliability</b>	Watchdog for automatic recovery Auto rollback to previous version when upgrade fail

OWA500N+WA2202

# 5G CPE Combo

Leading outdoor wireless broadband access equipment



## Key Features

- 5G Sub-6
- 3GPP R16
- Qualcomm SDX62
- NR 2CC, 120MHz
- Wi-Fi AX1800/AX3000
- 1\*2.5GE RJ45 LAN Ports with PoE
- IP65
- 280mm x 165mm x 56mm



## Basic Parameters

<b>Device Type</b>	Combo(ODU+WiFi Router)
<b>Size</b>	280x165x56mm(OWA500N)/ 225x215x75mm(WA2202)
<b>Working Temperature</b>	-30~55°C(OWA500N) / 0~45°C(WA2202)
<b>Antenna(5G/WiFi)</b>	6/4
<b>Water/Dust Proof</b>	IP65 (OWA500N) /IP3X (WA2202)
<b>I/O Port</b>	1x2.5G WAN/PoE 1x2.5G LAN 1*USIMSlot (2FF) RESET 1*DC JACK

## Spectrum & Performance

<b>Chipset model</b>	Qualcomm Snapdragon X62
<b>5G &amp; 4G Standard</b>	3GPP Release 16
<b>Peak throughput</b>	5G SA Sub-6 GHz :2.4Gbps (DL)/ 900Mbps (UL) 5G NSA Sub-6 GHz :3.2Gbps (DL)/ 600Mbps (UL)
<b>Frequencies (Customized)</b>	5G NR: n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78 4G LTE: B1/B3/B5/B7/B8/B20/B28/B32/B38/B40/B41/B42/B43
<b>Output Power</b>	5G NR bands: Class 3 (23 dBm $\pm$ 2 dB) 5G NR n41/n77/n78/n79 bands HPUE: Class 2 (26 dBm +2/-3 dB) LTE bands: Class 3 (23 dBm $\pm$ 2 dB) LTE B38/B41/B42/B43 bands HPUE 1: Class 2 (26 dBm $\pm$ 2 dB)
<b>Modulation</b>	Sub-6 DL: 256QAM, UL: 256QAM
<b>5G/4G TX/RX</b>	1T2R/1T4R/2T4R
<b>5G/4G Antenna</b>	4 Built-in high gain directional antennas up-to 7 dBi
<b>Wi-Fi</b>	Peak Speed: AX1800/3000, with 2.4/5.8G Wi-Fi steering Standards: Wi-Fi 6, 802.11ax, 802.11ac, 802.11a/b/g, 802.11n Wi-Fi Features: Advanced QoS, MU-MIMO, 1024 QAM, OFDMA, Uplink scheduling, TxBF, Qualcomm® Wi-Fi SON

OWA500NC

# 5G CPE Combo

Leading outdoor wireless broadband access equipment



## Key Features

- 5G Sub-6, 3GPP R16
- ODU+WiFi Router
- Qualcomm SDX62
- NR 2CC, 120MHz
- Wi-Fi AX1800
- ODU: 1\*2.5GE RJ45 Ports with PoE
- Router: 1\*GE WAN/LAN, 1\*GE LAN
- ODU power is supplied by indoor Router, no POE Injector needed.
- Router provide NR/LTE signal strength by LED.
- One web UI address manage both ODU and Router.
- TR-069 manage both ODU and Router as one device.



## Basic Parameters

<b>Device Type</b>	Combo(ODU+WiFi Router)
<b>Size</b>	280x165x56mm(ODU) / 225x215x75mm(Router)
<b>Working Temperature</b>	-30~55°C(ODU) / 0~45°C(Router)
<b>Antenna(5G/WiFi)</b>	6/4
<b>Water/Dust Proof</b>	IP65 (ODU) / IP3X (Router)
<b>I/O Port</b>	ODU: 1*2.5GE RJ45 Ports with PoE Router: 1*GE WAN/LAN, 1*GE LAN 1*USIMSlot (2FF) RESET 1*DC JACK

## Spectrum & Performance

<b>Chipset model</b>	Qualcomm Snapdragon X62
<b>5G &amp; 4G Standard</b>	3GPP Release 16
<b>Peak throughput</b>	5G SA Sub-6 GHz :2.4Gbps (DL)/ 900Mbps (UL) 5G NSA Sub-6 GHz :3.2Gbps (DL)/ 600Mbps (UL)
<b>Frequencies (Customized)</b>	Europe/Aisa 5G NR: n1/n3/n5/n7/n8/n20/n28/n38/n40//n41/n75/n76/n77/n78 4G LTE: B1/B3/B5/B7/B8/B20/B28/B32/B38/B40/B41/B42/B43 North America 5G NR: n2/5/7/12/13/14/25/26/29/30/38/41/48/66/70/71/77/78 4G LTE: B2/4/5/7/12/13/14/17/25/26/29/30/66/71/38/41/42/43/48 Latin America 5G NR: n2/5/7/8/28/38/40/66/71/78 4G LTE: B2/4/5/7/8/26/28/66/38/40/42/43
<b>Output Power</b>	5G NR bands: Class 3 (23 dBm $\pm$ 2 dB) 5G NR n41/n77/n78/n79 bands HPUE: Class 2 (26 dBm +2/-3 dB) LTE bands: Class 3 (23 dBm $\pm$ 2 dB) LTE B38/B41/B42/B43 bands HPUE 1: Class 2 (26 dBm $\pm$ 2 dB)
<b>Modulation</b>	Sub-6 DL: 256QAM, UL: 256QAM
<b>5G/4G TX/RX</b>	1T2R/1T4R/2T4R
<b>5G/4G Antenna</b>	4 Built-in high gain directional antennas up-to 7 dBi
<b>Wi-Fi</b>	Peak Speed: AX1800, with 2.4/5.8G Wi-Fi steering Standards: Wi-Fi 6, 802.11ax, 802.11ac, 802.11a/b/g/n Wi-Fi Features: Advanced QoS, MU-MIMO, 1024 QAM, OFDMA, Uplink scheduling, TxBF, Qualcomm® Wi-Fi SON

OWA500U

# 5G Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 5G NR and LTE-A Dual mode
- 3GPP Release 15
- Both SA and NSA are supported
- Built-in high gain wide bandwidth antennas
- 1 x Gigabit LAN Port
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Support NAT and Bridge operation mode
- Standard WEB, CLI and TR-069 Management



## Specifications

<b>Chipset model</b>	Unisoc V510		
<b>5G &amp; 4G Standard</b>	3GPP Release 15		
<b>LTE Category</b>	DL CAT12, UL CAT13		
<b>Peak throughput</b>	SA: Max. 2 Gbps (DL)/ 1 Gbps (UL) NSA: Max. 2.6 Gbps (DL)/ 650Mbps (UL) LTE: Max. 600Mbps (DL)/ 150Mbps (UL) UMTS: Max. 42.2Mbps (DL)/ 11Mbps (UL)		
<b>Frequencies (Customized)</b>		EA	CNV
	5G NR NSA	n1/n3/n7/n28/n38/n40/n41/n77/n78	n41/n78/n79
	5G NR SA	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n66/n77/n78	n1/n3/n5/n8/n28A/n41/n66/n77/n78/n79
	5G DL 4 x 4 MIMO	n1/n3/n7/n28/n38/n40/n41/n66/n77/n78	n1/n28A/n41/n77/n78/n79
	5G UL 2 x 2 MIMO	n38/n40/n41/n77/n78	n41/n77/n78/n79
	LTE-FDD	B1/2/3/4/5/7/8/20/28/66	B1/3/5/8
	LTE-TDD	B38/B40/B41	B34/B38/B41
	WCDMA	B1/B2/B5/B8	B1/B5/B8
<b>Output Power</b>	5G NR: 23: 1.5dBm * N41/77/78: 26: 1.5dBm LTE: 23: 1.5dBm		
<b>Modulation</b>	5G Sub-6 DL: 256QAM, UL: 256QAM LTE DL:256QAM, UL:256QAM		
<b>5G/4G TX/RX</b>	1T2R/ 1T4R/2T4R		
<b>I/O Port</b>	1* 1GE PoE/Ethernet Port 1*USIM Slot (2FF) 1*RESET		
<b>Antenna Gain</b>	Build-in 4 Directional Cellular Antennas, and 8dBi Peak Gain		
<b>Basic Parameters</b>	Device Type: 5G Sub-6 Outdoor CPE Size: 165mm x 280 mm x 56mm Working Temperature: -30~55 °C Water / Dust Proof: IP65 Power Supply: AC 100~240V, DC 24V Passive PoE		

OWA510M

# 5G Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 5G NR and LTE-A Dual mode
- 3GPP Release 15
- Both SA and NSA are supported
- Built-in high gain wide bandwidth antennas
- 1 x Gigabit LAN Port
- Advanced MIMO, AMC, OFDM support
- Built-in VPN and L2/L3 GRE client support
- IPv4 & IPv6 and Multiple PDN support
- Support NAT, Bridge and Router operation mode
- Standard WEB, CLI and TR-069 Management



## Cellular Specifications

### Category

3GPP Release 15

LTE Category 19

### Frequency Bands / MIMO /Modulation/CA

5G NR: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78

LTE FDD: B1/B3/B5/B7/B8/B20/B28/B32

LTE TDD: B38/B40/B41/B42/B43

WCDMA: B1/B5/B8

5G DL 4 × 4 MIMO: n1/n3/n7/n38/n40/n41/n77/n78

5G UL 2 × 2MIMO: n40/n41/n77/n78

LTE DL 4 × 4MIMO: B1/B3/B7/B38/B40/B41/B42/B43

200MHz 2 DLCA, 256 QAM

200MHz 2 ULCA, 256 QAM

### Tx / Rx

1T2R/1T4R/2T4R

### Transmit Power

Class 3 (23dBm±2dB)

Class 2 (26dBm+2/-3dB) for 5G NR n40/n41/n77/n78 UL MIMO HPUE

### Peak throughput

5G SA: 4.67 Gbps (DL)/ 2.5 Gbps (UL)

5G NSA: 3.74 Gbps (DL)/ 1.46 Gbps (UL)

LTE 1.6 Gbps (DL)/ 211 Mbps (UL)

DC-HSPA+ 42Mbps (DL)/5.76Mbps (UL)

### Cellular Antenna

Built-in high gain directional antennas

Frequency Range	Antenna Gain	VSWR	Direction
	0.7~ 0.96GHz: 3dBi		
700MHz ~ 5000MHz	1.7 ~ 2.69GHz: 7dBi	<3	directional
	3400~5000: 8dBi		

## Hardware Specifications

### Chipset

MTK T750, Quad-core ARM Cortex-A55 CPU @ 2GHz

### Interface

1x GE RJ45 Port

### LED Indicator

8 LED Indicators (RUN, SIM, ETH, SYS, RF Signal\*4)

### SIM

1 2FF USIM/SIM slot(1.8V/3V)

### Button

Tact switch with Reset/Reboot button

### Dimensions

165mm x 280mm x 56mm

### Weight

~750g

### Power Consumption

<15W

### Power Supply

AC 100~240V DC 24V 1A

### Environment Specifications

Operating: -30°C~ 55°C Storage: -40°C ~ 85°C

Humidity: 5% ~ 95% non-condensing

Water & Dust proof: IP65

## Appendix-Delivers

1\*Assembled product

1\*CAT6 Ethernet Cable, 1M

1\*24V/1A Power Adapter

1\*PoE Switch

1\*Mounting Accessories(Pole mounting and wall mounting)

1\*Quick User Guide

## Software Specifications

### WAN

Multi-APN support, maximum four	IP pass through
Multi-PDN	IPv4/v6 dual stack

### LAN

DHCP Server, Client	Multicast/Multicast Proxy
DNS Relay and DNS proxy	MAC Address Filtering
DMZ	

### Device Management

TR069	Software upgrade via WEB / FTP server / TR069 / FOTA
SNMP v1, v2, v3	
Web UI	USIM PIN authentication

### Routing Mode

Route Mode	Port Mirror and port forwarding ARP
Bridge Mode	IPv4, IPv6 and IPV4/IPV6 Dual Stack
NAT mode Static Route	

### VPN

IPsec	L2TPv2/v3
PPTP	GRE

### Security

Firewall	Access Control
MAC Address Filtering	HTTPS Login from WAN
IP Address Filtering	Dos attack protection
URL Filtering	Three level of user authority

### Reliability

Watchdog for automatic recovery	
Auto rollback to previous version when upgrade fail	

OWA600

# 5G mmWave Outdoor CPE

Leading outdoor wireless broadband access equipment



## Key Features

- 3GPP R16
- mmWave, sub-6 and LTE
- 1\*2.5GE PoE port
- Built-in high gain directional antenna
- Multi-color LED: power and 5G signal
- Support IPv4 and IPv6
- Support bridge and routing modes
- Support TR069 remote management
- Support Pole and Wall
- IP67



Basic Features	
Enclosure Size	162.5mm(L) x 249mm(H) x 81.5mm(W)
Mounting Method	Pole and Wall Vertical tilt: $\pm 20$ degrees Horizontal tilt: $\pm 45$ degrees
Protection Class	IP67
Enclosure Temp	Maximum equipment surface temperature: $+75^{\circ}\text{C}$
Ambient Temp	$-20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$
Ports And Buttons	
Ports	1*Type -C(debug) 1*2.5GE PoE port
Bluetooth	BT5.0
LED	Multiple -color indicator: Power, 5G signal
Power	PoE(802.3at)Injector, Max 13Watt
SIM	Nano-SIM Card interface / e-SIM / UICC / ISIM with TEE
Button	Reset Button
Technical Features	
Chipset	Qualcomm SDX65
Frequency Band	5G NR NSA n1/3/5/7/8/20/28/38/40/41/75/76/77/78/257/258/260/261
	5G NR SA n1/3/5/7/8/20/28/38/40/41/75/76/77/78/257/258
	LTE FDD: B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32 TDD: B38/ 40/ 41/ 42/ 43
3GPP Standard	3GPP Release 16 NSA/SA operation, Sub-6 GHz, mmWave
Network Function	IPv4/IPv6/IPv4&v6, SLAAC, cLAT Bridge & Router mode DHCP Server/Client in V4 and V6 uPnP & Port Forwarding Periodic and event-based RA (Router Advertisement) Respond to Neighbour-Solicitation with Neighbour-Advertisement Firewall Support
Management & Application	
Management	Firmware Upgrade Network Management Interface SNTP Time Sync Telnet TR069 Syslog
Application	NAT / NAPT Router Function DHCP Server / Client IP Conflict Detection Port Mapping, DMZ SNTP Firewall

OWA600C

# Ruggedized 5G mmWave CPE Combo

Leading outdoor wireless broadband access equipment



## Key Features

- 3GPP R16, mmWave & sub-6
- WiFi-6 AX3000
- ODU+WiFi Router
- Qualcomm SDX65+IPQ5018
- ODU: 1\*2.5GE PoE port, Built-in high gain directional antenna, Support Pole and Wall, IP67
- Router: • 4\*1GE Port, 1\*FXS Port(SIP call), 1\*USB, WiFi External Antenna connector
- ODU power is supplied by WiFi Router, no POE Injector needed



# ODU Technical Specifications

Basic Features	
Enclosure Size	162.5mm(L) x 249mm(H) x 81.5mm(W)
Mounting Method	Pole and Wall Vertical tilt: $\pm 20$ degrees Horizontal tilt: $\pm 45$ degrees
Protection Class	IP67
Enclosure Temp	Maximum equipment surface temperature: $+75^{\circ}\text{C}$
Ambient Temp	$-20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$
Ports And Buttons	
Ports	1*Type -C(debug) 1*2.5GE PoE port
Bluetooth	BT5.0
LED	Multiple -color indicator: Power, 5G signal
Power	PoE(802.3at)Injector, Max 13Watt
SIM	Nano -SIM Card interface / e -SIM / UICC / ISIM with TEE
Button	Reset Button
Technical Features	
Chipset	Qualcomm SDX65
Frequency Band	5G NR NSA n1/3/5/7/8/20/28/38/40/41/75/76/77/78/257/258/260/261
	5G NR SA n1/3/5/7/8/20/28/38/40/41/75/76/77/78/257/258
	LTE FDD: B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32 TDD: B38/ 40/ 41/ 42/ 43
3GPP Standard	3GPP Release 16 NSA/SA operation, Sub-6 GHz, mmWave
Network Function	IPv4/IPv6/IPv4&v6, SLAAC, cLAT Bridge & Router mode DHCP Server/Client in V4 and V6 uPnP & Port Forwarding Periodic and event-based RA (Router Advertisement) Respond to Neighbour -Solicitation with Neighbour -Advertisement
Management & Application	
	Firmware Upgrade
Management	Network Management Interface SNTP Time Sync Telnet TR069 Syslog
Application	NAT / NAPT Router Function DHCP Server / Client IP Conflict Detection Port Mapping, DMZ SNTP Firewall

# WiFi Router Technical Specifications

<b>Chipset</b>	Qualcomm solution: IPQ5018 as CPU
<b>Wi-Fi6</b>	802.11 a/n/ac/ax, 2 * 2 MIMO, 1024-QAM@ 160MHz 2402Mbps 802.11 b/g/n/ax, 2 * 2 MIMO, 1024-QAM@40MHz 573Mbps EasyMesh R2 Support multiple SSID Static WEP (64/ 128bit) , Dynamic WEP (64/ 128bit) , AES (CCMP/TKIP) , WPA/WPA2, WEP certification, WPA-PSK/WPA2-PSK Access device list WMM MAC address filter(Different from wired MAC address filtering) WDS AP Isolation
<b>Wi-Fi Band</b>	2.4GHz & 5GHz
<b>I/O Interface</b>	4 x 1 Gigabit Ethernet Port 1 x USB Interface DC jack Reset Button, WPS Button Wi-Fi External Antenna connector 1 FXS Port(SIP call)
<b>Management Features</b>	Firmware Upgradeable Web Management Interface Auto Provisioning: TFTP, HTTP And HTTPS SNTP Time Synchronization (RFC 2030) Multi User Level TR069-Client; FOTA/DFOTA from ACS; Manual SW upgrade
<b>Physical &amp; Environment Specification</b>	Power: 12V Dimension : 160mm(L)x118mm(W)x54.6mm(H) Metal Enclosure

WA4612VC

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 10
- UE Category 6
- LTE & WCDMA
- 802.11 b/g/n/ac, 2x2 MIMO
- WiFi AC1200
- 4xRJ45 GE ports, 1xRJ11(optional)
- LTE Chipset: ASR1828
- WiFi Chipset: Realtek RTL8192FR
- Product color: white or black
- Battery 3.7V/5000mAh(optional)



## Specification

<b>Dimensions</b>	155.7*130.5*54.7mm		
<b>Weight</b>	432g		
<b>Form</b>	LTE Desk Router		
<b>Chipset</b>	Chipset	ASR1828	
	Frequency Bands	LTE	B1/B3/B7/B8/B20/B38/B40
		CA	2CA combos
		UMTS	B1/B8
	Antenna	External	2* External Antennas(undetachable)
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)
Data Rate	4G	3GPP Cat. 6, Downlink/Uplink up to 300Mbps/50Mbps	
	3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps	
<b>WLAN</b>	Chipset	Realtek RTL8192FR	
	Wi-Fi	Frequency	2.4GHz & 5G (DBSC)
		Protocol	IEEE 802.11b/g/n/ac
		Antenna	Internal, 2 x 2
	Data Rate	802.11b	Up to 11 Mbps
		802.11g	Up to 54 Mbps
		802.11n	Up to 300 Mbps
802.11ac		Up to 867Mbps	
<b>Power Supply</b>	AC/DC, 12V1.5A		
<b>Interface</b>	LAN/WAN	Giga Ports*4:4xLAN or 1xWAN+ 3xLAN	
	USIM	Single, 3FF SIM	
	Power Jack	12V/1.5A interface	
<b>LED</b>	Power	Power Status Indicator(Single: Blue *1)	
	2.4GHz	2.4G Wi-Fi Status Indicator(Single: Blue *1)	
	5GHz	5G Wi-Fi Status Indicator(Single: Blue *1)	
	LAN	LAN Indicator(Single: Yellow *1)	
	INTERNET	Network Status Indicator(Single: Blue *1)	
	Signal Strength	4 bars to show the signal strength(Single: Blue *4)	
	WPS	WPS indicator(Single:blue*1)	
	Phone	VoLTE&CS phone indicator(Single:blue*1)	
Battery	Battery indicator(Dual-color*1 blue&red)		

<b>Button</b>	Power Key	Switch ON/OFF Device	
	WPS Key	Enable WPS	
	Reset Key	Restore Factory Settings	
<b>Memory</b>	NAND 1 Gbit+ LPDDR2 1 Gbit		
<b>Features</b>	System	Connection Status Statistics	
		Device Management Power Mangement	
		SMS Manager	
		Automatic APN matching according to USIM Auto Data Connection	
	Mobile Service	USSD Service	
		PIN/PUK Management	
		Network Mode Selection(3G/LTE/Auto)	
	WebUI	Router	64/ 128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions
			IPv4/v6
			Multi SSID ( Dual SSID )
TR069			
VPN Passthrough			
Dynamic IP/Static IP/PPTP(Dual Access)/L2TP(Dual Access)			
Virtual Server, UPnP, DMZ, DDNS			
DoS, SPI Firewall, IP Address Filter/Domain Filter			
IP and MAC Address Binding			
Traffic Control (IP QoS)			
Access Control, Local Management, Remote Management			
<b>Operation System</b>	Windows	Win7/8/10	
	MAC OS	10.10+	
	Linux	Ubuntu 15.04+	
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera	
<b>Temperature</b>	Working Temperature	0. C to 45. C	
	Storage Temperature	-20. C to 60. C	

WA528

# CAT4 LTE CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 9
- UE Category 4
- LTE & WCDMA
- 802.11 b/g/n, 2x2 MIMO
- WiFi4 N300
- Micro-USB 2.0 port
- 1xRJ45 GE port
- LTE Chipset: Qualcomm MDM9207
- WiFi Chipset: Realtek RTL8192ES



## Specification

<b>Dimensions</b>	100.00 x 80.00 x 43.00mm		
<b>Weight</b>	160g		
<b>Form</b>	LTE Desk Router		
<b>Chipset</b>	Chipset	Qualcomm MDM9207	
	Frequency Bands	LTE	B1/B3/B7/B8/B20/B38(can be customized)
		UMTS	B1/B8
	Antenna	Internal	2* Internal Antenna
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)
Data Rate	4G	3GPP Cat. 4, Downlink/Uplink up to 150Mbps/50Mbps	
	3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps	
<b>WLAN</b>	Chipset	Realtek RTL8192ES	
	Wi-Fi	Frequency	2.4GHz
		Protocol	IEEE 802.11b/g/n
		Antenna	Internal, 2 x 2
	Data Rate	802.11b	Up to 11 Mbps
		802.11g	Up to 54 Mbps
802.11n		Up to 300 Mbps	
<b>Power Supply</b>	5V/2A		
<b>Interface</b>	LAN/WAN	RJ45 GE port* 1 ,WAN or LAN	
	USIM	Single, 3FF SIM	
	Micro-USB	5V/2A interface	
<b>LED</b>	Power	Power Status Indicator(Single: Blue * 1)	
	WIFI	2.4G Wi-Fi Status Indicator(Single: Blue * 1)	
	INTERNET	4G/3G Network Status Indicator(Tri-colour* 1)	
	LAN	Lan status indicator(Single: Blue * 1)	
	Signal	LTE signal strength(Single: Blue * 1)	
<b>Button</b>	WPS Key	Enable WPS	
	Reset Key	Restore Factory Settings	
<b>Memory</b>	2Gb+2Gb		

<b>Features</b>	System	Connection Status
		Statistics
		Device Management
		Power Management
	Mobile Service	SMS Manager
		Automatic APN matching according to USIM
		Auto Data Connection
		USSD Service
		PIN/PUK Management
	WebUI	Router
64/ 128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions		
IPv4/v6		
TR069		
VPN Passthrough		
PPTP/L2TP		
MAC Filter / IP Filter		
Network Time Protocol		
IP and MAC Address Binding		
Traffic Control (IP QoS)		
Access Control, Local Management, Remote Management		
<b>Operation System</b>	Windows	Win7/8/10
	MAC OS	10.10+
	Linux	Ubuntu 15.04+
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera
<b>Temperature</b>	Working Temperature	0. C to 40. C
	Storage Temperature	-20. C to 60. C

WA818

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 6
- LTE & WCDMA
- 802.11 b/g/n/ac, 2x2 MIMO
- WiFi AC1200
- 4xRJ45 GE Ports, 1xRJ11(optional)
- LTE Chipset: Qualcomm SDX12
- WiFi Chipset: Realtek RTL8197FS



## Specification

<b>Dimensions</b>	154* 122*32mm			
<b>Weight</b>	275g			
<b>Form</b>	LTE Desk Router			
<b>Chipset</b>	Chipset	Qualcomm SDX12		
	Frequency Bands	LTE	B1/B3/B7/B8/B20/B38/B40(can be customized)	
		CA	2CA combos	
		UMTS	B1/B8	
	Antenna	External	2* External Antennas(optional,SMA connector)	
		Internal	2* Internal Antennas	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
UMTS		Power Class 3 (24 +1.7/-3.7dBm)		
Data Rate	4G	3GPP Cat. 6, Downlink/Uplink up to 300Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	Realtek RTL8197FS		
	Wi-Fi	Frequency	2.4GHz & 5G	
		Protocol	IEEE 802.11b/g/n/ac	
		Antenna	Internal, 2 x 2	
	Data Rate	802.11b	Up to 11 Mbps	
		802.11g	Up to 54 Mbps	
		802.11n	Up to 300 Mbps	
802.11ac		Up to 867Mbps		
<b>Power Supply</b>	AC/DC, 12V1A			
<b>Interface</b>	LAN/WAN	Giga Ports*4:4xLANs or 1xWAN+3xLAN		
	USIM	Single, 2FF SIM		
	Power Jack	12V/ 1A interface		
<b>LED</b>	Power	Power Status Indicator(Single: Green * 1)		
	2.4GHz	2.4G Wi-Fi Status Indicator(Single: Green * 1)		
	5GHz	5G Wi-Fi Status Indicator(Single: Green * 1)		
	LAN	LAN Indicator(Single: Green * 1)		
	INTERNET	4G/3G Network Status Indicator(tri-colour * 1)		
	Signal Strength	4 bars to show the signal strength(Single: Green *4)		

<b>Button</b>	Power Key	Switch ON/OFF Device
	WPS Key	Enable WPS
	Reset Key	Restore Factory Settings
<b>Memory</b>	SPI ROM 128Mb(External) + 1Gb DDR2(Internal)	
<b>Features</b>	<b>System</b>	Connection Status
		Statistics
		Device Management
		Power Mangement
	<b>Mobile Service</b>	SMS Manager
		Automatic APN matching according to USIM
		Auto Data Connection
		USSD Service
		PIN/PUK Management
		Network Mode Selection(3G/LTE/Auto)
<b>Router</b>	<b>WebUI</b>	64/ 128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions
		IPv4/v6
	Multi SSID ( Dual SSID )	
	TR069	
	VPN Passthrough	
	Dynamic IP/Static IP/PPTP(Dual Access)/L2TP(Dual Access)	
	Virtual Server, UPnP, DMZ, DDNS	
	DoS, SPI Firewall, IP Address Filter/Domain Filter	
	IP and MAC Address Binding	
	Traffic Control (IP QoS)	
Access Control, Local Management, Remote Management		
<b>Operation System</b>	Windows	Win7/8/10
	MAC OS	10.10+
	Linux	Ubuntu 15.04+
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera
<b>Temperature</b>	Working Temperature	0。 C to 45。 C
	Storage Temperature	-20。 C to 60。 C

WA825

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 6
- LTE & WCDMA
- 802.11 b/g/n/ac, 2x2 MIMO
- WiFi AC1200
- 2xRJ45, 1xRJ11(optional)
- LTE Chipset: Qualcomm SDX12
- WiFi Chipset: Qualcomm QCA6174A
- Product color: white or black



## Specification

<b>Dimensions</b>	135* 120*46mm			
<b>Weight</b>	205g(include external antenna)			
<b>Form</b>	LTE Desk Router			
<b>Chipset</b>	Chipset	Qualcomm SDX12		
	Frequency Bands	LTE	B1/B3/B7/B8/B20/B38/B42/B43	
		CA	2CA combos	
		UMTS	B1/5	
	Antenna	External	Primary and Diversity (*2)	
		Internal	2* Internal Antenna	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
UMTS		Power Class 3 (24 +1.7/-3.7dBm)		
Data Rate	4G	3GPP Cat. 6, Downlink/Uplink up to 300Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	Qualcomm QCA6174A		
	Wi-Fi	Frequency	2.4GHz & 5G (DBSC)	
		Protocol	IEEE 802.11b/g/n/ac	
		Antenna	Internal, 2 x 2	
	Data Rate	802.11b	Up to 11 Mbps	
		802.11g	Up to 54 Mbps	
		802.11n	Up to 300 Mbps	
802.11ac		Up to 867Mbps		
<b>Power Supply</b>	AC/DC, 12V1A			
<b>Interface</b>	LAN/WAN	Giga Ports*2: 2xRJ45 for 2xLANs or 1xWAN+1xLAN		
	USIM	Single, 2FF SIM		
	Power Jack	12V/ 1A interface		
<b>LED</b>	Power	Power Status Indicator(Single: Blue *1)		
	2.4GHz	2.4G Wi-Fi Status Indicator(Single: Blue *1)		
	5GHz	5G Wi-Fi Status Indicator(Single: Blue *1)		
	LAN	LAN Indicator(Single: Blue *1)		
	INTERNET	4G/3G Network Status Indicator(tri-colour *1)		
	Signal Strength	4 bars to show the signal strength(Single: Blue *4)		

<b>Button</b>	Power Key	Switch ON/OFF Device
	WPS Key	Enable WPS
	Reset Key	Restore Factory Settings
<b>Memory</b>	ROM 4Gbits + RAM 2Gbits	
<b>Features</b>	WebUI	Connection Status
		Statistics
		System
	Router	Device Management
		Power Mangement
		Andoid/iOS App Management
		SMS Manager
		Automatic APN matching according to USIM
		Auto Data Connection
		Mobile Service
USSD Service		
PIN/PUK Management		
Network Mode Selection(3G/LTE/Auto)		
<b>Features</b>	WebUI	64/ 128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions
		IPv4/v6
		Multi SSID ( Dual SSID )
	Router	TR069
		VPN Passthrough
		Dynamic IP/Static IP/PPPoE/PPTP(Dual Access)/L2TP(Dual Access)
		Virtual Server, UPnP, DMZ, DDNS
		DoS, SPI Firewall, IP Address Filter/Domain Filter
		IP and MAC Address Binding
		Traffic Control (IP QoS)
Access Control, Local Management, Remote Management		
<b>Operation System</b>	Windows	Win7/8/10
	MAC OS	10.10+
	Linux	Ubuntu 15.04+
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera
<b>Temperature</b>	Working Temperature	0. C to 45. C
	Storage Temperature	-20. C to 60. C

WA421

# CAT12 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 12
- LTE & WCDMA
- Wi-Fi 6 AX3000
- 802.11 b/g/n/ac/ax
- 4xRJ45, 1xRJ11(optional)
- LTE Chipset: Qualcomm SDX12
- WiFi Chipset: MT7981B+MT7976+MT7531AE



## RF Specifications

<b>Support Bands</b>	4G:
	FDD B1/3/5/7/8/20/28/32
	TDD B38/40/41/*42/*43
	3G:
	1/3/5/8
	<i>*Can be customized.</i>
<b>Peak Throughput</b>	LTE CAT 12, 600 Mbps (DL)/150 Mbps (UL)
<b>CA</b>	DL Inter/Intra 3CA , UL 2CA
<b>MIMO</b>	DL 4x4 MIMO
<b>Output Power@25°C</b>	23±2 dBm

LTE Antenna Gain		
700M~1G	1.5G~2.7G	3.4G~3.8G
2.7dBi	4.1dBi	4.6dBi

Wi-Fi Frequency	Wi-Fi Antenna	Wi-Fi Output Power	Wi-Fi Channel BW	Wi-Fi Antenna Gain
2.4G/5GHz Dual Band	2 Built-in	19dBm@2.4G 16dBm@5GHz	20/40/80/160 MHz	3.5dBi

## Hardware Specifications

<b>Chipset</b>	Qualcomm SDX12 MTK MT7981B
<b>LTE standard</b>	3GPP Release 12 CAT12
<b>Flash</b>	4 Gb
<b>RAM</b>	4 Gb
<b>Ethernet LAN Port</b>	4 * LAN: 10/100/1000 auto-sensing, auto-MDI/MDIX
<b>Voice POTS Port</b>	1 * Voice
<b>LED</b>	8 LED Indicators (PWR, Wi-Fi, TEL, NET, RF Signal*4)
<b>SIM</b>	1 * USIM/SIM (3FF)
<b>Button</b>	Reset/Reboot, WPS
<b>LTE Antenna</b>	4 Built-in
<b>WIFI Antenna</b>	3 Built-in
<b>Dimensions</b>	204.5mm x 169 mm x 60mm (not include antennas)
<b>Weight</b>	< 300g
<b>Power Consumption</b>	< 18W
<b>Power Supply</b>	AC input 100~240V DC output 12V 2A

<b>Operation Mode</b>	NAT mode Bridge
<b>Device Management</b>	TR069 WebUI Software Upgrade – Local/FOTA
<b>Device statistic</b>	WAN statistic LAN statistic
<b>Network Protocols and Features</b>	NAT SNTP/NITZ VLAN(optional) PPPoE(optional) Ethernet mode Virtual server and DMZ DNS relay and DDNS DHCP server/client IPV4/IPv6 Dual Stack UPnP Parents control
<b>VPN</b>	L2TP over IPsec L2TP V2/V3 GRE L2/L3 PPTP
<b>Security and Firewall</b>	MAC Address Filtering IP Address Filtering URL Filtering DDOS
<b>VoLTE functions(optional)</b>	Call Waiting Call Hold /Resume Call Forward Call Transfer 3-Way conferencing Caller ID display/blocking
<b>Wi-Fi functions</b>	Maximum users: 32 Encryption: WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK (AES) Hide SSID broadcasting AP Isolation Guest network
<b>System</b>	Syslog Network diagnose Reset factory default Configuration backup/restore Web account configuration Scheduling Auto-Reboot

## Appendix-Deliveries

<b>Assembled product</b>	1 PCS
<b>Ethernet cable</b>	1 PCS
<b>Adapter</b>	1 PCS
<b>Quick Start Guide</b>	1 PCS

WA821V

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 6
- LTE & WCDMA
- Wi-Fi 6 AX3000
- 802.11 b/g/n/ac/ax
- 2 x RJ45
- 1 x RJ11(Volte)
- LTE Chipset: Qualcomm SDX12
- Wi-Fi Chipset: Qualcomm IPQ5018+QCN6102



## RF Specifications

<b>Support Bands</b>	EMEA/APAC: LTE FDD: B1/3/5/7/8/20/28/32 LTE TDD: B38/40/41(120M)WCDMA: B1/3/5/8 North America: LTE FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71 LTE TDD: B41(194M)/46/48 WCDMA: B2/4/5 Latin America: FDD: B1/2/3/4/5/7/8/20/28/66 TDD: B38/40/41/42/43 WCDMA: B1/2/4/5/8
<b>Peak Throughput</b>	LTE CAT 6, 300 Mbps (DL)/50 Mbps (UL)
<b>CA</b>	DL Inter/Intra 2CA
<b>MIMO</b>	DL 2x2 MIMO
<b>Output Power@25°C</b>	23 ± 2 dBm

LTE Antenna Gain		
700M~1G	1.5G~2.7G	3.4G~3.8G
1dBi	4dBi	5dBi

Wi-Fi Frequency	Wi-Fi Antenna	Wi-Fi Output Power	Wi-Fi Channel BW	Wi-Fi Antenna Gain
2.4G/5GHz Dual Band	2x2 MIMO	19dBm@2.4G 16dBm@5GHz	20/40/80/160 MHz	3dBi

## Hardware Specifications

<b>Chipset</b>	Qualcomm SDX12 + IPQ5018 + QCN6102
<b>LTE standard</b>	3GPP Release 12 CAT6
<b>Flash</b>	128MB Nand Flash
<b>RAM</b>	512MB LPDDR3x
<b>Ethernet LAN Port</b>	2 * LAN: 10/100/1000 auto-sensing, auto-MDI/MDIX
<b>Voice Port</b>	1 * RJ11(Volte)
<b>LED</b>	8 LED Indicators (PWR, Wi-Fi*2, NET, RF Signal*4)
<b>SIM</b>	1 * USIM/SIM (3FF)
<b>Button</b>	Reset/Reboot
<b>LTE Antenna</b>	2 Built-in Omni Antennas
<b>WIFI Antenna</b>	2.4Gx2 + 5Gx2 Separate Omni Built-in Antennas
<b>Dimensions</b>	228mm x 173 mm x 71mm
<b>Weight</b>	< 550g
<b>Power Consumption</b>	< 18W
<b>Power Supply</b>	AC input 100~240V DC output 12V 1.5A

## Software Specifications

<b>Operation Mode</b>	NAT mode Bridge
<b>Device Management</b>	TR069 WebUI Software Upgrade – Local/FOTA
<b>Device statistic</b>	WAN statistic LAN statistic
<b>Network Protocols and Features</b>	NAT SNTP/NITZ VLAN(optional) PPPoE(optional) Ethernet mode Virtual server and DMZ DNS relay and DDNS DHCP server/client IPV4/IPv6 Dual Stack UPnP Parents control
<b>VPN</b>	L2TP over IPsec L2TP V2/V3 GRE L2/L3 PPTP
<b>Security and Firewall</b>	MAC Address Filtering IP Address Filtering URL Filtering DDOS
<b>Wi-Fi functions</b>	Maximum users: 32 Encryption: WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK (AES) Hide SSID broadcasting AP Isolation Guest network
<b>System</b>	Syslog Network diagnose Reset factory default Configuration backup/restore Web account configuration Scheduling Auto-Reboot

## Appendix-Deliveries

<b>Assembled product</b>	1 PCS
<b>Ethernet cable</b>	1 PCS
<b>Adapter</b>	1 PCS
<b>Quick Start Guide</b>	1 PCS

WA3300E

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain LTE and Wi-Fi antenna
- Compliant to 3GPP release 10 specifications
- Advanced 2 x 2 MIMO and QAM64 support with Category 6 throughput
- 4 GE LAN ports, 802.11b/g/n/ac MIMO Wi-Fi support
- VPN & full L2/L3 GRE Tunneling clients support
- Router, bridge and by-pass networking, IPv4 & v6 and Multiple PDN support
- FTP, HTTP, HTTPS and TR-069 management support



## Basic Introduction

WA3300E is a cost effective and high performance CAT6 LTE indoor Wi-Fi CPE product specially designed to enable quick and easy LTE fixed data service deployment for residential and SOHO customers. It provides high speed LAN, Wi-Fi integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### RELIABLE PERFORMANCE

WA3300E is an advanced multiport indoor Wi-Fi CPE based on the standard implementation of 3GPP Release 10 specifications. With built-in high gain LTE antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has 4 GE LAN ports, high performance 2 x 2 MIMO and QAM64 capabilities, 802.11b/g/n/ac Wi-Fi, advanced routing, and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 300Mbps max LTE data throughput which can be very competitive to wired broadband access service.

### EASY USAGE & MANAGEMENT

WA3300E is a user-friendly LTE CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The external antenna option gives user the capability to extend coverage using external high gain antenna. The LEDs on the WA3300E have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA3300E offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### TECHNICAL FEATURES

WA3300E is fully compliant to the 3GPP release 10 specifications. It offers standard support for advanced features such as Carrier Aggregation, MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

## Technical Specifications

<b>Physical</b>	Dimensions	162mm(W) x 60mm(D) x 155mm(H)
	Weight	< 450g
	Power consumptions	< 10W
	Power Supply	12V/1A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Radio Interface</b>	Radio Access	3GPP Release 10
	Chipset	ASR 1828 CAT6
	Operation Mode	FDD & TDD, DL 300Mbps, UL 50Mbps
		EU
	Frequency Band	LTE-FDD: B1/B3/B5/B7/B8/B20/B28/32 LTE-TDD: B38/B40/B41/B42/B43 WCDMA: B1/B5/B8
	MIMO & Modulation	DL 2x2 MIMO, QPSK/QAM16/QAM64
	Receive Sensitivity	Compliance with 3GPP standard
	Output Power	23dBm
	Antenna	3-5dBi (Built-in or SMA stub antenna)
	<b>Wi-Fi Interface</b>	Radio Access
MIMO		2 x 2 (2.4GHz 300Mbps, 5GHz 866Mbps)
Output Power		16dBm
Antenna		3-5dBi
Connected Users		32
Security		64/128-bit WEP, WPA/WPA2
<b>User Interface</b>	Data Interface	4 RJ45 10/100M/1000M ETH Port
	LED Indicators	SYS, NET, Wi-Fi, SMS, BAT, RF(4LEDs)
	SIM Support	1.8V/3.0V USIM 2FF

## Technical Specifications

<b>Software Specifications</b>	Networking Configuration	Router and L3 Bridge Operation Support
		Built-in DHCP Server for LAN Devices
		IPv4, and IPv6 DS-Lite Support for LTE
		Multiple PDN Interface Support
	Data Networking Features	VPN Pass-through support (PPTP, L2TP & IPsec)
		Built-in L2TP & GRE Tunneling Client Support
DNS Proxy Support		
Firewall & Access Control		
DMZ and Virtual Server Support		
IP and Port Forwarding Support		
Local and Remote Management Restriction		
Application Firewall Support		
Device Management	NTP Service Support	
	CLI, Telnet, HTTP and HTTPS Management Interfaces	
	Standard Based TR-069 Management	
	FTP and HTTP OTA Firmware Upgrade	
	USIM and PLMN Locking Support	
Device Factory Default Setting		

WA3400D

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain LTE and WiFi antenna
- Compliant to 3GPP Release 12 specifications
- Advanced 2 x 2 MIMO and 2CA support with Category 6 throughput
- 4 GE LAN ports, and 802.11b/g/n/ac dual band MIMO WiFi support
- VPN & full L2/L3 GRE Tunneling clients support
- Router, bridge and by-pass networking, IPv4 & v6 and Multiple PDN support
- FTP, HTTP, HTTPS and TR-069 management support



## Basic Introduction

WA3400D is a cost effective and high performance CAT6 LTE indoor WiFi CPE product specially designed to enable quick and easy LTE fixed data service deployment for residential and SOHO customers. It provides high speed LAN and WiFi integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### RELIABLE PERFORMANCE

WA3400D is an advanced multiport indoor WiFi CPE based on the standard implementation of LTE Release 12 specifications. With built-in high gain LTE antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has 4 Gigabit LAN ports, high performance 2 x 2 MIMO and 2CA capabilities, 802.11b/g/n/ac dual band WiFi, advanced routing and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 300Mbps max data throughput which can be very competitive to wired broadband access service.

### EASY USAGE & MANAGEMENT

WA3400D is a user-friendly LTE CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The external antenna option gives user the capability to extend coverage using external high gain antenna. The LEDs on the WA3400D have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA3400D offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### TECHNICAL FEATURES

WA3400D is fully compliant to the LTE release 12 specifications. It offers standard support for advanced features such as Carrier Aggregation, MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

## Technical Specifications

<b>Physical</b>	Dimensions	180mm x 150mm x 48mm
	Weight	< 350g
	Power consumptions	< 10W
	Power Supply	12V/1.0A DC Adapter
<b>Environmental</b>	Operating Temperature	-15°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max non-condensing
<b>Radio Interface</b>	Radio Access	3GPP Release 12
	Chipset	Qualcomm SDX12 CAT6
	Operation Mode	FDD & TDD, DL 300Mbps, UL 50Mbps
	Frequency Band	EU LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32 LTE-TDD: B38/B40/B41 WCDMA: B1/B3/B5/B8
	MIMO & CA Support	DL 2x2 MIMO, Intra-band and Inter-band CA (up to 2CC)
	Receive Sensitivity	Compliance with 3GPP standard
	Output Power	23dBm
	Antenna	3-5dBi (Built-in)
<b>WiFi Interface</b>	Radio Access	IEEE802.11b/g/n/ac
	MIMO	2 x 2
	Output Power	18dBm
	Antenna	3-4dBi
	Connected Users	64
	Security	64/128-bit WEP, WPA/WPA2
<b>User Interface</b>	Data Interface	4 RJ45 10/100/1000M ETH Port
	LED Indicators	Power, SYS, Net, 2.4GHz WiFi, 5GHz, RF(5LEDs)
	SIM Support	1.8V/3.0V USIM 2FF

## Technical Specifications

<b>Software Specifications</b>	Networking Configuration	<ul style="list-style-type: none"> <li>Router and L3 Bridge Operation Support</li> <li>Built-in DHCP Server for LAN Devices</li> <li>IPv4, and IPv6 DS-Lite Support for LTE</li> <li>Multiple PDN Interface Support</li> </ul>
	Data Networking Features	<ul style="list-style-type: none"> <li>VPN Pass-through support (PPTP, L2TP &amp; IPsec)</li> <li>Built-in L2TP &amp; GRE Tunneling Client Support</li> <li>DNS Proxy Support</li> <li>Firewall &amp; Access Control</li> <li>DMZ and Virtual Server Support</li> <li>IP and Port Forwarding Support</li> <li>Local and Remote Management Restriction</li> <li>Application Firewall Support</li> <li>NTP Service Support</li> </ul>
	Device Management	<ul style="list-style-type: none"> <li>CLI, Telnet, HTTP and HTTPS Management Interfaces</li> <li>Standard Based TR-069 Management</li> <li>FTP and HTTP OTA Firmware Upgrade</li> <li>USIM and PLMN Locking Support</li> <li>Device Factory Default Setting</li> </ul>

WA3500D

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain LTE and WiFi antenna
- Compliant to 3GPP Release 12 specifications
- Advanced 4 x 4 MIMO and 2CA support with Category 6 throughput
- 4 GE LAN ports, optional VoLTE Line, and 802.11b/g/n/ac dual band MIMO WiFi support
- VPN & full L2/L3 GRE Tunneling clients support
- Router, bridge and by-pass networking, IPv4 &v6 and Multiple PDN support
- FTP, HTTP, HTTPS and TR-069 management support
- UPS battery backup option



## Basic Introduction

WA3500D is a cost effective and high performance CAT6 LTE indoor WiFi & VoLTE CPE product specially designed to enable quick and easy LTE fixed data service deployment for residential and SOHO customers. It provides high speed LAN, WiFi and VoLTE integrated services to end users who need both bandwidth and multi-media data service in residential homes or enterprises.

### RELIABLE PERFORMANCE

WA3500D is an advanced multiport indoor WiFi & VoLTE CPE based on the standard implementation of LTE Release 12 specifications. With built-in high gain LTE antenna, it enables a longer reception range from the base station. This yields more efficient use of the network with a larger cell reach, guaranteed carrier class service, and customer service probability.

The device has 4 Gigabit LAN ports, 1 optional RJ11 analog phone port, high performance 4x4 MIMO and 2CA capabilities, 802.11b/g/n/ac dual band WiFi, advanced routing and firewall software for security. It provides an effective all-in-one solution to SOHO or residential customers. It can deliver up to 300Mbps max data throughput which can be very competitive to wired broadband access service.

### EASY USAGE & MANAGEMENT

WA3500D is a user-friendly LTE CPE and very easy to configure and setup. Subscribers can just connect the device to their computer or home switch/router and the device is ready to offer an experience of surfing over Internet. The external antenna option gives user the capability to extend coverage using external high gain antenna. The LEDs on the WA3500D have also been designed for user convenience, and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential users.

WA3500D offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS system.

### TECHNICAL FEATURES

WA3500D is fully compliant to the LTE release 12 specifications. It offers standard support for advanced features such as Carrier Aggregation, MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of OFDM modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services.

## Technical Specifications

<b>Physical</b>	Dimensions	170mm x 138mm x 55mm		
	Weight	< 350g		
	Power consumptions	< 10W		
	Power Supply	12V/1.0A DC Adapter (Optional UPS Battery Backup)		
<b>Environmental</b>	Operating Temperature	-15°C to 55°C		
	Storage Temperature	-40°C to 85°C		
	Humidity	90% max non-condensing		
<b>Radio Interface</b>	Radio Access	3GPP Release 12		
	Chipset	Qualcomm SDX12 CAT6		
	Operation Mode	FDD & TDD, DL 300Mbps, UL 50Mbps		
	Frequency Band		EU(DL 4x4)	NA&LA(DL 4x4)
		LTE-TDD	B38/B40/B41/B42/B46/B43/B48	B40/B41/B42/B43/B48
		LTE-FDD	B1/B3/B5/B7/B8/B20/B28/B32	B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B28/B66/B71
		WCDMA	B1/B3/B5/B8	B2/B4/B5
	MIMO & CA Support	DL 4x4 MIMO, Intra-band and Inter-band 2C, UL QAM16		
	Receive Sensitivity	Compliance with 3GPP standard		
	Output Power	23dBm		
Antenna	3-5dBi (Built-in), Plus 2 external antenna SMA connectors			
<b>WiFi Interface</b>	Radio Access	IEEE802.11b/g/n/ac (MT7615)		
	MIMO	2 x 2		
	Output Power	18dBm		
	Antenna	3-4dBi		
	Connected Users	32 +		
	Security	64/128-bit WEP, WPA/WPA2		
<b>User Interface</b>	Data Interface	4 RJ45 10/100/1000M ETH Port		
	Line Interface (Optional)	1 RJ11 Port (optional)		
	LED Indicators	Power, SYS, Net, 2.4GHz WiFi, 5GHz, LINE, RF(5LEDs)		
	SIM Support	1.8V/3.0V USIM 2FF		
<b>VoLTE Services (Optional)</b>	Basic Call	AMR-NB & AMR-WB, Caller ID Name & Number display Communication Forwarding Barring of Incoming/Outgoing Calls		
	Supplementary Call Features	Communication Hold & Waiting Ad-Hoc 3-Party Conference Message Waiting Indication Communication Diversion/Forward		
	DSP Processing	Adaptive Multi-Rate speech codec (AMR) AMR wideband codec Narrowband 8KHz & Wideband 16KHz Support DTMF Tone Generation and Detection Call Progress Tone Generation		

## Technical Specifications

<b>Software Specifications</b>	Networking Configuration	<ul style="list-style-type: none"> <li>Router and L3 Bridge Operation Support</li> <li>Built-in DHCP Server for LAN Devices</li> <li>IPv4, and IPv6 DS-Lite Support for LTE</li> <li>Multiple PDN Interface Support</li> </ul>
	Data Networking Features	<ul style="list-style-type: none"> <li>VPN Pass-through support (PPTP, L2TP &amp; IPsec)</li> <li>Built-in L2TP &amp; GRE Tunneling Client Support</li> <li>DNS Proxy Support</li> <li>Firewall &amp; Access Control</li> <li>DMZ and Virtual Server Support</li> <li>IP and Port Forwarding Support</li> <li>Local and Remote Management Restriction</li> <li>Application Firewall Support</li> <li>NTP Service Support</li> </ul>
	Device Management	<ul style="list-style-type: none"> <li>CLI, Telnet, HTTP and HTTPS Management Interfaces</li> <li>Standard TR-069 &amp; SNMP Management</li> <li>FTP and HTTP OTA Firmware Upgrade</li> <li>USIM and PLMN Locking Support</li> <li>Device Factory Default Setting</li> </ul>

WA310

# CAT4 LTE CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 9
- UE Category 4
- LTE & WCDMA
- 802.11 b/g/n
- WiFi4 150M
- 1xRJ45 FE port
- LTE Chipset: ASR1803s
- WiFi Chipset: ASR5803
- Battery:3000mah(optional)



## Specification

<b>Dimensions</b>	160.0*46.0*223.0mm(including External Antenna)			
<b>Weight</b>	320g (With Accessories and Package)			
<b>Form</b>	LTE Desk Router			
<b>Chipset</b>	Chipset	ASR1803s		
	Frequency Bands	LTE	B1/B3/B5/B7/B8/B20/B28/B38/B40/B41(can be customized)	
		UMTS	B1/B5/B8	
	Antenna	Internal	2* External Antennas(undetachable)	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
		UMTS	Power Class 3 (24 +/-1.7/-3.7dBm)	
Data Rate	4G	3GPP Cat. 4, Downlink/Uplink up to 150Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 21Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	ASR5803		
	Wi-Fi	Frequency	2.4GHz	
		Protocol	IEEE 802.11b/g/n	
	Antenna	Internal, 1 x 1		
	Data Rate	802.11b	Up to 11 Mbps	
802.11g		Up to 54 Mbps		
802.11n		Up to 150Mbps		
<b>Power Supply</b>	12V/1A			
<b>Interface</b>	LAN	RJ45 port*1		
	USIM	Single, 2FF SIM		
	USB	MicroUSB		
	DC	12V/1A interface		
<b>LED</b>	Power	Power Status Indicator(Single: Bule *1)		
	WIFI	2.4G Wi-Fi Status Indicator(Single: Blue *1)		
	INTERNET	Network Status Indicator(Blue*1)		
	Lan	LAN status Indicator(Blue*1)		
	Signal	LTE signal strength(Single: Blue *4)		
<b>Button</b>	WPS Key	Enable WPS		
	Power Key	Power on/off switch		
	WIFI Key	WIFI on/off switch		
	Reset Key	Restore Factory Settings		
<b>Memory</b>	128Mb Norflash+256Mb SDR			

## Specification

<b>Features</b>	WebUI	Internet	Connection mode .APN setting	
			PIN management	
			Band lock	
			Manual Network	
			Traffic Statistics	
				USSD
		Home Network	DHCP Setting	
			Connected Devices	
			Firewall rules	
			Port Filter	
	Port Forwarding			
			Network Activity log	
	Router	SMS		
		Wireless setting		
		Wireless MAC filter		
		User management		
		Configuration Management		
		Reboot		
		Time setting		
		Language		
		Dashboard		
<b>Operation System</b>	Windows	Win7/8/10		
	MAC OS	10.10+		
	Linux	Ubuntu 15.04+		
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera		
<b>Temperature</b>	Working Temperature	-10. C to +40. C		
	Storage Temperature	-20. C to +85. C		

WA312

# CAT4 LTE CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 9
- UE Category 4
- LTE & WCDMA
- 802.11 b/g/n, 2x2 MIMO
- WiFi4 N300
- 1xRJ45 FE port
- 1xRJ11(optional)
- LTE Chipset: ZX297520V3
- Wi Fi Chipset: Realtek RTL8192ES
- Battery:2500/5000/7500mah(optional)



## Specification

<b>Dimensions</b>	185*60*295mm(including External Antenna)			
<b>Weight</b>	300g (With Accessories and Package)			
<b>Form</b>	LTE Desk Router			
<b>Chipset</b>	Chipset	ASR1803s		
	Frequency Bands	LTE	B1 / B3 / B5 / B8 / B34 / B38 / B39 / B40 / B41(can be customized)	
		UMTS	B1 / B5 / B8	
	Antenna	Internal	2* External Antennas(undetachable)	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)	
Data Rate	4G	3GPP Cat. 4, Downlink/Uplink up to 150Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 21Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	MTK MT7628N		
	Wi-Fi	Frequency	2.4GHz	
		Protocol	IEEE 802.11b/g/n	
		Antenna	Internal, 2 x 2	
	Data Rate	802.11b	Up to 11 Mbps	
		802.11g	Up to 54 Mbps	
802.11n		Up to 300 Mbps		
<b>Power Supply</b>	12V/1A			
<b>Interface</b>	Voice	RJ11 port*1, Voice cell (optional)		
	LAN	RJ45 port*4		
	USIM	2FF SIM		
	DC	12V/1A interface		
<b>LED</b>	Power	Power Status Indicator(Single: Blue *1)		
	WIFI	2.4G Wi-Fi Status Indicator(Single: Blue *1)		
	ETH	RJ45 interface Network Status Indicator(Single: Blue *1)		
	4G	4G Network Status Indicator(Single: Blue *1)		
	3G	3G Network Status Indicator(Single: Blue *1)		
	DATA	Data Indicator(Single: Blue *1)		
	Battery level	battery level Status Indicator (Single: Blue *4) optional		
<b>Button</b>	WPS Key	Enable WPS		
	Power Key	Power on/off switch		
	Battery level Key	Press to display battery level (optional)		
	Reset Key	Restore Factory Settings		
<b>Memory</b>	128Mb Norflash+512Mb DDR			

## Specification

<b>Features</b>	WebUI	Wizard	Note , APN Setting , LAN Setting , Wi-Fi Setting , Complete
		Basic Information	Device Information
			Network Information
			DHCP Client List
			Wi-Fi Client List
		Network Setting	Internet
			Cellular Setting
			Band Lock
			Internet Backup
		LAN Setting	Online Checker
			2.4G WiFi Setting
			Wi-Fi MAC Filter
		Network App	LAN Setting
			DMZ
			Port Mapping
System Mangement	VPN Client		
	Password Mangement		
	Date Time Setting		
Debug Tool	Reboot Schedule		
	Language		
Device Management		System Log	
		System Upgrade , Configure Management , Device Maintenance	
<b>Operation System</b>	Windows	Win7/8/10	
	MAC OS	10.10+	
	Linux	Ubuntu15.04+	
	Browser	IE9+,Firefox,Google,Chrome,Safari,Opera	
<b>Temperature</b>	Working Temperature	-10。 Cto+40。 C	
	Storage Temperature	-20。 Cto+85。 C	

WA350

# CAT4 LTE CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 9
- UE Category 4
- LTE & WCDMA
- 802.11 b/g/n, 2x2 MIMO
- WiFi4 N300
- 4xRJ45 FE ports
- 1xRJ11 port ( optional )
- LTE Chipset: ASR1803s
- WiFi Chipset: MTK MT7628N
- Battery:7.4V 2 x 2000mAh (optional)



## Specification

<b>Dimensions</b>	185*60*295mm(including External Antenna)			
<b>Weight</b>	300g (With Accessories and Package)			
<b>Form</b>	LTE Desk Router			
<b>Chipset</b>	Chipset	ASR1803s		
	Frequency Bands	LTE	B1 / B3 / B5 / B8 / B34 / B38 / B39 / B40 / B41(can be customized)	
		UMTS	B1 / B5 / B8	
	Antenna	Internal	2* External Antennas(undetachable)	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)	
Data Rate	4G	3GPP Cat. 4, Downlink/Uplink up to 150Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 21Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	MTK MT7628N		
	Wi-Fi	Frequency	2.4GHz	
		Protocol	IEEE 802.11b/g/n	
		Antenna	Internal, 2 x 2	
	Data Rate	802.11b	Up to 11 Mbps	
		802.11g	Up to 54 Mbps	
802.11n		Up to 300 Mbps		
<b>Power Supply</b>	12V/1A			
<b>Interface</b>	Voice	RJ11 port*1, Voice cell (optional)		
	LAN	RJ45 port*4		
	USIM	2FF SIM		
	DC	12V/1A interface		
<b>LED</b>	Power	Power Status Indicator(Single: Blue *1)		
	WIFI	2.4G Wi-Fi Status Indicator(Single: Blue *1)		
	ETH	RJ45 interface Network Status Indicator(Single: Blue *1)		
	4G	4G Network Status Indicator(Single: Blue *1)		
	3G	3G Network Status Indicator(Single: Blue *1)		
	DATA	Data Indicator(Single: Blue *1)		
	Battery level	battery level Status Indicator (Single: Blue *4) optional		
<b>Button</b>	WPS Key	Enable WPS		
	Power Key	Power on/off switch		
	Battery level Key	Press to display battery level (optional)		
	Reset Key	Restore Factory Settings		
<b>Memory</b>	128Mb Norflash+512Mb DDR			

## Specification

<b>Features</b>	WebUI	Wizard	Note , APN Setting , LAN Setting , Wi-Fi Setting , Complete
		Basic Information	Device Information
			Network Information
			DHCP Client List
			Wi-Fi Client List
		Network Setting	Internet
			Cellular Setting
			Band Lock
			Internet Backup
			Online Checker
		LAN Setting	2.4G WiFi Setting
			Wi-Fi MAC Filter
			LAN Setting
		Network App	DMZ
			Port Mapping
			VPN Client
		System Management	Password Management
			Date Time Setting
			Reboot Schedule
			Language
Debug Tool	System Log		
Device Management	System Upgrade , Configure Management , Device Maintenance		
<b>Operation System</b>	Windows	Win7/8/10	
	MAC OS	10.10+	
	Linux	Ubuntu15.04+	
	Browser	IE9+,Firefox,Google,Chrome,Safari,Opera	
<b>Temperature</b>	Working Temperature	-10。Cto+40。C	
	Storage Temperature	-20。Cto+85。C	

WA360

# CAT7 LTE CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 10
- UE Category 6
- LTE & WCDMA
- 802.11 a/b/g/n/ac, 2x2 MIMO
- WiFi5 AC1200
- 4xRJ45 FE ports
- 1xRJ11 port
- LTE Chipset: ASR1828
- WiFi Chipset: MTK MT7628A+7613B
- Battery:7.4V 2 x 2000mAh (optional)



## Specification

<b>Dimensions</b>	185*60*295mm(including External Antenna)		
<b>Weight</b>	320g (With Accessories and Package)		
<b>Form</b>	LTE Desk Router		
<b>Chipset</b>	Chipset	ASR1828	
	Frequency Bands	LTE	B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32 / 38/ 40/ 41( B42/ B43 optional)
		UMTS	B1/ 5/ 8
	Antenna	Internal	4* External Antennas(undetachable)
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)
	Data Rate	4G	3GPP Cat. 6, Downlink/Uplink up to 300Mbps/ 100Mbps
3G		3GPP Downlink/Uplink up to 21Mbps/5.76Mbps	
<b>WLAN</b>	Chipset	MTK MT7628A+7613B	
	Wi-Fi	Frequency	2.4GHz, 5.8GHz
		Protocol	IEEE 802.11a/b/g/n/ac
		Antenna	Internal, 2 x 2
	Data Rate	802.11b	Up to 11 Mbps
		802.11g	Up to 54 Mbps
		802.11n	Up to 300 Mbps
802.11ac		Up to 866 Mbps	
<b>Power Supply</b>	12V/ 1.5A		
<b>Interface</b>	Voice	RJ11 port* 1, Voice cell (optional)	
	LAN	RJ45 FE port*4	
	USIM	2FF SIM	
	DC	12V/ 1.5A interface	
<b>LED</b>	Power	Power Status Indicator(Single: Blue * 1)	
	WIFI 2.4G	2.4G Wi-Fi Status Indicator(Single: Blue * 1)	
	WIFI 5.8G	5.8G Wi-Fi Status Indicator(Single: Blue * 1)	
	ETH	RJ45 interface Network Status Indicator(Single: Blue * 1)	
	4G	4G Network Status Indicator(Single: Blue * 1)	
	3G	3G Network Status Indicator(Single: Blue * 1)	
	DATA	Data Indicator(Single: Blue * 1)	
	Battery level	Battery level Status Indicator (Single: Blue *4) optional	
<b>Button</b>	WPS Key	Enable WPS	
	Power Key	Power on/off switch	
	Battery level Key	Press to display battery level optional	
	Reset Key	Restore Factory Settings	
<b>Memory</b>	128Mb Norflash+512Mb DDR		

## Specification

<b>Features</b>	WebUI	Wizard	Note , APN Setting , LAN Setting , Wi-Fi Setting , Complete
		Basic Information	Device Information
			Network Information
			DHCP Client List
			Wi-Fi Client List
		Network Setting	Internet
			Cellular Setting
			Band Lock
			Internet Backup
			Online Checker
		LAN Setting	2.4G WiFi Setting
			5.8G WiFi Setting
			Wi-Fi MAC Filter
			LAN Setting
		Network App	DMZ
			Port Mapping
			VPN Client
		System Mangement	Password Mangement
			Date Time Setting
			Reboot Schedule
Language			
Debug Tool	System Log		
Device Management	System Upgrade , Configure Management , Device Maintenance		
<b>Operation System</b>	Windows	Win7/8/10	
	MAC OS	10.10+	
	Linux	Ubuntu15.04+	
	Browser	IE9+,Firefox,Google,Chrome,Safari,Opera	
<b>Temperature</b>	Working Temperature	-10。 Cto+40。 C	
	Storage Temperature	-20。 Cto+85。 C	

WA821

# CAT6 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 6
- LTE & WCDMA
- Wi-Fi 6 AX3000
- 802.11 b/g/n/ac/ax
- 2 x RJ45
- LTE Chipset: Qualcomm SDX12
- Wi-Fi Chipset: Qualcomm IPQ5018+QCN6102



## RF Specifications

<b>Support Bands</b>	EMEA/APAC: LTE FDD: B1/3/5/7/8/20/28/32 LTE TDD: B38/40/41(120M)WCDMA: B1/3/5/8 North America: LTE FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71 LTE TDD: B41(194M)/46/48 WCDMA: B2/4/5 Latin America: FDD: B1/2/3/4/5/7/8/20/28/66 TDD: B38/40/41/42/43 WCDMA: B1/2/4/5/8
<b>Peak Throughput</b>	LTE CAT 6, 300 Mbps (DL)/50 Mbps (UL)
<b>CA</b>	DL Inter/Intra 2CA
<b>MIMO</b>	DL 2x2 MIMO
<b>Output Power@25°C</b>	23 ± 2 dBm

LTE Antenna Gain		
700M~1G	1.5G~2.7G	3.4G~3.8G
1dBi	3dBi	5dBi

Wi-Fi Frequency	Wi-Fi Antenna	Wi-Fi Output Power	Wi-Fi Channel BW	Wi-Fi Antenna Gain
2.4G/5GHz Dual Band	2x2 MIMO	19dBm@2.4G 16dBm@5GHz	20/40/80/160 MHz	3.5dBi

## Hardware Specifications

<b>Chipset</b>	Qualcomm SDX12 + IPQ5018 + QCN6102
<b>LTE standard</b>	3GPP Release 12 CAT6
<b>Flash</b>	128MB Nand Flash
<b>RAM</b>	512MB LPDDR3x
<b>Ethernet LAN Port</b>	2 * LAN: 10/100/1000 auto-sensing, auto-MDI/MDIX
<b>LED</b>	8 LED Indicators (PWR, Wi-Fi*2, NET, RF Signal*4)
<b>SIM</b>	1 * USIM/SIM (3FF)
<b>Button</b>	Reset/Reboot
<b>LTE Antenna</b>	Built-in 2 Omni Antennas
<b>WIFI Antenna</b>	2.4Gx2 + 5Gx2 Separate Built-in Omni Antennas
<b>Dimensions</b>	196mm x 158 mm x 42mm
<b>Weight</b>	< 450g
<b>Power Consumption</b>	< 18W
<b>Power Supply</b>	AC input 100~240V DC output 12V 1.5A

## Software Specifications

<b>Operation Mode</b>	NAT mode Bridge
<b>Device Management</b>	TR069 WebUI Software Upgrade – Local/FOTA
<b>Device statistic</b>	WAN statistic LAN statistic
<b>Network Protocols and Features</b>	NAT SNTP/NITZ VLAN(optional) PPPoE(optional) Ethernet mode Virtual server and DMZ DNS relay and DDNS DHCP server/client IPV4/IPv6 Dual Stack UPnP Parents control
<b>VPN</b>	L2TP over IPsec L2TP V2/V3 GRE L2/L3 PPTP
<b>Security and Firewall</b>	MAC Address Filtering IP Address Filtering URL Filtering DDOS
<b>Wi-Fi functions</b>	Maximum users: 32 Encryption: WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK (AES) Hide SSID broadcasting AP Isolation Guest network
<b>System</b>	Syslog Network diagnose Reset factory default Configuration backup/restore Web account configuration Scheduling Auto-Reboot

## Appendix-Deliveries

<b>Assembled product</b>	1 PCS
<b>Ethernet cable</b>	1 PCS
<b>Adapter</b>	1 PCS
<b>Quick Start Guide</b>	1 PCS

WA421V

# CAT12 LTE Indoor CPE

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 12
- UE Category 12
- LTE & WCDMA
- Wi-Fi 6 AX3000
- 802.11 b/g/n/ac/ax
- 2xRJ45, 1xRJ11(optional)
- LTE Chipset: Qualcomm SDX12
- WiFi Chipset: Qualcomm IPQ5018



## RF Specifications

<b>Support Bands</b>	4G: FDD B1/3/5/7/8/20/28 TDD B38 3G: 1/3/5/8 <i>*Can be customized.</i>
<b>Peak Throughput</b>	LTE CAT 12, 600 Mbps (DL)/150 Mbps (UL)
<b>CA</b>	DL Inter/Intra 4CA
<b>MIMO</b>	DL 4x4 MIMO
<b>Output Power@25°C</b>	23±2 dBm

LTE Antenna Gain		
700M~1G	1.5G~2.7G	3.4G~3.8G
3dBi	4.6dBi	4.6dBi

Wi-Fi Frequency	Wi-Fi Antenna	Wi-Fi Output Power	Wi-Fi Channel BW	Wi-Fi Antenna Gain
2.4G/5GHz Dual Band	2 Built-in	19dBm@2.4G 16dBm@5GHz	20/40/80/160 MHz	3dBi

## Hardware Specifications

<b>Chipset</b>	Qualcomm SDX12 Qualcomm IPQ5018
<b>LTE standard</b>	3GPP Release 12 CAT12
<b>Flash</b>	4Gb
<b>RAM</b>	4Gb
<b>Ethernet LAN Port</b>	2 * LAN: 10/100/1000 auto-sensing, auto-MDI/MDIX
<b>Voice POTS Port</b>	1 * Voice
<b>LED</b>	8 LED Indicators (PWR, Wi-Fi, TEL, NET, RF Signal*4, Charge)
<b>SIM</b>	1 * USIM/SIM (3FF)
<b>Button</b>	Reset/Reboot
<b>LTE Antenna</b>	2 Built-in, 2 external
<b>WIFI Antenna</b>	2 Built-in
<b>Dimensions</b>	204 mm x 158mm x 41.5mm
<b>Weight</b>	< 300g
<b>Power Consumption</b>	< 18W
<b>Power Supply</b>	AC input 100~240V DC output 12V 2.5A

## Software Specifications

<b>Operation Mode</b>	NAT mode Bridge
<b>Device Management</b>	TR069 WebUI Software Upgrade – Local/FOTA
<b>Device statistic</b>	WAN statistic LAN statistic
<b>Network Protocols and Features</b>	NAT SNTP/NITZ VLAN(optional) PPPoE(optional) Ethernet mode Virtual server and DMZ DNS relay and DDNS DHCP server/client IPV4/IPv6 Dual Stack UPnP Parents control
<b>VPN</b>	L2TP over IPsec L2TP V2/V3 GRE L2/L3 PPTP
<b>Security and Firewall</b>	MAC Address Filtering IP Address Filtering URL Filtering DDOS
<b>VoLTE functions</b>	Call Waiting Call Hold /Resume Call Forward Call Transfer 3-Way conferencing Caller ID display/blocking
<b>Wi-Fi functions</b>	Maximum users: 32 Encryption: WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK (AES) Hide SSID broadcasting AP Isolation Guest network
<b>System</b>	Syslog Network diagnose Reset factory default Configuration backup/restore Web account configuration Scheduling Auto-Reboot

## Appendix-Deliveries

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<b>Ethernet cable</b>	1 PCS
<b>Adapter</b>	1 PCS
<b>Quick Start Guide</b>	1 PCS

OWA721

# 4G CPE Combo

Leading outdoor wireless broadband access equipment.



## Key Features

- 3GPP R12 Standard
- FDD/TDD Support
- Up to 4x4MIMO/4CA
- LTE CAT.6
- 100/1000Mbps Ethernet Port
- Wi-Fi4/5
- IP65 rated waterproof and dustproof



## Parameters & Performance

<b>Downlink/Uplink</b>	CAT6
<b>Water/DustProof</b>	IP65(IP3X Router)
<b>LTE FDD*1</b>	B1,B2,B3,B4,B5,B7,B8,B18, B19,B20,B28,B31,B32
<b>LTE TDD*1</b>	B34,B38,B39,B40,B41,B42, B43,B46,B48,B66
<b>MIMO:LTE DL</b>	4*4MIMO:B1,B3,B7,B32,B38,B40,B41,B42,B43
<b>MIMO:LTE UL</b>	1*1/2*2MIMO
<b>Wi-Fi</b>	WiFi4/WiFi5 2.4G 2x2/5.8G 2x2 MIMO
<b>Antenna of WiFi*2</b>	4
<b>PoE</b>	Yes
<b>LAN cable length Max(m)</b>	100
<b>Antenna of LTE*2</b>	4
<b>Ethernet Port Speed(Mbps)</b>	100/1000
<b>I/O Port of ODU</b>	1*LAN,1*USIM Slot(2FF), 1*RESET
<b>I/O Port of Router</b>	2*LAN,1*WAN/PoE,1*DC JACK, 1*RESET,1*POWER SWITCH, 1*RJ11(optional)
<b>ODU Size(mm)</b>	279.6*164*56.1
<b>Size of Router(mm)</b>	186.3*170.29*64.27
<b>Weight(kg)</b>	0.718
<b>Weight of Router(kg)</b>	0.38
<b>Working Temperature</b>	-20~55°C (0-45°C Router)

\* 1 The frequency band of the device can be customized, please contact sales for specific frequency band combination and MIMO/ CA capabilities

\* 2 ALL of the antennas are internal high gain directional antenna

WA5500M

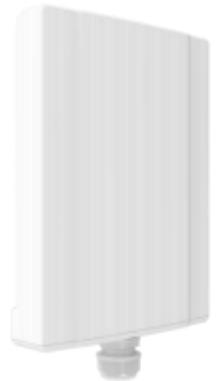
# 4G CPE Combo

Leading outdoor wireless broadband access equipment



## Key Features

- Cost effective & compact design with built-in high gain LTE and Wi-Fi antenna
- Full compliance to 3GPP LTE Release 11 specifications
- Advanced 2X8 MIMO & CA (2CC & 4CC) support and Category 12 throughput
- Dual LAN ports, SIP 2.0 VoIP and 802.11b/g/n/ac MIMO Wi-Fi support
- Router, bridge and by-pass networking, IPv4 & v6 and Multiple PDN support
- Built-in VPN and L2/L3 GRE client support
- FTP, HTTP and TR-069 management support



AirMaster5500M(WA5500M) is a highly advanced CAT12 LTE outdoor multi-service product solution specifically designed to meet integrated data, voice and Wi-Fi access needs for residential, business and enterprise users. The product consists of an outdoor data CPE unit (ODU) and an indoor multiservice gateway unit (Router) that supports advanced networking, VoIP gateway and WLAN AP functionalities. It enables wide service coverage and provides high data throughput and networking features to customers who needs easy broadband access, low cost VoIP service and Wi-Fi connectivity.

### **RELIABLE PERFORMANCE**

WA5500M CPE product provides the standard implementation of LTE release 11 specifications. With the built-in high gain ODU antenna, it enables a longer reception range from eNodeB base station. This help yields more efficient use of network with a larger cell reach, carrier class service, and more customer service probability.

The Router has 2 Gigabit LAN Ports,1 Gigabit WAN Port and 1 RJ11 port, built-in 2x2 MIMO high performance 802.11b/g/n/ac Wi-Fi and software firewall for security, providing an effective all-in-one solution to SOHO or residential customers. It supports LTE release11 CA option and CAT12 data throughput which can be very competitive to wired broadband access service.

### **EASY USAGE & MANAGEMENT**

WA5500M is a user-friendly and easy to setup LTE CPE. The ODU can be powered by the Router WAN PoE interface. The LEDs on the AM5500M have also been designed for user convenience and offer a clear sign of what the device is doing. The compact design is well suited for enterprise and residential user.

The WA5500M offers rich management features which facilitate the task of service provider. It supports local management access, Telnet, WEB, and centralized remote OTA configuration, upgrades management and device monitoring via standard TR-069 ACS systems.

### **TECHNICAL FEATURES**

WA5500M is fully compliant to the LTE Release 11 specification. It offers standard support for advanced 4G features such as MIMO and AMC to maximize the system capacity and bandwidth throughput. The use of 4G modulation enhances performance in non-line-of-sight conditions to ensure immunity to interference and multi-path conflicts typical of deployments in urban areas. Sophisticated QoS capabilities ensure true end-to-end QoS and support for high quality data services. WA5500M has enhanced router function and VPN clients support to enable greater serviceselection and reliability.

<b>Physical</b>	Dimensions	Router 170mm x 138mm x 55mm ODU 286mm x 164mm x 53mm
	Weight	Router < 400g ODU <1Kg
	Power consumptions	< 20W
	Power Supply	24V/1A DC Adapter
	Ingress Protection	IP67
<b>Environmental</b>	Operating Temperature	Router -15°C to 55°C ODU -40°C to 55°C
	Storage Temperature	-40°C to 85°C
	Humidity	90% max Non-condensing
<b>Wireless Radio Interface (ODU)</b>	Radio Access	3GPP Release11 Category12
	Operation Mode	4Rx, 2Tx, DL 4*4 MIMO Optional UL QAM64
	Frequency Band	LTE B2/B4/B66/B38/B40
	CA Support	DL & UL CA (2CC & 4CC)
	Receive Sensitivity	Compliance with 3GPP standard
	Output Power	23dBm: 2dB
	Antenna Gain	13dBi
<b>Wi-Fi Interface (Router)</b>	Radio Access	IEEE802.11b/g/n/ac
	MIMO	2 x 2
	Output Power	15dBm
	Antenna	3dBi built-in antenna
	Connected Users	32
	Security	64/128-bit WEP, WPA/WPA2
<b>User Interface</b>	Data Interface	ODU - LAN Port 1 RJ45 10/100/1000M ETH Port Router - WAN Port 1 RJ45 10/100/1000M ETH Port (PoE), LAN Port 2 RJ45 10/100/1000M ETH Port
	Line Interface	1 RJ11 Port (Router)
	LED Indicators	Router - SYS, NET, SIG, 2.4GHz Wi-Fi, 5GHz Wi-Fi, LINE ODU - SYS, MOD, SIM, ETH, Wi-Fi, RF (4 Signal intensity LEDs)
	SIM Support	1.8V/3.0V USIM 2FF (ODU)

<b>VoIP Processing &amp; Services</b>	Compression	G.711 G.721 G.723 G.726 G.729 G.722
	Comfort Noise	Comfort Noise Generation & Control
	Echo Cancellation	G.165/168-2000
	Silence Handling	Silence Detection/Suppression
	Fax Support	T.30 and T.38
	Delay/Jitter/Loss	Jitter and Packet Loss Compensation
	DTMF Relay	In band DTMF, RFC2833, SIP signal
	Call Duration	24+ hours Uninterrupted Call
	Basic Voices	Local, Domestic & International Calling Flexible Dial Plan Configuration Support Tone Customization for Different Countries
	Complementary Services	Caller ID, Caller ID suppression, Call Screening, Speed dial, Call Tracing, Hotline, Unconditional call forwarding, Call Forwarding No Answer, Call Forwarding on Busy, Call Waiting, Call Back, Call Blocking, No Disturbance, Alarm, Network and Local 3-way Call, Data Call, etc.
<b>SW Specifications</b>	Networking Configuration	Router and L3 Bridge Operation Support Built-in DHCP Server for LAN Devices IPv4, and IPv6 DS-Lite Support for LTE Multiple PDN Interface Support
	Data Networking Features	VPN Pass-through support (PPTP, L2TP & IPsec) Built-in L2TP & GRE Tunneling Client Support DNS Proxy Support Firewall & Access Control DMZ and Virtual Server Support IP and Port Forwarding Support Local and Remote Management Restriction Application Firewall Support NTP Service Support LAN Device Access Control
	Device Management	CLI, Telnet, HTTP and HTTPS Management Interfaces Standard Based TR-069 Management FTP and HTTP OTA Firmware Upgrade USIM and PLMN Locking Support Device Factory Default Setting

MF510

# 5G MiFi



## Key Features

- **MTK Solution**

MT6833 5G NR

Wi-Fi 5

- **Easy to share**

2.4 inch screen

Multiple devices support

Support up to 16 users

- **Powerful & Last**

5000mAh capacity for 8 hours working

- **5G NR : 2.77Gbps/1.25 Gbps DL/UL**

- **Designed for portable**

Light to 195g

Zero-touch experience



## Specification

<b>Basical Information</b>	Model Name	MF510
	Form Factor	Mobile WiFi
	Dimension	130*70*21.5mm
	Weight	about 195g
	Color	color can be customized
<b>OS</b>	Android 11	
<b>Solution</b>	Wireless chipset supplier	MTK
	Routing and WiFi chipset supplier	MTK
<b>Baseband</b>	Wireless Chipset	MT6833
	Wireless Processor	2xA76 6xA55
	Wireless Processor speed	Up to 2.2 GHz
	Routing and WiFi chipset model	MT6631
	USIM/SIM Slot	Standard 6 PIN SIM card interface 3V SIM card and 1.8V SIM card
	Memory(DDR/NAND)	2GB NAND Flash +8GB LPDDR4
	USB Version	USB 2.0 FULL SPEED
	Interface	USB and Wifi
	Buttons	Power, WPS, Reset(PIN hole)
	TP	2.4" LCM with TP Internet status, Card status, Battery Status, WiFi status, Message status, etc
<b>Environment</b>	Operating Temperature	-20 to 45。 C
	Storage Temperature	-40 to 60。 C
	Humidity	5% to 95%
<b>Artwork</b>	USB Interface Type	Type C/USB2.0
	User manual	1pcs
	Warranty cards	1pcs
	Battery	5000mAh
	USB cable	1pcs

## Specification

	Chipset	MT6190M
	LTE/5G Main Antenna / MIMO Antenna	Internal
	Wifi Antenna	Internal
	UMTS Band	B1/B2/B5/B8
	LTE band	B1/B3/B5/B7/B8/B20/B28/B38/B40/B41
	5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78
<b>RF</b>	MIMO for Wireless	LTE MHB DL 2*2MIMO LTE LB DL 2*2MIMO LTE LMHB 1*1 SISO 5G NR MHB DL 4*4 MIMO 5G NR LB DL 2*2 MIMO 5G NR UL 1*1 MIMO
	Max. transmitter power	5G NR: +23dBm (Power Class 3) 5G NR: +26dBm (n41/n77/n78/n79 Power Class 2) LTE: +23dBm (Power Class 3) WCDMA/HSDPA:+24dBm (Power Class 3)
	WiFi band	2400MHz-2483.5MHz/5150MHz-5850MHz
	MIMO for WiFi	2.4G 802.11.b/g/n MIMO 1*1 5G 802.11.ac MIMO 1*1
	HSDPA/HSUPA/HSPA+ /DC-HSPA+	DL 42.2Mbps UL 11.5Mbps
	LTE	DL: UP to 391Mbps UL: 150Mbps
	NR	5G NR DL: 2.77Gbps (4*4 MIMO, 256QAM) 5G NR UL: 1.25Gbps (1*1 MIMO, 256QAM)
	WiFi Max Client Number	16
	Wi-Fi Standard	802.11 b/g/n/ac (1*1 MIMO )
	WiFi Security	OPEN & WPA-PSK& WPA2-PSK & WPA-PSK/WPA2-PSK;
<b>Technical Standard</b>	WiFi Speed	433Mbps
	3GPP Release	3GPP Rel 15
		Windows XP SP3 later
		Windows Vista
	OS	Windows 7 or later MAC Linux
	Browser	Firefox&SafariOpera&Chrome

## Specification

<b>Software</b>	DHCP	
	Port Forwarding	
	IP(port) filter/MAC filter	
	DMZ	
	UPnP	
	WPS	PBC(Push Button Config)/PIN
	RNDIS/ECM	
	SMS	
	SIM-OTA	
	USSD	
	Phonebook	
	NETWORK LOCK	
	Data Statistics	Support
	Language	English by default, can be customized.
	IPv4v6	
	FW upgrade	FOTA

MF100

# CAT4 LTE MIFI

Leading indoor wireless broadband access equipment



## Key Features

- 3GPP Release 9
- UE Category 4
- LTE & WCDMA
- 802.11 b/g/n, 2x2 MIMO
- WiFi4 N300
- 2000mah battery(undetachable)
- Micro-USB 2.0 port
- LTE Chipset: Qualcomm MDM9225
- WiFi Chipset: Realtek RTL8192ES



## Specification

<b>Dimensions</b>	100.00 x 66.00 x 22.00mm			
<b>Weight</b>	106g			
<b>Form</b>	LTE MIFI			
<b>Chipset</b>	Chipset	Qualcomm MDM9225		
	Frequency Bands	LTE	B1/B3/B7/B8/B20/B38	
		UMTS	B1/B8	
	Antenna	Internal	2* Internal Antenna	
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)	
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)	
Data Rate	4G	3GPP Cat. 4, Downlink/Uplink up to 150Mbps/50Mbps		
	3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps		
<b>WLAN</b>	Chipset	Realtek RTL8192ES		
	Wi-Fi	Frequency	2.4GHz	
		Protocol	IEEE 802.11b/g/n	
		Antenna	Internal, 2 x 2	
	Data Rate	802.11b	Up to 11 Mbps	
		802.11g	Up to 54 Mbps	
802.11n		Up to 300 Mbps		
<b>Power Supply</b>	5V/ 1A(optional)			
<b>Interface</b>	USIM	Single, 4FF SIM		
	USB	5V/ 1A interface		
<b>LED</b>	Power	Power Status Indicator(Tri-colour* 1)		
	WIFI	2.4G Wi-Fi Status Indicator(Single: Blue * 1)		
	INTERNET	4G/3G Network Status Indicator(Dual-colour * 1)		
<b>Button</b>	Power Key	Switch ON/OFF Device		
	WPS Key	Enable WPS		
	Reset Key	Restore Factory Settings		
<b>Memory</b>	2Gb+1Gb			

<b>Features</b>	System	Connection Status
		Statistics
		Device Management
		Power Mangement
	Mobile Service	SMS Manager
		Automatic APN matching according to USIM
		Auto Data Connection
		USSD Service
		PIN/PUK Management
	WebUI	Router
64/ 128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK encryptions		
IPv4/v6		
TR069		
VPN Passthrough		
PPTP/L2TP		
MAC Filter / IP Filter		
Network Time Protocol		
IP and MAC Address Binding		
Traffic Control (IP QoS)		
Access Control, Local Management, Remote Management		
<b>Operation System</b>	Windows	Win7/8/10
	MAC OS	10.10+
	Linux	Ubuntu 15.04+
	Browser	IE9+, Firefox, Google Chrome, Safari, Opera
<b>Temperature</b>	Working Temperature	0. C to 40. C
	Storage Temperature	-20. C to 60. C

MF805

# CAT6 LTE MiFi



## Key Features

- 3GPP Release 12
- UE Category 6
- LTE & WCDMA
- 802.11 b/g/n/ac, 2x2 MIMO
- WiFi AC1200
- USB2.0
- MicroSD Up to 64GB
- Battery Capacity 3000mAh
- LTE Chipset: Qualcomm SDX12
- WiFi Chipset: Qualcomm QCA6174



## Specification

<b>Dimensions</b>	99.4*66* 18.3mm	
<b>Weight</b>	118g(include battery)	
<b>Form</b>	MiFi / Pocket Router	
<b>WAN</b>	Chipset	Qualcomm SDX12
		LTE B1/3/5/28/40/41
	Frequency Bands	CA 1A_3A, 1A_5A, 3A_3A, 3B, 3C, 3A_5A, 38A_38A, 38C, 41A_41A, 41C
		UMTS B1/5
	RF Power Level	LTE Power Class 3 (24 +1.7/-3.7dBm)
		UMTS Power Class 3 (24 +1.7/-3.7dBm)
	Antenna	4 Internal Antenna port; 2x2 DL MIMO; 2R1T
	Data Rate	4G 3GPP LTE UE Cat 6, Downlink/Uplink up to 300Mbps/50Mbps
		3G 3GPP Downlink/Uplink up to 42Mbps/5.76Mbps
	<b>WLAN</b>	Chipset
		Frequency 2.4GHz, 5.8GHz
		Protocol 802.11b/g/n/ac
Wi-Fi		Clients Up to 10 WiFi users/devices
		Antenna Internal, 2 x 2 MIMO
		802.11b Up to 11 Mbps
Data Rate		802.11g Up to 54 Mbps
		802.11n Up to 300 Mbps
		802.11ac Up to 867 Mbps
<b>Power Supply</b>		USB, 5V1A (Optional)
<b>Battery</b>	Type	Li-ion Polymer Battery
	Capacity	3000mAh
	Endurance	7-9 hours (normal network situation)
<b>Interface</b>	USB	USB2.0
	USIM	Single, 3FF
	MicroSD	Up to 64GB
<b>LED</b>	Power	Power/Battery Status Indicator (2 Colors)
	Network	4G/3G Network Status Indicator
	Wi-Fi	Wi-Fi Status Indicator
	Message	New SMS Indicator



CATALOGUE  
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Your reliable partner to brighten the future network

