

CPE-ZR05/CPE-GT05 5G CPE

Product Description

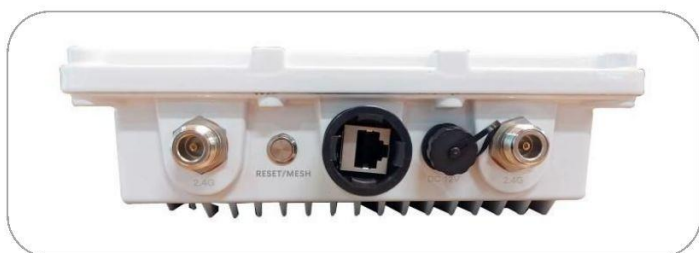
V1.2

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1 Product Overview

product description

The CPE-ZR05/CPE-GT05 outdoor 5G gateway base station is based on our independent technology research and development. It belongs to the hardware product category of distributed self-organizing network system solutions. It has a 5G industrial host with high speed, large connection, wide coverage, low latency, and high reliability. This product supports 5G, Ethernet, WiFi, wireless spread spectrum communication and other network access; at the same time, it has strong real-time data edge computing capabilities, open system design, and supports secondary development; it adopts chips, devices, housing design, etc. Full industrial-grade housing waterproof design, with waterproof casing protection grade up to IP66, supports ceiling, wall, pole-mounted installation, can be adapted to a variety of industrial sites such as indoor and outdoor, widely used in smart factories, smart medical, unmanned vehicles, Smart cities and other fields.



Product specifications:

■ Shell characteristics:

- 1) All-metal aluminum alloy is integrally formed, explosion-proof, waterproof, and corrosion-proof. The waterproof level supports IP66 waterproof level
- 2) 6 external N-type industrial-grade WiFi antenna interfaces, adapt to different antenna types according to the needs of the scene (5.8G, 2.4G standard configuration 7DBI omnidirectional gain antenna. Optional 14DBI directional antenna)
- 3) 4 external SMA industrial grade 5G antenna ports, adapt to different antenna types according to the needs of the scene (5G/4G standard configuration 5DBI omnidirectional gain antenna)
- 4) The power, internet, 4G/5G instructions are clear at a glance.
- 5) External waterproof grade Gigabit Ethernet LAN port.

■ 5G Cellular

- 1) 5G Baseband: Qualcomm® Snapdragon™ X62 Modem-RF System
 - 2) 5G Network Modes: SA (standalone), NSA (non-standalone)
 - 3) 5G NSA Bands:
n1/n2/n3/n5/n7/n8/n12/n13/n14/n18/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n70/n71/n75/n76/n77/n78/n79
 - 4) 5G SA Bands:
n1/n2/n3/n5/n7/n8/n12/n13/n14/n18/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n70/n71/n75/n76/n77/n78/n79
 - 5) 5G Standards: 3GPP Release 15
 - 6) 5G SA Transmission Speed: 2.1Gbps/900Mbps (up to ISPs)
 - 7) 5G NSA Transmission Speed: 2.5Gbps/650Mbps (up to ISPs)
- *: under development / in progress.

■ 4G Cellular

- 8) LTE Category: Down Cat 16/ UP Cat 18
- 9) LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
- 10) LTE-TDD: B34/B38/B39/B40/B41/B42/B43/B48
- 11) LTE Down 4 × 4 MIMO: B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/B39/B40/B41/B42/B43/B48/B66
- 12) WCDMA: B1/B2/B3/B4/B5/B8/B19
- 13) LTE : Down 1.0 Gbps; UP 200 Mbps

- Antenna type: external 5G/4G main set, diversity omnidirectional antenna

WiFi6 Datasheet

■ WiFi 6 (802.11ax)

- 1) Working Radio: #1: 600Mbps @ 2.4GHz; #2: 2475Mbps @ 5.1-5.8GHz
- 2) Coding Technology: 1024-QAM / OFDMA
- 3) Peak Connections: >500+ Clients
- 4) Wi-Fi Standard Conformance: WiFi6 and 802.11ac / 802.11n backward

■ Data Switching

- 1) Mobile 4G/5G Connection (Support APN)
- 2) Giga Ethernet Connection
- 3) MESH:MESH+ hybrid
- 4) 2.4G/5Ghz WiFi
- 5) Advanced Firewall
- 6) MAC Filter
- 7) WiFi Security
- 8) VPN Passthrough and VPN Client (L2TP PPTP)
- 9) IPV4/IPV6
- 10) WEB / APP Management
- 11) Firmware upgrade

Hardware specifications

■ Hardware Specification

- 1) CPU: MTK 7621
- 2) Memory: 16MB + 256MB Flash + 2* 256MB DDR3
- 3) Ethernet: 1* 2.5Gbps WAN, 2* LAN 1Gbps
- 4) 1* SIM Slot (Nano-SIM)
- 5) Reset button
- 6) LED Indicator
 - Internet
 - 4G Status
 - 5G Status
 - Power Status
- 7) General
 - Power Consumption: <24W
 - DC Power Supply: 12V/3A
 - Working temperature: 0°C ~ 40°C, Storage temperature: -20°C ~ +70°C
 - Humidity: 5% ~ 95%
 - Dimensions: 217X217X70MM
 - Weight: TBD
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2 Technical Specifications

Model	CPE-ZR05>05
CPU	MTK7621
Flash	16MB + 256MB Flash
ROM	4Gb
WiFi Frequency band	2.4G&5G
WiFi	2.4G:802.11b/g/n /ax, 5.8GHz: 802.11a/n/ac/ax MIMO
WiFi rate	2.4GHz :600Mbps ,5GHz :2475Mbps
5G Standard	3GPP Release 15 NSA/SA operation, Sub-6 GHz
5G Networking method	NSA/SA
5G/4G rate	5G SA Transmission Speed:2.1Gbps/900Mbps (up to ISPs) 5G NSA Transmission Speed:2.5Gbps/650Mbps (up to ISPs) LTE : Down 1.0 Gbps: UP 200 Mbps
5G Frequency band	5G NR NSA n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 MIMO Down: 4 × 4 MIMO on n1/n2/n3/n7/n25/n38/n40/n41/n48/n66/n77/n78/n79 UP: 2 × 2 MIMO on n41
4G Frequency band	LTE Category Down Cat 16/ UP Cat 18 LTE-FDD B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 LTE-TDD B34/B38/B39/B40/B41/B42/B43/B48 LAA B46 (Only supports 2 × 2 MIMO) Down 4 × 4 MIMO B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/39/B40/B41/B42/B43/B48/B66 WCDMA B1/B2/B3/B4/B5/B6/B8/B19
Modulation mode	5G: GMSK/8PSK/BPSK/QPSK/16QAM/64QAM/256QAM WIFI:

WIFI Power	1024-QAM / OFDMA						
	2.4G	Formats and channels		Ant0(DB)		Ant1(DB)	
		80.211B		25		25	
		80.211G		23.9		23.8	
		80.211N20		23		23	
		80.211N40		23		23	
		80.211AC20		22		22	
		80.211AC40		21		21	
		80.211AX20		21		21	
		80.211AX40		21		21	
	5G	Formats and channels		Ant0(DB)	Ant1(DB)	Ant2(DB)	Ant3(DB)
		11a54M		24	24	24	24
		11n20MCS0		23	23	23	23
		11n20MCS7		23	23	23	23
		11n40MCS0		23	23	23	23
		11n40MCS7		22	22	22	22
		11ac20MCS0		23	23	23	23
		11ac20MCS8		21	21	21	21
		11ac40MCS0		21	21	21	21
		11ac40MCS9		20.5	20.5	20.5	20.5
		11ac80MCS0		20	20	20	20
		11ac80MCS9		19.5	19.5	19.5	19.5
		11ax20MCS0		20	20	20	20
		11ax20MCS11		19.5	19.5	19.5	19.5
		11ax40MCS0		20	20	20	20
		11ax40MCS11		19	19	19	19
		11ax80MCS0		19.5	19.5	19.5	19.5
		11ax80MCS11		19	19	19	19
WIFI receiving sensitivity		2.4G: 11X HE20: -70dBm@MCS11, -80dBm@MCS0. 11X HE40: -70dBm@MCS11, -80dBm@MCS0. 11n HT20: -70dBm@MCS7, -80dBm@MCS0. 11n HT40: -70dBm@MCS7, -78dBm@MCS0. 11g: -68dBm@54Mbps, -82dBm@6Mbps. 11b: -70dBm@11Mbps, -85dBm@1Mbps.					
	5.8G: 11a: -72dBm@54Mbps, -85dBm@6Mbps. 11nHT20: -75dBm@MCS7,-85dBm@MCS0. 11nHT40: -75dBm@MCS7,-88dBm@MCS0 11ac HT80: -65dBm@MCS9 11aX HT80: -65dBm@MCS11						
WIFI EVM	802.11n@MCS7: ≤ -30dB 802.11g@54M: ≤ -30dB 802.11b@11M: ≤ -15dB 802.11a@54M: ≤ -28dB						

	802.11ac @MCS9: ≤ -33dB 802.11aX @MCS11: ≤ -33dB
size	217X217X70MM
interface	1*10/100M/1000 LAN mouth 1*12V 1.5A DCinterface 1*RESET 1*MESH button
Networking mode	MESH
Reset button	Reset button (long press for 10 seconds to restore the default factory configuration)
Status Indicator	Power light, breathing indicator, WiFi indicator
Working power	<24W
working environment	Working temperature: -20°C ~ +50°C Storage temperature: -40°C ~ +70°C Humidity: 5%~95% (non-condensing)
weight	TBD

Software function	
IPV4	support
IPV6	support
Smart QOS	support
Parental Controls	support
UPNP	support
VPN	Supports L2TP VPN client Supports PPTP VPN client
APN	support
DDNS	support
DMZ	support
Port Mapping	support
MESH	support
APP	support