

IOT 5G CPE

LINOVISION



IOT-CPE5G is dedicated to cost effective solutions for 5G wireless networking application. Adopting high-performance industrial platform of quad-core CPU and 5G cellular module, IOT-CPE5G is capable of providing ultra-fast network and ultra-small package to ensure the extremely safe and reliable connection to the wireless network. With various kinds of installation methods, IP67 waterproof enclosure and novel design, IOT-CPE5G is applicable to indoor and outdoor applications.

Meanwhile, IOT-CPE5G also supports 2-port Gigabit Ethernet switch, serial ports (RS232/RS485) and DI/DO (Digital input/Digital output), which enable you to scale up M2M application combining data and video in limited time and budget.

IOT-CPE5G is particularly suitable for smart offices, video surveillance, digital media implementations, industrial automation, traffic applications, robots and so on.

◆ Fast & Reliable Network

- Qualcomm quad-core CPU with big memory, providing high performance for data transmission
- Global 5G NSA&SA/4G LTE network for backup among multiple carrier networks
- Gigabit Ethernet ports for lightning transmission of data
- 2.4G & 5G dual band Wi-Fi support
- Embedded 8 5G antennas and 4 Wi-Fi antennas for best signal reception
- Equipped with I/O, serial port, GPS for industrial transmission applications

◆ Security & Reliability

- Embedded Python SDK for functional programming and seamless deployment to edge nodes
- Automated failover/failback among Ethernet, Cellular and Wi-Fi
- Secure transmission with VPN tunnels such as IPsec/OpenVPN/GRE/L2TP/PPTP /DMVPN/MilesightVPN
- Reliable firewall for secure networking: SPI, ACL, port mapping, IP/MAC binding,etc.
- Embeds hardware watchdog to automatically recover from various failure, ensure highest level of availability

◆ Robust Hardware Design

- Wide operating temperature range from -40°C to 70°C and industrial design for harsh environment
- IP67 waterproof and UV-protective enclosure for outdoor applications
- PoE or DC power supply optional
- Equipped with a vent plug to prevent condensation in enclosure
- Pole mounting, wall mounting, desktop, bottom magnetic or lock mounting for various applications
- 3-year warranty included

◆ Easy Maintenance

- The user-friendly web interface design and more than one option of upgrade help administrator to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve simple management and quick configuration among a large quantity of devices
- DeviceHub provides easy setup, mass configuration, and centralized management of remote devices
- Efficiently manage the remote device through SNMP protocol

◆ Specifications

Hardware System	
CPU	Qualcomm Quad-core ARM Cortex-A7, 716.8 MHz
Memory	512 MB DDR3 RAM and 8 GB Flash
Cellular Interface	
Network	5G/4G LTE
Antenna	8 × Internal Antennas
SIM Slot	1 (Mini SIM-2FF)
Ethernet Interface	
Numbers	2 × 10/100/1000 Mbps
Property	1 × WAN + 1 × LAN or 2 × LAN
Mode	Full or Half Duplex (Auto-Sensing)
PoE	1 × 802.3af PoE PD on WAN/LAN1 Port
Wi-Fi Interface	
Antenna	4 × Internal Antennas
Standards	IEEE 802.11b/g/n, 2.4 GHz
	IEEE 802.11a/n/ac, 5 GHz
Tx Power	2.4 GHz: 26dBm (max)
	5 GHz: 26.4dBm (max)
Rx Sensitivity	
2.4 GHz	802.11b: ≤ -92dBm@11Mbps
	802.11g: ≤ -78dBm@54Mbps
	802.11ac VHT20: ≤ -91dBm@MCS0
	802.11ac VHT20: ≤ -66dBm@MCS8
	802.11ac VHT40: ≤ -88.5dBm@MCS0
	802.11ac VHT40: ≤ -64dBm@MCS8
5 GHz	802.11a: ≤ -91dBm@6Mbps
	802.11a: ≤ -76dBm@54Mbps
	802.11ac VHT20: ≤ -90dBm@MCS0
	802.11ac VHT20: ≤ -68dBm@MCS8
	802.11ac VHT40: ≤ -87dBm@MCS0
	802.11ac VHT40: ≤ -65dBm@MCS9
	802.11ac VHT80: ≤ -84dBm@MCS0

	802.11ac VHT80: ≤ -60dBm@MCS9
Modes	AP and Client Mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption
GNSS¹	
Antenna	1 × Internal Antenna
Technology	GPS/GLONASS/Beidou/Galileo/QZSS
Serial Interface	
Numbers	1 × RS232 or 1 × RS485 (Switchable)
Connector	3.5 mm Terminal Block
Baud Rate	300bps to 230400bps
DI/DO	
Numbers	1 × DI (Dry Contact) + 1 × DO (Wet Contact), Galvanic Isolation
Connector	3.5 mm Terminal Block
Maximum V/A	0.3A@30VDC (DO)
Others	
Reset Button	1 × RESET
LED Indicators	1 × STATUS, 1 × Cellular Network
Built-in	Watchdog, Timer
Software	
Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, VLAN, SSH, etc.
VPN	DMVPN, IPsec, OpenVPN, PPTP, L2TP, GRE
Security	Access Control, DMZ, Port Mapping, MAC Binding, SPI Firewalls, DoS&DDoS Protection, Filtering(IP&Domain), IP Passthrough
Management	Web, CLI, SMS, On-demand dial up, SNMP v1/v2/v3, DeviceHub
AAA	Radius, Tacacs+, LDAP, Local Authentication
Multilevel Authority	Multiple Levels of User Authority
Reliability	VRRP, WAN Failover
Serial Port	Transparent (TCP Client/Server, UDP), Modbus Master/Slave, Modbus Gateway (Modbus RTU to Modbus TCP)
Power Supply and Consumption	
Power Input ²	1. 9-48 VDC, with Surge-Protection and Reverse Polarity Protection

¹ GNSS is under development.

² DC and PoE supply can not be used at the same time.

2. 802.3af PoE PD

Power Connector	2-pin 3.5 mm Terminal Block
Power Consumption	≤ 7 W
Physical Characteristics	
Ingress Protection	IP67
Housing	Polycarbonate + Metal
Dimension	No Waterproof Connector: $\phi 105 \times 110 \times 187$ mm ($\phi 4.13 \times 4.33 \times 7.36$ in) With Waterproof Connector: $\phi 105 \times 110 \times 218$ mm ($\phi 4.13 \times 4.33 \times 8.58$ in)
Installation	Desktop, Pole Mounting, Wall Mounting, Bottom Magnetic/Lock Mounting
Environmental	
Operating Temperature	-40°C to +70°C (-40°F to +158°F)
	Reduced Cellular Performance Above 60°C
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Ethernet Isolation	1.5 kV RMS
Relative Humidity	0% to 95% (Non-condensing) at 25°C/77°F