INDOOR LTE CPE-0001

Specification

INDOOR LTE CPE-0001

MULTI-FUNCTIONAL WIRELESS 4G LTE ROUTER

CONNECTIVITY

4G/LTE (Cat 7 & Cat 13)

WIFI

Wireless Access Point with both physical and virtual SIM card

MIMO

LTE Multiple-Input Multiple-Output (MIMO) 2X2

SPEED

Up to 1200Mbps

BAND

Dual-band, 2.4GHz + 5GHz

RMS

Compatible with SIMO Remote Management System

INDOOR LTE CPE

PRODUCT DESCRIPTION

CPE-0001, is a multi-functional wireless 4G router for home & professional M2M applications.

It uniquely offers connectivity options via either a physical SIM card or Virtual SIM card.

CPE-0001 is widely used for home internet, rural internet, mobile applications, 4G backup, Remote Connection, and IoT.

Can be controlled via a Remote Management Portal for live data monitoring, management, and troubleshooting.

CPE-0001 activates within minutes time.

KEY FEATURES

VSIM TECHNOLOGY

LTE ANTENNAS

○ 2 External Antennas

ETHERNET PORTS

○ 5 Ethernet Ports
- 4 x LAN
- 1 x WAN

WIFI ANTENNAS

○ 4 External Antennas
- 2 x 2.4GHz
- 2 x 5.8GHz

INDICATOR LIGHTS

- Power Indicator LED
- vSIM Indicator
- LTE Indicator
- 2.4Ghz + 5.8GHz Wifi
- Sim Indicator
- + See LED Section

GENERAL INTRODUCTION

CPE-0001, is a multi-functional wireless 4G LTE Cat 7 CPE, providing 4G LTE internet from both physical SIM card and Virtual SIM card. Compliant with IEEE 802.11b/g/n/ac standards, the CPE-0001 can support up to 1200Mbps

Wireless with Dual-Band WIFI 2.4GHz + 5GHz. With an embedded 4G LTE cat7 MTK module, it works well with all the mainstream frequency bands for 4G LTE up to 300Mbps. The CPE-0001 can also be easily managed.

INDUSTRIAL DESIGN

SPECIFICATION

HARDWARE

General Specification

Product Name	Indoor LTE CPE
Model	CPE-0001
Dimensions	180*130*30mm
Weight	< 1500 g (including packaging)
Shell material	Metal
Color	Black
Led	Power Indicator LED VSIM Indicator LTE Indicator 2.4GHz WiFi 5.8GHz WiFi SIM Indicator Signal LED (3 LED) WAN/LAN LED
Temperature	Working: 0°C~40°C Storage: -30°C ~ 70°C
Humidity	Working: 5%―95%
Power	12V 1.5A DC
Consumption	ON State: MAX. 7W OFF State：MAX. 0.5W
LAN	4 x RJ45 10M/100M/1000M LAN Ethernet
WAN	1 x RJ45 10M/100M/1000M WAN Ethernet
SIM	SIM Slot
Buttons	Reset, WPS, Power
LTE Antenna	2 External Antennas
WIFI Antenna	4 External Antennas 2 x 2.4GHz; 2 x 5.8GHz

General Specification (continuation)

General Features	RFC0768 UDP
	RFC0791 IP
	RFC0792 ICMP
	RFC0793 TCP
	RFC0826 Ethernet ARP
	RFC0894 IP over Ethernet
	RFC0922 Broadcasting Internet Datagrams
	RFC0950 Internet Standard Subnetting
	IEEE802.3 Ethertype
	RFC2516 PPP Over Ethernet (PPPoE)
	RFC1662 PPP in HDLC-like Framing
	RFC1332 PPP Internet Protocol Control Protocol
	RFC1042 A standard for the Transmission of IP Datagrams over IEEE 802 Networks
	DHCP server、client
	NAT,NAPT and ALG
	DMZ and Port forwarding(Virtual server)
	PPTP、L2TP VPN
	IGMP proxy and MLD for IPTV
	Logs and statistics
	TR-069 remote management
	Flexible and secure SPI Firewall, Denial of Service (DoS) protection
	Port filtering, IP filtering and MAC filtering
	URL filter
	QOS Flow Control
	DDNS
	IPV6
	Static route
	SNTP Date/time update from Internet Time Server
	WEB GUI
	USSD

Main-board Specification

Main CPU	RTL8197FH-VG5-CG	Single Core 1.0GHz
WLAN Chipset	RTL8812FR-CG	
ETH Chipset	RTL8367RB-VB-CG	
Memory	128MB	128MB 16-bit DDR2
Flash	16MB SPI NOR FLASH	32, 16MB optional

LTE Module Specification

Memory	Flash 8GB RAM 1GB	eMMC + LPDDR3
OS	Android 11	MTK Simplified Version
LTE downlink	Cat7 (301.5 Mbps)	
LTE uplink	Cat13 (150.8 Mbps)	
TDD Bands	B34/B38/B39/B40/B41	
FDD Bands	B1/B2/B3/B4/B5/B7/B8/B12/ B13/B17/B18/B19/B20/B25/ B26/B28/B29/B30/B66/B71	
WCDMA Bands	B1/B2/B4/B5/B8	
Antenna	LTE MIMO 2x2	

WiFi and Ethernet Specification

Chipset	RTL8197FH-VG5-CG
WIFI Protocol	802.11a/b/g/n/ac(2*2)
ETH Protocol	802.3 u/ab/az/x
Frequency	2.4GHz/5GHz
Connections	32
Speed	2.4G WIFI:300Mbps; 5.8G WIFI:866Mbps
MIMO	2*2 MU-MIMO
Distance	Indoors up to 50m

SOFTWARE

Software Specification

Configuration	Handover between physical and Virtual vSIM
Local WEB GUI	Manage the CPE device
Debug Mode	RSSI level Packet error rate CINR Dynamic Tx power Modulation
Encryption/Decryption	AES SNOW3G NULL
Power Control	DL Power Control UL Power Control
Admin management	Admin setting change；Device reboot, reset；Gateway setting
Device Info	Device model；IMEI；CCID；LTE module ID；HW, SW version；MAC; SN; Vendor info; SIM carrier；connection status；Device time；IP address；connection time; Sending and receiving messages；Language setting
Software update	FOTA and local update

Network Specification

WAN Interface	Static IP (IP/Subnet/Gateway/DNS) DHCP Client NTP client
LAN Interface (Ethernet)	NAT mode
IPV4，IPv6	Internet Protocol v4/v6 ICMPv6
VPN Pass-Through	PPTP, L2TP
Remote control	TR069
Firewall	IP-based filter Port- (Protocol-) based filter MAC-based filter
Security	Port Forwarding, DMZ support; Firewall for URL filter, MAC filter, Dos ; Support PIN and PUK based SIM card security; WAN Access Control; Remote access control (HTTP)
Serial port to Ethernet	TCP Server working mode, TCP Client working mode、 data pass-through, modbusTCP/RTU
DNS	DNS relay/ DNS cache
Services	The following services are supported: - Broadcasting - Multicasting
Wireless	Turn on/off；bandwidth；channel；power；SSID； password；Encryption
SIM Card	APN Setting, handover between physical SIM and Virtual SIM