

JN6610 Multi Mode LTE Indoor CPE Datasheet (2G/3G/4G)

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INDEX

1 Hardware Specifications	4
1.1 Basic Description.....	4
1.2 ID Design.....	5
1.2.1 Appearance Index.....	5
1.2.2 Appearance.....	5
1.3 Interface and Button	5
1.4 LED Indicators	7
1.5 RF Specifications.....	8
1.6 Environment Specifications	9
2 Functional Specification	10
2.1 SW Specifications	10
2.2 Device Management	11
2.3 WiFi Features	12
2.4 Firewall	12
2.5 VOIP	13
3Appendix-Delivers	14

1 Hardware Specifications

1.1 Basic Description

Spec.	Description	Comment
LTE chip set	Marvell 1802	Marvell
LTE Standard	3GPP Release 9 CAT4	
TD-SCDMA Standard	3GPP R7	
UMTS Standard	3GPP R7	
EDGE/GPRS Standard	Class12	
Host	AR9341	Qualcomm
Flash	16MB	SPI NOR Flash
DDR2 Memory	64MB	DDR2 SDRAM
Ethernet LAN Port	Four RJ-45 port 10/100 auto-sensing, auto-MDX	Four LAN Port
Voice POTS port	Two FXS RJ-11 ports	Optional Feature
LED Indicators	Power/WiFi/Voice/Mode/Signal Strength/LAN Indicator	
USIM	Support 1.8V/3.0V 2FF USIM	
Power Switch	Power switch, mini rocker switch	
Reset/Reboot Button	Tact switch	Touch reset functions within 1s completed; long press over 10s to restore the factory settings
WPS Button	Tact switch	
WiFi Button	Tact switch	Control WiFi turn on or off
Power Supply	Input : Universal range 100~240V AC Output: 12V/1.0A DC	

1.2 ID Design

1.2.1 Appearance Index

Index	Description
Dimension	167 (H) × 187(W)× 44(T)mm
Weight	About 310g
Color	White or other customization color

1.2.2 Appearance



Figure 1-1 JN6610 CPE Appearance Figure

1.3 Interface and Button

Connectors	Description
ETH RJ45	Four LAN
POTS-RJ11	2 RJ11 interface, phone / fax / POS, providing VoIP functions

	under conditions of software support
USIM Slot	Support 1.8V/3.0V USIM
Power	The Power port is where you connect the enclosed power adapter
Reset/Reboot	Touch reset functions within 1s completed; long press over 10s to restore the factory settings
WPS	Touch the WPS Button, WiFi protection setup automatically
WiFi	Turn on or off WiFi Function

1.4 LED Indicators

LED Name	Description	Color	LED Behavior	Status Indicator
PWR	Power Indicator	Blue	OFF	No Power Supply
			Steady On	Power On
WLAN	WLAN Indicator	Blue	OFF	WLAN function disable
			Blinking	Data transaction through WLAN
			Steady On	WLAN function enable
WPS	WiFi encryption with one button	Blue	OFF	WPS is not triggered
			Blinking	WiFi terminal being registered
			Steady On	WPS Enable
Tel	Voice telephone interface indicator	Blue	Steady On	Be connected with sip server
			Blinking (2 times/sec.)	Connection has been established and is in a state with a hook or ringing sip server
			Blinking (1/sec.)	registering with the sip server
			OFF	Not establish a connection with the sip server
MODE	Mode Indication	Blue	Steady On	In 2G/3G/4G network
			Blinking	No access in 2G/3G/4G network
Signal strength	Signal strength indication	Blue	OFF	No access in 2G/3G/4G network
			One by one signal bar display, four bars	Displays the current 2G/3G/4G network signal strength, the stronger the signal, the more bars on.
LAN1 ~ LAN4	ETH Indication	Kelly	Steady On	Link status
			Blinking	Data transaction status
			OFF	No link status

In addition, two special status indicators (Firmware upgrading and reset process) is described as follows:

Status	Indicator Status Description
Firmware upgrade	WPS + WLAN two lights flash simultaneously
Reset process	Except 4 signal strength indicator, the other indicator are all on

1.5 RF Specifications

No.	Feature		Capability				Comments
			Min	Typ	Max	Unit	
1	Support Bands	TDD LTE	Band 38/39/40/41(n)				
		FDD LTE	Band 1(4)/2/3/5/7/8/28				
		TD-SCDMA	Band 34/39				
		UMTS	Band 1/2/5/8				
		EDGE/GPRS	Band 2/3/5/8				
2	LTE Channel Bandwidth		1.4/3/5/10/15/20			MHz	
3	Power Level @25°C	TDD LTE	Power Class 3 (23 +/-3)			dBm	
		FDD LTE	Power Class 3 (23 +/-3)				
		TD-SCDMA	Power Class 2 (24 +1/-5)				
		UMTS	Power Class 3 (23 +/-2)				
		EDGE	Power Class E2 (GSM850/900:33; DCS/PCS:30)				
		GPRS	Power Class E2 (GSM850/900:27; DCS/PCS:26)				
4	Receiving sensitivity	TDD LTE	-94 dBm(20MHZ) @ 2 antenna				
		FDD LTE	-93 dBm(20MHZ) @ 2 antenna				
		TD-SCDMA	-108 dBm				
		UMTS	-106 dBm @ 1 antenna; some bands can be supported 2 antenna to improve sensitivity				
		EDGE	GSM850/900:-98dBm; DCS/PCS:-98dBm				
		GPRS	GSM850/900:-101dBm; DCS/PCS:-99dBm				
5	LTE Antenna Gain			5		dBi	built-in antenna
6	Wi-Fi Frequency		Ch1~13				
7	Wi-Fi Channel BW			20	40	MHz	
8	2.4G Wi-Fi Antenna Gain				2.5	dBi	

1.6 Environment Specifications

No.	Feature	Capability				Comments
		Min	Type	Max	units	
1	Operating Temperature	-10		45	°C	<50°C without damage
2	Storage Temperature	-20		60	°C	
3	Operating humidity	0		95	%	
4	Storage humidity	0		95	%	

2 Functional Specification

2.1 SW Specifications

Item	Description				
Language Settings	Basic options: Simple Chinese , English Multiple Languages can be customized.				
Network mode	NAT/Bridge/Router mode				
Http & Https	Support the http or https web server				
Multiuser support	Support two users(admin user and normal user) and different limitation and display				
Data service	Ethernet	10/100Mbps			
	TDD-LTE	DL	150Mbps	UL	50Mbps
	FDD-LTE		150Mbps		50Mbps
	TD-SCDMA		2.8Mbps		2.2Mbps
	UMTS		21.6Mbps		5.76Mbps
	EGPRS		237kbps		118Kbps
	GPRS		85.6kbps		42.8kbps
LAN	100Mbit/s				
	MDI/MDIX auto-sensing				
	IEEE802.3/802.3u is compatible				
SIM	PIN Management, sim card Authentication				
Configuration import and export	Encryption backup current settings and restore the backup settings				
Maintenance	Export current diagnosis results and operation logs				
Statistics	1 Link Status (lan) 2 Transmit / receive traffic in packets 3 Up Time				
Network connection setup	1 Create, delete, and edit APN 2 Set up dial-up connection automatically. 3 Set up dial-up connection manual				
VPN	Support VPN pass through Support PPTP tunnel mode Support L2tp, IPsec				
IP Protocol	ipv6/ipv4 dual stack				
Status	1 Signal strength				

	2 Network type 3 Network connection status 4 SIM card status 5 Operator name, system mode, and so on
Scan mode	Support full band or preferred band and frequency Support PCI lock (Cell lock)
Sim lock	Only carrier SIM shall work in the CPE.

2.2 Device Management

Integrity Check	Image One Version
	Image One Checksum
	Image Two Version
	Image Two Checksum
Version Rollback	Auto Rollback to previous version when upgrade fail
Software Upgrade HTTP/FTP Auto Upgrade	Full image upgrade
	Firmware upgrade manually
	Enable / Disable Upgrade Firmware
	Upgrade URL
	Version file
	Check new firmware every (hr.: 1~744)
	Start Time
Random Time	
Configuration backup	Configuration
TR069	Supports upload / download the ACS specified file; Support download CPE configuration file
	Support queries following parameters: PCI / RSRP / RSRQ / SINR / Transmit power / DL Packet Error Rate (PER) / MCS
	Data rate in downlink and uplink / MIMO mode in progress
	Support configure the following parameters: Wan Configuration: Operation Mode, WAN Protocol, Get IP Method, WAN IP Address, WAN IP Subnet Mask, MTU;
	DHCP Server Configuration: DHCP Mode, Start IP, End IP, Lease Time, Relay IP
	DMZ configuration: DMZ Host;
	Support remote upgrade: Support batch or for individual CPE remote version upgrade and rollback operations;
	Support CPE version update
	Supports debugging operations: reboot, restore factory settings, remote PING bag, burn and change ACL address

	Support cycle monitor: According to the server instructions, periodically reporting corresponding parameters: including device performance (Data rate in downlink and uplink, DL Packet Error Rate (PER), MCS, MIMO mode, etc.) and RF parameters (PCI, RSRP, RSRQ, SINR, Transmit power, etc.)
Port mirror	Can enable or disable the port mirror function
syslog	Support the syslog function can send the log to the PC via LAN.
Diagnostics	Support the Ping and trace route

2.3 WiFi Features

WiFi Features	Users can turn on/off WLAN function through two ways, one is touch the WLAN button, the second is Web UI.
	Support configuration WLAN functions through Web UI, include: SSID, SSID broadcasting turn on/off, AP Isolate function, Channel, rate and mode
	Support encryption: Un-encrypted, WEP-OPEN, WEP-SHARED, WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK (AES)
	Support WPS: Support PBC mode
	WiFi protocol support: IEEE 802.11 b/g/n (2.401 – 2.483 GHz)
	WiFi support max. users: 32
	Support SSID broadcasting
	Support WiFi channel self-adapt and select
	Support WDS

2.4 Firewall

Firewall Configuration	Enable Firewall
	Allow Ping from WAN
	Allow HTTPs login from WAN
	HTTPs Login Port from WAN
	DMZ IP Address
	Redirect ICMP to the Host
IP Filter	Support the IP filter
MAC Filter	Support the MAC Filter
URL Filter	Support the URL Filter
UPnP	Support UPnP
Port forwarding	Support the Port forwarding
Access Restriction	Name
	Enable
	Blocked Day / Blocked Time

	Blocked Device
	Blocked Reason

2.5 VOIP

Call Features	<p>Call Waiting Call Hold /Resume Call Forward On busy No condition No answer Call Transfer Blind transfer Attended transfer Early attended transfer 3-Way conferencing Digit Map / Dial plan Caller ID display/blocking RTP monitor RTP Redundancy SBC (session border control) Redundancy Session Timer (INVITE/UPDATE)</p>
Codec	<p>G.711 A/Mu Law Appendix I Appendix II G.726(16,24,32,40 Kbps) G.729AB G.723.1(6.3Kbps / 5.3Kbps) AMR-NB AMR-WB G.722</p>
Echo Canceller	<p>G.167 AEC (Acoustic Echo Cancellation) G.168 Line Echo Canceller</p>
Voice Enhancement	<p>Adaptive Jitter Buffer/Fixed Jitter Buffer VAD/CNG/SID PLC (Packet Lost Concealment) LGC (Linear Gain Control) Gain calibration Mixer</p>
Caller ID	<p>DTMF CID Generation Bellcore CID Type I/II Generation/Detection ETSI CID Type I/II Generation/Detection CID CAS/DTAS/SAS Tones generation</p>

DTMF	Generation Out-of-band DTMF Relay (RFC2833) In-band DTMF relay Detection
CPT	Generation Detection
FAX/Modem	G3/SG3 Fax pass-through T.38 fax relay V.22/V.32 modem pass-through

3 Appendix-Delivers

Article Number	Content	Comments
	<ul style="list-style-type: none"> - 1*Assembled product - 1*Ethernet cable, 1M - 1*12V/1A or 1A AC adapter (Wall Mount) - 1*Manual 	Detail Delivers need to be defined by customer agreement