



YF-33K Pro

LTE Outdoor CPE with
Indoor Wireless Router

3GPP Release 11

CAT12

ALL LTE Bands

PoE

IP67

VoIP/VoLTE

802.11 b/g/n/ac



YF-33K PRO is including a high-performance LTE ODU device and indoor wireless router ,

ODU can provide strong accessibility to the LTE network, and has been designed to meet industrial-grade IP67 dust-proof and water-proof standard. Indoor wireless router supporting the VoLTE/VoIP function(Optional), which can provide ODU power supply. ODU with IDU in combination is the ideal solution for residential LTE network.

Hardware Specifications

Spec	Description	
LTE Chipset	GCT GDM7243A	
LTE standard	3GPP Release 11 CAT 12	
Host Chipset	MT7621A	
Flash	GDM 7243A - 2Gb; MT7621A – 1Gb	
RAM	GDM 7243A - 2Gb; MT7621A – 1Gb;	
Power Supply	Gigabit PoE, ⁽¹⁾ Typical value 24V 1A	
Maximum Power Consumption	<14W	
IP rating	IP67 (ODU)	
LED	ODU	8 LED Indicators (PWR, SYS, NET, SIM, RF Signal*4)
	Router	Power/Internet/WiFi 2.4G/ WiFi 5G/USIM/TEL/ Signal Strength
USIM	Support 1.8V/3.0V 2FF USIM	
Antenna	4 directional antennas	
Dimensions	ODU: 288mm x 288 mm x 88mm	

(1) IDU has 2 LAN ports & 1 WAN/POE port, supply +24V DC to ODU

Environment Specifications

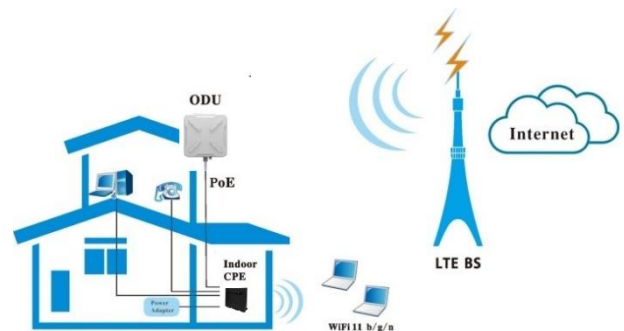
Feature		Capability
Temperature	Operating	-30°C ~ 55°C
	Storage	-40°C ~ 85°C
Humidity	Operating	10 ~ 90%
	Storage	5 ~ 95%

RF Specifications

Feature	Capability	
Support Bands	FDD: B1/2/3/4/5/7/8/12/17/20/28A/28B TDD: B38/41/42/43/48	
CA	Support both intra and inter band CA DL 2CA 4x4 MIMO DL 4CA 2x2 MIMO UL 2CA	
MIMO	DL 2x2 (4CA 256QAM) DL 4x4 (2CA 64QAM) UL 2x2 64QAM	
Output Power@25°C	23±2 dBm	
LTE Antenna	4 directional antennas	
LTE Antenna Gain ⁽¹⁾	0.7~1G	6 dBi
	1.7~2.7G	10 dBi
	3.4~3.8G	16 dBi

(1) If the antenna supports all frequency, the antenna gain will be lower than the value in table

Application Diagram



Software Specifications

Language Settings: Simple Chinese, English ⁽¹⁾	
Support NAT/Bridge/Router mode	
Support the http or https web server	
Support two users (admin user and normal user) and different access level and display	
Peak Throughput	TDD DL 560Mbps (4CC 256QAM); UL 30Mbps (Configuration 2:7);
LAN	1000Mbit/s
	MDI/MDIX auto-sensing
	IEEE802.3/802.3u/802.3ab is compatible
PIN Management, SIM card Authentication	
Encryption backup current settings and restore the backup settings	
Export current diagnosis results and operation logs	
Statistics	Link Status (LAN)
	Transmit / receive traffic in packets
	Up Time
Support multi-APN	
VPN	L2TP V2/V3
	PPTP
	GRE L2/L3
	GRE over IPSec
	L2TP over IPSec
	IPSec
IPv6/IPv4 dual stack	
Status ⁽²⁾	Signal strength
	Network type
	Network connection status
	SIM card status
	Operator name, system mode
Support full band or preferred band and frequency	
Support PCI lock (Cell lock), band lock, PLMN lock	
Only carrier SIM shall work in the CPE	
Support BIP	

(1) Multiple languages can be customized

(2) Can be customized

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	
TR069	Supports upload / download the ACS specified file
	Support download CPE configuration file
	Support configure & queries parameters ⁽¹⁾
	Support remote upgrade
	Support CPE version update
	Supports debugging operations
	Support periodic monitor
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

(1) Can be customized

Bridge Mode

Data traffic forward	Forward the data traffic between the LTE network and PCs.
Maximum 4 PCs support	Each PC connect to the LTE public network via one APN
Module can be managed	One APN can be allocation for the module and the module can be managed via TR069 such remote update version
Public IP allocation	PC get the public IP dynamic from the DHCP server in the CPE. The IP is public CPE get from LTE network.
Multiple APN	Up to 4 APNs support, and can set the static router for each APN

Router Mode

LAN	Can be set 2 IP addresses on the LAN and for 2 different Network.
WAN	Can be set dynamic or static.
Router protocol	Not support current
DNS	Can be set
Multiple APN	Up to 4 APNs support, and can set the static router for each APN

NAT Mode

NAT	Support NAT function
Firewall	Can enable or disable the firewall
Multiple APN	Up to 4 APNs support, and can set the static router for each APN
DMZ	The DMZ can be set.
DHCP server	Support the DHCP server
DNS	Support the auto DNS or manual DNS configuration

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) IEEE 802.11 ac
WiFi support max. users: 32
Support SSID broadcasting
Support multi SSID
Support WiFi channel self-adapt and select
Support guest network

Firewall Features

Firewall Configuration	Allow Ping from WAN
	Allow HTTPs login from WAN
	HTTPs Login Port from WAN
	DMZ
	DDOS
	Redirect ICMP to the Host
Support the IP filter	
Support the MAC Filter	
Support the URL Filter	
Support UPnP	
Support the Port forwarding	

VoIP/VoLTE

Call Features	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)
Codec	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
Echo Canceller	G.167 AEC (Acoustic Echo Cancellation) G.168 Line Echo Canceller
Voice Enhancement	Adaptive Jitter Buffer/Fixed Jitter Buffer VAD/CNG/SID PLC (Packet Lost Concealment) LGC (Linear Gain Control) Gain calibration Mixer
Caller ID	DTMF CID Generation Bellcore CID Type I/II

	Generation/Detection ETSI CID Type I/II Generation/Detection CID CAS/DTAS/SAS Tones generation
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

Appendix-Delivers

Outdoor CPE	1 PCS
Indoor Router	1 PCS
Gigabit POE, Typical value 24V 1.0A	1 PCS
Accessories for pole mounting	1 PCS

(1) Detail Delivers need to be defined by customer agreement