HYC-OLTRG 201cSB -33
iP68 Outdoor 4 G/LTE Router
With 600MHz TDMA Base station

Applications

- 😊 NLOS Wireless internet Access via LTE Network.
- 😊 Internet access service for POS / ATM.
- 😊 Data / Voice / Video transmission among crowded buildings.
- 😊 Long distance Wireless access in wide rural area.

Features:

- ➤ Highly reliable and secure for mission-critical cellular communications
- ➤ Provide flexible options to configure LAN/ WAN ports
- ➤ Support multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat4
- ➤ Built-in dual SIM for network redundancy
- ➤ Integrated dual detachable antenna against radio interference
- ➤ LEDs for connection and data transmission status
- ➤ Industrial rated Operation Temp from -40 to +70°C
- ➤ IPv6/IPv4 dual stack and all applications are IPv6 ready
- ➤ Enhance security and encryption for authentication and transmission
- ➤ 600MHz 2 Watts Radio with TDMA protocol for wireless access in NLOS environment
- ➤ MIMO HT-OFDM Modulation
- ➤ ±2 ppm Frequency Stability for Mobility & NLOS
- ➤ 7 Channel BW (2.5 / 3 / 3.5 / 4 / 5 / 6 / 7 MHz)
- ➤ 3.3 bits/s/Hz amazing spectral efficiency
- ➤ GPS Coordinates and Build-in NMS with Map
- ➤ IP68 Waterproof.

LandRake **HYC-OLTRG-201cSB-33** 4G/LTE Router with 600MHz TDMA Base Station is a highly reliable and secure 4G/LTE wireless communications gateway designed for industrial networking, Operator or WISP create their own networks to share bandwidth with customers those in NLOS environment for data and communication applications. It supports multi-band connectivity including FDD / TDD LTE, WCDMA and GSM for a wide range of applications. To enhance reliability, **HYC-OLTRG-201cSB-33** is equipped with dual SIM that supports failover and roaming over to ensure uninterrupted connectivity for mission-critical cellular communications.

With 2 watts high output power 600MHz HT-OFDM (TDMA protocol) Base Station, **HYC-OLTRG-201cSB-33** allows you to Share the LTE Bandwidth to several client nodes for NLOS wireless internet access & Ethernet applications. It also provides enterprise-grade software features, such as Quality of Service (QoS) for traffic prioritization, IPSec, OpenVPN, Firewall security and so on. The device is administrated via web GUI, Telnet, SSH v2 and HTTP/HTTPS.

Built for secure and uninterrupted operation in harsh environments, **HYC-OLTRG-201cSB-33** series supports extended operating temperature from -40 to +70°C and a flexible input voltage range of 10-32V DC. **HYC-OLTRG-201cSB-33** is an ideal cellular Gateway + UHF band wireless access solution for Internet applications in NLOS environment.
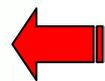
FREQUENCY	
FDD LTE	B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B17 / B20 / B28
TDD LTE	B38 / B40 / B41
WCDMA	B1 / B5 / B8
GSM	900 / 1800 MHz
OUTPUT POWER	
LTE FDD	23dBm +/- 2dB
LTE TDD	23dBm +/- 2dB
TD-SCDMA	24dBm +/- 3dB
UMTS	24dBm +/- 3dB
INTERFACE	
SIM Cards Slots x 2	
LAN 10/100 Mbps Ethernet M12 port x 1	
LTE antenna N-type port x 2	
GPS N-type port x 1	
DC power M12 port x 1	
Software	
Network Protocols	IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, DNS Proxy
Routing & Firewall	NAT, Virtual Server, DMZ, MAC filter, URL Filter, IP Filter, VLAN, Static Routing and RIP-1/2
VPN	OpenVPN, IPSec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256)
Wireless Connectivity	Two SIM cards for failover / roaming over / back up
	Two SIM cards data usage control
	Seamless multi WAN connections switch
Others	DDNS, QoS, UPnP
Alarm	SMS, VPN/WAN Disconnection, SNMP Trap, E-mail
Management	
Web GUI for remote and local management, CLI	
SNMP, TR069	
ENVIRONMENT	
Operating Temperature	-40~70 ℃
Storage Temperature	-40~85 ℃
Humidity	95% non-condensing
POWER SUPPLY & CONSUMPTION	
Max. 52Watts @ 48VDC (Including 600MHz TDMA Base Station)	
PHYSICAL	
Dimension	259 (L) * 250 (W) * 75 (H) ; mm
Weight	2Kg
WARRANTY	
1 YEAR	
ORDERING INFORMATION	
HYC-OLTRG-201cSB-33	Outdoor 4G/LTE backhaul (Redundancy) & 600 ~ 620 MHz 2W SISO HT-OFDM PTP/PTMP (CSMA/TDMA) Radio
HYC-OLTRG-2011-27	Outdoor 4G/LTE backhaul (Redundancy) & 5GHz 0.5W 2x2 MIMO HT-OFDM PTP/PTMP (CSMA/TDMA) Radio
HYC-LTRG-201cSCP-33D	Indoor 600MHz HT-OFDM 2Watts CPE (Client mode)
HYC-LTRG-201cSCR-33D	Indoor 600 ~ 620 MHz 2W SISO HT-OFDM 2Watts CPE Router
HYC-LTRG-201cSCR-33gnD	Indoor 600 ~ 620 MHz 2W SISO HT-OFDM 2Watts CPE Router with 802.11gn 0.5W WiFi Access Point Router

Specifications – 600MHz Base Station

RADIO SPECIFICATIONS	
Frequency range	600 ~ 620 MHz
Channel Band Width	2.5 / 3 / 3.5 / 4 / 5 / 6 / 7 MHz
Frequency Stability	± 2 ppm
Modulation	SISO HT-OFDM with Proprietary TDMA Protocol

MCS Index	SISO HT-OFDM @ 2.5MHz			SISO HT-OFDM @ 7MHz		
	Data Rate (Mbps)	Tx Power (dBm)	Rx Sensitivity (BER 1E10-6)	Data Rate (Mbps)	Tx Power (dBm)	Rx Sensitivity (BER 1^E10-6)
MCS0	0.81	33 (±1.5)	-92 dBm	2.36	33 (±1.5)	-90 dBm
MCS1	1.62	33 (±1.5)	-90 dBm	4.73	33 (±1.5)	-87 dBm
MCS2	2.44	33 (±1.5)	-87 dBm	7.09	33 (±1.5)	-83 dBm
MCS3	3.25	31 (±1.5)	-84 dBm	9.45	31 (±1.5)	-81 dBm
MCS4	4.88	31 (±1.5)	-81 dBm	14.18	31 (±1.5)	-79 dBm
MCS5	6.50	29 (±1.5)	-77 dBm	18.90	29 (±1.5)	-75 dBm
MCS6	7.31	29 (±1.5)	-75 dBm	21.18	29 (±1.5)	-73 dBm
MCS7	8.12	28 (±1.5)	-73 dBm	23.63	28 (±1.5)	-72 dBm

INTERFACES	
Wireless Interface : 1 x N-type Female Connectors	
10/100/1000 Base-T RJ-45 port with M25 Calbe Gland	

MANAGEABILITY	
Management and Setup	Web-based (Chrome / IE 9.0 or later)
SNMP agents	MIB II
Protocol	TCP/IP, IPX/SPX, NetBEUI
Operating mode	Base Station / CPE / Peer to Peer Bridge
Antenna Alignment	WEB GUI Local / Remote Information
Built-in NMS	Live linking status of the network by GPS coordinates and internet map database
Built-in GPS Receiver	Self-locate GPS coordinates to synchronize NMS live linking status (Optional)

SECURITY	
Data Encryption	WPA-PSK / WPA2-PSK
Advanced Security	MAC access control / Disable SSID / Proprietary protocol

ENVIRONMENT	
Operating Temperature	-30~60 ℃
Storage Temperature	-30~70 ℃
Humidity	95% non-condensing

Router radio 3G-4G LTE IP68 backbone & VHF UHF 2watts PTMT Access Point

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Hypercable