MLTG-CN LR

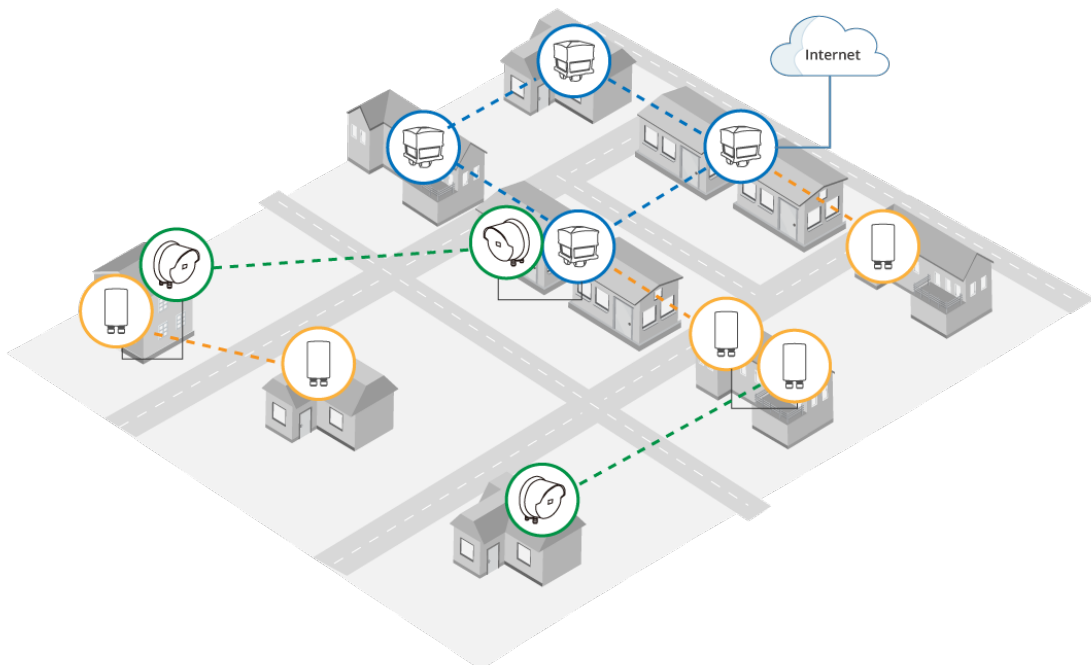## TERRAGRAPH PTP LONG-RANGE CLIENT NODE

INTRODUCTION

MLTG-CN LR is a Terragraph certified client node (CN). MLTG-CN LR supports IEEE802.11ay standard to deliver high-speed Internet in a noise-free and unlicensed 60GHz spectrum. With high-gain antenna and beamforming technology, MLTG-CN LR is suitable for long-range deployments. The range can reach up to 1 km when paired with MLTG-CN LR. And it can reach up to 700 meters when paired with MLTG-360.

MLTG-CN LR can be paired to quickly build long-range Point-to-Point (PtP) links for the backhaul or last-mile access, and deliver fiber-like multi-gigabit throughput.

When connected with MLTG-360, MLTG-CN LR can also function as a endpoint to provide last-mile wireless gigabit connectivity to the client site, such as warehouse, company building, or residential area.

MLTG-360   MLTG-CN   MLTG-CN LR

APPLICATION

- Long distance PTP connection
- Fixed Wireless Access
- Fiber-like Gigabit speed to Home, MDU, and Enterprise
- Wi-Fi Hotspot Backhaul

- IoT / Surveillance Backhaul
- Small Cell Backhaul
- Security & Smart City Networks
- Wireless Business Services & Municipal networks

SPECIFICATIONS

PHYSICAL	
Power	• 24~57V passive PoE injector (DC terminal block)
Dimensions (L x W x H)	• 35.5 x 35.5 x 31.5 cm (13.98 x 13.98 x 12.40 in)
Weight	• 3 kg (6.61 lbs)
Interface	• 1x 2.5G Ethernet Port (PoE IN) • 1x SFP Port • 1x 60GHz Radio
Environmental Conditions	• IP66 Rating • Operating Temperature: -40ºC (-40ºF) to 60ºC (140ºF) • Storage Temperature: -40ºC (-40ºF) to 70ºC (158ºF) • Operating Humidity: 5% to 95% non-condensing • Wind Resistance: 210 km/h (sustained wind)/ 265 km/h (wind gust)
Power Consumption	• 15.9W max.
Antenna	• Type: Built-in phased array antenna with dish • Gain: 40 dBi • Scan Range: +/-3° • Beam Width: 1°
Mounting	• Wall/Pole mount (Mounting kit included)
Certifications	• FCC/IC/CE/VCCI/TELEC
RADIO	
Standards	• 802.11ay
RF Output Power[1]	• Up to 56 dBm[2]
Frequency Band	• 57-66GHz (channel 1 to channel 4)
Channel Bandwidth	• 2160MHz • 4320MHz (available in future software release)
Modulation	• BPSK, QPSK, 16QAM
PERFORMANCE	

Range[3]	• When connected to MLTG-CN LR:
	  • Up to 1km (0.62 mi) for MCS9
	• When connected to MLTG-360:
	  • Up to 700m (0.43 mi) for MCS9
	• When connected to MLTG-CN:
	  • Up to 500m (0.31 mi) for MCS9

Throughput	• 3.6Gbps aggregated

*1: RF output power here stands for EIRP with antenna gain
*2: Maximum power is limited by local regulatory requirements
*3: Distance will vary depending on environmental factors

KEY FEATURES
Support channel 1 to channel 4 (57-66GHz)
Up to 3.6Gbps bi-directional aggregate throughput
High gain antenna with beamforming technology
Snow accumulation avoidance design
Support TDMA-MAC for dynamic bandwidth allocation
Support Over-the-Air (OTA) Security with AES128 encryption
Support QoS with 4 service classes
Terragraph Client Node Mode ▪ Support Layer 2 forwarding with VXLAN tunnel ▪ Support Layer 2 forwarding with native bridge
Support Layer 2 Point-to-Point mode
VLAN / Q-in-Q transparent
Configurable management port
Boot bank swap / reset to default by consecutive power cycle
SNMP private MIB for link stats
Diagnostic file collection
LED for aiming indication and signal strength
NMS management

ACCESSORIES

PART NUMBER	DESCRIPTION
ICC-BRACKET-LR	• Precision Bracket (Optional) • Pole mount • Vertical adjustable range: +/- 12 degree • Horizontal adjustable range: +/- 15 degree • Wind Survivability: 125 mph (201 kph)
ICC-BRACKET-LC	• Precision Bracket (Optional) • Pole mount • Vertical adjustable range: +/- 7.5 degree • Horizontal adjustable range: +/- 3 degree • Wind Survivability: 125mph (201kph)
ICC-SCOPE-9x50	• Alignment scope (optional) • 9x50 magnification • Only compatible with ICC-BRACKET-LR mounting bracket
Picatinny Rail Bracket	• Mounting platform for rifle scope (optional) • Standard picatinny rail • Dimension (L x W x H): 7.4 x 2.1 x 1.3 cm (2.9 x 0.8 x 0.5 in) • Only compatible with ICC-BRACKET-LR mounting bracket