



# TeraLink 2200 4.9 to 6.0 GHz Gen2 CPE

High Power, 802.11ac Wave-2 2x2 MU-MIMO  
Outdoor CPE

## OVERVIEW

The TeraLink 2200 Gen2 CPE is a high power 2 x 2 MU-MIMO (Wave-2) Outdoor CPE that provides signaling rates up to 867 Mbps. It is designed specifically to cater to high power, high bandwidth requirements and delivers high stability, reliability and efficiency.

The TeraLink 2200 Gen2 CPE supports a frequency range from 4.9 GHz to 6.0 GHz. Some of the unique features are: 5 and 10 MHz channels and a fiberoptic port. It offers an option to choose either 2 x Gigabit Ethernet ports or 1 x Gigabit Ethernet port and 1 x Fiberoptic port, to provide flexibility to operators.

The TeraLink 2200 Gen2 CPE can support an integrated 2 x 2 MIMO directional high gain 16 dBi or 19 dBi antenna option. The high-efficiency directional antenna provides optimal outdoor throughput performance in point-to-point transmissions. It not only supports channels 5 & 10 MHz but also 20, 40 and 80 MHz.

The TeraLink 2200 Gen2 CPE has significantly higher capacity and increased coverage capabilities over conventional point-to-point radios, due to the MU-MIMO diversity advantage; increased output power and sensitive reception capability. TeraLink is built on more than a decade of OFDM experience. The 2 x 2 MU-MIMO capable CPE delivers superior throughput for bandwidth hungry 4G- and 5G-ready customers.

The TeraLink 2200 Gen2 CPE is packaged in an IP67 ABS enclosure and is suitable for all weather conditions. The enclosure allows for stable operation in high heat or cold weather environments.

## PRODUCT FEATURES

- Outdoor 4.9 to 6.0 GHz Gen2 CPE
- 2 x 2 MU-MIMO Technology, up to 867 Mbps
- IEEE 802.11ac Wave-2 compliant and Backward compatible with 802.11a/n
- Frequency 4.940 GHz to 6.0 GHz
- Option for 2 x Gigabit Ethernet Ports or 1 x Gigabit Ethernet port & 1 x Fiberoptic Port
- Supports 5, 10, 20, 40 and 80 MHz Channel Sizes
- Output Power: Up to 27 dBm per chain or aggregated 30 dBm
- Antenna: Integrated 2 x 2 MIMO 16 dBi or 19 dBi antenna option
- LED Indicators: Power, Signal and LAN
- External Reset Button
- Supports Dynamic Frequency Selection (DFS); NLOS Urban Coverage with OFDM Technology
- High Spectral Efficiency and Robust RF Network Performance
- IP67 ABS enclosure for All Weather Conditions.

## ORDERING INFORMATION

2200-58-16i-G2	TeraLink 2200 4.9 to 6.0 GHz Gen2 CPE, 16 dBi Integrated Antenna, IP67 ABS
2200-58-19i-G2	TeraLink 2200 4.9 to 6.0 GHz Gen2 CPE, 19 dBi Integrated Antenna, IP67 ABS

## RADIO SPECIFICATION

<b>Topology</b>	Point-to-Point; Point-to-Multi-Point CPE				
<b>Frequency*</b>	4.940 GHz to 6.0 GHz				
<b>Channel Size*</b>	5, 10, 20, 40 and 80 MHz				
<b>Modulation</b>	OFDM: BPSK, QPSK, 16-QAM 64-QAM and 256-QAM				
<b>Signaling Rate</b>	Up to 867 Mbps				
<b>RF Connectors</b>	Integrated 16dBi or 19dBi Antenna Option				
<b>Output Power</b>	Up to + 27 dBm per chain or aggregated 30 dBm				
<b>Receiver Sensitivity</b>	<b>Operation Mode</b>	<b>Data Rate</b>	<b>Sensitivity</b>	<b>Data Rate</b>	<b>Sensitivity</b>
	802.11a	6 Mbps	-96 dBm	54 Mbps	-78 dBm
	802.11n HT20	MCS0, MCS8	-92 dBm	MCS7, MCS15	-73 dBm
	802.11n HT40	MCS0, MCS8	-90 dBm	MCS7, MCS15	-70 dBm
	802.11AC HT40	MCS0, MCS10, MCS20	-90 dBm	MCS9, MCS19, MCS29	-67 dBm
802.11AC HT80	MCS0, MCS10, MCS20	-88 dBm	MCS9, MCS19, MCS29	-62 dBm	
<b>Radio TX Specifications</b>	<b>Operation Mode</b>	<b>Data Rate</b>	<b>Power: 1 Chain, 2 Chains</b>	<b>Data Rate</b>	<b>Power: 1 Chain, 2 Chains</b>
	802.11a	6 Mbps	27 dBm, 30 dBm	54 Mbps	23 dBm, 26 dBm
	802.11n HT20	MCS0, MCS8	26 dBm, 29 dBm	MCS7, MCS15	22 dBm, 25 dBm
	802.11n HT40	MCS0, MCS8	25 dBm, 28 dBm	MCS7, MCS15	21dBm, 24 dBm
	802.11ac	MCS0, MCS10, MCS20	25 dBm, 28 dBm	MCS9, MCS19, MCS29	19dBm, 22 dBm
<b>Duplexing Format</b>	Dynamic Time Division Duplex (TDD), Half-Duplex				
<b>Medium Access Control</b>	IEEE 802.11ac (Wave-2)				
<b>Data Rate Selection</b>	Dynamic Adaptive Modulation per Link				

## NETWORK SPECIFICATIONS

<b>Network Connection</b>	2 x Gigabit Ethernet ports; Auto MDI-X RJ45 10/100/1000 Mbps Ethernet or 1 x Gigabit Ethernet & 1 x Fiber port
<b>Operational Mode</b>	Transparent Bridging (per OSI Layer2), Multicast
<b>Traffic Management</b>	Advanced QoS per user (Hotspot Mode), Standard WMM
<b>MAC Filtering and Firewall</b>	Filtering through Standard MAC address, Firewalls - Zones
<b>VLAN</b>	Data Tagging/Un-tagging, 802.1q transparency, VLAN Management; SSID to VLAN Mapping
<b>NAT</b>	1: N NAT configurable through CPE GUI
<b>DHCP</b>	DHCP Client, DHCP server for LAN devices when in NAT mode, PPPoE, L2TP
<b>IPv6</b>	IPv6 pass through in bridge mode
<b>Routes</b>	Add static Routes

## SECURITY

<b>Management Access</b>	Username and Password Compatible with all modern web browsers and Windows 7+ OS
<b>Encryption</b>	WEP (64, 128, 154), WPA1 (TKIP), WPA2 (CCMP - AES 128, CBC-MAC for headers). Encryption is available in factory firmware and firmware upgrades.

## MANAGEMENT

<b>Management Access</b>	Over the Air & Wired over prioritized ports.
<b>Remote Monitoring</b>	HTML Web-GUI, SNMP v3c (Set, Get and Traps with proprietary MIB) MIB files are available on request.
<b>Installation Management</b>	Wireless Link Monitor and Diagnostic Tool. <ul style="list-style-type: none"> <li>• Provides noise and RSSI signal levels as well as other statistical information</li> <li>• Real-time view of available over the air bandwidth</li> <li>• Real-time Link Quality Metrics</li> <li>• Visual LED Antenna Alignment</li> <li>• Built-in Spectrum Analyzer</li> </ul>
<b>LED Indicators</b>	Power, Signal and LAN
<b>Backup Configuration</b>	Save Radio Configuration to local PC
<b>Software Upgrade</b>	Over-the-Air or local, Web-based upgrade
<b>Services</b>	Auto Reboot, Ping Watchdog

## PHYSICAL, ELECTRICAL & ENVIRONMENTAL

<b>Power Consumption</b>	Typ. < 10 Watts
<b>Power Supply</b>	100-240V, 50/60 Hz AC; UL/CSA approved 48 Volt POE system; DC power options available. The included power supply includes one standard Gigabit Ethernet port for connection to LAN or local PC, and one PoE port for connection to the TeraLink equipment. Power supply is 10/100/1000 BaseT IEEE802.3af/at compliant with data rates up to 1 Gbps full duplex on both ports.
<b>Reset Button</b>	Yes
<b>Temperature Range</b>	Operating: -20° C to +70° C Storage: -40° C to +90° C
<b>Relative Humidity</b>	Operating: 0% to 100% (condensing); Storage: Max. 90% (non-condensing)
<b>Mounting Bracket</b>	Pole mounting hardware included.
<b>Enclosure</b>	IP67 ABS
<b>Weight</b>	2.0 kg
<b>Dimensions</b>	386 mm x 386 mm x 80 mm
<b>Lightning Protection</b>	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

## STANDARDS COMPLIANCE

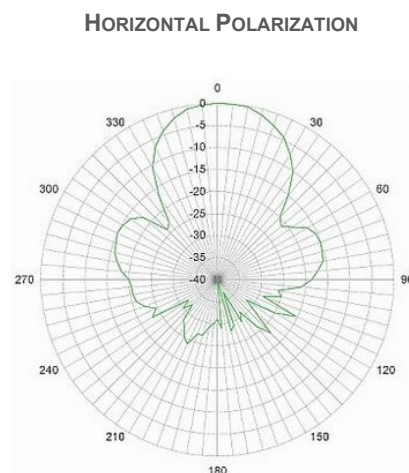
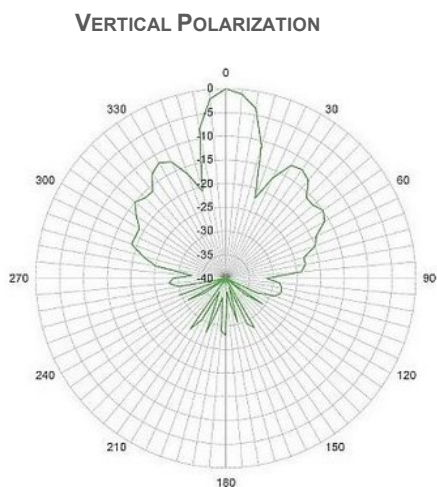
<b>Weatherproofing</b>	IP67 when properly installed
<b>Compliance</b>	RoHS/WEEE FCC Part 15 Industry Canada Spectrum Management and Telecommunications Radio Standards Adheres to RSS-210 Issue 8 License-exempt Radio Apparatus (all frequency bands): Category 1 Equipment

### INTEGRATED ANTENNA

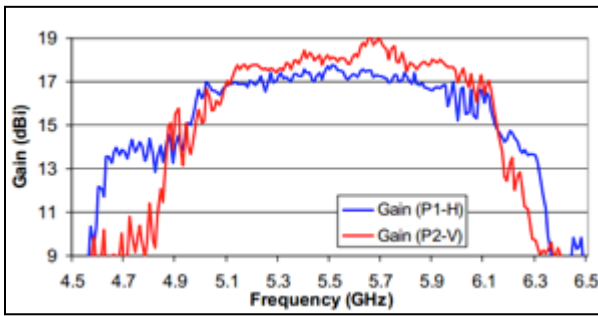
The specifications below apply to the optional integrated antenna that is included with the TeraLink Radios.

<b>Gain</b>	19 dBi	16 dBi
<b>Radiation</b>	Directional	Directional
<b>Frequency Range</b>	4.9 - 6.0 GHz	4.9 – 6.0 GHz
<b>Polarization</b>	Dual – Polarization	Dual – Polarization
<b>Azimuth-3dB Beam Width</b>	Horizontal (Port 1): 17 degrees Vertical (Port 2): 17 degrees	Horizontal (Port 1): 38 degrees Vertical (Port 2): 20 degrees
<b>Elevation-3dB Beam Width</b>	Horizontal (Port 1): 17 degrees Vertical (Port 2): 17 degrees	Horizontal (Port 1): 38 degrees Vertical (Port 2): 20 degrees
<b>Isolation</b>	-40 dB (Max)	-40 dB (Max)
<b>Front-to-Back Ratio</b>	-25 dB (Max)	-40 dB (Max)
<b>VSWR</b>	Horizontal (Port 1): <1: 1.87 Vertical (Port 2): <1: 2.00	Horizontal (Port 1): <1: 1.5 Vertical (Port 2): <1: 1.5
<b>Cross Polarization Isolation</b>	-27dB (Max)	-24 dB (Max)
<b>Side Lobe</b>	< -12 dB	< -12 dB

### INTEGRATED ANTENNA POLAR PLOTS 16 dBi



INTEGRATED ANTENNA GAIN PLOT 19 dBi



INTEGRATED ANTENNA POLAR PLOTS 19 dBi

