DATASHEET

TeraLink 5400 2.4 GHz Gen2

High Power 2 x 2 MU-MIMO Outdoor PTP & PTMP Radio

OVERVIEW

The TeraLink 5400 2.4 GHz Gen2 is a high power 2 x 2 MU-MIMO (Wave-2) Outdoor Point-to-Point AND Point-to-Multi-Point Radio that provides signaling rates up to 400 Mbps. It is designed specifically to cater to high power, high bandwidth requirements and deliver similar stability, reliability and efficiency as EION's legacy point-to-point radio StarPlus 5300.

The TeraLink 5400 2.4 GHz Gen2 supports a frequency range from 2.412 GHz to 2.482 GHz. Some of the unique features are: 5 and 10MHz channels and a fiber optic port and support for high gain antennas. It offers an option to choose either 2 x Gigabit Ethernet ports or 1 x Gigabit Ethernet port and 1 x Fiber optic port to give flexibility to the operators.

TeraLink 5400 2.4 GHz Gen2 can support high gain external antennas. It not only supports channels 5 & 10 MHz but also 20 and 40.

The TeraLink 5400 2.4 GHz Gen2 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 radio delivers superior throughput for bandwidth hungry 4G- and 5G-ready customers.

The TeraLink 5400 2.4 GHz Gen2 base radio is packaged in an IP67 ruggedized enclosure and is suitable for all weather conditions. The specialized design of the finned enclosure allows for stable operation in high heat environments, while the integrated vent plug protects the electronics in high humidity conditions. The thick, all-metal enclosure provides high EMI immunity for stable operation and secure communications in hostile environments.

PRODUCT FEATURES

- Outdoor PTP & PTMP Radio
- 2 x 2 MU-MIMO Technology, up to 400 Mbps
- IEEE 802.11g/n Wave-2 compliant
- Frequency 2.412 GHz to 2.482 GHz
- Option for 2 x Gigabit Ethernet Ports or 1 x Gigabit Ethernet port & 1 x Fiber optic Port
- Supports 5, 10, 20 and 40 MHz Channel Sizes
- Output Power: Up to 27 dBm per chain or aggregated 30dBm
- LED Indicators: Power, Signal and LAN
- External Reset Button
- Antenna: Supports high gain 2 x 2 External Antenna system
- Supports Dynamic Frequency Selection (DFS); NLOS Urban Coverage with OFDM Technology
- SNMPv3 and Enterprise MIB for Advanced Network Management
- High Spectral Efficiency and Robust RF Network Performance
- Rugged Construction for All Weather Conditions.

ORDERING INFORMATION

5400-58-2.4-ER-G2	TeraLink 5400 2.4GHz Gen2, ER, IP67 Rugged, Outdoor

RADIO SPECIFICATION

Topology	Point-to-Point; Point-to-Multi-Point
Frequency*	2.412 GHz to 2.482 GHz
Channel Size*	5, 10, 20 and 40
Modulation	OFDM: BPSK, QPSK, 16-QAM and 64-QAM
Signaling Rate	Up to 400 Mbps
RF Connectors	2 x N-type female antenna connector
Output Power	Up to + 27 dBm per chain or aggregated 30dBm

Receiver Sensitivity

Operation Mode	Data Rate	Sensitivity	Data Rate	Sensitivity
802.11g	6 Mbps	-96 dBm	54 Mbps	-78 dBm
802.11n HT20	MCS0, MCS8	-93 dBm	MCS7, MCS15	-73 dBm
802.11n HT40	MCS0, MCS8	-90 dBm	MCS7, MCS15	-70 dBm

Radio TX Specifications

Operation Mode	Data Rate	Power: 1 Chain, 2 Chains	Data Rate	Power: 1 Chain, 2 Chains
802.11g	6 Mbps	27 dBm, 30 dBm	54 Mbps	25 dBm, 28 dBm
802.11n HT20	MCS0, MCS8	26 dBm, 29 dBm	MCS7, MCS15	25 dBm, 28 dBm
802.11n HT40	MCS0, MCS8	26 dBm, 29 dBm	MCS7, MCS15	24 dBm, 27 dBm

Duplexing Format	Dynamic Time Division Duplex (TDD), Half-Duplex
Medium Access Control	IEEE 802.11g/n (Wave-2 MU-MIMO)
Data Rate Selection	Dynamic Adaptive Modulation per Link

NETWORK SPECIFICATIONS

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

SECURITY

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

MANAGEMENT

Management Access	Over-the-Air & Wired over prioritized ports
Remote Monitoring	HTML Web-GUI, SNMP v3c (Set, Get and Traps with proprietary MIB) MIB files are available on request
Installation Management	Wireless Link Monitor and Diagnostic Tool. • Provides noise and RSSI signal levels as well as other statistical information. • Real-time view of available over the air bandwidth. • Real-Time Link Quality Metrics. • Visual LED Antenna Alignment • Built-in Spectrum Analyzer.
LED Indicators	Power, Signal and LAN
Backup Configuration	Save Radio Configuration to local PC
Software Upgrade	Over the Air or local, Web-based upgrade
Services	Auto Reboot, Ping Watchdog

PHYSICAL, ELECTRICAL & ENVIRONMENTAL

Power Consumption	Typ. < 10 Watts
Power Supply	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 complaint with data rates up to 1 Gbps full duplex on both ports
Reset Button	Yes
Temperature Range	Operating: -20º C to +70º C Storage: -40º C to +90º C
Relative Humidity	Operating: 0% to 100% (condensing); Storage: Max. 90% (non-condensing)
Mounting Bracket	Pole mounting hardware included
Enclosure	IP67; Rugged Metal enclosure
Weight	2.2 kg (External Antenna)
Dimensions	230 mm × 230 mm × 65 mm
Lightning Protection	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

STANDARDS COMPLIANCE

Weatherproofing	IP67 when properly installed
Compliance	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