EION WIRELESS

TeraLink 6400
1.3 Gbps 3 x 3 MIMO Outdoor Base Radio

OVERVIEW

TeraLink 6400 is a 3 x 3 MIMO, IEEE802.11ac Radio that provides superior outdoor Point-to-Multipoint Topologies Networks and can serve in Point-to-Point role as well at signaling rates up to 1.3 Gbps. TeraLink 6400 is designed for wide area coverage.

The TeraLink 6400 has significantly higher capacity and increased coverage capabilities over conventional point to point or point to multi-point systems due to a number factors working in concert. These factors are the MIMO diversity advantage; increased output power and sensitive receive capability.

For connection into the network the two Gigabit Ethernet interface on the TeraLink 6400 can connect to a wired backbone.

TeraLink is built on more than a decade of OFDM experience. The 3 x 3 multiple-in, multiple-out (MIMO) capable radio delivers superior throughput for bandwidth hungry 3G and 4G customers.

The TeraLink 6400 base radio is packaged in an IP67 ruggedized enclosure 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 electronics in high humidity conditions. The thick all-metal enclosure provides high EMI immunity for stable operation and secures communications in hostile environments.

PRODUCT FEATURES

- Point-to-Point and Point-to Multipoint Topologies
- 3 x 3 MIMO Technology, up to 1.3 Gbps
- IEEE 802.11ac compliant and Backward compatible with 802.11a/an
- Supports Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low-Density Parity Check (LDPC) Codes, Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, l, k, r, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)
- 80, 40 & 20 MHz Channel Sizes
- NLOS Urban Coverage with OFDM Technology
- User Friendly Web-Based GUI
- SNMPv3 and Enterprise MIB for Advanced Network Management
- High Spectral Efficiency and Robust RF Network Performance
- Rugged Construction for All Weather Conditions
- Built-in ESD Protection with ESD/EMP Immunity, Power Surge POE Protection.

ORDERING INFORMATION

6400-58-10-00	TeraLink 6400 5.x GHz, 3x3 MIMO, Ruggedized, Extended Range
6400-58-20-00	TeraLink 6400 5.x GHz, 3x3 MIMO, Ultra Ruggedized, Extended Range

RADIO SPECIFICATION

Topology	Point-to-Multipoint and Point-to-Point
Frequency	5.0 GHz to 6.1 GHz & 4.9 GHz to 5.0 GHz
Channel Size	20 MHz ; 40 MHz ; 80 MHz
Modulation	OFDM : BPSK, QPSK, 16-QAM 64-QAM and 256-QAM
Signaling Rate	Up to 1.3 Gbps
RF Connectors	3 x N-type female antenna connector
Output Power	Up to + 27 dBm (aggregated 32dBm), configurable in 1dB steps

Receiver Sensitivity (BER = 10^{-6}) +/- 2dB	Modulation	20 MHz	40 MHz	80 MHz
	BPSK	-94 dBm	-91 dBm	-90 dBm
	16-QAM	-82 dBm	-79 dBm	-76 dBm
	64-QAM	-70 dBm	-67 dBm	-64 dBm
	256-QAM	NA	-65 dBm	-61 dBm

Duplexing Format	Dynamic Time Division Duplex (TDD), Half-Duplex
Medium Access Control	IEEE 802.11ac
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
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/Untagging, 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
Operation Mode	Standalone, Hotspot, EION AP Controller

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).

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 • Built-in Spectrum Analyzer
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
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	Single Unit, Die Cast Metal NEMA 4x; IP67, Finned for heat dissipation
Weight	2.3 kg (Ruggedized) 3.2 kg (Ultra Ruggedized)
Dimensions	229 mm × 191 mm × 76 mm
Lightning Protection	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

STANDARDS COMPLIANCE

Weatherproofing	IP67 when properly installed
Materials Compliance	RoHS/WEEE

BOX CONTENTS

Each Box Contains the following items	• TeraLink 6400 3 x 3 MIMO Wireless Radio • 48V PoE Injector • Pole mounting bracket • Quick Start Guide