E-LINK RAPID 2.0

Outdoor High-Performance 802.11ac MIMO Broadband Radio

OVERVIEW

E-LINK Rapid 2.0 is a high-performance industrial outdoor broadband radio with next generation 802.11ac standard with 16dBi inbuilt MIMO panel antenna to provide excellent long-range coverage and capacity. It is extremely suitable for wireless security and long range PTP/PTMP connections**. It excels both in performance and user-friendliness with easy installation, configuration and maintenance. The professional IP65 waterproof, dust-proof ABS plastic enclosure makes the radio suitable for extreme hot and cold harsh environments. The 5GHz outdoor radio has a data rate of 900Mbps and range 5000 meters for PTP connections. The 2.4GHz outdoor radio has a data rate of 300Mbps and range 3000 meters for PTP connections.

The E-LINK Rapid 2.0 has a LED display along with function button and select button that makes configuration easier for Point-to-Point and Point-to-Multipoint wireless connection.

E-LINK Rapid 2.0 has multiple operation modes suitable for different network and environments including Super WDS, Gateway, Repeater, WISP and Wireless AP operation mode, which can meet multiple Wi-Fi transmission scheme demands. The transmission RF power is adjustable based on the environment. It cuts down RF power in high density environments and increases RF power in long range environments to improve performance. This employs Wi-Fi interference mitigation using TDMA proprietary protocol.

PRODUCT FEATURES

- Latest 802.11ac standard
- Data Rate - 5 GHz: 900 Mbps;
          2.4 GHz: 300 Mbps
- Built-in 16dBi MIMO panel antenna
- Less Wi-Fi interference, stable signal
- Long range PTP/PTMP connections
- IP65 professional ABS plastic enclosure
- Simple installation and debugging
- Wireless Bridge LED Display
- DC/PoE power available
- Adjustable RF Power
- 64+ max users
- IPv4 Protocol
- Interface
  - 1 * WAN Port
  - 1 * LAN Port
  - 1 * LED display
  - 1 * F(Function) switch button
  - 1 * S(Select) button
  - 1 * DC Jack
  - 1 * Reset button

ORDERING INFORMATION

9180-00-20-01	**E-LINK Rapid 2.0 802.11ac 300 Mbps 2.4GHz Outdoor Radio**
9180-00-20-02	**E-LINK Rapid 2.0 802.11ac 900 Mbps 5GHz Outdoor Radio**

** E-LINK RAPID 2.0 comes in two product options: 5GHz and 2.4GHz

RADIO SPECIFICATIONS

Standard	5 GHz: 802.11ac/a/n; 2.4 GHz:802.11b/g/n
Frequency	5GHz :5.150GHz to 5.850GHz 2.4GHz: 2.312GHz to 2.483GHz
Channel Size	20 MHz; 40 MHz; 80 MHz
Modulation	OFDM: BPSK, QPSK, 16-QAM, 64-QAM; DSSS: DBPSK, DQPSK, CCK
Signaling Rate	5GHz: 900 Mbps; 2.4GHZ: 300 Mbps
Antenna	Built-in 16dBi MIMO Panel Antenna
Output Power	Up to + 23 dBm (aggregated 26 dBm), configurable in 1dB step

Receiver Sensitivity (BER = 10^{-6}) +/- 2dB

5 GHZ				
802.11a	54M	-72dBm	6M	-90dBm
802.11n HT20	MCS7	-70dBm	MCS0	-88dBm
802.11n HT40	MCS7	-68dBm	MCS0	-86dBm
802.11ac HT80	MCS9	-58dBm	MCS0	-85dBm

Receiver Sensitivity (BER = 10^{-6}) +/- 2dB

2.4 GHZ				
802.11n	MCS7	-70dBm	MCS0	-88dBm
802.11g	54Mbps	-72dBm	6Mbps	-90dBm
802.11b	11Mbps	-85dBm	1Mbps	-94dBm

Duplexing Format	Dynamic Time Division Duplex (TDD), Half-Duplex
Data Rate Selection	Dynamic Adaptive Modulation per Link
EVM	5GHz: 802.11a: ≤-25 dB; 802.11n: ≤-28 dB; 802.11ac: ≤-32 dB 2.4GHz: 802.11n: ≤-28 dB; 802.11g: ≤-25 dB; 802.11b: ≤-10 dB;
Max Users	64+
PPM	±20ppm

NETWORK SPECIFICATIONS

Interface	5 GHz: 1 * 10/100 /1000Mbps RJ45 WAN Port; 2.4GHz: 1 * 10/100Mbps RJ45 WAN Port 1 * 10/100Mbps RJ45 LAN Port 1 * LED display 1 * F(Function) switch button 1 * S(Select) button, press it to setup WDS PTP/PTMP connection 1 * DC Jack 1 * Reset button, press 15 seconds to revert to default setting, press 1 seconds to do the WDS connection
Operational Mode	Wireless AP, Gateway, Wi-Fi Repeater, Super WDS
WAN Type	Dynamic IP/Static IP/PPPoE/L2TP (Dual Access) /PPTP (Dual Access)
Traffic Management	Standard WMM; User Cloud Authentication
Firewall	DoS, SPI Firewall, IP Address Filter, MAC Address Filter, Domain Filter IP and MAC Address Binding
VLAN	Data Tagging/Un-tagging, 802.1q transparency, VLAN Management; SSID to VLAN Mapping
NAT	1:N NAT configurable through Radio GUI
DHCP	DHCP Client, DHCP server for LAN devices when in NAT mode, PPPoE, L2TP
Ipv6	Ipv4 pass through in bridge mode
Routes	Add static Routes
SSID	Multiple SSID up to 4
Operation Mode	Standalone, Hotspot, E-Link Controller (Centralized Network Management & Configuration System)
Enhanced Control	- Hotspot and Guest Portal Support - Powerful Network Diagnostic Utilities - Real-time Network Load Graphs

SECURITY

Management Access	Username and Password Compatible with all modern web browsers
Encryption	64/128-bit WEP, WPA / WPA2, WPA-PSK/ WPA2-PSK encryption

MANAGEMENT

Management Access	Over the Air & Wired over prioritized ports
Remote Configuration/ Monitoring	Firmware GUI, Remote Management, WLAN Controller, Cloud Management System
Backup Configuration	Save Radio Configuration to local PC
Software Upgrade	Over the Air or local, Web-based upgrade
System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7, Windows 8, MAC OS, NetWare, UNIX or Linux
Services	Auto Reboot, Ping Watchdog

PHYSICAL, ELECTRICAL & ENVIRONMENTAL

Power Consumption	24V PoE/1A < 13W
Temperature Range	Operating: -30º C to +55º C Storage: -40º C to +70º C
Humidity	5% to 95% non-condensing
Weight	Carton Box 20 Units – 10 Kg
Dimensions	260mm*85mm*45mm
Lightning Protection	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

STANDARDS COMPLIANCE

Materials Compliance	RoHS/WEEE
Certification	CE, FCC & IC modular approvals

BOX CONTENTS

Each Box Contains the following items	- E-LINK Rapid 2.0 802.11ac 5GHz Outdoor Radio or 2.4GHz Outdoor Radio - POE adapter - Ethernet Cable - Mounting Accessories - Quick Start Guide