

TRAFFICFOX

INDUSTRIAL GRADE WIRELESS COMMUNICATIONS

by: precision
equipment



The **Traffic Fox** radio by Precision Equipment is a completely waterproof and rugged outdoor wireless device with a super high output power. This is the newest member of a successful field-proven family of wireless point-to-multipoint products designed for the toughest applications, including fixed wireless access infrastructure for utility companies and intelligent transportation systems. The product family features high spectral efficiency, exceptional reliability and excellent quality.

Compared to traditional Point-to-Multipoint systems, both operating range and link reliability have increased significantly through the use of advanced TDMA AP and Antenna Synchronization and Adaptive Traffic Aware Polling Algorithm (ATAPA).

HIGHLIGHTS

- x Functional in dual bands and wide frequency bands (5.1 – 5.8 GHz) & (2.41-2.48 GHz)
- x High Capacity - 175 Mbps of real usable network throughput
- x Some NLOS range and performance
- x Supports channel width size from 5 to 80 MHz, reducing unlicensed interference
- x Designed, Engineered, & Assembled in the United States
- x Supports advanced TDMA AP & Antenna Synchronization technology to significantly increase capacity, reduce interference, and assist with noise immunity.
- x Supports “over the air” Mesh Routing Protocol (MRP) for increased responsiveness and Adaptive Traffic Aware Polling Algorithm (ATAPA) for increased bandwidth when needed.
- x Compact and Lightweight makes this terminal perfect for any installation. This device can easily be installed inside of an enclosure cabinet or outdoors on a pole.

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RADIO

- ▶ MODULATION TYPES: OFDM – BPSK, QPSK, QAM16, QAM 64, QAM, 128, QAM 256
- ▶ FREQUENCY: 2412-2484, 5150-5875
- ▶ CHANNEL SIZE: 20/40/80MHz
- ▶ TX POWER: Up to 31dBm ATPC
- ▶ SISO (MIMO optional)
- ▶ CHAIN(S): Single (2-3 optional)
- ▶ ADAPTIVE TRAFFIC AWARE POLING ALGORITHM (ATAPA)
- ▶ TDMA SYNCHRONIZATION
- ▶ ENCRYPTION: AES 128 bit
- ▶ MAC LAYER CONTROL
- ▶ OVER THE AIR ROUTING
- ▶ ASYNCHRONOUS THROUGHPUT

MANAGEMENT

- ▶ SECURE WINDOWS APPLICATION
- ▶ SECURE WEB INTERFACE
- ▶ TELNET, SSH, SSL, TFTP
- ▶ SNMP v1, v2c, v3
- ▶ SYSLOG & SNTP
- ▶ DISCOVERY TOOL

WIRELESS SPECIFICATIONS

- ▶ TX Power/RX Sens – 6 Mbps: 31dBm / -93 dBm
- ▶ TX Power/RX Sens – 54 Mbps: 27dBm / -78 dBm
- ▶ TX Power/RX Sens – MCS0: 30dBm / -93 dBm
- ▶ TX Power/RX Sens – MCS7: 26dBm / -72 dBm
- ▶ TX Power/RX Sens – MCS9: 22dBm / -69 dBm

POWER

- ▶ CONSUMPTION: Up to 11W (4W typical)
- ▶ PoE: 8-30 VDC in GE1 (44-57 VDC optional)
- ▶ PoE Injector Input 24 VDC
- ▶ Power Supply Input 85-264 VAC / 120-370 VDC
- ▶ 7 Day Battery Backup & 170W Solar Panel (optional)

ENVIRONMENTAL

- ▶ OPERATING: -40° to +70°C tested
- ▶ HUMIDITY: 100% relative
- ▶ IP RATING: IP66

INTERFACES

- ▶ WIRED: Up to 1Gbps Ethernet
- ▶ Up to 2x RJ45 Gigabit Ethernet ports (optional)
- ▶ 1x SFP (optional), 1x USB (optional)
- ▶ PoE in on Gigabit Ethernet Port 1
- ▶ WIRELESS: ATAPA or 802.11 a/n/ac (Adaptive Traffic Aware Polling Algorithm)
- ▶ SISO (standard) MIMO: 2x2 & 3x3 (optional)

STANDARD ANTENNA

- ▶ Connectorized RF Interface (N or SMA)
- ▶ Dual Band 6-8dBi 2.4 & 5GHz Omnidirectional
- ▶ POLARIZATION: Vertical Linear (standard)
- ▶ VSWR: 1.5:1 (average)
- ▶ VERTICAL 3 dB BEAMWIDTH: 19 degrees
- ▶ HORIZONTAL 3 dB BEAMWIDTH: 360 degrees

MECHANICAL

- ▶ DIMENSIONS: 8.5" X 2.4" X 1.9"
- ▶ WEIGHT: .7 lbs (300 g) without antenna

MTBF

- ▶ GREATER THAN 200,000 HOURS

WARRANTY

- ▶ 18 MONTHS + EXT WARRANTY OPTIONAL

ADDITIONAL CAPABILITIES

- ▶ WIRELESS BRIDGING & ENHANCED ROUTING Including MRP, RIP, OSPF, & BGP
- ▶ RADIUS AUTHENTICATION
- ▶ ADVANCED FIREWALL BUILT IN
- ▶ ASYNCHRONOUS BANDWIDTH CONTROL
- ▶ NAT, PPPoE, Proxy DNS
- ▶ DHCP SERVER, CLIENT, & RELAY

OPTIONAL ANTENNA

- ▶ SISO Dual Linear Low Gain Omni-Directional
- ▶ SISO Dual Linear High Gain Omni-Directional
- ▶ MIMO Dual Pole Low Gain Omni-Directional
- ▶ MIMO Dual Pole High Gain Omni-Directional
- ▶ MIMO Triple Pole Omni-Directional



TRAFFIC FOX RADIOS & ACCESSORIES PART NUMBERS

Part Number	Description
RPICPMP01	Traffic Cabinet Indoor Radio Regular Power SISO Connectorized
RPOCPMP01	Traffic Cabinet Outdoor Radio Regular Power SISO Connectorized
HPICPMP02	Traffic Cabinet Indoor Radio High Power MIMO Connectorized
HPOCPMP02	Traffic Cabinet Outdoor Radio High Power MIMO Connectorized
5DTP	External Antenna Dual Band Triple Polarization
5DLP	External Antenna Dual Band Linear Polarization Low Gain
9DLP	External Antenna Dual Band Linear Polarization High Gain
10DDP	External Antenna Dual Polarization Omni Low Gain
13DDP	External Antenna Dual Polarization Omni High Gain
16DDP	External Antenna Dual Polarization Sectorized Low Gain
19DDP	External Antenna Dual Polarization Sectorized High Gain
1GSPPK	24 VDC Waterproof Ultra Durable Pipe Mount Gbit PoE Surge Protector
1GSPDK	24 VDC Hardened Ultra Durable DIN Gbit PoE Surge Protector
1GSPTK	24 VDC Waterproof Ultra Durable Tubular Gbit PoE Surge Protector
24VDCPS	24 VDC Power Supply Regular Wattage
24VDCHPS	24 VDC Power Supply High Wattage
120VACPS	120 VAC Power Supply Regular Wattage
120VACHPS	120 VAC Power Supply High Wattage
1GPIDK	24 VDC Hardened Ultra Durable DIN Gbit Power Injector Kit
23GC6CBL	CAT6 Outdoor Shielded Drain Wire Gel Tape Cable Spool 1000ft
23GC6CNT10	Smart Feed Cat6 RJ45 Connectors Bag 10 pieces
23GC6CNT50	Smart Feed Cat6 RJ45 Connectors Bag 50 pieces
23GC6CNT100	Smart Feed Cat6 RJ45 Connectors Bag 100 pieces
GPSBSK1	GPS Sync Kit
01RMK	Rack Mount Kit
01DRK	DIN Rail Kit
12MWPCTRU02	Additional 12 Month Warranty+ Connectorized Traffic Cabinet Radios
12MWPITRU02	Additional 12 Month Warranty+ Integrated Traffic Cabinet Radios