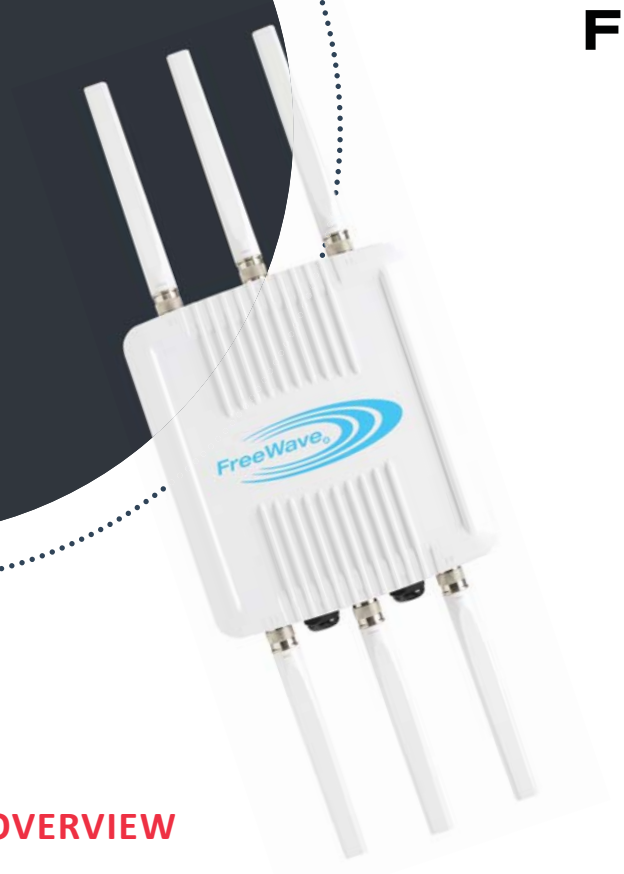
WAVEPRO
WP201



FREEWAVE

KEY FEATURES

Strong Throughput and Range
2.4GHz/5GHz dual-band radio using the 802.11 b/g/n/a/ac standard transmits up to a .5 mile diameter and up to 15 miles point-to-point.

Maximum Flexibility
A single unit for all network points. Multiple operating modes including Point-to-point, Point-to-Multipoint and mesh. Antenna ports allowing high-gain directional antennas for long distances.

Resilient, Outstanding Connectivity
Fully meshed, self-discovery, self-healing 3x3 MIMO provides connectivity in tough RF applications.

Enhanced Security
Secure Boot Loader, Physical Tamper Indicators, IP Address blocking from Guest network.

Rugged, Industrial-Grade Design
Proven in extreme sun, wind, heat, sand, salt, cold and humid conditions.

Fast, Easy, Intuitive Set-up
Under 5-minute installation with two Gigabit Ethernet Ports and PoE power to additional devices.

OVERVIEW

FreeWave's WavePro™ WP201™ short-haul and Wi-Fi platform delivers secure collection, control and transport of Voice, Video, Data and Sensor (VVDS™) data.

This cost effective, high-speed, rugged communication platform is specifically designed for outdoor industrial locations and is reliable under extreme environmental conditions. Its advanced self healing technology makes it ideal for in-field area networks for oil and gas, utilities, mining, facility automation, municipalities, disaster recovery, or any industrial application that needs extremely reliable communications.

WP201 supports concurrent, dual band 2.4GHz and 5GHz operation to maximize data over- the-air throughput and minimize link latencies. Making the WP201's wireless performance even faster is its 5GHz 802.11ac and 2.4GHz 802.11n radios, which move 1.3Gbps and 450Mbps, respectively. Band Steering offloads congested 2.4GHz communications to the 5GHz bands where usage is typically less. It supports DFS/TCP for compliance with high-power operation in global 5GHz U-NII bands.

M2M, SCADA, or Industrial IoT applications benefit from WavePro's enhanced security features. It supports all standard encryption methods —including WPA and WPA2 in both small business (pre-shared keys) and enterprise (802.11x). HTTPS, SSH, SNMPv3, VLAN and RADIUS authentication are also supported.

WavePro WP201 delivers a new standard for secure industrial data transport. With its dual band and concurrent radio functionality, the WP201 offers more than enough throughput for even the most intensive VVDS applications.

FREEWAVE

TECHNICAL SPECIFICATIONS

ENVIRONMENT & MECHANICAL

Temperature Range	-40°C to 70°C
Humidity	Up to 100%, condensing
Dimensions (W x L x H)	200 x 239 x 53mm w/o antennas connected
Weight	7lbs, 3.2kg
Surge Protection	EN 61000-4-5 (4kV surge RF data to ground) EN 55024 (4kV surge data to ground)

ACCESSORIES INCLUDED

Antenna	Dipole Antenna, (3) 2.4G: 5dBi (3) 5G: 7dBi
POE Adapter	Power adapter + 802.3at Injector
Bracket	For wall or pole mounting
Cable	Ground cable (Green) AWG10 180cm

COMPLIANCE STANDARD

Safety	EN60950-1, EN60950-22 UL/cUL 60950-1. 60950-22
Radio Approvals	FCC: 15.247, 15.407 IC: RSS-102, RSS-247, RSS-GEN CE: EN300.328, EN301.893, EN301.489
RoHS	Yes

HARDWARE SPECIFICATION

Configuration	Dual band, dual radio, 3x3 MIMO (concurrent operation)
Ethernet Connectors	Two 802.3ab Ports, RJ-45
Antennas	N-Type RF Connectors (6x)
Status LEDs	Power, Radio 1, Radio 2, LAN 1, LAN 2
Power Requirements	PD: IEEE 802.3at compliant, PSE: 802.3af System Power consumption < 20W
Enclosure	IP67, Aluminum

RADIO 1 SPECIFICATION – 2.4 GHZ, ISM Bands

Frequency Band 802.11b/g/n, 2.400-2.484 GHz

Physical Layer Data Rate 450 Mbps

Channel	Data Rate	Transmit Power (dBm)	Receiver Sensitivity (dbm)
802.11b	5.5Mbps	28	-95
	11Mbps	28	-92
802.11g	6Mbps	27	-93
	54Mbps	24	-76
802.11n, HT20	MCS 0 / 8 / 16	27	-92
	MCS 7 / 15 / 23	23	-74
802.11n, HT40	MCS 0 / 8 / 16	27	-88
	MCS 7 / 25 / 23	22	-72

RADIO 2 SPECIFICATION – 5GHZ, U-NII BANDS

Frequency Band 802.11a/n/ac, 5.150-5.250 GHz, 5.250-5.350 GHz, 5.470-5.725 GHz, 5.725-5.850 GHz DFS certified

Physical Layer Data Rate 1.3 GBps

Channel	Data Rate	Transmit Power (dBm)	Receiver Sensitivity (dBm)
802.11a	6 Mbps	27	-93
	54 Mbps	23	-75
802.11a/n/ac, HT20	MCS 0 (BPSK)	26	-91
	MCS 7 (64-QAM)	22	-73
802.11n/ac, HT40	MCS 0 (BPSK)	24	-88
	MCS 7 (64-QAM)	21	-71
802.11ac, HT80	MCS 0 (BPSK)	24	-88
	MCS 7 (64-QAM)	21	-68

Note: All RF parameters tolerance are +1/- 2dBm. Parameters do not reflect restrictions that may impact radio performance.

SOLUTIONS

DRONES & ROBOTICS | EARTH MONITORING | GOV & DEFENSE | IRRIGATION & PRECISION AGRICULTURE | ASSET TRACKING | OIL & GAS | WATER & WASTEWATER | SMART CITIES | UTILITIES

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