

PLUS Radios

HTPlus 900 MHz Industrial Radio



HTPlus



HTPlus-SEO

KEY FEATURES

Versatile: A single radio can be configured as a Gateway, End Point or Repeater

High Speed: 867 kbps over-the-air throughput

Wide Input Voltage Range: +6 to +30 VDC L

Low Current Draw Radio at 12 V: 150 mA in full-time receive, 550 mA transmit current

High Noise Immunity: Superior performance in noise congested environments

Strong Signal Performance: Maintains high sensitivity even in marginal conditions

Point-to-Point Range: 15 miles with clear line of sight, up to 30 miles at lower data rate

Industrial Grade: 100% tested for RF performance from -40°C to +60°C

UL Approved: Class 1 Division 2

OVERVIEW

The HTPlus is a leap forward for customers who need an industrial grade high speed Ethernet radio that operates in harsh environments and noisy RF conditions. Designed to the same high level of quality that FreeWave products are known for, the HTPlus is a rugged and reliable solution that performs where other products fall apart. The HT radio line supports TCP, UDP and serial communications, all in one package.

All radios are designed, manufactured and tested in Boulder, CO.

Specifications

<u>MODEL</u>	<u>FORM FACTOR</u>	<u>OPTIONS</u>
HTP-900RE	165 L x 74 W x 59 H (mm)	Enclosed
HTP-900SEO	165 L x 74 W x 59 H (mm)	Board Level

TECHNICAL SPECIFICATIONS

TRANSMITTER

Frequency Range	902 to 928 MHz (FHSS/FCC DTS)
Output Power	5 mW up to 870 mW
Data Link Range	Point-to-Point: 15 miles & up to 30 miles at standard bandwidth Point-to-Multipoint: 15 miles
Modulation	2 level GFSK
RF Data Rate	614 kbps standard speed 867 kbps high speed
Occupied Bandwidth	611.2 kHz
Hopping Patterns	15 per band, 105 total, user-selectable
Hopping Channels	41
Frequency Zones	16 zones, 2-3 channels per zone

RECEIVER

Sensitivity	-102 dBm for BER 10^{-6} at 614 kbps -96 dBm for BER 10^{-6} at 867 kbps
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DATA TRANSMISSION

Error Detection	32 bit CRC, retransmit on error
Data Security	AES 128 bit encryption FHSS technology RADIUS
Serial Interface	RS232/RS422/RS485, programmable (2) Serial DB9, DCE
Ethernet Interface	802.3, IPv4, TCP, UDP, DHCP, ICMP, ARP, Multicast, TFTP, DNP3 over TCP, VLAN (1) 802.3u, Fast Ethernet, RJ-45

POWER REQUIREMENTS

Operating Voltage	+6 VDC to +30 VDC
Typical Power	Transmit: 6.6 W Receive: 1.8 W Idle: 0.8 W

GENERAL INFORMATION

Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Humidity	Up to 95% non-condensing
Dimensions	Board Level: 152 x 69 x 26 (mm) Enclosed: 165 L x 74 W x 59 H (mm)
Weight	Board Level: 227 g Enclosed: 427 g
RF Connector	Board Level: SMA, Female Enclosed: TNC, Female
Certifications	FCC Part 15.247 / IC RSS-210 UL Class 1, Division 2

APPLICATIONS



OIL & GAS

AGRICULTURE

UTILITIES

DEFENSE

SCADA

MINING

FLEET
MANAGEMENT

MUNICIPAL

ENTERPRISE

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