



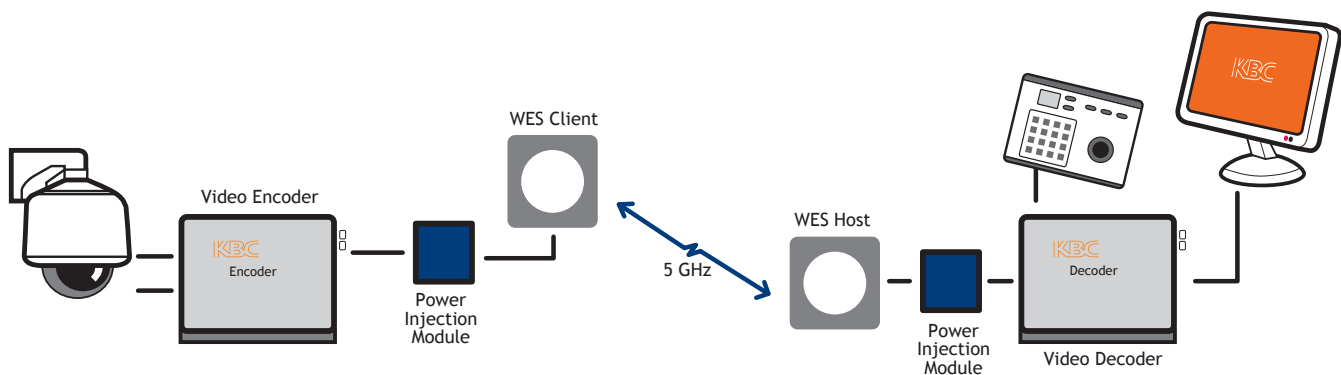
## Product Description

The Point-to-Point (PtP) Wireless Ethernet System (WES) is a wireless transmission system that operates in the license free 5 GHz band. The system is designed as a plug-and-play 10/100 CAT5/Ethernet cable replacement device. A secure encryption method is used to prevent unauthorized access to the system. The WES modules transmit bi-directional data at up to 20+ Mbps in standard mode and up to 50+ Mbps in turbo mode. The WES provides connectivity for IP devices such as: IP cameras, DVRs, encoder/decoders and web servers in ranges from 150m to 3.2km (500 ft to 2 miles). In applications where it is not possible, cost effective or desirable to run a cable, WES is an ideal solution.

## Product Features

- 20+ Mbps standard mode, 50+ Mbps in turbo mode
- 5 User selectable channels, 802.11a technology
- Plug-and-play operability
- Compact billet aluminium casing
- Secure encrypted transmission
- Web browser interface for advance operation
- Ranges from 150m to 3.2km (500 ft to 2 miles)
- LED indicators for quick set up and diagnostics

## Typical System Configuration



## Specifications

### RF Section

Power Output	50W EIRP @ 5.8 GHz (maximum)
Transmitting Frequency	5.725 ~ 5.825 GHz (U-NII-3 / ISM)
Channel Capacity	5 non-overlapping channels 5.8 GHz Band - 5745, 5765, 5785, 5805, 5825
Modulation	OFDM
Latency	<10 milliseconds
Receiver Sensitivity	-82dBm for maximum data rate
Polarization	Linear, horizontal or vertical
Antenna Type & Gain	Small patch, 5.8dBi @ 5.8 GHz 6x6 patch, 16.7dBi @ 5.8 GHz Small patch in 18" dish, 24dBi @ 5.8 GHz
Beam Width	Small patch -90°, 6x6 patch -24° & 46cm/18" dish -8°
Data Throughput Rate	Up to 20+ Mbps - std mode, 50+ Mbps- turbo mode (2 channels maximum)
FCC ID	JRRWES
Industry Canada	4887A-WES

### Mechanical

Physical	Environmental, sealed, billet aluminum, powder coated housing with UV stabilized PVC radome
Dimensions (L x W x H)	91mm x 91mm x 44mm (3.6" x 3.6" x 1.75")
Weight	431g (15.2oz)

### Power

Power Requirements	12 - 20 Vdc @ 3W (Reverse voltage protected)
Power Method	Power-over-Ethernet (PoE) via power injector module ("mid-span" compliant - pins 4, 5 positive - pins 7,8 ground)
Connector	RJ45 - in and out of power injection box
Cable Specifications	100m (328 ft) on 24 AWG CAT - 5 cable

### Environmental

Humidity	95% non-condensing
Operating Temperature	-40° ~ +66° C (-40° ~ +150° F)

### Management

Interface	10 / 100 Base T, half / full duplex, rate auto negotiated (802.3 compliant)
Frequency Selection	Rotary switch - channels 0 - 7
Web Browser Interface	User ID / Password, Super Mode, IP Address, WPA2 AES and WEP Encryption
Access Method	Time division duplexing/Time division multiple access (TTD / TDMA)
Protocols Used	IPV4, UDP, TCP, ICMP, Telnet, HTTP, FTP, SNMP
Network Management	HTTP

## Part Numbers

	Antenna Type	Approximate Transmission Distance <sup>(1)</sup>
WES-2500	Radio w/integrated directional patch antenna on both WES	0~760m (2500 ft)
WES-2	Radio w/integrated directional 6x6 patch antenna on both WES	0~3.2km (2 miles)

Each WES Kit Includes: 2 x RF module with integral patch antenna, 2 x Pole/wall-mount brackets and hardware, 2 x PoE power injection modules with power supplies

1. Transmission distance is provided for reference only and cannot be taken as an absolute figure.

## Power Injection Module Specifications

### Mechanical

Physical	Plastic housing, not weatherproof
Dimensions (L x W x H)	26mm x 54mm x 41mm (1.0" x 2.125" x 1.625")
Weight	31g (1.1 oz)
Interface	2 - RJ45 connectors

### Environmental

Humidity	Not weatherproof, PIM unit must be enclosed
Operating Temperature	-40° ~ +66° C (-40° ~ +150° F)

### Power

Power Supply	120 Vac 50/60 Hz, 10W input 12 Vdc 500mA output (UL / cUL listed wall transformer supplied)
Power-over-Ethernet (PoE)	PoE "mid-span" compliant (pins 4,5 positive - pins 7,8 ground)
Indicator	LED - green
Connectors	DC Jack 2.5mm x 5.5mm

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