5GHz WES4HTG Series
Gigabit Point-to-Point & Point-to-Multipoint Wireless Ethernet System PoE / Non PoE

Product Description

The WES4HTG Wireless Ethernet System is a high throughput gigabit wireless transmission system that operates in the license-free, 5GHz band providing an Ethernet channel of up to 1 Gbps aggregate.

The WES4HTG firmware is configurable for product type, enabling one common unit to be configured as a client, single-point host or multipoint host.

The system is IEEE802.11ac compliant and will support up to 1 Gbps throughput due to MIMO technology (Multiple In Multiple Out) and 80 MHz spectrum width capability. WES4HTG provides high throughput connectivity for backhaul applications as well as a wide range of Ethernet devices such as megapixel/HD IP cameras, DVRs and web servers. It uses secure encryption to prevent unauthorized access to the system. WES4HTG is IEEE802.3af compliant and can also be used with a power injection module for applications where PoE is not available. The WES4HTG units are wall or pole-mountable with the included hardware.
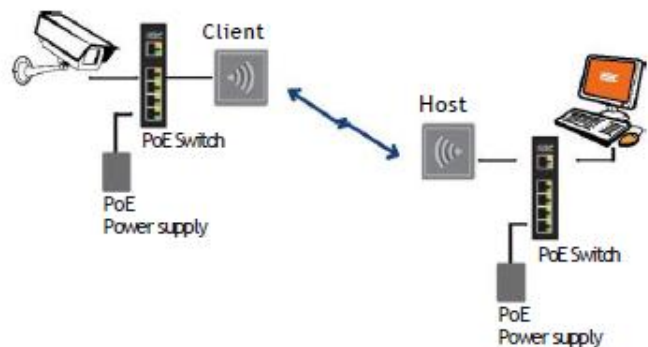
Product Features

- Configurable for client / singlepoint host / multipoint host
- IEEE802.11ac compliant
- Transmission Power Control
- Up to 30dBm output power
- Secure transmission: WPA2 – AES or TKIP encryption
- Antenna alignment & site signal survey tools
- Distance adjustment for long range transmission
- Range of antenna options
- Passive midspan compliant PoE support
- IP66 protection class
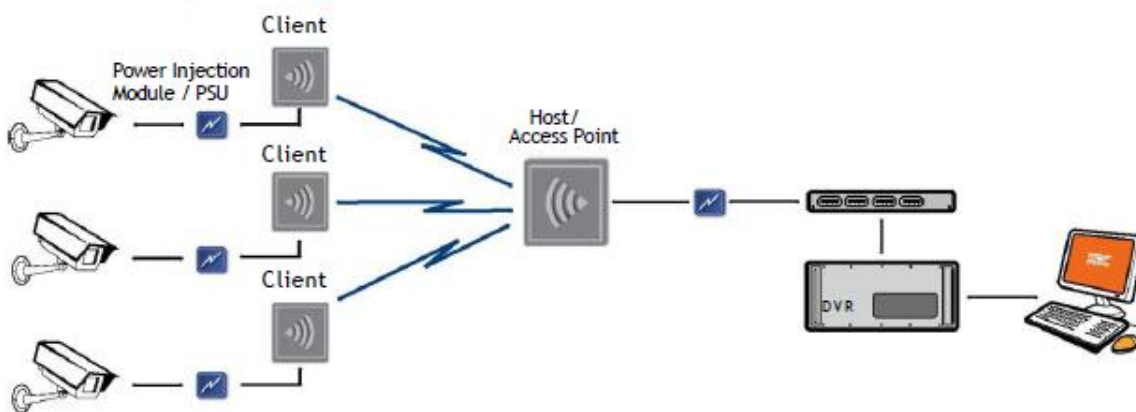
Typical System Configuration

Point-to-Point using 48Vdc Passive PoE

Point-to-Point using 48Vdc IEEE802.3af PoE

Point-to-Multipoint using 48Vdc Passive PoE

Specifications

Standards
IEEE Standards	IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX
	IEEE 802.3ab 1000BASE-T, IEEE 802.3x Full Duplex
	IEEE 802.11a 5GHz, IEEE 802.11h ETSI DFS & TPC
	IEEE 802.11n MIMO

Radio
Frequency	
USA & Canada (FCC) U-NII3	5180 ~ 5240MHz, 5745 ~ 5825 MHz
Europe	5500 ~ 5700 MHz
Frequency Operation	Auto-select
	User static selectable
	Dynamic Frequency Selection
	(ETSI DFS)
Power Output	30dBm max [1]
	Transmit Power Control (ETSI TPC)
Channel Bandwidth Spectrum	Selectable 20, 40 or 80MHz

Antenna Options
5dBi	Omni-directional
9dBi	Directional integrated patch
	Dual polarization
	Beamwidth:
	Azimuth:Horizontal 65°, vert 65°
	Elevation: Horizontal 33°, vert 33°
17dBi	Directional integrated patch
	Dual polarization
	Beamwidth:
	Azimuth:Horizontal 30°, vert 33°
	Elevation: Horizontal 17°, vert 17°

System
Data throughput [2]	HT40	HT80
	300Mbps	500Mbps
Latency	<10ms	
Encryption	TKIP / AES encryption up to 128 bit	

Power Method
PoE version	IEEE 802.3af (PD) / Included PIM
PoE cable spec	100m on 24AWG Cat5/5e/6/6e/7

Mechanical (unit)
Casing	IP66 protection
Dimensions (L x W x D)	292mm x 146mm x 89mm
	/11.5" x 5.75" x 3.5"
Weight (17dBi unit)	0.82kg / 1.8lb
Installation	Wall-mount or pole-mount

Environmental
Operating Temperature	-40°~ +74°C / -40°~ +165°F
Storage Temperature	-40°~ +90°C / -40°~ +194°F
Operating Humidity	5 to 95% non-condensing
Mean Time Between Failure (MTBF)	> 1,500,000 Hours

Connectors
10/100/1000Mbps Electrical	1 x RJ45

Approvals
FCC Part 15 Subpart C	Class B
CE	Class B
EN 55024	
(IEC61000-4-2,3,4,5,6,8,11)	Electromagnetic Immunity
EN 55022 (CISPR 22)	Electromagnetic Interference
	(Conduction & Radiation)
EN 60 950: 1992+A1: 1993+A2:	Low Voltage Directive
1995+A4: 1996+A1: 1997	
EN 300 328-2	
EN 300 826	
EN 301 489-17	
EN 301 893	
R&TT Directive (1999/5/EC)	

Part Numbers

Model #	Antenna	Power plug & Firmware (Region)	Single radio unit	Point-to-point Kit *Available in North America only*
WES4HTG-AX-CA	Integrated 17 dBi directional	US	✓	
WES4HTG-AX-BA	Integrated 9 dBi directional	US	✓	
WES4HTG-AX-AA	External 5 dBi Omni-directional	US	✓	
WES4HTG-KT	Integrated 17 dBi directional	US		Consists of (2) WES4HTG-AX-CA
WES4HTG-KT-P8	Integrated 17 dBi directional	US		Consists of (2) WES4HTG-AX-CA & (1) ESUGS8-B and NDR-240-48
WES4HTG-KT-P8T	Integrated 17 dBi directional	US		Consists of (2) WES4HTG-AX-CA & (1) ESUGS8-B and SDR240-48
WES4HTG-AX-CB	Integrated 17 dBi directional	UK & EMEA	✓	
WES4HTG-AX-BB	Integrated 9 dBi directional	UK & EMEA	✓	
WES4HTG-AX-AB	External 5 dBi Omni-directional	UK & EMEA	✓	
WES4HTG-AX-CC	Integrated 17 dBi directional	Euro & EMEA	✓	
WES4HTG-AX-BC	Integrated 9 dBi directional	Euro & EMEA	✓	
WES4HTG-AX-AC	External 5 dBi Omni-directional	Euro & EMEA	✓	
WES4HTG-AX-CE	Integrated 17 dBi directional	Australian	✓	
WES4HTG-AX-BE	Integrated 9 dBi directional	Australian	✓	
WES4HTG-AX-AE	External 5 dBi Omni-directional	Australian	✓	

Included Power Injection Module (PIM)

Mechanical
Physical	Plastic housing
Dimensions (LxWxH)	84 x 47 x 54mm
	/3.31 x 1.85 x 2.13"
Interface	2 x RJ45 connectors

Environmental
Operating Temperature	-40°~ +74°C (-40°~ +158°F)

Power
Input	100 ~ 240Vac
Output	48Vdc, 500mA
Consumption	12W (max)
Power-over-Ethernet (PoE)	Passive PoE "mid-span" compliant
Indicator	LED (green)

1. *Territory specific.*
2. *Assumes ideal RF environment with max signal rates & within receive sensitivity specification. Max values - limited by 10/100 port.*

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