6HARMONICS
CONNECTING PEOPLE & THINGS

6HARMONICS
GWS4000
Core Adaptive Radio

GWS4000 Series

Best in class rural broadband TV Whitespace wireless solution with industry leading throughput and range to meet the most demanding of deployment challenges

Unique Benefits

The GWS4000 series is a true cognitive radio capable of one or two channel operation with throughput rates of up to 33 Mbps UDP per radio link.

- Available as single channel (6MHz) and dual channel (12MHz) to enable optimum usage of available whitespace channels

- Operates on TV channels from 14 to 51 (470MHz-698MHz)

- Up to 23dBm of transmit power

- Point-to-Point, Point-to-Multipoint or Mesh

- Depending on the deployment scenario, links in excess of 20km can be established

- Low latentcy, typically <5mS round trip delay

- Power-over-Ethernet

- Power consumption <25W with 23dBm transmit power; ~5W in receive mode.

- Suitable for both access and backhaul links

- IP67 enclosure operates over wide temperature range and withstands moisture and precipitation

Radio Specifications

- Adaptive OFDM modulation from BPSK ½ rate to 64QAM 5⁄6 rate.

- Receive sensitivity: 12MHz channel width, -95dBm; 6MHz channel width -98 dBm

- Automatic transmit power control in 1dB increments

- Adjacent channel blocking for -3dB loss of receive sensitivity, -41dBm

- Alternate channel blocking for -3dB loss of receive sensitivity, -39dBm

- Airtime fairness mode

- PSK / WPA / WPA2 security

- 256bit AES encryption

- High throughput (HT) mode supported

- GUI or Telnet interface for management

- SNMPv2

- Packet aggregation A-MPDU, A-MSDU

- Built in spectrum analyser enables optimal choice of operating channel.

- SpectrumBridge default database

- Certified to FCC Part 15, Subpart H

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Power Specifications

Operating Voltage:	100-240V, 50-60Hz AC
Operating Current:	1.5 A max
AC Operation:	Universal AC PoE, DC PoE injector optional
Power Consumption:	~5 Watts in receive mode, ~25 Watts in transmit mode

Mechanical

Dimensions:	215 mm (H) x 215 mm (W) x 65 mm (D)
Weight:	3.5kg including accessories
Housing:	Die Cast Aluminum
Mounting:	Wall or Pole Mount
Ethernet Interface:	1 port (WAN & LAN) Auto-sensing 10/100Base-T Ethernet, IP67 RJ45 Connector
Antenna Connection:	IP67 N-Type (Female) connector

Mounting kit and cables provided separately.

Environmental

Operating Temperature:	-40°C to 50°C
Storage Temperature:	-40°C to 70°C
Operating Humidity:	IP67 rated
Electrostatic Discharge:	15kV air, 8kV contact

Altitude and Temperature Derating

Altitude (m)	Operating Temperature
0 m	0° C to +50.0° C
1500 m	0° C to +47.3° C
3000 m	0° C to +44.3° C
4500 m	0° C to +41.1° C

Antennas

Please contact 6Harmonics to discuss your needs.