光普森科
GPSENKE

5.8G Band 700Mbps Long Distance Wireless Bridge

GP-AB950-X Series



INDUSTRIAL NETWORK SOLUTION SPECIALIST
WWW.GPSENKE.COM

Introduction

GP-AB950-X is an industrial point-to-point wireless bridge, delivering up to 700 Mbps with 2–4 ms low latency and equipped with a 1.2 GHz CPU. The main unit supports optional high-gain antennas, enabling transmission distances of 30 km, 50 km, 80 km, or up to 100 km, depending on the selected antenna and site conditions. It ensures stable long-range transmission for video, voice, and data.

GP-AB950-X features dual Gigabit ports (one with PoE passthrough), supports 1+1 redundancy, relay mode, auto channel/power control, and includes tools like link test, spectrum analysis, and antenna alignment. Compatible with VLAN, DHCP, dual firmware, SNMP, and cloud management.

Built with an IP67-rated aluminum shell, it resists water, dust, condensation, and wind. RGB LEDs indicate signal and status. Ideal for mining, oilfields, highways, power grids, and remote monitoring.

Main Feature

- Support up to 700 Mbps wireless speed.
- Support 30 km / 50 km / 80 km / 100 km transmission distances with optional antennas.
- Suppprt 2× Gigabit Ethernet ports, one with PoE passthrough.
- Voice & Video Priority: QoS ensures stable transmission.
- 1.2GHz CPU: Handles up to 200,000 pps efficiently.
- Support IEEE 802.3at 48V PoE power supply.
- Support IP67-rated industrial-grade aluminum housing.
- Built-in surge and ESD protection (IEC Class 4).
- Auto channel/power control, link test, and spectrum analysis.
- RGB LED indicators for signal strength and device status.

Technical Parameter

Model	GP-AB950-X									
CPU	1.2GHz									
QAM	256									
Radio Mode	MIMO 2x2									
Frequency Range	4.900 - 6.100 GHz (FCC: 4.940 - 4.990 GHz, 5.150-5.250 GHz, 5.725-5.850 GHz)									
Channel size	5, 10, 20, 40, 80 MHz									
Modulation schemes	OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)									
Data rates @ 80 MHz	866, 780, 650, 585, 520, 390, 260, 195, 130, 65 Mbps									
Duplexing scheme	TDD									
Error correction	BCC, LDPC									
Radio security	Hardware AES-128									
Modulation, Mbps	866	780	650	585	520	390	260	195	130	65
TX Power, dBm	25	26	26	27	27	28	29	30	30	31866
Receive sensitivity, dBm	-71	-73	-77	-79	-80	-84	-87	-92	-94	-97

Hardware Parameter

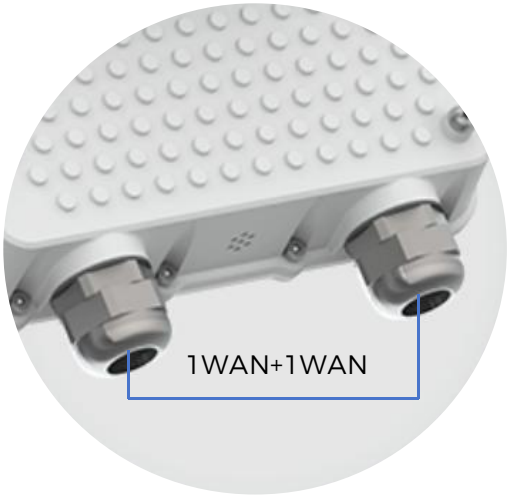
Size		Length 399 mm, width 174 mm, height 47 mm
Weight		2.9 kg
Port	Ethernet	10/100/1000 Base-T with PoE IN (RJ45)
		10/100/1000 Base-T with PoE OUT (RJ45)
	Antenna	2*N-type Connection Port for external high-power antenna
Power Input		PoE 802.3at, isolated 42 - 57 VDC
Power Output		PoE 802.3af, 48 VDC, 12.95W maximum
Max. Consumption		8.6 W
Operating Temperature		-40°C ~ 65°C
Operating Humidity		0%~90%(Non-condensing)
IP Protection Level		IP67
Protection		Support surge and ESD protection according to IEC standards and passes Class 4 requirements

Software Parameter

Features	Wizard for fast link setup
	Centralized controlfrom master: A)Common wireless link parameters ； B)Individual slave parameters
	Smart Auto-channel (FCC/ETSI DFS-compatible,user-configurable)
	Robust data security
	QoS with hardware acceleration
	Spectrum analyzer
	Wireless signal and device state indication on RGB LEDs
	Dual firmware image
Network Function	VLAN Setting
	DHCP server: built-in DHCP server or external DHCP server
	Cloud platform server
Management	Dedicated 24 GHz radio for management
	System monitoring
	System configuration
	SNMP, GUI/HTTP(S), ShelVsSH and WNMS
	GU/HTTP(S) and WNMS

Appearance & Accessories






Device *1


Accessories*1


Manual*1

Dual-Polarized Parabolic Antenna Selection

Model	Distance	Picture	Gain	Bandwidth	Diameter	Note
GP-P5827	30KM		27-28dBi	80MHz	0.6m	Standard configuration. For high-interference or heavy-rain environments, a 30–31 dBi / 1.2 m antenna is recommended for higher link margin.
GP-P5830	50KM		30-31dBi	80MHz	0.9m	Recommended standard configuration, providing improved link margin and stability under rain attenuation.
GP-P5834	80KM		34 dBi	40MHz (Recommend)	1.2m	40 MHz is recommended for stable long-distance transmission. 80 MHz may be used under favorable weather conditions, but rain may reduce the modulation rate.
GP-P5837	100KM		37-38 dBi	40MHz (Recommend)	1.8m	Ultra-long-distance deployment. Requires detailed link-budget calculation, Earth-curvature and Fresnel-zone verification, rigid tower structures, and precise antenna alignment.

Note: The recommended link distance is based on typical line-of-sight conditions. Actual transmission distance and link performance depend on antenna selection, installation height, terrain, interference, weather conditions, and link budget. Final antenna selection should be confirmed through site-specific link calculation.

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