

5 GHz 35dBi High-Gain Grid Dish Antenna

Model: WB5axH6-35

Series: Long-Range Outdoor Wireless Bridge Antenna



Description

The WB5axH6-35 is a high-gain dual-polarized grid dish antenna designed for long-range point-to-point and point-to-multipoint outdoor wireless links. Operating across the 4.95–6.5 GHz spectrum — covering 5.1 / 5.3 / 5.4 / 5.8 / 6 GHz ISM and UNII bands — it achieves a peak gain of 25 ± 1.5 dBi with an 8° beamwidth in both planes, making it suitable for transmission distances up to 25 km under line-of-sight conditions. The dual-polarized (V/H or $\pm 45^\circ$) design with > 30 dB port isolation maximizes link stability and supports MIMO 802.11a/n/ac/ax radio modules. The die-cast aluminium reflector with IP67-rated feed unit withstands wind loads up to 200 km/h (125 mph) and operates reliably from -40°C to $+70^\circ\text{C}$. A single 10/100/1000Base-T Ethernet port with 24V PoE input eliminates the need for separate power cabling. Compatible with standard radio platforms including Mimosa C5X, C6X, and B5X.

Main Features

- ◆ **Ultra-High 35 dBi Gain** — Peak gain of 25 ± 1.5 dBi across the 5.9–6.5 GHz band (23 dBi at 4.95–5.1 GHz; 24.5 dBi at 5.1–5.9 GHz), delivering fibre-like bandwidth over long distances without cabling.
 - ◆ **Wide 5 / 6 GHz Spectrum Coverage** — Operates across 4.95–6.5 GHz in a single antenna, covering 5.1, 5.3, 5.4, 5.8, and 6 GHz ISM / UNII channels for maximum frequency flexibility and regulatory compliance worldwide.
 - ◆ **Dual-Polarized MIMO** — V/H or $\pm 45^\circ$ dual-polarization with > 30 dB cross-port isolation enables 2×2 MIMO operation and spatial-stream multiplexing, supporting IEEE 802.11a/n/ac/ax radios.
 - ◆ **Extreme Long Range up to 25 km** — Narrow 8° half-power beamwidth (H-plane and V-plane) concentrates RF energy for stable point-to-point links at distances up to 25 km under clear line-of-sight conditions.
 - ◆ **Industry-Grade Weatherproof Build** — Die-cast aluminium reflector dish with IP67-rated sealed feed unit. Stainless-steel hardware rated to withstand wind loads up to 200 km/h (125 mph). Operating range -40°C to $+70^\circ\text{C}$.
 - ◆ **PoE-Powered Gigabit Interface** — 1 × 10/100/1000Base-T Ethernet port with 24V PoE input (adapter included) simplifies installation — a single cable carries both data and power to the radio module.
 - ◆ **12 × RP-SMA Connector Array** — 12 RP-SMA female connectors allow connection to a wide range of compatible radio modules, including Mimosa C5X, C6X, and B5X high-performance wireless microwave platforms.
 - ◆ **Tool-Free Precision Alignment** — Pole-mount bracket supports mast diameters from 30 to 50 mm; adjustable azimuth and elevation allow precise dish alignment for optimal link performance.
 - ◆ **Broad Application Compatibility** — Suitable for long-range wireless backhaul, WISP last-mile access, security & surveillance relay, industrial telemetry, 802.11ax Wi-Fi 6E MIMO, and P2P / P2MP data links.
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Antenna Specification

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RF Performance — by Frequency Band	
Frequency Range	Band A: 4.95 – 5.1 GHz Band B: 5.1 – 5.9 GHz Band C: 5.9 – 6.5 GHz
Gain (± 1.5 dBi)	Band A: 23 dBi Band B: 24.5 dBi Band C: 25 dBi
VSWR	Band A: < 2.8 Band B / C: < 2.0
Polarization	Dual — V/H or ± 45° (selectable)
Port Isolation	> 30 dB
Front-to-Back Ratio	> 30 dB
H-Plane Beamwidth	8°
E-Plane Beamwidth	8°
Max Input Power	50 W
Lightning Protection	DC grounded
Impedance	50 Ω
Interface & Power	
Ethernet Port	1 × 10/100/1000Base-T RJ45 (LAN)
Power Supply	24V PoE via Ethernet (PoE adapter included)
Connector	12 × RP-SMA female
Mechanical	
Dish Diameter	400 mm (15.75 in)

Dish Depth	72 mm (2.84 in)
Antenna Weight	1.25 kg (2.76 lbs)
Material	Die-cast aluminium reflector; stainless-steel hardware
Pole Diameter	30 – 50 mm
Wind Load Rating	200 km/h (125 mph)
Protection Rating	IP67 (dust-tight, immersion-resistant)
Environmental	
Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)

Radio Compatibility

Compatible Radio Platforms	
IEEE Standards	IEEE 802.11a / 802.11n / 802.11ac / 802.11ax (Wi-Fi 6 / 6E)
Frequency Bands	4.9 / 5.1 / 5.3 / 5.4 / 5.8 / 6 GHz ISM & UNII
Known Compatible Radios	Mimosa C5X Mimosa C6X Mimosa B5X Other 802.11a/n/ac/ax radios with RP-SMA connectors
Topology	Point-to-Point (PTP) · Point-to-Multipoint (PTMP) · Backhaul

Package Contents

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Included Items	WB5axH6-35 Grid Dish Antenna × 1 24V PoE Power Adapter × 1 Pole Mounting Bracket & Hardware × 1 set

	Stainless-Steel Hose Clamps × 2 Installation Guide × 1
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Interface:

