

Specifications of Antenna: Data Alliance SKU ADD35RA
Data Alliance — Dual-Band Wi-Fi Antenna
Part # ADD35RA

Overview

Compact omni-directional dual-band antenna for 2.4 GHz and 5 GHz Wi-Fi. Direct-connect form factor with articulating right-angle base (adjustable up to 90°) for easy orientation on routers, radios, and IoT gateways. Suitable for 802.11ac applications as well as 11n/g/b applications.

Electrical Specifications

- Frequency range: 2.4–2.5 GHz & 5.1–5.8 GHz
- Gain (typ.): 3 dBi @ 2.4 GHz; 5 dBi @ 5 GHz
- VSWR: $\leq 1.8:1$ (wideband)
- Impedance: 50 Ω
- Polarization: Linear, vertical
- Radiation pattern: Omni (360° in azimuth)
- Max input power: 50 W

Mechanical & Environmental

- Connector options: RP-SMA male or SMA male; straight and right-angle versions (ADD35RA denotes a right-angle version)
- Mounting: Direct-connect to RP-SMA-female or SMA-female device ports; articulating base on right-angle model for tilt/rotation
- Dimensions: 200 mm (L) $\times$ 13.7 mm ($\varnothing$)
- Operating temp: -20°C to $+65^{\circ}\text{C}$; Storage: -30°C to $+75^{\circ}\text{C}$
- Construction: Lead-free, RoHS-compliant. RP-SMA contacts are precision-machined and gold-plated for low loss (BeCu center contact; brass body; PTFE insulator).

Standards & Compatibility

- Wi-Fi protocols: 802.11ac/g/n (dual-band)
- Use cases: Telemetry, remote monitoring, mesh networking, and general indoor coverage where a compact omni antenna is preferred.

Connector/Gender Notes

Gender for SMA/RP-SMA is determined by the center contact, not the threads. RP-SMA male has internal threads with a socket (reverse-polarity).

Regulatory Notes (example pairing)

When paired with specific certified radios, maximum allowed system gains may be restricted by the radio's FCC filing. For example, Trimble's "Hurricane" module

authorizes use with Data-Alliance ADD35RA up to 3.3 dBi (2.4 GHz) and 6 dBi (5 GHz). Always follow the radio OEM's grant conditions.

Lead-free and ROHS compliant: The entire product is ROHS compliant (connector and antenna).

Ordering Information

- ADD35RA — Dual-band 2.4/5 GHz omni antenna, right-angle, RP-SMA male (articulating).
- Other connector/geometry variants (SMA male, straight base) are available under related SKUs.

Key Benefits

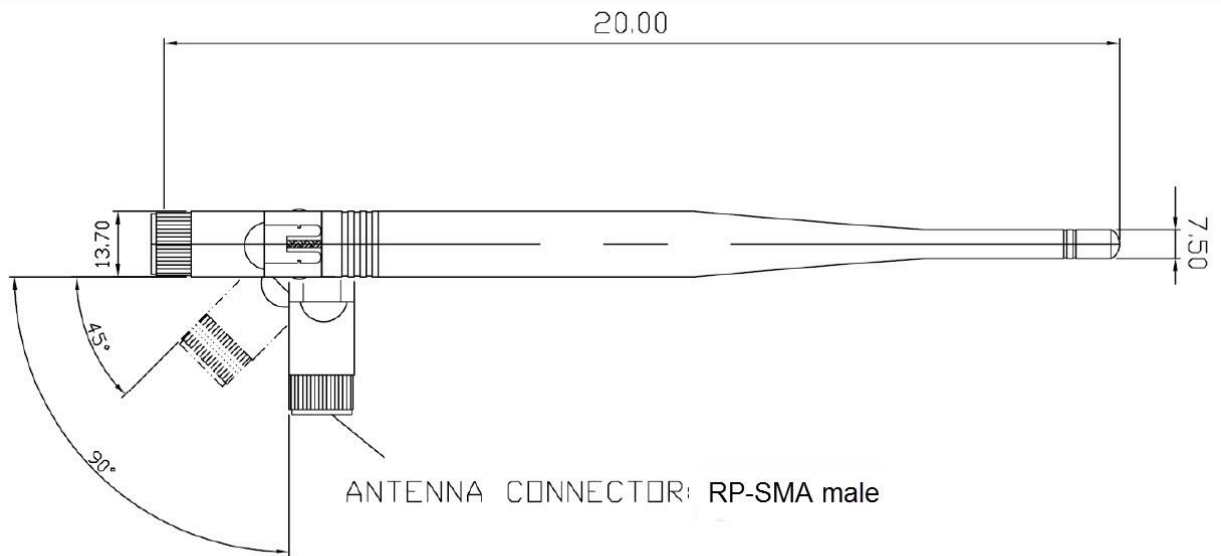
- True dual-band coverage with low VSWR for broad compatibility.
- 360° omni pattern for even coverage around the device.
- Articulating right-angle base simplifies positioning in tight installs.

Dual Band Antenna

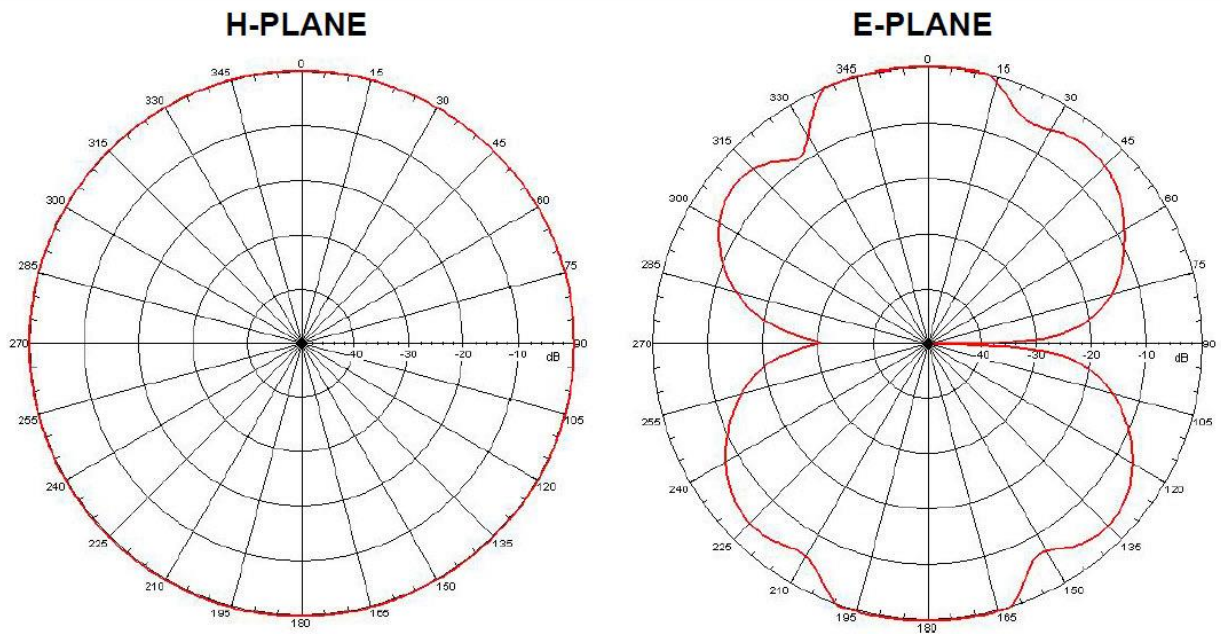


Connector:
RP-SMA male

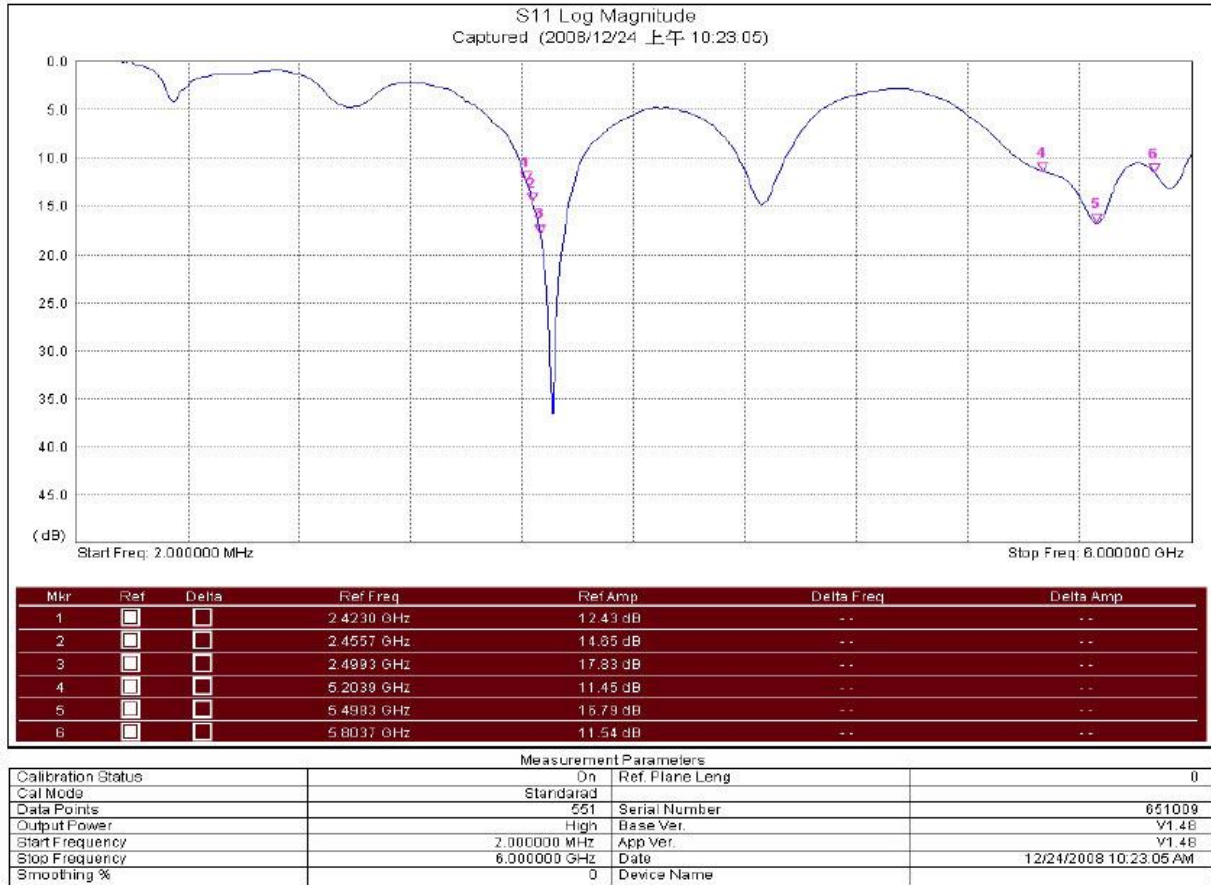
Omnidirectional, direct connect antenna tuned to perform on 2.4 & 5.8GHz networks.



RADIATION PATTERNS:



S11 TEST RESULTS



S11 VSWR TEST RESULTS

