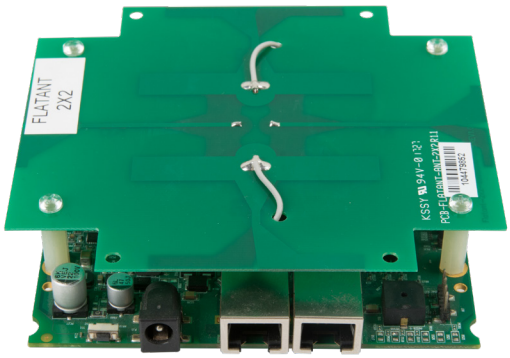
Flat Antenna for 2x2 MIMO on 2.4GHz and 5GHz



** main board not included*

Model: Flatant-2x2-dualband-6dBi

KEY FEATURES

- Flat structure
- 4x antenna elements

APPLICATIONS

- Indoor high diversity MIMO communications
- Point-to-MultiPoint (PtMP) AP
- Indoor Mesh AP

Antenna Specifications

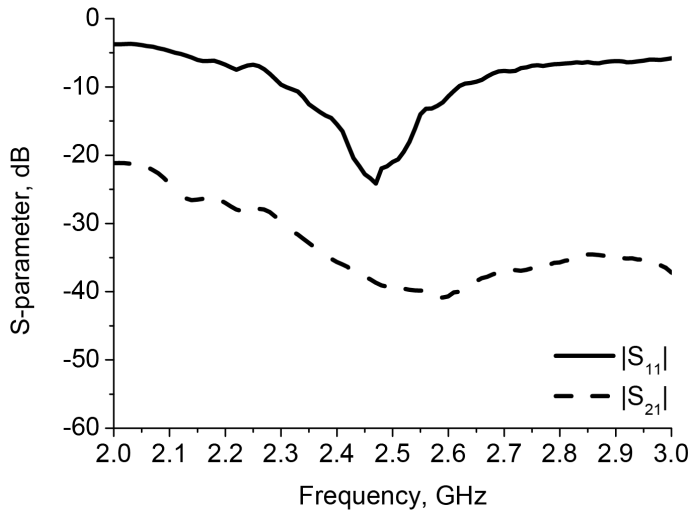
Antenna Elements	2 elements for 2.4 GHz band and 2 elements for 5 GHz band
Size	117 mm x 105 mm
Connectors	4x U.FL antenna connectors
Frequency Range	2.40 ~ 2.48 GHz, 5.18 ~ 5.90 GHz
Gain	6-8 dBi for 2.4 GHz band and 4-5 dBi for 5 GHz band
Radiation	Omnidirectional when combined in horizontal plane
Polarization	Horizontal polarization in each direction if antenna plane is facing upwards
Isolation	> 30 dB for 2.4 GHz band and > 35 dB for 5 GHz band
VSWR	< 2.0:1
Input Impedence	50 ohm

Ordering Information

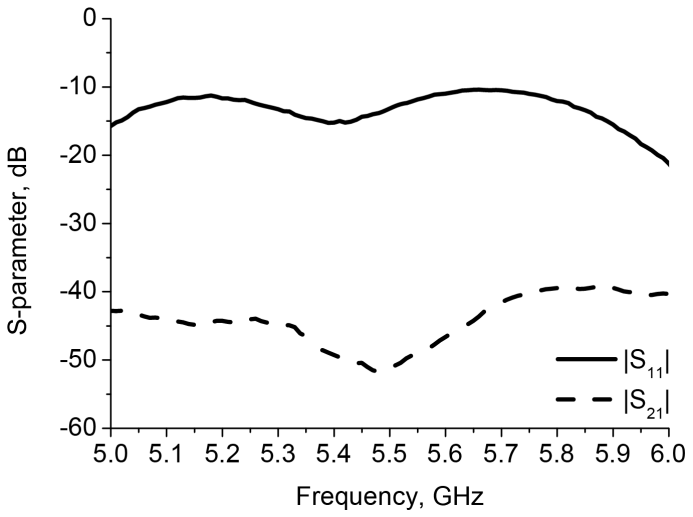
Item Code	Antenna
FLATANT-6DBI-2X2-4UFL	Flatant-2x2-dualband-6dBi with 4pcs U.FL cable

Antenna S-Parameters

Return Loss and Mutual Coupling of the Two Elements



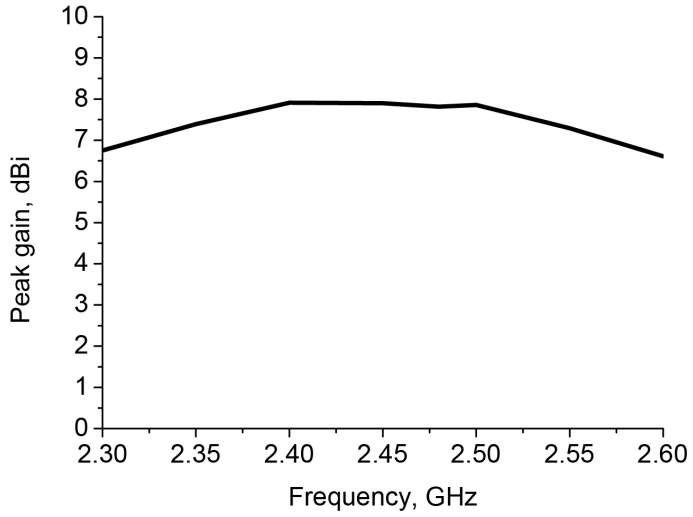
At 2.4 GHz



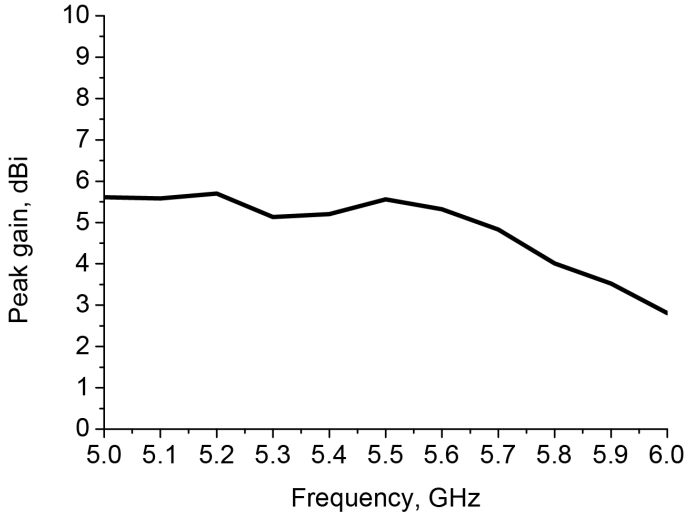
At 5 GHz

Peak Gain

Measured Peak Gain of Each Element



At 2.4 GHz

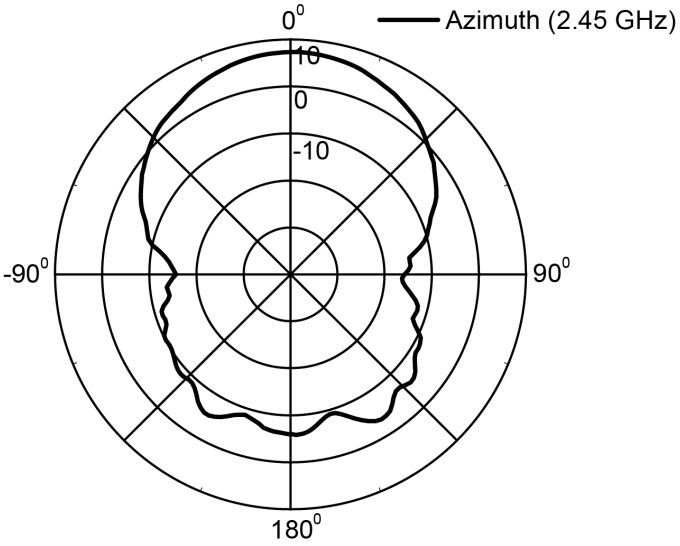


At 5 GHz

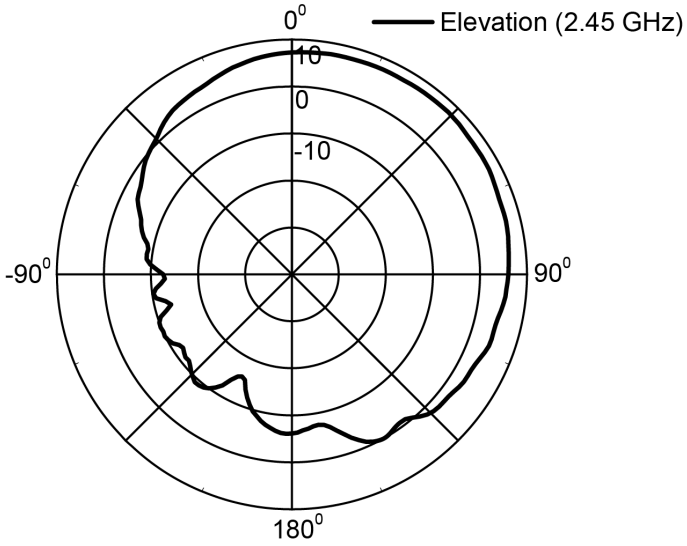
* Note: The measured peak gain (total field) includes the cable loss. The cable loss is about 0.3dB at 2.4GHz and 0.6dB at 5GHz. The actual gain is higher than shown in the graphs.

Gain at 2.4 GHz

Polar Plots of the Gain of Each Element at 2.45 GHz



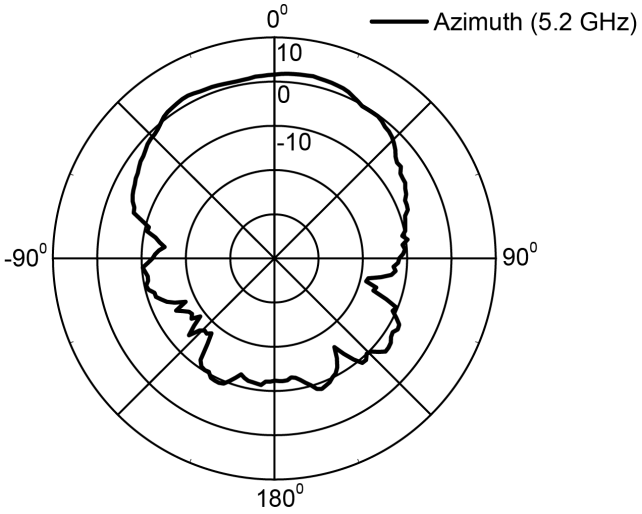
In the Horizontal Plane



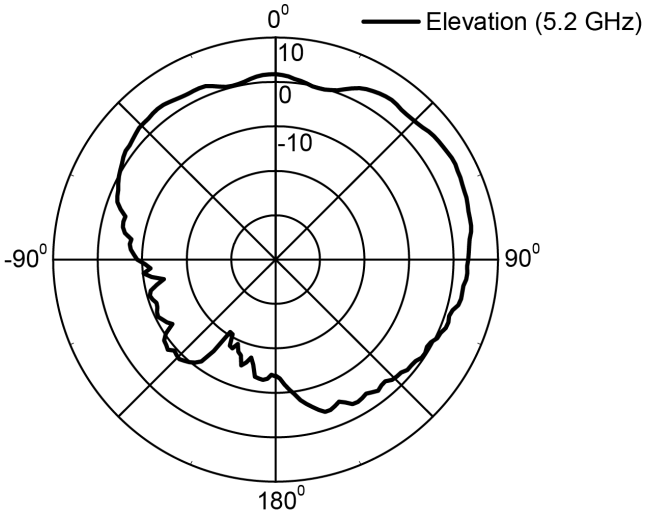
In the Vertical Plane at 0° Azimuth

Gain at 5 GHz

Polar Plots of the Gain of Each Element at 5.2 GHz



In the Horizontal Plane



In the Vertical Plane at 0° Azimuth

* Note: The antenna plane is facing upwards. The gain of each element is expected to be highest at about 0° Azimuth and 45° Elevation.

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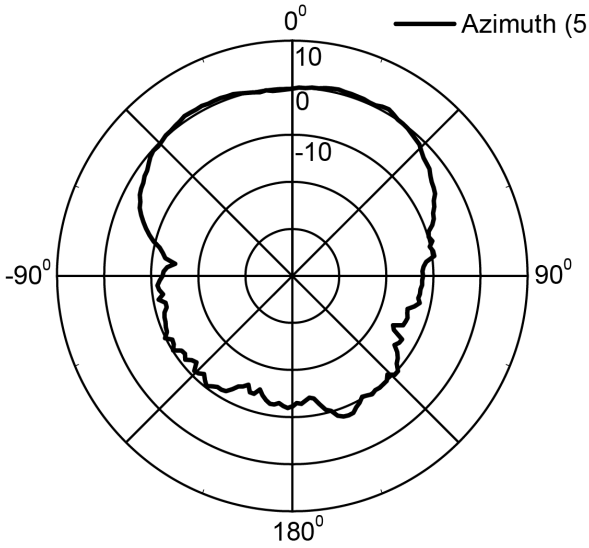
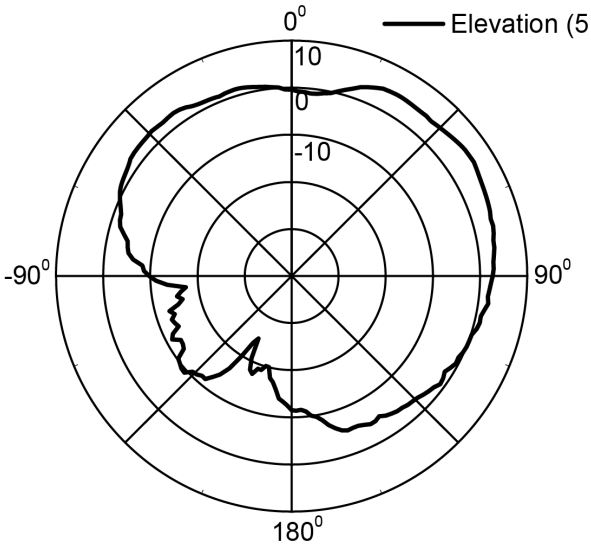
Gain at 5 GHz

Polar Plots of the Gain of Each Element at 5.5 GHz

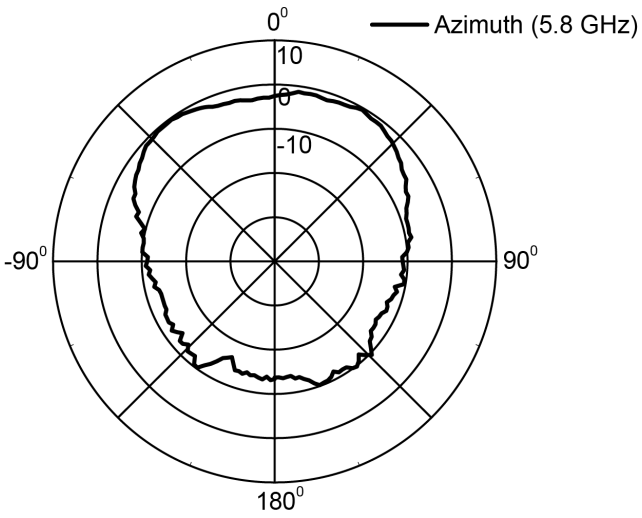


In the Horizontal Plane

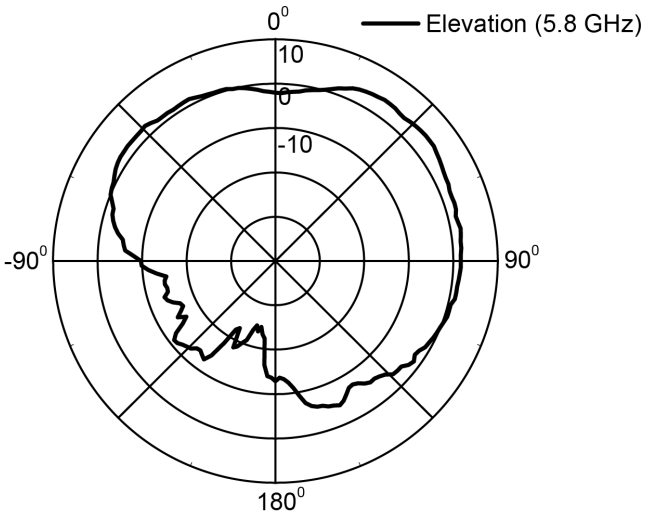


In the Vertical Plane at 0° Azimuth

Polar Plots of the Gain of Each Element at 5.8 GHz



In the Horizontal Plane



In the Vertical Plane at 0° Azimuth

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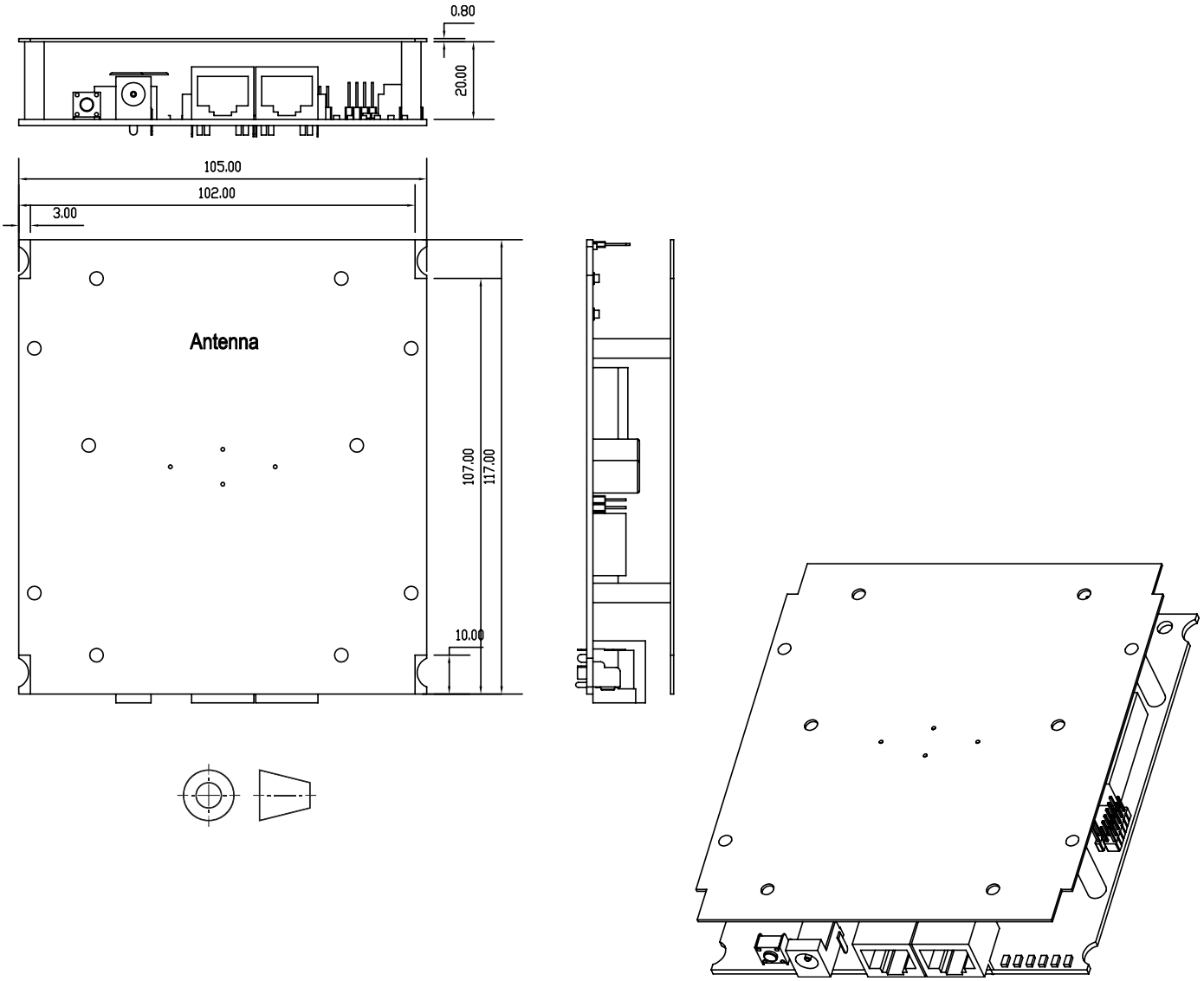
Recommended Assembly and Clearance between Antenna and Embedded Board*



* The antenna is designed to ride over a host board, which acts as a reflector, as shown in the assembly drawing.