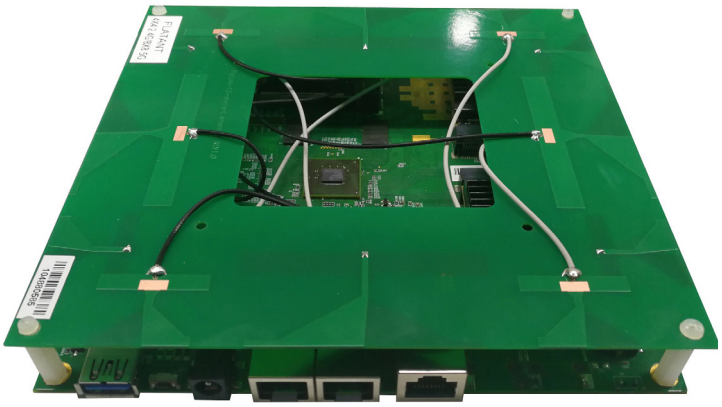
High Gain High Isolation Flat 12-Element Antenna for Dualband MIMO

4 Elements for 2.4 GHz and 8 Elements for 5 GHz

Model: Flat 12-Element 7 dBi Dualband Antenna



** WPQ864 main board not included*

KEY FEATURES

- Flat structure supporting dual band MIMO
- 12x antenna elements
- High gain for 2.4 GHz and 5 GHz elements
- High isolation for 2.4 GHz and 5 GHz elements
- 5 GHz 8x8 MU-MIMO supported

APPLICATIONS

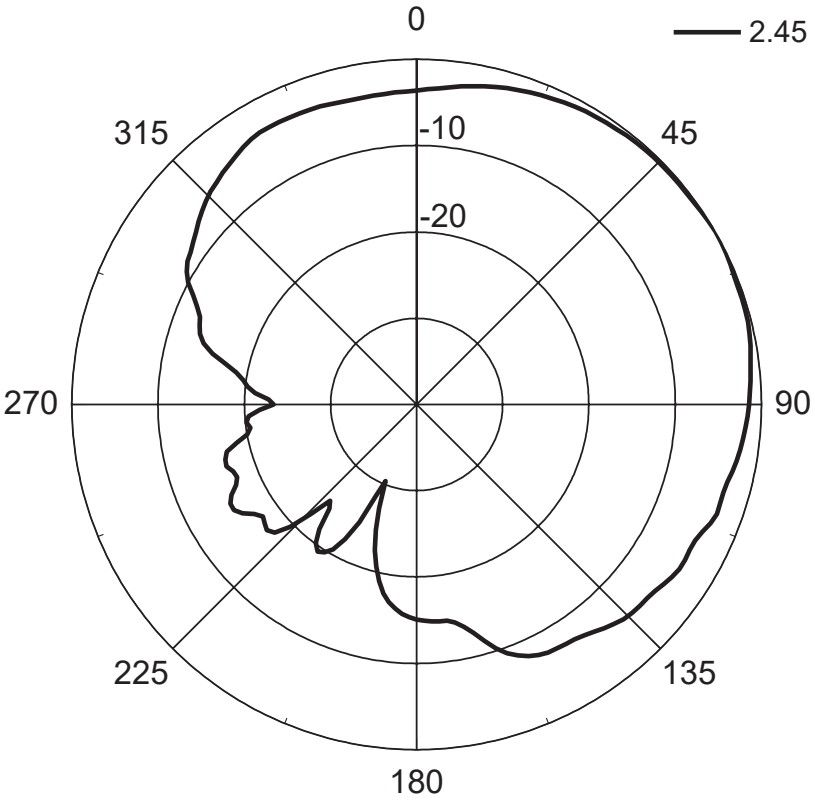
- Indoor high diversity MIMO communications
- Point-to-MultiPoint (PtMP) AP
- Indoor Mesh AP
- High density AP

Antenna Specifications

Antenna Elements	4 elements for 4x4 MIMO at 2.4 GHz band 8 elements for 8x8 MIMO at 5 GHz band
Size	168 mm × 159 mm, to be mounted about 20 mm above a reflective plane such as a mainboard
Connectors	12x U.FL antenna connectors
Frequency Range	2.4 GHz to 2.48 GHz 5.15 GHz to 5.95 GHz
Peak Gain	7.0 dBi for 2.4 GHz band 7.1 dBi for 5 GHz band
Radiation	Combined radiation pattern from the elements is omnidirectional in the horizontal plane
Polarization	Horizontal polarization
Isolation	> 30 dB for 2.4 GHz band, > 30dB between most elements for 5 GHz band
VSWR	< 2:1

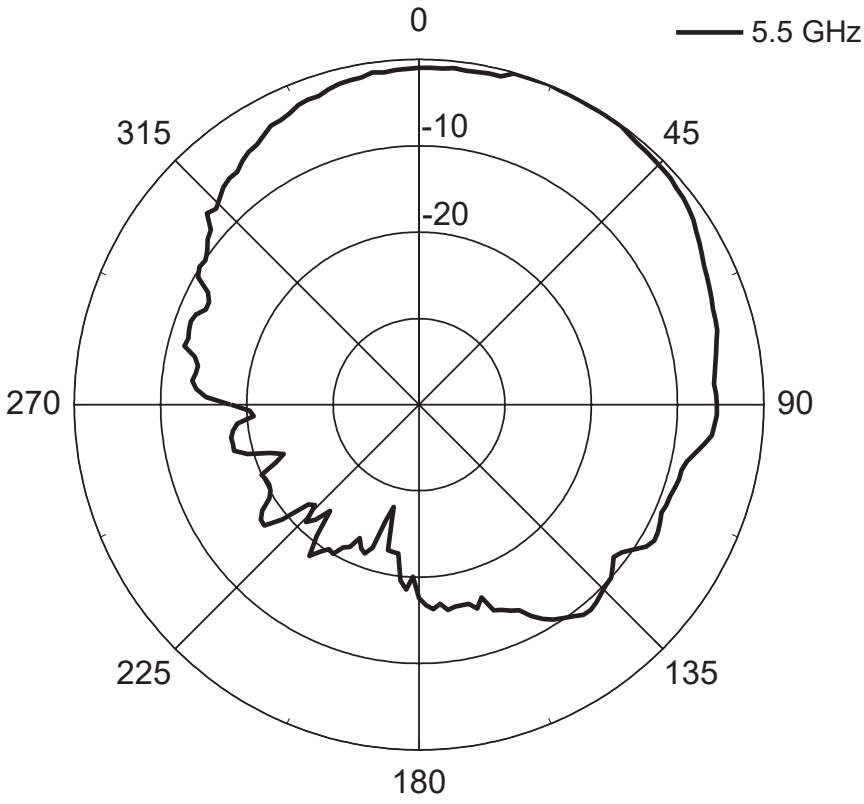
2D Gain Patterns

Gain of a 2.4 GHz Element*



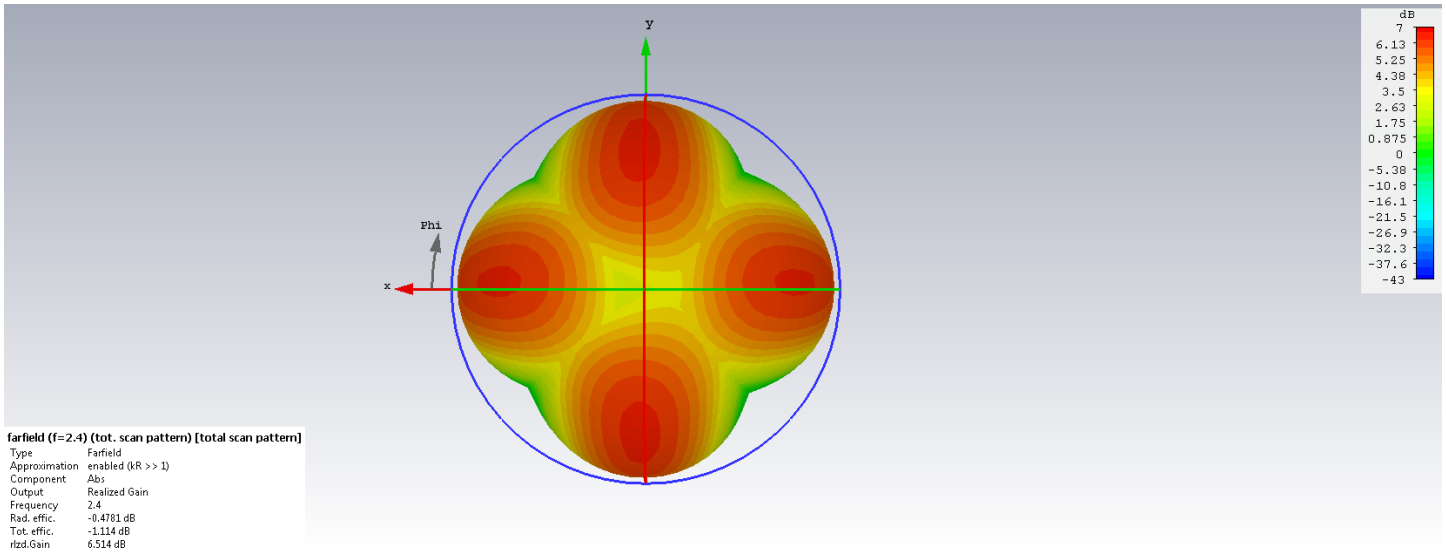
*The graphs show the polar plots of the gain relative to the peak gain, which is at about 45°. The antenna PCB plane is facing upwards at 0°.

Gain of a 5 GHz Element*

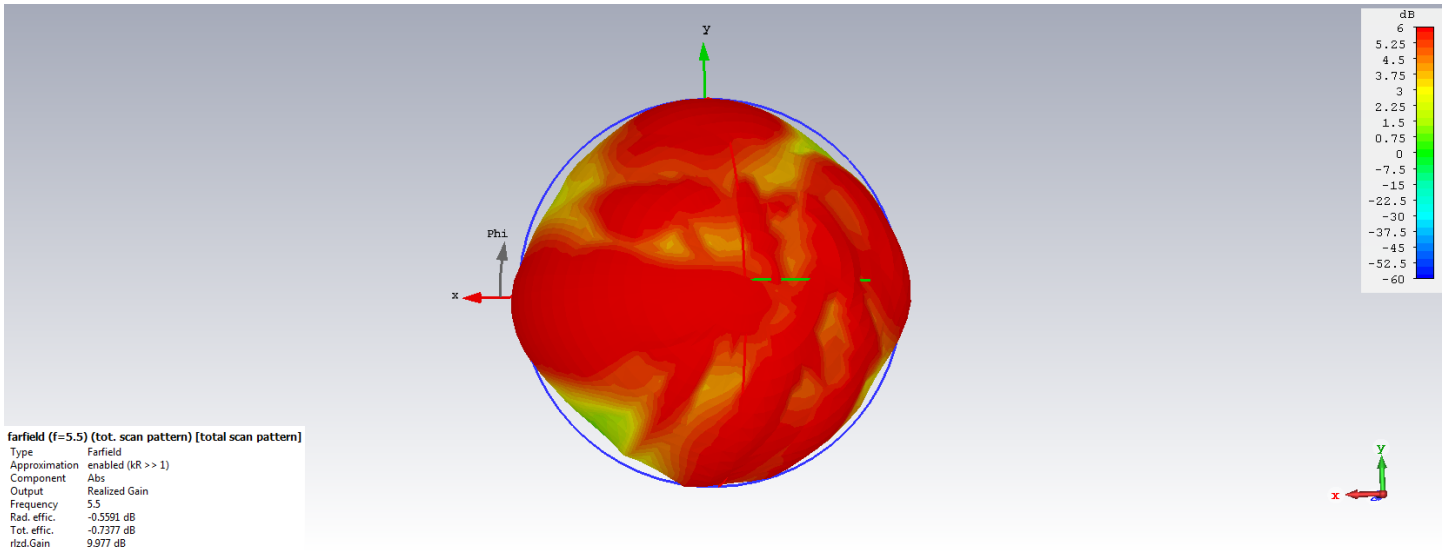


3D Radiation Patterns

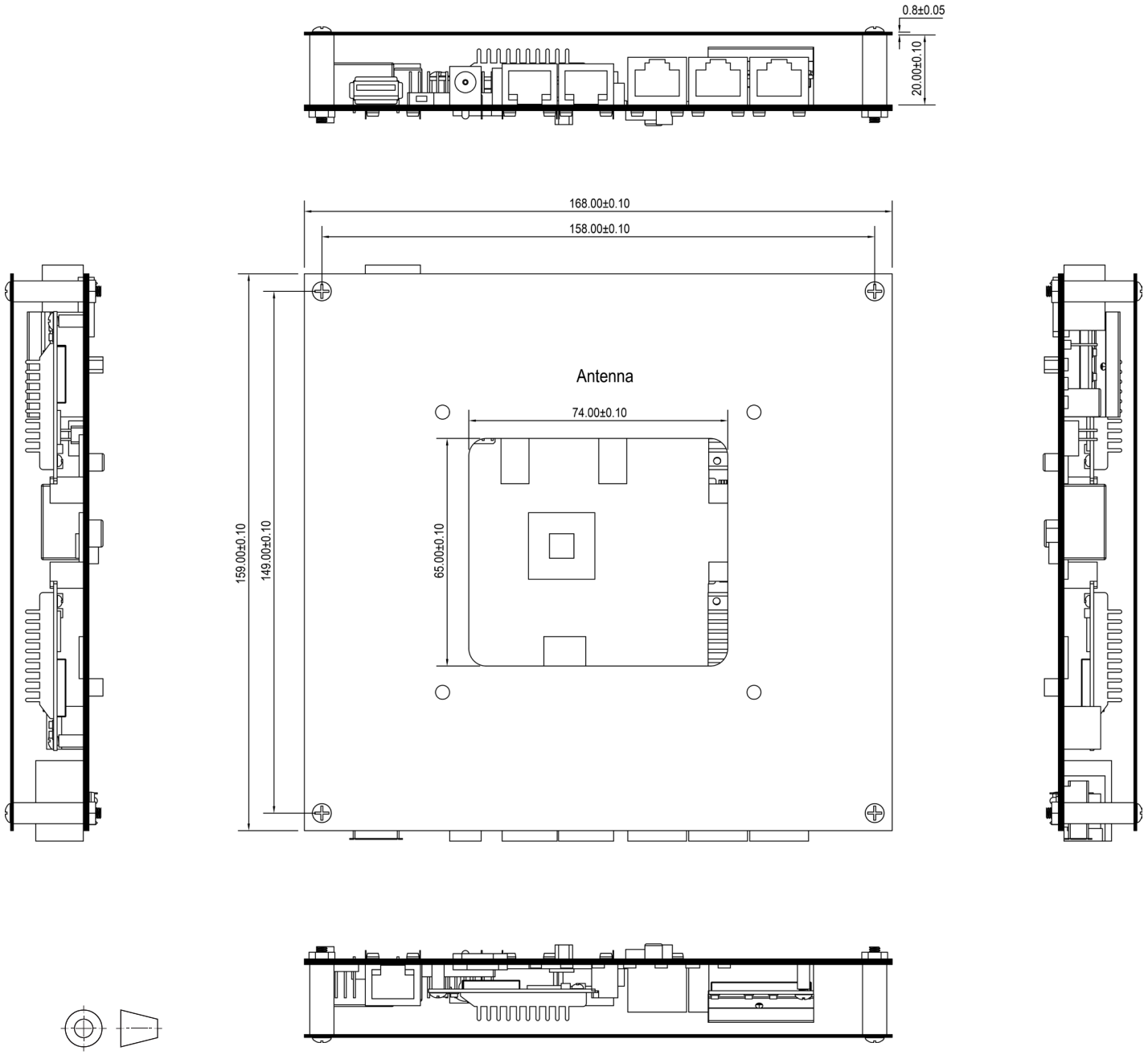
Simulated 3D Combined Pattern for One Set of Four 2.4 GHz Elements



Simulated 3D Combined Pattern for One Set of Four 5 GHz Elements



Recommended Assembly and Clearance between Antenna and Embedded Board*



All dimensions are in mm.

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

Ordering Information

Item Code	Antenna
FLAT-7DBI-2.45G-12UFL	Flat 12-Element 7 dBi Dualband Antenna with 12 pcs U.FL cable