Laird TECHNOLOGIES®

Innovative **Technology** for a **Connected** World

OC24527

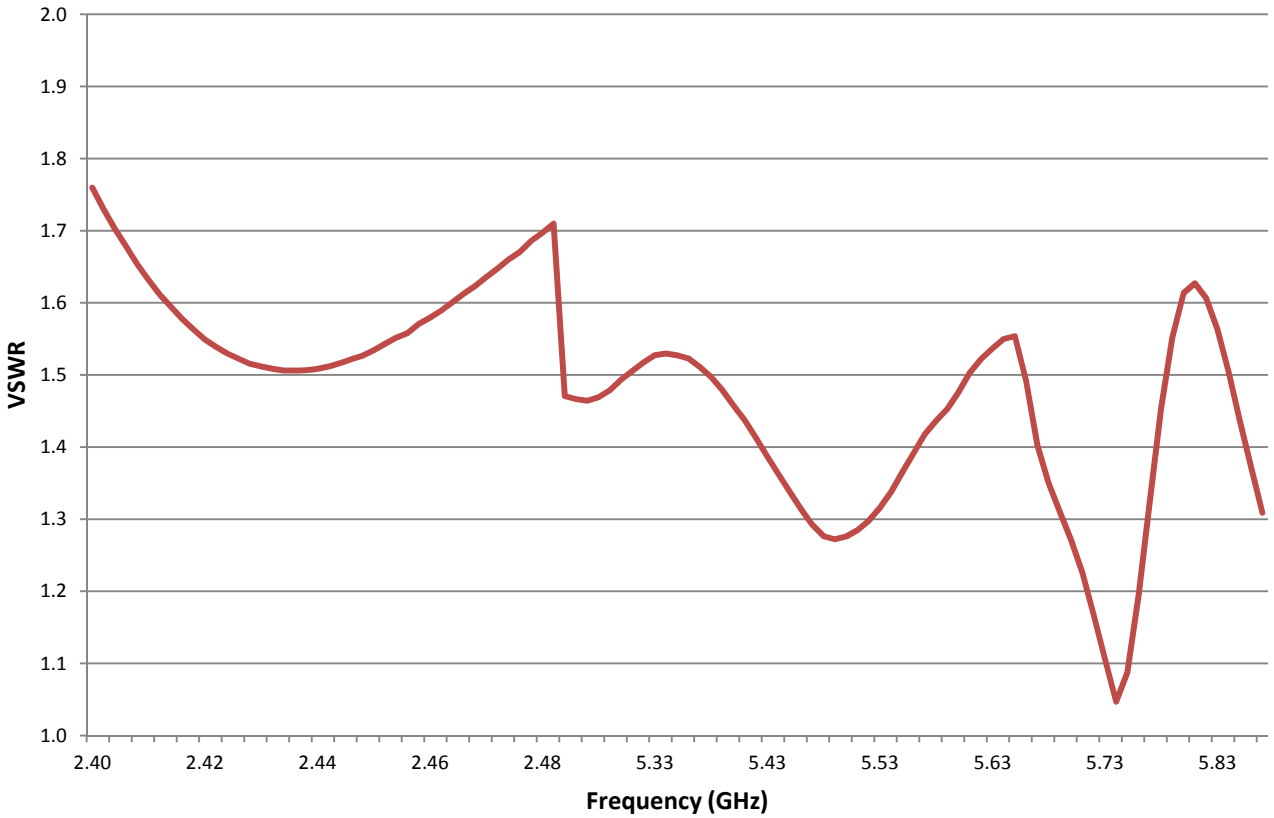
Dual Band Omni

2.4-2.483, 5.25-5.875 GHz

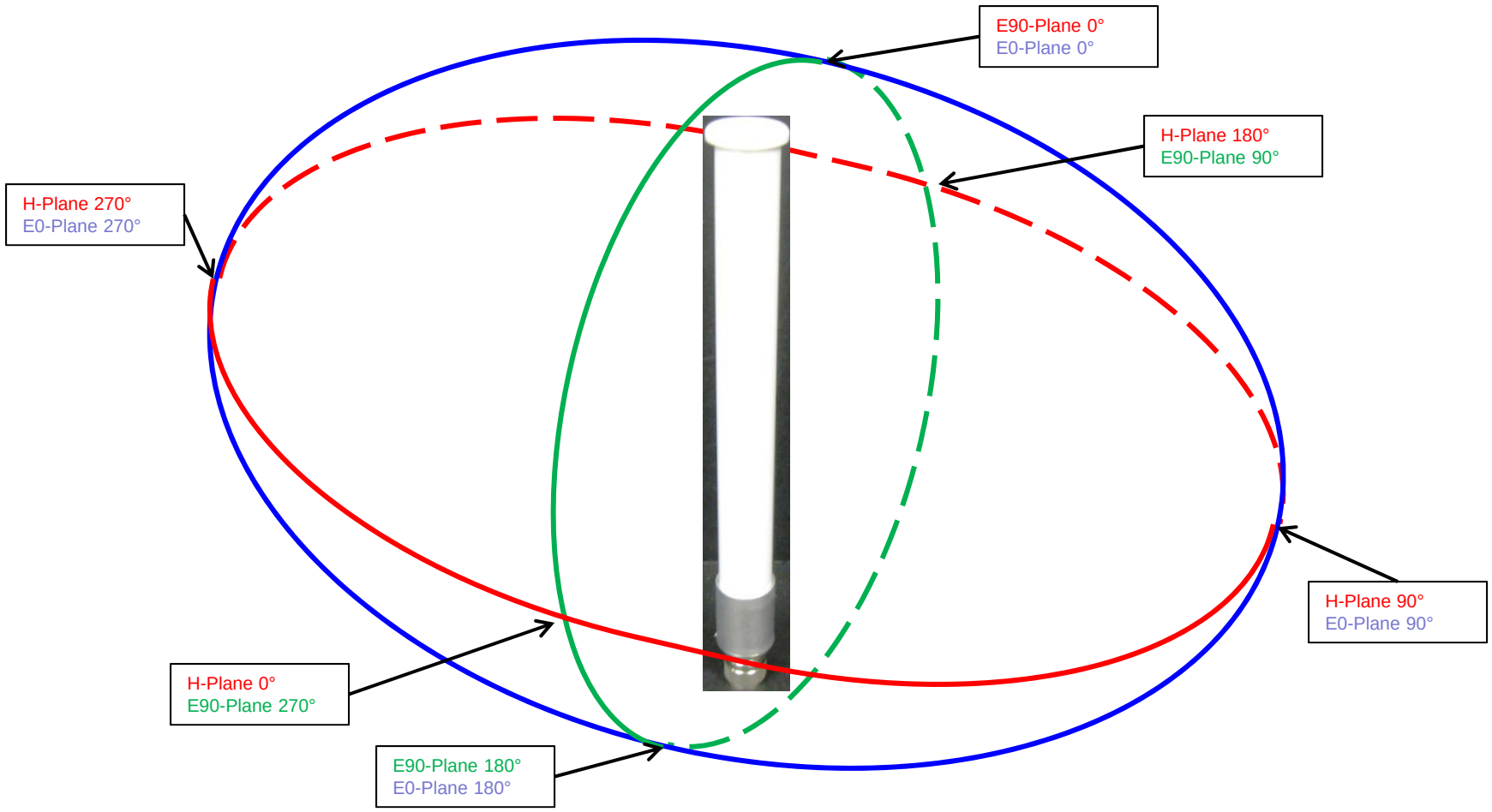
December 1, 2010

www.lairdtech.com

VSWR

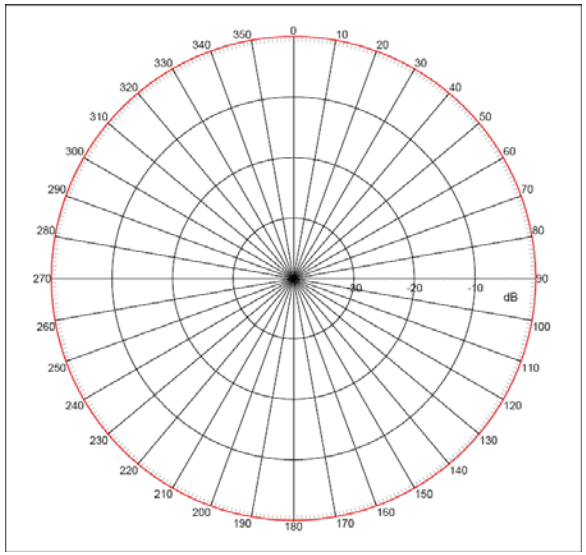


Pattern Orientation

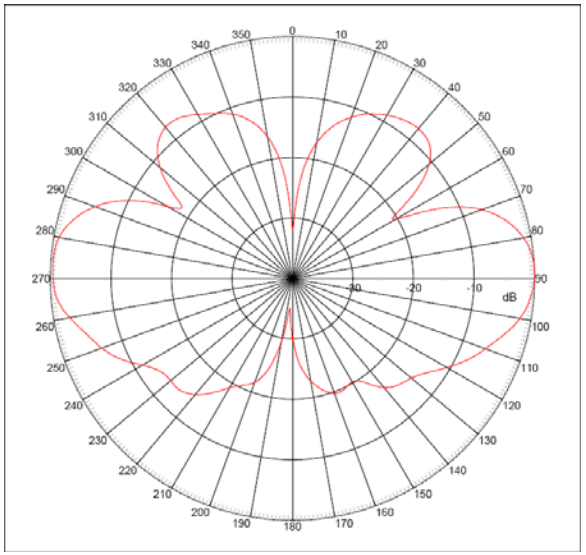


Radiation Patterns
(2.4 GHz)

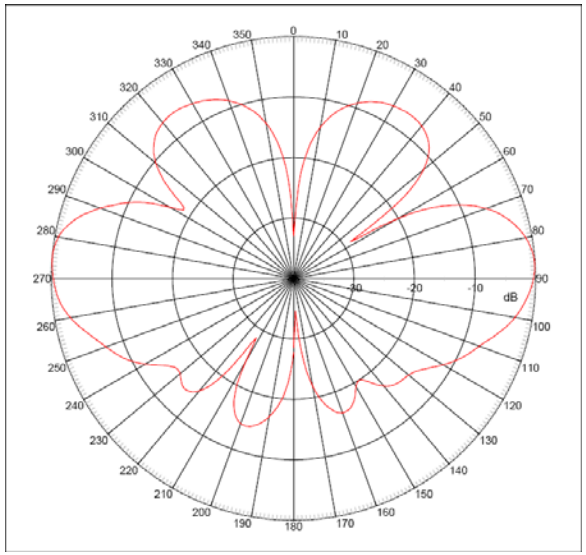
H-Plane
Gain on Horizon = 4.7 dBi
Peak Gain = H 4.7 dBi



E0-Plane
Peak Gain Angle = 88°
Beam Width = 27°

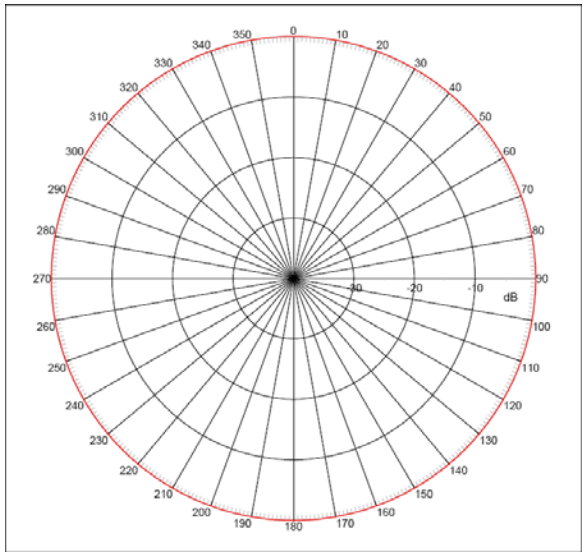


E90-Plane
Peak Gain Angle = 275°
Beam Width = 27°

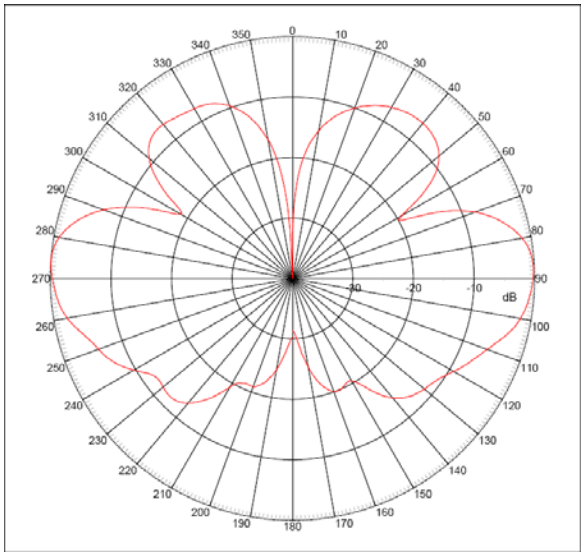


Radiation Patterns
(2.45 GHz)

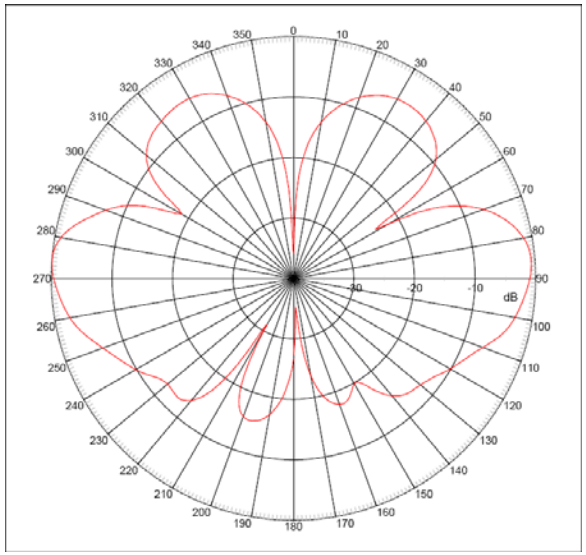
H-Plane
Gain on Horizon = 4.9 dBi
Peak Gain = H 4.9 dBi



E0-Plane
Peak Gain Angle = 274°
Beam Width = 27°

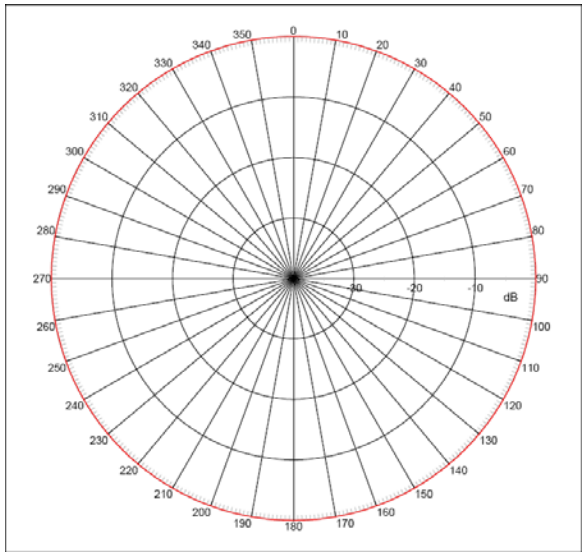


E90-Plane
Peak Gain Angle = 274°
Beam Width = 26°

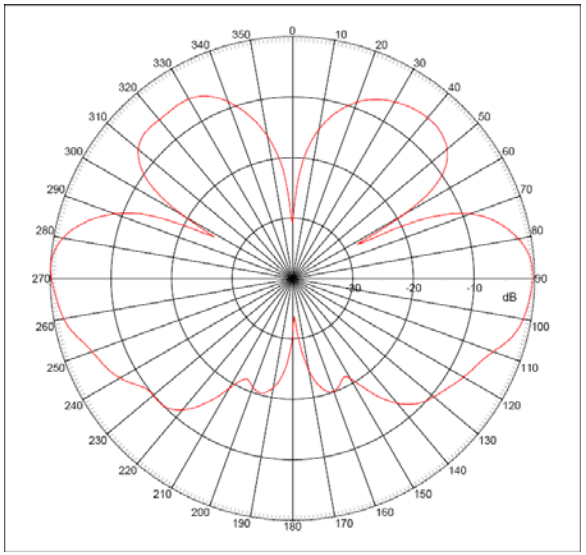


Radiation Patterns
(2.483 GHz)

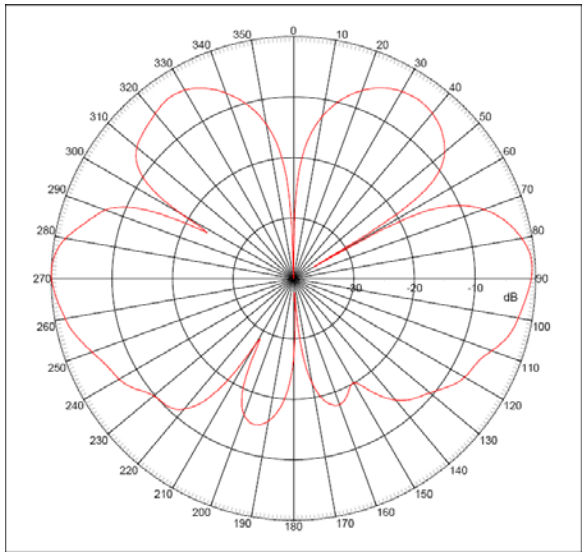
H-Plane
Gain on Horizon = 4.9 dBi
Peak Gain = H 4.9 dBi



E0-Plane
Peak Gain Angle = 273°
Beam Width = 28°

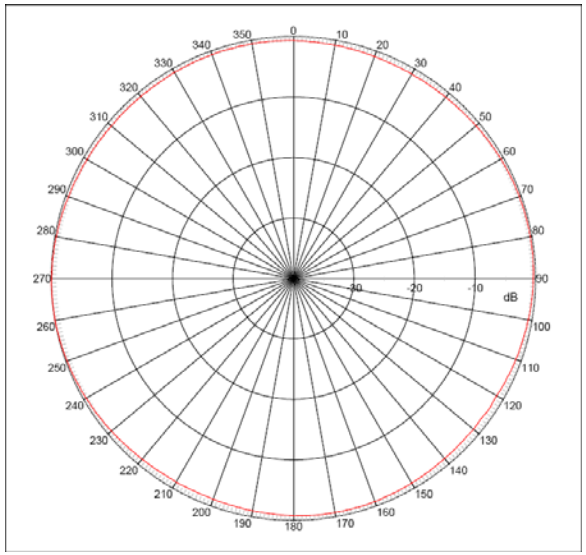


E90-Plane
Peak Gain Angle = 271°
Beam Width = 28°

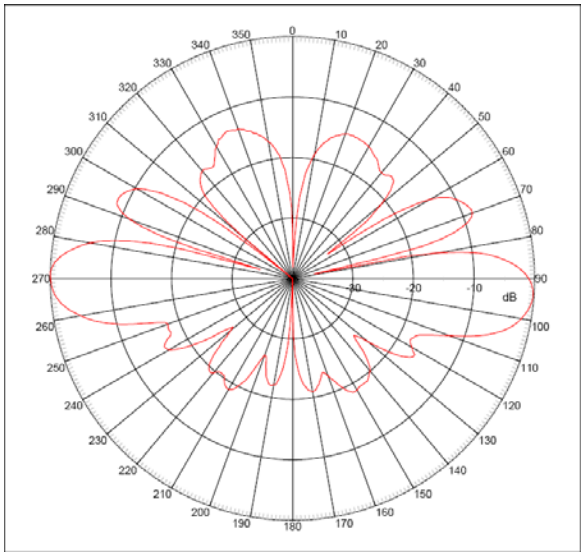


Radiation Patterns
(5.25 GHz)

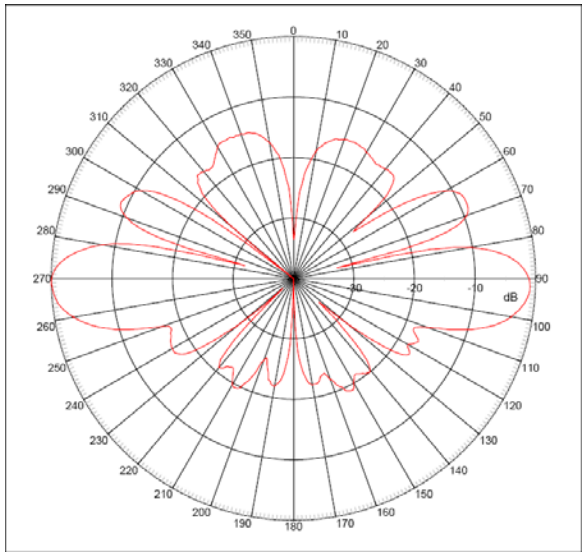
H-Plane
Gain on Horizon = 7.5 dBi
Peak Gain = H 7.5 dBi



E0-Plane
Peak Gain Angle = 271°
Beam Width = 16°

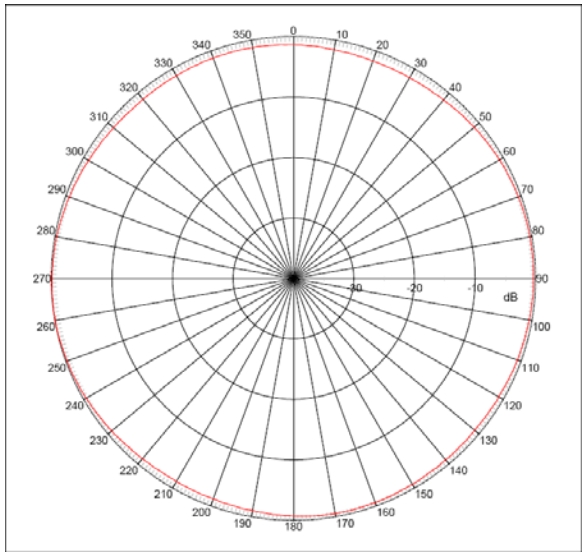


E90-Plane
Peak Gain Angle = 269°
Beam Width = 16°

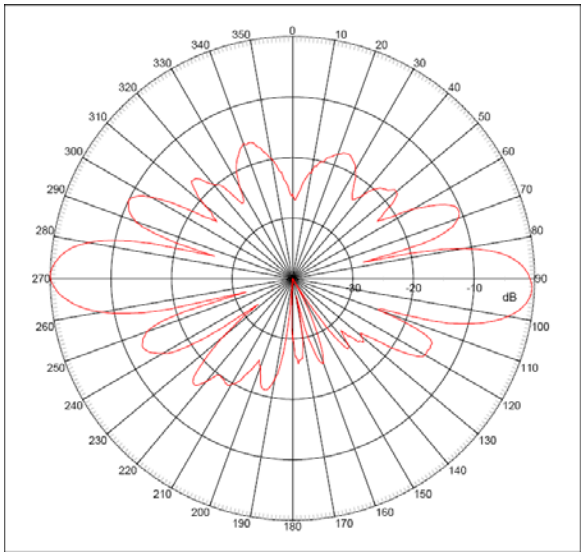


Radiation Patterns
(5.55 GHz)

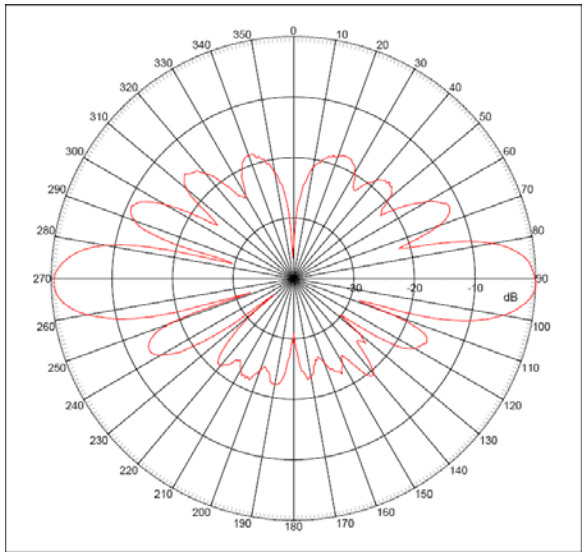
H-Plane
Gain on Horizon = 7.5 dBi
Peak Gain = H 7.5 dBi



E0-Plane
Peak Gain Angle = 271°
Beam Width = 14°

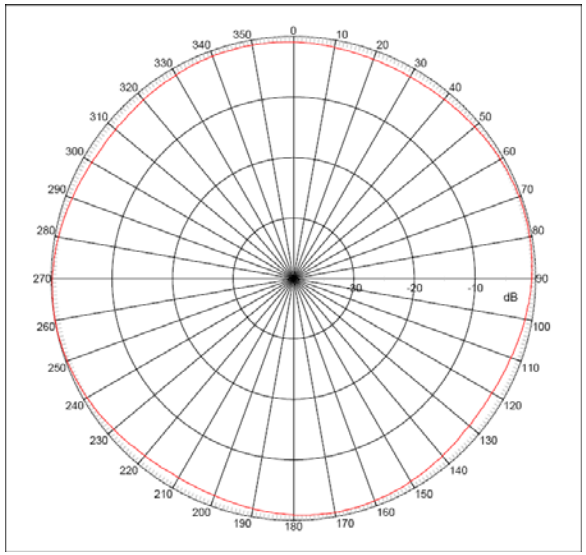


E90-Plane
Peak Gain Angle = 269°
Beam Width = 15°

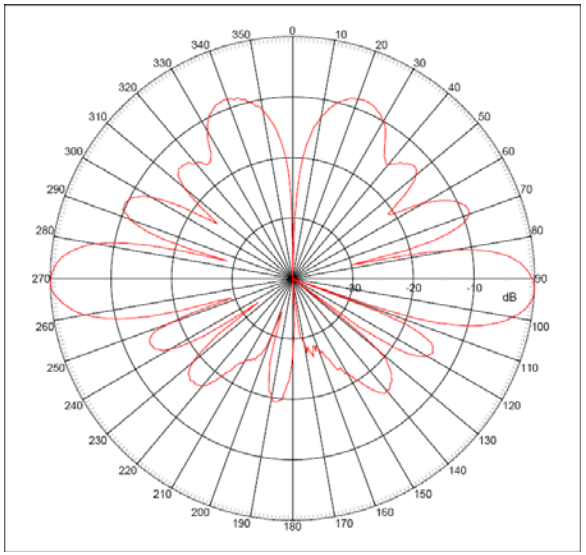


Radiation Patterns
(5.875 GHz)

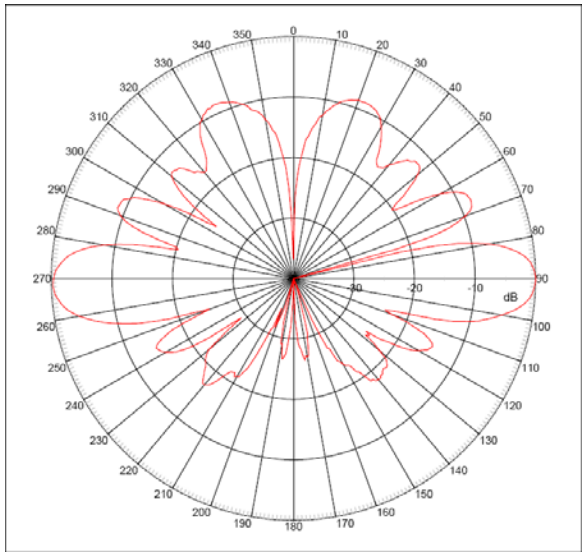
H-Plane
Gain on Horizon = 7.7 dBi
Peak Gain = H 7.7 dBi



E0-Plane
Peak Gain Angle = 269°
Beam Width = 15°



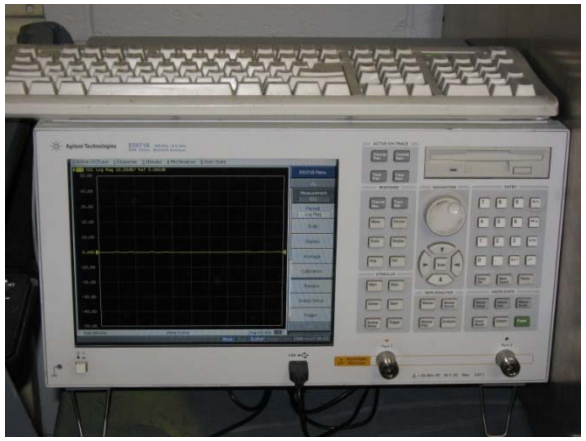
E90-Plane
Peak Gain Angle = 90°
Beam Width = 15°

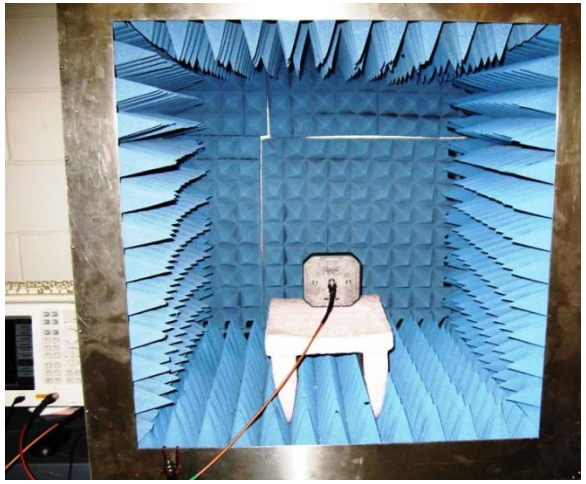


Ripple / Gain Performance Comparison

Frequency (GHz)											
2.4		2.45		2.48		5.25		5.5		5.875	
Gain Max / Min	Ripple	Gain Max / Min	Ripple	Gain Max / Min	Ripple	Gain Max / Min	Ripple	Gain Max / Min	Ripple	Gain Max / Min	Ripple
4.7 / 3.1	1.6	4.9 / 2.8	2.1	4.9 / 3.0	1.9	7.5 / 6.2	1.3	7.5 / 5.8	1.7	7.7 / 5.5	2.2

Test Equipment Summary (VSWR)





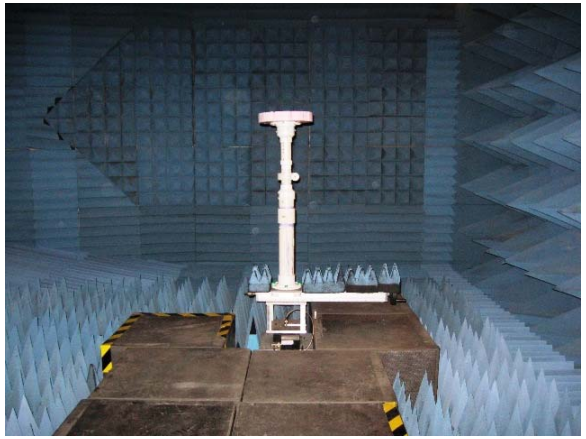
Analyzer

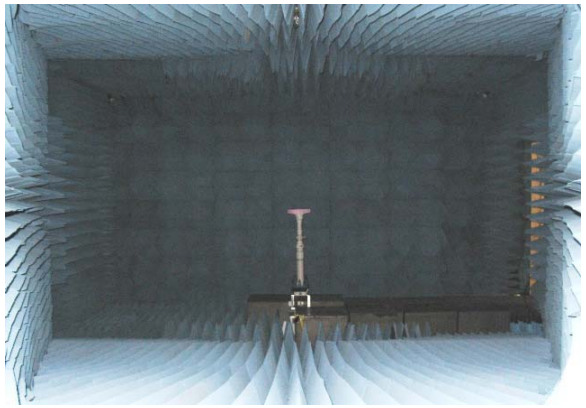
- Agilent E5071B network analyzer
- Maximum frequency range: 300 kHz – 8.5 GHz
- Calibration certified annually (system)
- Calibrated per OSL standard (test)

Testing Chamber

- 36”H x 36”W x 34”D
- Absorber material: Pyramid 2”W x 2”L x 5”H / division

Test Equipment Summary
(Radiation Patterns)





Testing Chamber:

- Test chamber is a single axis, single source system comprising a network analyzer, positioner / controller and tapered anechoic chamber. The system is calibrated prior to each test. All components are calibrated annually as required.
- Dimensions:
  - 8.8 meters from face of source to DUT center of rotation
  - 72” center of height above floor