

DATA SHEET

Model No. : 2,4-5,7x3-C-3-5

Description : 2.4~2.5/5.1~5.9 GHz CEILING ANTENNA

Date : 2011/07/13

Rev : 1



1. OVERVIEW & SPECIFICATIONS

Electrical Specifications:

Frequency Range :	2.4~2.5/5.1~5.9GHz
VSWR :	≤ 2.0
Impedance :	50 Ω
Gain :	3/5dBi
Polarization :	Vertical/Circular
Power Handling :	10 Watt
Beam Width :	2400-2500MHz H: 360° / E: 65° 5100-5900MHz H: 360° / E: 70°

Mechanical Specifications:

Connector :	SMA Male RS
Cable & Length :	PRO-100 1M
Operation Temp. :	-30°C ~ +60°C
Material :	Radome: ABS
Dimension (L*W*H) :	Ø95*55 mm
Weight :	120 g ±15g
Color :	White

2. TESTING CONDITION

2.1 TEST SETUP

VSWR measurement (S11): Use ROHDE & SCHWARZ ZV8 Network Analyzer with Harbour RG-142 coaxial cable: 1000mm length in free space.

2.1.1 VSWR

The frequency band is based on PRO-CELL design. The detail be shown as appendix that is from ROHDE & SCHWARZ ZV8 Network Analyzer

	VSWR Performance			
Freq(MHz)	2400	2450	2500	5100
Free space	1.2	1.15	1.15	1.56
Freq(MHz)	5200	5300	5400	5500
Free space	1.15	1.31	1.44	1.32
Freq(MHz)	5600	5700	5800	5900
Free space	1.11	1.21	1.22	1.24

3. GAIN MEASUREMENT

3.1 TEST SETUP

The gain of the antenna was measured by **PROCELL** Chamber. The chamber provides less than -30 dB reflectivity from 800 MHz through 6 GHz and a 60cm diameter spherical quiet zone. The measurement results are calibrated using both **SCHWARZBECK** horn standards. A decoupling sleeve is used to reduce feed line radiation

3.2 TEST RESULT

The peak gain is picked up as table list from Network analyzer in Chamber room, the completely gain plots also be shown as appendix.

	Peak Gain (dBi) / Beam width(°)			
Freq(MHz)	2400	2450	2500	5100
H PLANE	3.52/360°	3.8/360°	3.56/360°	4.65/360°
E PLANE	2.22/55°	2.13/59°	3.34/66°	5.61/72°
Freq(MHz)	5200	5300	5400	5500
H PLANE	5.34/360°	4.21/360°	3.17/360°	5.35/360°
E PLANE	5.18/76°	4.51/74°	2.59/75°	4.05/78°
Freq(MHz)	5600	5700	5800	5900
H PLANE	4.36/360°	5.52/360°	5.09/360°	5.55/360°
E PLANE	5.16/74°	6.69/74°	6.96/77°	6.0/76°

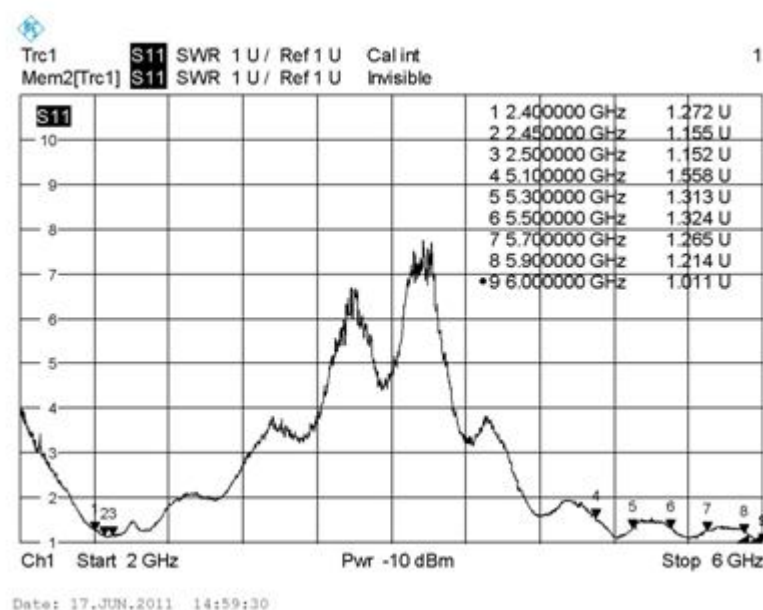
4. APPENDIX

4.1 RETURN LOSS & VSWR

RETURN LOSS



SWR



ISOLATION

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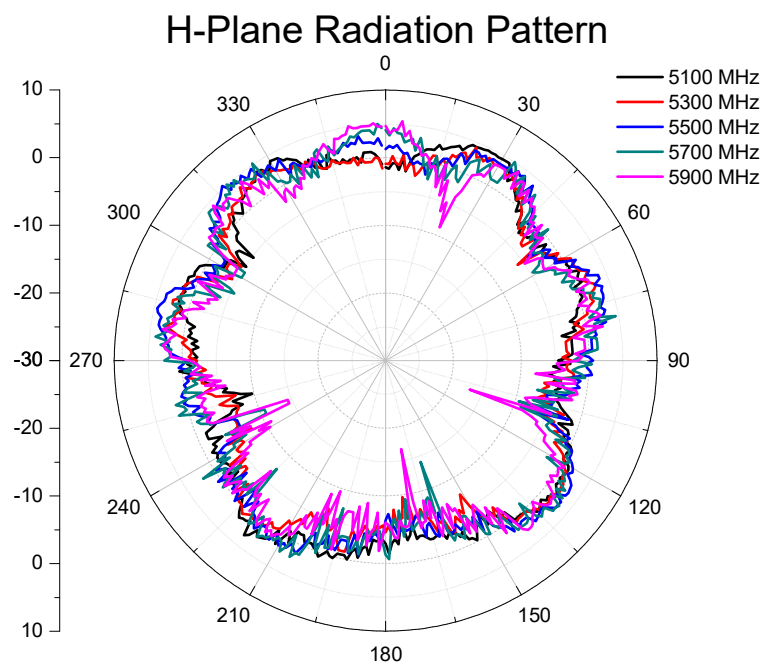
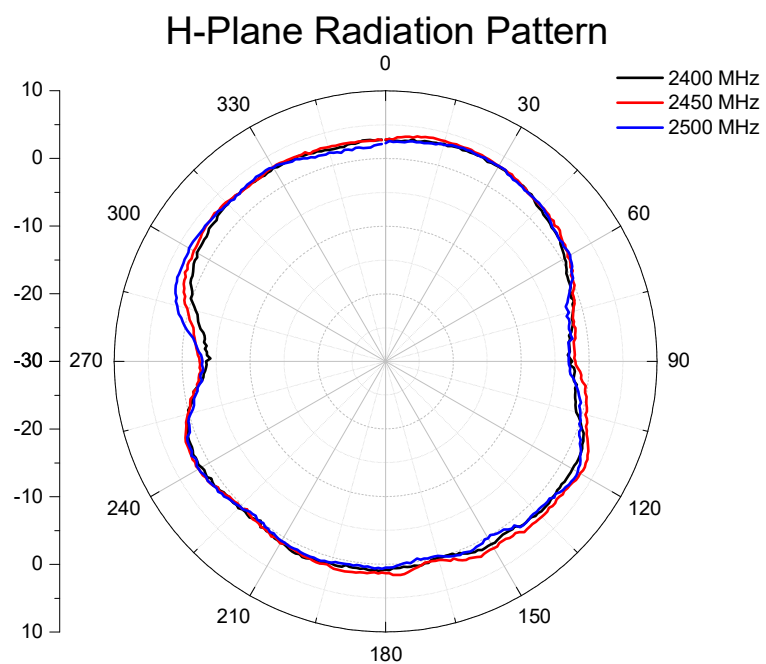
S21



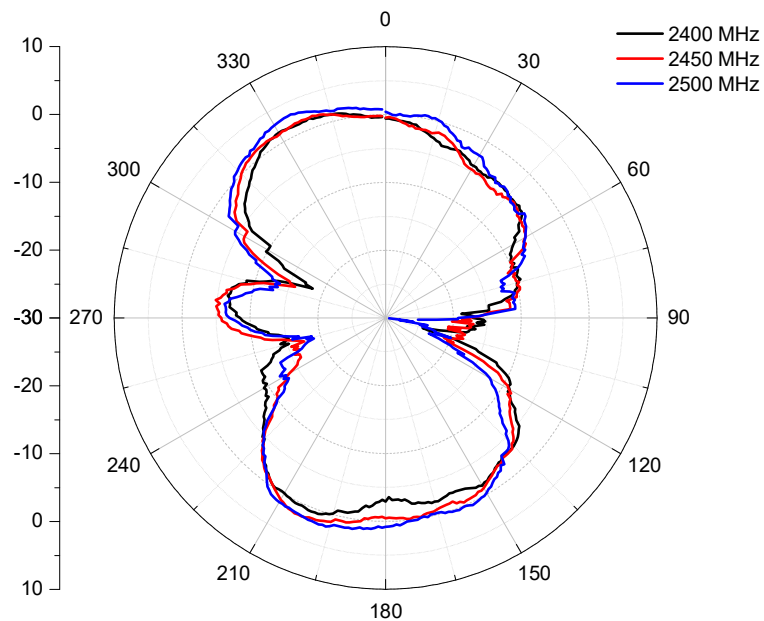
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4.2 RADIATION PATTERN



V-Plane Radiation Pattern



V-Plane Radiation Pattern

