

Sercomm Internal Antenna Preliminary Data Sheet

P/N: 617210DX

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Revision History

REV.	Date	Author	Description Approval
REV 0	2014/02/24	Miles	Approval

Sercomm Corporation			
Antenna	Mechanical	R&D	R&D
Engineer	Engineer	Manager	Director
Checked	Checked	Checked	Checked
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The Perfect Solutions For You

Sercomm P/N: 617210DX Application Date: 2014/02/24 Rev: 0

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1. Antenna Specifications

1.1 Electrical Properties

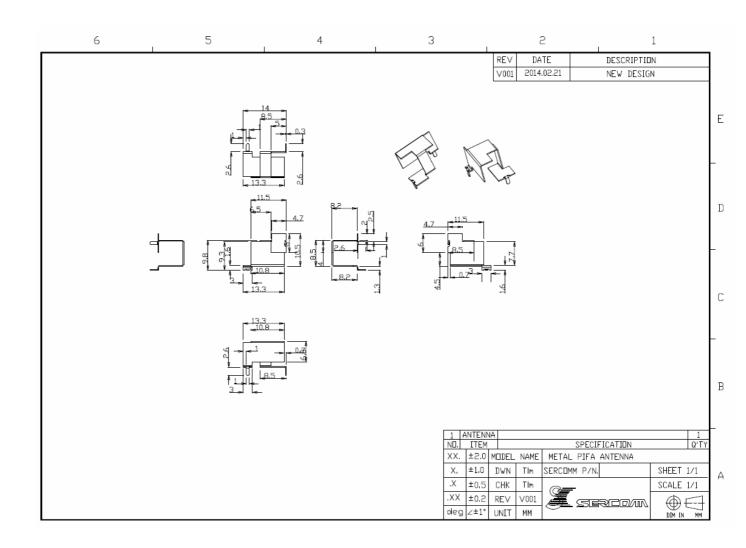
Application	(1) WiFi 802.11n\a	
Antenna Type	PIFA	
Frequency Range (MHz)	5150MHz ~ 5850MHz	
Return Loss (dB)	Used for device > 10dB	
Retail Loss (db)	Free space > 10dB	
Peak Gain (dBi)	>4.72dBi	
Efficiency (%)	> 60%	
Polarization	Linear polarization	
Feed Impedance (ohm)	50Ω	
Cable Type	Ф1.13mm	
Cable Loss	0.3dB	
Connector	l-pex	

1.2 Physical Properties

Antenna Dimensions	13.3(L) x 11.8(W) x 10.8(H) (mm ³)	
Antenna Weight	1g	
Operating Temperature	- 40℃ ~ + 75℃	
Storage Temperature	- 40°C ~ + 75°C	
Humidity Range	0% to 95% non-condensing	



2. Product Drawing

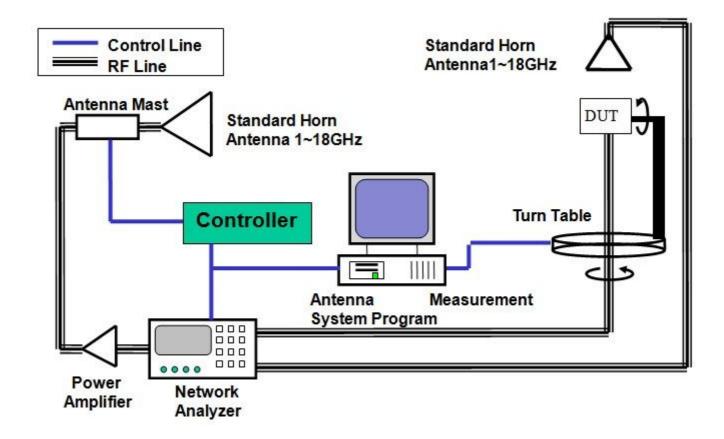




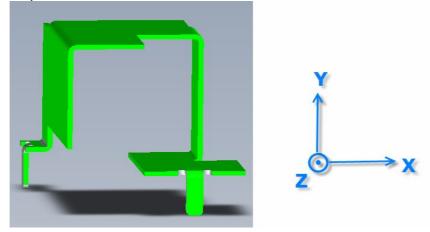
3. Performance Test Report

3.1 Test Facility

Network analyzer and standard 3D anechoic chamber are used for antenna performance test.

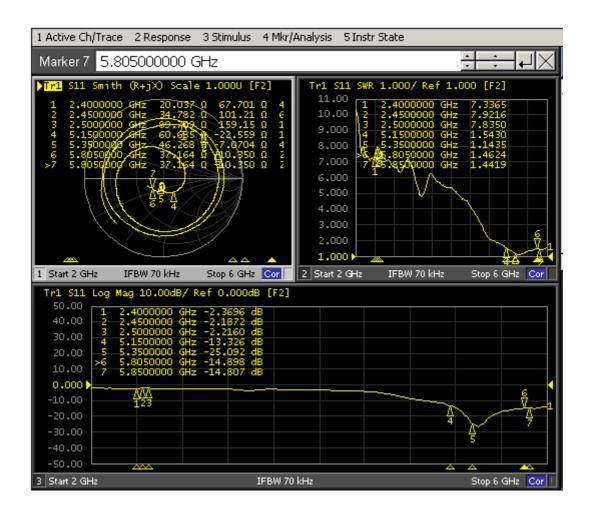


The measurement plane of the antenna is defined as below.





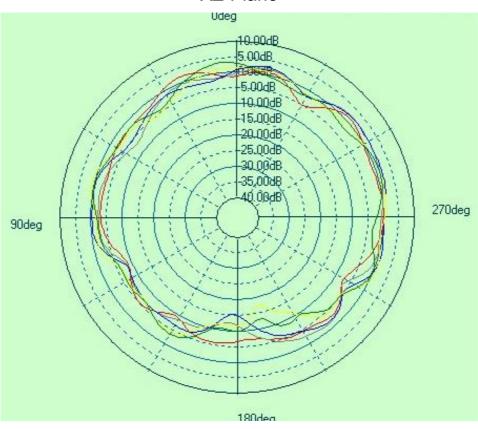
3.2 Return Loss





3.3 Radiation Pattern

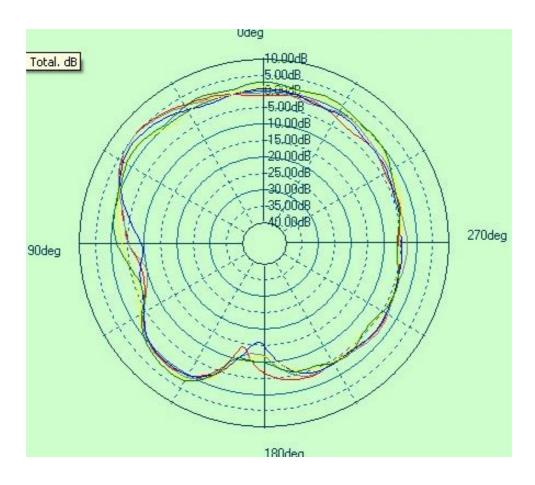
XZ-Plane





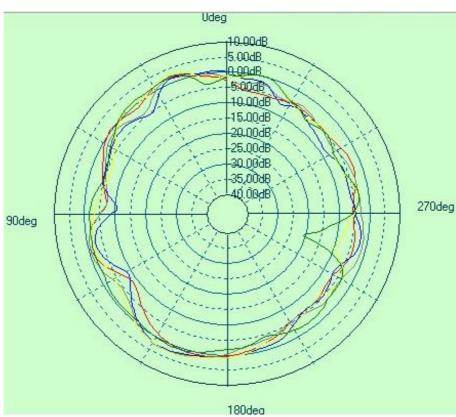


YZ-Plane









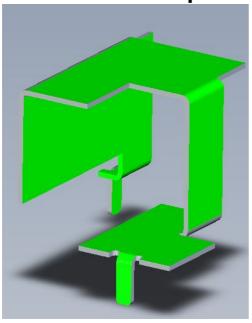
2D Average Gain			
XZ-plane	XY-plane		
2D A∨g. Gain	2D A∨g. Gain	2D A∨g. Gain	
(dBi)	(dBi)	(dBi)	
-2.87	-2.46	-3.07	

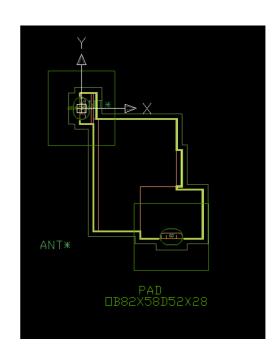
3.4 Gain & Efficiency

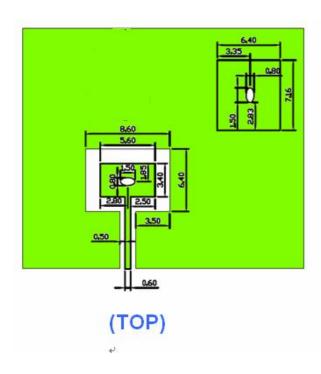
Frequency (MHz)	Gain (dBi)	Efficiency (%)	3D A∨g. Gain (dB)
5150 MHz	5.13	63.5	-1.97
5350 MHz	5.06	63.7	-1.96
5725 MHz	5.10	65.3	-1.85
5850 MHz	5.01	63.6	-1.97

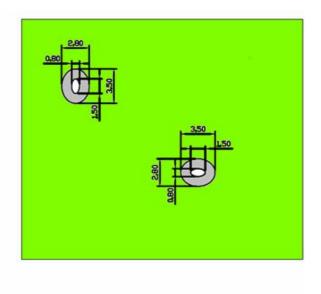


4. Layout Guide & Footprint









(BOTTOM)