Sercomm Internal Antenna

Preliminary Data Sheet

P/N: 617210DX

SerComm Confidential

SerComm Corporation

8F,No.3-1,YuanQu St.,NanKang,Taipei 115,Taiwan,R.O.C
Tel： 886-2-26553988
Fax： 886-2-26553966
http：//www.sercomm.com.tw

SerComm (Suzhou) R&D Center

NO, 26, Xinghai Street, Suzhou Industrial Park, Jiangsu, China
Tel：86-512-67612332
Fax：86-512-67612331

Revision History

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

Sercomm Corporation			
Antenna Engineer Checked	Mechanical Engineer Checked	R&D Manager Checked	R&D Director Checked
Miles Chu	*Bruce Lee*	*Jerry Liu*	*Kevin_cw Tseng*

1. Antenna Specifications

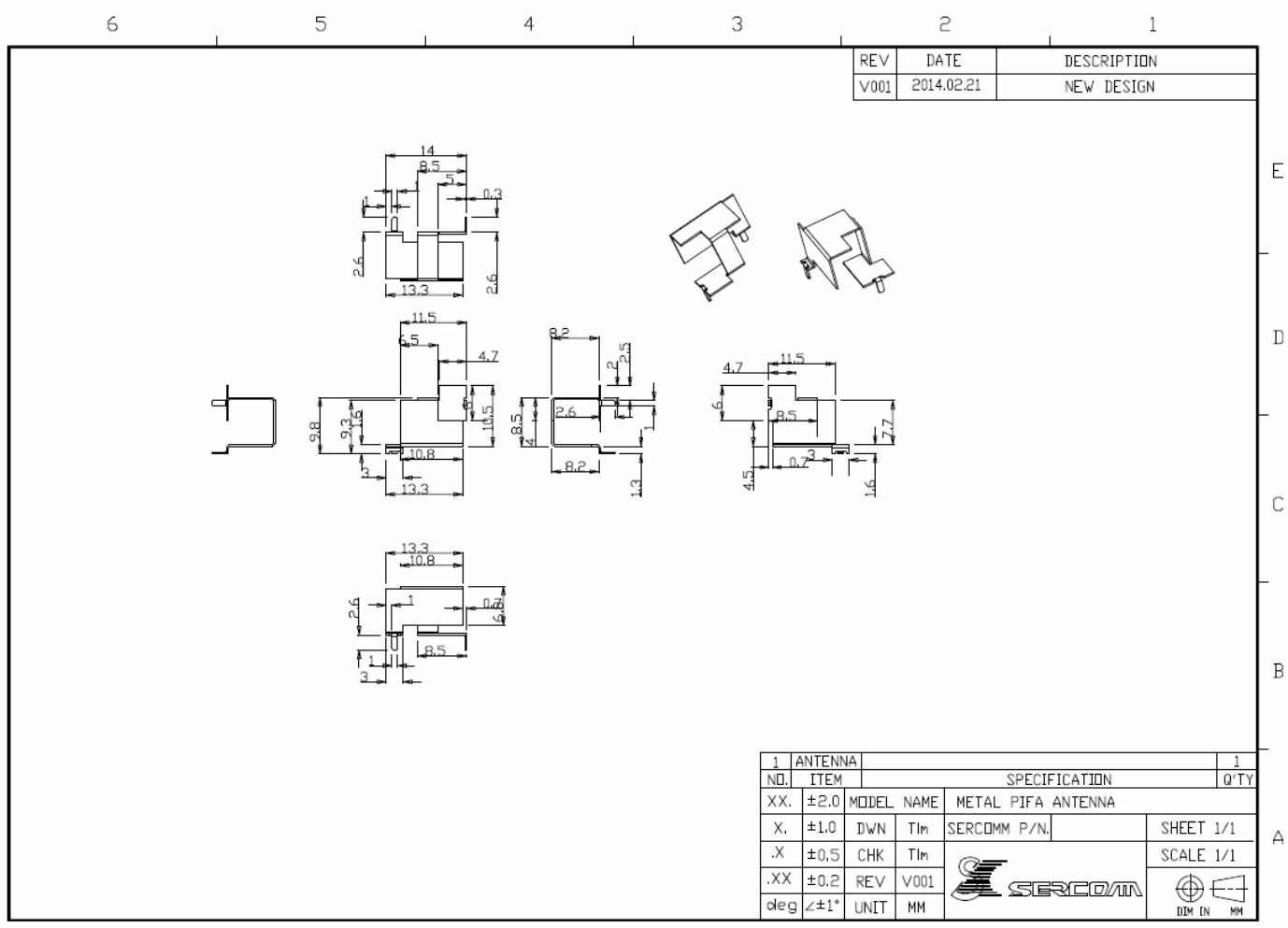
1.1 Electrical Properties

Application	(1) WiFi 802.11n\a
Antenna Type	PIFA
Frequency Range (MHz)	5150MHz ~ 5850MHz
Return Loss (dB)	Used for device > 10dB Free space > 10dB
Peak Gain (dBi)	>4.72dBi
Efficiency (%)	> 60%
Polarization	Linear polarization
Feed Impedance (ohm)	50Ω
Cable Type	Φ1.13mm
Cable Loss	0.3dB
Connector	I-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℃ ~ + 75℃
Humidity Range	0% to 95% non-condensing

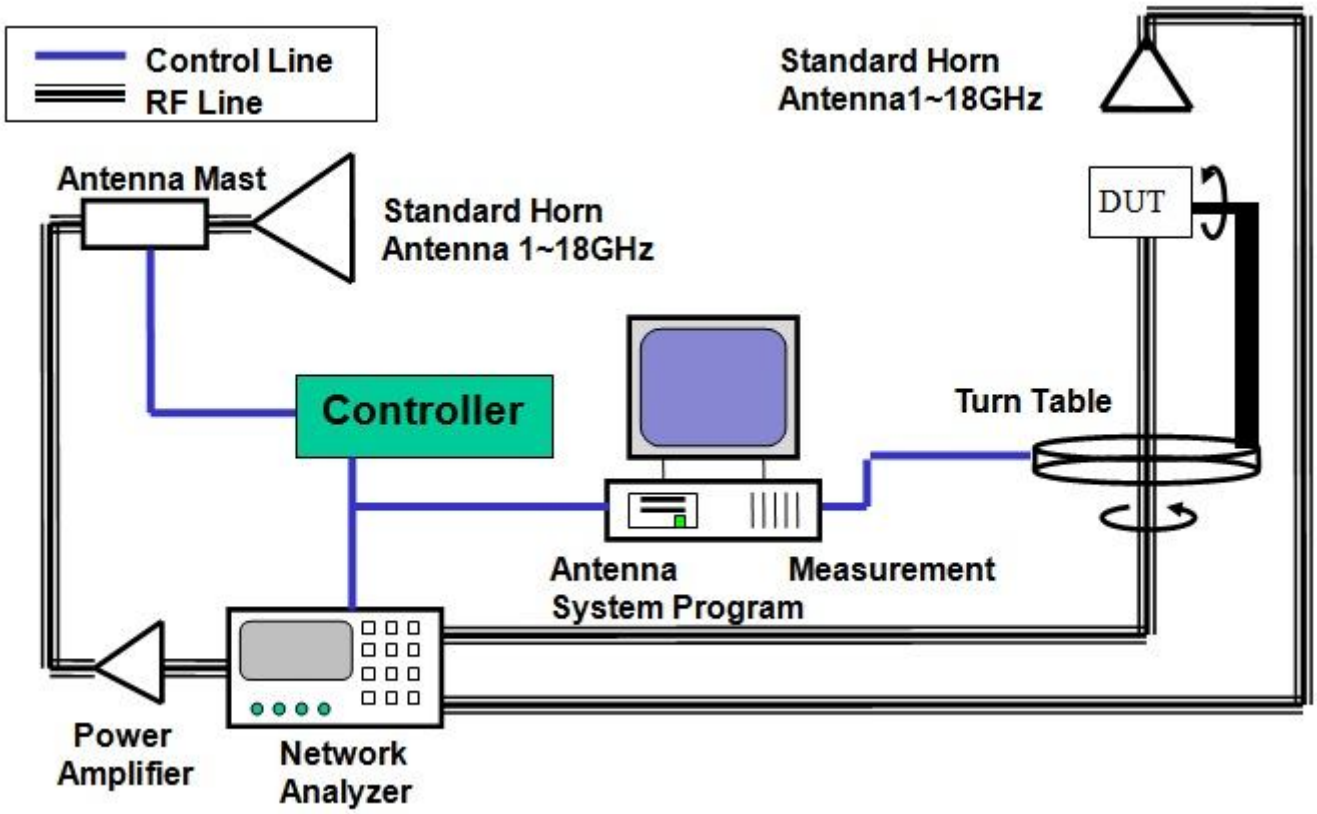
2. Product Drawing



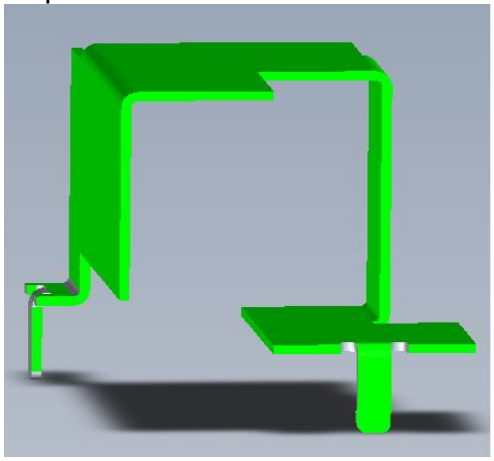
3. Performance Test Report

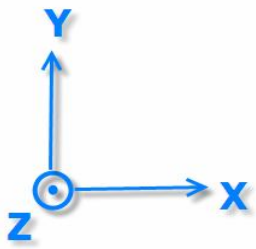
3.1 Test Facility

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



The measurement plane of the antenna is defined as below.

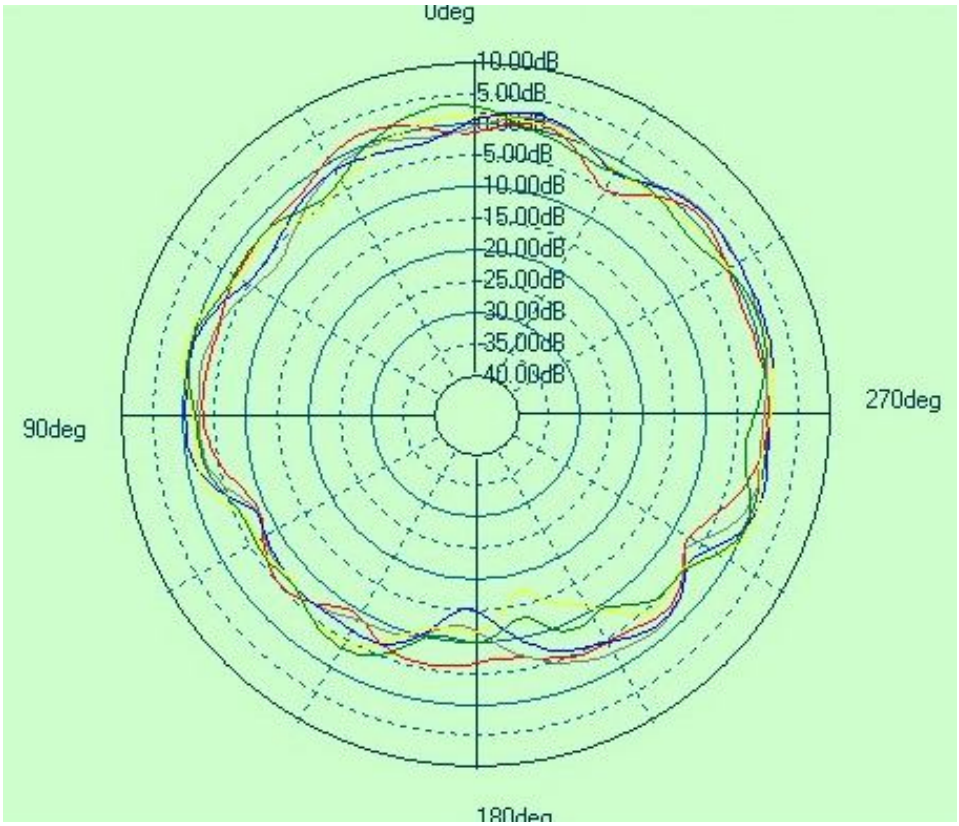




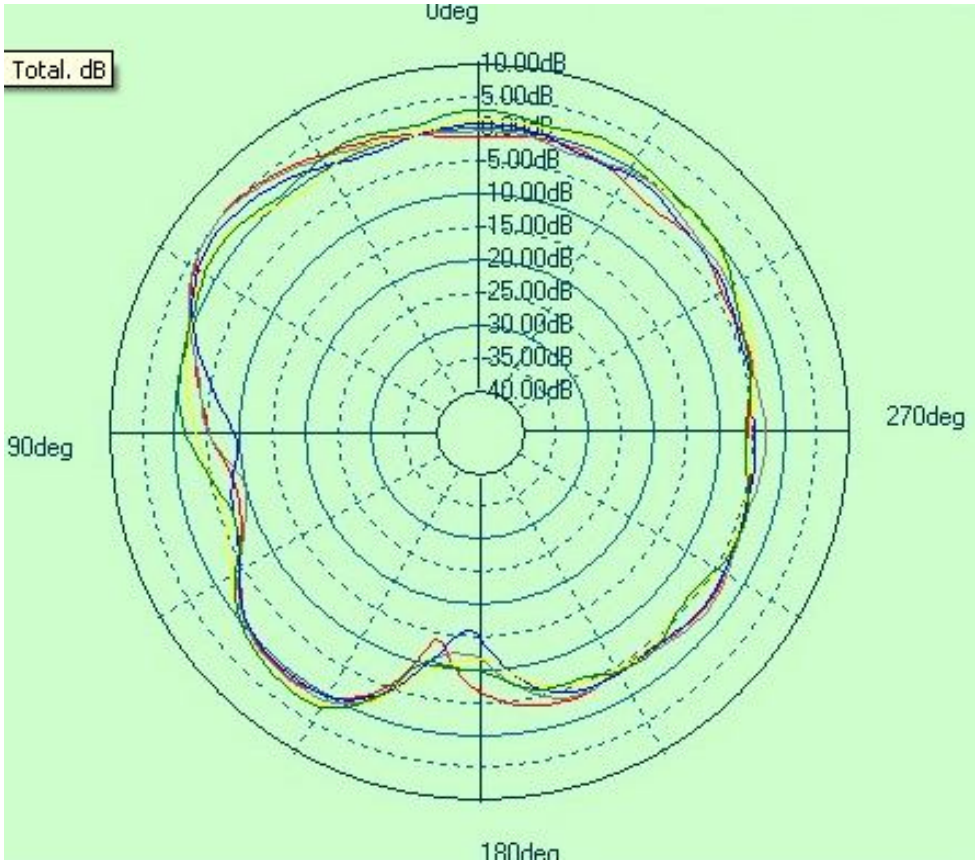
3.2 Return Loss

3.3 Radiation Pattern

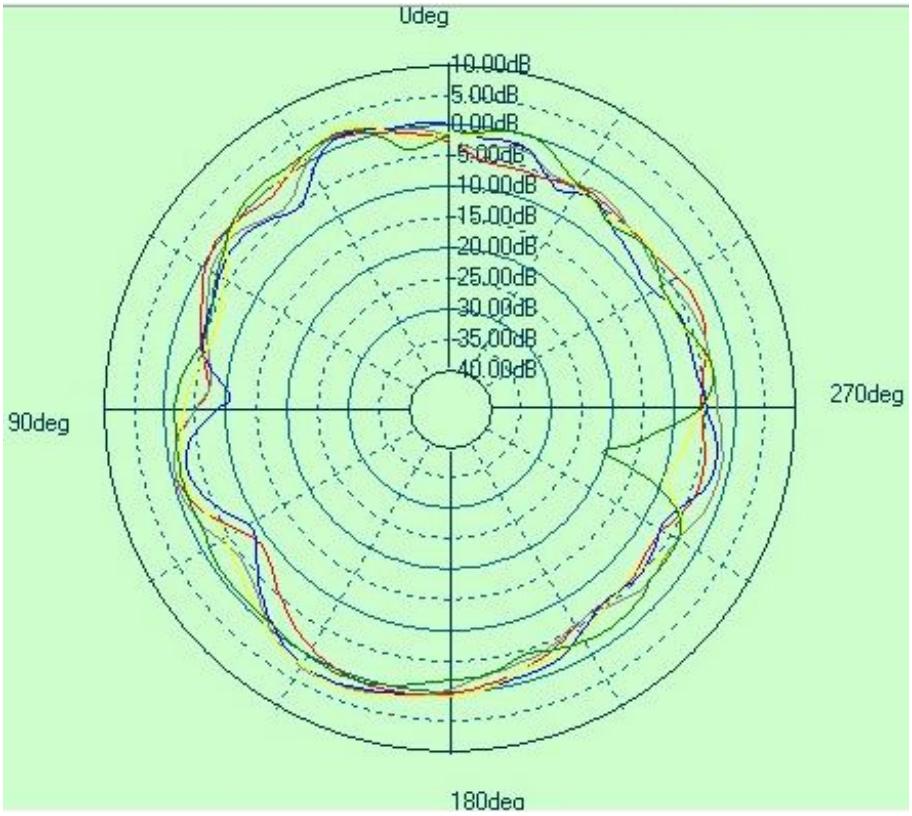
XZ-Plane



YZ-Plane


0deg
Total. dB
10.00dB
5.00dB
5.00dB
10.00dB
15.00dB
20.00dB
25.00dB
30.00dB
35.00dB
40.00dB
90deg
270deg
180deg

XY-Plane

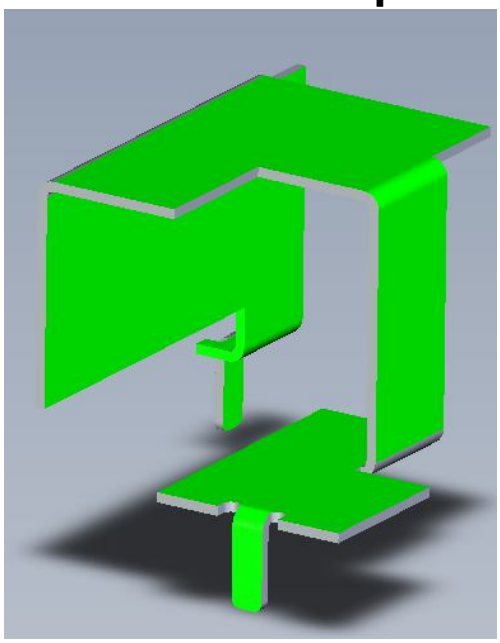


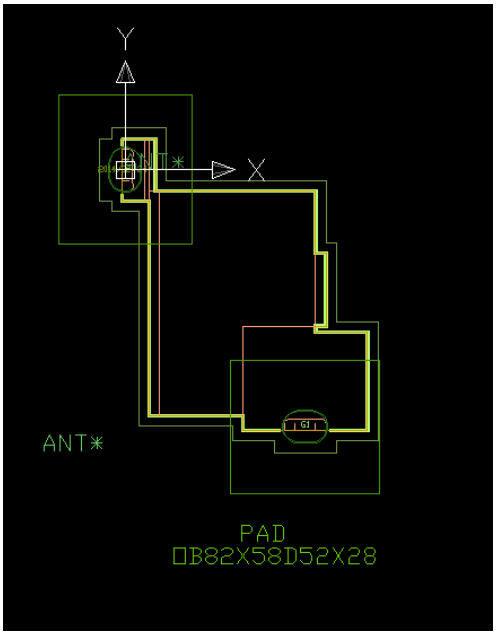
2D Average Gain		
XZ-plane 2D Avg. Gain (dBi)	YZ-plane 2D Avg. Gain (dBi)	XY-plane 2D Avg. Gain (dBi)
-2.87	-2.46	-3.07

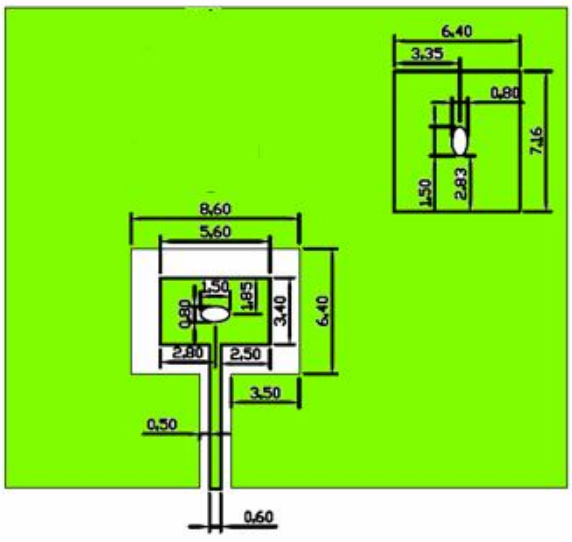
3.4 Gain & Efficiency

Frequency (MHz)	Gain (dBi)	Efficiency (%)	3D Avg. 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

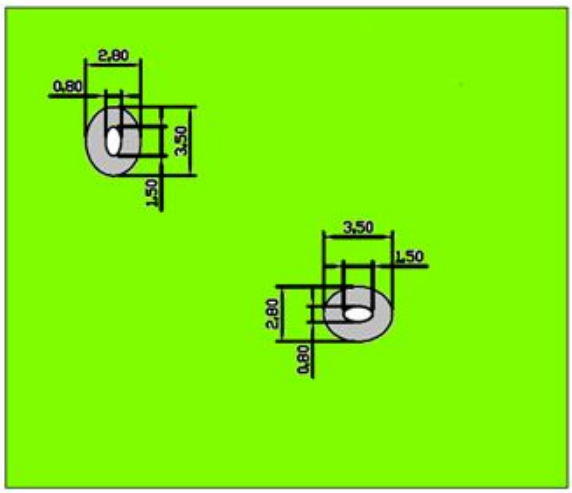
4. Layout Guide & Footprint







(TOP)



(BOTTOM)