

AD-103AG

Antenna Approval Sheet

Part Number	R3410110203
Product Number	AD-103AG
Description	Dipole Antenna, 2dBi 2.4GHz/5GHz, RP-SMA(M) connector
DOC NO	AS-1905003

Ver. 1.3

Revised History

Version	Purpose	Date	Responsible
1.0	Initial Doc	2019/06/13	Aaron
1.1	Added Antenna picture (Page 12)	2019/08/06	kamoro
1.2	Revised Operating Temperature (Page 3)	2019/08/21	Aaron
1.3	Added Ant Gain in 5895 GHz(Page 3)	2022/10/04	Christina

SparkLAN		Customer
Sales	PM	Approval by
	Aaron	

Contents

1. Specification.....	3
2. Antenna Drawing	4
3. Electrical Properties.....	6
4. Return Loss.....	6
5. V.S.W.R.....	7
6. Radiation Pattern.....	8
7. Antenna picture	12

SPECIFICATION

1. Description : Dual Band Dipole Antenna
with RP-SMA(M)(Black)
2. Customer :
3. Model No. : AD-103AG
4. Part No. : R3410110203
5. Standard : IEEE 802.11a/b/g Wireless LAN
6. Antenna Profile : 157 mm (see Drawing)
7. Color : Black
8. Electrical Characteristics
 - Operating Frequency : 2.4~2.5 & 5.15~5.895GHz
 - Antenna Type : Dipole
 - Polarization Type : Linear
 - Type of Radiation : Toroidal
 - Peak Gain : 2.0±1 dBi Typical
 - Impedance : 50 Ohm nominal
 - V.S.W.R. : 2.0:1 Max.
9. Mechanical Characteristics
 - Connector : RP-SMA(M)
 - Core : N/A
10. Raw Material
 - Coaxial Cable : RG-178
 - Housing : TPU
 - Hinge : PC+ALLOY
11. Operating Temperature : -40°C ~+85°C

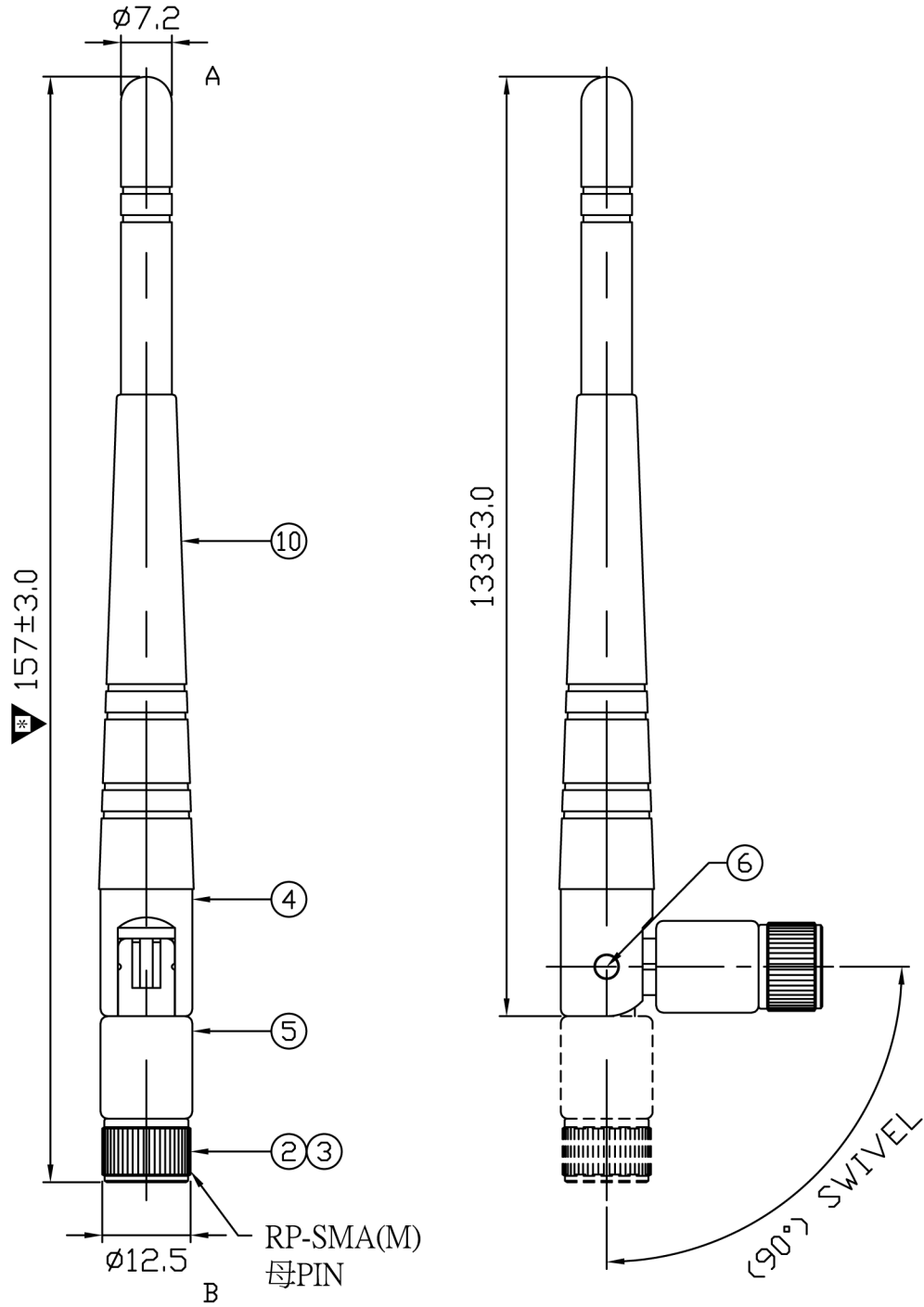
一般未注公差 (mm)	
X	±1.0
X.X	±0.5
X.XX	±0.3
ANGULAR	±5.0°
成品單重	X.X g



客戶
簽名

客戶
承認圖面

※ 重點尺寸指示符



第3角法	圖面不用實測				機種料號	R3410110203		
單位: mm	作成	檢圖	確認	核准	品名	AD-103AG		
比例: FREE	徐晨瑄	林佳緯	吳志修	楊怡隆	產品分類	<input checked="" type="checkbox"/> A成品	<input type="checkbox"/> B半成品	<input type="checkbox"/> C樣品
2019年06月11日					圖面編號			版次:
					客戶版次:	表單編號:RD-4-037C		頁次: 1/2

A
B
C
D
E
F
G
H
I
J
K

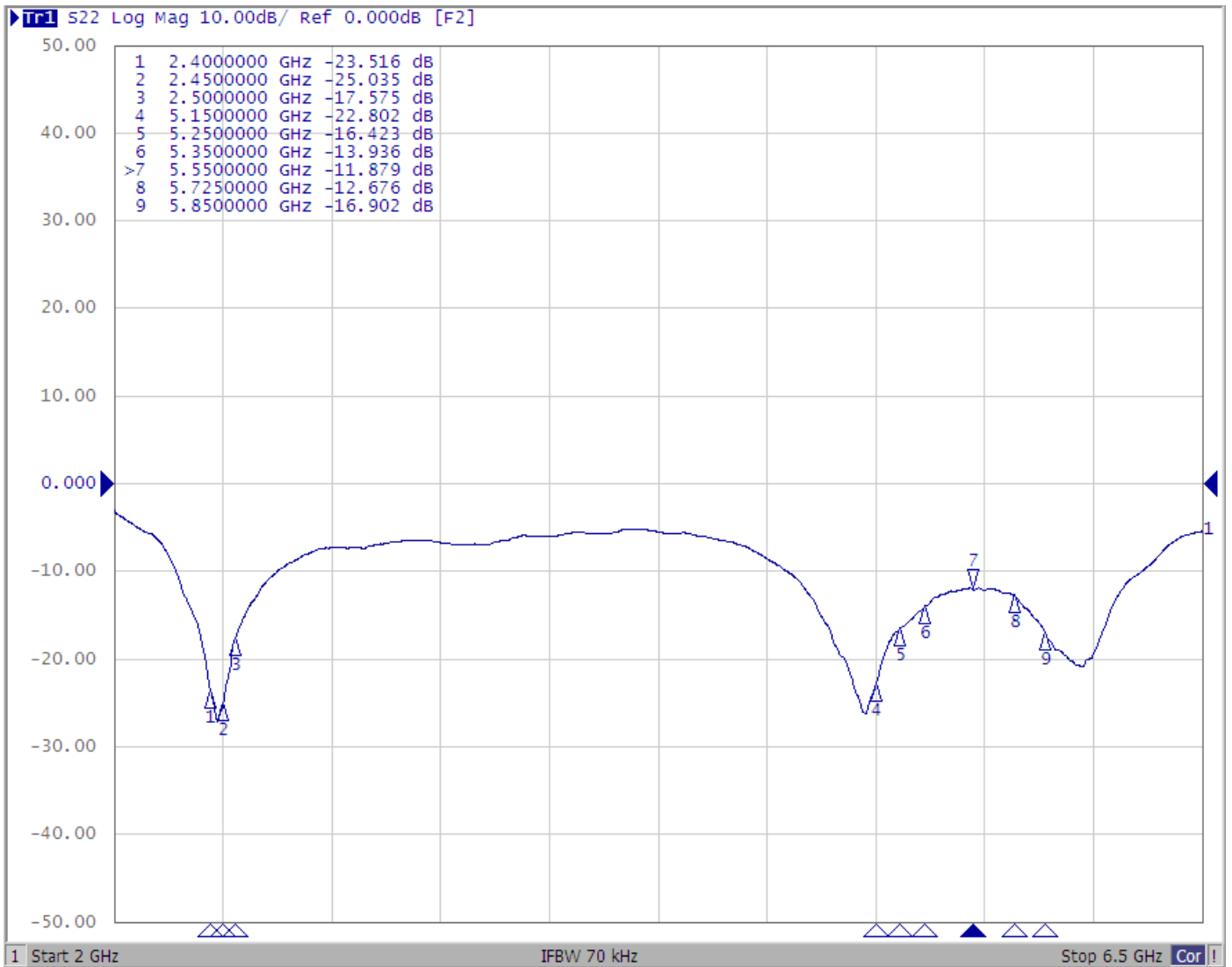
A
B
C
D
E
F
G
H
I
J
K

H	10	外套	WSL003 13.4*115L外套(黑色)	黑		1
	9	熱縮套管	UL/CSA 5.0 黑 超薄	黑	20	1
	8	銅管	4.8 φ *24L 銅管<平頭>	銀		1
	7	銅管	5.2 φ *22L FOR 178 銅管<平頭>	銀		1
I	6	固定鉚釘	028922001-6 4.80*1.95 φ 固定鉚釘<大>(黑鋅)	黑		2
	5	下座	13 φ *25.5L下座(黑色)	黑		1
	4	上座	13 φ *28L上座孔15.2*7.25(黑色)	黑		1
	3	連接軸	0249A-B Connector RP-SMA(M) φ 12.5	銀		1
	2	SMA 本體	0249A-A Body RP-SMA(M) φ 12.5 Connector	黑		1
J	1	RG-178 Coaxial Cable	RG-178<鍍錫> CABLE 105SV 橙	橙	54	1
	NO	材料名稱	零件規格	顏色	切斷尺寸	用量

K	第3角法		圖面不用實測			機種料號	R3410110203			
	單位: mm		作成	檢圖	確認	核准	品名			
	比例: FREE		徐晨瑄	林佳緯	吳志修	楊怡隆	AD-103AG			
	2019年06月11日						產品分類	<input checked="" type="checkbox"/> A成品	<input type="checkbox"/> B半成品	<input type="checkbox"/> C樣品
							圖面編號			版次: A5
				客戶版次:	表單編號:RD-4-037C	頁次: 2/2				

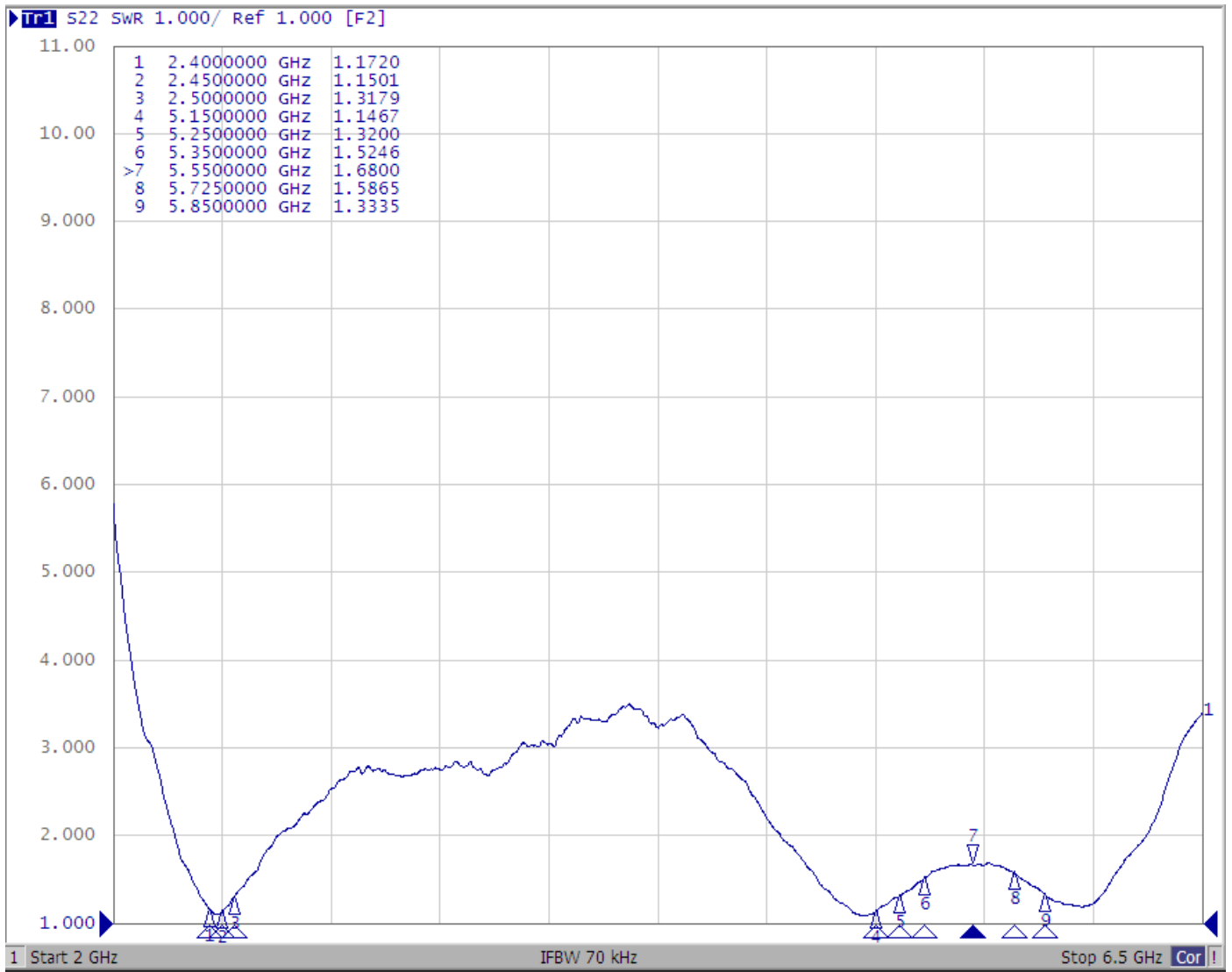
Electrical Properties

Return Loss



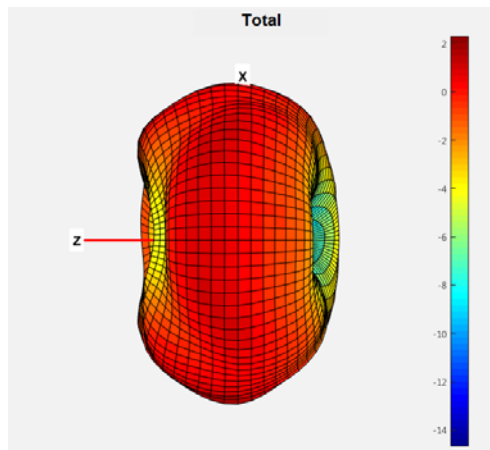
Electrical Properties

V.S.W.R

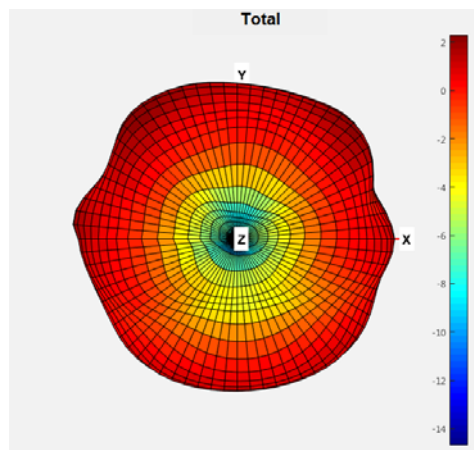


3D Pattern

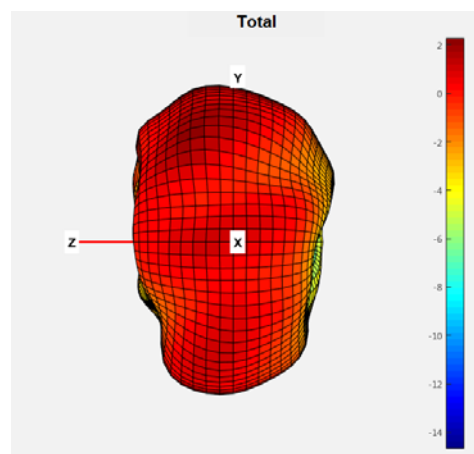
2.45GHz_X-Z Plane



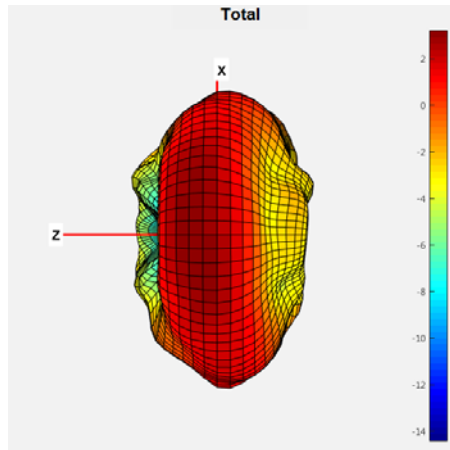
2.45GHz_X-Y Plane



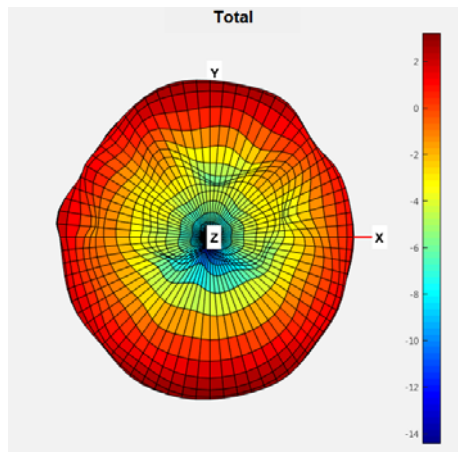
2.45GHz_Y-Z Plane



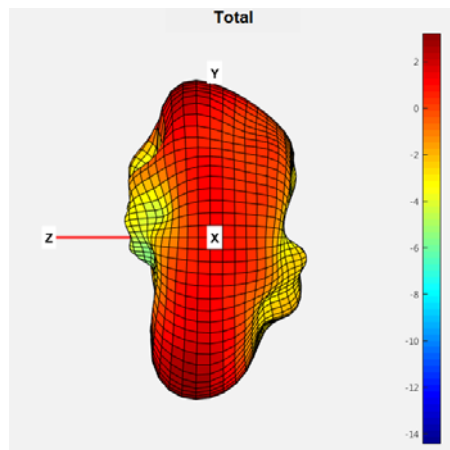
5.15GHz_X-Z Plane



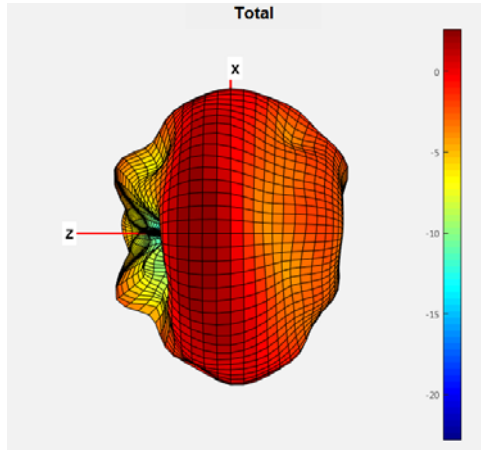
5.15GHz_X-Y Plane



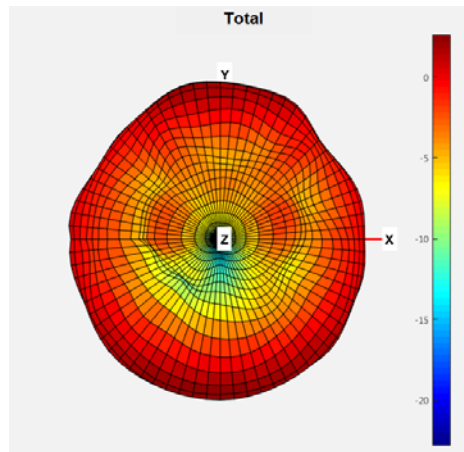
5.15GHz_Y-Z Plane



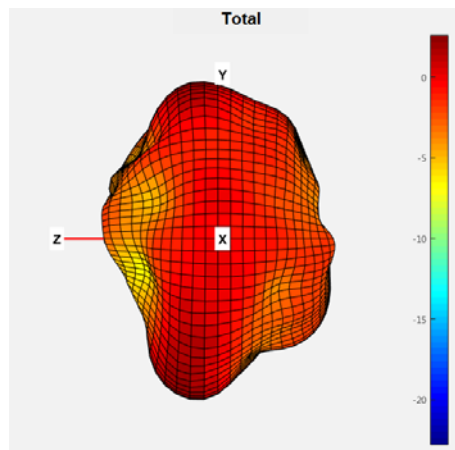
5.55GHz_X-Z Plane



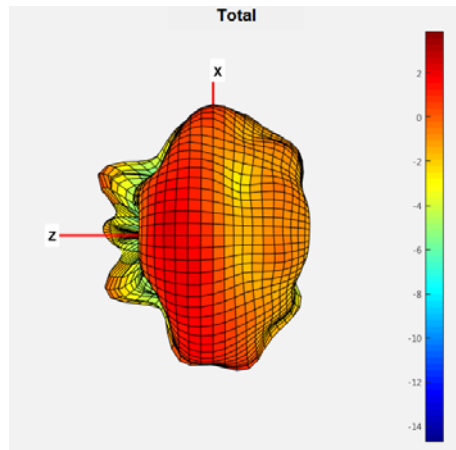
5.55GHz_X-Y Plane



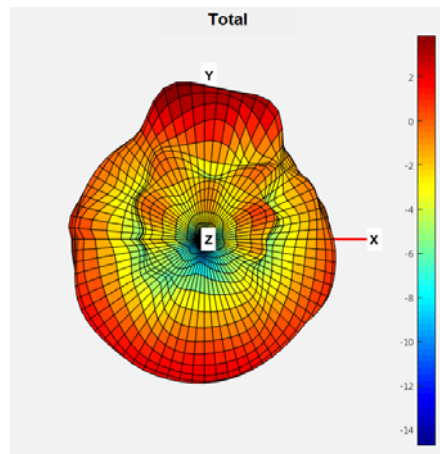
5.55GHz_Y-Z Plane



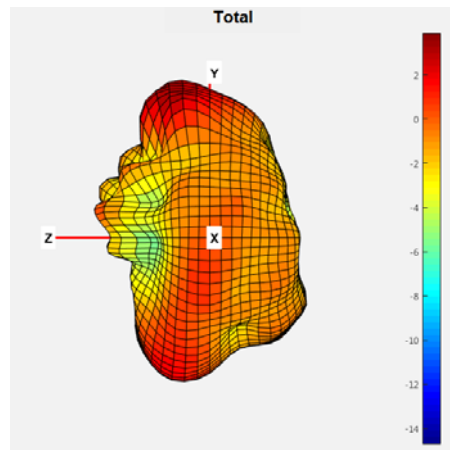
5.85GHz_X-Z Plane



5.85GHz_X-Y Plane



5.85GHz_Y-Z Plane



Frequency	2.4GHz	2.45GHz	2.5GHz
Avg. Gain (dBi)	-1.92	-2.39	-2.32
Peak Gain (dBi)	2.02	1.83	1.96
Efficiency (%)	64.27	57.68	58.61

Frequency	5.15GHz	5.25GHz	5.35GHz
Avg. Gain (dBi)	-1.18	-1.87	-2.35
Peak Gain (dBi)	1.63	1.93	1.37
Efficiency (%)	76.21	65.01	58.21

Frequency	5.47GHz	5.5GHz	5.55GHz	5.6GHz	5.725GHz	5.85GHz	5.875GHz	5.895GHz
Avg. Gain (dBi)	-1.8	-1.8	-1.8	-1.75	-1.7	-1.84	-2.08	-2.14
Peak Gain (dBi)	1.71	1.6	1.49	1.76	2.03	1.9	1.5	1.86
Efficiency (%)	66.07	66.07	66.07	66.84	67.61	65.46	61.94	61.09

Antenna picture

