UHF WHIP ANTENNA

Model : TH915K

FOR RFID UHF & ISM & ZigBee

1. GENERAL DESCRIPTION

P/N
TH915K-TNC(M)

1.1Electrica Properties

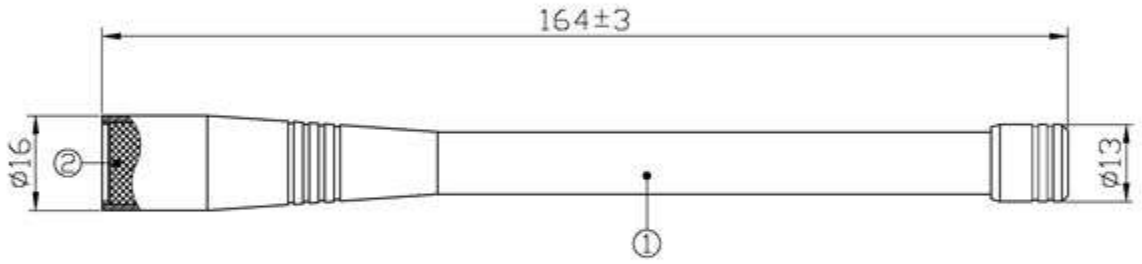
Parameter	Description
Frequency Band	902~928MHz
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss	Please See Data-1
V.S.W.R	2.0:1

1.2 Mechanical Properties

Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type
Connector Type	SMA (Female)
Antenna Dimensions	OD16 x164mm±3
Color	Black
Operating Temperature Range	-30°C~+70°C
Storage Temperature Range	-30°C~+70°C
Waterproof	IPX6

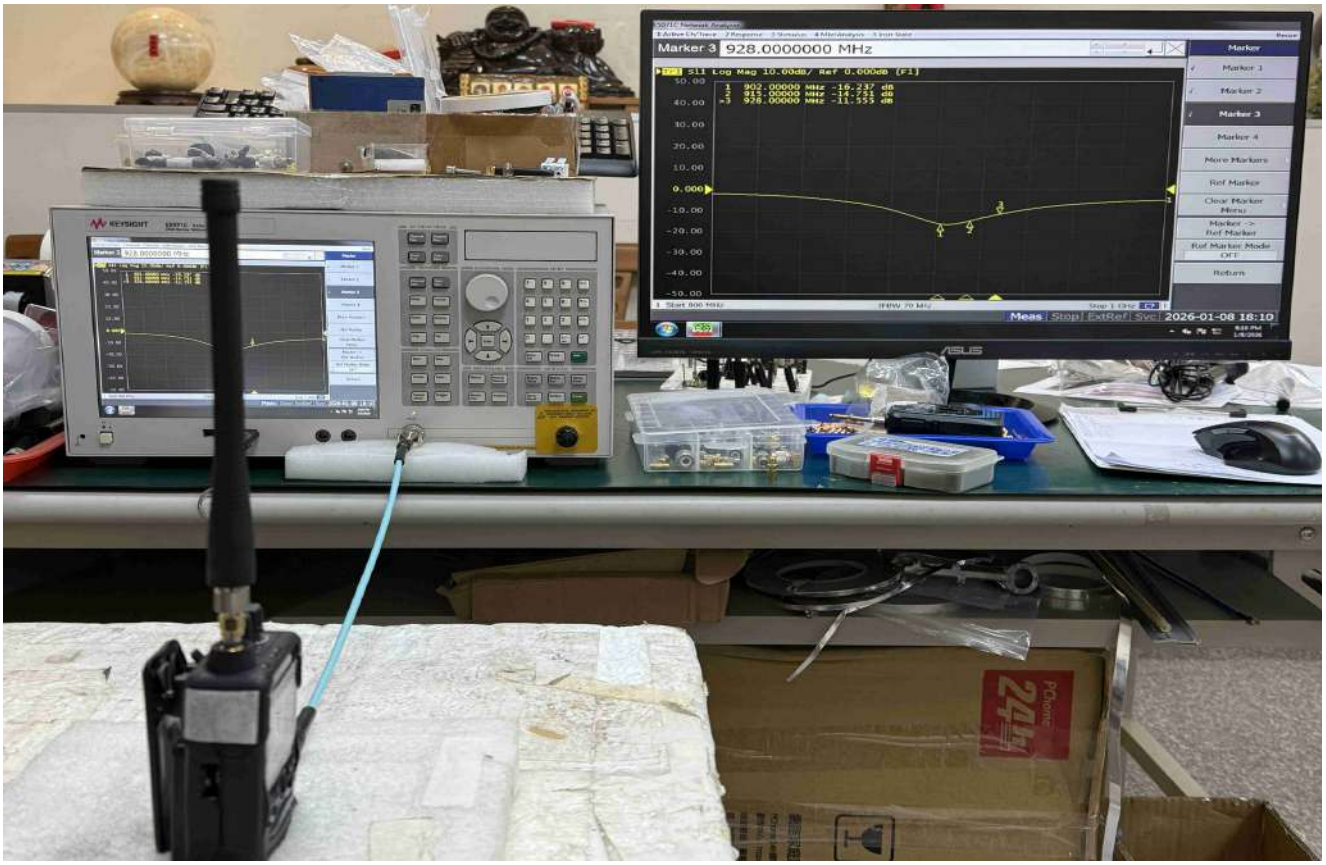
2. Appearance

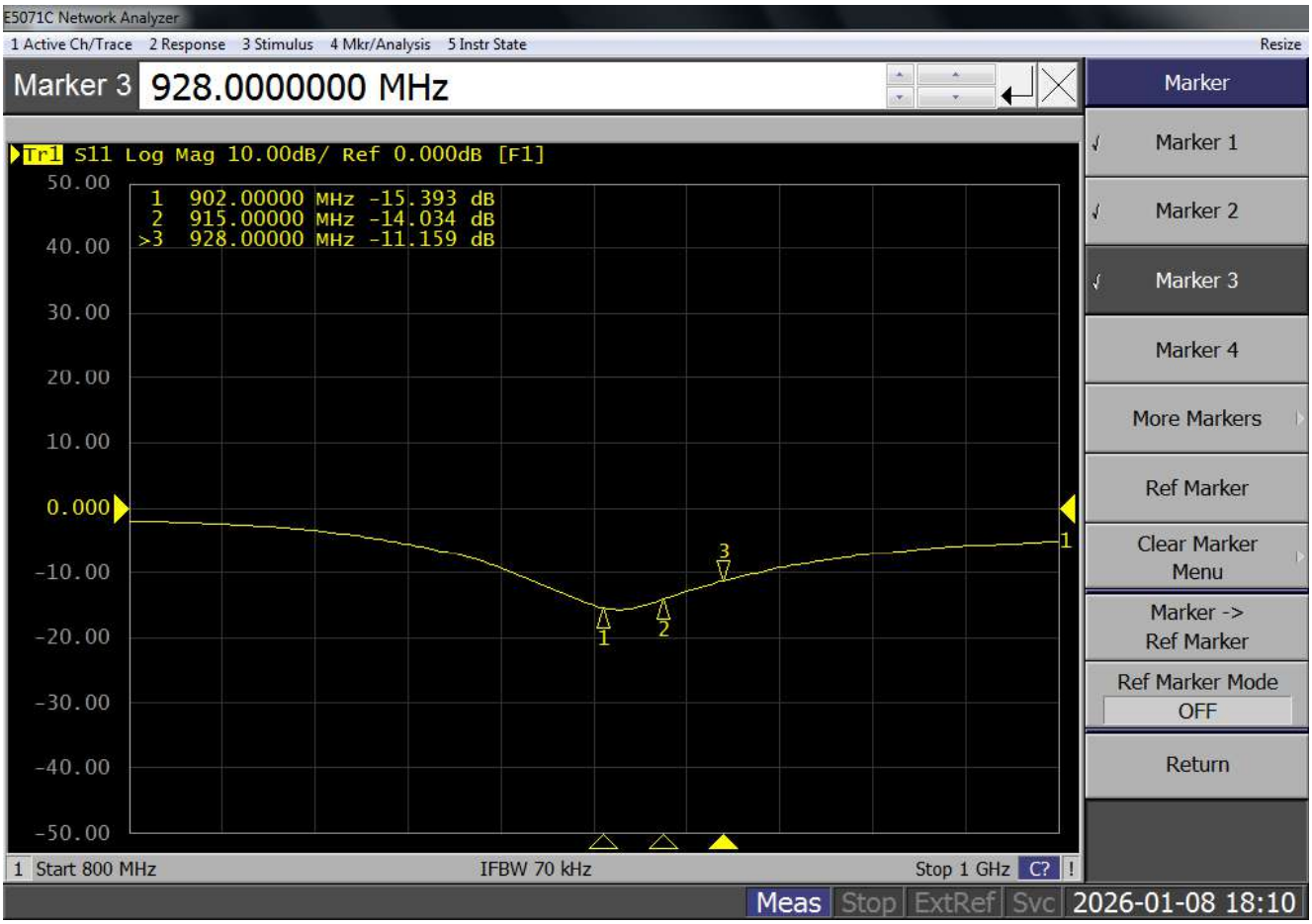
NO.	NAME	FINISH	Q, TY
01	Core tube	Black	01
02	TNC 180°(Male)		01

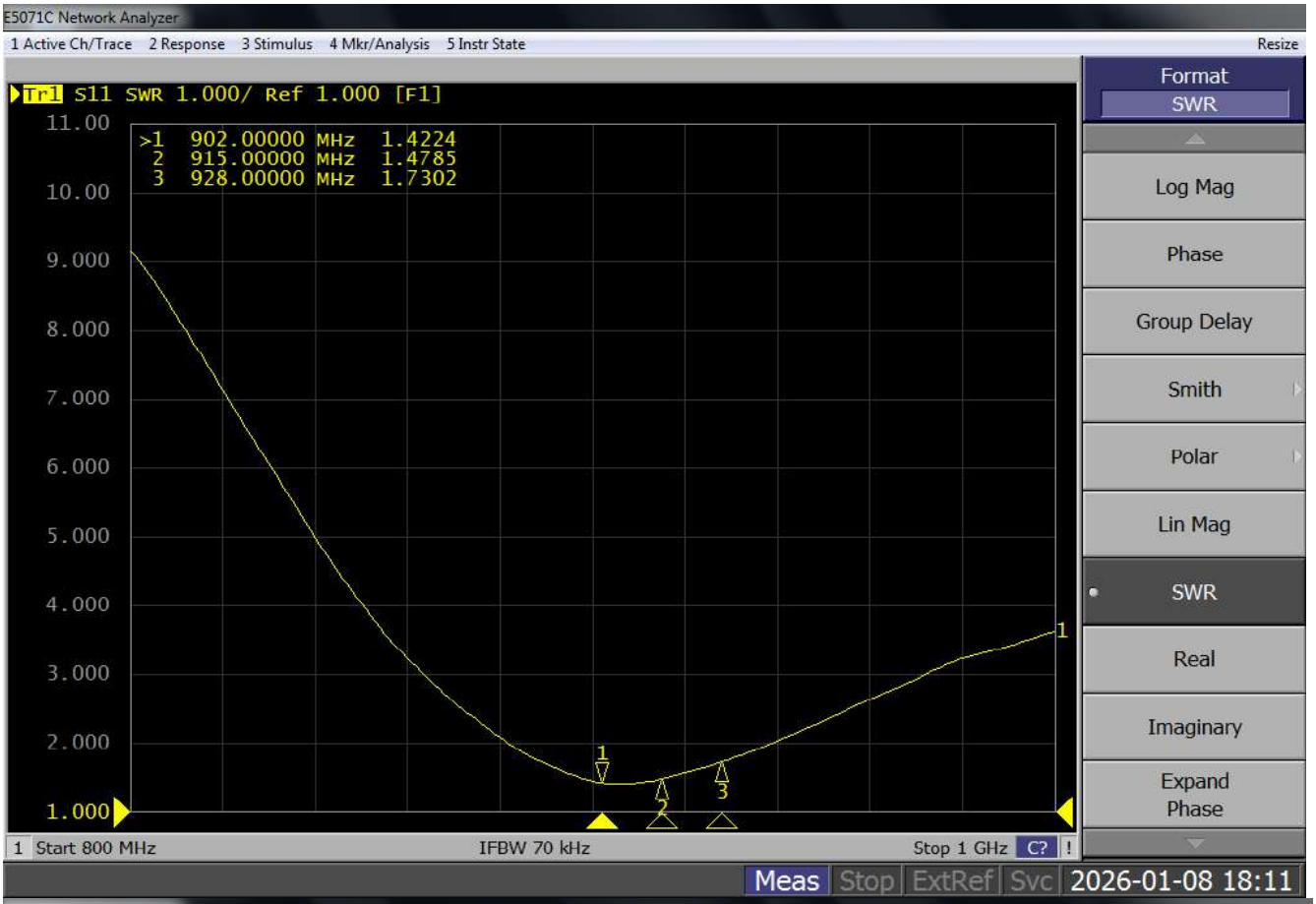


	CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
Third angle projection				902-928MHz	M/M		20251202	1
	TOLERANCE	X.X±0.3	NAME	PARTS NUMBER	APPROVED	CHECKED	DRAWING	DESIGNED
	SURFACE ROUGHNESS	▽S	APPEARANCE					

3. FREQUENCY




E5071C Network Analyzer
1 Active Ch/Trace
2 Response
3 Stimulus
4 Mkr/Analysis
5 Instr State
Resize
Marker 3
928.0000000 MHz
Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]
1 902.00000 MHz -15.393 dB
2 915.00000 MHz -14.034 dB
>3 928.00000 MHz -11.159 dB
50.00
40.00
30.00
20.00
10.00
0.000
-10.00
-20.00
-30.00
-40.00
-50.00
1 Start 800 MHz
IFBW 70 kHz
Stop 1 GHz
C?
!
Marker
Marker 1
Marker 2
Marker 3
Marker 4
More Markers
Ref Marker
Clear Marker Menu
Marker -> Ref Marker
Ref Marker Mode
OFF
Return
Meas
Stop
ExtRef
Svc
2026-01-08 18:10


E5071C Network Analyzer
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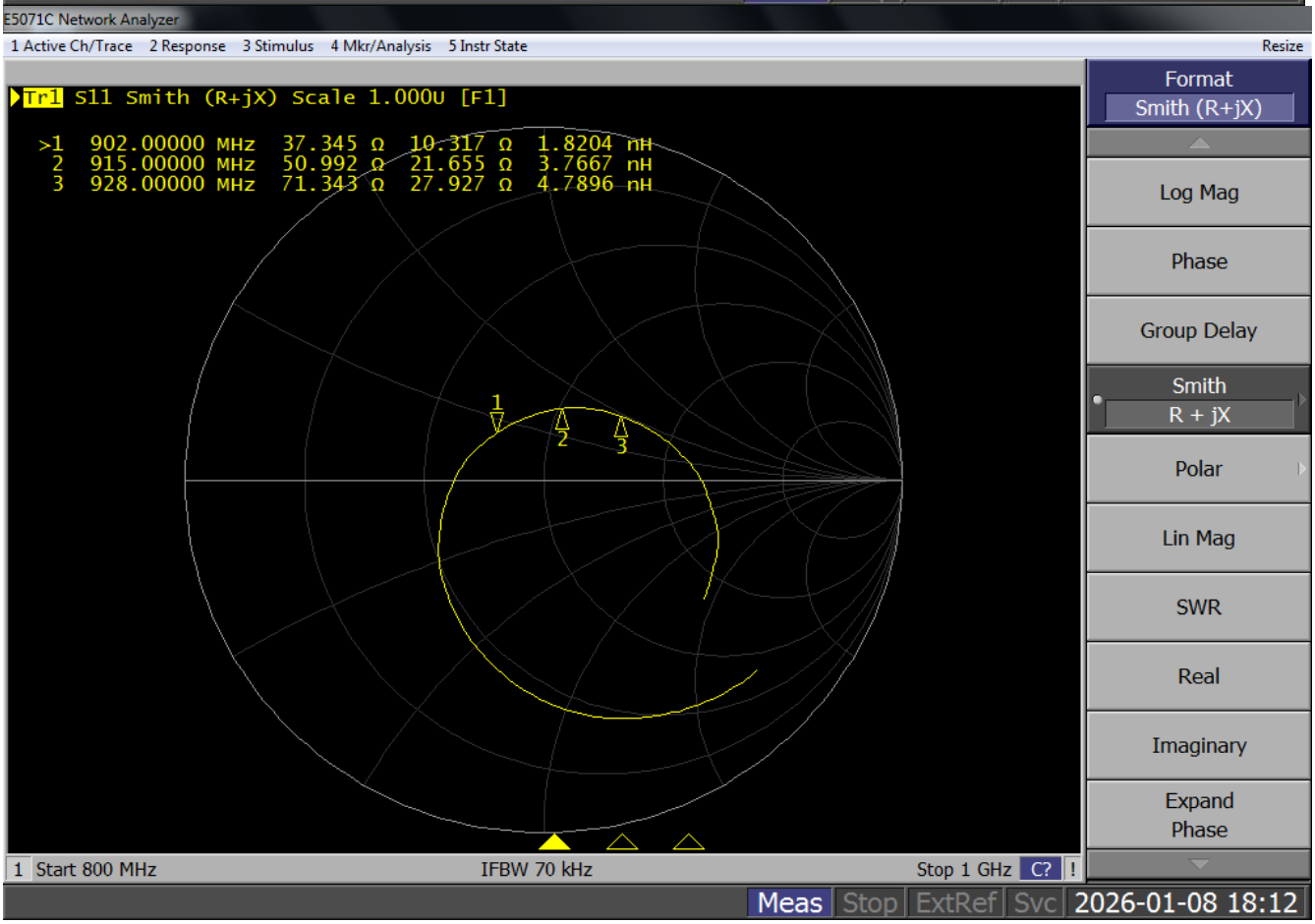
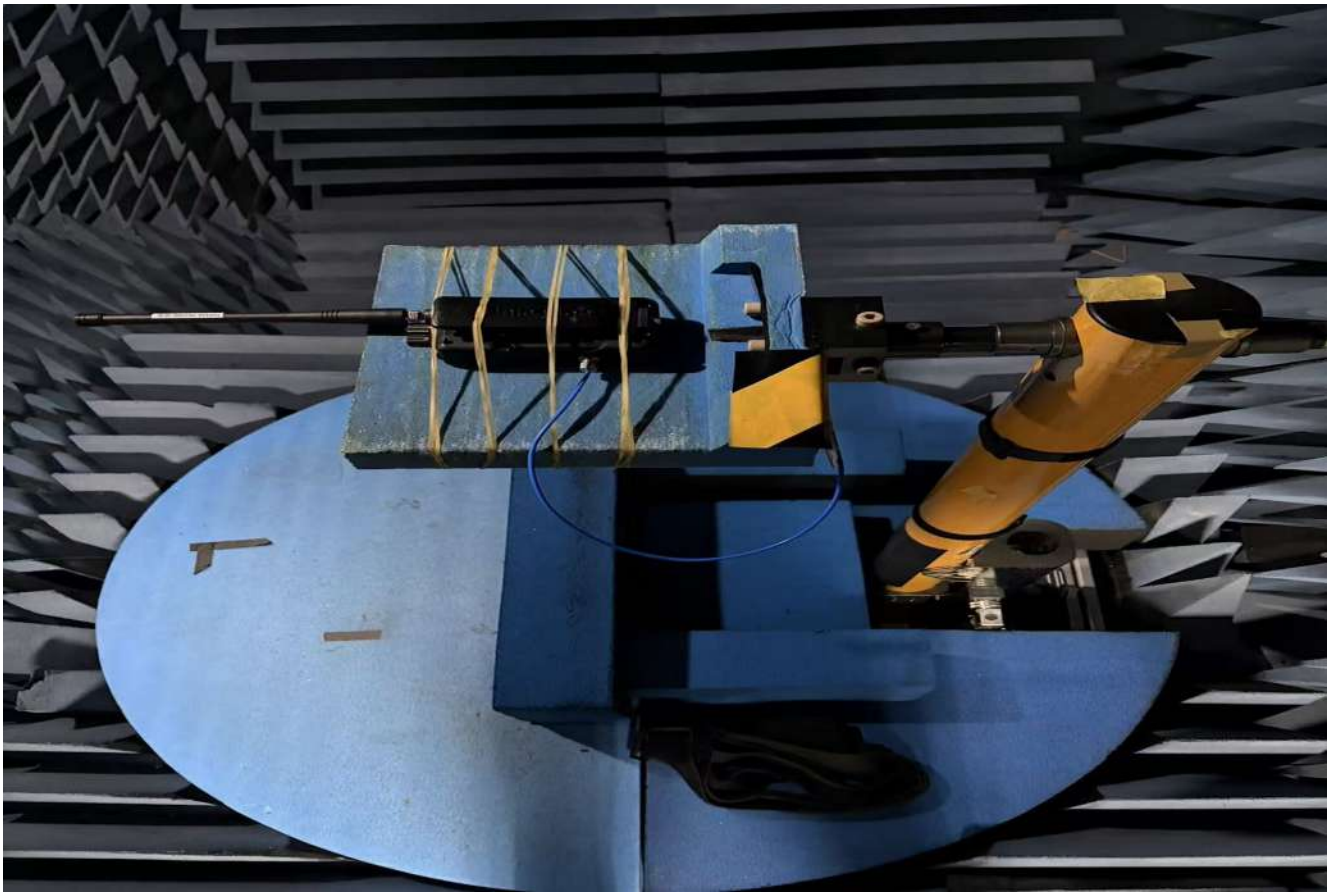
Resize
Tr1 S11 SWR 1.000/ Ref 1.000 [F1]
>1 902.00000 MHz 1.4224
2 915.00000 MHz 1.4785
3 928.00000 MHz 1.7302
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 800 MHz
IFBW 70 kHz
Stop 1 GHz
C?
Format
SWR
Log Mag
Phase
Group Delay
Smith
Polar
Lin Mag
SWR
Real
Imaginary
Expand Phase
Meas
Stop
ExtRef
Svc
2026-01-08 18:11

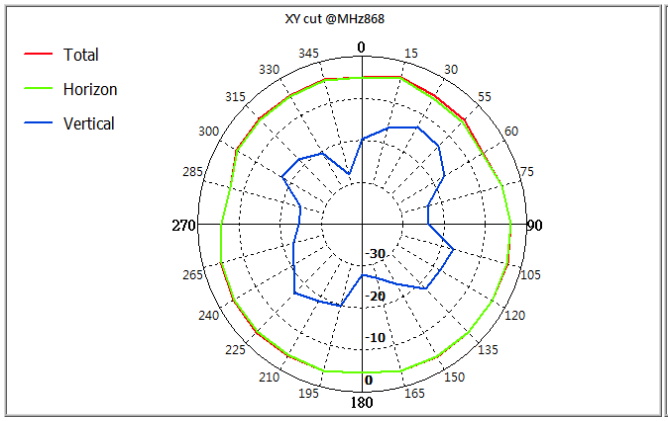

E5071C Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Resize
Tr1 S11 Smith (R+jX) Scale 1.000U [F1]
>1 902.00000 MHz 37.345 Ω 10.317 Ω 1.8204 nH
2 915.00000 MHz 50.992 Ω 21.655 Ω 3.7667 nH
3 928.00000 MHz 71.343 Ω 27.927 Ω 4.7896 nH
1 Start 800 MHz
IFBW 70 kHz
Stop 1 GHz
C?
Format
Smith (R+jX)
Log Mag
Phase
Group Delay
Smith
R + jX
Polar
Lin Mag
SWR
Real
Imaginary
Expand Phase
Meas
Stop
ExtRef
Svc
2026-01-08 18:12

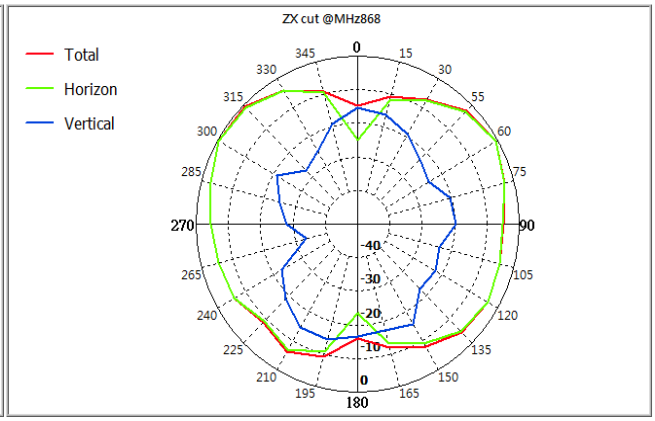


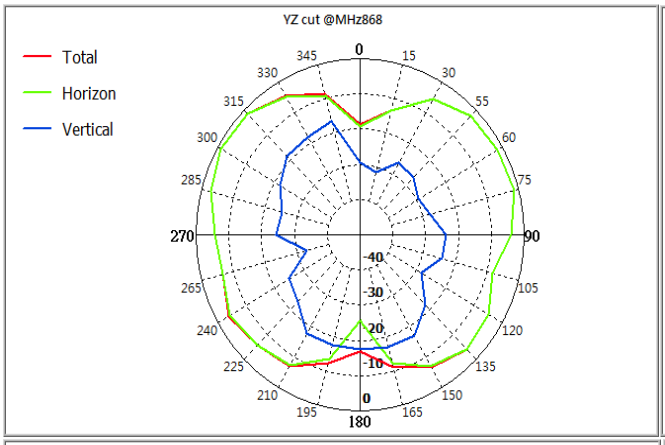
3D Total

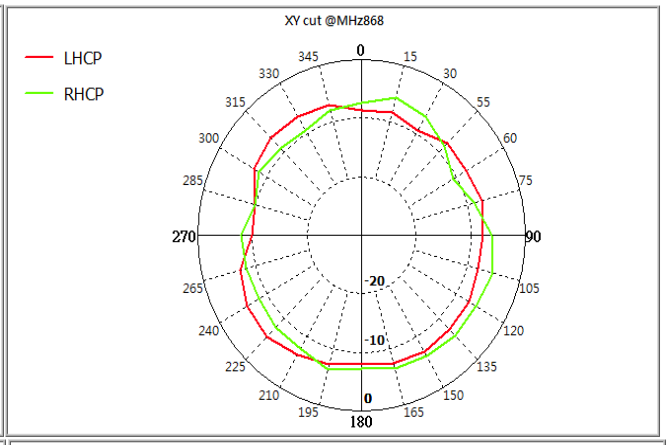
Frequency (MHz)	Upper Hem. PRP (dBm)	Lower HEM. PRP (dBm)	Efficiency (dB)	Efficiency (%)	Gain (dBi)	Tot. Rad.Pwr. (dBm)
860 MHz	-6.38	-9.54	-4.67	34.11	-0.05	-4.67
868 MHz	-5.97	-8.66	-4.10	38.88	-0.13	-4.10
874 MHz	-5.83	-8.21	-3.85	41.24	0.05	-3.85
902 MHz	-4.03	-5.28	-1.60	69.16	1.56	-1.60
915 MHz	-4.37	-5.20	-1.76	66.71	1.28	-1.76
928 MHz	-4.63	-5.07	-1.83	65.60	1.23	-1.83
930 MHz	-4.83	-5.21	-2.01	63.01	1.06	-2.01
960 MHz	-6.21	-5.82	-3.00	50.07	0.52	-3.00

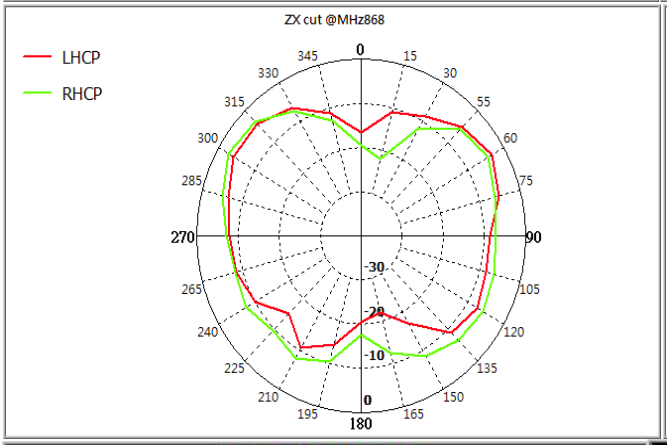
868Mhz:

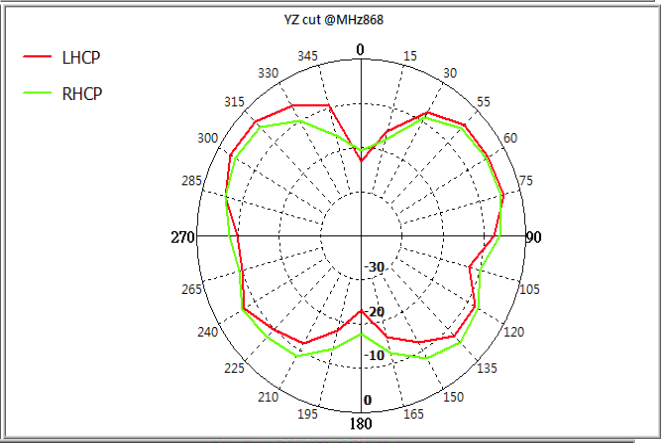


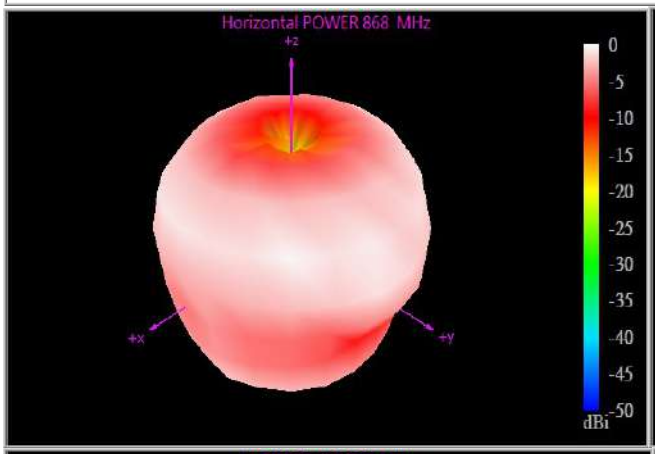


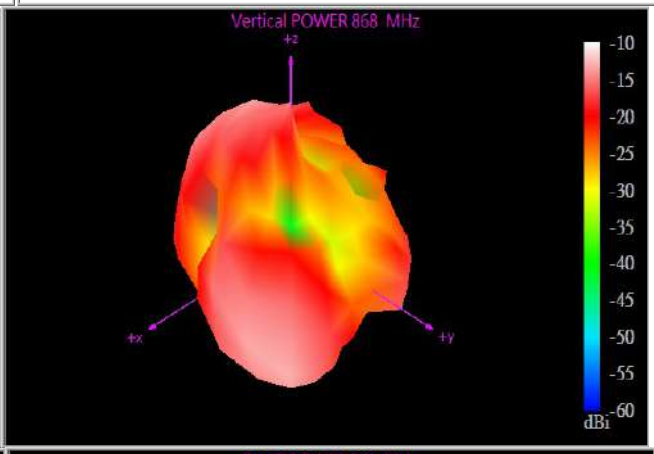

YZ cut @MHz868
Total
Horizon
Vertical

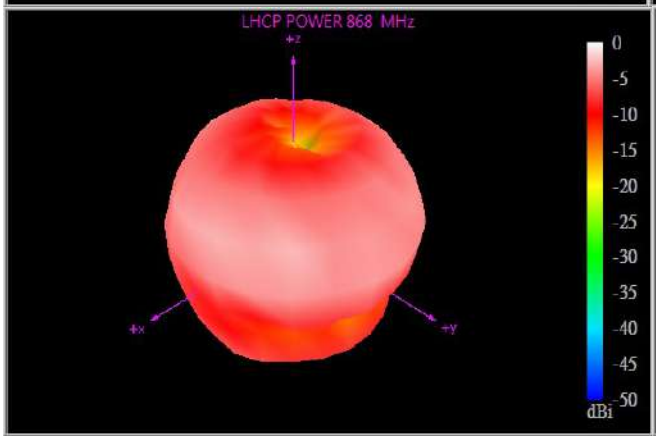

XY cut @MHz868
LHCP
RHCP

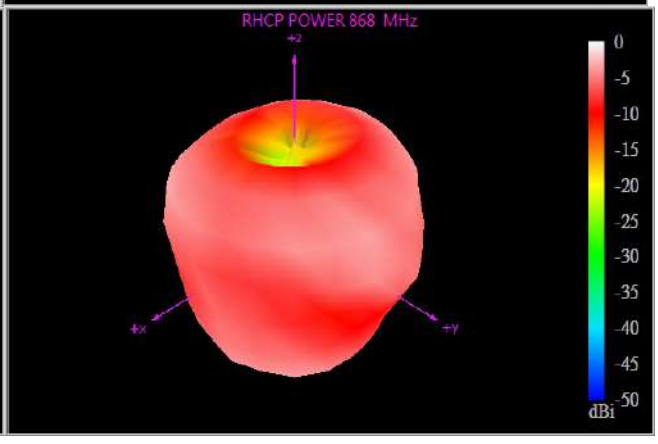

ZX cut @MHz868
LHCP
RHCP

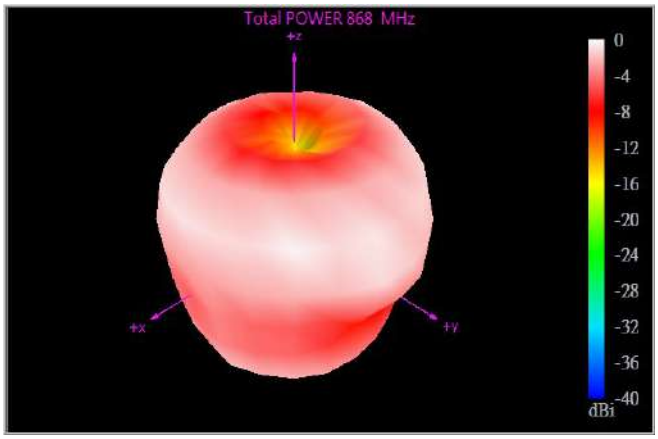

YZ cut @MHz868
LHCP
RHCP


Horizontal POWER 868 MHz
dBi

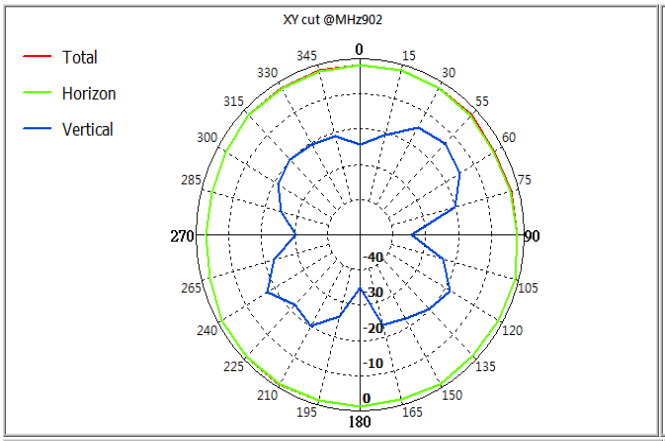

Vertical POWER 868 MHz
dBi

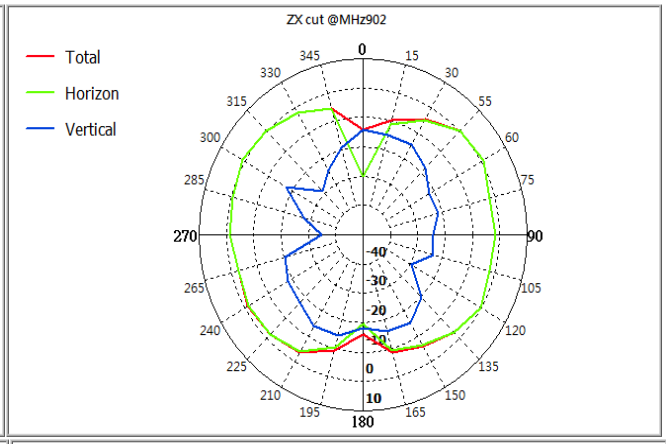

LHCP POWER 868 MHz
dBi

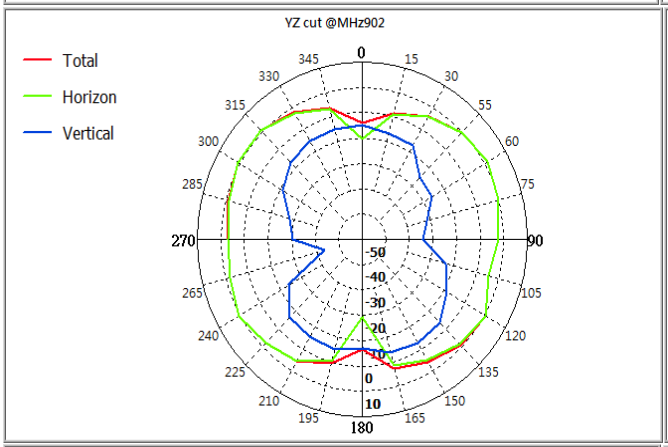

RHCP POWER 868 MHz
dBi

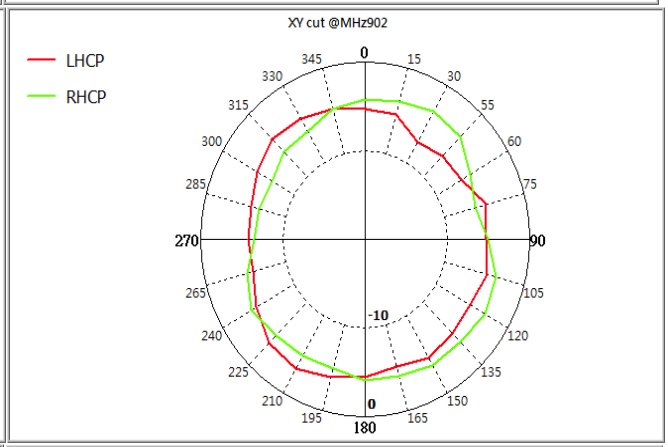

Total POWER 868 MHz
+z
+x
+y
0
-4
-8
-12
-16
-20
-24
-28
-32
-36
-40
dBi

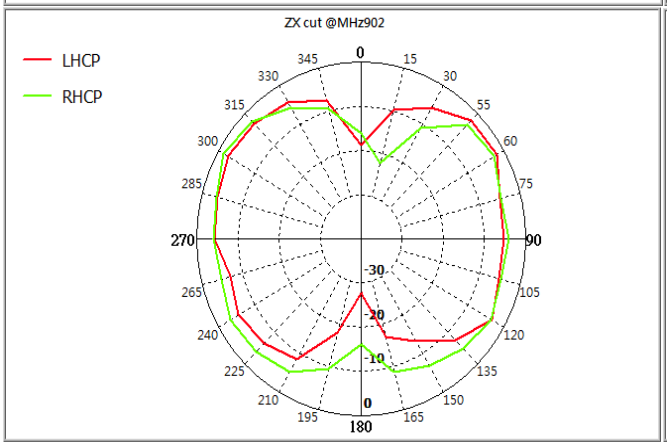
902Mhz:

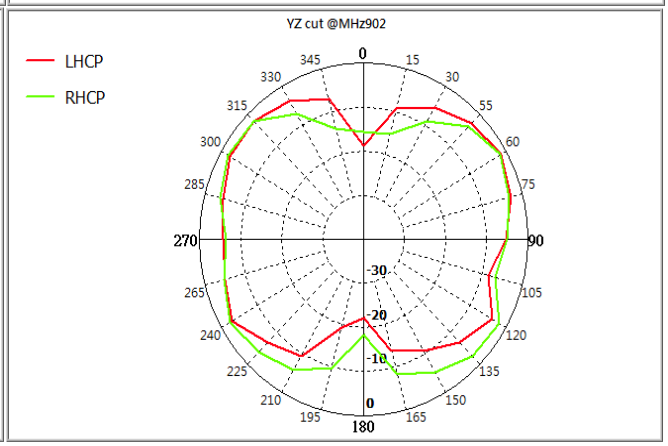

XY cut @MHz902
Total
Horizon
Vertical

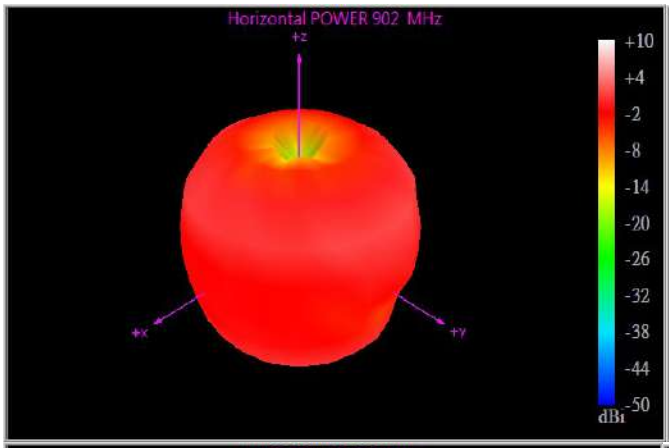

ZX cut @MHz902
Total
Horizon
Vertical

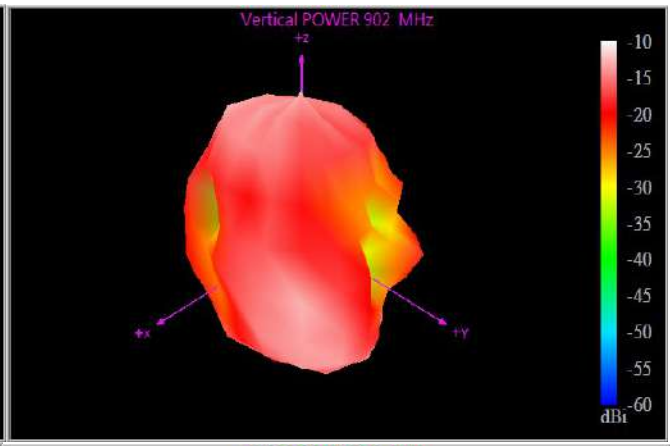

YZ cut @MHz902
Total
Horizon
Vertical

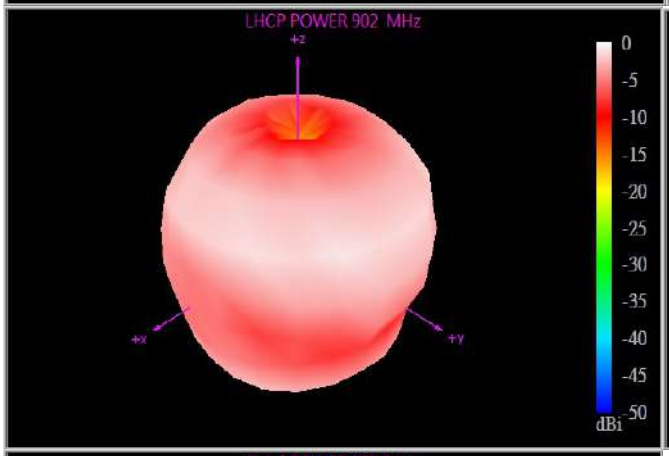

XY cut @MHz902
LHCP
RHCP

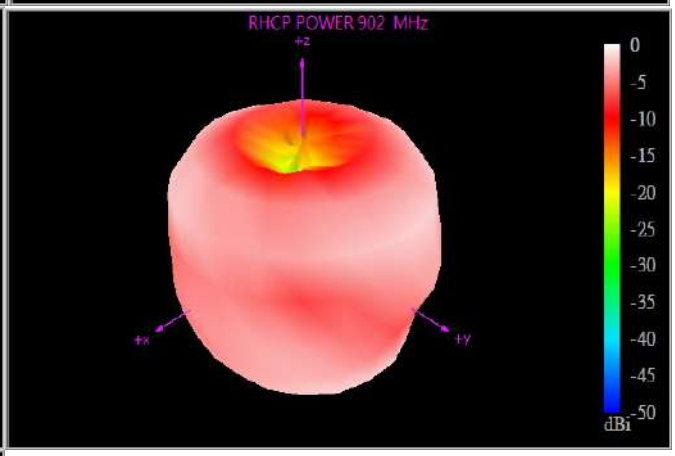

ZX cut @MHz902
LHCP
RHCP

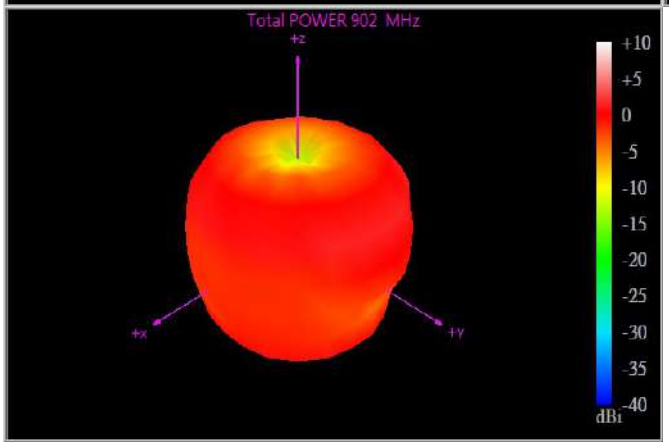

YZ cut @MHz902
LHCP
RHCP


Horizontal POWER 902 MHz
+z
+x
+y
+10
+4
-2
-8
-14
-20
-26
-32
-38
-44
-50
dBi

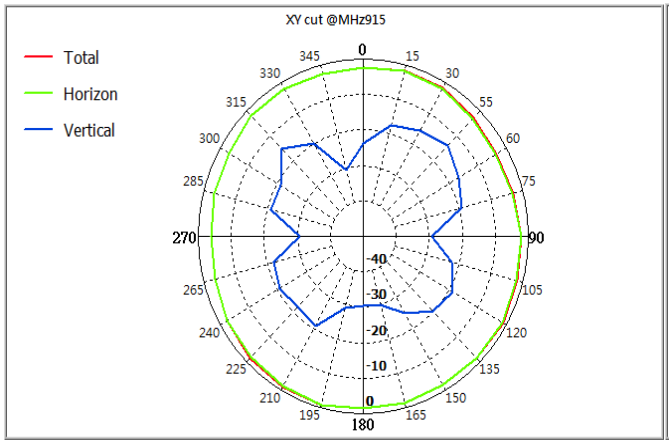

Vertical POWER 902 MHz
+z
+x
+y
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
dBi

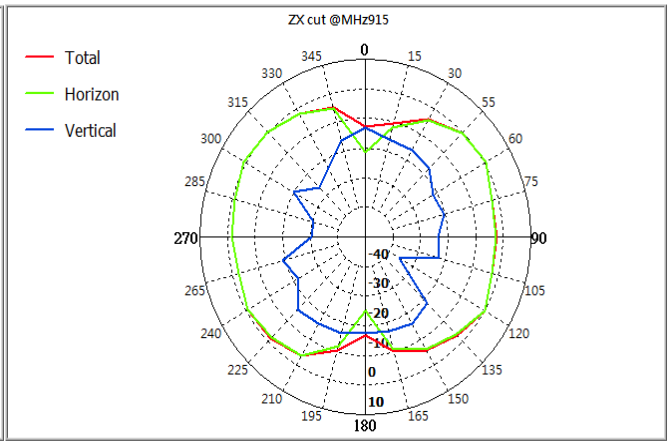

LHCP POWER 902 MHz
+z
+x
+y
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
dBi

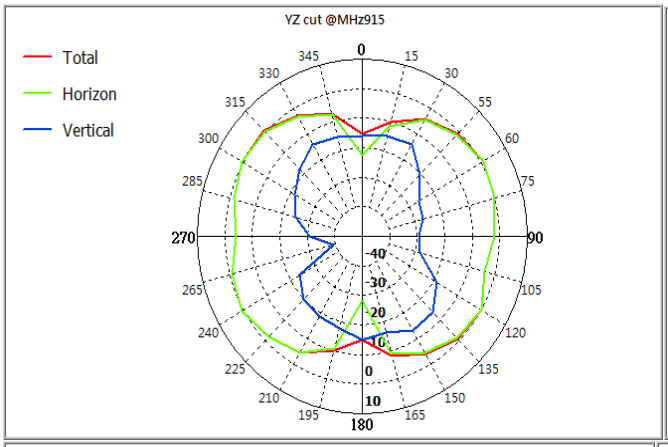

RHCP POWER 902 MHz
+z
+x
+y
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
dBi

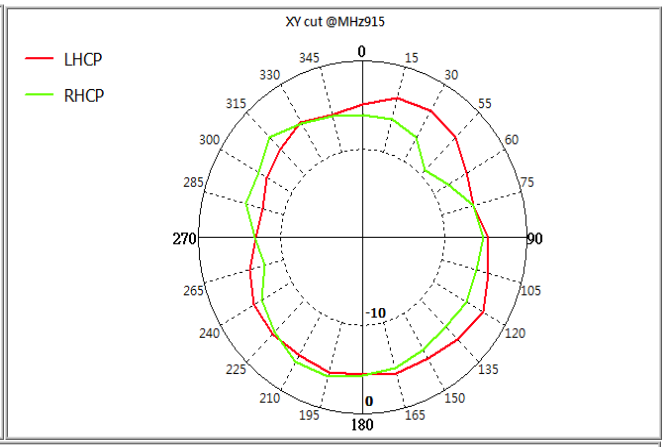

Total POWER 902 MHz
+z
+x
+y
+10
+5
0
-5
-10
-15
-20
-25
-30
-35
-40
dBi

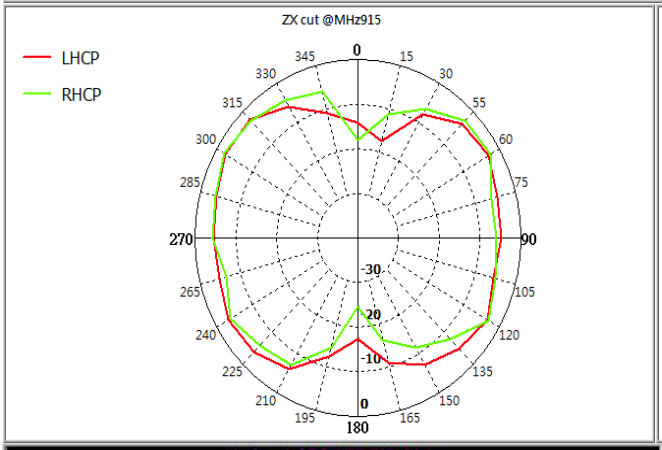
915Mhz:

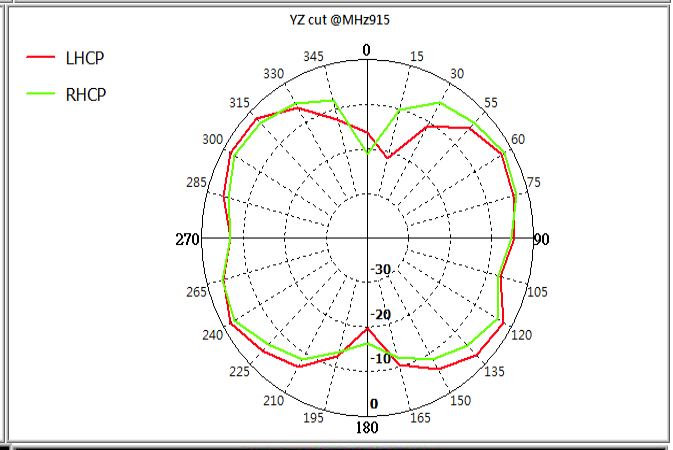

XY cut @MHz915
Total
Horizon
Vertical
0
15
30
55
60
75
90
105
120
135
150
165
180
195
210
225
240
265
270
285
300
315
330
345
-40
-30
-20
-10
0

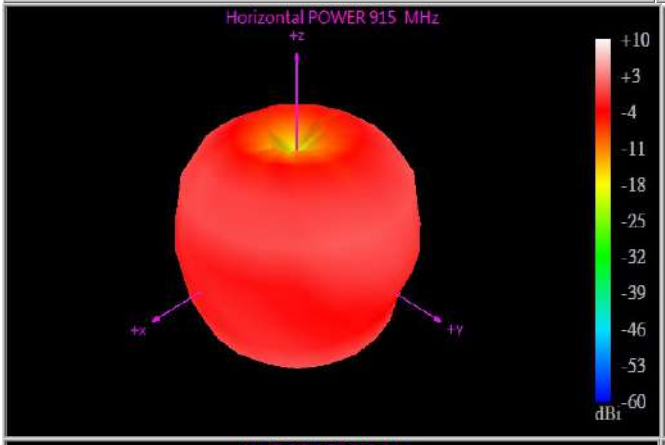

ZX cut @MHz915
Total
Horizon
Vertical
0
15
30
55
60
75
90
105
120
135
150
165
180
195
210
225
240
265
270
285
300
315
330
345
-40
-30
-20
-10
0
10

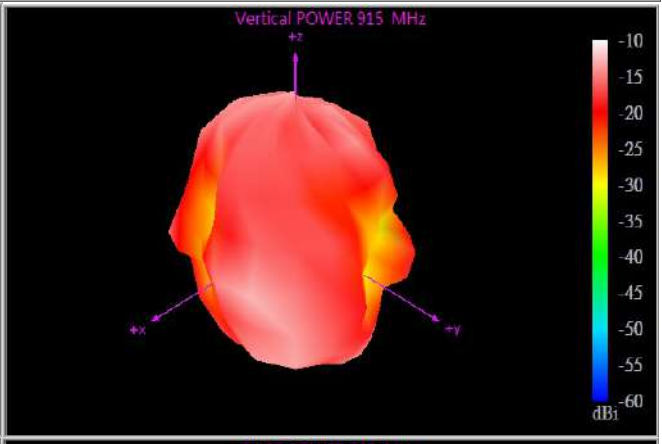

YZ cut @MHz915
Total
Horizon
Vertical

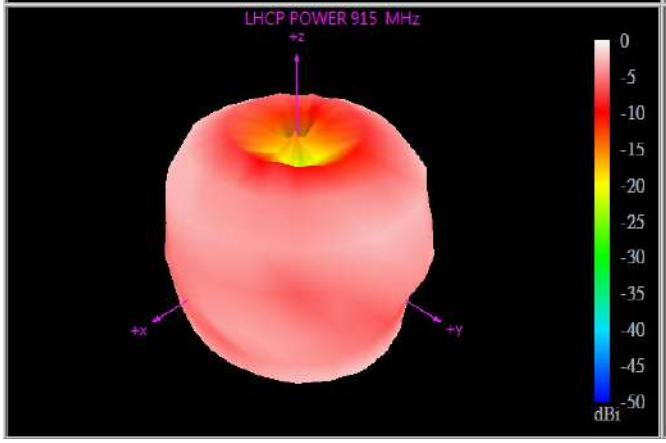

XY cut @MHz915
LHCP
RHCP

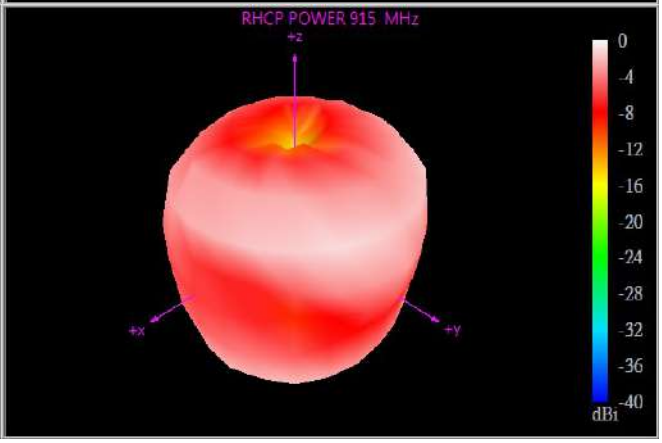

ZX cut @MHz915
LHCP
RHCP

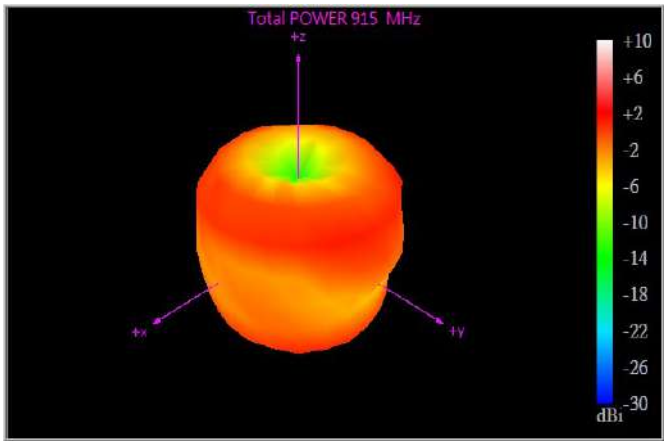

YZ cut @MHz915
LHCP
RHCP


Horizontal POWER 915 MHz
dBi

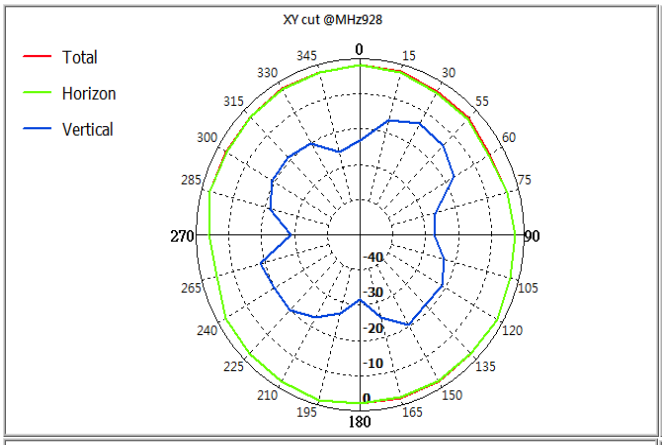

Vertical POWER 915 MHz
dBi

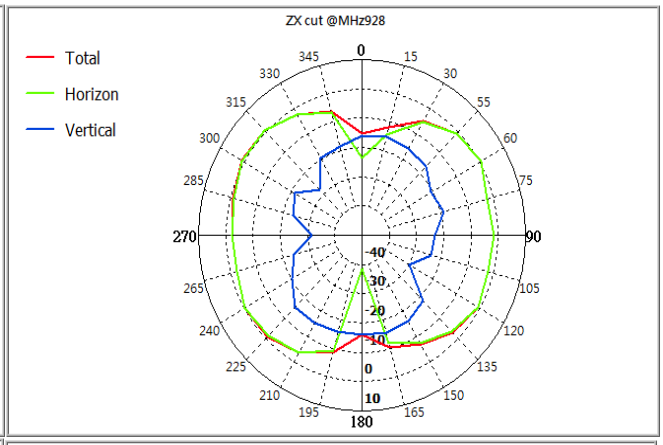

LHCP POWER 915 MHz
dBi

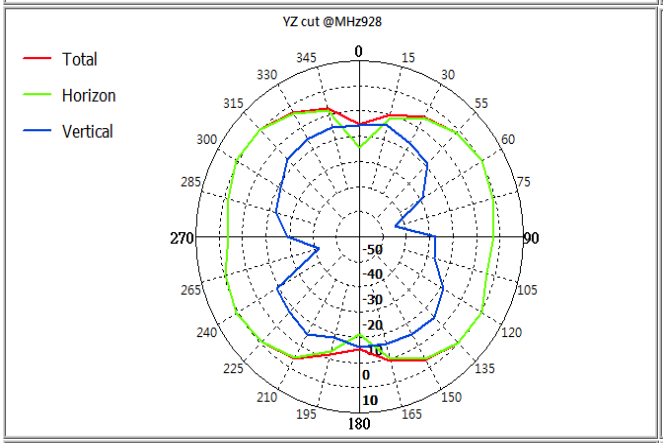

RHCP POWER 915 MHz
dBi

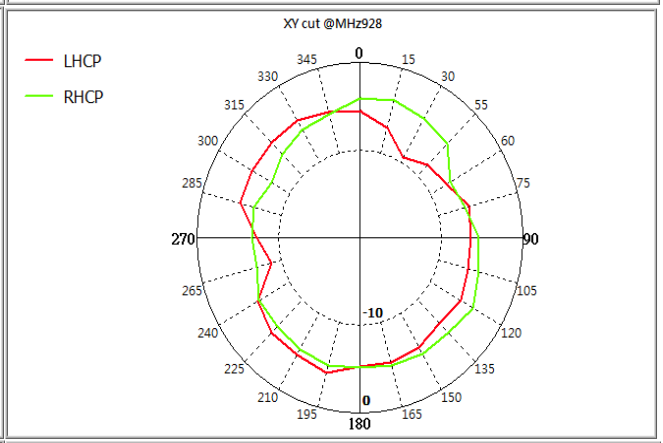

Total POWER 915 MHz
+z
+x
+y
+10
+6
+2
-2
-6
-10
-14
-18
-22
-26
-30
dBi

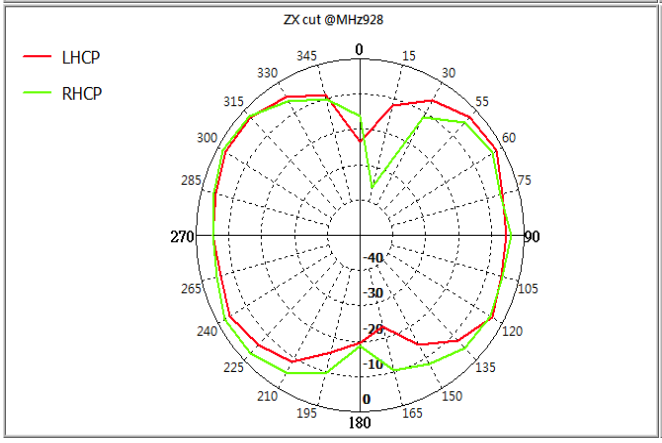
928Mhz:

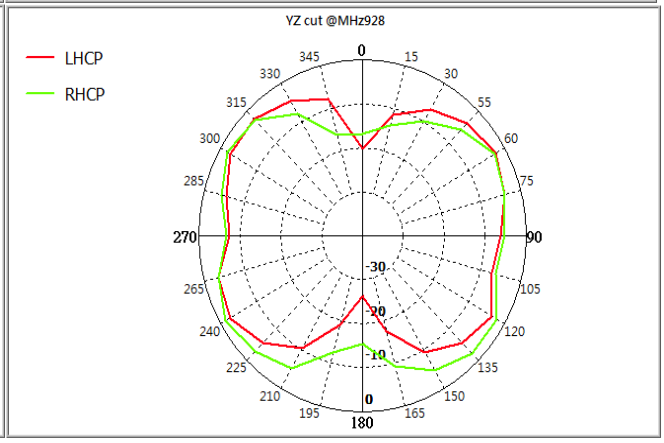

XY cut @MHz928
Total
Horizon
Vertical

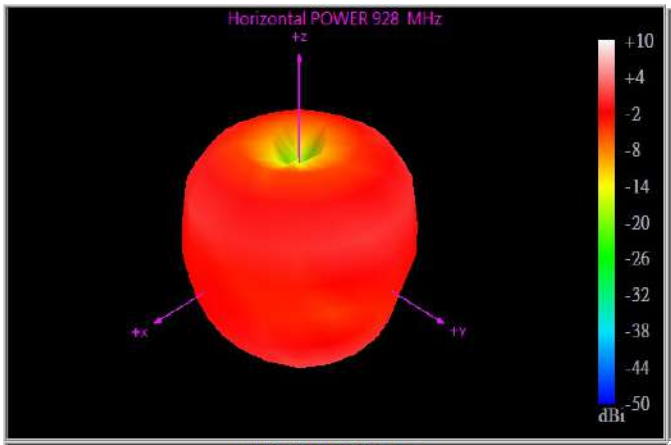

ZX cut @MHz928
Total
Horizon
Vertical

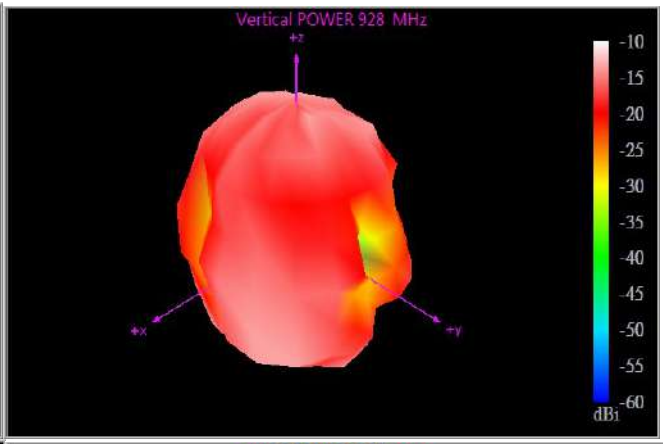

YZ cut @MHz928
Total
Horizon
Vertical

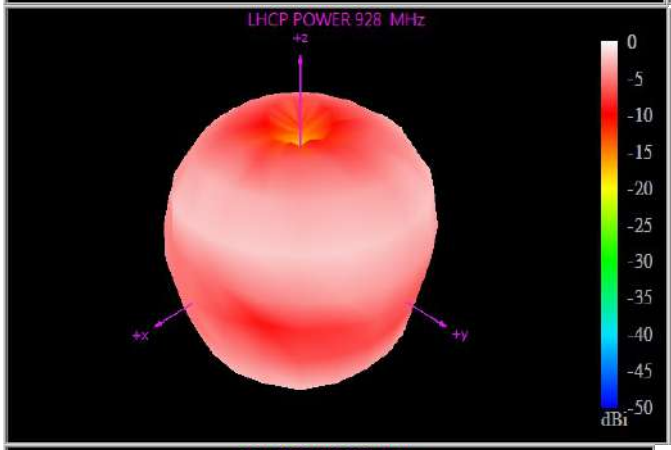

XY cut @MHz928
LHCP
RHCP

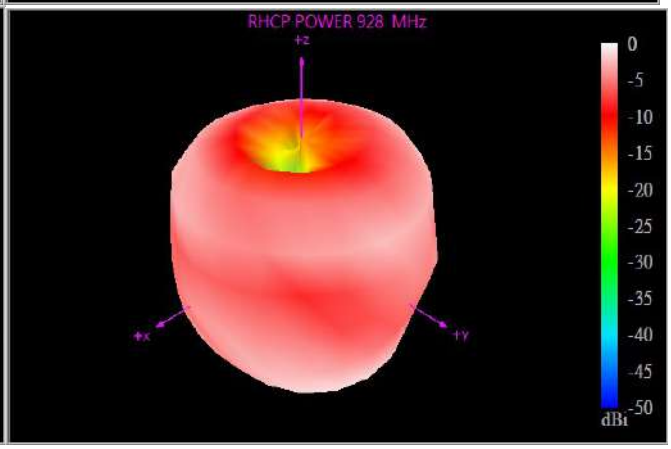

ZX cut @MHz928
LHCP
RHCP

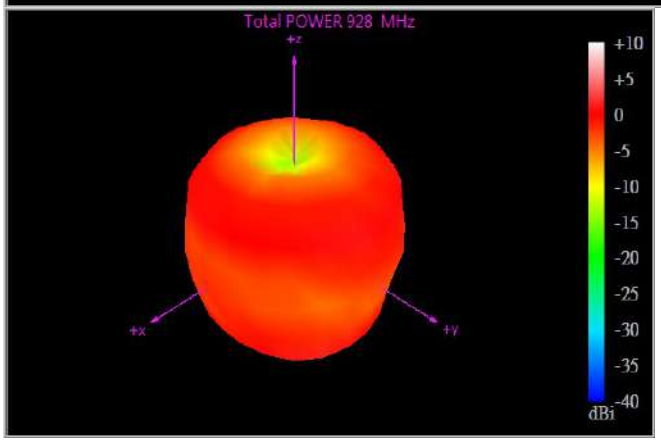

YZ cut @MHz928
LHCP
RHCP


Horizontal POWER 928 MHz
+z
+x
+y
+10
+4
-2
-8
-14
-20
-26
-32
-38
-44
-50
dBi


Vertical POWER 928 MHz
+z
+x
+y
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
dBi


LHCP POWER 928 MHz
+z
+x
+y
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
dBi


RHCP POWER 928 MHz
+z
+x
+y
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
dBi


Total POWER 928 MHz
+z
+x
+y
+10
+5
0
-5
-10
-15
-20
-25
-30
-35
-40
dBi