

RFID/Sigfox/ISM/LoRa UHF Antenna

Model : TH-89F



1. GENERAL DESCRIPTION

P/N
TH-89F-150mm-IPEX

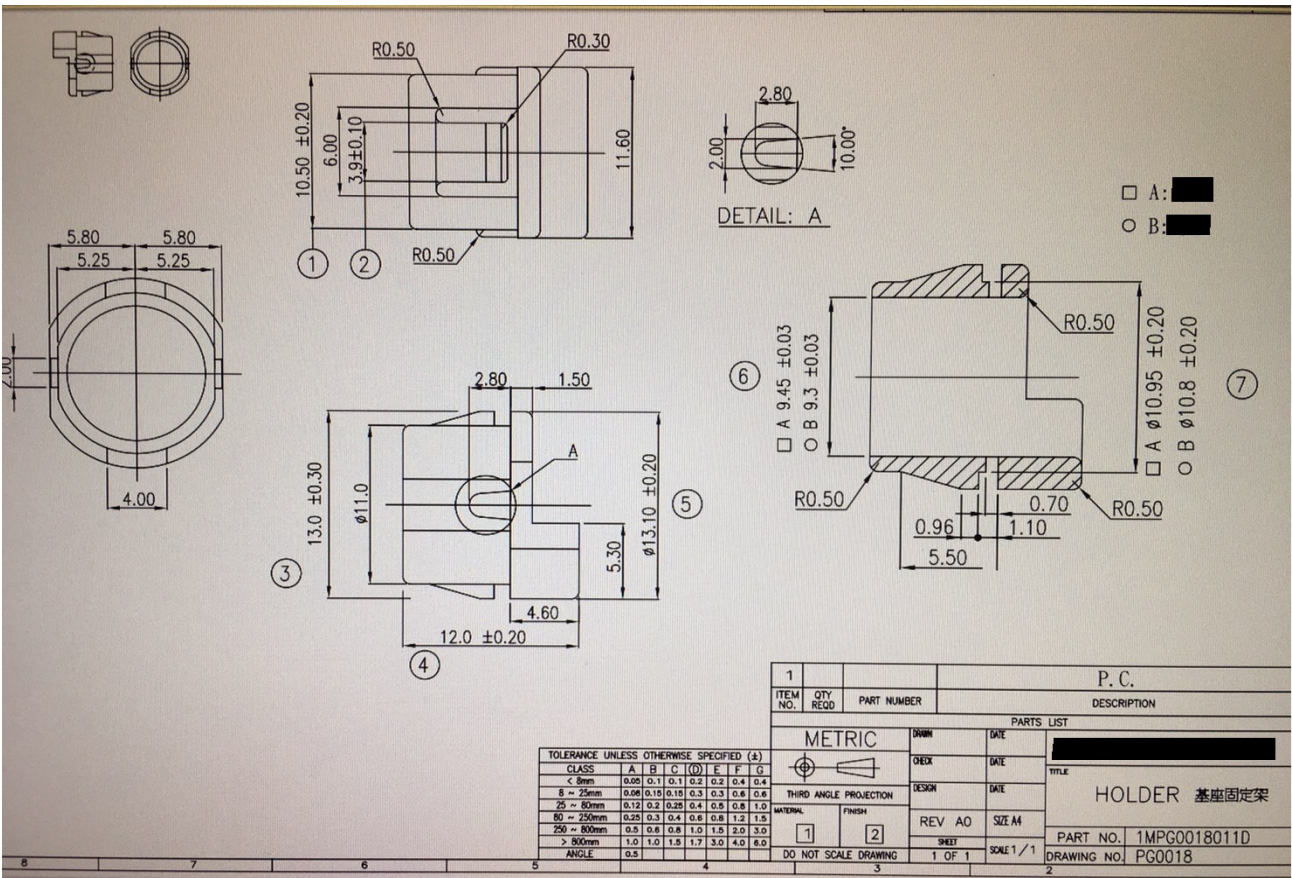
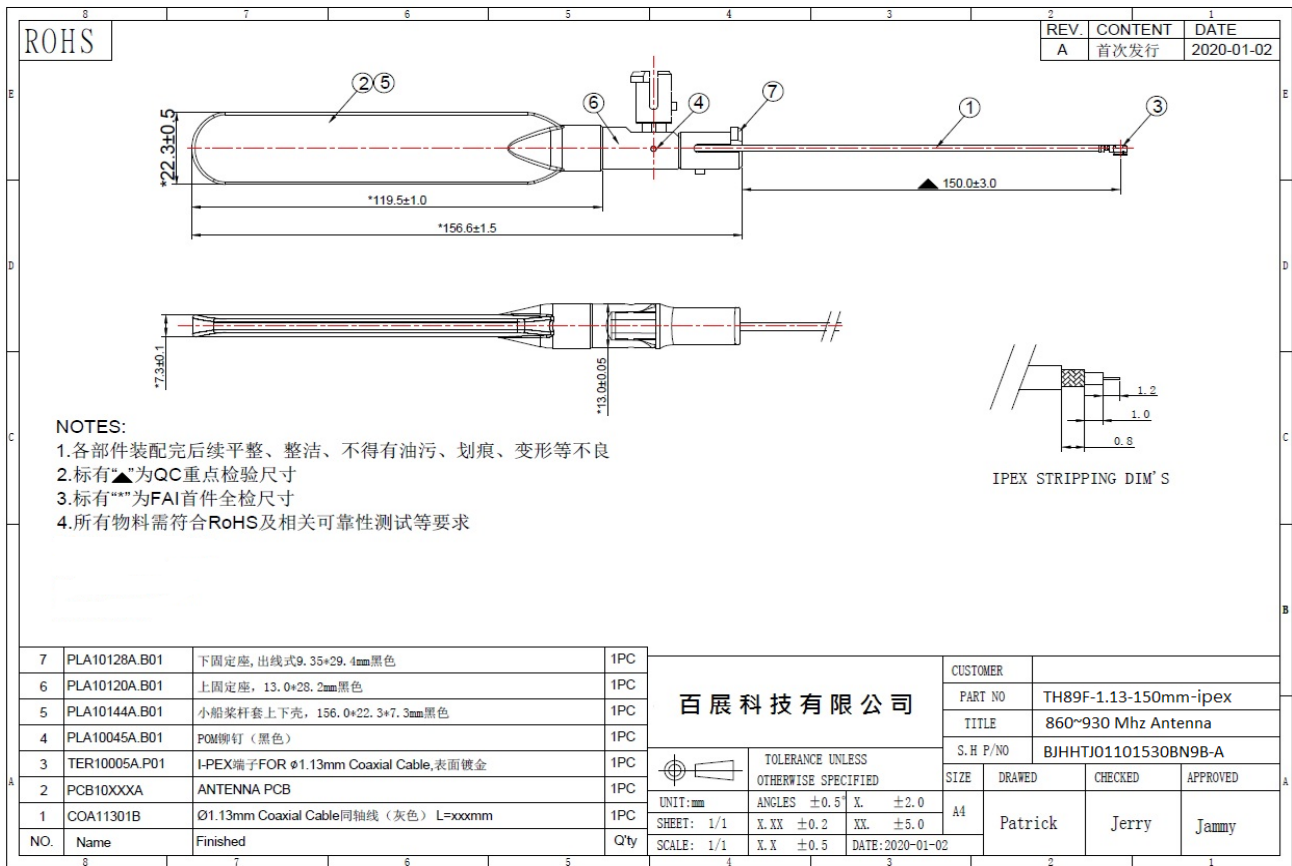
1.1 Electrical Properties

Parameter	Description
Frequency Band	860~930MHz
Nominal Impedance	50 ohm
Polarization	Vertical
V.S.W.R	2.0 : 1
Gain	1.5db Max

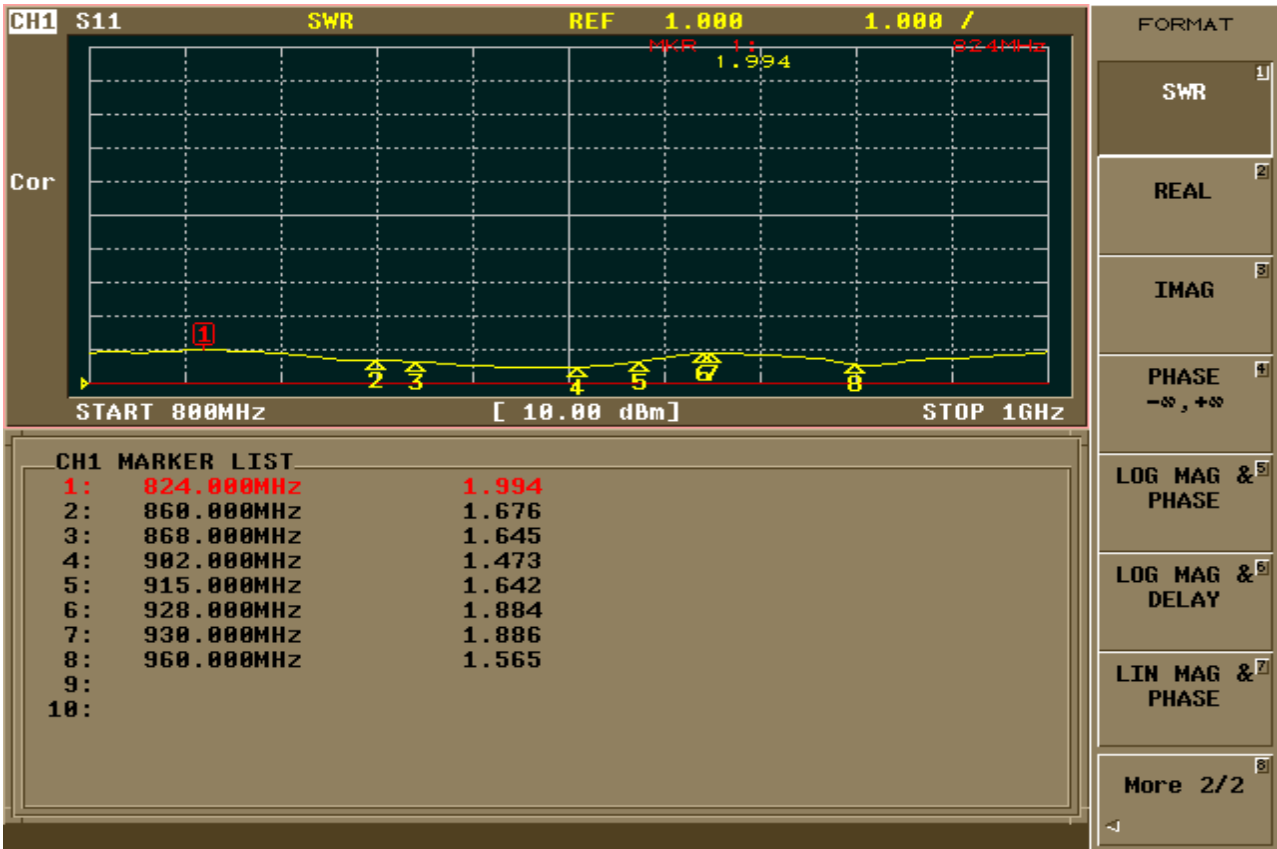
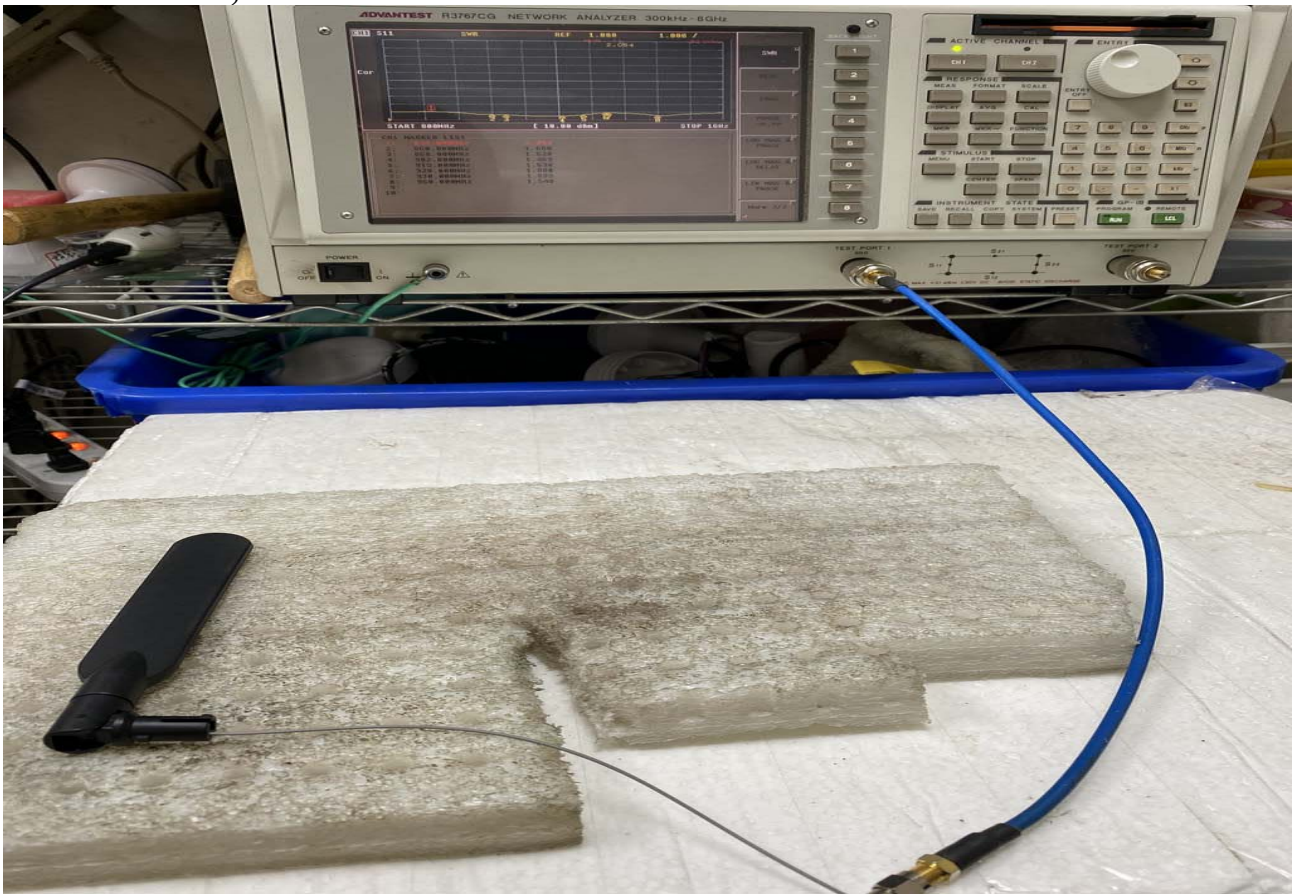
1.2 Mechanical Properties

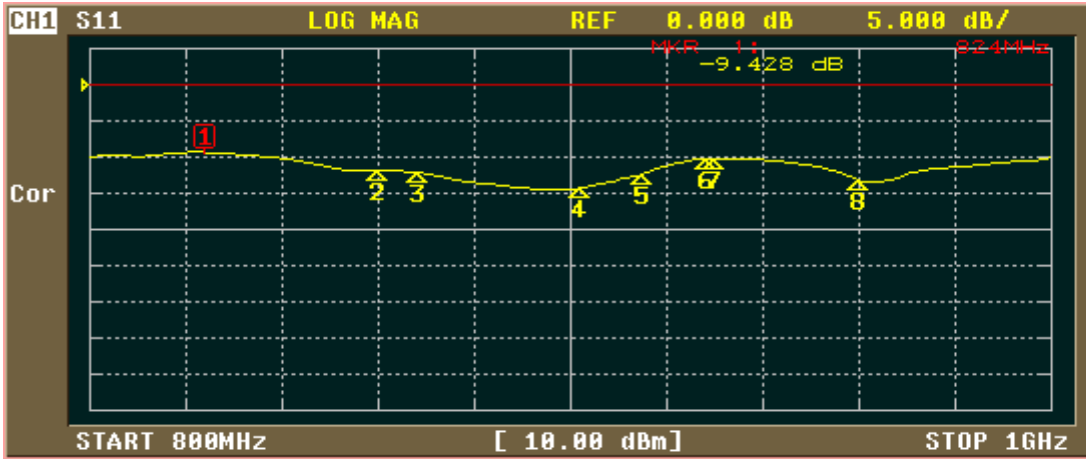
Parameter	Description
Antenna Type	External Antenna
Touch Type	Embedded Type
Cable & Connector Type	150mm-IPEX
Antenna Dimensions	22.3 x 156.6mm±1.5
Antenna Color	Black
Operating Temperature Range	-30°C~+70°C
Storage Temperature Range	-30°C~+70°C

2.



3. Return Loss, V.S.W.R. and Smith Chart





CH1 MARKER LIST

1:	824.000MHz	-9.428 dB
2:	860.000MHz	-11.857 dB
3:	868.000MHz	-12.153 dB
4:	902.000MHz	-14.290 dB
5:	915.000MHz	-12.309 dB
6:	928.000MHz	-10.210 dB
7:	930.000MHz	-10.171 dB
8:	960.000MHz	-13.205 dB
9:		
10:		

FORMAT

LOG MAG 1

PHASE 2

DELAY 3

SMITH (R+jX) 4

SMITH (G+jB) 5

POLAR 6

LIN MAG 7

More 1/2 8



CH1 MARKER LIST

1:	824.000MHz	45.184 Ω	33.835 Ω	6.535nH
2:	860.000MHz	84.424 Ω	-3.004 Ω	61.602pF
3:	868.000MHz	75.625 Ω	-18.397 Ω	9.966pF
4:	902.000MHz	34.379 Ω	-5.215 Ω	33.829pF
5:	915.000MHz	31.703 Ω	8.044 Ω	1.399nH
6:	928.000MHz	37.528 Ω	25.333 Ω	4.344nH
7:	930.000MHz	40.055 Ω	27.598 Ω	4.723nH
8:	960.000MHz	73.080 Ω	14.517 Ω	2.406nH
9:				
10:				

FORMAT

LOG MAG 1

PHASE 2

DELAY 3

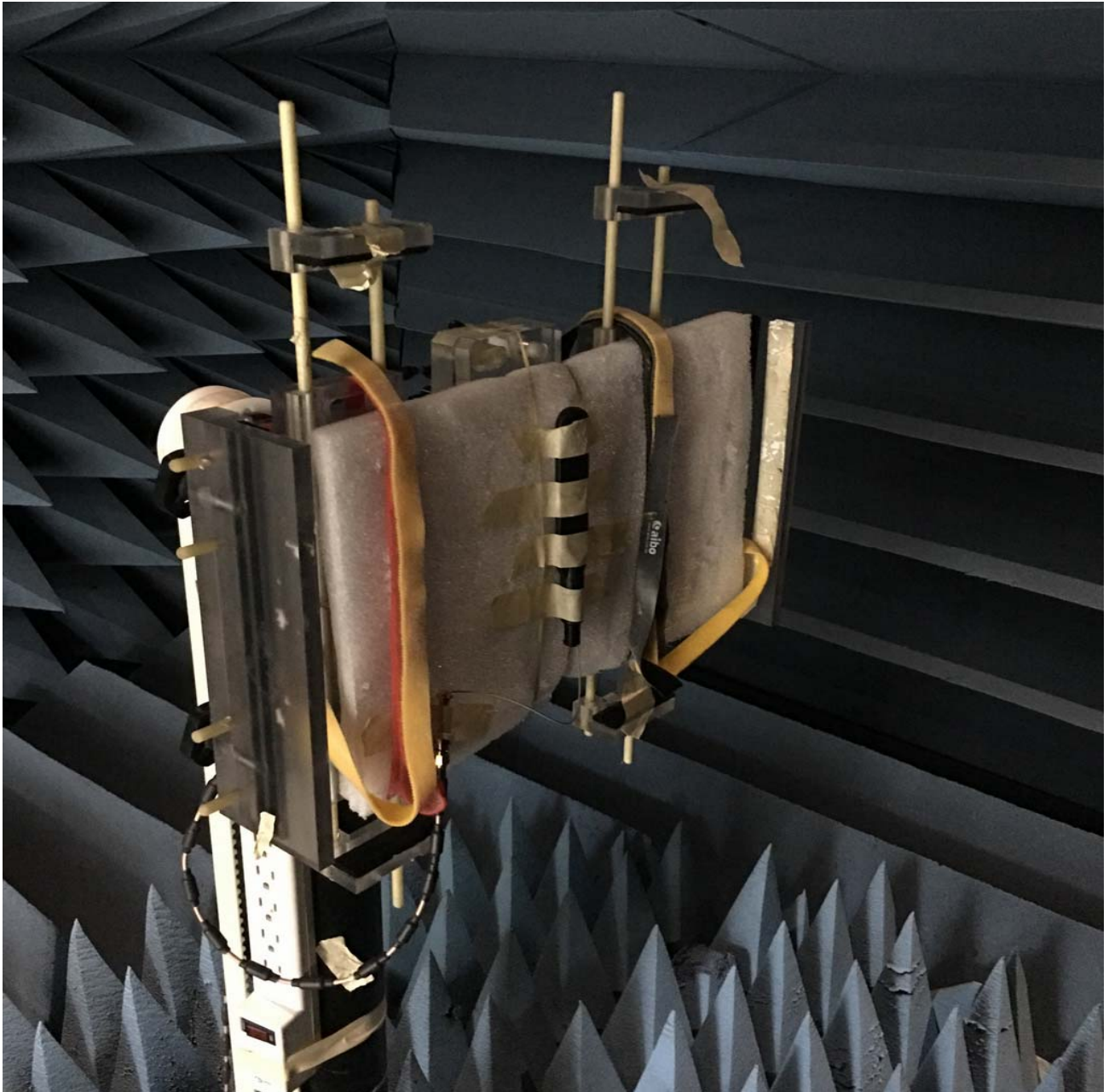
SMITH (R+jX) 4

SMITH (G+jB) 5

POLAR 6

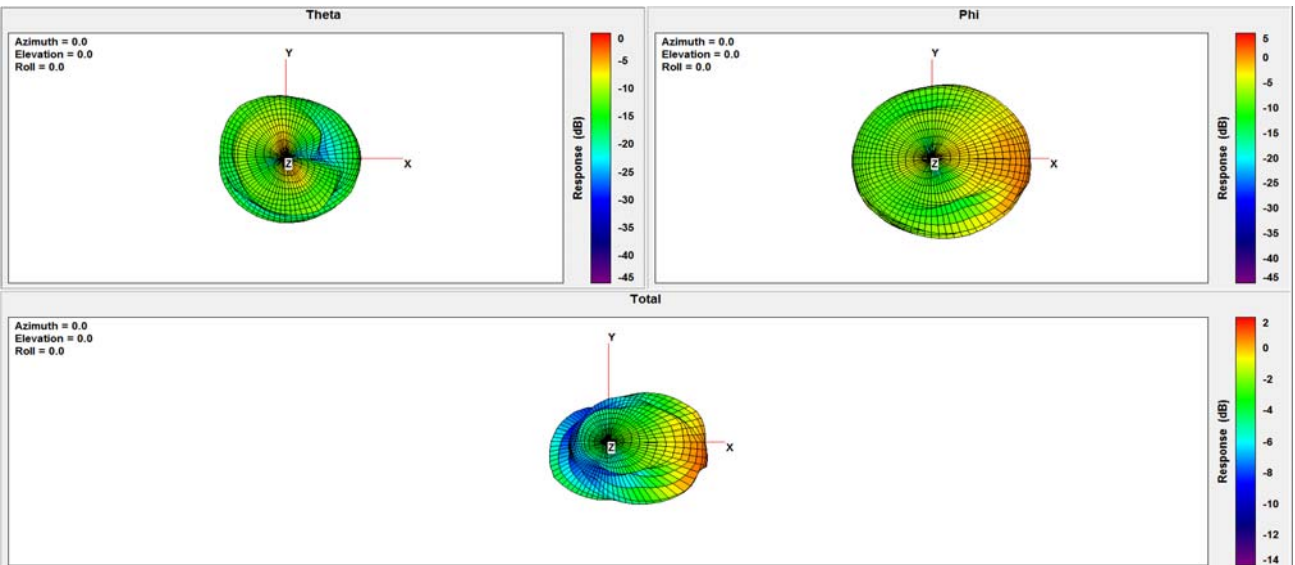
LIN MAG 7

More 1/2 8

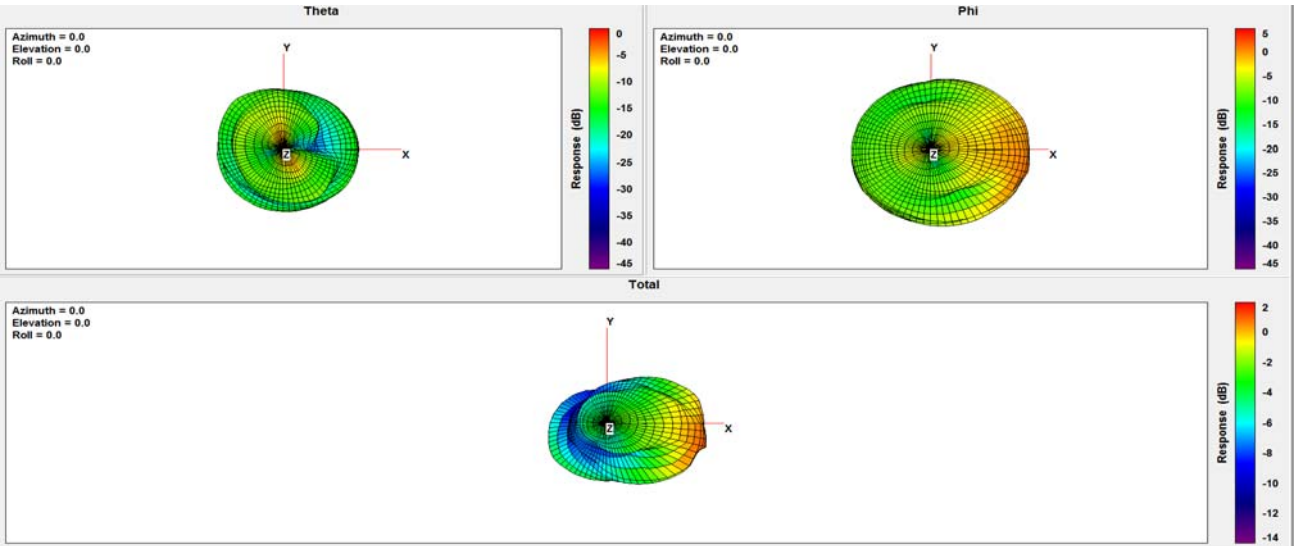


Frequency (MHz)	821	824	836	849	860	880	894	902	915	930	940	960
Peak Gain (dBi)	0.81	0.86	1.12	1.45	1.52	1.31	0.95	0.73	0.90	0.79	0.76	0.46
Efficiency (%)	41.80	42.26	43.54	45.58	45.47	43.63	41.40	39.41	39.86	37.66	37.68	35.09

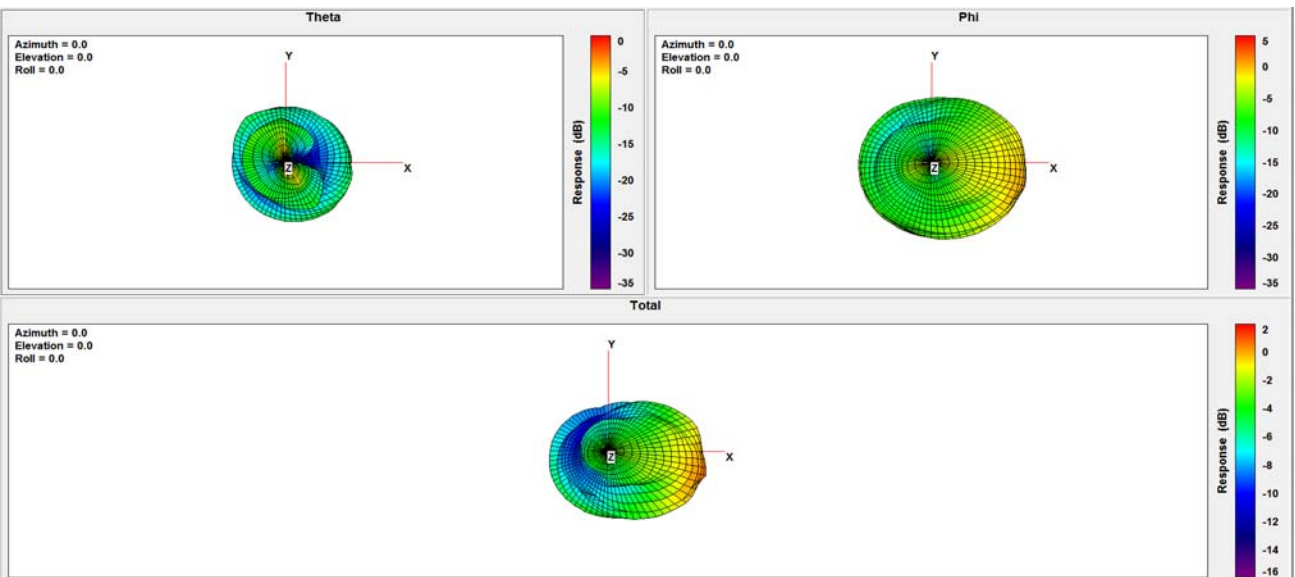
860Mhz:



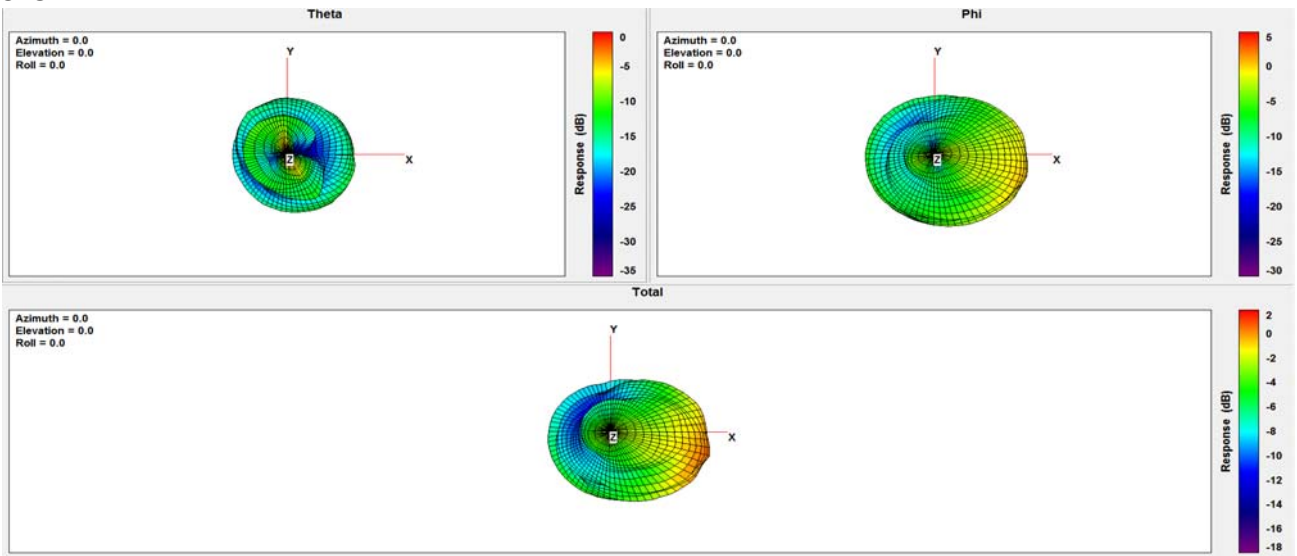
868Mhz:



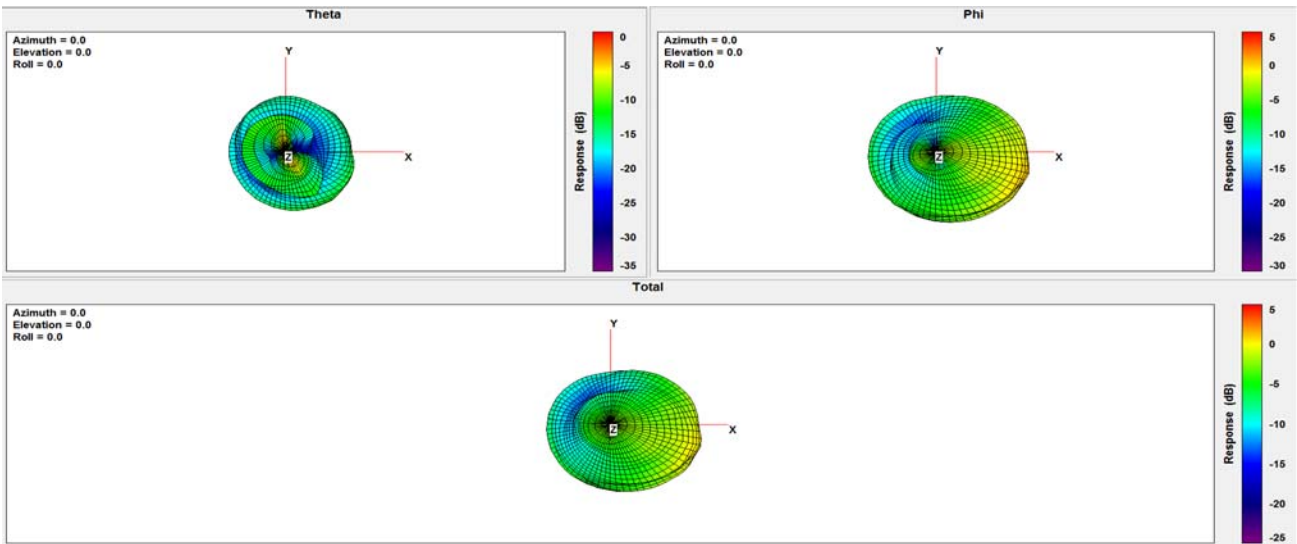
902Mhz:



915Mhz:



930Mhz:



960Mhz:

