

Vehicle Locating Small Antenna

GPS/GLONASS & Omni ADS-B/ Iridium / GSM/ 3G/ LTE /WIFI

MODEL: GAF-68GL

Small size and ruggedness, demand of vehicle locating and car navigation GPS/GLONASS antenna that will sustain harsh environment.



- Low noise figure
- Fully weather proof IPX8 .
- Ultra-high Sensitivity
- Compact construction
- Excellent temperature stability

The antenna system **GAF-68GL** is the integration of the high performance GPS patch antenna and a low noise amplifier into state-of-the-art low a very low profile/extremely compact/fully waterproof antenna signal enclosure. When connected to a GPS/GLONASS receiver with +2.5~ 5.5V DC antenna powers it provides excellent signal amplification and out-band-rejection for that receiver.

Features:

GPS/GLNOASS antenna with double threaded bolts and through holes for cable routing with course & fine treaded pitch locking for wing-nut fastener and lock-nut to prevent vibrations and un-authorize removal.

Specifications:

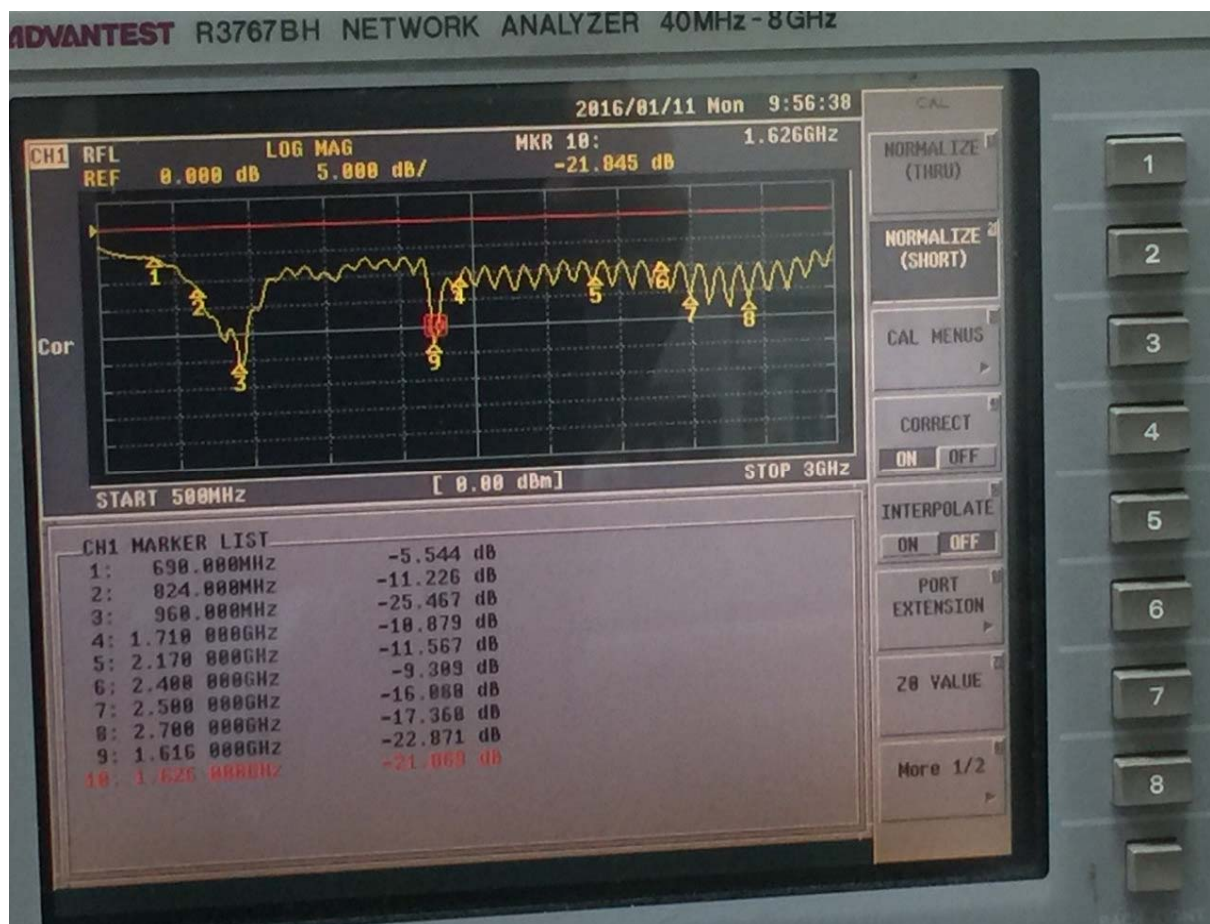
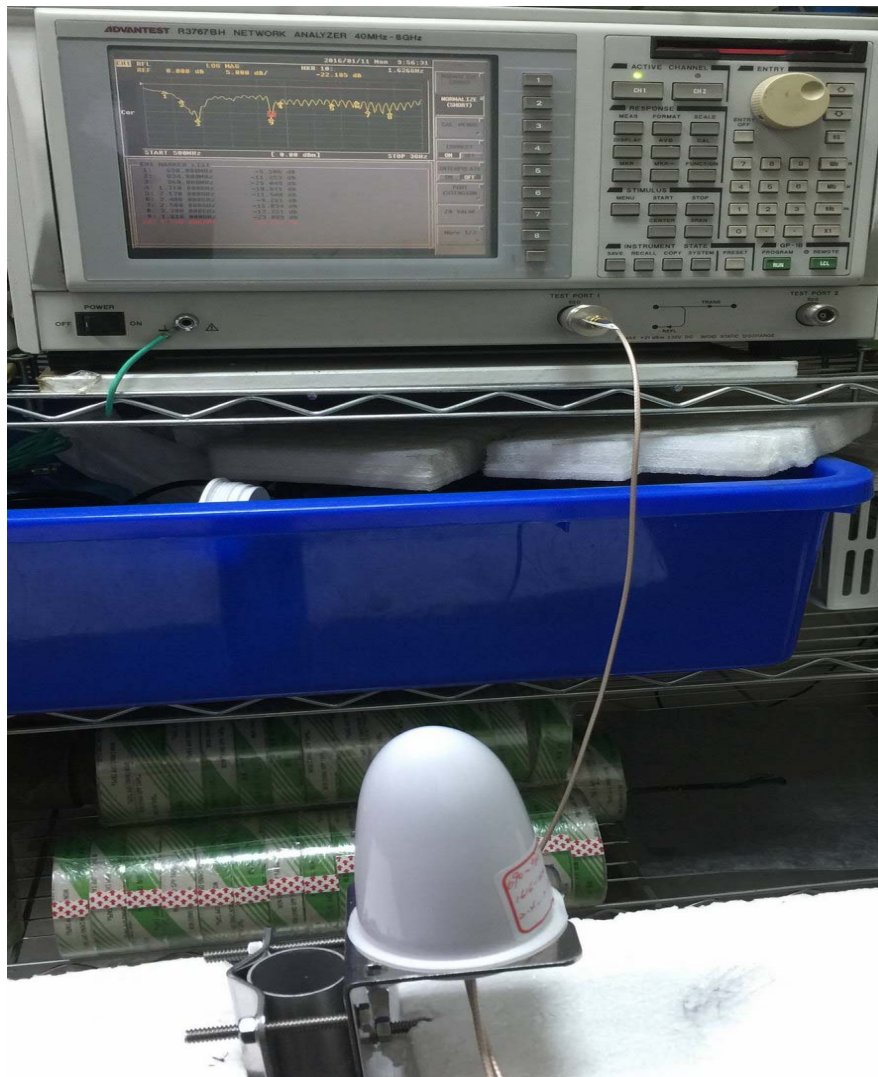
PHYSICAL CONDITION	
Constructions:	Polycarbonate radome,detachable cable/connector for easy mount, rubber-O-ring between top radome and screw base for waterproof
Dimensions:	60mm(Dia.) x 90mm(H)
Weight:	65grams (w/o cable & connector).
Color:	Standard in ivory white, other colours available upon request.
Mounting:	FB6 SUS L-Mounting
Cable & Connector	
RF cable:	TNC(M) +10 meter RG58 +BNC(M) (standard) other length (optional)
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector	TNC(F)or SMA(F)
Antenna Element	
Center Frequency:	1575Mhz & 1596-1610 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Bandwidth	10 MHz min. @S11≤-10 dB, 24MHz typ. @S11<-8dB
Gain @ 10° Elevation:	2 dBi typical.

Axial Ratio:	3 dB max.
Output VSWR:	1.5 max
Output Impedance:	50 ohm
Low Noise Amplifier	
Power Gain:	1570 Mhz : 29db typ 1610 Mhz : 29db typ
Bandwidth:	50 MHz min.
Noise Figure:	1.5 typ
Filter	SAW Filter 30 dB min @ $f_o \pm 100\text{MHz}$ * $f_o=1590.\text{MHz}$
Supply Voltages:	2.3~5.5V DC.
Current Consumption:	2.5V : 6.6mA Typ. 3V: 10.6mA Typ. 4V: 14.6mA Typ. 5V: 20.6mA Typ.
Output Impedance:	50W ohm
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1570 ~1610 Mhz.
Gain:	At 90° vertical to sky $30 \pm 4.5\text{dBi}$ (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	2.0 max.
Axial Ratio:	3 dB max.
Bandwidth:	10MHz min.
VSWR:	2.0 max.
Output Impedance:	50W ohm
Environmental	
Operating Temperature:	-40°C~ +85°C.
Storage Temperature:	-40°C~ +90°C.
Relative Humidity:	95% non-condensing.
Water Resistance:	100% waterproof.

GSM / ADS-B/ 3G / LTE / WIFI	
Frequency	690~960/1090/1616~1636/1710~2170/2400~2700Mhz
VSWR	3.5
Impedence	50Ω
Cable type	RG316
Cable length	1.5M
Connector	SMA Coding or Others

* This specification is subject to change without prior notice

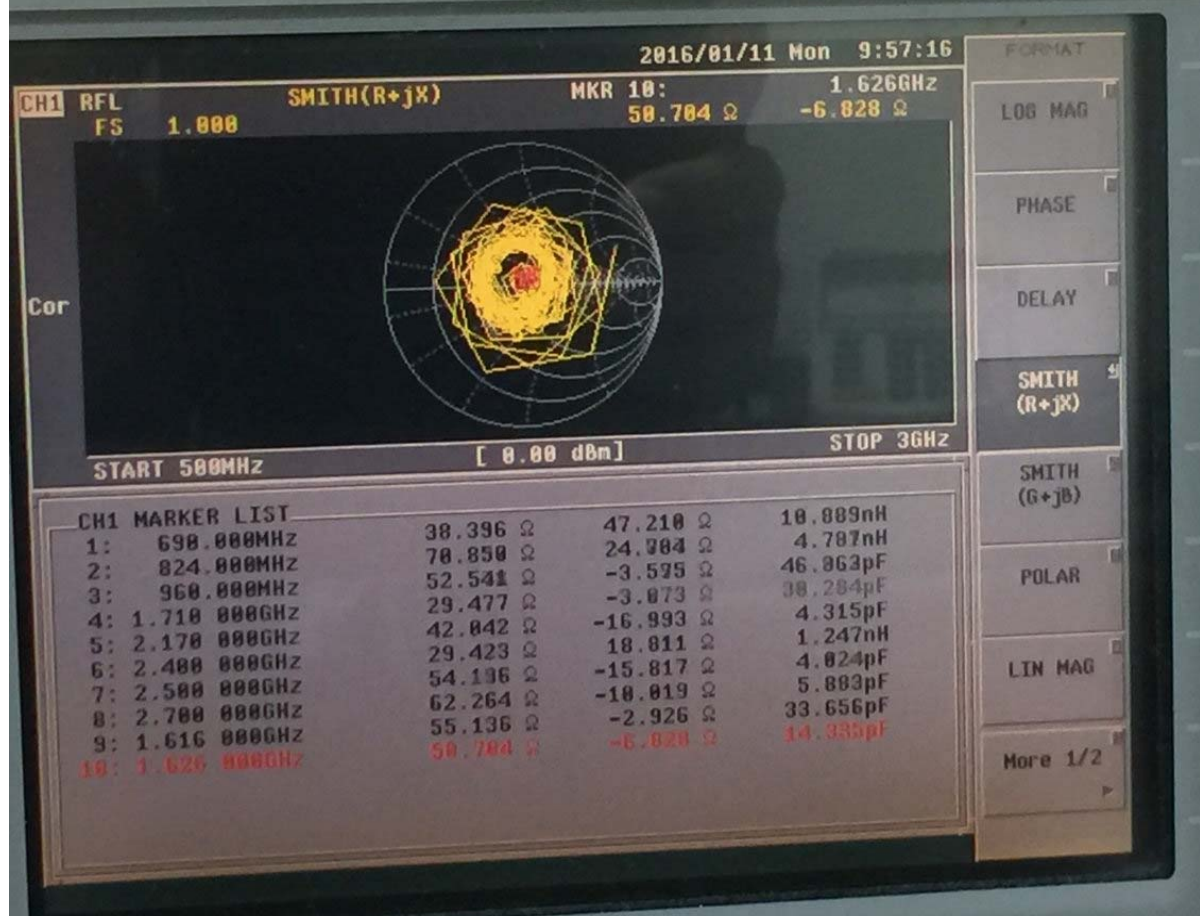
Data Updated: Jan.05, 2016



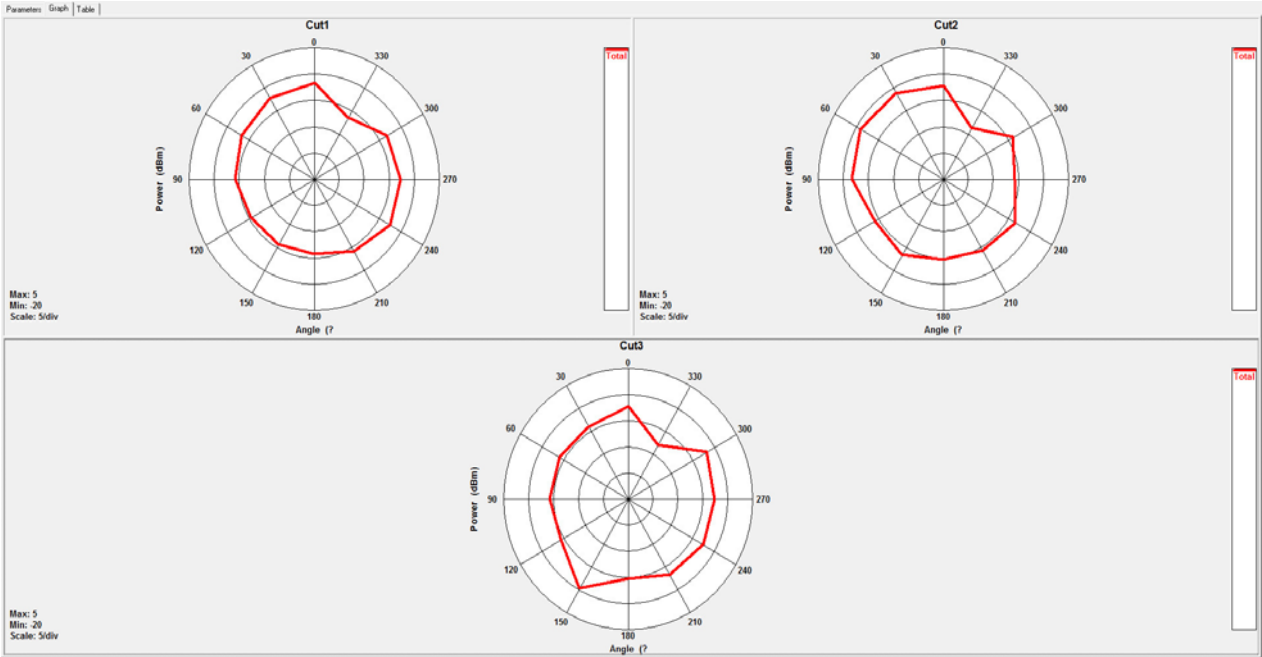
ADVANTEST R3767BH NETWORK ANALYZER 40MHz-8GHz



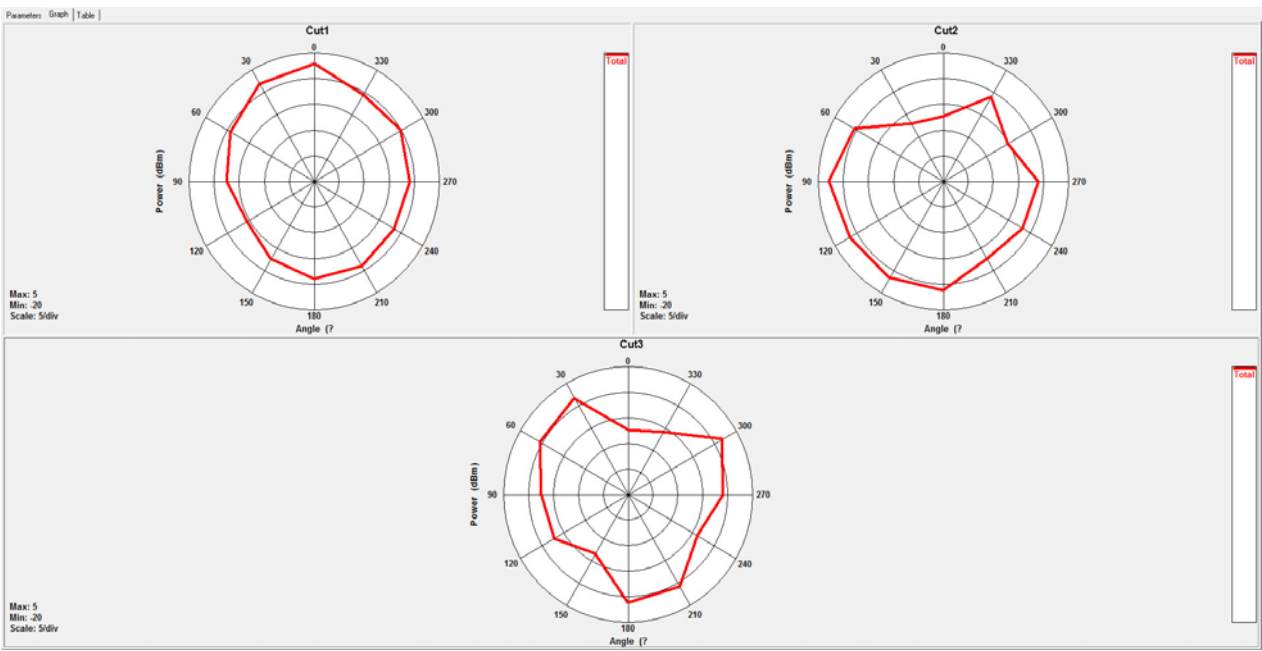
DVANTEST R3767BH NETWORK ANALYZER 40MHz-8GHz



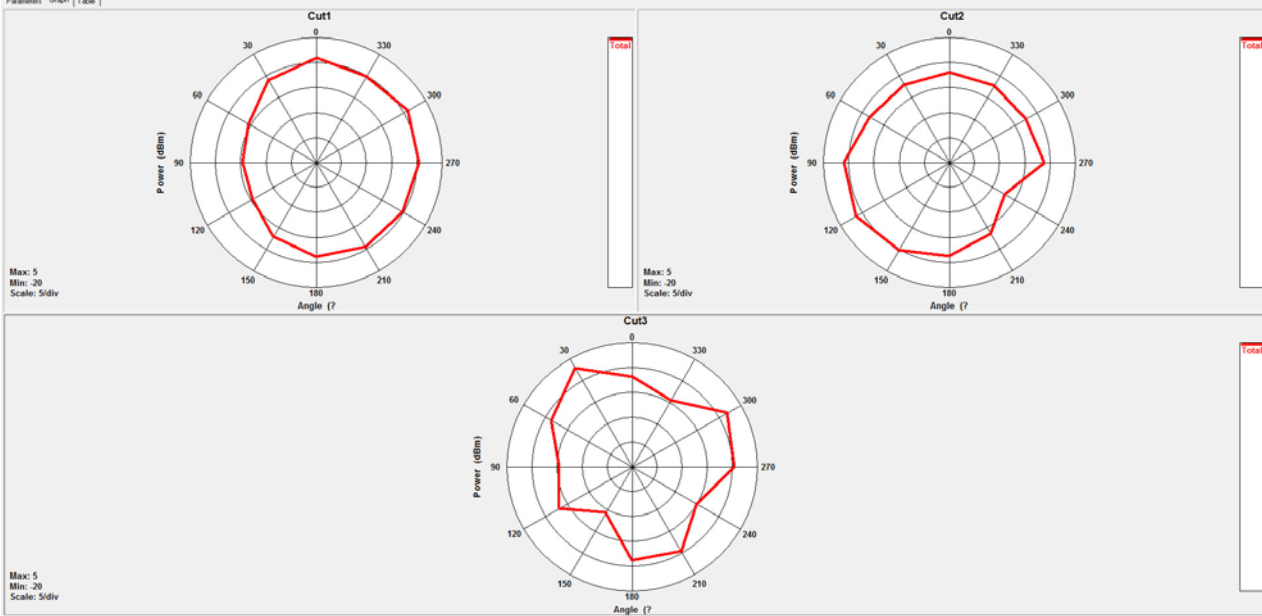
690Mhz



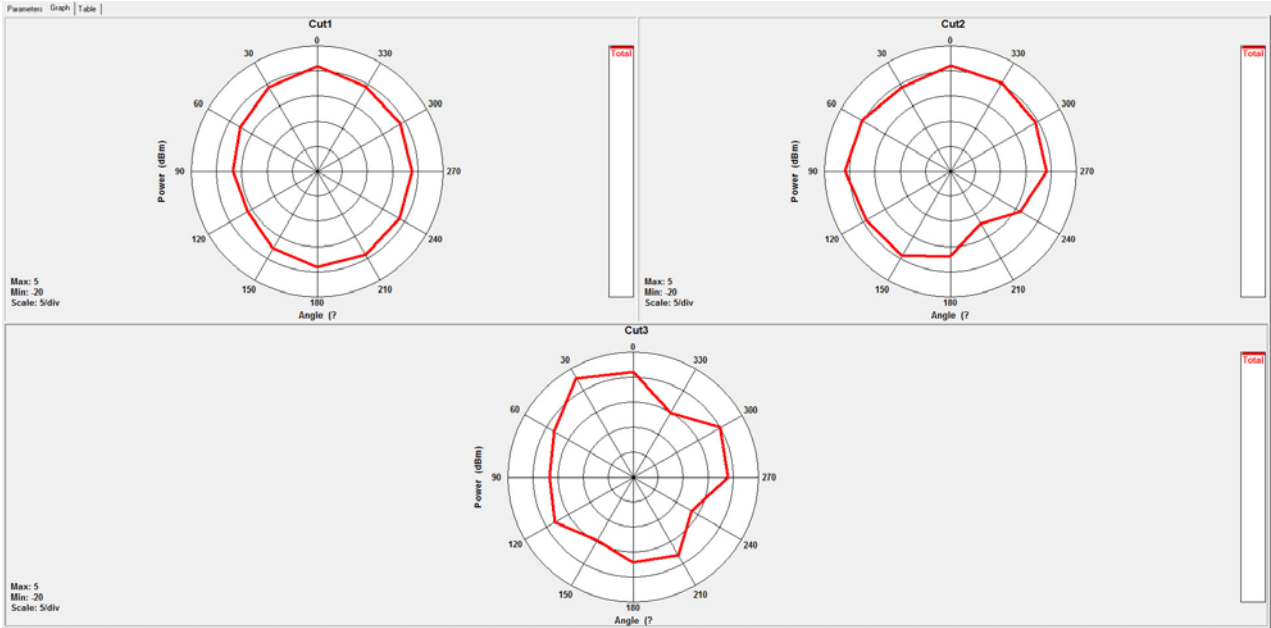
824Mhz



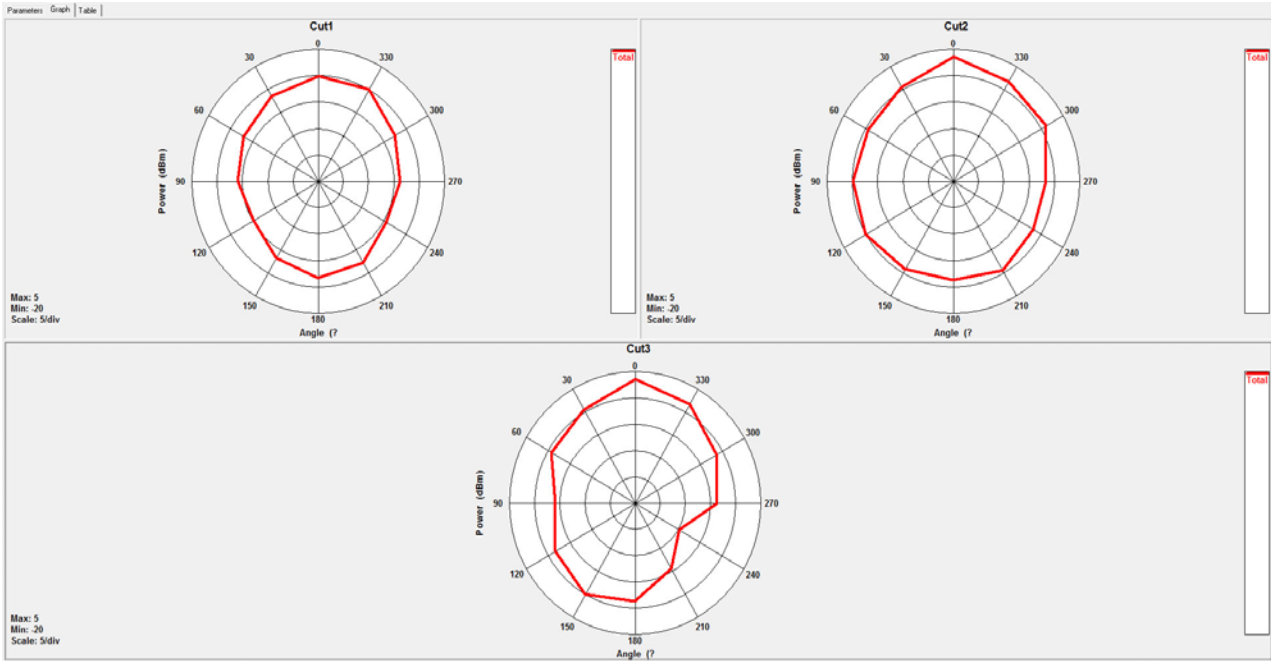
900Mhz



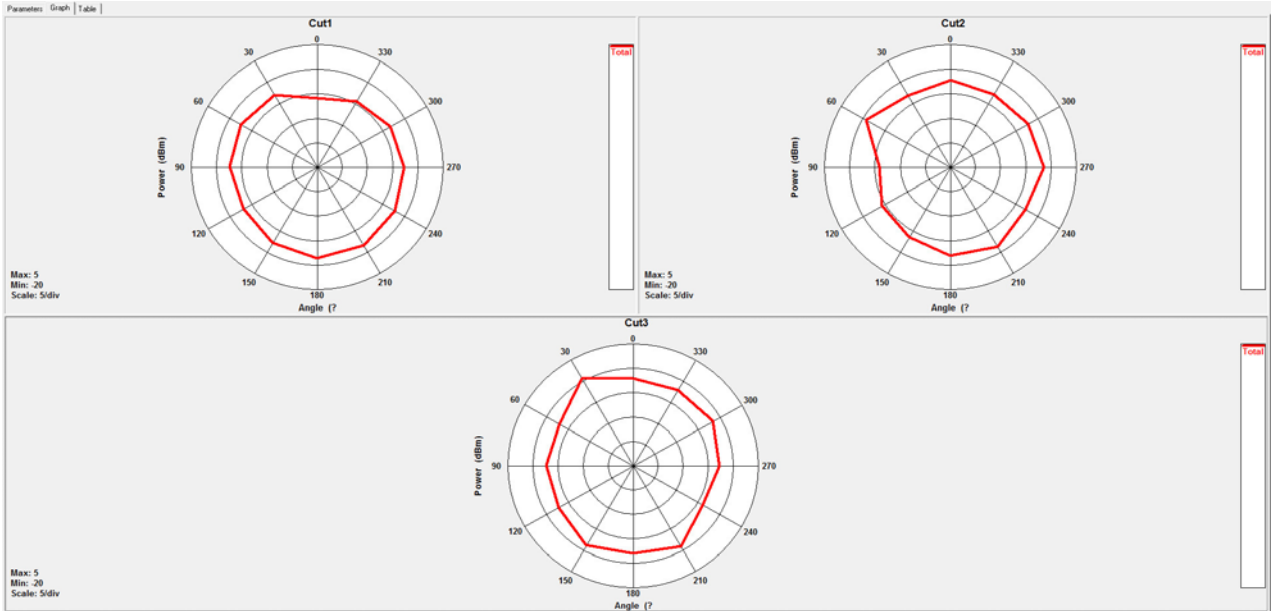
960Mhz



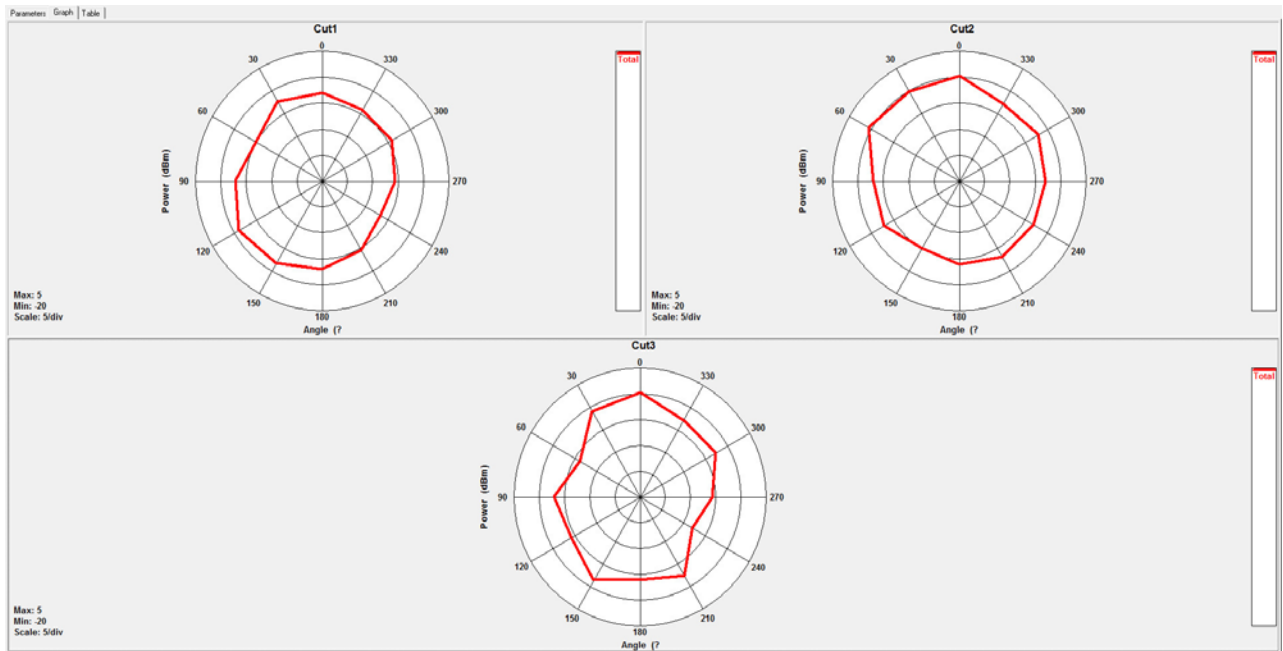
1090Mhz



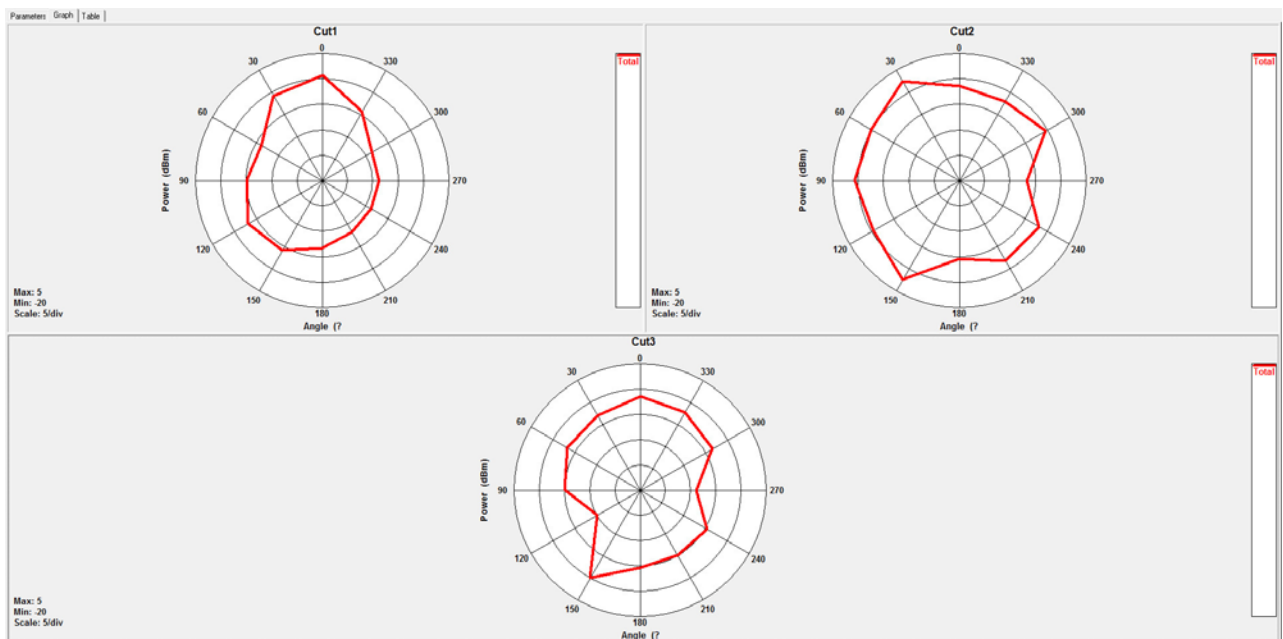
1626Mhz



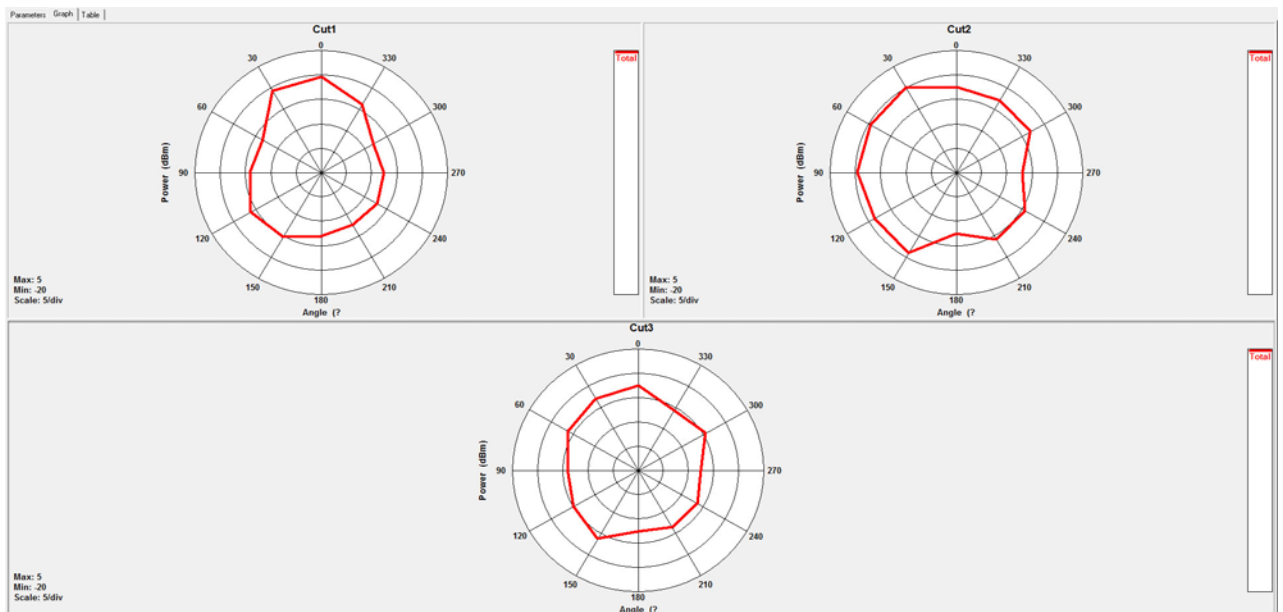
1710Mhz



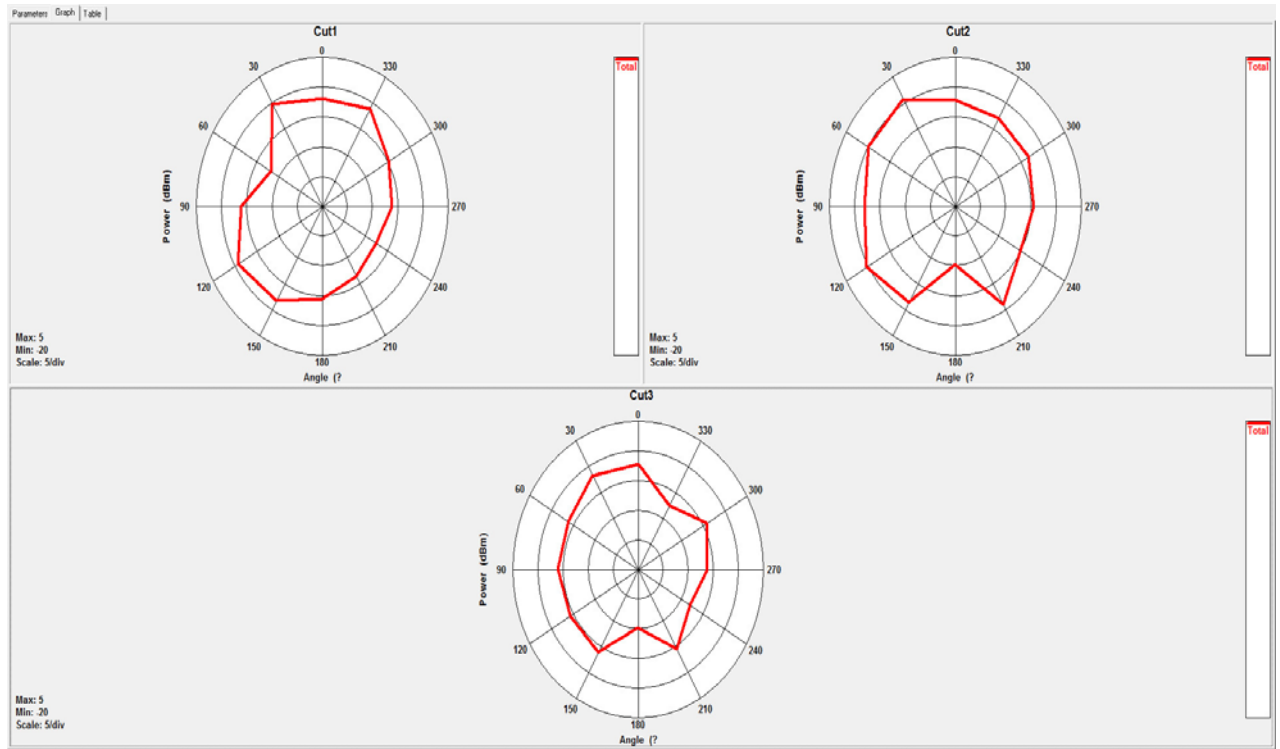
1990Mhz



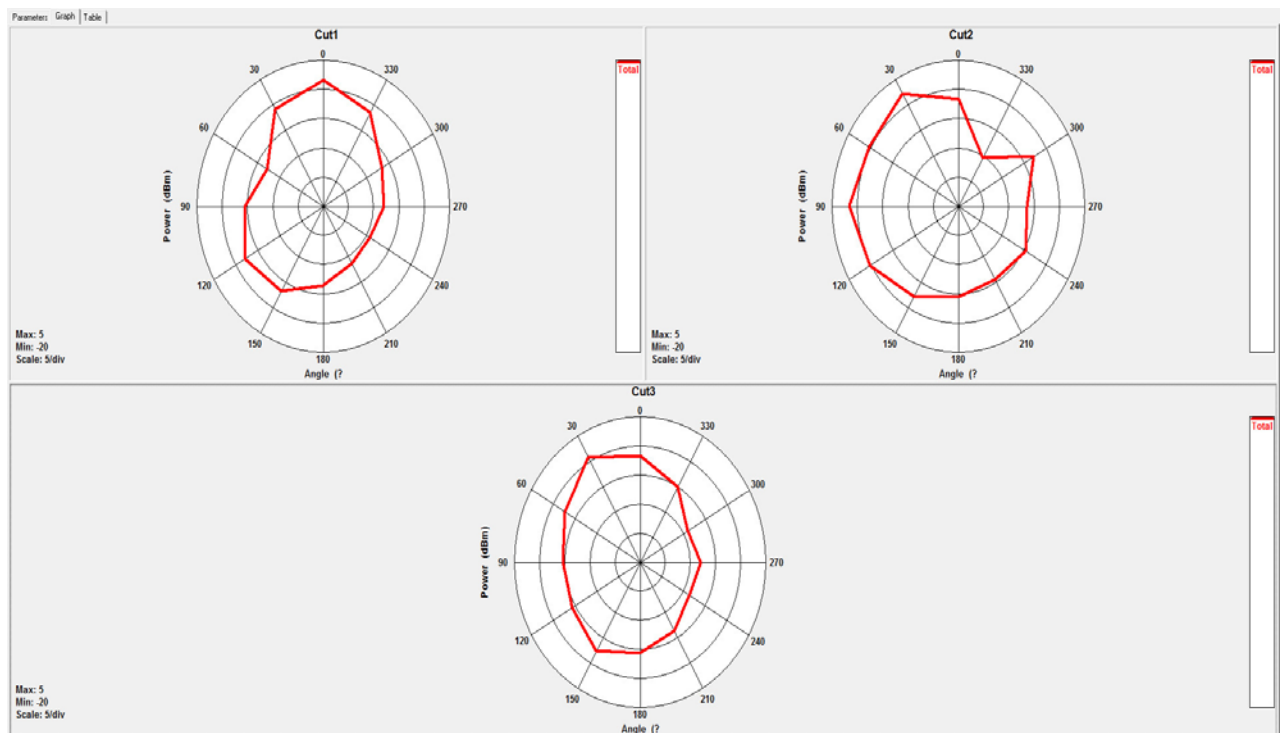
2170Mhz



2450Mhz



2700Mhz



Test result:

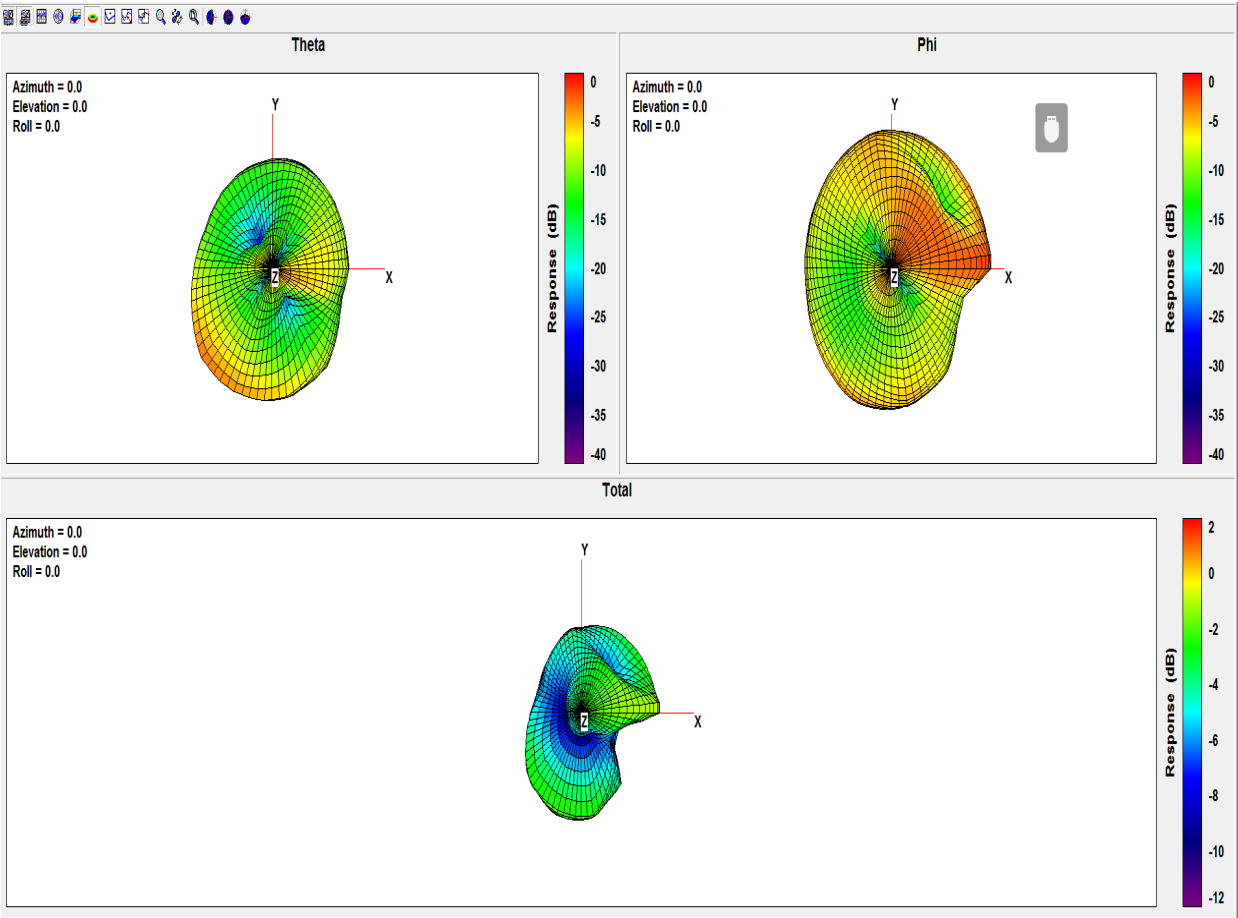
Frequency (MHz)	690	698	704	710	716	734	740	746	751	756	777	782	787	791
Peak Gain (dBi)	0.58	0.63	0.56	0.70	0.76	1.17	1.06	0.96	0.85	1.03	1.28	1.21	1.09	1.22
Efficiency (%)	41.97	42.18	42.08	43.63	44.28	46.19	45.65	45.77	46.35	46.99	52.86	54.07	54.71	55.73

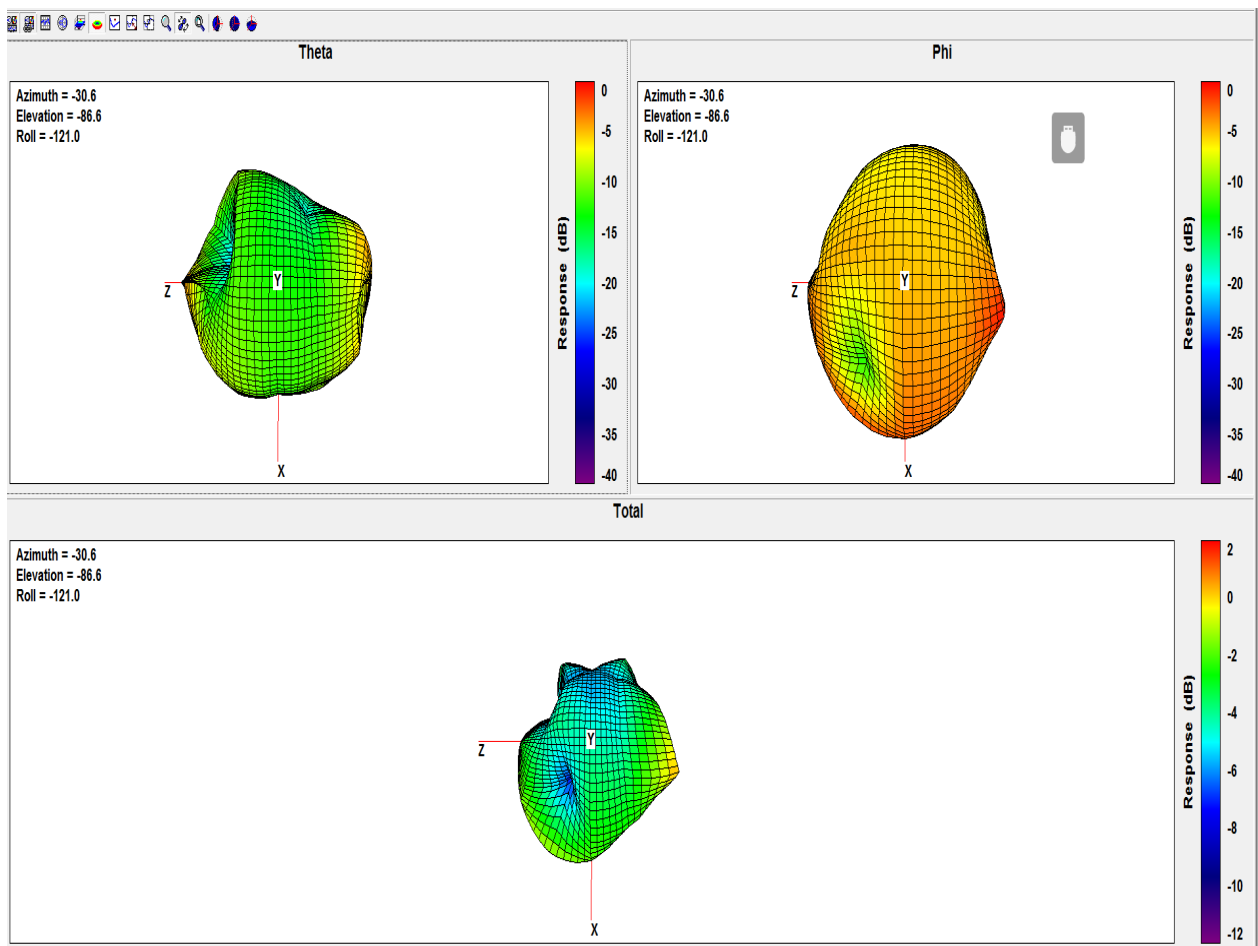
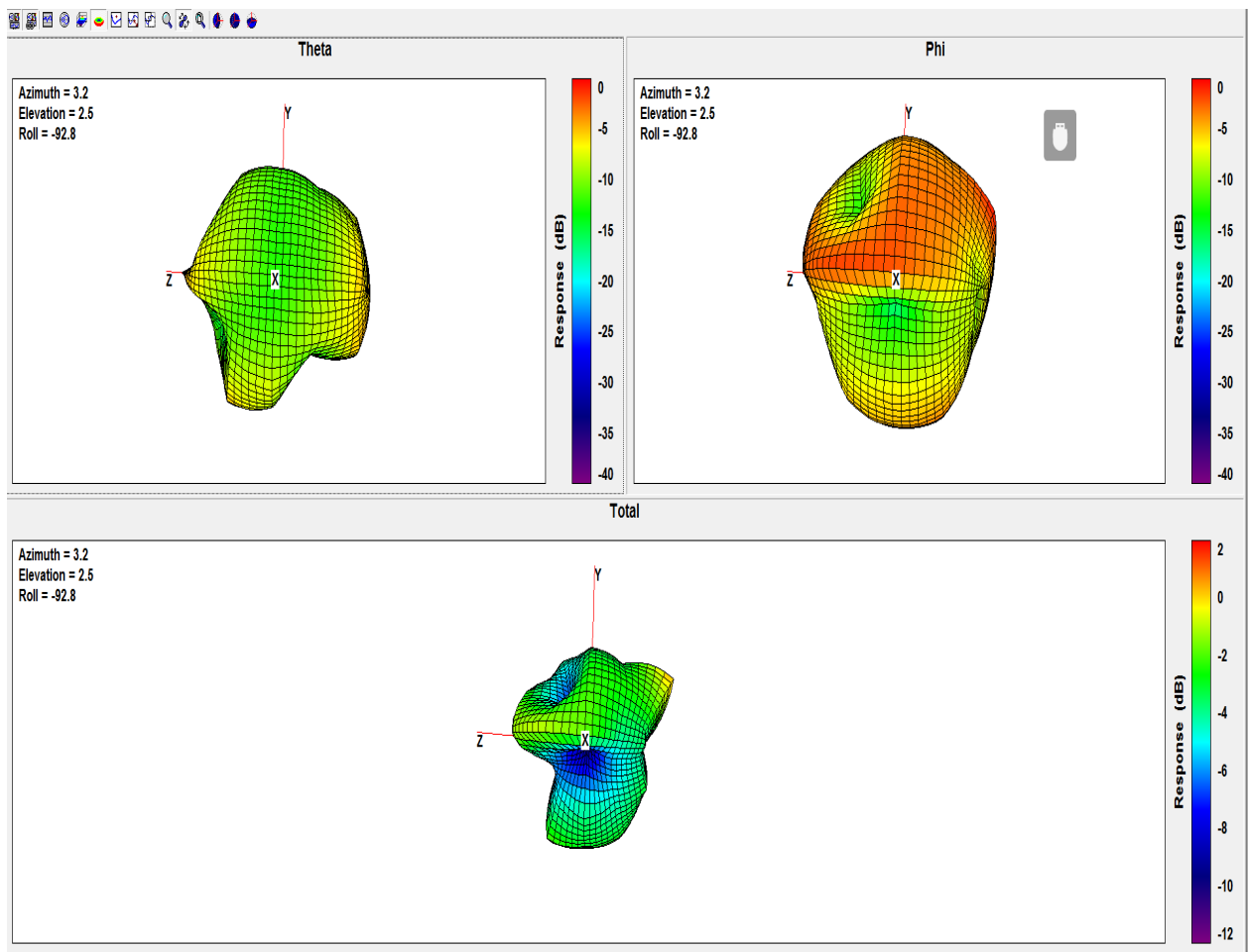
Frequency (MHz)	806	815	821	824	830	832	836	845	847	849	860	862	869	875
Peak Gain (dBi)	2.63	2.71	2.79	2.84	2.84	2.89	2.99	3.32	3.39	3.45	3.53	3.57	3.49	3.36
Efficiency (%)	72.54	72.97	74.98	76.70	79.04	80.19	81.49	82.15	81.33	80.23	75.59	74.81	71.36	69.11

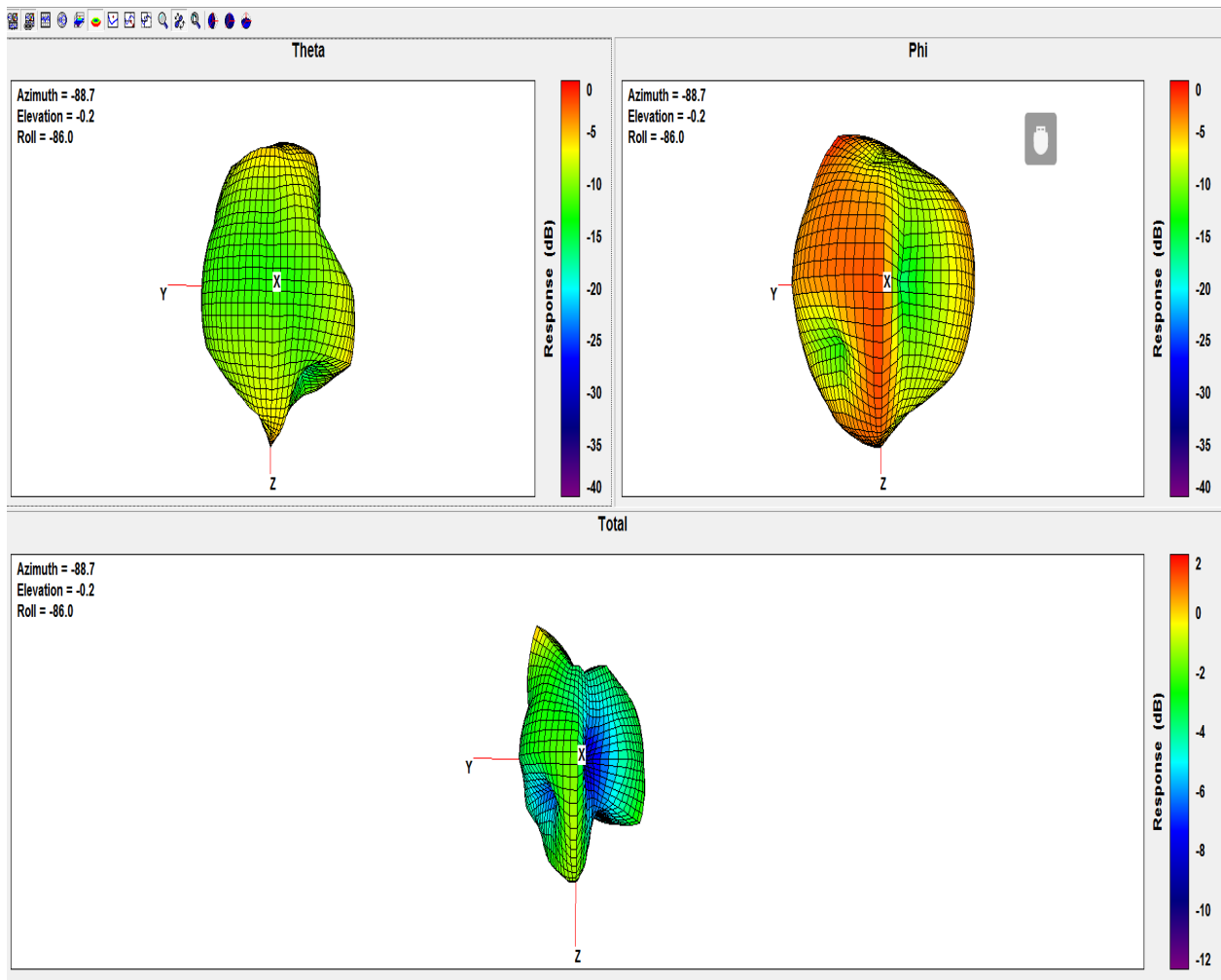
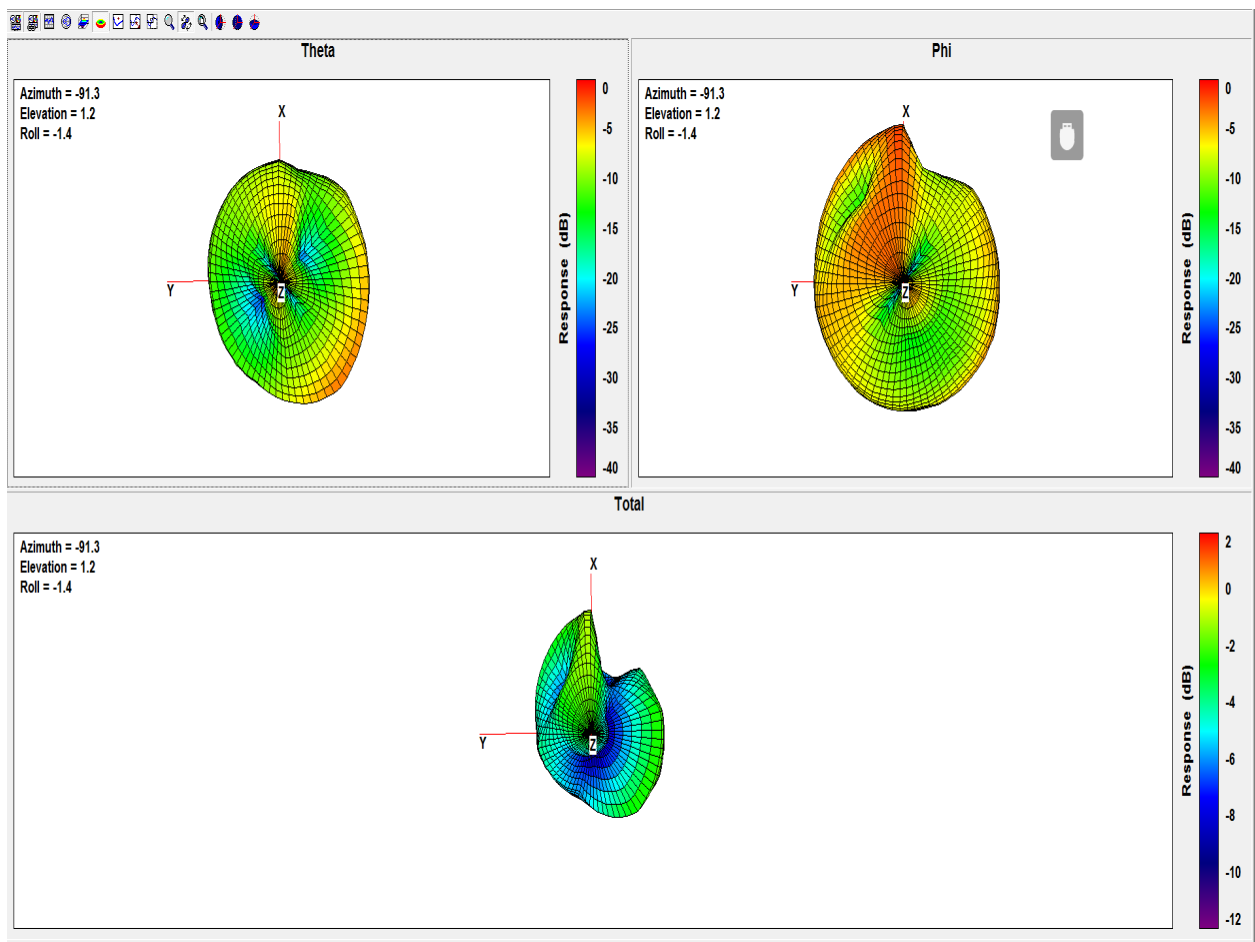
Frequency (MHz)	880	881	890	894	900	915	925	940	960	1090	1575.4	1602	1616	1626
Peak Gain (dBi)	3.18	3.17	2.89	3.03	3.22	3.52	3.61	3.47	3.16	3.41	0.18	0.81	2.13	1.51
Efficiency (%)	67.26	66.67	65.69	66.08	66.93	69.45	69.06	66.13	67.72	81.95	48.69	52.22	62.08	59.95

Frequency (MHz)	1636	1710	1750	1755	1785	1805	1840	1850	1880	1882	1910	1920	1930	1950
Peak Gain (dBi)	1.40	0.94	0.63	0.64	1.46	1.25	1.63	1.83	2.72	2.74	2.29	2.02	1.64	1.38
Efficiency (%)	59.27	50.17	46.48	47.28	45.83	46.45	49.91	50.43	51.44	51.75	54.92	54.77	54.60	56.44
Frequency (MHz)	1962	1980	1990	2110	2132	2140	2155	2170	2400	2450	2500	2535	2570	2620
Peak Gain (dBi)	1.71	2.43	2.35	1.79	0.61	0.51	0.51	0.69	1.46	1.4	2.04	2.04	2.06	1.87
Efficiency (%)	57.96	56.65	53.72	47.91	41.78	39.47	39.57	40.80	48.18	47.28	52.30	47.92	50.64	48.85

Frequency (MHz)	2655	2690	2700										
Peak Gain (dBi)	1.67	1.79	2.08										
Efficiency (%)	46.98	45.58	47.31										







Madel : FB-6



Size :

