

Vehicle Locating Small Antenna

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

MODEL: GAF-68L

Small size and ruggedness, demand of vehicle locating and car navigation GPS 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-68L** 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 receiver with +2.5~ 5.5V DC antenna powers it provides excellent signal amplification and out-band-rejection for that receiver.

Features:

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

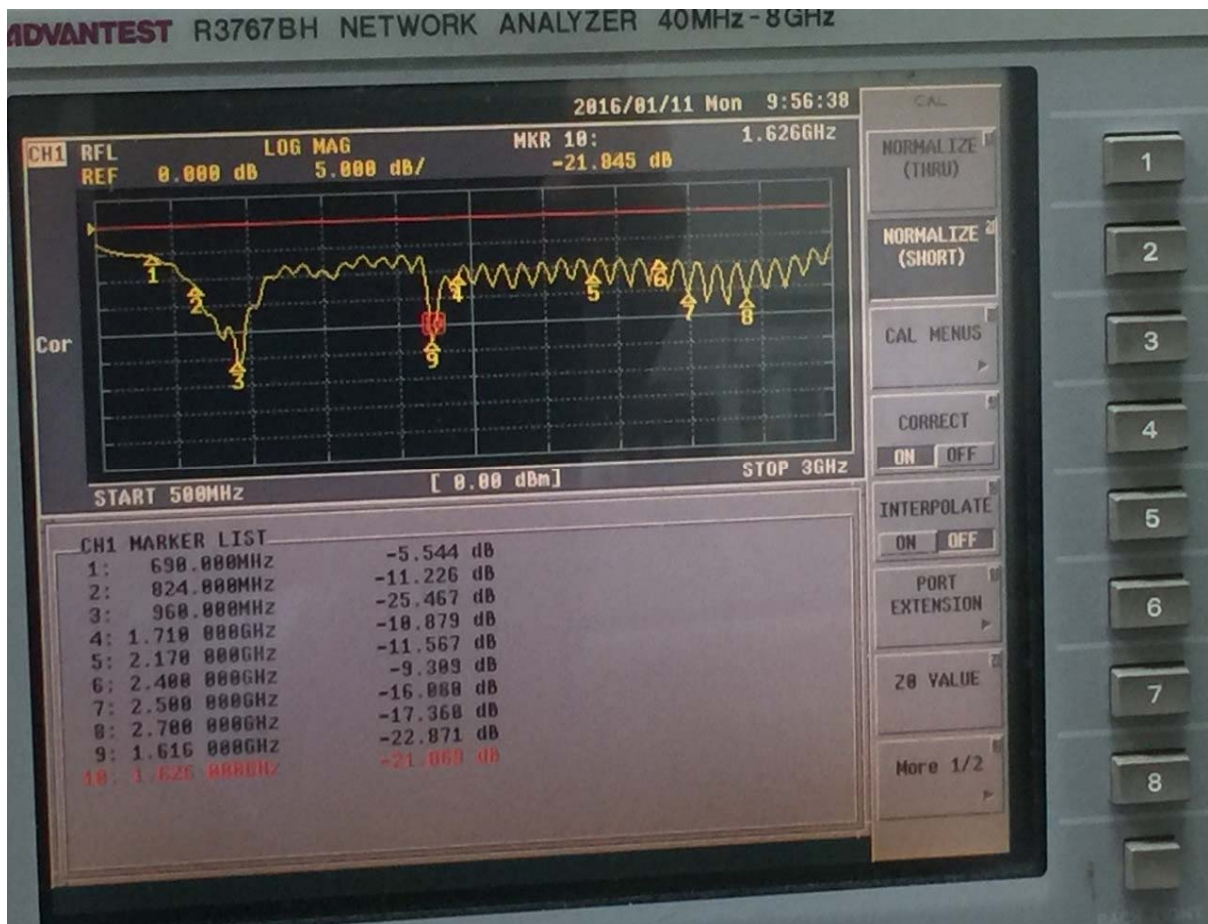
Specifications:

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:	White or Black (Optional)
Mounting:	Bulkhead mount with 0.8 inch threaded wing nut (standard accessory). FB6 2.5mm SUS L-Mounting
Cable & Connector	
RF cable:	RG316-1.5M or ----
Pulling strength:	6 Kg @ 5sec. molded plastic on connector end for strain relief.
Connector available:	SMA ,SMB, Fakra , BNC,TNC,MMCX,MCX----
Antenna Element	
Center Frequency:	1575.42 MHz +/-1.023 MHz
Polarization:	R.H.C.P. (Right Handed Circular Polarization).
Absolute Gain @ Zenith:	+5 dBi typical.

Gain @ 10° Elevation:	-1 dBi typical.
Axial Ratio:	3 dB max.
Output VSWR:	2.0
Output Impedance:	50 ohm
Low Noise Amplifier	
Center Frequency:	1575.42 +/- 1.023 MHz
Power Gain:	28 db +/-3db
Bandwidth:	10 MHz min. @S11≤-10 dB
Noise Figure:	1.5
Outer Band Attenuation:	3 dB max.
Supply Voltages:	2.5~5.5V DC.
Current Consumption:	at 2.5V 6.6mA Typ. at 3.0V 8.6mA Typ. at 4.0V 12.6mA Typ. at 5.0V 16.6mA Typ.
Filter	20dB 25dB @ fo+/- 50MHz 30dB 35dB @ fo+/- 100MHz * fo=1575.42MHz
Overall Performance: (antenna element, LNA & coax cable)	
Center Frequency:	1575.42 +/- 1.023 MHz
Gain:	At 90° vertical to sky 30 ± 4.5dBi (cable loss) Note:1 Mounted on the 60mm x 60mm square ground plane
Noise Figure:	1.5 typ.
Axial Ratio:	3 dB max.
Bandwidth:	10 MHz min. @S11≤-10 dB
VSWR:	2.0 max.
Output Impedance:	50 ohm
Environmental	
Operating Temperature:	-40°C~ +80°C.
Storage Temperature:	-40°C~ +80°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

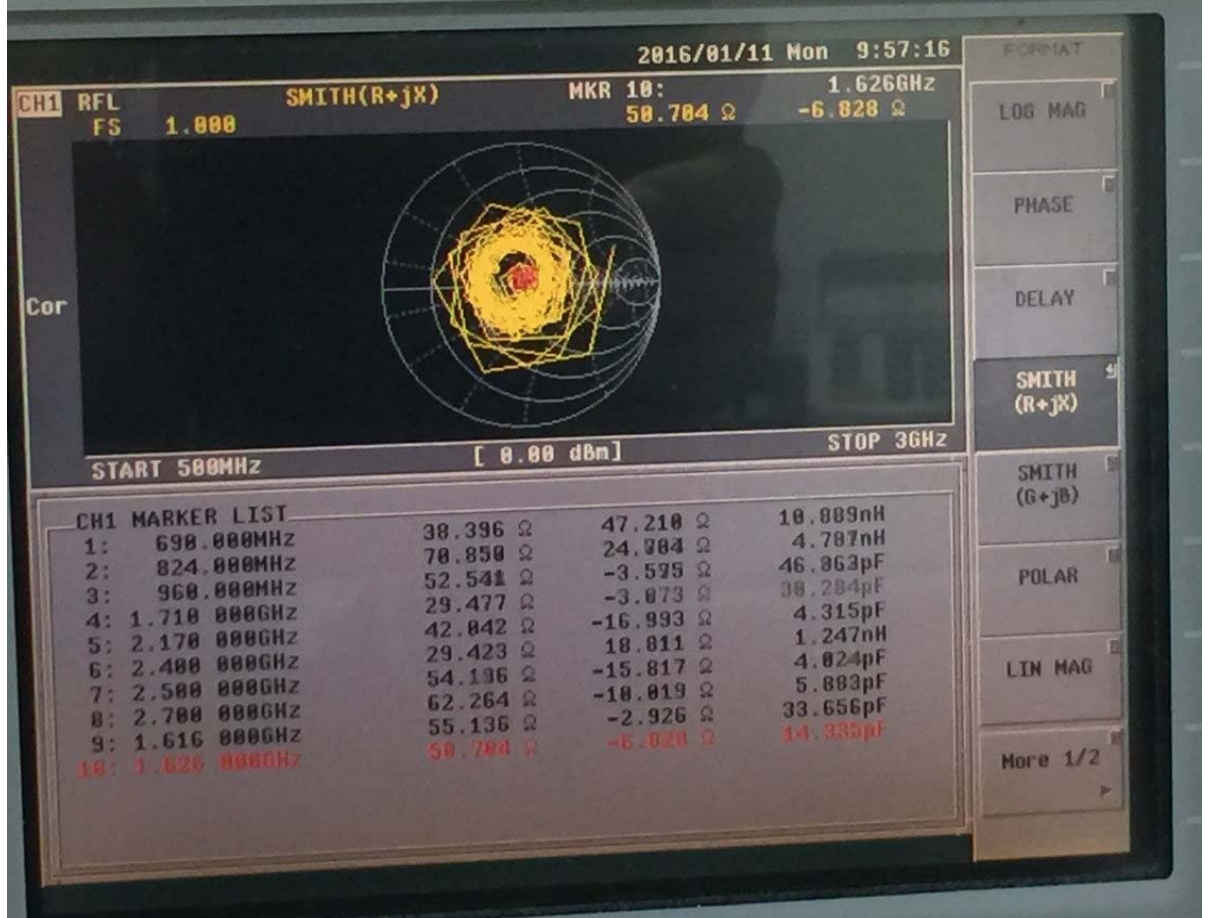
Data Updated: Jan.05, 2016



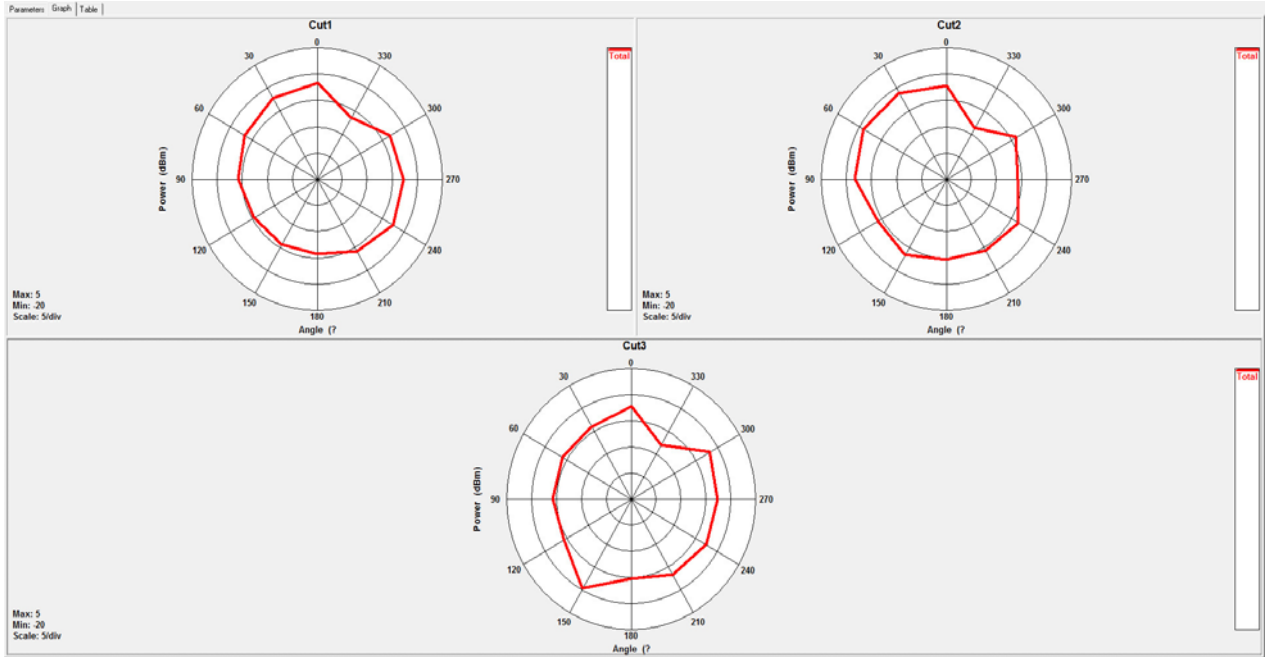
ADVANTEST R3767BH NETWORK ANALYZER 40MHz-8GHz



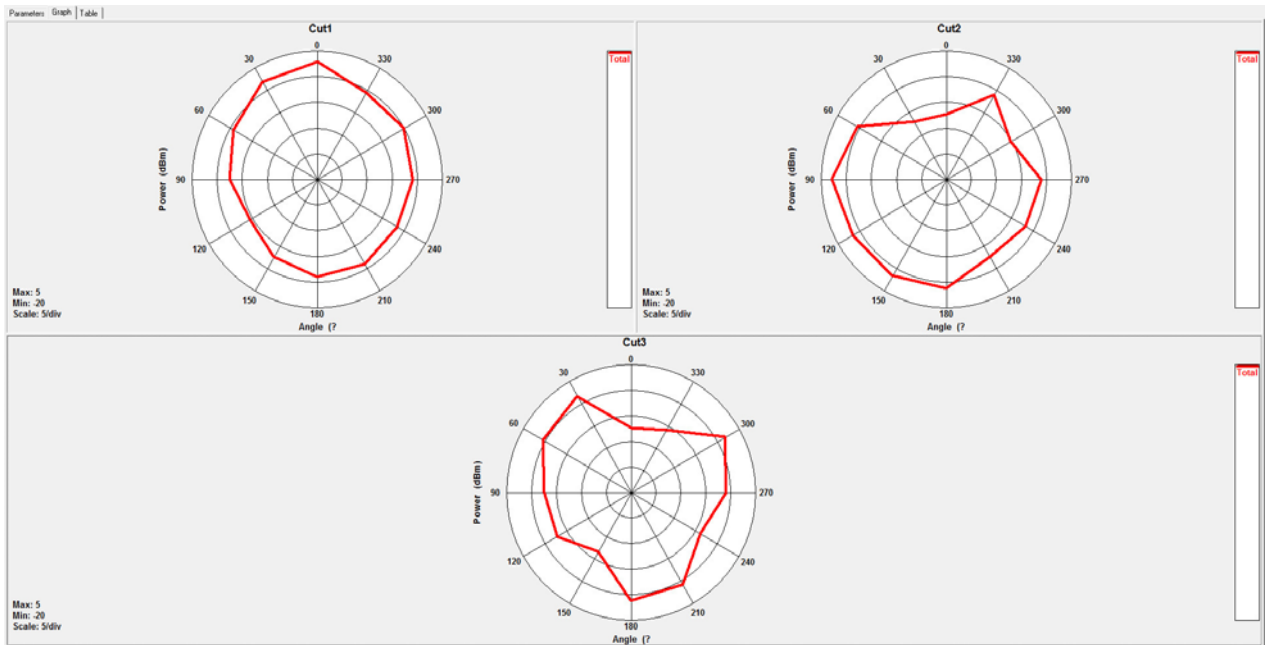
ADVANTEST R3767BH NETWORK ANALYZER 40MHz-8GHz



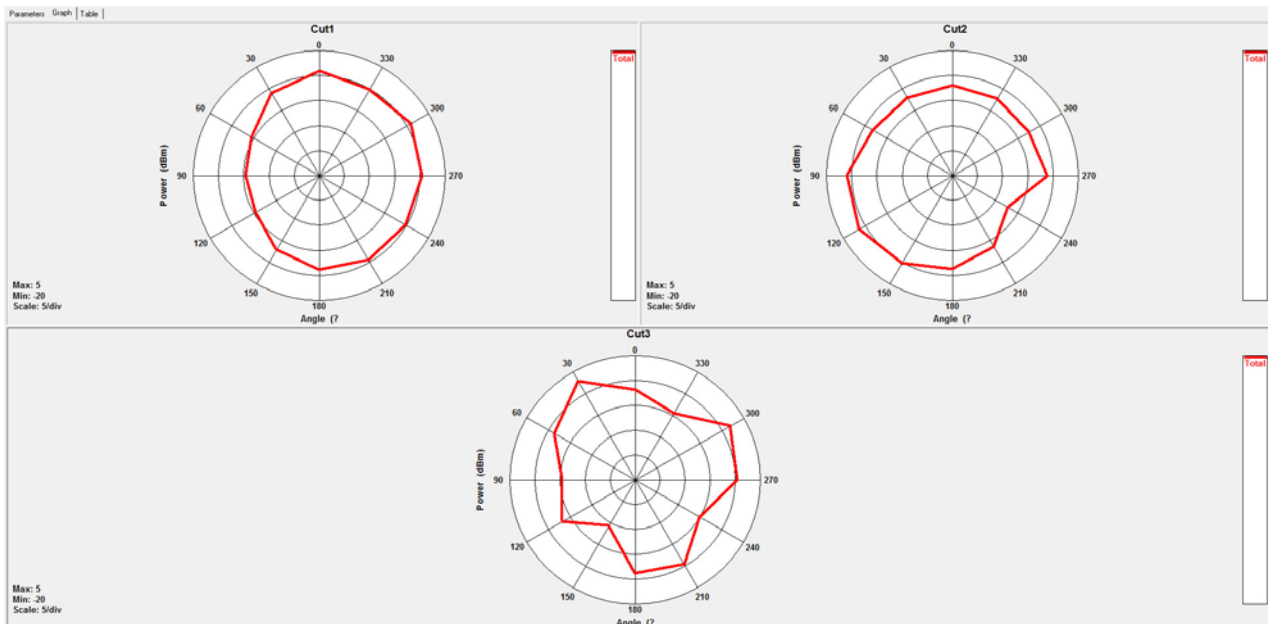
690Mhz



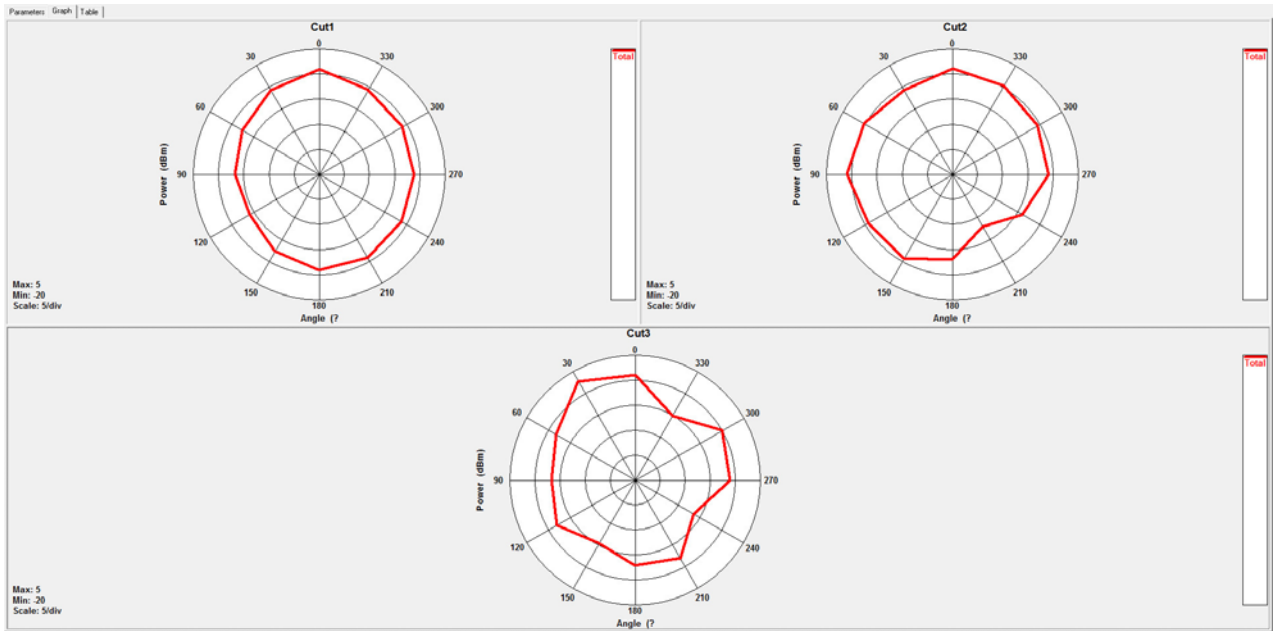
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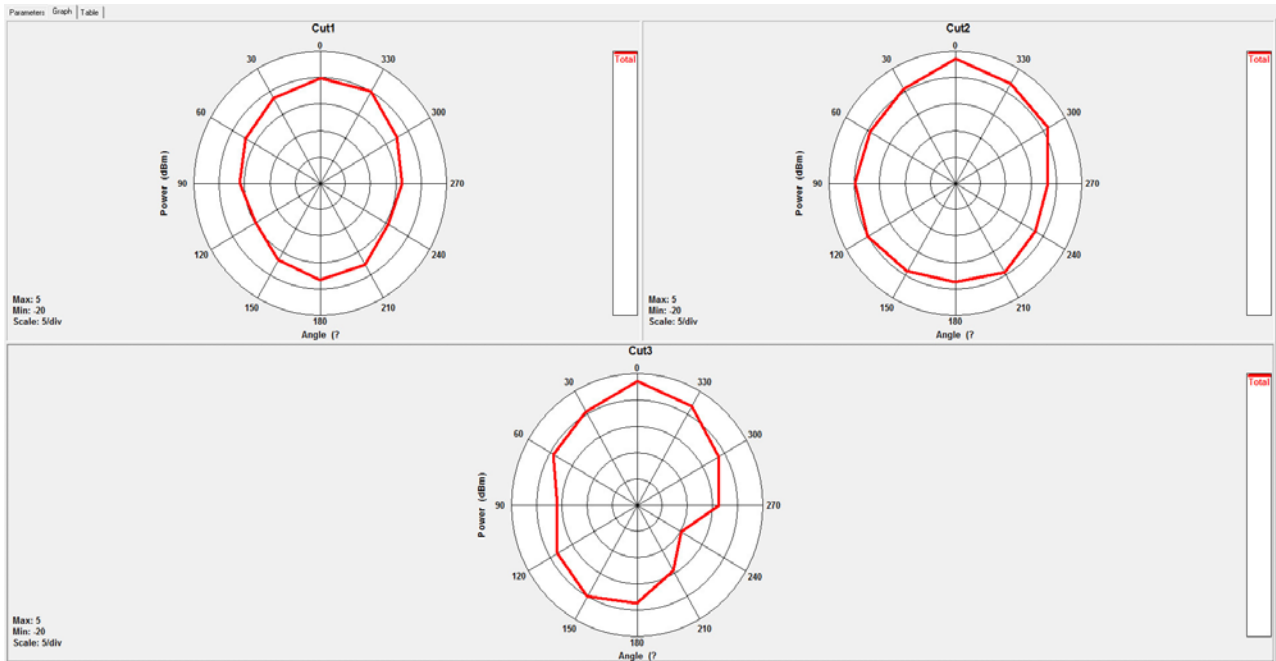
900Mhz



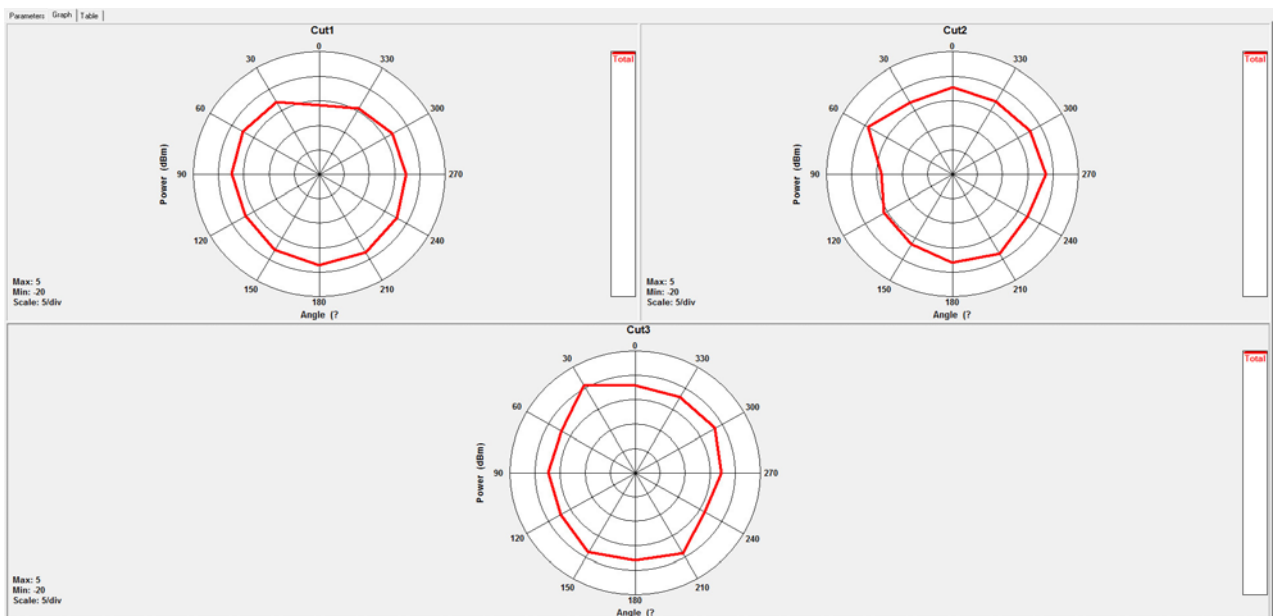
960Mhz



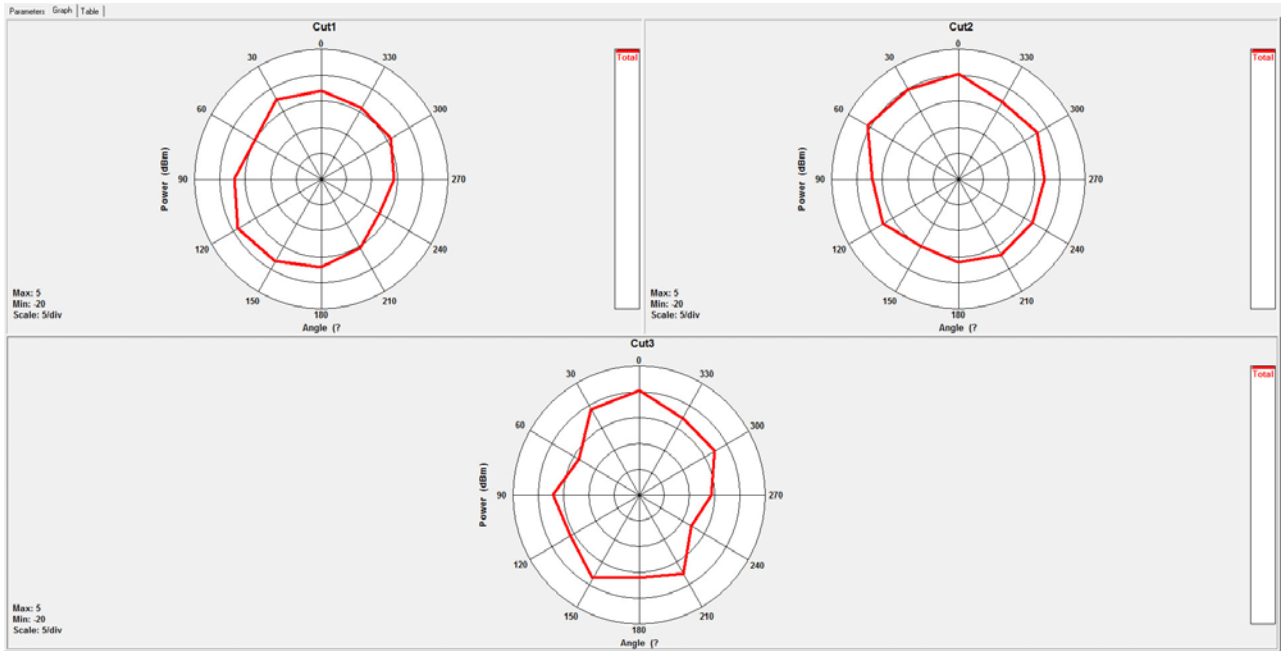
1090Mhz



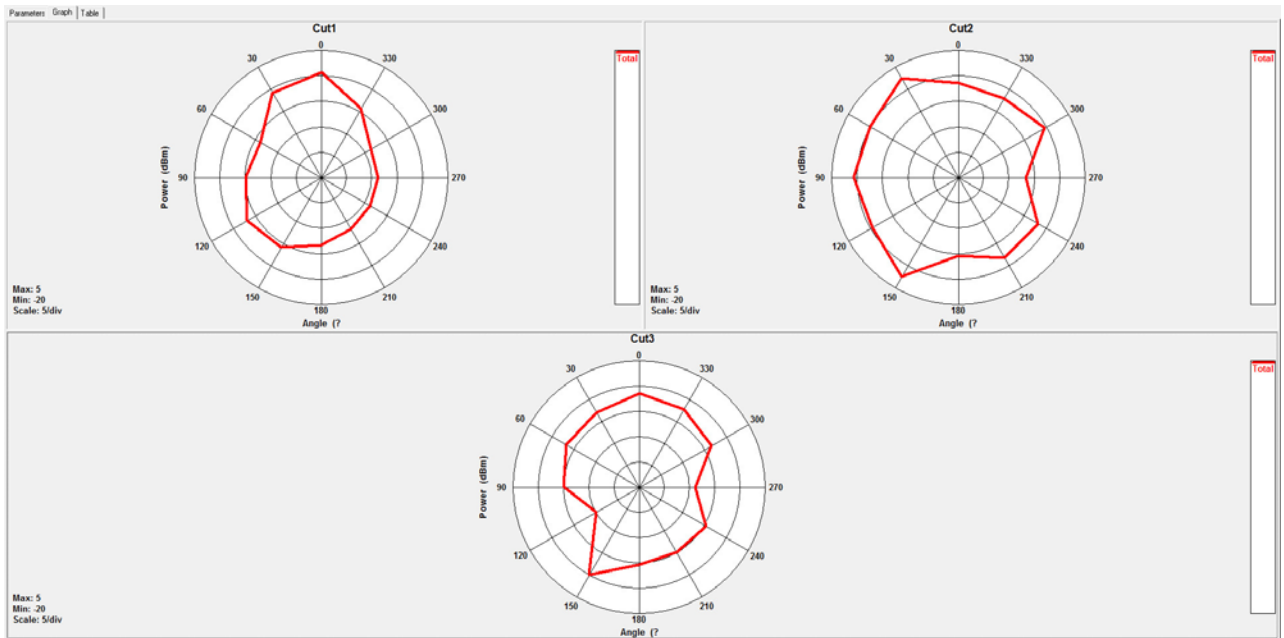
1626Mhz



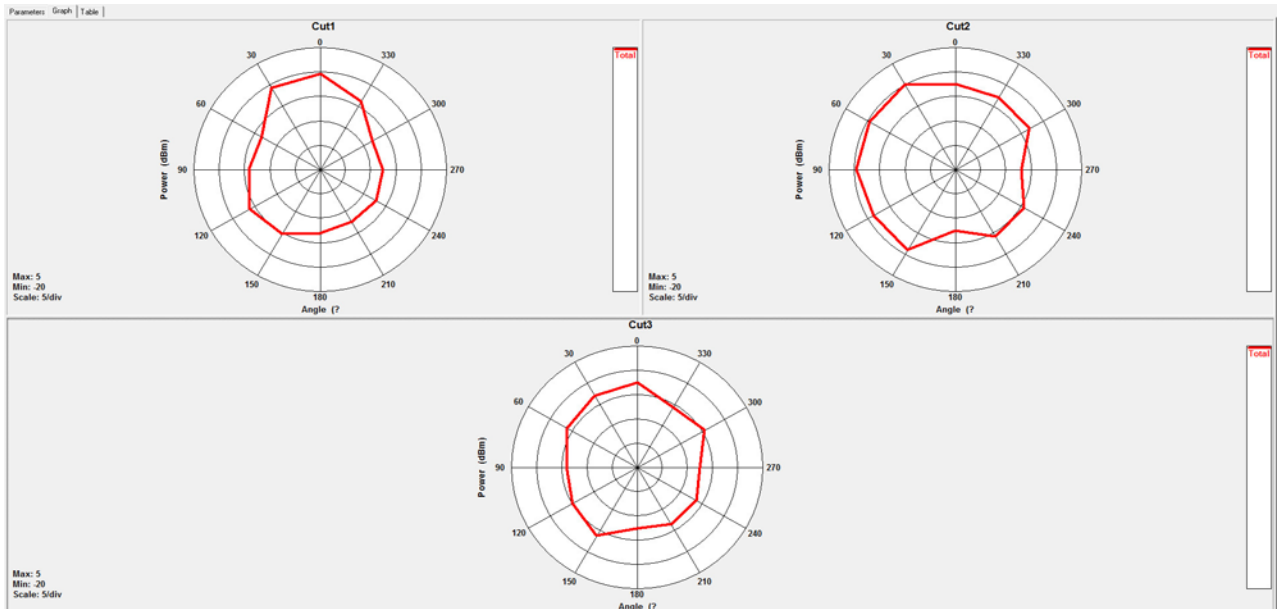
1710Mhz



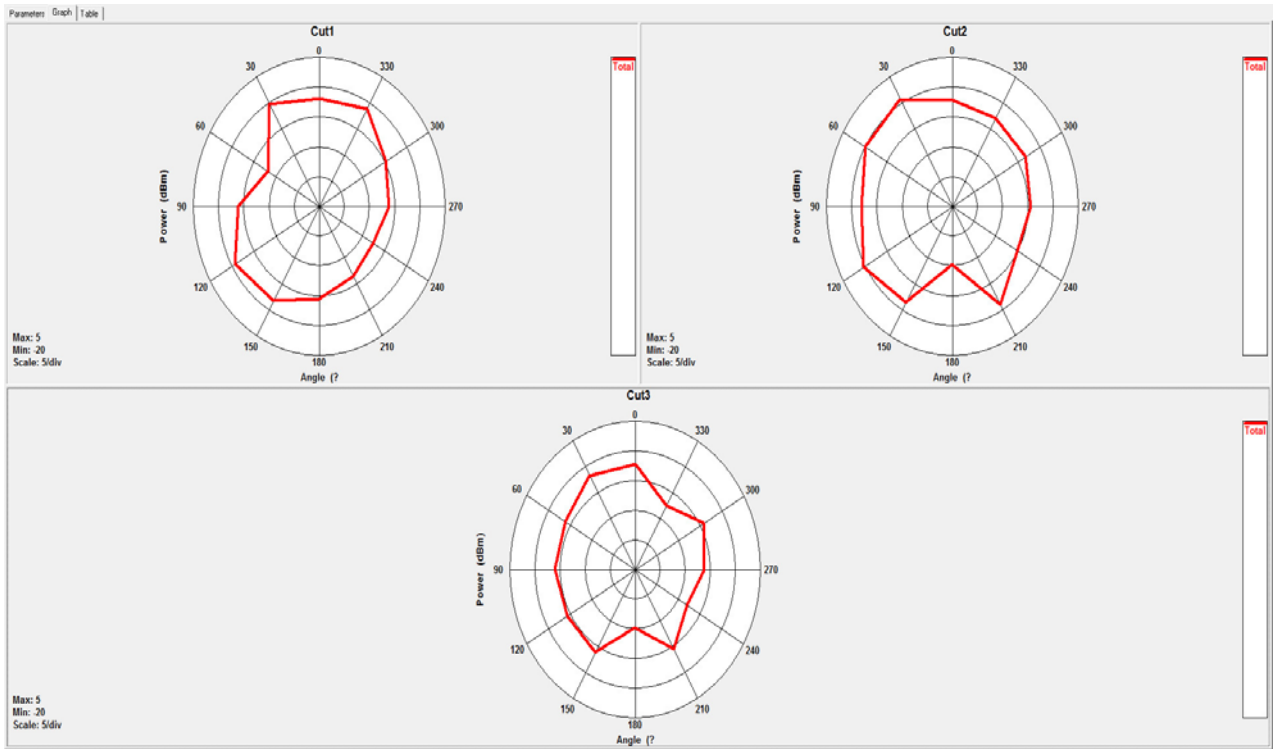
1990Mhz



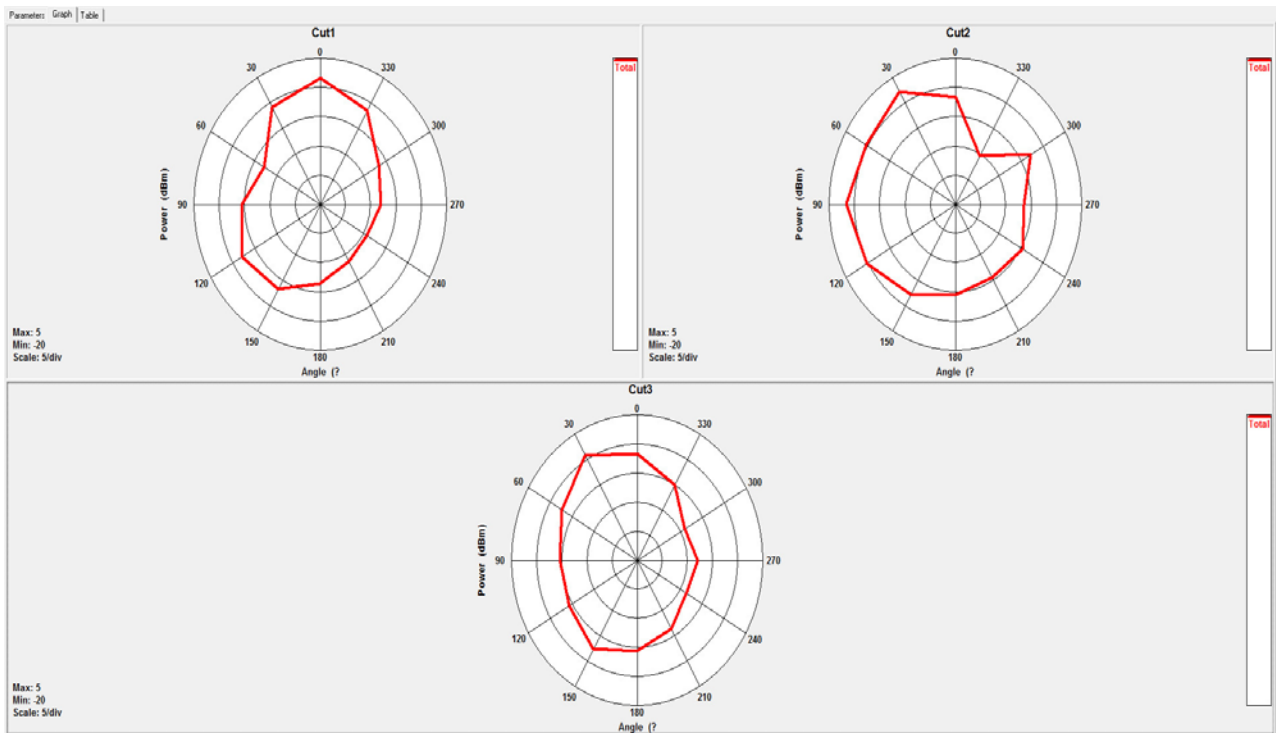
2170Mhz



2450Mhz



2700Mhz



Test result:

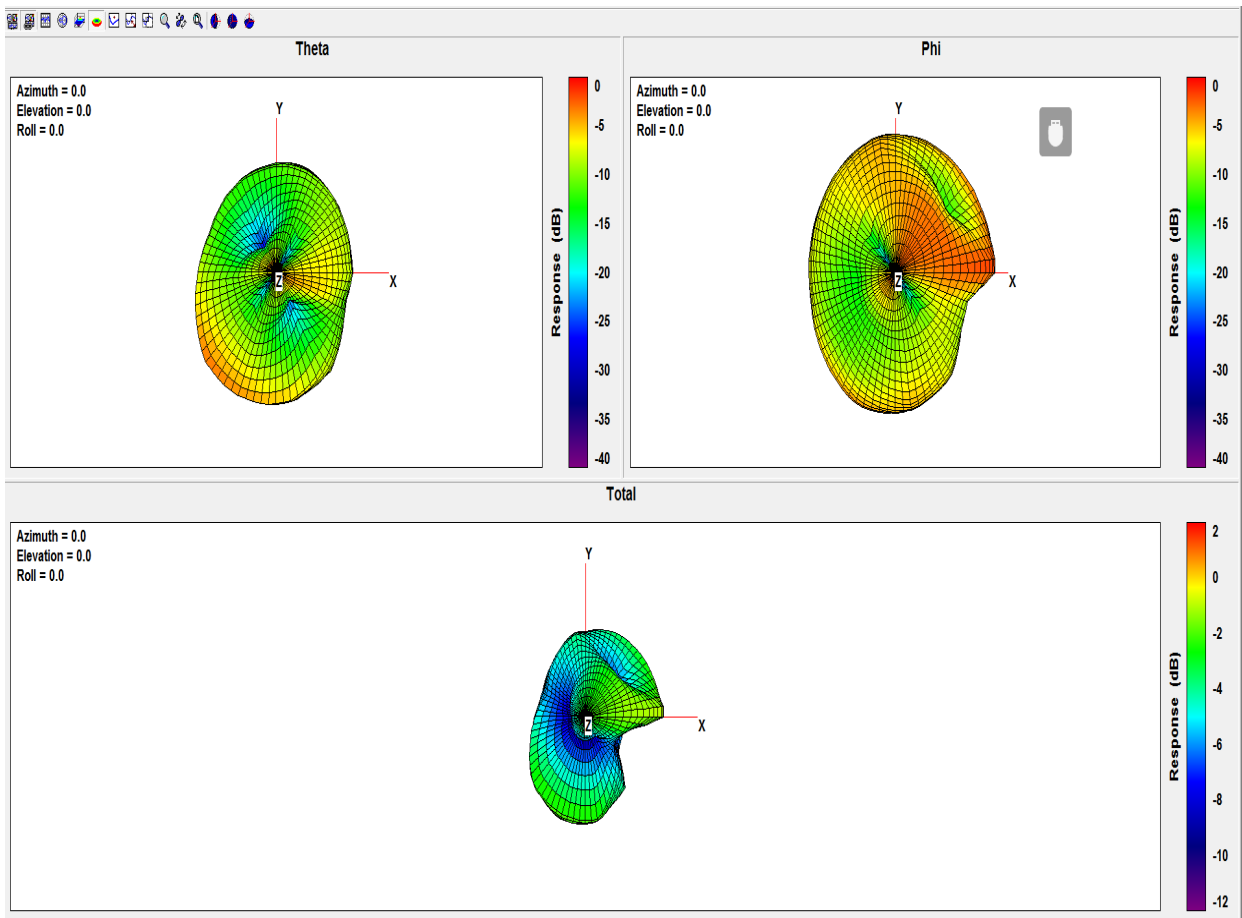
Frequency (MHz)	690	698	704	710	716	734	740	746	751	756	777	782	787	791
Peak Gain (dBi)	0.58	0.63	0.56	0.70	0.76	1.17	1.06	0.96	0.85	1.03	1.28	1.21	1.09	1.22
Efficiency (%)	41.97	42.18	42.08	43.63	44.28	46.19	45.65	45.77	46.35	46.99	52.86	54.07	54.71	55.73

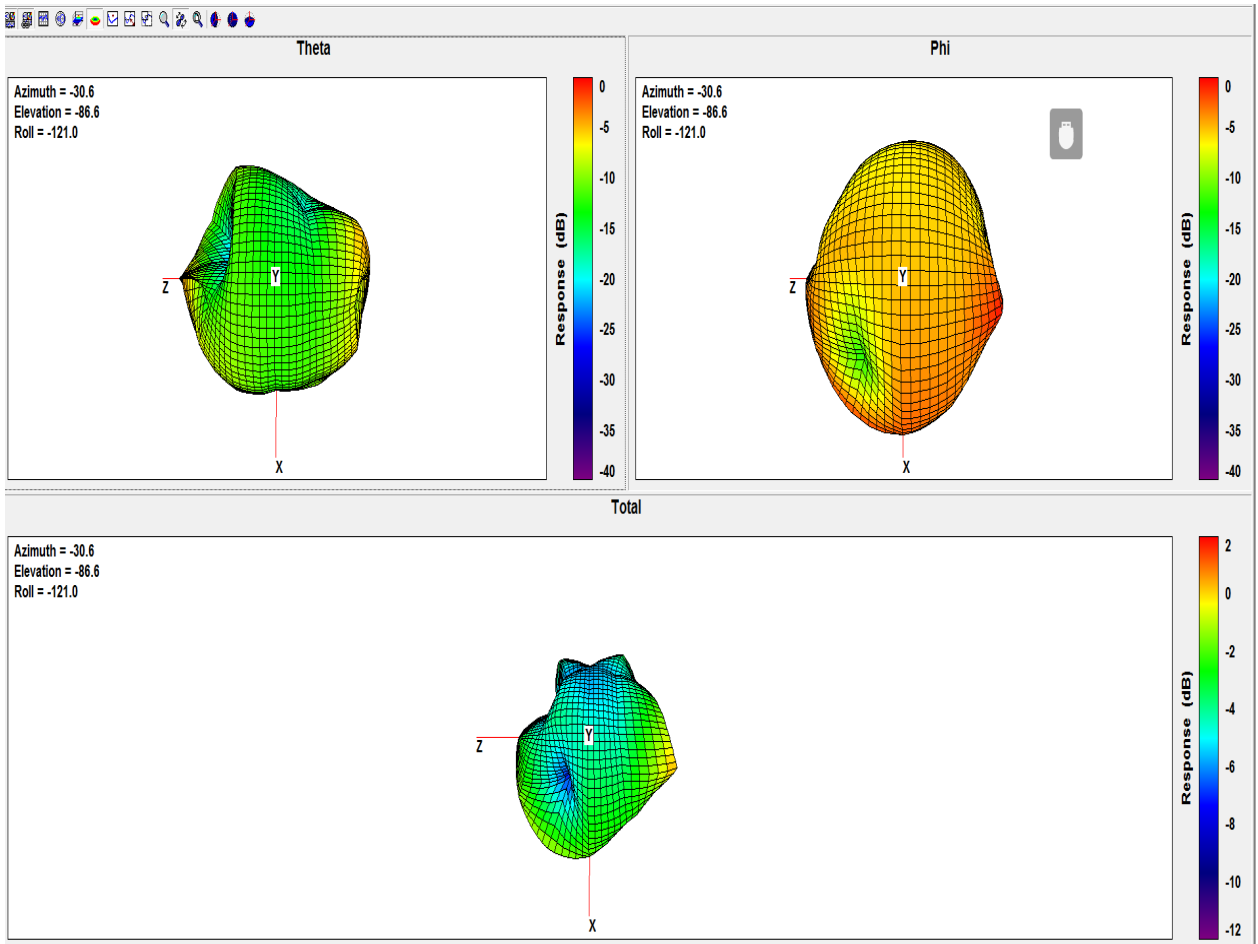
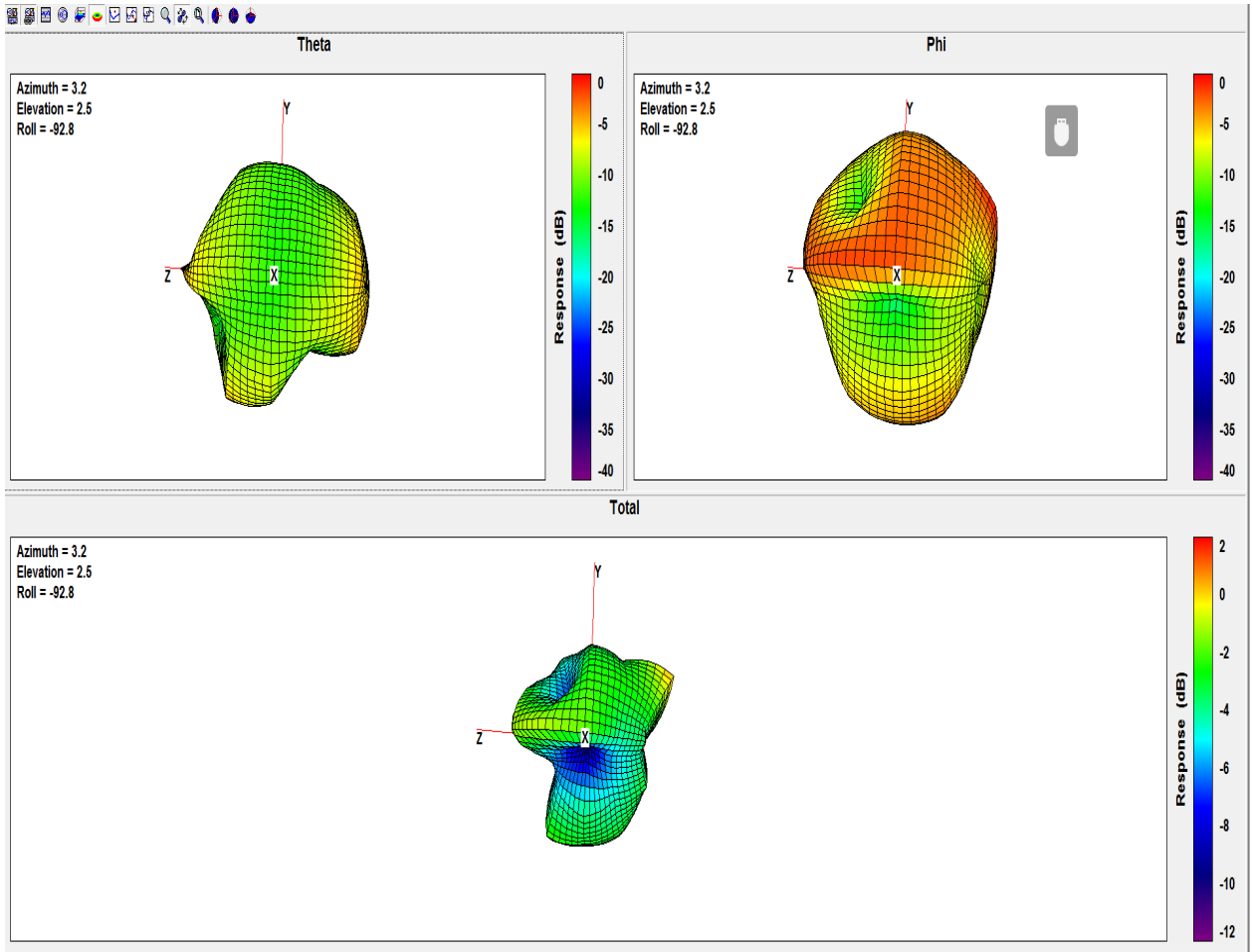
Frequency (MHz)	806	815	821	824	830	832	836	845	847	849	860	862	869	875
Peak Gain (dBi)	2.63	2.71	2.79	2.84	2.84	2.89	2.99	3.32	3.39	3.45	3.53	3.57	3.49	3.36
Efficiency (%)	72.54	72.97	74.98	76.70	79.04	80.19	81.49	82.15	81.33	80.23	75.59	74.81	71.36	69.11

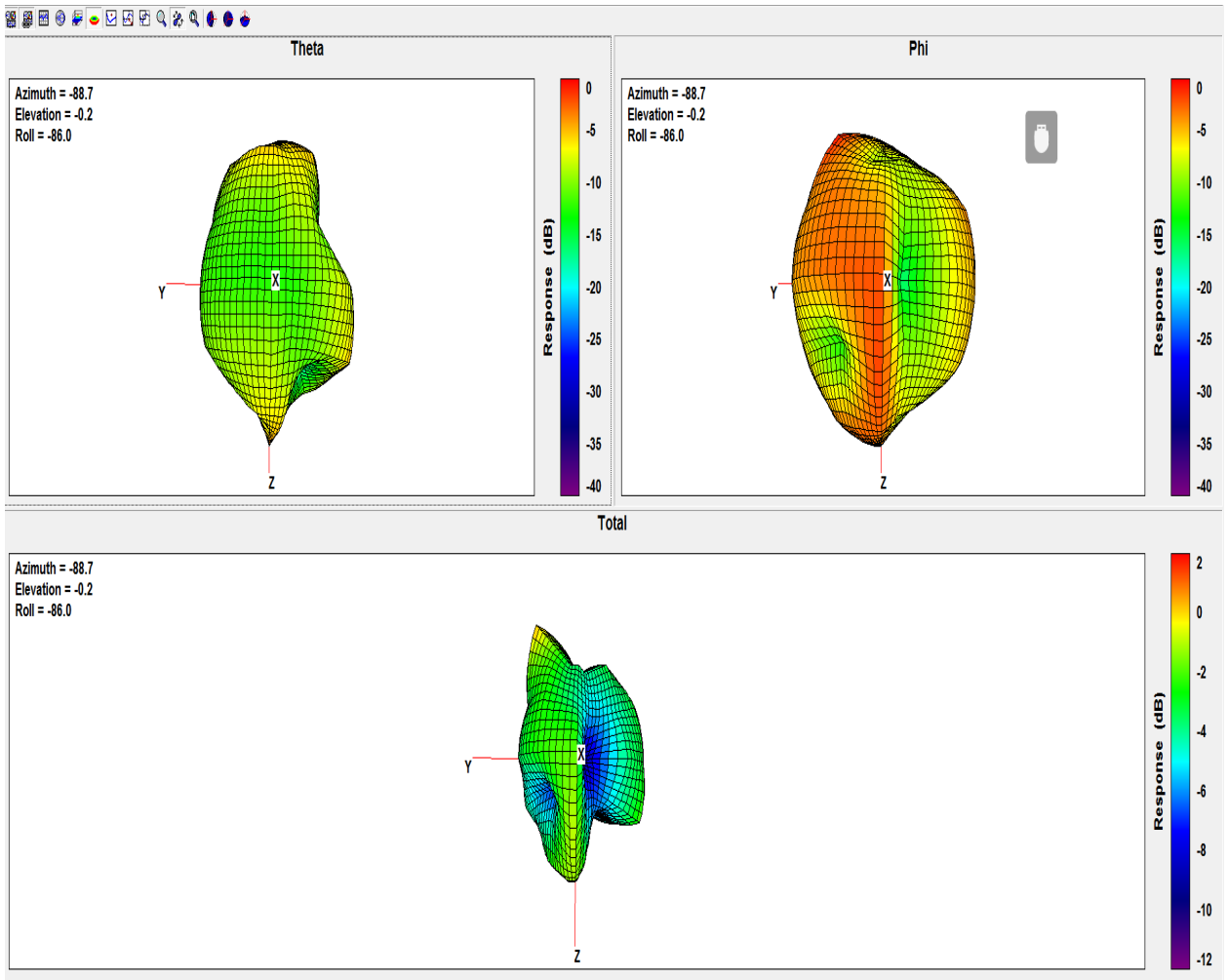
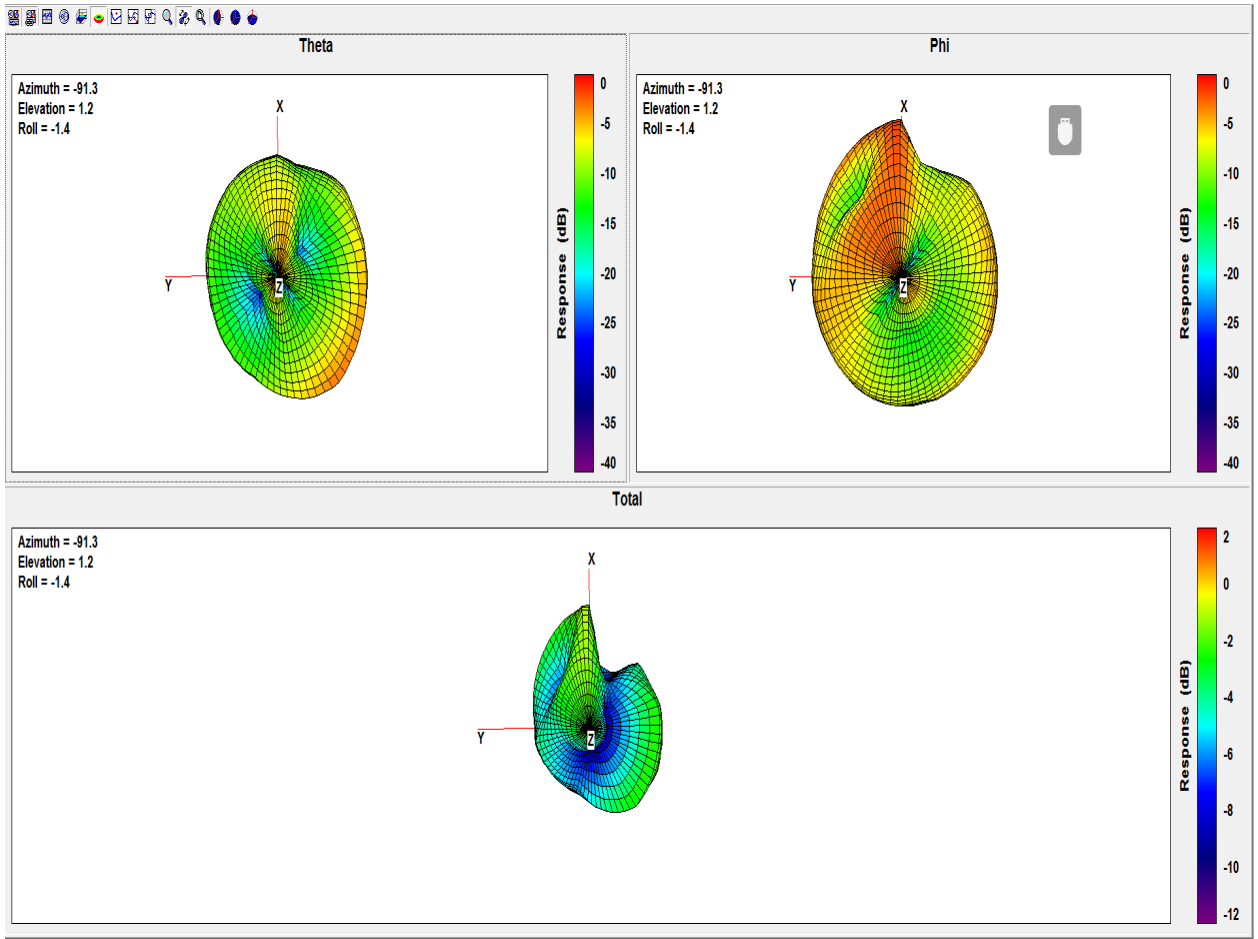
Frequency (MHz)	880	881	890	894	900	915	925	940	960	1090	1575.4	1602	1616	1626
Peak Gain (dBi)	3.18	3.17	2.89	3.03	3.22	3.52	3.61	3.47	3.16	3.41	0.18	0.81	2.13	1.51
Efficiency (%)	67.26	66.67	65.69	66.08	66.93	69.45	69.06	66.13	67.72	81.95	48.69	52.22	62.08	59.95

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										







SUS L-Mounting

Madel : FB-6



Size :

