



Model No. : ERF4190-0180



**Cellular Network / Mobile Communication
NB-IoT / LTE-M (eMTC)
3G / 4G LTE Customized Screw Mounted
Antenna**



1. General Description

1.1 Electrical Properties

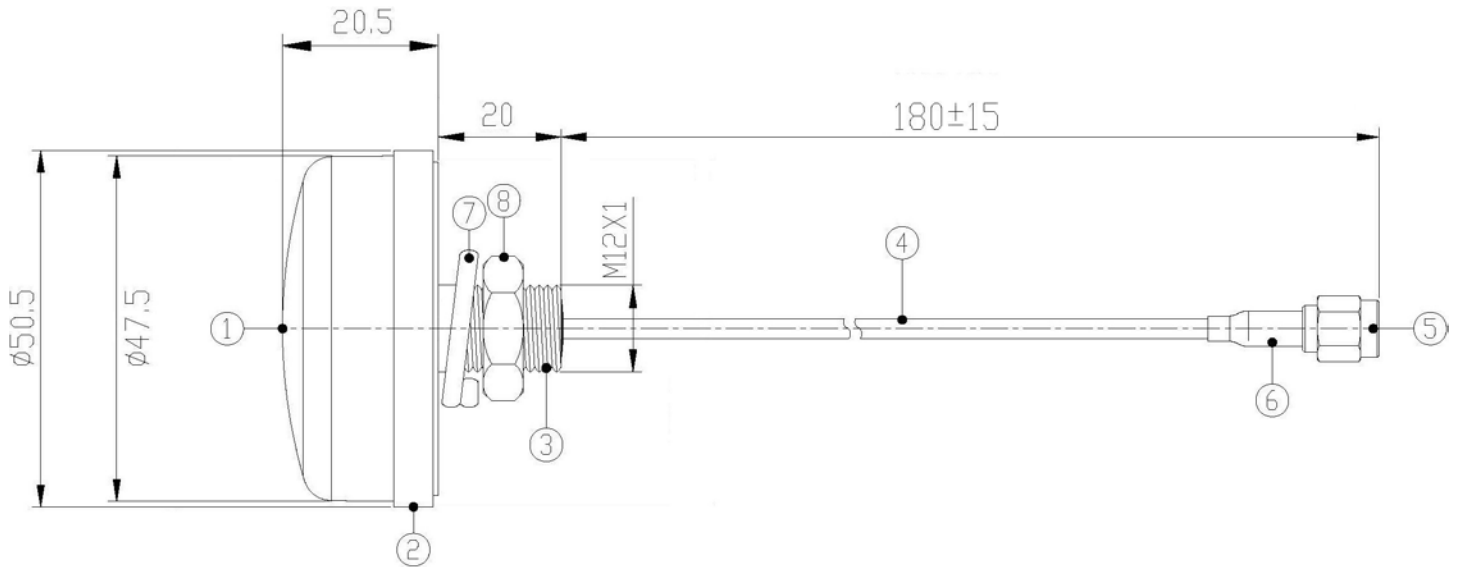
Parameter	Description
Frequency Band	800 / 850 / 900 / 1800 / 1900 / 2100 / 2600 MHz
Nominal Impedance	50 Ω
V.S.W.R.	<3.7 : 1

1.2 Mechanical Properties

Parameter	Description
Antenna Dimensions	Ø50.5 mm ; H:20.5 mm
Screw mounting base	M12*1.0P
Cable	RG-174 A/U*180 mm $\pm$ 15
Connector	180° SMA Male
Operating Temperature Range	-20°C~+70°C
Storage Temperature Range	-20°C~+70°C
Ingress Protection Rating	IP66

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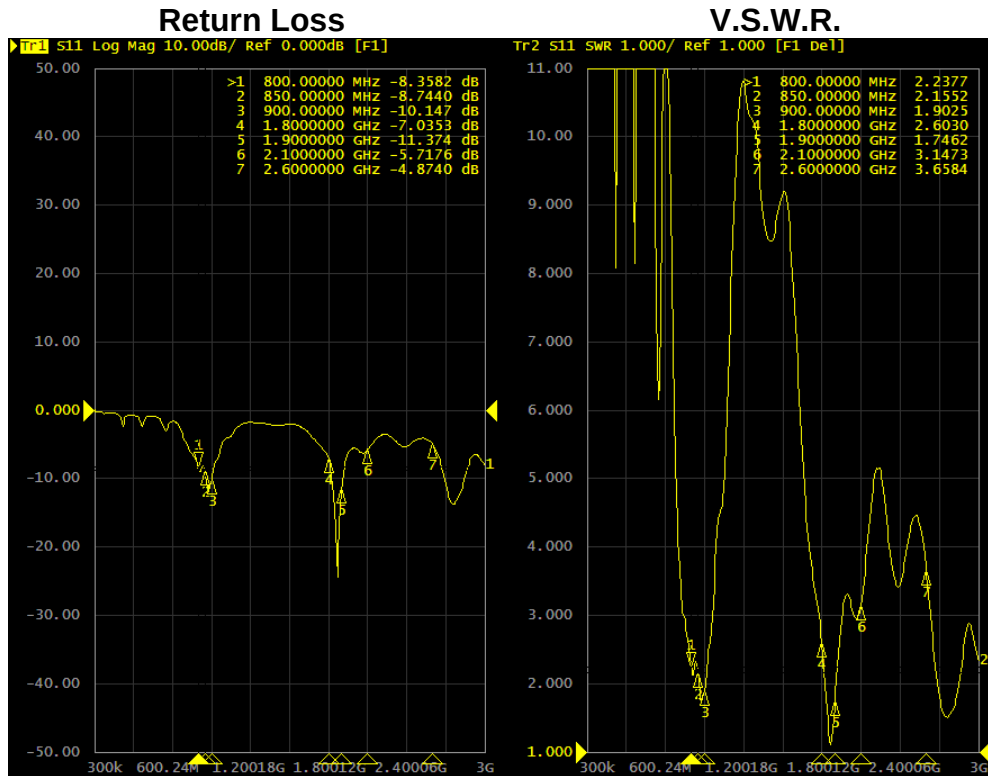
2. Appearance (Unit : mm)



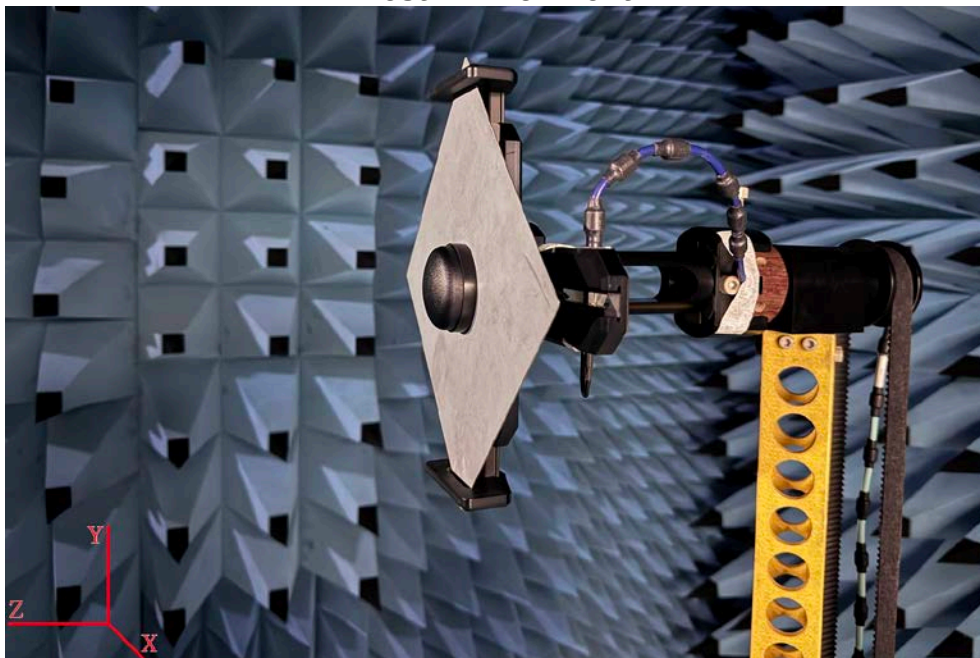
NO.	Name	Finish
1	Antenna Housing	Black
2	Rubber Gasket	Black
3	Screw mounting base	Nickel plating
4	RG-174 A/U	Black
5	180° SMA Male	Nickel plating
6	Heat shrink tube	Black
7	Washer	Nickel plating
8	Hexagonal nut	Nickel plating

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3. Performance



Test Environment



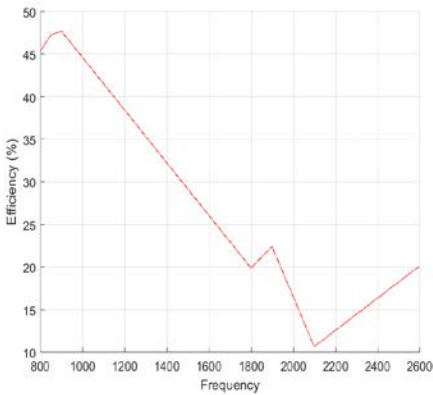
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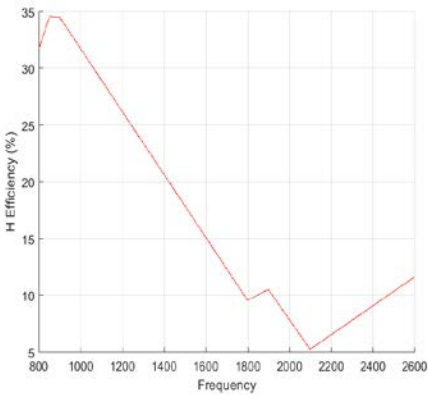
Efficiency & Gain

Frequency (MHz)	800	850	900	1800	1900	2100	2600
Efficiency (%)	45.39	47.32	47.75	19.91	22.44	10.67	20.14
Gain (dBi)	1.56	1.93	2.64	2.19	2.44	-1.44	0.52

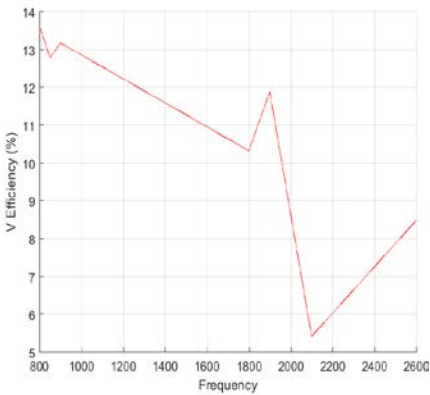
Total_Efficiency (%)



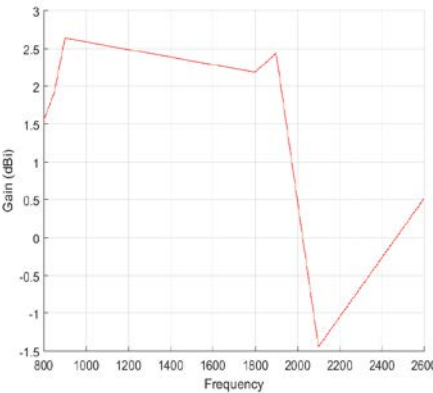
Theta_H Efficiency (%)



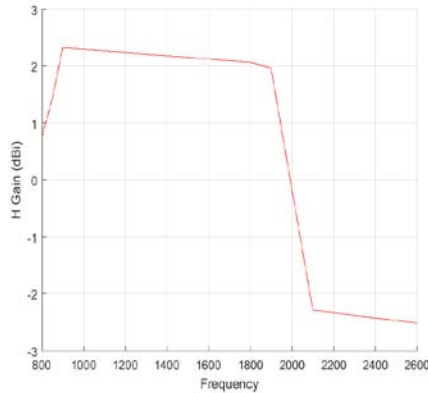
Phi_V Efficiency (%)



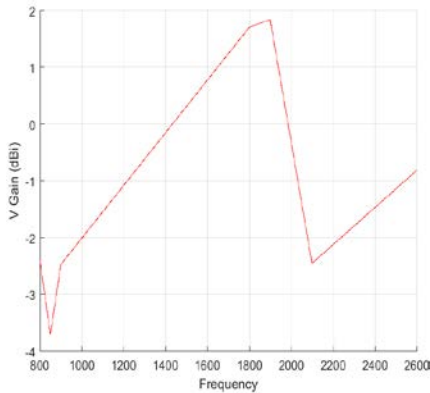
Total_Gain (dBi)



Theta_H Gain (dBi)



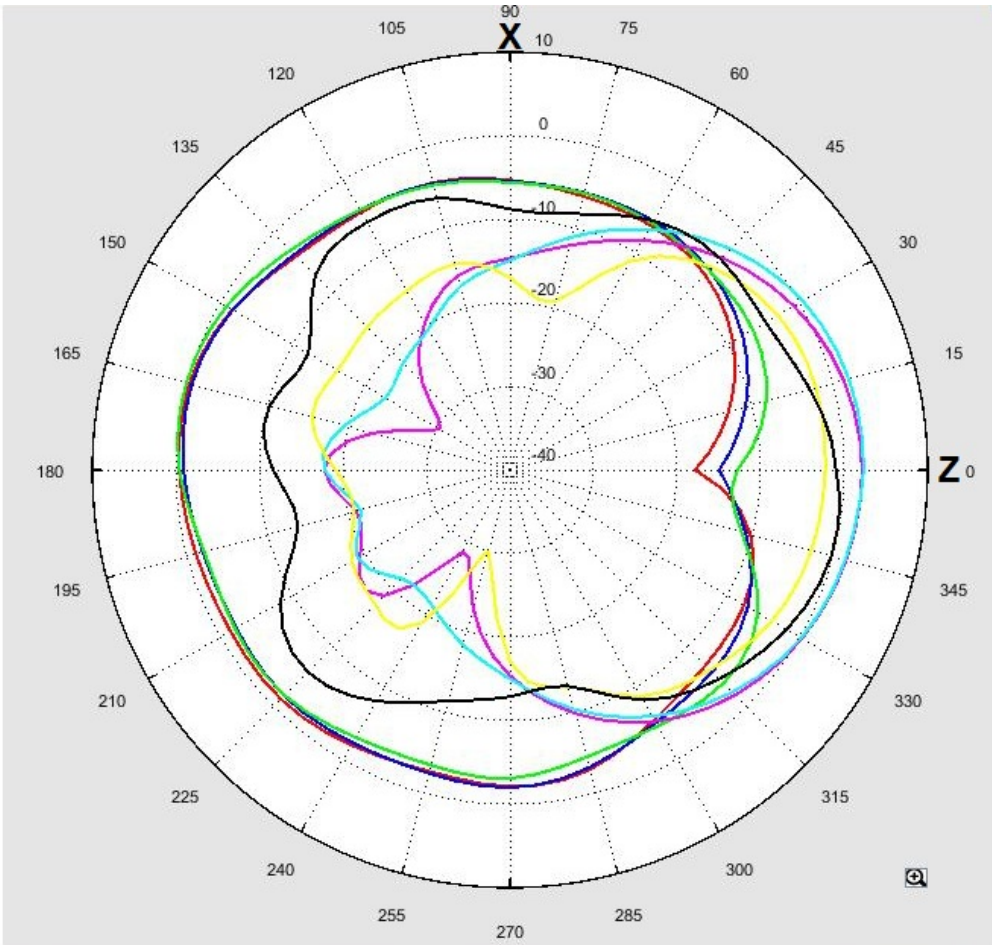
Phi_V Gain (dBi)



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2D Radiation Pattern

Freq. / Chan.	Color
800MHz	Red
850MHz	Blue
900MHz	Green
1.8GHz	Magenta
1.9GHz	Cyan
2.1GHz	Yellow
2.6GHz	Black

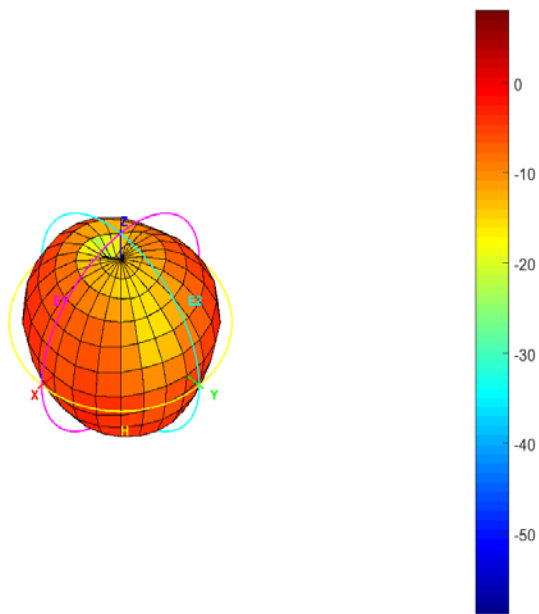


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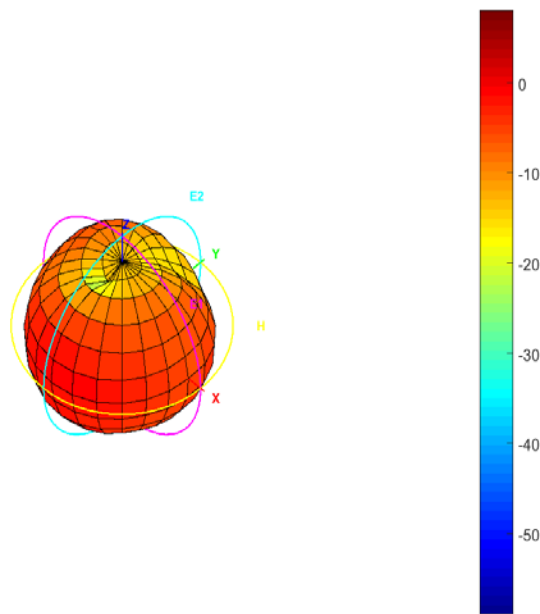
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3D Radiation Pattern

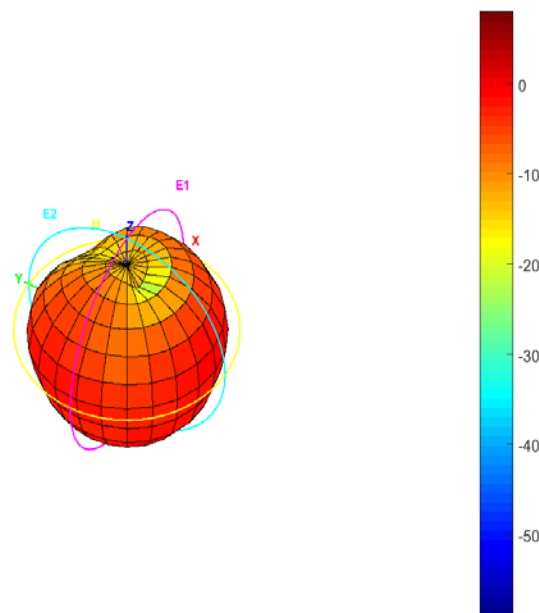
Total_3D_Side View 1_800MHz



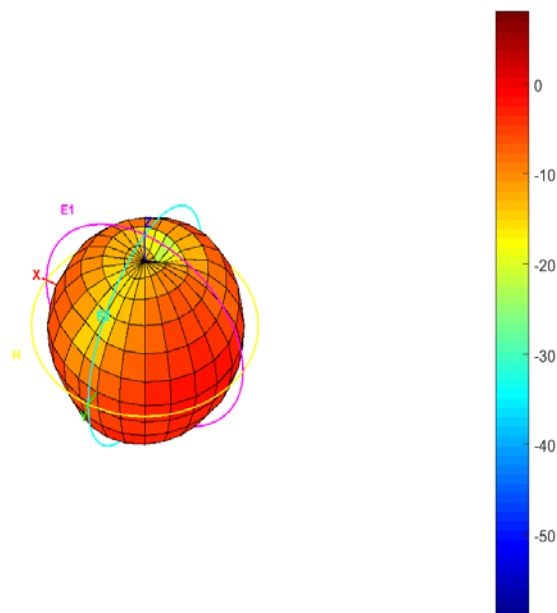
Total_3D_Side View 2_800MHz



Total_3D_Side View 3_800MHz



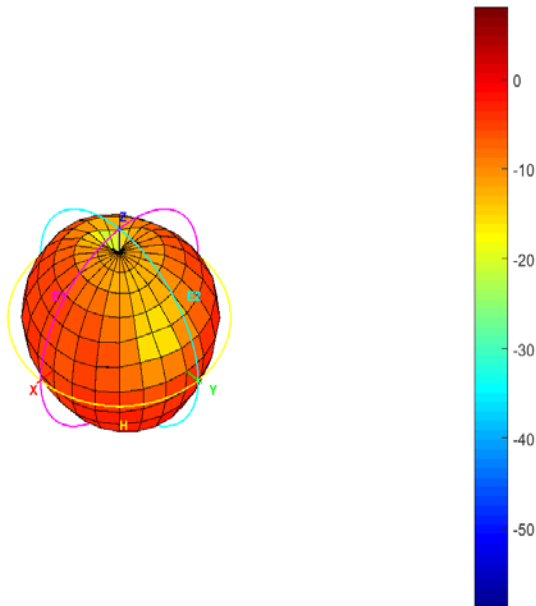
Total_3D_Side View 4_800MHz



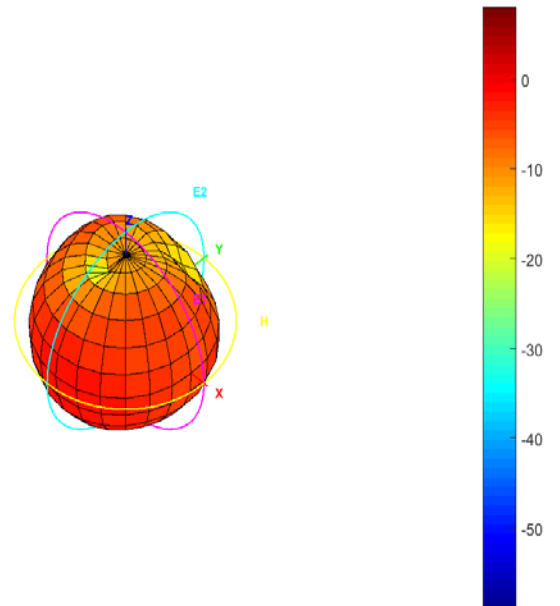
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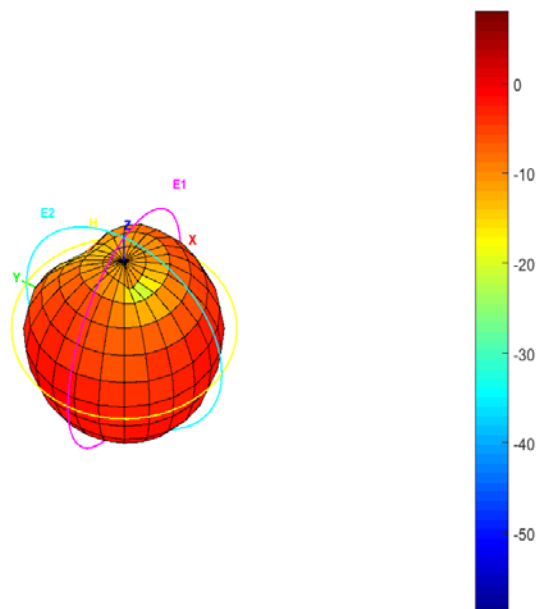
Total_3D_Side View 1_850MHz



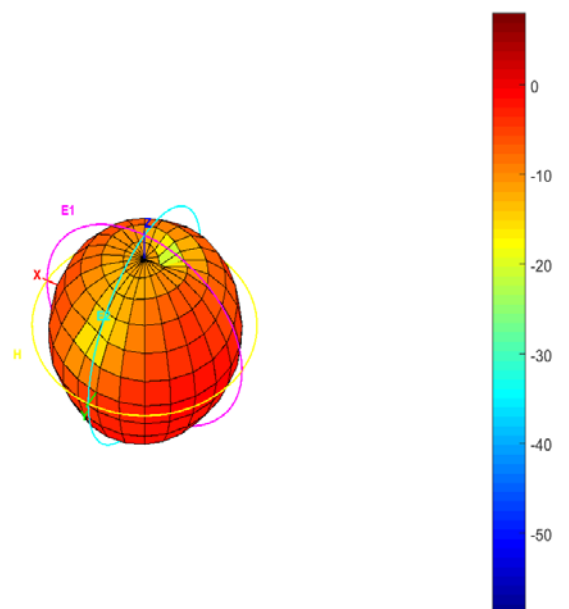
Total_3D_Side View 2_850MHz



Total_3D_Side View 3_850MHz



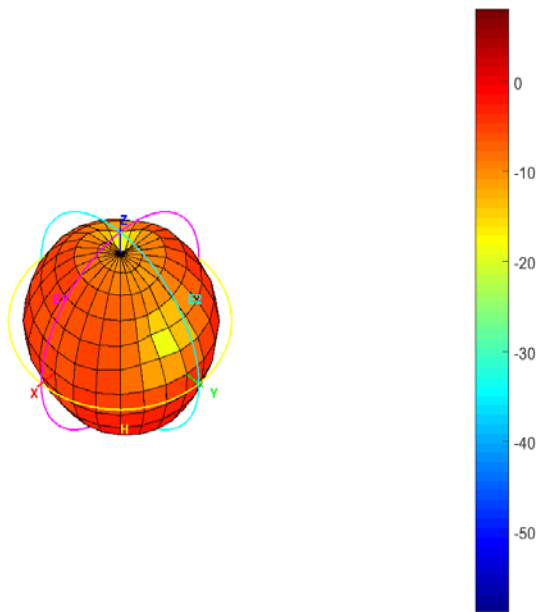
Total_3D_Side View 4_850MHz



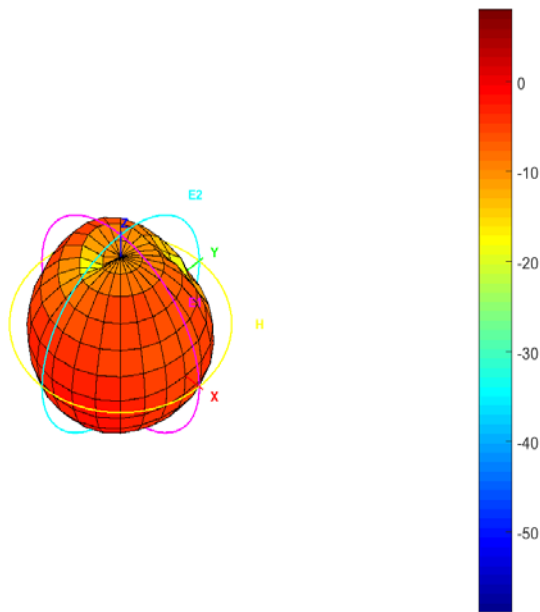
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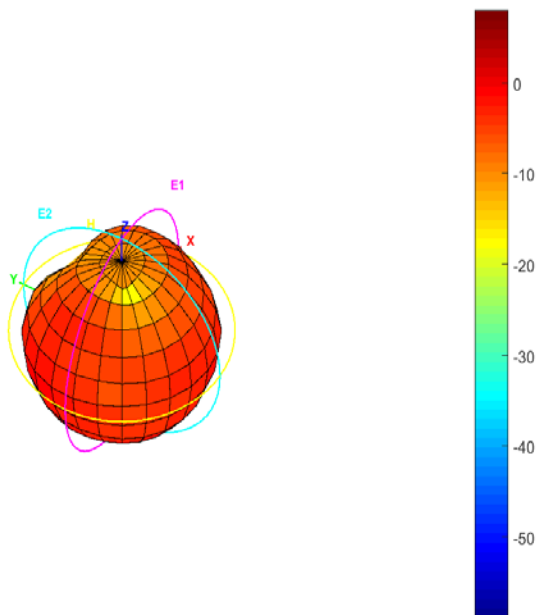
Total_3D_Side View 1_900MHz



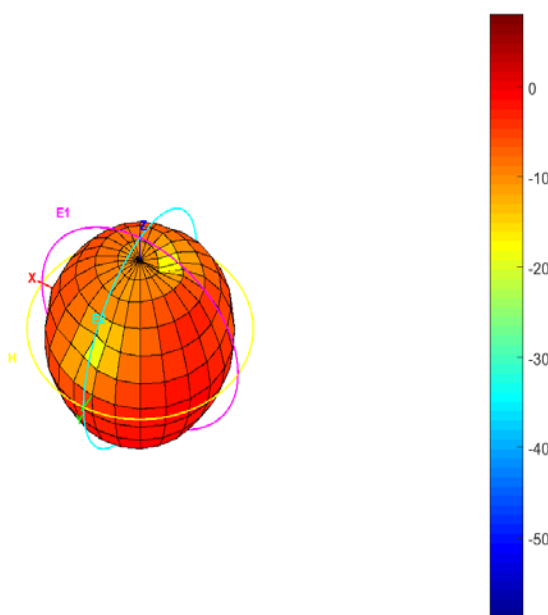
Total_3D_Side View 2_900MHz



Total_3D_Side View 3_900MHz



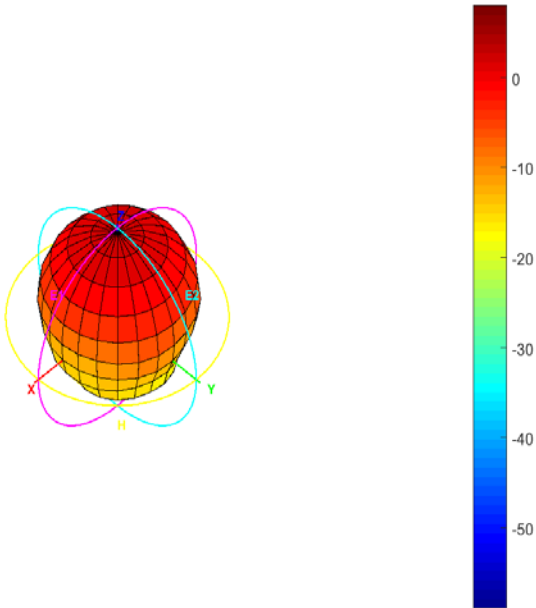
Total_3D_Side View 4_900MHz



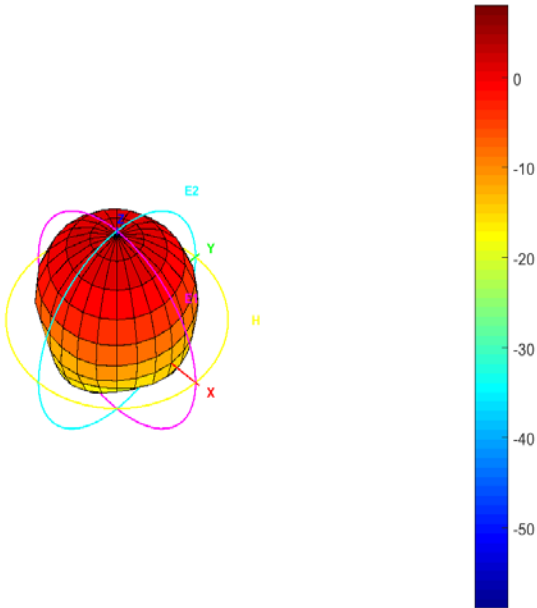
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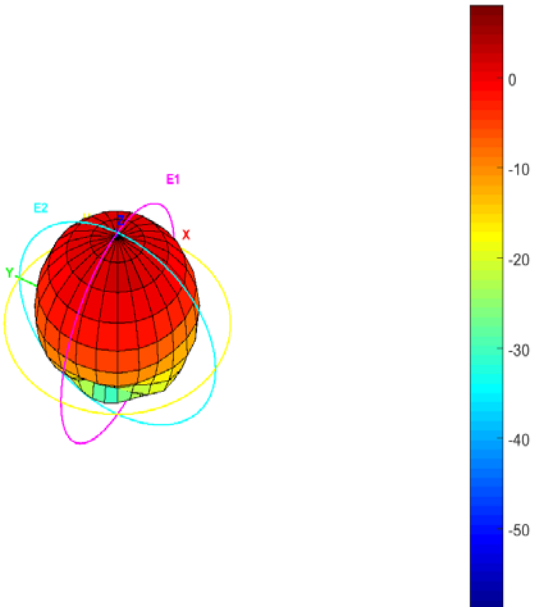
Total_3D_Side View 1_1.8GHz



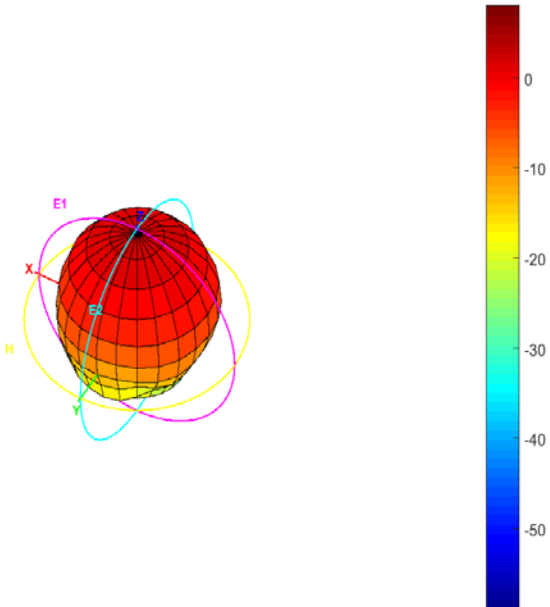
Total_3D_Side View 2_1.8GHz



Total_3D_Side View 3_1.8GHz



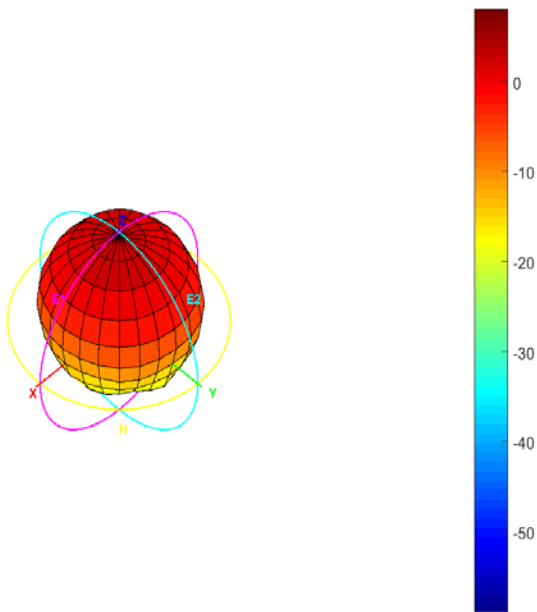
Total_3D_Side View 4_1.8GHz



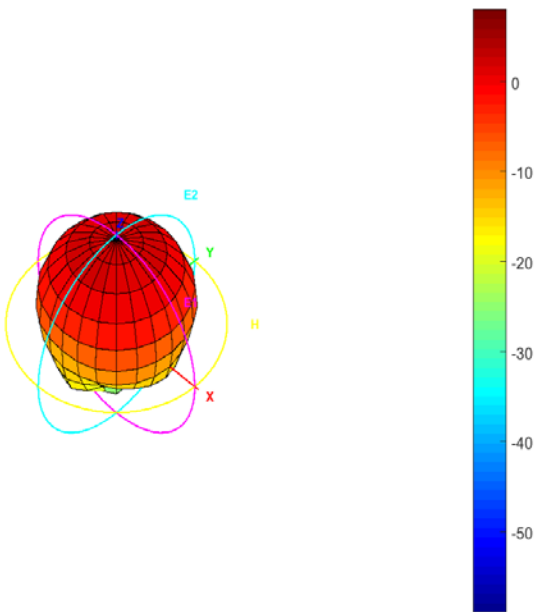
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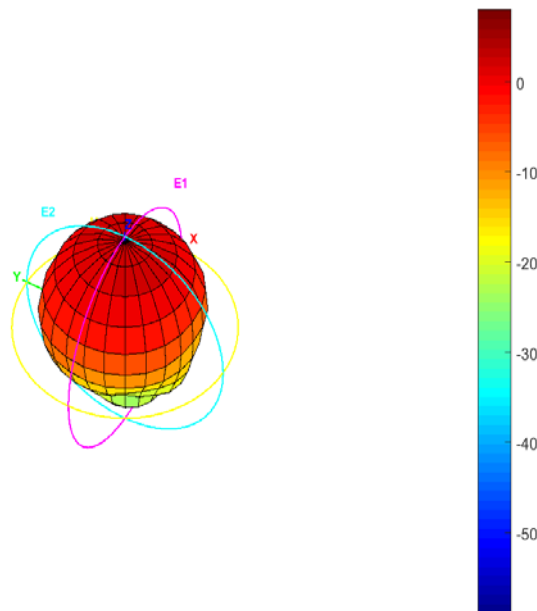
Total_3D_Side View 1_1.9GHz



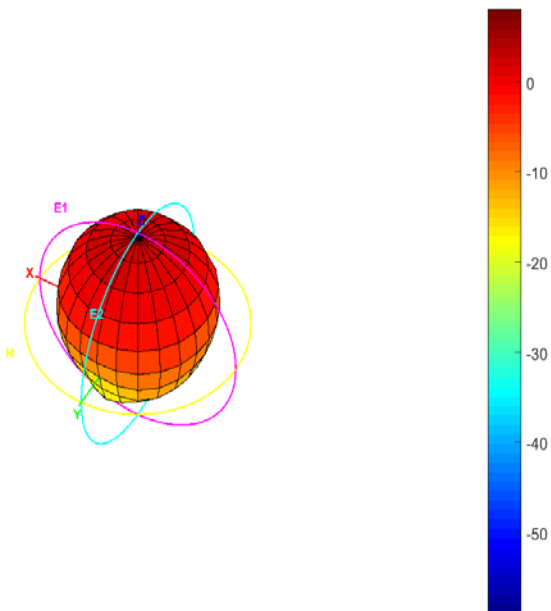
Total_3D_Side View 2_1.9GHz



Total_3D_Side View 3_1.9GHz



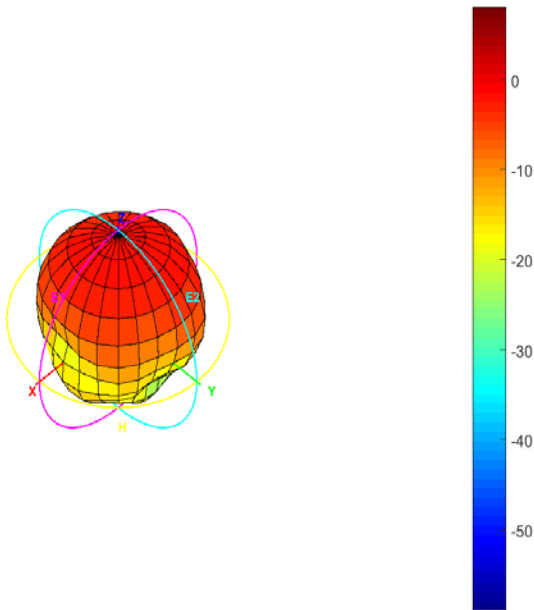
Total_3D_Side View 4_1.9GHz



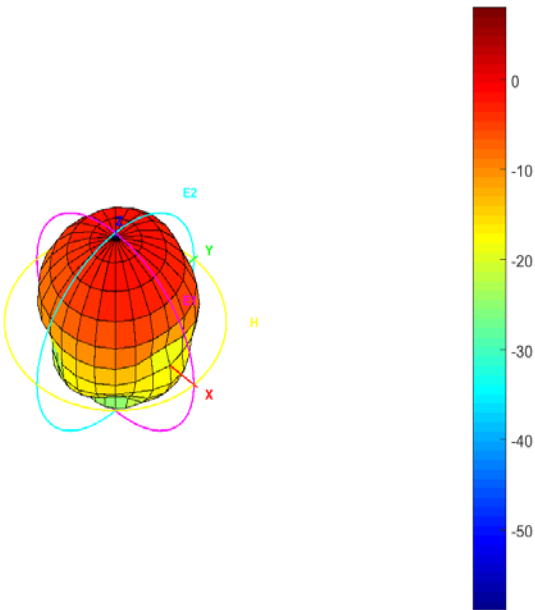
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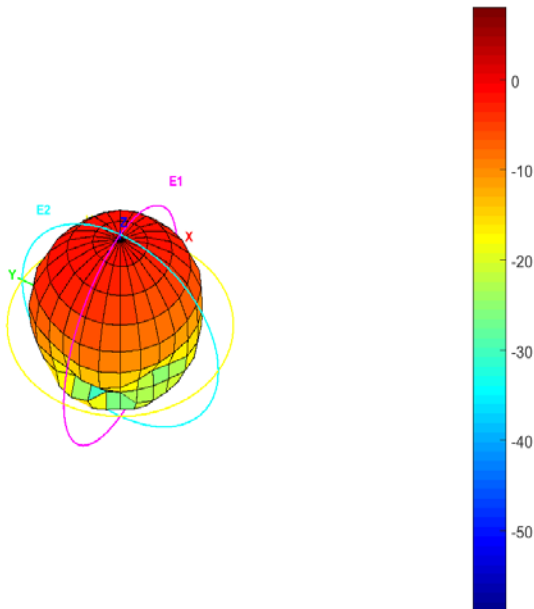
Total_3D_Side View 1_2.1GHz



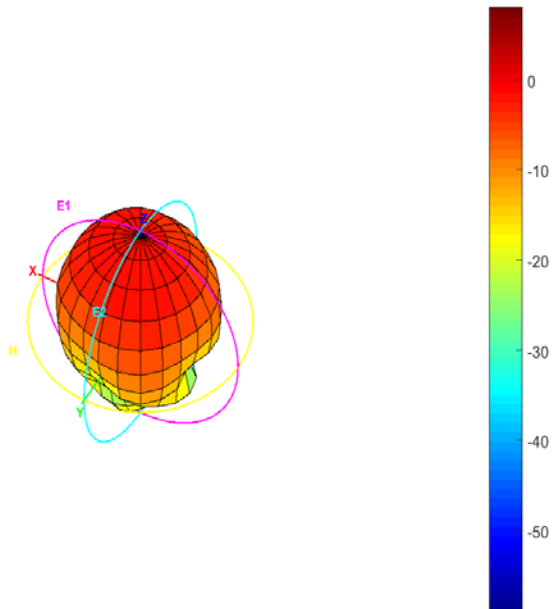
Total_3D_Side View 2_2.1GHz



Total_3D_Side View 3_2.1GHz



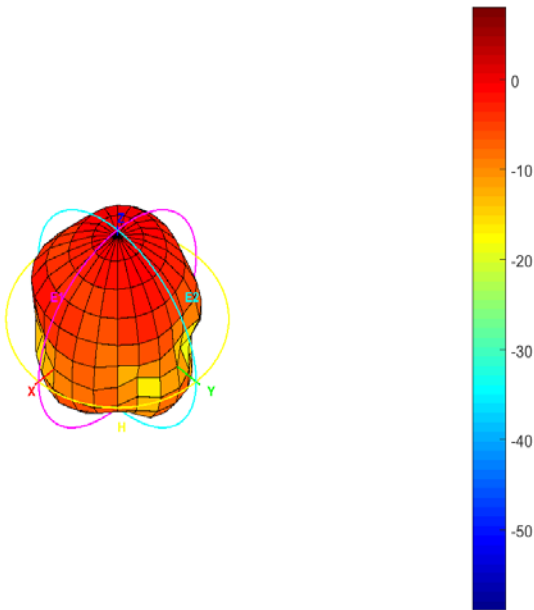
Total_3D_Side View 4_2.1GHz



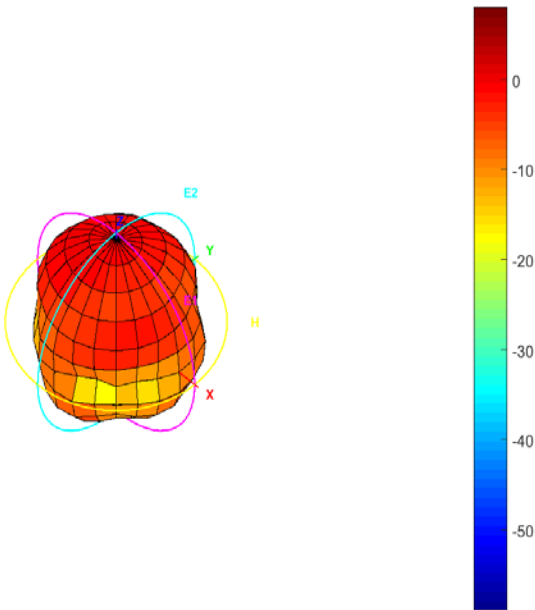
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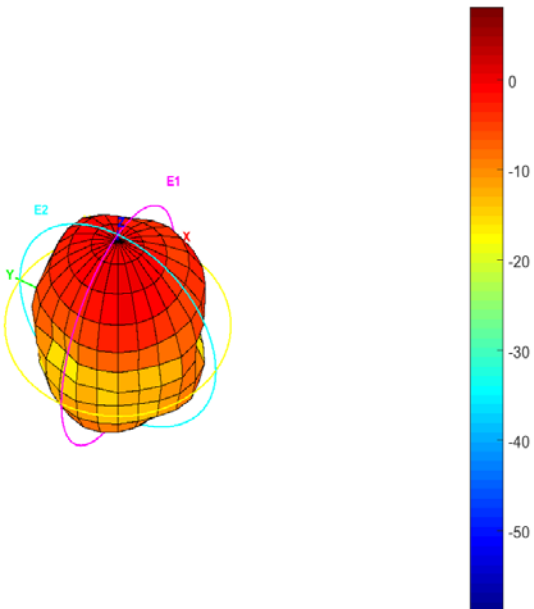
Total_3D_Side View 1_2.6GHz



Total_3D_Side View 2_2.6GHz



Total_3D_Side View 3_2.6GHz



Total_3D_Side View 4_2.6GHz

