

**DONGGUAN YIJIA ELECTRONICS
COMMUNICATION TECHNOLOGY CO., LTD**

SPECIFICATION FOR APPROVAL

Date 2025/06/24
File No 25062401
Revision 1.0

CUSTOMER: FJ Dynamics Technology Co., Ltd.

CUSTOMER NO: YTX-TX-003066-1A

PART NAME: 4G MAIN Antenna L=215mm MHF

SUPPLIER NO: YJF01.085.029.301A

Date: Q'TY:

CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

SUPPLIER SIGNATURE		
APPROVAL	CHECK	DESIGN
ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A

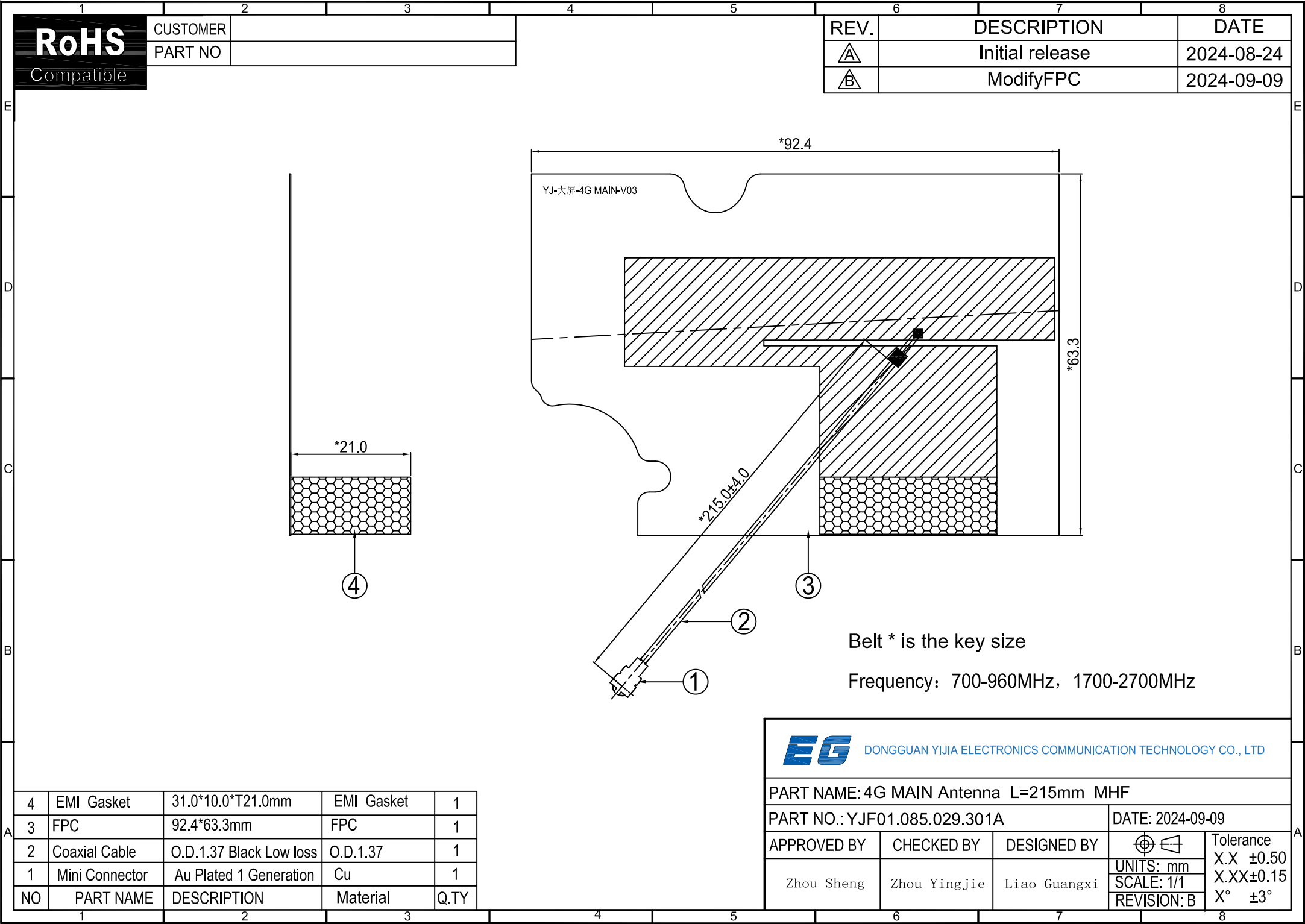


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Spec Item

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RoHS
Compatible

CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
△	Initial release	2024-08-24
△	ModifyFPC	2024-09-09

4	EMI Gasket	31.0*10.0*T21.0mm	EMI Gasket	1
3	FPC	92.4*63.3mm	FPC	1
2	Coaxial Cable	O.D.1.37 Black Low loss	O.D.1.37	1
1	Mini Connector	Au Plated 1 Generation	Cu	1
NO	PART NAME	DESCRIPTION	Material	Q.TY

EG DONGGUAN YIJIA ELECTRONICS COMMUNICATION TECHNOLOGY CO., LTD				
PART NAME: 4G MAIN Antenna L=215mm MHF				
PART NO.: YJF01.085.029.301A			DATE: 2024-09-09	
APPROVED BY	CHECKED BY	DESIGNED BY	UNITS: mm SCALE: 1/1 REVISION: B	Tolerance
Zhou Sheng	Zhou Yingjie	Liao Guangxi		X.X ±0.50
				X.XX±0.15
				X° ±3°

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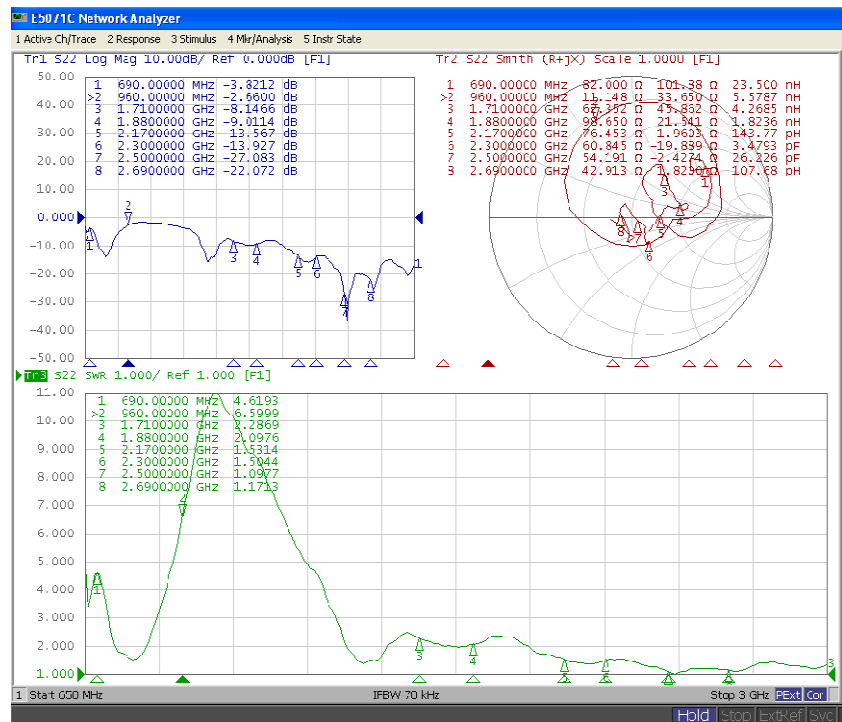
Antenna Specification

Electrical Properties	
Frequency	700-960MHz 1700-2700MHz
Impedance	50 Ohm Nominal
V.S.W.R	7.0 Max@700-960MHz 2.5 Max@1700-2700MHz
Gain	1.5 dBi@700-960MHz 2.9 dBi@1700-2700MHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1 Generation IPEX
Cable Type	O.D.1.37mm Low loss
Cable Length	215mm
Cable Color	Black
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%



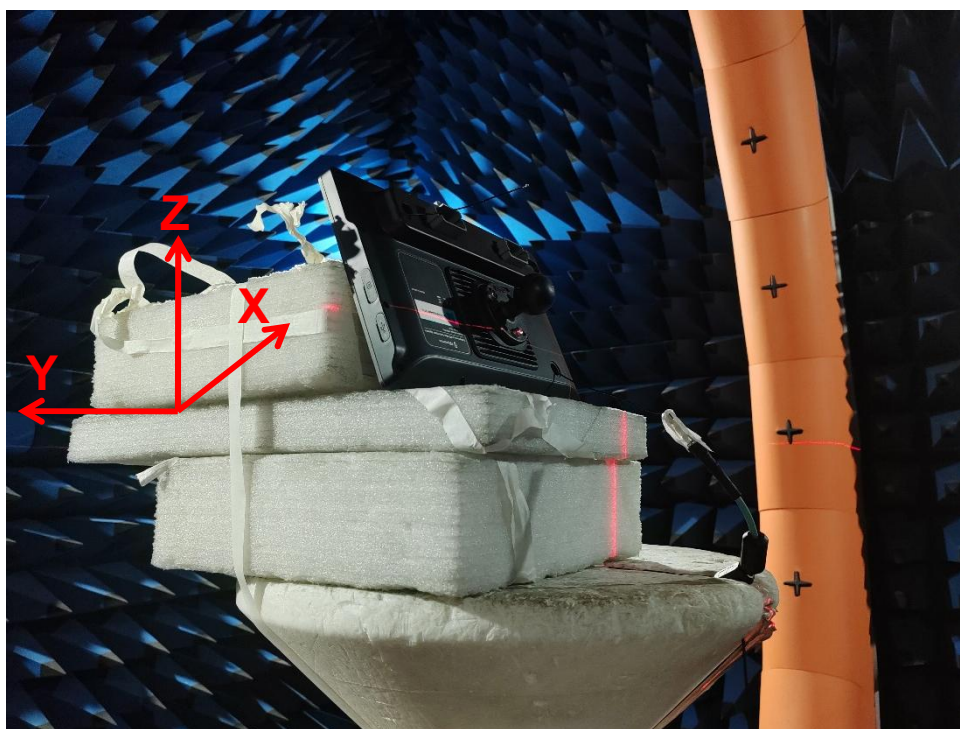
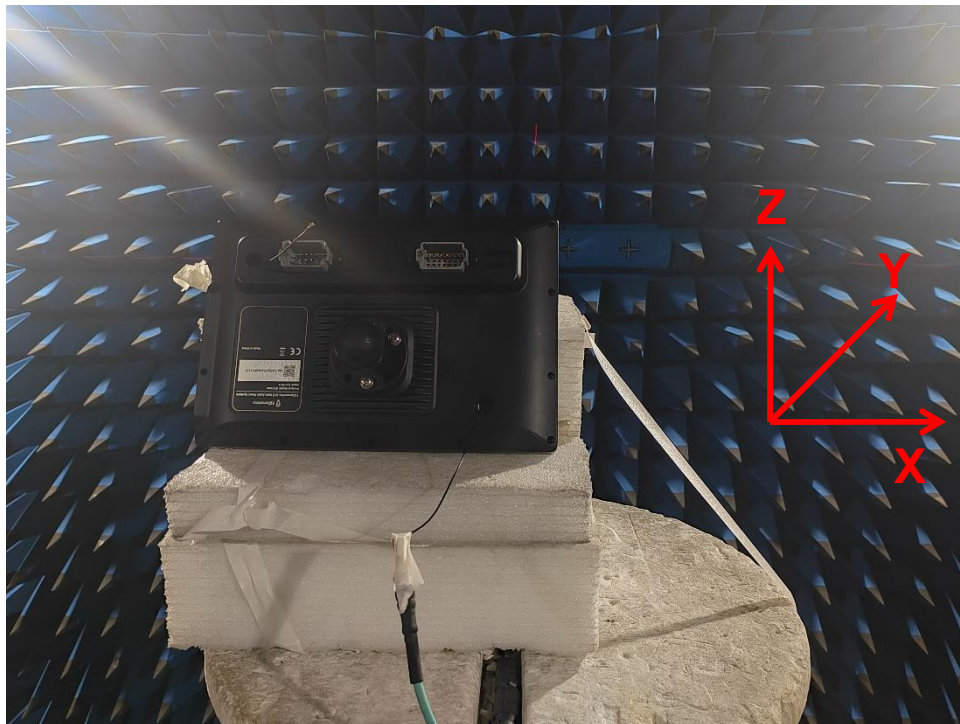
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Agilent E5071C S Parameter Test // LTE Main Antenna



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Antenna Passive Test



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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
690	23.4	-6.3	-2.5
700	25.0	-6.0	-1.8
710	26.7	-5.7	-1.4
720	28.3	-5.5	-1.6
730	30.9	-5.1	-1.1
740	33.7	-4.7	-0.2
750	38.2	-4.2	1.1
760	40.4	-3.9	1.5
770	40.8	-3.9	1.3
780	40.1	-4.0	1.1
790	39.7	-4.0	0.7
800	38.7	-4.1	0.0
810	40.2	-4.0	0.8
820	39.7	-4.0	1.4



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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
830	39.0	-4.1	1.5
840	37.7	-4.2	0.7
850	36.6	-4.4	0.0
860	34.3	-4.7	-0.7
870	31.8	-5.0	-1.0
880	30.5	-5.2	-1.2
890	28.5	-5.5	-1.6
900	27.8	-5.6	-1.6
910	27.5	-5.6	-1.5
920	28.5	-5.5	-0.9
930	28.3	-5.5	-0.5
940	28.3	-5.5	-0.4
950	26.1	-5.8	-0.8
960	23.3	-6.3	-1.4



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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1700	57.5	-2.4	2.5
1720	59.0	-2.3	2.9
1740	56.1	-2.5	2.4
1760	55.5	-2.6	2.2
1780	55.6	-2.6	2.0
1800	58.2	-2.4	2.3
1820	59.4	-2.3	2.7
1840	56.2	-2.5	2.4
1860	54.5	-2.6	2.2
1880	50.0	-3.0	1.7
1900	52.1	-2.8	2.5
1920	53.3	-2.7	2.6
1940	49.6	-3.1	2.0
1960	49.8	-3.0	2.0



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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1980	49.2	-3.1	2.3
2000	49.3	-3.1	2.5
2020	50.7	-3.0	2.5
2040	54.5	-2.6	2.7
2060	55.0	-2.6	2.8
2080	56.2	-2.5	2.9
2100	55.3	-2.6	2.3
2120	54.5	-2.6	1.7
2140	54.6	-2.6	1.6
2160	57.0	-2.4	1.8
2180	60.3	-2.2	2.0



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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2300	61.1	-2.1	1.7
2320	59.8	-2.2	1.9
2340	60.4	-2.2	1.9
2360	61.1	-2.1	1.9
2380	61.2	-2.1	2.1
2400	60.7	-2.2	2.4
2420	60.4	-2.2	2.6
2440	61.9	-2.1	2.8
2460	61.7	-2.1	2.7
2480	58.1	-2.4	2.5
2500	55.0	-2.6	2.0



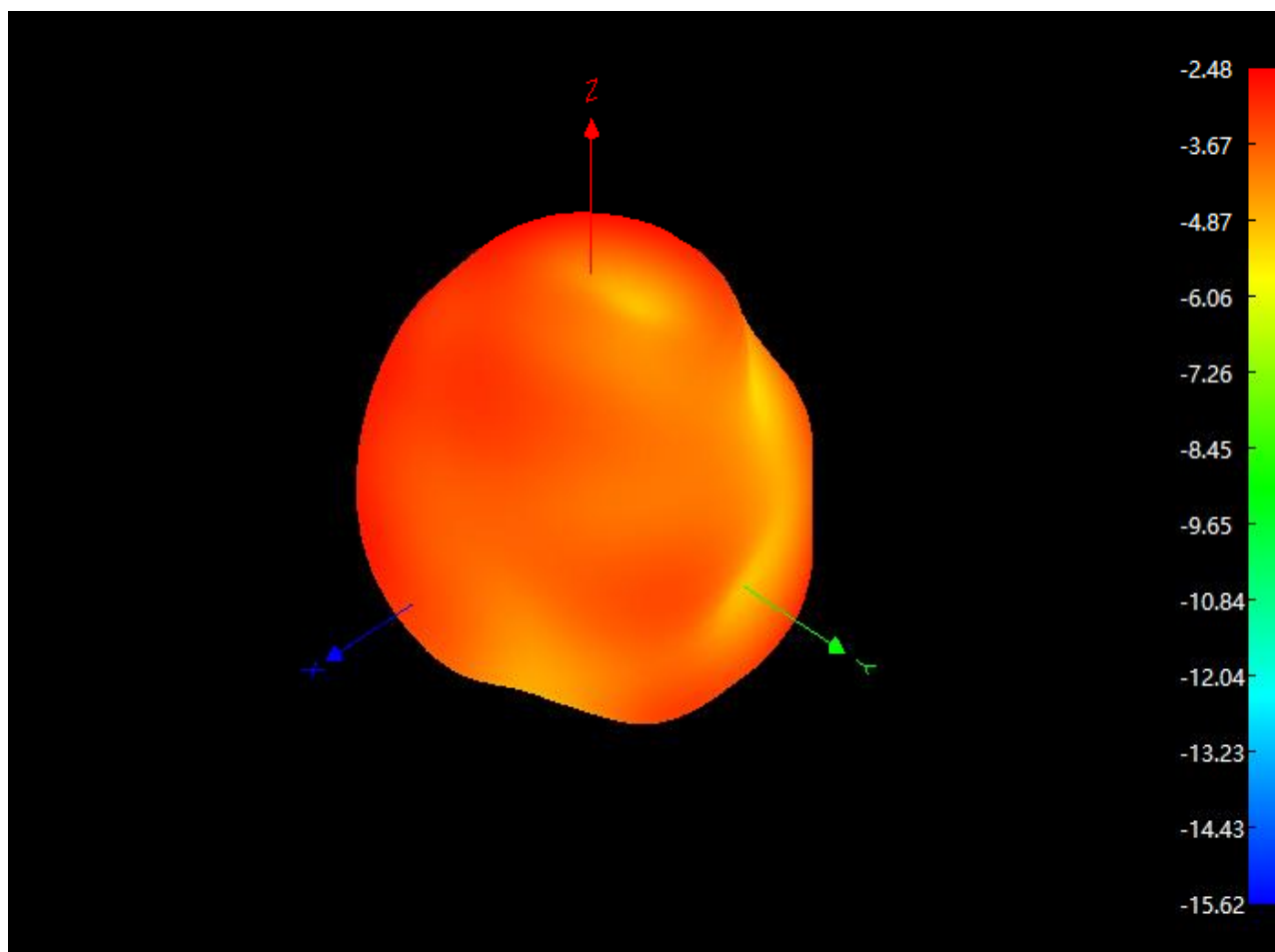
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Passive Test For LTE Main Antenna			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2520	55.0	-2.6	1.8
2540	57.0	-2.4	1.9
2560	58.2	-2.4	1.8
2580	56.5	-2.5	1.5
2600	55.9	-2.5	1.5
2620	57.0	-2.4	1.8
2640	56.5	-2.5	1.7
2660	54.5	-2.6	1.4
2680	55.3	-2.6	1.3
2700	56.4	-2.5	1.5



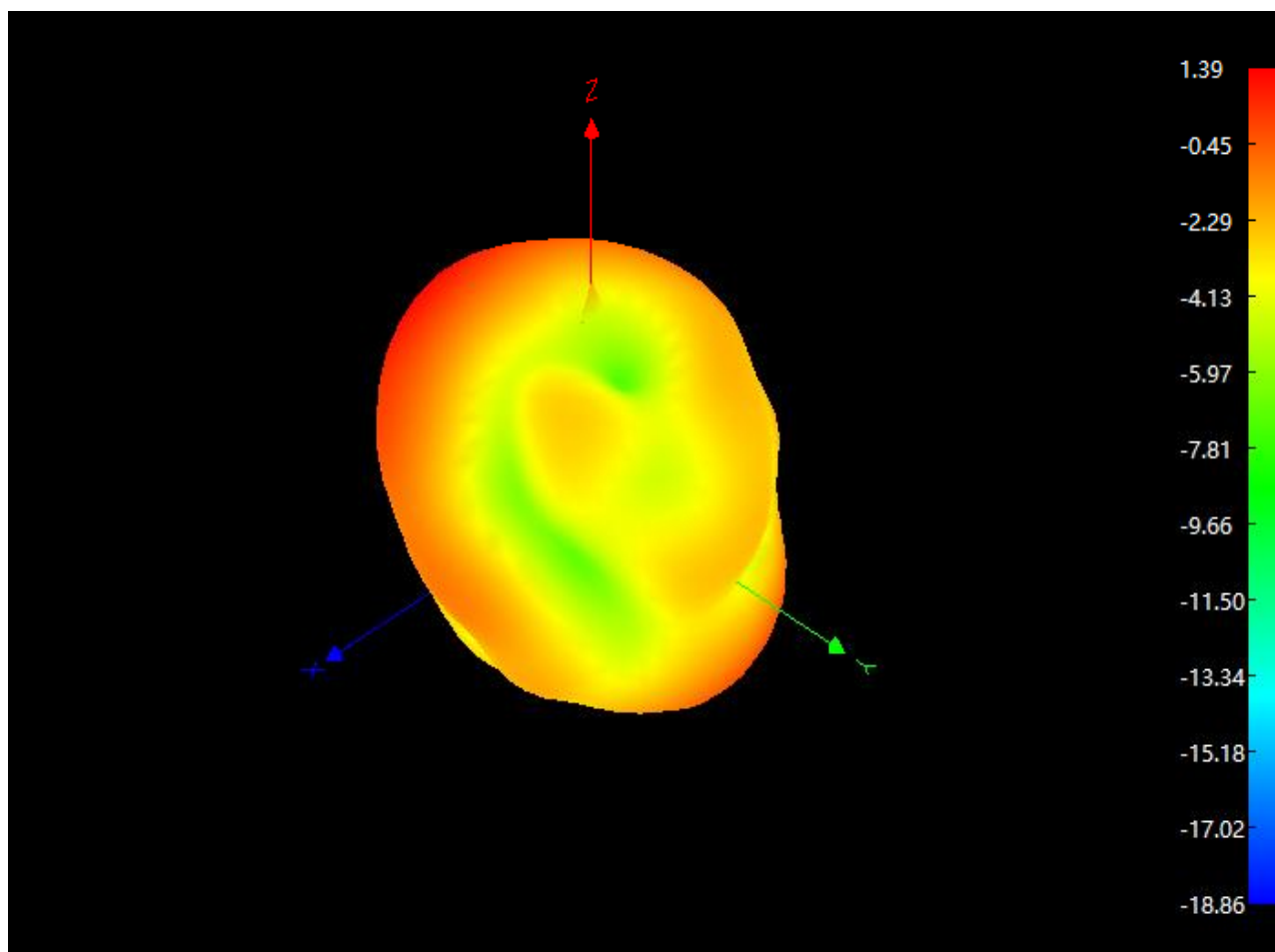
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Radiation Pattern For LTE Main Antenna (690MHz)



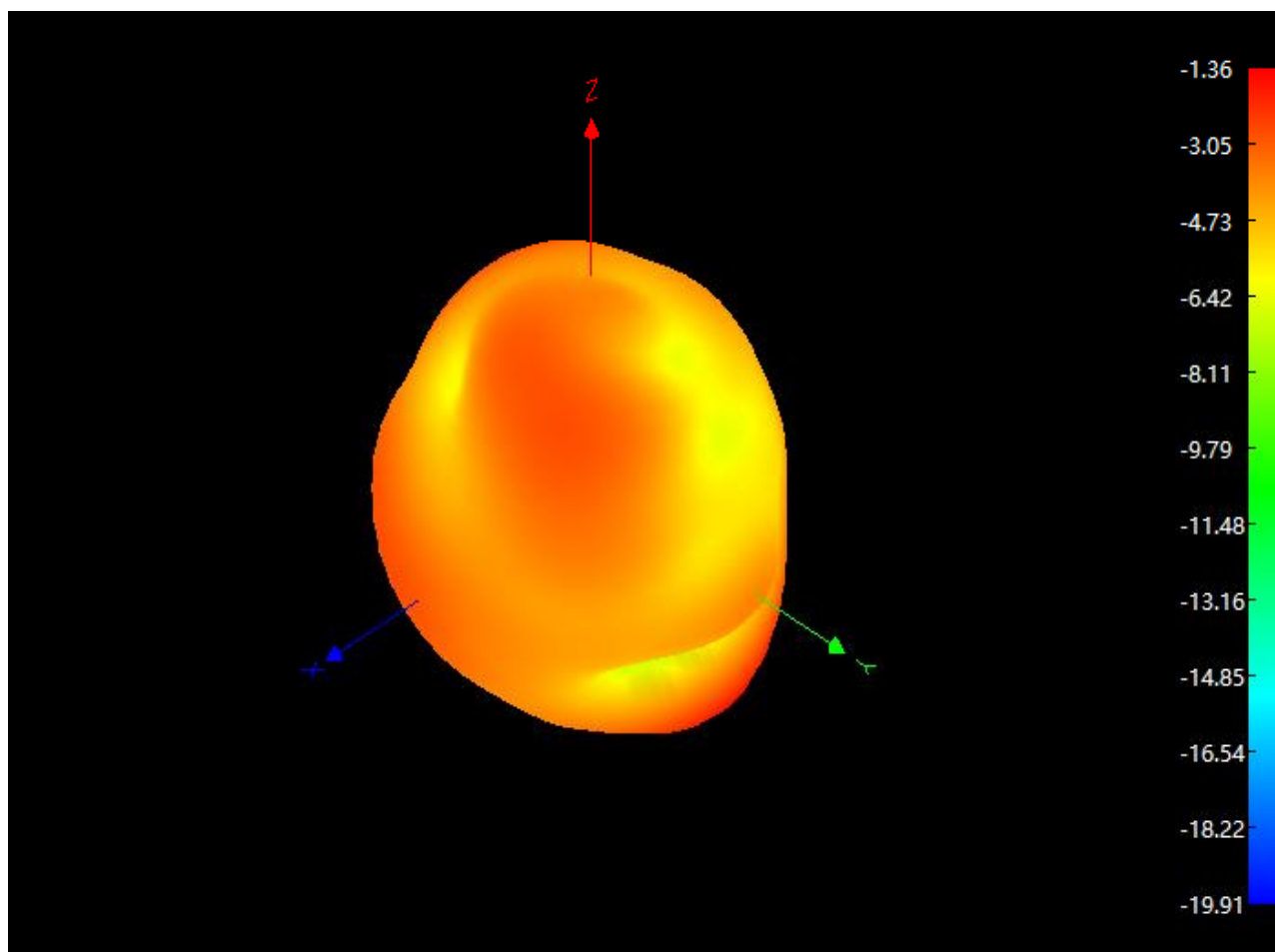
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Radiation Pattern For LTE Main Antenna (820MHz)



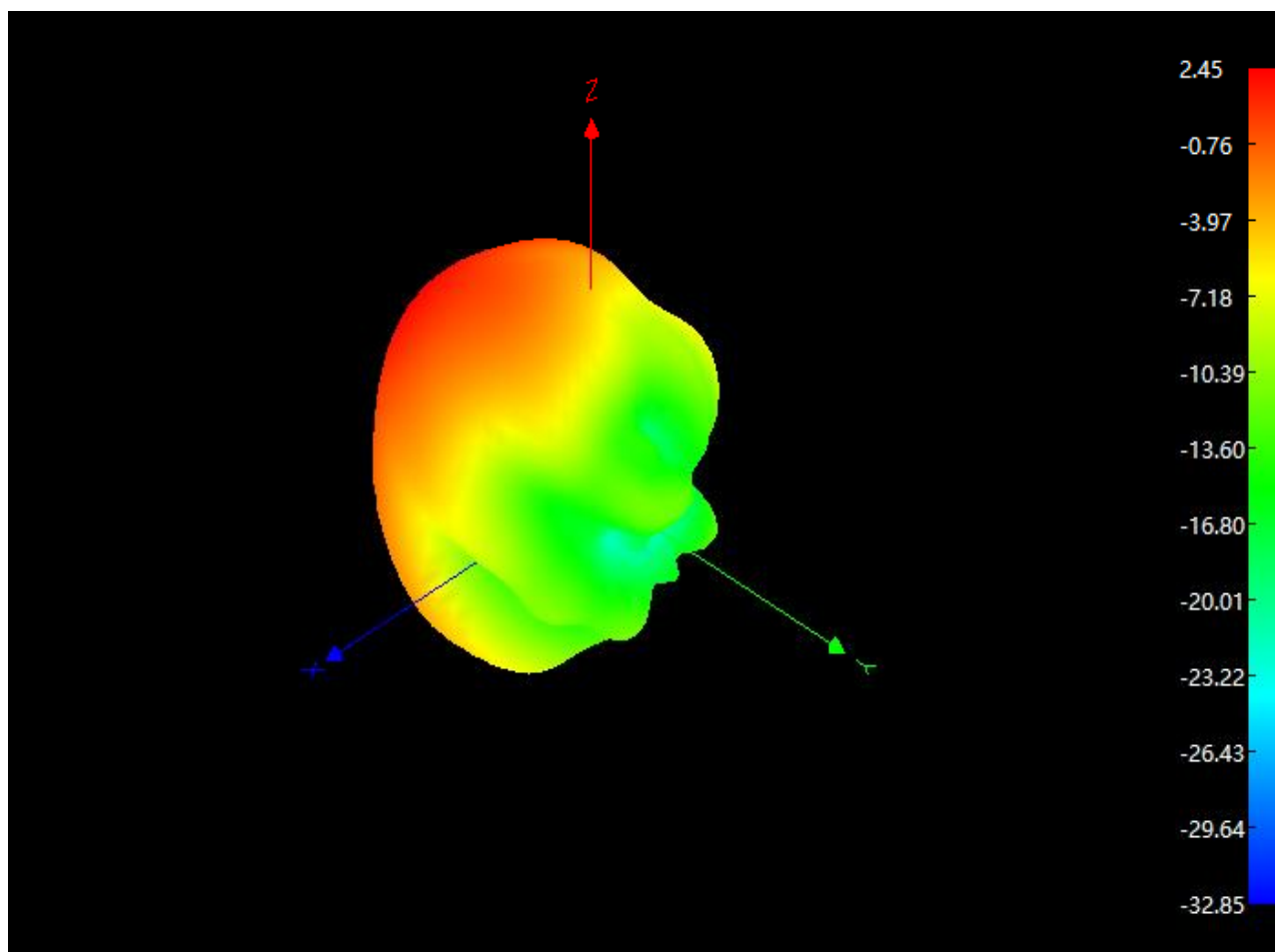
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Radiation Pattern For LTE Main Antenna (960MHz)



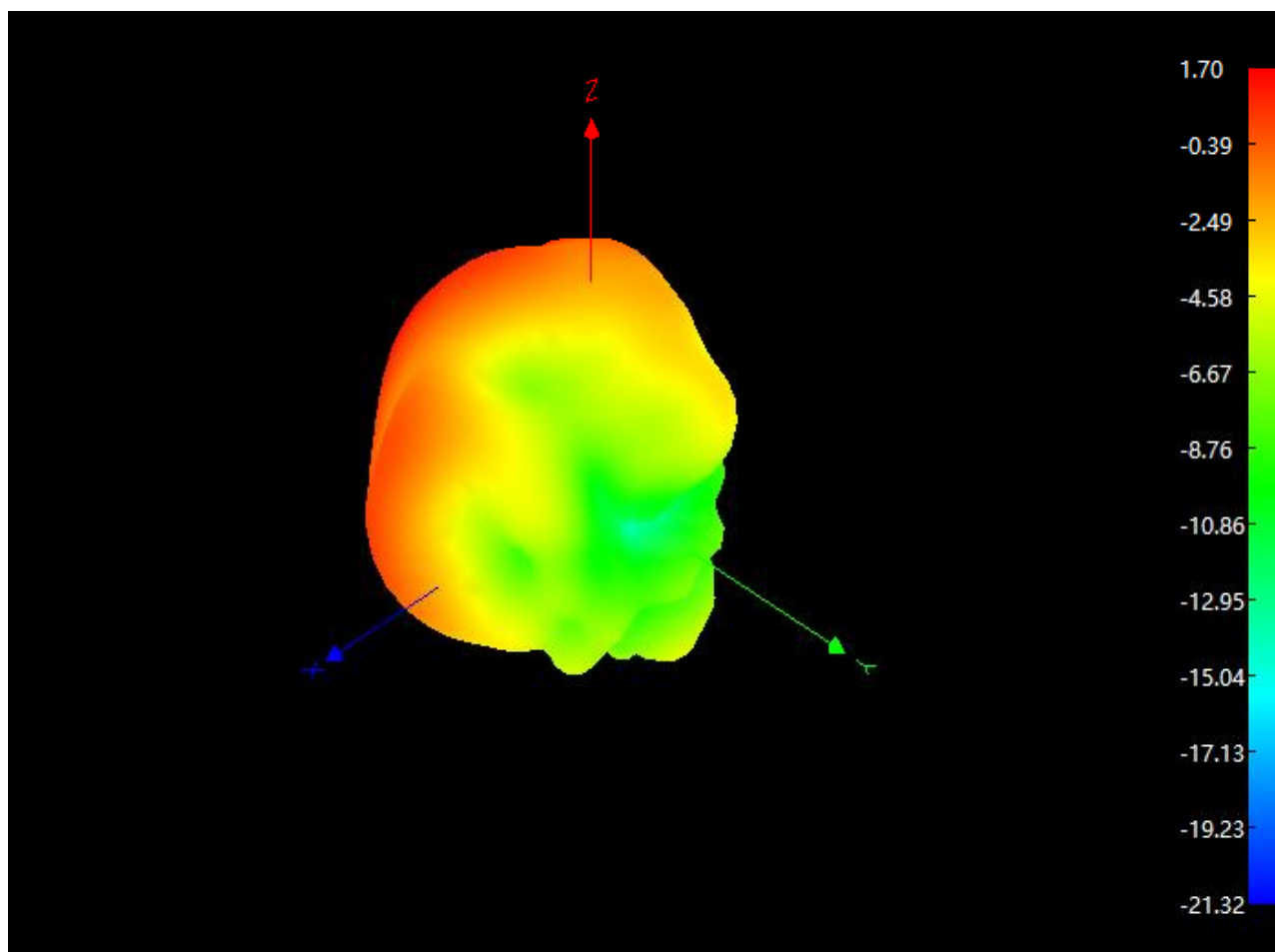
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Radiation Pattern For LTE Main Antenna (1700MHz)



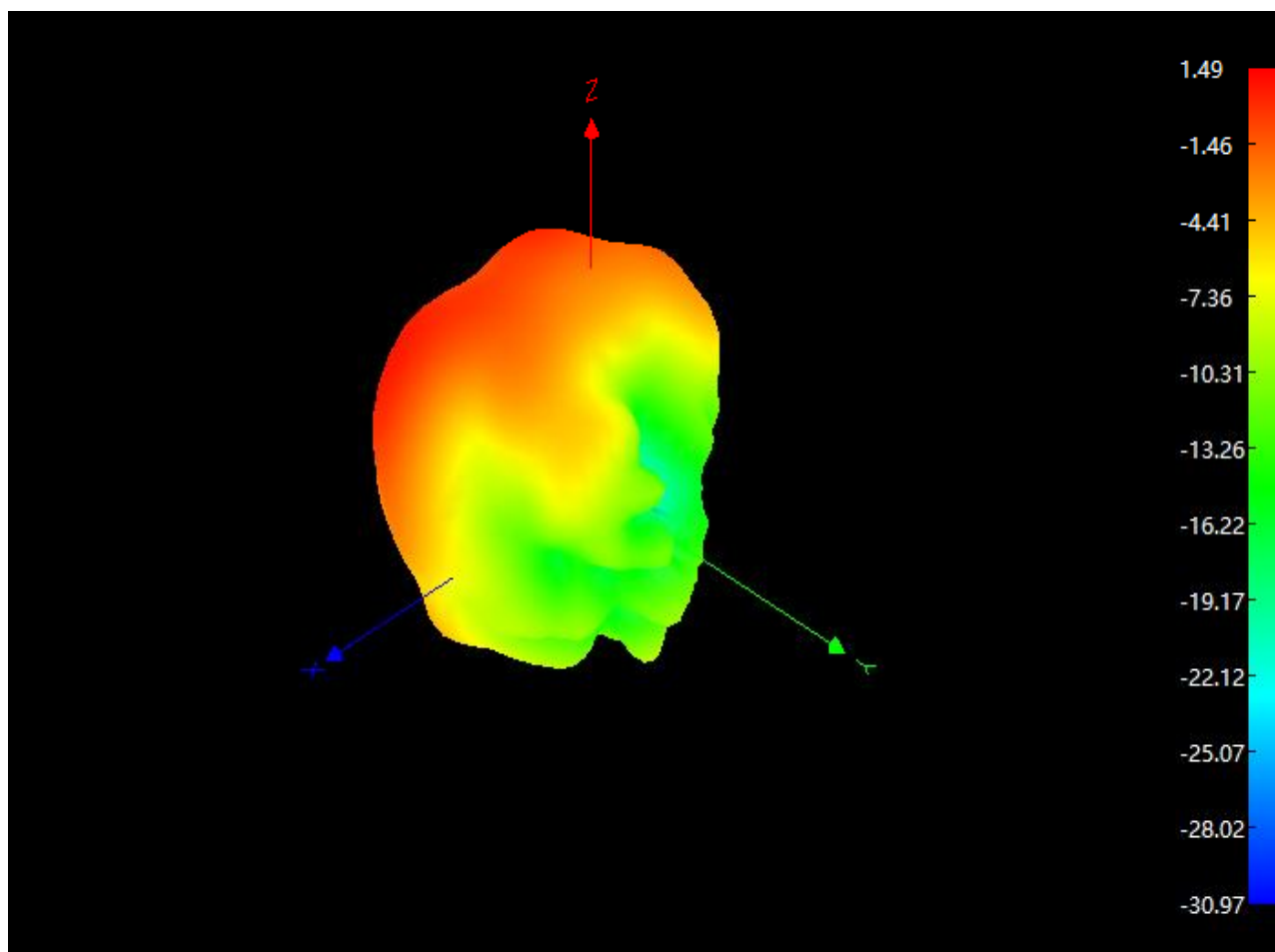
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Radiation Pattern For LTE Main Antenna (2300MHz)



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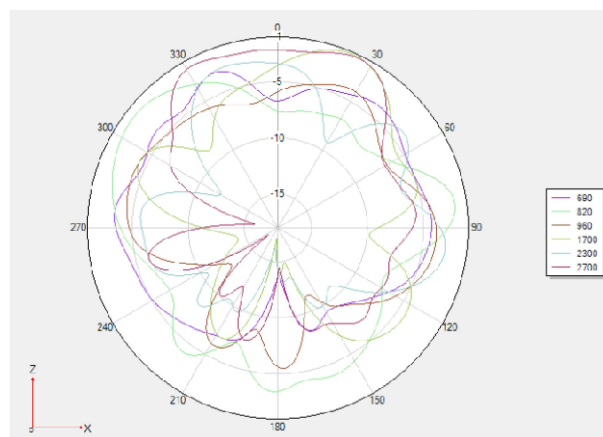
Radiation Pattern For LTE Main Antenna (2700MHz)



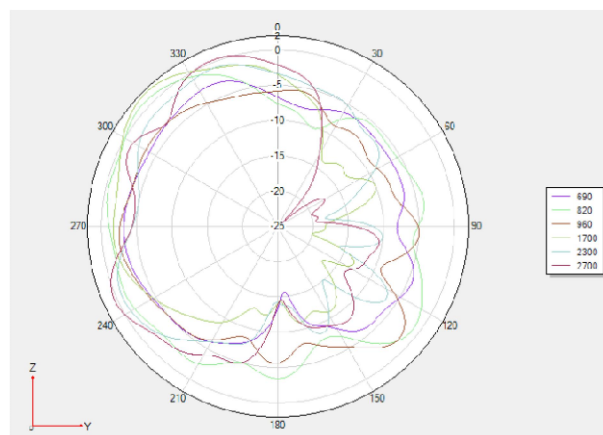
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Radiation Pattern For LTE Main Antenna

Phi 0°



Phi 90°



Theta 90°

