



TNPXXX Antenna Test Report

(Model: UG65)

Version: 1.0

Released Date: 2022/04/28

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Revision History

Released Date	Version	Revised Records
2022/04/28	1.0	LTEAntenna Test Report

Specification

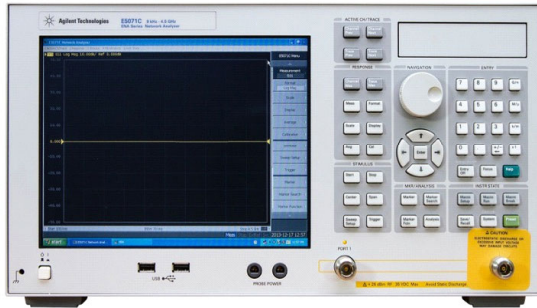
Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
LTE	1	700-2700 MHz	LTE_ANT

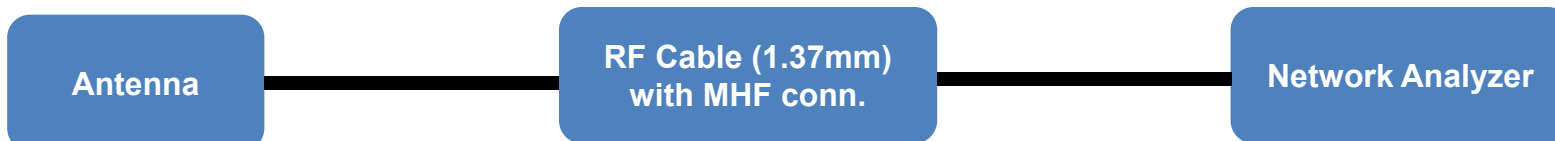
Requirements of Measurement

Test Item		Specification	Remark
Return Loss		6dB Min	
VSWR		3.0:1 Max	
Peak Gain		< 3dBi @700-2700MHz	TBD
Efficiency		>0.35%	
Radiation Pattern		Scale: +10 ~ -40dBi, Angle step size: 5 degree	

Test Setup for Return Loss Test

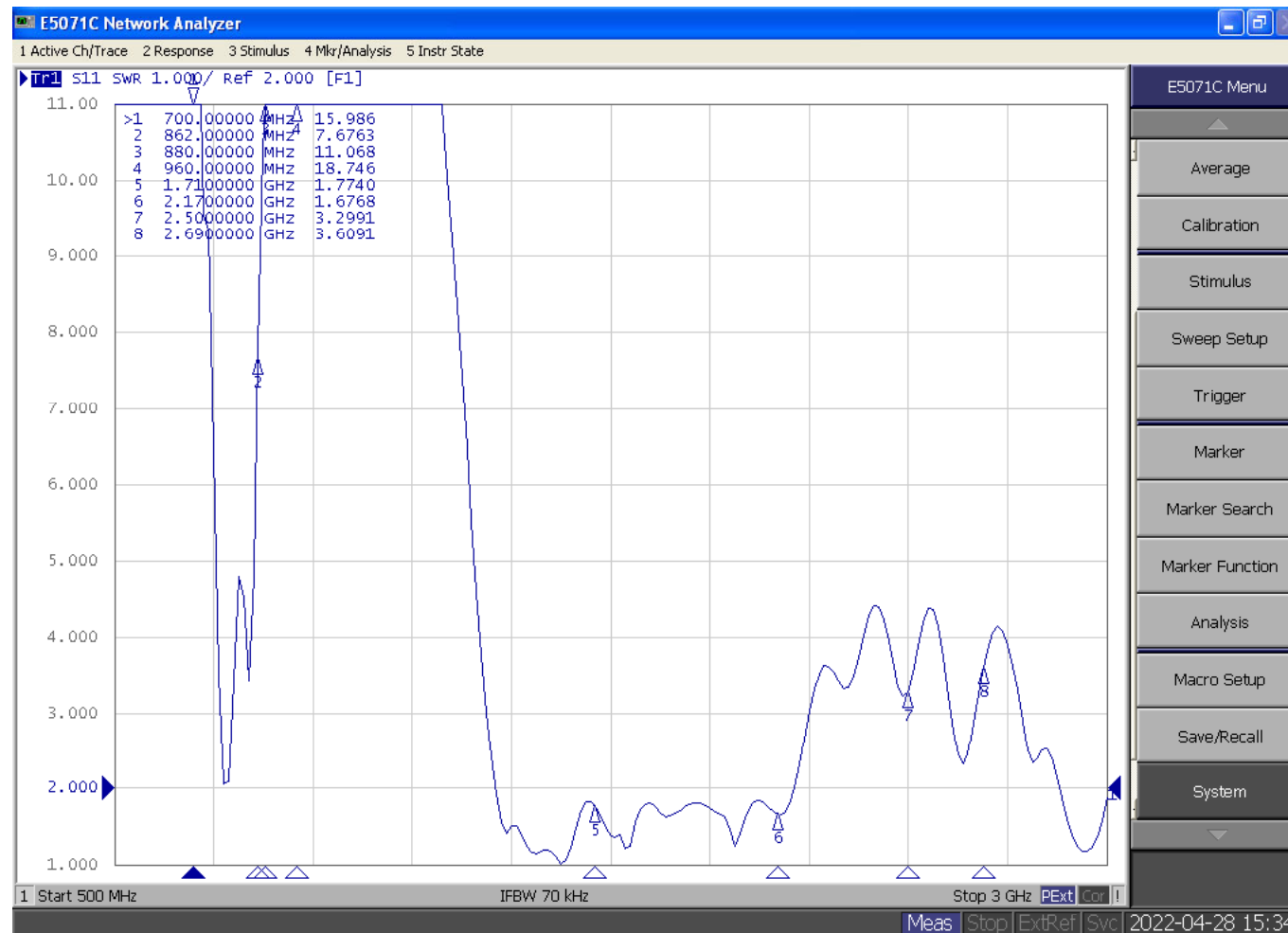


Equipment	Brand	Model
Network Analyzer	Keysight	E5071C

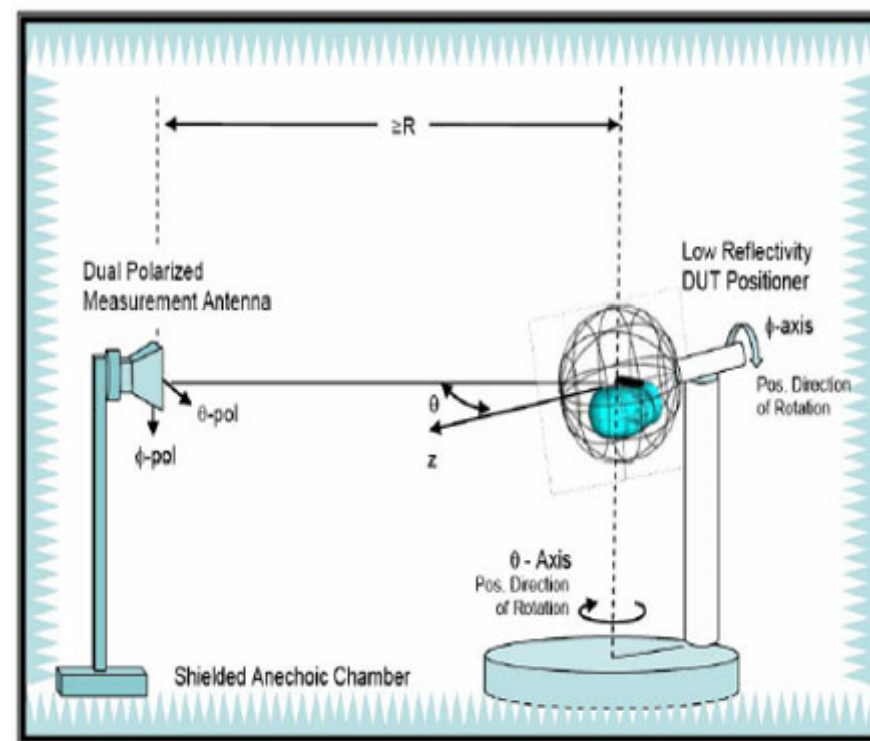


VSWR Test

LTE_ANT (700-2700 MHz)

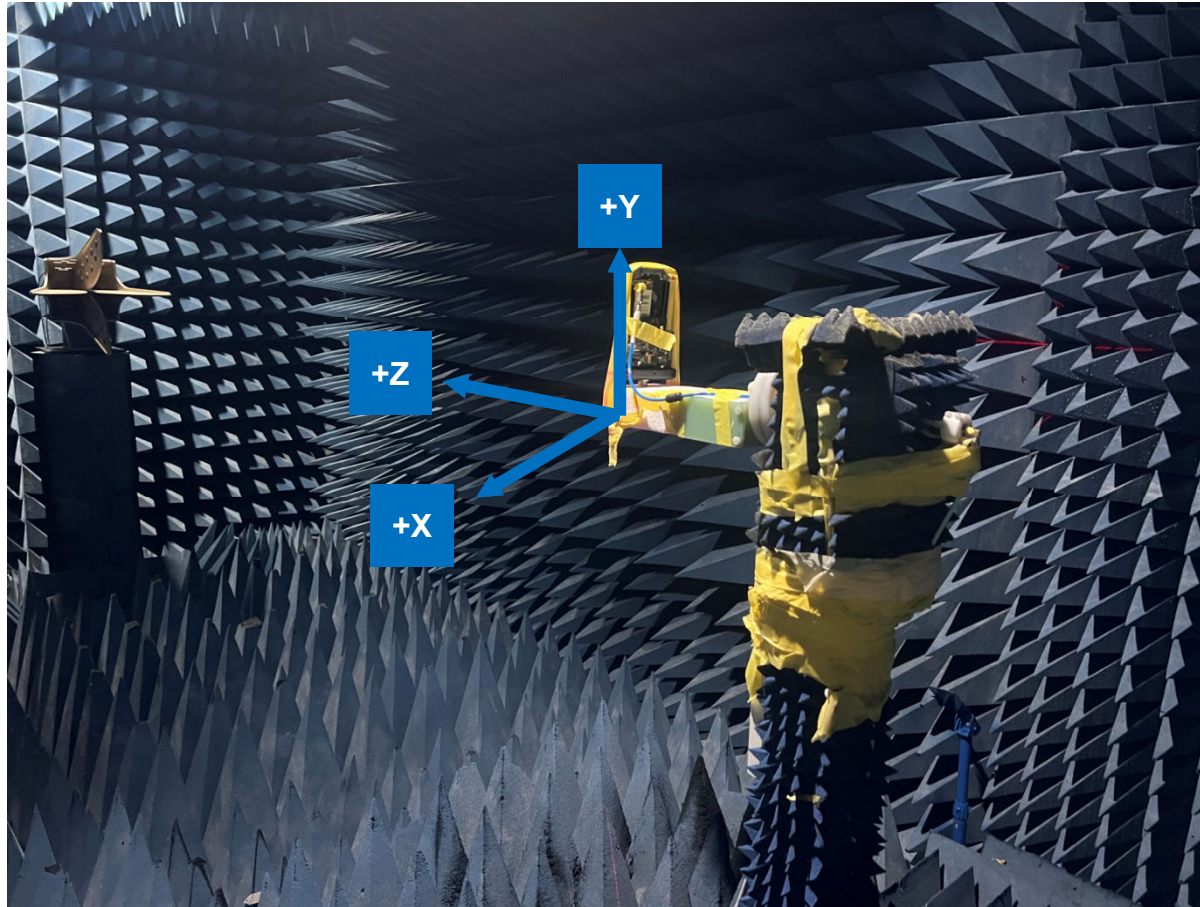


WHAYU Industrial Co. Ltd.



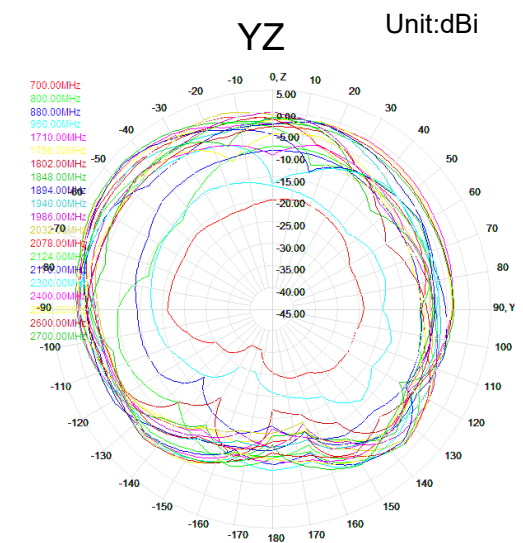
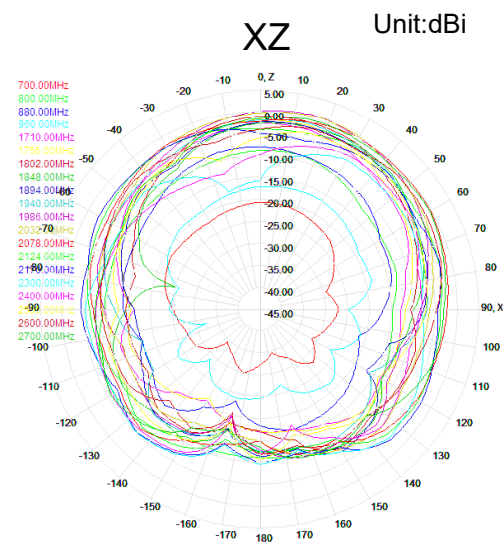
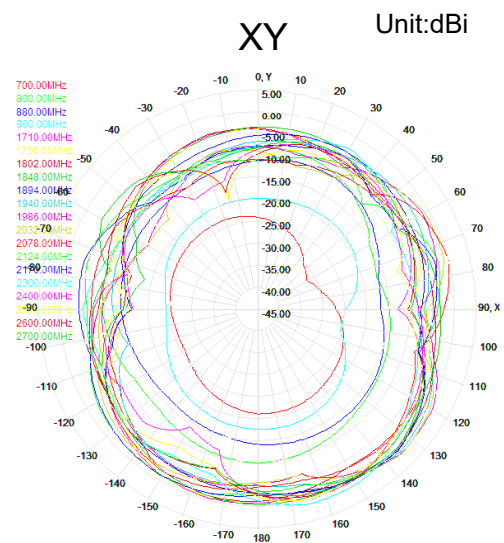
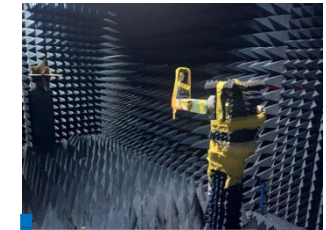
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Test Setup for OTA Measurement



2D Radiation Pattern

LTE_ANT



Results Summary

VSWR (700-960MHz)

Frequency (MHz)	2G_ANT1
700	15.9
960	18.7
1710	1.7
2170	1.6
2300	3.2
2700	3.6

Results Summary

Peak Gain & Efficiency

Frequency (MHz)	LTE	
	Peak Gain (dBi)	Efficiency (%)
700.0	-19.55	0.36
800.0	-4.36	10.03
880.0	-8.06	5.56
960.0	-14.28	1.15
1710.0	1.85	37.28
1756.0	1.82	37.35
1802.0	0.80	33.21
1848.0	2.89	40.50
1894.0	2.91	39.10
1940.0	2.97	36.51
1986.0	2.96	39.15
2032.0	2.48	42.05
2078.0	0.79	37.14
2124.0	0.93	37.32
2170.0	0.38	36.00
2300.0	0.93	28.05
2400.0	0.00	23.24
2500.0	0.45	24.82
2600.0	1.41	30.41
2700.0	1.35	32.80



E308301
CB-B
94V-0

WWAN antenna

SIM