

SPECIFICATION FOR APPROVAL

CUSTOMER/PROJECT :	<u>K1</u>
CUSTOMER P.N./	<u></u>
PRODUCT NAME./	<u>Diversity antenna</u>
MODEL NO./	<u>3V150B</u>
SPECIFICATION/	<u></u>

1 Definition of noun

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	Receive frequency
TRP	Total Radiated Power
TIS	Total Isotropic Sensitivity
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access

2 Test equipment

can be added or removed as needed:

Vector network analyzer,

Comprehensive tester,

GTS anechoic chamber

3 Applicable Frequency Band

	Uplink	Downlink
GSM850	824MHz~849MHz	869MHz~894MHz
GSM900	890MHz~915MHz	935MHz~960MHz
DCS1800	1710MHz~1785MHz	1805MHz~1880MHz
PCS1900	1850MHz~1910MHz	1930MHz~1990MHz
CDMA800	825MHz~835MHz	870MHz~880 MHz
CDMA2000	824MHz ~849MHz	869MHz ~894MHz
WCDMA	824MHz~2170MHz	2110MHz~2170MHz
WIFI (2.4G)	2400MHz~5850MHz	
LTE	700MHz ~2690MHz	

4 Basic test items

SWR

Smith Impedance Diagram

antenna pattern

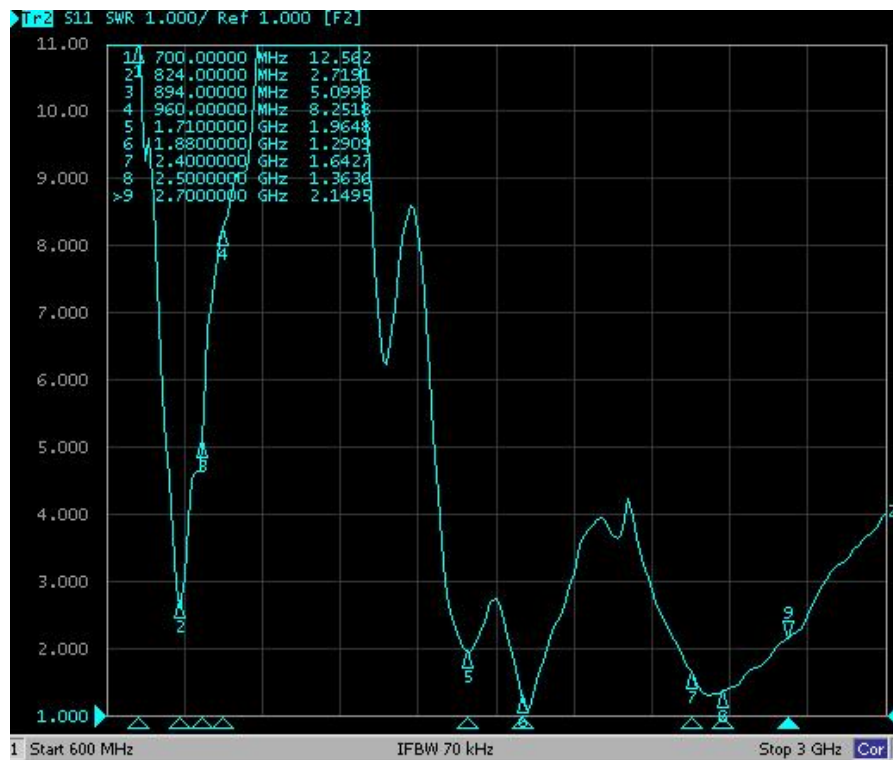
Gain and Efficiency

TRP&TISTEST

5 Test metrics and data charts

5.1 SWR

SWR



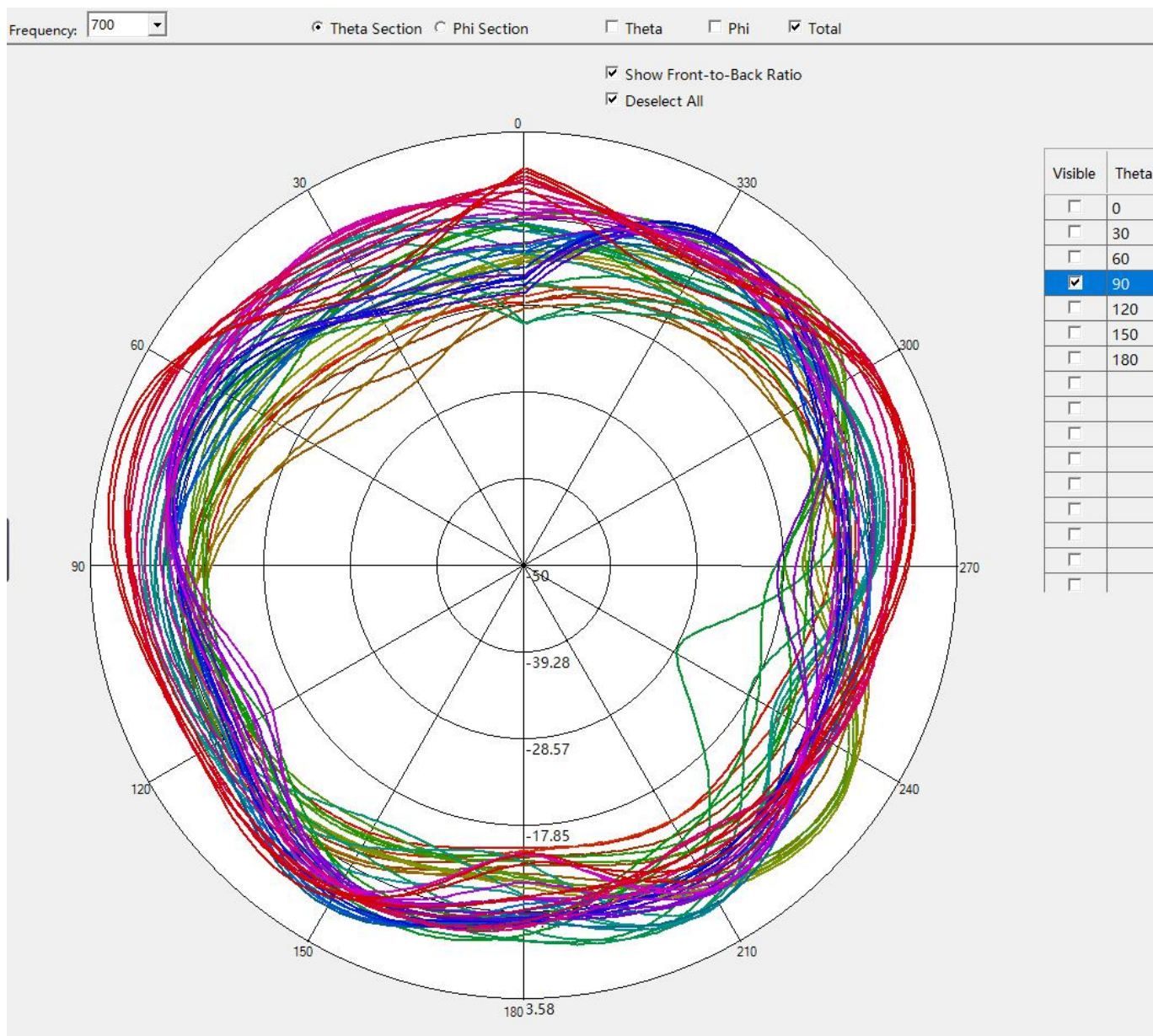
SWR

Freq/MHz	700	820	960	1710	1880	2400	2690
VSWR	12.5	2.7	8.2	1.9	1.2	1.6	2.1

Smith impedancechart

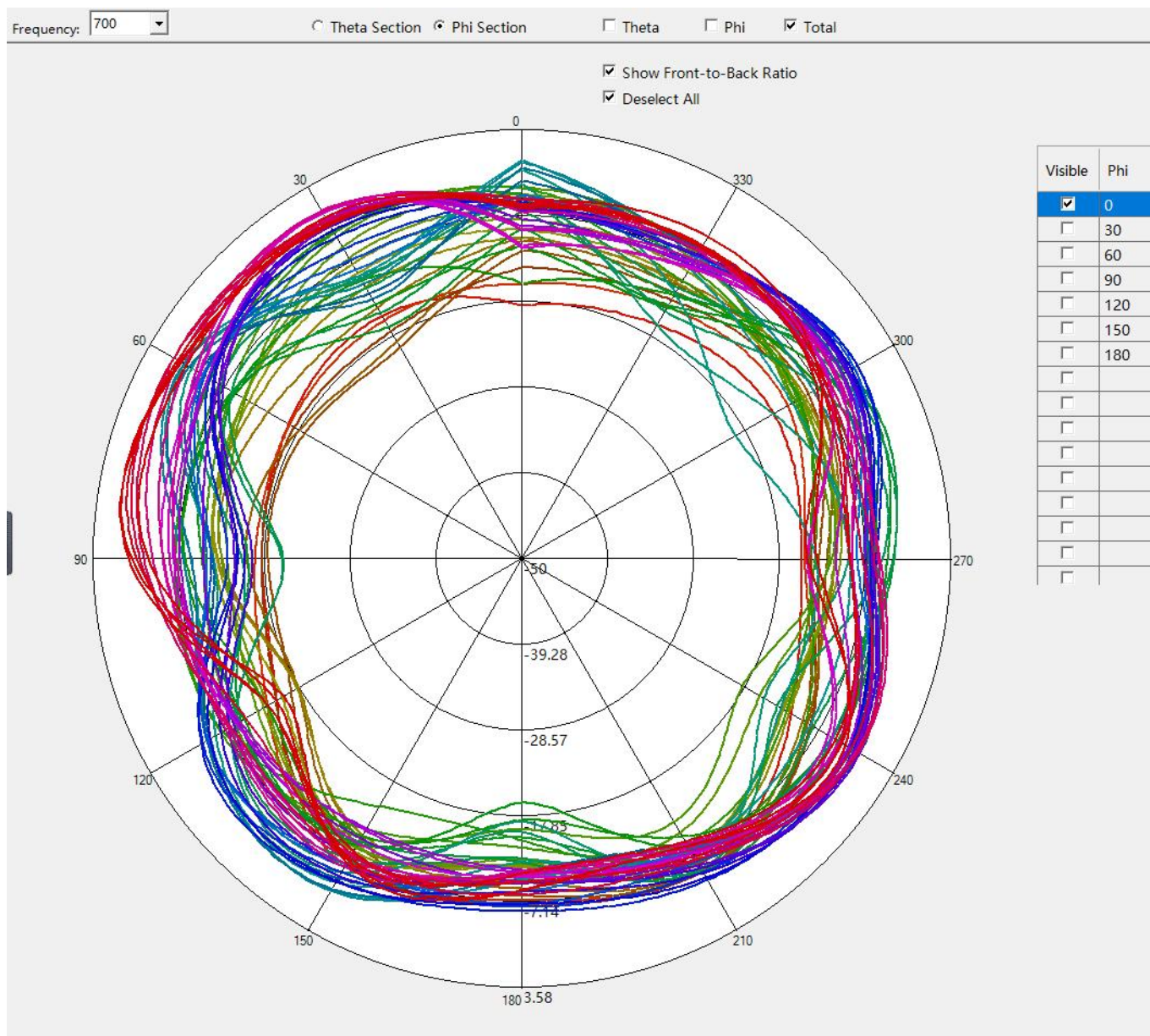


5.2.1 H-plane

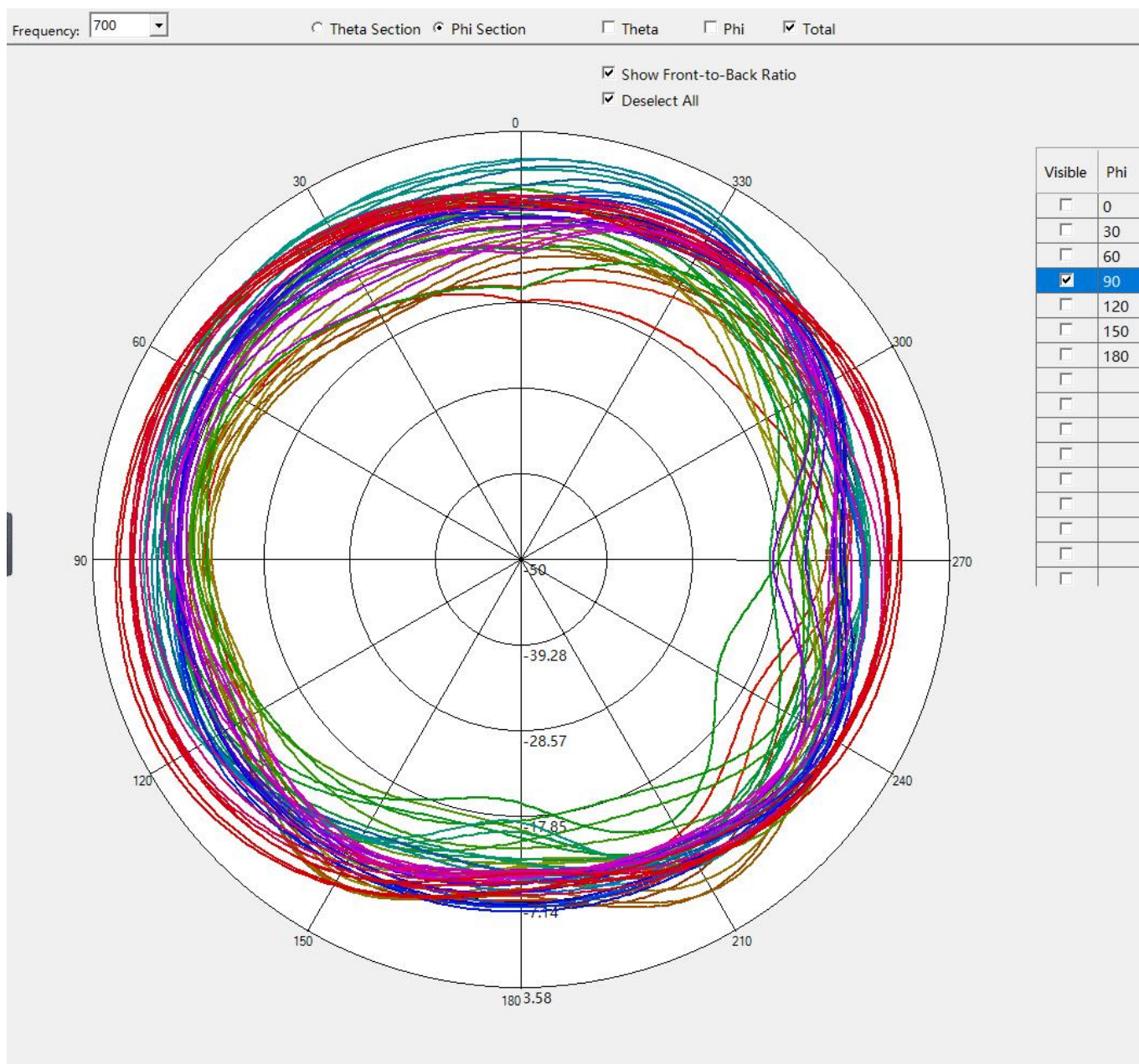


5.2.2 E-plane

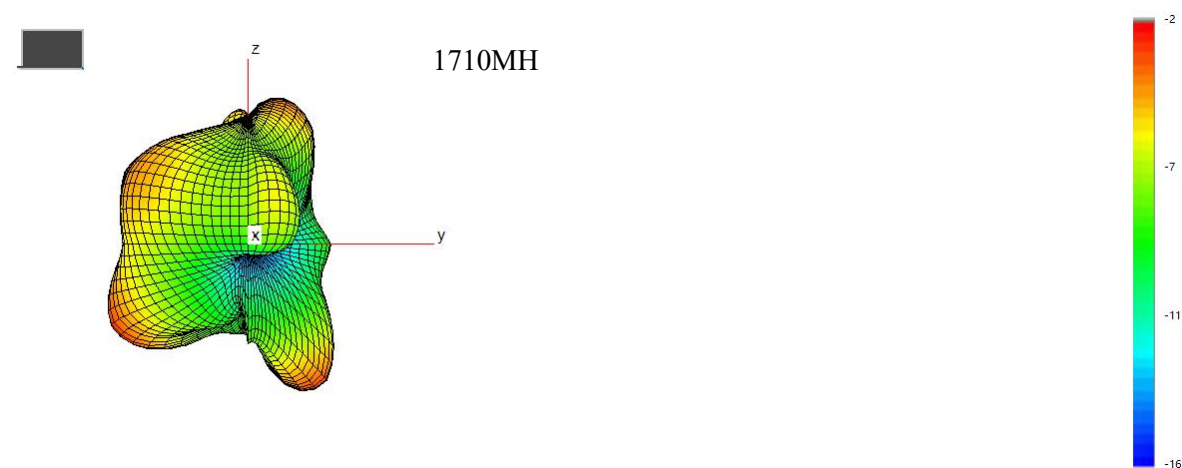
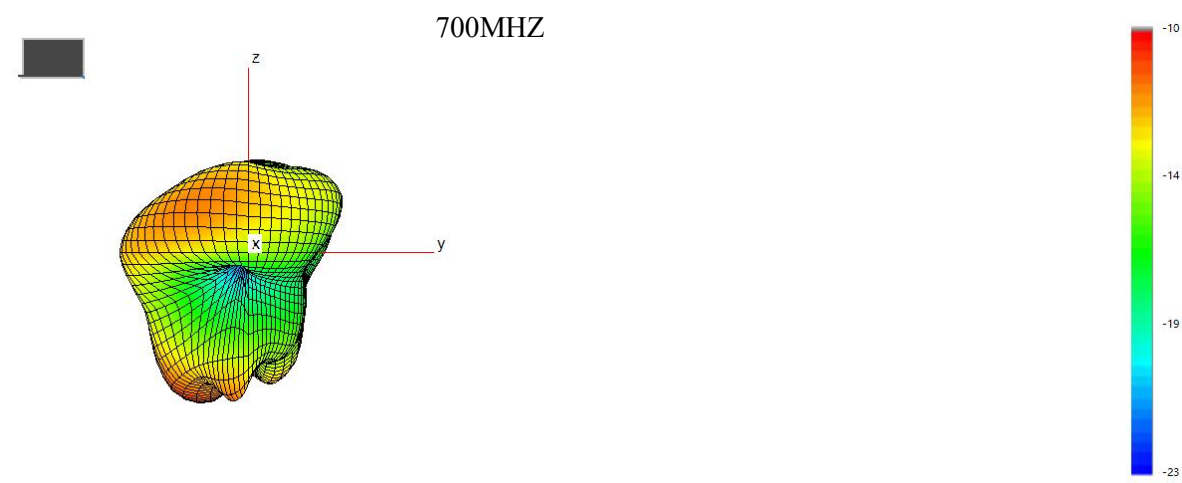
E1

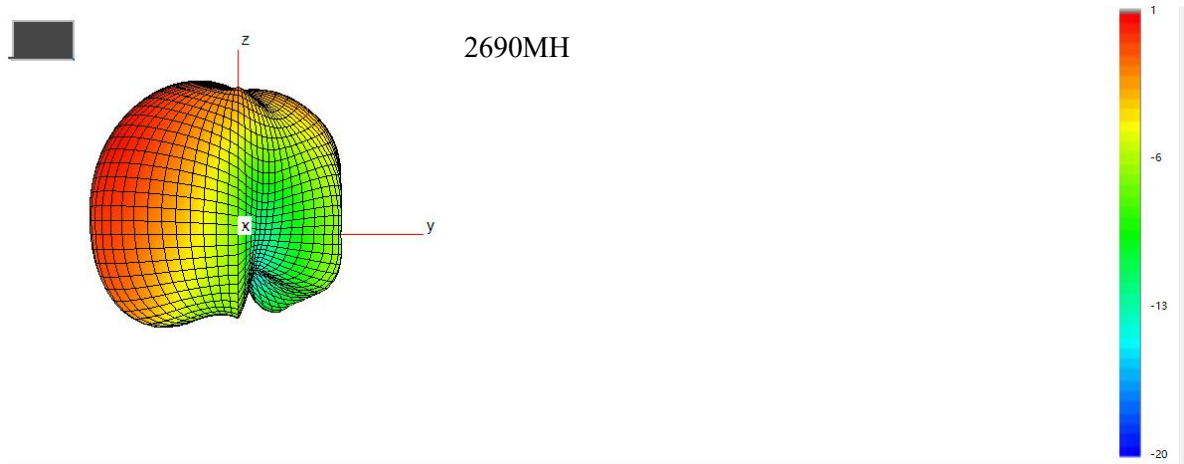


E2



3D antenna pattern





5.3 antenna and gain

Freq (MHZ)	Eff (%)	GAIN		Freq (MHZ)	Eff (%)	GAIN		Freq (MHZ)	Eff (%)	GAIN
700	9.34	-5.56		1710	12.42	-4.43		2300	29.90	0.75
720	10.41	-5.13		1750	16.12	-3.31		2330	30.68	0.94
740	9.18	-5.39		1790	19.15	-2.92		2370	27.58	-0.37
760	7.70	-4.56		1830	21.38	-2.58		2400	28.70	0.30
780	9.44	-4.10		1870	22.76	-1.90		2450	26.47	0.09
800	13.37	-3.16		1900	25.22	-1.20		2480	28.01	0.21
820	17.92	-2.15		1930	30.42	-0.34		2510	35.27	0.06
840	19.47	-1.57		1960	34.83	0.30		2540	38.67	-0.49
860	20.20	-1.69		1990	33.62	0.72		2570	45.45	0.27
880	18.99	-2.70		2100	33.71	0.58		2600	45.68	0.28
900	14.57	-3.39		2130	31.58	-0.23		2630	43.46	-0.19
920	11.70	-4.01		2160	29.41	-0.50		2660	38.56	-0.70
940	9.49	-5.31						2690	45.52	0.28
960	8.07	-6.14								

6 Antenna diagram

