

Regulatory WWAN Antenna Information

ASUS B3402FVA

[INPAQ antenna]

Antenna information			
Vendor	Type	Antenna Part number (Main/ Tx1)	Antenna Part number (Aux/Rx only)
INPAQ	PIFA	WA-F-S6G2-02-007	WA-F-S6G1-02-026
Address of Vendor (Manufacturer)			
No. 11, Keyi St., Zhunan Township, Miaoli County 350402, Taiwan			
WWAN Module			
Fibocom FM101-GL			

Antenna Information

Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	1E Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
HQ20604691000 (WA-F-S6G2-02-007) Tx1/ Rx1 Antenna	INPAQ	PIFA	1)cable p/n: GBE/Shen-Yu/YFC/Kaibo 2) 50 ohm coaxial cable 3) length: 94.4mm 4) Connector p/n: I-pex:20565-001R-13 I-pex:20565-001R-08 KangShuo: MHF-B13-N-01	663-698MHz 0.35dBi(peak)	663-698MHz 0.53dBi(peak)	663-698MHz 6.0 max	663-698MHz 0.18dBi(peak)
				699-715MHz -3.33dBi(peak)	699-715MHz -3.15dBi(peak)	699-715MHz 6.0 max	699-715MHz 0.18dBi(peak)
				703-748MHz -3.34dBi(peak)	703-748MHz -3.16dBi(peak)	703-748MHz 6.0 max	703-748MHz 0.18dBi(peak)
				746-756MHz -4.62dBi(peak)	746-756MHz -4.44dBi(peak)	746-756MHz 6.0 max	746-756MHz 0.18dBi(peak)
				758-803MHz -3.90dBi(peak)	758-803MHz -3.72dBi(peak)	758-803MHz 6.0 max	758-803MHz 0.18dBi(peak)
				791-821MHz -2.85dBi(peak)	791-821MHz -2.67dBi(peak)	791-821MHz 6.0 max	791-821MHz 0.18dBi(peak)
				814-849MHz -2.33dBi(peak)	814-849MHz -2.15dBi(peak)	814-849MHz 6.0 max	814-849MHz 0.18dBi(peak)
				832-862MHz -2.11dBi(peak)	832-862MHz -1.93dBi(peak)	832-862MHz 6.0 max	832-862MHz 0.18dBi(peak)
				859-894MHz -2.11dBi(peak)	859-894MHz -1.92dBi(peak)	859-894MHz 6.0 max	859-894MHz 0.19dBi(peak)
				880-915Mhz -4.15dBi(peak)	880-915Mhz -3.96dBi(peak)	880-915Mhz 6.0 max	880-915Mhz 0.20dBi(peak)
				925-960MHz -5.81dBi(peak)	925-960MHz -5.60dBi(peak)	925-960MHz 6.0 max	925-960MHz 0.21dBi(peak)
				1420-1590MHz 2.24dBi (peak)	1420-1590MHz 2.51dBi (peak)	1420-1590MHz 5dBi (peak)	1420-1590MHz 0.27dBi (peak)
				1600-1670MHz dBi (peak)	1600-1670MHz dBi (peak)	1600-1670MHz 6dBi (peak)	1600-1670MHz 0.29dBi (peak)
				1710-1785MHz 0.13dBi (peak)	1710-1785MHz 0.42dBi (peak)	1710-1785MHz 6dBi (peak)	1710-1785MHz 0.29dBi (peak)
				1805-1880MHz 0.07dBi (peak)	1805-1880MHz 0.36dBi (peak)	1805-1880MHz 6dBi (peak)	1805-1880MHz 0.29dBi (peak)
				1850-1915MHz 0.07dBi (peak)	1850-1915MHz 0.36dBi (peak)	1850-1915MHz 6dBi (peak)	1850-1915MHz 0.29dBi (peak)
				1920-1980MHz -0.42dBi (peak)	1920-1980MHz -0.12dBi (peak)	1920-1980MHz 6dBi (peak)	1920-1980MHz 0.30dBi (peak)
				1930-1995MHz -0.42dBi (peak)	1930-1995MHz -0.11dBi (peak)	1930-1995MHz 6dBi (peak)	1930-1995MHz 0.31dBi (peak)
				2110-2200MHz -0.58dBi (peak)	2110-2200MHz -0.26dBi (peak)	2110-2200MHz 6dBi (peak)	2110-2200MHz 0.32dBi (peak)
				2300-2400MHz 1.09dBi (peak)	2300-2400MHz 1.43dBi (peak)	2300-2400MHz 6dBi (peak)	2300-2400MHz 0.34dBi (peak)
2496-2690MHz 2.93dBi (peak)	2496-2690MHz 3.29dBi (peak)	2496-2690MHz 6dBi (peak)	2496-2690MHz 0.36dBi (peak)				
3400-3800MHz -0.59dBi (peak)	3400-3800MHz -0.20dBi (peak)	3400-3800MHz 6dBi (peak)	3400-3800MHz 0.39dBi (peak)				

- Antenna Peak Gain required being test in system basis.
- 1E frame contend absolutely peak antenna gain include H/V

Antenna Peak Gain Table:

Frequency (MHz)	Tx1(or Rx1) Antenna		
	Horizontal (dBi)	Vertical (dBi)	Total (dBi)
663	-5.41	-4.04	-2.12
680.5	-4.71	-3.92	-2.05
690	-4.44	-3.33	-3.11
698	-3.65	-3.74	-3.08
700	-3.78	-3.34	-3.09
710	-4.35	-5.48	-4.11
720	-4.26	-5.85	-3.58
730	-4.69	-5.87	-2.91
740	-4.62	-5.59	-2.51
750	-4.66	-5.30	-2.32
760	-4.63	-5.65	-2.59
770	-4.63	-5.93	-2.89
780	-4.32	-5.95	-2.92
790	-3.90	-5.76	-2.65
800	-4.09	-5.45	-1.88
810	-3.80	-5.00	-1.28
820	-2.85	-5.21	-1.04
830	-2.86	-4.96	-1.56
840	-2.33	-5.20	-2.17
850	-2.38	-5.04	-2.13
860	-2.11	-4.79	-1.41
870	-3.10	-5.29	-2.95
880	-4.15	-5.80	-4.01
890	-4.71	-6.49	-4.27
900	-5.52	-7.14	-5.16
910	-5.37	-7.26	-5.18
920	-5.81	-7.49	-5.48
1420	-0.55	1.57	1.67
1430	-0.47	1.07	1.76
1440	-0.19	1.25	1.97
1450	0.07	1.28	2.42
1460	0.14	1.37	2.49
1470	0.48	1.92	2.60
1480	0.63	1.84	2.59
1490	0.56	1.99	2.58
1500	0.92	1.96	2.81
1510	0.64	2.00	2.78
1520	0.99	2.24	2.91
1710	-1.87	0.13	0.24

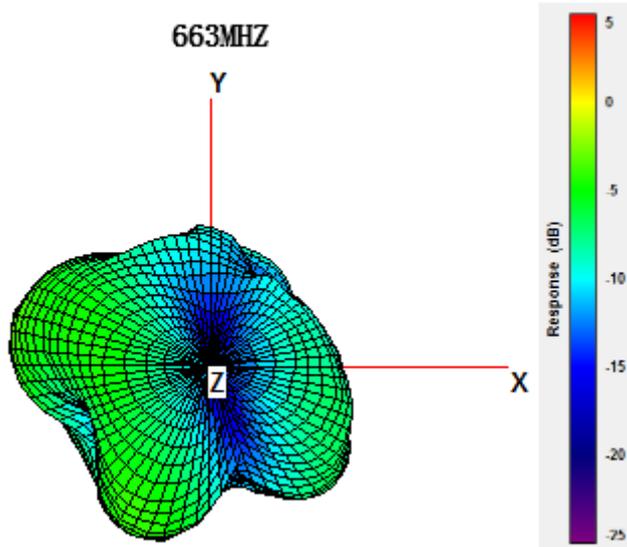
1730	-1.47	-0.29	-0.23
1750	-1.99	-1.13	-1.08
1770	-2.42	-1.46	-1.25
1790	-0.94	-0.91	-0.12
1850	-1.01	-0.52	-0.23
1870	-1.40	-0.09	-0.02
1890	-1.59	0.07	0.19
1910	-2.51	-0.15	-0.08
1920	-2.18	-0.51	-0.19
1930	-2.00	-0.42	-0.28
1950	-1.91	-1.03	-0.88
1970	-2.48	-1.55	-1.01
1980	-1.92	-2.10	-1.28
2300	0.79	-0.56	0.51
2310	0.48	-0.25	0.67
2330	0.11	-0.52	1.28
2350	-0.15	-0.16	1.07
2370	-0.35	-0.01	0.26
2390	-0.60	-0.02	1.01
2410	-0.15	-0.35	1.59
2430	-0.40	-0.54	1.47
2450	-0.11	-0.33	1.01
2470	-0.18	-0.65	-0.09
2490	0.20	-0.44	1.11
2510	1.55	-0.33	1.69
2530	2.25	-0.47	2.43
2550	2.89	-0.17	2.97
2570	2.93	0.21	2.95
2590	2.50	0.31	2.84
2610	2.91	0.20	2.92
2630	2.85	1.01	2.94
2650	2.91	1.13	2.99
2670	2.82	0.43	2.94
2690	2.87	0.58	2.91
3400	-4.25	-4.31	-1.25
3500	-1.28	-4.44	2.21
3550	-1.99	-4.24	0.42
3600	-3.26	-4.65	0.45
3625	-4.01	-4.26	0.79
3700	-3.6	-1.62	0.16
3800	-1.3	-0.59	2.37

Section 2. Radiation characteristics of antennae Loaded in Host Platform

663-960MHz radiation characteristic

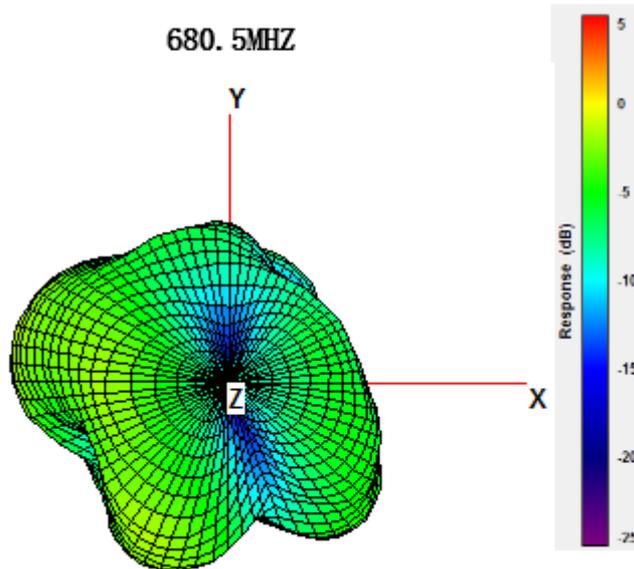
Tx1 antenna: 663 MHz

Center Frequency	663 MHz
Horizontal (dBi) peak	-5.41
Vertical (dBi) peak	-4.04



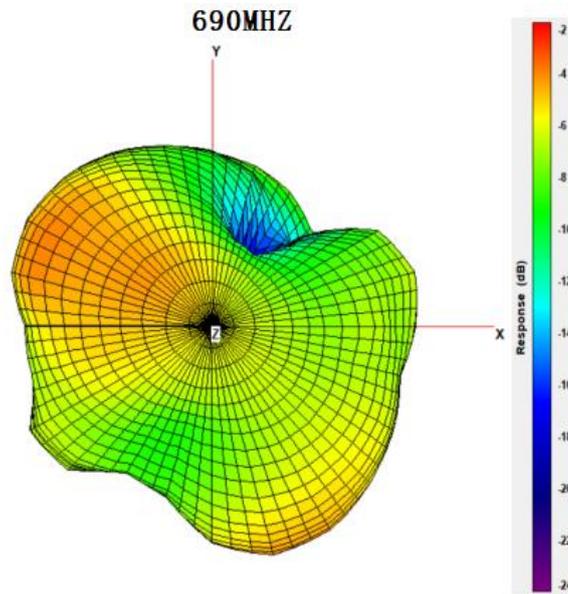
Tx1 antenna: 680.5 MHz

Center Frequency	680.5 MHz
Horizontal (dBi) peak	-4.71
Vertical (dBi) peak	-3.92



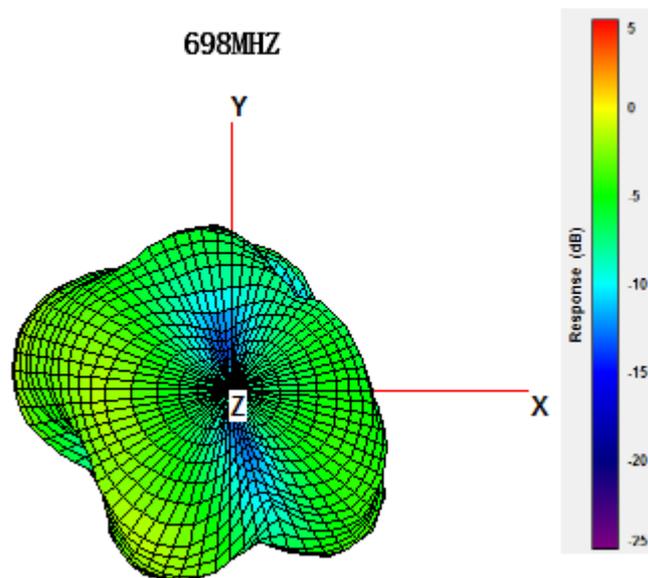
Tx1 antenna: 690 MHz

Center Frequency	690 MHz
Horizontal (dBi) peak	-4.44
Vertical (dBi) peak	-3.33



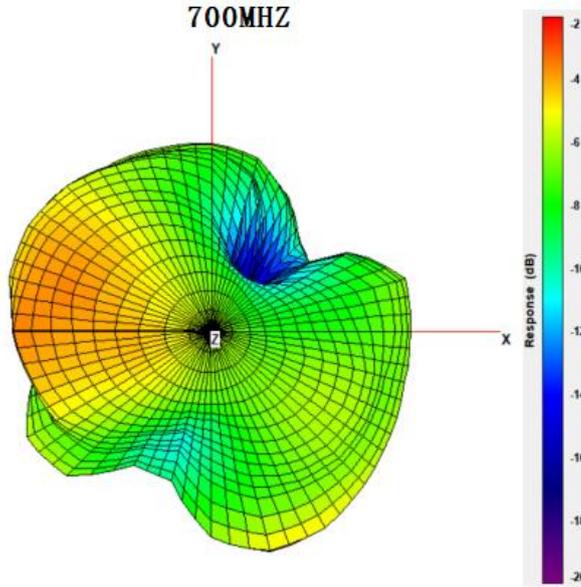
Tx1 antenna: 698 MHz

Center Frequency	698 MHz
Horizontal (dBi) peak	-3.65
Vertical (dBi) peak	-3.74



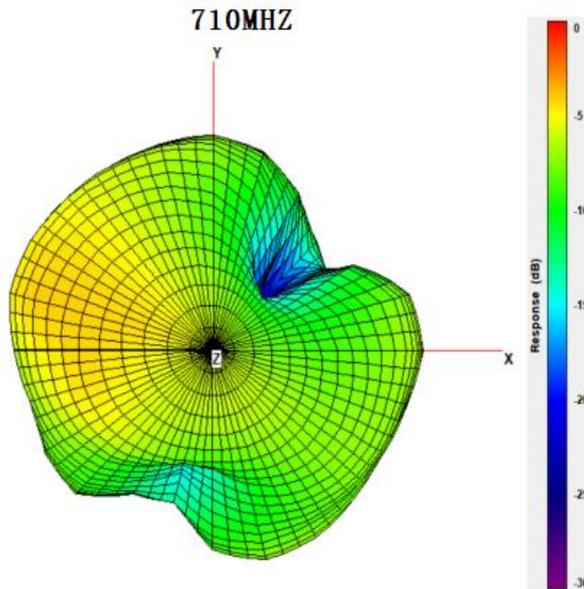
Tx1 antenna: 700 MHz

Center Frequency	700 MHz
Horizontal (dBi) peak	-3.78
Vertical (dBi) peak	-3.34



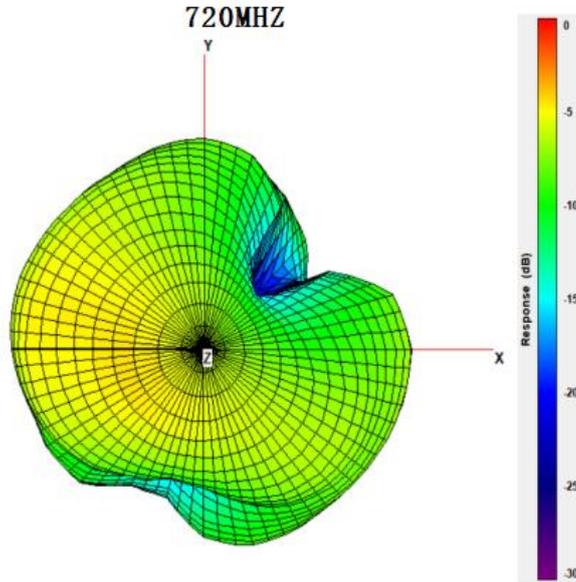
Tx1 antenna: 710 MHz

Center Frequency	710 MHz
Horizontal (dBi) peak	-4.35
Vertical (dBi) peak	-5.48



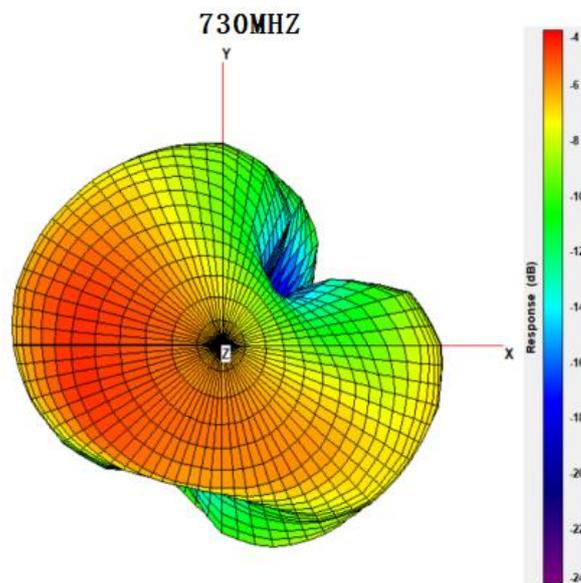
Tx1 antenna: 720 MHz

Center Frequency	720 MHz
Horizontal (dBi) peak	-4.26
Vertical (dBi) peak	-5.85



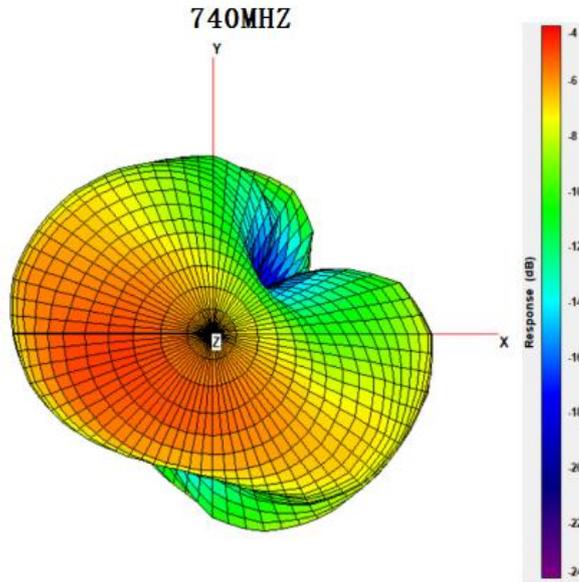
Tx1 antenna: 730 MHz

Center Frequency	730 MHz
Horizontal (dBi) peak	-4.69
Vertical (dBi) peak	-5.87



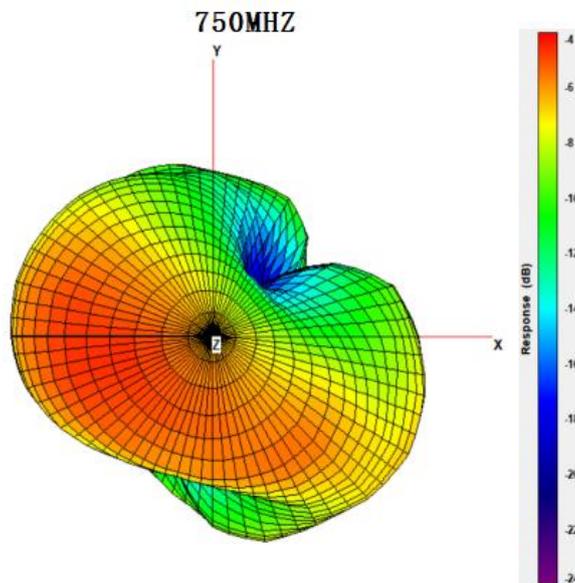
Tx1 antenna: 740 MHz

Center Frequency	740 MHz
Horizontal (dBi) peak	-4.62
Vertical (dBi) peak	-5.59



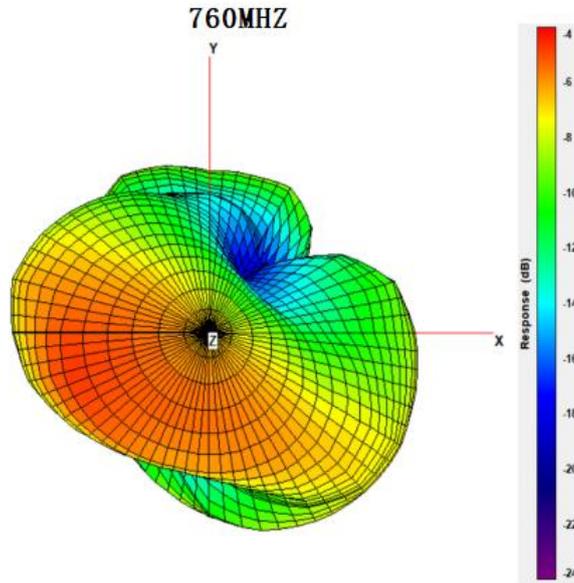
Tx1 antenna: 750 MHz

Center Frequency	750 MHz
Horizontal (dBi) peak	-4.66
Vertical (dBi) peak	-5.30



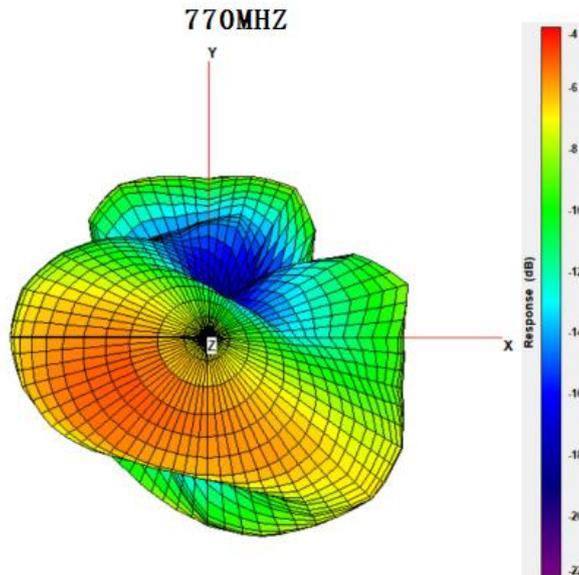
Tx1 antenna: 760 MHz

Center Frequency	760 MHz
Horizontal (dBi) peak	-4.63
Vertical (dBi) peak	-5.65



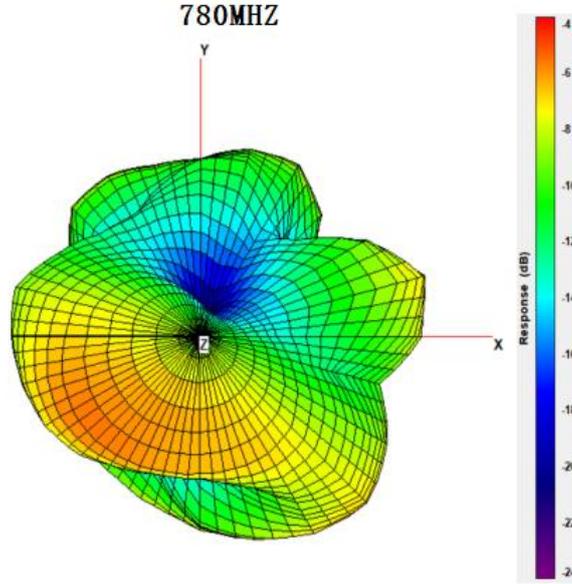
Tx1 antenna: 770 MHz

Center Frequency	770 MHz
Horizontal (dBi) peak	-4.63
Vertical (dBi) peak	-5.93



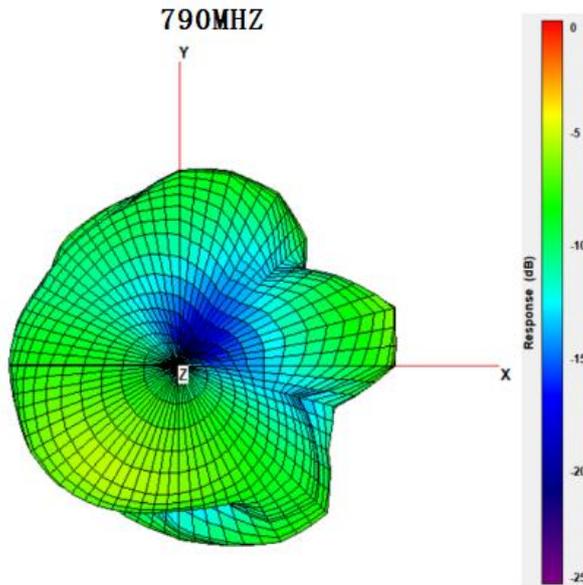
Tx1 antenna: 780 MHz

Center Frequency	780 MHz
Horizontal (dBi) peak	-4.32
Vertical (dBi) peak	-5.95



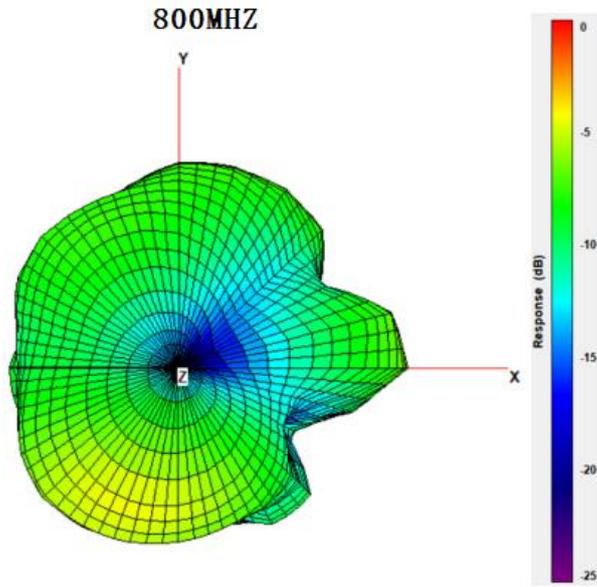
Tx1 antenna: 790 MHz

Center Frequency	790 MHz
Horizontal (dBi) peak	-3.90
Vertical (dBi) peak	-5.76



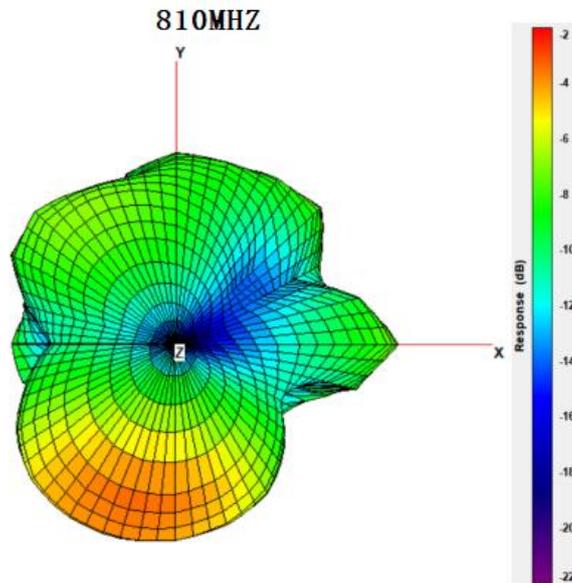
Tx1 antenna: 800 MHz

Center Frequency	800 MHz
Horizontal (dBi) peak	-4.09
Vertical (dBi) peak	-5.45



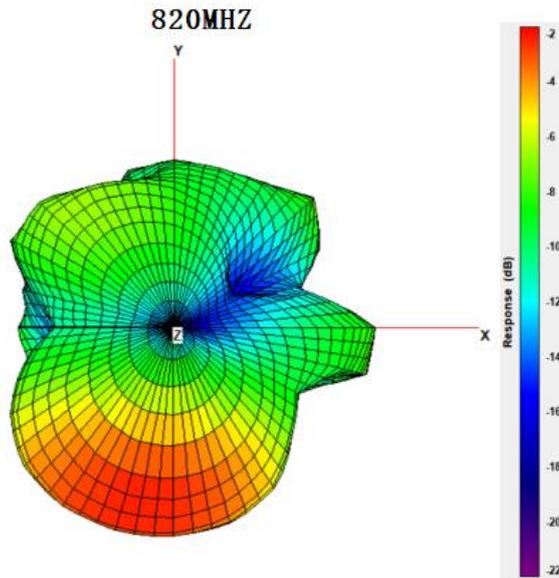
Tx1 antenna: 810 MHz

Center Frequency	810 MHz
Horizontal (dBi) peak	-3.80
Vertical (dBi) peak	-5.00



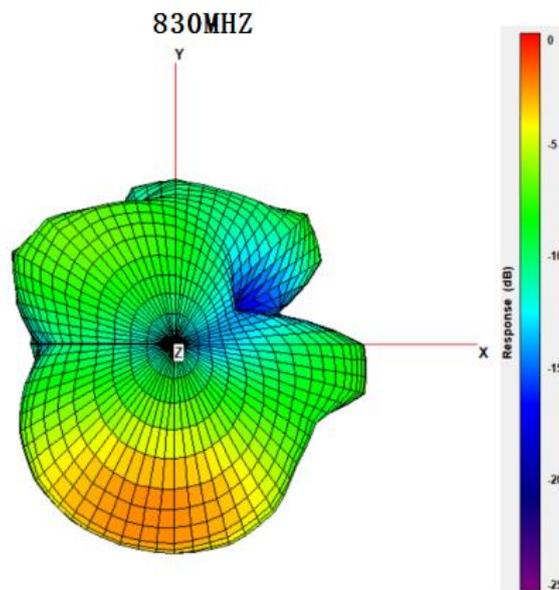
Tx1 antenna: 820 MHz

Center Frequency	820 MHz
Horizontal (dBi) peak	-2.85
Vertical (dBi) peak	-5.21



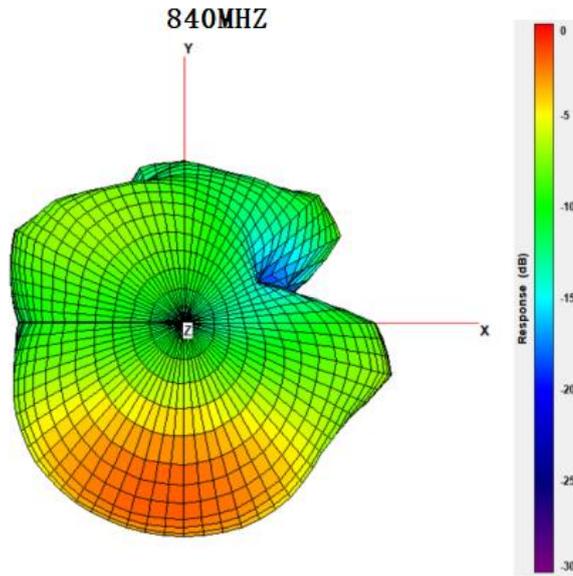
Tx1 antenna: 830 MHz

Center Frequency	830 MHz
Horizontal (dBi) peak	-2.86
Vertical (dBi) peak	-4.96



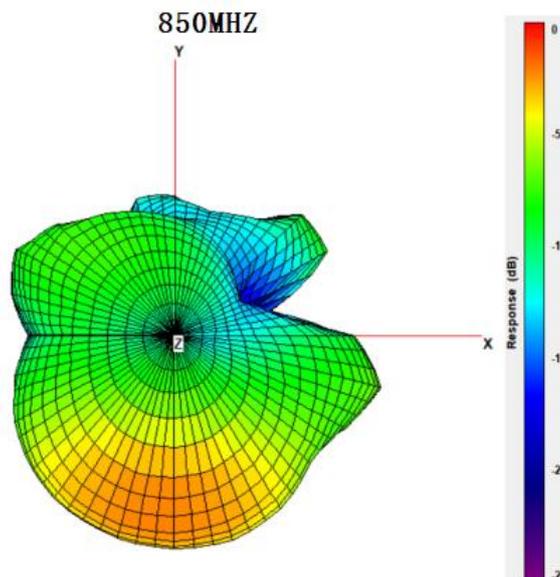
Tx1 antenna: 840 MHz

Center Frequency	840 MHz
Horizontal (dBi) peak	-2.33
Vertical (dBi) peak	-5.20



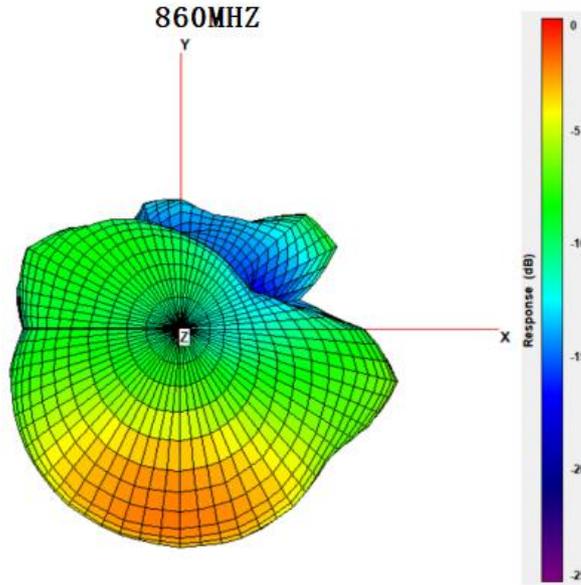
Tx1 antenna: 850 MHz

Center Frequency	850 MHz
Horizontal (dBi) peak	-2.38
Vertical (dBi) peak	-5.04



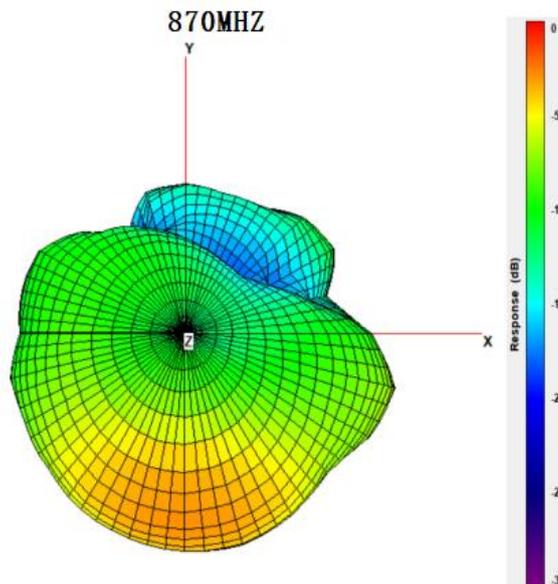
Tx1 antenna: 860 MHz

Center Frequency	860 MHz
Horizontal (dBi) peak	-2.11
Vertical (dBi) peak	-4.79



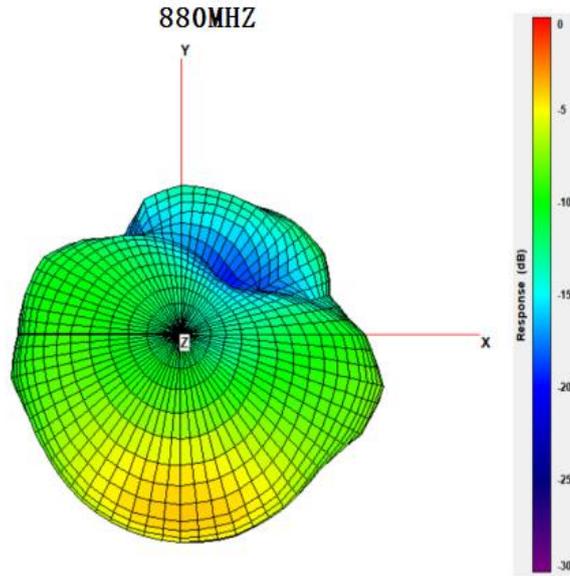
Tx1 antenna: 870 MHz

Center Frequency	870 MHz
Horizontal (dBi) peak	-3.10
Vertical (dBi) peak	-5.29



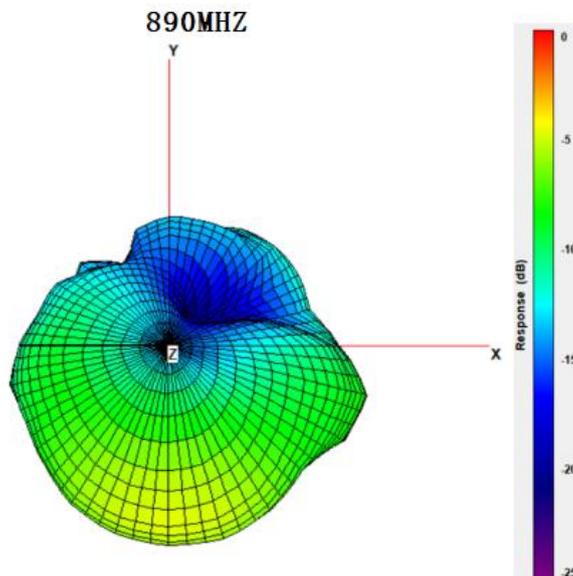
Tx1 antenna: 880 MHz

Center Frequency	880 MHz
Horizontal (dBi) peak	-4.15
Vertical (dBi) peak	-5.80



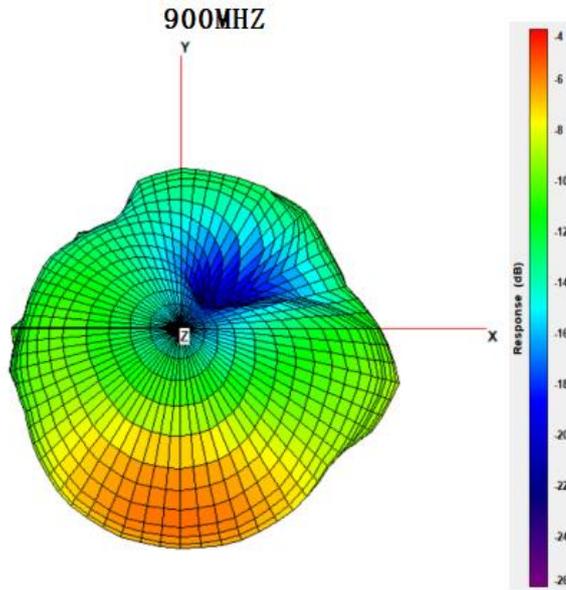
Tx1 antenna: 890 MHz

Center Frequency	890 MHz
Horizontal (dBi) peak	-4.71
Vertical (dBi) peak	-6.49



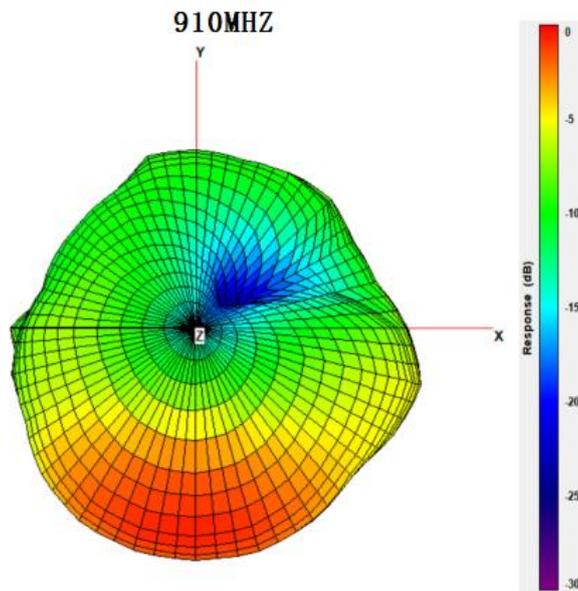
Tx1 antenna: 900 MHz

Center Frequency	900 MHz
Horizontal (dBi) peak	-5.52
Vertical (dBi) peak	-7.14



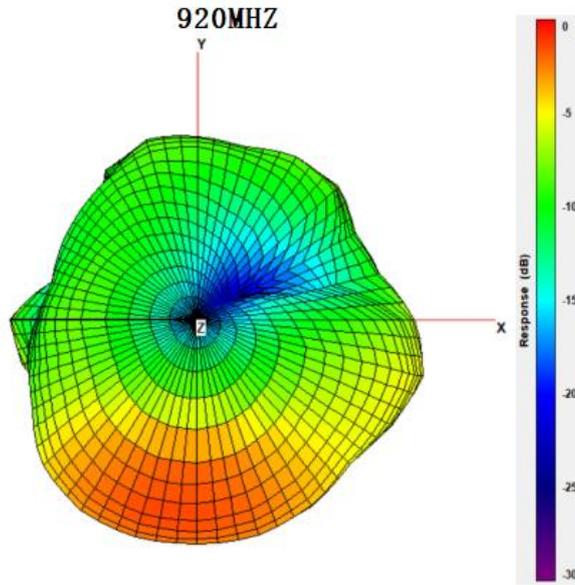
Tx1 antenna: 910 MHz

Center Frequency	910 MHz
Horizontal (dBi) peak	-5.37
Vertical (dBi) peak	-7.26



Tx1 antenna: 920 MHz

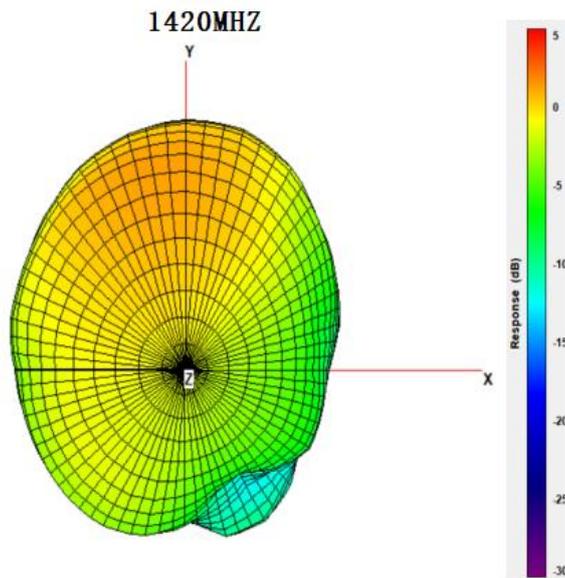
Center Frequency	920 MHz
Horizontal (dBi) peak	-5.81
Vertical (dBi) peak	-7.49



1420-1670MHz radiation characteristic

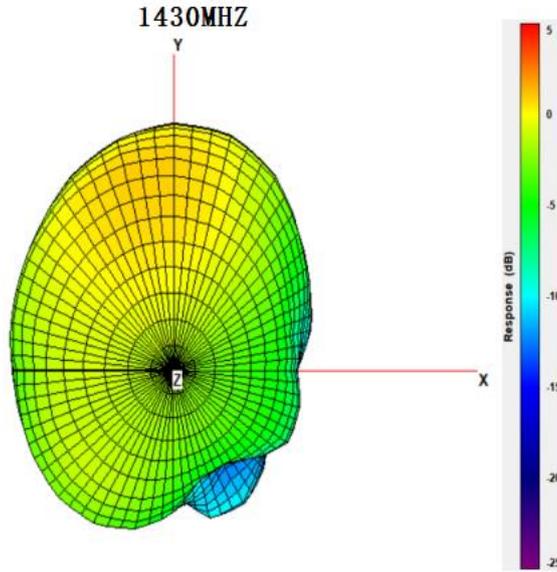
Tx1 antenna: 1420 MHz

Center Frequency	1420 MHz
Horizontal (dBi) peak	-0.55
Vertical (dBi) peak	1.57



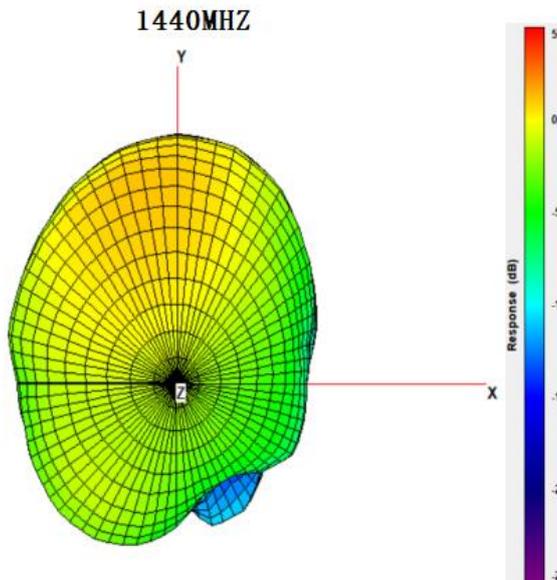
Tx1 antenna: 1430 MHz

Center Frequency	1430 MHz
Horizontal (dBi) peak	-0.47
Vertical (dBi) peak	1.07



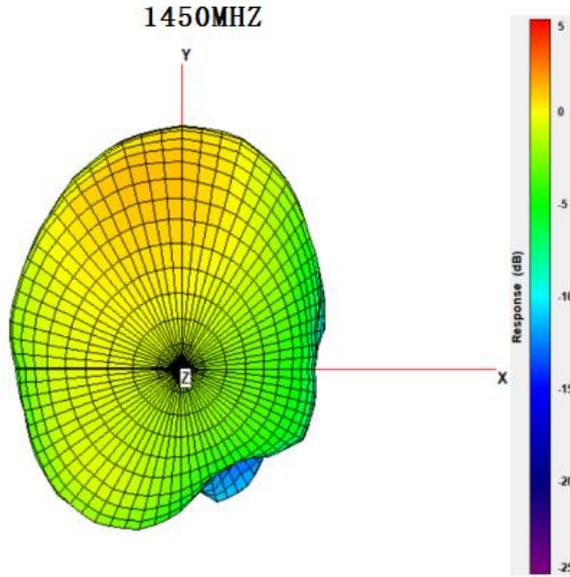
Tx1 antenna: 1440 MHz

Center Frequency	1440 MHz
Horizontal (dBi) peak	-0.19
Vertical (dBi) peak	1.25



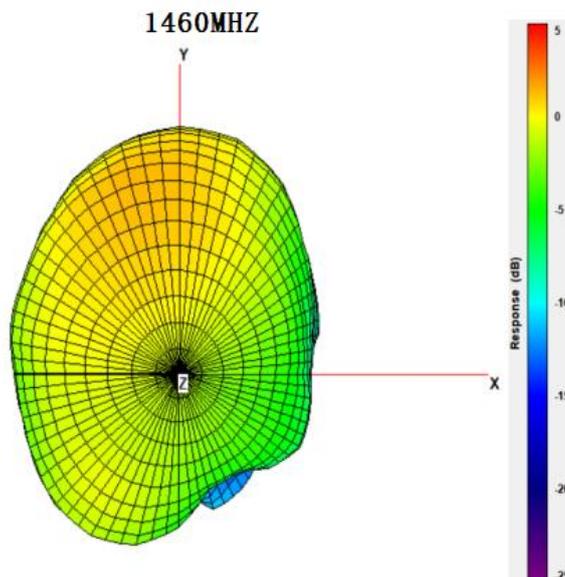
Tx1 antenna: 1450 MHz

Center Frequency	1450 MHz
Horizontal (dBi) peak	0.07
Vertical (dBi) peak	1.28



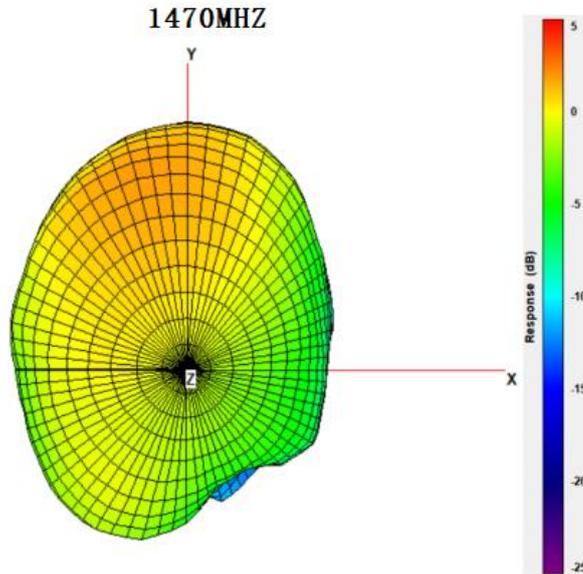
Tx1 antenna: 1460 MHz

Center Frequency	1460 MHz
Horizontal (dBi) peak	0.14
Vertical (dBi) peak	1.37



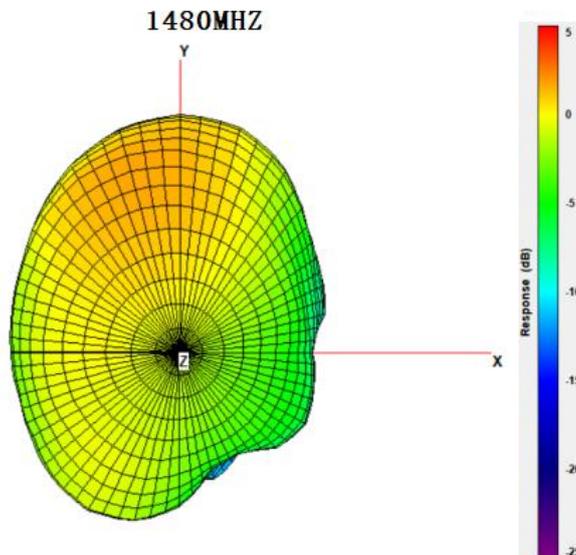
Tx1 antenna: 1470 MHz

Center Frequency	1470 MHz
Horizontal (dBi) peak	0.48
Vertical (dBi) peak	1.92



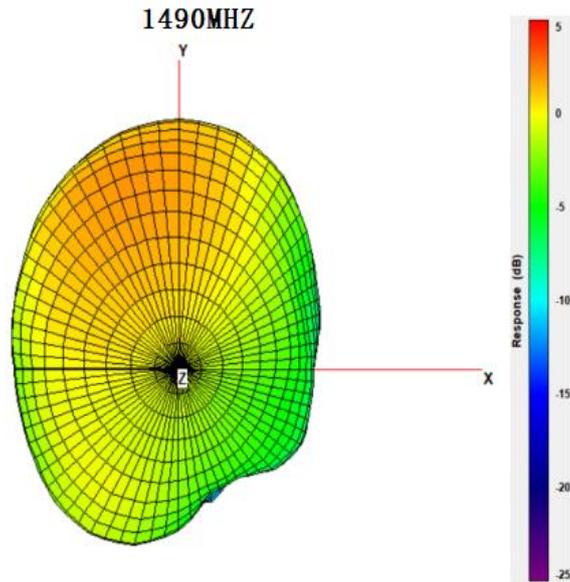
Tx1 antenna: 1480 MHz

Center Frequency	1480 MHz
Horizontal (dBi) peak	0.63
Vertical (dBi) peak	1.84



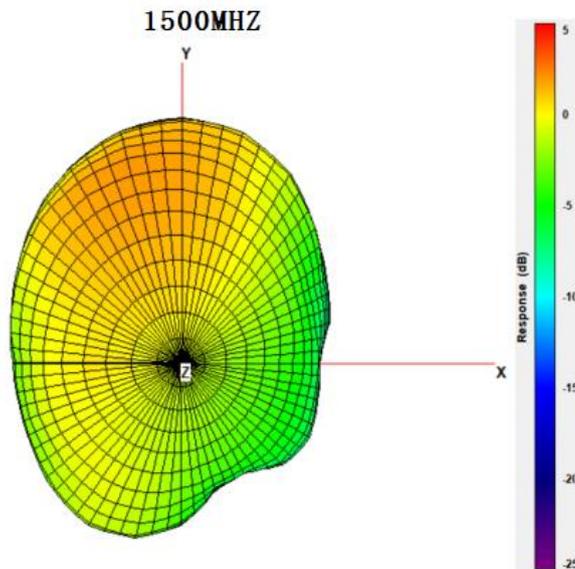
Tx1 antenna: 1490 MHz

Center Frequency	1490 MHz
Horizontal (dBi) peak	0.56
Vertical (dBi) peak	1.99



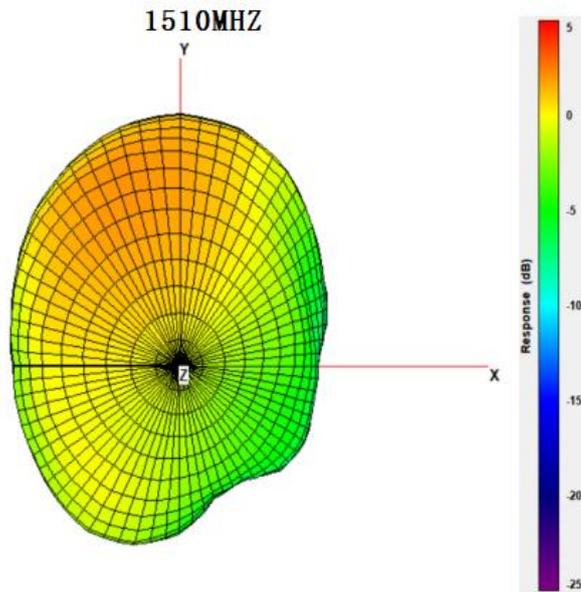
Tx1 antenna: 1500 MHz

Center Frequency	1500 MHz
Horizontal (dBi) peak	0.92
Vertical (dBi) peak	1.96



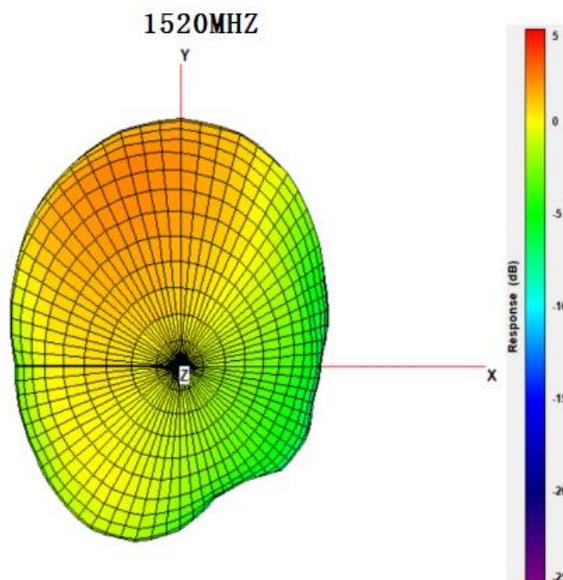
Tx1 antenna: 1510 MHz

Center Frequency	1510 MHz
Horizontal (dBi) peak	0.64
Vertical (dBi) peak	2.00



Tx1 antenna: 1520 MHz

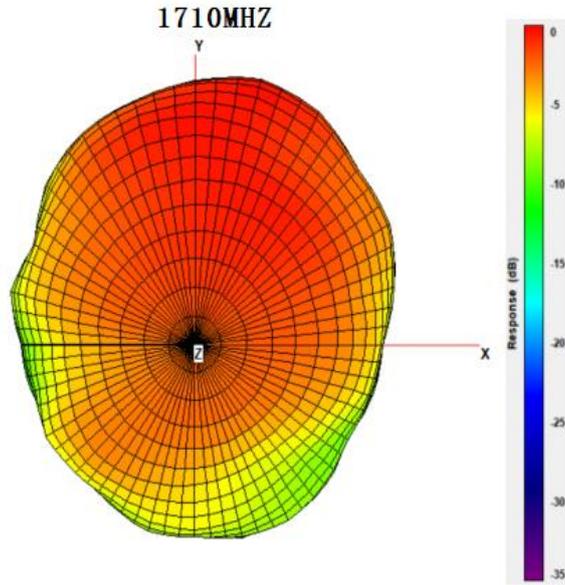
Center Frequency	1520 MHz
Horizontal (dBi) peak	0.99
Vertical (dBi) peak	2.24



1710-2600MHz radiation characteristic

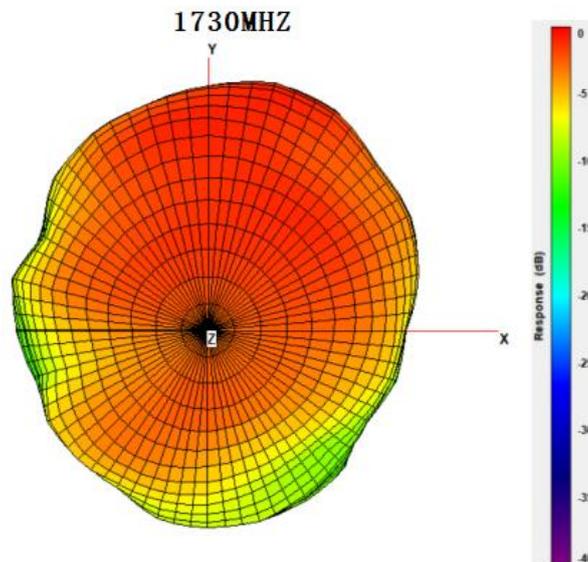
Tx1 antenna: 1710 MHz

Center Frequency	1710 MHz
Horizontal (dBi) peak	-1.87
Vertical (dBi) peak	0.13



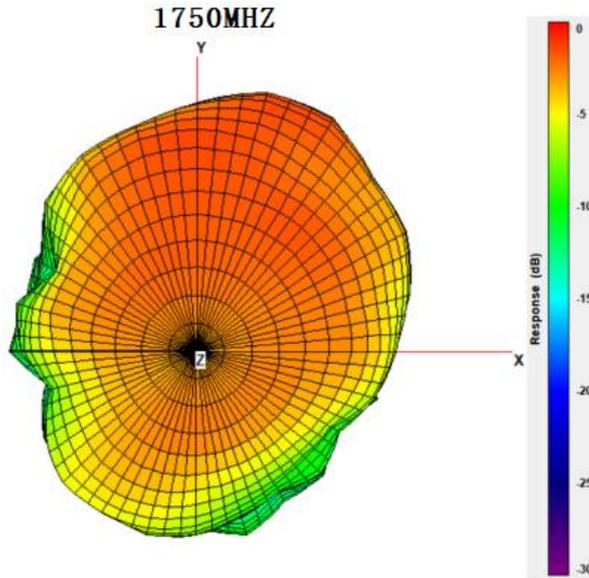
Tx1 antenna: 1730 MHz

Center Frequency	1730 MHz
Horizontal (dBi) peak	-1.47
Vertical (dBi) peak	-0.29



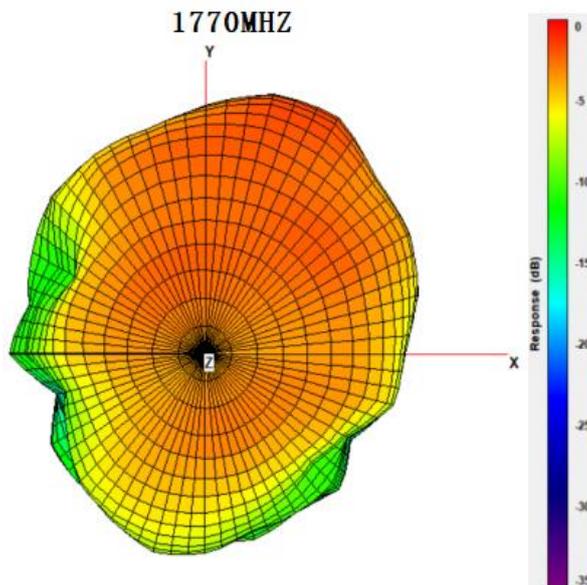
Tx1 antenna: 1750 MHz

Center Frequency	1750 MHz
Horizontal (dBi) peak	-1.99
Vertical (dBi) peak	-1.13



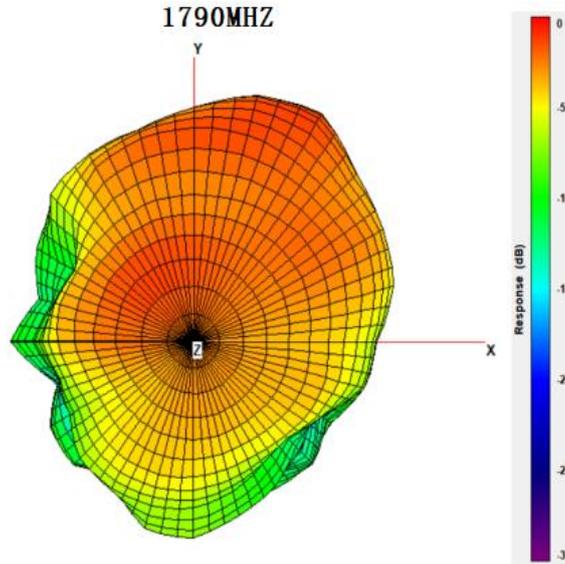
Tx1 antenna: 1770 MHz

Center Frequency	1770 MHz
Horizontal (dBi) peak	-2.42
Vertical (dBi) peak	-1.46



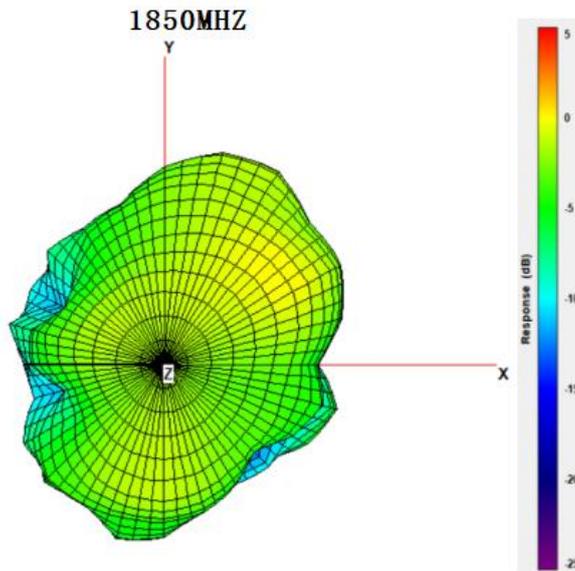
Tx1 antenna: 1790 MHz

Center Frequency	1790 MHz
Horizontal (dBi) peak	-0.94
Vertical (dBi) peak	-0.91



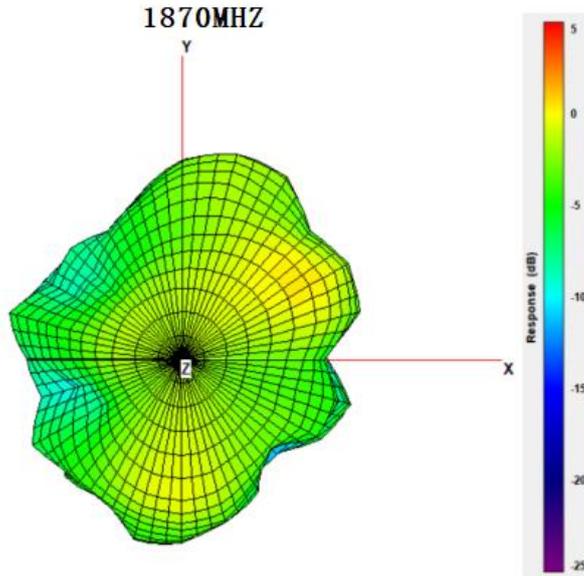
Tx1 antenna: 1850 MHz

Center Frequency	1850 MHz
Horizontal (dBi) peak	-1.01
Vertical (dBi) peak	-0.52



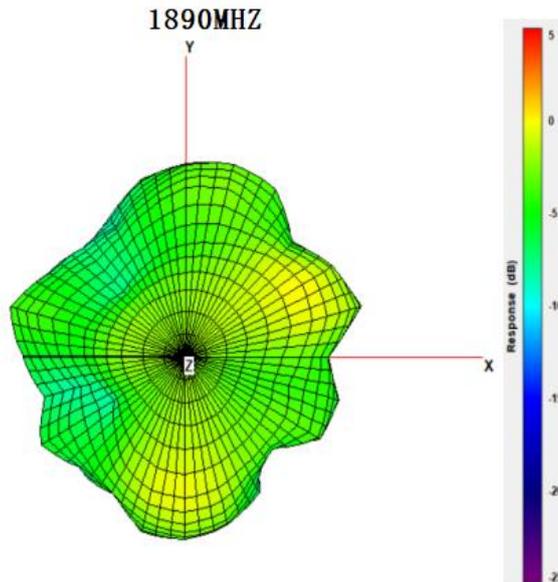
Tx1 antenna: 1870 MHz

Center Frequency	1870 MHz
Horizontal (dBi) peak	-1.40
Vertical (dBi) peak	-0.09



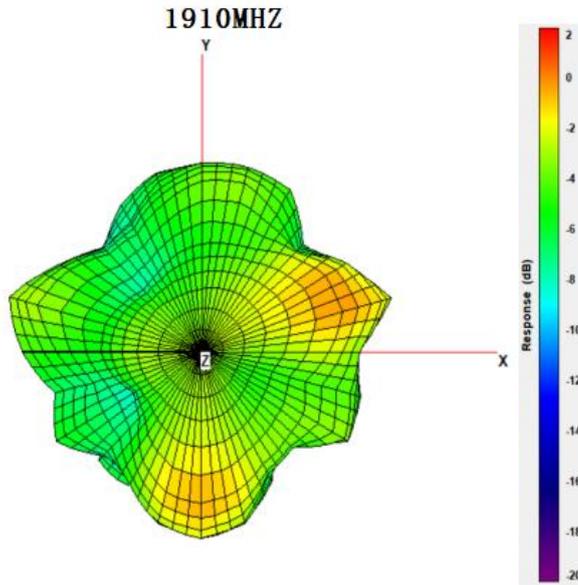
Tx1 antenna: 1890 MHz

Center Frequency	1890 MHz
Horizontal (dBi) peak	-1.59
Vertical (dBi) peak	0.07



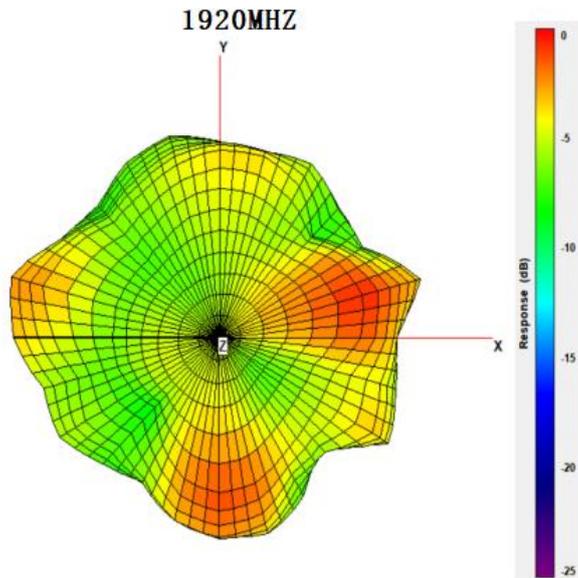
Tx1 antenna: 1910 MHz

Center Frequency	1910 MHz
Horizontal (dBi) peak	-2.51
Vertical (dBi) peak	-0.15



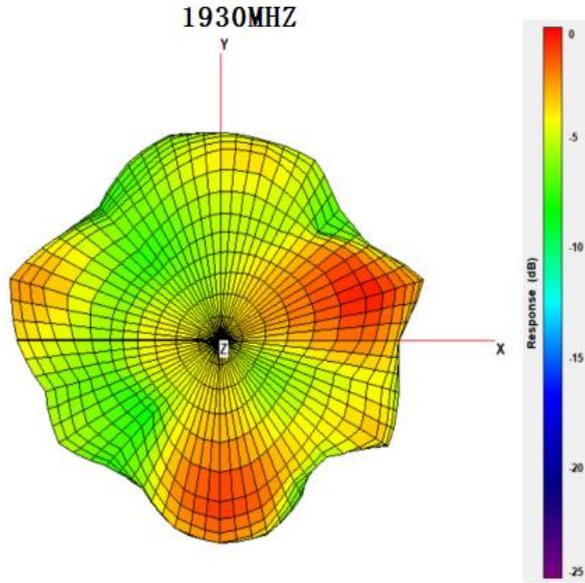
Tx1 antenna: 1920 MHz

Center Frequency	1920 MHz
Horizontal (dBi) peak	-2.18
Vertical (dBi) peak	-0.51



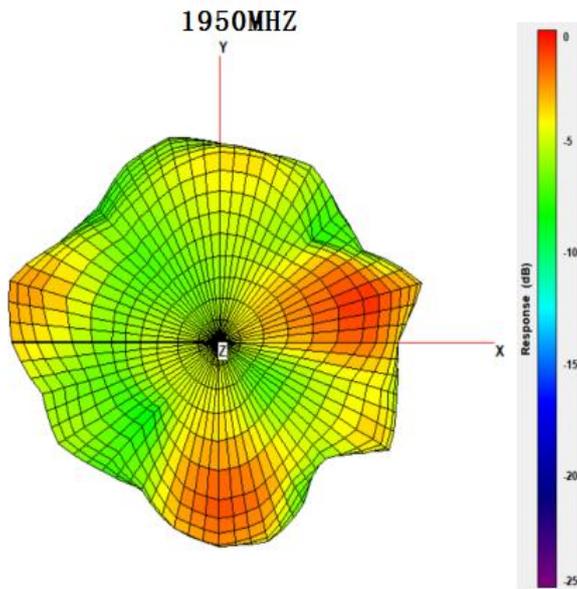
Tx1 antenna: 1930 MHz

Center Frequency	1930 MHz
Horizontal (dBi) peak	-2.00
Vertical (dBi) peak	-0.42



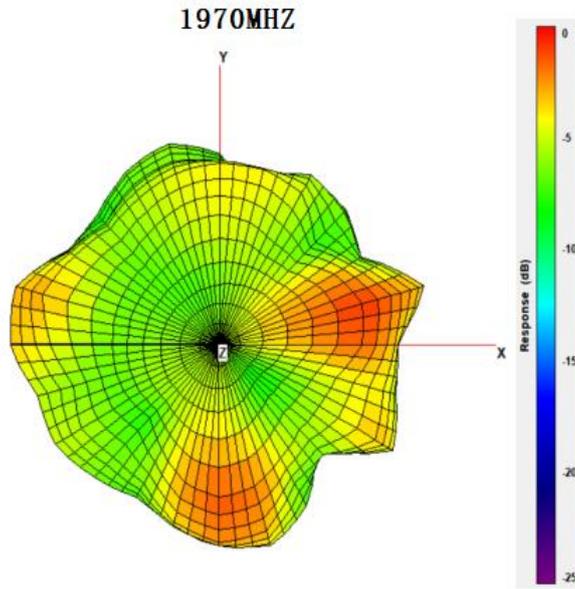
Tx1 antenna: 1950 MHz

Center Frequency	1950 MHz
Horizontal (dBi) peak	-1.91
Vertical (dBi) peak	-1.03



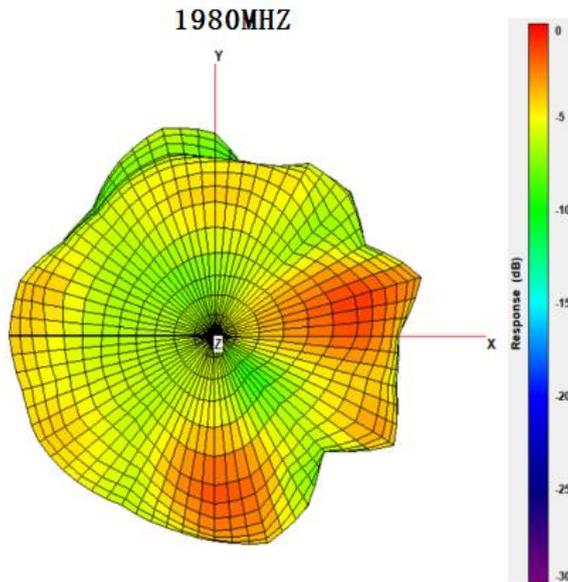
Tx1 antenna: 1970 MHz

Center Frequency	1970 MHz
Horizontal (dBi) peak	-2.48
Vertical (dBi) peak	-1.55



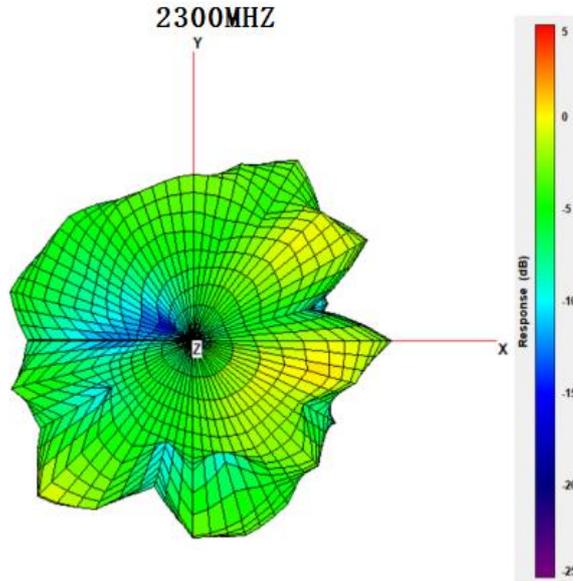
Tx1 antenna: 1980 MHz

Center Frequency	1980 MHz
Horizontal (dBi) peak	-1.92
Vertical (dBi) peak	-2.10



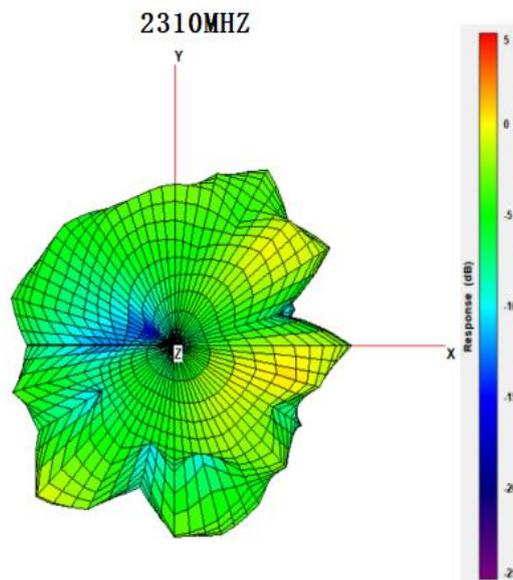
Tx1 antenna: 2300 MHz

Center Frequency	2300 MHz
Horizontal (dBi) peak	0.79
Vertical (dBi) peak	-0.56



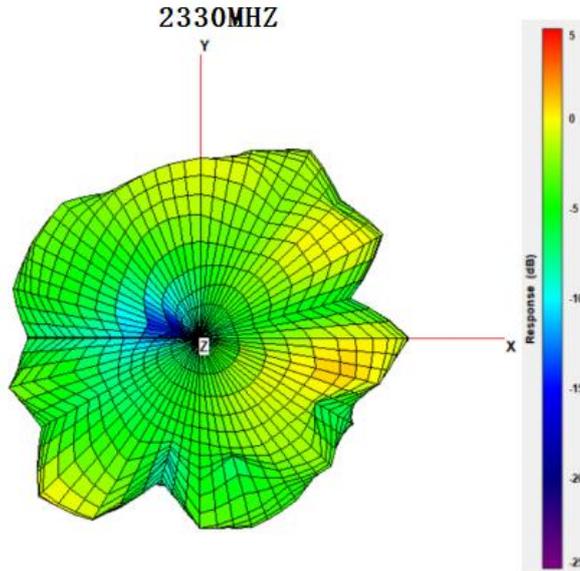
Tx1 antenna: 2310 MHz

Center Frequency	2310 MHz
Horizontal (dBi) peak	0.48
Vertical (dBi) peak	-0.25



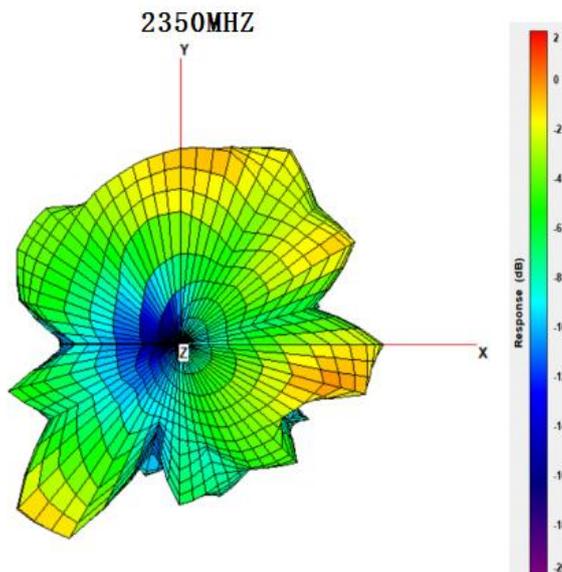
Tx1 antenna: 2330 MHz

Center Frequency	2330 MHz
Horizontal (dBi) peak	0.11
Vertical (dBi) peak	-0.52



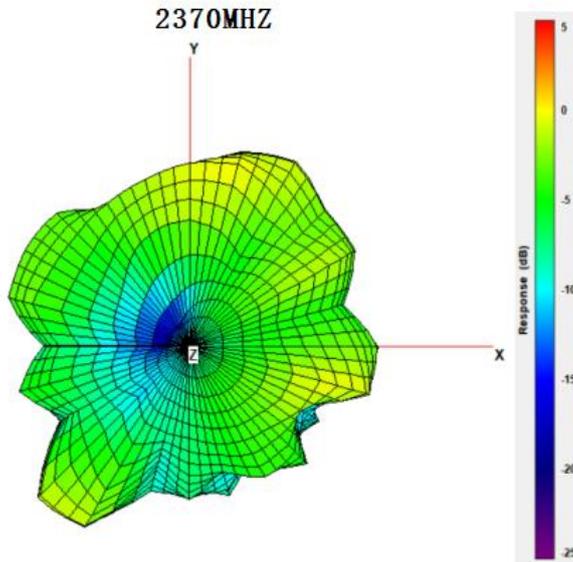
Tx1 antenna: 2350 MHz

Center Frequency	2350 MHz
Horizontal (dBi) peak	-0.15
Vertical (dBi) peak	-0.16



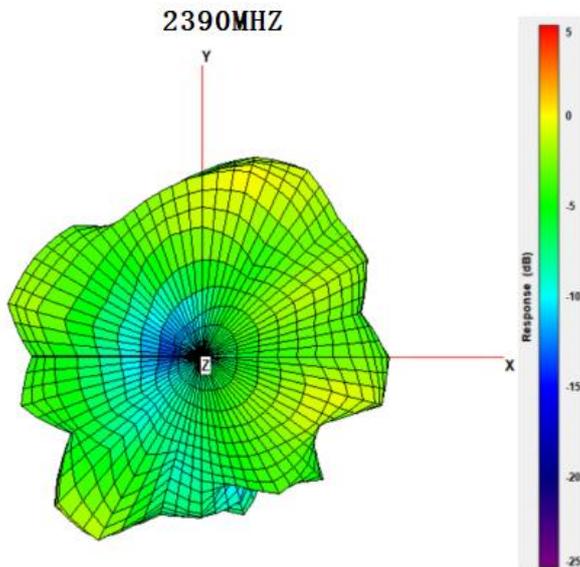
Tx1 antenna: 2370 MHz

Center Frequency	2370 MHz
Horizontal (dBi) peak	-0.35
Vertical (dBi) peak	-0.01



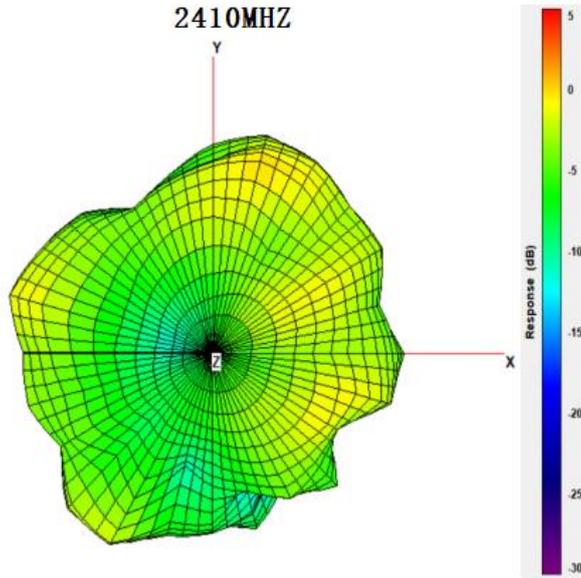
Tx1 antenna: 2390 MHz

Center Frequency	2390 MHz
Horizontal (dBi) peak	-0.60
Vertical (dBi) peak	-0.02



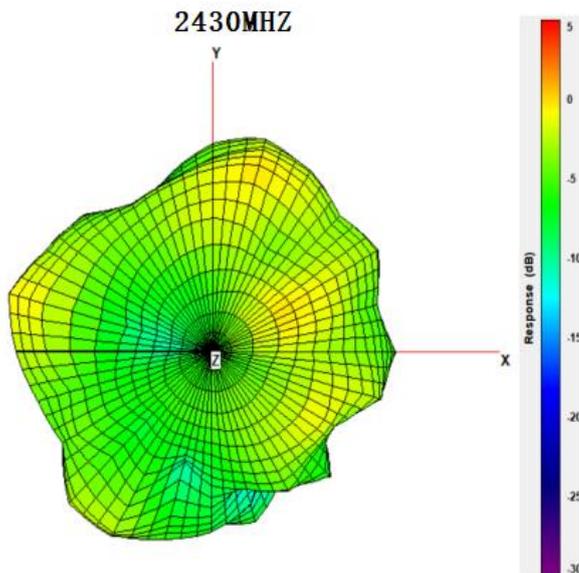
Tx1 antenna: 2410 MHz

Center Frequency	2410 MHz
Horizontal (dBi) peak	-0.15
Vertical (dBi) peak	-0.35



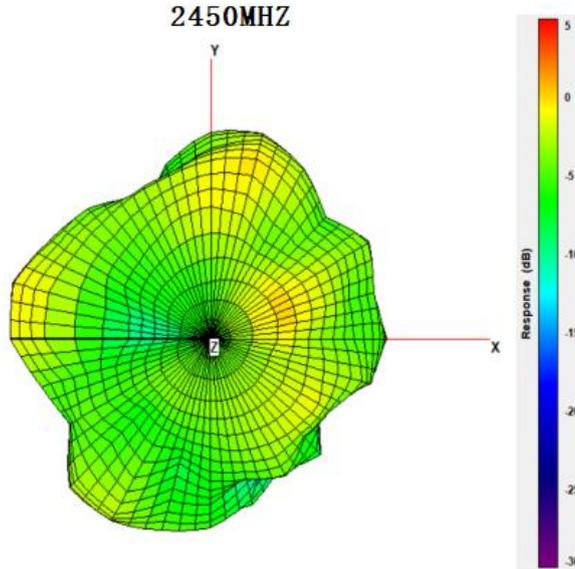
Tx1 antenna: 2430 MHz

Center Frequency	2430 MHz
Horizontal (dBi) peak	-0.40
Vertical (dBi) peak	-0.54



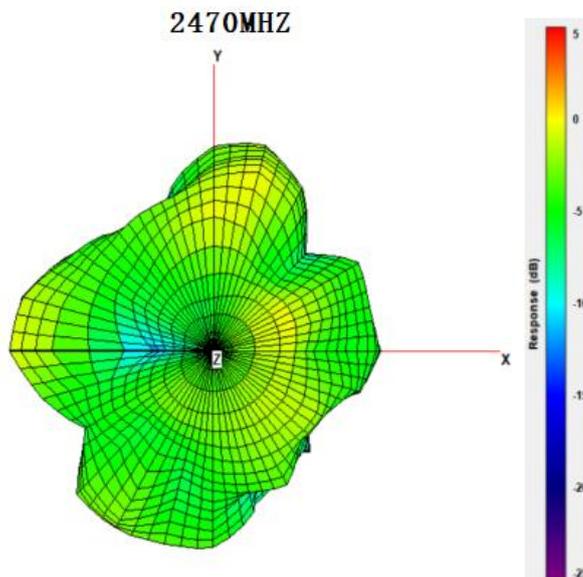
Tx1 antenna: 2450 MHz

Center Frequency	2450 MHz
Horizontal (dBi) peak	-0.11
Vertical (dBi) peak	-0.33



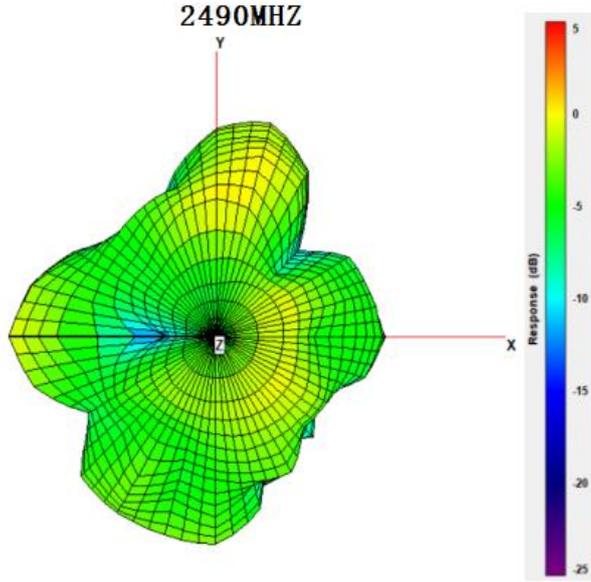
Tx1 antenna: 2470 MHz

Center Frequency	2470 MHz
Horizontal (dBi) peak	-0.18
Vertical (dBi) peak	-0.65



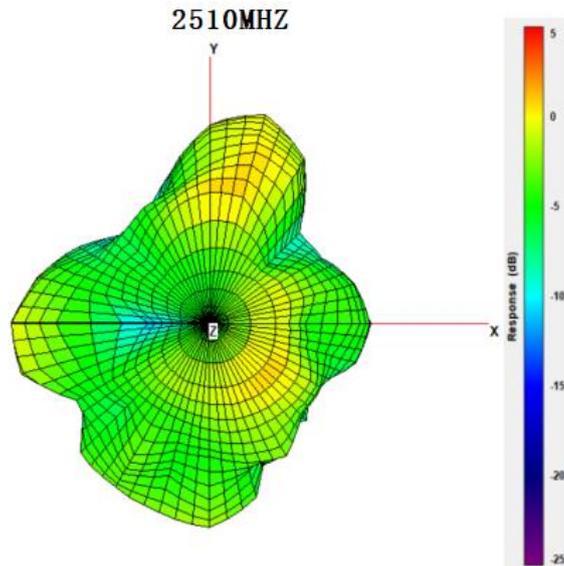
Tx1 antenna: 2490 MHz

Center Frequency	2490 MHz
Horizontal (dBi) peak	-0.20
Vertical (dBi) peak	-0.44



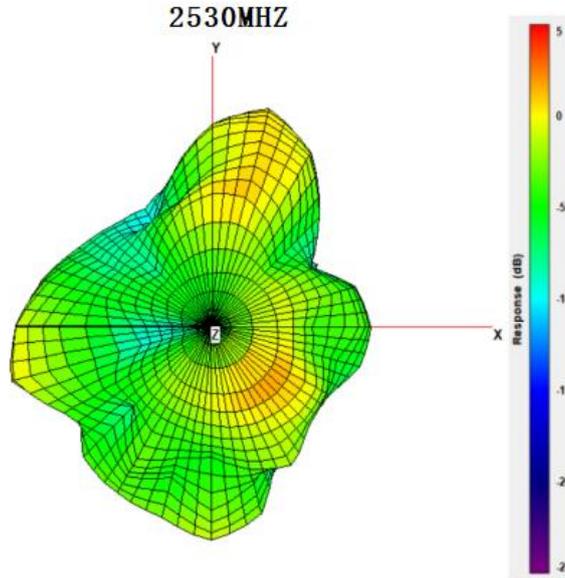
Tx1 antenna: 2510 MHz

Center Frequency	2510 MHz
Horizontal (dBi) peak	1.55
Vertical (dBi) peak	-0.33



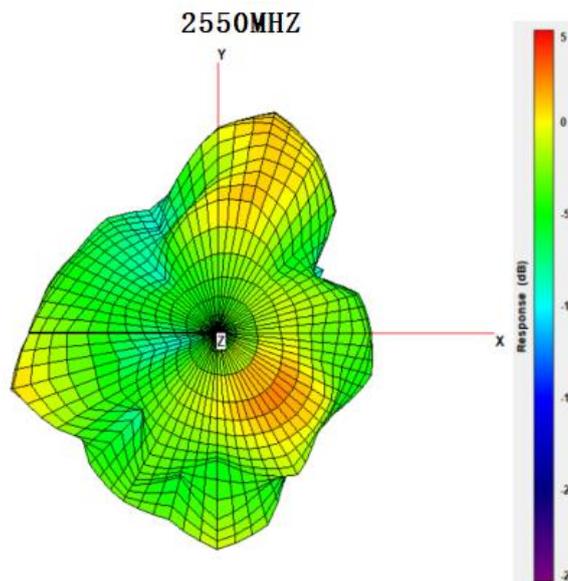
Tx1 antenna: 2530 MHz

Center Frequency	2530 MHz
Horizontal (dBi) peak	2.25
Vertical (dBi) peak	-0.47



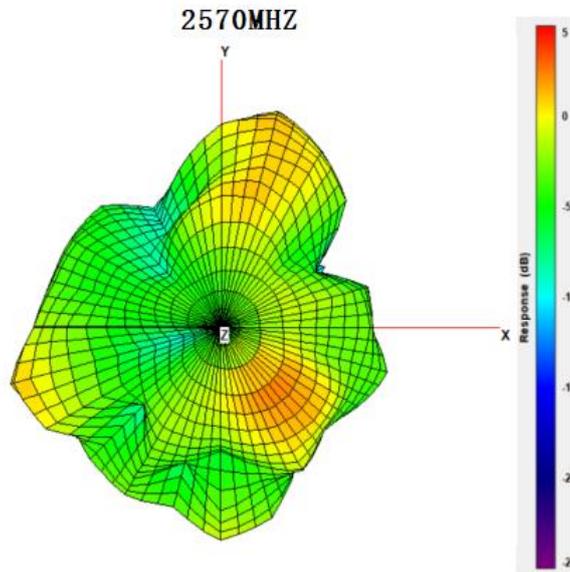
Tx1 antenna: 2550 MHz

Center Frequency	2550 MHz
Horizontal (dBi) peak	2.89
Vertical (dBi) peak	-0.17



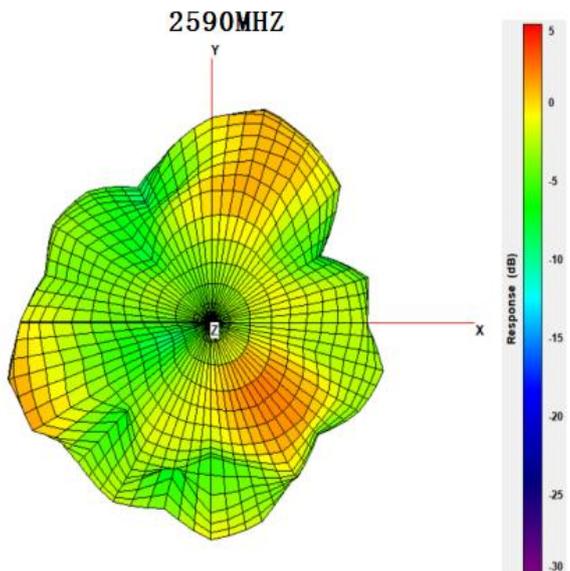
Tx1 antenna: 2570 MHz

Center Frequency	2570 MHz
Horizontal (dBi) peak	2.93
Vertical (dBi) peak	0.21



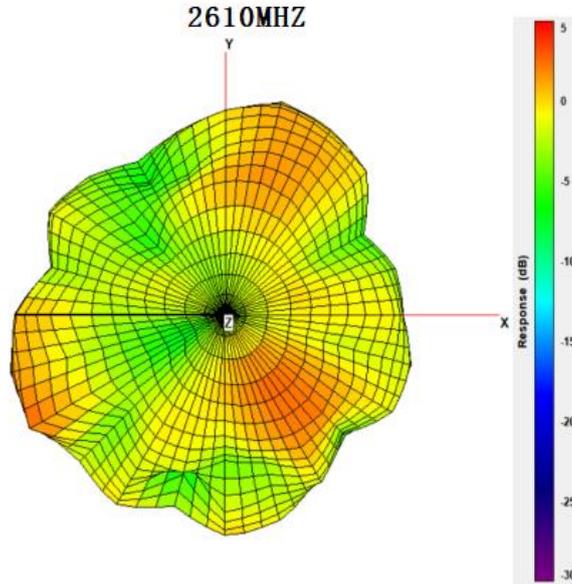
Tx1 antenna: 2590 MHz

Center Frequency	2590 MHz
Horizontal (dBi) peak	2.50
Vertical (dBi) peak	0.31



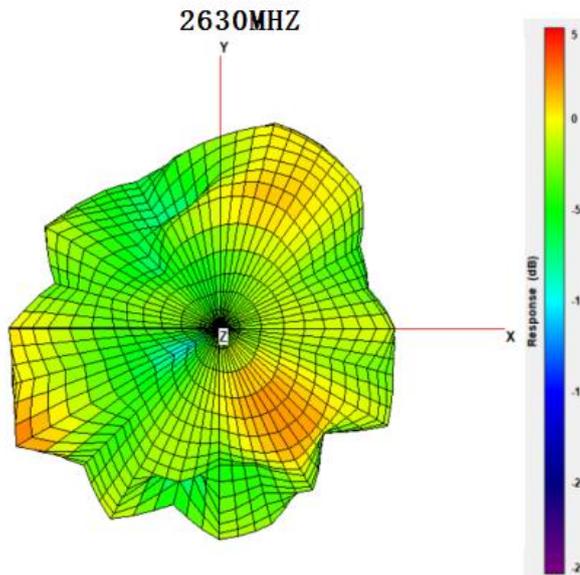
Tx1 antenna: 2610 MHz

Center Frequency	2610 MHz
Horizontal (dBi) peak	2.91
Vertical (dBi) peak	0.20



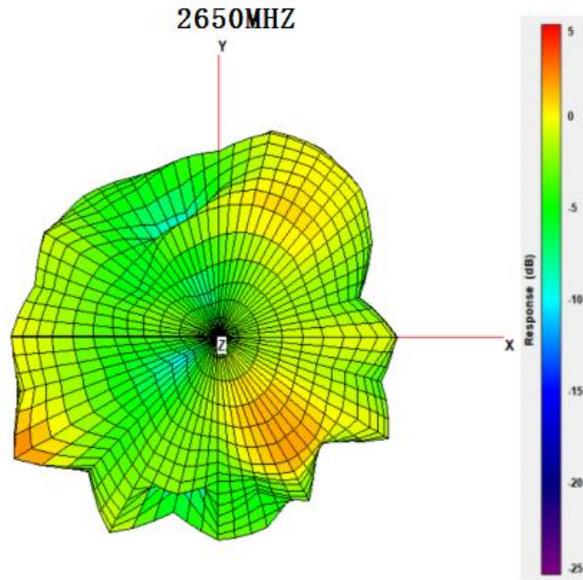
Tx1 antenna: 2630 MHz

Center Frequency	2630 MHz
Horizontal (dBi) peak	2.85
Vertical (dBi) peak	1.01



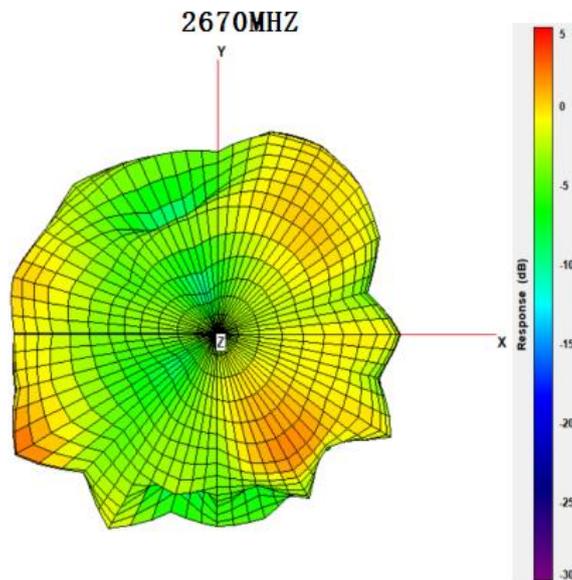
Tx1 antenna: 2650 MHz

Center Frequency	2650 MHz
Horizontal (dBi) peak	2.91
Vertical (dBi) peak	1.13



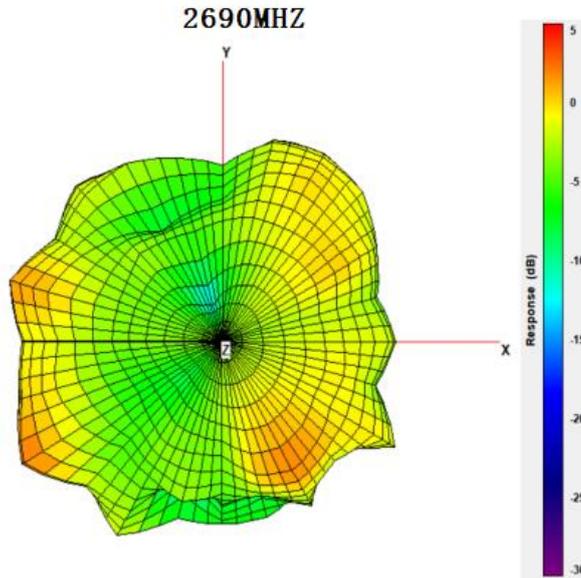
Tx1 antenna: 2670 MHz

Center Frequency	2670 MHz
Horizontal (dBi) peak	2.82
Vertical (dBi) peak	0.43



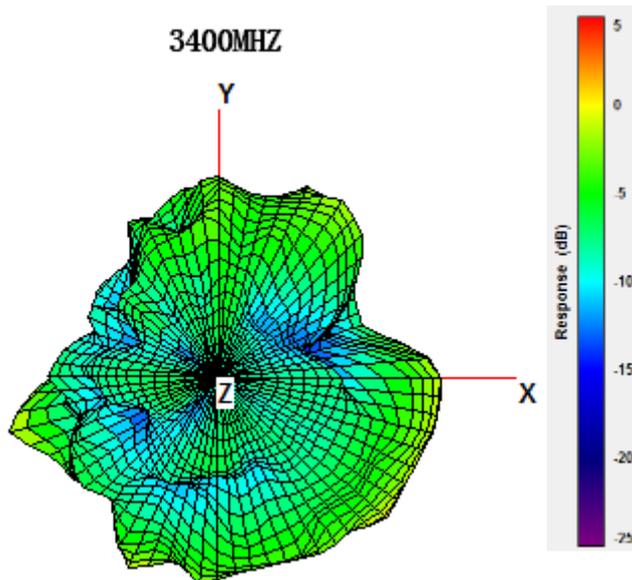
Tx1 antenna: 2690 MHz

Center Frequency	2690 MHz
Horizontal (dBi) peak	2.87
Vertical (dBi) peak	0.58



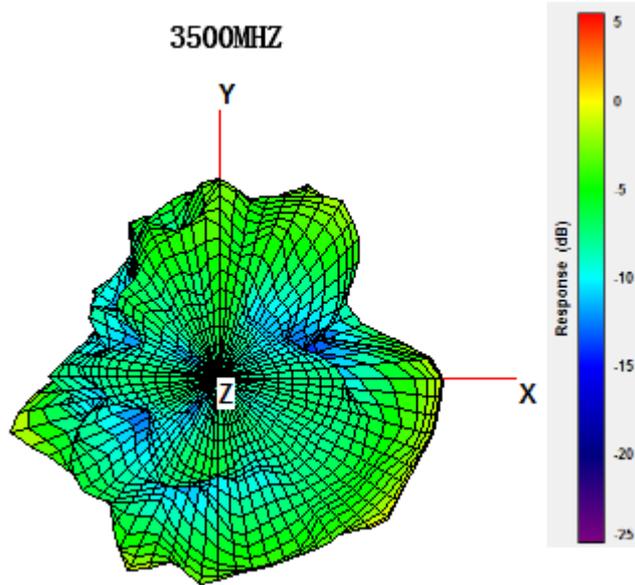
Tx1 antenna: 3400 MHz

Center Frequency	3400 MHz
Horizontal (dBi) peak	-4.25
Vertical (dBi) peak	-4.31



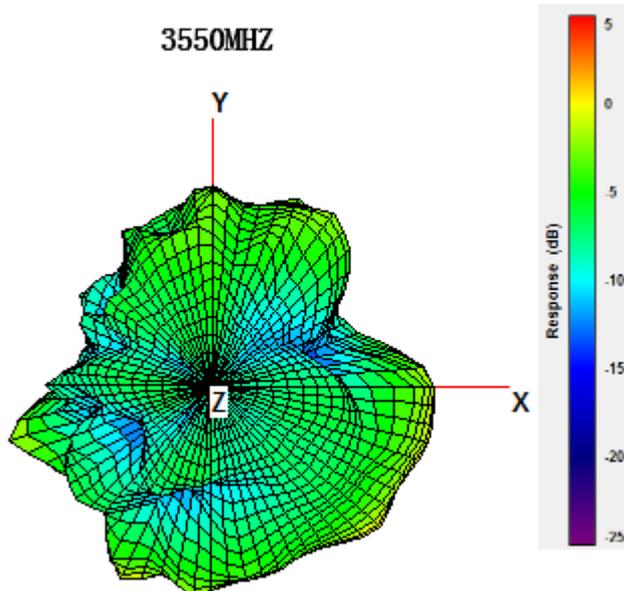
Tx1 antenna: 3500 MHz

Center Frequency	3500 MHz
Horizontal (dBi) peak	-1.28
Vertical (dBi) peak	-4.44



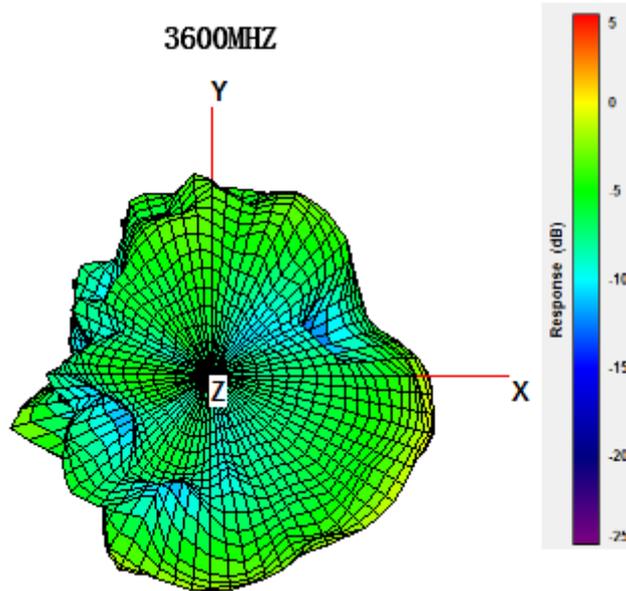
Tx1 antenna: 3550 MHz

Center Frequency	3550 MHz
Horizontal (dBi) peak	-1.99
Vertical (dBi) peak	-4.24



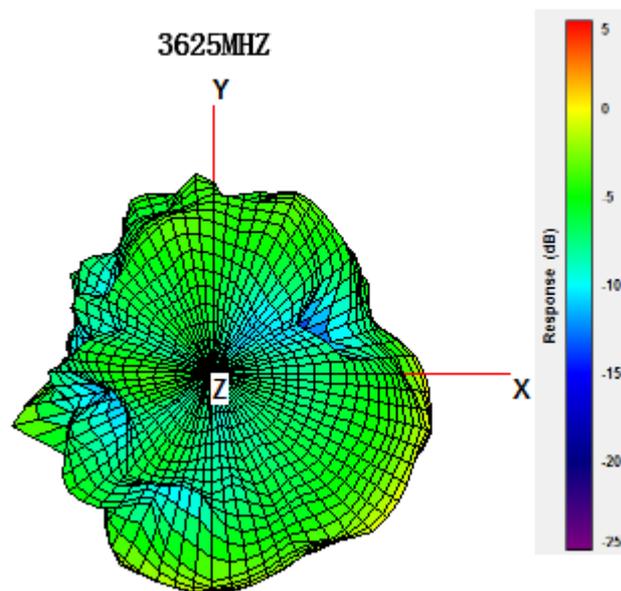
Tx1 antenna: 3600 MHz

Center Frequency	3600 MHz
Horizontal (dBi) peak	-3.26
Vertical (dBi) peak	-4.65



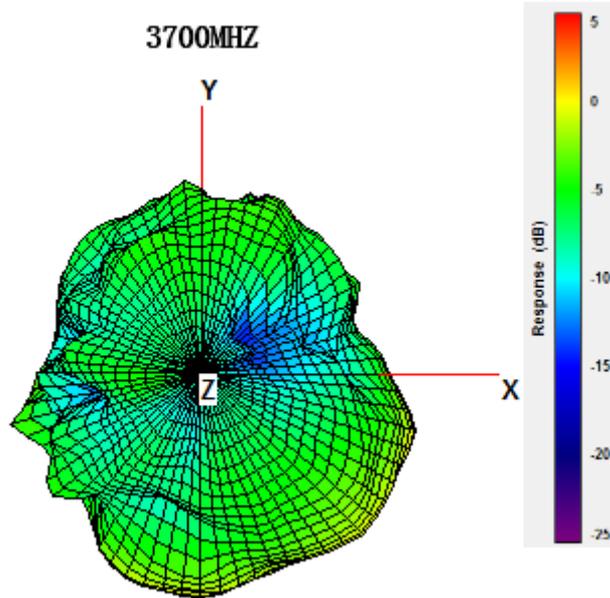
Tx1 antenna: 3625 MHz

Center Frequency	3625 MHz
Horizontal (dBi) peak	-4.01
Vertical (dBi) peak	-4.26



Tx1 antenna: 3700 MHz

Center Frequency	3700 MHz
Horizontal (dBi) peak	-3.60
Vertical (dBi) peak	-1.62



Tx1 antenna: 3800 MHz

Center Frequency	3800 MHz
Horizontal (dBi) peak	-1.30
Vertical (dBi) peak	-0.59

