WWAN Antenna Information

ThinkPad T16 Gen 5

AWAN

U250-000-xx-xx

Platform				
Platform owner	LCFC			
Platform name	ThinkPad T16 Gen 5			
Regulatory Model name (Compliance ID)	TP00177A, TP00177B			
ODM	Lenovo			
Target Launch Date	2026/4/8			
Antenna				
Main (TX)	P/N	DC33002BF30	Cable P/N	SY113L/50-015
	Manufacture	AWAN	Diameter[mm]	1.13
	Type	PIFA	Cable length[mm]	326
			Connector P/N	20565-001R-1
Aux (RX)	P/N	DC33002BF30	Cable P/N	SY113L/50-008
	Manufacture	AWAN	Diameter[mm]	1.13
	Type	PIFA	Cable length[mm]	110
			Connector P/N	20565-001R-1
	Module A	Rolling Wireless RW101R-GL	FCC ID: 2AX2URW101RGL IC ID: 26644-RW101RGL	
	Module B	Rolling Wireless RW220-GL	FCC ID: 2AX2URW220GL IC ID: 2AX2URW220GL	

Section 1. Antenna Assembly Specifications

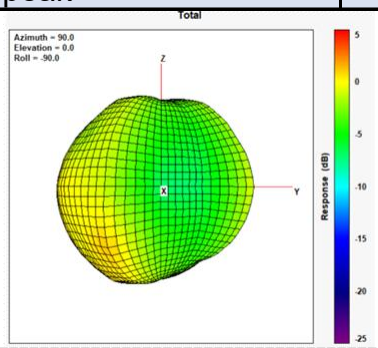
- ☐ T99W696
- ☑ RW101R-GL
- ☑ RW220-GL
- ☐ EM05-CN
- ☐ RW350R-GL
- ☐ RW101R-GL-12

Frequency (MHz)		Main			MIMO		
		Cable Loss (dB)	Peak Gain (including cable loss)		Cable Loss (dB)	Peak Gain (including cable loss)	
			Horizontal (dBi)	Vertical (dBi)		Horizontal (dBi)	Vertical (dBi)
Band1 n1	1920	0.71	-8.52	-3.77			
	1950	0.72	-8.21	-3.93			
	1980	0.72	-8.15	-4.03			
Band2 n2	1850	0.69	-9.14	-3.65			
	1880	0.69	-8.96	-3.80			
	1910	0.7	-8.62	-3.71			
Band3 n3	1710	0.65	-8.46	-4.17			
	1747.5	0.67	-8.21	-3.70			
	1785	0.68	-8.49	-3.54			
Band4 n4	1710	0.65	-8.46	-4.17			
	1732.5	0.66	-8.46	-4.17			
	1755	0.67	-8.21	-3.56			
Band5 n5	824	0.45	-6.27	-3.45			
	836.5	0.46	-6.21	-3.45			
	849	0.47	-6.01	-3.29			
Band7 n7	2500	0.83	-6.63	-3.92			
	2535	0.83	-6.97	-3.92			
	2570	0.84	-7.53	-4.06			
Band8 n8	880	0.48	-6.87	-3.90			
	897.5	0.48	-7.69	-4.70			
	915	0.49	-8.78	-5.67			
Band12 n12	699	0.4	-5.76	-4.11			
	707.5	0.4	-5.71	-3.67			
	716	0.42	-5.27	-3.03			
Band13 n13	777	0.44	-5.04	-1.27			
	782	0.44	-5.29	-1.50			
	787	0.44	-5.56	-1.79			
Band14 n14	788	0.44	-5.62	-1.85			
	793	0.44	-5.77	-2.06			
	798	0.44	-6.01	-2.44			
Band17 n17	704	0.4	-5.71	-3.67			
	710	0.41	-5.51	-3.38			
	716	0.42	-5.27	-3.03			
Band18 n18	815	0.45	-6.32	-3.33			
	822.5	0.45	-6.29	-3.41			
	830	0.46	-6.22	-3.45			
Band19 n19	830	0.46	-6.22	-3.45			
	837.5	0.46	-6.16	-3.43			
	845	0.47	-6.05	-3.33			
Band20 n20	832	0.46	-6.21	-3.45			
	847	0.47	-6.05	-3.33			
	862	0.47	-6.09	-3.33			
Band25 n25	1850	0.69	-9.14	-3.65			
	1882.5	0.69	-8.96	-3.80			
	1915	0.7	-8.57	-3.74			
Band26 n26	814	0.45	-6.31	-3.31			
	831.5	0.46	-6.22	-3.45			
	849	0.47	-6.01	-3.29			
Band28 n28	703	0.4	-5.75	-3.72			
	725.5	0.43	-5.08	-2.67			
	748	0.44	-4.73	-1.62			
Band29	717						

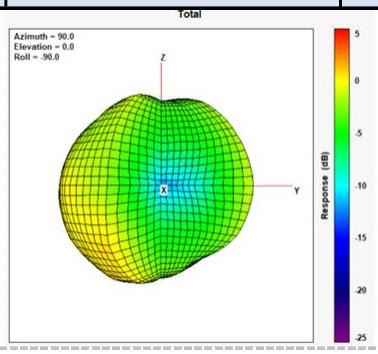
Band29 n29 (DL only)	722.5						
	728						
Band30 n30	2305	0.77	-7.22	-3.20			
	2310	0.77	-7.29	-3.29			
	2315	0.77	-7.35	-3.34			
Band32 n32	1452						
	1474						
	1496						
Band34 n34	2010						
	2017.5						
	2025						
Band38 n38	2570	0.84	-7.53	-4.06			
	2595	0.85	-7.96	-4.19			
	2620	0.86	-8.26	-4.19			
Band39 n39	1880	0.69	-8.96	-3.80			
	1900	0.7	-8.77	-3.79			
	1920	0.71	-8.52	-3.77			
Band40 n40	2300	0.77	-7.15	-3.16			
	2350	0.78	-7.83	-4.00			
	2400	0.79	-7.54	-4.18			
Band41 n41	2496	0.81	-6.64	-3.92			
	2593	0.85	-7.93	-4.20			
	2690	0.87	-7.60	-3.86			
Band42 n42	3400	0.94	-8.00	-5.74			
	3500	0.95	-7.12	-5.04			
	3600	0.97	-7.17	-4.68			
Band43 n43	3600	0.97	-7.17	-4.68			
	3700	0.99	-7.13	-5.28			
	3800	1.02	-7.41	-4.96			
Band48 n48	3550	0.96	-7.27	-4.94			
	3625	0.97	-7.23	-4.87			
	3700	0.99	-7.13	-5.28			
Band66 n66	1710	0.65	-8.46	-4.17			
	1745	0.67	-8.21	-3.70			
	1780	0.68	-8.45	-3.54			
Band71 n71	663	0.39	-8.21	-6.58			
	680.5	0.39	-8.21	-6.58			
	698	0.4	-5.83	-4.20			
Band n77	3300						
	3750						
	4200						
Band n78	3300						
	3550	0.96	-7.27	-4.94			
	3800	1.02	-7.41	-4.96			
Band n79	4400						
	4700						
	5000						

Radiation characteristic in Band 1, n1

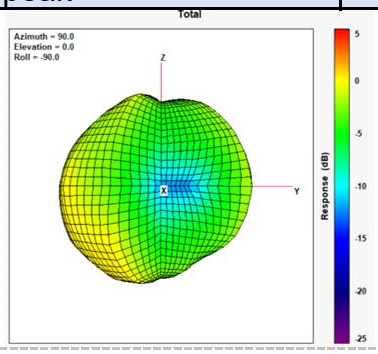
Main Center Frequency (Mhz)	1920
Horizontal (dBi) peak	-8.52
Vertical (dBi) peak	-3.77



Main Center Frequency (Mhz)	1950
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-3.93

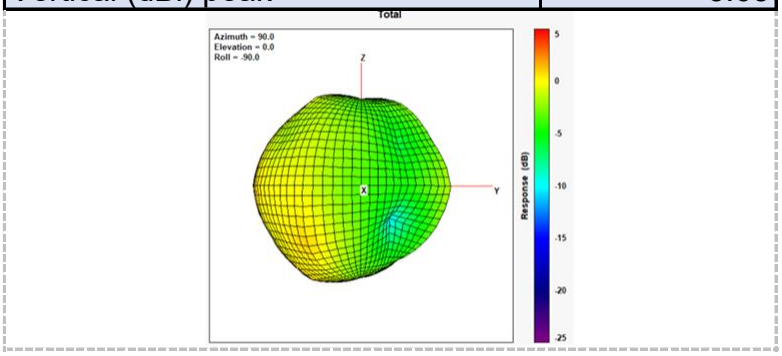


Main Center Frequency (Mhz)	1980
Horizontal (dBi) peak	-8.15
Vertical (dBi) peak	-4.03

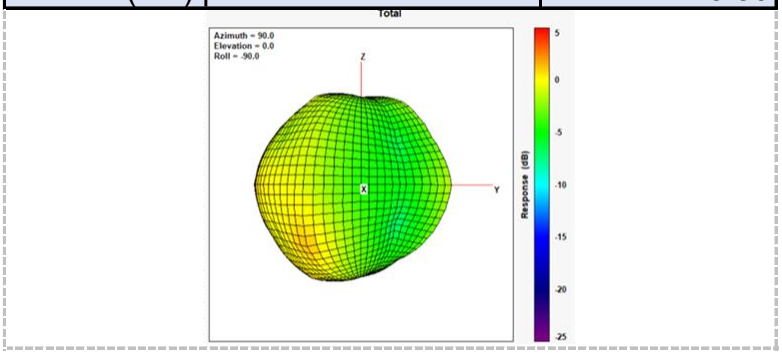


Radiation characteristic in Band 2, n2

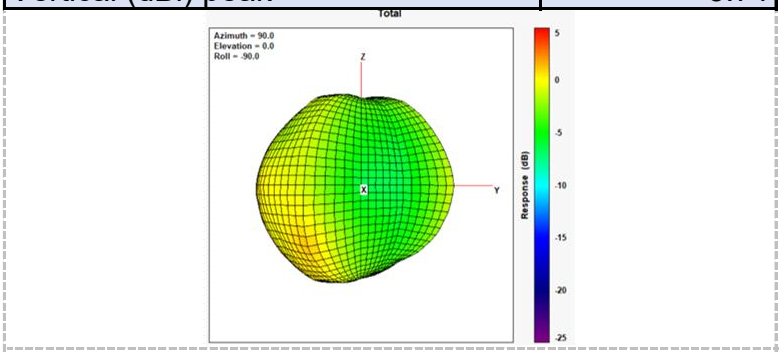
Main Center Frequency (Mhz)	1850
Horizontal (dBi) peak	-9.14
Vertical (dBi) peak	-3.65



Main Center Frequency (Mhz)	1880
Horizontal (dBi) peak	-8.96
Vertical (dBi) peak	-3.80

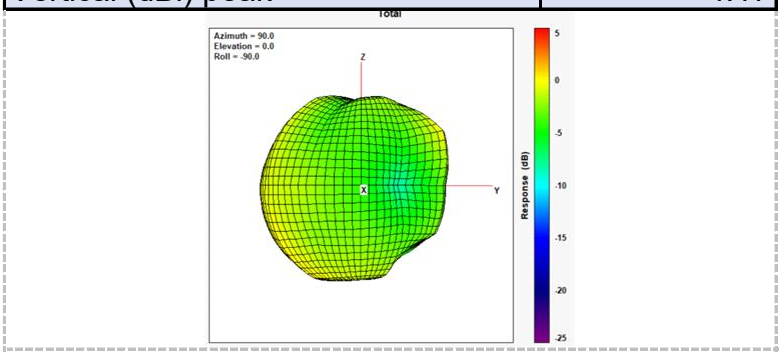


Main Center Frequency (Mhz)	1910
Horizontal (dBi) peak	-8.62
Vertical (dBi) peak	-3.71

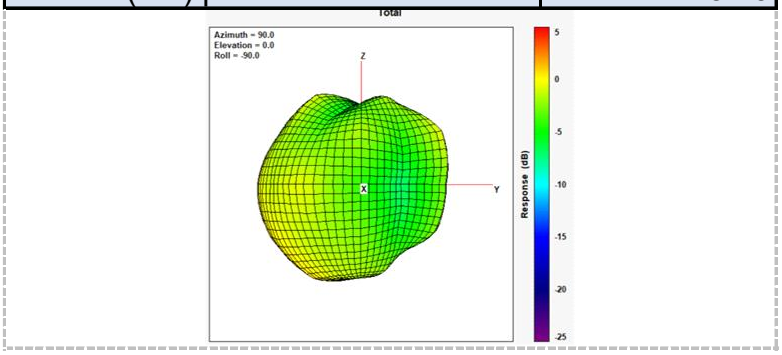


Radiation characteristic in Band 3, n3

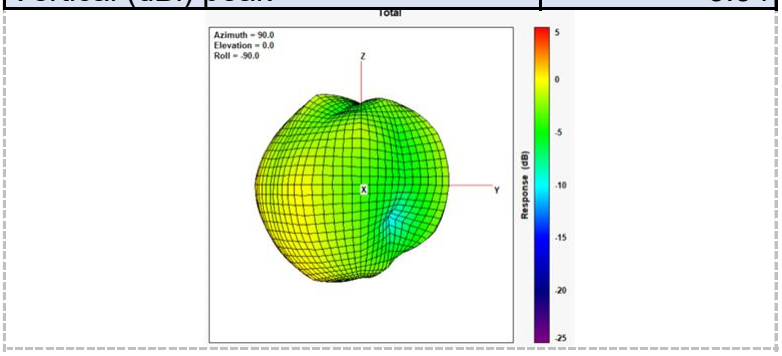
Main Center Frequency (Mhz)	1710
Horizontal (dBi) peak	-8.46
Vertical (dBi) peak	-4.17



Main Center Frequency (Mhz)	1747.5
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-3.70

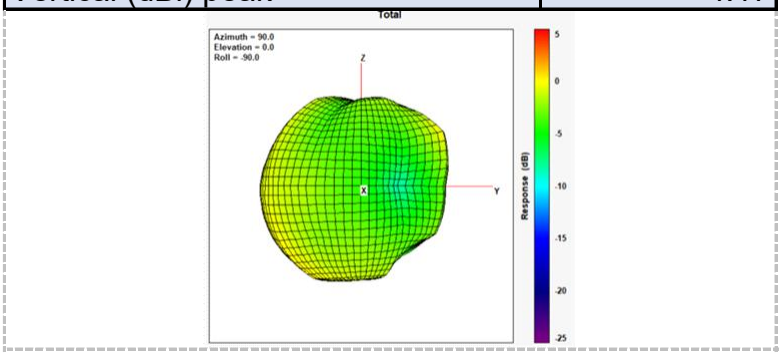


Main Center Frequency (Mhz)	1785
Horizontal (dBi) peak	-8.49
Vertical (dBi) peak	-3.54

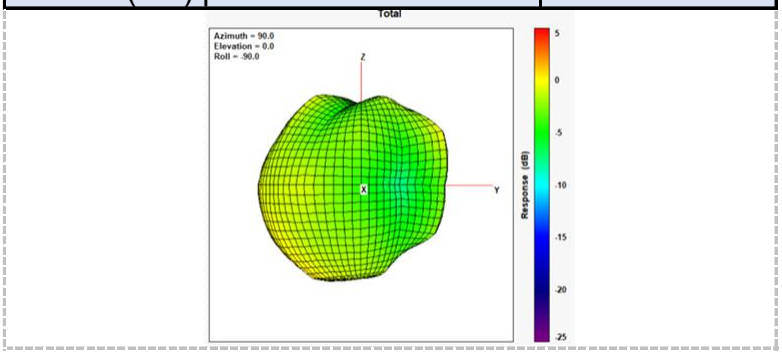


Radiation characteristic in Band 4, n4

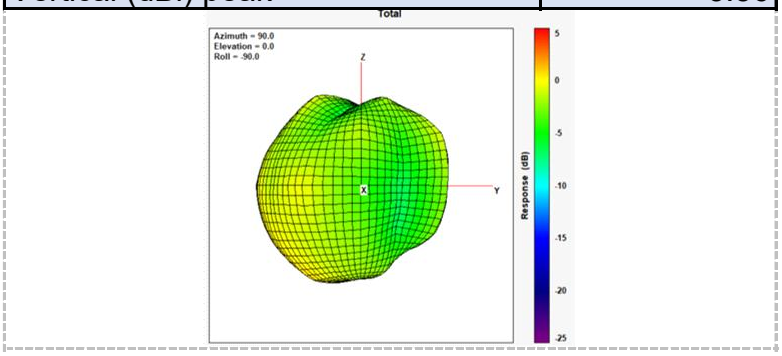
Main Center Frequency (Mhz)	1710
Horizontal (dBi) peak	-8.46
Vertical (dBi) peak	-4.17



Main Center Frequency (Mhz)	1732.5
Horizontal (dBi) peak	-8.46
Vertical (dBi) peak	-4.17

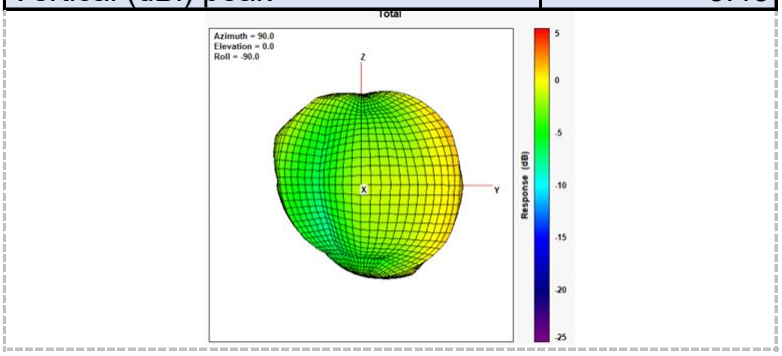


Main Center Frequency (Mhz)	1755
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-3.56

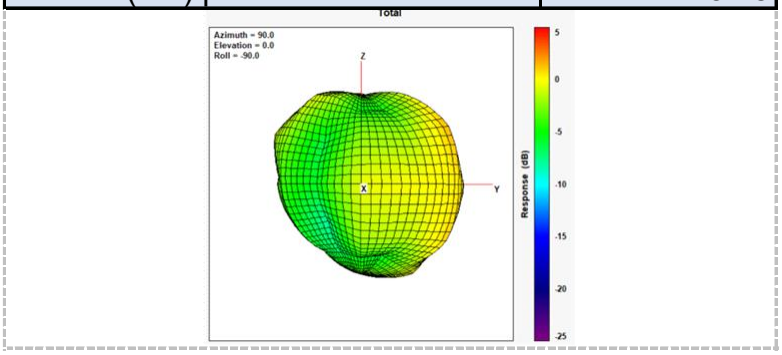


Radiation characteristic in Band 5, n5

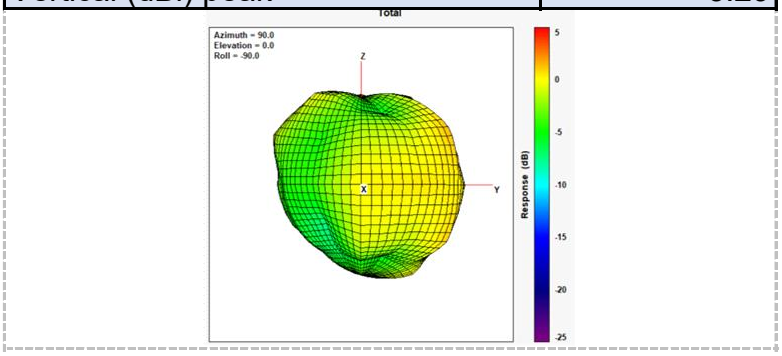
Main Center Frequency (Mhz)	824
Horizontal (dBi) peak	-6.27
Vertical (dBi) peak	-3.45



Main Center Frequency (Mhz)	836.5
Horizontal (dBi) peak	-6.21
Vertical (dBi) peak	-3.45

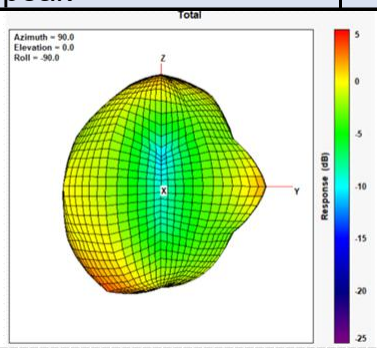


Main Center Frequency (Mhz)	849
Horizontal (dBi) peak	-6.01
Vertical (dBi) peak	-3.29

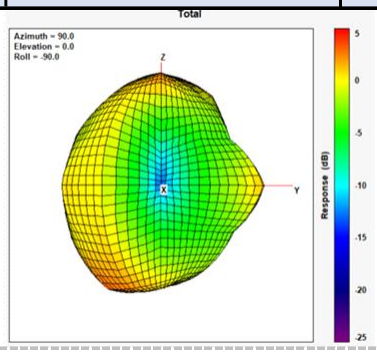


Radiation characteristic in Band 7, n7

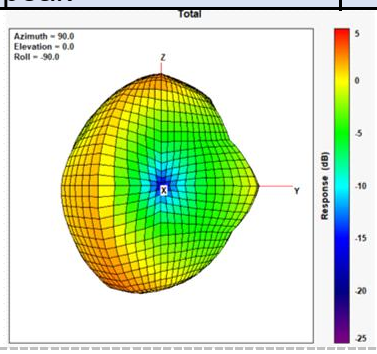
Main Center Frequency (Mhz)	2500
Horizontal (dBi) peak	-6.63
Vertical (dBi) peak	-3.92



Main Center Frequency (Mhz)	2535
Horizontal (dBi) peak	-6.97
Vertical (dBi) peak	-3.92

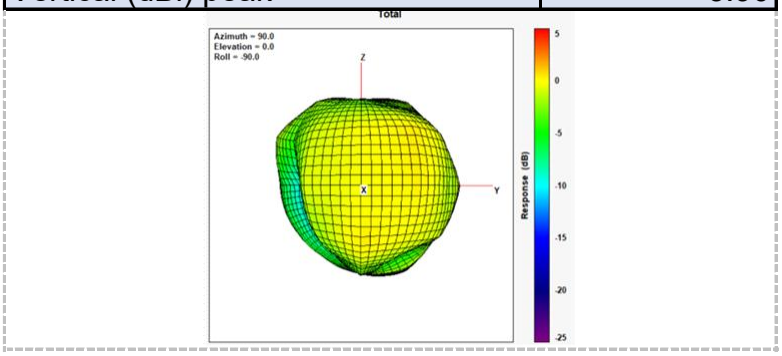


Main Center Frequency (Mhz)	2570
Horizontal (dBi) peak	-7.53
Vertical (dBi) peak	-4.06

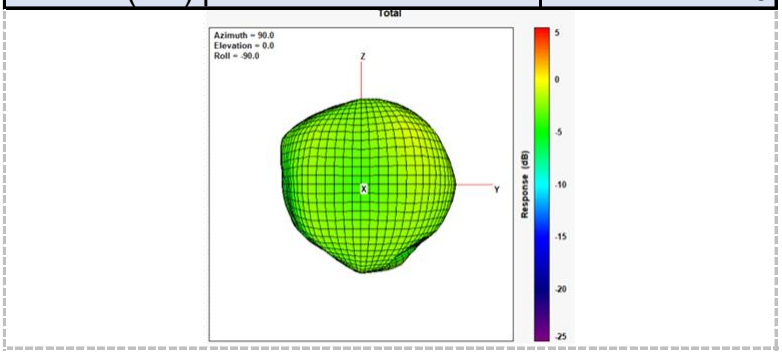


Radiation characteristic in Band 8, n8

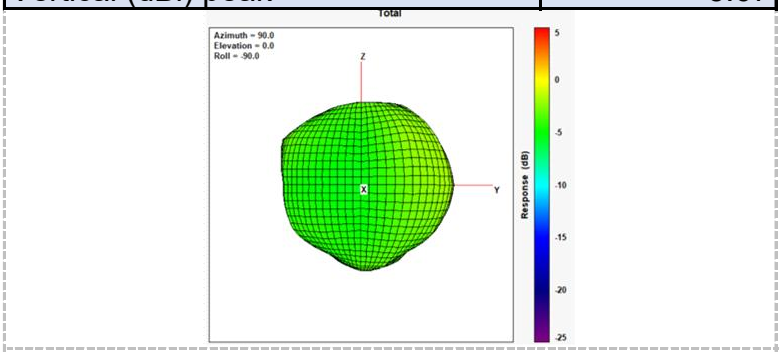
Main Center Frequency (Mhz)	880
Horizontal (dBi) peak	-6.87
Vertical (dBi) peak	-3.90



Main Center Frequency (Mhz)	897.5
Horizontal (dBi) peak	-7.69
Vertical (dBi) peak	-4.70

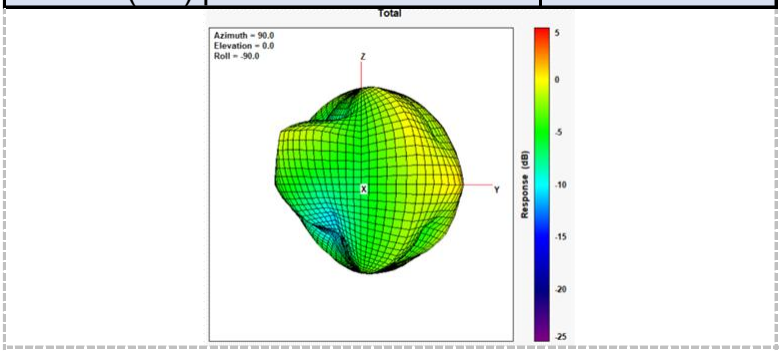


Main Center Frequency (Mhz)	915
Horizontal (dBi) peak	-8.78
Vertical (dBi) peak	-5.67

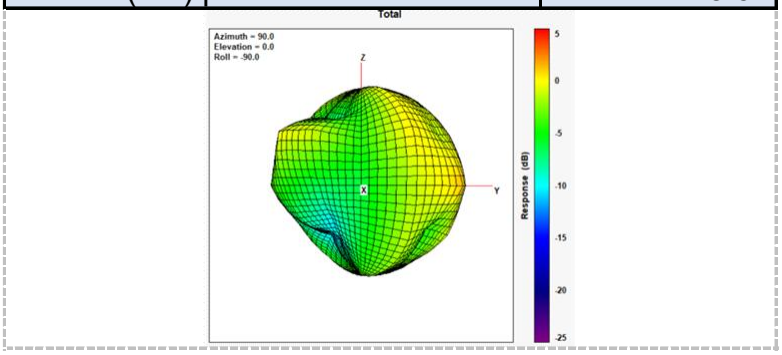


Radiation characteristic in Band 12, n12

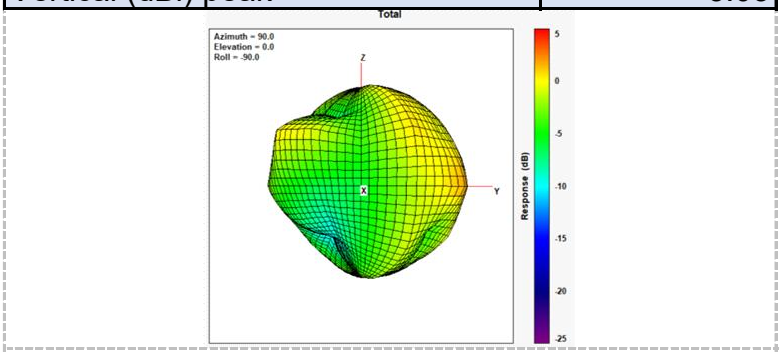
Main Center Frequency (Mhz)	699
Horizontal (dBi) peak	-5.76
Vertical (dBi) peak	-4.11



Main Center Frequency (Mhz)	707.5
Horizontal (dBi) peak	-5.71
Vertical (dBi) peak	-3.67

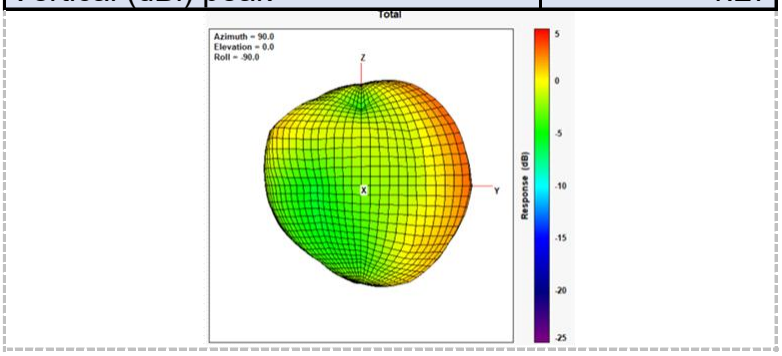


Main Center Frequency (Mhz)	716
Horizontal (dBi) peak	-5.27
Vertical (dBi) peak	-3.03

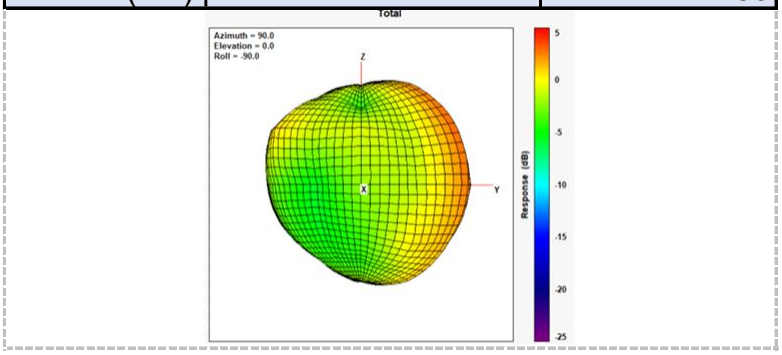


Radiation characteristic in Band 13, n13

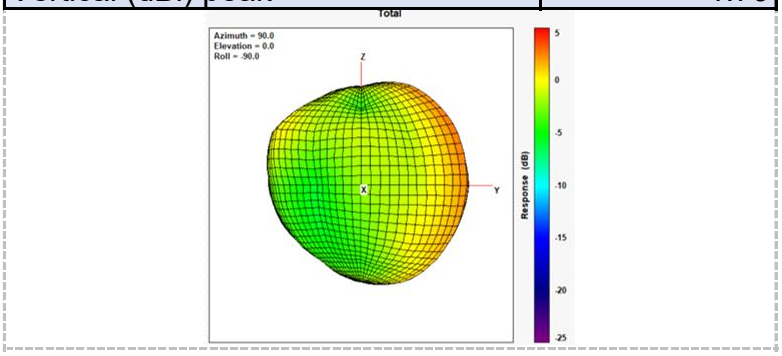
Main Center Frequency (Mhz)	777
Horizontal (dBi) peak	-5.04
Vertical (dBi) peak	-1.27



Main Center Frequency (Mhz)	782
Horizontal (dBi) peak	-5.29
Vertical (dBi) peak	-1.50

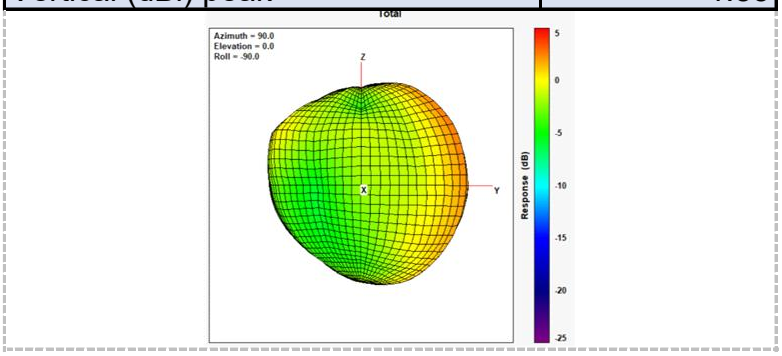


Main Center Frequency (Mhz)	787
Horizontal (dBi) peak	-5.56
Vertical (dBi) peak	-1.79

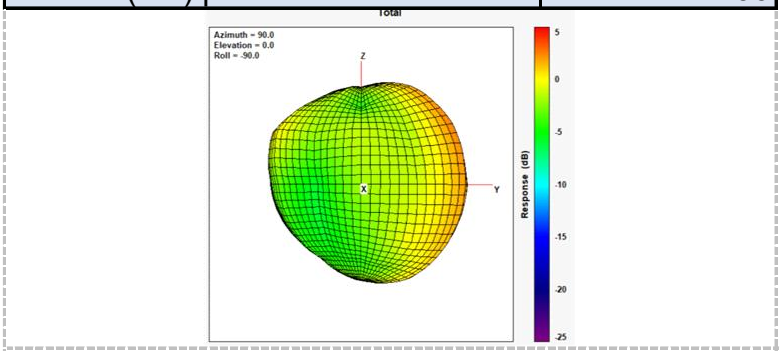


Radiation characteristic in Band 14, n14

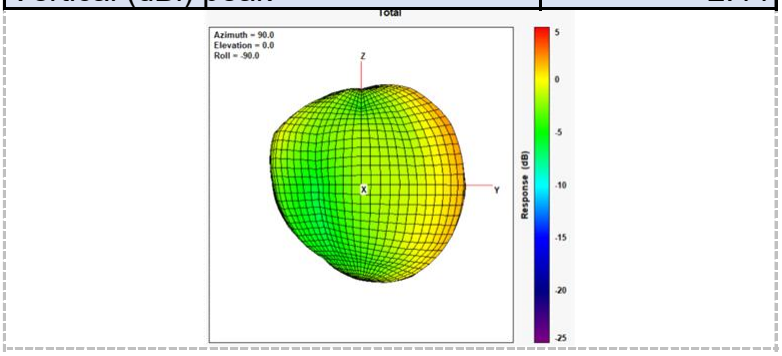
Main Center Frequency (Mhz)	788
Horizontal (dBi) peak	-5.62
Vertical (dBi) peak	-1.85



Main Center Frequency (Mhz)	793
Horizontal (dBi) peak	-5.77
Vertical (dBi) peak	-2.06

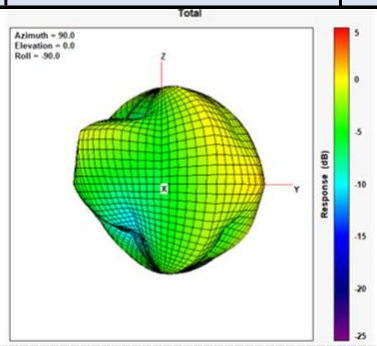


Main Center Frequency (Mhz)	798
Horizontal (dBi) peak	-6.01
Vertical (dBi) peak	-2.44

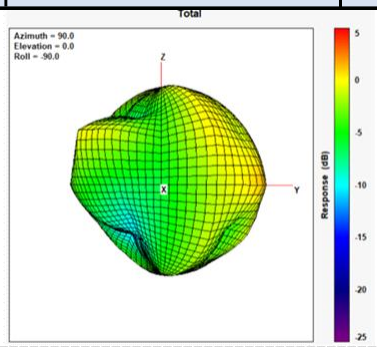


Radiation characteristic in Band 17, n17

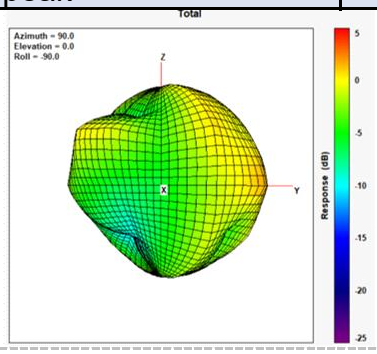
Main Center Frequency (Mhz)	704
Horizontal (dBi) peak	-5.71
Vertical (dBi) peak	-3.67



Main Center Frequency (Mhz)	710
Horizontal (dBi) peak	-5.51
Vertical (dBi) peak	-3.38

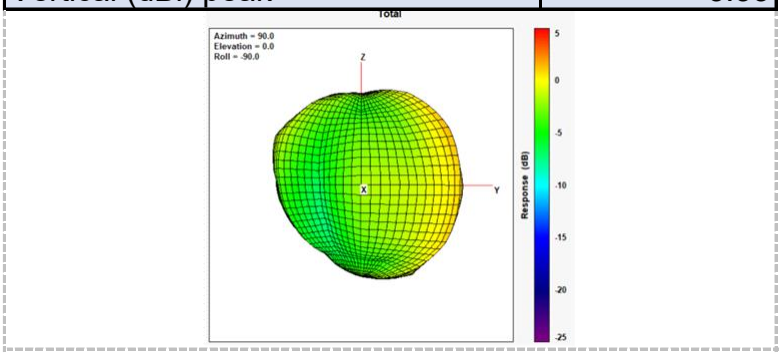


Main Center Frequency (Mhz)	716
Horizontal (dBi) peak	-5.27
Vertical (dBi) peak	-3.03

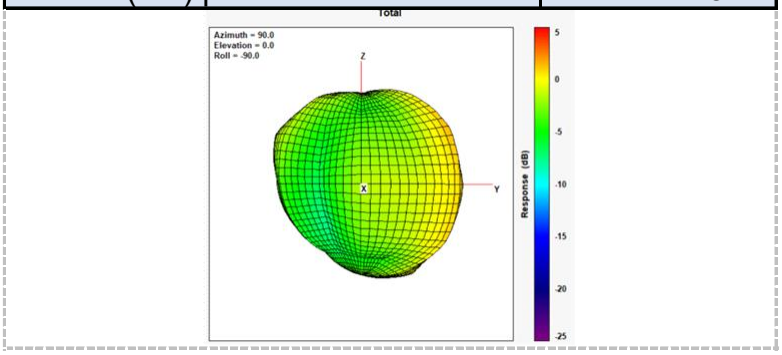


Radiation characteristic in Band 18, n18

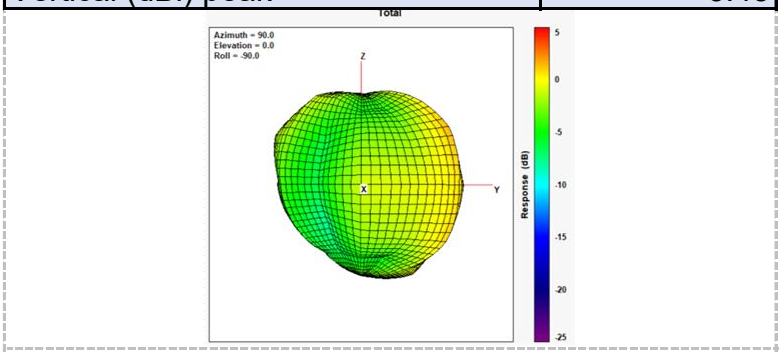
Main Center Frequency (Mhz)	815
Horizontal (dBi) peak	-6.32
Vertical (dBi) peak	-3.33



Main Center Frequency (Mhz)	822.5
Horizontal (dBi) peak	-6.29
Vertical (dBi) peak	-3.41

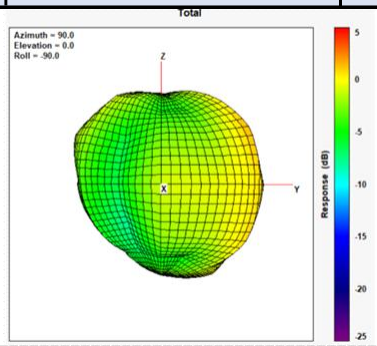


Main Center Frequency (Mhz)	830
Horizontal (dBi) peak	-6.22
Vertical (dBi) peak	-3.45

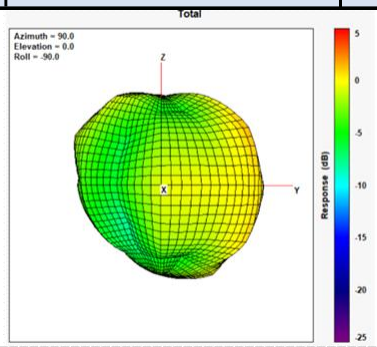


Radiation characteristic in Band 19, n19

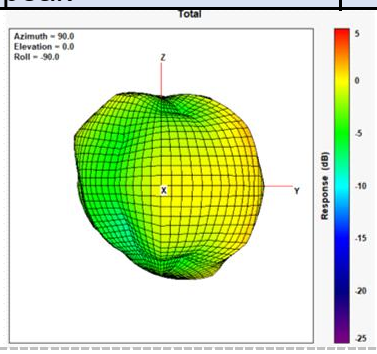
Main Center Frequency (Mhz)	830
Horizontal (dBi) peak	-6.22
Vertical (dBi) peak	-3.45



Main Center Frequency (Mhz)	837.5
Horizontal (dBi) peak	-6.16
Vertical (dBi) peak	-3.43

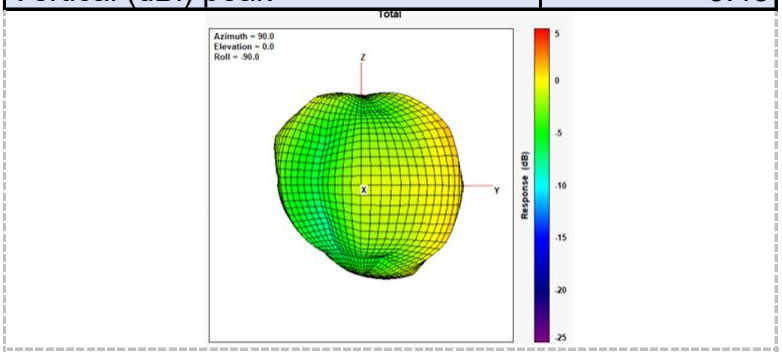


Main Center Frequency (Mhz)	845
Horizontal (dBi) peak	-6.05
Vertical (dBi) peak	-3.33

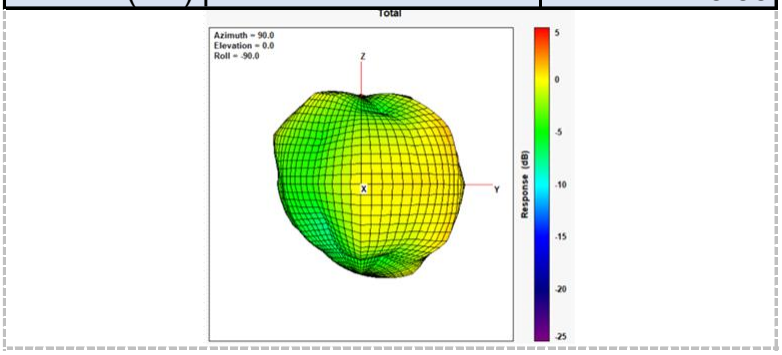


Radiation characteristic in Band 20, n20

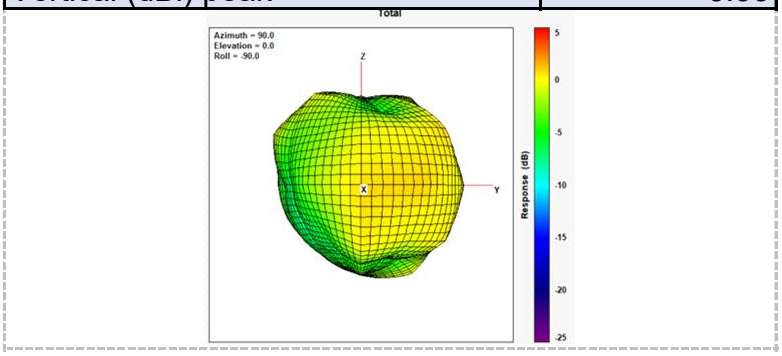
Main Center Frequency (Mhz)	832
Horizontal (dBi) peak	-6.21
Vertical (dBi) peak	-3.45



Main Center Frequency (Mhz)	847
Horizontal (dBi) peak	-6.05
Vertical (dBi) peak	-3.33

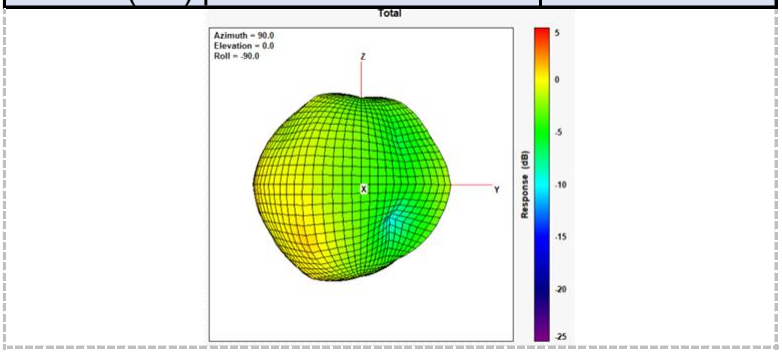


Main Center Frequency (Mhz)	862
Horizontal (dBi) peak	-6.09
Vertical (dBi) peak	-3.33

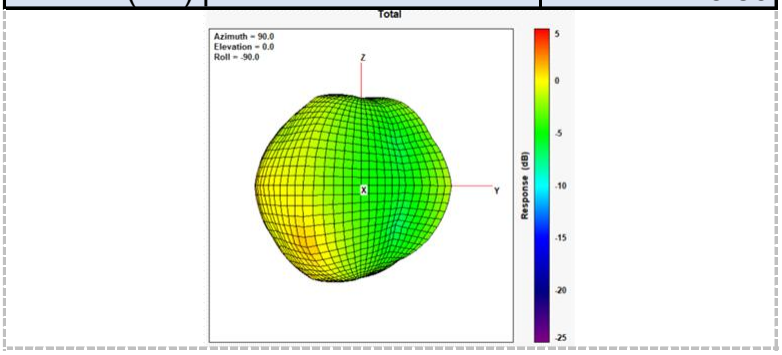


Radiation characteristic in Band 25, n25

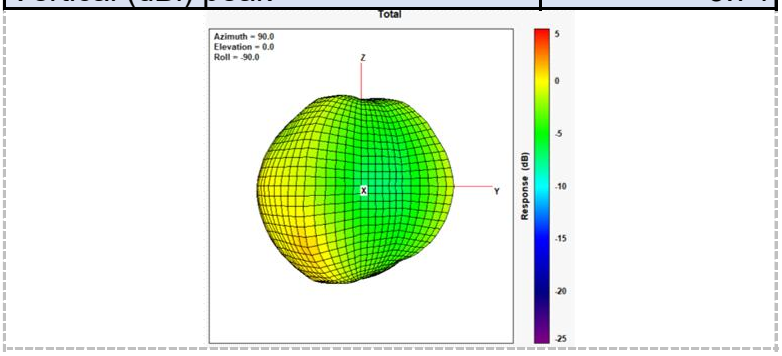
Main Center Frequency (Mhz)	1850
Horizontal (dBi) peak	-9.14
Vertical (dBi) peak	-3.65



Main Center Frequency (Mhz)	1882.5
Horizontal (dBi) peak	-8.96
Vertical (dBi) peak	-3.80

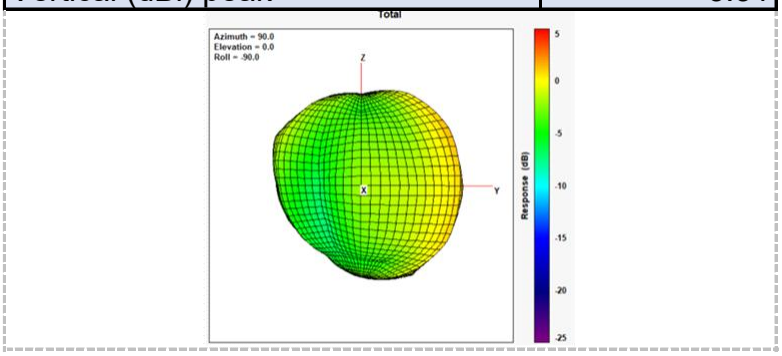


Main Center Frequency (Mhz)	1915
Horizontal (dBi) peak	-8.57
Vertical (dBi) peak	-3.74

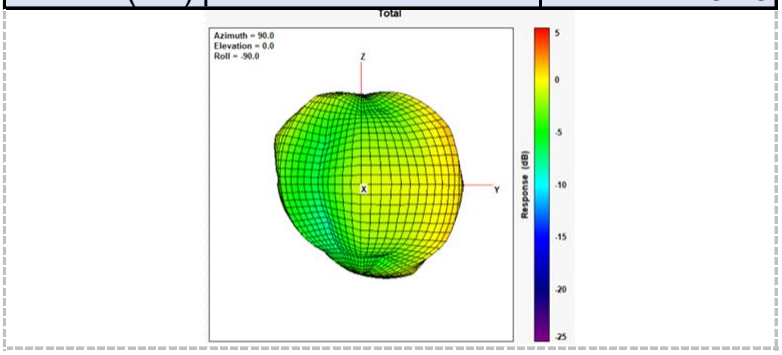


Radiation characteristic in Band 26, n26

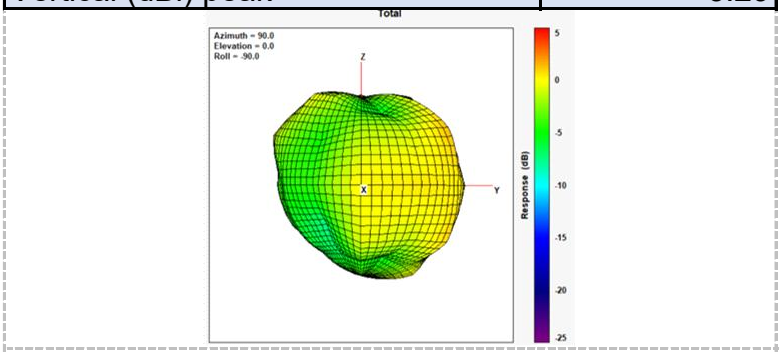
Main Center Frequency (Mhz)	814
Horizontal (dBi) peak	-6.31
Vertical (dBi) peak	-3.31



Main Center Frequency (Mhz)	831.5
Horizontal (dBi) peak	-6.22
Vertical (dBi) peak	-3.45

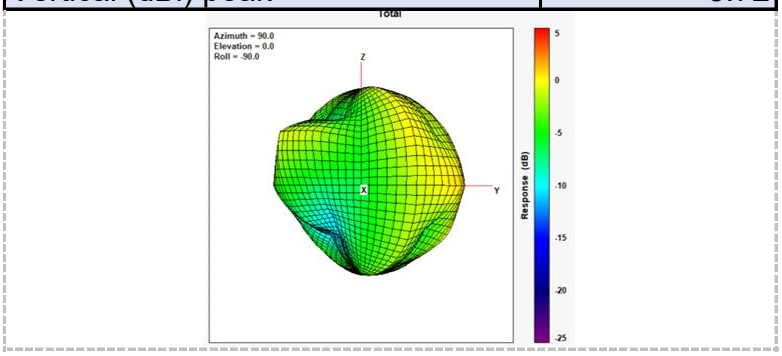


Main Center Frequency (Mhz)	849
Horizontal (dBi) peak	-6.01
Vertical (dBi) peak	-3.29

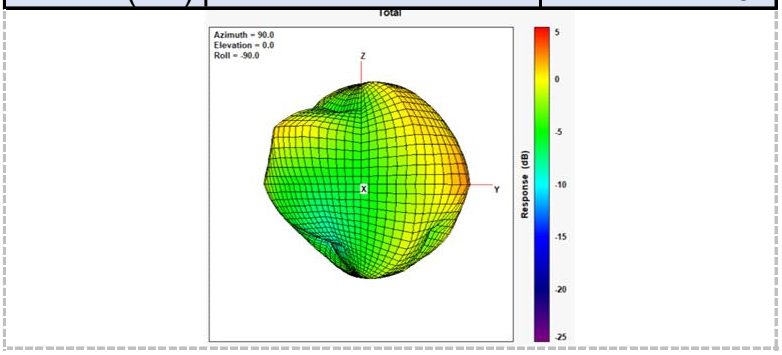


Radiation characteristic in Band 28, n28

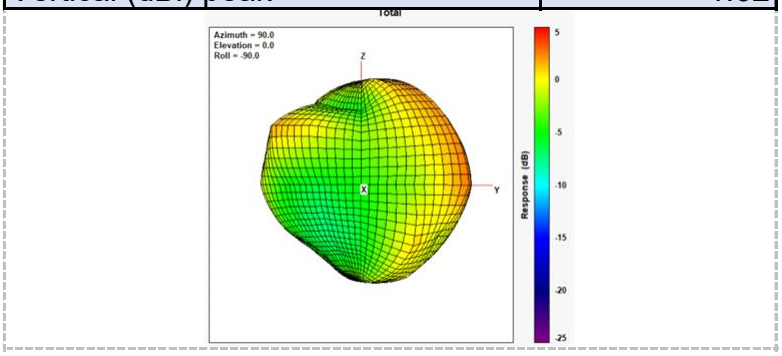
Main Center Frequency (Mhz)	703
Horizontal (dBi) peak	-5.75
Vertical (dBi) peak	-3.72



Main Center Frequency (Mhz)	725.5
Horizontal (dBi) peak	-5.08
Vertical (dBi) peak	-2.67

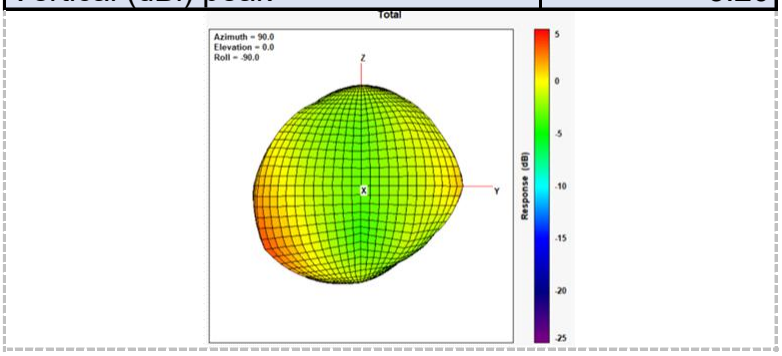


Main Center Frequency (Mhz)	748
Horizontal (dBi) peak	-4.73
Vertical (dBi) peak	-1.62

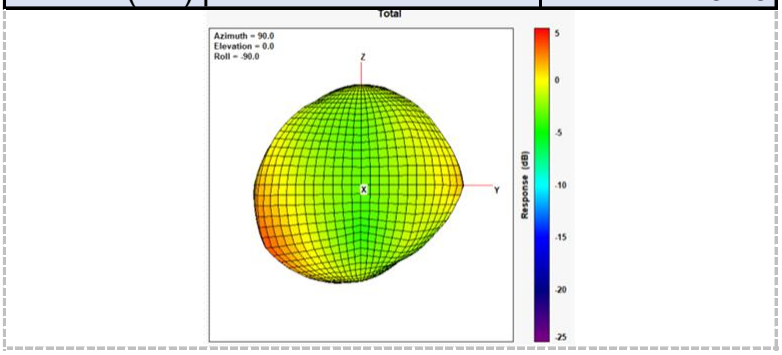


Radiation characteristic in Band 30, n30

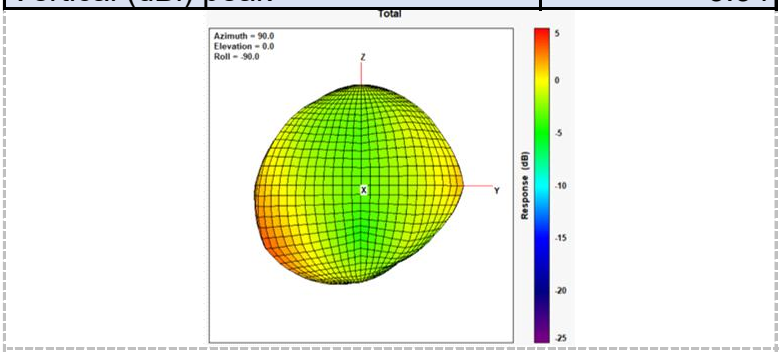
Main Center Frequency (Mhz)	2305
Horizontal (dBi) peak	-7.22
Vertical (dBi) peak	-3.20



Main Center Frequency (Mhz)	2310
Horizontal (dBi) peak	-7.29
Vertical (dBi) peak	-3.29

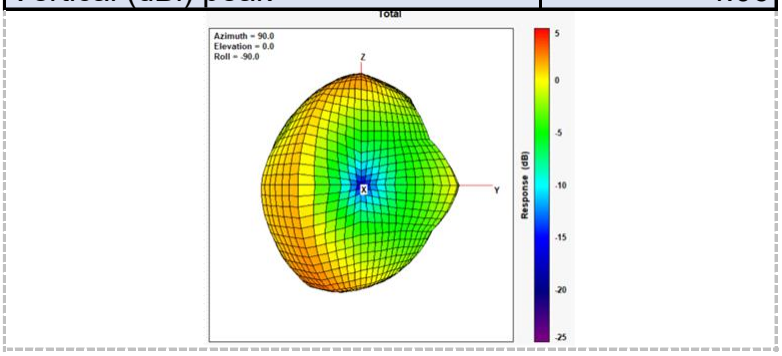


Main Center Frequency (Mhz)	2315
Horizontal (dBi) peak	-7.35
Vertical (dBi) peak	-3.34

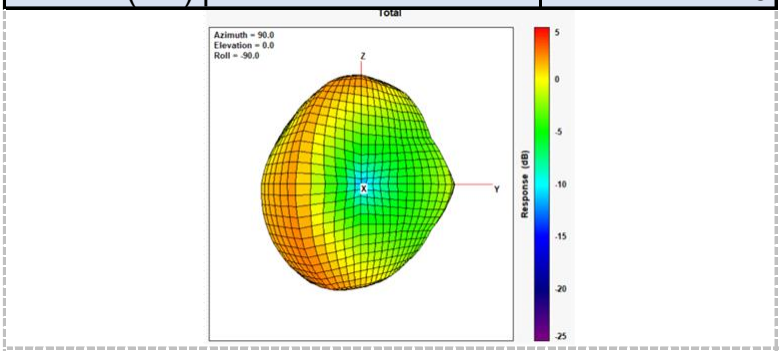


Radiation characteristic in Band 38, n38

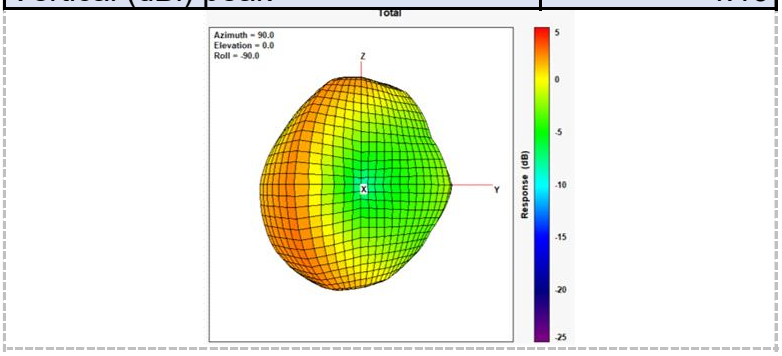
Main Center Frequency (Mhz)	2570
Horizontal (dBi) peak	-7.53
Vertical (dBi) peak	-4.06



Main Center Frequency (Mhz)	2595
Horizontal (dBi) peak	-7.96
Vertical (dBi) peak	-4.19

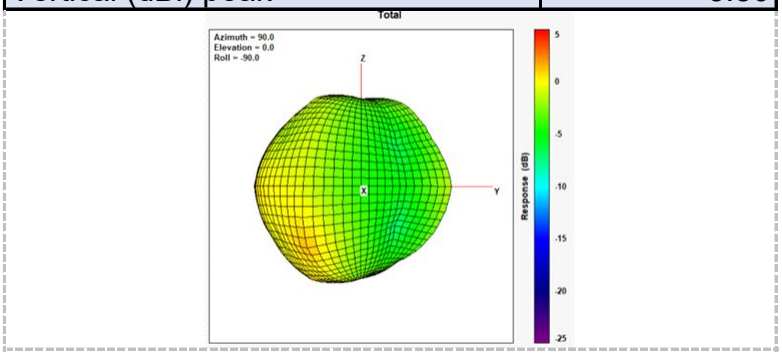


Main Center Frequency (Mhz)	2620
Horizontal (dBi) peak	-8.26
Vertical (dBi) peak	-4.19

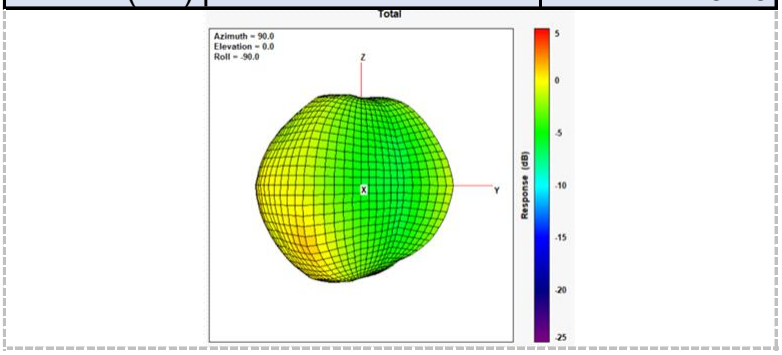


Radiation characteristic in Band 39, n39

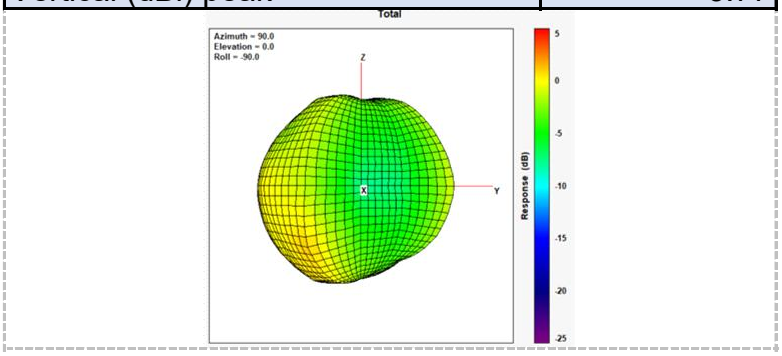
Main Center Frequency (Mhz)	1880
Horizontal (dBi) peak	-8.96
Vertical (dBi) peak	-3.80



Main Center Frequency (Mhz)	1900
Horizontal (dBi) peak	-8.77
Vertical (dBi) peak	-3.79

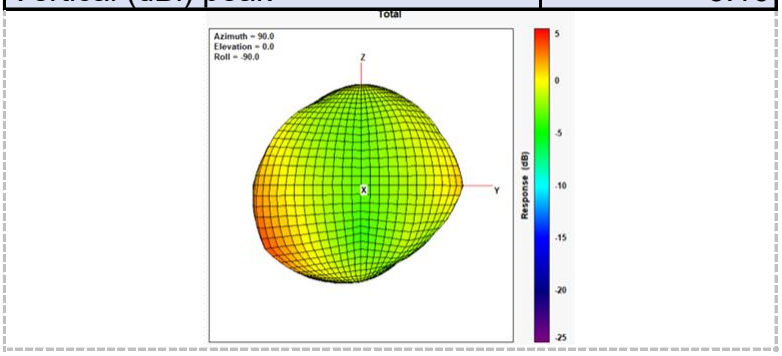


Main Center Frequency (Mhz)	1920
Horizontal (dBi) peak	-8.52
Vertical (dBi) peak	-3.77

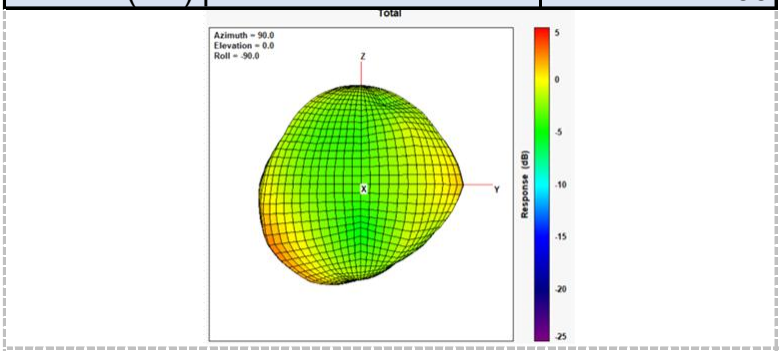


Radiation characteristic in Band 40, n40

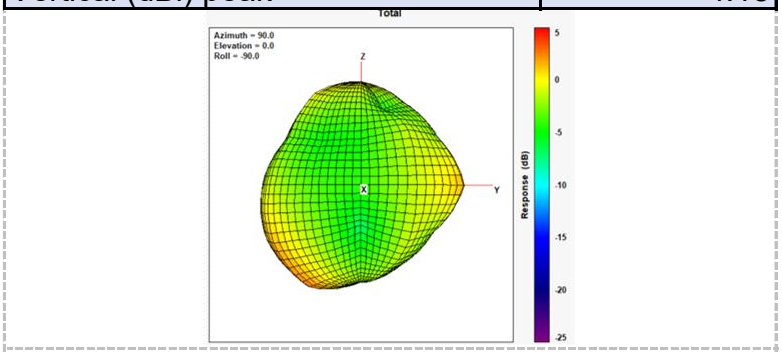
Main Center Frequency (Mhz)	2300
Horizontal (dBi) peak	-7.15
Vertical (dBi) peak	-3.16



Main Center Frequency (Mhz)	2350
Horizontal (dBi) peak	-7.83
Vertical (dBi) peak	-4.00

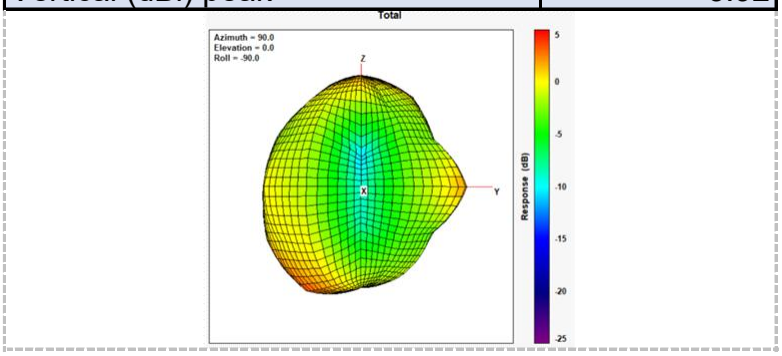


Main Center Frequency (Mhz)	2400
Horizontal (dBi) peak	-7.54
Vertical (dBi) peak	-4.18

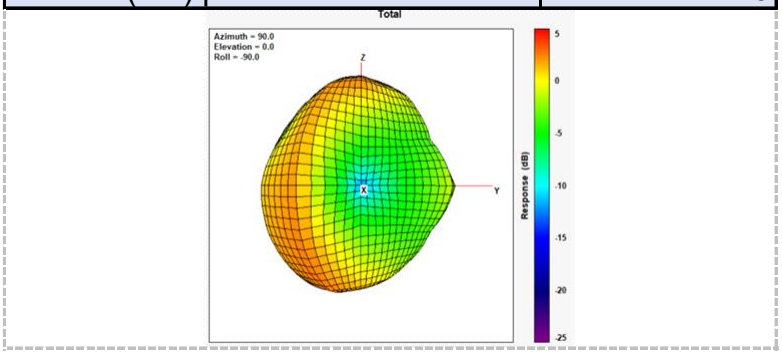


Radiation characteristic in Band 41, n41

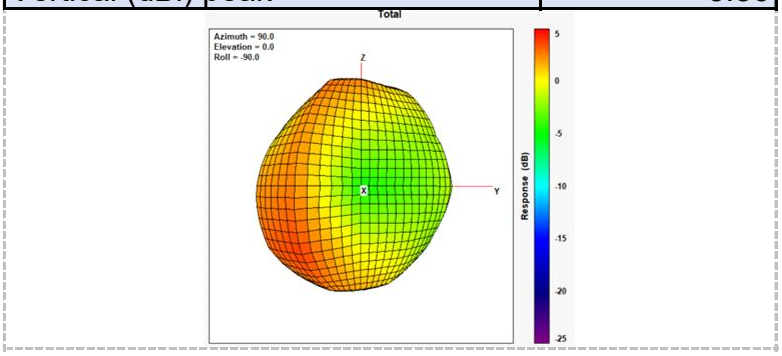
Main Center Frequency (Mhz)	2496
Horizontal (dBi) peak	-6.64
Vertical (dBi) peak	-3.92



Main Center Frequency (Mhz)	2593
Horizontal (dBi) peak	-7.93
Vertical (dBi) peak	-4.20

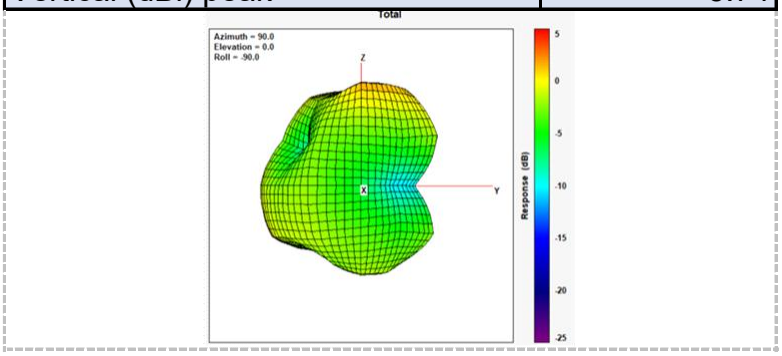


Main Center Frequency (Mhz)	2690
Horizontal (dBi) peak	-7.60
Vertical (dBi) peak	-3.86

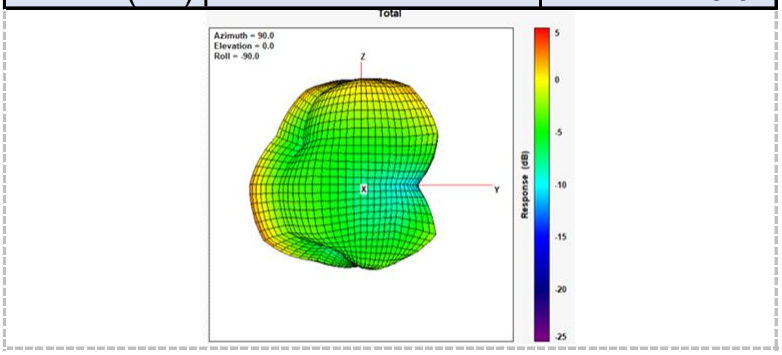


Radiation characteristic in Band 42, n42

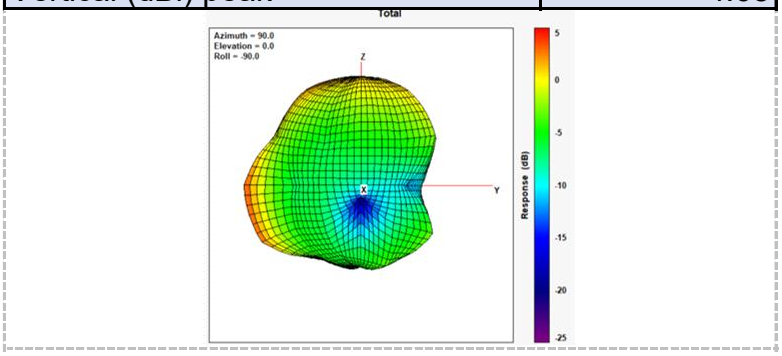
Main Center Frequency (Mhz)	3400
Horizontal (dBi) peak	-8.00
Vertical (dBi) peak	-5.74



Main Center Frequency (Mhz)	3500
Horizontal (dBi) peak	-7.12
Vertical (dBi) peak	-5.04

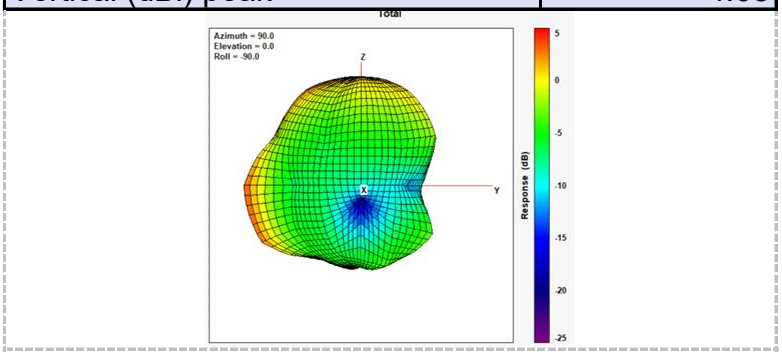


Main Center Frequency (Mhz)	3600
Horizontal (dBi) peak	-7.17
Vertical (dBi) peak	-4.68

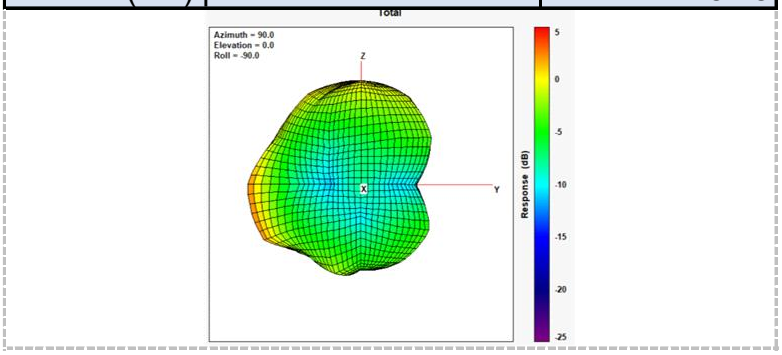


Radiation characteristic in Band 43, n43

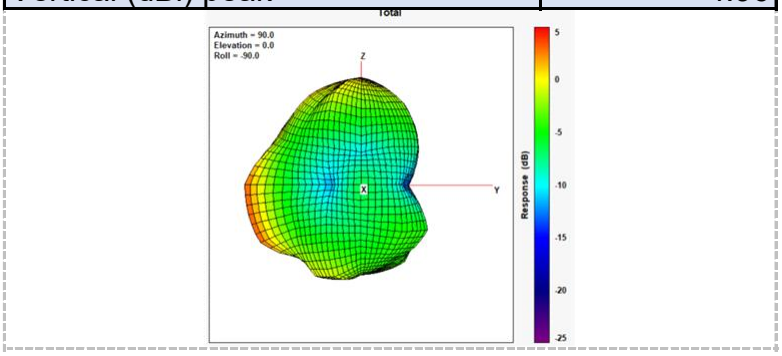
Main Center Frequency (Mhz)	3600
Horizontal (dBi) peak	-7.17
Vertical (dBi) peak	-4.68



Main Center Frequency (Mhz)	3700
Horizontal (dBi) peak	-7.13
Vertical (dBi) peak	-5.28

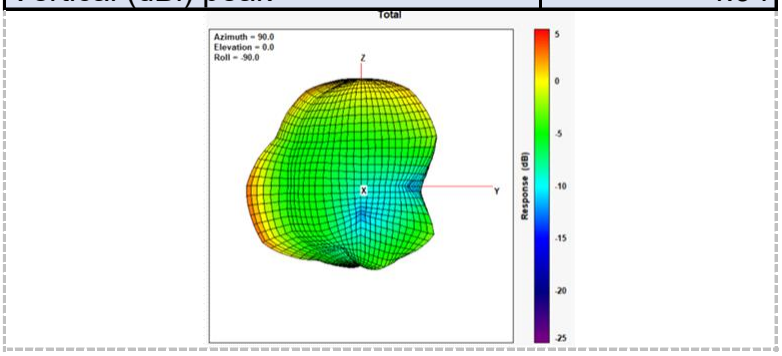


Main Center Frequency (Mhz)	3800
Horizontal (dBi) peak	-7.41
Vertical (dBi) peak	-4.96

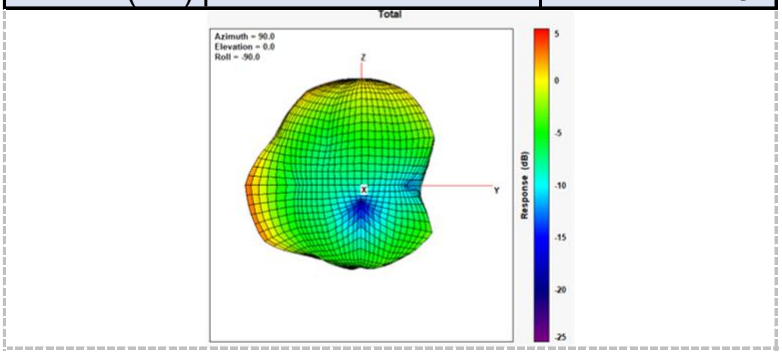


Radiation characteristic in Band 48, n48

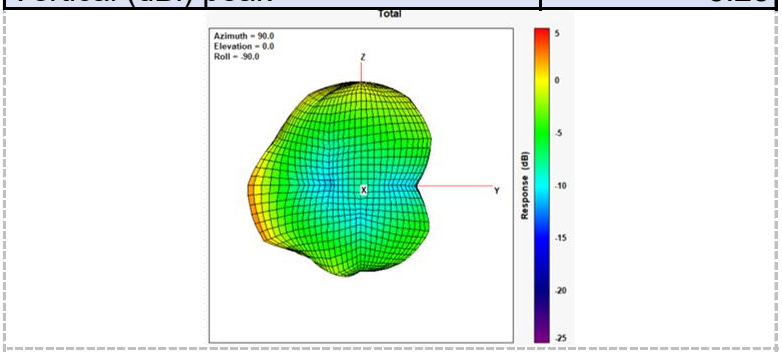
Main Center Frequency (Mhz)	3550
Horizontal (dBi) peak	-7.27
Vertical (dBi) peak	-4.94



Main Center Frequency (Mhz)	3625
Horizontal (dBi) peak	-7.23
Vertical (dBi) peak	-4.87

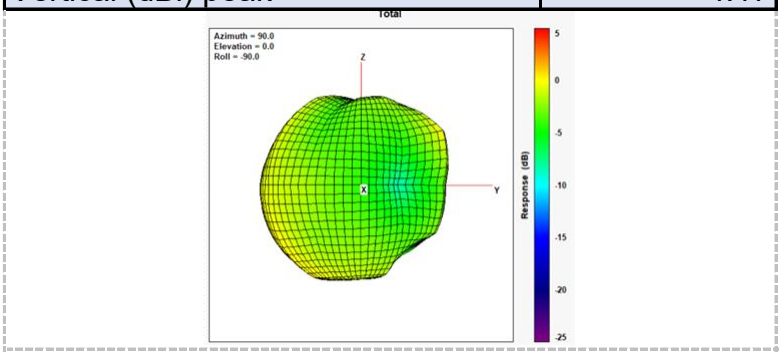


Main Center Frequency (Mhz)	3700
Horizontal (dBi) peak	-7.13
Vertical (dBi) peak	-5.28

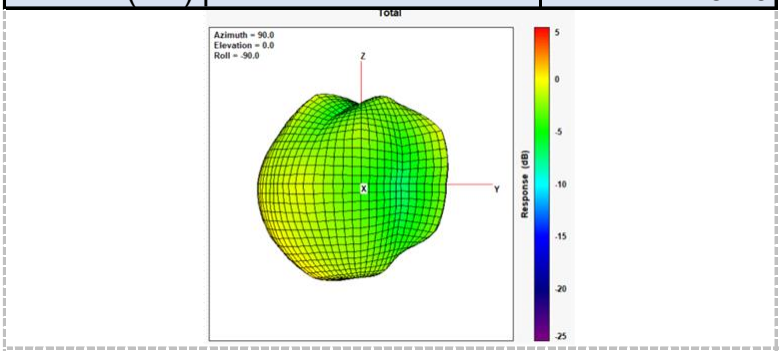


Radiation characteristic in Band 66, n66

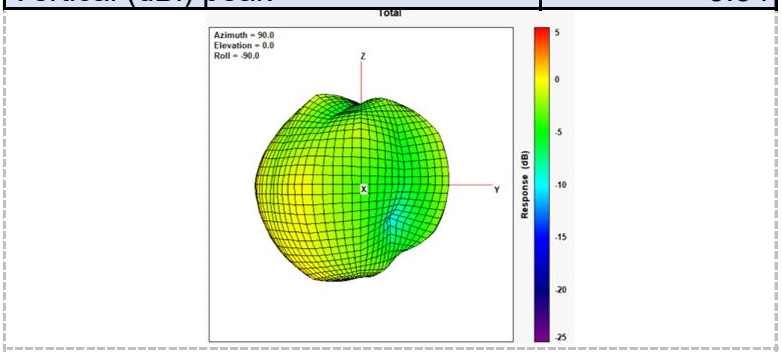
Main Center Frequency (Mhz)	1710
Horizontal (dBi) peak	-8.46
Vertical (dBi) peak	-4.17



Main Center Frequency (Mhz)	1745
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-3.70

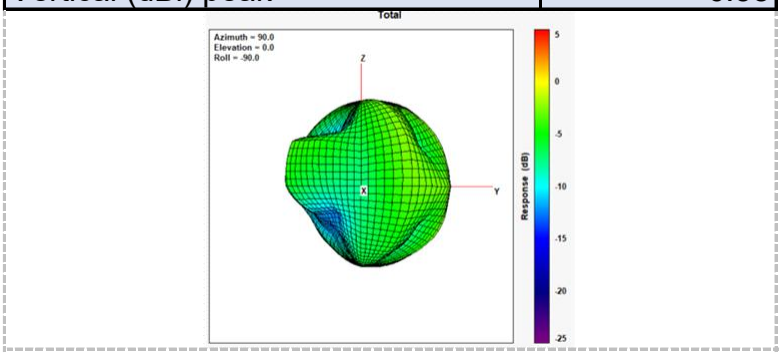


Main Center Frequency (Mhz)	1780
Horizontal (dBi) peak	-8.45
Vertical (dBi) peak	-3.54

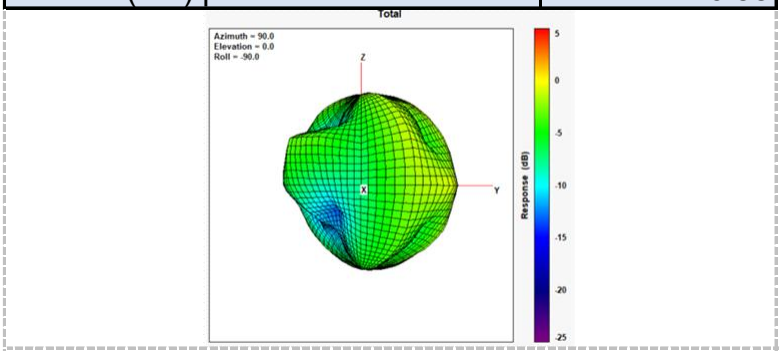


Radiation characteristic in Band 71, n71

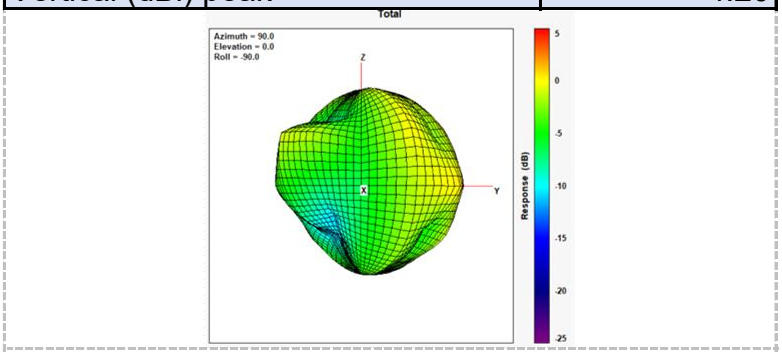
Main Center Frequency (Mhz)	663
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-6.58



Main Center Frequency (Mhz)	680.5
Horizontal (dBi) peak	-8.21
Vertical (dBi) peak	-6.58

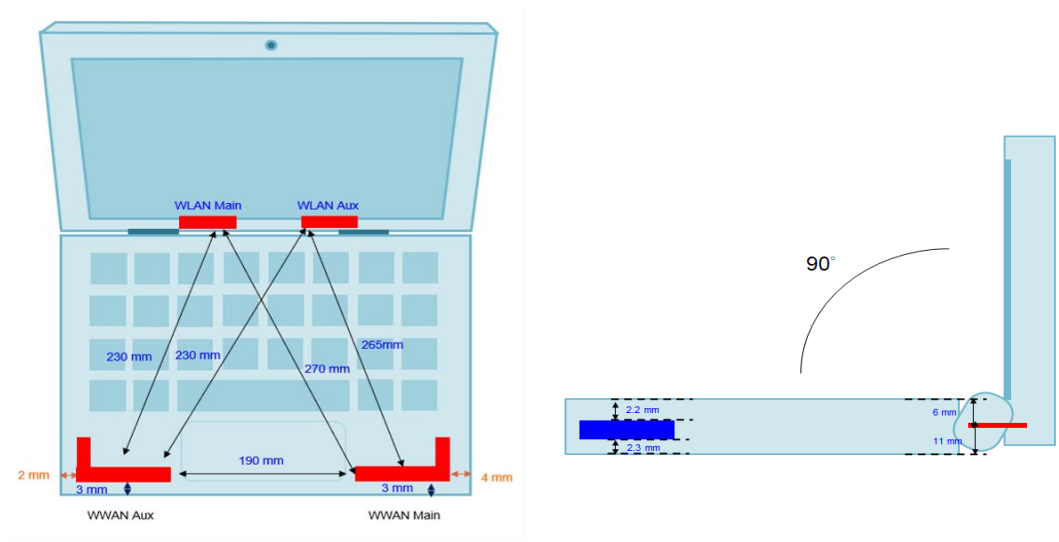
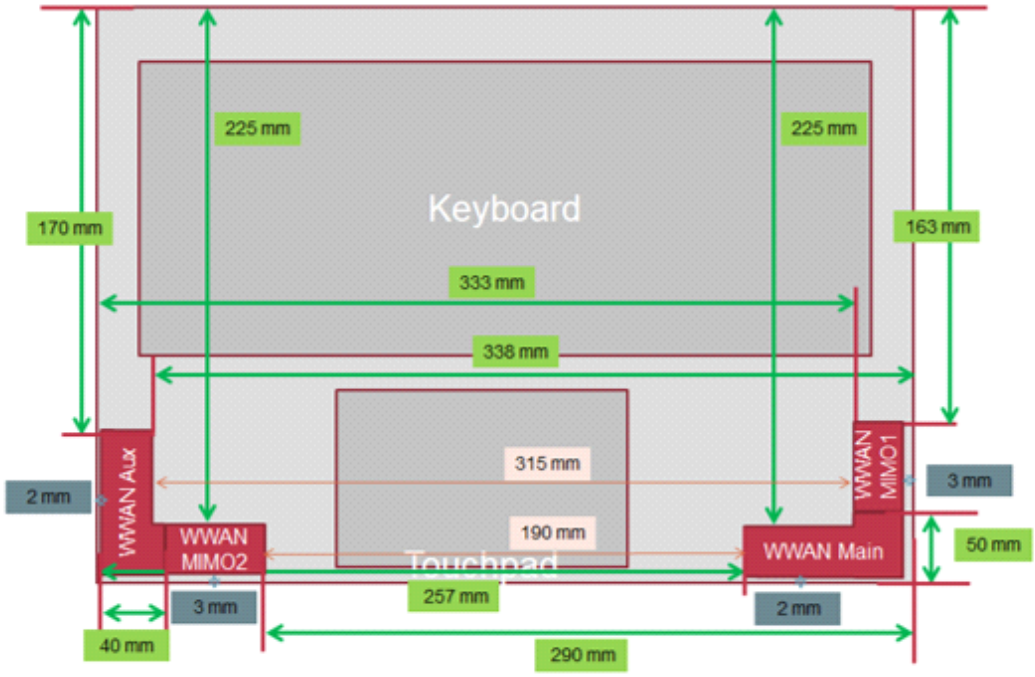


Main Center Frequency (Mhz)	698
Horizontal (dBi) peak	-5.83
Vertical (dBi) peak	-4.20



Section 5. Antenna Host Platform Location Information

WWAN Antenna Location



Section 6. Antenna dimensional information for SAR evalu