

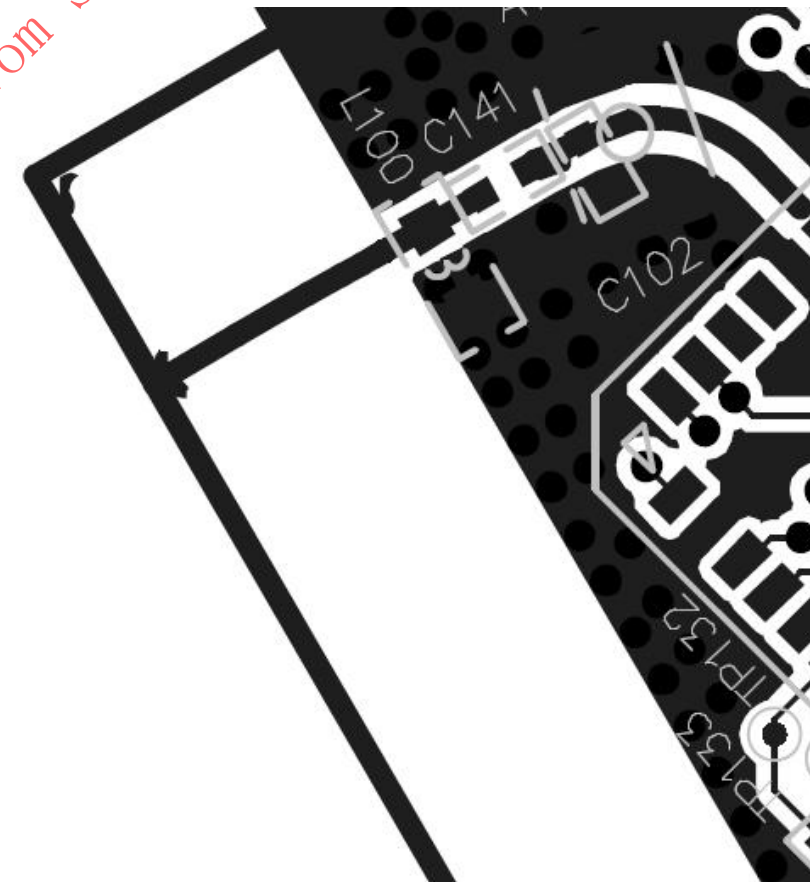
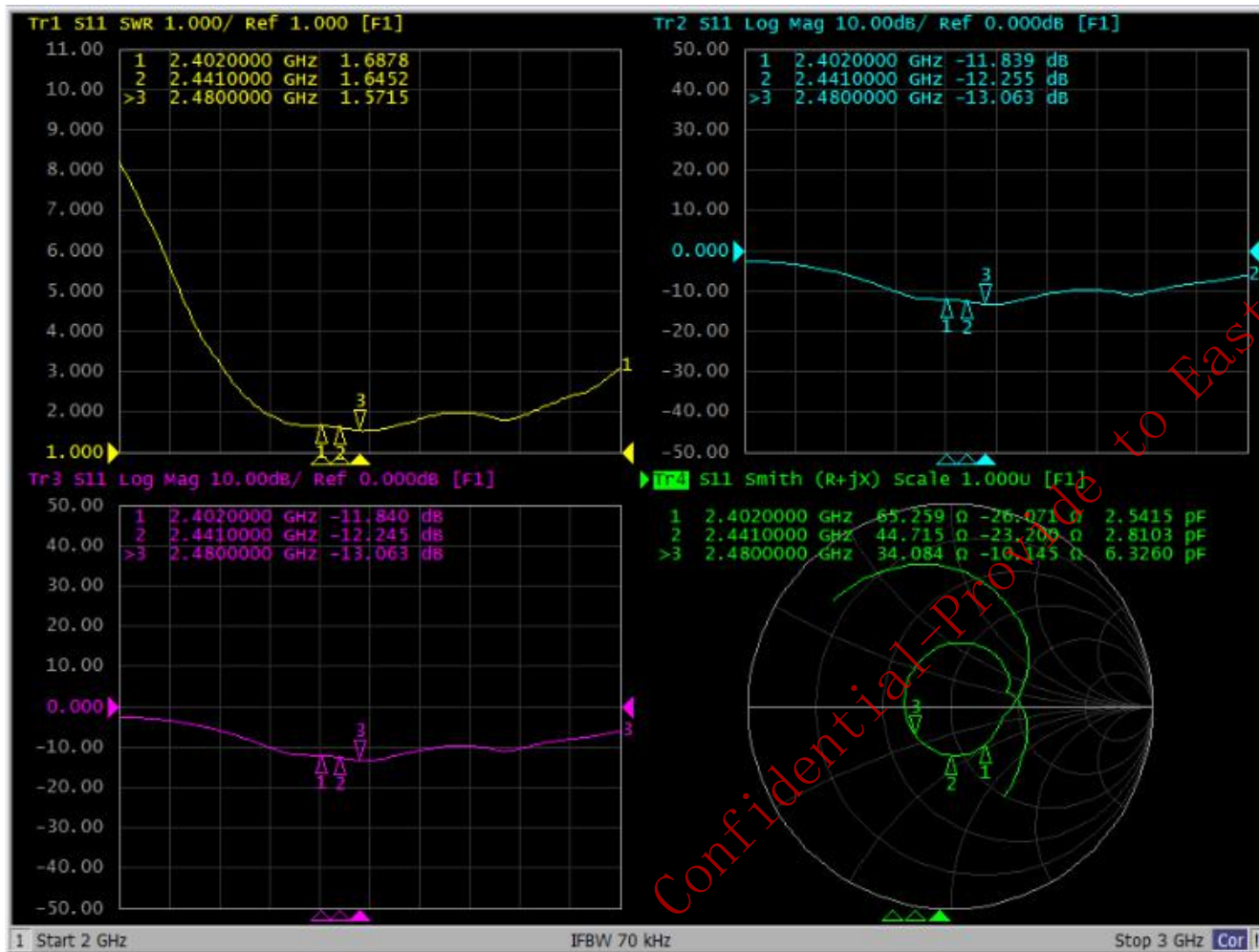


深圳市丰禾原电子科技有限公司 SUNITEC ENTERPRISE CO.,LTD.

Lite Mo 2019.11.28
rd6@sunitec-cn.com



VSWR 、 Return loss and impedance :

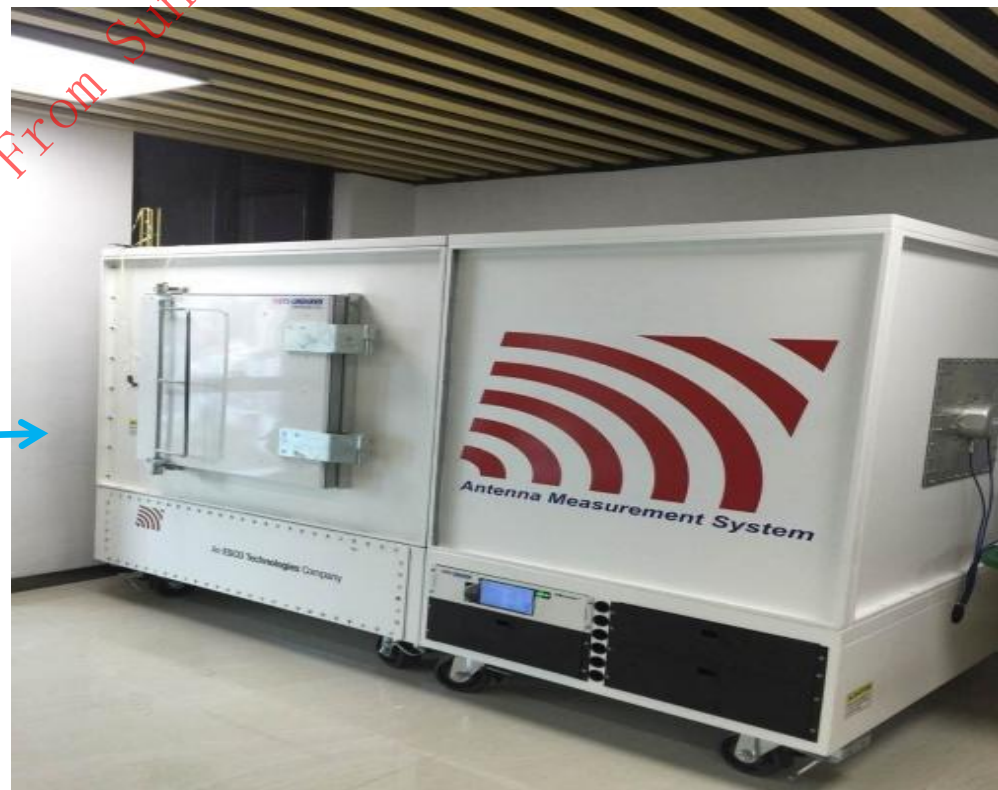


Antenna matching: C102=NC; C141=3.3NH; L100=NC



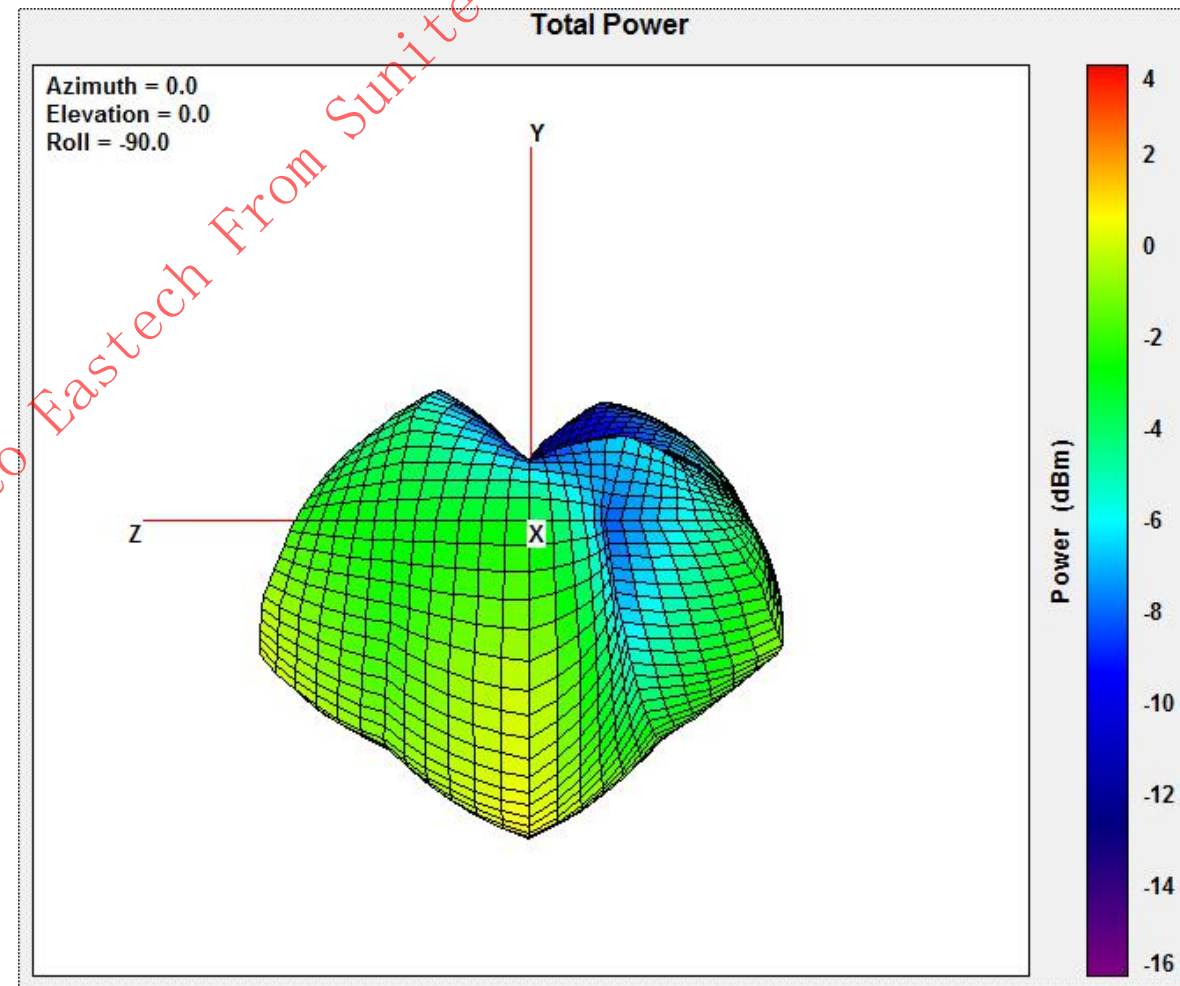
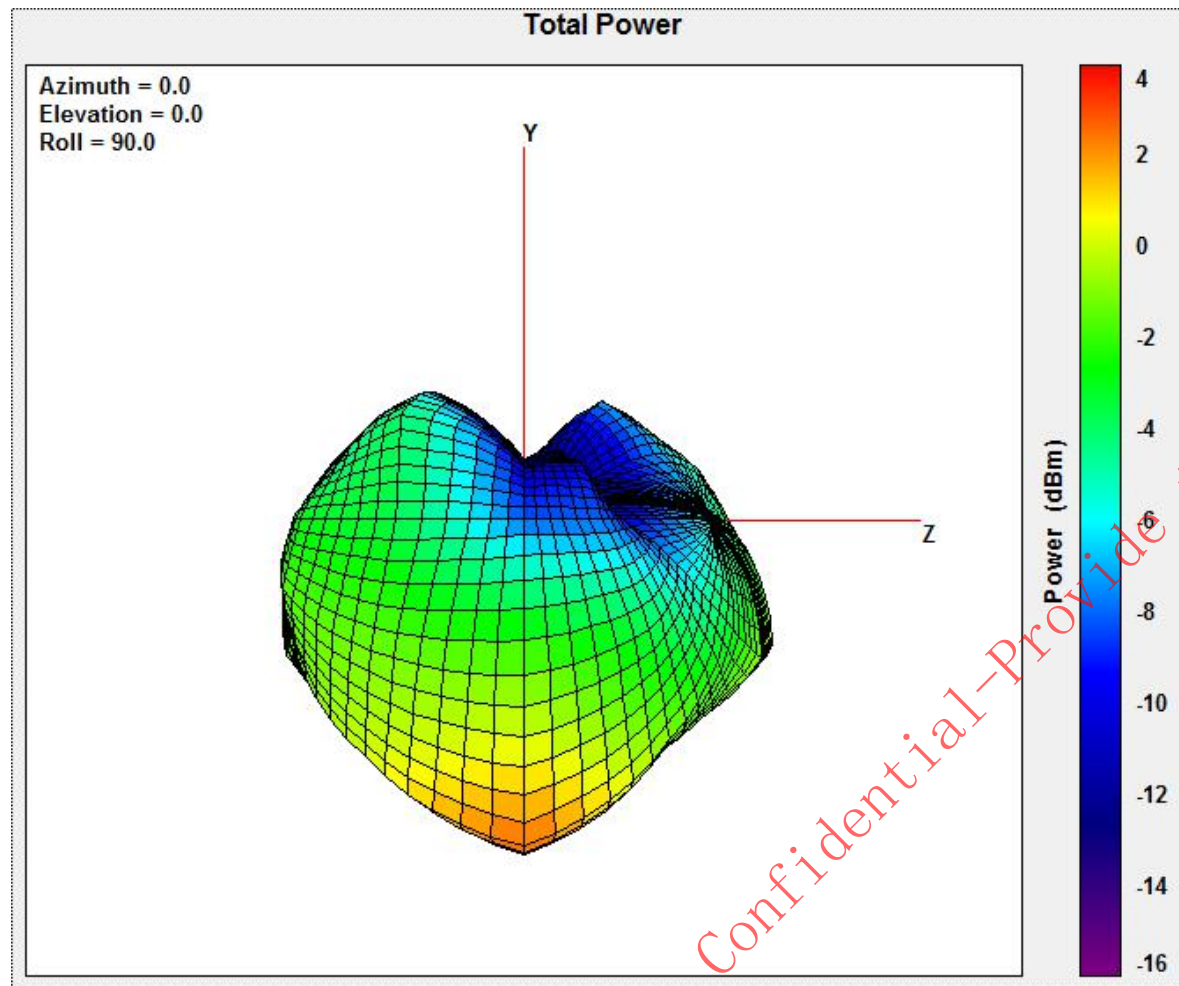
DP9 RF Performance Test Report

ANT Test Settings:





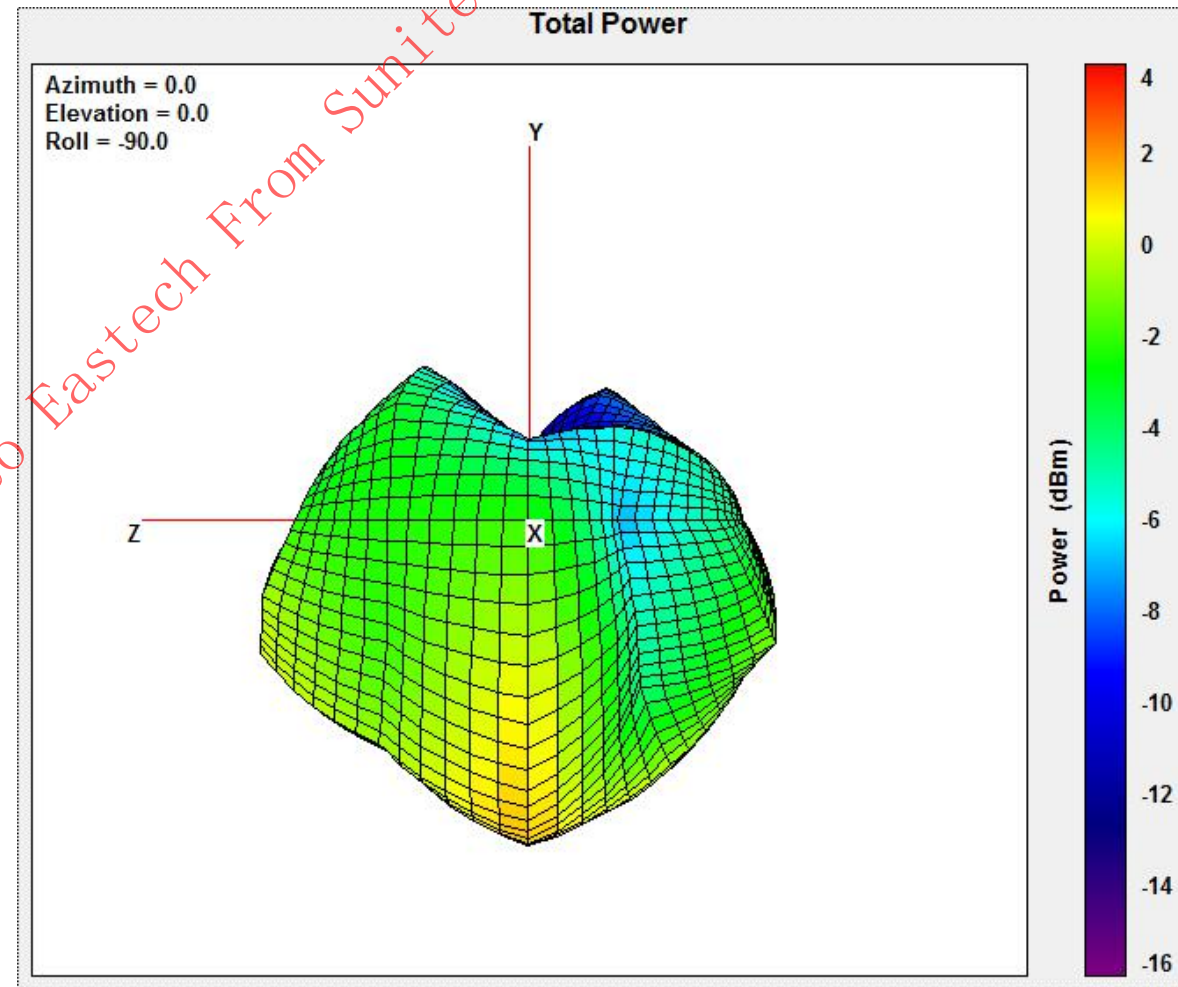
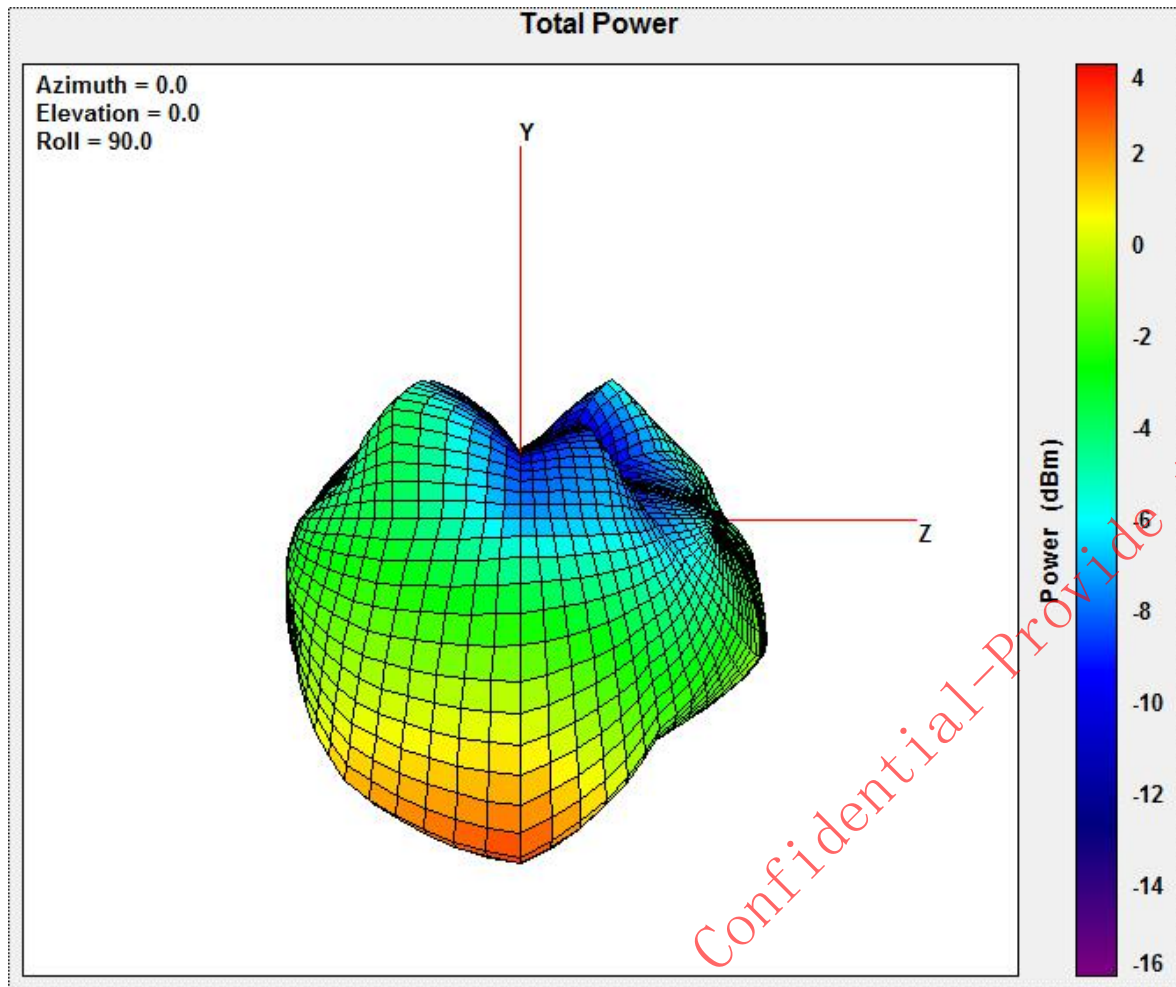
2402MHz ANT 3D Radiation Pattern :



Frequency(MHZ)	Efficiency (%)	Gain (dBi)
2402MHz	30.3%	-1.1dBi



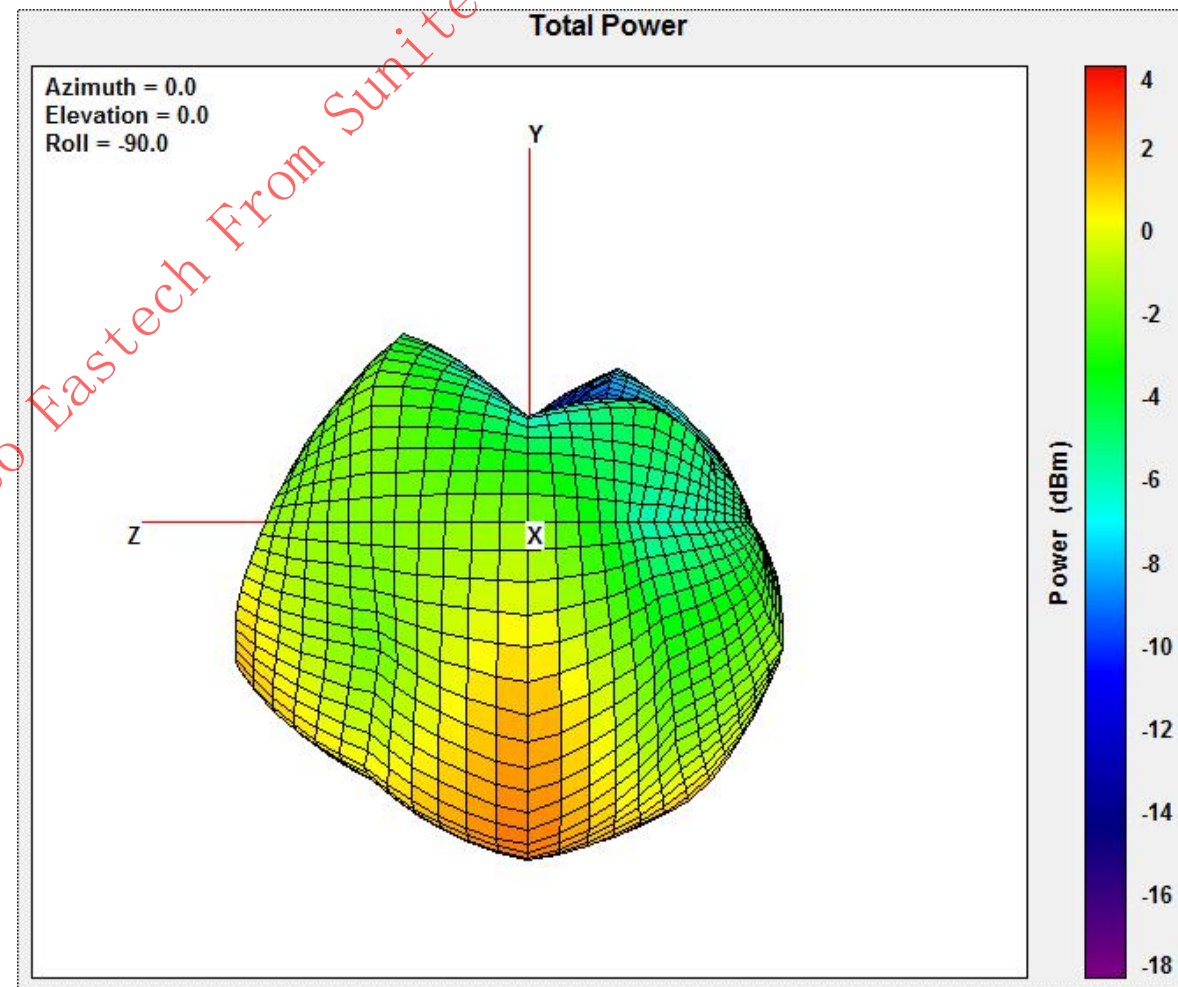
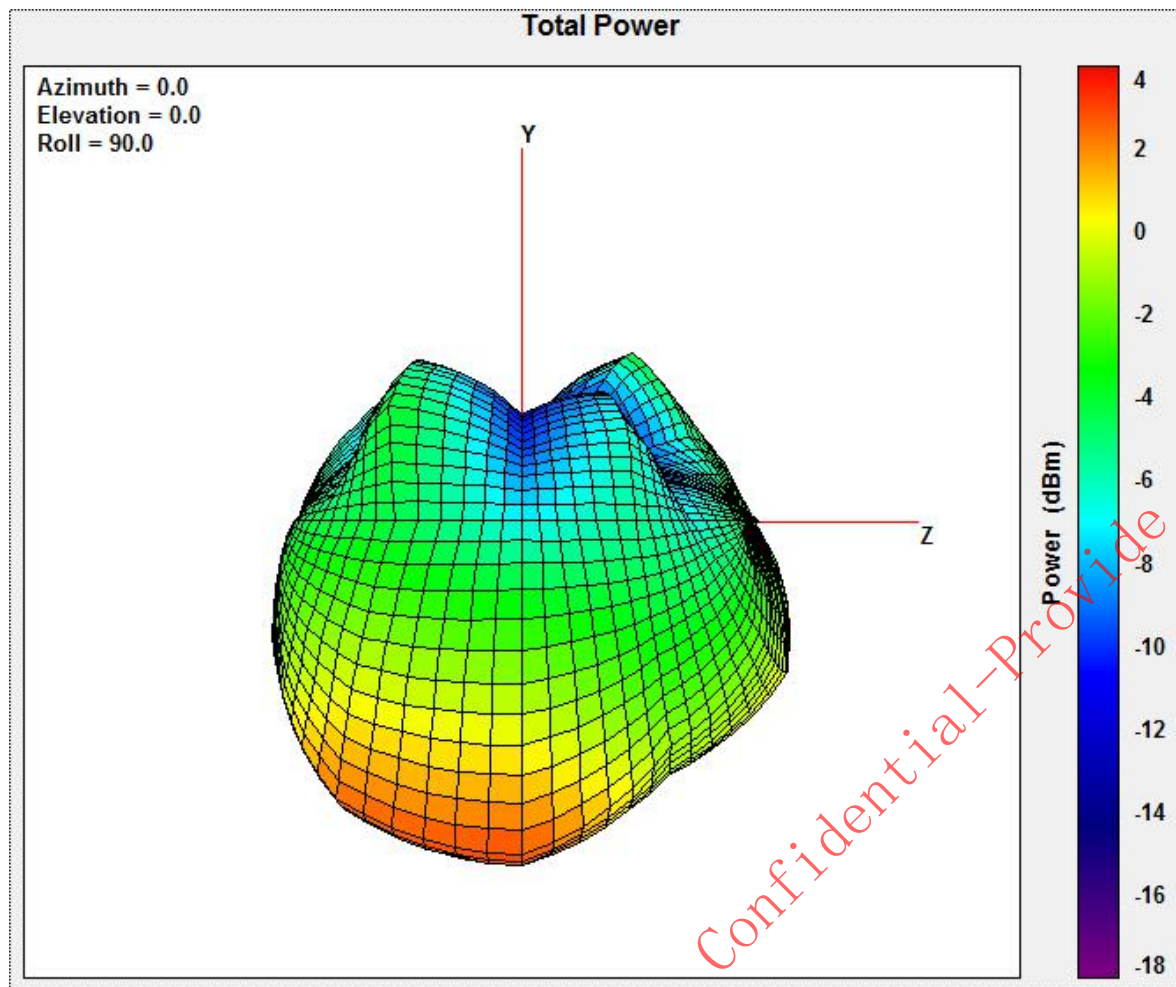
2441MHz ANT 3D Radiation Pattern :



Frequency(MHZ)	Efficiency (%)	Gain (dBi)
2441MHz	35.4%	-1.3dBi



2480MHz ANT 3D Radiation Pattern :



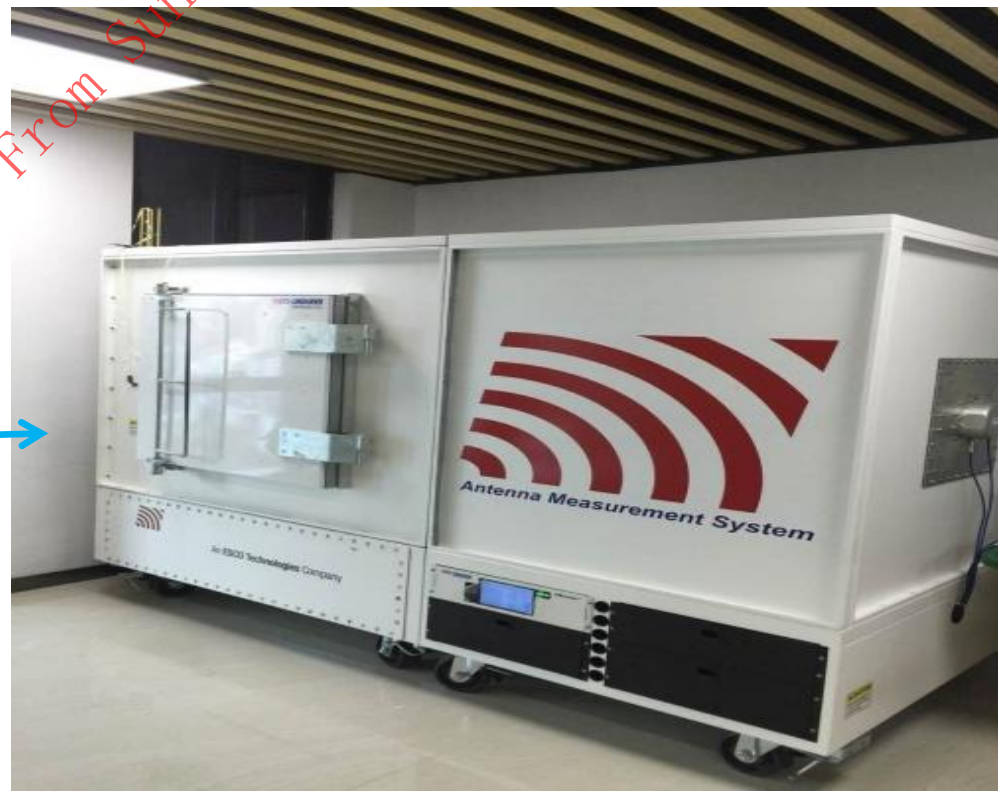
Frequency(MHZ)	Efficiency (%)	Gain (dBi)
2480MHz	38.6%	-1.4dBi



DP9 RF Performance Test Report

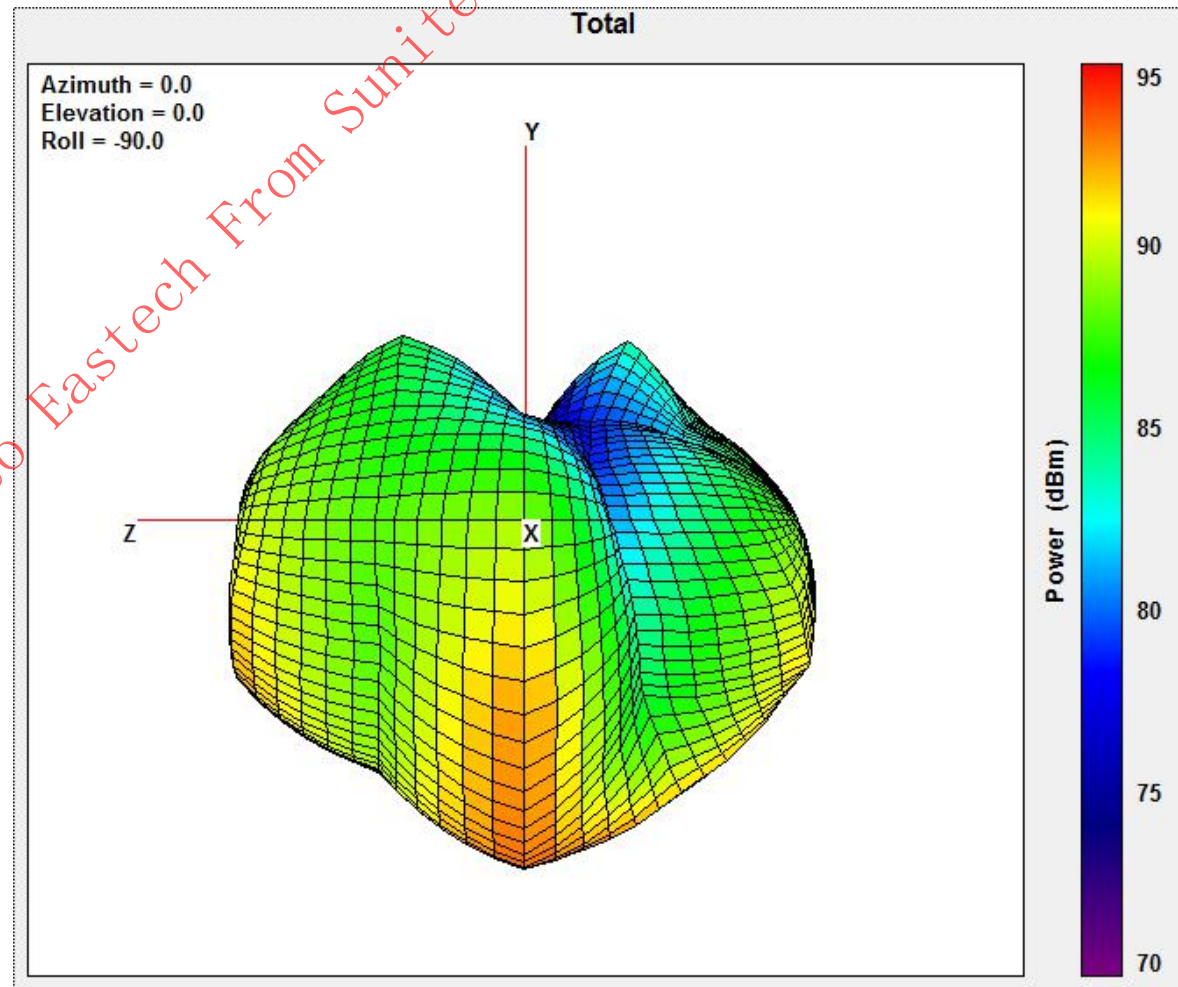
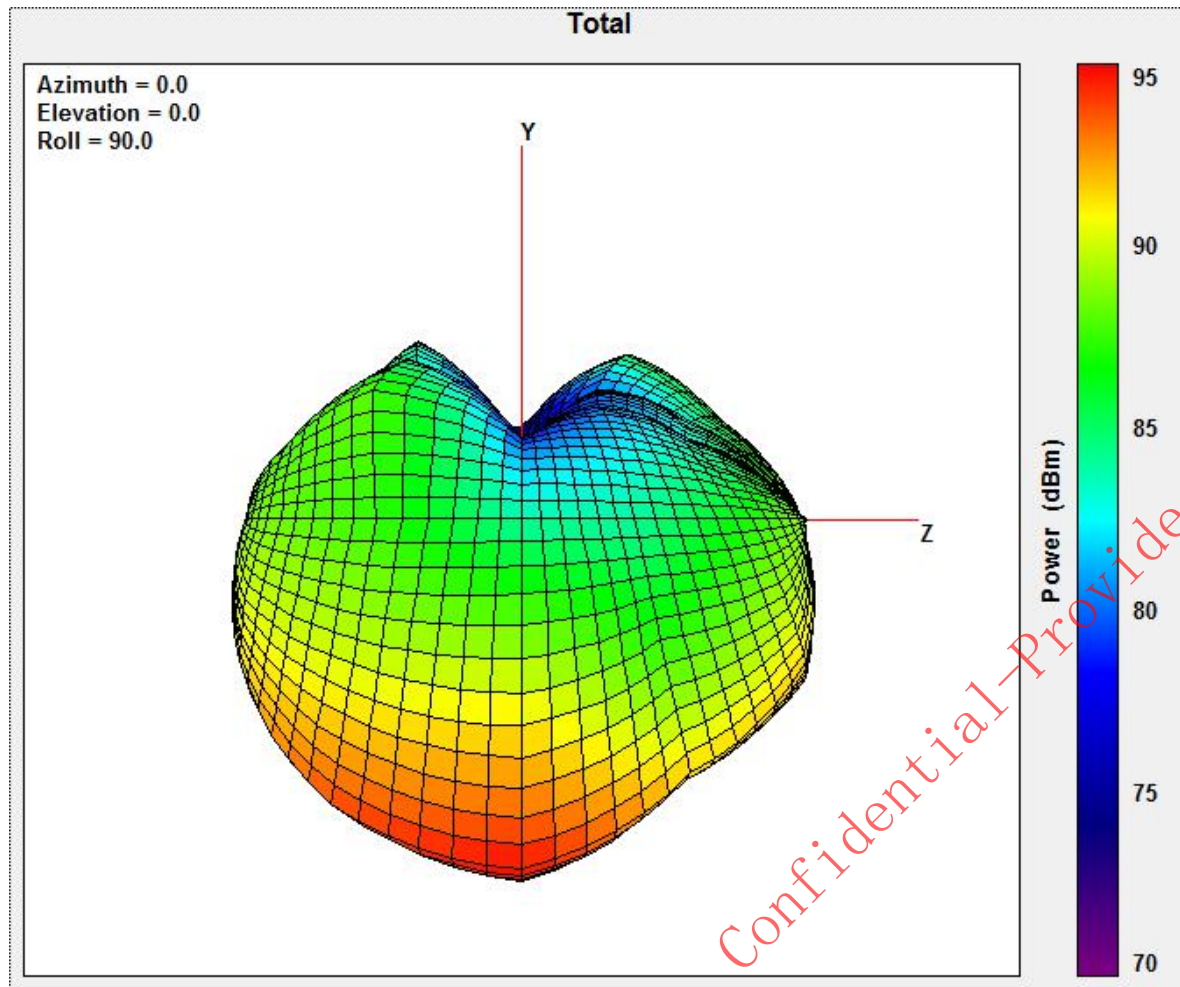
TIS/TRP Test Settings:

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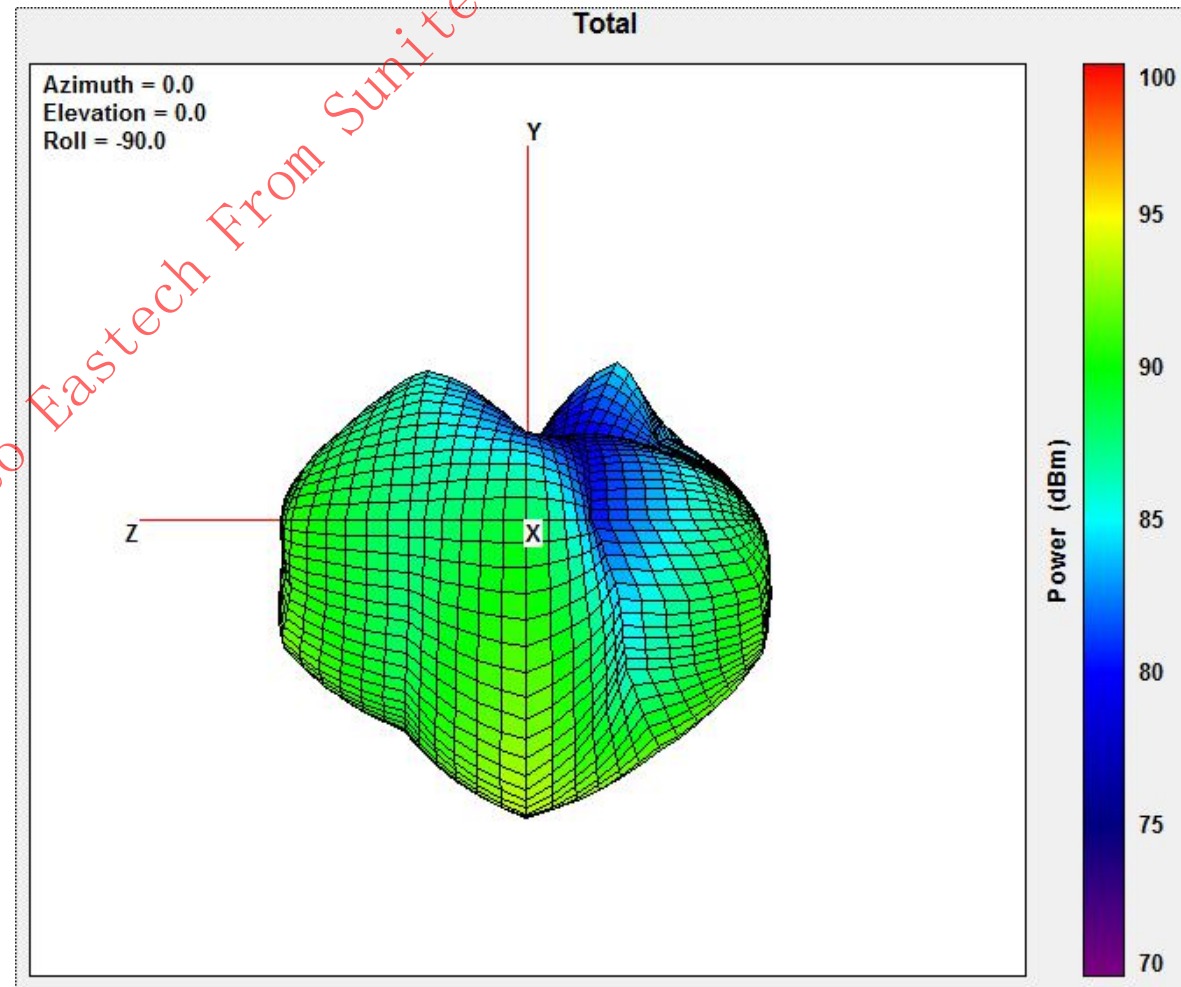
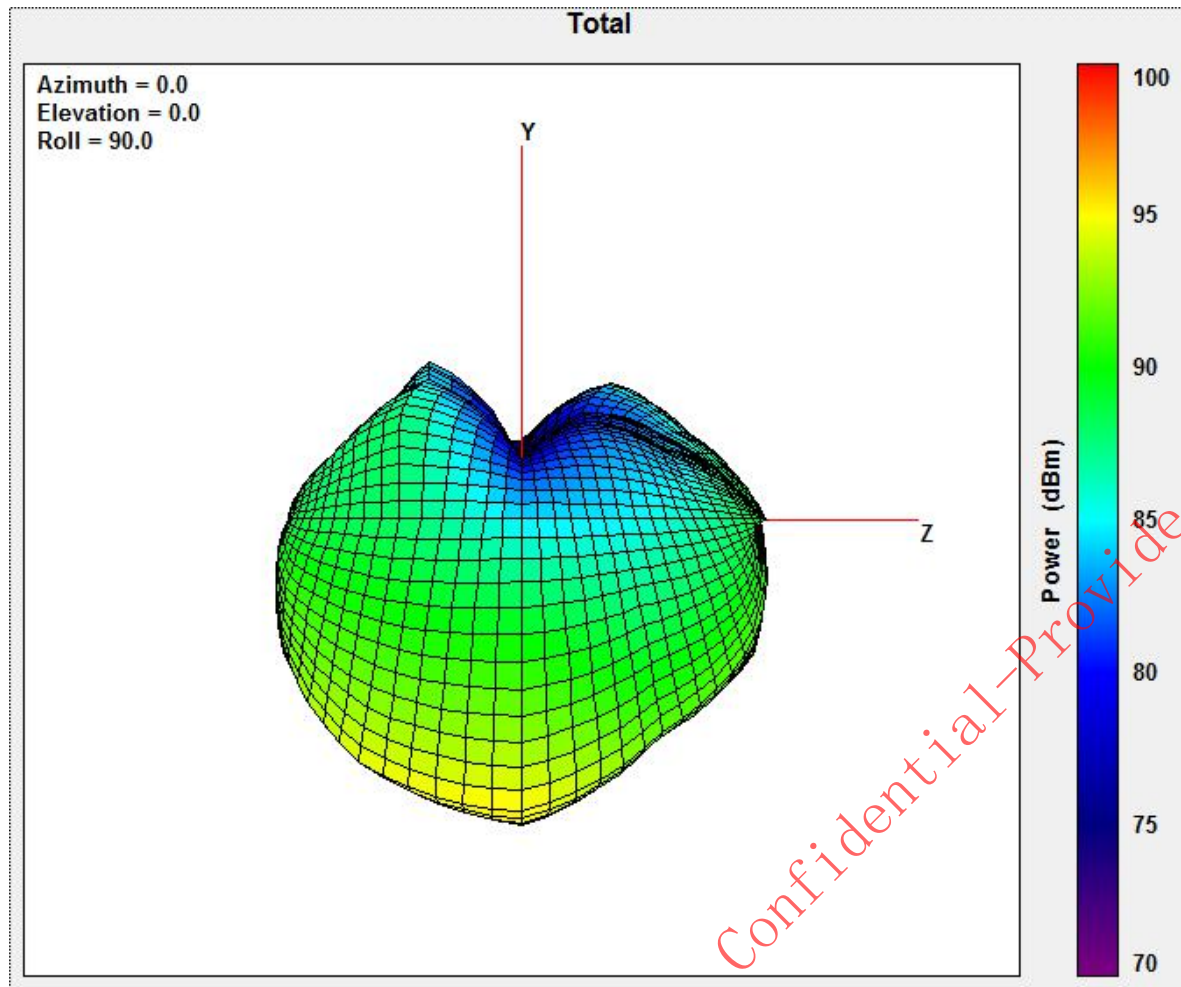


2402MHz TIS 3D Radiation Pattern :



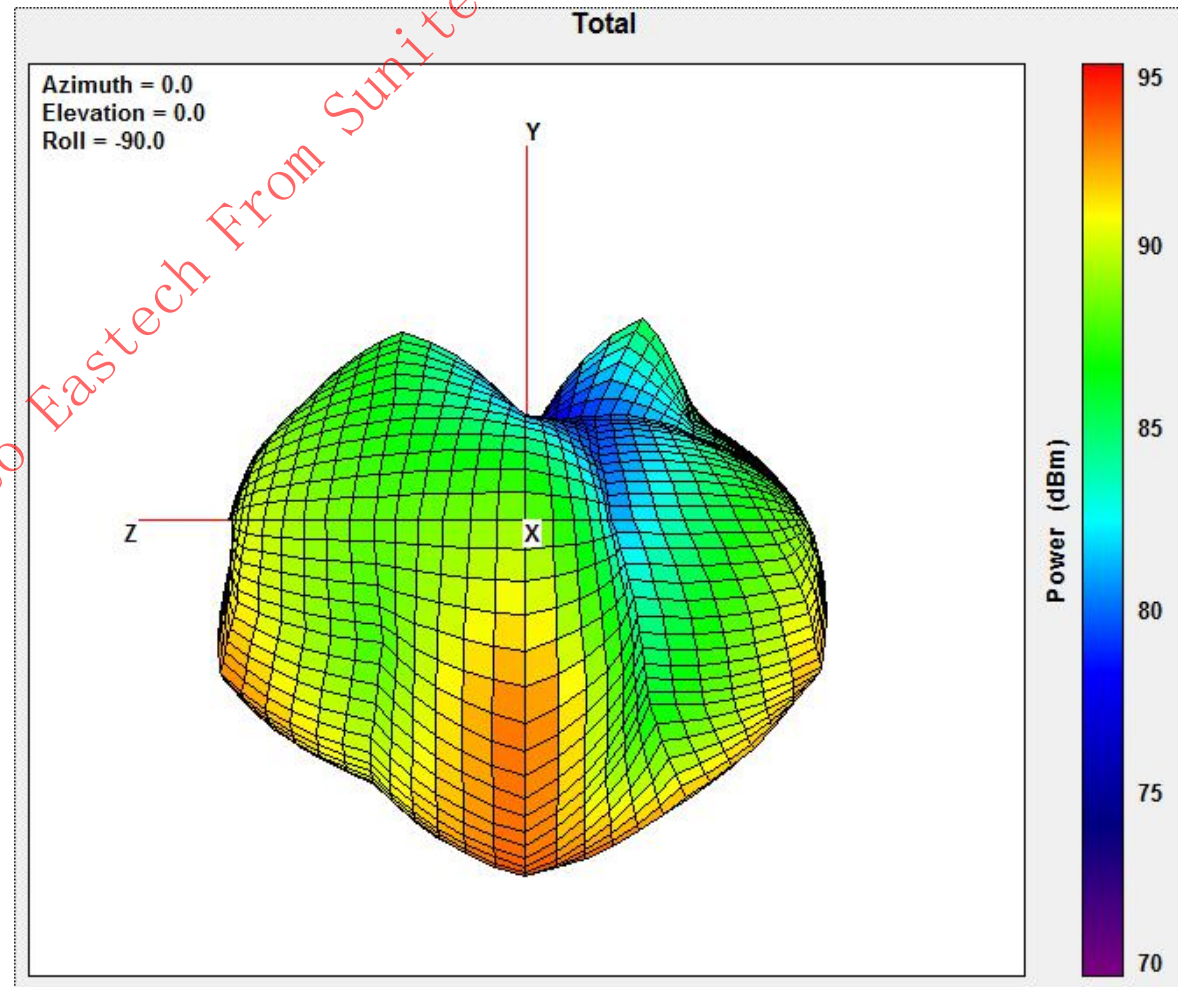
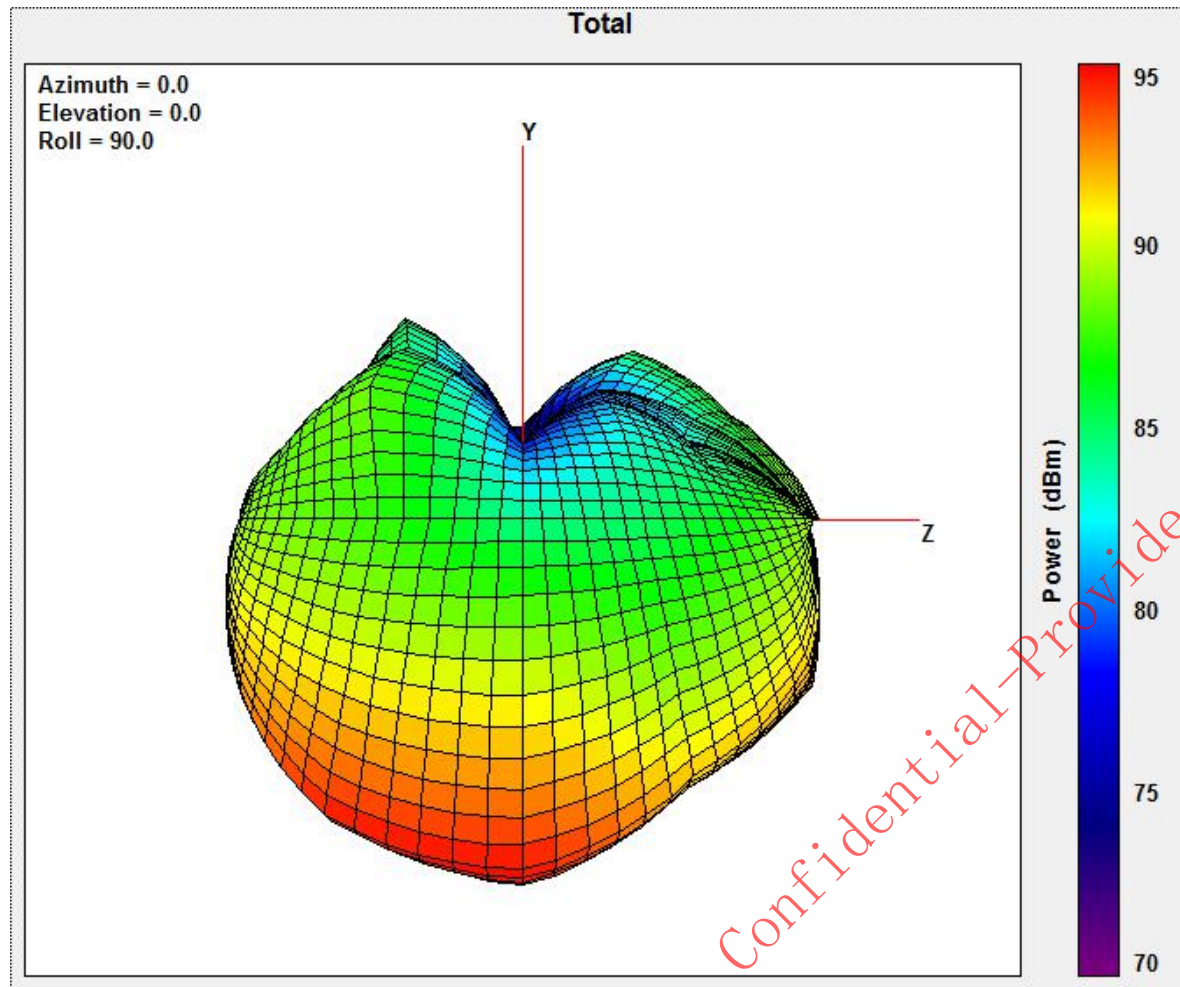


2441MHz TIS 3D Radiation Pattern :





2480MHz TIS 3D Radiation Pattern :





DP9 RF Performance Test Report

2402MHz TIS DATA:

Total	Frequency (MHz)									
	2402	Theta Angle (?)	0	30	60	90	120	150	180	
		Phi Angle (?)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	
		0	88.94	90.16	88.01	89.54	80.72	86.83	88.68	
		30	89.23	88.79	86.11	82.30	78.35	84.80	88.68	
		60	89.32	86.30	85.95	76.57	78.67	82.07	88.68	
		90	89.29	83.31	80.23	72.00	84.23	82.94	88.68	
		120	89.13	82.61	80.10	75.27	83.71	84.98	88.68	
		150	89.46	84.18	81.96	79.50	88.23	87.72	88.68	
		180	89.69	87.06	84.02	83.83	87.44	88.57	88.68	
		210	89.30	89.49	87.11	90.58	90.18	90.31	88.68	
		240	89.07	91.65	91.49	94.99	93.93	91.32	88.68	
		270	88.67	92.36	89.98	93.80	91.53	91.56	88.68	
		300	88.48	92.13	88.72	93.39	85.19	91.58	88.68	
		330	87.80	91.55	87.66	92.81	83.71	90.15	88.68	
		360	88.94	90.16	88.01	89.54	80.72	86.83	88.68	



DP9 RF Performance Test Report

2441MHz TIS DATA:

	2441	Theta Angle (?)	0	30	60	90	120	150	180
		Phi Angle (?)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
		0	89.69	90.87	87.40	89.19	79.81	86.72	89.05
		30	90.17	88.97	86.49	82.34	79.65	85.39	89.05
		60	90.00	86.58	85.62	76.66	79.01	82.38	89.05
		90	89.12	83.62	80.07	73.08	85.10	82.51	89.05
		120	89.72	83.21	80.42	74.89	84.66	84.91	89.05
		150	90.03	84.48	82.91	78.44	88.14	87.56	89.05
		180	90.29	86.55	84.79	84.47	87.95	88.60	89.05
		210	89.07	89.34	88.32	90.79	91.09	91.02	89.05
		240	89.64	91.52	91.87	95.45	94.79	91.92	89.05
		270	88.40	92.12	90.05	94.46	91.63	92.25	89.05
		300	88.53	92.45	88.95	93.82	85.50	91.73	89.05
		330	89.25	91.12	87.72	92.19	84.05	90.84	89.05
		360	89.69	90.87	87.40	89.19	79.81	86.72	89.05



DP9 RF Performance Test Report

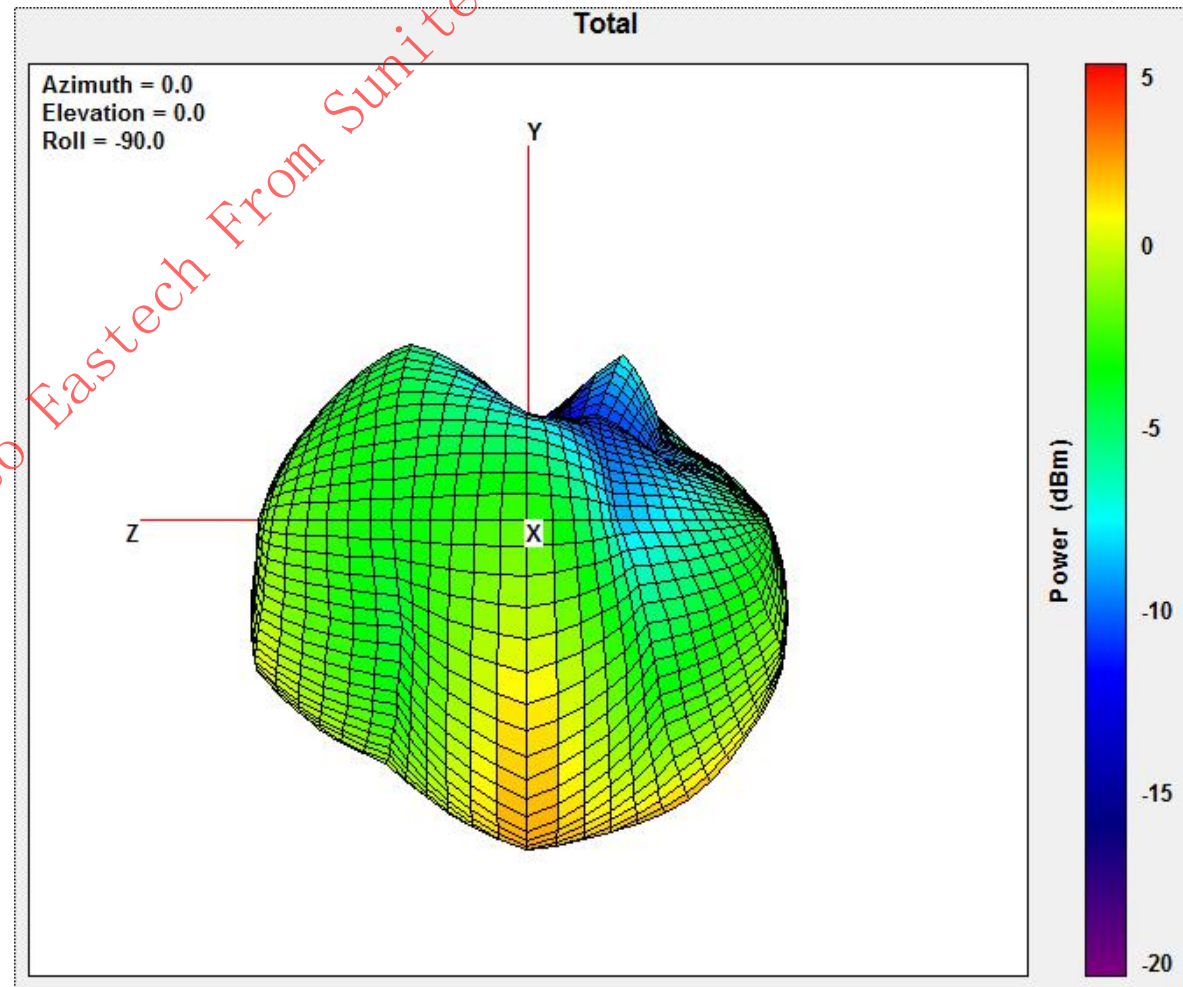
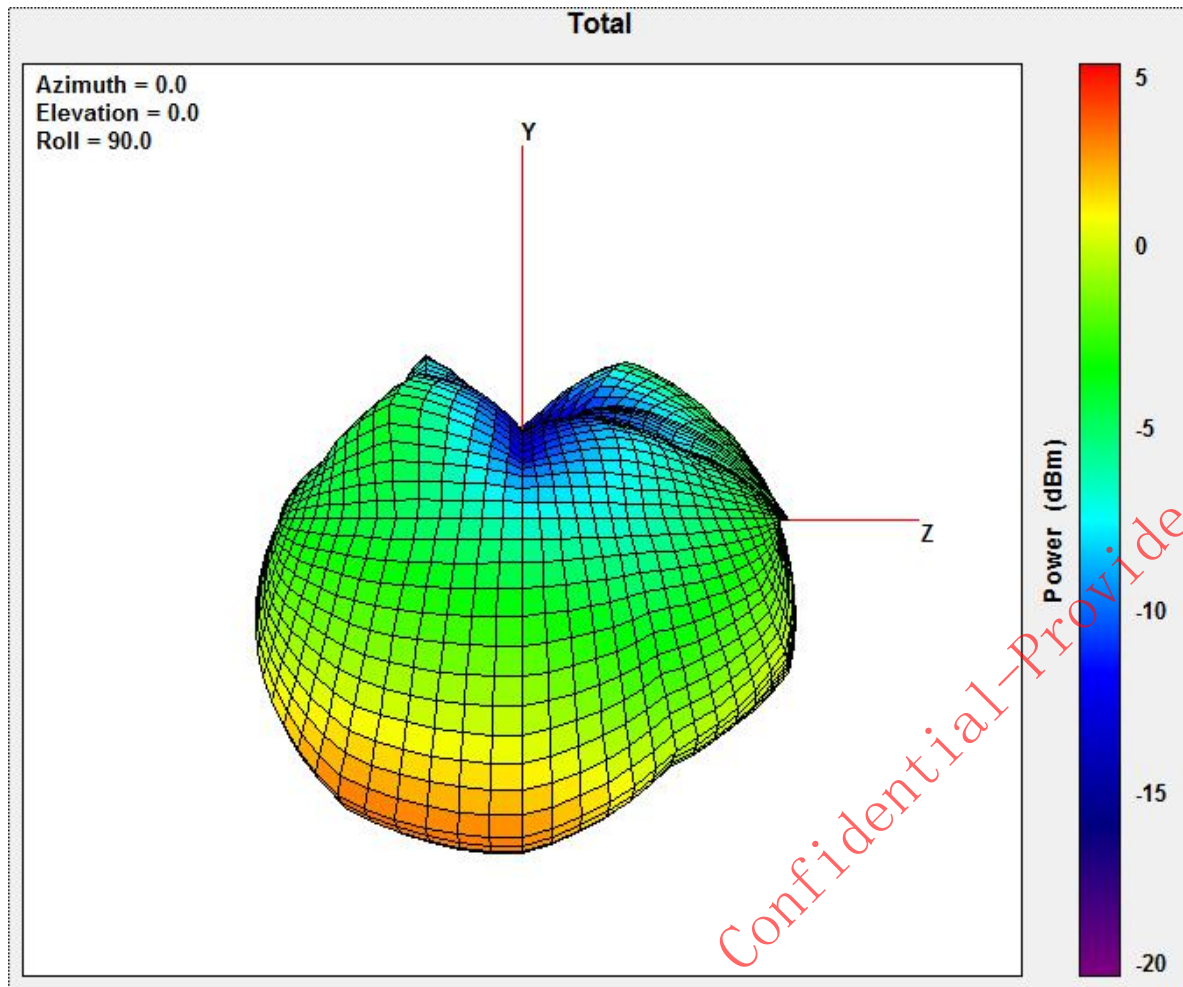
2480MHz TIS DATA:

	2480	Theta Angle [°]	0	30	60	90	120	150	180
		Phi Angle [°]	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
		0	89.60	90.25	88.19	89.17	80.72	87.47	89.21
		30	89.61	89.15	86.36	82.29	79.37	85.02	89.21
		60	90.43	87.06	86.16	76.58	79.08	82.89	89.21
		90	89.69	83.68	80.06	72.98	86.09	83.09	89.21
		120	89.51	82.36	80.67	75.00	84.86	84.89	89.21
		150	89.86	84.06	82.89	78.87	88.67	87.86	89.21
		180	90.27	87.00	84.89	84.20	87.32	88.82	89.21
		210	89.61	89.52	88.10	90.71	90.79	90.81	89.21
		240	89.54	91.74	91.74	94.97	94.82	91.89	89.21
		270	88.98	92.95	90.79	94.36	91.97	92.29	89.21
		300	88.68	93.09	89.86	93.52	85.81	92.36	89.21
		330	89.09	91.22	87.47	93.60	83.89	90.66	89.21
		360	89.60	90.25	88.19	89.17	80.72	87.47	89.21
Total	Point Values	Cond. Sensitivity (dBm)	TIS (dBm)	Min. EIS (dBm)	Directivity (dBi)	Efficiency (dB)	Gain (dBi)	NHPIS 盤 i/4 (dBm)	NHPIS 盤 i/6 (dBm)
	Frequency (MHz)								
	2402	0	-88.7067	-94.988	6.28129	88.7067	94.988	-87.2241	-86.001
	2441	0	-89.0066	-95.4533	6.44674	89.0066	95.4533	-87.5458	-86.3096
	2480	0	-89.1266	-94.974	5.84739	89.1266	94.974	-87.635	-86.3688



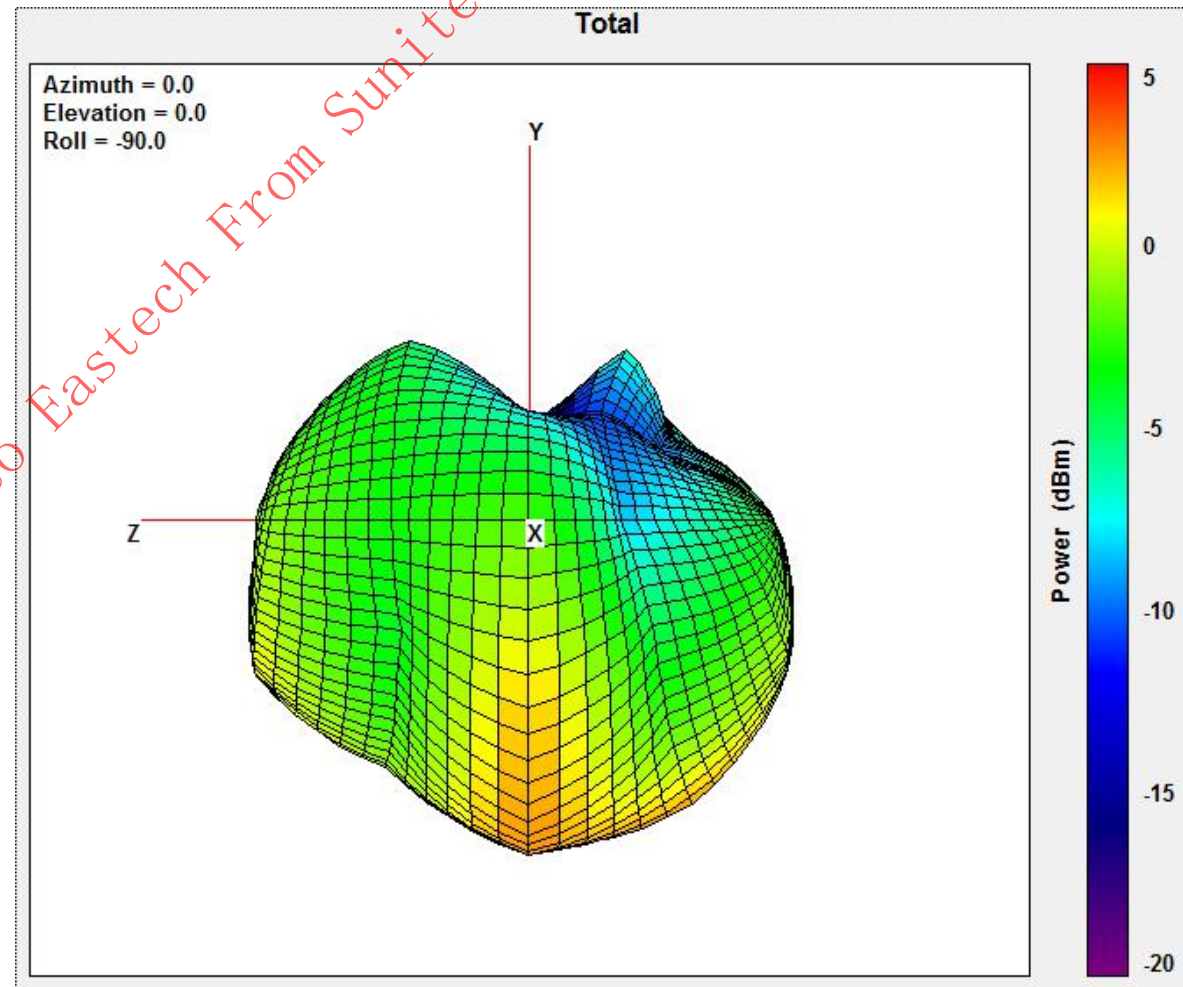
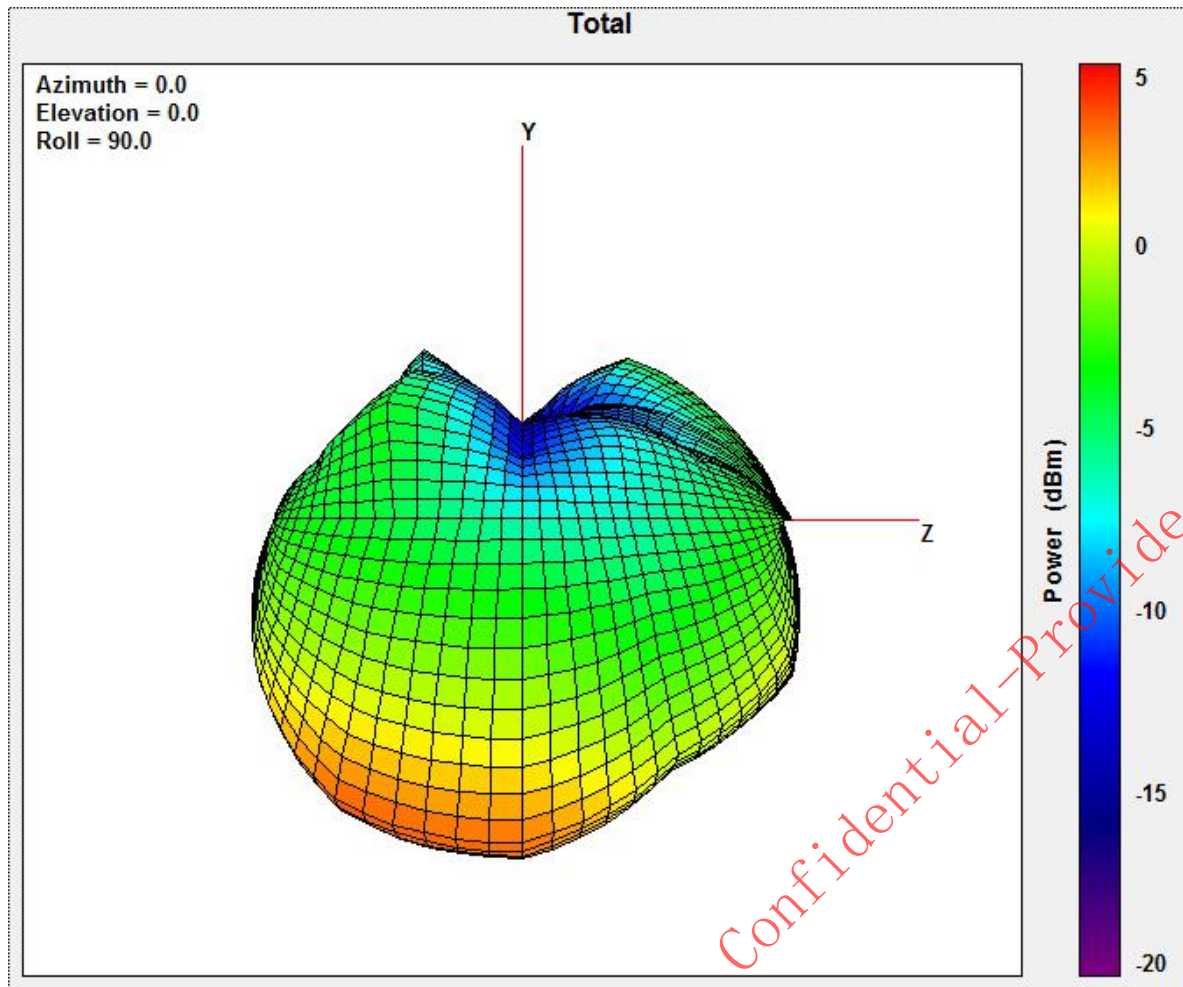
DP9 RF Performance Test Report

2402MHz TRP 3D Radiation Pattern :



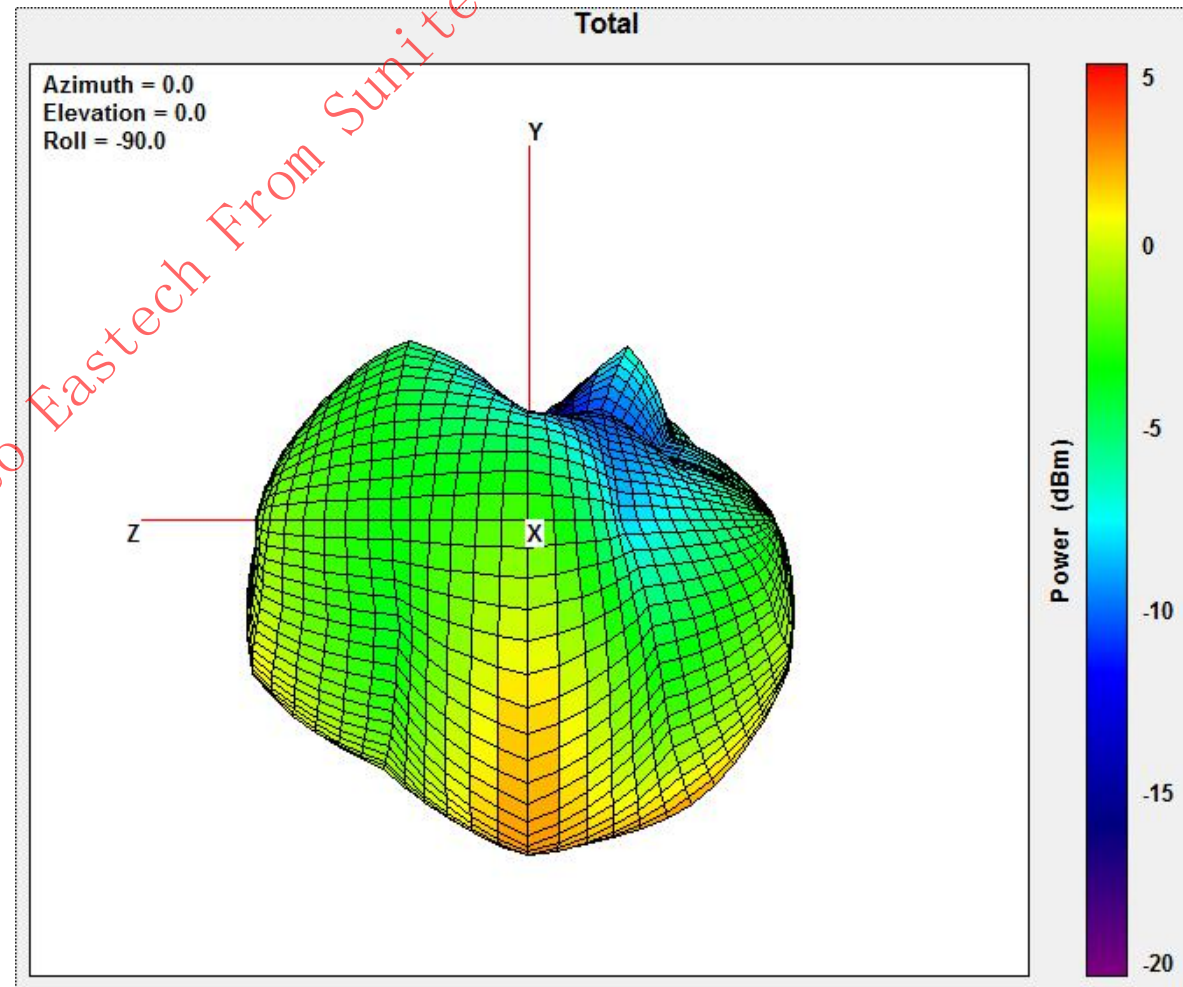
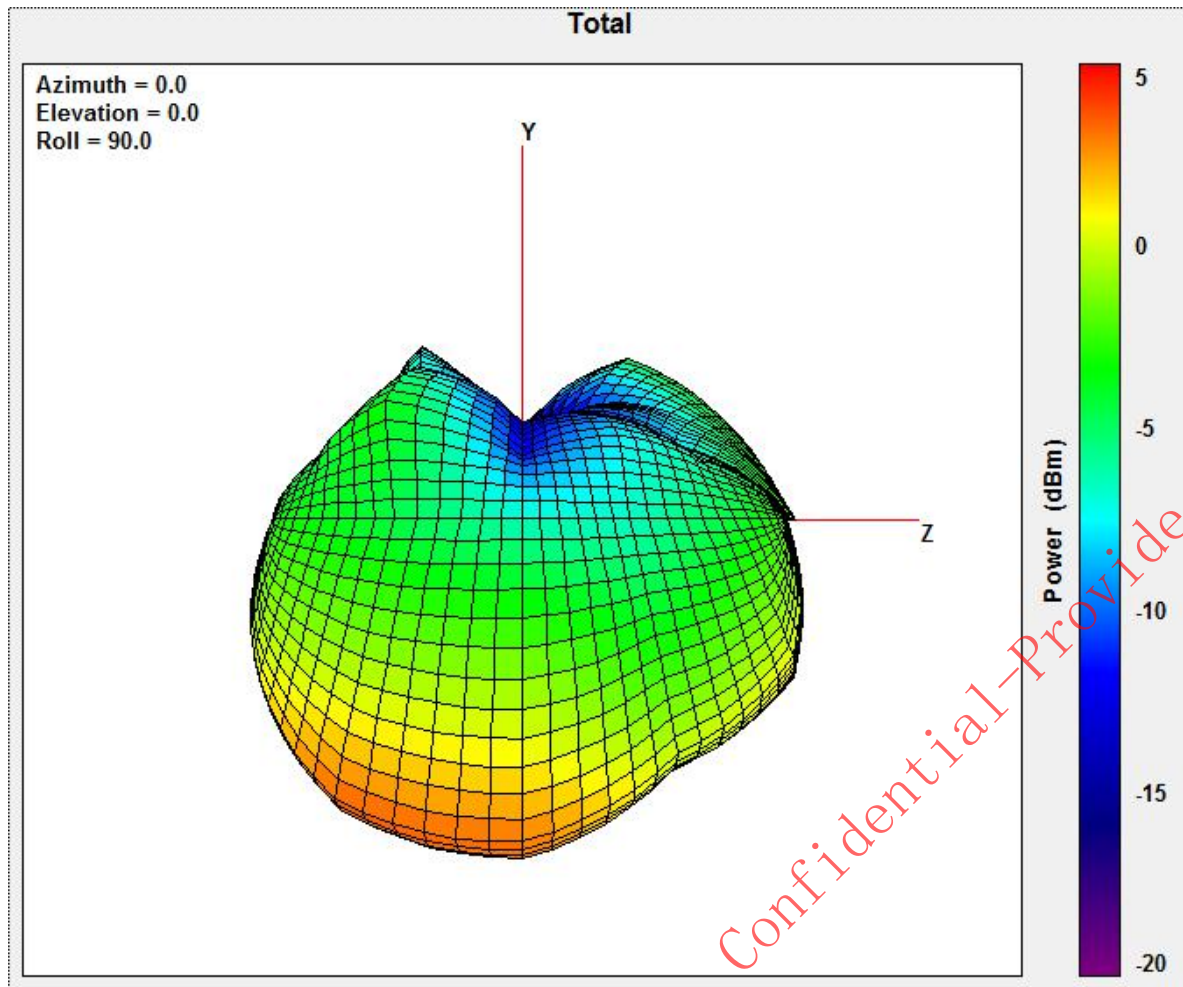


2441MHz TRP 3D Radiation Pattern :





2480MHz TRP 3D Radiation Pattern :





DP9 RF Performance Test Report

2402MHz TRP DATA:

Total	Frequency (MHz)								
	2402	Theta Angle (?)	0	30	60	90	120	150	180
		Phi Angle (?)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
		0	-2.06	-1.30	-3.61	-1.90	-8.75	-6.21	-3.50
		30	-2.24	-2.64	-3.82	-7.32	-10.07	-8.21	-3.50
		60	-2.30	-4.04	-4.76	-13.86	-10.77	-10.27	-3.50
		90	-1.71	-7.19	-11.36	-19.96	-6.87	-9.37	-3.50
		120	-2.02	-8.61	-11.12	-13.16	-7.36	-8.18	-3.50
		150	-2.10	-6.30	-7.89	-12.57	-3.53	-5.09	-3.50
		180	-2.07	-4.53	-6.86	-6.95	-4.67	-3.79	-3.50
		210	-2.56	-2.26	-3.76	-1.16	-0.97	-1.75	-3.50
		240	-2.48	0.08	-0.27	2.96	3.28	0.05	-3.50
		270	-2.42	1.17	-0.67	2.28	2.24	0.24	-3.50
		300	-2.57	0.72	-3.12	2.59	-2.33	-0.73	-3.50
		330	-2.37	-0.45	-4.48	1.69	-5.02	-2.92	-3.50
		360	-2.06	-1.30	-3.61	-1.90	-8.75	-6.21	-3.50



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2441MHz TRP DATA:

	2441	Theta Angle [°]	0	30	60	90	120	150	180
		Phi Angle [°]	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
		0	-1.75	-1.10	-3.29	-1.70	-8.47	-5.85	-3.18
		30	-1.89	-2.31	-3.60	-7.16	-9.82	-7.90	-3.18
		60	-1.86	-3.64	-4.48	-13.54	-10.46	-9.95	-3.18
		90	-1.40	-6.92	-11.13	-19.52	-6.47	-9.02	-3.18
		120	-1.76	-8.33	-10.87	-12.72	-7.01	-7.91	-3.18
		150	-1.87	-6.06	-7.63	-12.21	-3.27	-4.80	-3.18
		180	-1.76	-4.14	-6.63	-6.66	-4.52	-3.41	-3.18
		210	-2.22	-2.09	-3.48	-0.89	-0.66	-1.44	-3.18
		240	-2.20	0.38	-0.01	3.26	3.60	0.31	-3.18
		270	-2.10	1.50	-0.37	2.59	2.54	0.55	-3.18
		300	-2.22	0.92	-2.80	2.89	-2.02	-0.37	-3.18
		330	-2.38	-0.03	-4.21	2.00	-4.75	-2.63	-3.18
		360	-1.75	-1.10	-3.29	-1.70	-8.47	-5.85	-3.18



DP9 RF Performance Test Report

2480MHz TRP DATA:

	2480	Theta Angle (?)	0	30	60	90	120	150	180
		Phi Angle (?)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
		0	-1.80	-1.02	-3.32	-1.69	-8.40	-5.84	-3.08
		30	-1.79	-2.30	-3.65	-7.17	-9.68	-7.93	-3.08
		60	-1.69	-3.62	-4.51	-13.59	-10.33	-10.06	-3.08
		90	-1.19	-6.67	-11.18	-19.74	-6.24	-8.85	-3.08
		120	-1.55	-8.43	-10.72	-12.60	-6.79	-7.75	-3.08
		150	-1.82	-6.04	-7.65	-12.08	-3.10	-4.55	-3.08
		180	-1.82	-4.19	-6.63	-6.64	-4.57	-3.26	-3.08
		210	-2.06	-1.79	-3.45	-0.89	-0.76	-1.30	-3.08
		240	-1.93	0.66	-0.02	3.21	3.58	0.37	-3.08
		270	-1.84	1.68	-0.27	2.63	2.56	0.63	-3.08
		300	-2.09	1.04	-2.50	2.89	-1.94	-0.24	-3.08
		330	-2.23	-0.27	-4.11	1.99	-4.60	-2.45	-3.08
		360	-1.80	-1.02	-3.32	-1.69	-8.40	-5.84	-3.08
Total	Point Values	Ant. Port Input Pwr. (dBm)	Tot. Rad. Pwr. (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)	NHPRP 盤 i/4 (dBm)
	Frequency (MHz)								
	2402	0	-2.51586	3.27605	5.79191	-2.51586	56.0292	3.27605	-3.88115
	2441	0	-2.22155	3.60006	5.82161	-2.22155	59.9577	3.60006	-3.58882
	2480	0	-2.18278	3.57507	5.75785	-2.18278	60.4954	3.57507	-3.56809

Thanks

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