

2118909-2

COTS

Simulation/Measurement

Presented by:

Date: 18-Jul.-2025

Revision: 1.0 (1.1,1.2...2.0,2.1....)

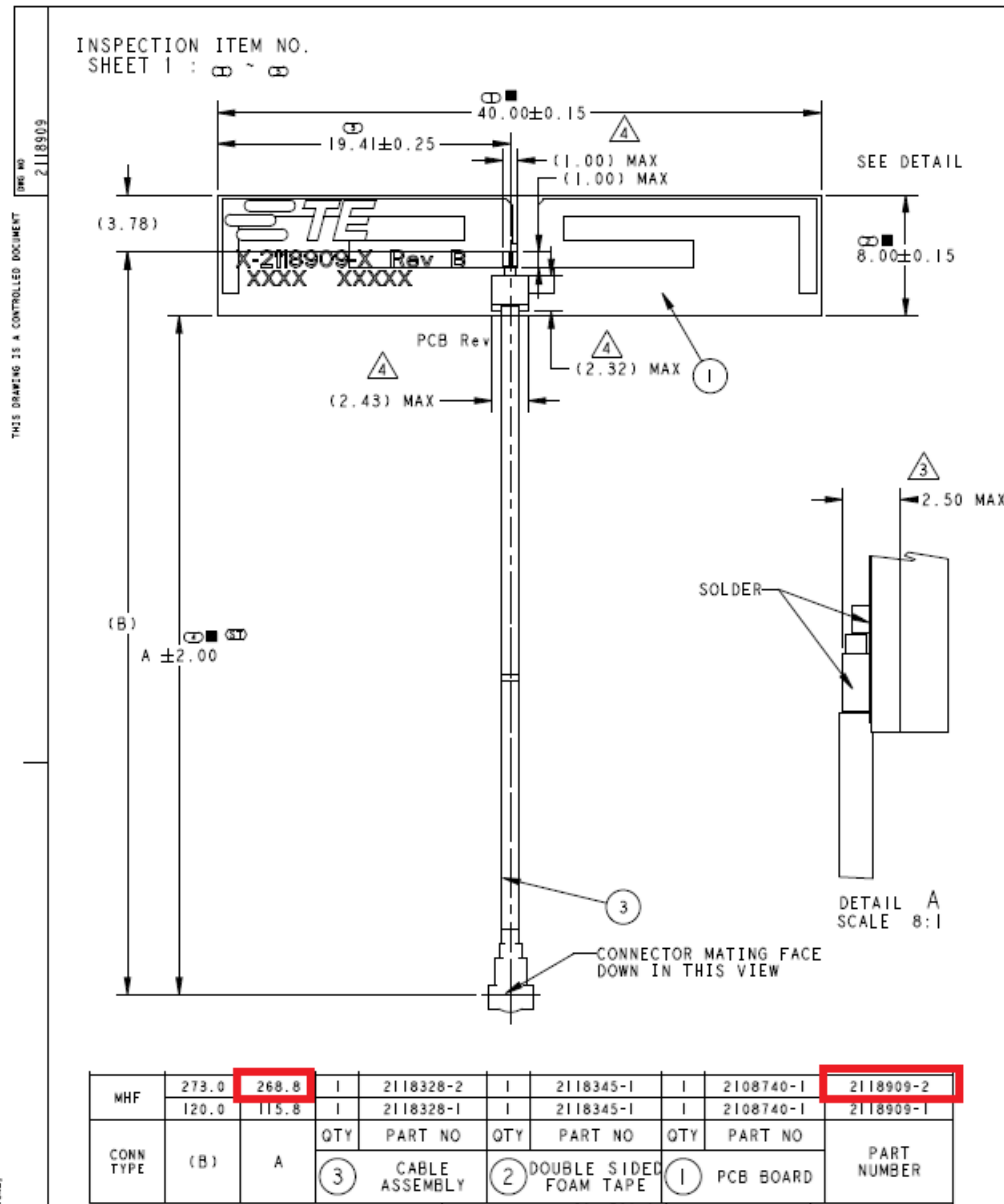
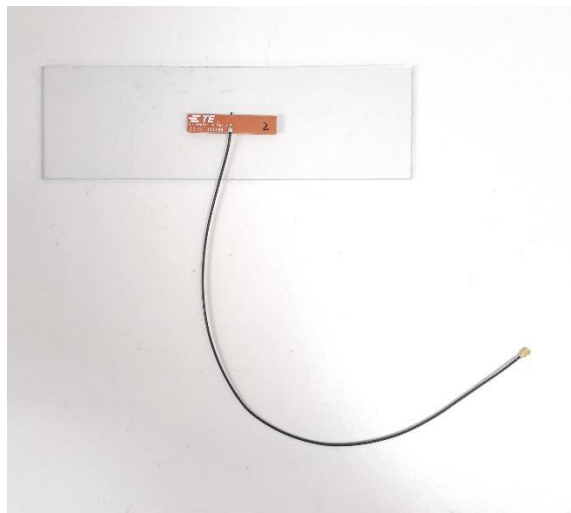
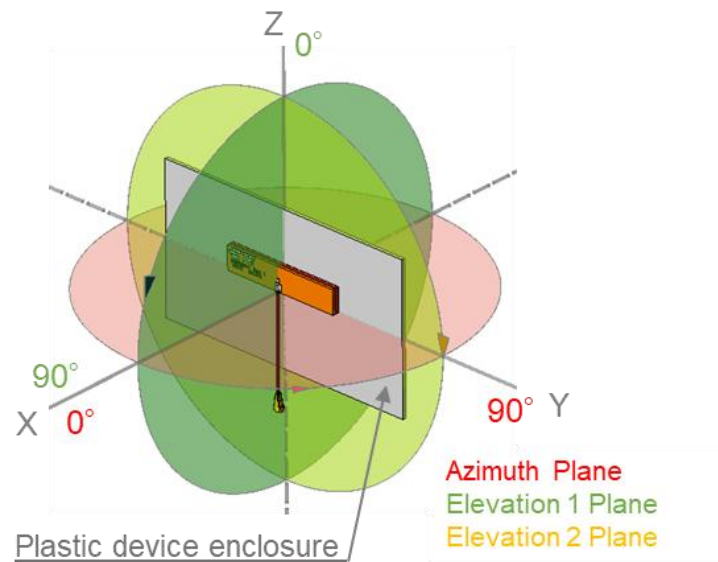
Project Number: WXXX-XXX

EVERY CONNECTION COUNTS

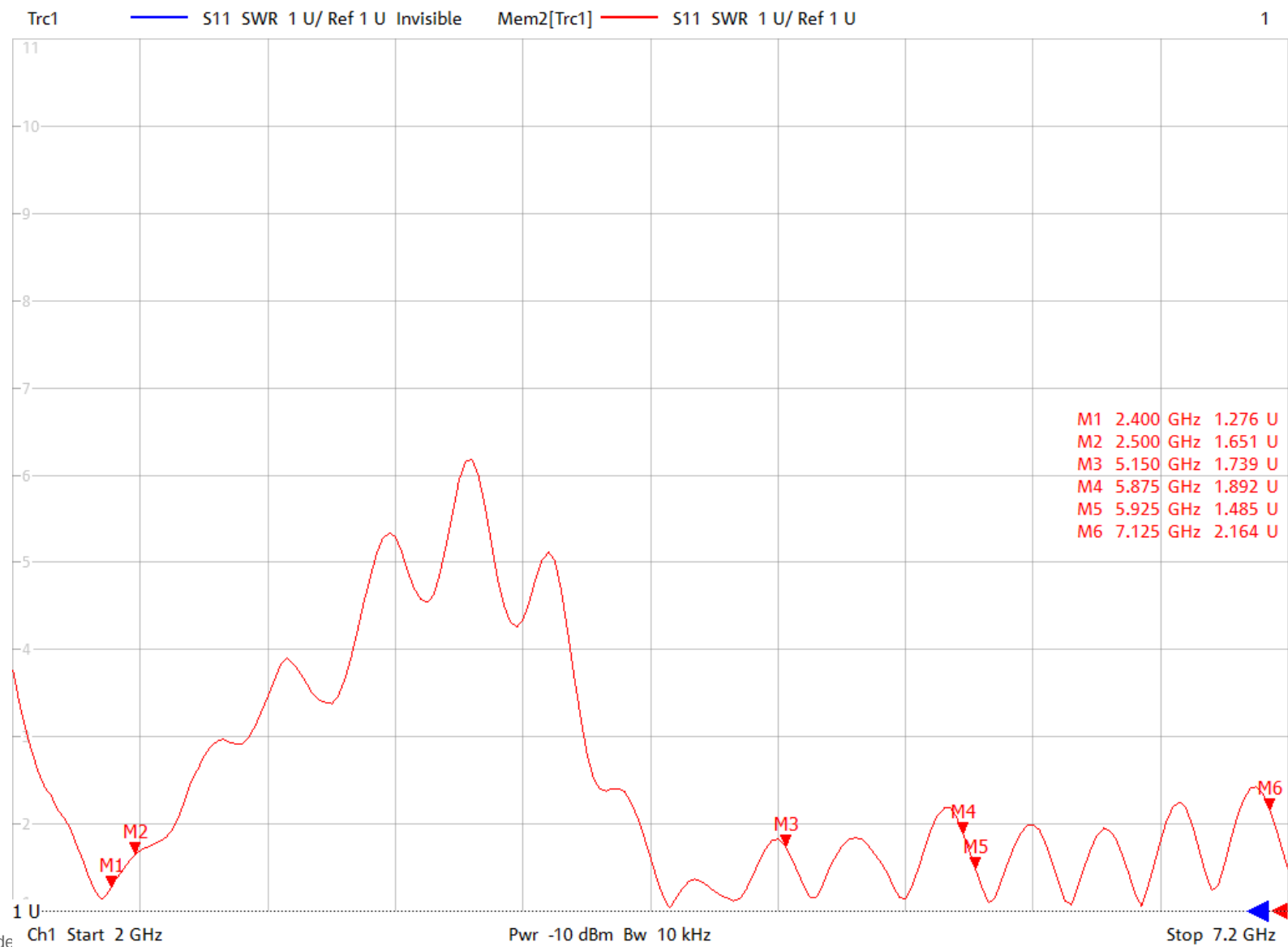


Coordinate & Picture

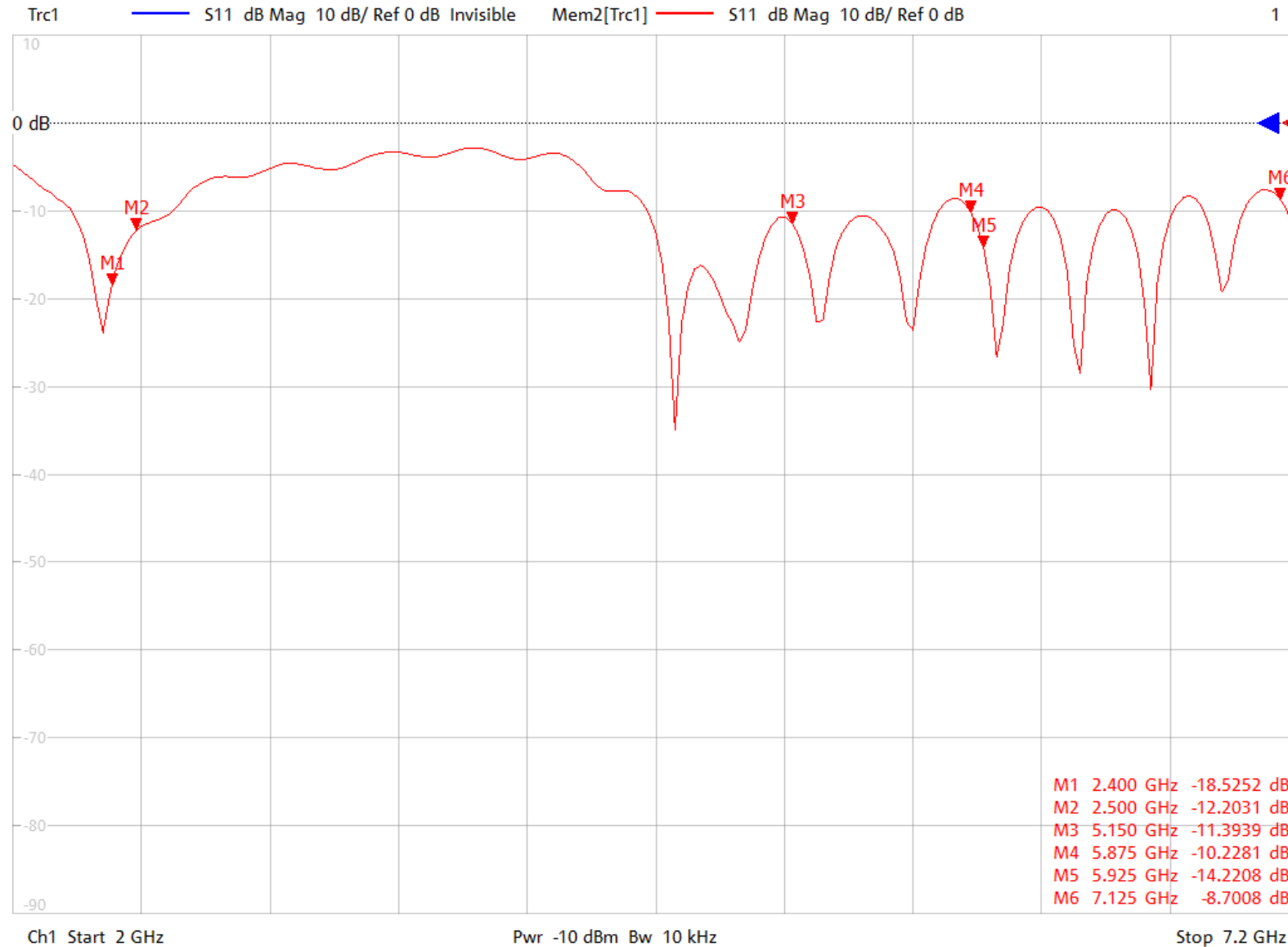
Test setup



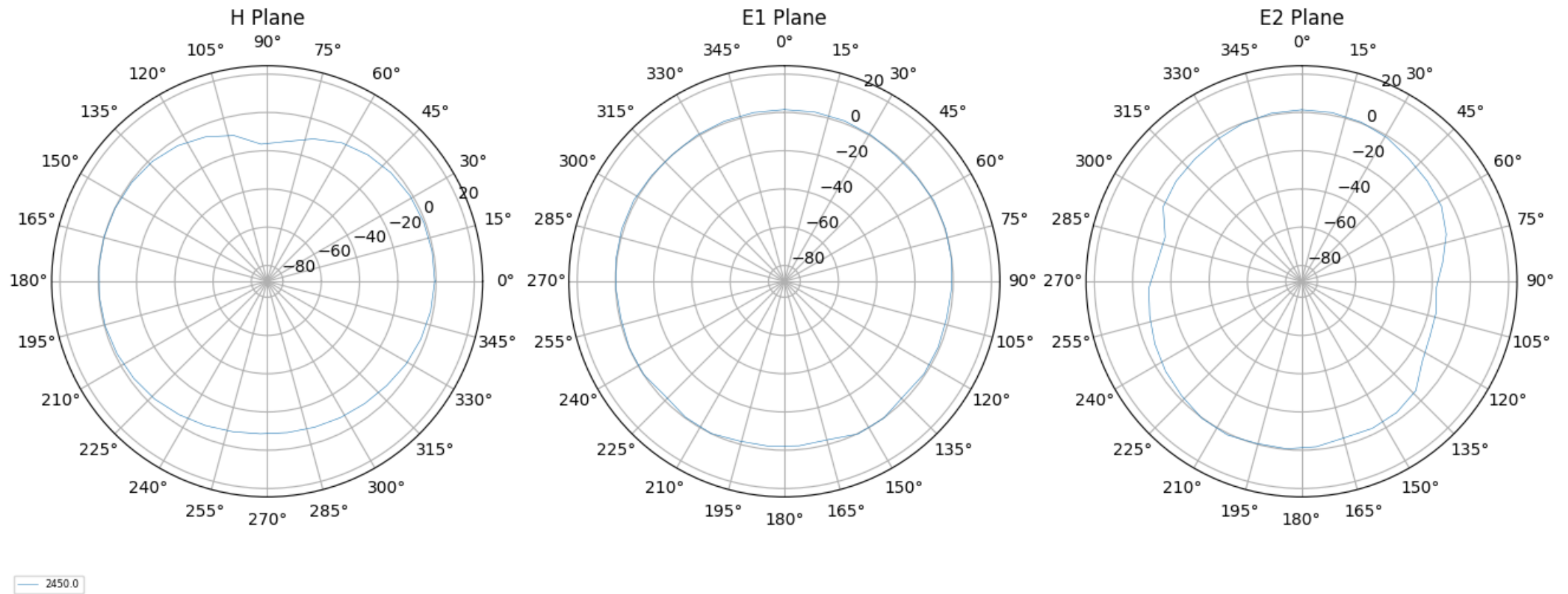
VSWR



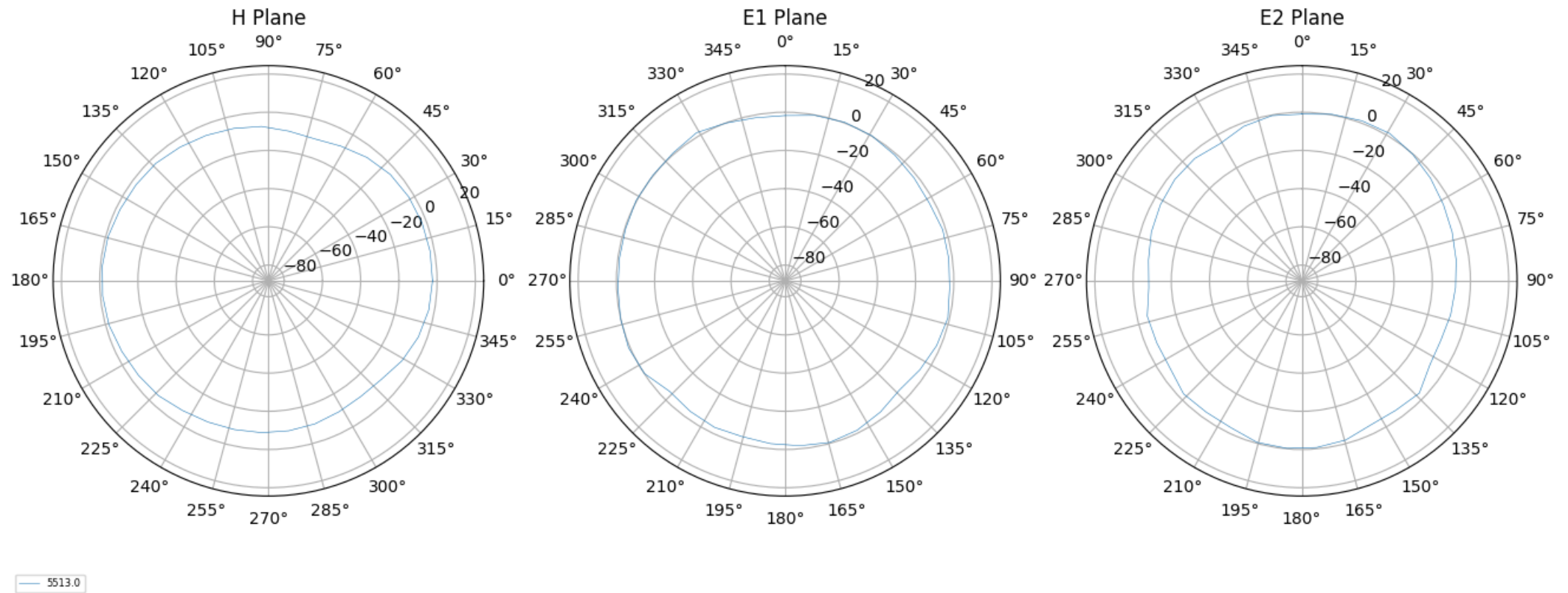
Return Loss



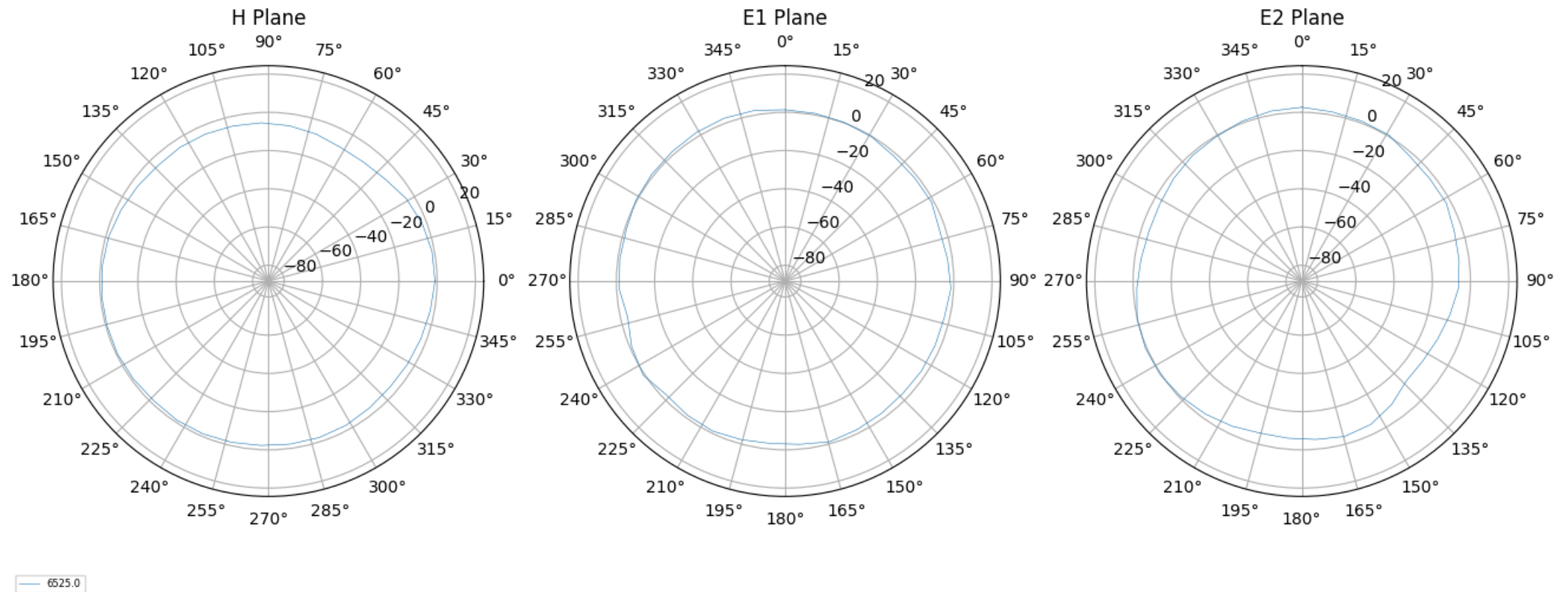
2D Radiation _ 2450MHz



2D Radiation _ 5513MHz



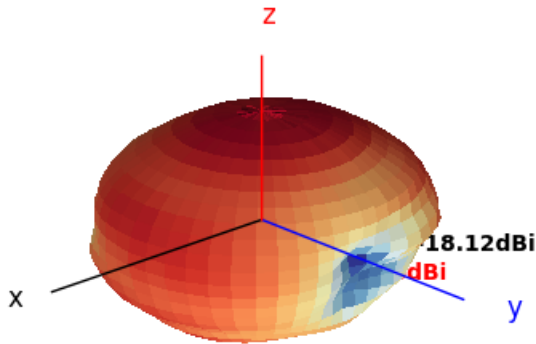
2D Radiation _ 6525MHz



3D Radiation

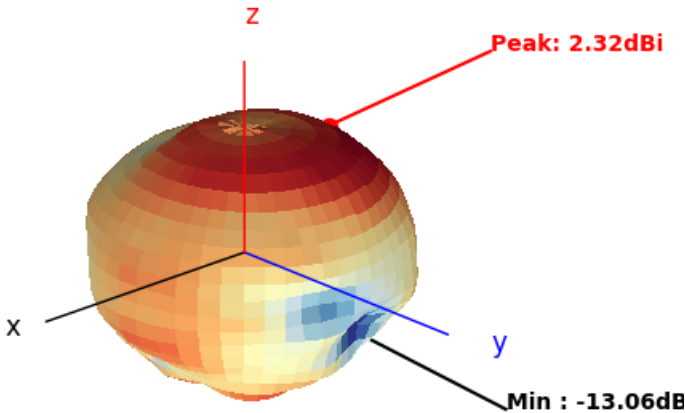
Total (2450 MHz)

Peak Value:1.86dBi Theta:150° Phi:225°
Min Value:-18.12dBi Theta:90° Phi:90°



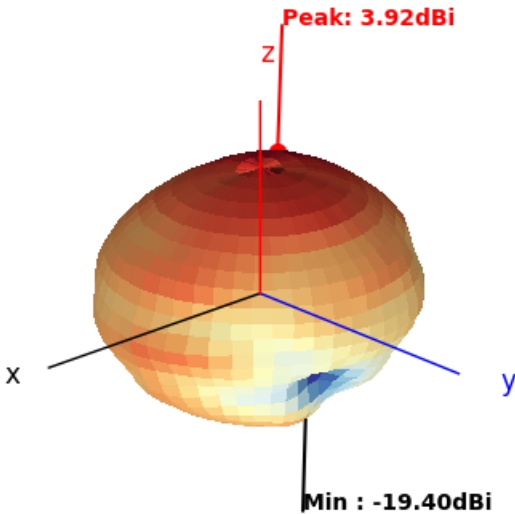
Total (5513 MHz)

Peak Value:2.32dBi Theta:30° Phi:165°
Min Value:-13.06dBi Theta:120° Phi:105°



Total (6525 MHz)

Peak Value:3.92dBi Theta:15° Phi:210°
Min Value:-19.40dBi Theta:120° Phi:75°



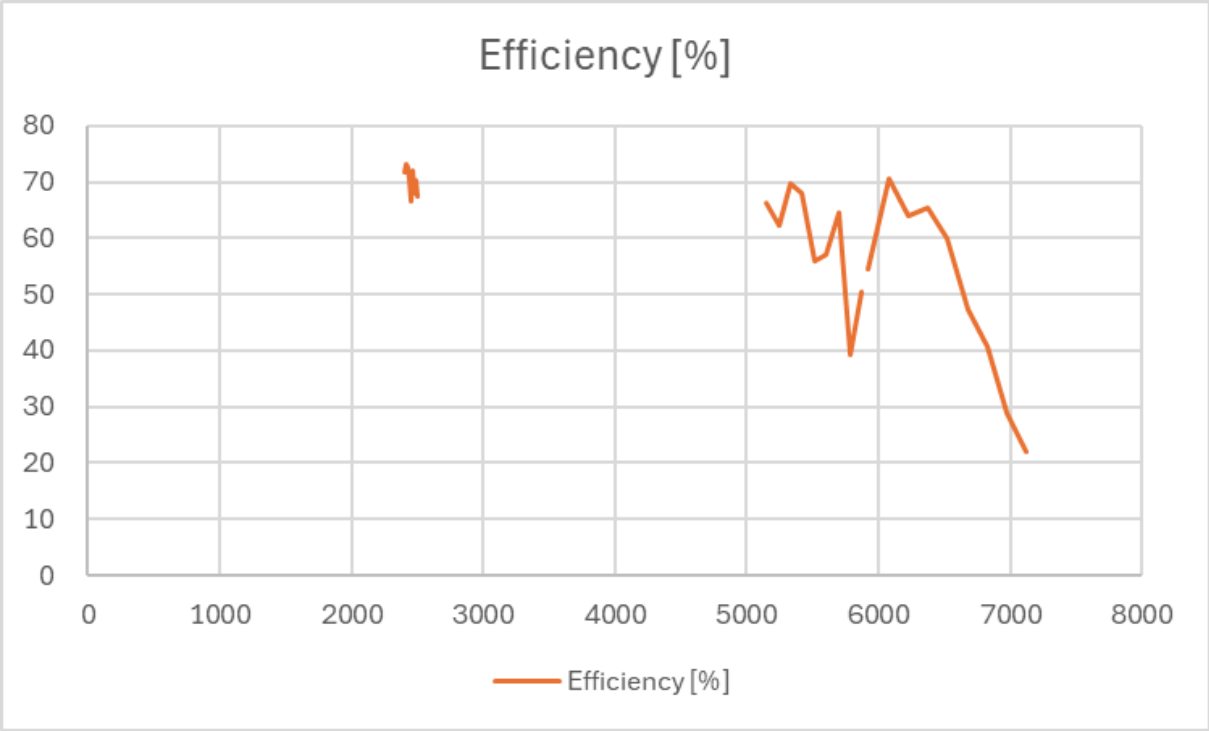
Efficiency



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Frequency [MHz]	2400	2413	2425	2438	2450	2463	2475	2488	2500	5150	5241	5331	5422	5513	5603	5694	5784	5875	5925	6075
Efficiency [dB]	-1.43	-1.36	-1.39	-1.53	-1.77	-1.42	-1.68	-1.53	-1.71	-1.79	-2.06	-1.56	-1.67	-2.51	-2.43	-1.90	-4.08	-2.98	-2.63	-1.51
Efficiency [%]	71.9	73.2	72.5	70.4	66.6	72.2	67.9	70.4	67.4	66.3	62.2	69.8	68.1	56.1	57.1	64.5	39.1	50.4	54.5	70.7
TRG _θ [dB]	-6.76	-6.70	-6.74	-6.84	-6.96	-6.57	-6.78	-6.53	-6.71	-6.07	-6.54	-5.87	-5.72	-6.83	-6.85	-6.06	-8.55	-7.85	-7.29	-5.80
Gain _{θ Peak} [dBi]	1.86	1.89	1.78	1.49	1.36	2.05	1.74	2.20	2.04	1.45	1.94	3.12	2.80	1.69	0.91	3.76	1.98	2.54	1.76	2.61
Gain _{θ Min} [dBi]	-31.14	-33.75	-38.15	-37.94	-43.93	-43.68	-45.59	-33.91	-35.51	-31.96	-36.07	-40.77	-30.22	-34.97	-28.34	-36.10	-31.17	-30.78	-32.17	-37.04
TRG _φ [dB]	-2.94	-2.86	-2.89	-3.04	-3.33	-3.00	-3.29	-3.18	-3.37	-3.81	-3.98	-3.57	-3.84	-4.52	-4.38	-4.00	-5.99	-4.69	-4.45	-3.53
Gain _{φ Peak} [dBi]	1.89	2.03	2.02	1.95	1.67	2.14	1.88	1.90	1.94	2.14	2.09	2.84	2.52	2.18	2.33	4.07	2.19	2.61	2.56	3.93
Gain _{φ Min} [dBi]	-29.21	-29.82	-30.47	-34.05	-37.76	-36.90	-33.49	-31.44	-30.87	-26.86	-29.44	-31.37	-30.28	-40.93	-28.42	-24.16	-35.86	-30.31	-32.52	-36.57
UHRG [dB]	-4.01	-3.95	-4.00	-4.17	-4.47	-4.14	-4.46	-4.32	-4.49	-4.13	-4.46	-4.03	-4.12	-4.94	-4.78	-4.01	-6.08	-5.03	-4.58	-3.25
UHRG/TRG [%]	55.2	55.1	54.8	54.4	53.7	53.4	52.8	52.6	52.8	58.3	57.5	56.6	56.9	57.2	58.3	61.5	63.0	62.4	63.9	66.9
H-Plane	-2.61	-2.53	-2.54	-2.67	-2.95	-2.52	-2.83	-2.68	-2.85	-2.78	-3.70	-2.68	-3.33	-4.43	-4.89	-5.07	-6.41	-4.47	-3.92	-2.99
E1-Plane, AVG [dB]	0.36	0.45	0.45	0.34	0.09	0.45	0.17	0.28	0.15	-0.12	-0.26	0.09	-0.20	-0.99	-0.47	0.15	-2.01	-1.00	-0.79	0.57
E2-Plane, AVG [dB]	-2.38	-2.32	-2.38	-2.51	-2.62	-2.25	-2.54	-2.33	-2.54	-2.08	-2.37	-1.35	-1.23	-2.73	-2.79	-1.76	-4.06	-3.44	-3.23	-2.11
Peak Gain [dBi]	1.83	2.02	2.17	1.95	1.86	2.36	2.37	2.75	2.72	2.72	2.74	2.98	3.11	2.32	2.43	3.64	1.83	2.78	2.71	4.39
Directivity [dB]	3.27	3.37	3.57	3.48	3.63	3.77	4.05	4.27	4.43	4.51	4.80	4.54	4.78	4.83	4.87	5.55	5.91	5.76	5.35	5.89
Minimum Gain [dBi]	-17.66	-17.66	-17.51	-17.81	-18.12	-17.85	-17.72	-17.01	-16.59	-14.85	-18.01	-13.39	-12.84	-13.06	-13.37	-12.97	-15.22	-18.71	-25.31	-22.54

	21	22	23	24	25	26	27
Frequency [MHz]	6225	6375	6525	6675	6825	6975	7125
Efficiency [dB]	-1.94	-1.84	-2.21	-3.24	-3.89	-5.38	-6.56
Efficiency [%]	64.0	65.5	60.1	47.4	40.8	29.0	22.1
TRG _θ [dB]	-6.10	-5.58	-5.42	-6.00	-5.91	-7.11	-8.28
Gain _{θ Peak} [dBi]	4.05	3.02	2.20	1.71	2.95	1.26	-0.21
Gain _{θ Min} [dBi]	-37.49	-30.31	-23.53	-30.02	-34.87	-27.13	-32.73
TRG _φ [dB]	-4.04	-4.22	-5.03	-6.51	-8.19	-10.22	-11.43
Gain _{φ Peak} [dBi]	3.98	3.37	2.74	0.76	-2.29	-4.33	-5.38
Gain _{φ Min} [dBi]	-35.14	-29.41	-36.29	-34.11	-32.77	-32.86	-36.41
UHRG [dB]	-3.69	-3.83	-4.36	-5.93	-7.33	-9.04	-10.17
UHRG/TRG [%]	66.8	63.3	60.9	53.8	45.4	43.1	43.6
H-Plane	-3.22	-2.64	-2.73	-4.14	-4.71	-5.84	-6.70
E1-Plane, AVG [dB]	0.47	0.28	-0.62	-2.29	-5.02	-7.81	-10.31
E2-Plane, AVG [dB]	-2.02	-1.97	-1.84	-2.86	-2.86	-4.09	-4.73
Peak Gain [dBi]	3.82	3.81	3.92	2.04	3.15	1.38	0.48
Directivity [dB]	5.76	5.64	6.13	5.28	7.04	6.76	7.05
Minimum Gain [dBi]	-18.07	-19.27	-19.40	-14.96	-21.31	-19.53	-28.29

Efficiency



**ANY
CONNECTION
CAN CHANGE
THE WORLD**

EVERY CONNECTION COUNTS

