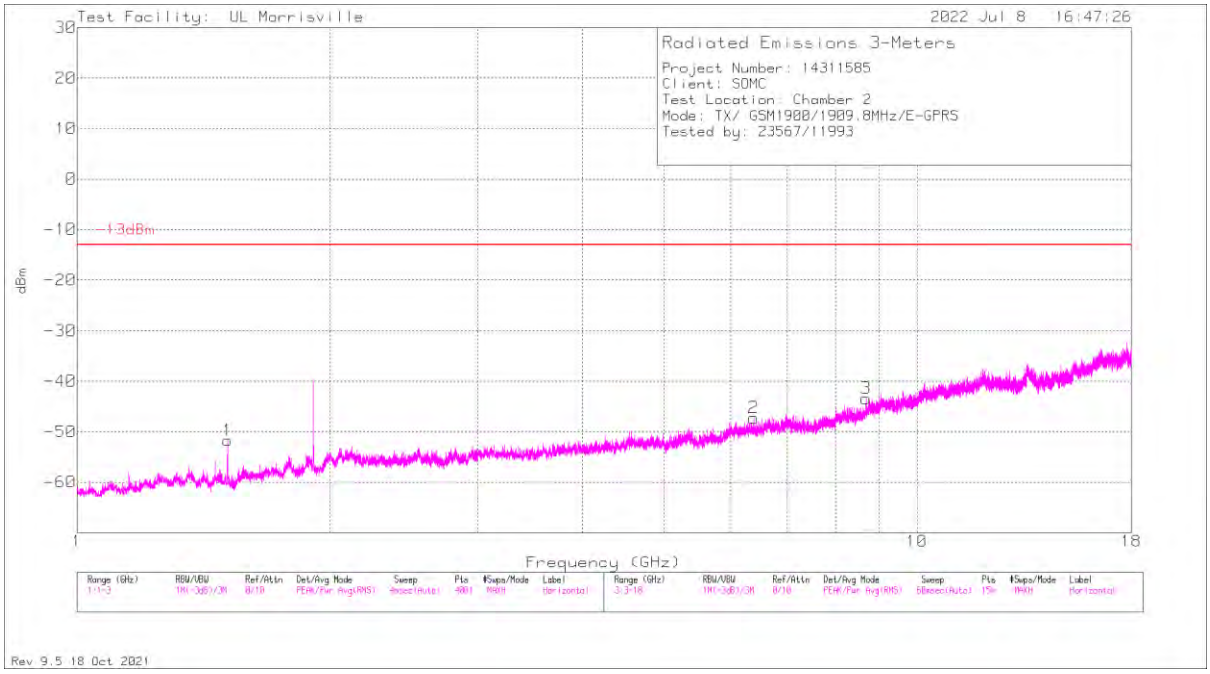
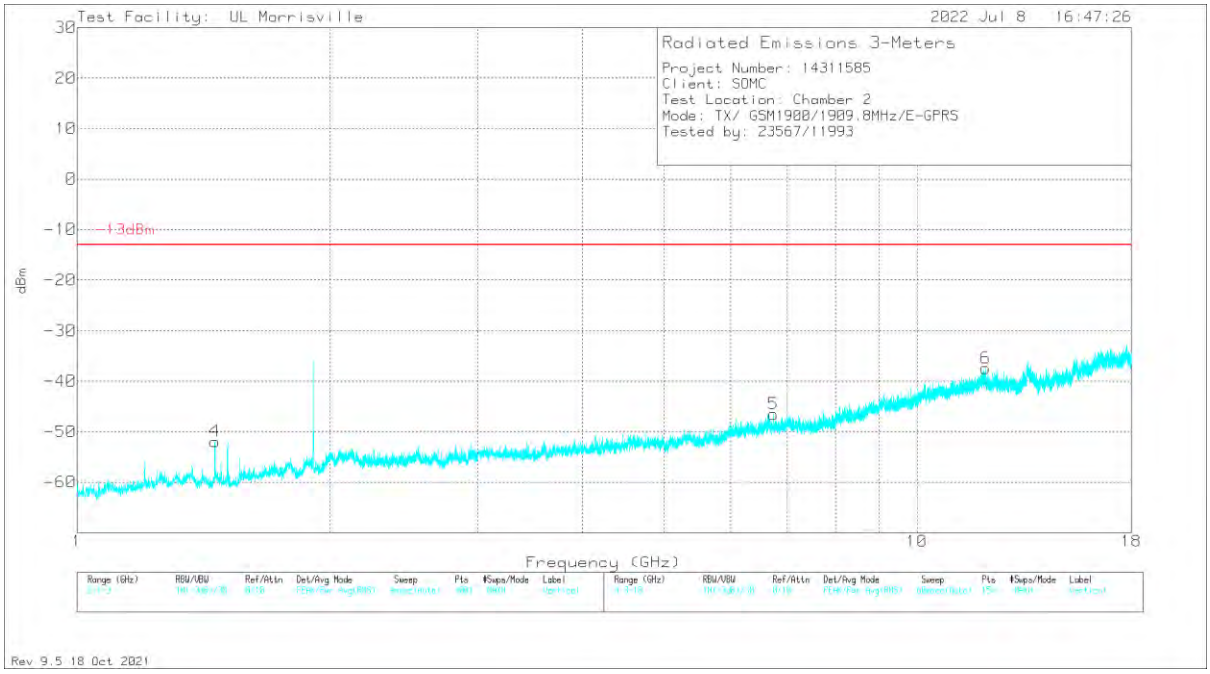
EGPRS High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.459	-58.29	Pk	28.2	-34.4	11.8	.8	-51.89	-13	-38.89	0-360	199	V
1	1.5105	-57.43	Pk	27.7	-34.8	11.8	1	-51.73	-13	-38.73	0-360	200	H
2	6.39	-66.37	Pk	35.5	-28.2	11.8	0	-47.27	-13	-34.27	0-360	101	H
5	6.743	-66.03	Pk	35.6	-27.9	11.8	0	-46.53	-13	-33.53	0-360	200	V
3	8.696	-64.9	Pk	36	-26.3	11.8	0	-43.4	-13	-30.4	0-360	300	H
6	12.064	-64.82	Pk	38.6	-23	11.8	0	-37.42	-13	-24.42	0-360	200	V

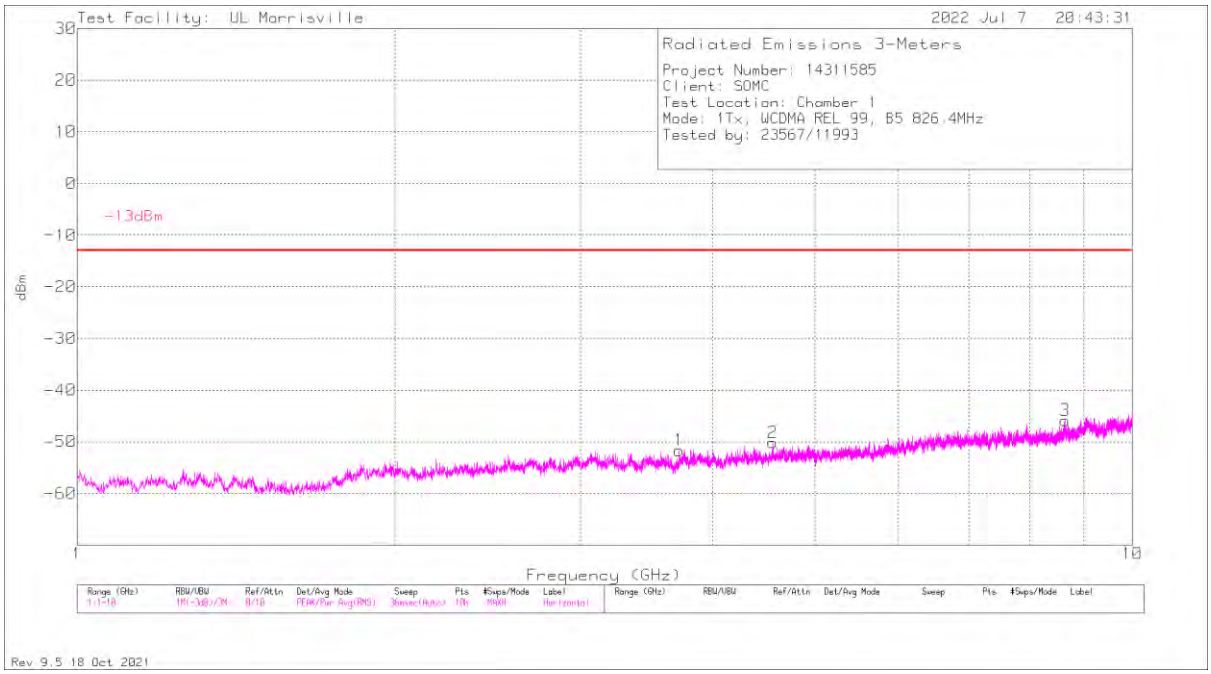
Pk - Peak detector

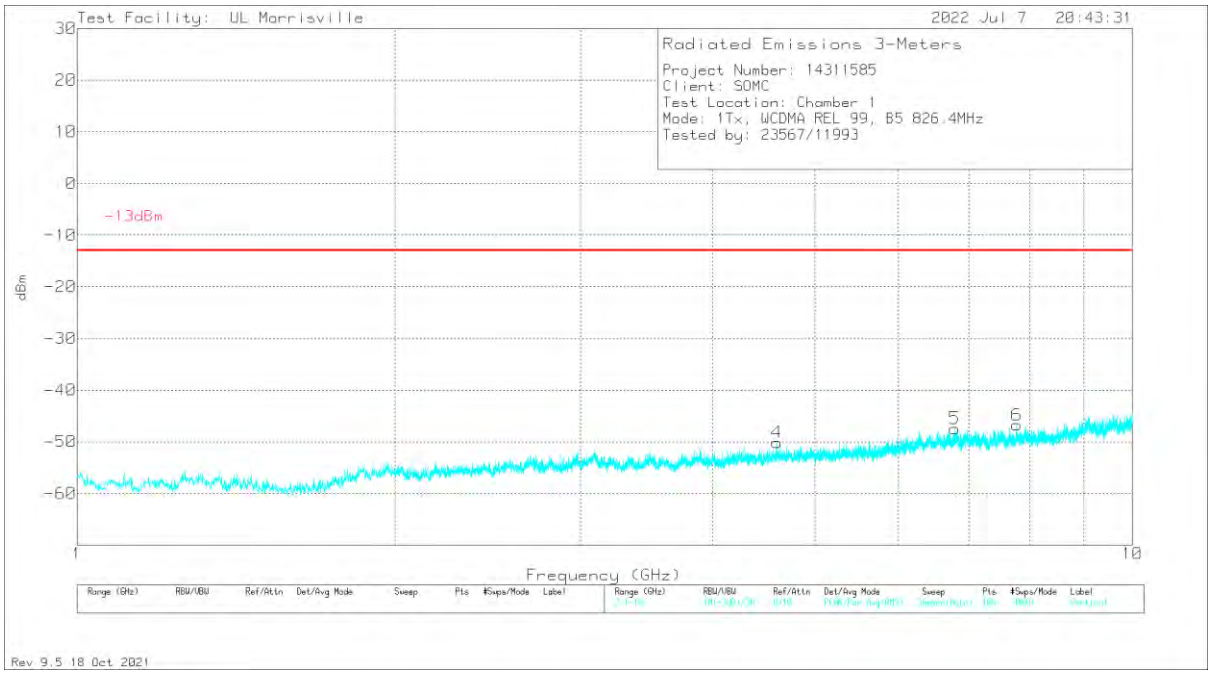
10.1.3. WCDMA5

LIMITS

FCC: §22.917 (a)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

REL 99 Low Channel

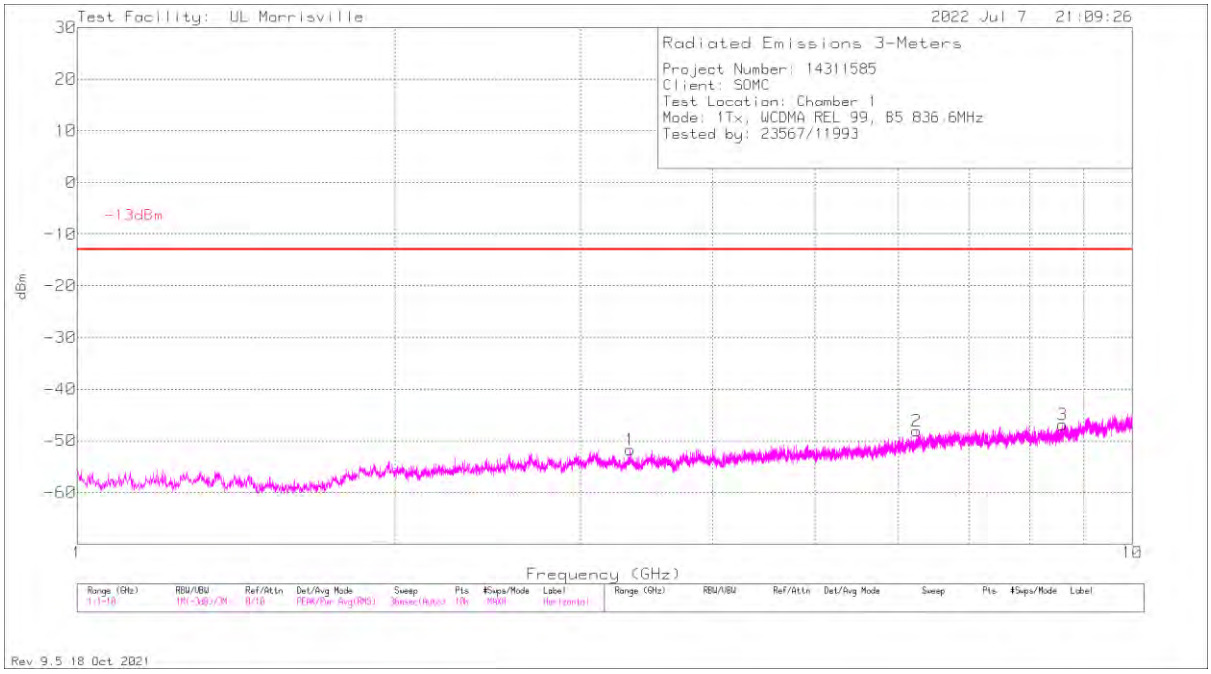


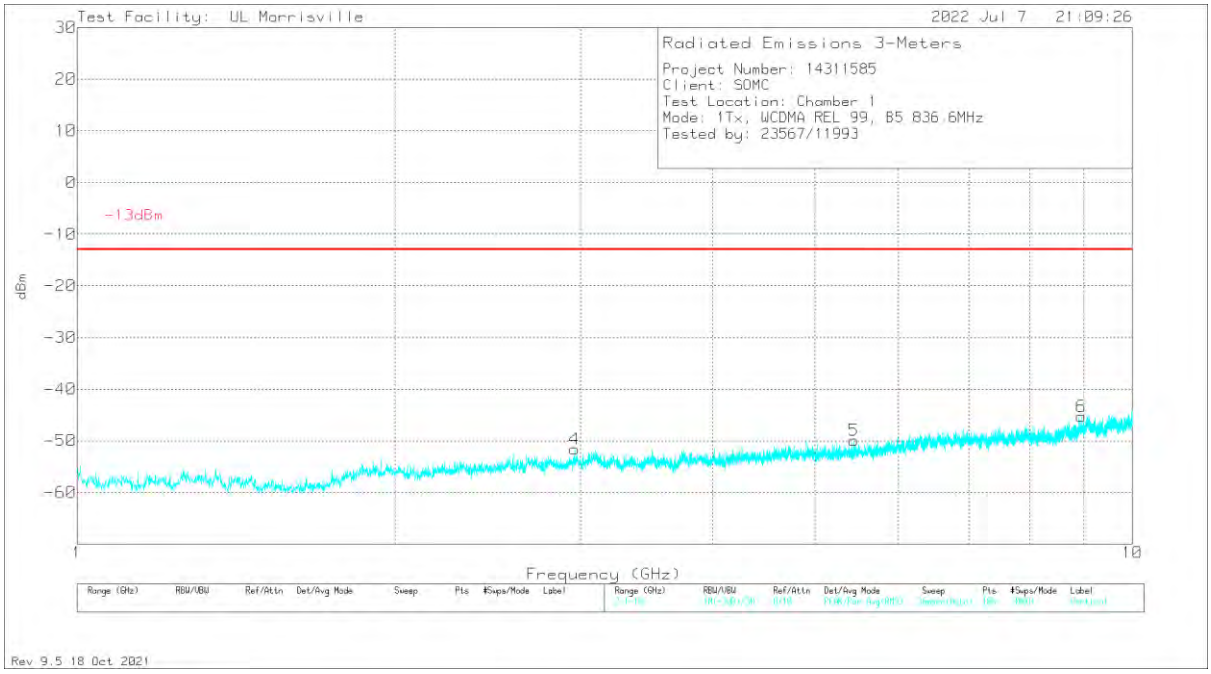


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.7189	-63.98	Pk	33.1	-33.2	.6	11.8	-51.68	-13	-38.68	0-360	101	H
2	4.564	-63.36	Pk	34	-32.9	.3	11.8	-50.16	-13	-37.16	0-360	300	H
4	4.6045	-63.24	Pk	34.1	-33.1	.3	11.8	-50.14	-13	-37.14	0-360	300	V
5	6.787	-64.94	Pk	35.5	-30.5	.7	11.8	-47.44	-13	-34.44	0-360	300	V
6	7.7734	-65.27	Pk	35.8	-29.6	.5	11.8	-46.77	-13	-33.77	0-360	101	V
3	8.6338	-65.39	Pk	35.8	-28.5	.4	11.8	-45.89	-13	-32.89	0-360	300	H

Pk - Peak detector

REL 99 Mid Channel

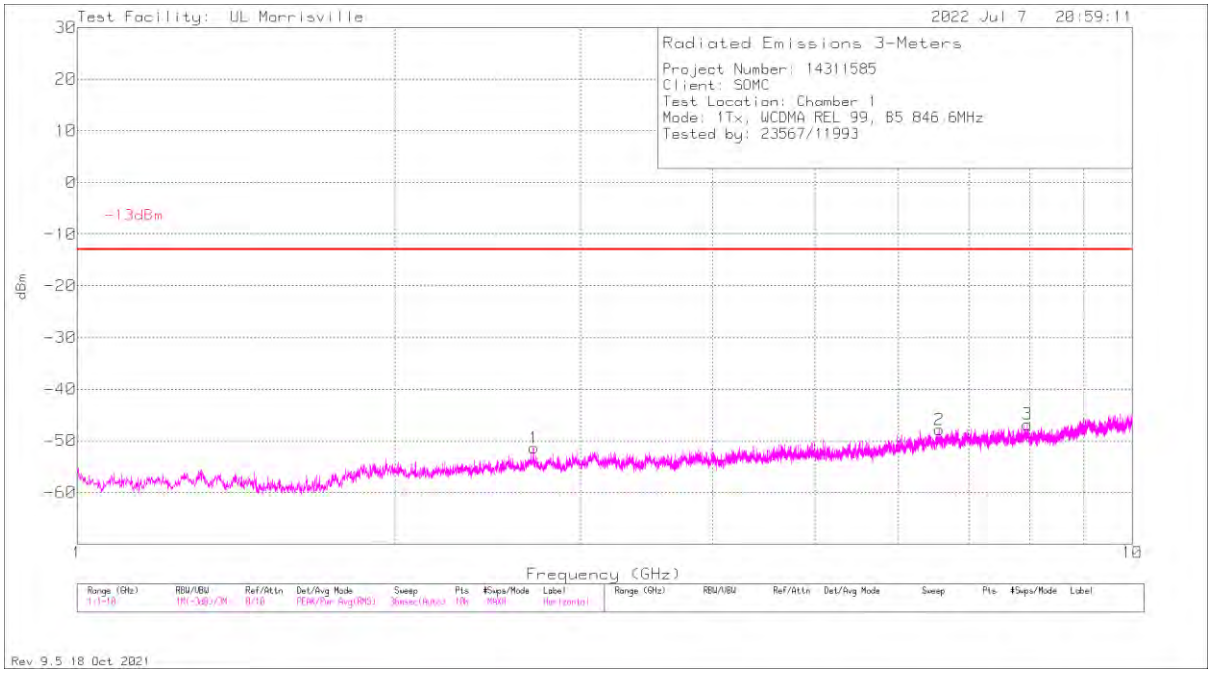


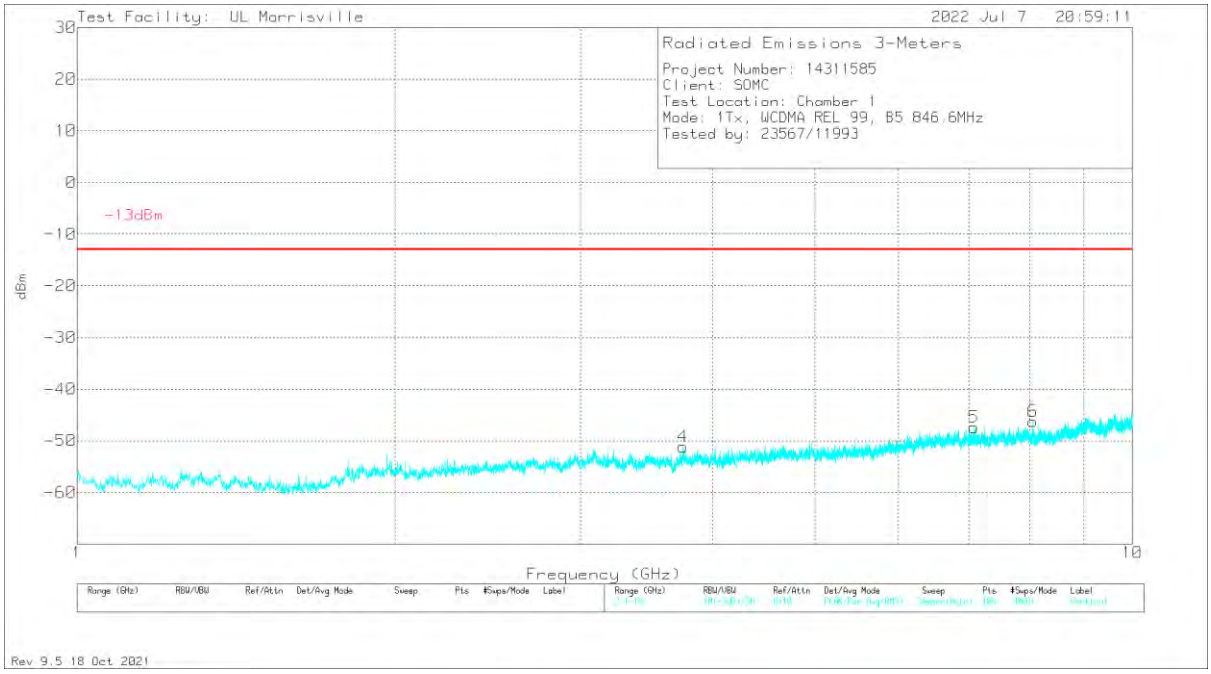


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.9602	-62.95	Pk	32.8	-33.9	.6	11.8	-51.65	-13	-38.65	0-360	200	V
1	3.3436	-63.75	Pk	32.8	-33.3	.7	11.8	-51.75	-13	-38.75	0-360	200	H
5	5.4469	-63.84	Pk	34.4	-32.6	.3	11.8	-49.94	-13	-36.94	0-360	101	V
2	6.2479	-64	Pk	35.3	-32	.8	11.8	-48.1	-13	-35.1	0-360	299	H
3	8.5861	-65.27	Pk	35.8	-29.6	.4	11.8	-46.87	-13	-33.87	0-360	200	H
6	8.9488	-64.09	Pk	36.2	-29.8	.6	11.8	-45.29	-13	-32.29	0-360	101	V

Pk - Peak detector

REL 99 High Channel

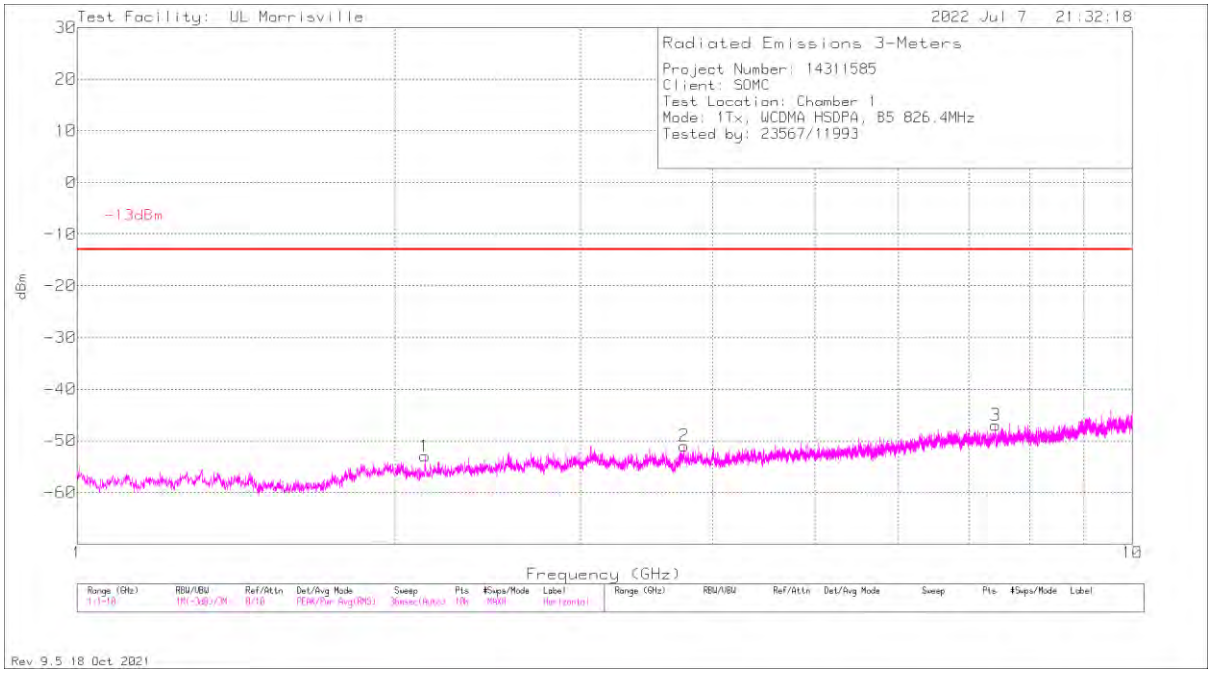


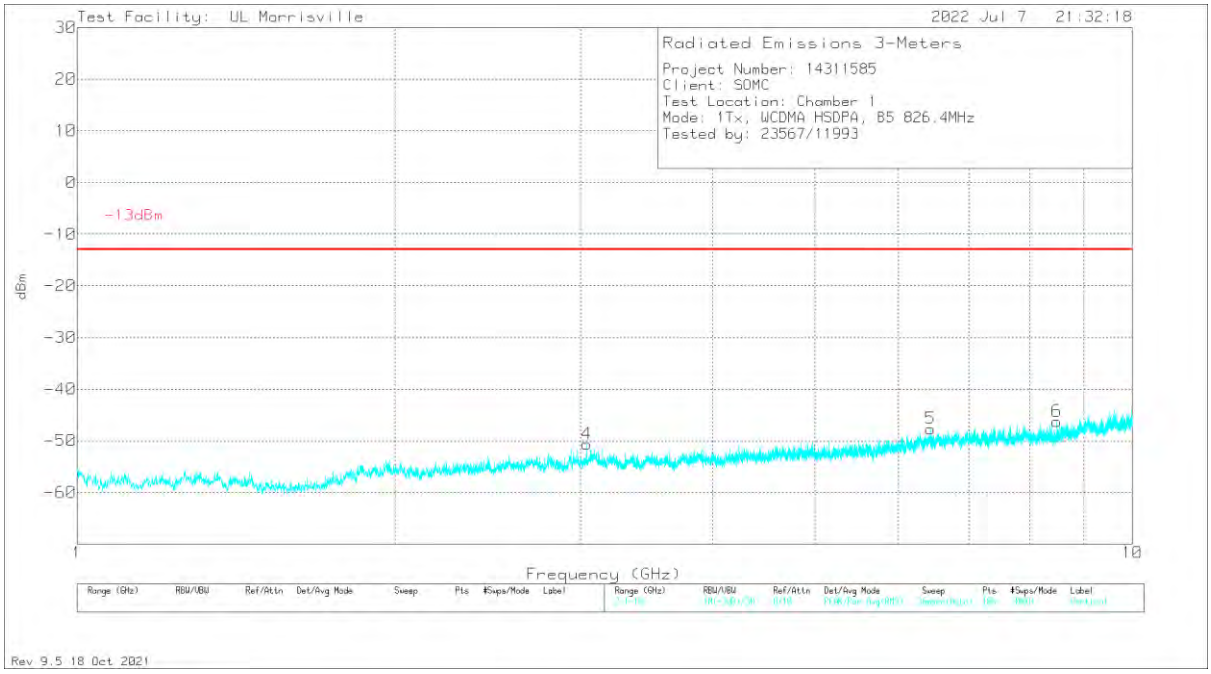


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.71	-62.6	Pk	32.5	-33.6	.5	11.8	-51.4	-13	-38.4	0-360	300	H
4	3.7522	-63.87	Pk	33.4	-33	.5	11.8	-51.17	-13	-38.17	0-360	101	V
2	6.5656	-65.06	Pk	35.5	-30.7	.6	11.8	-47.86	-13	-34.86	0-360	199	H
5	7.0741	-65.21	Pk	35.6	-30.2	.6	11.8	-47.41	-13	-34.41	0-360	300	V
3	7.9507	-65.71	Pk	35.8	-29.1	.4	11.8	-46.81	-13	-33.81	0-360	199	H
6	8.0497	-64.96	Pk	35.9	-29.4	.4	11.8	-46.26	-13	-33.26	0-360	101	V

Pk - Peak detector

HSDPA Low Channel

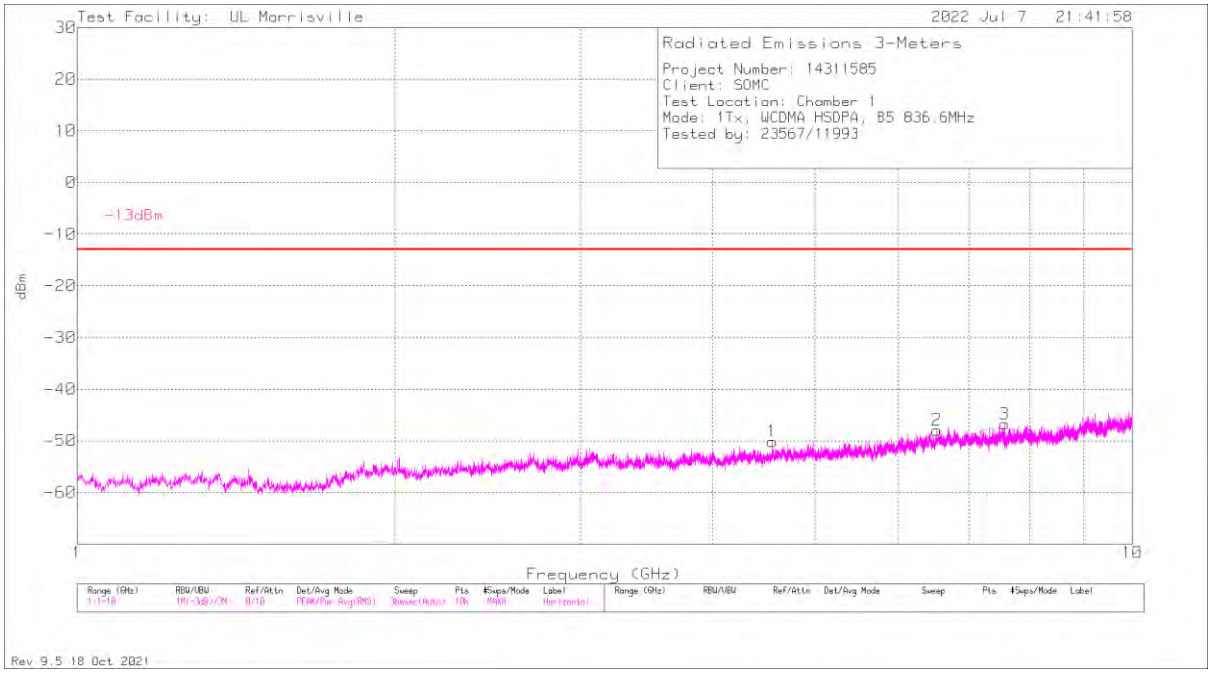


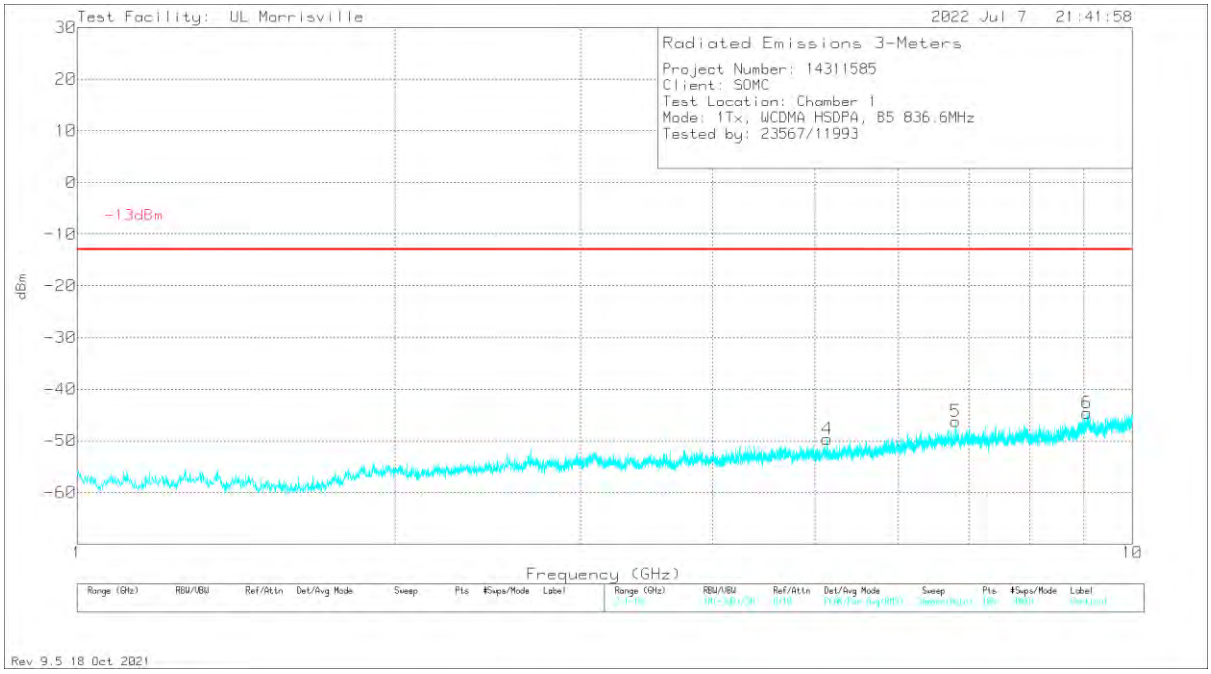


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1358	-61.89	Pk	31.4	-34.7	.4	11.8	-52.99	-13	-39.99	0-360	101	H
4	3.0403	-62.44	Pk	33.1	-33.7	.6	11.8	-50.64	-13	-37.64	0-360	300	V
2	3.7612	-63.59	Pk	33.4	-33	.4	11.8	-50.99	-13	-37.99	0-360	101	H
5	6.4369	-64.37	Pk	35.6	-31.3	.6	11.8	-47.67	-13	-34.67	0-360	101	V
3	7.4188	-65.38	Pk	35.6	-29.5	.5	11.8	-46.98	-13	-33.98	0-360	300	H
6	8.4844	-64.83	Pk	35.8	-29.4	.4	11.8	-46.23	-13	-33.23	0-360	101	V

Pk - Peak detector

HSDPA Mid Channel

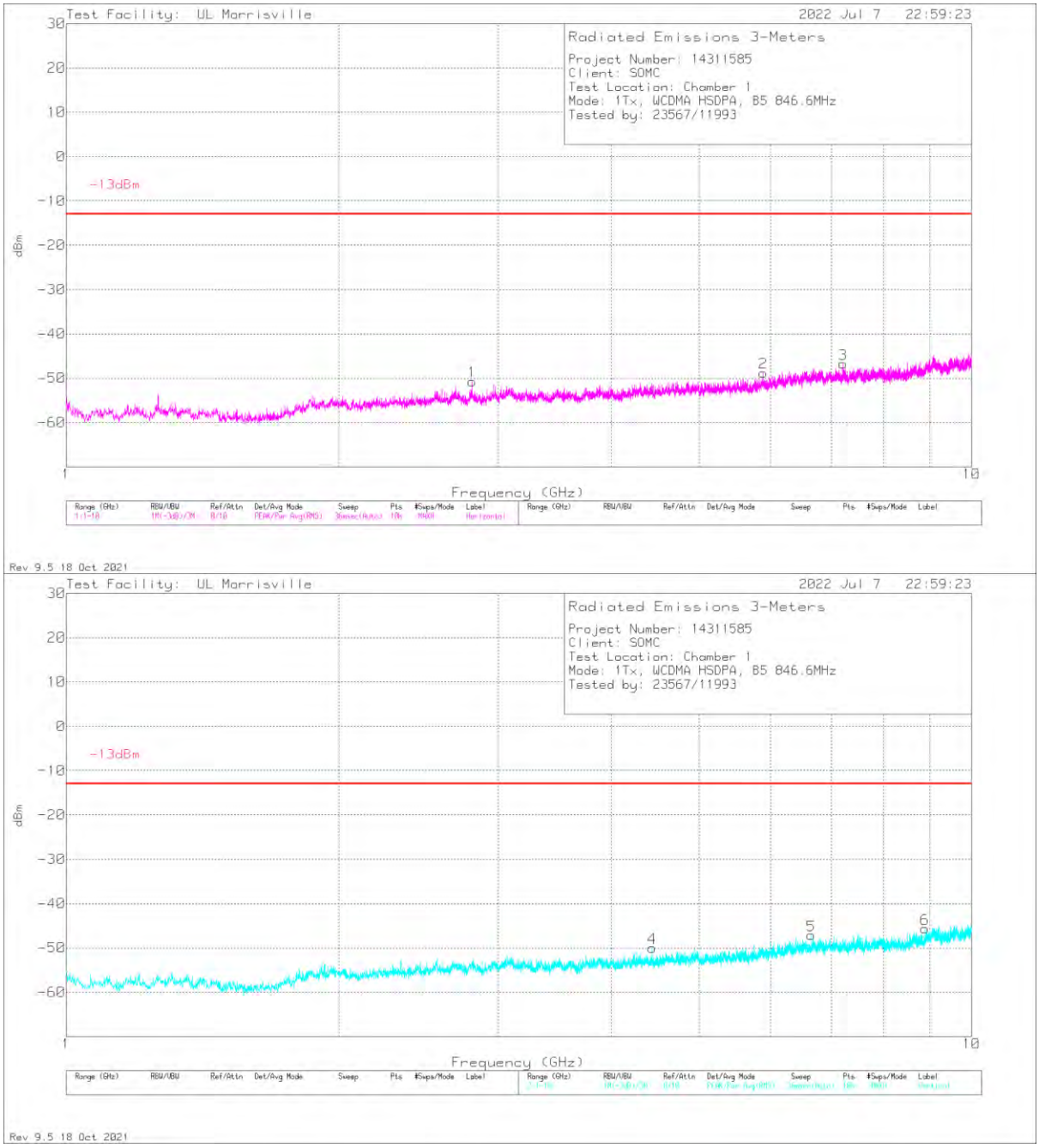




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.5595	-63.21	Pk	34	-33	.3	11.8	-50.11	-13	-37.11	0-360	200	H
4	5.1373	-63.76	Pk	34.2	-32.3	.4	11.8	-49.66	-13	-36.66	0-360	101	V
2	6.5251	-64.85	Pk	35.6	-31.2	.7	11.8	-47.95	-13	-34.95	0-360	101	H
5	6.8023	-63.66	Pk	35.5	-30.6	.7	11.8	-46.26	-13	-33.26	0-360	200	V
3	7.5718	-64.58	Pk	35.7	-30.3	.6	11.8	-46.78	-13	-33.78	0-360	101	H
6	9.0541	-63.9	Pk	36.2	-29.3	.6	11.8	-44.6	-13	-31.6	0-360	300	V

Pk - Peak detector

HSDPA High Channel



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.8072	-62.01	Pk	32.6	-33.7	.6	11.8	-50.71	-13	-37.71	0-360	299	H
4	4.438	-63.03	Pk	33.7	-32.8	.3	11.8	-50.03	-13	-37.03	0-360	101	V
2	5.8888	-64.06	Pk	35	-32	.5	11.8	-48.76	-13	-35.76	0-360	200	H
5	6.6565	-63.94	Pk	35.5	-31.1	.6	11.8	-47.14	-13	-34.14	0-360	101	V
3	7.2127	-64.37	Pk	35.7	-30.5	.6	11.8	-46.77	-13	-33.77	0-360	200	H
6	8.8849	-64.57	Pk	36.2	-29.5	.4	11.8	-45.67	-13	-32.67	0-360	200	V

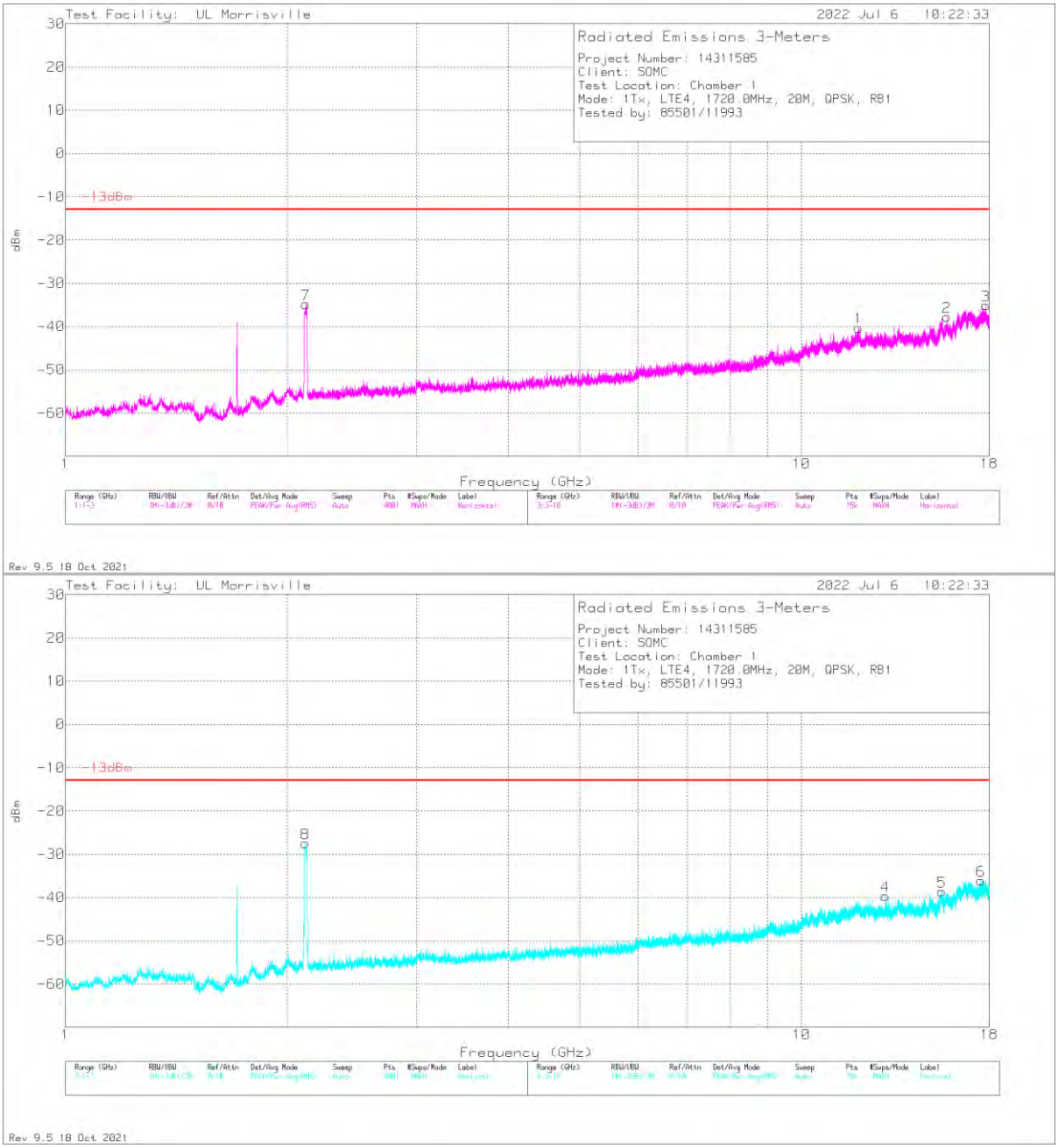
Pk - Peak detector

10.1.4. LTE BAND 4

LIMITS

FCC: §27.53(h)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

QPSK LTE4 (20MHz Low Channel, 1720MHz)

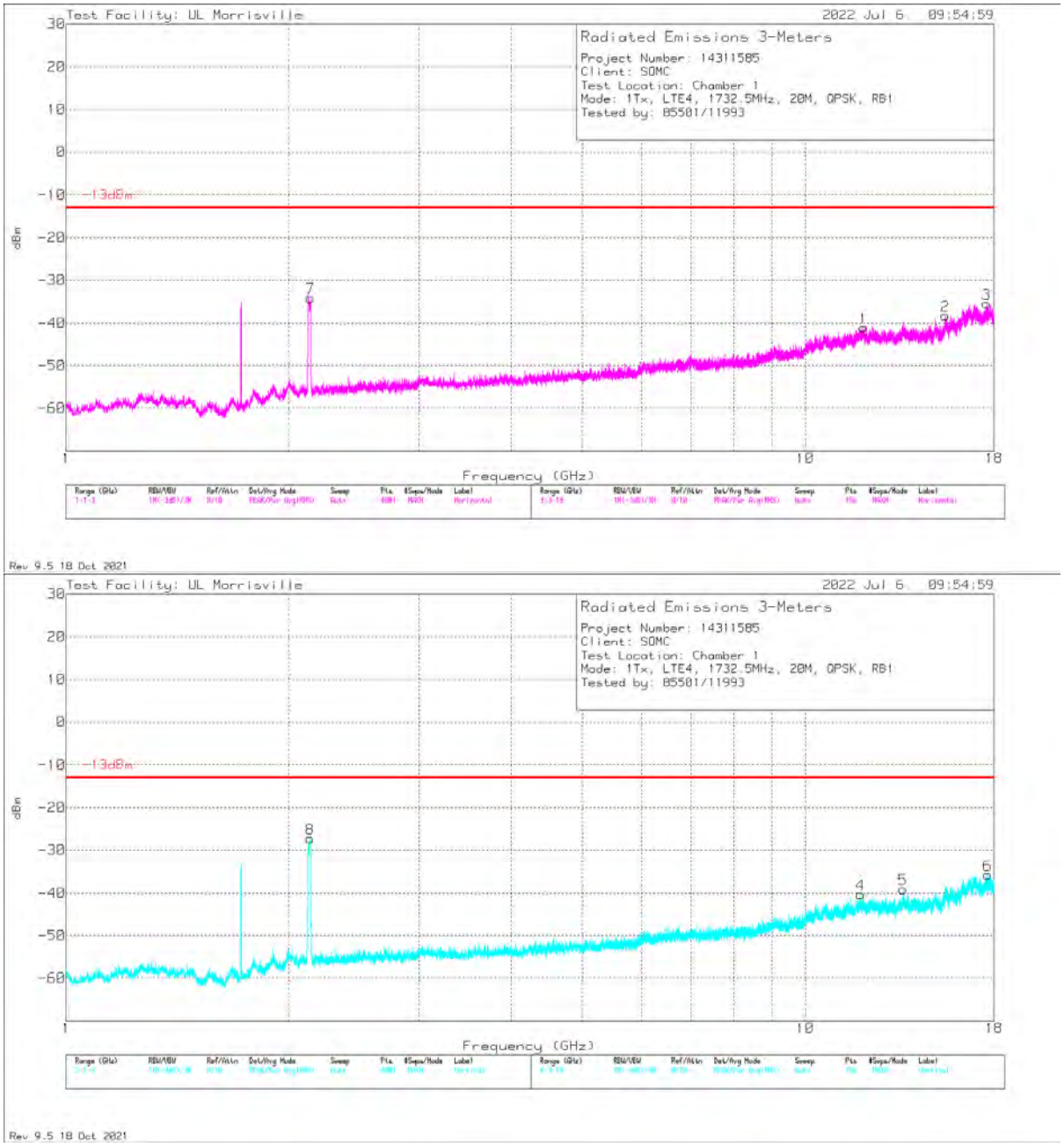


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.117 (DL)	-36.66	Pk	31.3	-34.9	11.8	1	-	-	-	0-360	299	V
7	2.1215 (DL)	-44.05	Pk	31.3	-34.9	11.8	1	-	-	-	0-360	199	H
1	11.956	-65.31	Pk	38.7	-25.5	11.8	0	-40.31	-13	-27.31	0-360	101	H
4	13	-65.1	Pk	39.2	-25.6	11.8	0	-39.7	-13	-26.7	0-360	101	V
5	15.515	-67.14	Pk	40.1	-23.4	11.8	0	-38.64	-13	-25.64	0-360	300	V
2	15.764	-66.02	Pk	40.4	-23.9	11.8	0	-37.72	-13	-24.72	0-360	300	H
6	17.539	-65.37	Pk	41.2	-23.7	11.8	0	-36.07	-13	-23.07	0-360	300	V
3	17.81	-66.58	Pk	41.2	-21.5	11.8	0	-35.08	-13	-22.08	0-360	300	H

Pk - Peak detector

DL – Downlink

QPSK LTE4 (20MHz, Mid Channel, 1732.5MHz)

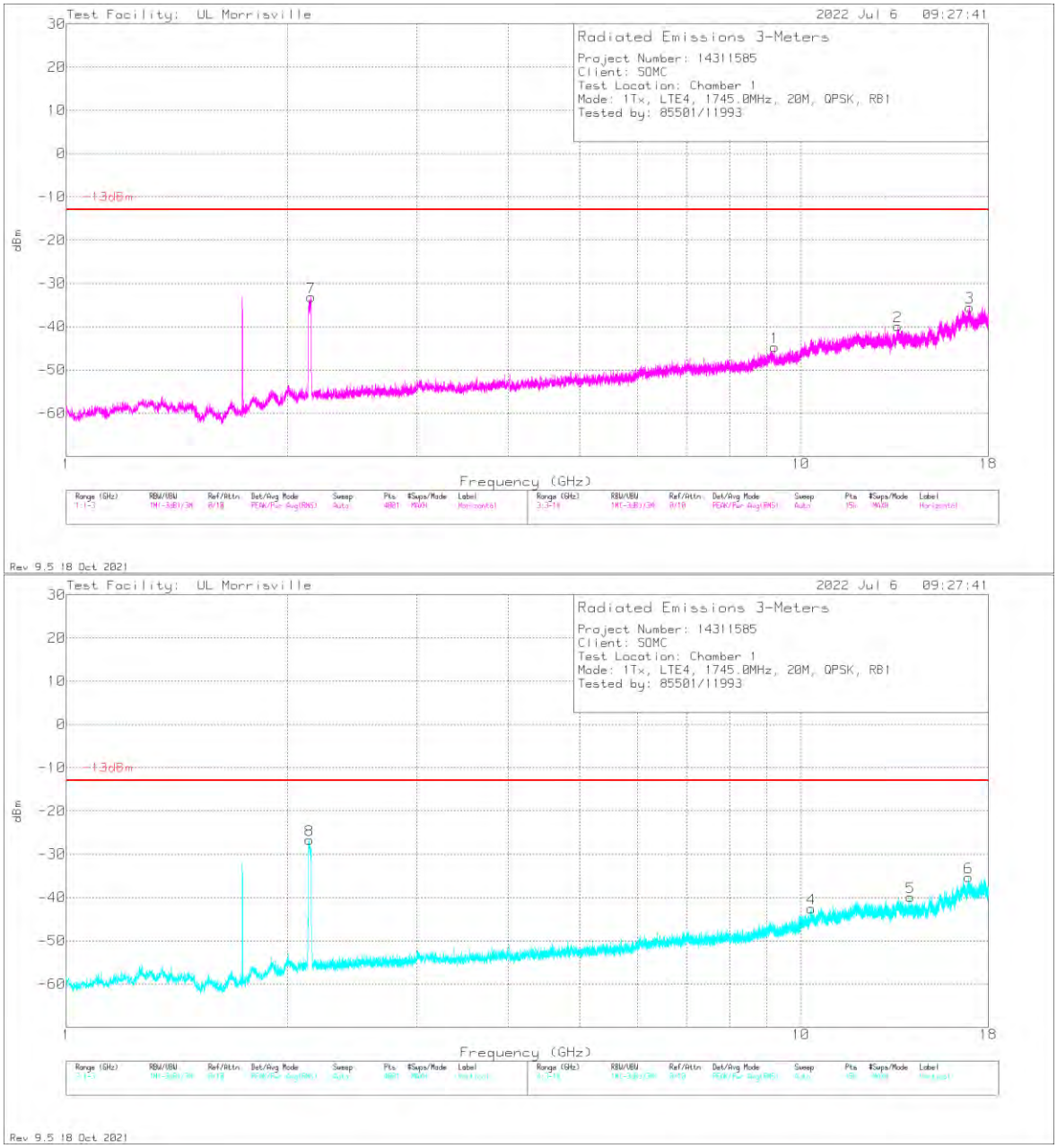


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8(DL)	2.138	-36.69	Pk	31.4	-34.8	11.8	1	-27.29	-13	-14.29	0-360	200	V
7(DL)	2.141	-43.45	Pk	31.4	-34.9	11.8	1	-34.15	-13	-21.15	0-360	300	H
4	11.877	-65.11	Pk	38.6	-25.6	11.8	0	-40.31	-13	-27.31	0-360	300	V
1	11.986	-65.71	Pk	38.7	-25.9	11.8	0	-41.11	-13	-28.11	0-360	299	H
5	13.559	-62.33	Pk	38.7	-27.3	11.8	0	-39.13	-13	-26.13	0-360	201	V
2	15.46	-66.8	Pk	40	-23.3	11.8	0	-38.3	-13	-25.3	0-360	299	H
3	17.587	-65.35	Pk	41.2	-23.1	11.8	0	-35.45	-13	-22.45	0-360	101	H
6	17.653	-65.57	Pk	41.2	-23.2	11.8	0	-35.77	-13	-22.77	0-360	201	V

Pk - Peak detector

DL – Down link

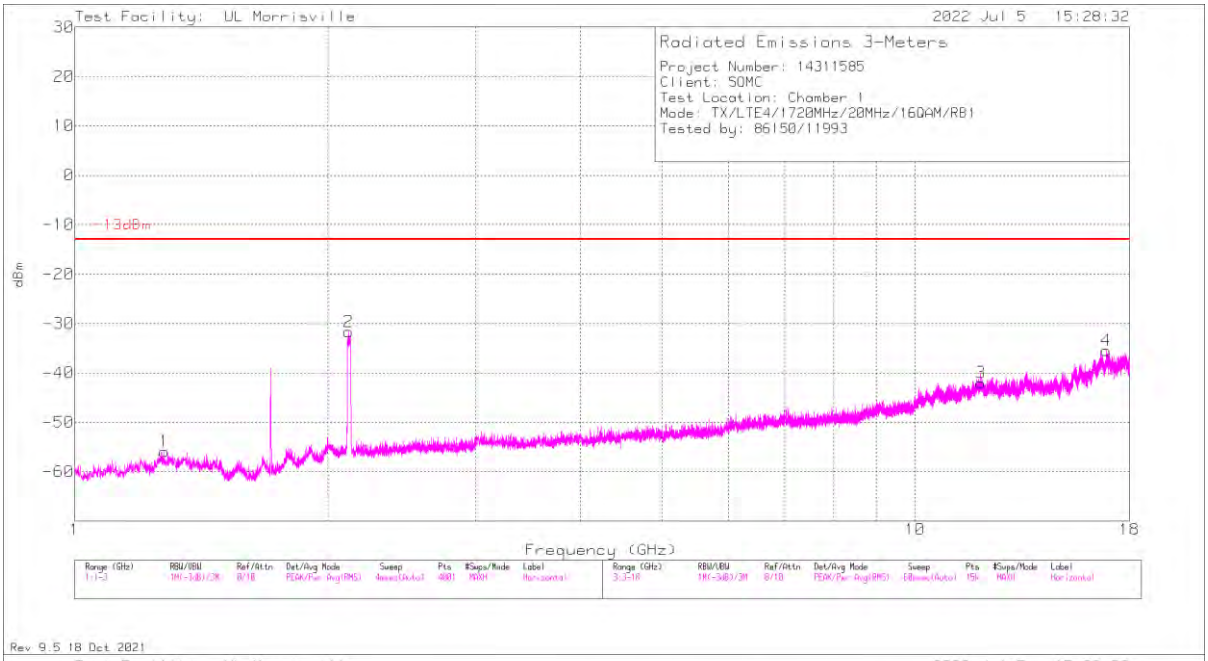
QPSK LTE4 (20MHz High Channel, 1745MHz)

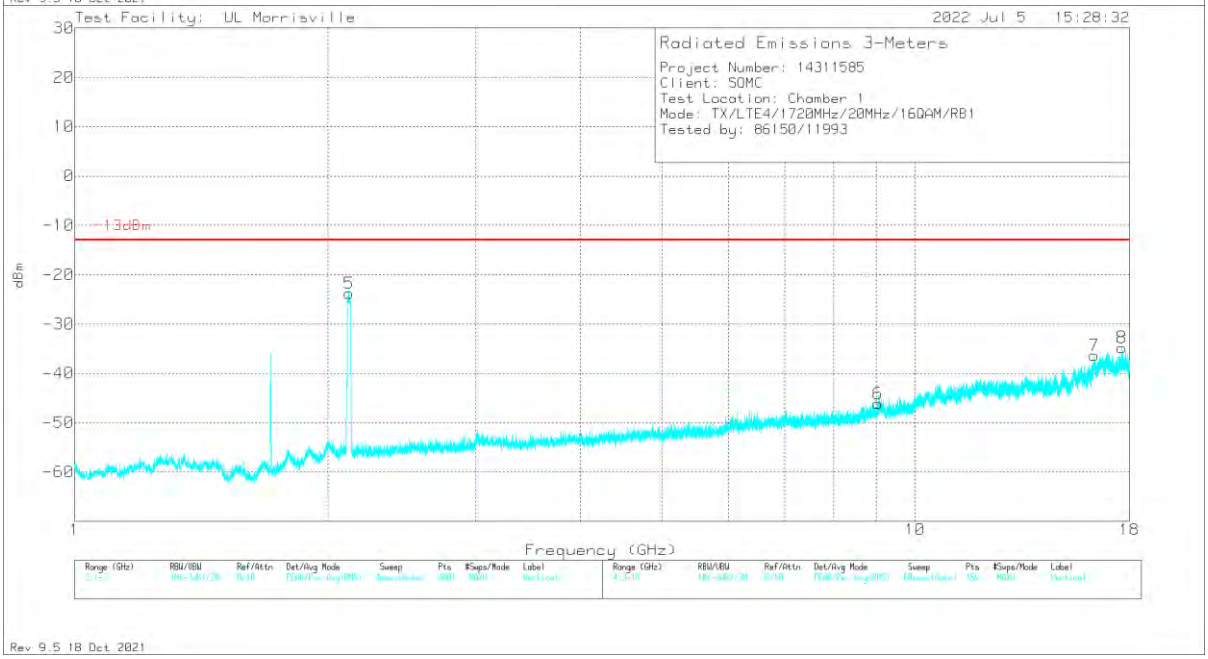


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.143 (DL)	-35.98	Pk	31.4	-34.9	11.8	1	-	-	-	0-360	201	V
7	2.1535 (DL)	-42.46	Pk	31.4	-34.9	11.8	1	-	-	-	0-360	299	H
1	9.208	-64.23	Pk	36.3	-28.6	11.8	0	-44.73	-13	-31.73	0-360	300	H
4	10.327	-67.04	Pk	37.5	-24.8	11.8	0	-42.54	-13	-29.54	0-360	201	V
2	13.565	-63.64	Pk	38.7	-26.8	11.8	0	-39.94	-13	-26.94	0-360	300	H
5	14.1	-64.17	Pk	38.9	-26.4	11.8	0	-39.87	-13	-26.87	0-360	201	V
6	16.909	-66.13	Pk	41.9	-22.9	11.8	0	-35.33	-13	-22.33	0-360	300	V
3	16.964	-65.73	Pk	41.8	-23.4	11.8	0	-35.53	-13	-22.53	0-360	199	H

Pk - Peak detector; DL – Downlink

16QAM LTE4 (20MHz, Low Channel, 1720MHz)

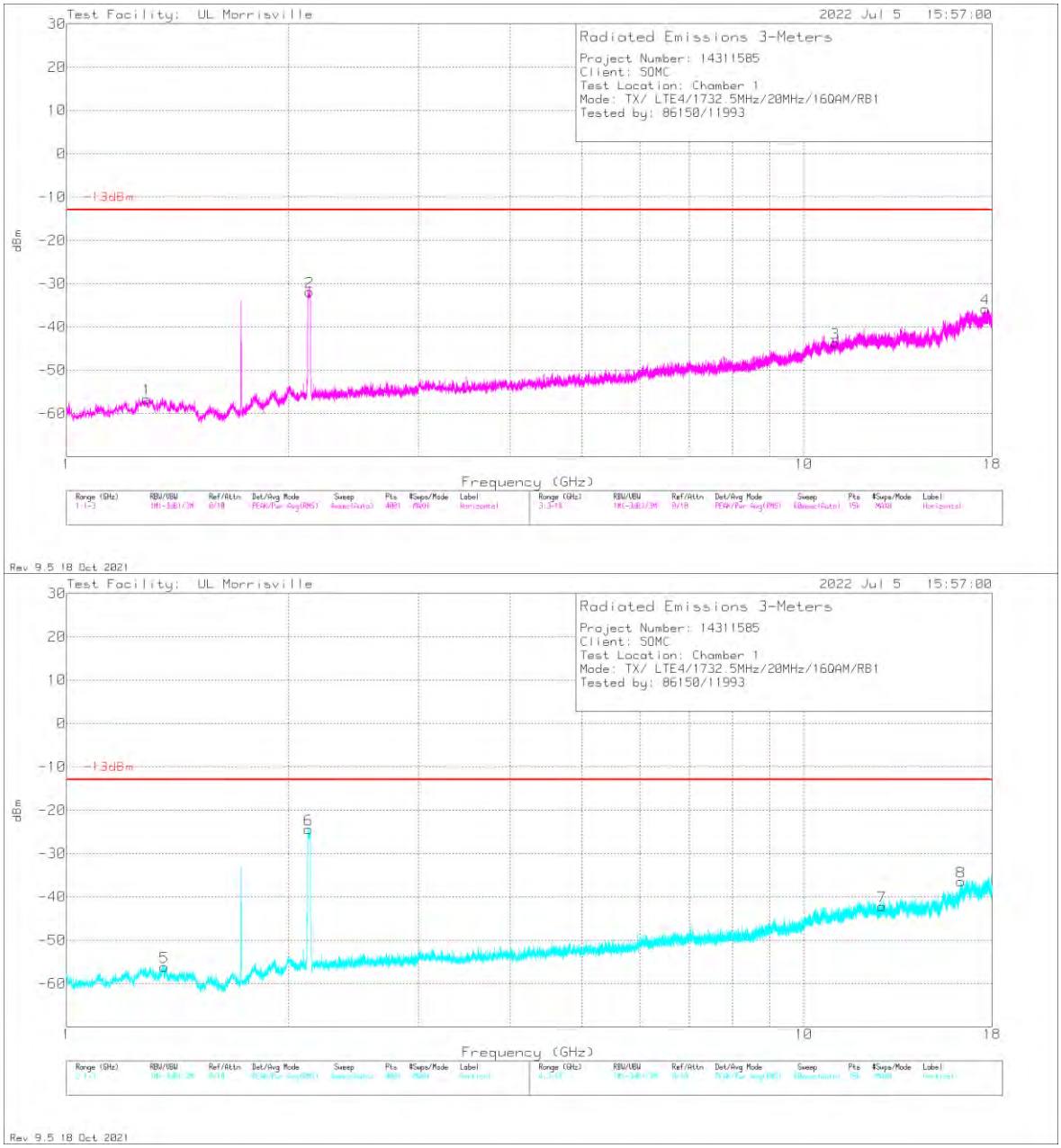




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.2785	-62.84	Pk	29.9	-35.8	11.8	1	-55.94	-13	-42.94	0-360	100	H
2	2.1185	-40.97	Pk	31.3	-34.8	11.8	1	-31.67	-13	-18.67	0-360	100	H
5	2.1205	-33.01	Pk	31.3	-34.9	11.8	1	-23.81	-13	-10.81	0-360	300	V
6	9.033	-65.38	Pk	36.2	-28.7	11.8	0	-46.08	-13	-33.08	0-360	200	V
3	11.973	-66.9	Pk	38.7	-25.6	11.8	0	-42	-13	-29	0-360	199	H
7	16.349	-65.7	Pk	41.1	-23.5	11.8	0	-36.3	-13	-23.3	0-360	100	V
4	16.89	-66.28	Pk	41.9	-22.9	11.8	0	-35.48	-13	-22.48	0-360	299	H
8	17.618	-65.57	Pk	41.2	-22.2	11.8	0	-34.77	-13	-21.77	0-360	200	V

Pk - Peak detector; DL – Downlink

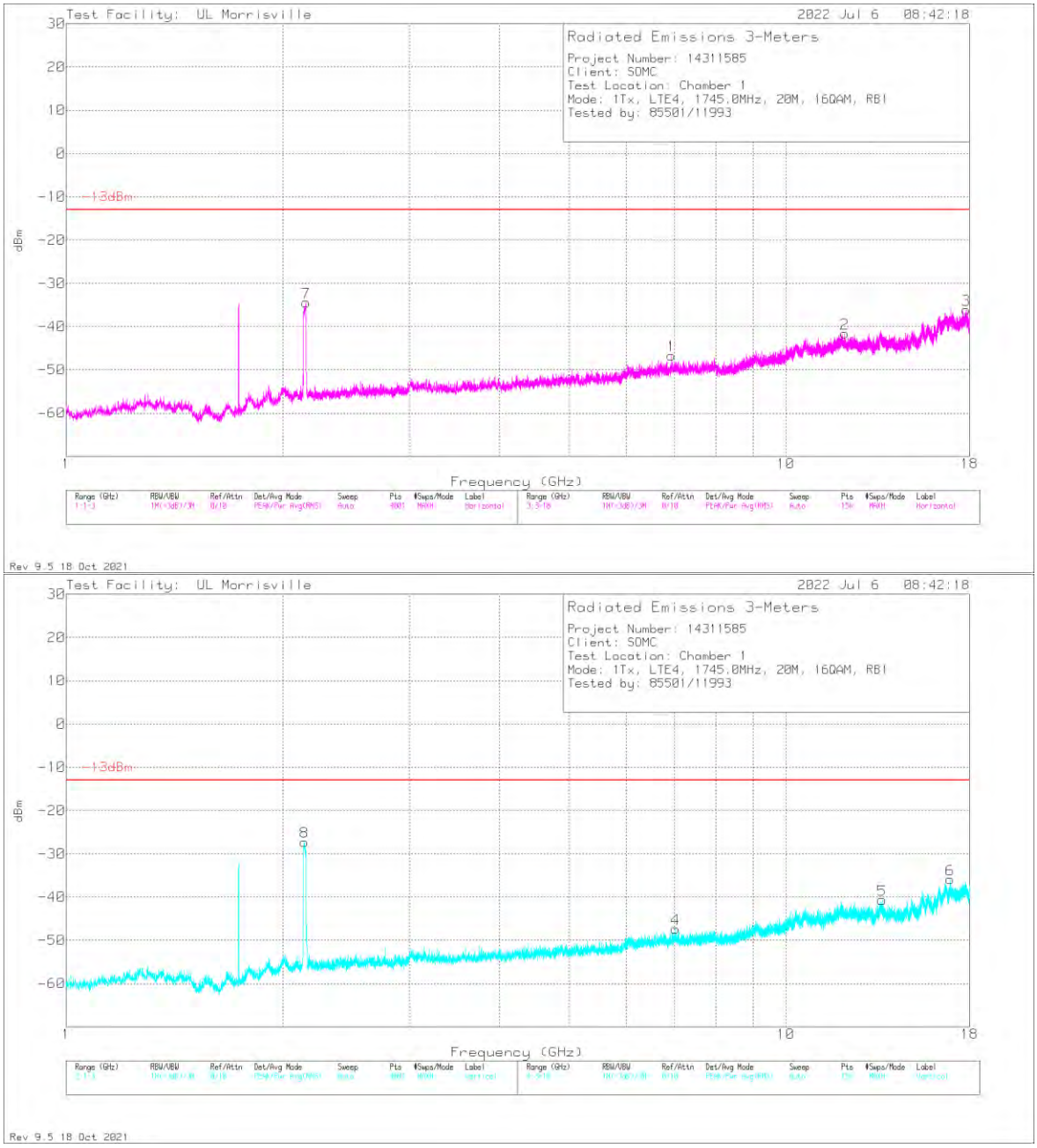
16QAM LTE4 (20MHz, Mid Channel, 1732.5MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.2845	-63.19	Pk	29.8	-36.1	11.8	1	-56.69	-13	-43.69	0-360	299	H
5	1.3575	-62.71	Pk	29.6	-36	11.8	1.1	-56.21	-13	-43.21	0-360	100	V
6	2.13	-33.86	Pk	31.4	-34.8	11.8	1	-24.46	-13	-11.46	0-360	201	V
2	2.135	-41.35	Pk	31.4	-34.8	11.8	1	-31.95	-13	-18.95	0-360	100	H
3	11.031	-67.87	Pk	37.9	-25.5	11.8	0	-43.67	-13	-30.67	0-360	100	H
7	12.762	-66.22	Pk	39.2	-27	11.8	0	-42.22	-13	-29.22	0-360	300	V
8	16.334	-66.2	Pk	41.1	-23.2	11.8	0	-36.5	-13	-23.5	0-360	200	V
4	17.622	-65.97	Pk	41.2	-22.9	11.8	0	-35.87	-13	-22.87	0-360	300	H

Pk - Peak detector; DL – Downlink

16QAM LTE4 (20MHz, High Channel, 1745MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	2.1425 (DL)	-36.54	Pk	31.4	-34.9	11.8	1	-	-	-	0-360	199	V
7	2.1535 (DL)	-43.74	Pk	31.4	-34.9	11.8	1	-	-	-	0-360	201	H
1	6.935	-64.17	Pk	35.5	-29.8	11.8	0	-46.67	-13	-33.67	0-360	101	H
4	7.025	-65.54	Pk	35.6	-29.2	11.8	0	-47.34	-13	-34.34	0-360	201	V
2	12.076	-65.9	Pk	38.8	-26.3	11.8	0	-41.6	-13	-28.6	0-360	200	H
5	13.607	-63.36	Pk	38.7	-27.8	11.8	0	-40.66	-13	-27.66	0-360	101	V
6	16.906	-66.92	Pk	41.9	-22.7	11.8	0	-35.92	-13	-22.92	0-360	101	V
3	17.811	-67.6	Pk	41.2	-21.5	11.8	0	-36.1	-13	-23.1	0-360	299	H

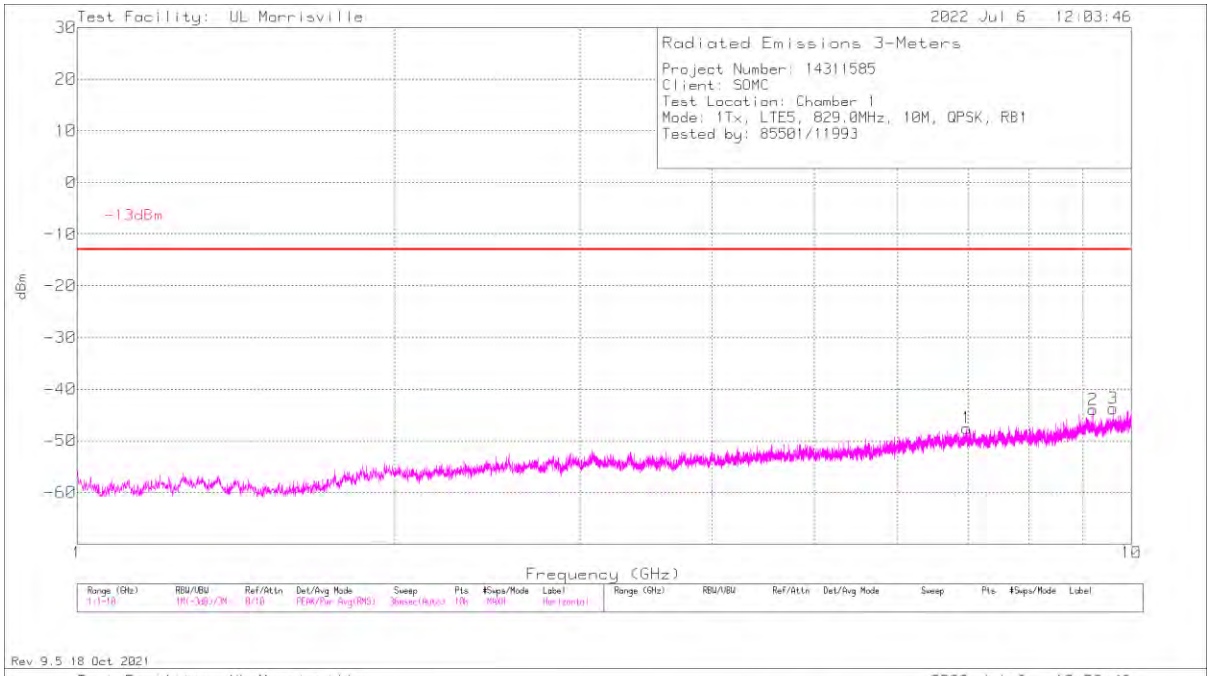
Pk - Peak detector; DL – Downlink

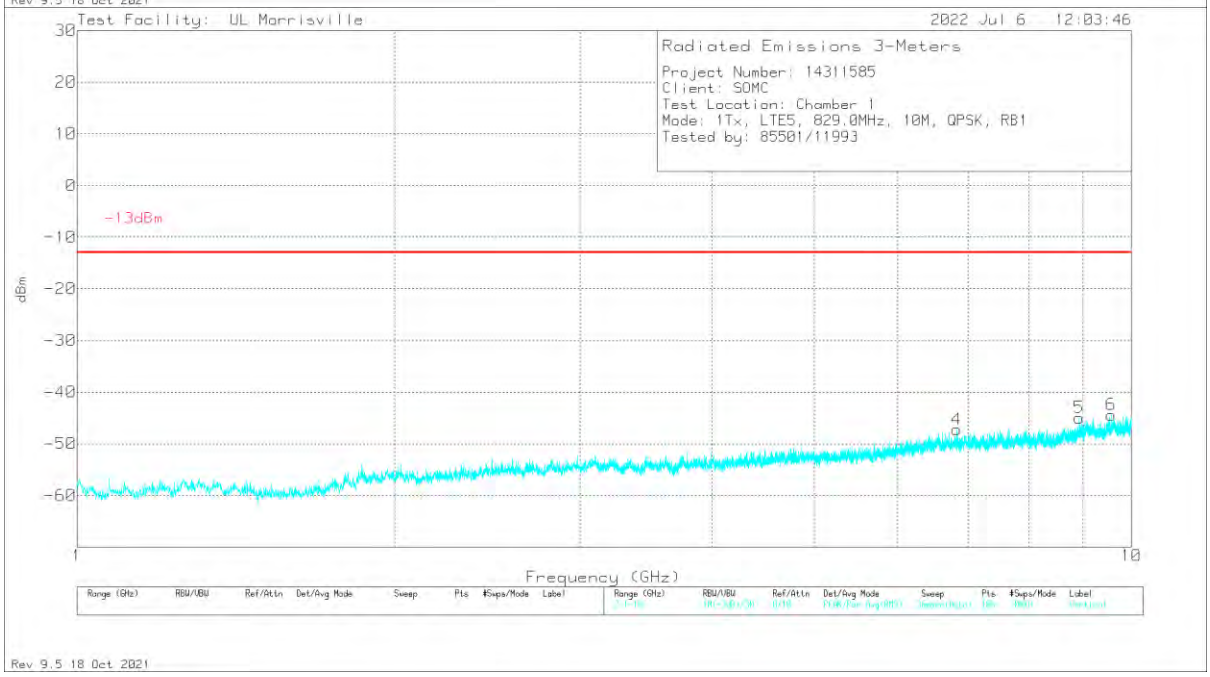
10.1.5. LTE BAND 5

LIMITS

FCC: §22.917 (a)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

QPSK LTE5 (10MHz, Low Channel, 829MHz)

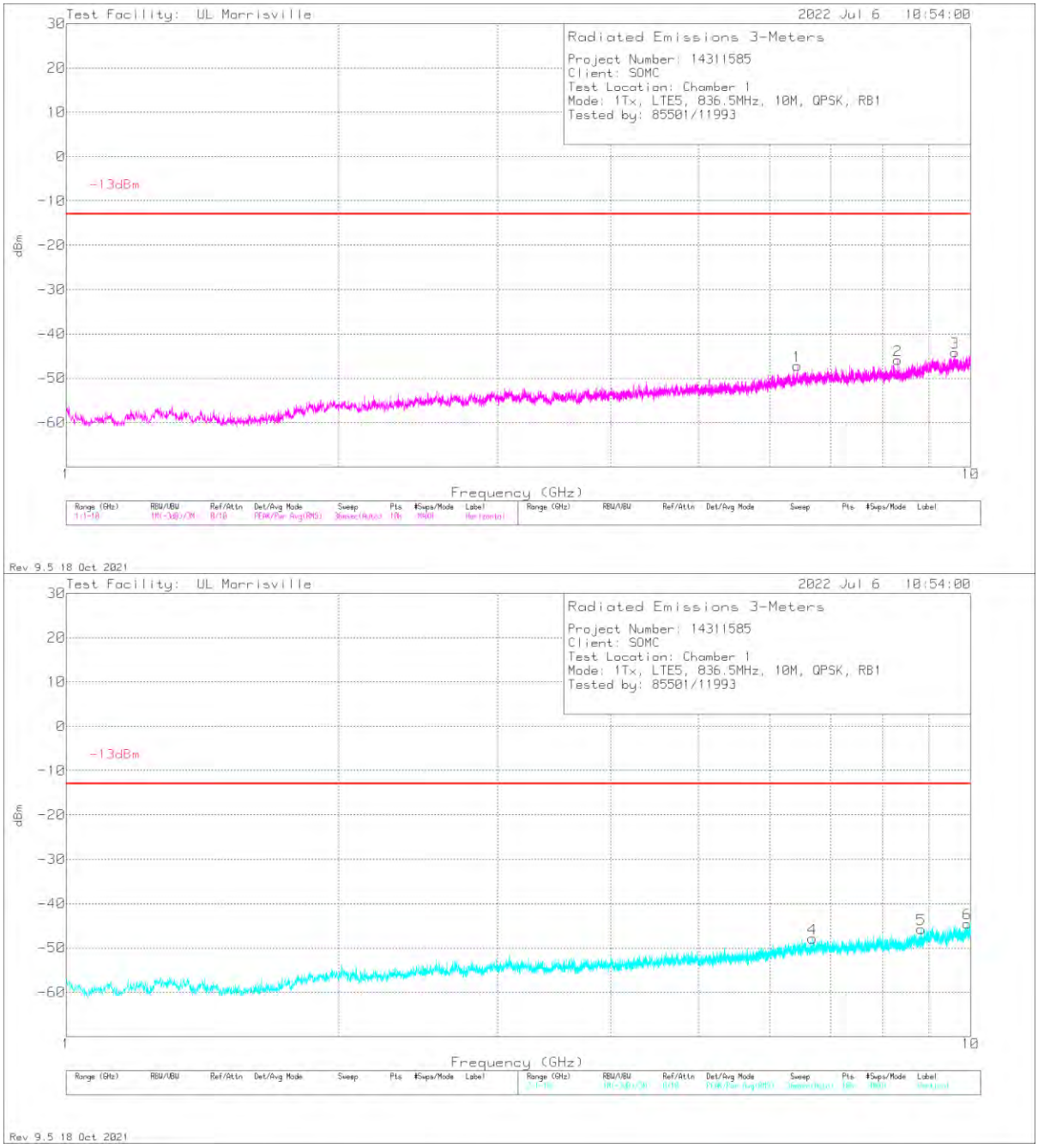




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	6.8311	-64.56	Pk	35.5	-30.6	.6	11.8	-47.26	-13	-34.26	0-360	200	V
1	6.9832	-65.24	Pk	35.6	-30.2	.5	11.8	-47.54	-13	-34.54	0-360	199	H
5	8.9254	-64.56	Pk	36.2	-29	.6	11.8	-44.96	-13	-31.96	0-360	300	V
2	9.1918	-63.37	Pk	36.3	-29.3	.6	11.8	-43.97	-13	-30.97	0-360	300	H
6	9.5734	-64.98	Pk	36.8	-28.6	.6	11.8	-44.38	-13	-31.38	0-360	200	V
3	9.6085	-64.35	Pk	36.8	-28.8	.8	11.8	-43.75	-13	-30.75	0-360	199	H

Pk - Peak detector

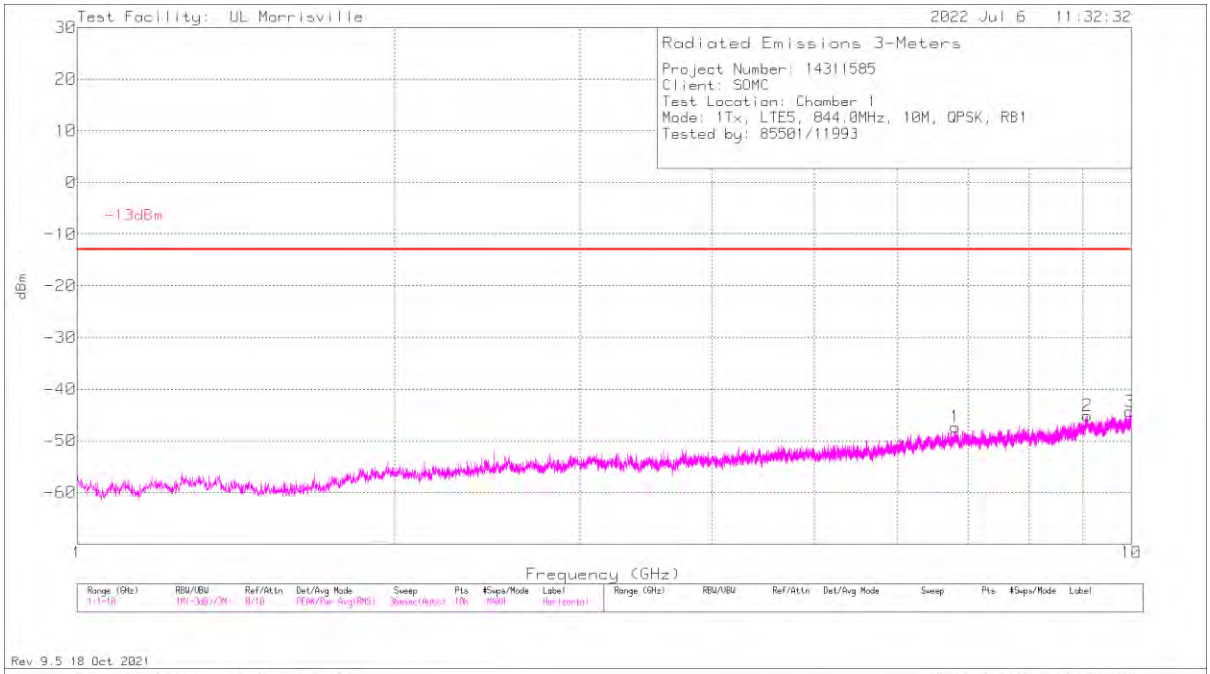
QPSK LTE5 (10MHz, Mid Channel, 836.5MHz)

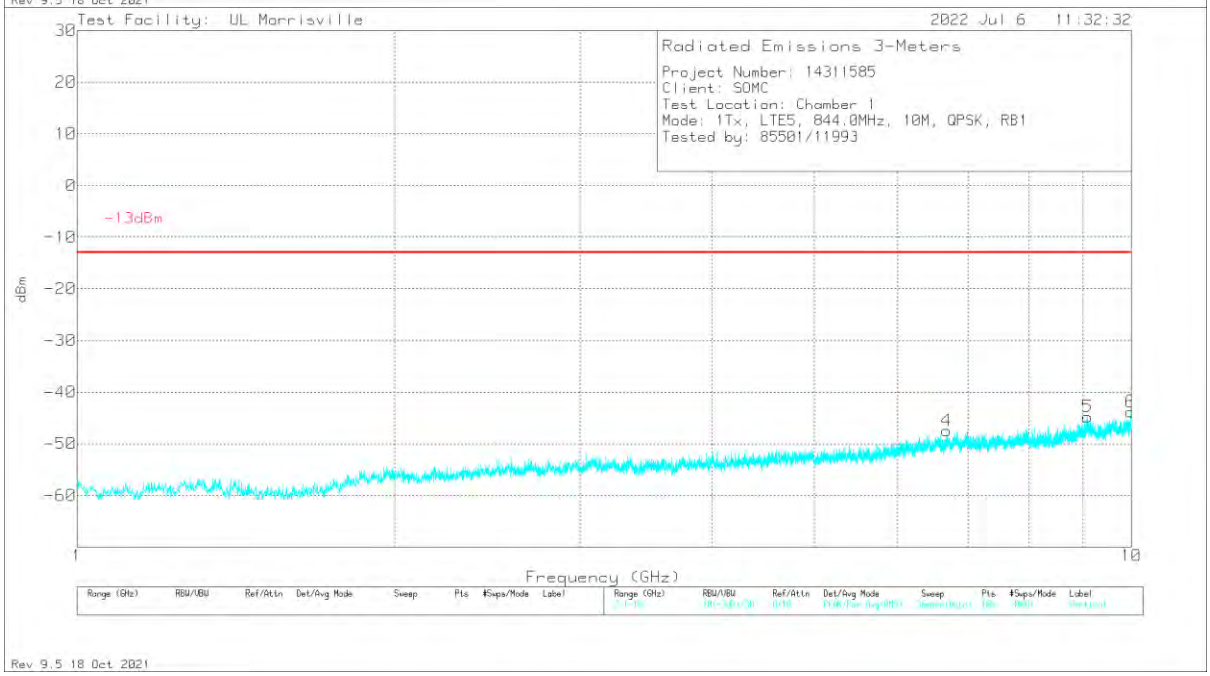


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.4333	-63.93	Pk	35.6	-31.3	.6	11.8	-47.23	-13	-34.23	0-360	200	H
4	6.6862	-65.18	Pk	35.5	-30.6	.6	11.8	-47.88	-13	-34.88	0-360	200	V
2	8.3071	-64.22	Pk	35.8	-29.8	.5	11.8	-45.92	-13	-32.92	0-360	300	H
5	8.8192	-64.43	Pk	36.1	-29.8	.6	11.8	-45.73	-13	-32.73	0-360	101	V
3	9.6076	-64.89	Pk	36.8	-28.7	.8	11.8	-44.19	-13	-31.19	0-360	300	H
6	9.9127	-65.8	Pk	37	-28.4	.9	11.8	-44.5	-13	-31.5	0-360	200	V

Pk - Peak detector

QPSK LTE5 (10MHz, High Channel, 844MHz)

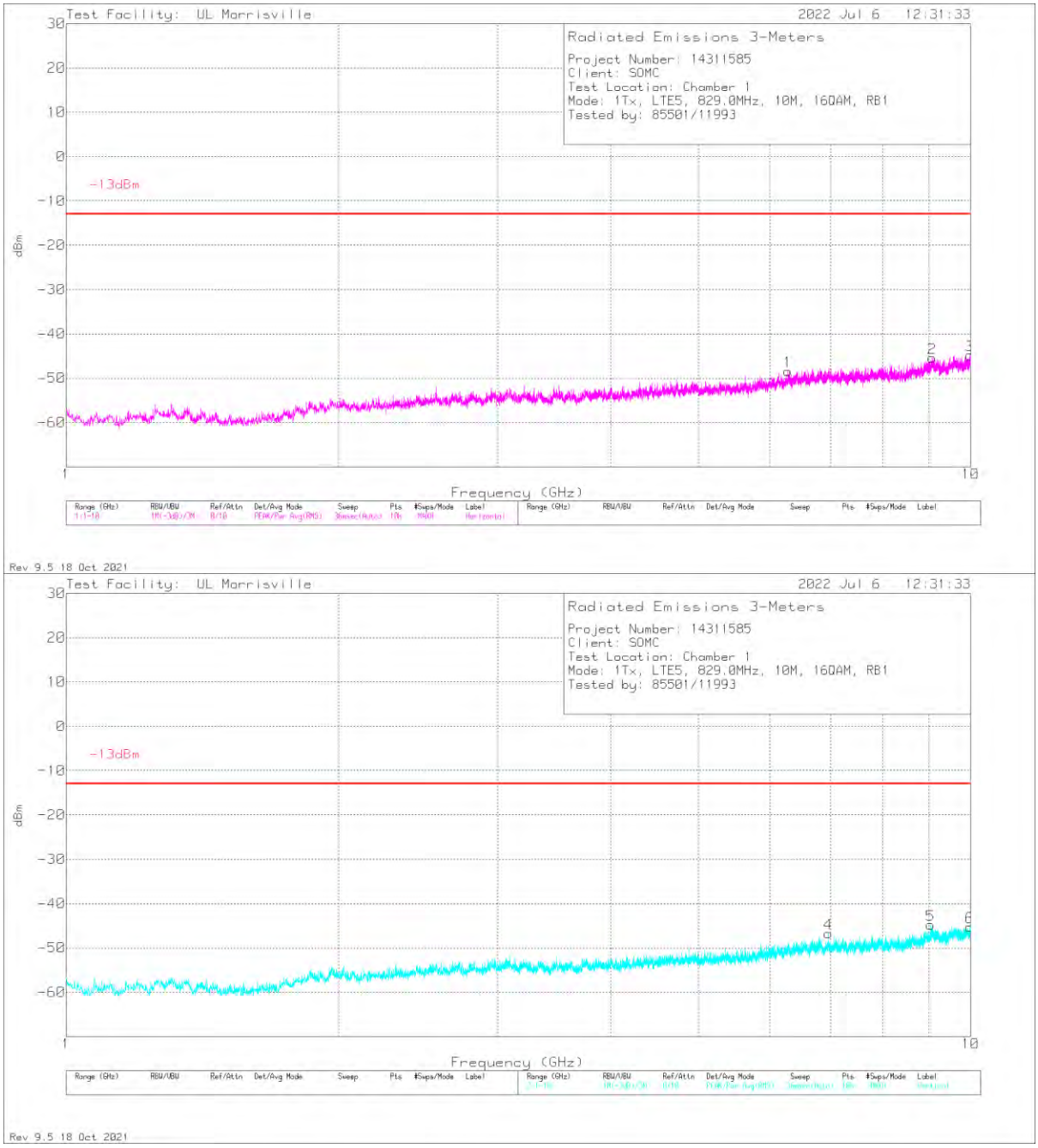




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	6.6817	-64.25	Pk	35.5	-31.1	.6	11.8	-47.45	-13	-34.45	0-360	200	V
1	6.8095	-64.93	Pk	35.5	-30.4	.7	11.8	-47.33	-13	-34.33	0-360	300	H
2	9.0829	-65.35	Pk	36.3	-28.6	.7	11.8	-45.15	-13	-32.15	0-360	101	H
5	9.0883	-64.26	Pk	36.3	-29.3	.7	11.8	-44.76	-13	-31.76	0-360	200	V
3	9.9712	-65.34	Pk	37.1	-28.4	.5	11.8	-44.34	-13	-31.34	0-360	199	H
6	9.9883	-65.32	Pk	37.1	-28	.6	11.8	-43.82	-13	-30.82	0-360	300	V

Pk - Peak detector

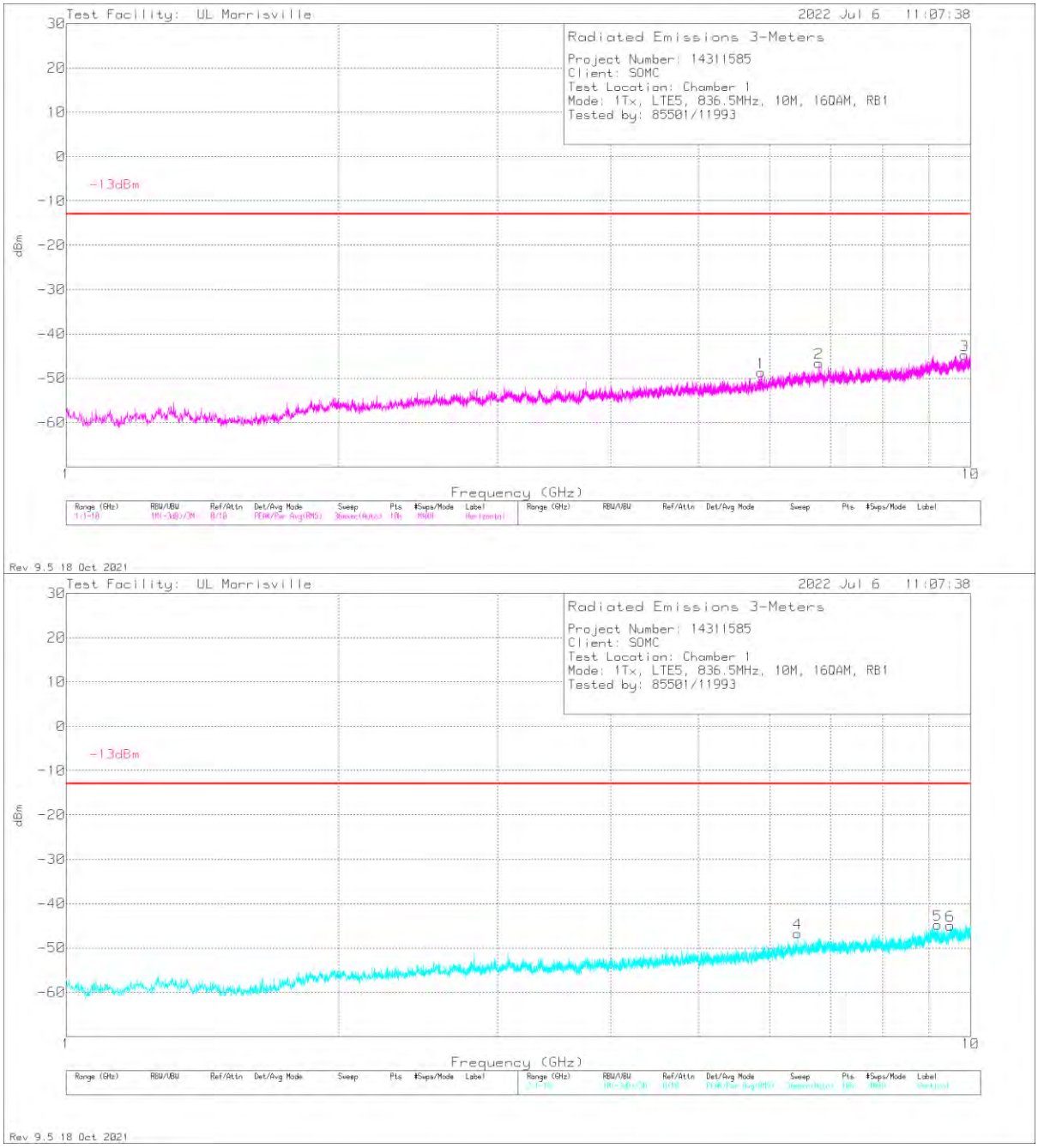
16QAM LTE5 (10MHz, Low Channel, 829MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.283	-65.11	Pk	35.4	-31.2	.7	11.8	-48.41	-13	-35.41	0-360	101	H
4	6.9607	-64.35	Pk	35.5	-30.3	.6	11.8	-46.75	-13	-33.75	0-360	200	V
5	9.0361	-63.82	Pk	36.2	-29.5	.5	11.8	-44.82	-13	-31.82	0-360	101	V
2	9.0694	-64.91	Pk	36.2	-29.2	.7	11.8	-45.41	-13	-32.41	0-360	200	H
3	9.9874	-66.46	Pk	37.1	-27.9	.6	11.8	-44.86	-13	-31.86	0-360	101	H
6	9.9901	-66.78	Pk	37.1	-28	.6	11.8	-45.28	-13	-32.28	0-360	299	V

Pk - Peak detector

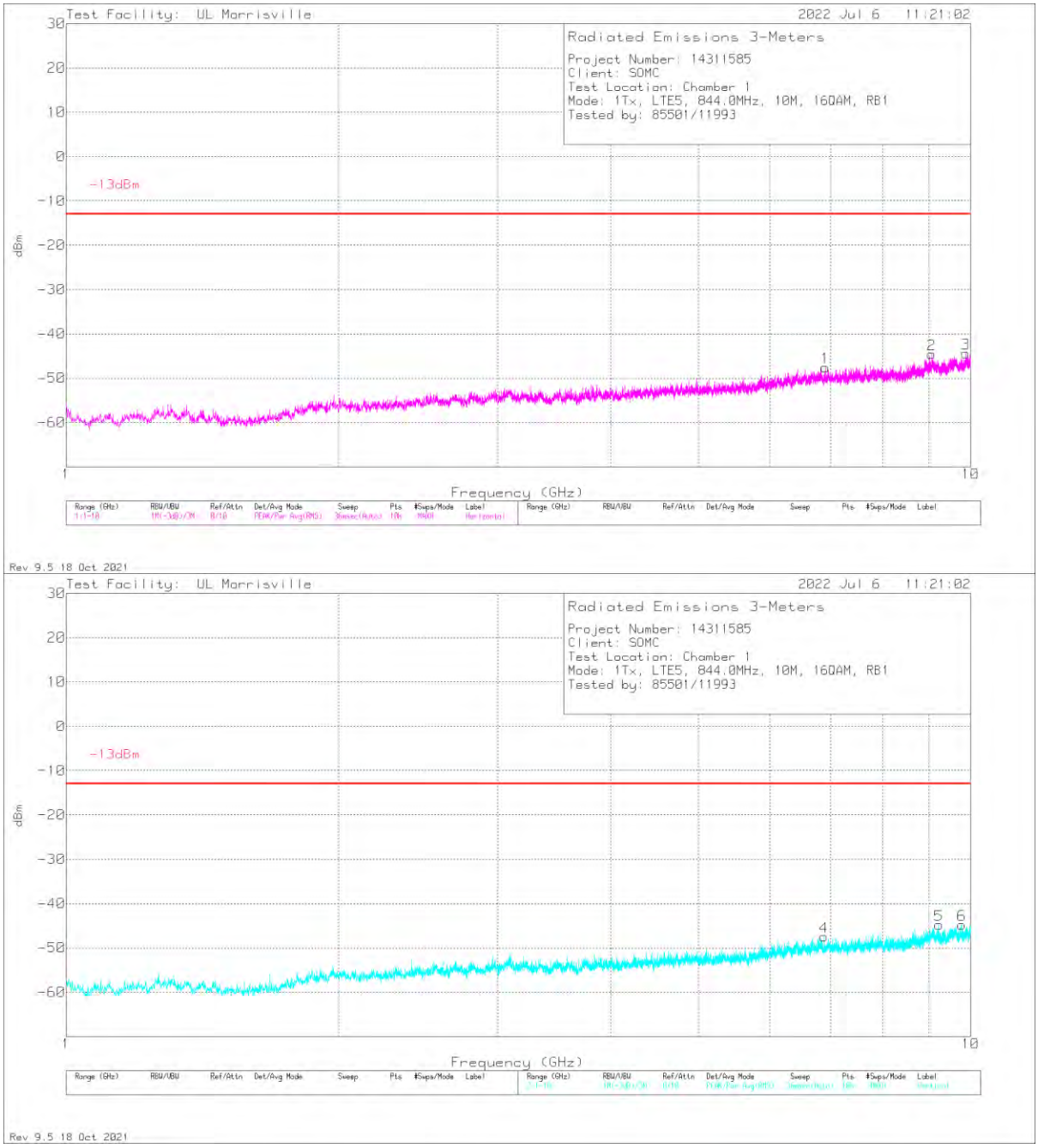
16QAM LTE5 (10MHz, Mid Channel, 836.5MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.8654	-64.03	Pk	34.9	-31.9	.5	11.8	-48.73	-13	-35.73	0-360	101	H
4	6.4387	-63.41	Pk	35.6	-31.3	.6	11.8	-46.71	-13	-33.71	0-360	300	V
2	6.7969	-63.47	Pk	35.5	-31.1	.7	11.8	-46.57	-13	-33.57	0-360	299	H
5	9.1954	-64.5	Pk	36.3	-29.1	.7	11.8	-44.8	-13	-31.8	0-360	300	V
6	9.4978	-65.76	Pk	36.8	-28.7	.9	11.8	-44.96	-13	-31.96	0-360	200	V
3	9.8461	-66.28	Pk	36.9	-27.7	.5	11.8	-44.78	-13	-31.78	0-360	299	H

Pk - Peak detector

16QAM LTE5 (10MHz, High Channel, 844MHz)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	6.886	-64.59	Pk	35.5	-30.7	.5	11.8	-47.49	-13	-34.49	0-360	101	V
1	6.9094	-64.76	Pk	35.5	-30.7	.6	11.8	-47.56	-13	-34.56	0-360	299	H
2	9.0604	-64.06	Pk	36.2	-29.1	.6	11.8	-44.56	-13	-31.56	0-360	299	H
5	9.2269	-64.41	Pk	36.3	-29.3	.8	11.8	-44.81	-13	-31.81	0-360	200	V
6	9.7777	-66.09	Pk	36.9	-28.3	.9	11.8	-44.79	-13	-31.79	0-360	299	V
3	9.8758	-66	Pk	36.9	-27.9	.8	11.8	-44.4	-13	-31.4	0-360	200	H

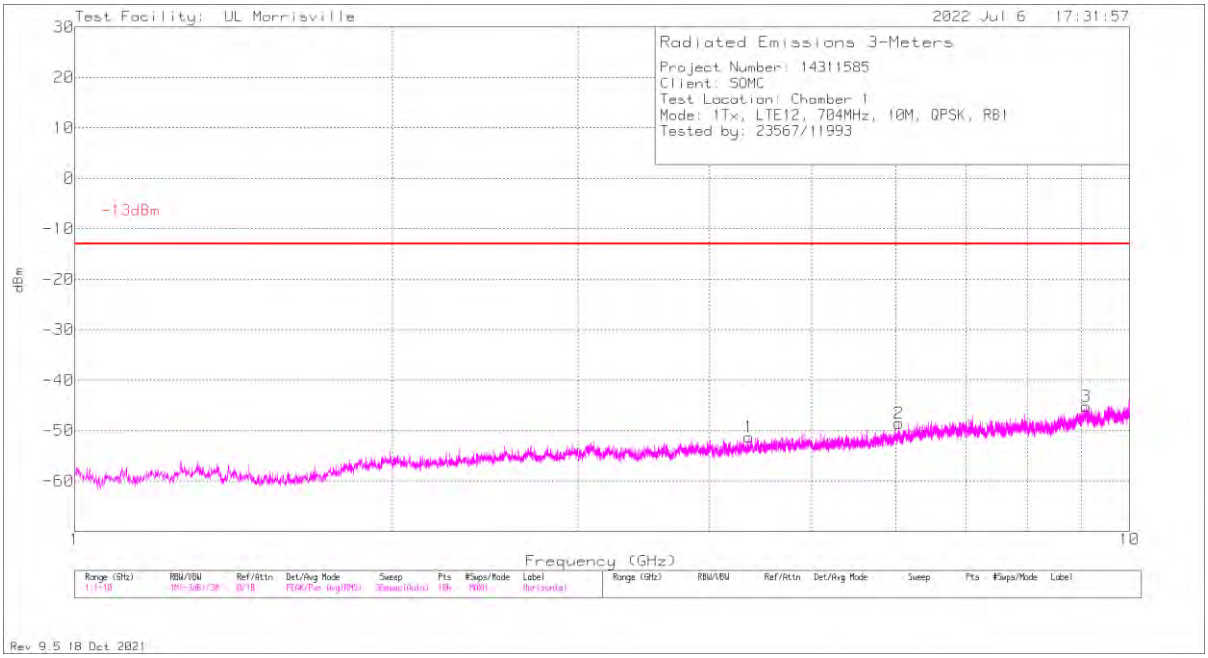
Pk - Peak detector

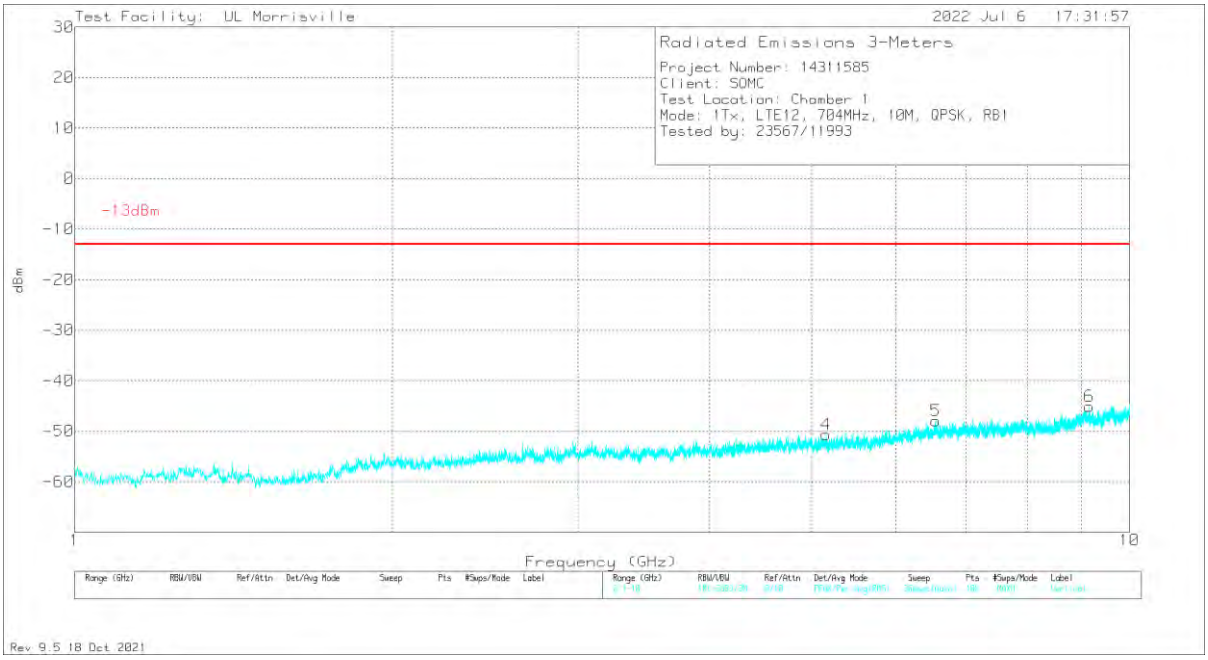
10.1.6. LTE BAND 12

LIMITS

FCC: §27.53 (g)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

QPSK LTE12 (10MHz, Low Channel, 704MHz)

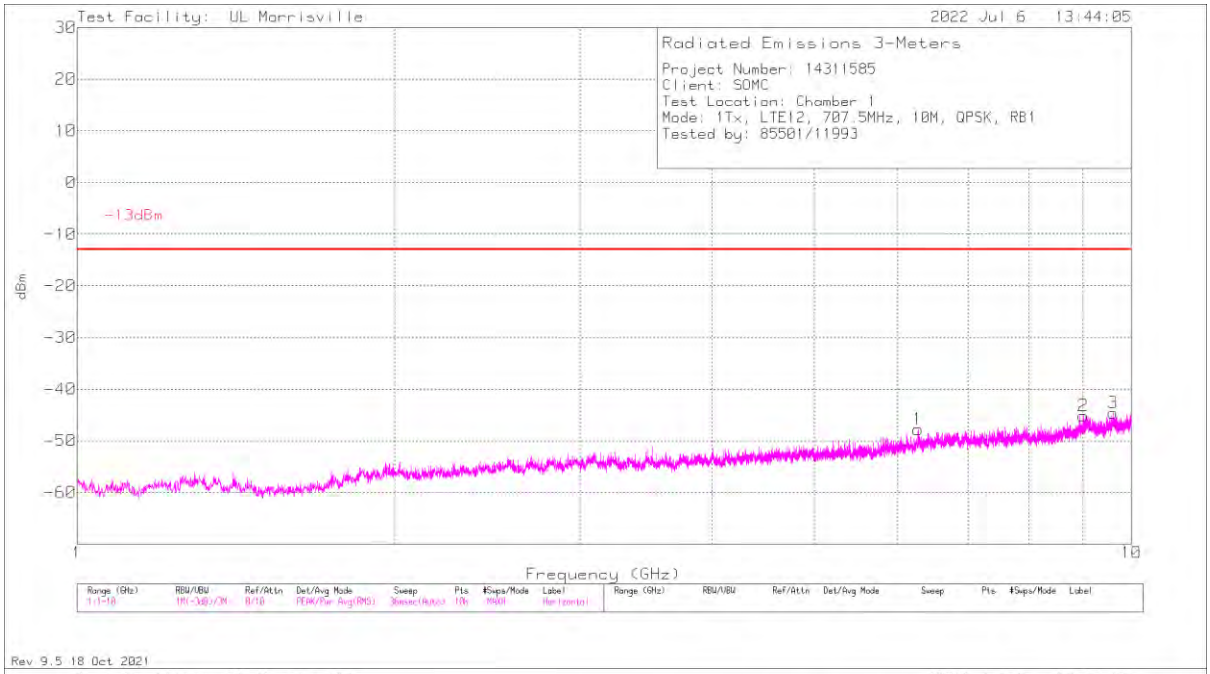


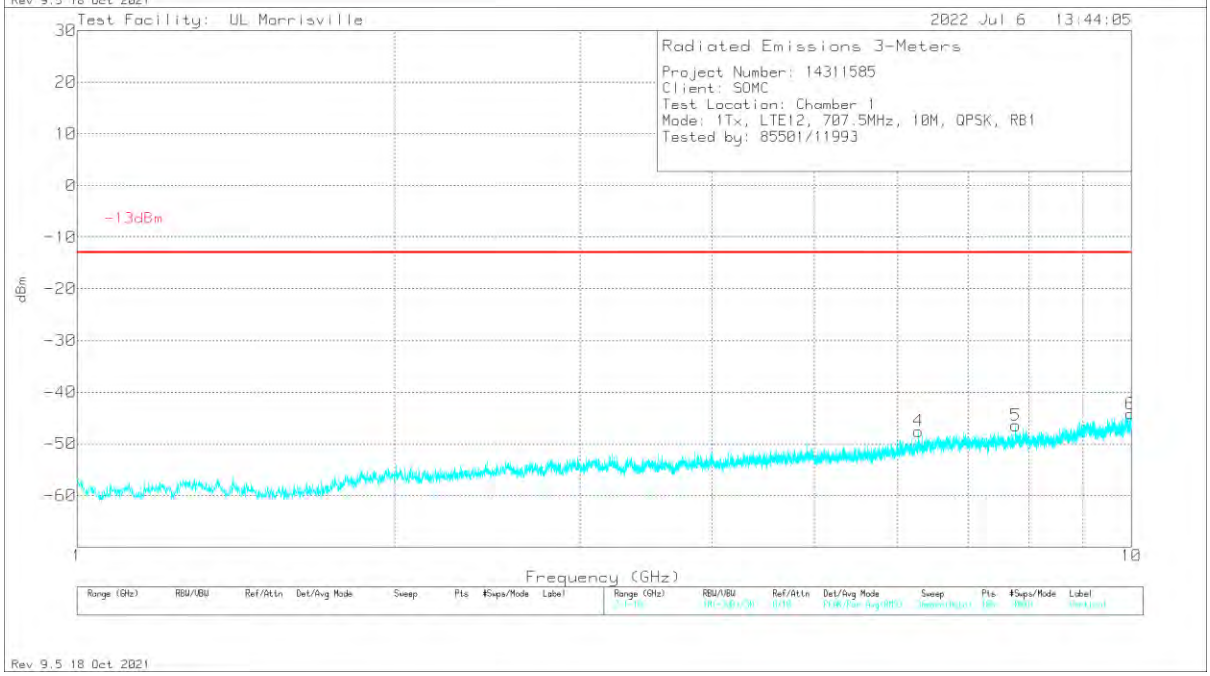


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.3561	-64.71	Pk	33.7	-32.4	.3	11.8	-51.31	-13	-38.31	0-360	101	H
4	5.158	-64.25	Pk	34.3	-32.8	.3	11.8	-50.65	-13	-37.65	0-360	200	V
2	6.0445	-64.63	Pk	35.2	-31.6	.7	11.8	-48.53	-13	-35.53	0-360	101	H
5	6.5476	-65.04	Pk	35.6	-31	.7	11.8	-47.94	-13	-34.94	0-360	101	V
3	9.1027	-64.96	Pk	36.3	-29	.6	11.8	-45.26	-13	-32.26	0-360	101	H
6	9.1666	-64.51	Pk	36.3	-29.2	.5	11.8	-45.11	-13	-32.11	0-360	200	V

Pk - Peak detector

QPSK LTE12 (10MHz, Mid Channel, 707.5MHz)

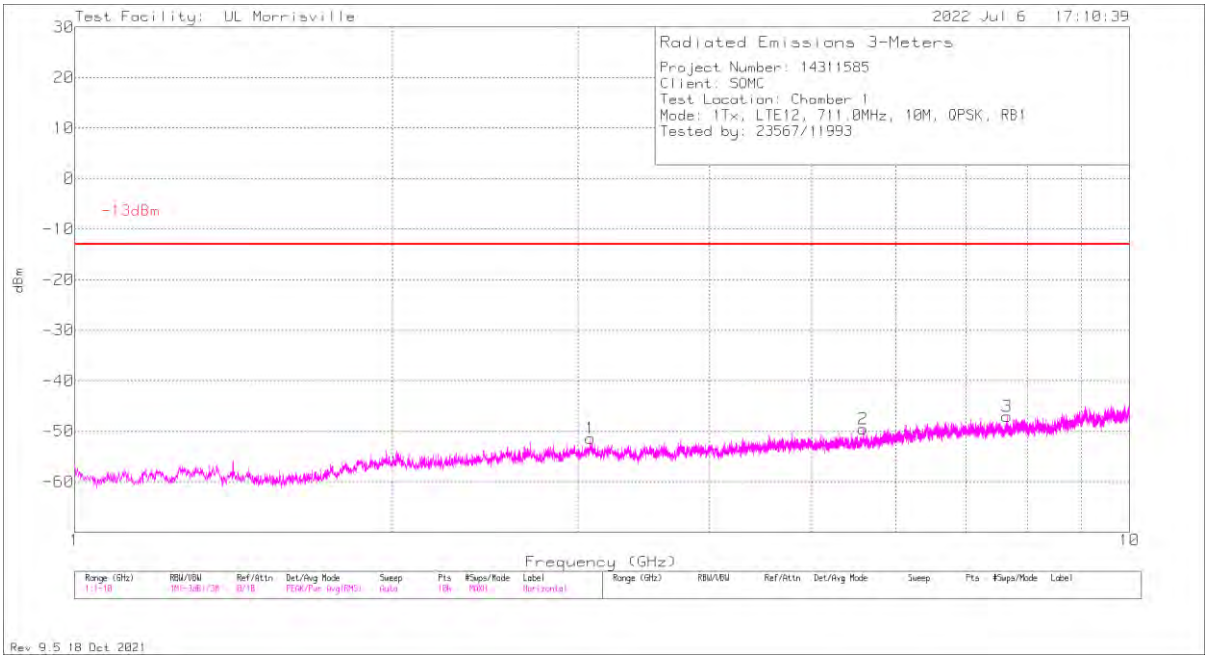


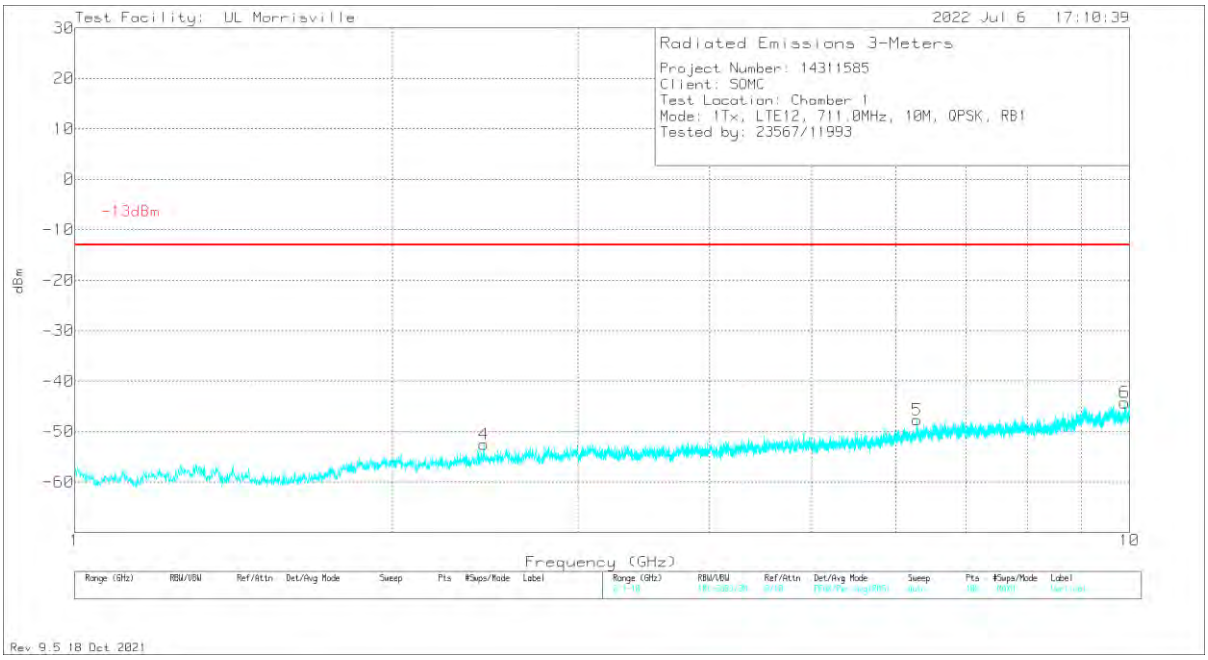


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.2767	-64.28	Pk	35.4	-31.4	.7	11.8	-47.78	-13	-34.78	0-360	299	H
4	6.2839	-64.26	Pk	35.4	-31.2	.7	11.8	-47.56	-13	-34.56	0-360	101	V
5	7.7671	-64.53	Pk	35.8	-30	.5	11.8	-46.43	-13	-33.43	0-360	299	V
2	9.0028	-64.36	Pk	36.2	-29.3	.5	11.8	-45.16	-13	-32.16	0-360	101	H
3	9.604	-65.21	Pk	36.8	-28.8	.8	11.8	-44.61	-13	-31.61	0-360	299	H
6	9.9883	-65.72	Pk	37.1	-28	.6	11.8	-44.22	-13	-31.22	0-360	199	V

Pk - Peak detector

QPSK LTE12 (10MHz, High Channel, 711MHz)

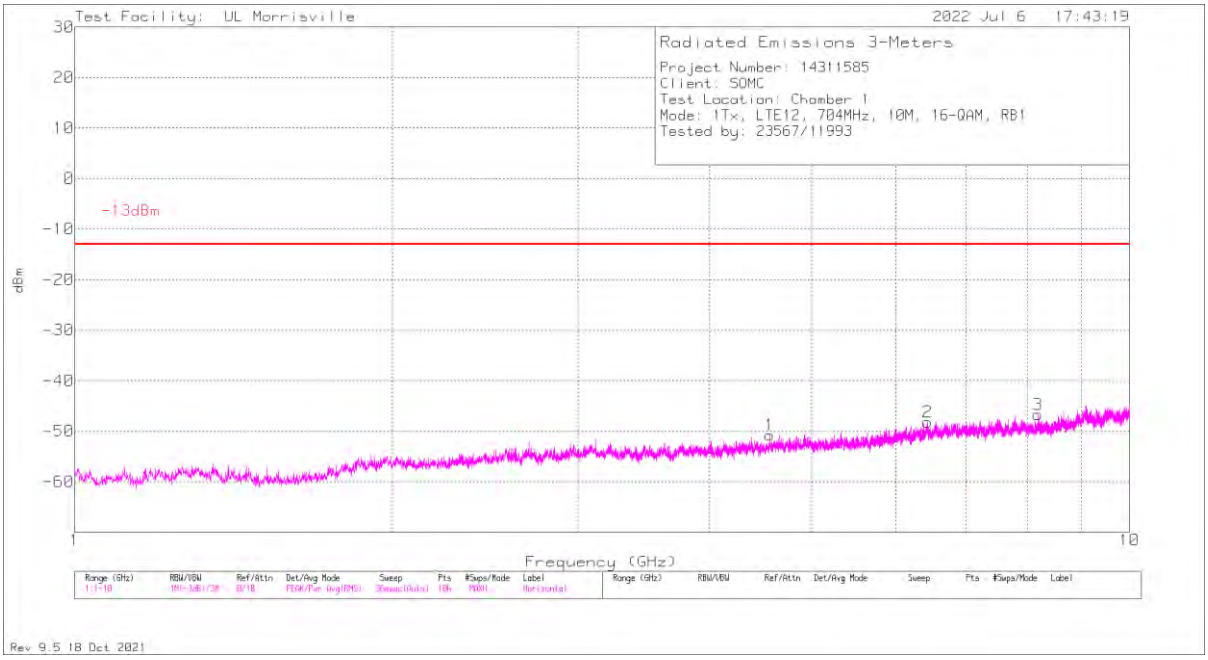


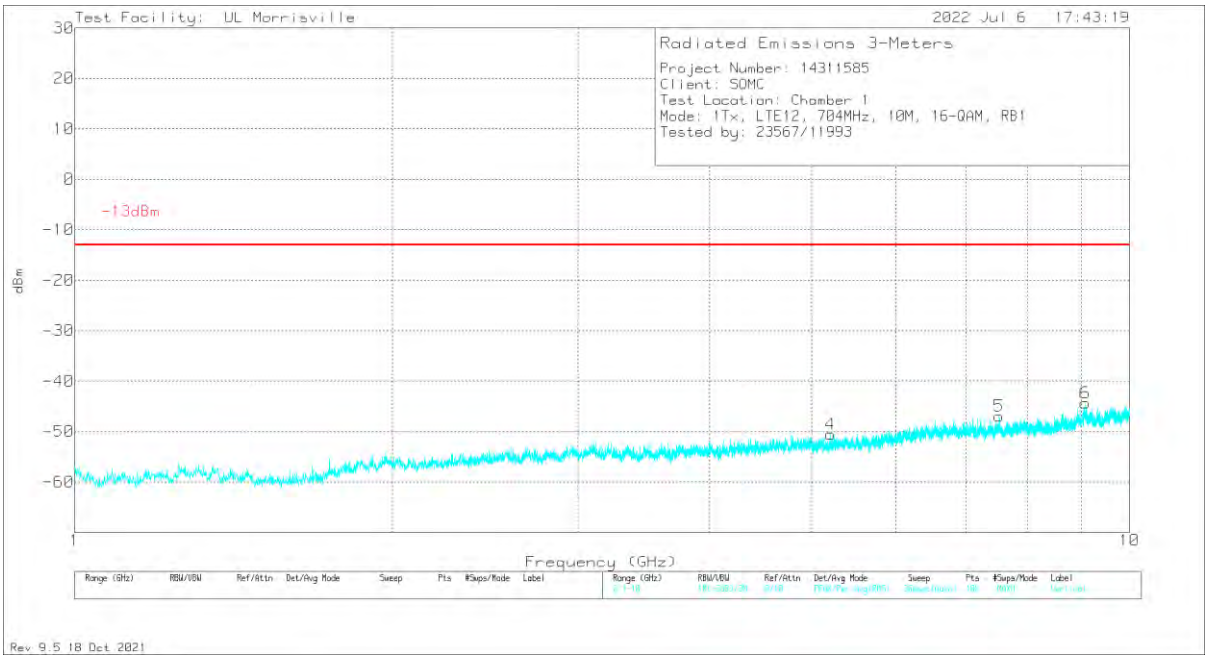


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.4427	-62.54	Pk	32.2	-34.4	.4	11.8	-52.54	-13	-39.54	0-360	300	V
1	3.0835	-63.86	Pk	33.1	-33.2	.7	11.8	-51.46	-13	-38.46	0-360	299	H
2	5.5927	-63.5	Pk	34.7	-32.8	.3	11.8	-49.5	-13	-36.5	0-360	299	H
5	6.2848	-64.3	Pk	35.4	-31.3	.7	11.8	-47.7	-13	-34.7	0-360	101	V
3	7.6528	-65.54	Pk	35.7	-29.5	.5	11.8	-47.04	-13	-34.04	0-360	199	H
6	9.8974	-65.97	Pk	37	-28	.9	11.8	-44.27	-13	-31.27	0-360	300	V

Pk - Peak detector

16QAM LTE12 (10MHz, Low Channel, 704MHz)

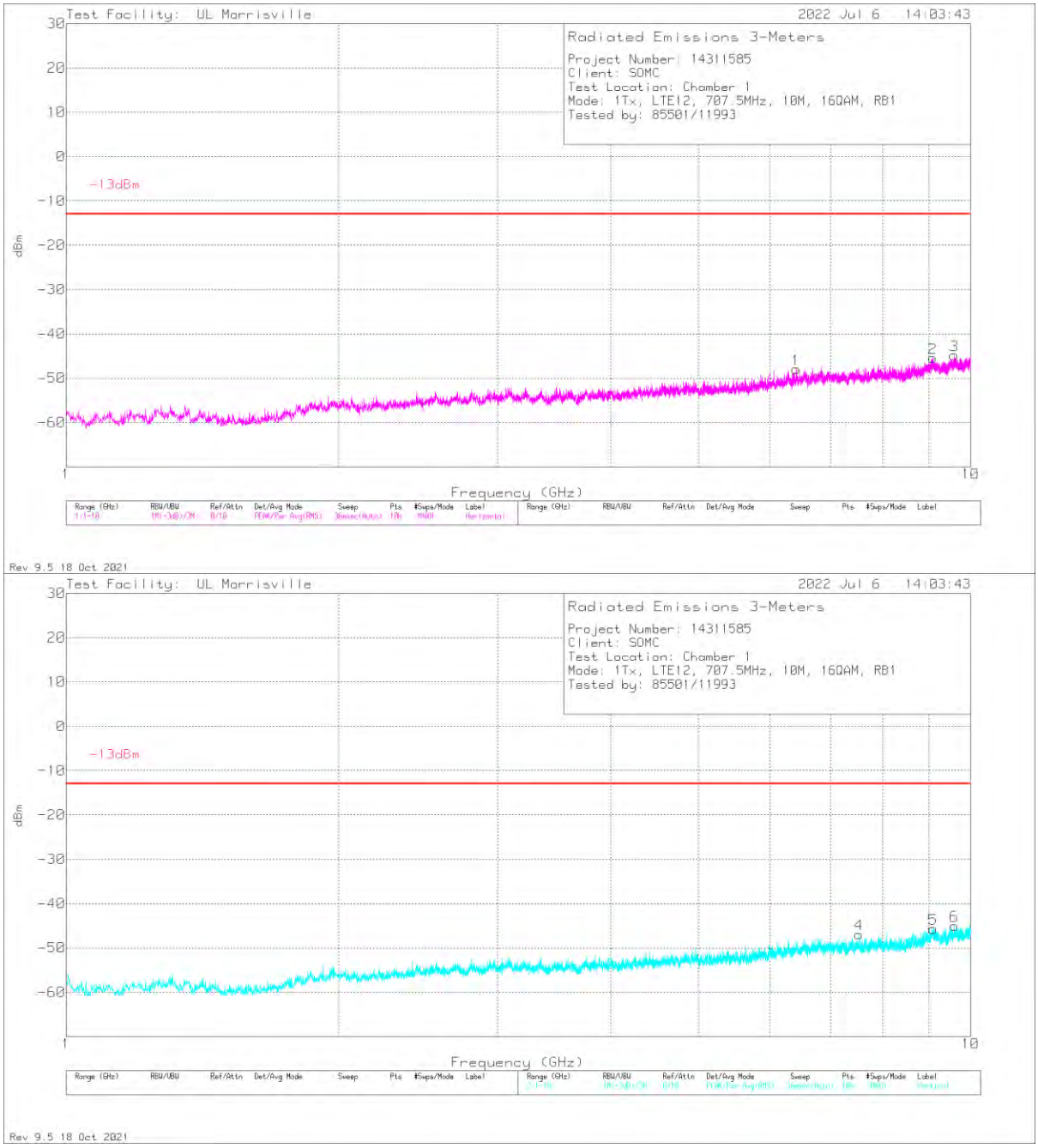




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.5604	-63.84	Pk	34	-33	.3	11.8	-50.74	-13	-37.74	0-360	101	H
4	5.2048	-64	Pk	34.3	-32.9	.3	11.8	-50.5	-13	-37.5	0-360	300	V
2	6.4324	-64.94	Pk	35.6	-31.2	.6	11.8	-48.14	-13	-35.14	0-360	101	H
5	7.525	-65.29	Pk	35.7	-29.7	.6	11.8	-46.89	-13	-33.89	0-360	300	V
3	8.1892	-65.34	Pk	35.8	-29.4	.4	11.8	-46.74	-13	-33.74	0-360	101	H
6	9.0802	-64.43	Pk	36.3	-28.7	.7	11.8	-44.33	-13	-31.33	0-360	200	V

Pk - Peak detector

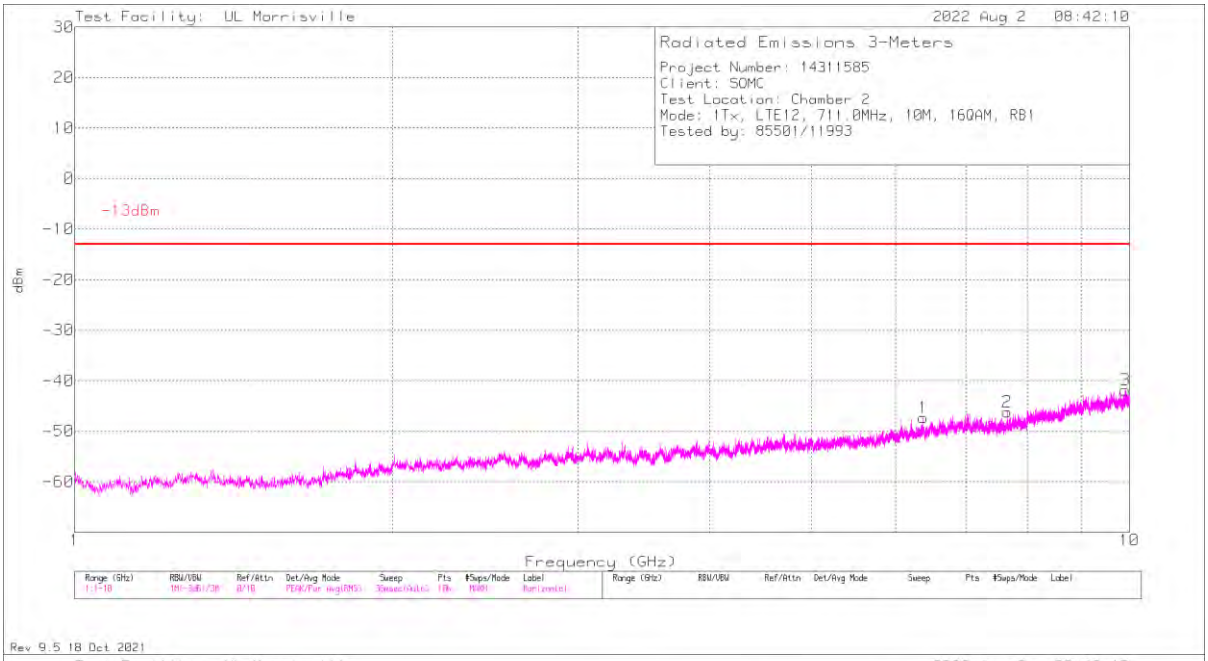
16QAM LTE12 (10MHz, Mid Channel, 707.5MHz)

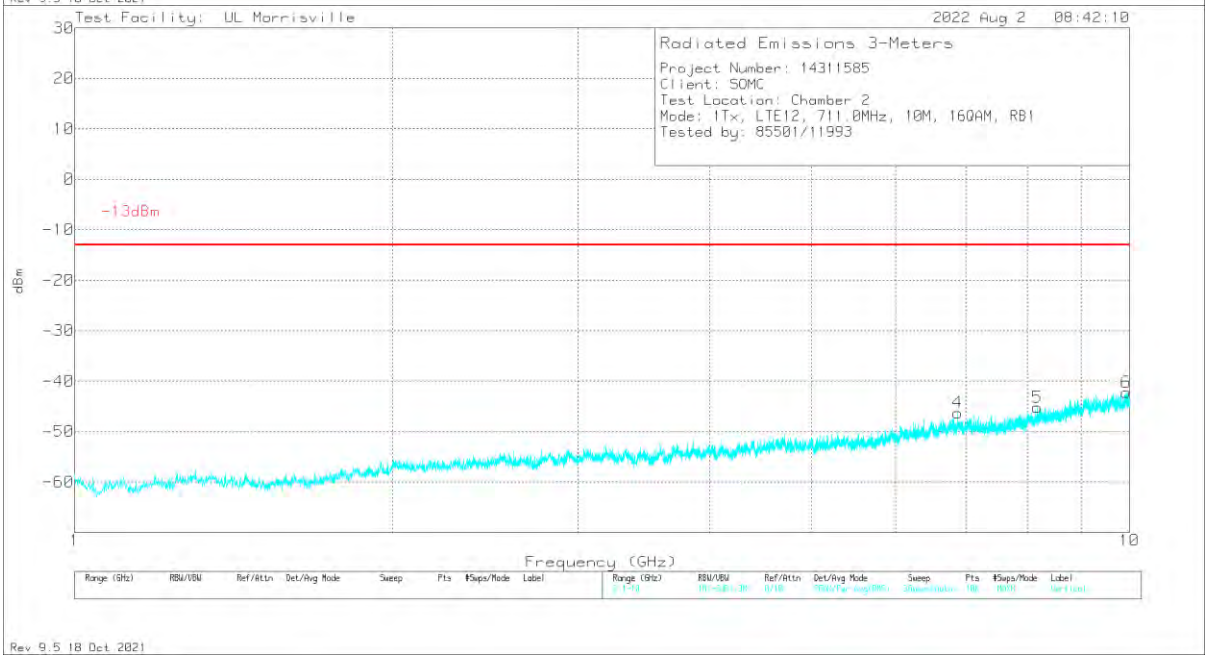


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.4153	-64.67	Pk	35.6	-31.4	.7	11.8	-47.97	-13	-34.97	0-360	200	H
4	7.5304	-65.54	Pk	35.7	-29.5	.6	11.8	-46.94	-13	-33.94	0-360	300	V
2	9.0838	-65.64	Pk	36.3	-28.6	.7	11.8	-45.44	-13	-32.44	0-360	100	H
5	9.091	-65.5	Pk	36.3	-29	.7	11.8	-45.7	-13	-32.7	0-360	300	V
3	9.5905	-65.33	Pk	36.8	-28.8	.7	11.8	-44.83	-13	-31.83	0-360	300	H
6	9.5986	-65.41	Pk	36.8	-29	.8	11.8	-45.01	-13	-32.01	0-360	300	V

Pk - Peak detector

16QAM LTE12 (10MHz, High Channel, 711MHz)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.373	-66.35	Pk	35.5	-29.1	.8	11.8	-47.35	-13	-34.35	0-360	101	H
4	6.877	-66.06	Pk	35.6	-28.1	.5	11.8	-46.26	-13	-33.26	0-360	101	V
2	7.6564	-66.7	Pk	35.7	-27.5	.5	11.8	-46.2	-13	-33.2	0-360	101	H
5	8.173	-65.88	Pk	35.7	-27.2	.4	11.8	-45.18	-13	-32.18	0-360	200	V
3	9.9109	-65.8	Pk	37	-25.8	.9	11.8	-41.9	-13	-28.9	0-360	101	H
6	9.9253	-66.75	Pk	37	-25.2	.9	11.8	-42.25	-13	-29.25	0-360	101	V

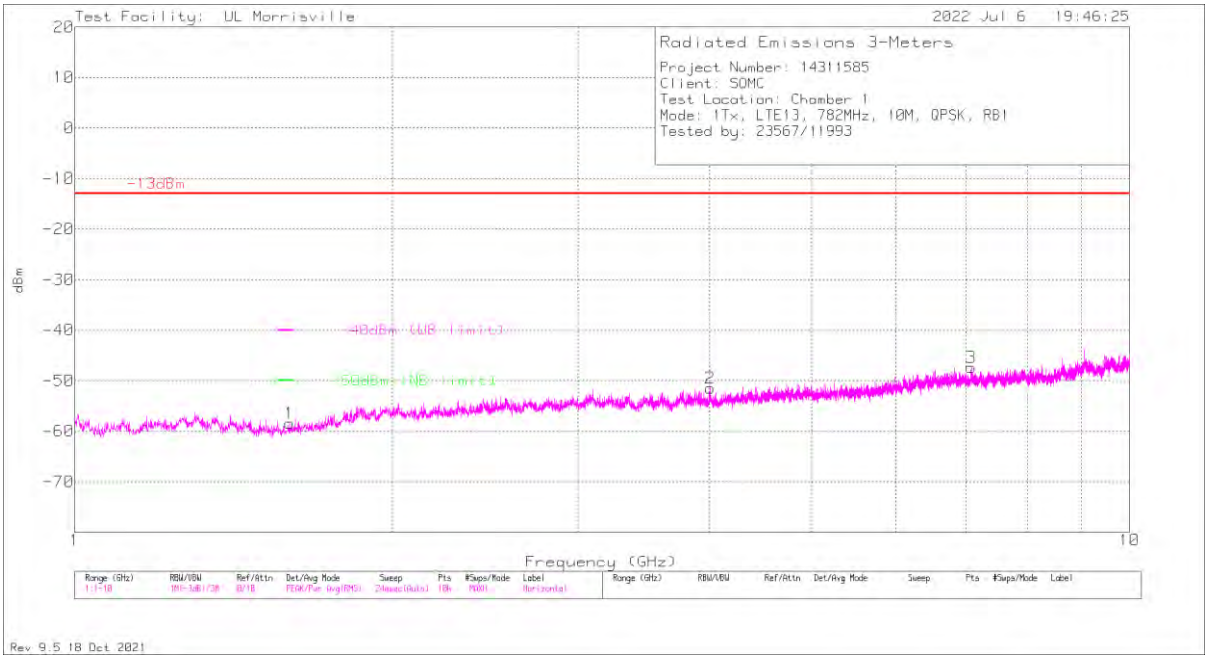
Pk - Peak detector

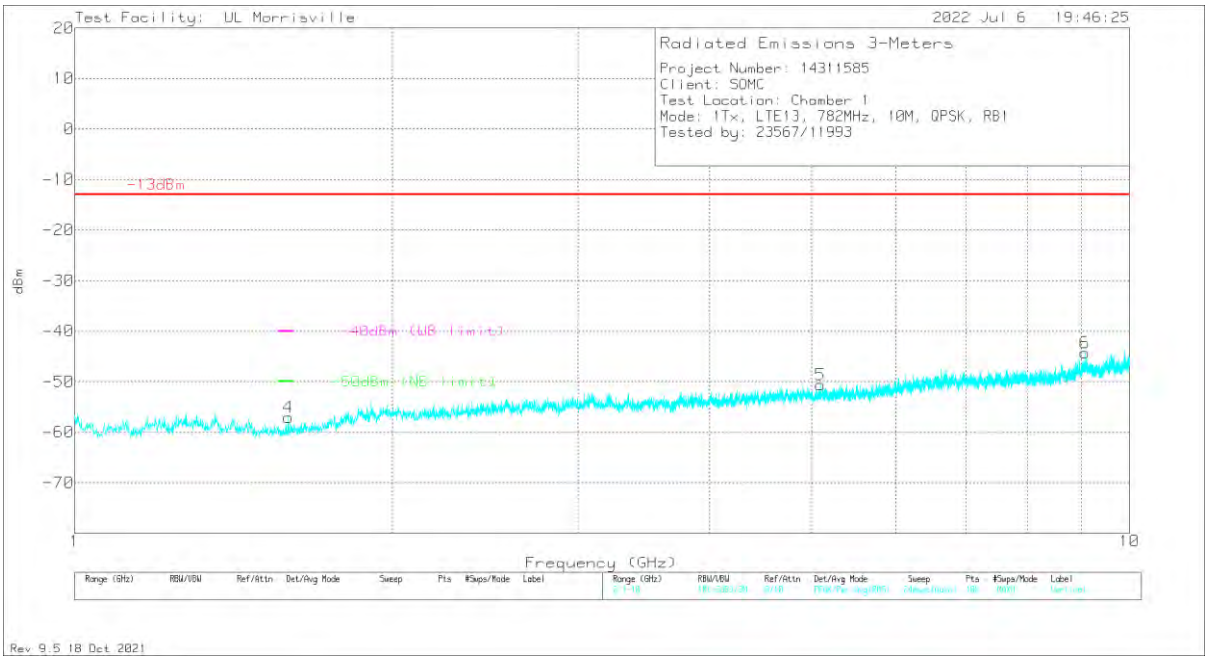
10.1.7. LTE BAND 13

LIMITS

FCC: §27.53
(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.
(f) Emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

QPSK LTE13 (10MHz, Mid Channel, 782MHz)



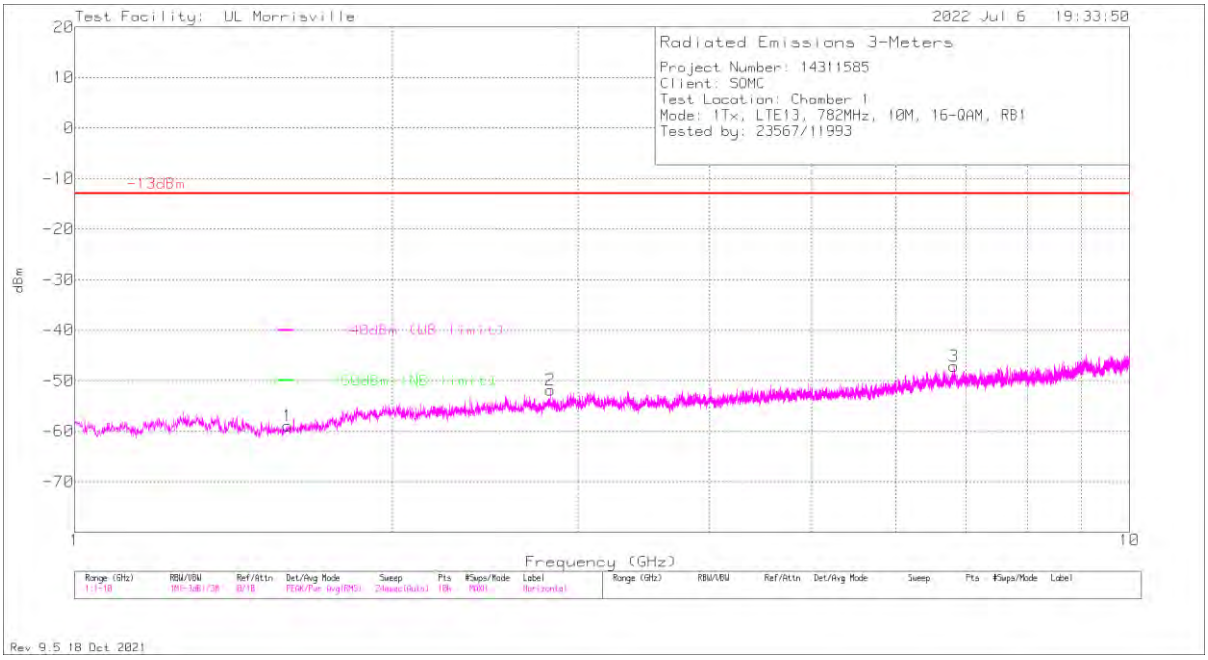


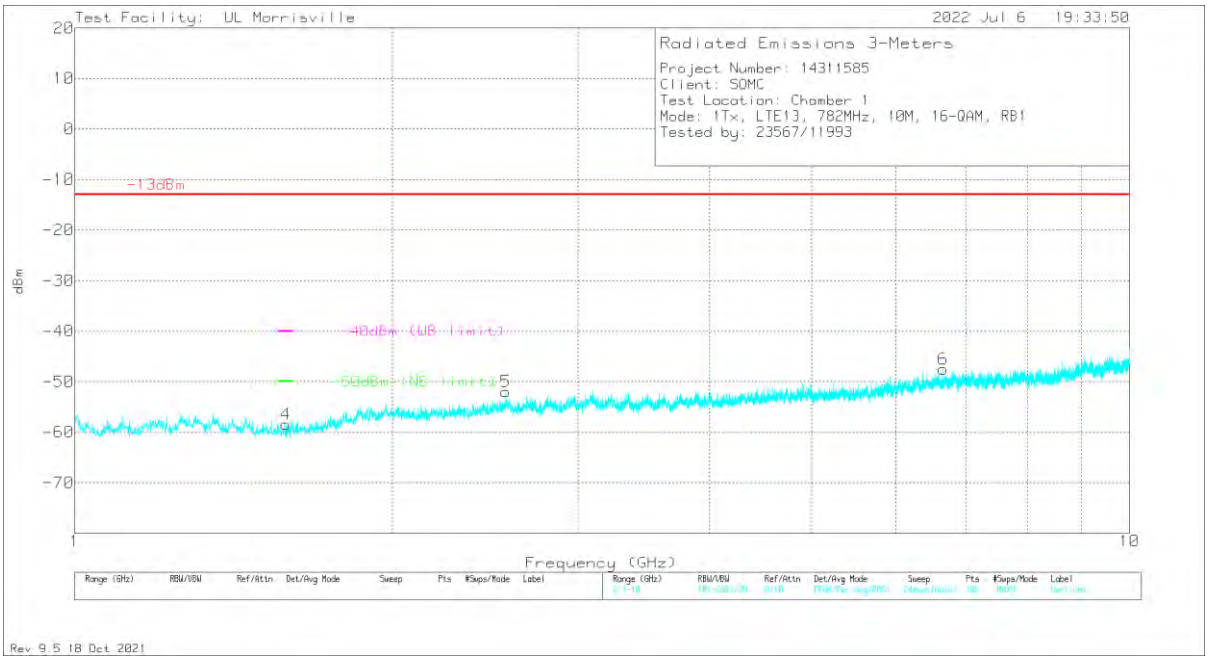
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	-40dBm (WB limit)	Margin (dB)	-50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4*	1.594	-62.52	Pk	28.4	-35.2	.5	11.8	-57.02	-13	-44.02	-40	-17.02	-50	-7.02	0-360	300	V
1*	1.5976	-63.52	Pk	28.4	-35.6	.5	11.8	-58.42	-13	-45.42	-40	-18.42	-50	-8.42	0-360	200	H
2	4.0033	-64.16	Pk	33.4	-33	.5	11.8	-51.46	-13	-38.46	-	-	-	-	0-360	299	H
5	5.0905	-64.3	Pk	34.2	-32.7	.4	11.8	-50.6	-13	-37.6	-	-	-	-	0-360	200	V
3	7.0786	-64.94	Pk	35.6	-30.4	.6	11.8	-47.34	-13	-34.34	-	-	-	-	0-360	299	H
6	9.0703	-63.79	Pk	36.2	-29.2	.7	11.8	-44.29	-13	-31.29	-	-	-	-	0-360	200	V

Pk - Peak detector

*Note: No narrowband emissions were observed, so the limit of -40dBm Wideband emissions limit was applied for the 1559-1610 MHz Band

16QAM LTE13 (10MHz, Mid Channel, 782MHz)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	- 13dBm	Margin (dB)	-40dBm (WB limit)	Margin (dB)	-50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4*	1.5859	-63.58	Pk	28.3	-35.5	.6	11.8	-58.38	-13	-45.38	-40	-18.38	-50	-8.38	0-360	300	V
1*	1.5913	-64.25	Pk	28.4	-35.5	.6	11.8	-58.95	-13	-45.95	-40	-18.95	-50	-8.95	0-360	200	H
5	2.5633	-63.01	Pk	32.6	-33.9	.5	11.8	-52.01	-13	-39.01	-	-	-	-	0-360	300	V
2	2.8252	-62.99	Pk	32.6	-33.8	.5	11.8	-51.89	-13	-38.89	-	-	-	-	0-360	101	H
6	6.661	-64.13	Pk	35.5	-31.3	.6	11.8	-47.53	-13	-34.53	-	-	-	-	0-360	200	V
3	6.8131	-64.53	Pk	35.5	-30.6	.7	11.8	-47.13	-13	-34.13	-	-	-	-	0-360	200	H

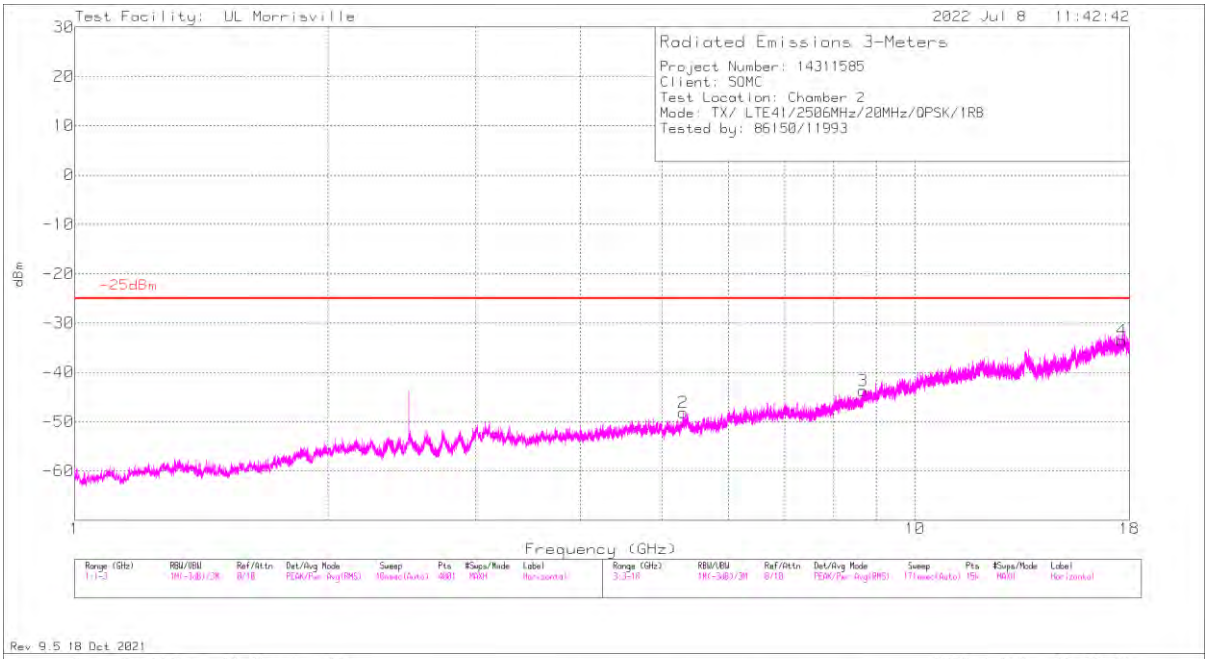
Pk - Peak detector

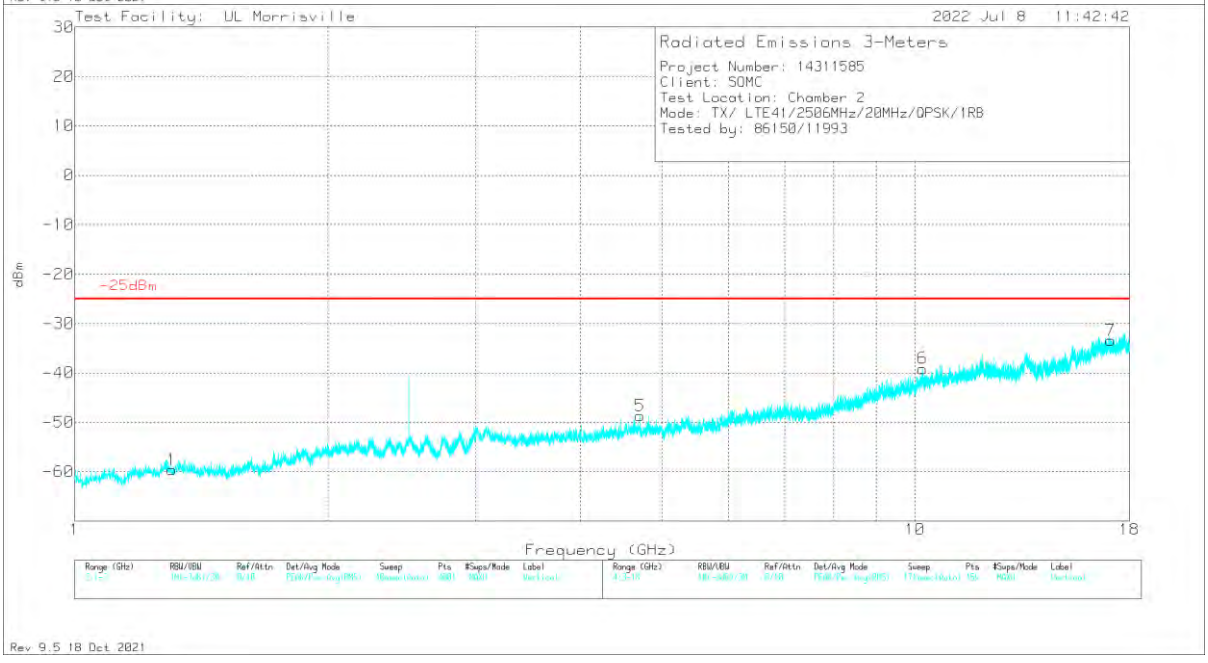
*Note: No narrowband emissions were observed, so the limit of -40dBm Wideband emissions limit was applied for the 1559-1610 MHz Band

10.1.8. LTE BAND 41

FCC: §27.53 (m)
At least 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

QPSK LTE41(20MHz, Low Channel, 2506MHz)

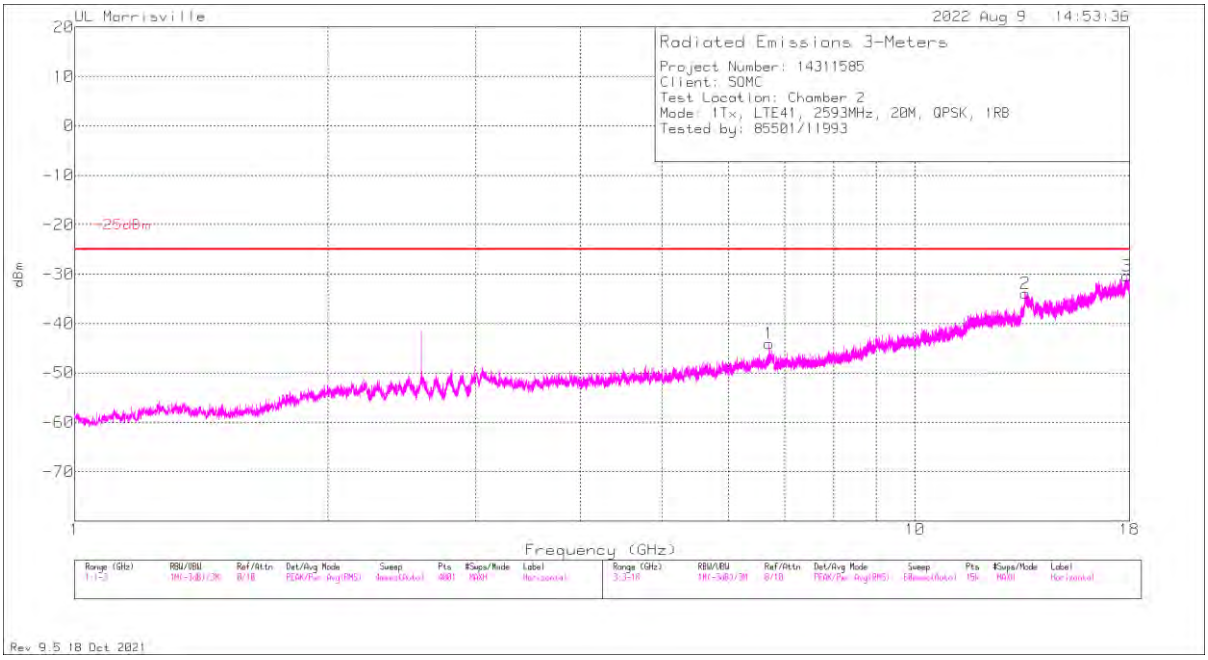


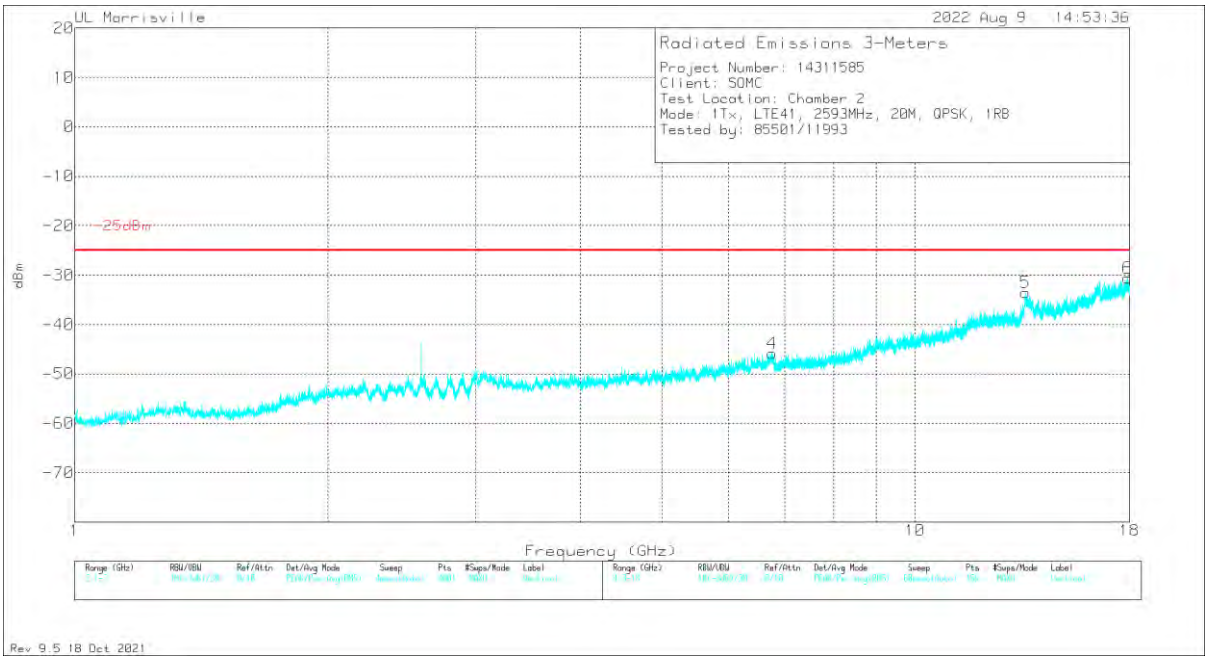


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.304	-65.78	Pk	28.7	-34.8	11.8	.5	-59.58	-25	-34.58	0-360	199	V
5	4.706	-64.17	Pk	34.1	-30.8	11.8	.4	-48.67	-25	-23.67	0-360	101	V
2	5.297	-66.4	Pk	34.5	-28.9	11.8	.9	-48.1	-25	-23.1	0-360	200	H
3	8.679	-65.85	Pk	36	-26.2	11.8	.5	-43.75	-25	-18.75	0-360	200	H
6	10.208	-65.08	Pk	37.3	-24.2	11.8	1.1	-39.08	-25	-14.08	0-360	300	V
7	17.087	-65.18	Pk	41.5	-22.4	11.8	.9	-33.38	-25	-8.38	0-360	199	V
4	17.633	-66.08	Pk	41.2	-21.6	11.8	1.1	-33.58	-25	-8.58	0-360	300	H

Pk - Peak detector

QPSK LTE41(20MHz, Mid Channel, 2593MHz)

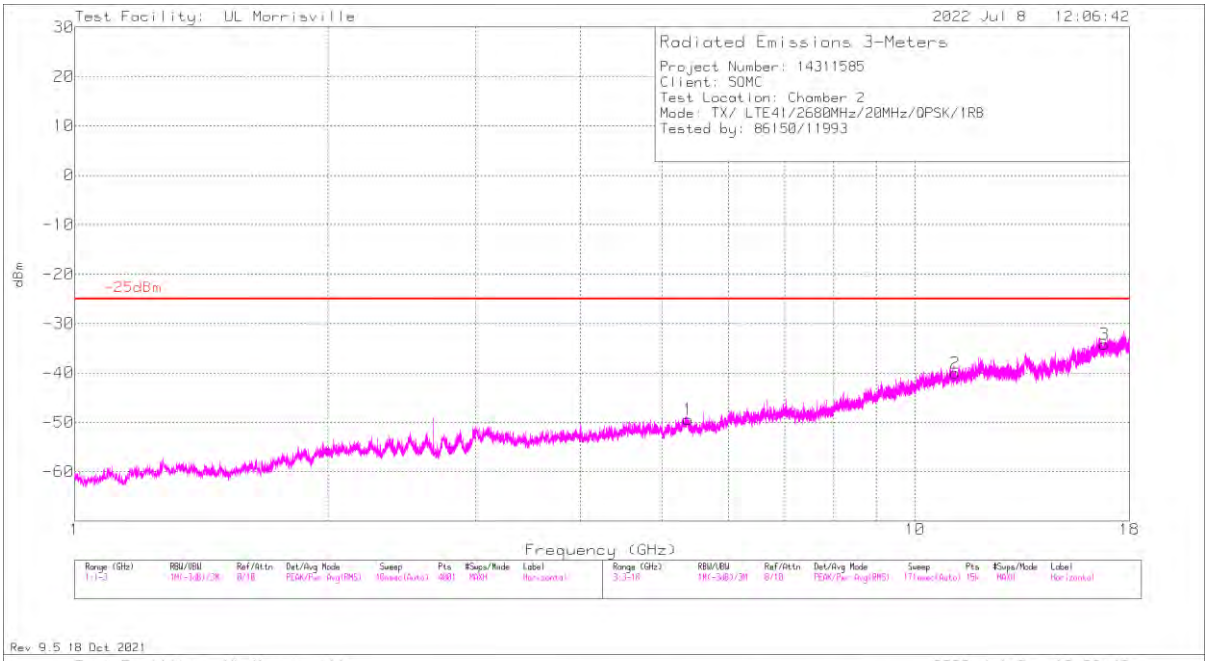


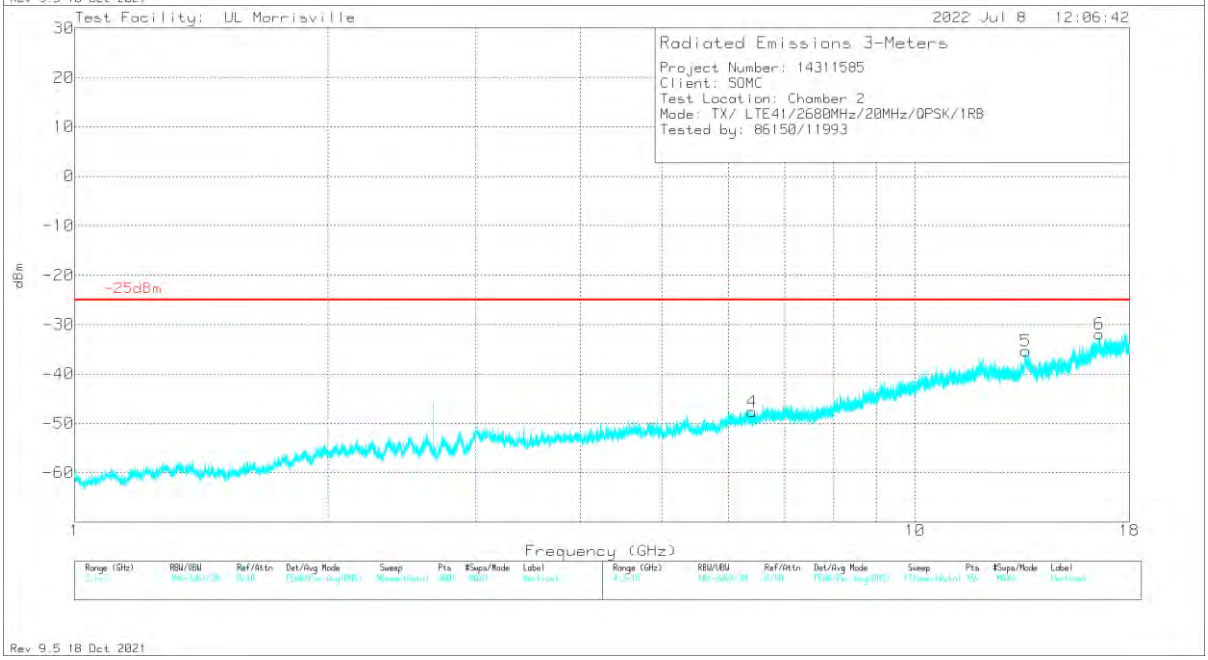


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0067 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.708	-63.99	Pk	35.6	-28	11.8	.5	-44.09	-25	-19.09	0-360	200	H
4	6.76	-65.71	Pk	35.6	-27.9	11.8	.4	-45.81	-25	-20.81	0-360	200	V
2	13.525	-63.49	Pk	38.8	-21.9	11.8	.9	-33.89	-25	-8.89	0-360	100	H
5	13.525	-63.15	Pk	38.8	-21.9	11.8	.9	-33.55	-25	-8.55	0-360	200	V
3	17.87633	-66.05	Pk	41.1	-18.1	11.8	.9	-30.35	-25	-5.35	30	382	H
6	17.90581	-64.46	Pk	41.2	-18.4	11.8	1	-28.86	-25	-3.86	151	295	V

Pk - Peak detector

QPSK LTE41(20MHz, High Channel, 2680MHz)

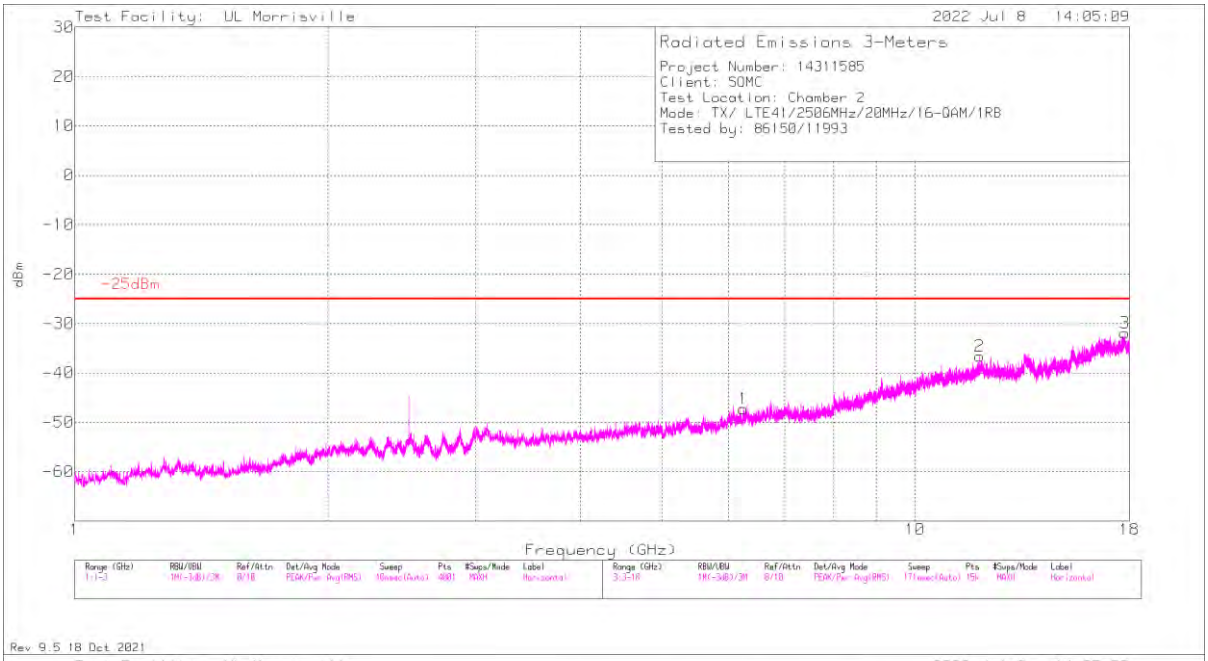


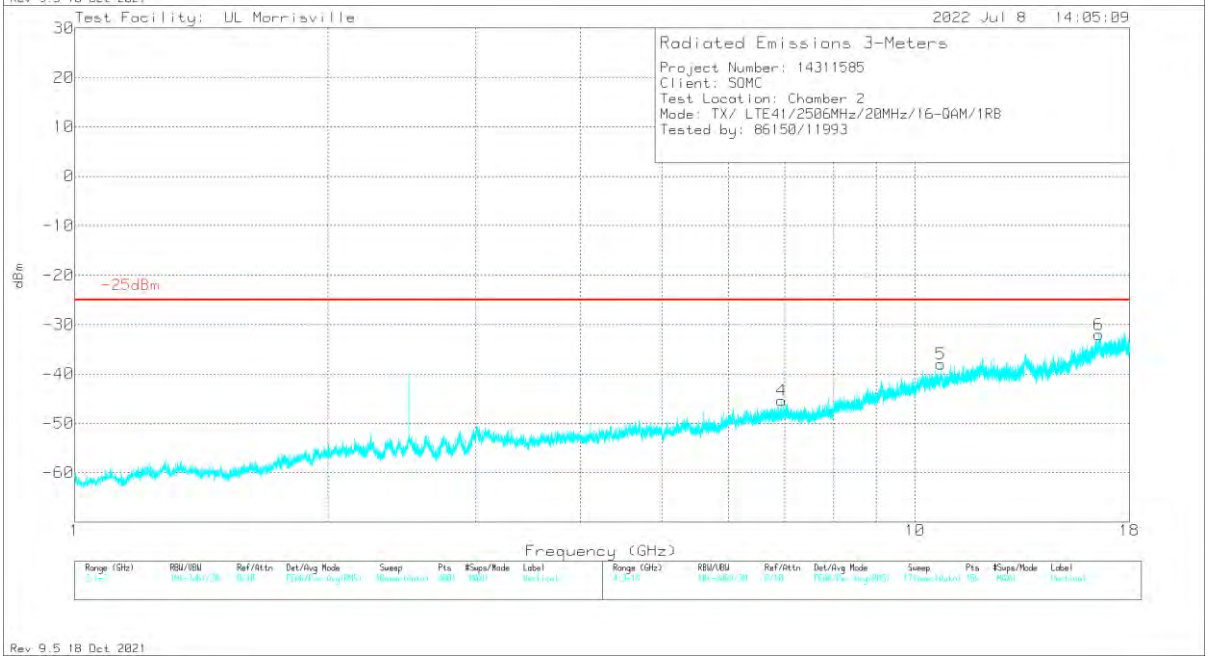


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.374	-66.97	Pk	34.5	-29.2	11.8	.5	-49.37	-25	-24.37	0-360	101	H
4	6.396	-67.2	Pk	35.6	-28.3	11.8	.4	-47.7	-25	-22.7	0-360	200	V
2	11.17	-67	Pk	37.8	-23.5	11.8	.9	-40	-25	-15	0-360	200	H
5	13.546	-62.62	Pk	38.8	-24.1	11.8	.8	-35.32	-25	-10.32	0-360	200	V
6	16.586	-64.62	Pk	41.5	-21.6	11.8	1	-31.92	-25	-6.92	0-360	300	V
3	16.817	-66.04	Pk	41.9	-22.8	11.8	.9	-34.24	-25	-9.24	0-360	101	H

Pk - Peak detector

16QAM LTE41(20MHz, Low Channel, 2506MHz)

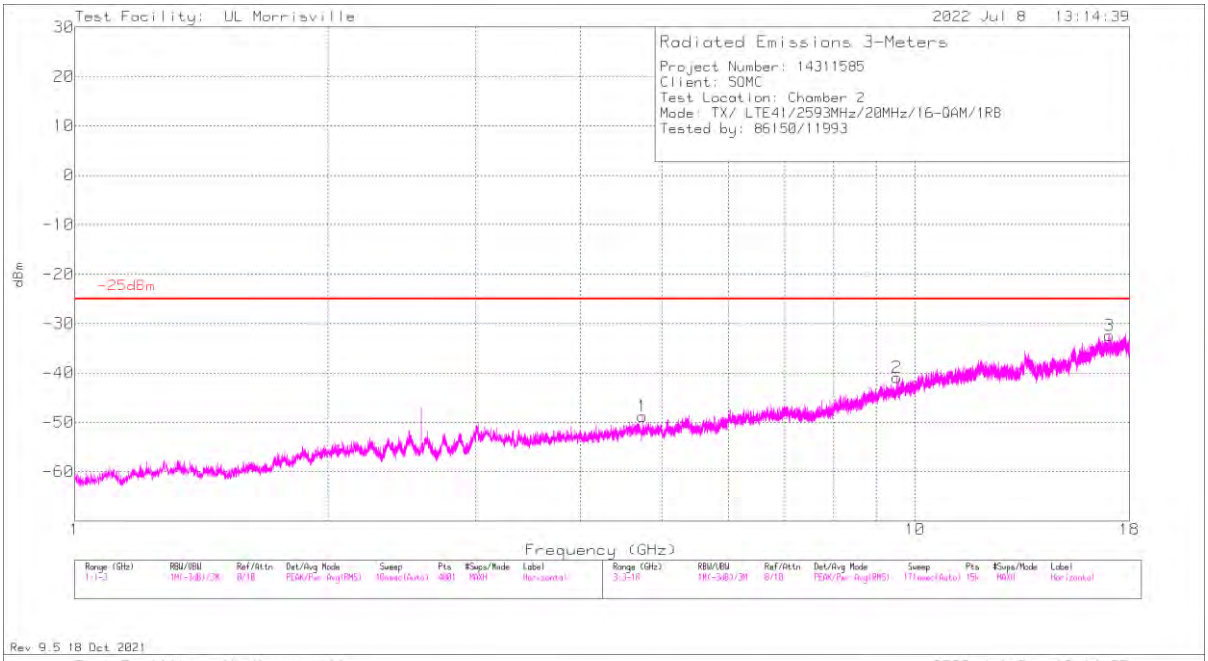


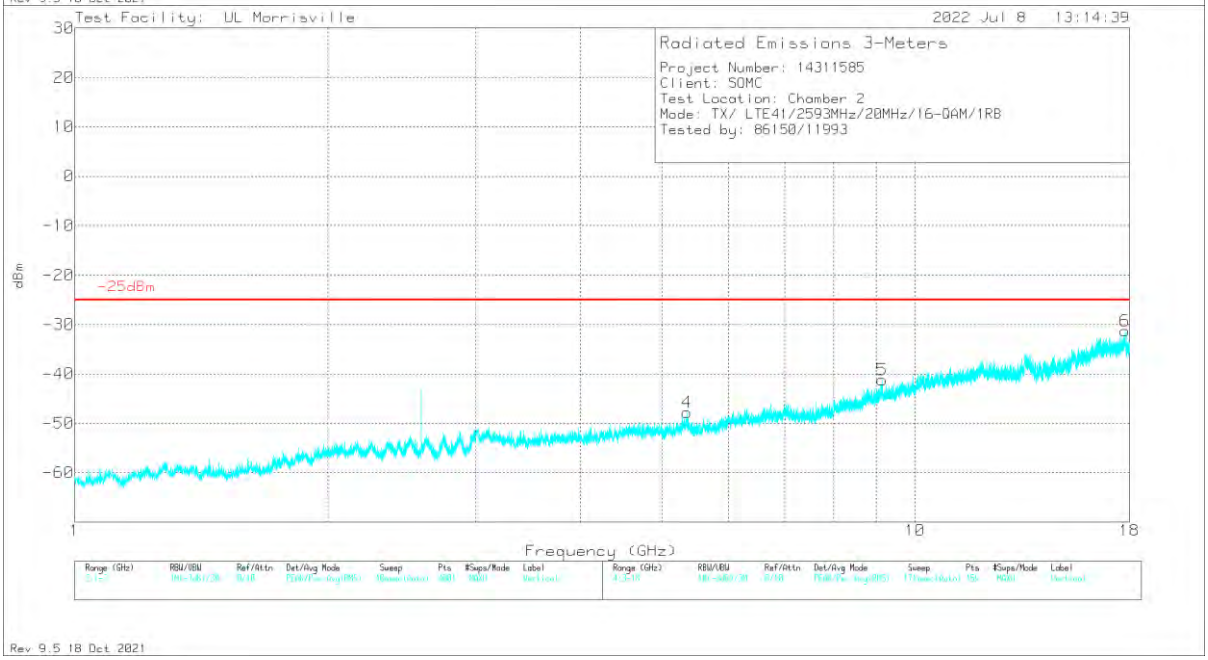


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	6.244	-66.58	Pk	35.3	-28.2	11.8	.4	-47.28	-25	-22.28	0-360	199	H
4	6.937	-65.45	Pk	35.6	-27.7	11.8	.4	-45.35	-25	-20.35	0-360	300	V
5	10.733	-65.12	Pk	37.7	-23.4	11.8	1	-38.02	-25	-13.02	0-360	200	V
2	11.93	-63.96	Pk	38.5	-23.6	11.8	.6	-36.66	-25	-11.66	0-360	299	H
6	16.547	-64.57	Pk	41.4	-21.6	11.8	.9	-32.07	-25	-7.07	0-360	200	V
3	17.769	-65.28	Pk	41.2	-20.6	11.8	1	-31.88	-25	-6.88	0-360	101	H

Pk - Peak detector

16QAM LTE41(20MHz, Mid Channel, 2593MHz)

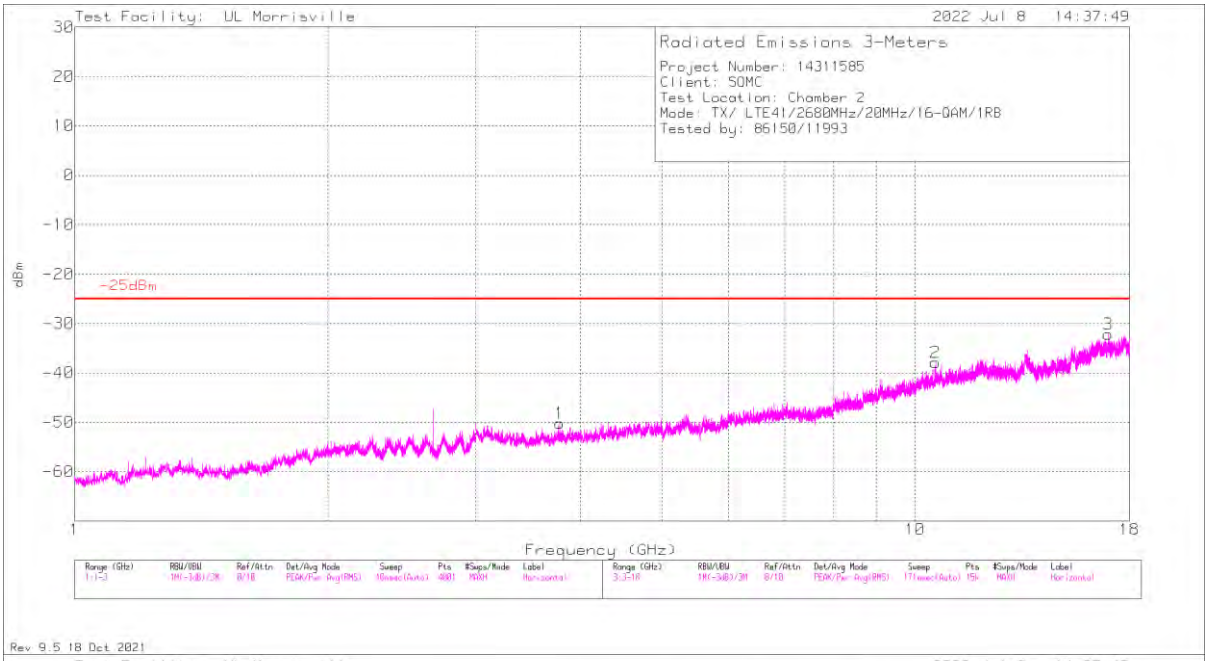


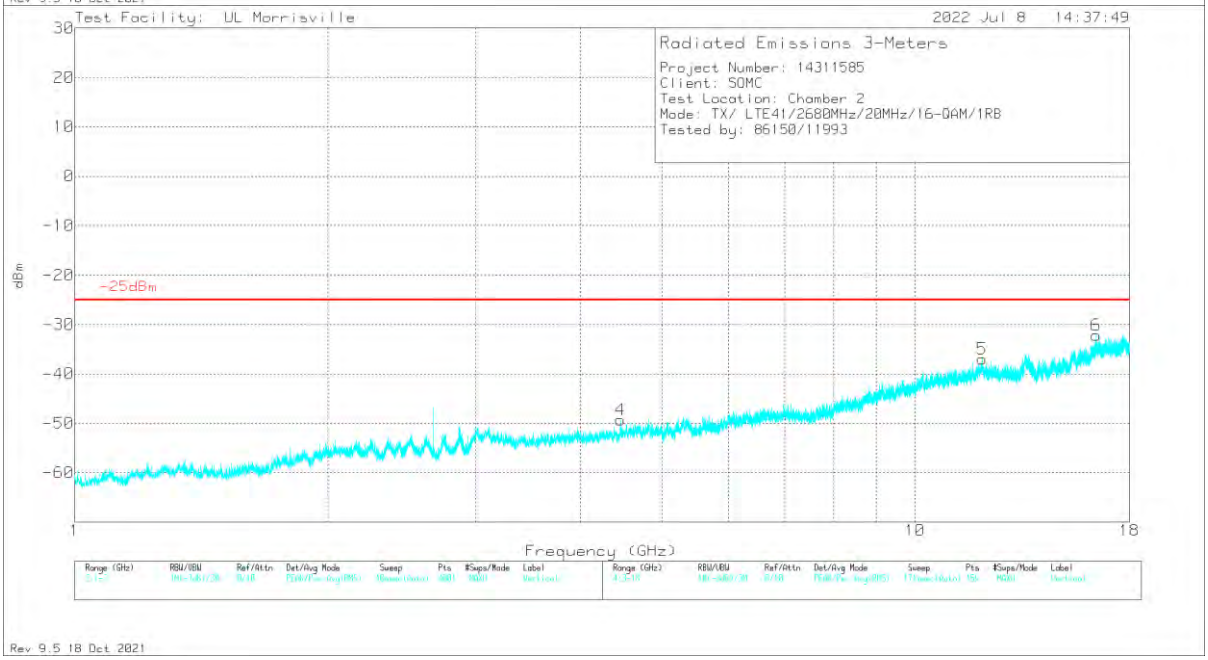


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.737	-64.04	Pk	34	-31.3	11.8	.7	-48.84	-25	-23.84	0-360	200	H
4	5.356	-65.93	Pk	34.5	-28.7	11.8	.5	-47.83	-25	-22.83	0-360	199	V
5	9.141	-64.62	Pk	36.2	-25.1	11.8	.6	-41.12	-25	-16.12	0-360	300	V
2	9.521	-65.4	Pk	36.6	-25.1	11.8	1.2	-40.9	-25	-15.9	0-360	101	H
3	17.031	-64.84	Pk	41.6	-22	11.8	1	-32.44	-25	-7.44	0-360	200	H
6	17.782	-64.99	Pk	41.2	-20.4	11.8	1.1	-31.29	-25	-6.29	0-360	101	V

Pk - Peak detector

16QAM LTE41(20MHz, High Channel, 2680MHz)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.777	-63.65	Pk	33.4	-32.4	11.8	.7	-50.15	-25	-25.15	0-360	101	H
4	4.466	-64.28	Pk	33.8	-31.2	11.8	.6	-49.28	-25	-24.28	0-360	200	V
2	10.578	-64.31	Pk	37.5	-23.7	11.8	.8	-37.91	-25	-12.91	0-360	101	H
5	12.026	-65.73	Pk	38.6	-22.3	11.8	.7	-36.93	-25	-11.93	0-360	200	V
6	16.445	-63.52	Pk	41.2	-22.7	11.8	1	-32.22	-25	-7.22	0-360	200	V
3	16.989	-64.35	Pk	41.7	-22.3	11.8	1	-32.15	-25	-7.15	0-360	200	H

Pk - Peak detector

10.2. WORST CASE EMISSIONS

RULE PART(S)
FCC: §2.1053, §22.917, §24.238, §27.53.

LIMITS
FCC: §22.917(a), §24.238(a), §27.53 (h)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

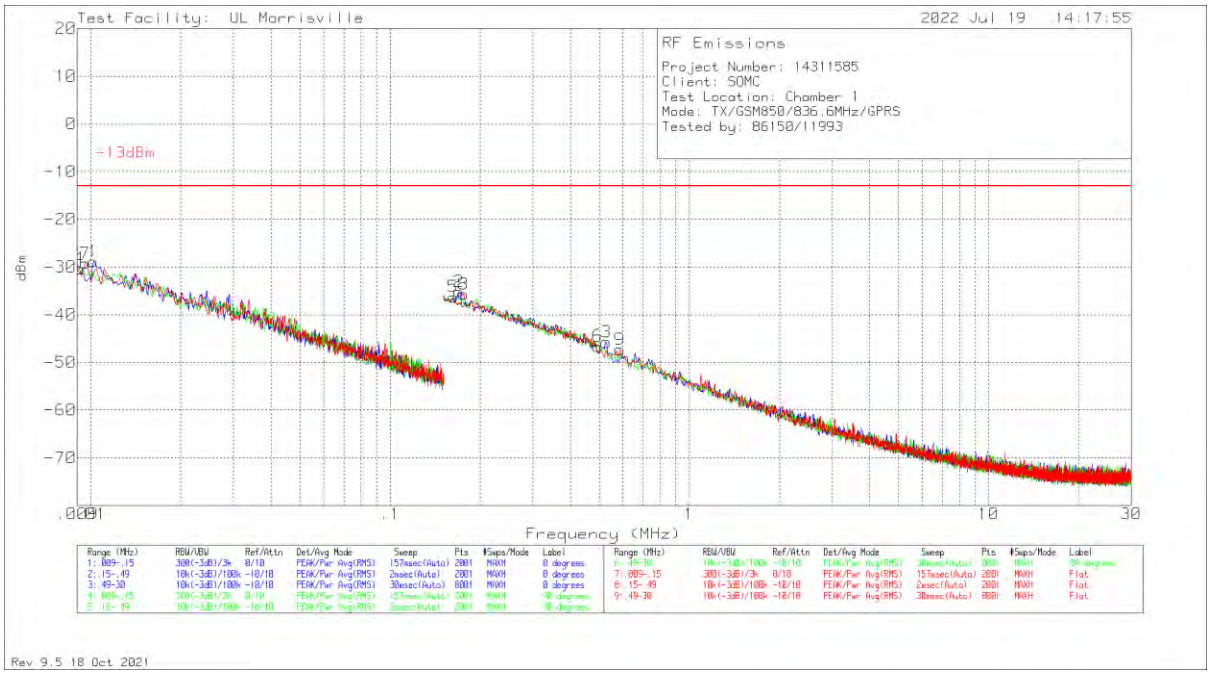
TEST PROCEDURE
KDB 971168 D01 v02r02/D02 v01

RESULTS

10.2.1. Worst-Case Emissions for 2G

GSM 850 GPRS Mode

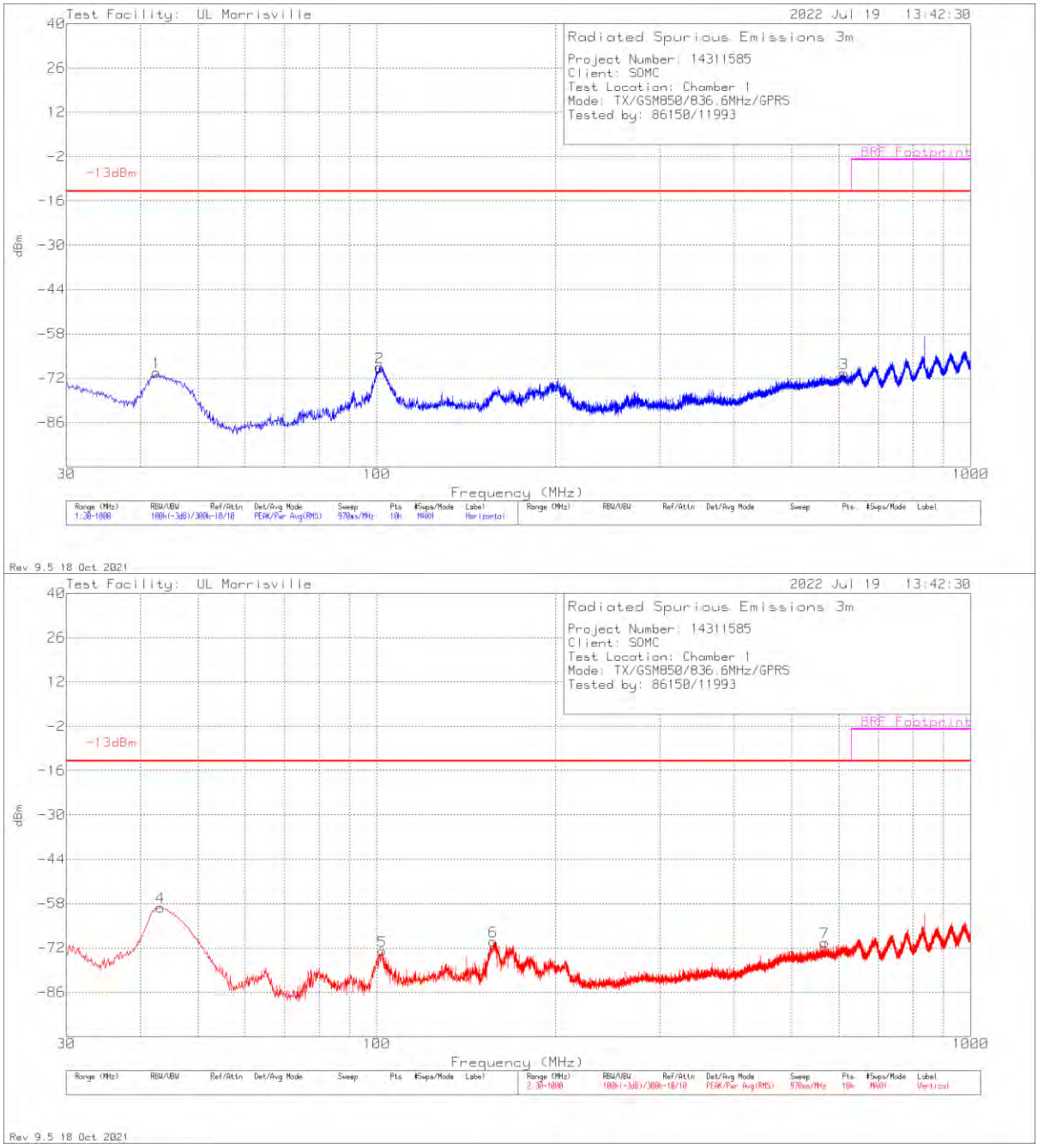
Spurious below 30MHz



Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0079 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
4	.00914	-61.43	Pk	19.2	.1	11.8	-30.33	-13	-17.33	0-360	103	90 degs
7	.00957	-59.94	Pk	18.8	.1	11.8	-29.24	-13	-16.24	0-360	103	Flat
1	.01021	-59.03	Pk	18.3	.1	11.8	-28.83	-13	-15.83	0-360	103	0 degs
5	.16275	-59.37	Pk	11.2	.1	11.8	-36.27	-13	-23.27	0-360	103	90 degs
2	.16981	-58.27	Pk	11.2	.1	11.8	-35.17	-13	-22.17	0-360	103	0 degs
8	.17601	-58.8	Pk	11.2	.1	11.8	-35.7	-13	-22.7	0-360	103	Flat
6	.49369	-69.82	Pk	11.2	.2	11.8	-46.62	-13	-33.62	0-360	103	90 degs
3	.52689	-68.96	Pk	11.2	.2	11.8	-45.76	-13	-32.76	0-360	103	0 degs
9	.58591	-70.5	Pk	11.2	.2	11.8	-47.3	-13	-34.3	0-360	103	Flat

Pk - Peak detector

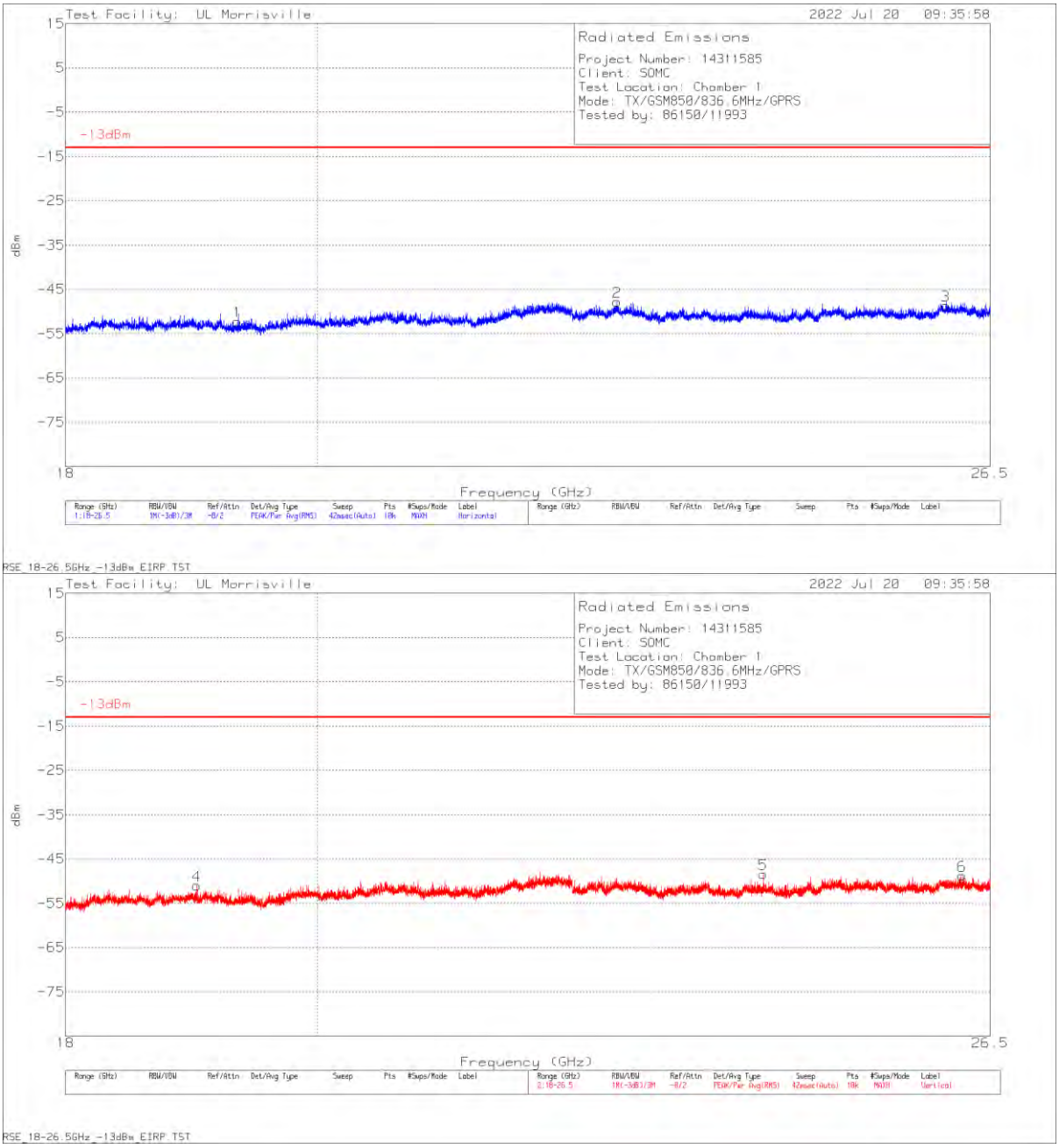
Spurious below 1GHz



Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Gain/Loss (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	42.61	-66.66	Pk	18	-31.4	.1	9.7	-70.26	-13	-57.26	0-360	199	H
4	43.192	-55.08	Pk	17.5	-31.4	.1	9.7	-59.18	-13	-46.18	0-360	100	V
2	101.198	-64.43	Pk	16.5	-30.6	.3	9.7	-68.53	-13	-55.53	0-360	299	H
5	102.168	-69.14	Pk	16.7	-30.5	.3	9.7	-72.94	-13	-59.94	0-360	100	V
6	157.167	-68.13	Pk	18.1	-30	.4	9.7	-69.93	-13	-56.93	0-360	100	V
7	568.253	-78.29	Pk	24.4	-27	.9	9.7	-70.29	-13	-57.29	0-360	100	V
3	612.485	-79.37	Pk	24.7	-26.7	1.3	9.7	-70.37	-13	-57.37	0-360	199	H

Pk - Peak detector

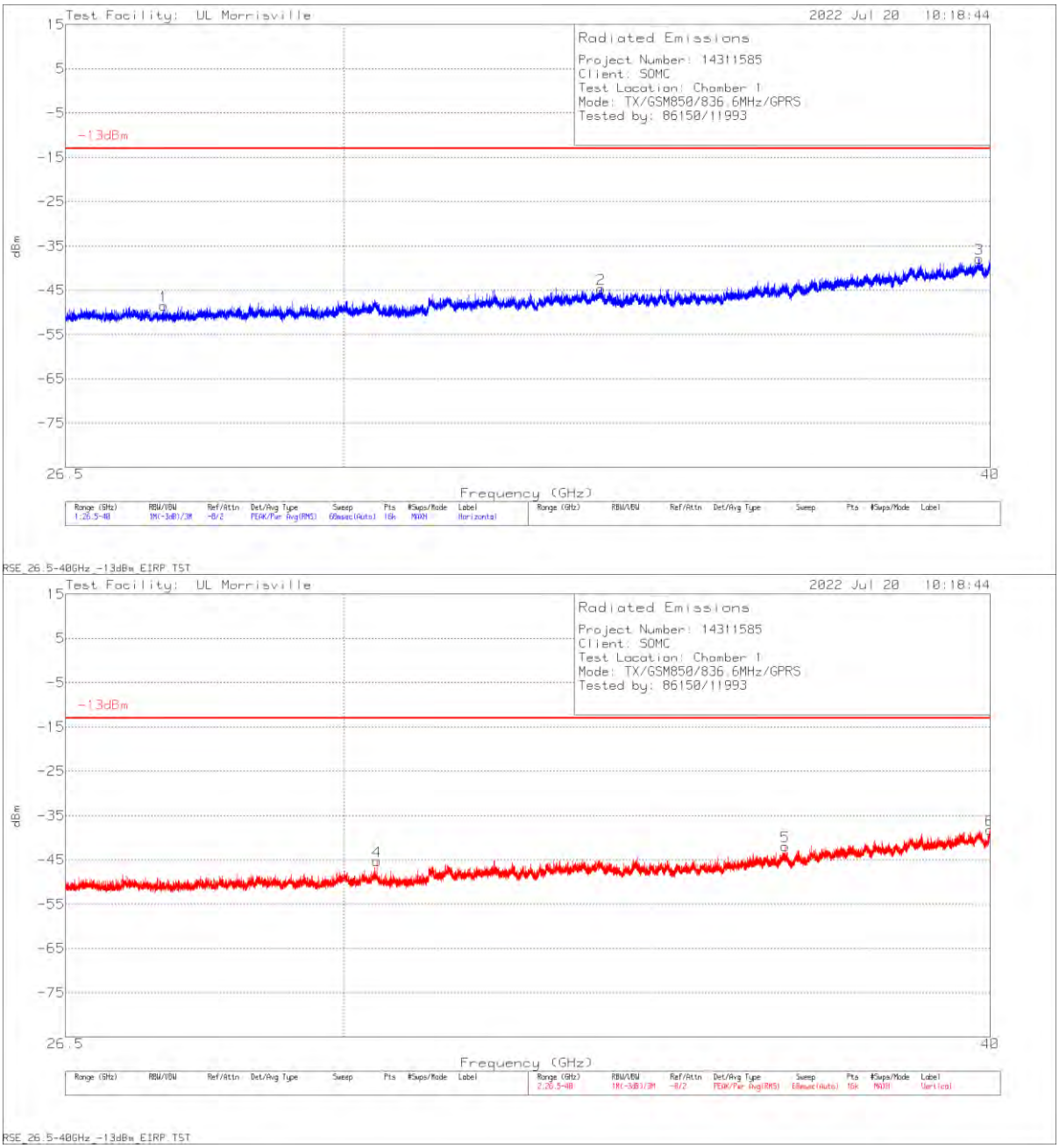
Spurious 18GHz to 26GHz



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	19.01395	-56.61	Pk	33.3	-39.5	11.8	-51.01	-13	-38.01	0-360	300	V
1	19.34202	-58.4	Pk	33.4	-39.1	11.8	-52.3	-13	-39.3	0-360	250	H
2	22.66858	-56.53	Pk	36.1	-39.2	11.8	-47.83	-13	-34.83	0-360	100	H
5	24.09984	-56.4	Pk	35	-38.8	11.8	-48.4	-13	-35.4	0-360	300	V
3	26.013	-58.7	Pk	35.4	-37.2	11.8	-48.7	-13	-35.7	0-360	100	H
6	26.19233	-58.53	Pk	35.4	-37.5	11.8	-48.83	-13	-35.83	0-360	300	V

Pk - Peak detector

Spurious 26GHz to 40GHz



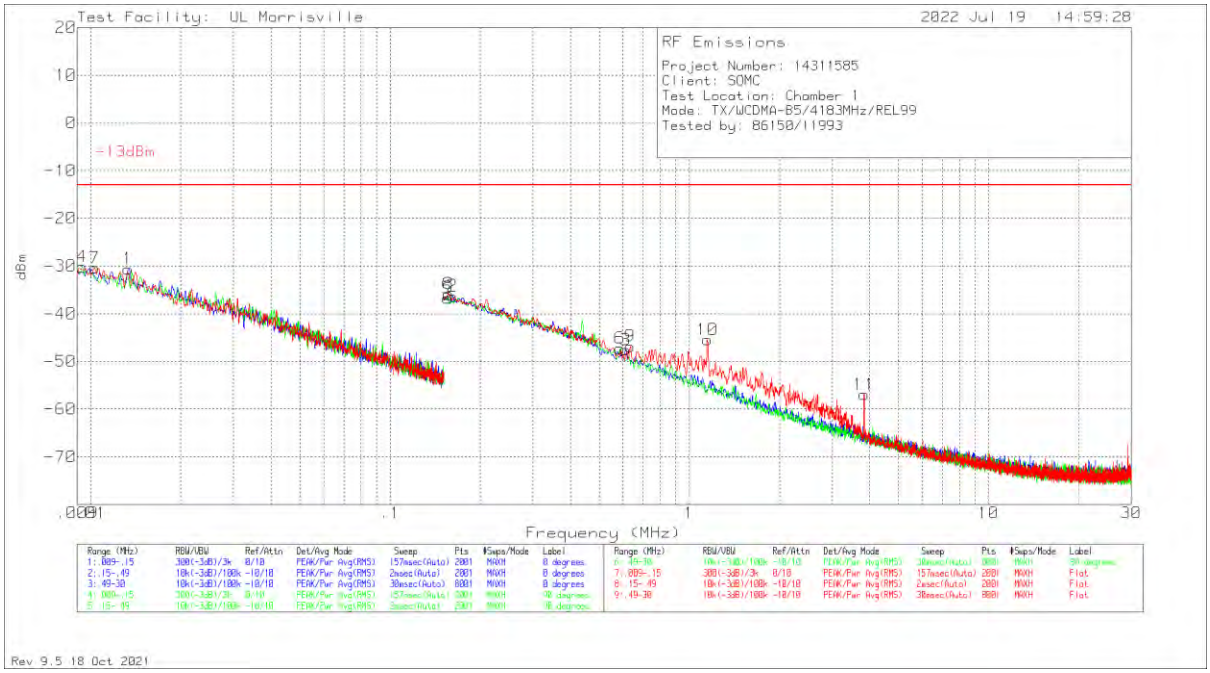
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	27.68708	-59.24	Pk	35.8	-36.9	11.8	-48.54	-13	-35.54	0-360	250	H
4	30.4426	-58.34	Pk	36.6	-35.4	11.8	-45.34	-13	-32.34	0-360	150	V
2	33.63599	-58.04	Pk	37.2	-35.6	11.8	-44.64	-13	-31.64	0-360	150	H
5	36.51468	-56.36	Pk	37.9	-35.3	11.8	-41.96	-13	-28.96	0-360	200	V
3	39.80679	-56.11	Pk	38.7	-32.2	11.8	-37.81	-13	-24.81	0-360	101	H
6	39.99746	-57.17	Pk	38.9	-31.8	11.8	-38.27	-13	-25.27	0-360	200	V

Pk - Peak detector

10.2.2. Worst-Case Emissions for 3G

WCDMA Band V Rel 99 Mode

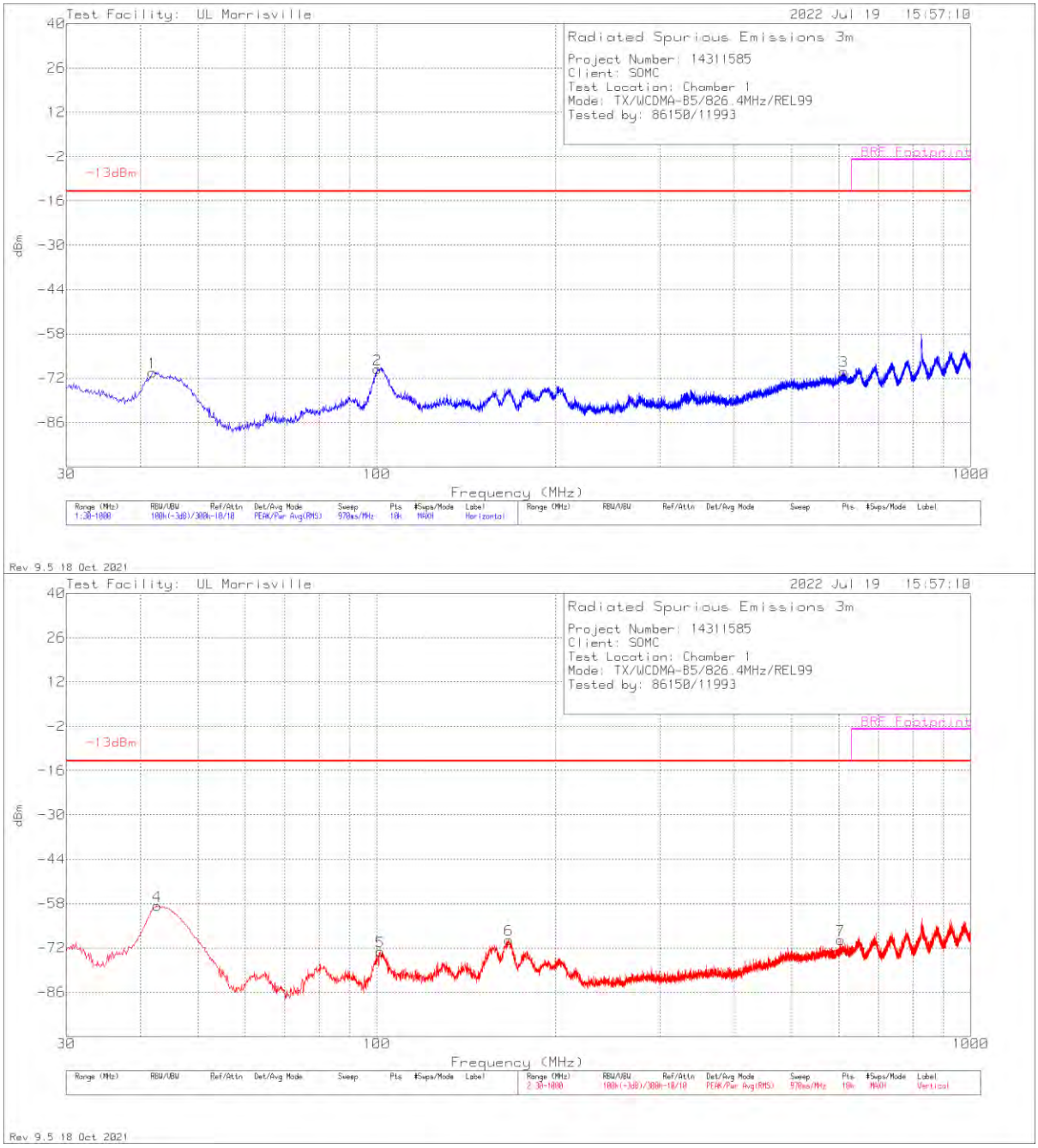
Spurious below 30MHz



Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0079 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
4	.00936	-61.08	Pk	19	.1	11.8	-30.18	-13	-17.18	0-360	103	90 degs
7	.01028	-60.62	Pk	18.3	.1	11.8	-30.42	-13	-17.42	0-360	103	Flat
1	.01333	-59.52	Pk	17	.1	11.8	-30.62	-13	-17.62	0-360	103	0 degs
5	.15595	-59.8	Pk	11.2	.1	11.8	-36.7	-13	-23.7	0-360	103	90 degs
8	.15672	-58.96	Pk	11.2	.1	11.8	-35.86	-13	-22.86	0-360	103	Flat
2	.16156	-59.42	Pk	11.2	.1	11.8	-36.32	-13	-23.32	0-360	103	0 degs
6	.58591	-70.42	Pk	11.2	.2	11.8	-47.22	-13	-34.22	0-360	103	90 degs
3	.61174	-70.75	Pk	11.2	.2	11.8	-47.55	-13	-34.55	0-360	103	0 degs
9	.63387	-70.12	Pk	11.3	.2	11.8	-46.82	-13	-33.82	0-360	103	Flat
10	1.15033	-68.76	Pk	11.3	.2	11.8	-45.46	-13	-32.46	0-360	103	Flat
11	3.83777	-80.53	Pk	11.4	.4	11.8	-56.93	-13	-43.93	0-360	103	Flat

Pk - Peak detector

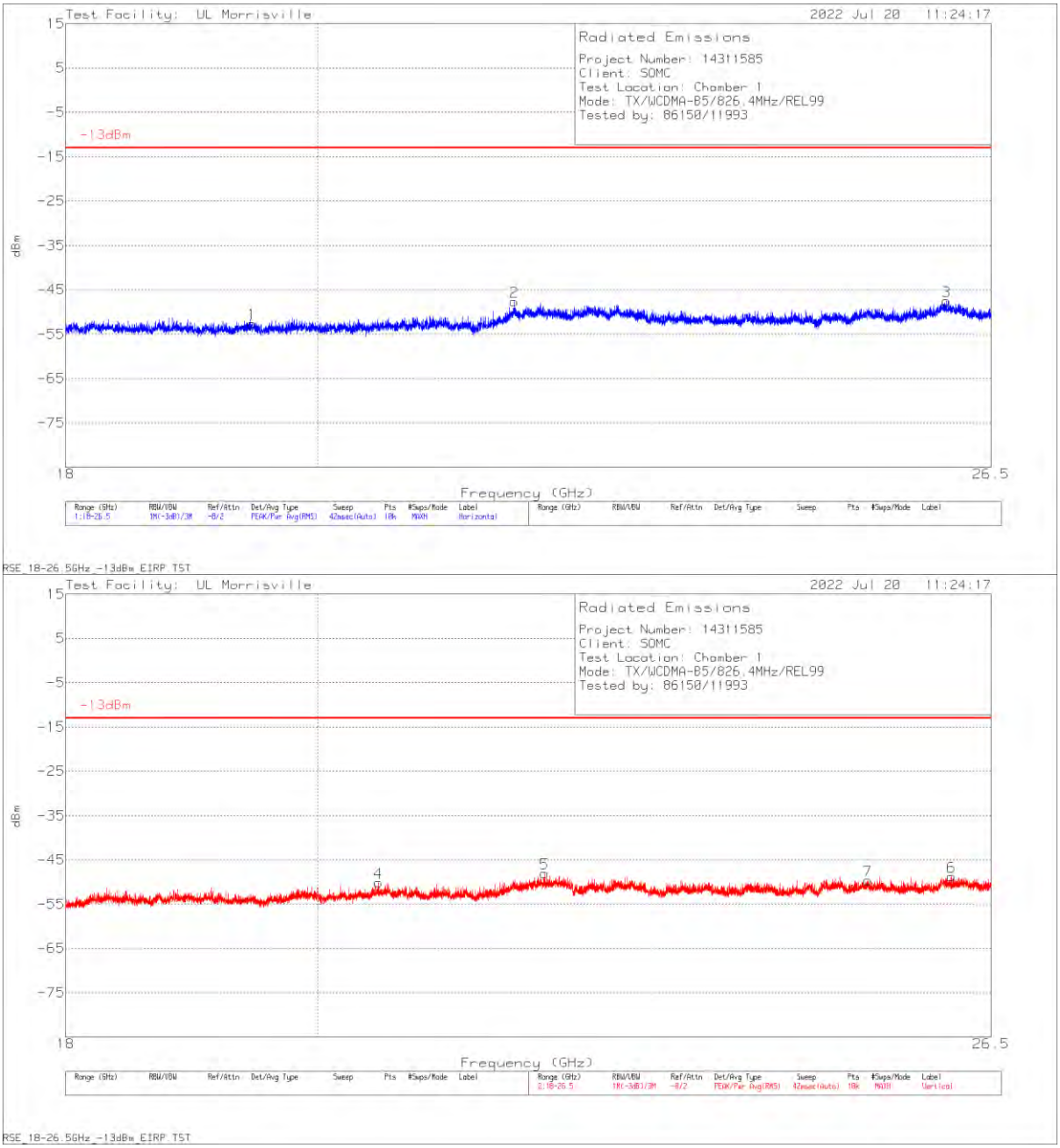
Spurious below 1GHz



Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Gain/Loss (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	41.931	-67.04	Pk	18.5	-31.4	.1	9.7	-70.14	-13	-57.14	0-360	300	H
4	42.707	-55.01	Pk	17.9	-31.4	.1	9.7	-58.71	-13	-45.71	0-360	100	V
2	100.325	-64.86	Pk	16.3	-30.6	.3	9.7	-69.16	-13	-56.16	0-360	300	H
5	101.295	-69.04	Pk	16.5	-30.6	.3	9.7	-73.14	-13	-60.14	0-360	100	V
6	166.964	-67.31	Pk	17.6	-29.8	.4	9.7	-69.41	-13	-56.41	0-360	100	V
7	604.822	-77.91	Pk	24.4	-26.8	1.2	9.7	-69.41	-13	-56.41	0-360	100	V
3	611.709	-78.87	Pk	24.7	-26.6	1.3	9.7	-69.77	-13	-56.77	0-360	99	H

Pk - Peak detector

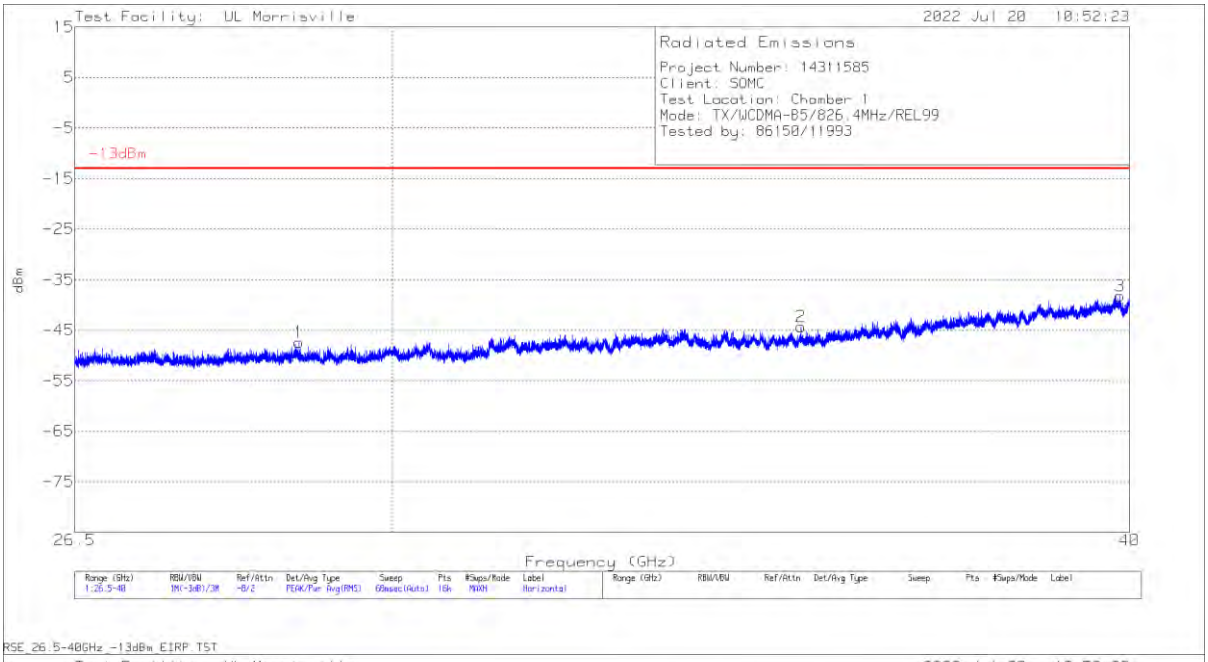
Spurious 18GHz to 26GHz

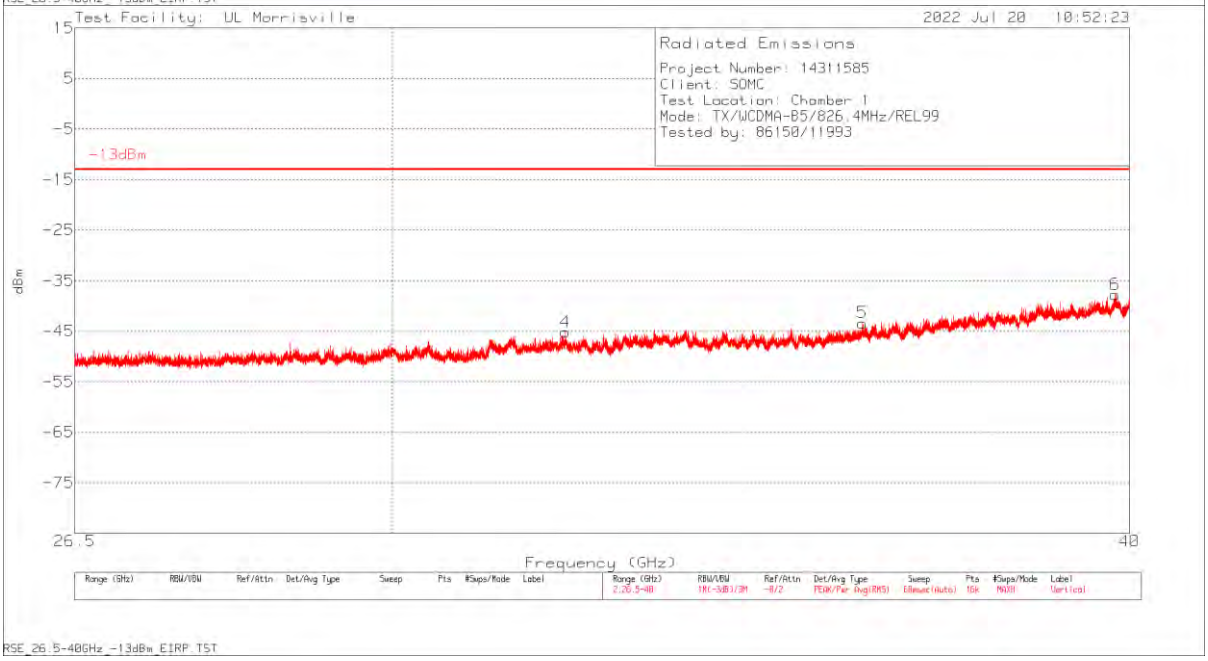


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	19.4559	-58.87	Pk	33.4	-38.9	11.8	-52.57	-13	-39.57	0-360	149	H
4	20.51575	-56.73	Pk	33.9	-39.1	11.8	-50.13	-13	-37.13	0-360	101	V
2	21.71073	-56.47	Pk	35.4	-38.4	11.8	-47.67	-13	-34.67	0-360	101	H
5	21.99035	-57.39	Pk	36.9	-39.4	11.8	-48.09	-13	-35.09	0-360	201	V
7	25.16733	-58.8	Pk	35.2	-37.9	11.8	-49.7	-13	-36.7	0-360	150	V
3	26.0096	-57.54	Pk	35.4	-37.2	11.8	-47.54	-13	-34.54	0-360	101	H
6	26.06229	-58.65	Pk	35.4	-37.3	11.8	-48.75	-13	-35.75	0-360	201	V

Pk - Peak detector

Spurious 26Ghz to 40Ghz





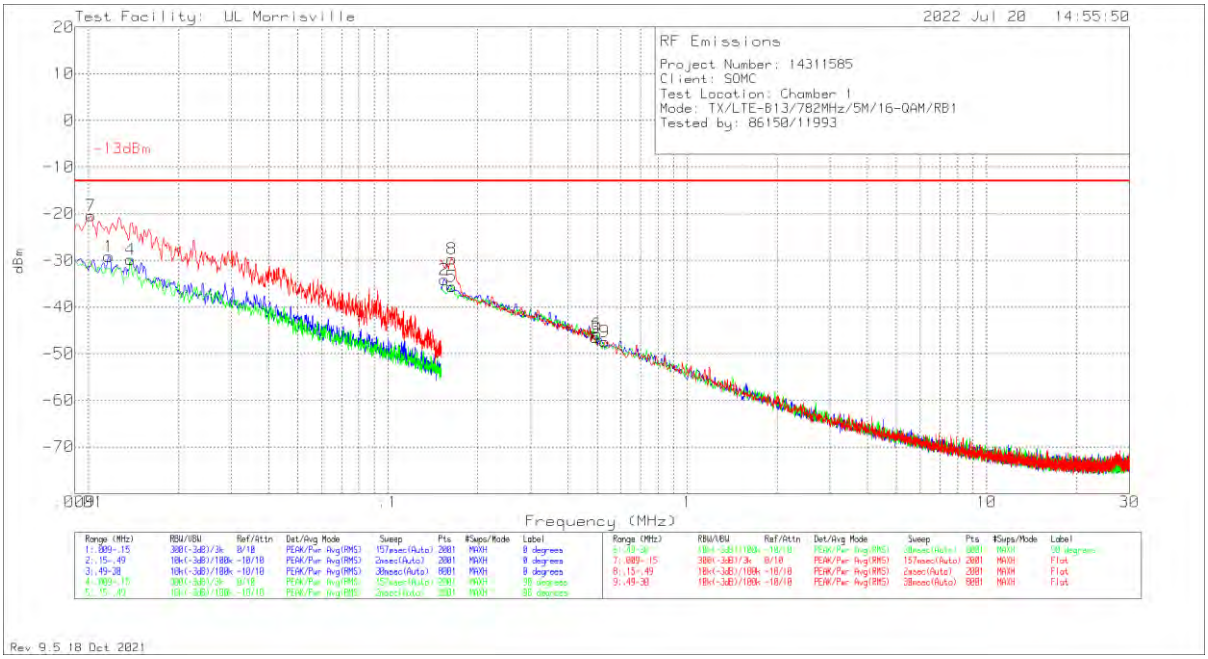
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	28.92647	-59	Pk	36.3	-36.5	11.8	-47.4	-13	-34.4	0-360	299	H
4	32.0954	-57.95	Pk	36.9	-35.9	11.8	-45.15	-13	-32.15	0-360	101	V
2	35.18924	-56.83	Pk	37.8	-37.1	11.8	-44.33	-13	-31.33	0-360	149	H
5	36.04306	-57.28	Pk	37.9	-35.8	11.8	-43.38	-13	-30.38	0-360	300	V
6	39.7722	-55.78	Pk	38.7	-32.4	11.8	-37.68	-13	-24.68	0-360	151	V
3	39.85741	-56.23	Pk	38.6	-32.4	11.8	-38.23	-13	-25.23	0-360	149	H

Pk - Peak detector

10.2.3. Worst-Case Emissions for 4G

LTE Band 13 16-QAM Mode

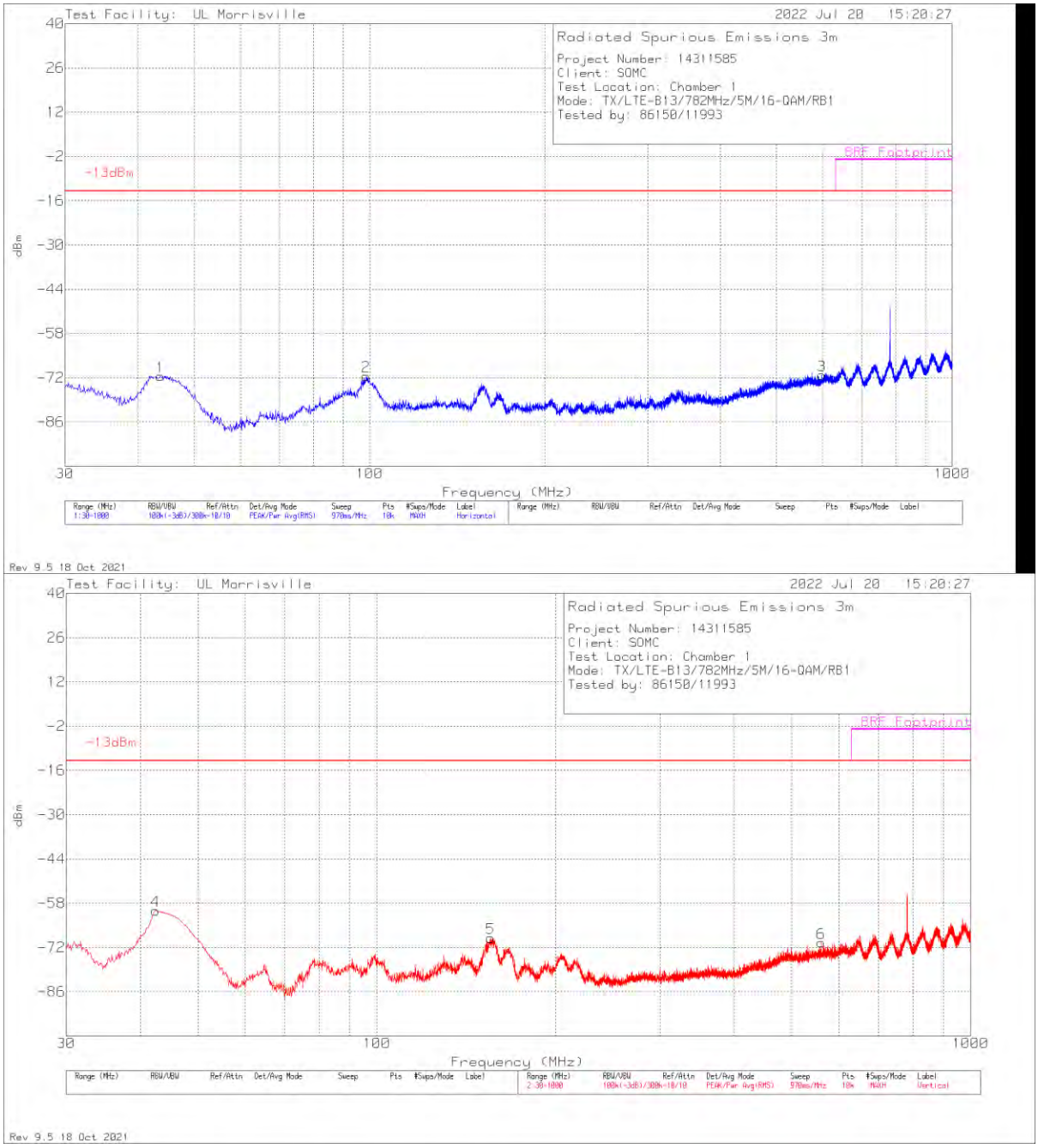
Spurious below 30MHz



Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0079 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
7	.01021	-50.62	Pk	18.3	.1	11.8	-20.42	-13	-7.42	0-360	400	Flat
1	.0117	-58.75	Pk	17.7	.1	11.8	-29.15	-13	-16.15	0-360	400	0 degs
4	.01383	-58.52	Pk	16.8	.1	11.8	-29.82	-13	-16.82	0-360	400	90 degs
2	.15468	-57.25	Pk	11.2	.1	11.8	-34.15	-13	-21.15	0-360	400	0 degs
8	.16352	-52.82	Pk	11.2	.1	11.8	-29.72	-13	-16.72	0-360	400	Flat
5	.16403	-58.7	Pk	11.2	.1	11.8	-35.6	-13	-22.6	0-360	400	90 degs
3	.49369	-69.69	Pk	11.2	.2	11.8	-46.49	-13	-33.49	0-360	400	0 degs
6	.50107	-69.1	Pk	11.2	.2	11.8	-45.9	-13	-32.9	0-360	400	90 degs
9	.53058	-70.62	Pk	11.2	.2	11.8	-47.42	-13	-34.42	0-360	400	Flat

Pk - Peak detector

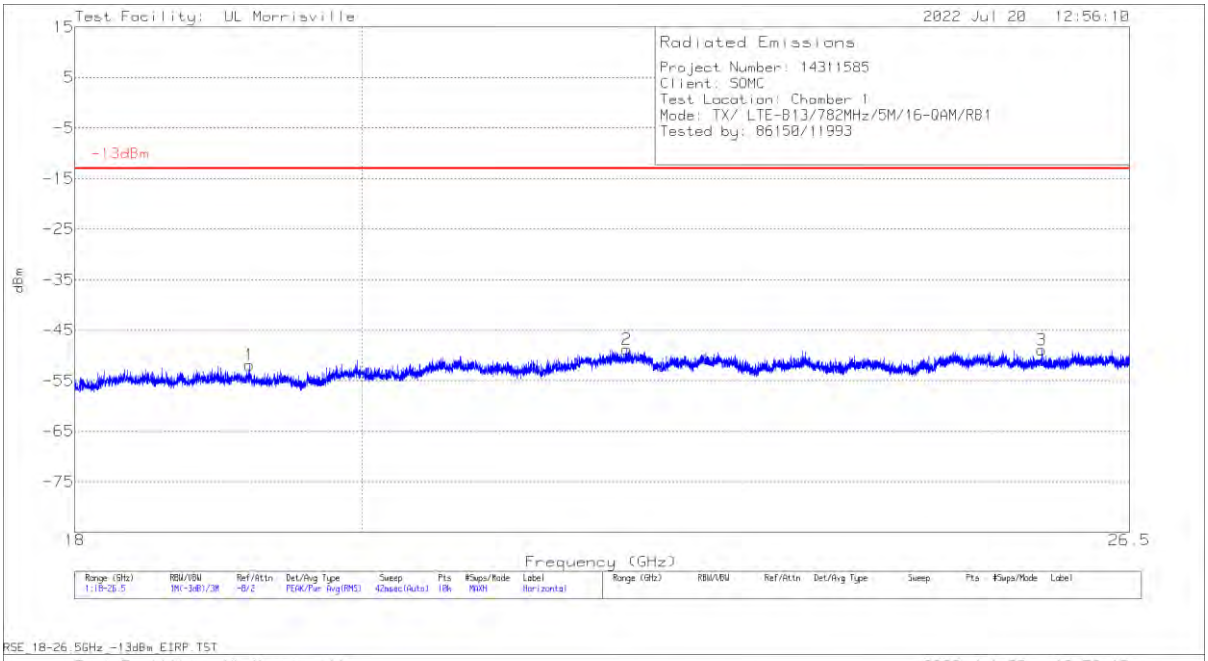
Spurious below 1GHz

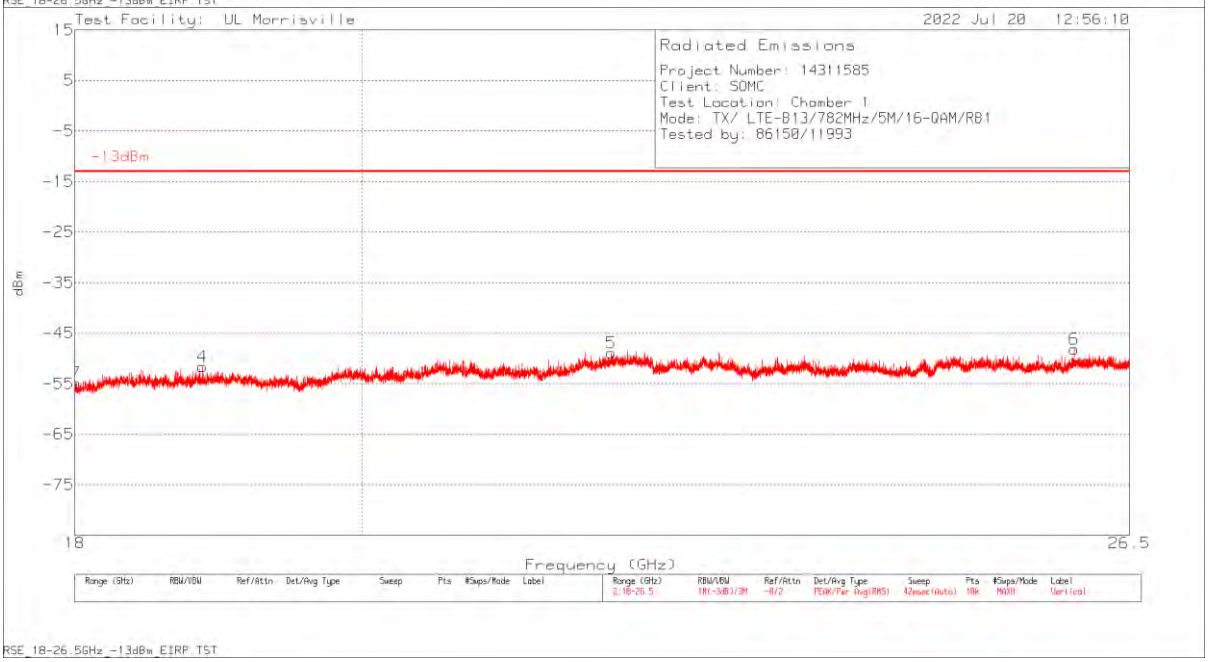


Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Gain/Loss (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	42.416	-56.87	Pk	18.1	-31.4	.1	9.7	-60.37	-13	-47.37	0-360	100	V
1	43.774	-67.2	Pk	17.1	-31.3	.2	9.7	-71.5	-13	-58.5	0-360	299	H
2	98.676	-66.74	Pk	15.9	-30.6	.3	9.7	-71.44	-13	-58.44	0-360	299	H
5	155.615	-67.3	Pk	18.1	-30	.5	9.7	-69	-13	-56	0-360	100	V
6	560.202	-78.2	Pk	24.2	-27	.8	9.7	-70.5	-13	-57.5	0-360	100	V
3	597.838	-78.98	Pk	24.1	-27	1	9.7	-71.18	-13	-58.18	0-360	400	H

Pk - Peak detector

Spurious 18GHz to 26GHz

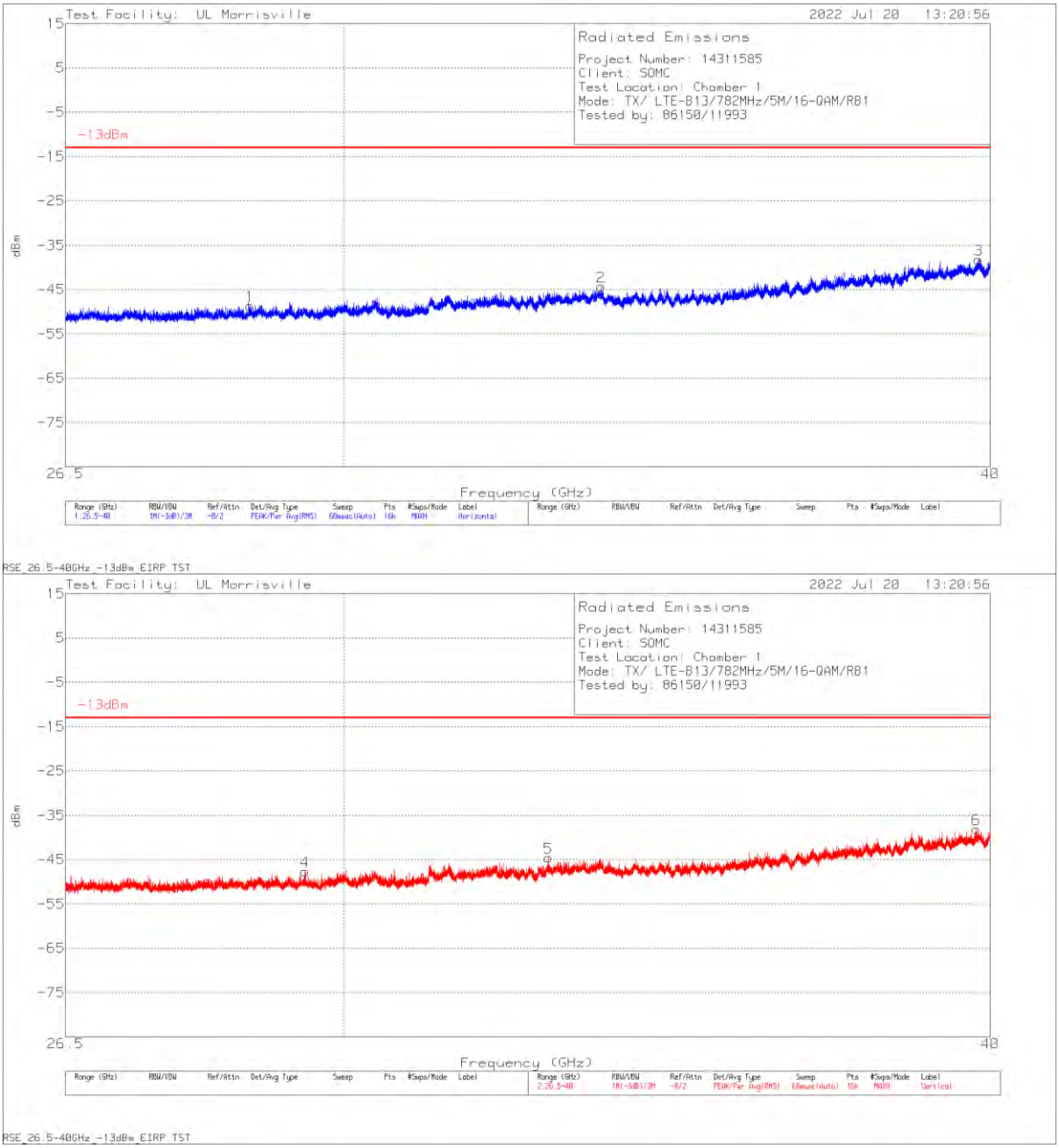




Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	18.00765	-60.96	Pk	33.2	-38.9	11.8	-54.86	-13	-41.86	0-360	300	V
4	18.86436	-57.55	Pk	33.3	-39.2	11.8	-51.65	-13	-38.65	0-360	101	V
1	19.18988	-57.94	Pk	33.4	-39.1	11.8	-51.84	-13	-38.84	0-360	249	H
5	21.91216	-58.06	Pk	36.6	-39.3	11.8	-48.96	-13	-35.96	0-360	200	V
2	22.04135	-57.99	Pk	37	-39.6	11.8	-48.79	-13	-35.79	0-360	200	H
3	25.66283	-58.45	Pk	35.2	-37.5	11.8	-48.95	-13	-35.95	0-360	150	H
6	25.9688	-58.08	Pk	35.4	-37.3	11.8	-48.18	-13	-35.18	0-360	150	V

Pk - Peak detector

Spurious 26GHz – 40GHz

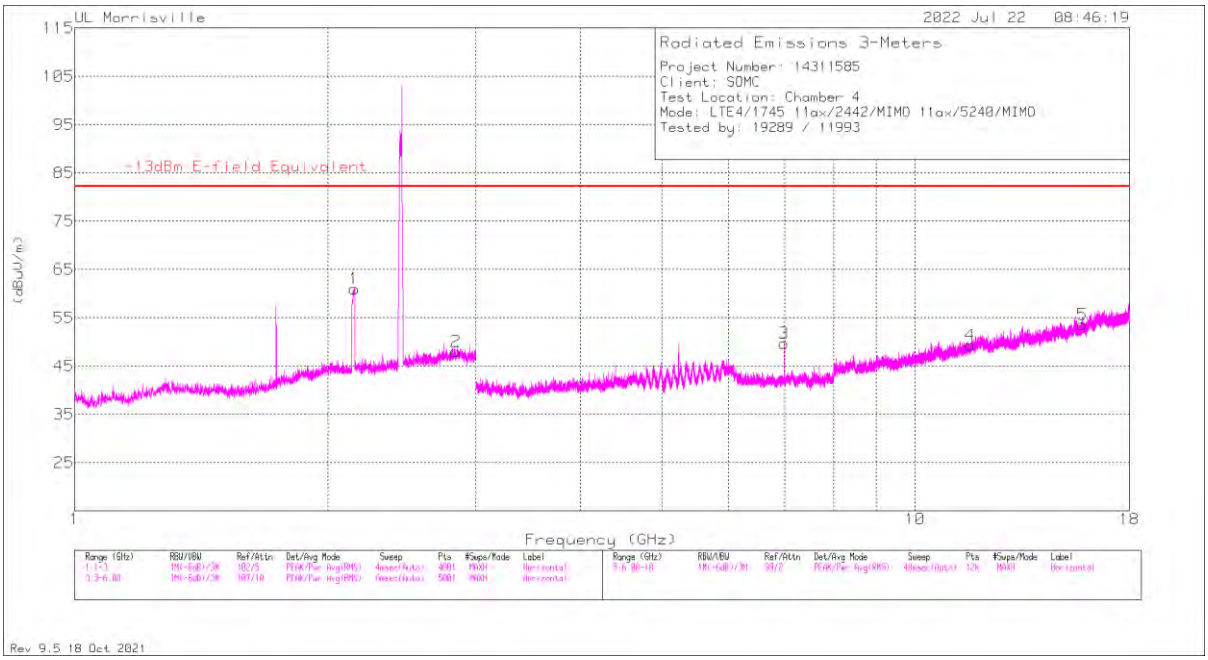


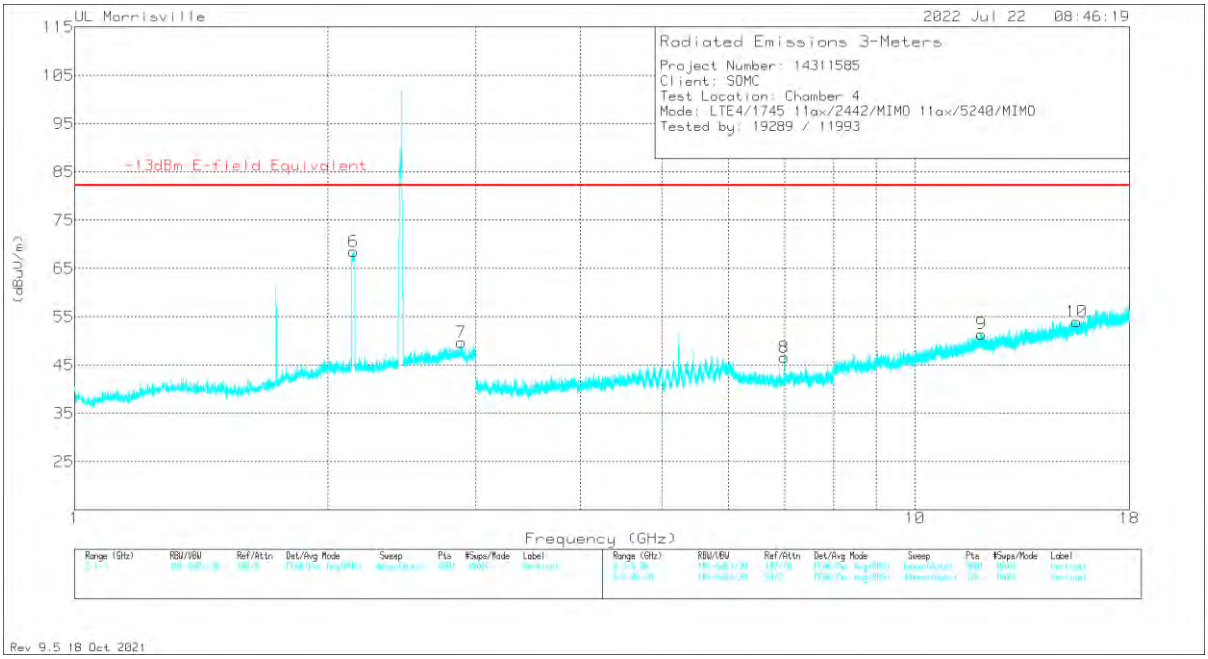
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	28.77292	-60.3	Pk	36.3	-36.4	11.8	-48.6	-13	-35.6	0-360	250	H
4	29.48416	-59.66	Pk	36.2	-36	11.8	-47.66	-13	-34.66	0-360	200	V
5	32.8581	-58.03	Pk	37.3	-35.6	11.8	-44.53	-13	-31.53	0-360	101	V
2	33.63852	-57.67	Pk	37.2	-35.7	11.8	-44.37	-13	-31.37	0-360	150	H
6	39.75279	-56.07	Pk	38.7	-32.5	11.8	-38.07	-13	-25.07	0-360	250	V
3	39.79076	-56.46	Pk	38.7	-32.3	11.8	-38.26	-13	-25.26	0-360	150	H

Pk - Peak detector

10.3. Simultaneous Transmission

10.3.1. Scan 1





Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent (dBuV)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1DL	** 2.1525	42.03	Pk	31.9	-13.9	1	61.03	-	-	0-360	100	H
2	* ** 2.843	27.98	Pk	32.5	-12.9	.4	47.98	82.2	-34.22	0-360	100	H
6DL	** 2.1485	49.6	Pk	31.9	-14	1	68.5	-	-	0-360	200	V
7	* ** 2.886	29.48	Pk	32.6	-12.8	.4	49.68	82.2	-32.52	0-360	200	V
4	* ** 11.63571	34.35	Pk	38.4	-23.9	.5	49.35	82.2	-32.85	0-360	100	H
5	* ** 15.83056	33.06	Pk	40.6	-20.6	.6	53.66	82.2	-28.54	0-360	100	H
9	* ** 12.00821	35.68	Pk	38.8	-23.9	.9	51.48	82.2	-30.72	0-360	200	V
10	* ** 15.58918	34.09	Pk	40.3	-21	.6	53.99	82.2	-28.21	0-360	200	V
3	6.98592	41.81	Pk	35.7	-28.6	.8	49.71	82.2	-32.49	0-360	100	H
8	6.98592	38.67	Pk	35.7	-28.6	.8	46.57	82.2	-35.63	0-360	200	V

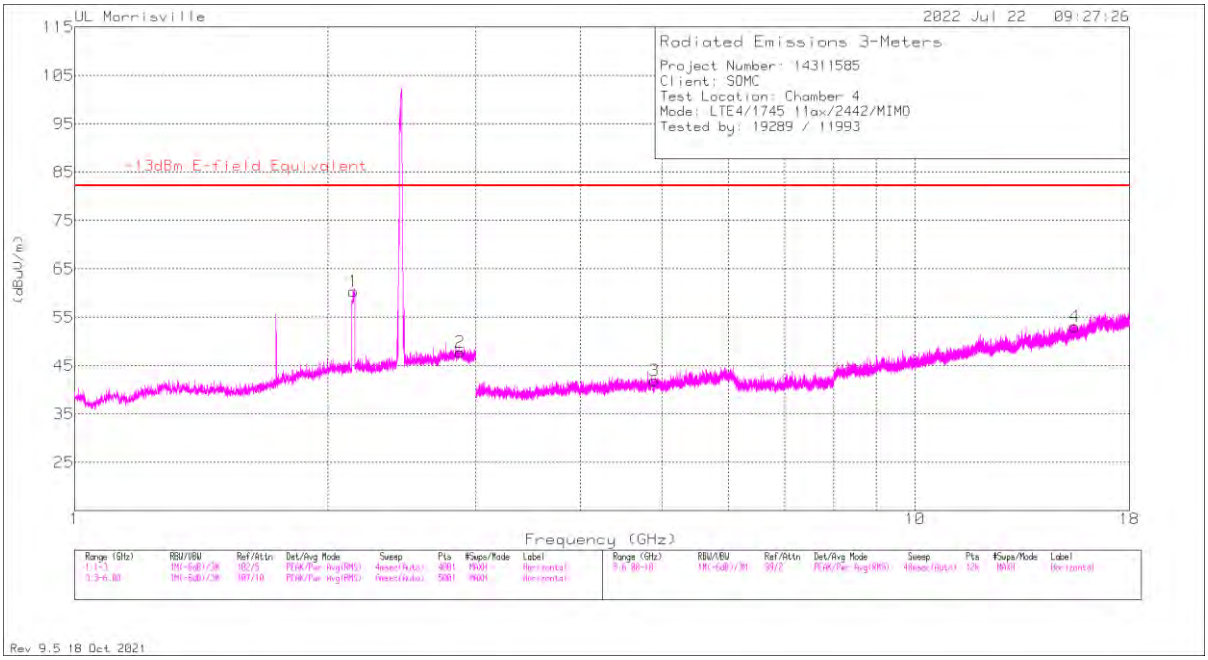
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

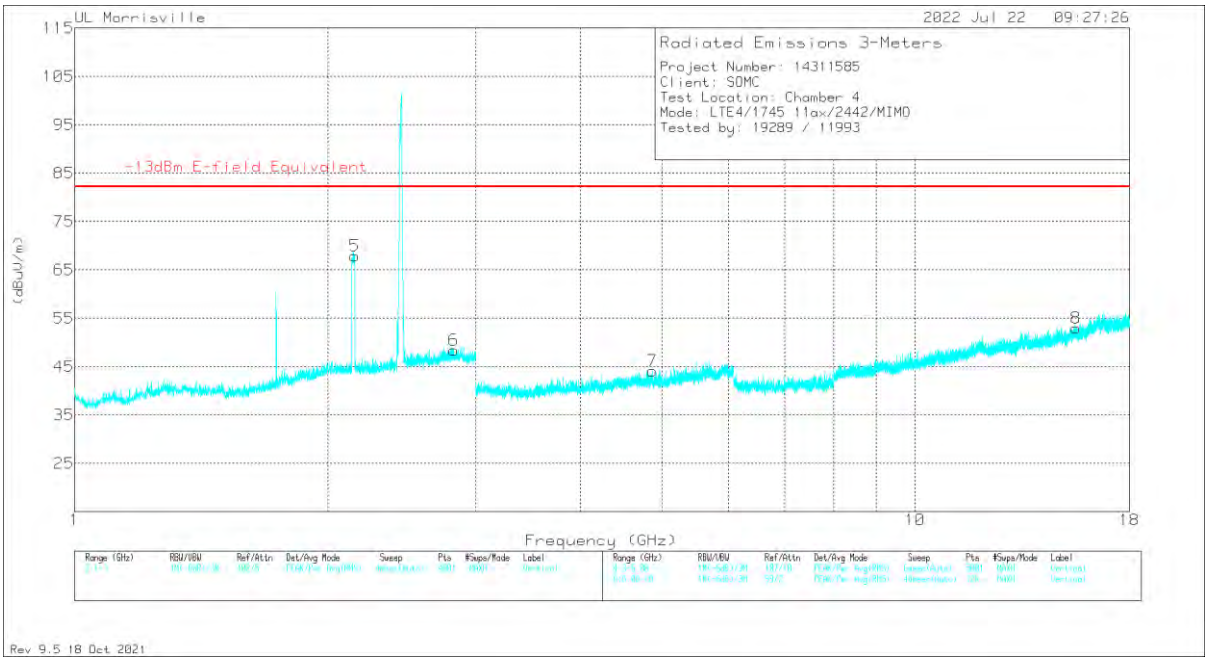
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

Dl - Downlink

10.3.2. Scan 2





Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent (dBuV)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1DL	** 2.148	41.51	Pk	31.9	-14	1	60.41	-	-	0-360	100	H
2	* ** 2.876	27.37	Pk	32.7	-12.6	.3	47.77	82.2	-34.43	0-360	100	H
5DL	** 2.153	48.89	Pk	31.9	-13.9	1	67.89	-	-	0-360	200	V
6	* ** 2.825	28.26	Pk	32.6	-12.8	.4	48.46	82.2	-33.74	0-360	200	V
3	* ** 4.89974	39.5	Pk	34	-31.6	0	41.9	82.2	-40.3	0-360	100	H
7	* ** 4.87387	40.8	Pk	34.1	-31.9	1.1	44.1	82.2	-38.1	0-360	200	V
4	* ** 15.50375	33.2	Pk	40.3	-20.4	0	53.1	82.2	-29.1	0-360	100	H
8	* ** 15.54448	33.42	Pk	40.3	-20.8	0	52.92	82.2	-29.28	0-360	200	V

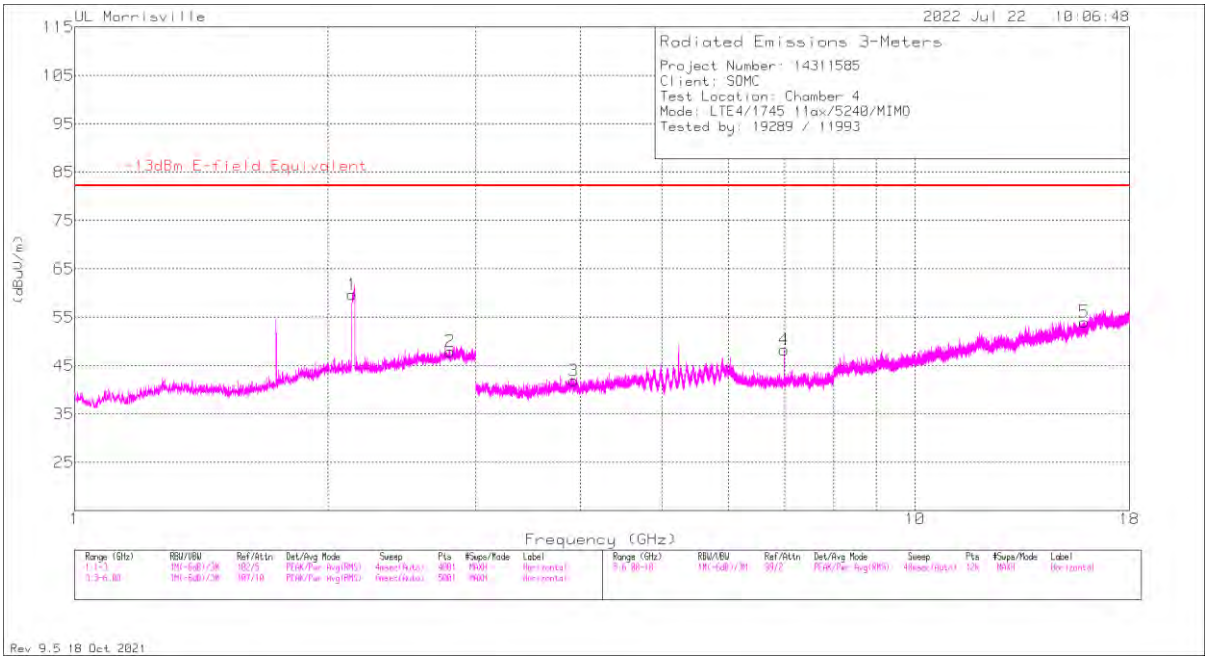
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

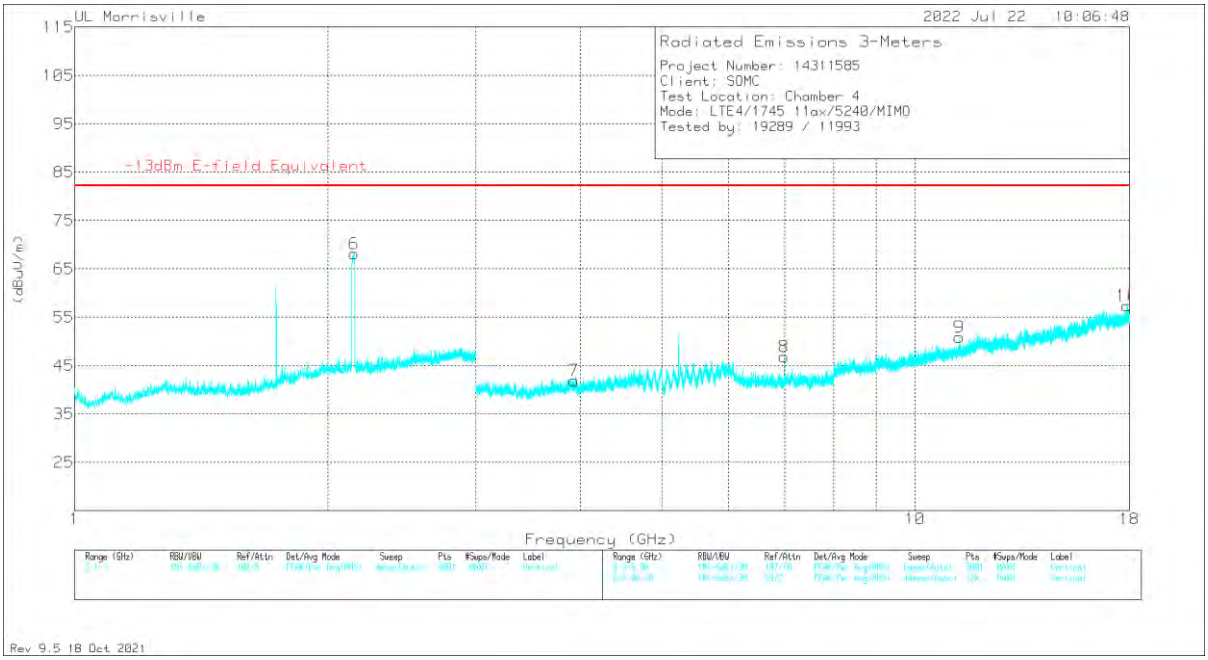
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

DL - Downlink

10.3.4. Scan 3





Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent (dBuV)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1DL	** 2.1385	40.87	Pk	31.9	-14.1	1	59.67	-	-	0-360	100	H
2	* ** 2.7955	27.97	Pk	32.6	-13	.4	47.97	82.2	-34.23	0-360	100	H
6DL	** 2.149	49.22	Pk	31.9	-13.9	1	68.22	-	-	0-360	200	V
3	* ** 3.9203	40.74	Pk	33.5	-32.7	.4	41.94	82.2	-40.26	0-360	100	H
7	* ** 3.9277	40.49	Pk	33.5	-32.5	.4	41.89	82.2	-40.31	0-360	200	V
5	* ** 15.89413	33.17	Pk	40.6	-20.3	.6	54.07	82.2	-28.13	0-360	100	H
9	* ** 11.29102	36.44	Pk	37.9	-24.2	.8	50.94	82.2	-31.26	0-360	200	V
10	* ** 17.89073	33.7	Pk	41.2	-18.2	.7	57.4	82.2	-24.8	0-360	200	V
4	6.98592	40.45	Pk	35.7	-28.6	.8	48.35	82.2	-33.85	0-360	100	H
8	6.98592	38.97	Pk	35.7	-28.6	.8	46.87	82.2	-35.33	0-360	200	V

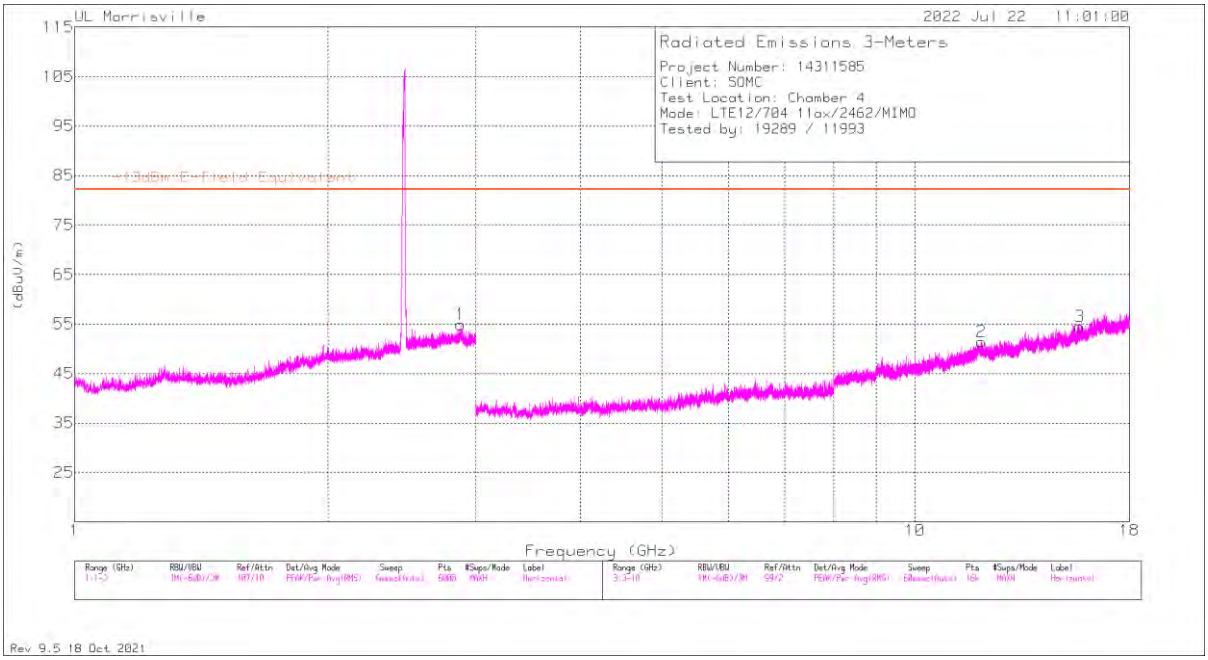
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

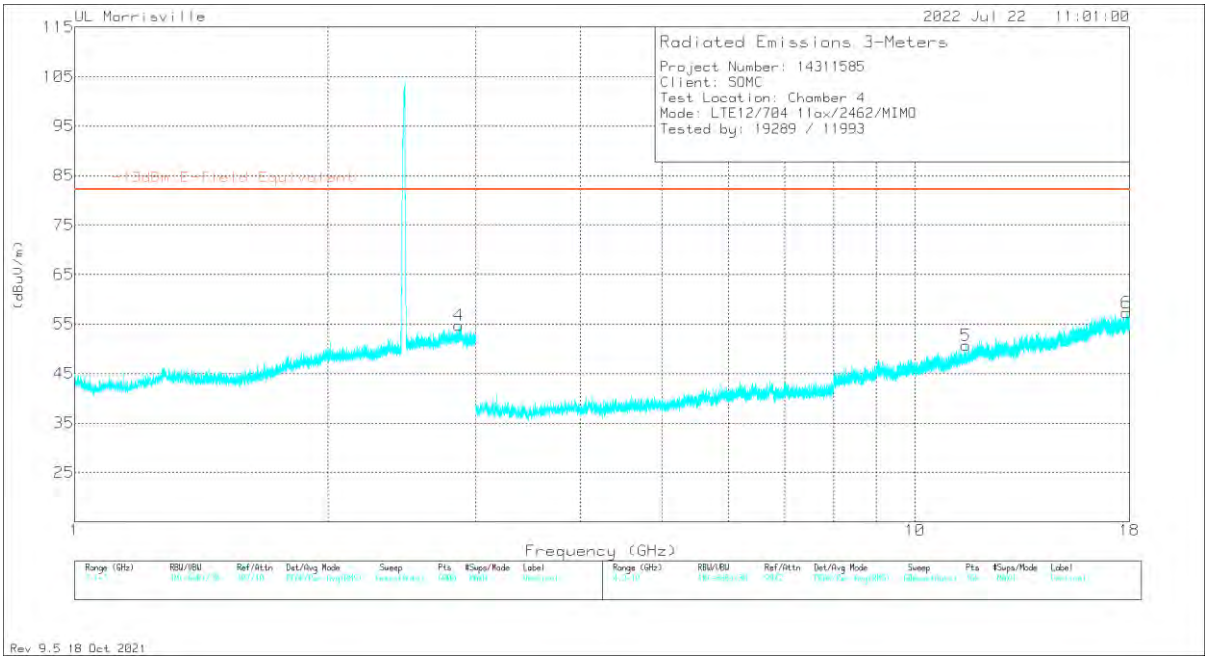
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

DL – Downlink

10.3.5. Scan 4





Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent (dBuV)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.87898	34.18	Pk	32.7	-12.6	.6	54.88	82.2	-27.32	0-360	100	H
4	* ** 2.86364	34.39	Pk	32.7	-12.9	.6	54.79	82.2	-27.41	0-360	200	V
2	* ** 11.99813	35.34	Pk	38.8	-23.4	.7	51.44	82.2	-30.76	0-360	100	H
3	* ** 15.70406	33.47	Pk	40.4	-20.3	.9	54.47	82.2	-27.73	0-360	100	H
5	* ** 11.49563	35.16	Pk	38.1	-23.3	.7	50.66	82.2	-31.54	0-360	200	V
6	* ** 17.86031	33.15	Pk	41.1	-18.1	1.1	57.25	82.2	-24.95	0-360	200	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

11. SETUP PHOTOS

Please see Photos Exhibit R14311585-EP1 FCC WWAN SETUP PHOTOS EXHIBIT for Setup Diagrams and Photos.

END OF REPORT