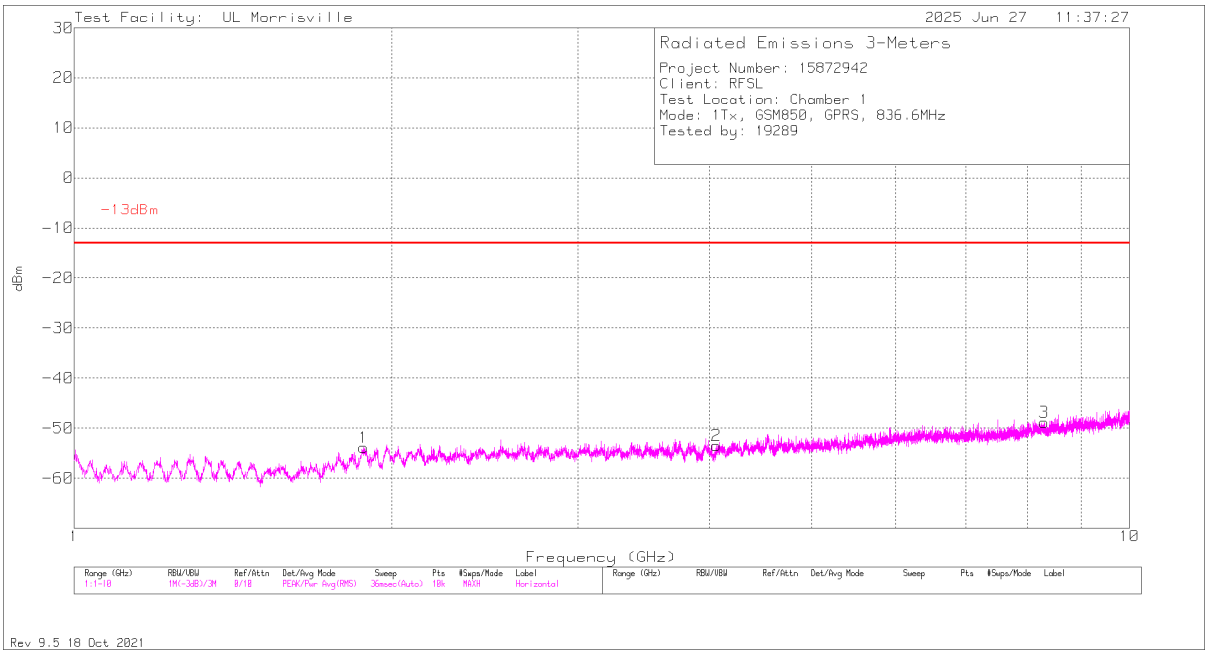
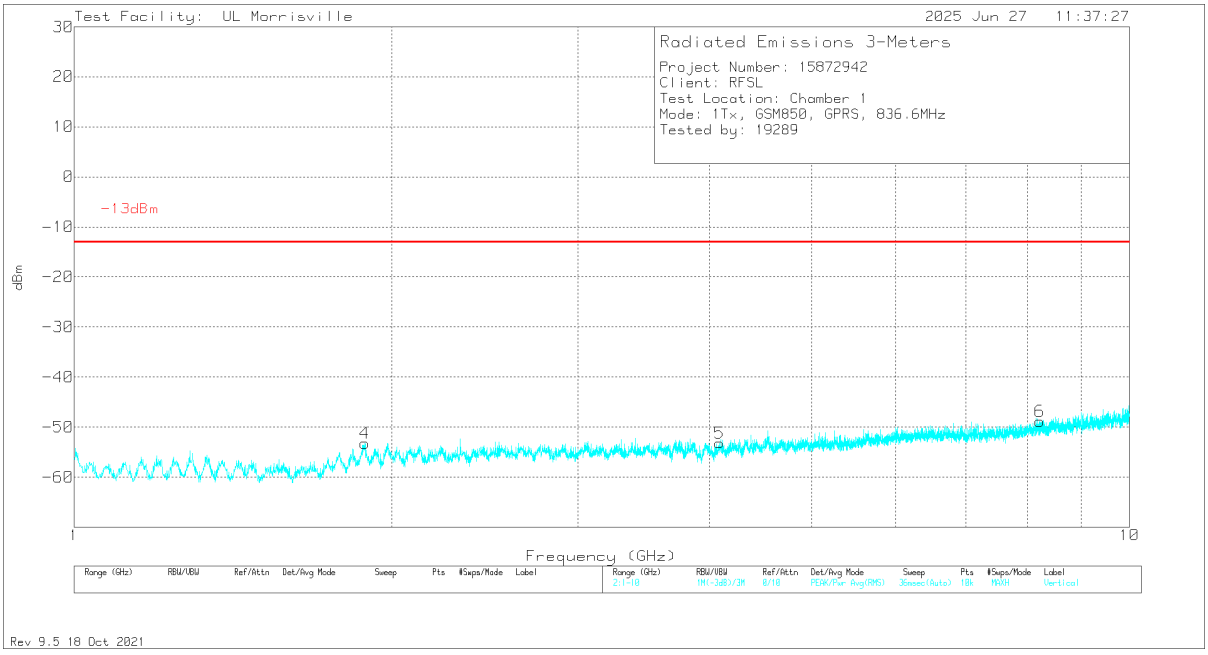
GPRS Mid channel

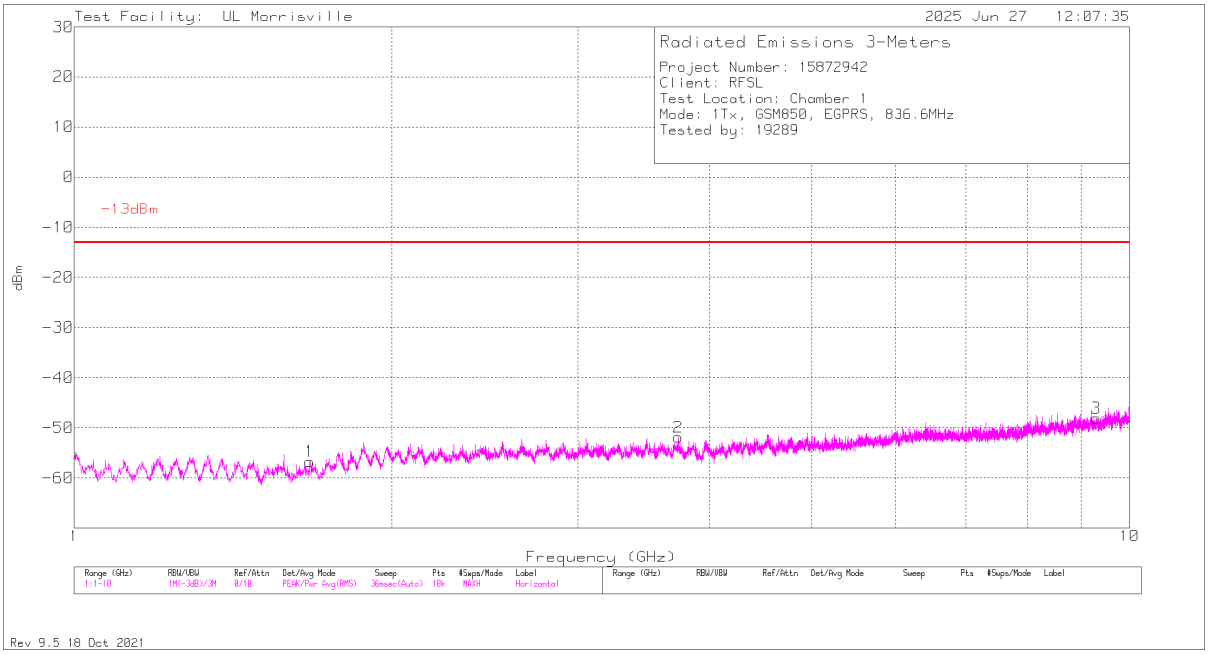


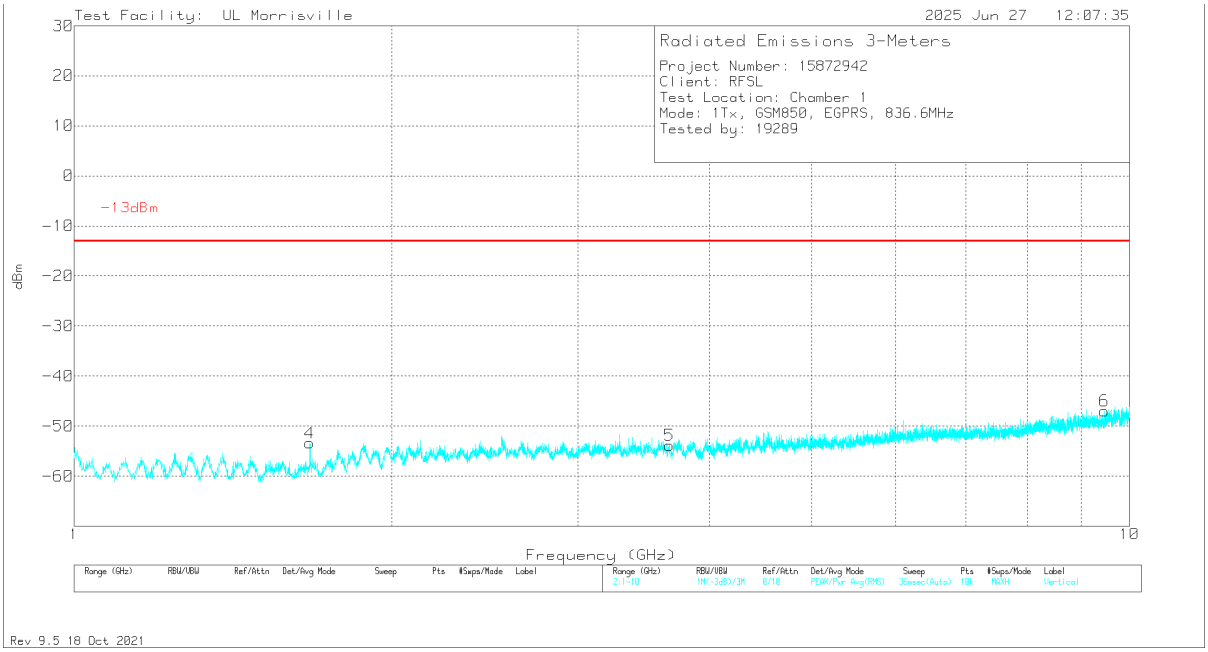


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.8811	-49.31	Pk	31.2	-48	.4	11.8	-53.91	-13	-40.91	0-360	299	H
4	1.8847	-48.56	Pk	31.2	-48	.3	11.8	-53.26	-13	-40.26	0-360	300	V
2	4.06	-53.2	Pk	33.1	-45.4	.2	11.8	-53.5	-13	-40.5	0-360	199	H
5	4.0897	-53.08	Pk	33.2	-45.6	.5	11.8	-53.18	-13	-40.18	0-360	101	V
6	8.2189	-55.59	Pk	35.9	-41.4	.4	11.8	-48.89	-13	-35.89	0-360	101	V
3	8.3062	-55.67	Pk	35.8	-41.3	.5	11.8	-48.87	-13	-35.87	0-360	299	H

Pk - Peak detector

EGPRS Mid channel

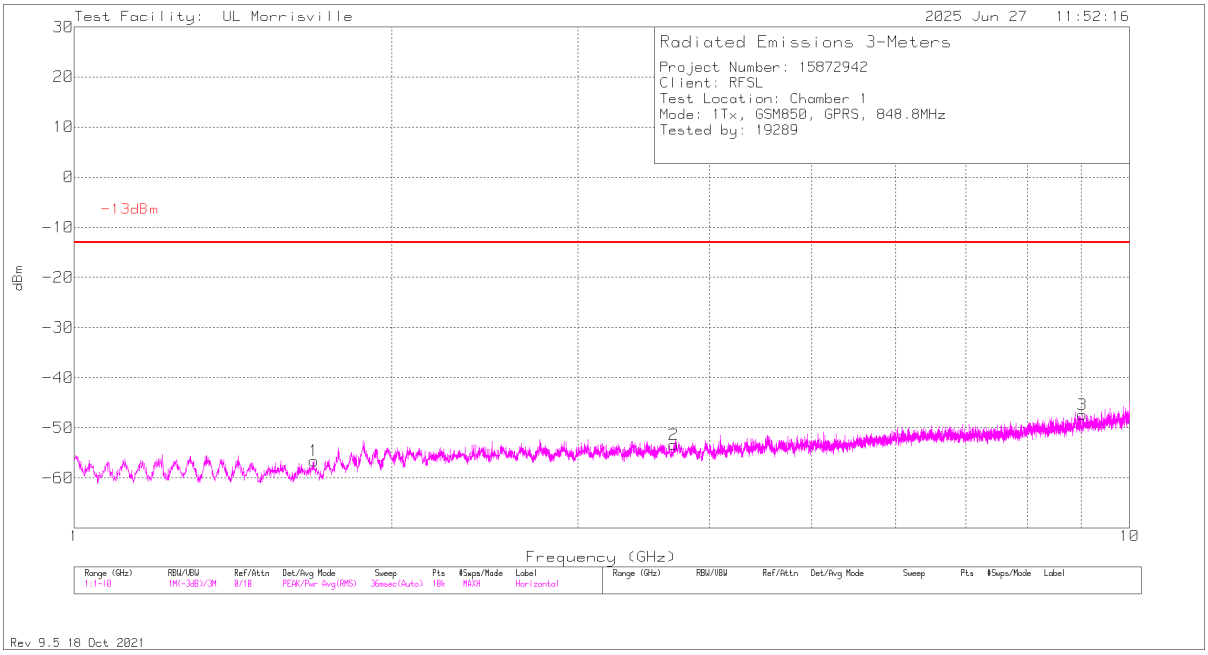


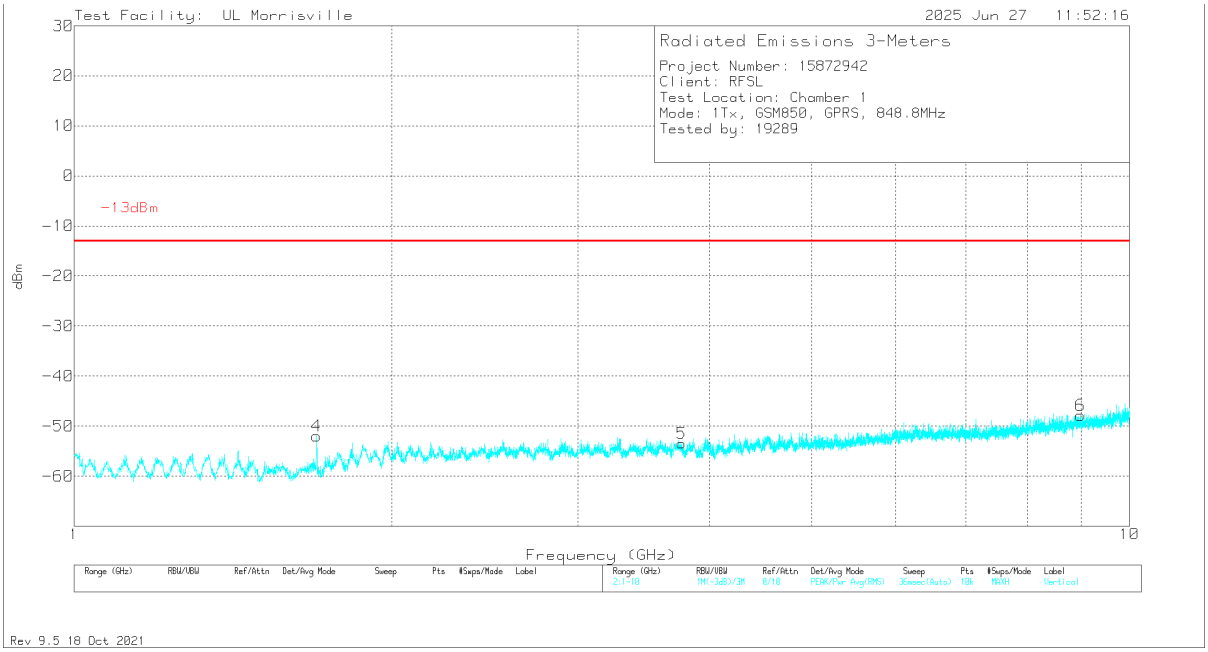


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6723	-49	Pk	28.5	-48.4	.4	11.8	-56.7	-13	-43.7	0-360	101	H
4	1.6723	-45.72	Pk	28.5	-48.4	.4	11.8	-53.42	-13	-40.42	0-360	101	V
5	3.664	-55.2	Pk	33.1	-44	.4	11.8	-53.9	-13	-40.9	0-360	300	V
2	3.7378	-52.21	Pk	33.2	-45.2	.5	11.8	-51.91	-13	-38.91	0-360	101	H
3	9.3016	-55.82	Pk	36.1	-40.8	.6	11.8	-48.12	-13	-35.12	0-360	300	H
6	9.4627	-54.13	Pk	36.4	-41.5	.5	11.8	-46.93	-13	-33.93	0-360	200	V

Pk - Peak detector

GPRS High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6867	-49.23	Pk	28.6	-48.3	.5	11.8	-56.63	-13	-43.63	0-360	300	H
4	1.6975	-45.03	Pk	28.8	-48	.5	11.8	-51.93	-13	-38.93	0-360	101	V
2	3.7009	-54.11	Pk	33.2	-45	.7	11.8	-53.41	-13	-40.41	0-360	300	H
5	3.7639	-53.63	Pk	33.2	-45	.2	11.8	-53.43	-13	-40.43	0-360	200	V
6	8.9857	-55.26	Pk	35.8	-40.6	.4	11.8	-47.86	-13	-34.86	0-360	200	V
3	9.028	-55.01	Pk	35.8	-40.6	.6	11.8	-47.41	-13	-34.41	0-360	199	H

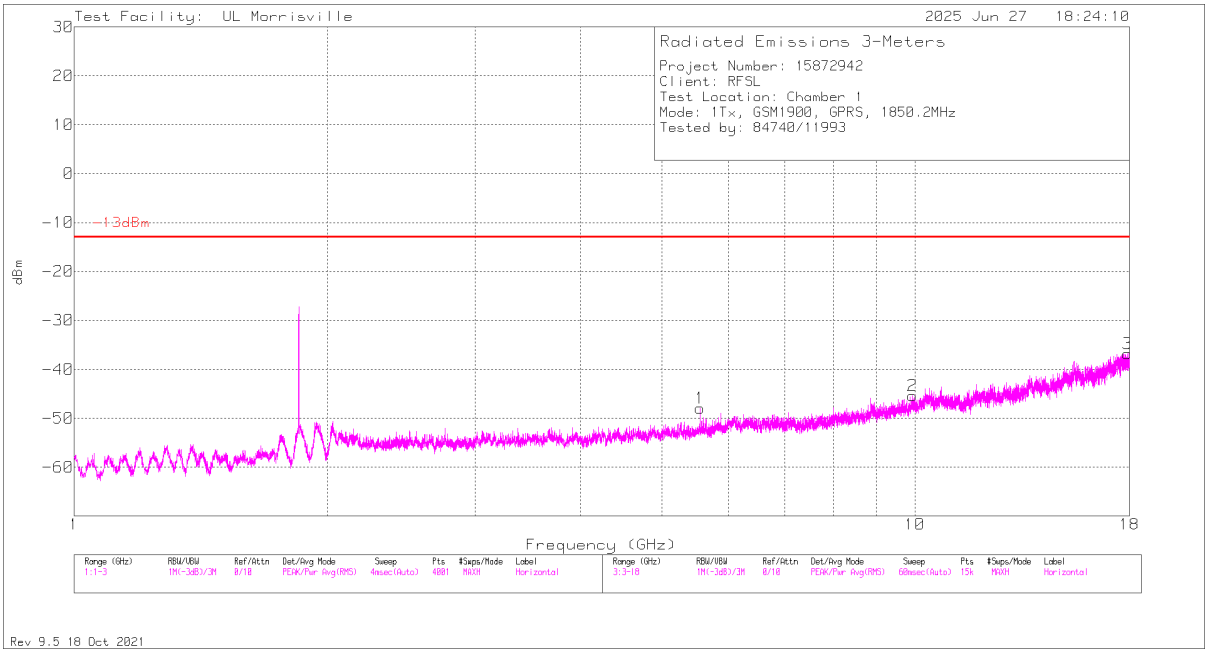
Pk - Peak detector

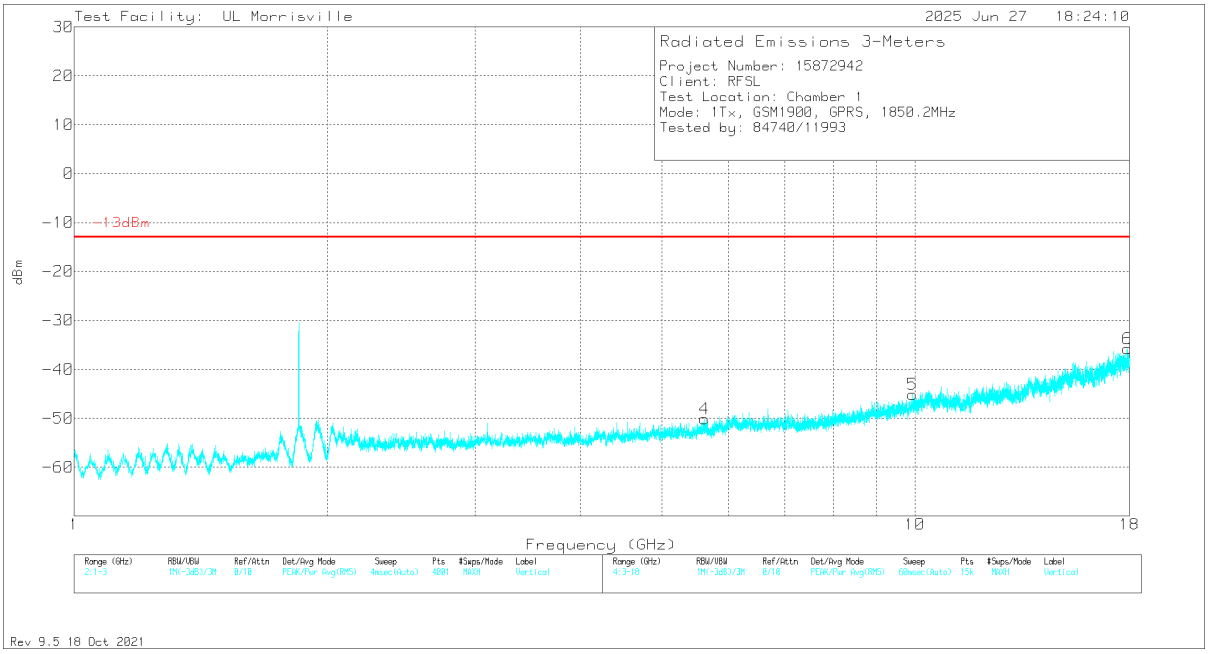
10.1.2. GSM1900

LIMITS

FCC: §24.238 (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.

GPRS Low Channel

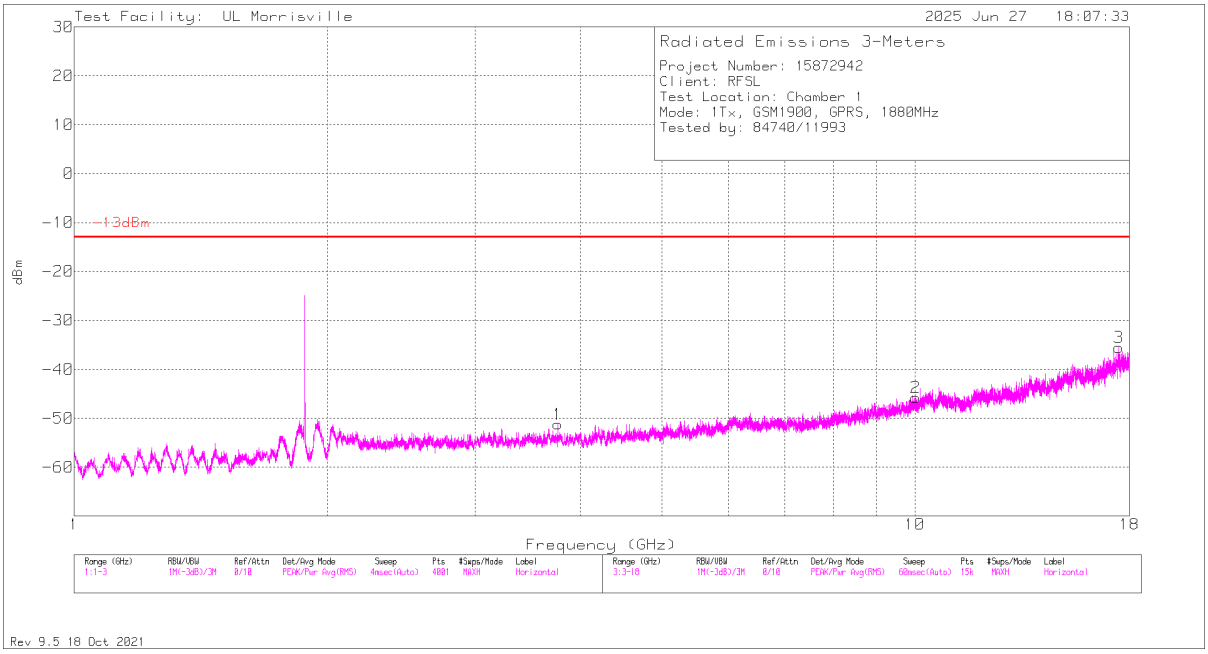


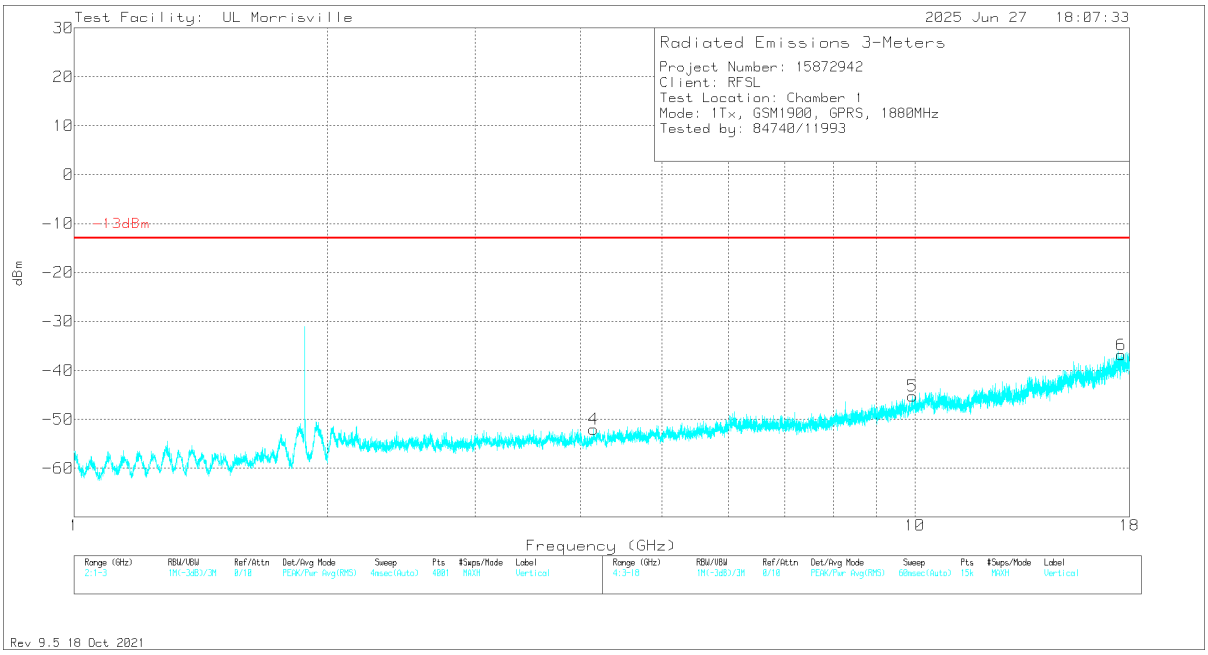


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.551	-51.54	Pk	34.5	-42.7	11.8	0	-47.94	-13	-34.94	0-360	101	H
4	5.625	-53.93	Pk	34.6	-42.6	11.8	0	-50.13	-13	-37.13	0-360	101	V
2	9.938	-55.14	Pk	37.5	-39.5	11.8	0	-45.34	-13	-32.34	0-360	300	H
5	9.941	-54.63	Pk	37.5	-39.8	11.8	0	-45.13	-13	-32.13	0-360	300	V
3	17.892	-56.37	Pk	41.4	-33.6	11.8	0	-36.77	-13	-23.77	0-360	300	H
6	17.893	-55.46	Pk	41.4	-33.5	11.8	0	-35.76	-13	-22.76	0-360	101	V

Pk - Peak detector

GPRS Mid Channel

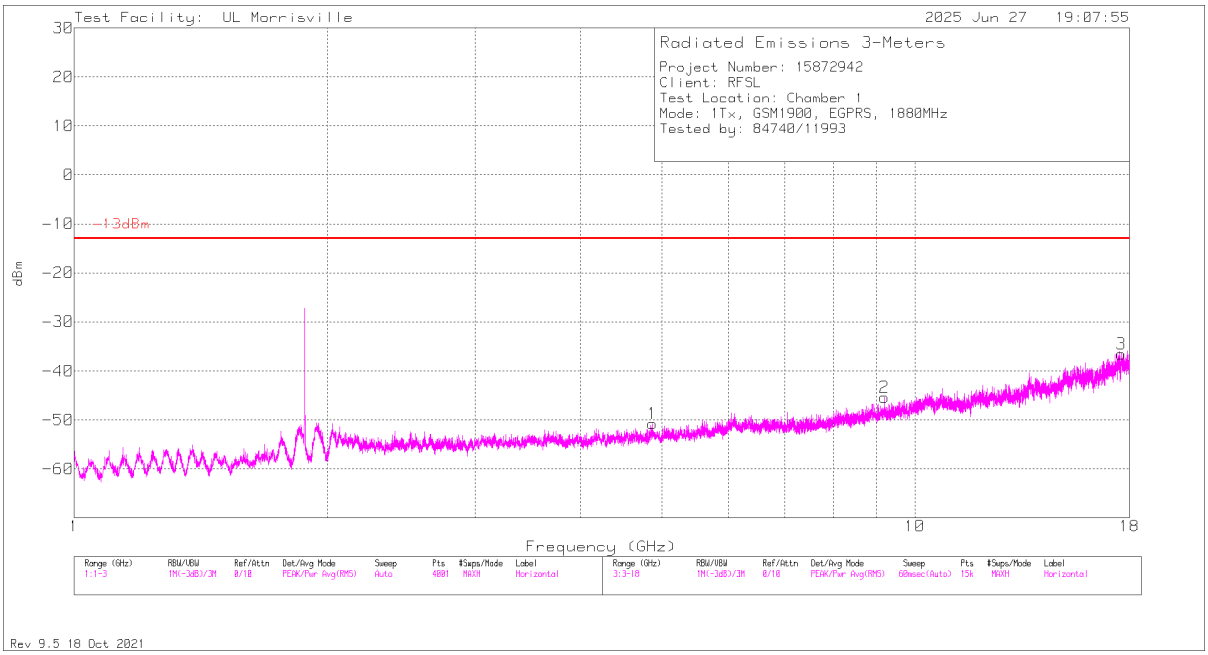


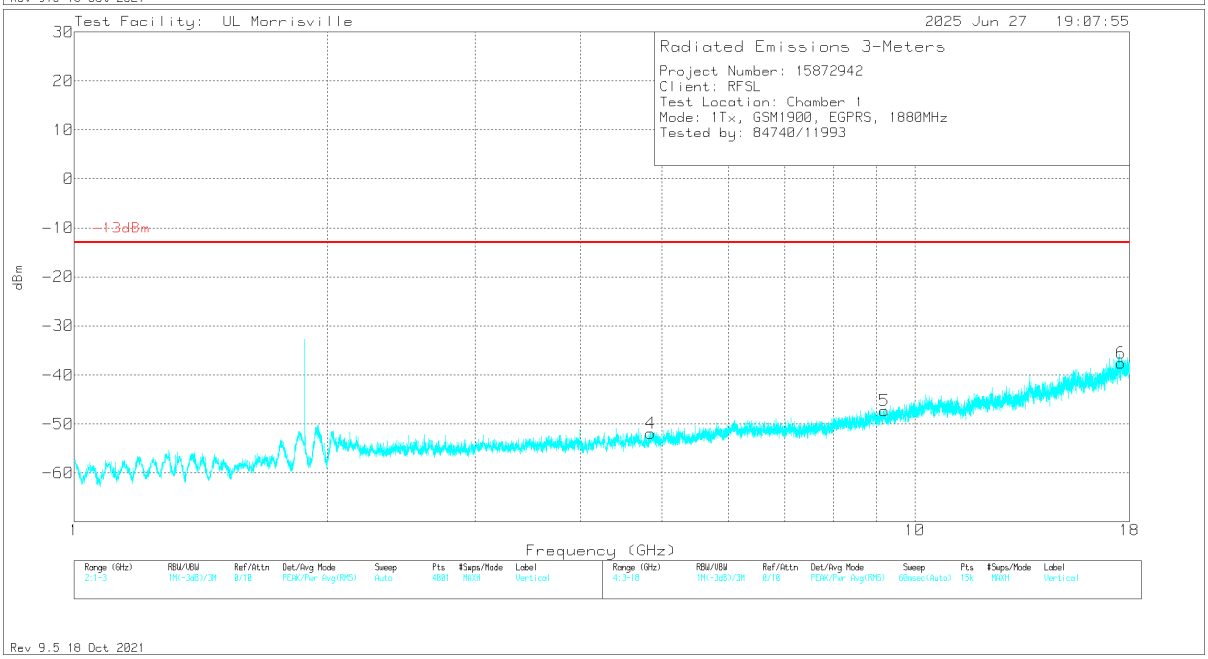


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.76	-52.3	Pk	33.2	-43.9	11.8	0	-51.2	-13	-38.2	0-360	101	H
4	4.15	-51.83	Pk	33.4	-45.4	11.8	0	-52.03	-13	-39.03	0-360	200	V
5	9.939	-54.95	Pk	37.5	-39.6	11.8	0	-45.25	-13	-32.25	0-360	101	V
2	10.024	-54.64	Pk	37.6	-40.5	11.8	0	-45.74	-13	-32.74	0-360	101	H
3	17.488	-55.42	Pk	41.2	-33.1	11.8	0	-35.52	-13	-22.52	0-360	101	H
6	17.603	-56.35	Pk	41.3	-33.6	11.8	0	-36.85	-13	-23.85	0-360	200	V

Pk - Peak detector

EGPRS Mid Channel

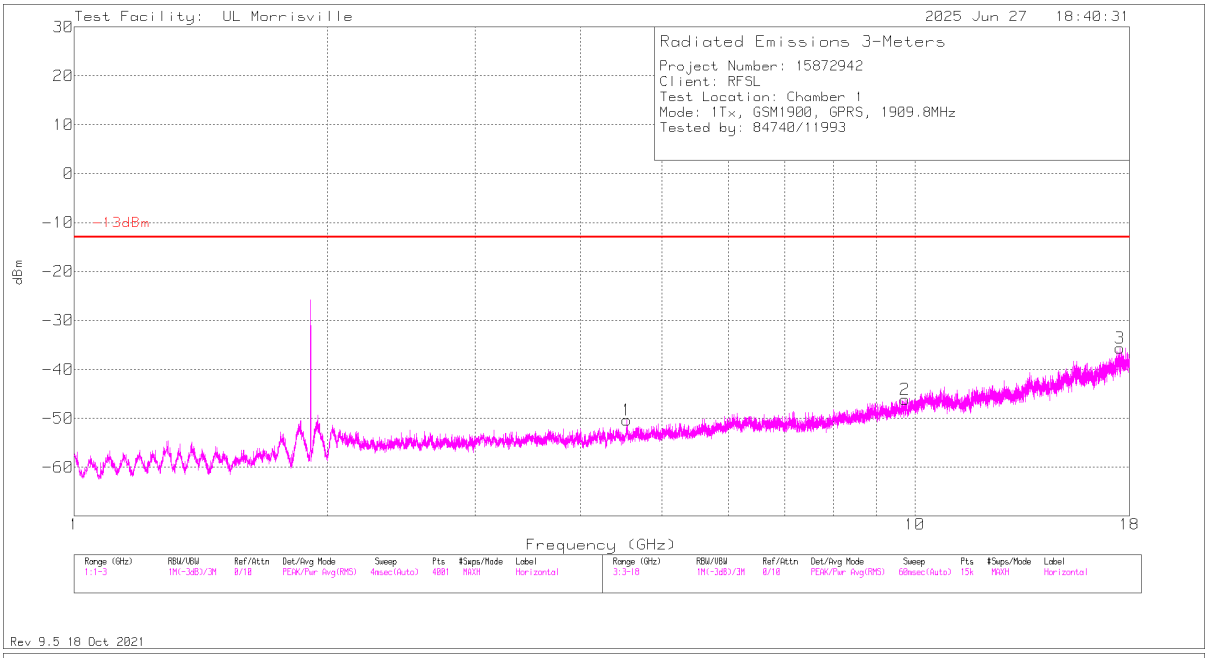


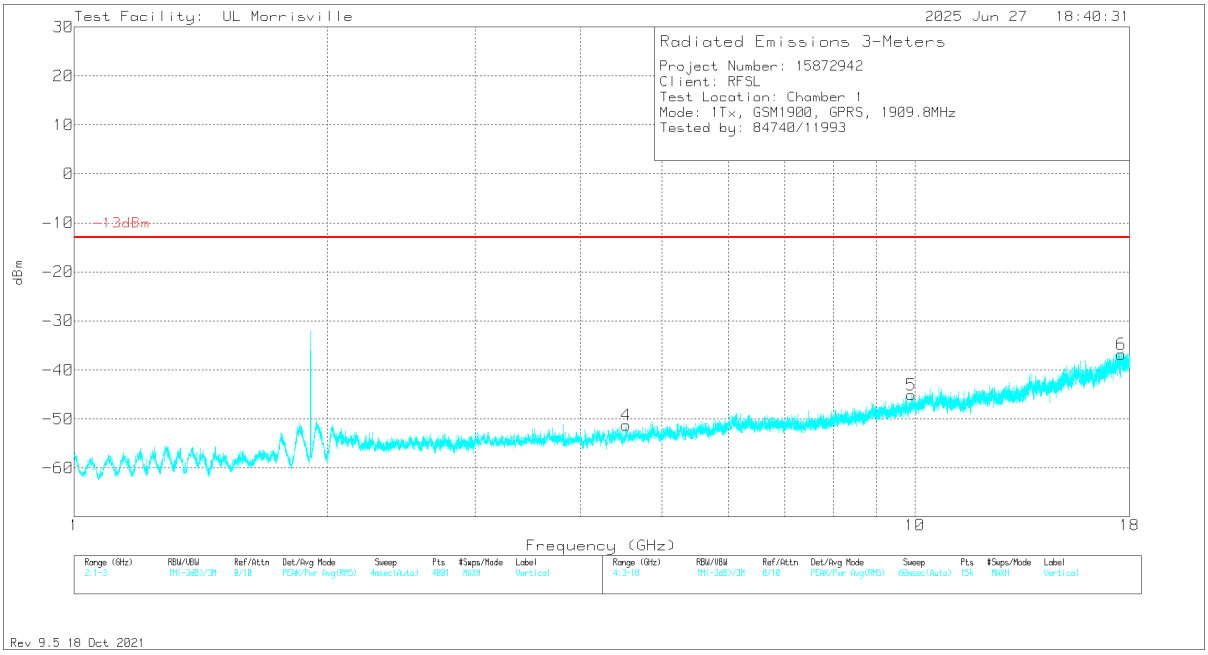


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.852	-52.37	Pk	33.9	-45.2	11.8	0	-51.87	-13	-38.87	0-360	101	V
1	4.877	-51.77	Pk	34	-44.8	11.8	0	-50.77	-13	-37.77	0-360	200	H
2	9.196	-53.62	Pk	36	-39.6	11.8	0	-45.42	-13	-32.42	0-360	300	H
5	9.2	-55.36	Pk	36	-39.7	11.8	0	-47.26	-13	-34.26	0-360	101	V
6	17.586	-56.58	Pk	41.3	-34.1	11.8	0	-37.58	-13	-24.58	0-360	300	V
3	17.607	-55.97	Pk	41.3	-33.7	11.8	0	-36.57	-13	-23.57	0-360	200	H

Pk - Peak detector

GPRS High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.538	-51.49	Pk	33.9	-45.5	11.8	0	-51.29	-13	-38.29	0-360	300	V
1	4.546	-50.72	Pk	33.9	-45.3	11.8	0	-50.32	-13	-37.32	0-360	300	H
2	9.738	-54.3	Pk	37	-40.6	11.8	0	-46.1	-13	-33.1	0-360	300	H
5	9.906	-54.26	Pk	37.4	-40	11.8	0	-45.06	-13	-32.06	0-360	300	V
3	17.529	-55.93	Pk	41.3	-32.8	11.8	0	-35.63	-13	-22.63	0-360	200	H
6	17.593	-56.18	Pk	41.3	-33.7	11.8	0	-36.78	-13	-23.78	0-360	300	V

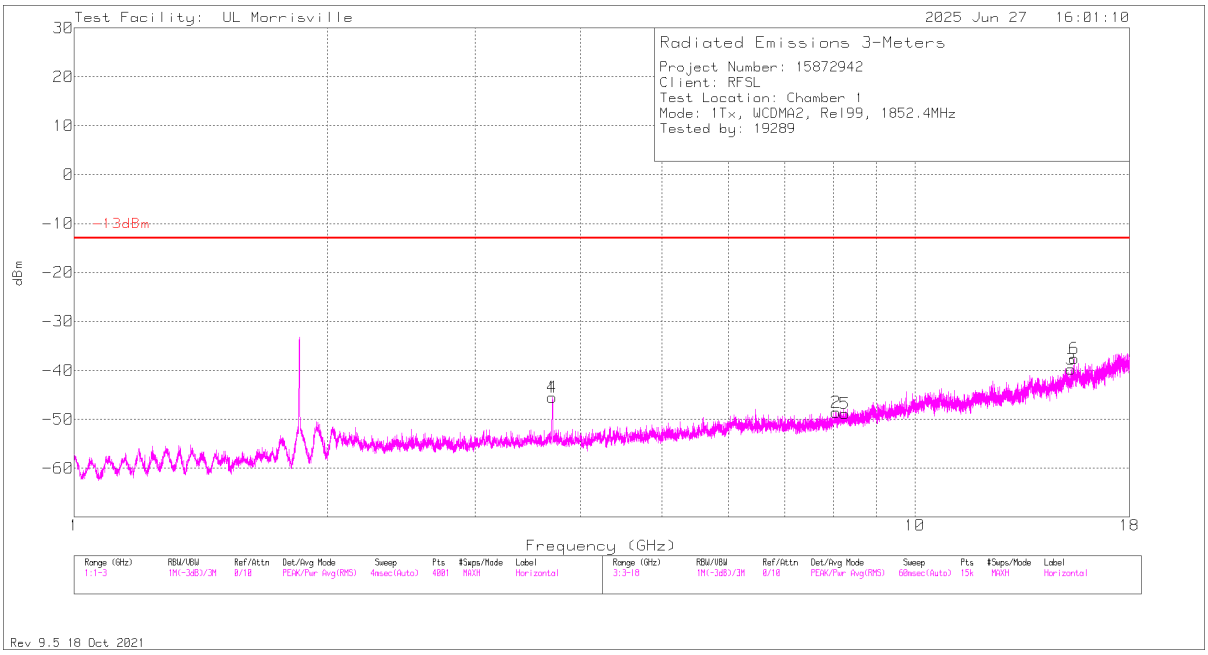
Pk - Peak detector

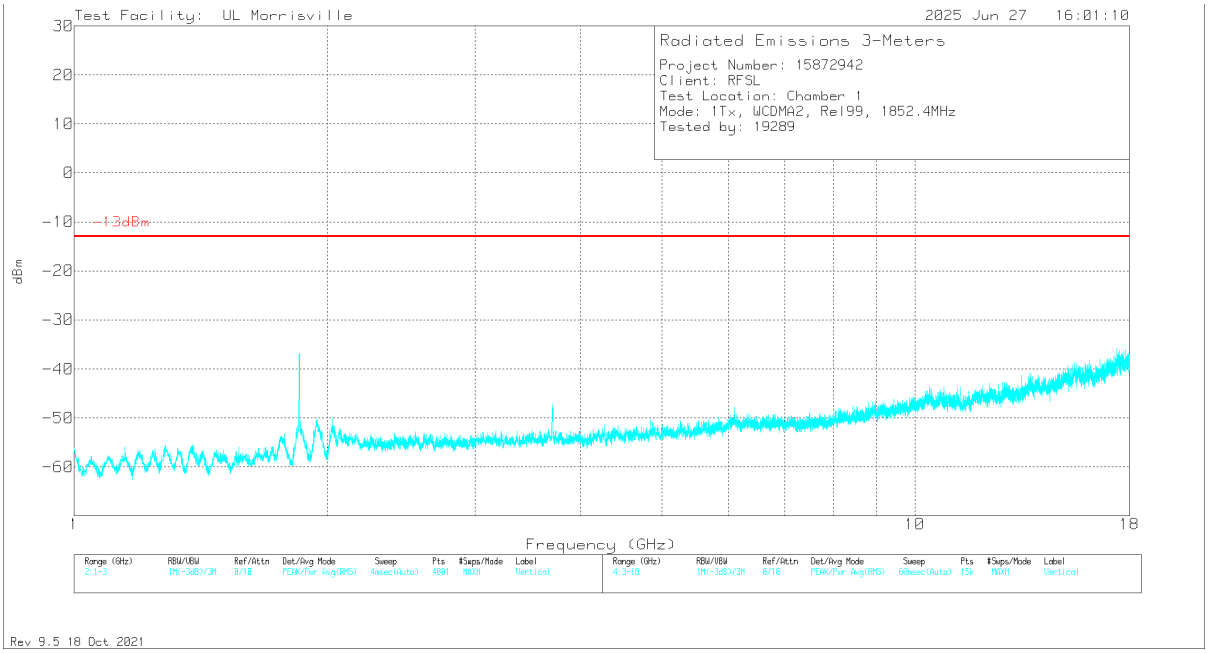
10.1.3. WCDMA2

LIMITS

FCC: §24.238 (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

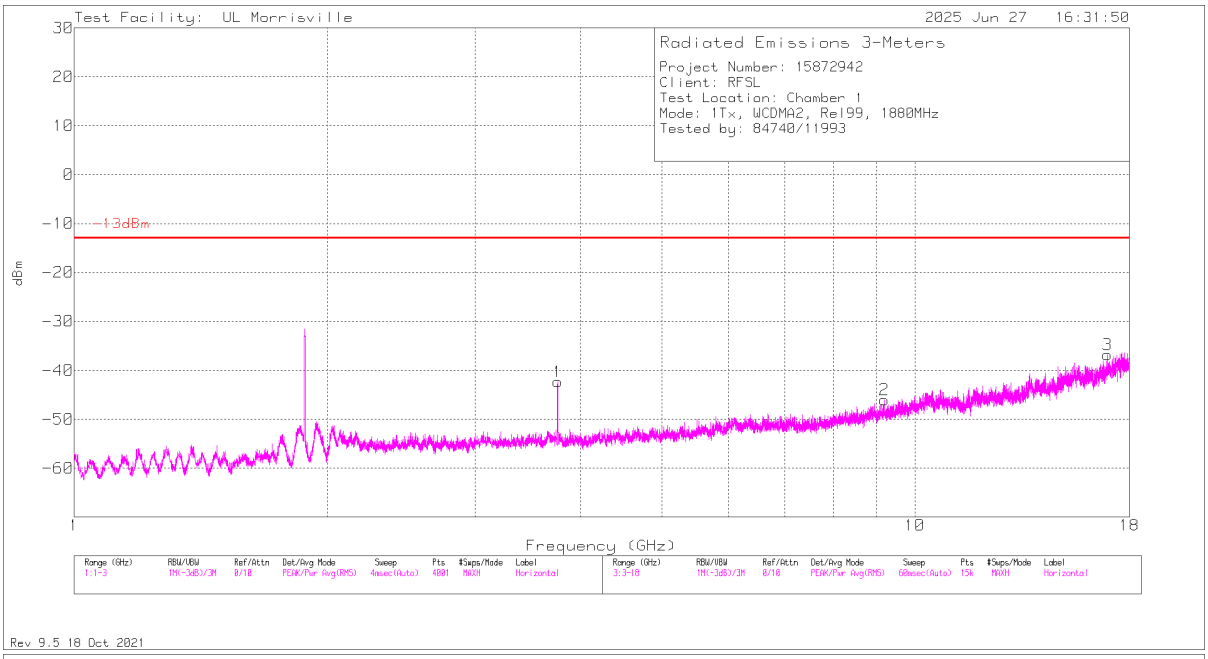


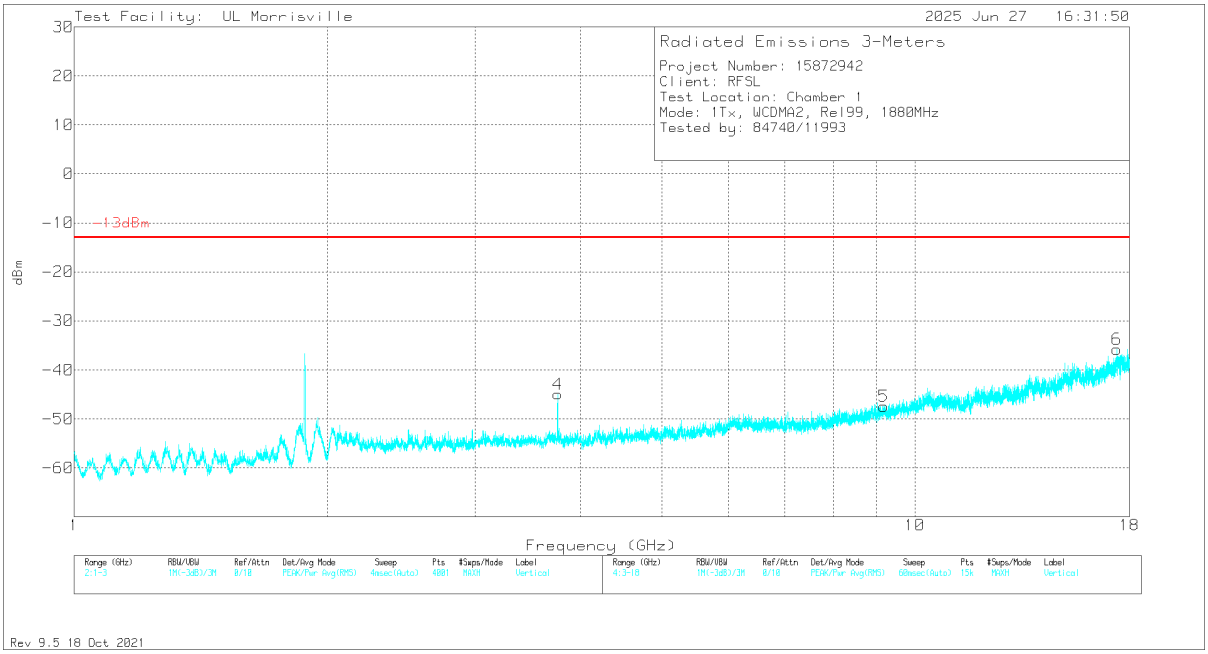


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.706	-46.23	Pk	33.2	-44.3	11.8	0	-45.53	-13	-32.53	0-360	101	H
4	3.706	-46.23	Pk	33.2	-44.3	11.8	0	-45.53	-13	-32.53	0-360	101	H
2	8.056	-55.42	Pk	35.9	-40.8	11.8	0	-48.52	-13	-35.52	0-360	300	H
5	8.251	-55.72	Pk	35.9	-40.8	11.8	0	-48.82	-13	-35.82	0-360	101	H
3	15.339	-56.5	Pk	40.4	-35.5	11.8	0	-39.8	-13	-26.8	0-360	199	H
6	15.474	-55.19	Pk	40.6	-34.8	11.8	0	-37.59	-13	-24.59	0-360	300	H

Pk - Peak detector

REL 99 Mid Channel

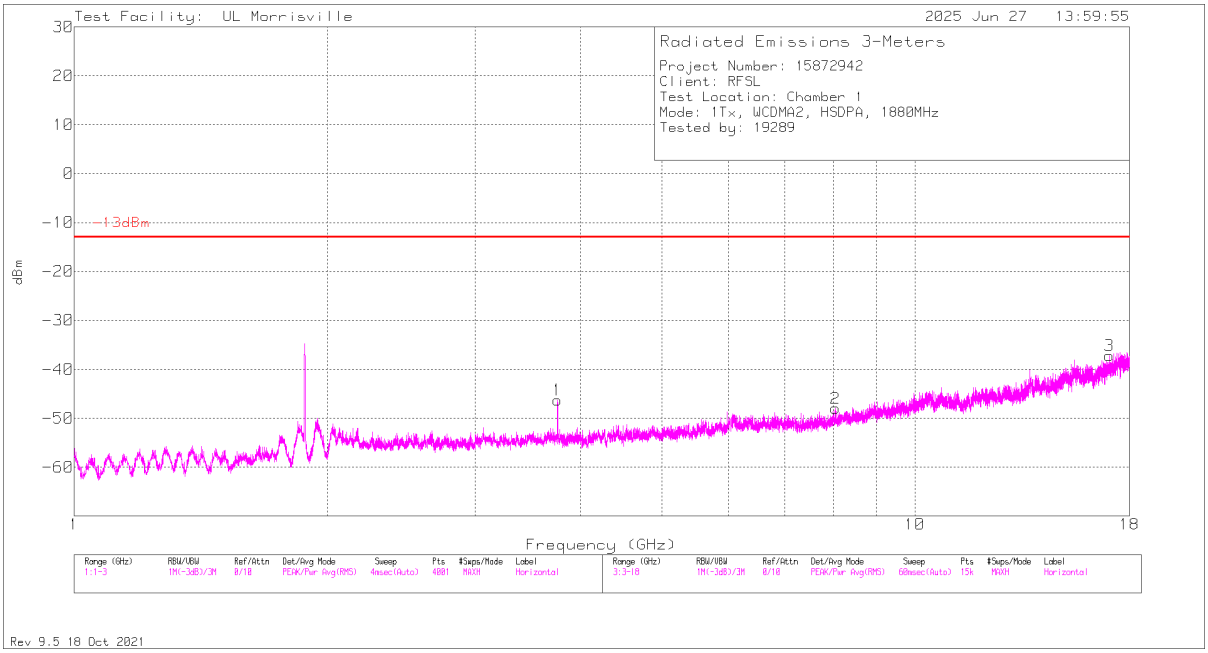


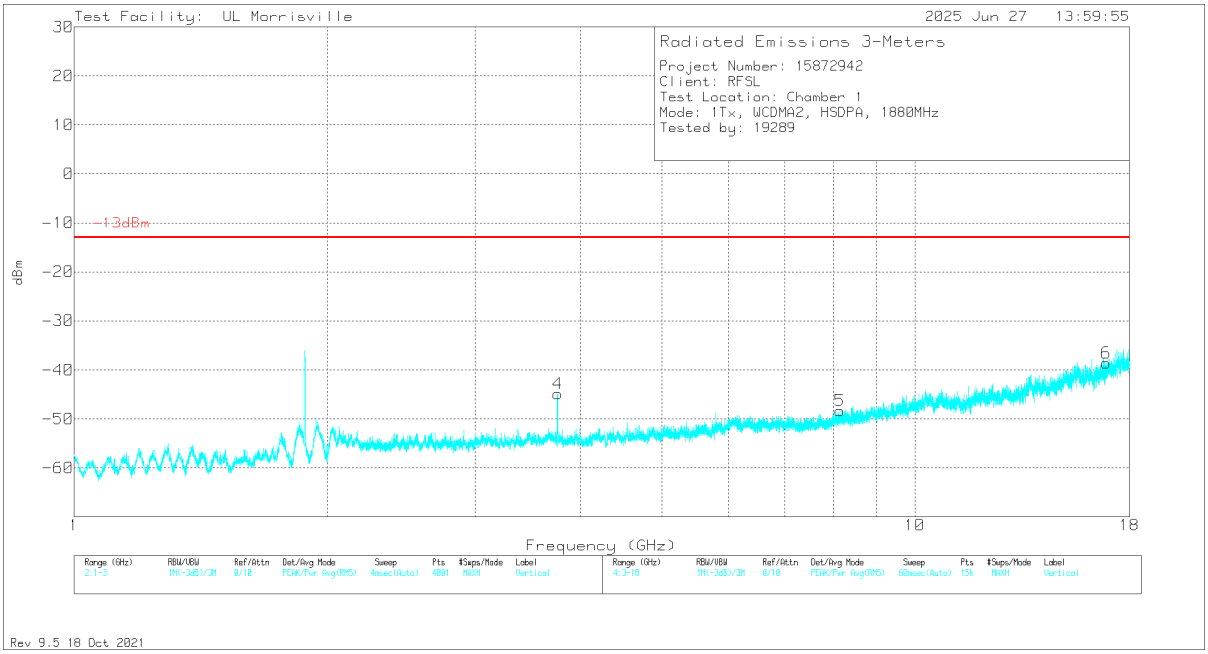


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	3.761	-46.03	Pk	33.2	-43.9	11.8	0	-44.93	-13	-31.93	0-360	101	V
1	3.762	-43.46	Pk	33.2	-43.9	11.8	0	-42.36	-13	-29.36	0-360	101	H
5	9.181	-55.39	Pk	36	-39.8	11.8	0	-47.39	-13	-34.39	0-360	200	V
2	9.193	-54.25	Pk	36	-39.6	11.8	0	-46.05	-13	-33.05	0-360	299	H
3	16.961	-54.22	Pk	41.1	-35.5	11.8	0	-36.82	-13	-23.82	0-360	299	H
6	17.394	-55.77	Pk	41.2	-33	11.8	0	-35.77	-13	-22.77	0-360	300	V

Pk - Peak detector

HSDPA Mid Channel

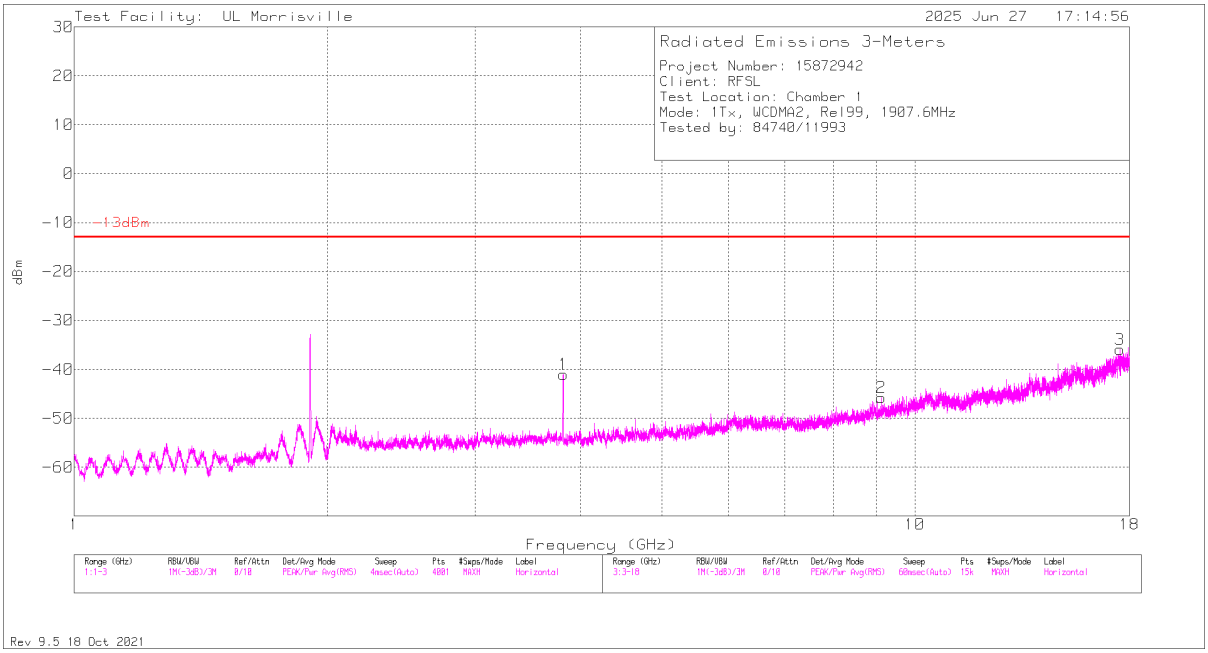


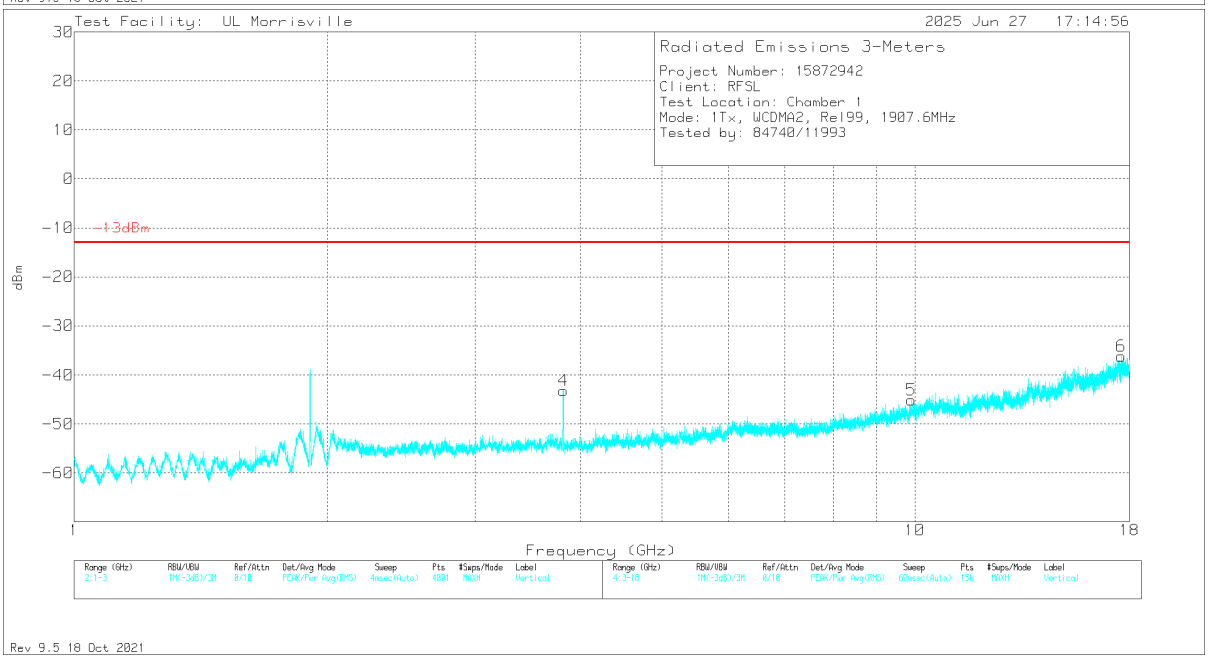


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.758	-47.19	Pk	33.2	-44.1	11.8	0	-46.29	-13	-33.29	0-360	299	H
4	3.763	-46	Pk	33.2	-43.9	11.8	0	-44.9	-13	-31.9	0-360	101	V
2	8.044	-54.59	Pk	35.9	-41.1	11.8	0	-47.99	-13	-34.99	0-360	299	H
5	8.14	-55.14	Pk	35.9	-40.9	11.8	0	-48.34	-13	-35.34	0-360	299	V
6	16.893	-56.56	Pk	41	-34.8	11.8	0	-38.56	-13	-25.56	0-360	101	V
3	17.027	-54.93	Pk	41.2	-35.2	11.8	0	-37.13	-13	-24.13	0-360	200	H

Pk - Peak detector

REL 99 High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.817	-42.15	Pk	33.1	-43.8	11.8	0	-41.05	-13	-28.05	0-360	101	H
4	3.817	-44.3	Pk	33.1	-43.8	11.8	0	-43.2	-13	-30.2	0-360	101	V
2	9.118	-53.23	Pk	35.9	-40.2	11.8	0	-45.73	-13	-32.73	0-360	300	H
5	9.908	-54.2	Pk	37.4	-40.1	11.8	0	-45.1	-13	-32.1	0-360	200	V
3	17.535	-55.96	Pk	41.3	-33.1	11.8	0	-35.96	-13	-22.96	0-360	200	H
6	17.603	-55.62	Pk	41.3	-33.6	11.8	0	-36.12	-13	-23.12	0-360	300	V

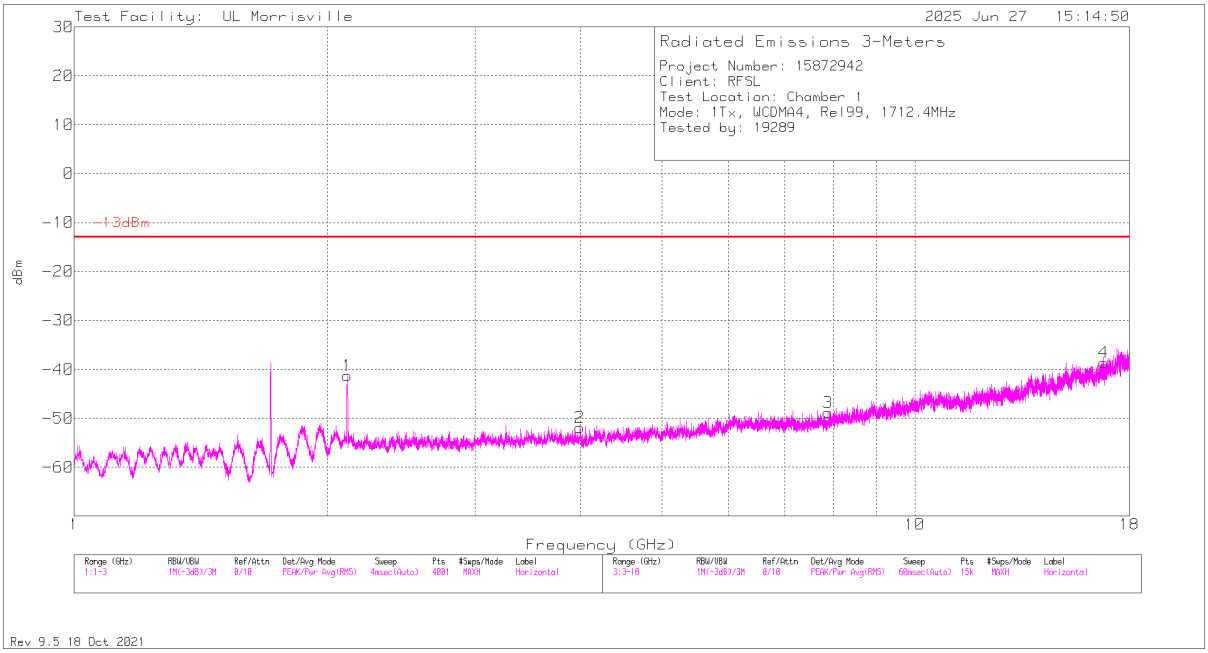
Pk - Peak detector

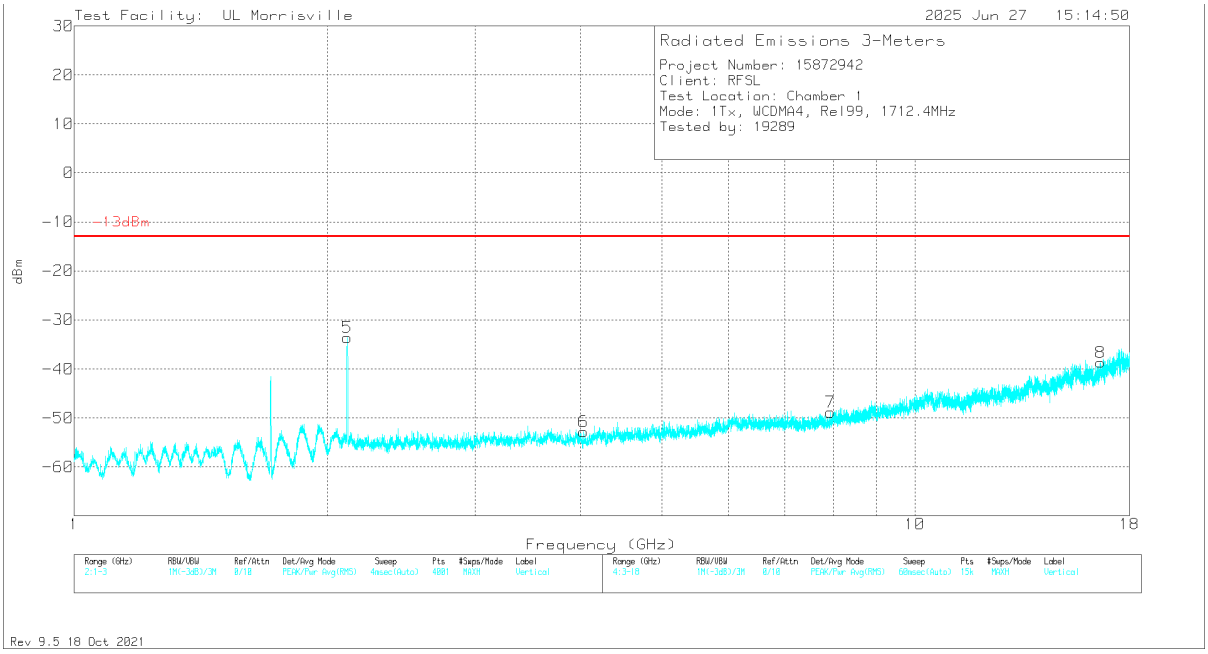
10.1.4. WCDMA4

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.

REL 99 Low Channel

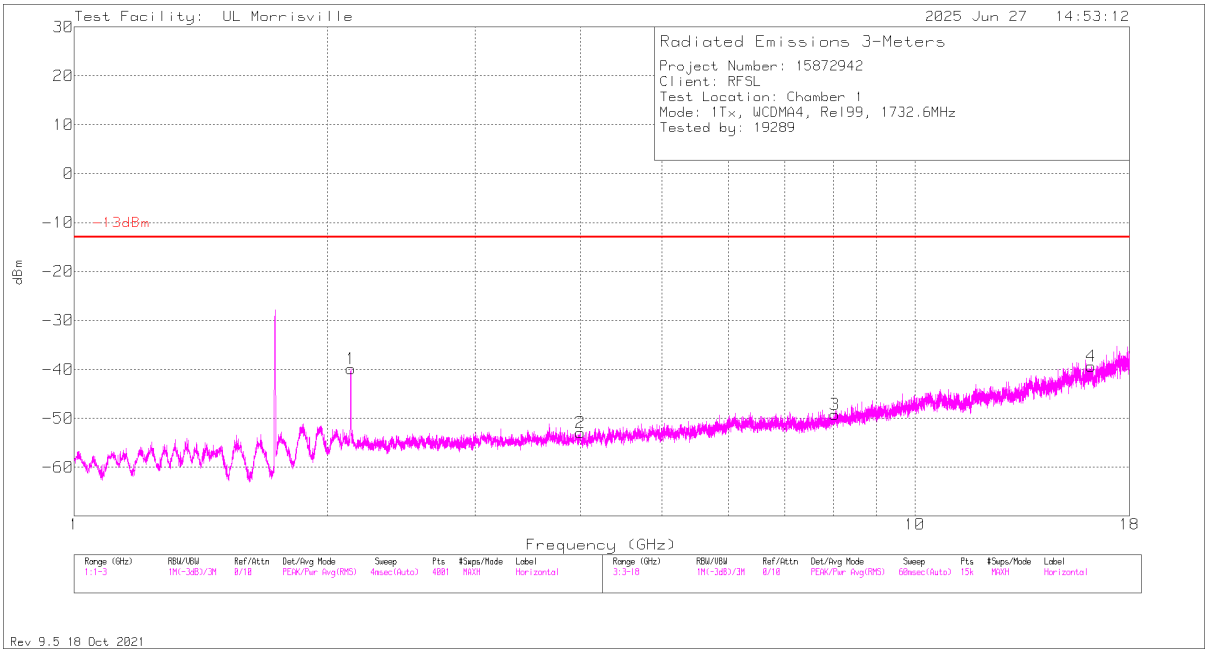


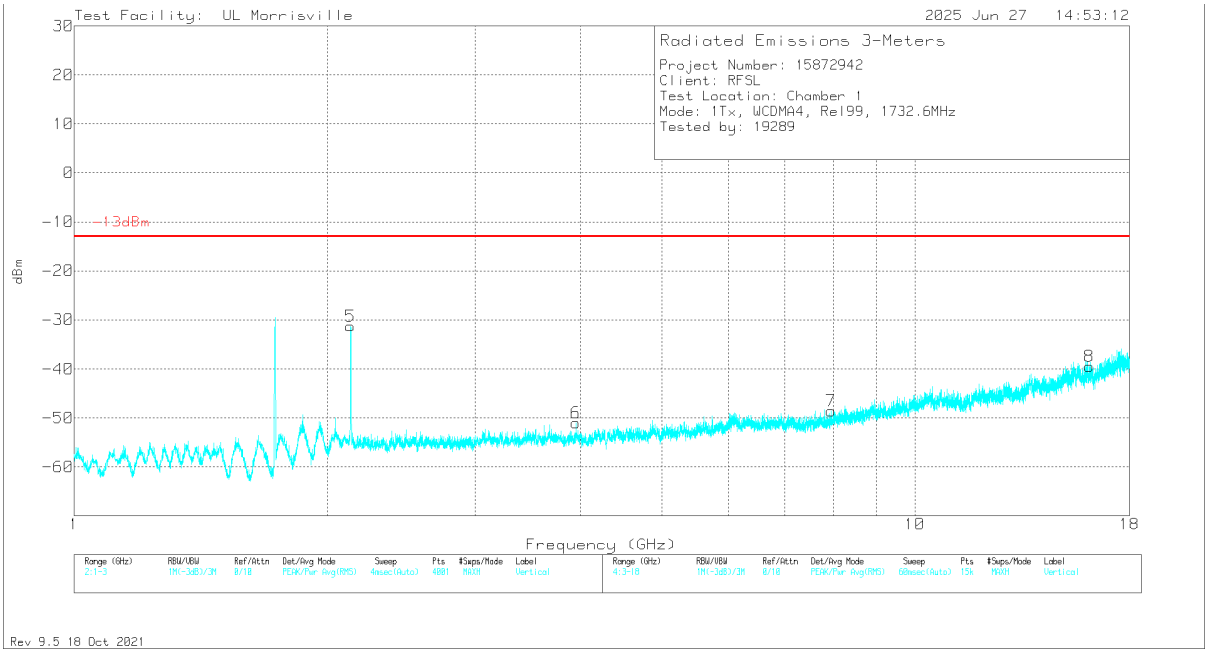


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1*	2.1115	-38.13	Pk	31.7	-48	11.8	1.4	-41.23	-	-	0-360	199	H
5*	2.1115	-30.47	Pk	31.7	-48	11.8	1.4	-33.57	-	-	0-360	300	V
2	3.995	-52.93	Pk	33	-43.8	11.8	0	-51.93	-13	-38.93	0-360	199	H
6	4.038	-53.53	Pk	33	-44.1	11.8	0	-52.83	-13	-39.83	0-360	300	V
3	7.883	-55.38	Pk	35.8	-41	11.8	0	-48.78	-13	-35.78	0-360	101	H
7	7.938	-55.54	Pk	35.8	-40.9	11.8	0	-48.84	-13	-35.84	0-360	300	V
8	16.62	-55.36	Pk	40.6	-35.7	11.8	0	-38.66	-13	-25.66	0-360	300	V
4	16.764	-56.28	Pk	40.8	-34.9	11.8	0	-38.58	-13	-25.58	0-360	299	H

Pk - Peak detector
*- Downlink

REL 99 Mid Channel



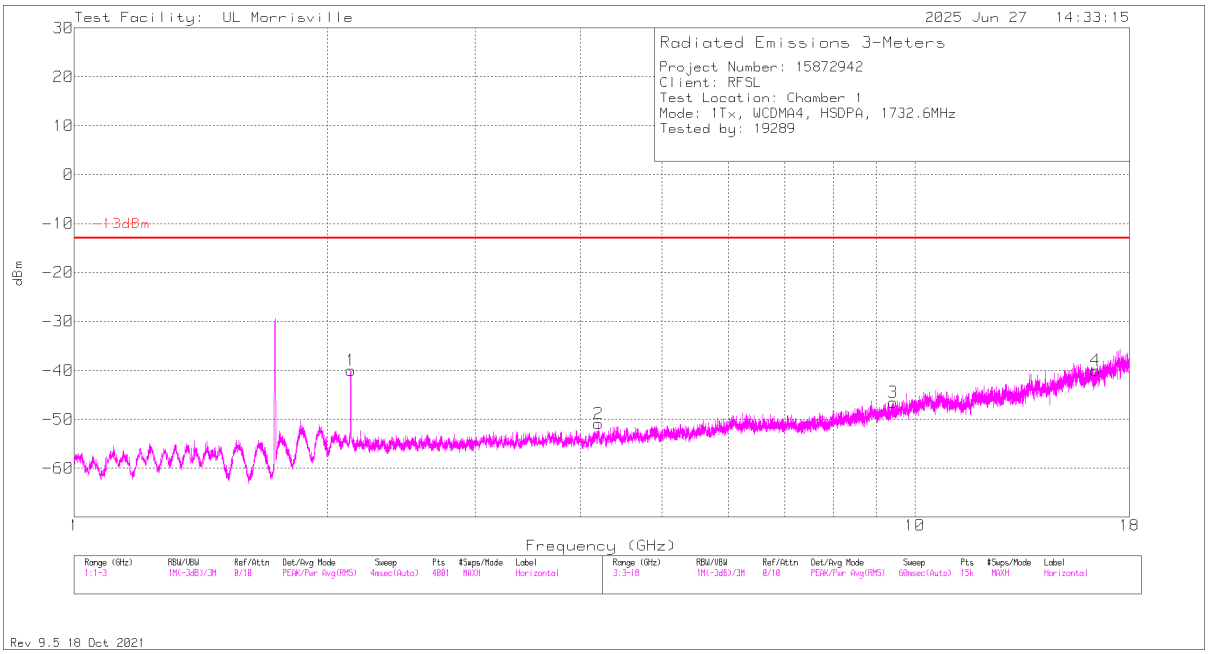


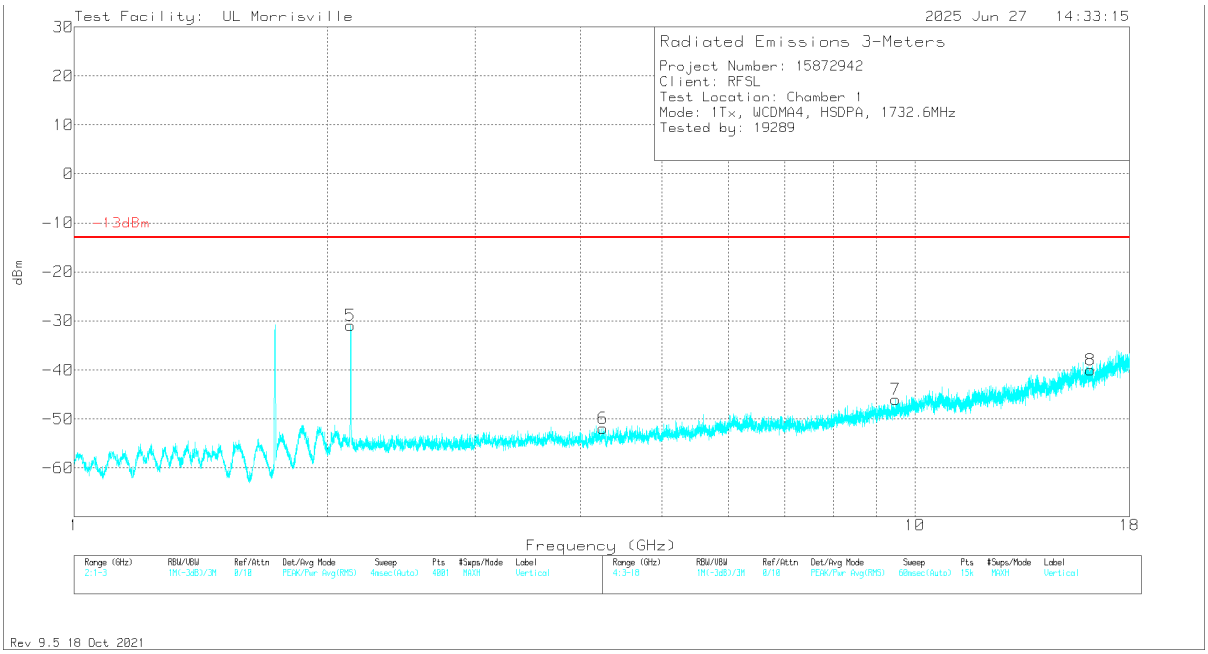
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5*	2.1325	-28.04	Pk	31.7	-48	11.8	1.3	-31.24	-	-	0-360	300	V
1*	2.13325	-36.63	Pk	31.7	-48	11.8	1.3	-39.83	-	-	0-360	199	H
6	3.95	-51.24	Pk	32.9	-44.5	11.8	0	-51.04	-13	-38.04	0-360	200	V
2	4.004	-53.66	Pk	33	-44.1	11.8	0	-52.96	-13	-39.96	0-360	200	H
7	7.946	-54.67	Pk	35.8	-41.5	11.8	0	-48.57	-13	-35.57	0-360	300	V
3	8.029	-55.62	Pk	35.9	-41.3	11.8	0	-49.22	-13	-36.22	0-360	101	H
8	16.121	-55.28	Pk	40.3	-36.3	11.8	0	-39.48	-13	-26.48	0-360	300	V
4	16.2	-56.16	Pk	40.1	-35.1	11.8	0	-39.36	-13	-26.36	0-360	299	H

Pk - Peak detector

*- Downlink

HSDPA Mid Channel

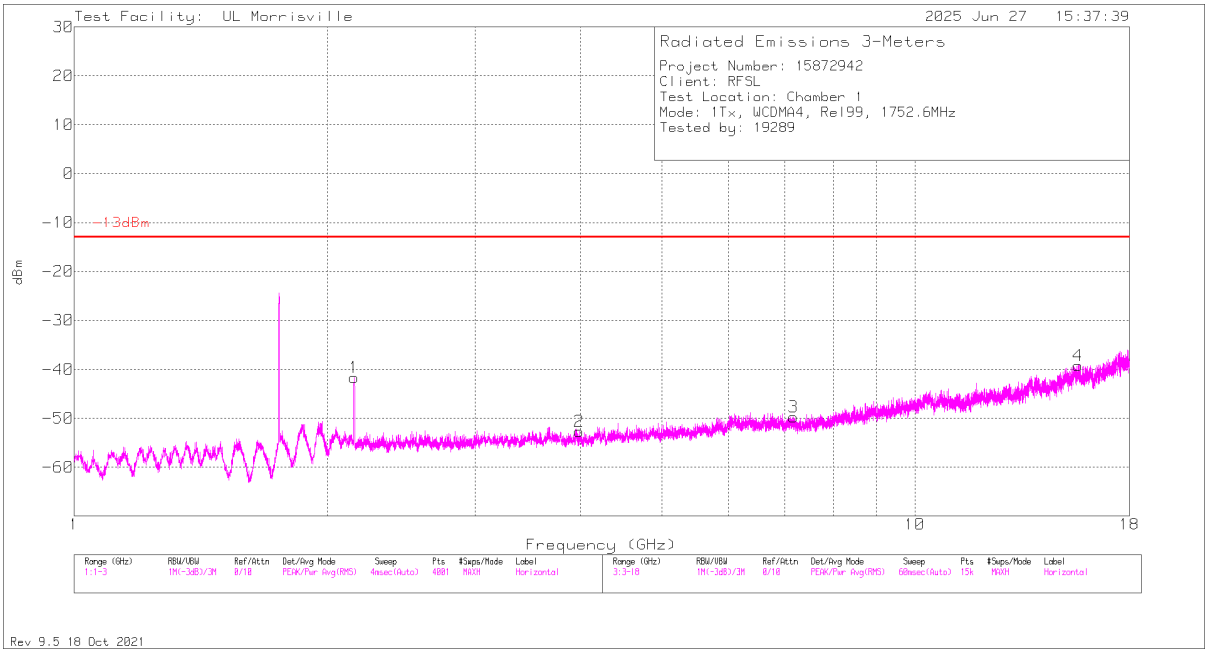


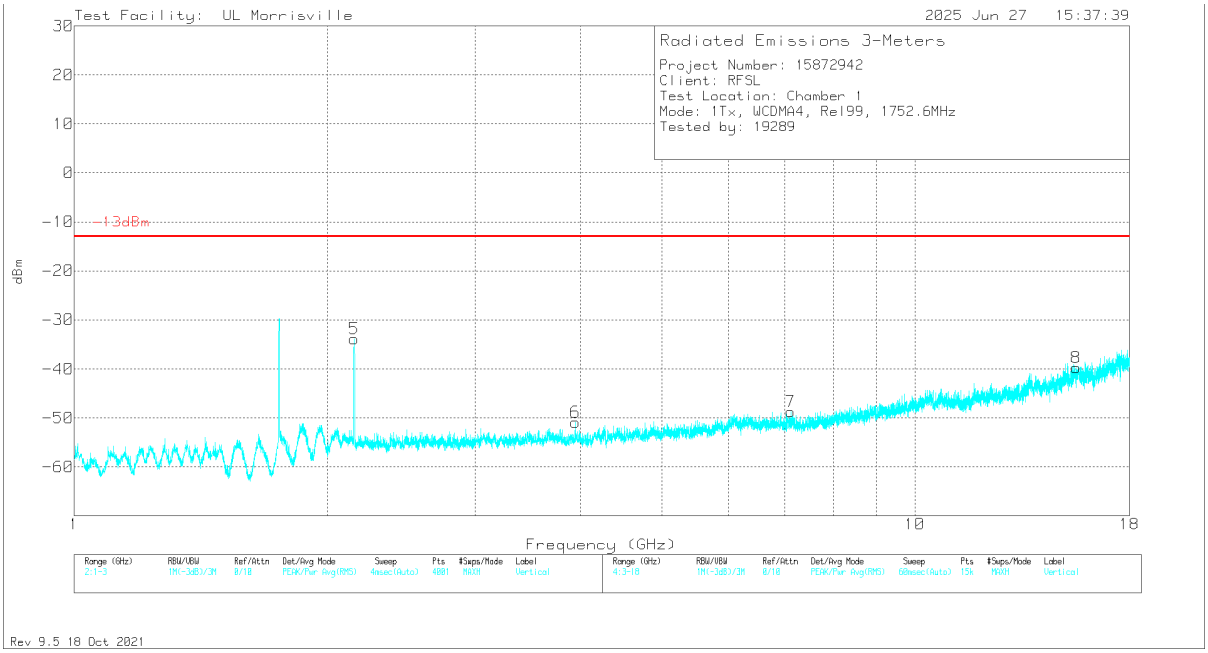


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5*	2.13225	-27.71	Pk	31.7	-48	11.8	1.3	-30.91	-	-	0-360	300	V
1*	2.134	-36.82	Pk	31.7	-48	11.8	1.3	-40.02	-	-	0-360	199	H
2	4.208	-51.1	Pk	33.6	-45.2	11.8	0	-50.9	-13	-37.9	0-360	200	H
6	4.257	-52.63	Pk	33.7	-44.8	11.8	0	-51.93	-13	-38.93	0-360	200	V
3	9.416	-54.98	Pk	36.3	-39.6	11.8	0	-46.48	-13	-33.48	0-360	200	H
7	9.495	-53.79	Pk	36.4	-40.4	11.8	0	-45.99	-13	-32.99	0-360	200	V
8	16.187	-56.65	Pk	40.2	-35.3	11.8	0	-39.95	-13	-26.95	0-360	200	V
4	16.401	-56.35	Pk	40.2	-35.6	11.8	0	-39.95	-13	-26.95	0-360	200	H

Pk - Peak detector
*- Downlink

REL 99 High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5*	2.153	-30.47	Pk	31.6	-48	11.8	1.2	-33.87	-	-	0-360	200	V
1*	2.154	-38.17	Pk	31.6	-48	11.8	1.1	-41.67	-	-	0-360	200	H
6	3.944	-50.95	Pk	32.9	-44.6	11.8	0	-50.85	-13	-37.85	0-360	200	V
2	3.99	-53.47	Pk	33	-44	11.8	0	-52.67	-13	-39.67	0-360	299	H
7	7.117	-54.26	Pk	35.4	-41.6	11.8	0	-48.66	-13	-35.66	0-360	200	V
3	7.171	-54.93	Pk	35.4	-42	11.8	0	-49.73	-13	-36.73	0-360	101	H
8	15.554	-55.37	Pk	40.8	-37	11.8	0	-39.77	-13	-26.77	0-360	101	V
4	15.641	-56.56	Pk	40.9	-35.4	11.8	0	-39.26	-13	-26.26	0-360	200	H

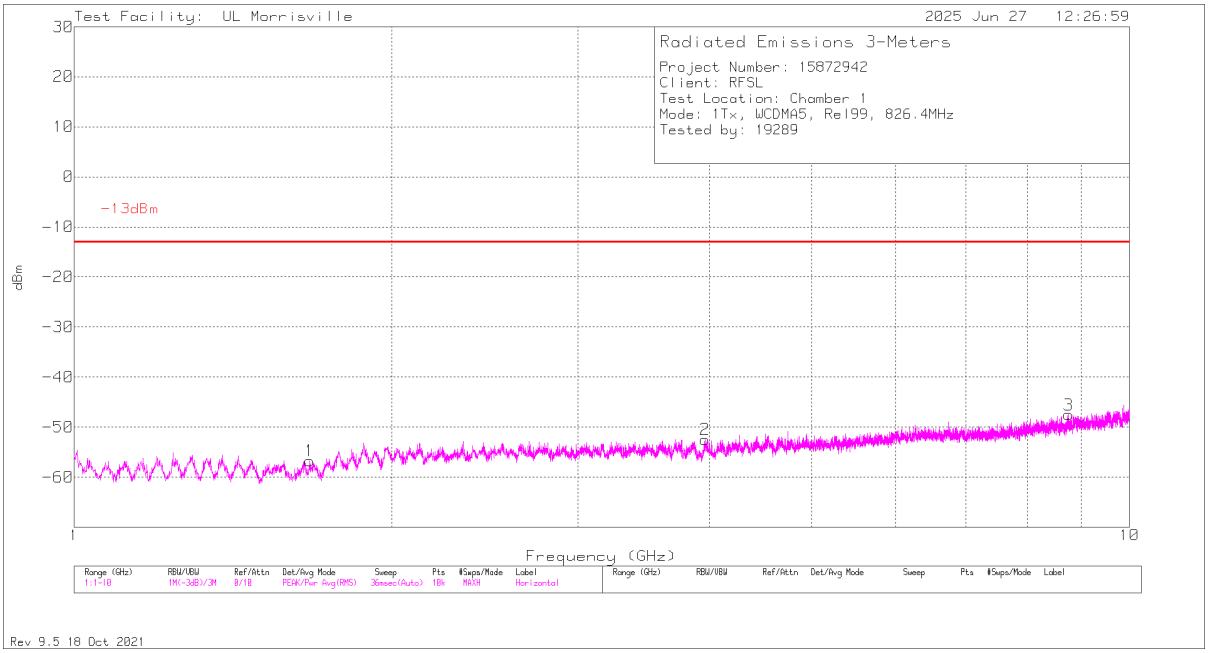
Pk - Peak detector
*- Downlink

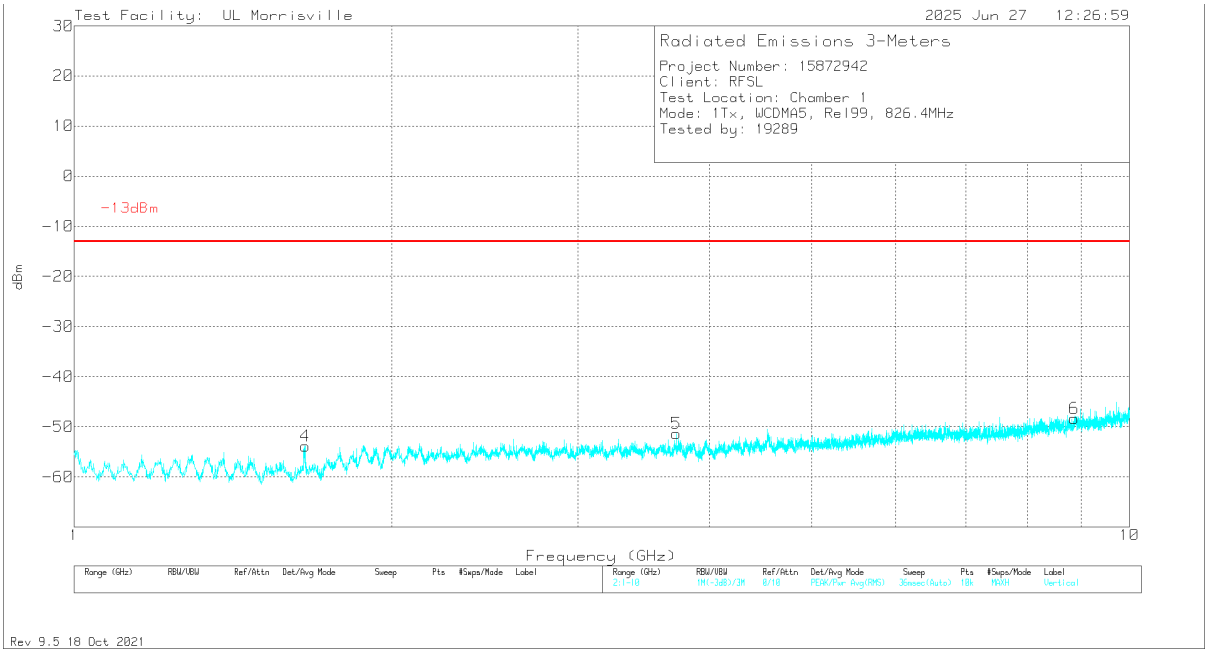
10.1.5. WCDMA5

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

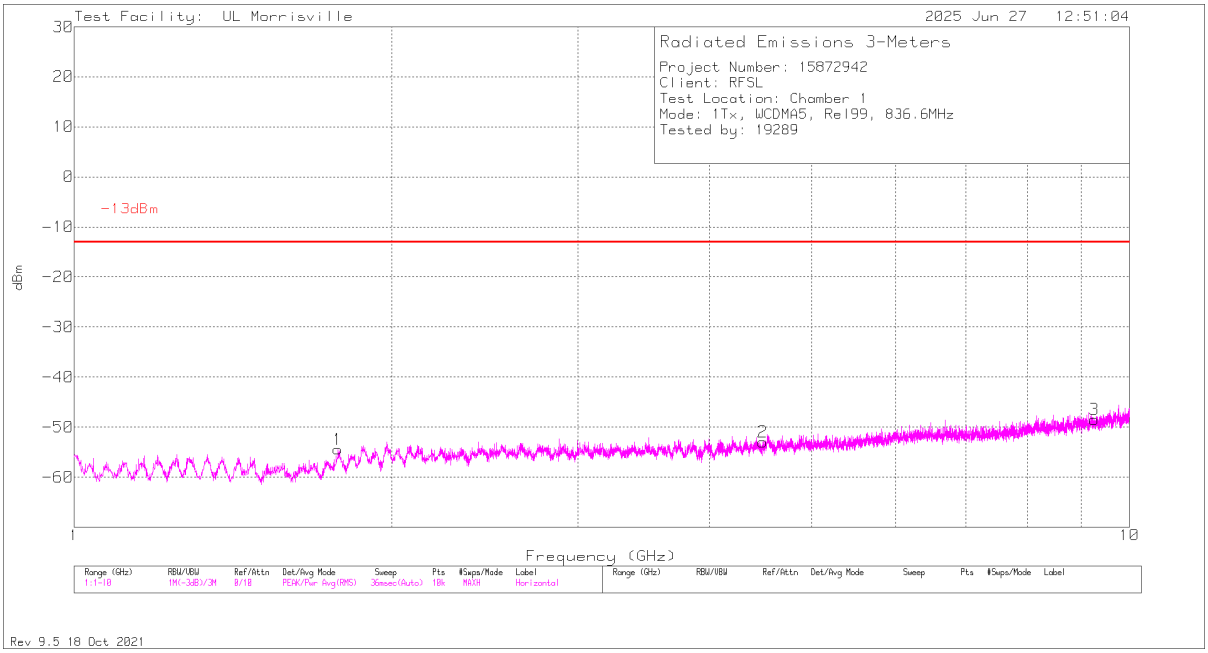


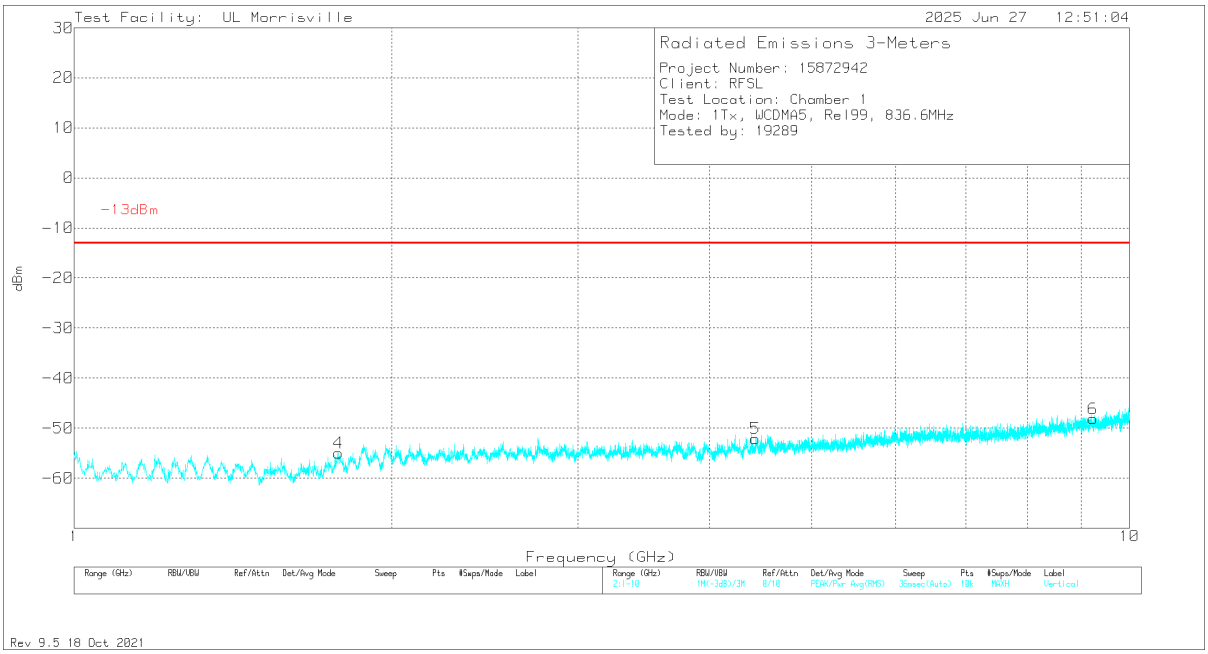


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.6552	-46.13	Pk	28.3	-48.2	.4	11.8	-53.83	-13	-40.83	0-360	101	V
1	1.6723	-48.99	Pk	28.5	-48.4	.4	11.8	-56.69	-13	-43.69	0-360	299	H
5	3.7198	-51.77	Pk	33.2	-45.3	.7	11.8	-51.37	-13	-38.37	0-360	299	V
2	3.9637	-53.02	Pk	32.9	-44.8	.6	11.8	-52.52	-13	-39.52	0-360	200	H
3	8.7562	-54.74	Pk	35.7	-40.8	.5	11.8	-47.54	-13	-34.54	0-360	101	H
6	8.866	-55.5	Pk	35.8	-40.9	.5	11.8	-48.3	-13	-35.3	0-360	299	V

Pk - Peak detector

REL 99 Mid Channel

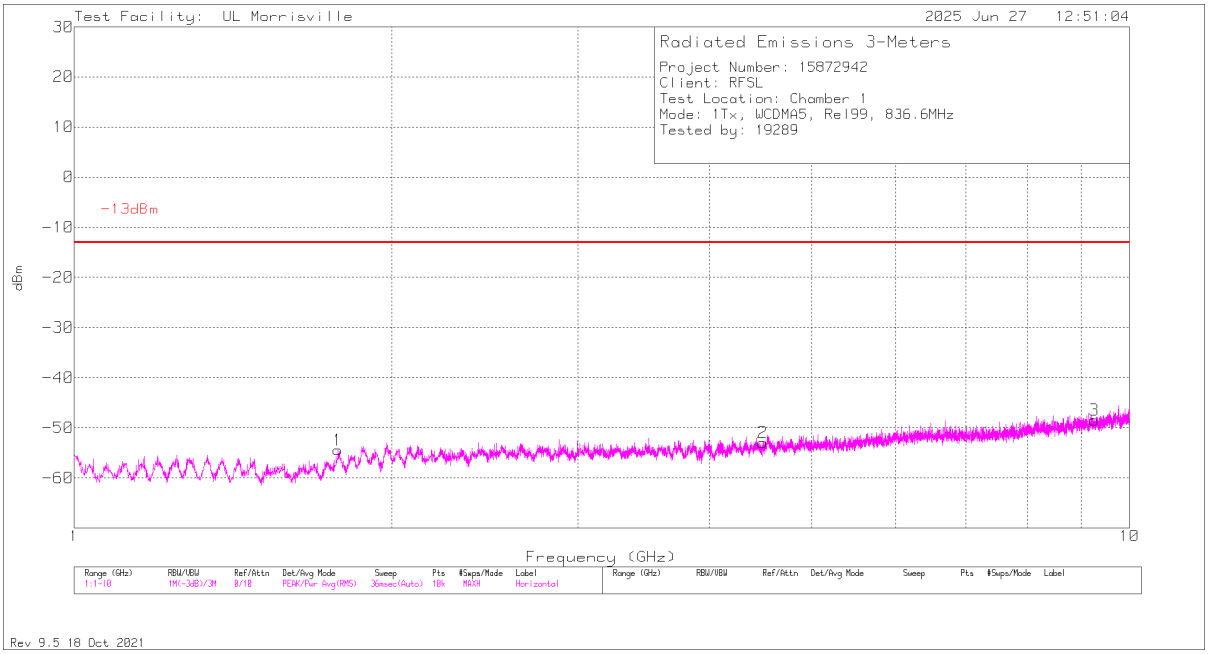


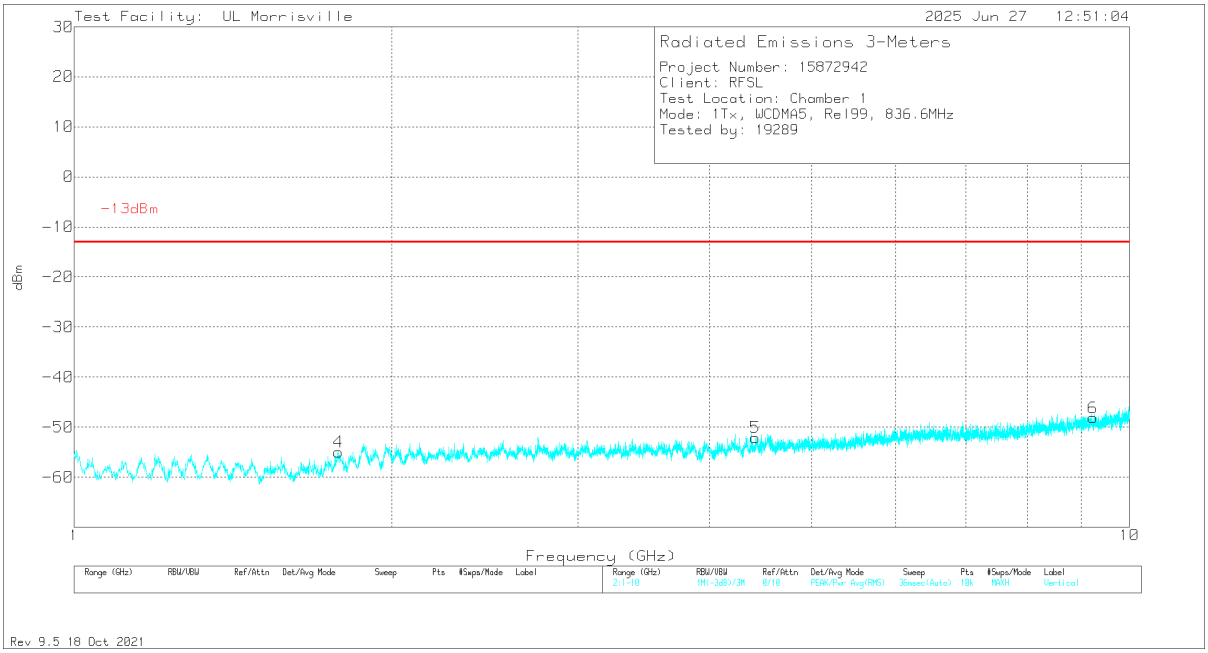


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.7785	-48.63	Pk	29.9	-47.9	.4	11.8	-54.43	-13	-41.43	0-360	101	H
4	1.7812	-49.19	Pk	29.9	-47.9	.4	11.8	-54.99	-13	-41.99	0-360	300	V
5	4.4227	-51.7	Pk	33.9	-46.3	.2	11.8	-52.1	-13	-39.1	0-360	300	V
2	4.4911	-52.54	Pk	33.9	-46.6	.5	11.8	-52.94	-13	-39.94	0-360	101	H
6	9.2332	-55.76	Pk	36.1	-40.6	.3	11.8	-48.16	-13	-35.16	0-360	300	V
3	9.2665	-56.25	Pk	36.1	-40.6	.5	11.8	-48.45	-13	-35.45	0-360	101	H

Pk - Peak detector

HSDPA Mid Channel

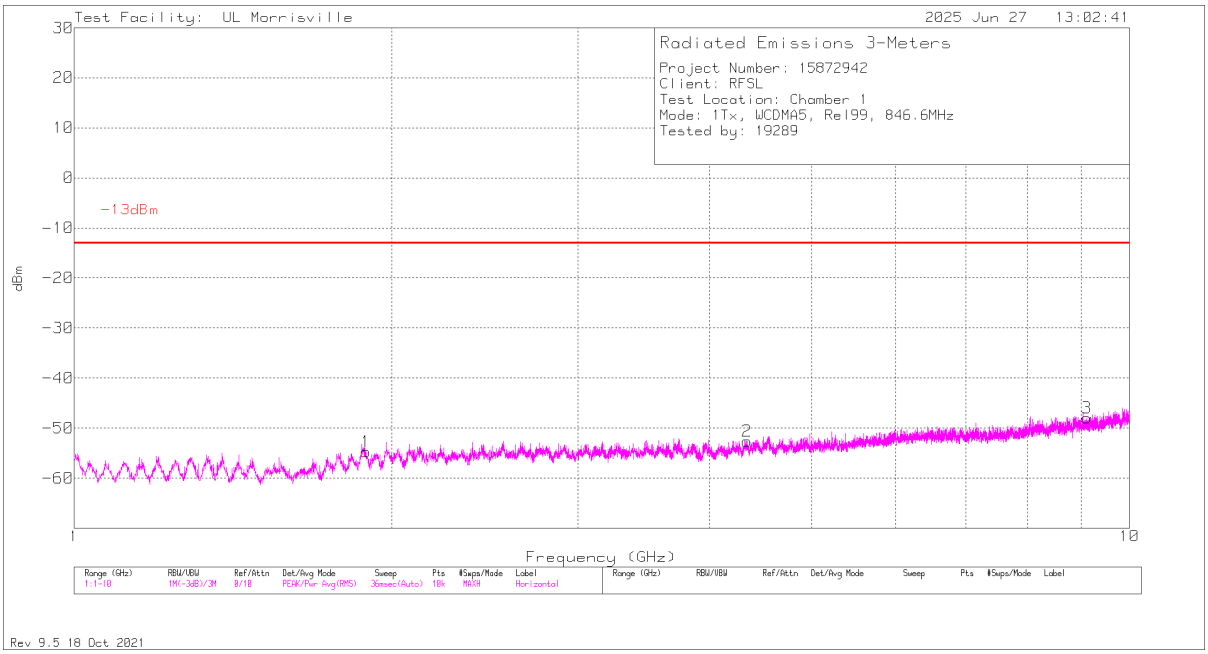


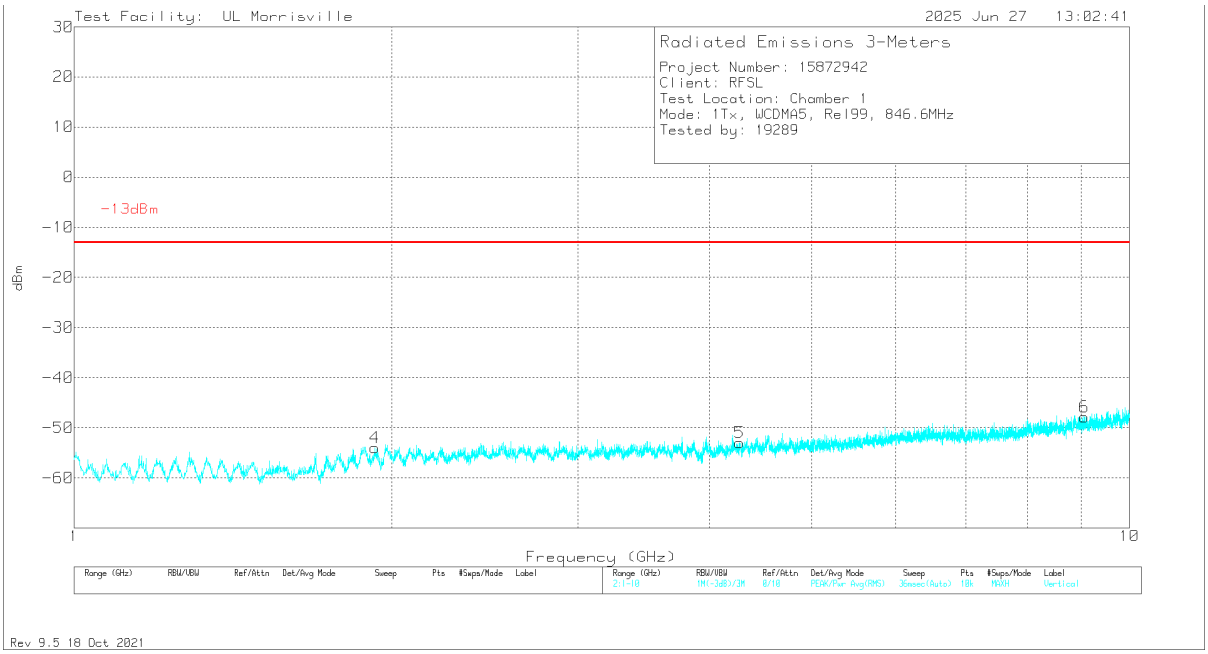


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.7785	-48.63	Pk	29.9	-47.9	.4	11.8	-54.43	-13	-41.43	0-360	101	H
4	1.7812	-49.19	Pk	29.9	-47.9	.4	11.8	-54.99	-13	-41.99	0-360	300	V
5	4.4227	-51.7	Pk	33.9	-46.3	.2	11.8	-52.1	-13	-39.1	0-360	300	V
2	4.4911	-52.54	Pk	33.9	-46.6	.5	11.8	-52.94	-13	-39.94	0-360	101	H
6	9.2332	-55.76	Pk	36.1	-40.6	.3	11.8	-48.16	-13	-35.16	0-360	300	V
3	9.2665	-56.25	Pk	36.1	-40.6	.5	11.8	-48.45	-13	-35.45	0-360	101	H

Pk - Peak detector

REL 99 High Channel





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.891	-50.03	Pk	31.3	-48.1	.3	11.8	-54.73	-13	-41.73	0-360	101	H
4	1.927	-49.04	Pk	31.4	-48.4	.3	11.8	-53.94	-13	-40.94	0-360	300	V
5	4.2706	-53.58	Pk	33.7	-45.4	.5	11.8	-52.98	-13	-39.98	0-360	300	V
2	4.3408	-52.4	Pk	33.7	-46	.3	11.8	-52.6	-13	-39.6	0-360	300	H
6	9.0586	-55.18	Pk	35.8	-40.8	.5	11.8	-47.88	-13	-34.88	0-360	101	V
3	9.1162	-55.27	Pk	35.9	-40.8	.4	11.8	-47.97	-13	-34.97	0-360	300	H

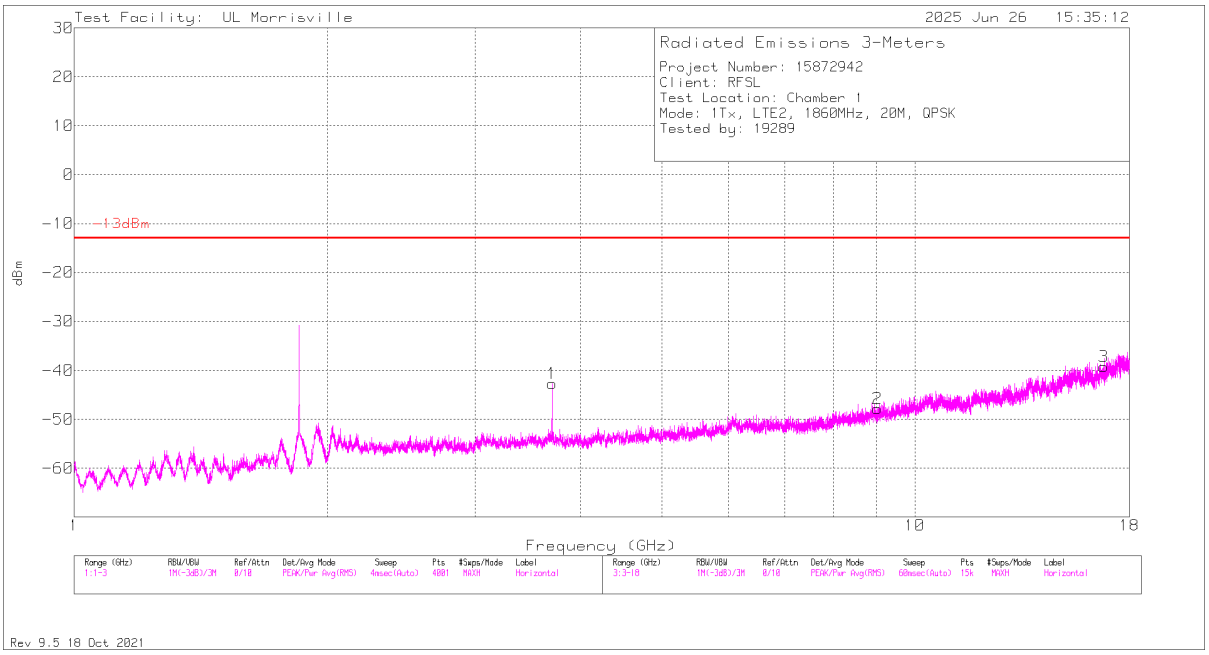
Pk - Peak detector

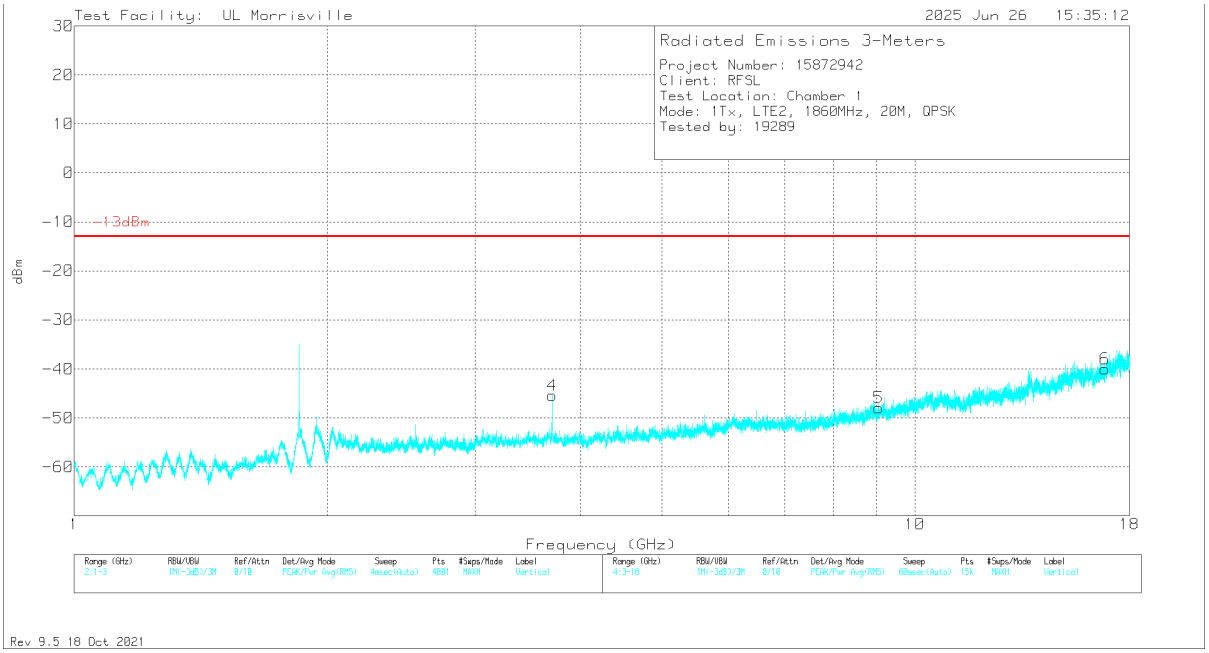
10.1.6. LTE BAND 2

LIMITS

FCC: §24.238 (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 LTE2 (20MHz, Low Channel)

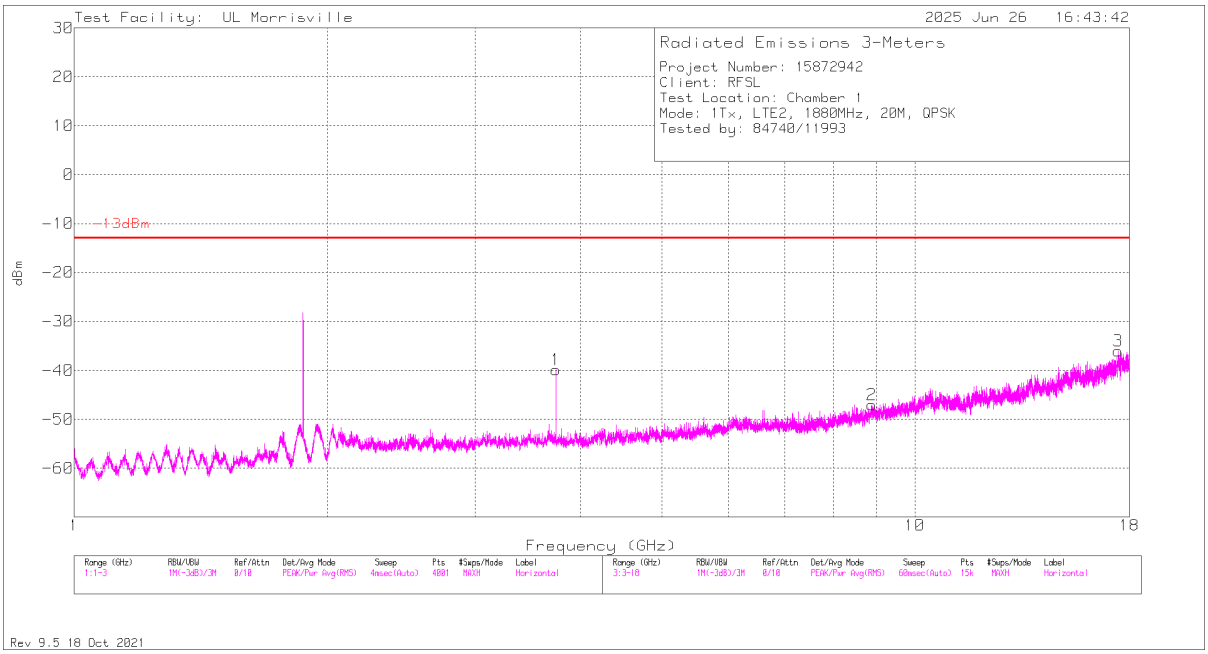


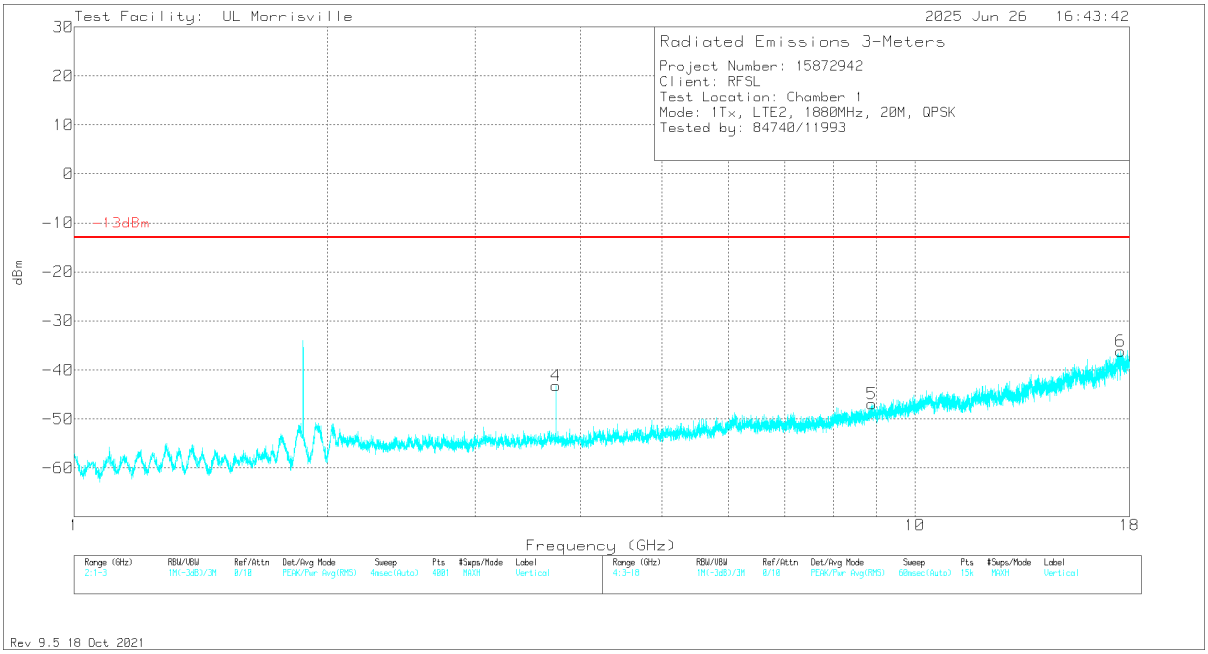


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.702	-43.4	Pk	33.2	-44.3	11.8	0	-42.7	-13	-29.7	0-360	101	H
4	3.702	-46.13	Pk	33.2	-44.3	11.8	0	-45.43	-13	-32.43	0-360	299	V
2	9.033	-56.01	Pk	35.8	-39.4	11.8	0	-47.81	-13	-34.81	0-360	101	H
5	9.055	-55.47	Pk	35.8	-40.1	11.8	0	-47.97	-13	-34.97	0-360	101	V
3	16.775	-55.71	Pk	40.8	-36.1	11.8	0	-39.21	-13	-26.21	0-360	101	H
6	16.832	-56.7	Pk	40.9	-36	11.8	0	-40	-13	-27	0-360	200	V

Pk - Peak detector

QPSK LTE2 (20MHz, Mid Channel)

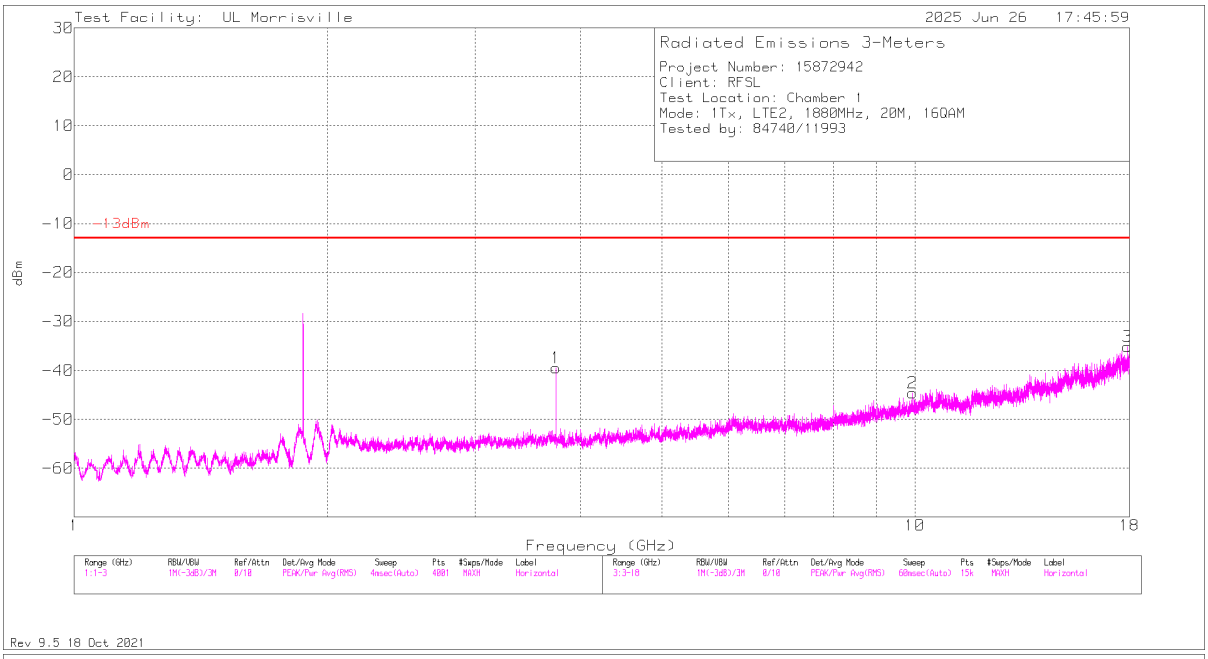


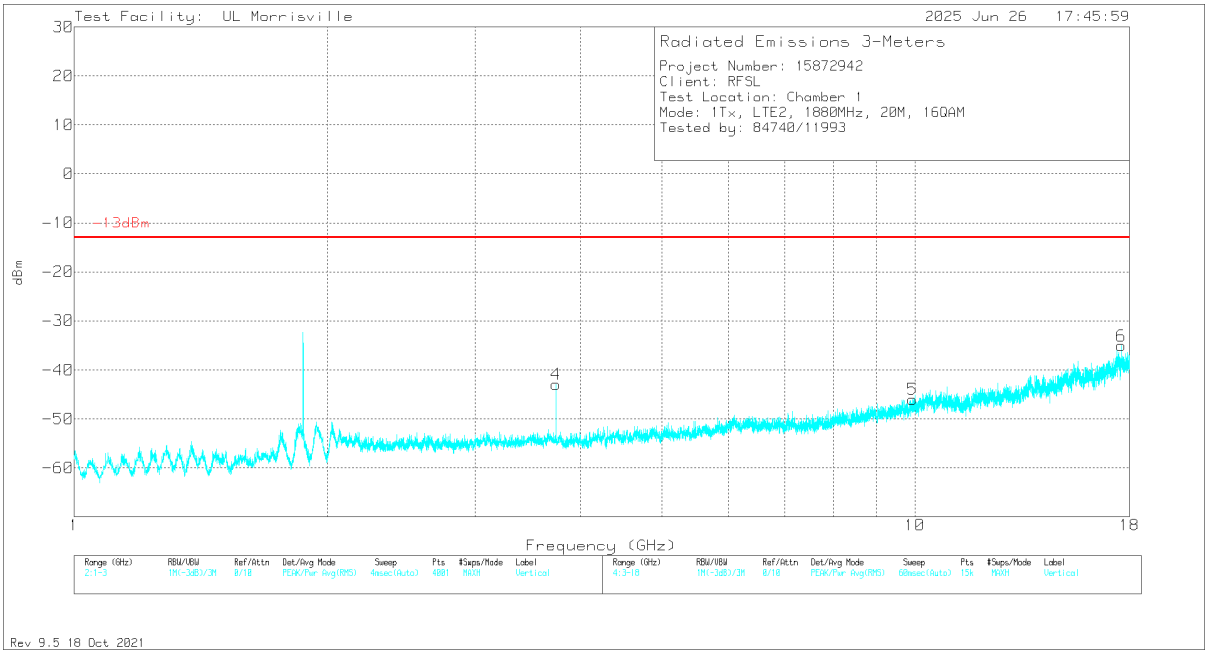


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.742	-40.54	Pk	33.2	-44.3	11.8	0	-39.84	-13	-26.84	0-360	101	H
4	3.742	-43.91	Pk	33.2	-44.3	11.8	0	-43.21	-13	-30.21	0-360	101	V
5	8.887	-54.93	Pk	35.8	-39.6	11.8	0	-46.93	-13	-33.93	0-360	101	V
2	8.891	-55.19	Pk	35.8	-39.4	11.8	0	-46.99	-13	-33.99	0-360	200	H
3	17.463	-55.68	Pk	41.2	-33.4	11.8	0	-36.08	-13	-23.08	0-360	299	H
6	17.574	-55.4	Pk	41.3	-33.9	11.8	0	-36.2	-13	-23.2	0-360	300	V

Pk - Peak detector

16QAM LTE2 (20MHz, Mid Channel)

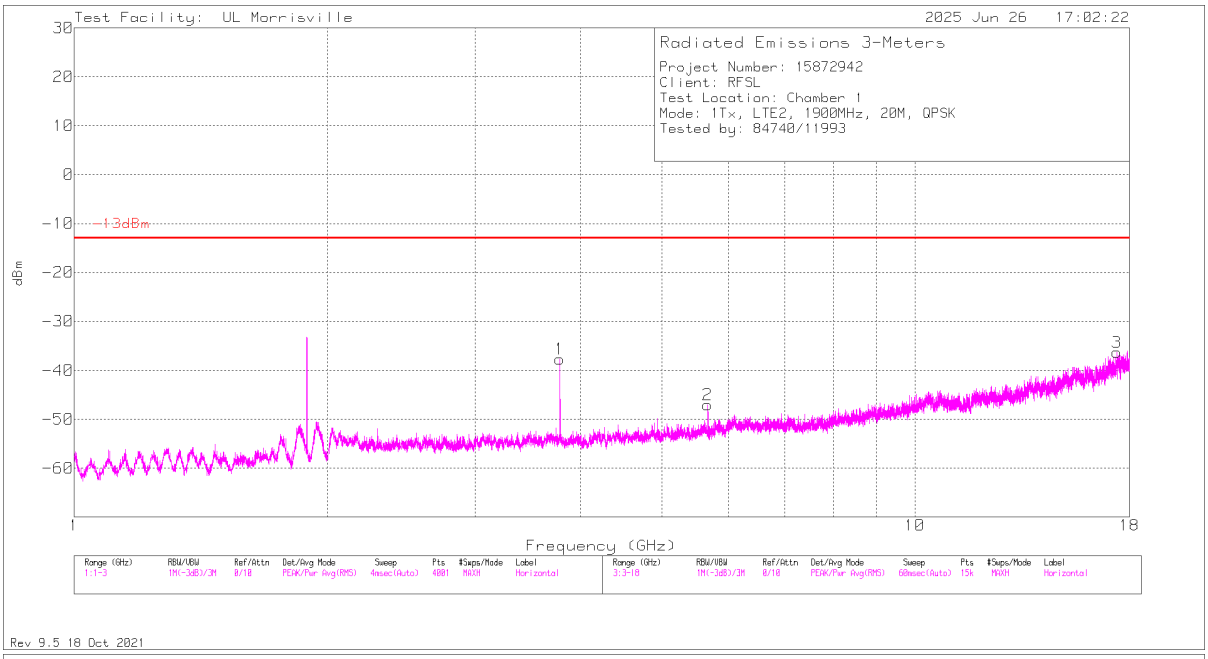


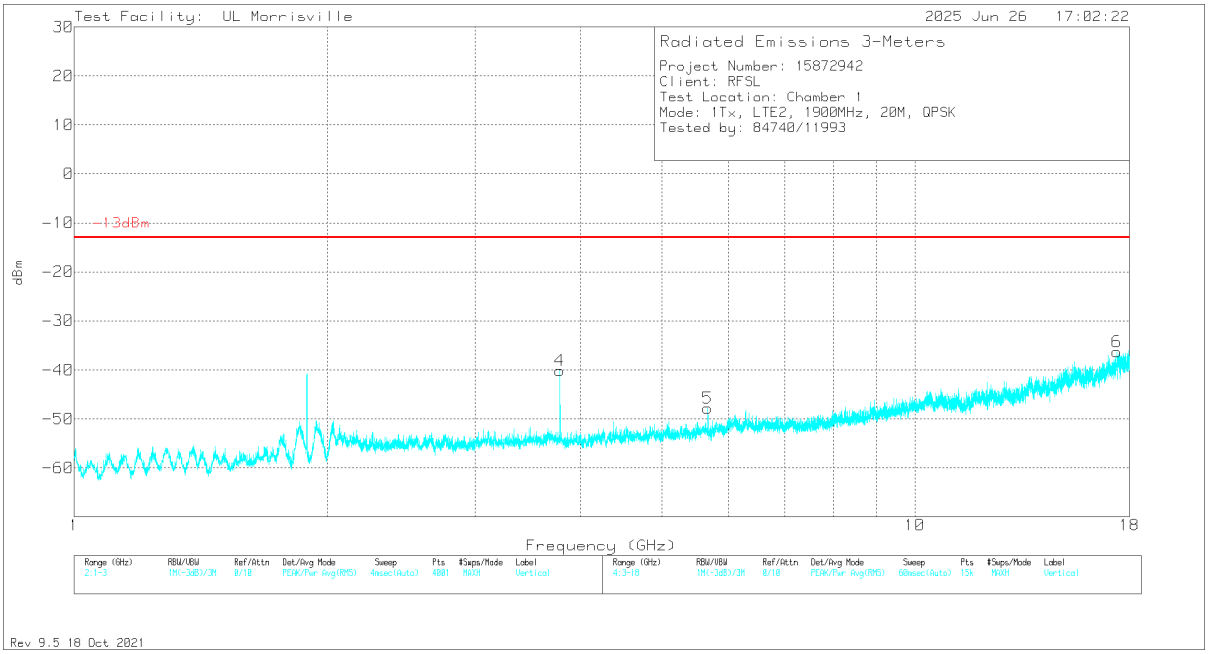


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.742	-40.17	Pk	33.2	-44.3	11.8	0	-39.47	-13	-26.47	0-360	101	H
4	3.742	-43.64	Pk	33.2	-44.3	11.8	0	-42.94	-13	-29.94	0-360	200	V
2	9.938	-54.43	Pk	37.5	-39.5	11.8	0	-44.63	-13	-31.63	0-360	101	H
5	9.938	-55.8	Pk	37.5	-39.5	11.8	0	-46	-13	-33	0-360	300	V
6	17.588	-54.17	Pk	41.3	-34	11.8	0	-35.07	-13	-22.07	0-360	300	V
3	17.894	-54.81	Pk	41.4	-33.5	11.8	0	-35.11	-13	-22.11	0-360	299	H

Pk - Peak detector

QPSK LTE2 (20MHz, High Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.782	-38.86	Pk	33.1	-43.7	11.8	0	-37.66	-13	-24.66	0-360	101	H
4	3.782	-41.32	Pk	33.1	-43.7	11.8	0	-40.12	-13	-27.12	0-360	300	V
2	5.673	-50.58	Pk	34.7	-43	11.8	0	-47.08	-13	-34.08	0-360	101	H
5	5.673	-51.35	Pk	34.7	-43	11.8	0	-47.85	-13	-34.85	0-360	101	V
6	17.392	-56.18	Pk	41.2	-33.1	11.8	0	-36.28	-13	-23.28	0-360	200	V
3	17.395	-56.34	Pk	41.2	-33	11.8	0	-36.34	-13	-23.34	0-360	300	H

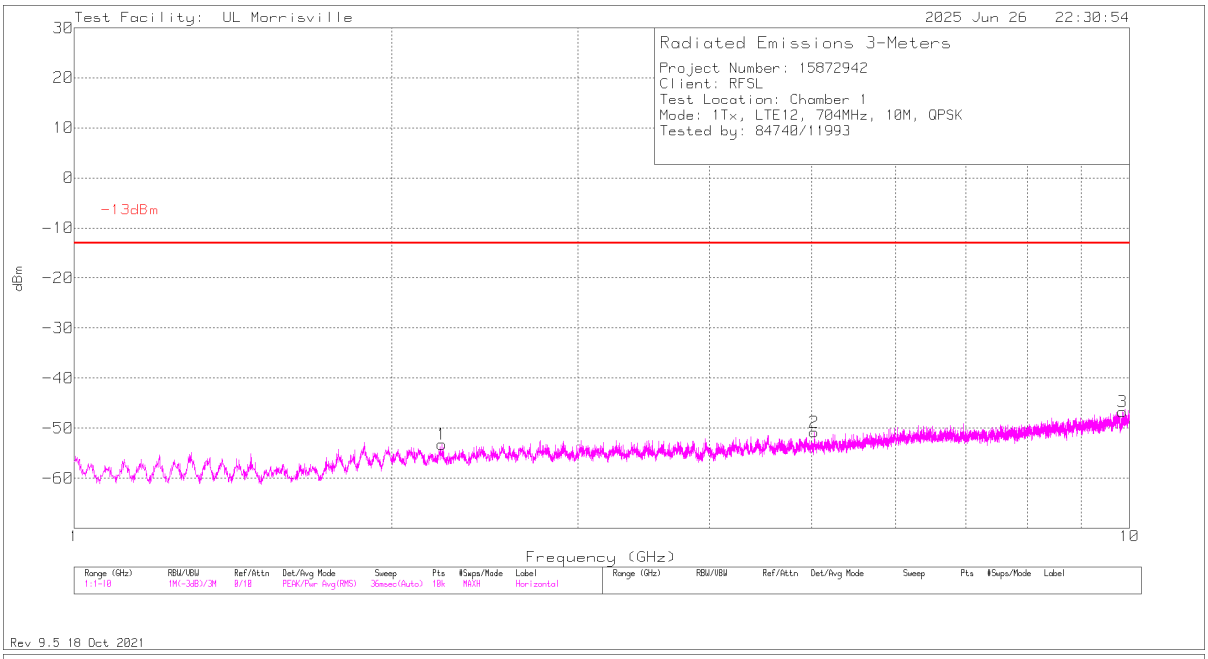
Pk - Peak detector

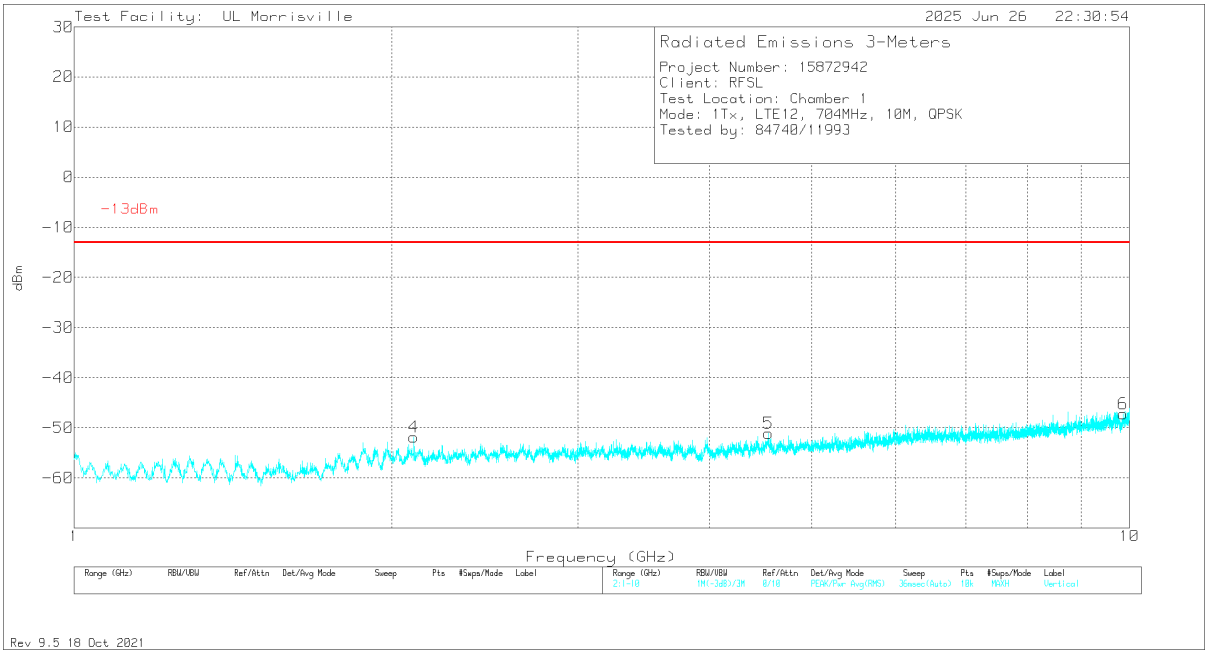
10.1.7. LTE BAND 12

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)

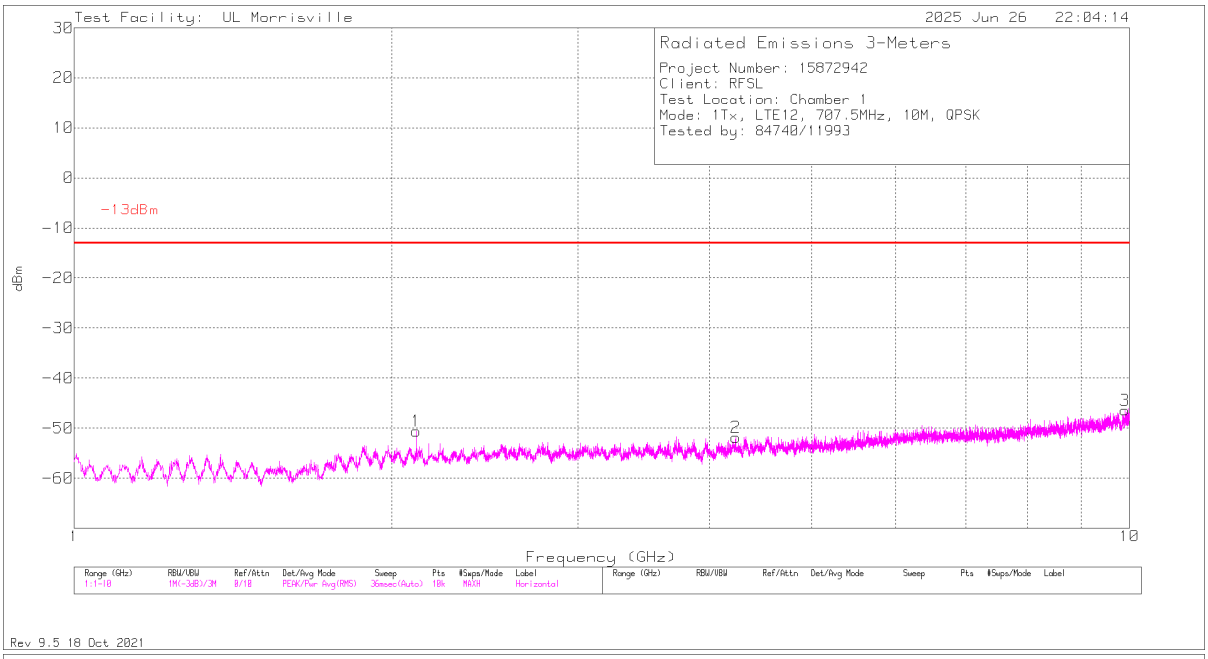


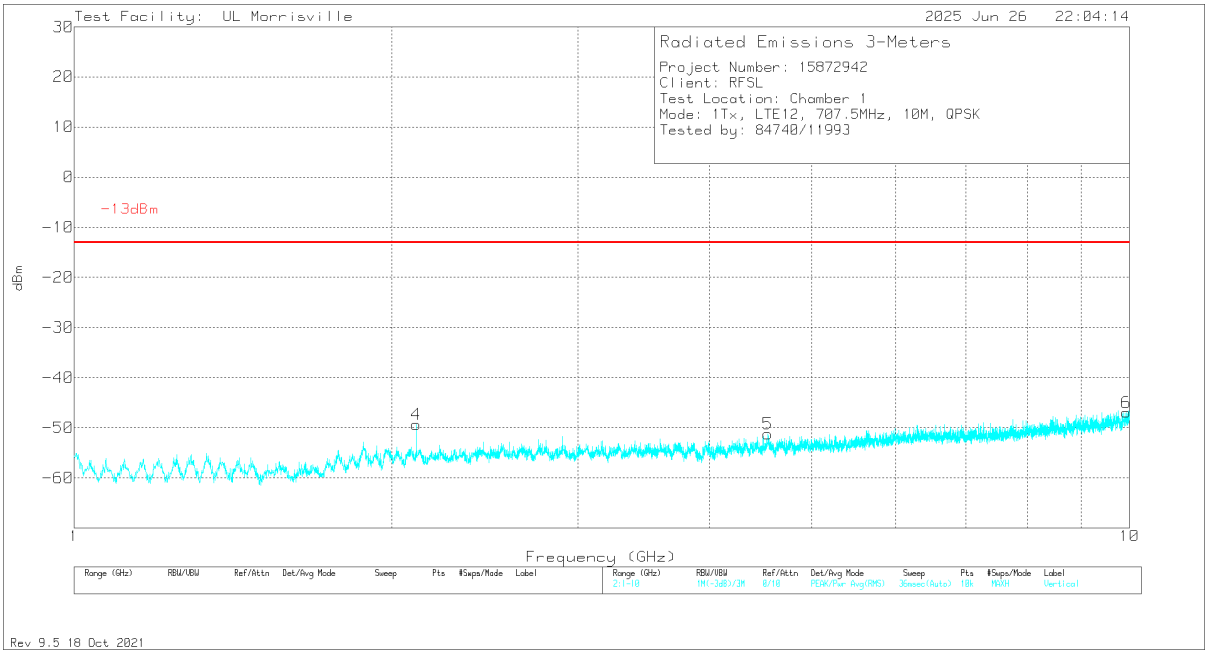


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.0989	-47.54	Pk	31.7	-48.1	.3	11.8	-51.84	-13	-38.84	0-360	201	V
1	2.2321	-48.81	Pk	31.6	-48.1	.3	11.8	-53.21	-13	-40.21	0-360	200	H
5	4.546	-51.21	Pk	33.9	-46	.4	11.8	-51.11	-13	-38.11	0-360	299	V
2	5.0284	-52.6	Pk	34.3	-44.6	.3	11.8	-50.8	-13	-37.8	0-360	200	H
3	9.856	-55.47	Pk	37.3	-40.7	.3	11.8	-46.77	-13	-33.77	0-360	299	H
6	9.8695	-55.6	Pk	37.4	-41.1	.3	11.8	-47.2	-13	-34.2	0-360	299	V

Pk - Peak detector

QPSK LTE12 (10MHz, Mid Channel)

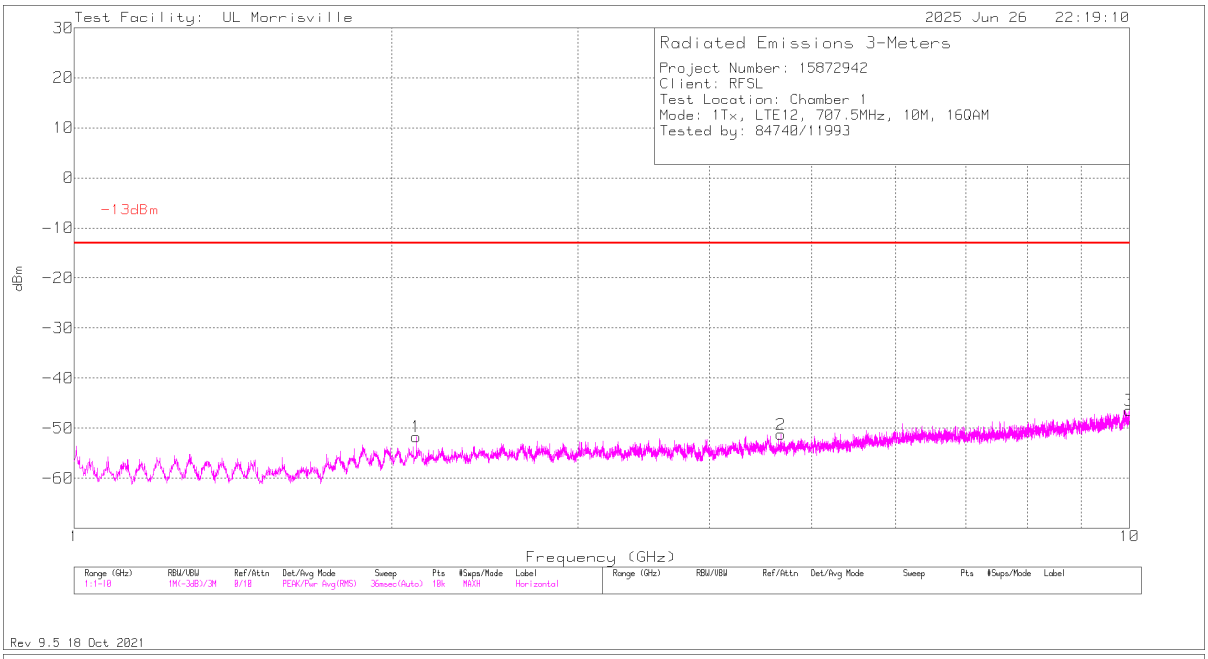


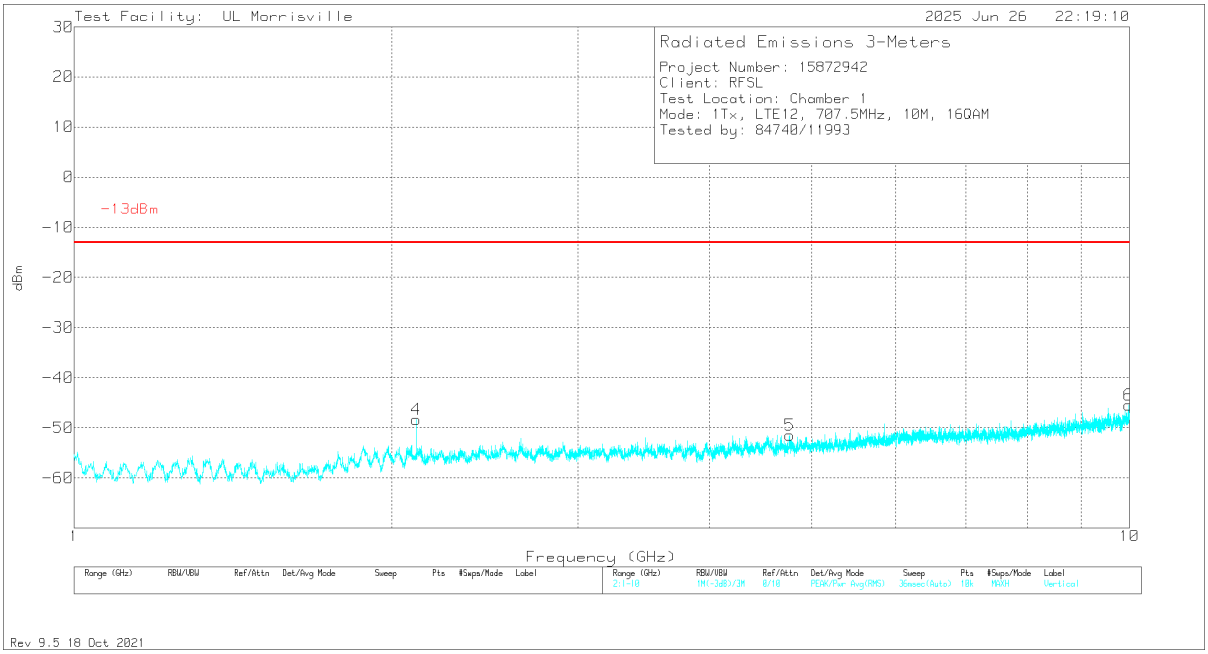


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.1088	-45.19	Pk	31.7	-48	.3	11.8	-49.39	-13	-36.39	0-360	101	V
1	2.1097	-46.4	Pk	31.7	-48	.3	11.8	-50.6	-13	-37.6	0-360	200	H
2	4.2337	-51.6	Pk	33.6	-46.2	.5	11.8	-51.9	-13	-38.9	0-360	300	H
5	4.5433	-51.37	Pk	33.9	-46	.4	11.8	-51.27	-13	-38.27	0-360	101	V
3	9.901	-55.12	Pk	37.4	-41	.5	11.8	-46.42	-13	-33.42	0-360	101	H
6	9.928	-55.42	Pk	37.5	-41.2	.4	11.8	-46.92	-13	-33.92	0-360	300	V

Pk - Peak detector

16QAM LTE12 (10MHz, Mid Channel)

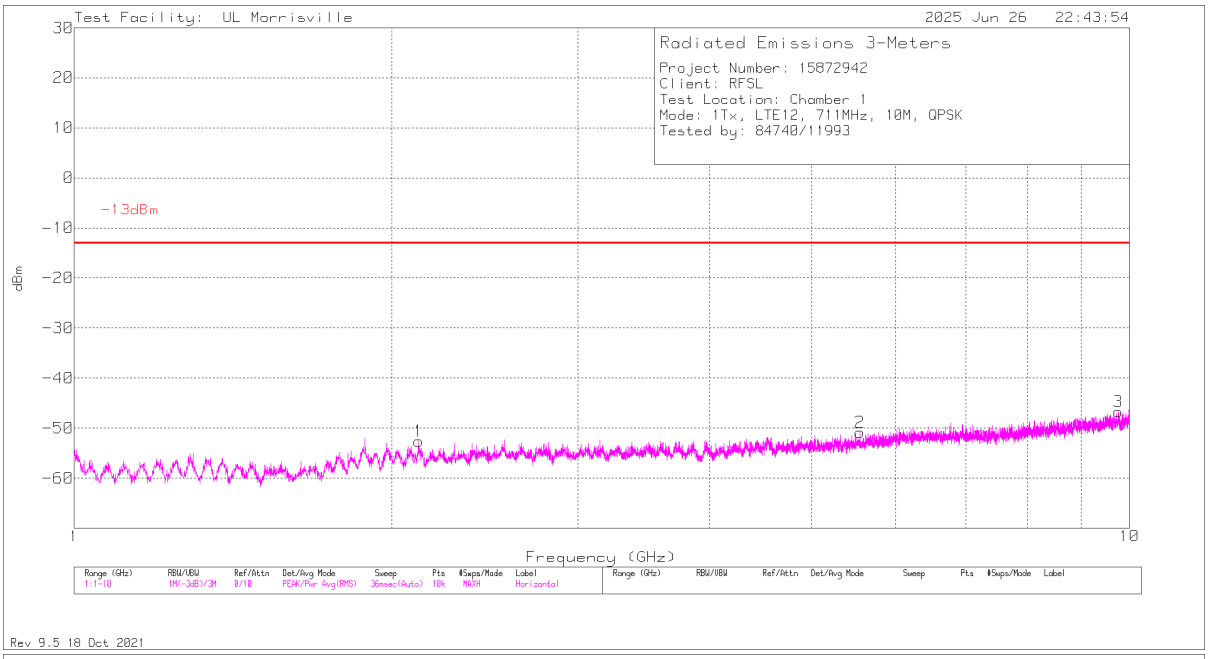


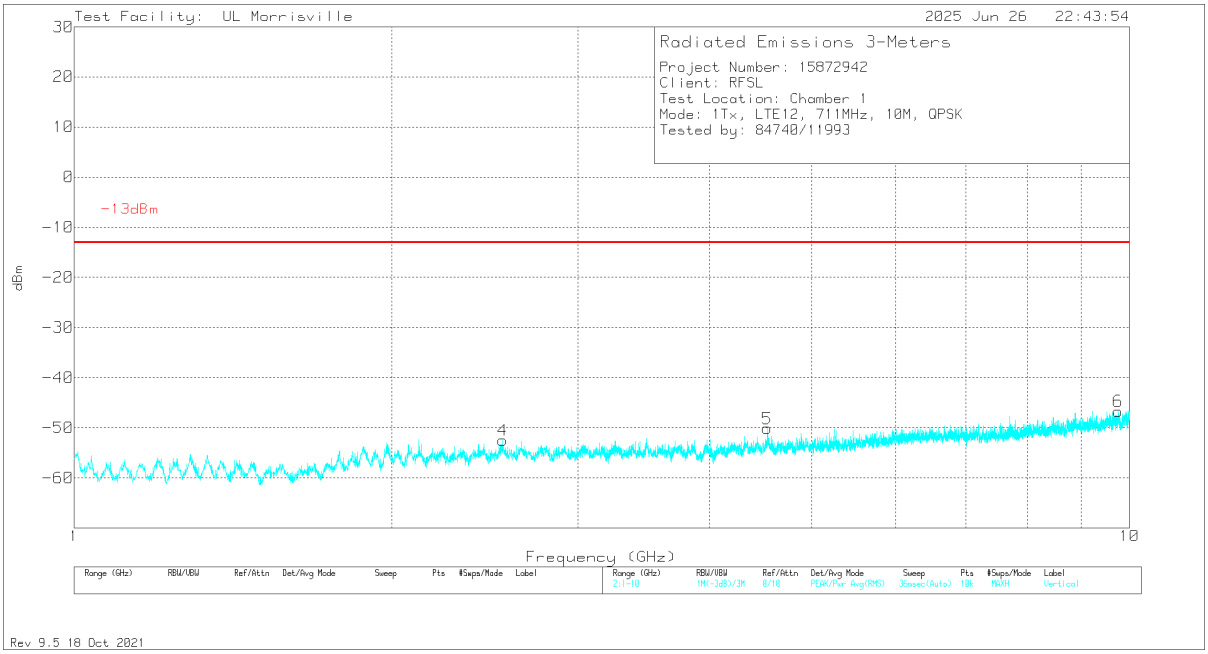


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1088	-47.56	Pk	31.7	-48	.3	11.8	-51.76	-13	-38.76	0-360	200	H
4	2.1097	-44.19	Pk	31.7	-48	.3	11.8	-48.39	-13	-35.39	0-360	200	V
2	4.6765	-51.39	Pk	33.8	-45.9	.4	11.8	-51.29	-13	-38.29	0-360	101	H
5	4.7674	-51.62	Pk	33.8	-45.9	.4	11.8	-51.52	-13	-38.52	0-360	101	V
6	9.9901	-54.7	Pk	37.6	-40.5	.3	11.8	-45.5	-13	-32.5	0-360	200	V
3	9.9928	-55.81	Pk	37.6	-40.4	.3	11.8	-46.51	-13	-33.51	0-360	299	H

Pk - Peak detector

QPSK LTE12 (10MHz, High Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1196	-48.65	Pk	31.7	-48	.5	11.8	-52.65	-13	-39.65	0-360	101	H
4	2.5471	-49.44	Pk	32.3	-47.7	.5	11.8	-52.54	-13	-39.54	0-360	200	V
5	4.5361	-50.17	Pk	33.9	-46.2	.5	11.8	-50.17	-13	-37.17	0-360	200	V
2	5.5531	-54.06	Pk	34.5	-43.5	.4	11.8	-50.86	-13	-37.86	0-360	101	H
6	9.7588	-55.8	Pk	37.1	-40.2	.4	11.8	-46.7	-13	-33.7	0-360	200	V
3	9.7624	-55.99	Pk	37.1	-40.1	.5	11.8	-46.69	-13	-33.69	0-360	101	H

Pk - Peak detector

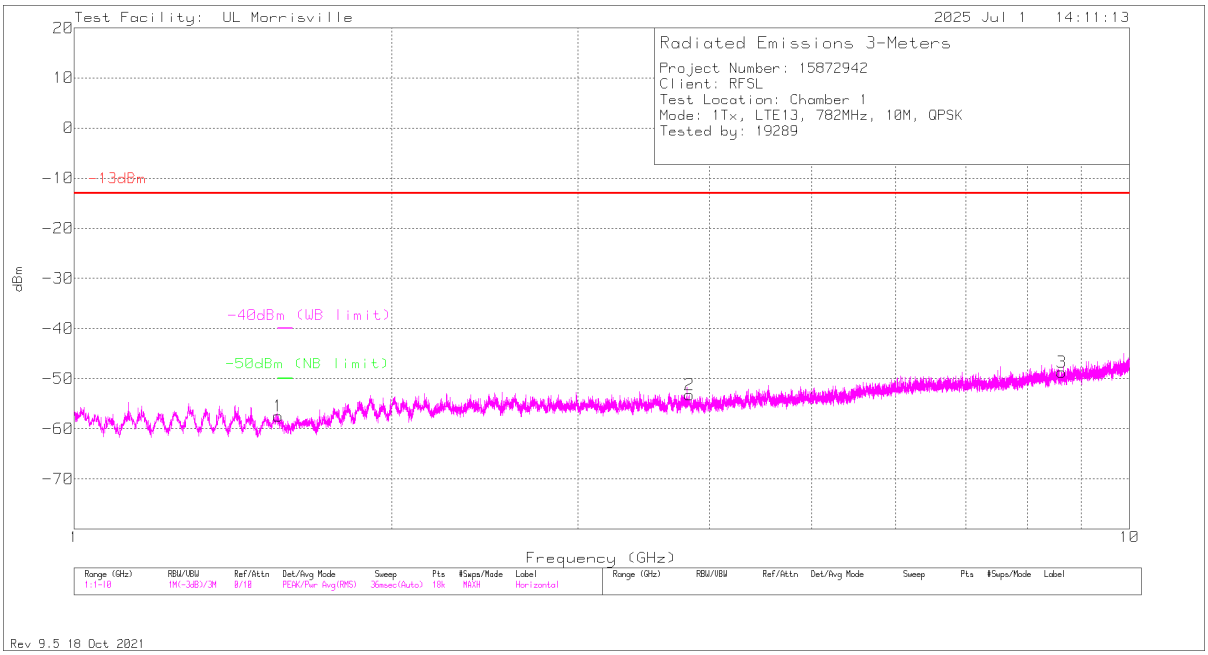
10.1.8. LTE BAND 13

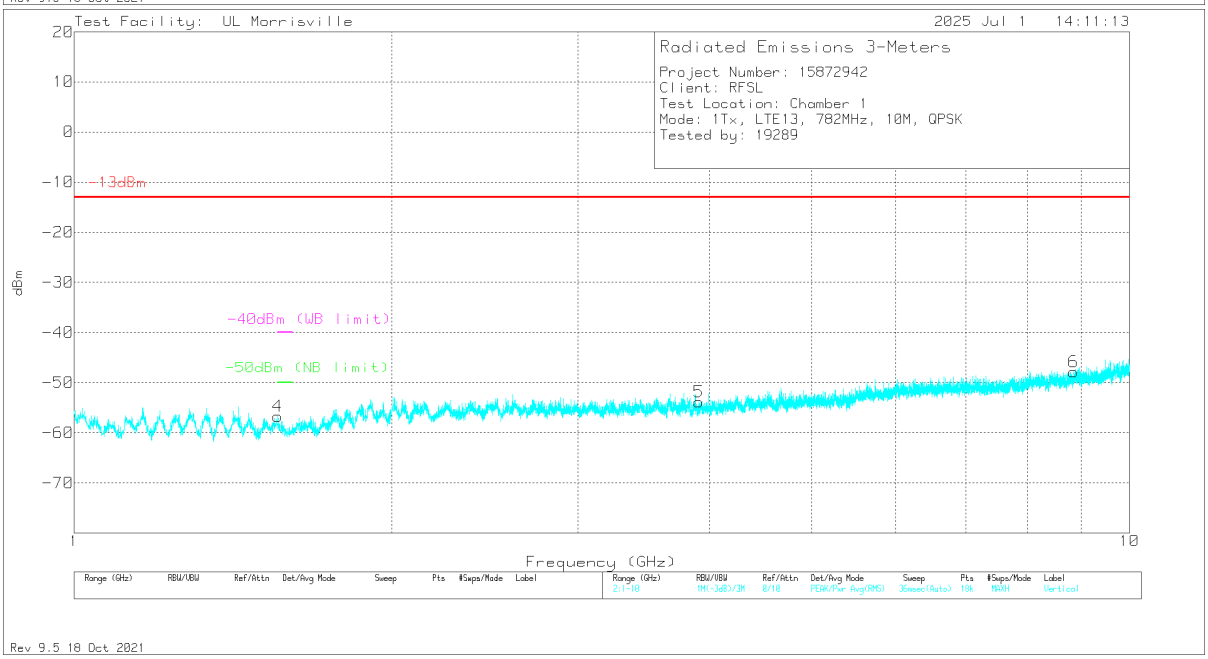
LIMITS

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.

Note: No Emissions in the GPS band (1559 – 1610) MHz were observed.

QPSK LTE13 (10MHz, Mid Channel)

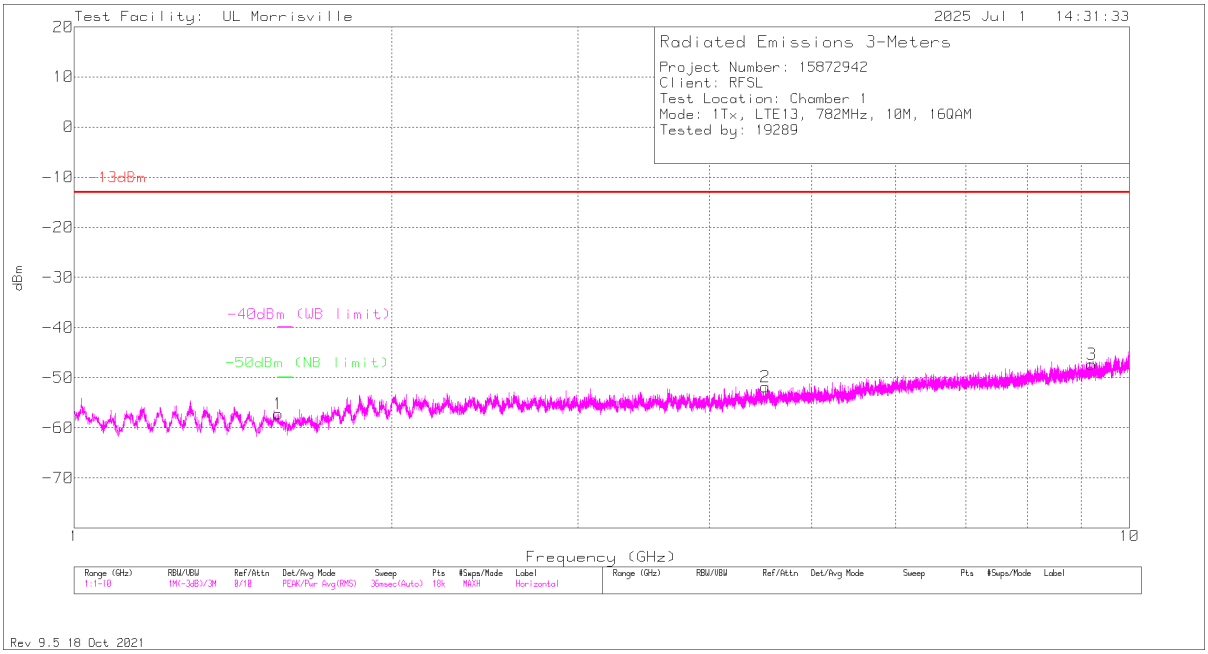


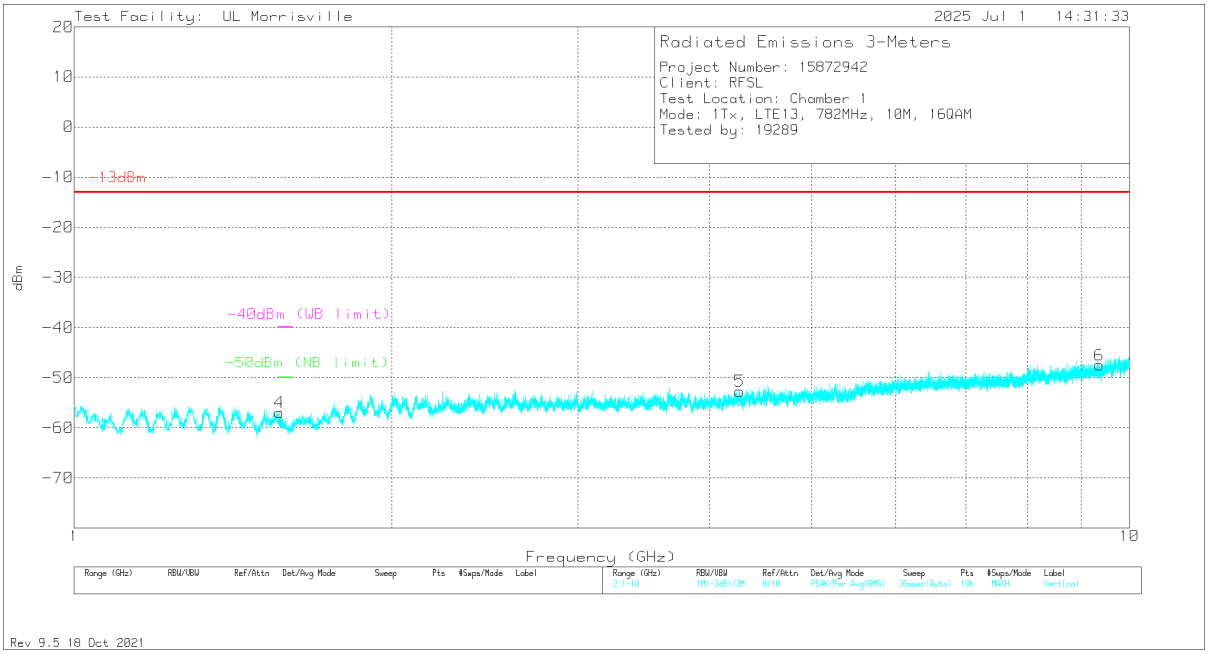


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	-40dBm (WB limit)	Margin (dB)	-50dBm (NB limit)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.55997	-49.09	Pk	28	-48.1	.7	11.8	-56.69	-13	-43.69	-40	-16.69	-50	-6.69	0-360	300	V
1	1.56197	-49.91	Pk	28	-48.1	.7	11.8	-57.51	-13	-44.51	-40	-17.51	-50	-7.51	0-360	299	H
2	3.82884	-53.54	Pk	33	-44.9	.4	11.8	-53.24	-13	-40.24	-	-	-	-	0-360	199	H
5	3.90984	-53.54	Pk	32.9	-45.2	.2	11.8	-53.84	-13	-40.84	-	-	-	-	0-360	300	V
3	8.63107	-55.14	Pk	35.7	-41.4	.3	11.8	-48.74	-13	-35.74	-	-	-	-	0-360	101	H
6	8.85606	-54.79	Pk	35.8	-41	.4	11.8	-47.79	-13	-34.79	-	-	-	-	0-360	200	V

Pk - Peak detector

16QAM LTE13 (10MHz, Mid Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (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
1	1.56147	-49.65	Pk	28	-48.1	.7	11.8	-57.25	-13	-44.25	-40	-17.25	-50	-7.25	0-360	299	H
4	1.56447	-49.24	Pk	28	-48.2	.7	11.8	-56.94	-13	-43.94	-40	-16.94	-50	-6.94	0-360	101	V
5	4.26982	-52.9	Pk	33.7	-45.5	.2	11.8	-52.7	-13	-39.7	-	-	-	-	0-360	201	V
2	4.5193	-51.51	Pk	33.9	-46.3	.3	11.8	-51.81	-13	-38.81	-	-	-	-	0-360	299	H
3	9.21154	-54.29	Pk	36	-41.1	.3	11.8	-47.29	-13	-34.29	-	-	-	-	0-360	200	H
6	9.36953	-55.02	Pk	36.2	-40.8	.3	11.8	-47.52	-13	-34.52	-	-	-	-	0-360	299	V

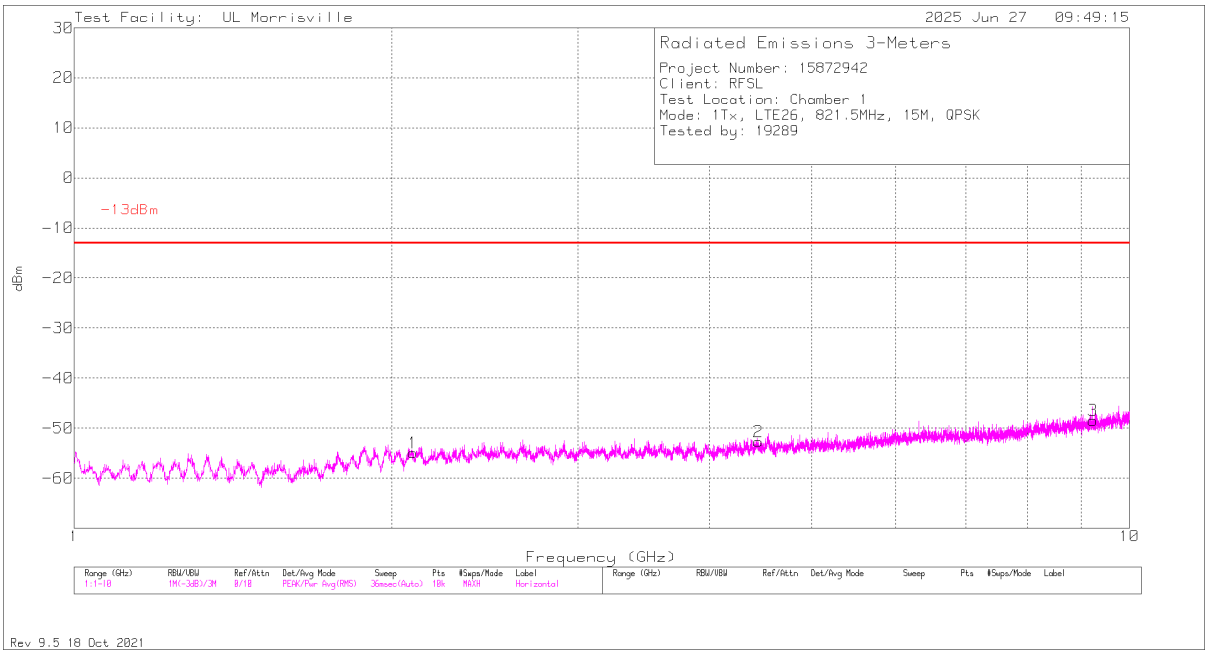
Pk - Peak detector

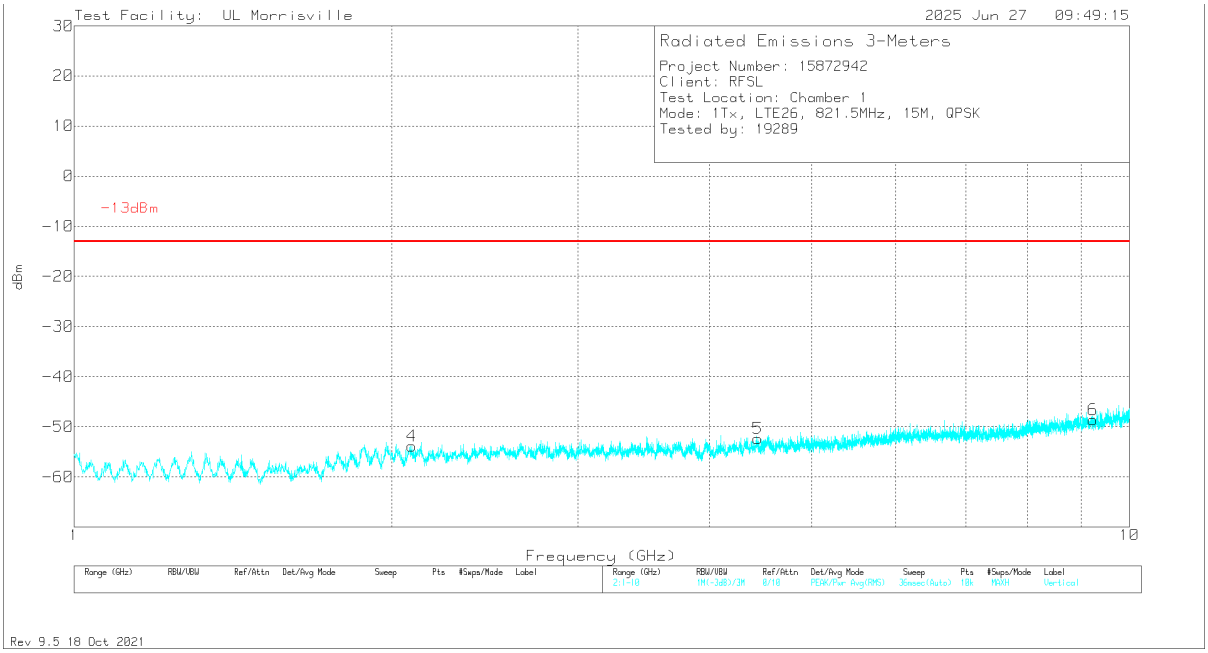
10.1.9. LTE BAND 26

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 LTE26 (10MHz, Low Channel)

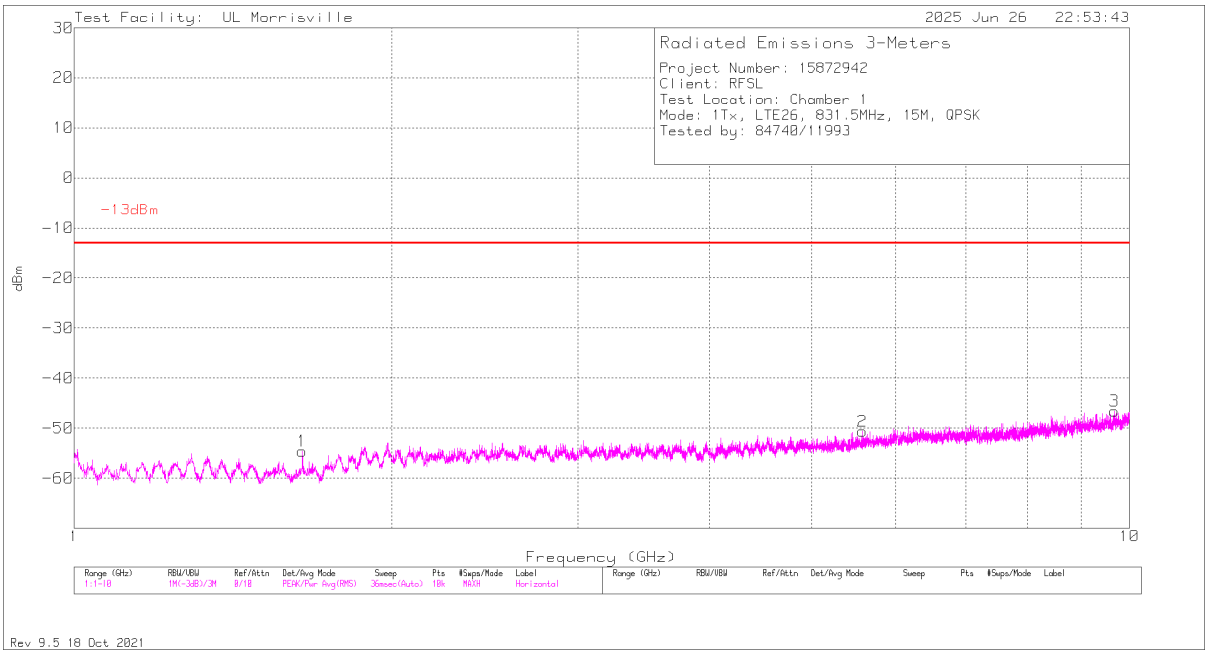


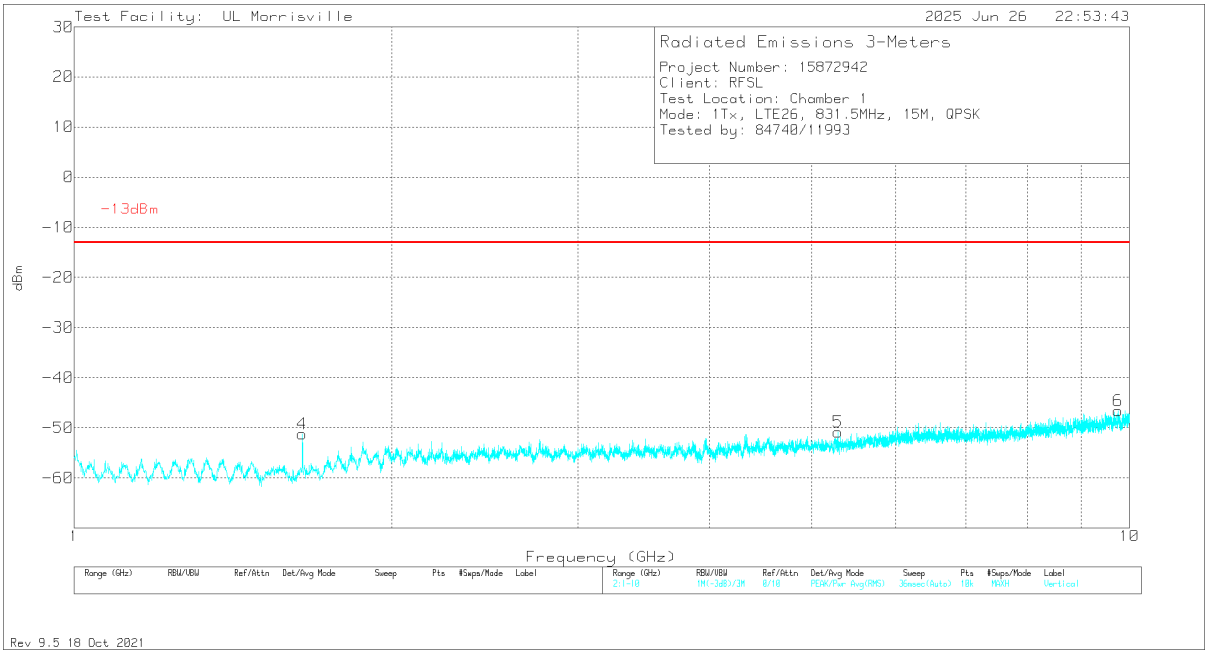


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.089	-49.38	Pk	31.7	-48.3	.3	11.8	-53.88	-13	-40.88	0-360	201	V
1	2.0944	-50.53	Pk	31.7	-48.2	.3	11.8	-54.93	-13	-41.93	0-360	200	H
5	4.4425	-51.9	Pk	33.9	-46.3	.1	11.8	-52.4	-13	-39.4	0-360	101	V
2	4.4497	-52.18	Pk	33.9	-46.3	.1	11.8	-52.68	-13	-39.68	0-360	299	H
3	9.2341	-56.14	Pk	36.1	-40.5	.3	11.8	-48.44	-13	-35.44	0-360	100	H
6	9.2386	-55.87	Pk	36.1	-40.8	.2	11.8	-48.57	-13	-35.57	0-360	201	V

Pk - Peak detector

QPSK LTE26 (15MHz, Mid Channel)

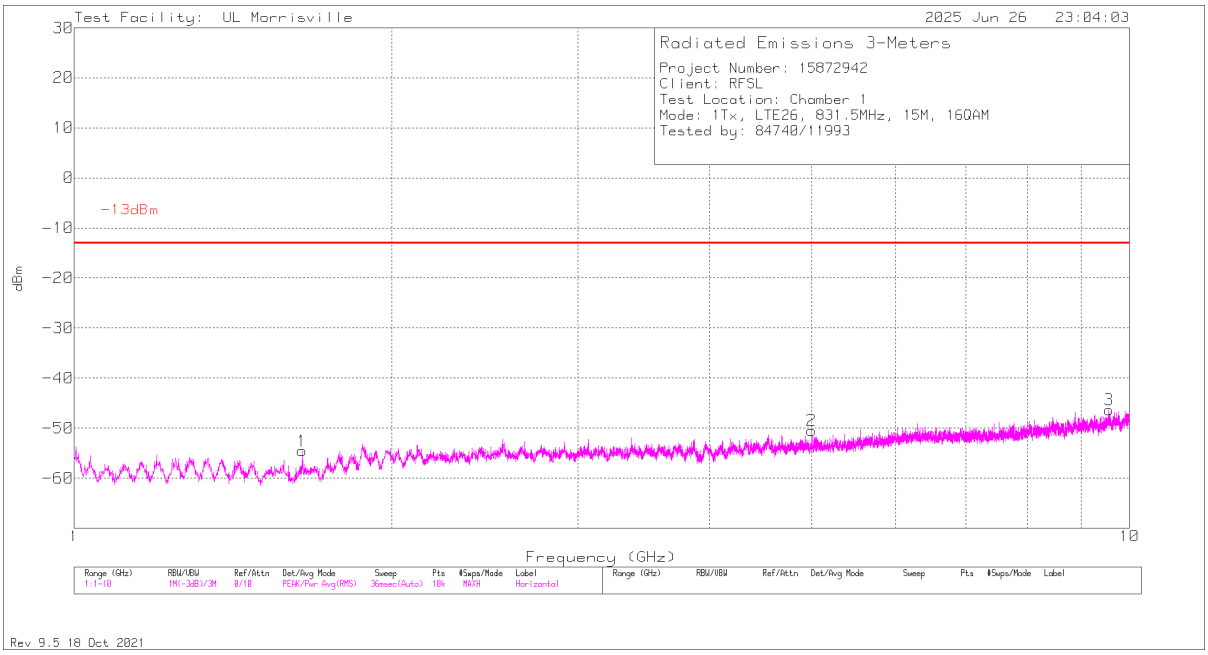


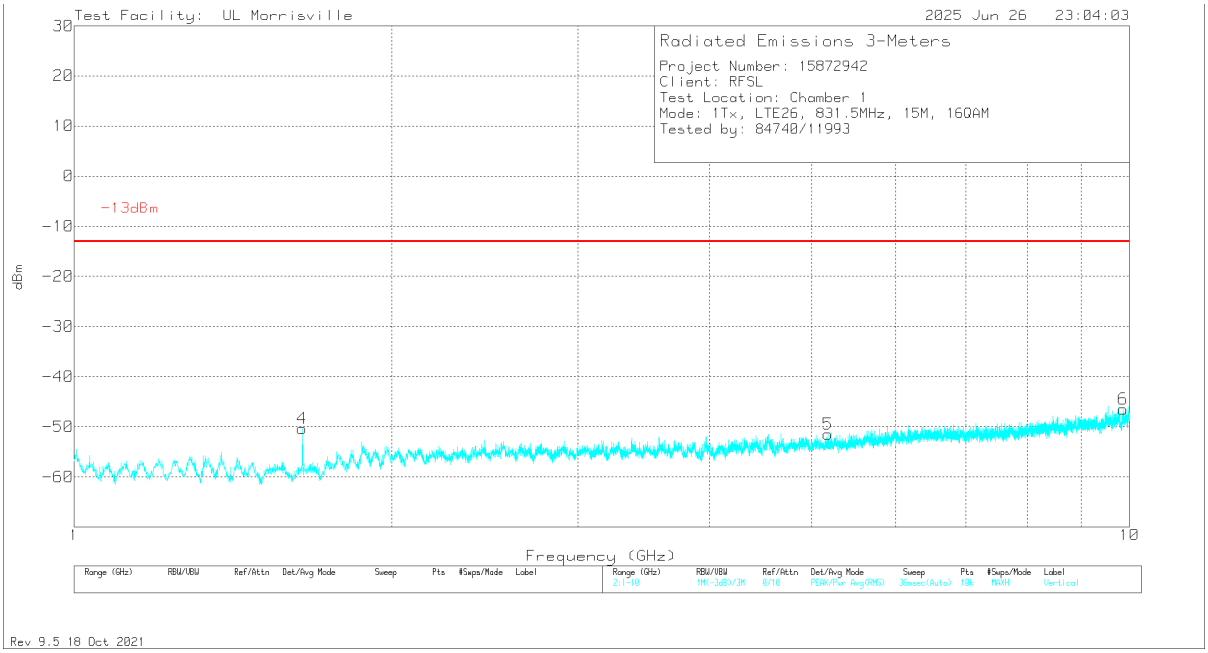


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6453	-46.98	Pk	28.3	-48.1	.4	11.8	-54.58	-13	-41.58	0-360	101	H
4	1.6453	-43.59	Pk	28.3	-48.1	.4	11.8	-51.19	-13	-38.19	0-360	101	V
5	5.2912	-52.82	Pk	34.3	-44.2	.1	11.8	-50.82	-13	-37.82	0-360	101	V
2	5.5873	-53.56	Pk	34.5	-43.6	.2	11.8	-50.66	-13	-37.66	0-360	101	H
3	9.6823	-55.02	Pk	36.8	-40.5	.3	11.8	-46.62	-13	-33.62	0-360	101	H
6	9.7552	-55.52	Pk	37	-40.3	.4	11.8	-46.62	-13	-33.62	0-360	200	V

Pk - Peak detector

16QAM LTE26 (15MHz, Mid Channel)

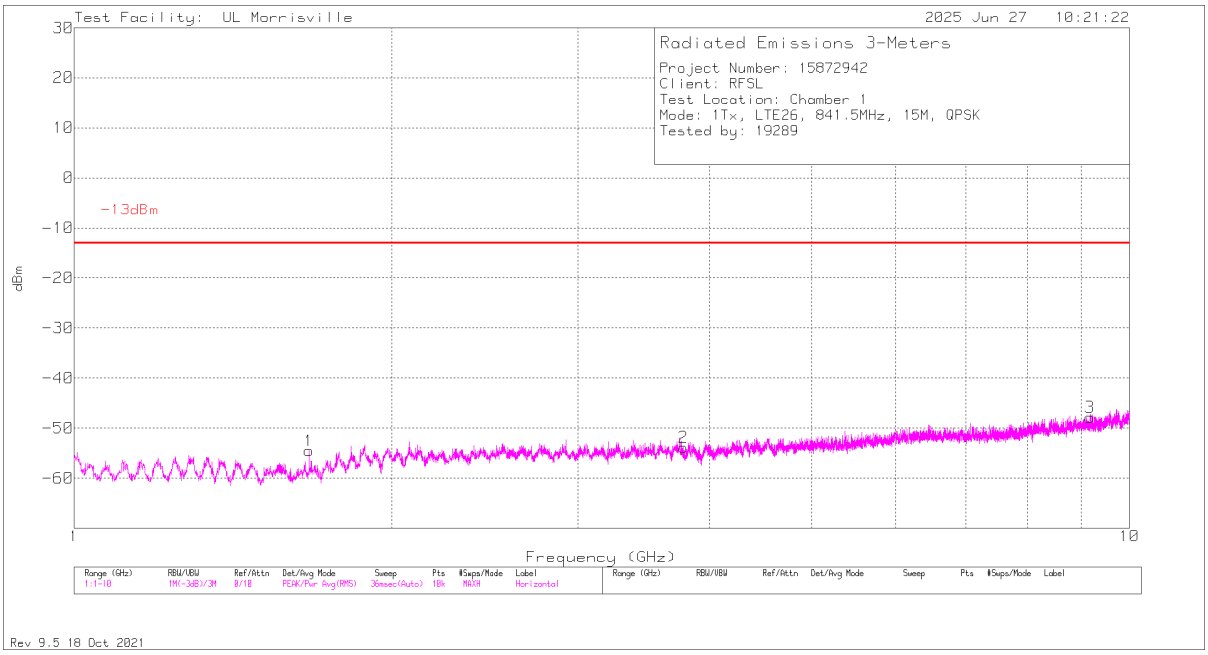


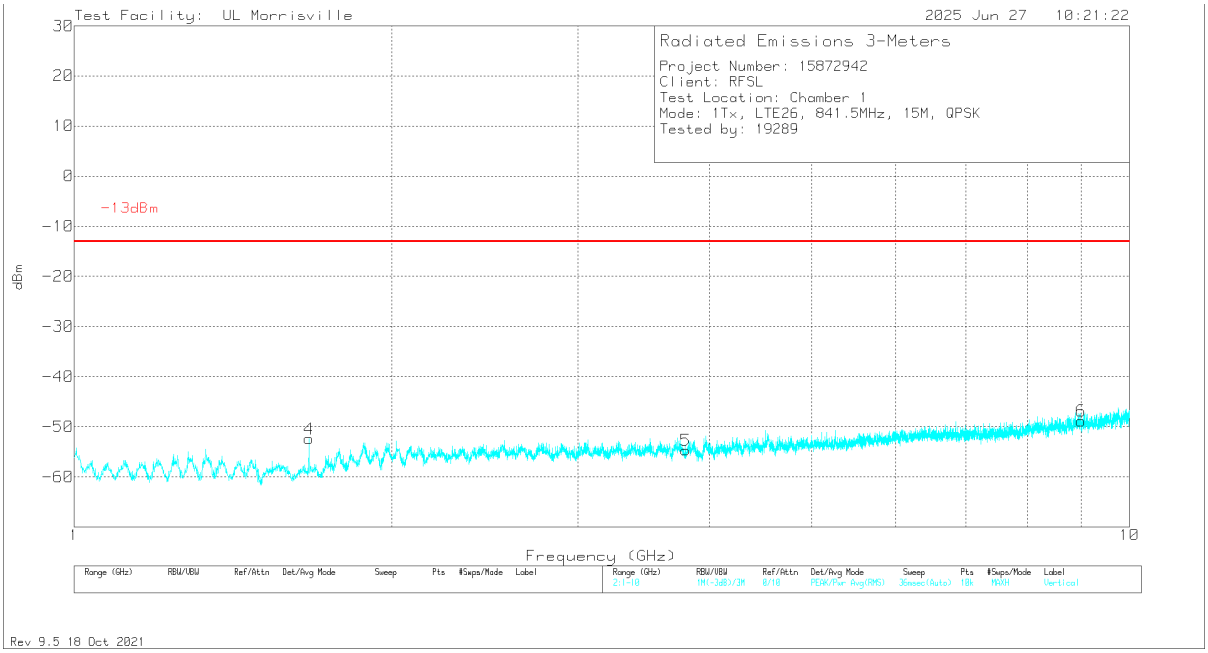


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6453	-46.95	Pk	28.3	-48.1	.4	11.8	-54.55	-13	-41.55	0-360	101	H
4	1.6453	-42.72	Pk	28.3	-48.1	.4	11.8	-50.32	-13	-37.32	0-360	101	V
2	4.9978	-51.52	Pk	34.3	-45.3	.2	11.8	-50.52	-13	-37.52	0-360	300	H
5	5.1769	-53.23	Pk	34.3	-44.6	.2	11.8	-51.53	-13	-38.53	0-360	300	V
3	9.5644	-54.02	Pk	36.5	-41	.4	11.8	-46.32	-13	-33.32	0-360	300	H
6	9.8668	-55.04	Pk	37.4	-40.9	.3	11.8	-46.44	-13	-33.44	0-360	300	V

Pk - Peak detector

QPSK LTE26 (15MHz, High Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.6696	-46.64	Pk	28.4	-48.4	.3	11.8	-54.54	-13	-41.54	0-360	199	H
4	1.6696	-44.52	Pk	28.4	-48.4	.3	11.8	-52.42	-13	-39.42	0-360	101	V
2	3.7792	-54.08	Pk	33.1	-44.9	.2	11.8	-53.88	-13	-40.88	0-360	299	H
5	3.799	-54.58	Pk	33.1	-45.3	.3	11.8	-54.68	-13	-41.68	0-360	201	V
6	9.0001	-55.94	Pk	35.8	-41	.5	11.8	-48.84	-13	-35.84	0-360	101	V
3	9.1756	-55.4	Pk	36	-40.8	.5	11.8	-47.9	-13	-34.9	0-360	299	H

Pk - Peak detector

10.1.1. LTE BAND 26 (Part 90S)

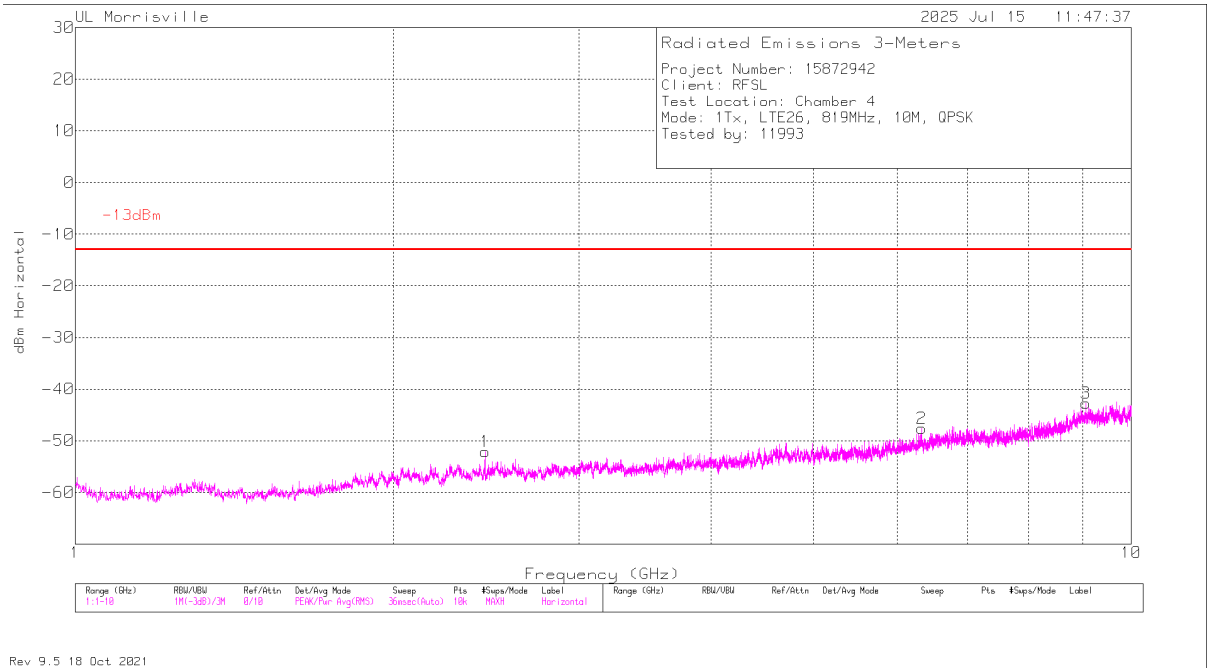
LIMITS

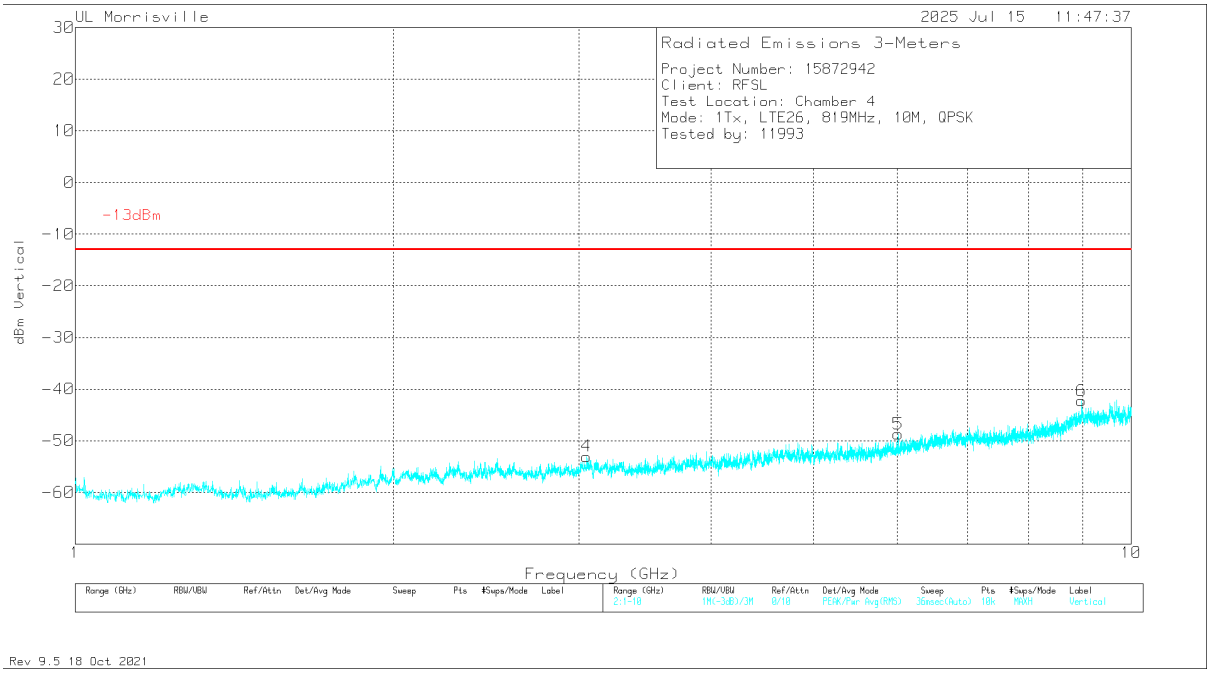
FCC: § 90.691 Emission mask requirements for EA-based systems.
(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz

QPSK LTE26 (10MHz, Mid Channel)

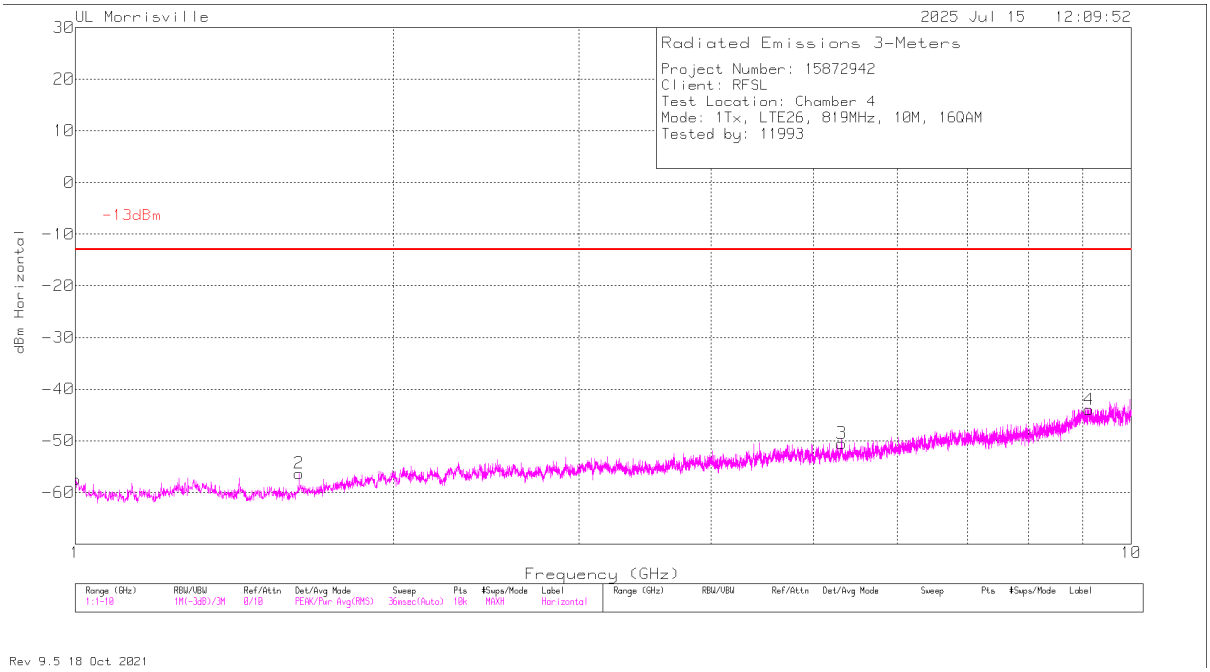


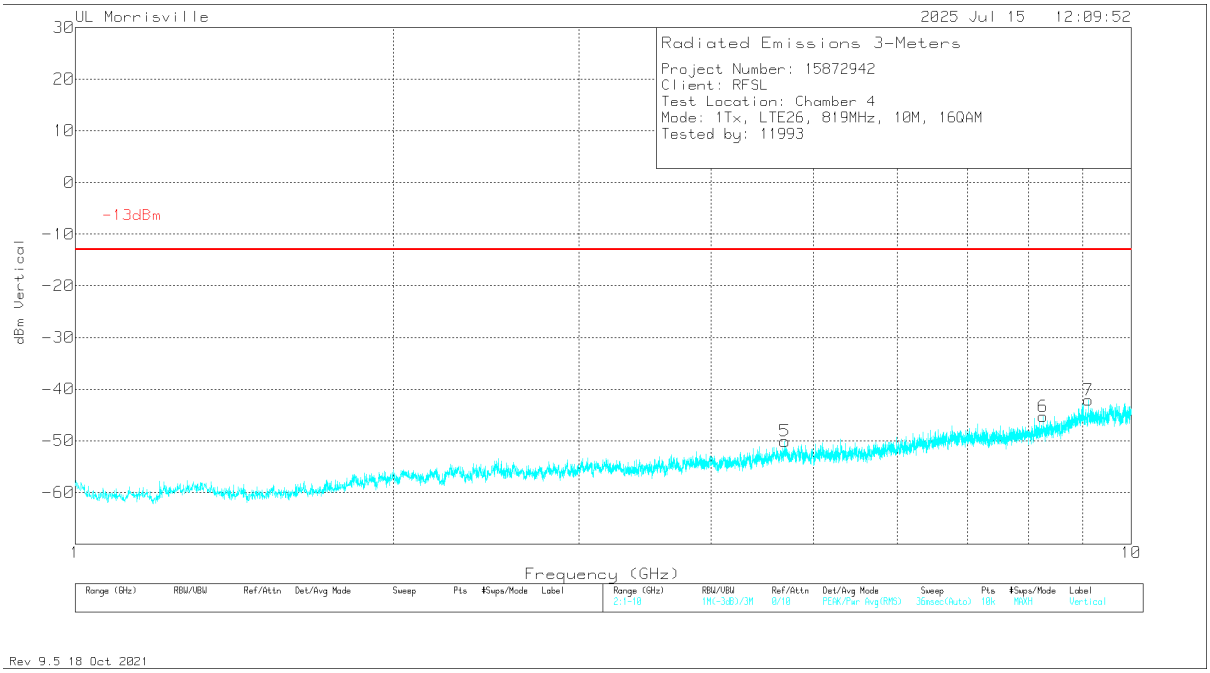


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4436	-59.24	Pk	32.2	-37.3	.4	11.8	-52.14	-13	-39.14	0-360	200	H
4	3.0493	-62.13	Pk	33	-36	.3	11.8	-53.03	-13	-40.03	0-360	200	V
5	6.0157	-64.9	Pk	35.2	-31.1	.3	11.8	-48.7	-13	-35.7	0-360	200	V
2	6.3316	-65.62	Pk	35.4	-29.5	.3	11.8	-47.62	-13	-34.62	0-360	200	H
6	8.974	-65.06	Pk	36	-25.3	.3	11.8	-42.26	-13	-29.26	0-360	200	V
3	9.0541	-65.94	Pk	36	-25	.4	11.8	-42.74	-13	-29.74	0-360	200	H

Pk - Peak detector

16QAM LTE26 (10MHz, Mid Channel)





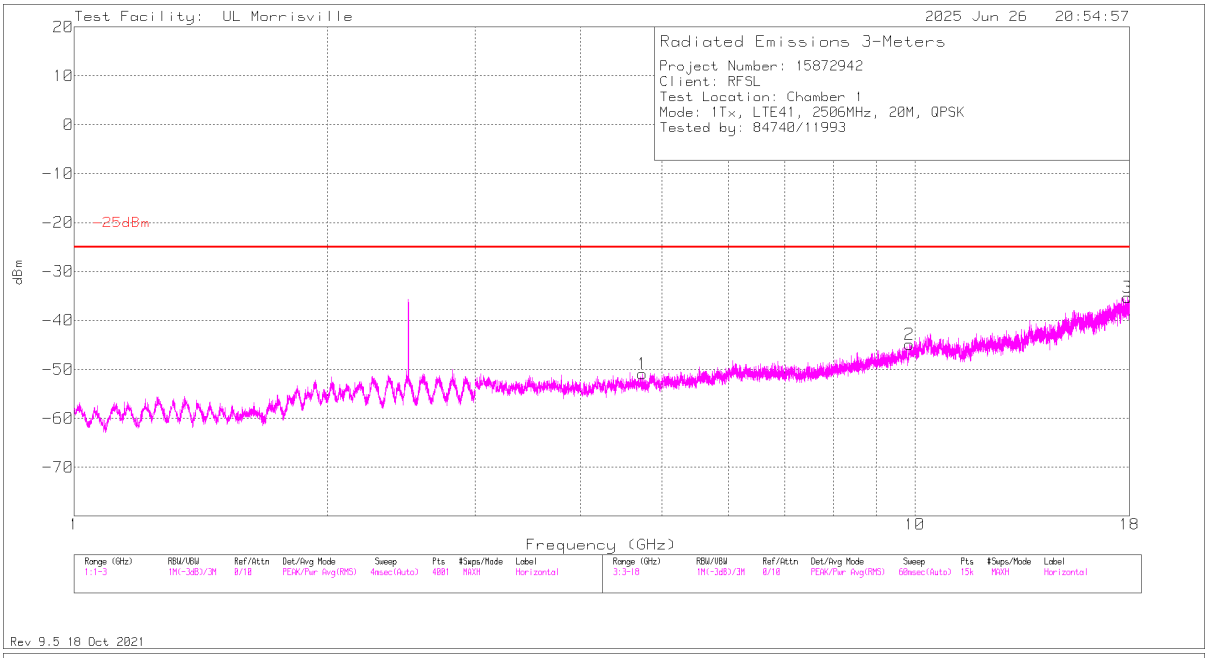
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	CF (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.0009	-63.93	Pk	27.4	-35.8	3.1	11.8	-57.43	-13	-44.43	0-360	100	H
2	1.6291	-60.62	Pk	28.9	-36.9	.5	11.8	-56.32	-13	-43.32	0-360	100	H
5	4.699	-63.98	Pk	34.1	-32.3	.3	11.8	-50.08	-13	-37.08	0-360	200	V
3	5.3173	-65.39	Pk	34.4	-31.5	.2	11.8	-50.49	-13	-37.49	0-360	200	H
6	8.2522	-65.81	Pk	35.7	-27.5	.5	11.8	-45.31	-13	-32.31	0-360	300	V
7	9.1117	-65.12	Pk	36	-25.1	.3	11.8	-42.12	-13	-29.12	0-360	300	V
4	9.1171	-66.35	Pk	36.1	-25.7	.2	11.8	-43.95	-13	-30.95	0-360	100	H

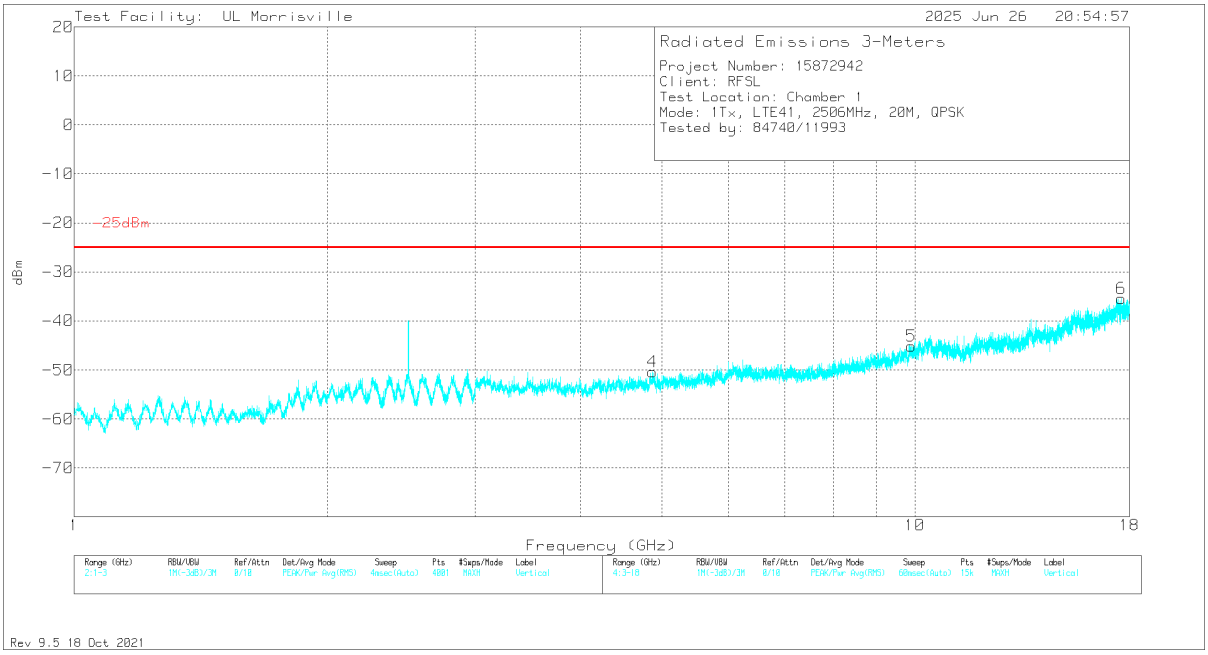
Pk - Peak detector

10.1.2. 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)

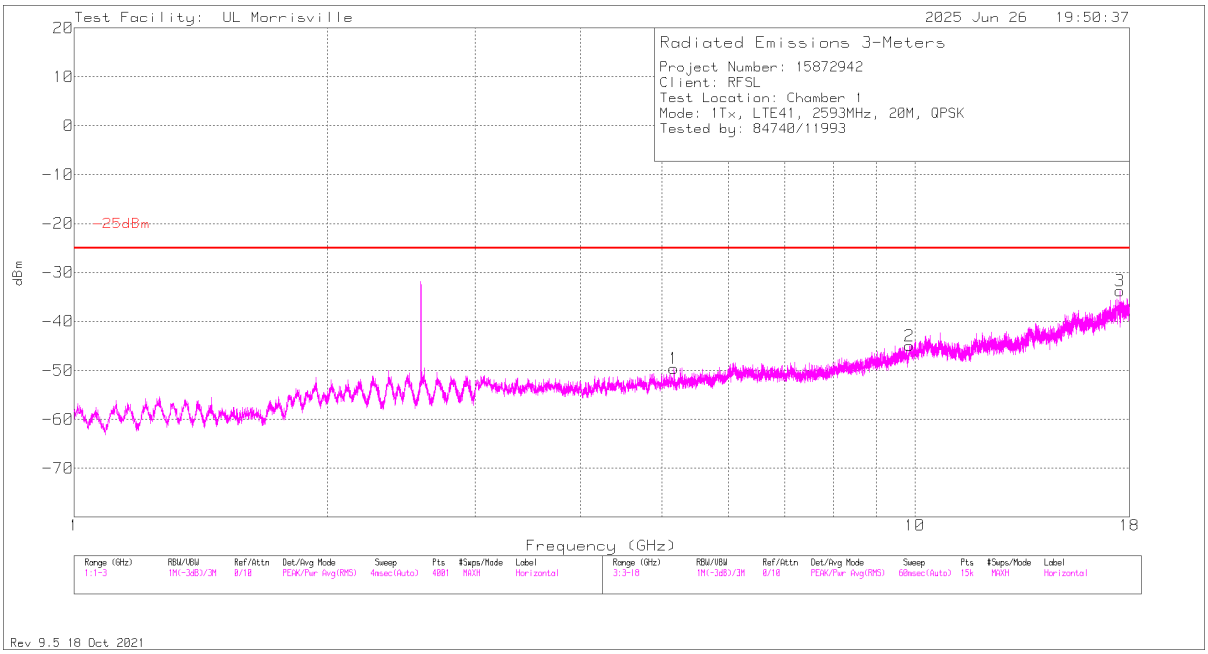


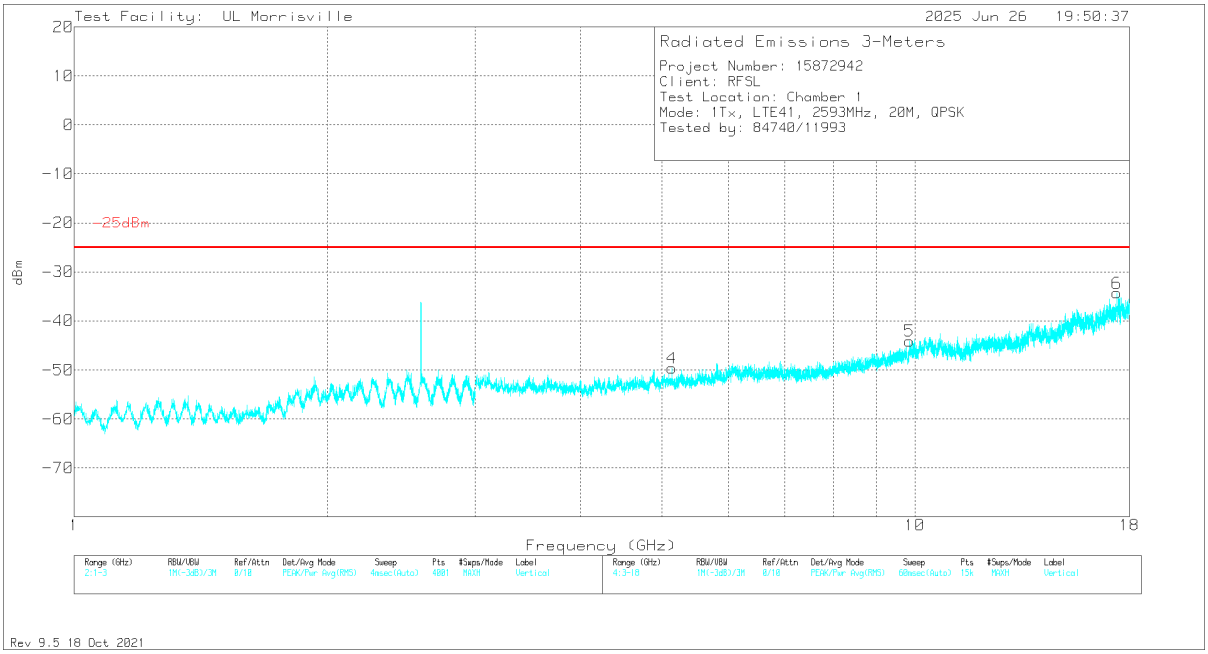


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	4.741	-51.94	Pk	33.8	-45.4	11.8	.8	-50.94	-25	-25.94	0-360	101	H
4	4.872	-52.14	Pk	34	-44.8	11.8	.8	-50.34	-25	-25.34	0-360	200	V
2	9.854	-55.32	Pk	37.3	-40.1	11.8	1.4	-44.92	-25	-19.92	0-360	199	H
5	9.901	-55.14	Pk	37.4	-40.3	11.8	1.1	-45.14	-25	-20.14	0-360	299	V
6	17.595	-55.99	Pk	41.3	-33.5	11.8	1	-35.39	-25	-10.39	0-360	299	V
3	17.891	-55.68	Pk	41.4	-33.7	11.8	.9	-35.28	-25	-10.28	0-360	199	H

Pk - Peak detector

QPSK LTE41(20MHz, Mid Channel)

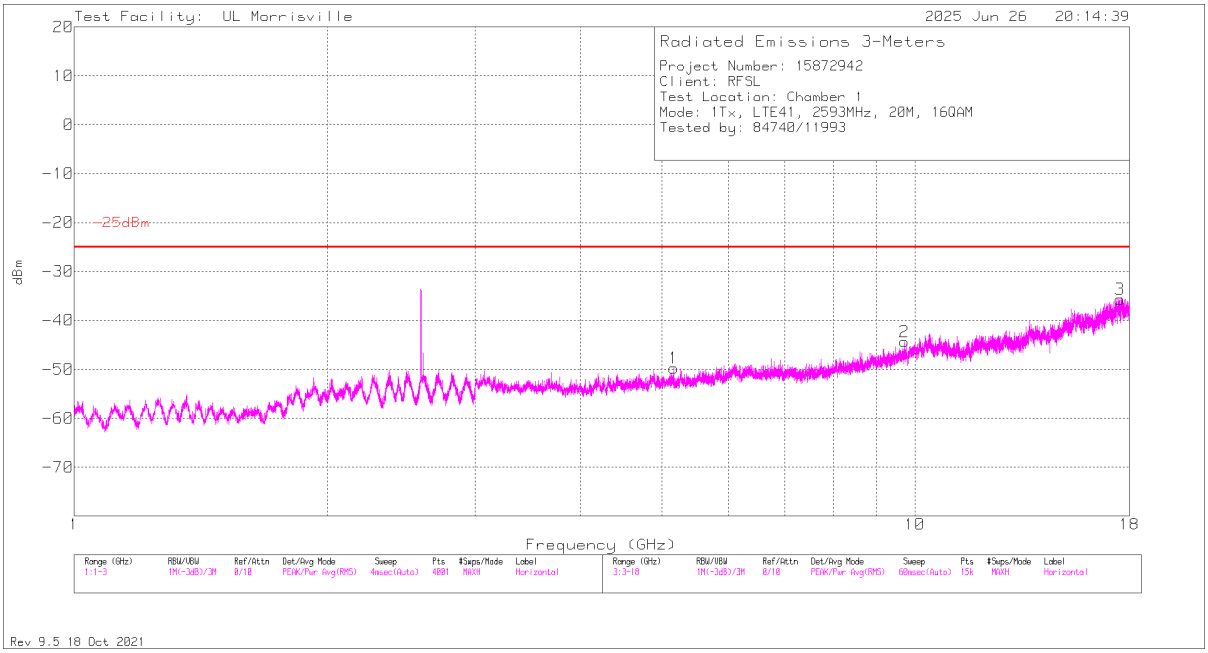


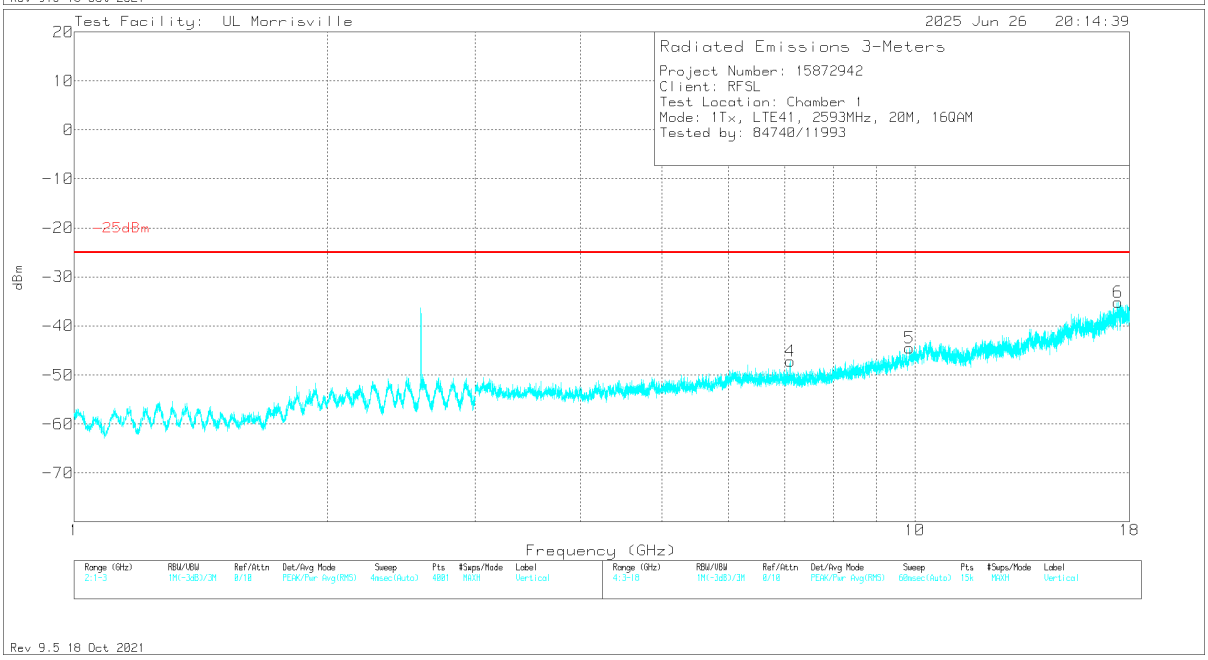


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	5.144	-52.47	Pk	34.3	-44	11.8	.7	-49.67	-25	-24.67	0-360	300	V
1	5.168	-52.13	Pk	34.3	-44.2	11.8	.6	-49.63	-25	-24.63	0-360	101	H
2	9.846	-54.95	Pk	37.3	-40.5	11.8	1.4	-44.95	-25	-19.95	0-360	199	H
5	9.858	-54.57	Pk	37.3	-40.1	11.8	1.5	-44.07	-25	-19.07	0-360	200	V
6	17.399	-55.42	Pk	41.2	-33.1	11.8	1.2	-34.32	-25	-9.32	0-360	300	V
3	17.528	-55.18	Pk	41.3	-32.8	11.8	1.1	-33.78	-25	-8.78	0-360	101	H

Pk - Peak detector

16QAM LTE41(20MHz, Mid Channel)

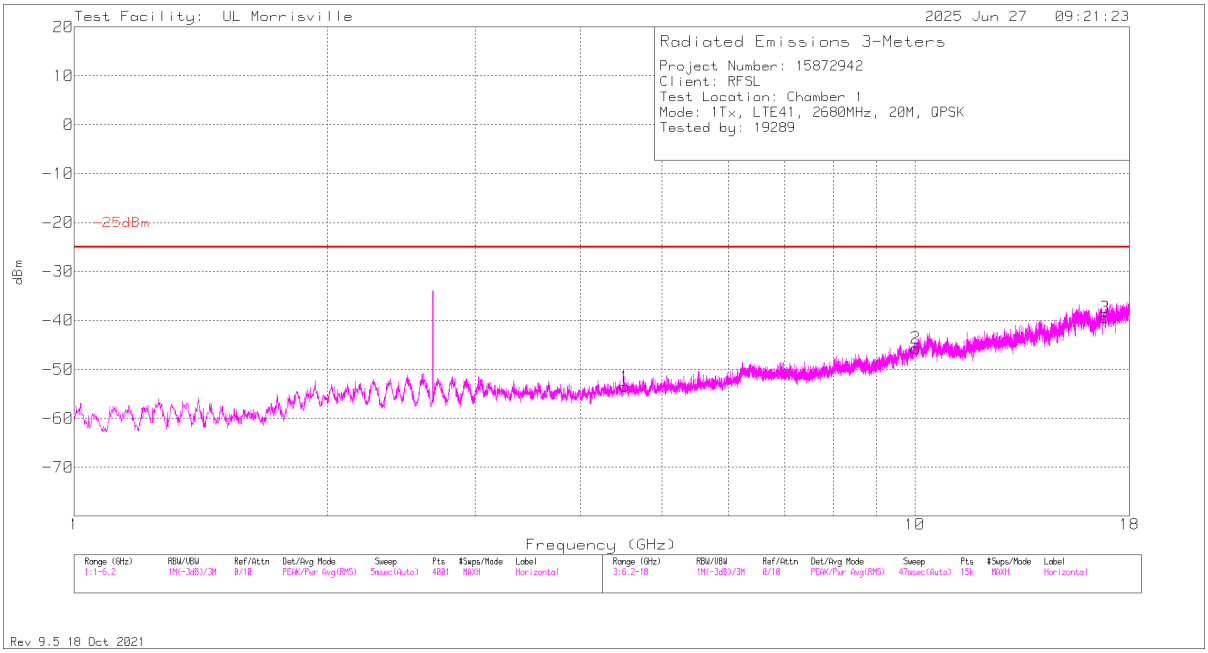


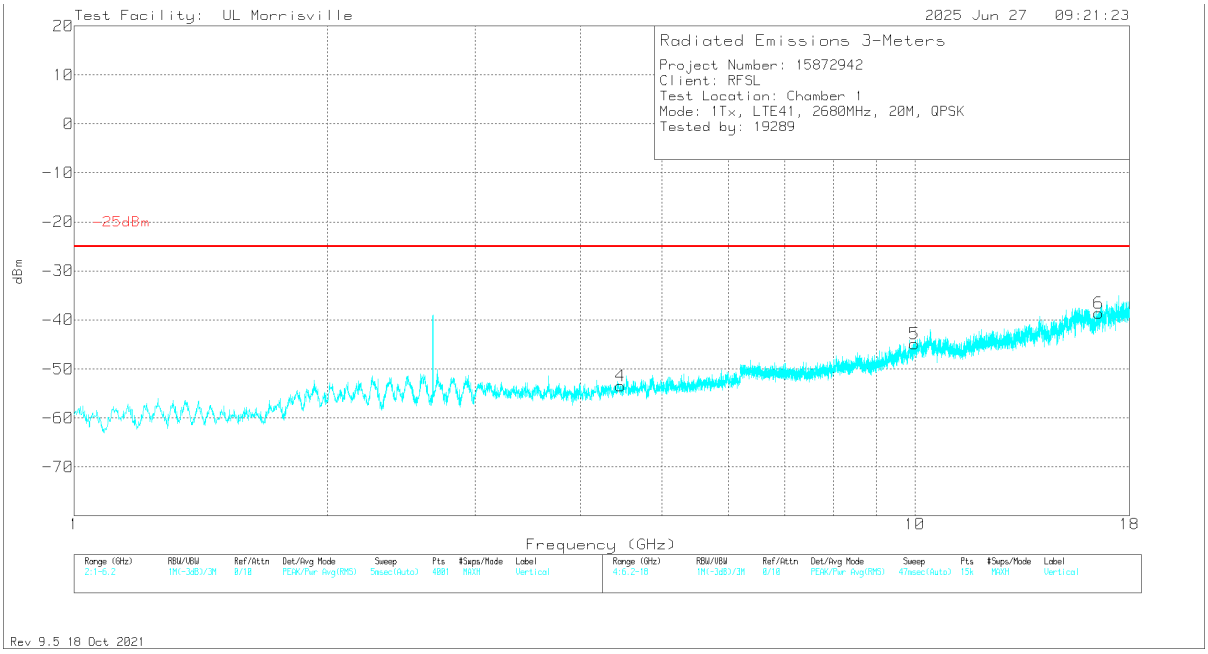


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.168	-52.29	Pk	34.3	-44.2	11.8	.6	-49.79	-25	-24.79	0-360	101	H
4	7.111	-53.33	Pk	35.4	-41.4	11.8	.4	-47.13	-25	-22.13	0-360	200	V
2	9.719	-54.51	Pk	36.9	-39.7	11.8	1.2	-44.31	-25	-19.31	0-360	101	H
5	9.859	-54.97	Pk	37.3	-40.1	11.8	1.5	-44.47	-25	-19.47	0-360	300	V
6	17.458	-55.64	Pk	41.2	-33.6	11.8	1.1	-35.14	-25	-10.14	0-360	101	V
3	17.535	-56.72	Pk	41.3	-33.1	11.8	1.1	-35.62	-25	-10.62	0-360	299	H

Pk - Peak detector

QPSK LTE41(20MHz, High Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-25dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	4.4632	-53.82	Pk	33.9	-46.1	11.8	.8	-53.42	-25	-28.42	0-360	200	V
1	4.5217	-53.02	Pk	33.9	-46.4	11.8	.2	-53.52	-25	-28.52	0-360	300	H
5	9.99488	-55.32	Pk	37.6	-40.5	11.8	1.5	-44.92	-25	-19.92	0-360	299	V
2	10.02006	-55.88	Pk	37.6	-40.6	11.8	1.4	-45.68	-25	-20.68	0-360	101	H
6	16.53916	-56.51	Pk	40.4	-35.3	11.8	1	-38.61	-25	-13.61	0-360	101	V
3	16.82787	-57.43	Pk	40.9	-35.7	11.8	1.1	-39.33	-25	-14.33	0-360	101	H

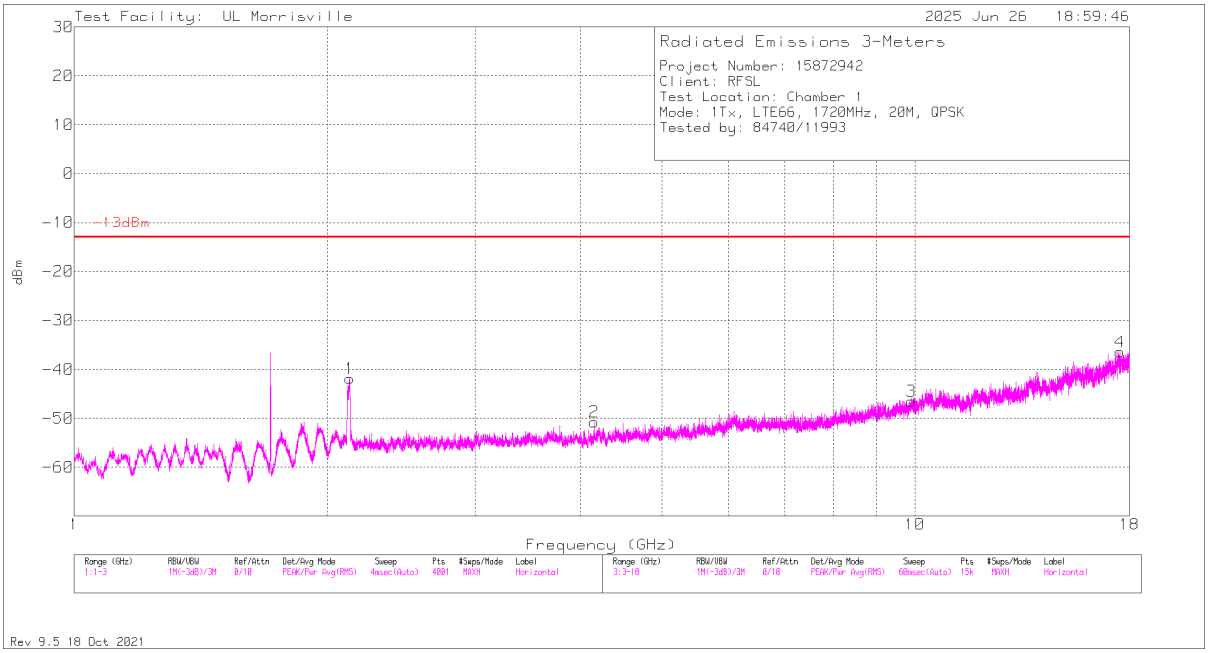
Pk - Peak detector

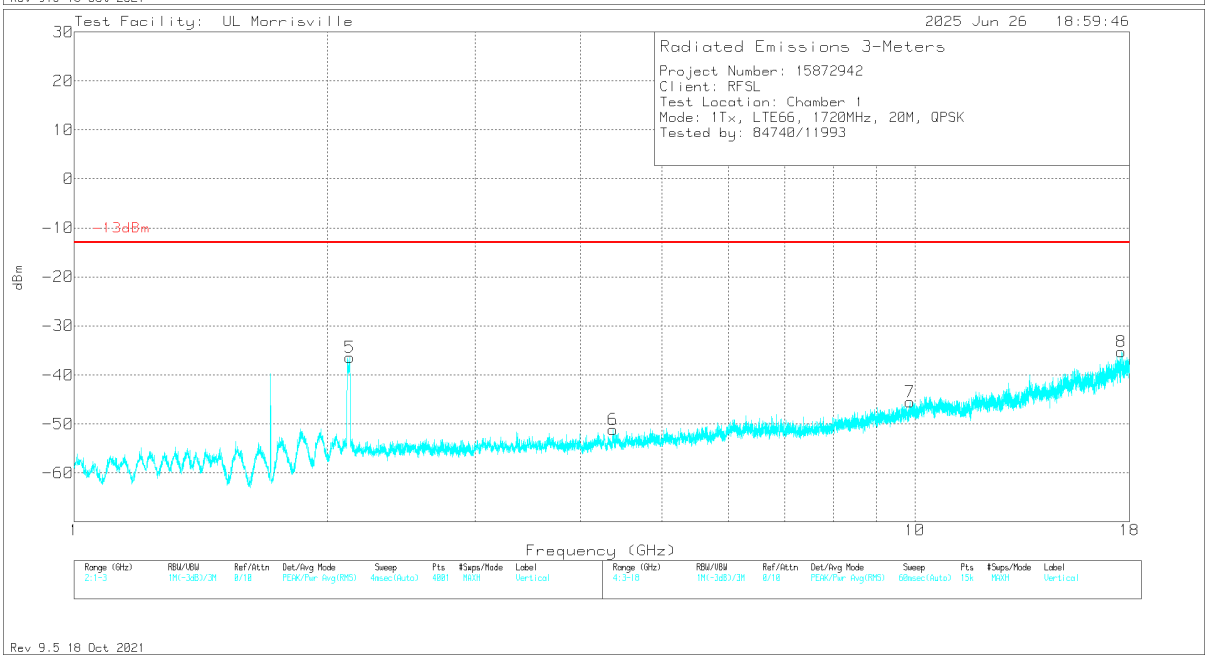
10.1.3. LTE BAND 66

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 LTE66 (20MHz, Low Channel)

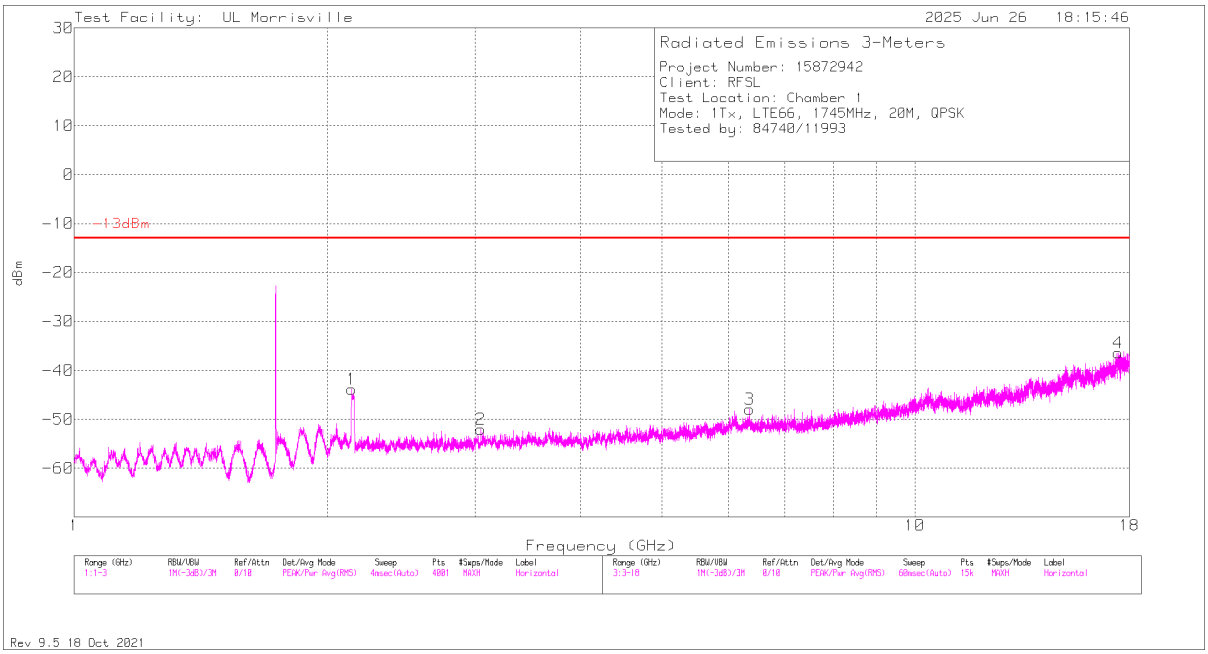


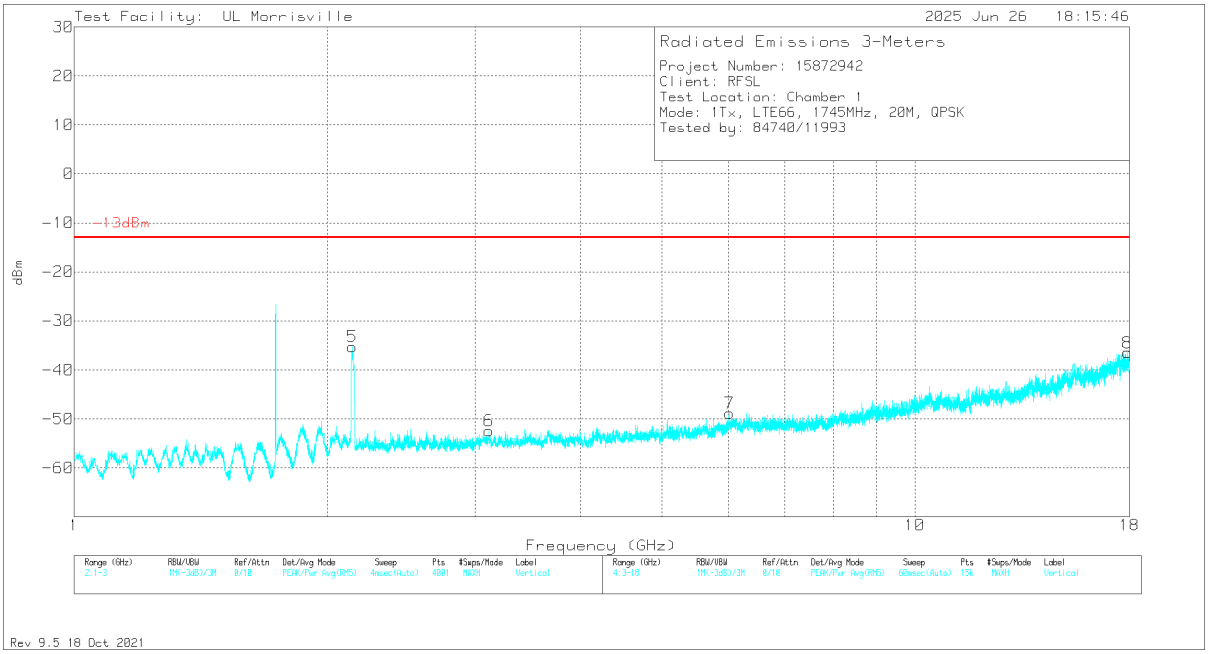


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1265 (DL)	-38.66	Pk	31.7	-48	11.8	1.3	-	-	-	0-360	200	H
5	2.1285 (DL)	-33.22	Pk	31.7	-48	11.8	1.3	-	-	-	0-360	300	V
2	4.152	-50.52	Pk	33.4	-45.4	11.8	0	-50.72	-13	-37.72	0-360	300	H
6	4.374	-51.03	Pk	33.8	-45.7	11.8	0	-51.13	-13	-38.13	0-360	300	V
7	9.867	-54.35	Pk	37.4	-40.3	11.8	0	-45.45	-13	-32.45	0-360	101	V
3	9.898	-55.23	Pk	37.4	-40.5	11.8	0	-46.53	-13	-33.53	0-360	300	H
4	17.532	-56.77	Pk	41.3	-32.8	11.8	0	-36.47	-13	-23.47	0-360	300	H
8	17.596	-54.89	Pk	41.3	-33.5	11.8	0	-35.29	-13	-22.29	0-360	300	V

Pk - Peak detector
DL - Downlink

QPSK LTE66 (20MHz, Mid Channel)

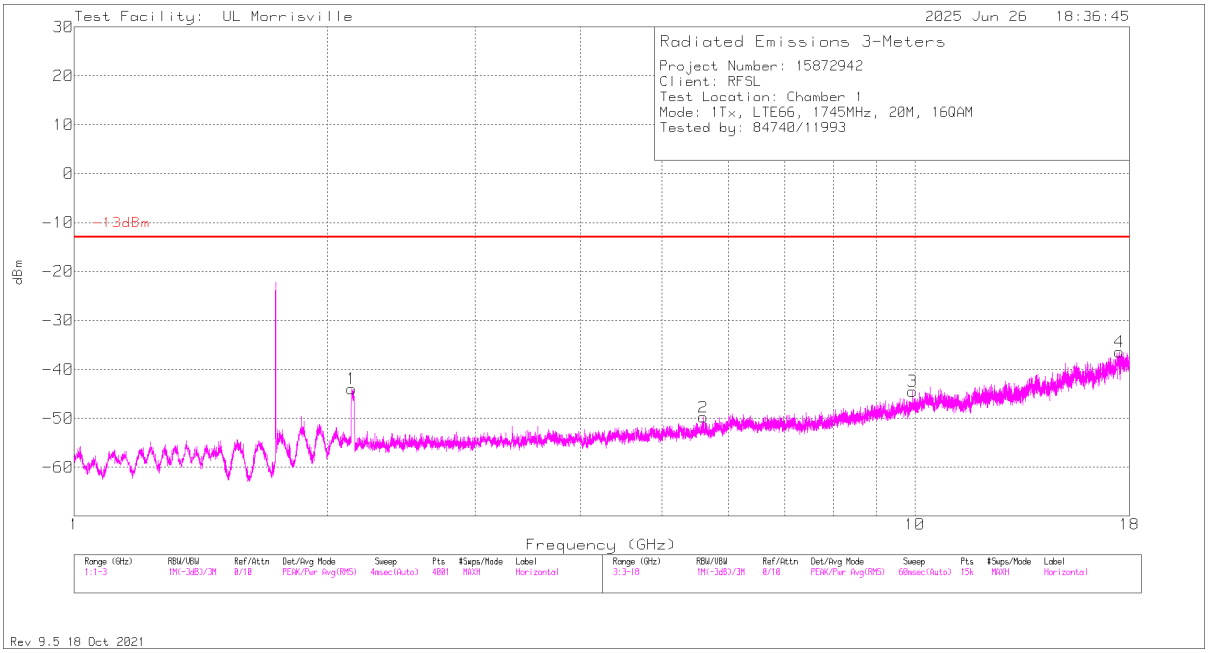


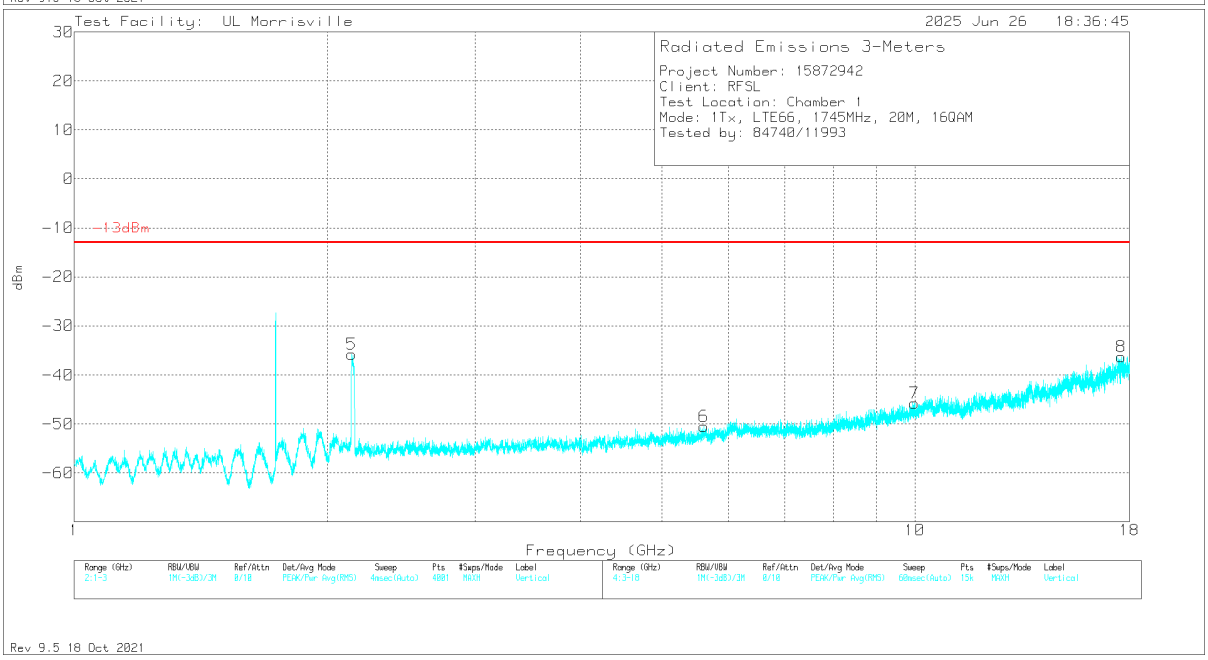


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1385 (DL)	-40.43	Pk	31.6	-48.1	11.8	1.3	-	-	-	0-360	300	H
5	2.141 (DL)	-31.74	Pk	31.6	-48.2	11.8	1.3	-	-	-	0-360	300	V
2	3.047	-52.52	Pk	32.6	-43.9	11.8	0	-52.02	-13	-39.02	0-360	299	H
6	3.113	-52.25	Pk	32.6	-44.6	11.8	0	-52.45	-13	-39.45	0-360	200	V
7	6.017	-54.36	Pk	35.2	-41.5	11.8	0	-48.86	-13	-35.86	0-360	101	V
3	6.36	-53.18	Pk	35.6	-42.2	11.8	0	-47.98	-13	-34.98	0-360	199	H
4	17.45	-56.33	Pk	41.2	-33.1	11.8	0	-36.43	-13	-23.43	0-360	299	H
8	17.893	-56.18	Pk	41.4	-33.5	11.8	0	-36.48	-13	-23.48	0-360	200	V

Pk - Peak detector
DL - Downlink

16QAM LTE66 (20MHz, Mid Channel)

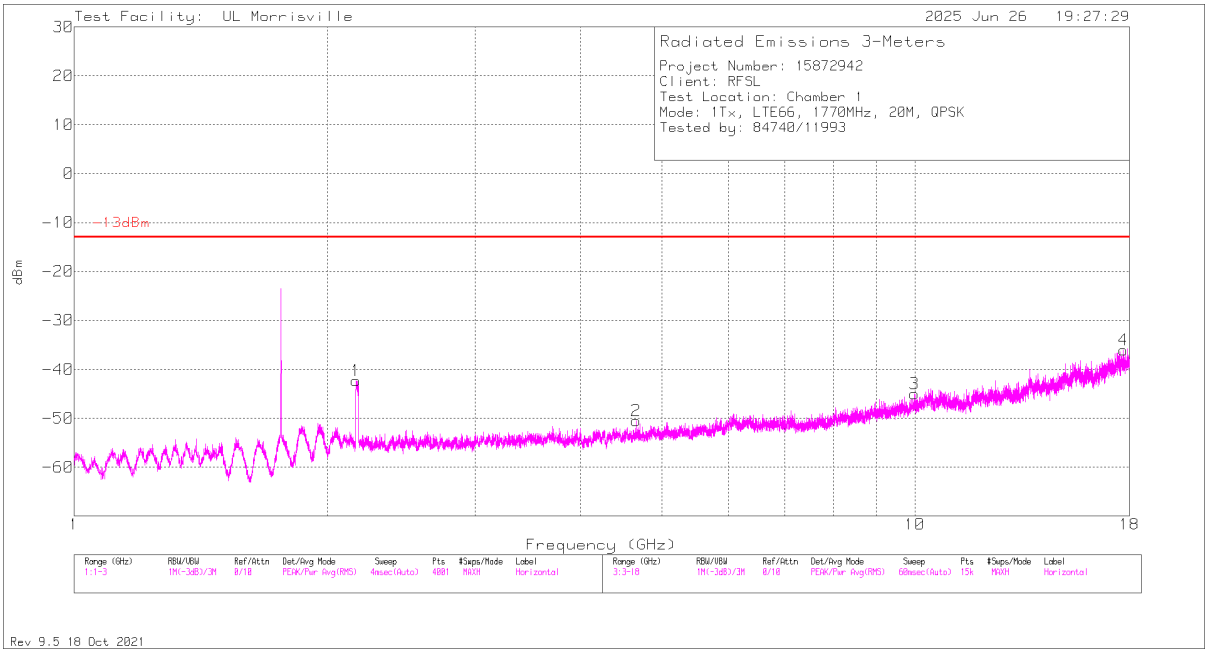


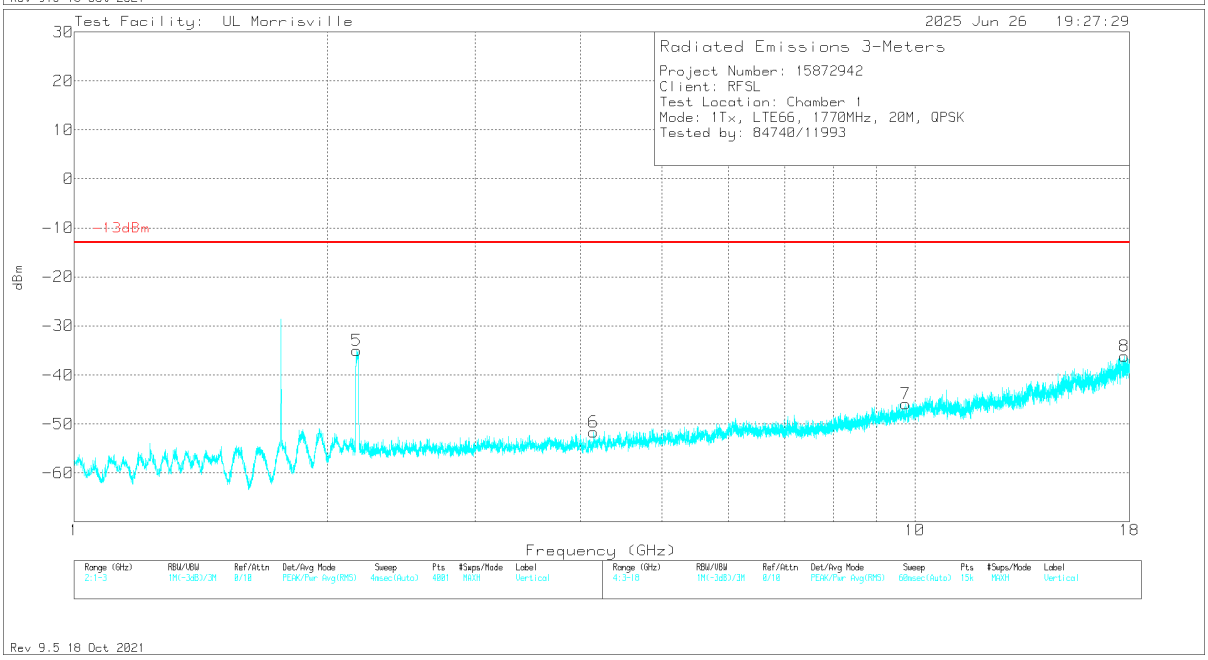


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	2.1375 (DL)	-32.38	Pk	31.6	-48.1	11.8	1.3	-	-	-	0-360	300	V
1	2.14 (DL)	-40.5	Pk	31.6	-48.2	11.8	1.3	-	-	-	0-360	199	H
2	5.604	-53.78	Pk	34.6	-42.4	11.8	0	-49.78	-13	-36.78	0-360	299	H
6	5.612	-54.34	Pk	34.6	-42.5	11.8	0	-50.44	-13	-37.44	0-360	300	V
3	9.937	-54.16	Pk	37.5	-39.6	11.8	0	-44.46	-13	-31.46	0-360	101	H
7	9.991	-55.72	Pk	37.6	-39.4	11.8	0	-45.72	-13	-32.72	0-360	201	V
4	17.522	-56.56	Pk	41.3	-32.9	11.8	0	-36.36	-13	-23.36	0-360	199	H
8	17.607	-55.7	Pk	41.3	-33.7	11.8	0	-36.3	-13	-23.3	0-360	201	V

Pk - Peak detector
DL - Downlink

QPSK LTE66 (20MHz, High Channel)





Marker	Frequency (GHz)	Meter Reading (dBm)	Det	135143 (dB/m)	Gain/Loss (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.1655 (DL)	-38.77	Pk	31.5	-47.9	11.8	1.1	-	-	-	0-360	300	H
5	2.167 (DL)	-31.4	Pk	31.5	-48	11.8	1.1	-	-	-	0-360	300	V
6	4.151	-51.4	Pk	33.4	-45.4	11.8	0	-51.6	-13	-38.6	0-360	101	V
2	4.658	-50.82	Pk	33.8	-45.3	11.8	0	-50.52	-13	-37.52	0-360	299	H
7	9.748	-54.54	Pk	37	-40.1	11.8	0	-45.84	-13	-32.84	0-360	101	V
3	9.986	-54.34	Pk	37.6	-40	11.8	0	-44.94	-13	-31.94	0-360	200	H
4	17.707	-55.48	Pk	41.4	-33.7	11.8	0	-35.98	-13	-22.98	0-360	200	H
8	17.765	-55.26	Pk	41.4	-34.1	11.8	0	-36.16	-13	-23.16	0-360	300	V

Pk - Peak detector
DL - Downlink

10.2. WORST CASE EMISSIONS

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

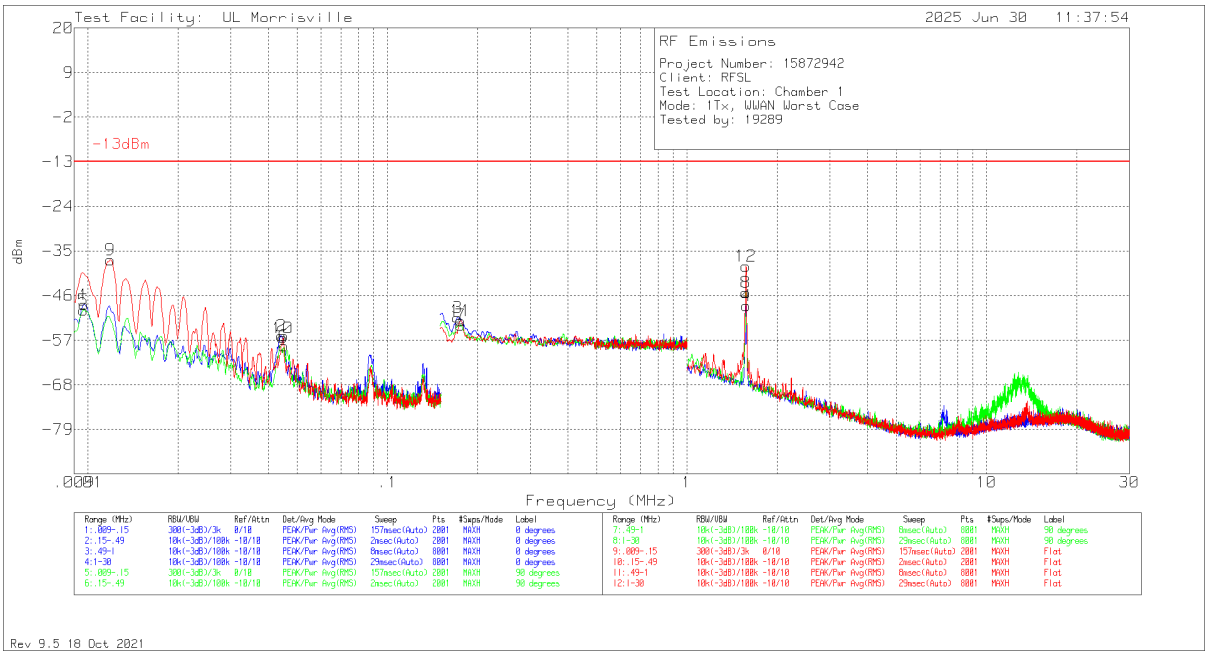
LIMITS
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

TEST PROCEDURE
KDB 971168 D01 v02r02/D02 v01

RESULTS

10.2.1. Main Antenna

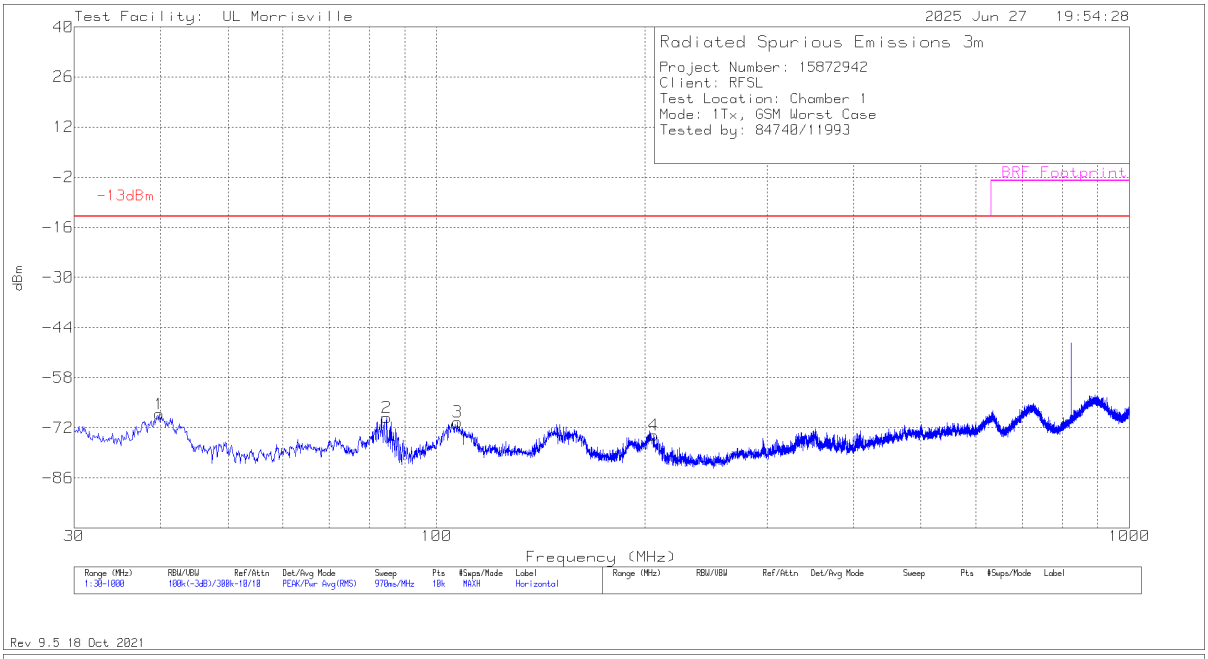
9kHz – 30MHz Worst-Case Emissions

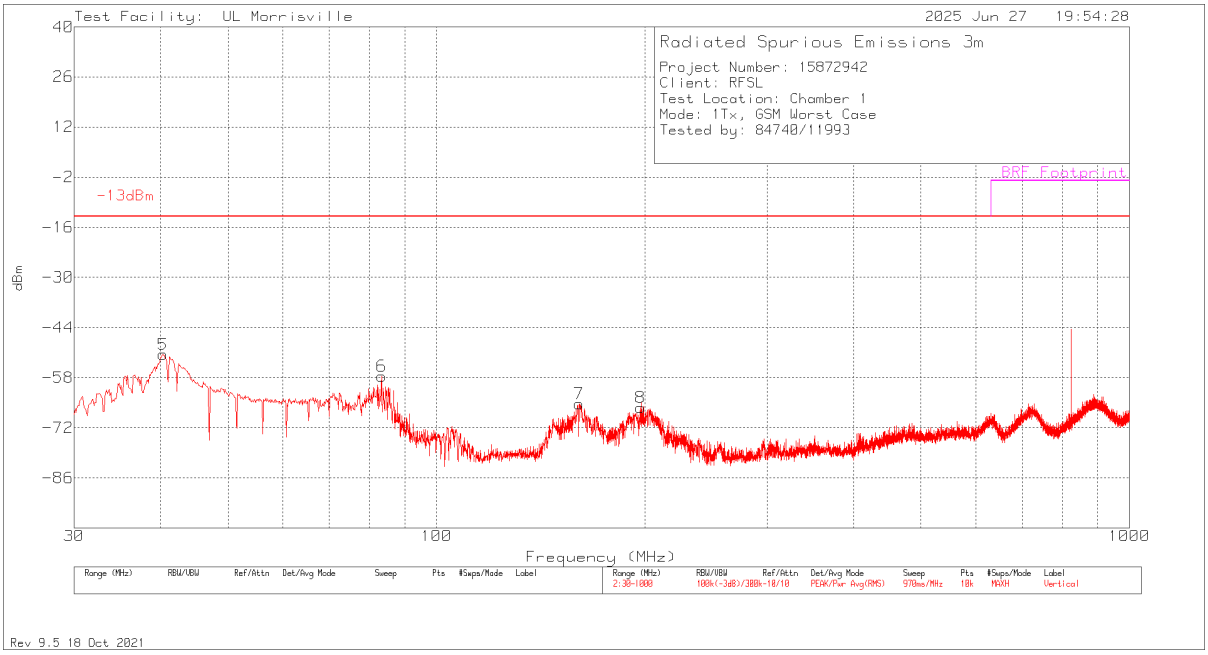


Marker	Frequency (MHz)	Meter Reading (dBm)	Det	Loop (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Loop Angle
5	.00967	-90.73	Pk	60.9	-31.6	11.8	-49.63	-13	-36.63	0-360	90 degs
1	.00971	-89.25	Pk	60.8	-31.6	11.8	-48.25	-13	-35.25	0-360	0 degs
9	.01191	-77.64	Pk	60.3	-31.7	11.8	-37.24	-13	-24.24	0-360	Flat
2	.04425	-92.49	Pk	57.3	-32.5	11.8	-55.89	-13	-42.89	0-360	0 degs
10	.04478	-93.05	Pk	57.3	-32.5	11.8	-56.45	-13	-43.45	0-360	Flat
6	.04514	-95.01	Pk	57.3	-32.5	11.8	-58.41	-13	-45.41	0-360	90 degs
3	.17168	-86.66	Pk	56.1	-32.6	11.8	-51.36	-13	-38.36	0-360	0 degs
11	.17559	-87.49	Pk	56.1	-32.6	11.8	-52.19	-13	-39.19	0-360	Flat
7	.17601	-88.56	Pk	56.1	-32.6	11.8	-53.26	-13	-40.26	0-360	90 degs
8	1.57275	-68.49	Pk	43.9	-32.4	11.8	-45.19	-13	-32.19	0-360	90 degs
12	1.57275	-62	Pk	43.9	-32.4	11.8	-38.7	-13	-25.7	0-360	Flat
4	1.57638	-71.75	Pk	43.9	-32.4	11.8	-48.45	-13	-35.45	0-360	0 degs

Pk - Peak detector

30MHz – 1000MHz Worst-Case Emissions

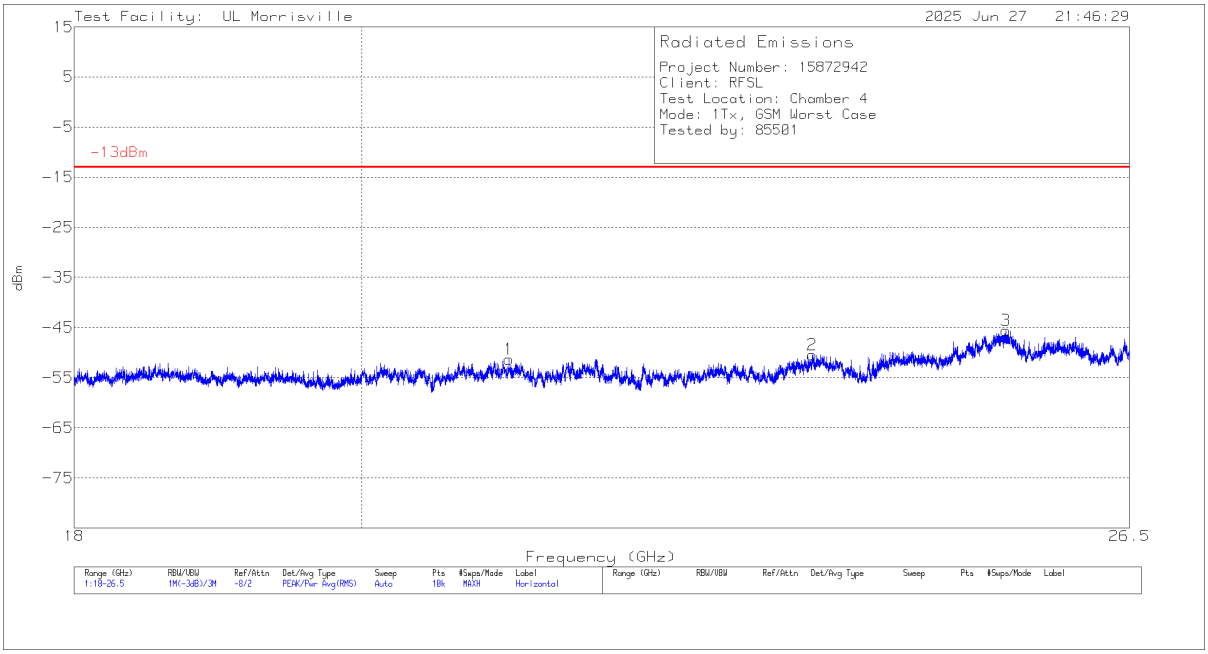


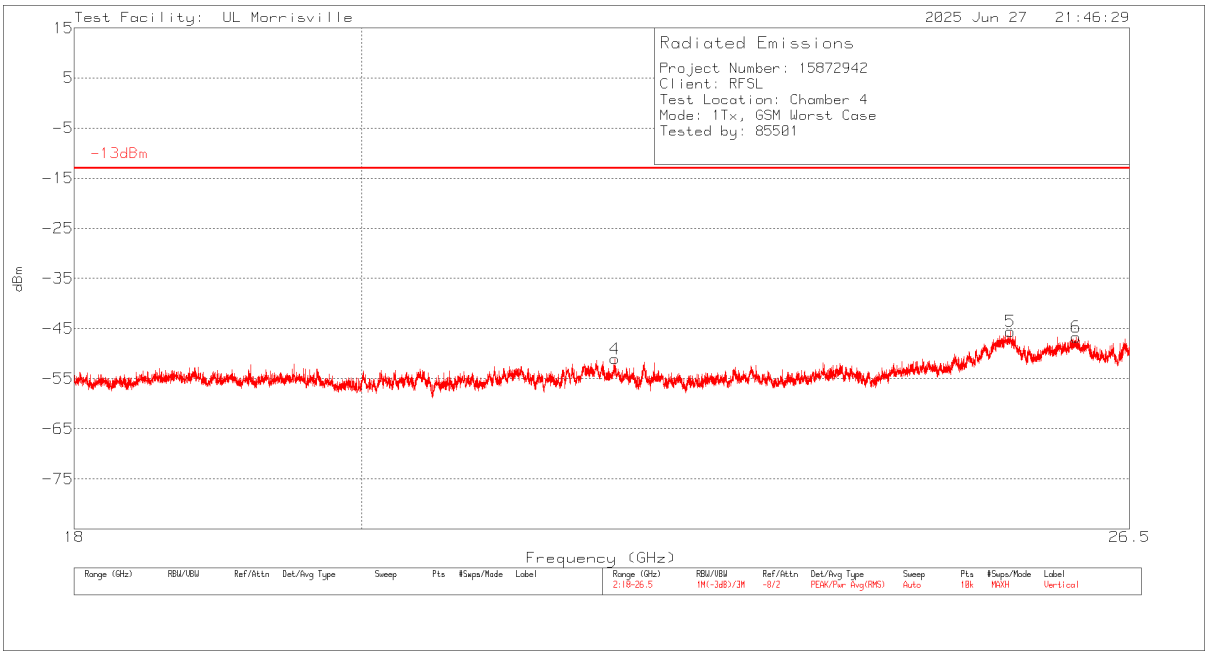


Marker	Frequency (MHz)	Meter Reading (dBm)	Det	90629 (dB/m)	Gain/Loss (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	BRF Footprint	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	39.797	-68.49	Pk	19.9	-31.6	.2	11.8	-68.19	-13	-55.19	-	-	0-360	199	H
5	40.282	-51.45	Pk	19.6	-31.7	.2	11.8	-51.55	-13	-38.55	-	-	0-360	100	V
6	83.35	-52.23	Pk	13.6	-31	.2	11.8	-57.63	-13	-44.63	-	-	0-360	100	V
2	84.708	-63.41	Pk	13.5	-31.2	.1	11.8	-69.21	-13	-56.21	-	-	0-360	399	H
3	107.212	-69.94	Pk	18.4	-30.8	.1	11.8	-70.44	-13	-57.44	-	-	0-360	300	H
7	160.659	-65.97	Pk	18.6	-30.3	.6	11.8	-65.27	-13	-52.27	-	-	0-360	100	V
8	197.034	-67.06	Pk	18.9	-30.2	.2	11.8	-66.36	-13	-53.36	-	-	0-360	100	V
4	205.958	-72.94	Pk	16.9	-30.2	.3	11.8	-74.14	-13	-61.14	-	-	0-360	99	H

Pk - Peak detector

18GHz – 26.5GHz Worst-Case Emissions

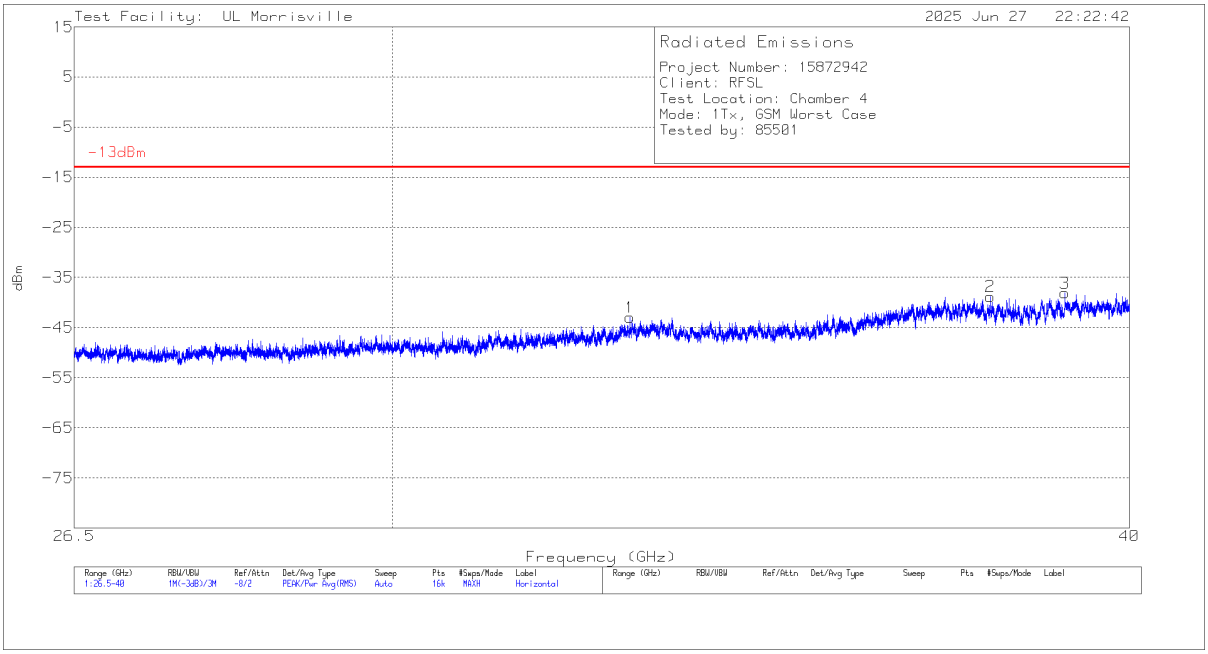


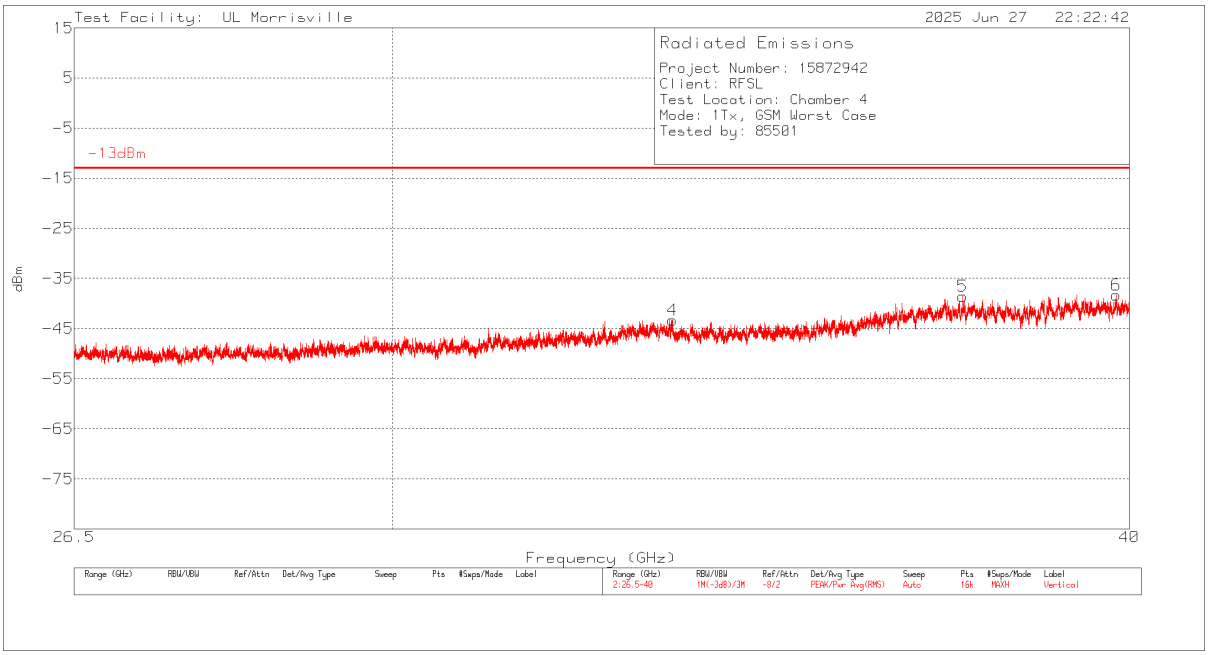


Marker	Frequency (GHz)	Meter Reading (dBm)	Det	91186 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	21.10899	-56.95	Pk	32.8	-39	11.8	-51.35	-13	-38.35	0-360	200	H
4	21.94531	-57.53	Pk	33.4	-38.7	11.8	-51.03	-13	-38.03	0-360	300	V
2	23.59244	-58.1	Pk	33.8	-38	11.8	-50.5	-13	-37.5	0-360	100	H
3	25.32967	-58.93	Pk	34.2	-32.6	11.8	-45.53	-13	-32.53	0-360	250	H
5	25.36791	-59.83	Pk	34.1	-31.6	11.8	-45.53	-13	-32.53	0-360	300	V
6	25.9858	-59.45	Pk	34.6	-33.7	11.8	-46.75	-13	-33.75	0-360	150	V

Pk - Peak detector

26.5GHz - 40GHz Worst-Case Emissions



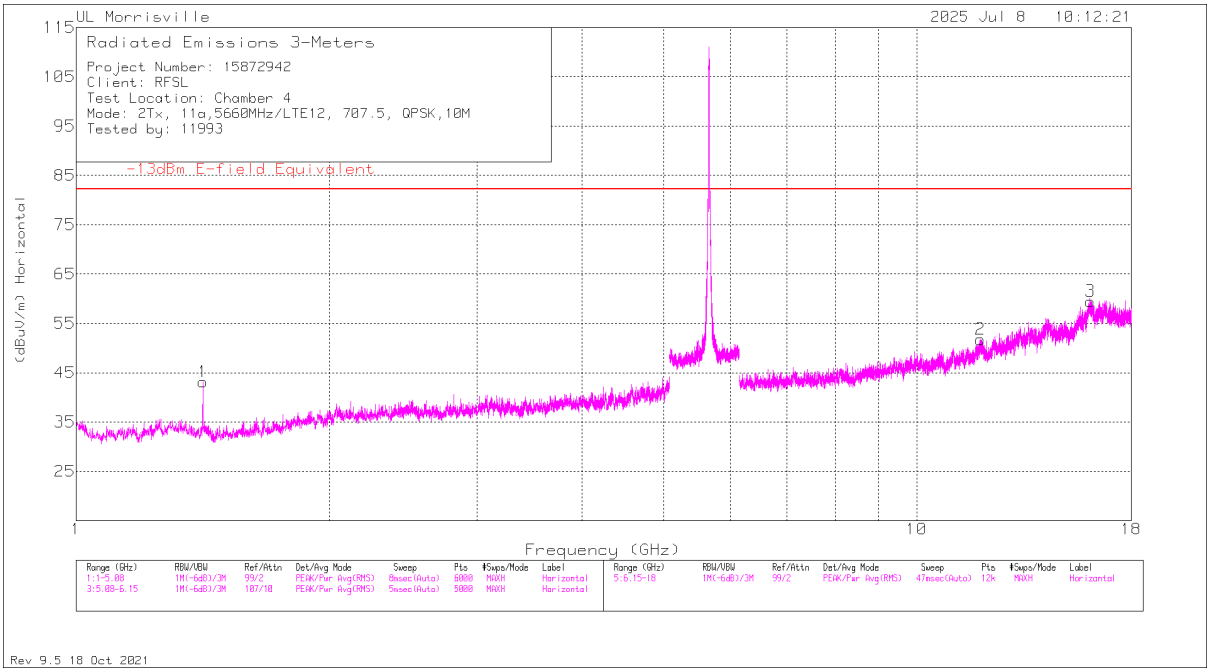


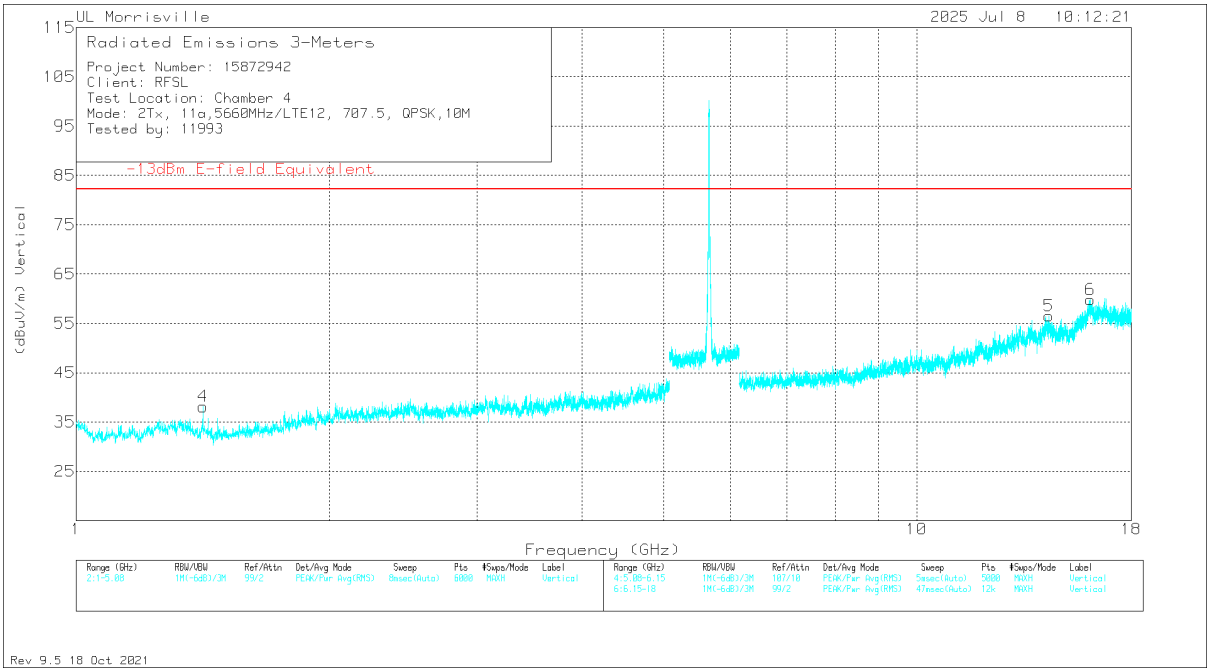
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	204705 (dB/m)	Gain/Loss (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	32.91716	-61.61	Pk	37.3	-30.5	11.8	-43.01	-13	-30.01	0-360	100	H
4	33.46472	-62.32	Pk	37.1	-29.9	11.8	-43.32	-13	-30.32	0-360	300	V
5	37.4824	-56.79	Pk	38	-31.6	11.8	-38.59	-13	-25.59	0-360	300	V
2	37.88232	-57.77	Pk	38	-30.8	11.8	-38.77	-13	-25.77	0-360	100	H
3	39.00781	-59.13	Pk	38.4	-29.2	11.8	-38.13	-13	-25.13	0-360	250	H
6	39.79076	-61.02	Pk	38.5	-27.6	11.8	-38.32	-13	-25.32	0-360	150	V

Pk - Peak detector

10.3. SIMULTANEOUS TRANSMISSION

Scan 1 (LTE12 707.5MHz + 11a 5660MHz)

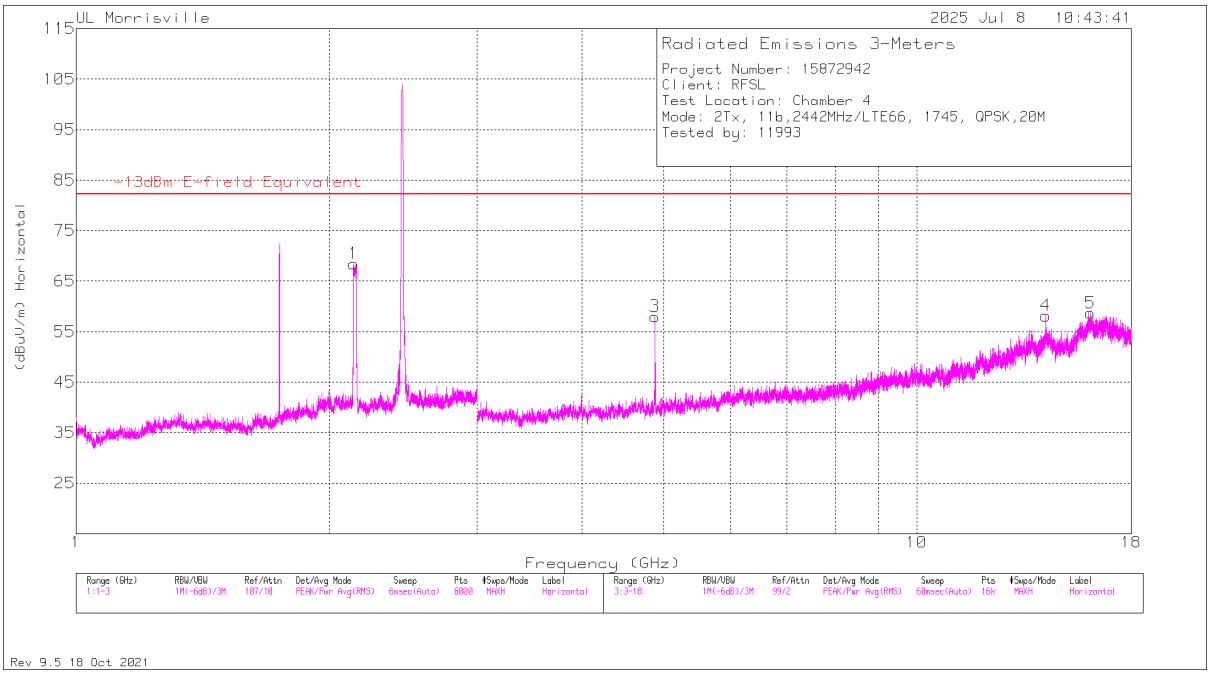


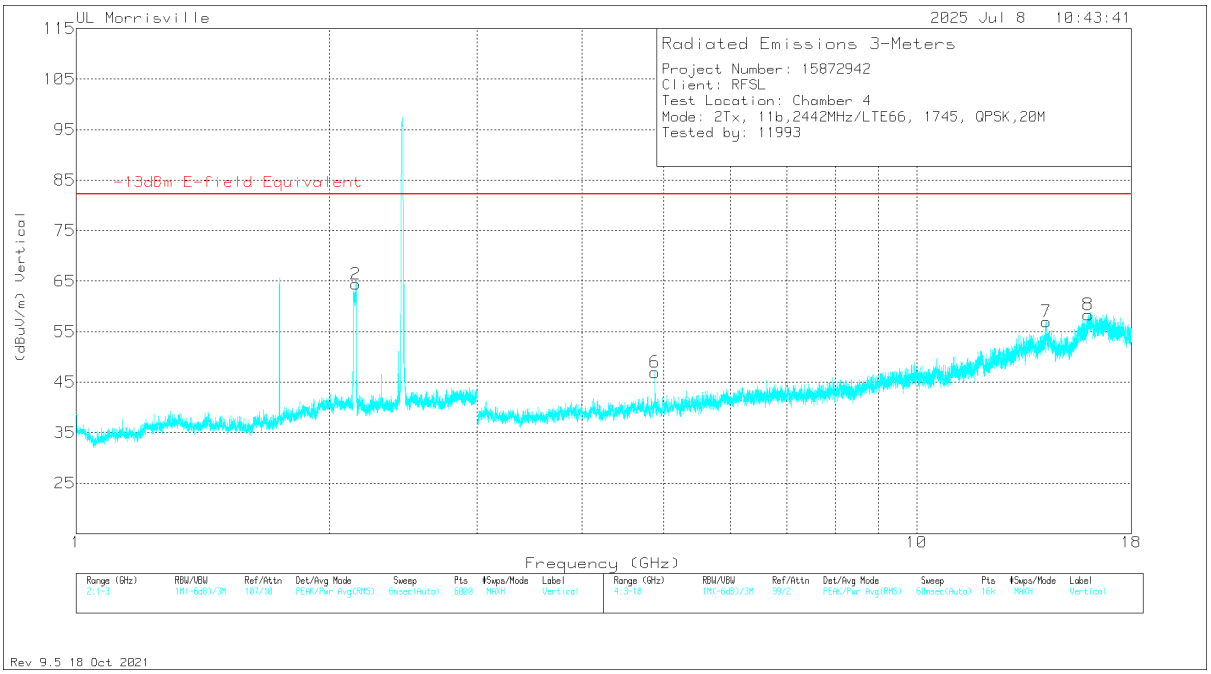


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.41487	50.74	Pk	28.4	-36.5	.5	43.14	82.2	-39.06	0-360	100	H
4	1.41487	45.74	Pk	28.4	-36.5	.5	38.14	82.2	-44.06	0-360	200	V
2	11.9012	35.05	Pk	38.5	-22.6	.8	51.75	82.2	-30.45	0-360	100	H
5	14.36304	34.59	Pk	38.9	-17.8	.8	56.49	82.2	-25.71	0-360	200	V
3	16.09511	32.3	Pk	40.8	-14.3	.7	59.5	82.2	-22.7	0-360	100	H
6	16.0961	32.4	Pk	40.8	-14.1	.7	59.8	82.2	-22.4	0-360	200	V

Pk - Peak detector

Scan 2: (LTE66 1745MHz + 11b 2442MHz)

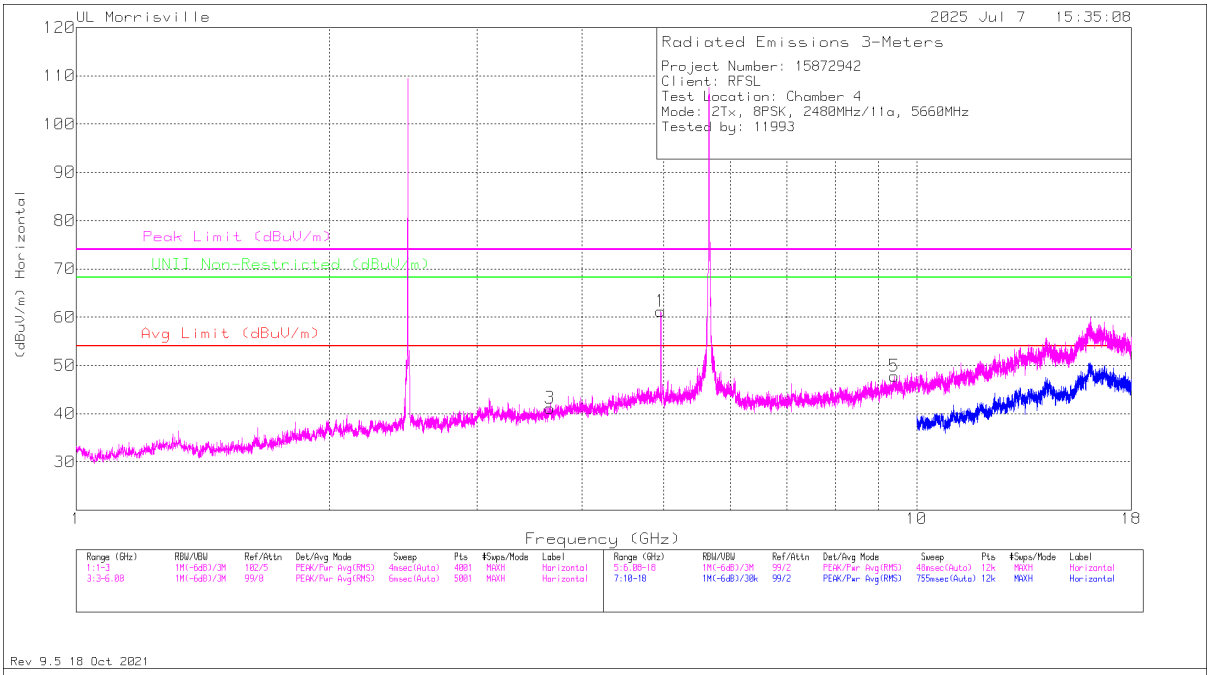


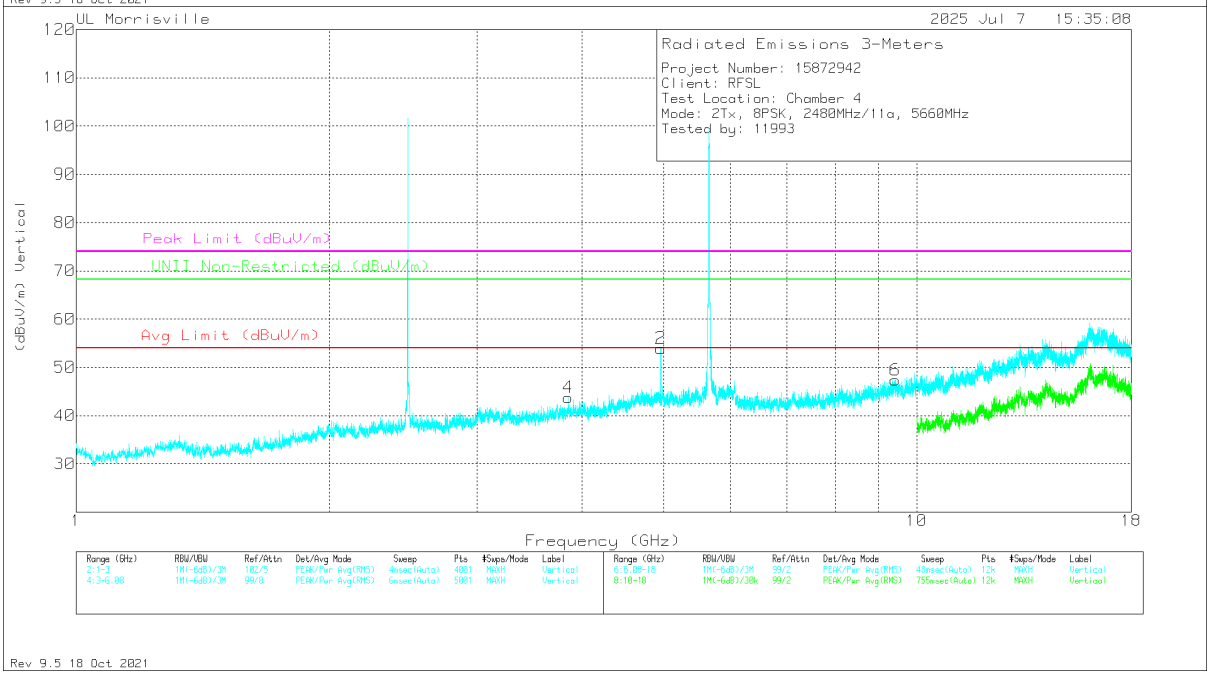


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1 (DL)	2.13819	59.77	Pk	31.4	-24	1.3	68.47	-	-	0-360	100	H
2 (DL)	2.15053	56.02	Pk	31.4	-24.2	1.2	64.42	-	-	0-360	200	V
3	4.88344	55.89	Pk	33.9	-31.8	0	57.99	82.2	-24.21	0-360	100	H
6	4.88344	44.84	Pk	33.9	-31.8	0	46.94	82.2	-35.26	0-360	200	V
4	14.24719	34.15	Pk	38.8	-14.8	0	58.15	82.2	-24.05	0-360	100	H
7	14.26781	33.8	Pk	38.8	-15.6	0	57	82.2	-25.2	0-360	200	V
8	15.99469	32.56	Pk	40.7	-14.9	0	58.36	82.2	-23.84	0-360	200	V
5	16.09313	33.37	Pk	40.8	-15.5	0	58.67	82.2	-23.53	0-360	100	H

Pk - Peak detector

Scan 3: (BT EDR 8PSK 2480MHz + 11a 5660MHz)





Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Filter (dB)	DCCF***	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 4.96002	49.67	PK2	33.8	-20.6	.6	0	63.47	-	-	74	-10.53	68.2	-4.73	108	121	H
	* ** 4.96002	49.67	PK2	33.8	-20.6	.6	-24	39.47	54	-14.53	-	-	-	-	108	121	H
3	* ** 3.6622	28.17	Pk	33.2	-21.4	1.2	0	41.17	54	-12.83	74	-32.83	-	-	0-360	100	H
2	* ** 4.95995	40.62	PK2	33.8	-20.6	.6	0	54.42	-	-	74	-19.58	68.2	-13.78	223	376	V
	* ** 4.95995	40.62	PK2	33.8	-20.6	.6	-24	30.42	54	-23.58	-	-	-	-	223	376	V
4	* ** 3.8507	30.44	Pk	33.5	-20.7	.5	0	43.74	54	-10.26	74	-30.26	-	-	0-360	200	V
5	* ** 9.40071	35.29	Pk	36.5	-24	0	0	47.79	54	-6.27	74	-26.21	-	-	0-360	100	H
6	* ** 9.43051	35.55	Pk	36.5	-24.7	0	0	47.35	54	-6.65	74	-26.65	-	-	0-360	200	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
** - indicates frequency in Taiwan NCC LP0002 Restricted Band
*** - FCC KDB 558074 D01 15.247 Meas Guidance v05r02 11.Q3(a): Protocol-Limited Duty Cycle Correction Factor
Pk - Peak detector PK2 - Maximum Peak

11. SETUP PHOTOS

See R15872942-EP1 for Setup Photos and Setup Diagrams

END OF REPORT