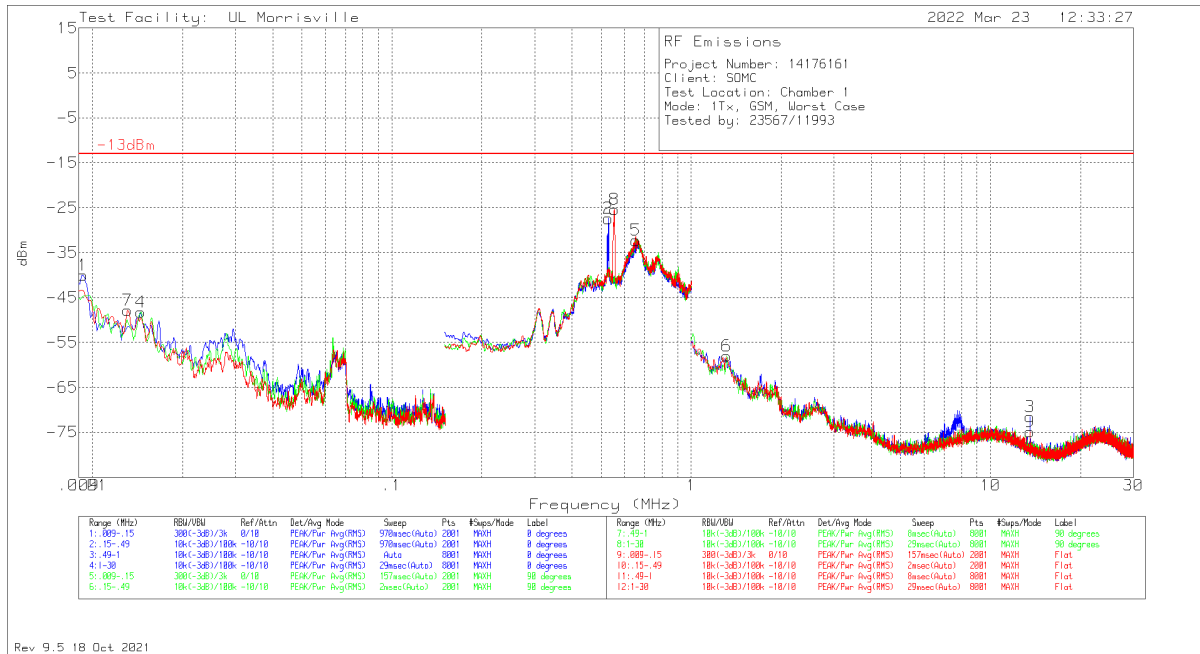


11.2.1. Worst-Case Emissions for 2G

GSM 850 GPRS Mode

Spurious below 30MHz

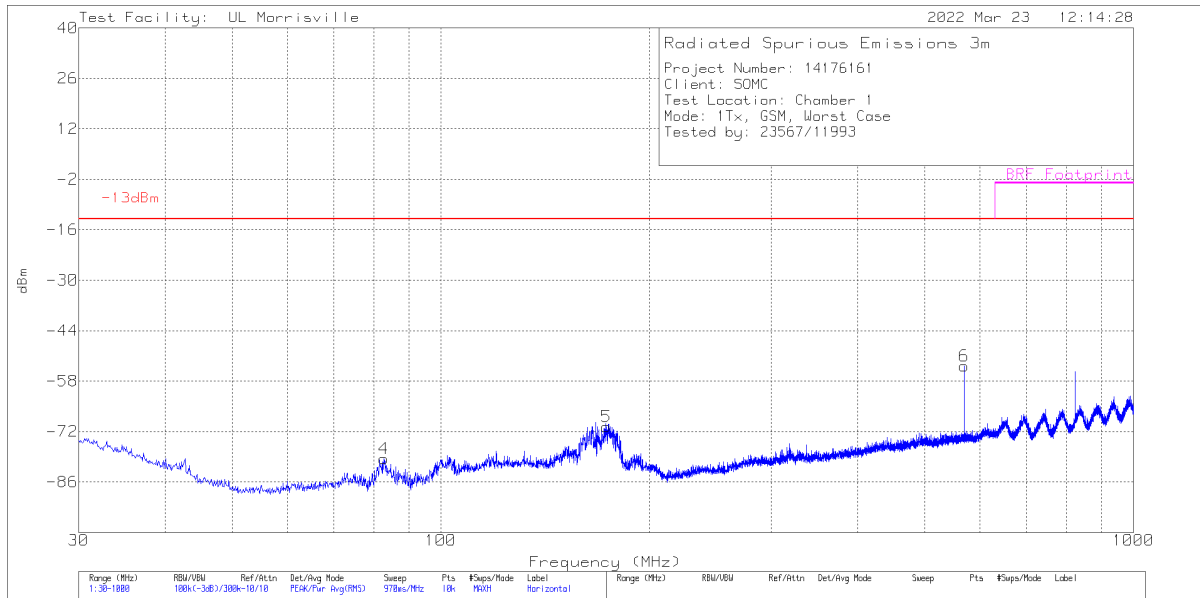


Trace Markers

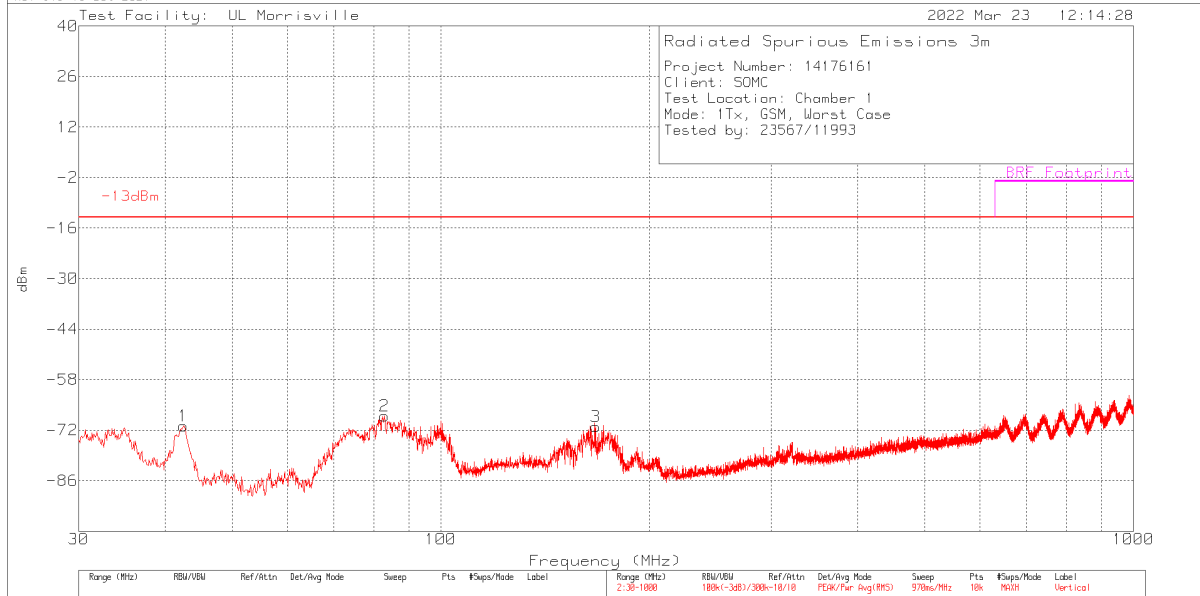
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0037 (dB/m)	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Loop Angle
1	.00928	-81.42	Pk	61.1	-31.5	11.8	-40.02	-13	-27.02	0-360	0 degs
7	.01312	-88.07	Pk	60	-31.6	11.8	-47.87	-13	-34.87	0-360	Flat
4	.01447	-88.13	Pk	59.8	-31.7	11.8	-48.23	-13	-35.23	0-360	90 degs
2	.52882	-62.81	Pk	56.1	-32.5	11.8	-27.41	-13	-14.41	0-360	0 degs
8	.55352	-60.79	Pk	56.1	-32.5	11.8	-25.39	-13	-12.39	0-360	Flat
5	.65371	-67.69	Pk	56.1	-32.5	11.8	-32.29	-13	-19.29	0-360	90 degs
6	1.31356	-82.57	Pk	45.2	-32.4	11.8	-57.97	-13	-44.97	0-360	90 degs
3	13.557	-85.38	Pk	33.9	-31.8	11.8	-71.48	-13	-58.48	0-360	0 degs
9	13.56063	-88.8	Pk	33.9	-31.8	11.8	-74.9	-13	-61.9	0-360	Flat

Pk - Peak detector

Spurious below 1GHz



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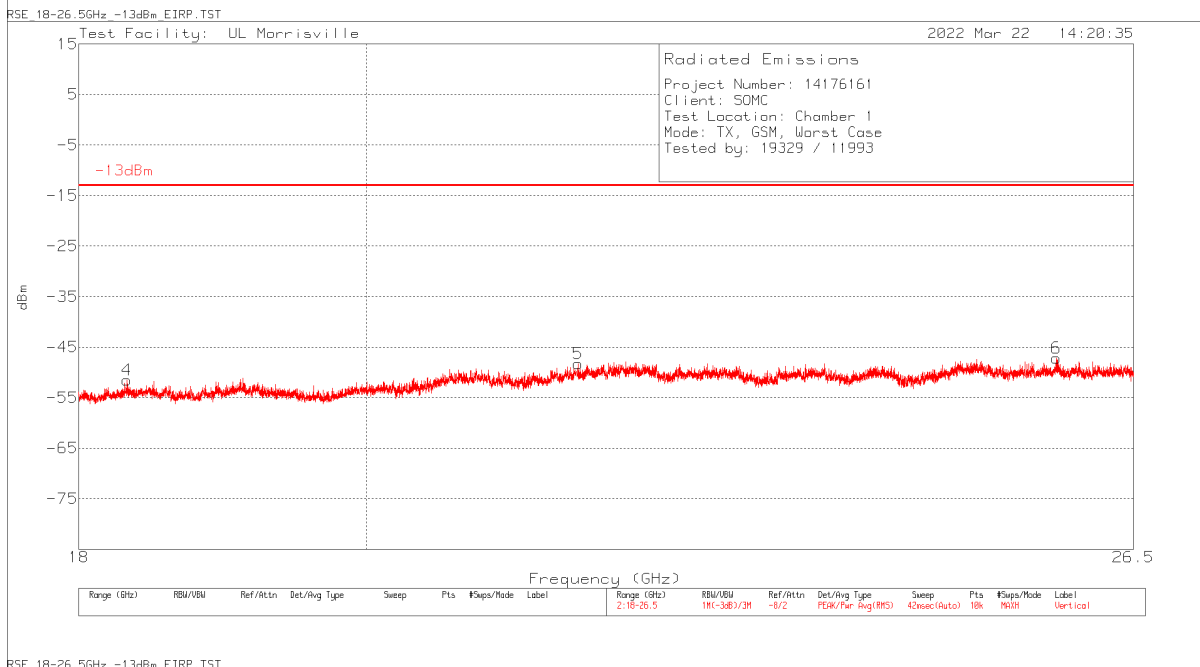
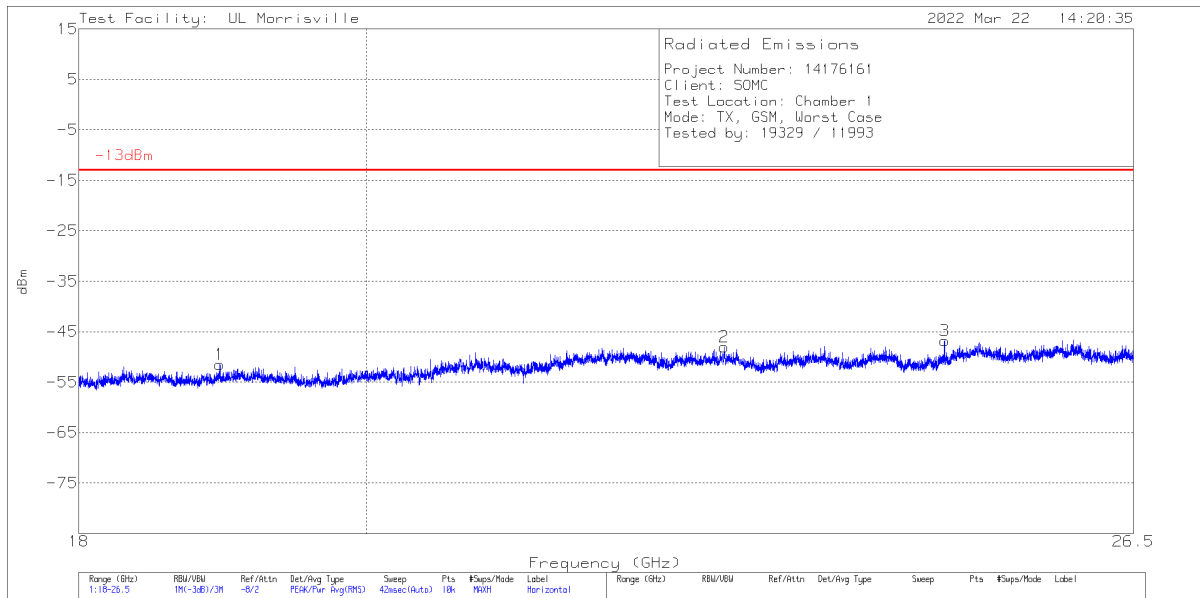


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Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Amp/Cbl (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	BRF Footprint	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	42.513	-67.4	Pk	18	-31.3	.1	9.7	-70.9	-13	-57.9	-	-	0-360	100	V
4	82.671	-71.91	Pk	13.2	-30.7	.2	9.7	-79.51	-13	-66.51	-	-	0-360	399	H
2	82.865	-60.39	Pk	13.2	-30.7	.2	9.7	-67.99	-13	-54.99	-	-	0-360	100	V
3	167.352	-69.2	Pk	17.6	-29.7	.5	9.7	-71.1	-13	-58.1	-	-	0-360	100	V
5	173.269	-68.63	Pk	17.4	-29.6	.5	9.7	-70.63	-13	-57.63	-	-	0-360	200	H
6	570.096	-61.76	Pk	24.4	-27	.8	9.7	-53.86	-13	-40.86	-	-	0-360	200	H

Pk - Peak detector

Spurious 18GHz to 26GHz



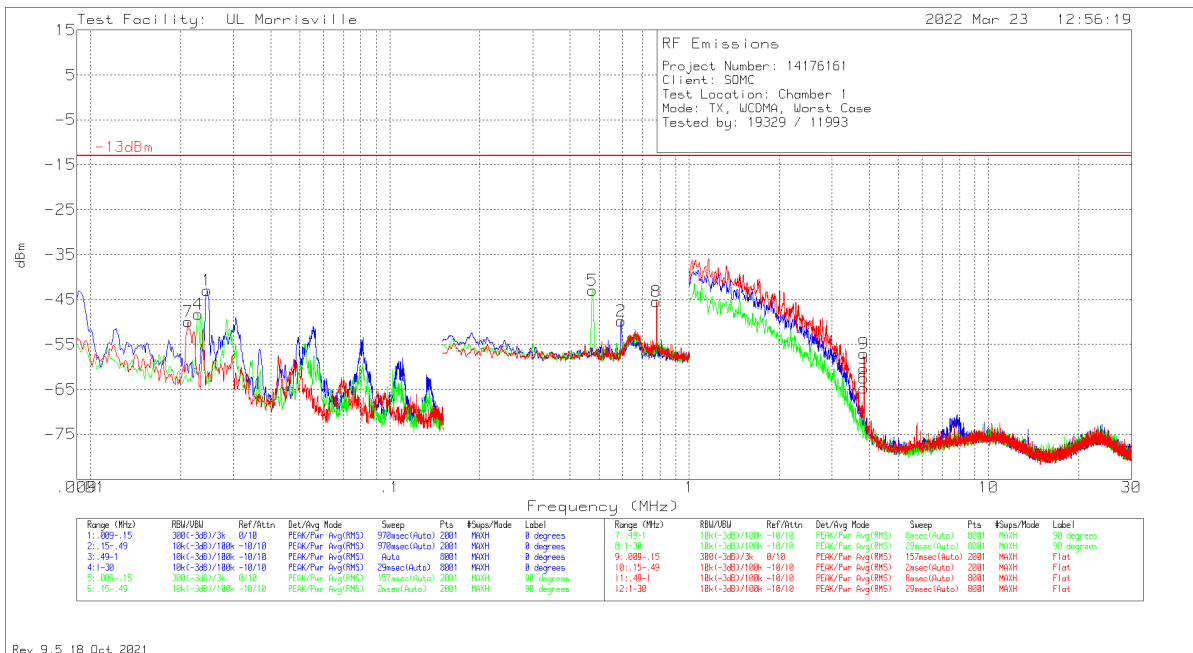
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Amp/Cbl (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	18.32212	-57.62	Pk	33.1	-38.8	11.8	-51.52	-13	-38.52	0-360	150	V
1	18.9553	-57.67	Pk	33.3	-38.9	11.8	-51.47	-13	-38.47	0-360	199	H
5	21.61894	-55.88	Pk	35.1	-39.3	11.8	-48.28	-13	-35.28	0-360	250	V
2	22.80627	-56.67	Pk	35.8	-39	11.8	-48.07	-13	-35.07	0-360	250	H
3	24.72793	-55.01	Pk	35.2	-38.8	11.8	-46.81	-13	-33.81	0-360	250	H
6	25.76397	-56.21	Pk	35.2	-38	11.8	-47.21	-13	-34.21	0-360	101	V

Pk - Peak detector

11.2.2. Worst-Case Emissions for 3G

WCDMA Band V Rel 99 Mode

Spurious below 30MHz

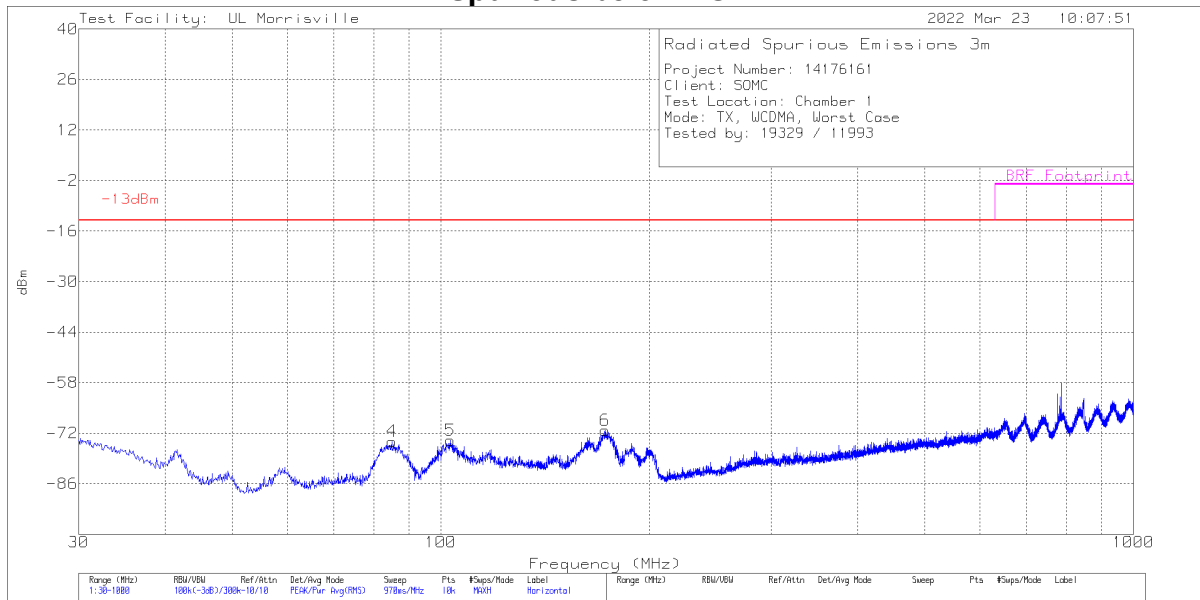


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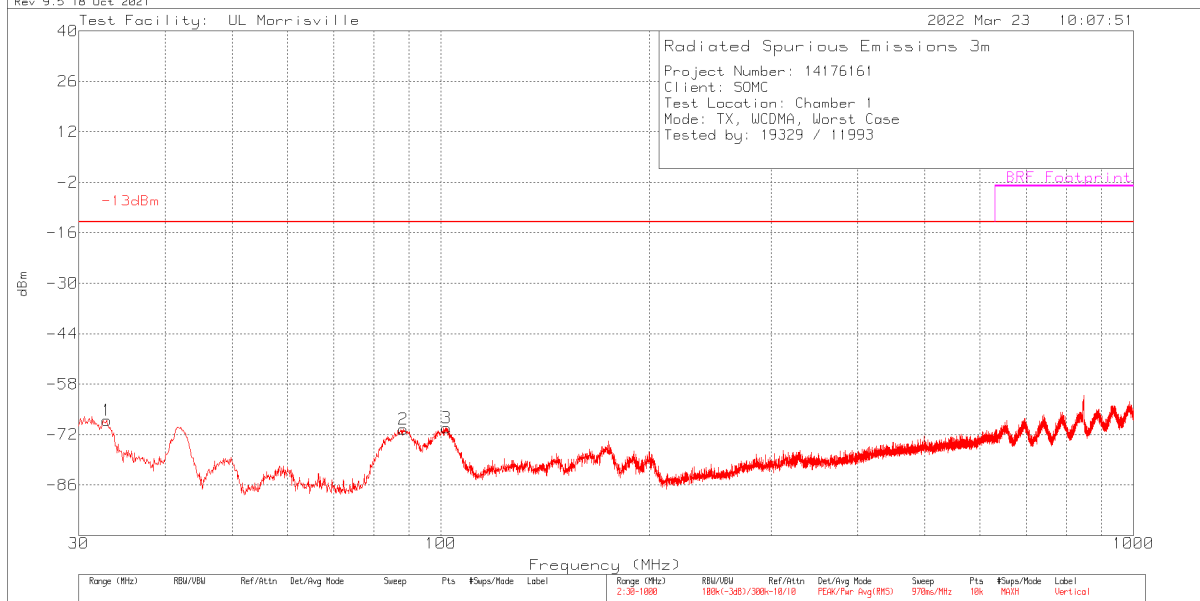
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0037 (dB/m)	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
7	.02121	-88.89	Pk	59	-31.9	11.8	-49.99	-13	-36.99	0-360	403	Flat
4	.02292	-86.91	Pk	58.8	-31.9	11.8	-48.21	-13	-35.21	0-360	403	90 degs
1	.02455	-81.49	Pk	58.6	-31.9	11.8	-42.99	-13	-29.99	0-360	403	0 degs
5	.4753	-78.4	Pk	56.1	-32.5	11.8	-43	-13	-30	0-360	403	90 degs
2	.59253	-85.13	Pk	56.1	-32.5	11.8	-49.73	-13	-36.73	0-360	403	0 degs
8	.77848	-81.11	Pk	56.2	-32.4	11.8	-45.51	-13	-32.51	0-360	403	Flat
3	3.83838	-77.17	Pk	37.2	-32.2	11.8	-60.37	-13	-47.37	0-360	403	0 degs
6	3.83838	-81.46	Pk	37.2	-32.2	11.8	-64.66	-13	-51.66	0-360	403	90 degs
9	3.83838	-73.89	Pk	37.2	-32.2	11.8	-57.09	-13	-44.09	0-360	403	Flat

Pk - Peak detector

Spurious below 1GHz



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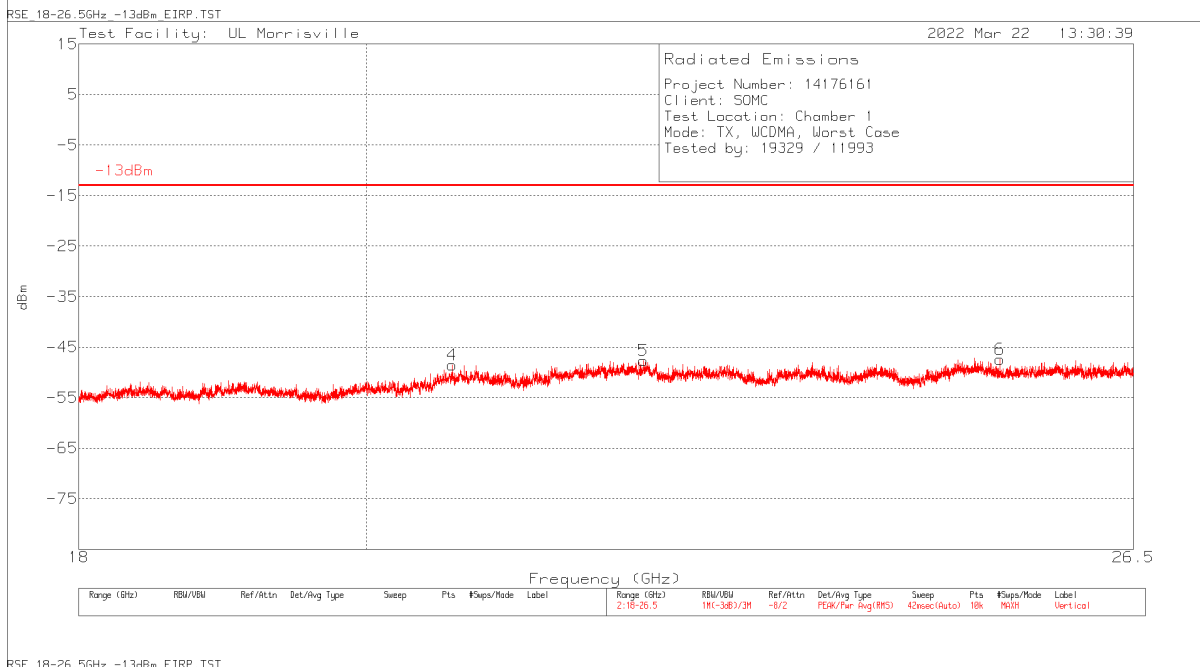
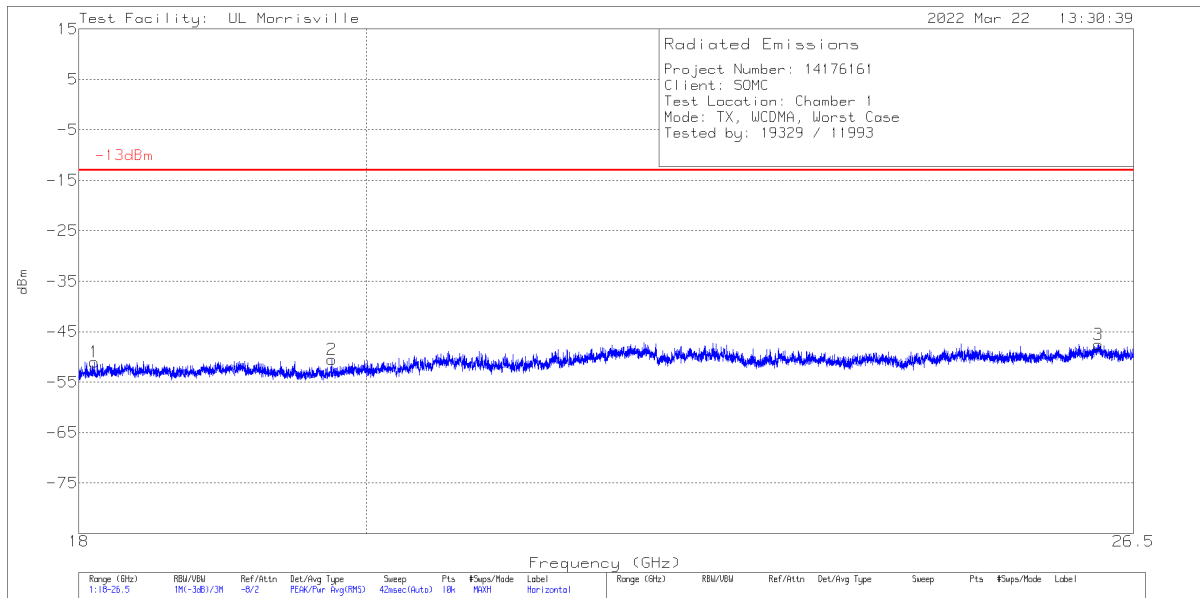


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Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Amp/Cbl (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	32.91	-71.83	Pk	25.3	-31.3	.1	9.7	-68.03	-13	-55.03	0-360	100	V
4	84.999	-66.64	Pk	13.2	-30.7	.2	9.7	-74.24	-13	-61.24	0-360	199	H
2	88.2	-63.04	Pk	13.4	-30.8	.2	9.7	-70.54	-13	-57.54	0-360	100	V
3	101.877	-66.53	Pk	16.7	-30.3	.3	9.7	-70.13	-13	-57.13	0-360	100	V
5	103.138	-70.49	Pk	16.9	-30.4	.3	9.7	-73.99	-13	-60.99	0-360	300	H
6	172.687	-69.46	Pk	17.4	-29.4	.5	9.7	-71.26	-13	-58.26	0-360	199	H

Pk - Peak detector

Spurious 18GHz to 26GHz



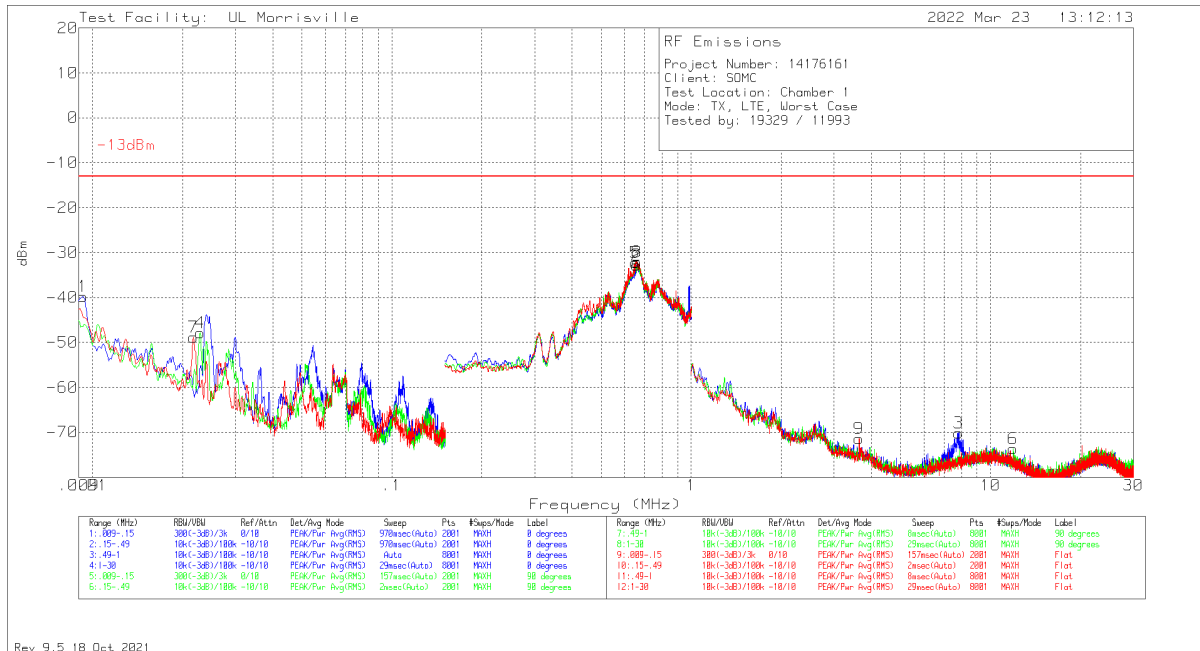
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Amp/Cbl (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	18.10199	-56.9	Pk	33.1	-39	11.8	-51	-13	-38	0-360	101	H
2	19.75082	-56.73	Pk	33.5	-39.1	11.8	-50.53	-13	-37.53	0-360	149	H
4	20.63984	-55.19	Pk	33.9	-39.1	11.8	-48.59	-13	-35.59	0-360	251	V
5	22.14079	-57.17	Pk	37	-39.3	11.8	-47.67	-13	-34.67	0-360	251	V
6	25.23533	-56.39	Pk	35.2	-38	11.8	-47.39	-13	-34.39	0-360	101	V
3	26.16343	-57.48	Pk	35.4	-37.3	11.8	-47.58	-13	-34.58	0-360	101	H

Pk - Peak detector

11.2.3. Worst-Case Emissions for 4G

LTE Band 13 QPSK Mode

Spurious below 30MHz

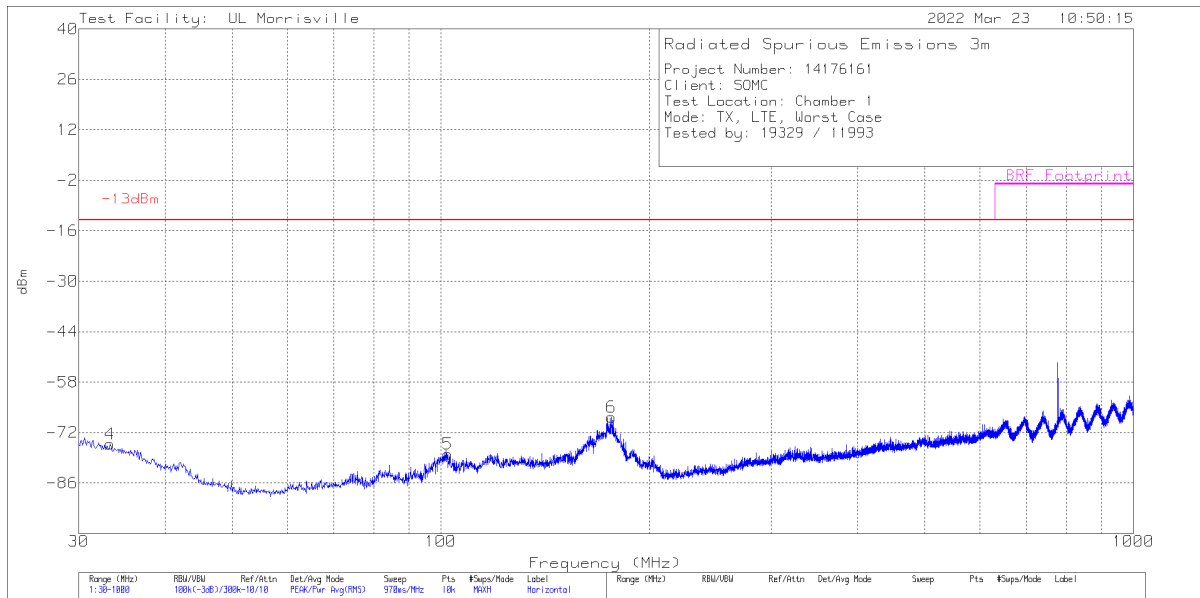


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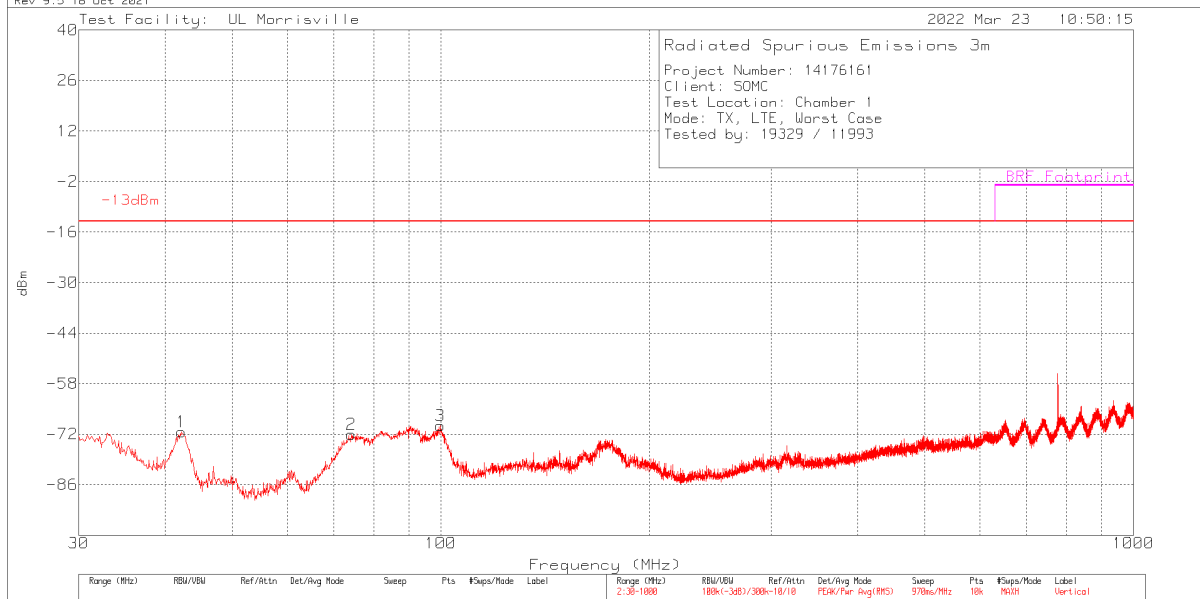
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0037 (dB/m)	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	.00928	-81.21	Pk	61.1	-31.5	11.8	-39.81	-13	-26.81	0-360	97	0 degs
7	.02178	-87.6	Pk	58.9	-31.9	11.8	-48.8	-13	-35.8	0-360	97	Flat
4	.02292	-86.62	Pk	58.8	-31.9	11.8	-47.92	-13	-34.92	0-360	97	90 degs
5	.64974	-67.64	Pk	56.1	-32.5	11.8	-32.24	-13	-19.24	0-360	97	90 degs
2	.65618	-68.22	Pk	56.1	-32.5	11.8	-32.82	-13	-19.82	0-360	97	0 degs
8	.65794	-67.5	Pk	56.1	-32.5	11.8	-32.1	-13	-19.1	0-360	97	Flat
9	3.639	-88.6	Pk	37.6	-32.2	11.8	-71.4	-13	-58.4	0-360	403	Flat
3	7.80775	-84.38	Pk	34.4	-32	11.8	-70.18	-13	-57.18	0-360	403	0 degs
6	11.91125	-87.81	Pk	34.2	-31.9	11.8	-73.71	-13	-60.71	0-360	403	90 degs

Pk - Peak detector

Spurious below 1GHz



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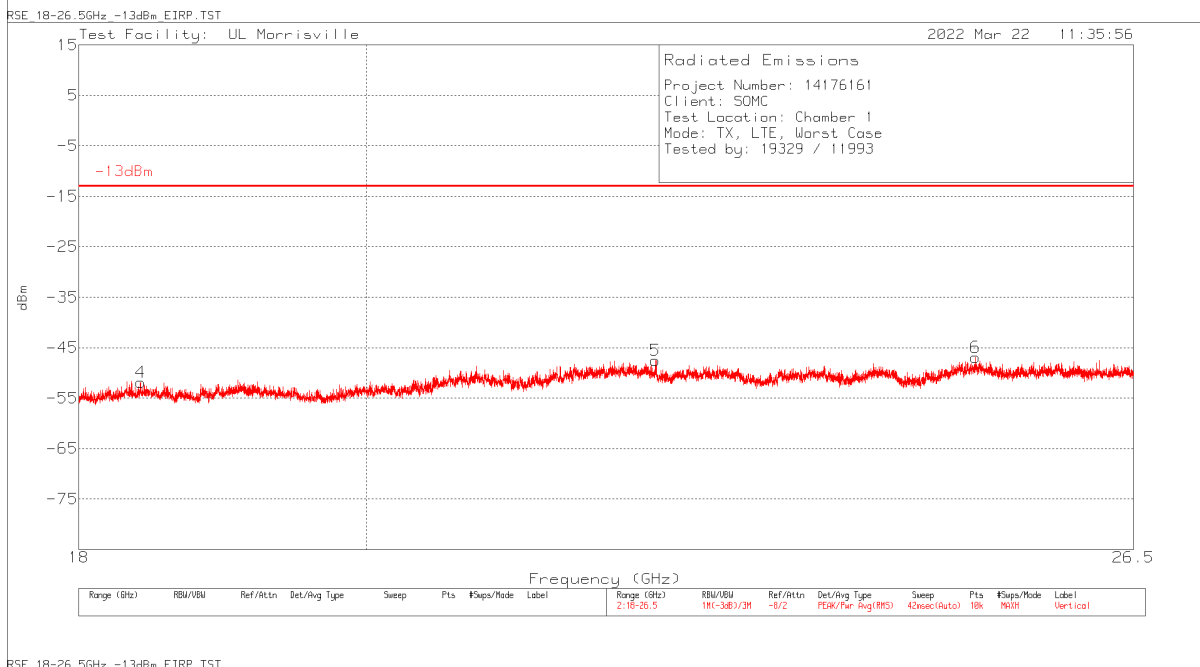
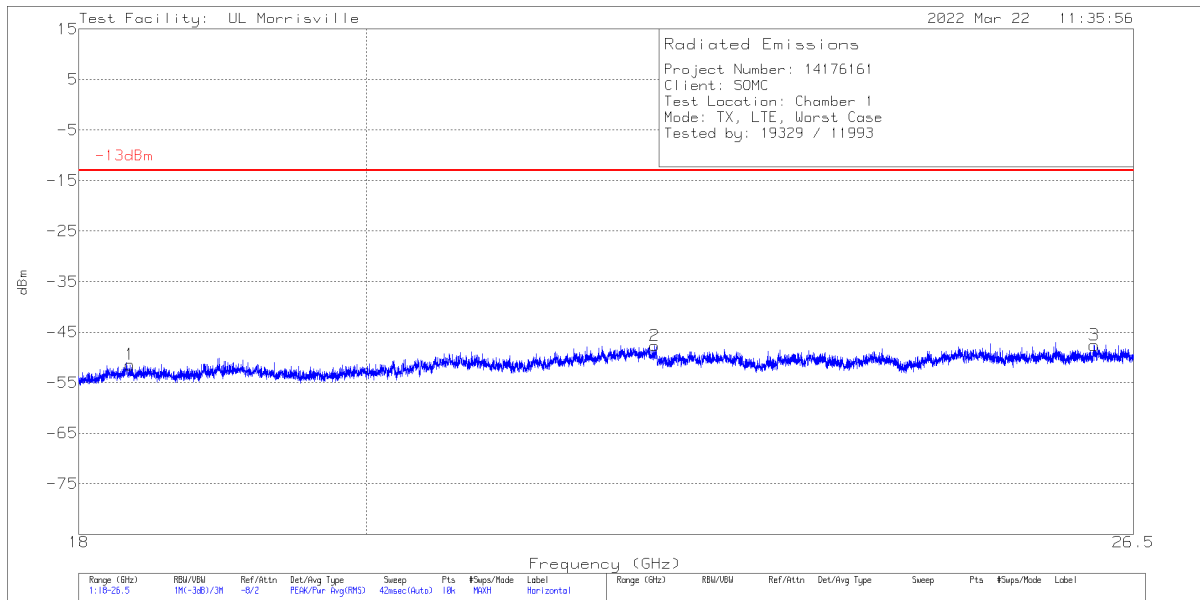


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Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AT0066 (dB/m)	Amp/Cbl (dB)	Filter (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	BRF Footprint	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	33.298	-78.58	Pk	25	-31.4	.1	9.7	-75.18	-13	-62.18	-	-	0-360	200	H
1	42.222	-68.02	Pk	18.2	-31.4	.1	9.7	-71.42	-13	-58.42	-	-	0-360	100	V
2	74.232	-65.24	Pk	14.1	-30.7	.1	9.7	-72.04	-13	-59.04	-	-	0-360	100	V
3	99.84	-65.48	Pk	16.2	-30.4	.3	9.7	-69.68	-13	-56.68	-	-	0-360	100	V
5	102.265	-74.43	Pk	16.8	-30.3	.3	9.7	-77.93	-13	-64.93	-	-	0-360	299	H
6	176.179	-65.7	Pk	17.3	-29.6	.5	9.7	-67.8	-13	-54.8	-	-	0-360	299	H

Pk - Peak detector

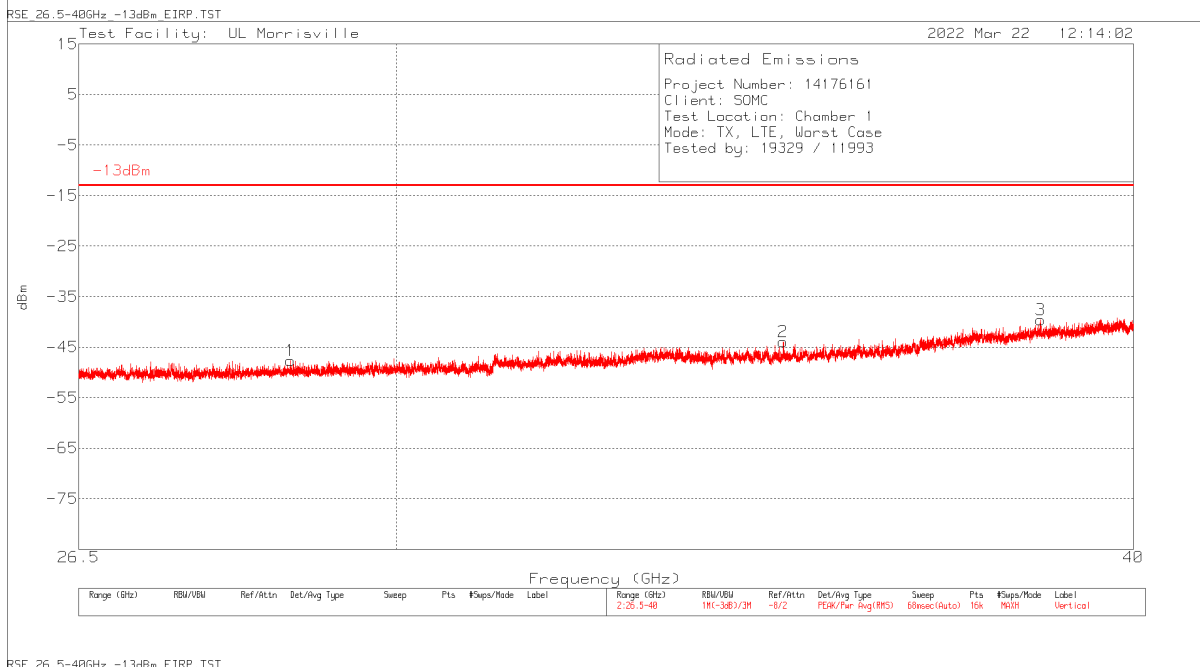
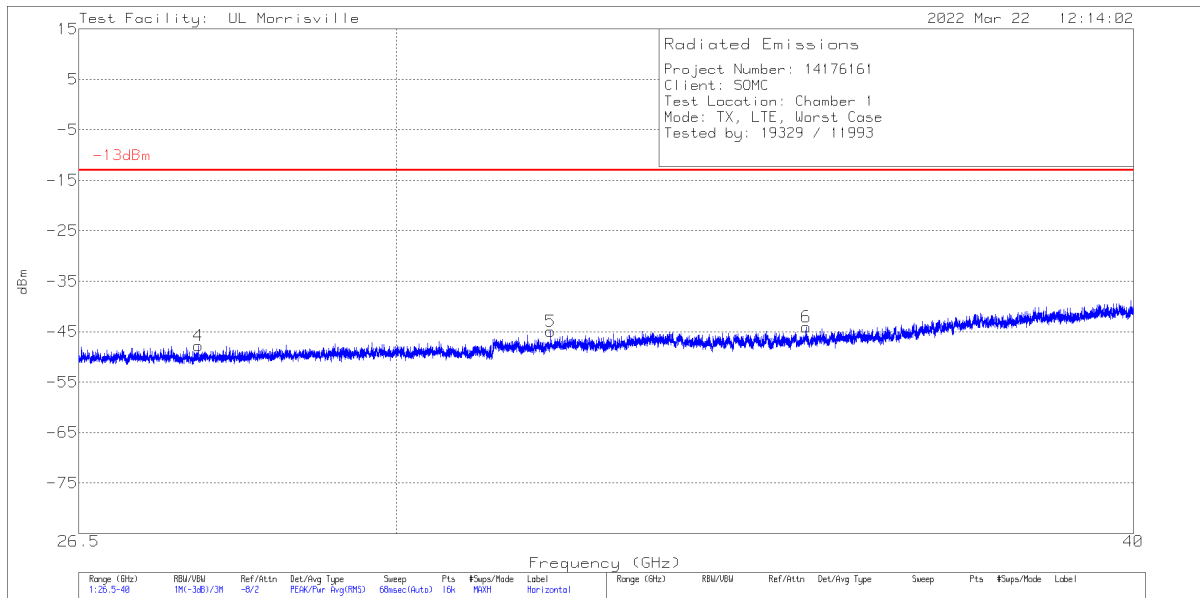
Spurious 18GHz to 26GHz



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Amp/Cbl (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	18.34167	-57.45	Pk	33.1	-38.9	11.8	-51.45	-13	-38.45	0-360	101	H
4	18.41391	-58.13	Pk	33.2	-38.8	11.8	-51.93	-13	-38.93	0-360	101	V
2	22.23343	-56.7	Pk	36.8	-39.6	11.8	-47.7	-13	-34.7	0-360	200	H
5	22.23938	-56.69	Pk	36.8	-39.4	11.8	-47.49	-13	-34.49	0-360	150	V
6	25.0084	-55.38	Pk	35.1	-38.4	11.8	-46.88	-13	-33.88	0-360	200	V
3	26.12179	-57.4	Pk	35.4	-37.4	11.8	-47.6	-13	-34.6	0-360	101	H

Pk - Peak detector

Spurious 26GHz – 40GHz



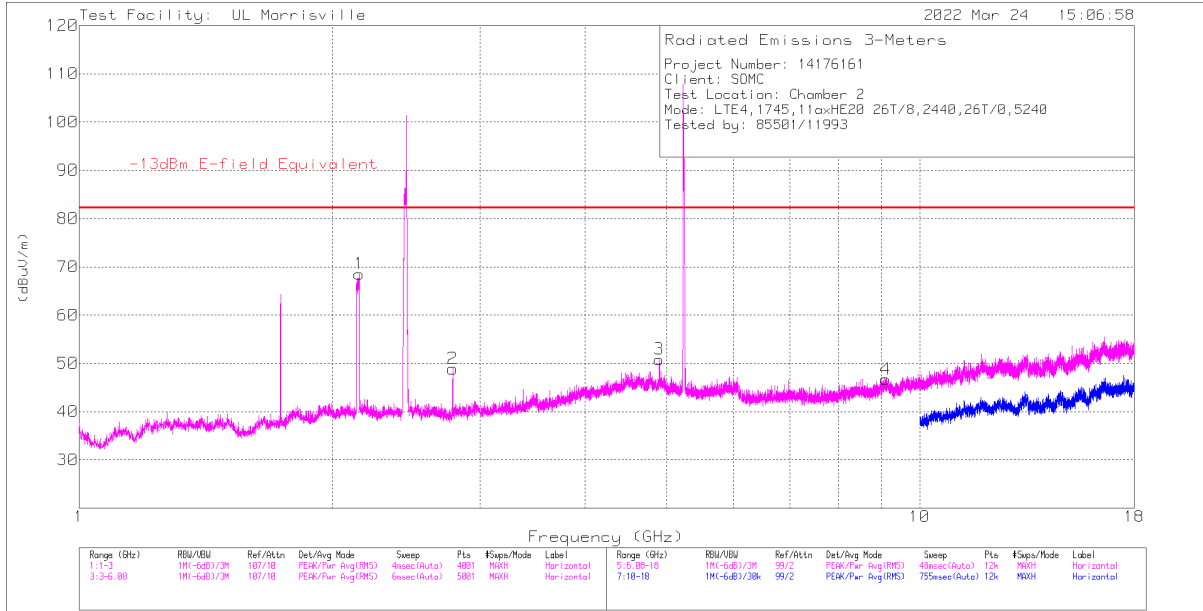
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	ANT (dB/m)	Amp/Cbl (dB)	Conversion Factor (dB)	Corrected Reading dBm	-13dBm	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	27.7647	-58.27	Pk	35.9	-37.2	11.8	-47.77	-13	-34.77	0-360	150	H
1	28.78304	-58.77	Pk	36.3	-37	11.8	-47.67	-13	-34.67	0-360	101	V
5	31.86085	-57.78	Pk	37	-35.9	11.8	-44.88	-13	-31.88	0-360	299	H
2	34.89057	-56.77	Pk	38	-37	11.8	-43.97	-13	-30.97	0-360	200	V
6	35.2002	-56.49	Pk	37.8	-37.2	11.8	-44.09	-13	-31.09	0-360	101	H
3	38.57752	-55.76	Pk	39	-34.6	11.8	-39.56	-13	-26.56	0-360	101	V

Pk - Peak detector

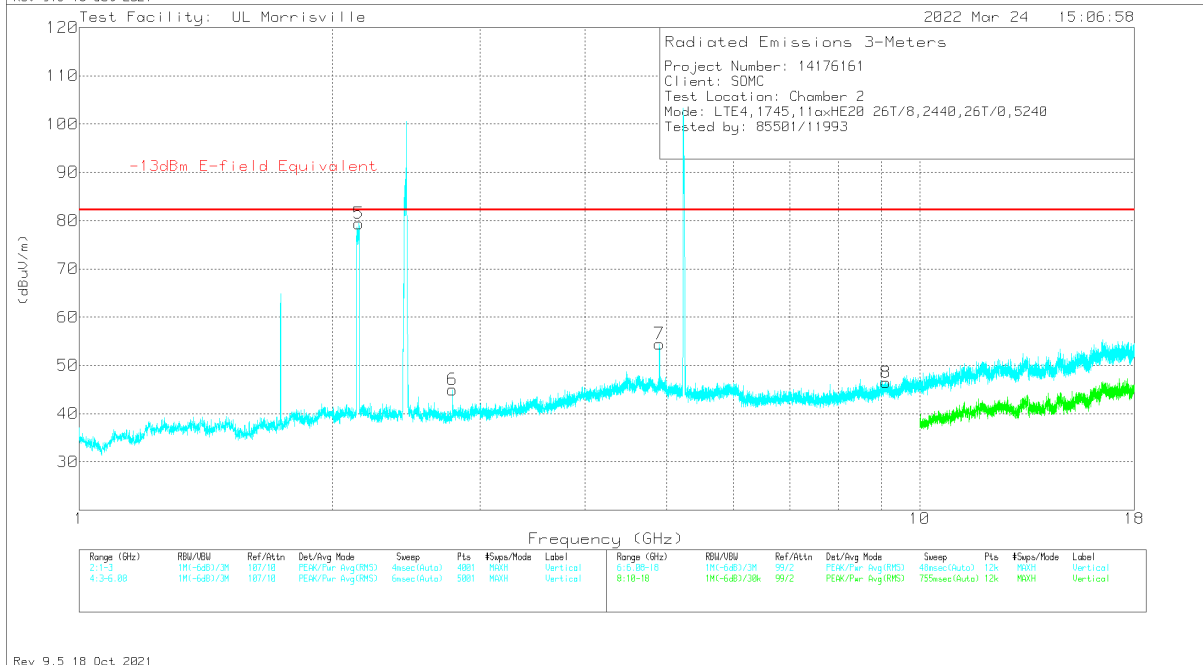
11.3. SIM TX

RESULTS

11.3.1. LTE Band 4, 20300, 1745MHz, 20MHz, 1RB and 2442MHz 11ax HE20 26T/8 C0/C1 and 5240MHz C0/C1 HE20 26T/0



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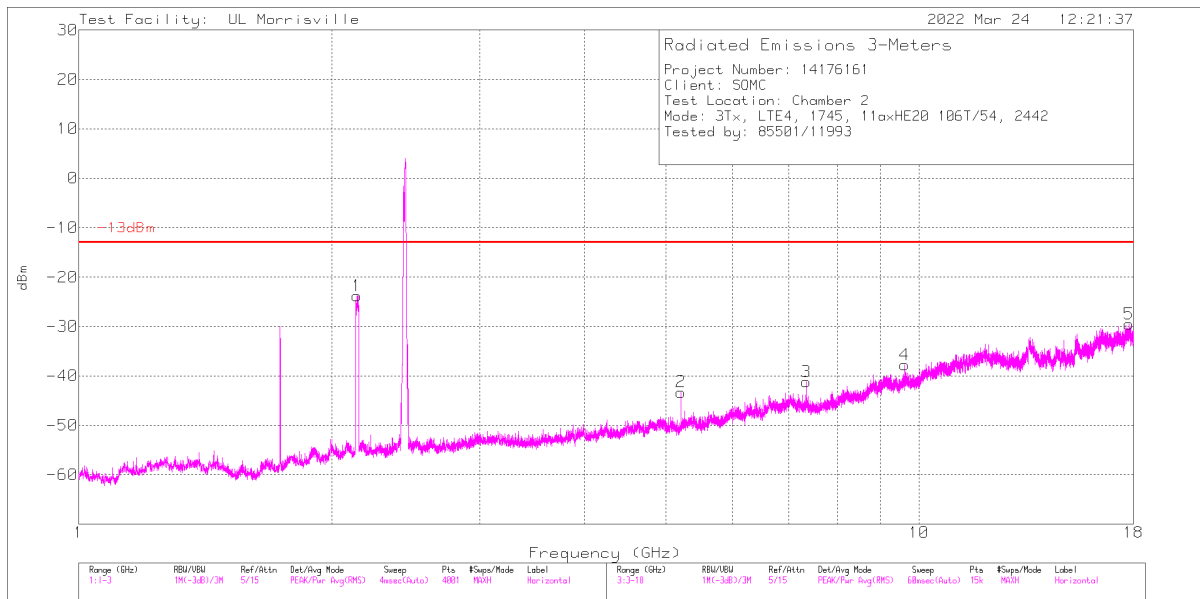


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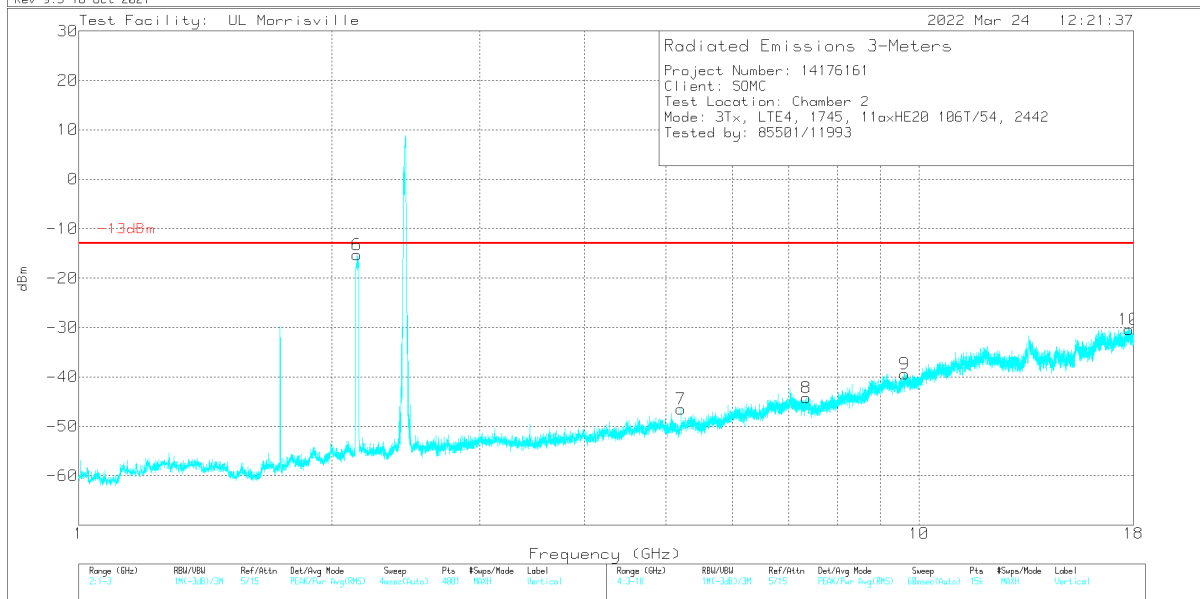
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Pad (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.153 (DL)	58.95	Pk	31.7	-23.1	1	-	-	-	0-360	200	H
2	** * 2.782	41.9	Pk	32.4	-25.8	.4	48.9	82.2	-33.3	0-360	200	H
5	** 2.152 (DL)	69.79	Pk	31.6	-23	1	-	-	-	0-360	101	V
6	** * 2.78025	37.97	Pk	32.4	-25.8	.4	44.97	82.2	-37.23	0-360	101	V
3	** * 4.90036	37.92	Pk	34.1	-21.2	0	50.82	82.2	-31.38	0-360	101	H
7	** * 4.90098	41.54	Pk	34.1	-21.2	0	54.44	82.2	-27.76	0-360	199	V
4	** * 9.11066	37	Pk	36.3	-26.6	0	46.7	82.2	-35.5	0-360	101	H
8	** * 9.11861	36.44	Pk	36.3	-26.3	0	46.44	82.2	-35.76	0-360	199	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector

11.3.2. LTE Band 4, 20300, 1745MHz, 20MHz, 1RB and 2442MHz 11ax HE20 106T/R54 C0/C1



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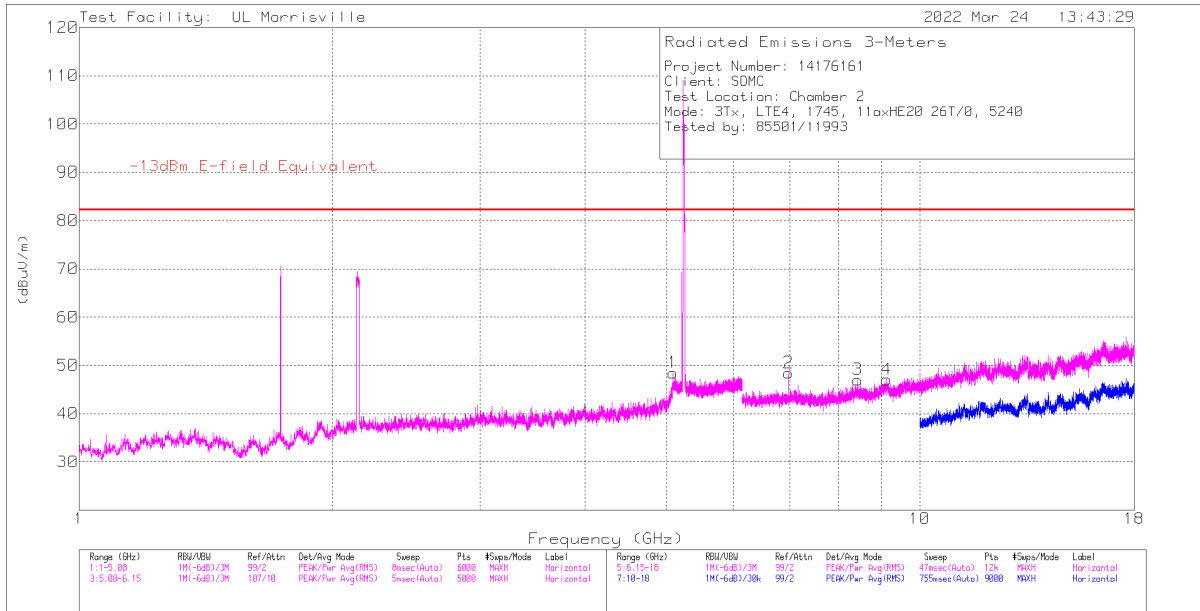


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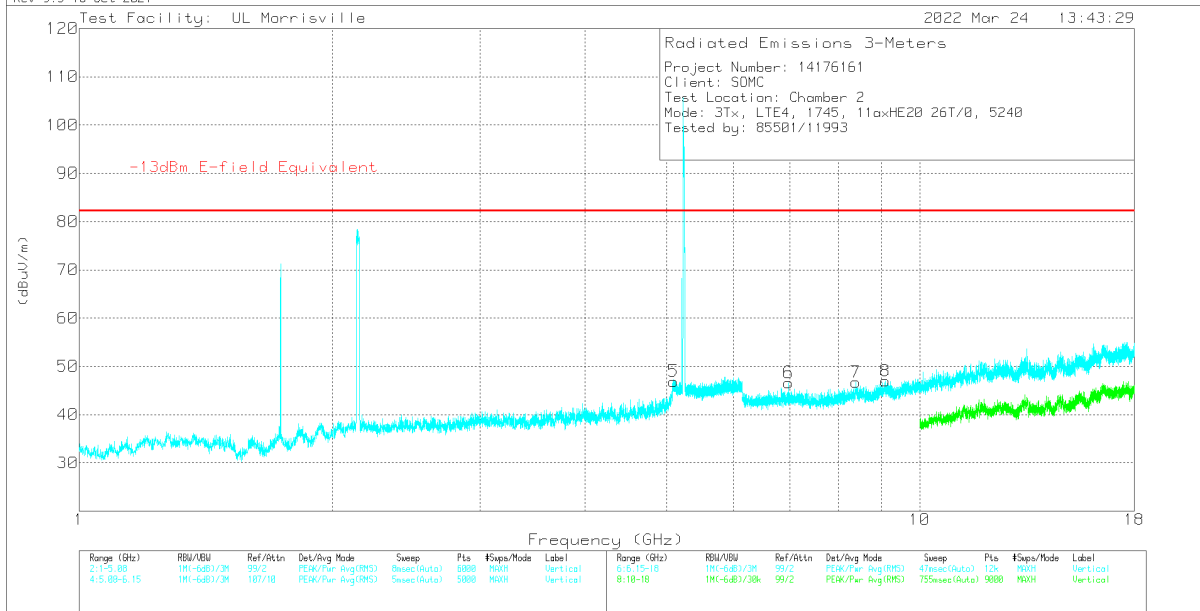
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Amp/Cbl (dB)	CF (dB)	Filter (dB)	Corrected Reading dBm	-13dBm	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.143 (DL)	-33.76	Pk	31.5	-34.3	11.8	1	-	-	-	0-360	200	H
6	2.145 (DL)	-25.38	Pk	31.5	-34.2	11.8	1	-	-	-	0-360	101	V
2	5.208	-58.77	Pk	34.1	-30.4	11.8	0	-43.27	-13	-30.27	0-360	101	H
7	5.208	-62.05	Pk	34.1	-30.4	11.8	0	-46.55	-13	-33.55	0-360	199	V
8	7.343	-65.03	Pk	35.7	-26.7	11.8	0	-44.23	-13	-31.23	0-360	199	V
3	7.345	-61.99	Pk	35.7	-26.7	11.8	0	-41.19	-13	-28.19	0-360	200	H
4	9.623	-60.76	Pk	36.9	-25.7	11.8	0	-37.76	-13	-24.76	0-360	200	H
9	9.623	-62.35	Pk	36.9	-25.7	11.8	0	-39.35	-13	-26.35	0-360	300	V
5	17.791	-62.2	Pk	41.7	-20.8	11.8	0	-29.5	-13	-16.5	0-360	300	H
10	17.795	-62.55	Pk	41.7	-21.3	11.8	0	-30.35	-13	-17.35	0-360	199	V

Pk - Peak detector

11.3.3. LTE Band 4, 20300, 1745MHz, 20MHz, 1RB and 5240MHz 11ax HE20 26T/0 C0/C1



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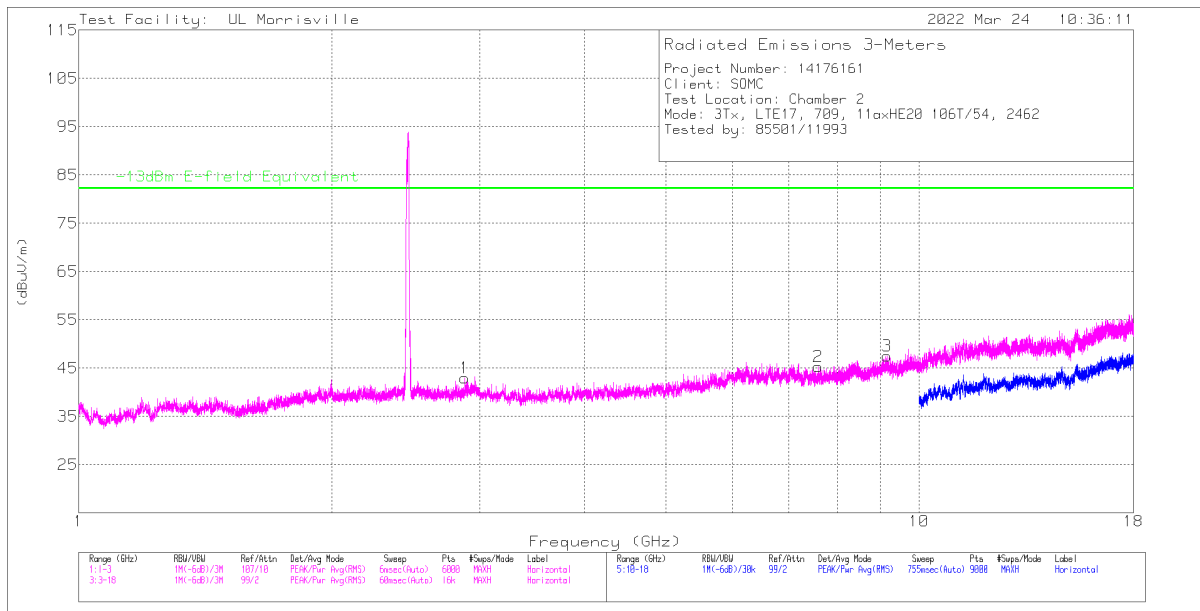


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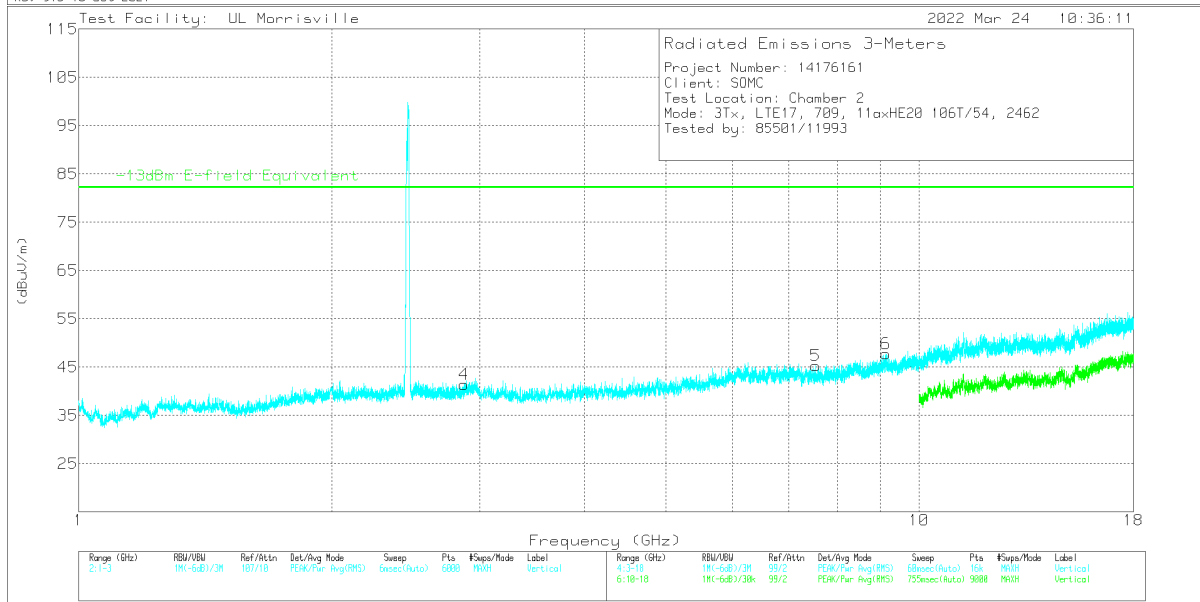
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Fltr (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* ** 8.43508	38.15	Pk	35.9	-27	0	47.05	82.2	-35.15	0-360	199	H
4	* ** 9.13126	36.76	Pk	36.3	-26	0	47.06	82.2	-35.14	0-360	199	H
7	* ** 8.38965	37.22	Pk	35.9	-26.4	0	46.72	82.2	-35.48	0-360	199	V
8	* ** 9.0967	36.67	Pk	36.3	-26	0	46.97	82.2	-35.23	0-360	101	V
2	6.98641	40.24	Pk	35.9	-27.7	0	48.44	82.2	-33.76	0-360	199	H
6	6.98641	38.42	Pk	35.9	-27.7	0	46.62	82.2	-35.58	0-360	101	V
1	* ** 5.08963	36.18	Pk	34.4	-22.1	0	48.48	82.2	-33.72	0-360	199	H
5	* ** 5.09413	34.6	Pk	34.4	-22.1	0	46.9	82.2	-35.3	0-360	101	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector

11.3.4. LTE Band 17, 23780, 709MHz, 10MHz, 1RB and 2462MHz 106T/R54 C0/C1



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Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Pad (dB)	Filter (dB)	Corrected Reading (dBuV/m)	-13dBm E-field Equivalent	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.88031	35.77	Pk	32.6	-25.8	.4	42.97	82.2	-39.23	0-360	200	H
4	* ** 2.87265	34.38	Pk	32.5	-25.9	.4	41.38	82.2	-40.82	0-360	200	V
5	* ** 7.53563	36.11	Pk	35.7	-27.1	.6	45.31	82.2	-36.89	0-360	199	V
2	* ** 7.59188	35.63	Pk	35.6	-26.5	.6	45.33	82.2	-36.87	0-360	101	H
6	* ** 9.13406	36.18	Pk	36.3	-25.2	.5	47.78	82.2	-34.42	0-360	101	V
3	* ** 9.16125	36.59	Pk	36.3	-25.9	.5	47.49	82.2	-34.71	0-360	101	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

12. SETUP PHOTOS

Please see R14176161-EP2 for Setup Photos.

END OF REPORT