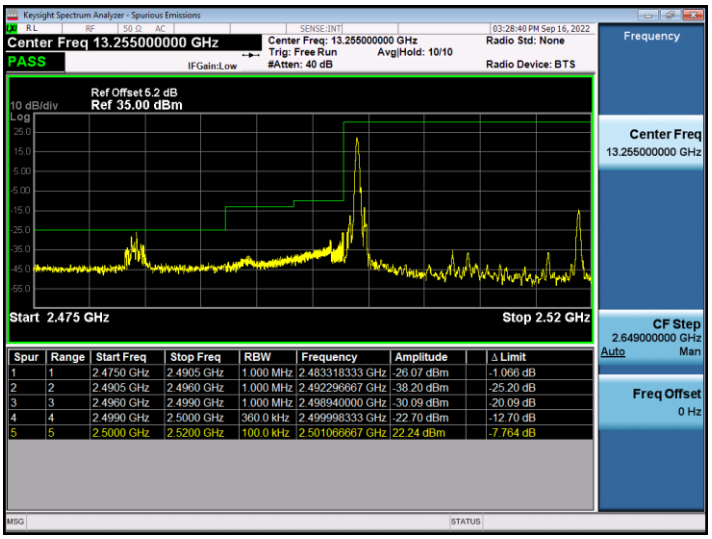
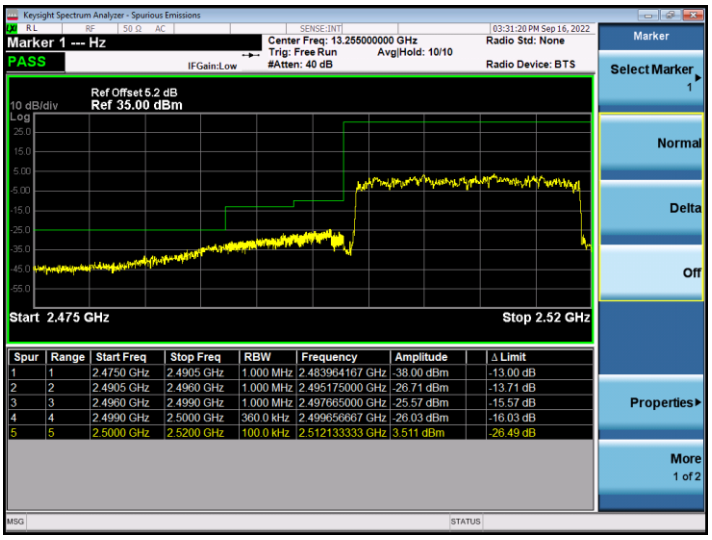
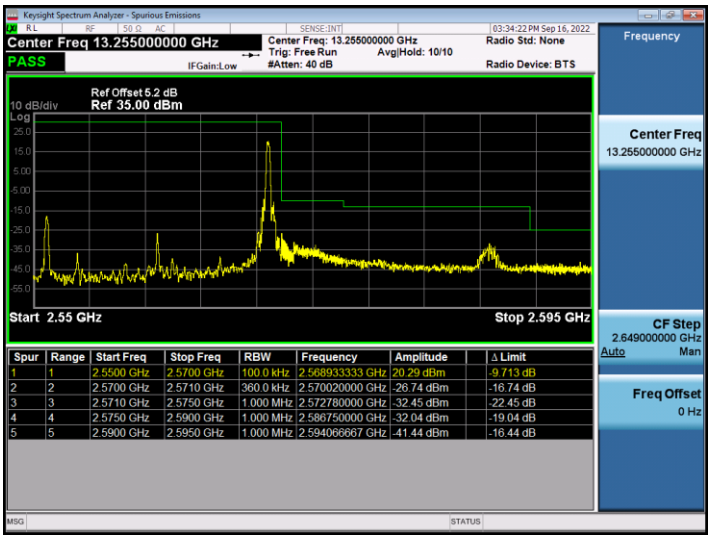


Band7-20MHz-QPSK-20850-100RB#0

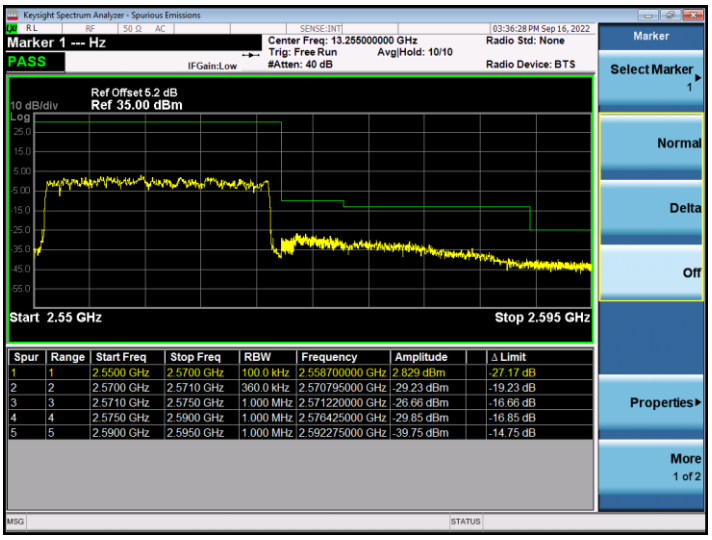


Band7-20MHz-QPSK-21350-1RB#99



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5500 GHz	2.5700 GHz	100.0 kHz	2.568933333 GHz	20.29 dBm	-9.713 dB
2	2	2.5700 GHz	2.5710 GHz	360.0 kHz	2.570020000 GHz	-26.74 dBm	-16.74 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.572780000 GHz	-32.45 dBm	-22.45 dB
4	4	2.5750 GHz	2.5900 GHz	1.000 MHz	2.586750000 GHz	-32.04 dBm	-19.04 dB
5	5	2.5900 GHz	2.5950 GHz	1.000 MHz	2.594066667 GHz	-41.44 dBm	-16.44 dB

Band7-20MHz-QPSK-21350-100RB#0



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5500 GHz	2.5700 GHz	100.0 kHz	2.558700000 GHz	2.829 dBm	-27.17 dB
2	2	2.5700 GHz	2.5710 GHz	360.0 kHz	2.570795000 GHz	-29.23 dBm	-19.23 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571220000 GHz	-26.66 dBm	-16.66 dB
4	4	2.5750 GHz	2.5900 GHz	1.000 MHz	2.576425000 GHz	-29.85 dBm	-16.85 dB
5	5	2.5900 GHz	2.5950 GHz	1.000 MHz	2.592275000 GHz	-39.75 dBm	-14.75 dB

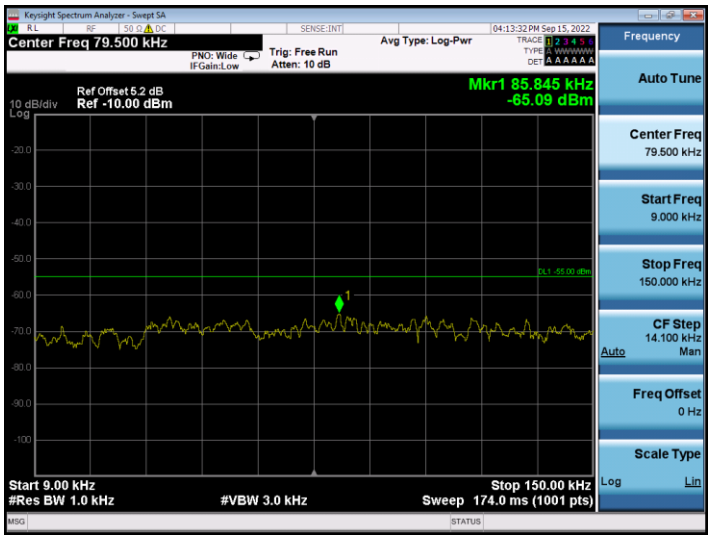
Appendix F Spurious Emission at Antenna Terminals

Test Result

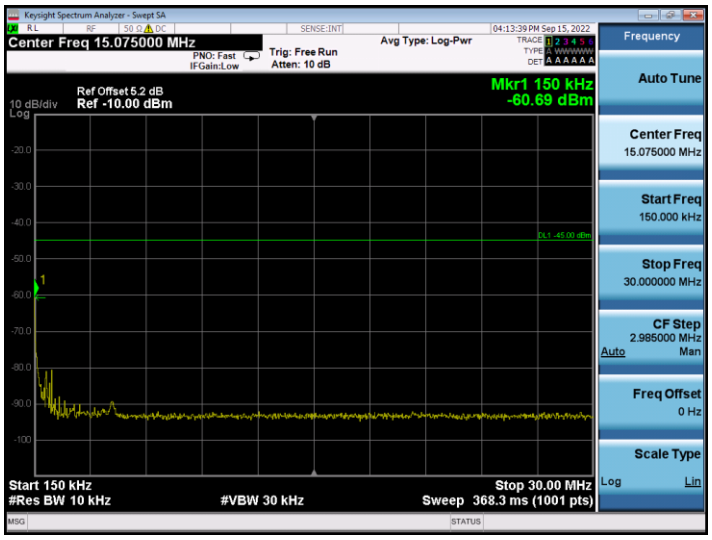
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band7	5MHz	QPSK	21100	1RB#0	Range1: 0.009~0.15MHz	-57.46	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range2: 0.15~30MHz	-55.08	PASS
Band7	5MHz	QPSK	21100	1RB#0	Range3: 30~18800MHz	-52.78	PASS
Band7	10MHz	QPSK	21100	1RB#0	Range1: 0.009~0.15MHz	-58.37	PASS
Band7	10MHz	QPSK	21100	1RB#0	Range2: 0.15~30MHz	-55.05	PASS
Band7	10MHz	QPSK	21100	1RB#0	Range3: 30~18800MHz	-52.80	PASS
Band7	15MHz	QPSK	21100	1RB#0	Range1: 0.009~0.15MHz	-58.62	PASS
Band7	15MHz	QPSK	21100	1RB#0	Range2: 0.15~30MHz	-56.56	PASS
Band7	15MHz	QPSK	21100	1RB#0	Range3: 30~18800MHz	-52.81	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range1: 0.009~0.15MHz	-58.40	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range2: 0.15~30MHz	-56.40	PASS
Band7	20MHz	QPSK	21100	1RB#0	Range3: 30~18800MHz	-53.13	PASS

Test Plots

Band7-5MHz-QPSK-21100-1RB#0-Range1: 0.009~0.15MHz

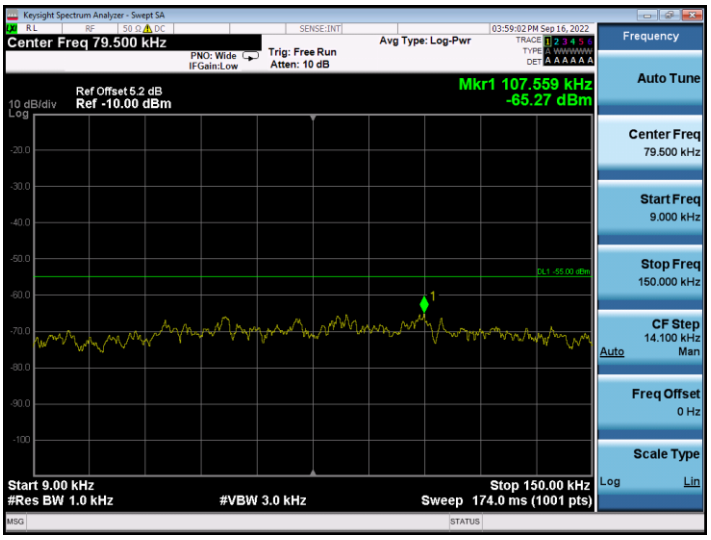


Band7-5MHz-QPSK-21100-1RB#0-Range2: 0.15~30MHz

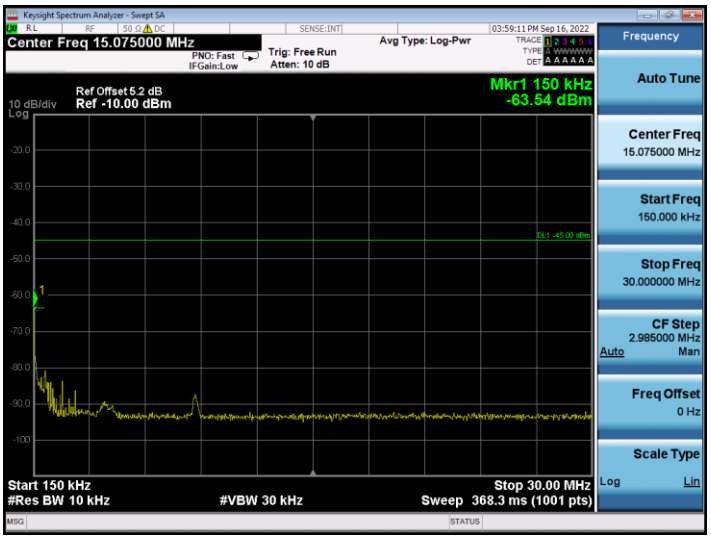


Band7-5MHz-QPSK-21100-1RB#0-Range3: 30~18800MHz

Band7-10MHz-QPSK-21100-1RB#0-Range1: 0.009~0.15MHz

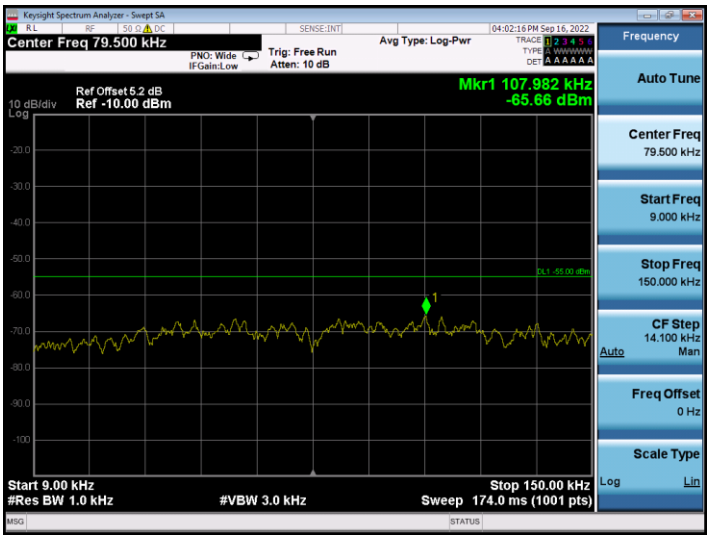


Band7-10MHz-QPSK-21100-1RB#0-Range2: 0.15~30MHz

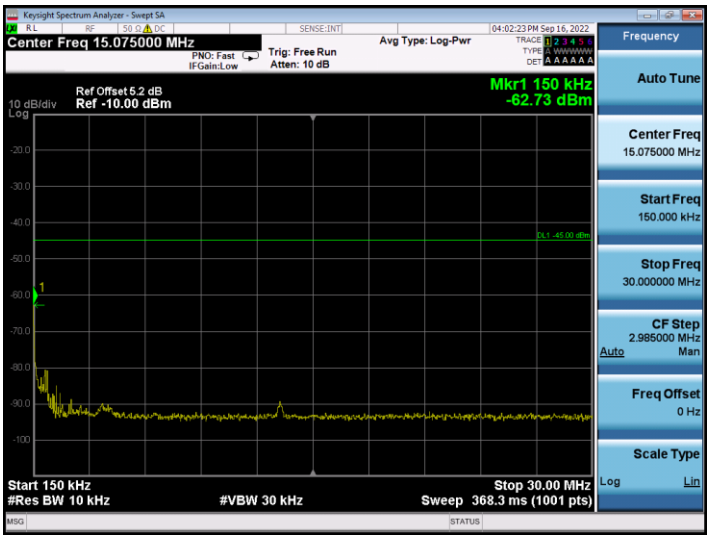


Band7-10MHz-QPSK-21100-1RB#0-Range3: 30~18800MHz

Band7-15MHz-QPSK-21100-1RB#0-Range1: 0.009~0.15MHz

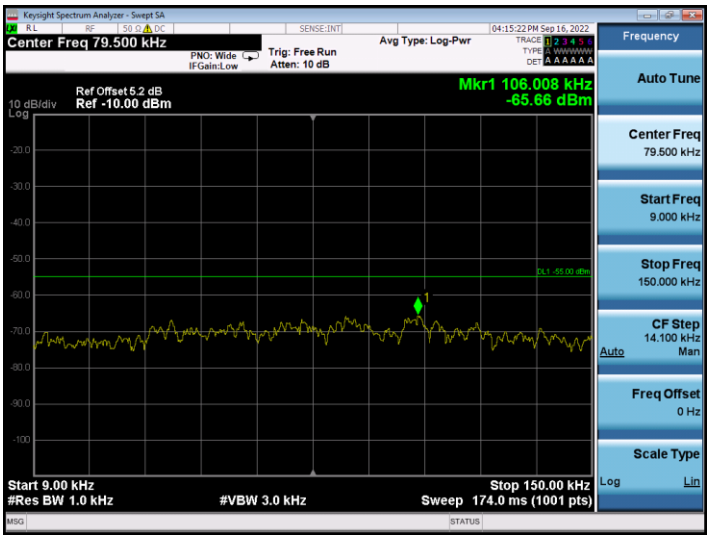


Band7-15MHz-QPSK-21100-1RB#0-Range2: 0.15~30MHz

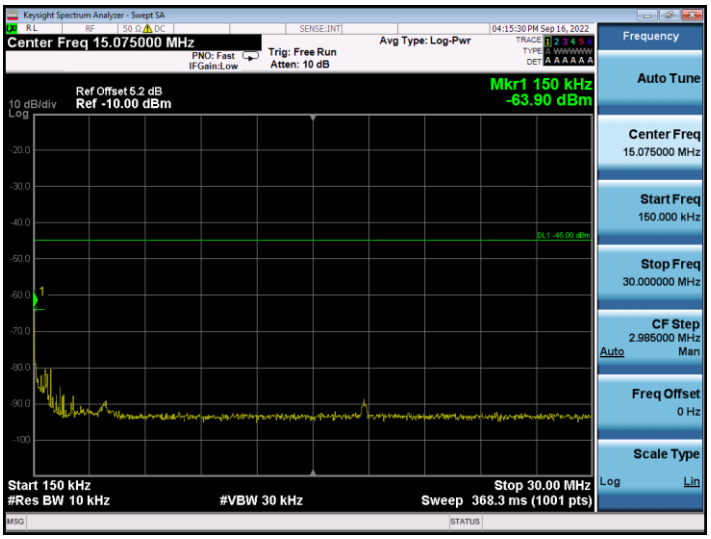


Band7-15MHz-QPSK-21100-1RB#0-Range3: 30~18800MHz

Band7-20MHz-QPSK-21100-1RB#0-Range1: 0.009~0.15MHz



Band7-20MHz-QPSK-21100-1RB#0-Range2: 0.15~30MHz



Band7-20MHz-QPSK-21100-1RB#0-Range3: 30~18800MHz

Appendix G Field Strength of Spurious Radiation

The transmitting equipment under test (EUT) is placed on a styrene turntable which is four feet in diameter and approximately 0.8 meter up to 1GHz and 1.5 meter above 1GHz in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The EUT is adjusted through all three orthogonal axes to obtain maximum emission levels. The antenna height and polarization are varied during the testing to search for maximum signal levels.

The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower. The emissions were very low against the limit in the frequency range 9kHz to 30MHz and 18 GHz ~ 20 GHz.

Note: We tested all modes, but the data presented below is the worst case.
9kHz~150kHz, VBW = 200Hz, VBW = 600Hz, Detector: PK
150kHz~30MHz, VBW = 9kHz, VBW = 30kHz, Detector: PK
30MHz~1GHz, RBW = 100kHz, VBW = 300kHz. Detector: RMS
Above 1GHz, RBW = 1MHz, VBW = 3MHz. Detector: RMS

Note:
The EUT is tested radiation emission at each test mode in three axes. The worst emissions are reported in all test mode and channels.

Test Plots

Test Band = BAND7
Worst Test Bandwidth = 5MHz

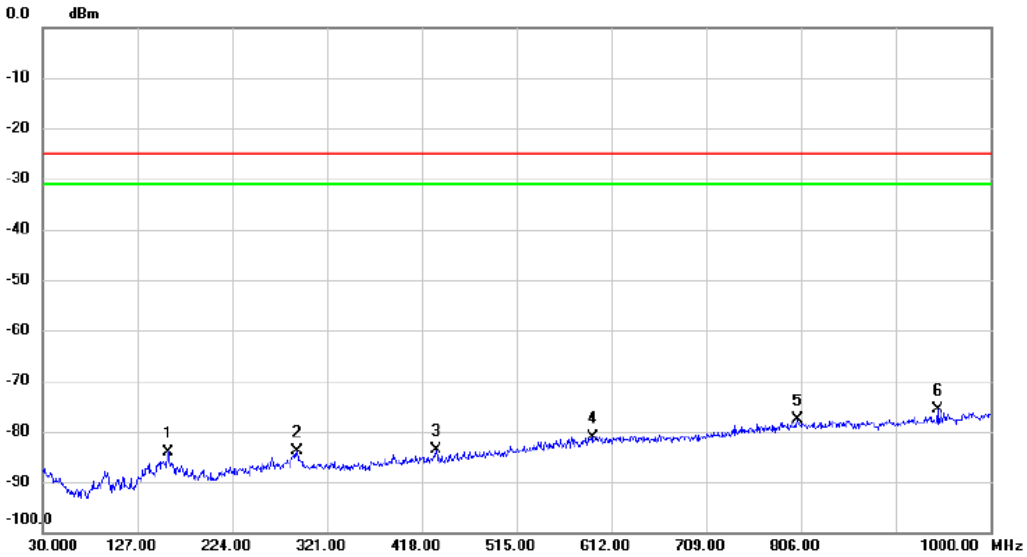
Below 1G

Middle channel Horizontal

Site:	SH-CB02	Polarization:	***Horizontal***	Temperature:	24 (C)
Limit:	FCC PART 27M EMISSION	Power:	AC 120V/60Hz	Humidity:	58 %
EUT:	LTE Module	Distance:	3m		
M/N:	EG915N-LA	Mode:	TX_LTE_B7		
Note:	5M				

Radiated Emission Measurement

File :FCCP_BELOW1G Data :#8 Date: 2022/9/19 Time: 19:42:31



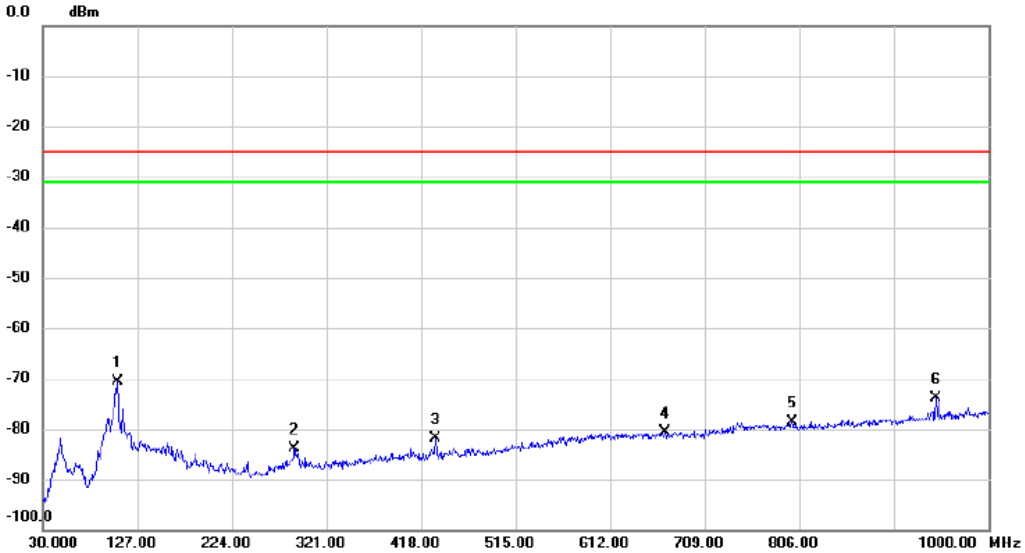
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		158.5250	-78.88	-5.20	-84.08	-25.00	-59.08	RMS	
2		290.4450	-81.04	-2.94	-83.98	-25.00	-58.98	RMS	
3		433.0350	-82.22	-1.44	-83.66	-25.00	-58.66	RMS	
4		592.6000	-82.91	1.80	-81.11	-25.00	-56.11	RMS	
5		802.6050	-81.96	4.28	-77.68	-25.00	-52.68	RMS	
6	*	946.1650	-80.45	4.90	-75.55	-25.00	-50.55	RMS	

Middle channel Vertical

Site:	SH-CB02	Polarization:	***Vertical***	Temperature:	24 (C)
Limit:	FCC PART 27M EMISSION	Power:	AC 120V/60Hz	Humidity:	58 %
EUT:	LTE Module	Distance:	3m		
M/N:	EG915N-LA	Mode:	TX_LTE_B7		
Note:	5M				

Radiated Emission Measurement

File :FCCP_BELOW1G Data :#7 Date: 2022/9/19 Time: 19:41:28



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	106.6300	-70.74	0.17	-70.57	-25.00	-45.57	RMS	
2		288.5050	-79.73	-4.03	-83.76	-25.00	-58.76	RMS	
3		433.0350	-80.63	-1.32	-81.95	-25.00	-56.95	RMS	
4		668.2600	-82.46	1.94	-80.52	-25.00	-55.52	RMS	
5		798.7250	-81.96	3.44	-78.52	-25.00	-53.52	RMS	
6		946.1650	-78.90	5.02	-73.88	-25.00	-48.88	RMS	

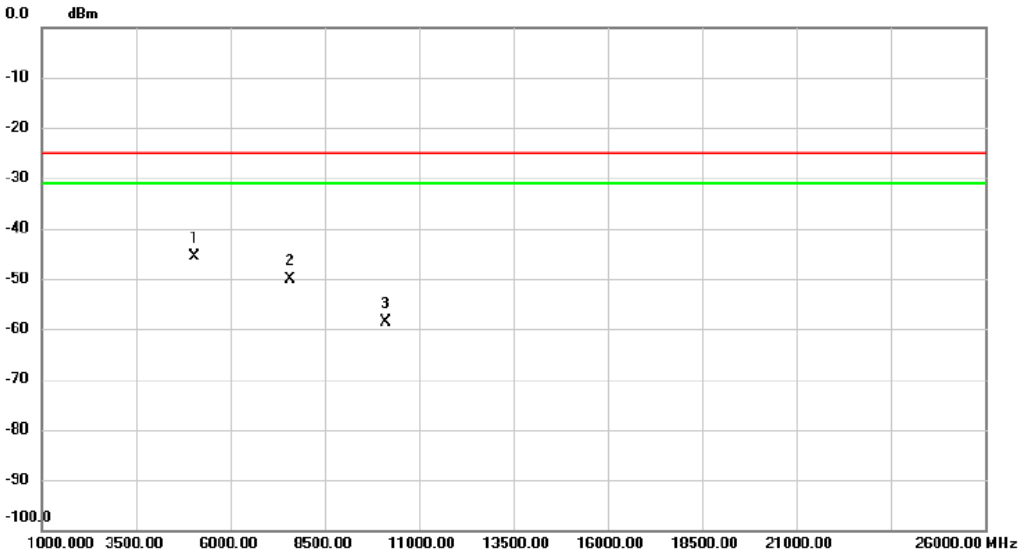
Above lG

Middle channel Horizontal

Site:	SH-CB02	Polarization:	***Horizontal***	Temperature:	24 (C)
Limit:	FCC PART 27M EMISSION	Power:	AC 120V/60Hz	Humidity:	58 %
EUT:	LTE Module	Distance:	3m		
M/N:	EG915N-LA	Mode:	TX_LTE_B7		
Note:	5M				

Radiated Emission Measurement

File :FCCP_ABOVE1G Data :#26 Date: 2022/9/16 Time: 18:33:04



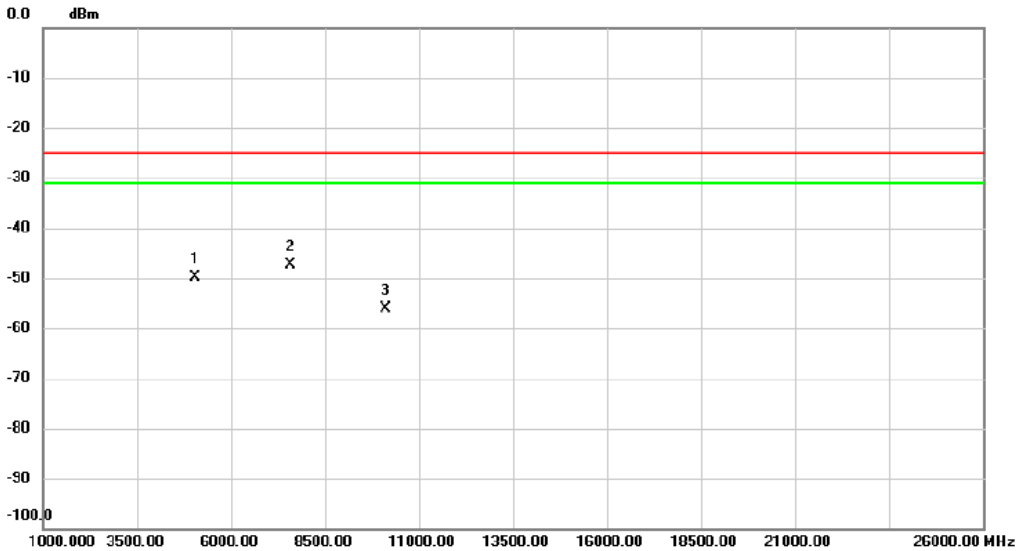
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	5065.550	-43.12	-2.46	-45.58	-25.00	-20.58	RMS	
2		7598.550	-52.57	2.33	-50.24	-25.00	-25.24	RMS	
3		10131.55	-63.63	5.10	-58.53	-25.00	-33.53	RMS	

Middle channel Vertical

Site:	SH-CB02	Polarization:	***Vertical***	Temperature:	24 (C)
Limit:	FCC PART 27M EMISSION	Power:	AC 120V/60Hz	Humidity:	58 %
EUT:	LTE Module	Distance:	3m		
M/N:	EG915N-LA	Mode:	TX_LTE_B7		
Note:	5M				

Radiated Emission Measurement

File :FCCP_ABOVE1G Data :#25 Date: 2022/9/16 Time: 18:31:43



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		5065.550	-47.70	-2.29	-49.99	-25.00	-24.99	RMS	
2	*	7598.550	-49.56	2.26	-47.30	-25.00	-22.30	RMS	
3		10131.55	-61.05	5.05	-56.00	-25.00	-31.00	RMS	

Appendix H: Frequency Stability

Test Result

Frequency Error vs. Voltage:

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	5MHz	QPSK	21100	25RB#0	VH	NT	4.69	0.001850099	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	VN	NT	7.51	0.002962525	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	VL	NT	4.24	0.001672584	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VH	NT	4.23	0.001668639	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VN	NT	5.69	0.002244576	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	VL	NT	4.44	0.001751479	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VH	NT	7.74	0.003053254	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VN	NT	5.14	0.002027613	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	VL	NT	5.59	0.002205128	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	8.45	0.003333333	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	5.57	0.002197239	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	8.45	0.003333333	±2.5	PASS

Frequency Error vs. Temperature:

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	5MHz	QPSK	21100	25RB#0	NV	-30	7.06	0.002019724	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	-20	4.47	0.001763314	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	-10	4.20	0.001656805	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	0	7.80	0.003076923	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	10	7.05	0.002781065	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	20	8.14	0.003211045	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	30	9.34	0.003684418	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	40	7.13	0.002812623	±2.5	PASS
Band7	5MHz	QPSK	21100	25RB#0	NV	50	7.09	0.002796844	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	-30	7.40	0.002919132	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	-20	4.64	0.001830375	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	-10	5.45	0.002149901	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	0	7.62	0.003005917	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	10	4.33	0.001708087	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	20	7.08	0.002792899	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	30	4.00	0.001577909	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	40	8.09	0.003191321	±2.5	PASS
Band7	10MHz	QPSK	21100	50RB#0	NV	50	9.44	0.003723866	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	-30	6.02	0.002374753	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	-20	9.73	0.003838264	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	-10	9.90	0.003905325	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	0	6.79	0.002678501	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	10	4.01	0.001581854	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	20	7.83	0.003088757	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	30	4.97	0.001960552	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	40	4.86	0.00191716	±2.5	PASS
Band7	15MHz	QPSK	21100	75RB#0	NV	50	5.41	0.002134122	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	5.92	0.002335306	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	4.65	0.00183432	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	8.59	0.00338856	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	4.67	0.001842209	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	4.73	0.001865878	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	6.95	0.002741617	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	9.85	0.003885602	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	9.24	0.00364497	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	9.97	0.003932939	±2.5	PASS

END