



# Conducted Spurious Emission

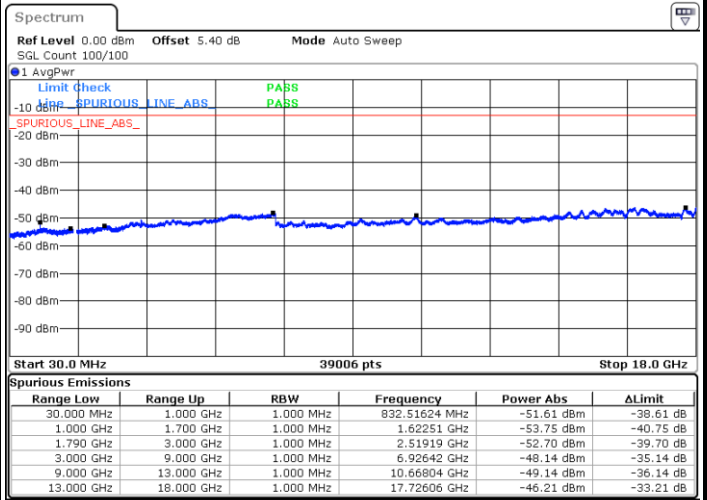
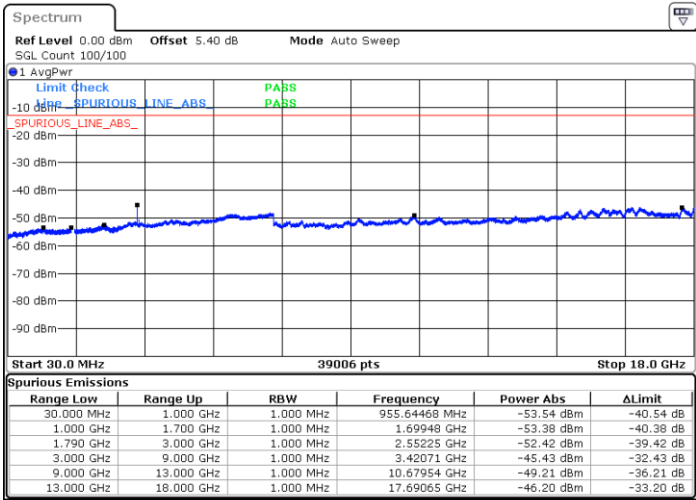




LTE Band 66 / 3MHz

Lowest Channel / QPSK

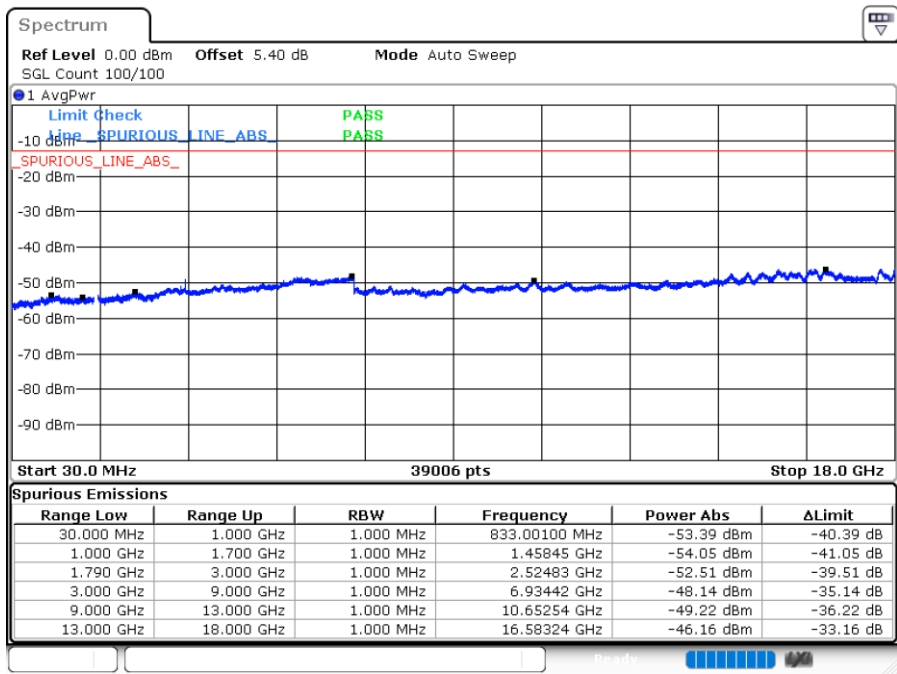
Middle Channel / QPSK



Date: 21.NOV.2022 16:18:44

Date: 21.NOV.2022 16:30:37

Highest Channel / QPSK

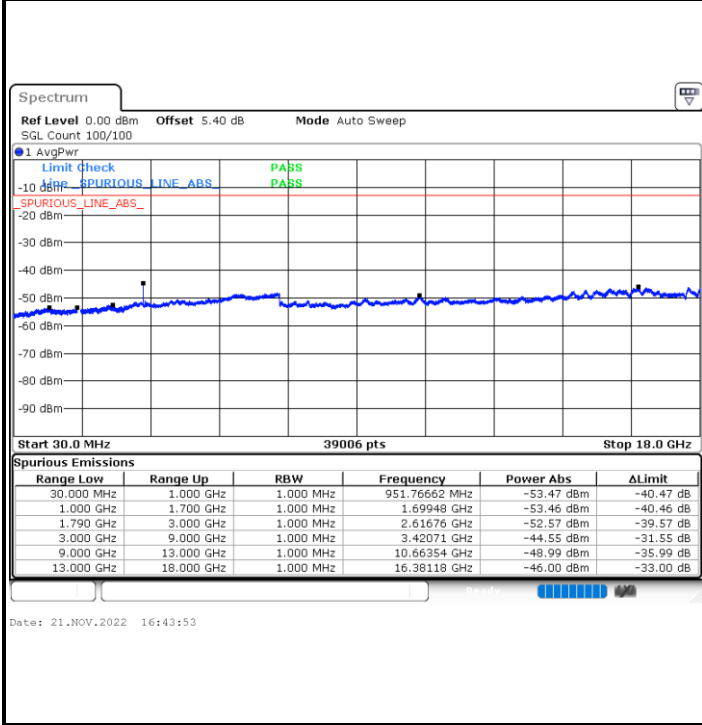


Date: 21.NOV.2022 16:31:58



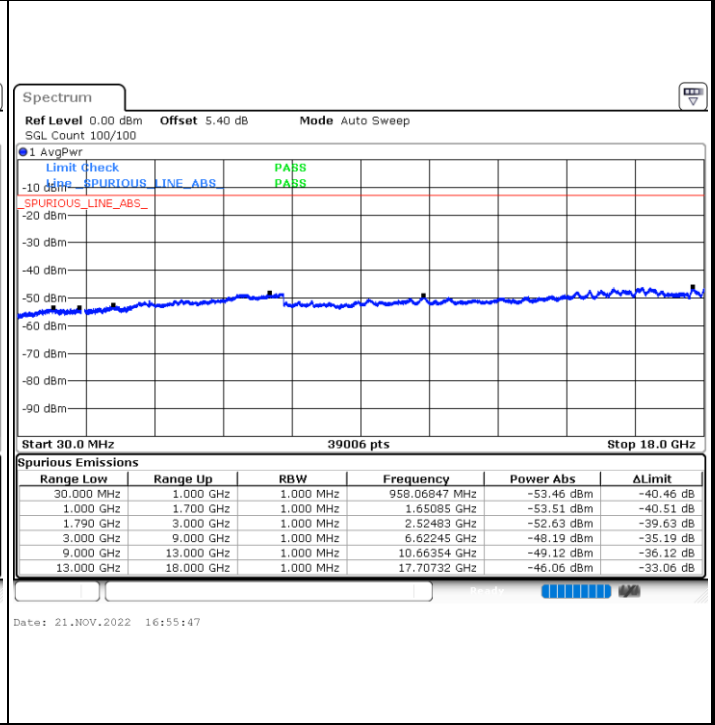
**LTE Band 66 / 5MHz**

**Lowest Channel / QPSK**



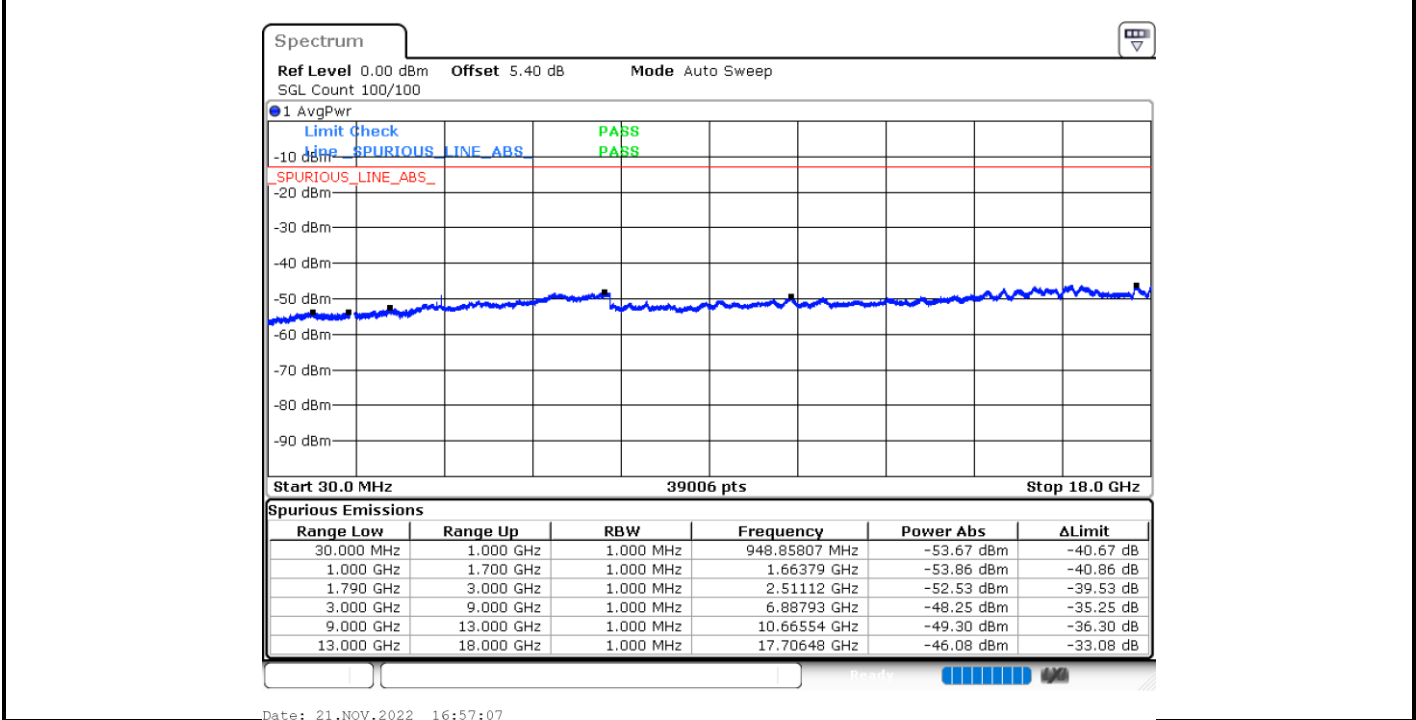
Date: 21.NOV.2022 16:43:53

**Middle Channel / QPSK**



Date: 21.NOV.2022 16:55:47

**Highest Channel / QPSK**



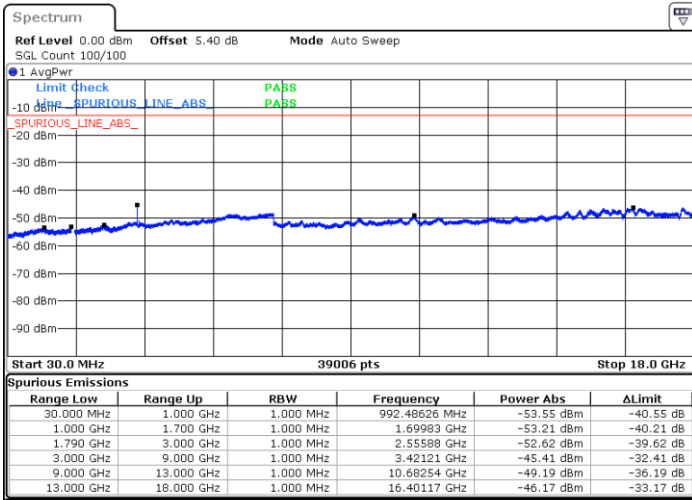
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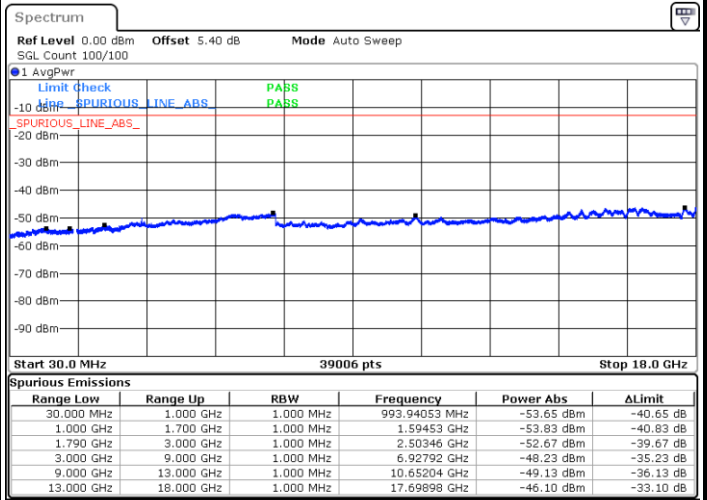
LTE Band 66 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

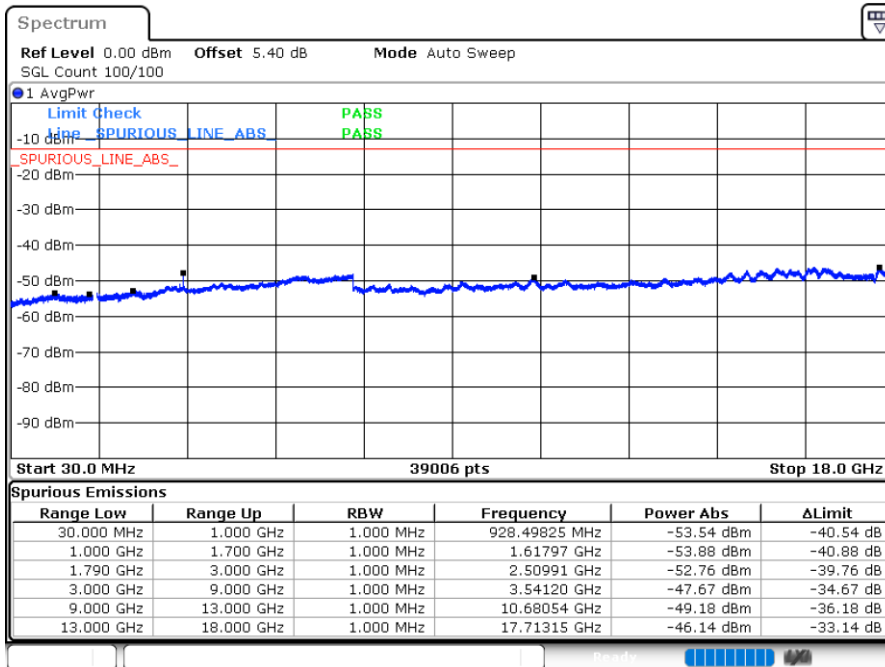


Date: 21.NOV.2022 17:09:02



Date: 21.NOV.2022 17:21:19

Highest Channel / QPSK



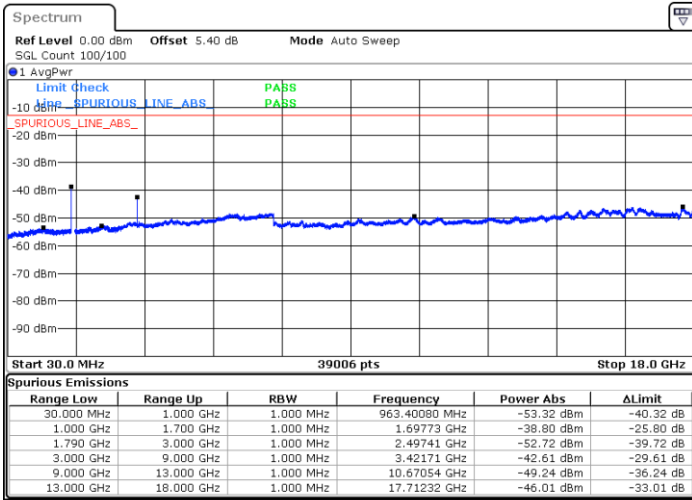
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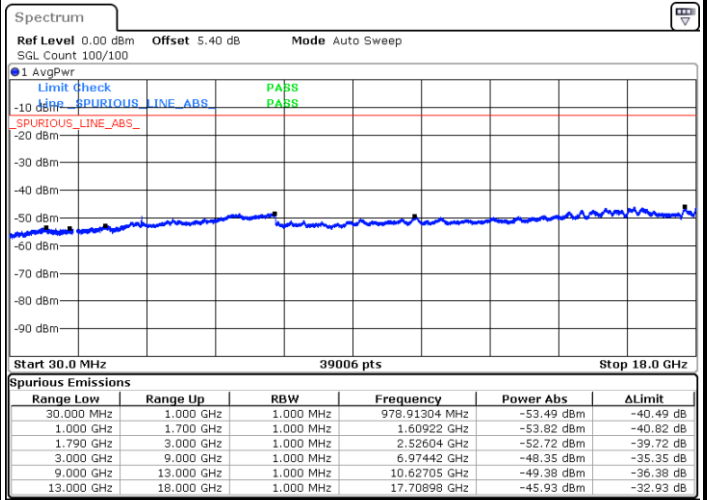
LTE Band 66 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

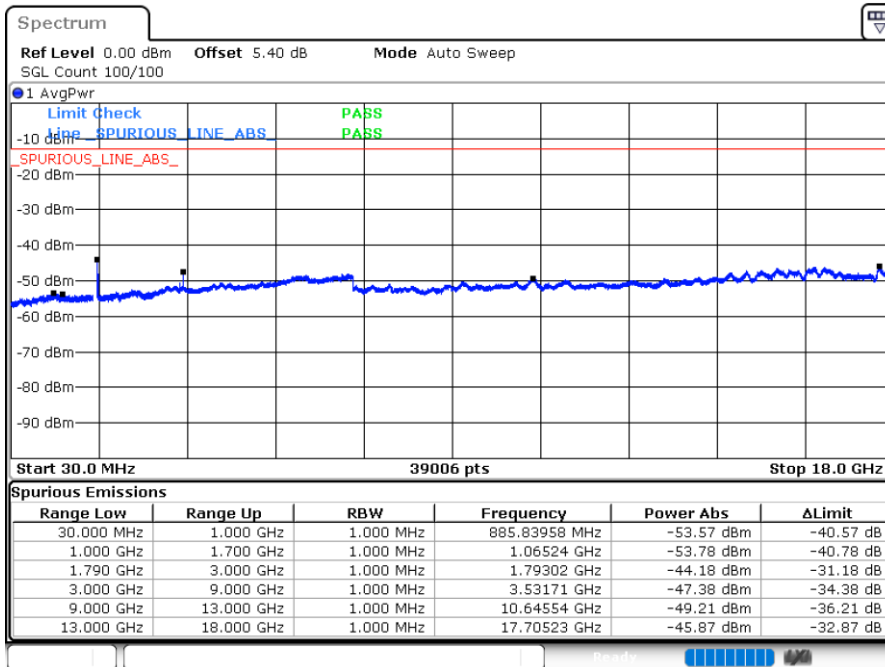


Date: 21.NOV.2022 17:28:05



Date: 21.NOV.2022 17:33:29

Highest Channel / QPSK

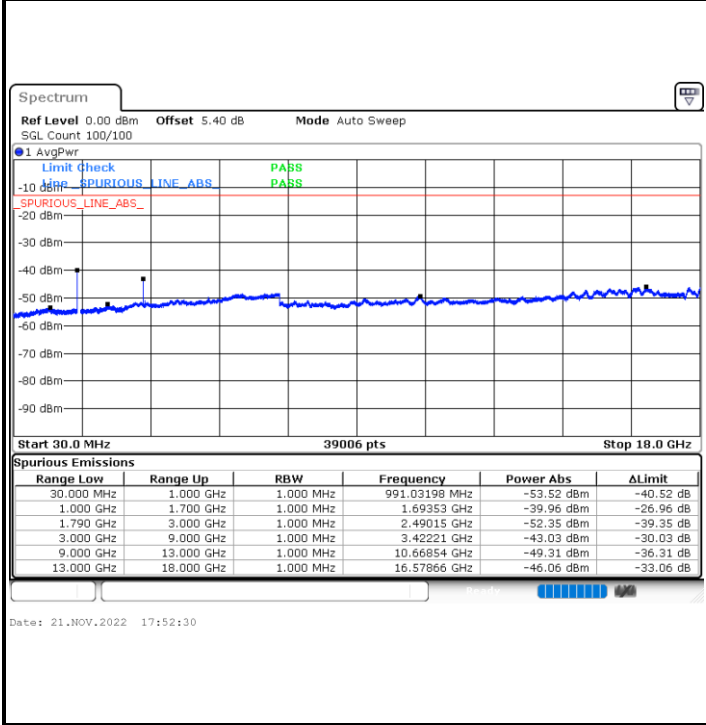


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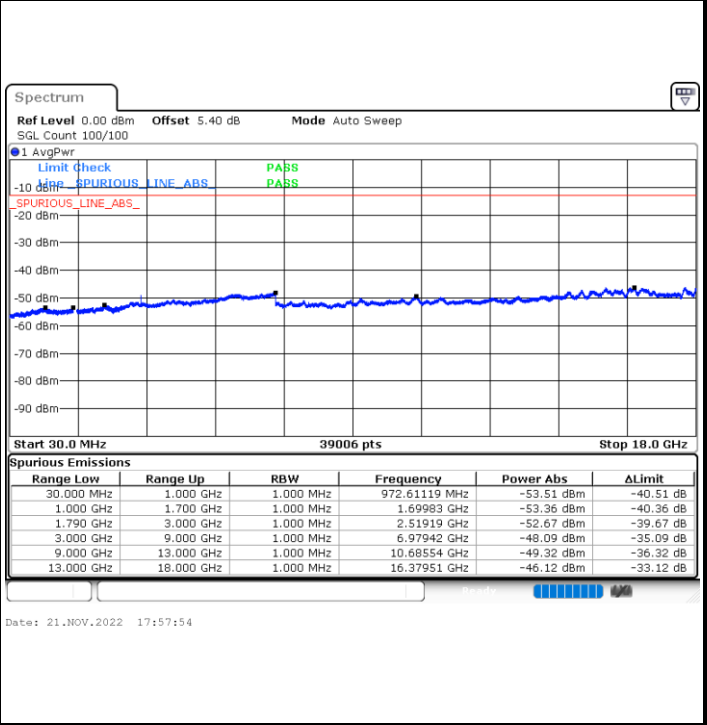


**LTE Band 66 / 20MHz**

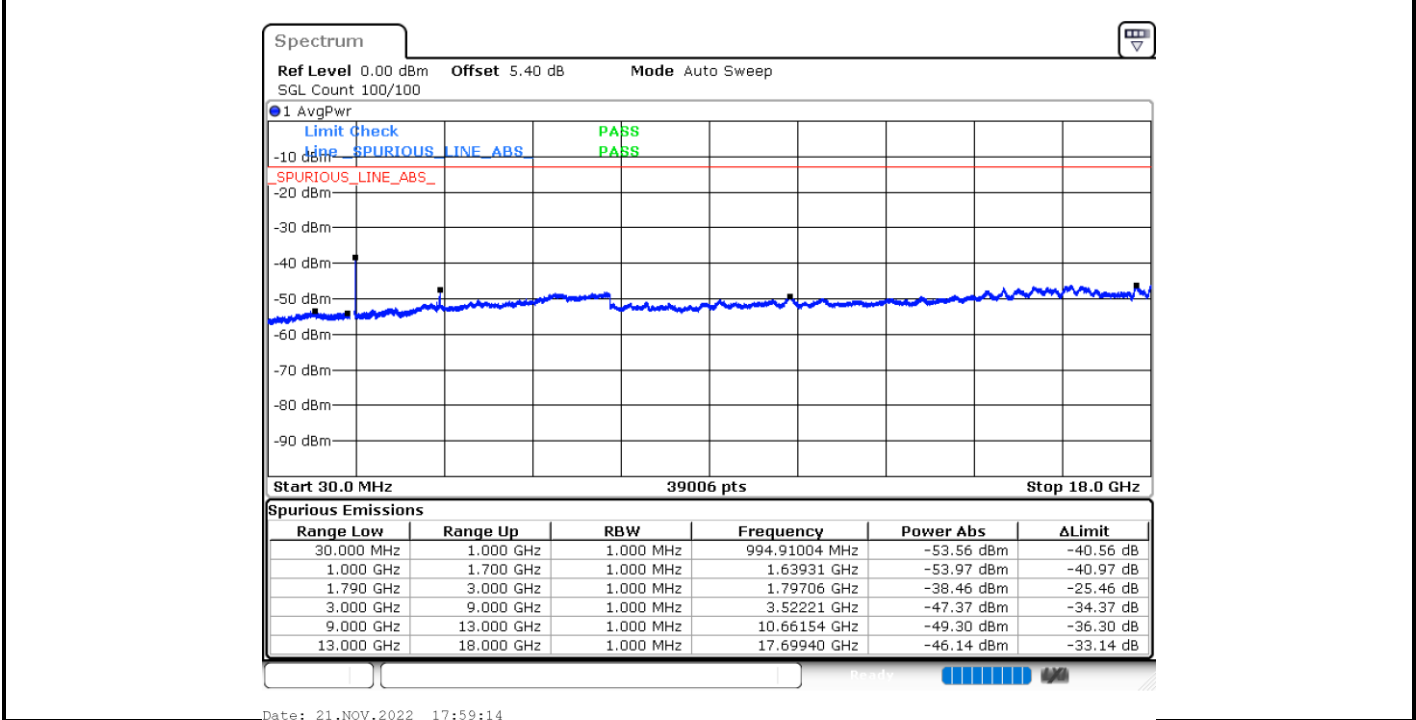
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**





### Frequency Stability

Test Conditions		LTE Band 66 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0025	

**Note:**

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

Note: Pre-scanned harmonic for Ant.0 & Ant.1, we choose the worst antenna mode to perform final test.

LTE Band 2 / 20MHz / QPSK(Ant.0)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3741	-59.27	-13	-46.27	-71.53	2.64	14.90	H
	5613	-56.26	-13	-43.26	-68.12	2.94	14.80	H
	7488	-54.25	-13	-41.25	-64.02	3.39	13.16	H
	3741	-58.90	-13	-45.90	-71.16	2.64	14.90	V
	5613	-57.49	-13	-44.49	-69.35	2.94	14.80	V
	7488	-54.02	-13	-41.02	-63.79	3.39	13.16	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 / 10MHz / QPSK(Ant.1)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1408	-69.90	-13	-56.90	-76.87	1.58	10.70	H
	2112	-64.10	-13	-51.10	-72.35	2.102	12.50	H
	2808	-61.79	-13	-48.79	-70.68	2.856	13.90	H
	1408	-69.41	-13	-56.41	-76.38	1.58	10.70	V
	2112	-62.90	-13	-49.90	-71.15	2.10	12.50	V
	2808	-61.05	-13	-48.05	-69.94	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 / 5MHz / QPSK(Ant.1)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-67.98	-42.15	-25.83	-75.15	-71.23	4.00	9.40
	2336	-60.84	-13	-47.84	-77.79	-64.41	4.88	10.60
	3120	-62.05	-13	-49.05	-79.56	-66.98	5.52	12.60
	1560	-67.07	-42.15	-24.92	-73.96	-70.32	4.00	9.40
	2336	-56.88	-13	-43.88	-76.61	-60.45	4.88	10.60
	3120	-60.98	-13	-47.98	-79.38	-65.91	5.52	12.60

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.





LTE Band 13 / 10MHz / QPSK(Ant.1)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1552	-68.10	-13	-55.10	-75.15	-71.35	4.00	9.40
	2336	-62.63	-13	-49.63	-77.79	-66.20	4.88	10.60
	3112	-62.40	-13	-49.40	-79.56	-67.33	5.52	12.60
	1552	-67.42	-13	-54.42	-73.96	-70.67	4.00	9.40
	2336	-58.41	-13	-45.41	-76.61	-61.98	4.88	10.60
	3112	-61.84	-13	-48.84	-79.38	-66.77	5.52	12.60

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 26 / 15MHz / QPSK(Ant.1)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1656	-66.82	-13	-53.82	-73.79	1.58	10.70	H
	2488	-62.47	-13	-49.47	-70.72	2.102	12.50	H
	3320	-61.48	-13	-48.48	-70.37	2.856	13.90	H
	1656	-65.36	-13	-52.36	-72.33	1.58	10.70	V
	2488	-60.63	-13	-47.63	-68.88	2.10	12.50	V
	3320	-61.60	-13	-48.60	-70.49	2.86	13.90	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 / 20MHz / QPSK(Ant.0)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3471	-60.10	-13	-47.10	-70.84	2.604	13.34	H
	5208	-57.98	-13	-44.98	-68.49	3.011	13.52	H
	6948	-56.17	-13	-43.17	-66.37	3.271	13.47	H
	3471	-59.86	-13	-46.86	-70.60	2.604	13.34	V
	5208	-57.11	-13	-44.11	-67.62	3.011	13.52	V
	6948	-55.14	-13	-42.14	-65.34	3.271	13.47	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.