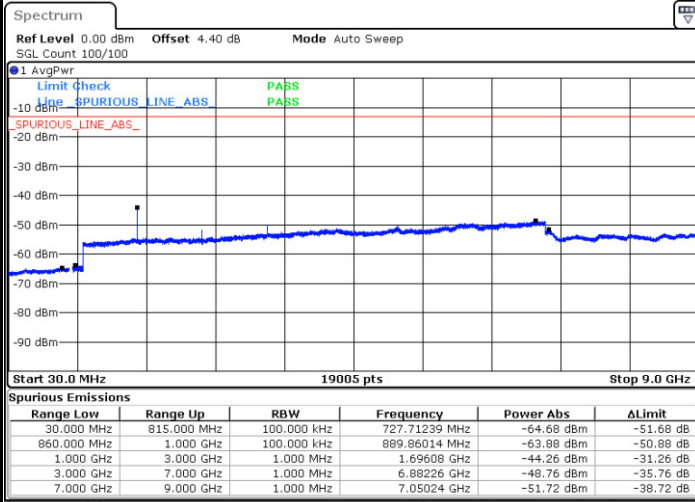




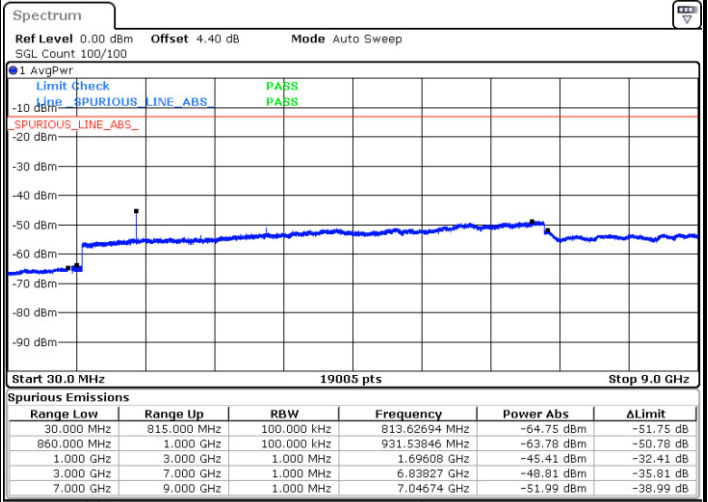
LTE Band 26 / 1.4MHz

Highest Channel / QPSK



Date: 26 DEC 2017 10:31:11

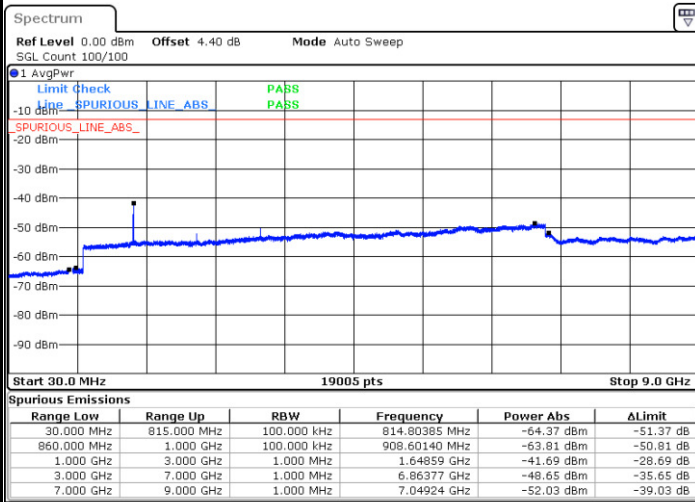
Highest Channel / 16QAM



Date: 26 DEC 2017 10:31:36

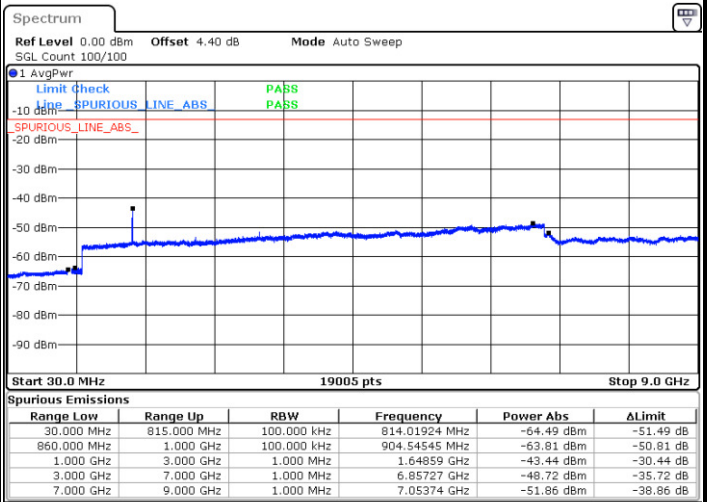
LTE Band 26 / 3MHz

Lowest Channel / QPSK



Date: 26 DEC 2017 10:32:13

Lowest Channel / 16QAM



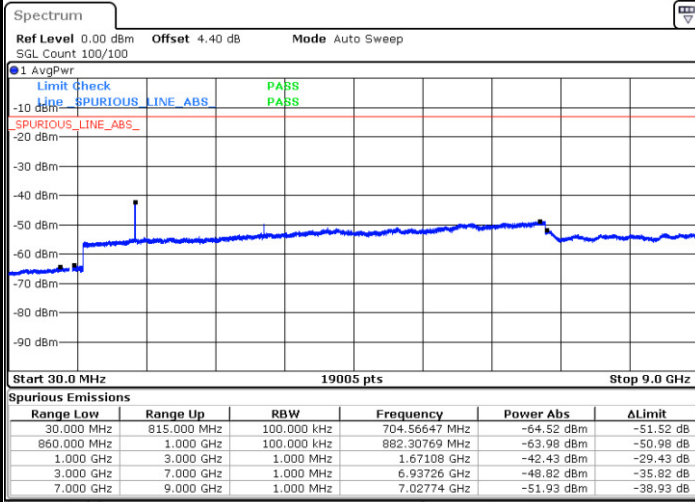
Date: 26 DEC 2017 10:32:40



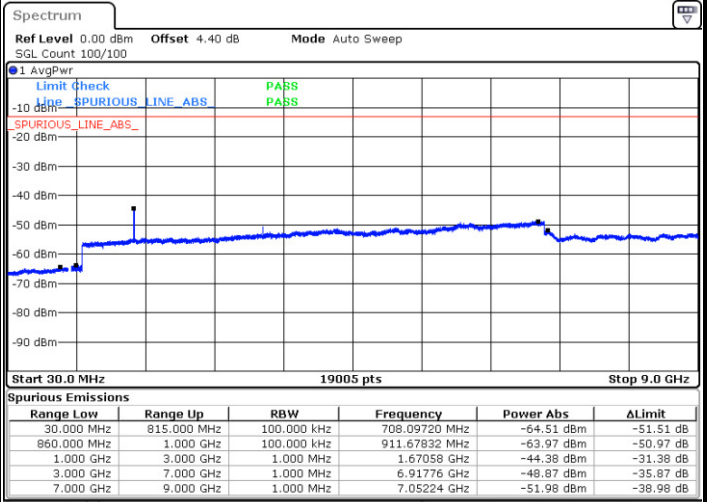
LTE Band 26 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



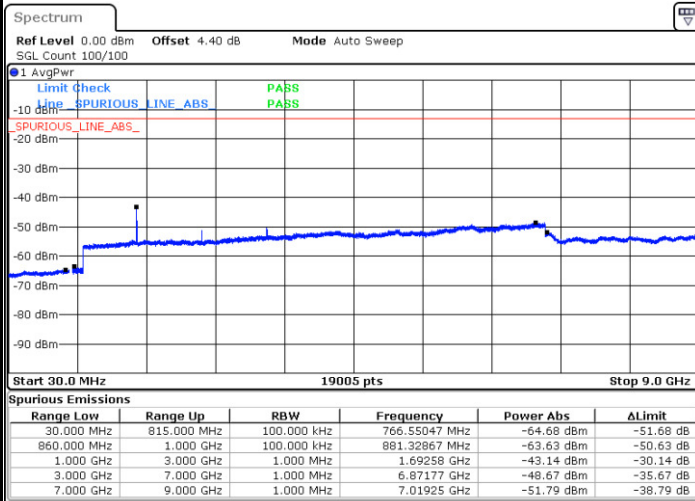
Date: 26 DEC.2017 10:33:34



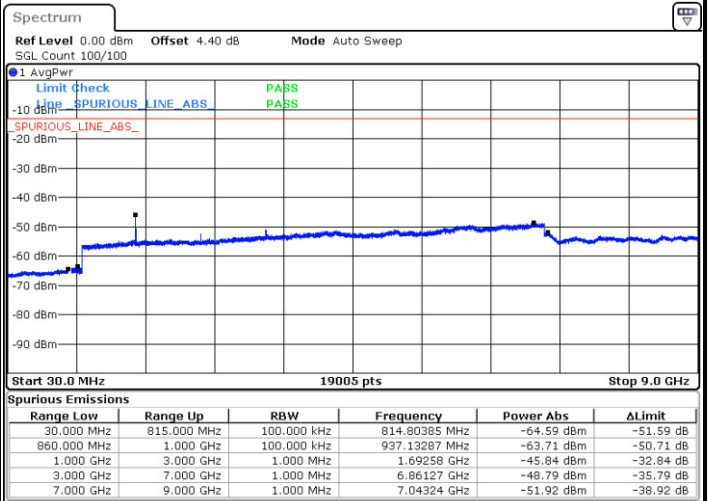
Date: 26 DEC.2017 10:33:09

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 DEC.2017 10:35:38



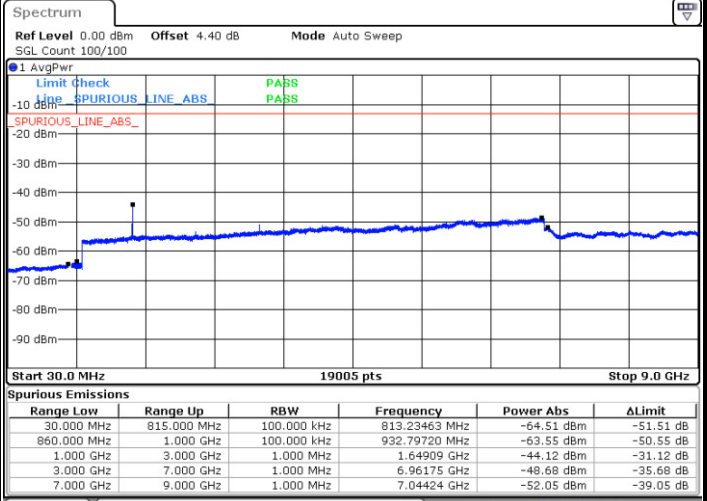
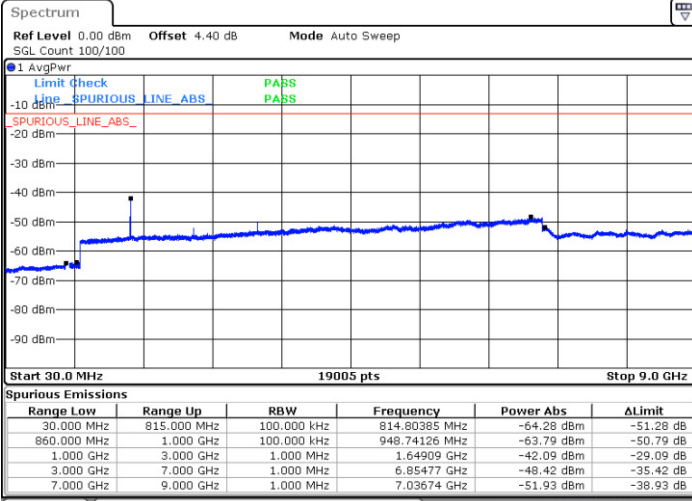
Date: 26 DEC.2017 10:36:03



LTE Band 26 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

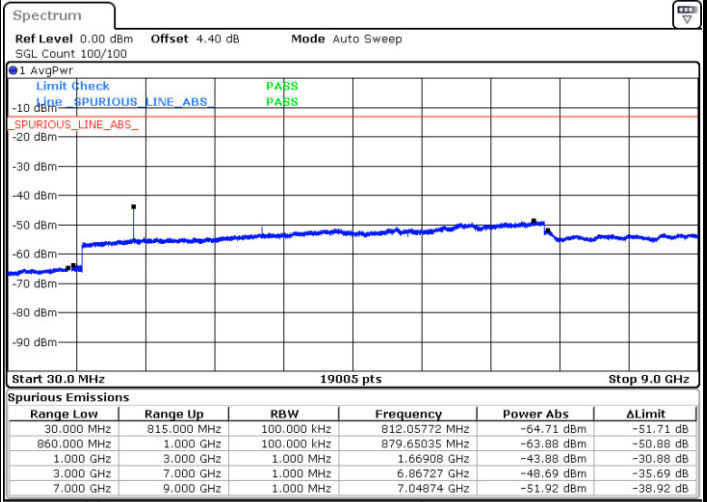
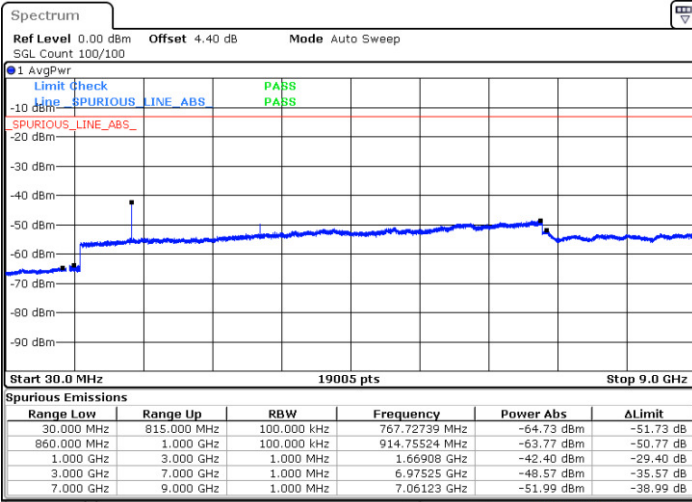


Date: 26 DEC.2017 10:41:46

Date: 26 DEC.2017 10:42:20

Middle Channel / QPSK

Middle Channel / 16QAM



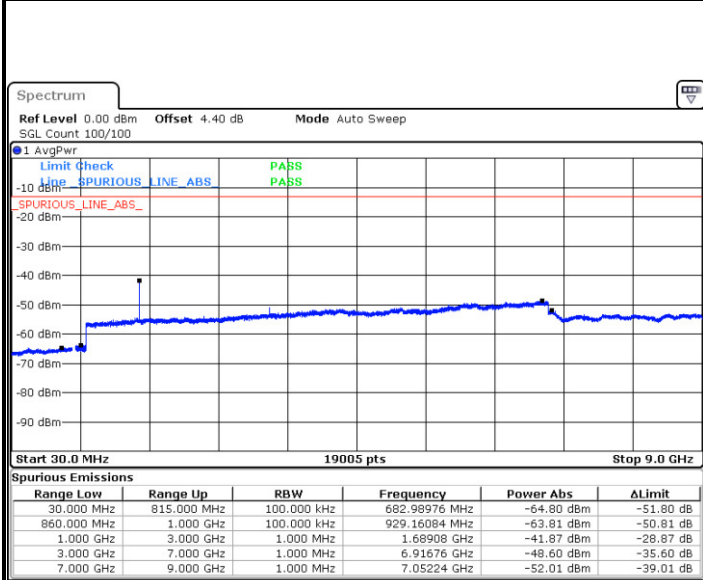
Date: 26 DEC.2017 10:43:08

Date: 26 DEC.2017 10:42:43



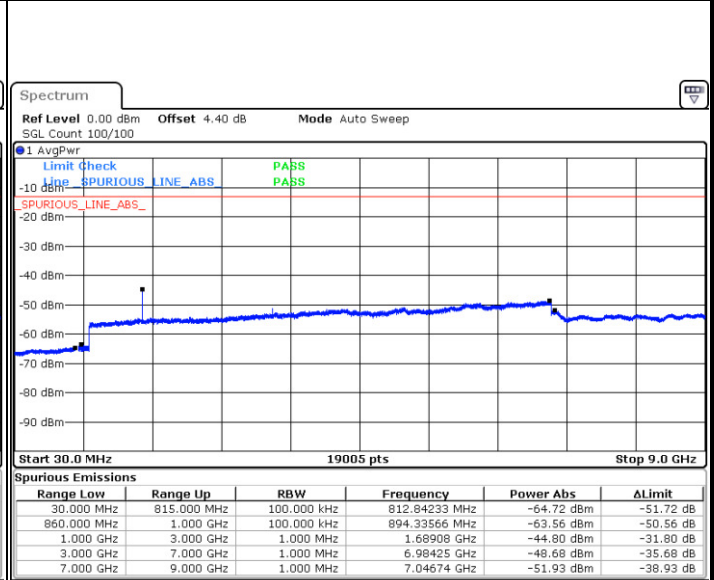
LTE Band 26 / 5MHz

Highest Channel / QPSK



Date: 26 DEC 2017 10:45:59

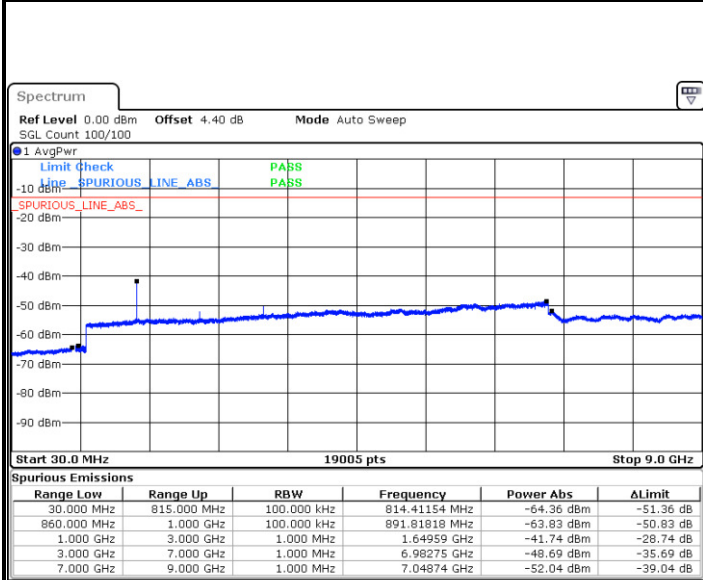
Highest Channel / 16QAM



Date: 26 DEC 2017 10:46:25

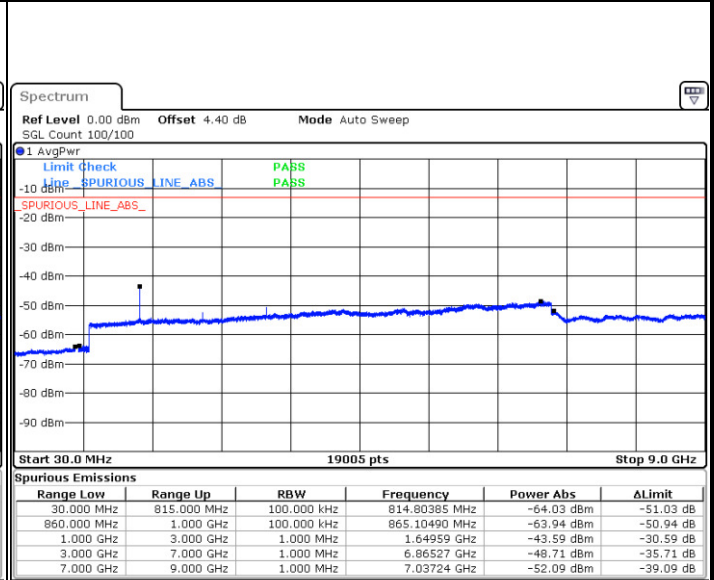
LTE Band 26 / 10MHz

Lowest Channel / QPSK



Date: 26 DEC 2017 10:46:58

Lowest Channel / 16QAM



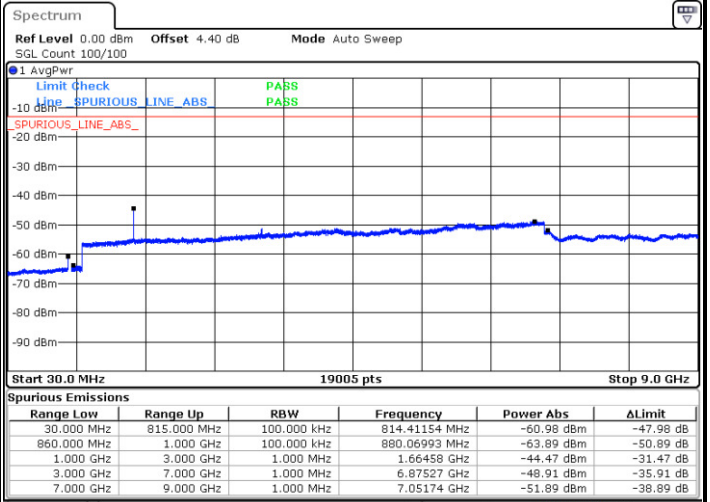
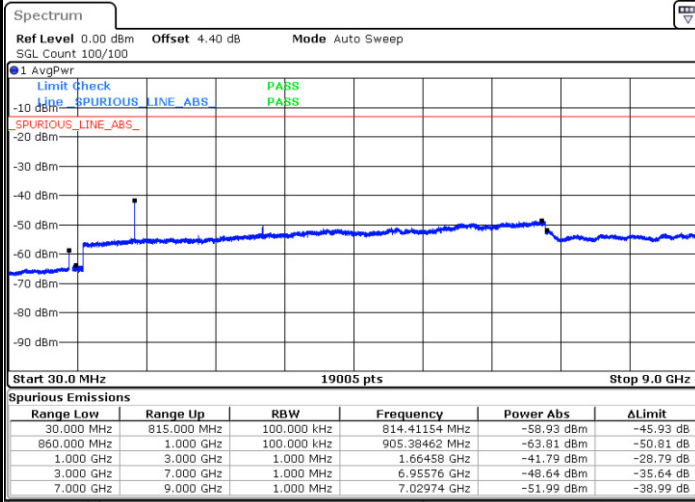
Date: 26 DEC 2017 10:47:23



LTE Band 26 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

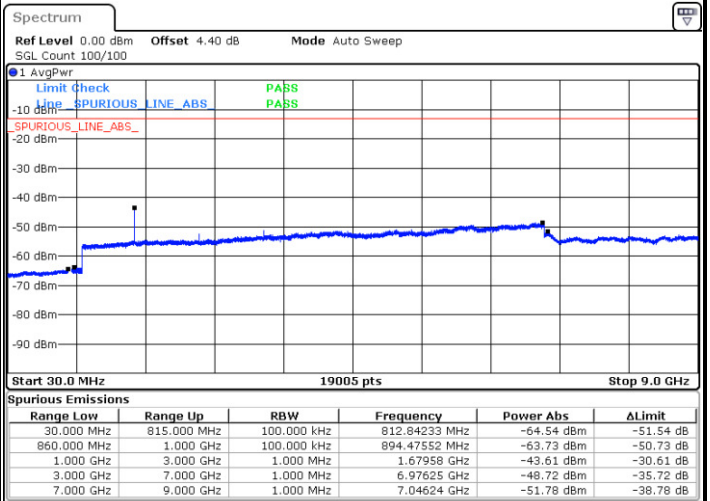
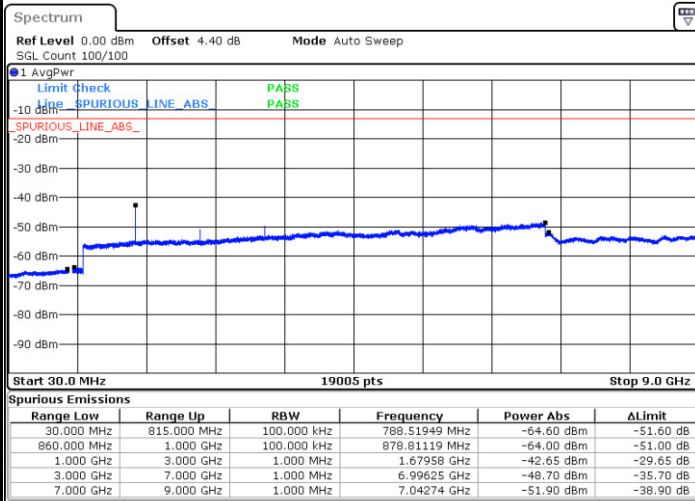


Date: 26 DEC.2017 10:48:12

Date: 26 DEC.2017 10:47:48

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 DEC.2017 10:48:41

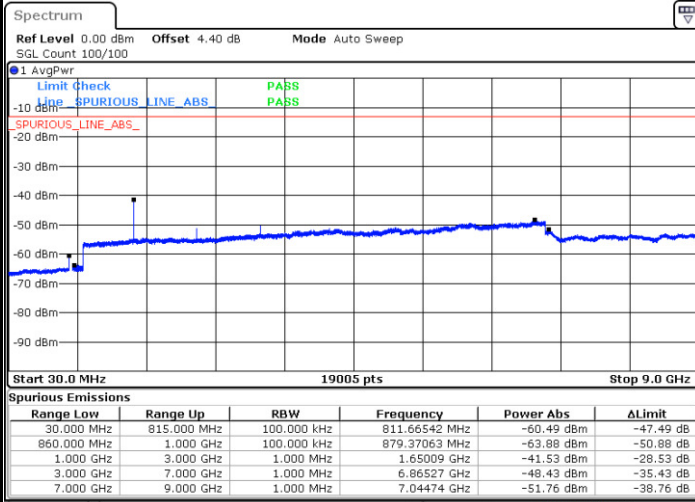
Date: 26 DEC.2017 10:48:06



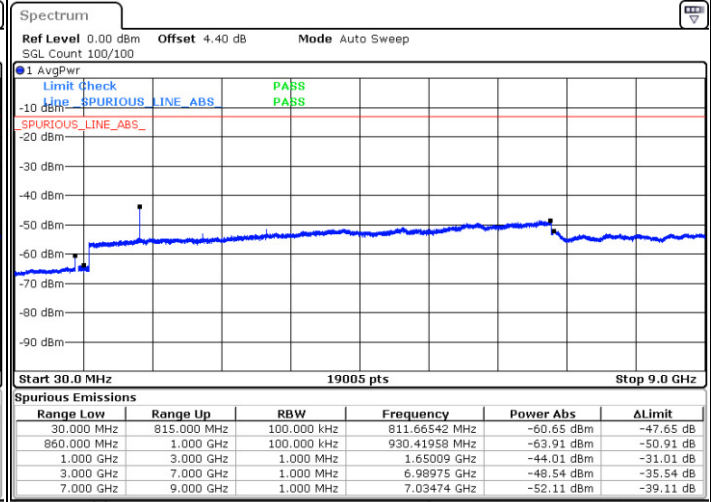
LTE Band 26 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



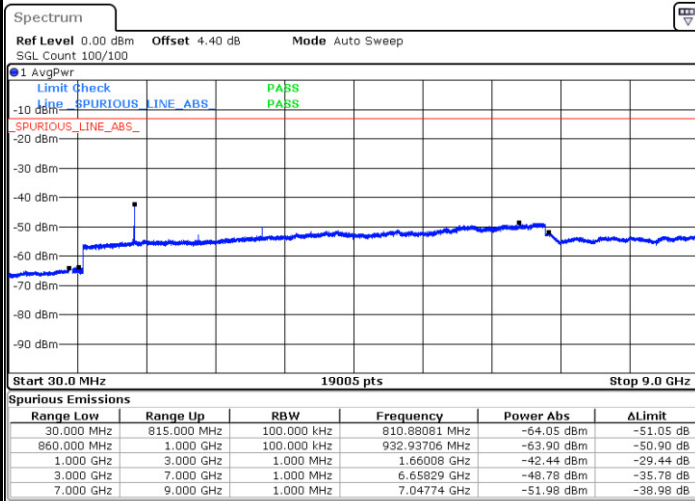
Date: 26 DEC. 2017 10:13:41



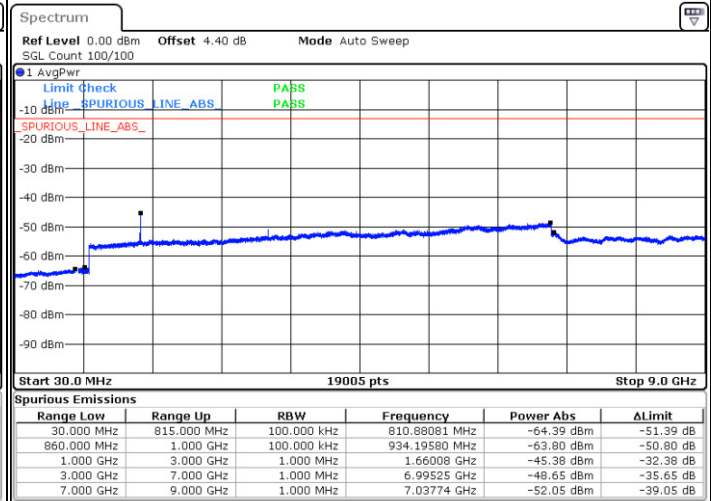
Date: 26 DEC. 2017 10:14:05

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 26 DEC. 2017 10:15:00



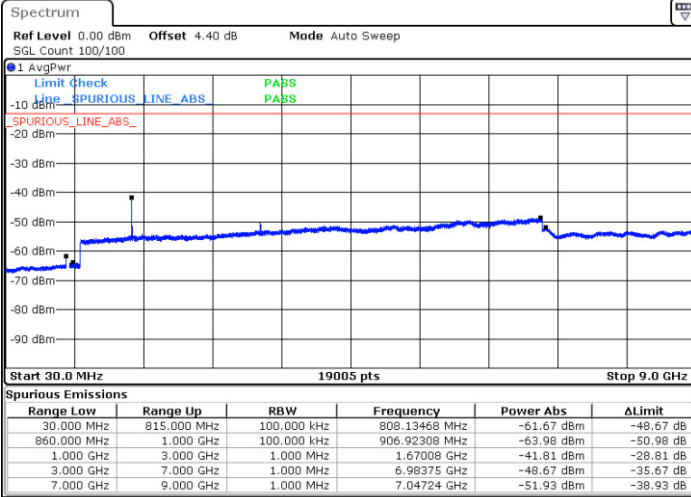
Date: 26 DEC. 2017 10:14:33



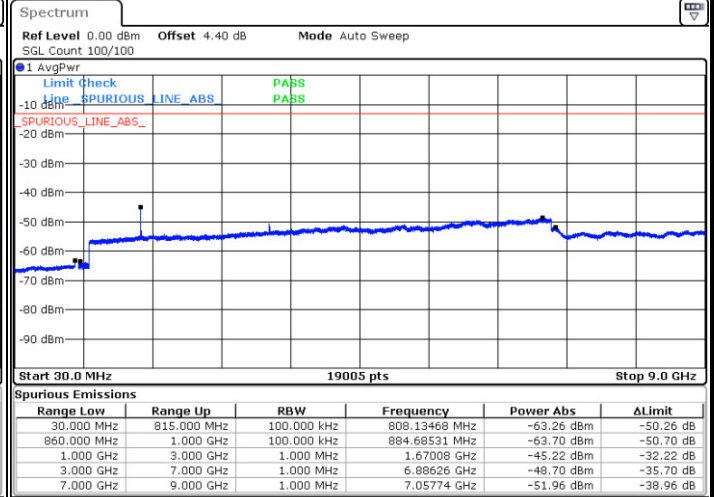
LTE Band 26 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 DEC.2017 10:15:34

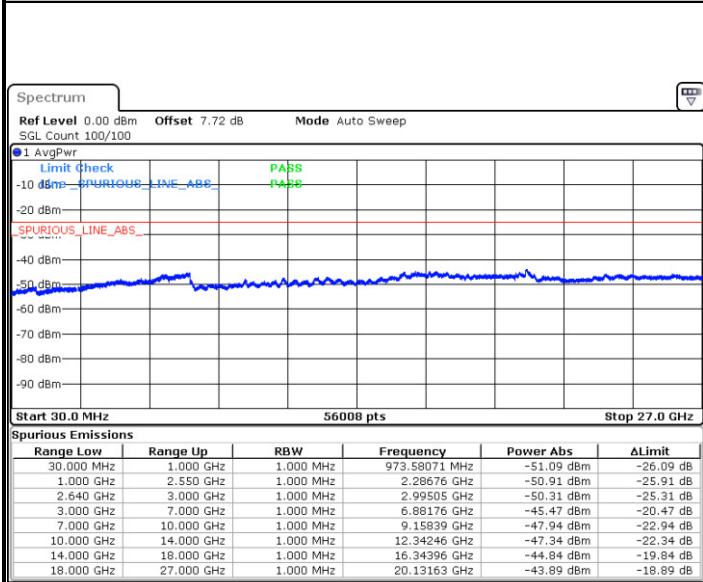


Date: 26 DEC.2017 10:15:59



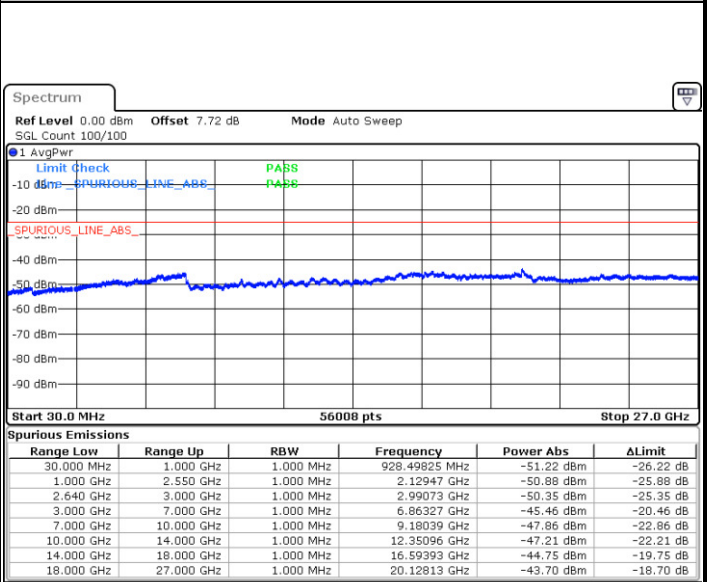
LTE Band 38 / 5MHz

Lowest Channel / QPSK



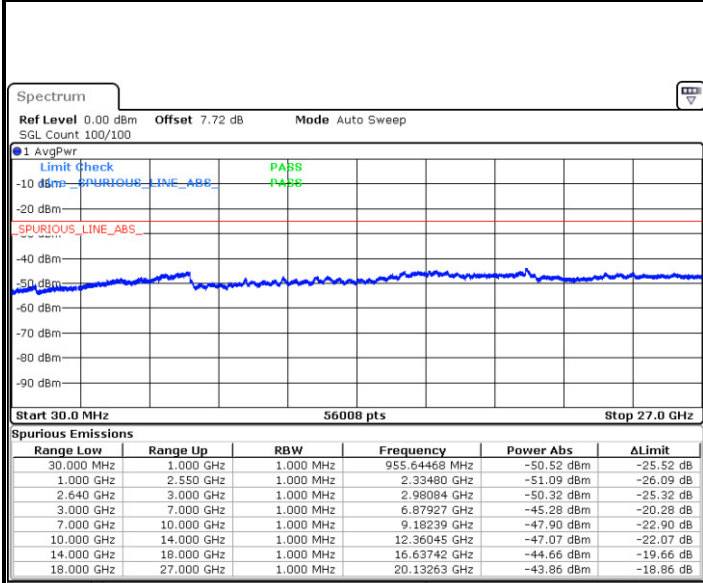
Date: 26 DEC.2017 07:55:42

Lowest Channel / 16QAM



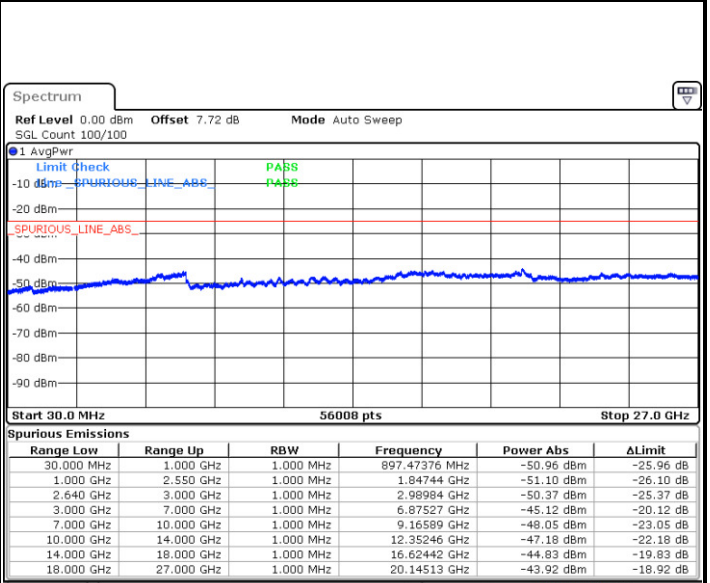
Date: 26 DEC.2017 07:57:58

Middle Channel / QPSK



Date: 26 DEC.2017 07:59:42

Middle Channel / 16QAM



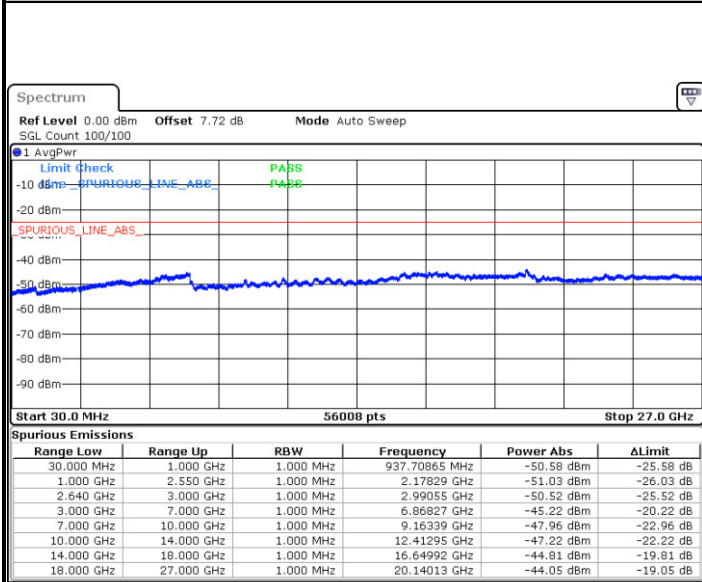
Date: 26 DEC.2017 07:58:53





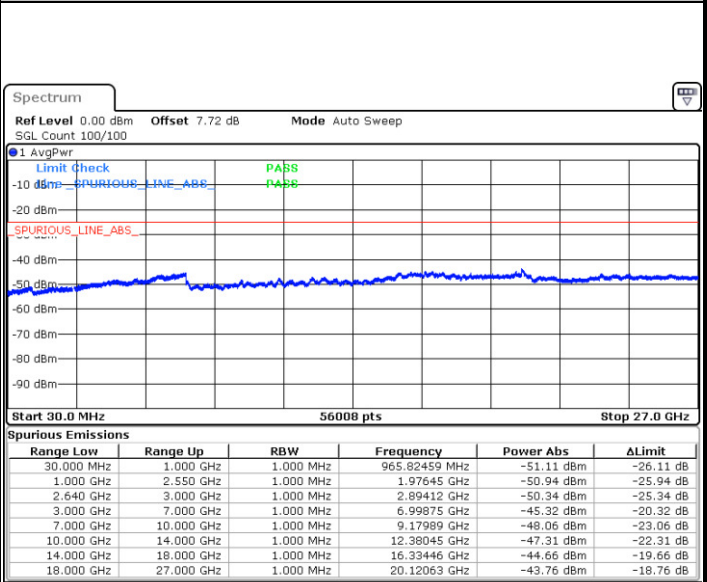
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 26 DEC.2017 08:01:36

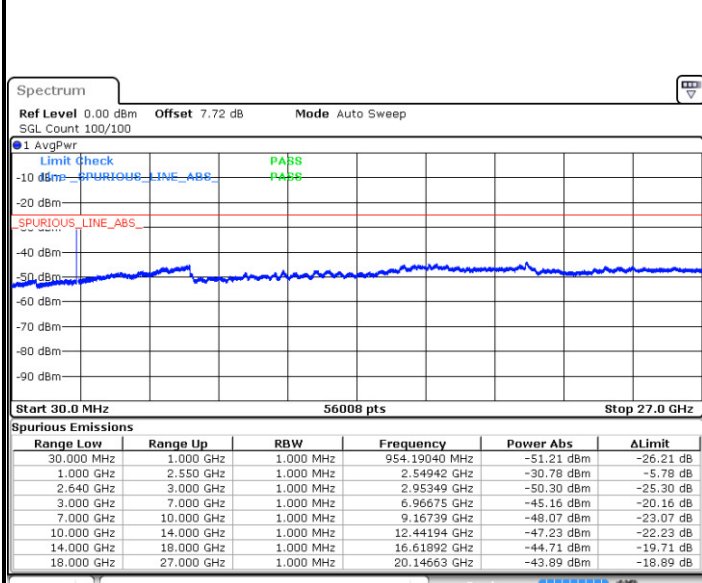
Highest Channel / 16QAM



Date: 26 DEC.2017 08:02:33

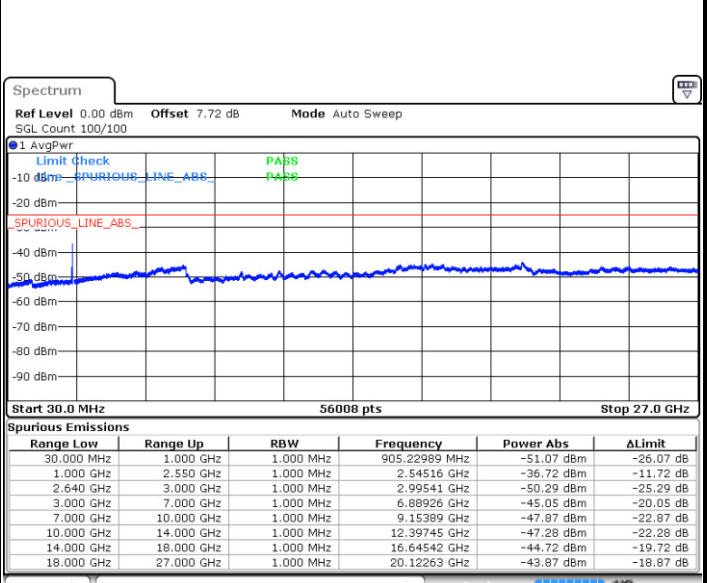
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 26 DEC.2017 08:04:03

Lowest Channel / 16QAM



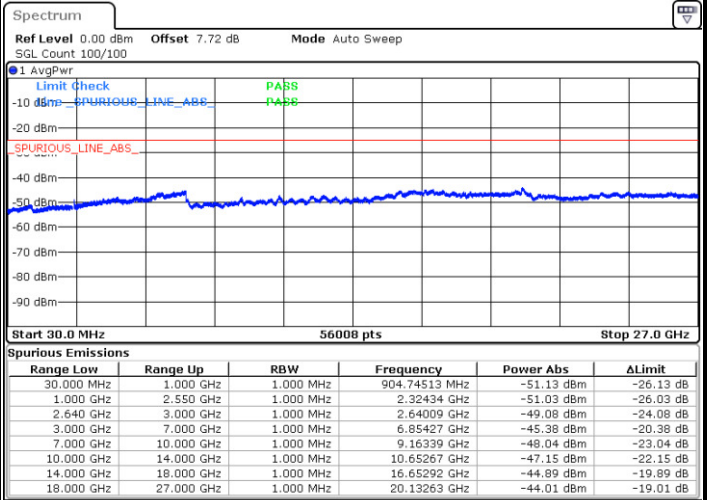
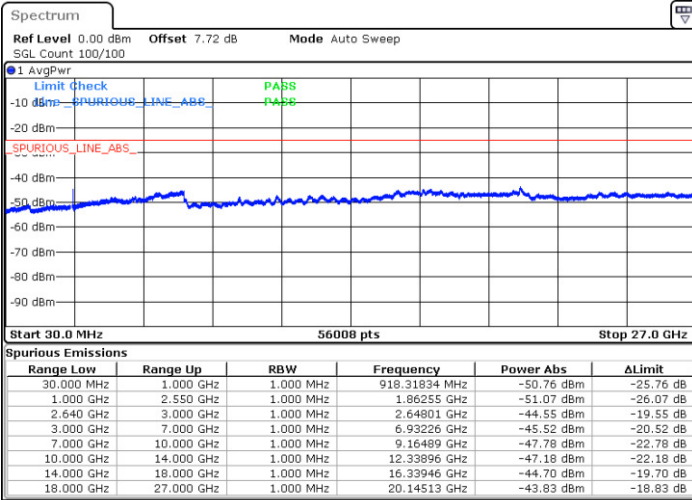
Date: 26 DEC.2017 08:06:00



LTE Band 38 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

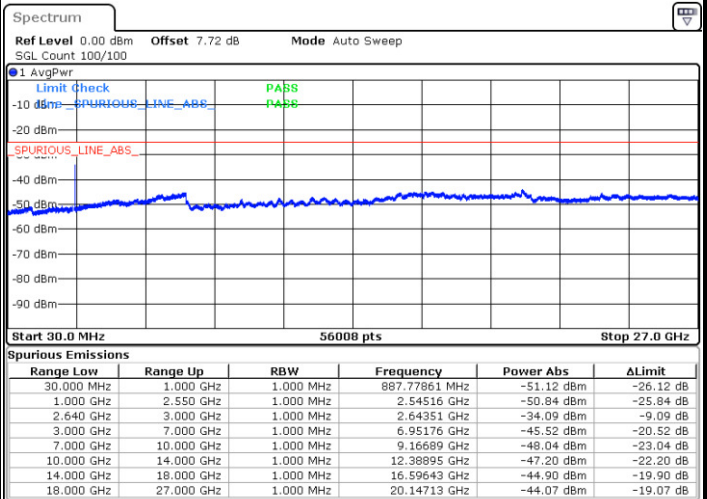
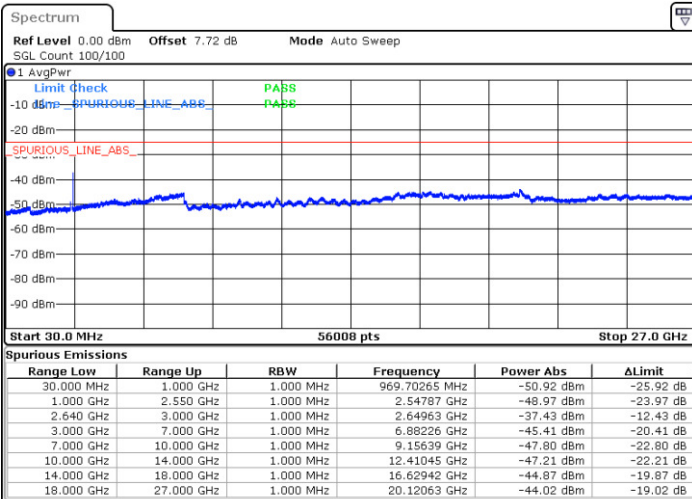


Date: 26 DEC.2017 08:07:59

Date: 26 DEC.2017 08:08:53

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 DEC.2017 08:10:58

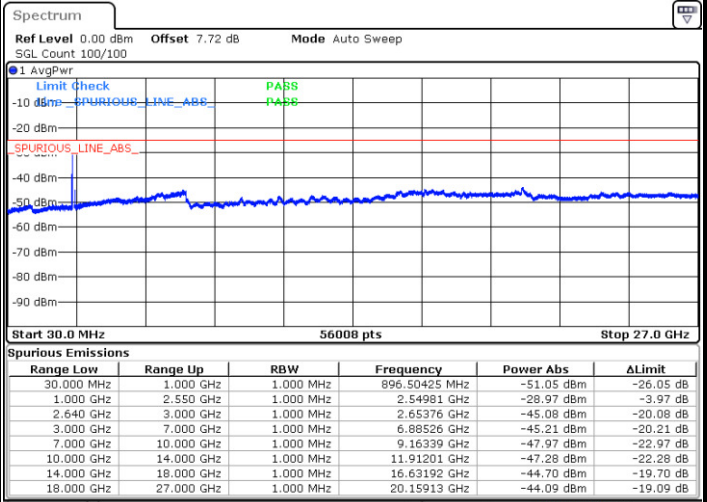
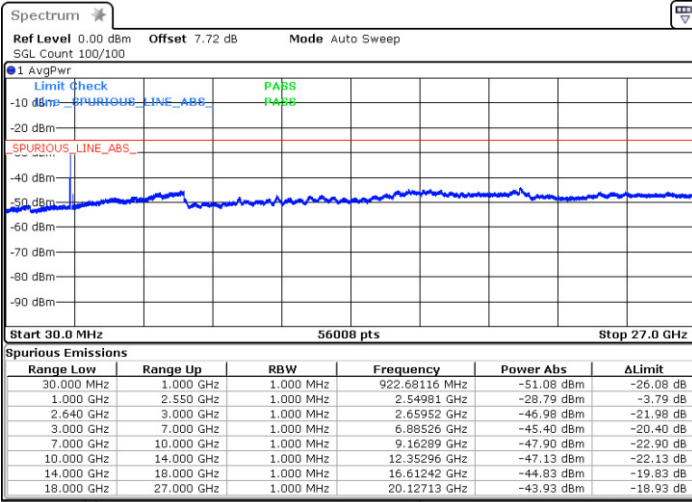
Date: 26 DEC.2017 08:09:46



LTE Band 38 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

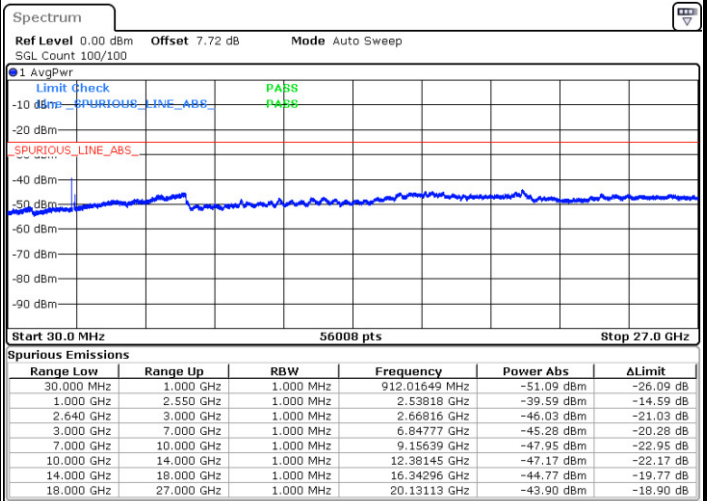
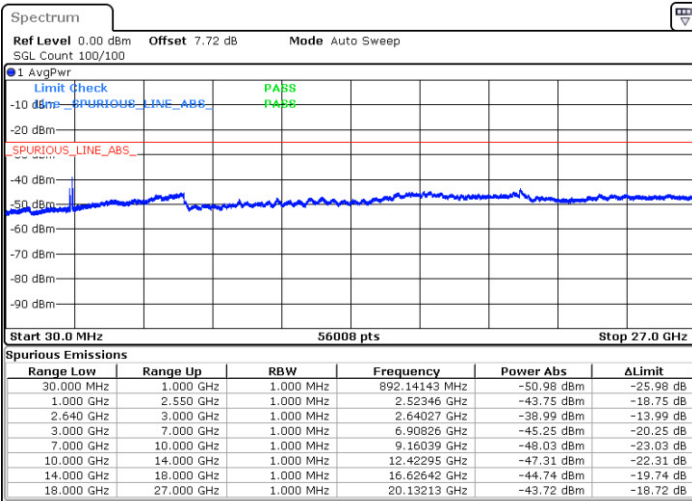


Date: 26 DEC.2017 08:13:12

Date: 26 DEC.2017 08:14:06

Middle Channel / QPSK

Middle Channel / 16QAM



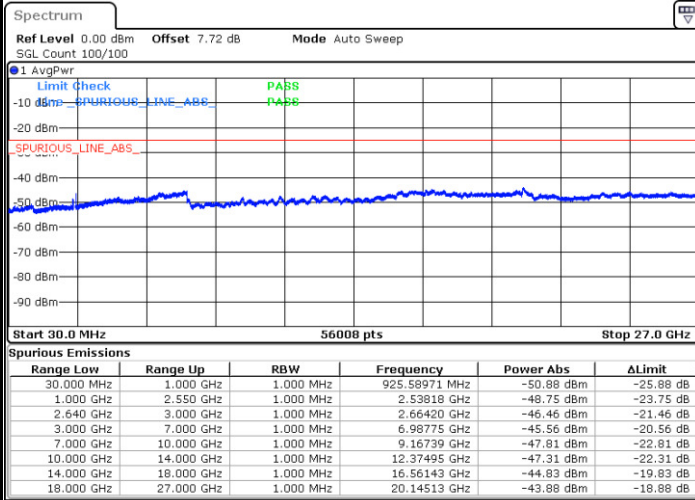
Date: 26 DEC.2017 08:16:20

Date: 26 DEC.2017 08:15:03



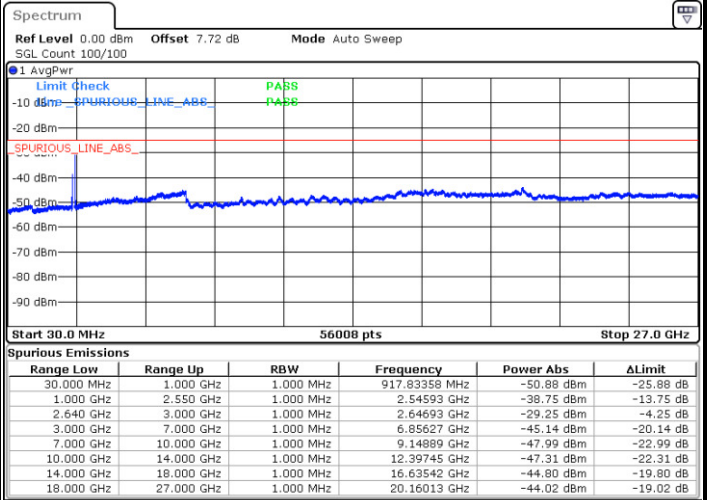
LTE Band 38 / 15MHz

Highest Channel / QPSK



Date: 26 DEC 2017 08:18:51

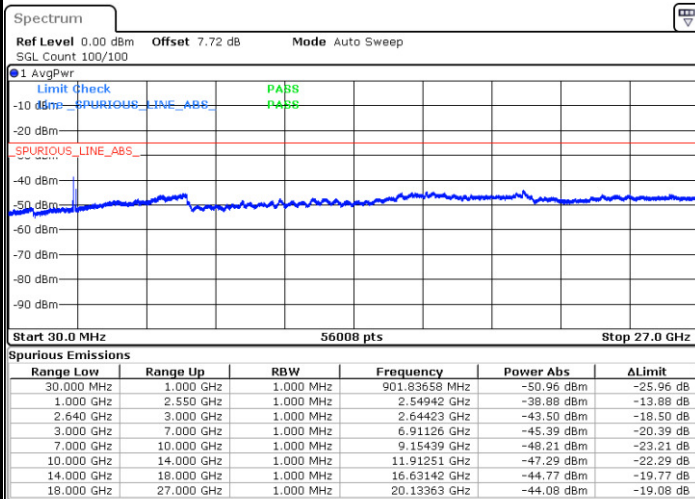
Highest Channel / 16QAM



Date: 26 DEC 2017 08:20:46

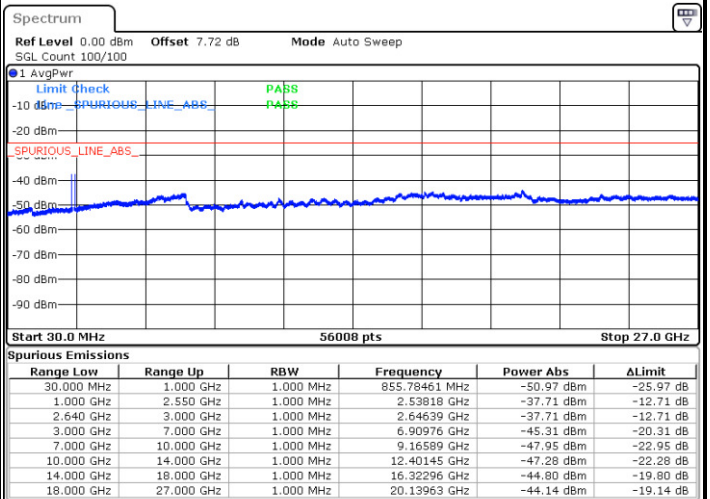
LTE Band 38 / 20MHz

Lowest Channel / QPSK



Date: 26 DEC 2017 08:21:56

Lowest Channel / 16QAM



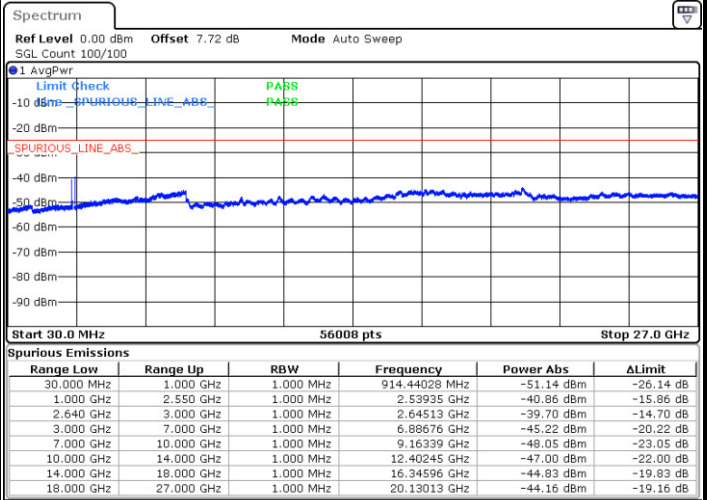
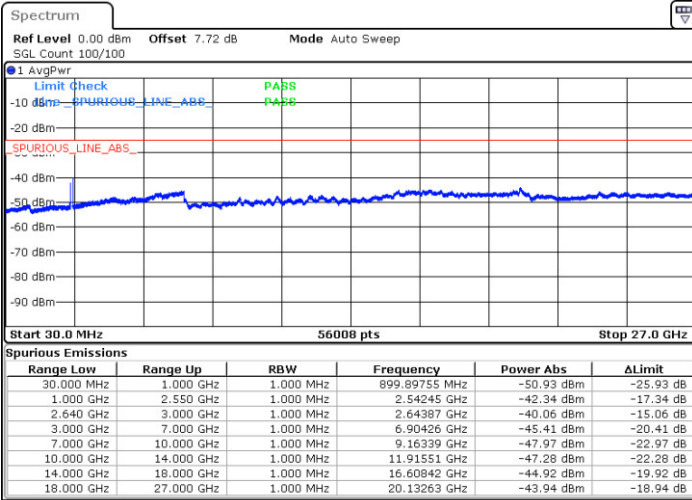
Date: 26 DEC 2017 08:22:55



LTE Band 38 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

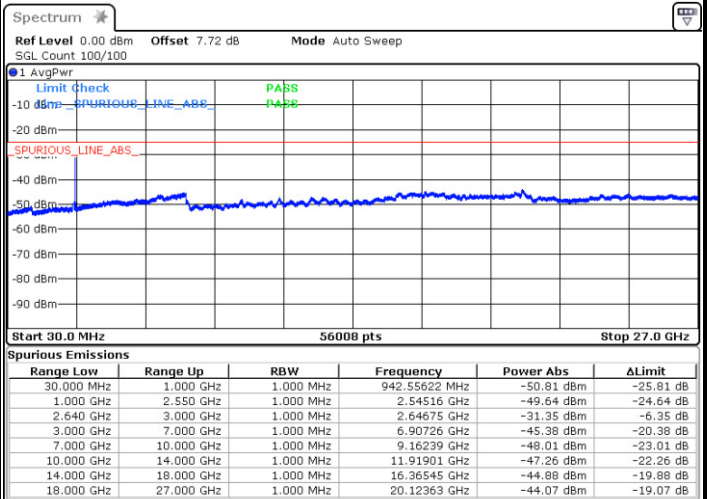
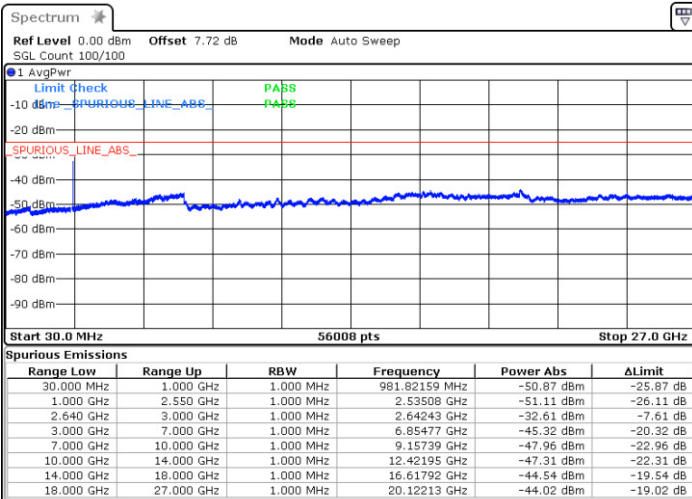


Date: 26 DEC.2017 08:25:05

Date: 26 DEC.2017 08:24:01

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 DEC.2017 08:26:20

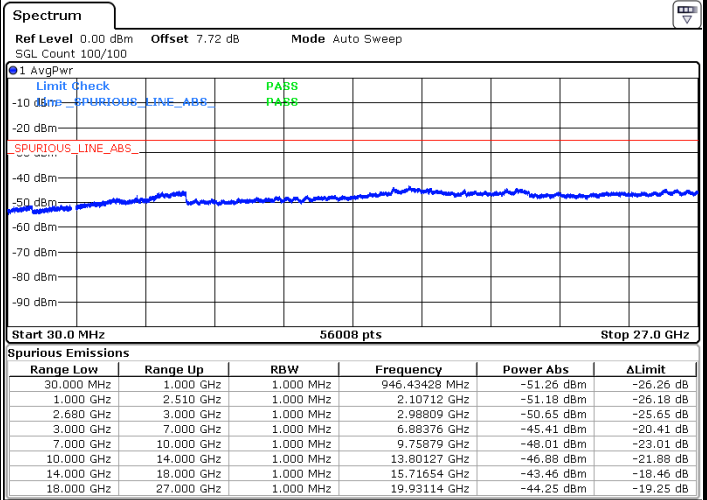
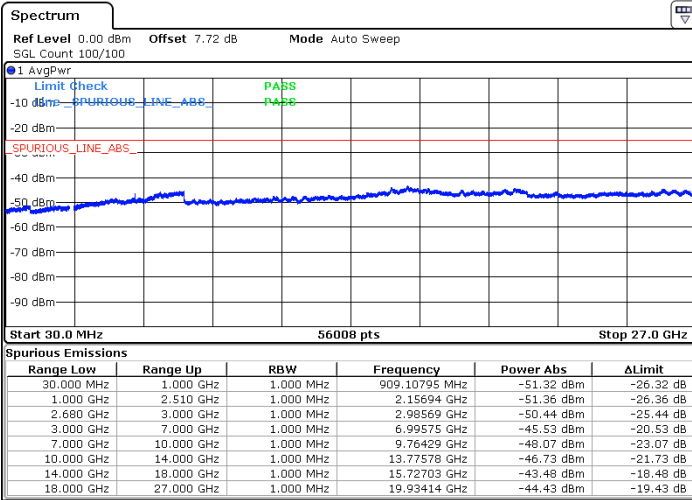
Date: 26 DEC.2017 08:27:46



LTE Band 41 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

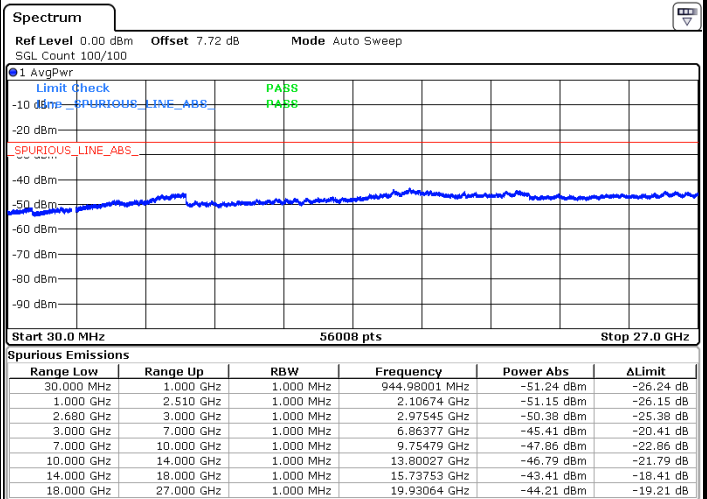
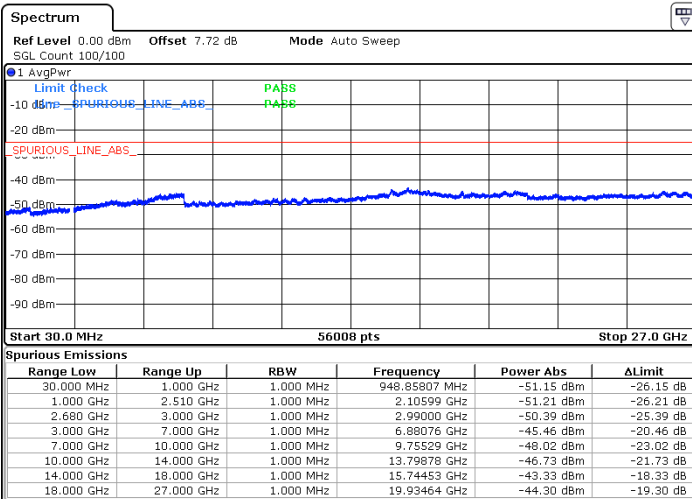


Date: 26.JAN.2018 10:03:34

Date: 26.JAN.2018 10:04:35

Middle Channel / QPSK

Middle Channel / 16QAM



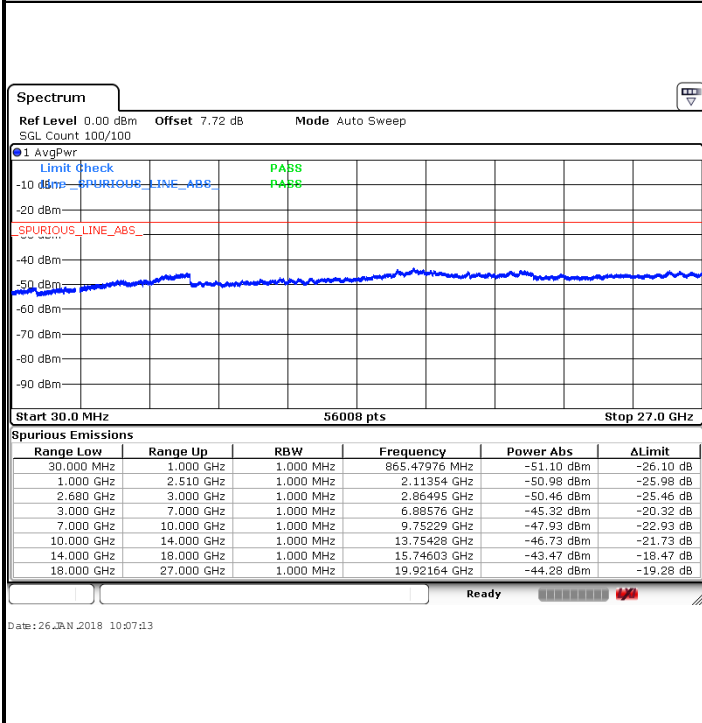
Date: 26.JAN.2018 10:06:25

Date: 26.JAN.2018 10:05:32

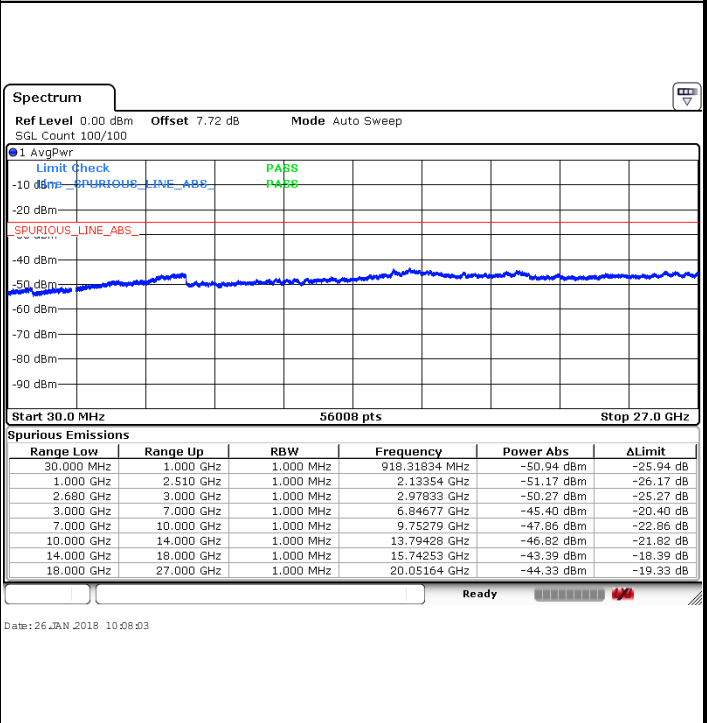


LTE Band 41 / 5MHz

Highest Channel / QPSK

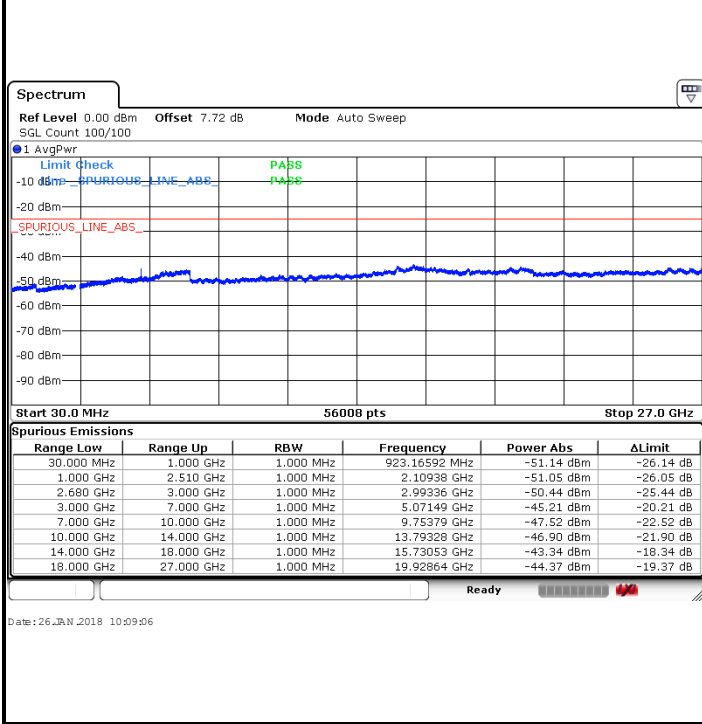


Highest Channel / 16QAM

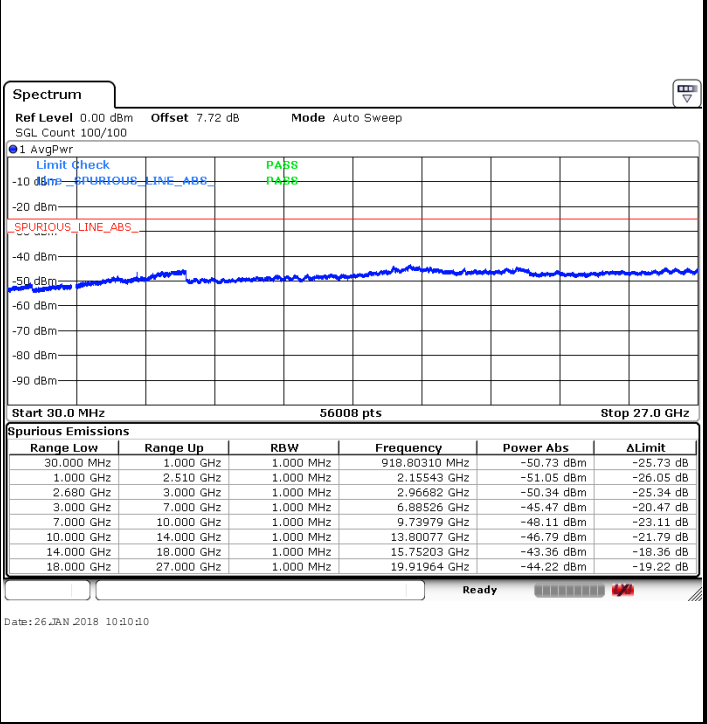


LTE Band 41 / 10MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

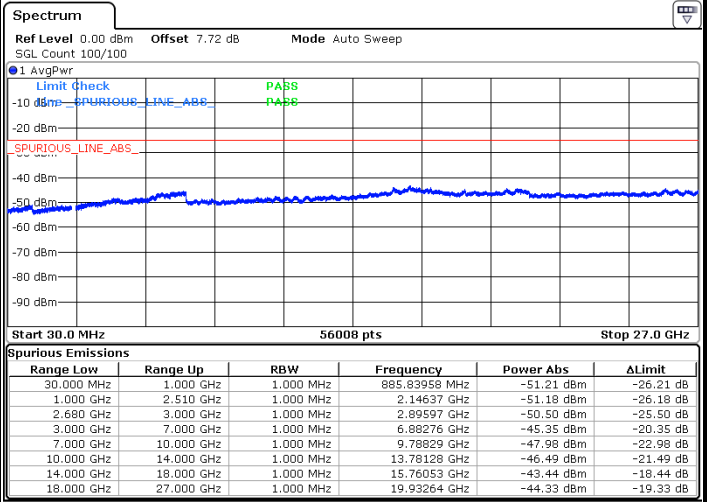
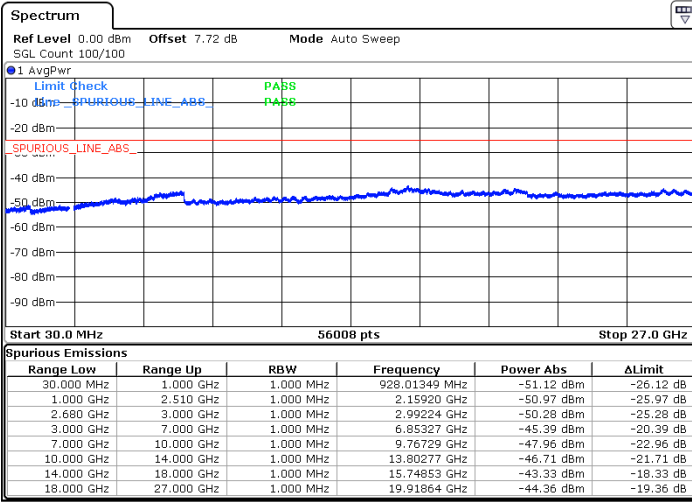




LTE Band 41 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

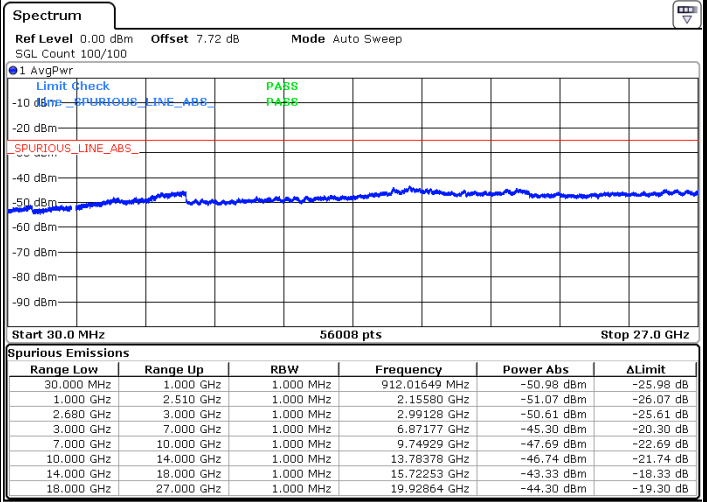
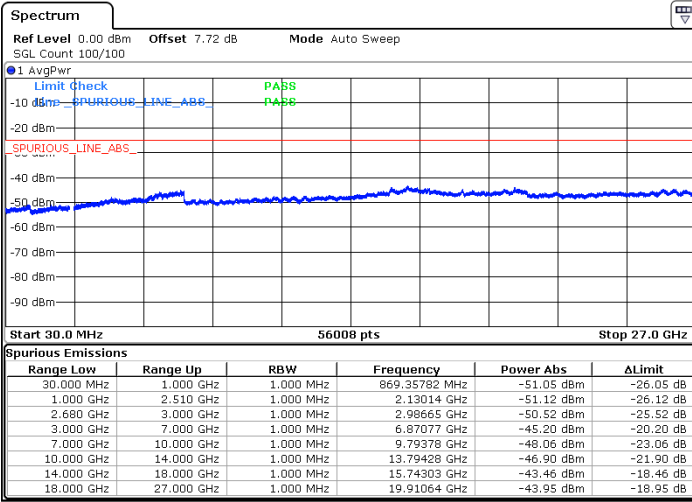


Date: 26.JAN.2018 10:11:56

Date: 26.JAN.2018 10:11:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26.JAN.2018 10:14:26

Date: 26.JAN.2018 10:13:37

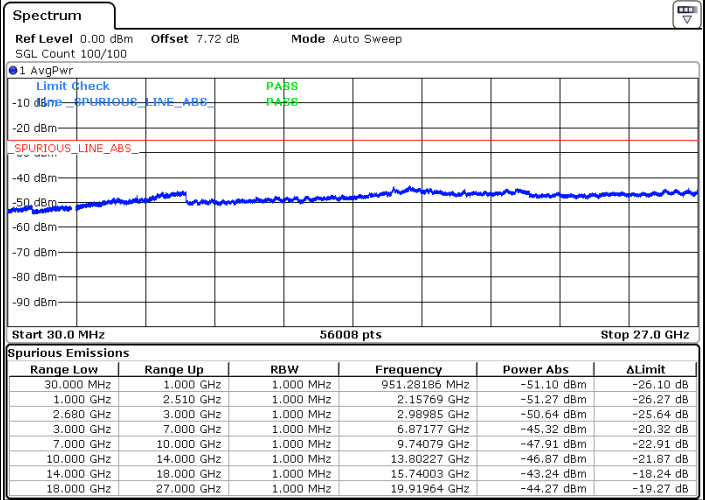
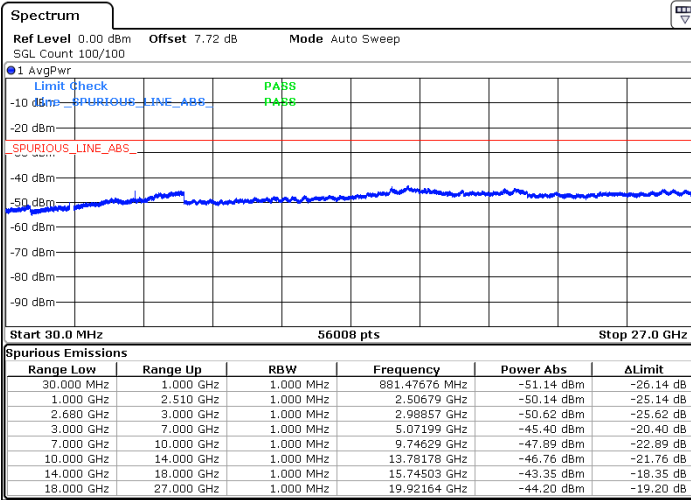




LTE Band 41 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

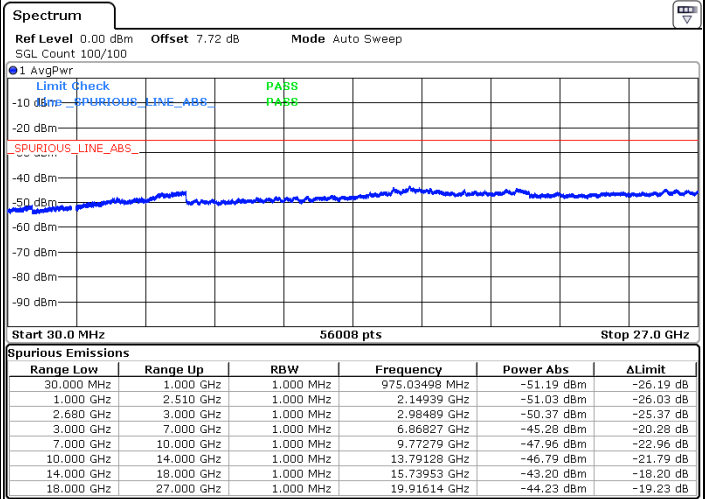
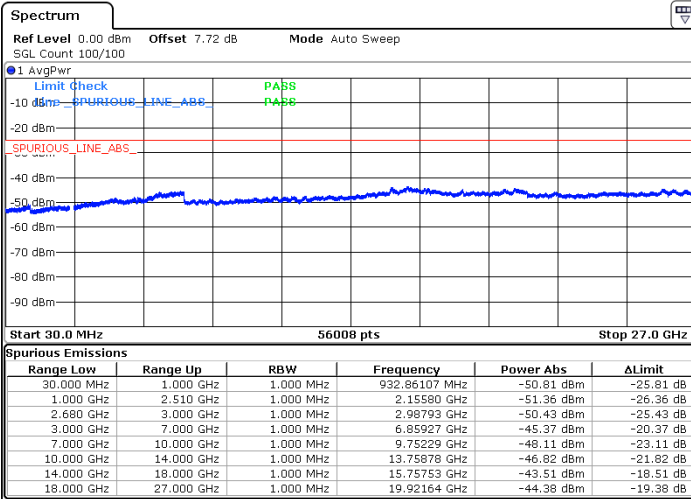


Date: 26.JAN.2018 10:15:22

Date: 26.JAN.2018 10:16:16

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 26.JAN.2018 10:17:59

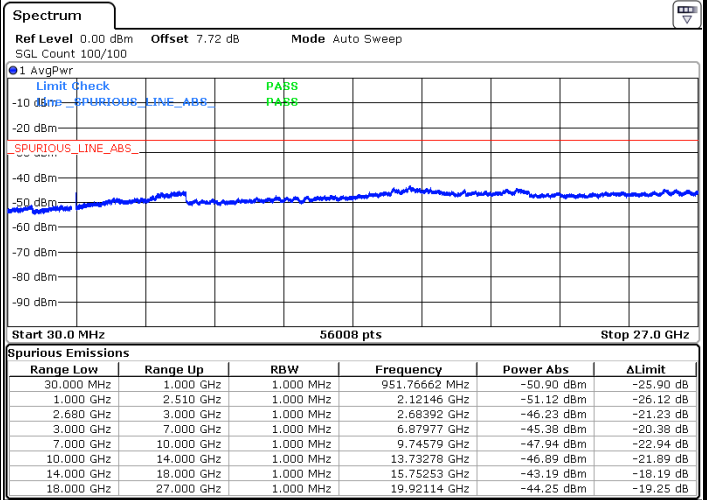
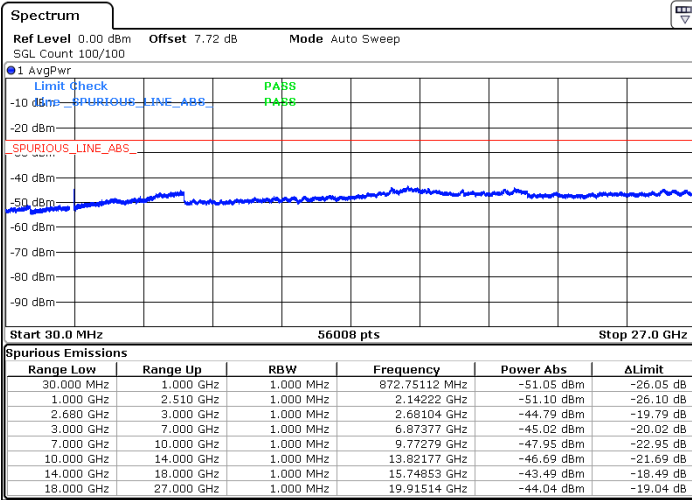
Date: 26.JAN.2018 10:17:10



LTE Band 41 / 15MHz

Highest Channel / QPSK

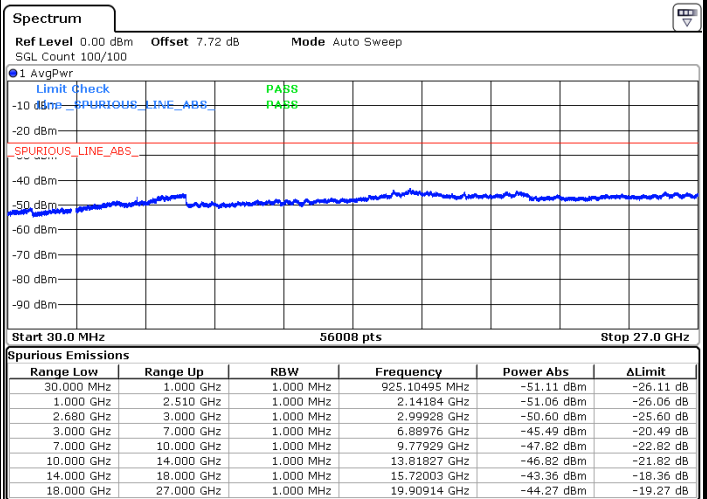
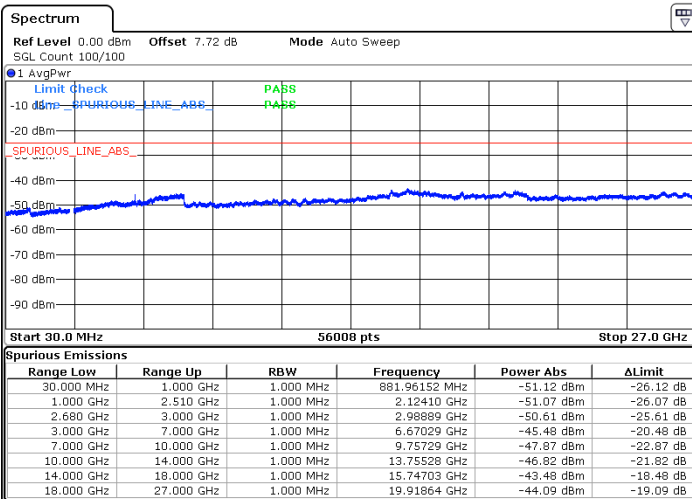
Highest Channel / 16QAM



LTE Band 41 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

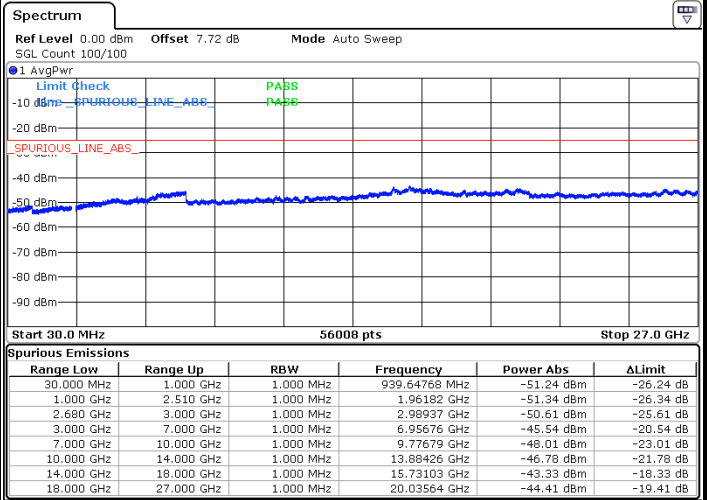
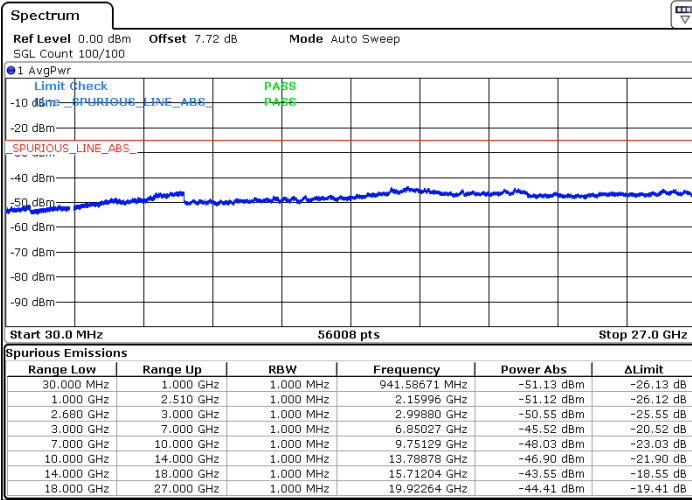




LTE Band 41 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

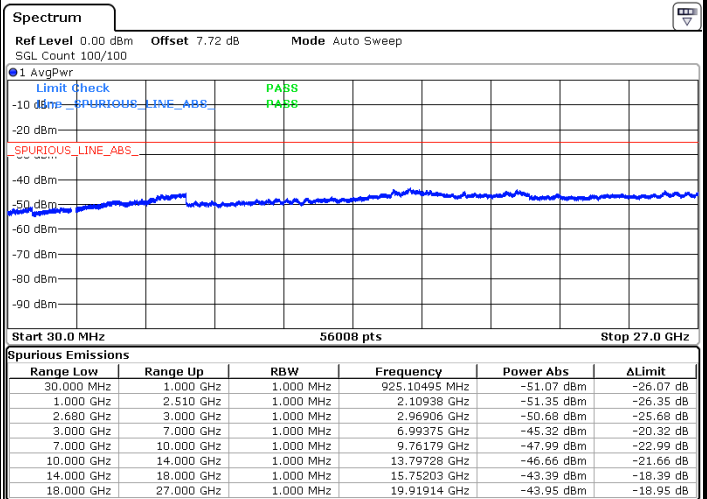
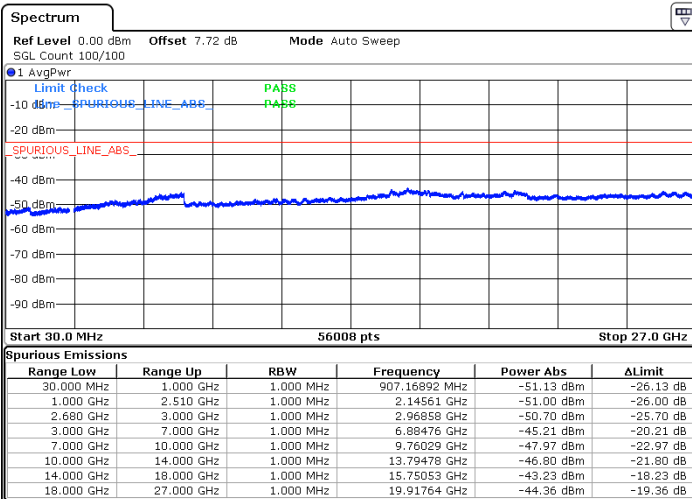


Date: 26 JAN 2018 10:25:49

Date: 26 JAN 2018 10:24:47

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 26 JAN 2018 10:26:39

Date: 26 JAN 2018 10:27:28



### Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0044	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0045	
-10	Normal Voltage	0.0037	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0032	
20	Battery End Point	0.0010	

**Note:** Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0077	PASS
40	Normal Voltage	0.0117	
30	Normal Voltage	0.0088	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0105	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0044	
-20	Normal Voltage	0.0111	
-30	Normal Voltage	0.0092	
20	Maximum Voltage	0.0041	
20	Normal Voltage	0.0023	
20	Battery End Point	0.0096	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0027	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0022	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0019	
20	Battery End Point	0.0021	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



### Appendix B. Test Results of Radiated Test

#### Radiated Spurious Emission

LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-60.10	-13	-47.10	-60.42	-62.01	1.14	5.20	H
	2496	-55.06	-13	-42.06	-59.36	-57.69	1.12	5.90	H
	3327	-56.36	-13	-43.36	-60.48	-59.57	1.34	6.70	H
	1664	-62.40	-13	-49.40	-61.5	-64.31	1.14	5.20	V
	2496	-55.77	-13	-42.77	-58.84	-58.40	1.12	5.90	V
	3327	-57.57	-13	-44.57	-62.71	-60.78	1.34	6.70	V

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

LTE Band 26 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-61.91	-13	-48.91	-62.23	-63.82	1.14	5.20	H
	2496	-50.15	-13	-37.15	-54.71	-52.78	1.12	5.90	H
	3327	-61.66	-13	-48.66	-65.78	-64.87	1.34	6.70	H
	1664	-54.80	-13	-41.80	-53.99	-56.71	1.14	5.20	V
	2496	-33.32	-13	-20.32	-41.6	-35.95	1.12	5.90	V
	3327	-61.48	-13	-48.48	-66.62	-64.69	1.34	6.70	V

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





LTE Band 38 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5172	-58.93	-25	-33.93	-45.52	-65.76	2.46	9.29	H
	7760	-50.08	-25	-25.08	-46.56	-59.27	3.01	12.20	H
	10341	-60.50	-25	-35.50	-57.37	-69.23	3.52	12.25	H
	5172	-62.14	-25	-37.14	-46.91	-68.97	2.46	9.29	V
	7760	-56.88	-25	-31.88	-44.8	-66.07	3.01	12.20	V
	10341	-62.03	-25	-37.03	-58.38	-70.76	3.52	12.25	V

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

LTE Band 41 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5172	-59.77	-25	-34.77	-46.36	-66.60	2.46	9.29	H
	7760	-50.02	-25	-25.02	-46.50	-59.21	3.01	12.20	H
	10344	-61.18	-25	-36.18	-58.05	-69.91	3.52	12.25	H
	5172	-63.22	-25	-38.22	-47.99	-70.05	2.46	9.29	V
	7760	-59.07	-25	-34.07	-46.99	-68.26	3.01	12.20	V
	10344	-62.28	-25	-37.28	-58.63	-71.01	3.52	12.25	V

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



## **Appendix D. Reference Report**

Please refer to Sporton report number FG7D0507B which is issued separately.