



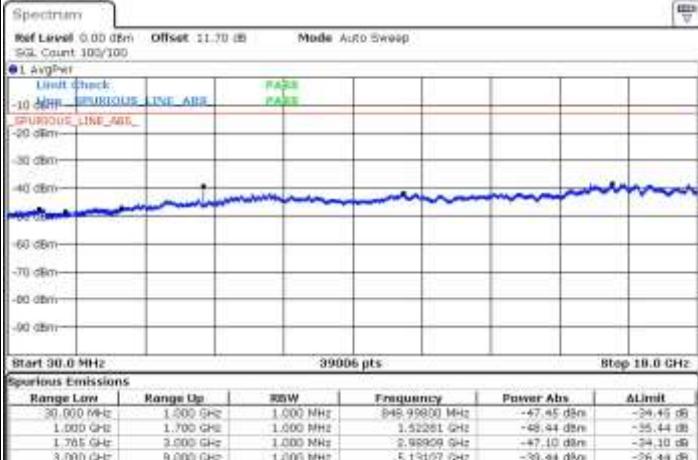
Conducted Spurious Emission



LTE Band 4 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

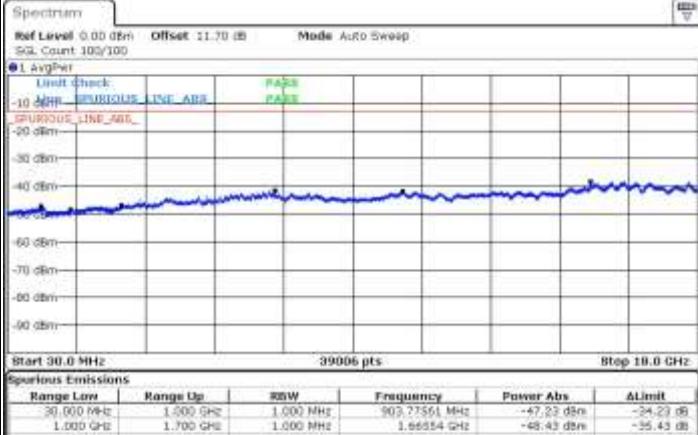
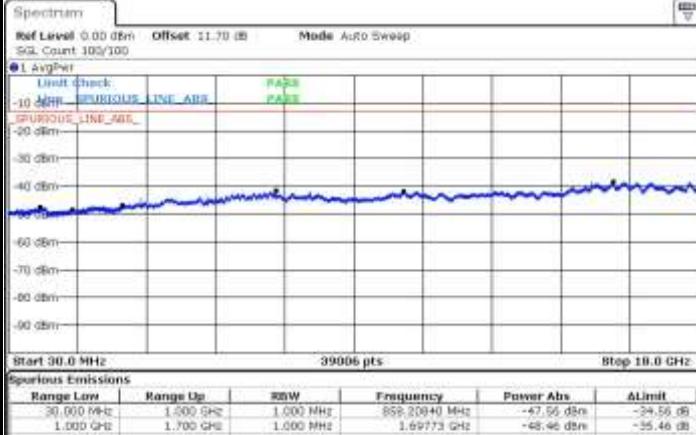


Date: 19.JAN.2017 01:15:52

Date: 19.JAN.2017 01:16:36

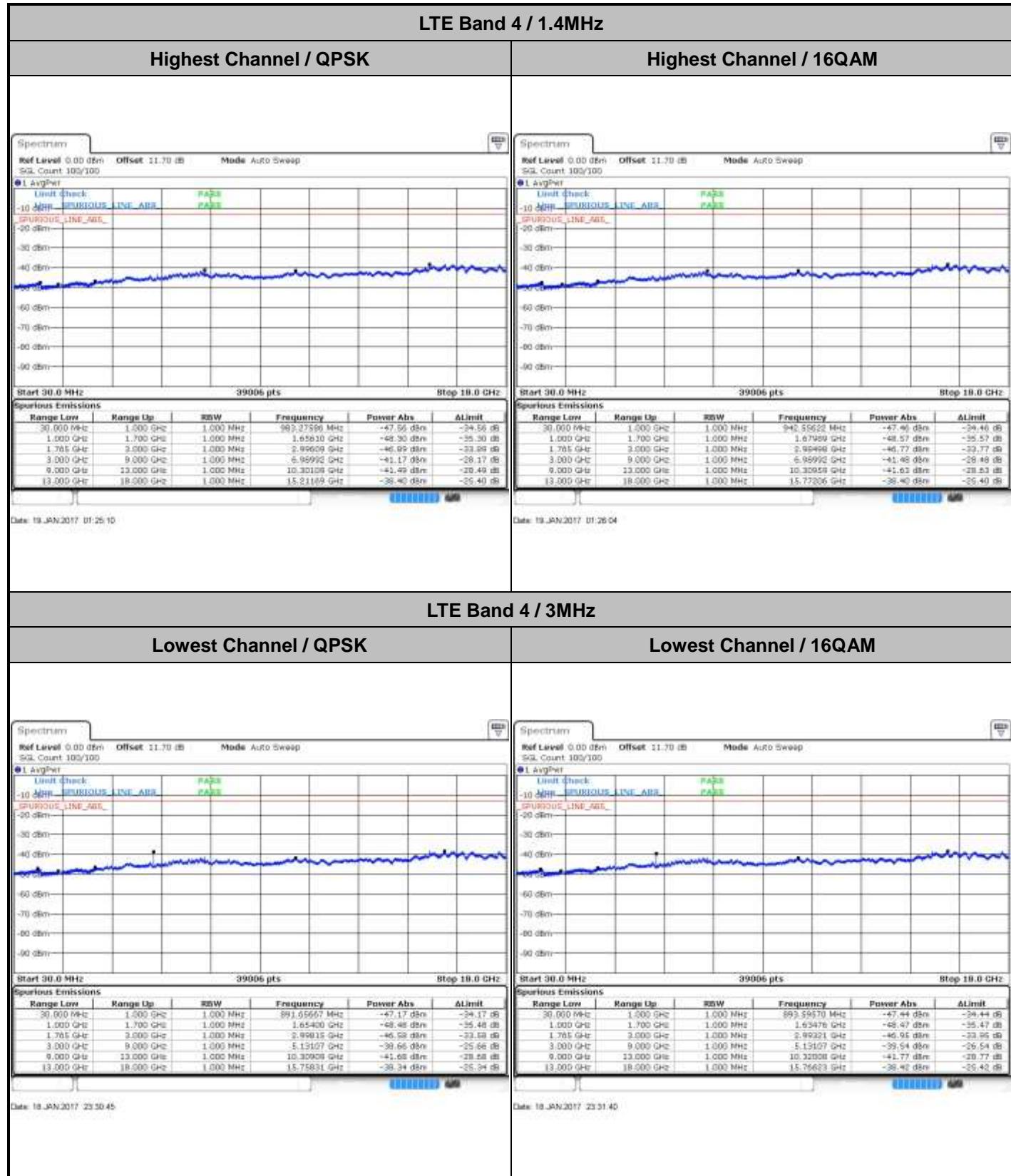
Middle Channel / QPSK

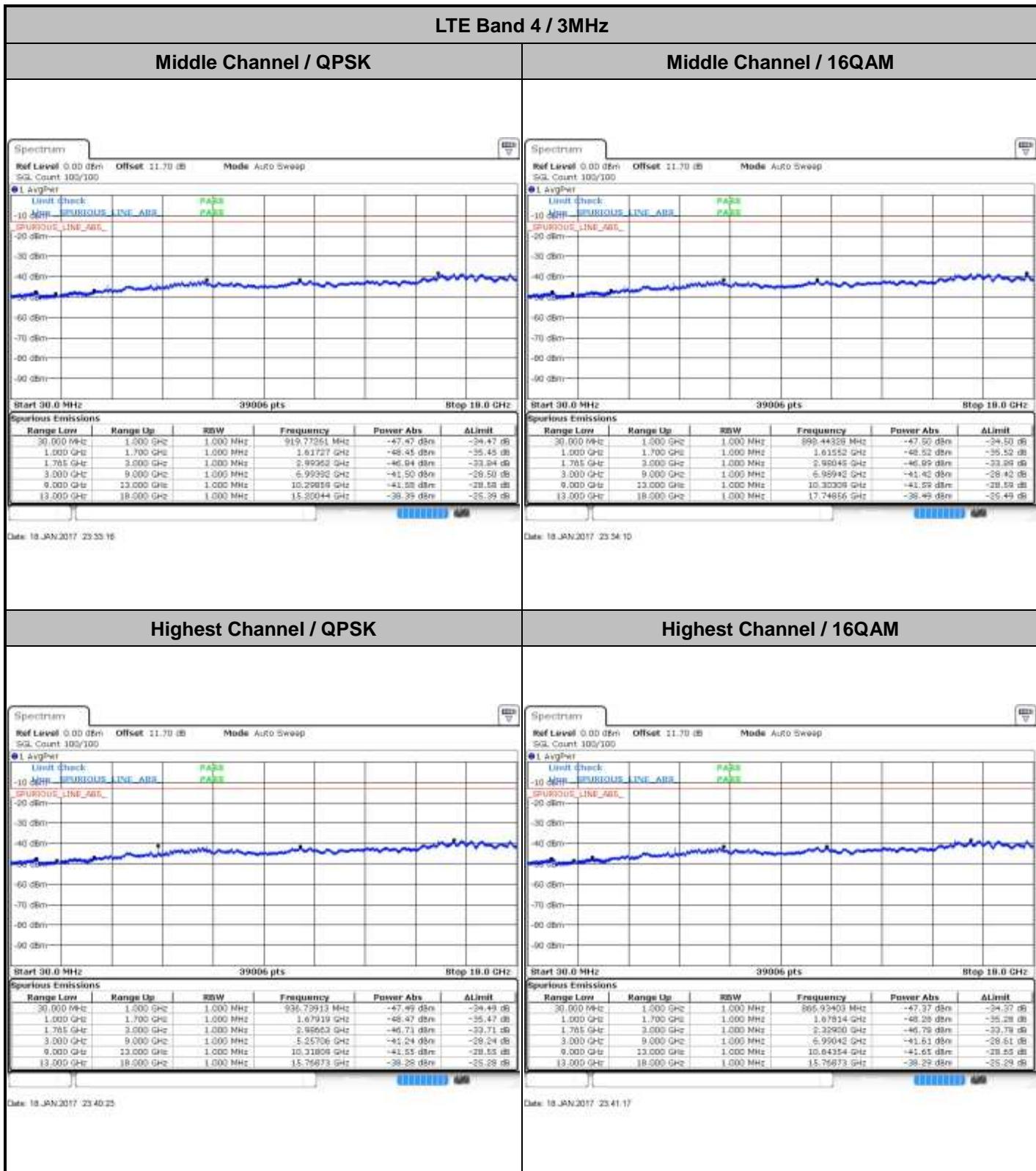
Middle Channel / 16QAM

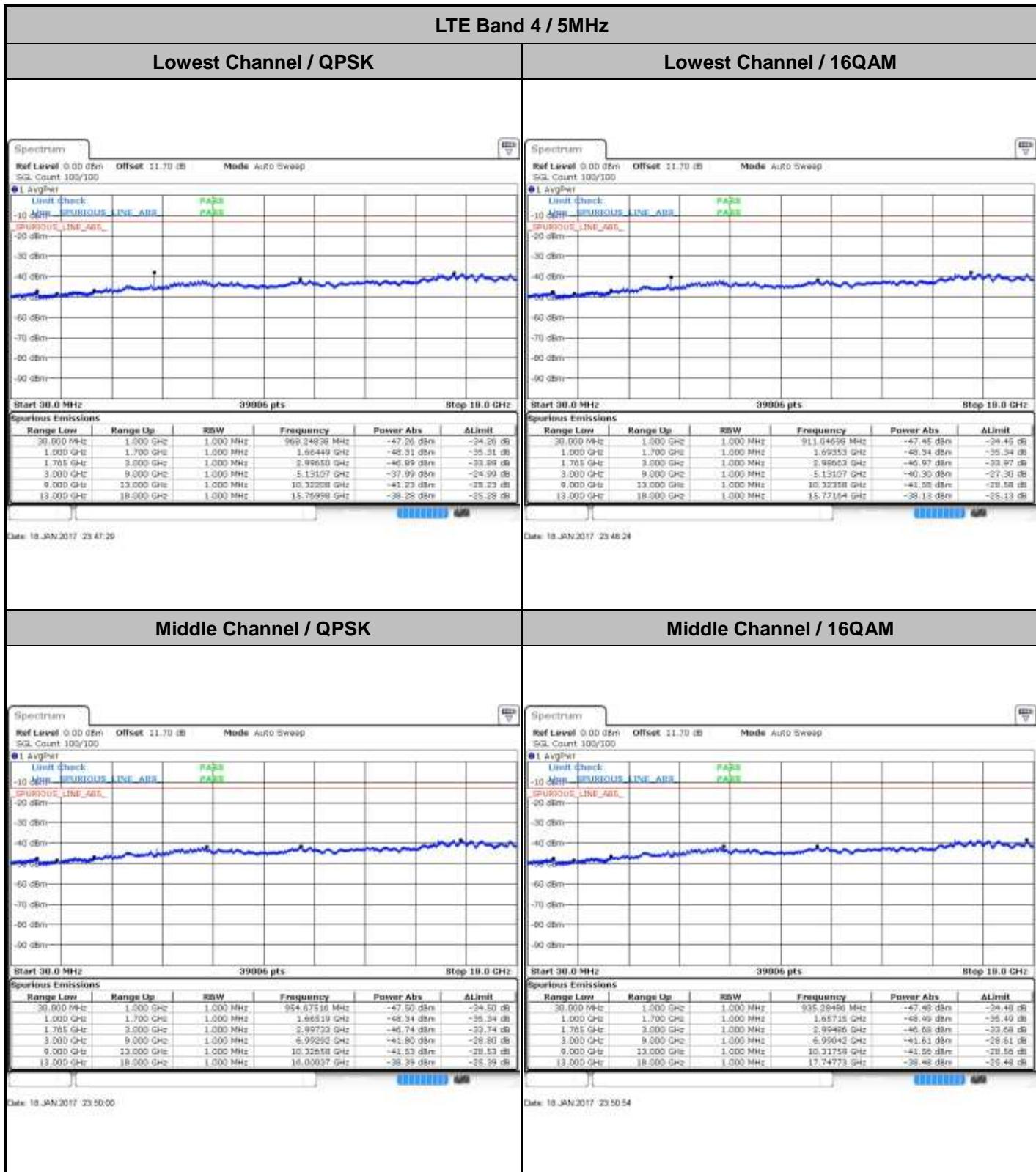


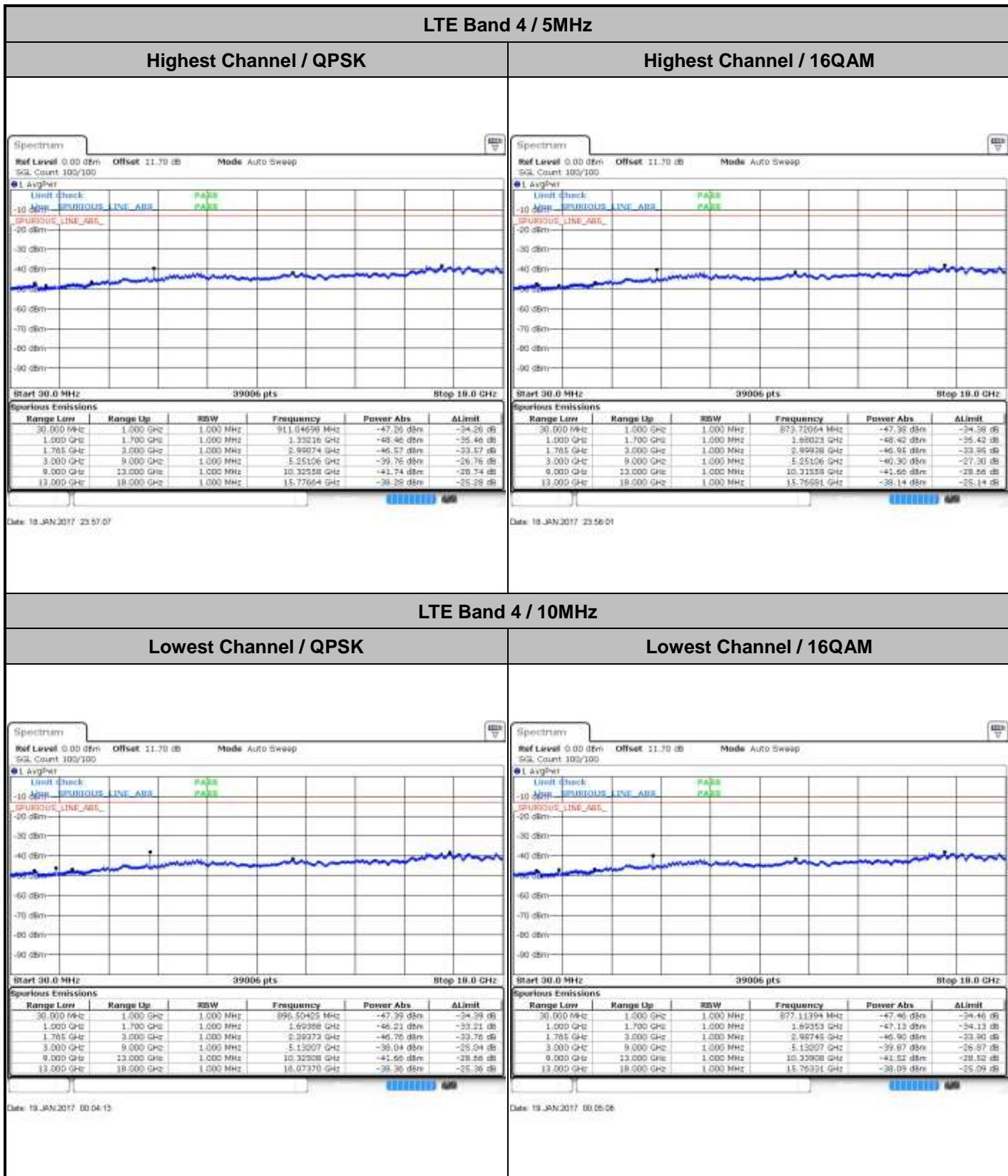
Date: 19.JAN.2017 01:16:02

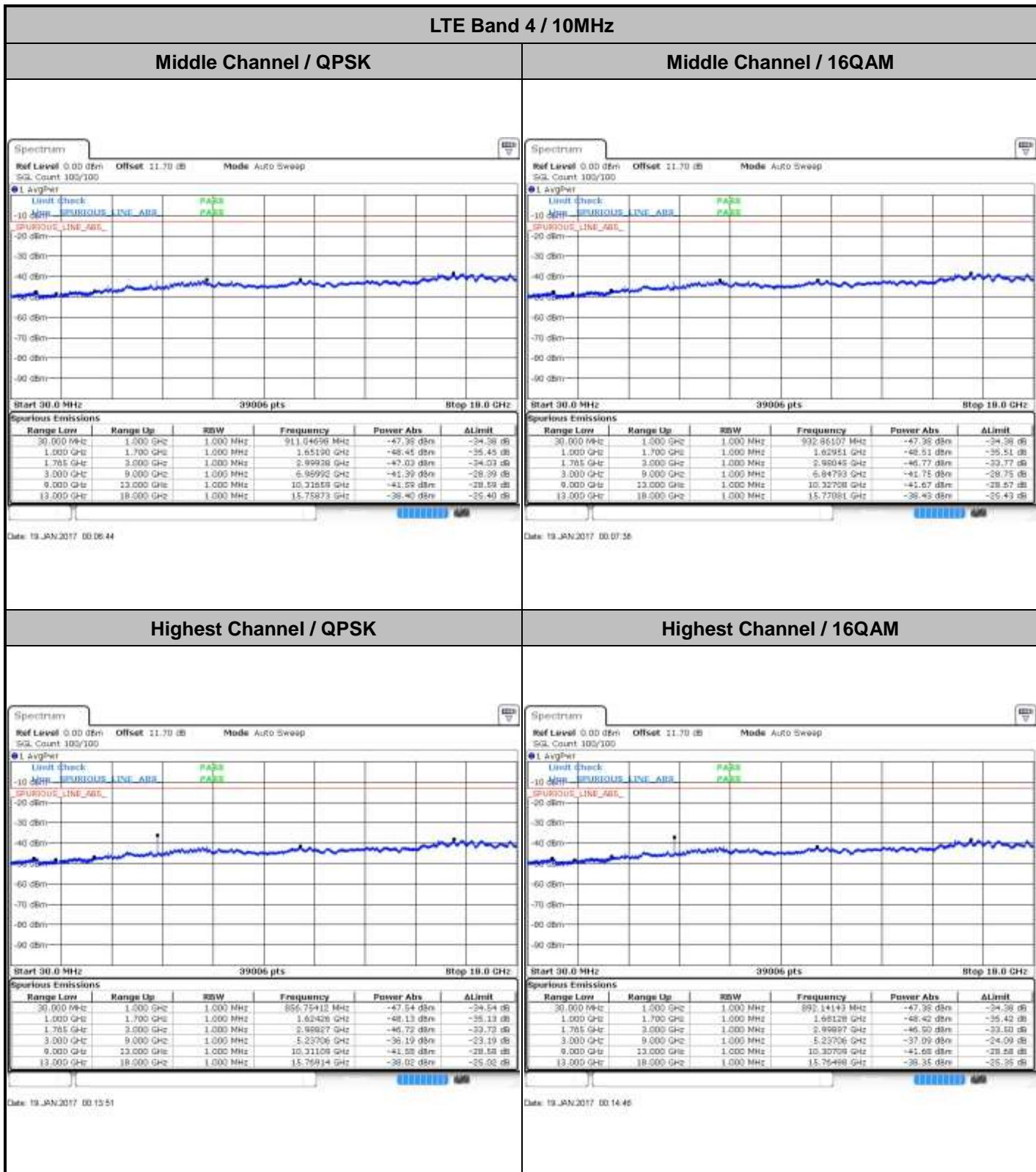
Date: 19.JAN.2017 01:16:57

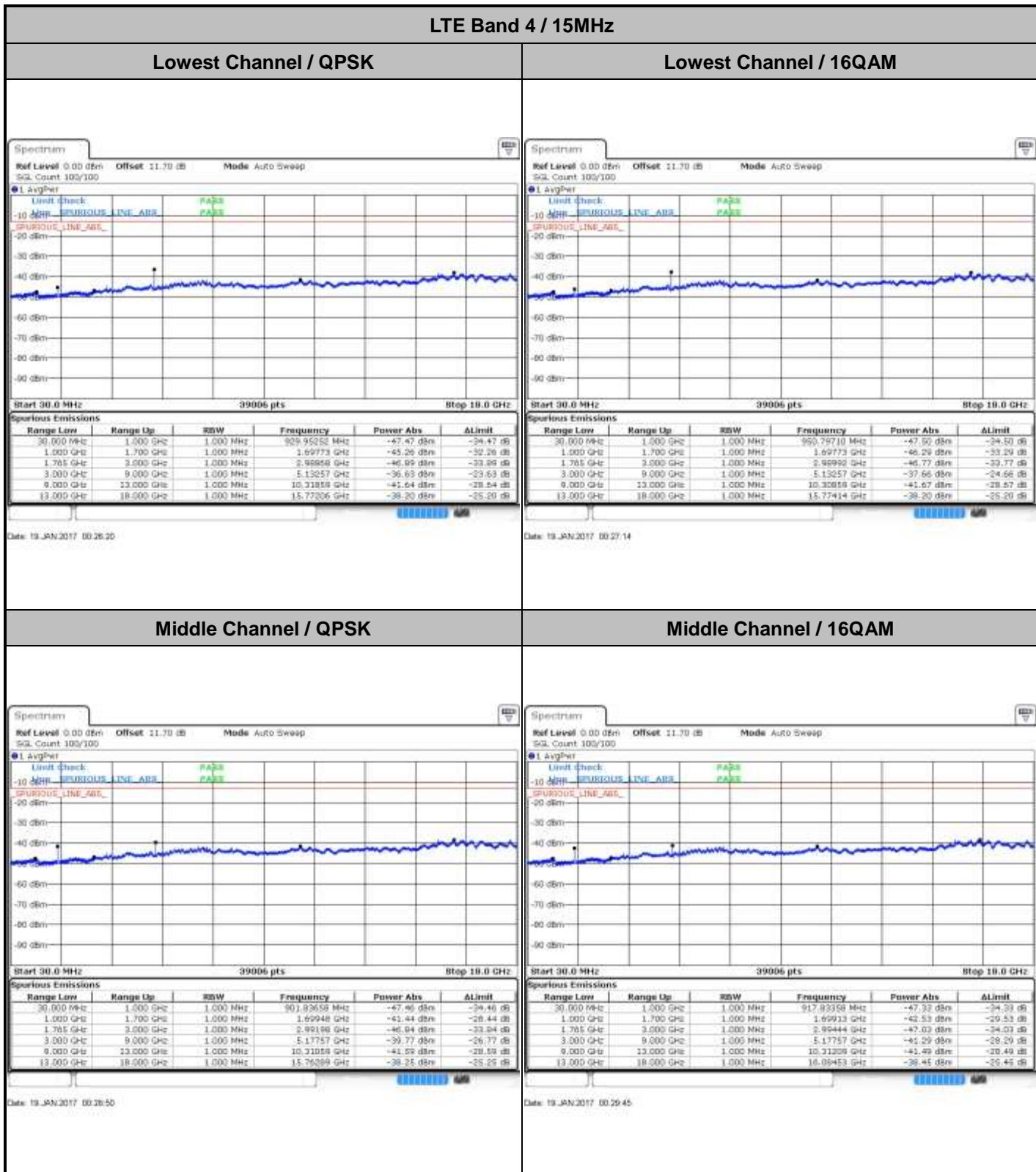














LTE Band 4 / 15MHz

Highest Channel / QPSK

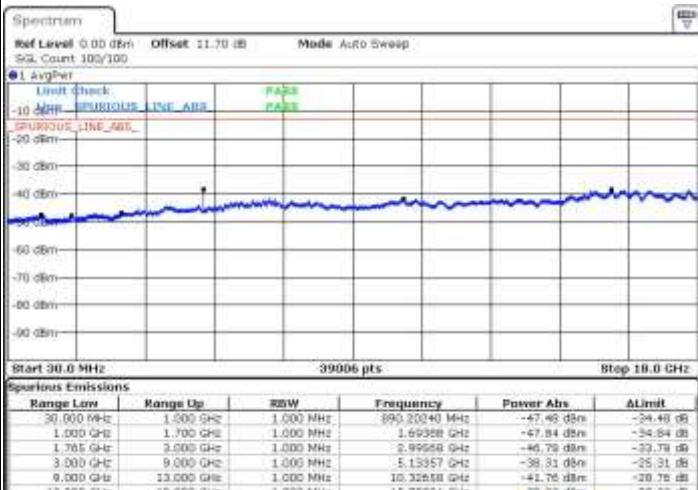
Highest Channel / 16QAM

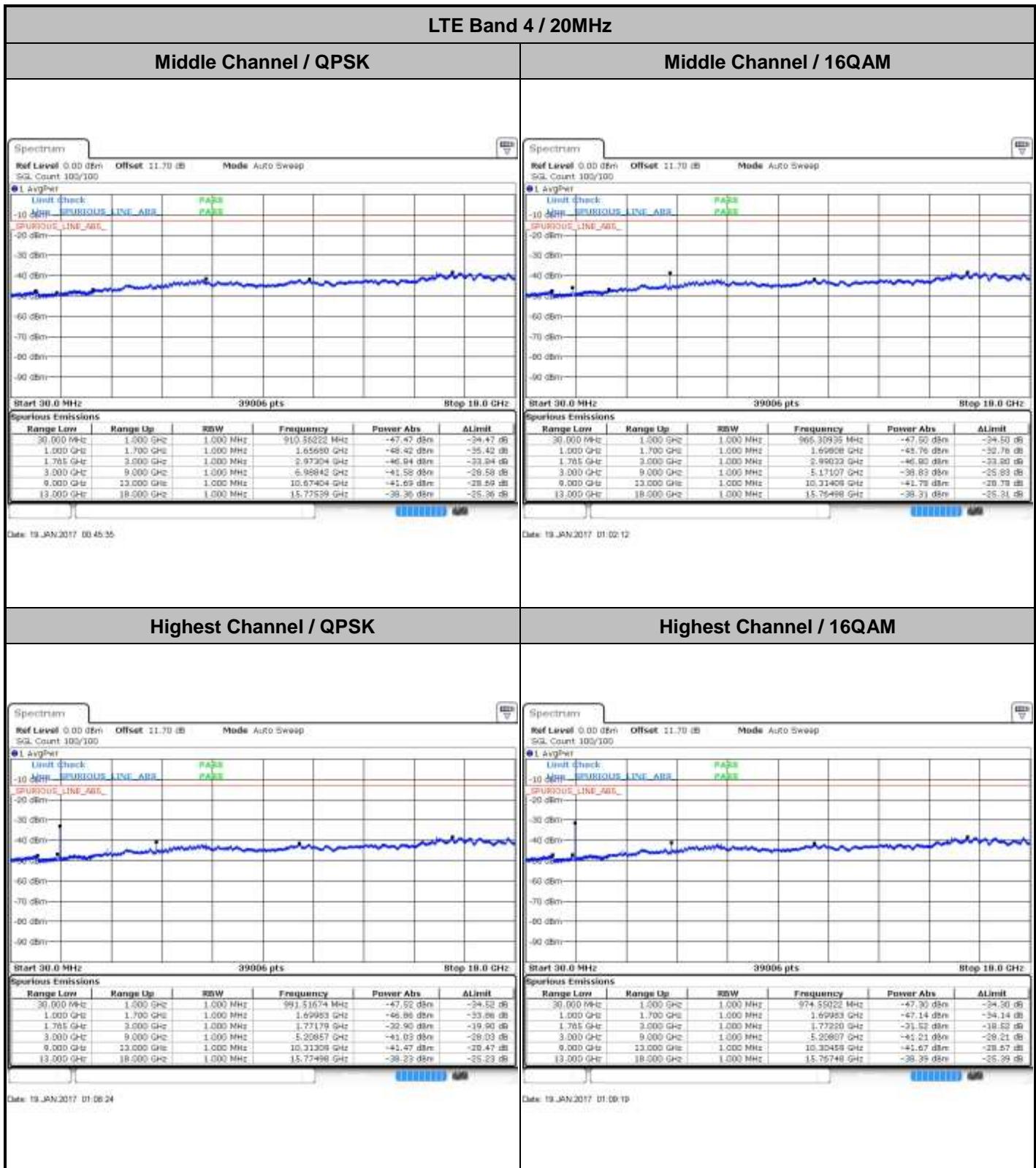


LTE Band 4 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM







Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0047	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0041	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0029	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0040	
-20	Normal Voltage	0.0028	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0034	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

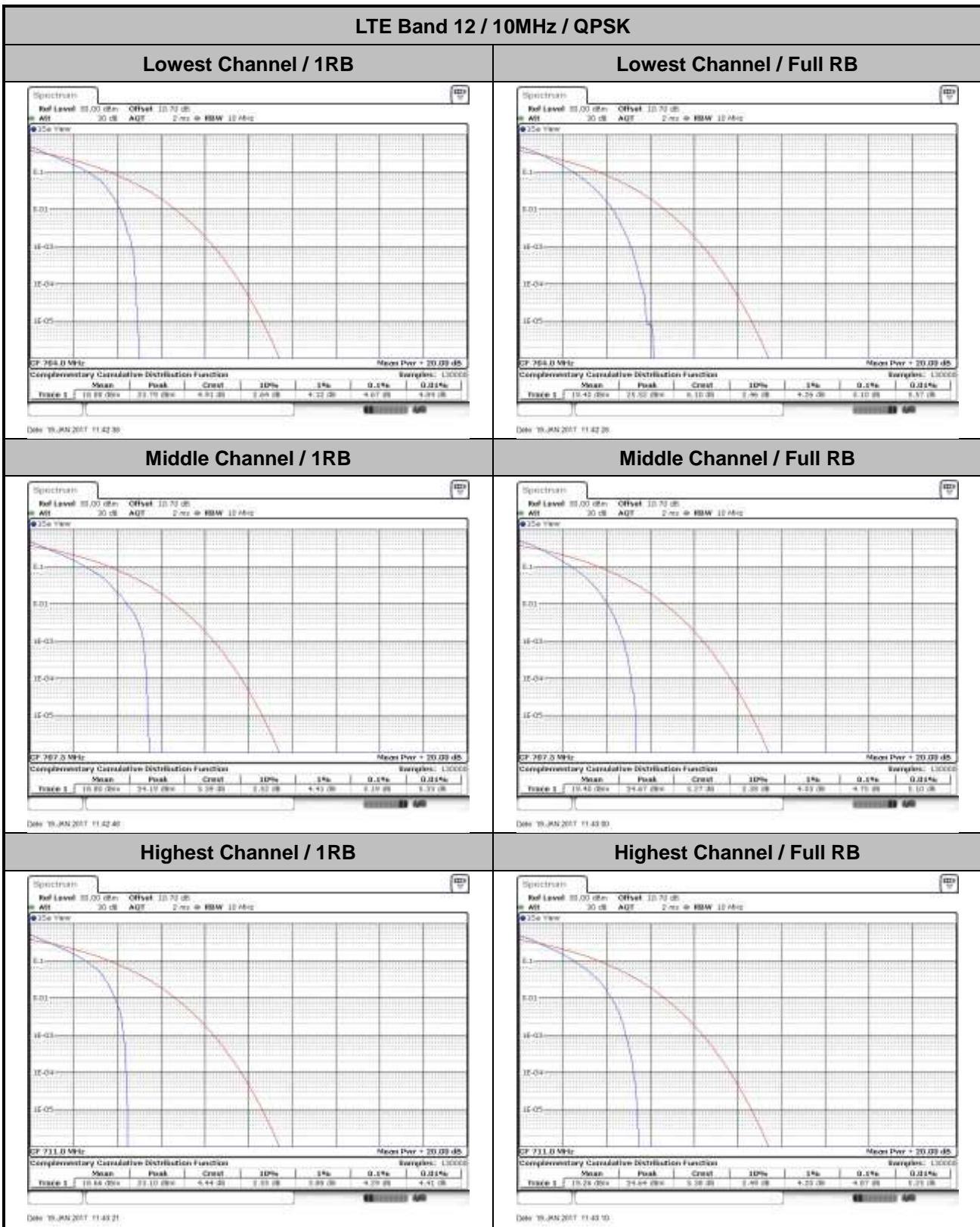


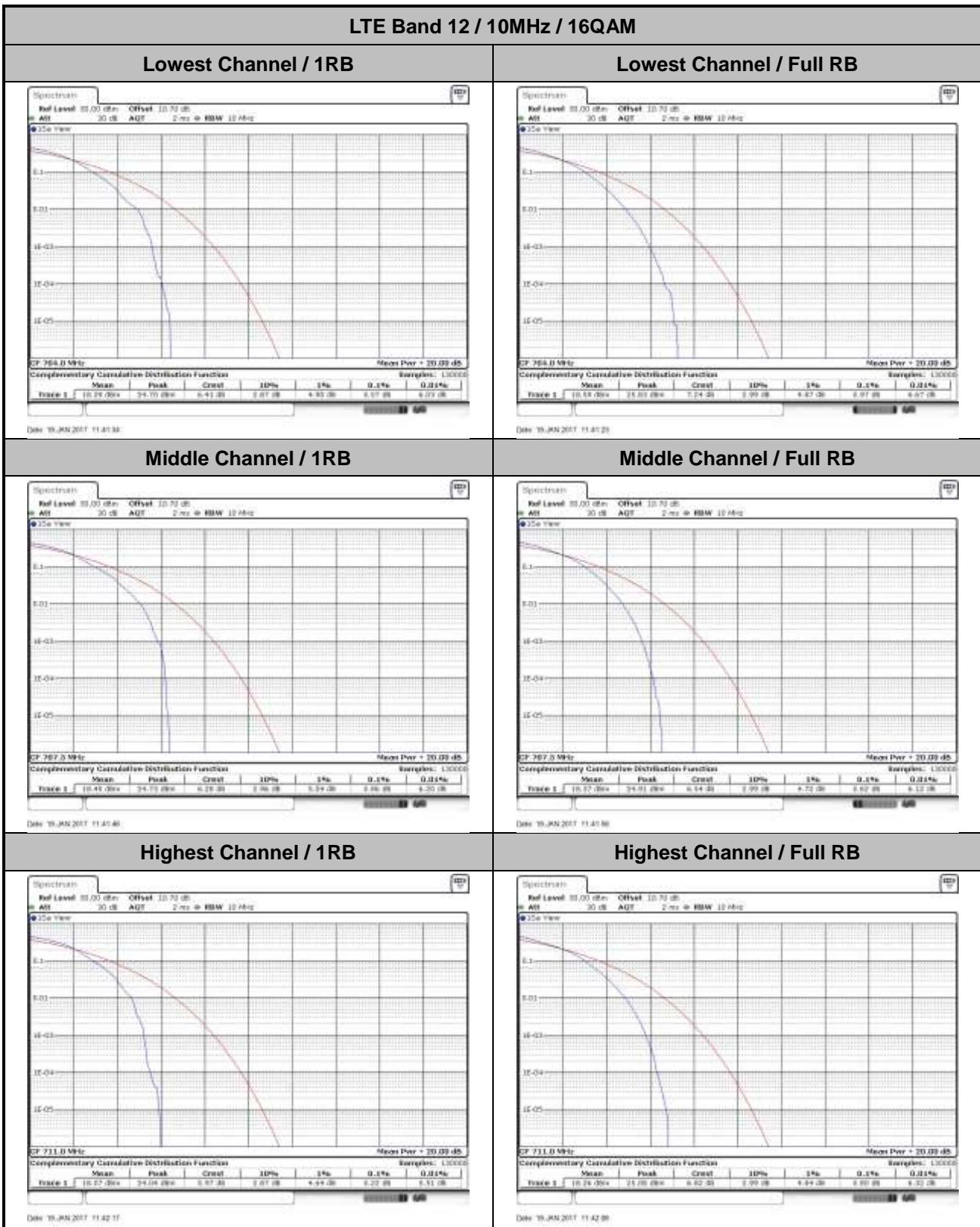
LTE Band 12

<Ant. 1>

Peak-to-Average Ratio

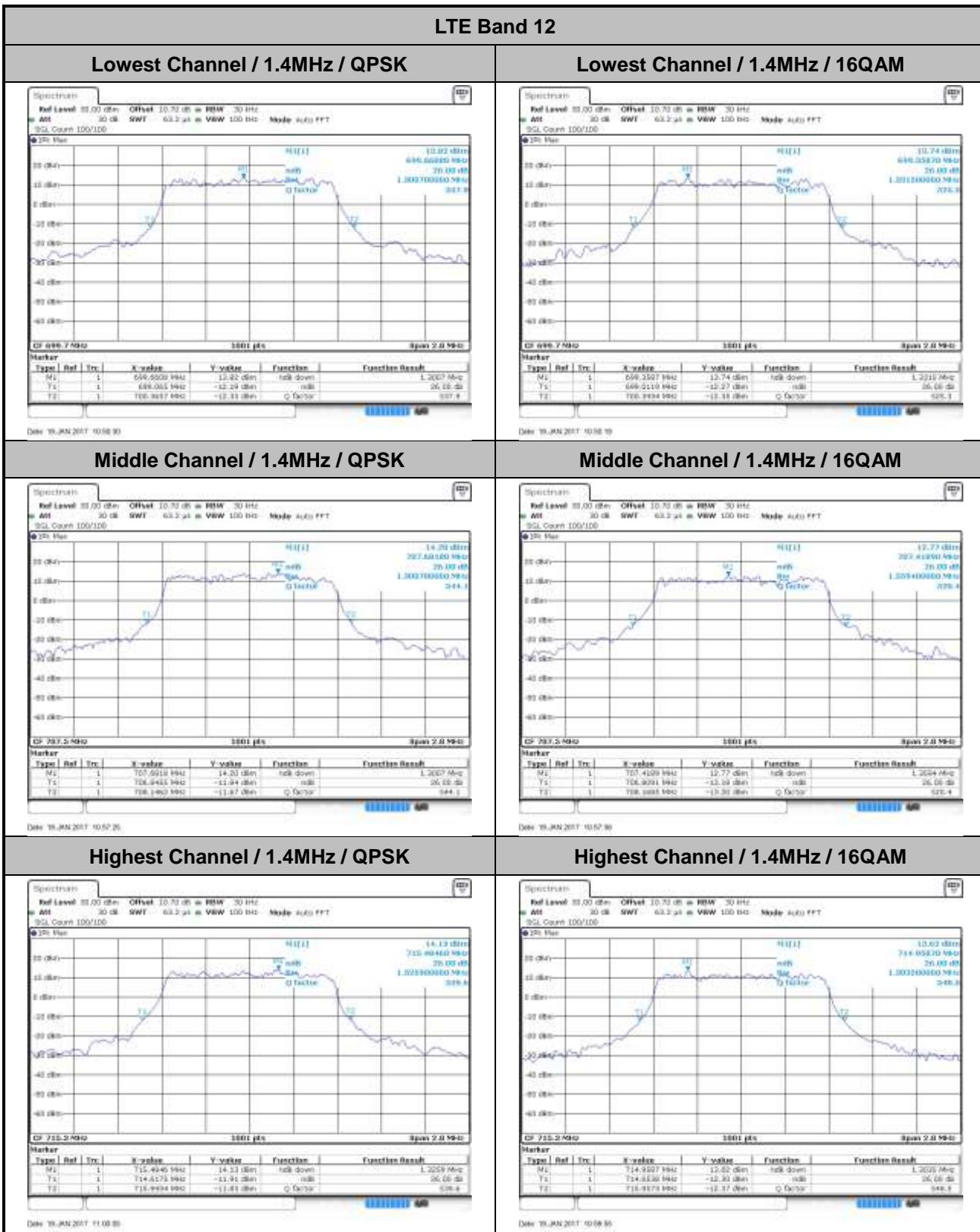
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.67	5.1	5.57	5.97	PASS
Middle CH	5.19	4.75	5.86	5.62	
Highest CH	4.29	4.87	5.22	5.8	

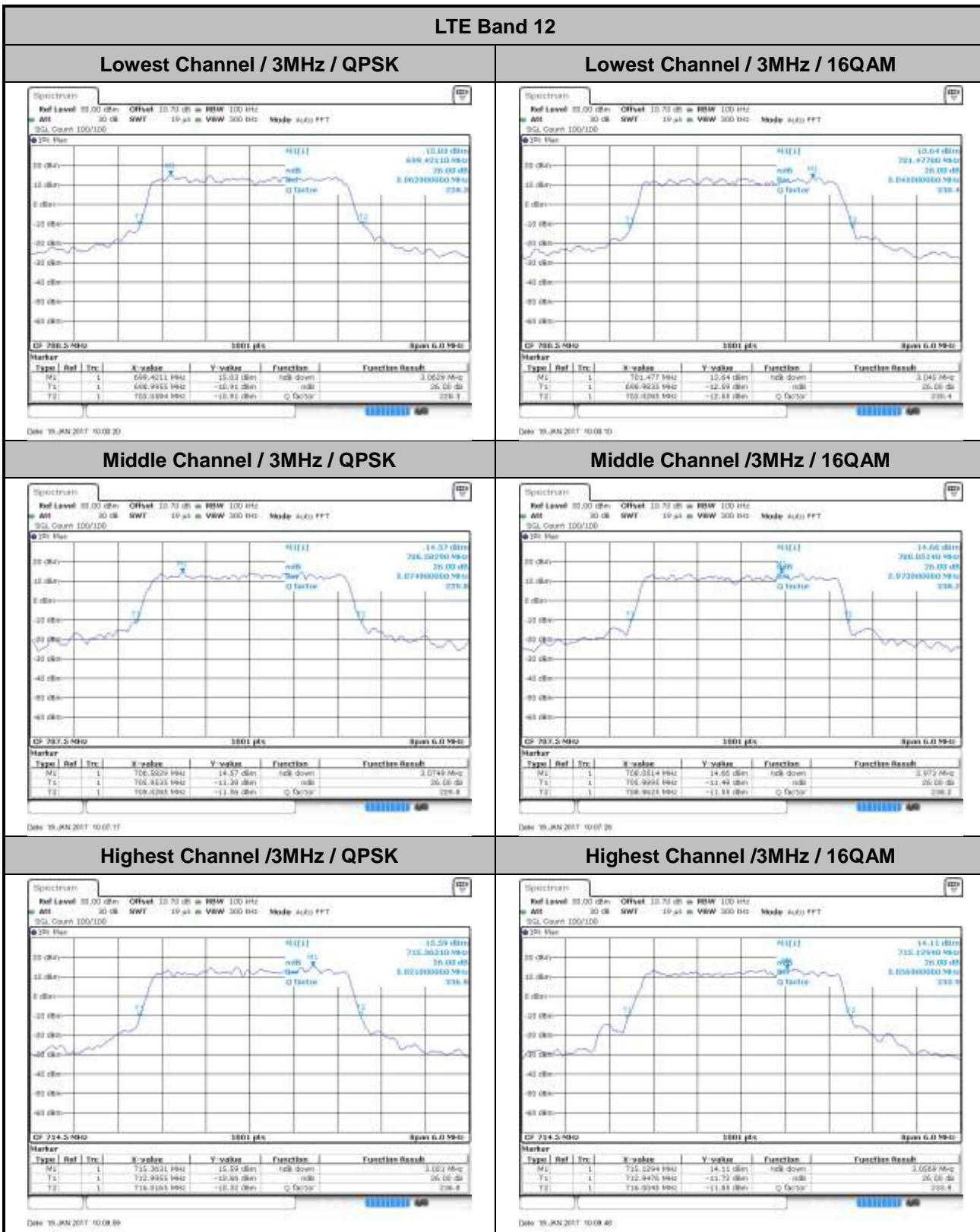


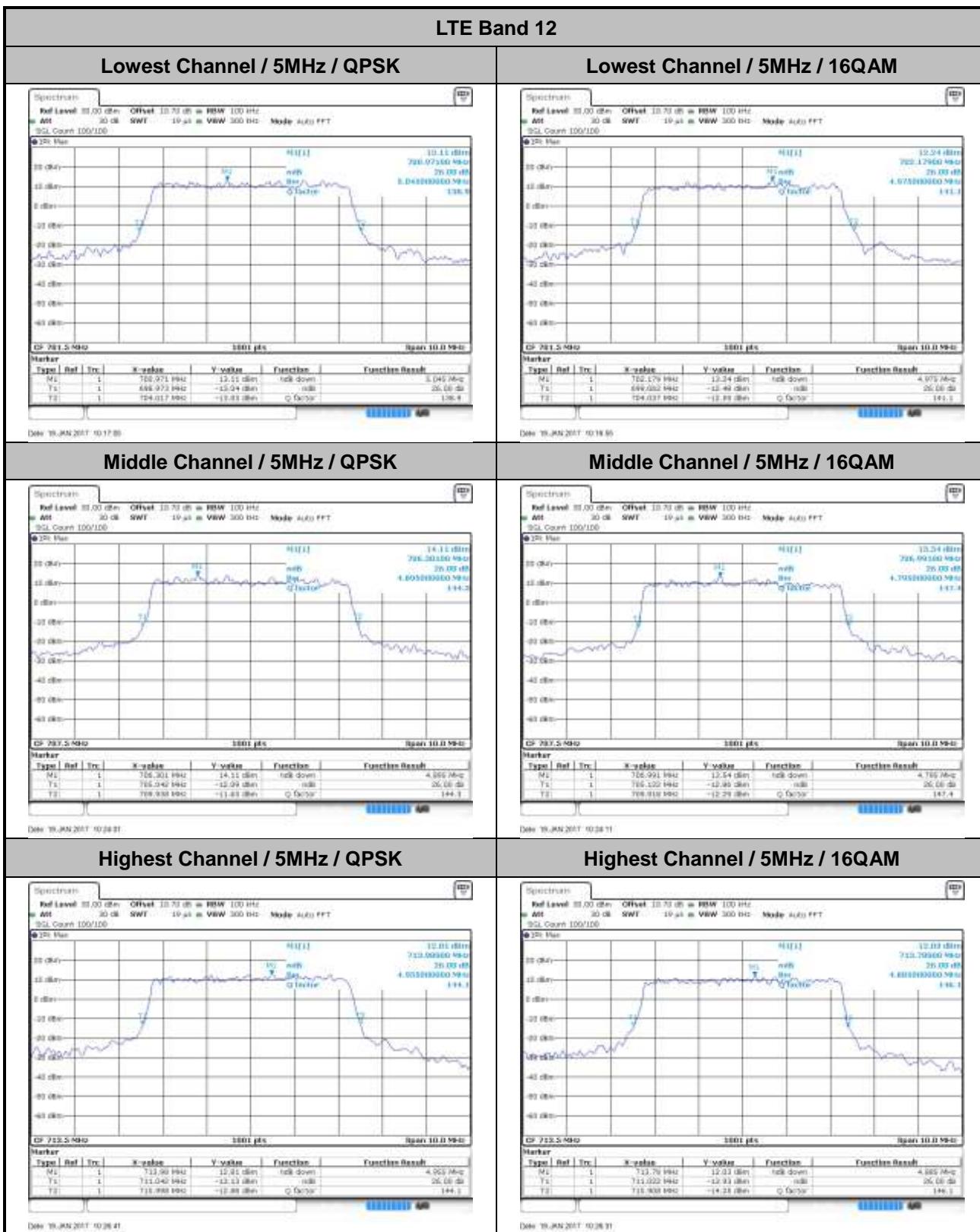


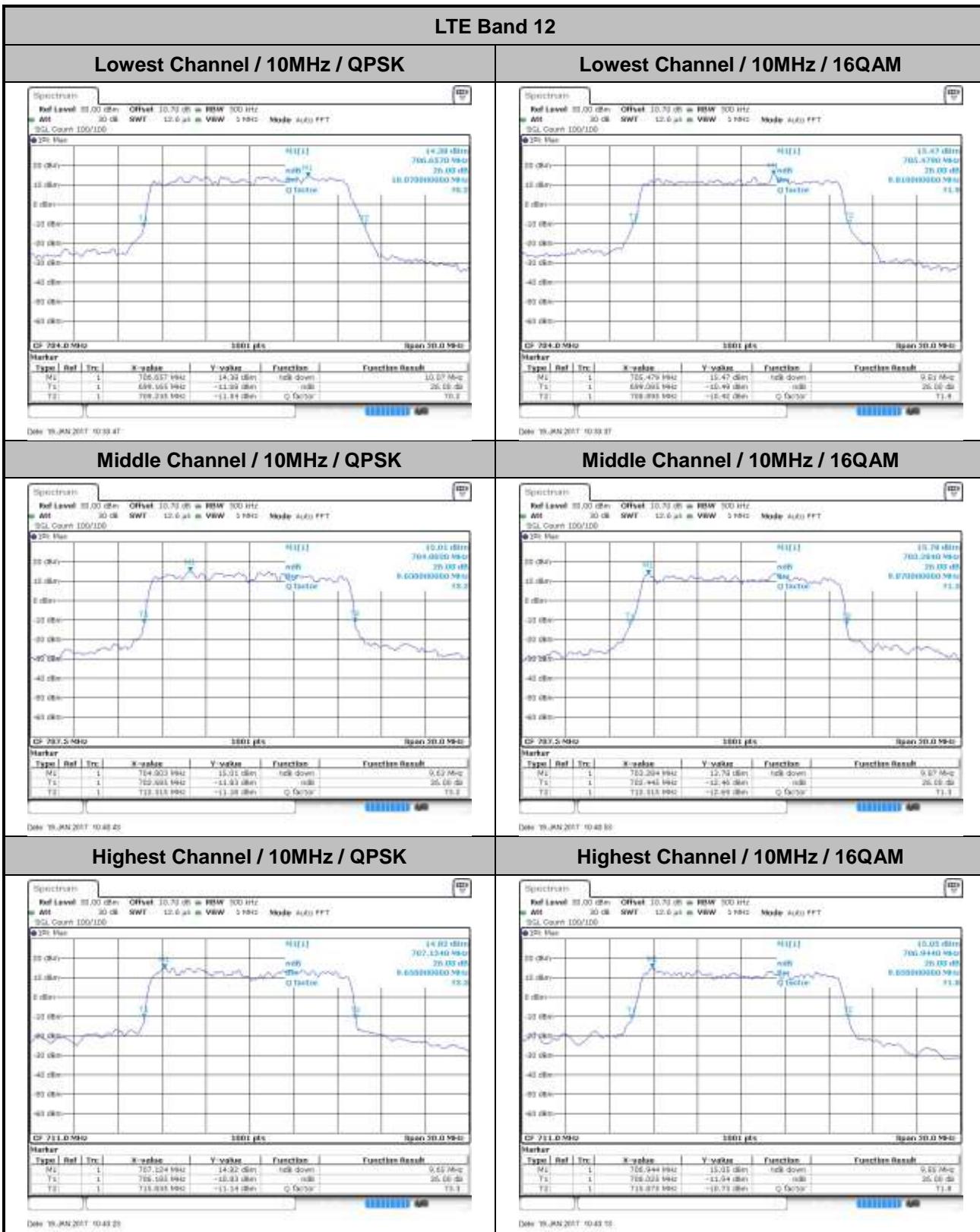
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.30	1.33	3.06	3.05	5.05	4.98	10.07	9.81	-	-	-	-
Middle CH	1.30	1.36	3.08	2.97	4.90	4.80	9.63	9.87	-	-	-	-
Highest CH	1.33	1.30	3.02	3.06	4.96	4.89	9.65	9.85	-	-	-	-



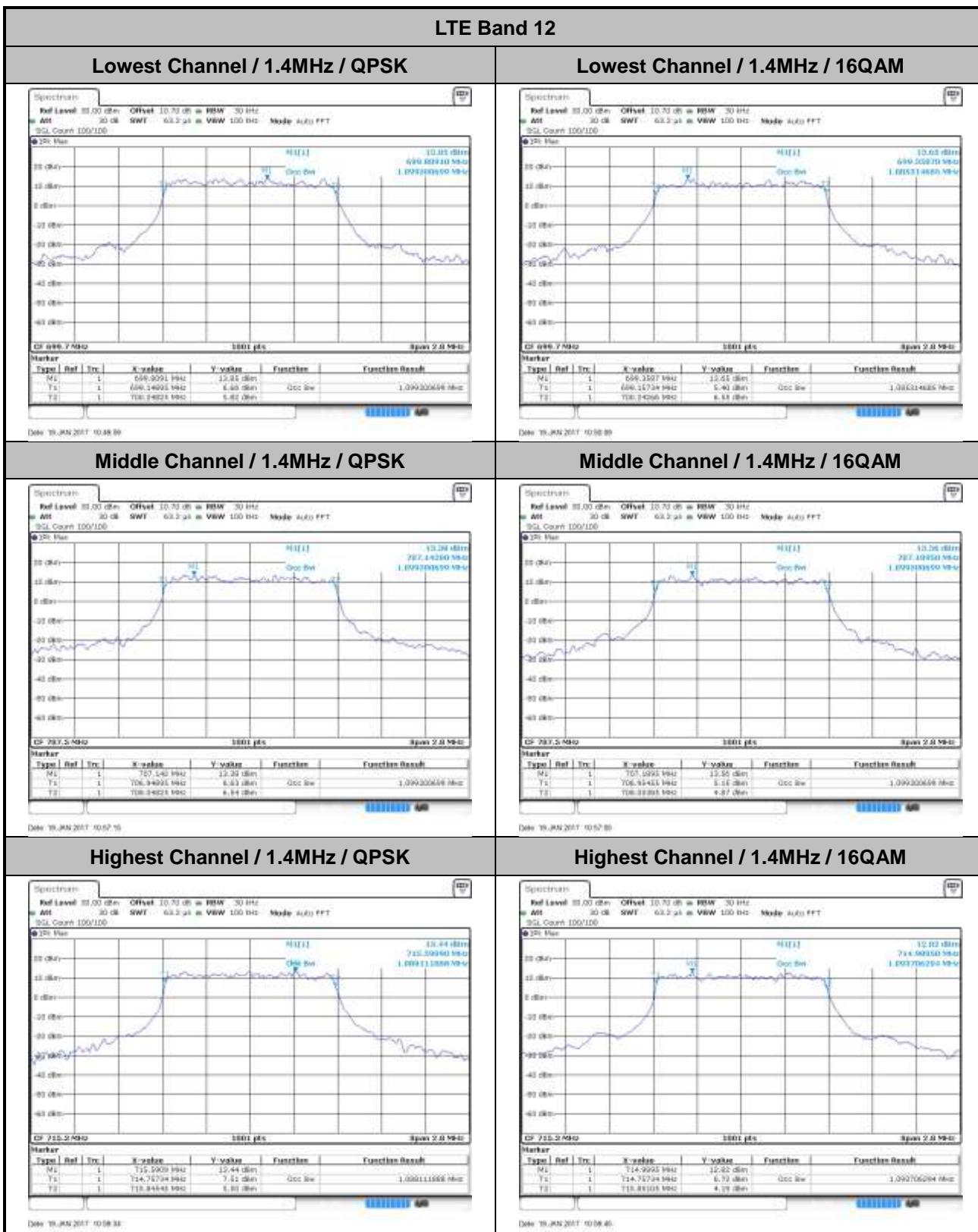


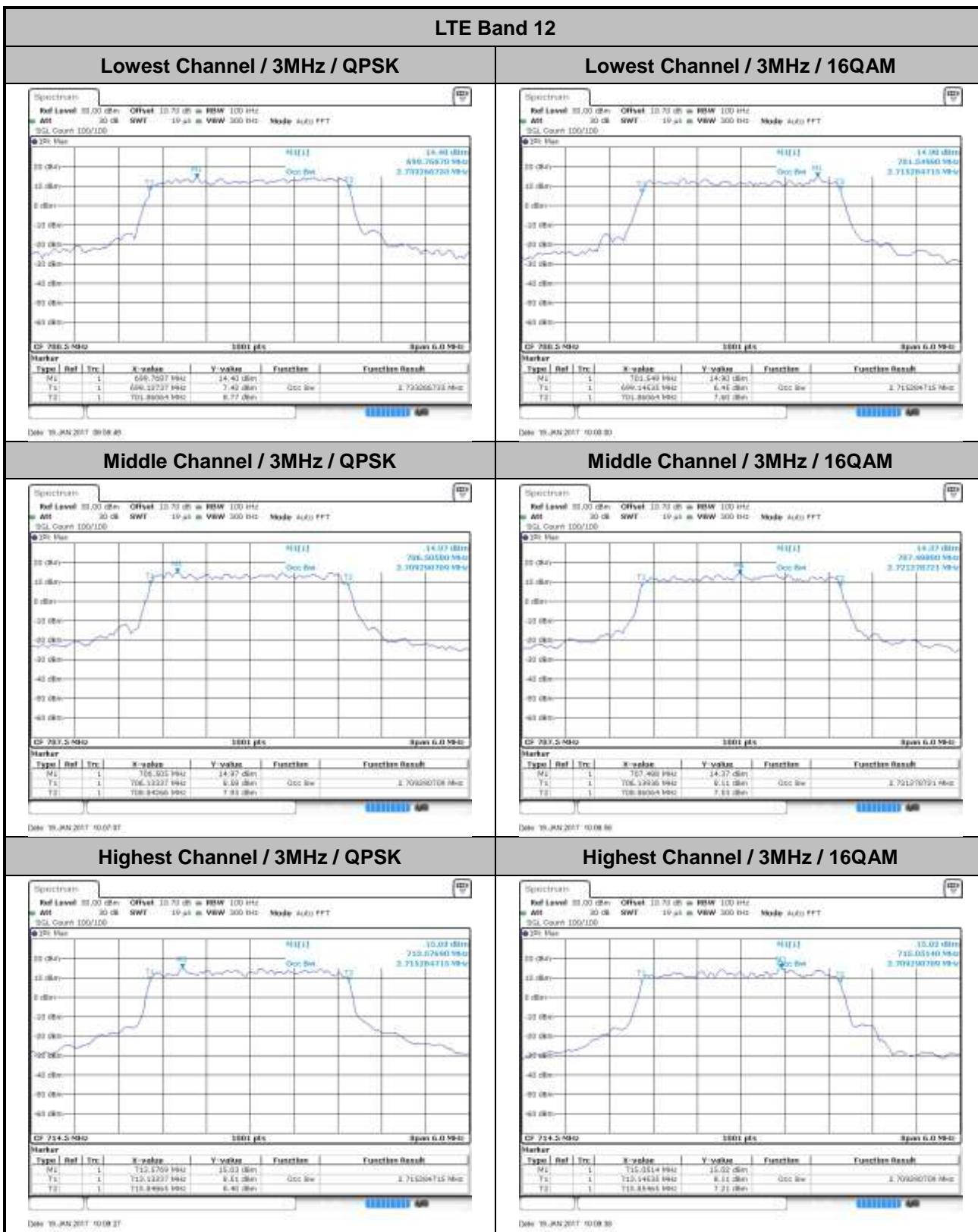


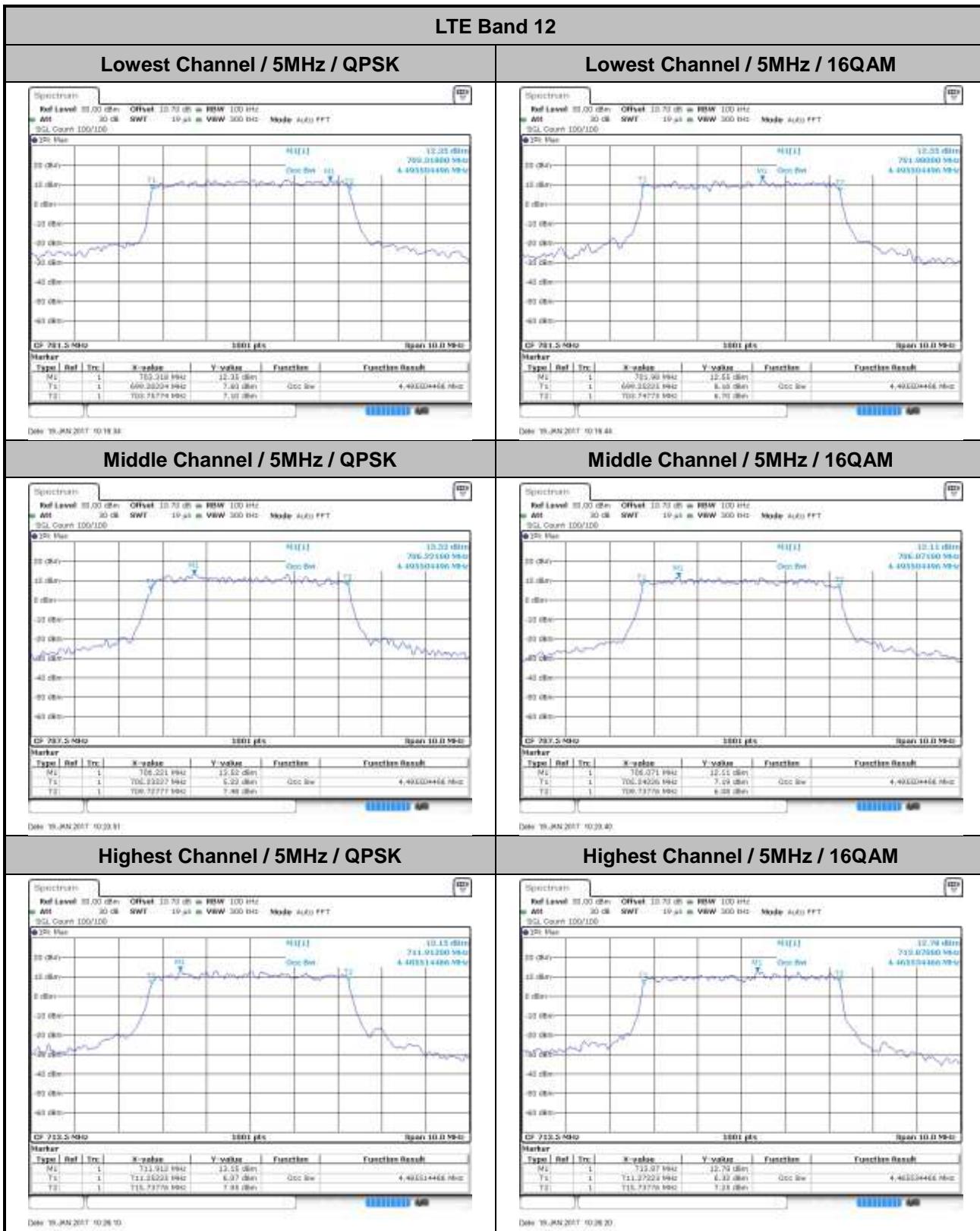


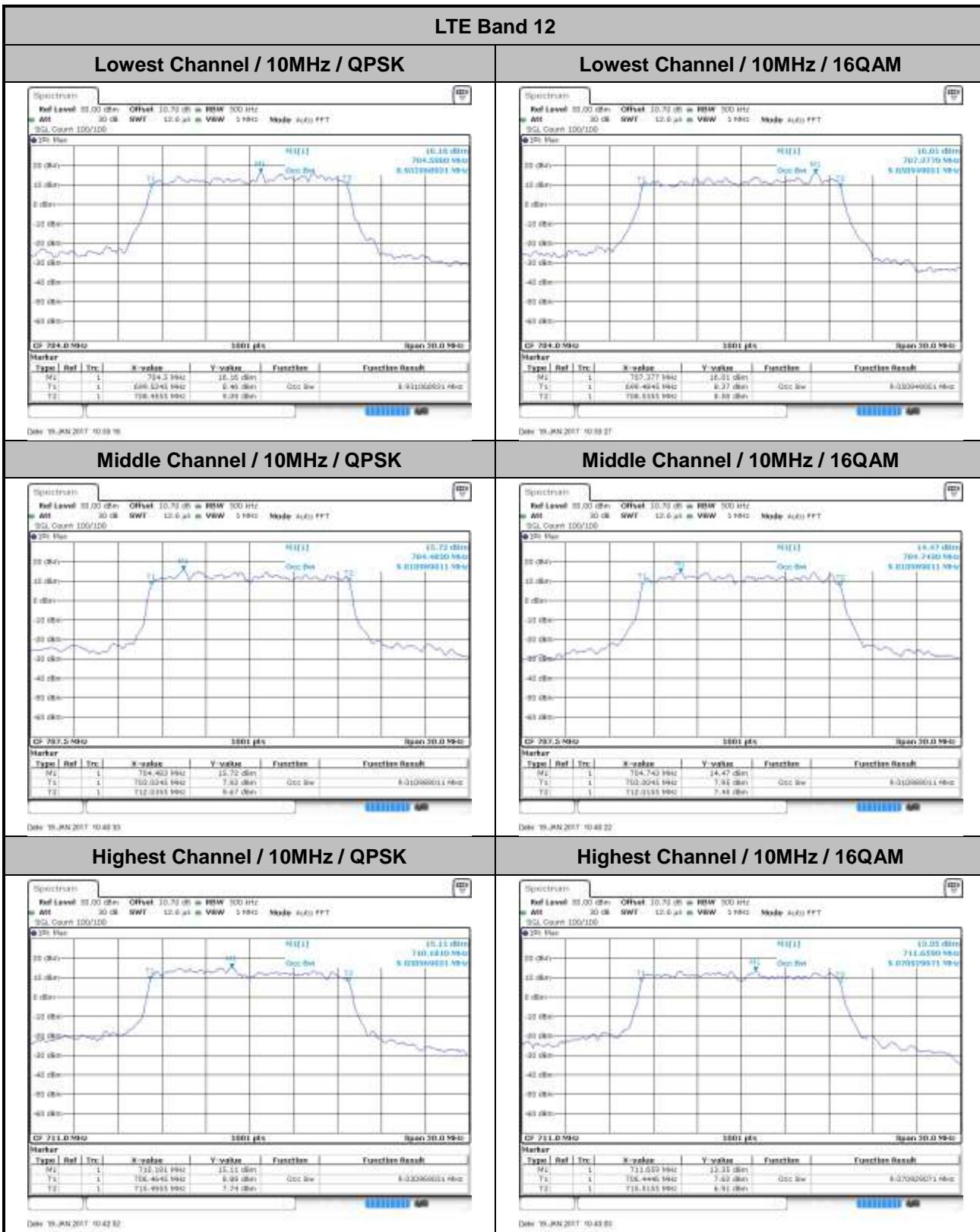
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.1	1.09	2.73	2.72	4.5	4.5	8.93	9.05	-	-	-	-
Middle CH	1.1	1.1	2.71	2.72	4.5	4.5	9.01	9.01	-	-	-	-
Highest CH	1.09	1.09	2.72	2.71	4.49	4.47	9.03	9.07	-	-	-	-



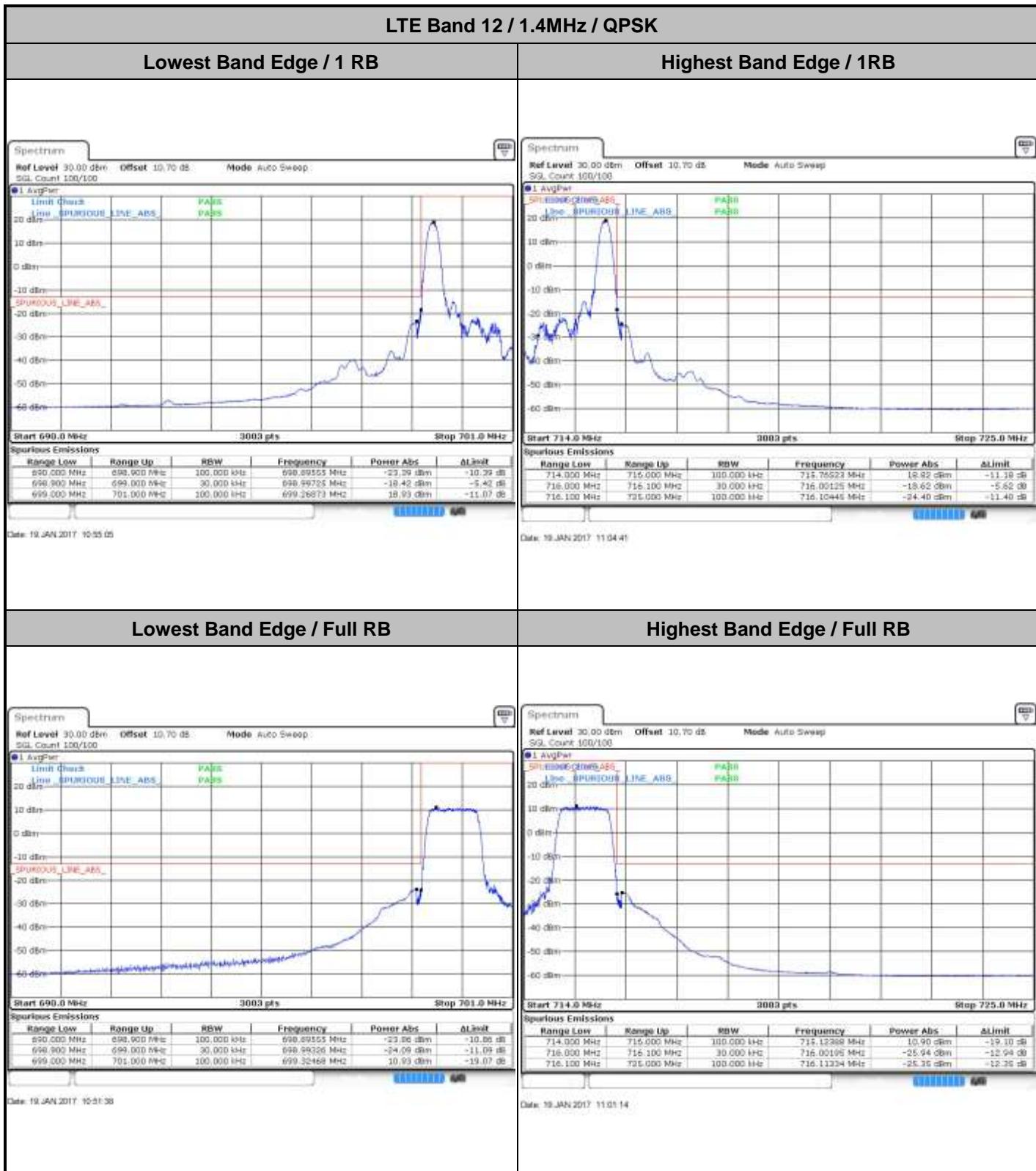


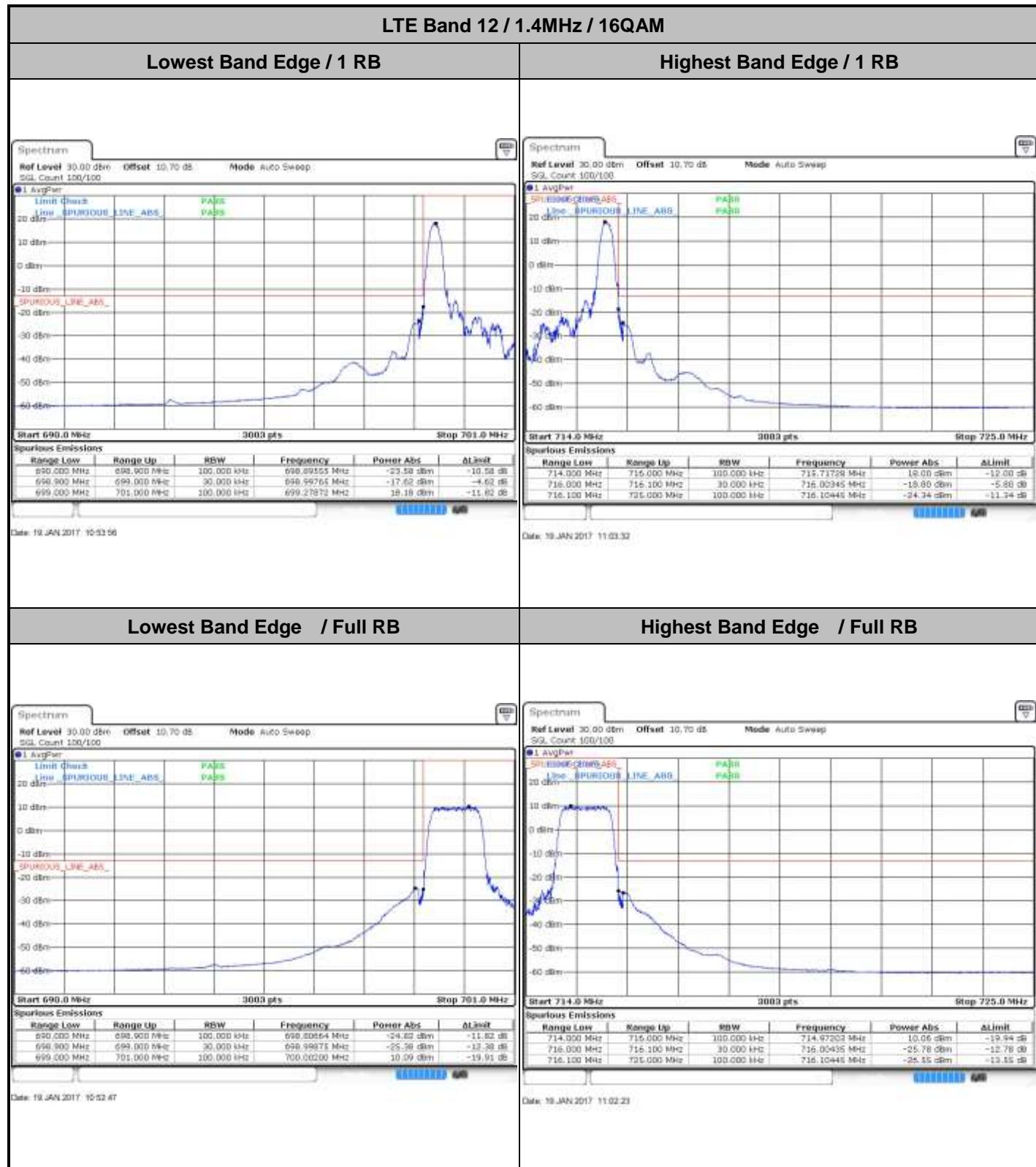


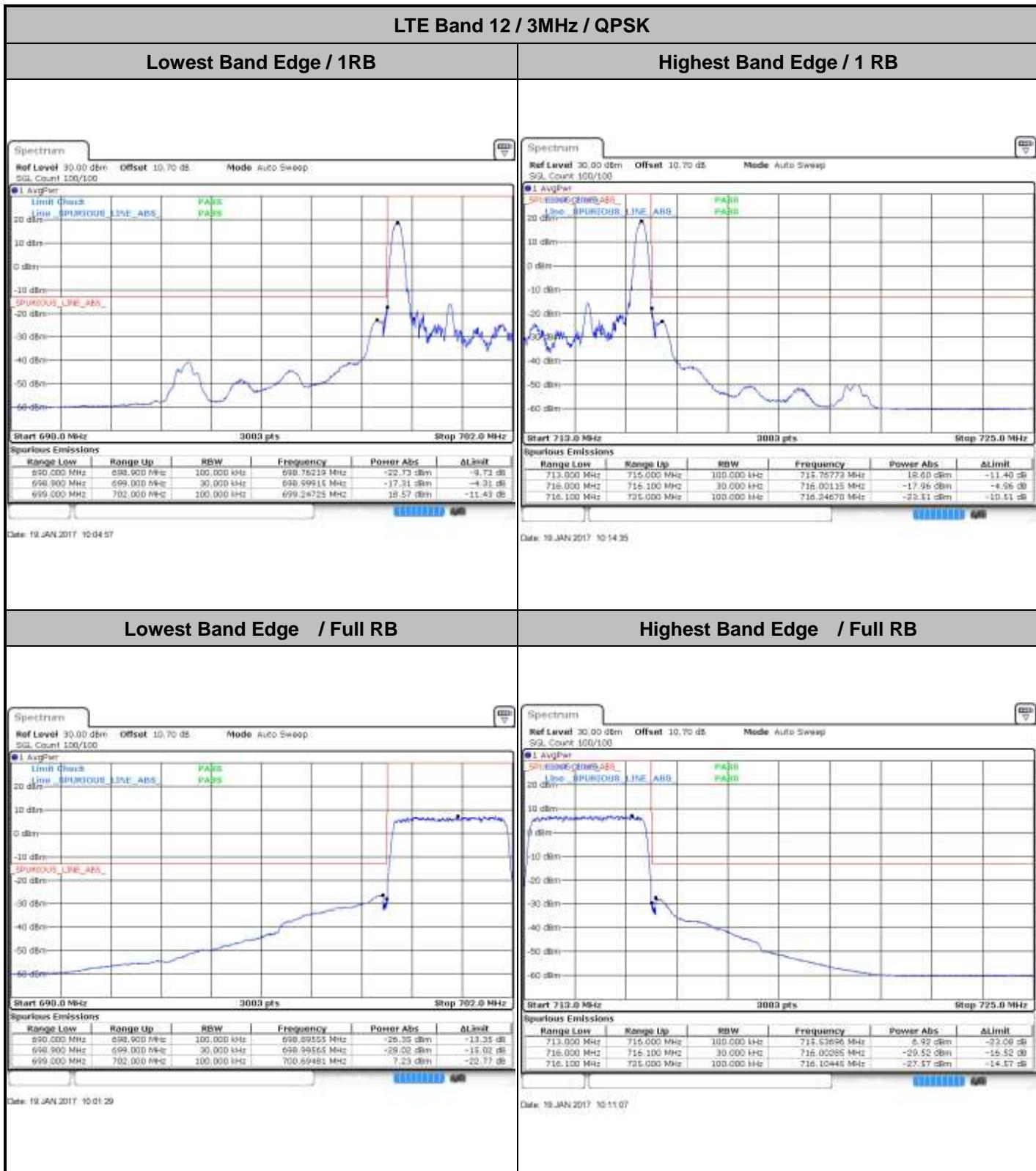


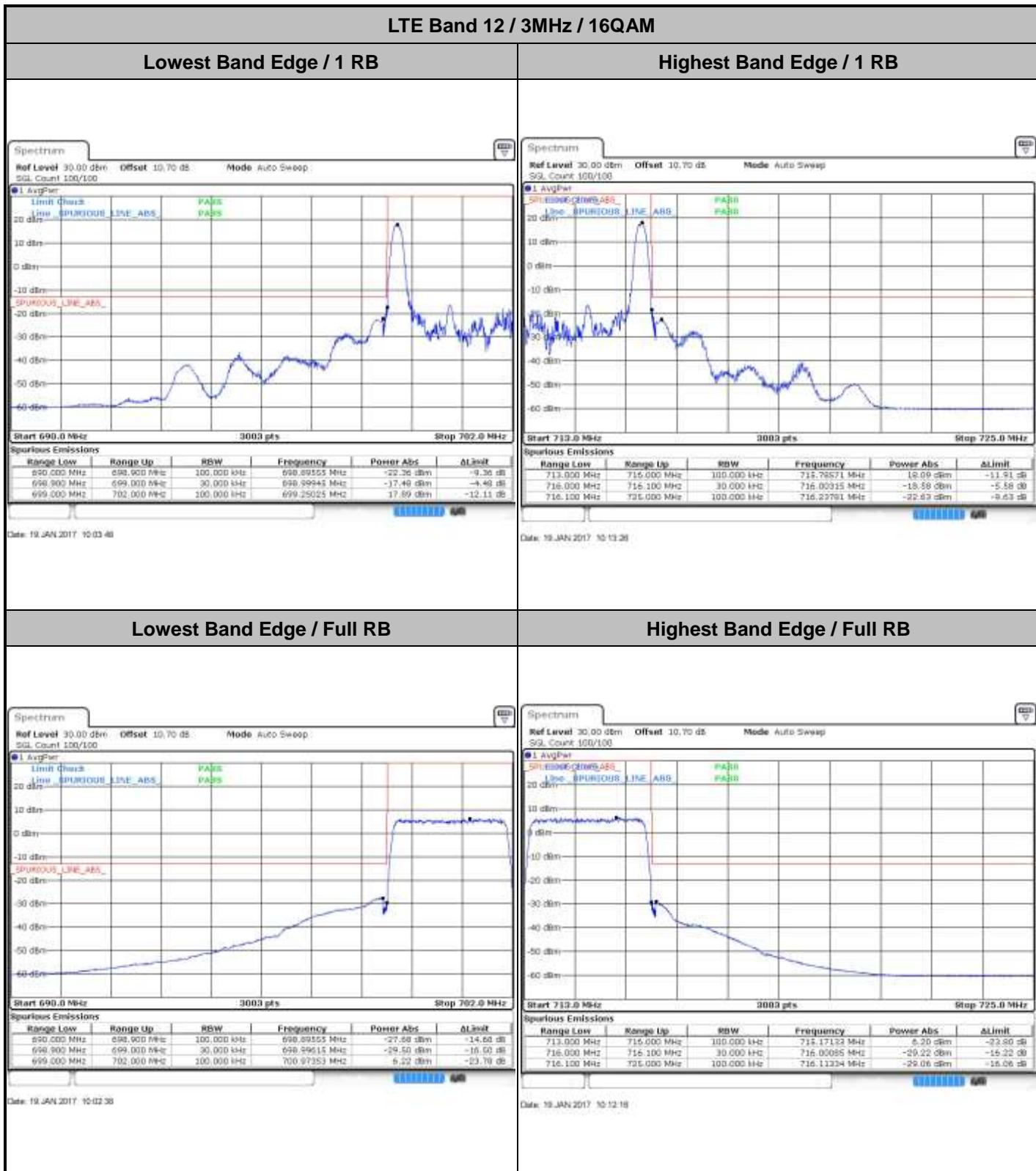


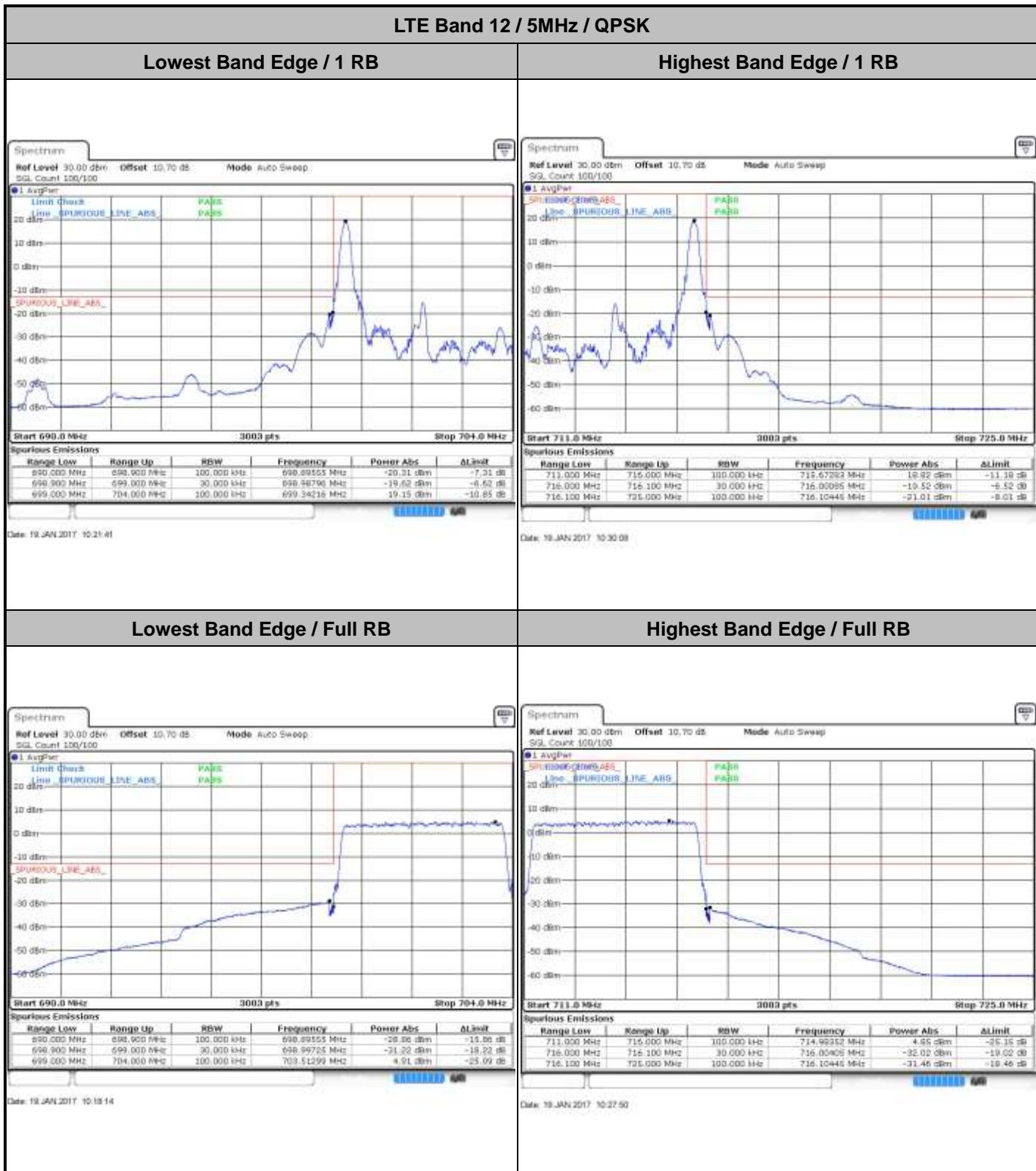
Conducted Band Edge

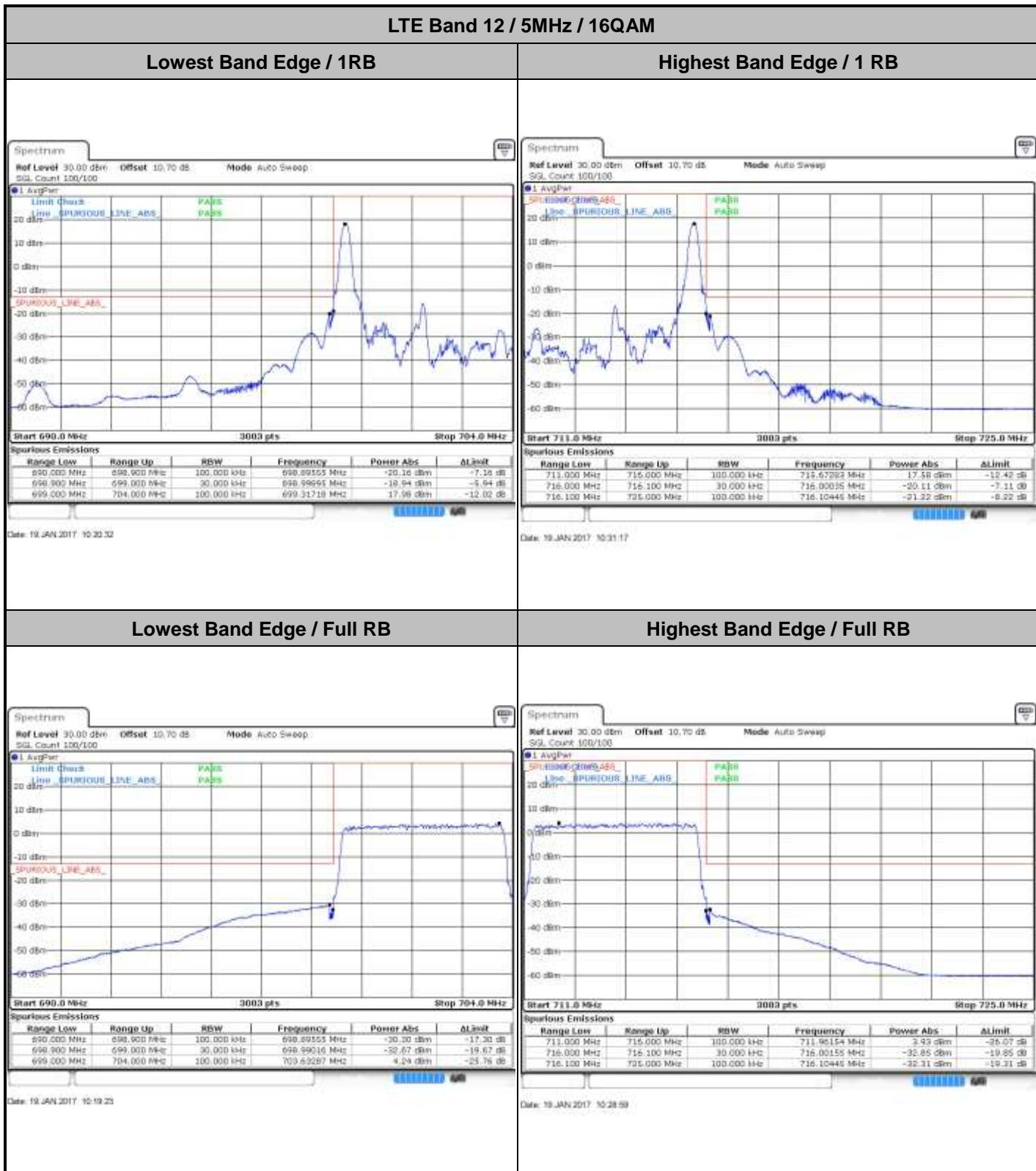


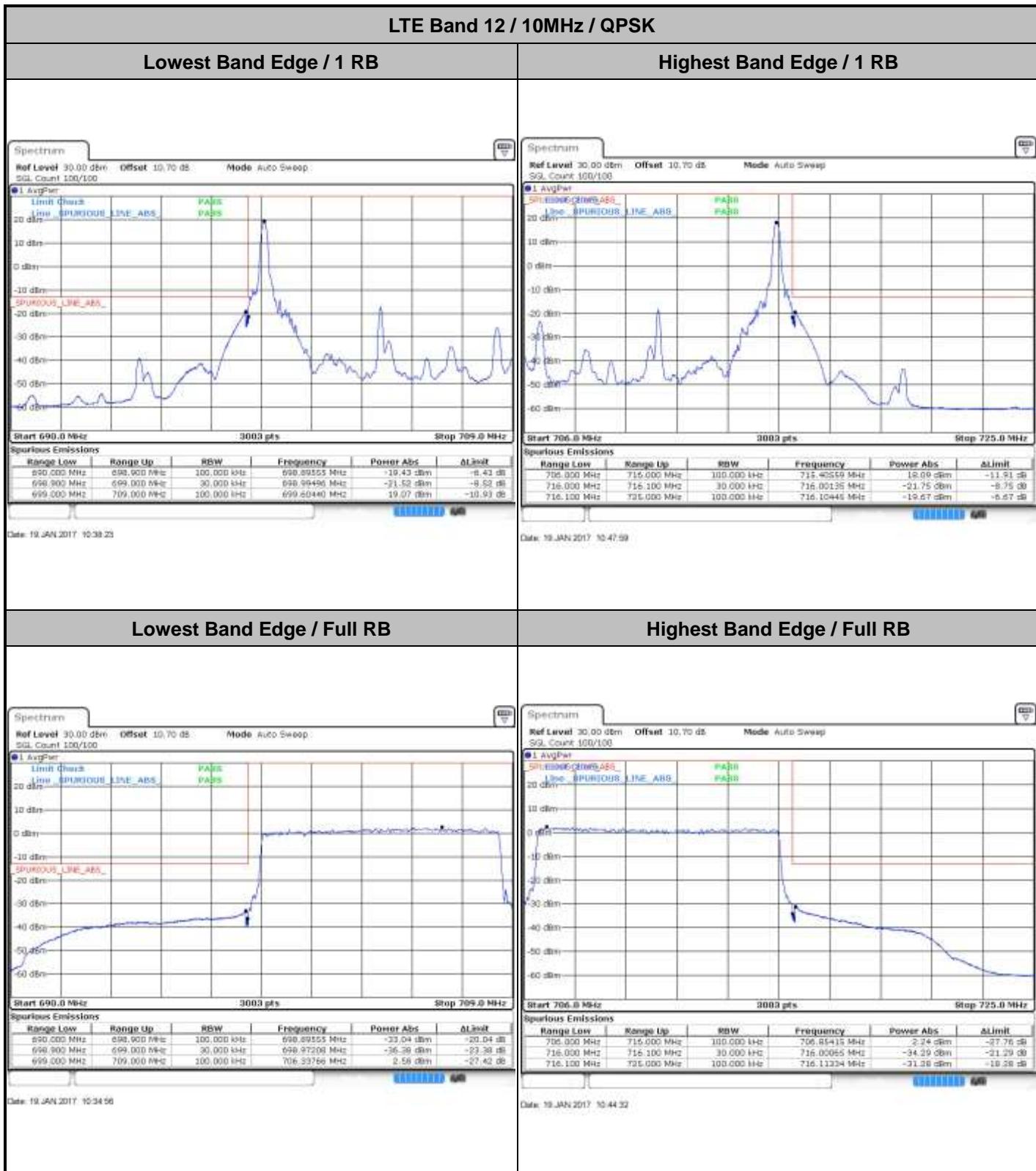


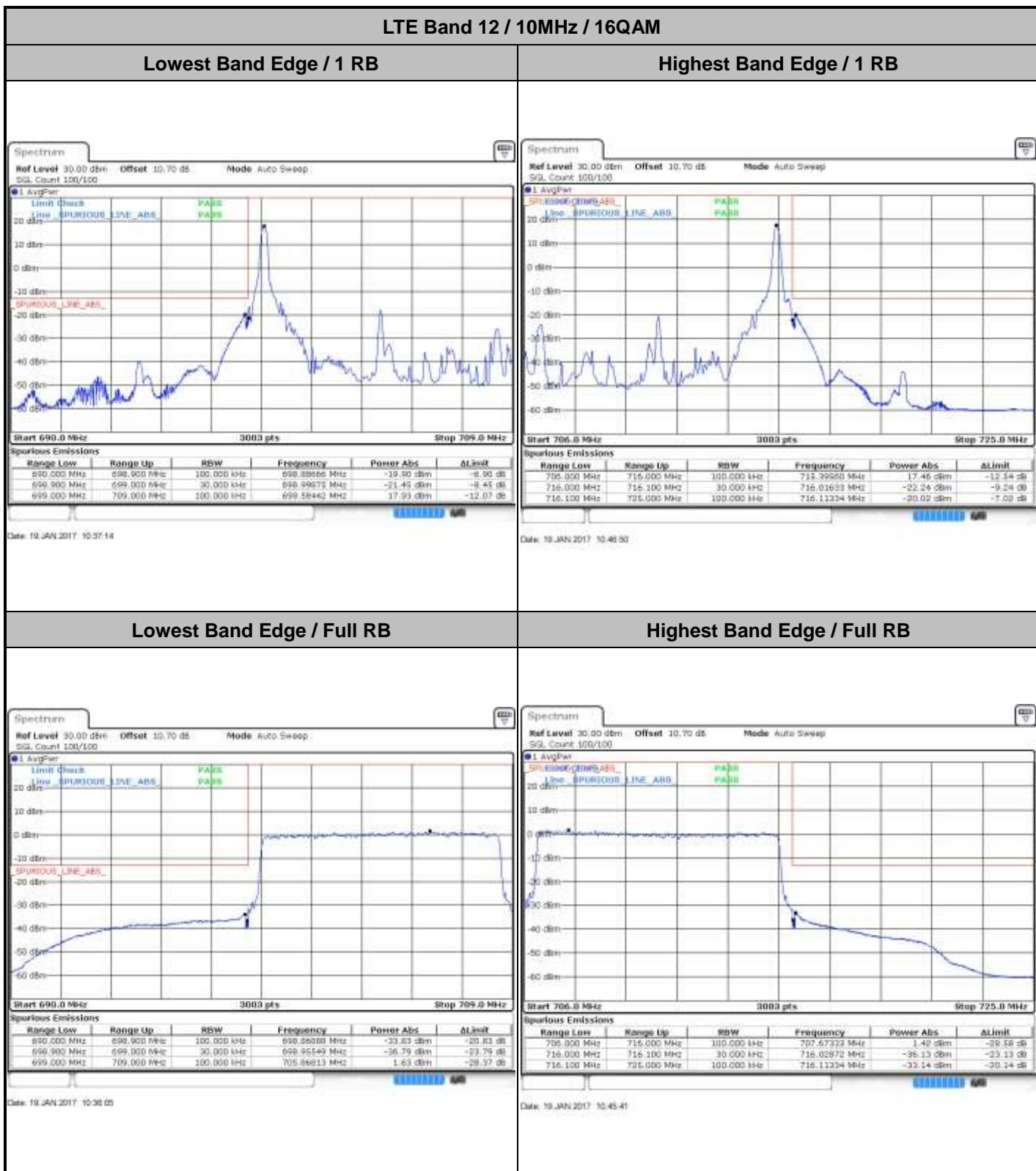














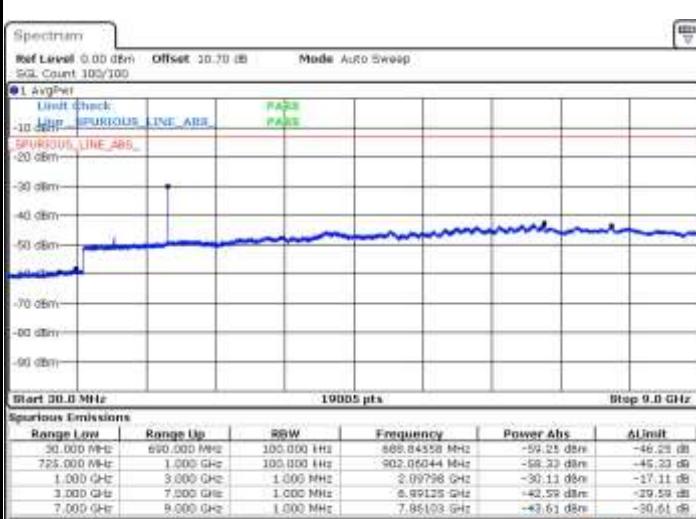
Conducted Spurious Emission



LTE Band 12 / 1.4MHz

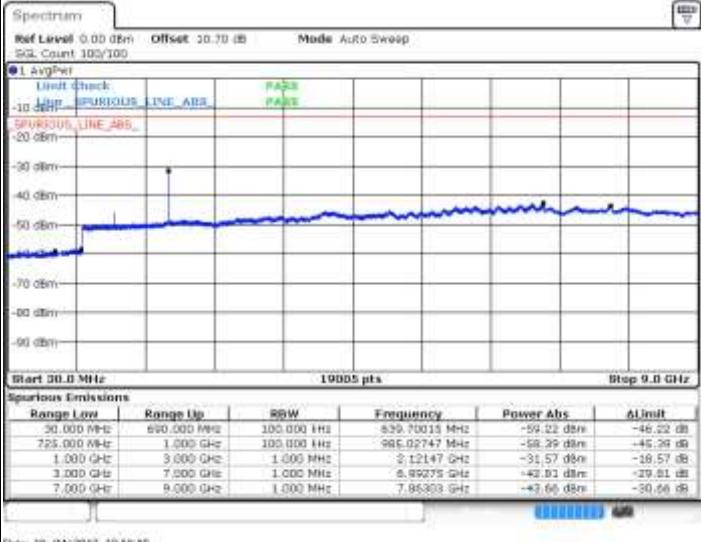
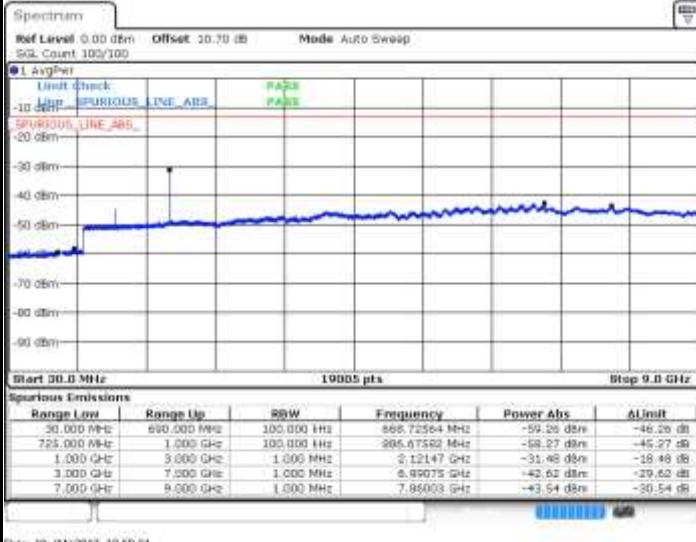
Lowest Channel / QPSK

Lowest Channel / 16QAM



Middle Channel / QPSK

Middle Channel / 16QAM

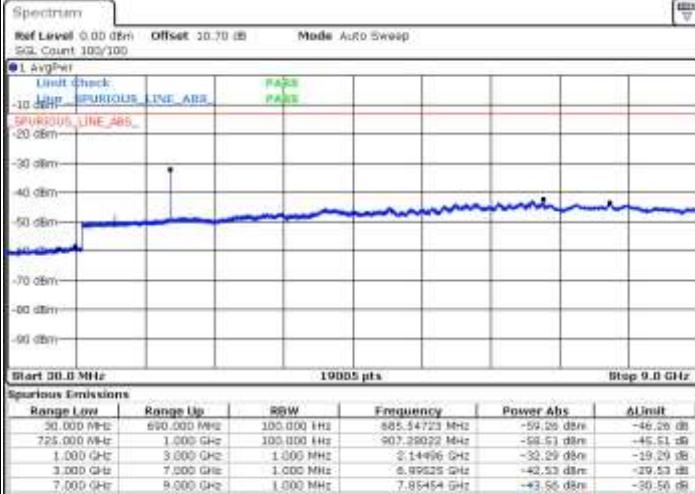
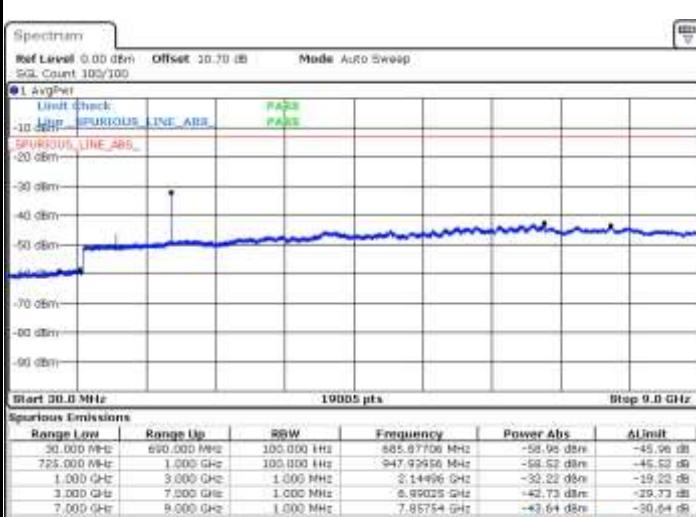




LTE Band 12 / 1.4MHz

Highest Channel / QPSK

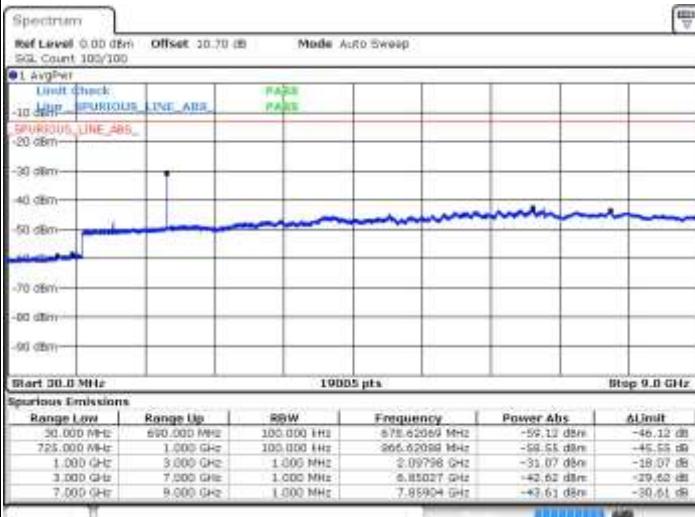
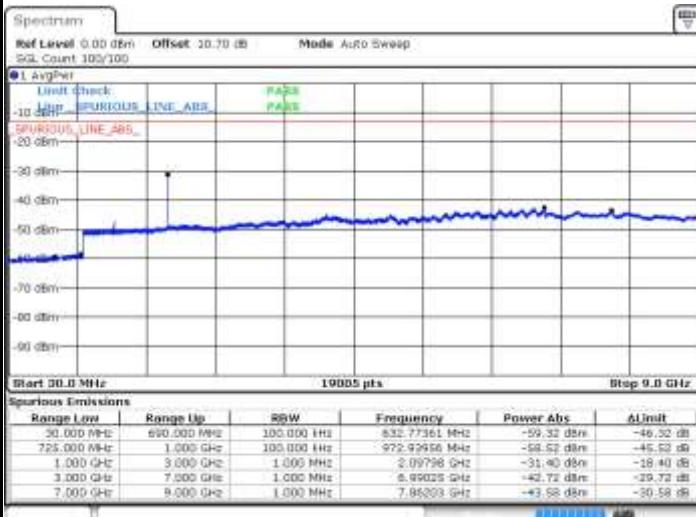
Highest Channel / 16QAM

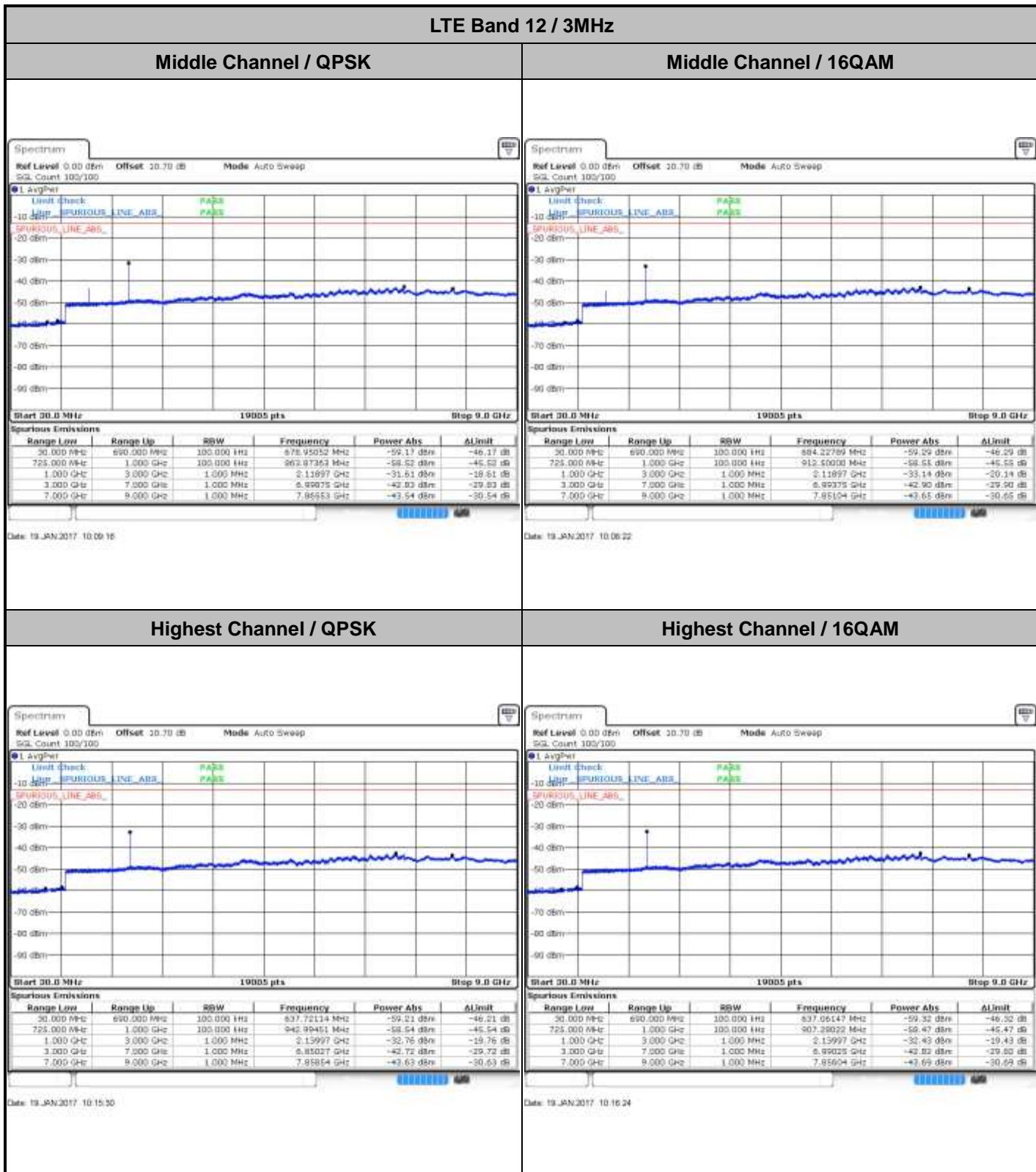


LTE Band 12 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



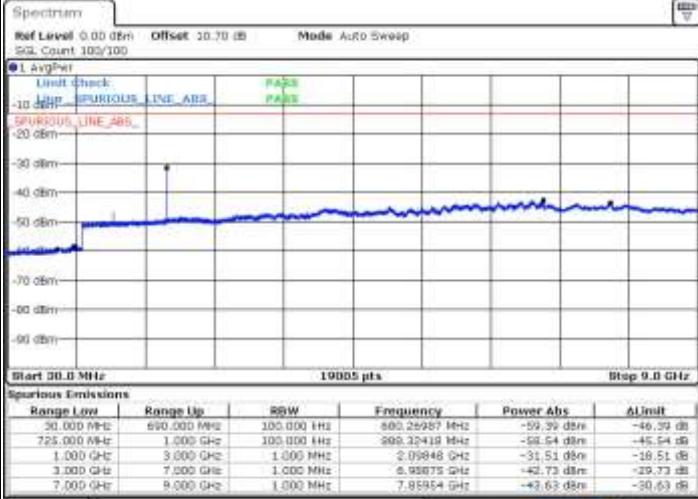
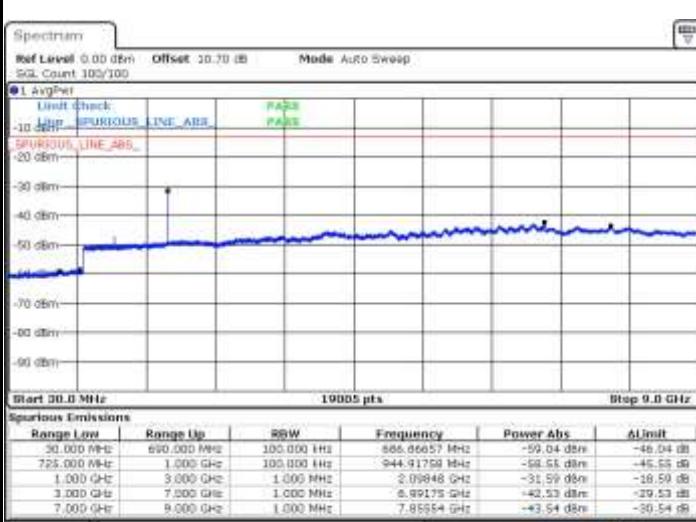




LTE Band 12 / 5MHz

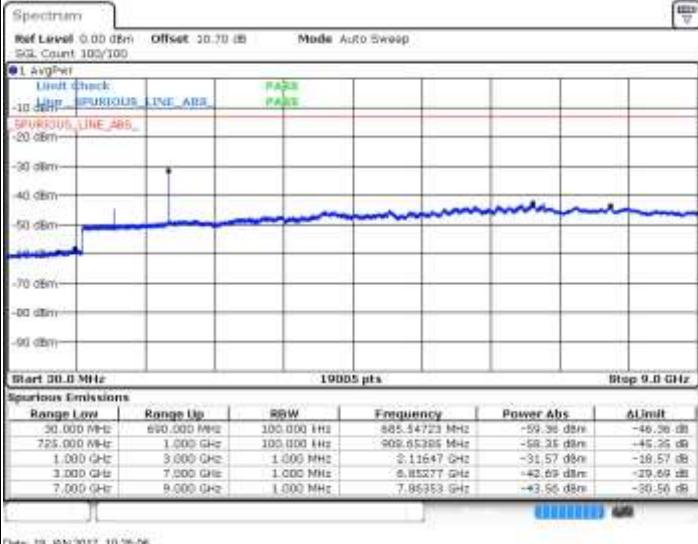
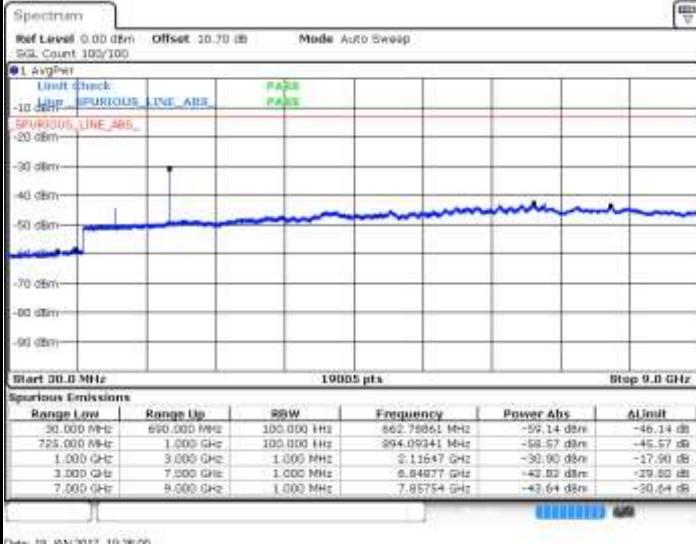
Lowest Channel / QPSK

Lowest Channel / 16QAM



Middle Channel / QPSK

Middle Channel / 16QAM

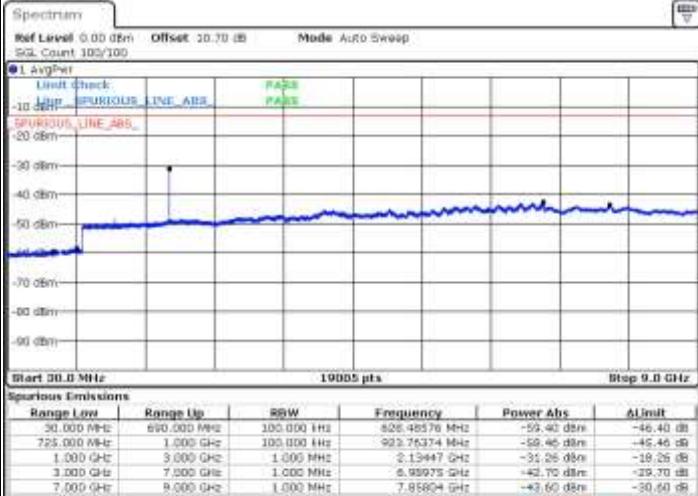
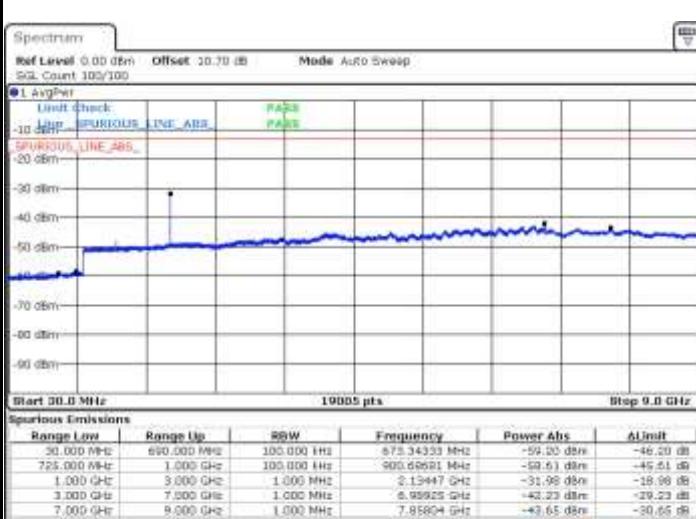




LTE Band 12 / 5MHz

Highest Channel / QPSK

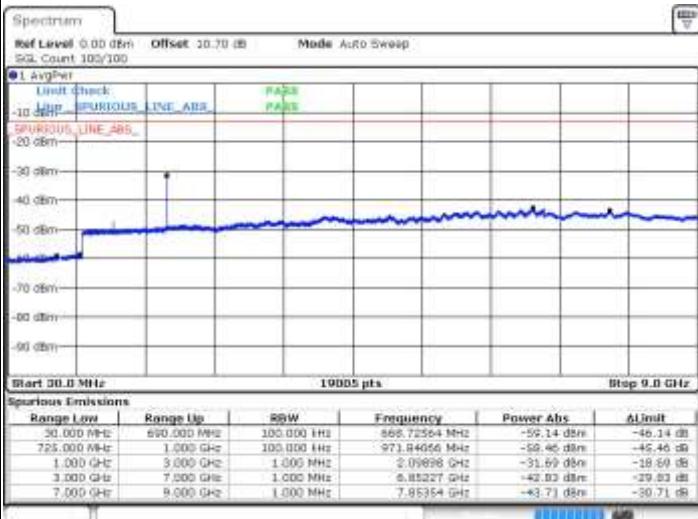
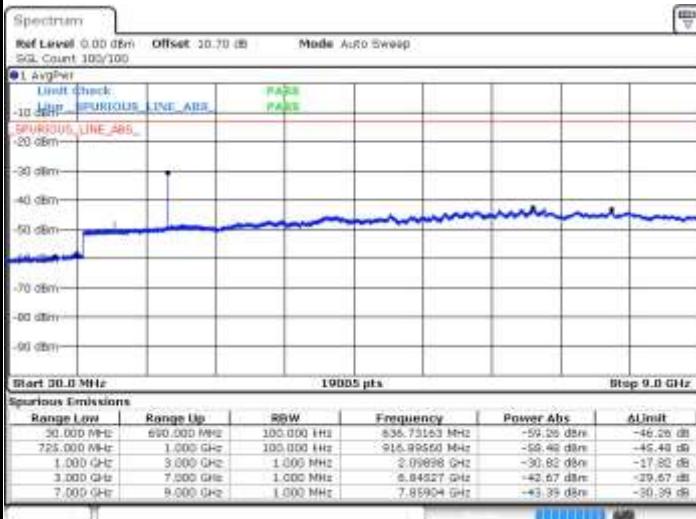
Highest Channel / 16QAM



LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

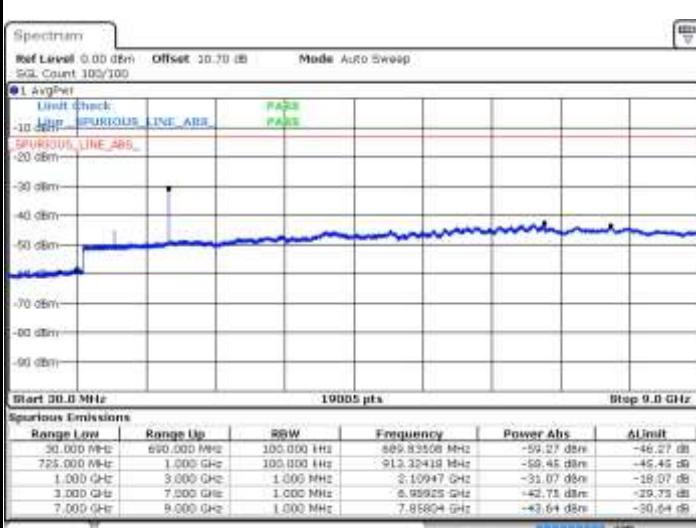




LTE Band 12 / 10MHz

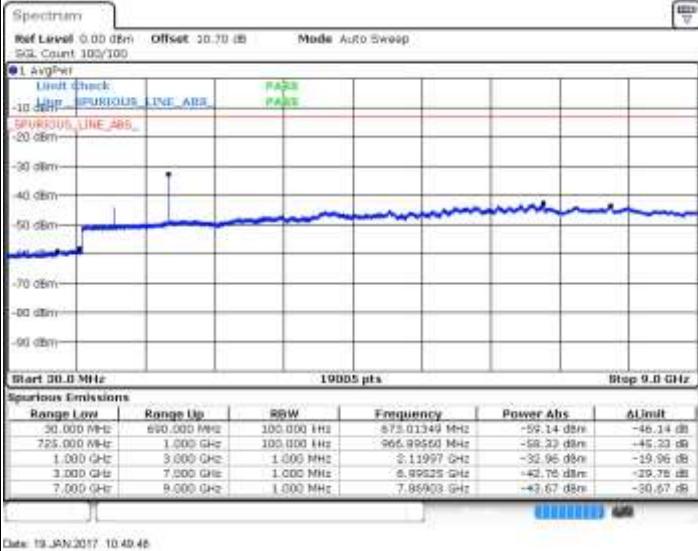
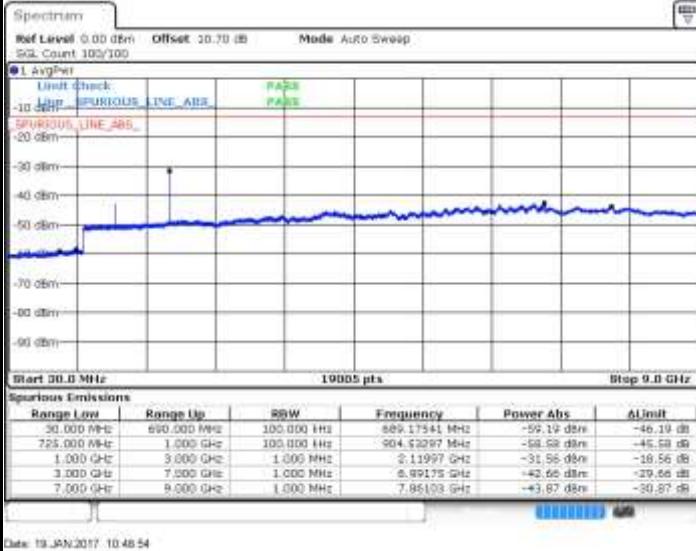
Middle Channel / QPSK

Middle Channel / 16QAM



Highest Channel / QPSK

Highest Channel / 16QAM





Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0028	PASS
40	Normal Voltage	0.0073	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0073	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0085	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

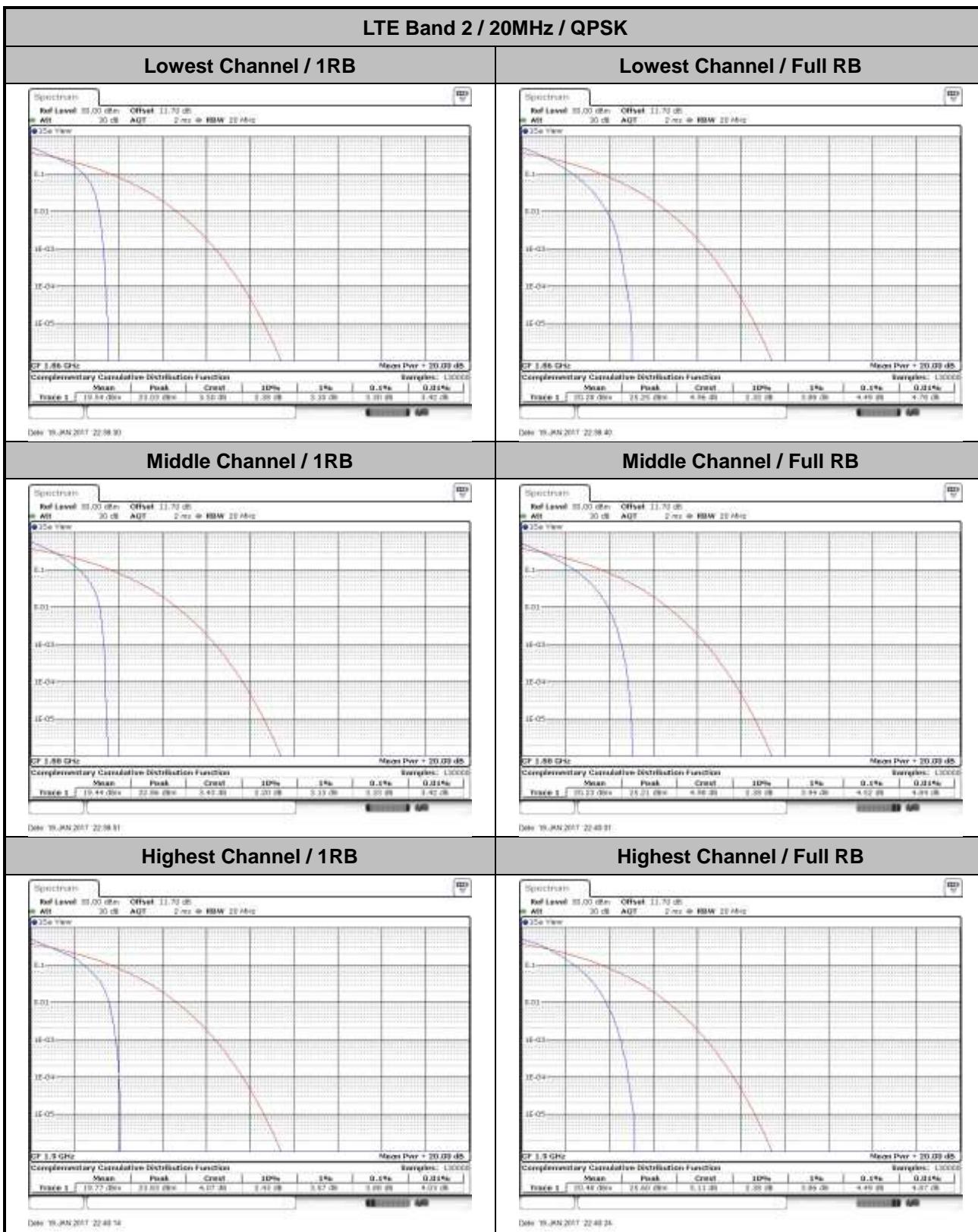


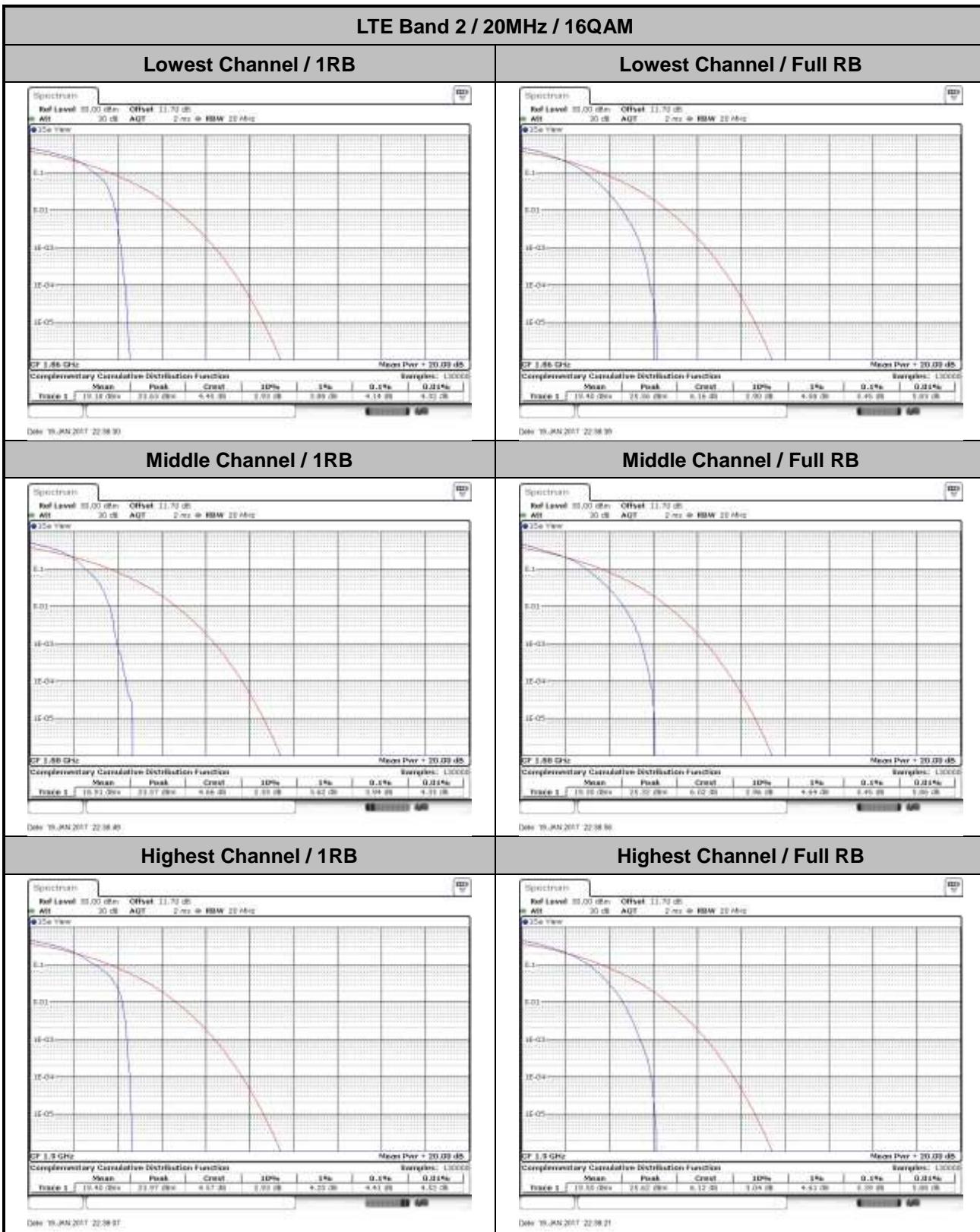
LTE Band 2

<Ant. 2>

Peak-to-Average Ratio

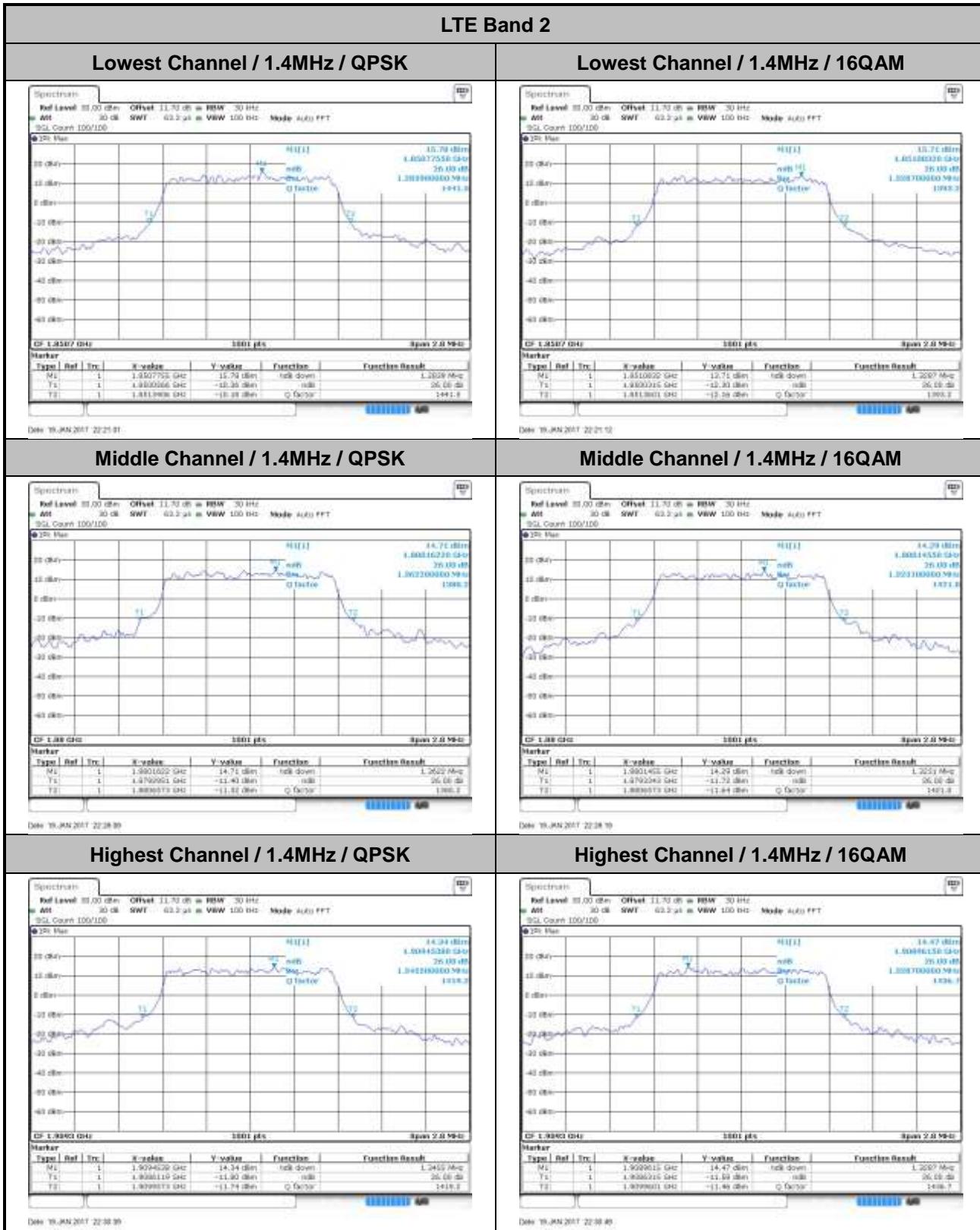
Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.3	4.49	4.14	5.45	PASS
Middle CH	3.33	4.52	3.94	5.45	
Highest CH	3.88	4.49	4.41	5.39	

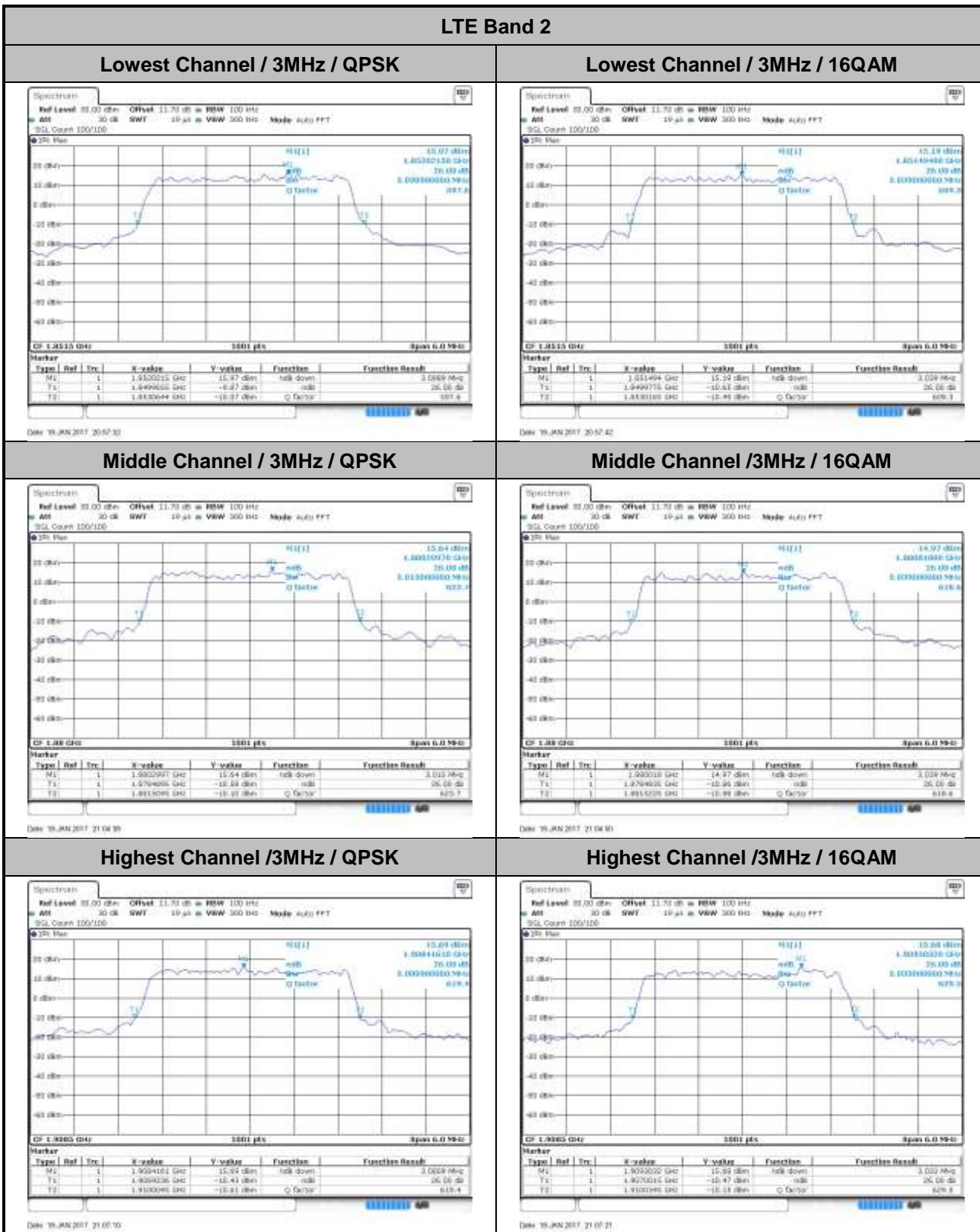


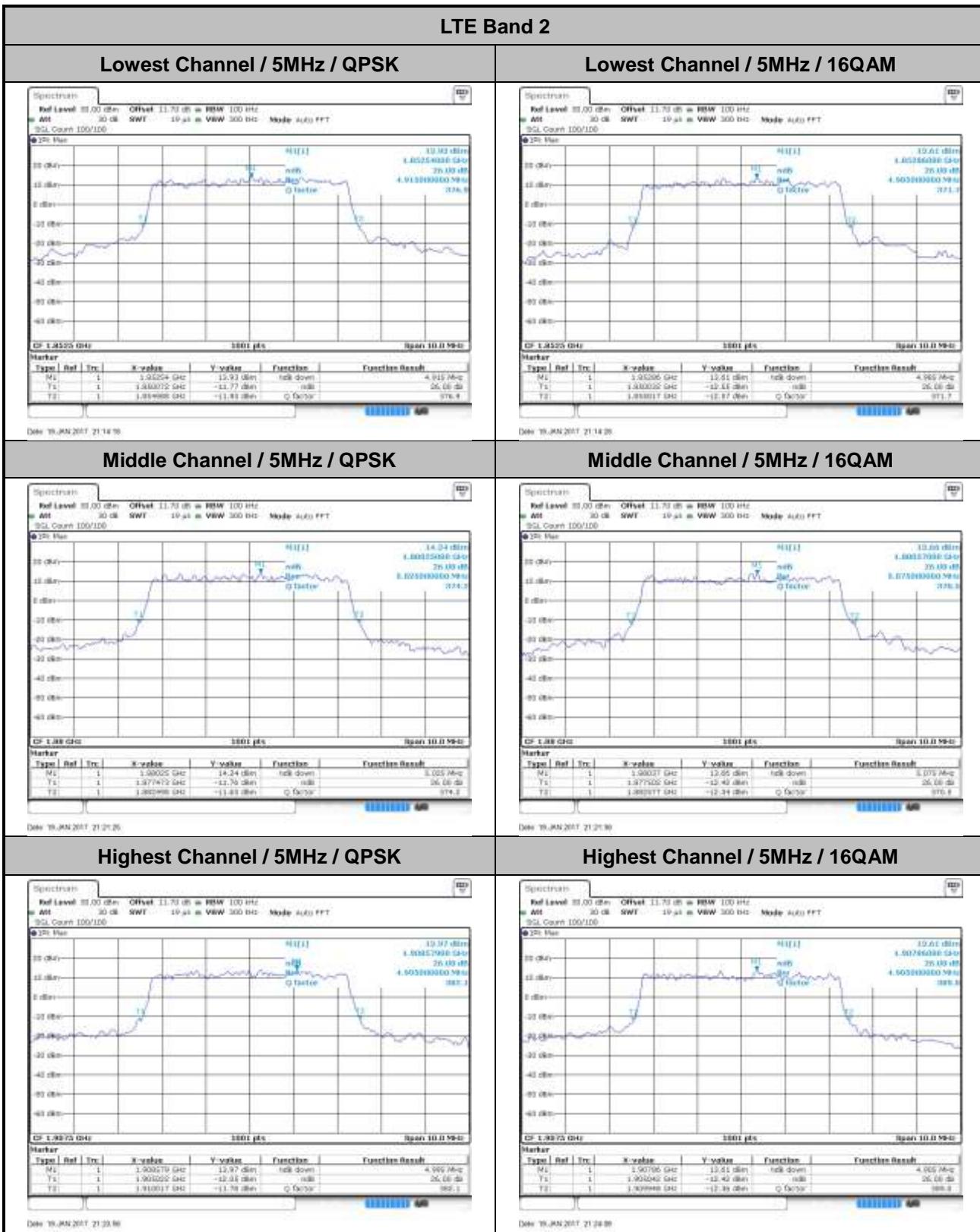


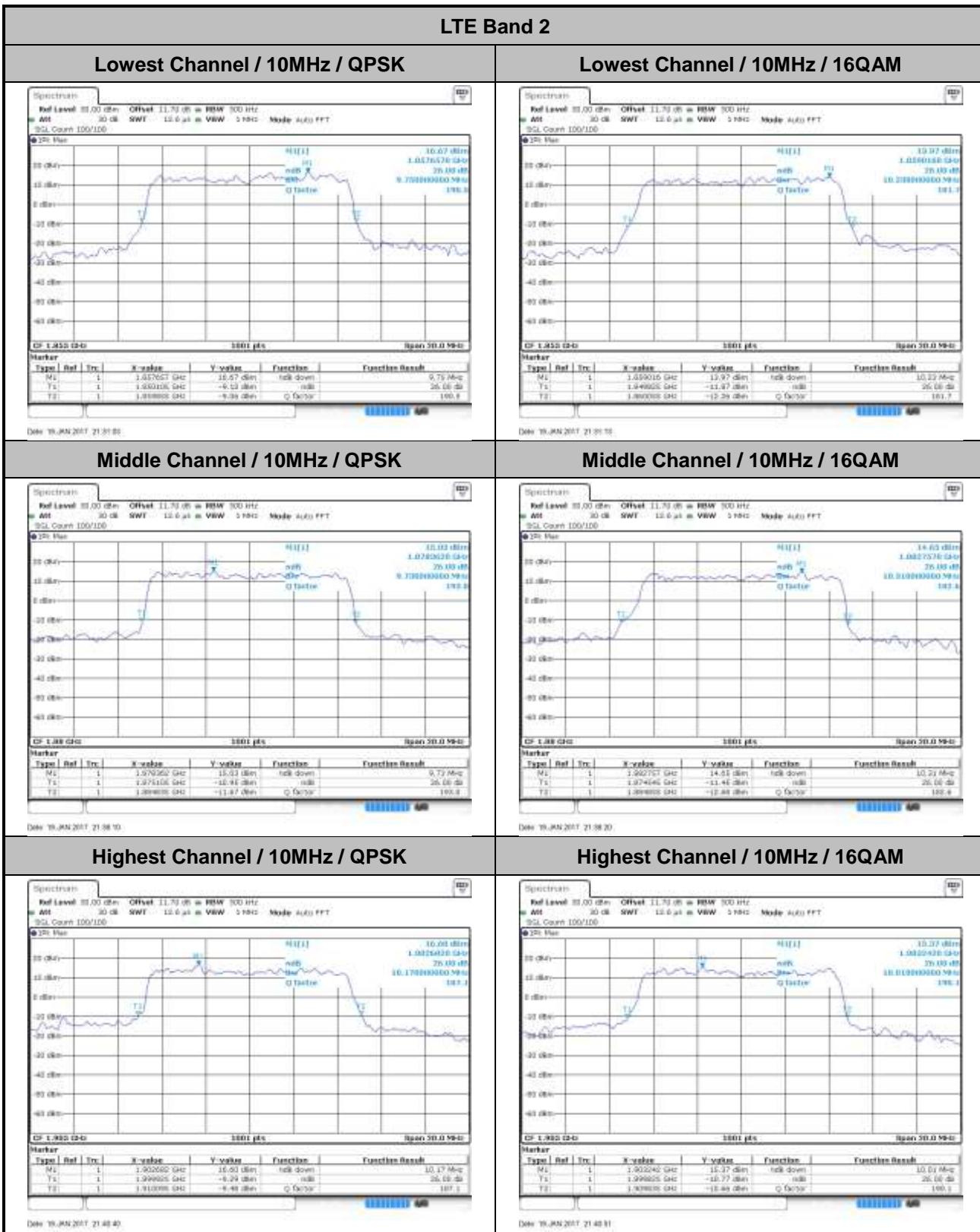
**26dB Bandwidth**

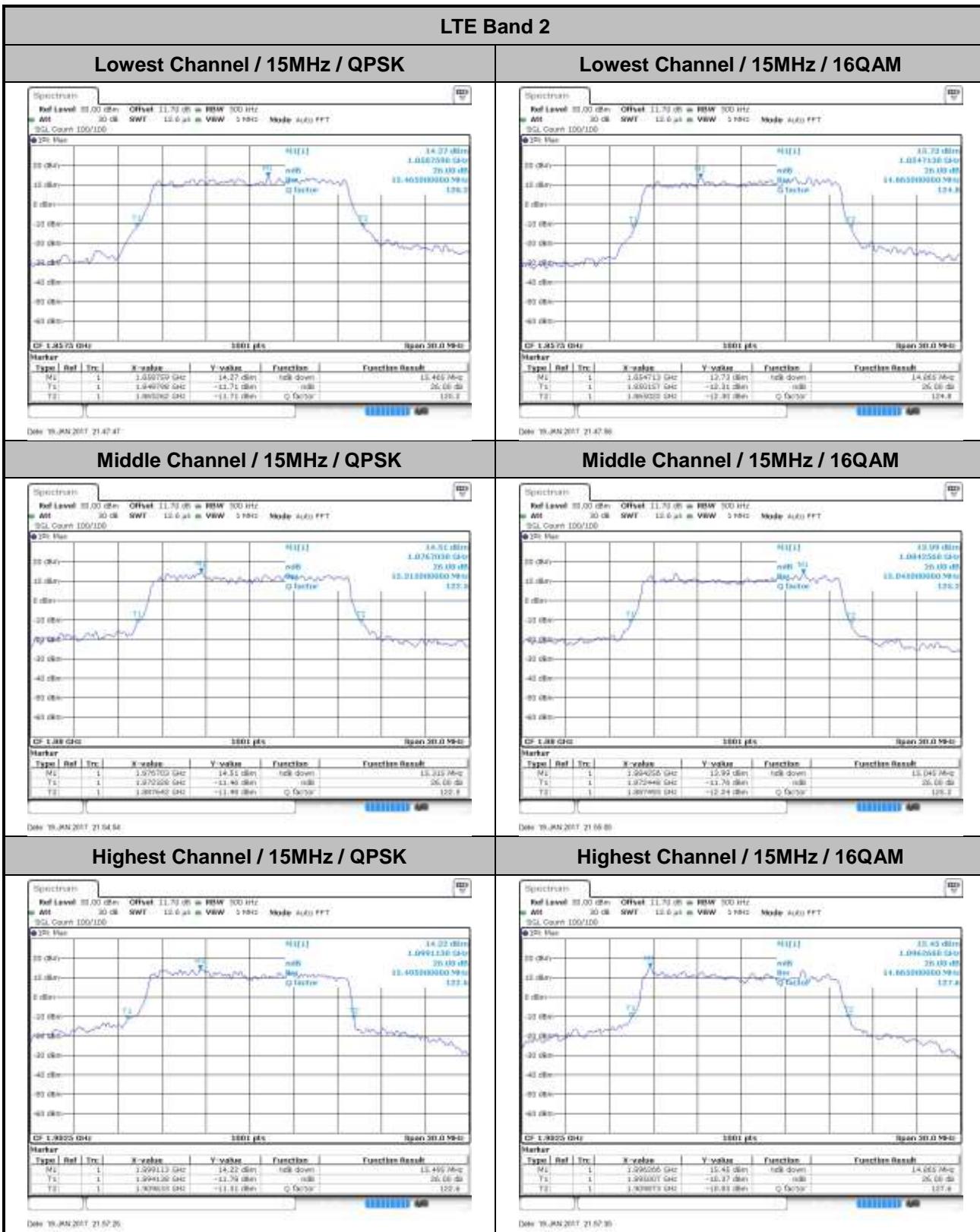
Mode	LTE Band 2 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.28	1.33	3.10	3.04	4.92	4.99	9.75	10.23	15.47	14.87	20.14	20.42
Middle CH	1.36	1.32	3.02	3.04	5.03	5.08	9.73	10.31	15.32	15.05	20.22	20.26
Highest CH	1.35	1.33	3.08	3.03	5.00	4.91	10.17	10.01	15.50	14.87	20.18	20.14

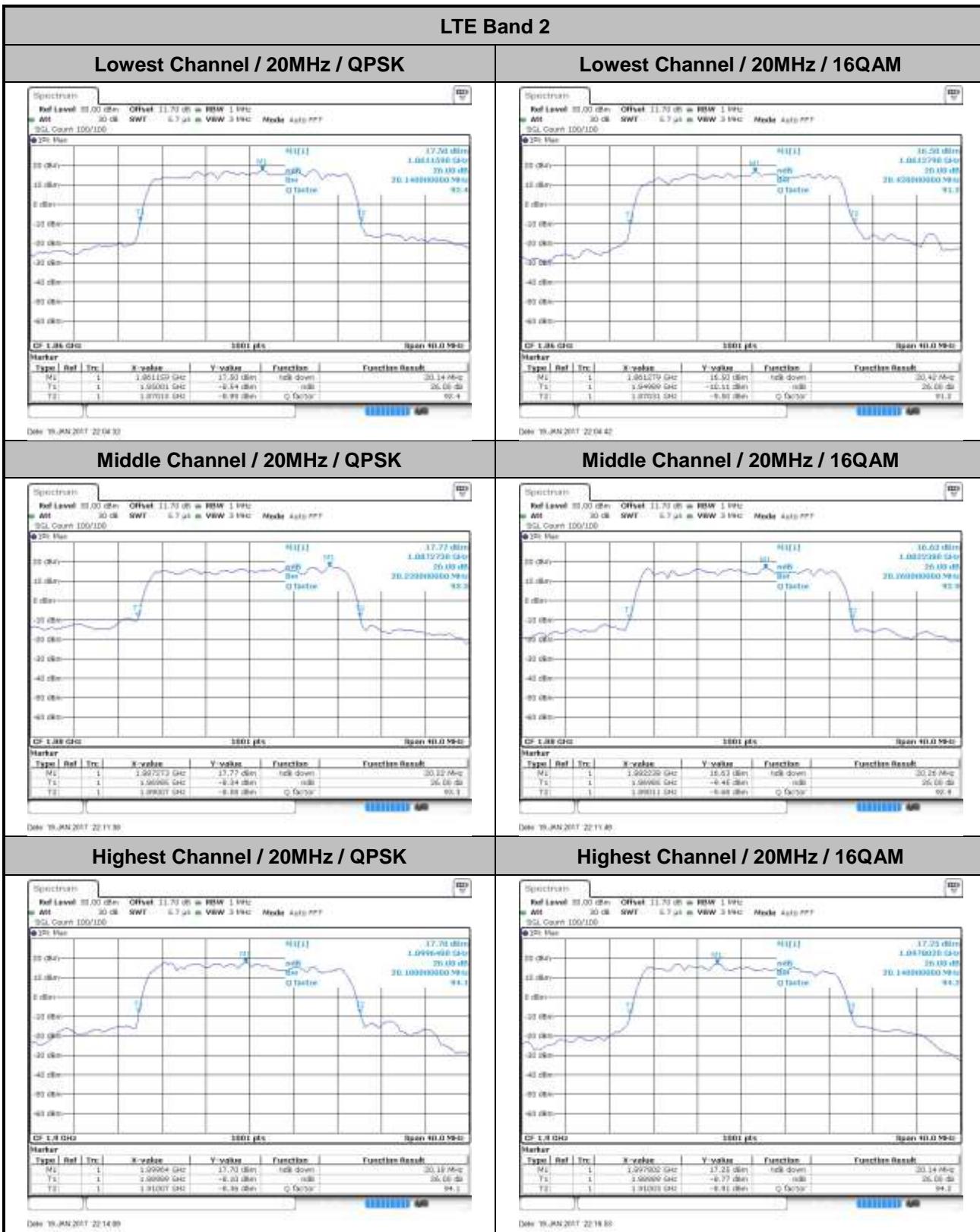






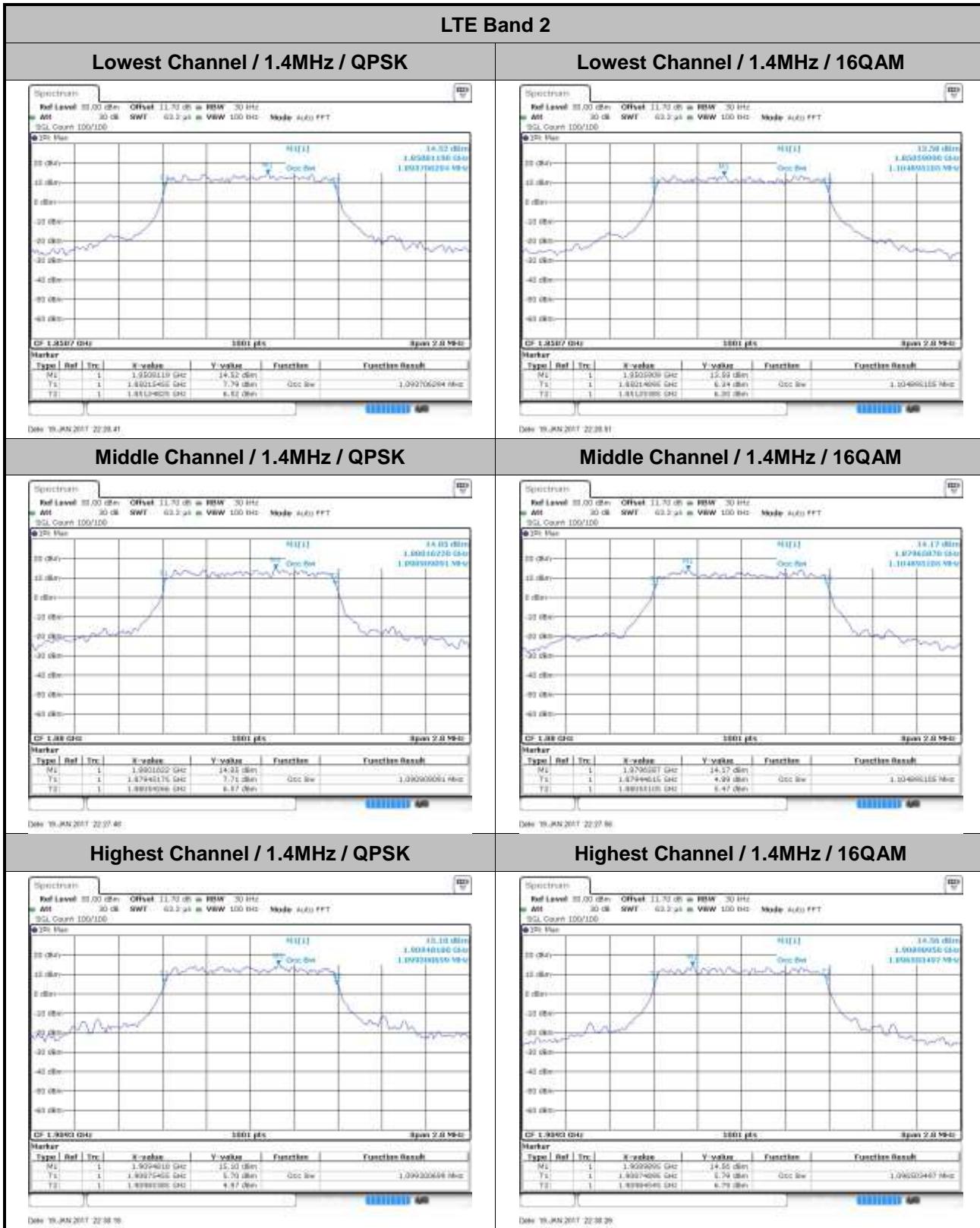


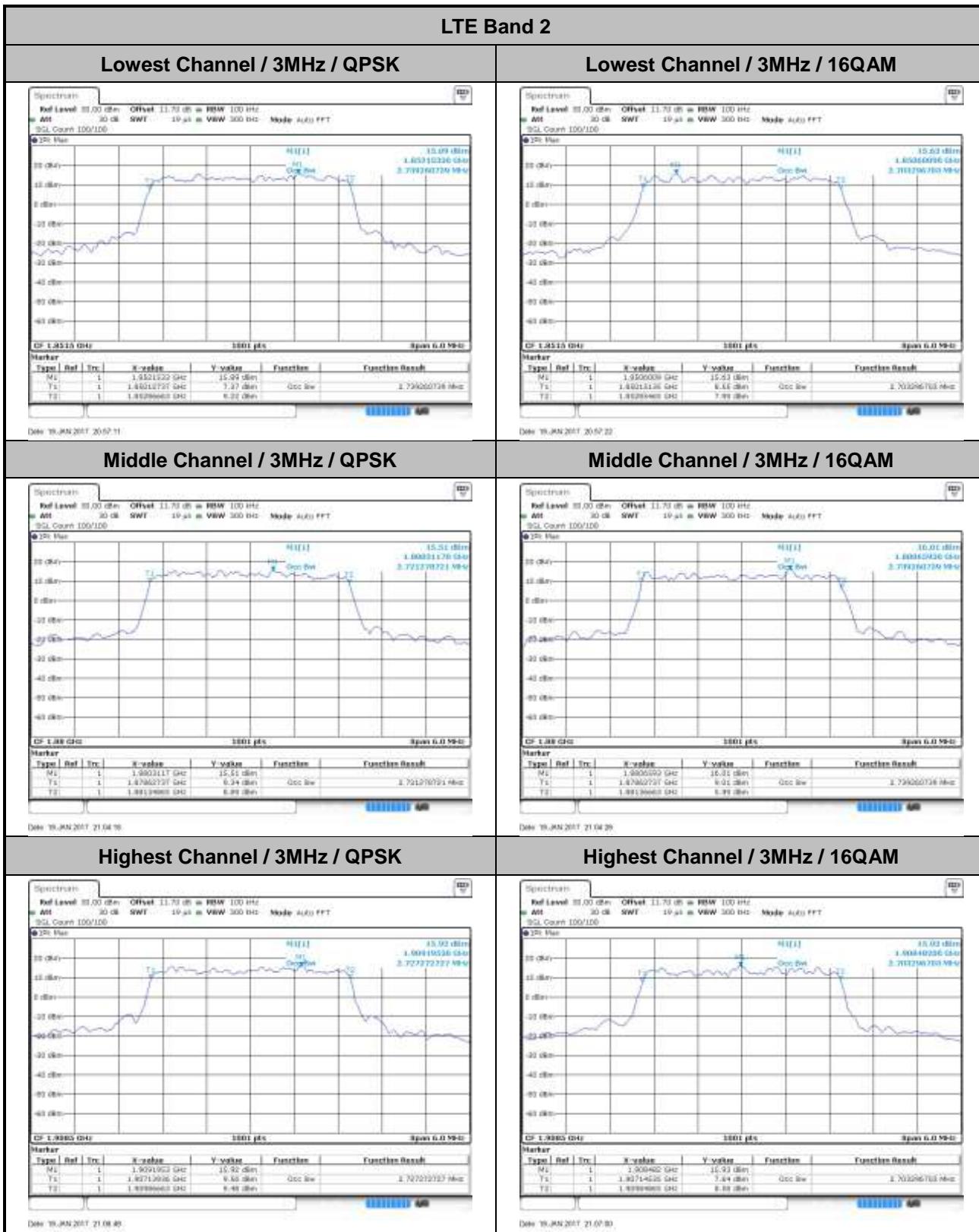


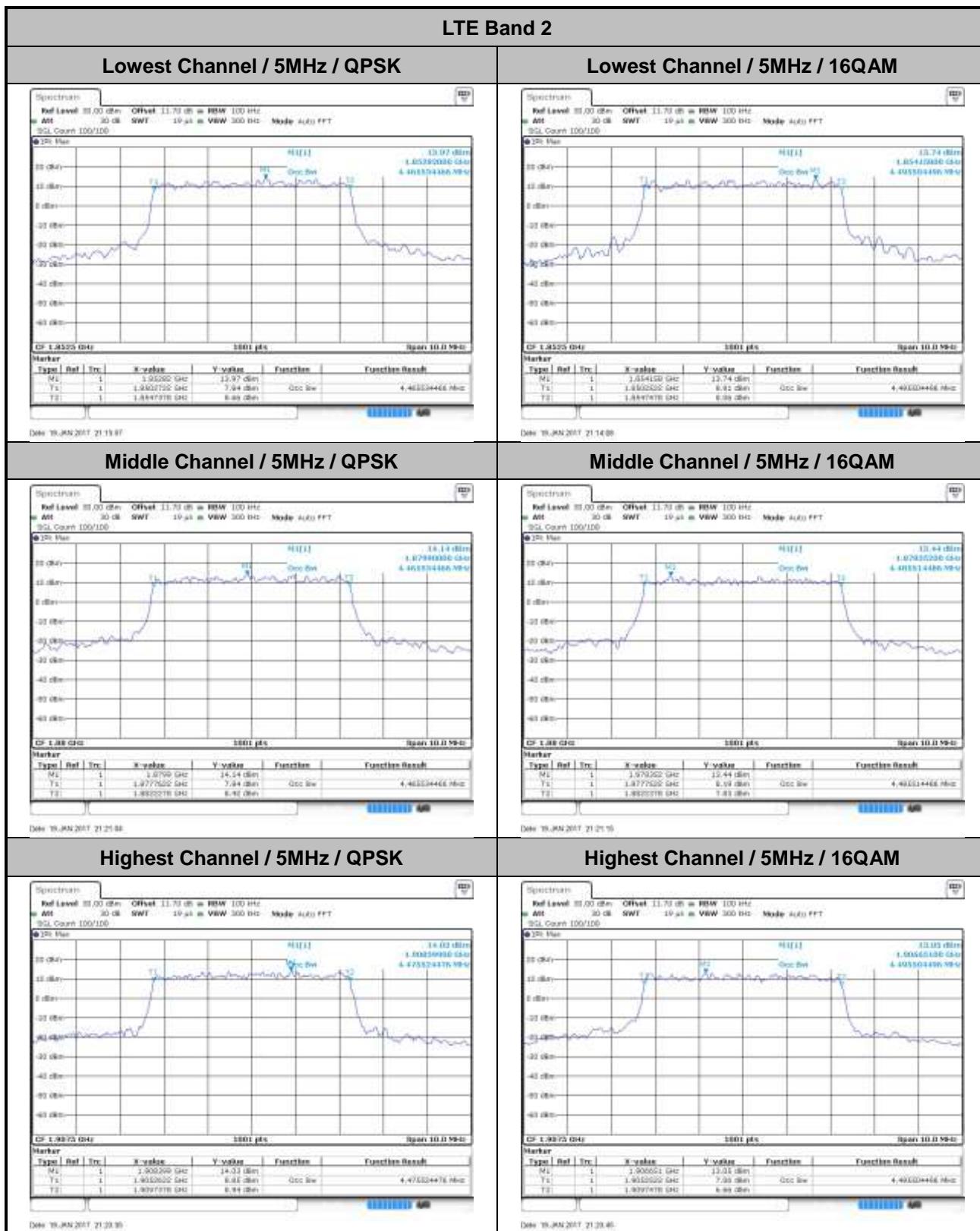


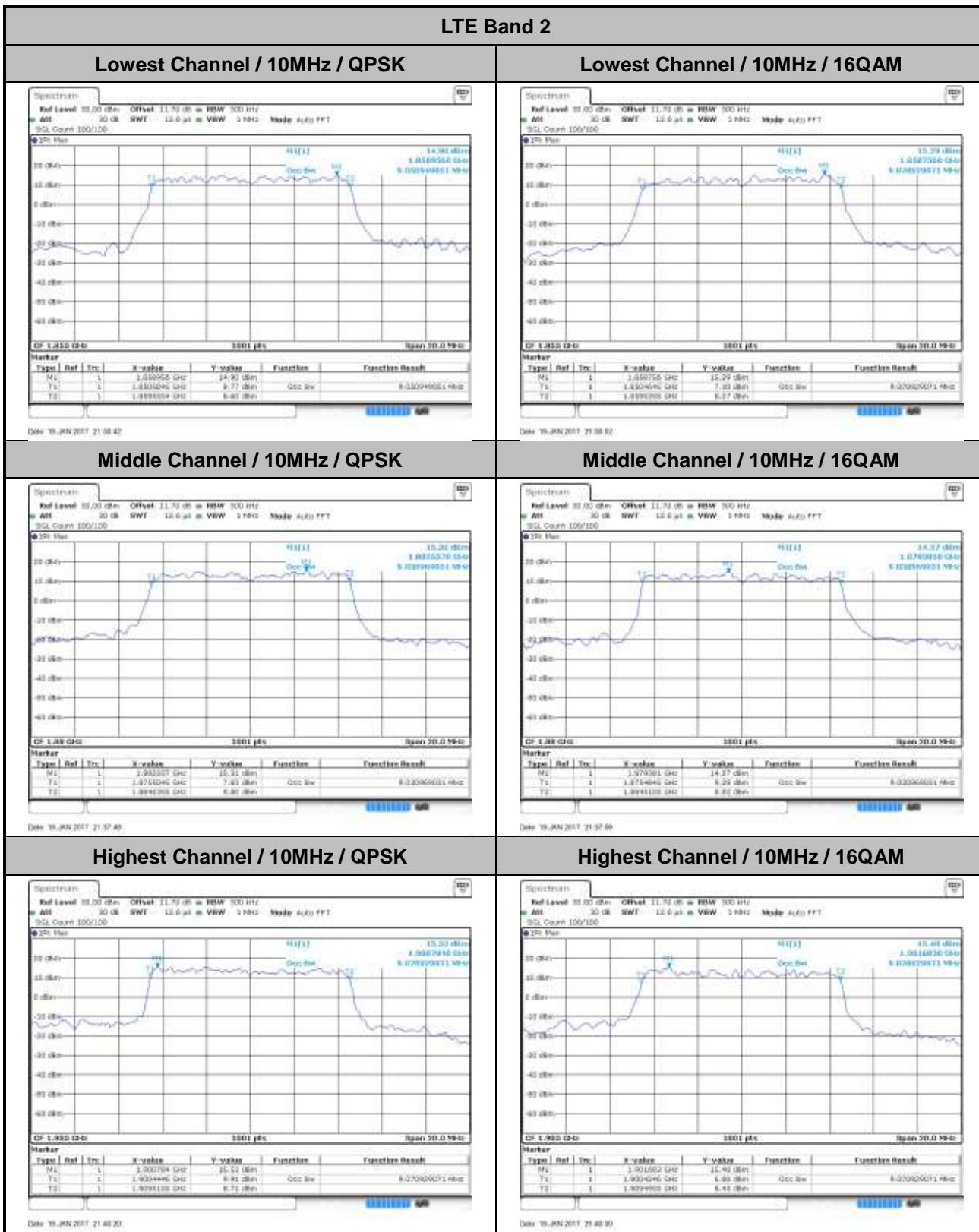
**Occupied Bandwidth**

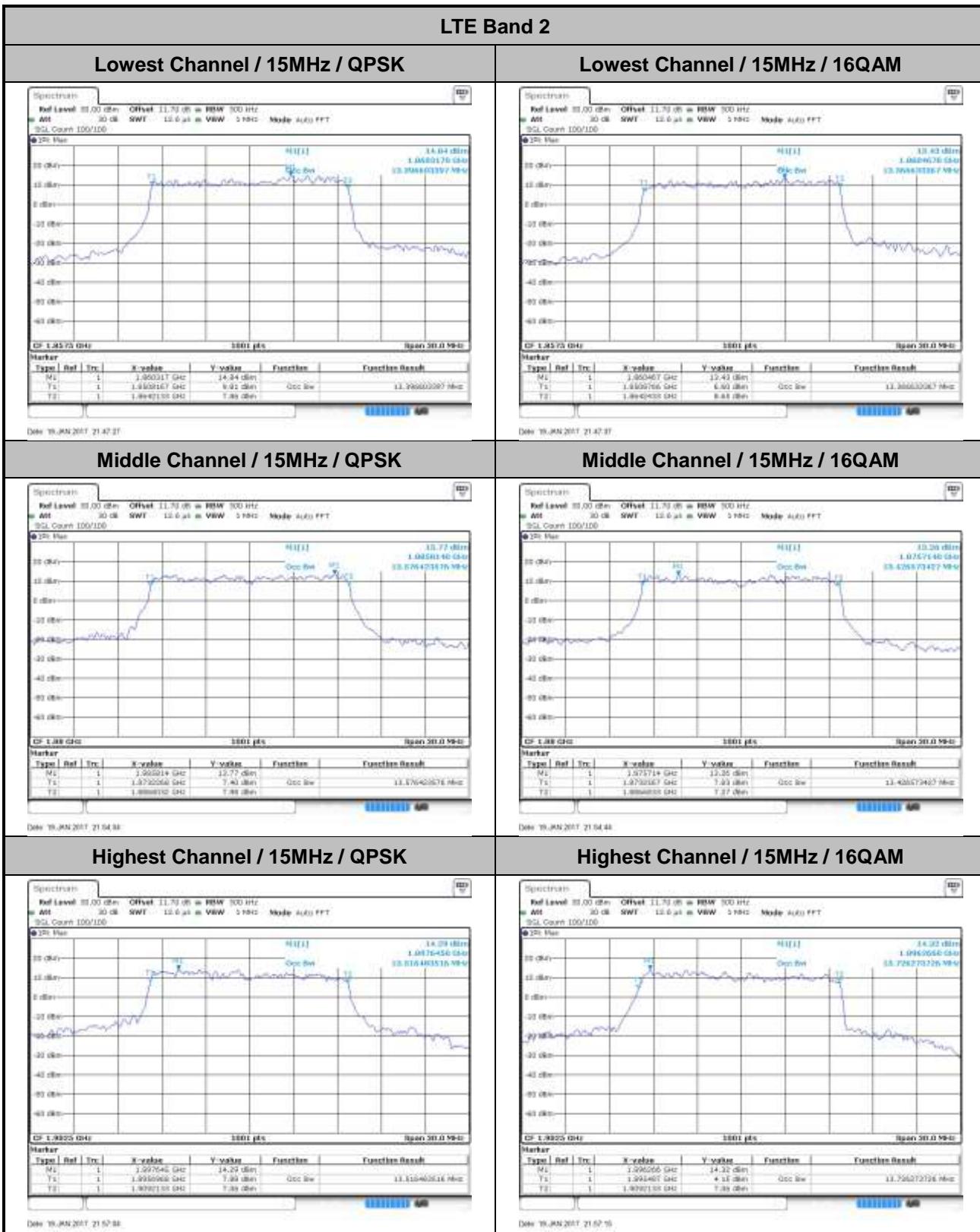
Mode	LTE Band 2 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.1	2.74	2.7	4.47	4.5	9.05	9.07	13.4	13.37	18.3	18.1
Middle CH	1.09	1.1	2.72	2.74	4.47	4.49	9.03	9.03	13.58	13.43	18.42	18.54
Highest CH	1.1	1.1	2.73	2.7	4.48	4.5	9.07	9.07	13.52	13.73	18.26	18.22

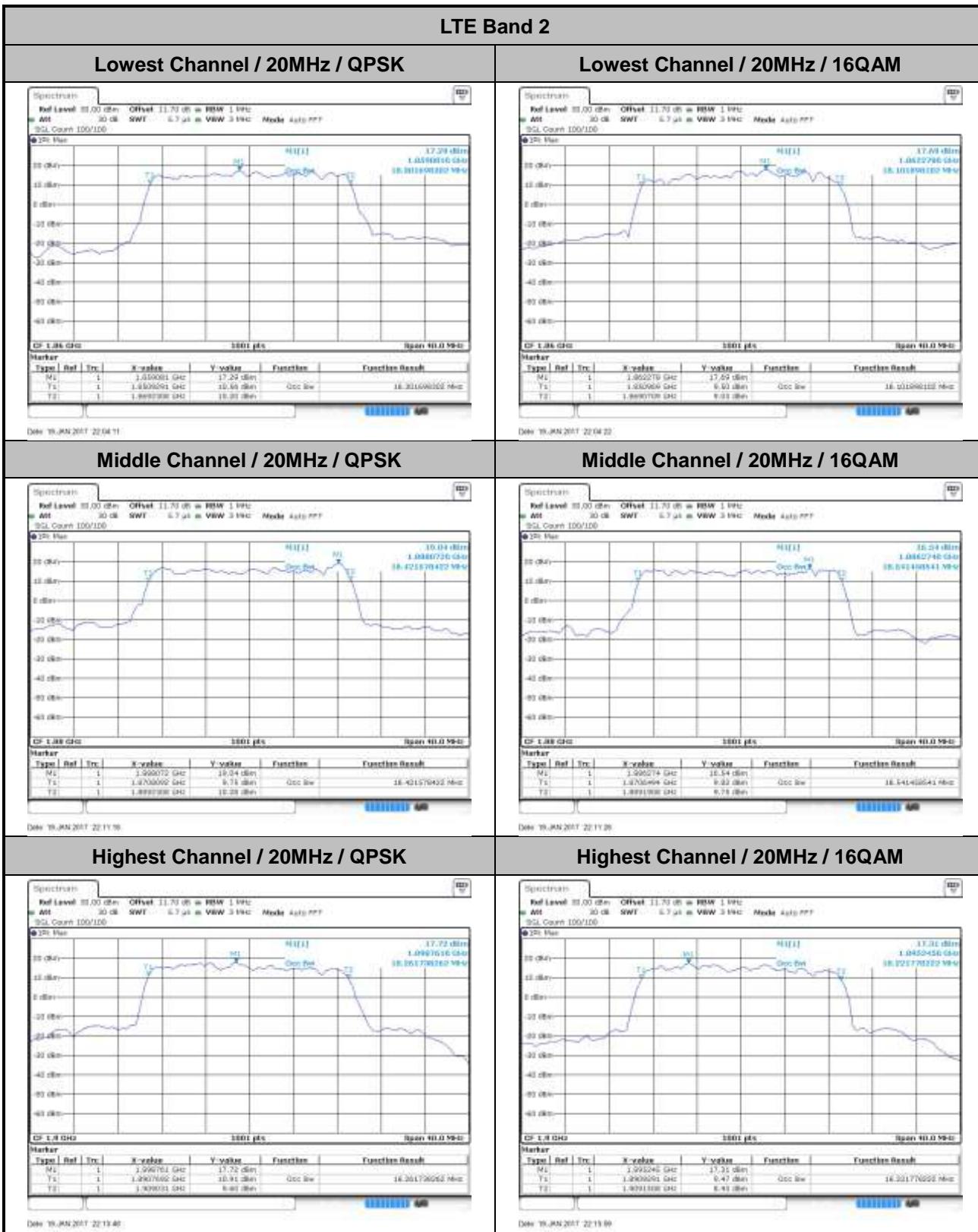






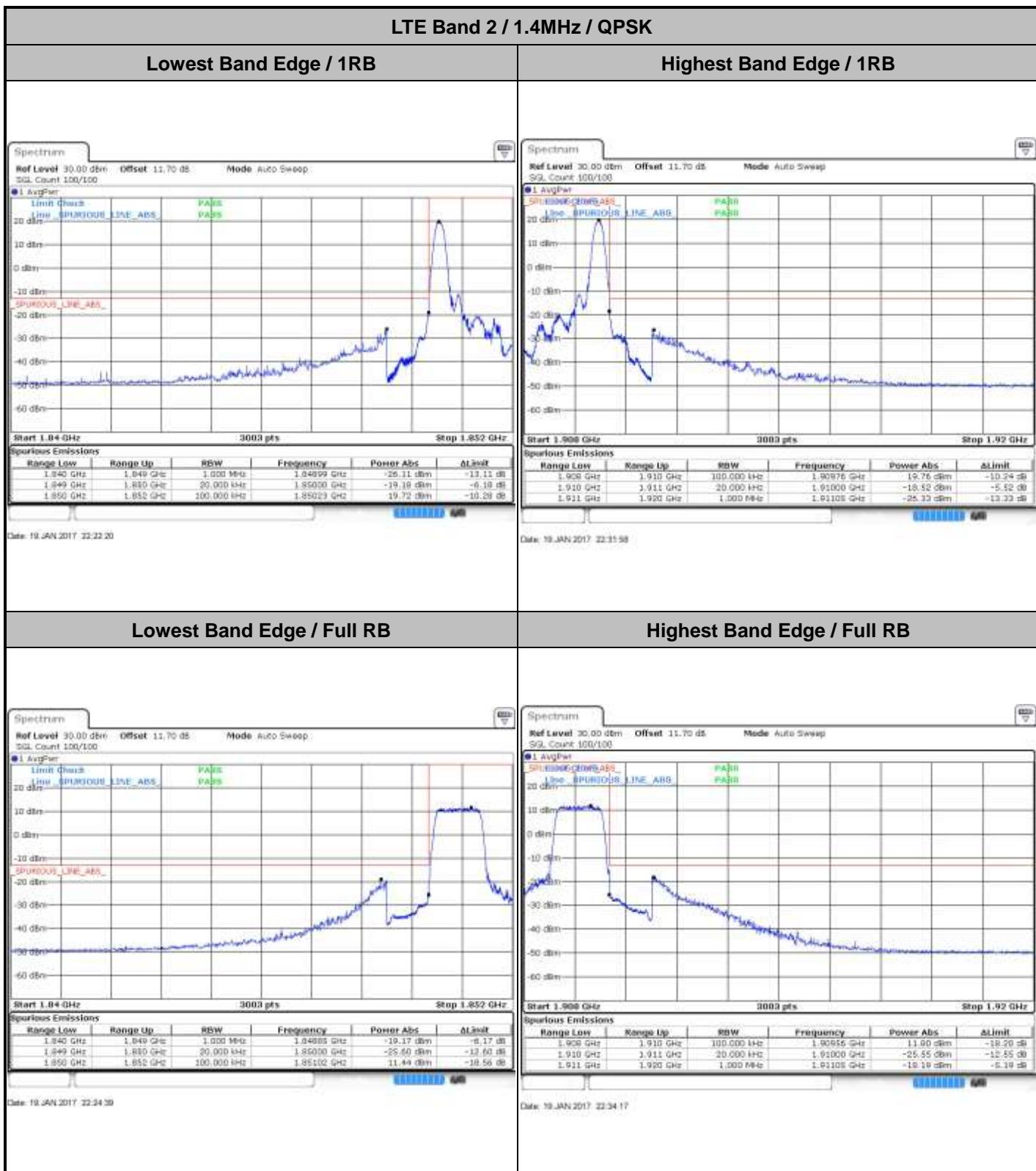


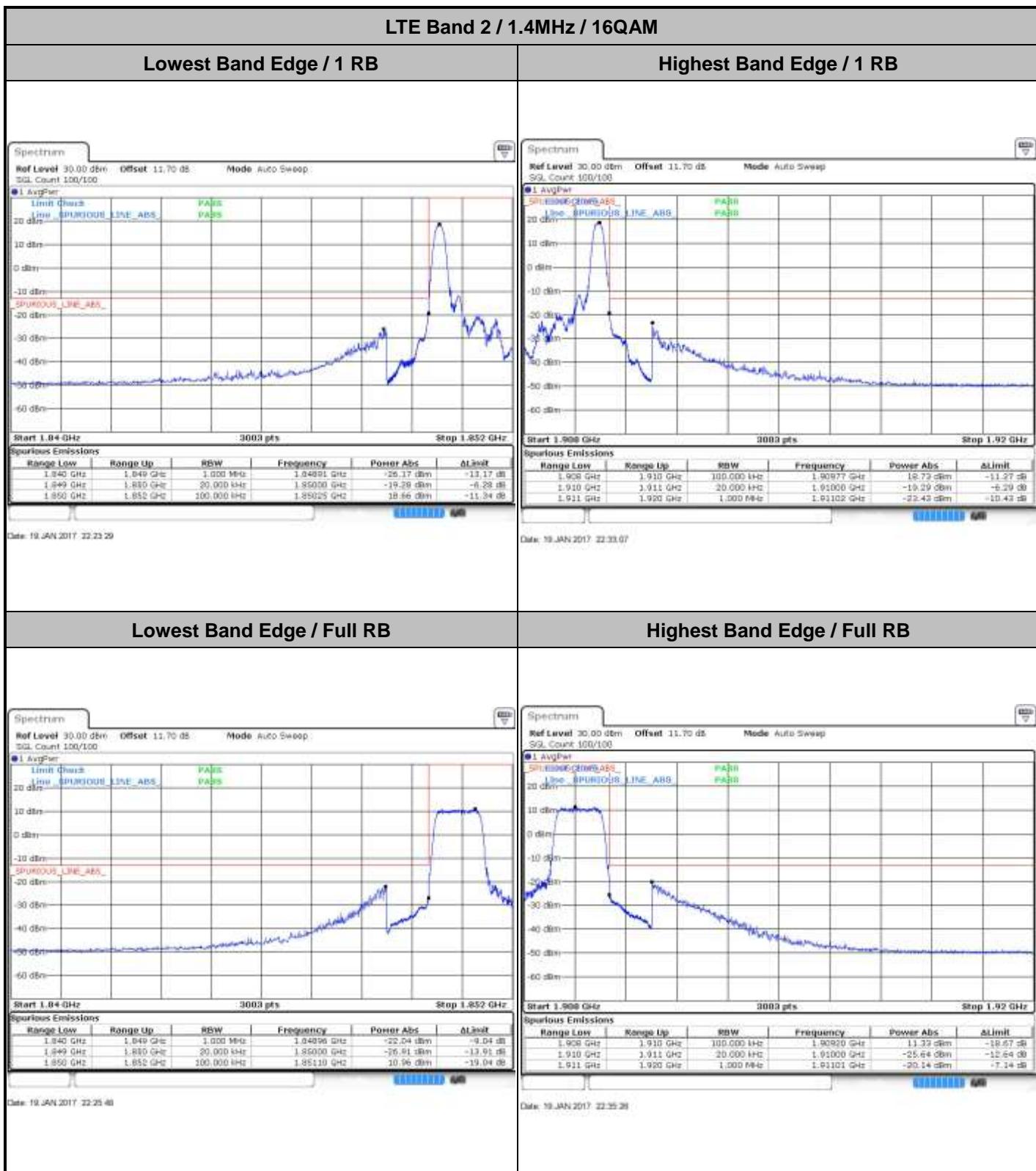


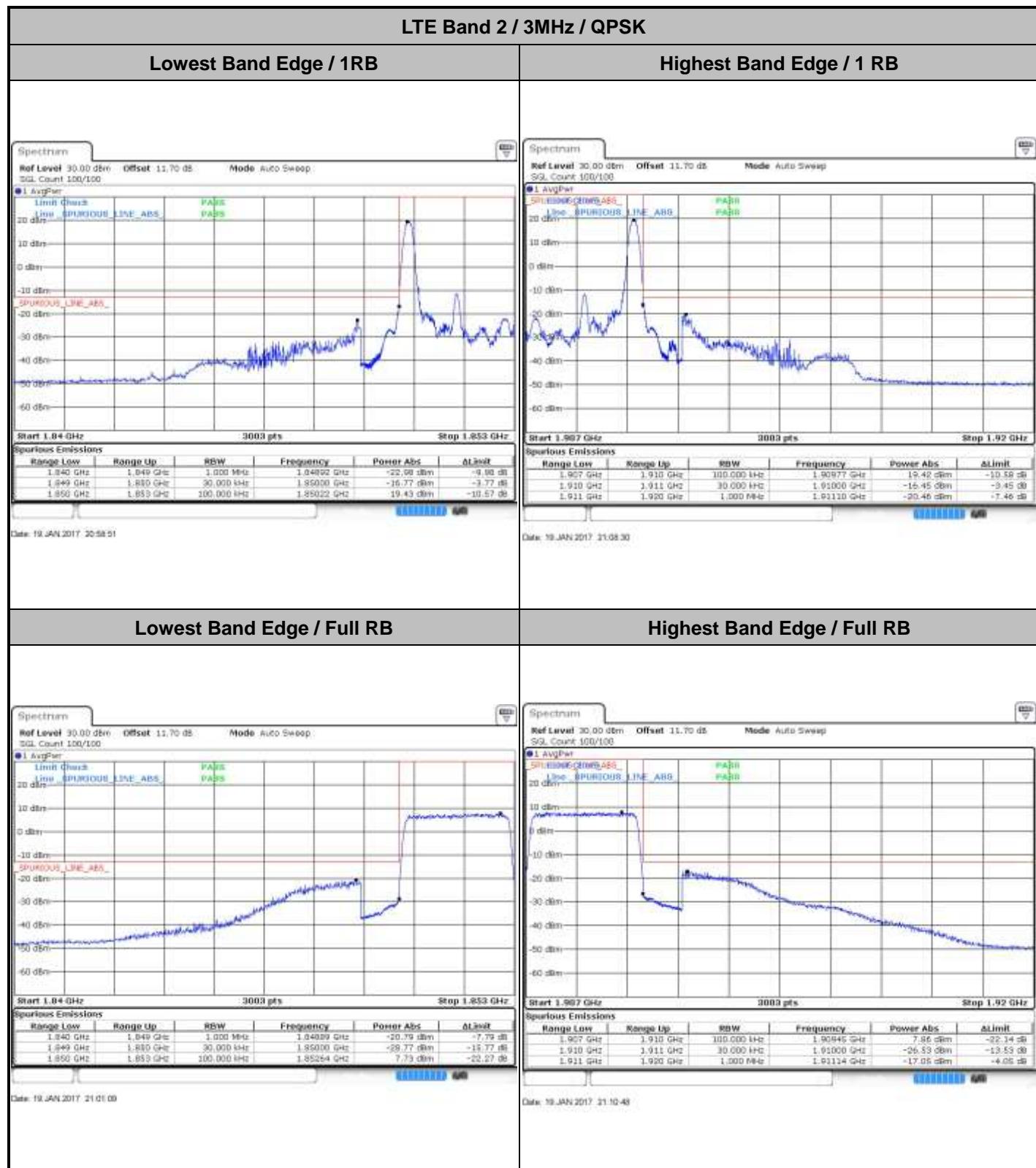


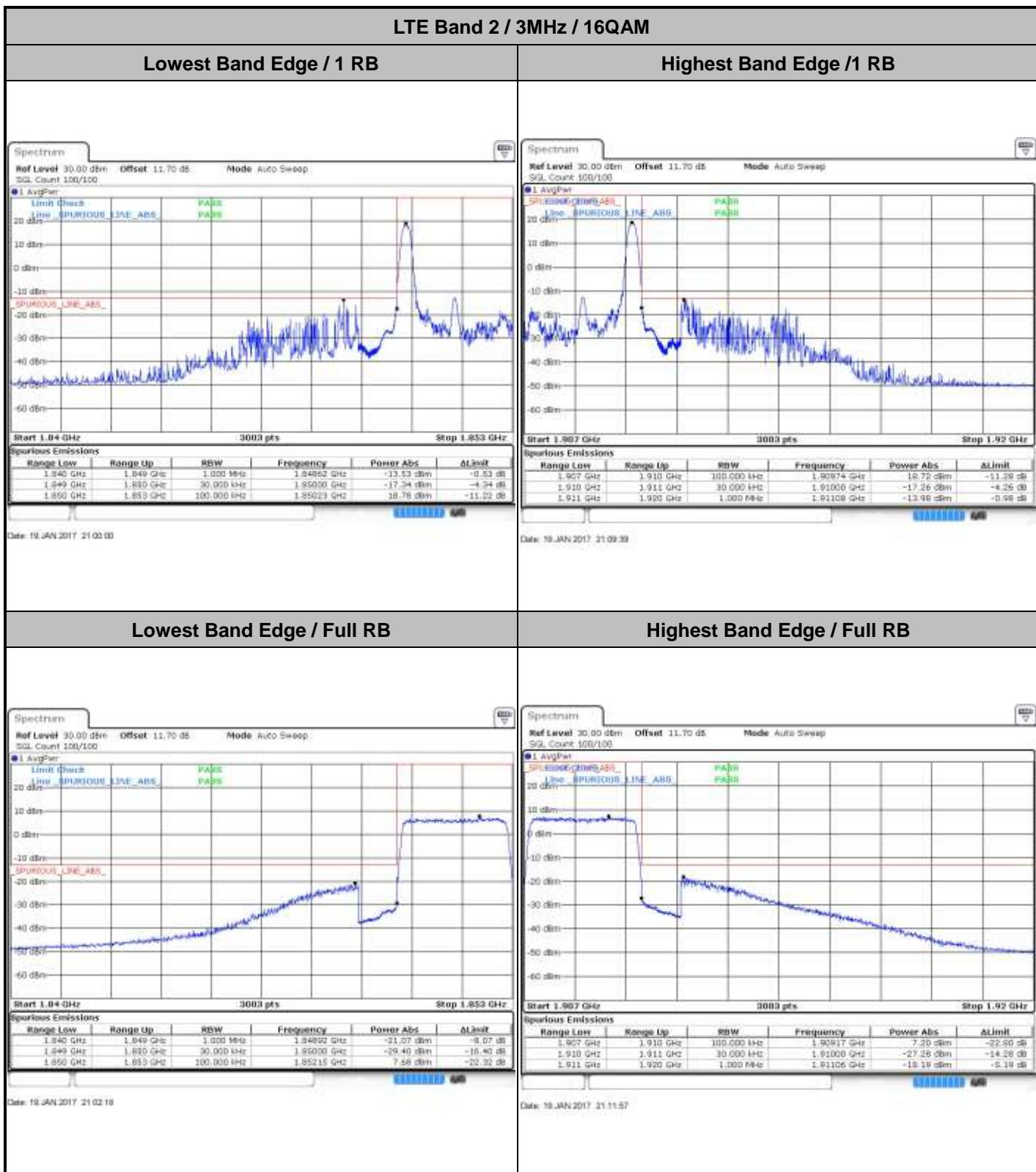


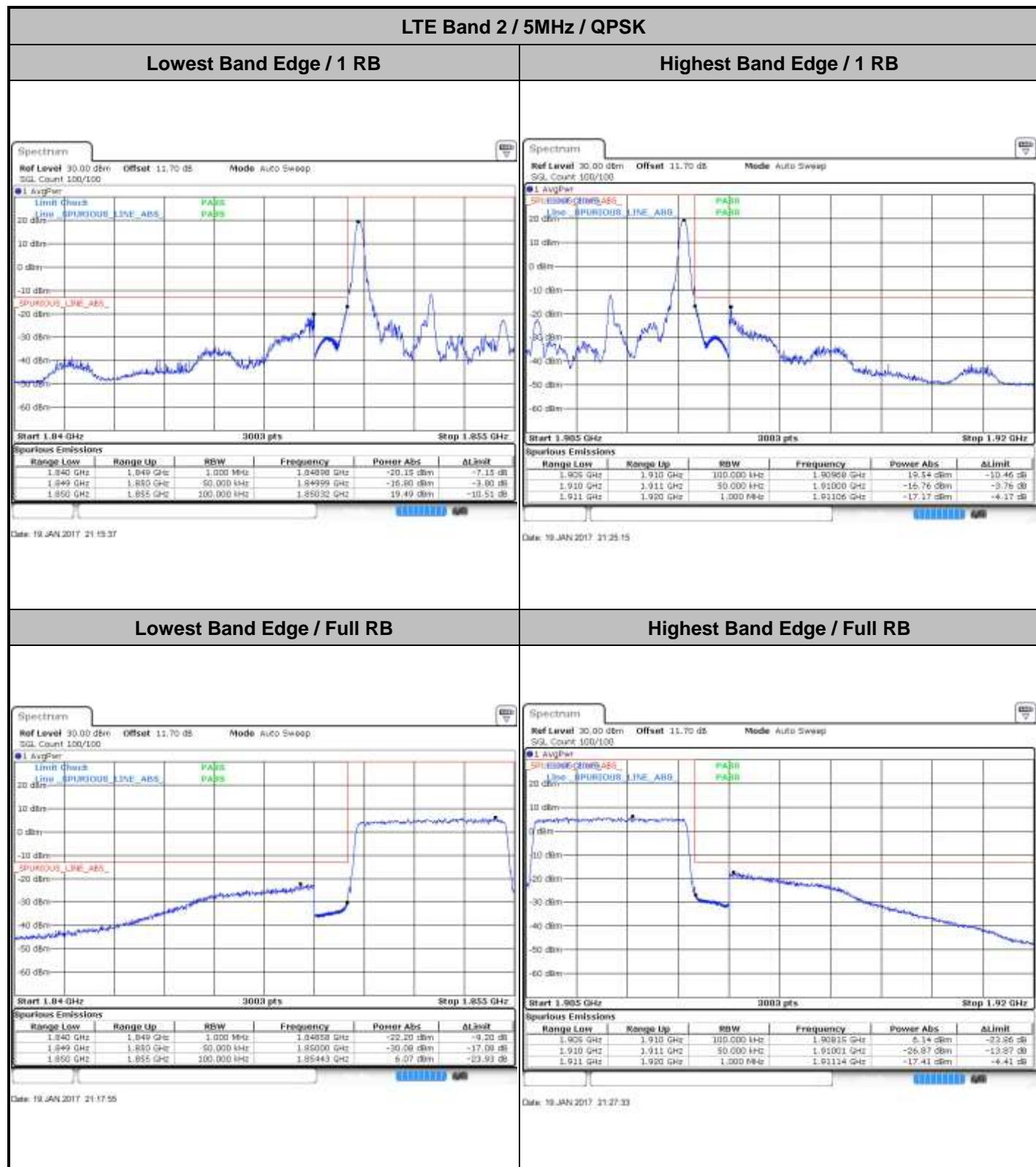
Conducted Band Edge

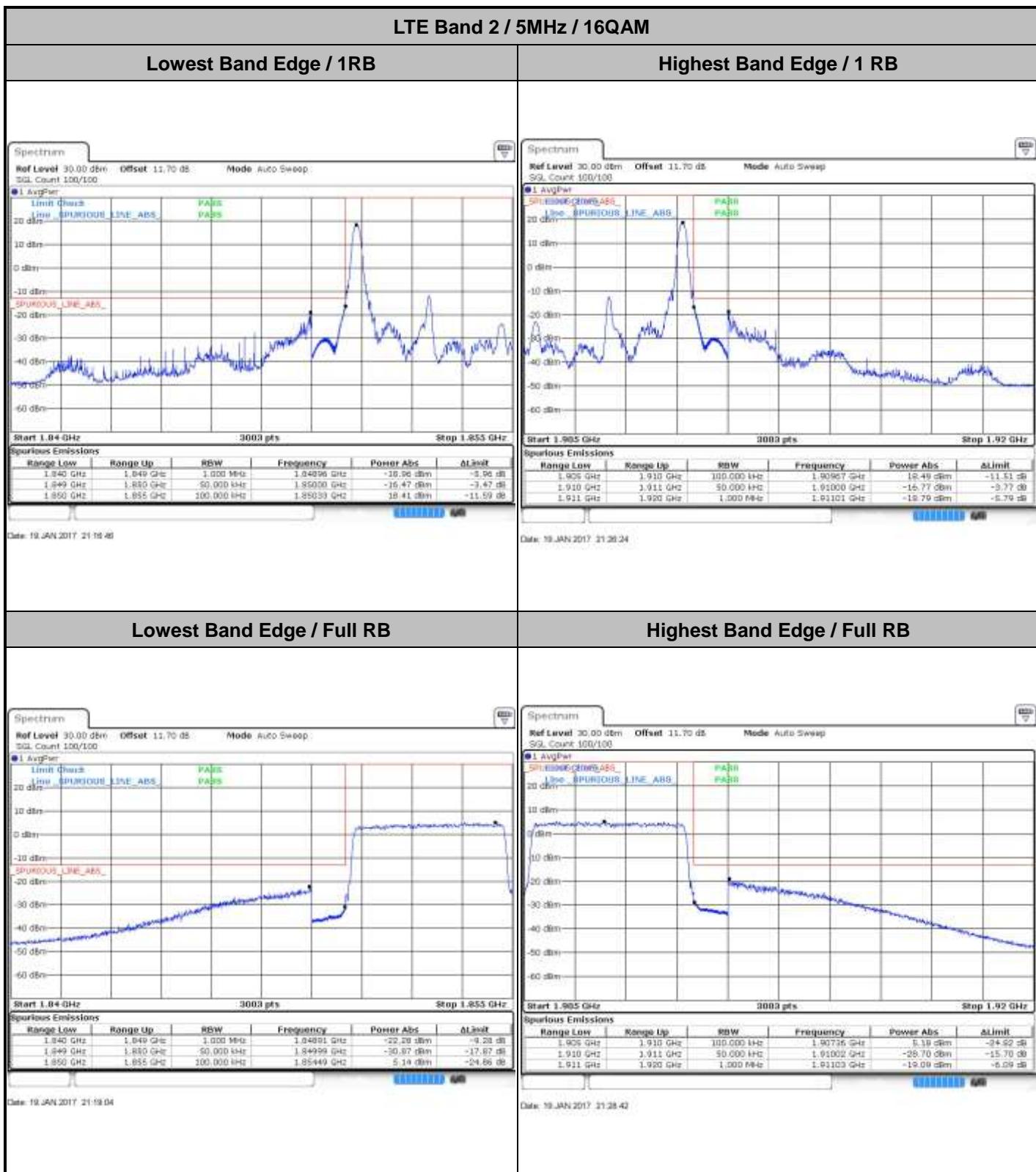


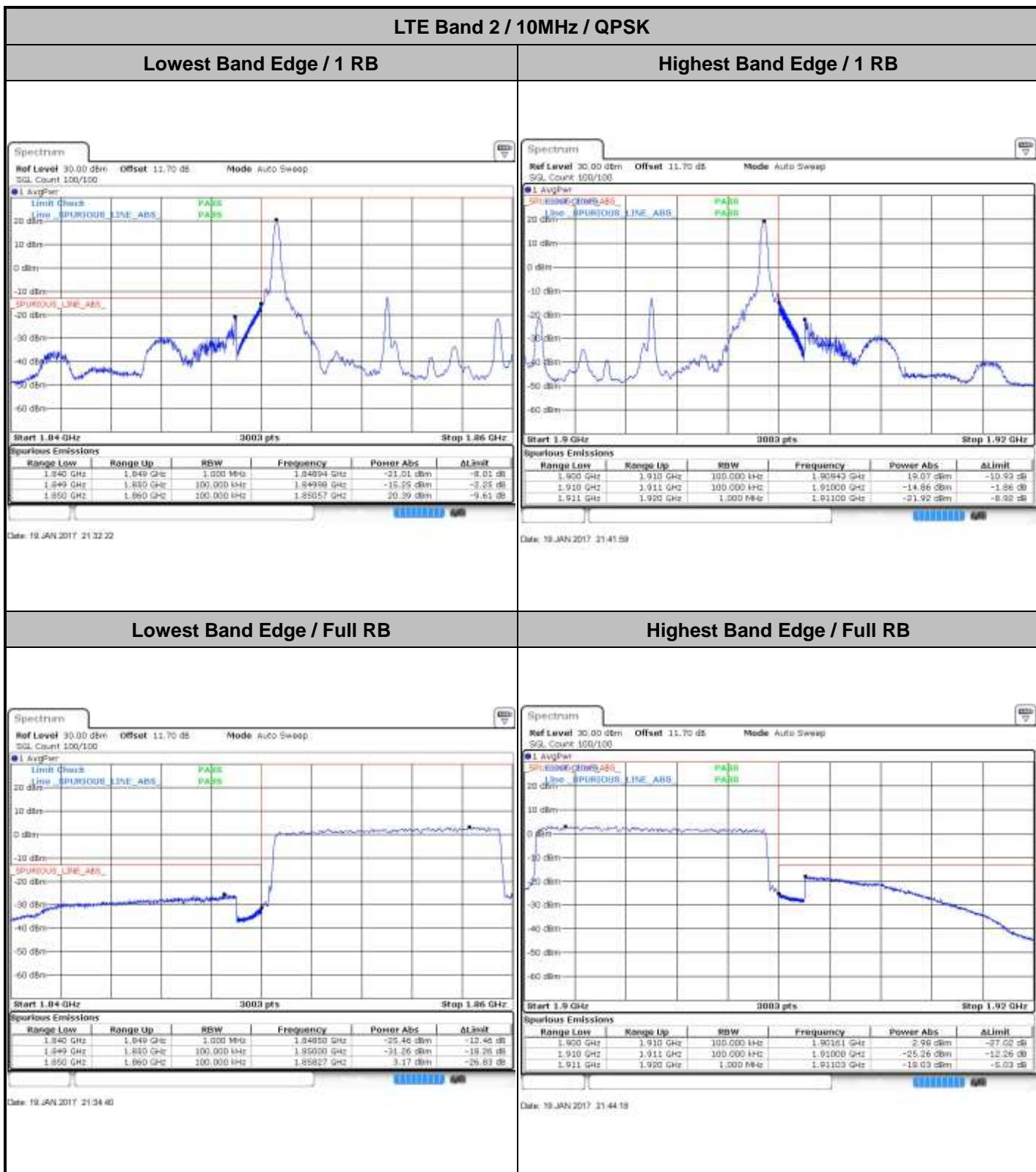


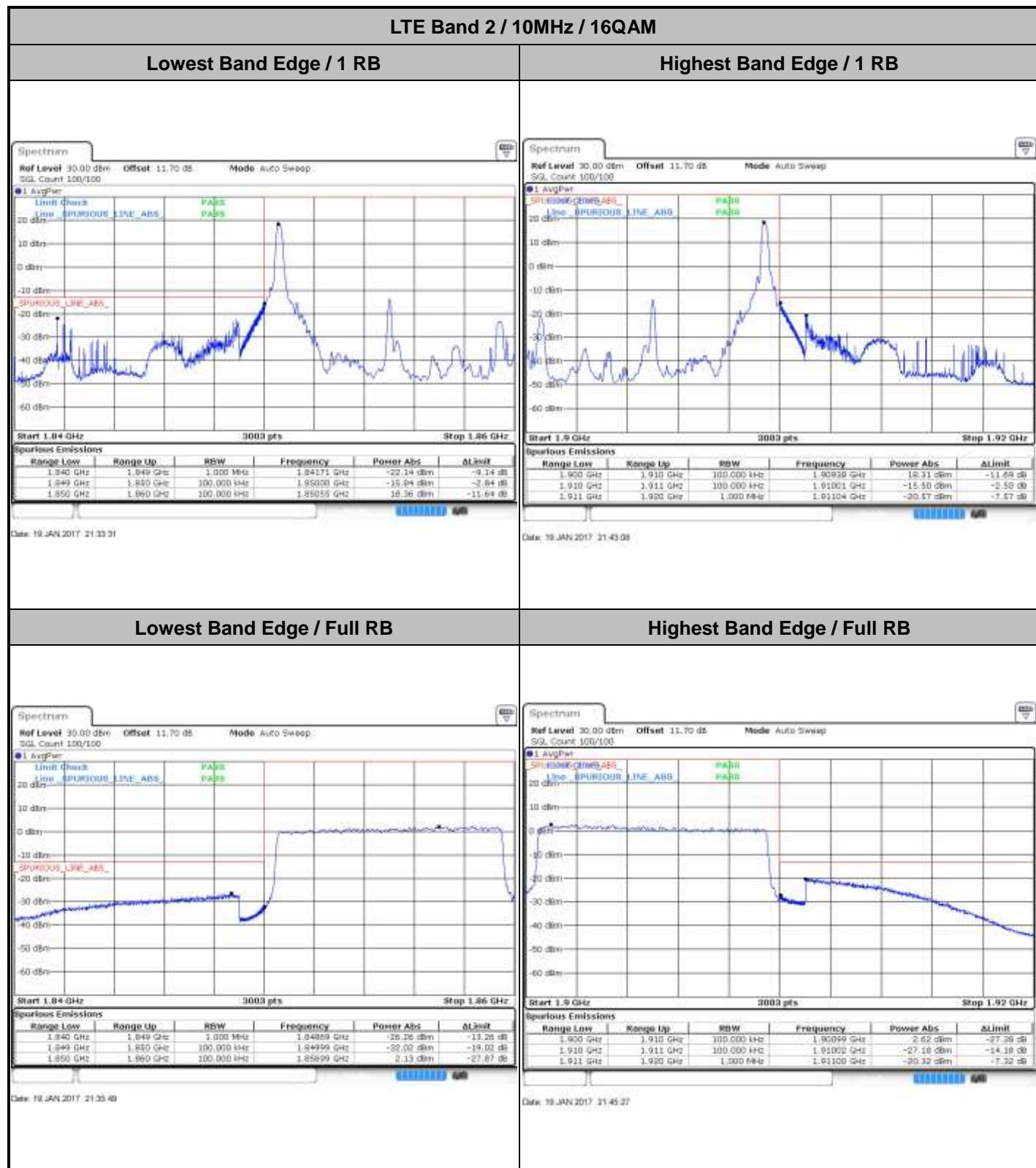


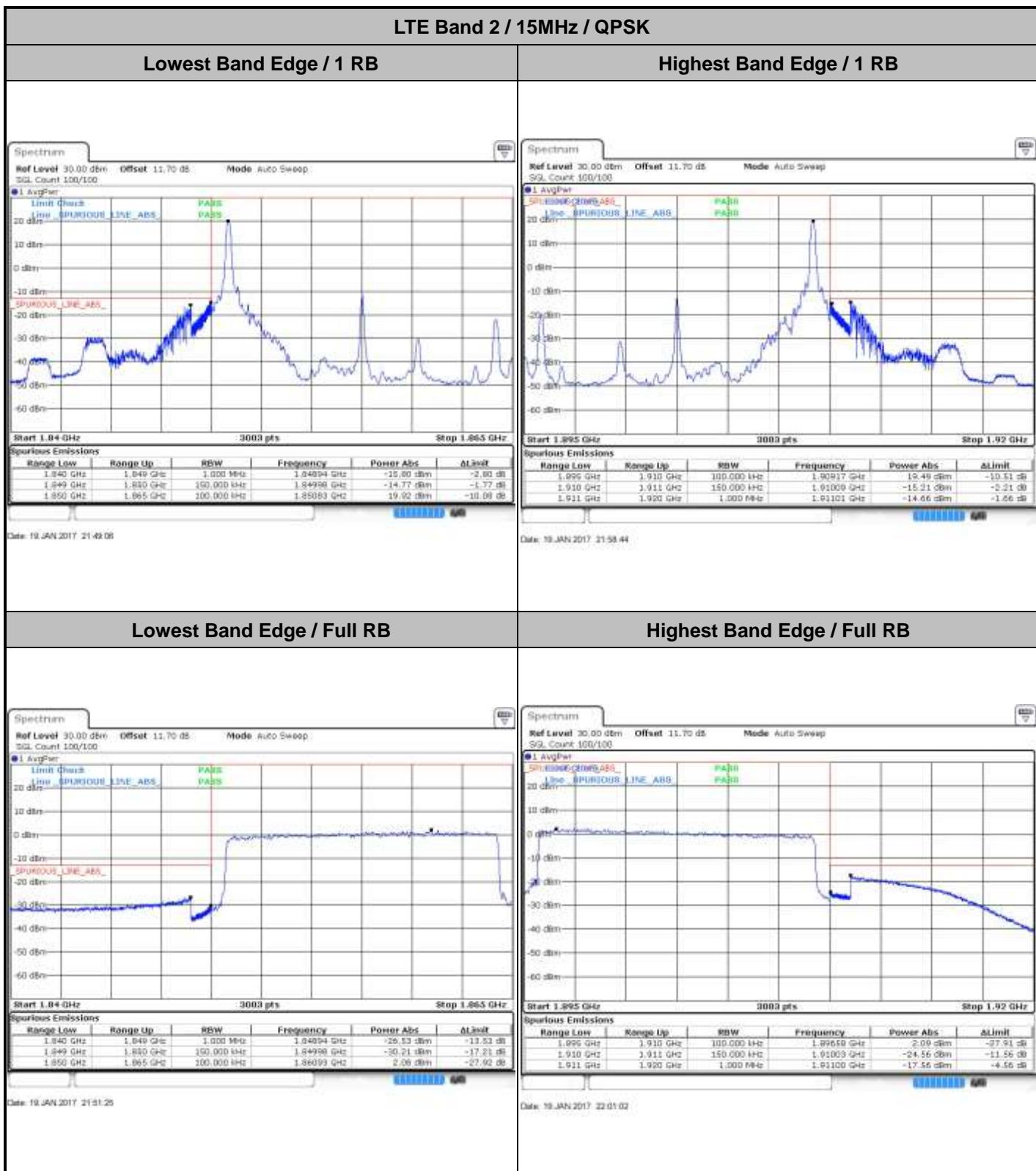


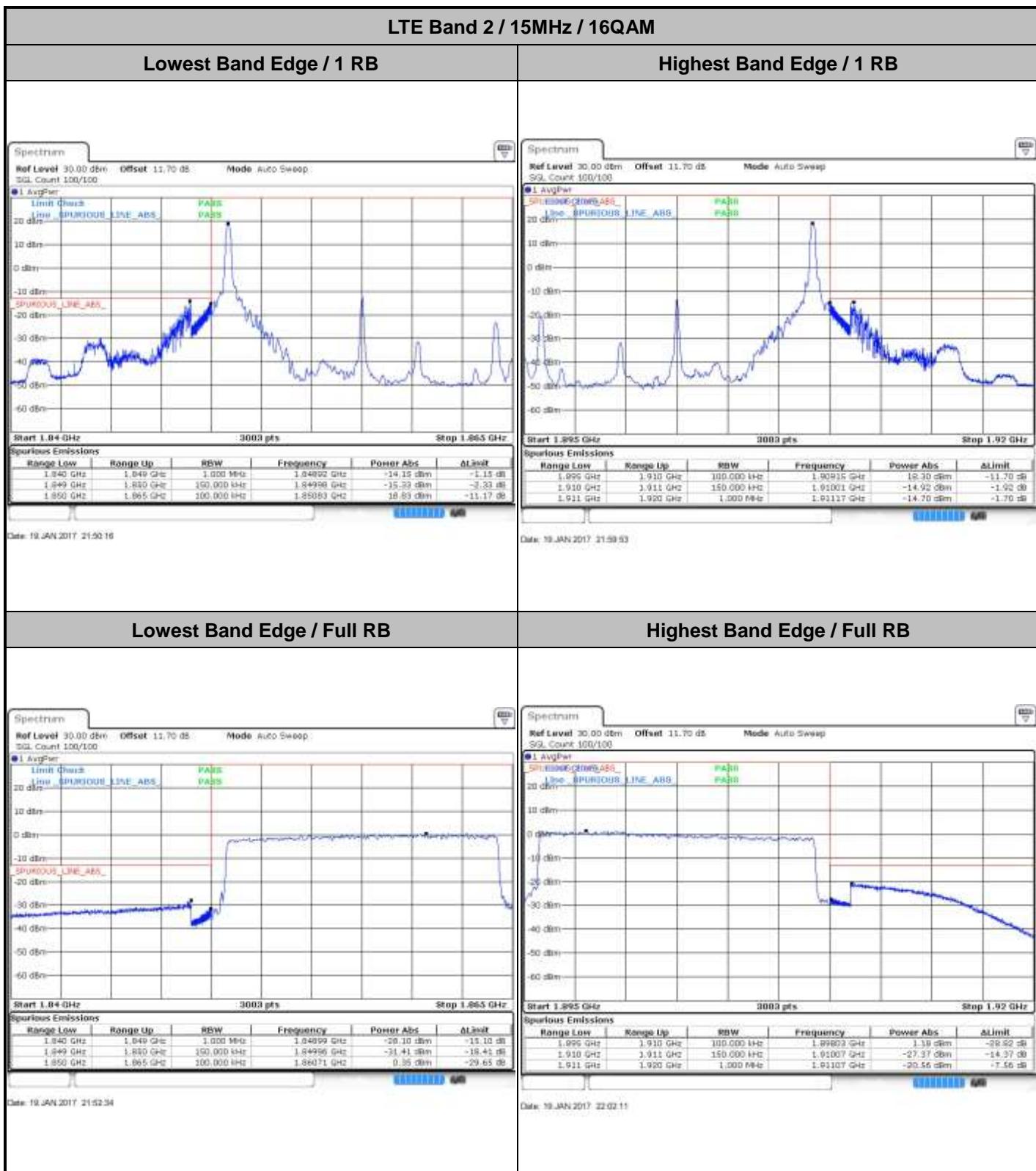


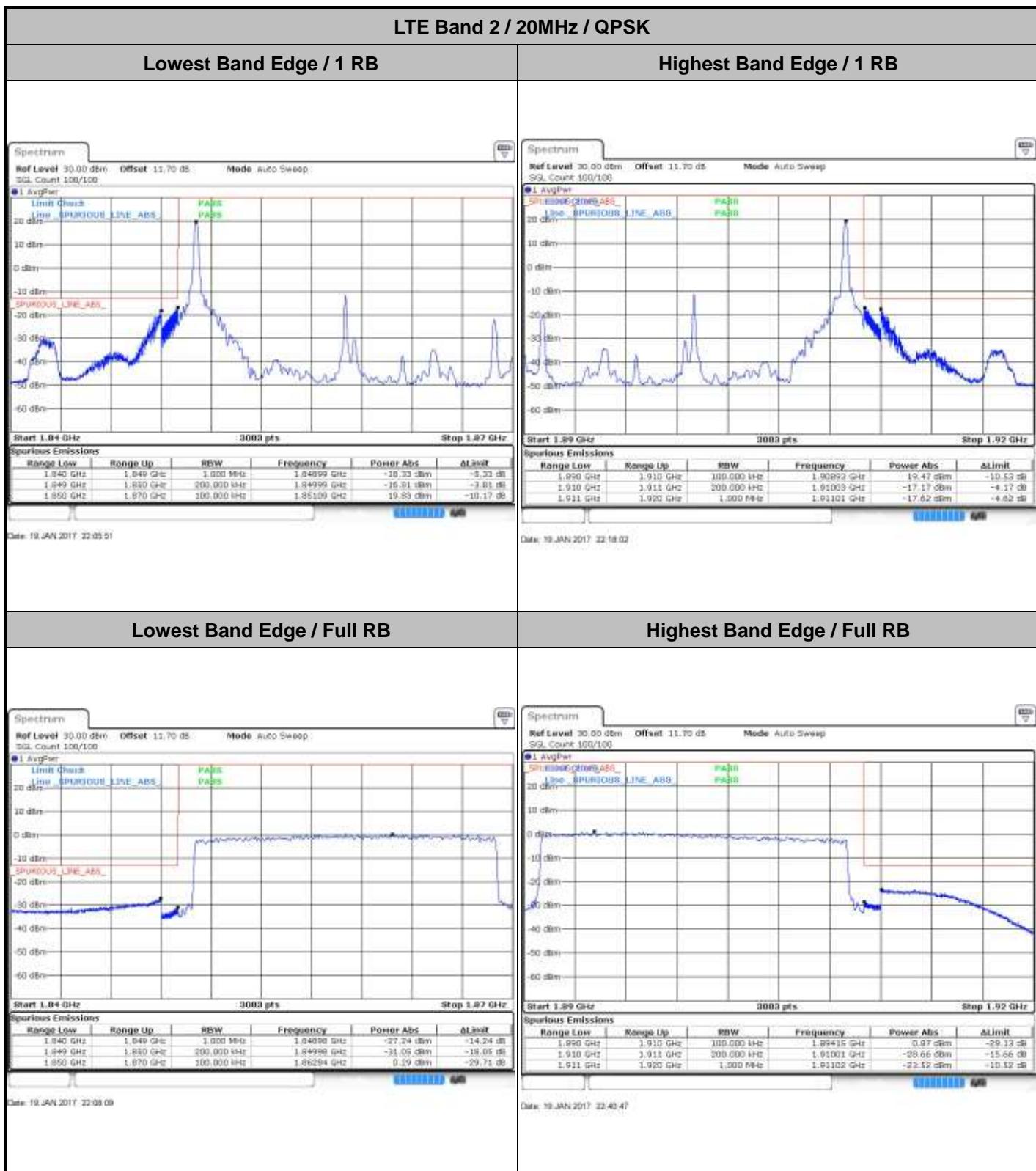


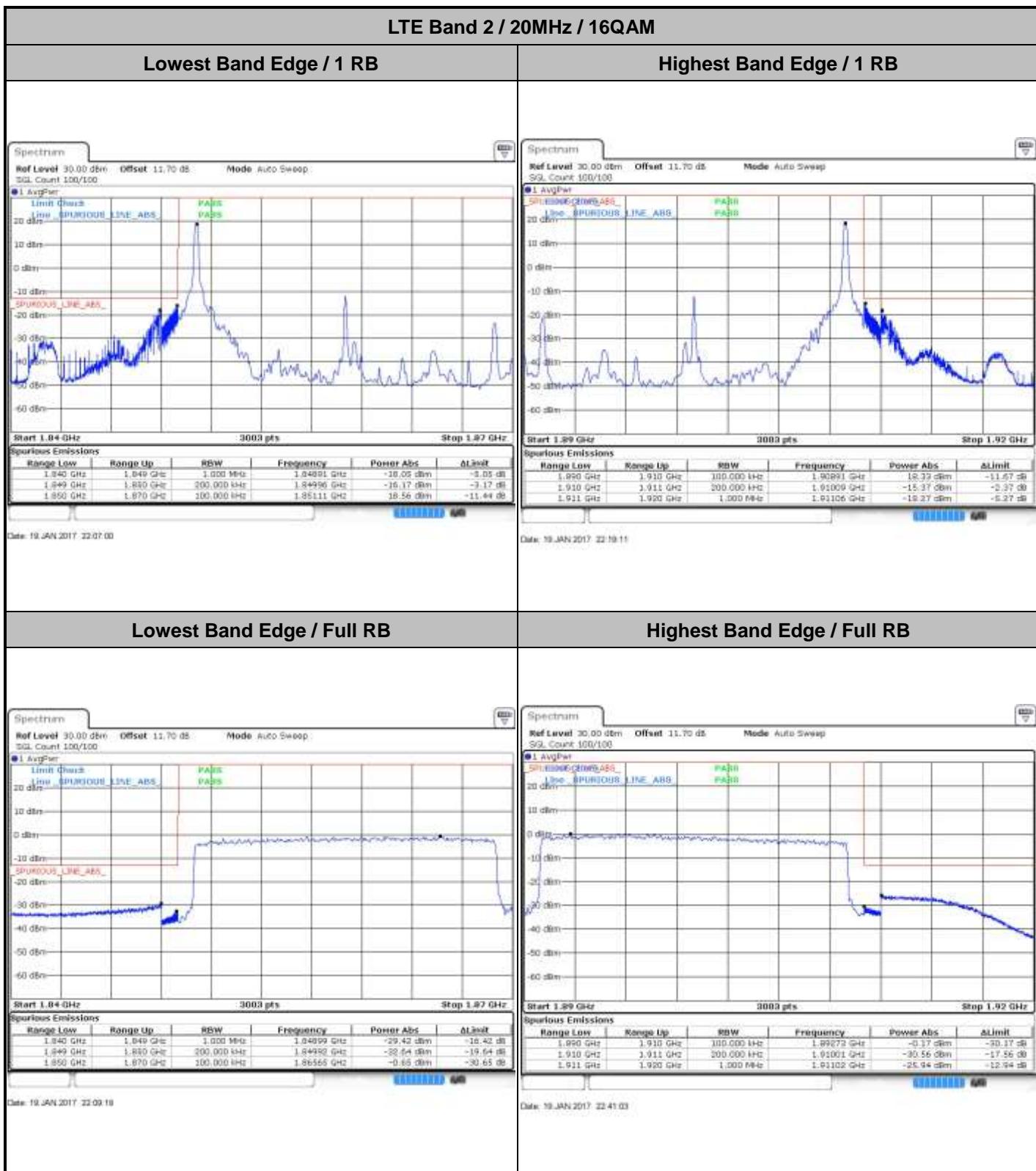














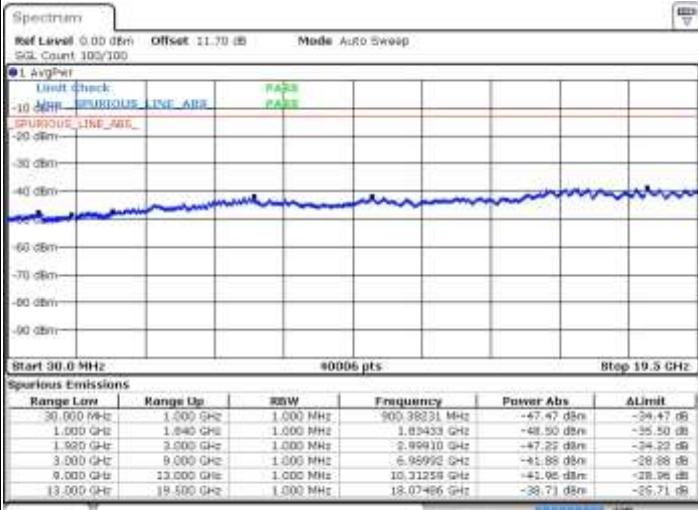
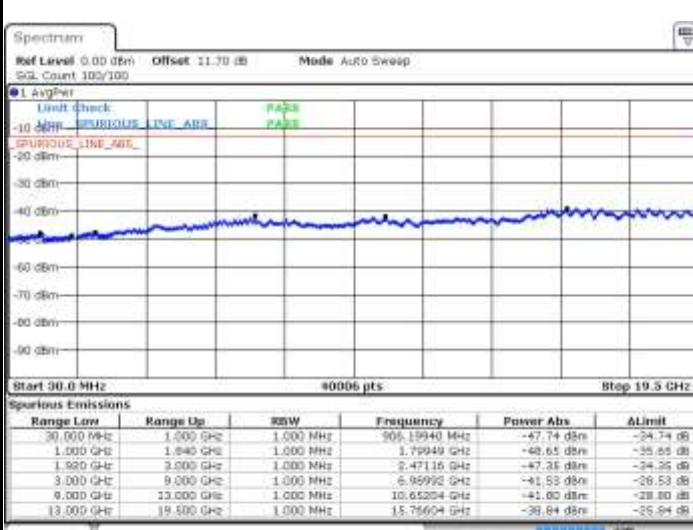
Conducted Spurious Emission



LTE Band 2 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

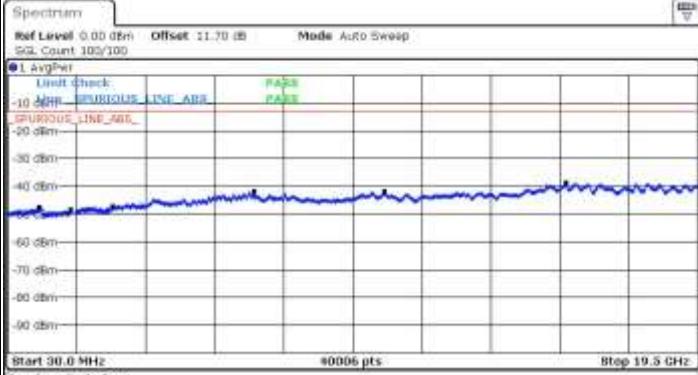
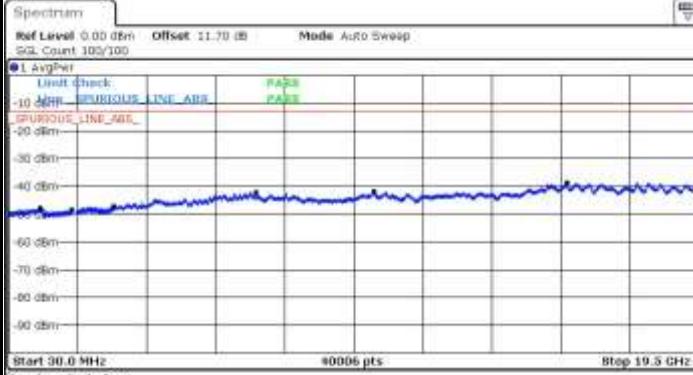


Date: 19.JAN.2017 22:26:45

Date: 19.JAN.2017 22:27:37

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 19.JAN.2017 22:29:15

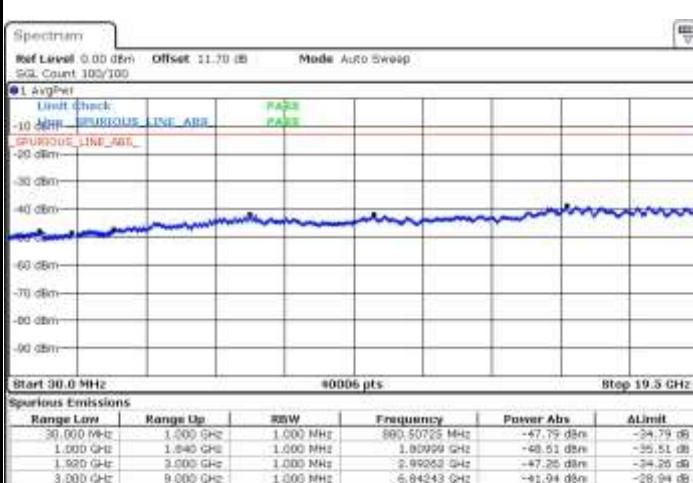
Date: 19.JAN.2017 22:30:08



LTE Band 2 / 1.4MHz

Highest Channel / QPSK

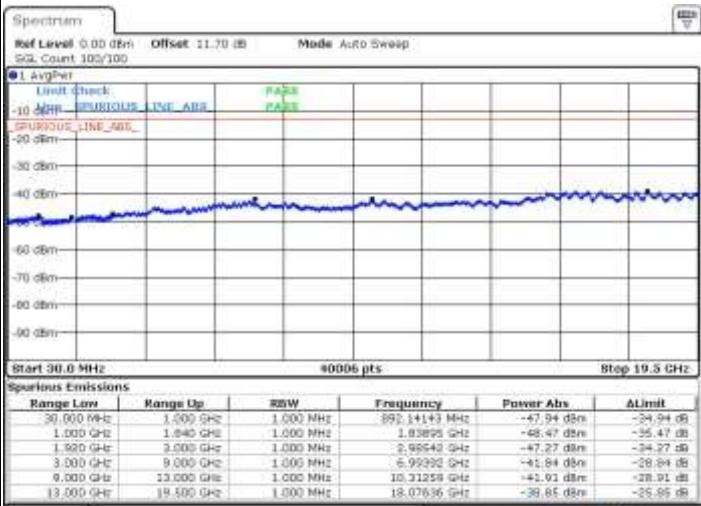
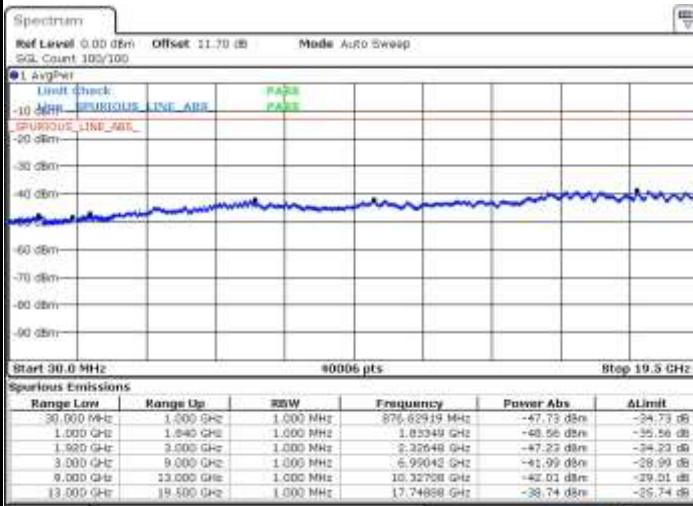
Highest Channel / 16QAM

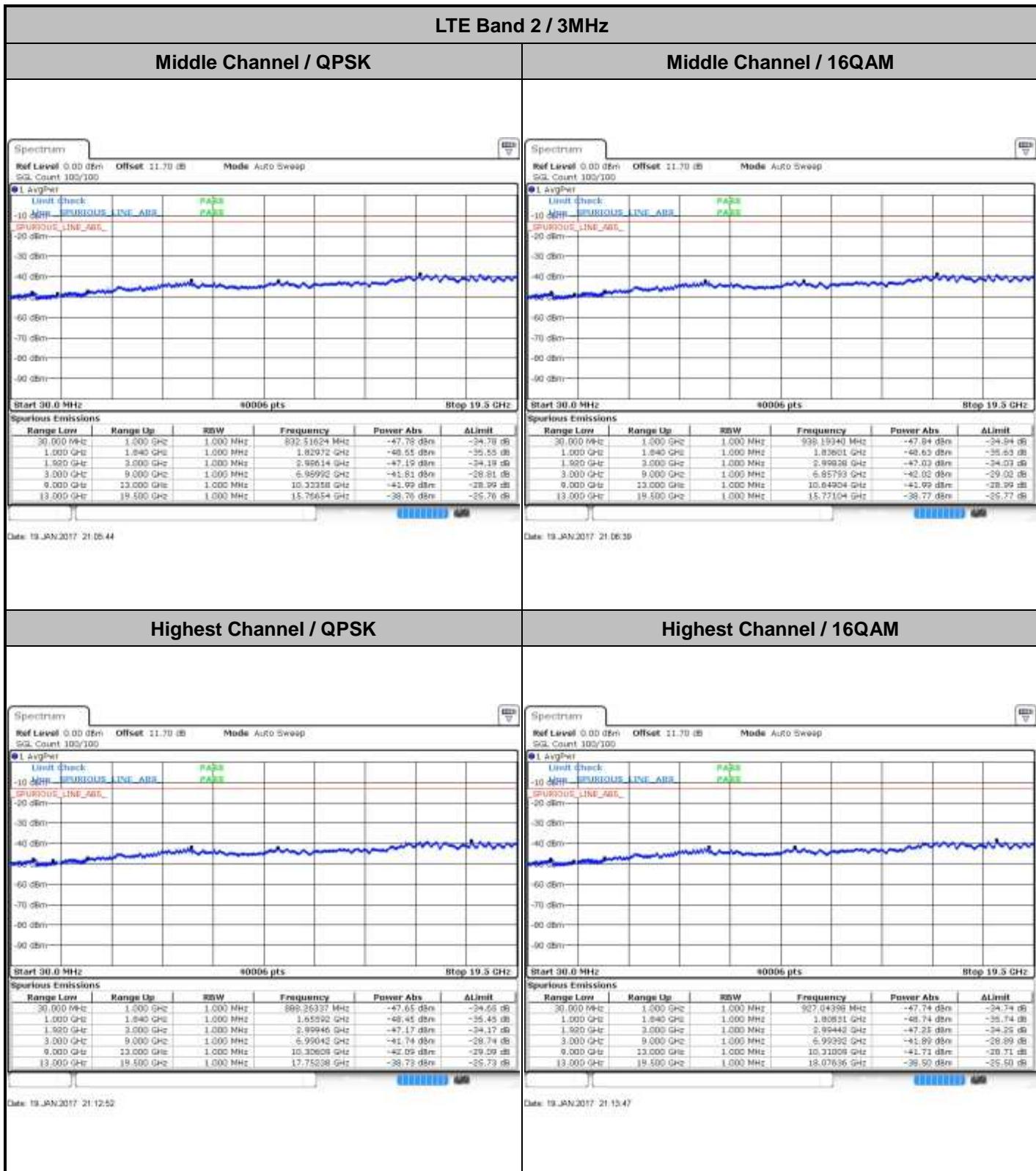


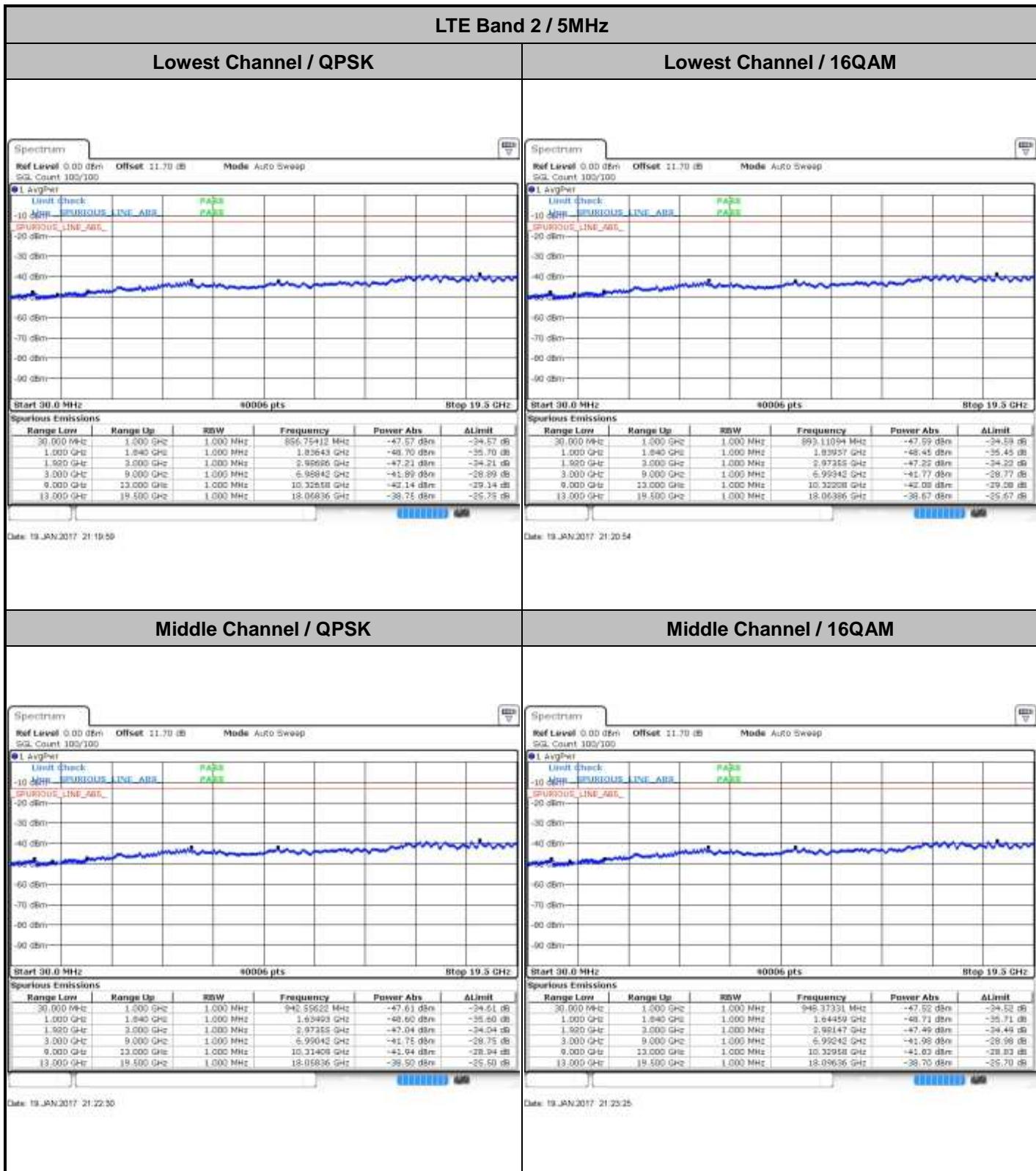
LTE Band 2 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM





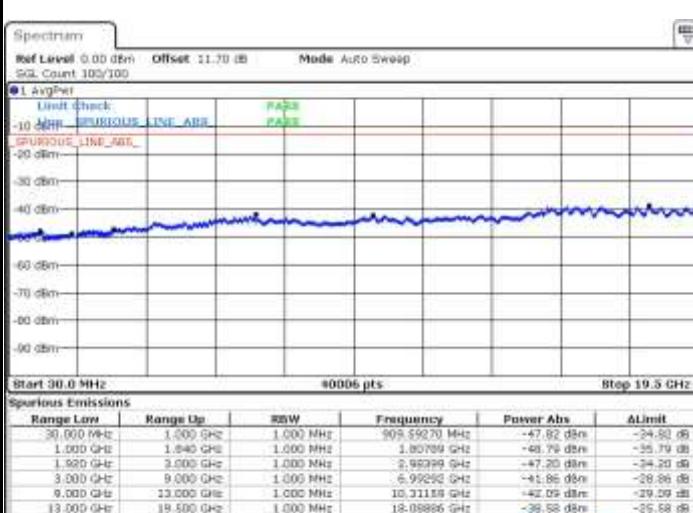




LTE Band 2 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM

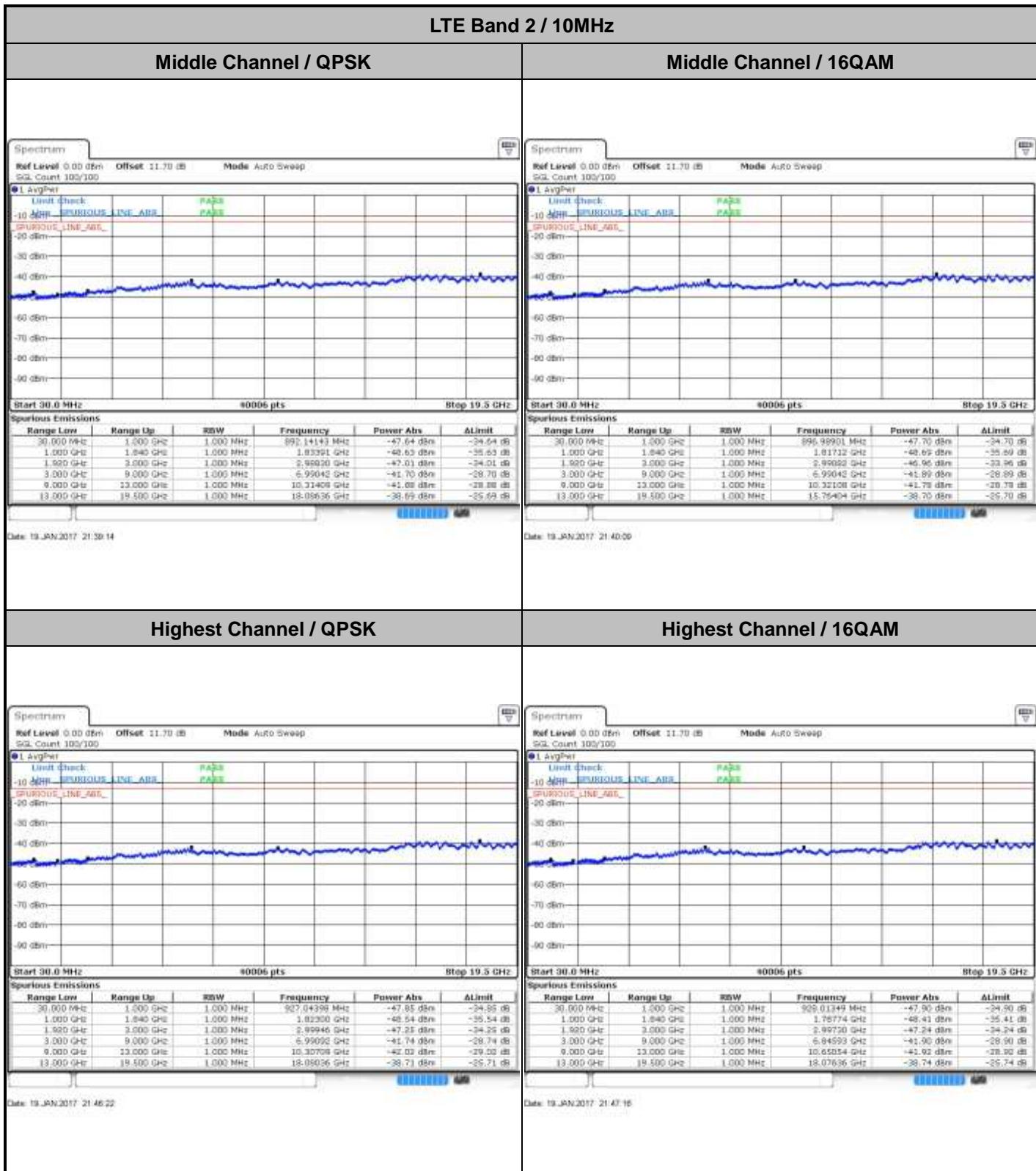


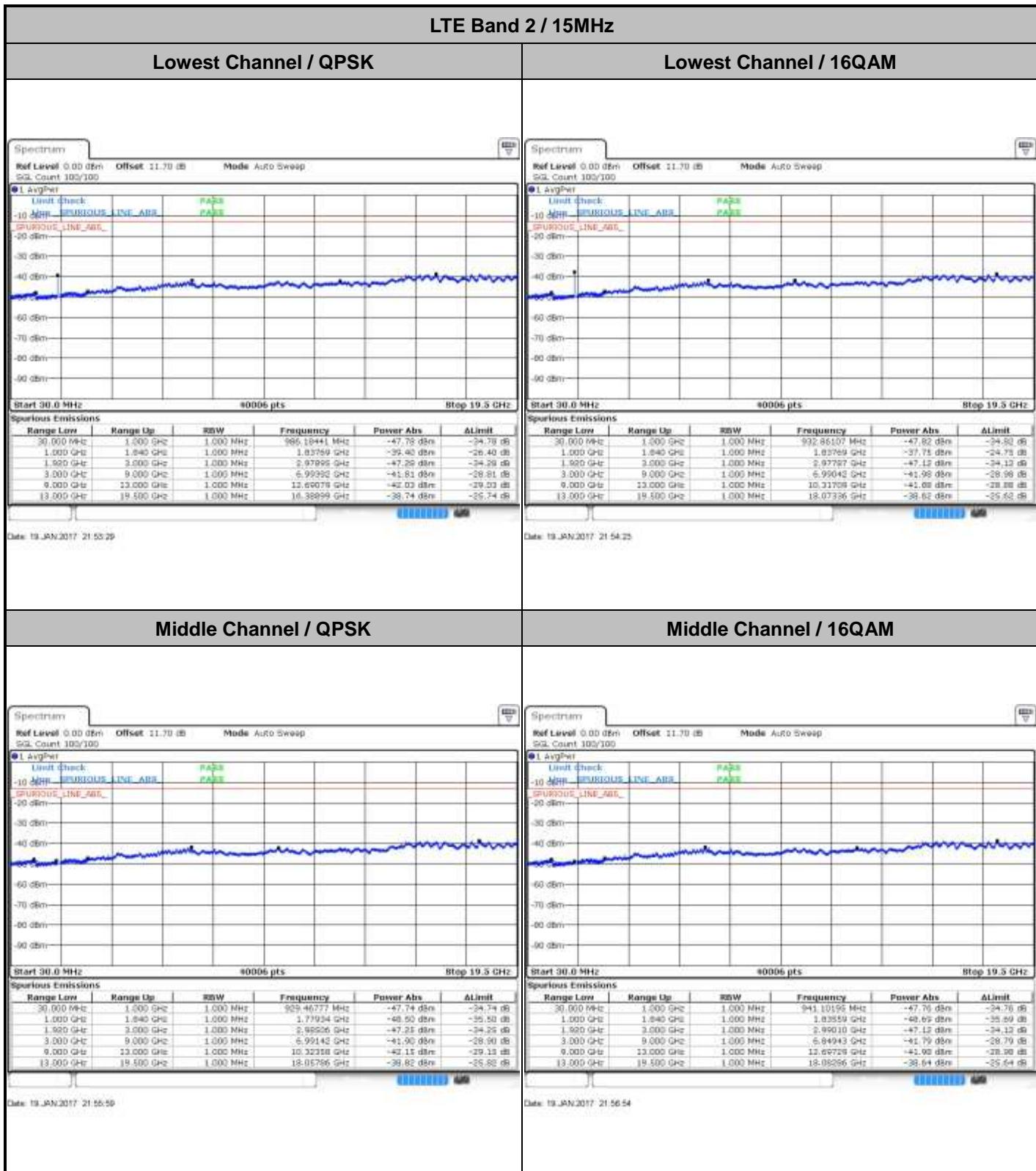
LTE Band 2 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM





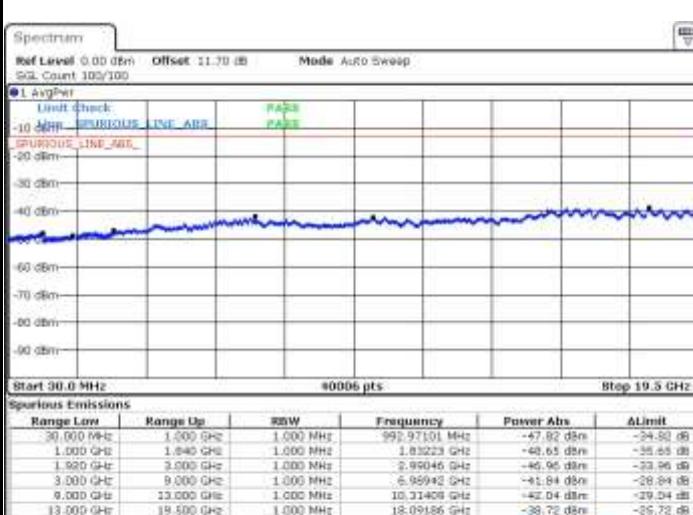




LTE Band 2 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



LTE Band 2 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

