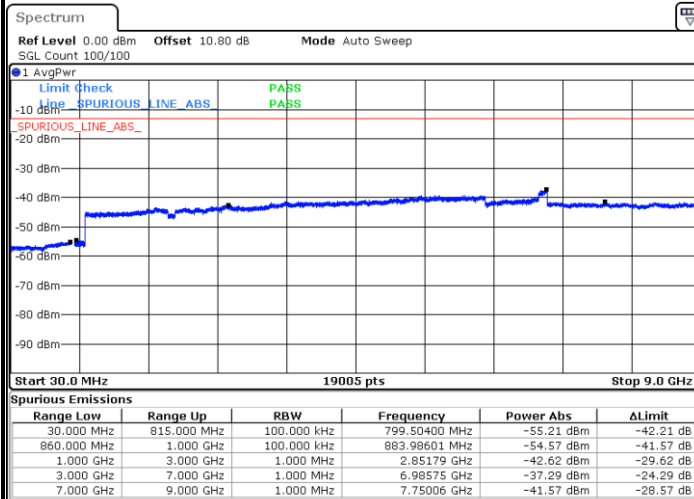




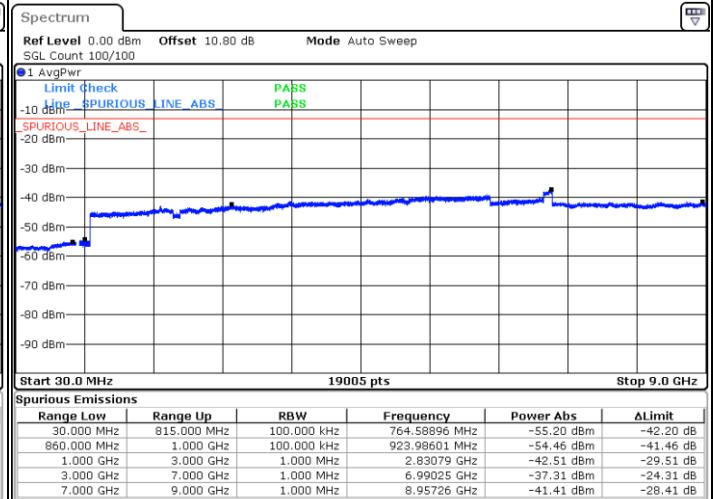
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 22.DEC.2019 15:17:37

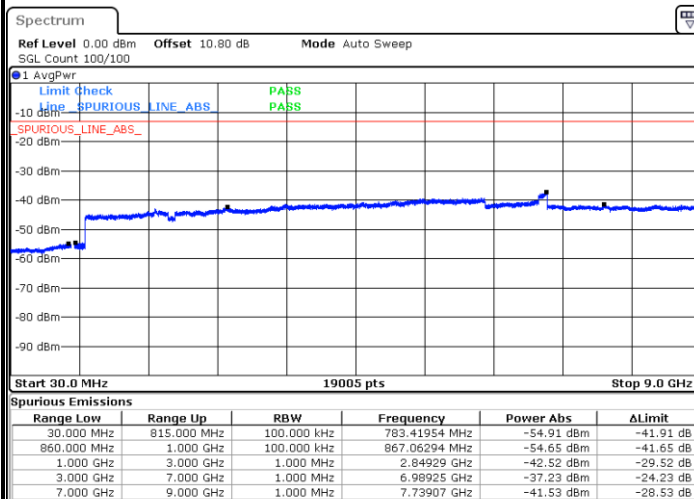
Highest Channel / 16QAM



Date: 22.DEC.2019 15:18:43

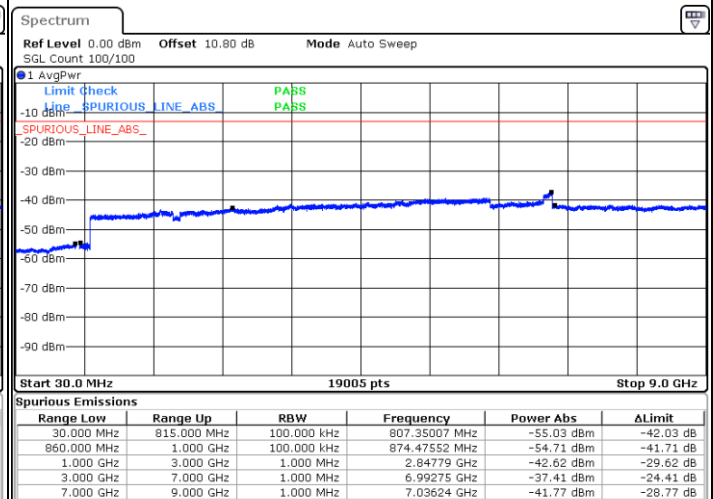
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 22.DEC.2019 15:37:51

Lowest Channel / 16QAM

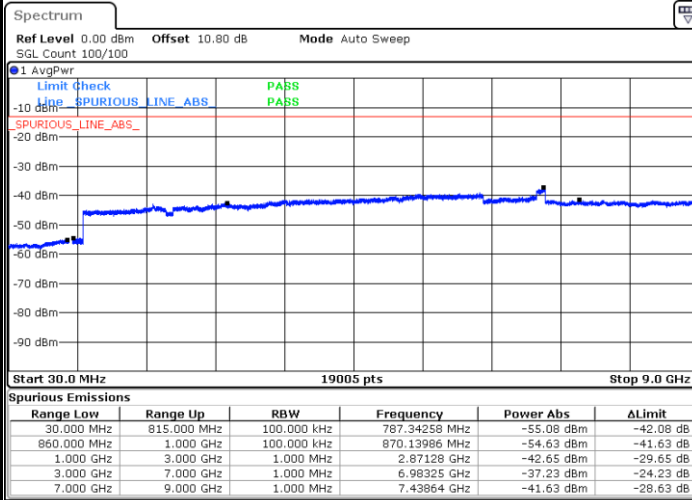


Date: 22.DEC.2019 15:38:58



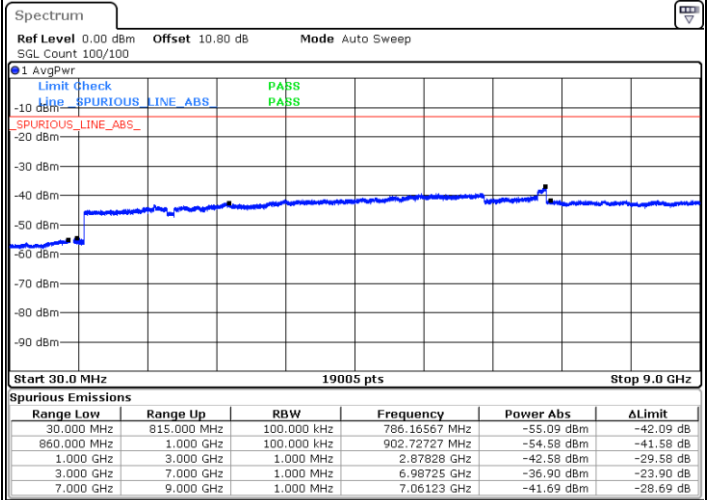
LTE Band 5 / 10MHz

Middle Channel / QPSK



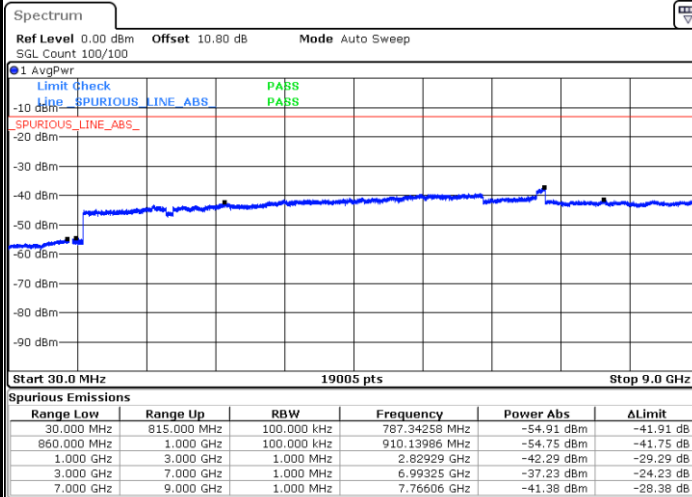
Date: 22.DEC.2019 15:40:56

Middle Channel / 16QAM



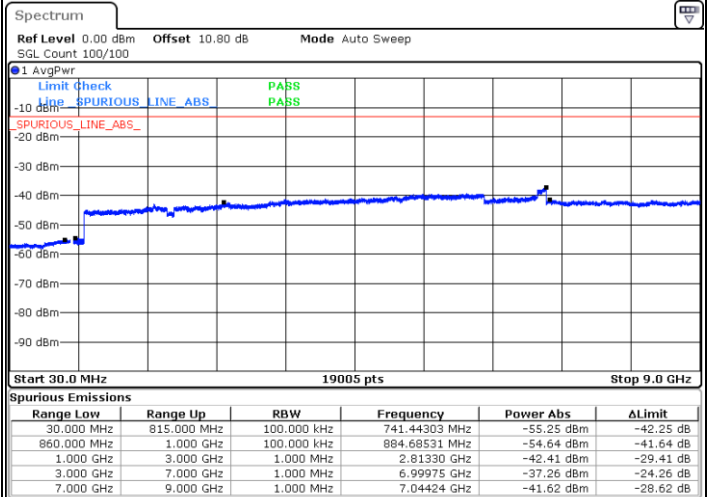
Date: 22.DEC.2019 15:42:00

Highest Channel / QPSK



Date: 22.DEC.2019 15:50:46

Highest Channel / 16QAM

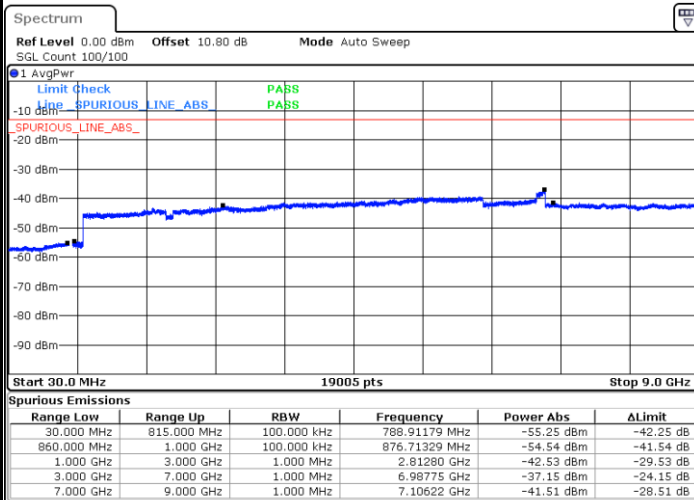


Date: 22.DEC.2019 15:51:51



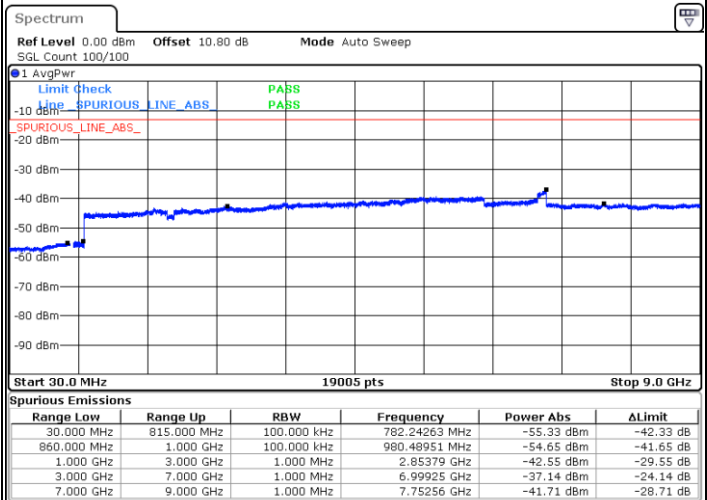
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



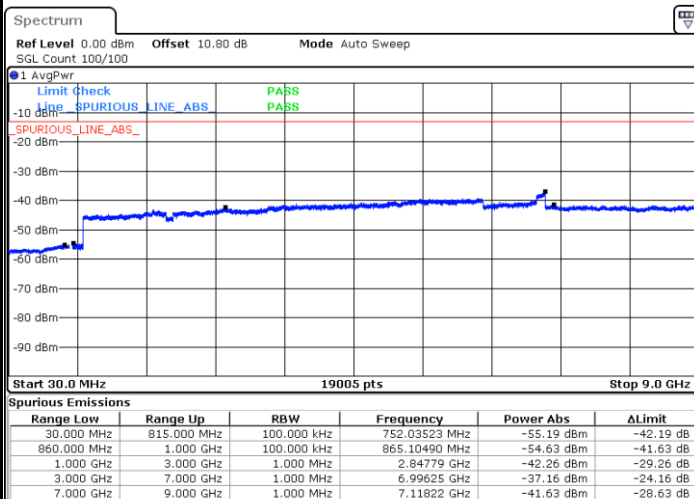
Date: 22.DEC.2019 14:15:25

Middle Channel / 64QAM



Date: 22.DEC.2019 14:16:56

Highest Channel / 64QAM

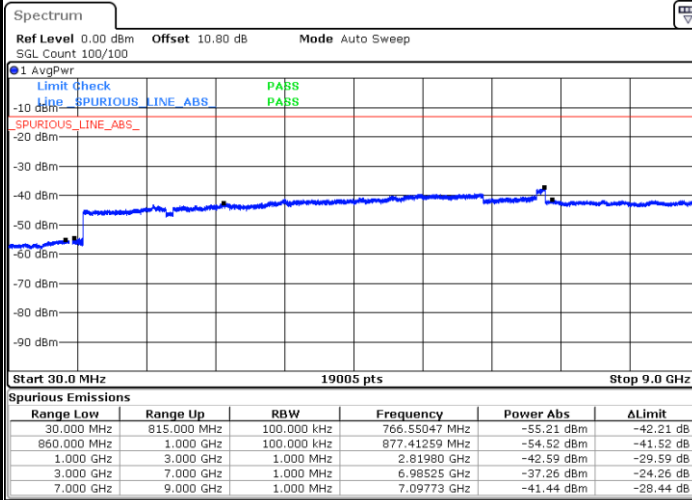


Date: 22.DEC.2019 14:21:51



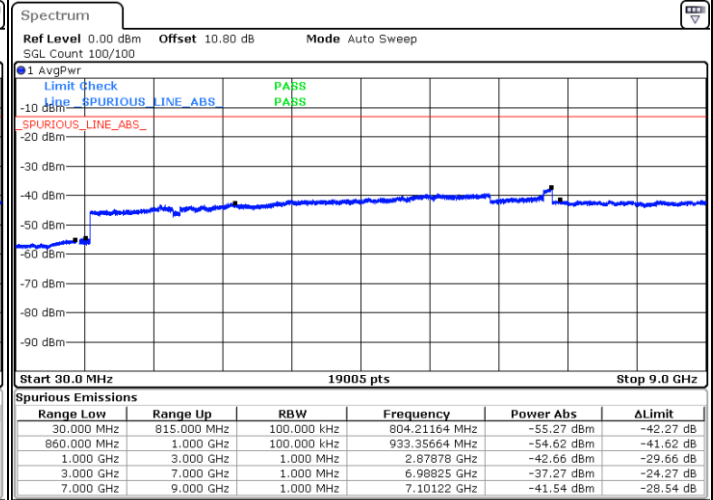
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



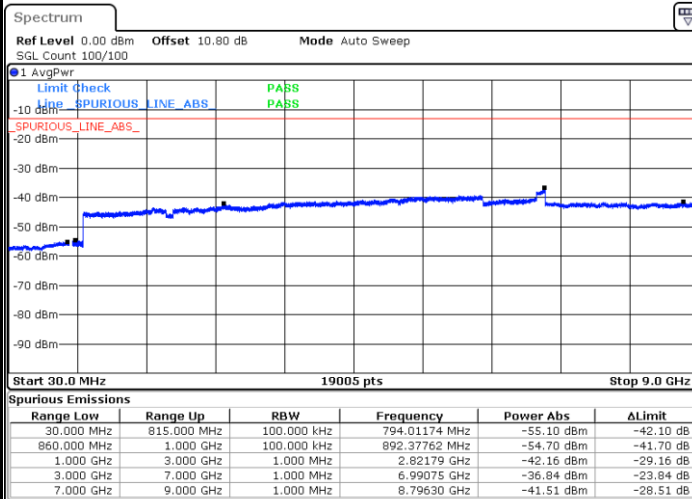
Date: 22.DEC.2019 14:49:31

Middle Channel / 64QAM



Date: 22.DEC.2019 14:51:02

Highest Channel / 64QAM

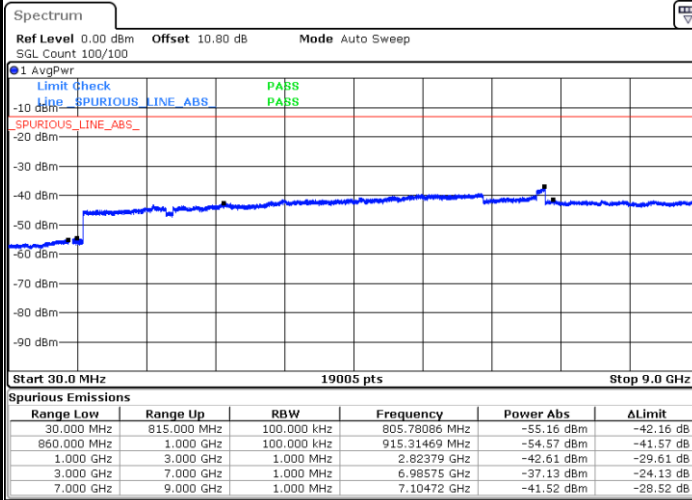


Date: 22.DEC.2019 14:55:57



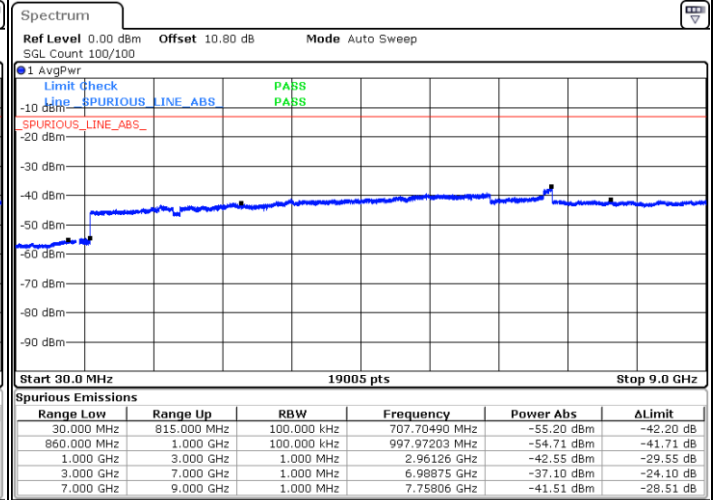
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



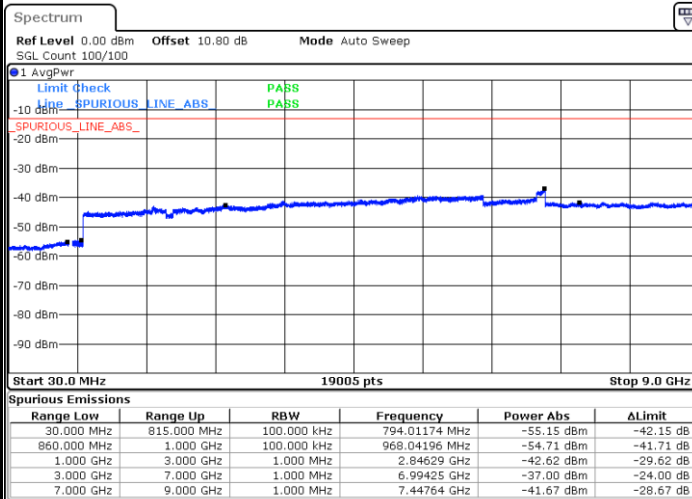
Date: 22.DEC.2019 15:23:38

Middle Channel / 64QAM



Date: 22.DEC.2019 15:25:10

Highest Channel / 64QAM

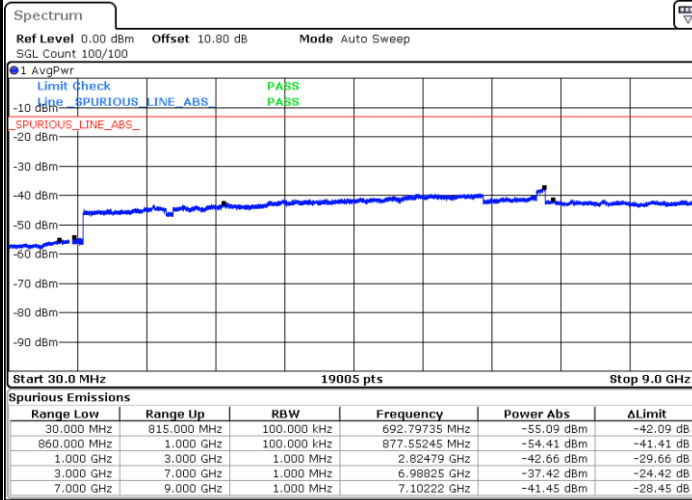


Date: 22.DEC.2019 15:52:57



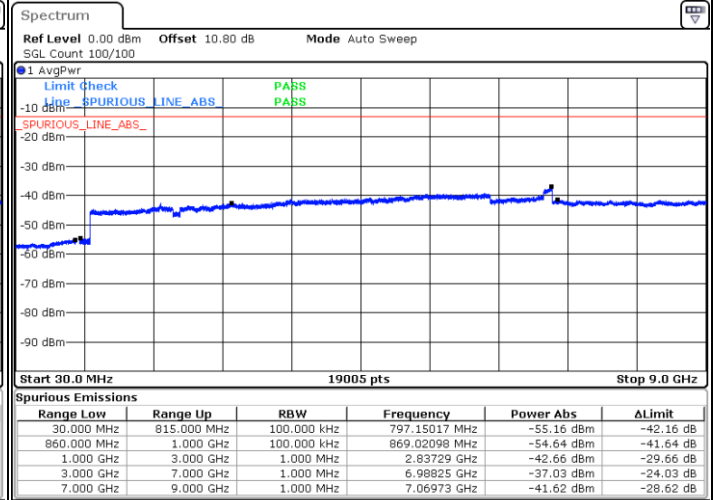
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



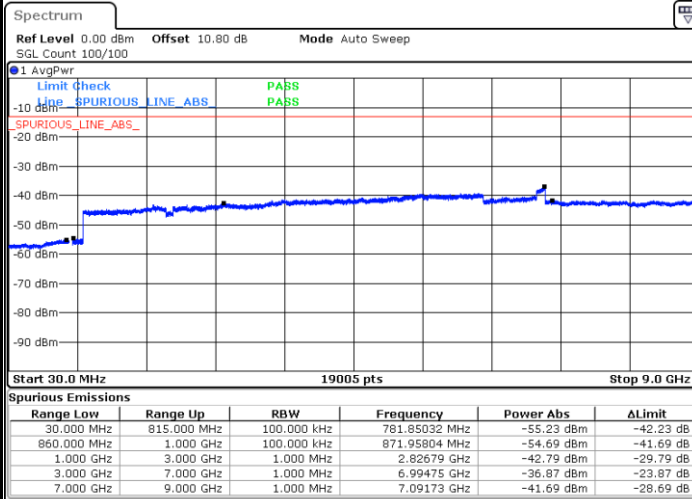
Date: 22.DEC.2019 15:57:53

Middle Channel / 64QAM



Date: 22.DEC.2019 15:59:24

Highest Channel / 64QAM



Date: 22.DEC.2019 16:05:28

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	0.0177	PASS
40	Normal Voltage	0.0111	
30	Normal Voltage	0.0086	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0082	
-20	Normal Voltage	0.0062	
-30	Normal Voltage	0.0084	
20	Maximum Voltage	0.0078	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0087	

Note:

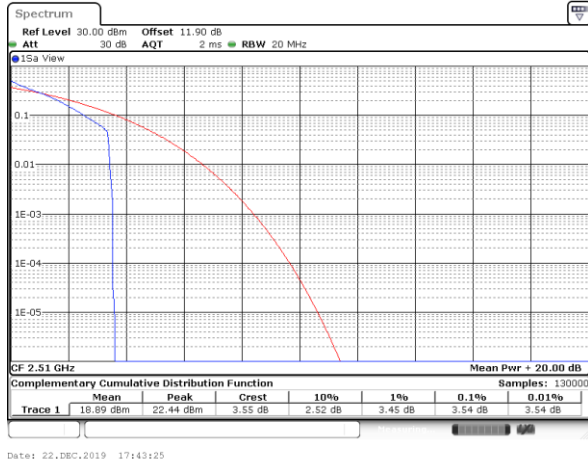
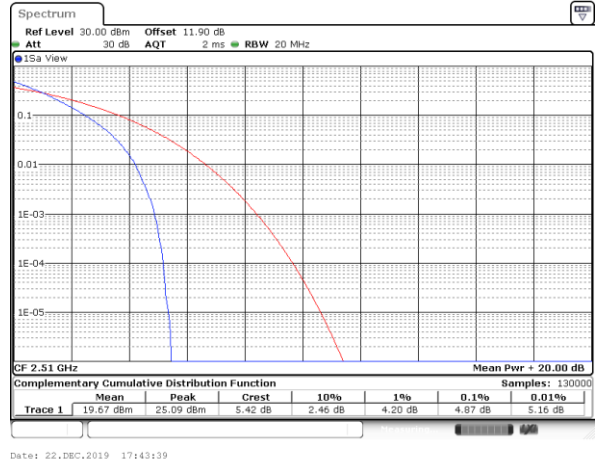
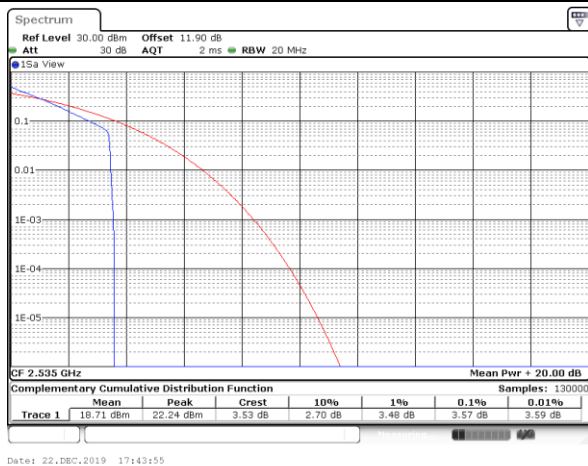
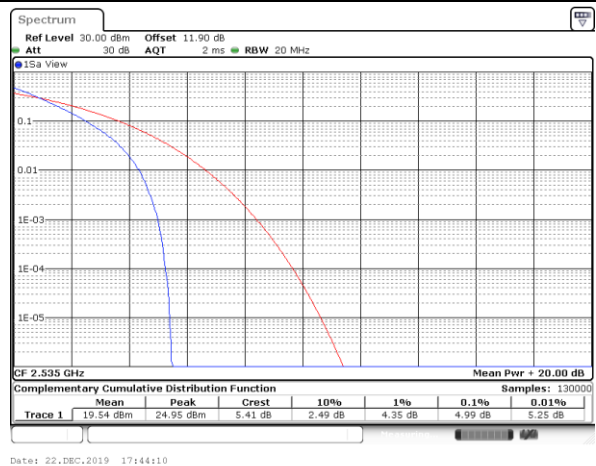
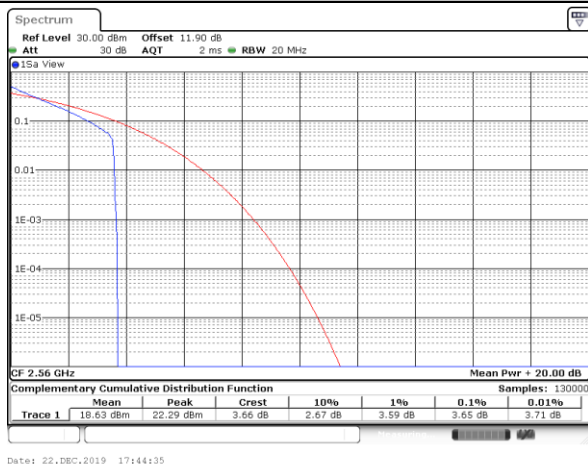
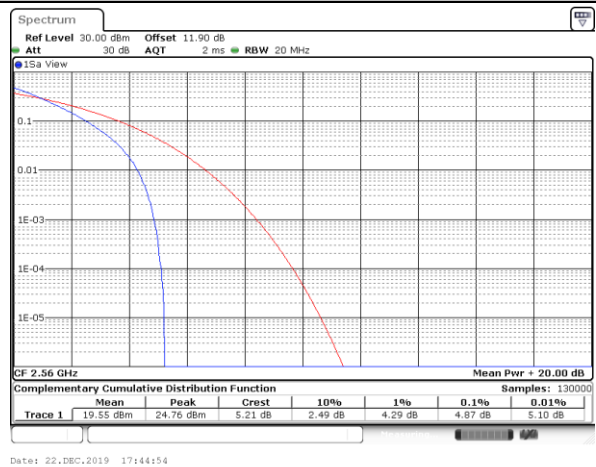
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7

Peak-to-Average Ratio

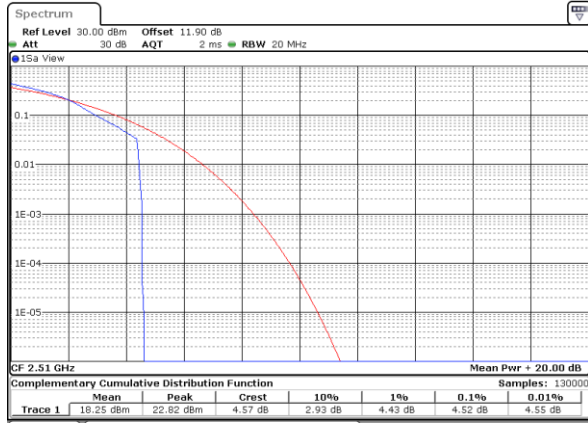
Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.87	4.52	5.91	PASS
Middle CH	3.57	4.99	4.72	5.88	
Highest CH	3.65	4.87	5.33	5.91	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.03	6.43	-	-	PASS
Middle CH	6.14	6.46	-	-	
Highest CH	7.30	6.38	-	-	

LTE Band 7 / 20MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


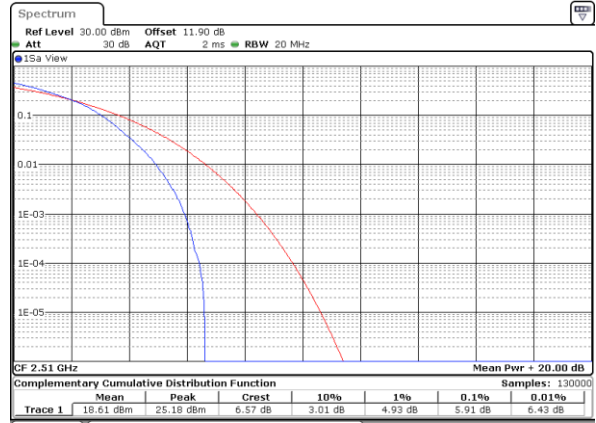


LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





LTE Band 7 / 20MHz / 64QAM

Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



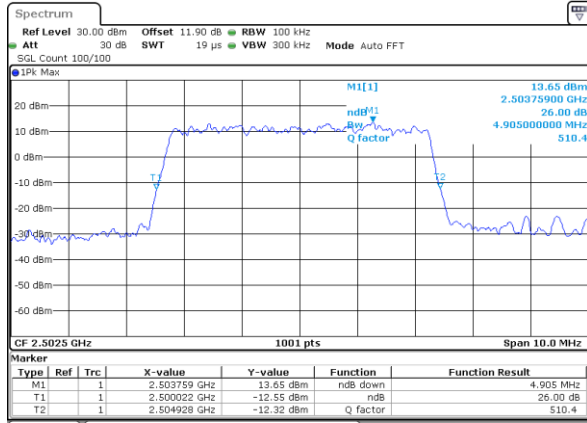
**26dB Bandwidth**

Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.91	4.83	9.81	9.75	14.24	14.36	19.18	18.82
Middle CH	-	-	-	-	4.89	4.85	9.75	9.81	14.27	14.21	19.30	19.30
Highest CH	-	-	-	-	4.96	4.87	9.69	9.77	14.51	14.39	18.94	19.06
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.85	-	9.81	-	14.60	-	18.66	-
Middle CH	-	-	-	-	4.96	-	9.85	-	14.48	-	18.82	-
Highest CH	-	-	-	-	4.96	-	9.81	-	14.36	-	19.38	-



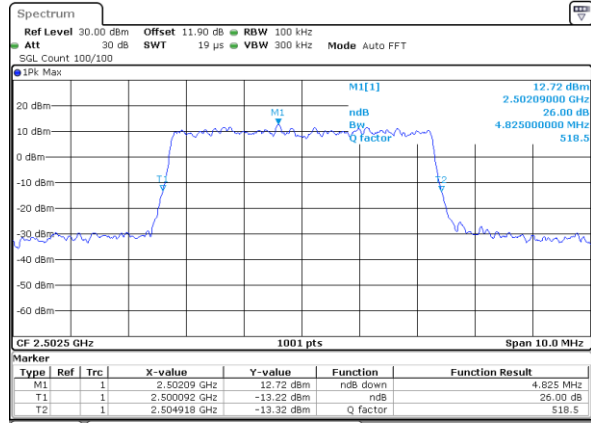
LTE Band 7

Lowest Channel / 5MHz / QPSK



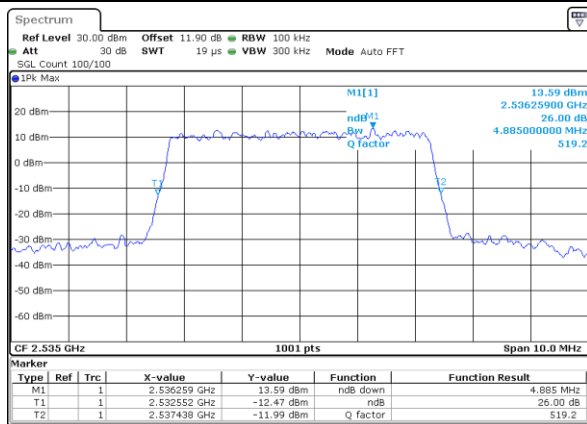
Date: 22.DEC.2019 16:11:27

Lowest Channel / 5MHz / 16QAM



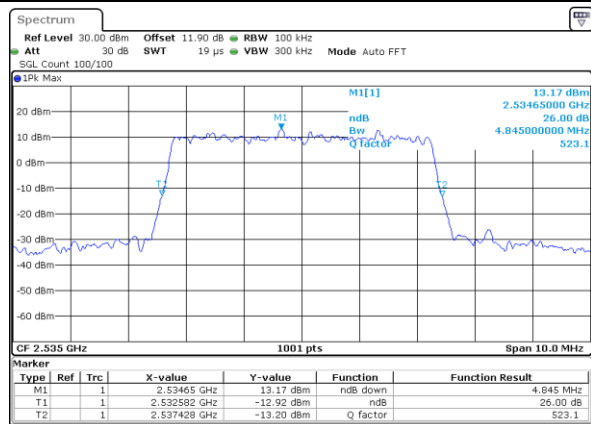
Date: 22.DEC.2019 16:11:41

Middle Channel / 5MHz / QPSK



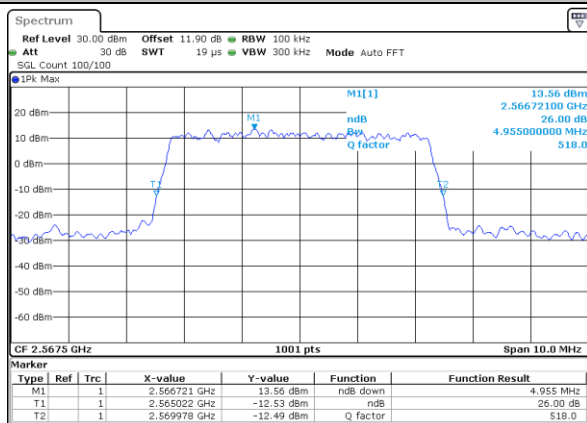
Date: 22.DEC.2019 16:17:35

Middle Channel / 5MHz / 16QAM



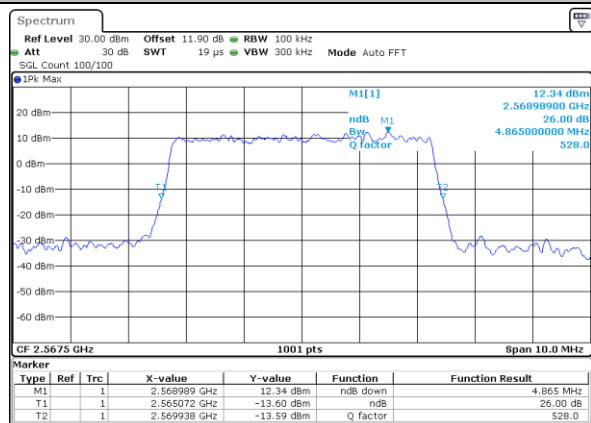
Date: 22.DEC.2019 16:17:48

Highest Channel / 5MHz / QPSK



Date: 22.DEC.2019 16:20:14

Highest Channel / 5MHz / 16QAM

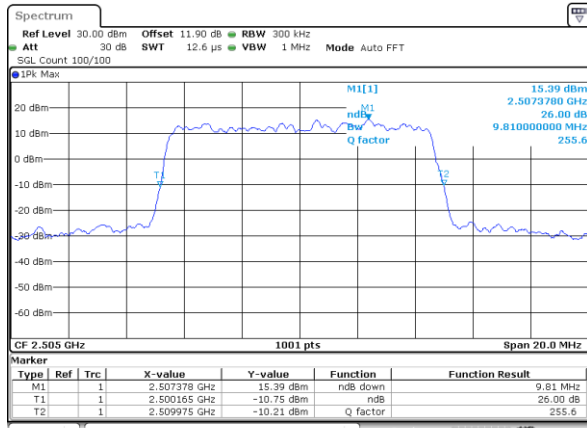


Date: 22.DEC.2019 16:20:28



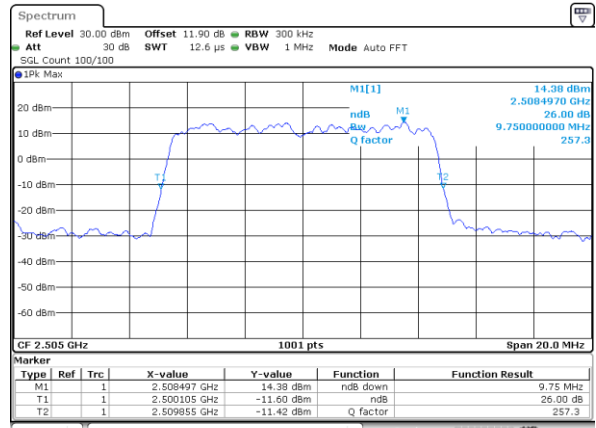
LTE Band 7

Lowest Channel / 10MHz / QPSK



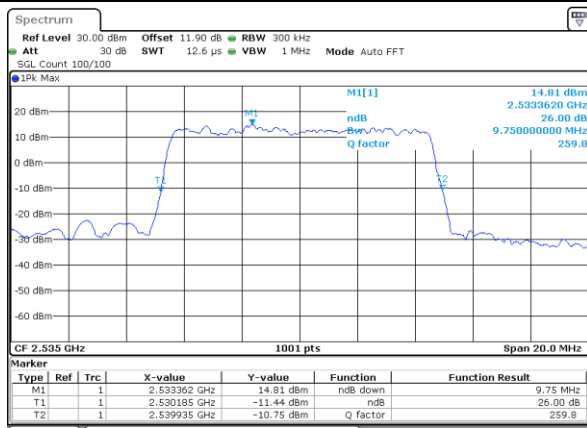
Date: 22.DEC.2019 16:33:47

Lowest Channel / 10MHz / 16QAM



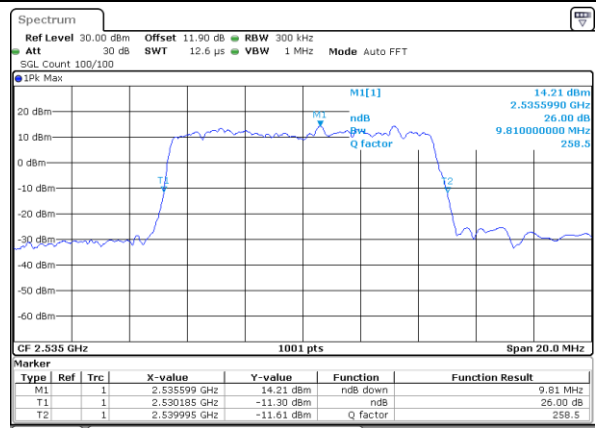
Date: 22.DEC.2019 16:34:01

Middle Channel / 10MHz / QPSK



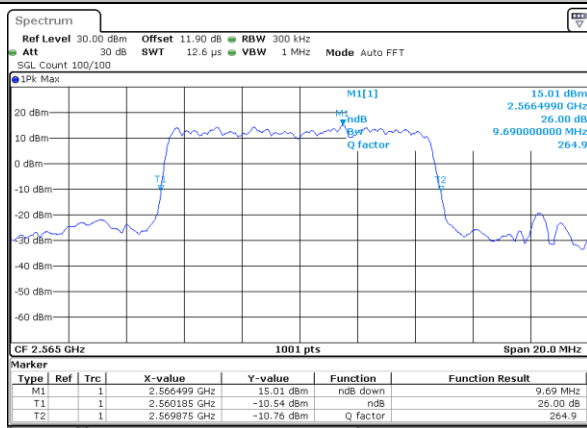
Date: 22.DEC.2019 16:39:52

Middle Channel / 10MHz / 16QAM



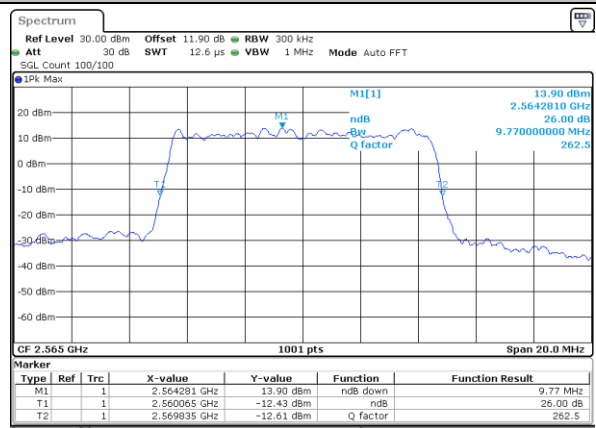
Date: 22.DEC.2019 16:40:05

Highest Channel / 10MHz / QPSK



Date: 22.DEC.2019 16:44:15

Highest Channel / 10MHz / 16QAM

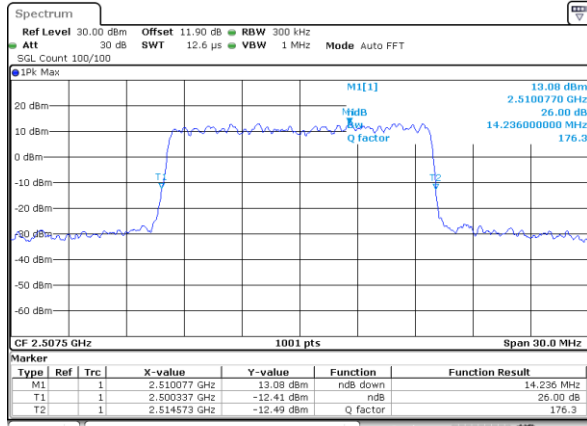


Date: 22.DEC.2019 16:44:29

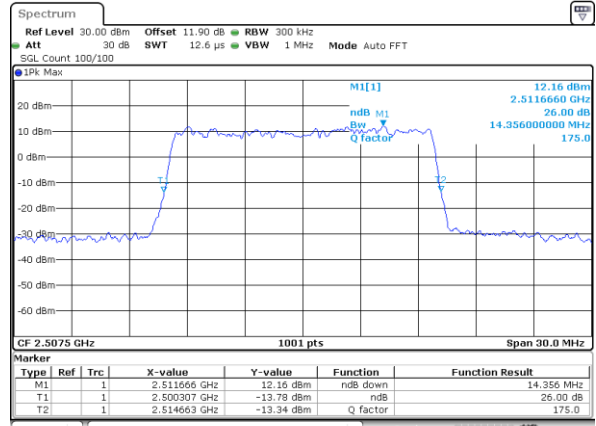


LTE Band 7

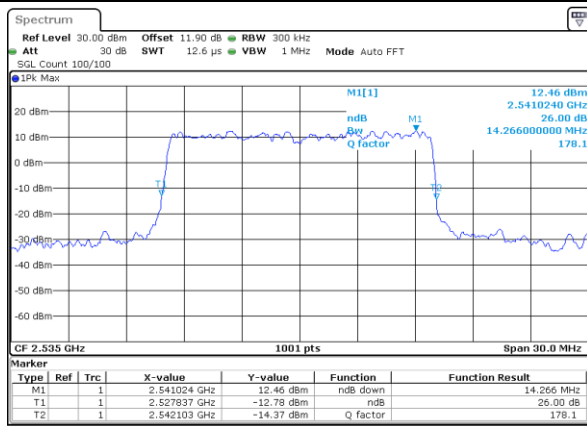
Lowest Channel / 15MHz / QPSK



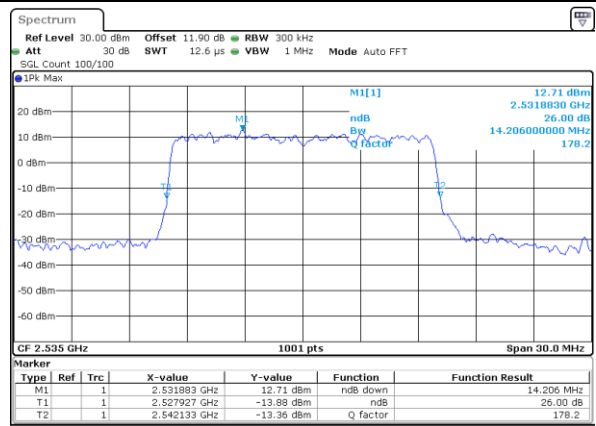
Lowest Channel / 15MHz / 16QAM



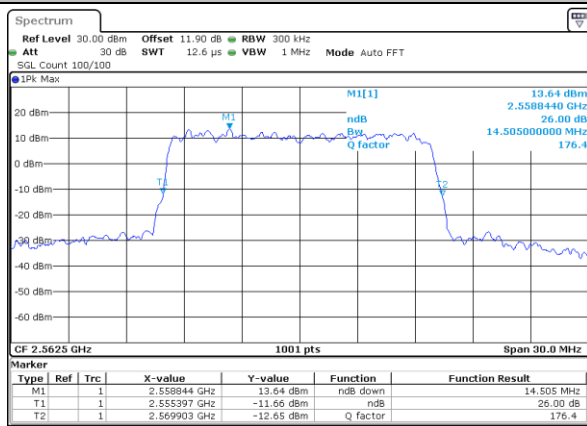
Middle Channel / 15MHz / QPSK



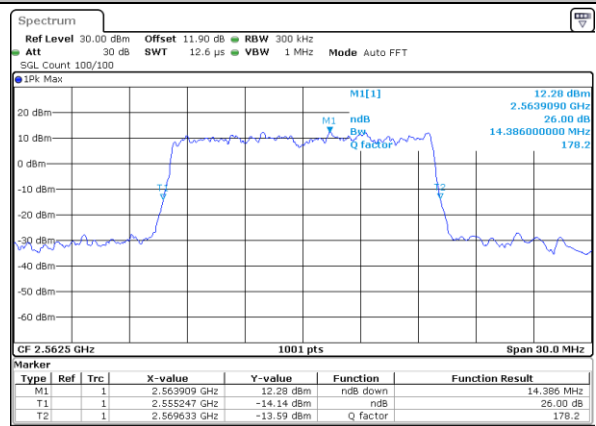
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



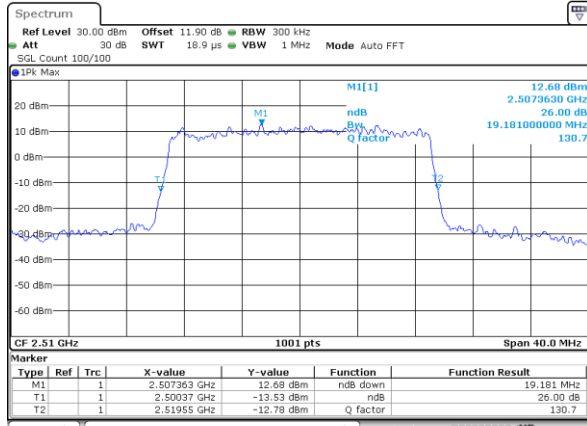
Highest Channel / 15MHz / 16QAM





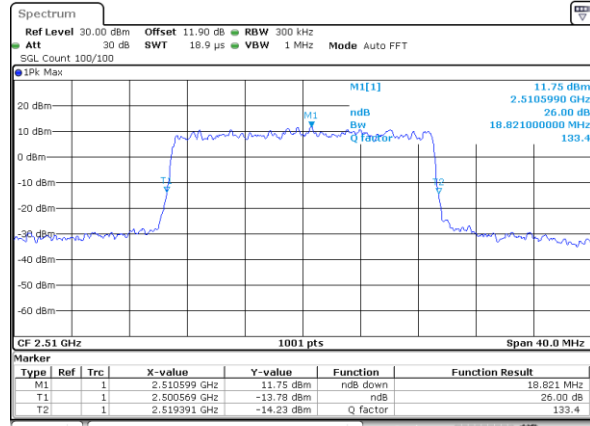
LTE Band 7

Lowest Channel / 20MHz / QPSK



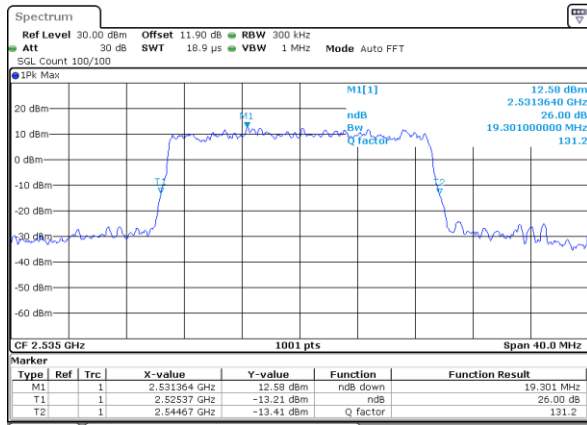
Date: 22.DEC.2019 17:20:04

Lowest Channel / 20MHz / 16QAM



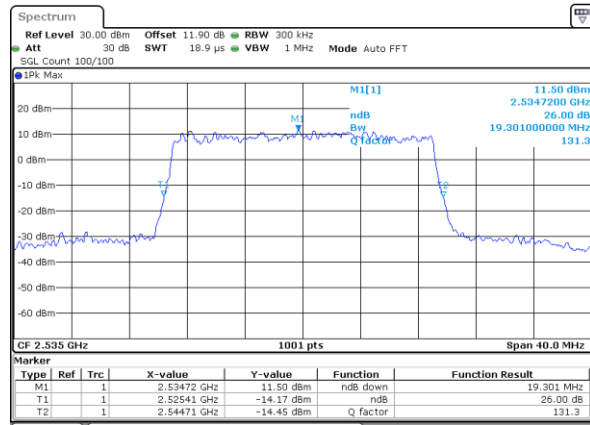
Date: 22.DEC.2019 17:20:18

Middle Channel / 20MHz / QPSK



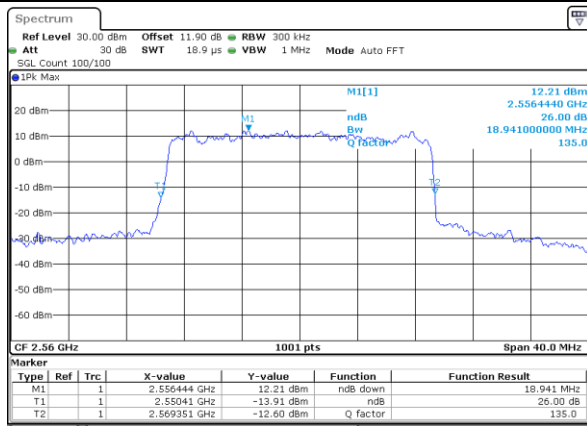
Date: 22.DEC.2019 17:26:10

Middle Channel / 20MHz / 16QAM



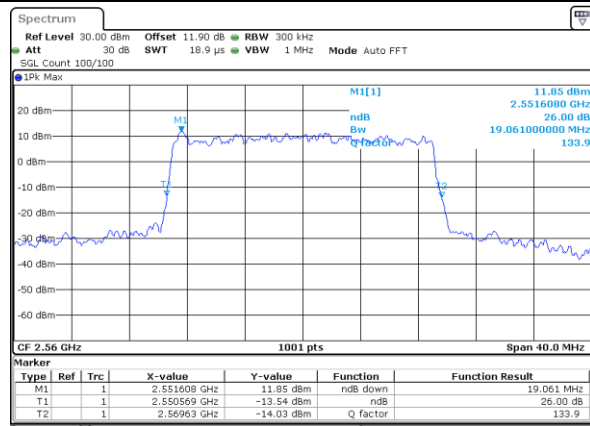
Date: 22.DEC.2019 17:26:23

Highest Channel / 20MHz / QPSK



Date: 22.DEC.2019 17:28:49

Highest Channel / 20MHz / 16QAM

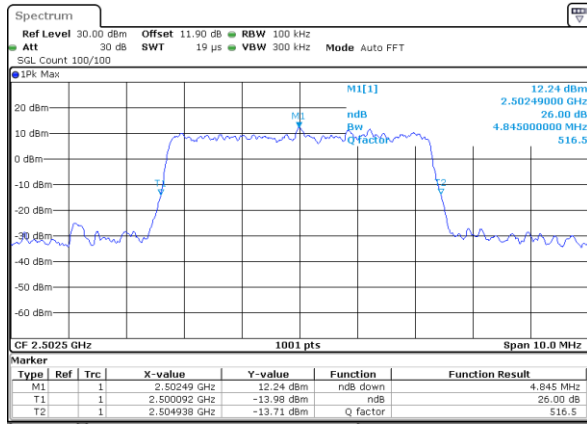


Date: 22.DEC.2019 17:29:03

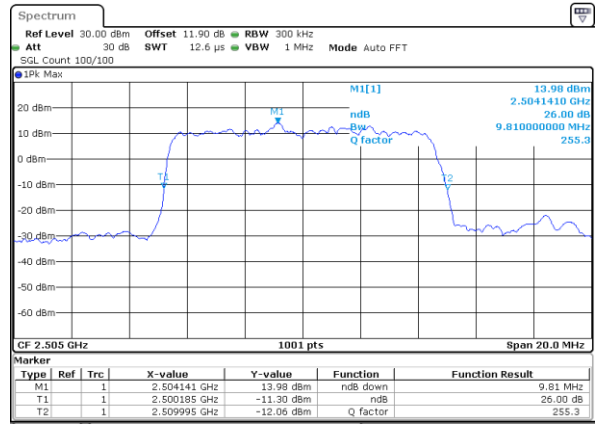


LTE Band 7

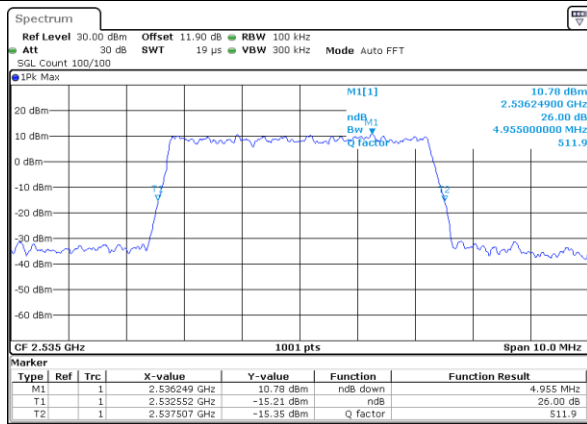
Lowest Channel / 5MHz / 64QAM



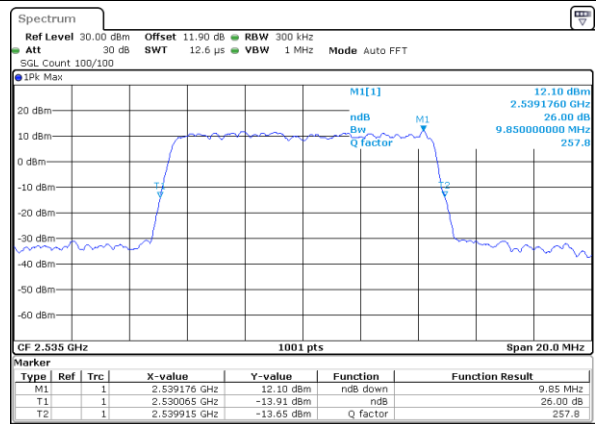
Lowest Channel / 10MHz / 64QAM



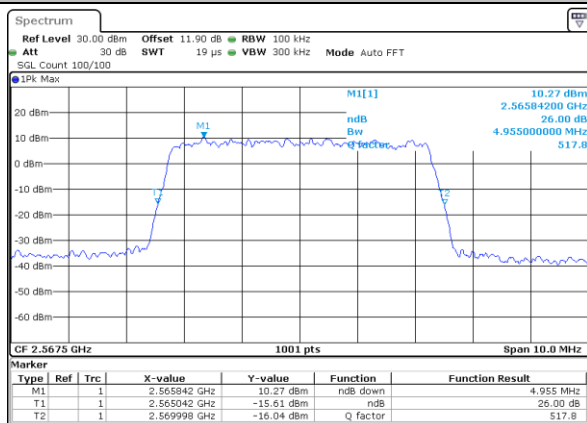
Middle Channel / 5MHz / 64QAM



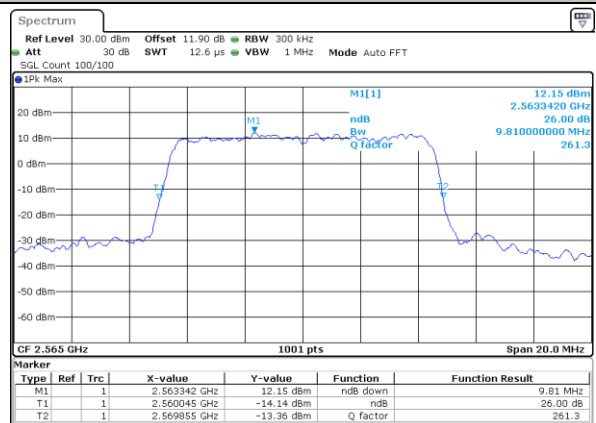
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



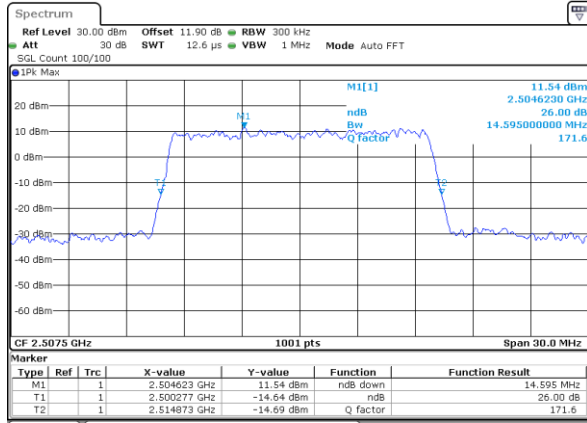
Highest Channel / 10MHz / 64QAM





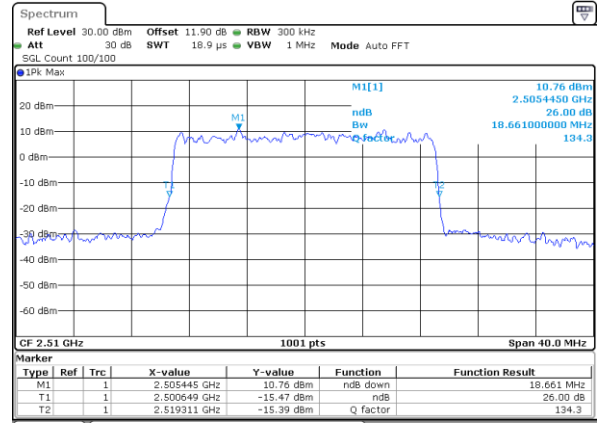
LTE Band 7

Lowest Channel / 15MHz / 64QAM



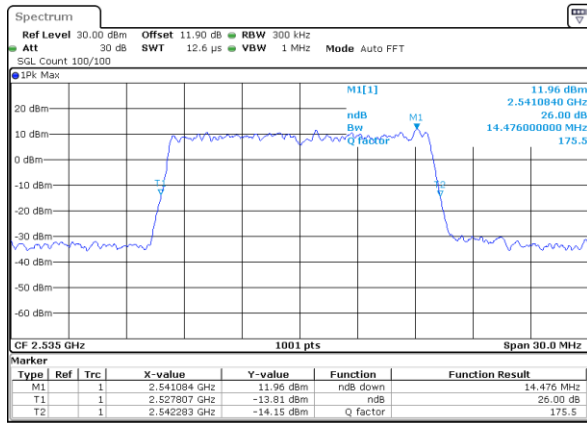
Date: 22.DEC.2019 17:12:24

Lowest Channel / 20MHz / 64QAM



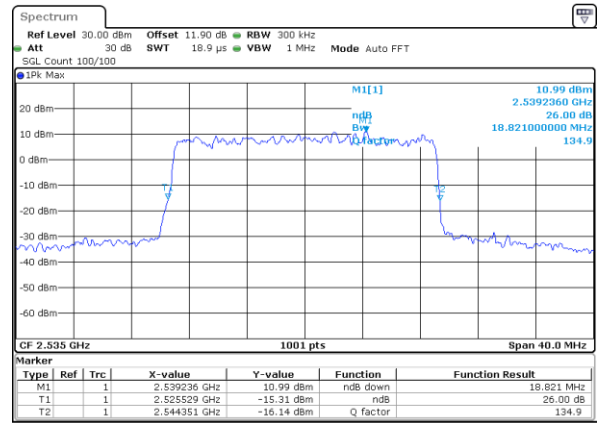
Date: 22.DEC.2019 17:13:42

Middle Channel / 15MHz / 64QAM



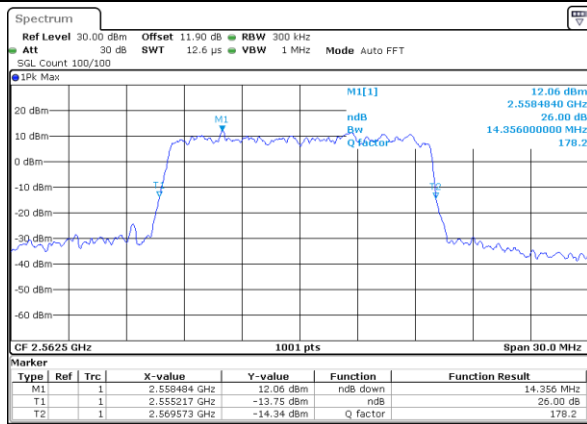
Date: 22.DEC.2019 17:15:26

Middle Channel / 20MHz / 64QAM



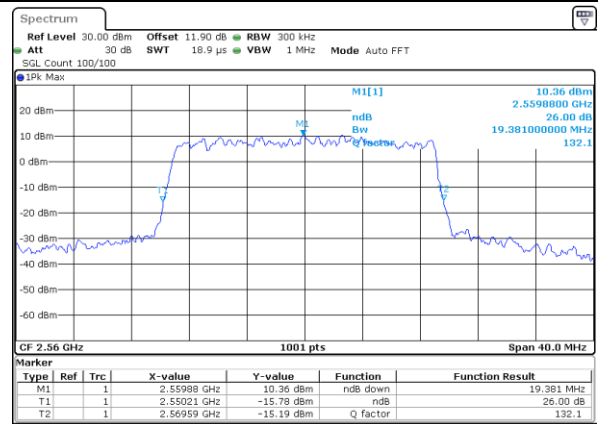
Date: 22.DEC.2019 17:17:44

Highest Channel / 15MHz / 64QAM



Date: 22.DEC.2019 17:16:46

Highest Channel / 20MHz / 64QAM



Date: 22.DEC.2019 17:19:04

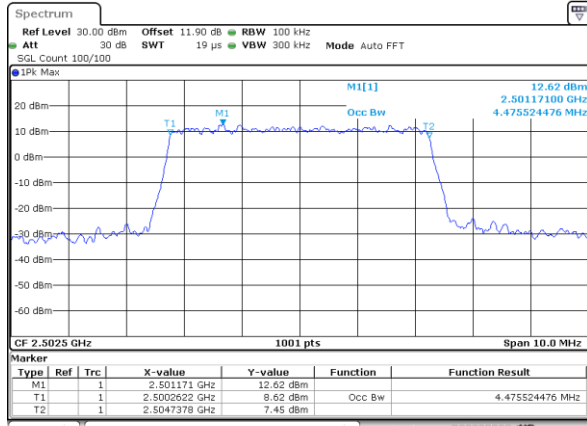
**Occupied Bandwidth**

Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.48	9.05	8.95	13.43	13.49	17.86	17.90
Middle CH	-	-	-	-	4.49	4.52	9.05	9.01	13.43	13.46	17.94	17.86
Highest CH	-	-	-	-	4.48	4.50	9.05	8.97	13.40	13.49	17.90	17.94
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.51	-	8.99	-	13.49	-	17.94	-
Middle CH	-	-	-	-	4.51	-	9.11	-	13.43	-	17.90	-
Highest CH	-	-	-	-	4.51	-	9.05	-	13.37	-	17.82	-



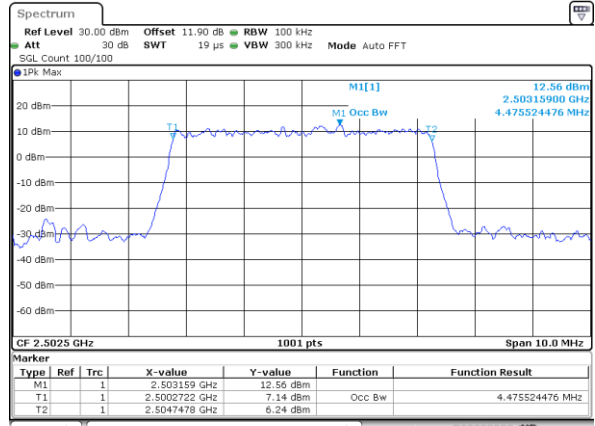
LTE Band 7

Lowest Channel / 5MHz / QPSK



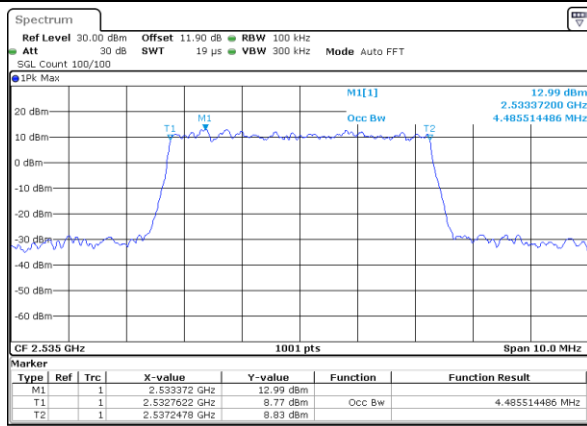
Date: 22.DEC.2019 16:10:59

Lowest Channel / 5MHz / 16QAM



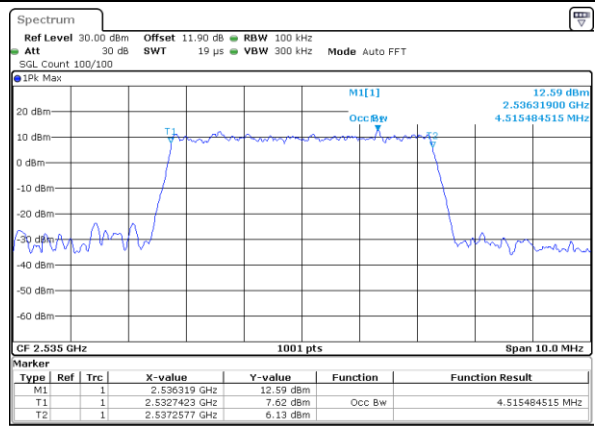
Date: 22.DEC.2019 16:11:13

Middle Channel / 5MHz / QPSK



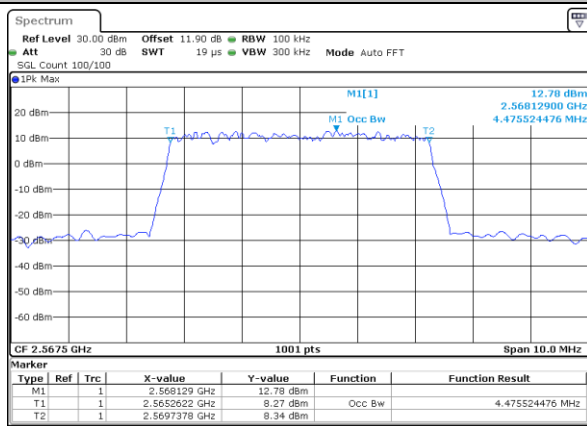
Date: 22.DEC.2019 16:17:09

Middle Channel / 5MHz / 16QAM



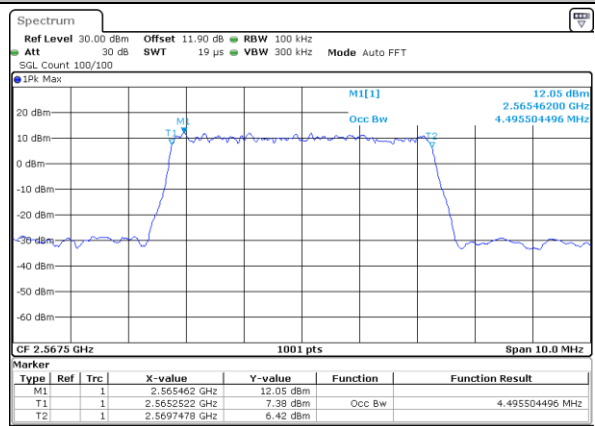
Date: 22.DEC.2019 16:17:22

Highest Channel / 5MHz / QPSK



Date: 22.DEC.2019 16:19:47

Highest Channel / 5MHz / 16QAM

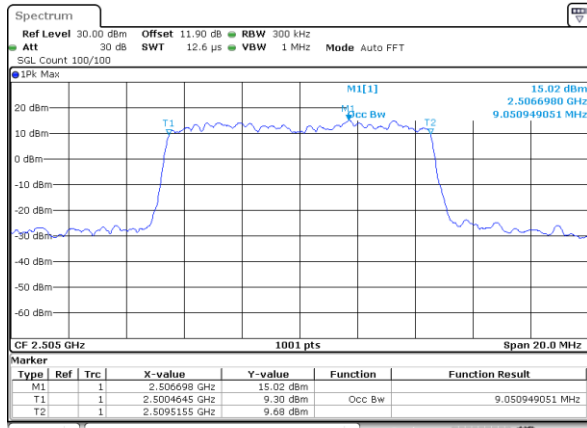


Date: 22.DEC.2019 16:20:00



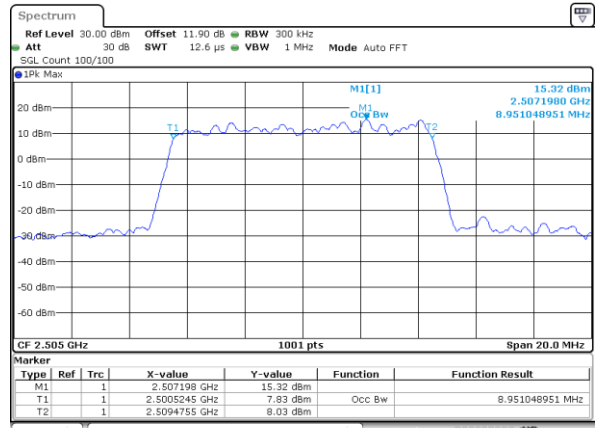
LTE Band 7

Lowest Channel / 10MHz / QPSK



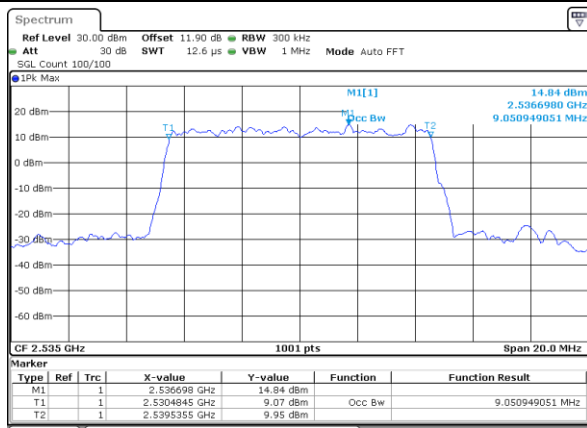
Date: 22.DEC.2019 16:33:20

Lowest Channel / 10MHz / 16QAM



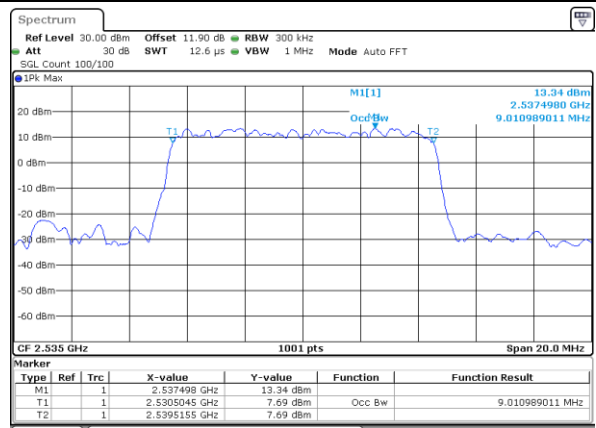
Date: 22.DEC.2019 16:33:33

Middle Channel / 10MHz / QPSK



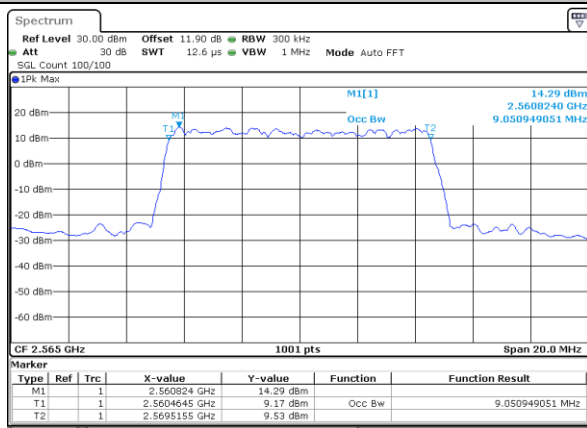
Date: 22.DEC.2019 16:39:26

Middle Channel / 10MHz / 16QAM



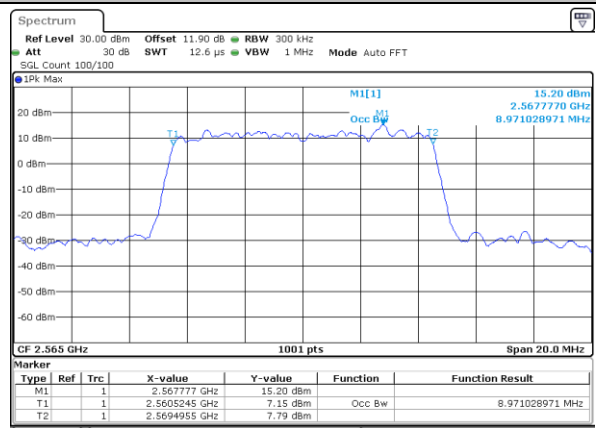
Date: 22.DEC.2019 16:39:39

Highest Channel / 10MHz / QPSK



Date: 22.DEC.2019 16:42:03

Highest Channel / 10MHz / 16QAM

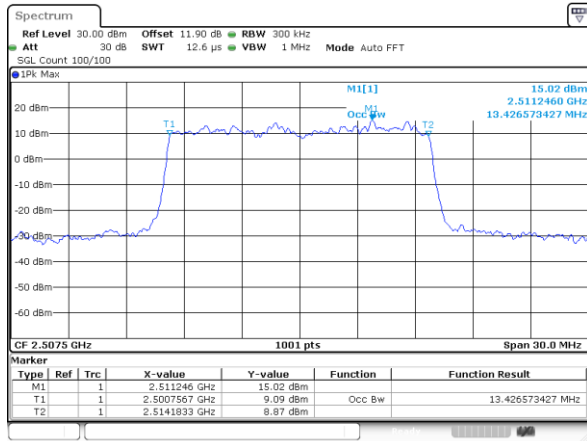


Date: 22.DEC.2019 16:44:01

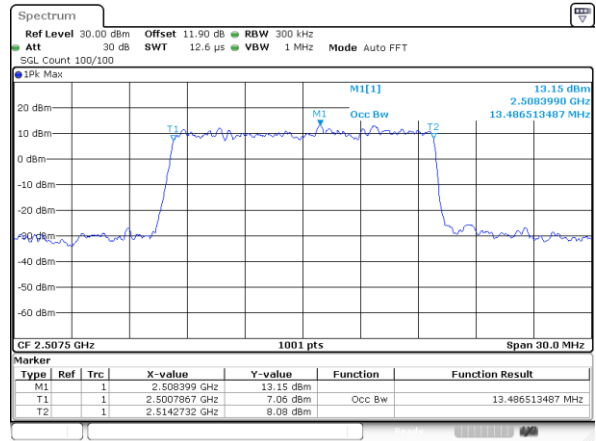


LTE Band 7

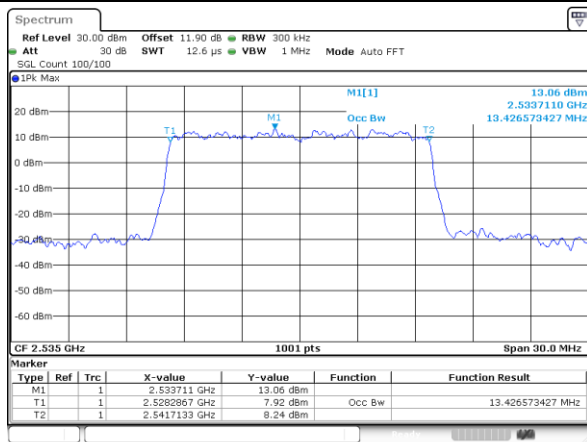
Lowest Channel / 15MHz / QPSK



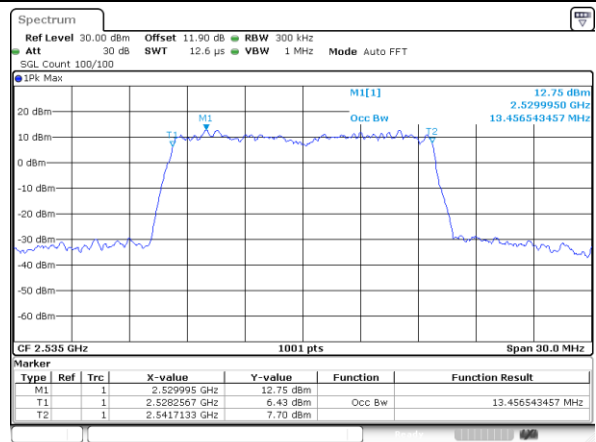
Lowest Channel / 15MHz / 16QAM



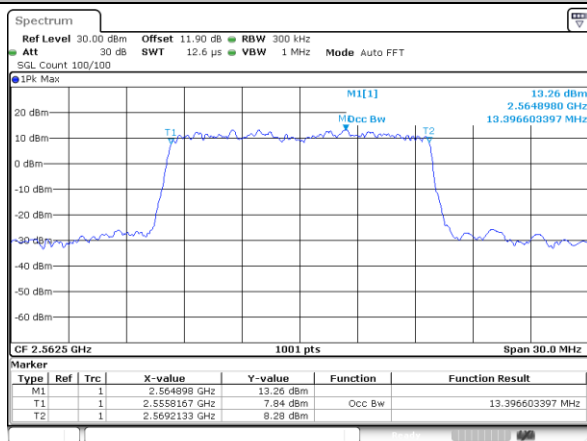
Middle Channel / 15MHz / QPSK



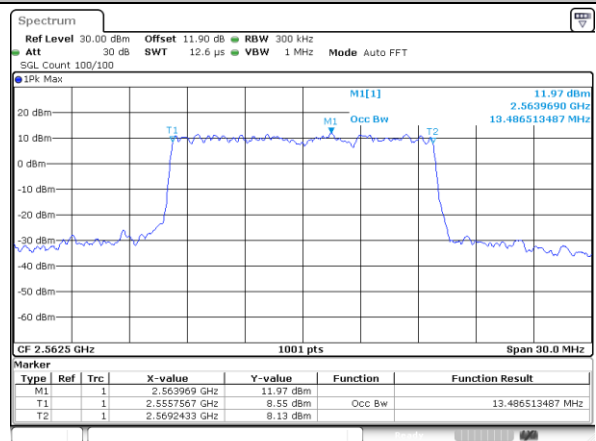
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



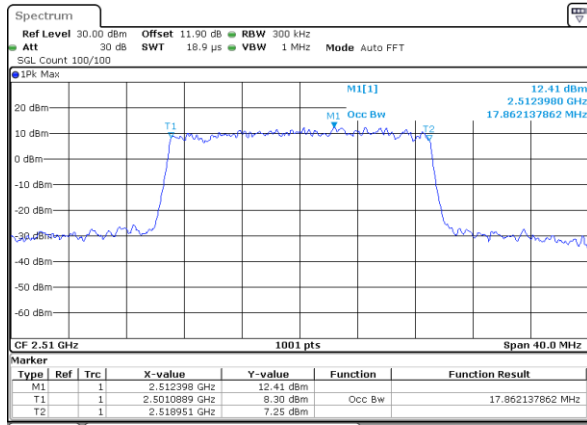
Highest Channel / 15MHz / 16QAM





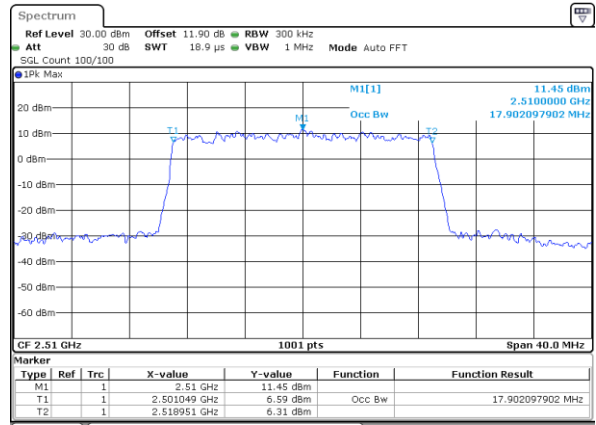
LTE Band 7

Lowest Channel / 20MHz / QPSK



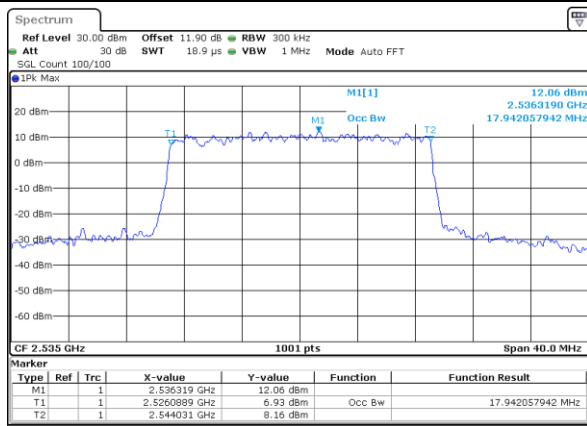
Date: 22.DEC.2019 17:19:36

Lowest Channel / 20MHz / 16QAM



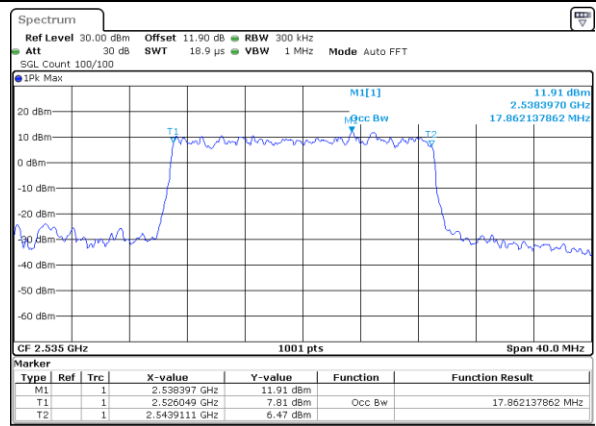
Date: 22.DEC.2019 17:19:50

Middle Channel / 20MHz / QPSK



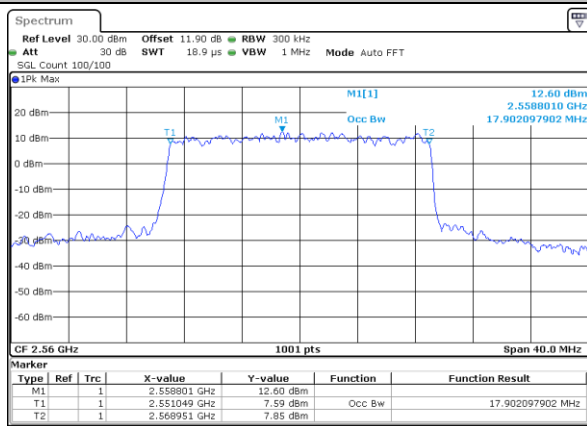
Date: 22.DEC.2019 17:25:44

Middle Channel / 20MHz / 16QAM



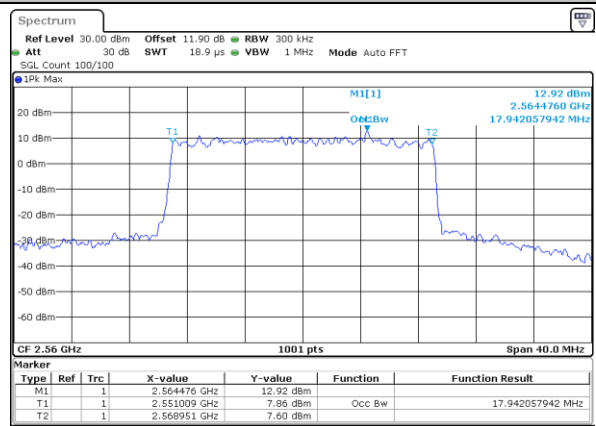
Date: 22.DEC.2019 17:25:57

Highest Channel / 20MHz / QPSK



Date: 22.DEC.2019 17:28:21

Highest Channel / 20MHz / 16QAM

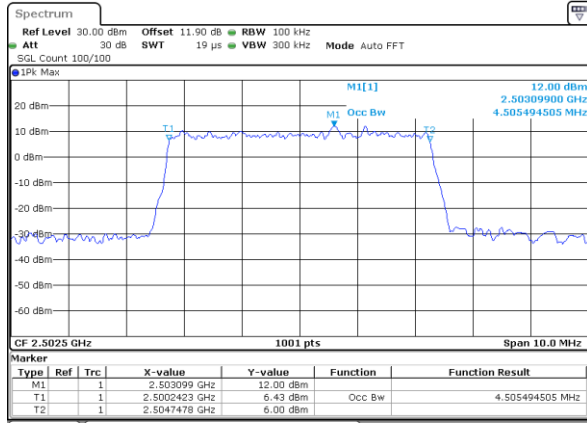


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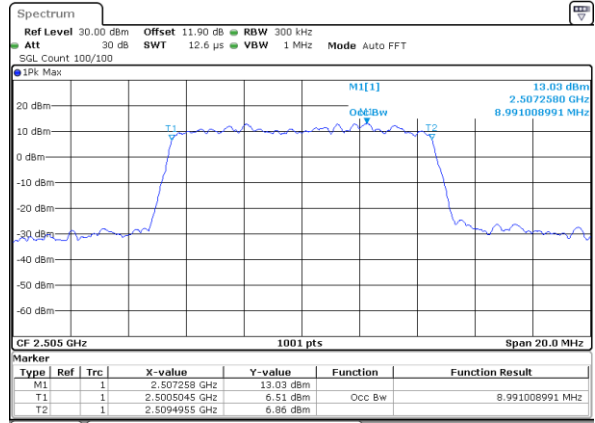
LTE Band 7

Lowest Channel / 5MHz / 64QAM



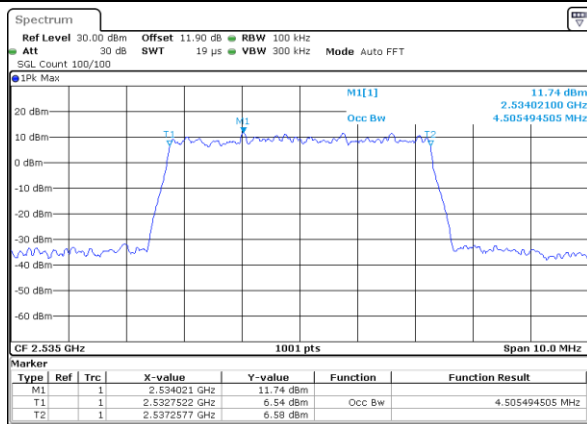
Date: 22.DEC.2019 16:25:54

Lowest Channel / 10MHz / 64QAM



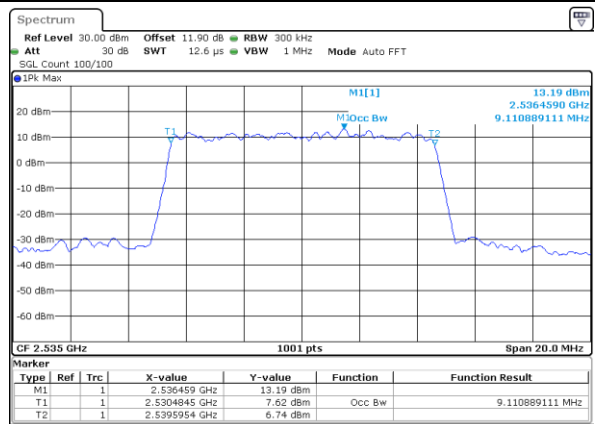
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Middle Channel / 5MHz / 64QAM



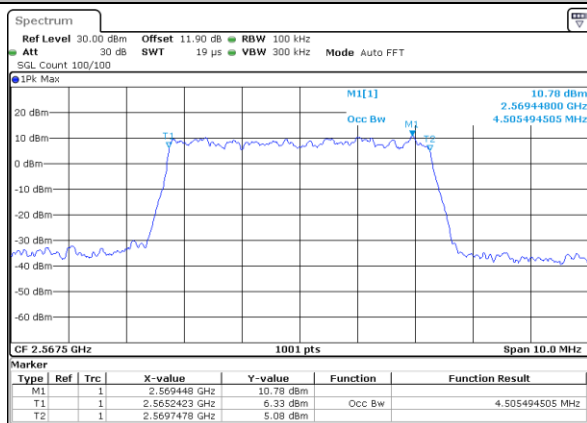
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Middle Channel / 10MHz / 64QAM



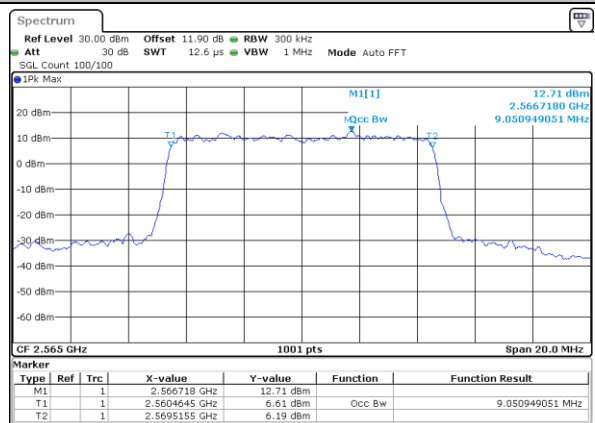
Date: 22.DEC.2019 16:52:57

Highest Channel / 5MHz / 64QAM



Date: 22.DEC.2019 16:30:16

Highest Channel / 10MHz / 64QAM

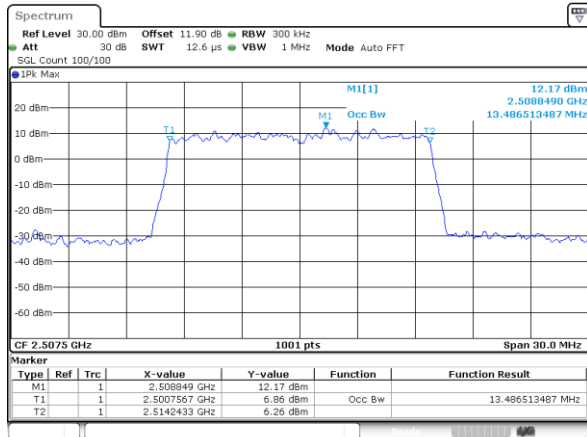


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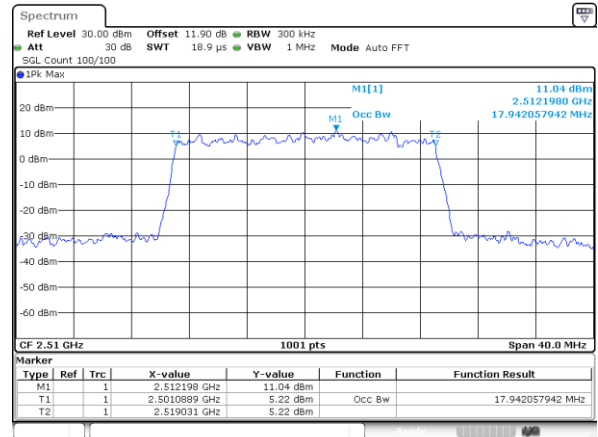


LTE Band 7

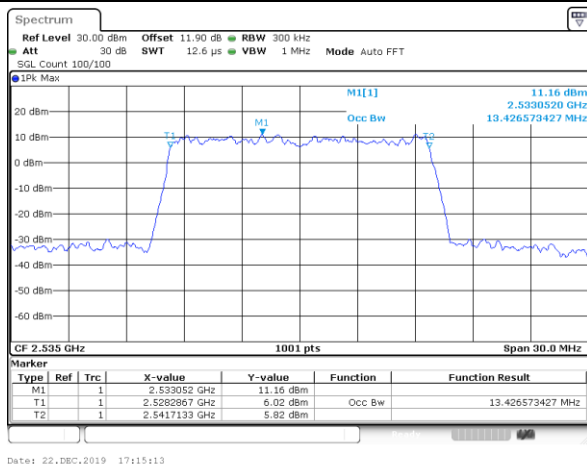
Lowest Channel / 15MHz / 64QAM



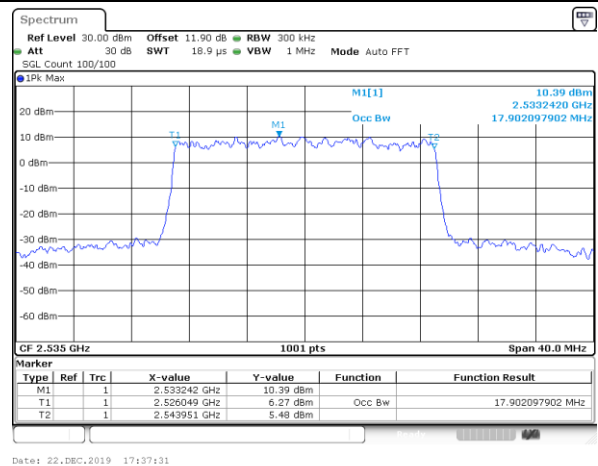
Lowest Channel / 20MHz / 64QAM



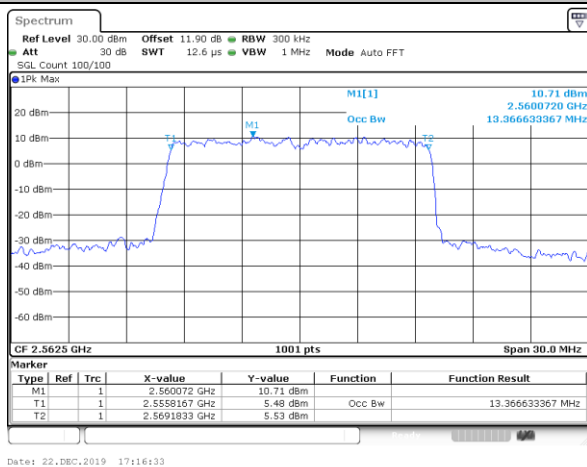
Middle Channel / 15MHz / 64QAM



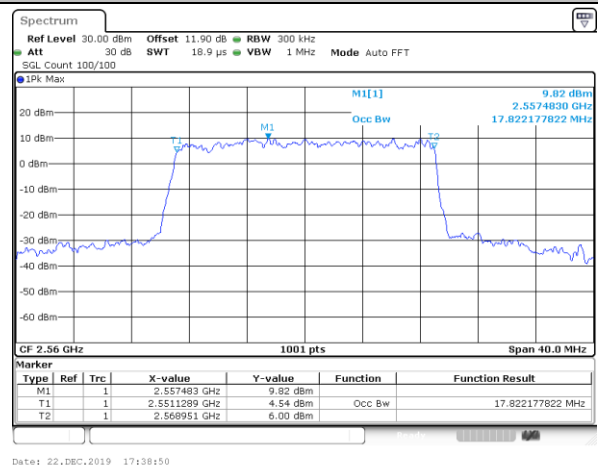
Middle Channel / 20MHz / 64QAM

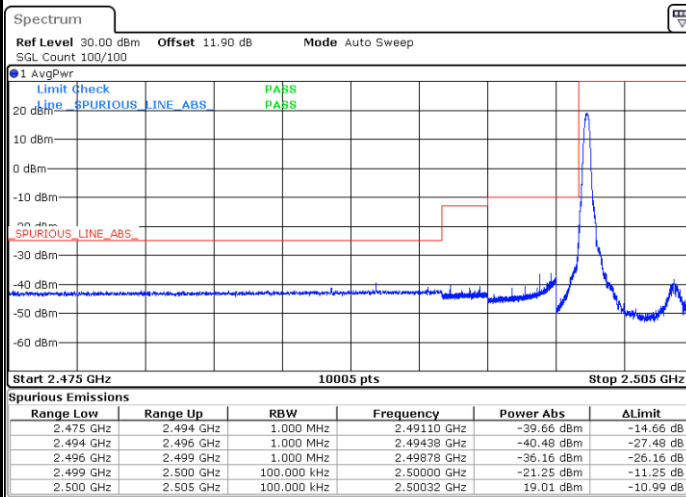
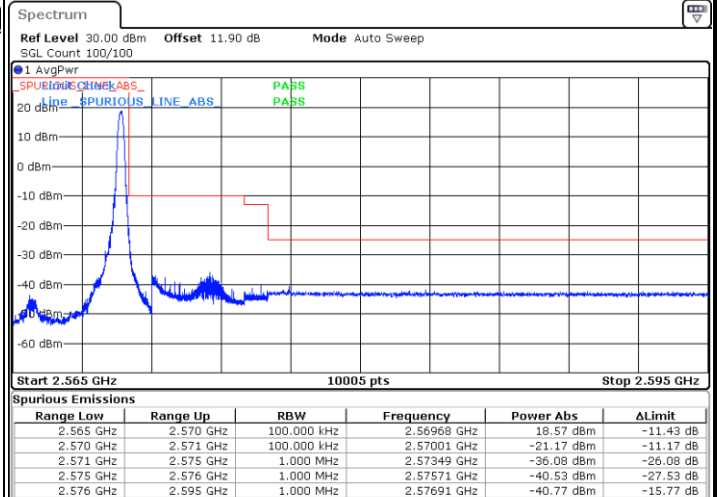
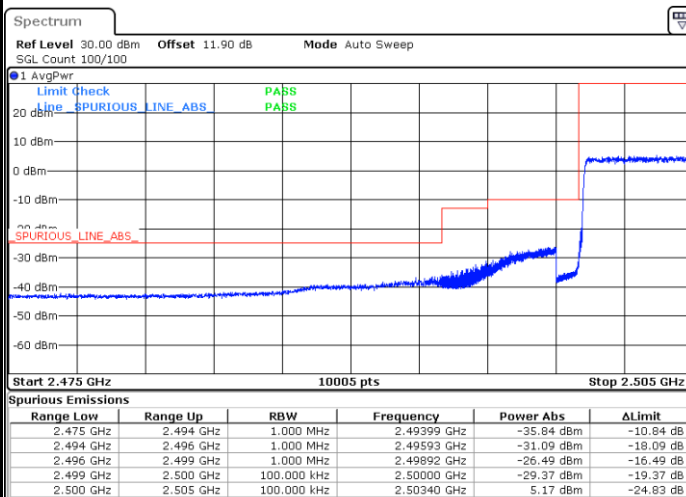
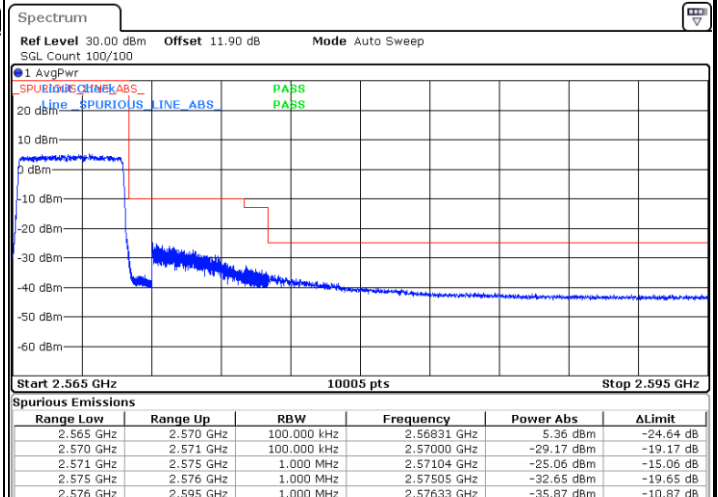


Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

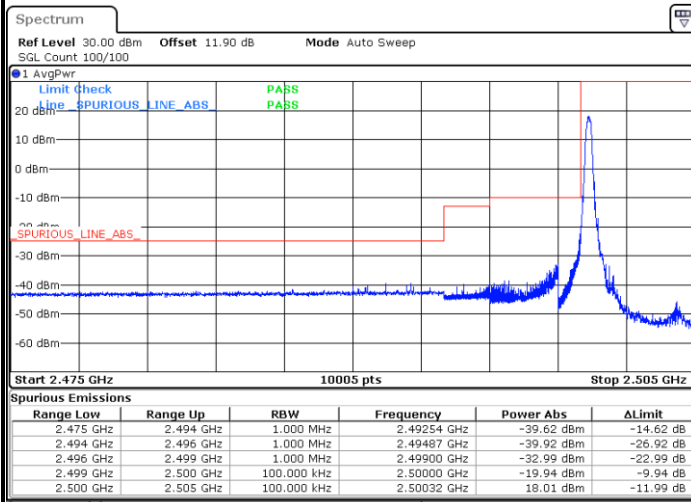


**Conducted Band Edge****LTE Band 7 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

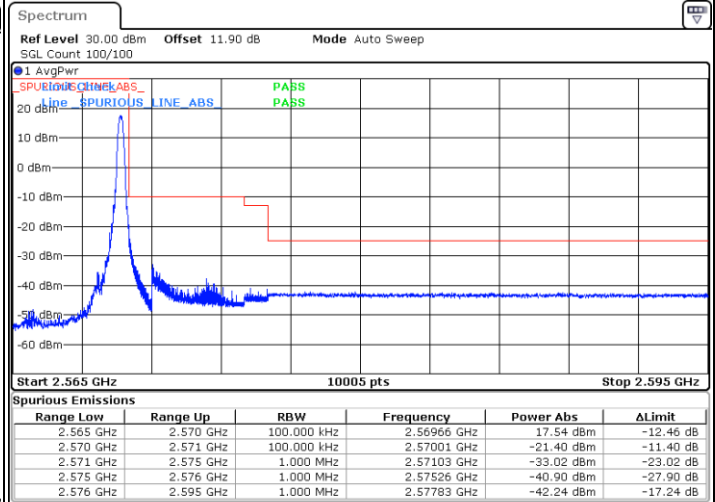


LTE Band 7 / 5MHz / 16QAM

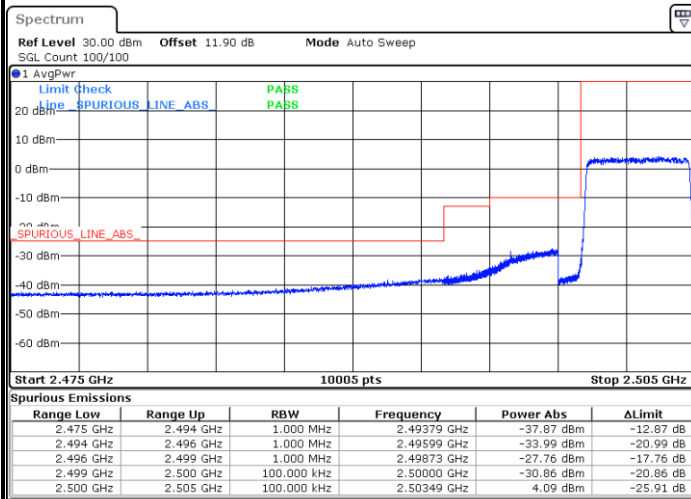
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

