

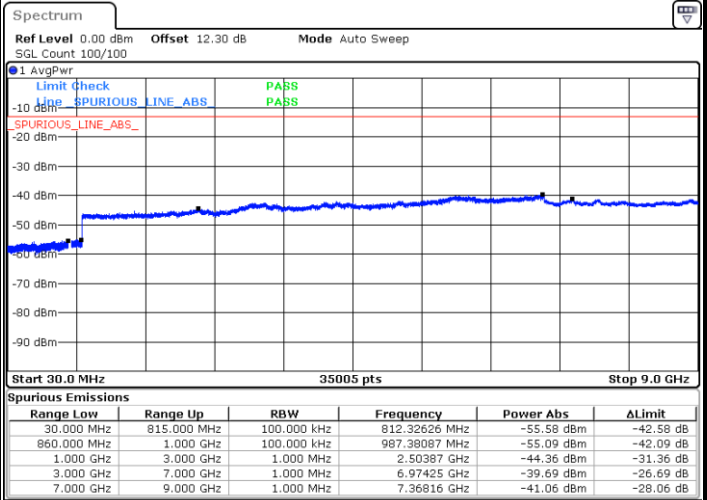
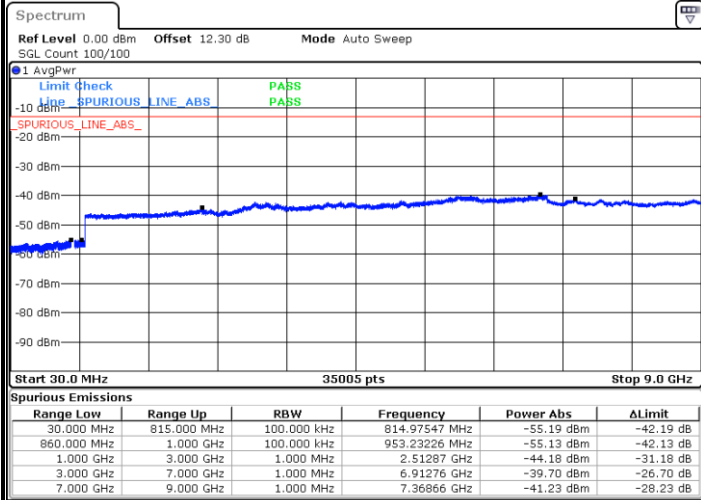


Conducted Spurious Emission

LTE Band 26 / 1.4MHz

Lowest Channel / QPSK

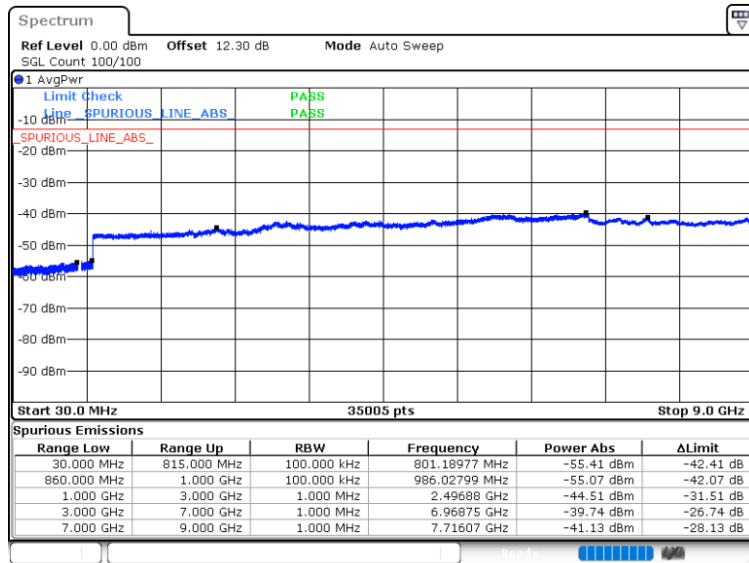
Middle Channel / QPSK



Date: 9.MAR.2023 15:27:14

Date: 9.MAR.2023 15:29:44

Highest Channel / QPSK



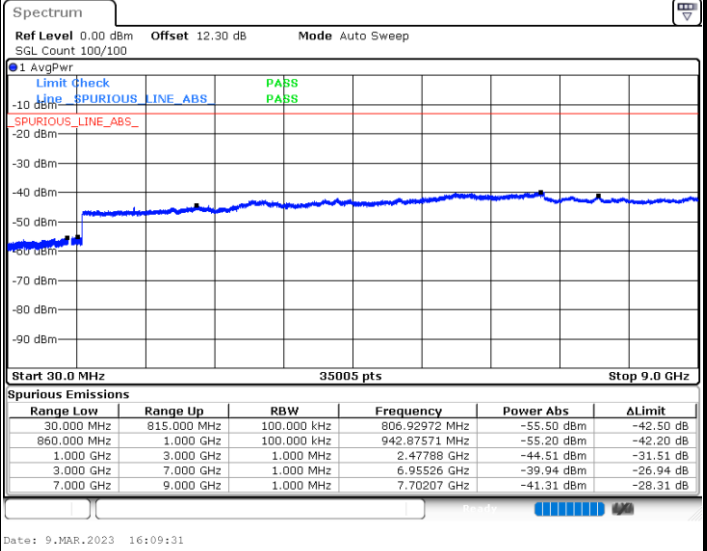
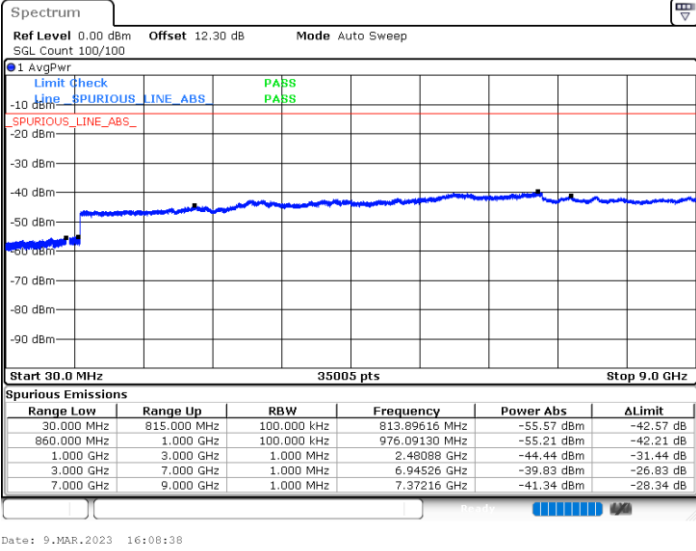
Date: 9.MAR.2023 15:35:31



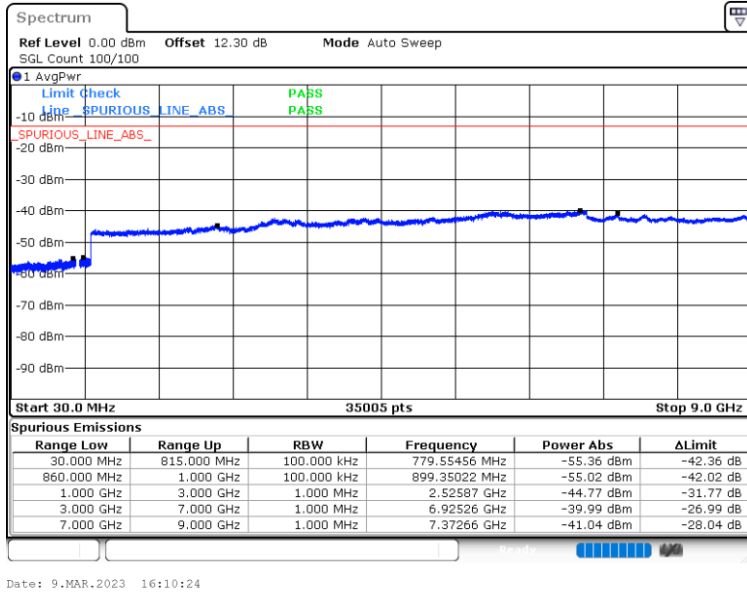
LTE Band 26 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

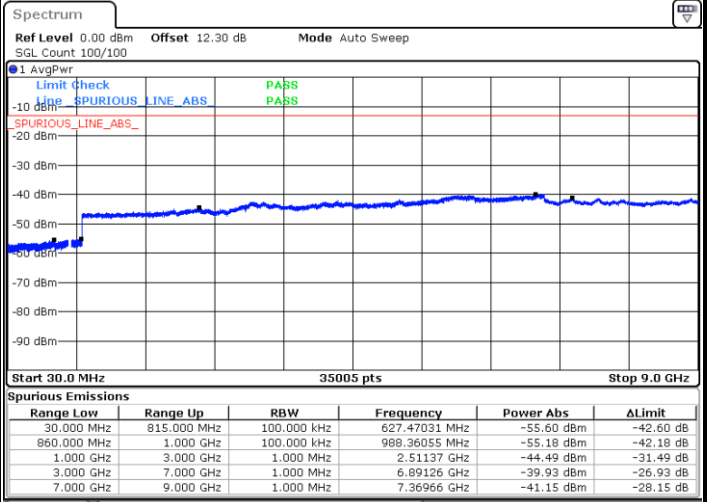
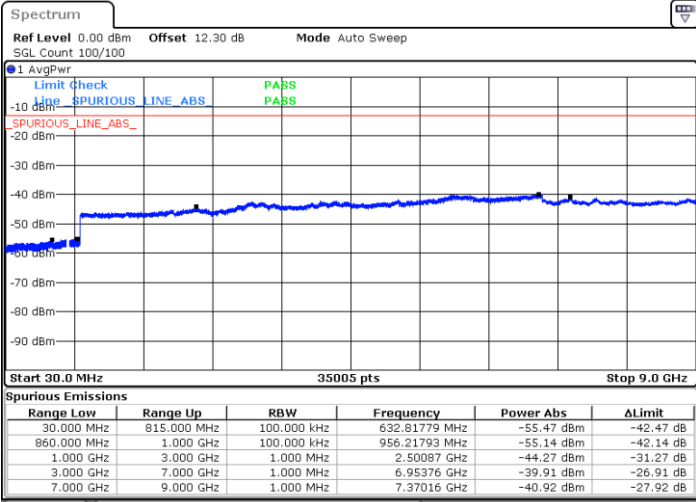




LTE Band 26 / 5MHz

Lowest Channel / QPSK

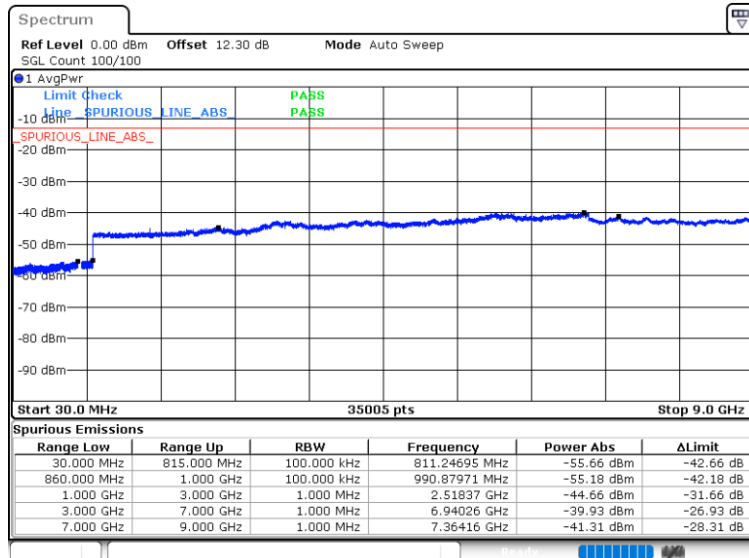
Middle Channel / QPSK



Date: 9.MAR.2023 16:11:17

Date: 9.MAR.2023 16:12:11

Highest Channel / QPSK



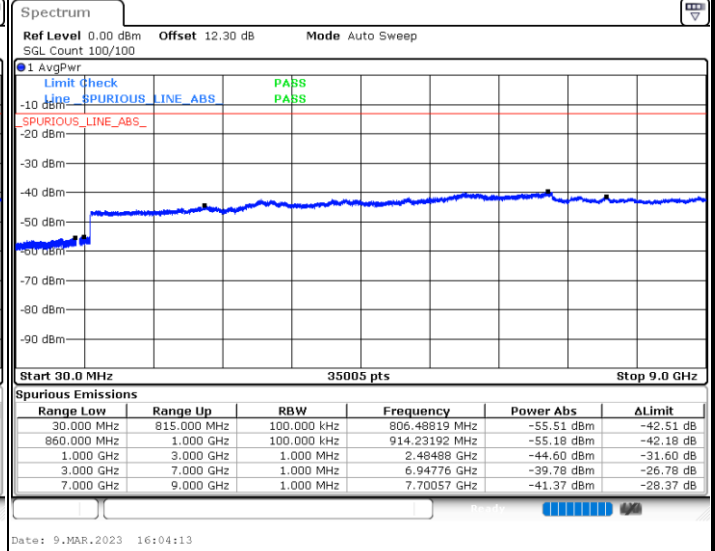
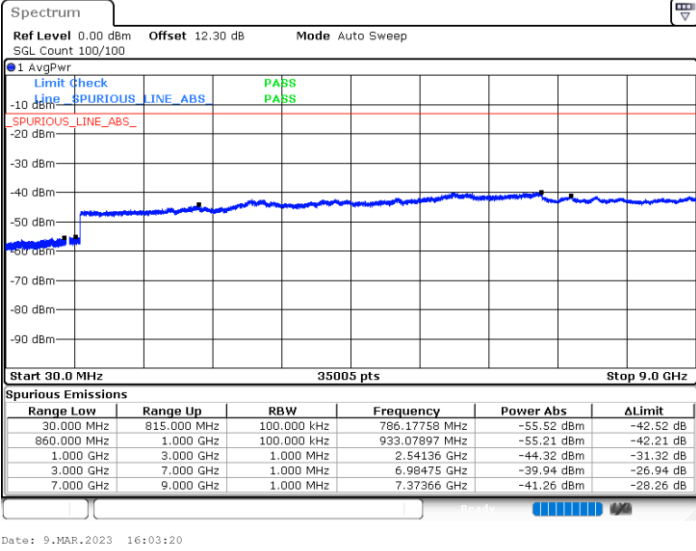
Date: 9.MAR.2023 16:13:04



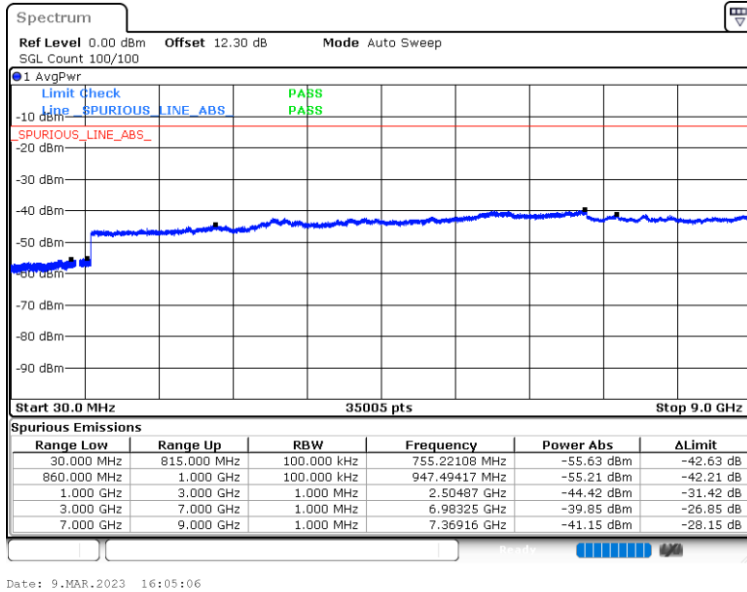
LTE Band 26 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

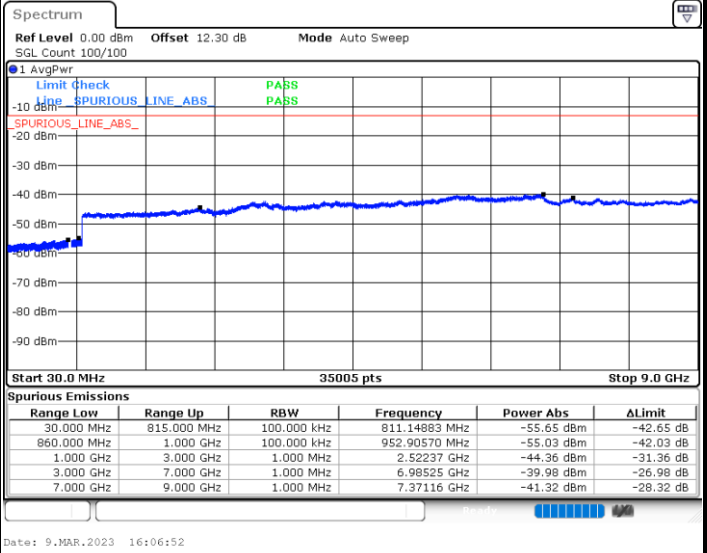
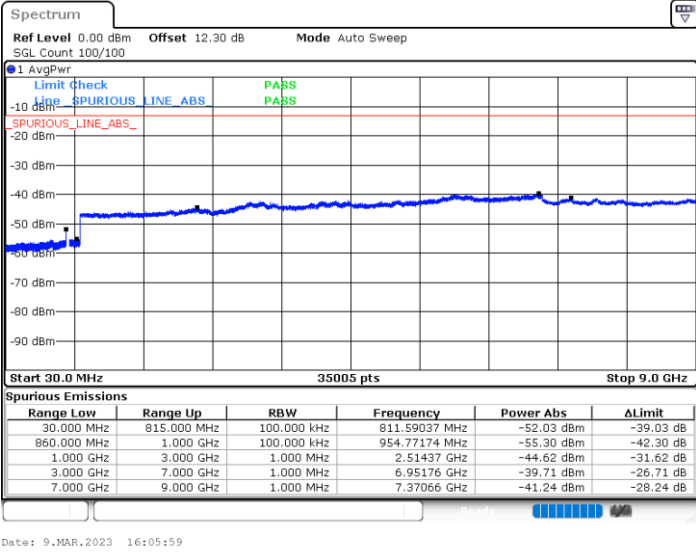




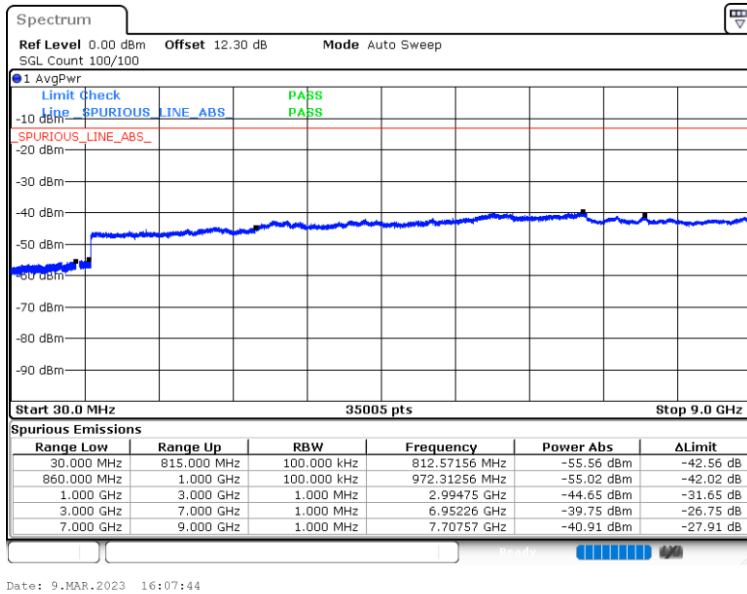
LTE Band 26 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
35	Normal Voltage	0.0208	PASS
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0008	
20	Maximum Voltage	0.0188	
20	Normal Voltage	0.0025	
20	Battery End Point	0.0078	

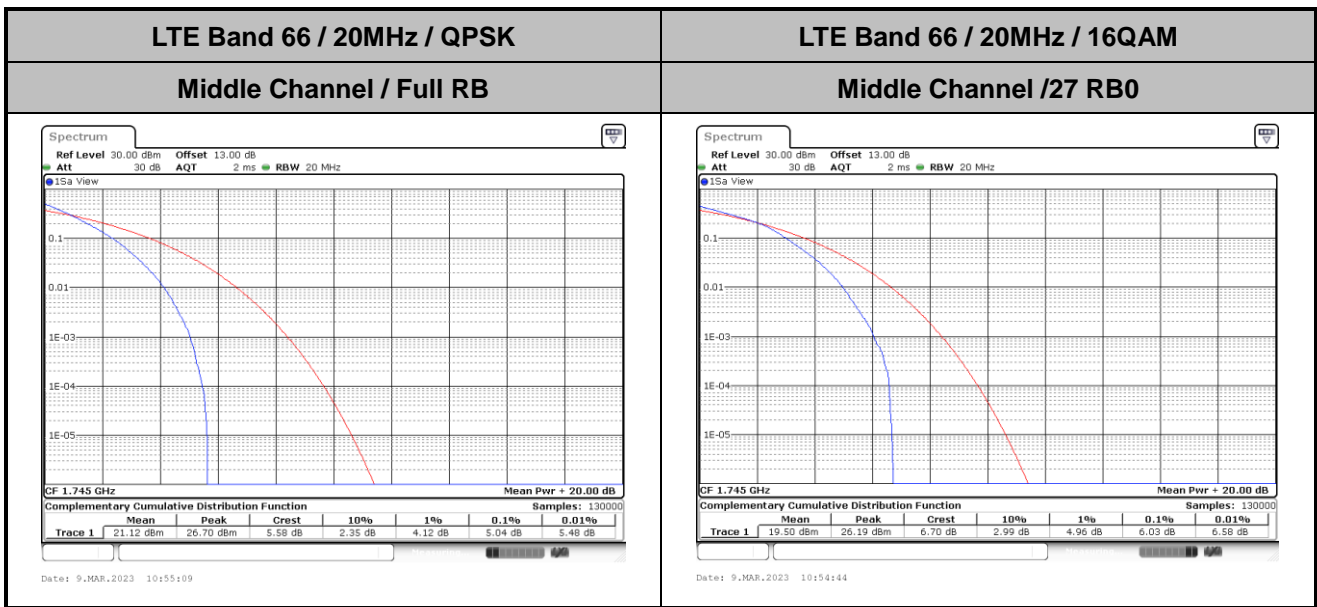
Note: Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.



LTE Band 66

Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	27RB0	Result
Middle CH	5.04	6.03	PASS





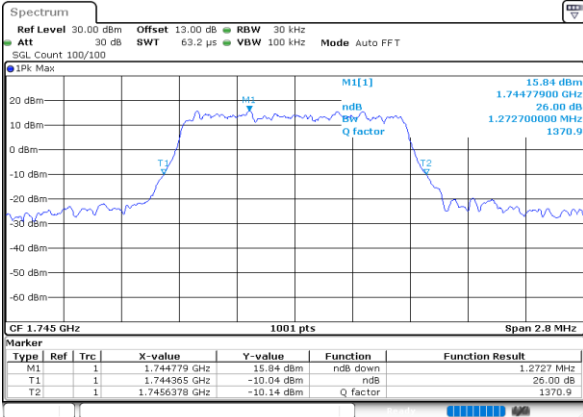
26dB Bandwidth

Mode	LTE Band 66 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.27	1.26	3.01	3.04	4.88	5.00	9.71	5.51	14.21	5.69	19.10	5.51



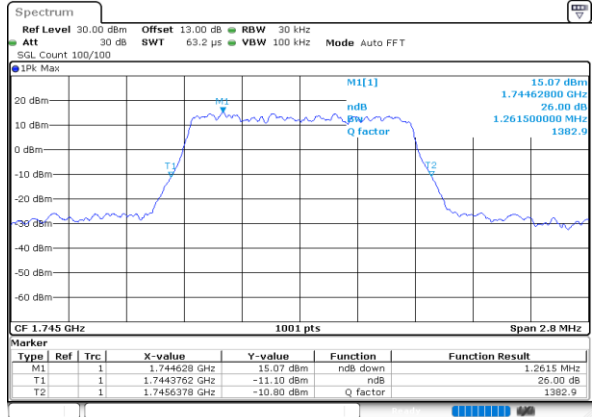
LTE Band 66

Middle Channel / 1.4MHz / QPSK



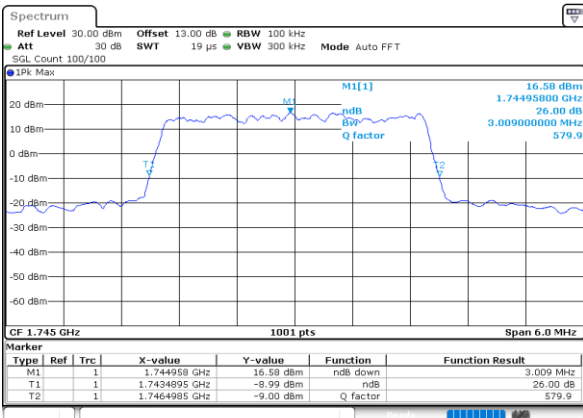
Date: 9.MAR.2023 10:14:37

Middle Channel / 1.4MHz / 16QAM



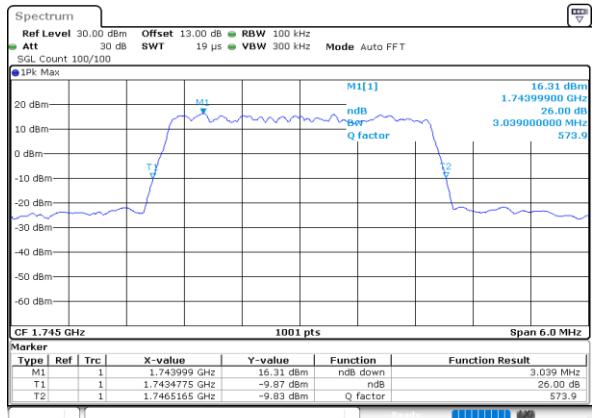
Date: 9.MAR.2023 10:15:02

Middle Channel / 3MHz / QPSK



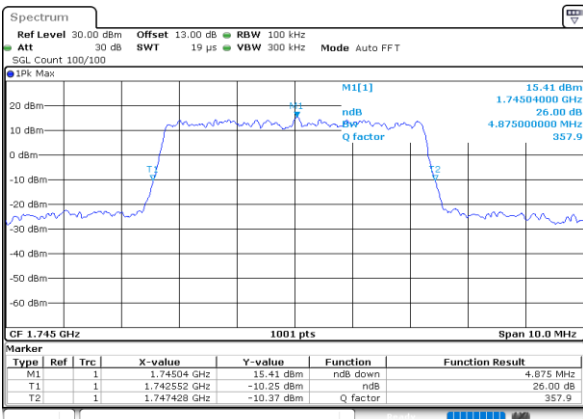
Date: 9.MAR.2023 10:24:30

Middle Channel / 3MHz / 16QAM



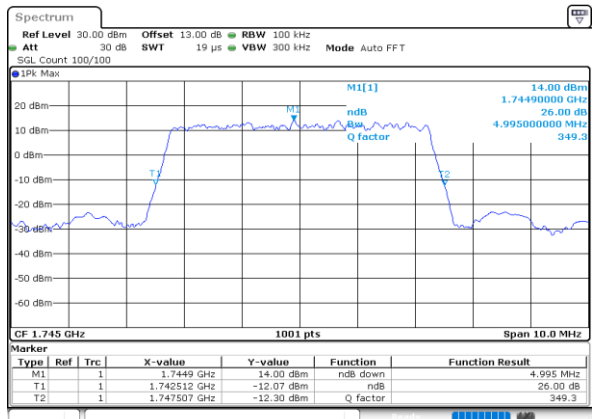
Date: 9.MAR.2023 10:24:55

Middle Channel / 5MHz / QPSK



Date: 9.MAR.2023 10:31:02

Middle Channel / 5MHz / 16QAM

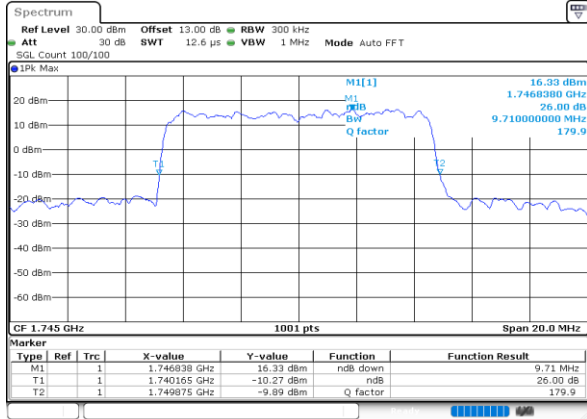


Date: 9.MAR.2023 10:31:26



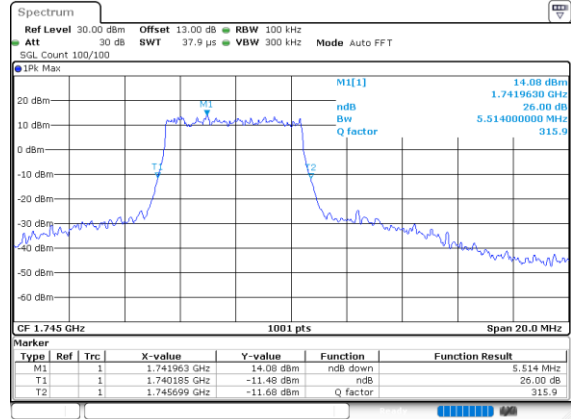
LTE Band 66

Middle Channel / 10MHz / QPSK



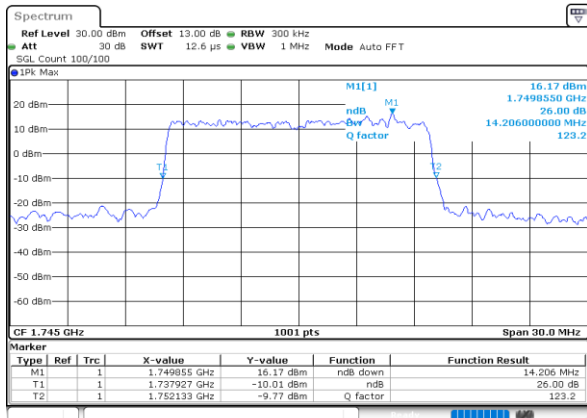
Date: 9.MAR.2023 10:37:58

Middle Channel / 10MHz / 16QAM



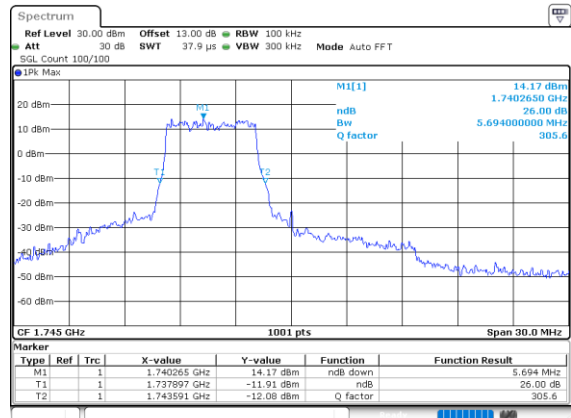
Date: 4.JUL.2023 15:40:44

Middle Channel / 15MHz / QPSK



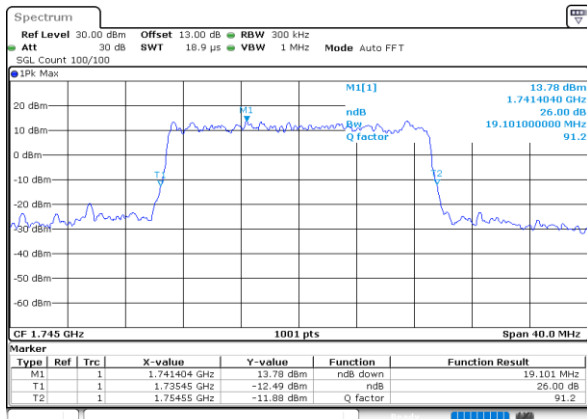
Date: 9.MAR.2023 10:44:30

Middle Channel / 15MHz / 16QAM



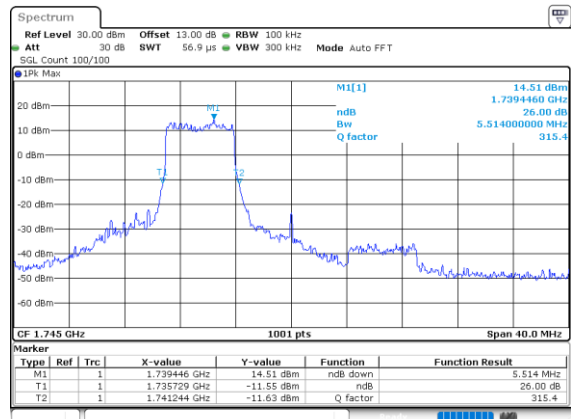
Date: 4.JUL.2023 17:28:07

Middle Channel / 20MHz / QPSK



Date: 9.MAR.2023 10:51:27

Middle Channel / 20MHz / 16QAM



Date: 4.JUL.2023 17:28:57



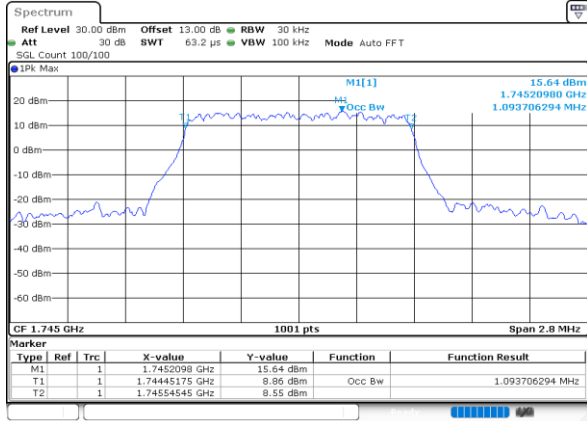
Occupied Bandwidth

Mode	LTE Band 66 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.09	2.70	2.72	4.48	4.49	9.03	4.86	13.43	4.89	17.90	4.84



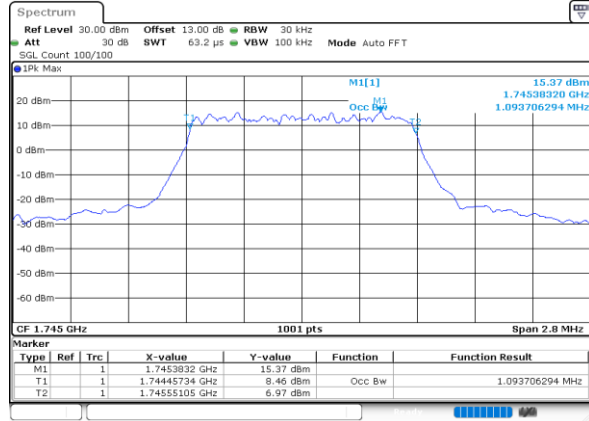
LTE Band 66

Middle Channel / 1.4MHz / QPSK



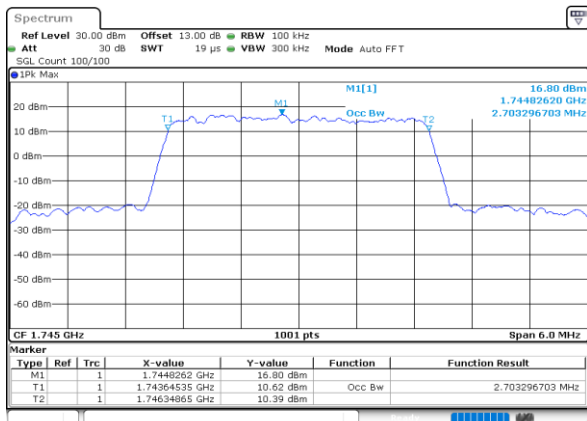
Date: 9.MAR.2023 10:13:49

Middle Channel / 1.4MHz / 16QAM



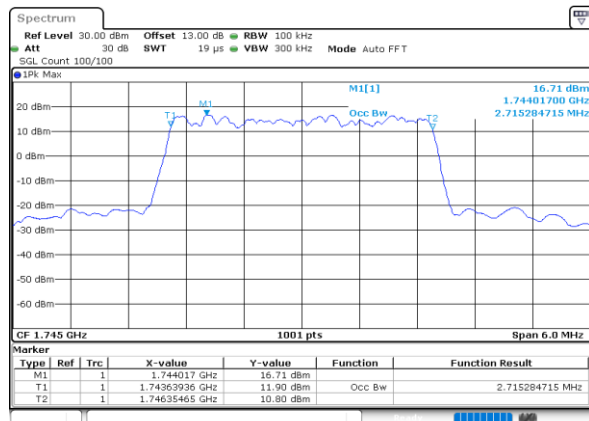
Date: 9.MAR.2023 10:14:13

Middle Channel / 3MHz / QPSK



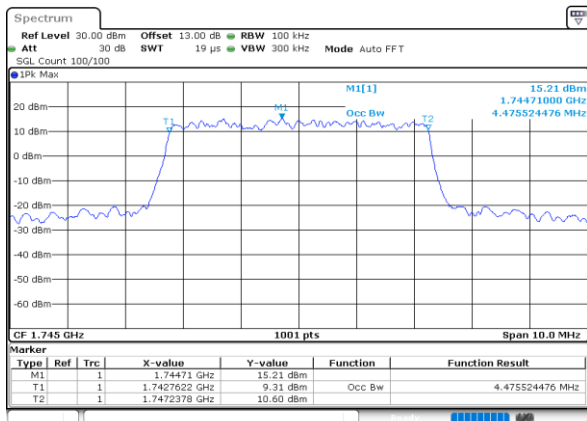
Date: 9.MAR.2023 10:23:42

Middle Channel / 3MHz / 16QAM



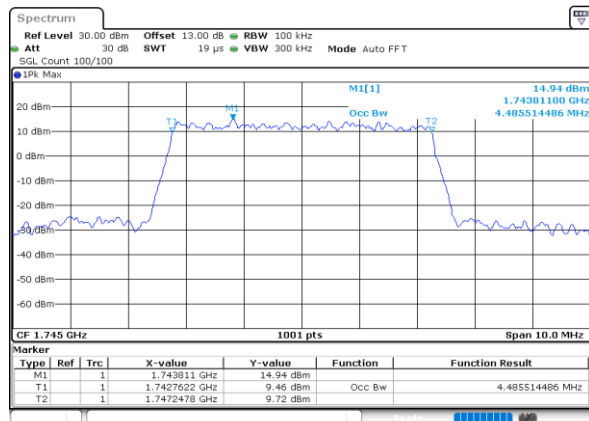
Date: 9.MAR.2023 10:24:06

Middle Channel / 5MHz / QPSK



Date: 9.MAR.2023 10:30:13

Middle Channel / 5MHz / 16QAM

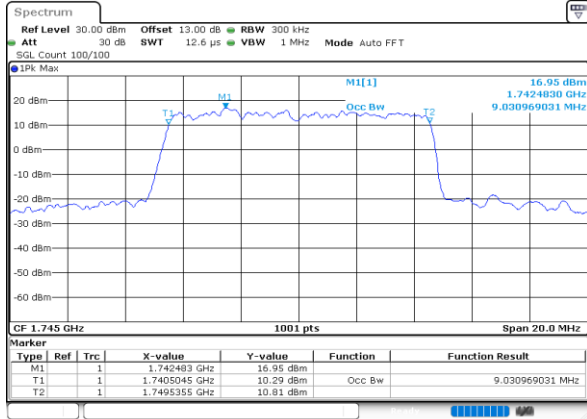


Date: 9.MAR.2023 10:30:38



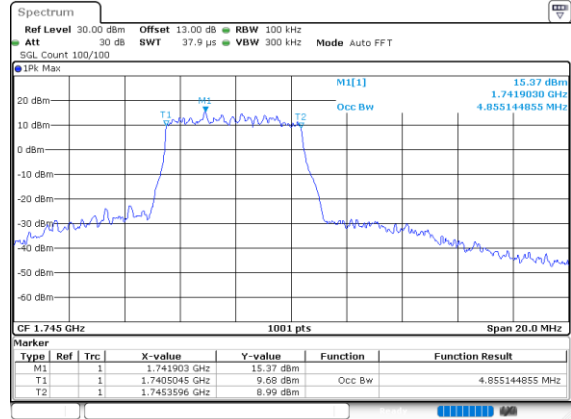
LTE Band 66

Middle Channel / 10MHz / QPSK



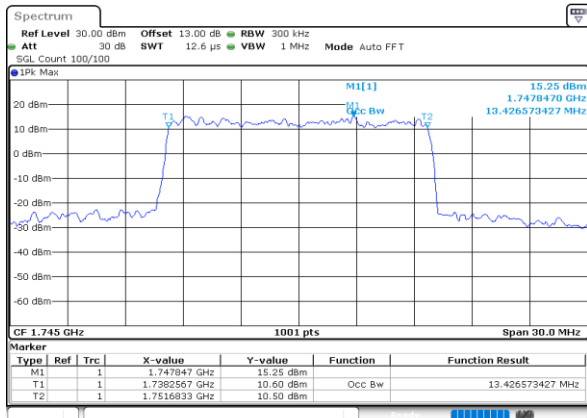
Date: 9.MAR.2023 10:37:09

Middle Channel / 10MHz / 16QAM



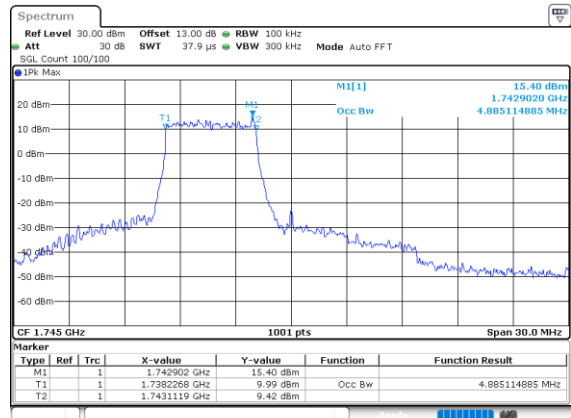
Date: 4.JUL.2023 15:40:20

Middle Channel / 15MHz / QPSK



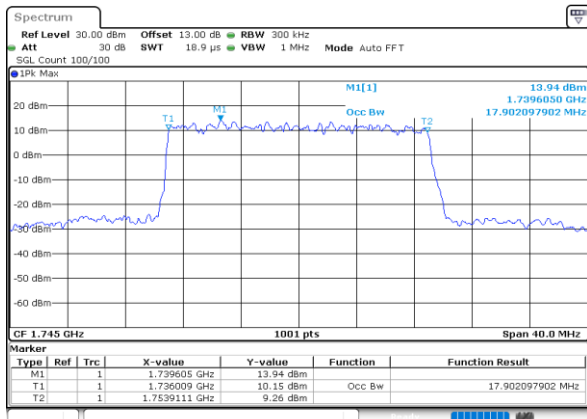
Date: 9.MAR.2023 10:43:41

Middle Channel / 15MHz / 16QAM



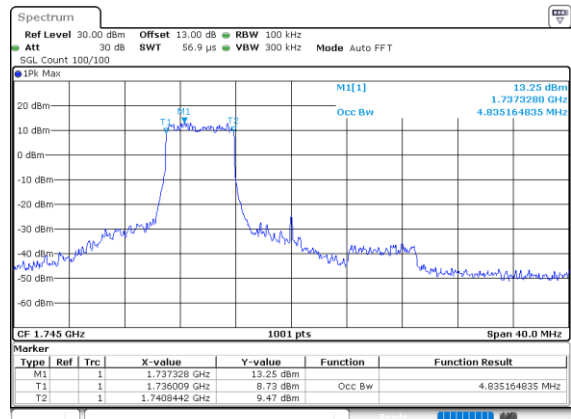
Date: 4.JUL.2023 17:27:43

Middle Channel / 20MHz / QPSK



Date: 9.MAR.2023 10:50:38

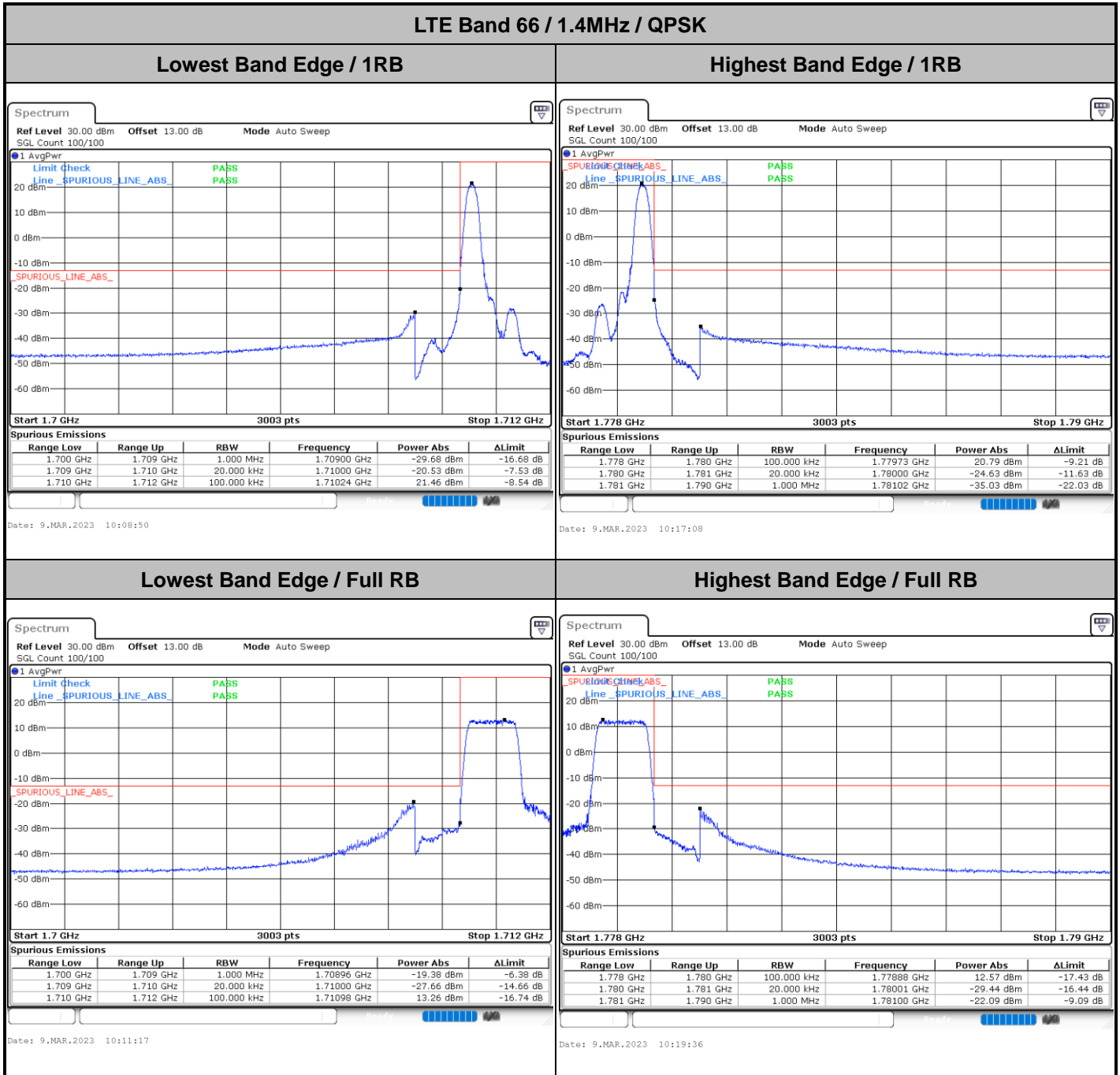
Middle Channel / 20MHz / 16QAM



Date: 4.JUL.2023 17:28:32



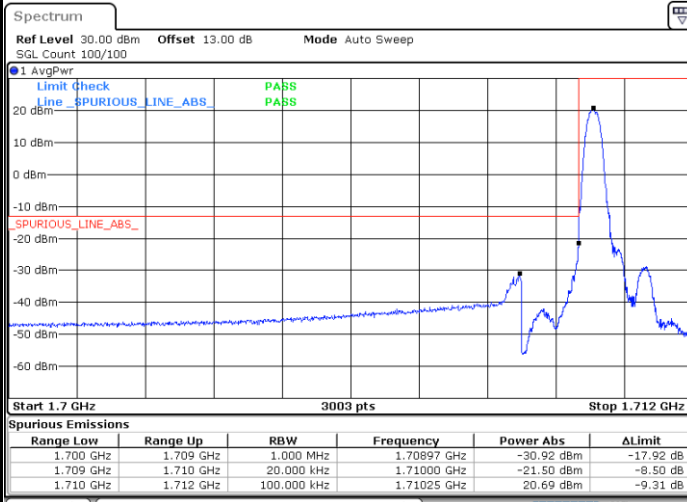
Conducted Band Edge





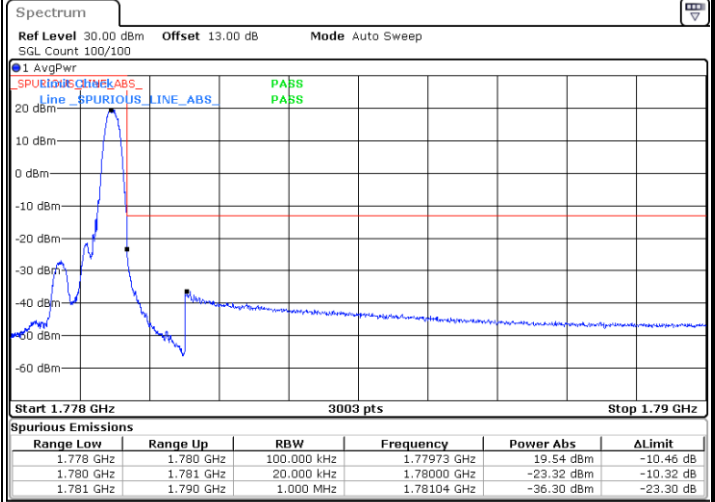
LTE Band 66 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



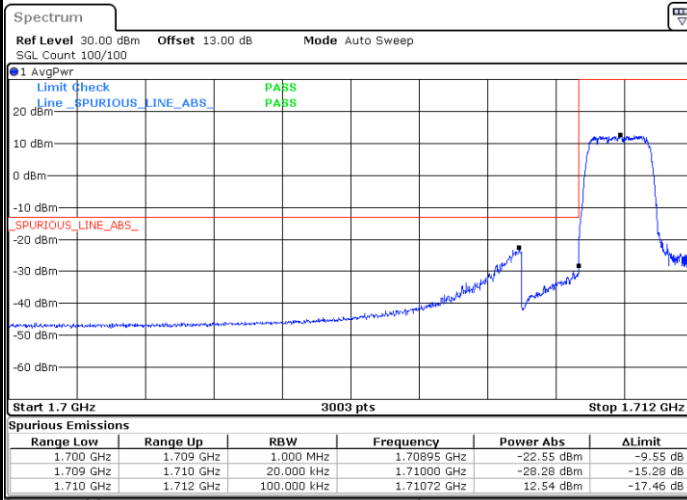
Date: 9.MAR.2023 10:10:04

Highest Band Edge / 1 RB



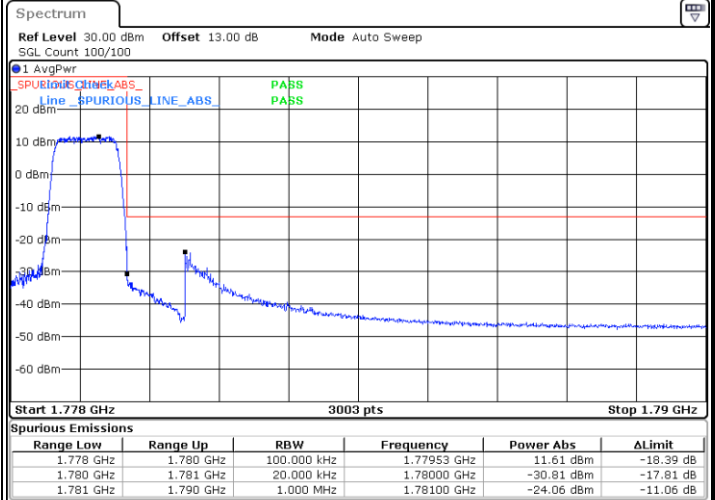
Date: 9.MAR.2023 10:18:22

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:12:31

Highest Band Edge / Full RB

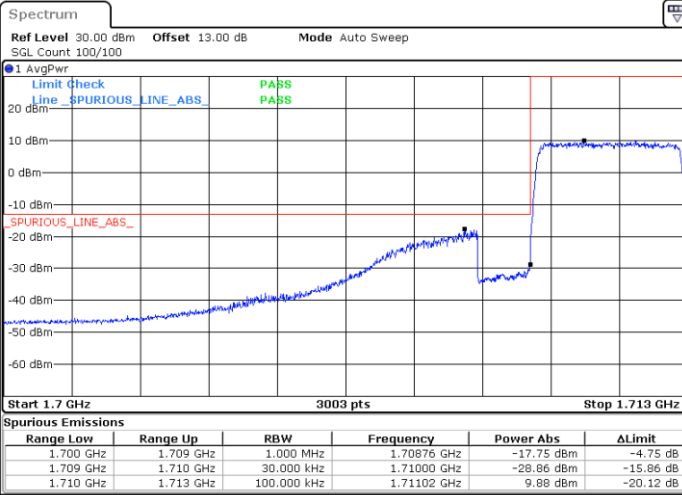


Date: 9.MAR.2023 10:20:50



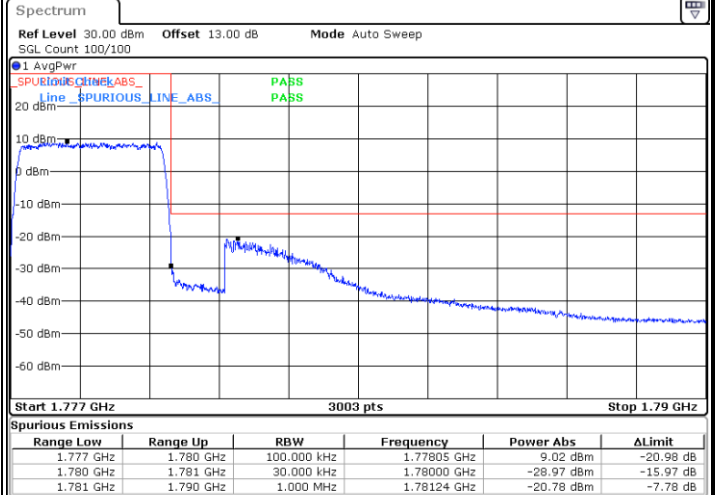
LTE Band 66 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:22:04

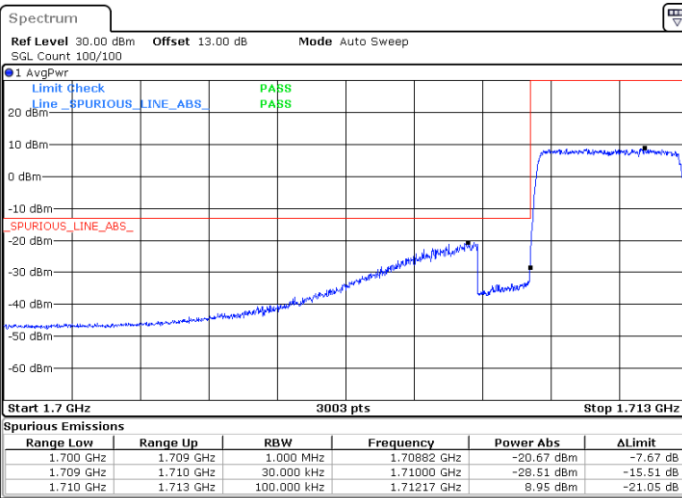
Highest Band Edge / Full RB



Date: 9.MAR.2023 10:26:08

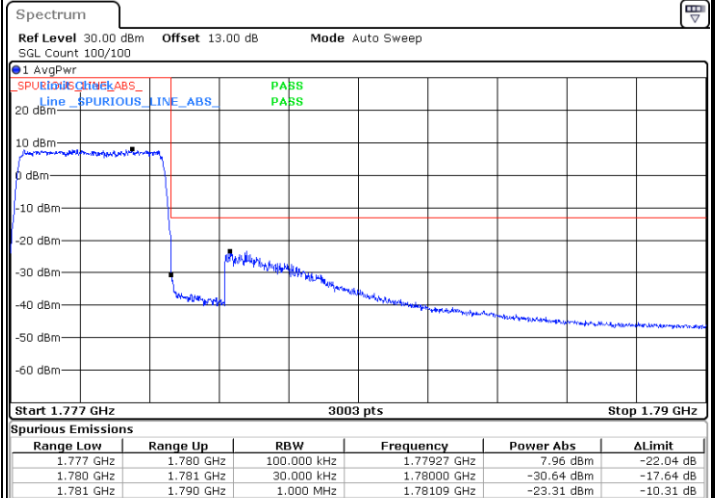
LTE Band 66 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:23:17

Highest Band Edge / Full RB

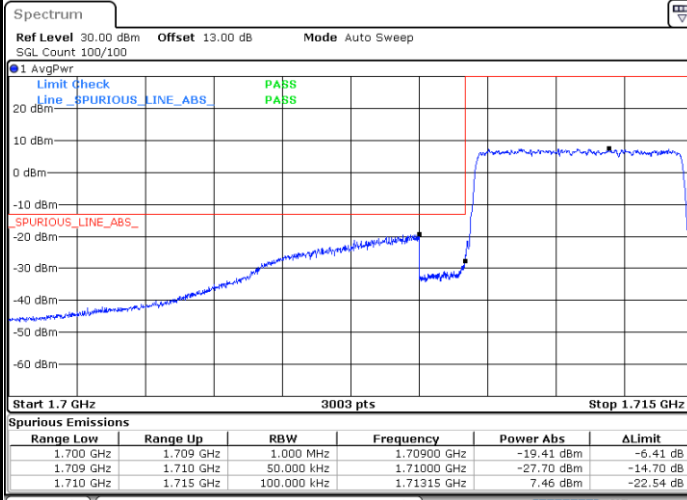


Date: 9.MAR.2023 10:27:22



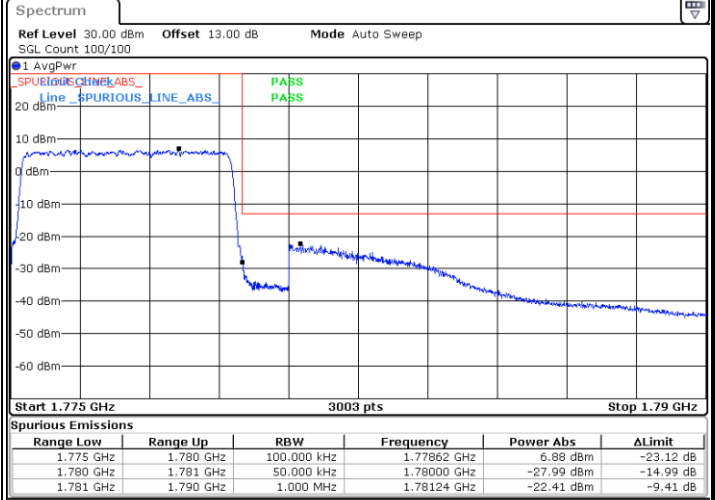
LTE Band 66 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:28:36

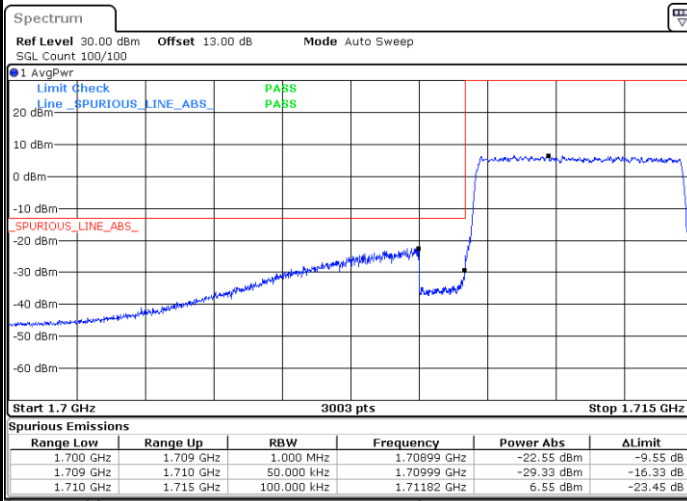
Highest Band Edge / Full RB



Date: 9.MAR.2023 10:32:39

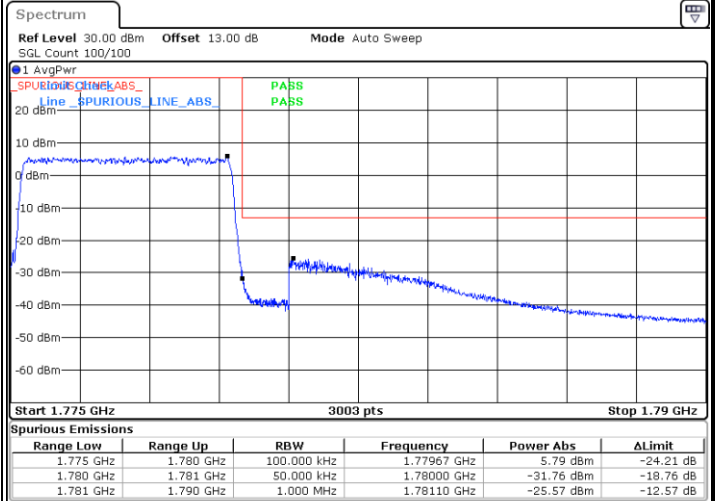
LTE Band 66 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:29:49

Highest Band Edge / Full RB

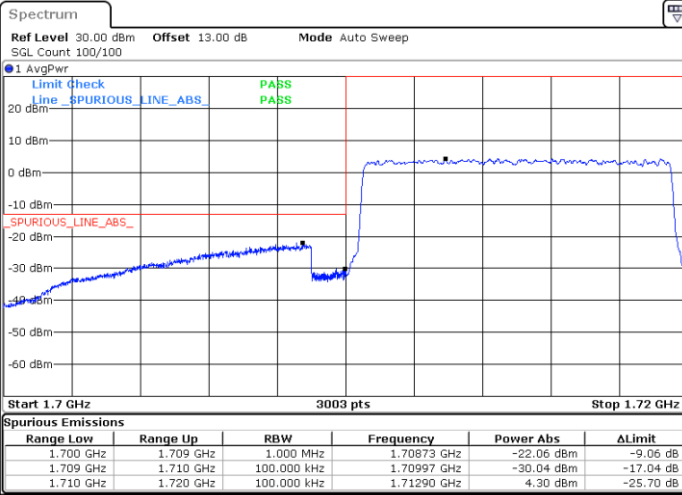


Date: 9.MAR.2023 10:33:53



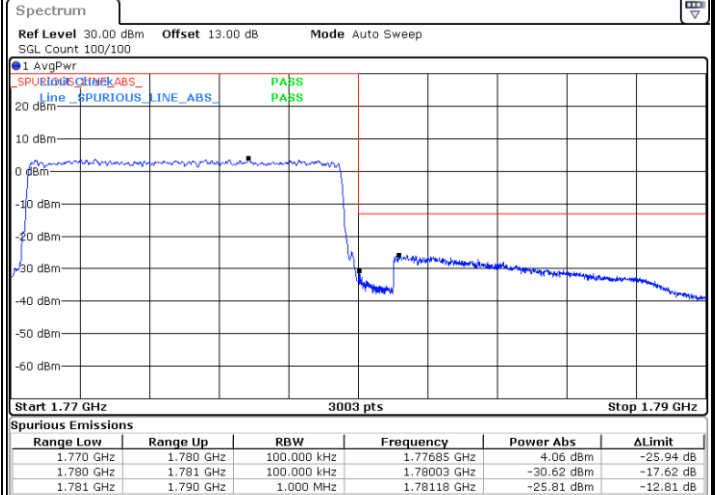
LTE Band 66 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:35:31

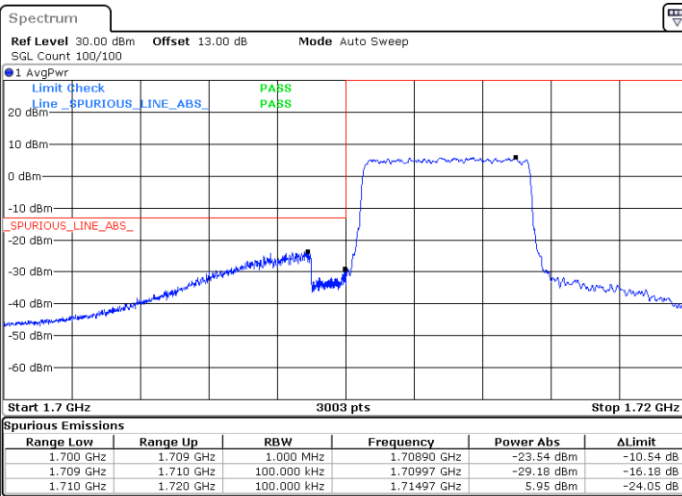
Highest Band Edge / Full RB



Date: 9.MAR.2023 10:39:35

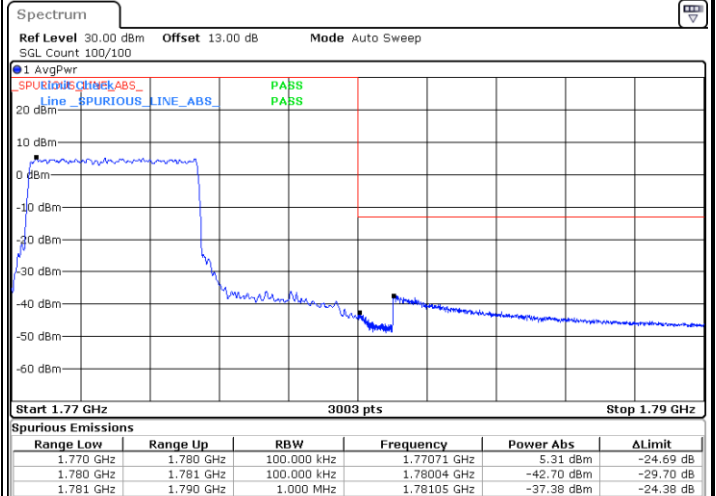
LTE Band 66 / 10MHz / 16QAM

Lowest Band Edge / 27 RB0



Date: 9.MAR.2023 10:36:45

Highest Band Edge / 27 RB0

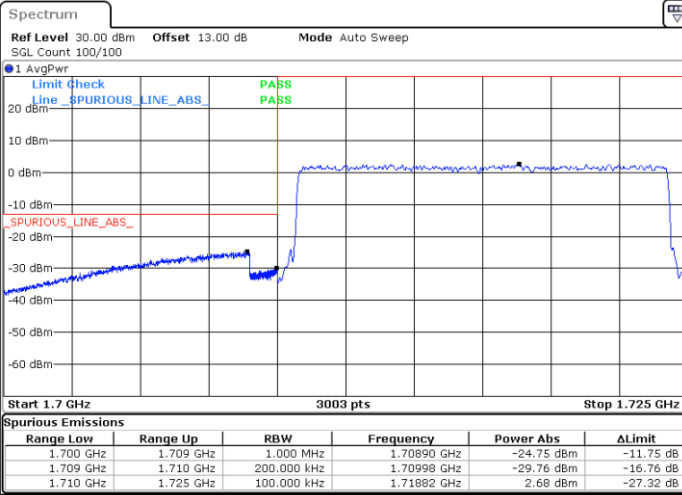


Date: 9.MAR.2023 10:40:49

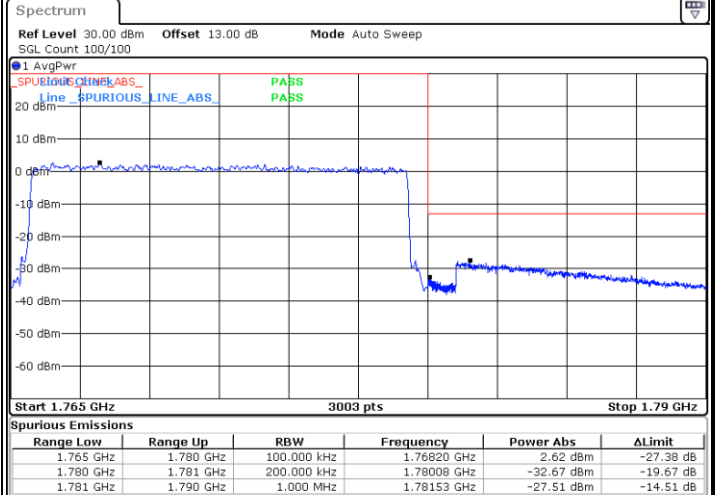


LTE Band 66 / 15MHz / QPSK

Lowest Band Edge / Full RB

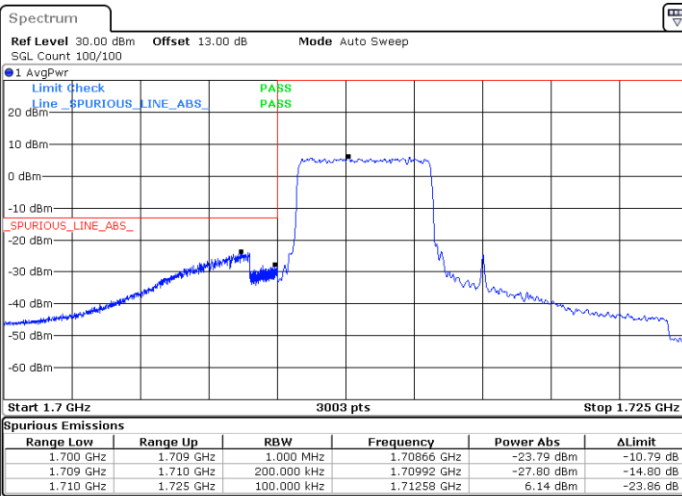


Highest Band Edge / Full RB

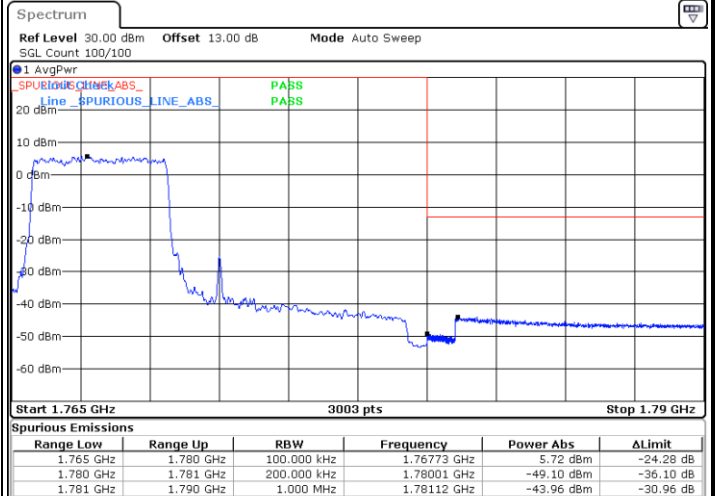


LTE Band 66 / 15MHz / 16QAM

Lowest Band Edge / 27RB0



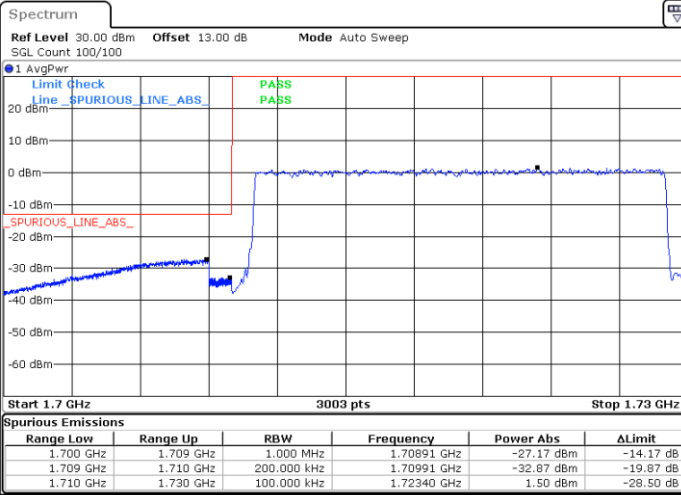
Highest Band Edge / 27 RB0





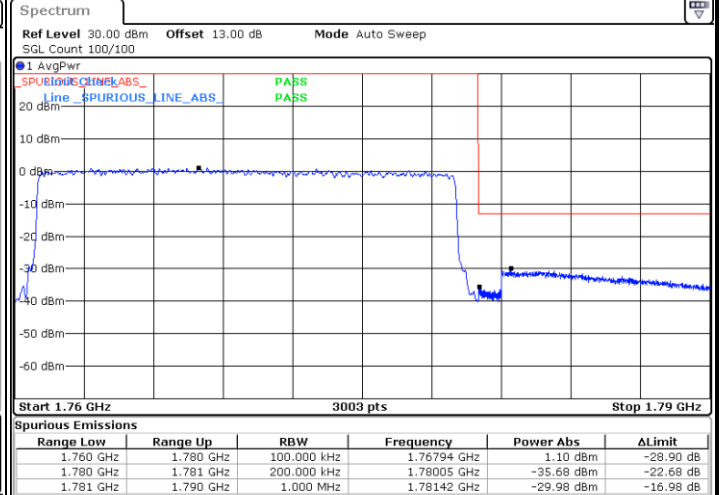
LTE Band 66 / 20MHz / QPSK

Lowest Band Edge / Full RB



Date: 9.MAR.2023 10:49:00

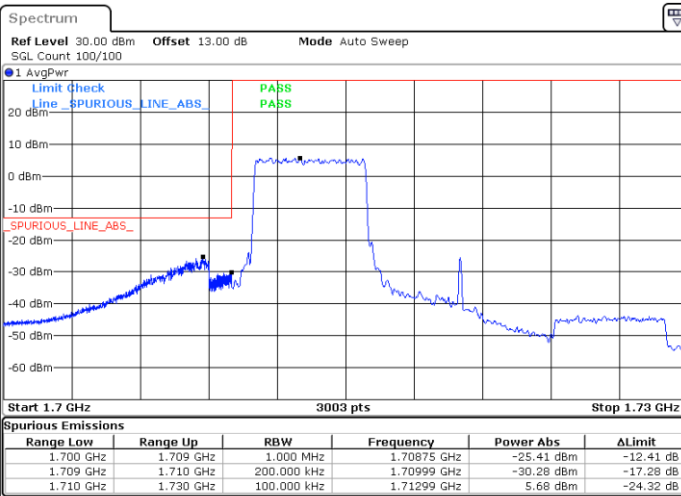
Highest Band Edge / Full RB



Date: 9.MAR.2023 10:53:05

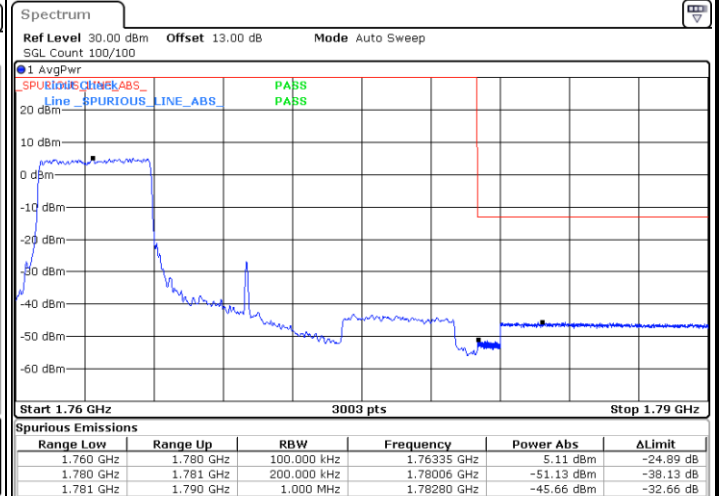
LTE Band 66 / 20MHz / 16QAM

Lowest Band Edge / 27 RB0



Date: 9.MAR.2023 10:50:13

Highest Band Edge / 27 RB0



Date: 9.MAR.2023 10:54:18

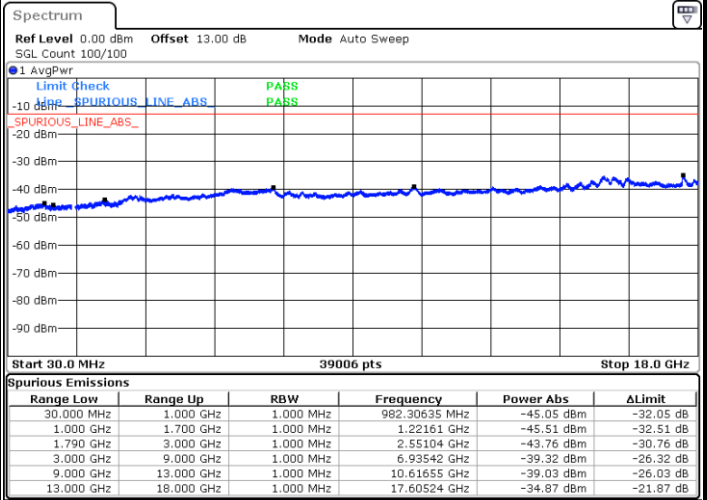
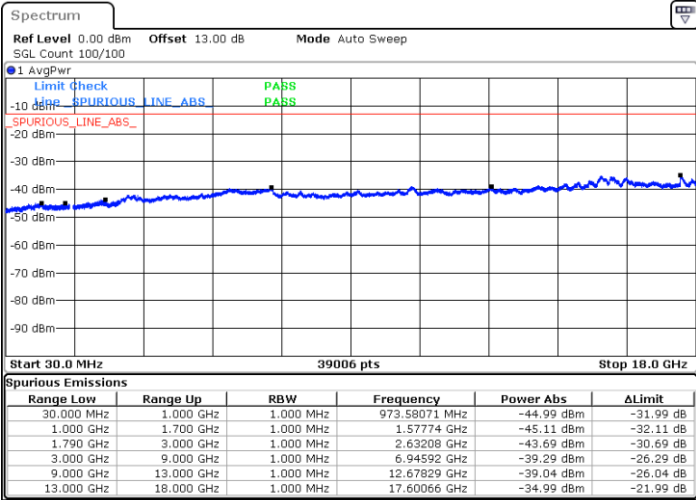


Conducted Spurious Emission

LTE Band 66 / 1.4MHz

Lowest Channel / QPSK

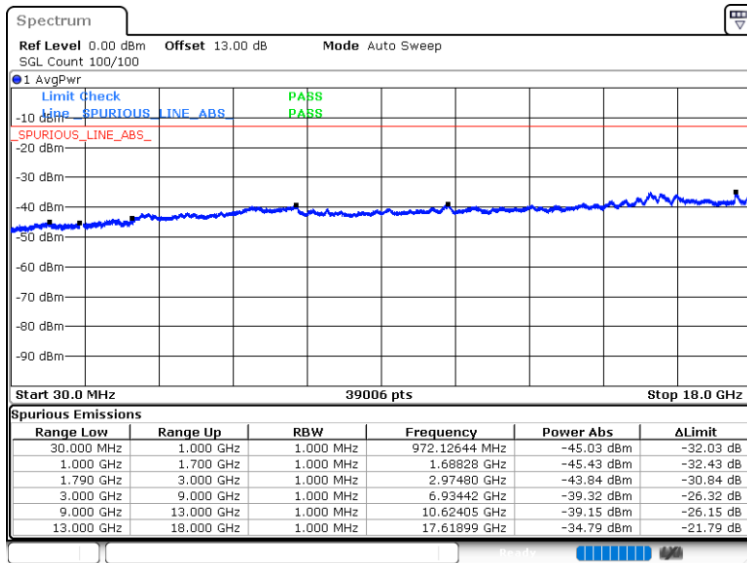
Middle Channel / QPSK



Date: 9.MAR.2023 10:13:24

Date: 9.MAR.2023 10:15:55

Highest Channel / QPSK



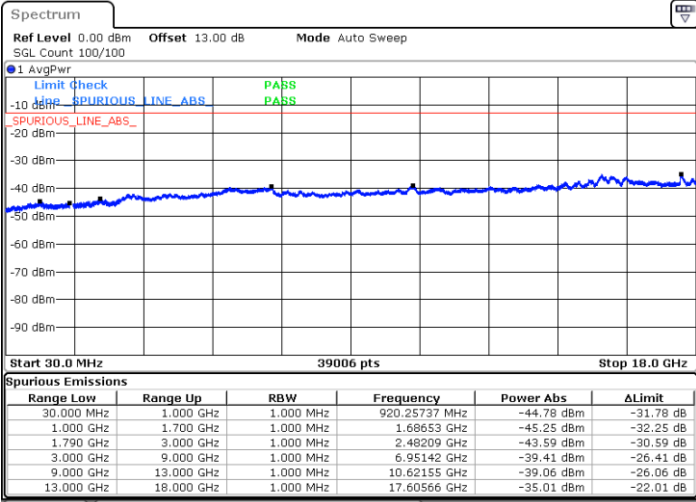
Date: 9.MAR.2023 12:00:52



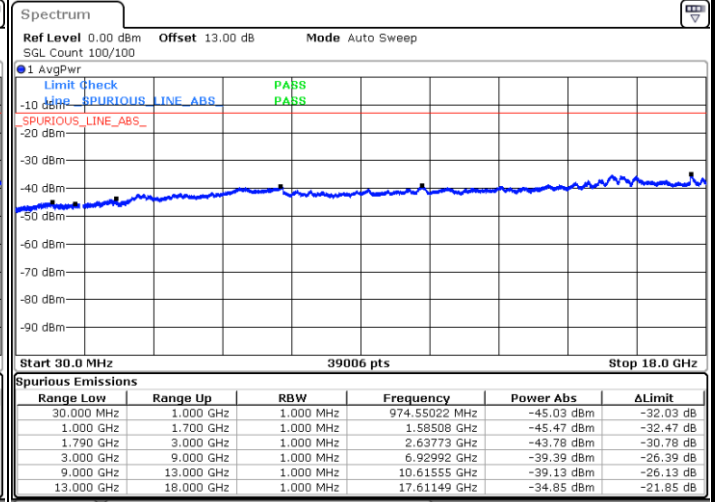
LTE Band 66 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

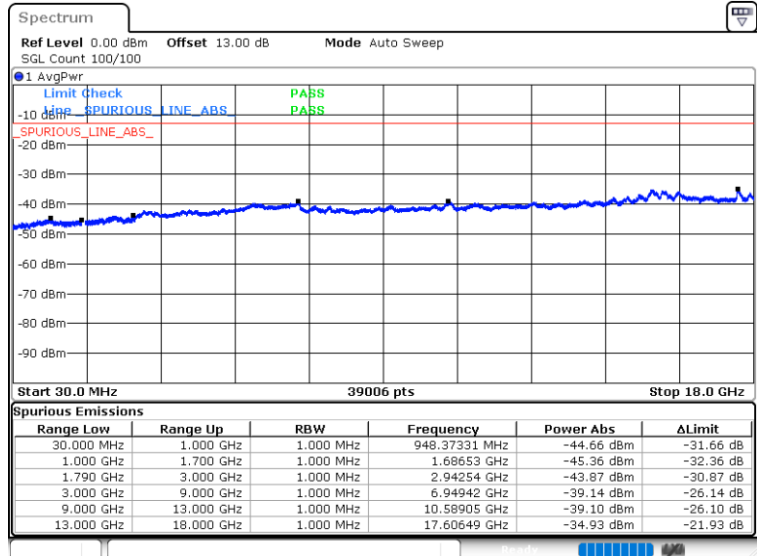


Date: 9.MAR.2023 10:56:03



Date: 9.MAR.2023 10:56:56

Highest Channel / QPSK



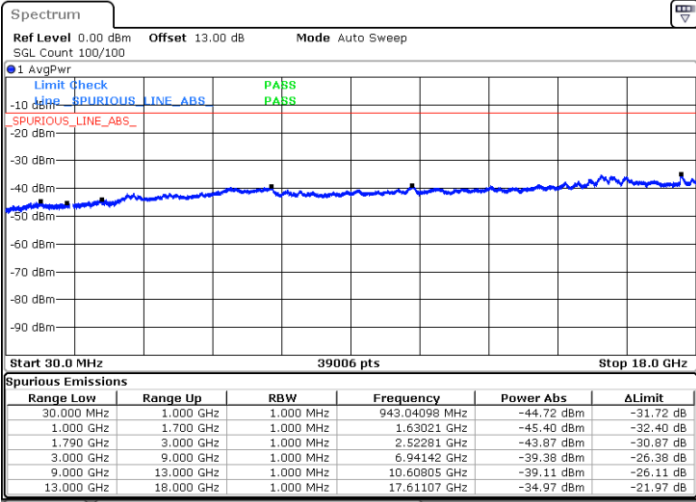
Date: 9.MAR.2023 10:57:49



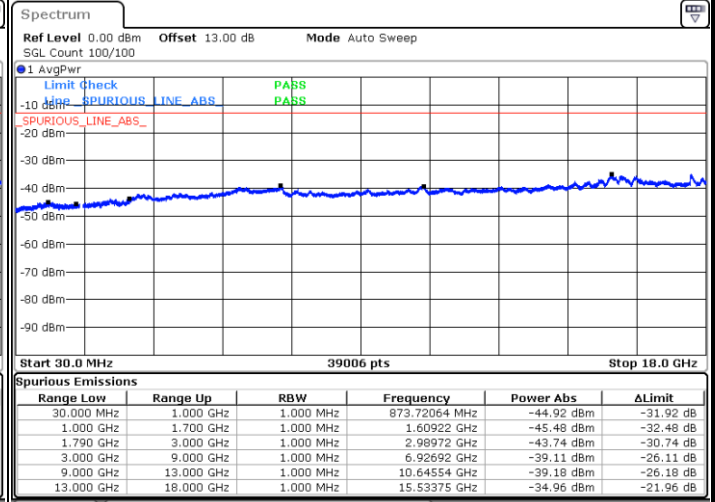
LTE Band 66 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

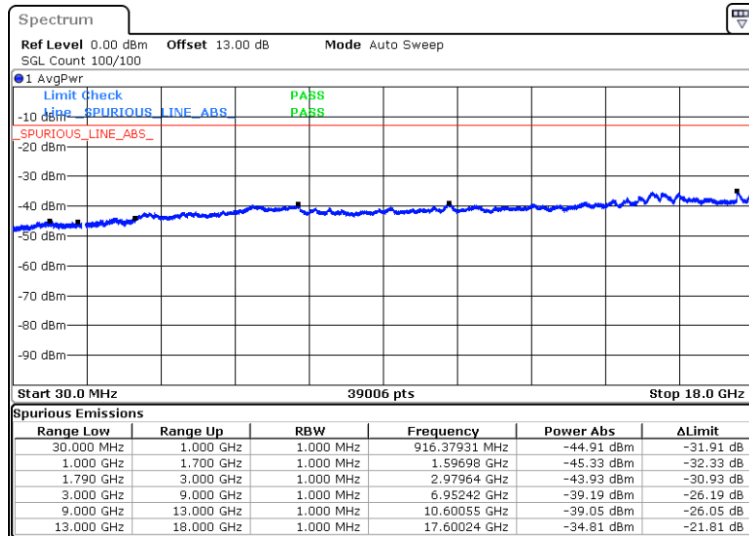


Date: 9.MAR.2023 10:58:43



Date: 9.MAR.2023 10:59:36

Highest Channel / QPSK



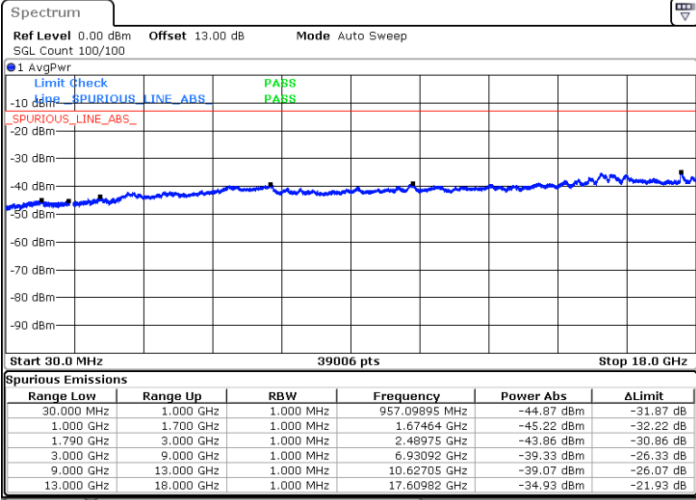
Date: 9.MAR.2023 11:00:29



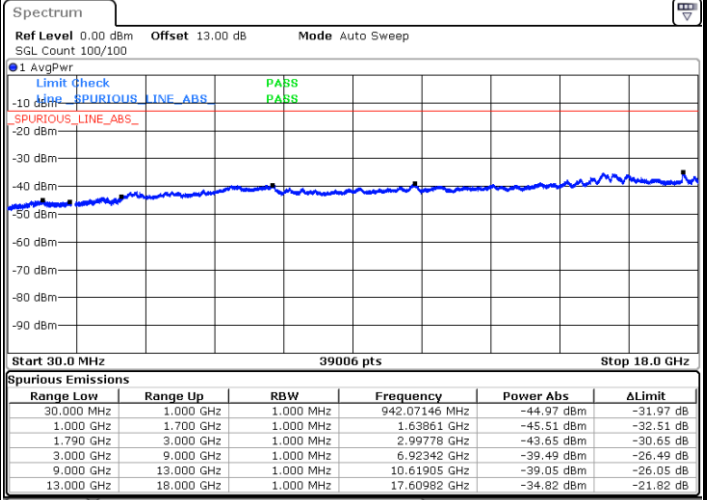
LTE Band 66 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

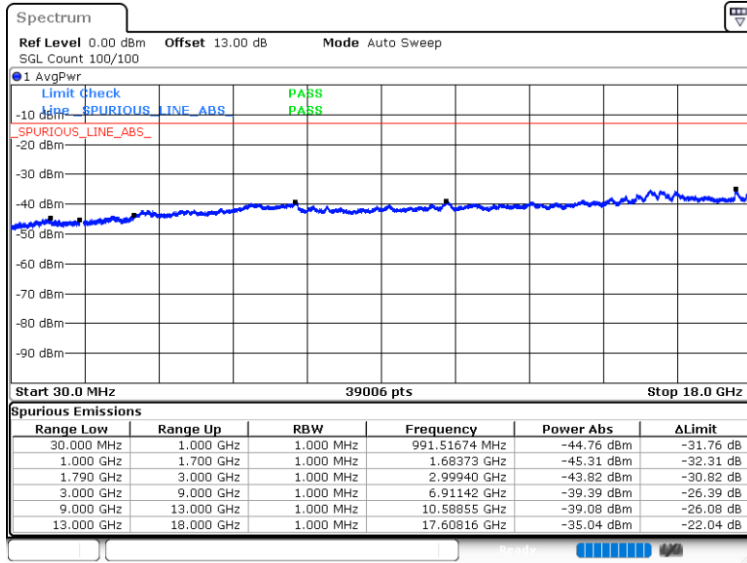


Date: 9.MAR.2023 11:01:23



Date: 9.MAR.2023 11:02:16

Highest Channel / QPSK



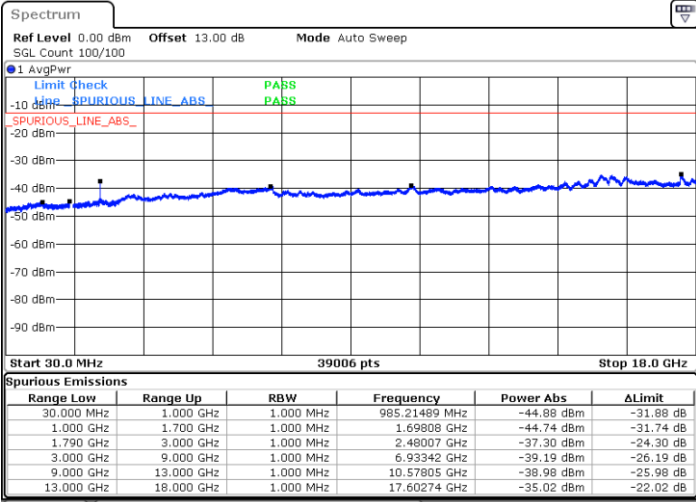
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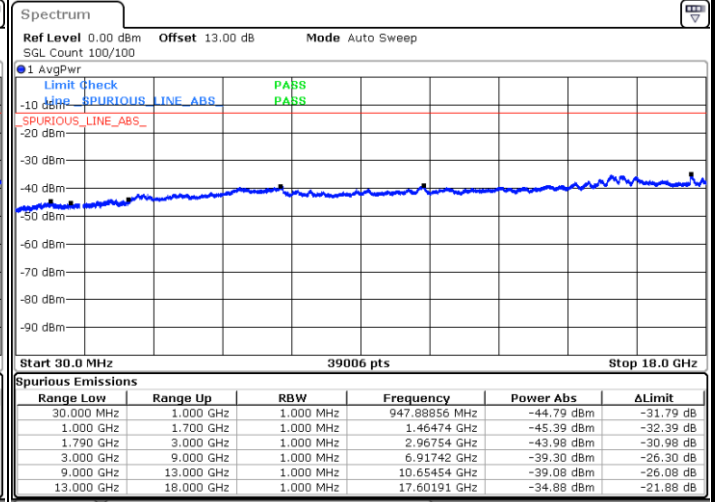
LTE Band 66 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

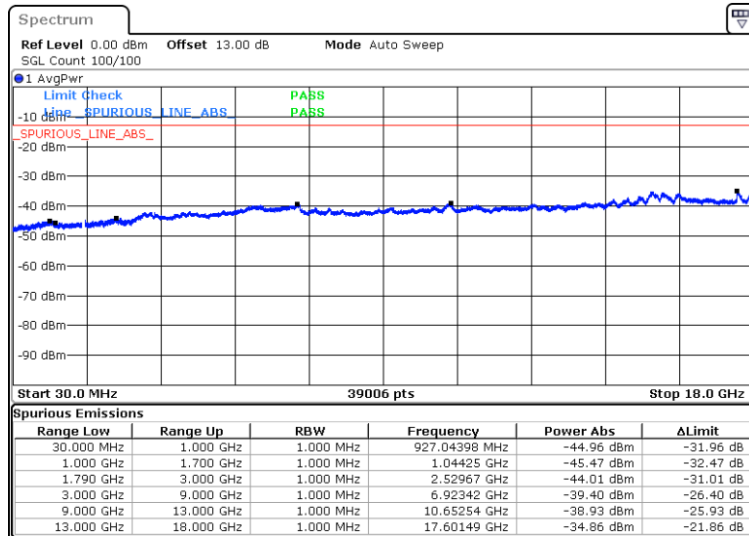


Date: 9.MAR.2023 11:04:03



Date: 9.MAR.2023 11:04:56

Highest Channel / QPSK



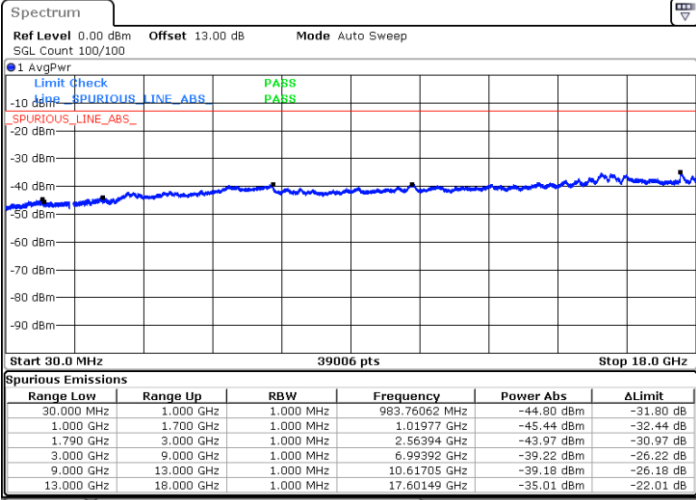
Date: 9.MAR.2023 11:05:49



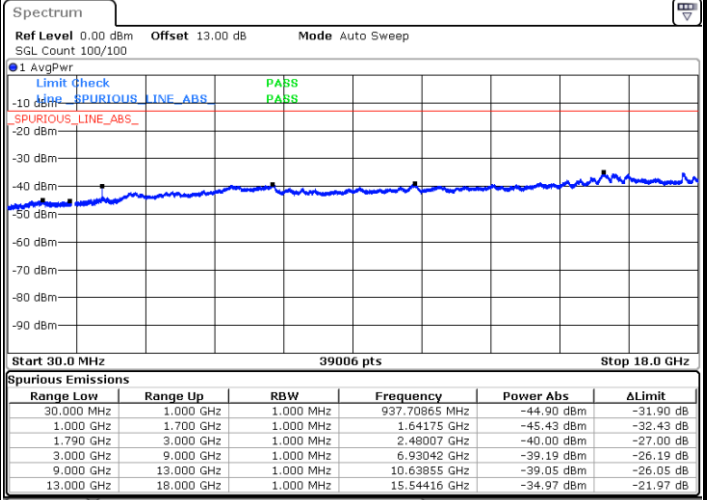
LTE Band 66 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

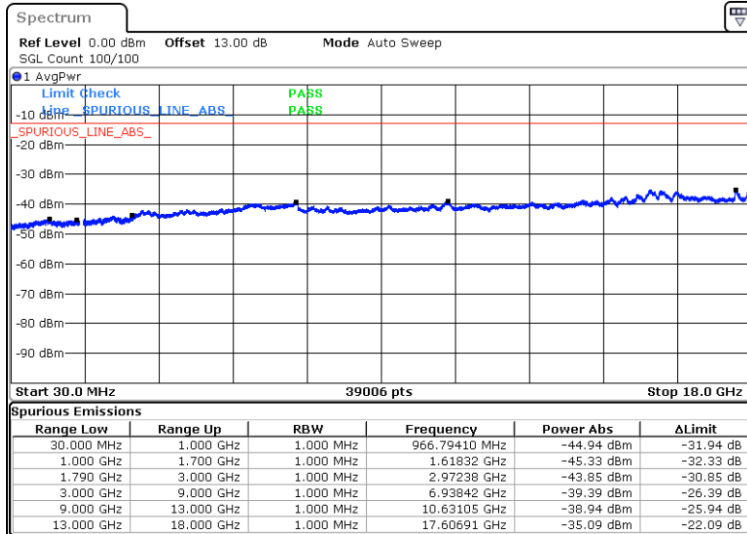


Date: 9.MAR.2023 11:06:43



Date: 9.MAR.2023 11:07:36

Highest Channel / QPSK



Date: 9.MAR.2023 11:08:29



Frequency Stability

Test Conditions		LTE Band 66 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
35	Normal Voltage	0.0068	PASS
30	Normal Voltage	0.0039	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0040	
0	Normal Voltage	0.0005	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0010	
20	Battery End Point	0.0033	

Note:

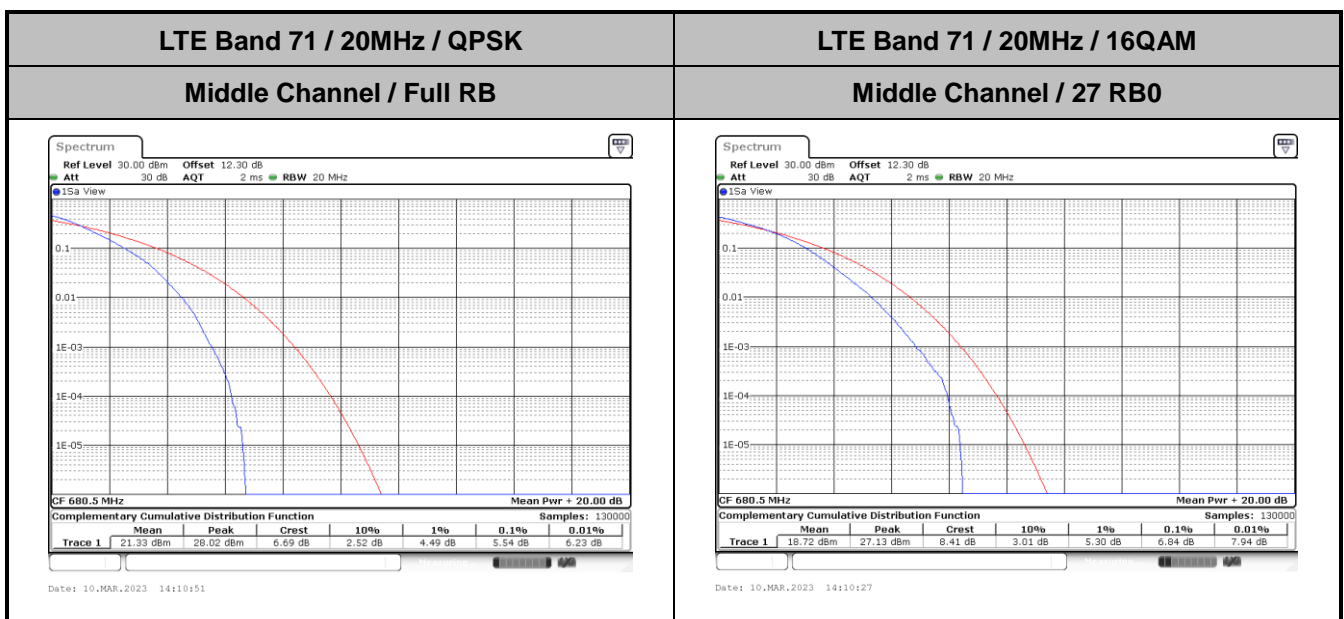
- 1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 71

Peak-to-Average Ratio

Mode	LTE Band 71 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	27 RB0	Result
Middle CH	5.54	6.84	PASS





26dB Bandwidth

Mode	LTE Band 71 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.96	4.96	10.05	5.48	14.42	5.37	19.06	5.59

LTE Band 71

Middle Channel / 5MHz / QPSK

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		680.53 MHz	15.39 dBm	ndB down	4.955 MHz
T1	1		679.032 MHz	-10.77 dBm	ndB	26.00 dB
T2	1		682.988 MHz	-10.45 dBm	Q factor	137.3

Date: 10_MAR.2023 13:43:34

Middle Channel / 5MHz / 16QAM

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		678.762 MHz	13.79 dBm	ndB down	4.955 MHz
T1	1		679.042 MHz	-12.03 dBm	ndB	26.00 dB
T2	1		682.998 MHz	-11.93 dBm	Q factor	137.0

Date: 10_MAR.2023 13:43:57

Middle Channel / 10MHz / QPSK

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		683.377 MHz	17.07 dBm	ndB down	10.05 MHz
T1	1		675.545 MHz	-9.21 dBm	ndB	26.00 dB
T2	1		685.595 MHz	-9.31 dBm	Q factor	68.0

Date: 10_MAR.2023 13:54:15

Middle Channel / 10MHz / 16QAM

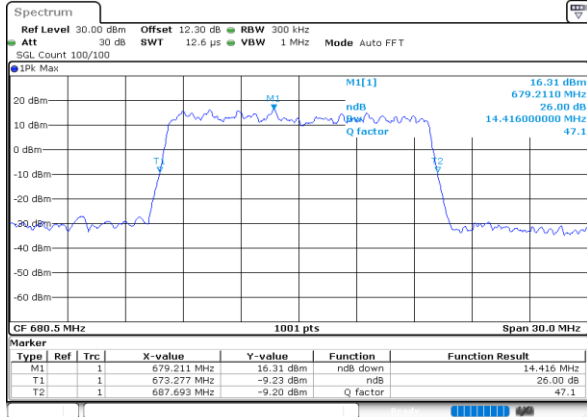
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		676.524 MHz	14.31 dBm	ndB down	5.475 MHz
T1	1		675.665 MHz	-11.69 dBm	ndB	26.00 dB
T2	1		681.139 MHz	-11.62 dBm	Q factor	123.6

Date: 4_JUL.2023 17:18:16



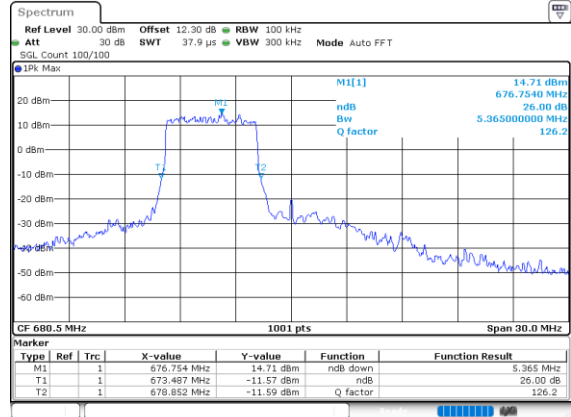
LTE Band 71

Middle Channel / 15MHz / QPSK



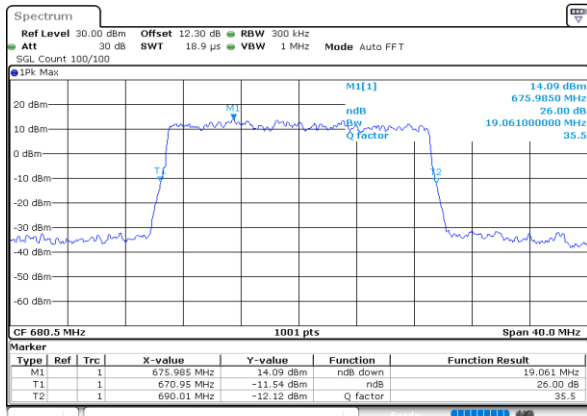
Date: 10.MAR.2023 14:00:43

Middle Channel / 15MHz / 16QAM



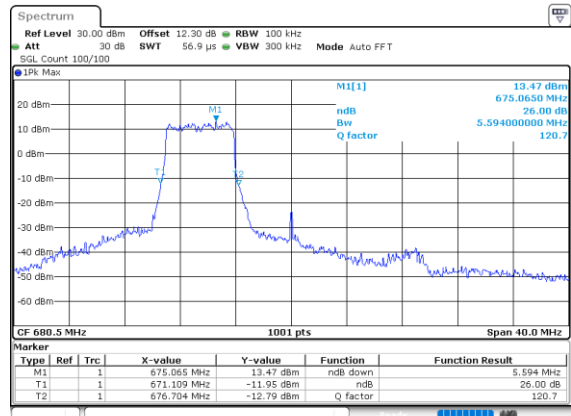
Date: 4.JUL.2023 17:19:04

Middle Channel / 20MHz / QPSK



Date: 10.MAR.2023 14:07:11

Middle Channel / 20MHz / 16QAM

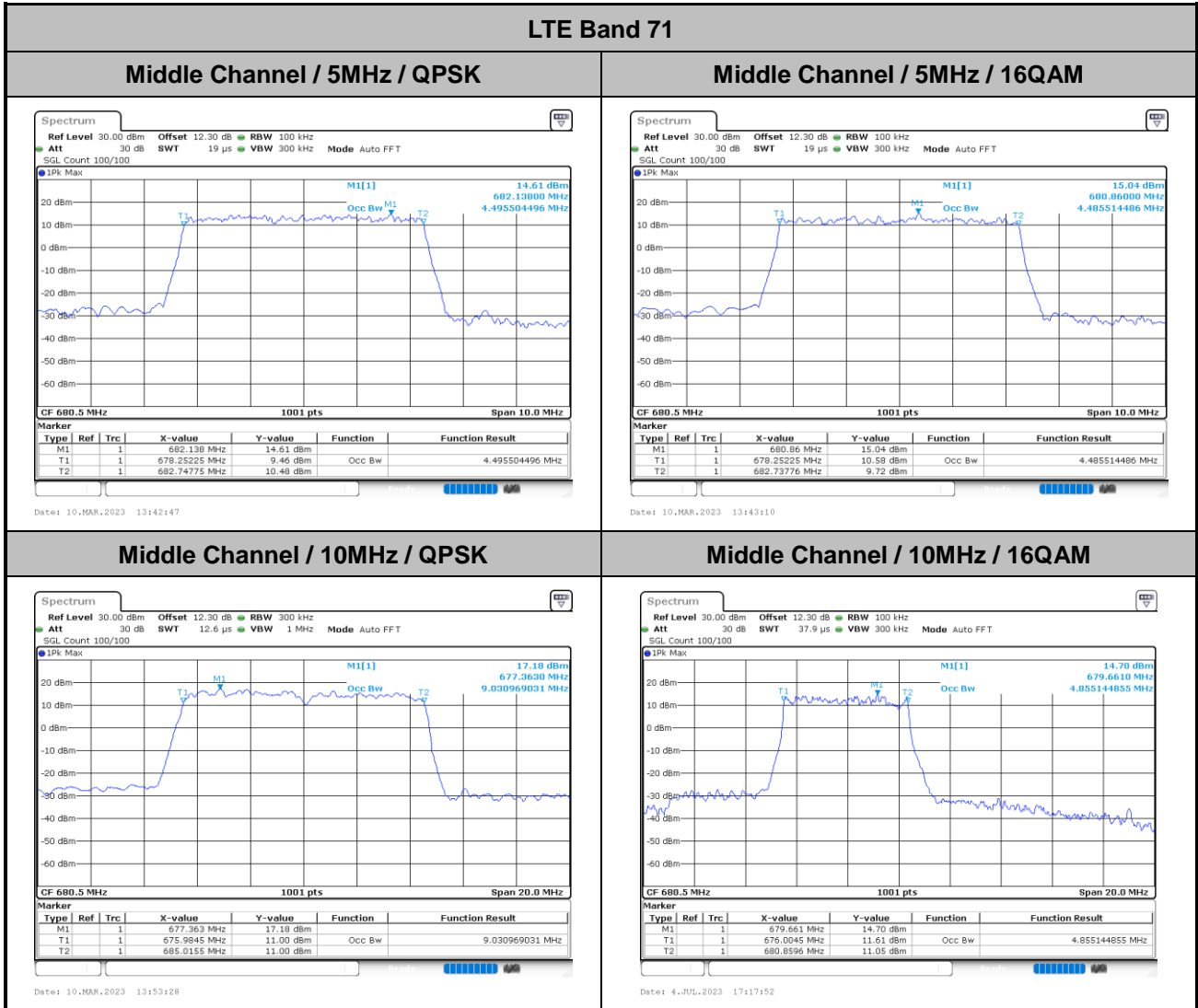


Date: 4.JUL.2023 17:19:52



Occupied Bandwidth

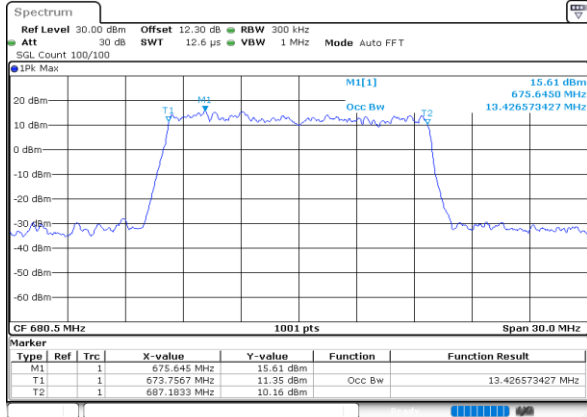
Mode	LTE Band 71 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.50	4.49	9.03	4.86	13.43	4.89	17.86	4.92





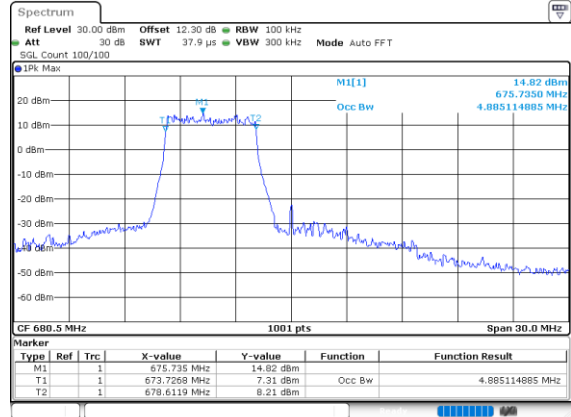
LTE Band 71

Middle Channel / 15MHz / QPSK



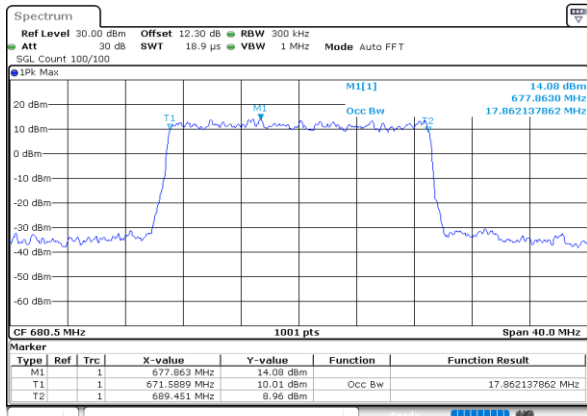
Date: 10.MAR.2023 13:59:56

Middle Channel / 15MHz / 16QAM



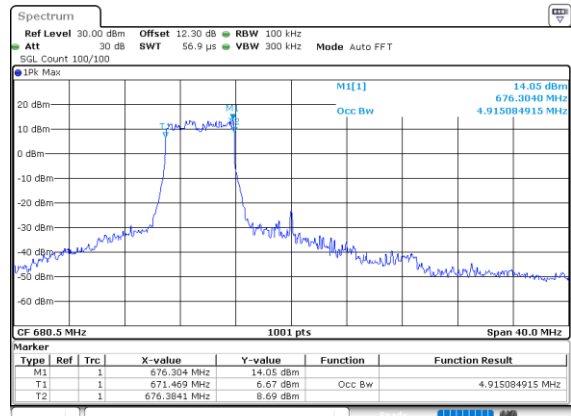
Date: 4.JUL.2023 17:18:40

Middle Channel / 20MHz / QPSK



Date: 10.MAR.2023 14:06:24

Middle Channel / 20MHz / 16QAM



Date: 4.JUL.2023 17:19:29