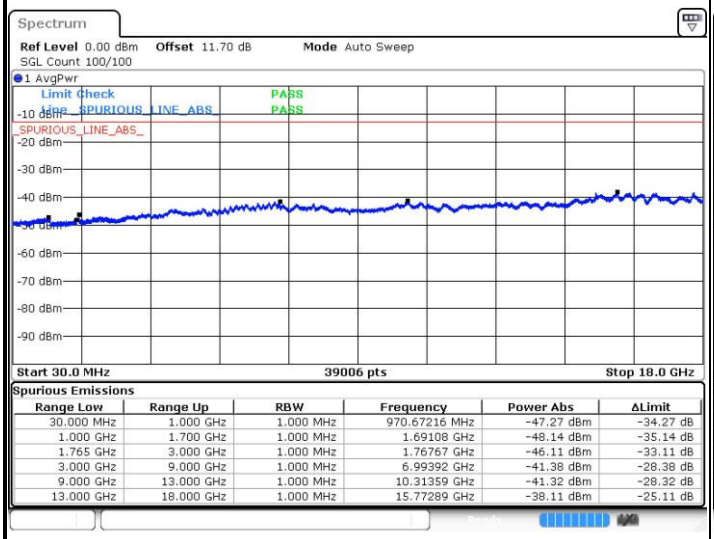
LTE Band 4 / 15MHz

Highest Channel / QPSK

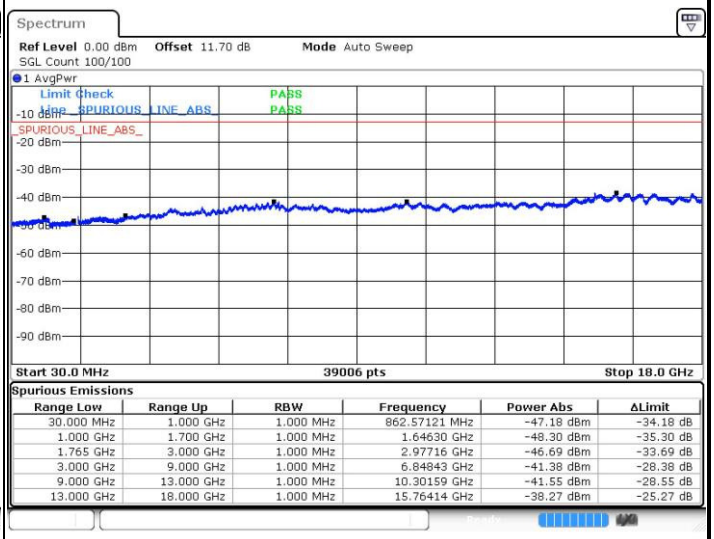


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	970.67216 MHz	-47.27 dBm	-34.27 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69108 GHz	-48.14 dBm	-35.14 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.76767 GHz	-46.11 dBm	-33.11 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99392 GHz	-41.38 dBm	-28.38 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.31359 GHz	-41.32 dBm	-28.32 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.77289 GHz	-38.11 dBm	-25.11 dB

Date: 20.FEB.2017 12:10:10

Highest Channel / 16QAM



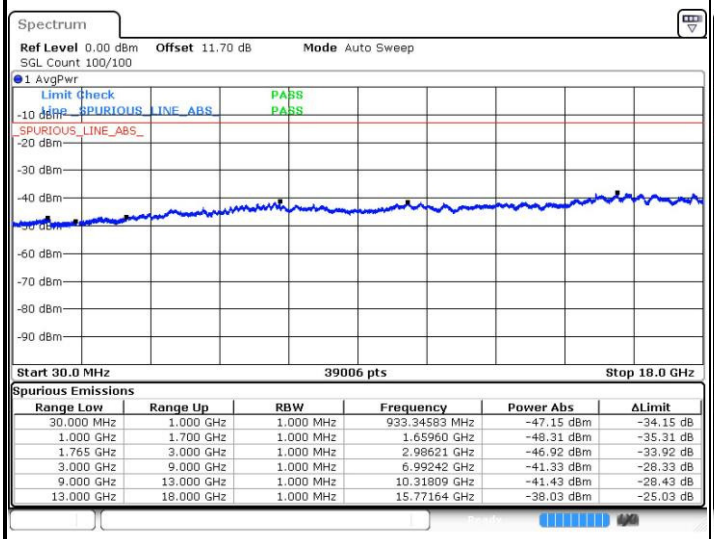
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	862.57121 MHz	-47.18 dBm	-34.18 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.64630 GHz	-48.30 dBm	-35.30 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.97716 GHz	-46.69 dBm	-33.69 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.84843 GHz	-41.38 dBm	-28.38 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.30159 GHz	-41.55 dBm	-28.55 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.76414 GHz	-38.27 dBm	-25.27 dB

Date: 20.FEB.2017 12:11:04

LTE Band 4 / 20MHz

Lowest Channel / QPSK

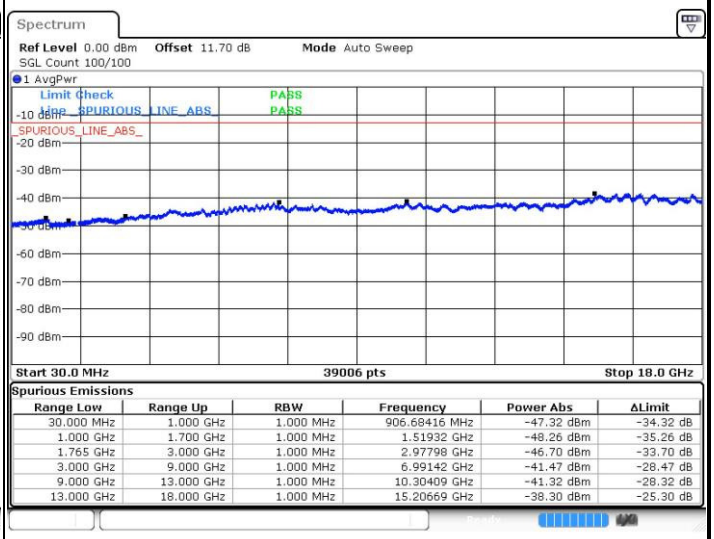


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	933.34583 MHz	-47.15 dBm	-34.15 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.65960 GHz	-48.31 dBm	-35.31 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.98621 GHz	-46.92 dBm	-33.92 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99242 GHz	-41.33 dBm	-28.33 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.31809 GHz	-41.43 dBm	-28.43 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.77164 GHz	-38.03 dBm	-25.03 dB

Date: 20.FEB.2017 12:17:16

Lowest Channel / 16QAM



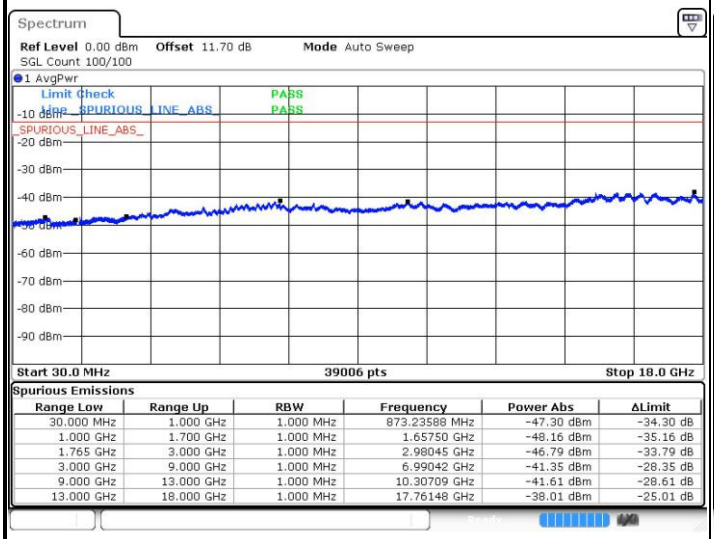
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	906.68416 MHz	-47.32 dBm	-34.32 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.51932 GHz	-48.26 dBm	-35.26 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.97798 GHz	-46.70 dBm	-33.70 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99142 GHz	-41.47 dBm	-28.47 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.30409 GHz	-41.32 dBm	-28.32 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.20669 GHz	-38.30 dBm	-25.30 dB

Date: 20.FEB.2017 12:18:11

LTE Band 4 / 20MHz

Middle Channel / QPSK

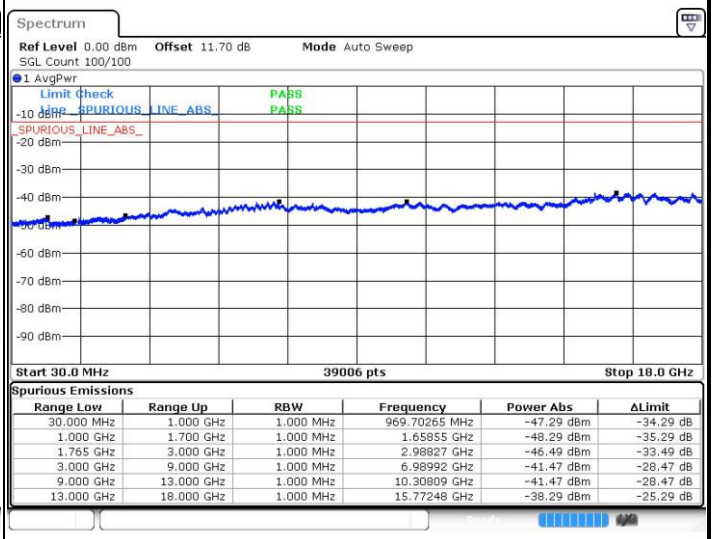


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	873.23588 MHz	-47.30 dBm	-34.30 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.65750 GHz	-48.16 dBm	-35.16 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.98045 GHz	-46.79 dBm	-33.79 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99042 GHz	-41.35 dBm	-28.35 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.30709 GHz	-41.61 dBm	-28.61 dB
13.000 GHz	18.000 GHz	1.000 MHz	17.76148 GHz	-38.01 dBm	-25.01 dB

Date: 20.FEB.2017 12:19:47

Middle Channel / 16QAM

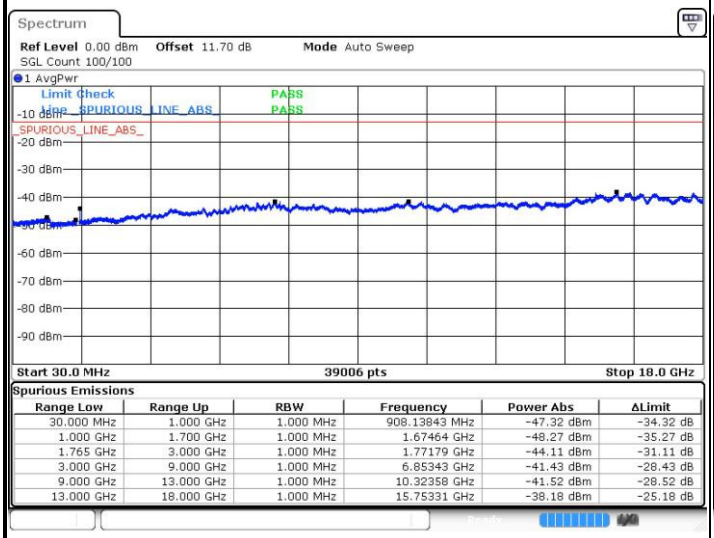


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	969.70265 MHz	-47.29 dBm	-34.29 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.65855 GHz	-48.29 dBm	-35.29 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.98827 GHz	-46.49 dBm	-33.49 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.98992 GHz	-41.47 dBm	-28.47 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.30809 GHz	-41.47 dBm	-28.47 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.77248 GHz	-38.29 dBm	-25.29 dB

Date: 20.FEB.2017 12:20:41

Highest Channel / QPSK

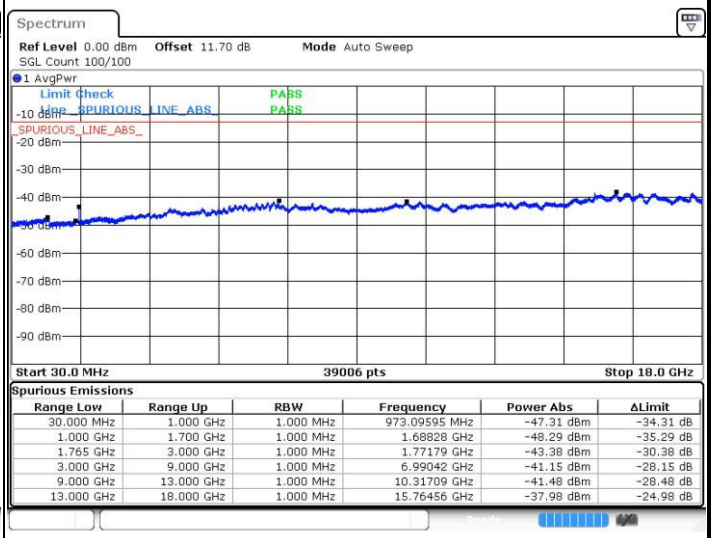


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	908.13843 MHz	-47.32 dBm	-34.32 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.67464 GHz	-48.27 dBm	-35.27 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.77179 GHz	-44.11 dBm	-31.11 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.85343 GHz	-41.43 dBm	-28.43 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.32358 GHz	-41.52 dBm	-28.52 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.75331 GHz	-38.18 dBm	-25.18 dB

Date: 20.FEB.2017 12:26:53

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	973.09595 MHz	-47.31 dBm	-34.31 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.68828 GHz	-48.29 dBm	-35.29 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.77179 GHz	-43.38 dBm	-30.38 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99042 GHz	-41.15 dBm	-28.15 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.31709 GHz	-41.48 dBm	-28.48 dB
13.000 GHz	18.000 GHz	1.000 MHz	15.76456 GHz	-37.98 dBm	-24.98 dB

Date: 20.FEB.2017 12:27:48

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	0.0002	PASS
40	Normal Voltage	0.0059	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0050	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0053	

Note:

1. Normal Voltage =3.9 V.；Battery End Point (BEP) =3.4 V.；Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 5

Peak-to-Average Ratio

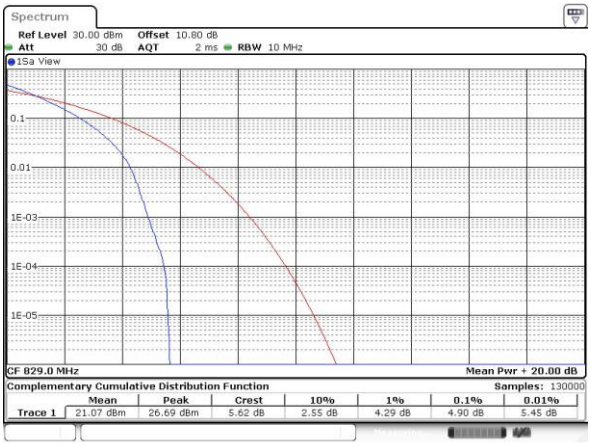
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.9	4.38	5.88	PASS
Middle CH	3.3	4.9	4.17	5.8	
Highest CH	3.57	4.93	4.32	5.83	

LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB

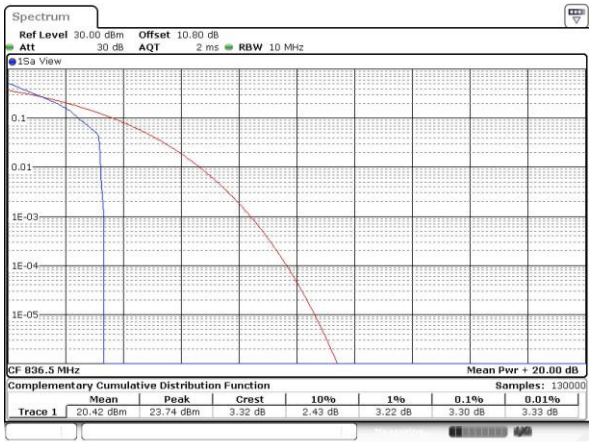
Date: 19.FEB.2017 01:51:20

Lowest Channel / Full RB



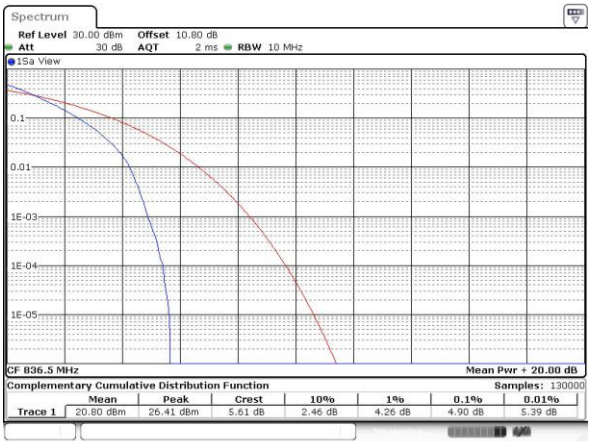
Date: 19.FEB.2017 01:51:33

Middle Channel / 1RB



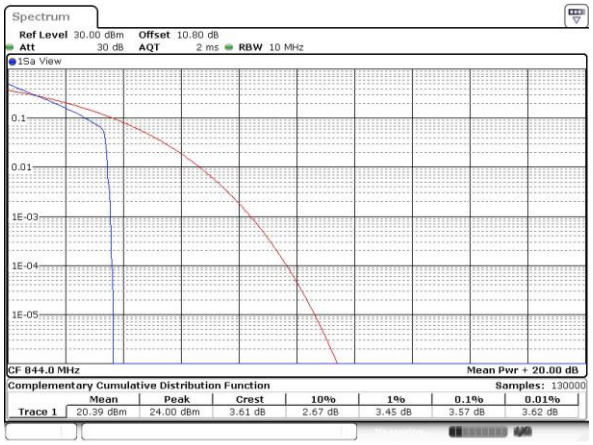
Date: 19.FEB.2017 01:51:42

Middle Channel / Full RB



Date: 19.FEB.2017 01:51:52

Highest Channel / 1RB



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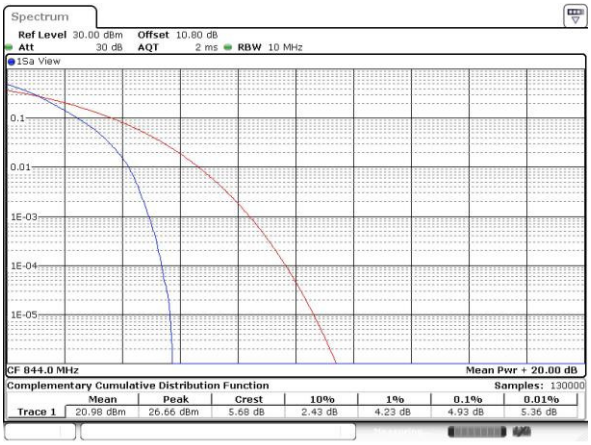
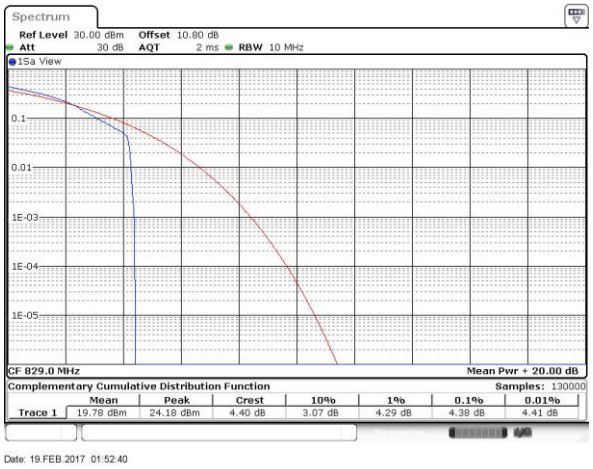
Highest Channel / Full RB



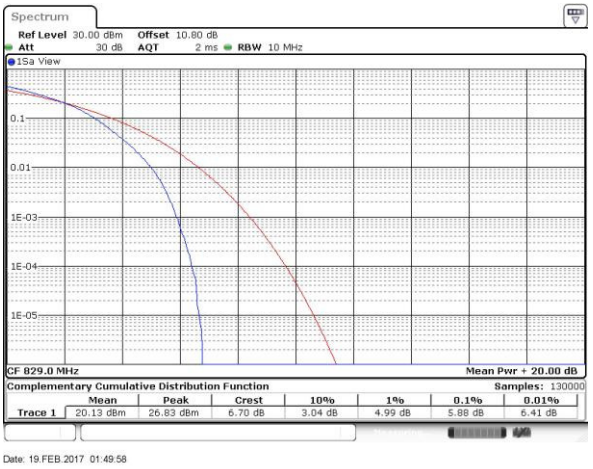
Date: 19.FEB.2017 01:52:14

LTE Band 5 / 10MHz / 16QAM

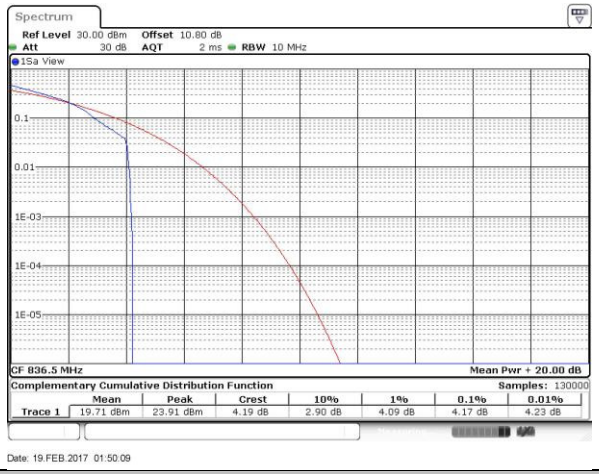
Lowest Channel / 1RB



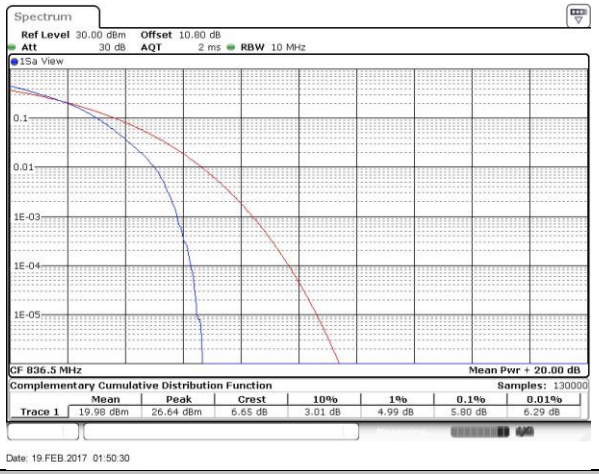
Lowest Channel / Full RB



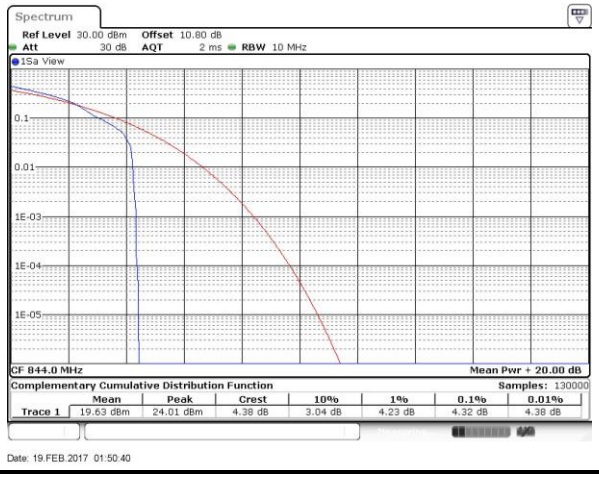
Middle Channel / 1RB



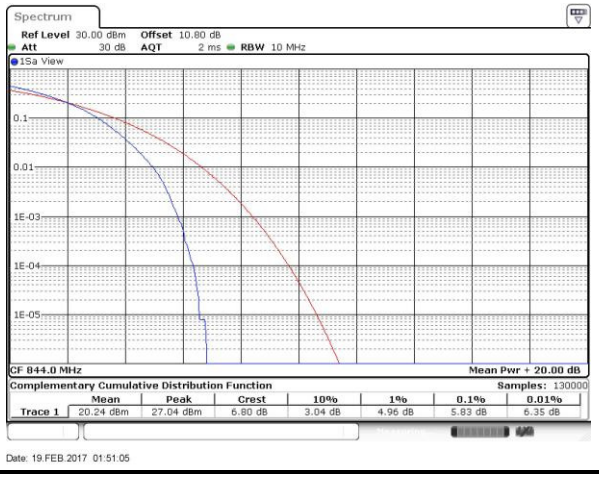
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

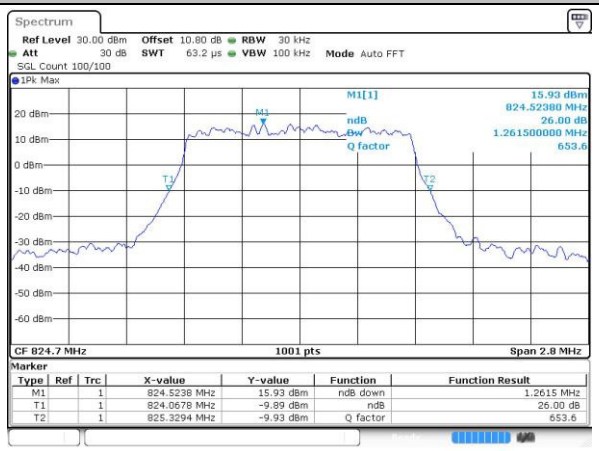


26dB Bandwidth

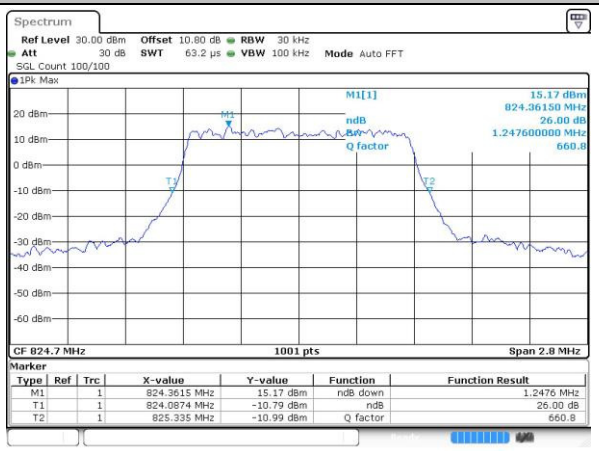
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.26	1.25	2.98	2.99	4.89	4.95	9.91	9.59	-	-	-	-
Middle CH	1.28	1.30	3.02	3.00	4.93	4.90	9.83	9.63	-	-	-	-
Highest CH	1.26	1.30	3.02	3.01	4.88	4.90	9.77	9.83	-	-	-	-

LTE Band 5

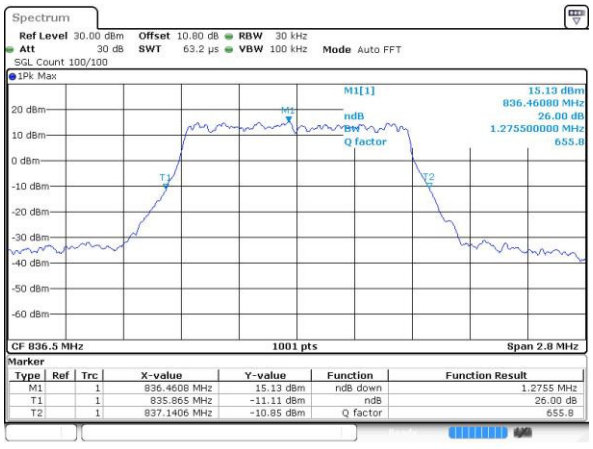
Lowest Channel / 1.4MHz / QPSK



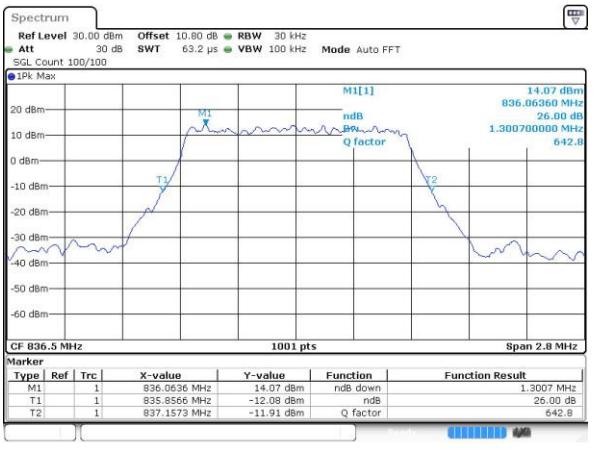
Lowest Channel / 1.4MHz / 16QAM



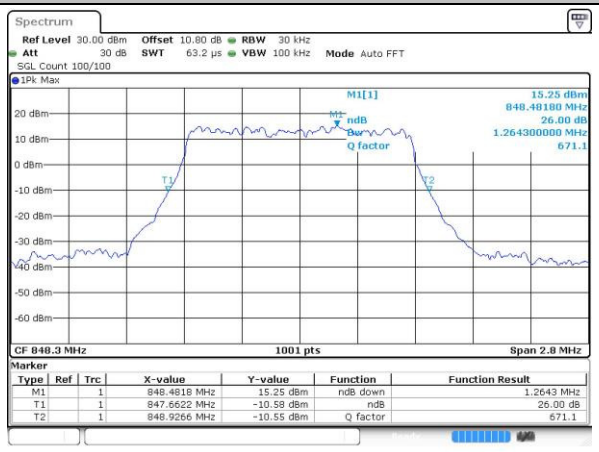
Middle Channel / 1.4MHz / QPSK



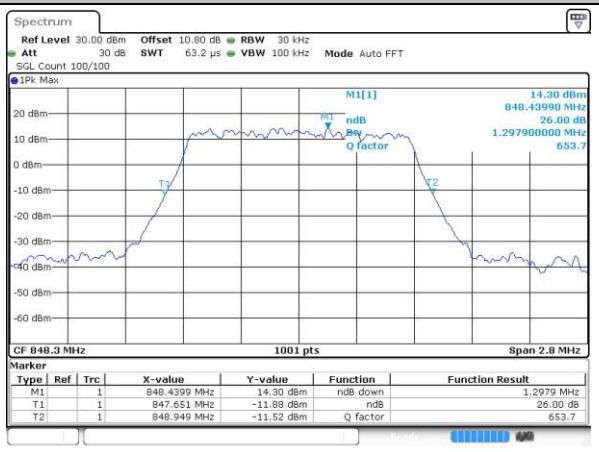
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

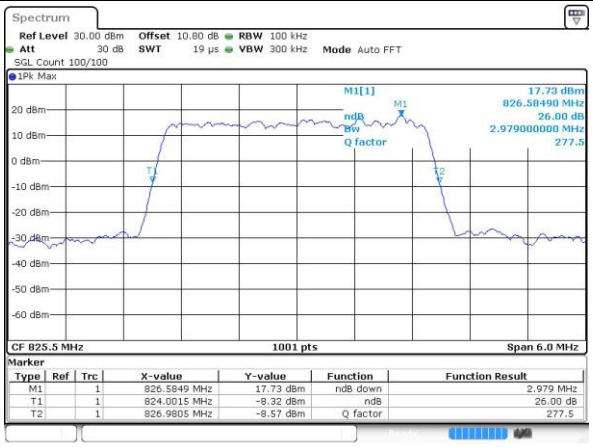


Highest Channel / 1.4MHz / 16QAM

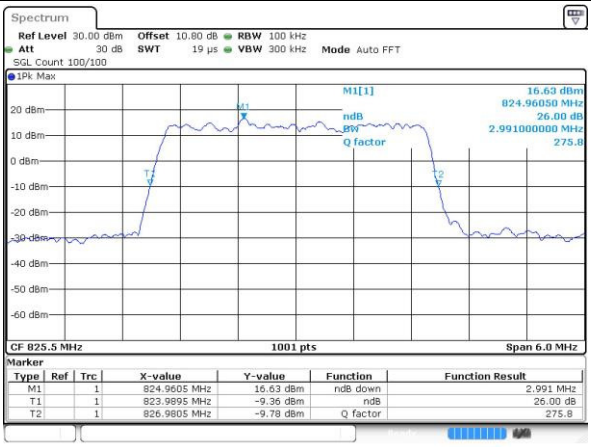


LTE Band 5

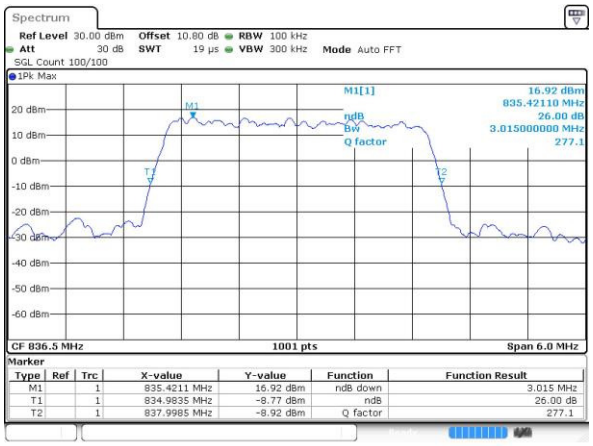
Lowest Channel / 3MHz / QPSK



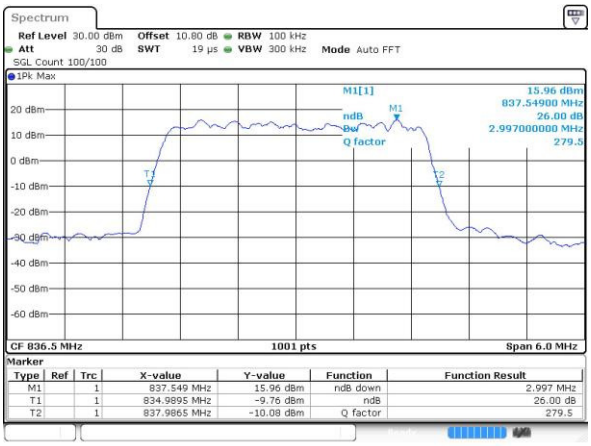
Lowest Channel / 3MHz / 16QAM



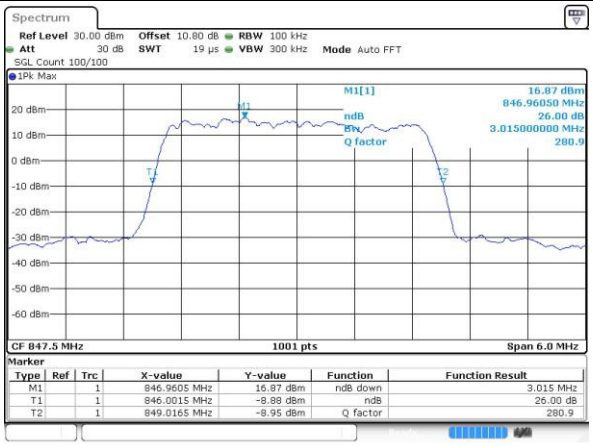
Middle Channel / 3MHz / QPSK



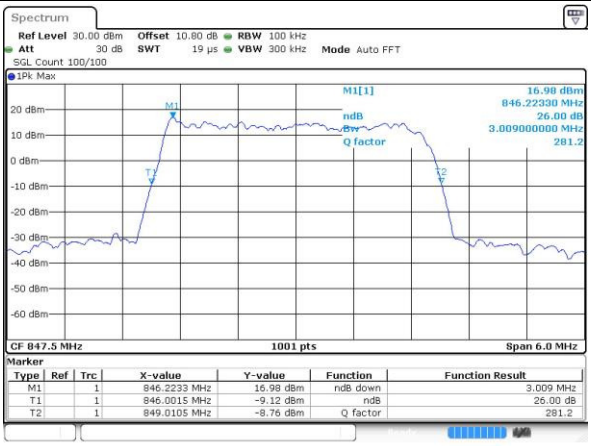
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

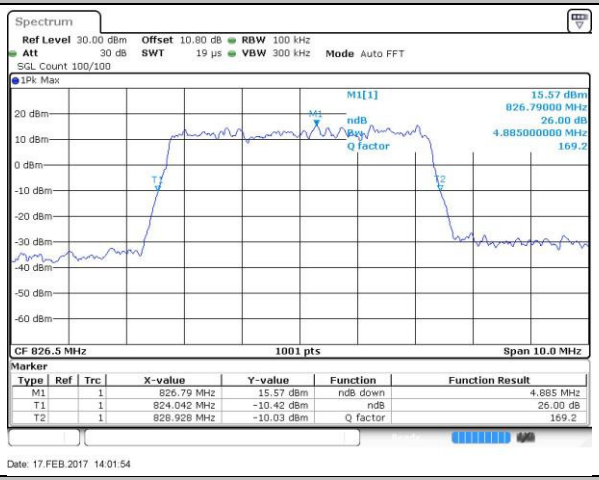


Highest Channel /3MHz / 16QAM

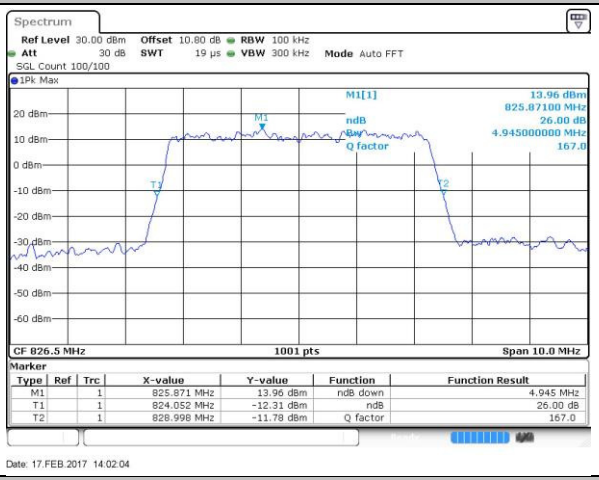


LTE Band 5

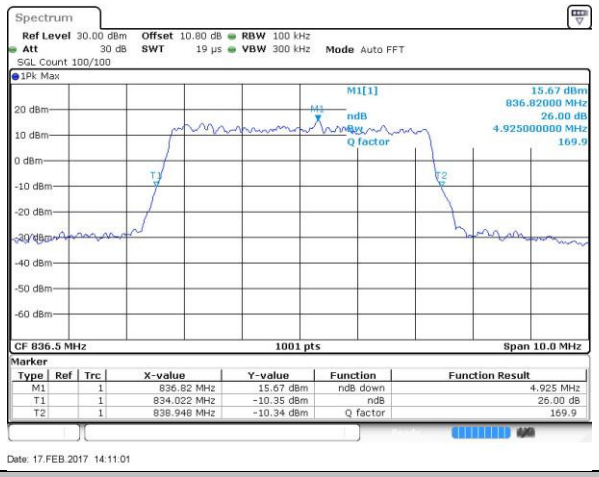
Lowest Channel / 5MHz / QPSK



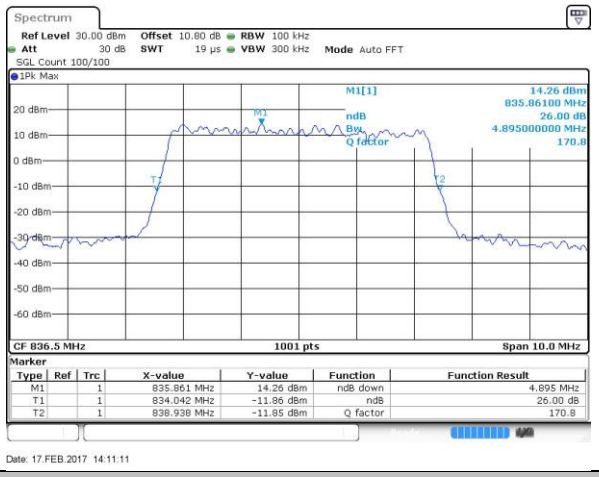
Lowest Channel / 5MHz / 16QAM



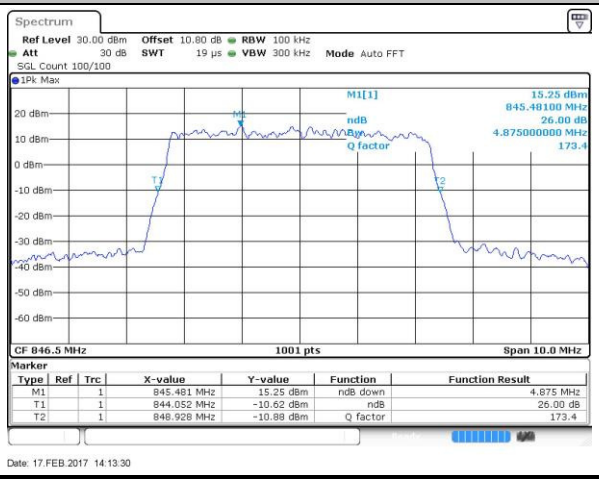
Middle Channel / 5MHz / QPSK



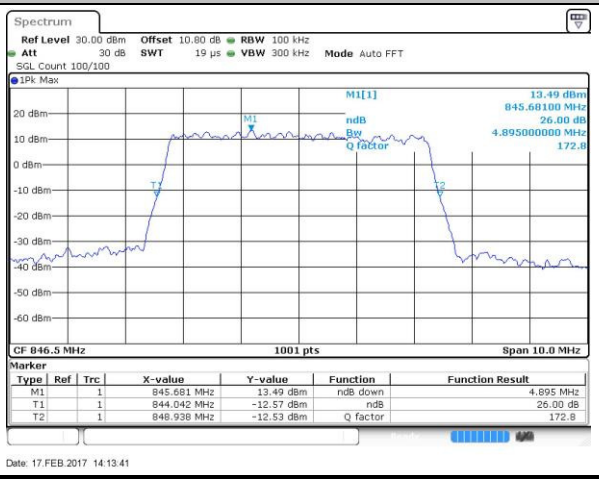
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

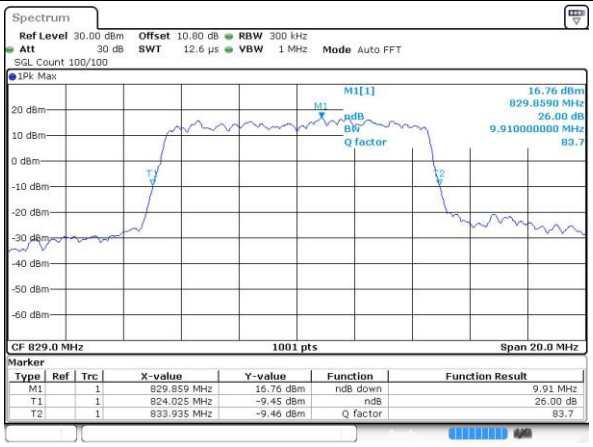


Highest Channel / 5MHz / 16QAM

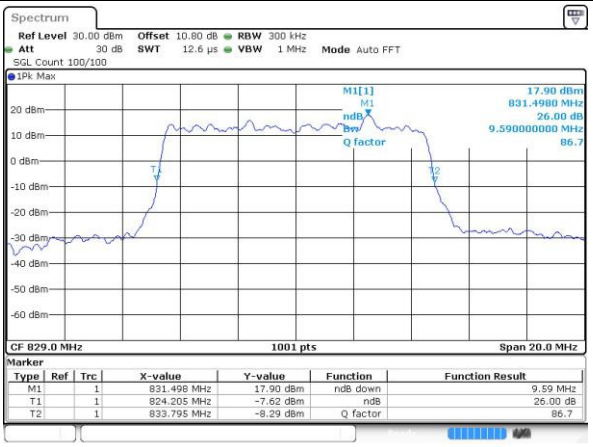


LTE Band 5

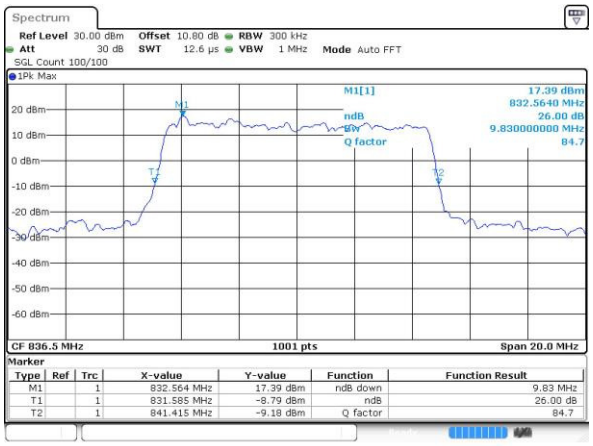
Lowest Channel / 10MHz / QPSK



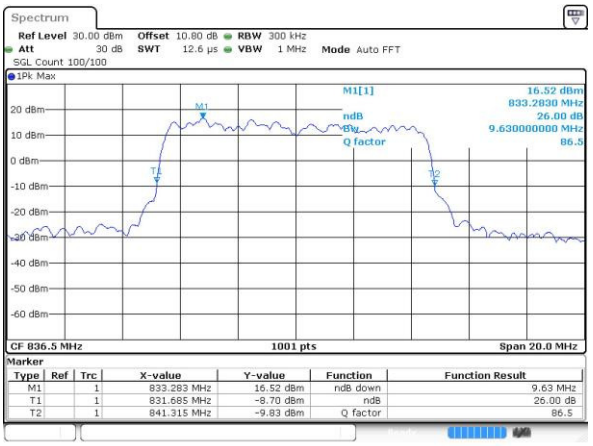
Lowest Channel / 10MHz / 16QAM



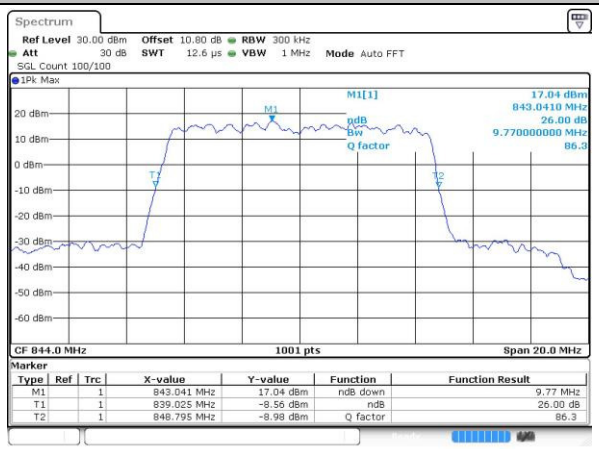
Middle Channel / 10MHz / QPSK



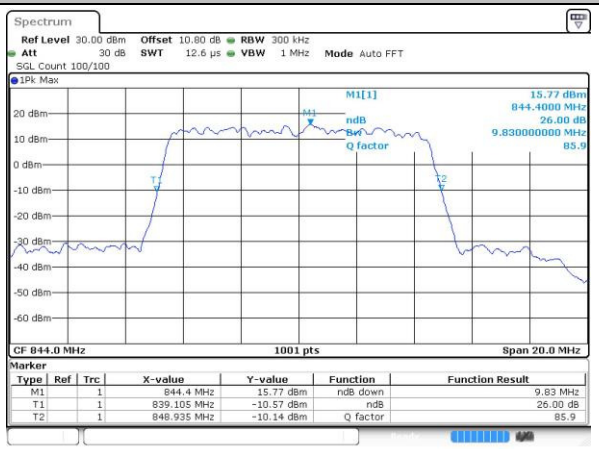
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM

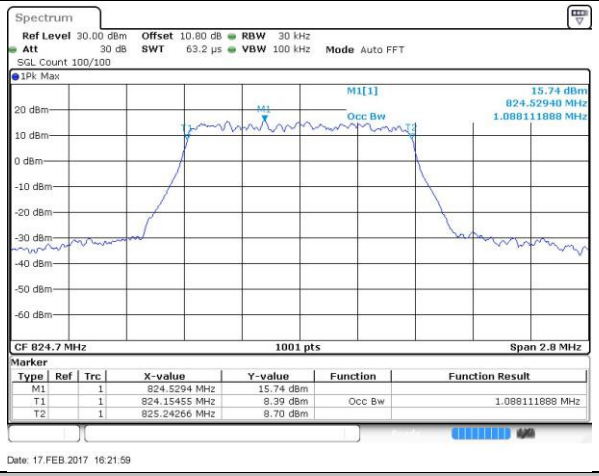


Occupied Bandwidth

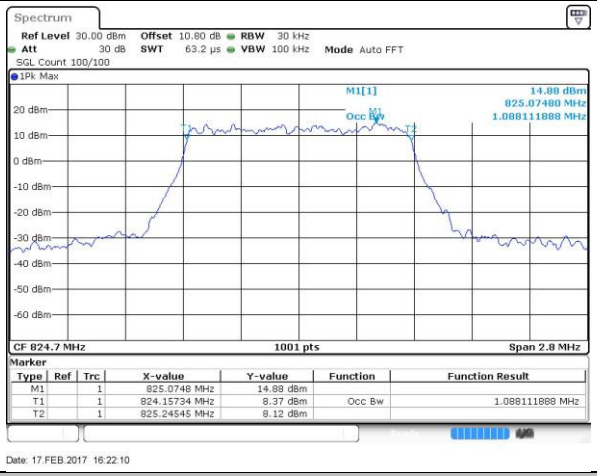
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.72	4.5	4.49	9.07	9.01	-	-	-	-
Middle CH	1.1	1.09	2.72	2.73	4.49	4.49	9.01	8.99	-	-	-	-
Highest CH	1.09	1.1	2.72	2.72	4.48	4.5	9.05	8.97	-	-	-	-

LTE Band 5

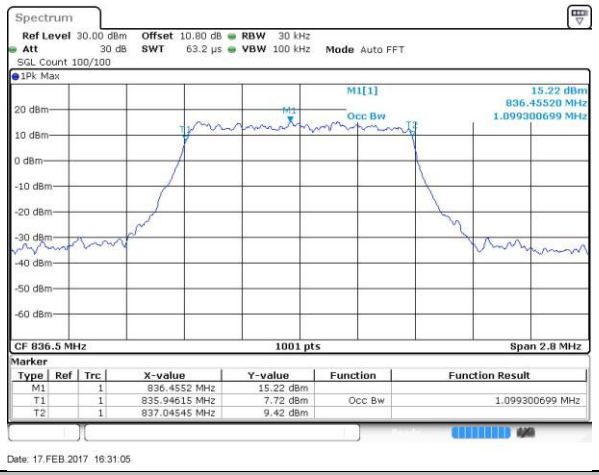
Lowest Channel / 1.4MHz / QPSK



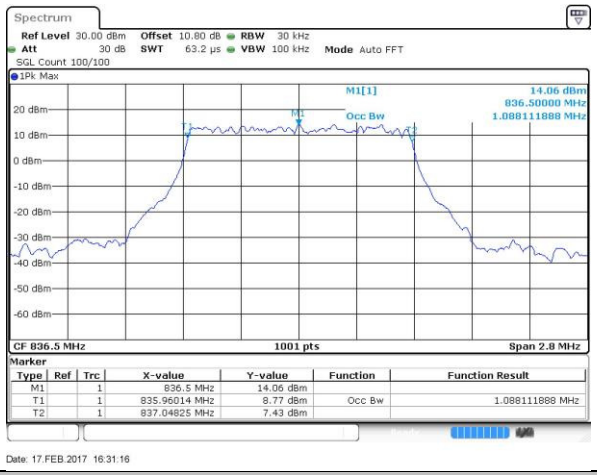
Lowest Channel / 1.4MHz / 16QAM



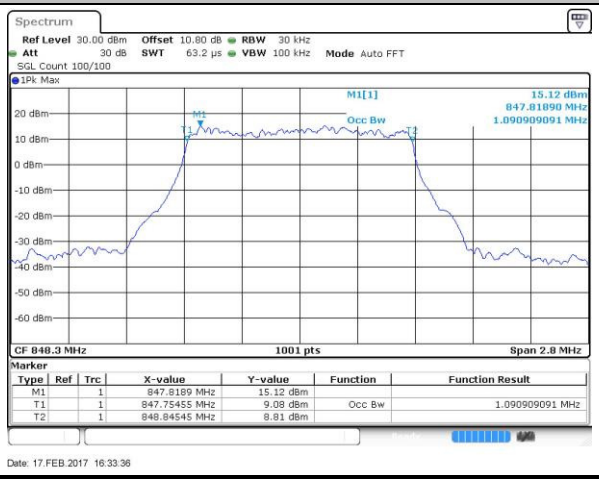
Middle Channel / 1.4MHz / QPSK



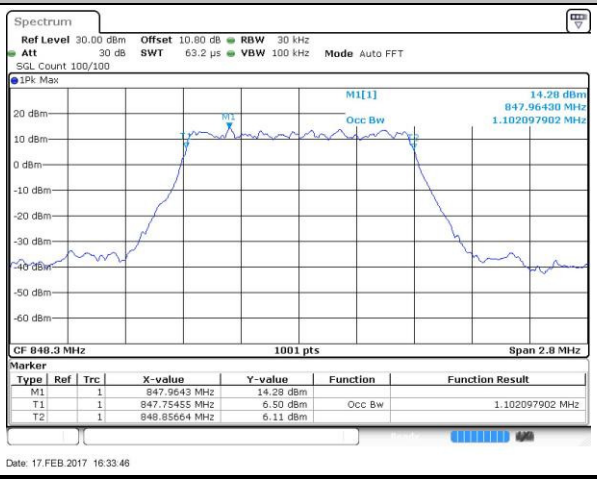
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

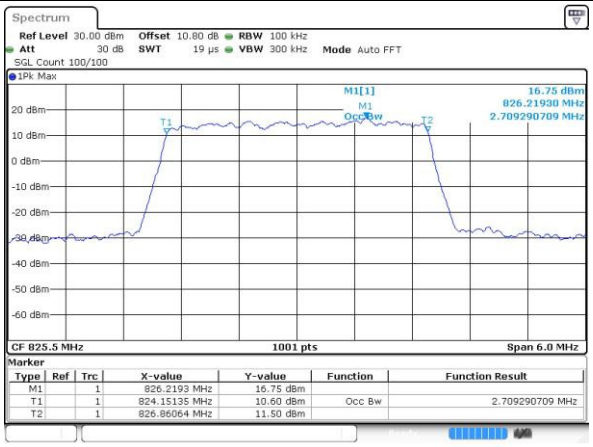


Highest Channel / 1.4MHz / 16QAM

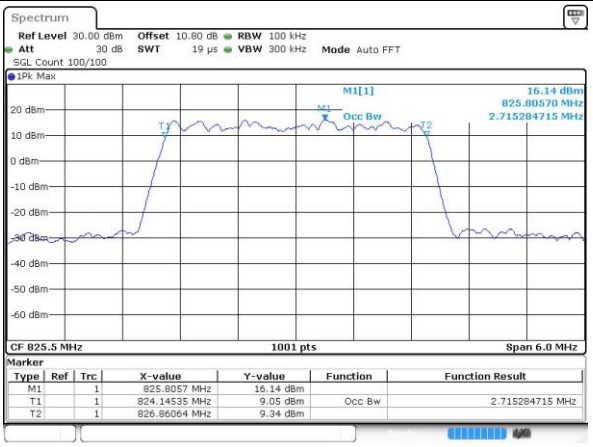


LTE Band 5

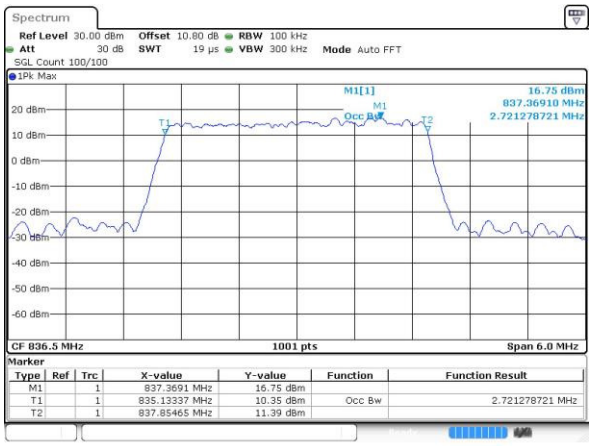
Lowest Channel / 3MHz / QPSK



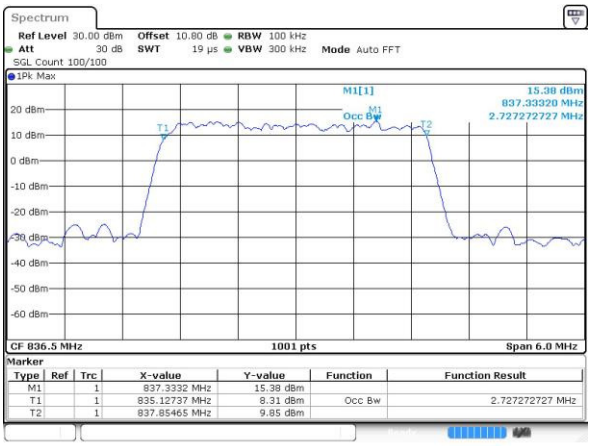
Lowest Channel / 3MHz / 16QAM



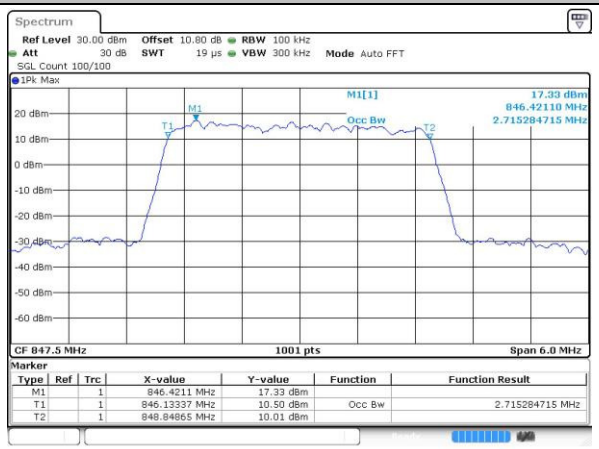
Middle Channel / 3MHz / QPSK



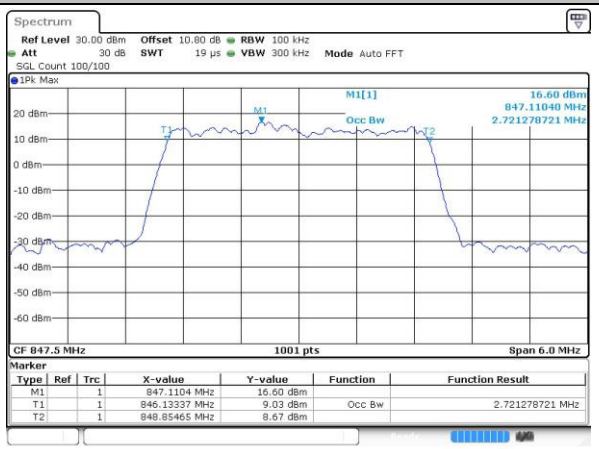
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

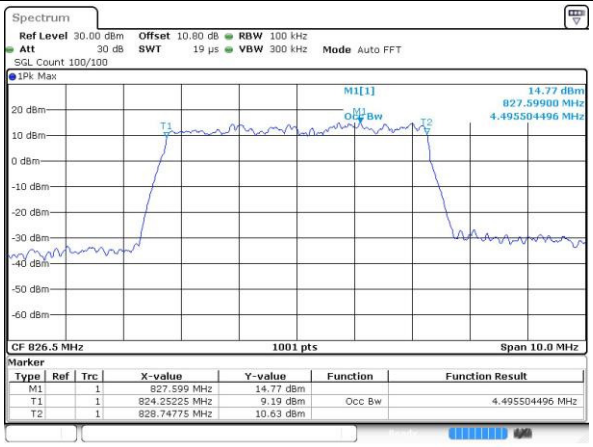


Highest Channel / 3MHz / 16QAM



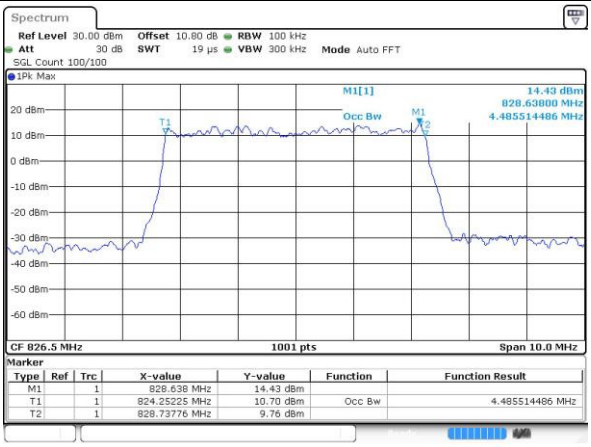
LTE Band 5

Lowest Channel / 5MHz / QPSK



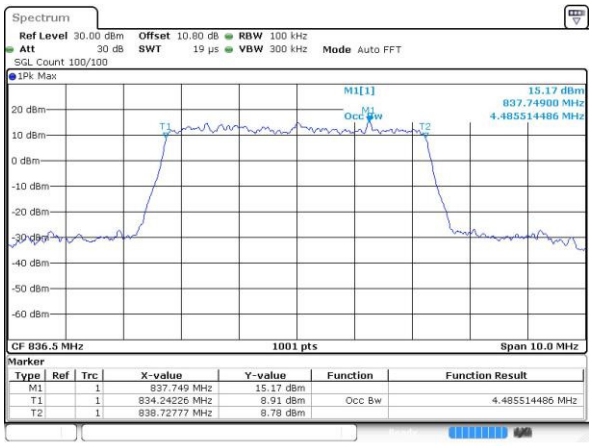
Date: 17.FEB.2017 14:01:33

Lowest Channel / 5MHz / 16QAM



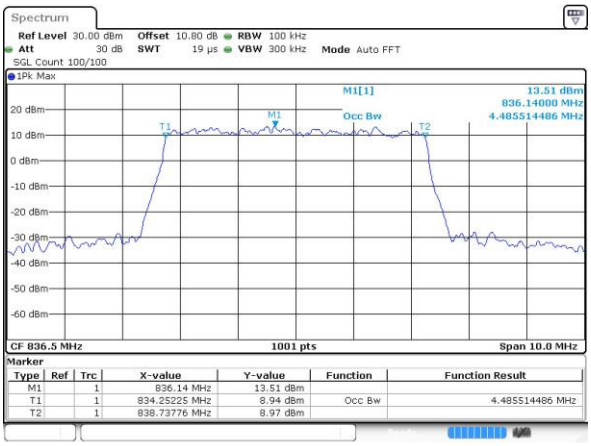
Date: 17.FEB.2017 14:01:44

Middle Channel / 5MHz / QPSK



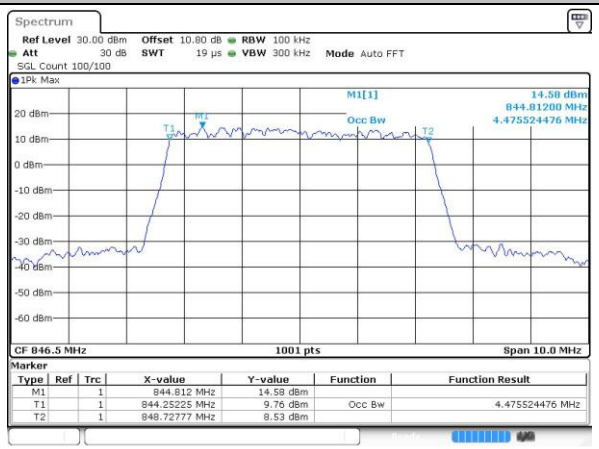
Date: 17.FEB.2017 14:10:40

Middle Channel / 5MHz / 16QAM



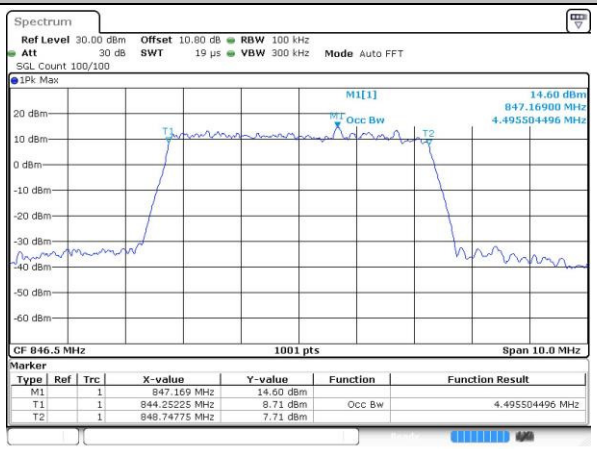
Date: 17.FEB.2017 14:10:50

Highest Channel / 5MHz / QPSK



Date: 17.FEB.2017 14:13:10

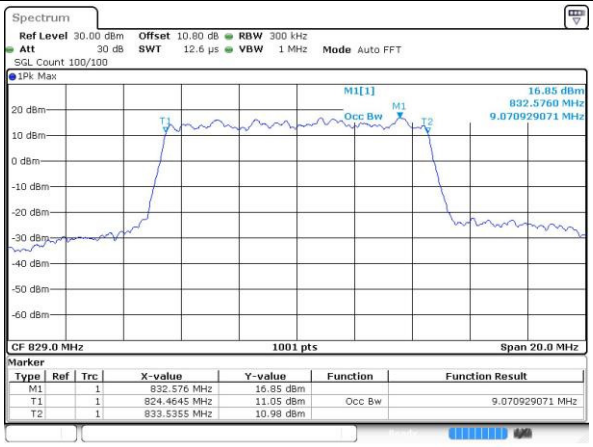
Highest Channel / 5MHz / 16QAM



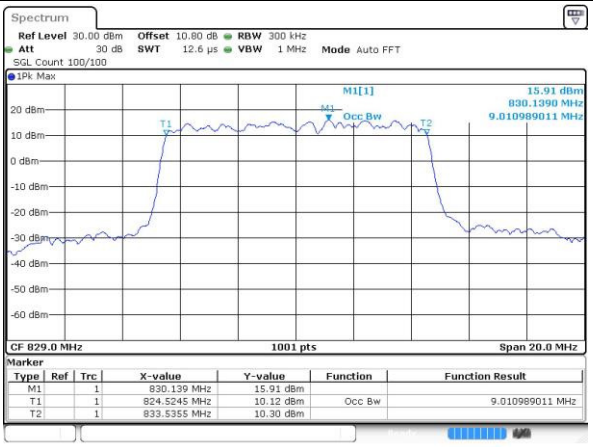
Date: 17.FEB.2017 14:13:20

LTE Band 5

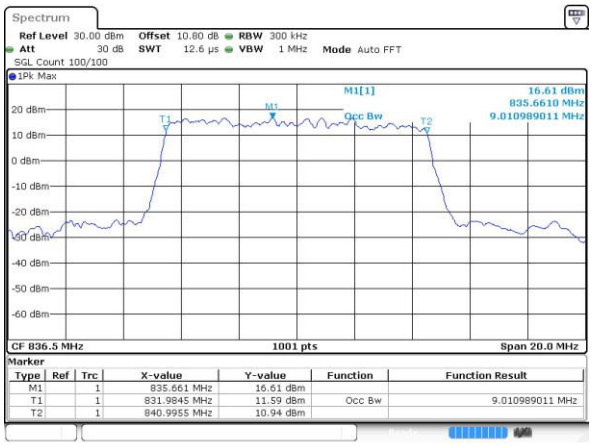
Lowest Channel / 10MHz / QPSK



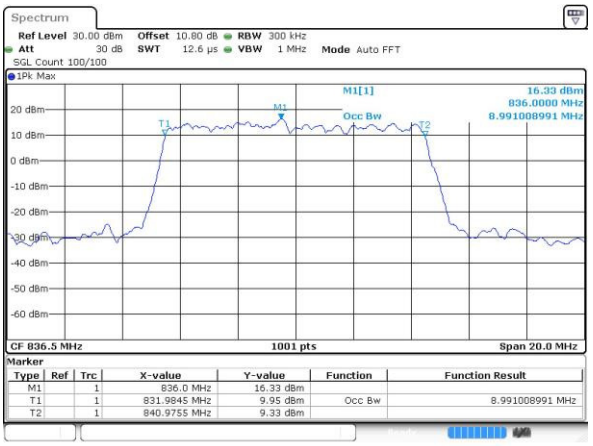
Lowest Channel / 10MHz / 16QAM



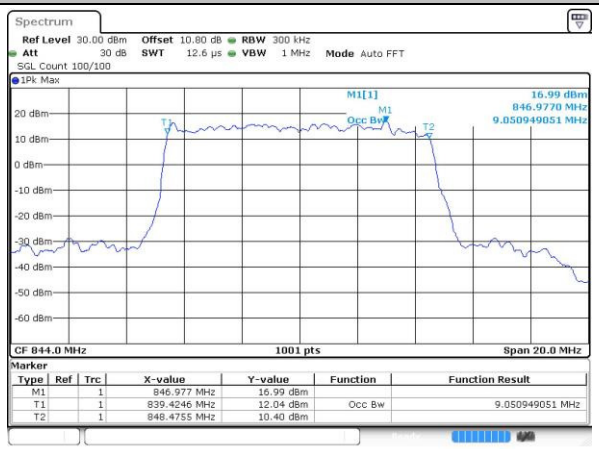
Middle Channel / 10MHz / QPSK



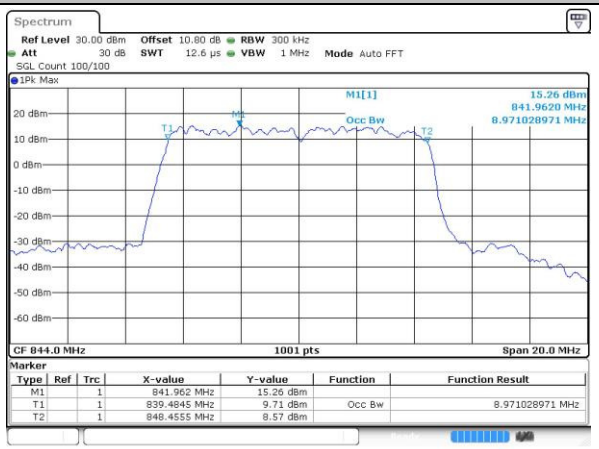
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



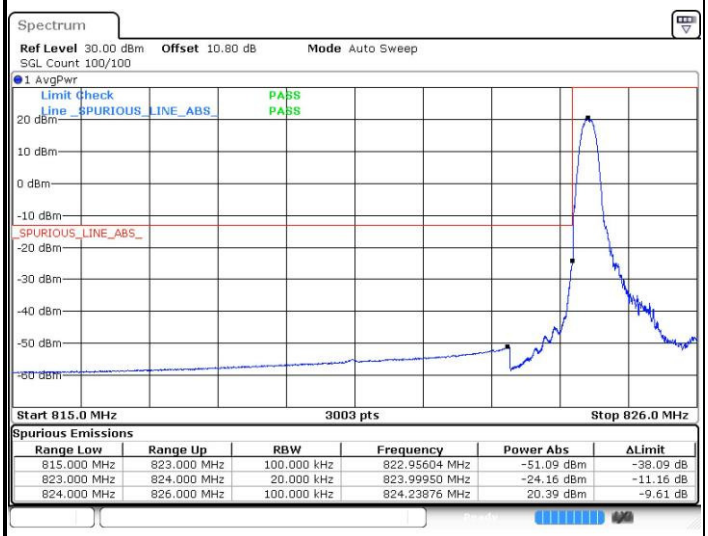
Highest Channel / 10MHz / 16QAM



Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

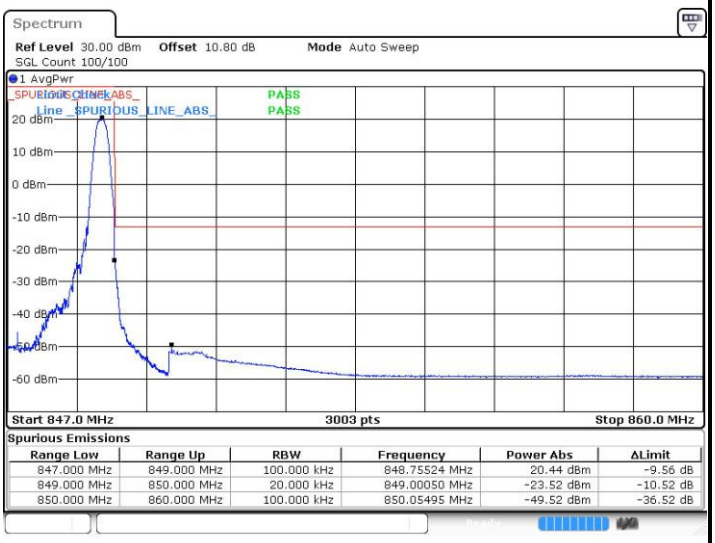


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.95604 MHz	-51.09 dBm	-38.09 dB
823.000 MHz	824.000 MHz	20.000 kHz	823.99950 MHz	-24.16 dBm	-11.16 dB
824.000 MHz	826.000 MHz	100.000 kHz	824.23876 MHz	20.39 dBm	-9.61 dB

Date: 17.FEB.2017 16:24:09

Highest Band Edge / 1RB

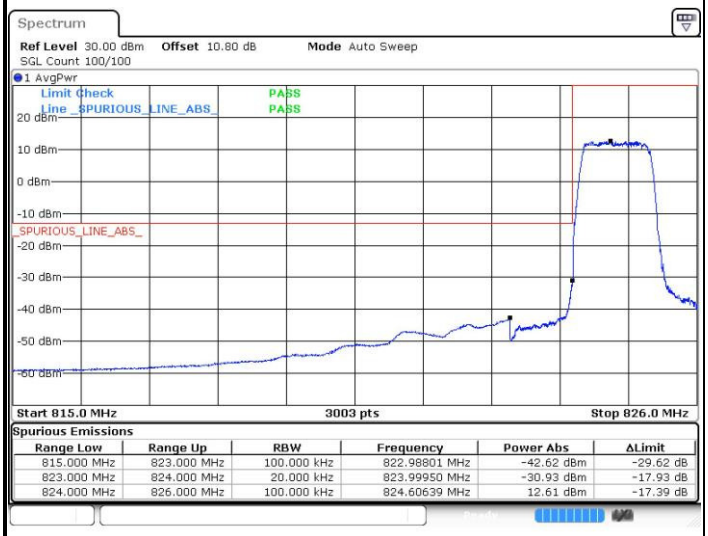


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
847.000 MHz	849.000 MHz	100.000 kHz	848.75524 MHz	20.44 dBm	-9.56 dB
849.000 MHz	850.000 MHz	20.000 kHz	849.00050 MHz	-23.52 dBm	-10.52 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.05495 MHz	-49.52 dBm	-36.52 dB

Date: 17.FEB.2017 16:43:45

Lowest Band Edge / Full RB

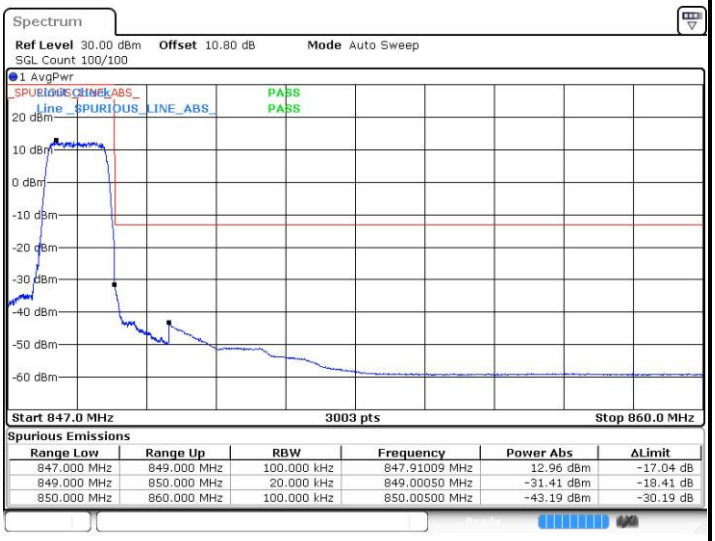


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.98801 MHz	-42.62 dBm	-29.62 dB
823.000 MHz	824.000 MHz	20.000 kHz	823.99950 MHz	-30.93 dBm	-17.93 dB
824.000 MHz	826.000 MHz	100.000 kHz	824.60639 MHz	12.61 dBm	-17.39 dB

Date: 17.FEB.2017 16:27:27

Highest Band Edge / Full RB



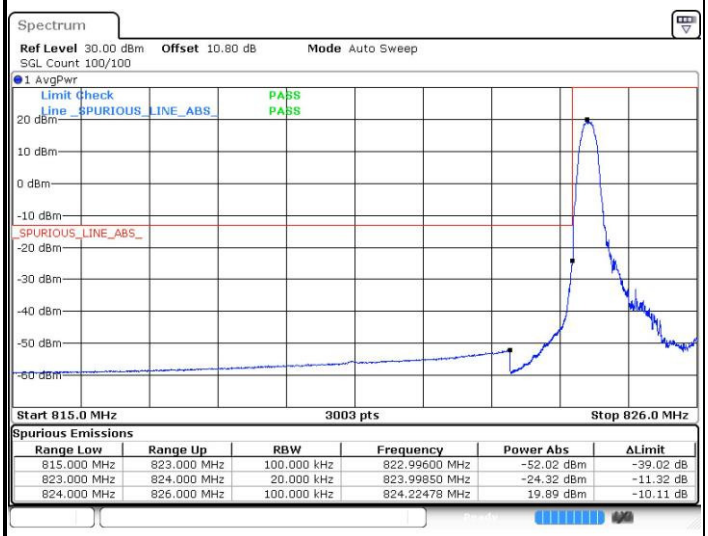
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
847.000 MHz	849.000 MHz	100.000 kHz	847.91009 MHz	12.96 dBm	-17.04 dB
849.000 MHz	850.000 MHz	20.000 kHz	849.00050 MHz	-31.41 dBm	-18.41 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-43.19 dBm	-30.19 dB

Date: 17.FEB.2017 16:40:27

LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

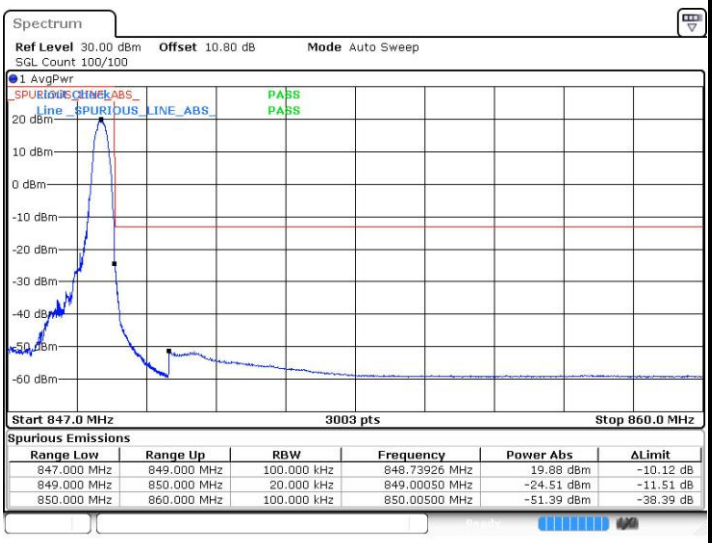


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-52.02 dBm	-39.02 dB
823.000 MHz	824.000 MHz	20.000 kHz	823.99850 MHz	-24.32 dBm	-11.32 dB
824.000 MHz	826.000 MHz	100.000 kHz	824.22478 MHz	19.89 dBm	-10.11 dB

Date: 17.FEB.2017 16:25:48

Highest Band Edge / 1 RB

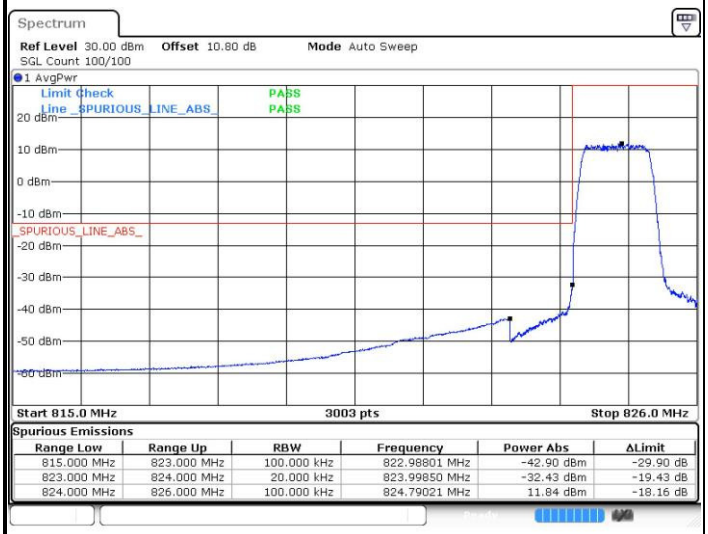


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
847.000 MHz	849.000 MHz	100.000 kHz	848.73926 MHz	19.88 dBm	-10.12 dB
849.000 MHz	850.000 MHz	20.000 kHz	849.00050 MHz	-24.51 dBm	-11.51 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-51.39 dBm	-38.39 dB

Date: 17.FEB.2017 16:45:25

Lowest Band Edge / Full RB

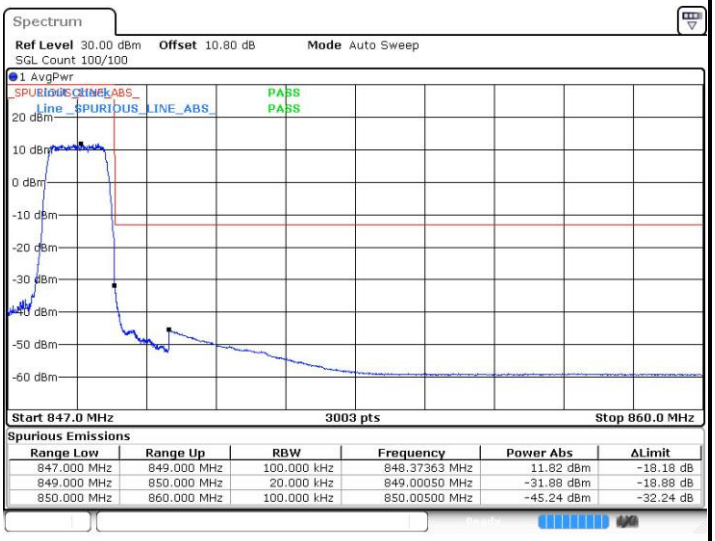


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.98801 MHz	-42.90 dBm	-29.90 dB
823.000 MHz	824.000 MHz	20.000 kHz	823.99850 MHz	-32.43 dBm	-19.43 dB
824.000 MHz	826.000 MHz	100.000 kHz	824.79021 MHz	11.84 dBm	-18.16 dB

Date: 17.FEB.2017 16:29:06

Highest Band Edge / Full RB



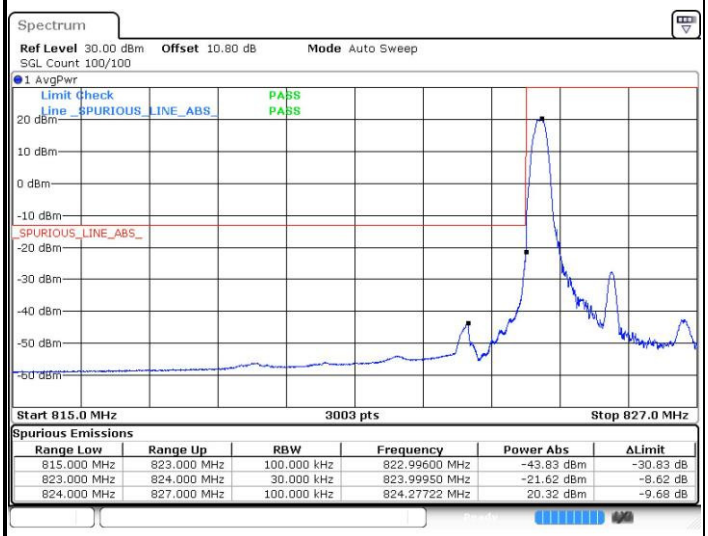
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
847.000 MHz	849.000 MHz	100.000 kHz	848.37363 MHz	11.82 dBm	-18.18 dB
849.000 MHz	850.000 MHz	20.000 kHz	849.00050 MHz	-31.88 dBm	-18.88 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-45.24 dBm	-32.24 dB

Date: 17.FEB.2017 16:42:06

LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB

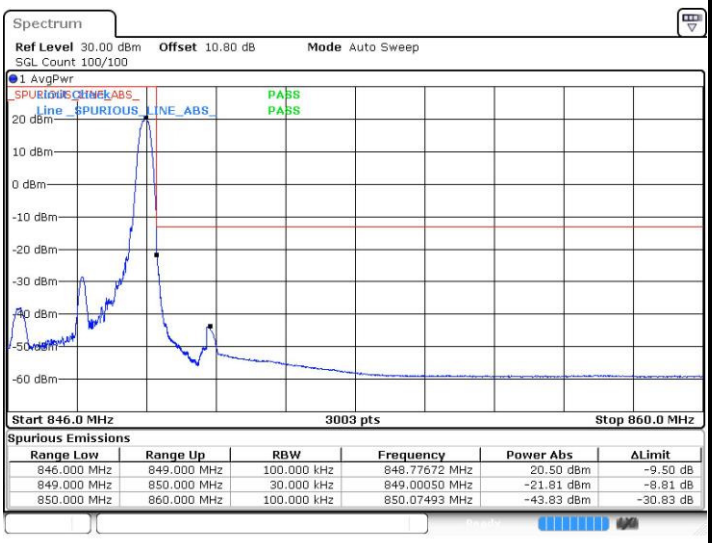


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-43.83 dBm	-30.83 dB
823.000 MHz	824.000 MHz	30.000 kHz	823.99950 MHz	-21.62 dBm	-8.62 dB
824.000 MHz	827.000 MHz	100.000 kHz	824.27722 MHz	20.32 dBm	-9.68 dB

Date: 17.FEB.2017 13:43:01

Highest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
846.000 MHz	849.000 MHz	100.000 kHz	848.77672 MHz	20.50 dBm	-9.50 dB
849.000 MHz	850.000 MHz	30.000 kHz	849.00050 MHz	-21.81 dBm	-8.81 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.07493 MHz	-43.83 dBm	-30.83 dB

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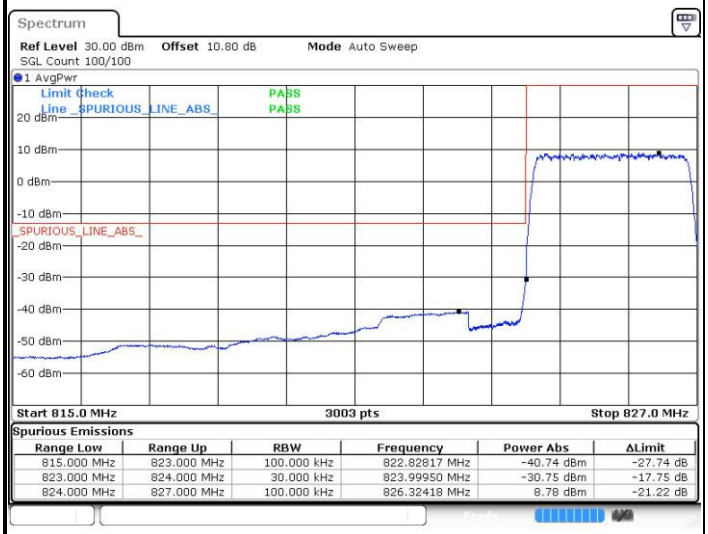
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.82817 MHz	-40.74 dBm	-27.74 dB
823.000 MHz	824.000 MHz	30.000 kHz	823.99950 MHz	-30.75 dBm	-17.75 dB
824.000 MHz	827.000 MHz	100.000 kHz	826.32418 MHz	8.78 dBm	-21.22 dB

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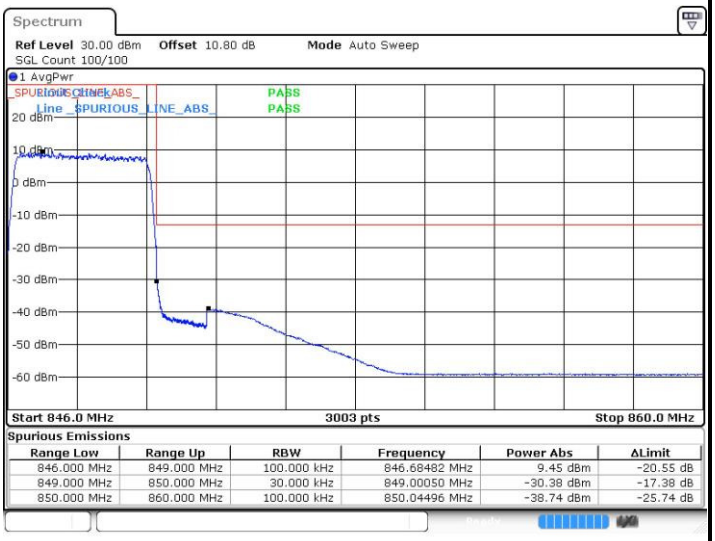
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
846.000 MHz	849.000 MHz	100.000 kHz	846.68482 MHz	9.45 dBm	-20.55 dB
849.000 MHz	850.000 MHz	30.000 kHz	849.00050 MHz	-30.38 dBm	-17.38 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.04496 MHz	-38.74 dBm	-25.74 dB

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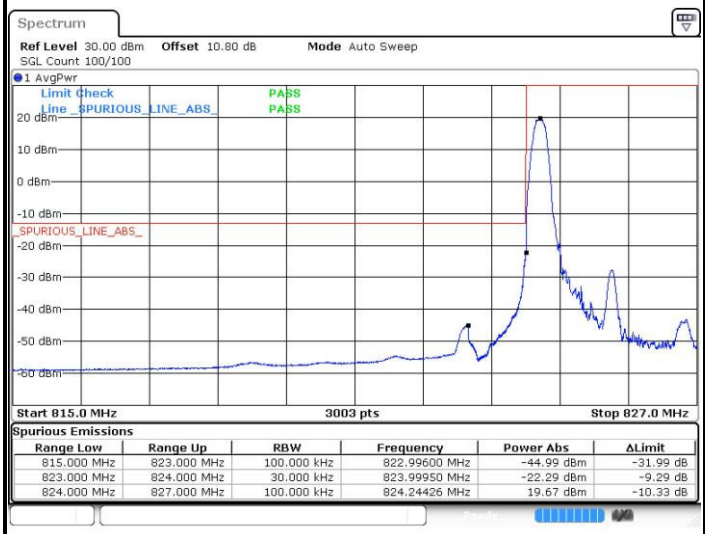
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-44.99 dBm	-31.99 dB
823.000 MHz	824.000 MHz	30.000 kHz	823.99950 MHz	-22.29 dBm	-9.29 dB
824.000 MHz	827.000 MHz	100.000 kHz	824.24426 MHz	19.67 dBm	-10.33 dB

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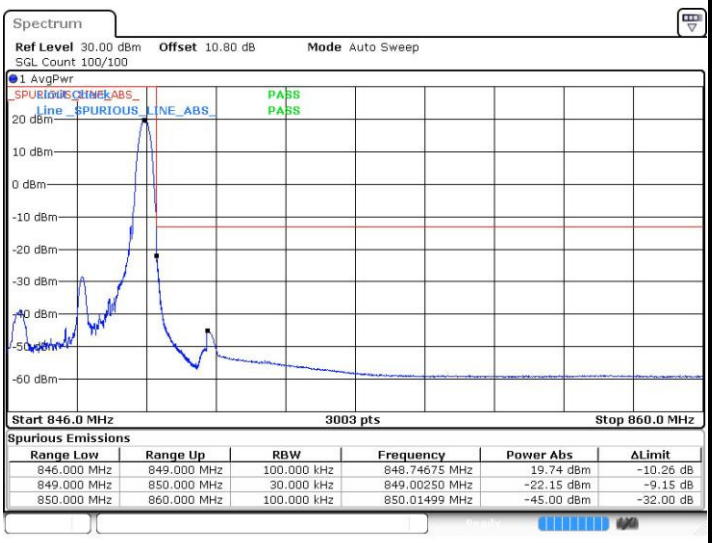
Highest Band Edge /1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
846.000 MHz	849.000 MHz	100.000 kHz	848.74675 MHz	19.74 dBm	-10.26 dB
849.000 MHz	850.000 MHz	30.000 kHz	849.00250 MHz	-22.15 dBm	-9.15 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.01499 MHz	-45.00 dBm	-32.00 dB

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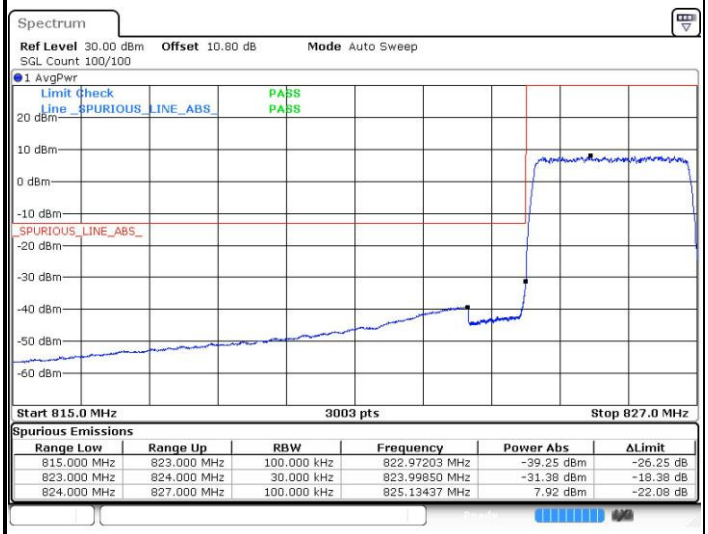
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.97203 MHz	-39.25 dBm	-26.25 dB
823.000 MHz	824.000 MHz	30.000 kHz	823.99850 MHz	-31.38 dBm	-18.38 dB
824.000 MHz	827.000 MHz	100.000 kHz	825.13437 MHz	7.92 dBm	-22.08 dB

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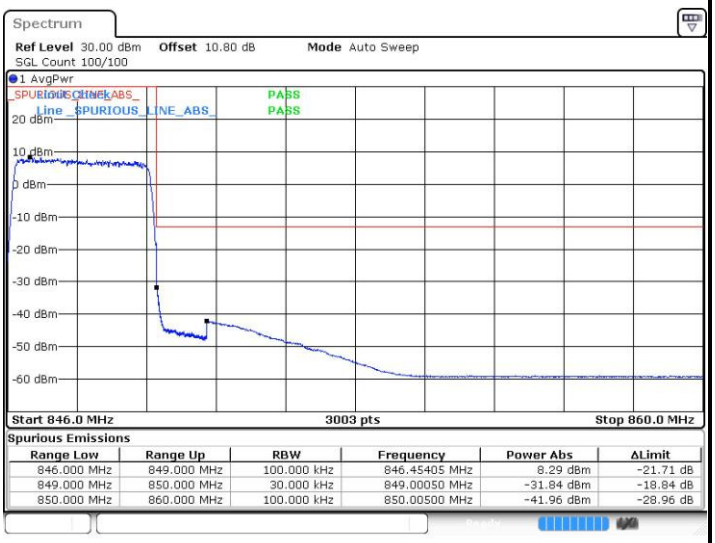
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
846.000 MHz	849.000 MHz	100.000 kHz	846.45405 MHz	8.29 dBm	-21.71 dB
849.000 MHz	850.000 MHz	30.000 kHz	849.00050 MHz	-31.84 dBm	-18.84 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-41.96 dBm	-28.96 dB

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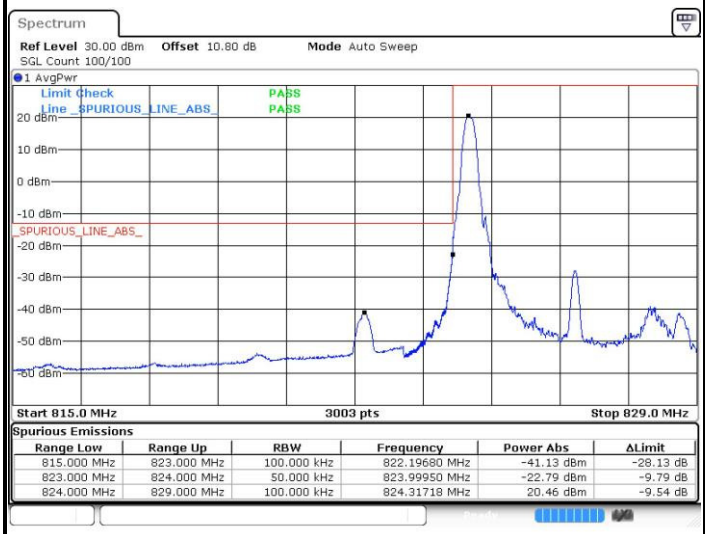
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.19680 MHz	-41.13 dBm	-28.13 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99950 MHz	-22.79 dBm	-9.79 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.31718 MHz	20.46 dBm	-9.54 dB

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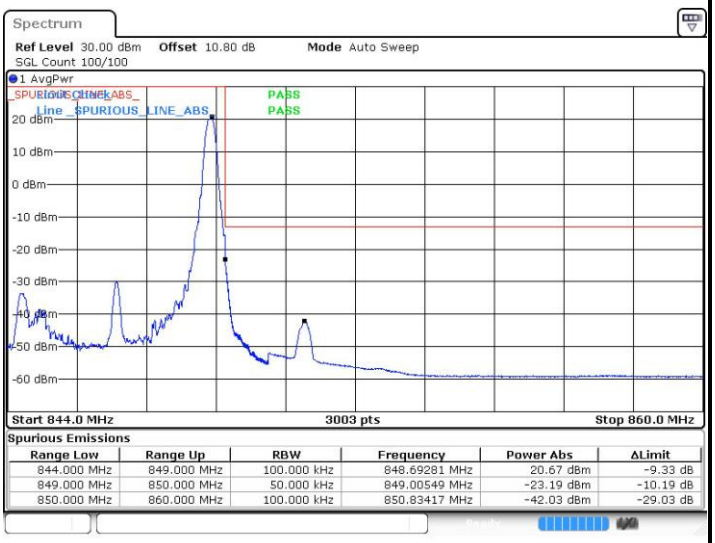
Highest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.69281 MHz	20.67 dBm	-9.33 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00549 MHz	-23.19 dBm	-10.19 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.83417 MHz	-42.03 dBm	-29.03 dB

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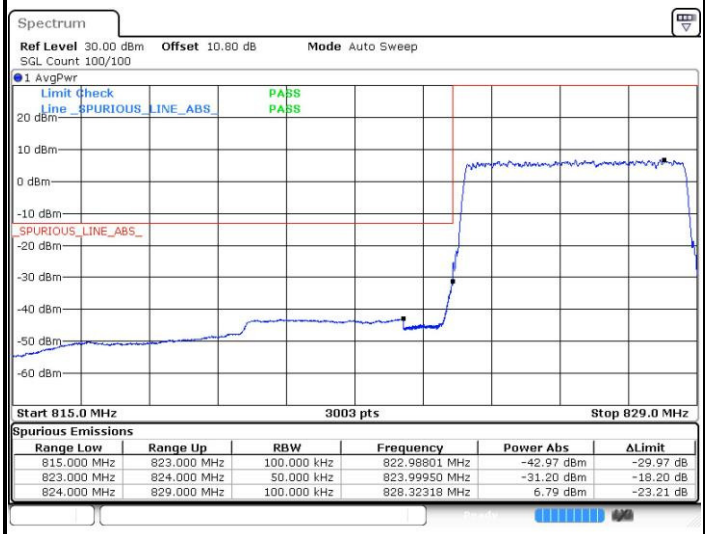
Lowest Band Edge / Full RB

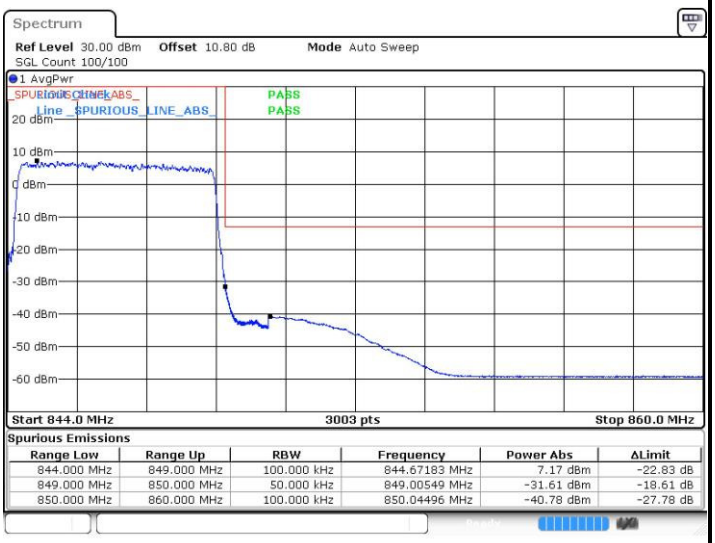


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.98801 MHz	-42.97 dBm	-29.97 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99950 MHz	-31.20 dBm	-18.20 dB
824.000 MHz	829.000 MHz	100.000 kHz	828.32318 MHz	6.79 dBm	-23.21 dB

Date: 17.FEB.2017 14:07:01

Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	844.67183 MHz	7.17 dBm	-22.83 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00549 MHz	-31.61 dBm	-18.61 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.04496 MHz	-40.78 dBm	-27.78 dB

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