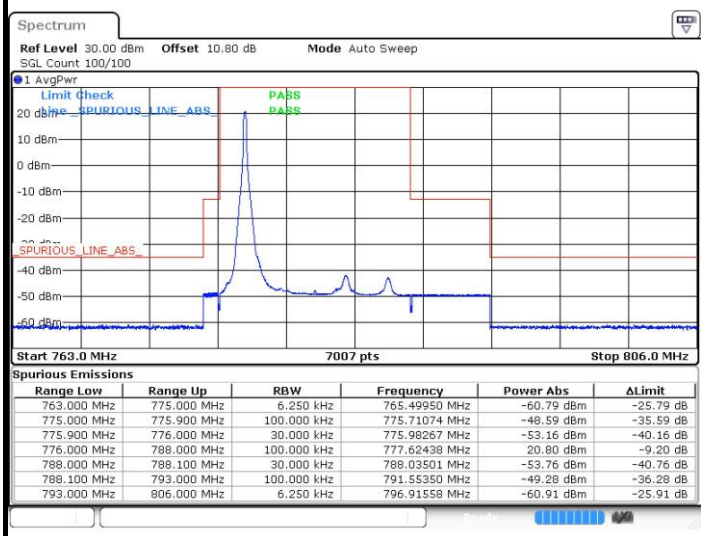
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

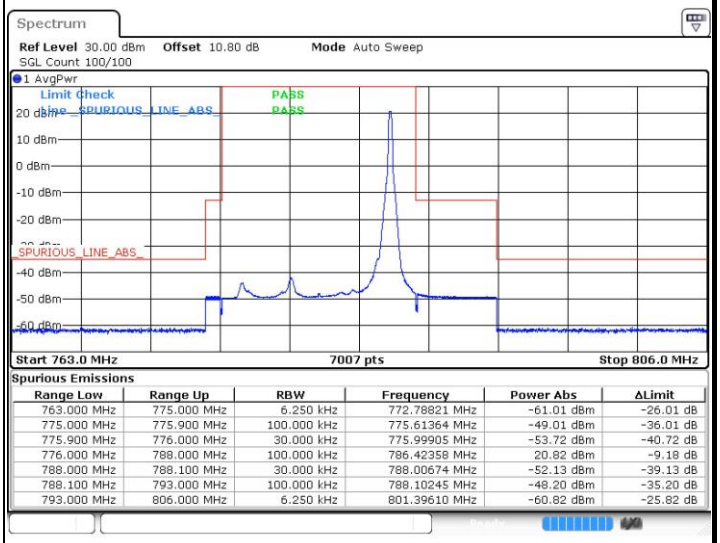


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	765.49950 MHz	-60.79 dBm	-25.79 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.71074 MHz	-48.59 dBm	-35.59 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.98267 MHz	-53.16 dBm	-40.16 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.62438 MHz	20.80 dBm	-9.20 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.03501 MHz	-53.76 dBm	-40.76 dB
788.100 MHz	793.000 MHz	100.000 kHz	791.55350 MHz	-49.28 dBm	-36.28 dB
793.000 MHz	806.000 MHz	6.250 kHz	796.91558 MHz	-60.91 dBm	-25.91 dB

Date: 26.JUN.2019 07:34:42

Highest Band Edge / 1 RB

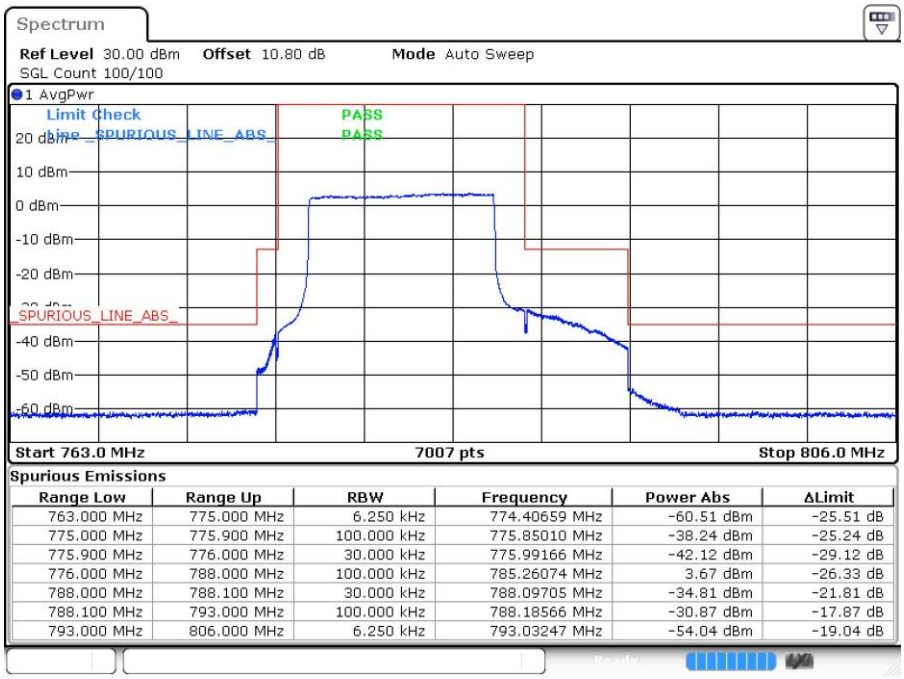


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.78821 MHz	-61.01 dBm	-26.01 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.61364 MHz	-49.01 dBm	-36.01 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99905 MHz	-53.72 dBm	-40.72 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.42358 MHz	20.82 dBm	-9.18 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00674 MHz	-52.13 dBm	-39.13 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-48.20 dBm	-35.20 dB
793.000 MHz	806.000 MHz	6.250 kHz	801.39610 MHz	-60.82 dBm	-25.82 dB

Date: 26.JUN.2019 07:36:23

Band Edge / Full RB



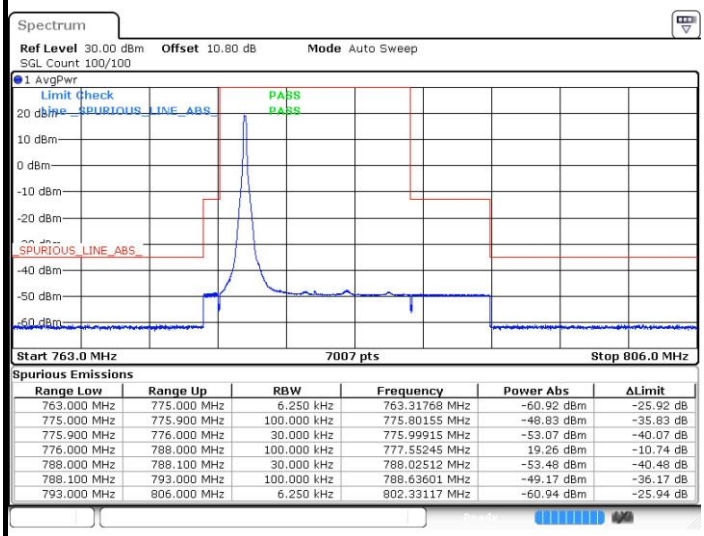
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.40659 MHz	-60.51 dBm	-25.51 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.85010 MHz	-38.24 dBm	-25.24 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99166 MHz	-42.12 dBm	-29.12 dB
776.000 MHz	788.000 MHz	100.000 kHz	785.26074 MHz	3.67 dBm	-26.33 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09705 MHz	-34.81 dBm	-21.81 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.18566 MHz	-30.87 dBm	-17.87 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.03247 MHz	-54.04 dBm	-19.04 dB

Date: 26.JUN.2019 07:29:40

LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

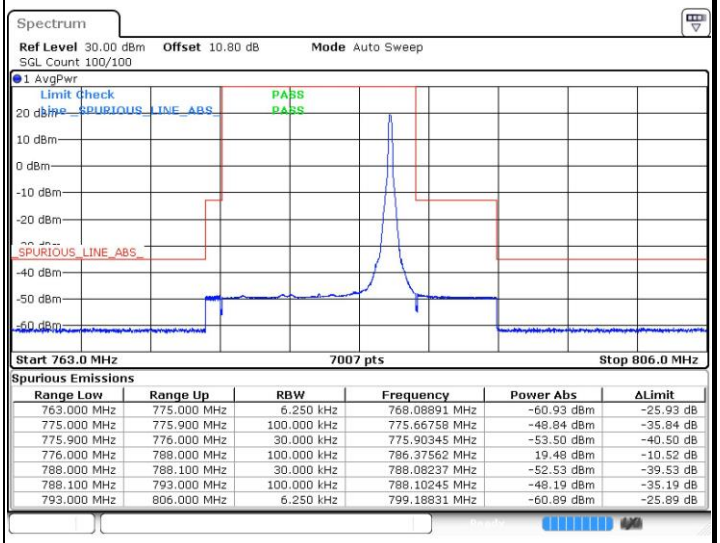


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	763.31768 MHz	-60.92 dBm	-25.92 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.80155 MHz	-48.83 dBm	-35.83 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99915 MHz	-53.07 dBm	-40.07 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.55245 MHz	19.26 dBm	-10.74 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02512 MHz	-53.48 dBm	-40.48 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.63601 MHz	-49.17 dBm	-36.17 dB
793.000 MHz	806.000 MHz	6.250 kHz	802.33117 MHz	-60.94 dBm	-25.94 dB

Date: 26.JUN.2019 07:33:01

Highest Band Edge / 1 RB

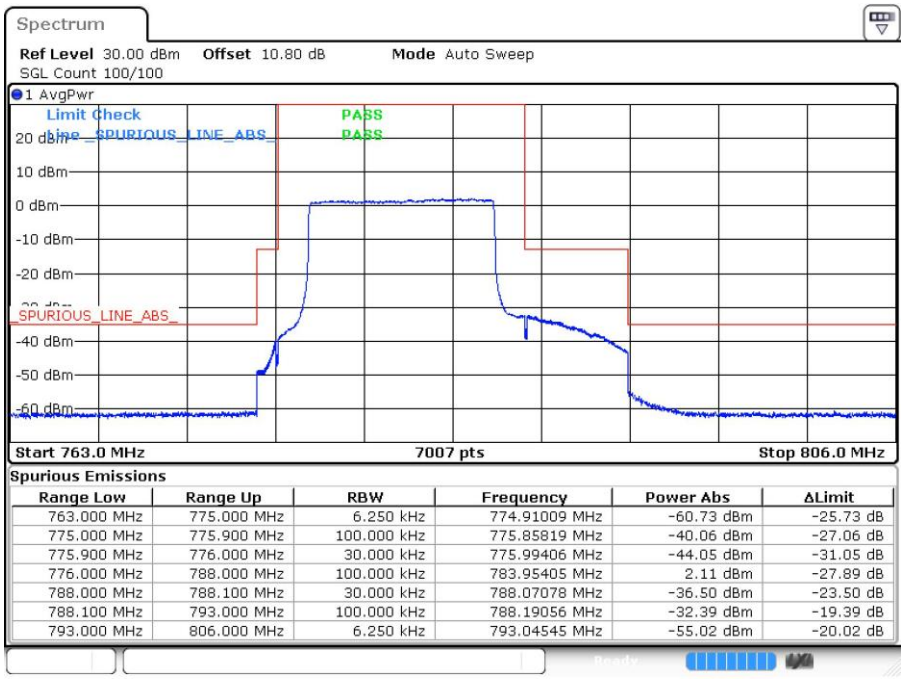


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	768.08891 MHz	-60.93 dBm	-25.93 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.66758 MHz	-48.84 dBm	-35.84 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.90345 MHz	-53.50 dBm	-40.50 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.37562 MHz	19.48 dBm	-10.52 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.08237 MHz	-52.53 dBm	-39.53 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-48.19 dBm	-35.19 dB
793.000 MHz	806.000 MHz	6.250 kHz	799.18831 MHz	-60.89 dBm	-25.89 dB

Date: 26.JUN.2019 07:38:03

Band Edge / Full RB



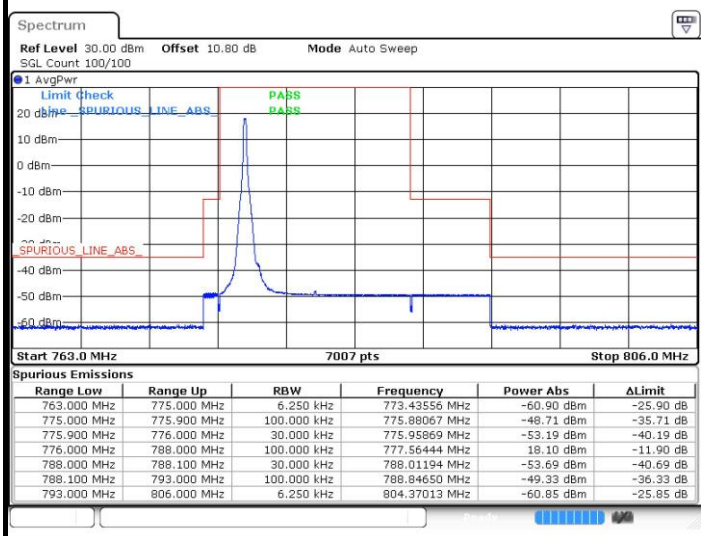
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.91009 MHz	-60.73 dBm	-25.73 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.85819 MHz	-40.06 dBm	-27.06 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99406 MHz	-44.05 dBm	-31.05 dB
776.000 MHz	788.000 MHz	100.000 kHz	783.95405 MHz	2.11 dBm	-27.89 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.07078 MHz	-36.50 dBm	-23.50 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.19056 MHz	-32.39 dBm	-19.39 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.04545 MHz	-55.02 dBm	-20.02 dB

Date: 26.JUN.2019 07:31:20

LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

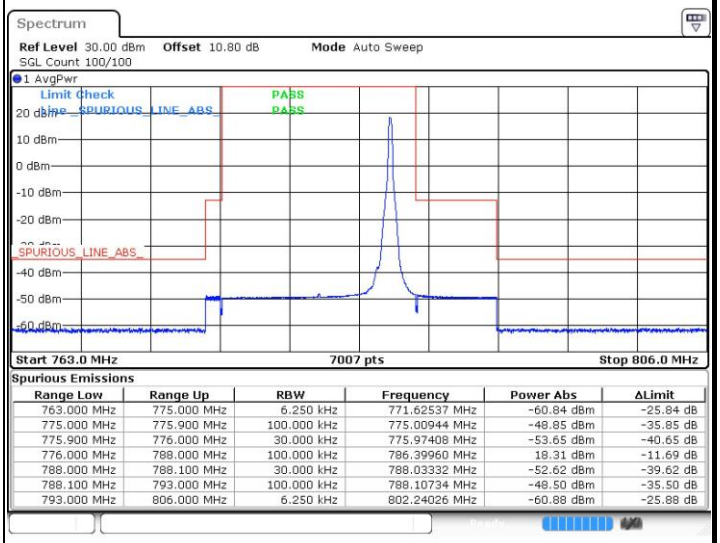


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.43556 MHz	-60.90 dBm	-25.90 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.88067 MHz	-48.71 dBm	-35.71 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.95869 MHz	-53.19 dBm	-40.19 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.56444 MHz	18.10 dBm	-11.90 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01194 MHz	-53.69 dBm	-40.69 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.84650 MHz	-49.33 dBm	-36.33 dB
793.000 MHz	806.000 MHz	6.250 kHz	804.37013 MHz	-60.85 dBm	-25.85 dB

Date: 26.JUN.2019 07:43:19

Highest Band Edge / 1 RB

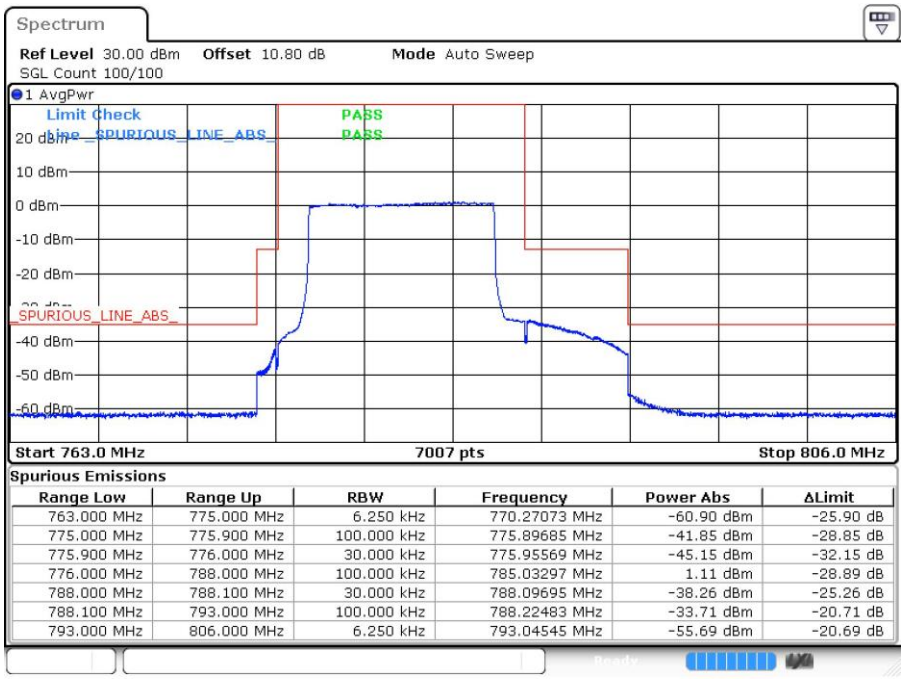


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	771.62537 MHz	-60.84 dBm	-25.84 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.00944 MHz	-48.85 dBm	-35.85 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97408 MHz	-53.65 dBm	-40.65 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	18.31 dBm	-11.69 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.03332 MHz	-52.62 dBm	-39.62 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10734 MHz	-48.50 dBm	-35.50 dB
793.000 MHz	806.000 MHz	6.250 kHz	802.24026 MHz	-60.88 dBm	-25.88 dB

Date: 26.JUN.2019 07:44:59

Band Edge / Full RB



Spurious Emissions

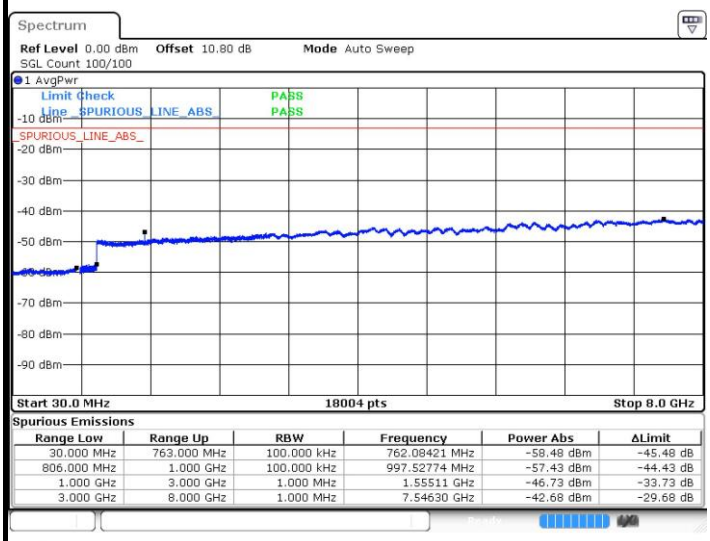
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	770.27073 MHz	-60.90 dBm	-25.90 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89685 MHz	-41.85 dBm	-28.85 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.95569 MHz	-45.15 dBm	-32.15 dB
776.000 MHz	788.000 MHz	100.000 kHz	785.03297 MHz	1.11 dBm	-28.89 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09695 MHz	-38.26 dBm	-25.26 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.22483 MHz	-33.71 dBm	-20.71 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.04545 MHz	-55.69 dBm	-20.69 dB

Date: 26.JUN.2019 07:41:38

Conducted Spurious Emission

LTE Band 13 / 5MHz

Lowest Channel / QPSK

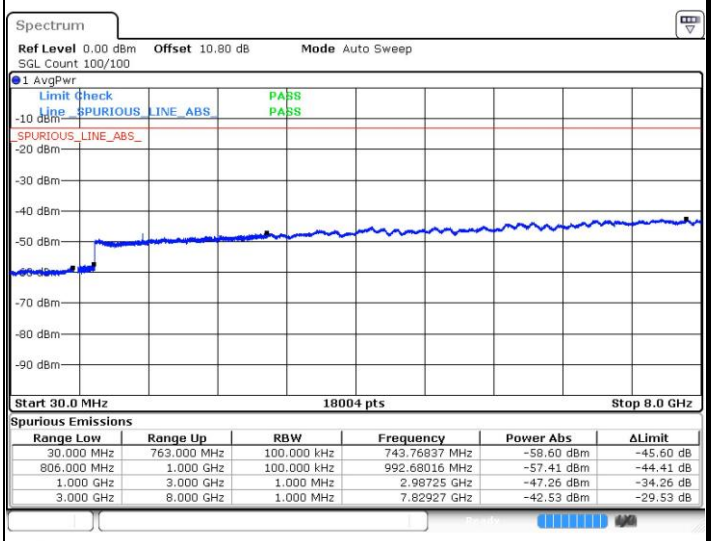


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	762.08421 MHz	-58.48 dBm	-45.48 dB
806.000 MHz	1.000 GHz	100.000 kHz	997.52774 MHz	-57.43 dBm	-44.43 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55511 GHz	-46.73 dBm	-33.73 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.54630 GHz	-42.68 dBm	-29.68 dB

Date: 26.JUN.2019 07:04:47

Lowest Channel / 16QAM

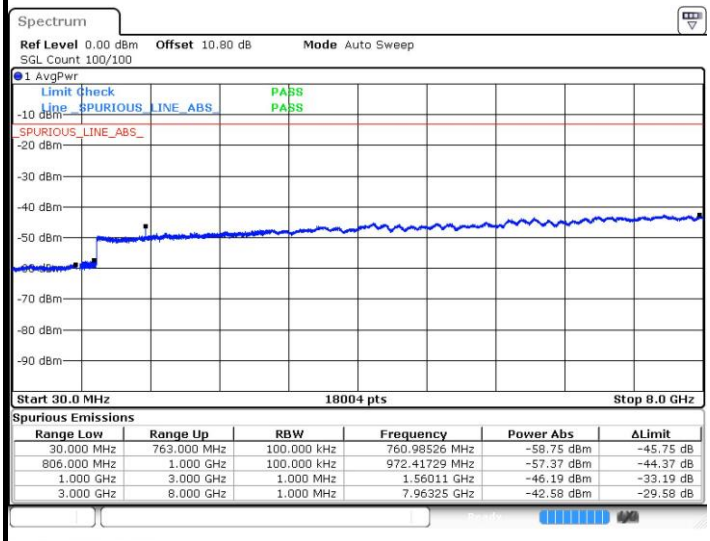


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	743.76837 MHz	-58.60 dBm	-45.60 dB
806.000 MHz	1.000 GHz	100.000 kHz	992.68016 MHz	-57.41 dBm	-44.41 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98725 GHz	-47.26 dBm	-34.26 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.82927 GHz	-42.53 dBm	-29.53 dB

Date: 26.JUN.2019 07:05:33

Middle Channel / QPSK

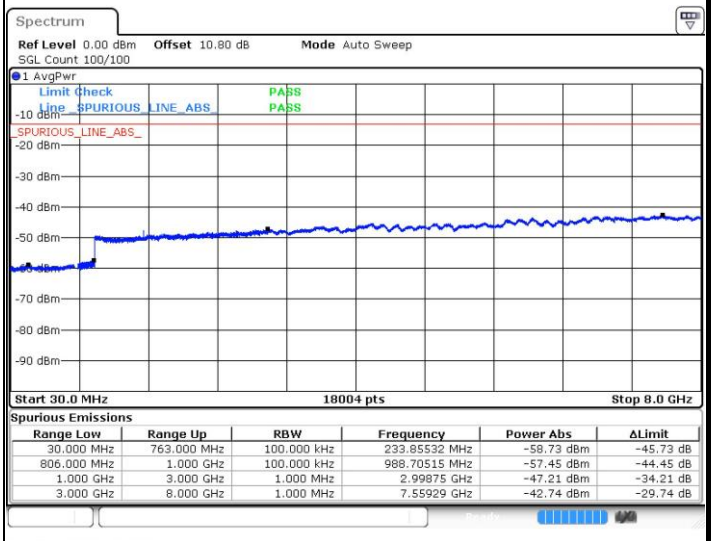


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	760.98526 MHz	-58.75 dBm	-45.75 dB
806.000 MHz	1.000 GHz	100.000 kHz	972.41729 MHz	-57.37 dBm	-44.37 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56011 GHz	-46.19 dBm	-33.19 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.96325 GHz	-42.58 dBm	-29.58 dB

Date: 26.JUN.2019 07:07:04

Middle Channel / 16QAM



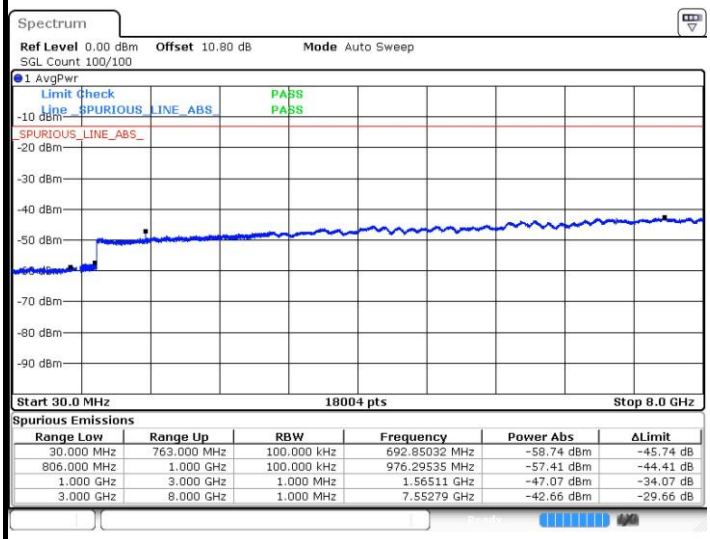
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	233.85532 MHz	-58.73 dBm	-45.73 dB
806.000 MHz	1.000 GHz	100.000 kHz	988.70515 MHz	-57.45 dBm	-44.45 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99875 GHz	-47.21 dBm	-34.21 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.55929 GHz	-42.74 dBm	-29.74 dB

Date: 26.JUN.2019 07:06:19

LTE Band 13 / 5MHz

Highest Channel / QPSK

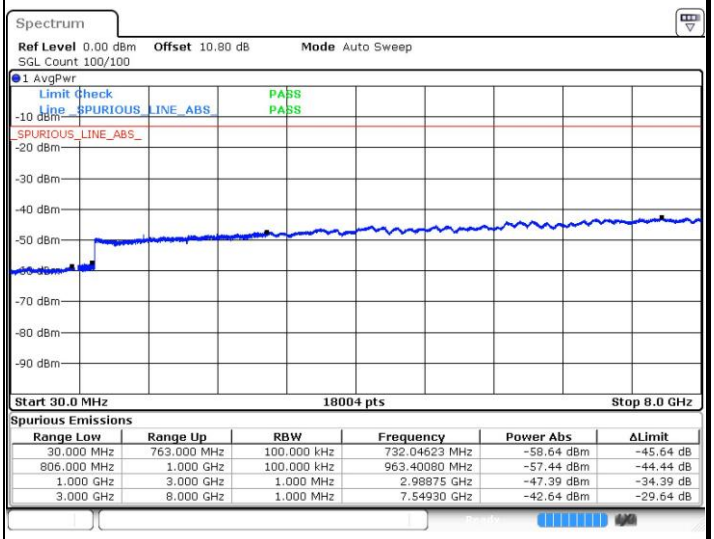


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	692.85032 MHz	-58.74 dBm	-45.74 dB
806.000 MHz	1.000 GHz	100.000 kHz	976.29535 MHz	-57.41 dBm	-44.41 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.56511 GHz	-47.07 dBm	-34.07 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.55279 GHz	-42.66 dBm	-29.66 dB

Date: 26.JUN.2019 07:16:12

Highest Channel / 16QAM



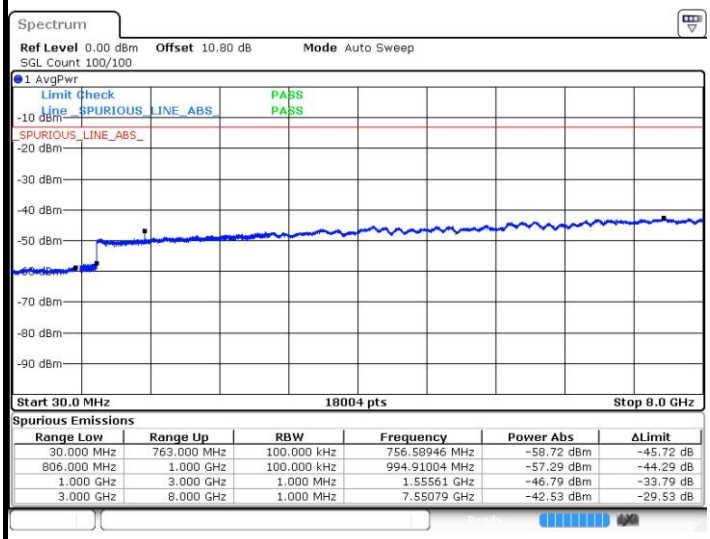
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	732.04623 MHz	-58.64 dBm	-45.64 dB
806.000 MHz	1.000 GHz	100.000 kHz	963.40080 MHz	-57.44 dBm	-44.44 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98875 GHz	-47.39 dBm	-34.39 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.54930 GHz	-42.64 dBm	-29.64 dB

Date: 26.JUN.2019 07:16:58

LTE Band 13 / 10MHz

Middle Channel / QPSK

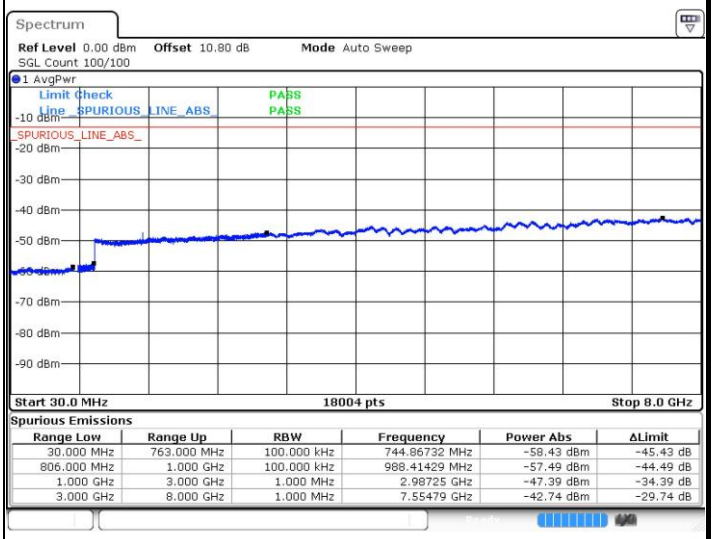


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	756.58946 MHz	-58.72 dBm	-45.72 dB
806.000 MHz	1.000 GHz	100.000 kHz	994.91004 MHz	-57.29 dBm	-44.29 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.55561 GHz	-46.79 dBm	-33.79 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.55079 GHz	-42.53 dBm	-29.53 dB

Date: 26.JUN.2019 07:39:35

Middle Channel / 16QAM



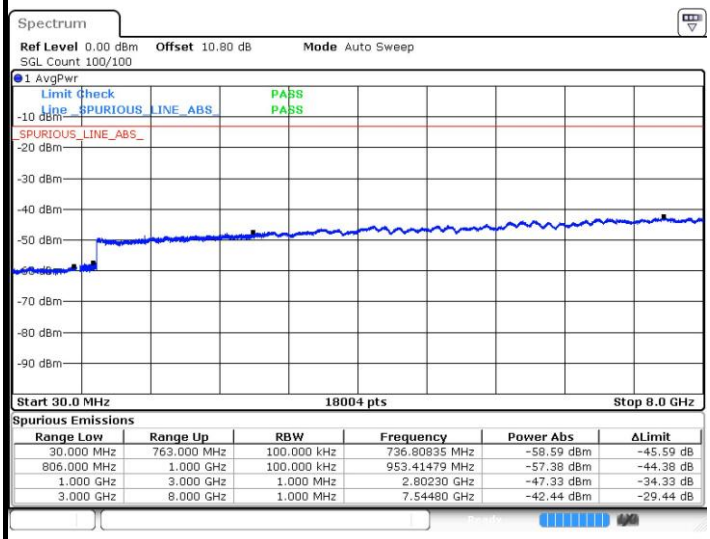
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	744.86732 MHz	-58.43 dBm	-45.43 dB
806.000 MHz	1.000 GHz	100.000 kHz	988.41429 MHz	-57.49 dBm	-44.49 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98725 GHz	-47.39 dBm	-34.39 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.55479 GHz	-42.74 dBm	-29.74 dB

Date: 26.JUN.2019 07:38:49

LTE Band 13 / 5MHz

Lowest Channel / 64QAM

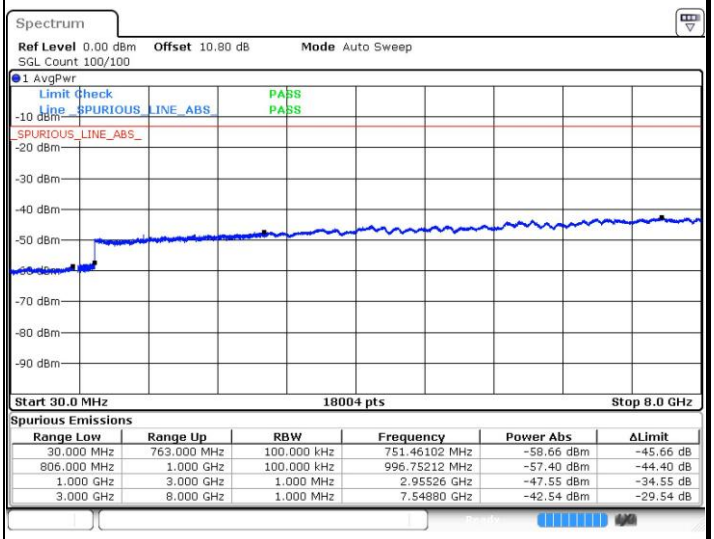


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	736.80835 MHz	-58.59 dBm	-45.59 dB
806.000 MHz	1.000 GHz	100.000 kHz	953.41479 MHz	-57.38 dBm	-44.38 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.80230 GHz	-47.33 dBm	-34.33 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.54480 GHz	-42.44 dBm	-29.44 dB

Date: 26.JUN.2019 07:21:31

Middle Channel / 64QAM

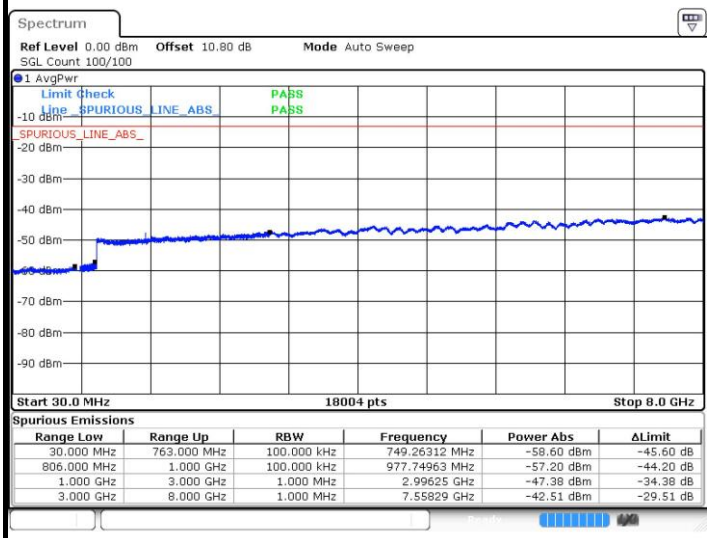


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	751.46102 MHz	-58.66 dBm	-45.66 dB
806.000 MHz	1.000 GHz	100.000 kHz	996.75212 MHz	-57.40 dBm	-44.40 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.95526 GHz	-47.55 dBm	-34.55 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.54880 GHz	-42.54 dBm	-29.54 dB

Date: 26.JUN.2019 07:22:16

Highest Channel / 64QAM

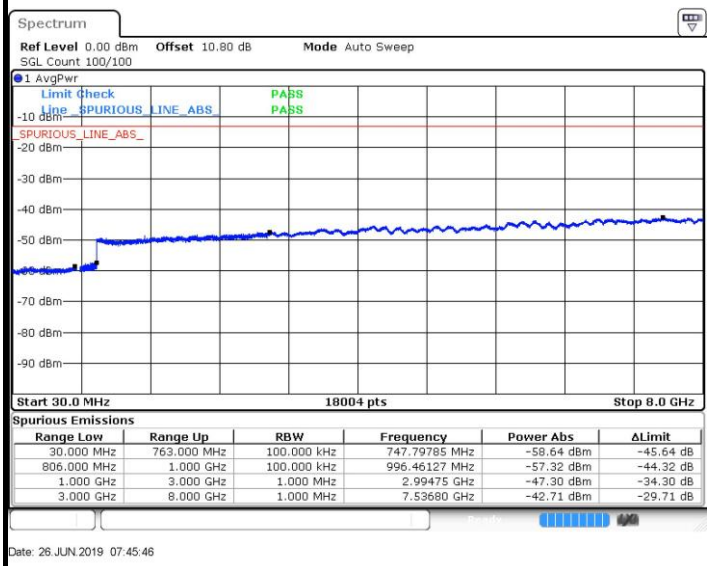


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	749.26312 MHz	-58.60 dBm	-45.60 dB
806.000 MHz	1.000 GHz	100.000 kHz	977.74963 MHz	-57.20 dBm	-44.20 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99625 GHz	-47.38 dBm	-34.38 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.55829 GHz	-42.51 dBm	-29.51 dB

Date: 26.JUN.2019 07:27:12

LTE Band 13 / 10MHz	
Middle Channel / 64QAM	



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	763.000 MHz	100.000 kHz	747.79785 MHz	-58.64 dBm	-45.64 dB
806.000 MHz	1.000 GHz	100.000 kHz	996.46127 MHz	-57.32 dBm	-44.32 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99475 GHz	-47.30 dBm	-34.30 dB
3.000 GHz	8.000 GHz	1.000 MHz	7.53680 GHz	-42.71 dBm	-29.71 dB

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0109	PASS
40	Normal Voltage	0.0098	
30	Normal Voltage	0.0086	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0046	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0086	

Note:

1. Normal Voltage =3.85 V.；Battery End Point (BEP) =3.65 V.；Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

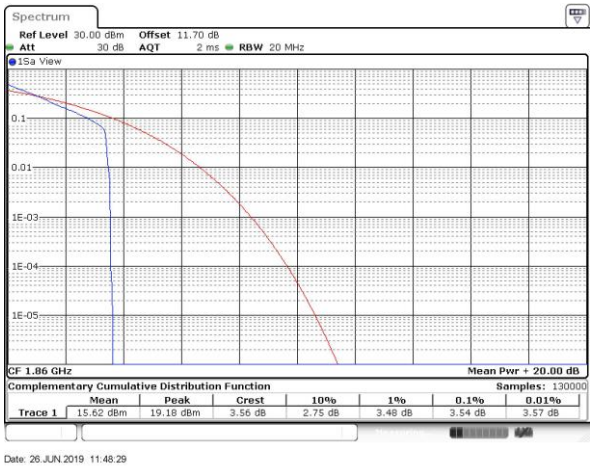
LTE Band 25

Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.93	3.94	5.83	PASS
Middle CH	3.51	4.96	4.26	5.91	
Highest CH	3.45	5.04	4.09	5.88	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	4.72	6.20	-	-	PASS
Middle CH	5.22	6.41	-	-	
Highest CH	5.51	6.41	-	-	

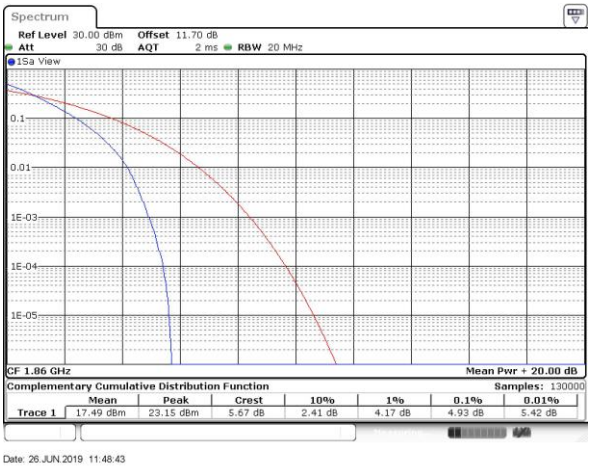
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



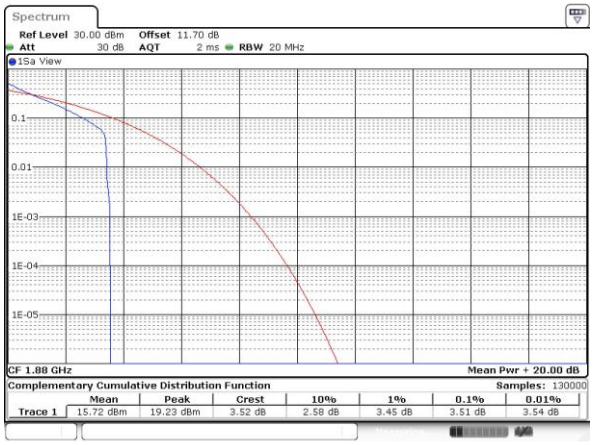
Date: 26.JUN.2019 11:48:29

Lowest Channel / Full RB



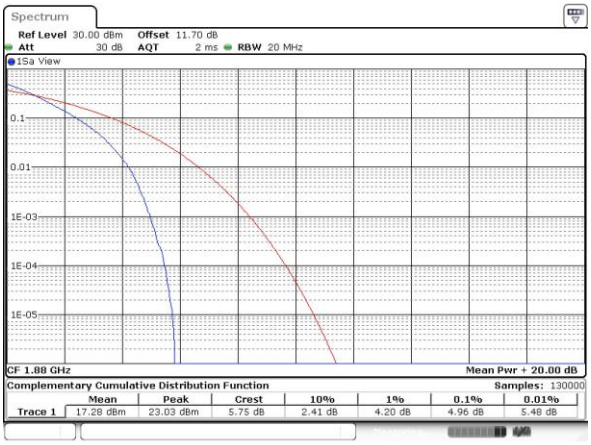
Date: 26.JUN.2019 11:48:43

Middle Channel / 1RB



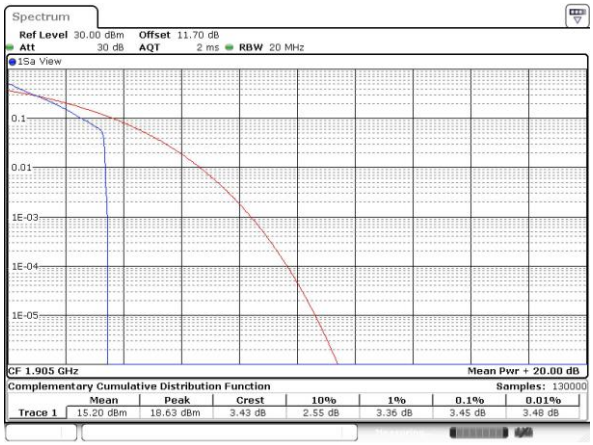
Date: 26.JUN.2019 11:49:23

Middle Channel / Full RB



Date: 26.JUN.2019 11:49:35

Highest Channel / 1RB



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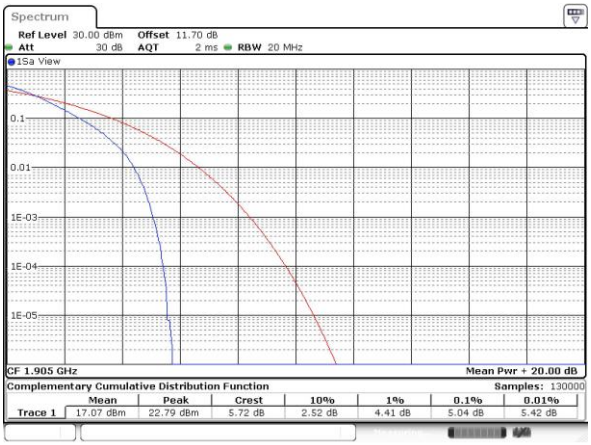
Highest Channel / Full RB



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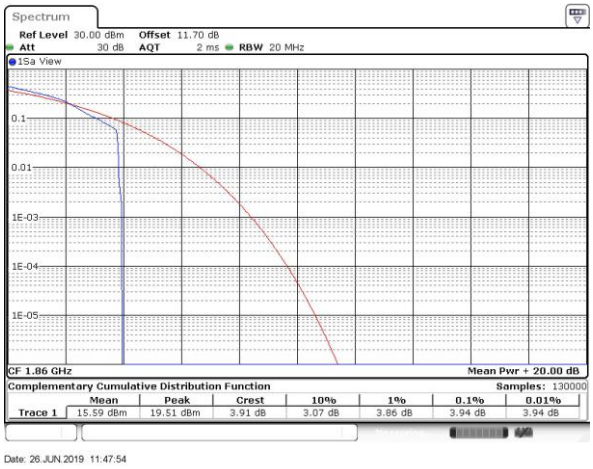
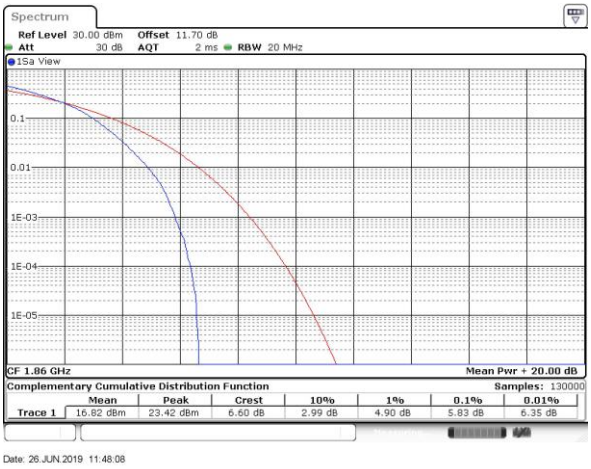
LTE Band 25 / 20MHz / 16QAM

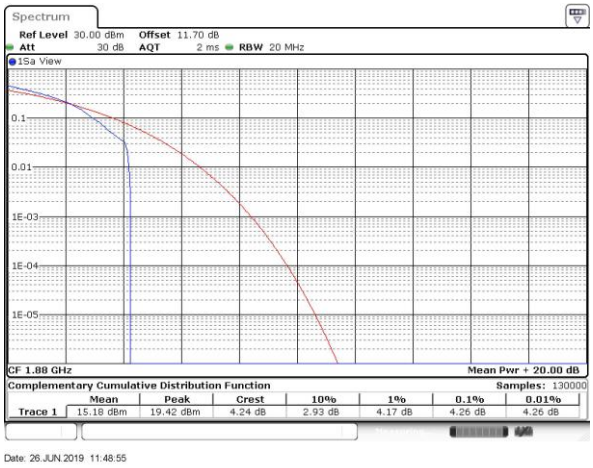
Lowest Channel / 1RB



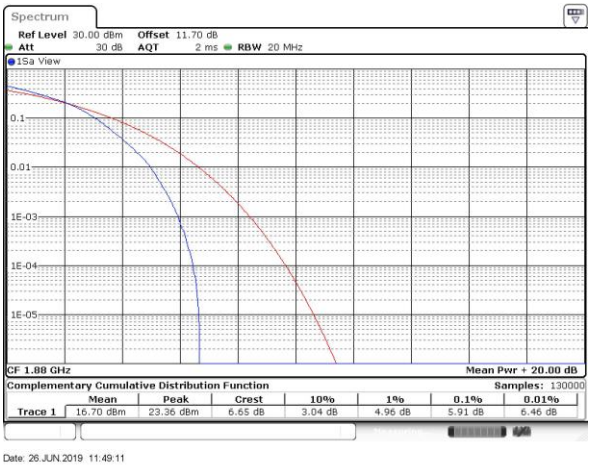
Lowest Channel / Full RB



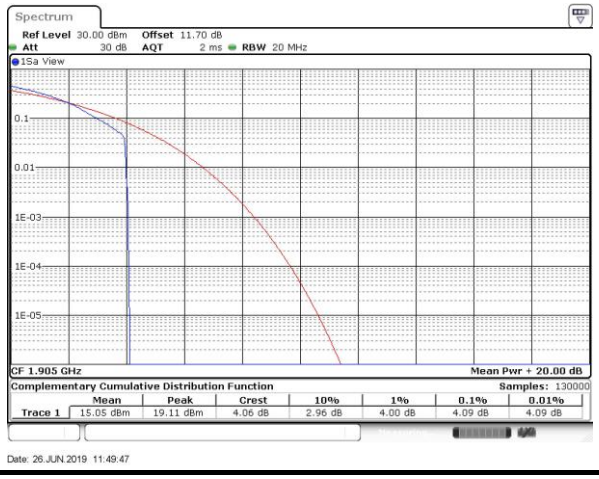
Middle Channel / 1RB



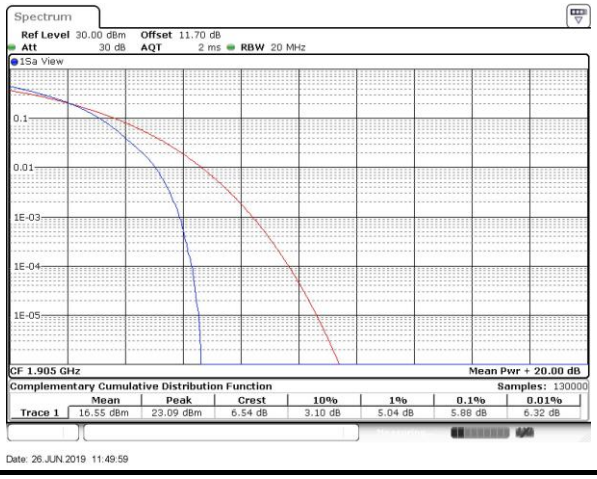
Middle Channel / Full RB



Highest Channel / 1RB

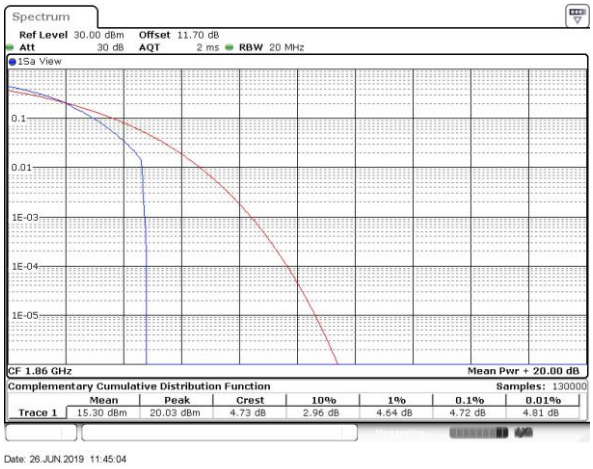


Highest Channel / Full RB

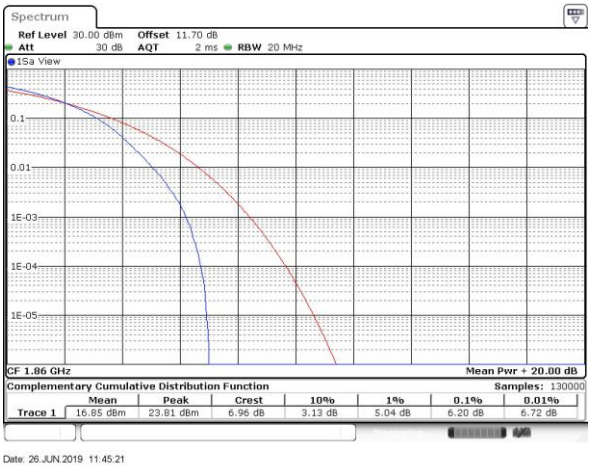


LTE Band 25 / 20MHz / 64QAM

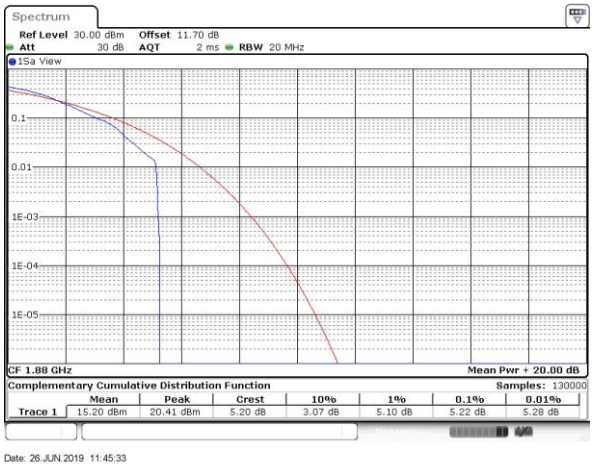
Lowest Channel / 1RB



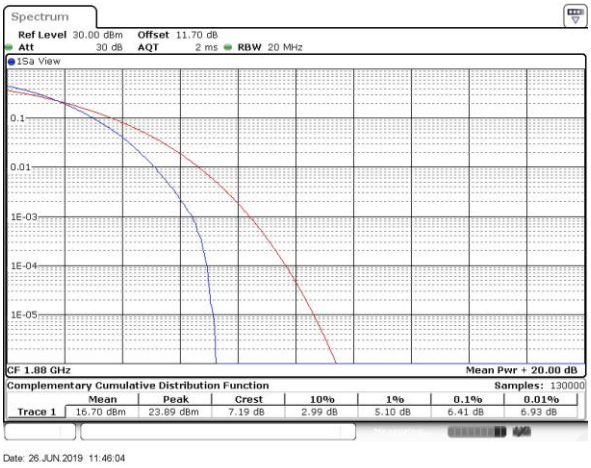
Lowest Channel / Full RB



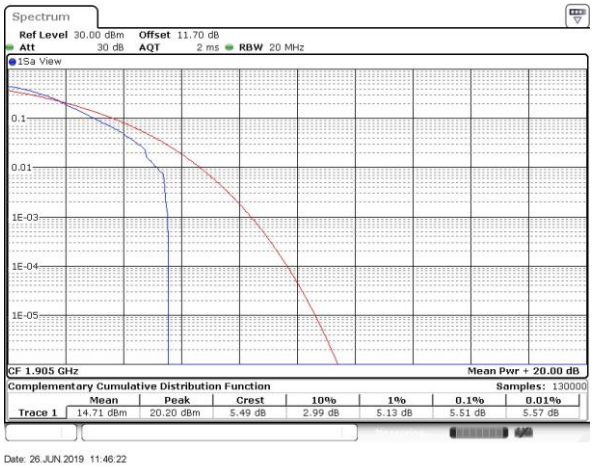
Middle Channel / 1RB



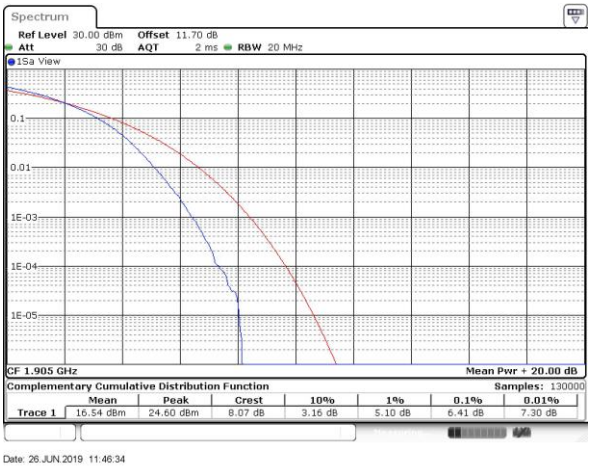
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

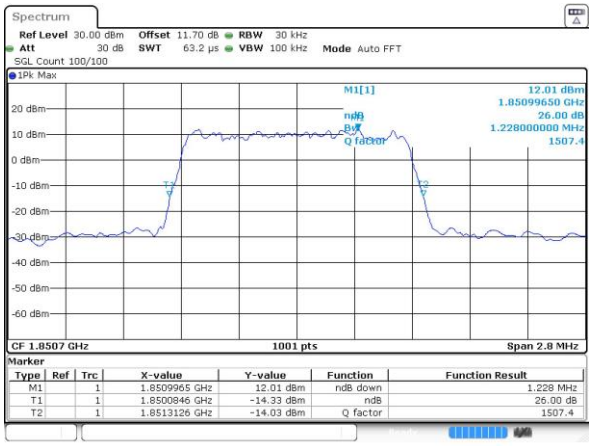


26dB Bandwidth

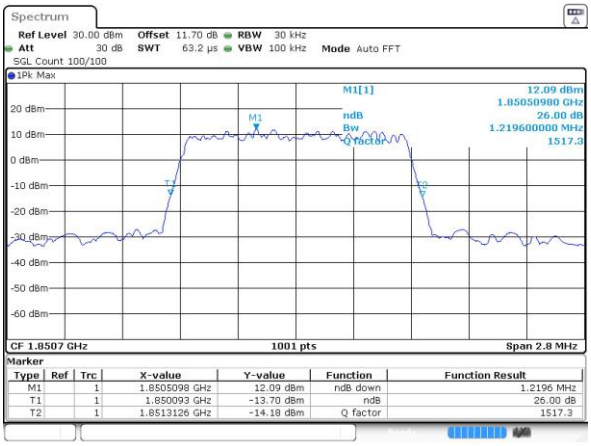
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.23	1.22	3.06	3.05	4.84	4.82	9.77	9.77	14.36	14.18	19.10	19.14
Middle CH	1.24	1.24	3.04	3.05	4.88	4.94	9.79	9.83	14.39	14.36	18.78	18.86
Highest CH	1.23	1.22	3.05	3.02	4.93	4.87	9.73	9.81	14.57	14.60	18.78	18.94
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.24	-	2.99	-	4.93	-	9.97	-	14.51	-	18.82	-
Middle CH	1.22	-	2.96	-	4.86	-	9.75	-	14.54	-	18.94	-
Highest CH	1.21	-	3.05	-	4.91	-	9.69	-	14.39	-	18.90	-

LTE Band 25

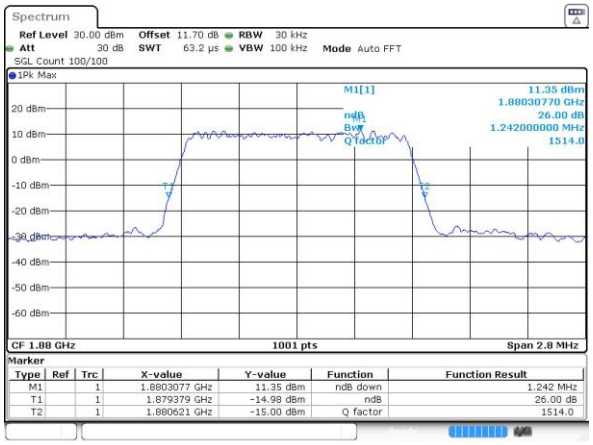
Lowest Channel / 1.4MHz / QPSK



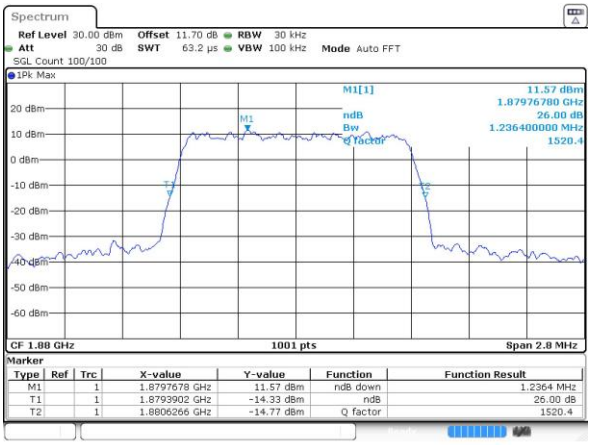
Lowest Channel / 1.4MHz / 16QAM



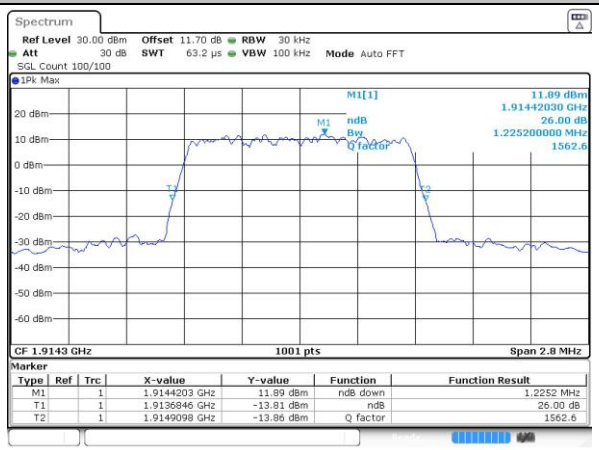
Middle Channel / 1.4MHz / QPSK



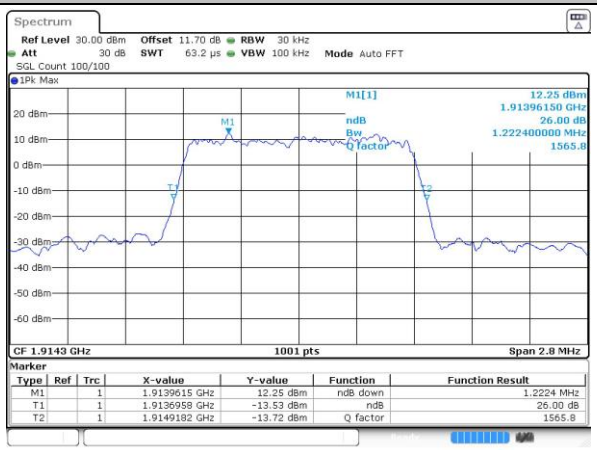
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

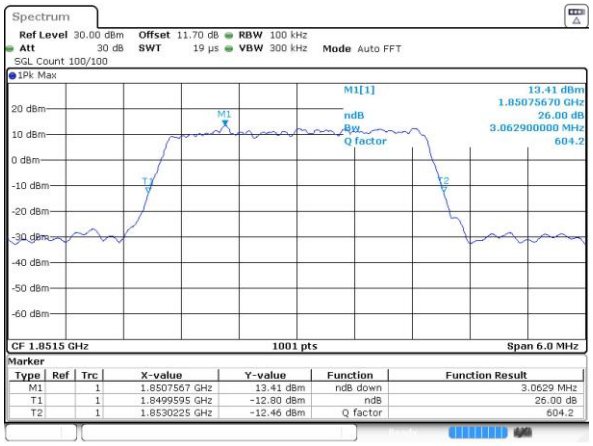


Highest Channel / 1.4MHz / 16QAM

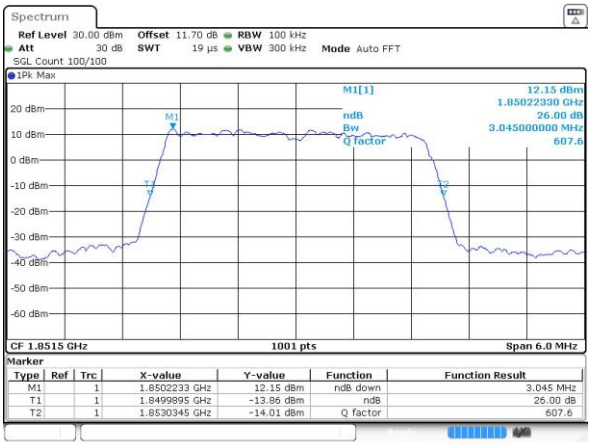


LTE Band 25

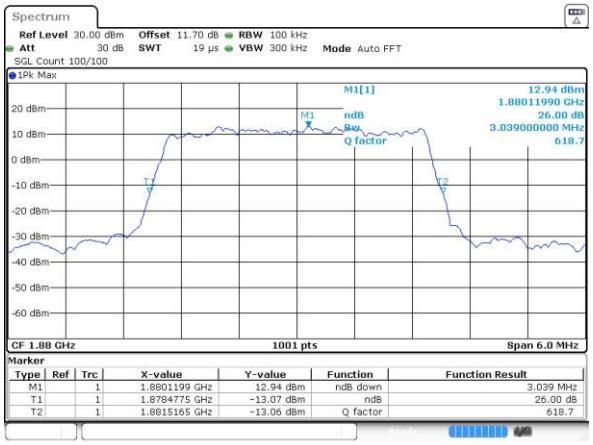
Lowest Channel / 3MHz / QPSK



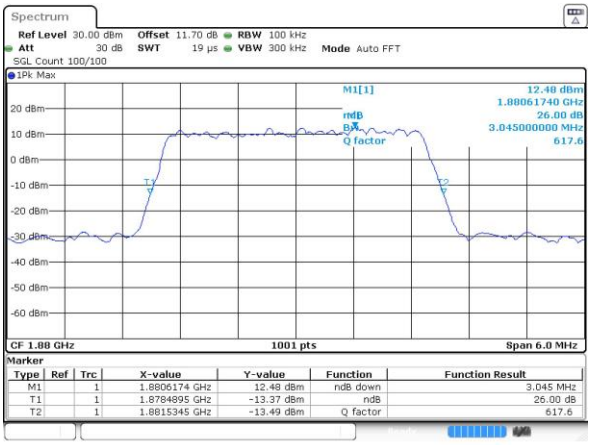
Lowest Channel / 3MHz / 16QAM



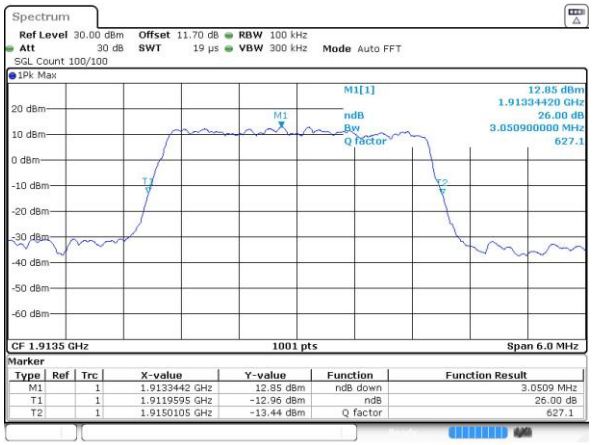
Middle Channel / 3MHz / QPSK



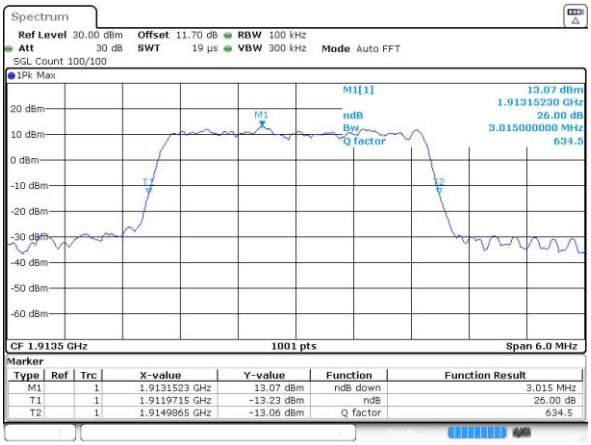
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

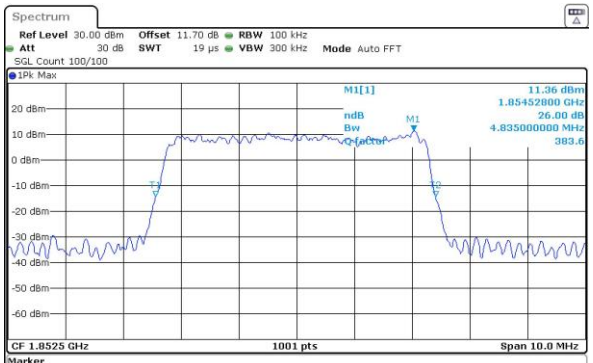


Highest Channel / 3MHz / 16QAM

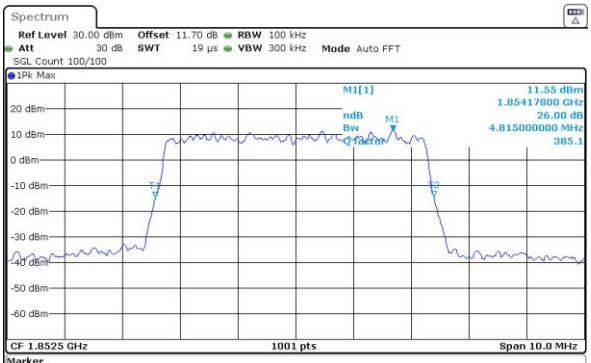


LTE Band 25

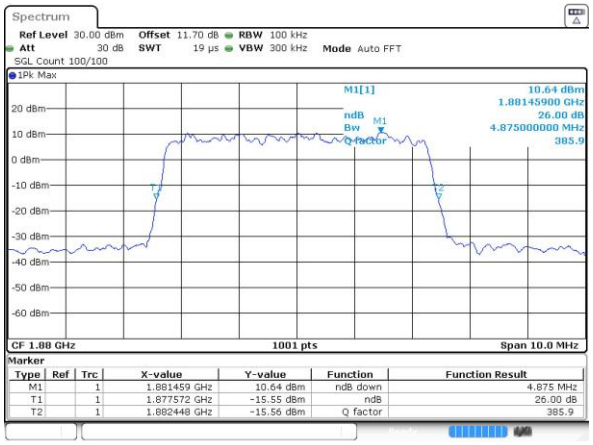
Lowest Channel / 5MHz / QPSK



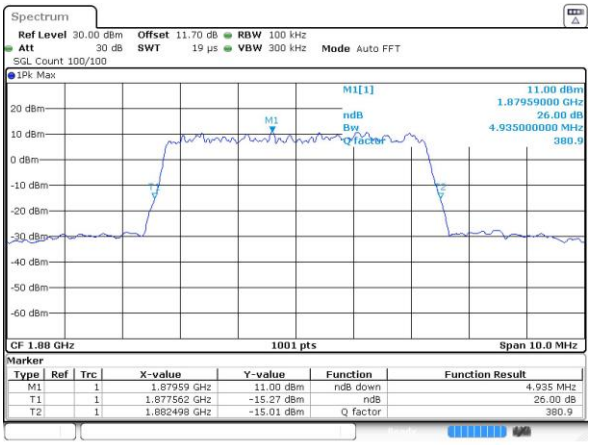
Lowest Channel / 5MHz / 16QAM



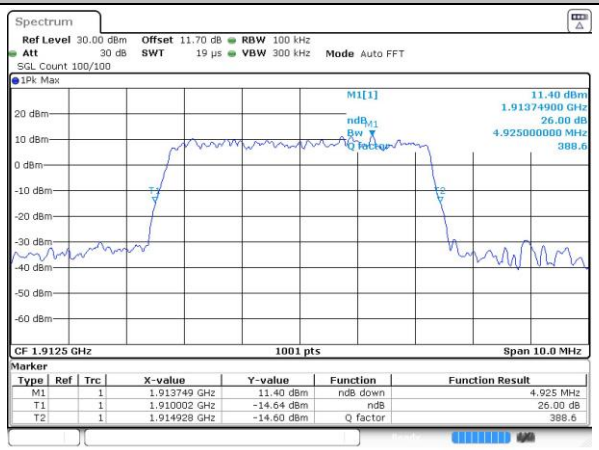
Middle Channel / 5MHz / QPSK



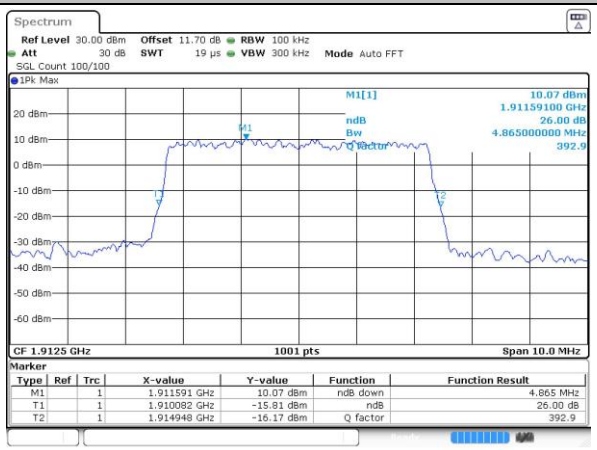
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

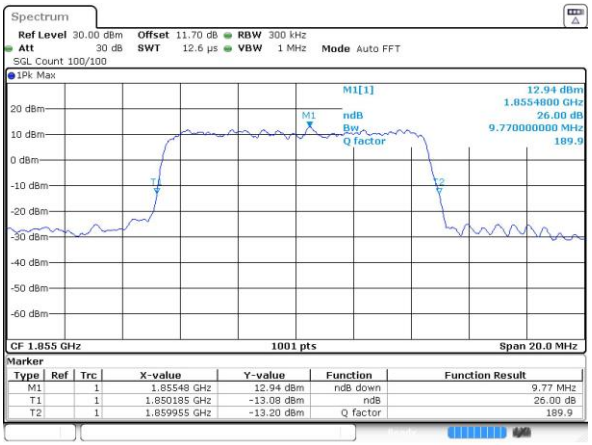


Highest Channel / 5MHz / 16QAM

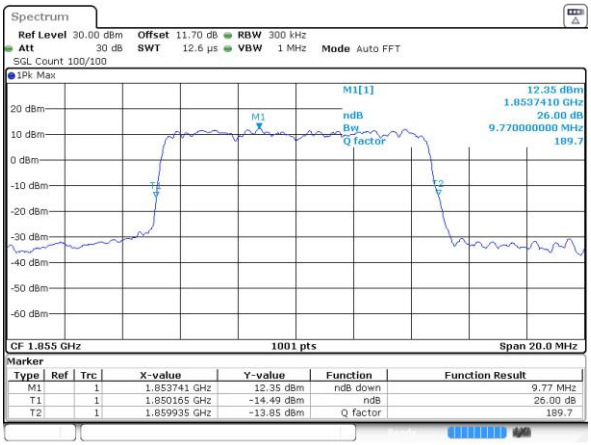


LTE Band 25

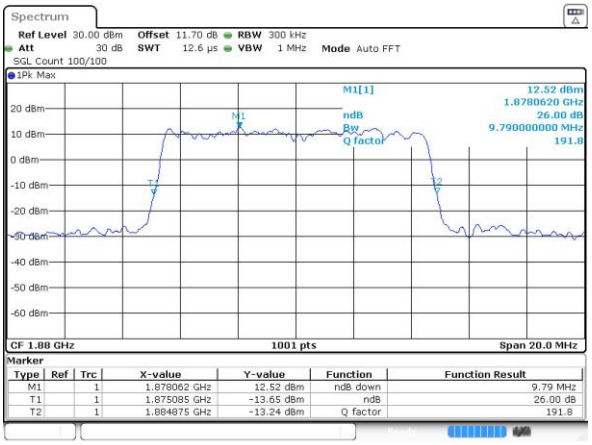
Lowest Channel / 10MHz / QPSK



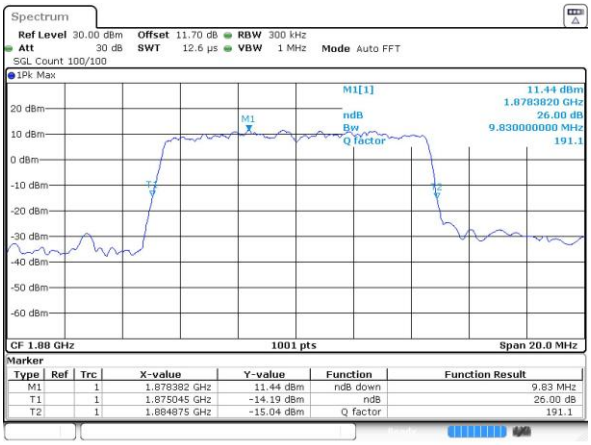
Lowest Channel / 10MHz / 16QAM



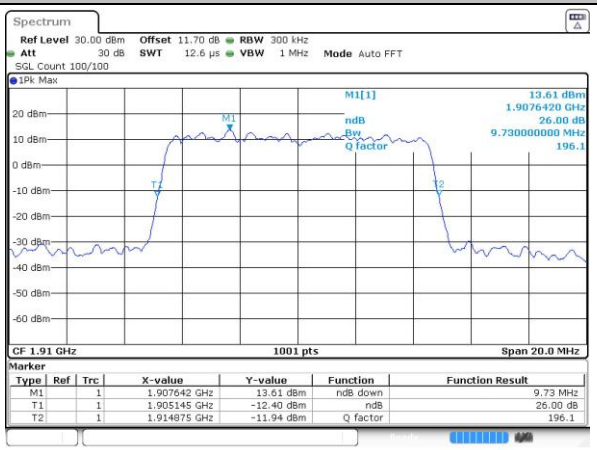
Middle Channel / 10MHz / QPSK



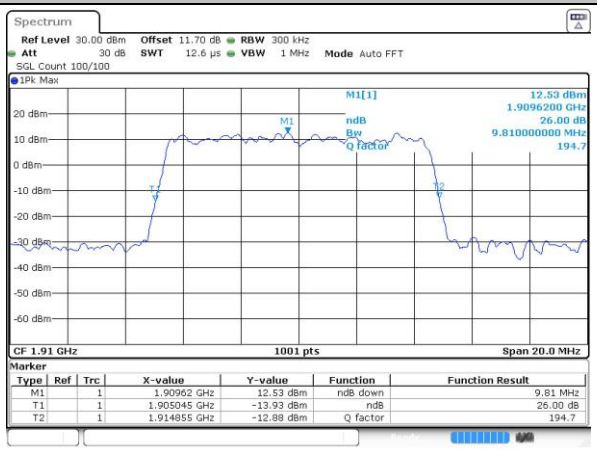
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

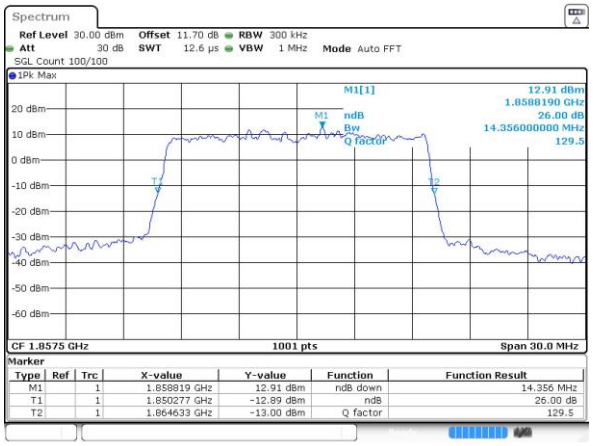


Highest Channel / 10MHz / 16QAM

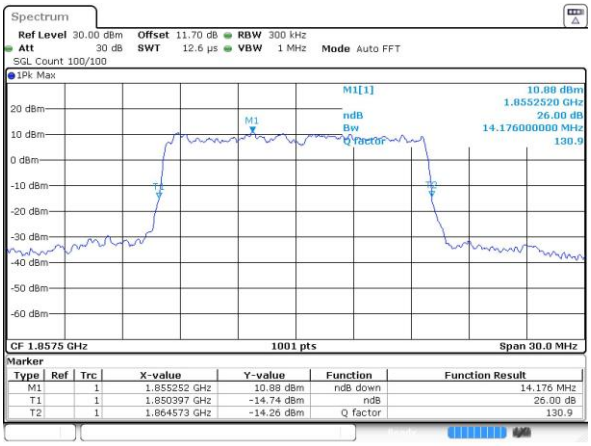


LTE Band 25

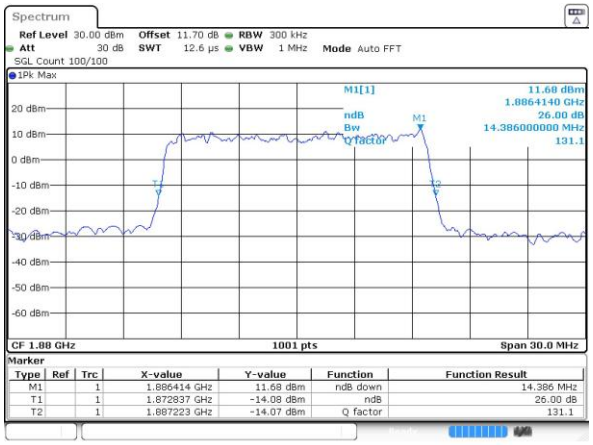
Lowest Channel / 15MHz / QPSK



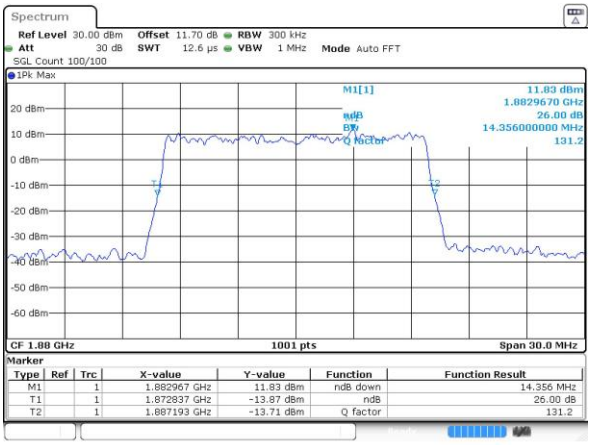
Lowest Channel / 15MHz / 16QAM



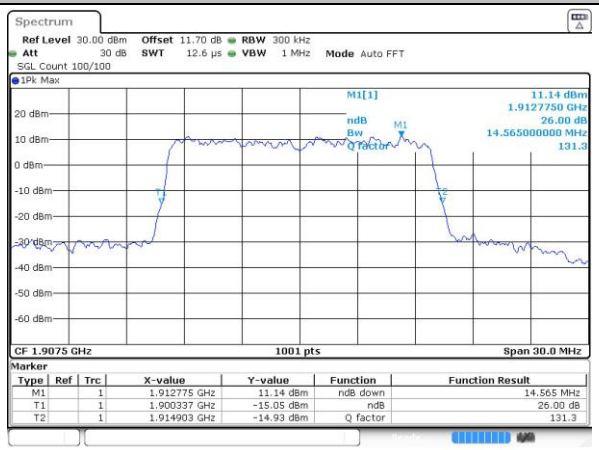
Middle Channel / 15MHz / QPSK



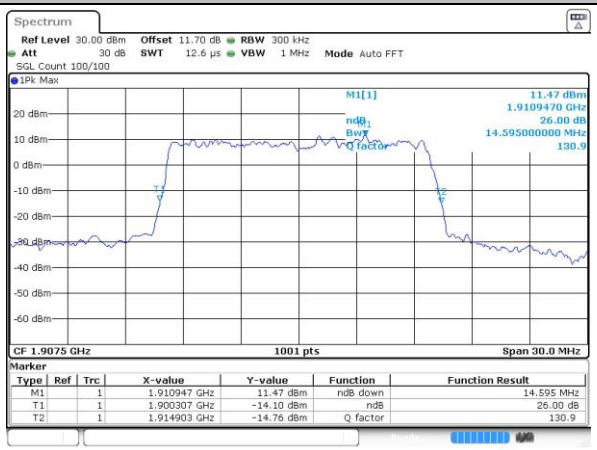
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

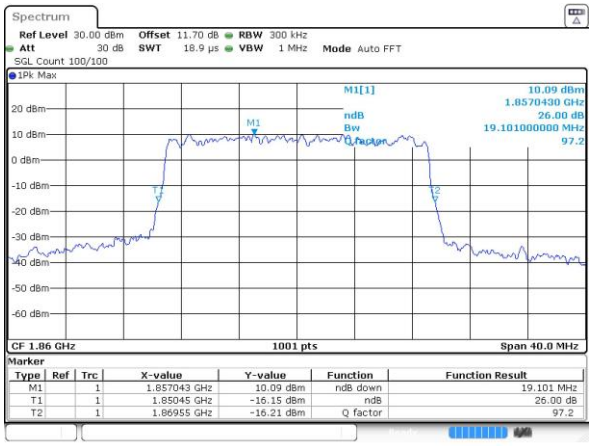


Highest Channel / 15MHz / 16QAM

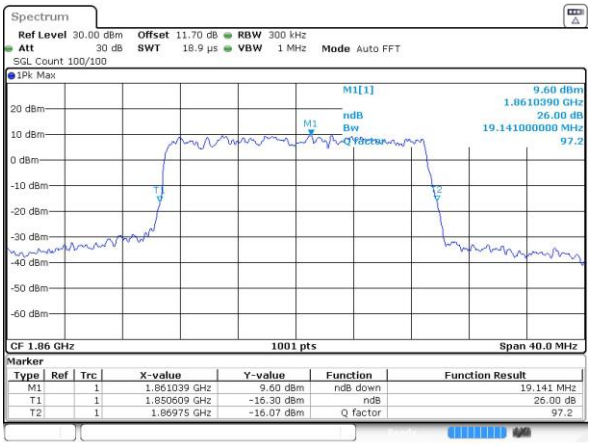


LTE Band 25

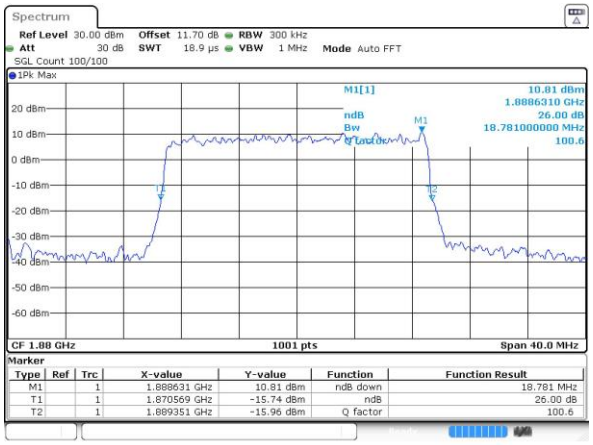
Lowest Channel / 20MHz / QPSK



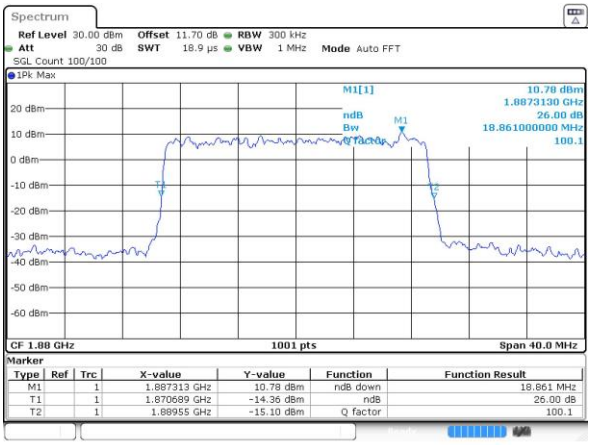
Lowest Channel / 20MHz / 16QAM



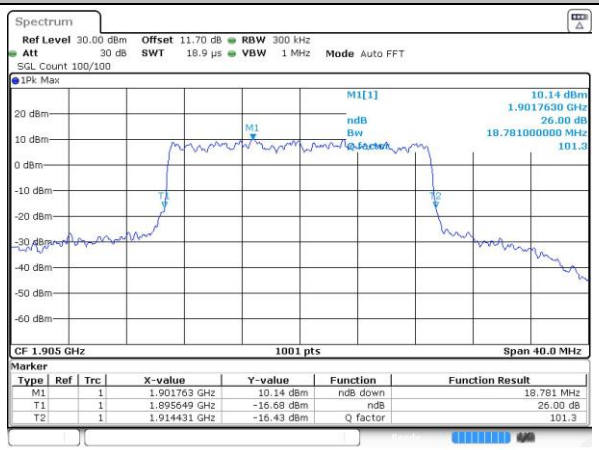
Middle Channel / 20MHz / QPSK



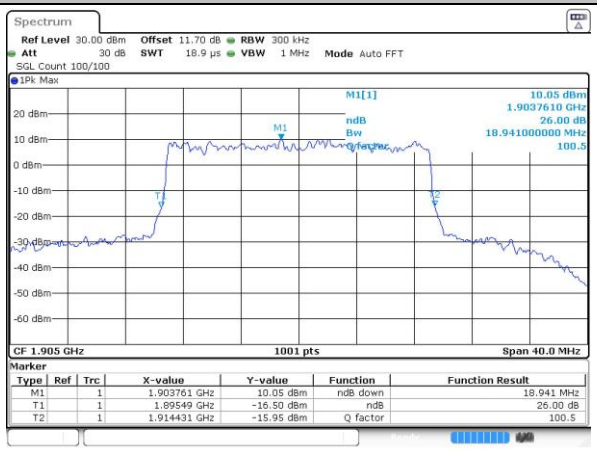
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

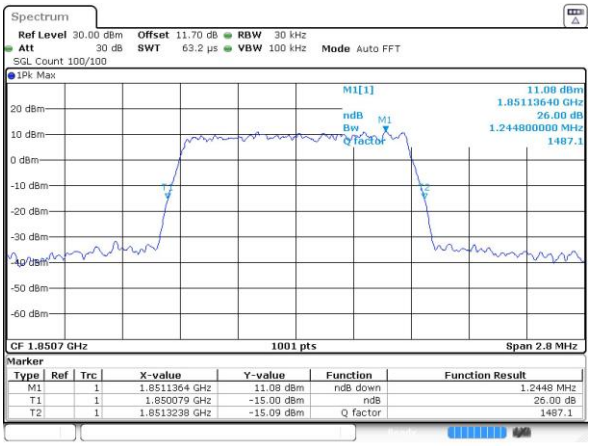


Highest Channel / 20MHz / 16QAM

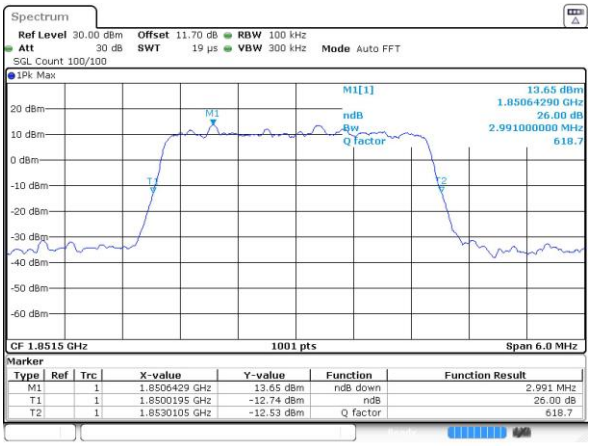


LTE Band 25

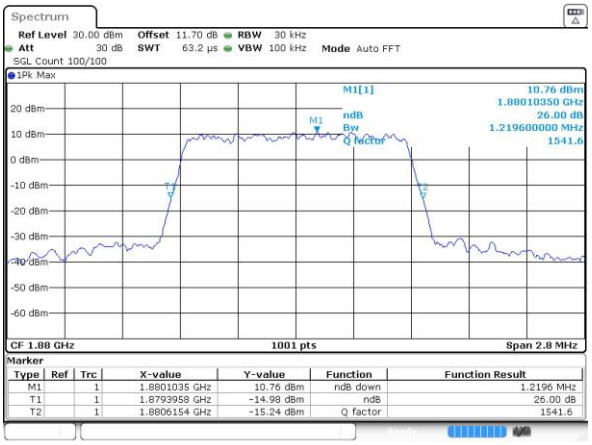
Lowest Channel / 1.4MHz / 64QAM



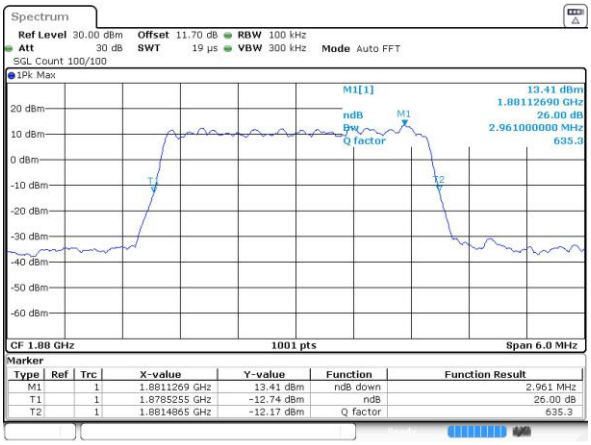
Lowest Channel / 3MHz / 64QAM



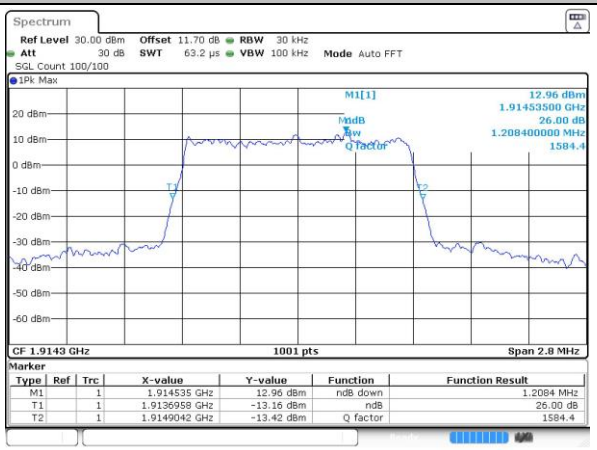
Middle Channel / 1.4MHz / 64QAM



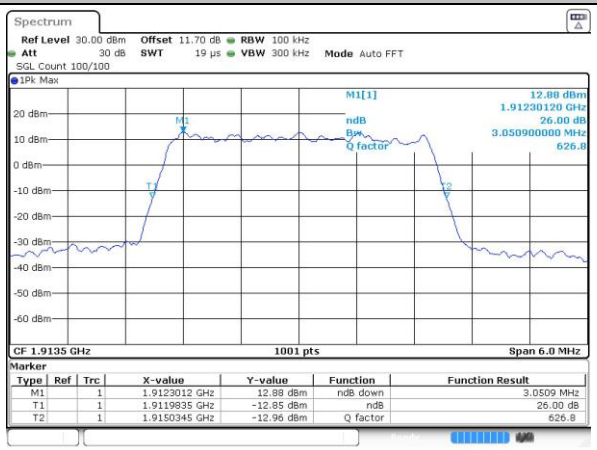
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM

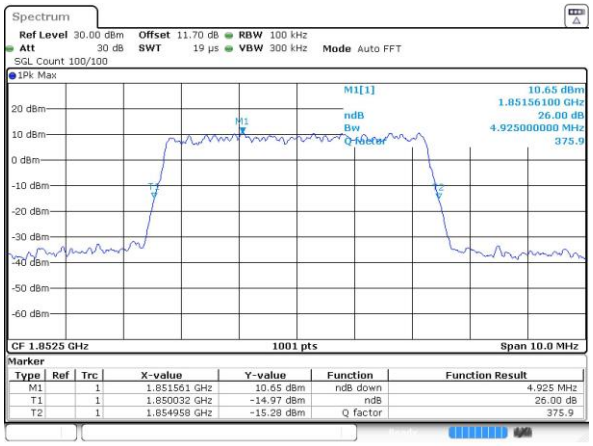


Highest Channel / 3MHz / 64QAM

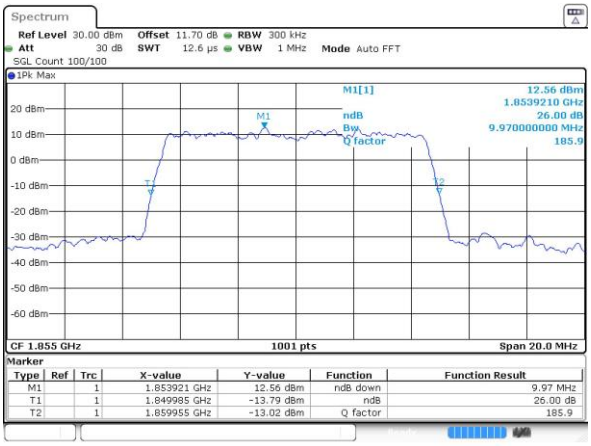


LTE Band 25

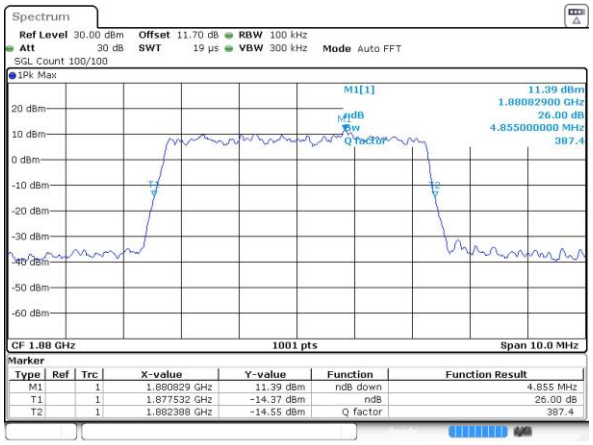
Lowest Channel / 5MHz / 64QAM



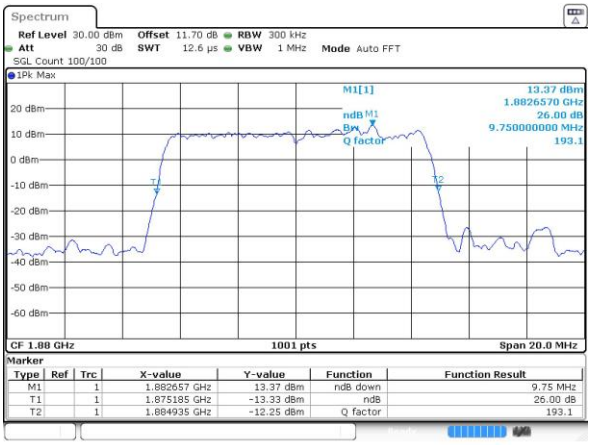
Lowest Channel / 10MHz / 64QAM



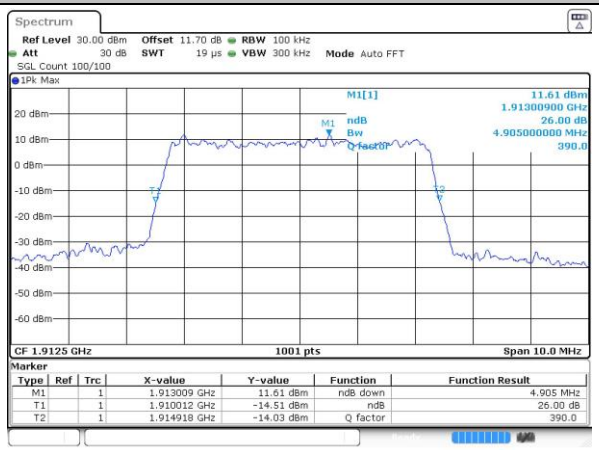
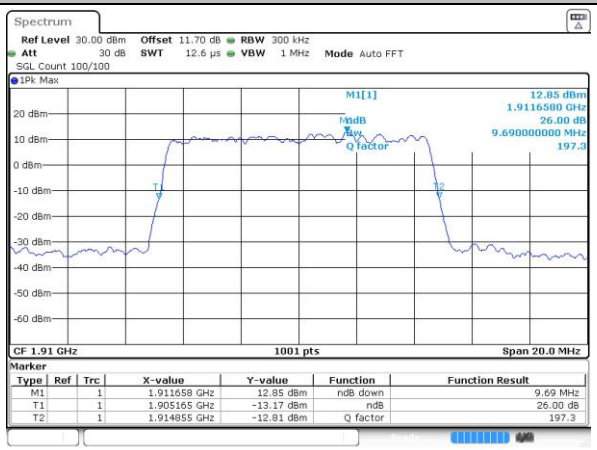
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM