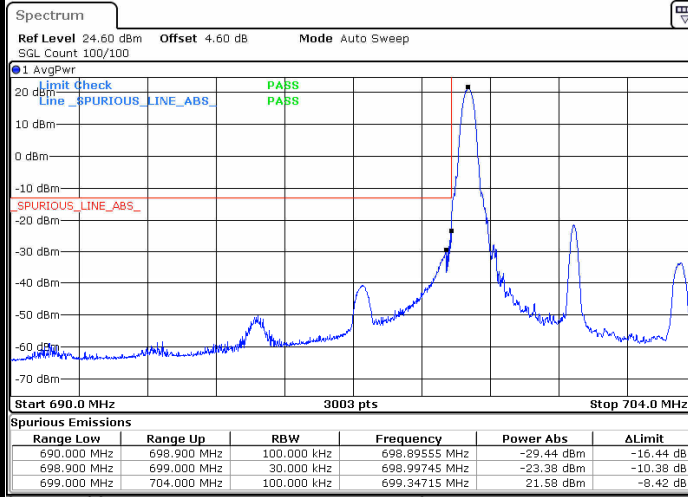


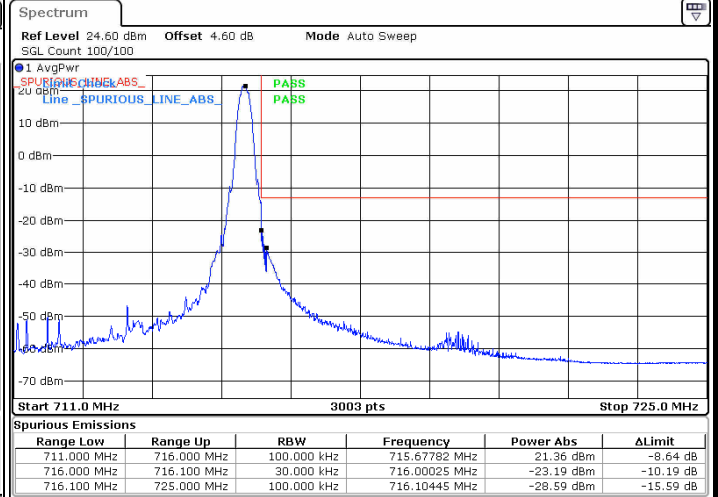


LTE Band 12 / 5MHz / 16QAM

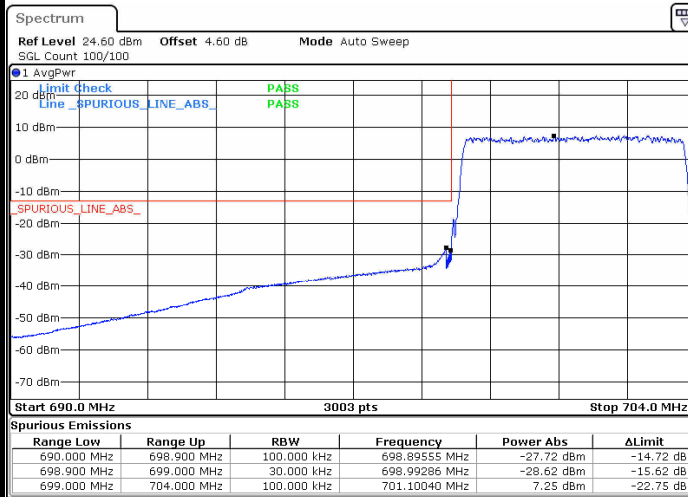
Lowest Band Edge / 1RB



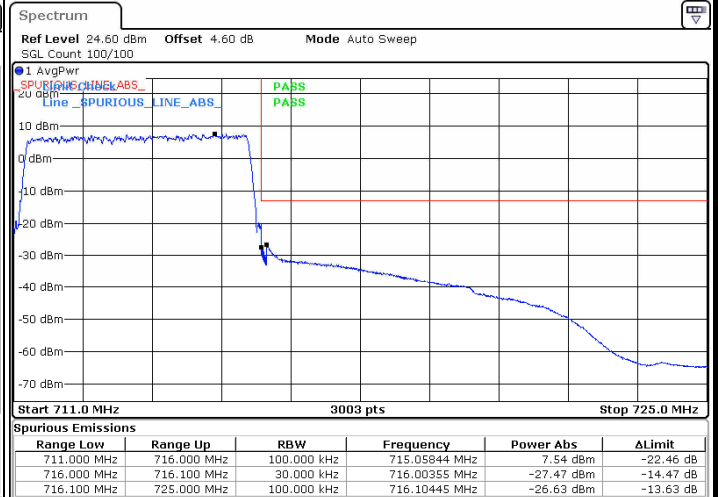
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



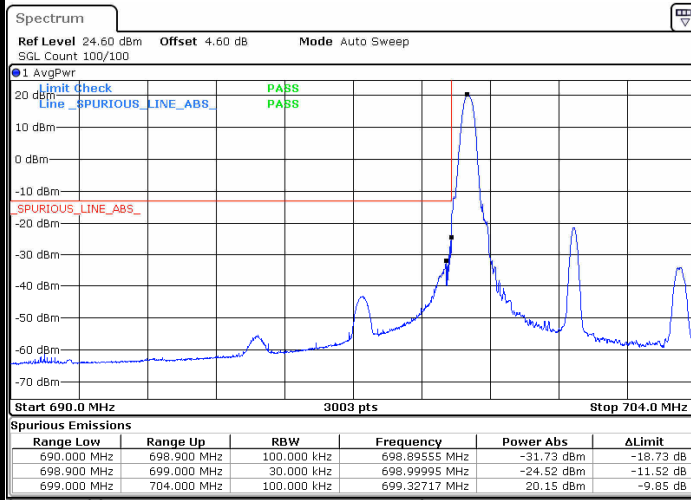
Highest Band Edge / Full RB



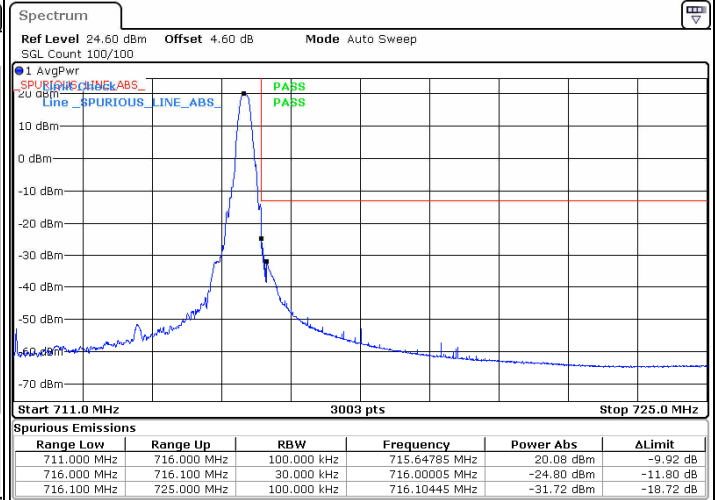


LTE Band 12 / 5MHz / 64QAM

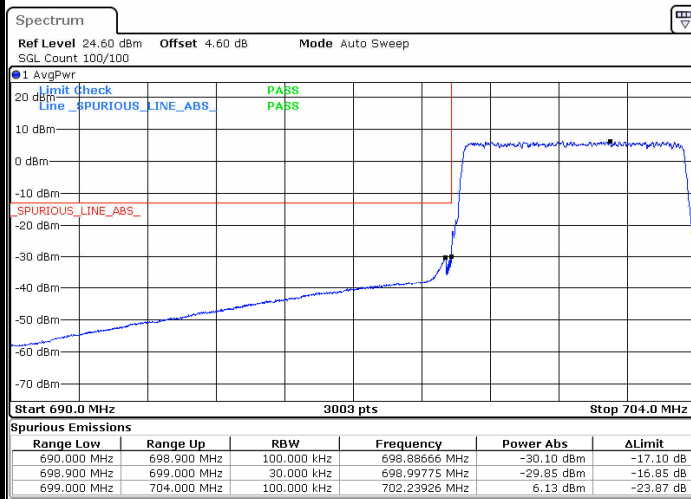
Lowest Band Edge / 1RB



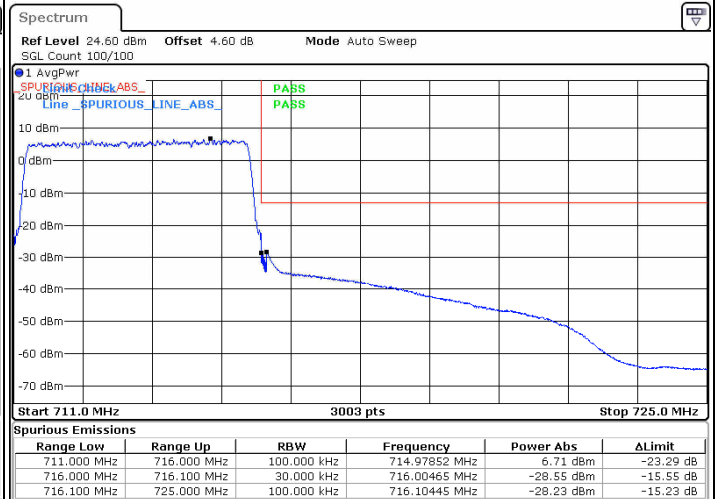
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



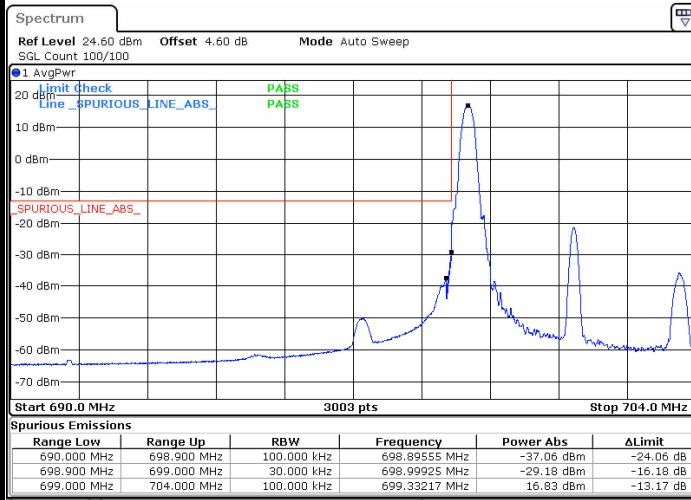
Highest Band Edge / Full RB



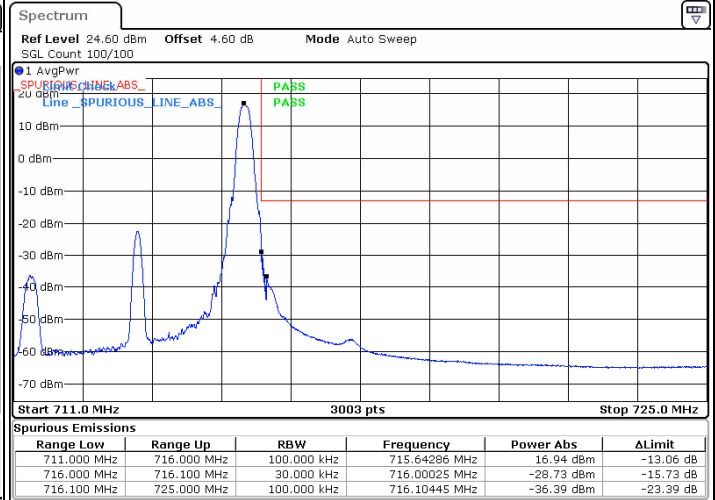


LTE Band 12 / 5MHz / 256QAM

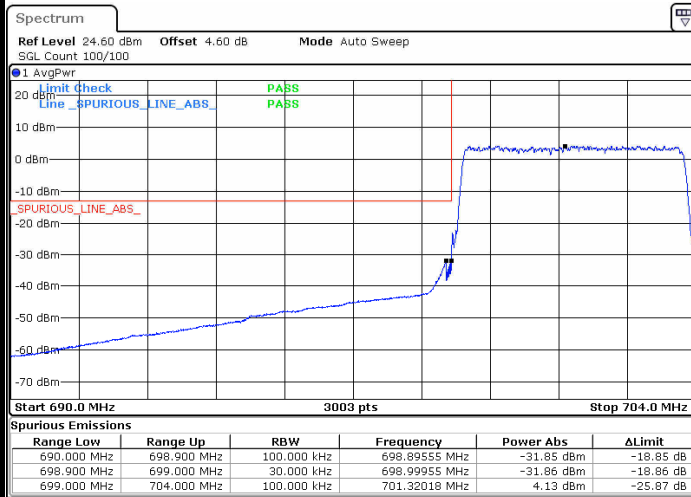
Lowest Band Edge / 1RB



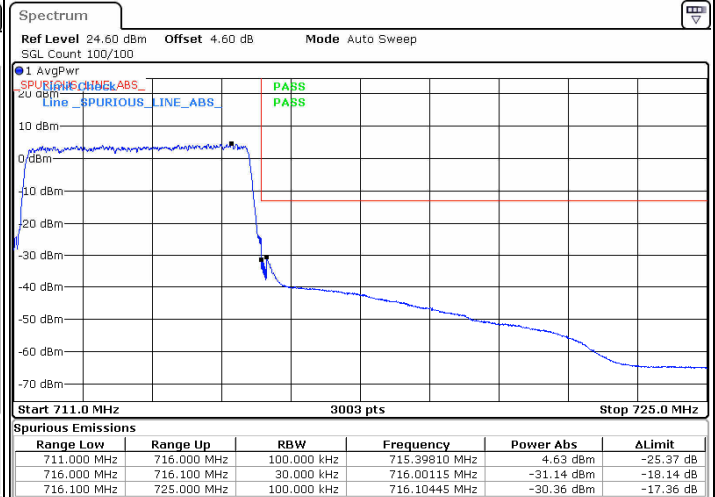
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



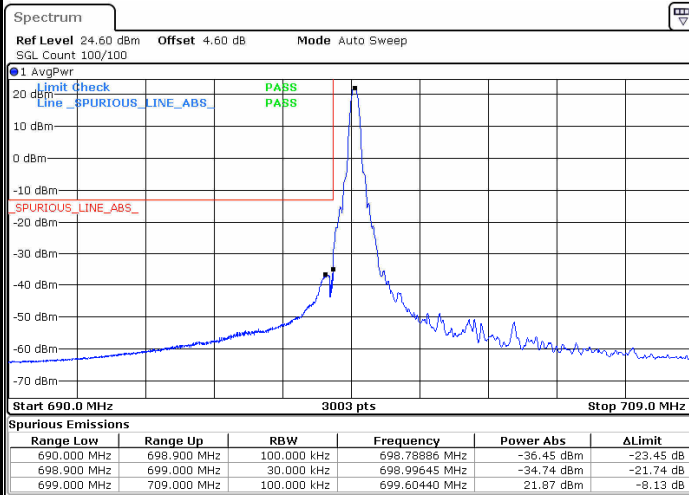
Highest Band Edge / Full RB



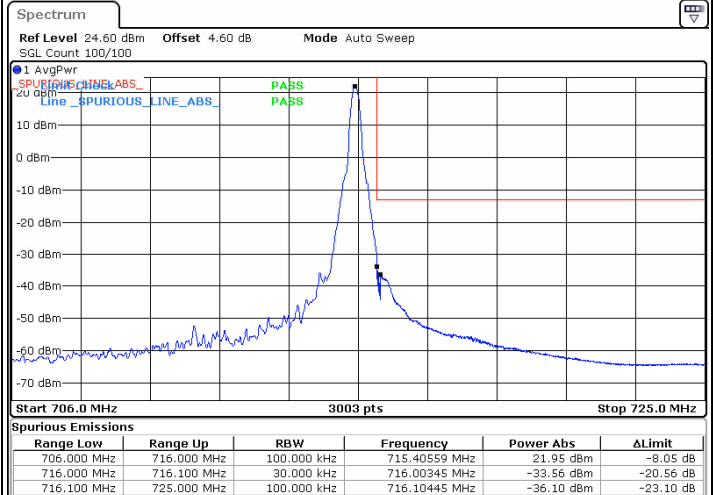


LTE Band 12 / 10MHz / QPSK

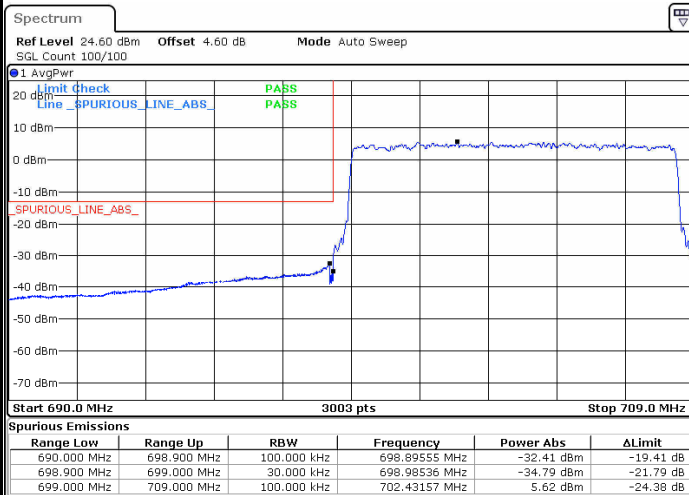
Lowest Band Edge / 1 RB



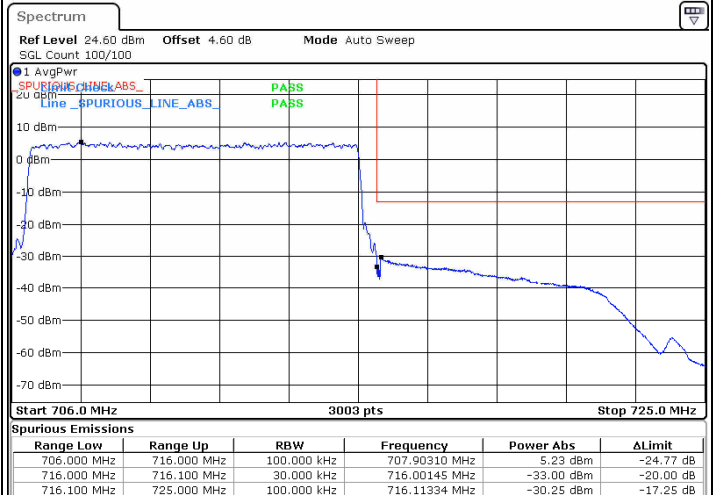
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



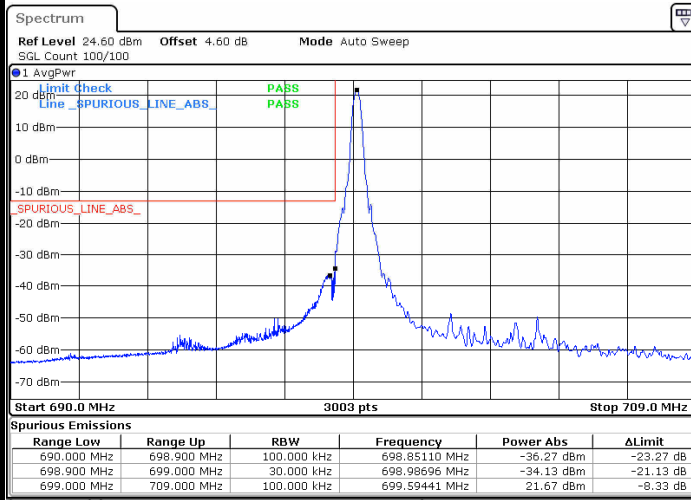
Highest Band Edge / Full RB



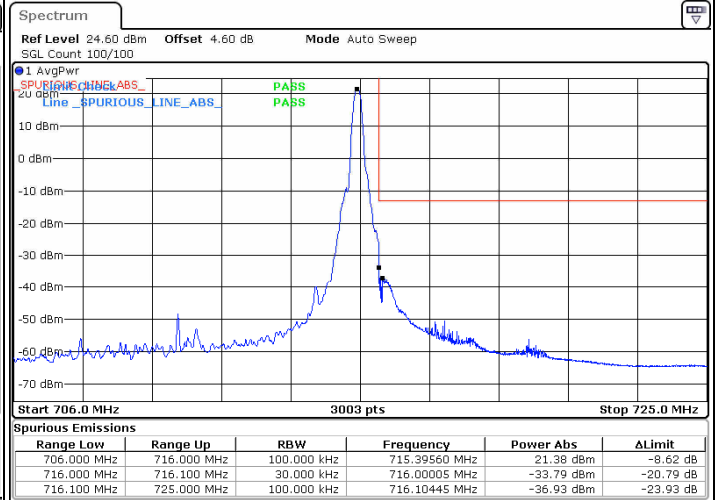


LTE Band 12 / 10MHz / 16QAM

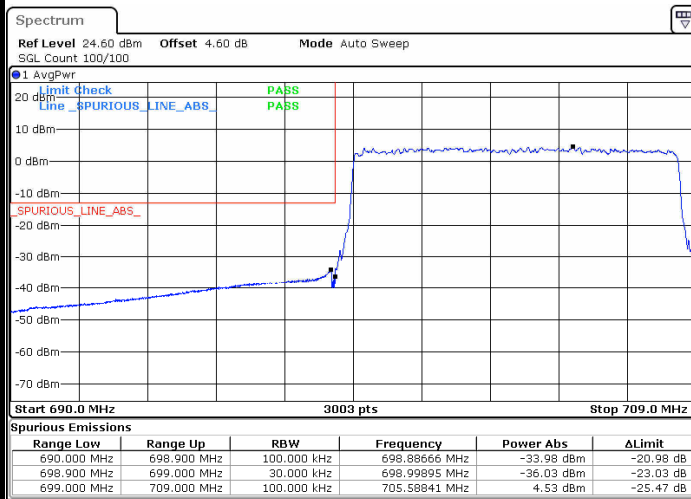
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



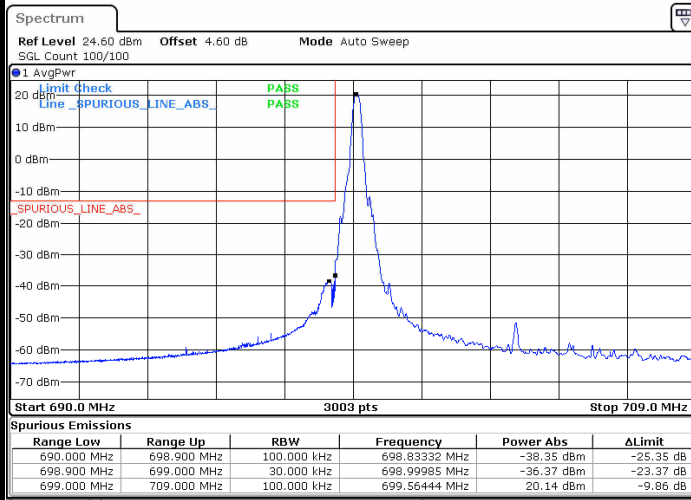
Highest Band Edge / Full RB



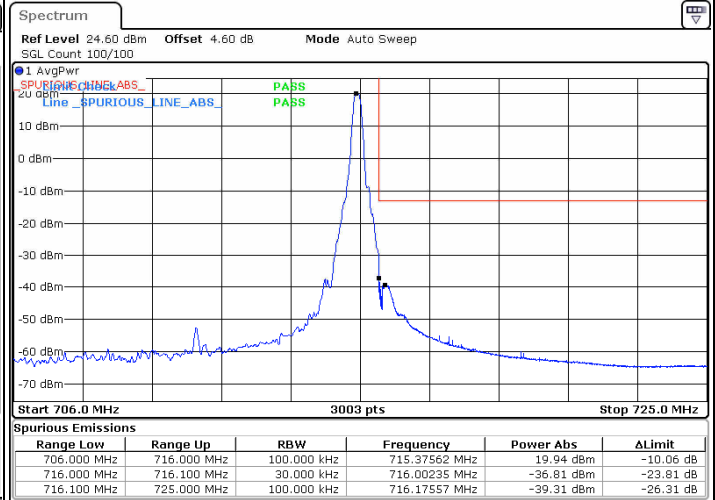


LTE Band 12 / 10MHz / 64QAM

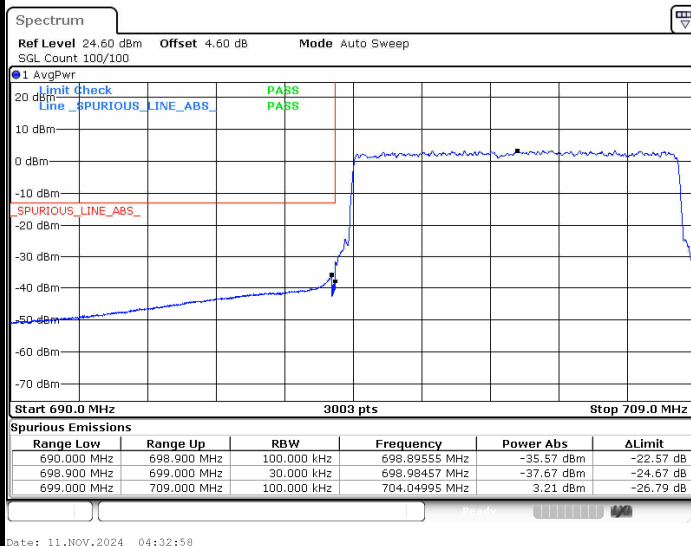
Lowest Band Edge / 1 RB



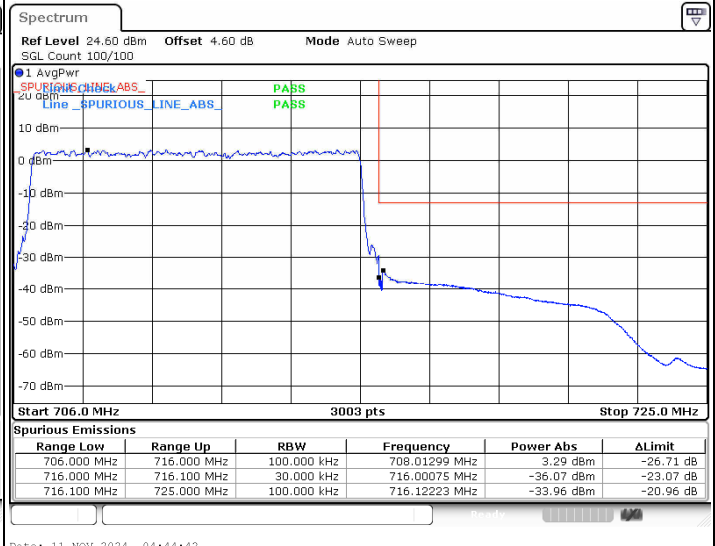
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



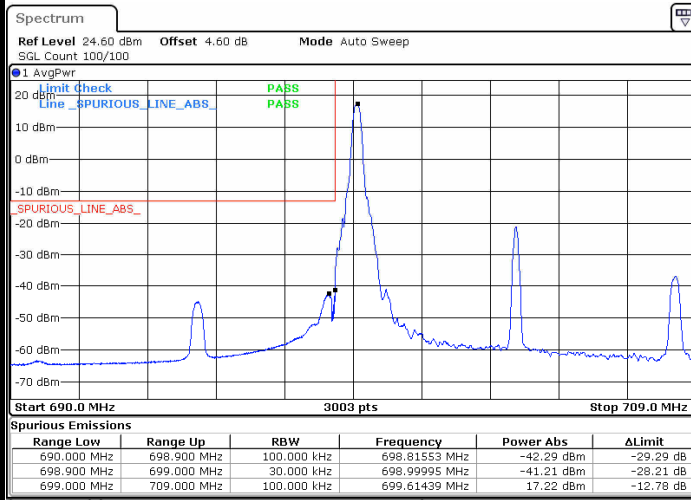
Highest Band Edge / Full RB



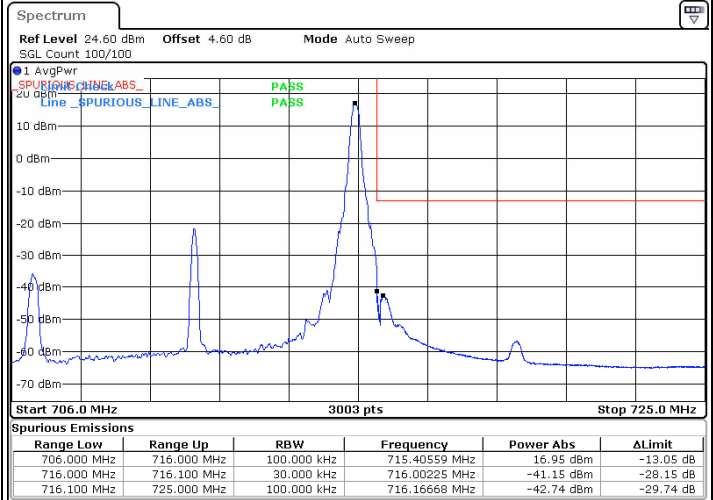


LTE Band 12 / 10MHz / 256QAM

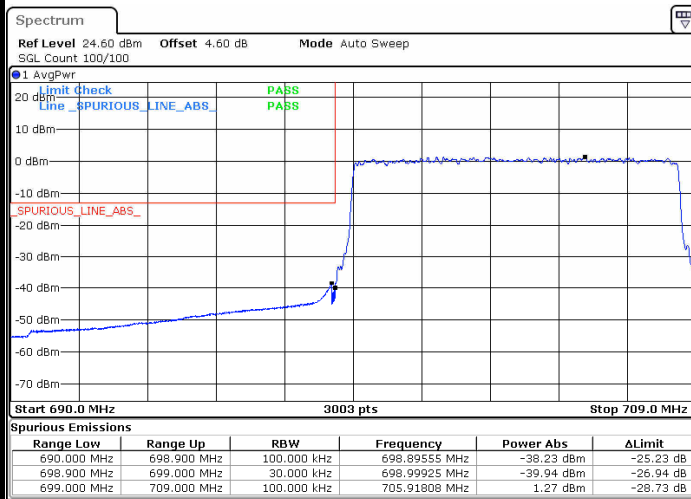
Lowest Band Edge / 1 RB



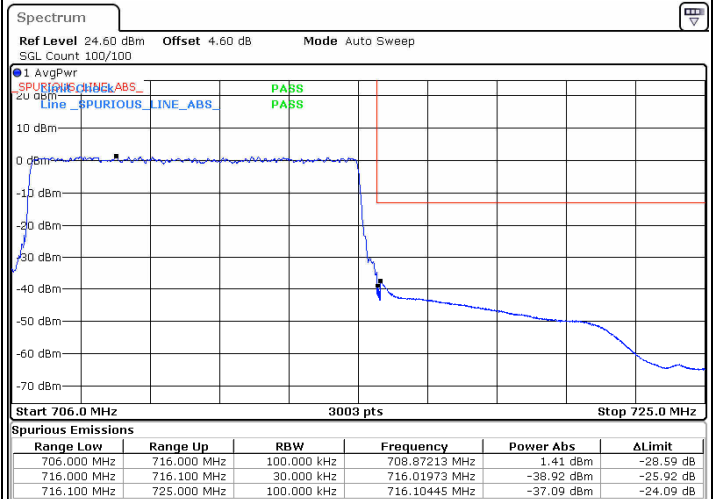
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

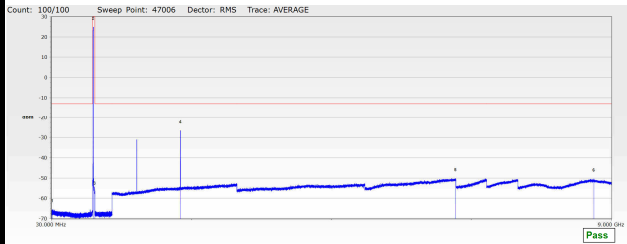




Conducted Spurious Emission

LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

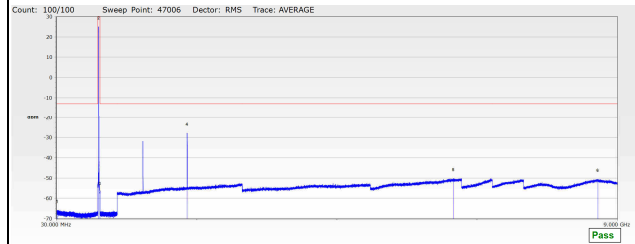


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	47.0000 MHz	-53.379 dBm	-53.379 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	690.0000 MHz	-24.094 dBm	-5.095 dB	-30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.0000 MHz	-50.078 dBm	-13.000 dBm	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.0000 GHz	-20.621 dBm	-13.000 dBm	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.5000 GHz	-50.240 dBm	-13.000 dBm	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.71033 GHz	-37.400 dBm	-13.000 dBm	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
Ver 1.1(20241209)

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Middle Channel / QPSK

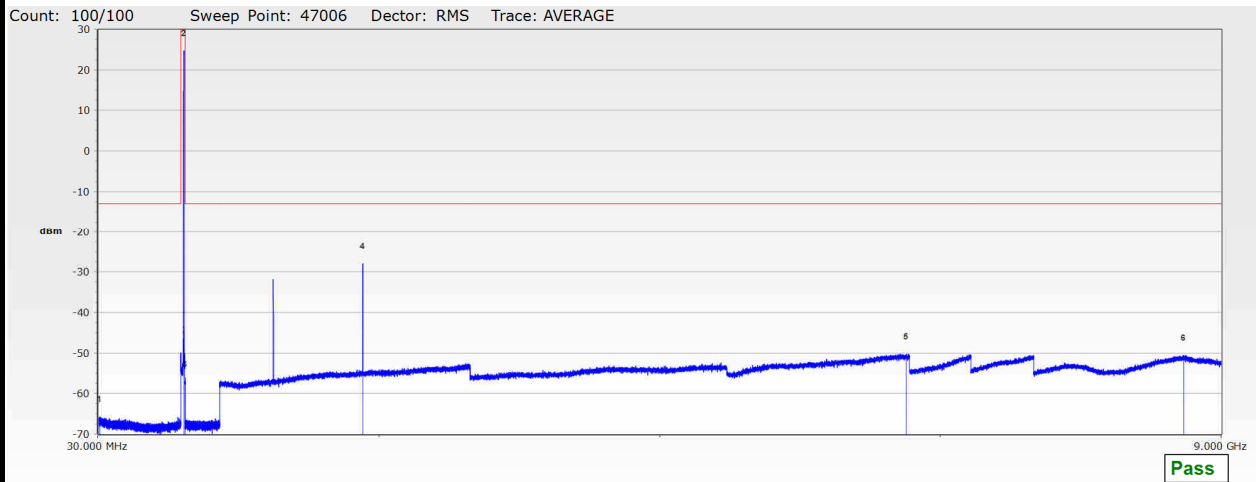


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	47.0000 MHz	-53.379 dBm	-53.379 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	702.5000 MHz	-25.031 dBm	-4.032 dB	-30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.0000 MHz	-50.078 dBm	-13.000 dBm	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.12133 GHz	-27.741 dBm	-14.741 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.57000 GHz	-50.145 dBm	-13.145 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.68833 GHz	-37.455 dBm	-13.455 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:56:07

Highest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	44.03600 MHz	-65.662 dBm	-52.662 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	714.81500 MHz	-24.776 dBm	-5.224 dB	-30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-57.015 dBm	-87.015 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.14467 GHz	-27.890 dBm	-14.890 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.48120 GHz	-50.221 dBm	-37.221 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.69967 GHz	-50.456 dBm	-37.456 dB	-13.000 dBm	8.594 dB	---	---

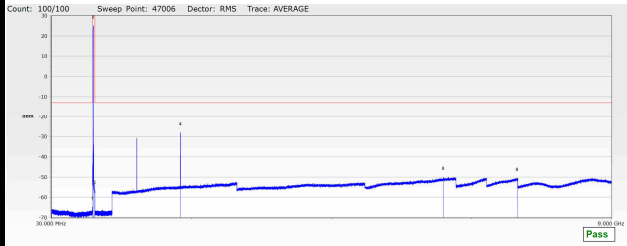
Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:56:14



LTE Band 12 / 3MHz

Lowest Channel / QPSK

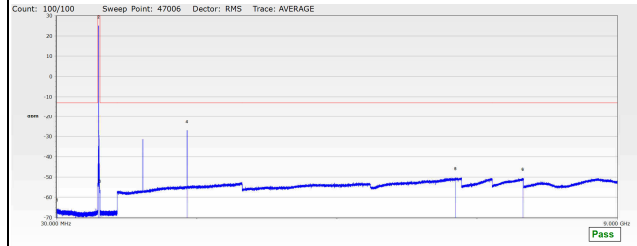


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	688.41000 MHz	-54.776 dBm	-51.726 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	699.22500 MHz	-25.004 dBm	-4.995 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-56.854 dBm	-13.000 dBm	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.07673 GHz	-28.076 dBm	-15.076 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.51941 GHz	-49.091 dBm	-36.091 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	7.49200 GHz	-50.563 dBm	-37.563 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:56:11

Middle Channel / QPSK

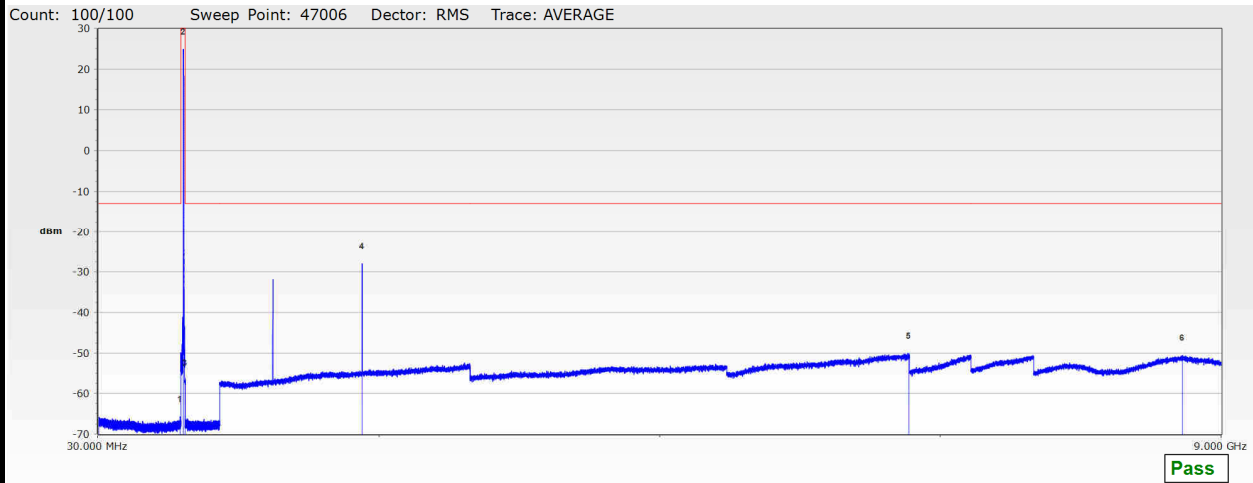


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	68.30800 MHz	-55.813 dBm	-52.813 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	706.15200 MHz	-24.981 dBm	-5.000 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-56.833 dBm	-13.000 dBm	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.11980 GHz	-26.981 dBm	-15.981 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.41120 GHz	-50.197 dBm	-37.197 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	7.49300 GHz	-50.465 dBm	-37.465 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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Highest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	688.72400 MHz	-65.675 dBm	-52.675 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	713.18750 MHz	-24.940 dBm	-5.060 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-56.702 dBm	-86.702 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.13967 GHz	-28.025 dBm	-15.025 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.50520 GHz	-50.093 dBm	-37.093 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.69033 GHz	-50.498 dBm	-37.498 dB	-13.000 dBm	8.594 dB	---	---

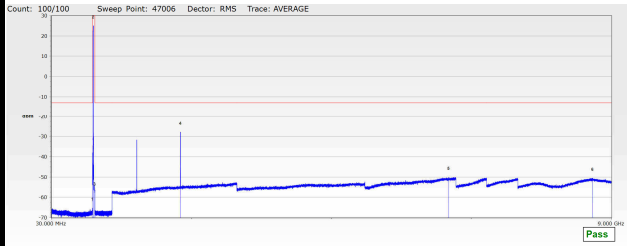
Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:56:44



LTE Band 12 / 5MHz

Lowest Channel / QPSK

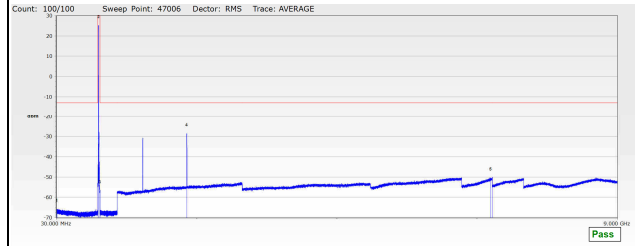


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	665.90000 MHz	-52.352 dBm	-52.352 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	695.49750 MHz	-25.097 dBm	-5.008 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-57.273 dBm	-87.273 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.09000 GHz	-27.659 dBm	-14.659 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.37400 GHz	-49.877 dBm	-36.877 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.69933 GHz	-50.479 dBm	-37.479 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:56:55

Middle Channel / QPSK

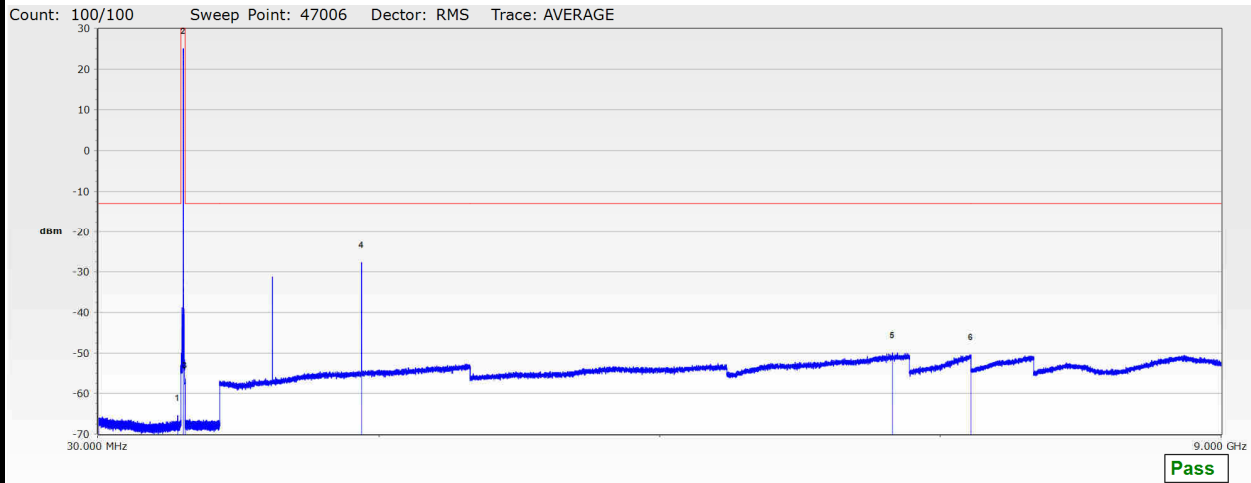


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	665.90000 MHz	-52.352 dBm	-52.352 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	695.49750 MHz	-25.107 dBm	-5.008 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-56.785 dBm	-86.785 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.13400 GHz	-27.659 dBm	-14.659 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.37400 GHz	-49.877 dBm	-36.877 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.69933 GHz	-50.479 dBm	-37.479 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:57:02

Highest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	665.36000 MHz	-65.352 dBm	-52.352 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	711.42000 MHz	-24.992 dBm	-5.008 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-57.273 dBm	-87.273 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.13400 GHz	-27.659 dBm	-14.659 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.37200 GHz	-49.877 dBm	-36.877 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	7.00000 GHz	-50.423 dBm	-37.423 dB	-13.000 dBm	8.594 dB	---	---

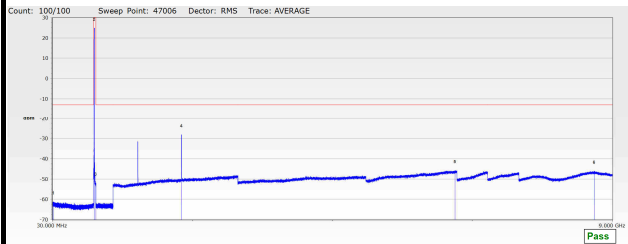
Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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2025-05-06 13:57:08



LTE Band 12 / 10MHz

Lowest Channel / QPSK

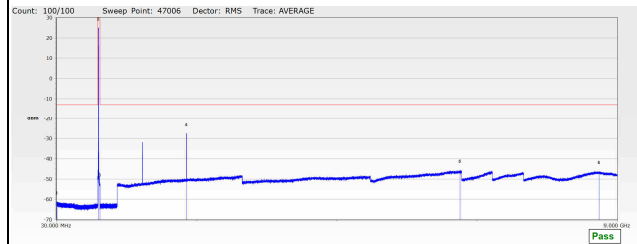


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	60.84400 MHz	-61.192 dBm	-48.192 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	706.69500 MHz	-24.936 dBm	-5.064 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-52.579 dBm	-82.579 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.12000 GHz	-27.709 dBm	-14.709 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.42400 GHz	-45.743 dBm	-32.743 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.66900 GHz	-45.965 dBm	-32.965 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
Ver 1.1(20241209)

2025-05-06 13:57:17

Middle Channel / QPSK

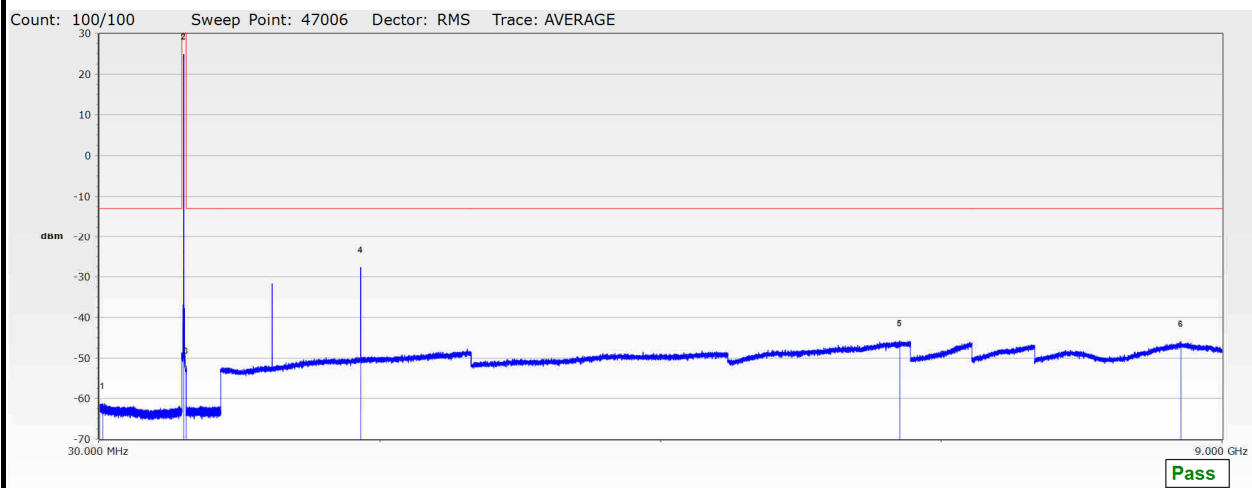


Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	60.84400 MHz	-61.192 dBm	-48.192 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	706.69500 MHz	-24.936 dBm	-5.064 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-52.579 dBm	-82.579 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.12000 GHz	-27.709 dBm	-14.709 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.42400 GHz	-45.743 dBm	-32.743 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.66900 GHz	-45.965 dBm	-32.965 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
Ver 1.1(20241209)

2025-05-06 13:57:24

Highest Channel / QPSK



Item	Range Low	Range Up	RBW	VBW	Frequency	Power Abs	Limit	Limit	Path Loss Factor	DCC	APS
1	30.000 MHz	690.000 MHz	1 MHz	3 MHz	60.84400 MHz	-61.192 dBm	-48.192 dB	-13.000 dBm	4.945 dB	---	---
2	690.000 MHz	725.000 MHz	1 MHz	3 MHz	706.69500 MHz	-24.936 dBm	-5.064 dB	30.000 dBm	4.958 dB	---	---
3	725.000 MHz	1.000 GHz	1 MHz	3 MHz	725.00000 MHz	-52.579 dBm	-82.579 dB	-13.000 dBm	5.055 dB	---	---
4	1.000 GHz	3.000 GHz	1 MHz	3 MHz	2.12000 GHz	-27.709 dBm	-14.709 dB	-13.000 dBm	6.486 dB	---	---
5	3.000 GHz	7.000 GHz	1 MHz	3 MHz	6.42400 GHz	-45.743 dBm	-32.743 dB	-13.000 dBm	7.977 dB	---	---
6	7.000 GHz	9.000 GHz	1 MHz	3 MHz	8.66900 GHz	-45.965 dBm	-32.965 dB	-13.000 dBm	8.594 dB	---	---

Note: DCC = Duty Cycle Correction / APS = Antenna Port Summation
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Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0023	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0044	
-10	Normal Voltage	0.0036	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0019	

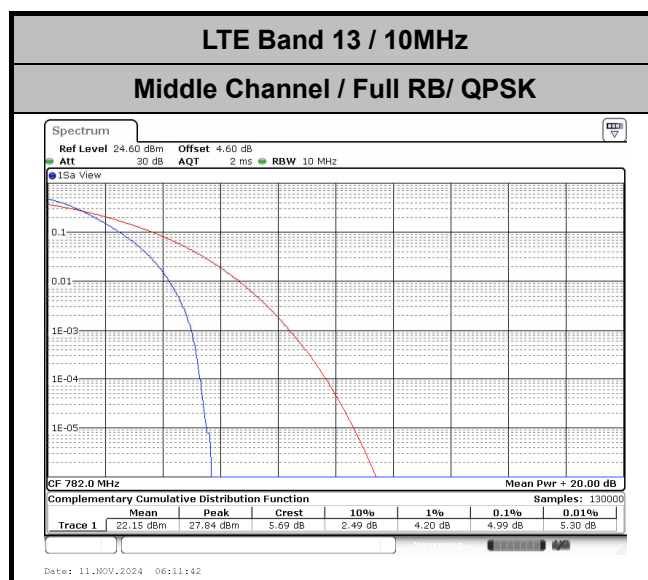
Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

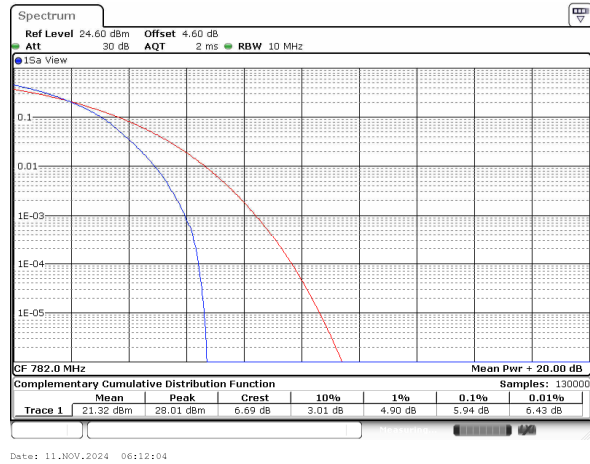
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.99	5.94	6.38	6.67	PASS

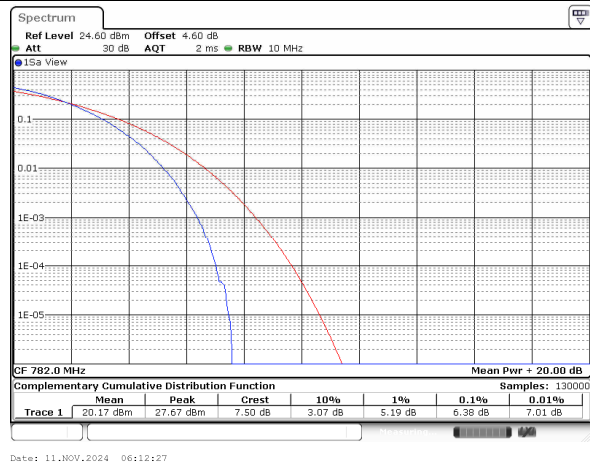




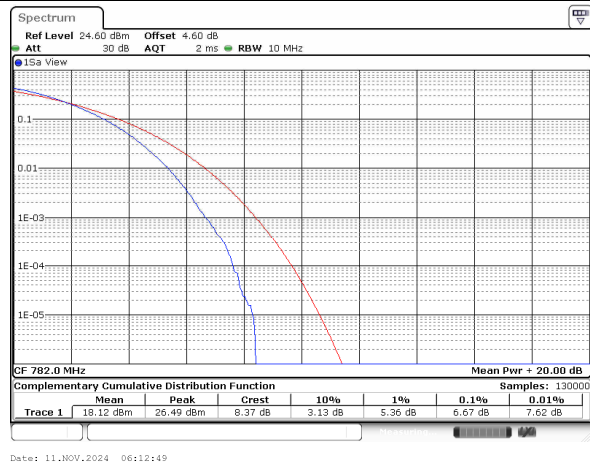
Middle Channel / Full RB/ 16QAM



Middle Channel / Full RB/ 64QAM

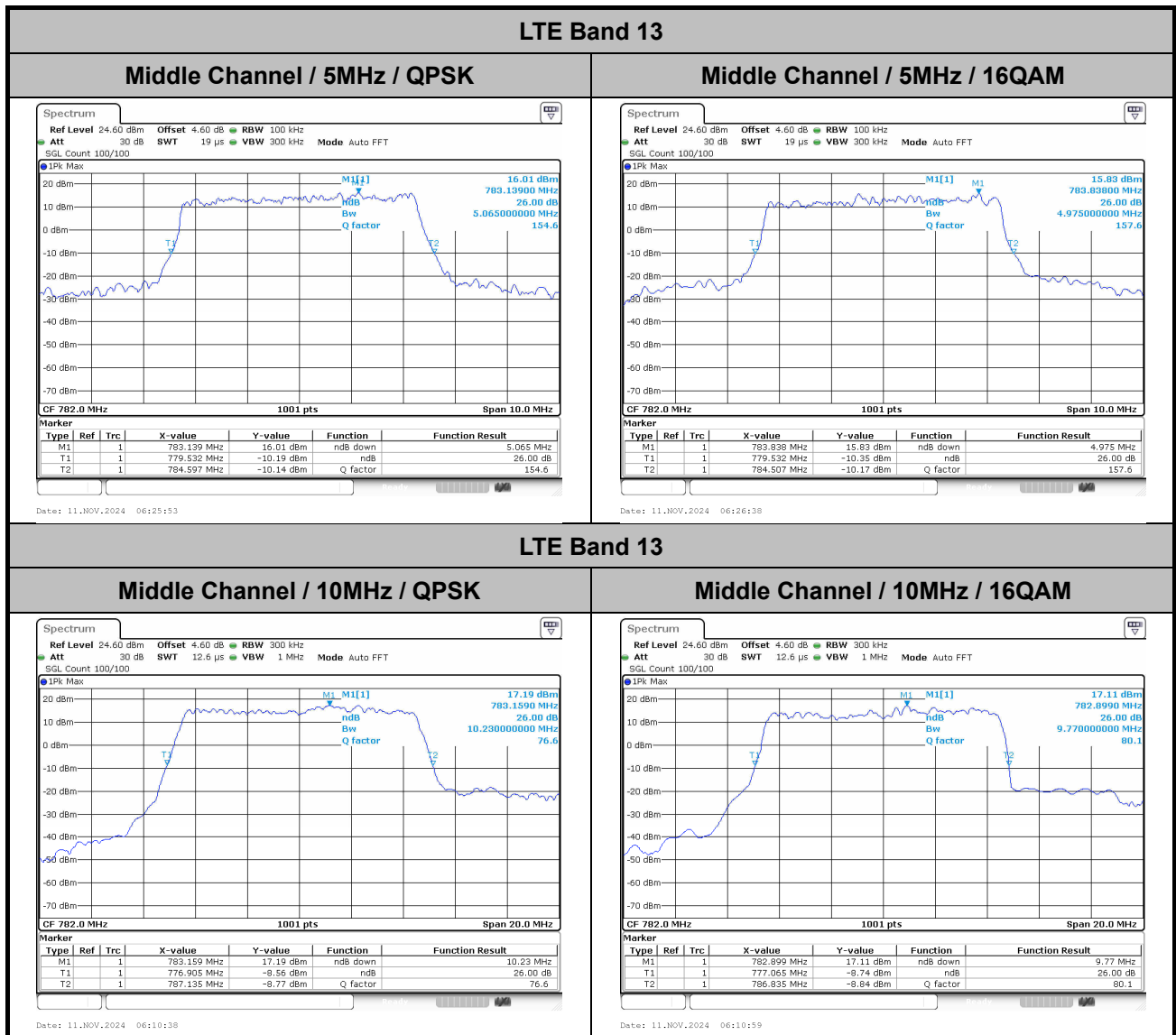


Middle Channel / Full RB/ 256QAM



**26dB Bandwidth**

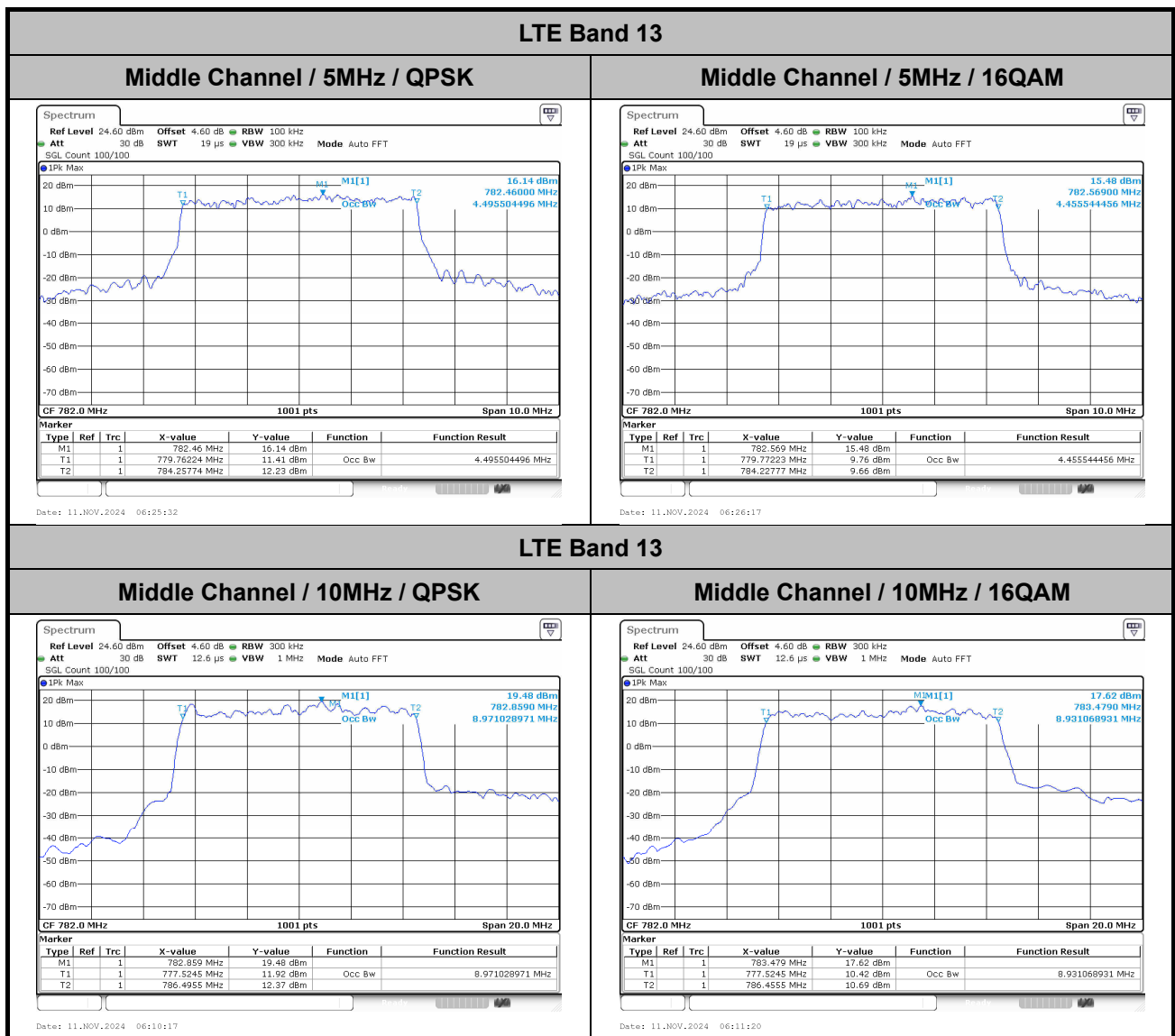
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	5.07	4.98
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	10.23	9.77





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.46
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.97	8.83

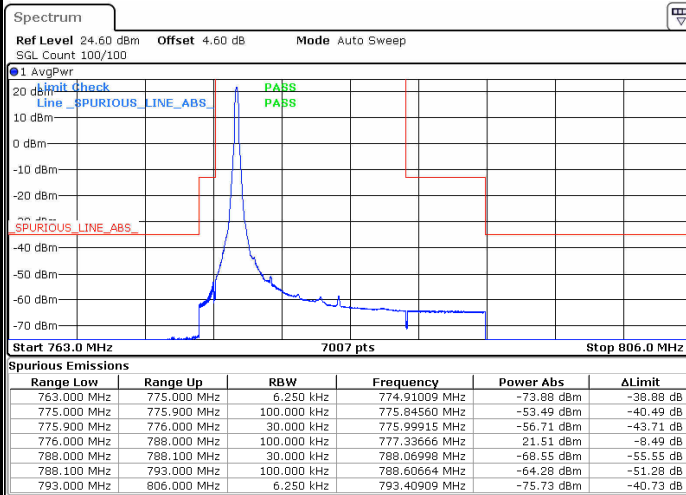




Conducted Band Edge

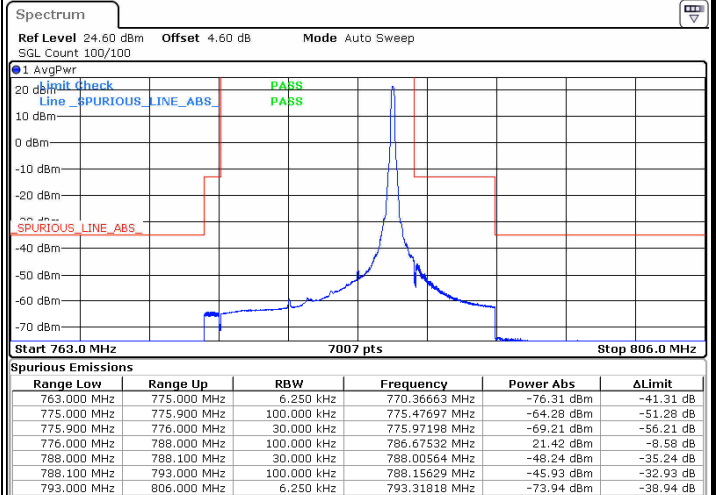
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



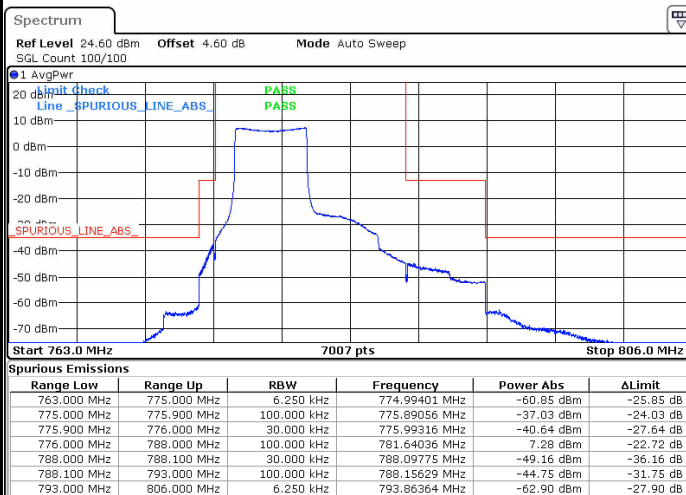
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Highest Band Edge / 1 RB



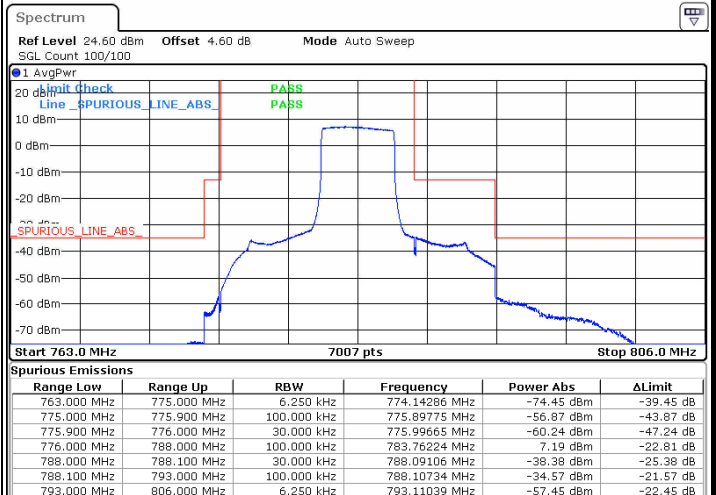
Date: 11.NOV.2024 05:28:21

Lowest Band Edge / Full RB



Date: 11.NOV.2024 05:17:27

Highest Band Edge / Full RB

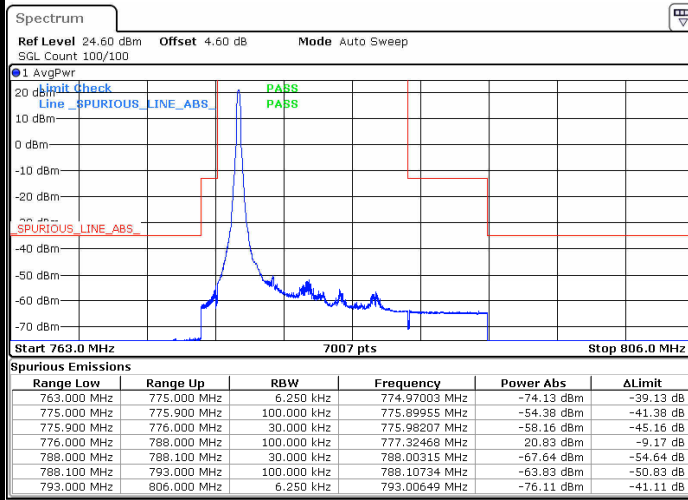


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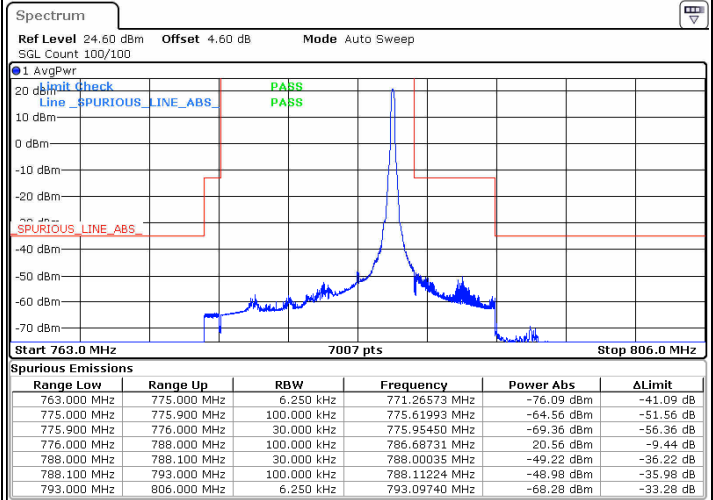
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB



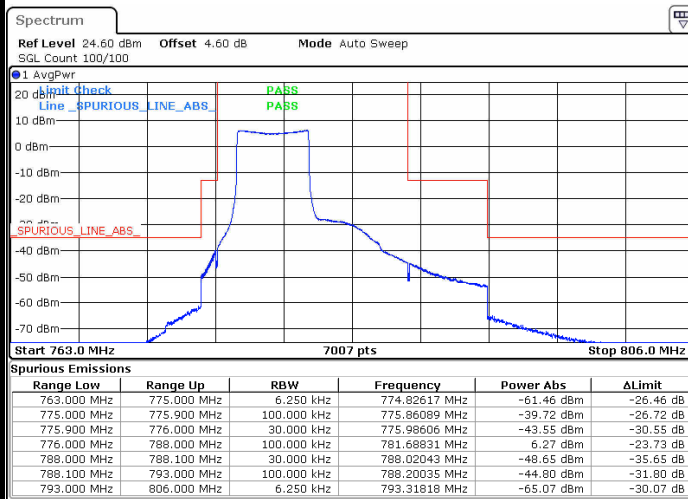
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Highest Band Edge / 1 RB



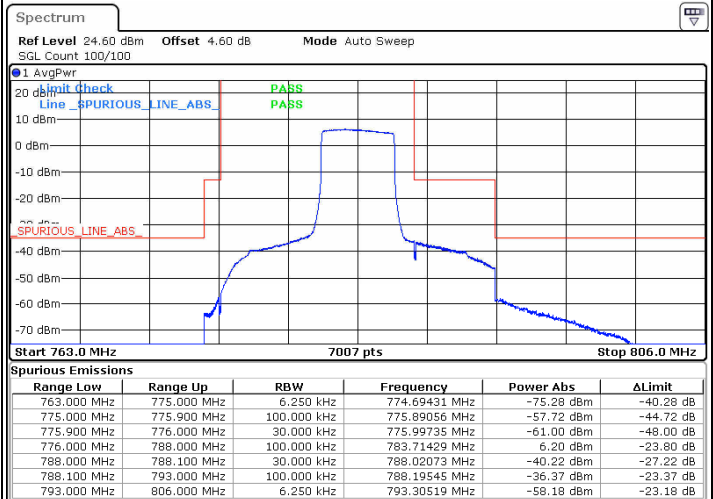
Date: 11.NOV.2024 05:30:11

Lowest Band Edge / Full RB



Date: 11.NOV.2024 05:19:18

Highest Band Edge / Full RB

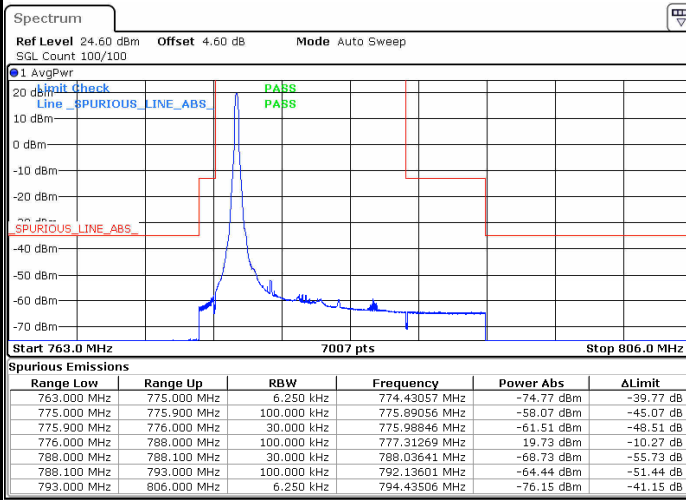


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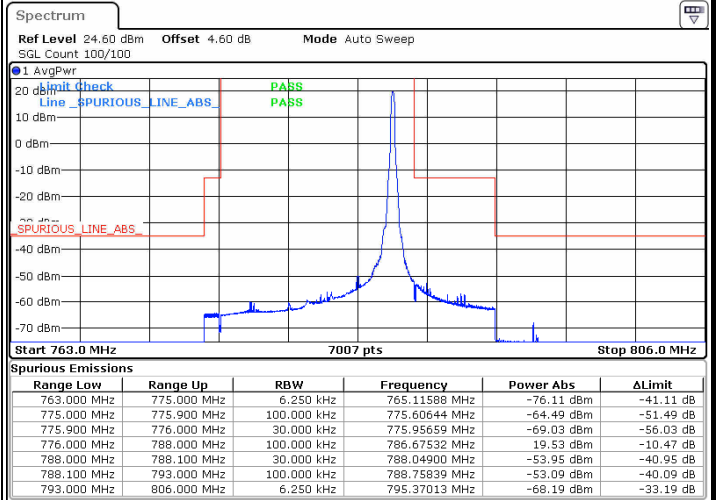


LTE Band 13 / 5MHz / 64QAM

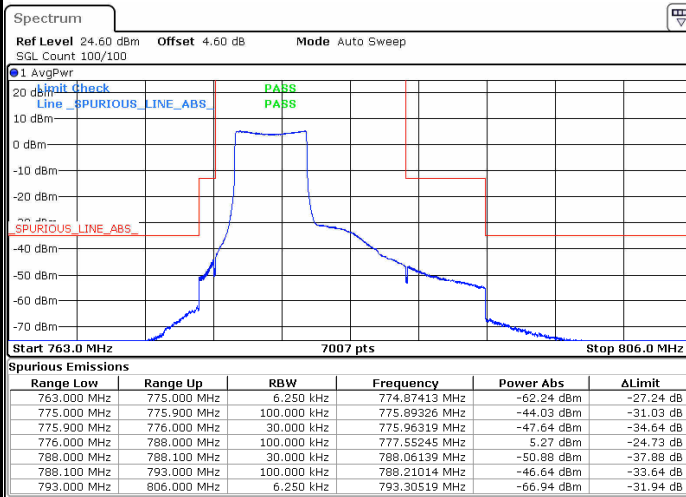
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

