



LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Date: 15.APR.2017 10:22:09

Date: 15.APR.2017 10:37:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



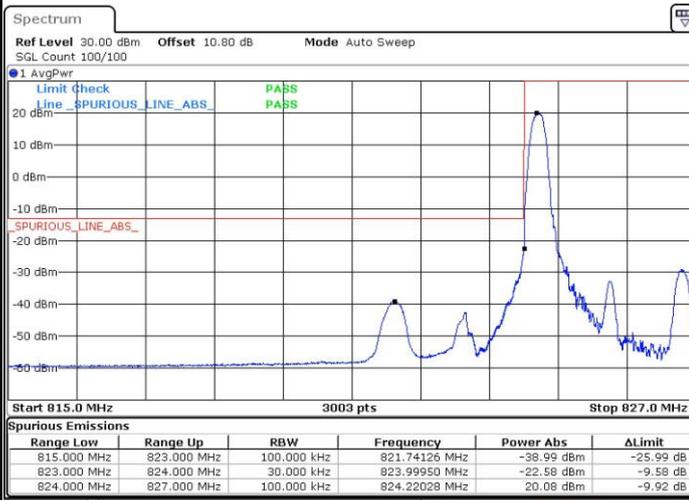
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Date: 15.APR.2017 10:33:45



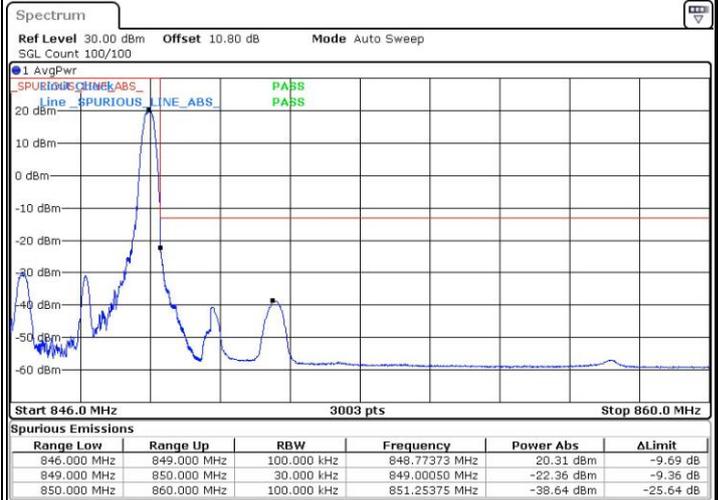
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



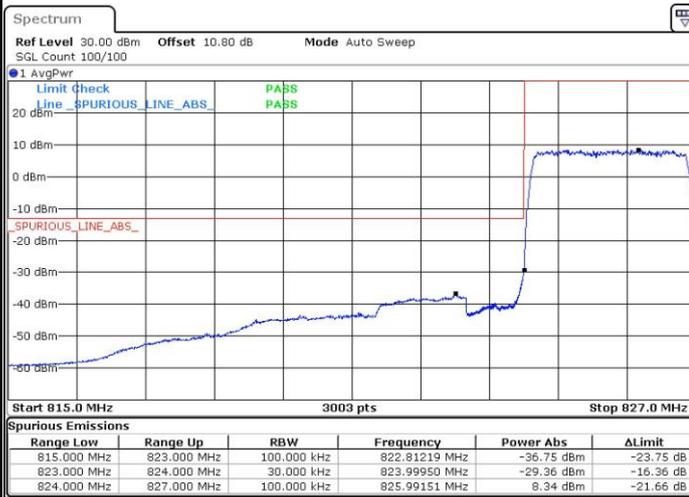
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Highest Band Edge / 1 RB



Date: 15.APR.2017 09:26:29

Lowest Band Edge / Full RB



Date: 15.APR.2017 09:18:11

Highest Band Edge / Full RB

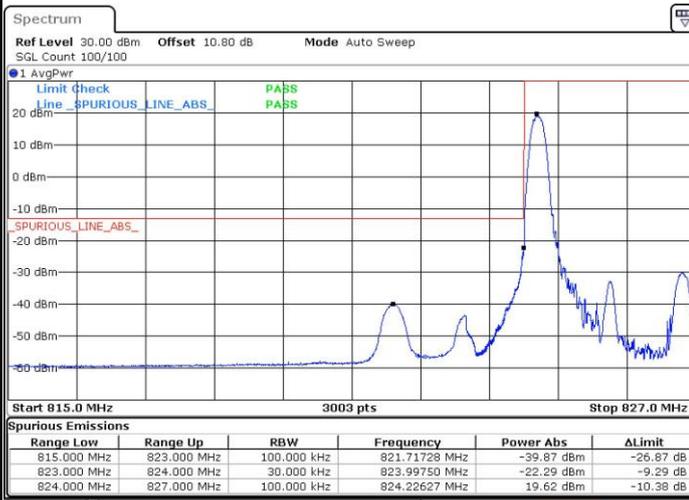


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LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 15 APR 2017 09:16:32

Highest Band Edge / 1 RB



Date: 15 APR 2017 09:28:09

Lowest Band Edge / Full RB



Date: 15 APR 2017 09:19:50

Highest Band Edge / Full RB

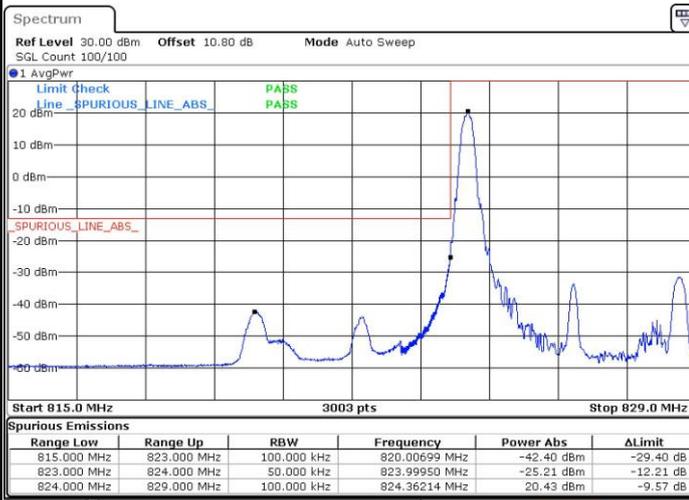


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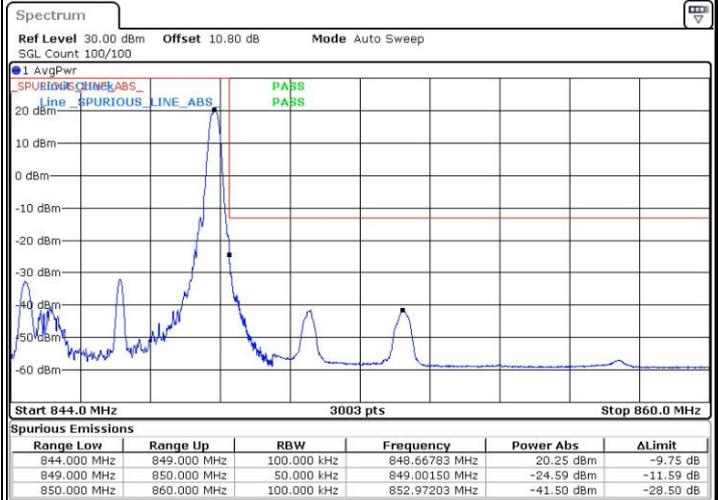
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1 RB



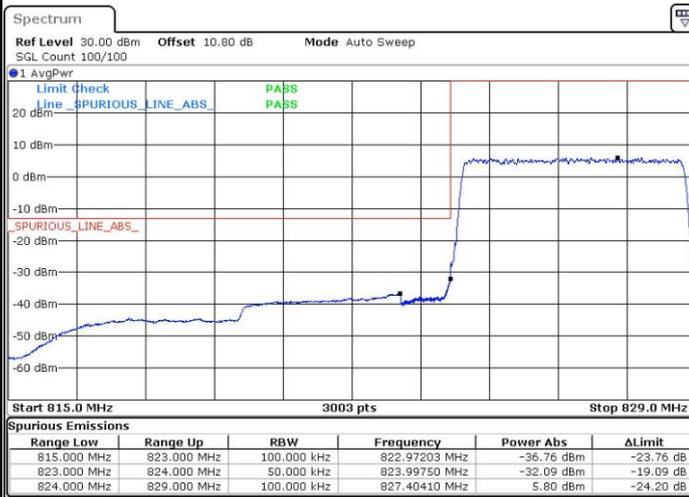
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Highest Band Edge / 1 RB



Date: 15 APR 2017 09:47:12

Lowest Band Edge / Full RB



Date: 15 APR 2017 09:38:54

Highest Band Edge / Full RB

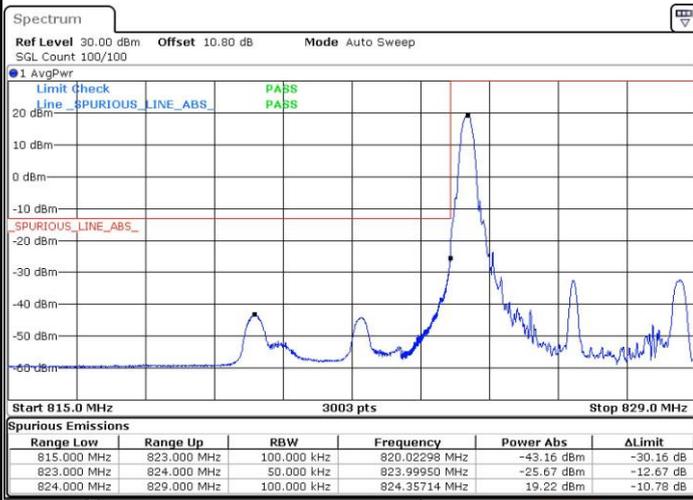


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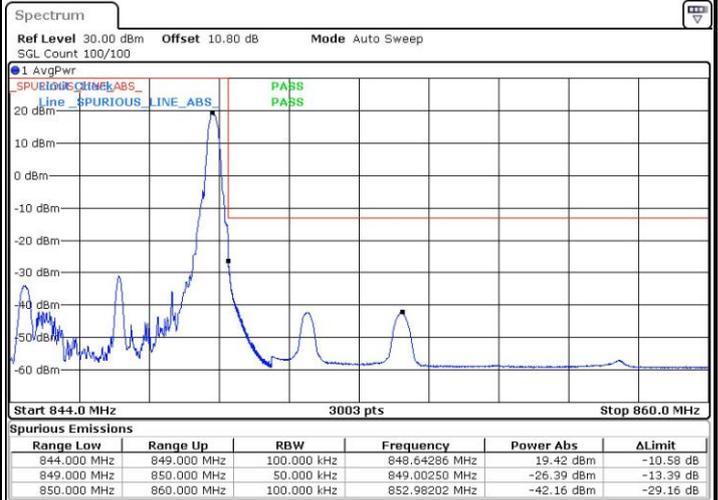
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1RB



Date: 15 APR 2017 09:37:15

Highest Band Edge / 1 RB



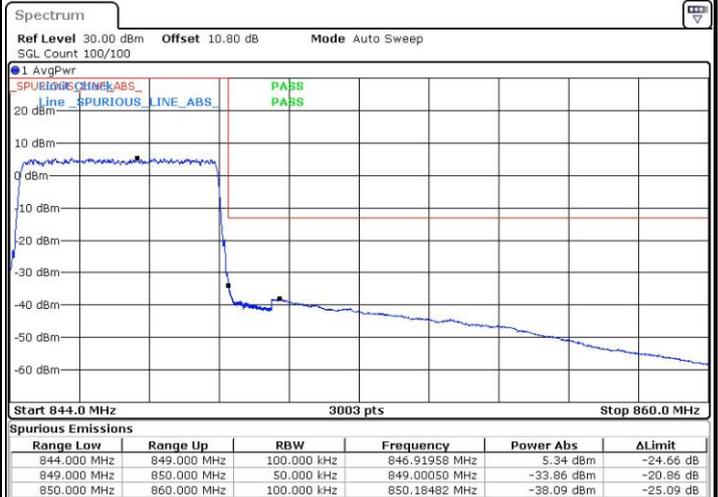
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Lowest Band Edge / Full RB



Date: 15 APR 2017 09:40:33

Highest Band Edge / Full RB

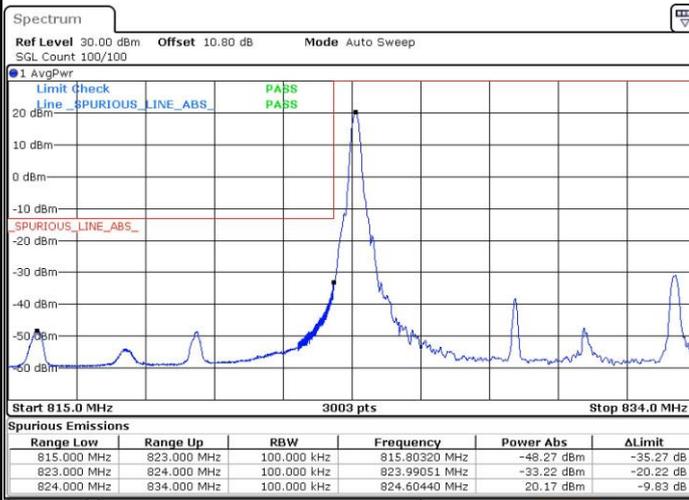


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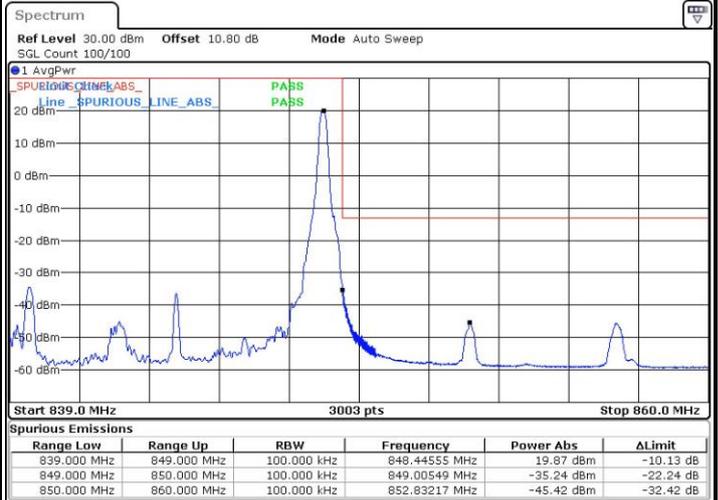
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB



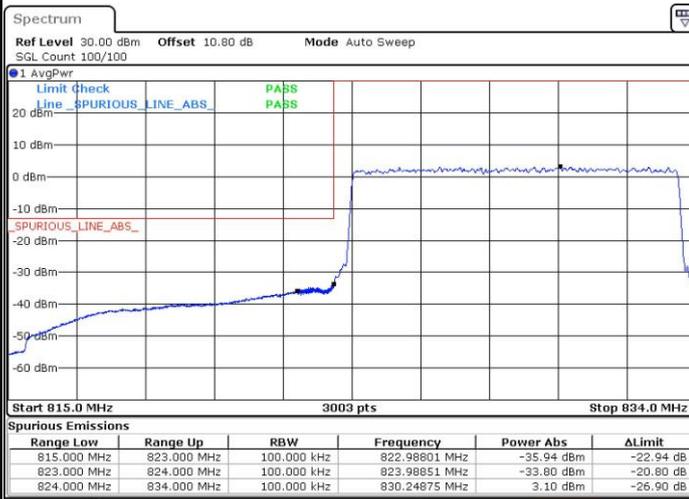
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Highest Band Edge / 1 RB



Date: 15 APR 2017 10:07:54

Lowest Band Edge / Full RB



Date: 15 APR 2017 09:59:36

Highest Band Edge / Full RB

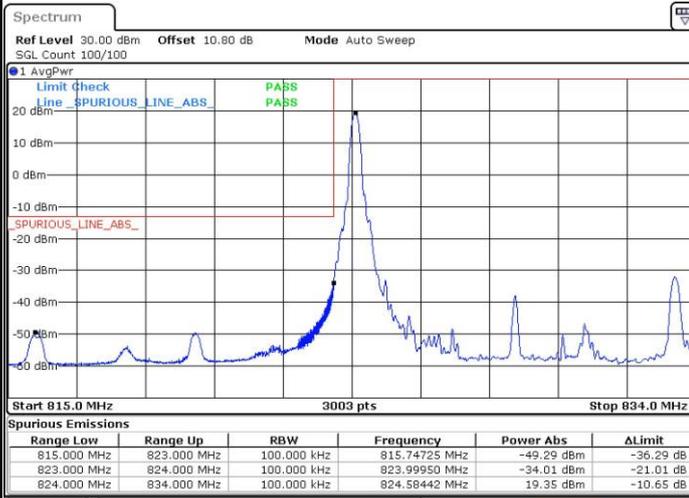


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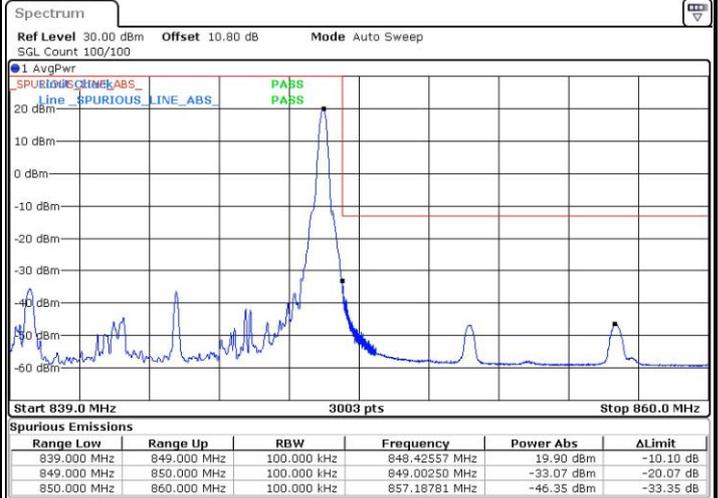
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



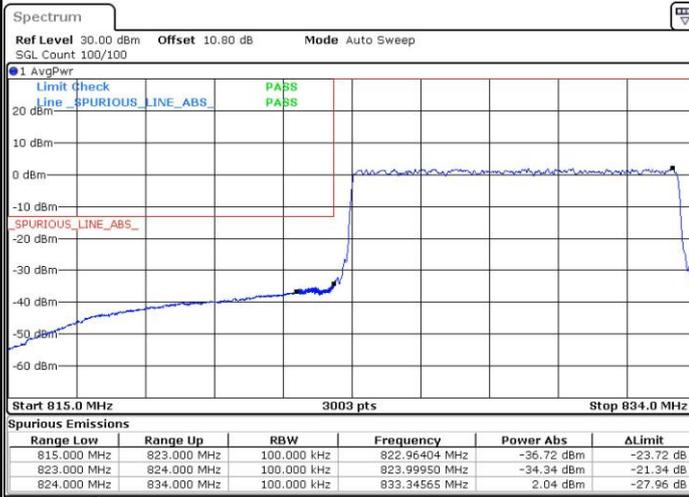
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Highest Band Edge / 1 RB



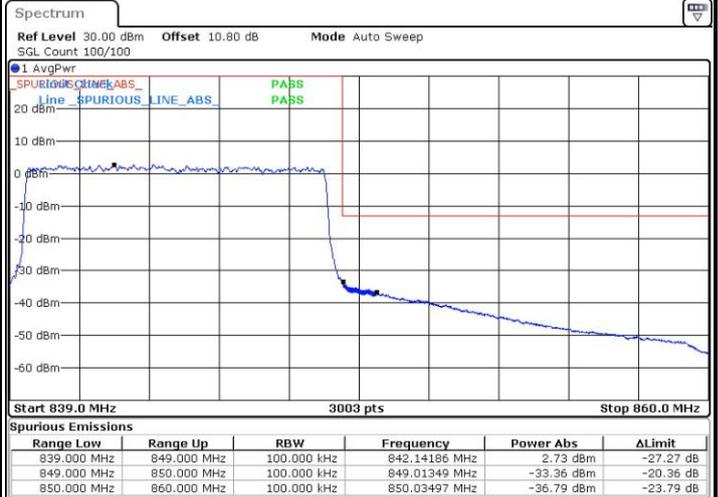
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Lowest Band Edge / Full RB



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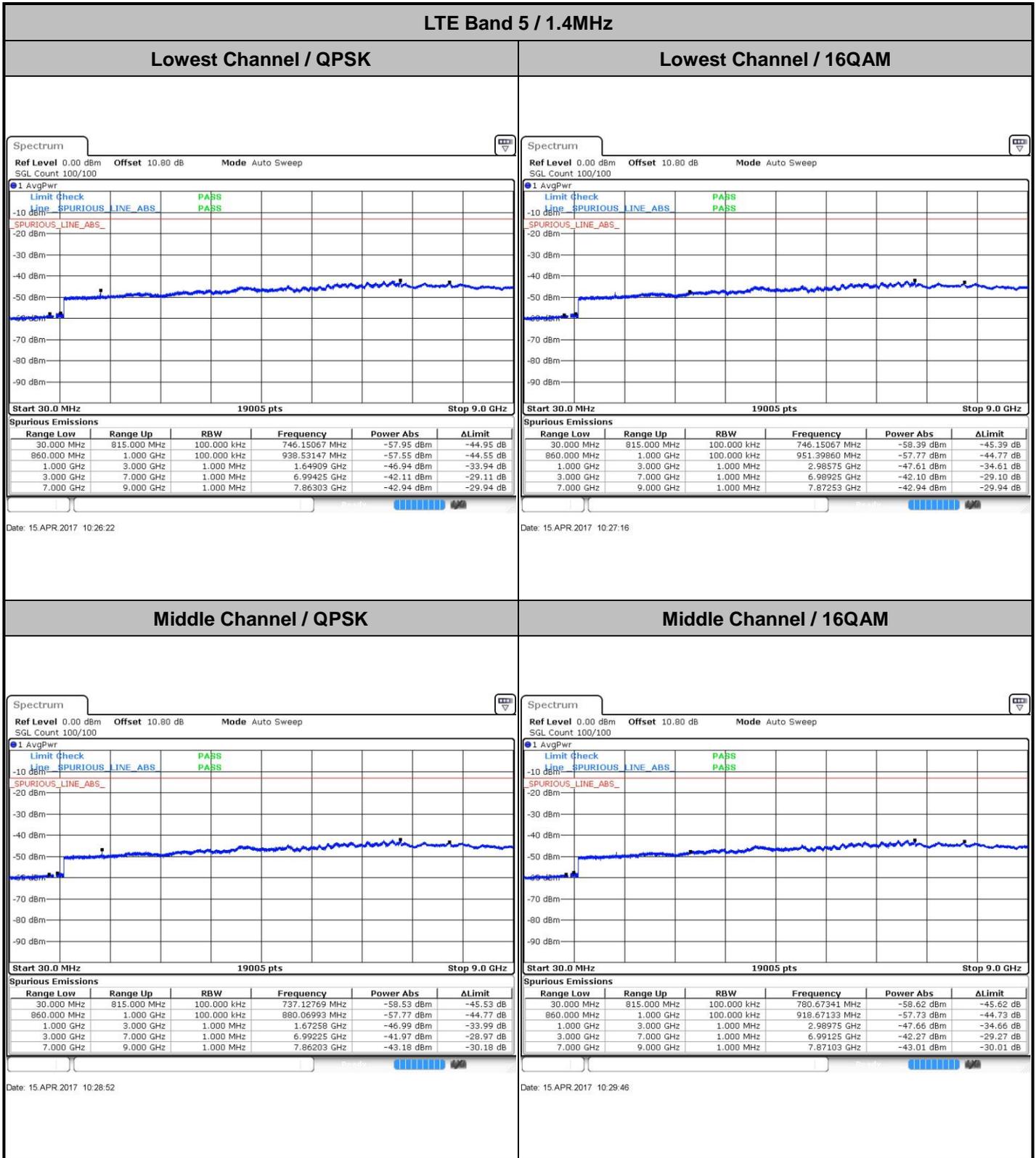
Highest Band Edge / Full RB



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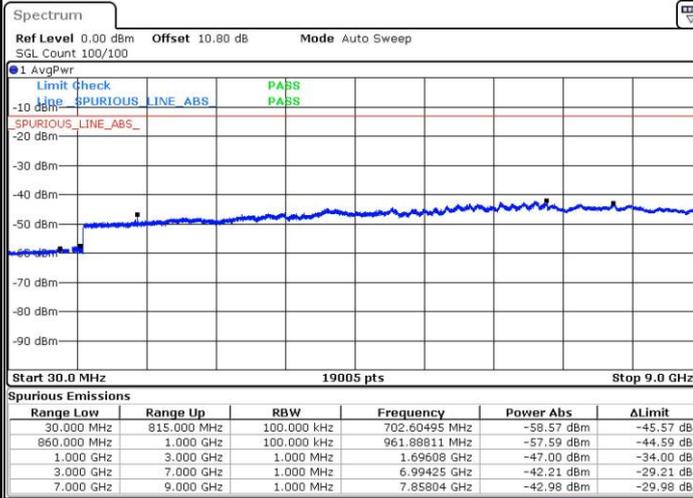
# Conducted Spurious Emission





LTE Band 5 / 1.4MHz

Highest Channel / QPSK



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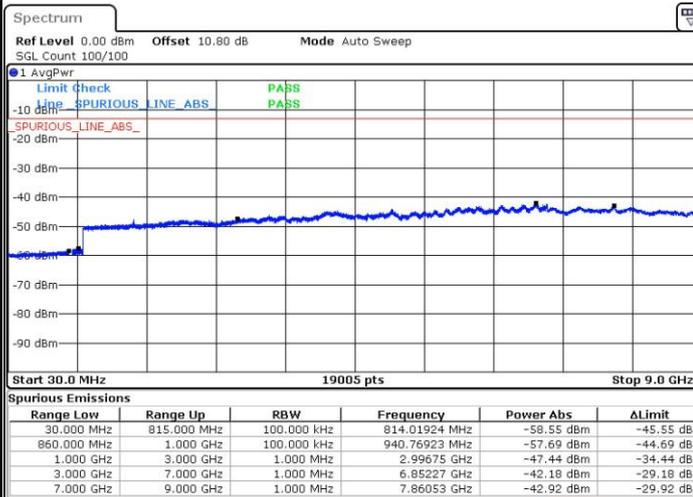
Highest Channel / 16QAM



Date: 15 APR 2017 10:38:52

LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 15 APR 2017 09:20:45

Lowest Channel / 16QAM



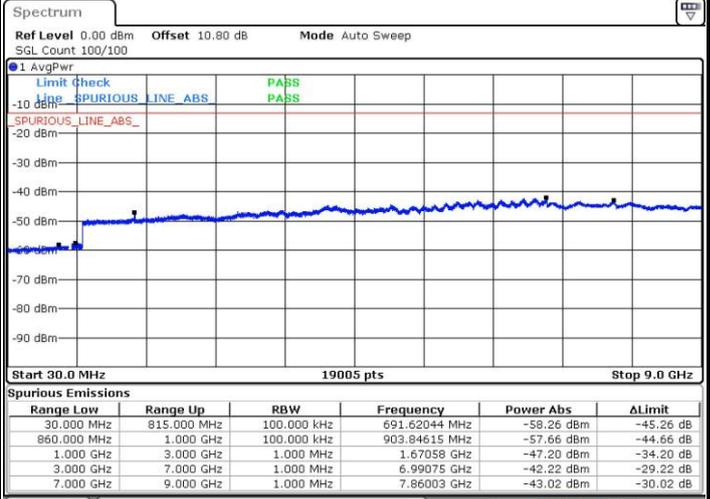
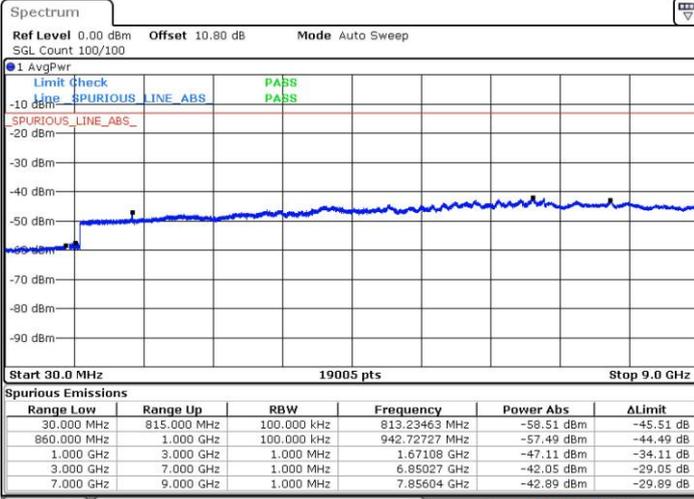
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LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

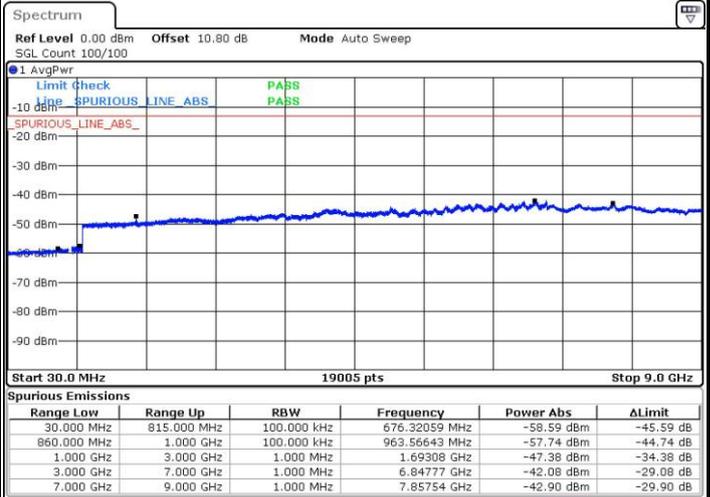


Date: 15.APR.2017 09:23:15

Date: 15.APR.2017 09:24:09

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 15.APR.2017 09:32:22

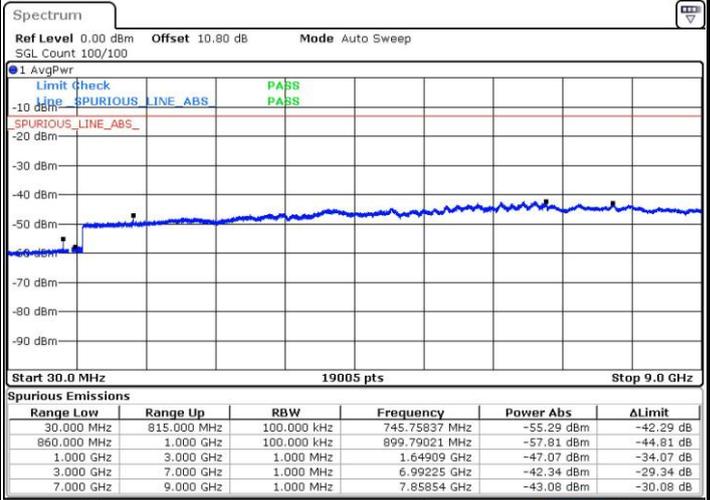
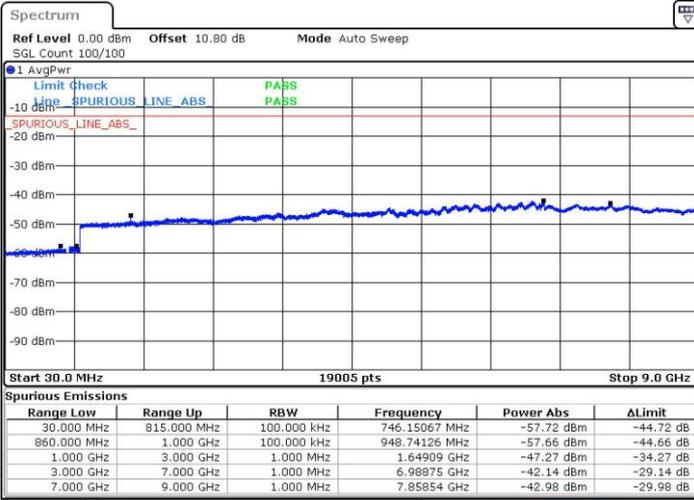
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LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

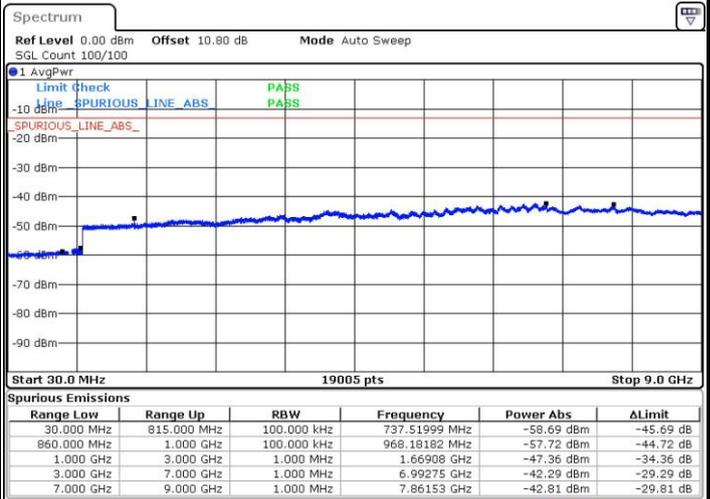


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Date: 15.APR.2017 09:42:22

Middle Channel / QPSK

Middle Channel / 16QAM



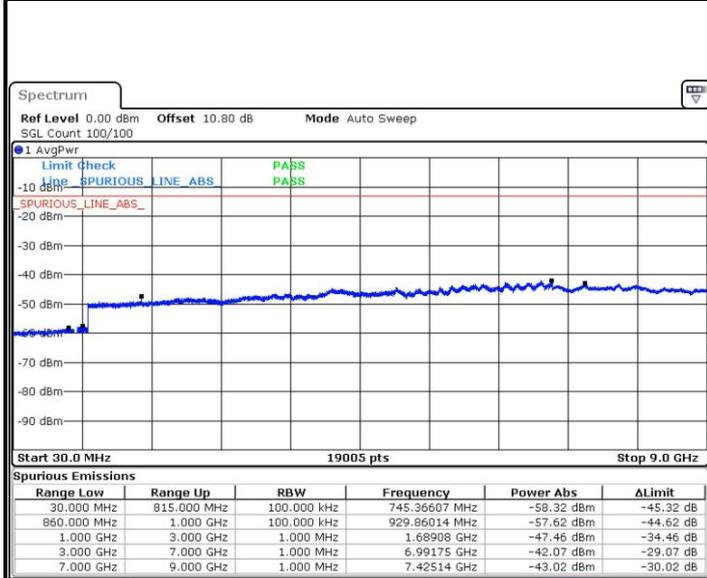
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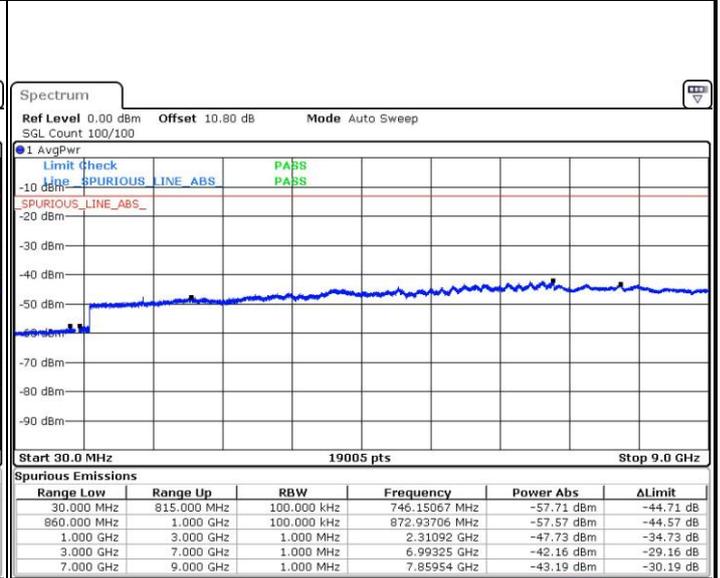
LTE Band 5 / 5MHz

Highest Channel / QPSK



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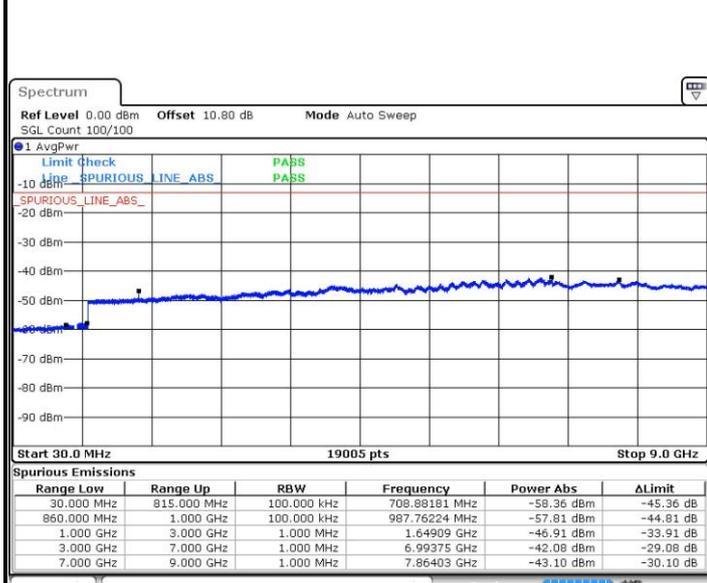
Highest Channel / 16QAM



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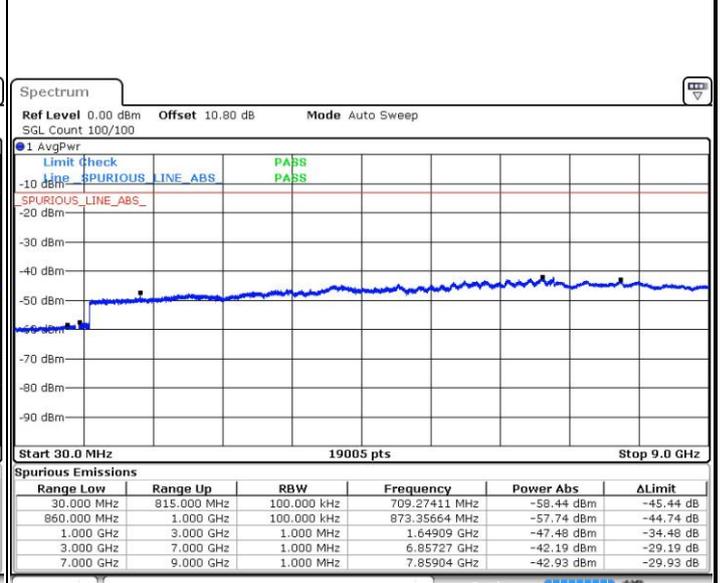
LTE Band 5 / 10MHz

Lowest Channel / QPSK



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Lowest Channel / 16QAM

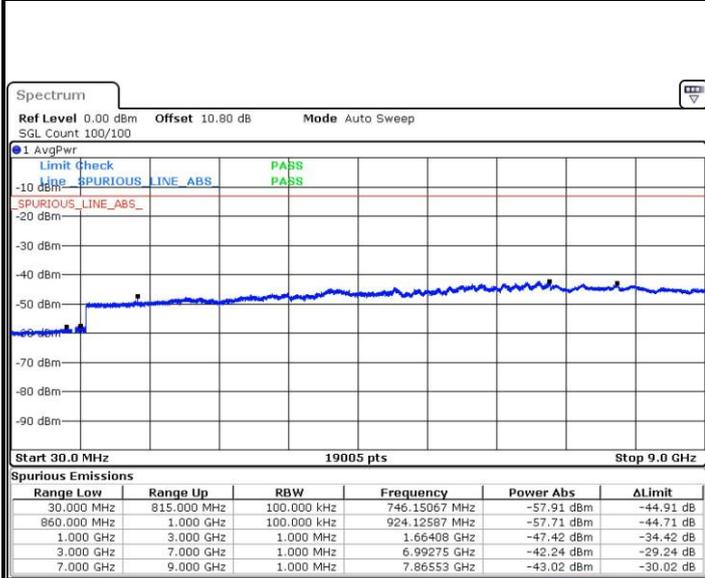


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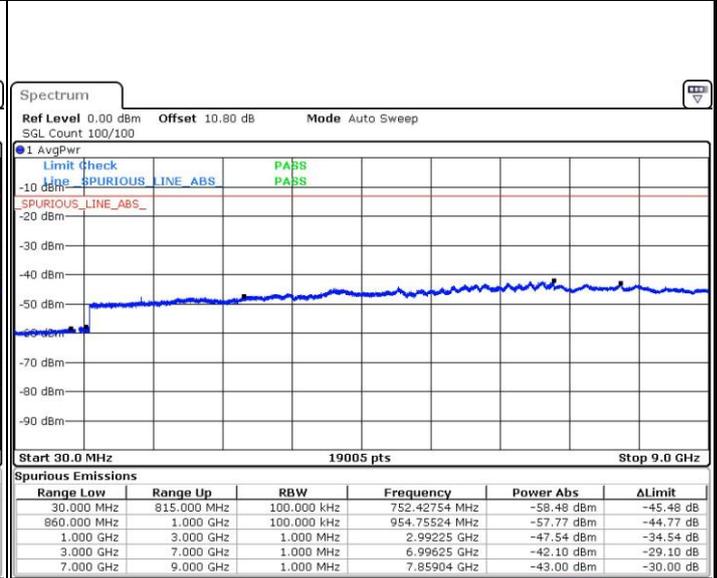
LTE Band 5 / 10MHz

Middle Channel / QPSK



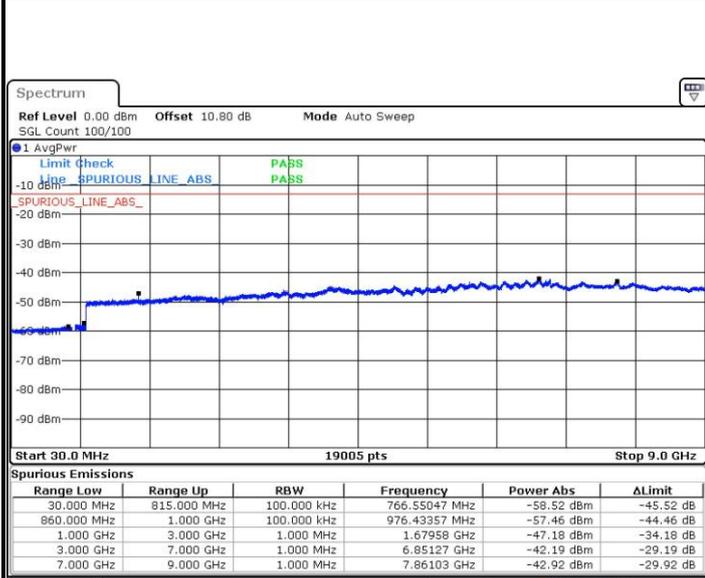
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Middle Channel / 16QAM



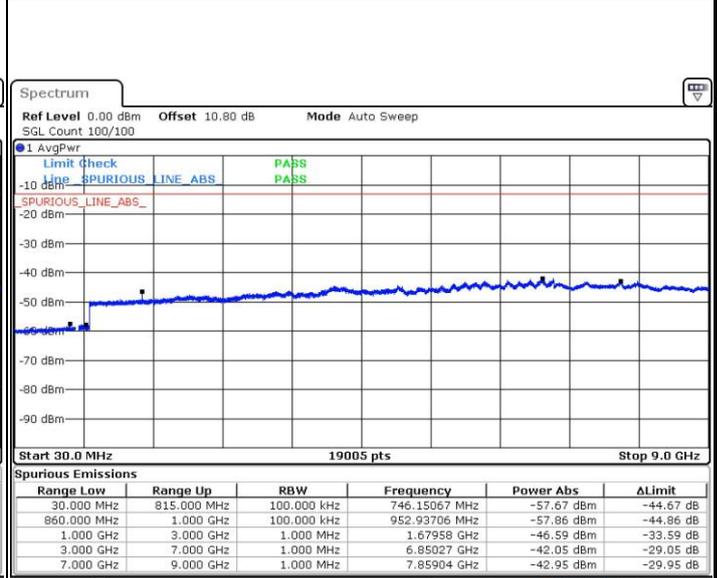
Date: 15.APR.2017 10:05:34

Highest Channel / QPSK



Date: 15.APR.2017 10:13:46

Highest Channel / 16QAM



Date: 15.APR.2017 10:14:40



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0023	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0087	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0080	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0109	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =4.0 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of ERP/EIRP and Radiated Test

### ERP

LTE Band 5 / 1.4MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	3	1	5.99	0.0040	17.62	0.0578
Middle		3	1	7.00	0.0050	17.79	0.0601
Highest		3	1	7.85	0.0061	18.03	0.0635
Lowest	16QAM	1	3	5.15	0.0033	16.71	0.0469
Middle		1	3	5.15	0.0033	16.71	0.0469
Highest		1	3	7.07	0.0051	17.28	0.0535
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	5.95	0.0039	17.54	0.0568
Middle		1	0	6.84	0.0048	17.75	0.0596
Highest		1	0	7.84	0.0061	17.97	0.0627
Lowest	16QAM	1	0	5.20	0.0033	16.75	0.0473
Middle		1	0	6.11	0.0041	17.03	0.0505
Highest		1	0	7.08	0.0051	17.28	0.0535
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	5.96	0.0039	17.56	0.0570
Middle		1	0	6.71	0.0047	17.70	0.0589
Highest		1	0	7.61	0.0058	17.90	0.0617
Lowest	16QAM	1	0	5.24	0.0033	16.78	0.0476
Middle		1	0	5.98	0.0040	16.95	0.0495
Highest		1	0	6.88	0.0049	17.16	0.0520
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	6.00	0.0040	17.49	0.0561
Middle		1	0	6.58	0.0045	17.65	0.0582
Highest		1	0	7.37	0.0055	18.02	0.0634
Lowest	16QAM	1	25	5.54	0.0036	16.80	0.0479
Middle		1	25	6.17	0.0041	16.93	0.0493
Highest		1	25	6.75	0.0047	17.06	0.0508
Limit	ERP < 7W			Result		PASS	



**Radiated Spurious Emission**

**LTE Band 5**

LTE Band 5 / 1.4MHz / QPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1696	-57.77	-13	-44.77	-66.8	-64.82	0.53	9.73	H
	2544	-55.97	-13	-42.97	-67.9	-63.98	0.67	10.83	H
	3392	-54.67	-13	-41.67	-68.64	-64.03	0.77	12.28	H
									H
									H
									H
									H
	1696	-58.50	-13	-45.50	-67.2	-65.55	0.53	9.73	V
	2544	-54.99	-13	-41.99	-67.57	-63	0.67	10.83	V
	3392	-54.03	-13	-41.03	-68.13	-63.39	0.77	12.28	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 3MHz / QPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1688	-58.20	-13	-45.20	-67.26	-65.23	0.53	9.71	H
	2536	-56.73	-13	-43.73	-68.58	-64.74	0.66	10.82	H
	3384	-53.46	-13	-40.46	-67.41	-62.79	0.77	12.25	H
									H
									H
									H
									H
	1688	-58.45	-13	-45.45	-67.2	-65.48	0.53	9.71	V
	2536	-55.29	-13	-42.29	-67.98	-63.3	0.66	10.82	V
	3384	-54.60	-13	-41.60	-68.64	-63.93	0.77	12.25	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 5 / 5MHz / QPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1688	-57.44	-13	-44.44	-66.38	-64.47	0.53	9.71	H
	2536	-56.94	-13	-43.94	-68.83	-64.95	0.66	10.82	H
	3376	-54.81	-13	-41.81	-68.81	-64.12	0.77	12.23	H
									H
									H
									H
									H
	1688	-57.75	-13	-44.75	-66.49	-64.78	0.53	9.71	V
	2536	-55.32	-13	-42.32	-68.01	-63.33	0.66	10.82	V
	3376	-54.55	-13	-41.55	-68.63	-63.86	0.77	12.23	V
									V
									V
								V	

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 / 10MHz / QPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1680	-57.97	-13	-44.97	-66.88	-64.99	0.53	9.70	H
	2520	-54.75	-13	-41.75	-66.63	-62.75	0.66	10.81	H
	3352	-54.90	-13	-41.90	-69.01	-64.14	0.76	12.16	H
									H
									H
									H
									H
	1680	-56.51	-13	-43.51	-65.18	-63.53	0.53	9.70	V
	2520	-55.35	-13	-42.35	-68	-63.35	0.66	10.81	V
	3352	-54.43	-13	-41.43	-68.57	-63.67	0.76	12.16	V
									V
									V
								V	

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.