

**APPENDIX A – TEST DATA OF CONDUCTED EMISSION**

**LTE Band CA\_38C**

**1 RF Power Output**

Bandwidth	Modulation	Channel	RB Configuration	Conducted power (dBm)
15MHz-15MHz	QPSK-QPSK	37825-37975	16RB#0-0RB#0	22.88
			1RB#0-0RB#0	22.75
		37925-38075	16RB#0-0RB#0	22.88
			1RB#0-0RB#0	22.75
		38025-38175	16RB#0-0RB#0	22.92
			1RB#0-0RB#0	22.80
	16QAM-16QAM	37825-37975	16RB#0-0RB#0	21.92
			1RB#0-0RB#0	22.03
		37925-38075	16RB#0-0RB#0	22.00
			1RB#0-0RB#0	22.03
		38025-38175	16RB#0-0RB#0	21.99
			1RB#0-0RB#0	22.11
	64QAM-64QAM	37825-37975	16RB#0-0RB#0	20.93
			1RB#0-0RB#0	20.62
		37925-38075	16RB#0-0RB#0	21.01
			1RB#0-0RB#0	20.80
		38025-38175	16RB#0-0RB#0	20.99
			1RB#0-0RB#0	20.80
	256QAM-256QAM	37825-37975	16RB#0-0RB#0	18.07
			1RB#0-0RB#0	17.72
		37925-38075	16RB#0-0RB#0	18.09
			1RB#0-0RB#0	17.73
		38025-38175	16RB#0-0RB#0	18.10
			1RB#0-0RB#0	17.76
20MHz-20MHz	QPSK-QPSK	37850-38048	18RB#0-0RB#0	22.87
			1RB#0-0RB#0	22.89
		37901-38099	18RB#0-0RB#0	22.87
			1RB#0-0RB#0	22.70
		37952-38150	18RB#0-0RB#0	22.84
			1RB#0-0RB#0	22.73
	16QAM-16QAM	37850-38048	18RB#0-0RB#0	21.87
			1RB#0-0RB#0	21.90
		37901-38099	18RB#0-0RB#0	21.92

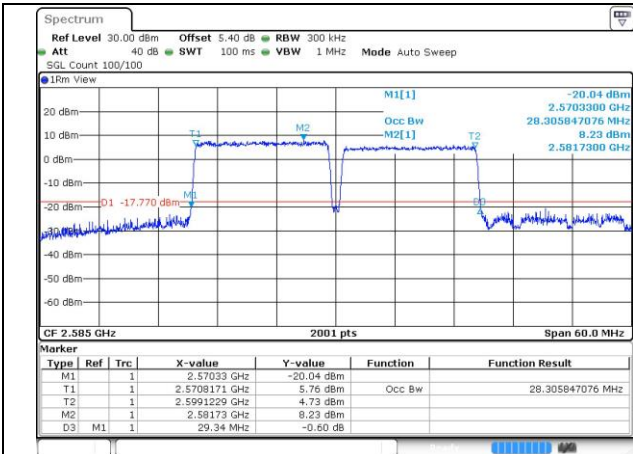
	64QAM-64QAM	37952-38150	1RB#0-0RB#0	22.04
			18RB#0-0RB#0	21.90
		37850-38048	1RB#0-0RB#0	21.99
			18RB#0-0RB#0	20.90
		37901-38099	1RB#0-0RB#0	20.96
			18RB#0-0RB#0	20.92
	256QAM-256QAM	37952-38150	18RB#0-0RB#0	20.91
			1RB#0-0RB#0	20.87
		37850-38048	18RB#0-0RB#0	18.01
			1RB#0-0RB#0	17.75
		37901-38099	18RB#0-0RB#0	18.02
			1RB#0-0RB#0	17.73
		37952-38150	18RB#0-0RB#0	17.96
			1RB#0-0RB#0	17.76

**Test on the worst case:**

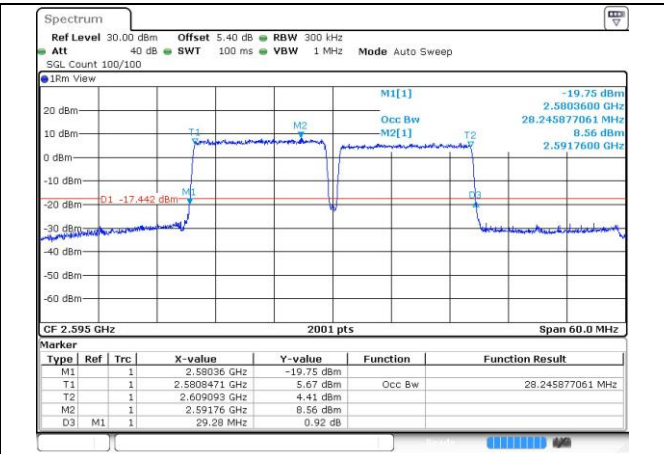
Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)
38-38	15MHz-15MHz	QPSK-QPSK	37825-37975	1RB#0-0RB#0	22.68
			37925-38075	1RB#0-0RB#0	22.57
			38025-38175	1RB#0-0RB#0	22.64

## 2 Occupied Bandwidth& Emission Bandwidth

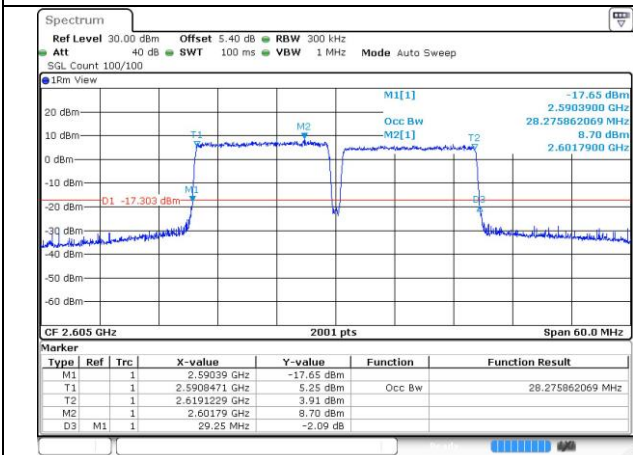
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
CA-38C	15MHz-15MHz	QPSK-QPSK	37825-37975	75RB#0-75RB#0	28.306	29.340
			37925-38075	75RB#0-75RB#0	28.246	29.280
			38025-38175	75RB#0-75RB#0	28.276	29.250
		16QAM-16QAM	37825-37975	75RB#0-75RB#0	28.276	29.280
			37925-38075	75RB#0-75RB#0	28.276	29.280
			38025-38175	75RB#0-75RB#0	28.246	29.310
		64QAM-64QAM	37825-37975	75RB#0-75RB#0	28.306	29.340
			37925-38075	75RB#0-75RB#0	28.276	29.280
			38025-38175	75RB#0-75RB#0	28.276	29.340
		256QAM-256QAM	37825-37975	75RB#0-75RB#0	28.306	29.340
			37925-38075	75RB#0-75RB#0	28.306	29.340
			38025-38175	75RB#0-75RB#0	28.306	29.340
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	37.483	39.040
			37901-38099	100RB#0-100RB#0	37.483	39.120
			37952-38150	100RB#0-100RB#0	37.483	39.040
		16QAM-16QAM	37850-38048	100RB#0-100RB#0	37.483	39.120
			37901-38099	100RB#0-100RB#0	37.483	39.120
			37952-38150	100RB#0-100RB#0	37.483	39.120
		64QAM-64QAM	37850-38048	100RB#0-100RB#0	37.483	39.040
			37901-38099	100RB#0-100RB#0	37.483	39.040
			37952-38150	100RB#0-100RB#0	37.483	39.120
		256QAM-256QAM	37850-38048	100RB#0-100RB#0	37.483	39.120
			37901-38099	100RB#0-100RB#0	37.562	39.040
			37952-38150	100RB#0-100RB#0	37.483	39.040



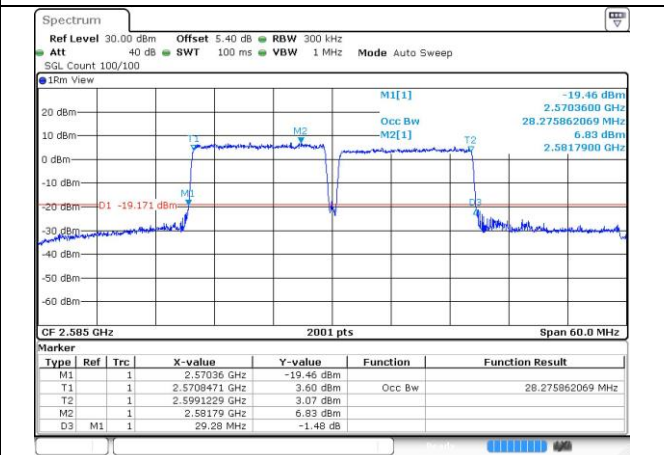
38-38-15MHz-15MHz-QPSK-QPSK-37825-37975-75R  
B#0-75RB#0



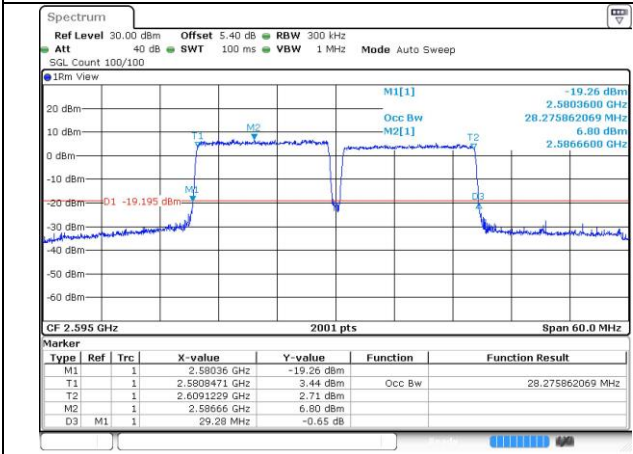
38-38-15MHz-15MHz-QPSK-QPSK-37925-38075-75R  
B#0-75RB#0



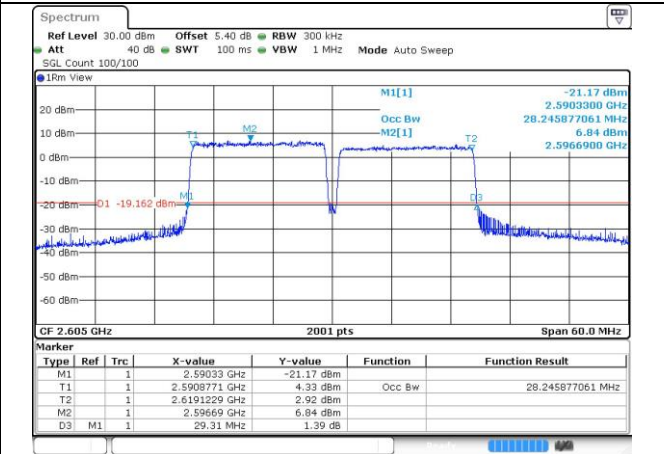
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B#0-75RB#0



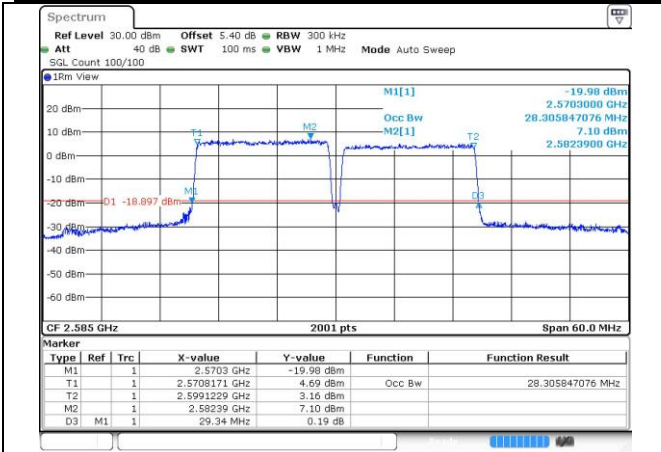
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75RB#0-75RB#0



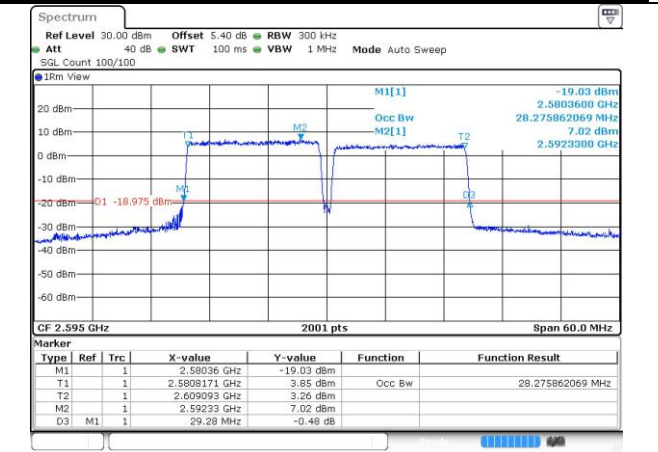
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75RB#0-75RB#0



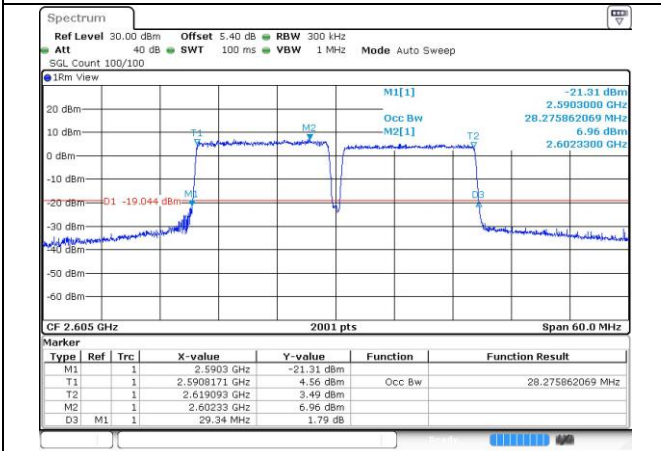
38-38-15MHz-15MHz-16QAM-16QAM-38025-38175-  
75RB#0-75RB#0



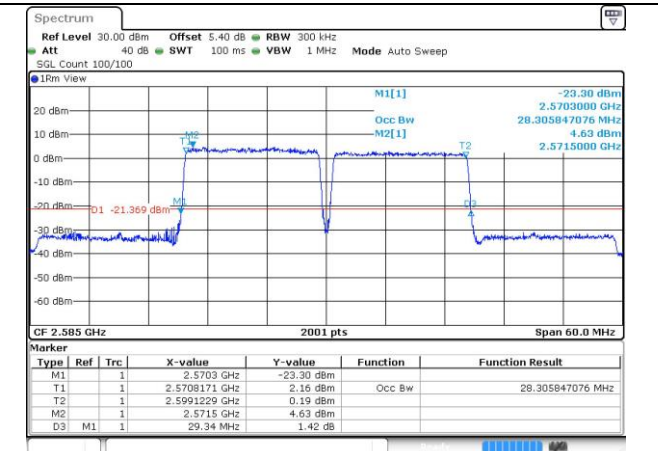
38-38-15MHz-15MHz-64QAM-64QAM-37825-37975-75RB#0-75RB#0



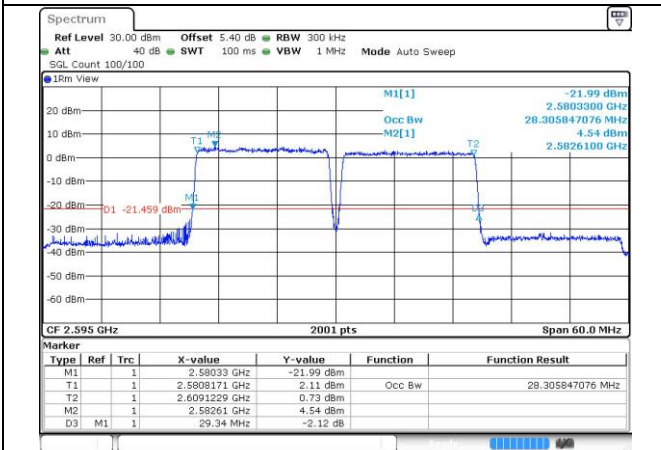
38-38-15MHz-15MHz-64QAM-64QAM-37925-38075-75RB#0-75RB#0



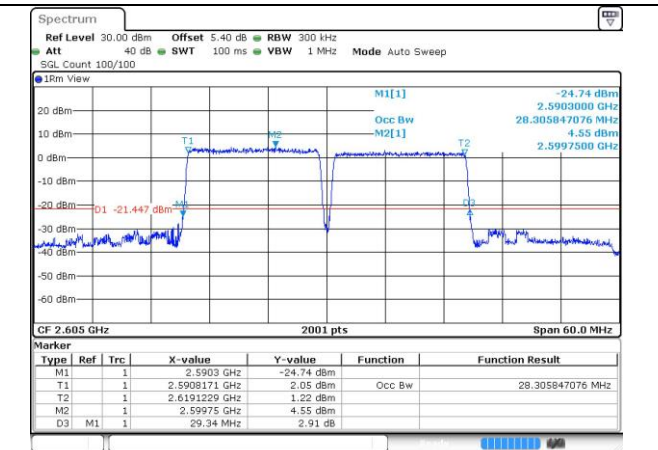
38-38-15MHz-15MHz-64QAM-64QAM-38025-38175-75RB#0-75RB#0



38-38-15MHz-15MHz-256QAM-256QAM-37825-37975-5-75RB#0-75RB#0

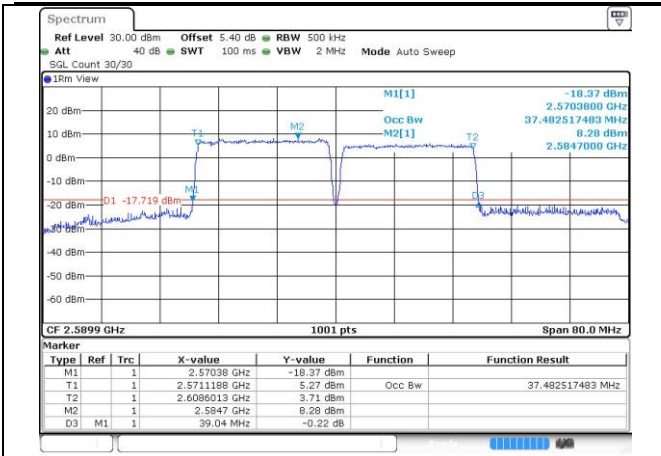


38-38-15MHz-15MHz-256QAM-256QAM-37925-38075-5-75RB#0-75RB#0

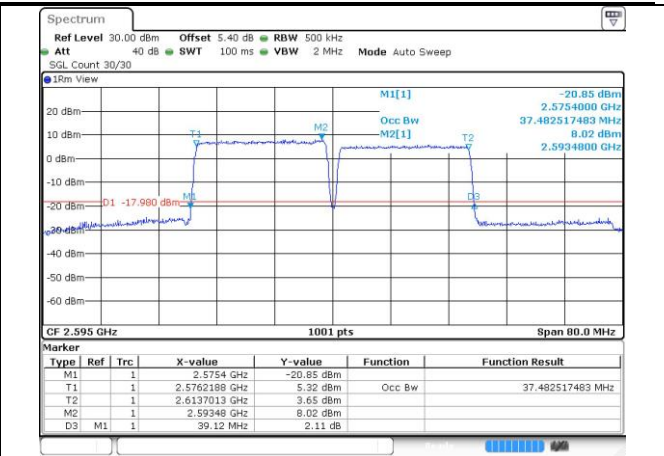


38-38-15MHz-15MHz-256QAM-256QAM-38025-38175-5-75RB#0-75RB#0

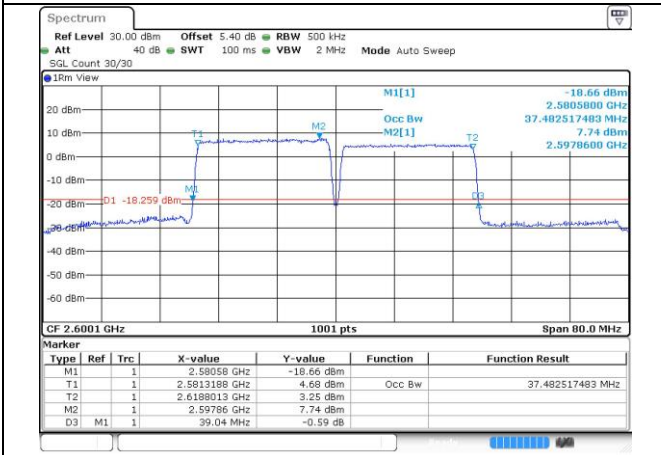




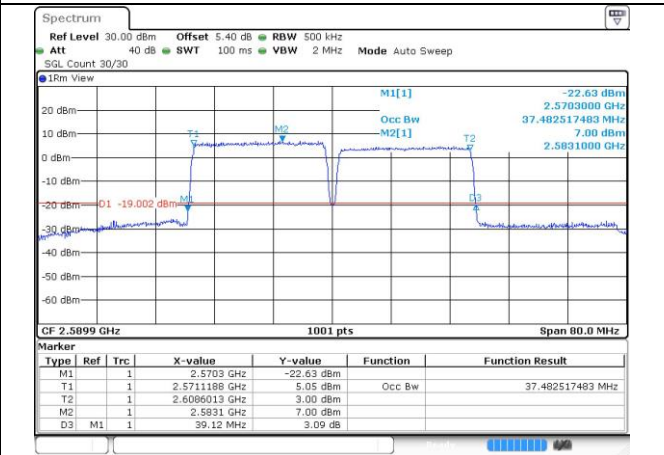
38-38-20MHz-20MHz-QPSK-QPSK-37850-38048-100 RB#0-100RB#0



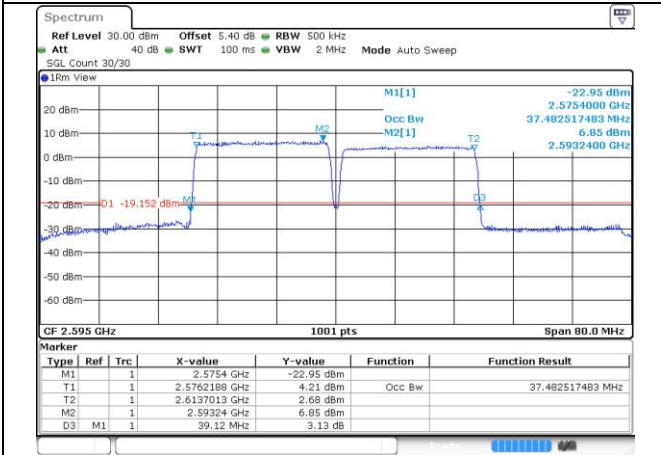
38-38-20MHz-20MHz-QPSK-QPSK-37901-38099-100 RB#0-100RB#0



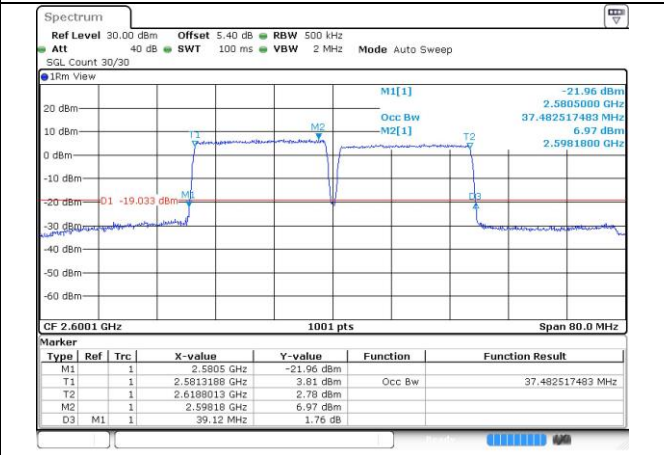
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150-100 RB#0-100RB#0



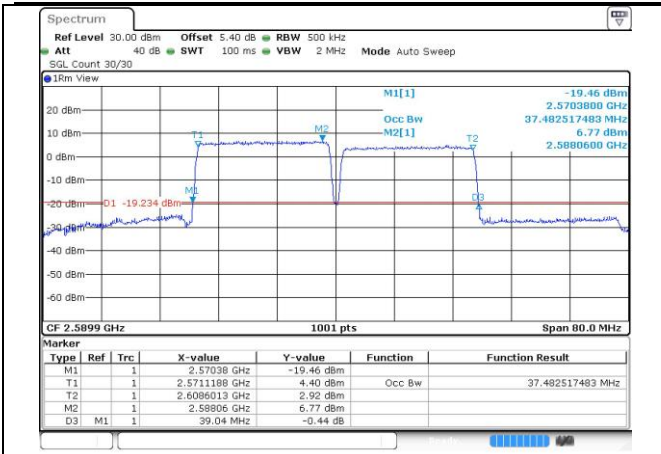
38-38-20MHz-20MHz-16QAM-16QAM-37850-38048-100RB#0-100RB#0



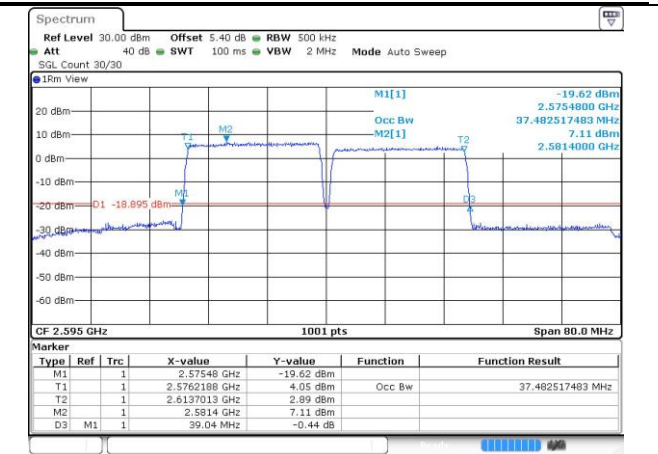
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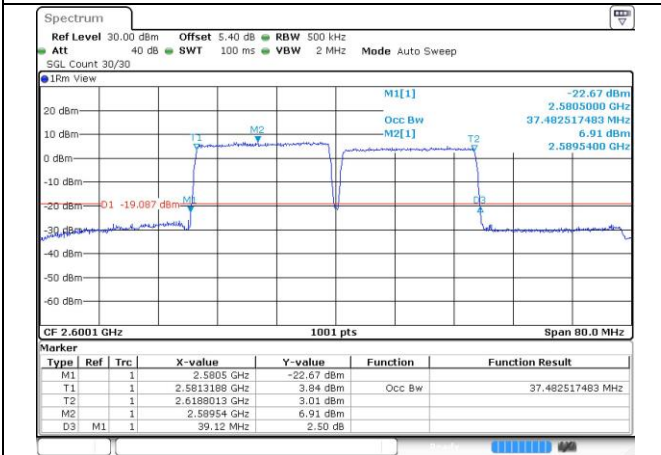
38-38-20MHz-20MHz-16QAM-16QAM-37952-38150-100RB#0-100RB#0



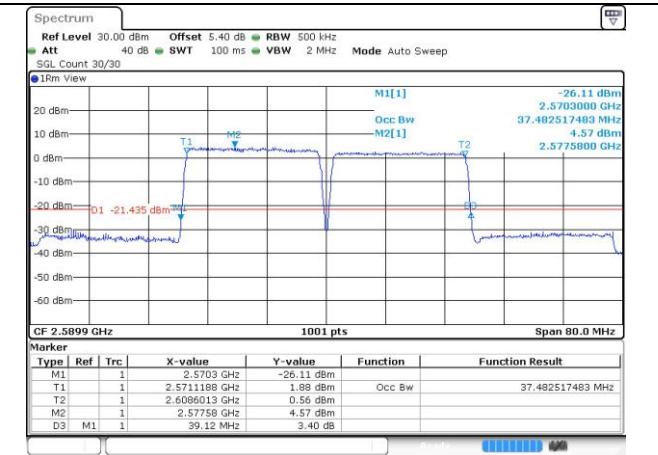
38-38-20MHz-20MHz-64QAM-64QAM-37850-38048-100RB#0-100RB#0



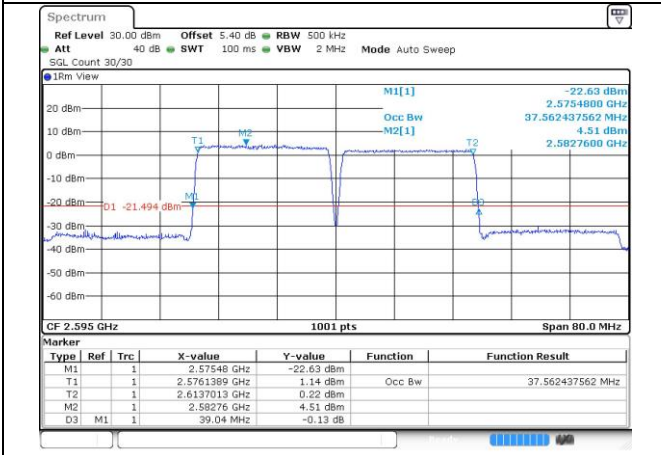
38-38-20MHz-20MHz-64QAM-64QAM-37901-38099-100RB#0-100RB#0



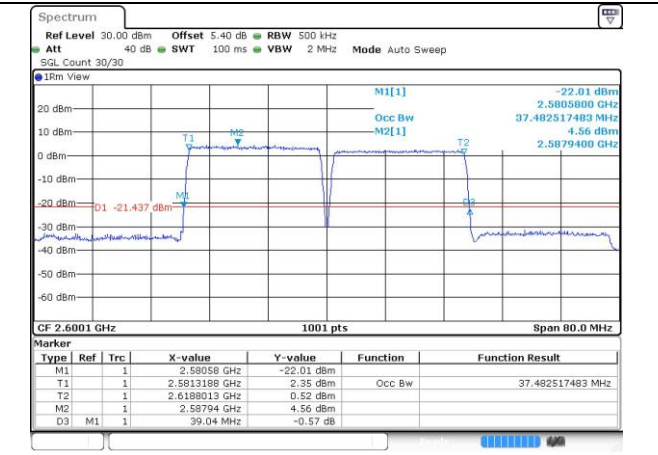
38-38-20MHz-20MHz-64QAM-64QAM-37952-38150-100RB#0-100RB#0



38-38-20MHz-20MHz-256QAM-256QAM-37850-38048-8-100RB#0-100RB#0



38-38-20MHz-20MHz-256QAM-256QAM-37901-38099-9-100RB#0-100RB#0

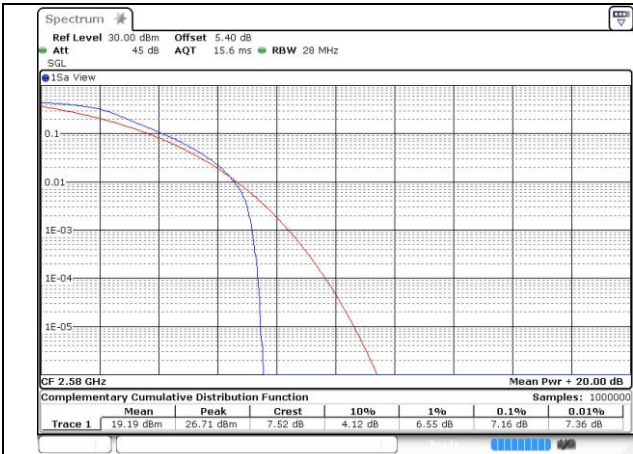


38-38-20MHz-20MHz-256QAM-256QAM-37952-38150-0-100RB#0-100RB#0

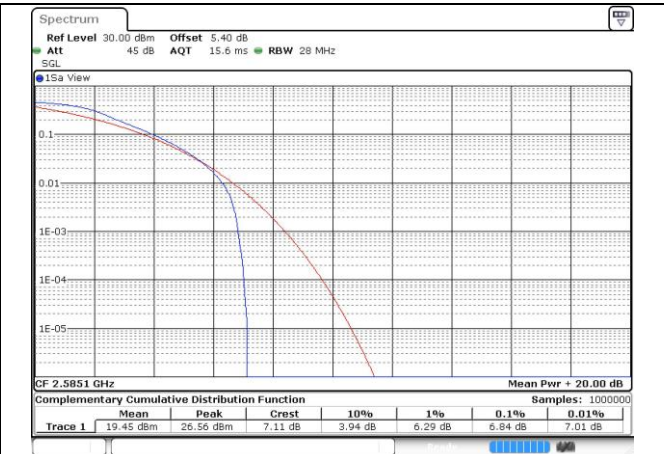
### 3 Peak-Average Ratio

Test Band	Modulation	Test Mode	Test Channel	PCC RB Config	SCC RB Config	Measured [dB]	Limit [dB]
CA_38C	QPSK	100RB+100RB	21048+20850	100RB#0	100RB#0	7.16	13.00
			21199+21001	100RB#0	100RB#0	6.84	13.00
			21350+21152	100RB#0	100RB#0	7.07	13.00
	16QAM	100RB+100RB	21048+20850	100RB#0	100RB#0	8.09	13.00
			21199+21001	100RB#0	100RB#0	8.00	13.00
			21350+21152	100RB#0	100RB#0	7.91	13.00
	64QAM	100RB+100RB	21048+20850	100RB#0	100RB#0	7.80	13.00
			21199+21001	100RB#0	100RB#0	8.67	13.00
			21350+21152	100RB#0	100RB#0	7.74	13.00
	256QAM	100RB+100RB	21048+20850	100RB#0	100RB#0	8.87	13.00
			21199+21001	100RB#0	100RB#0	8.55	13.00
			21350+21152	100RB#0	100RB#0	8.75	13.00

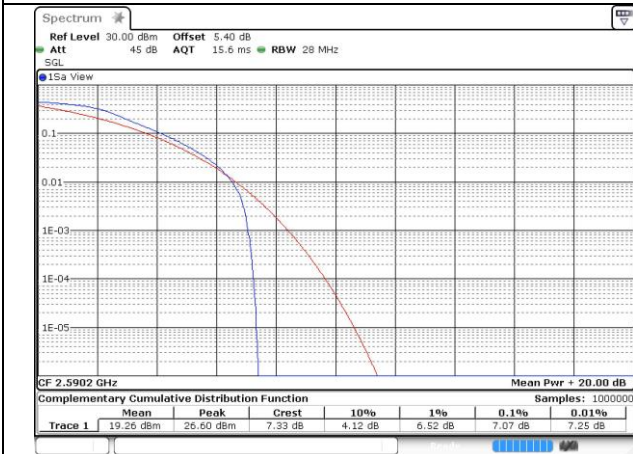




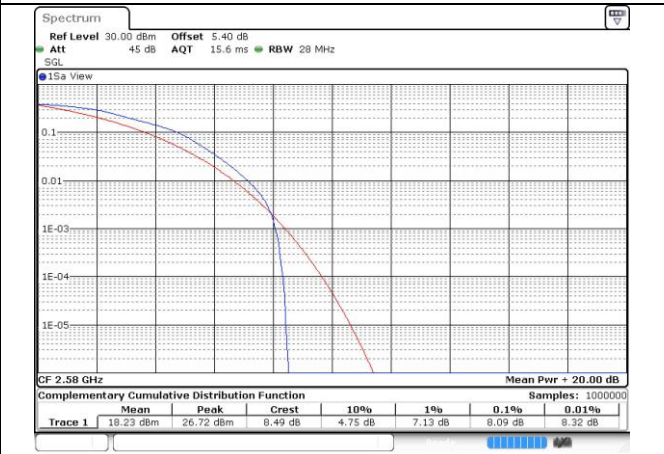
CA\_38C\_100RB+100RB\_QPSK\_37850+38048\_100 RB#0+100RB#0



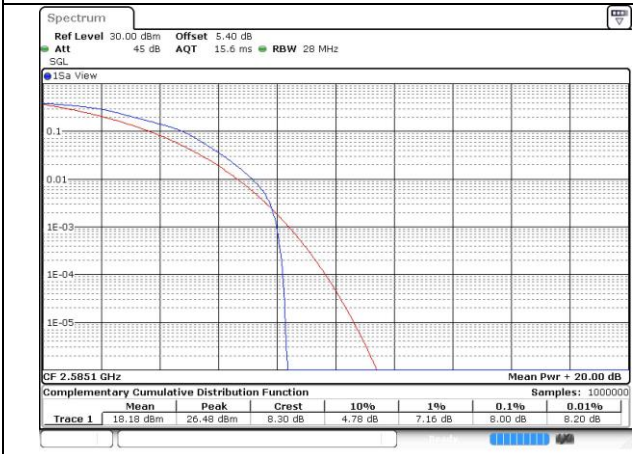
CA\_38C\_100RB+100RB\_QPSK\_37901+38099\_100 RB#0+100RB#0



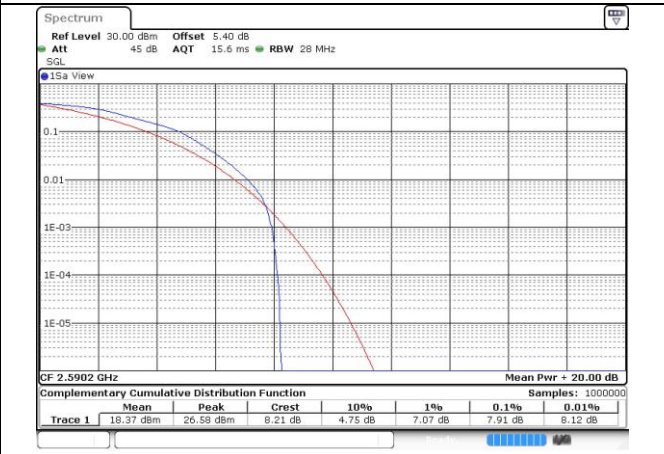
CA\_38C\_100RB+100RB\_QPSK\_37952+38150\_100 RB#0+100RB#0



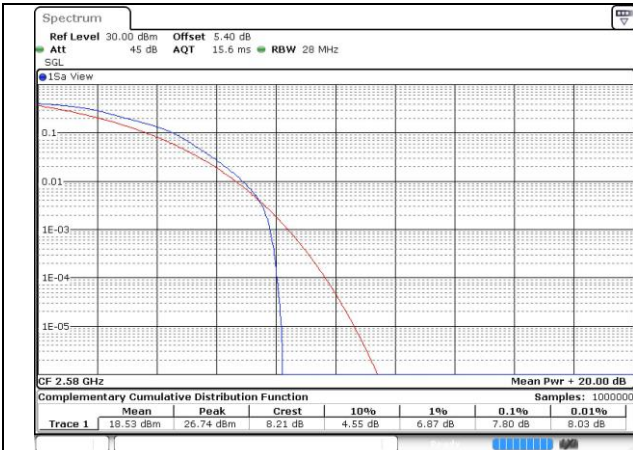
CA\_38C\_100RB+100RB\_16QAM\_37850+38048\_100 RB#0+100RB#0



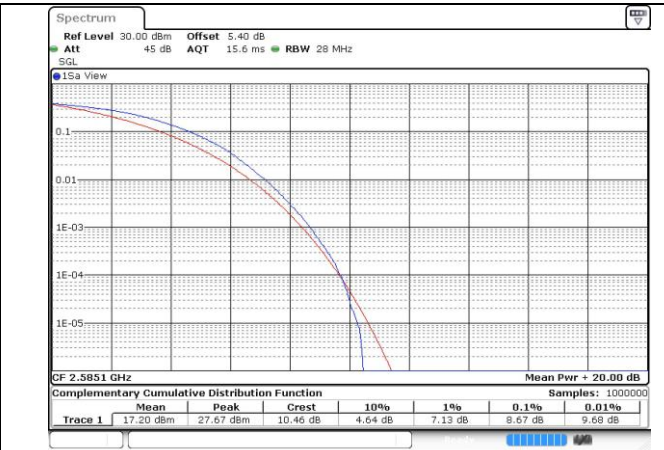
CA\_38C\_100RB+100RB\_16QAM\_37901+38099\_100 RB#0+100RB#0



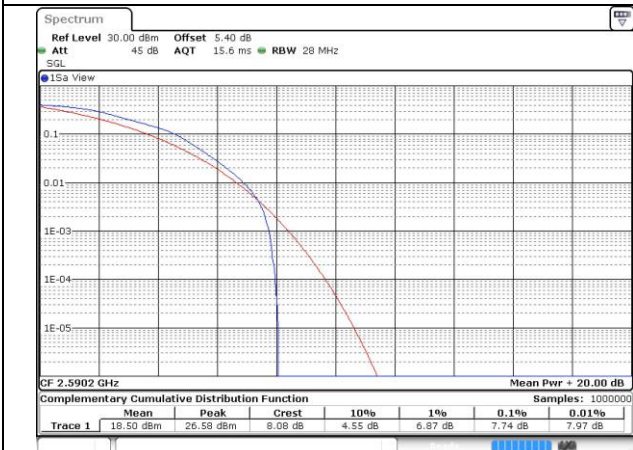
CA\_38C\_100RB+100RB\_16QAM\_37952+38150\_100 RB#0+100RB#0



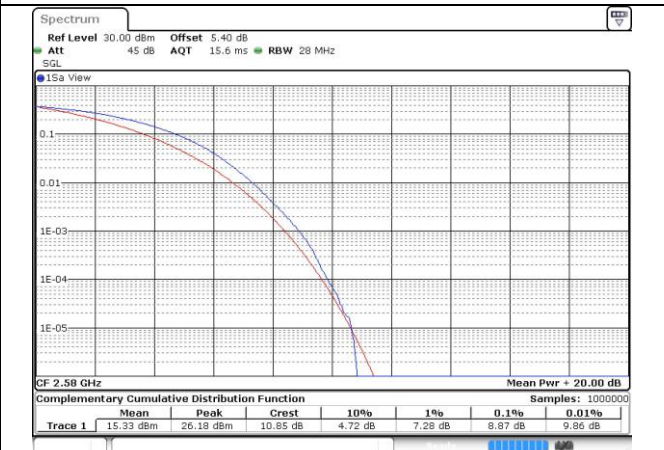
CA\_38C\_100RB+100RB\_64QAM\_37850+38048\_100RB#0+100RB#0



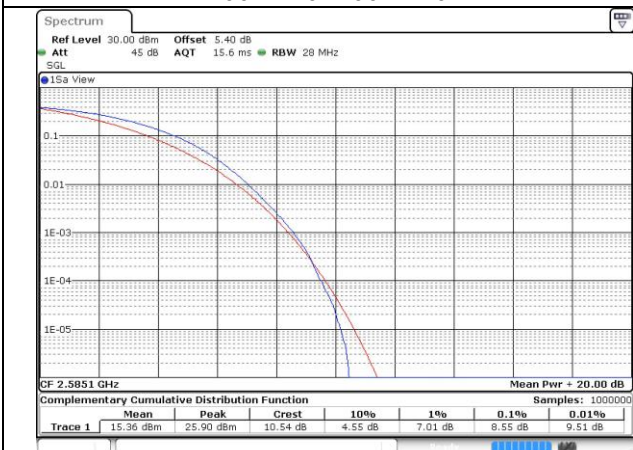
CA\_38C\_100RB+100RB\_64QAM\_37901+38099\_100RB#0+100RB#0



CA\_38C\_100RB+100RB\_64QAM\_37952+38150\_100RB#0+100RB#0



CA\_38C\_100RB+100RB\_256QAM\_37850+38048\_100RB#0+100RB#0



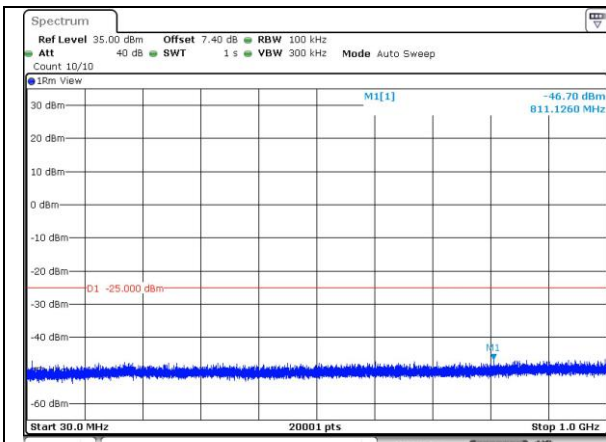
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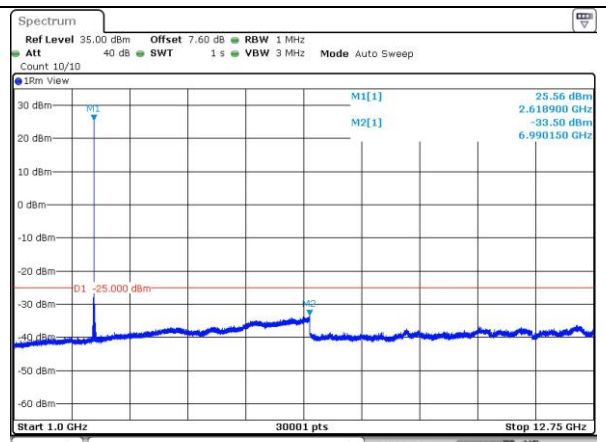
CA\_38C\_100RB+100RB\_256QAM\_37952+38150\_100RB#0+100RB#0



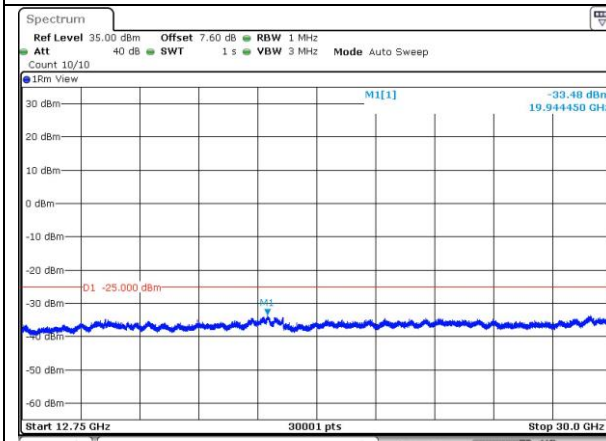
**4 Spurious Emissions at antenna terminal**



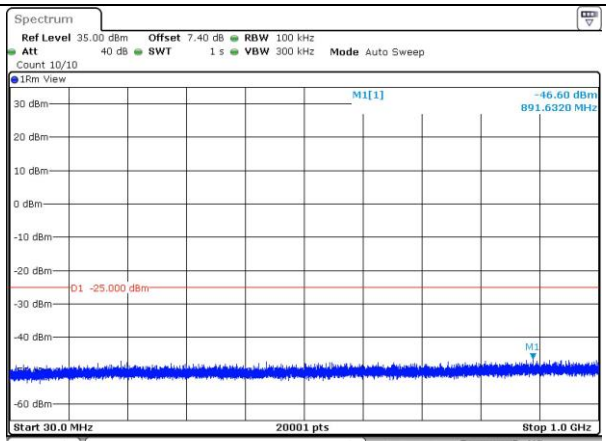
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-ORB#0-1RB#99-30~1000MHz



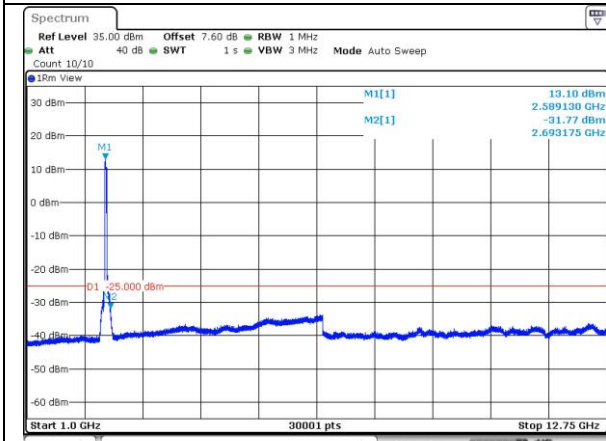
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-ORB#0-1RB#99-1000~12750MHz



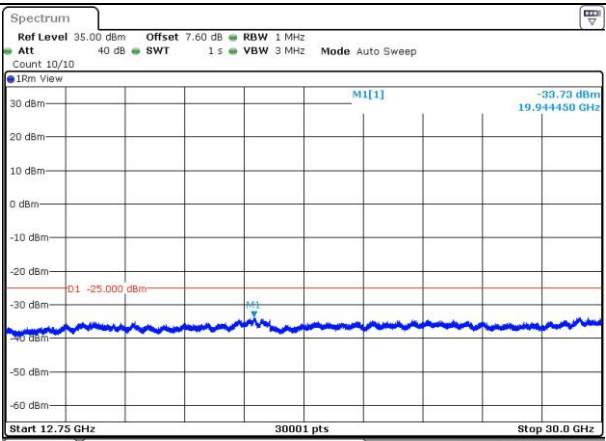
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-ORB#0-1RB#99-12750~30000MHz



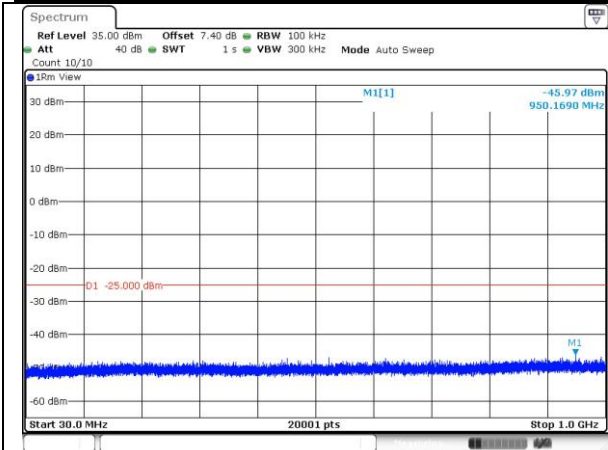
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-100RB#0-100RB#0-30~1000MHz



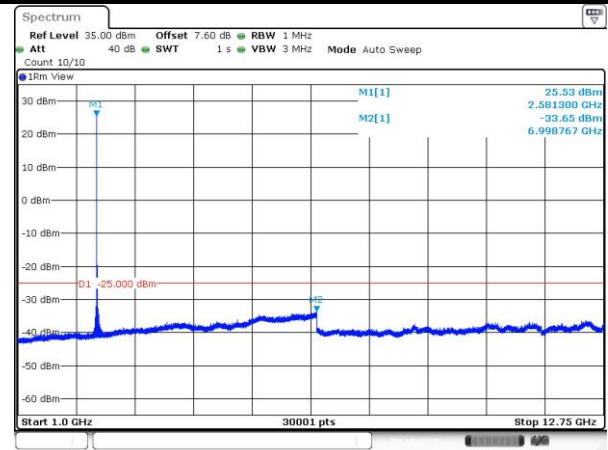
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-100RB#0-100RB#0-1000~12750MHz



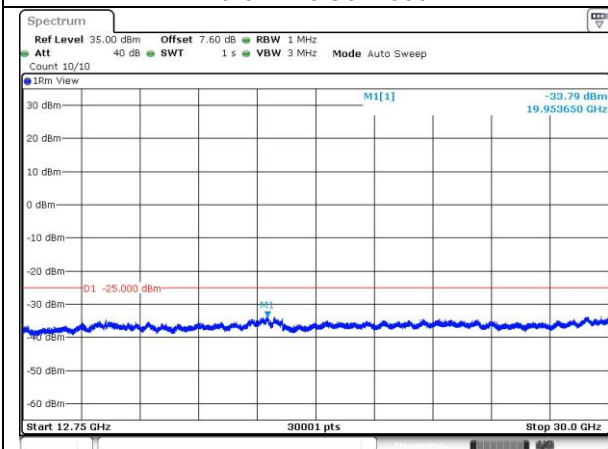
38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-100RB#0-100RB#0-12750~30000MHz



38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-1RB#0-ORB#0-30~1000MHz

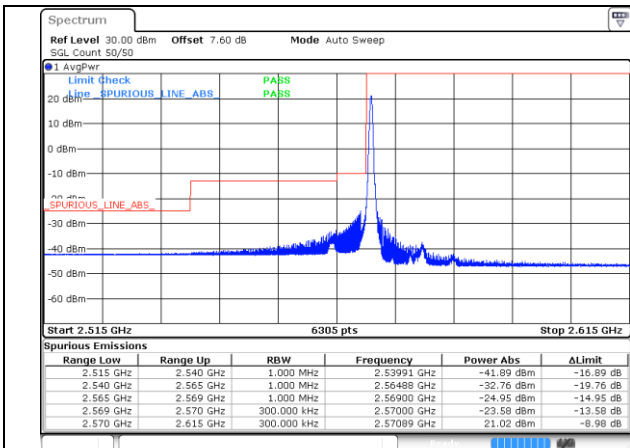


38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-1RB#0-ORB#0-1000~12750MHz

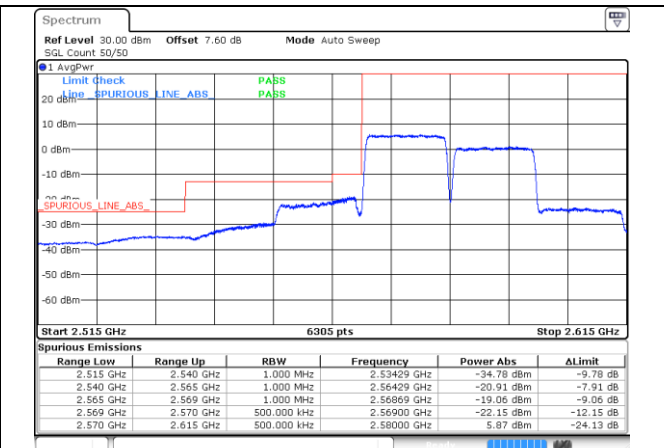


38-38-20MHz-20MHz-QPSK-QPSK-37952-38150  
-1RB#0-ORB#0-12750~30000MHz

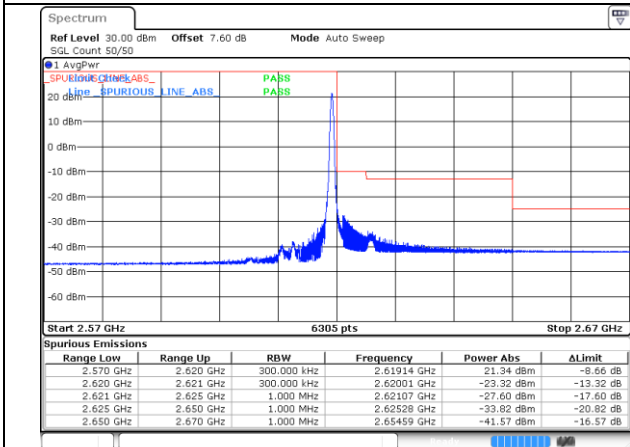
### 5 Band Edges Compliance



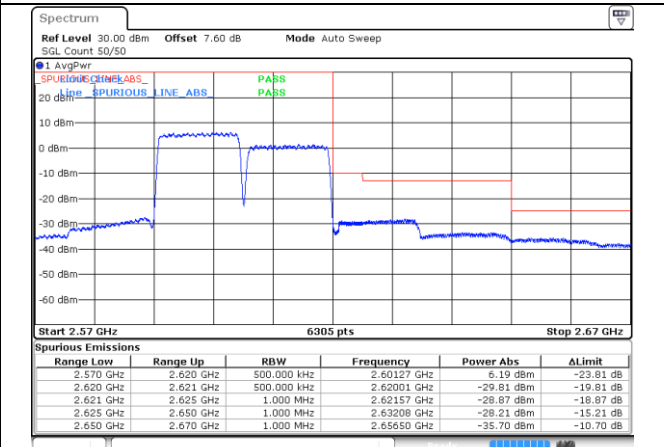
CA\_38C\_75RB+75RB\_QPSK\_37825+37975\_1RB#0+0RB#0



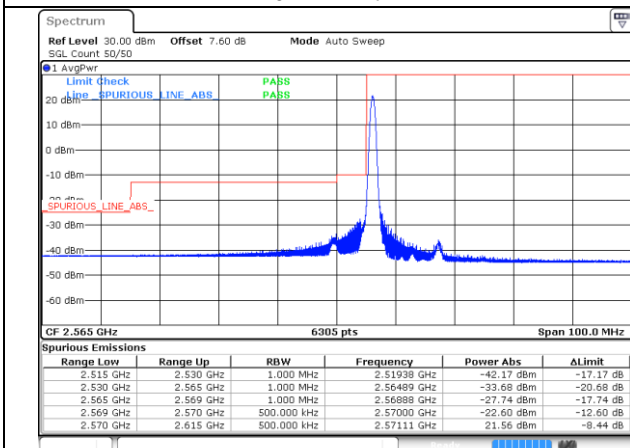
CA\_38C\_75RB+75RB\_QPSK\_37825+37975\_75RB#0+75RB#0



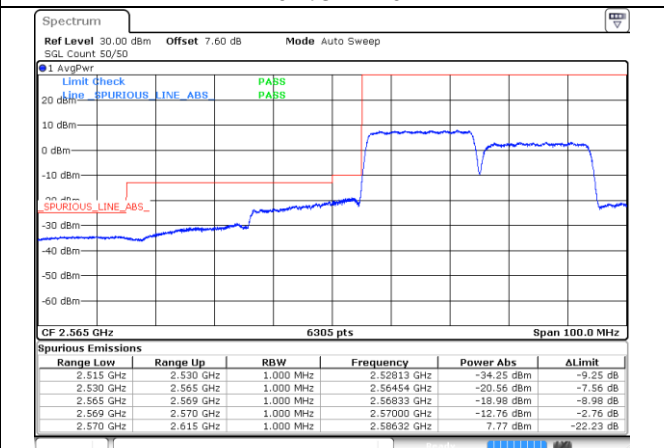
CA\_38C\_75RB+75RB\_QPSK\_38025+38175\_0RB#0+1RB#74



CA\_38C\_75RB+75RB\_QPSK\_38025+38175\_75RB#0+75RB#0

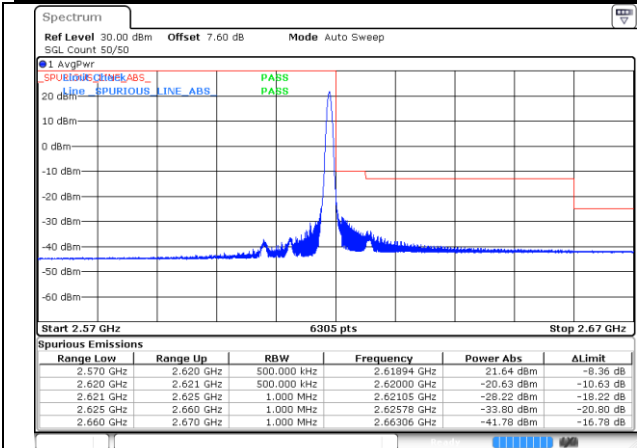


CA\_38C\_100RB+100RB\_QPSK\_37850+38048\_1RB#0+0RB#0

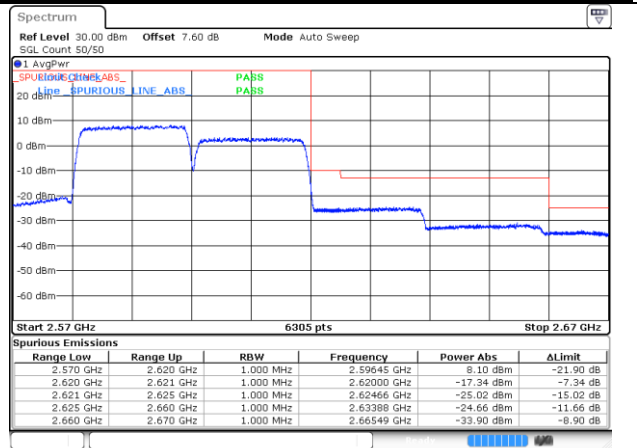


CA\_38C\_100RB+100RB\_QPSK\_37850+38048\_100RB#0+100RB#0





CA\_38C\_100RB+100RB\_QPSK\_37952+38150\_0R  
B#0+1RB#99



CA\_38C\_100RB+100RB\_QPSK\_37952+38150\_100  
RB#0+100RB#0

## 6 Frequency Stability

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
CA-38C	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	VH	NT	13.40	0.005194	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	VL	NT	10.70	0.004147	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	VN	NT	3.40	0.001318	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	VH	NT	16.70	0.006460	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	VL	NT	12.80	0.004951	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	VN	NT	11.90	0.004603	±2.5
	20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	VH	NT	13.90	0.005366	±2.5
	20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	VL	NT	17.90	0.006911	±2.5
	20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	VN	NT	14.80	0.005714	±2.5

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
CA-38C	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	-30	11.40	0.004419	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	-20	15.80	0.006124	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	-10	17.50	0.006783	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	0	15.40	0.005969	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	10	9.10	0.003527	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	20	3.50	0.001357	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	30	14.20	0.005504	±2.5
	20MHz-20MHz	QPSK-QPSK	37850-38048	100RB#0-100RB#0	NV	-50	14.00	0.005426	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	0	16.40	0.006344	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	-50	8.80	0.003404	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	-30	16.50	0.006383	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	-10	10.20	0.003946	±2.5
	20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	10	12.40	0.004797	±2.5

20MHz		38099	100RB#0						
20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	20	18.40	0.007118	±2.5	
20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	30	15.70	0.006073	±2.5	
20MHz-20MHz	QPSK-QPSK	37901-38099	100RB#0-100RB#0	NV	-20	19.00	0.007350	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	30	16.20	0.006254	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	-50	18.50	0.007142	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	-30	13.00	0.005019	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	-20	13.80	0.005328	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	-10	13.80	0.005328	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	0	12.40	0.004787	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	10	19.50	0.007528	±2.5	
20MHz-20MHz	QPSK-QPSK	37952-38150	100RB#0-100RB#0	NV	20	18.40	0.007104	±2.5	

## 7 Effective Radiated Power and Effective Isotropic Radiated Power

Bandwidth	Modulation	Channel	RB Configuration	Conducted power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
15MHz-15MHz	QPSK-QPSK	37825-37975	16RB#0-0RB#0	22.88	20.88	0.122
			1RB#0-0RB#0	22.75	20.75	0.119
		37925-38075	16RB#0-0RB#0	22.88	20.88	0.122
			1RB#0-0RB#0	22.75	20.75	0.119
		38025-38175	16RB#0-0RB#0	22.92	20.92	0.124
			1RB#0-0RB#0	22.80	20.8	0.120
	16QAM-16QAM	37825-37975	16RB#0-0RB#0	21.92	19.92	0.098
			1RB#0-0RB#0	22.03	20.03	0.101
		37925-38075	16RB#0-0RB#0	22.00	20	0.100
			1RB#0-0RB#0	22.03	20.03	0.101
		38025-38175	16RB#0-0RB#0	21.99	19.99	0.100
			1RB#0-0RB#0	22.11	20.11	0.103
	64QAM-64QAM	37825-37975	16RB#0-0RB#0	20.93	18.93	0.078
			1RB#0-0RB#0	20.62	18.62	0.073
		37925-38075	16RB#0-0RB#0	21.01	19.01	0.080
			1RB#0-0RB#0	20.80	18.8	0.076
		38025-38175	16RB#0-0RB#0	20.99	18.99	0.079
			1RB#0-0RB#0	20.80	18.8	0.076
	256QAM-256QAM	37825-37975	16RB#0-0RB#0	18.07	16.07	0.040
			1RB#0-0RB#0	17.72	15.72	0.037
		37925-38075	16RB#0-0RB#0	18.09	16.09	0.041
			1RB#0-0RB#0	17.73	15.73	0.037
		38025-38175	16RB#0-0RB#0	18.10	16.1	0.041
			1RB#0-0RB#0	17.76	15.76	0.038
20MHz-20MHz	QPSK-QPSK	37850-38048	18RB#0-0RB#0	22.87	20.87	0.122
			1RB#0-0RB#0	22.89	20.89	0.123
		37901-38099	18RB#0-0RB#0	22.87	20.87	0.122
			1RB#0-0RB#0	22.70	20.7	0.117
		37952-38150	18RB#0-0RB#0	22.84	20.84	0.121
			1RB#0-0RB#0	22.73	20.73	0.118
	16QAM-16QAM	37850-38048	18RB#0-0RB#0	21.87	19.87	0.097
			1RB#0-0RB#0	21.90	19.9	0.098
		37901-38099	18RB#0-0RB#0	21.92	19.92	0.098

		37952-38150	1RB#0-0RB#0	22.04	20.04	0.101	
			18RB#0-0RB#0	21.90	19.9	0.098	
			1RB#0-0RB#0	21.99	19.99	0.100	
	64QAM-64QAM	37850-38048		18RB#0-0RB#0	20.90	18.9	0.078
				1RB#0-0RB#0	20.96	18.96	0.079
		37901-38099		18RB#0-0RB#0	20.92	18.92	0.078
				1RB#0-0RB#0	20.91	18.91	0.078
		37952-38150		18RB#0-0RB#0	20.91	18.91	0.078
				1RB#0-0RB#0	20.87	18.87	0.077
	256QAM-256QAM	37850-38048		18RB#0-0RB#0	18.01	16.01	0.040
				1RB#0-0RB#0	17.75	15.75	0.038
		37901-38099		18RB#0-0RB#0	18.02	16.02	0.040
				1RB#0-0RB#0	17.73	15.73	0.037
		37952-38150		18RB#0-0RB#0	17.96	15.96	0.039
				1RB#0-0RB#0	17.76	15.76	0.038

### Test on the worst case:

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted power (dBm)	ERP/EIRP (dBm)	ERP/EIRP (W)
38-38	15MHz-15MHz	QPSK-QPSK	37825-37975	1RB#0-0RB#0	22.68	20.68	0.117
			37925-38075	1RB#0-0RB#0	22.57	20.57	0.114
			38025-38175	1RB#0-0RB#0	22.64	20.64	0.116