



# Appendix B

## E-UTRA Band 38



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# 1. Effective (Isotropic) Radiated Power

## 1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	23.18	25.24	33.00	PASS
Band38	5MHz	QPSK	37775	1RB#12	23.10	25.16	33.00	PASS
Band38	5MHz	QPSK	37775	1RB#24	23.09	25.15	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#0	22.22	24.28	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#6	22.25	24.31	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#13	22.15	24.21	33.00	PASS
Band38	5MHz	QPSK	37775	25RB#0	22.25	24.31	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#0	22.88	24.94	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#12	23.19	25.25	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#24	23.10	25.16	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#0	22.18	24.24	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#6	22.15	24.21	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#13	22.10	24.16	33.00	PASS
Band38	5MHz	QPSK	38000	25RB#0	22.20	24.26	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#0	22.98	25.04	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#12	23.31	25.37	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#24	22.98	25.04	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#0	22.14	24.20	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#6	22.09	24.15	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#13	22.11	24.17	33.00	PASS
Band38	5MHz	QPSK	38225	25RB#0	22.14	24.20	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#0	21.48	23.54	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#12	21.55	23.61	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#24	21.50	23.56	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#0	20.98	23.04	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#6	21.10	23.16	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#13	21.00	23.06	33.00	PASS
Band38	5MHz	16QAM	37775	25RB#0	21.26	23.32	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#0	21.56	23.62	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#12	21.50	23.56	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#24	21.36	23.42	33.00	PASS
Band38	5MHz	16QAM	38000	12RB#0	20.91	22.97	33.00	PASS



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Band38	5MHz	16QAM	38000	12RB#6	21.06	23.12	33.00	PASS
Band38	5MHz	16QAM	38000	12RB#13	21.00	23.06	33.00	PASS
Band38	5MHz	16QAM	38000	25RB#0	21.24	23.30	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#0	21.59	23.65	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#12	21.60	23.66	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#24	21.59	23.65	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#0	20.92	22.98	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#6	21.00	23.06	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#13	21.02	23.08	33.00	PASS
Band38	5MHz	16QAM	38225	25RB#0	21.15	23.21	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#0	23.32	25.38	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#24	23.51	25.57	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#49	23.03	25.09	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#0	22.33	24.39	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#12	22.37	24.43	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#25	22.21	24.27	33.00	PASS
Band38	10MHz	QPSK	37800	50RB#0	22.21	24.27	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#0	23.18	25.24	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#24	23.43	25.49	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#49	22.94	25.00	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#0	22.32	24.38	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#12	22.25	24.31	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#25	22.12	24.18	33.00	PASS
Band38	10MHz	QPSK	38000	50RB#0	22.19	24.25	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#0	23.20	25.26	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#24	23.42	25.48	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#49	22.94	25.00	33.00	PASS
Band38	10MHz	QPSK	38200	25RB#0	22.39	24.45	33.00	PASS
Band38	10MHz	QPSK	38200	25RB#12	22.18	24.24	33.00	PASS
Band38	10MHz	QPSK	38200	25RB#25	22.14	24.20	33.00	PASS
Band38	10MHz	QPSK	38200	50RB#0	22.15	24.21	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#0	21.98	24.04	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#24	21.87	23.93	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#49	21.60	23.66	33.00	PASS
Band38	10MHz	16QAM	37800	27RB#0	21.73	23.79	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#0	22.32	24.38	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#24	21.76	23.82	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#49	22.03	24.09	33.00	PASS



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Band38	10MHz	16QAM	38000	27RB#0	21.85	23.91	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#0	21.89	23.95	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#24	21.97	24.03	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#49	22.15	24.21	33.00	PASS
Band38	10MHz	16QAM	38200	27RB#0	21.93	23.99	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#0	23.01	25.07	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#38	22.85	24.91	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#74	23.13	25.19	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#0	22.11	24.17	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#18	22.02	24.08	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#39	21.80	23.86	33.00	PASS
Band38	15MHz	QPSK	37825	75RB#0	21.85	23.91	33.00	PASS
Band38	15MHz	QPSK	38000	1RB#0	22.88	24.94	33.00	PASS
Band38	15MHz	QPSK	38000	1RB#38	23.04	25.10	33.00	PASS
Band38	15MHz	QPSK	38000	1RB#74	23.03	25.09	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#0	22.13	24.19	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#18	22.06	24.12	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#39	21.89	23.95	33.00	PASS
Band38	15MHz	QPSK	38000	75RB#0	21.83	23.89	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#0	22.94	25.00	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#38	22.86	24.92	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#74	23.10	25.16	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#0	22.06	24.12	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#18	22.08	24.14	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#39	21.86	23.92	33.00	PASS
Band38	15MHz	QPSK	38175	75RB#0	22.07	24.13	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#0	21.91	23.97	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#38	21.90	23.96	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#74	22.03	24.09	33.00	PASS
Band38	15MHz	16QAM	37825	27RB#0	22.05	24.11	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#0	22.09	24.15	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#38	21.84	23.90	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#74	22.03	24.09	33.00	PASS
Band38	15MHz	16QAM	38000	27RB#0	21.90	23.96	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#0	22.06	24.12	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#38	21.92	23.98	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#74	22.19	24.25	33.00	PASS
Band38	15MHz	16QAM	38175	27RB#0	21.94	24.00	33.00	PASS



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Band38	20MHz	QPSK	37850	1RB#0	22.90	24.96	33.00	PASS
Band38	20MHz	QPSK	37850	1RB#49	23.01	25.07	33.00	PASS
Band38	20MHz	QPSK	37850	1RB#99	22.88	24.94	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#0	22.05	24.11	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#25	21.88	23.94	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#50	21.99	24.05	33.00	PASS
Band38	20MHz	QPSK	37850	100RB#0	22.13	24.19	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#0	23.16	25.22	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#49	22.80	24.86	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#99	23.00	25.06	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#0	21.95	24.01	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#25	21.97	24.03	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#50	21.99	24.05	33.00	PASS
Band38	20MHz	QPSK	38000	100RB#0	22.07	24.13	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#0	22.99	25.05	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#49	22.81	24.87	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#99	23.17	25.23	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#0	21.93	23.99	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#25	22.02	24.08	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#50	21.88	23.94	33.00	PASS
Band38	20MHz	QPSK	38150	100RB#0	22.00	24.06	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#0	21.94	24.00	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#49	22.09	24.15	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#99	22.01	24.07	33.00	PASS
Band38	20MHz	16QAM	37850	27RB#0	21.94	24.00	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#0	21.93	23.99	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#49	21.97	24.03	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#99	22.05	24.11	33.00	PASS
Band38	20MHz	16QAM	38000	27RB#0	21.89	23.95	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#0	21.82	23.88	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#49	22.01	24.07	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#99	21.83	23.89	33.00	PASS
Band38	20MHz	16QAM	38150	27RB#0	21.95	24.01	33.00	PASS

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

$$ERP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBd]}$$

$$EIRP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBi]}$$



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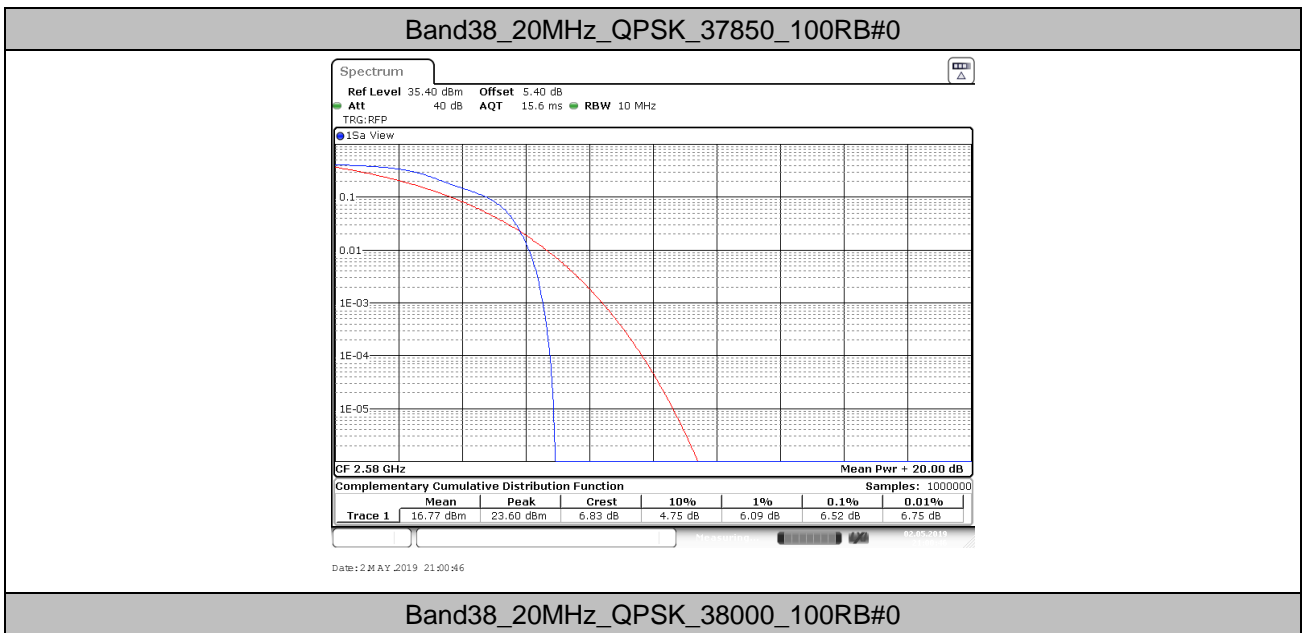
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## 2. Peak-to-Average Ratio(CCDF)

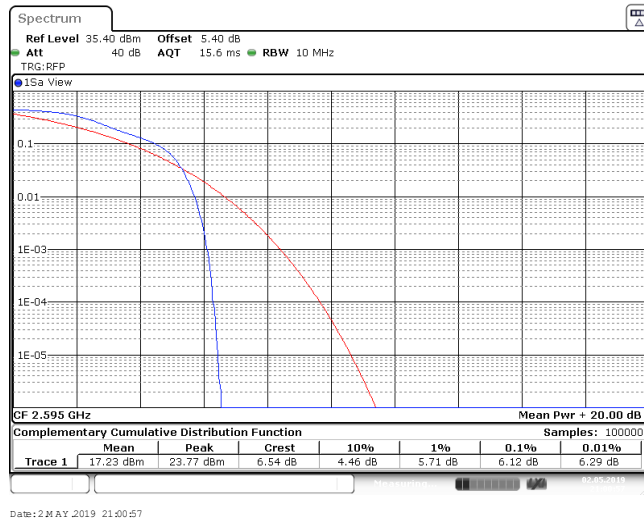
### 2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	6.52	13	PASS
Band38	20MHz	QPSK	38000	100RB#0	6.12	13	PASS
Band38	20MHz	QPSK	38150	100RB#0	5.94	13	PASS
Band38	20MHz	16QAM	37850	27RB#0	8.49	13	PASS
Band38	20MHz	16QAM	38000	27RB#0	7.74	13	PASS
Band38	20MHz	16QAM	38150	27RB#0	7.77	13	PASS

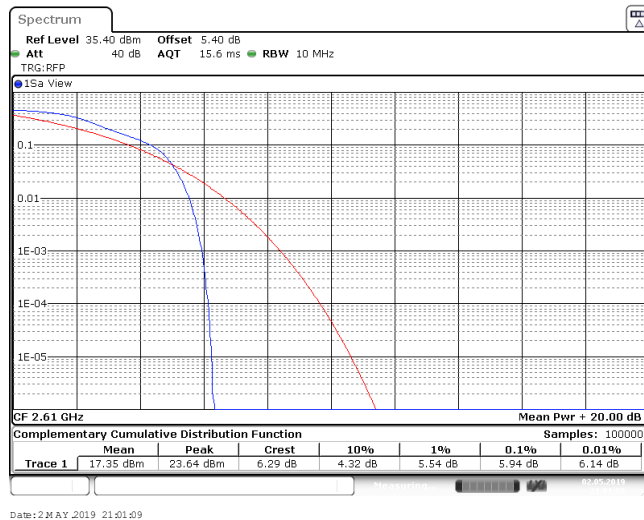
### 2.2. Test Plots



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**Band38\_20MHz\_QPSK\_38150\_100RB#0**



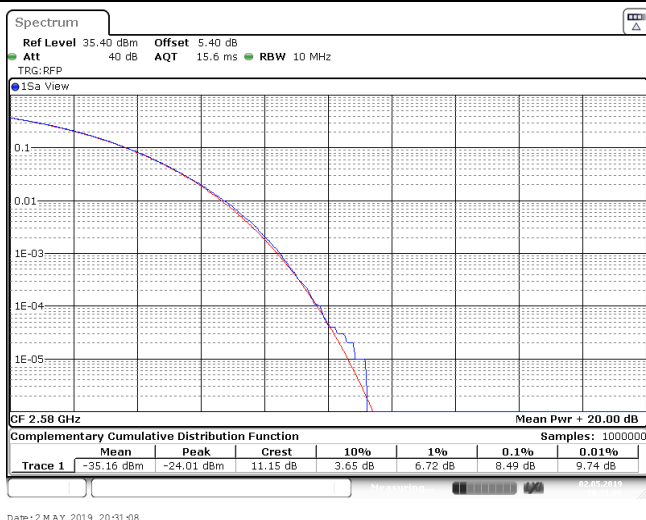
**Band38\_20MHz\_16QAM\_37850\_27RB#0**



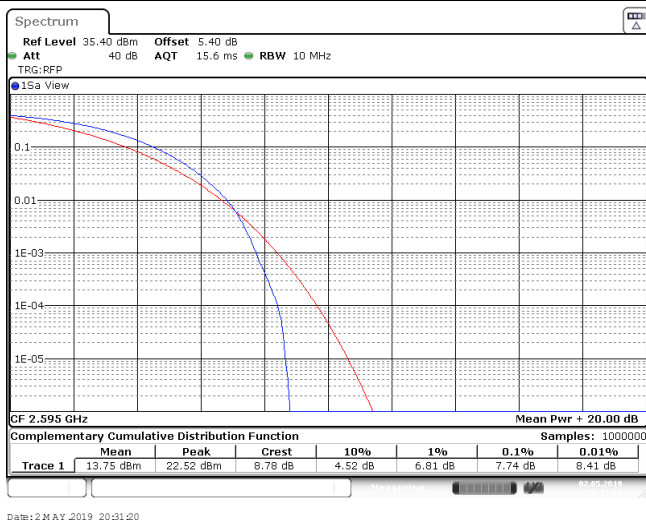
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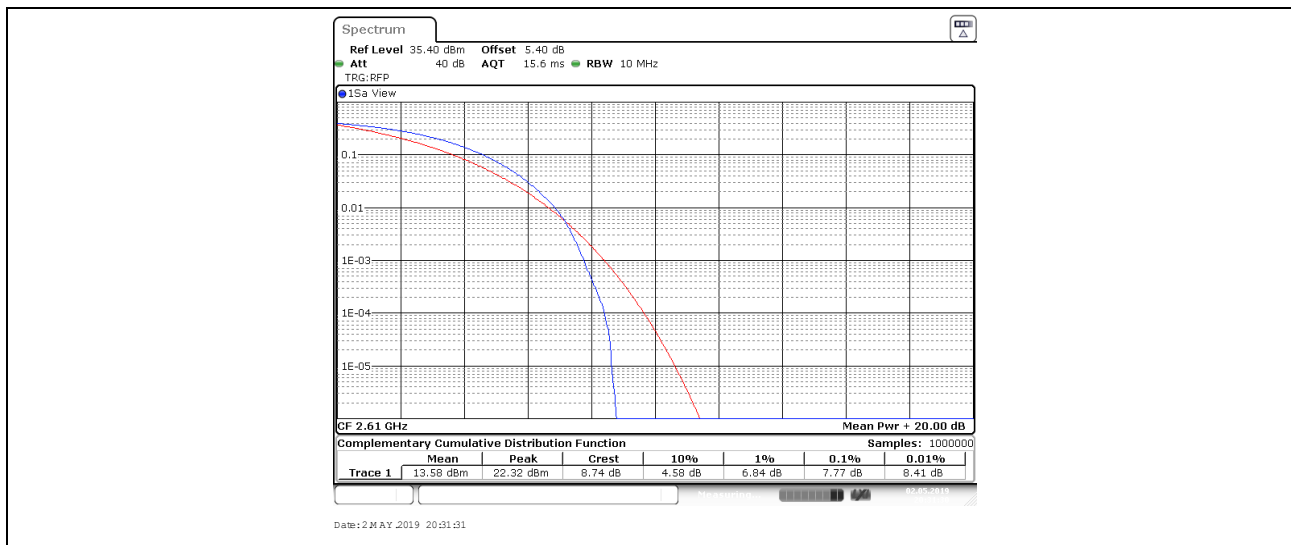
**Band38\_20MHz\_16QAM\_38000\_27RB#0**



**Band38\_20MHz\_16QAM\_38150\_27RB#0**



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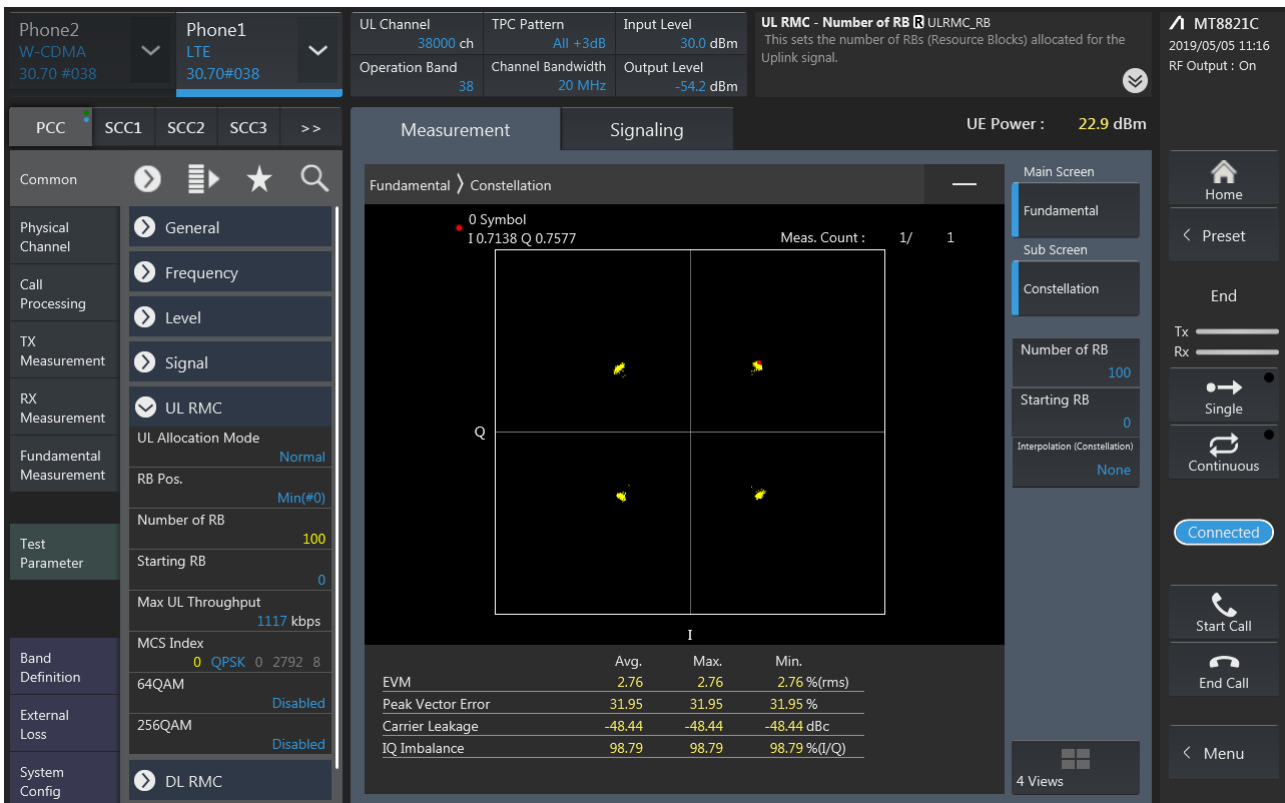


### 3. Modulation Characteristics

#### 3.1. Test BAND = LTE Band 38

#### 3.2. Test Mode = LTE /TM1 20MHz

#### 3.2.1. Test Channel = MCH

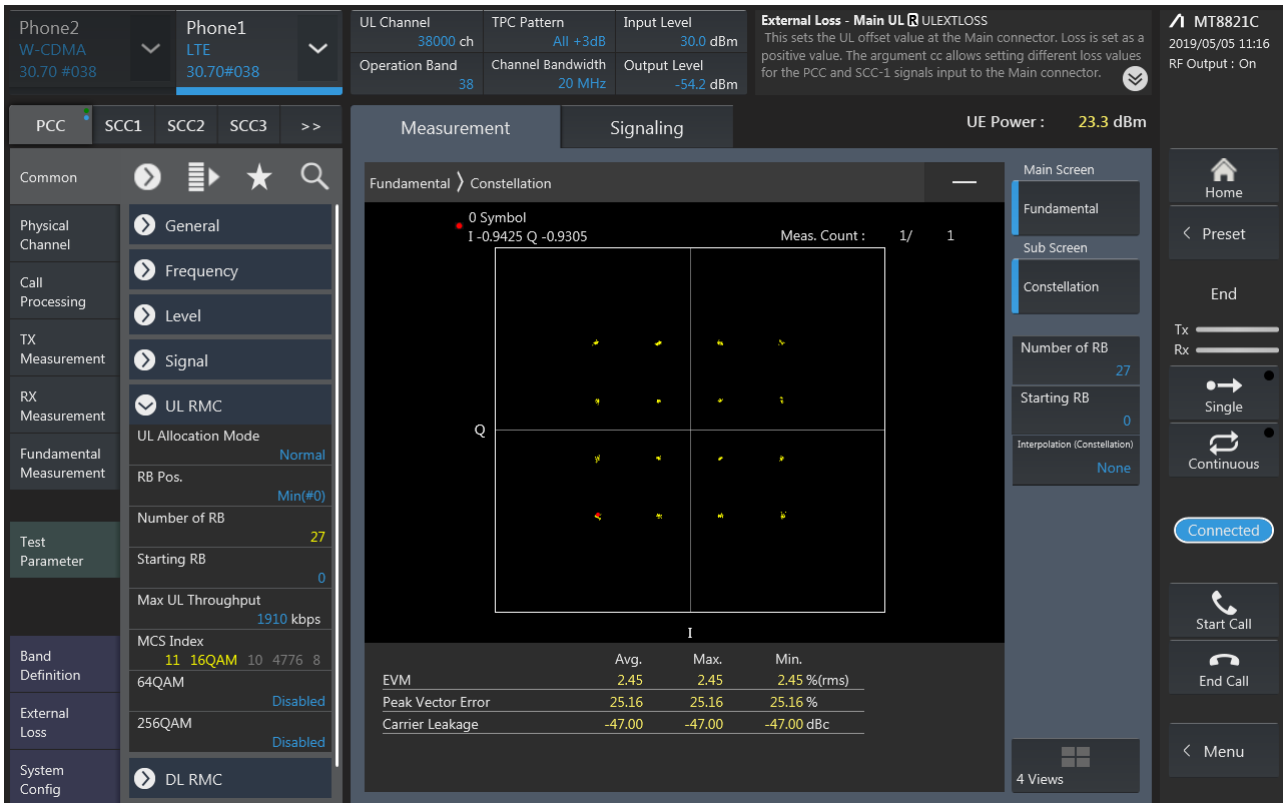


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### 3.3. Test Mode = LTE /TM2 20MHz

#### 3.3.1. Test Channel = MCH



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## 4. 26dB Bandwidth and Occupied Bandwidth

### 4.1. Test Result

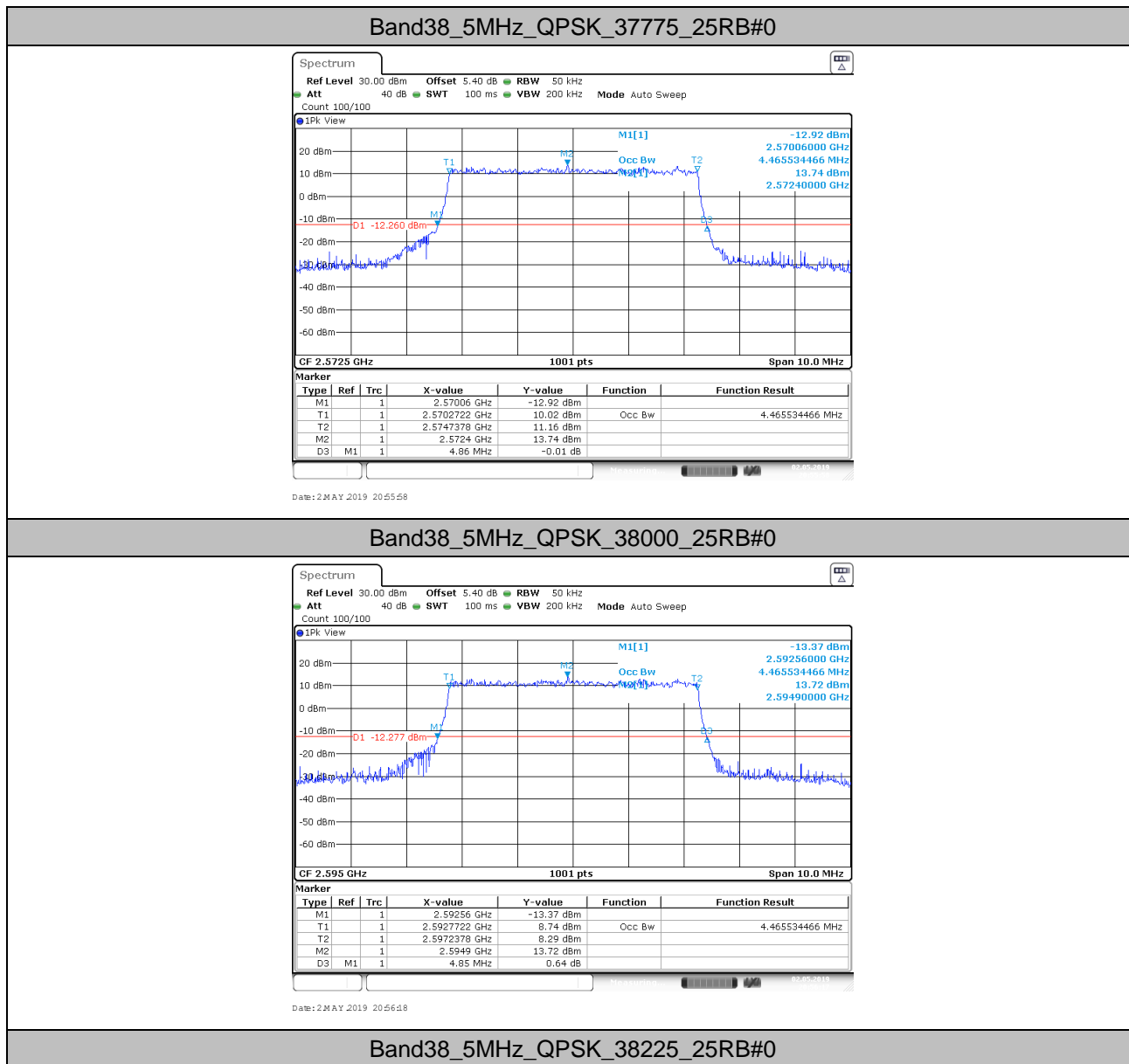
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	4.466	4.860	PASS
Band38	5MHz	QPSK	38000	25RB#0	4.466	4.850	PASS
Band38	5MHz	QPSK	38225	25RB#0	4.466	4.850	PASS
Band38	5MHz	16QAM	37775	25RB#0	4.486	4.920	PASS
Band38	5MHz	16QAM	38000	25RB#0	4.486	4.920	PASS
Band38	5MHz	16QAM	38225	25RB#0	4.486	4.900	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.931	9.640	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.931	9.640	PASS
Band38	10MHz	QPSK	38200	50RB#0	8.931	9.640	PASS
Band38	10MHz	16QAM	37800	27RB#0	4.855	5.540	PASS
Band38	10MHz	16QAM	38000	27RB#0	4.855	5.560	PASS
Band38	10MHz	16QAM	38200	27RB#0	4.875	5.540	PASS
Band38	15MHz	QPSK	37825	75RB#0	13.457	14.790	PASS
Band38	15MHz	QPSK	38000	75RB#0	13.427	14.940	PASS
Band38	15MHz	QPSK	38175	75RB#0	13.427	14.700	PASS
Band38	15MHz	16QAM	37825	27RB#0	5.035	6.030	PASS
Band38	15MHz	16QAM	38000	27RB#0	5.035	6.120	PASS
Band38	15MHz	16QAM	38175	27RB#0	5.065	6.090	PASS
Band38	20MHz	QPSK	37850	100RB#0	17.902	19.440	PASS
Band38	20MHz	QPSK	38000	100RB#0	17.862	19.400	PASS
Band38	20MHz	QPSK	38150	100RB#0	17.902	19.400	PASS
Band38	20MHz	16QAM	37850	27RB#0	5.115	6.320	PASS
Band38	20MHz	16QAM	38000	27RB#0	5.115	6.400	PASS
Band38	20MHz	16QAM	38150	27RB#0	5.115	6.360	PASS



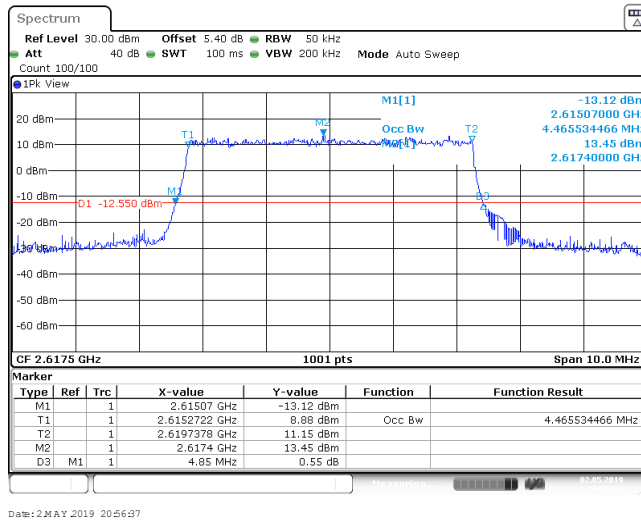
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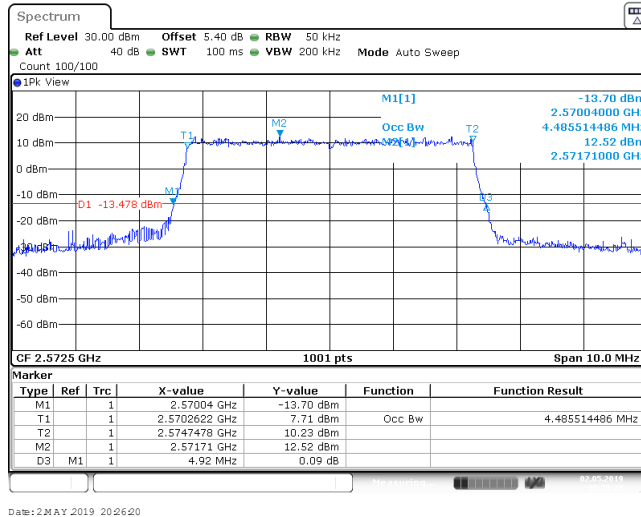
## 4.2. Test Plots



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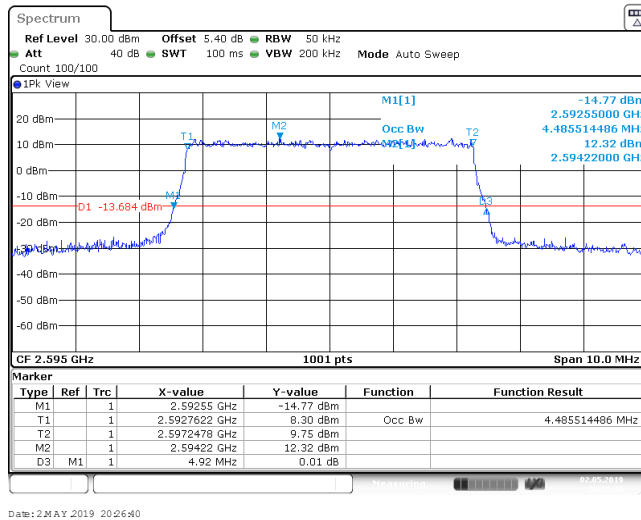


**Band38\_5MHz\_16QAM\_3775\_25RB#**

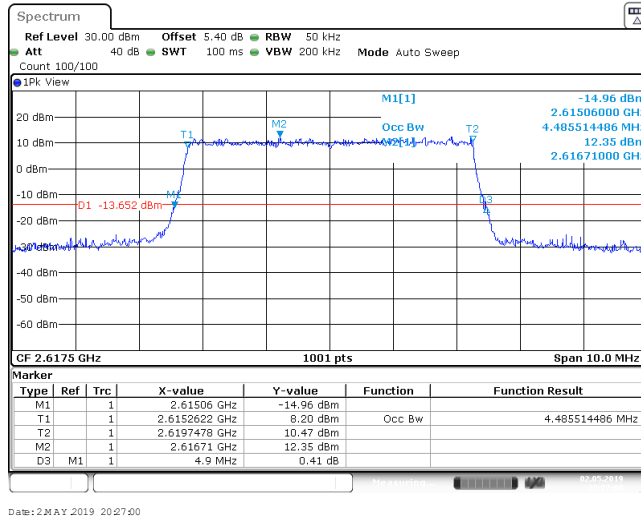


**Band38\_5MHz\_16QAM\_3800\_25RB#**





**Band38\_5MHz\_16QAM\_38225\_25RB#**

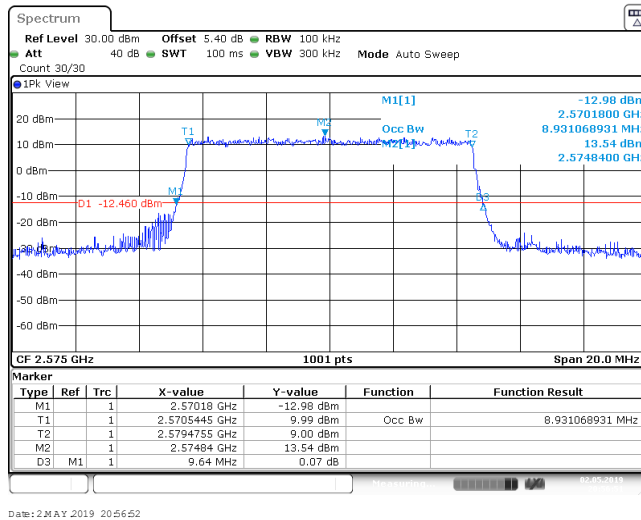


**Band38\_10MHz\_QPSK\_37800\_50RB#**



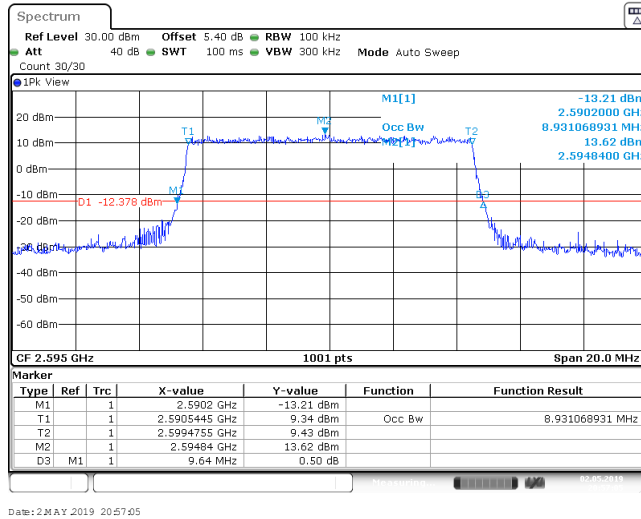
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Date: 2 MAY 2019 20:56:52

**Band38\_10MHz\_QPSK\_38000\_50RB#0**

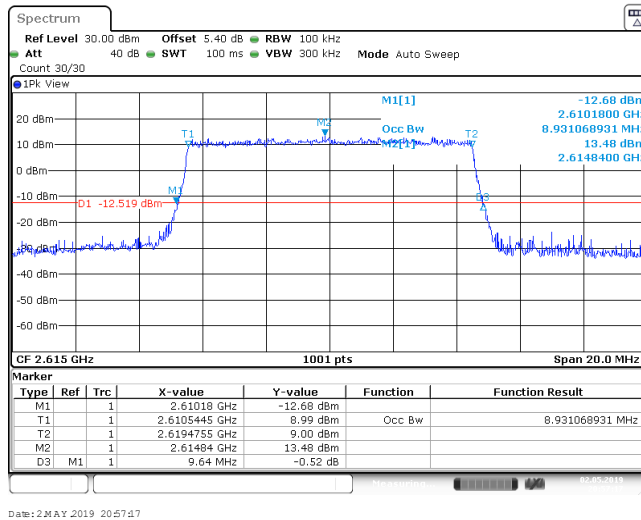


Date: 2 MAY 2019 20:57:05

**Band38\_10MHz\_QPSK\_38200\_50RB#0**

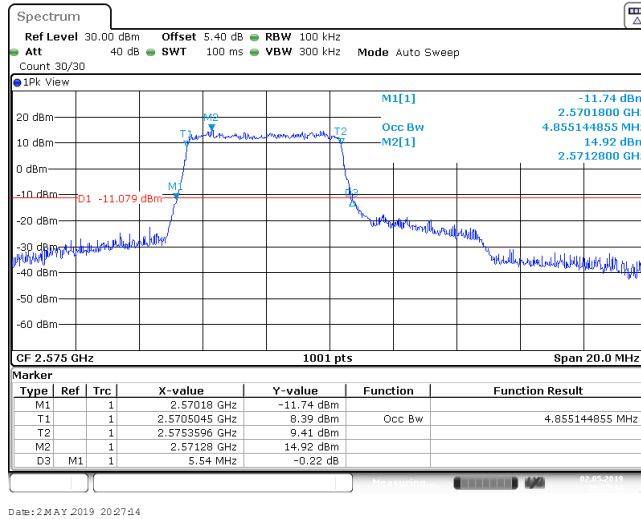


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Date: 2 MAY 2019 20:57:47

**Band38\_10MHz\_16QAM\_37800\_27RB#0**

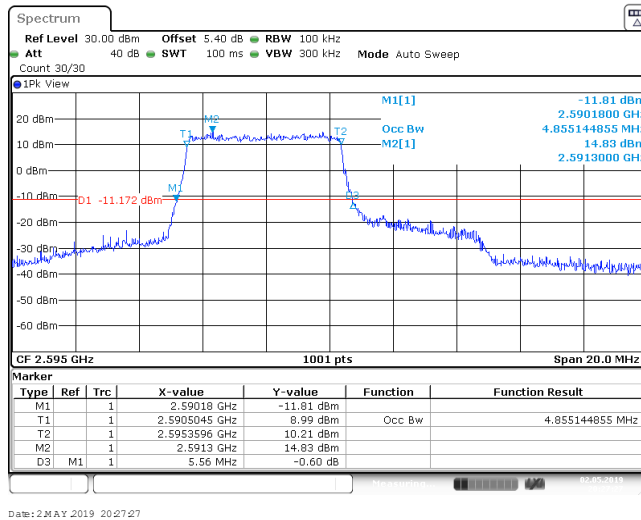


Date: 2 MAY 2019 20:27:44

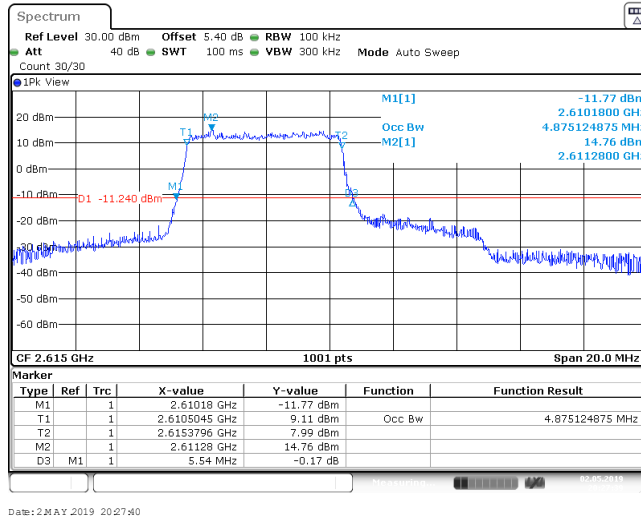
**Band38\_10MHz\_16QAM\_38000\_27RB#0**



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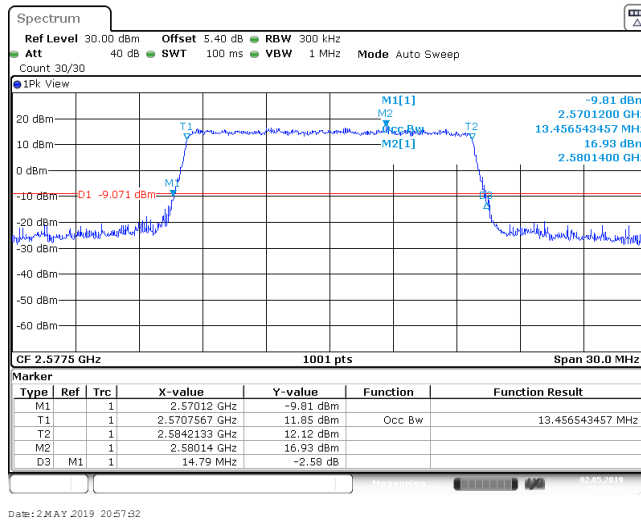
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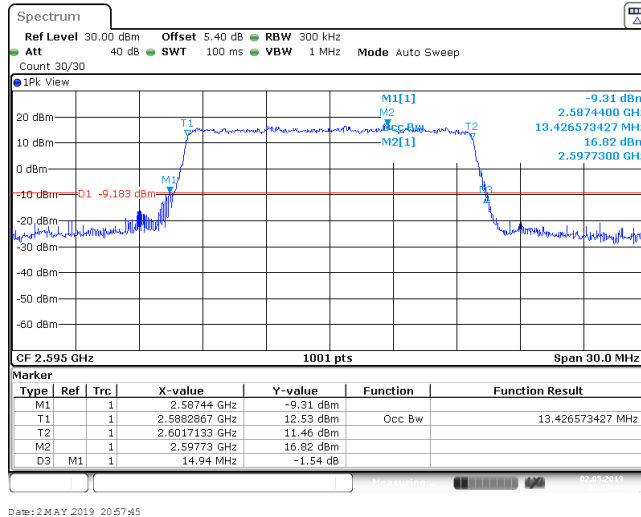
**Band38\_15MHz\_QPSK\_37825\_75RB#0**



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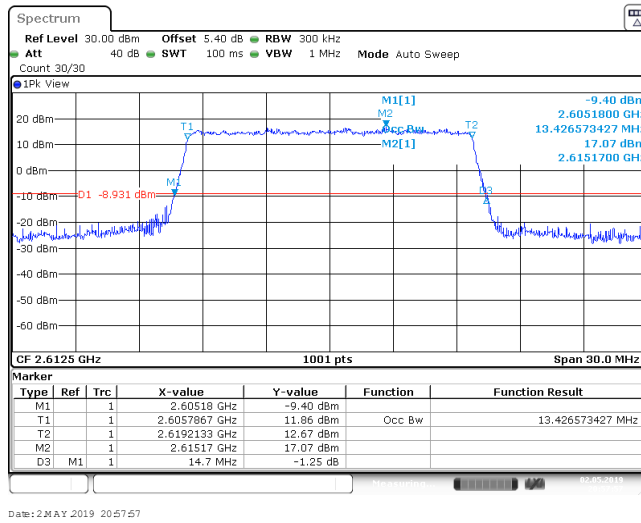
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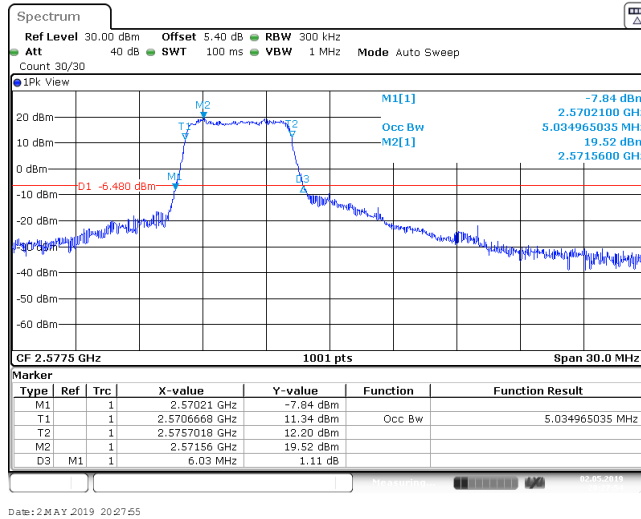


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Date: 2 MAY 2019 20:57:57

**Band38\_15MHz\_16QAM\_37825\_27RB#0**

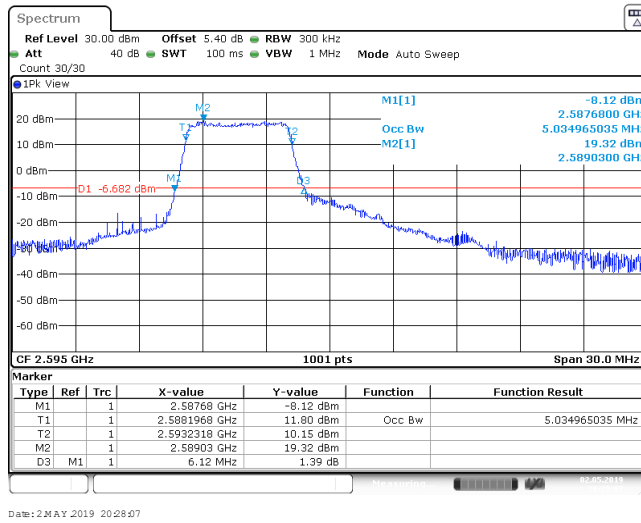


Date: 2 MAY 2019 20:27:55

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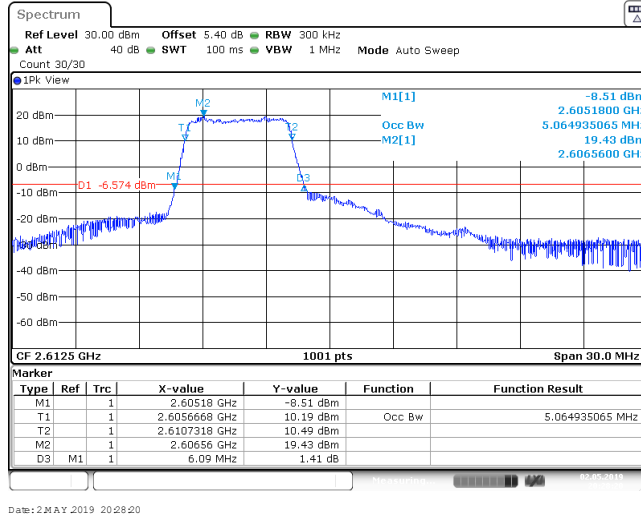


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Date: 2 MAY 2019 20:28:07

Band38\_15MHz\_16QAM\_38175\_27RB#0

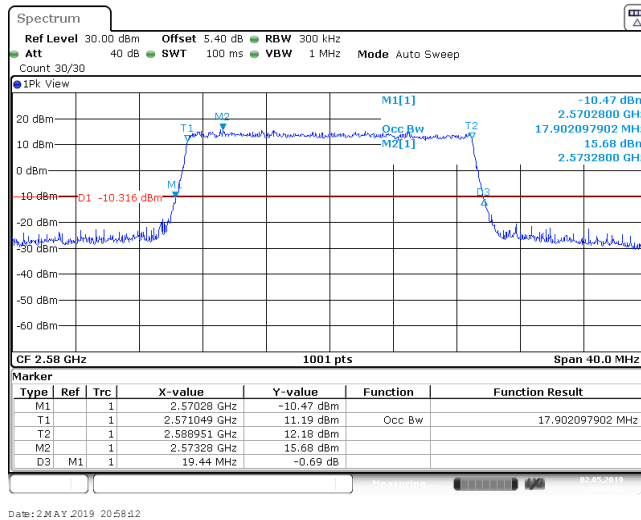


Date: 2 MAY 2019 20:28:20

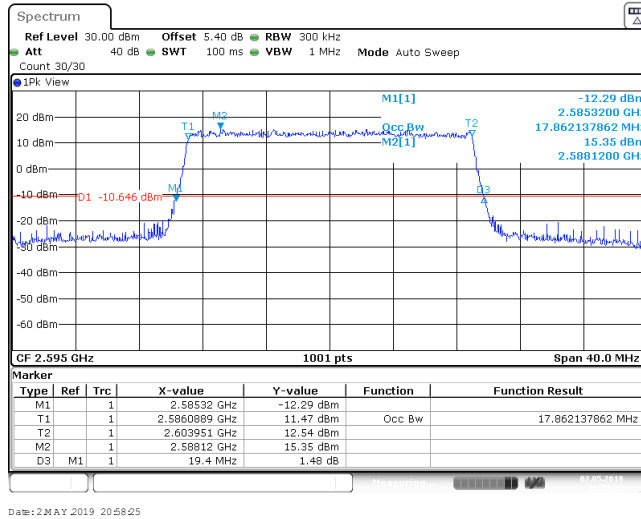
Band38\_20MHz\_QPSK\_37850\_100RB#0



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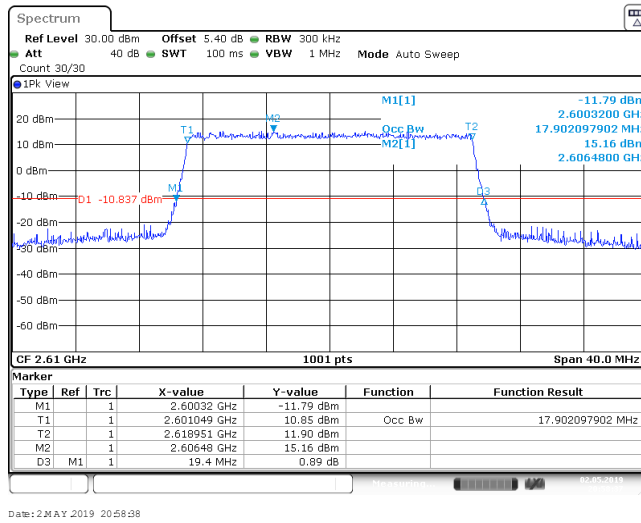
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**Band38\_20MHz\_QPSK\_38150\_100RB#0**

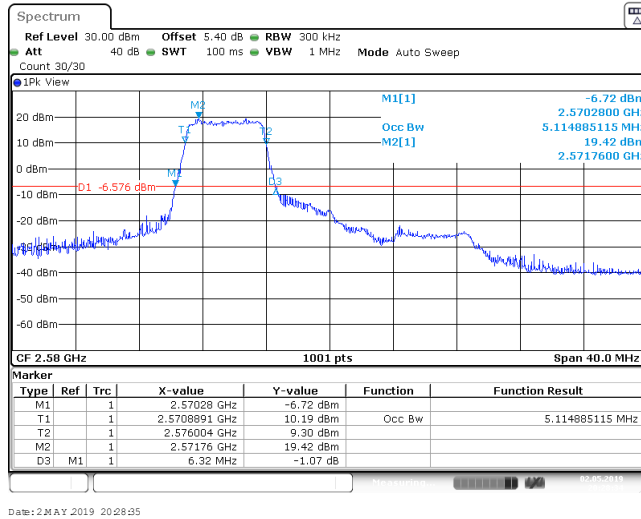


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Date: 2 MAY 2019 20:58:38

**Band38\_20MHz\_16QAM\_37850\_27RB#0**



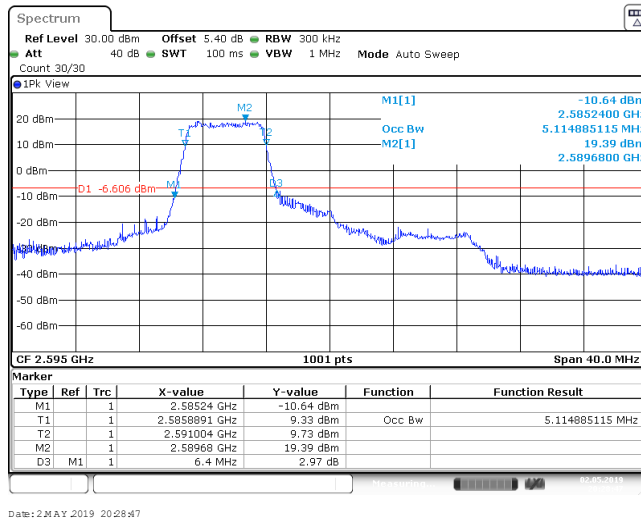
Date: 2 MAY 2019 20:28:35

**Band38\_20MHz\_16QAM\_38000\_27RB#0**

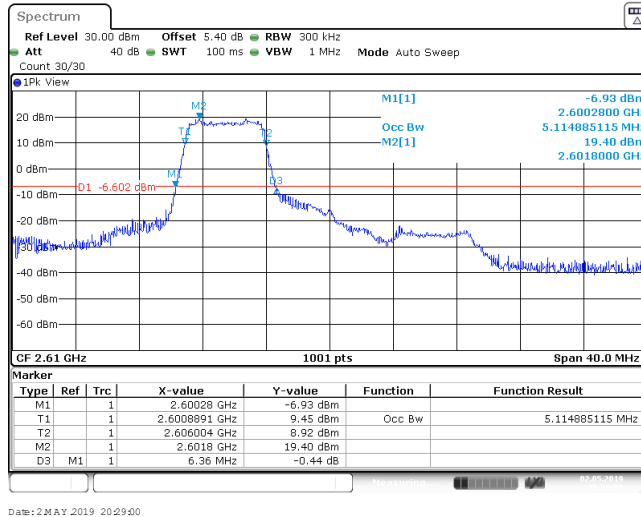


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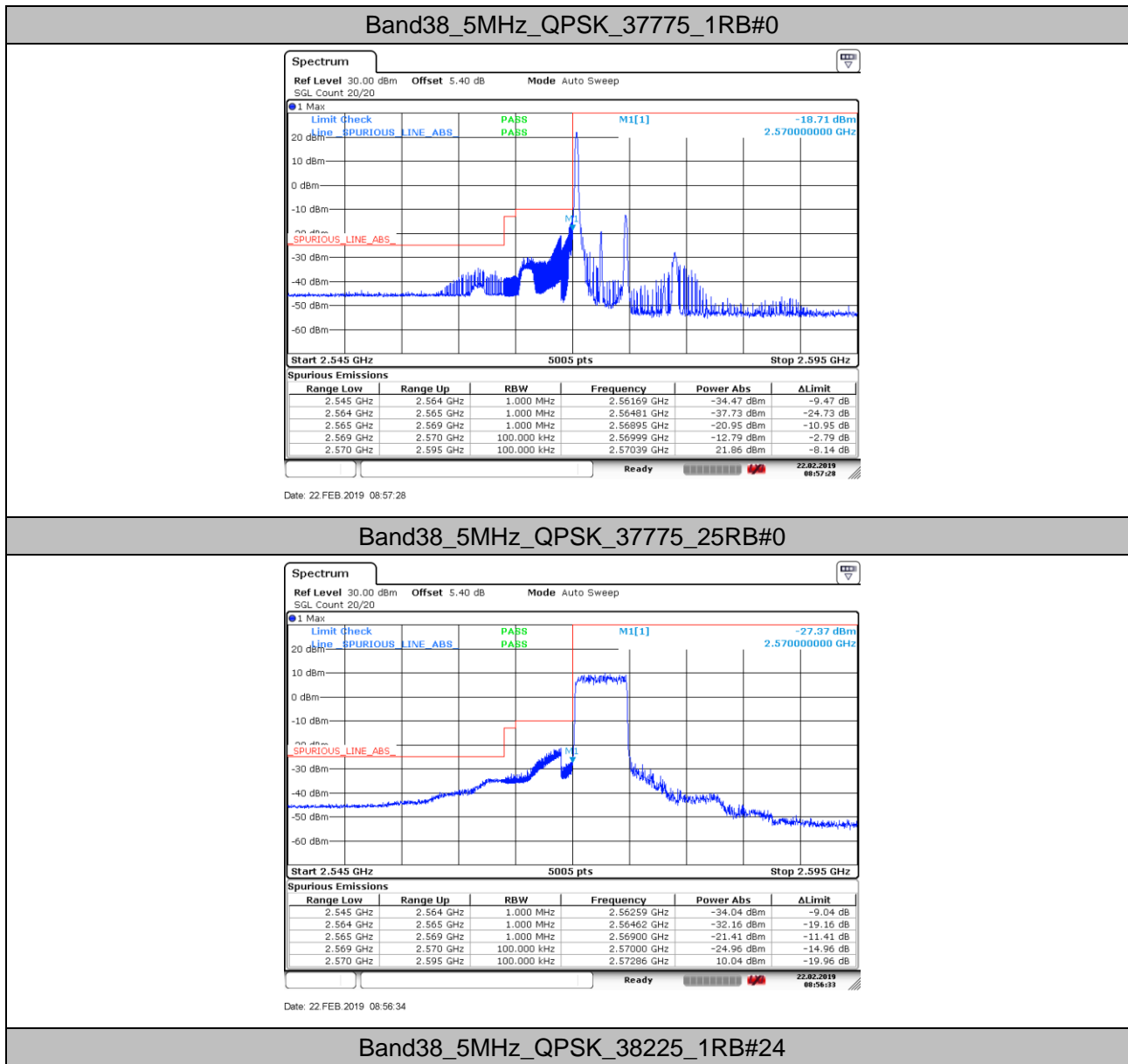
**Band38\_20MHz\_16QAM\_38150\_27RB#0**



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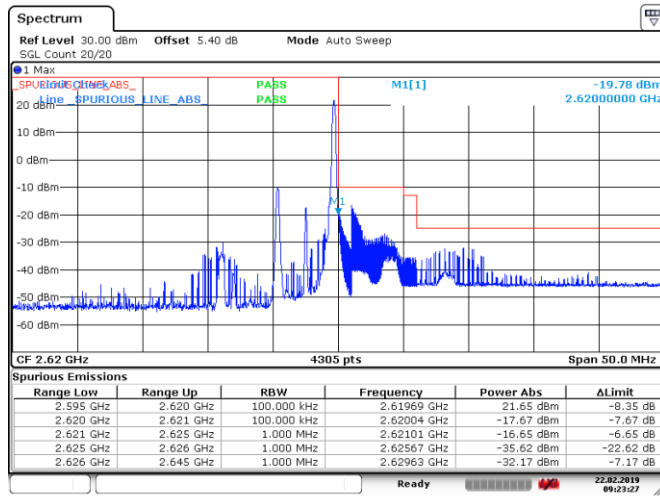
## 5. Band Edge Compliance

### 5.1. Test Plots



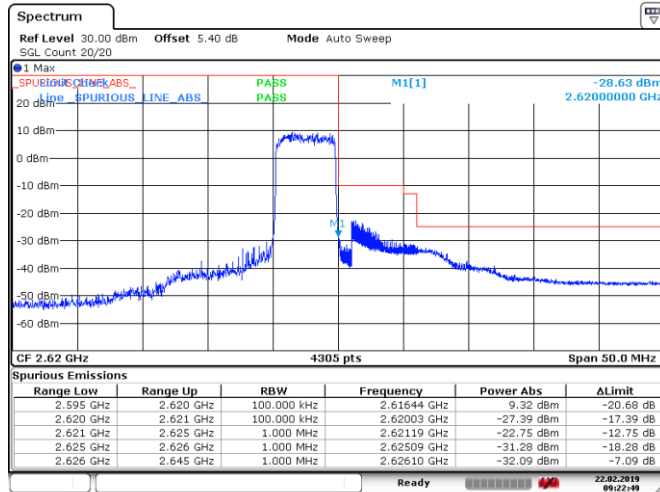
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Date: 22 FEB 2019 09:23:27

**Band38\_5MHz\_QPSK\_38225\_25RB#0**

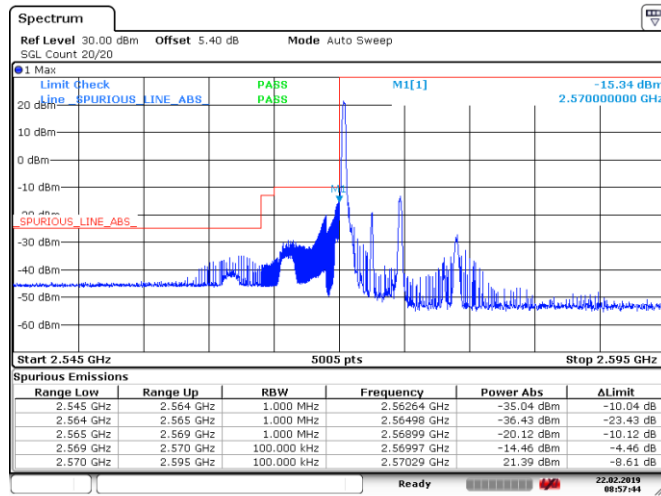


Date: 22 FEB 2019 09:22:49

**Band38\_5MHz\_16QAM\_37775\_1RB#0**

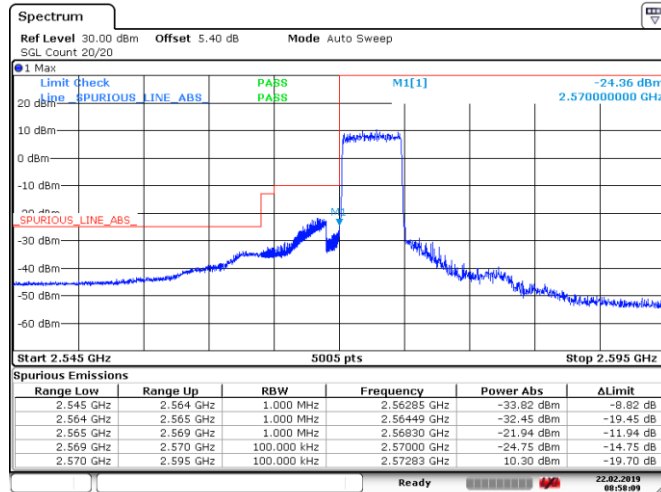


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Date: 22 FEB 2019 08:57:45

**Band38\_5MHz\_16QAM\_3775\_25RB#0**

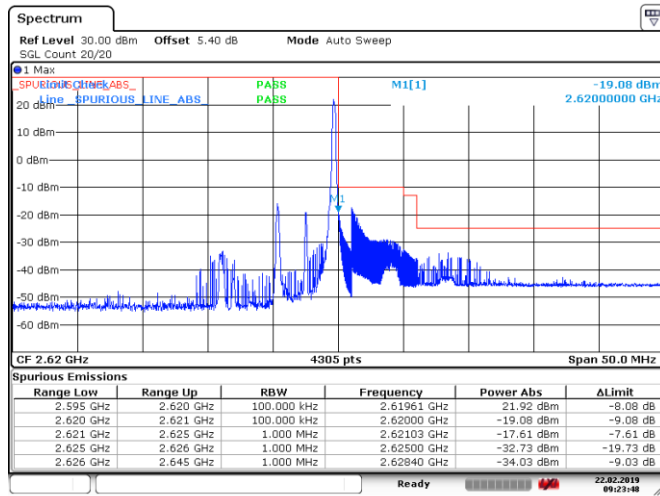


Date: 22 FEB 2019 08:58:09

**Band38\_5MHz\_16QAM\_38225\_1RB#24**

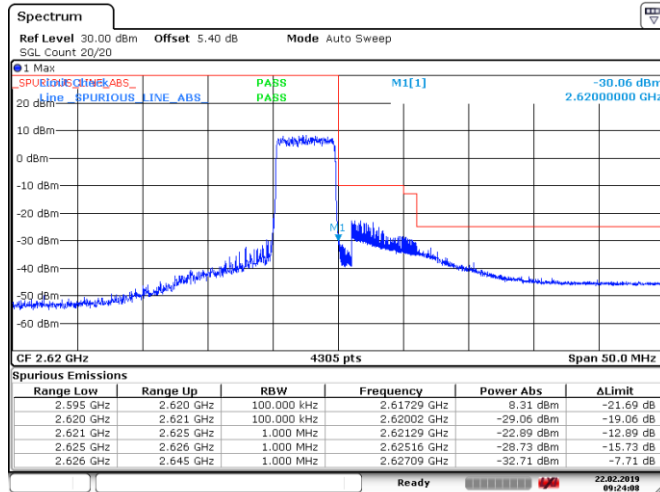


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Date: 22 FEB 2019 09:23:49

Band38\_5MHz\_16QAM\_38225\_25RB#0

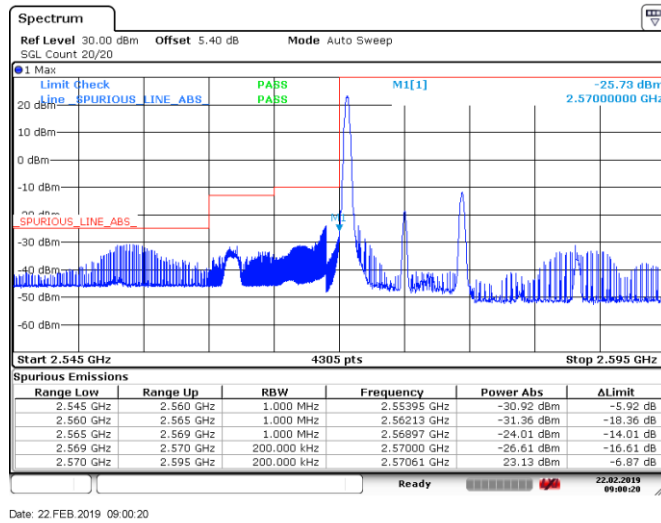


Date: 22 FEB 2019 09:24:09

Band38\_10MHz\_QPSK\_37800\_1RB#0

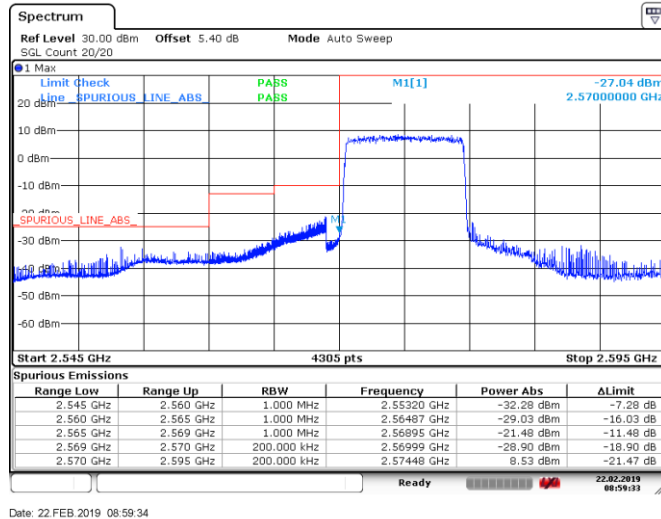


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Date: 22 FEB 2019 09:00:20

**Band38\_10MHz\_QPSK\_37800\_50RB#0**



Date: 22 FEB 2019 08:59:34

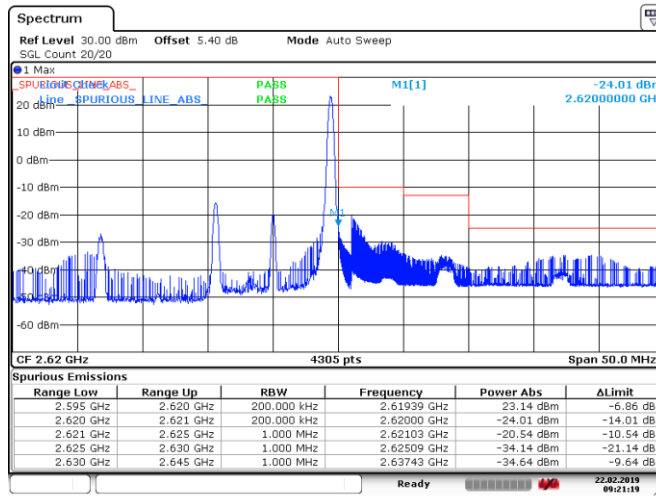
**Band38\_10MHz\_QPSK\_38200\_1RB#49**



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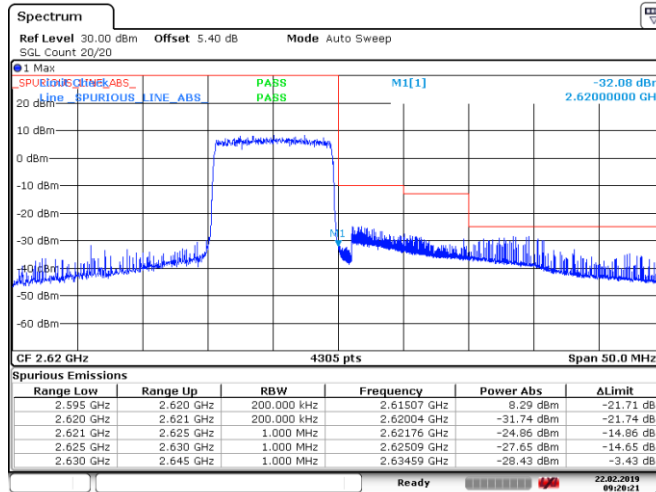
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Date: 22 FEB 2019 09:21:20

**Band38\_10MHz\_QPSK\_38200\_50RB#0**



Date: 22 FEB 2019 09:20:21

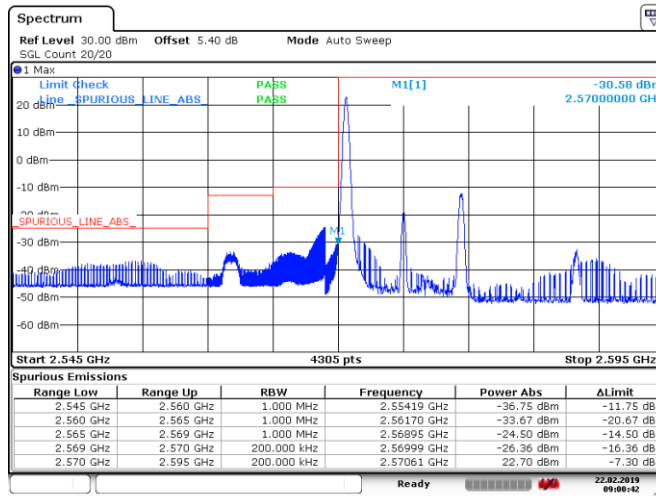
**Band38\_10MHz\_16QAM\_37800\_1RB#0**



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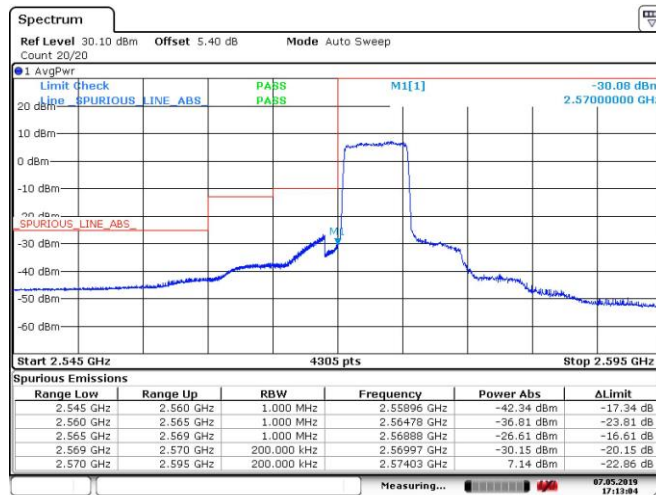
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Date: 22 FEB 2019 09:00:42

**Band38\_10MHz\_16QAM\_37800\_27RB#0**



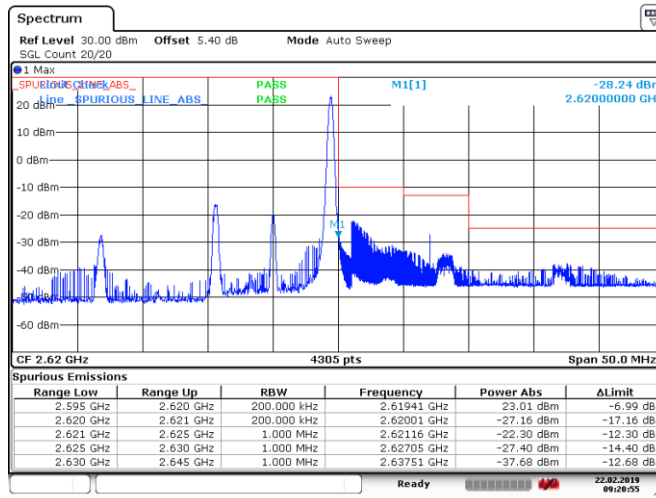
Date: 7 MAY 2019 17:13:05

**Band38\_10MHz\_16QAM\_38200\_1RB#49**



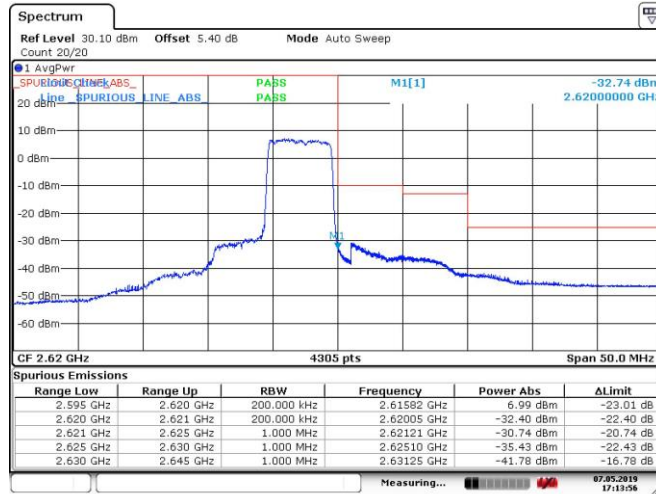
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Date: 22 FEB 2019 09:20:55

**Band38\_10MHz\_16QAM\_38200\_27RB#23**

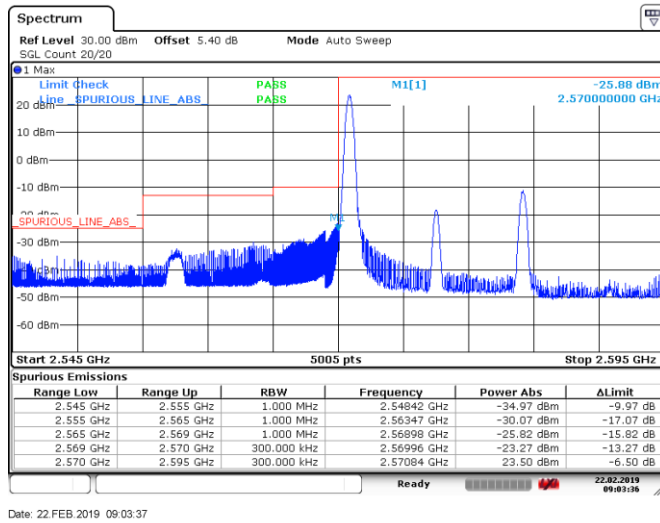


Date: 7 MAY 2019 17:13:57

**Band38\_15MHz\_QPSK\_37825\_1RB#0**

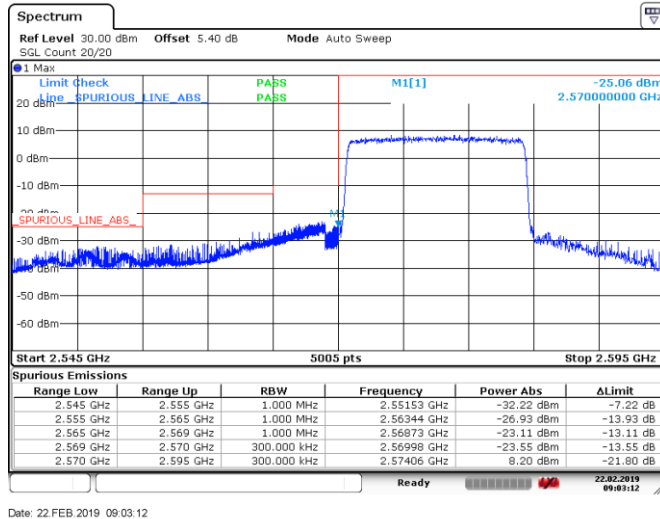


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Date: 22 FEB 2019 09:03:37

**Band38\_15MHz\_QPSK\_37825\_75RB#0**

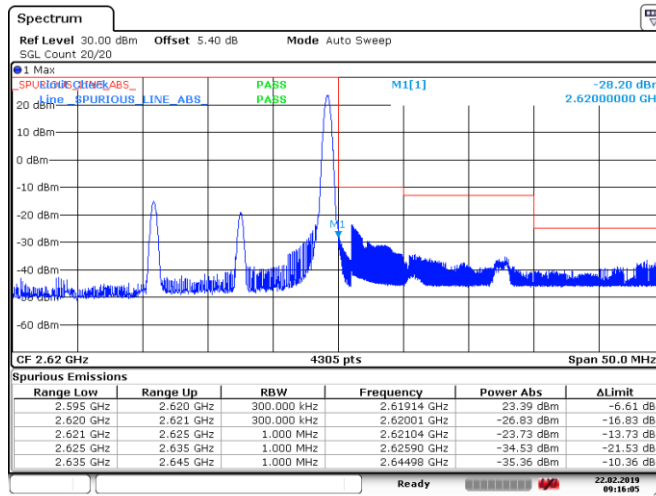


Date: 22 FEB 2019 09:03:12

**Band38\_15MHz\_QPSK\_38175\_1RB#74**

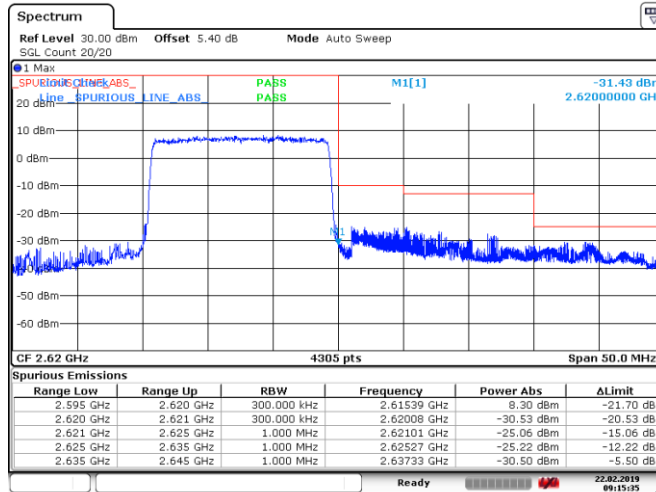


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Date: 22 FEB 2019 09:16:05

**Band38\_15MHz\_QPSK\_38175\_75RB#0**



Date: 22 FEB 2019 09:15:35

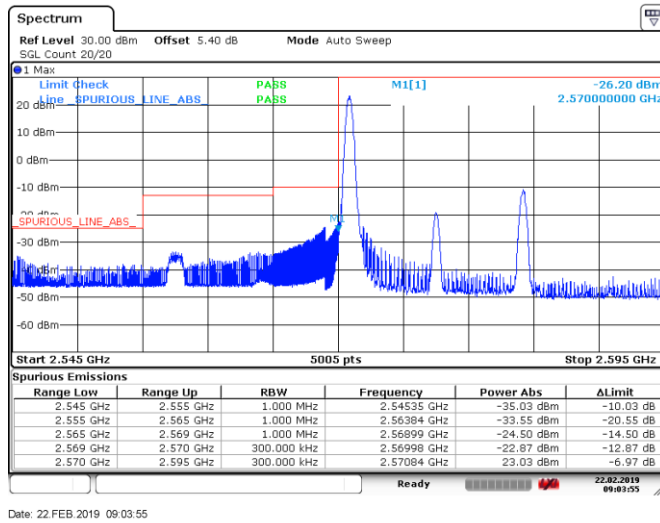
**Band38\_15MHz\_16QAM\_37825\_1RB#0**



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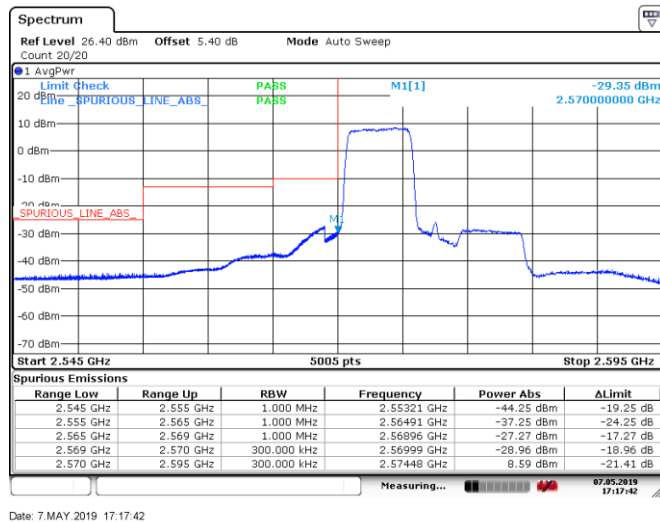
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Date: 22 FEB 2019 09:03:55

**Band38\_15MHz\_16QAM\_37825\_27RB#0**



Date: 7 MAY 2019 17:17:42

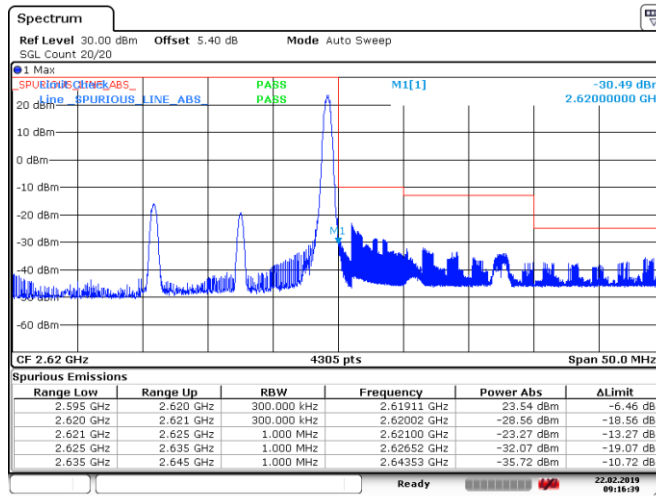
**Band38\_15MHz\_16QAM\_38175\_1RB#74**



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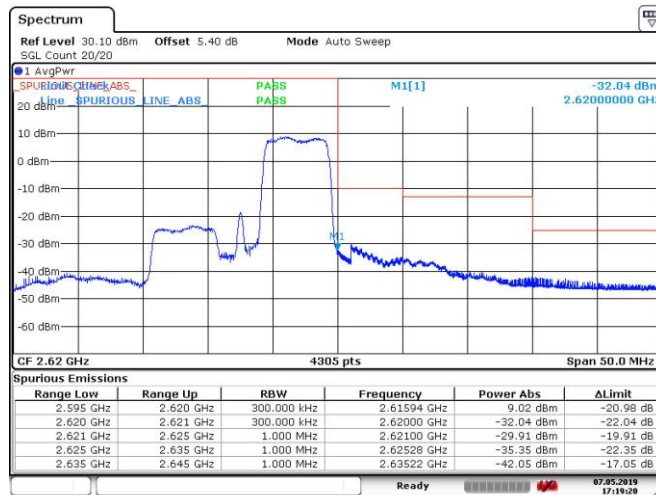
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Date: 22 FEB 2019 09:16:40

**Band38\_15MHz\_16QAM\_38175\_27RB#48**

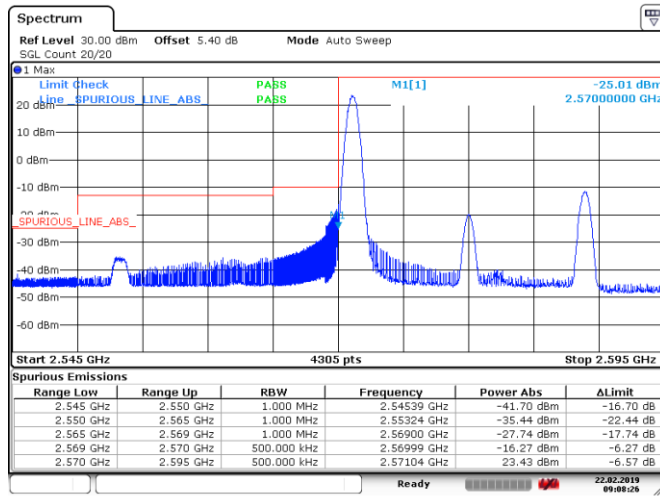


Date: 7 MAY 2019 17:19:20

**Band38\_20MHz\_QPSK\_37850\_1RB#0**

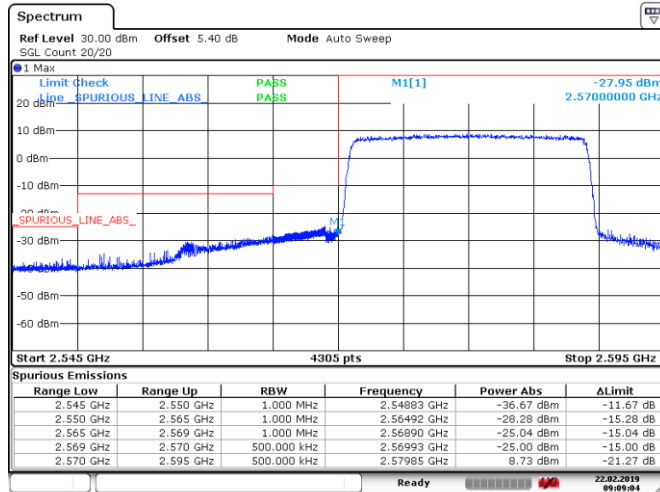


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Date: 22 FEB 2019 09:08:27

**Band38\_20MHz\_QPSK\_37850\_100RB#0**

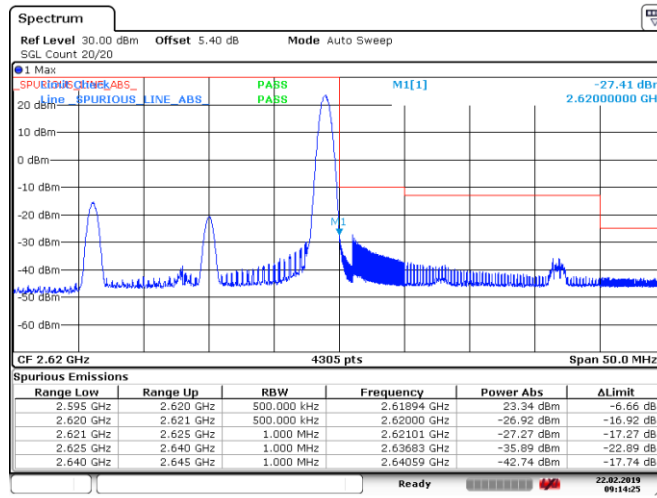


Date: 22 FEB 2019 09:09:04

**Band38\_20MHz\_QPSK\_38150\_1RB#99**

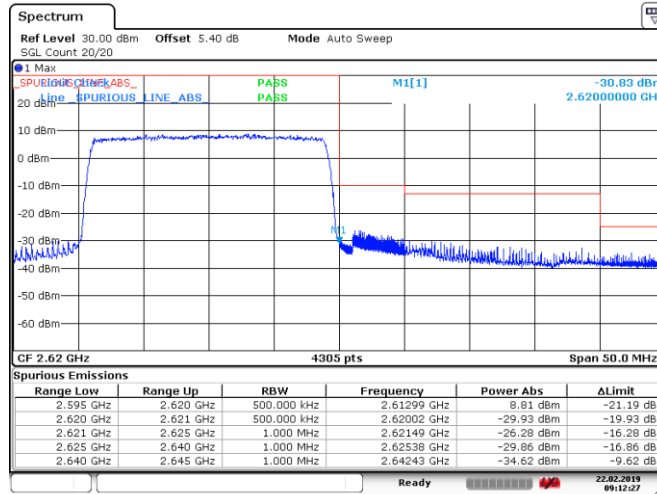


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Date: 22 FEB 2019 09:14:25

**Band38\_20MHz\_QPSK\_38150\_100RB#0**

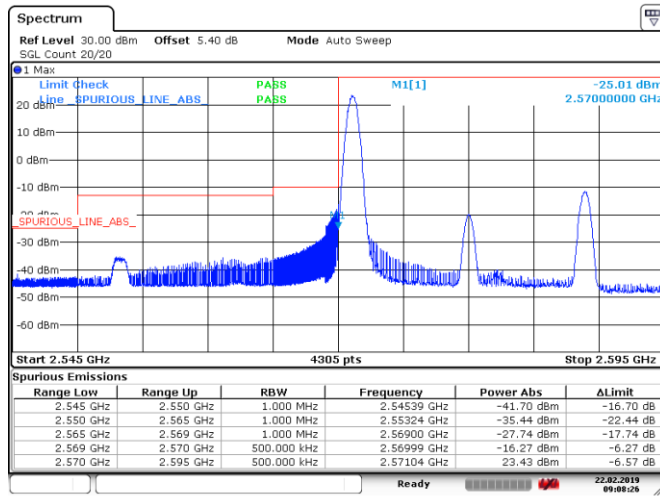


Date: 22 FEB 2019 09:12:27

**Band38\_20MHz\_16QAM\_37850\_1RB#0**

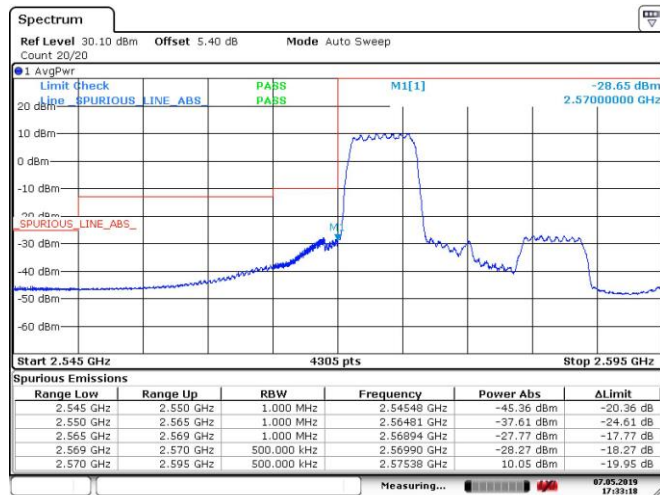


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Date: 22 FEB 2019 09:08:27

Band38\_20MHz\_16QAM\_37850\_27RB#0



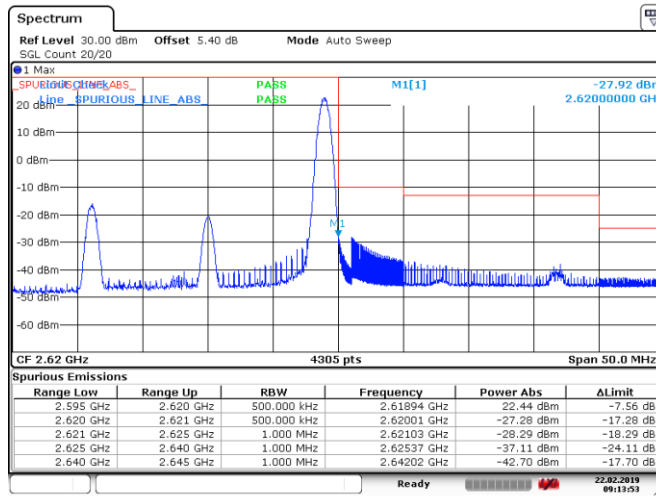
Date: 7 MAY 2019 17:33:18

Band38\_20MHz\_16QAM\_38150\_1RB#99



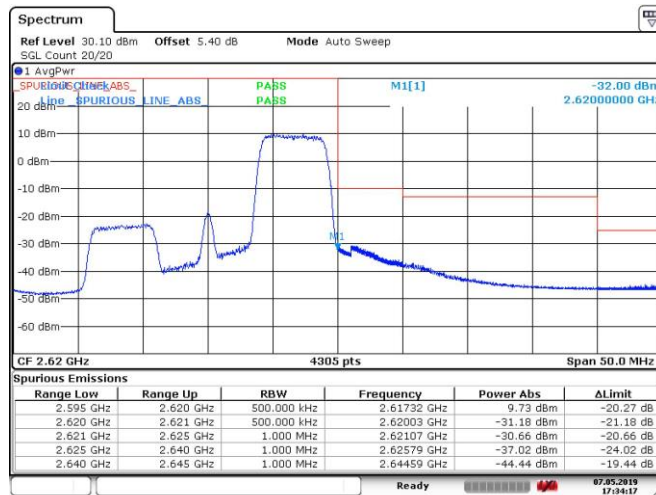
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Date: 22 FEB 2019 09:13:53

**Band38\_20MHz\_16QAM\_38150\_27RB83**



Date: 7 MAY 2019 17:34:17



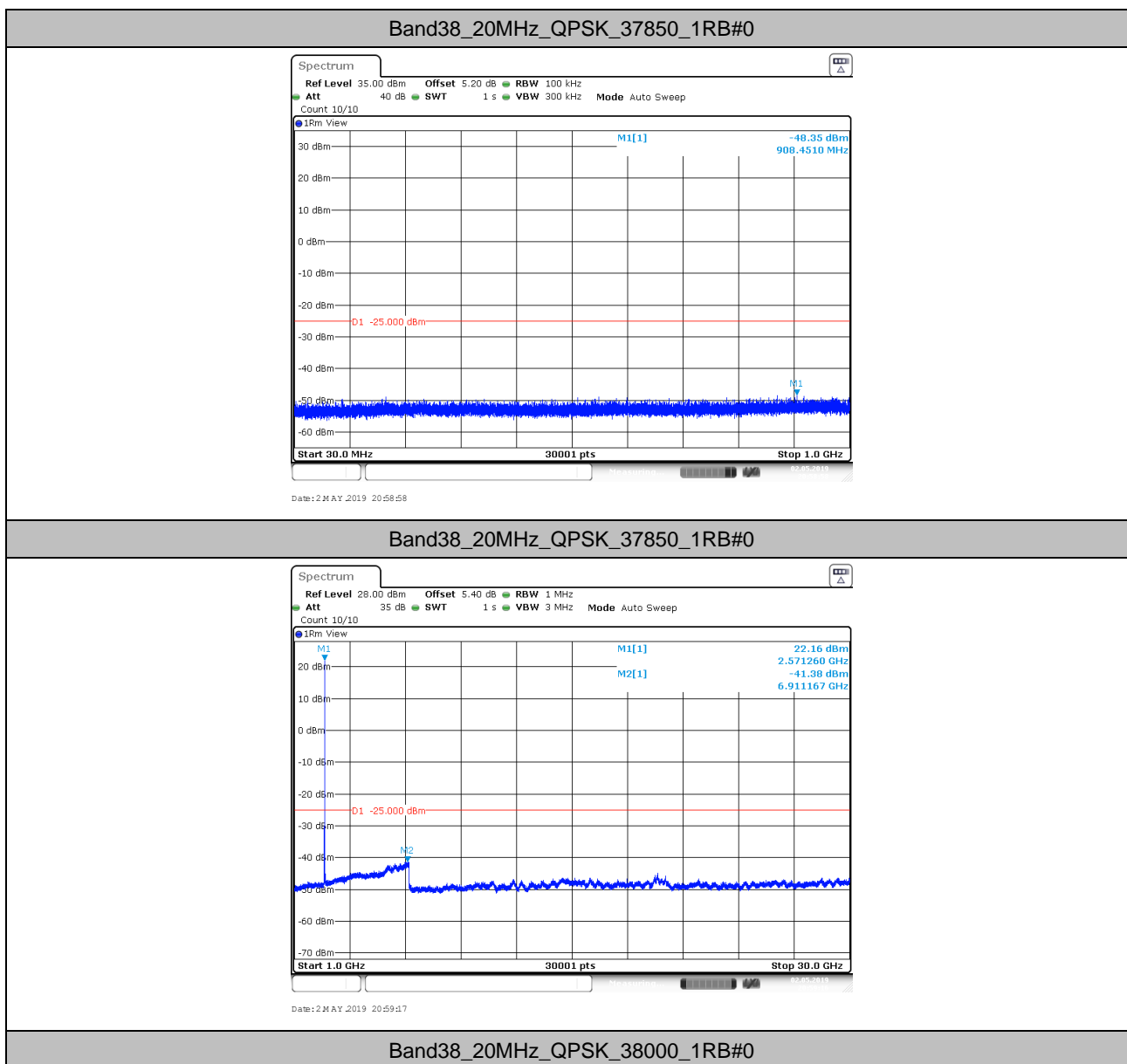
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## 6. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of  $< RBW/2$  so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =  $k * (Span / RBW)$ " with  $k$  between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Remark2: only the worst case data displayed in this report.

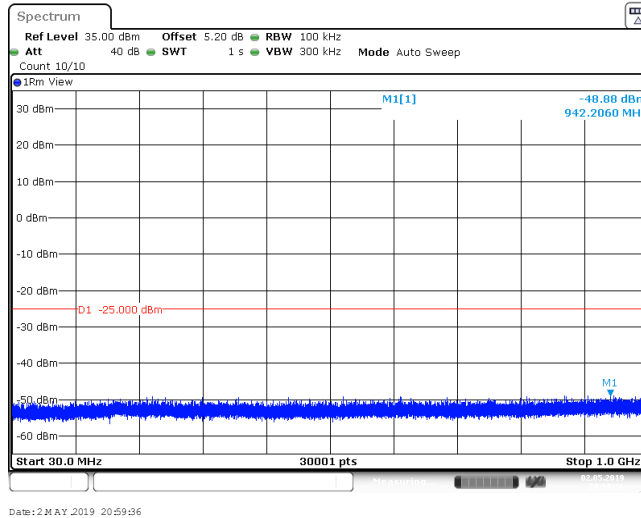
### 6.1. Test Plots



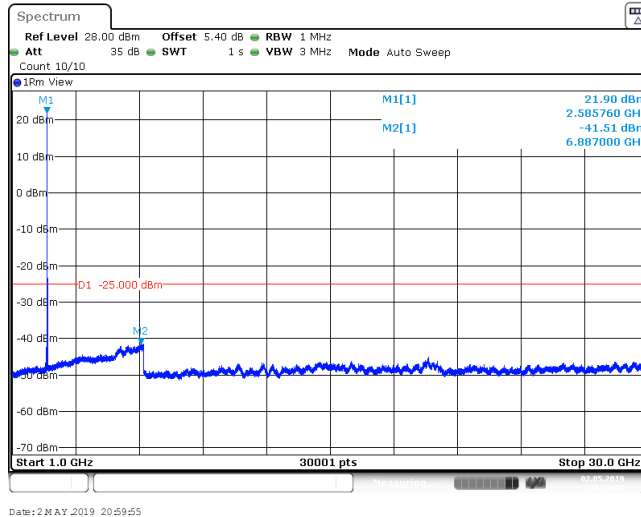
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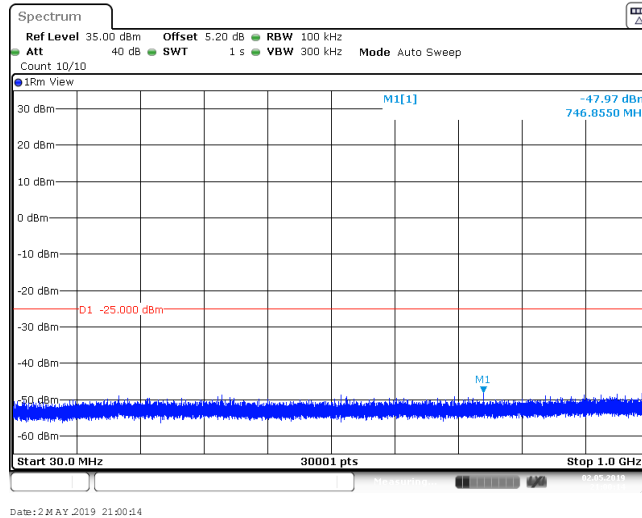
**Band38\_20MHz\_QPSK\_38000\_1RB#0**



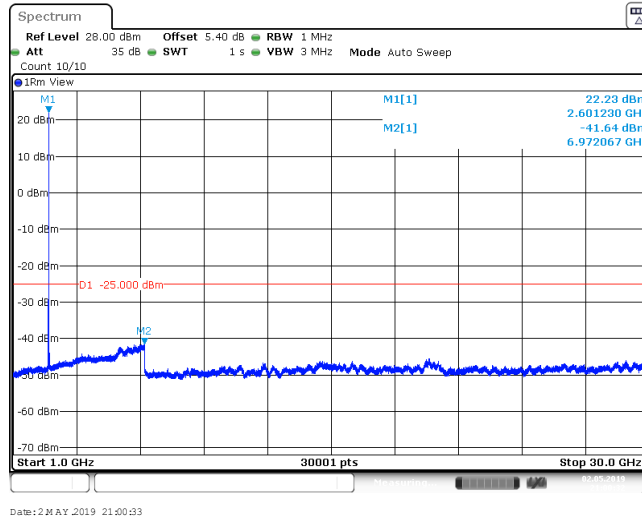
**Band38\_20MHz\_QPSK\_38150\_1RB#0**



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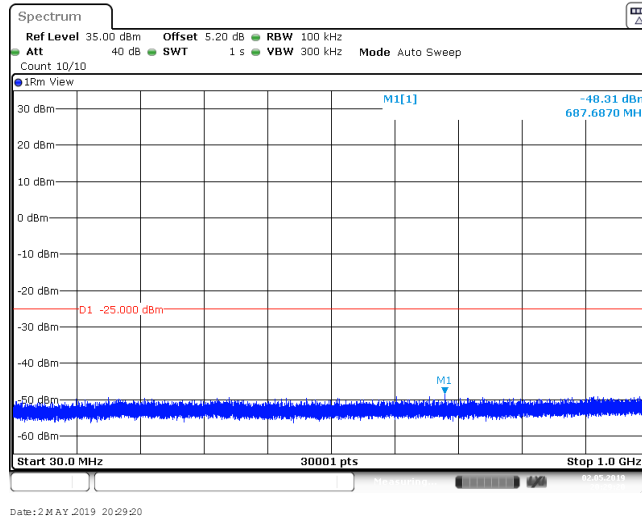
**Band38\_20MHz\_QPSK\_38150\_1RB#0**



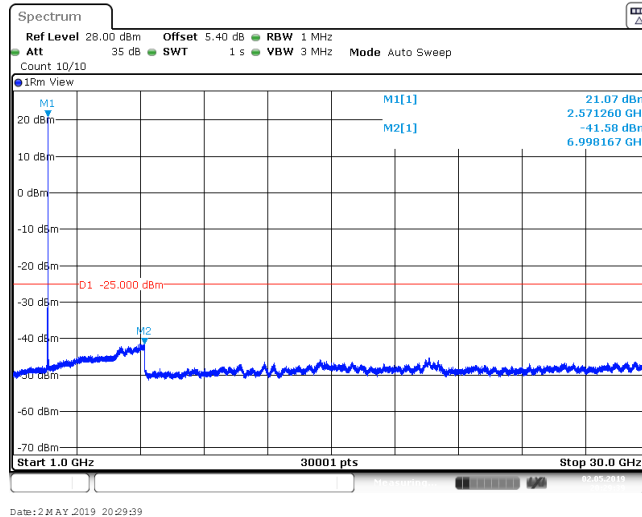
**Band38\_20MHz\_16QAM\_37850\_1RB#0**



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**Band38\_20MHz\_16QAM\_37850\_1RB#0**

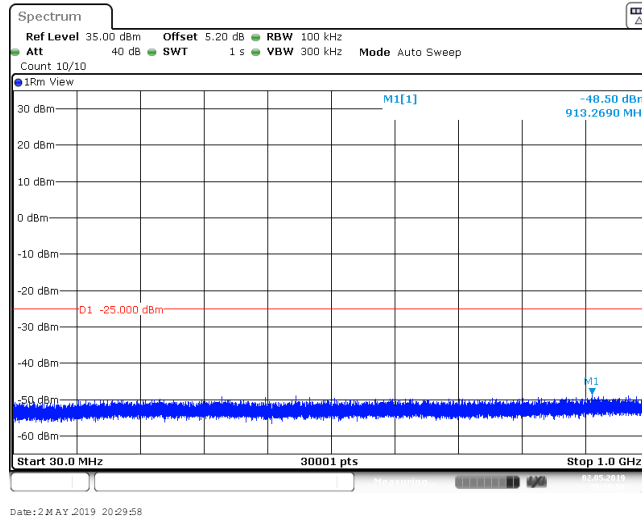


**Band38\_20MHz\_16QAM\_38000\_1RB#0**



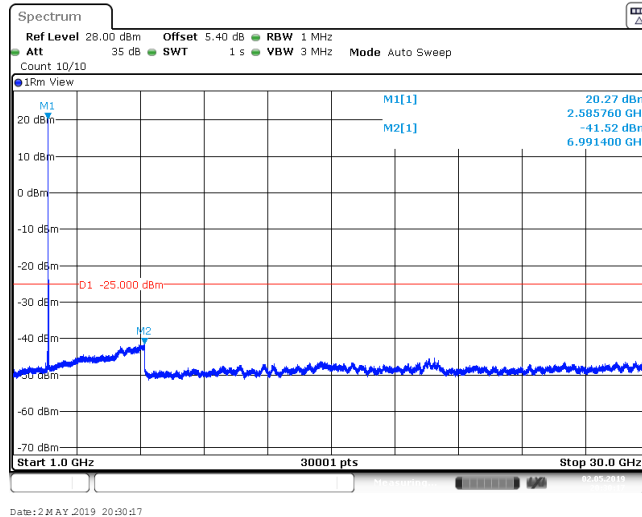
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Date: 2 MAY 2019 20:29:58

**Band38\_20MHz\_16QAM\_38000\_1RB#0**



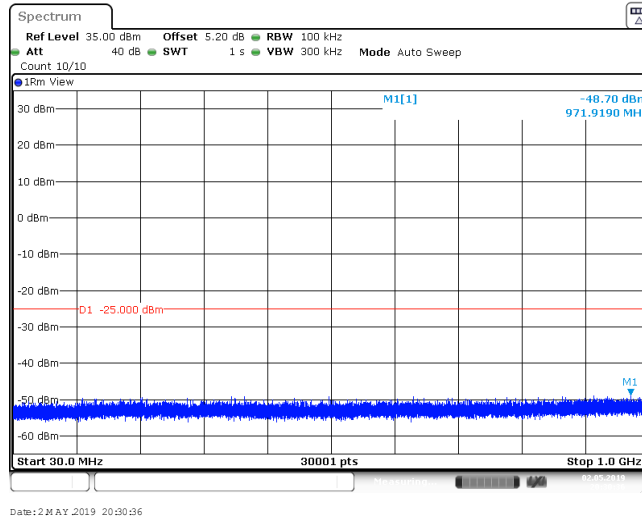
Date: 2 MAY 2019 20:30:17

**Band38\_20MHz\_16QAM\_38150\_1RB#0**

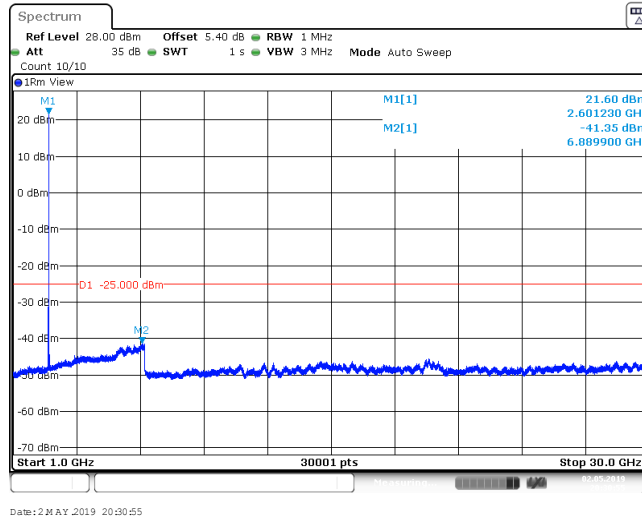


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**Band38\_20MHz\_16QAM\_38150\_1RB#0**



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## 7. Field Strength of Spurious Radiation

### 7.1. Test BAND = LTE Band 38

#### 7.1.1. Test Mode = LTE/TM1 20MHz

##### 7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
76.81	-65.48	-25	40.48	Vertical
109.25	-64.63	-25	39.63	Vertical
575.03	-61.68	-25	36.68	Vertical
5170.73	-49.00	-25	24.00	Vertical
10346.98	-43.45	-25	18.45	Vertical
17989.76	-39.44	-25	14.44	Vertical
42.16	-63.81	-25	38.81	Horizontal
229.86	-64.35	-25	39.35	Horizontal
645.00	-66.60	-25	41.60	Horizontal
5168.84	-36.48	-25	11.48	Horizontal
10343.48	-47.80	-25	22.80	Horizontal
17993.44	-39.80	-25	14.80	Horizontal

##### 7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
62.6911	-65.03	-25	40.03	Vertical
113.3237	-65.88	-25	40.88	Vertical
590.4574	-62.39	-25	37.39	Vertical
5140.7284	-49.66	-25	24.66	Vertical
10286.476	-43.35	-25	18.35	Vertical
17987.255	-37.75	-25	12.75	Vertical
46.7153	-64.98	-25	39.98	Horizontal
247.6574	-63.14	-25	38.14	Horizontal
737.8318	-66.80	-25	41.80	Horizontal
5138.8374	-35.41	-25	10.41	Horizontal
10282.976	-47.88	-25	22.88	Horizontal
16385.882	-35.17	-25	10.17	Horizontal



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**7.1.1.3. Test Channel = HCH**

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
69.7239	-65.58	-25	40.58	Vertical
110.3166	-64.90	-25	39.90	Vertical
378.7928	-62.53	-25	37.53	Vertical
5200.7304	-47.86	-25	22.86	Vertical
10406.98	-44.00	-25	19.00	Vertical
17981.754	-34.55	-25	9.55	Vertical
39.6339	-64.42	-25	39.42	Horizontal
149.9251	-63.15	-25	38.15	Horizontal
603.3346	-67.40	-25	42.40	Horizontal
5198.8394	-36.78	-25	11.78	Horizontal
10402.98	-47.26	-25	22.26	Horizontal
17995.436	-37.60	-25	12.60	Horizontal

Remark:

The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.

We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.



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## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	VL	NT	3.30	0.001279	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VN	NT	0.30	0.000116	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VH	NT	-1.90	-0.000736	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VL	NT	0.60	0.000231	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VN	NT	-5.00	-0.001927	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VH	NT	1.60	0.000617	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VL	NT	-13.30	-0.005096	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VN	NT	-9.60	-0.003678	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VH	NT	5.80	0.002222	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	VL	NT	-5.40	-0.002093	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	VN	NT	-7.40	-0.002868	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	VH	NT	3.50	0.001357	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	VL	NT	2.50	0.000963	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	VN	NT	0.50	0.000193	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	VH	NT	1.30	0.000501	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	VL	NT	3.50	0.001341	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	VN	NT	-2.50	-0.000958	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	VH	NT	5.70	0.002184	±2.5	PASS

### 8.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	NV	-30	-2.90	-0.001124	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-20	2.30	0.000891	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	0	-5.90	-0.002287	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	10	1.50	0.000581	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	20	-6.80	-0.002636	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	30	-0.70	-0.000271	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	40	1.00	0.000388	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	50	-7.00	-0.002713	±2.5	PASS



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Band38	20MHz	QPSK	38000	100RB#0	NV	-30	6.50	0.002505	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-20	6.80	0.002620	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	0	-7.50	-0.002890	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	10	-1.00	-0.000385	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	20	2.00	0.000771	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	30	3.80	0.001464	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	40	5.60	0.002158	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	50	10.90	0.004200	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-30	-0.80	-0.000307	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-20	-4.00	-0.001533	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	0	-7.90	-0.003027	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	10	-9.70	-0.003716	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	20	5.00	0.001916	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	30	-3.70	-0.001418	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	40	-7.20	-0.002759	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	50	-5.90	-0.002261	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	-30	-6.00	-0.002326	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	-20	-2.40	-0.000930	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	0	-1.00	-0.000388	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	10	5.50	0.002132	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	20	-6.30	-0.002442	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	30	0.30	0.000116	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	40	5.20	0.002016	±2.5	PASS
Band38	20MHz	16QAM	37850	27RB#0	NV	50	-4.10	-0.001589	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	-30	-8.90	-0.003430	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	-20	-1.60	-0.000617	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	0	5.90	0.002274	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	10	-5.90	-0.002274	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	20	-9.80	-0.003776	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	30	-1.10	-0.000424	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	40	6.60	0.002543	±2.5	PASS
Band38	20MHz	16QAM	38000	27RB#0	NV	50	-9.80	-0.003776	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	-30	7.90	0.003027	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	-20	-9.40	-0.003602	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	0	-8.50	-0.003257	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	10	-5.20	-0.001992	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	20	-2.70	-0.001034	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	30	1.40	0.000536	±2.5	PASS



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Band38	20MHz	16QAM	38150	27RB#0	NV	40	7.40	0.002835	±2.5	PASS
Band38	20MHz	16QAM	38150	27RB#0	NV	50	-8.30	-0.003180	±2.5	PASS

The End



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