



# 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	22.99	22.99	33.00	PASS
Band38	5MHz	QPSK	37775	1RB#12	23.16	23.16	33.00	PASS
Band38	5MHz	QPSK	37775	1RB#24	23.01	23.01	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#0	22.05	22.05	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#6	22.15	22.15	33.00	PASS
Band38	5MHz	QPSK	37775	12RB#13	22.19	22.19	33.00	PASS
Band38	5MHz	QPSK	37775	25RB#0	22.12	22.12	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#0	23.06	23.06	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#24	<b>23.21</b>	<b>23.21</b>	33.00	PASS
Band38	5MHz	QPSK	38000	1RB#12	23.11	23.11	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#0	22.19	22.19	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#6	22.29	22.29	33.00	PASS
Band38	5MHz	QPSK	38000	12RB#13	22.18	22.18	33.00	PASS
Band38	5MHz	QPSK	38000	25RB#0	22.21	22.21	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#24	23.05	23.05	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#0	23.08	23.08	33.00	PASS
Band38	5MHz	QPSK	38225	1RB#12	23.02	23.02	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#0	22.27	22.27	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#6	22.32	22.32	33.00	PASS
Band38	5MHz	QPSK	38225	12RB#13	22.21	22.21	33.00	PASS
Band38	5MHz	QPSK	38225	25RB#0	22.26	22.26	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#0	22.05	22.05	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#12	22.15	22.15	33.00	PASS
Band38	5MHz	16QAM	37775	1RB#24	22.07	22.07	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#6	21.13	21.13	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#0	21.16	21.16	33.00	PASS
Band38	5MHz	16QAM	37775	12RB#13	21.08	21.08	33.00	PASS



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Band38	5MHz	16QAM	37775	25RB#0	21.07	21.07	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#0	22.17	22.17	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#12	22.22	22.22	33.00	PASS
Band38	5MHz	16QAM	38000	1RB#24	22.12	22.12	33.00	PASS
Band38	5MHz	16QAM	38000	12RB#13	21.09	21.09	33.00	PASS
Band38	5MHz	16QAM	38000	12RB#0	21.11	21.11	33.00	PASS
Band38	5MHz	16QAM	38000	12RB#6	21.17	21.17	33.00	PASS
Band38	5MHz	16QAM	38000	25RB#0	21.19	21.19	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#12	22.15	22.15	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#0	22.22	22.22	33.00	PASS
Band38	5MHz	16QAM	38225	1RB#24	22.21	22.21	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#0	21.17	21.17	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#6	21.23	21.23	33.00	PASS
Band38	5MHz	16QAM	38225	12RB#13	21.04	21.04	33.00	PASS
Band38	5MHz	16QAM	38225	25RB#0	21.21	21.21	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#24	23.16	23.16	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#49	23.08	23.08	33.00	PASS
Band38	10MHz	QPSK	37800	1RB#0	23.05	23.05	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#0	22.17	22.17	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#12	22.18	22.18	33.00	PASS
Band38	10MHz	QPSK	37800	25RB#25	22.29	22.29	33.00	PASS
Band38	10MHz	QPSK	37800	50RB#0	22.09	22.09	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#0	<b>23.24</b>	<b>23.24</b>	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#49	23.1	23.1	33.00	PASS
Band38	10MHz	QPSK	38000	1RB#24	23.21	23.21	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#25	22.32	22.32	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#0	22.25	22.25	33.00	PASS
Band38	10MHz	QPSK	38000	25RB#12	22.28	22.28	33.00	PASS
Band38	10MHz	QPSK	38000	50RB#0	22.22	22.22	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#24	23.04	23.04	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#0	23.1	23.1	33.00	PASS
Band38	10MHz	QPSK	38200	1RB#49	23.16	23.16	33.00	PASS
Band38	10MHz	QPSK	38200	25RB#0	22.3	22.3	33.00	PASS



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Band38	10MHz	QPSK	38200	25RB#25	22.25	22.25	33.00	PASS
Band38	10MHz	QPSK	38200	25RB#12	22.24	22.24	33.00	PASS
Band38	10MHz	QPSK	38200	50RB#0	22.21	22.21	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#49	22.15	22.15	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#0	22.09	22.09	33.00	PASS
Band38	10MHz	16QAM	37800	1RB#24	22.18	22.18	33.00	PASS
Band38	10MHz	16QAM	37800	25RB#25	21.21	21.21	33.00	PASS
Band38	10MHz	16QAM	37800	25RB#12	21.21	21.21	33.00	PASS
Band38	10MHz	16QAM	37800	25RB#0	21.32	21.32	33.00	PASS
Band38	10MHz	16QAM	37800	50RB#0	21.16	21.16	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#49	22.32	22.32	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#0	22.18	22.18	33.00	PASS
Band38	10MHz	16QAM	38000	1RB#24	22.19	22.19	33.00	PASS
Band38	10MHz	16QAM	38000	25RB#25	21.24	21.24	33.00	PASS
Band38	10MHz	16QAM	38000	25RB#0	21.23	21.23	33.00	PASS
Band38	10MHz	16QAM	38000	25RB#12	21.23	21.23	33.00	PASS
Band38	10MHz	16QAM	38000	50RB#0	21.24	21.24	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#24	22.23	22.23	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#0	22.19	22.19	33.00	PASS
Band38	10MHz	16QAM	38200	1RB#49	22.33	22.33	33.00	PASS
Band38	10MHz	16QAM	38200	25RB#0	21.29	21.29	33.00	PASS
Band38	10MHz	16QAM	38200	25RB#12	21.26	21.26	33.00	PASS
Band38	10MHz	16QAM	38200	25RB#25	21.22	21.22	33.00	PASS
Band38	10MHz	16QAM	38200	50RB#0	21.26	21.26	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#0	23.12	23.12	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#38	23.15	23.15	33.00	PASS
Band38	15MHz	QPSK	37825	1RB#74	23.12	23.12	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#0	22.16	22.16	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#18	22.24	22.24	33.00	PASS
Band38	15MHz	QPSK	37825	36RB#39	22.2	22.2	33.00	PASS
Band38	15MHz	QPSK	37825	75RB#0	22.14	22.14	33.00	PASS
Band38	15MHz	QPSK	38000	1RB#0	23.15	23.15	33.00	PASS
Band38	15MHz	QPSK	38000	1RB#74	<b>23.2</b>	<b>23.2</b>	33.00	PASS



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Band38	15MHz	QPSK	38000	1RB#38	23.15	23.15	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#0	22.2	22.2	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#18	22.24	22.24	33.00	PASS
Band38	15MHz	QPSK	38000	36RB#39	22.18	22.18	33.00	PASS
Band38	15MHz	QPSK	38000	75RB#0	22.09	22.09	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#74	23.12	23.12	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#0	23.13	23.13	33.00	PASS
Band38	15MHz	QPSK	38175	1RB#38	23.16	23.16	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#0	22.25	22.25	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#18	22.28	22.28	33.00	PASS
Band38	15MHz	QPSK	38175	36RB#39	22.22	22.22	33.00	PASS
Band38	15MHz	QPSK	38175	75RB#0	22.2	22.2	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#0	22.1	22.1	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#38	22.21	22.21	33.00	PASS
Band38	15MHz	16QAM	37825	1RB#74	22.14	22.14	33.00	PASS
Band38	15MHz	16QAM	37825	36RB#18	21.11	21.11	33.00	PASS
Band38	15MHz	16QAM	37825	36RB#0	21.12	21.12	33.00	PASS
Band38	15MHz	16QAM	37825	36RB#39	21.15	21.15	33.00	PASS
Band38	15MHz	16QAM	37825	75RB#0	21.1	21.1	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#0	22.19	22.19	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#38	22.16	22.16	33.00	PASS
Band38	15MHz	16QAM	38000	1RB#74	22.18	22.18	33.00	PASS
Band38	15MHz	16QAM	38000	36RB#39	21.12	21.12	33.00	PASS
Band38	15MHz	16QAM	38000	36RB#0	21.19	21.19	33.00	PASS
Band38	15MHz	16QAM	38000	36RB#18	21.09	21.09	33.00	PASS
Band38	15MHz	16QAM	38000	75RB#0	21.22	21.22	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#38	22.17	22.17	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#0	22.25	22.25	33.00	PASS
Band38	15MHz	16QAM	38175	1RB#74	22.11	22.11	33.00	PASS
Band38	15MHz	16QAM	38175	36RB#0	21.21	21.21	33.00	PASS
Band38	15MHz	16QAM	38175	36RB#18	21.16	21.16	33.00	PASS
Band38	15MHz	16QAM	38175	36RB#39	21.09	21.09	33.00	PASS
Band38	15MHz	16QAM	38175	75RB#0	21.17	21.17	33.00	PASS



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Band38	20MHz	QPSK	37850	1RB#99	22.94	22.94	33.00	PASS
Band38	20MHz	QPSK	37850	1RB#49	23.22	23.22	33.00	PASS
Band38	20MHz	QPSK	37850	1RB#0	22.95	22.95	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#0	21.98	21.98	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#25	22.07	22.07	33.00	PASS
Band38	20MHz	QPSK	37850	50RB#50	22.18	22.18	33.00	PASS
Band38	20MHz	QPSK	37850	100RB#0	22.07	22.07	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#0	22.97	22.97	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#99	<b>23.24</b>	<b>23.24</b>	33.00	PASS
Band38	20MHz	QPSK	38000	1RB#49	22.86	22.86	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#50	22.09	22.09	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#0	22.13	22.13	33.00	PASS
Band38	20MHz	QPSK	38000	50RB#25	22.06	22.06	33.00	PASS
Band38	20MHz	QPSK	38000	100RB#0	22.12	22.12	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#49	22.98	22.98	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#0	23.17	23.17	33.00	PASS
Band38	20MHz	QPSK	38150	1RB#99	22.94	22.94	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#0	<b>22.27</b>	<b>22.27</b>	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#50	22.08	22.08	33.00	PASS
Band38	20MHz	QPSK	38150	50RB#25	22.06	22.06	33.00	PASS
Band38	20MHz	QPSK	38150	100RB#0	22.18	22.18	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#99	21.98	21.98	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#0	22.2	22.2	33.00	PASS
Band38	20MHz	16QAM	37850	1RB#49	22.02	22.02	33.00	PASS
Band38	20MHz	16QAM	37850	50RB#50	21.03	21.03	33.00	PASS
Band38	20MHz	16QAM	37850	50RB#25	21.11	21.11	33.00	PASS
Band38	20MHz	16QAM	37850	50RB#0	21.11	21.11	33.00	PASS
Band38	20MHz	16QAM	37850	100RB#0	21.09	21.09	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#99	22.04	22.04	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#0	22.33	22.33	33.00	PASS
Band38	20MHz	16QAM	38000	1RB#49	21.99	21.99	33.00	PASS
Band38	20MHz	16QAM	38000	50RB#50	21.09	21.09	33.00	PASS
Band38	20MHz	16QAM	38000	50RB#0	21.2	21.2	33.00	PASS



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 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band38	20MHz	16QAM	38000	50RB#25	21.08	21.08	33.00	PASS
Band38	20MHz	16QAM	38000	100RB#0	21.19	21.19	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#49	22.1	22.1	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#0	22.24	22.24	33.00	PASS
Band38	20MHz	16QAM	38150	1RB#99	22.03	22.03	33.00	PASS
Band38	20MHz	16QAM	38150	50RB#0	21.2	21.2	33.00	PASS
Band38	20MHz	16QAM	38150	50RB#25	21.2	21.2	33.00	PASS
Band38	20MHz	16QAM	38150	50RB#50	21.12	21.12	33.00	PASS
Band38	20MHz	16QAM	38150	100RB#0	21.14	21.14	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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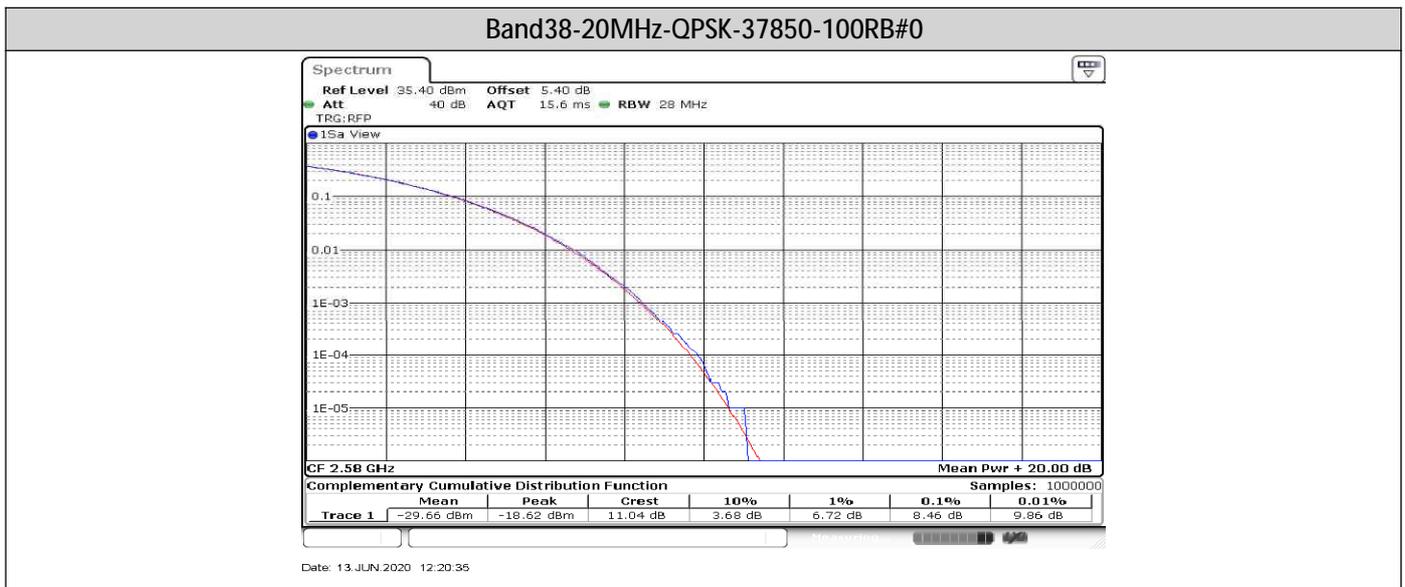


## 2. Peak-to-Average Ratio (CCDF)

### 2.1. Test Result

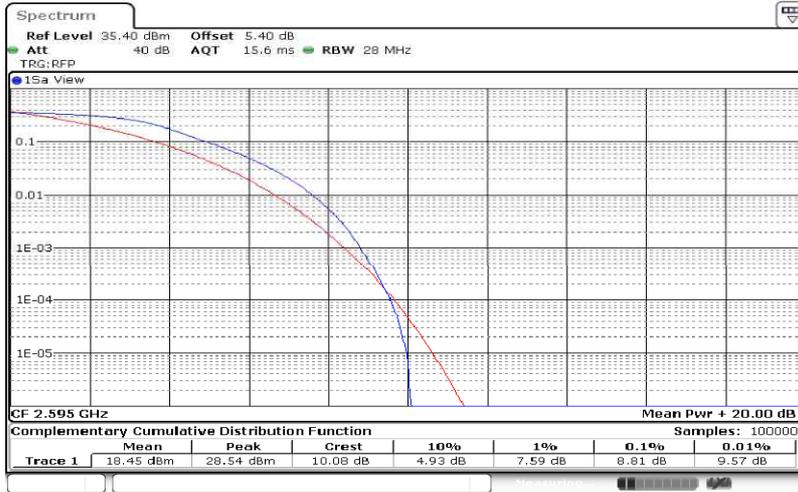
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	8.46	13	PASS
Band38	20MHz	QPSK	38000	100RB#0	8.81	13	PASS
Band38	20MHz	QPSK	38150	100RB#0	8.93	13	PASS
Band38	20MHz	16QAM	37850	100RB#0	9.39	13	PASS
Band38	20MHz	16QAM	38000	100RB#0	9.54	13	PASS
Band38	20MHz	16QAM	38150	100RB#0	9.83	13	PASS

### 2.2. Test Plots



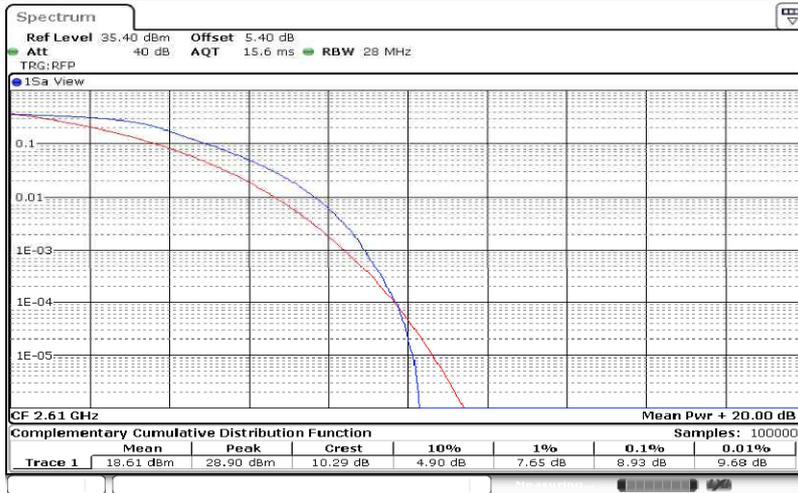
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**Band38-20MHz-QPSK-38000-100RB#0**



Date: 13 JUN 2020 12:20:57

**Band38-20MHz-QPSK-38150-100RB#0**



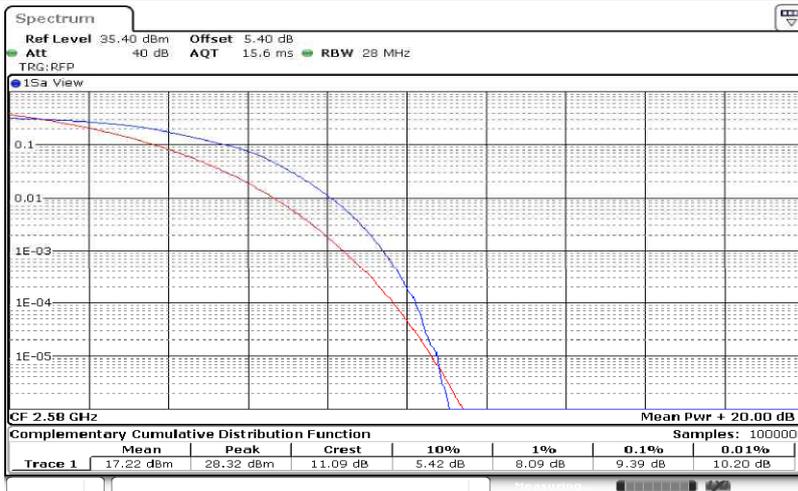
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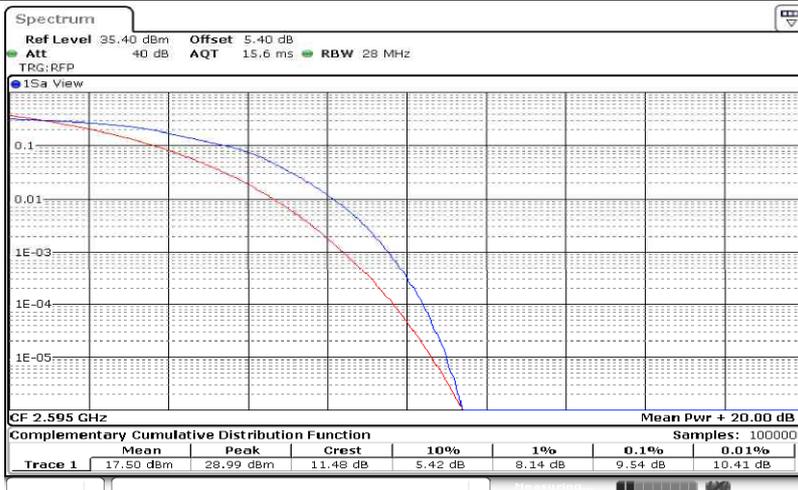


Band38-20MHz-16QAM-37850-100RB#0



Date: 13 JUN 2020 12:20:46

Band38-20MHz-16QAM-38000-100RB#0



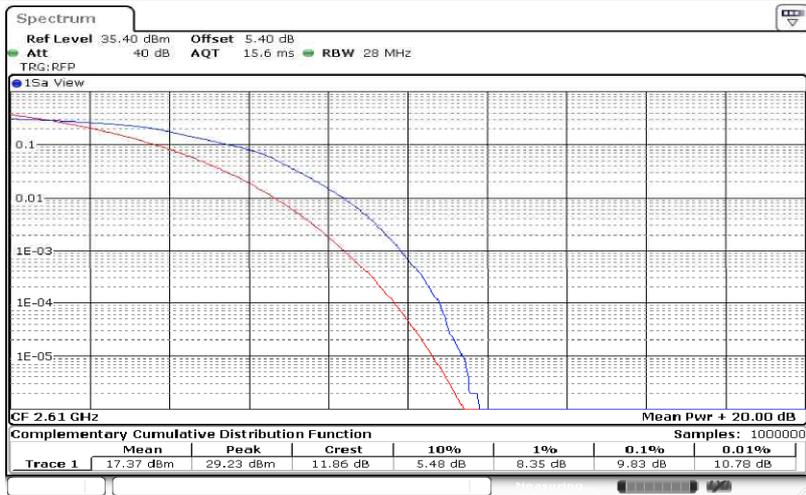
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**Band38-20MHz-16QAM-38150-100RB#0**



Date: 13 JUN 2020 12:21:30



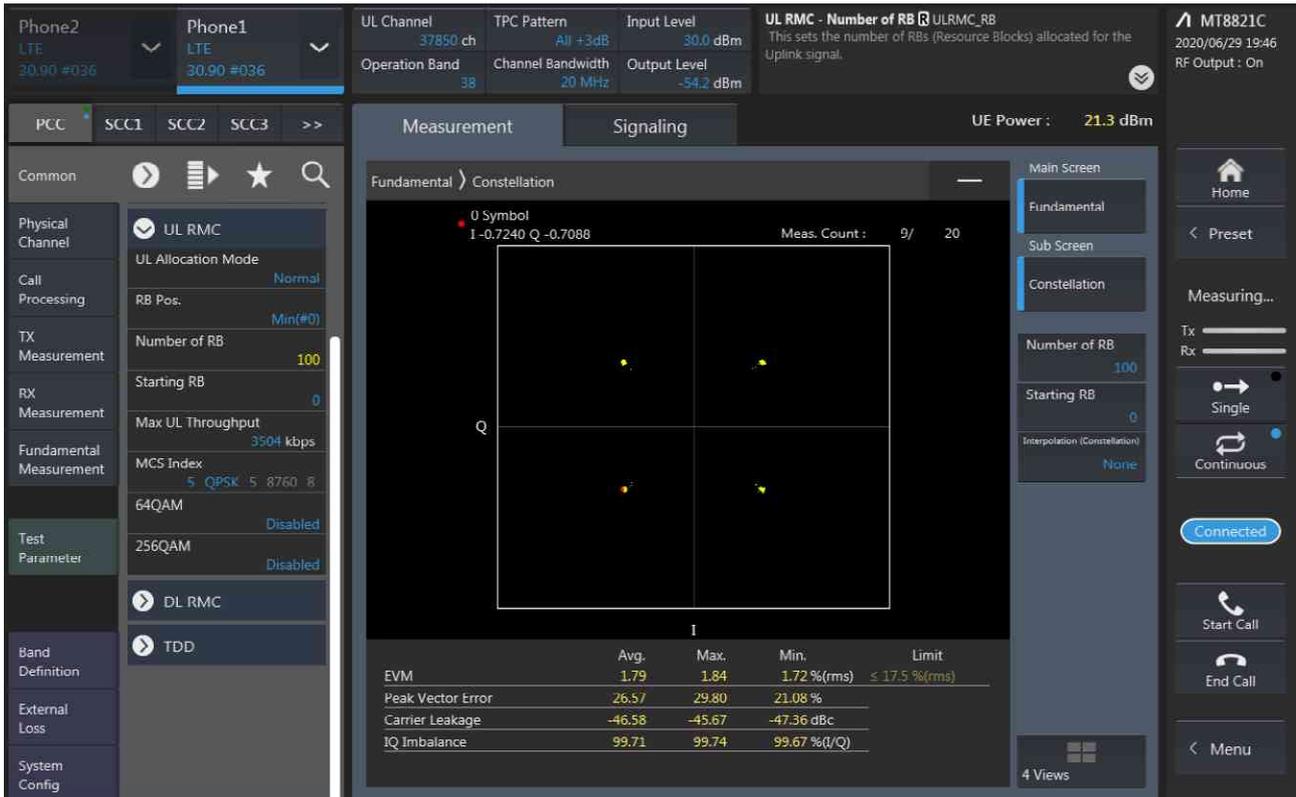
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### 3. Modulation Characteristics

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

##### 3.1.1. Test Channel = MCH

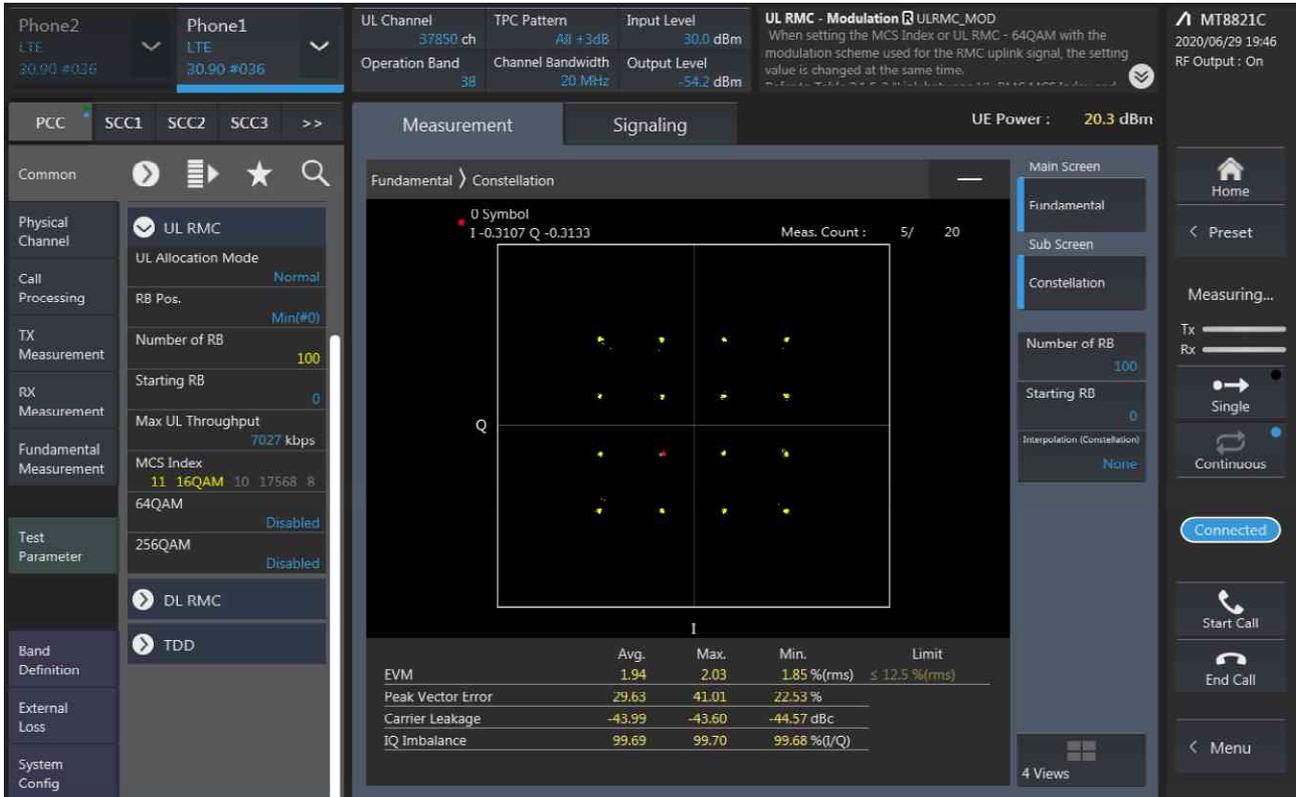


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### 3.2. Test Mode = LTE /TM2 20MHz

#### 3.2.1. Test Channel = MCH



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## 4. 26dB Bandwidth and Occupied Bandwidth

### 4.1. Test Result

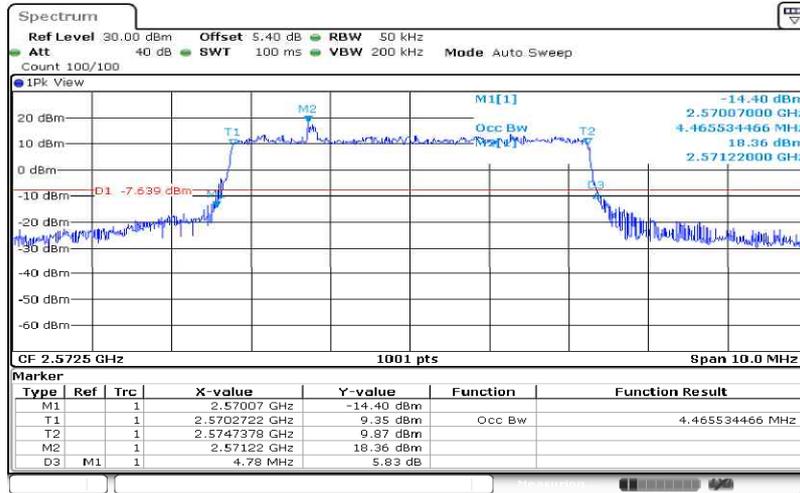
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	4.466	4.780	PASS
Band38	5MHz	QPSK	38000	25RB#0	4.466	4.900	PASS
Band38	5MHz	QPSK	38225	25RB#0	4.486	4.780	PASS
Band38	5MHz	16QAM	37775	25RB#0	4.486	4.870	PASS
Band38	5MHz	16QAM	38000	25RB#0	4.496	4.720	PASS
Band38	5MHz	16QAM	38225	25RB#0	4.486	4.720	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.971	9.420	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.911	9.360	PASS
Band38	10MHz	QPSK	38200	50RB#0	8.931	9.340	PASS
Band38	10MHz	16QAM	37800	50RB#0	8.931	9.300	PASS
Band38	10MHz	16QAM	38000	50RB#0	8.911	9.540	PASS
Band38	10MHz	16QAM	38200	50RB#0	8.971	9.420	PASS
Band38	15MHz	QPSK	37825	75RB#0	13.636	14.460	PASS
Band38	15MHz	QPSK	38000	75RB#0	13.457	14.820	PASS
Band38	15MHz	QPSK	38175	75RB#0	13.636	14.490	PASS
Band38	15MHz	16QAM	37825	75RB#0	13.606	14.490	PASS
Band38	15MHz	16QAM	38000	75RB#0	13.636	14.730	PASS
Band38	15MHz	16QAM	38175	75RB#0	13.606	14.550	PASS
Band38	20MHz	QPSK	37850	100RB#0	18.142	18.960	PASS
Band38	20MHz	QPSK	38000	100RB#0	17.862	19.120	PASS
Band38	20MHz	QPSK	38150	100RB#0	18.142	18.800	PASS
Band38	20MHz	16QAM	37850	100RB#0	18.182	19.160	PASS
Band38	20MHz	16QAM	38000	100RB#0	17.822	18.640	PASS
Band38	20MHz	16QAM	38150	100RB#0	17.822	18.640	PASS



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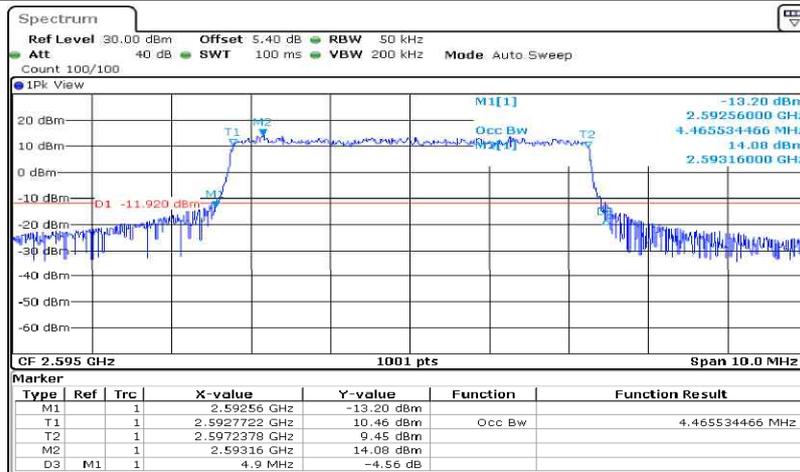
## 4.2. Test Plots

**Band38-5MHz-QPSK-37775-25RB#0-4.466**



Date: 13 JUN 2020 11:53:05

**Band38-5MHz-QPSK-38000-25RB#0-4.466**



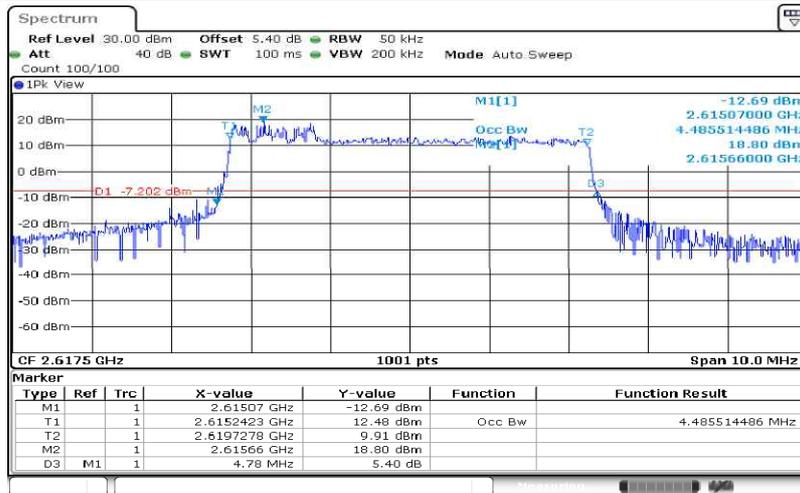
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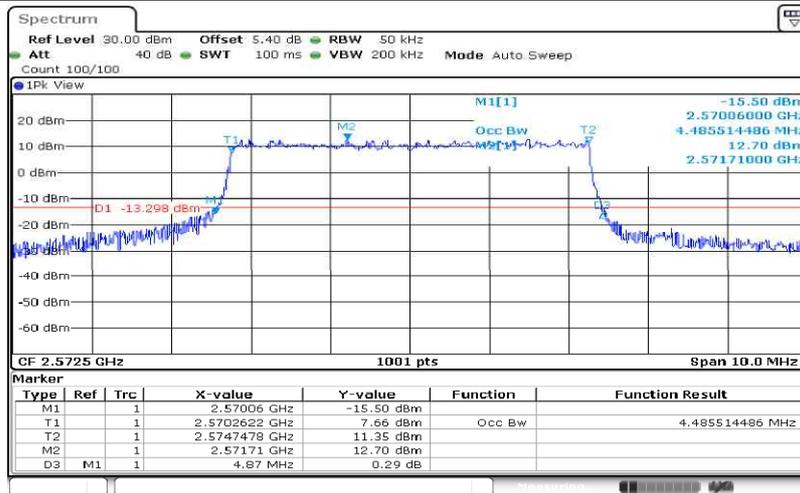


Band38-5MHz-QPSK-38225-25RB#0-4.486



Date: 13 JUN 2020 11:54:24

Band38-5MHz-16QAM-37775-25RB#0-4.486



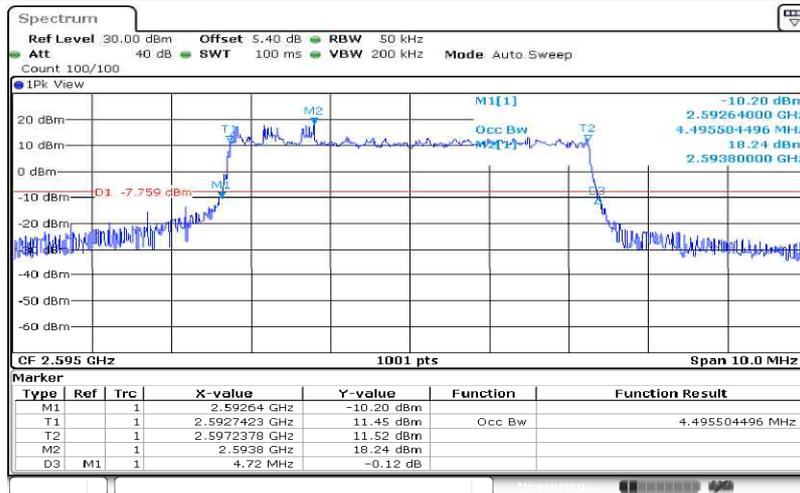
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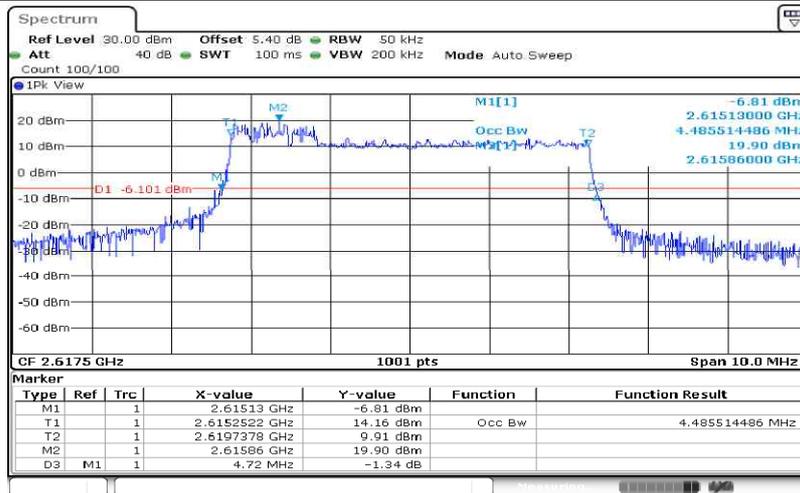


Band38-5MHz-16QAM-38000-25RB#0-4.496



Date: 13 JUN 2020 11:54:04

Band38-5MHz-16QAM-38225-25RB#0-4.486



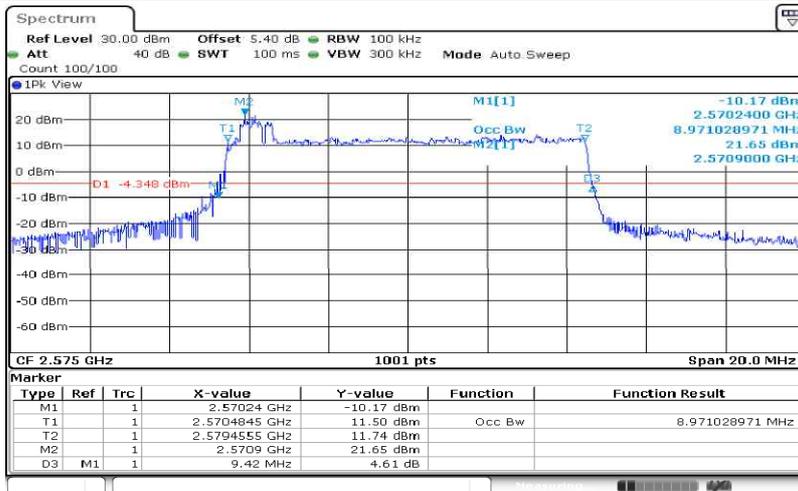
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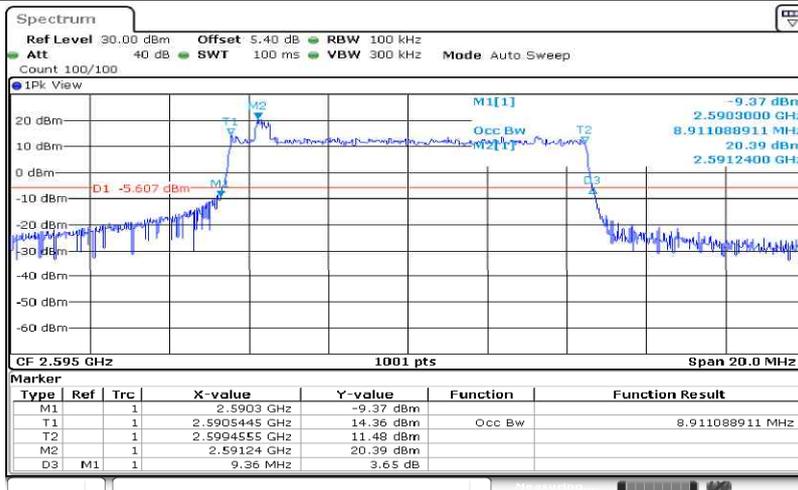


Band38-10MHz-QPSK-37800-50RB#0-8.971



Date: 13 JUN 2020 11:55:08

Band38-10MHz-QPSK-38000-50RB#0-8.911



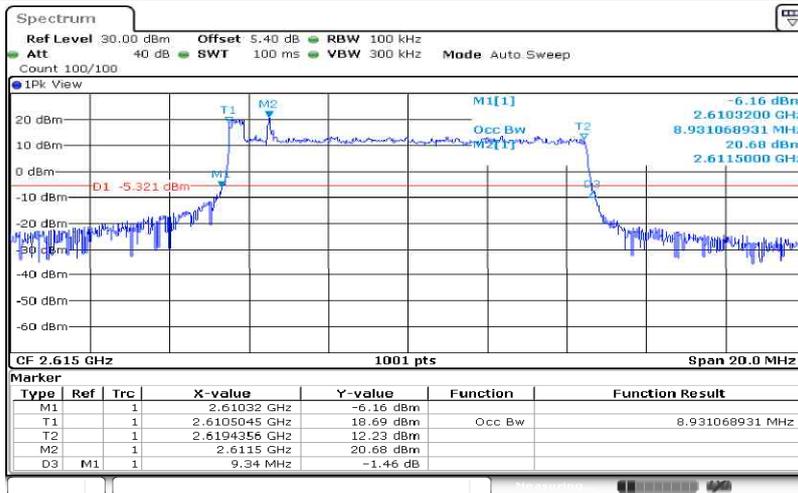
Date: 13 JUN 2020 11:55:48



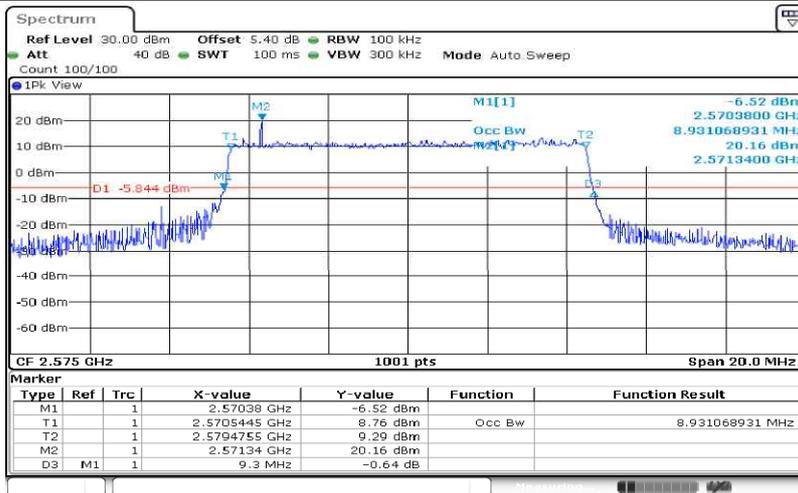
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Band38-10MHz-QPSK-38200-50RB#0-8.931



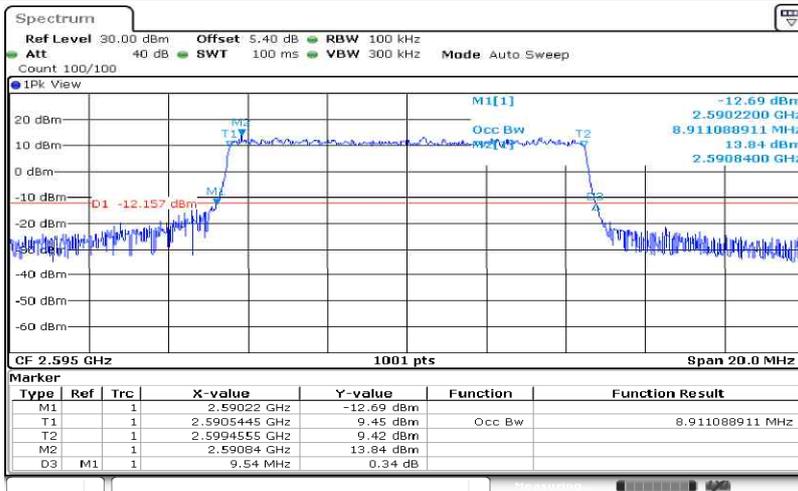
Band38-10MHz-16QAM-37800-50RB#0-8.931



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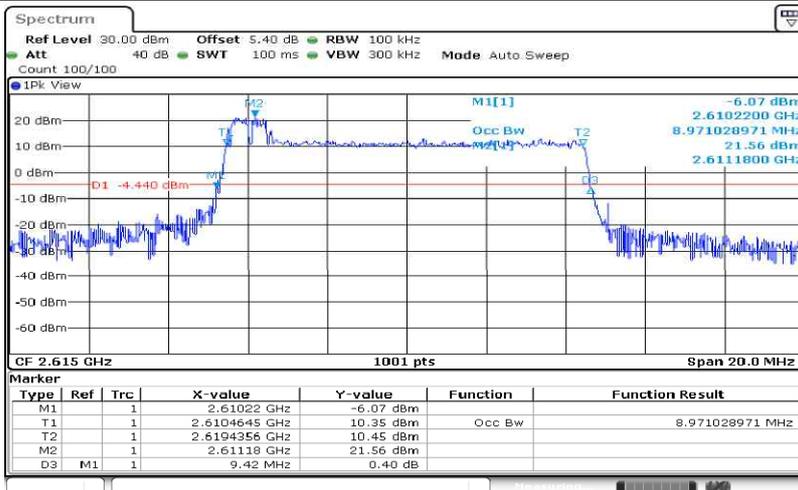


Band38-10MHz-16QAM-38000-50RB#0-8.911



Date: 13 JUN 2020 11:56:07

Band38-10MHz-16QAM-38200-50RB#0-8.971



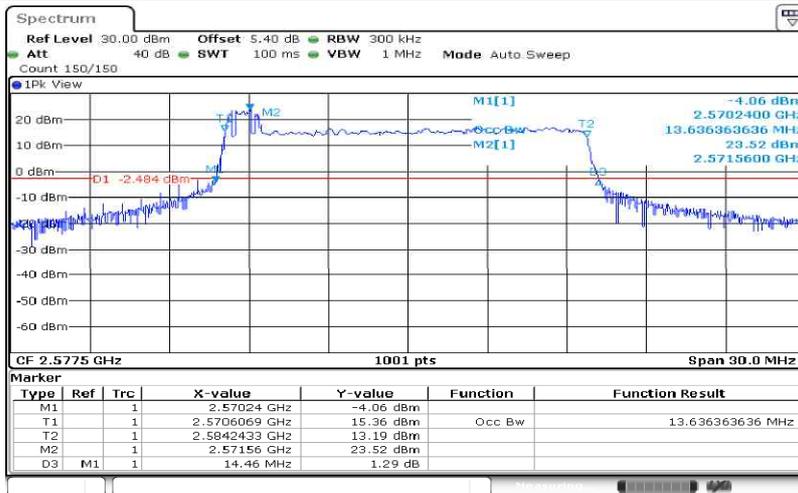
Date: 13 JUN 2020 11:56:47



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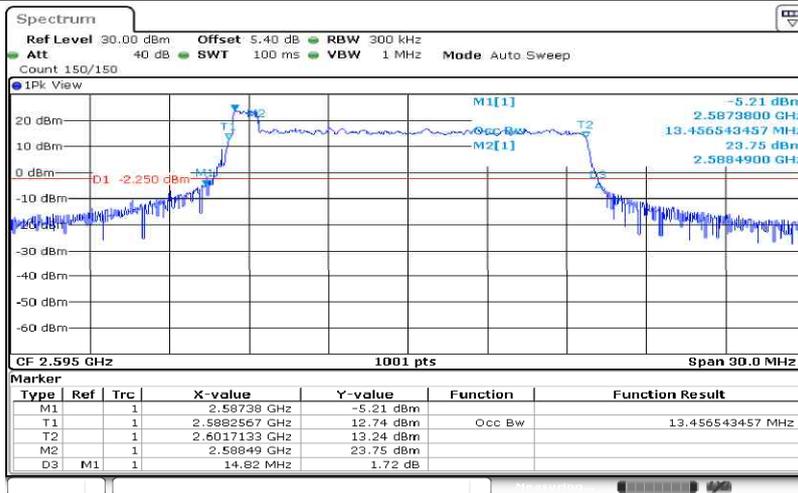


**Band38-15MHz-QPSK-37825-75RB#0-13.636**



Date: 13 JUN 2020 11:59:30

**Band38-15MHz-QPSK-38000-75RB#0-13.457**



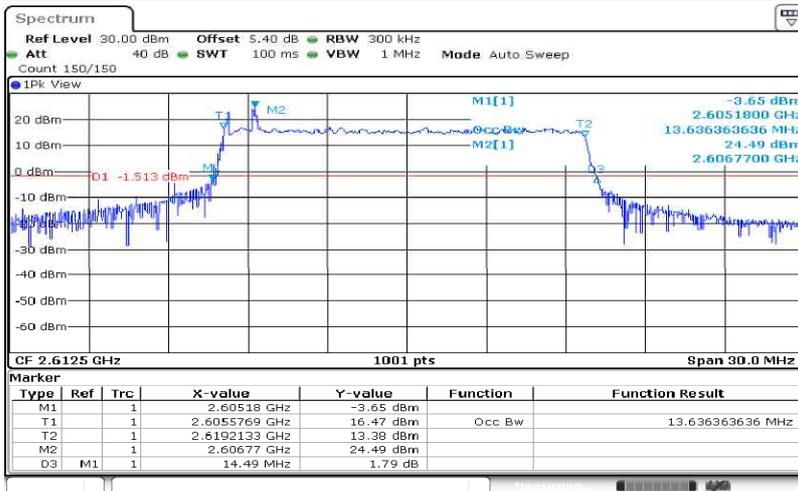
Date: 13 JUN 2020 12:00:22



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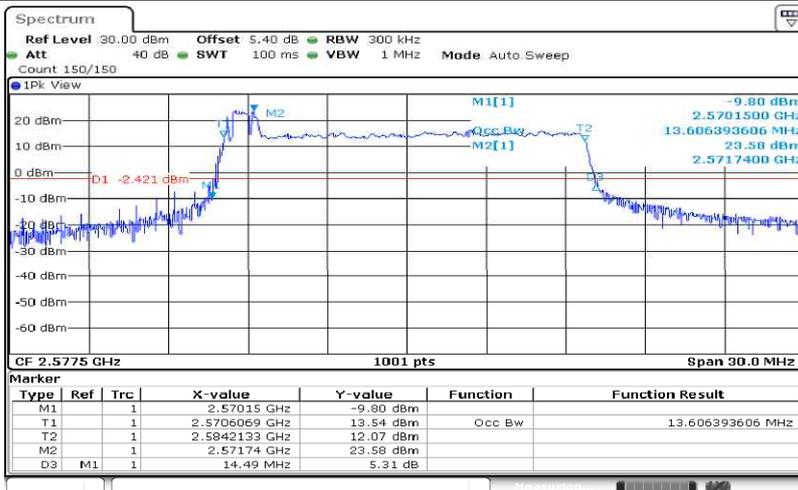


Band38-15MHz-QPSK-38175-75RB#0-13.636



Date: 13 JUN 2020 12:01:15

Band38-15MHz-16QAM-37825-75RB#0-13.606



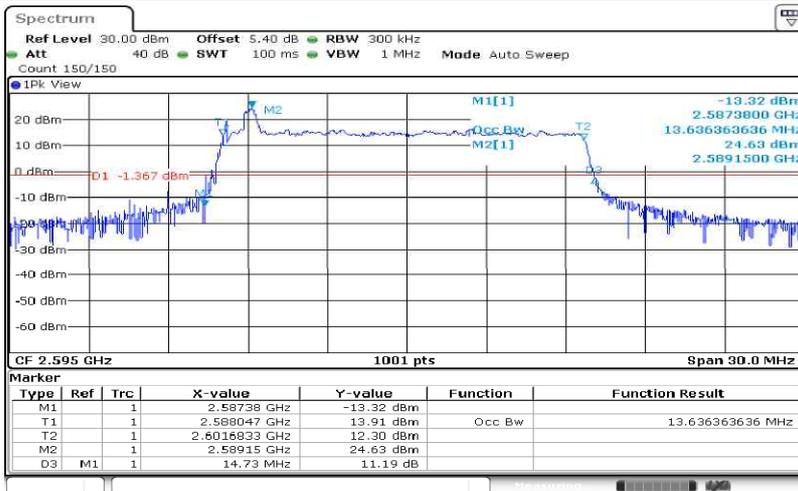
Date: 13 JUN 2020 11:59:56



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Band38-15MHz-16QAM-38000-75RB#0-13.636



Date: 13 JUN 2020 12:00:48

Band38-15MHz-16QAM-38175-75RB#0-13.606



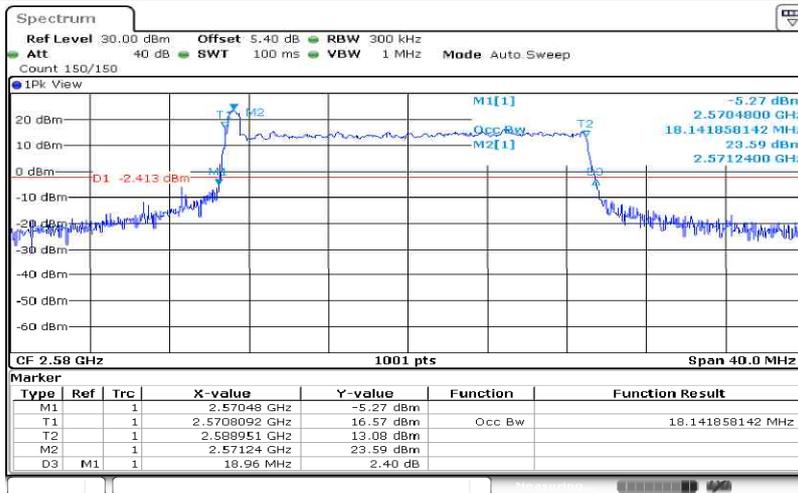
Date: 13 JUN 2020 12:01:41



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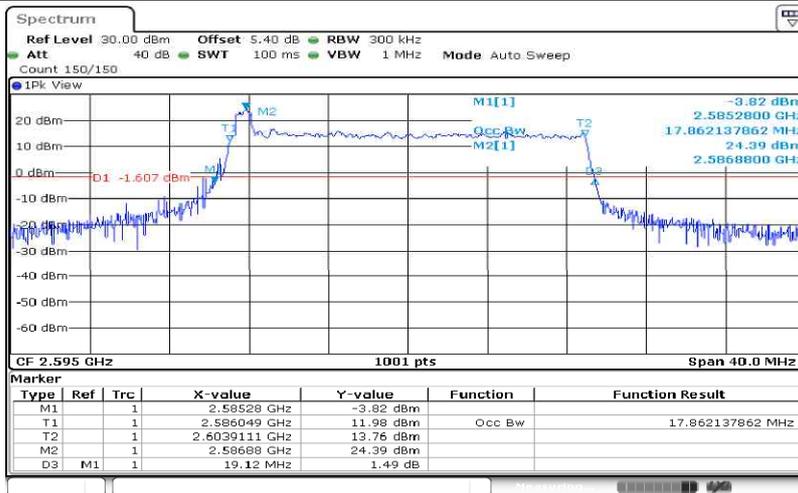


Band38-20MHz-QPSK-37850-100RB#0-18.142



Date: 13 JUN 2020 12:02:12

Band38-20MHz-QPSK-38000-100RB#0-17.862



Date: 13 JUN 2020 12:03:04

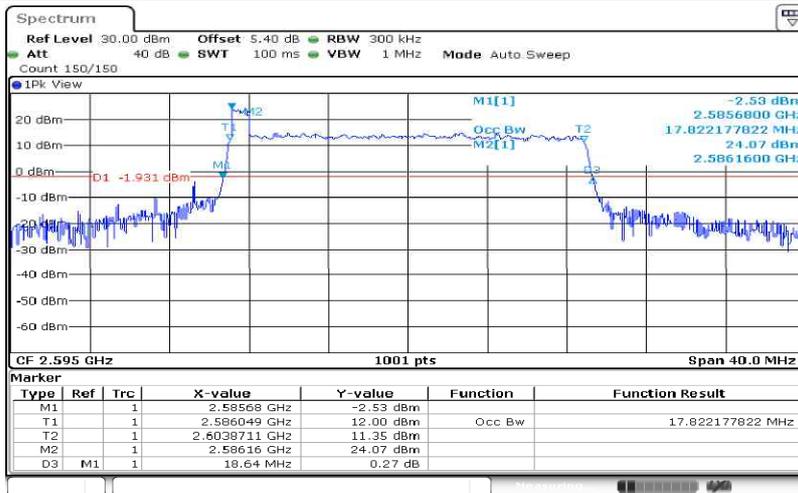


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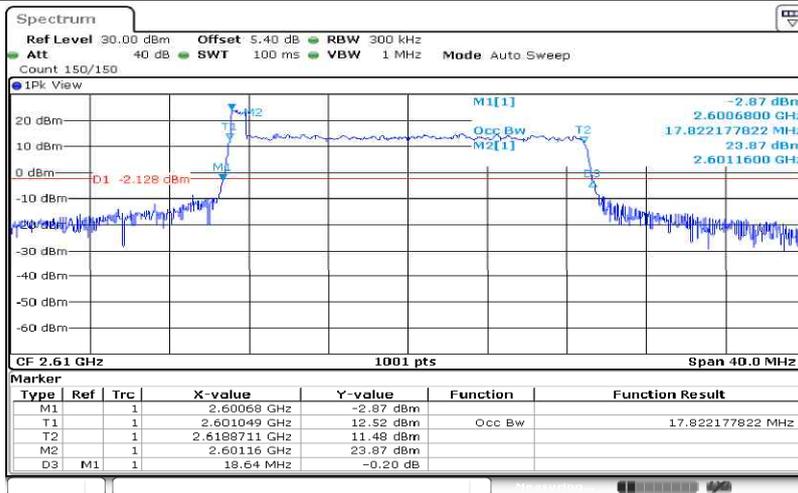


Band38-20MHz-16QAM-38000-100RB#0-17.822



Date: 13 JUN 2020 12:03:30

Band38-20MHz-16QAM-38150-100RB#0-17.822



Date: 13 JUN 2020 12:04:23

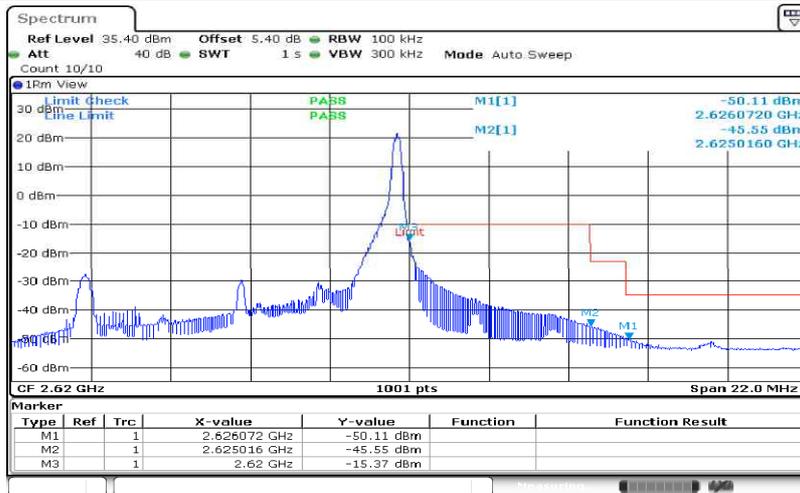


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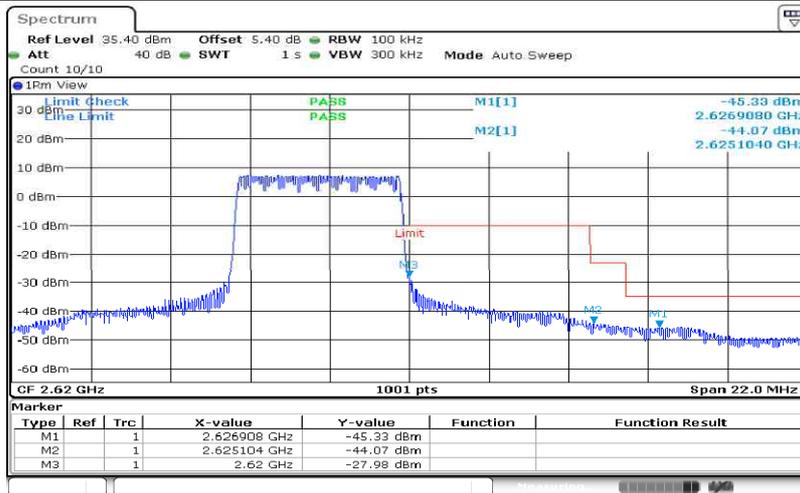


Band38-5MHz-QPSK-38225-1RB#24



Date: 13 JUN 2020 12:23:19

Band38-5MHz-QPSK-38225-25RB#0



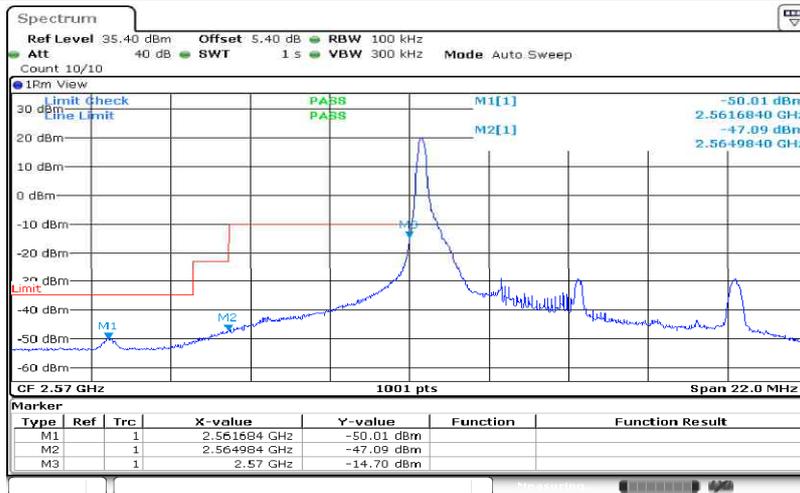
Date: 13 JUN 2020 12:26:42



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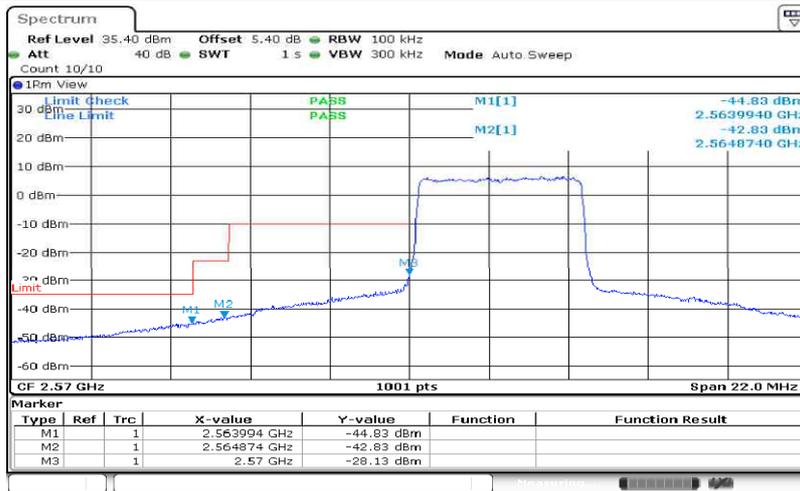


Band38-5MHz-16QAM-37775-1RB#0



Date: 13 JUN 2020 12:05:10

Band38-5MHz-16QAM-37775-25RB#0



Date: 13 JUN 2020 12:25:41

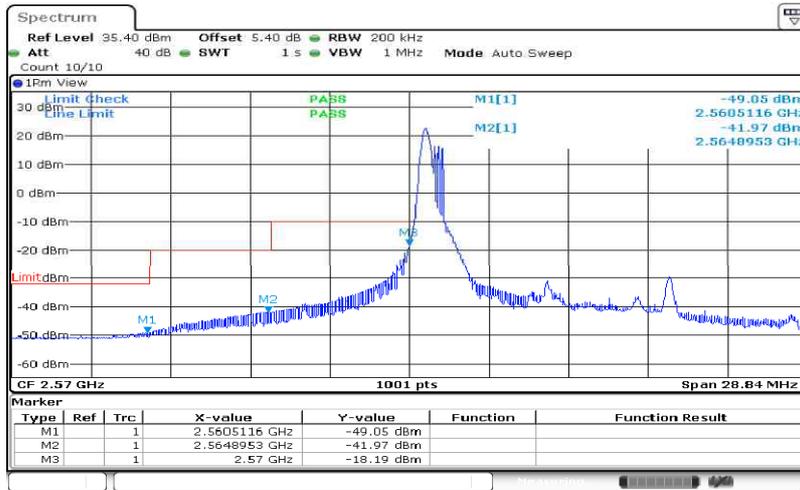


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Band38-10MHz-QPSK-37800-1RB#0



Date: 13 JUN 2020 12:07:55

Band38-10MHz-QPSK-37800-50RB#0



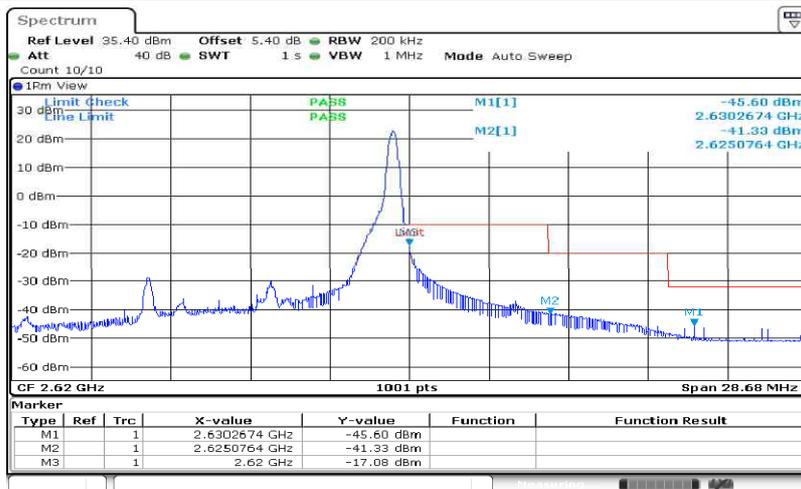
Date: 13 JUN 2020 12:09:30



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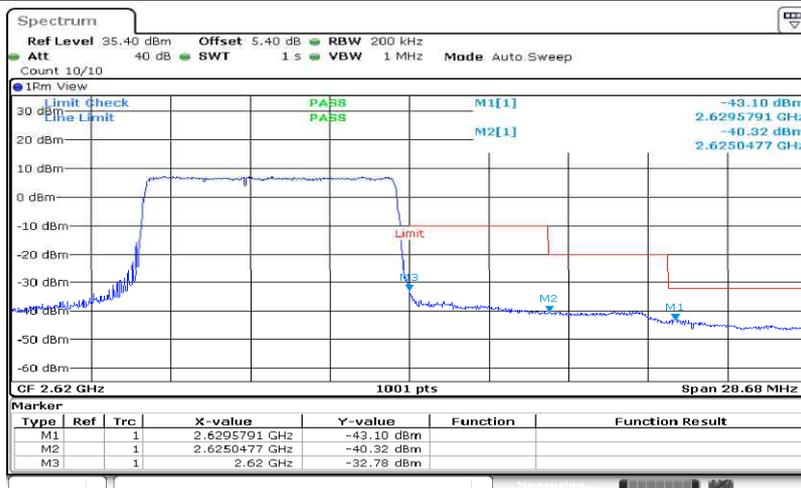


Band38-10MHz-QPSK-38200-1RB#49



Date: 13 JUN 2020 12:08:42

Band38-10MHz-QPSK-38200-50RB#0



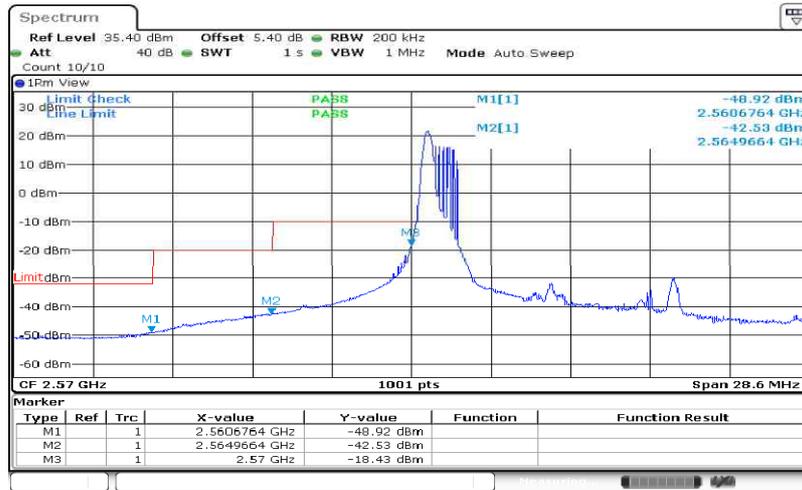
Date: 13 JUN 2020 12:10:13



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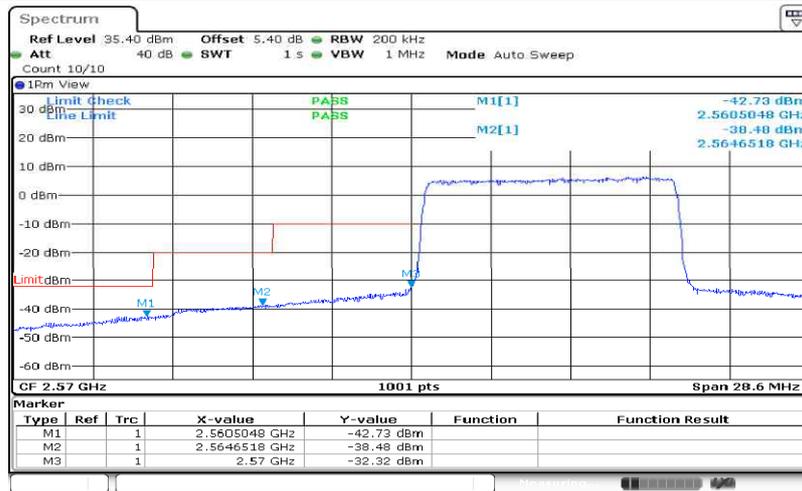


Band38-10MHz-16QAM-37800-1RB#0



Date: 13 JUN 2020 12:08:16

Band38-10MHz-16QAM-37800-50RB#0



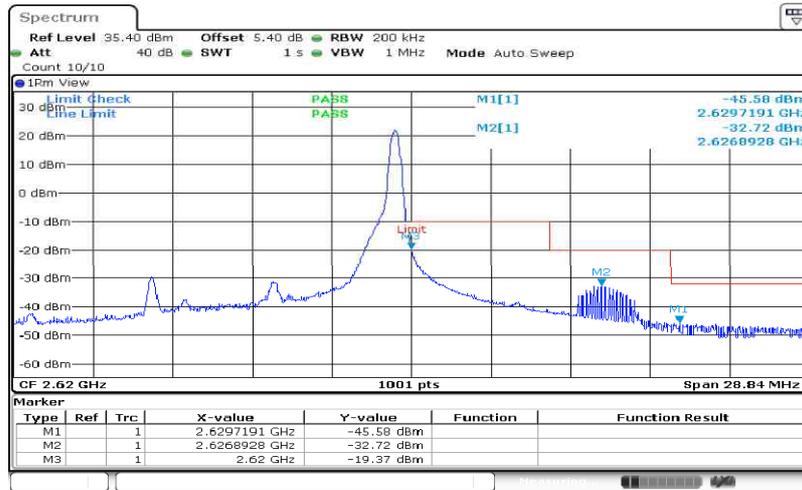
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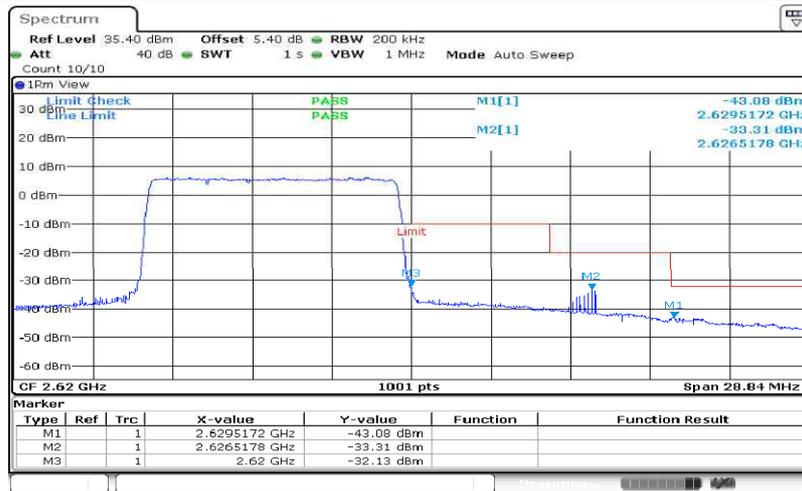


Band38-10MHz-16QAM-38200-1RB#49



Date: 13 JUN 2020 12:09:04

Band38-10MHz-16QAM-38200-50RB#0



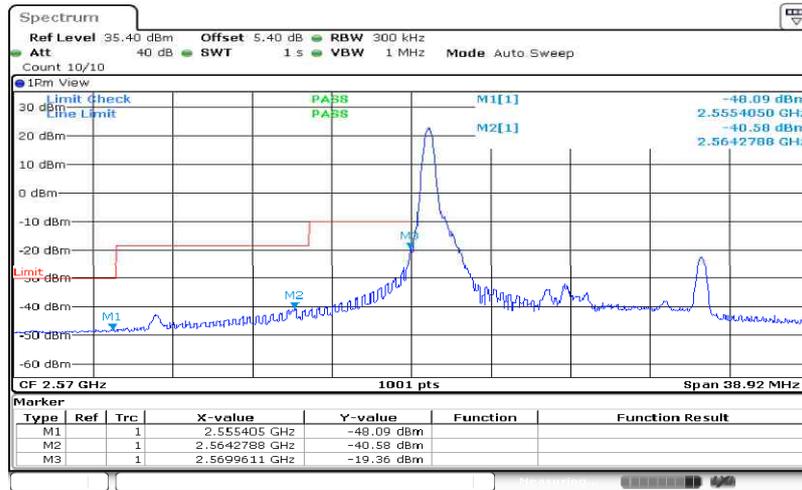
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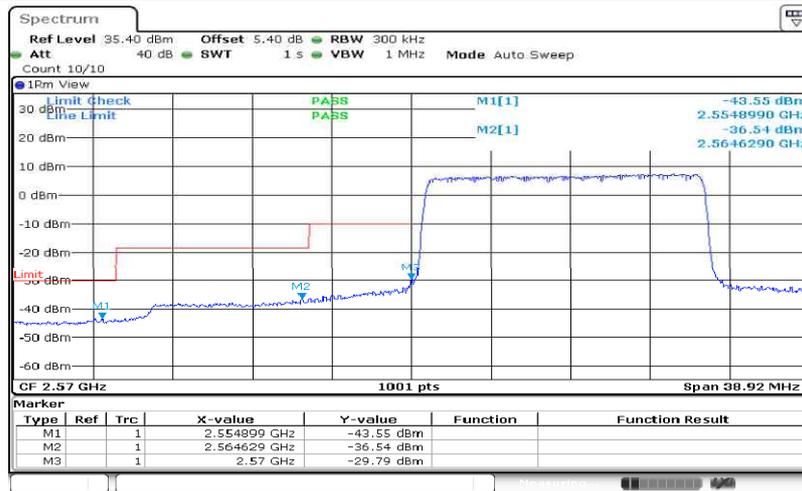


Band38-15MHz-QPSK-37825-1RB#0



Date: 13 JUN 2020 12:11:01

Band38-15MHz-QPSK-37825-75RB#0



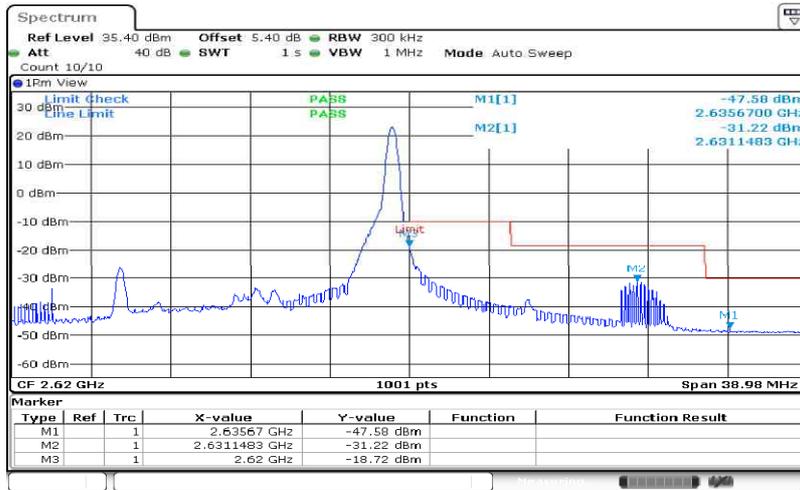
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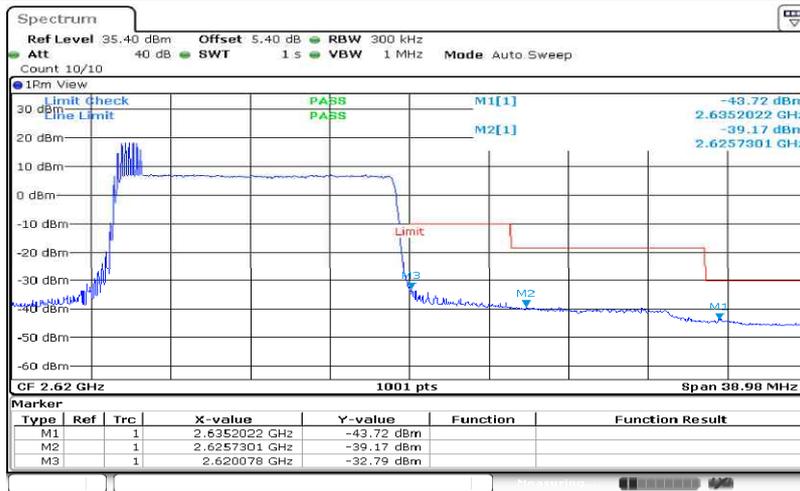


Band38-15MHz-QPSK-38175-1RB#74



Date: 13 JUN 2020 12:11:49

Band38-15MHz-QPSK-38175-75RB#0



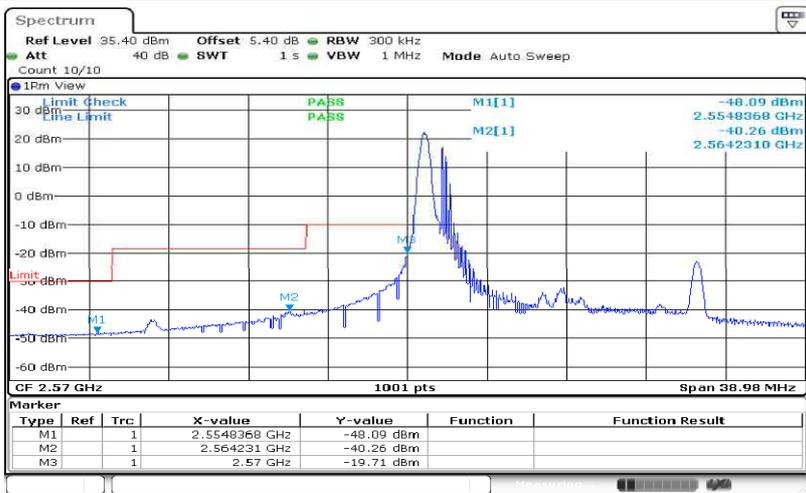
Date: 13 JUN 2020 12:13:19



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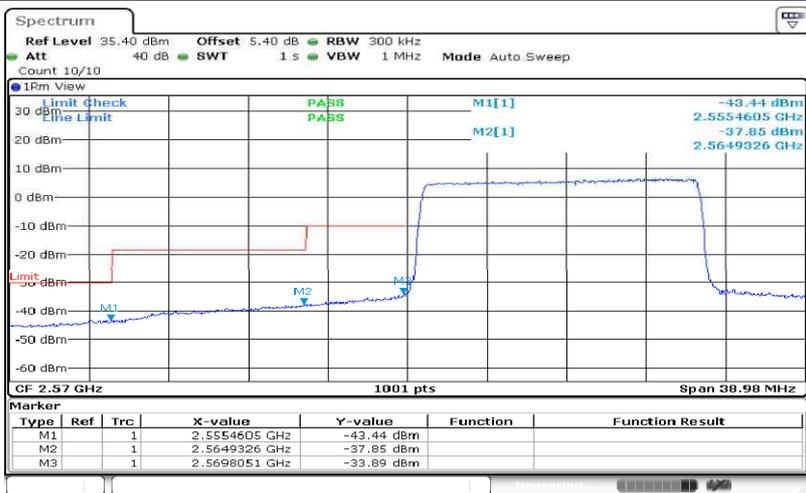


Band38-15MHz-16QAM-37825-1RB#0



Date: 13 JUN 2020 12:11:23

Band38-15MHz-16QAM-37825-75RB#0



Date: 13 JUN 2020 12:12:57



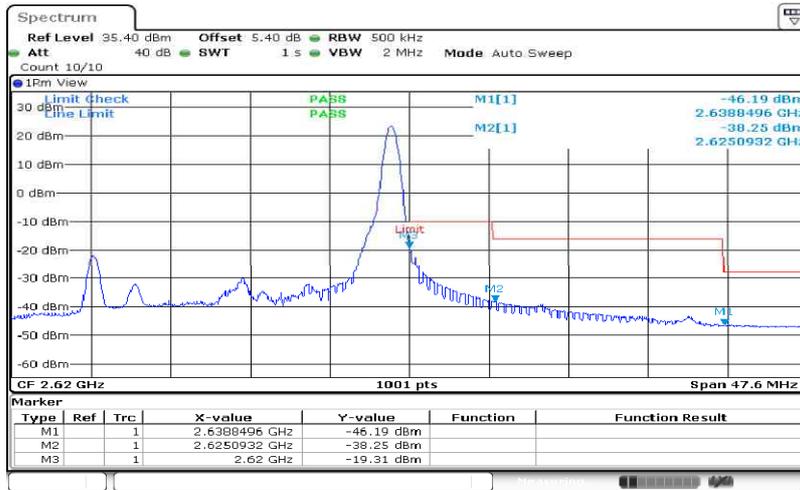
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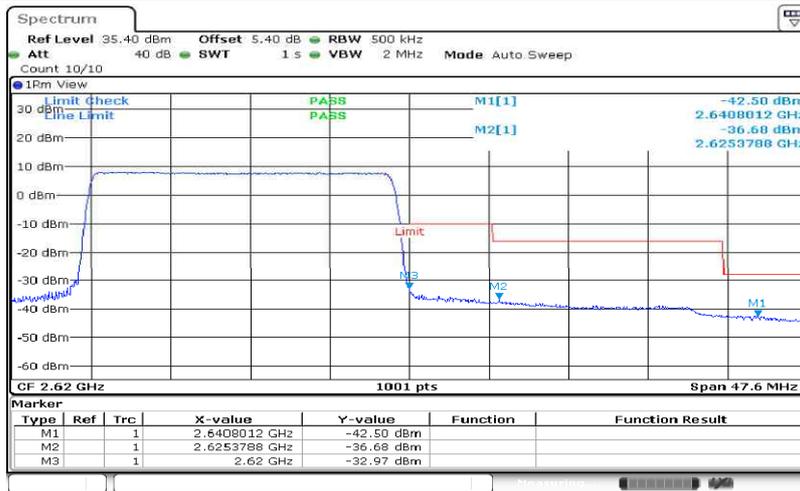


Band38-20MHz-QPSK-38150-1RB#99



Date: 13 JUN 2020 12:14:55

Band38-20MHz-QPSK-38150-100RB#0



Date: 13 JUN 2020 12:16:25

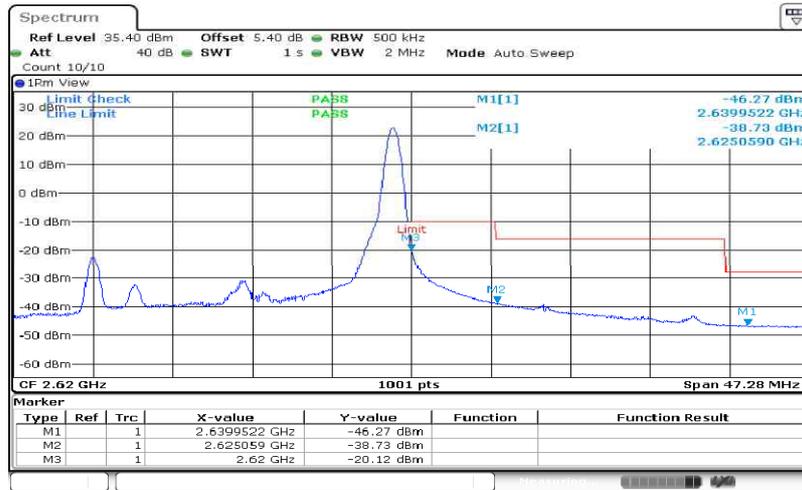


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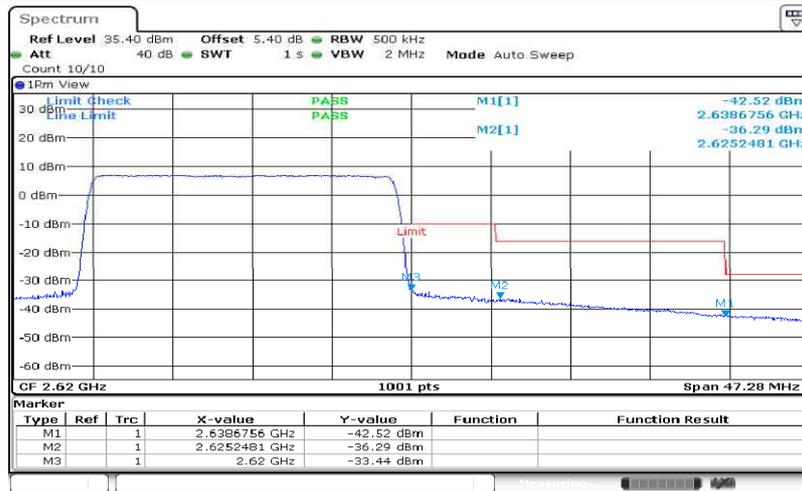


Band38-20MHz-16QAM-38150-1RB#99



Date: 13 JUN 2020 12:15:16

Band38-20MHz-16QAM-38150-100RB#0



Date: 13 JUN 2020 12:16:47



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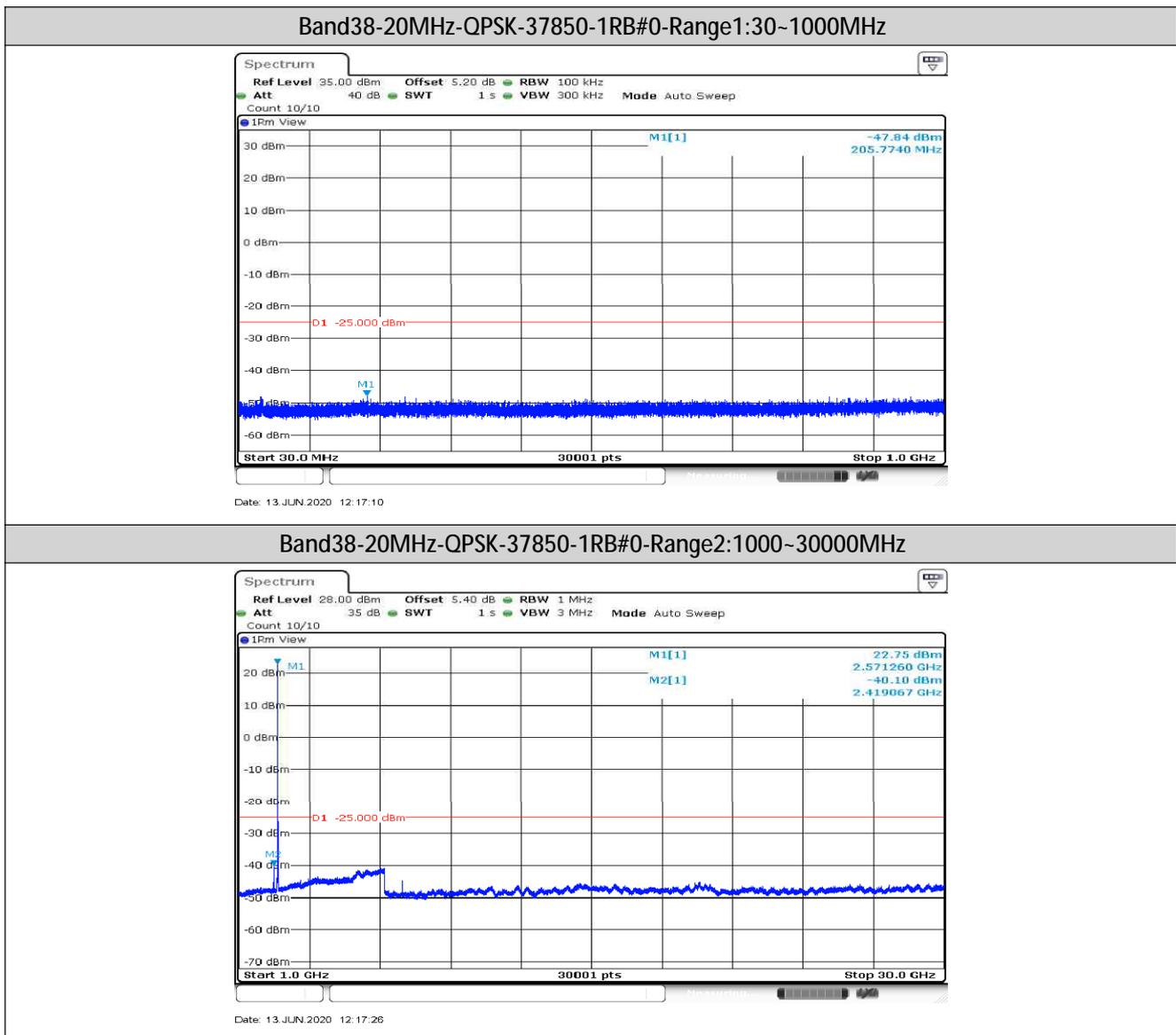


## 6. Spurious Emission at Antenna Terminal

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



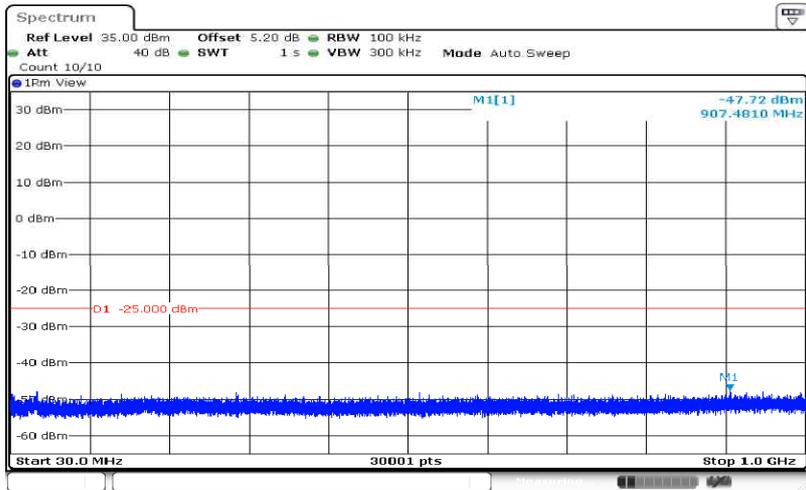
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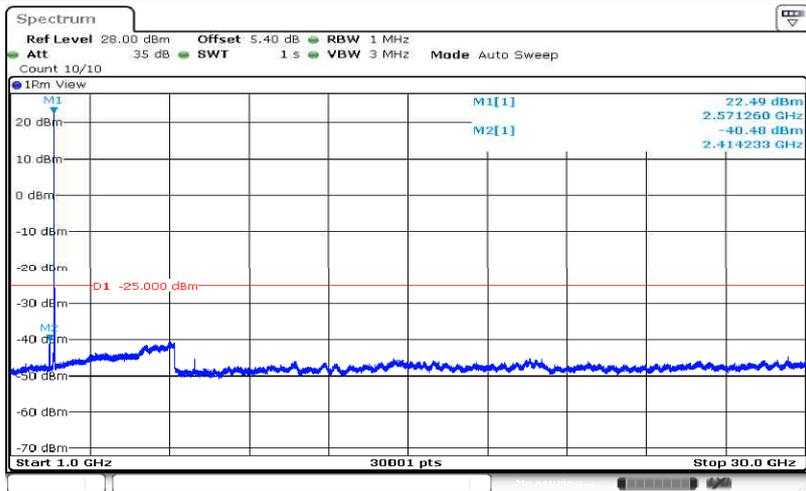


Band38-20MHz-16QAM-37850-1RB#0-Range1:30~1000MHz



Date: 13 JUN 2020 12:17:44

Band38-20MHz-16QAM-37850-1RB#0-Range2:1000~30000MHz

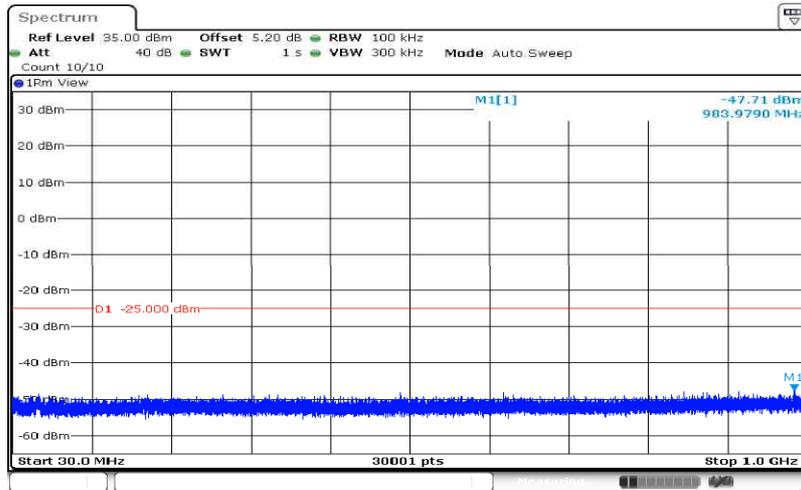


Date: 13 JUN 2020 12:18:00



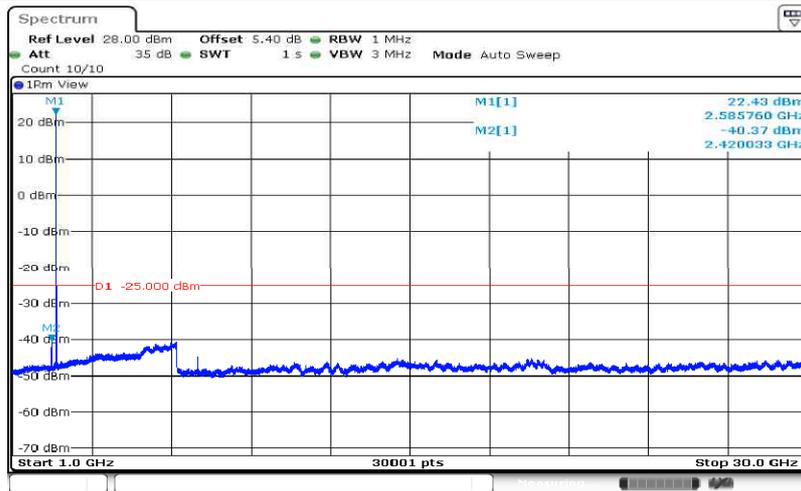
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**Band38-20MHz-16QAM-38000-1RB#0-Range1:30~1000MHz**



Date: 13 JUN 2020 12:18:54

**Band38-20MHz-16QAM-38000-1RB#0-Range2:1000~30000MHz**



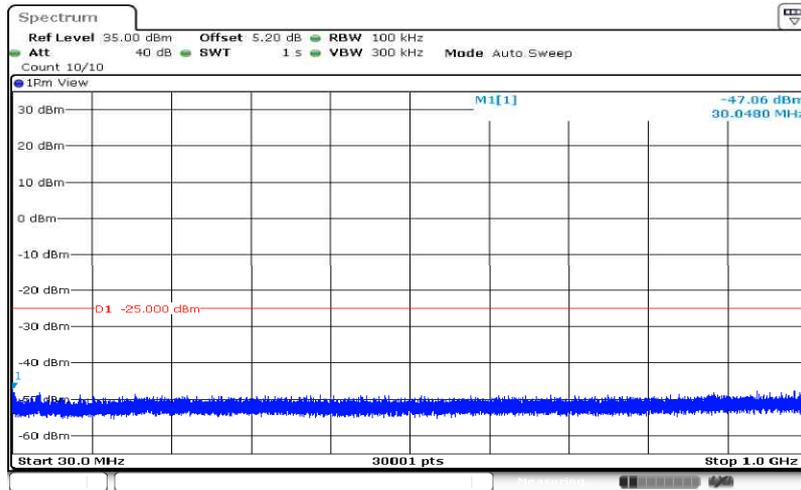
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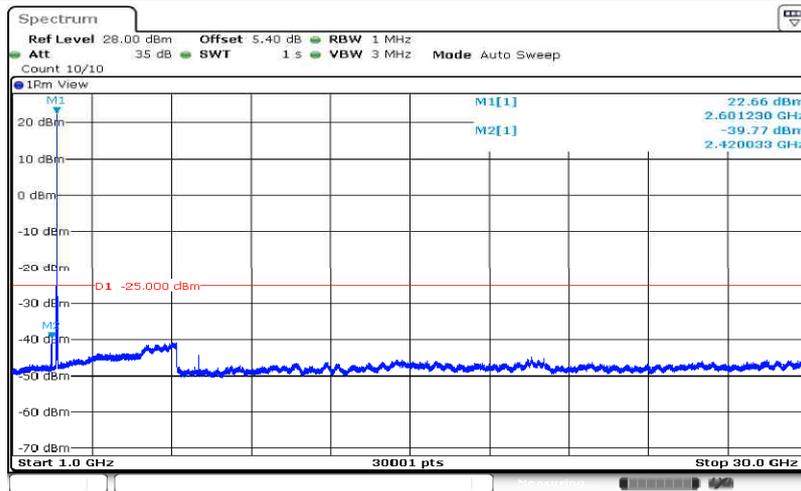


Band38-20MHz-16QAM-38150-1RB#0-Range1:30~1000MHz



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Band38-20MHz-16QAM-38150-1RB#0-Range2:1000~30000MHz



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## 7. Field Strength of Spurious Radiation

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

#### 7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
51.1471	-71.53	-25.00	46.53	Vertical
110.3200	-64.66	-25.00	39.66	Vertical
599.6125	-63.54	-25.00	38.54	Vertical
2975.5951	-38.37	-25.00	13.37	Vertical
7997.1666	-55.64	-25.00	30.64	Vertical
17997.9999	-40.53	-25.00	15.53	Vertical
42.5136	-63.75	-25.00	38.75	Horizontal
236.1353	-67.89	-25.00	42.89	Horizontal
523.0272	-65.27	-25.00	40.27	Horizontal
1477.2955	-47.33	-25.00	22.33	Horizontal
8018.6673	-56.49	-25.00	31.49	Horizontal
16391.9464	-43.94	-25.00	18.94	Horizontal

#### 7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
50.0315	-72.29	-25.00	47.29	Vertical
110.6110	-64.13	-25.00	39.13	Vertical
615.6668	-64.29	-25.00	39.29	Vertical
2990.7982	-38.29	-25.00	13.29	Vertical
7333.6445	-55.97	-25.00	30.97	Vertical
17998.5000	-40.06	-25.00	15.06	Vertical
44.2112	-63.23	-25.00	38.23	Horizontal
229.7815	-67.94	-25.00	42.94	Horizontal
592.1431	-63.49	-25.00	38.49	Horizontal
2999.5999	-38.57	-25.00	13.57	Horizontal
7479.1493	-56.57	-25.00	31.57	Horizontal
16388.9463	-43.59	-25.00	18.59	Horizontal



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### 7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
49.6920	-72.68	-25.00	47.68	Vertical
109.4955	-64.39	-25.00	39.39	Vertical
288.0814	-68.32	-25.00	43.32	Vertical
2948.3897	-38.42	-25.00	13.42	Vertical
7378.1459	-56.05	-25.00	31.05	Vertical
17999.5000	-39.66	-25.00	14.66	Vertical
42.7076	-64.36	-25.00	39.36	Horizontal
229.0055	-68.62	-25.00	43.62	Horizontal
512.8416	-65.63	-25.00	40.63	Horizontal
2979.9960	-38.36	-25.00	13.36	Horizontal
7483.1494	-56.43	-25.00	31.43	Horizontal
16392.4464	-43.66	-25.00	18.66	Horizontal

**Remark:**

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 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 displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.



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## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	VL	NT	-5.20	-0.002016	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VN	NT	2.80	0.001085	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VH	NT	5.40	0.002093	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VL	NT	-4.80	-0.001850	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VN	NT	-10.60	-0.004085	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VH	NT	-3.30	-0.001272	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VL	NT	-3.00	-0.001149	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VN	NT	-10.30	-0.003946	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VH	NT	-16.20	-0.006207	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VL	NT	2.80	0.001085	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VN	NT	-7.00	-0.002713	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	VH	NT	2.20	0.000853	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VL	NT	-4.00	-0.001541	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VN	NT	-19.20	-0.007399	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	VH	NT	-1.30	-0.000501	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VL	NT	-6.30	-0.002414	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VN	NT	-5.00	-0.001916	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	VH	NT	-9.70	-0.003716	±2.5	PASS

### 8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	20MHz	QPSK	37850	100RB#0	NV	-30	-9.40	-0.003643	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-20	-1.20	-0.000465	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	0	-7.00	-0.002713	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	10	0.10	0.000039	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	20	-3.00	-0.001163	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	30	-2.60	-0.001008	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	40	-3.10	-0.001202	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	50	-9.60	-0.003721	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-30	-8.60	-0.003314	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-20	-11.90	-0.004586	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	0	-2.90	-0.001118	±2.5	PASS



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Band38	20MHz	QPSK	38000	100RB#0	NV	10	-12.10	-0.004663	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	20	-4.90	-0.001888	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	30	2.20	0.000848	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	40	-10.60	-0.004085	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	50	-2.60	-0.001002	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-30	-4.90	-0.001877	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-20	-17.40	-0.006667	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	0	-8.80	-0.003372	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	10	-7.80	-0.002989	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	20	-12.70	-0.004866	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	30	-13.90	-0.005326	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	40	-6.60	-0.002529	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	50	-2.00	-0.000766	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	-30	-5.90	-0.002287	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	-20	-8.70	-0.003372	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	0	0.10	0.000039	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	10	-6.30	-0.002442	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	20	-8.40	-0.003256	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	30	-9.50	-0.003682	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	40	-7.00	-0.002713	±2.5	PASS
Band38	20MHz	16QAM	37850	100RB#0	NV	50	-4.00	-0.001550	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	-30	-3.80	-0.001464	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	-20	-7.70	-0.002967	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	0	-2.90	-0.001118	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	10	-7.10	-0.002736	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	20	0.50	0.000193	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	30	-3.90	-0.001503	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	40	-8.30	-0.003198	±2.5	PASS
Band38	20MHz	16QAM	38000	100RB#0	NV	50	-4.30	-0.001657	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	-30	-5.20	-0.001992	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	-20	-10.80	-0.004138	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	0	-6.50	-0.002490	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	10	-13.30	-0.005096	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	20	-8.80	-0.003372	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	30	-14.40	-0.005517	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	40	-12.60	-0.004828	±2.5	PASS
Band38	20MHz	16QAM	38150	100RB#0	NV	50	-4.80	-0.001839	±2.5	PASS



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