



# Appendix B

## E-UTRA Band 12



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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



## 1 Effective (Isotropic) Radiated Power

### 1.1. Test Result

Band	Bandwidth h	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.70	22.05	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.71	22.06	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.59	21.94	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.84	22.19	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.93	22.28	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.89	22.24	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.73	21.08	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.69	22.04	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.64	21.99	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.64	21.99	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.69	22.04	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.85	22.2	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.79	22.14	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.94	21.29	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.72	22.07	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.52	21.87	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.68	22.03	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.55	21.9	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.68	22.03	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.81	22.16	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.54	20.89	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.35	20.7	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.49	20.84	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.21	20.56	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.91	21.26	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.95	21.3	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.76	21.11	34.77	PASS



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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn  
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



Band12	1.4MHz	16QAM	23017	6RB#0	21.74	20.09	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.18	20.53	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.39	20.74	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.34	20.69	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.71	21.06	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.80	21.15	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.87	21.22	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.95	20.3	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.13	20.48	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.23	20.58	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.07	20.42	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.78	21.13	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.83	21.18	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.52	20.87	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	22.03	20.38	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.68	22.03	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.41	21.76	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.75	22.1	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.84	21.19	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.61	20.96	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.68	21.03	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.84	21.19	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.83	22.18	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.60	21.95	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.88	22.23	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.79	21.14	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.68	21.03	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.93	21.28	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.90	21.25	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.57	21.92	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.67	22.02	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.70	22.05	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.51	20.86	34.77	PASS



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Band12	3MHz	QPSK	23165	8RB#7	22.68	21.03	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.70	21.05	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.63	20.98	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.18	20.53	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.23	20.58	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.22	20.57	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.78	20.13	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.79	20.14	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.71	20.06	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.83	20.18	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.35	20.7	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.38	20.73	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.35	20.7	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.65	20	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.70	20.05	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.89	20.24	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.92	20.27	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.21	20.56	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	21.96	20.31	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.19	20.54	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.62	19.97	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.67	20.02	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.42	19.77	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.82	20.17	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.67	22.02	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.50	21.85	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.51	21.86	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.74	21.09	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.54	20.89	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.50	20.85	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.66	21.01	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.58	21.93	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.65	22	34.77	PASS



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Band12	5MHz	QPSK	23095	1RB#12	23.99	22.34	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.64	20.99	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.88	21.23	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.79	21.14	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.67	21.02	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.59	21.94	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.70	22.05	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.27	21.62	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.51	20.86	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.49	20.84	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.60	20.95	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.59	20.94	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.17	20.52	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.65	21	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.16	20.51	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.51	19.86	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.79	20.14	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.57	19.92	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.67	20.02	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.27	20.62	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.65	21	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.05	20.4	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.72	20.07	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.62	19.97	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.96	20.31	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.69	20.04	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.55	20.9	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.24	20.59	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.14	20.49	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.36	19.71	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.51	19.86	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.65	20	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.61	19.96	34.77	PASS



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Band12	10MHz	QPSK	23060	1RB#49	23.88	22.23	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.45	21.8	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.77	22.12	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.65	21	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.77	21.12	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.96	21.31	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.66	21.01	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.21	21.56	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.29	21.64	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.07	22.42	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.63	20.98	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.72	21.07	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.99	21.34	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.66	21.01	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.91	22.26	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.75	22.1	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.06	21.41	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.96	21.31	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.37	20.72	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.66	21.01	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.77	21.12	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.24	20.59	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.71	21.06	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.15	20.5	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.88	20.23	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.78	20.13	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.87	20.22	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.78	20.13	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	21.96	20.31	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.18	20.53	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.29	20.64	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.84	20.19	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.84	20.19	34.77	PASS



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Band12	10MHz	16QAM	23095	25RB#12	21.68	20.03	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.80	20.15	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.48	20.83	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.24	20.59	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.32	20.67	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.91	20.26	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.77	20.12	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.62	19.97	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.68	20.03	34.77	PASS

**Remark:**

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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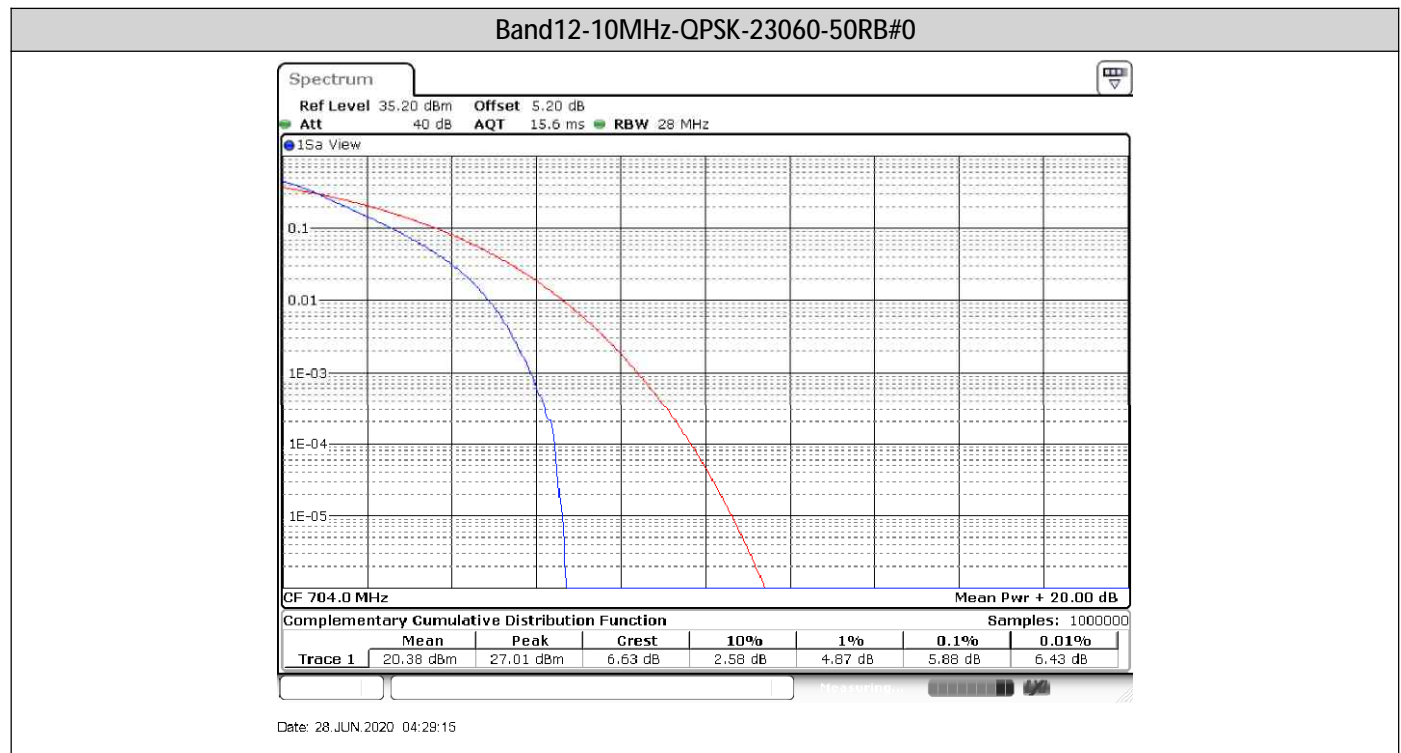


## 2. Peak-to-Average Ratio (CCDF)

### 2.1. Test Result

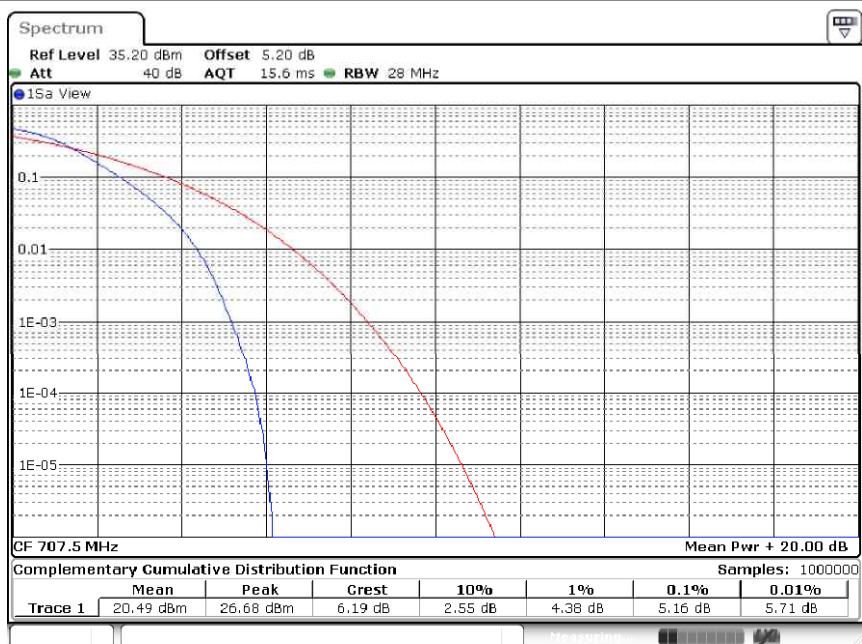
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.88	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.16	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.49	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.12	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.12	13	PASS

### 2.2. Test Plots



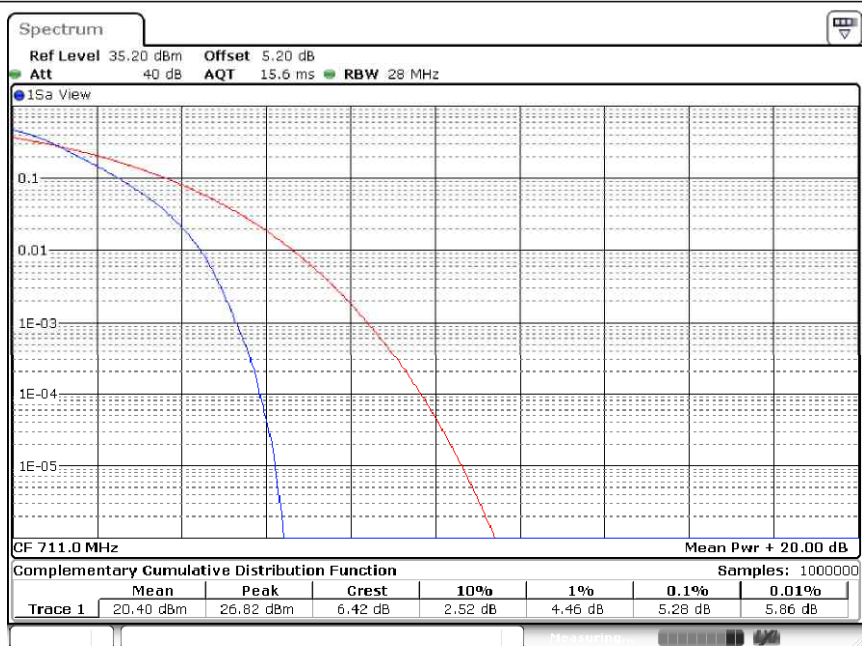


Band12-10MHz-QPSK-23095-50RB#0



Date: 28 JUN 2020 04:29:38

Band12-10MHz-QPSK-23130-50RB#0

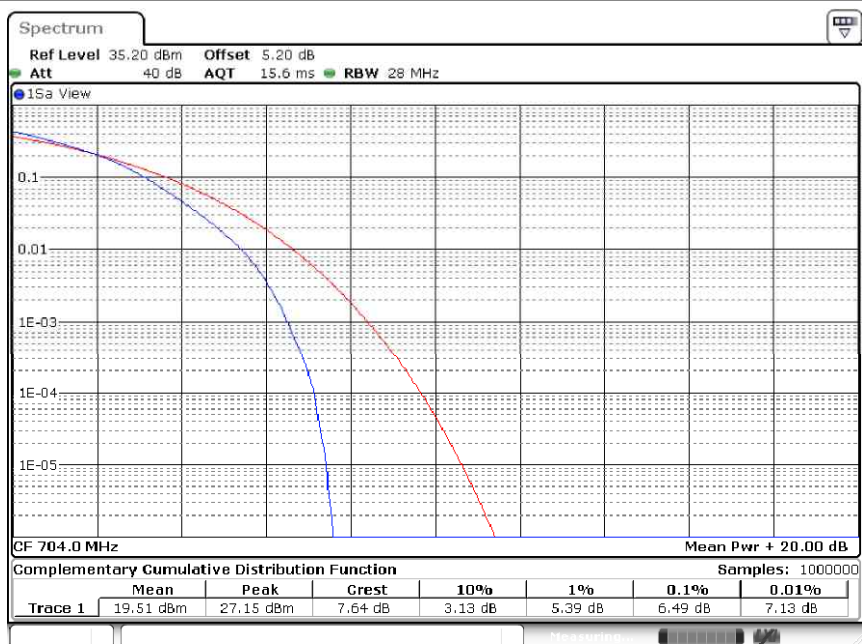


Date: 28 JUN 2020 04:30:01



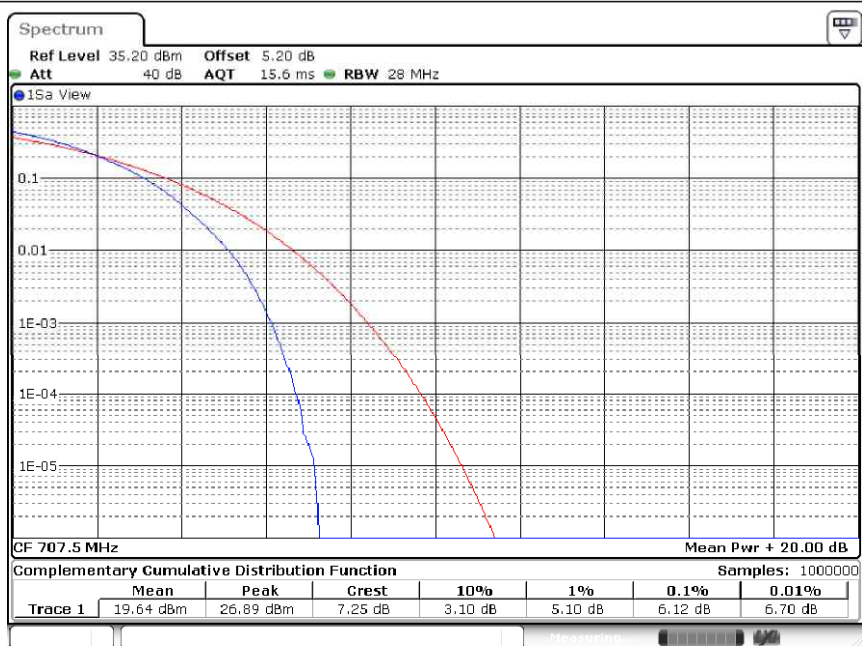


Band12-10MHz-16QAM-23060-50RB#0



Date: 28 JUN 2020 04:29:27

Band12-10MHz-16QAM-23095-50RB#0



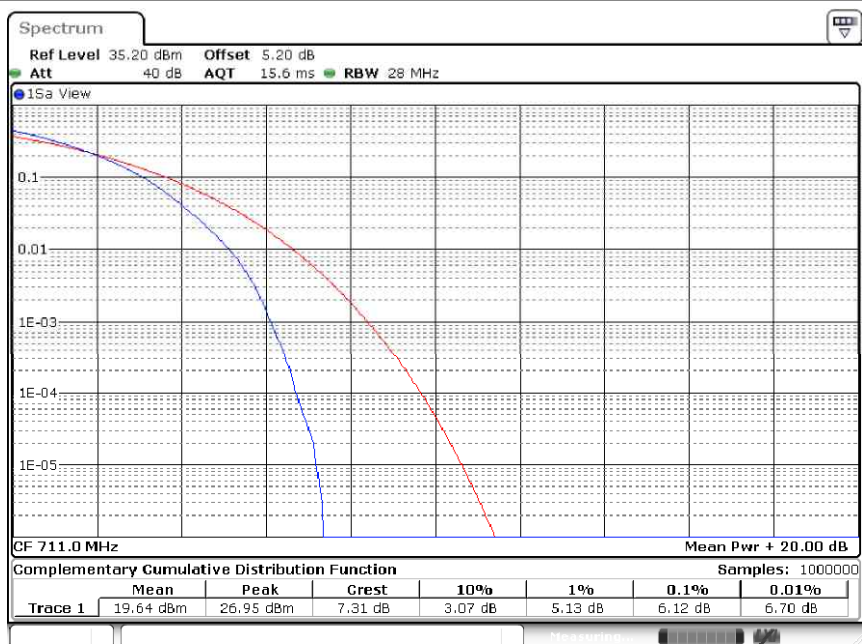
Date: 28 JUN 2020 04:29:49







Band12-10MHz-16QAM-23130-50RB#0



Date: 28 JUN 2020 04:30:12



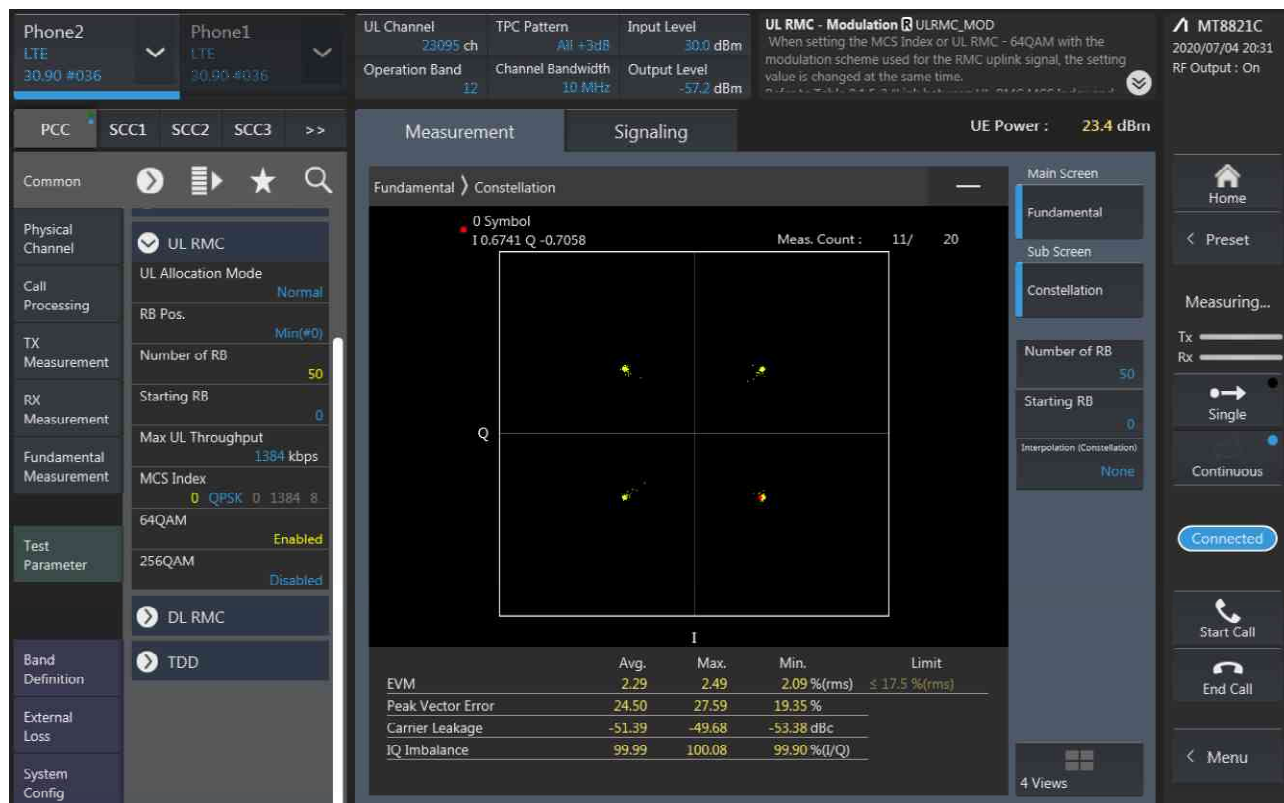




### 3. Modulation Characteristics

#### 3.1. Test Mode = LTE /TM1 10MHz

##### 3.1.1. Test Channel = MCH



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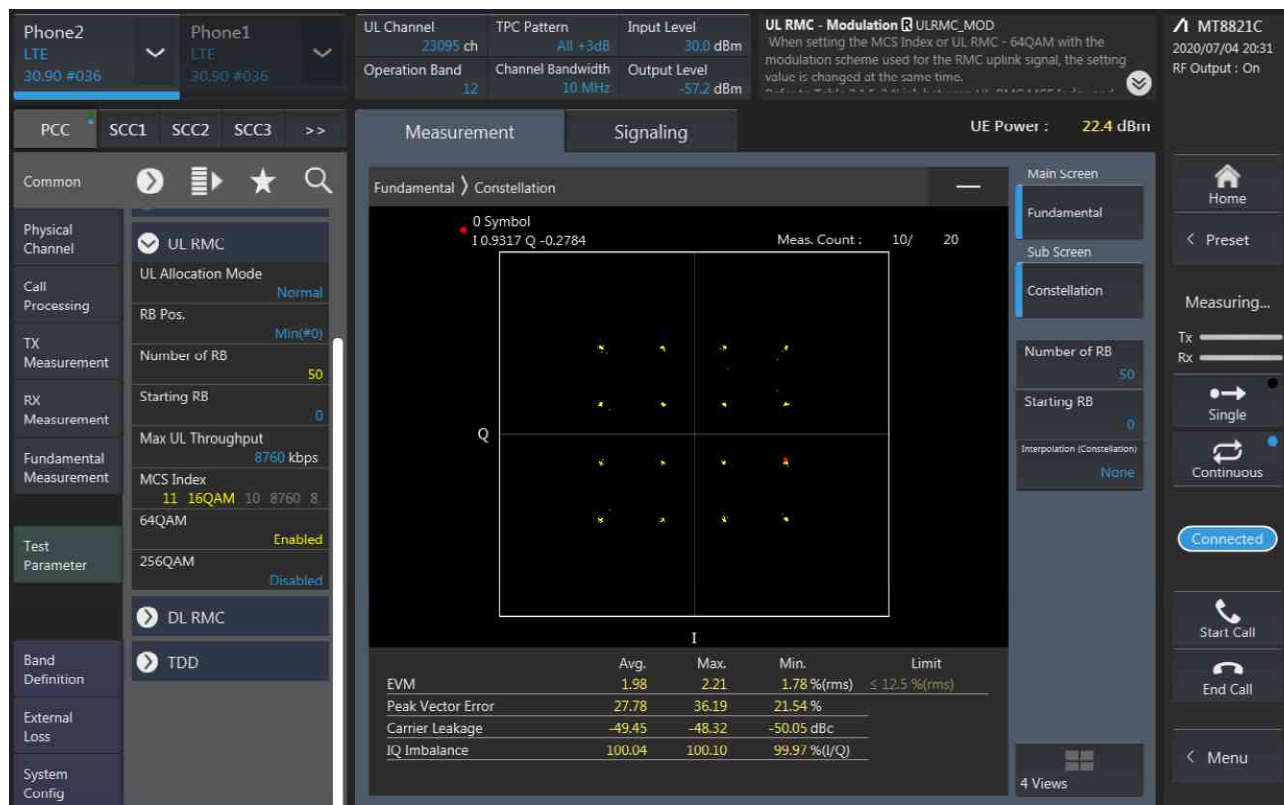
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## 3.2. Test Mode = LTE /TM2 10MHz

### 3.2.1. Test Channel = MCH





## 4. 26dB Bandwidth and Occupied Bandwidth

### 4.1. Test Result

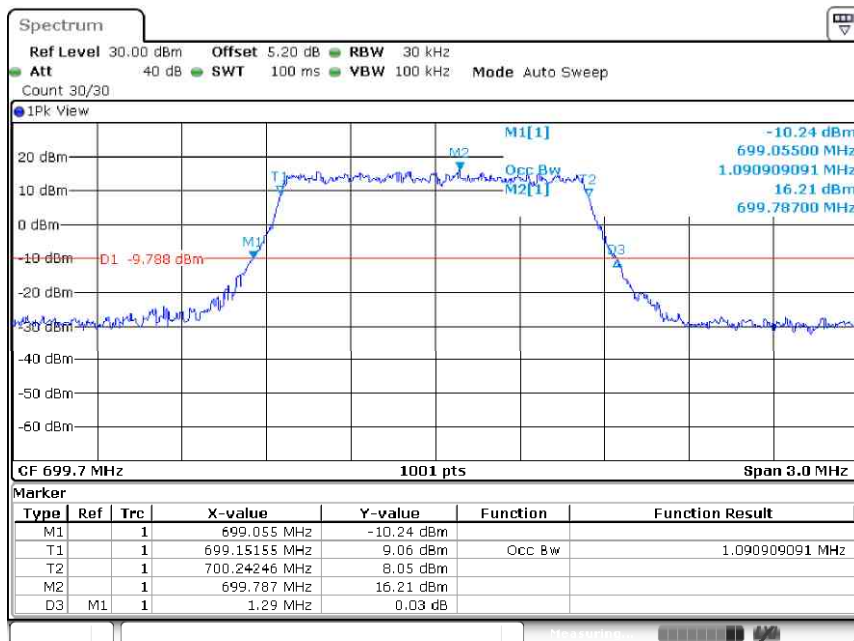
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.091	1.290	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.094	1.296	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.091	1.290	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.088	1.275	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.091	1.284	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.091	1.290	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.691	2.988	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.976	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.703	3.006	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.685	2.958	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.685	2.958	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.691	2.982	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.476	4.890	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.466	4.900	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.486	4.960	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.486	4.910	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.476	4.920	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.496	4.950	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.971	9.740	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.891	9.620	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.891	9.640	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.971	9.800	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.871	9.620	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.680	PASS





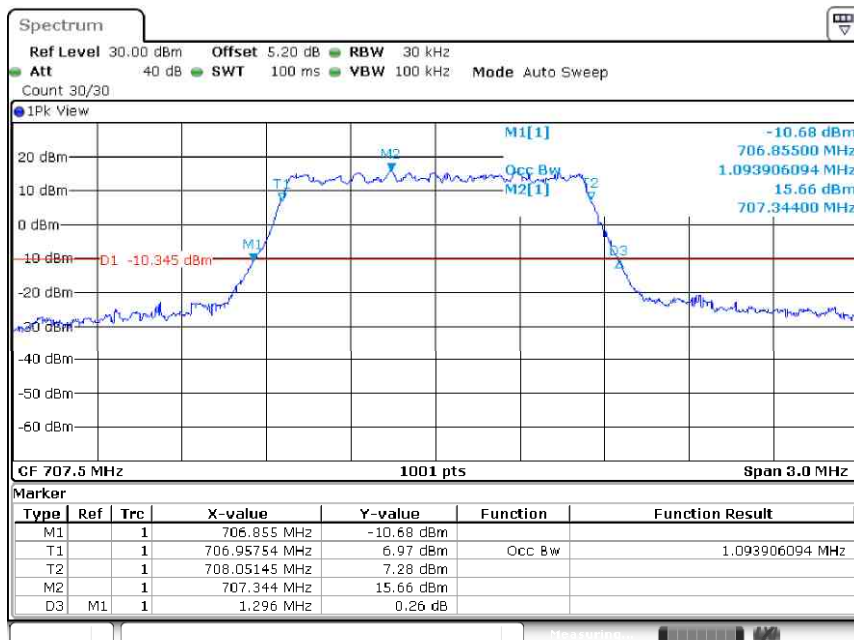
## 4.2. Test Plots

Band12-1.4MHz-QPSK-23017-6RB#0-1.091



Date: 28 JUN 2020 04:02:40

Band12-1.4MHz-QPSK-23095-6RB#0-1.094



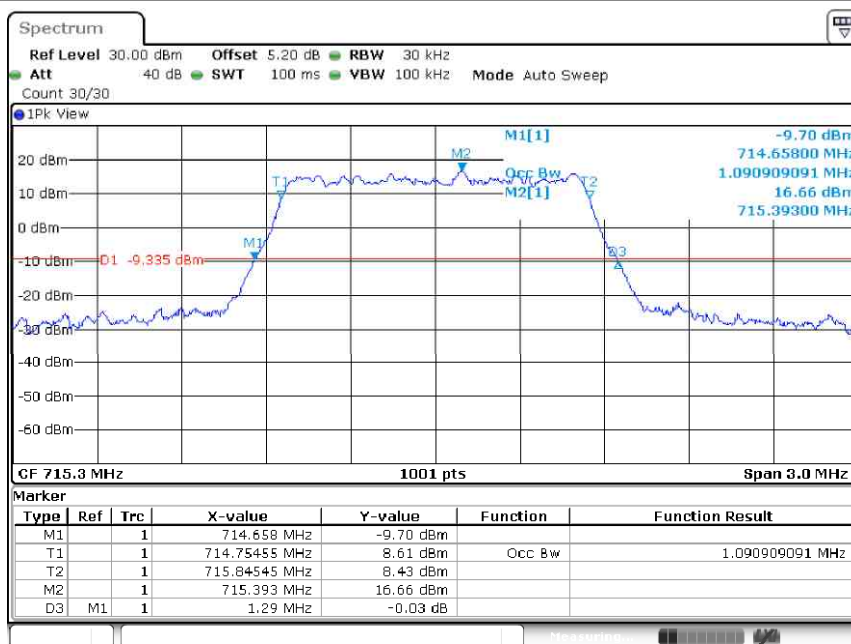
Date: 28 JUN 2020 04:03:06





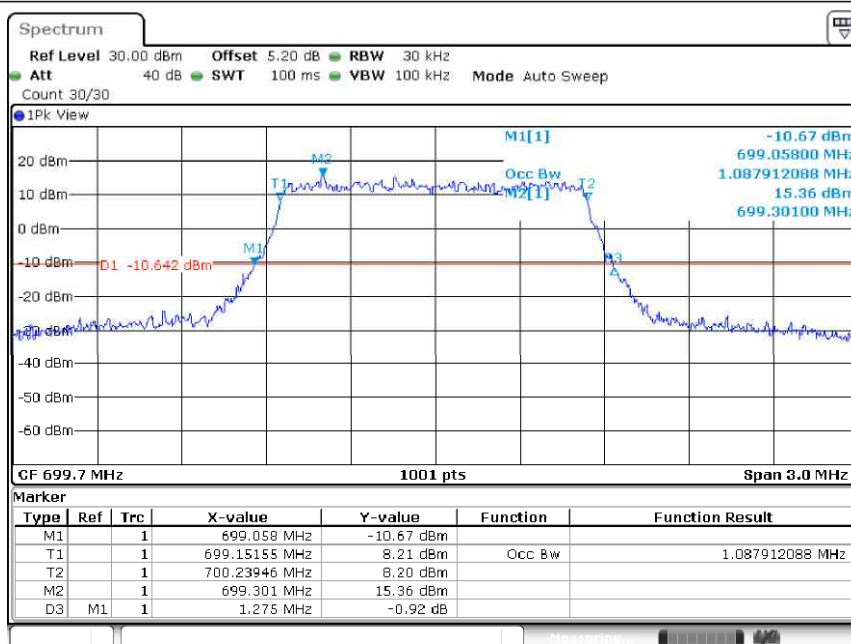


Band12-1.4MHz-QPSK-23173-6RB#0-1.091



Date: 28 JUN 2020 04:03:31

Band12-1.4MHz-16QAM-23017-6RB#0-1.088



Date: 28 JUN 2020 04:02:53



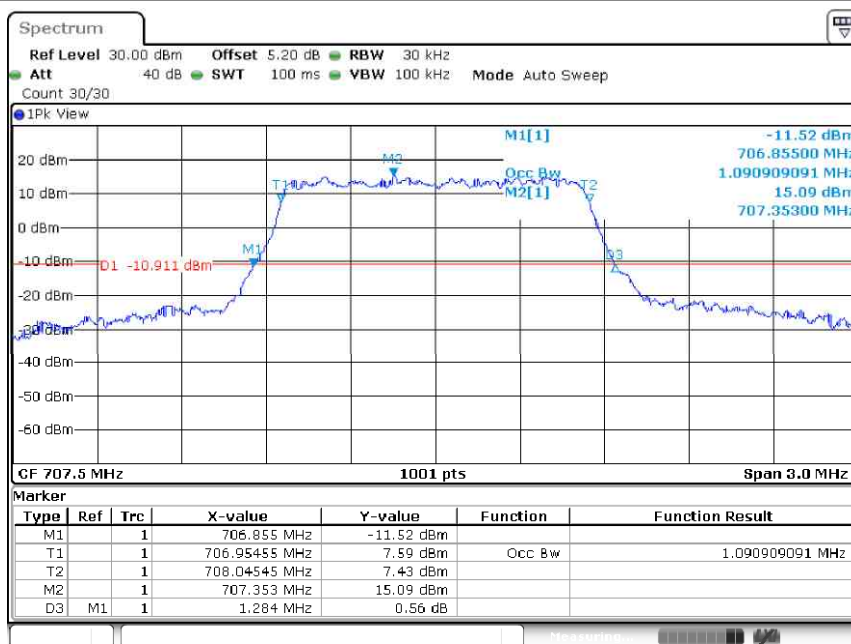
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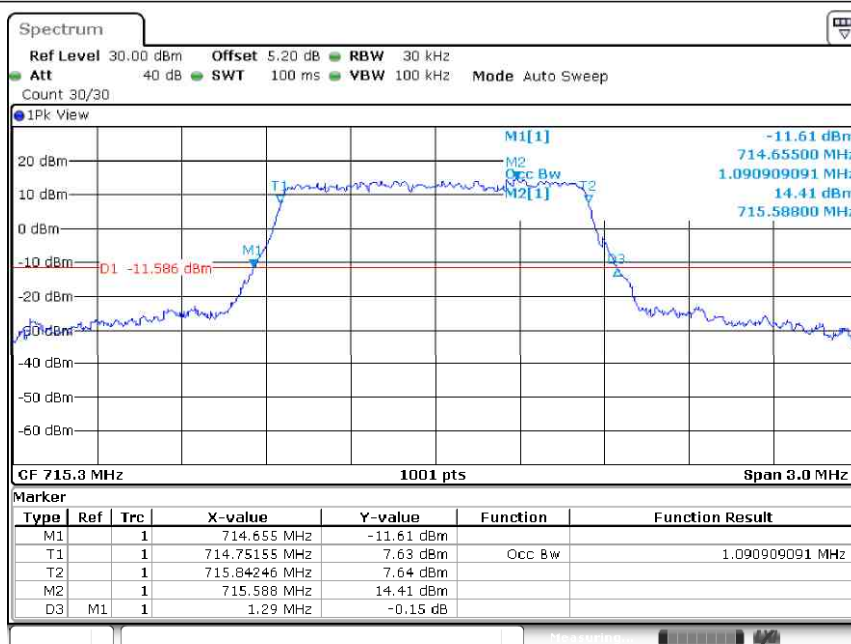


Band12-1.4MHz-16QAM-23095-6RB#0-1.091



Date: 28 JUN 2020 04:03:18

Band12-1.4MHz-16QAM-23173-6RB#0-1.091



Date: 28 JUN 2020 04:03:44



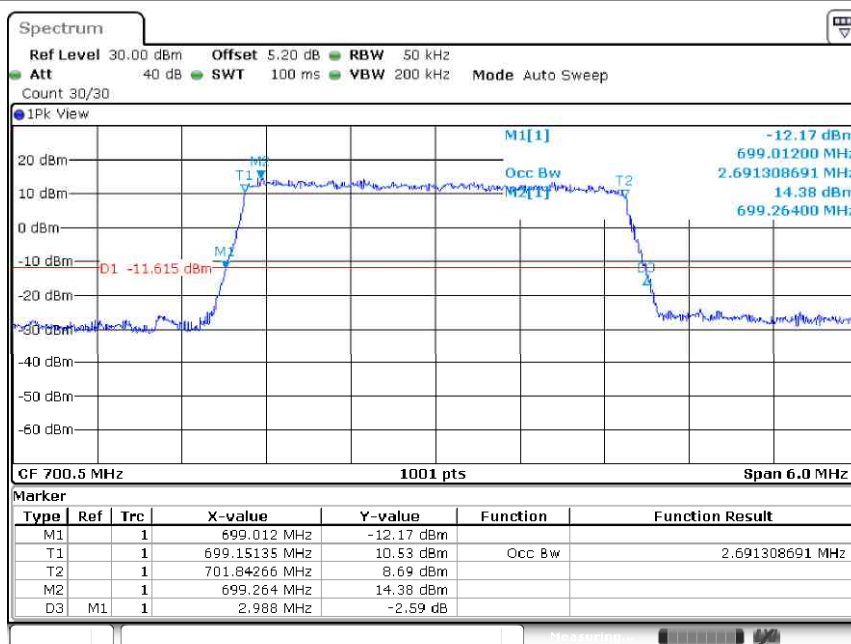
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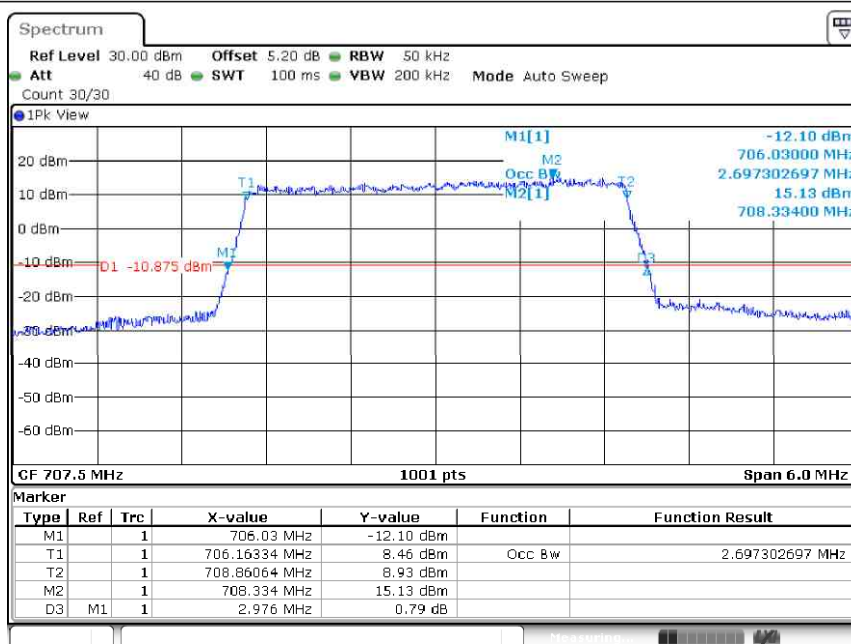


Band12-3MHz-QPSK-23025-15RB#0-2.691



Date: 28 JUN 2020 04:04:02

Band12-3MHz-QPSK-23095-15RB#0-2.697



Date: 28 JUN 2020 04:04:27



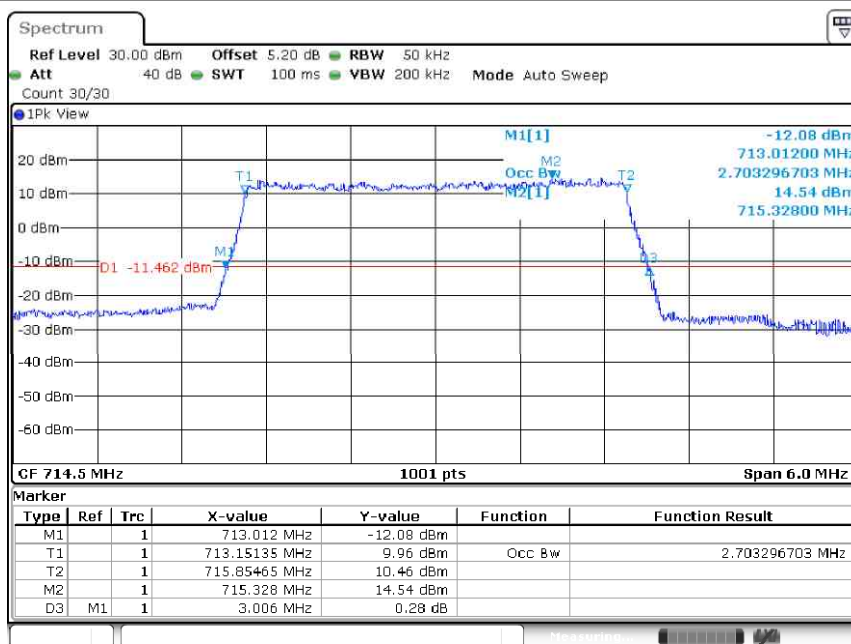
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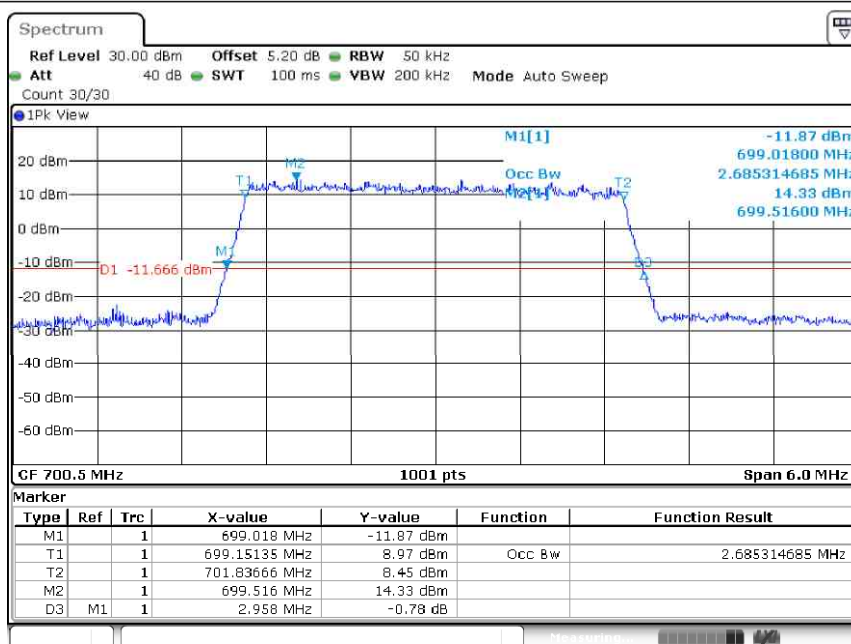


Band12-3MHz-QPSK-23165-15RB#0-2.703



Date: 28 JUN 2020 04:04:53

Band12-3MHz-16QAM-23025-15RB#0-2.685



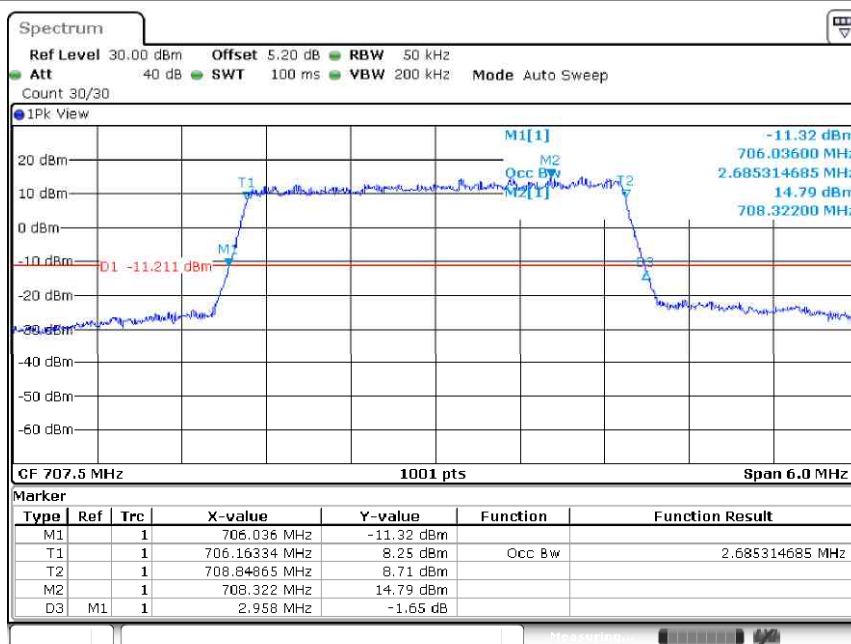
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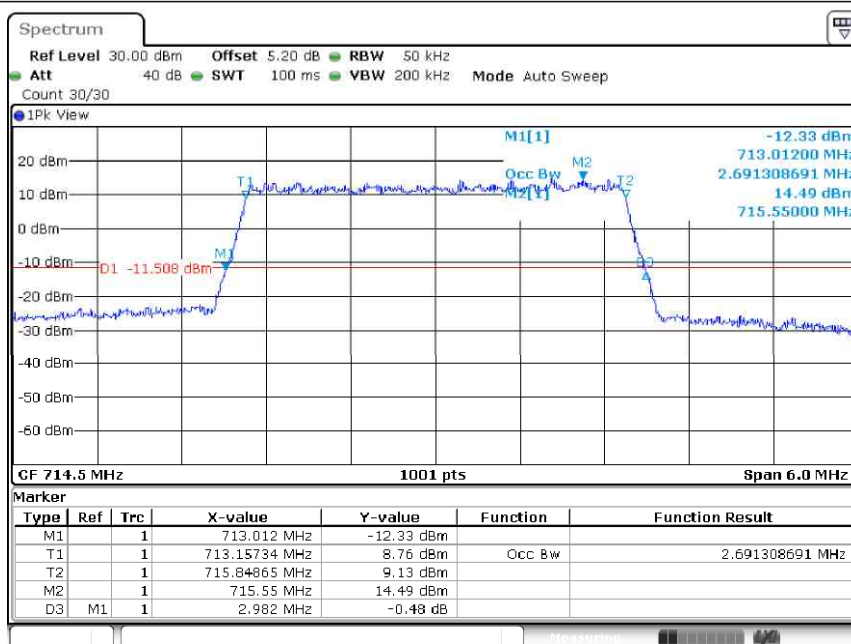


Band12-3MHz-16QAM-23095-15RB#0-2.685



Date: 28 JUN 2020 04:04:40

Band12-3MHz-16QAM-23165-15RB#0-2.691



Date: 28 JUN 2020 04:05:06



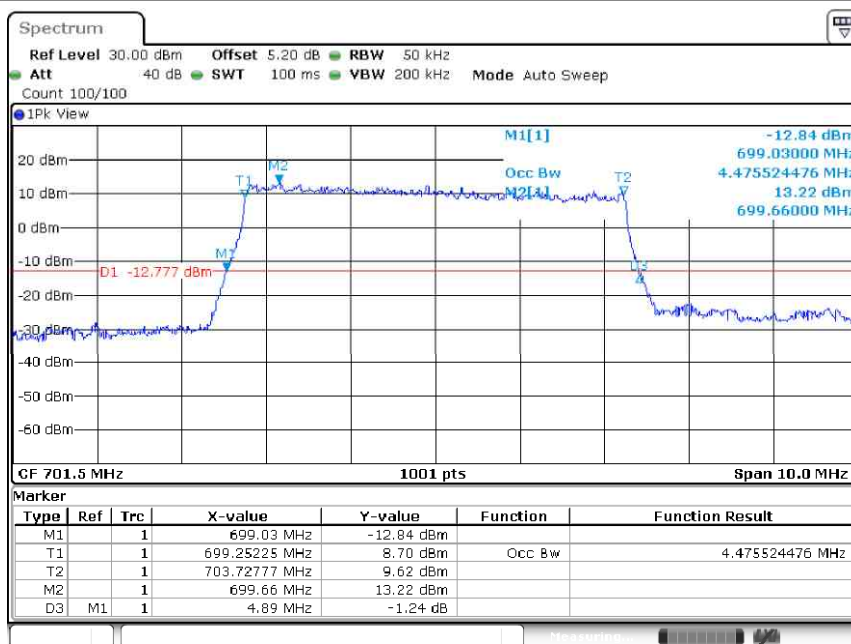
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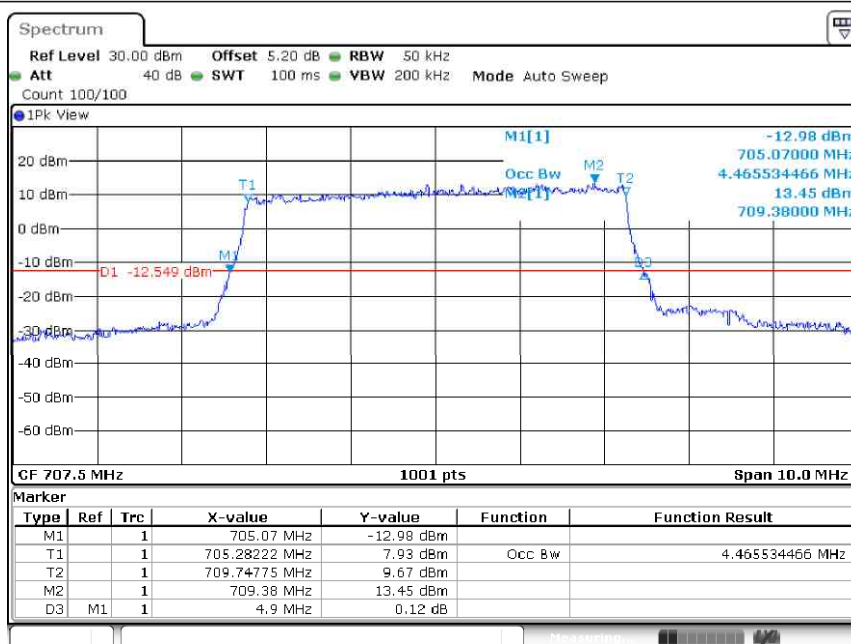


Band12-5MHz-QPSK-23035-25RB#0-4.476



Date: 28 JUN 2020 04:05:30

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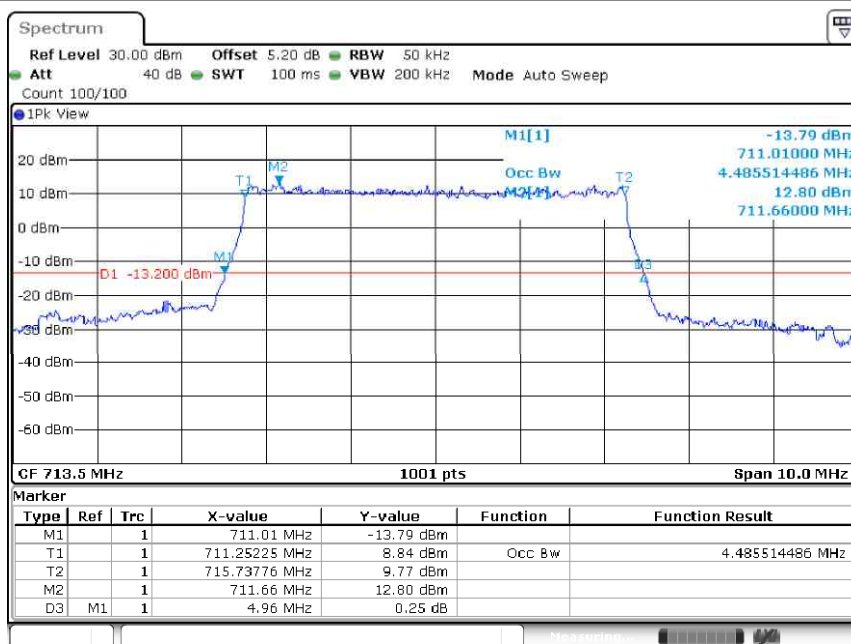


Date: 28 JUN 2020 04:06:10



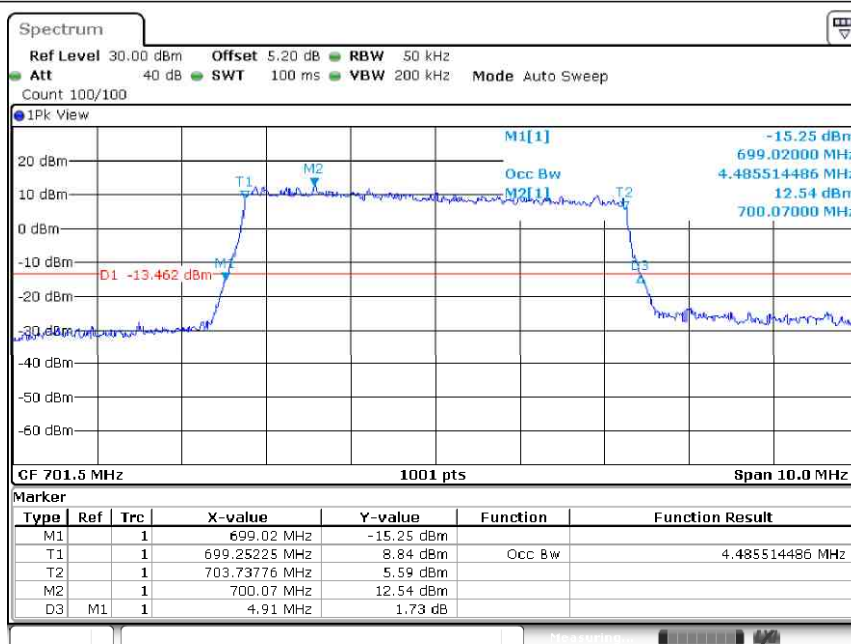


Band12-5MHz-QPSK-23155-25RB#0-4.486



Date: 28 JUN 2020 04:06:50

Band12-5MHz-16QAM-23035-25RB#0-4.486



Date: 28 JUN 2020 04:05:50

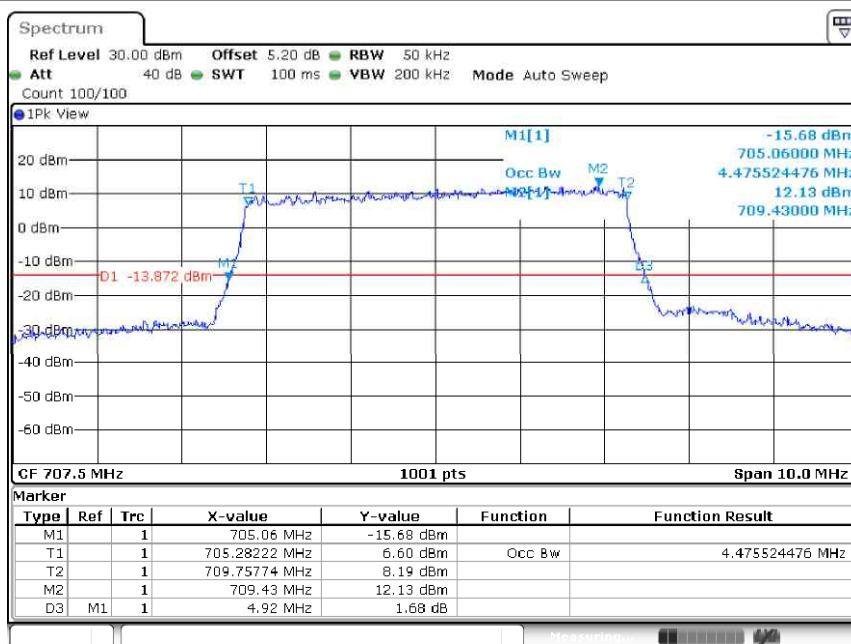


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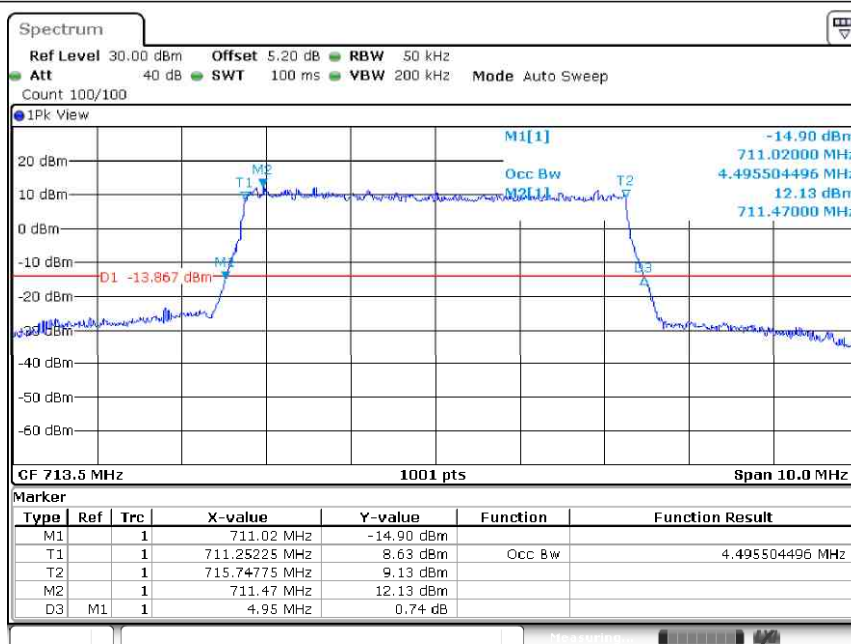


Band12-5MHz-16QAM-23095-25RB#0-4.476



Date: 28 JUN 2020 04:06:30

Band12-5MHz-16QAM-23155-25RB#0-4.496



Date: 28 JUN 2020 04:07:09



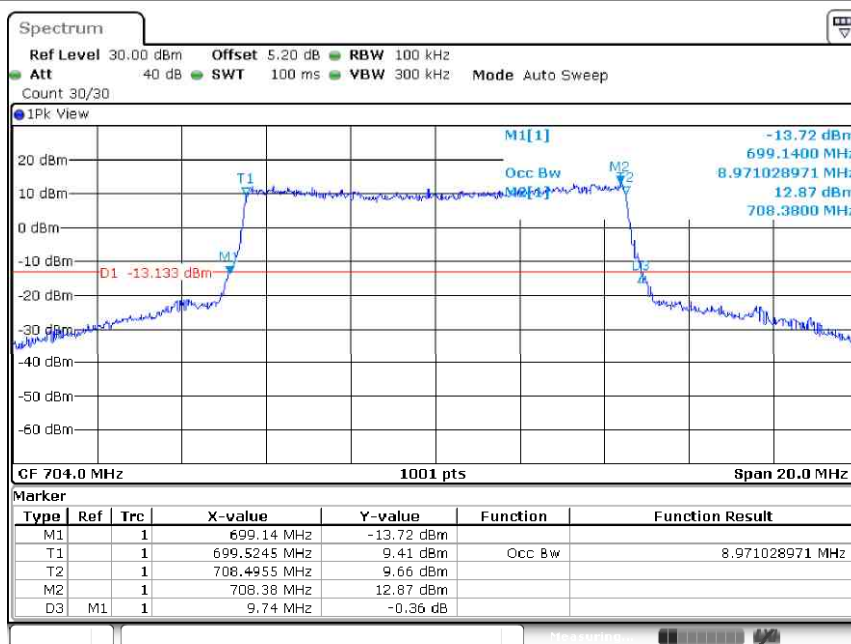
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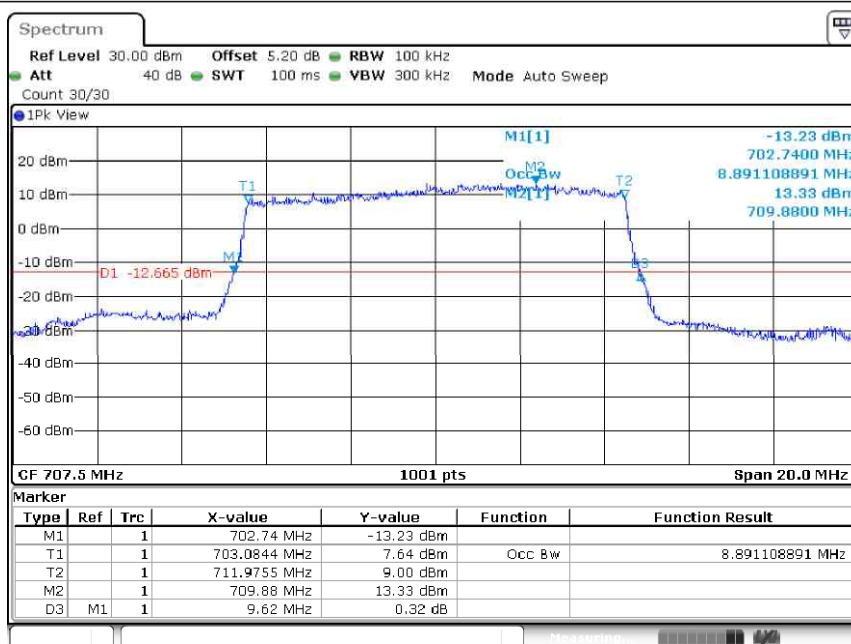


Band12-10MHz-QPSK-23060-50RB#0-8.971



Date: 28 JUN 2020 04:07:27

Band12-10MHz-QPSK-23095-50RB#0-8.891



Date: 28 JUN 2020 04:07:52



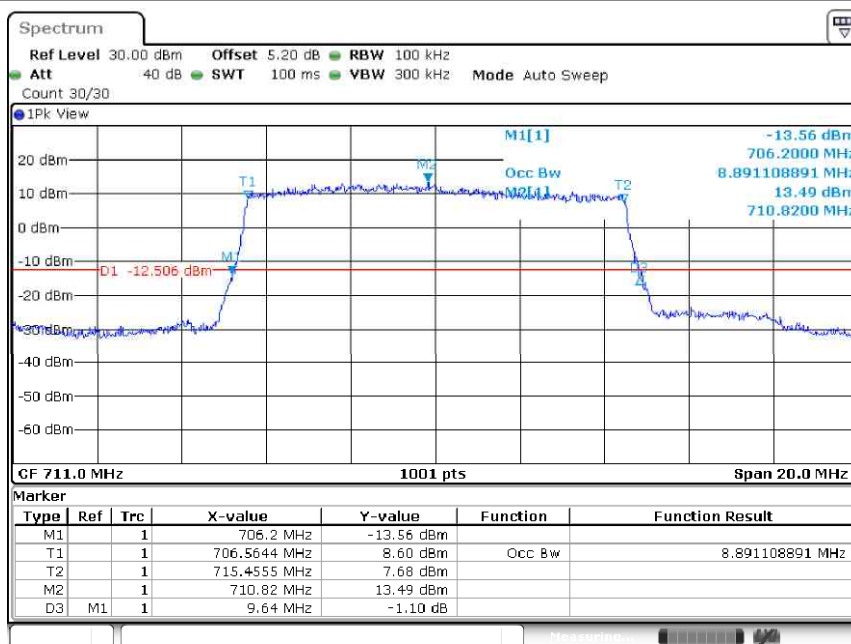
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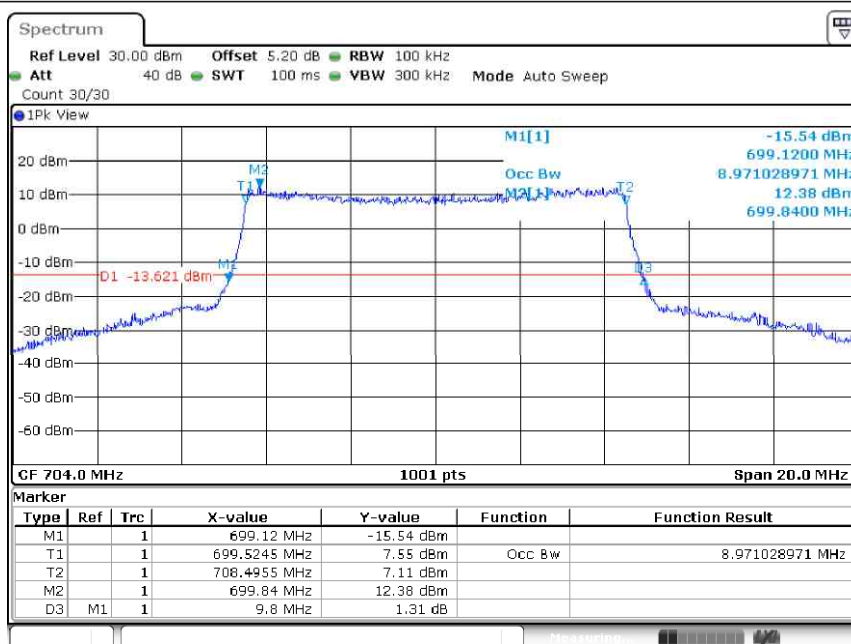


Band12-10MHz-QPSK-23130-50RB#0-8.891



Date: 28 JUN 2020 04:08:18

Band12-10MHz-16QAM-23060-50RB#0-8.971



Date: 28 JUN 2020 04:07:40



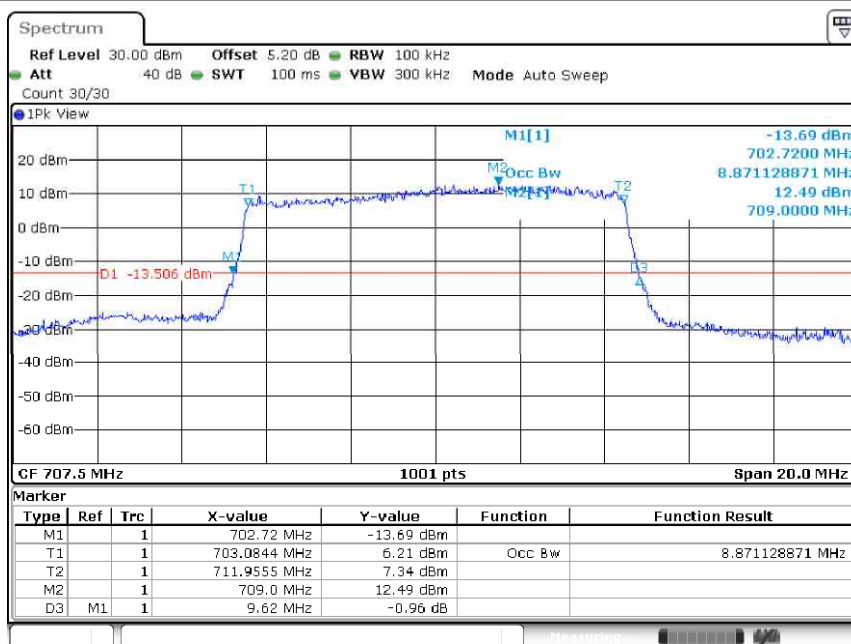
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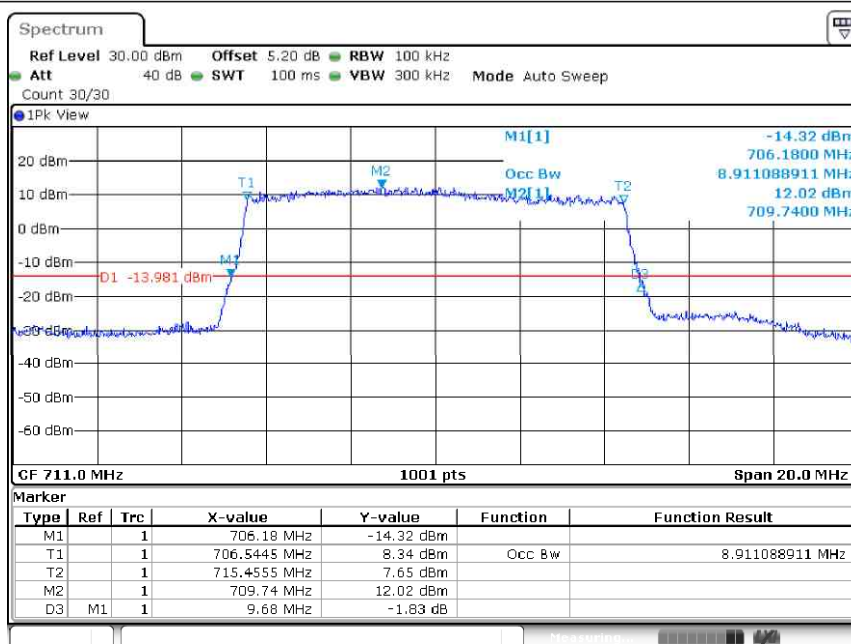


Band12-10MHz-16QAM-23095-50RB#0-8.871



Date: 28 JUN 2020 04:08:05

Band12-10MHz-16QAM-23130-50RB#0-8.911



Date: 28 JUN 2020 04:08:31



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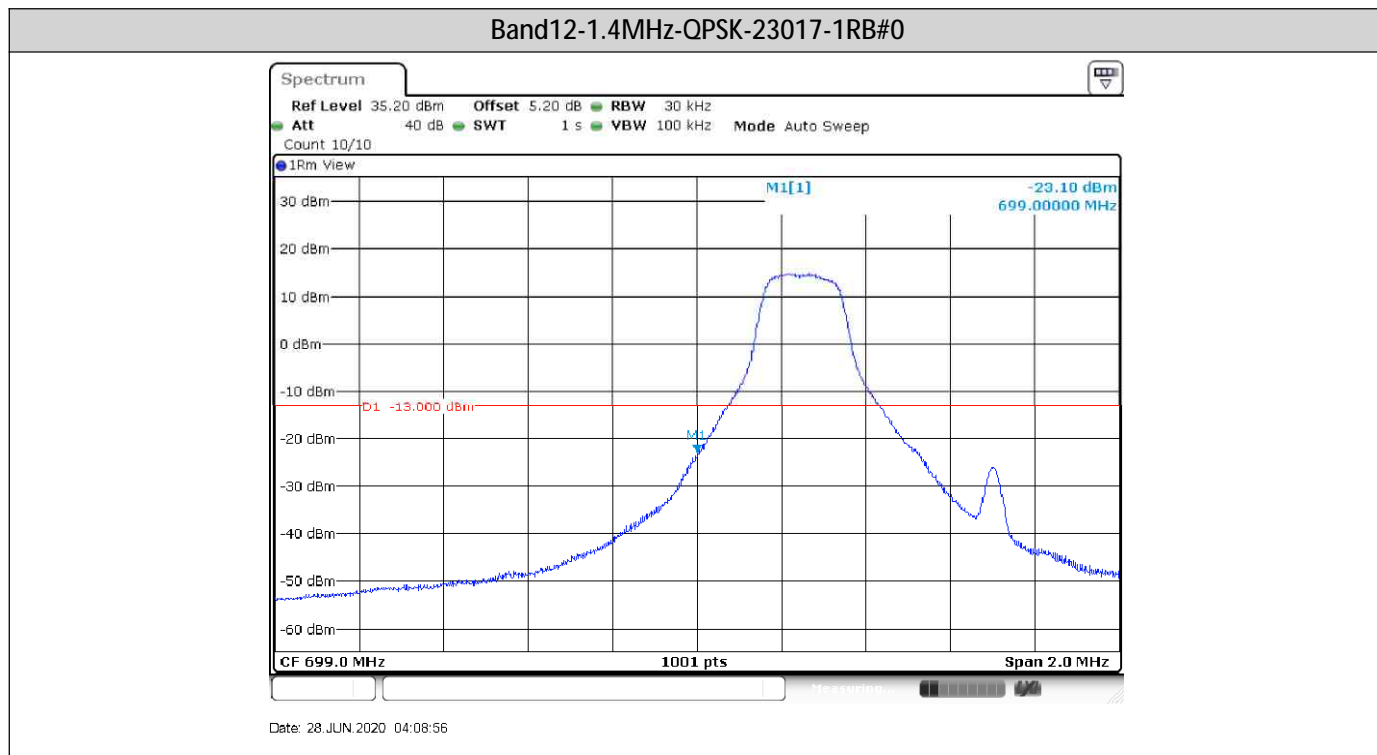
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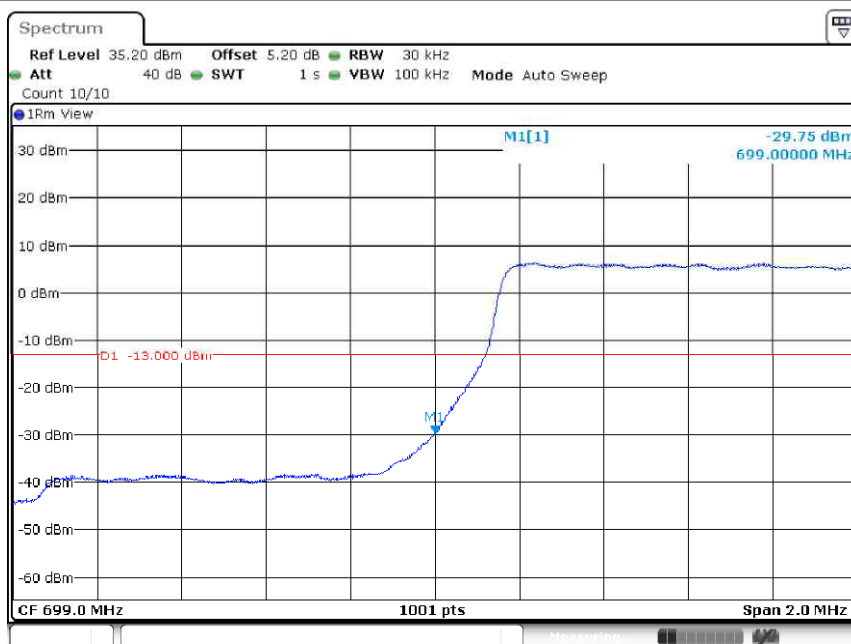
### 5.1. Test Plots







Band12-1.4MHz-QPSK-23017-6RB#0



Date: 28 JUN 2020 04:09:37

Band12-1.4MHz-QPSK-23173-1RB#5



Date: 28 JUN 2020 04:10:23



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Band12-1.4MHz-QPSK-23173-6RB#0



Date: 28 JUN 2020 04:11:04

Band12-1.4MHz-16QAM-23017-1RB#0



Date: 28 JUN 2020 04:09:17

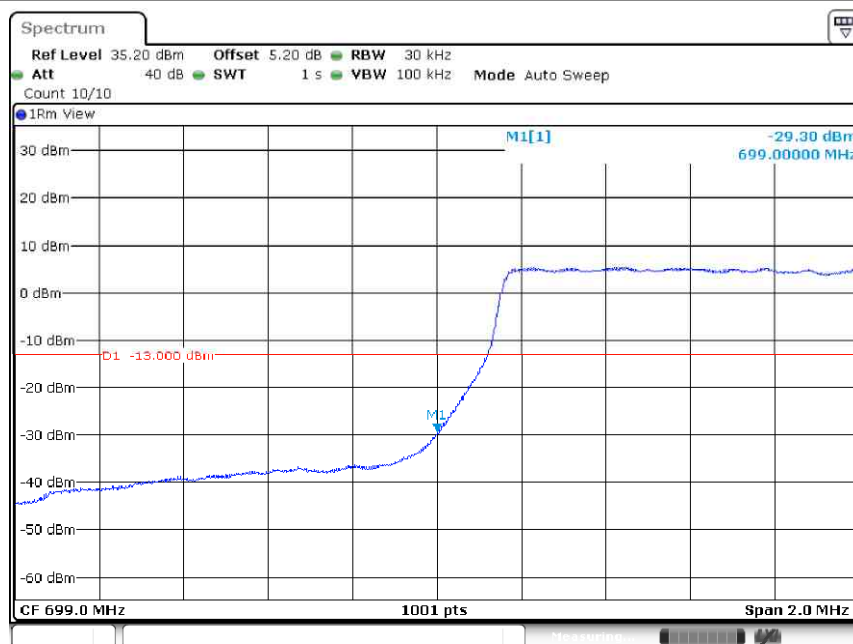


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Band12-1.4MHz-16QAM-23017-6RB#0



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Band12-1.4MHz-16QAM-23173-1RB#5



Date: 28 JUN 2020 04:10:43



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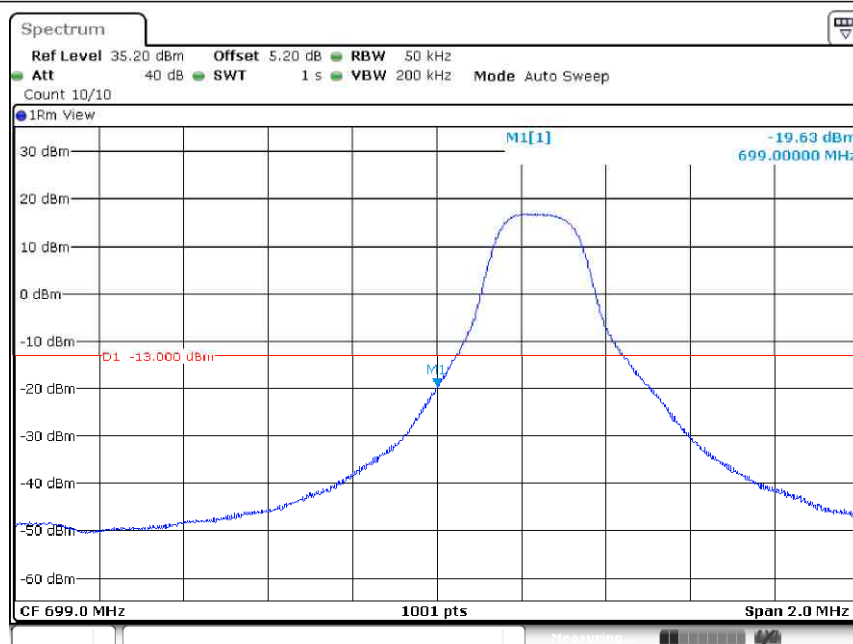
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**Band12-1.4MHz-16QAM-23173-6RB#0**



Date: 28 JUN 2020 04:11:24

**Band12-3MHz-QPSK-23025-1RB#0**



Date: 28 JUN 2020 04:11:50



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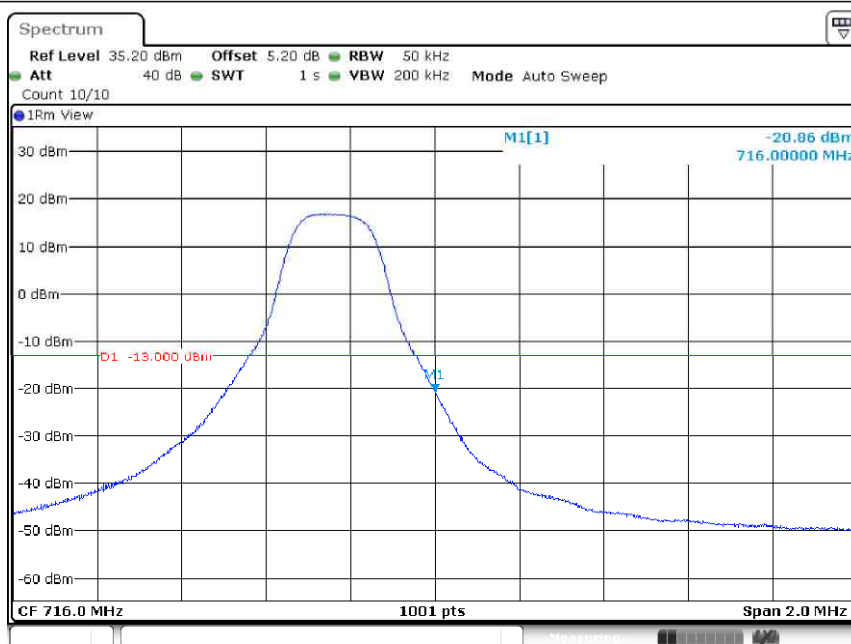


Band12-3MHz-QPSK-23025-15RB#0



Date: 28 JUN 2020 04:12:31

Band12-3MHz-QPSK-23165-1RB#14



Date: 28 JUN 2020 04:13:18



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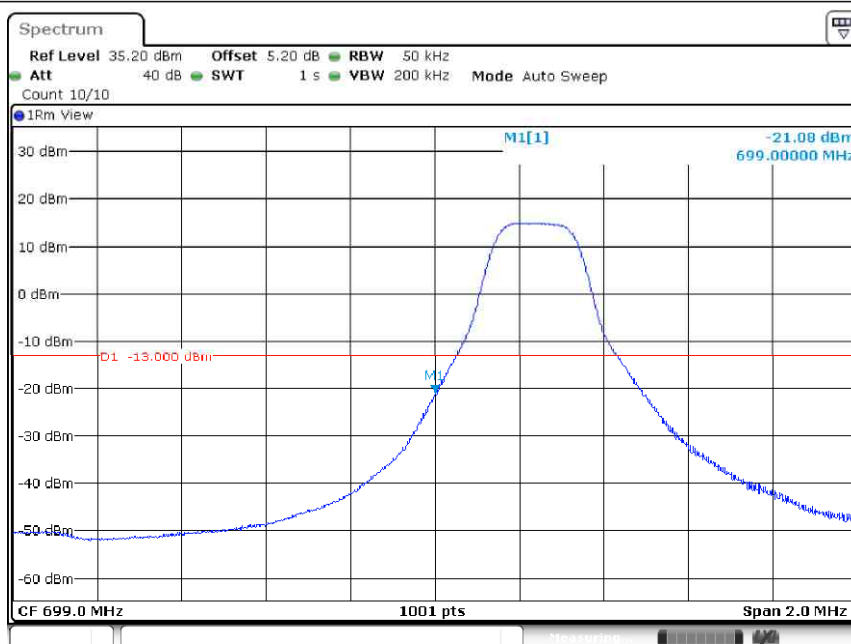


Band12-3MHz-QPSK-23165-15RB#0



Date: 28 JUN 2020 04:13:59

Band12-3MHz-16QAM-23025-1RB#0



Date: 28 JUN 2020 04:12:11



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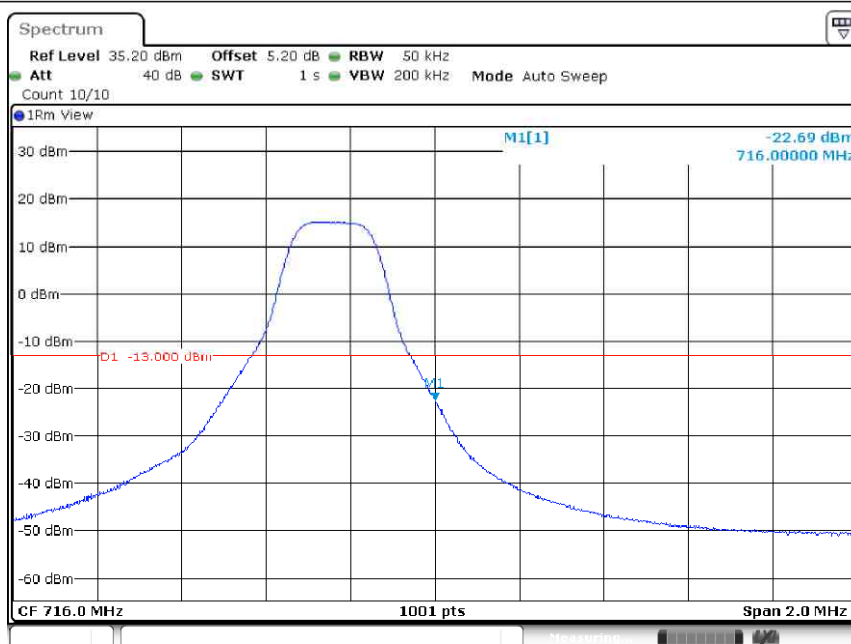


Band12-3MHz-16QAM-23025-15RB#0



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Date: 28 JUN 2020 04:13:38



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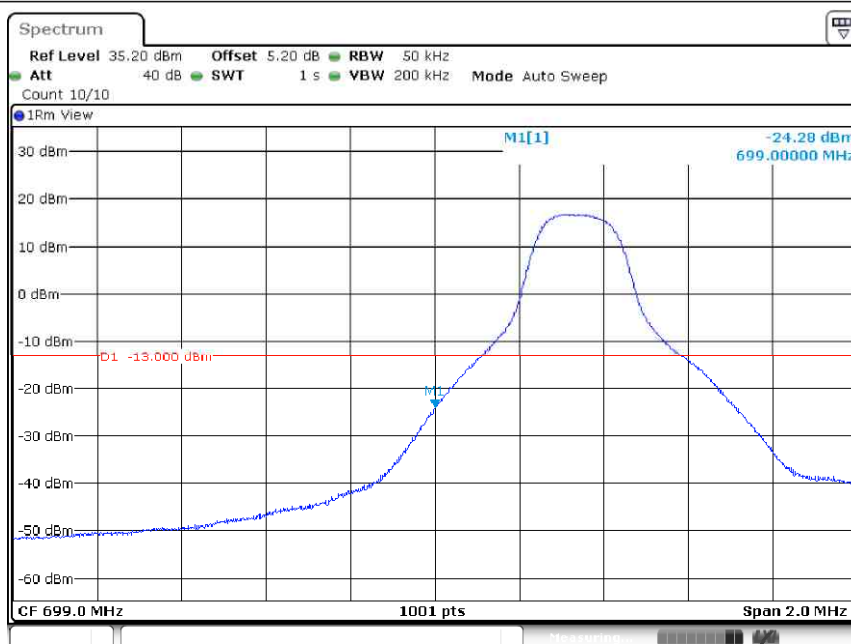


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Date: 28 JUN 2020 04:14:20

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Date: 28 JUN 2020 04:14:46

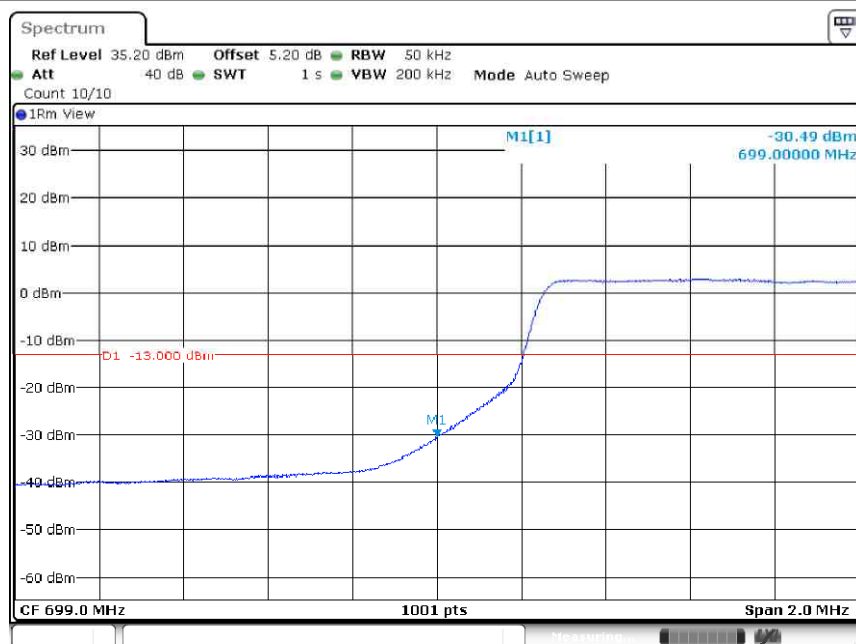


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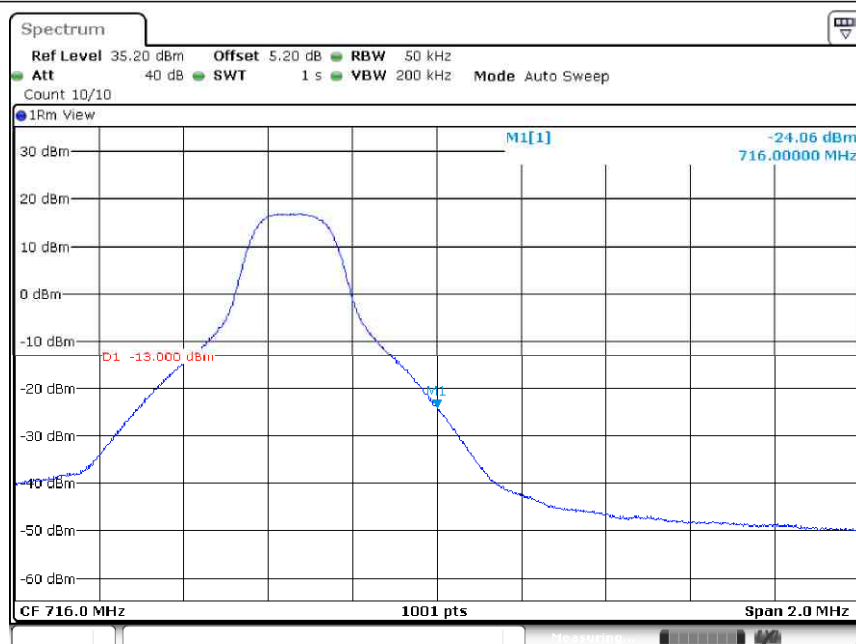


## Band12-5MHz-QPSK-23035-25RB#0



Date: 28 JUN 2020 04:15:27

## Band12-5MHz-QPSK-23155-1RB#24



Date: 28 JUN 2020 04:16:12



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Band12-5MHz-QPSK-23155-25RB#0



Date: 28 JUN 2020 04:16:53

Band12-5MHz-16QAM-23035-1RB#0



Date: 28 JUN 2020 04:16:06

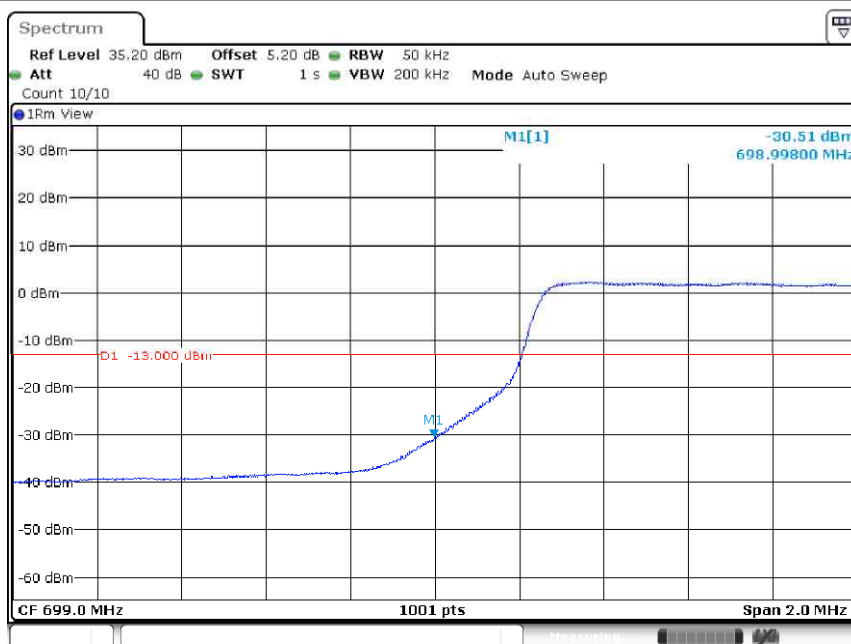


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Band12-5MHz-16QAM-23035-25RB#0



Date: 28 JUN 2020 04:15:47

Band12-5MHz-16QAM-23155-1RB#24



Date: 28 JUN 2020 04:16:32



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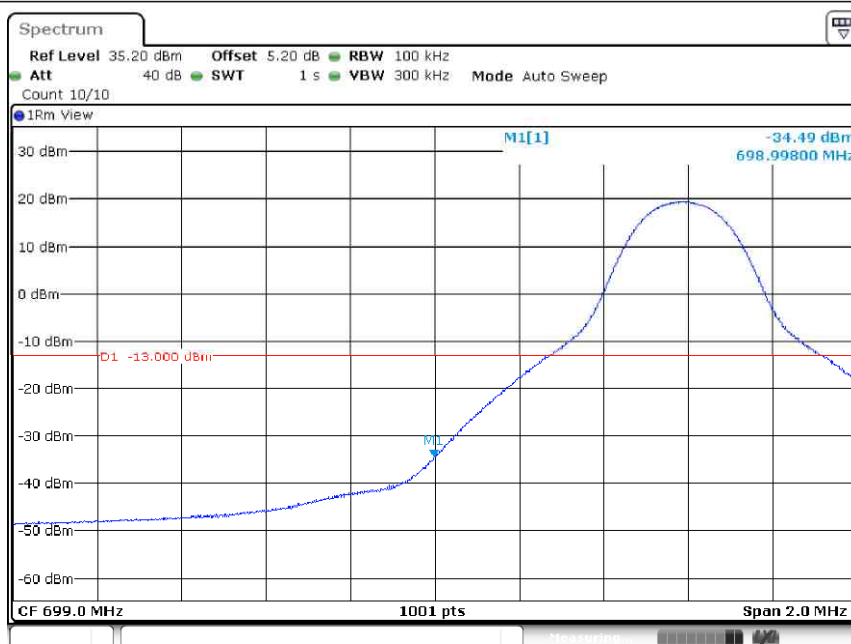


Band12-5MHz-16QAM-23155-25RB#0



Date: 28 JUN 2020 04:17:13

Band12-10MHz-QPSK-23060-1RB#0



Date: 28 JUN 2020 04:17:39



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Band12-10MHz-QPSK-23060-50RB#0



Date: 28 JUN 2020 04:18:20

Band12-10MHz-QPSK-23130-1RB#49



Date: 28 JUN 2020 04:19:06

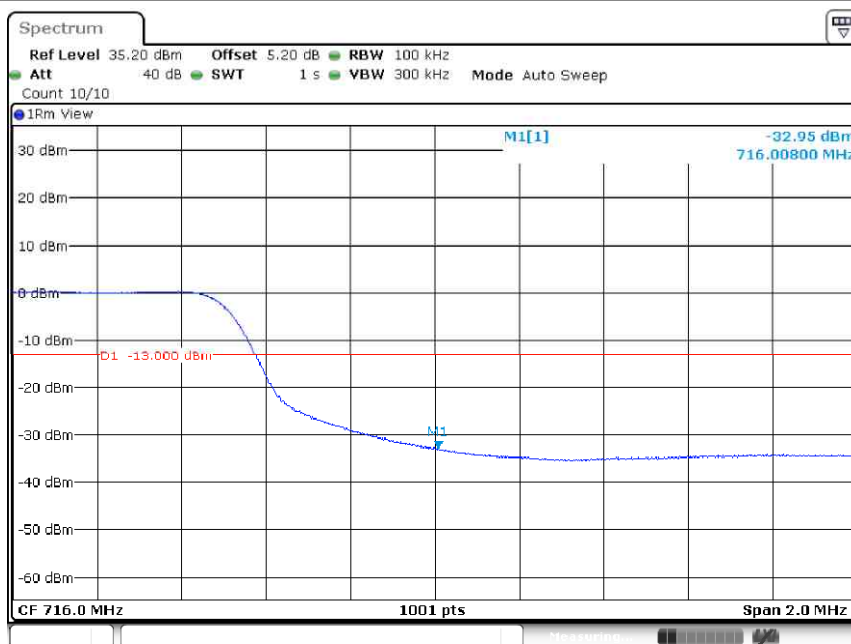


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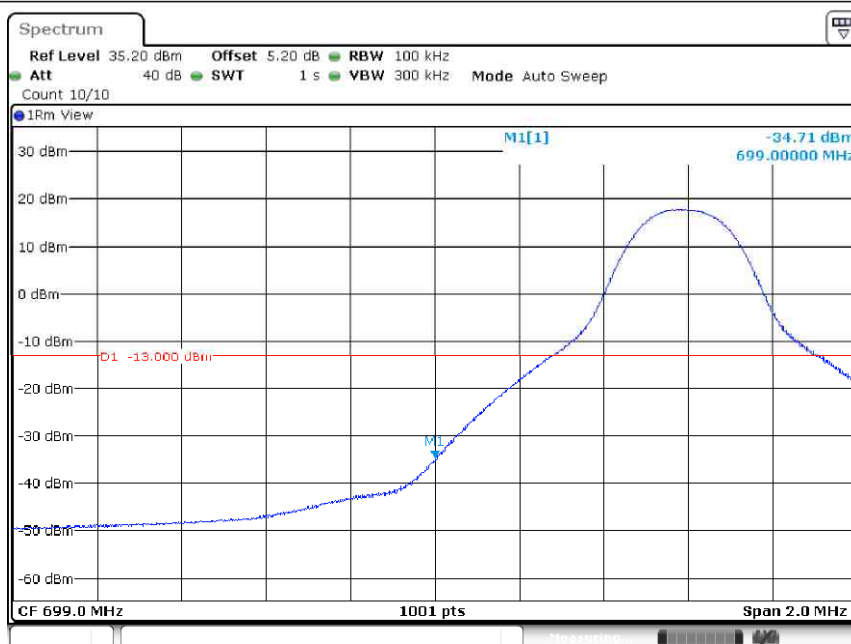


Band12-10MHz-QPSK-23130-50RB#0



Date: 28 JUN 2020 04:19:47

Band12-10MHz-16QAM-23060-1RB#0



Date: 28 JUN 2020 04:17:59

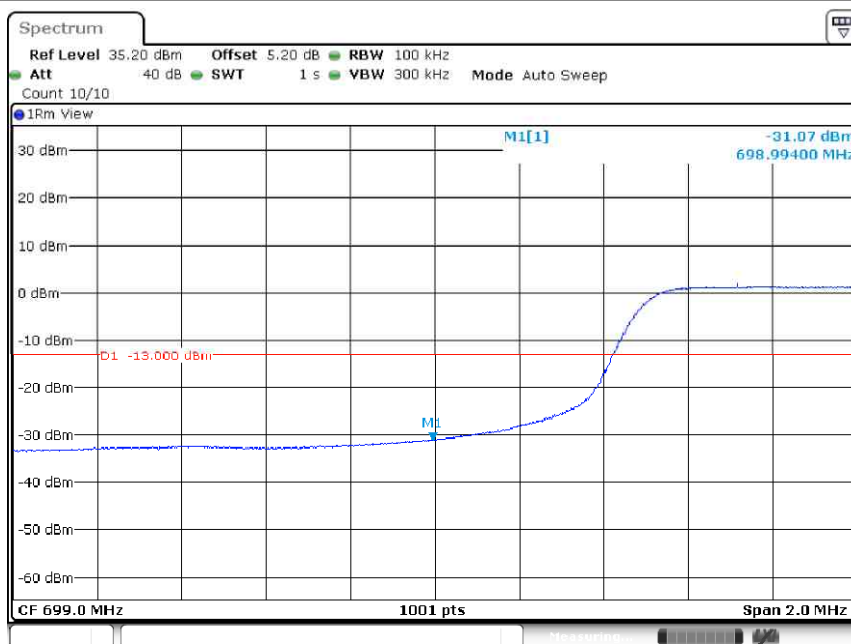


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Band12-10MHz-16QAM-23060-50RB#0



Date: 28 JUN 2020 04:18:41

Band12-10MHz-16QAM-23130-1RB#49



Date: 28 JUN 2020 04:19:26



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Band12-10MHz-16QAM-23130-50RB#0



Date: 28 JUN 2020 04:20:07



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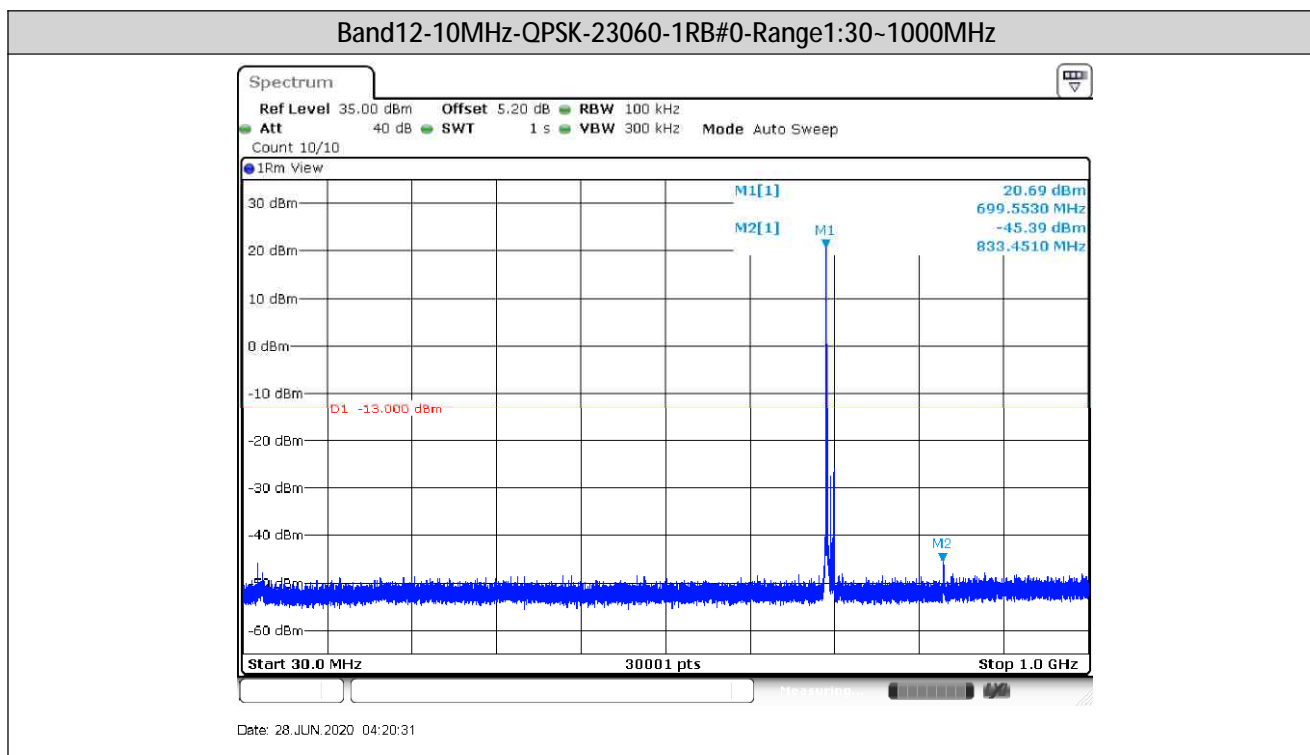


## 6. Spurious Emission at Antenna Terminal

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.

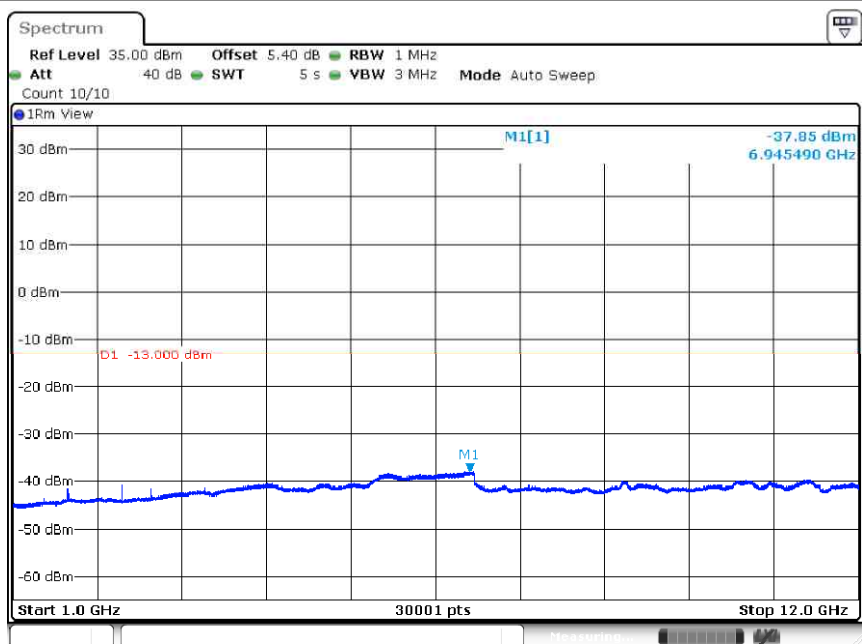
Remark2: only the worst case data displayed in this report.

### 6.1. Test Plots



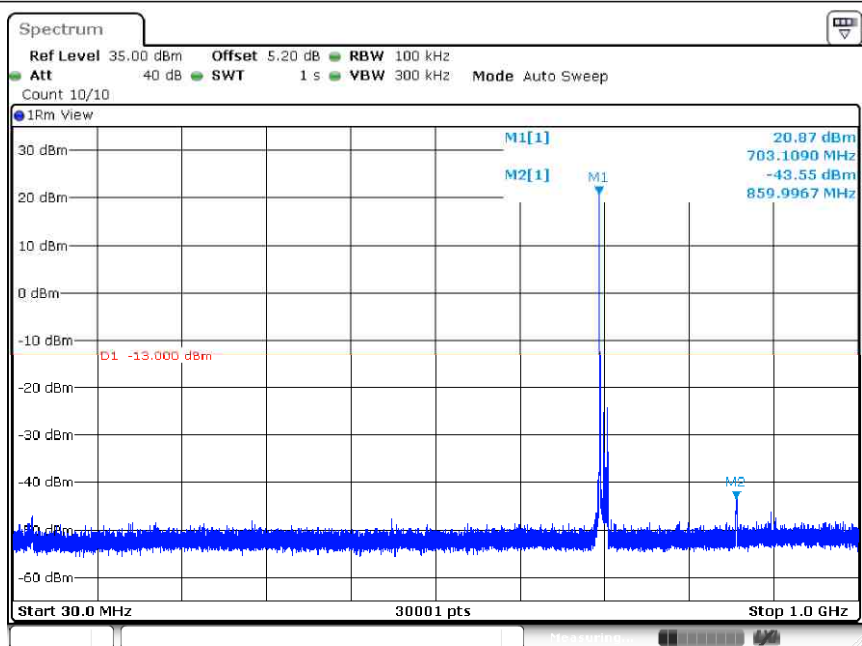


Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~12000MHz



Date: 28 JUN 2020 04:21:38

Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



Date: 28 JUN 2020 04:23:25



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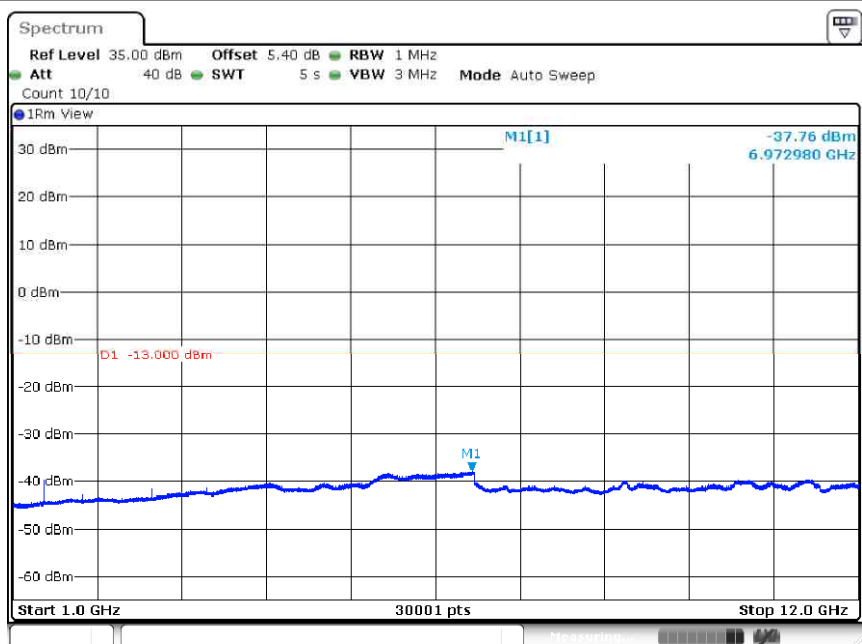
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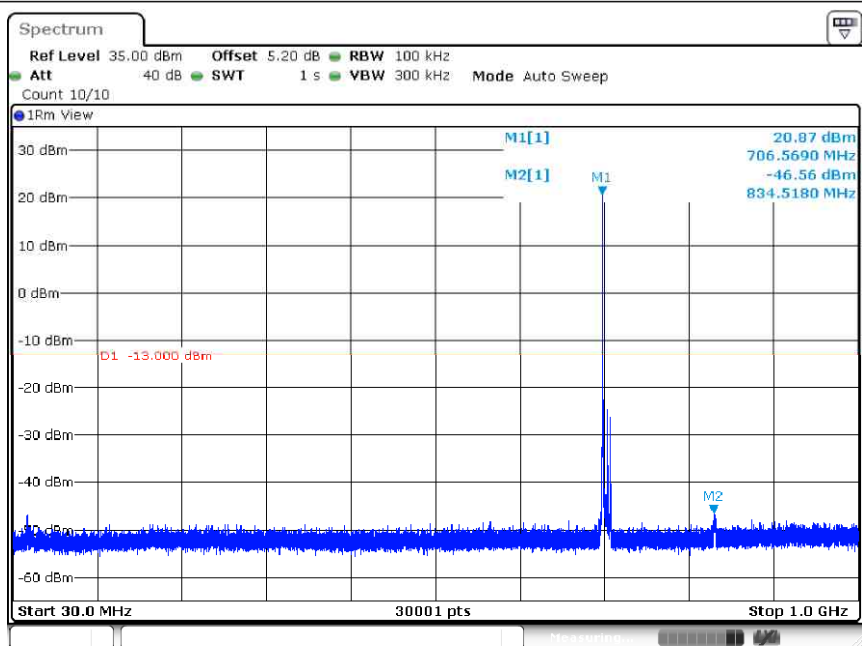


Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~12000MHz



Date: 28 JUN 2020 04:24:33

Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



Date: 28 JUN 2020 04:26:19

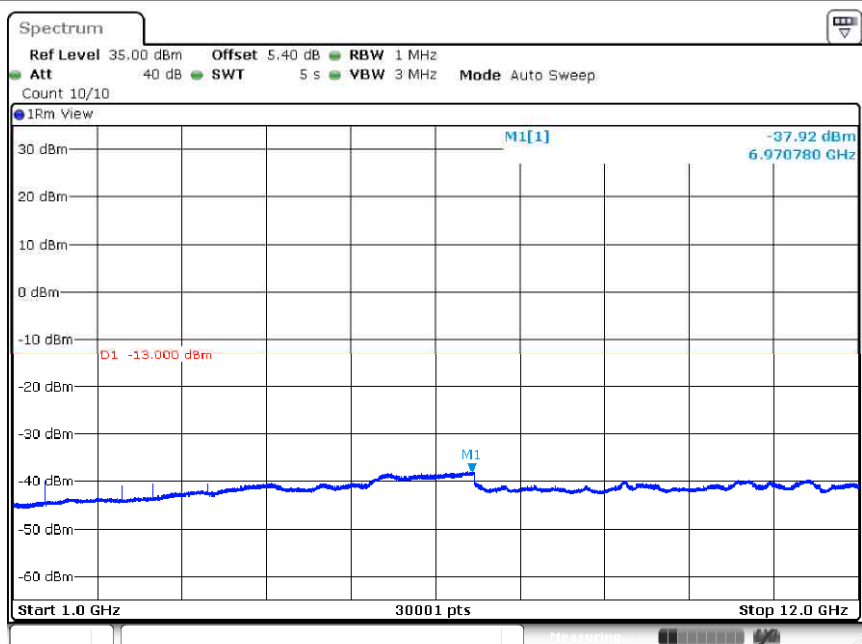


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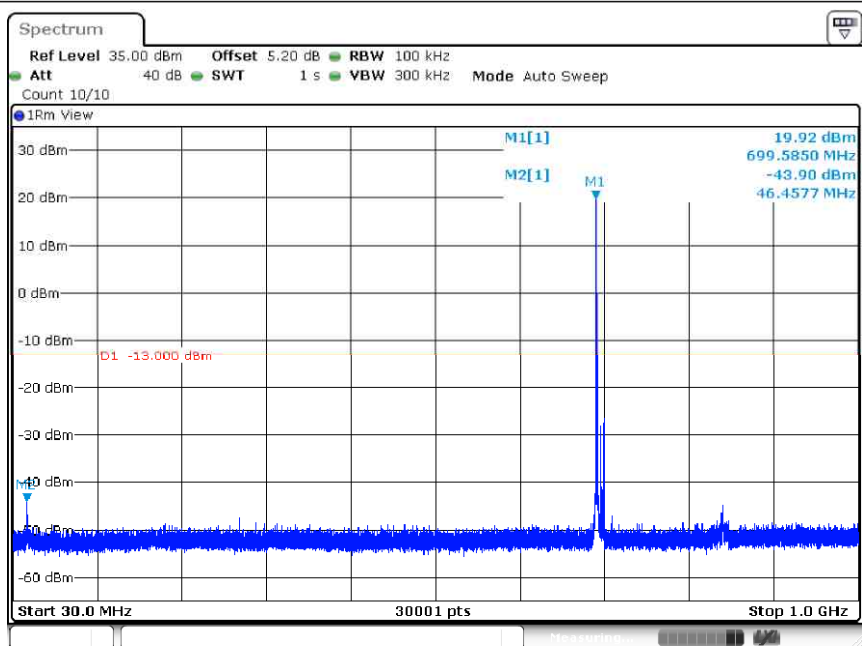


Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~12000MHz



Date: 28 JUN 2020 04:27:27

Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000MHz



Date: 28 JUN 2020 04:21:58



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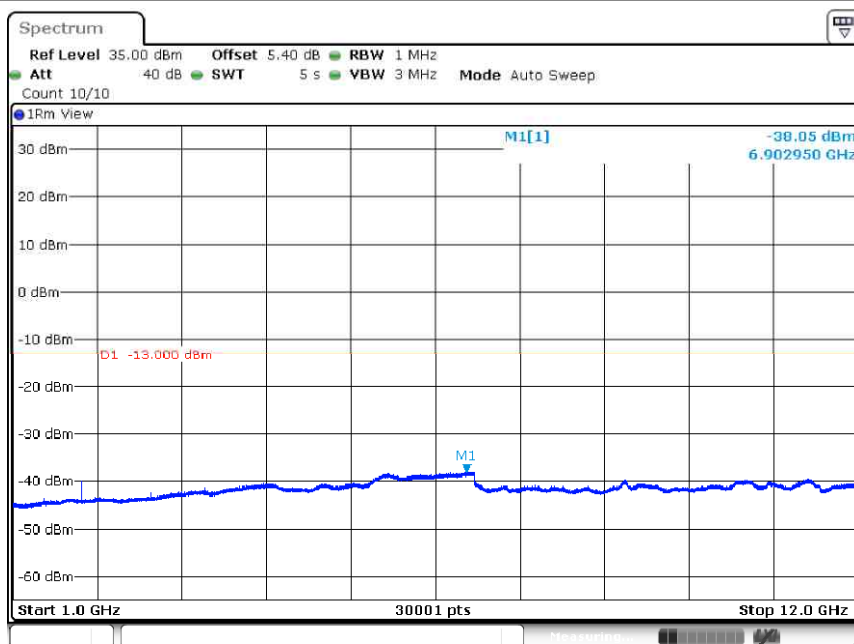
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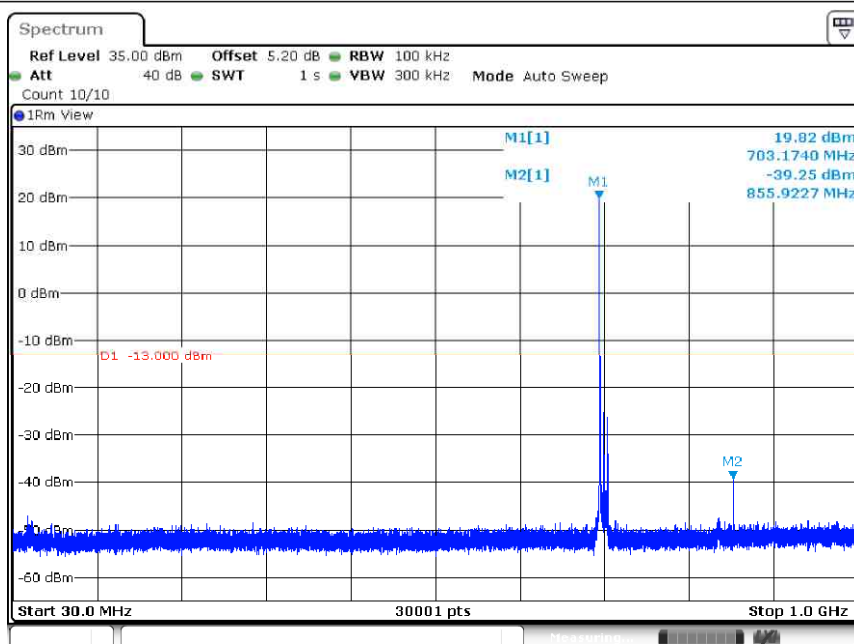


Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~12000MHz



Date: 28 JUN 2020 04:23:05

Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



Date: 28 JUN 2020 04:24:52



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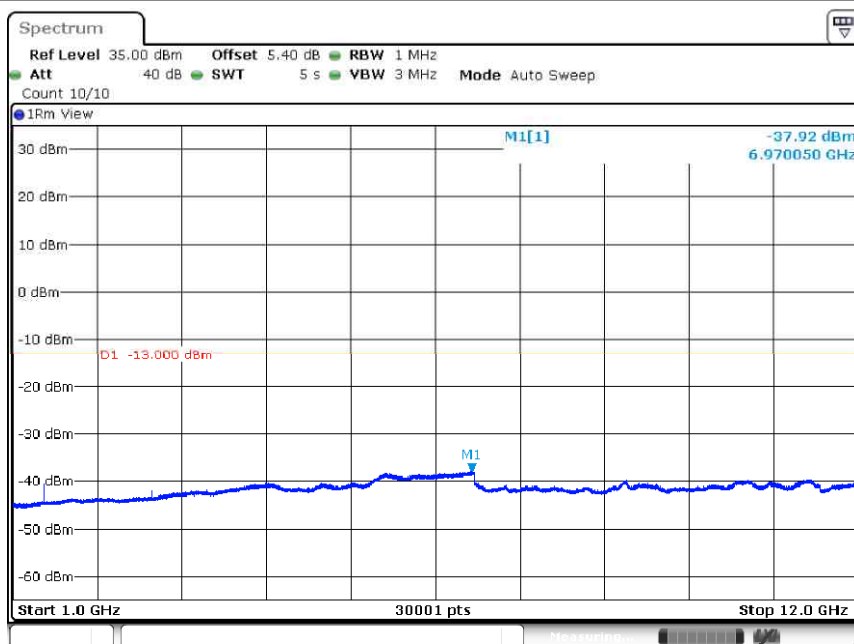
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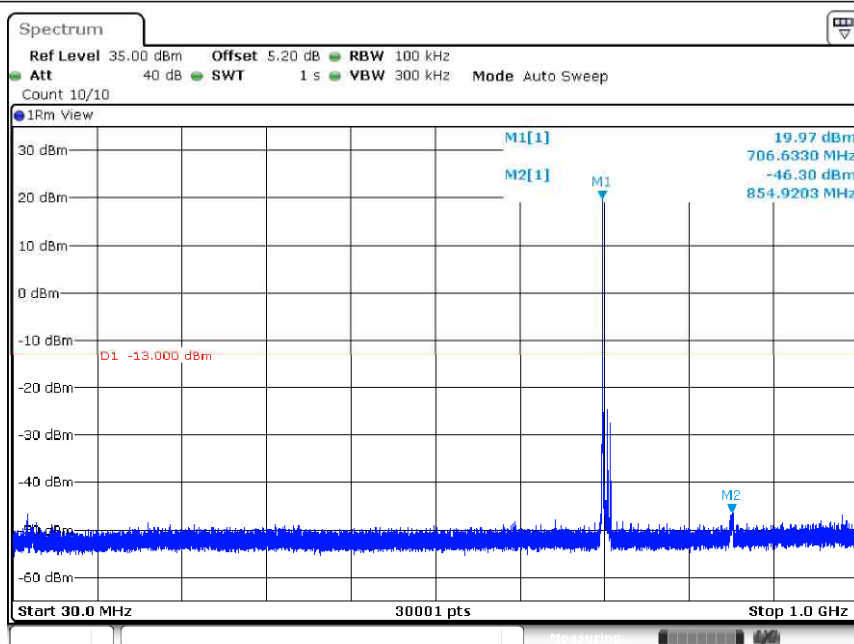


Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~12000MHz



Date: 28 JUN 2020 04:25:59

Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000MHz



Date: 28 JUN 2020 04:27:46



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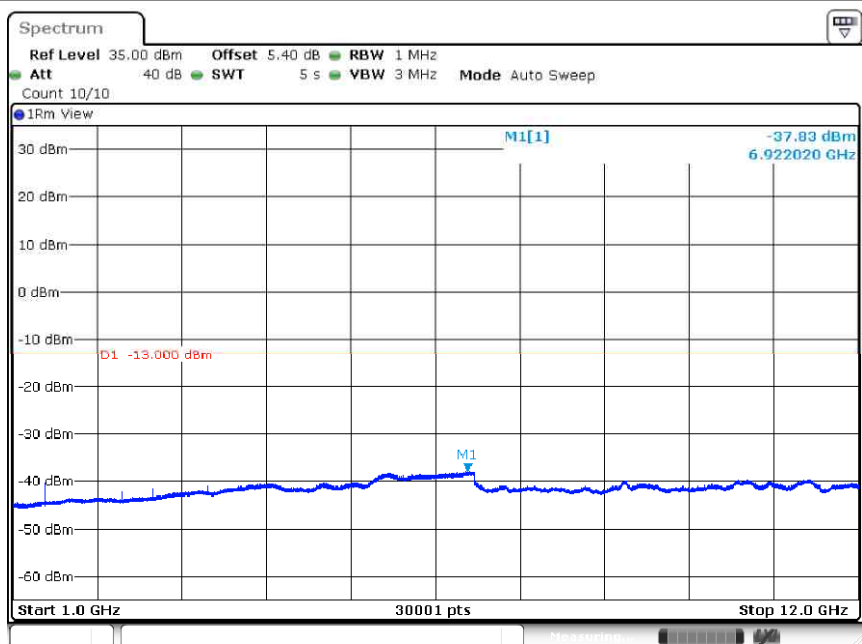
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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn  
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Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~12000MHz



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## 7. Field Strength of Spurious Radiation

### 7.1. Test Mode =LTE/TM1 10MHz

#### 7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
77.3384	-49.65	-13.00	36.65	Vertical
282.7946	-70.00	-13.00	57.00	Vertical
1398.8798	-53.27	-13.00	40.27	Vertical
2798.7598	-52.35	-13.00	39.35	Vertical
7468.9788	-55.77	-13.00	42.77	Vertical
17998.1999	-39.33	-13.00	26.33	Vertical
66.9588	-56.43	-13.00	43.43	Horizontal
228.0354	-66.74	-13.00	53.74	Horizontal
1398.8798	-46.90	-13.00	33.90	Horizontal
2798.3597	-44.22	-13.00	31.22	Horizontal
3498.0199	-48.86	-13.00	35.86	Horizontal
16394.9358	-42.03	-13.00	29.03	Horizontal

#### 7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.8730	-51.61	-13.00	38.61	Vertical
77.7749	-50.31	-13.00	37.31	Vertical
229.0540	-70.32	-13.00	57.32	Vertical
1406.0812	-55.12	-13.00	42.12	Vertical
2656.7313	-55.93	-13.00	42.93	Vertical
7410.7764	-55.70	-13.00	42.70	Vertical
65.9888	-55.61	-13.00	42.61	Horizontal
232.3521	-67.09	-13.00	54.09	Horizontal
1406.0812	-48.59	-13.00	35.59	Horizontal
2812.3625	-47.65	-13.00	34.65	Horizontal
3515.4206	-52.42	-13.00	39.42	Horizontal
16403.9362	-42.07	-13.00	29.07	Horizontal



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Shenzhen Branch (CMAA) Calibration Laboratory

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### 7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
41.7861	-54.01	-13.00	41.01	Vertical
76.5138	-49.86	-13.00	36.86	Vertical
1413.2827	-51.73	-13.00	38.73	Vertical
2826.7654	-50.07	-13.00	37.07	Vertical
14710.0684	-46.87	-13.00	33.87	Vertical
17998.8000	-39.46	-13.00	26.46	Vertical
41.8831	-57.06	-13.00	44.06	Horizontal
65.7463	-55.22	-13.00	42.22	Horizontal
1412.8826	-44.23	-13.00	31.23	Horizontal
2826.3653	-43.90	-13.00	30.90	Horizontal
3532.8213	-52.16	-13.00	39.16	Horizontal
16408.7363	-42.01	-13.00	29.01	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 Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	0.00	0.000000	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	1.00	0.001420	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	0.80	0.001136	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-0.30	-0.000424	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-1.90	-0.002686	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-2.00	-0.002827	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-0.20	-0.000281	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	-0.50	-0.000710	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	0.70	0.000994	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	0.80	0.001136	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	0.10	0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	0.80	0.001131	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-1.00	-0.001406	±2.5	PASS





## 8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	1.20	0.001705	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	1.50	0.002131	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	0.50	0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	-0.20	-0.000284	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	1.50	0.002131	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	0.30	0.000426	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	0.00	0.000000	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-2.20	-0.003110	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	0.70	0.000989	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-0.30	-0.000424	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	1.10	0.001555	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-1.30	-0.001837	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-2.50	-0.003516	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	0.10	0.000142	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	1.10	0.001563	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	0.40	0.000568	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	-0.20	-0.000284	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	1.00	0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	30	2.00	0.002841	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	40	1.40	0.001989	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	50	1.90	0.002699	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	-0.50	-0.000707	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	-0.50	-0.000707	±2.5	PASS



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Shenzhen Branch

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057  
中国·深圳·科技园中区M-10栋一号厂房

t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn  
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Band12	10MHz	16QAM	23095	50RB#0	NV	10	-0.20	-0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	20	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	0.30	0.000424	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	-1.40	-0.001979	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	50	-0.30	-0.000424	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-0.30	-0.000422	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	0.30	0.000422	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-0.70	-0.000985	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	40	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	-0.50	-0.000703	±2.5	PASS



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