



Appendix K: Test Data for E-UTRA Band 13

Product Name: Rugged Handheld Computer

Test Model: EA520

Environmental Conditions

Temperature:	21.2° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



K.1 Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	22.71	PASS
Band13	5MHz	QPSK	23205	1RB#12	22.87	PASS
Band13	5MHz	QPSK	23205	1RB#24	22.68	PASS
Band13	5MHz	QPSK	23205	12RB#0	21.66	PASS
Band13	5MHz	QPSK	23205	12RB#6	21.62	PASS
Band13	5MHz	QPSK	23205	12RB#13	21.75	PASS
Band13	5MHz	QPSK	23205	25RB#0	21.68	PASS
Band13	5MHz	QPSK	23230	1RB#0	22.89	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.02	PASS
Band13	5MHz	QPSK	23230	1RB#24	22.89	PASS
Band13	5MHz	QPSK	23230	12RB#0	21.83	PASS
Band13	5MHz	QPSK	23230	12RB#6	21.86	PASS
Band13	5MHz	QPSK	23230	12RB#13	21.78	PASS
Band13	5MHz	QPSK	23230	25RB#0	21.86	PASS
Band13	5MHz	QPSK	23255	1RB#0	22.79	PASS
Band13	5MHz	QPSK	23255	1RB#12	22.95	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.75	PASS
Band13	5MHz	QPSK	23255	12RB#0	21.89	PASS
Band13	5MHz	QPSK	23255	12RB#6	21.90	PASS
Band13	5MHz	QPSK	23255	12RB#13	21.84	PASS
Band13	5MHz	QPSK	23255	25RB#0	21.88	PASS
Band13	5MHz	16QAM	23205	1RB#0	21.59	PASS
Band13	5MHz	16QAM	23205	1RB#12	21.72	PASS
Band13	5MHz	16QAM	23205	1RB#24	21.63	PASS
Band13	5MHz	16QAM	23205	12RB#0	20.60	PASS
Band13	5MHz	16QAM	23205	12RB#6	20.64	PASS
Band13	5MHz	16QAM	23205	12RB#13	20.70	PASS
Band13	5MHz	16QAM	23205	25RB#0	20.73	PASS
Band13	5MHz	16QAM	23230	1RB#0	21.74	PASS
Band13	5MHz	16QAM	23230	1RB#12	21.90	PASS
Band13	5MHz	16QAM	23230	1RB#24	21.77	PASS
Band13	5MHz	16QAM	23230	12RB#0	20.75	PASS



Band13	5MHz	16QAM	23230	12RB#6	20.80	PASS
Band13	5MHz	16QAM	23230	12RB#13	20.79	PASS
Band13	5MHz	16QAM	23230	25RB#0	20.86	PASS
Band13	5MHz	16QAM	23255	1RB#0	21.83	PASS
Band13	5MHz	16QAM	23255	1RB#12	21.99	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	20.95	PASS
Band13	5MHz	16QAM	23255	12RB#6	20.96	PASS
Band13	5MHz	16QAM	23255	12RB#13	20.83	PASS
Band13	5MHz	16QAM	23255	25RB#0	20.86	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.37	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.48	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.30	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.29	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.28	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.37	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.27	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.07	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.26	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.06	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.27	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.33	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.35	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.32	PASS



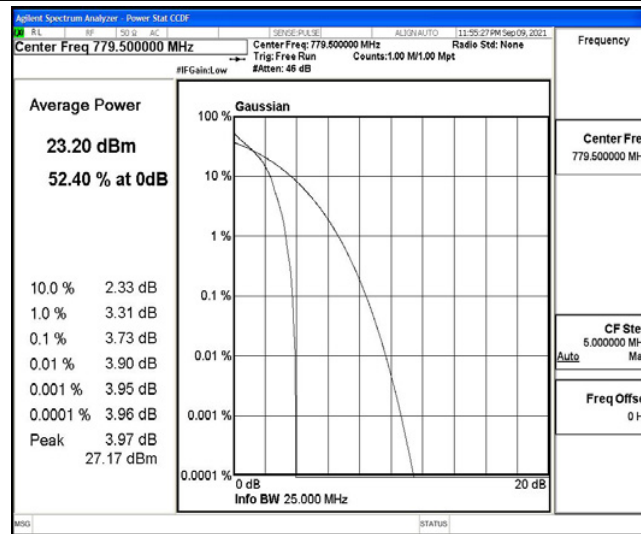
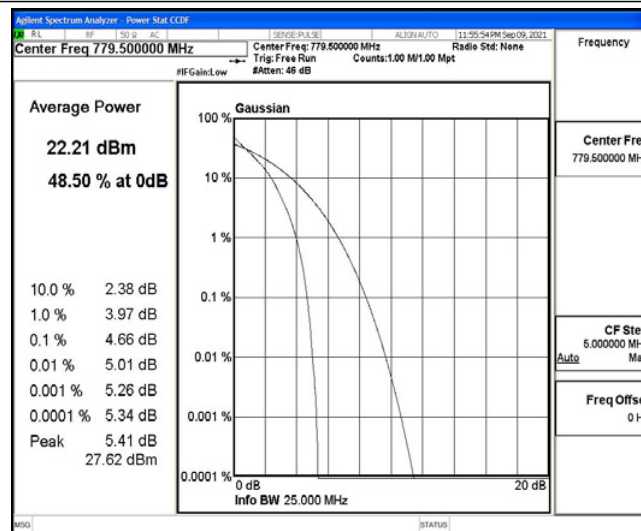
K.2 Peak-to-Average Ratio(CCDF)

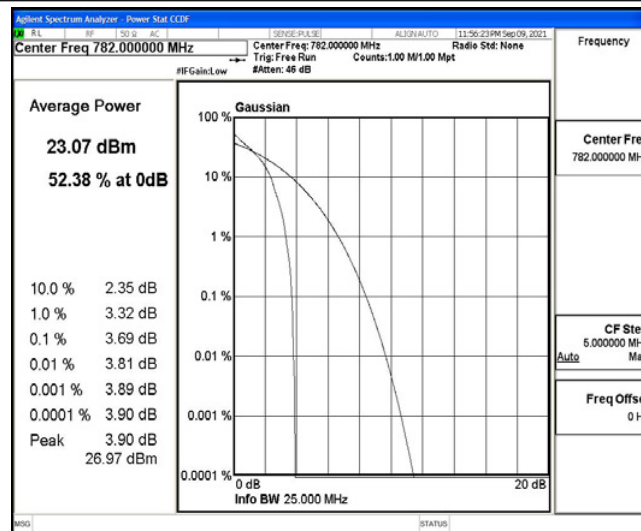
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	3.73	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	4.66	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	3.69	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.09	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	4.65	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.24	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	4.58	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.46	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	4.43	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.88	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	5.42	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.06	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	3.30	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	4.95	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	4.49	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.78	13	PASS

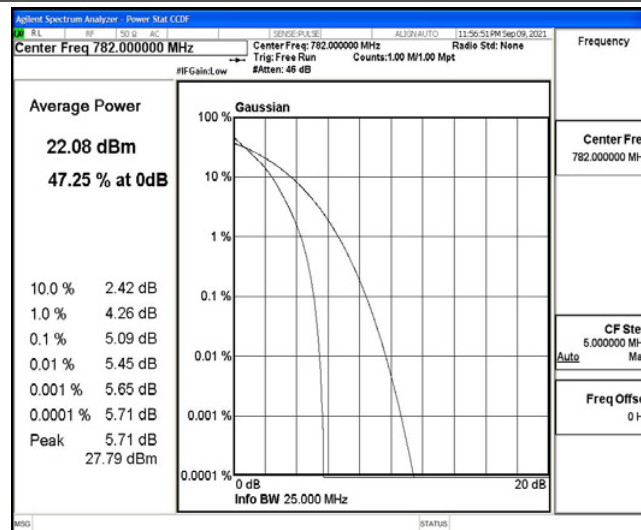


Test Graphs

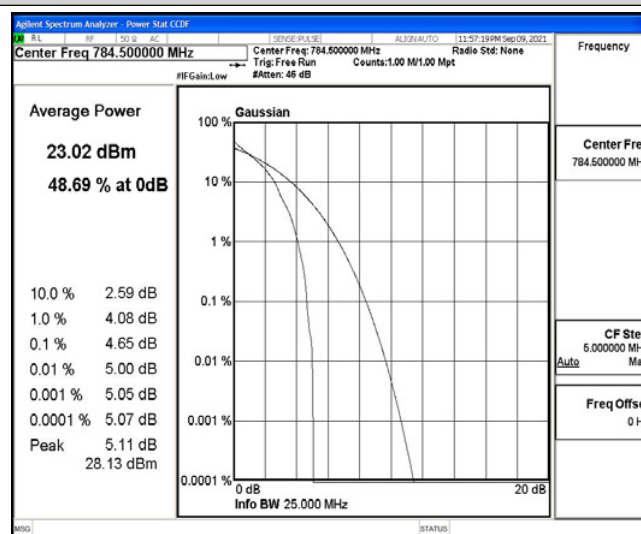
Band13-5MHz-QPSK-23205-1RB#0**Band13-5MHz-QPSK-23205-25RB#0****Band13-5MHz-QPSK-23230-1RB#0**



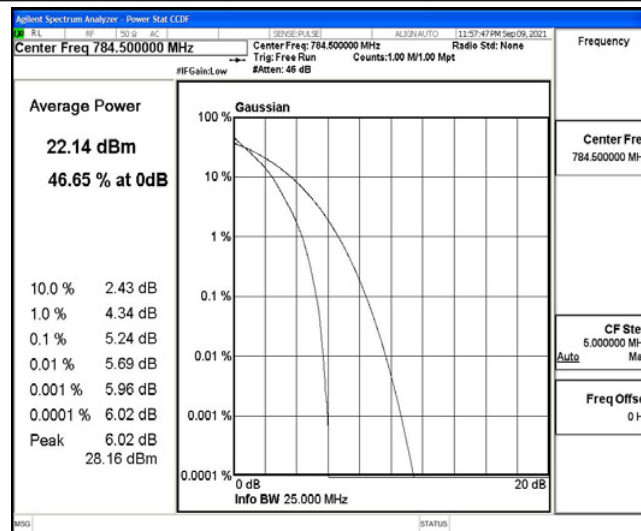
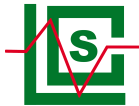
Band13-5MHz-QPSK-23230-25RB#0



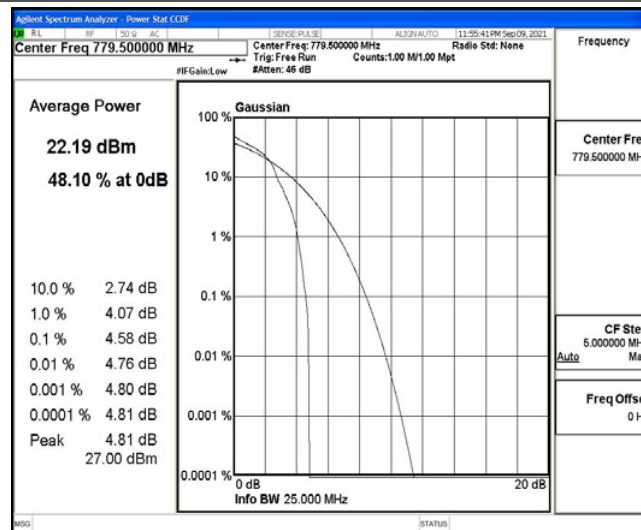
Band13-5MHz-QPSK-23255-1RB#0



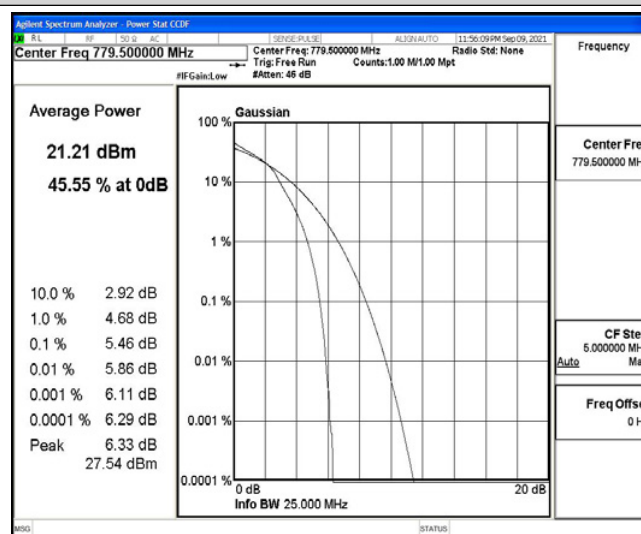
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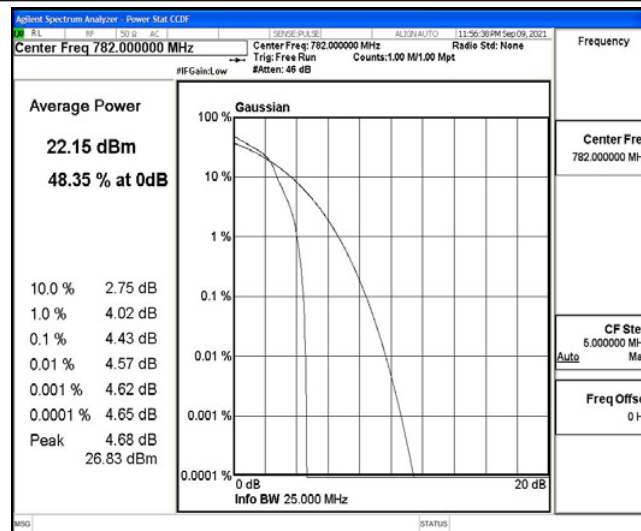
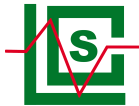
Band13-5MHz-16QAM-23205-1RB#0



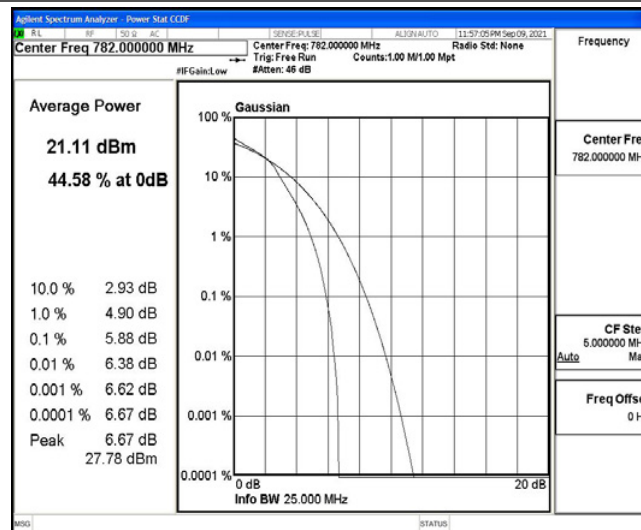
Band13-5MHz-16QAM-23205-25RB#0



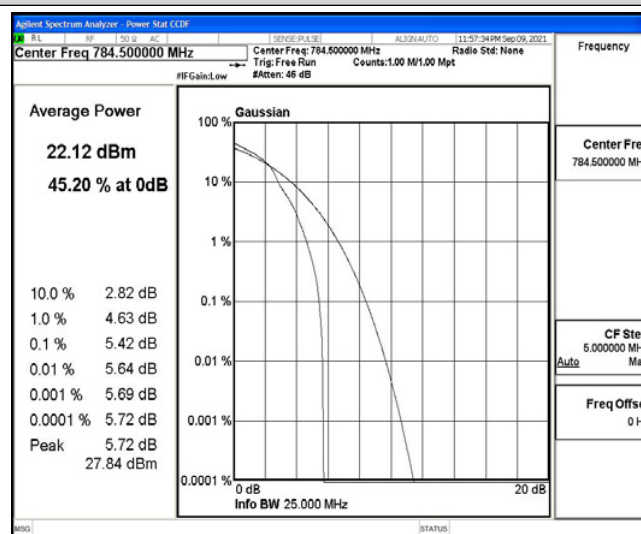
Band13-5MHz-16QAM-23230-1RB#0



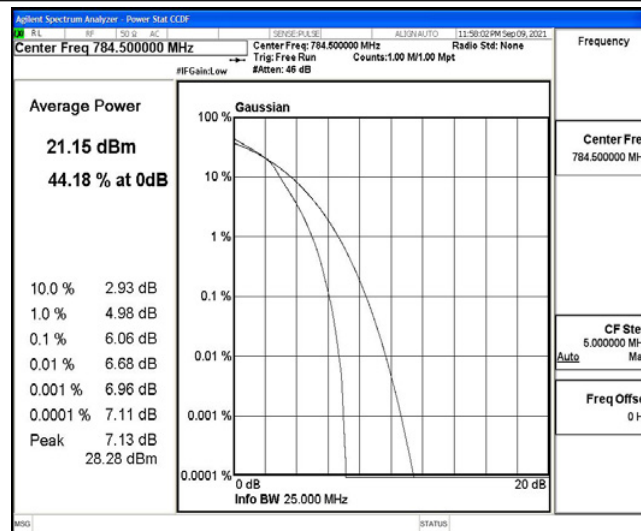
Band13-5MHz-16QAM-23230-25RB#0



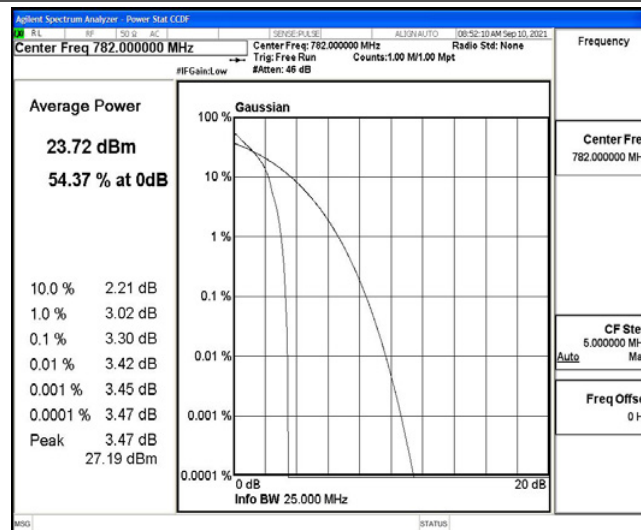
Band13-5MHz-16QAM-23255-1RB#0



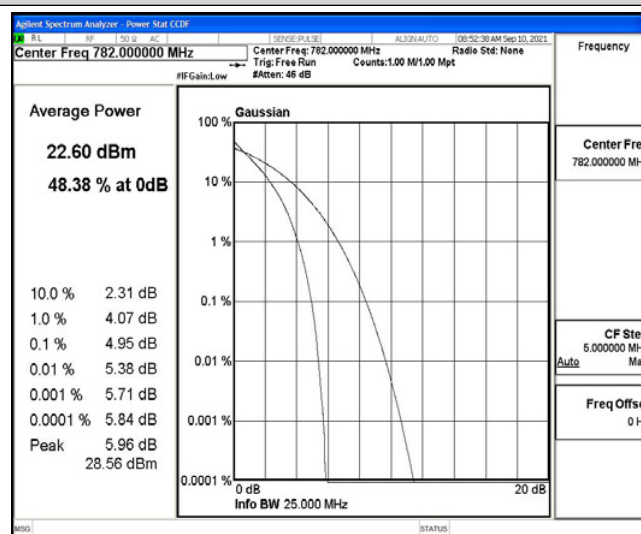
Band13-5MHz-16QAM-23255-25RB#0



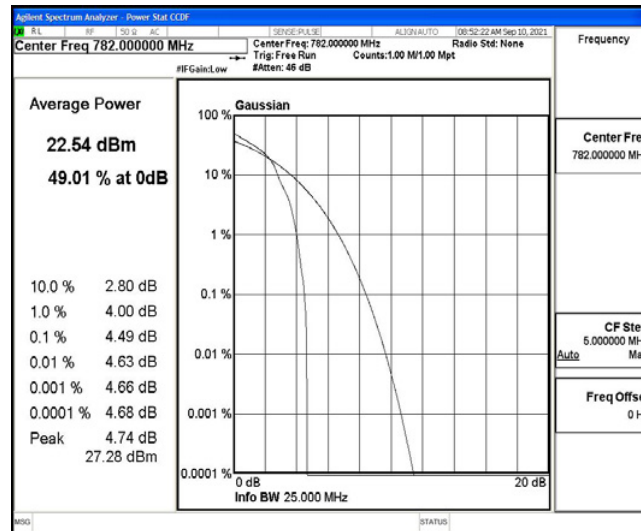
Band13-10MHz-QPSK-23230-1RB#0



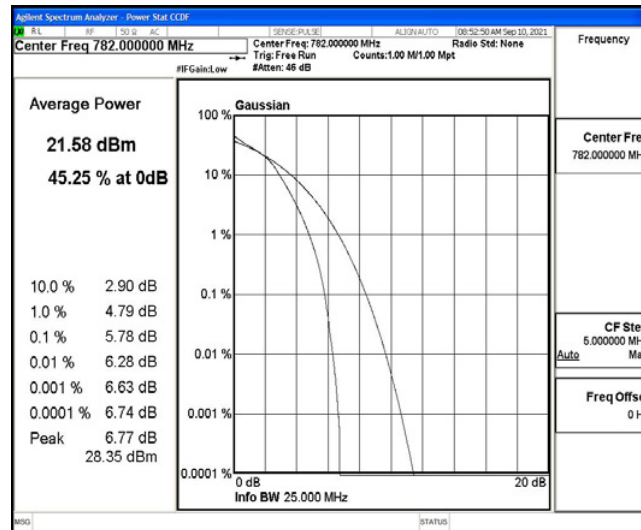
Band13-10MHz-QPSK-23230-50RB#0



Band13-10MHz-16QAM-23230-1RB#0



Band13-10MHz-16QAM-23230-50RB#0



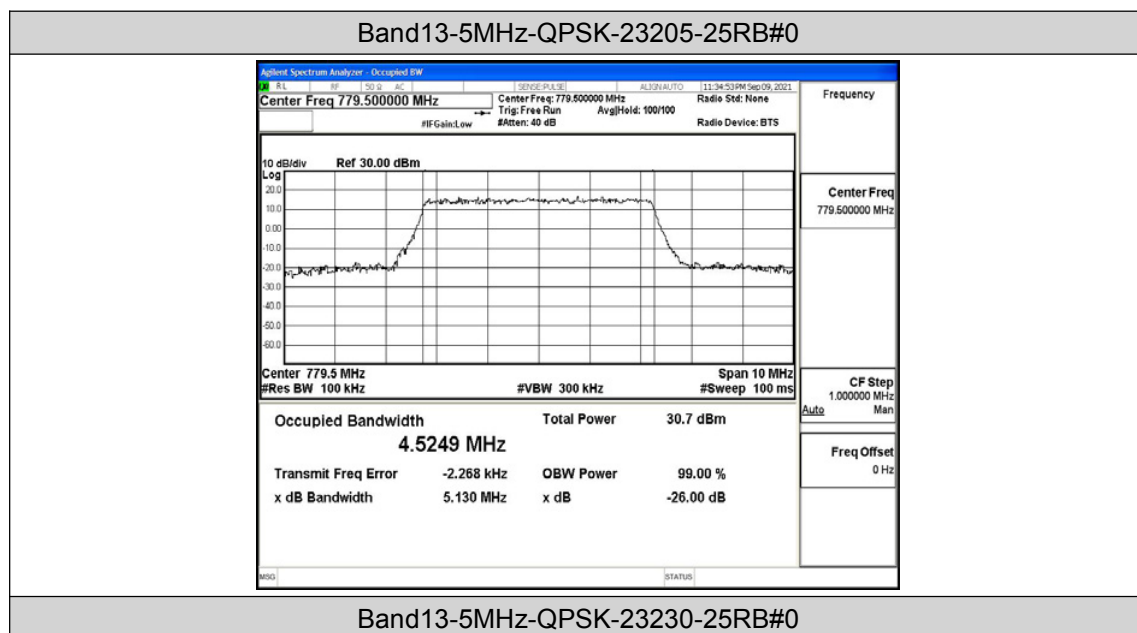


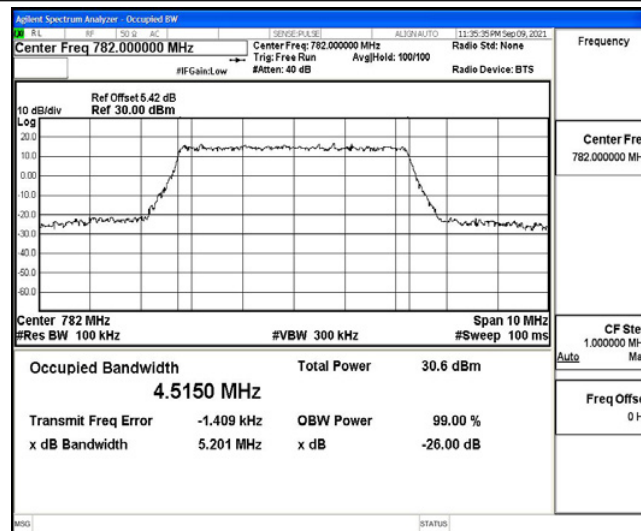
K.3 26dB Bandwidth and Occupied Bandwidth

Test Result

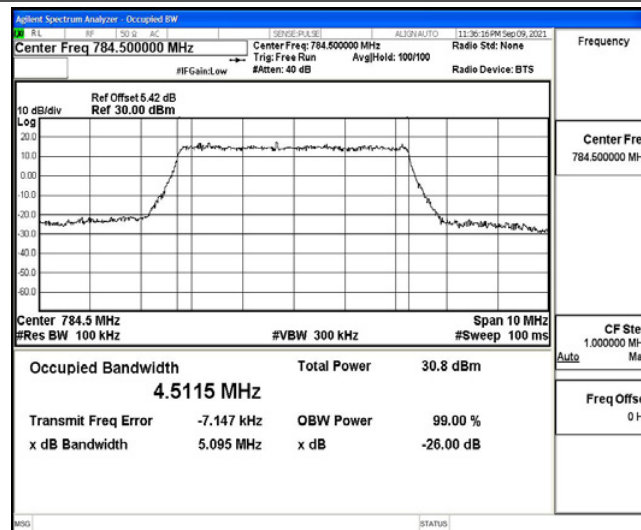
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5249	5.130	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5150	5.201	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5115	5.095	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5215	5.145	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5182	5.115	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5308	5.229	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0032	10.13	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9827	10.06	PASS

Test Graphs

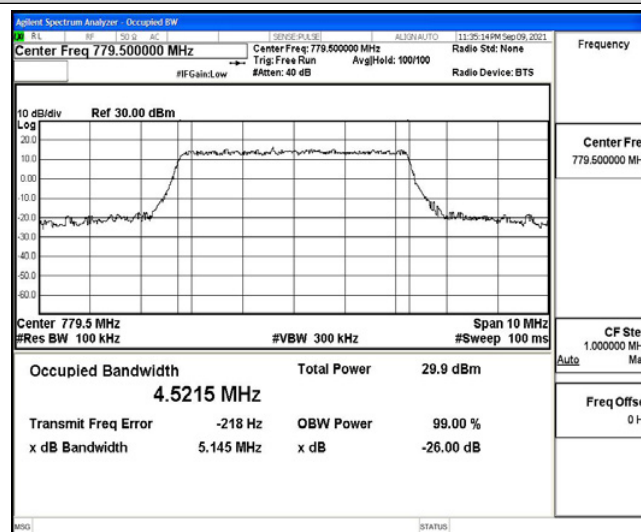




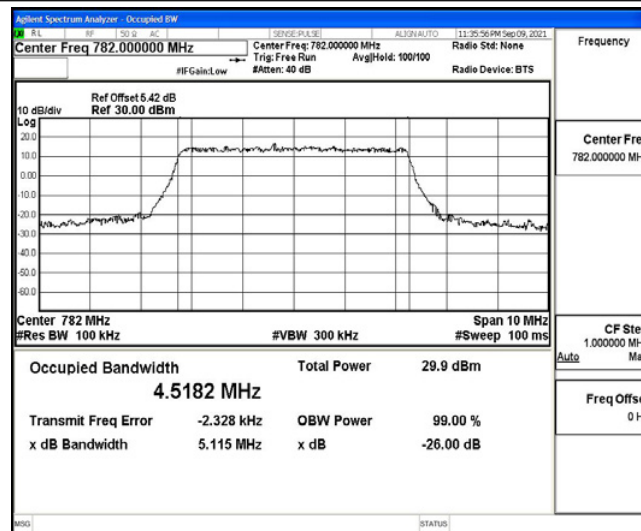
Band13-5MHz-QPSK-23255-25RB#0



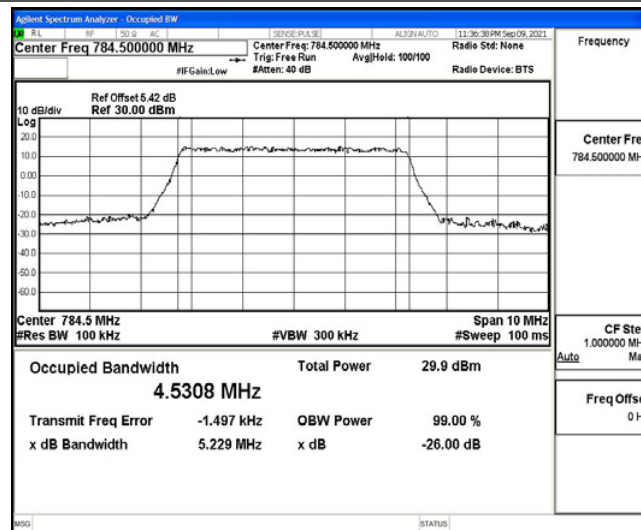
Band13-5MHz-16QAM-23205-25RB#0



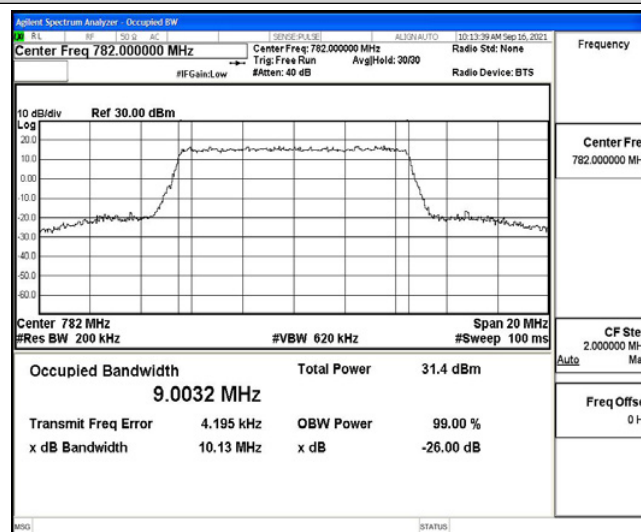
Band13-5MHz-16QAM-23230-25RB#0



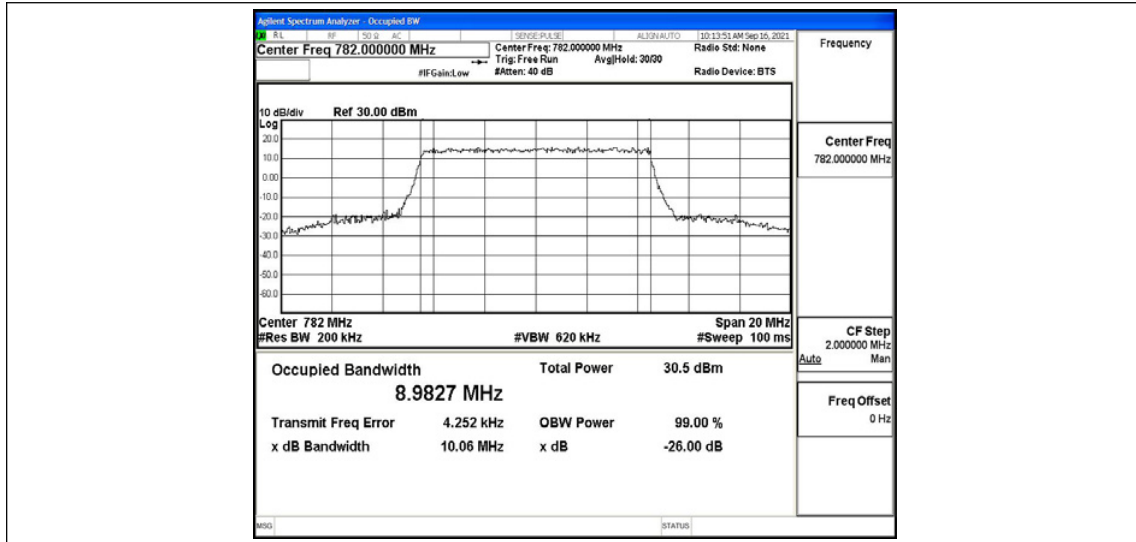
Band13-5MHz-16QAM-23255-25RB#0



Band13-10MHz-QPSK-23230-50RB#0



Band13-10MHz-16QAM-23230-50RB#0



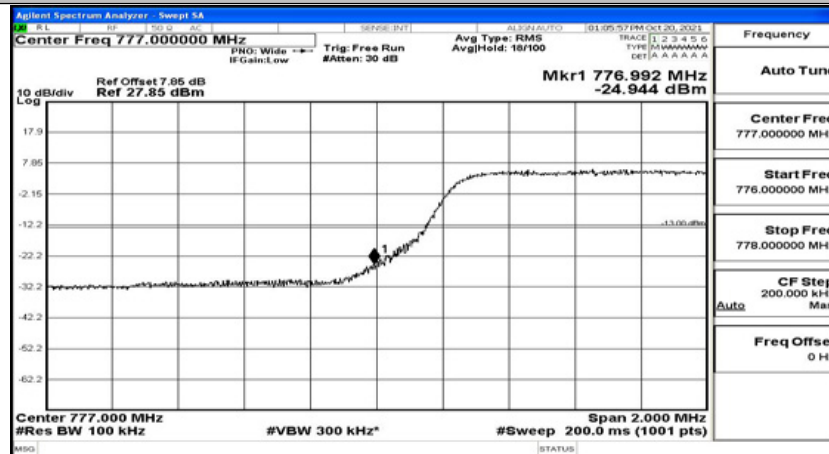


K.4 Band Edge

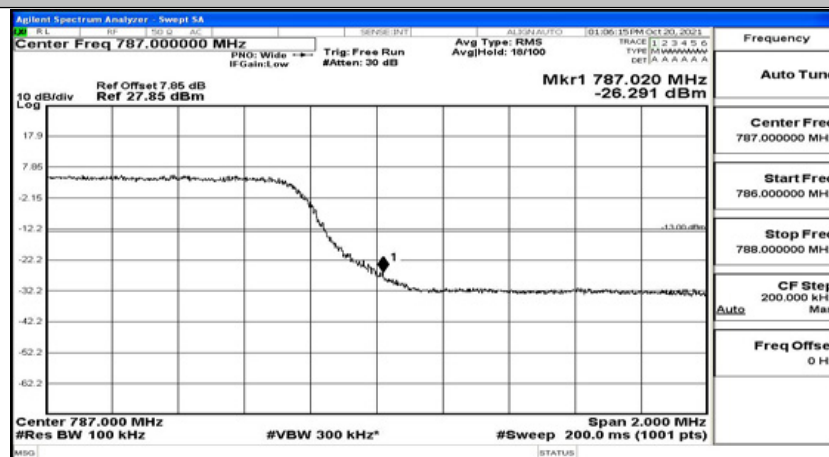
Test Result

Channel Bandwidth: 5 MHz

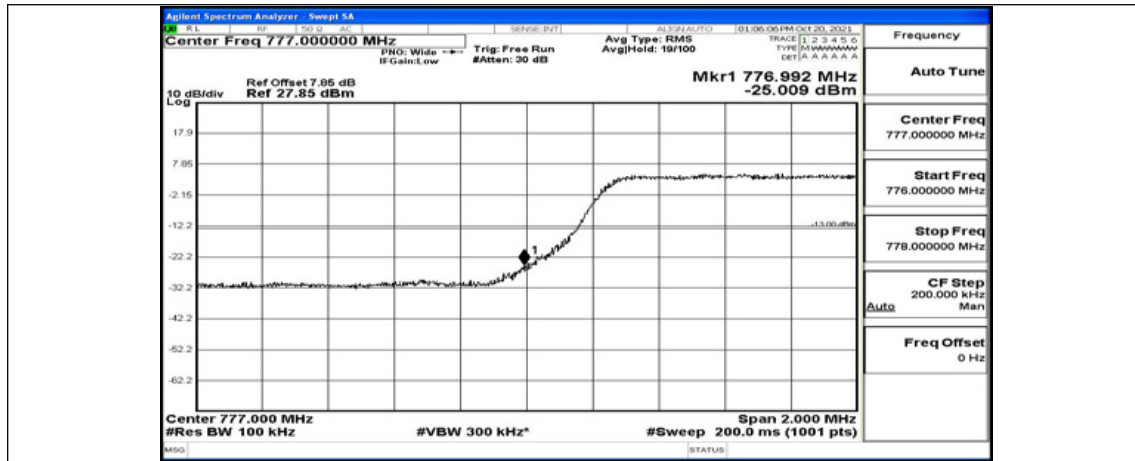
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



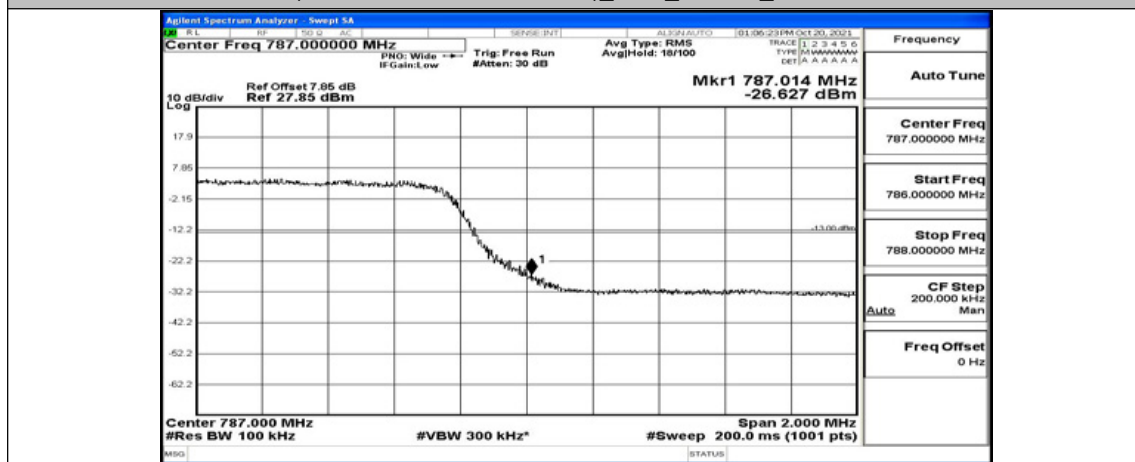
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0

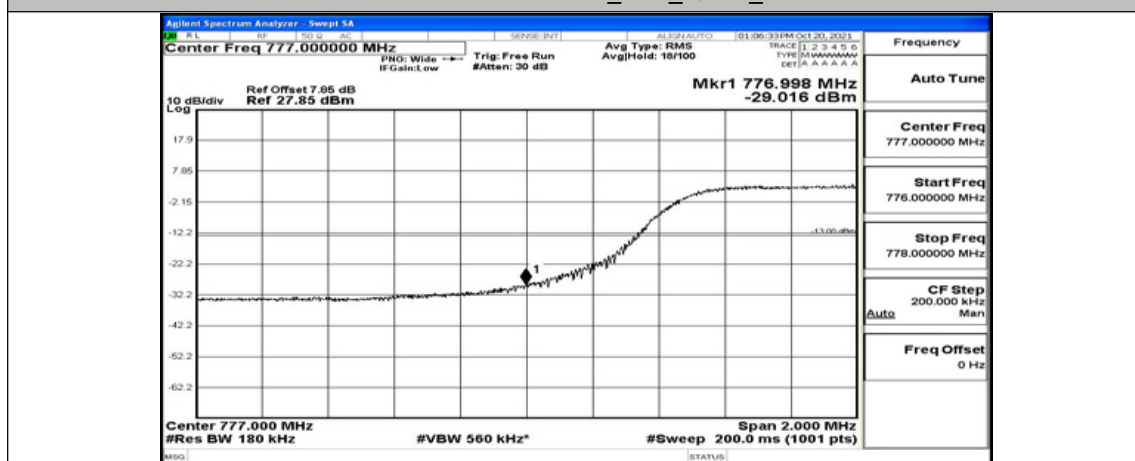


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

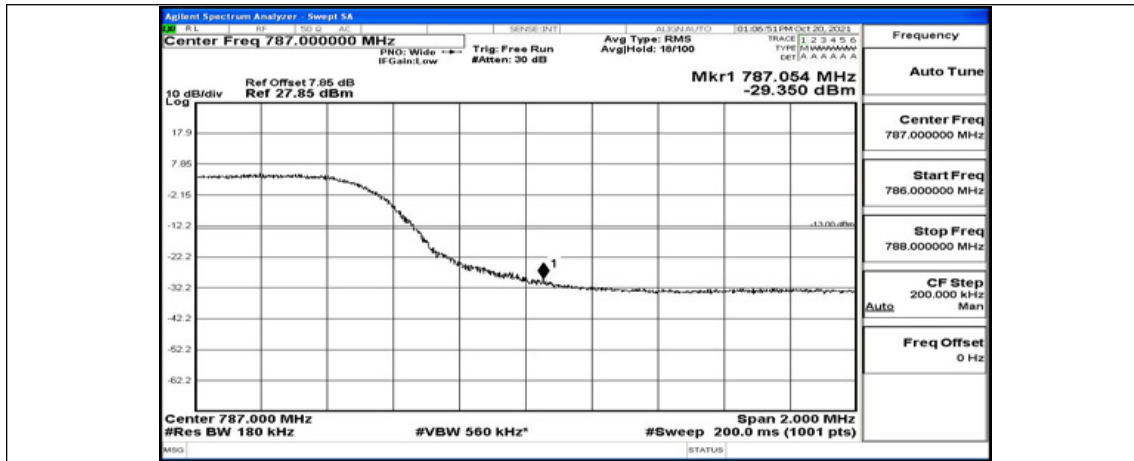


Channel Bandwidth: 10 MHz

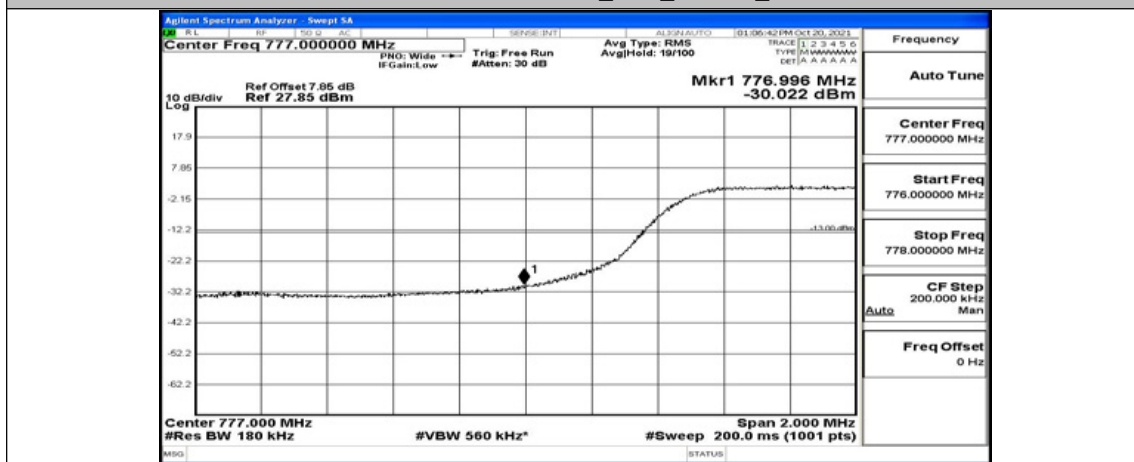
Channel Bandwidth: 10 MHz_LCH_QPSK_50RB#0



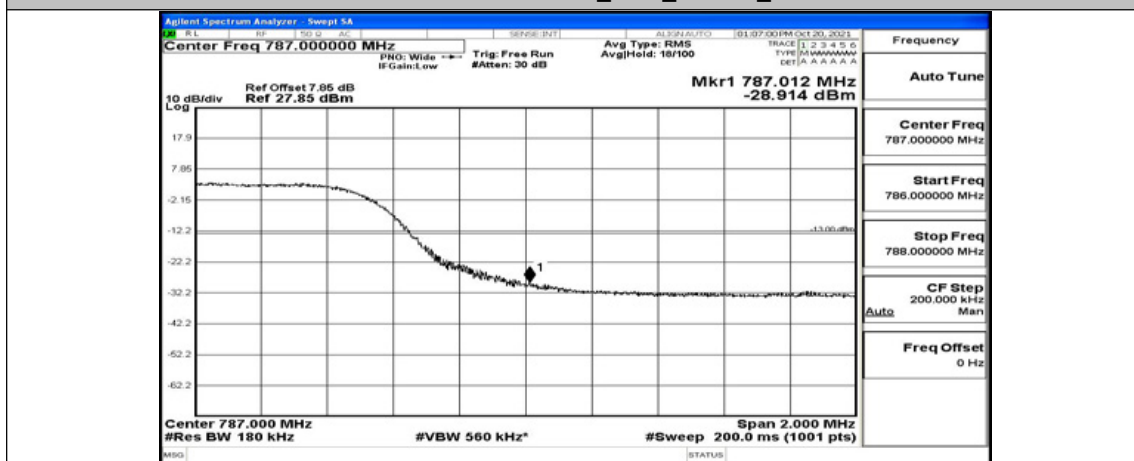
Channel Bandwidth: 10 MHz_HCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_50RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_50RB#0

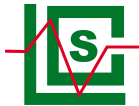




K.5 Conducted Spurious Emission

Test Result

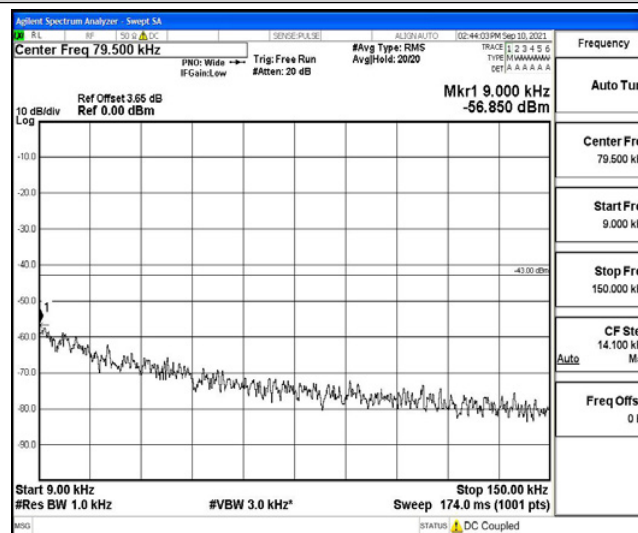
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:0.009~0.15MHz	-56.85	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:0.15~30MHz	-49.24	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:30~1000MHz	-41.98	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:763~775MHz	-59.81	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range6:793~805MHz	-60.22	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:1000~10000MHz	-45.27	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range7:1559~1610MHz	-64.39	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-56.06	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-51.81	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-41.91	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:763~775MHz	-60.87	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range6:793~805MHz	-60.36	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-45.42	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range7:1559~1610MHz	-64.48	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:0.009~0.15MHz	-54.31	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:0.15~30MHz	-53	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:30~1000MHz	-41.74	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:763~775MHz	-59.49	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range6:793~805MHz	-61.43	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:1000~10000MHz	-45.43	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range7:1559~1610MHz	-64.44	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:0.009~0.15MHz	-56.83	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:0.15~30MHz	-51.49	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:30~1000MHz	-41.82	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:763~775MHz	-60.46	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range6:793~805MHz	-59.47	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range4:1000~10000MHz	-45.24	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range7:1559~1610MHz	-64.47	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-57	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-51.85	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-42.11	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:763~775MHz	-60.11	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range6:793~805MHz	-60.41	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-45.37	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range7:1559~1610MHz	-64.27	PASS



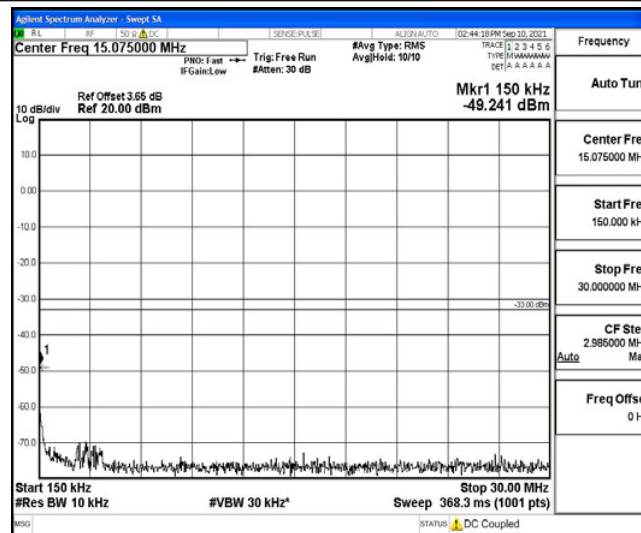
Band13	5MHz	16QAM	23255	1RB#0	Range1:0.009~0.15MHz	-55.23	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:0.15~30MHz	-50.29	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:30~1000MHz	-41.02	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:763~775MHz	-60.66	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range6:793~805MHz	-60.63	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:1000~10000MHz	-45.44	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range7:1559~1610MHz	-64.3	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-56.28	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-50.79	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-42.28	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:763~775MHz	-60.35	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range6:793~805MHz	-61.21	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-45.49	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range7:1559~1610MHz	-64.61	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-55.65	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-52.82	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-39.7	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:763~775MHz	-60.85	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range6:793~805MHz	-62.02	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-45.39	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range7:1559~1610MHz	-64.66	PASS

Test Graphs

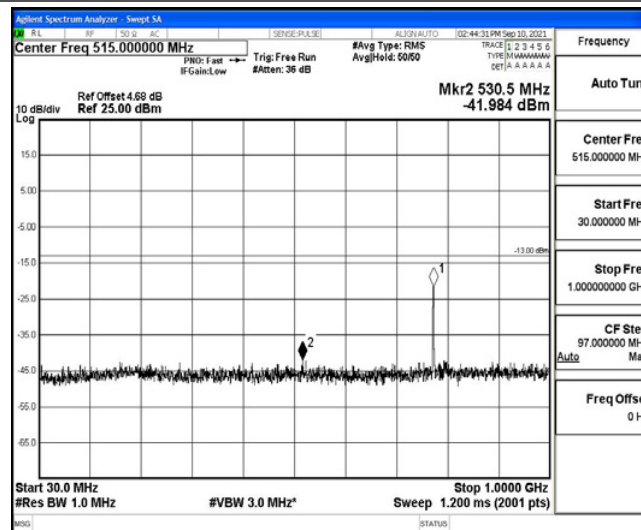
Band13-5MHz-QPSK-23205-1RB#0-Range1:0.009~0.15MHz



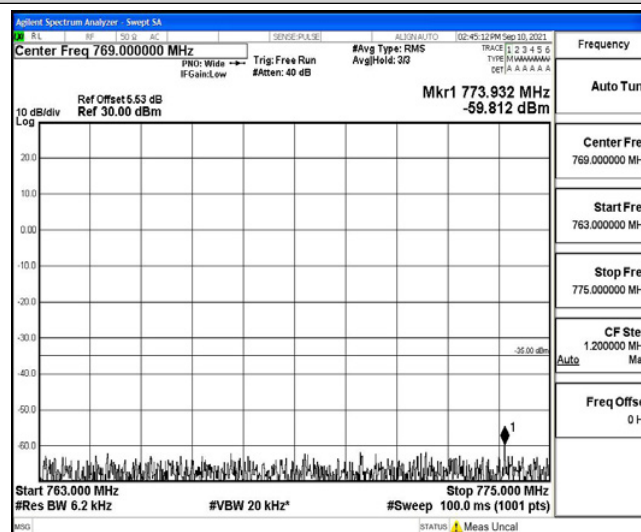
Band13-5MHz-QPSK-23205-1RB#0-Range2:0.15~30MHz



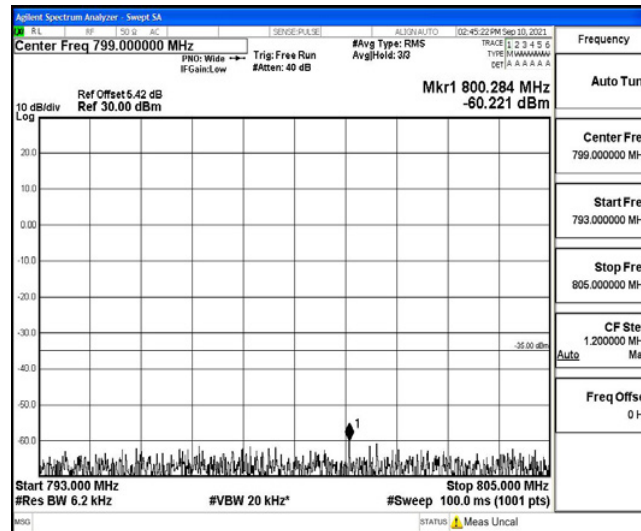
Band13-5MHz-QPSK-23205-1RB#0-Range3:30~1000MHz



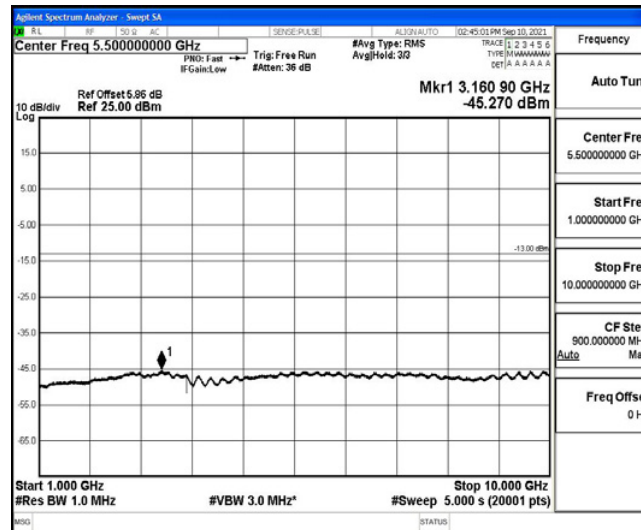
Band13-5MHz-QPSK-23205-1RB#0-Range5:763~775MHz



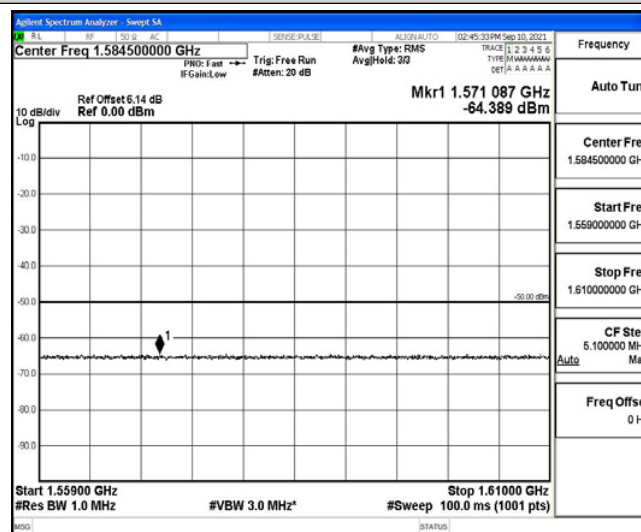
Band13-5MHz-QPSK-23205-1RB#0-Range6:793~805MHz



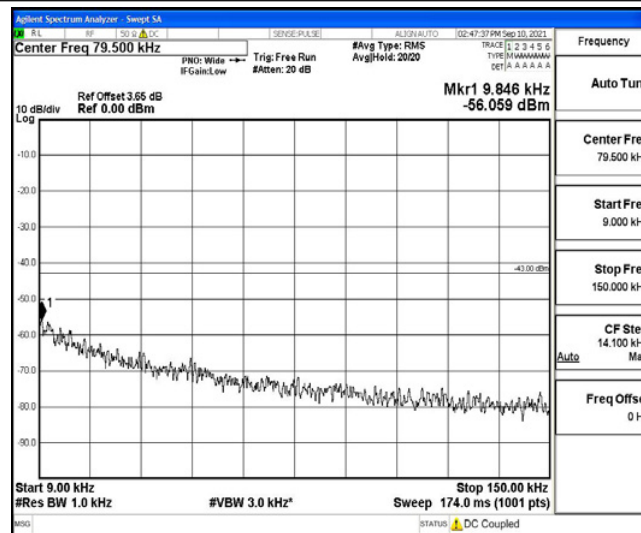
Band13-5MHz-QPSK-23205-1RB#0-Range4:1000~10000MHz



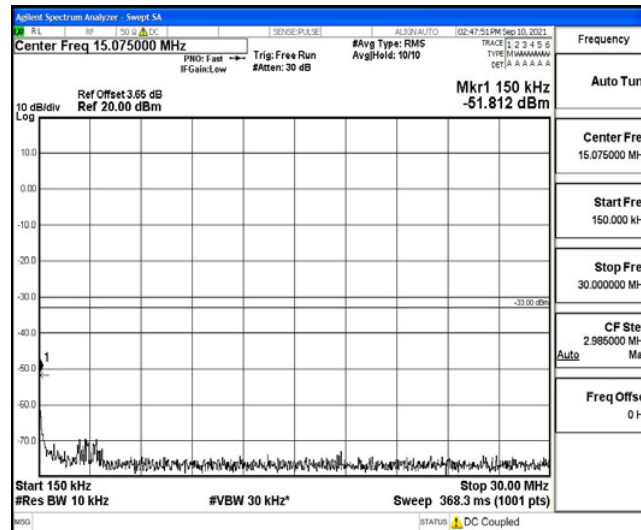
Band13-5MHz-QPSK-23205-1RB#0-Range7:1559~1610MHz



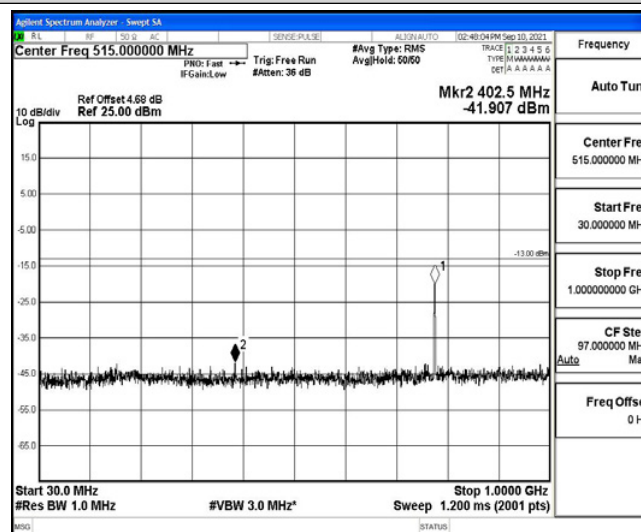
Band13-5MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



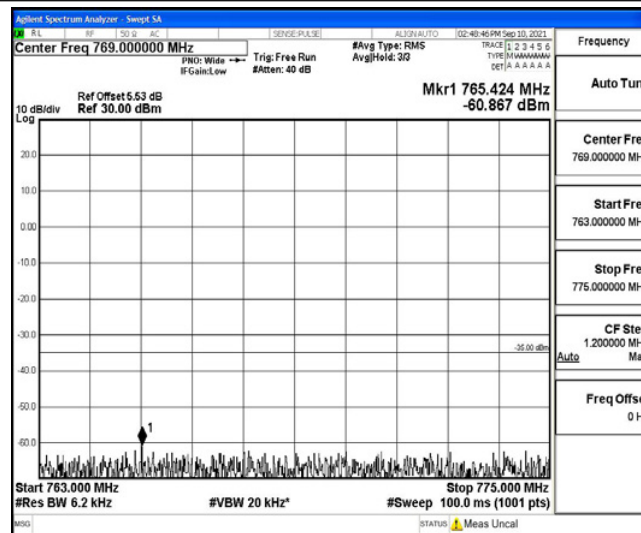
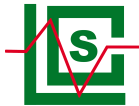
Band13-5MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



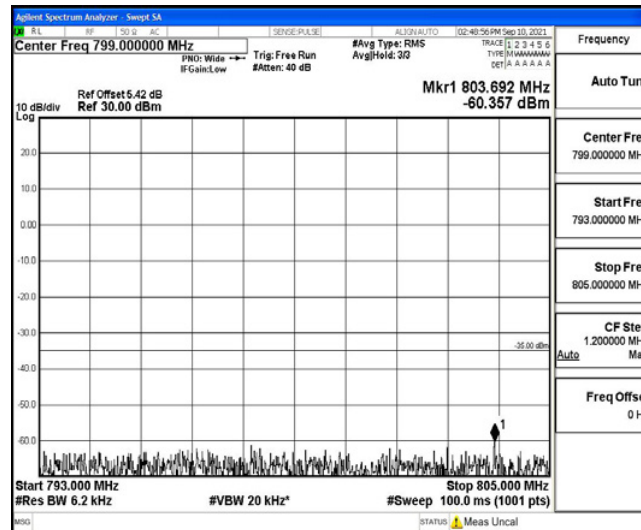
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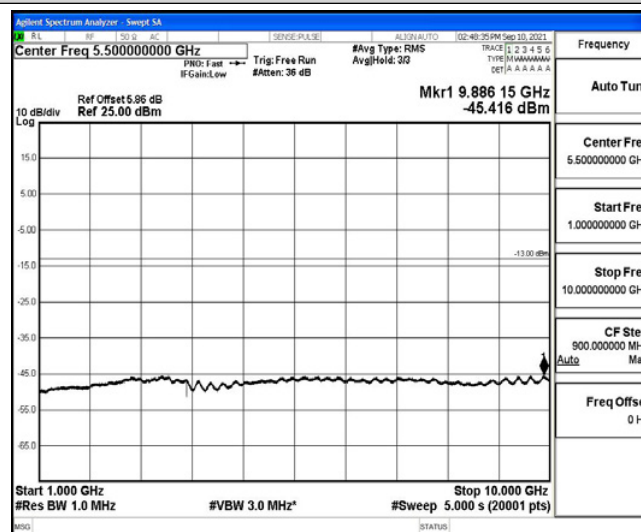
Band13-5MHz-QPSK-23230-1RB#0-Range5:763~775MHz



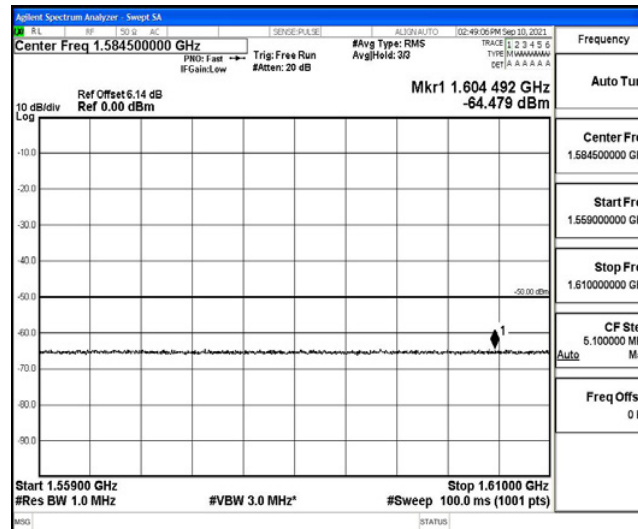
Band13-5MHz-QPSK-23230-1RB#0-Range6:793~805MHz



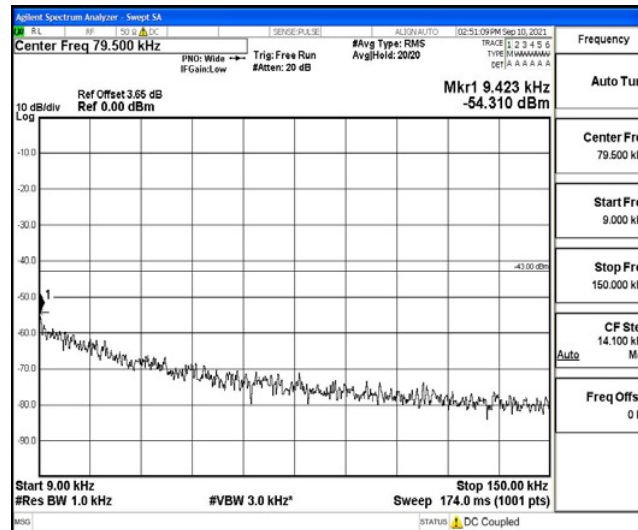
Band13-5MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



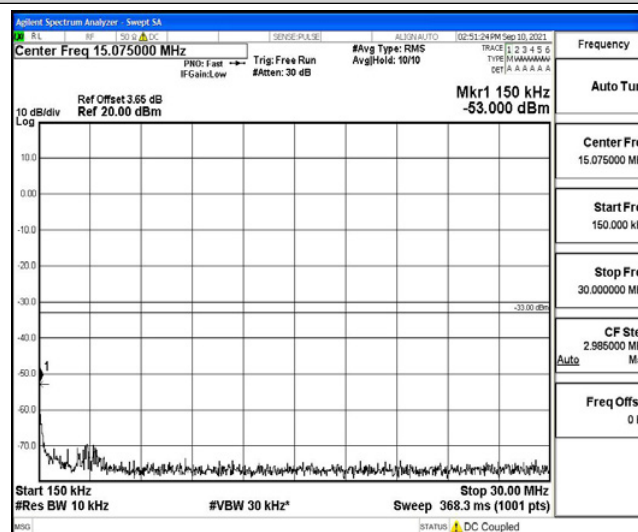
Band13-5MHz-QPSK-23230-1RB#0-Range7:1559~1610MHz



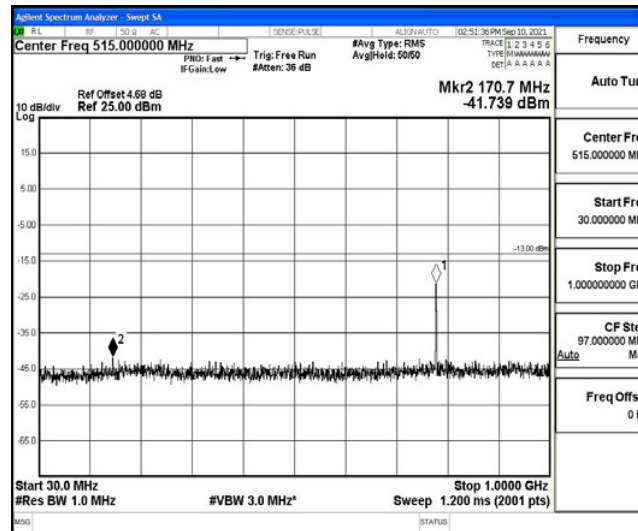
Band13-5MHz-QPSK-23255-1RB#0-Range1:0.009~0.15MHz



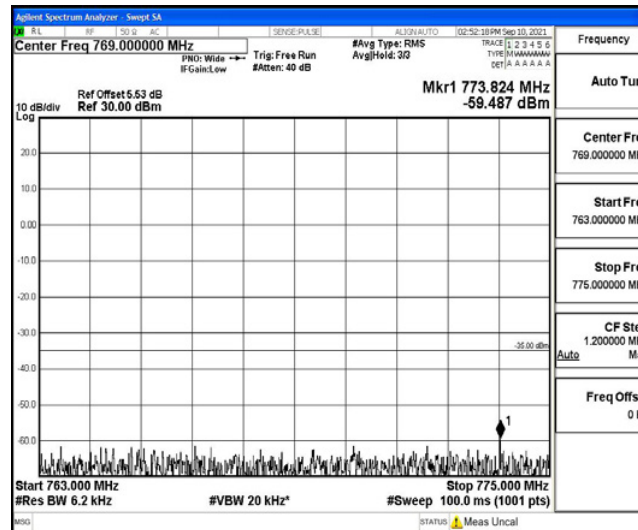
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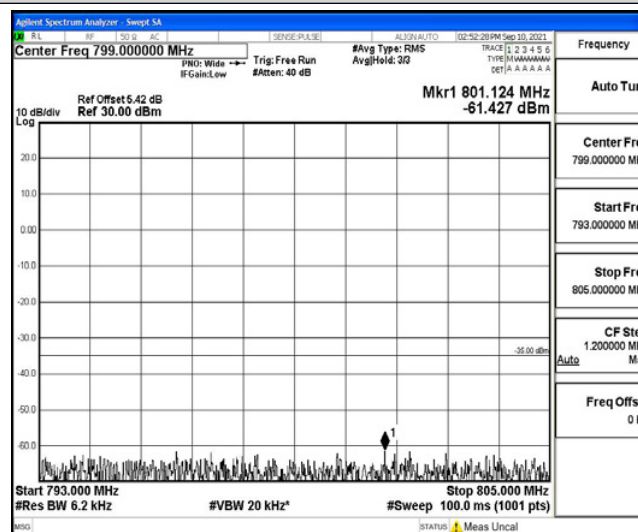
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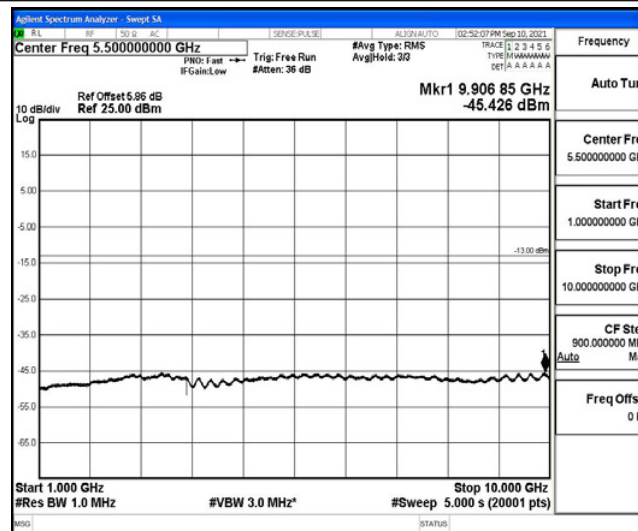
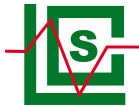
Band13-5MHz-QPSK-23255-1RB#0-Range5:763~775MHz



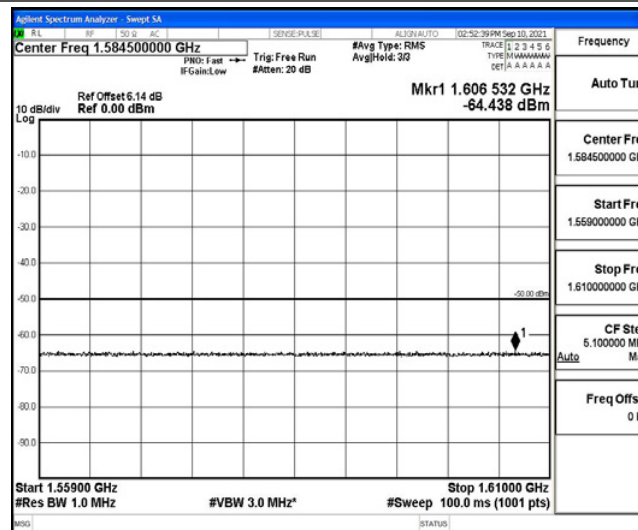
Band13-5MHz-QPSK-23255-1RB#0-Range6:793~805MHz



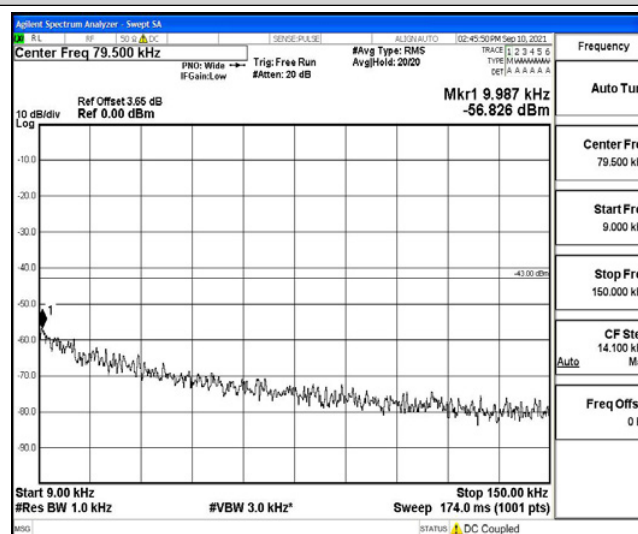
Band13-5MHz-QPSK-23255-1RB#0-Range4:1000~10000MHz



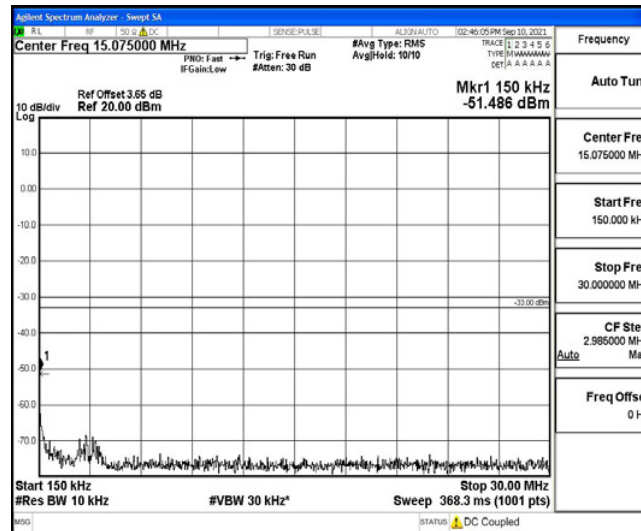
Band13-5MHz-QPSK-23255-1RB#0-Range7:1559~1610MHz



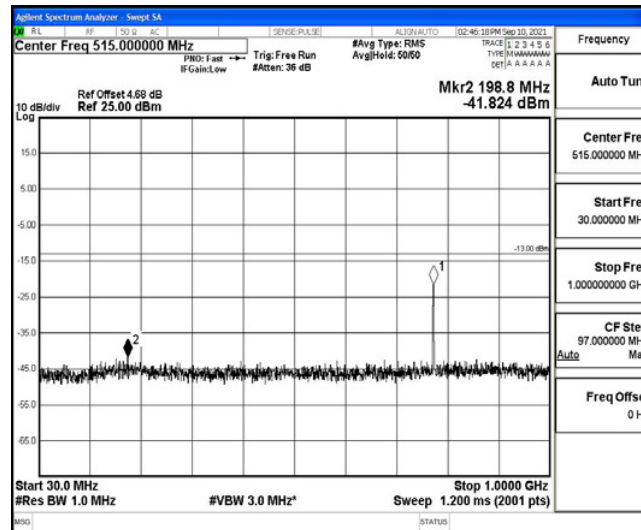
Band13-5MHz-16QAM-23205-1RB#0-Range1:0.009~0.15MHz



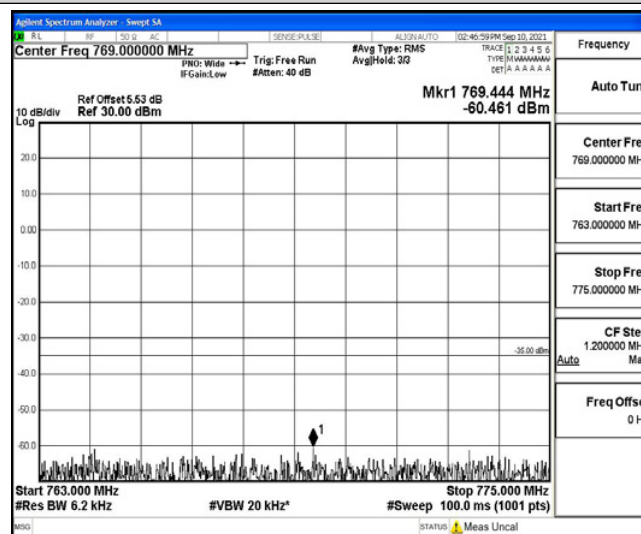
Band13-5MHz-16QAM-23205-1RB#0-Range2:0.15~30MHz



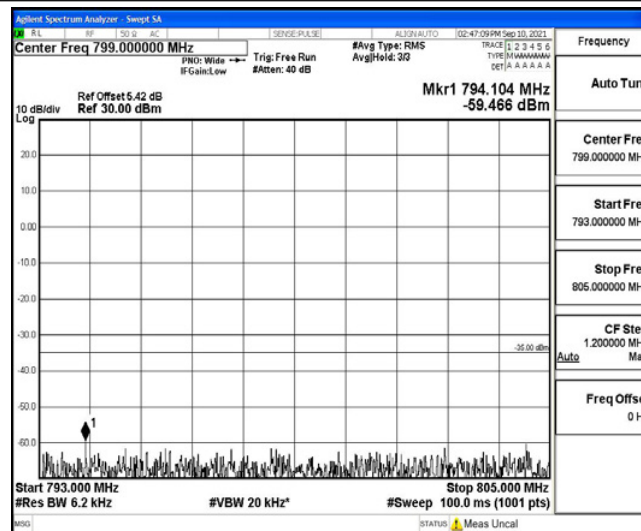
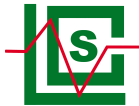
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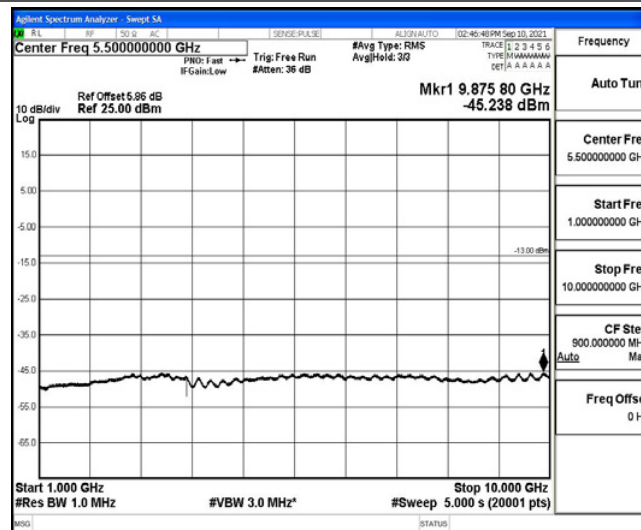
Band13-5MHz-16QAM-23205-1RB#0-Range5:763~775MHz



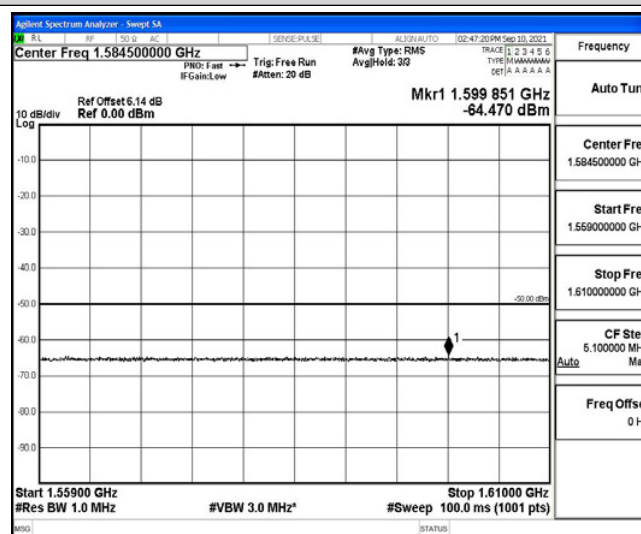
Band13-5MHz-16QAM-23205-1RB#0-Range6:793~805MHz



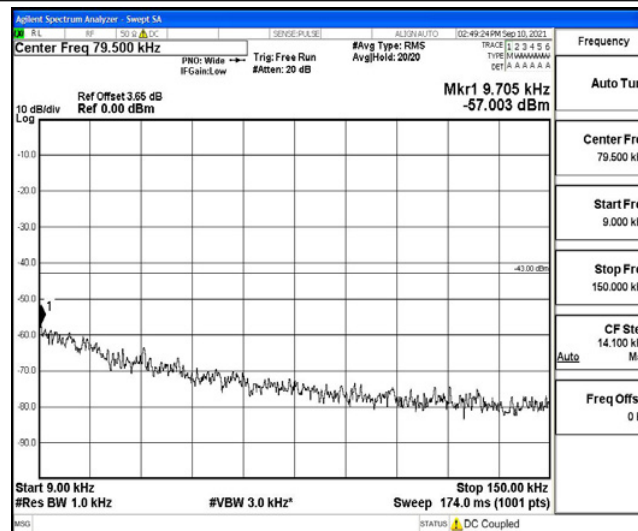
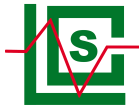
Band13-5MHz-16QAM-23205-1RB#0-Range4:1000~10000MHz



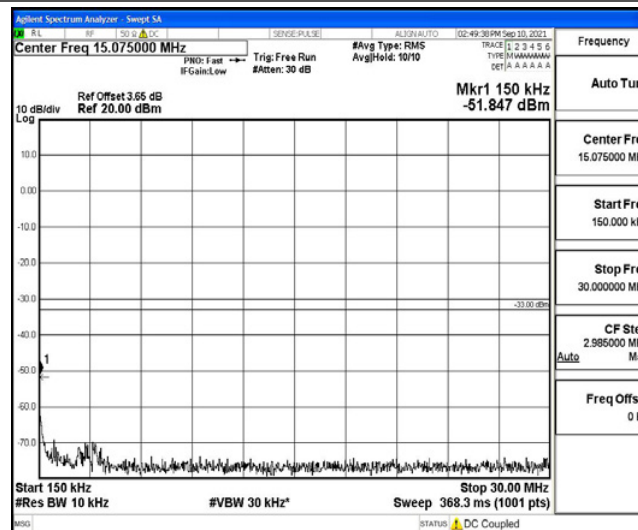
Band13-5MHz-16QAM-23205-1RB#0-Range7:1559~1610MHz



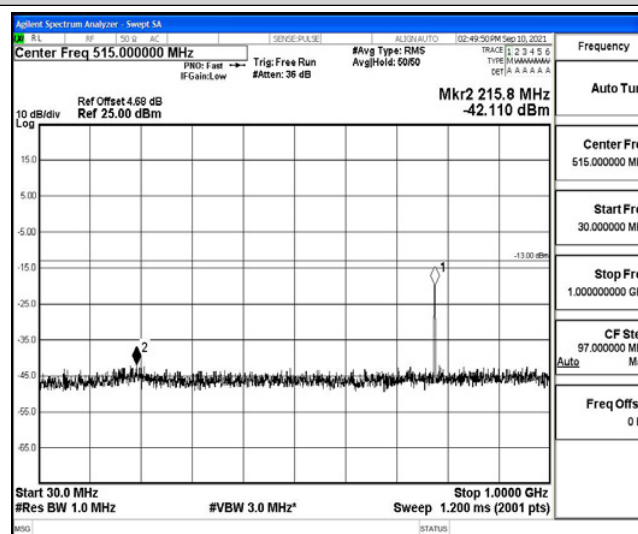
Band13-5MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



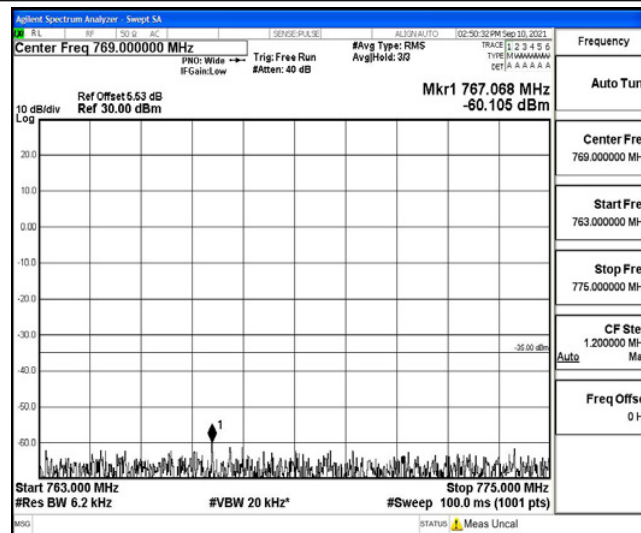
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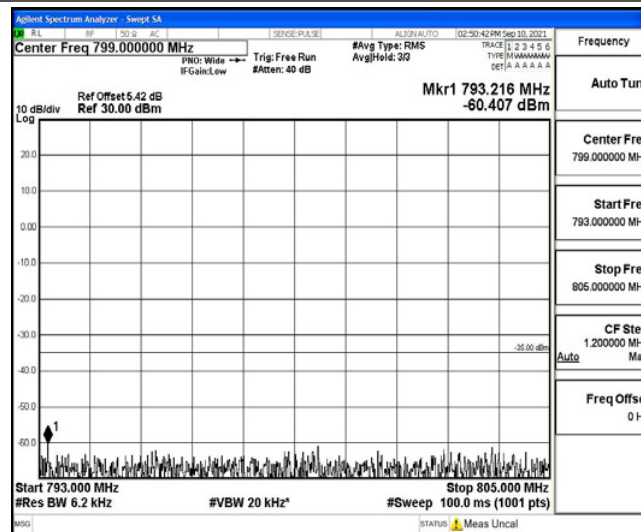
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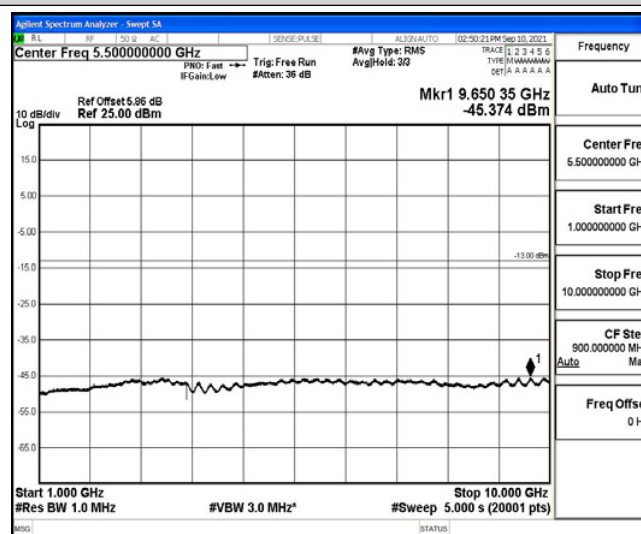
Band13-5MHz-16QAM-23230-1RB#0-Range5:763~775MHz



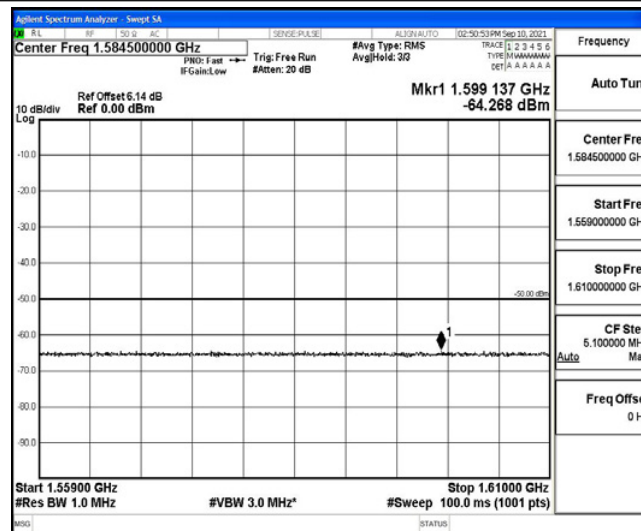
Band13-5MHz-16QAM-23230-1RB#0-Range6:793~805MHz



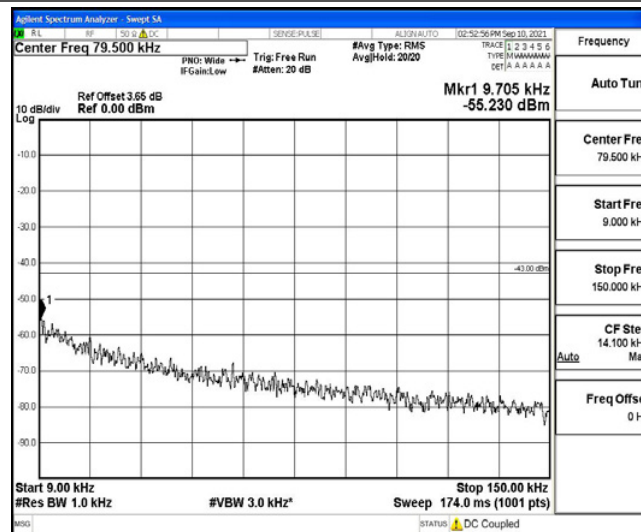
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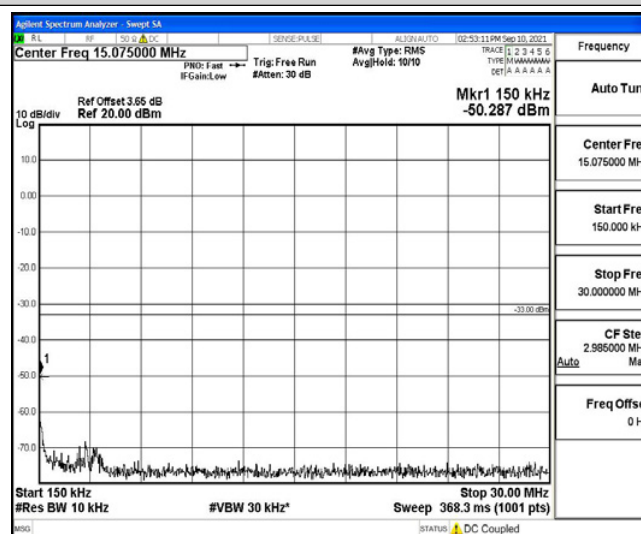
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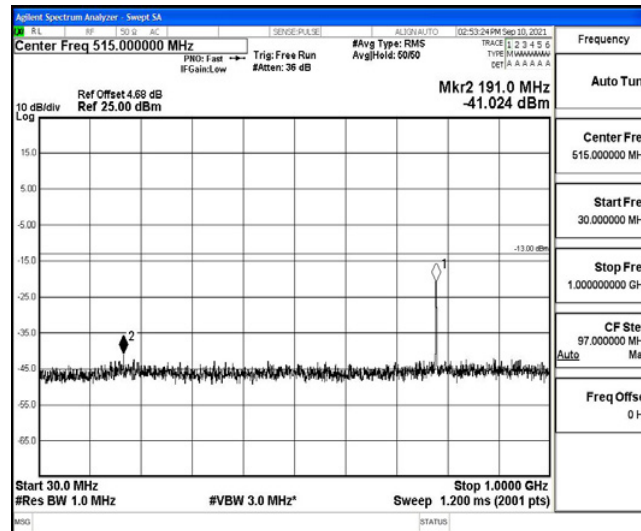
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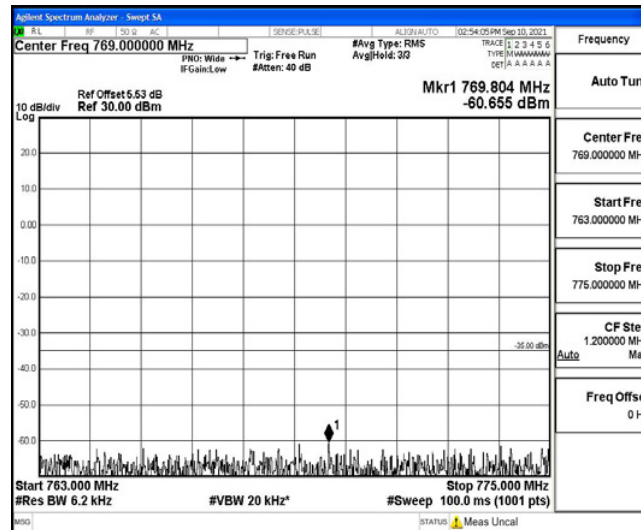
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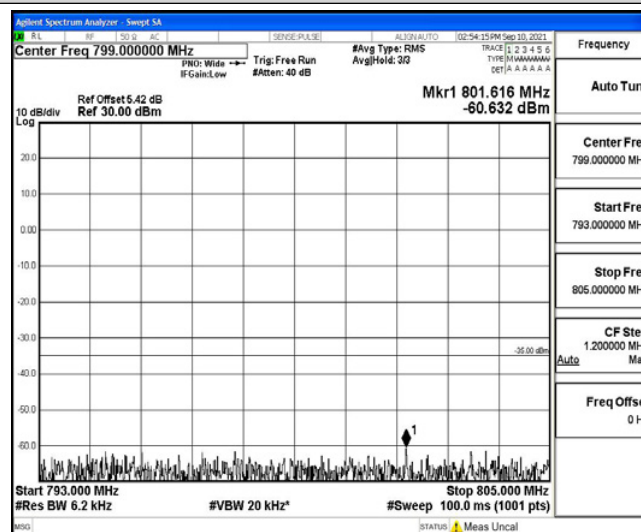
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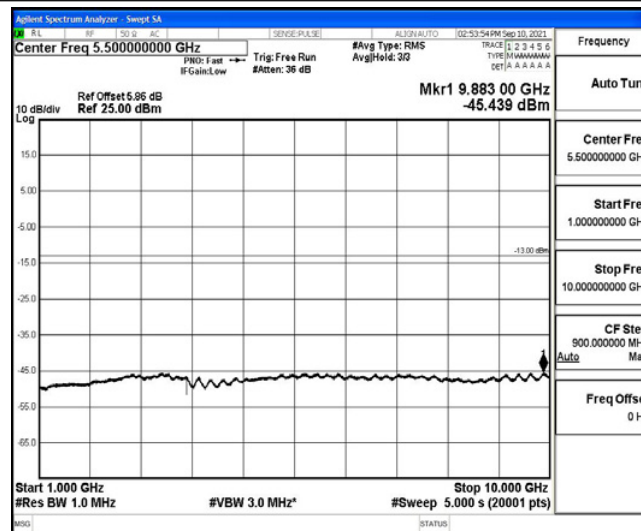
Band13-5MHz-16QAM-23255-1RB#0-Range5:763~775MHz



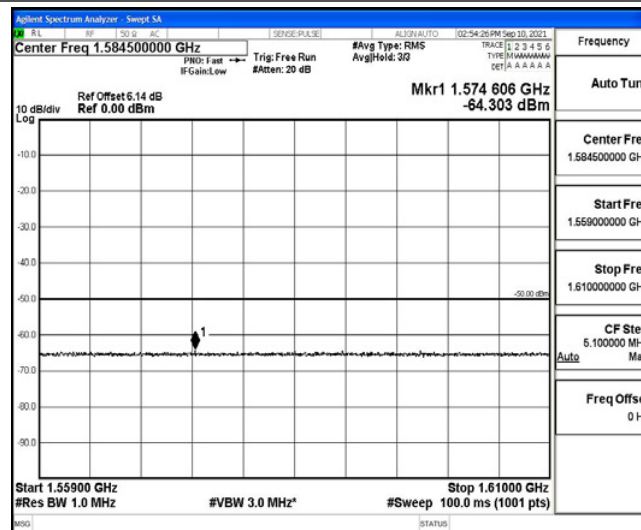
Band13-5MHz-16QAM-23255-1RB#0-Range6:793~805MHz



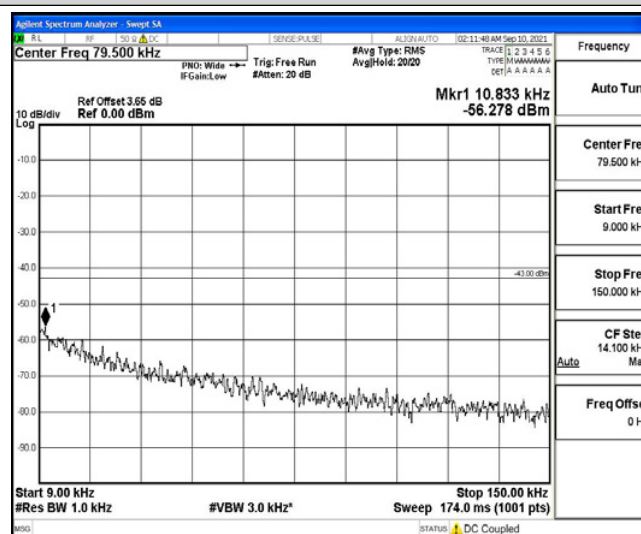
Band13-5MHz-16QAM-23255-1RB#0-Range4:1000~10000MHz



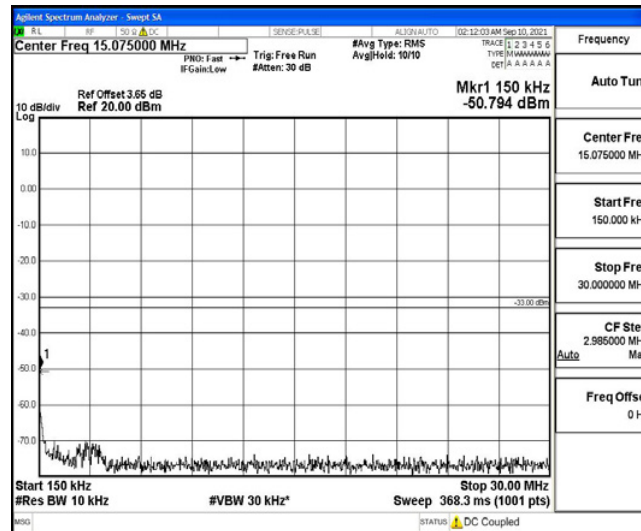
Band13-5MHz-16QAM-23255-1RB#0-Range7:1559~1610MHz



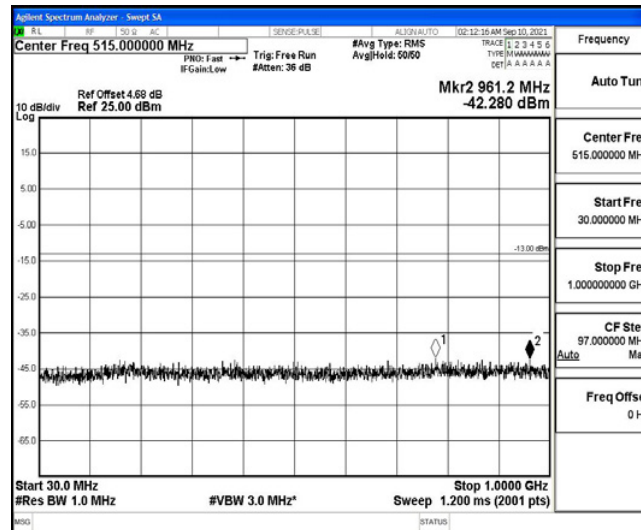
Band13-10MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



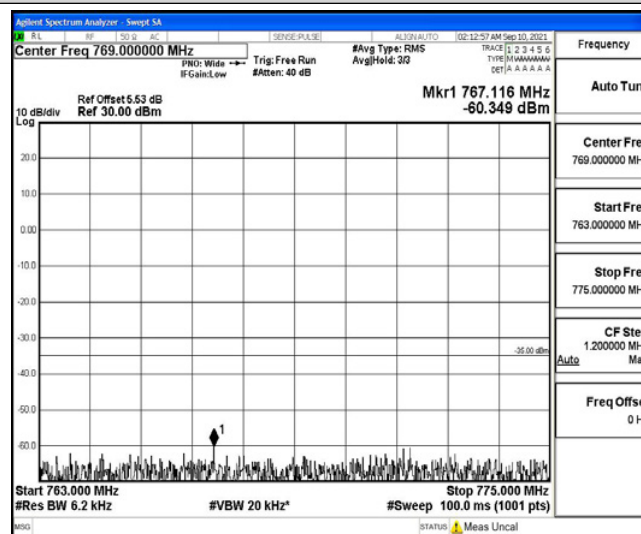
Band13-10MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



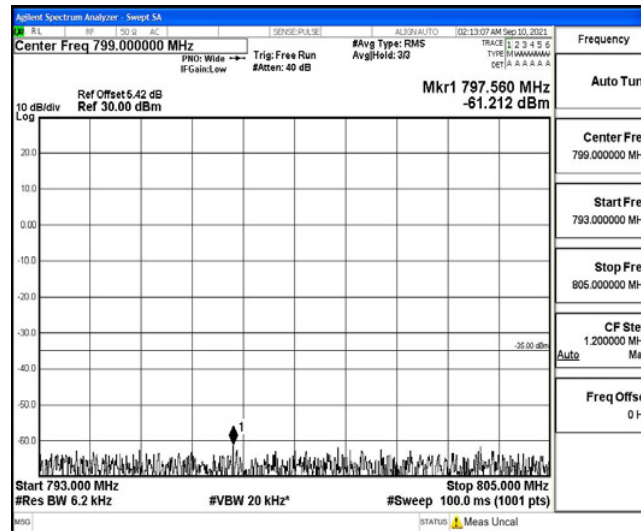
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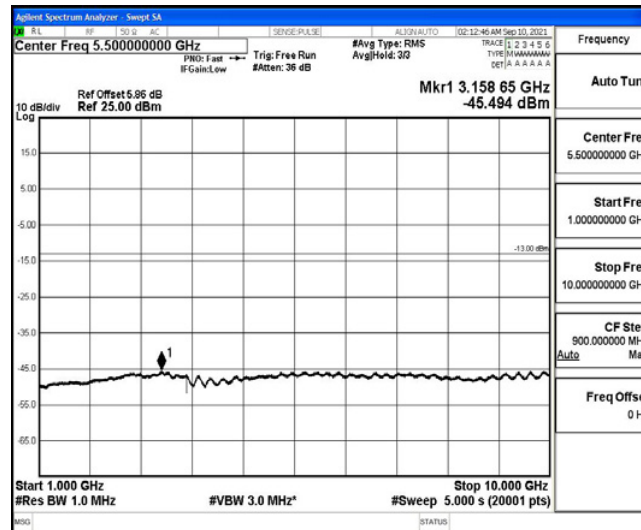
Band13-10MHz-QPSK-23230-1RB#0-Range5:763~775MHz



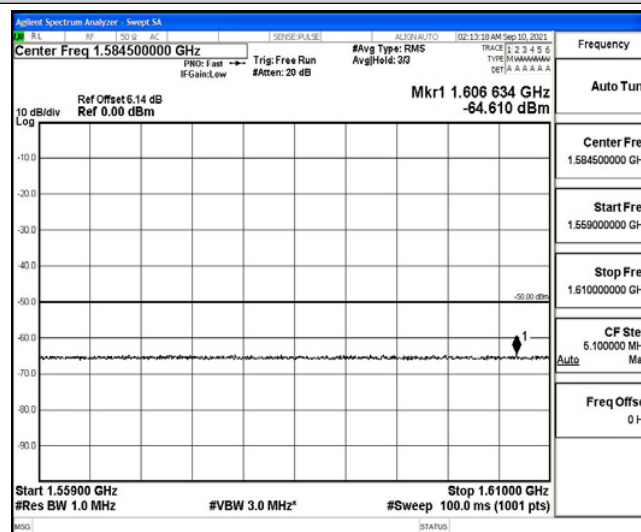
Band13-10MHz-QPSK-23230-1RB#0-Range6:793~805MHz



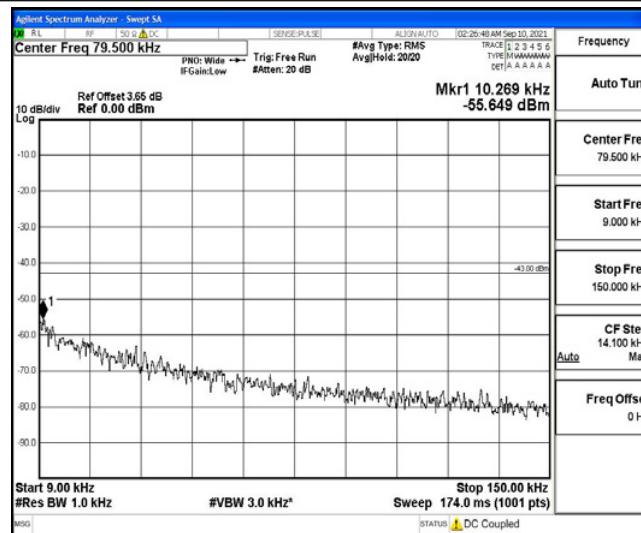
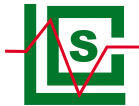
Band13-10MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz



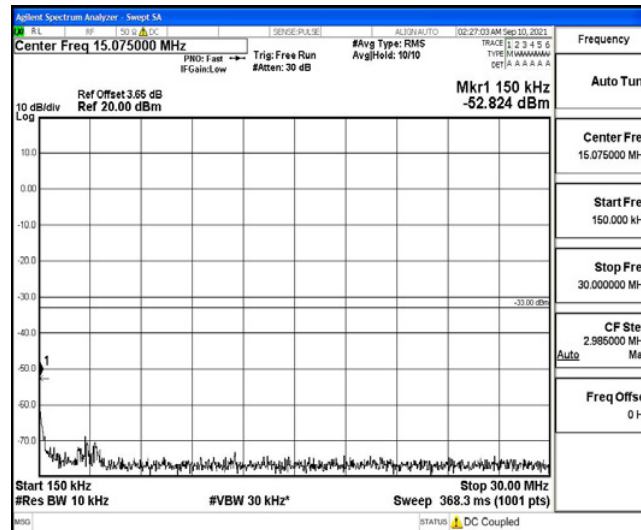
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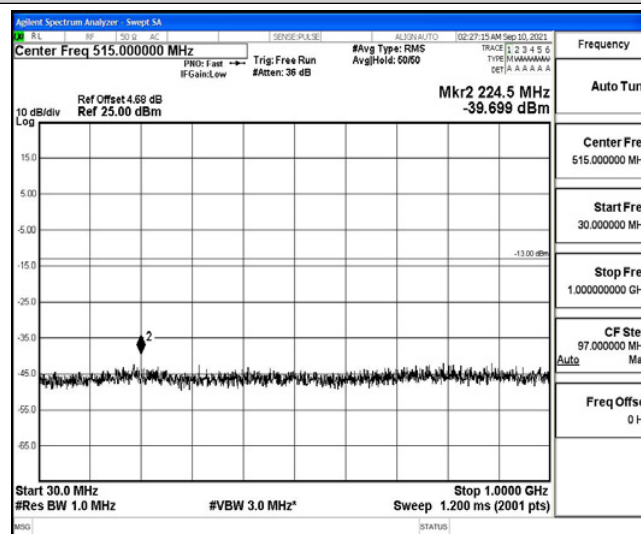
Band13-10MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



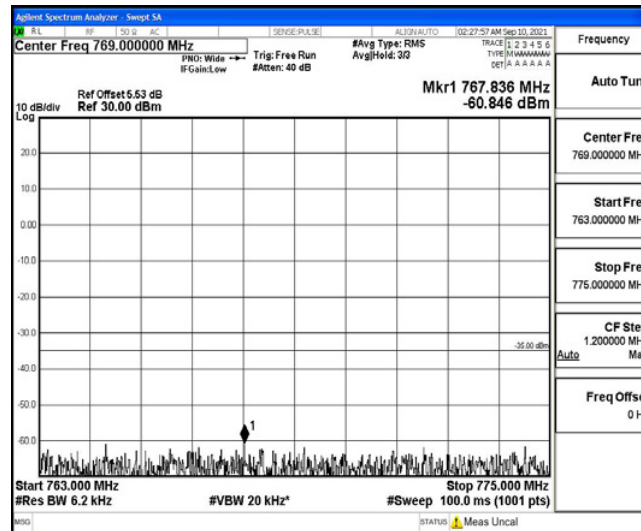
Band13-10MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



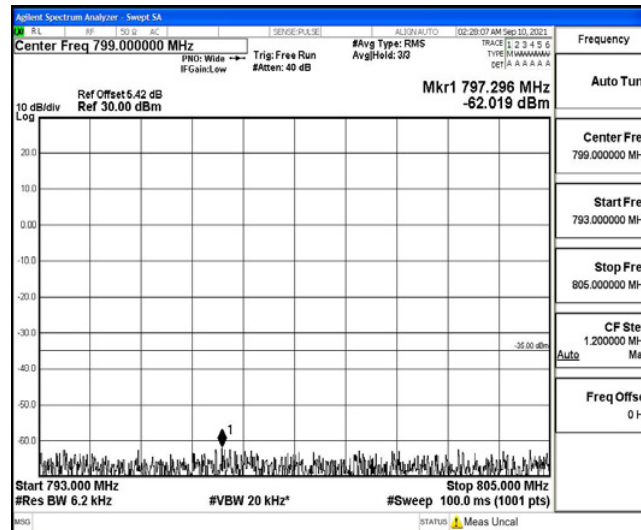
Band13-10MHz-16QAM-23230-1RB#0-Range3:30~1000MHz



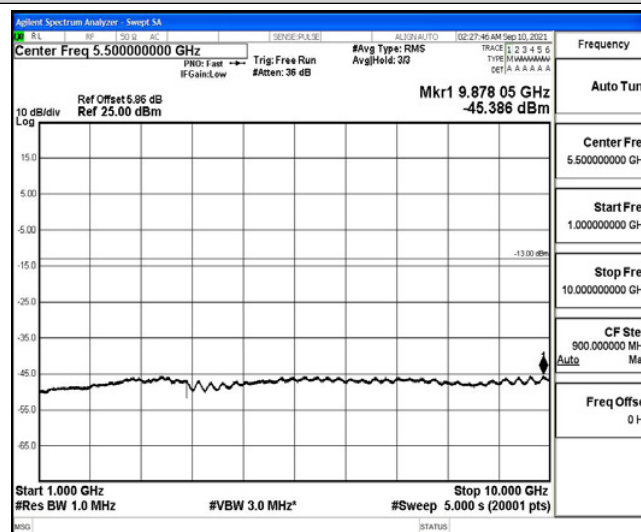
Band13-10MHz-16QAM-23230-1RB#0-Range5:763~775MHz



Band13-10MHz-16QAM-23230-1RB#0-Range6:793~805MHz



Band13-10MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range7:1559~1610MHz

