



Appendix J: Test Data for E-UTRA Band 13

Product Name: SmartHub
Test Model: SmartHub v2

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan





J.1 Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dBm)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	20.82	PASS
Band13	5MHz	23205	QPSK	1	5	Low	20.84	PASS
Band13	5MHz	23205	QPSK	6	0	Low	19.59	PASS
Band13	5MHz	23230	QPSK	1	0	Low	20.65	PASS
Band13	5MHz	23230	QPSK	1	5	Low	20.87	PASS
Band13	5MHz	23230	QPSK	6	0	Low	19.65	PASS
Band13	5MHz	23255	QPSK	1	0	High	20.39	PASS
Band13	5MHz	23255	QPSK	1	5	High	20.26	PASS
Band13	5MHz	23255	QPSK	6	0	High	19.13	PASS
Band13	5MHz	23205	16QAM	1	0	Low	21.07	PASS
Band13	5MHz	23205	16QAM	1	5	Low	20.99	PASS
Band13	5MHz	23205	16QAM	6	0	Low	19.45	PASS
Band13	5MHz	23230	16QAM	1	0	Low	21.24	PASS
Band13	5MHz	23230	16QAM	1	5	Low	21.01	PASS
Band13	5MHz	23230	16QAM	6	0	Low	19.47	PASS
Band13	5MHz	23255	16QAM	1	0	High	20.20	PASS
Band13	5MHz	23255	16QAM	1	5	High	20.13	PASS
Band13	5MHz	23255	16QAM	6	0	High	19.13	PASS
Band13	10MHz	23230	QPSK	1	0	Low	20.84	PASS
Band13	10MHz	23230	QPSK	1	5	Low	20.83	PASS
Band13	10MHz	23230	QPSK	6	0	Low	19.63	PASS
Band13	10MHz	23230	16QAM	1	0	Low	21.09	PASS
Band13	10MHz	23230	16QAM	1	5	Low	21.15	PASS
Band13	10MHz	23230	16QAM	6	0	Low	19.40	PASS



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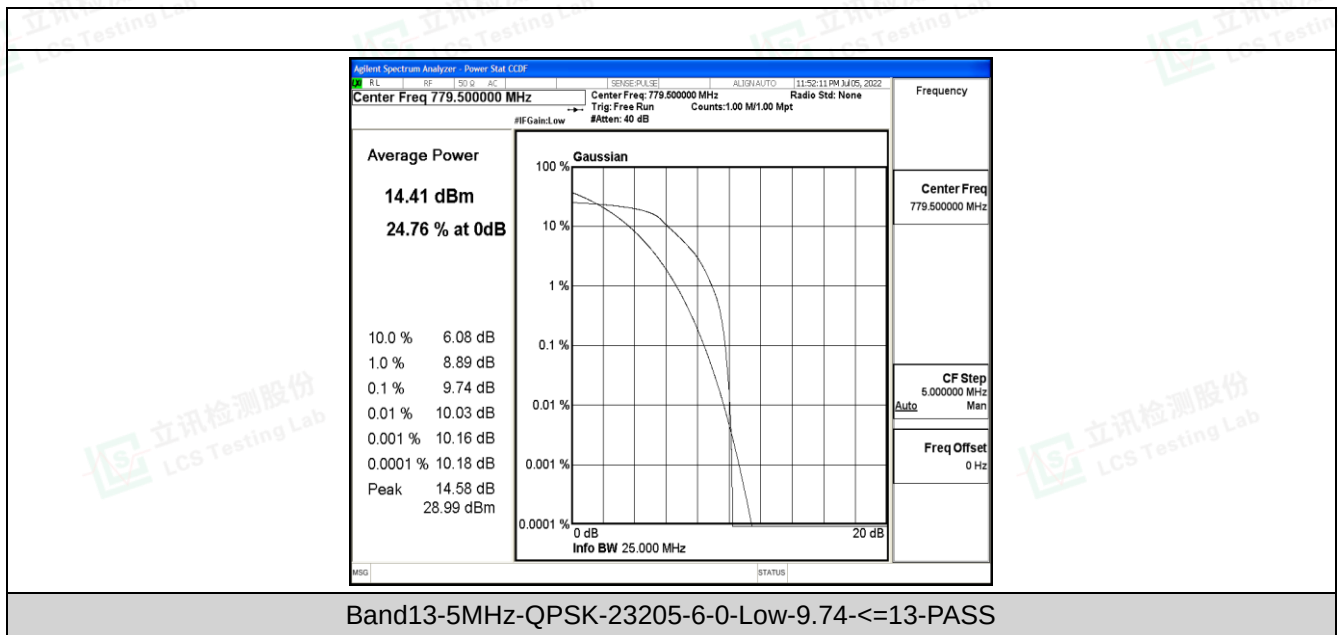


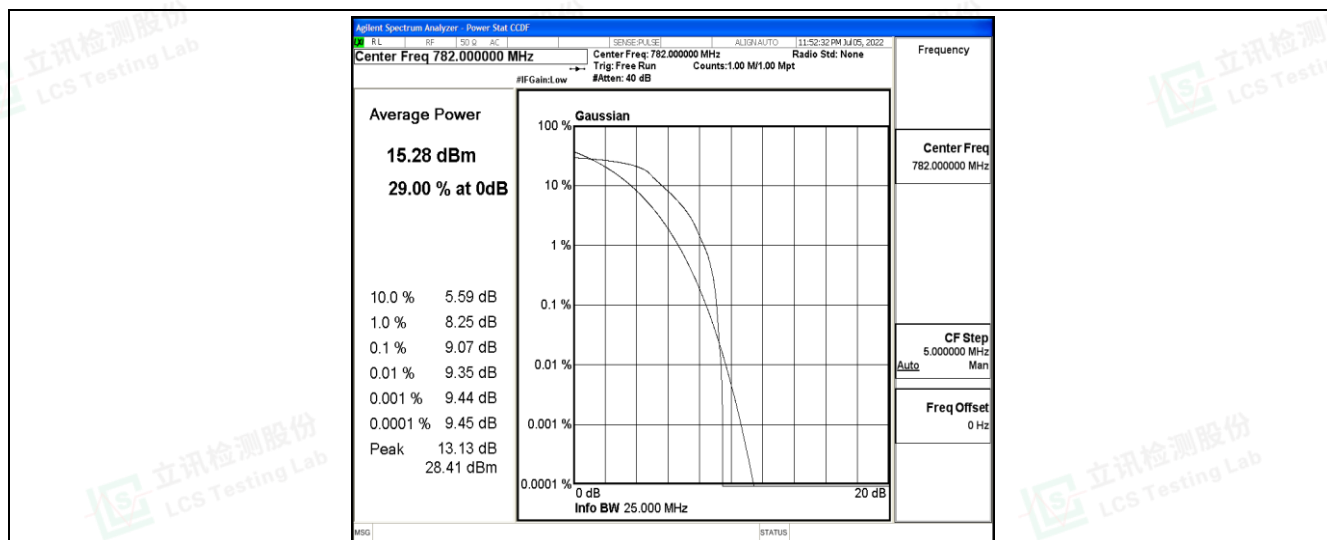
J.2 Peak-to-Average Ratio(CCDF) for M1

Test Result

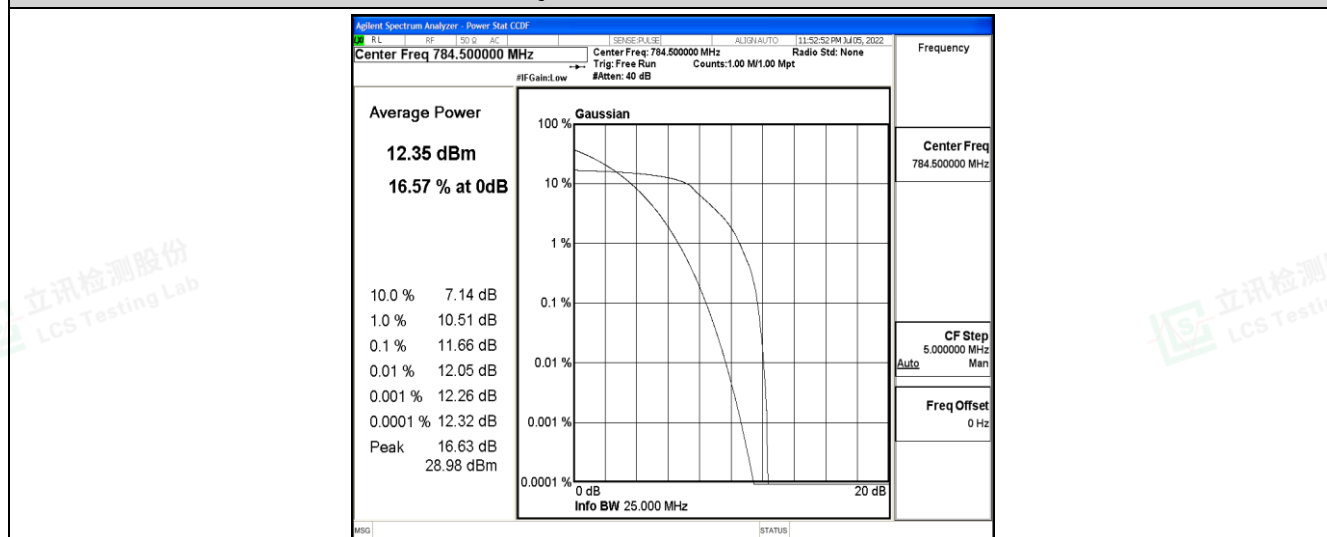
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	9.74	<=13	PASS
Band13	5MHz	23230	QPSK	6	0	Low	9.07	<=13	PASS
Band13	5MHz	23255	QPSK	6	0	High	11.66	<=13	PASS
Band13	5MHz	23205	16QAM	6	0	Low	9.68	<=13	PASS
Band13	5MHz	23230	16QAM	6	0	Low	8.99	<=13	PASS
Band13	5MHz	23255	16QAM	6	0	High	9.83	<=13	PASS
Band13	10MHz	23230	QPSK	6	0	Low	9.13	<=13	PASS
Band13	10MHz	23230	16QAM	6	0	Low	8.68	<=13	PASS

Test Graphs

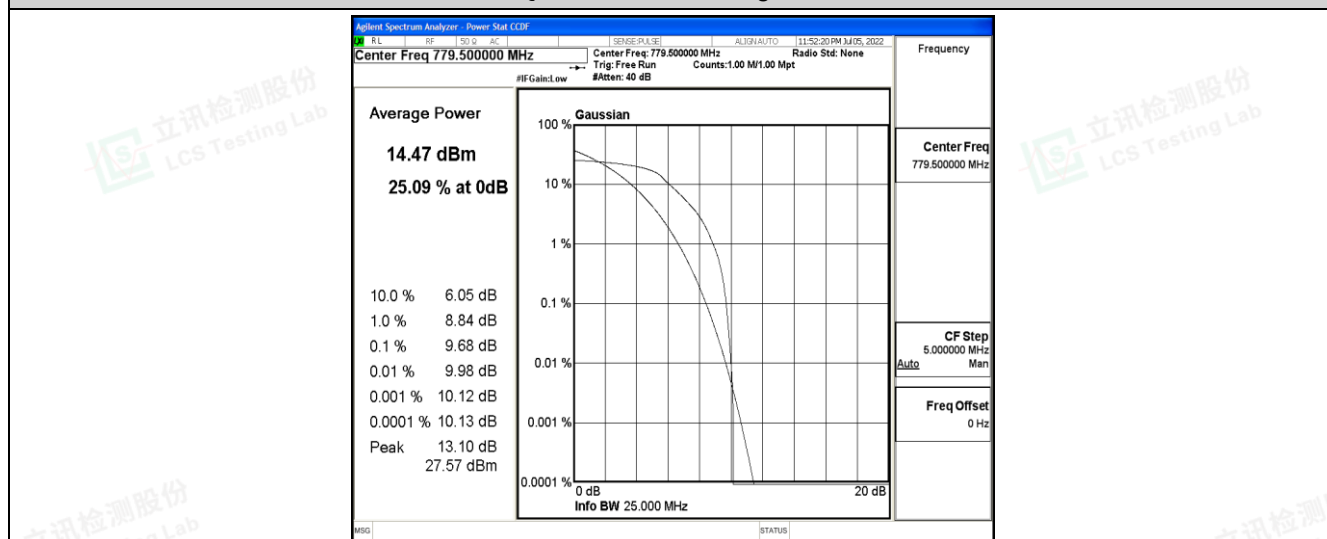




Band13-5MHz-QPSK-23230-6-0-Low-9.07-<=13-PASS



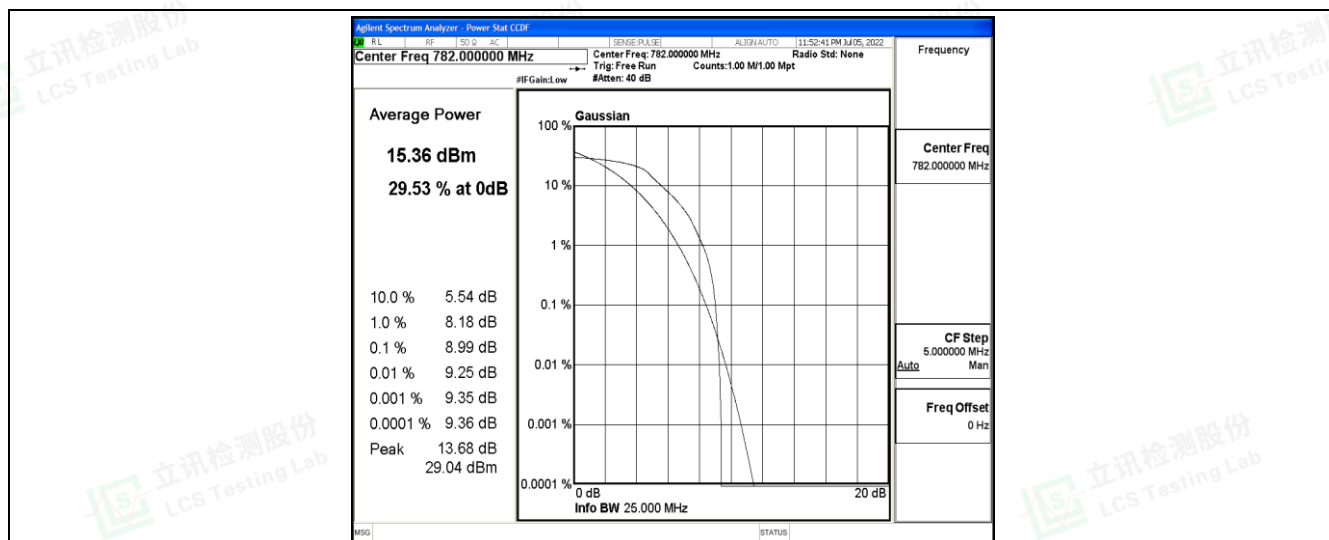
Band13-5MHz-QPSK-23255-6-0-High-11.66-<=13-PASS



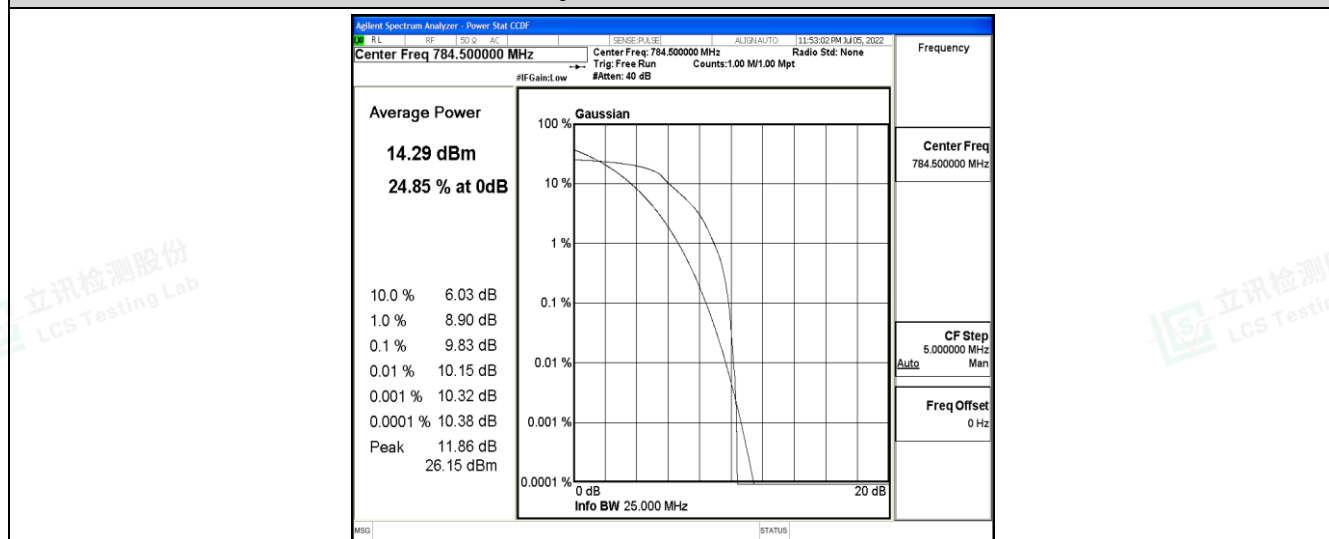
Band13-5MHz-16QAM-23205-6-0-Low-9.68-<=13-PASS



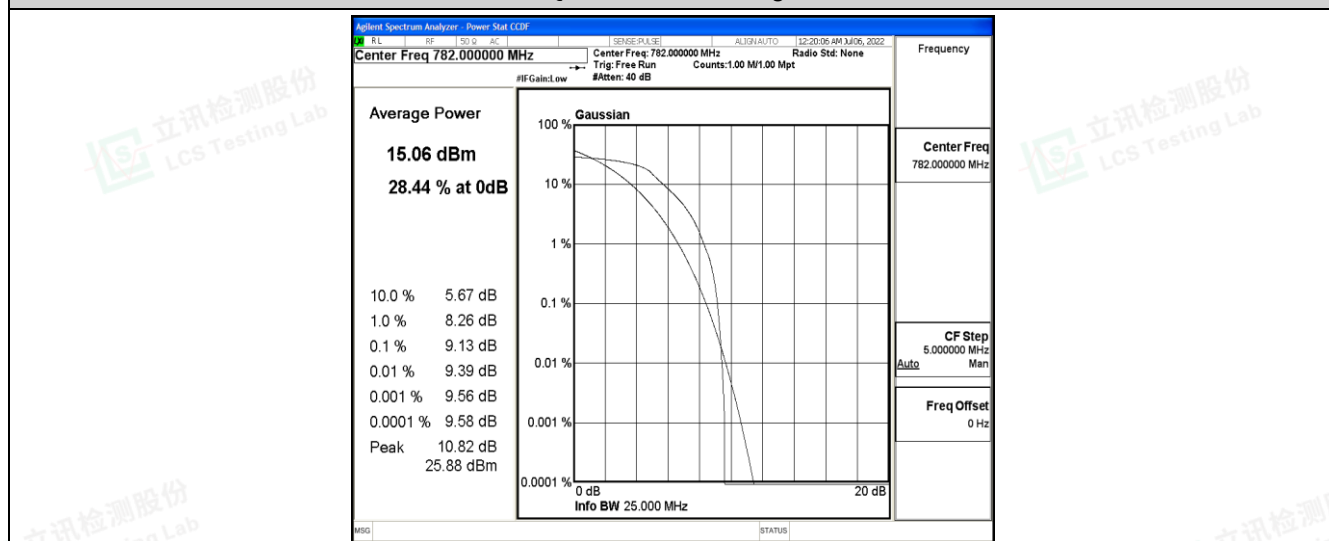
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Band13-5MHz-16QAM-23230-6-0-Low-8.99-<=13-PASS



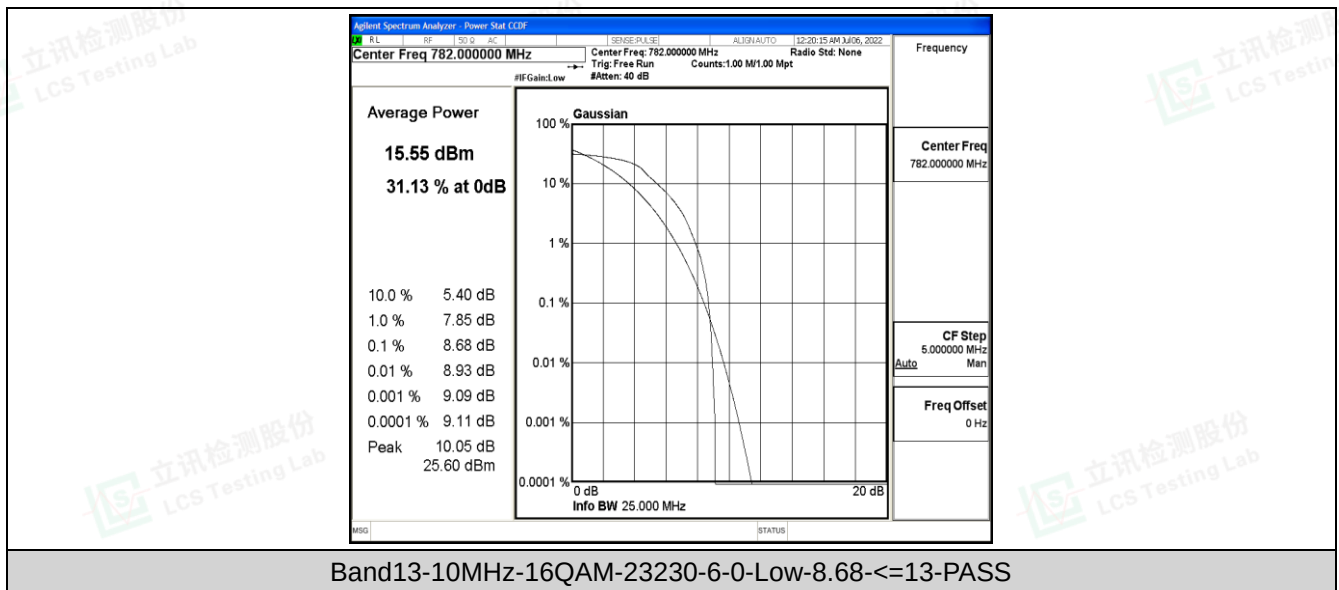
Band13-5MHz-16QAM-23255-6-0-High-9.83-<=13-PASS



Band13-10MHz-QPSK-23230-6-0-Low-9.13-<=13-PASS



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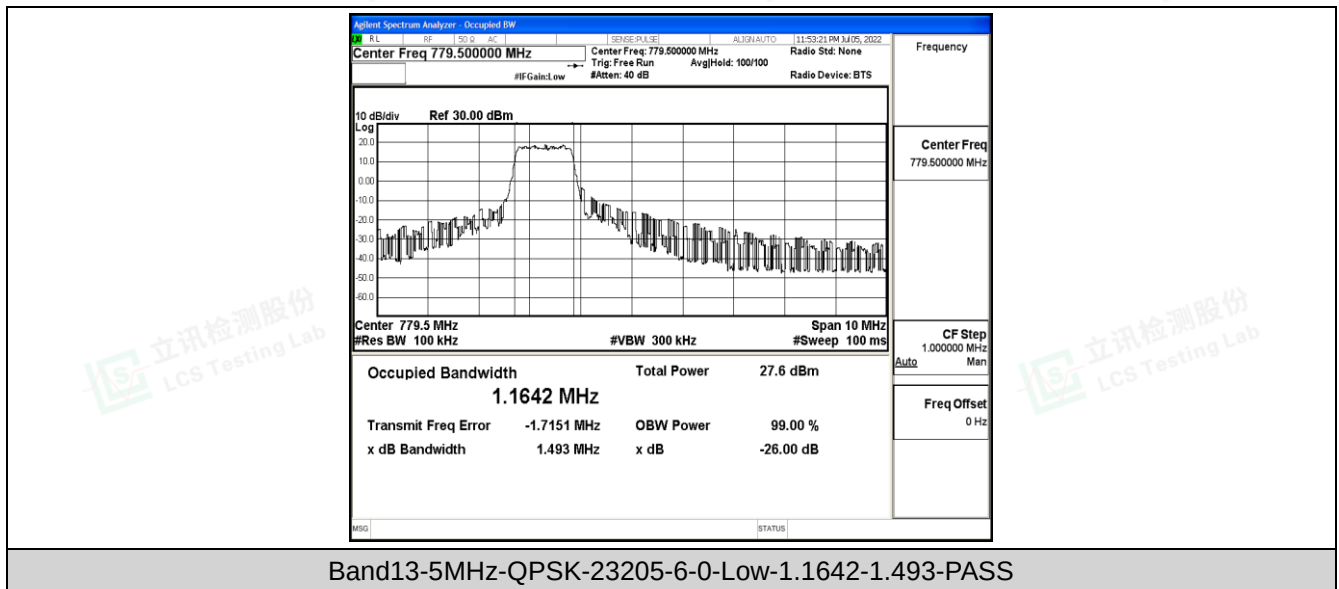


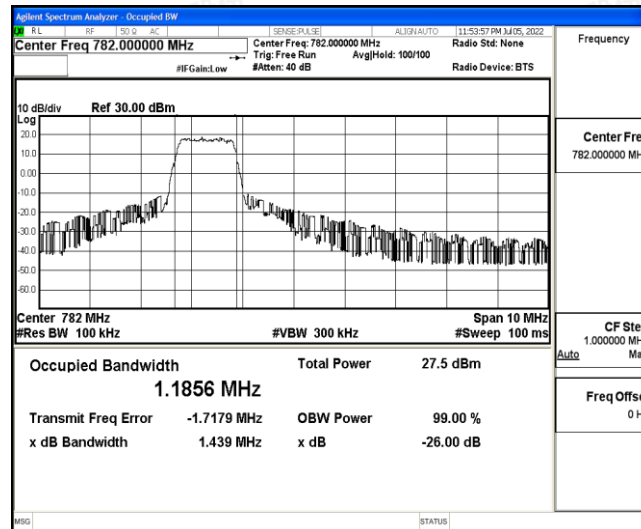
J.3 26dB Bandwidth and Occupied Bandwidth for M1

Test Result

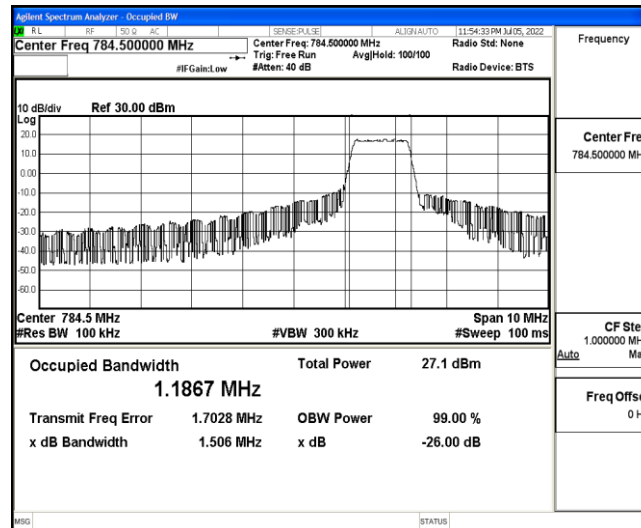
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	1.1642	1.493	PASS
Band13	5MHz	23230	QPSK	6	0	Low	1.1856	1.439	PASS
Band13	5MHz	23255	QPSK	6	0	High	1.1867	1.506	PASS
Band13	5MHz	23205	16QAM	6	0	Low	1.1663	1.548	PASS
Band13	5MHz	23230	16QAM	6	0	Low	1.1991	1.438	PASS
Band13	5MHz	23255	16QAM	6	0	High	1.1780	1.465	PASS
Band13	10MHz	23230	QPSK	6	0	Low	1.3181	1.608	PASS
Band13	10MHz	23230	16QAM	6	0	Low	1.3268	1.826	PASS

Test Graphs

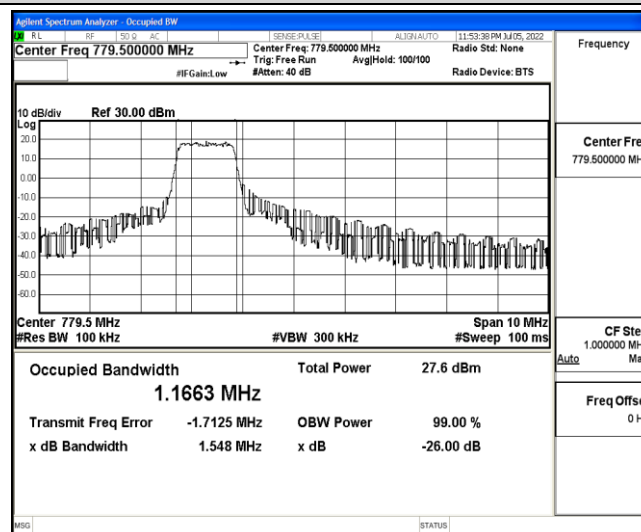




Band13-5MHz-QPSK-23230-6-0-Low-1.1856-1.439-PASS

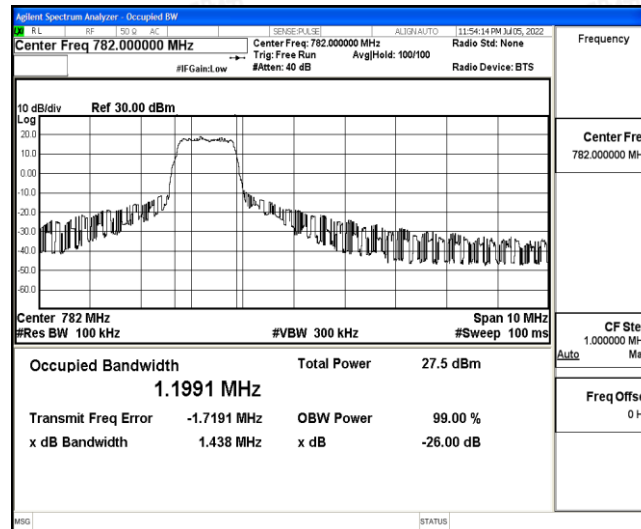


Band13-5MHz-QPSK-23255-6-0-High-1.1867-1.506-PASS

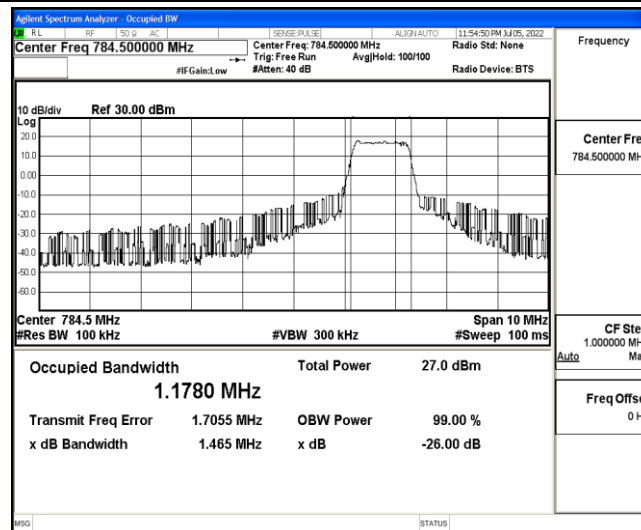


Band13-5MHz-16QAM-23205-6-0-Low-1.1663-1.548-PASS

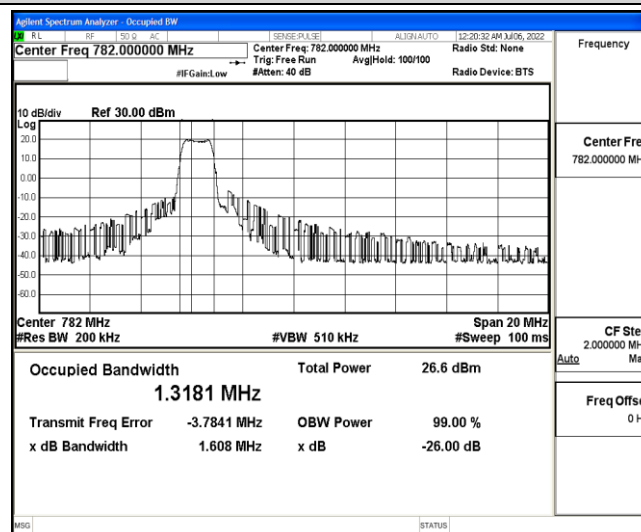




Band13-5MHz-16QAM-23230-6-0-Low-1.1991-1.438-PASS



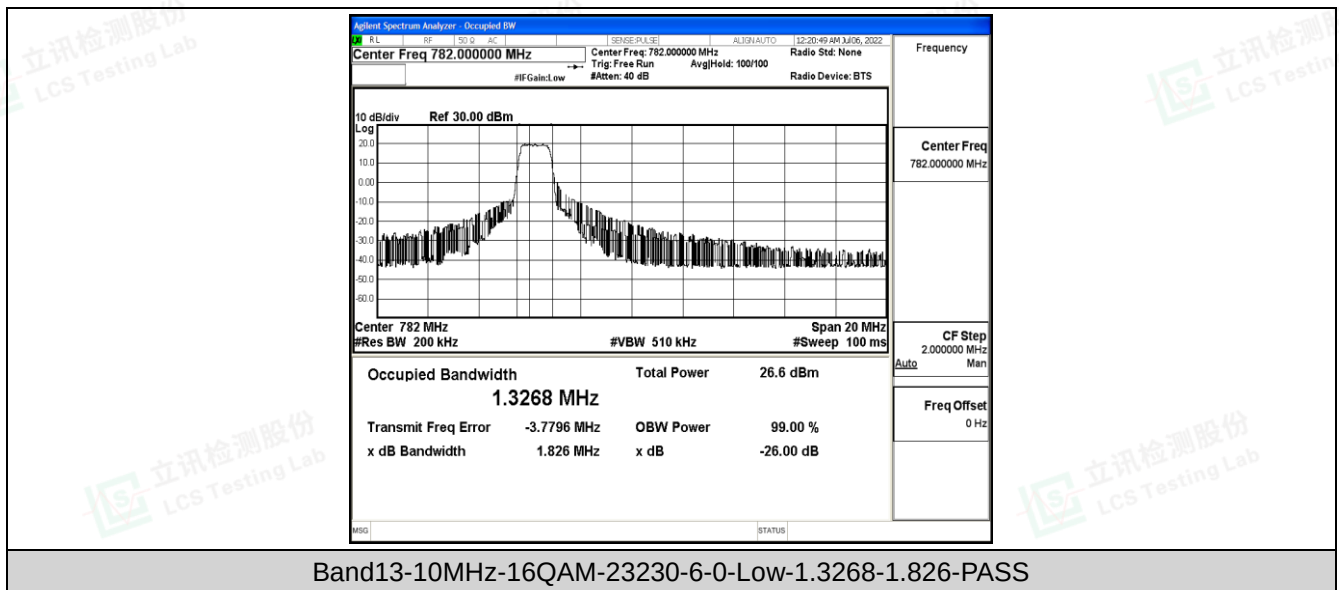
Band13-5MHz-16QAM-23255-6-0-High-1.1780-1.465-PASS



Band13-10MHz-QPSK-23230-6-0-Low-1.3181-1.608-PASS



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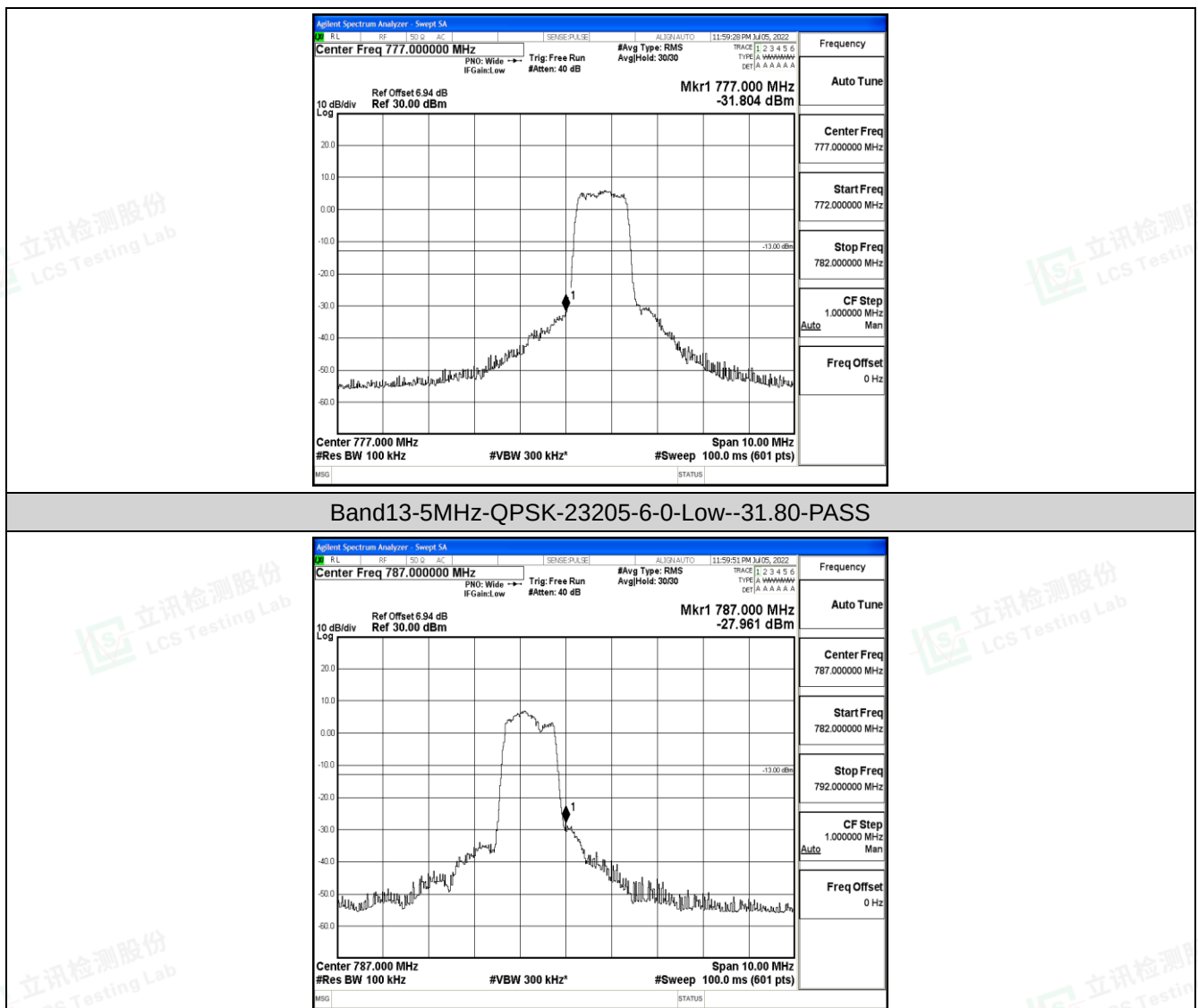


J.4 Band Edge for M1

Test Result

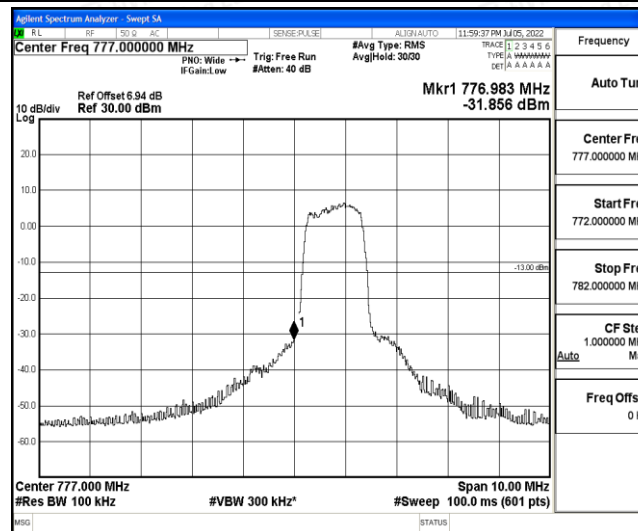
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result(dBm)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	-31.80	PASS
Band13	5MHz	23255	QPSK	6	0	High	-27.96	PASS
Band13	5MHz	23205	16QAM	6	0	Low	-31.86	PASS
Band13	5MHz	23255	16QAM	6	0	High	-28.14	PASS

Test Graphs

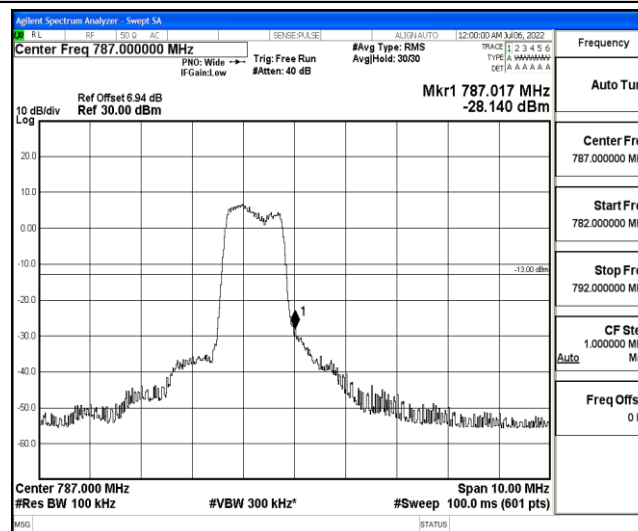




Band13-5MHz-QPSK-23255-6-0-High--27.96-PASS



Band13-5MHz-16QAM-23205-6-0-Low--31.86-PASS



Band13-5MHz-16QAM-23255-6-0-High--28.14-PASS





J.5 Conducted Spurious Emission for M1

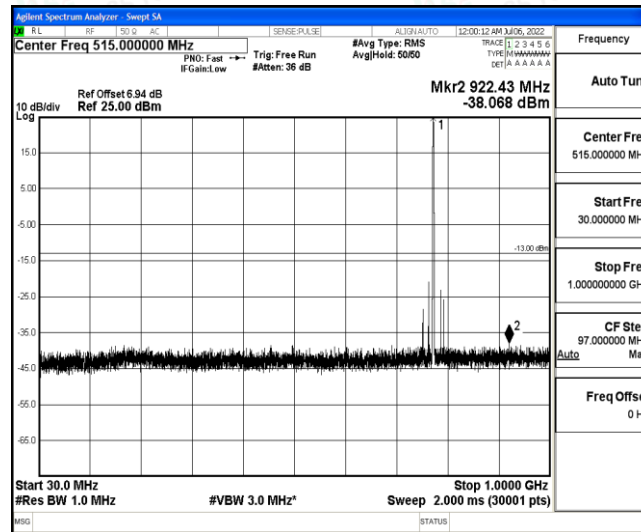
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	30	1000	-38.07	PASS
Band13	5MHz	23205	QPSK	1	0	Low	1000	5000	-42.94	PASS
Band13	5MHz	23205	QPSK	1	0	Low	5000	12000	-59.3	PASS
Band13	5MHz	23205	QPSK	1	0	Low	12000	26500	-44.37	PASS
Band13	5MHz	23230	QPSK	1	0	Low	30	1000	-37.55	PASS
Band13	5MHz	23230	QPSK	1	0	Low	1000	5000	-43.48	PASS
Band13	5MHz	23230	QPSK	1	0	Low	5000	12000	-59.27	PASS
Band13	5MHz	23230	QPSK	1	0	Low	12000	26500	-44.43	PASS
Band13	5MHz	23255	QPSK	1	0	High	30	1000	-36.47	PASS
Band13	5MHz	23255	QPSK	1	0	High	1000	5000	-43.24	PASS
Band13	5MHz	23255	QPSK	1	0	High	5000	12000	-59.2	PASS
Band13	5MHz	23255	QPSK	1	0	High	12000	26500	-44.41	PASS
Band13	5MHz	23205	16QAM	1	0	Low	30	1000	-37.6	PASS
Band13	5MHz	23205	16QAM	1	0	Low	1000	5000	-42.8	PASS
Band13	5MHz	23205	16QAM	1	0	Low	5000	12000	-59.24	PASS
Band13	5MHz	23205	16QAM	1	0	Low	12000	26500	-44.43	PASS
Band13	5MHz	23230	16QAM	1	0	Low	30	1000	-37.5	PASS
Band13	5MHz	23230	16QAM	1	0	Low	1000	5000	-43.2	PASS
Band13	5MHz	23230	16QAM	1	0	Low	5000	12000	-59.43	PASS
Band13	5MHz	23230	16QAM	1	0	Low	12000	26500	-44.66	PASS
Band13	5MHz	23255	16QAM	1	0	High	30	1000	-36.94	PASS
Band13	5MHz	23255	16QAM	1	0	High	1000	5000	-43.4	PASS
Band13	5MHz	23255	16QAM	1	0	High	5000	12000	-59.25	PASS
Band13	5MHz	23255	16QAM	1	0	High	12000	26500	-44.37	PASS

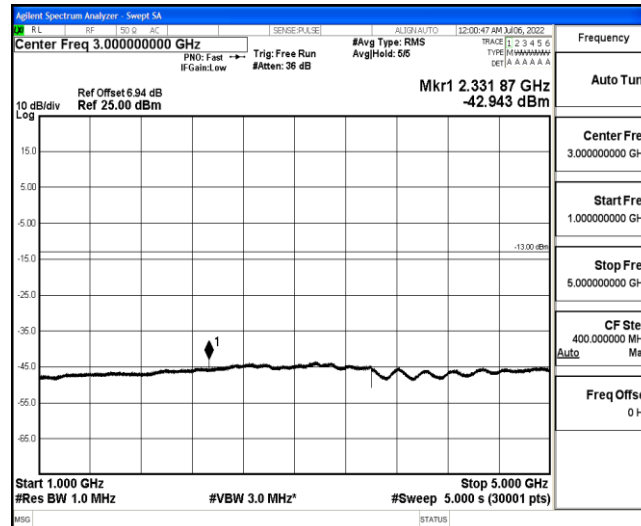




Test Graphs

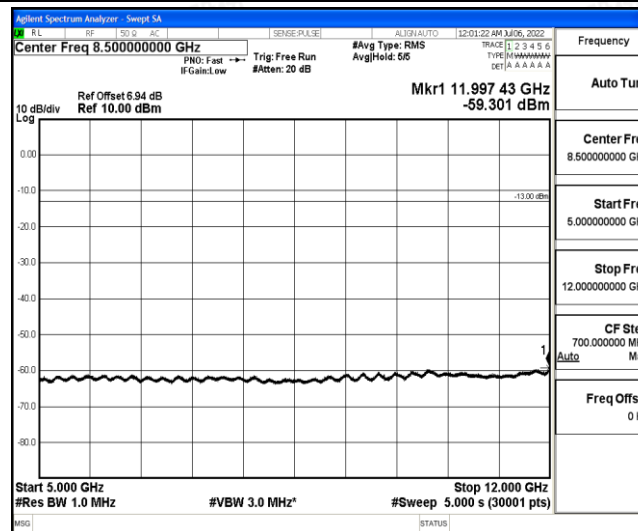


Band13-5MHz-QPSK-23205-1-0-Low-30-1000--38.07-PASS

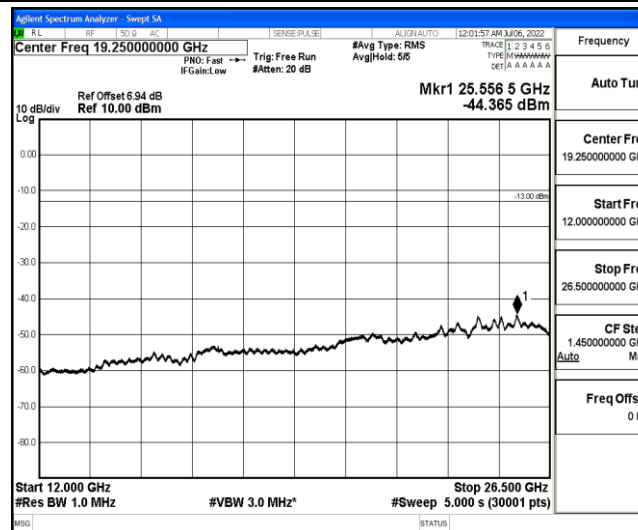


Band13-5MHz-QPSK-23205-1-0-Low-1000-5000--42.94-PASS

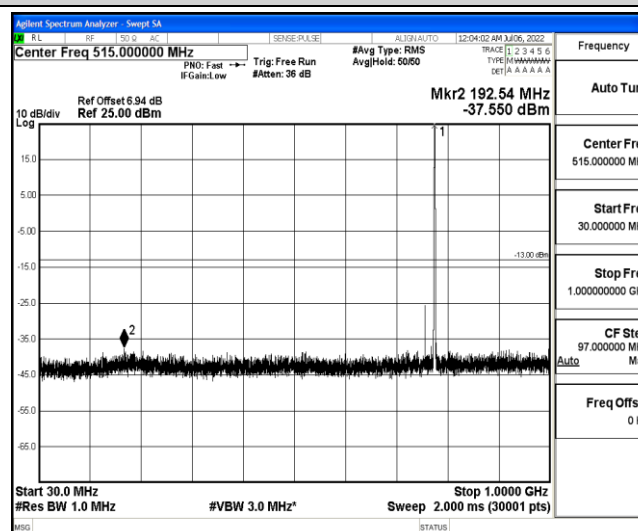




Band13-5MHz-QPSK-23205-1-0-Low-5000-12000--59.3-PASS



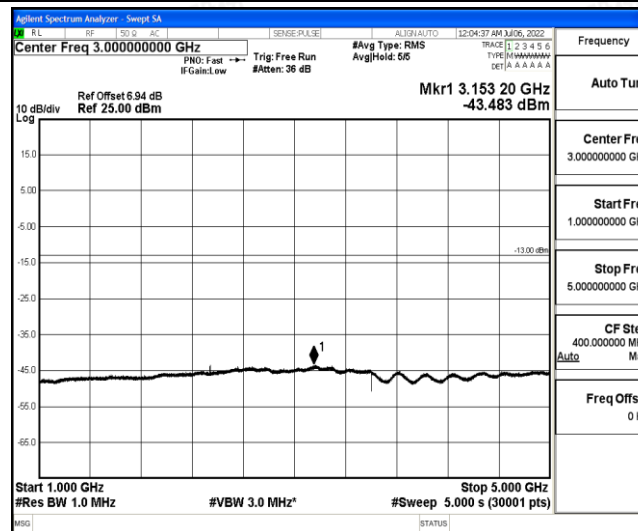
Band13-5MHz-QPSK-23205-1-0-Low-12000-26500--44.37-PASS



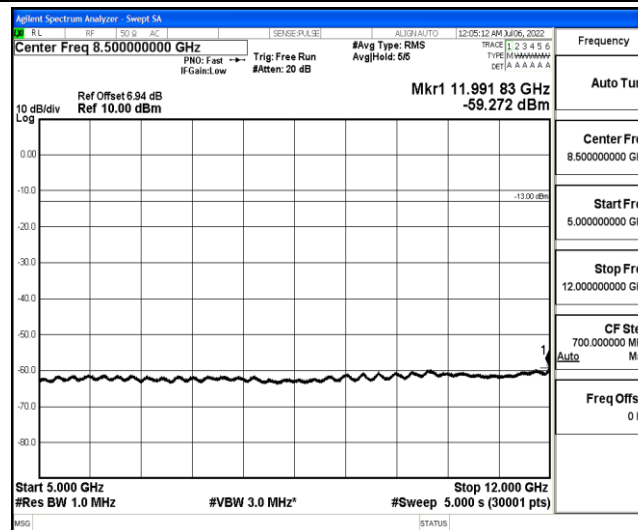
Band13-5MHz-QPSK-23230-1-0-Low-30-1000--37.55-PASS



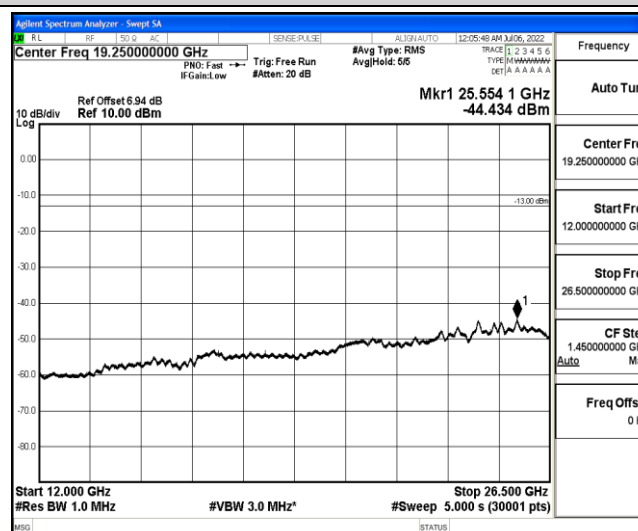
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Band13-5MHz-QPSK-23230-1-0-Low-1000-5000--43.48-PASS



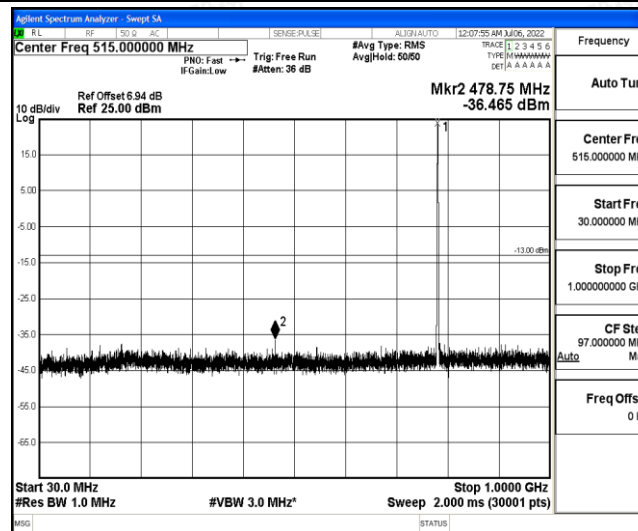
Band13-5MHz-QPSK-23230-1-0-Low-5000-12000--59.27-PASS



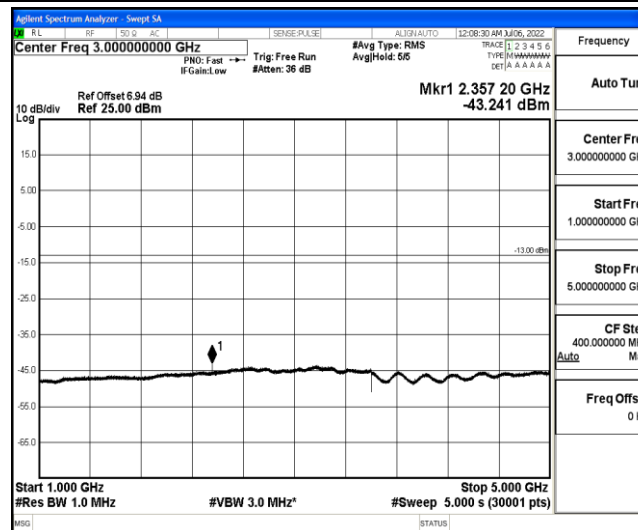
Band13-5MHz-QPSK-23230-1-0-Low-12000-26500--44.43-PASS



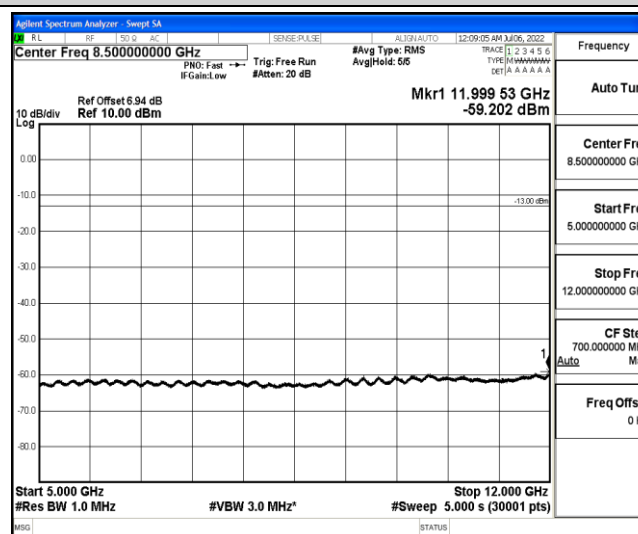
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Band13-5MHz-QPSK-23255-1-0-High-30-1000--36.47-PASS



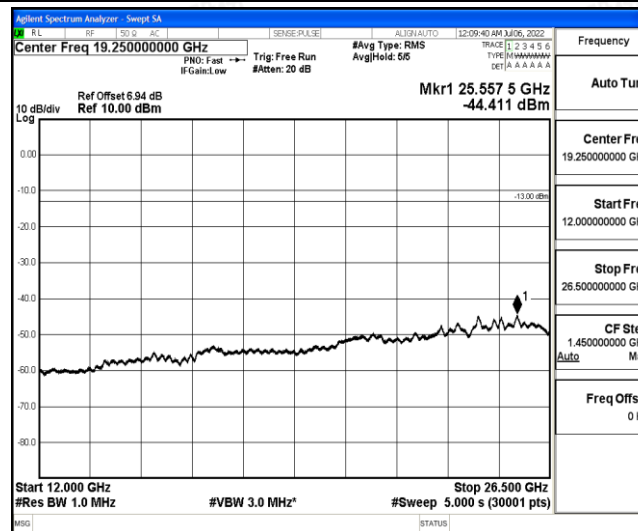
Band13-5MHz-QPSK-23255-1-0-High-1000-5000--43.24-PASS



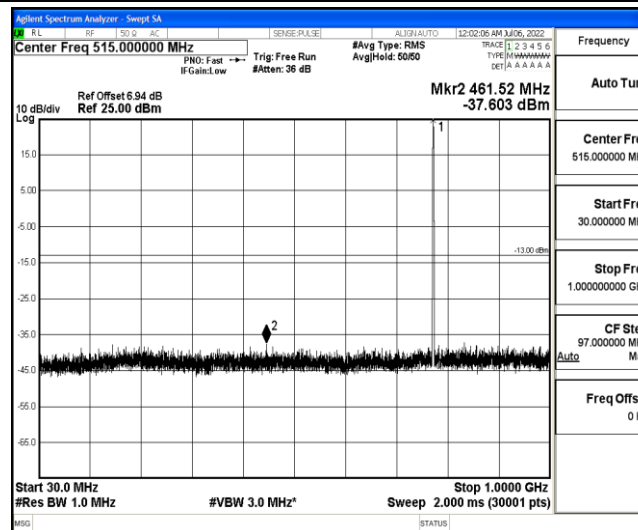
Band13-5MHz-QPSK-23255-1-0-High-5000-12000--59.2-PASS



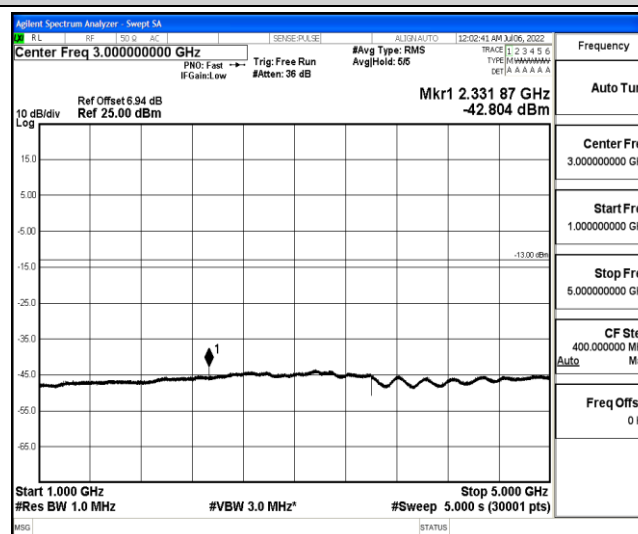
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Band13-5MHz-QPSK-23255-1-0-High-12000-26500--44.41-PASS



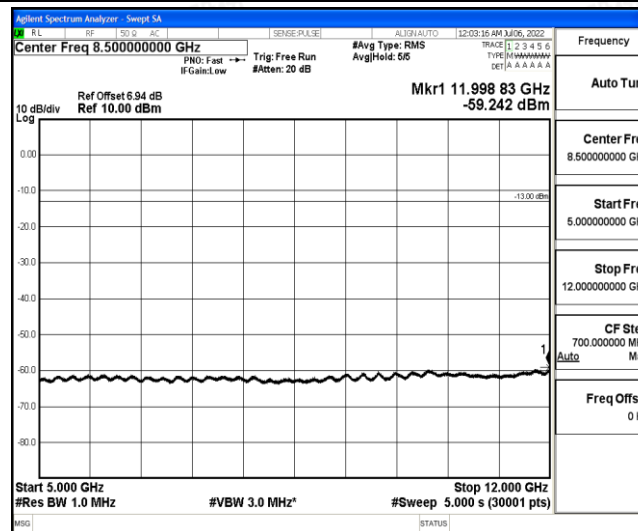
Band13-5MHz-16QAM-23205-1-0-Low-30-1000--37.6-PASS



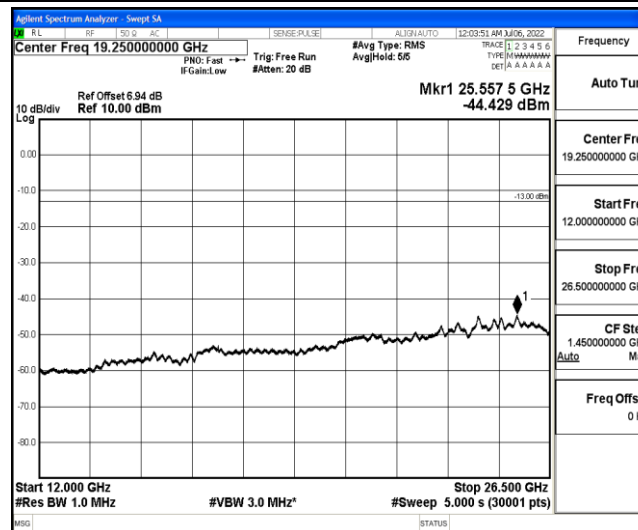
Band13-5MHz-16QAM-23205-1-0-Low-1000-5000--42.8-PASS



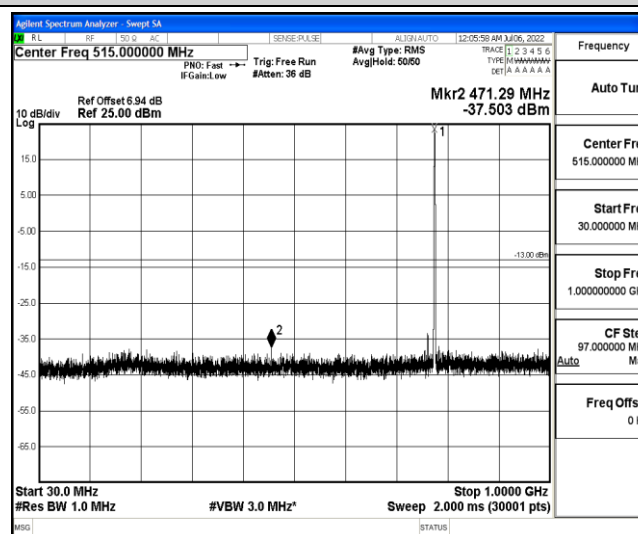
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Band13-5MHz-16QAM-23205-1-0-Low-5000-12000--59.24-PASS



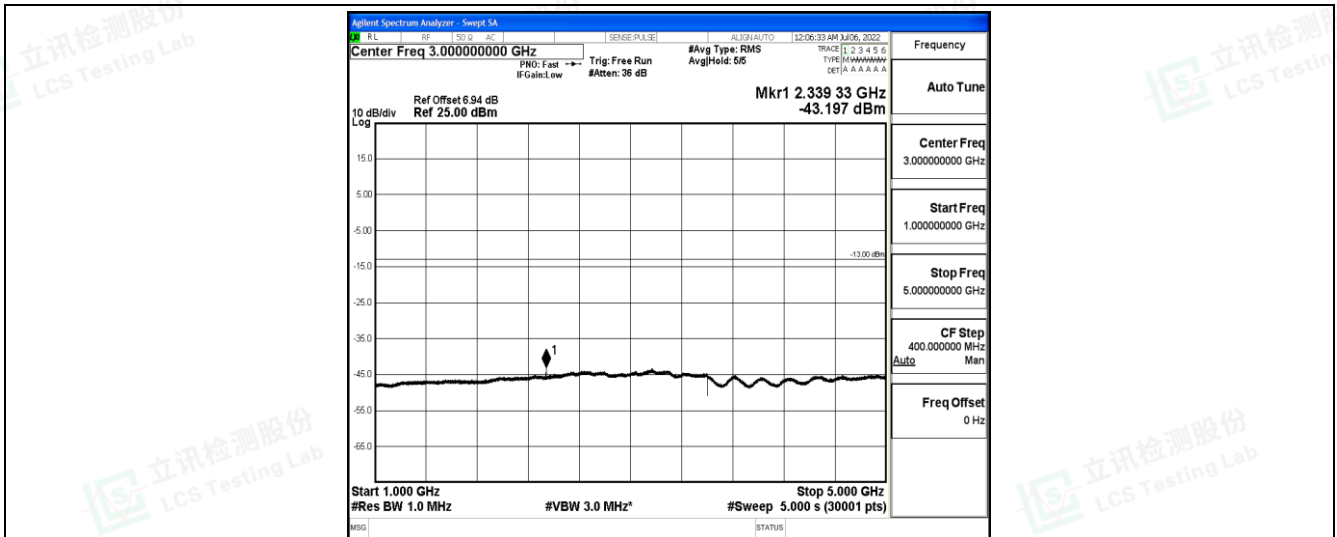
Band13-5MHz-16QAM-23205-1-0-Low-12000-26500--44.43-PASS



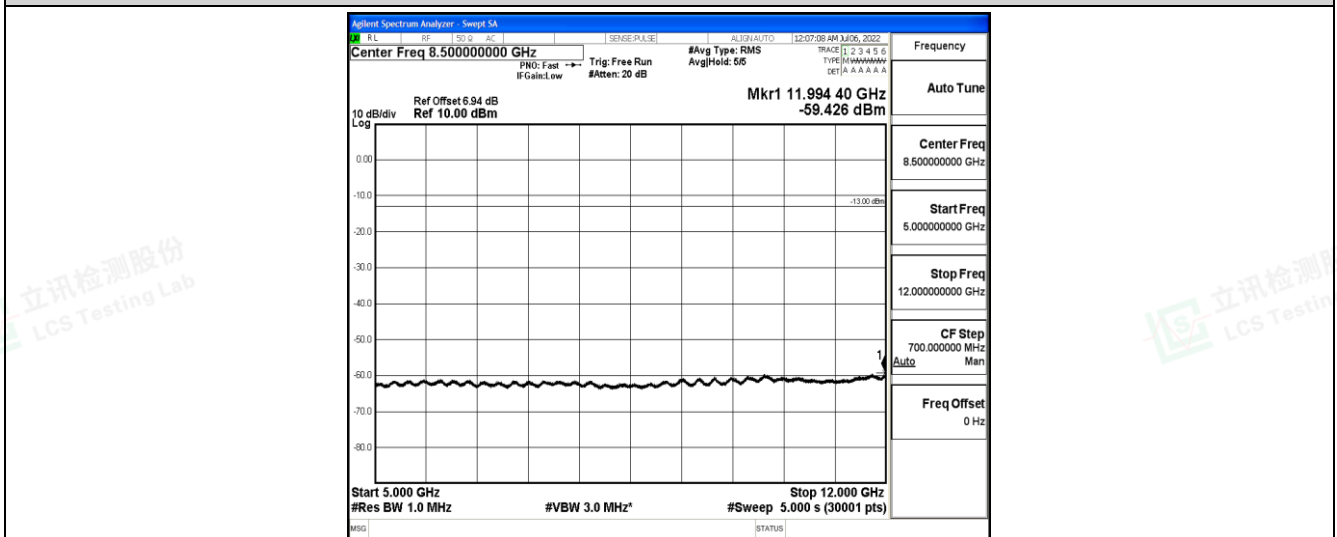
Band13-5MHz-16QAM-23230-1-0-Low-30-1000--37.5-PASS



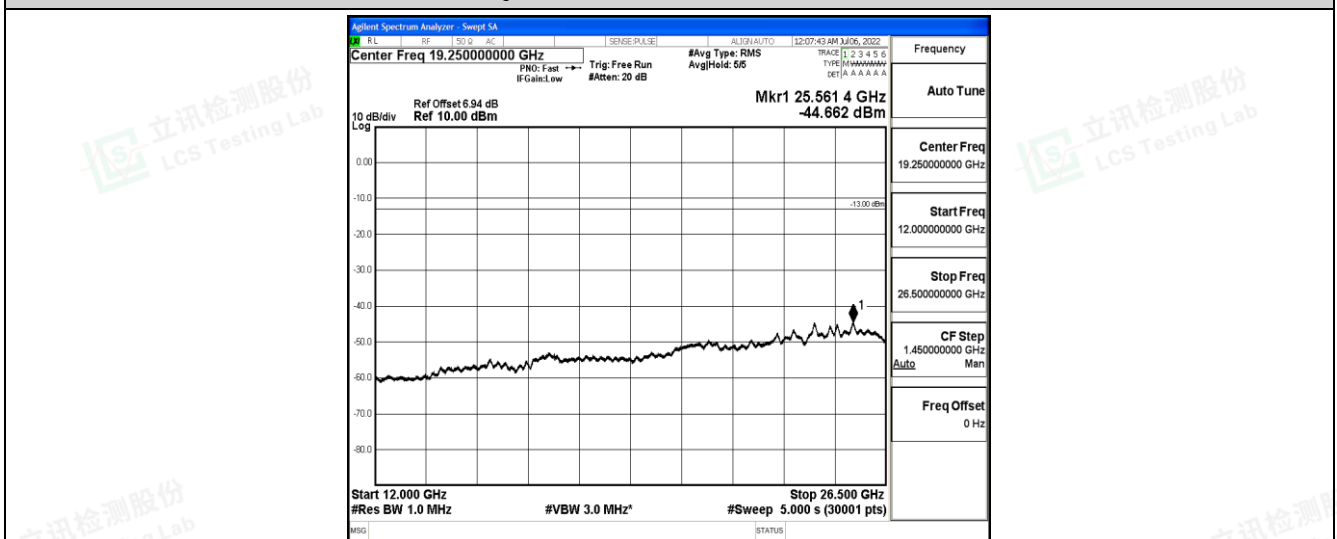
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Band13-5MHz-16QAM-23230-1-0-Low-1000-5000--43.2-PASS



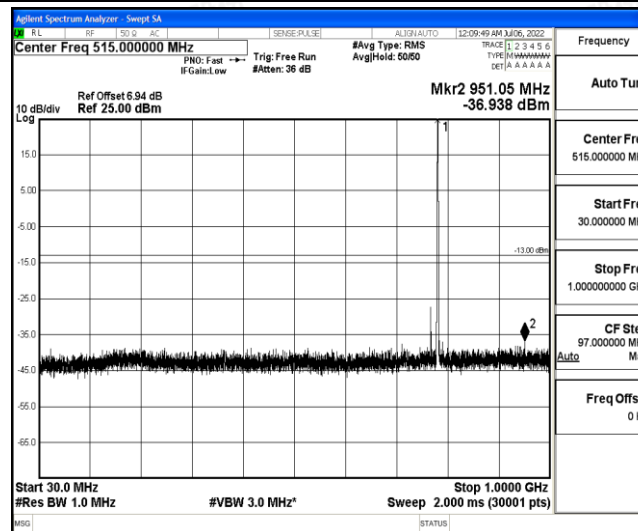
Band13-5MHz-16QAM-23230-1-0-Low-5000-12000--59.43-PASS



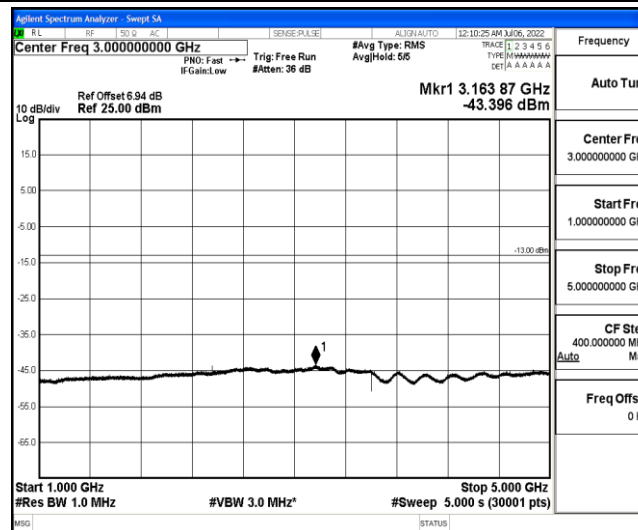
Band13-5MHz-16QAM-23230-1-0-Low-12000-26500--44.66-PASS



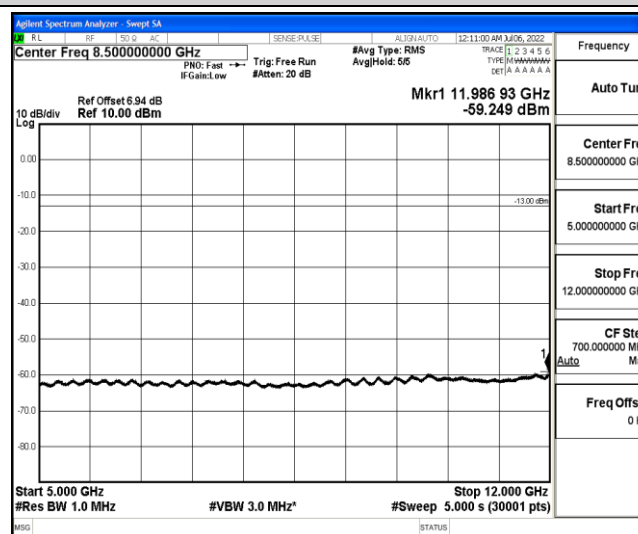
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Band13-5MHz-16QAM-23255-1-0-High-30-1000--36.94-PASS



Band13-5MHz-16QAM-23255-1-0-High-1000-5000--43.4-PASS



Band13-5MHz-16QAM-23255-1-0-High-5000-12000--59.25-PASS



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