



Appendix F: Test Data for CatM1 Band 13

Product Name: Scorpion M Series Tracking System
Test Model: STMLT01

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li huan





F.1 Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dBm)	Verdict
Band13	5MHz	23205	QPSK	1	0	Low	21.57	PASS
Band13	5MHz	23205	QPSK	1	5	Low	21.31	PASS
Band13	5MHz	23205	QPSK	6	0	Low	20.46	PASS
Band13	5MHz	23230	QPSK	1	0	Low	21.49	PASS
Band13	5MHz	23230	QPSK	1	5	Low	21.28	PASS
Band13	5MHz	23230	QPSK	6	0	Low	20.49	PASS
Band13	5MHz	23255	QPSK	1	0	High	21.57	PASS
Band13	5MHz	23255	QPSK	1	5	High	21.34	PASS
Band13	5MHz	23255	QPSK	6	0	High	20.26	PASS
Band13	5MHz	23205	16QAM	1	0	Low	21.67	PASS
Band13	5MHz	23205	16QAM	1	5	Low	21.50	PASS
Band13	5MHz	23205	16QAM	6	0	Low	20.53	PASS
Band13	5MHz	23230	16QAM	1	0	Low	21.48	PASS
Band13	5MHz	23230	16QAM	1	5	Low	21.25	PASS
Band13	5MHz	23230	16QAM	6	0	Low	20.49	PASS
Band13	5MHz	23255	16QAM	1	0	High	21.22	PASS
Band13	5MHz	23255	16QAM	1	5	High	20.94	PASS
Band13	5MHz	23255	16QAM	6	0	High	20.39	PASS
Band13	10MHz	23230	QPSK	1	0	Low	21.45	PASS
Band13	10MHz	23230	QPSK	1	5	Low	21.28	PASS
Band13	10MHz	23230	QPSK	6	0	Low	20.40	PASS
Band13	10MHz	23230	16QAM	1	0	Low	21.61	PASS
Band13	10MHz	23230	16QAM	1	5	Low	21.38	PASS
Band13	10MHz	23230	16QAM	6	0	Low	20.50	PASS



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

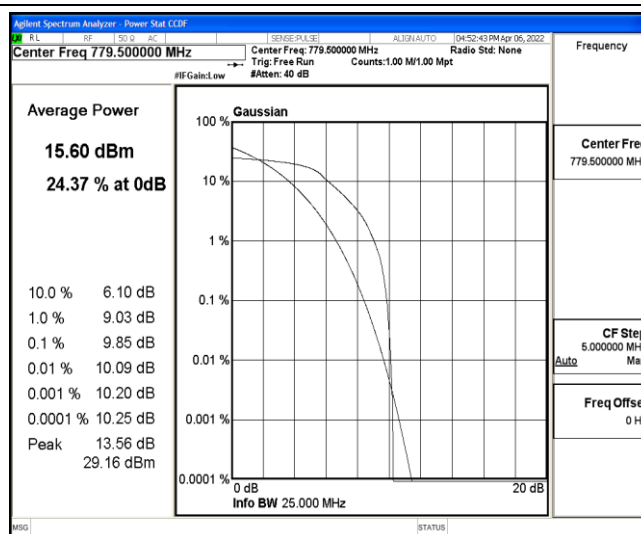
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	9.85	<=13	PASS
Band13	5MHz	23230	QPSK	6	0	Low	10.64	<=13	PASS
Band13	5MHz	23255	QPSK	6	0	Low	11.08	<=13	PASS
Band13	5MHz	23205	16QAM	6	0	Low	8.48	<=13	PASS
Band13	5MHz	23230	16QAM	6	0	Low	9.80	<=13	PASS
Band13	5MHz	23255	16QAM	6	0	Low	11.37	<=13	PASS
Band13	10MHz	23230	QPSK	6	0	Low	9.80	<=13	PASS
Band13	10MHz	23230	16QAM	6	0	Low	8.46	<=13	PASS

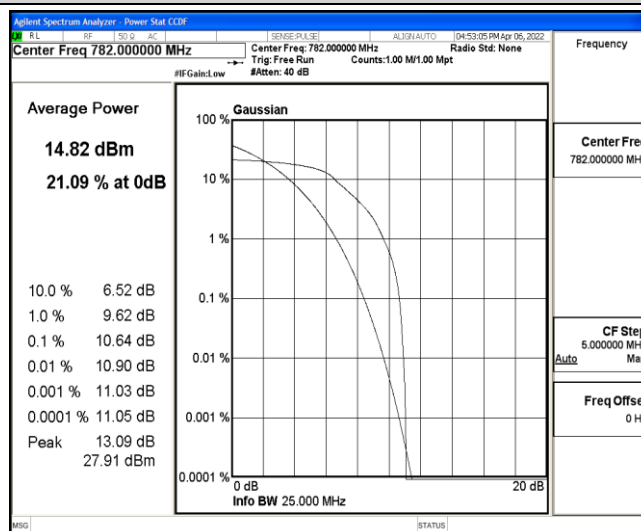




Test Graphs



Band13-5MHz-QPSK-23205-6-0-Low-9.85-=<=13-PASS



Band13-5MHz-QPSK-23230-6-0-Low-10.64-=<=13-PASS

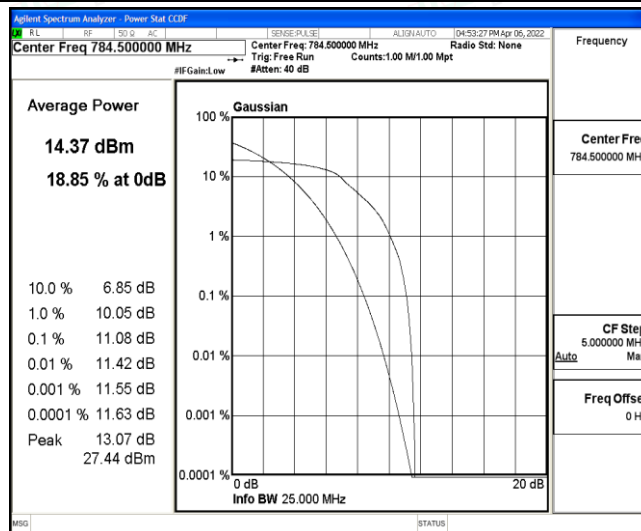


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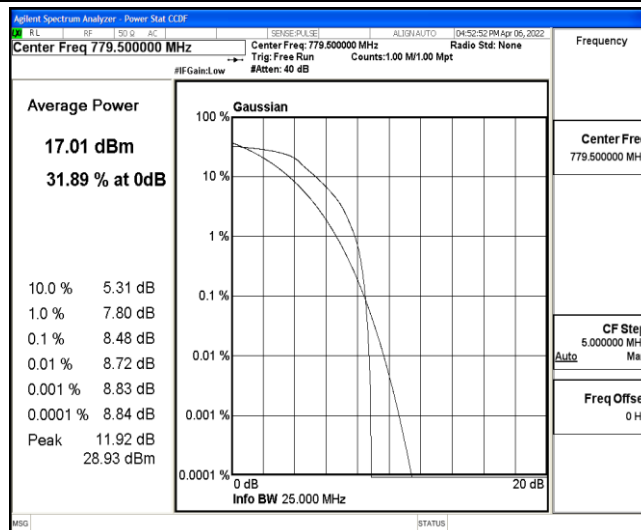
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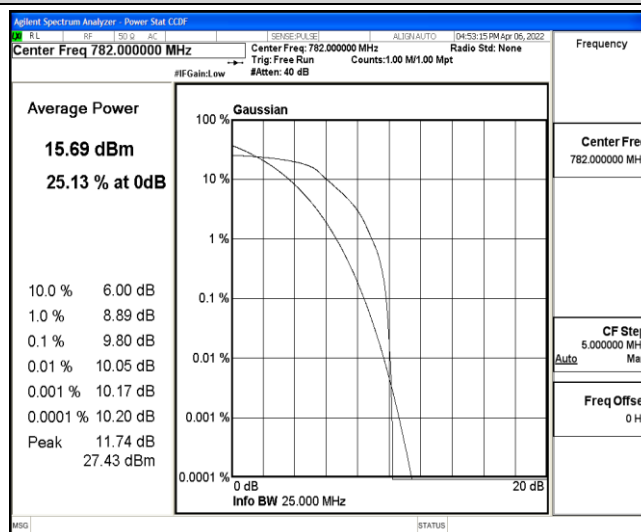
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Band13-5MHz-QPSK-23255-6-0-Low-11.08-13-PASS

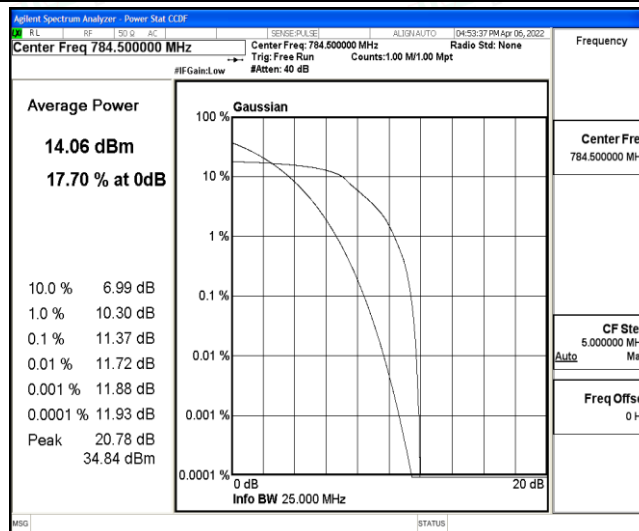


Band13-5MHz-16QAM-23205-6-0-Low-8.48-13-PASS

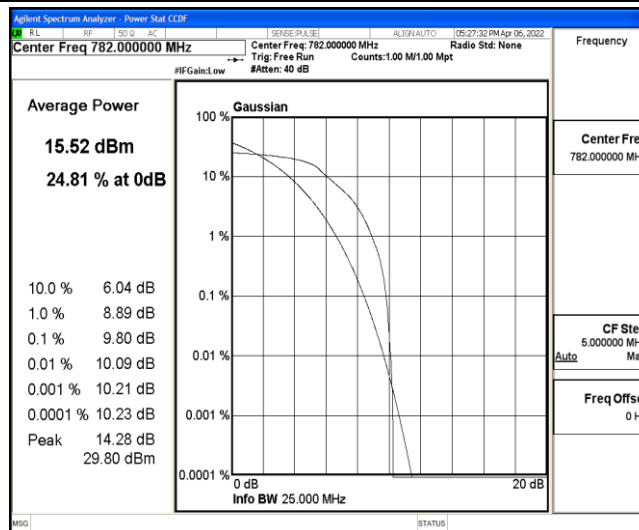


Band13-5MHz-16QAM-23230-6-0-Low-9.80-13-PASS

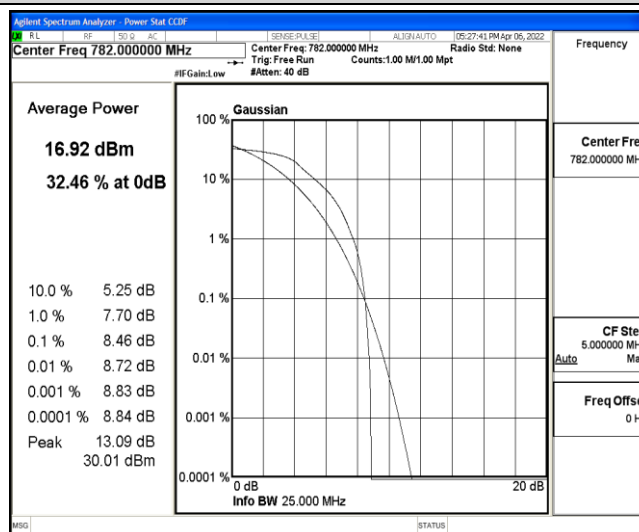




Band13-5MHz-16QAM-23255-6-0-Low-11.37-<=13-PASS



Band13-10MHz-QPSK-23230-6-0-Low-9.80-<=13-PASS



Band13-10MHz-16QAM-23230-6-0-Low-8.46-<=13-PASS





F.3 26dB Bandwidth and Occupied Bandwidth

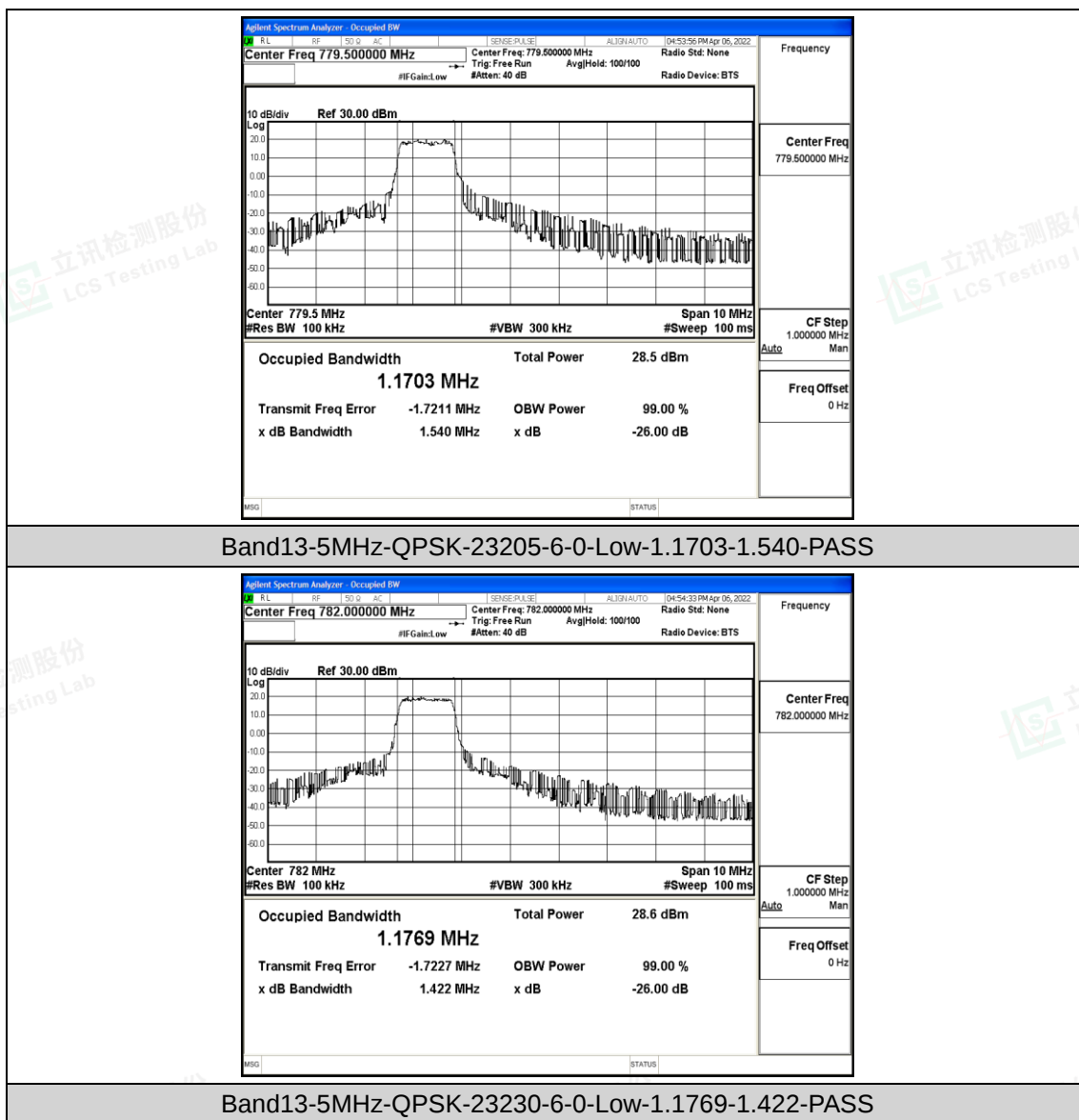
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	1.1703	1.540	PASS
Band13	5MHz	23230	QPSK	6	0	Low	1.1769	1.422	PASS
Band13	5MHz	23255	QPSK	6	0	High	1.1767	1.478	PASS
Band13	5MHz	23205	16QAM	6	0	Low	1.1715	1.566	PASS
Band13	5MHz	23230	16QAM	6	0	Low	1.1806	1.429	PASS
Band13	5MHz	23255	16QAM	6	0	High	1.1727	1.488	PASS
Band13	10MHz	23230	QPSK	6	0	Low	1.3459	2.015	PASS
Band13	10MHz	23230	16QAM	6	0	Low	1.3366	2.011	PASS





Test Graphs

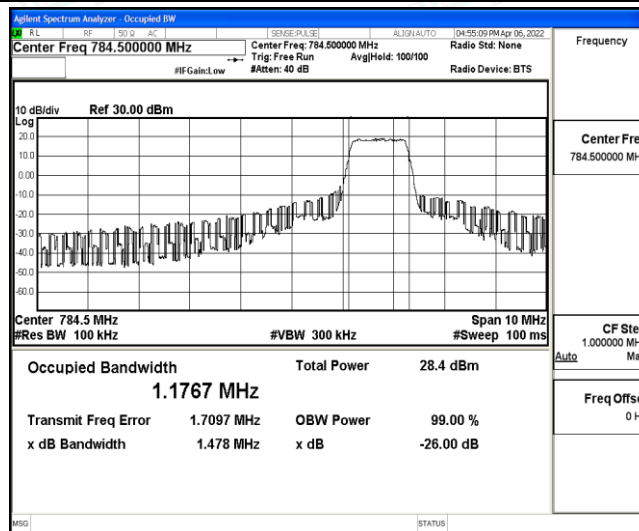


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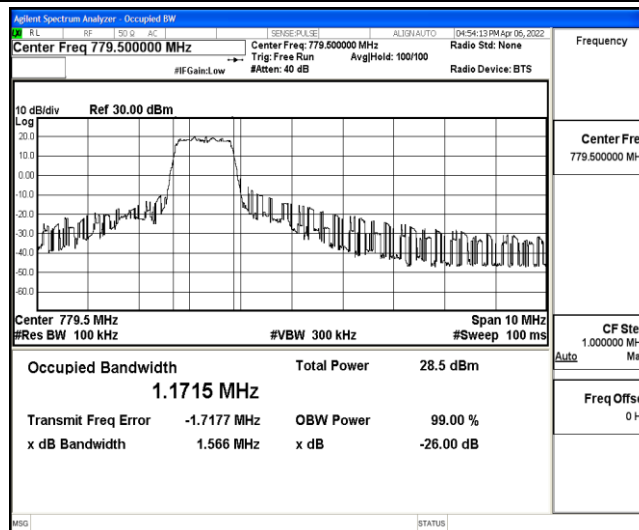
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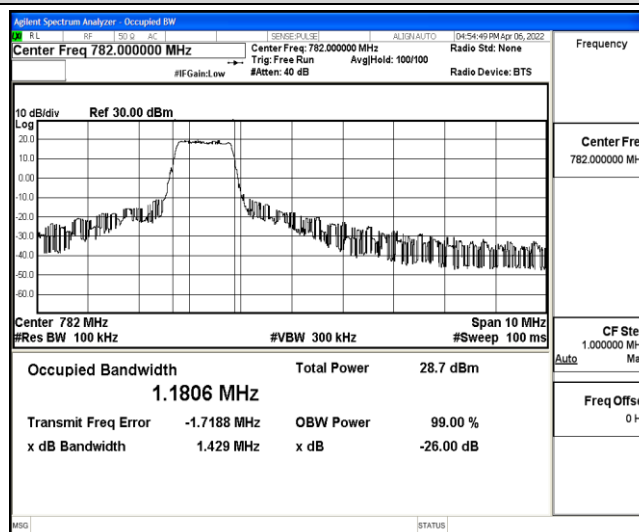
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Band13-5MHz-QPSK-23255-6-0-High-1.1767-1.478-PASS



Band13-5MHz-16QAM-23205-6-0-Low-1.1715-1.566-PASS



Band13-5MHz-16QAM-23230-6-0-Low-1.1806-1.429-PASS

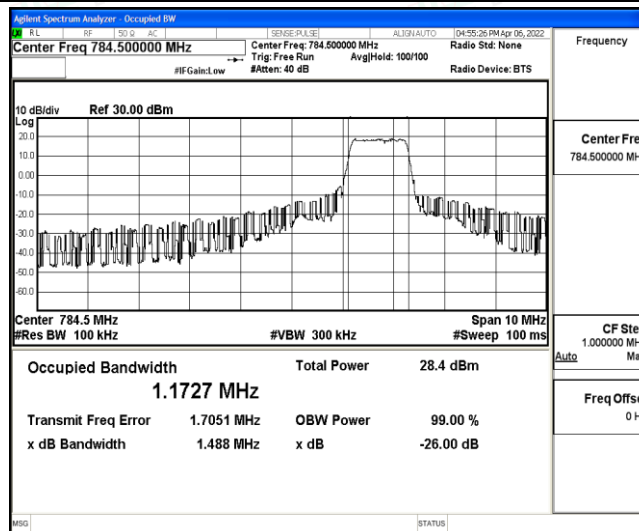


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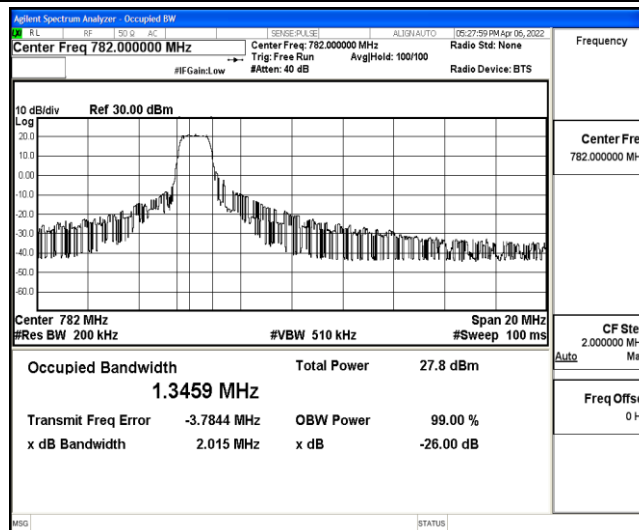
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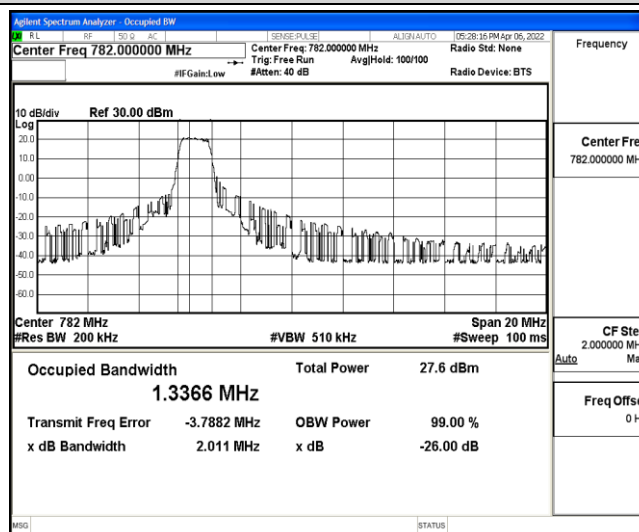
Scan code to check authenticity



Band13-5MHz-16QAM-23255-6-0-High-1.1727-1.488-PASS



Band13-10MHz-QPSK-23230-6-0-Low-1.3459-2.015-PASS



Band13-10MHz-16QAM-23230-6-0-Low-1.3366-2.011-PASS



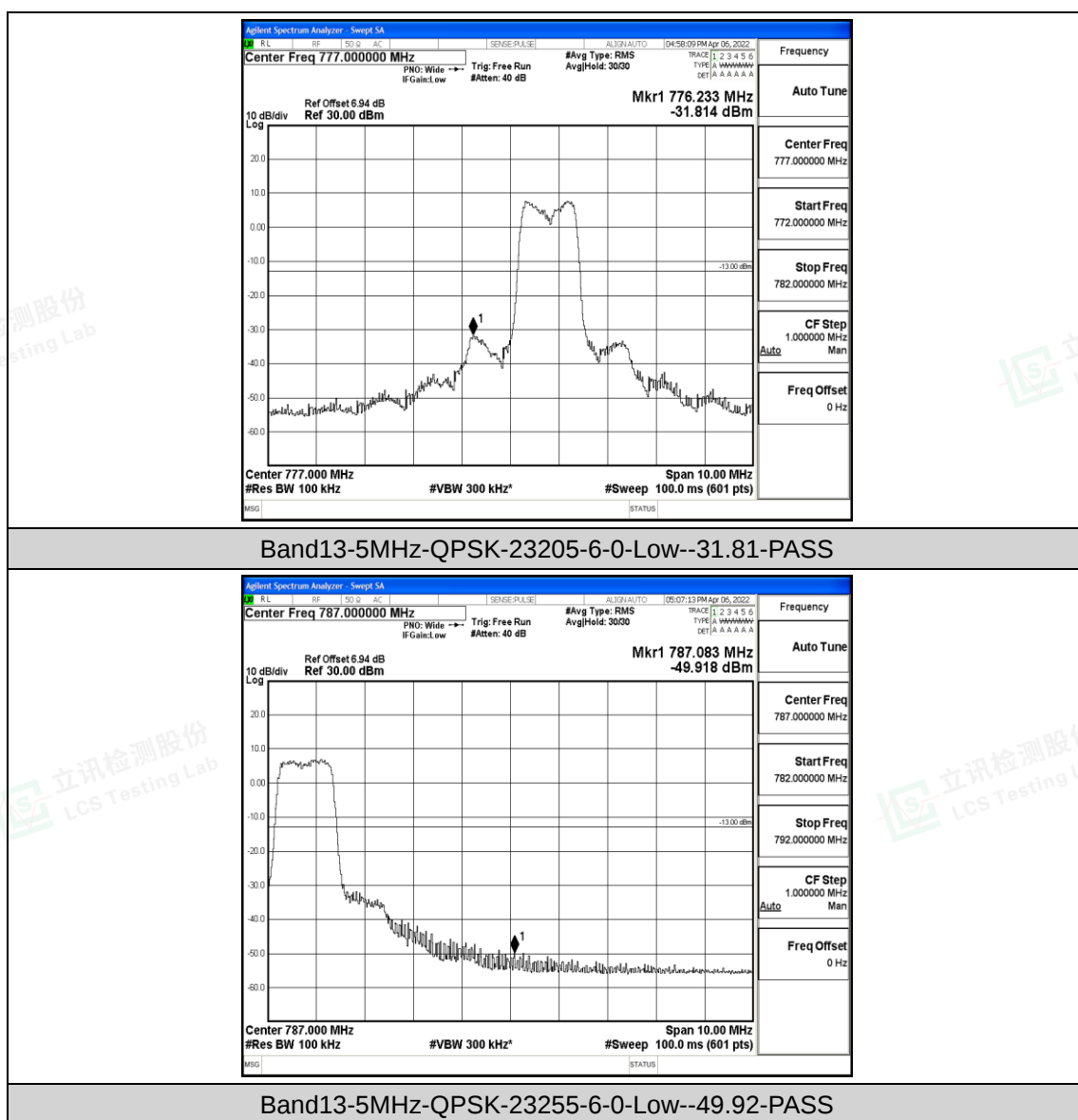


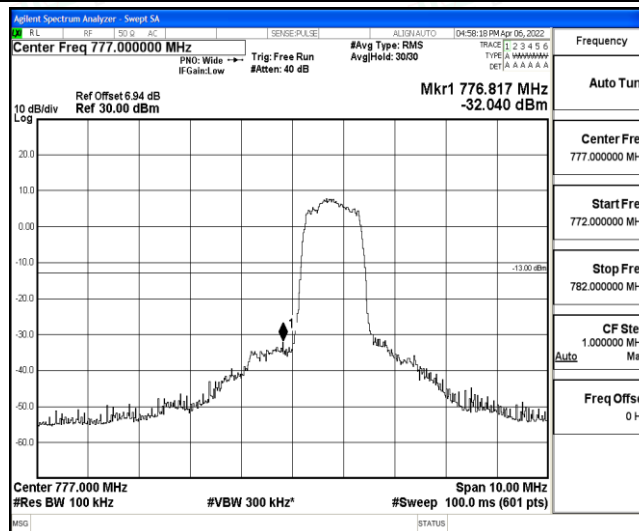
F.4 Band Edge

Test Result

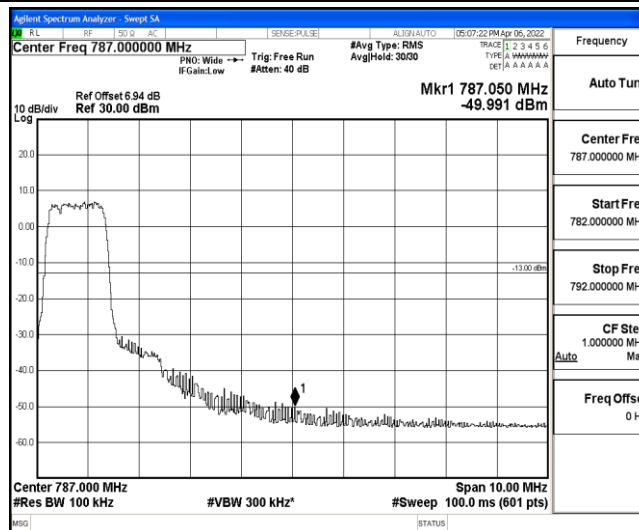
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result(dBm)	Verdict
Band13	5MHz	23205	QPSK	6	0	Low	-31.81	PASS
Band13	5MHz	23255	QPSK	6	0	Low	-49.92	PASS
Band13	5MHz	23205	16QAM	6	0	Low	-32.04	PASS
Band13	5MHz	23255	16QAM	6	0	Low	-49.99	PASS

Test Graphs





Band13-5MHz-16QAM-23205-6-0-Low--32.04-PASS



Band13-5MHz-16QAM-23255-6-0-Low--49.99-PASS





F.5 Conducted Spurious Emission

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	-37.28	PASS
Band13	5MHz	23205	QPSK	1	0	Low	1000	5000	-43.54	PASS
Band13	5MHz	23205	QPSK	1	0	Low	5000	12000	-59.4	PASS
Band13	5MHz	23205	QPSK	1	0	Low	12000	26500	-44.6	PASS
Band13	5MHz	23230	QPSK	1	0	Low	30	1000	-37.97	PASS
Band13	5MHz	23230	QPSK	1	0	Low	1000	5000	-43.13	PASS
Band13	5MHz	23230	QPSK	1	0	Low	5000	12000	-59.45	PASS
Band13	5MHz	23230	QPSK	1	0	Low	12000	26500	-44.61	PASS
Band13	5MHz	23255	QPSK	1	0	High	30	1000	-37.43	PASS
Band13	5MHz	23255	QPSK	1	0	High	1000	5000	-43.26	PASS
Band13	5MHz	23255	QPSK	1	0	High	5000	12000	-59.44	PASS
Band13	5MHz	23255	QPSK	1	0	High	12000	26500	-44.59	PASS
Band13	5MHz	23205	16QAM	1	0	Low	30	1000	-35.13	PASS
Band13	5MHz	23205	16QAM	1	0	Low	1000	5000	-43.69	PASS
Band13	5MHz	23205	16QAM	1	0	Low	5000	12000	-59.19	PASS
Band13	5MHz	23205	16QAM	1	0	Low	12000	26500	-44.74	PASS
Band13	5MHz	23230	16QAM	1	0	Low	30	1000	-36.7	PASS
Band13	5MHz	23230	16QAM	1	0	Low	1000	5000	-43.6	PASS
Band13	5MHz	23230	16QAM	1	0	Low	5000	12000	-59.4	PASS
Band13	5MHz	23230	16QAM	1	0	Low	12000	26500	-44.68	PASS
Band13	5MHz	23255	16QAM	1	0	High	30	1000	-37.78	PASS
Band13	5MHz	23255	16QAM	1	0	High	1000	5000	-43.34	PASS
Band13	5MHz	23255	16QAM	1	0	High	5000	12000	-59.55	PASS
Band13	5MHz	23255	16QAM	1	0	High	12000	26500	-44.51	PASS



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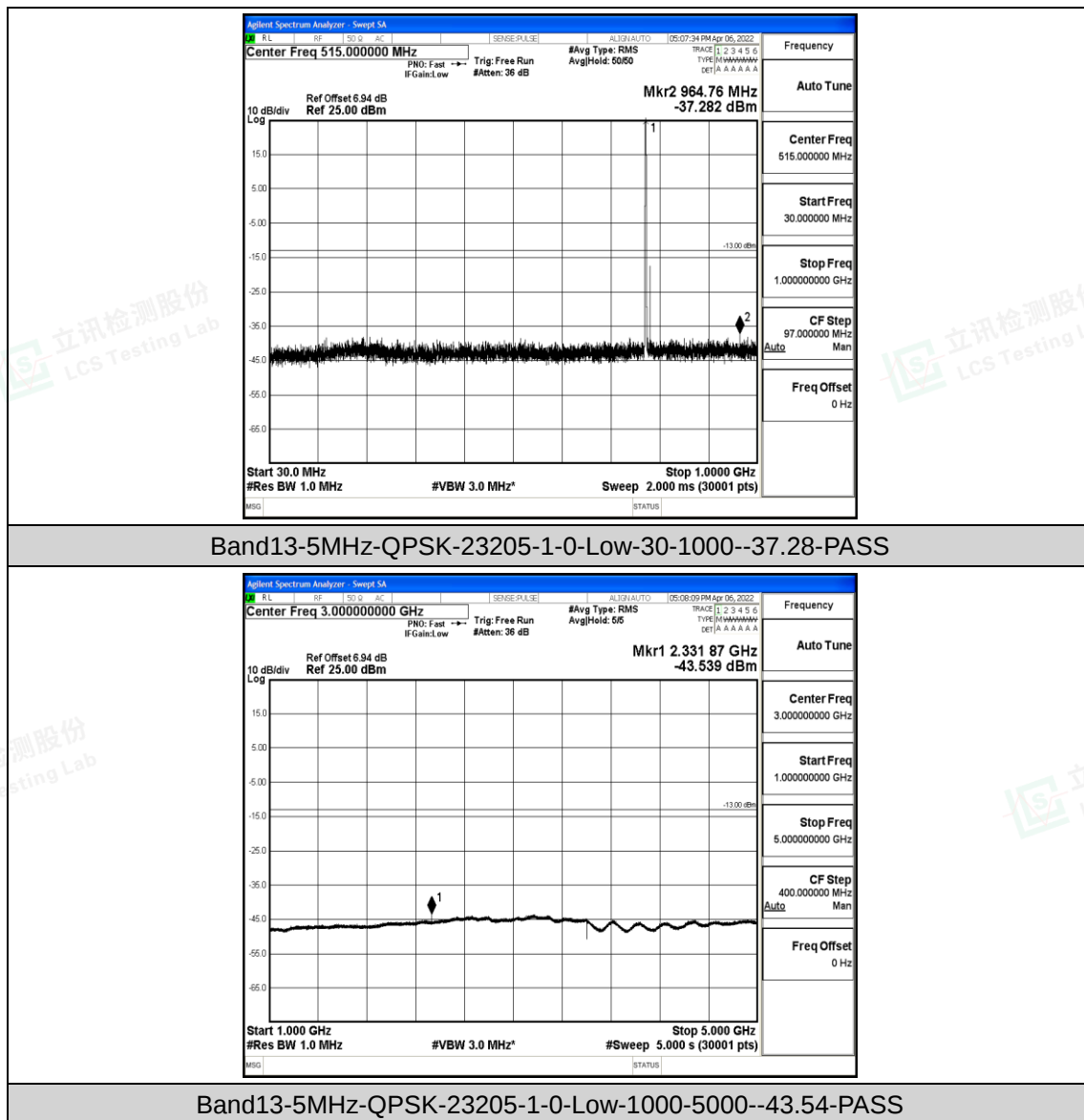
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Test Graphs

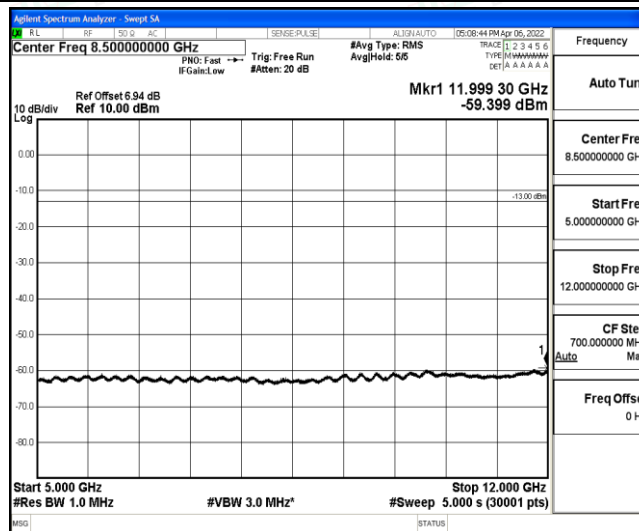


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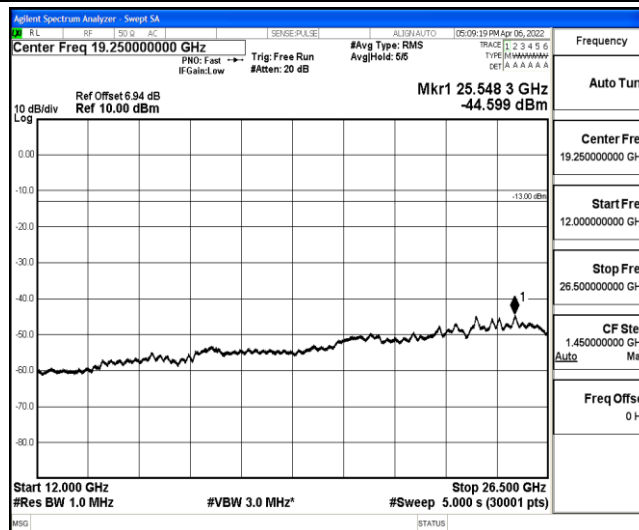
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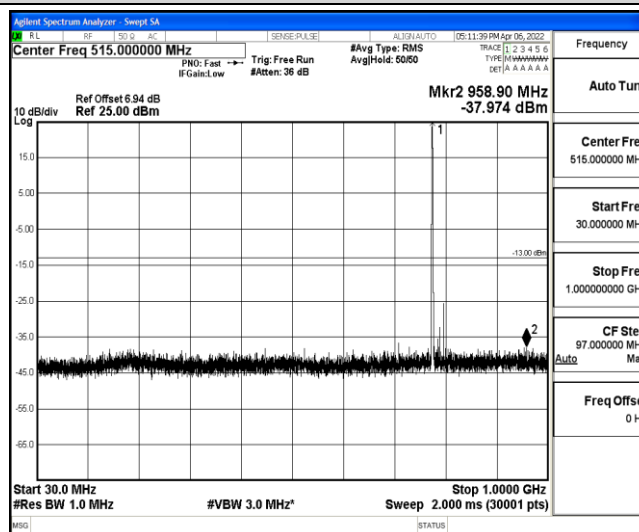
Scan code to check authenticity



Band13-5MHz-QPSK-23205-1-0-Low-5000-12000--59.4-PASS

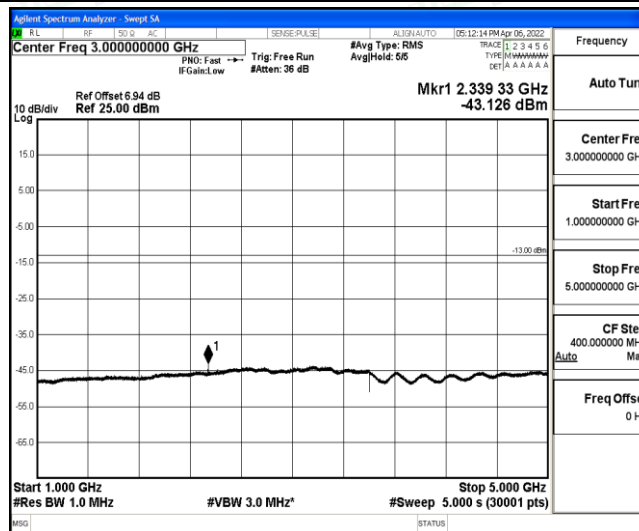


Band13-5MHz-QPSK-23205-1-0-Low-12000-26500--44.6-PASS

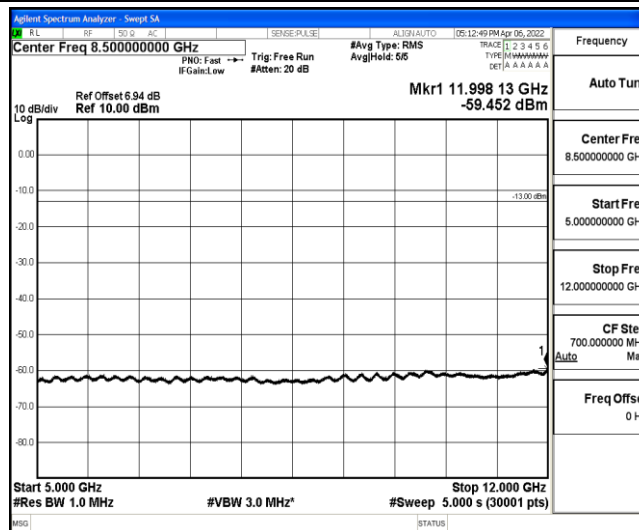


Band13-5MHz-QPSK-23230-1-0-Low-30-1000--37.97-PASS

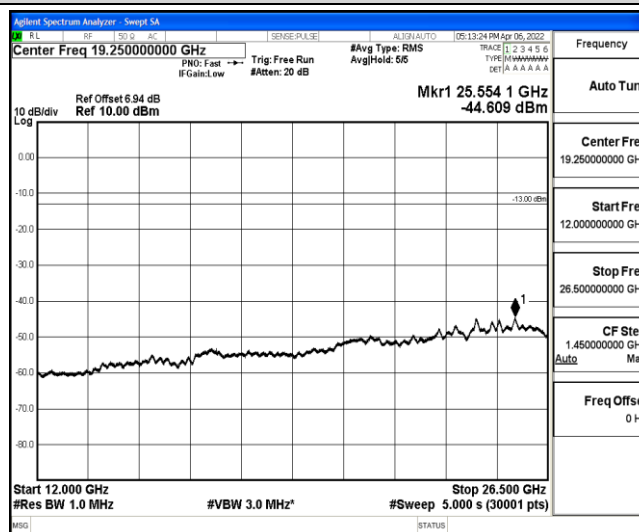




Band13-5MHz-QPSK-23230-1-0-Low-1000-5000--43.13-PASS

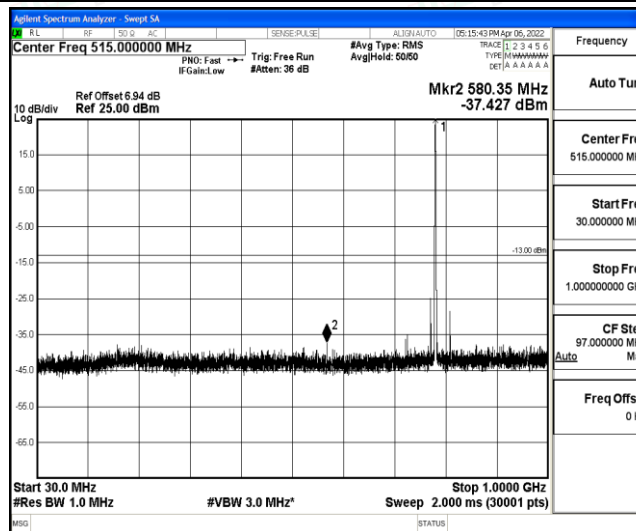


Band13-5MHz-QPSK-23230-1-0-Low-5000-12000--59.45-PASS

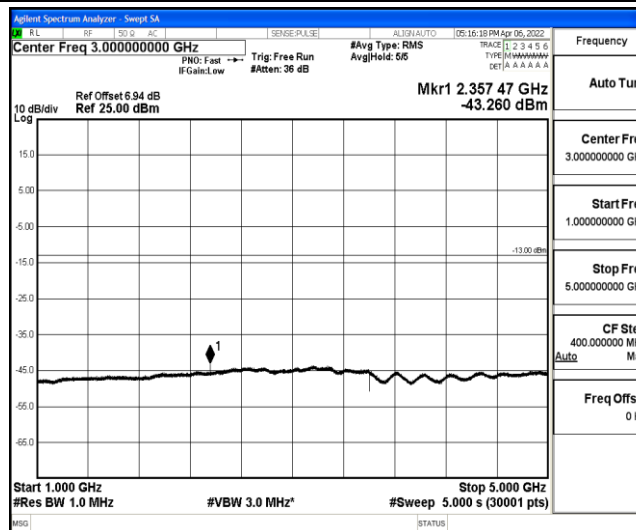


Band13-5MHz-QPSK-23230-1-0-Low-12000-26500--44.61-PASS

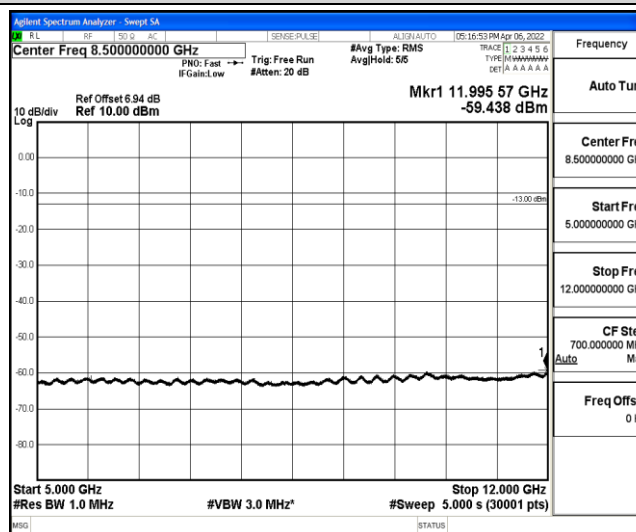




Band13-5MHz-QPSK-23255-1-0-High-30-1000--37.43-PASS

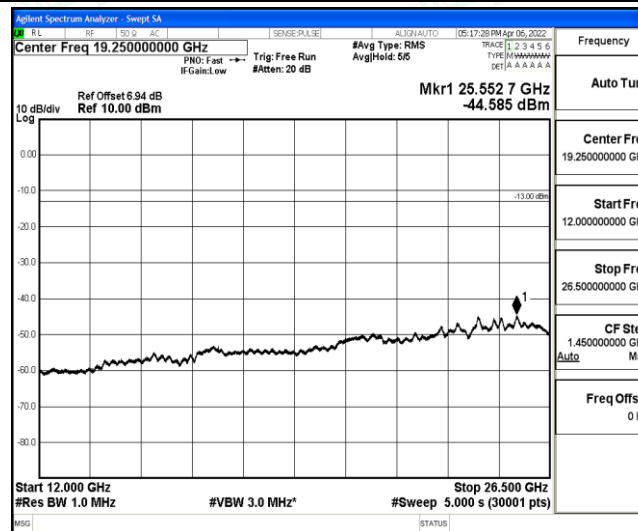


Band13-5MHz-QPSK-23255-1-0-High-1000-5000--43.26-PASS

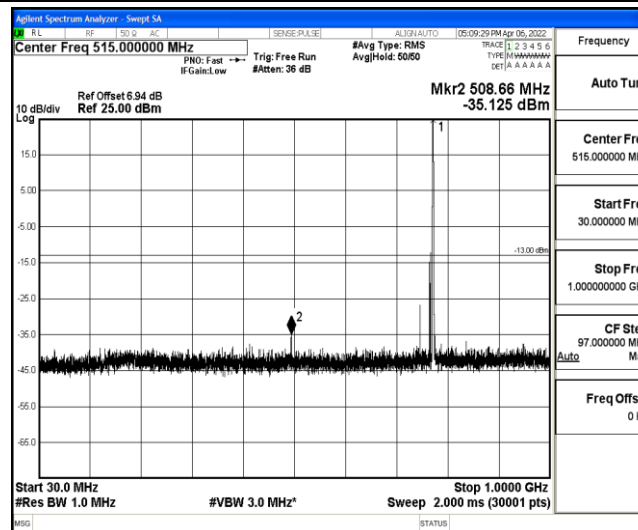


Band13-5MHz-QPSK-23255-1-0-High-5000-12000--59.44-PASS

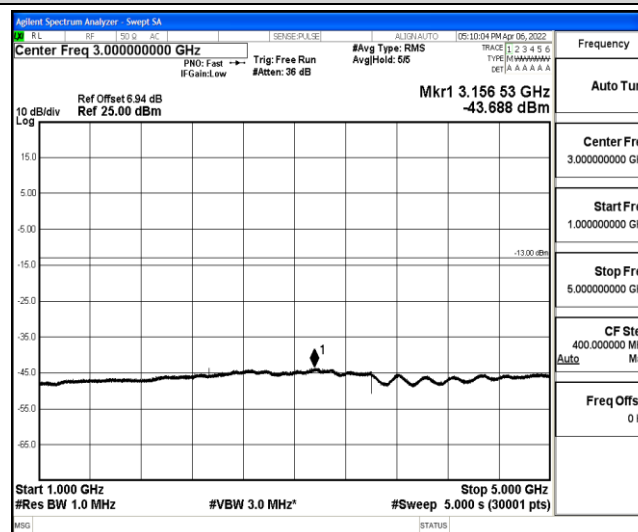




Band13-5MHz-QPSK-23255-1-0-High-12000-26500--44.59-PASS

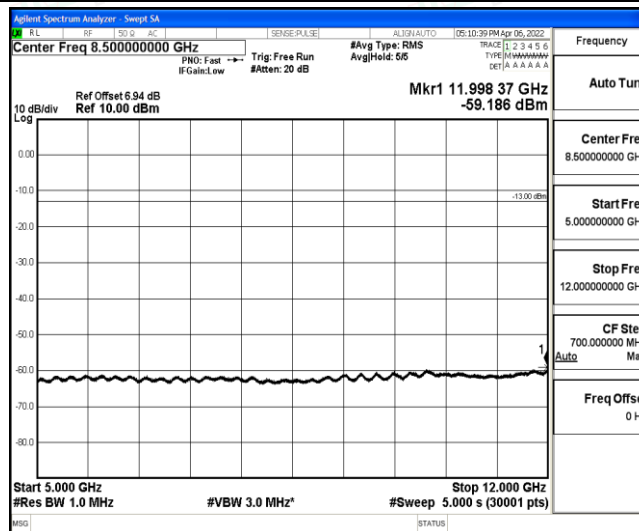


Band13-5MHz-16QAM-23205-1-0-Low-30-1000--35.13-PASS

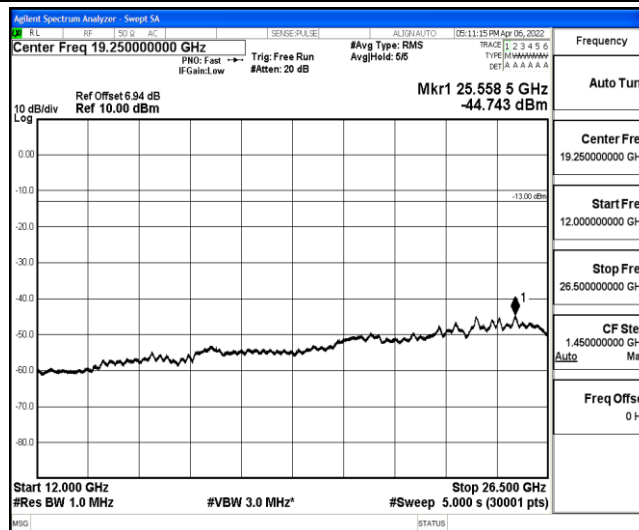


Band13-5MHz-16QAM-23205-1-0-Low-1000-5000--43.69-PASS

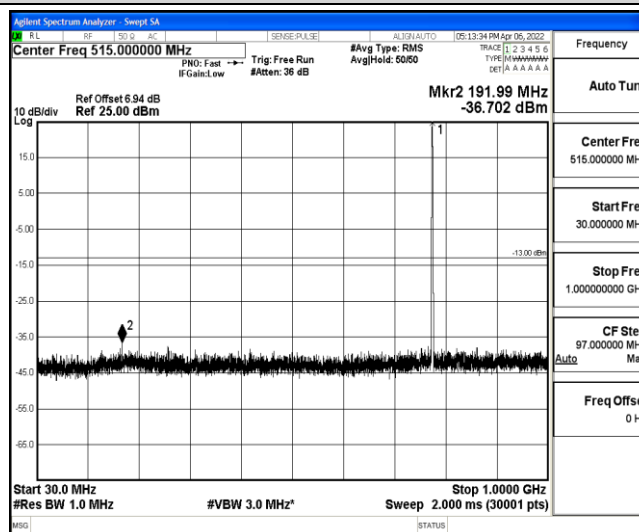




Band13-5MHz-16QAM-23205-1-0-Low-5000-12000--59.19-PASS

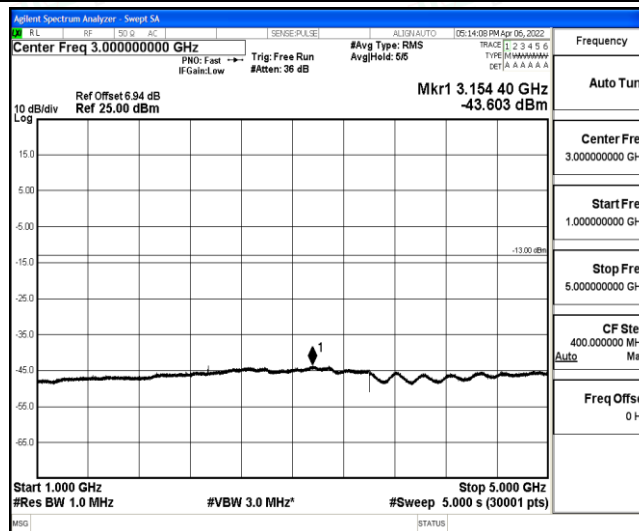


Band13-5MHz-16QAM-23205-1-0-Low-12000-26500--44.74-PASS

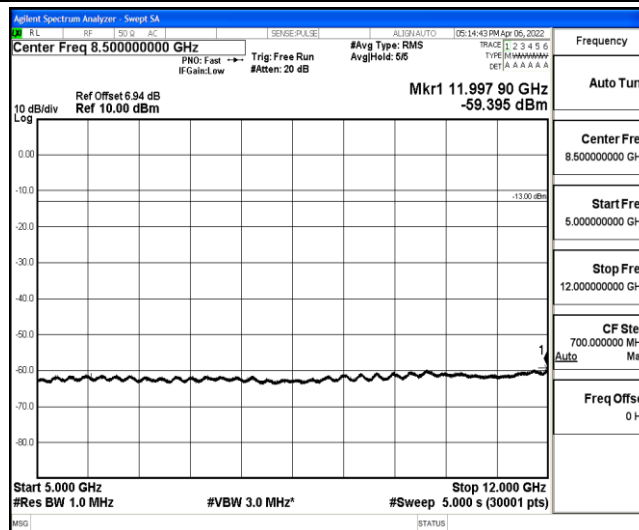


Band13-5MHz-16QAM-23230-1-0-Low-30-1000--36.7-PASS

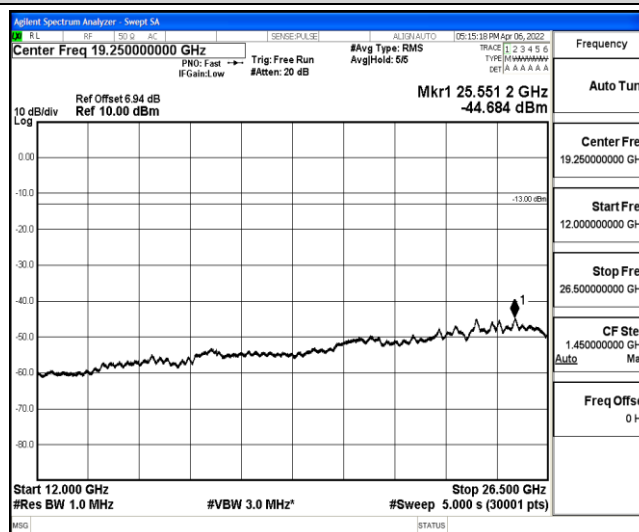




Band13-5MHz-16QAM-23230-1-0-Low-1000-5000--43.6-PASS

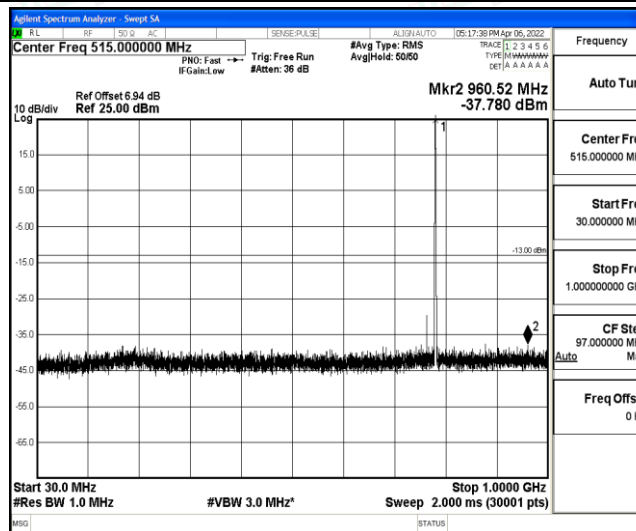


Band13-5MHz-16QAM-23230-1-0-Low-5000-12000--59.4-PASS

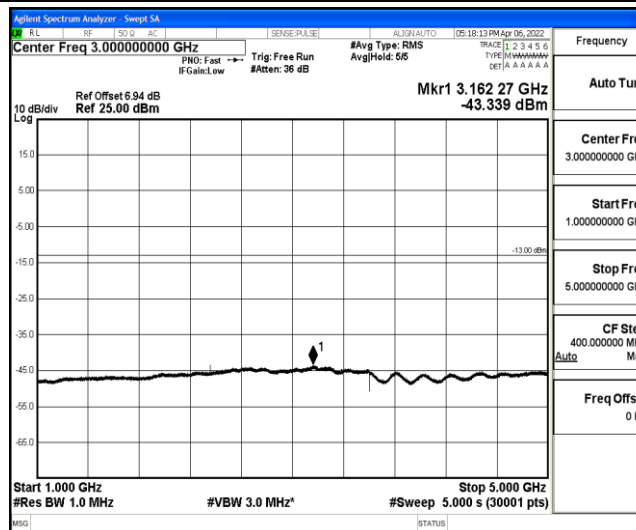


Band13-5MHz-16QAM-23230-1-0-Low-12000-26500--44.68-PASS

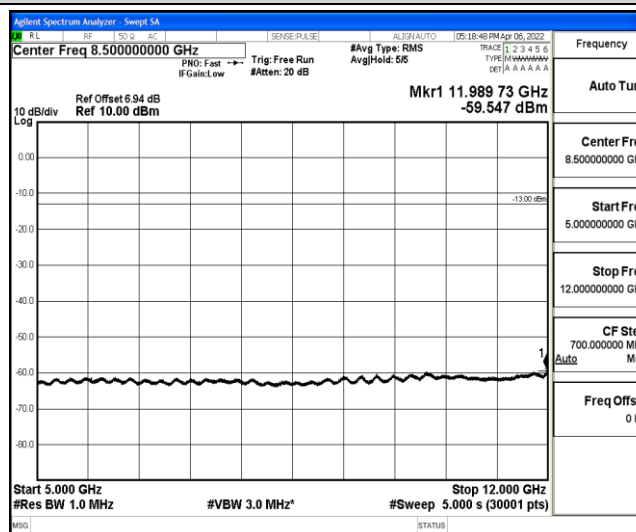




Band13-5MHz-16QAM-23255-1-0-High-30-1000--37.78-PASS



Band13-5MHz-16QAM-23255-1-0-High-1000-5000--43.34-PASS



Band13-5MHz-16QAM-23255-1-0-High-5000-12000--59.55-PASS



