



Appendix H: Test Data for E-UTRA Band 13

Product Name: Smart phone

Test Model: DL4s

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling Zhu
Supervised by:	Li Huan



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H.1 Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	21.93	PASS
Band13	5MHz	QPSK	23205	1RB#12	22.91	PASS
Band13	5MHz	QPSK	23205	1RB#24	22.71	PASS
Band13	5MHz	QPSK	23205	12RB#0	21.83	PASS
Band13	5MHz	QPSK	23205	12RB#6	21.82	PASS
Band13	5MHz	QPSK	23205	12RB#13	21.78	PASS
Band13	5MHz	QPSK	23205	25RB#0	21.81	PASS
Band13	5MHz	QPSK	23230	1RB#0	22.85	PASS
Band13	5MHz	QPSK	23230	1RB#12	22.94	PASS
Band13	5MHz	QPSK	23230	1RB#24	22.70	PASS
Band13	5MHz	QPSK	23230	12RB#0	21.89	PASS
Band13	5MHz	QPSK	23230	12RB#6	21.89	PASS
Band13	5MHz	QPSK	23230	12RB#13	21.82	PASS
Band13	5MHz	QPSK	23230	25RB#0	21.89	PASS
Band13	5MHz	QPSK	23255	1RB#0	22.84	PASS
Band13	5MHz	QPSK	23255	1RB#12	22.80	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.67	PASS
Band13	5MHz	QPSK	23255	12RB#0	21.90	PASS
Band13	5MHz	QPSK	23255	12RB#6	21.85	PASS
Band13	5MHz	QPSK	23255	12RB#13	21.65	PASS
Band13	5MHz	QPSK	23255	25RB#0	21.82	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.04	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.09	PASS
Band13	5MHz	16QAM	23205	1RB#24	21.90	PASS
Band13	5MHz	16QAM	23205	12RB#0	20.82	PASS
Band13	5MHz	16QAM	23205	12RB#6	20.84	PASS
Band13	5MHz	16QAM	23205	12RB#13	20.87	PASS
Band13	5MHz	16QAM	23205	25RB#0	20.82	PASS
Band13	5MHz	16QAM	23230	1RB#0	21.83	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.03	PASS



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Band13	5MHz	16QAM	23230	1RB#24	21.69	PASS
Band13	5MHz	16QAM	23230	12RB#0	20.85	PASS
Band13	5MHz	16QAM	23230	12RB#6	20.95	PASS
Band13	5MHz	16QAM	23230	12RB#13	20.84	PASS
Band13	5MHz	16QAM	23230	25RB#0	20.89	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.03	PASS
Band13	5MHz	16QAM	23255	1RB#12	21.99	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.84	PASS
Band13	5MHz	16QAM	23255	12RB#0	20.94	PASS
Band13	5MHz	16QAM	23255	12RB#6	20.89	PASS
Band13	5MHz	16QAM	23255	12RB#13	20.79	PASS
Band13	5MHz	16QAM	23255	25RB#0	20.78	PASS
Band13	10MHz	QPSK	23230	1RB#0	22.94	PASS
Band13	10MHz	QPSK	23230	1RB#24	22.87	PASS
Band13	10MHz	QPSK	23230	1RB#49	22.68	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.03	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.02	PASS
Band13	10MHz	QPSK	23230	25RB#25	21.91	PASS
Band13	10MHz	QPSK	23230	50RB#0	21.91	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.11	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.18	PASS
Band13	10MHz	16QAM	23230	1RB#49	21.80	PASS
Band13	10MHz	16QAM	23230	25RB#0	20.95	PASS
Band13	10MHz	16QAM	23230	25RB#12	20.99	PASS
Band13	10MHz	16QAM	23230	25RB#25	20.83	PASS
Band13	10MHz	16QAM	23230	50RB#0	20.86	PASS



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

Test Result

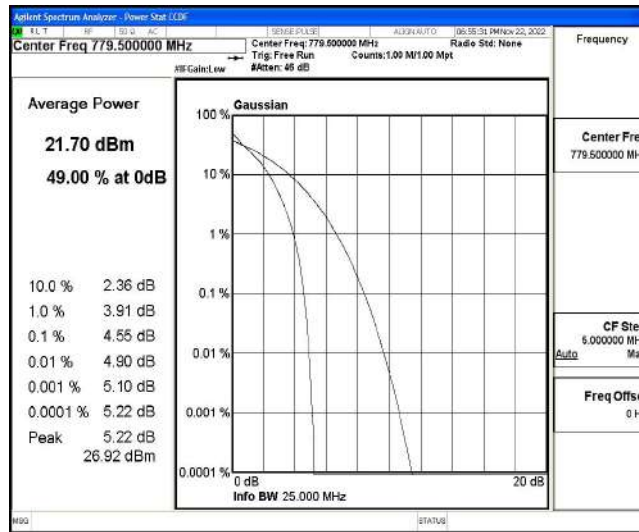
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.55	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.85	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.67	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.35	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.66	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	5.56	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	4.67	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.53	13	PASS



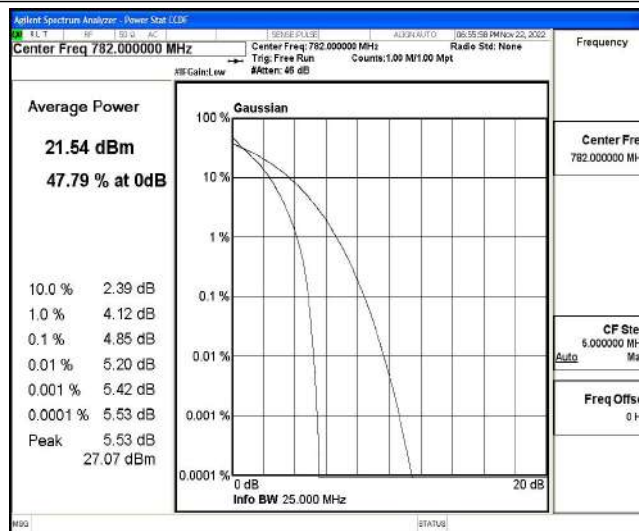


Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

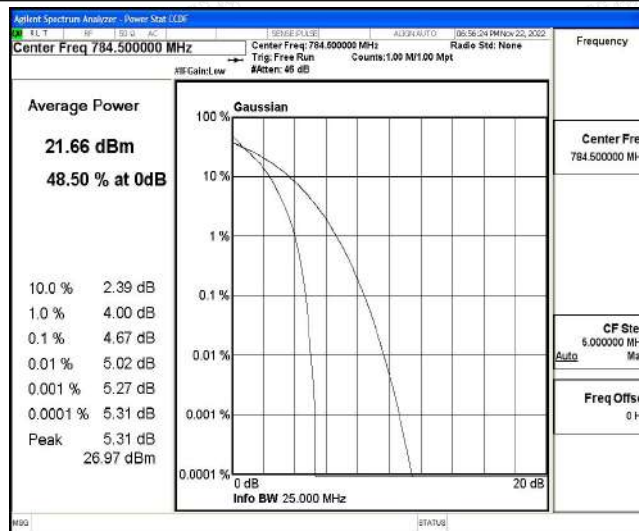


Band13-5MHz-QPSK-23230-25RB#0

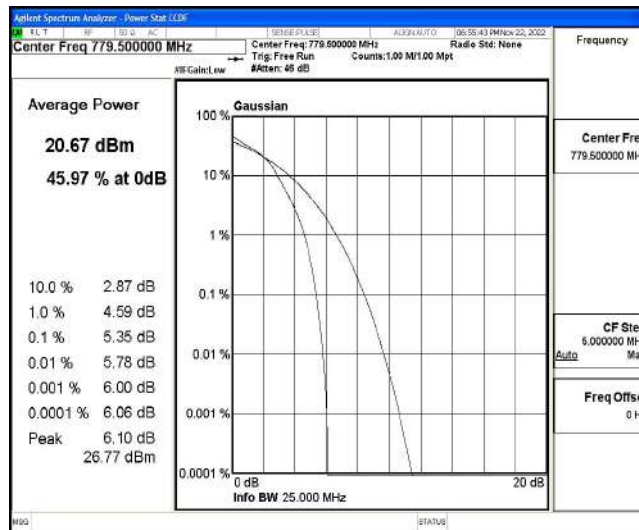


Band13-5MHz-QPSK-23255-25RB#0

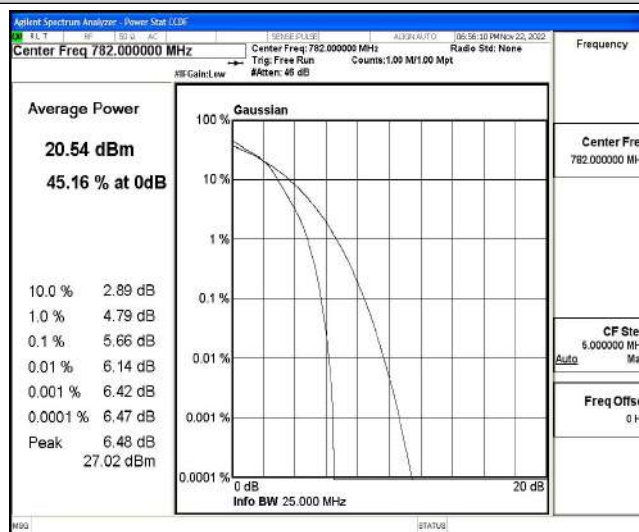




Band13-5MHz-16QAM-23205-25RB#0

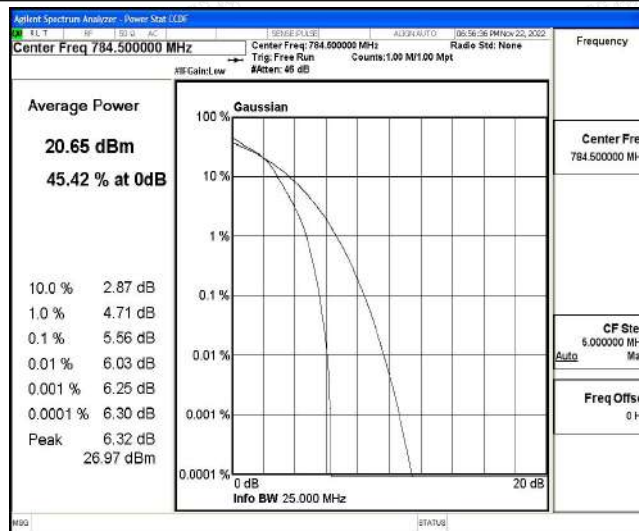


Band13-5MHz-16QAM-23230-25RB#0

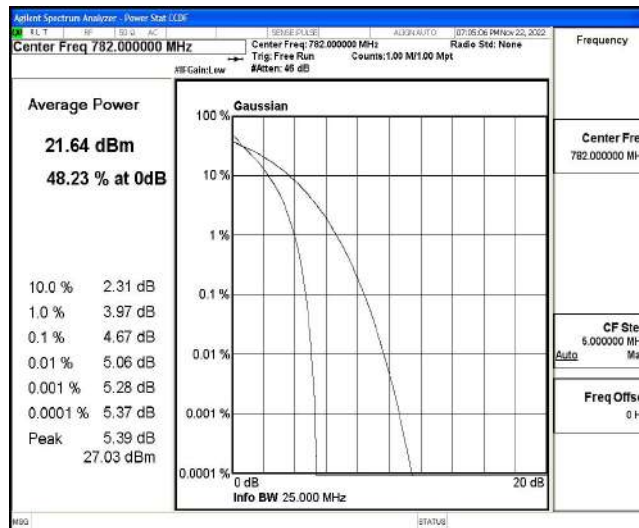


Band13-5MHz-16QAM-23255-25RB#0

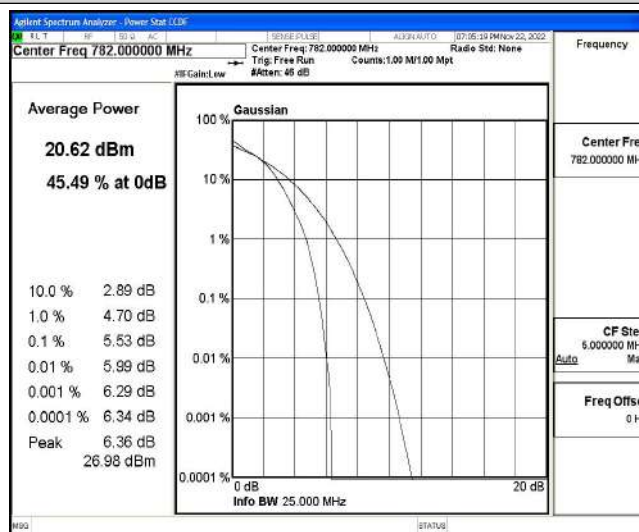




Band13-10MHz-QPSK-23230-50RB#0



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





H.3 26dB Bandwidth and Occupied Bandwidth

Test Result

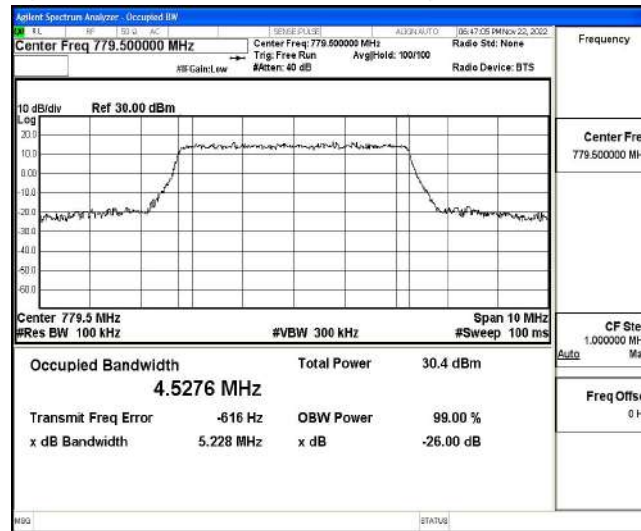
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5276	5.228	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5109	5.202	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5186	5.170	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5168	5.115	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5080	5.093	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5369	5.257	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0042	10.22	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9679	9.963	PASS





Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

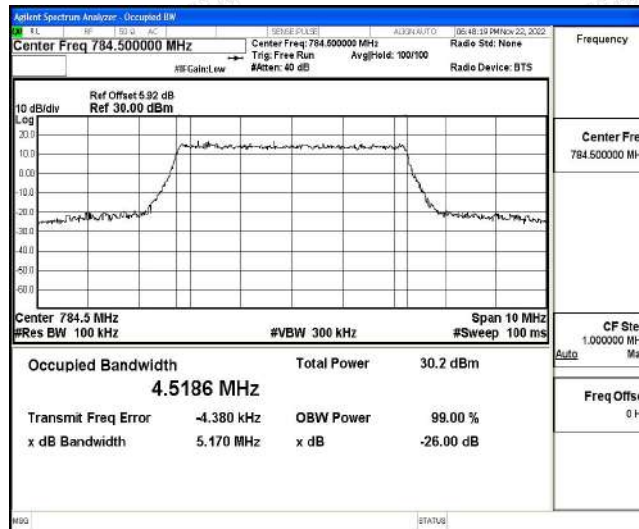


Band13-5MHz-QPSK-23230-25RB#0

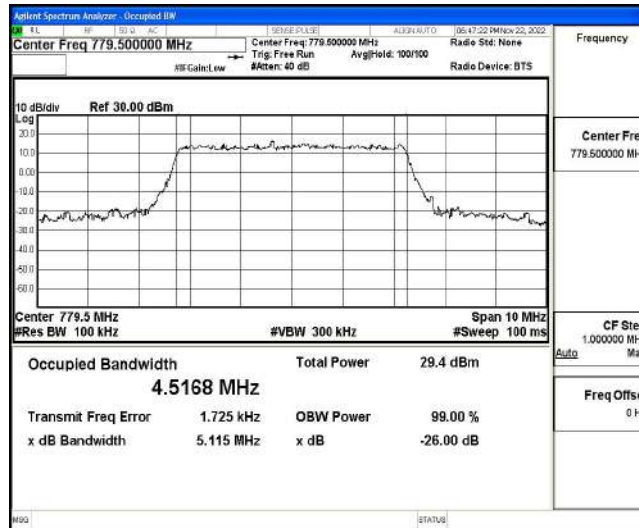


Band13-5MHz-QPSK-23255-25RB#0

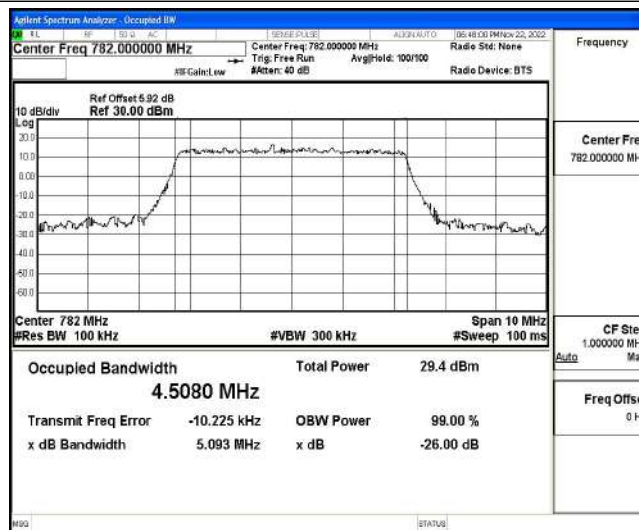




Band13-5MHz-16QAM-23205-25RB#0

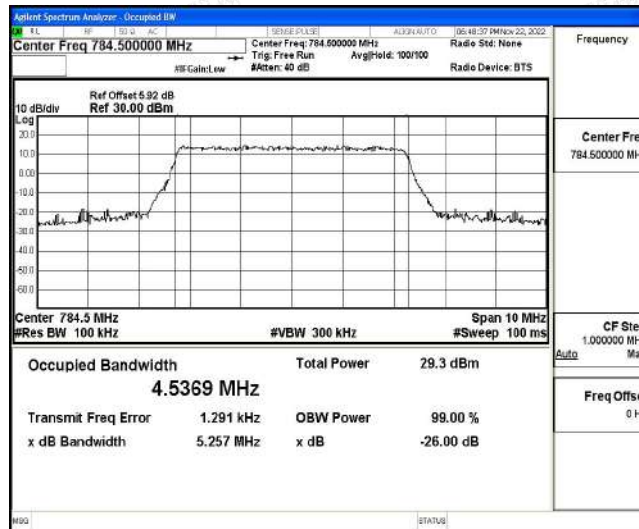


Band13-5MHz-16QAM-23230-25RB#0

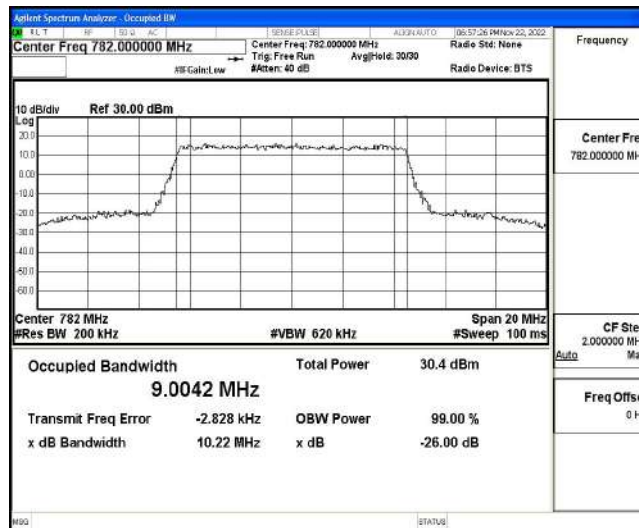


Band13-5MHz-16QAM-23255-25RB#0

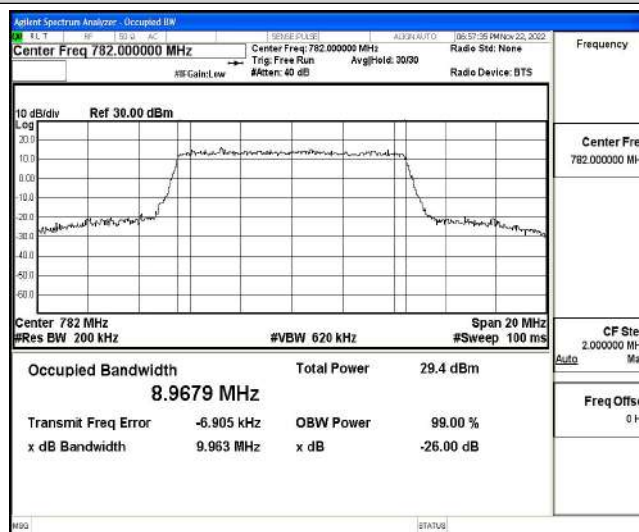




Band13-10MHz-QPSK-23230-50RB#0



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



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H.4 Band Edge

Test Result

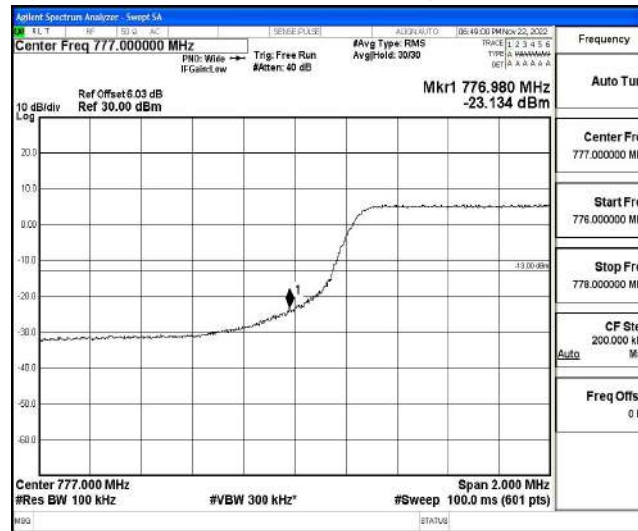
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-23.13	PASS
Band13	5MHz	QPSK	23255	25RB#0	-23.67	PASS
Band13	5MHz	16QAM	23205	25RB#0	-24.24	PASS
Band13	5MHz	16QAM	23255	25RB#0	-24.21	PASS
Band13	10MHz	QPSK	23230	50RB#0	-26.95,-28.02	PASS
Band13	10MHz	16QAM	23230	50RB#0	-29.01,-29.60	PASS



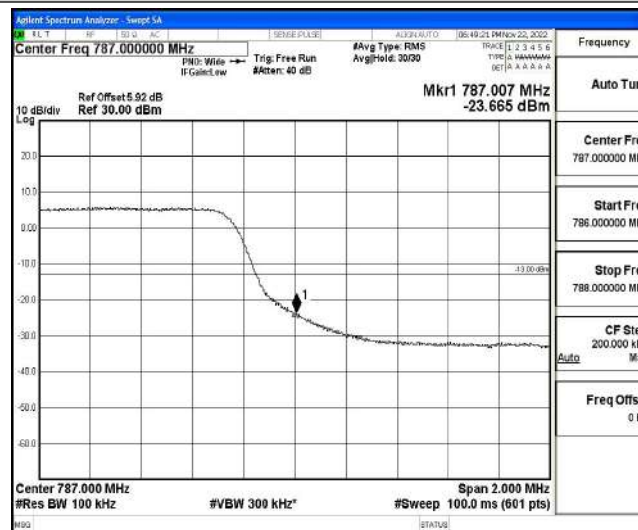


Test Graphs

Band13-5MHz-QPSK-23205-25RB#0

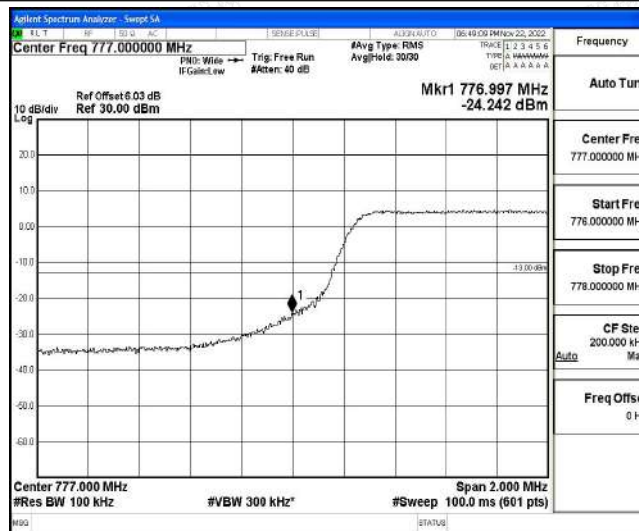


Band13-5MHz-QPSK-23255-25RB#0

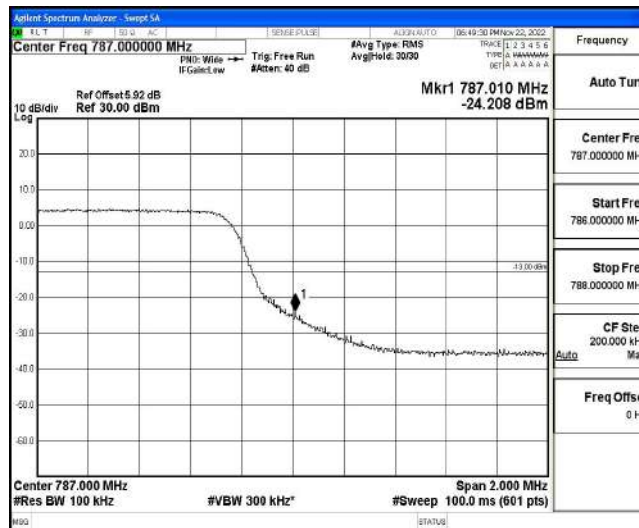


Band13-5MHz-16QAM-23205-25RB#0

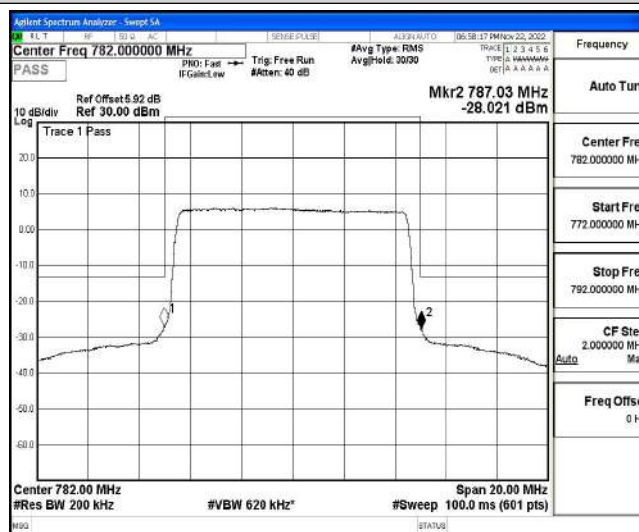




Band13-5MHz-16QAM-23255-25RB#0

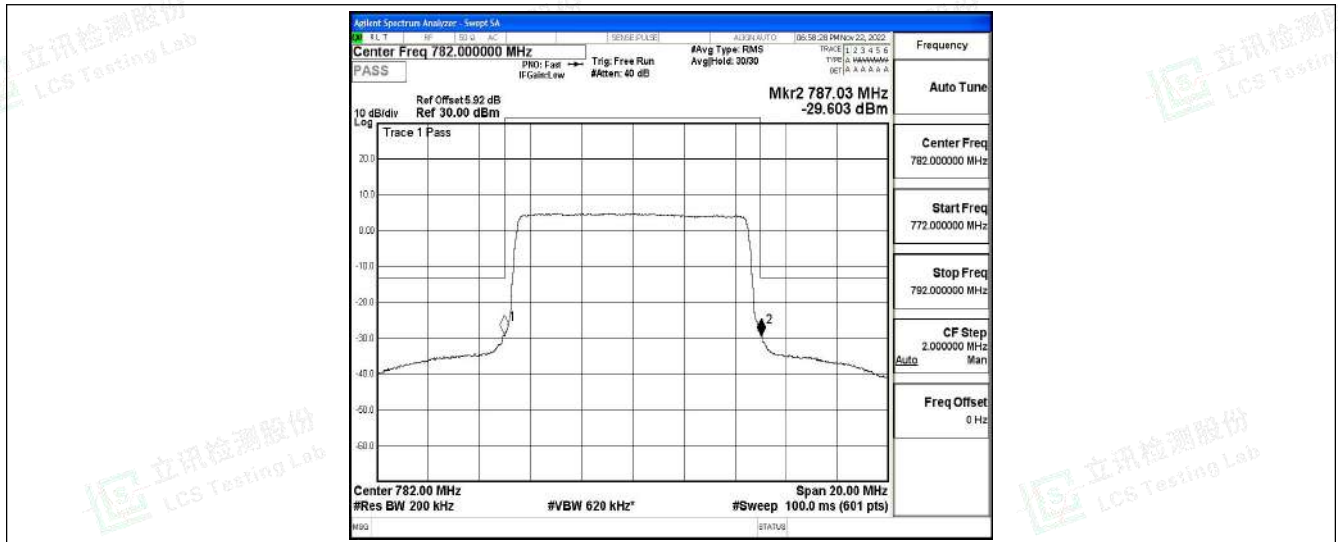


Band13-10MHz-QPSK-23230-50RB#0



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







H.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	-56.23	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:0.15~30MHz	-50.5	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:30~1000MHz	-41.23	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:763~775MHz	-51.02	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range6:793~805MHz	-60.33	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:1000~10000MHz	-45.03	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range7:1559~1610MHz	-62.88	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-55.46	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-52.74	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-40.61	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:763~775MHz	-61.13	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range6:793~805MHz	-60.44	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-43.81	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range7:1559~1610MHz	-64.27	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:0.009~0.15MHz	-56.27	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:0.15~30MHz	-49.9	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:30~1000MHz	-39.45	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:763~775MHz	-59.63	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range6:793~805MHz	-59.68	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:1000~10000MHz	-45.03	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range7:1559~1610MHz	-64.11	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:0.009~0.15MHz	-54.3	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:0.15~30MHz	-52.41	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:30~1000MHz	-40.65	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:763~775MHz	-55.32	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range6:793~805MHz	-60.93	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range4:1000~10000MHz	-45.07	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range7:1559~1610MHz	-62.89	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-54.55	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-51.51	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-40.72	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:763~775MHz	-60.77	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range6:793~805MHz	-61.38	PASS





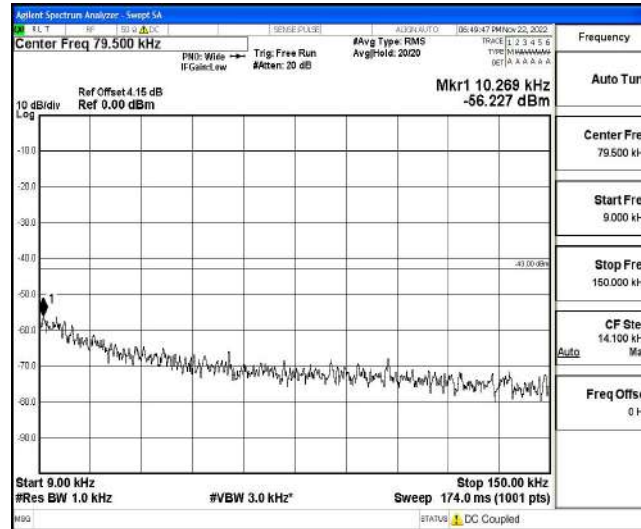
Band13	5MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-44.91	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range7:1559~1610MHz	-64.15	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:0.009~0.15MHz	-55.55	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:0.15~30MHz	-50.16	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:30~1000MHz	-41.19	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:763~775MHz	-59.65	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range6:793~805MHz	-59.64	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:1000~10000MHz	-44.4	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range7:1559~1610MHz	-63.96	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-55.69	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-50.27	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-41.32	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:763~775MHz	-52.03	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range6:793~805MHz	-60.41	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:1000~10000MHz	-44.96	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range7:1559~1610MHz	-62.76	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-56.27	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-51.35	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-41.41	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:763~775MHz	-57.6	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range6:793~805MHz	-60.08	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:1000~10000MHz	-45.12	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range7:1559~1610MHz	-63	PASS



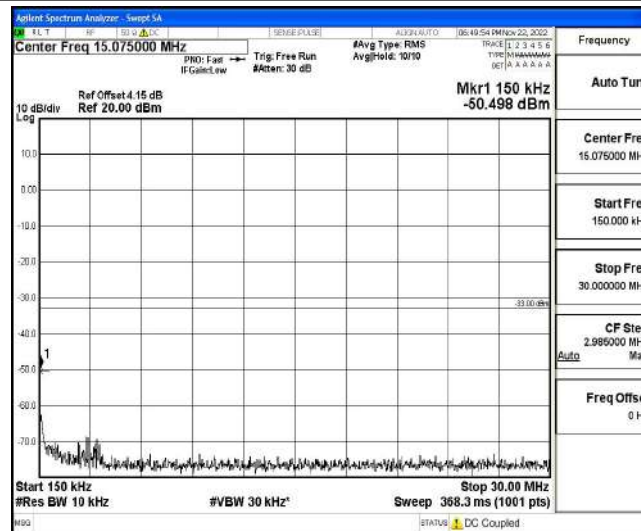


Test Graphs

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

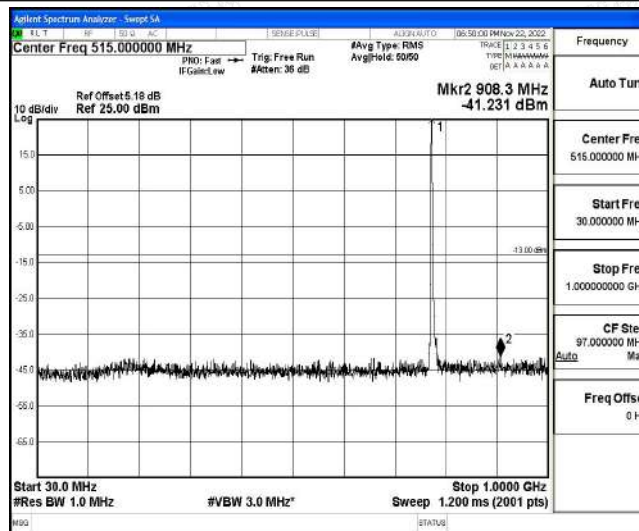


Band13-5MHz-QPSK-23205-1RB#0-Range2:0.15~30MHz

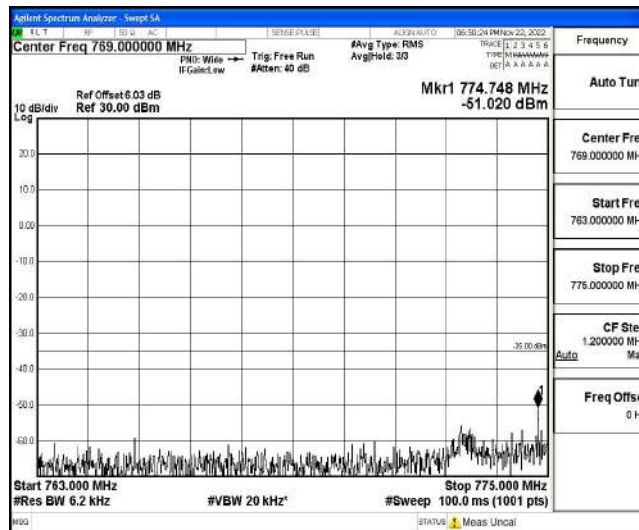


Band13-5MHz-QPSK-23205-1RB#0-Range3:30~1000MHz

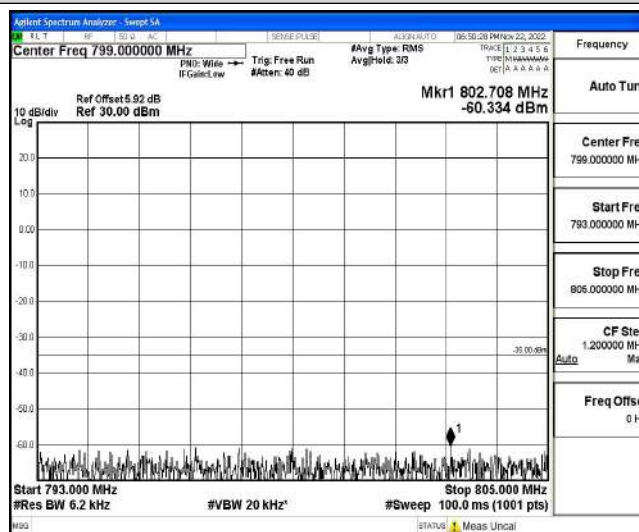




Band13-5MHz-QPSK-23205-1RB#0-Range5:763~775MHz



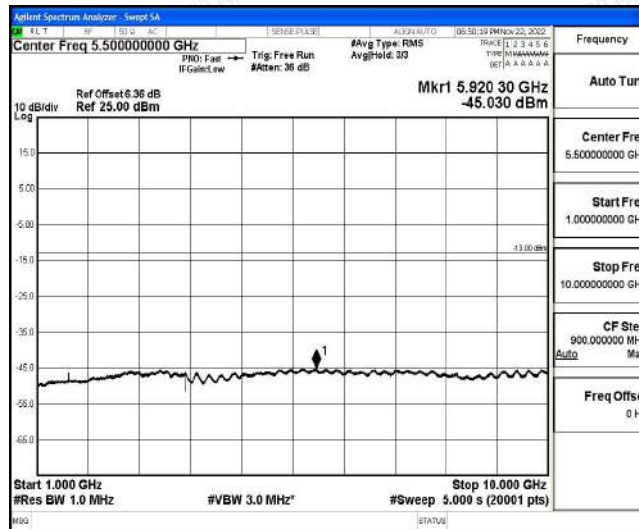
Band13-5MHz-QPSK-23205-1RB#0-Range6:793~805MHz



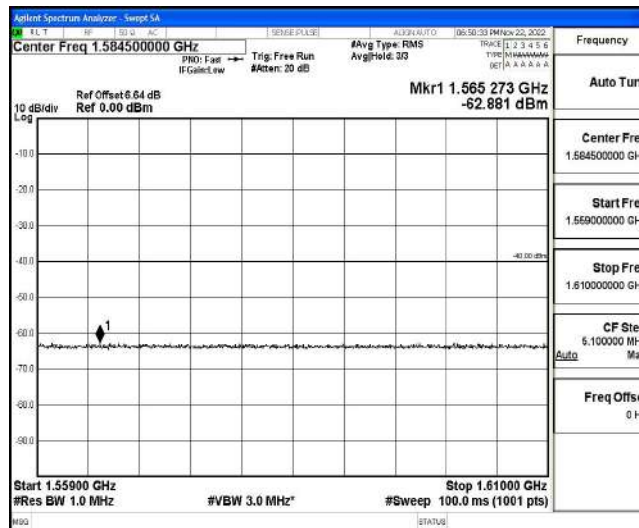
Band13-5MHz-QPSK-23205-1RB#0-Range4:1000~10000MHz



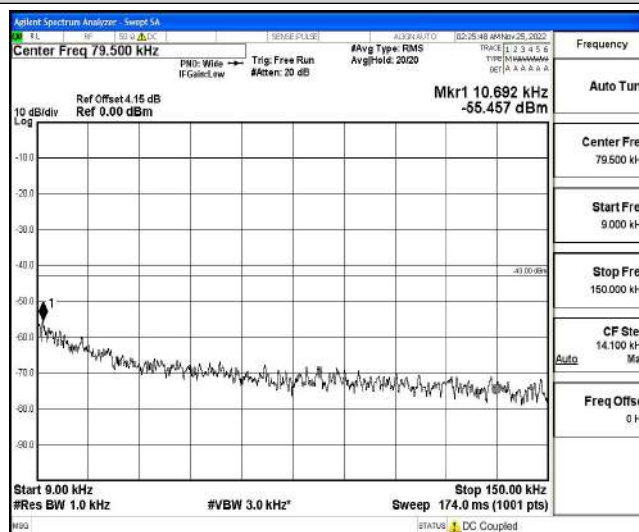
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Band13-5MHz-QPSK-23205-1RB#0-Range7:1559~1610MHz

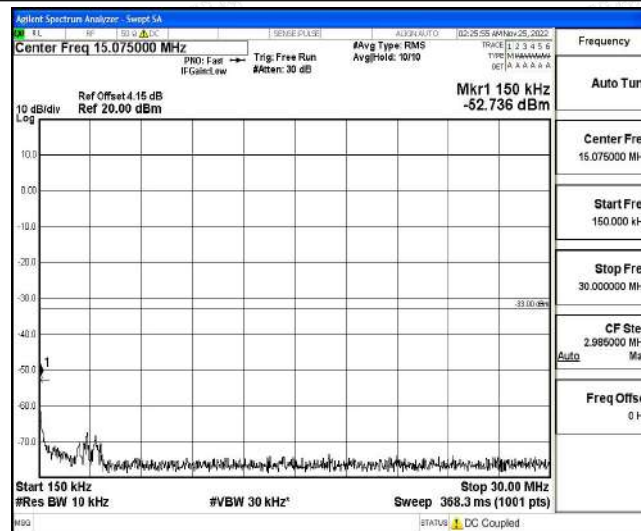


Band13-5MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz

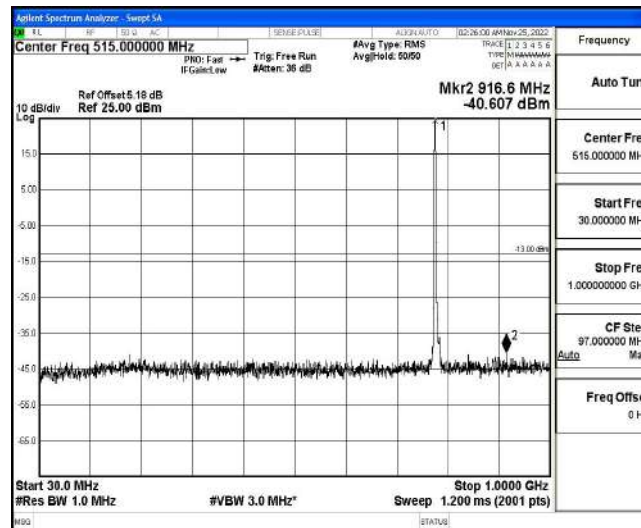


Band13-5MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz

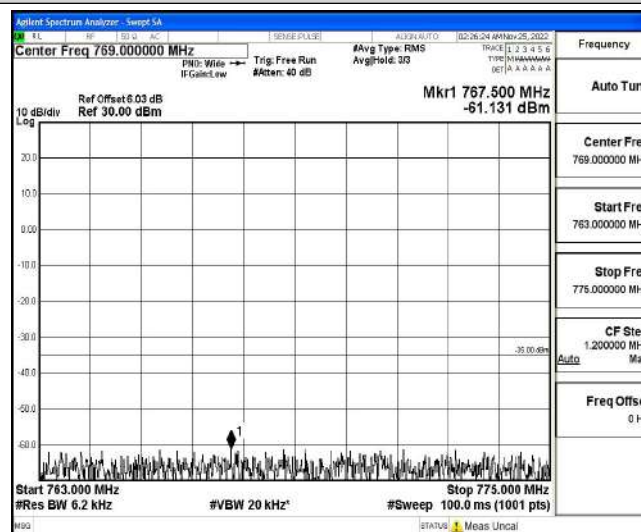




Band13-5MHz-QPSK-23230-1RB#0-Range3:30~1000MHz

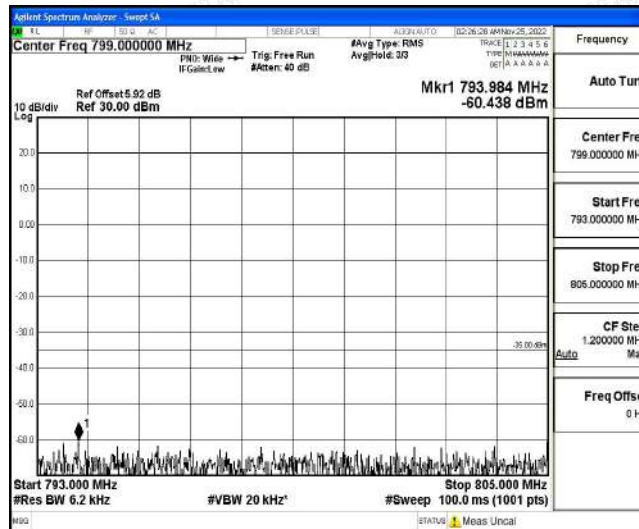


Band13-5MHz-QPSK-23230-1RB#0-Range5:763~775MHz

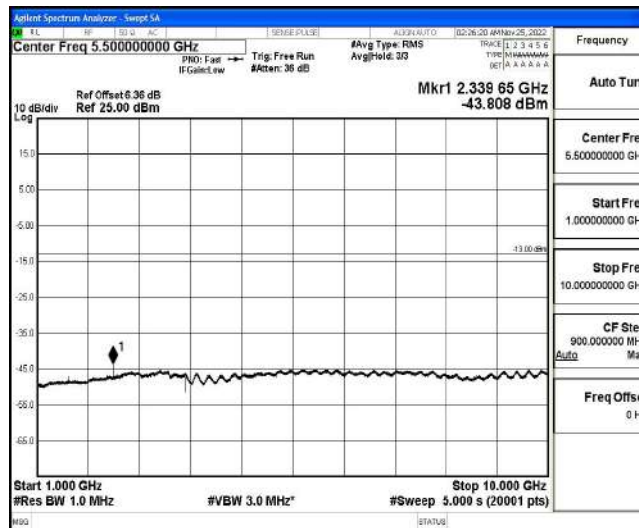


Band13-5MHz-QPSK-23230-1RB#0-Range6:793~805MHz

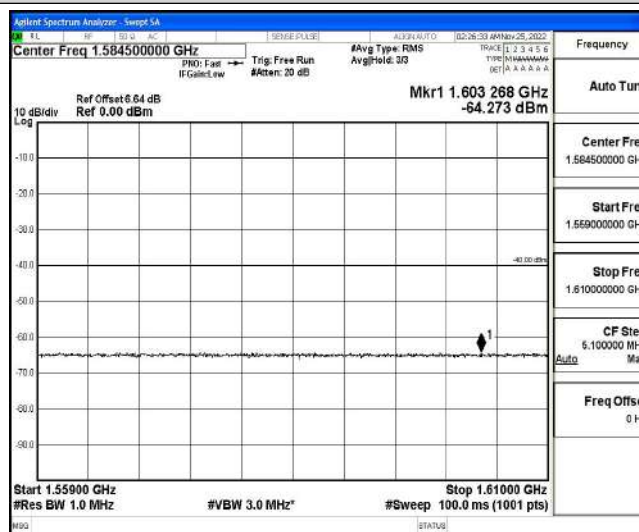




Band13-5MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz

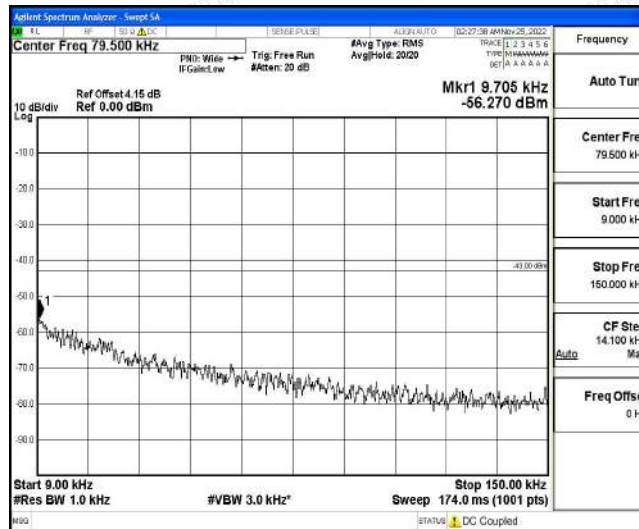


Band13-5MHz-QPSK-23230-1RB#0-Range7:1559~1610MHz

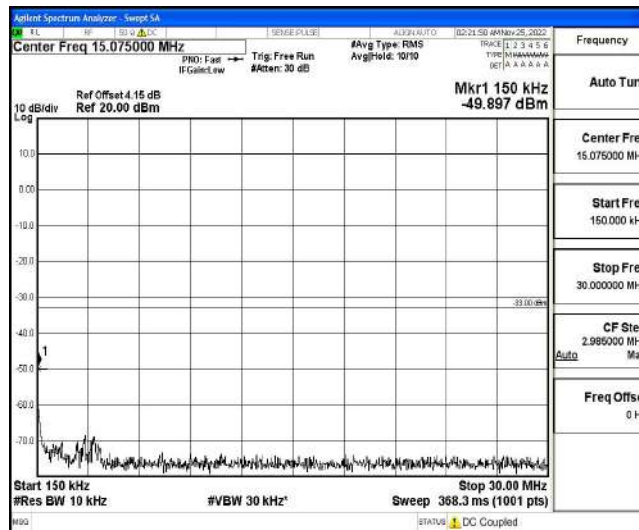


Band13-5MHz-QPSK-23255-1RB#0-Range1:0.009~0.15MHz

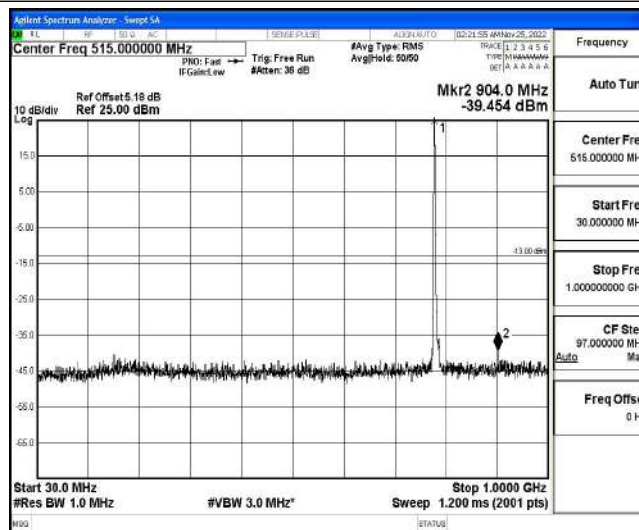




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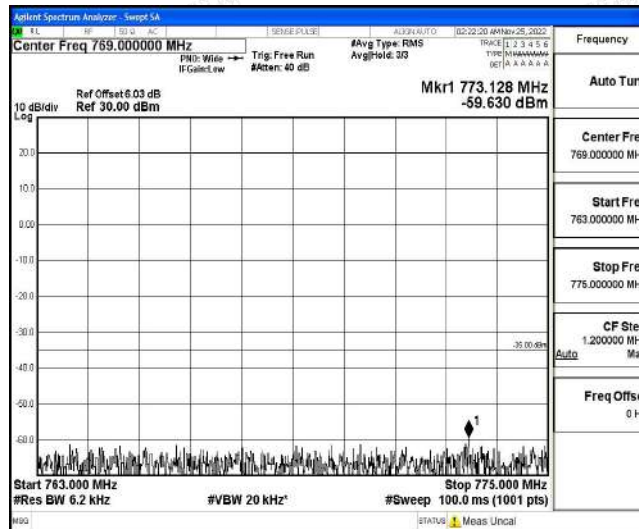


Band13-5MHz-QPSK-23255-1RB#0-Range3:30~1000MHz

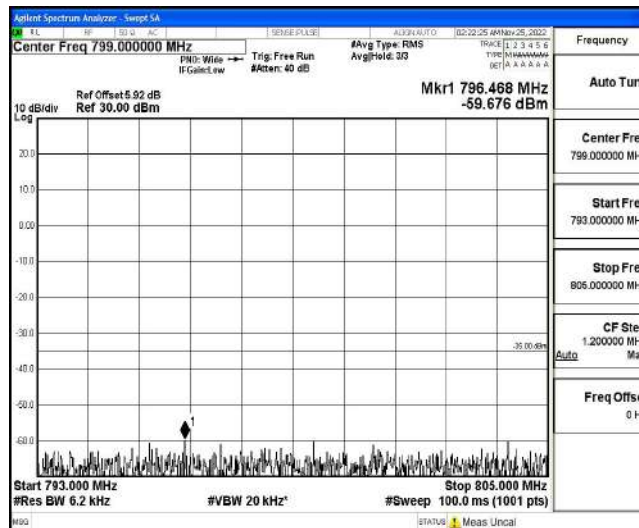


Band13-5MHz-QPSK-23255-1RB#0-Range5:763~775MHz

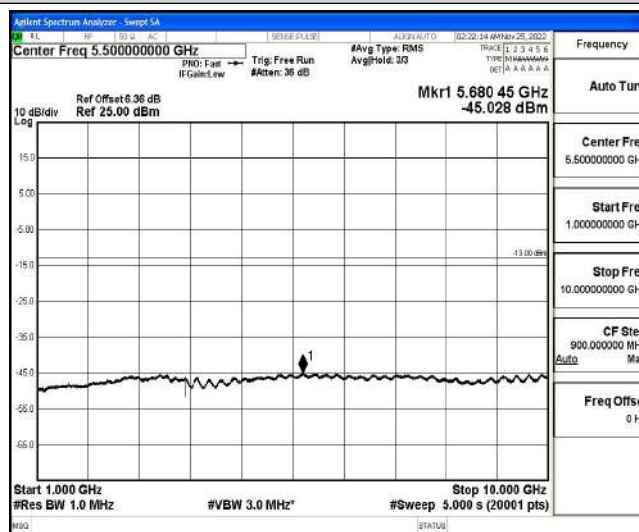




Band13-5MHz-QPSK-23255-1RB#0-Range6:793~805MHz

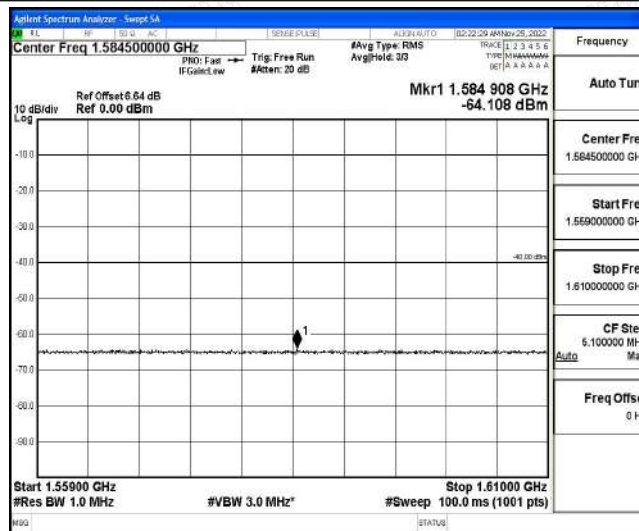


Band13-5MHz-QPSK-23255-1RB#0-Range4:1000~10000MHz

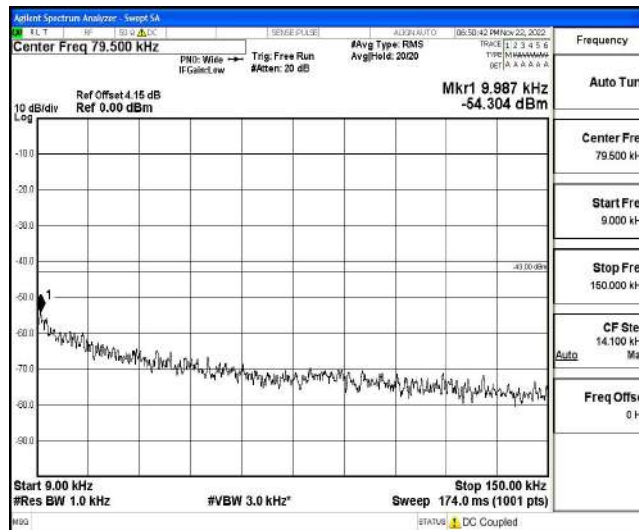


Band13-5MHz-QPSK-23255-1RB#0-Range7:1559~1610MHz

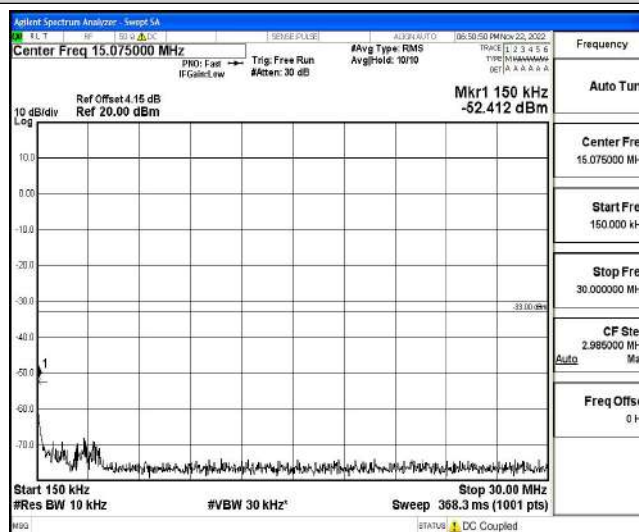




Band13-5MHz-16QAM-23205-1RB#0-Range1:0.009~0.15MHz

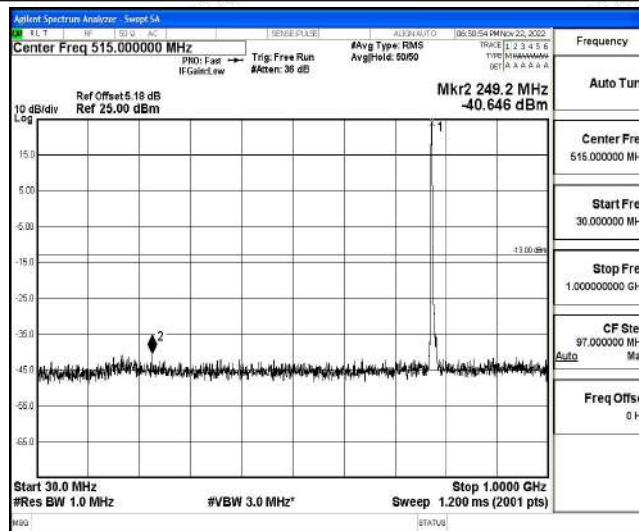


Band13-5MHz-16QAM-23205-1RB#0-Range2:0.15~30MHz

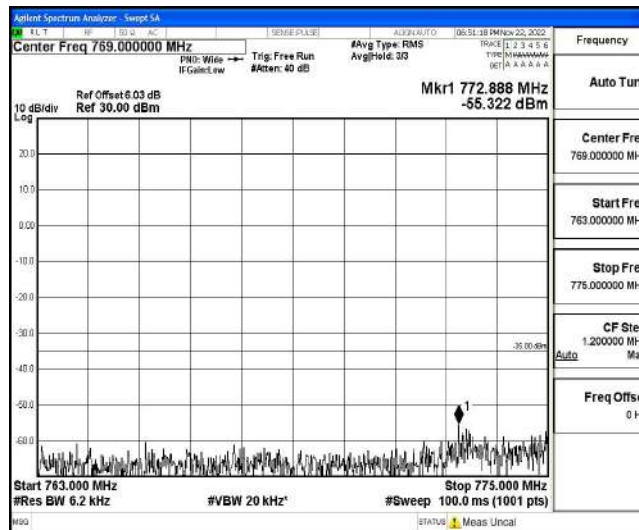


Band13-5MHz-16QAM-23205-1RB#0-Range3:30~1000MHz

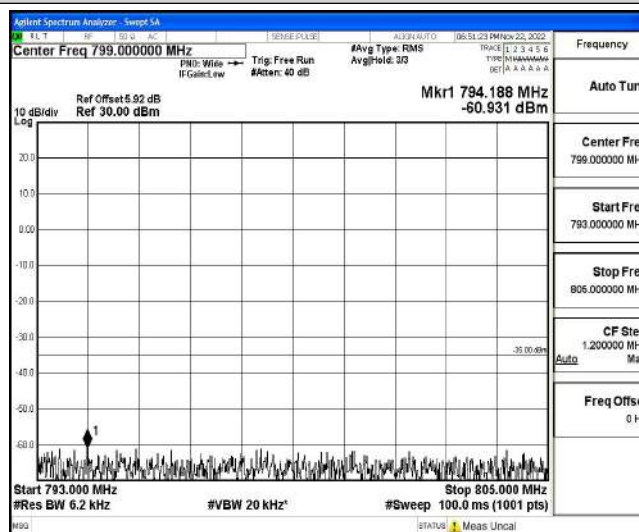




Band13-5MHz-16QAM-23205-1RB#0-Range5:763~775MHz

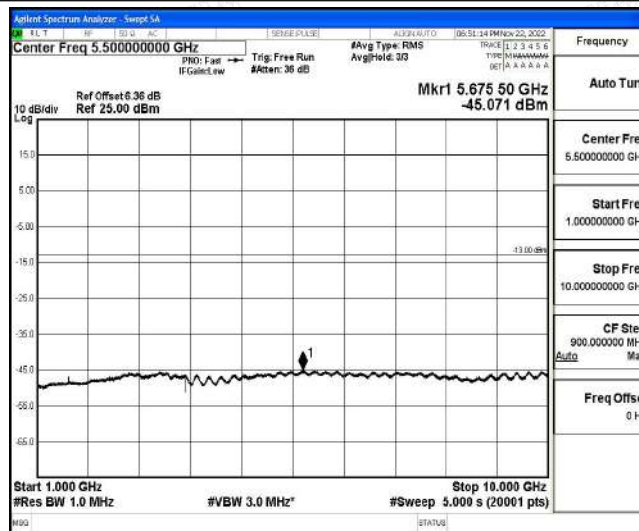


Band13-5MHz-16QAM-23205-1RB#0-Range6:793~805MHz

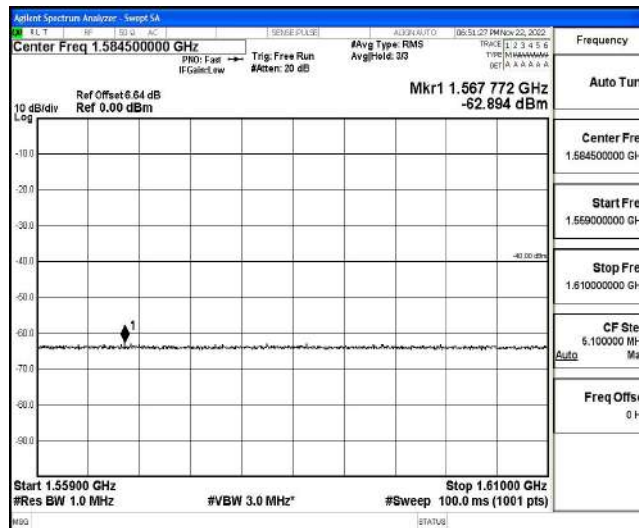


Band13-5MHz-16QAM-23205-1RB#0-Range4:1000~10000MHz

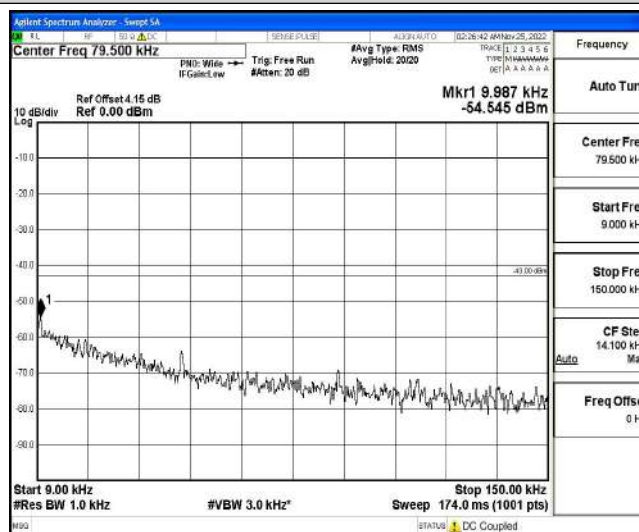




Band13-5MHz-16QAM-23205-1RB#0-Range7:1559~1610MHz

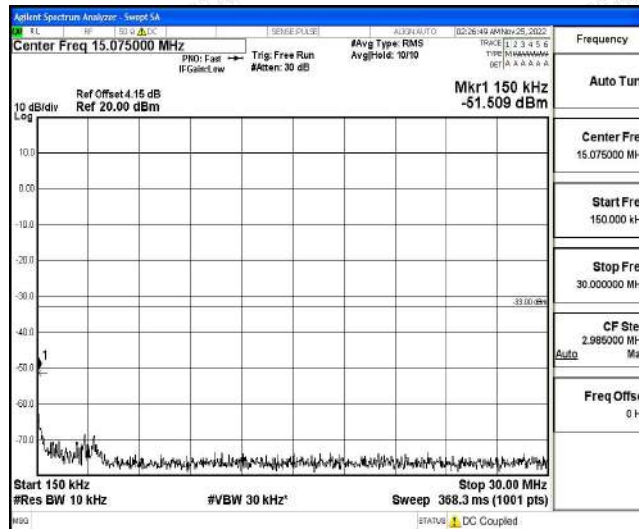


Band13-5MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz

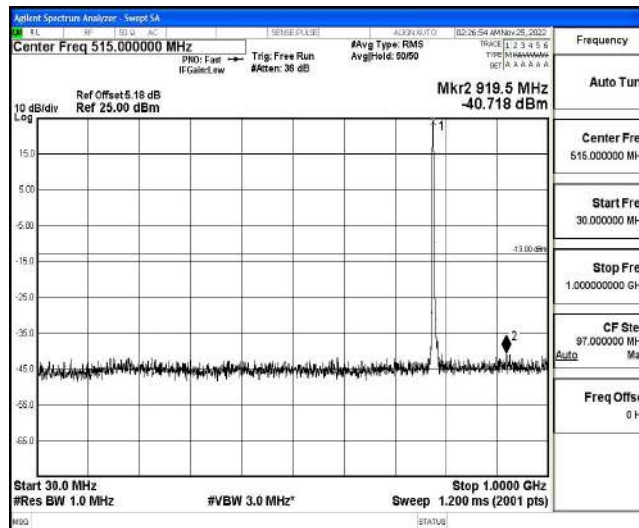


Band13-5MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz

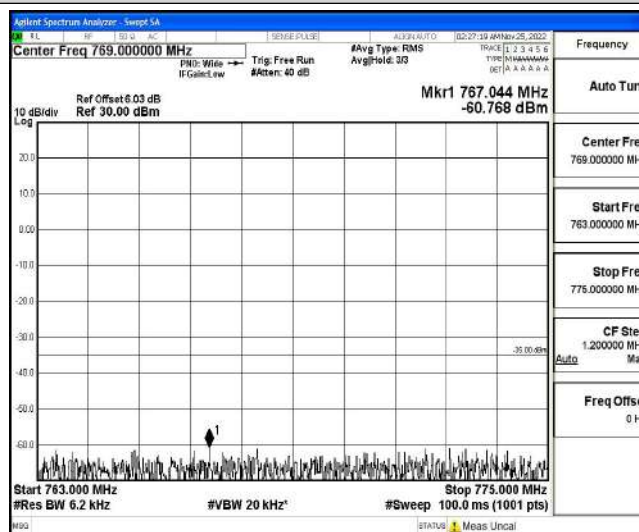




Band13-5MHz-16QAM-23230-1RB#0-Range3:30~1000MHz

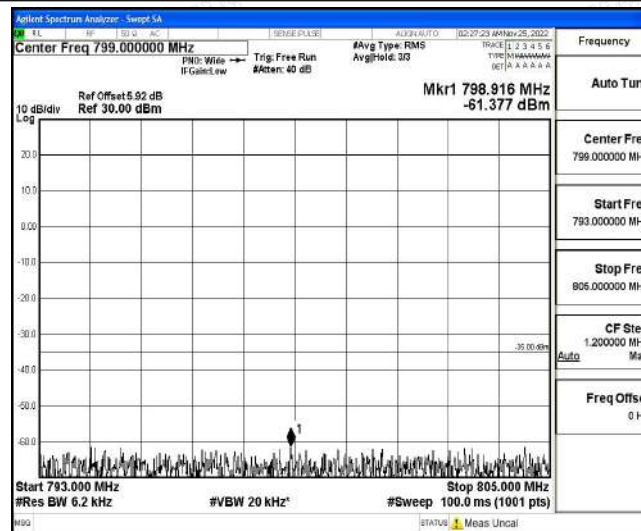


Band13-5MHz-16QAM-23230-1RB#0-Range5:763~775MHz

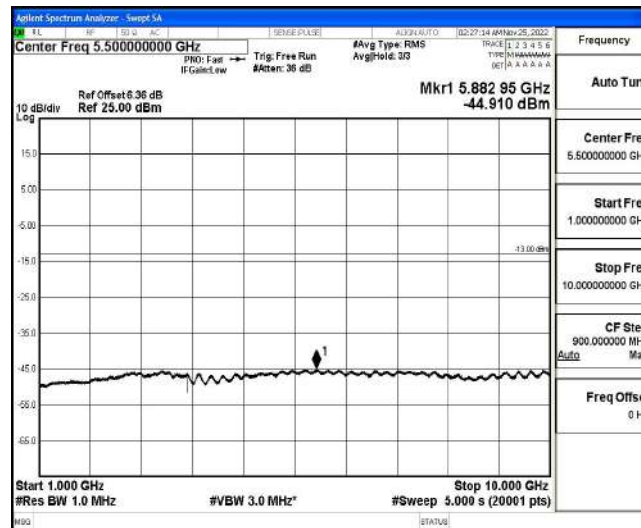


Band13-5MHz-16QAM-23230-1RB#0-Range6:793~805MHz

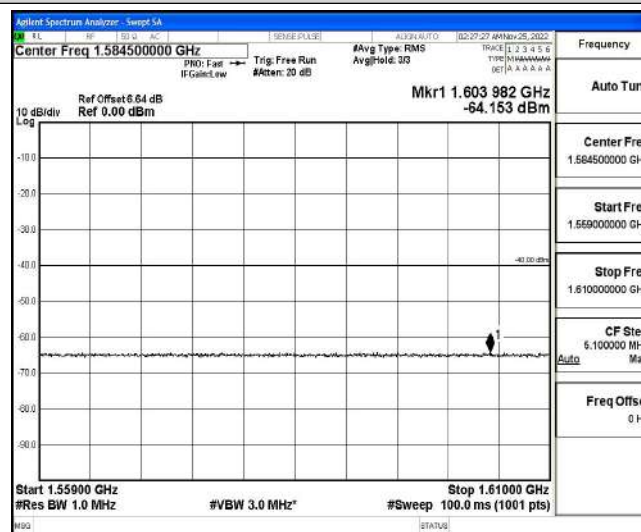




Band13-5MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz

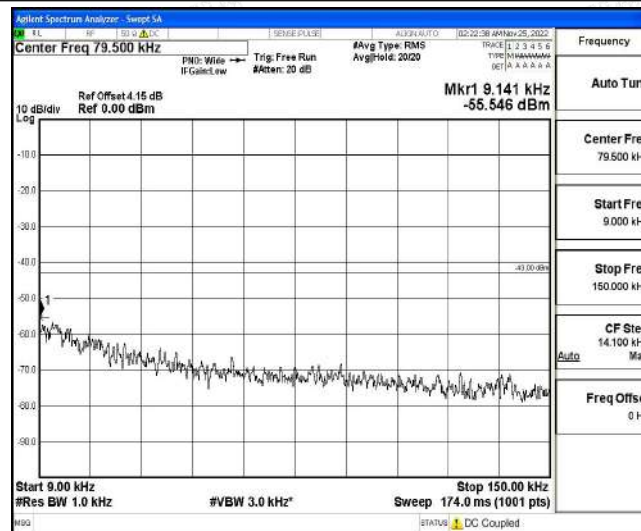


Band13-5MHz-16QAM-23230-1RB#0-Range7:1559~1610MHz

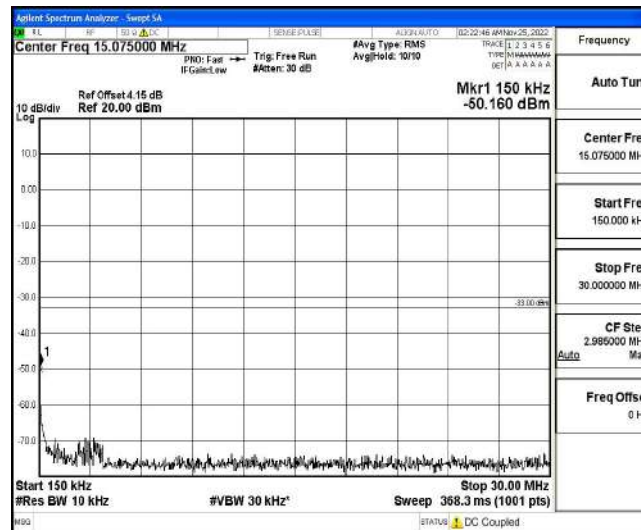


Band13-5MHz-16QAM-23255-1RB#0-Range1:0.009~0.15MHz

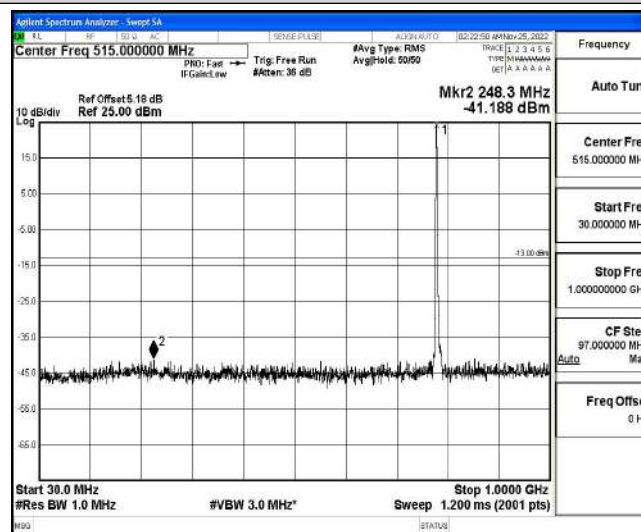




Band13-5MHz-16QAM-23255-1RB#0-Range2:0.15~30MHz

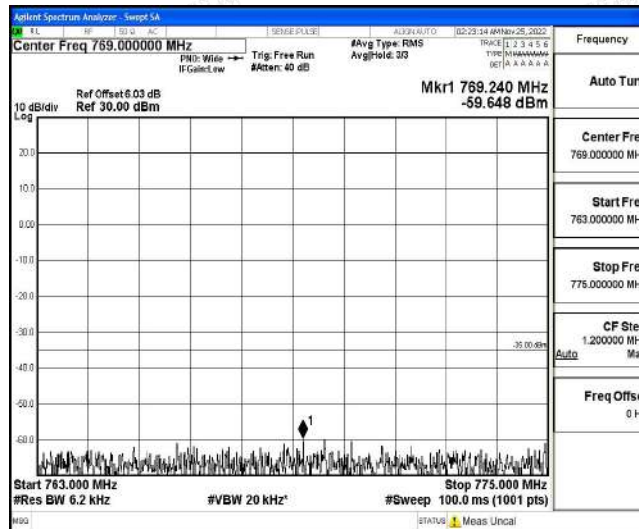


Band13-5MHz-16QAM-23255-1RB#0-Range3:30~1000MHz

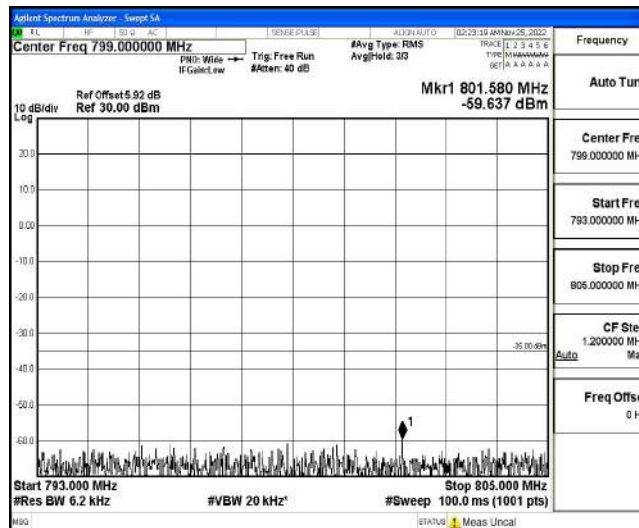


Band13-5MHz-16QAM-23255-1RB#0-Range5:763~775MHz

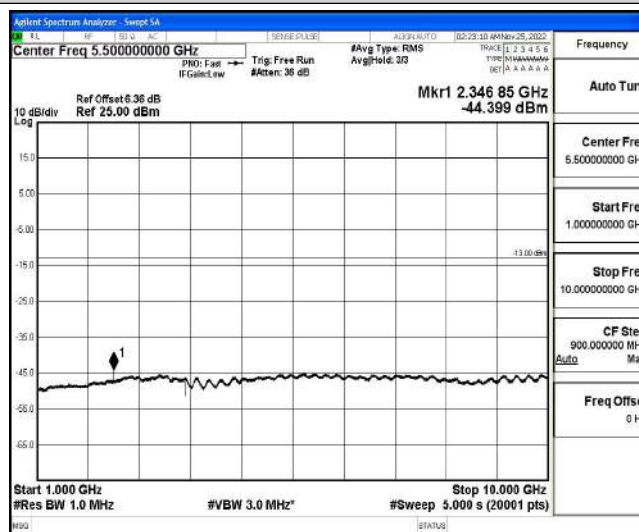




Band13-5MHz-16QAM-23255-1RB#0-Range6:793~805MHz



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



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

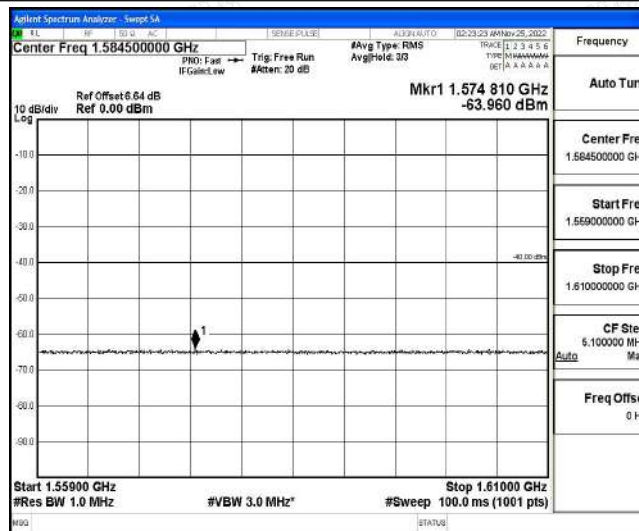


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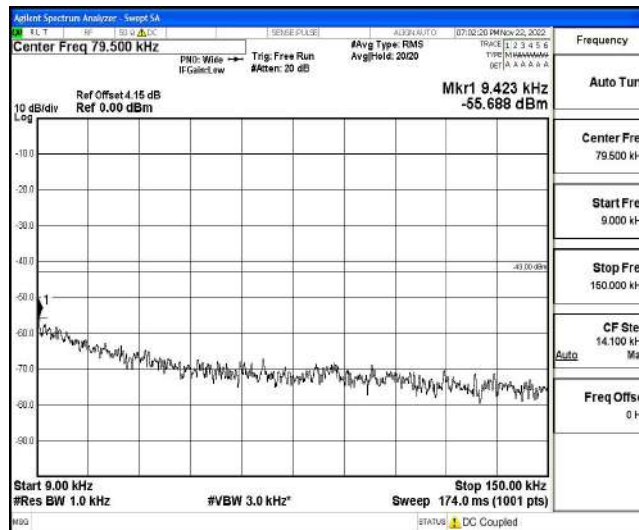
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

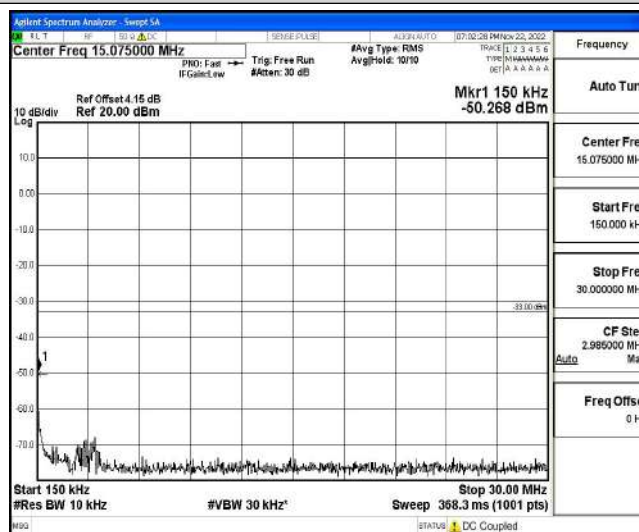
Scan code to check authenticity



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

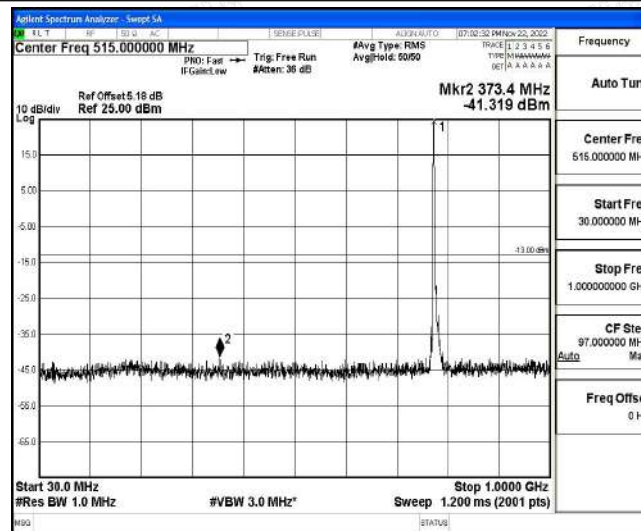


Band13-10MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz

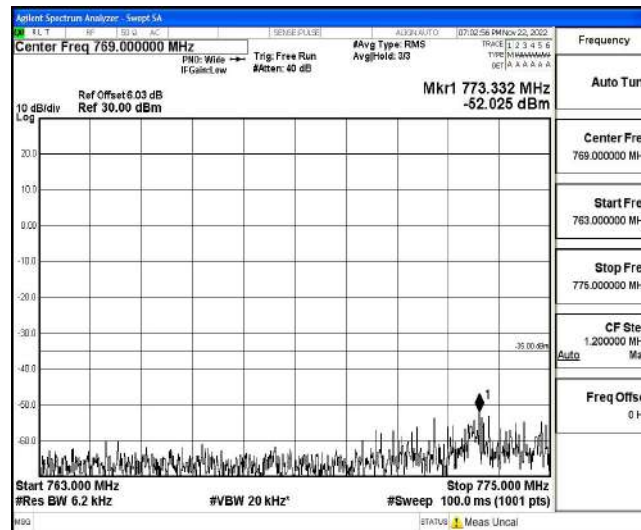


Band13-10MHz-QPSK-23230-1RB#0-Range3:30~1000MHz

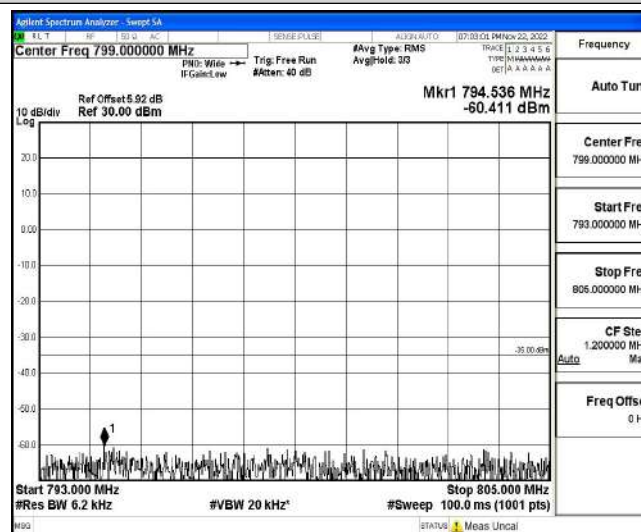




Band13-10MHz-QPSK-23230-1RB#0-Range5:763~775MHz

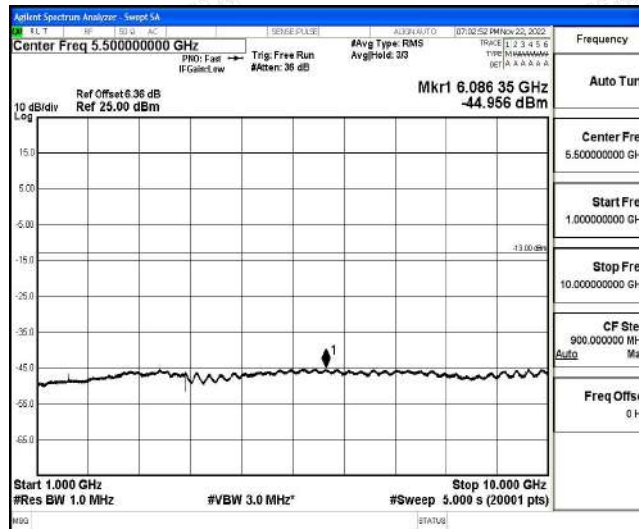


Band13-10MHz-QPSK-23230-1RB#0-Range6:793~805MHz

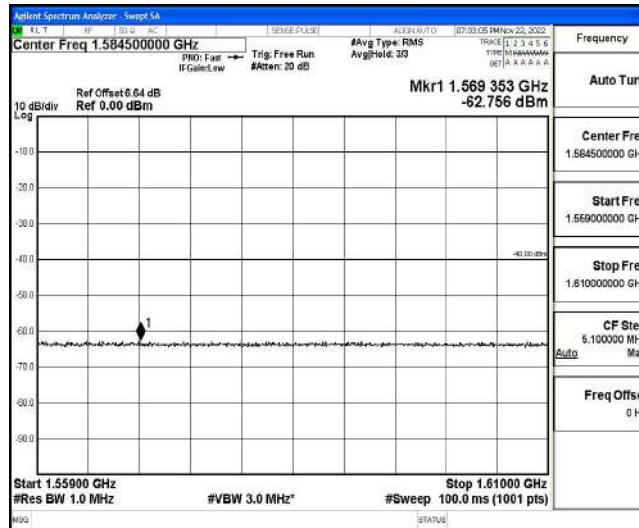


Band13-10MHz-QPSK-23230-1RB#0-Range4:1000~10000MHz

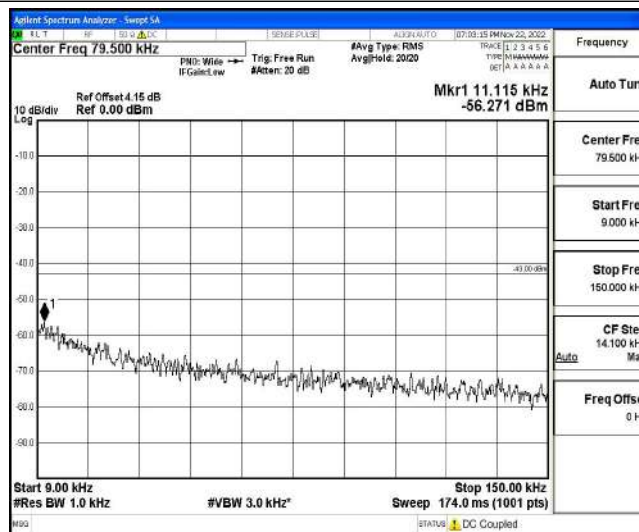




Band13-10MHz-QPSK-23230-1RB#0-Range7:1559~1610MHz

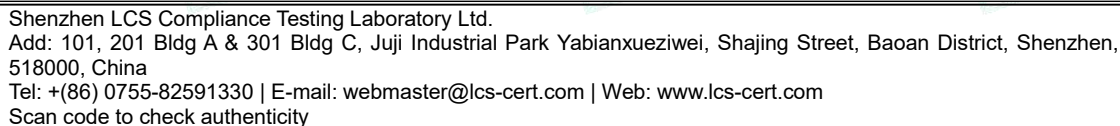
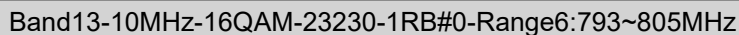
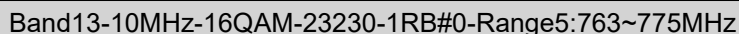
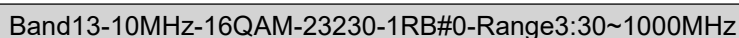


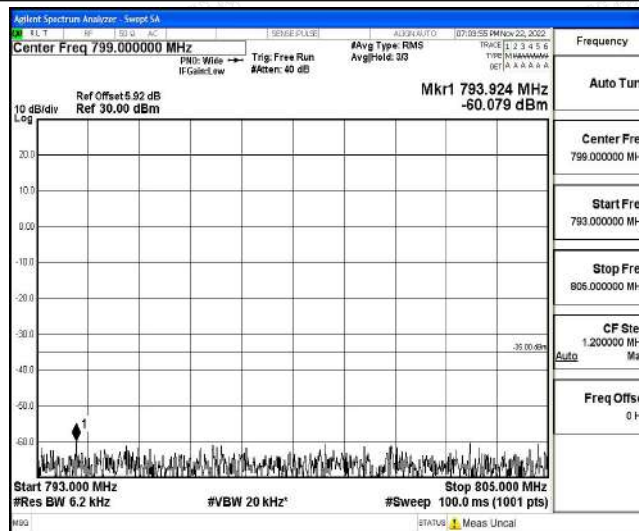
Band13-10MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



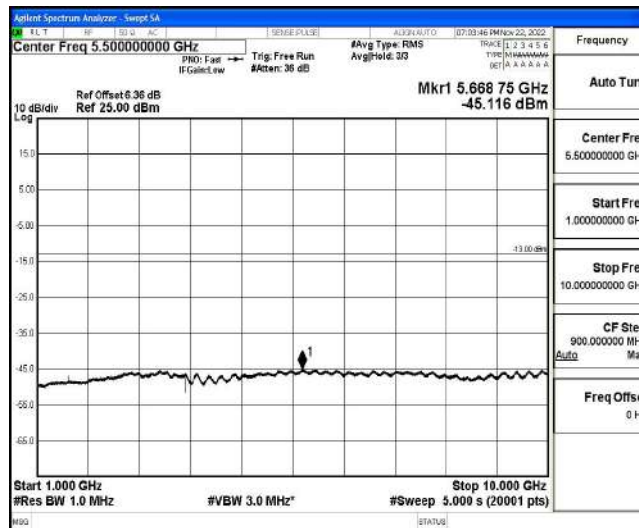
Band13-10MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



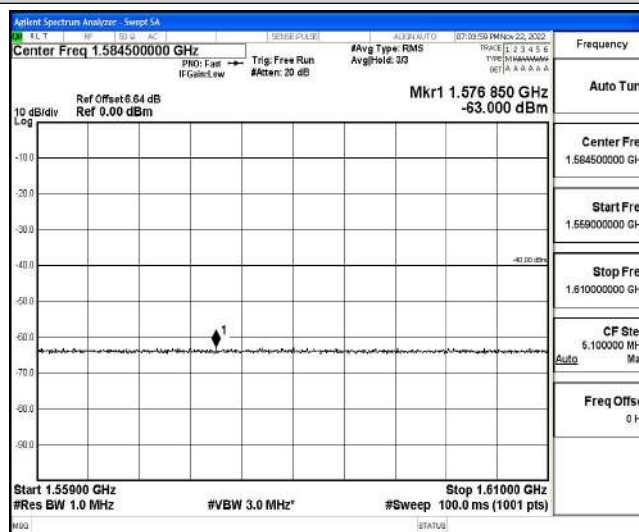




Band13-10MHz-16QAM-23230-1RB#0-Range4:1000~10000MHz



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



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