Appendix G: Test Data for E-UTRA Band 12

Product Name: 4G PHONE

Test Model: MiniVision2

Environmental Conditions

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

G.1 Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	22.59	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	22.74	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	22.73	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	22.56	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	22.47	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	22.62	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.43	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.02	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.00	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.01	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.04	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	22.99	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	22.90	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.87	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.51	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.31	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.43	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.37	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.36	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.35	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.50	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	21.37	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	21.55	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	21.68	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	21.30	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	21.23	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	21.34	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.40	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	21.97	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.00	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.15	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	21.80	PASS

Band12	1.4MHz	16QAM	23095	3RB#1	21.73	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	21.69	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.86	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.43	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.55	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.19	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.29	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.15	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.44	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.39	PASS
Band12	3MHz	QPSK	23025	1RB#0	22.07	PASS
Band12	3MHz	QPSK	23025	1RB#8	22.91	PASS
Band12	3MHz	QPSK	23025	1RB#14	22.87	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.09	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.11	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.11	PASS
Band12	3MHz	QPSK	23025	15RB#0	21.99	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.05	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.02	PASS
Band12	3MHz	QPSK	23095	1RB#14	22.96	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.16	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.08	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.04	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.22	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.27	PASS
Band12	3MHz	QPSK	23165	1RB#8	22.92	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.84	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.06	PASS
Band12	3MHz	QPSK	23165	8RB#4	21.95	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.09	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.05	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.92	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.42	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.93	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.00	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.24	PASS
Band12	3MHz	16QAM	23025	8RB#7	20.94	PASS

Band12	3MHz	16QAM	23025	15RB#0	20.75	PASS
Band12	3MHz	16QAM	23095	1RB#0	21.80	PASS
Band12	3MHz	16QAM	23095	1RB#8	21.96	PASS
Band12	3MHz	16QAM	23095	1RB#14	21.78	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.17	PASS
Band12	3MHz	16QAM	23095	8RB#4	20.99	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.06	PASS
Band12	3MHz	16QAM	23095	15RB#0	20.95	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.05	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.75	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.93	PASS
Band12	3MHz	16QAM	23165	8RB#0	20.86	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.36	PASS
Band12	3MHz	16QAM	23165	8RB#7	20.95	PASS
Band12	3MHz	16QAM	23165	15RB#0	20.93	PASS
Band12	5MHz	QPSK	23035	1RB#0	22.89	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.06	PASS
Band12	5MHz	QPSK	23035	1RB#24	22.94	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.05	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.18	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.11	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.20	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.14	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.50	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.29	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.50	PASS
Band12	5MHz	QPSK	23095	12RB#6	23.07	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.41	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.11	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.31	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.31	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.25	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.42	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.41	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.30	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.15	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.80	PASS

Band12	5MHz	16QAM	23035	1RB#12	21.95	PASS
Band12	5MHz	16QAM	23035	1RB#24	21.97	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.11	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.15	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.07	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.43	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.16	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.40	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.45	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.52	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.51	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.46	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.46	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.17	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.32	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.28	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.44	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.41	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.14	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.25	PASS
Band12	10MHz	QPSK	23060	1RB#0	21.82	PASS
Band12	10MHz	QPSK	23060	1RB#24	22.94	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.30	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.35	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.30	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.52	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.34	PASS
Band12	10MHz	QPSK	23095	1RB#0	22.03	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.11	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.04	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.54	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.50	PASS
Band12	10MHz	QPSK	23095	25RB#25	23.00	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.70	PASS
Band12	10MHz	QPSK	23130	1RB#0	21.92	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.62	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.82	PASS

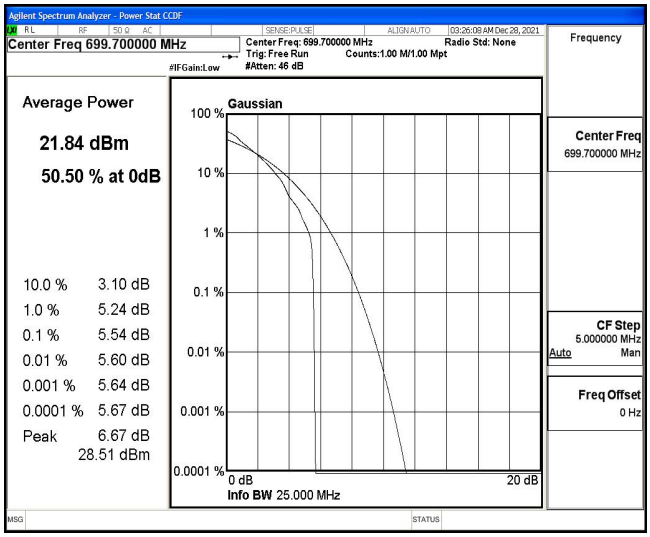
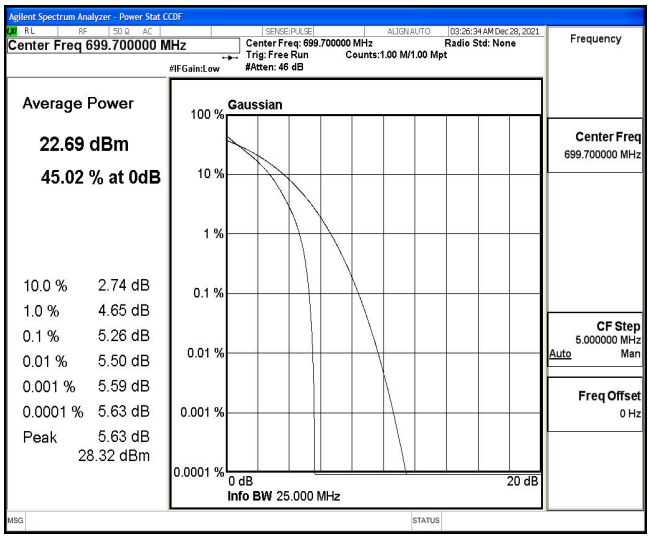
Band12	10MHz	QPSK	23130	25RB#0	22.73	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.70	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.27	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.60	PASS
Band12	10MHz	16QAM	23060	1RB#0	20.75	PASS
Band12	10MHz	16QAM	23060	1RB#24	21.91	PASS
Band12	10MHz	16QAM	23060	1RB#49	21.32	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.30	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.26	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.47	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.63	PASS
Band12	10MHz	16QAM	23095	1RB#0	21.02	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.11	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.05	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.49	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.46	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.86	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.68	PASS
Band12	10MHz	16QAM	23130	1RB#0	20.82	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.47	PASS
Band12	10MHz	16QAM	23130	1RB#49	21.68	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.73	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.43	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.32	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.42	PASS

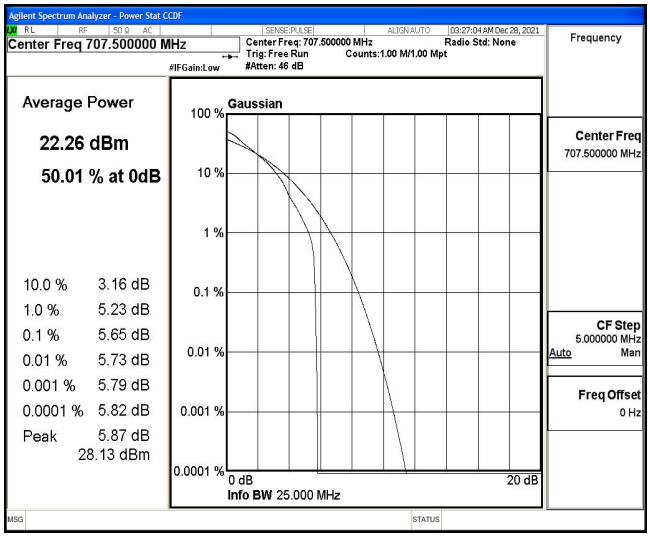
G.2 Peak-to-Average Ratio(CCDF)

Test Result

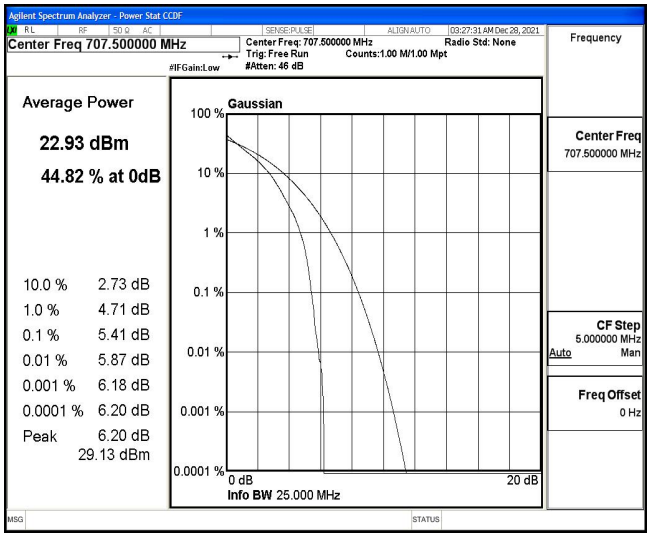
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	5.54	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.26	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	5.65	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.41	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	3.90	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	4.69	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	5.96	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.22	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	6.87	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.34	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	4.76	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	5.57	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	4.68	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.42	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	4.90	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.55	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	4.34	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	4.89	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	6.01	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.18	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	6.56	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.39	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	4.91	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	5.71	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	5.49	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.33	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	5.47	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.46	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	4.58	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.85	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	6.40	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.17	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	6.27	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.29	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	5.51	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	5.71	13	PASS

Test Graphs

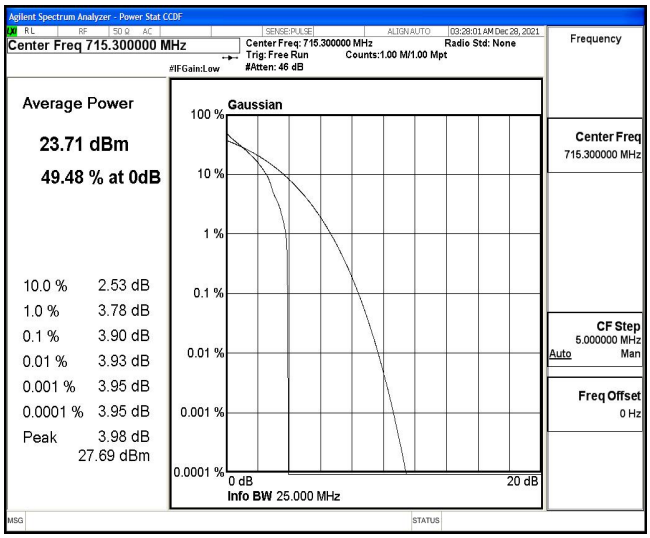
Band12-1.4MHz-QPSK-23017-1RB#0

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

Band12-1.4MHz-QPSK-23095-1RB#0



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



Band12-1.4MHz-QPSK-23173-1RB#0



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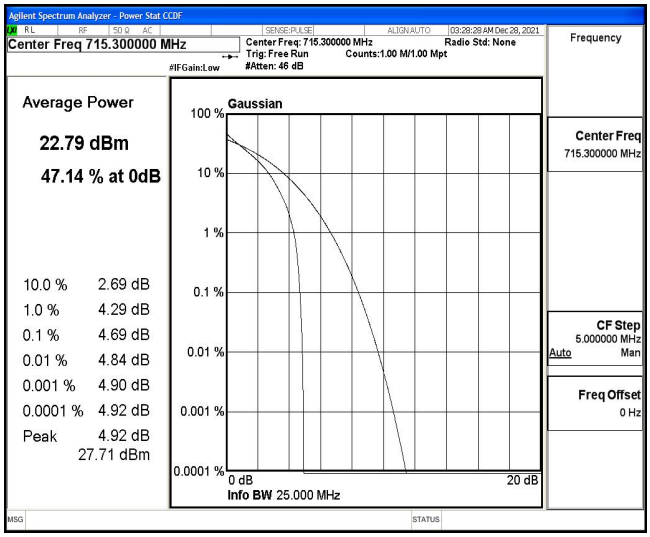
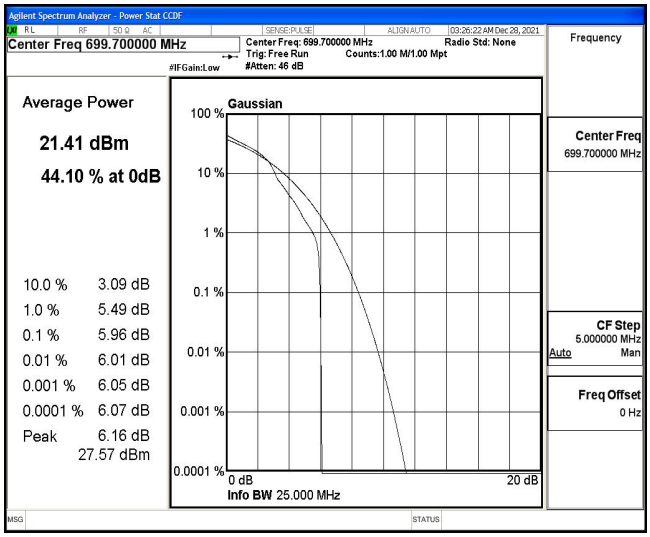


Band12-1.4MHz-16QAM-23017-1RB#0



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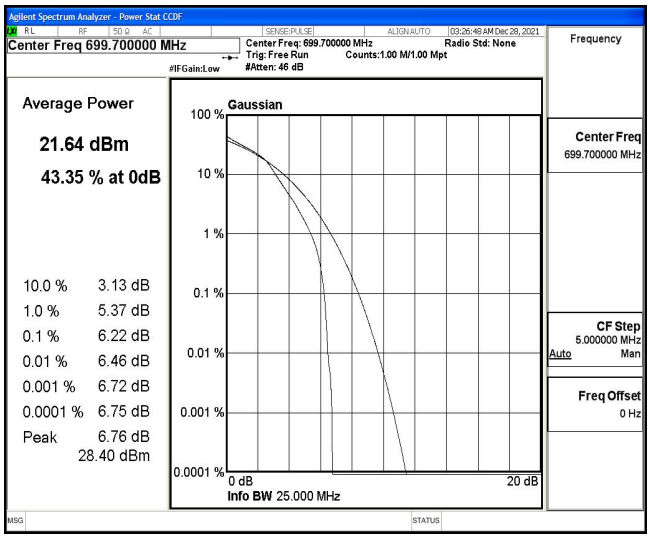

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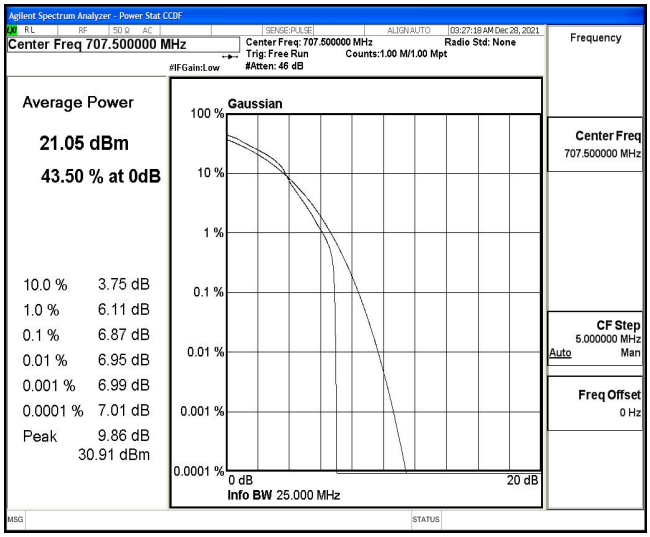
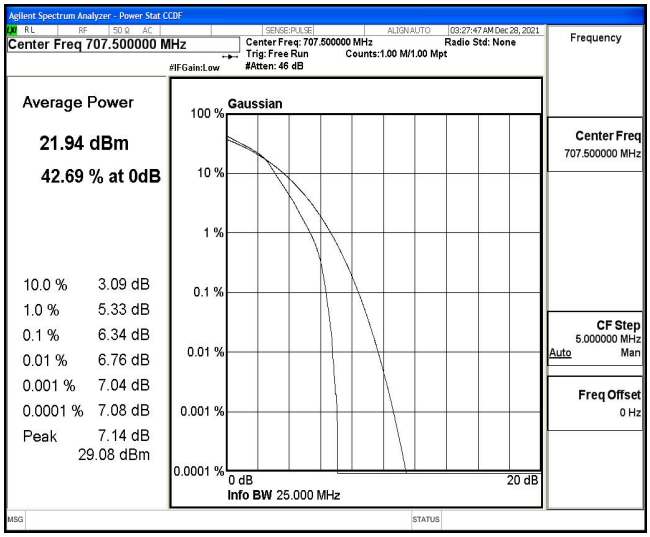
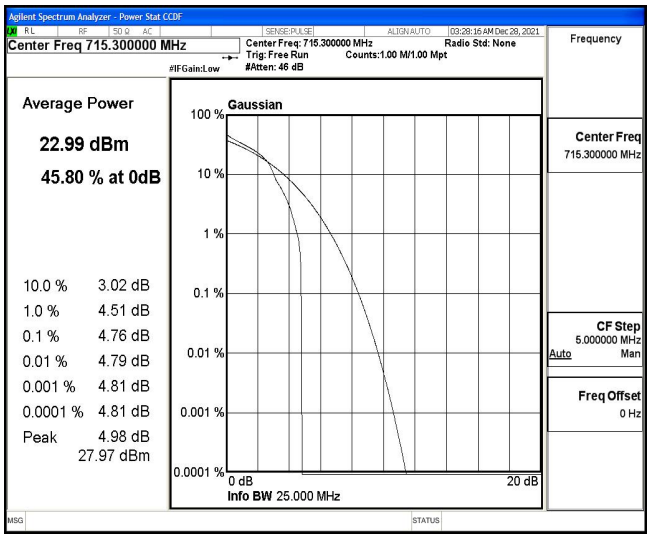


Band12-1.4MHz-16QAM-23095-6RB#0



Band12-1.4MHz-16QAM-23173-1RB#0



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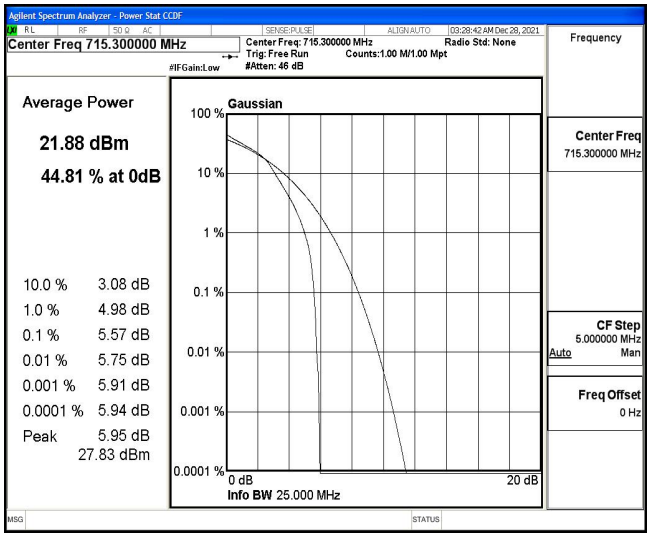
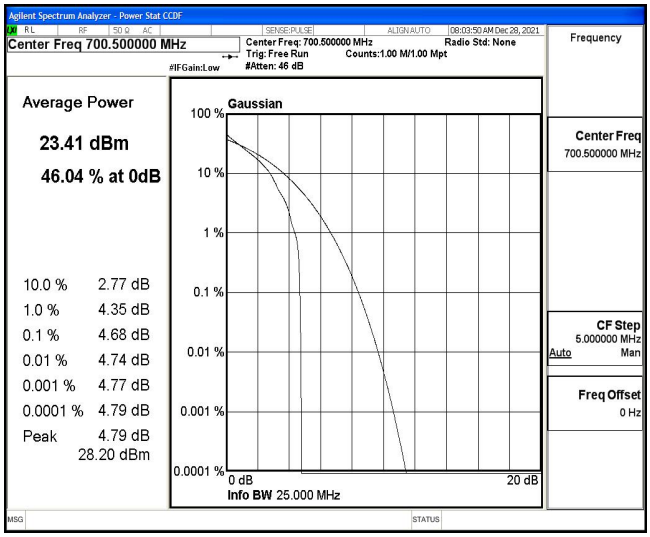
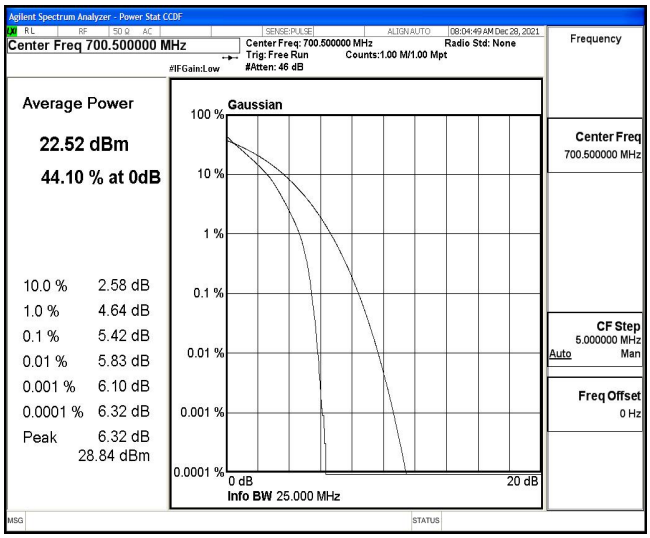


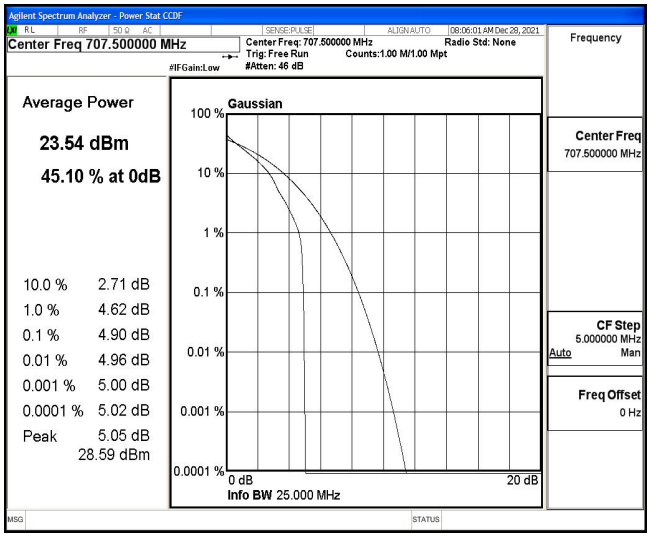
Band12-3MHz-QPSK-23025-1RB#0



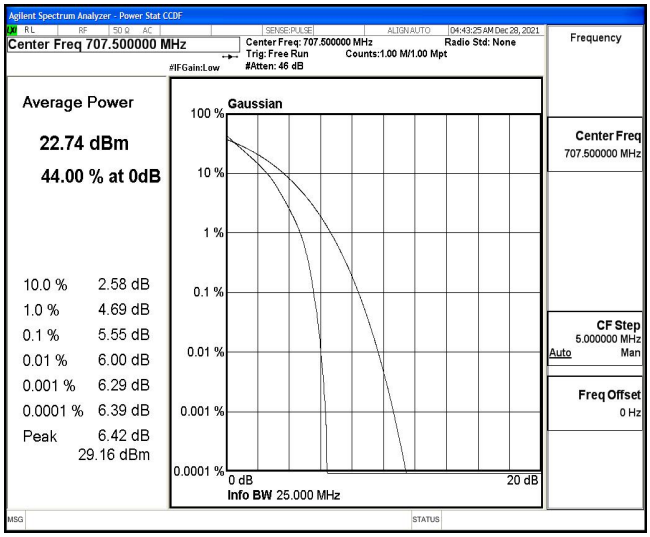
Band12-3MHz-QPSK-23025-15RB#0



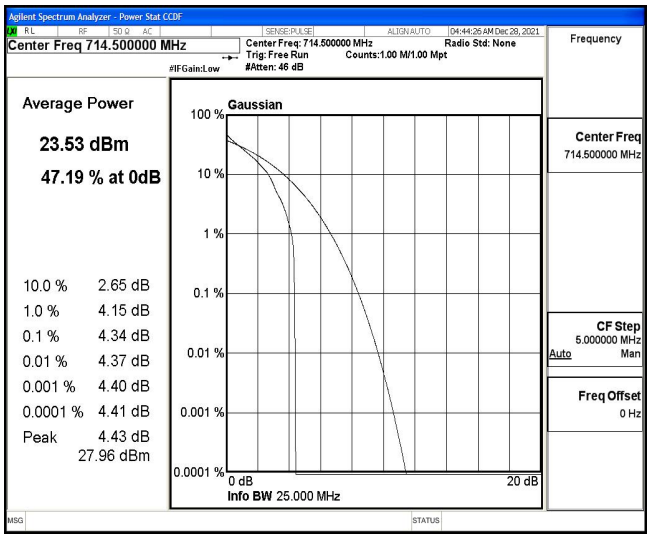
Band12-3MHz-QPSK-23095-1RB#0



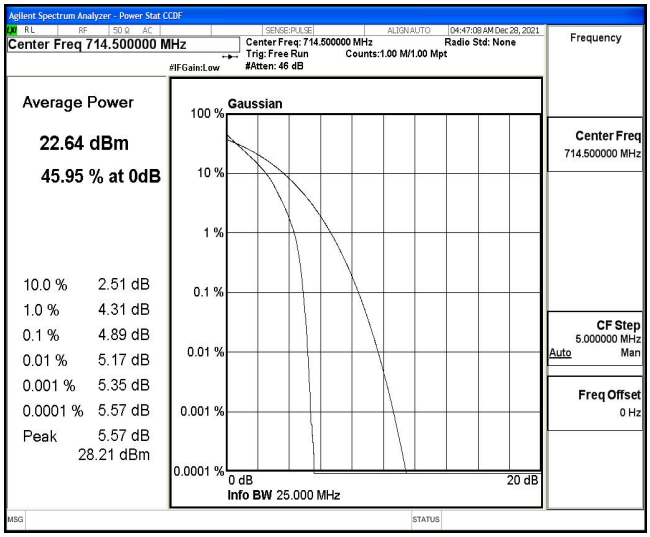
Band12-3MHz-QPSK-23095-15RB#0



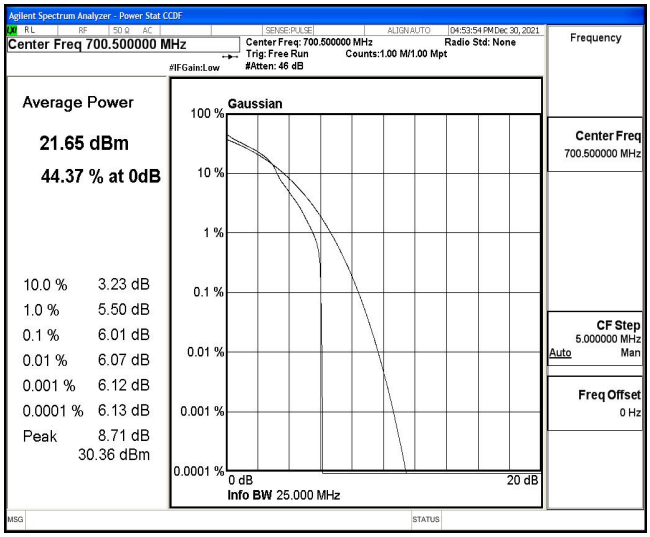
Band12-3MHz-QPSK-23165-1RB#0



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



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



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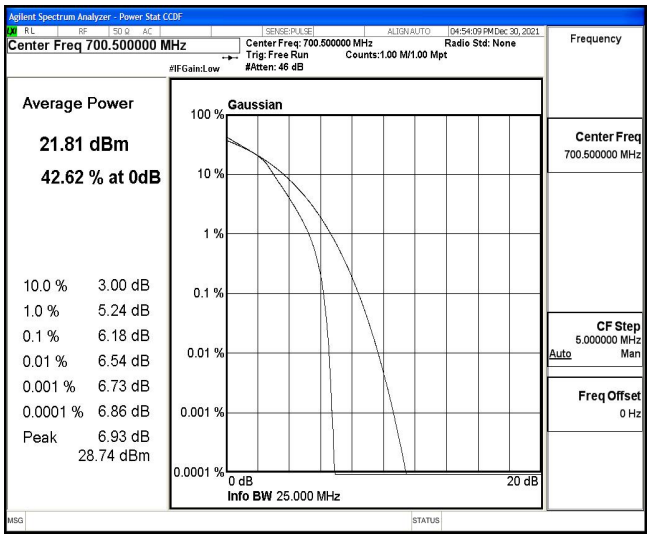

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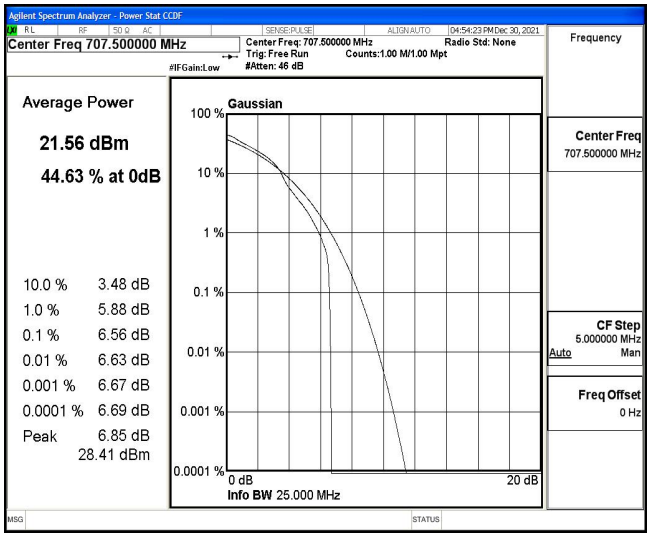

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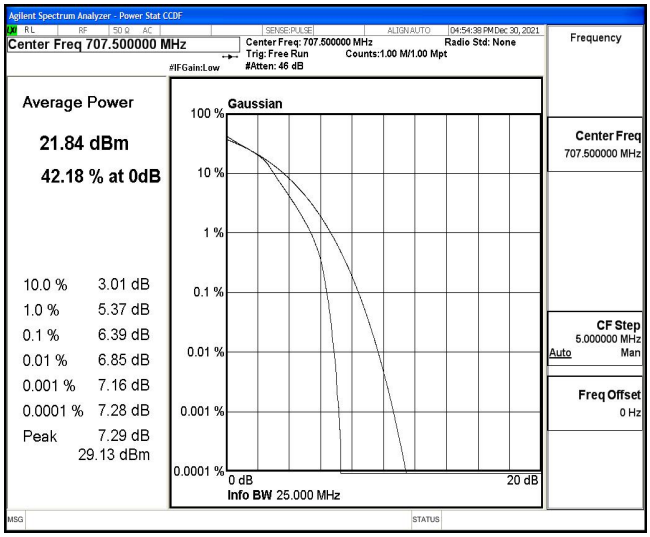

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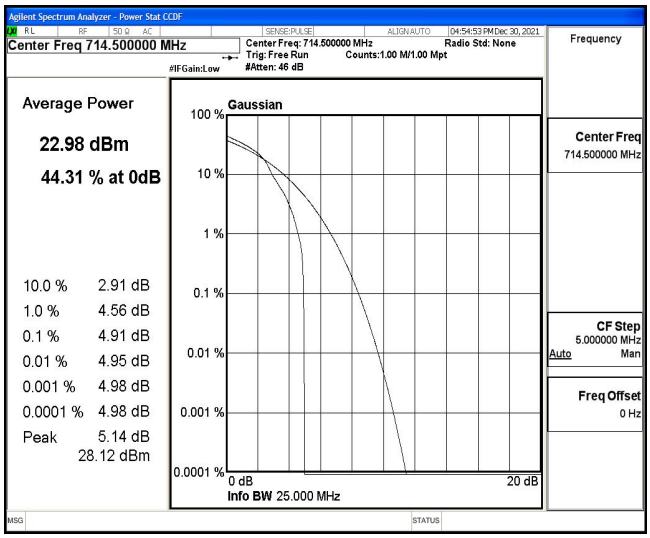

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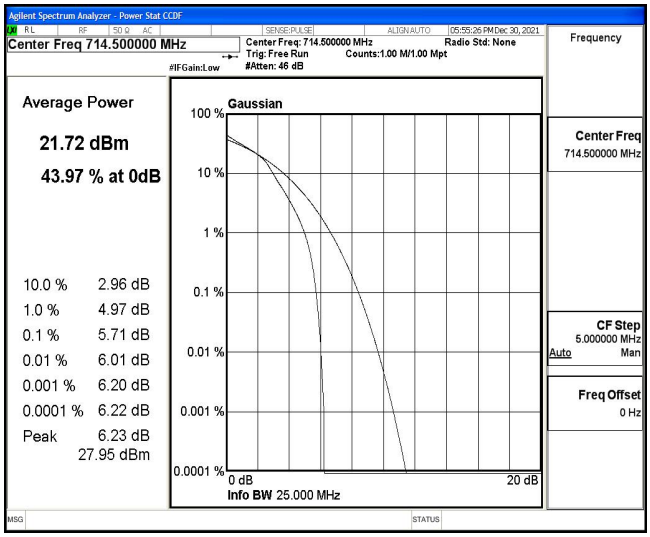

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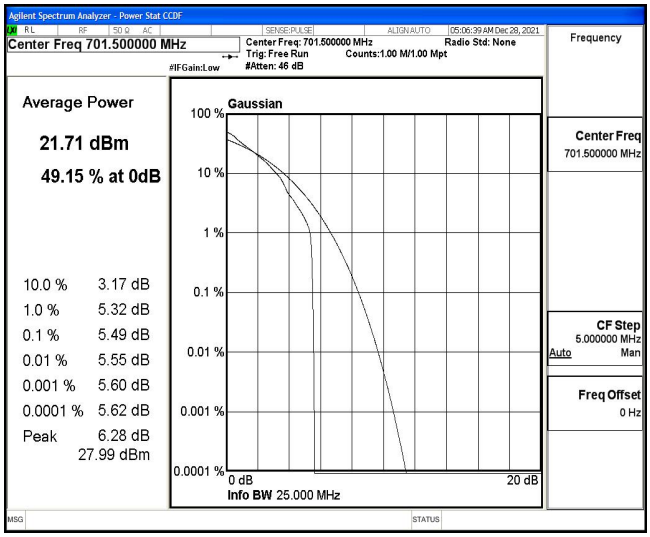

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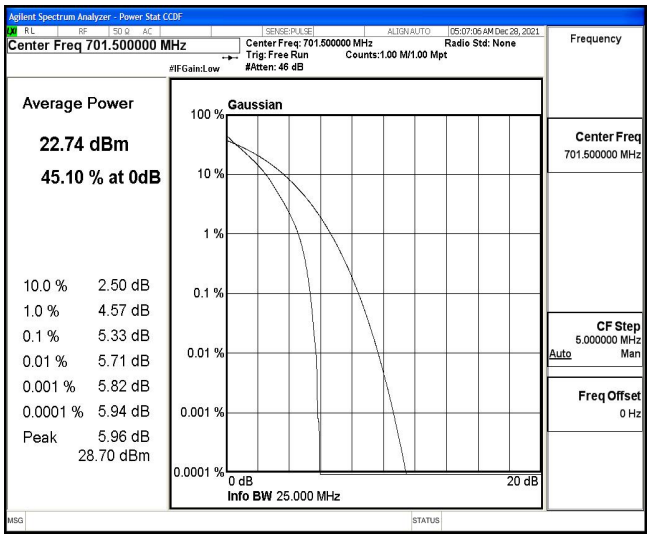

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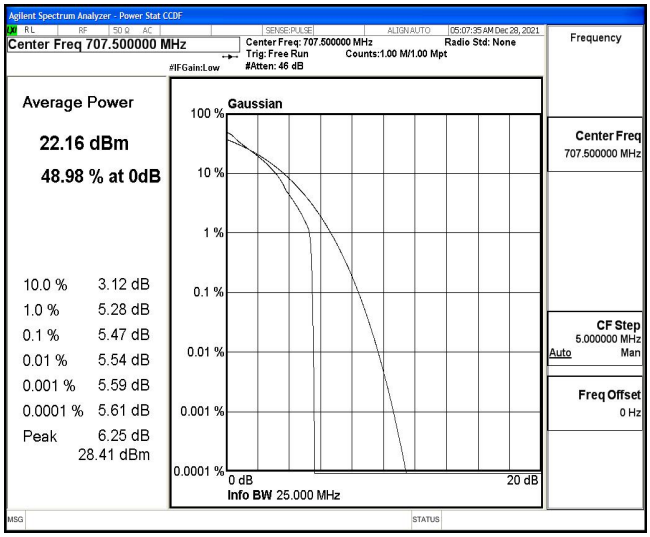

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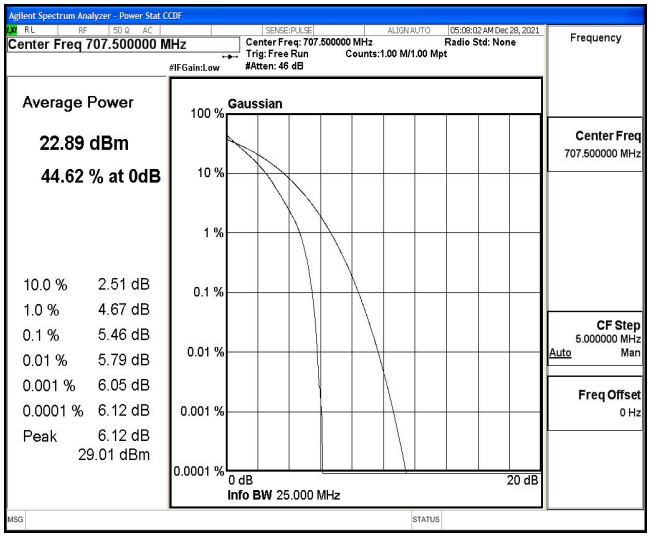

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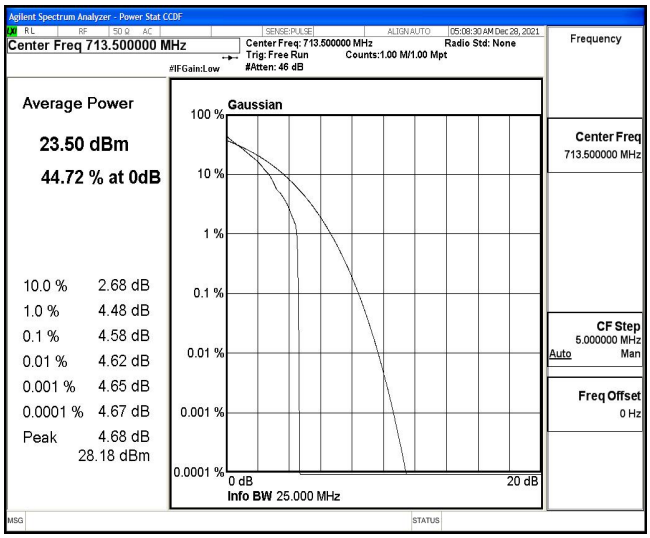

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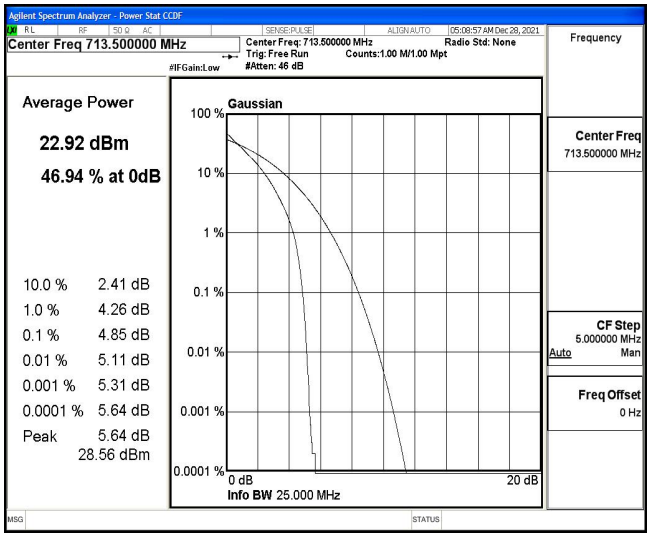

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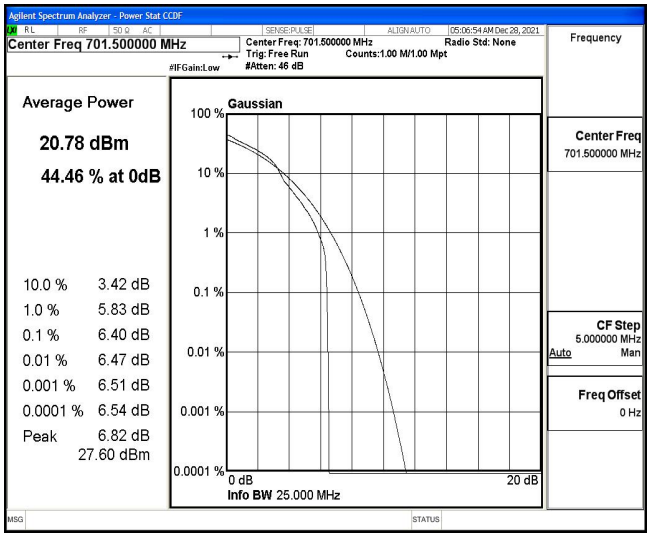

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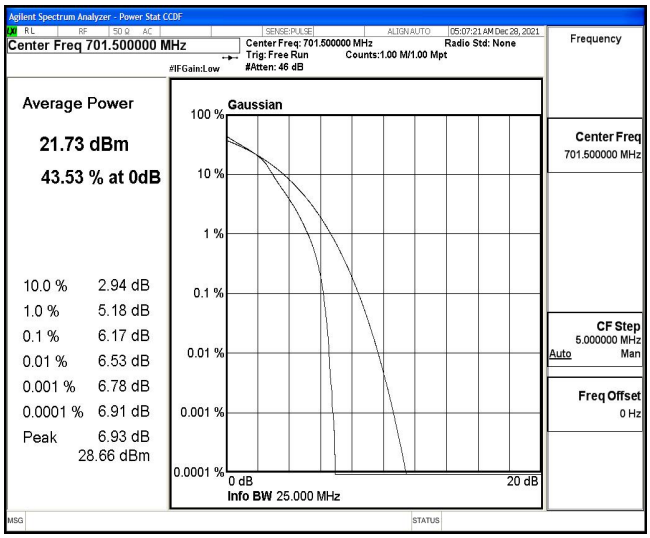

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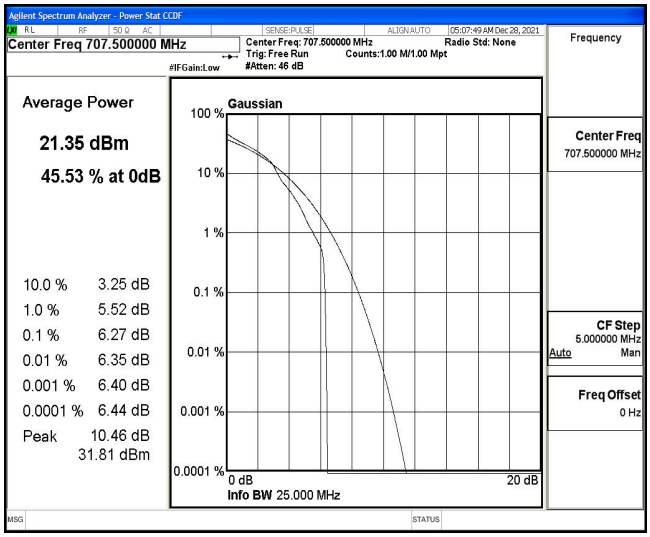

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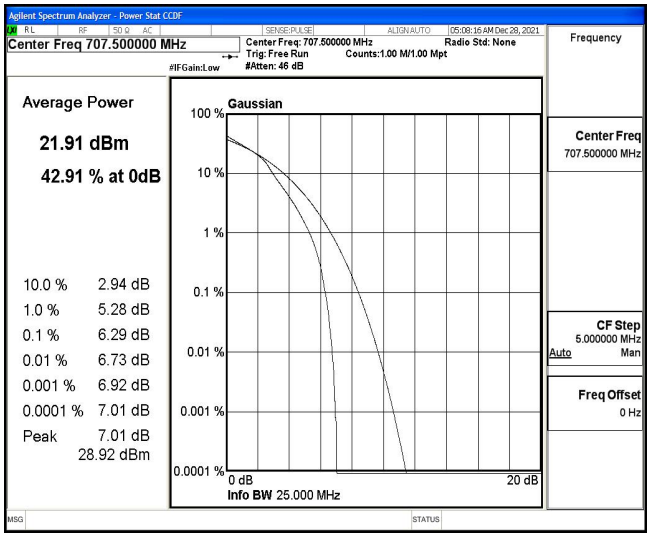

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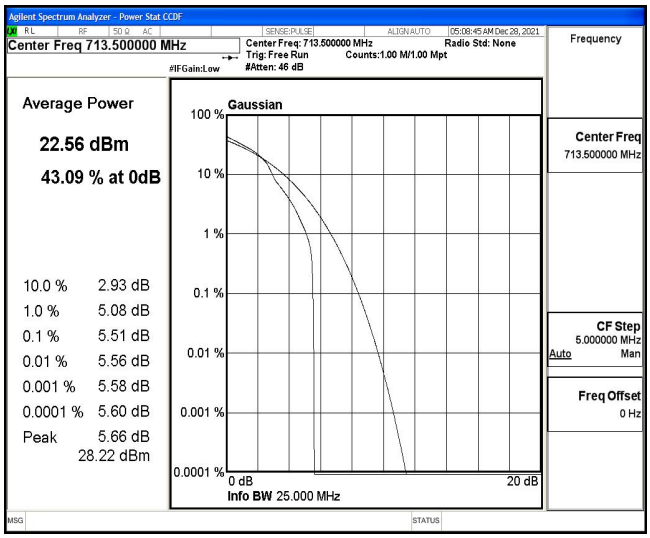

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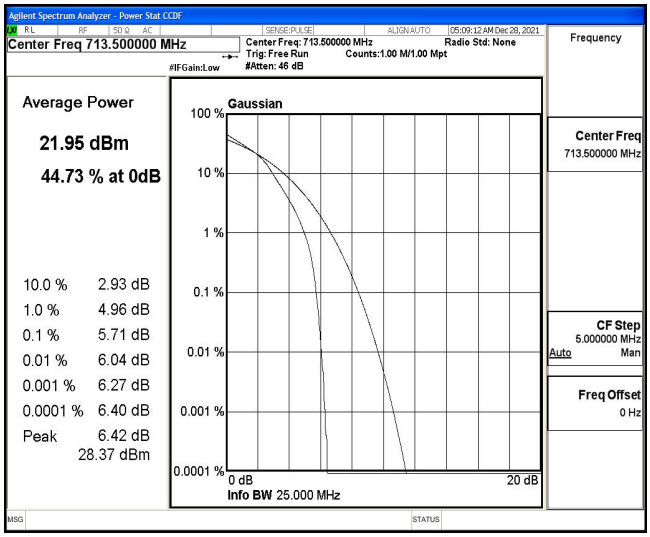

Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 713.500000 MHz
Center Freq: 713.500000 MHz
Trig: Free Run
#Atten: 46 dB
Counts:1.00 M/1.00 Mpt
Radio Std: None
Frequency
Average Power
21.95 dBm
44.73 % at 0dB
10.0 % 2.93 dB
1.0 % 4.96 dB
0.1 % 5.71 dB
0.01 % 6.04 dB
0.001 % 6.27 dB
0.0001 % 6.40 dB
Peak 6.42 dB
28.37 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
713.500000 MHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

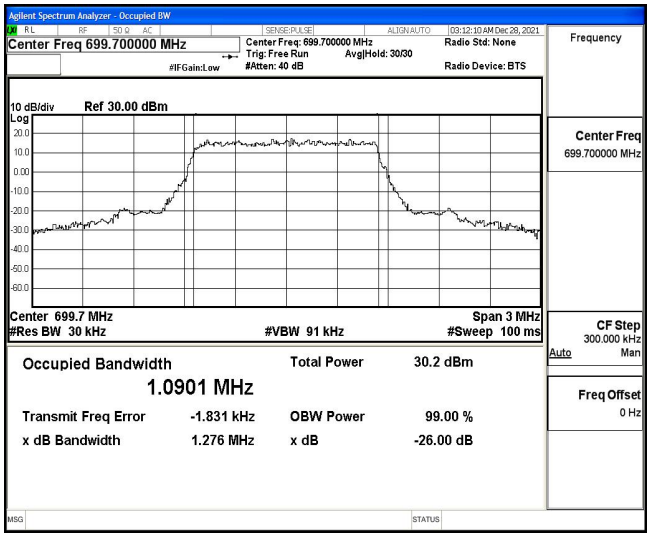
G.3 26dB Bandwidth and Occupied Bandwidth

Test Result

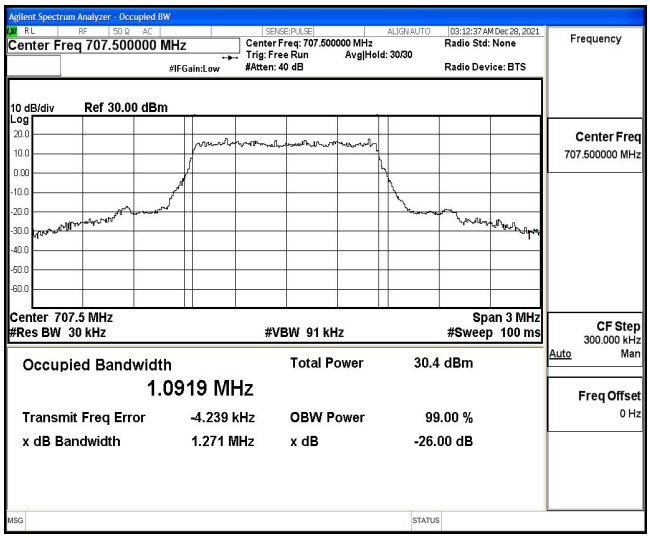
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0901	1.276	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0919	1.271	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0916	1.275	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0945	1.287	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0906	1.277	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0978	1.277	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6939	2.960	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6988	2.957	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6984	2.952	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6947	2.956	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6971	2.975	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6894	2.956	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5156	5.010	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5056	5.006	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4987	4.969	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5052	4.976	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5174	5.024	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.5029	5.016	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9741	9.888	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9806	9.953	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9457	9.894	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9577	9.836	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9851	9.890	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9440	9.726	PASS

Test Graphs

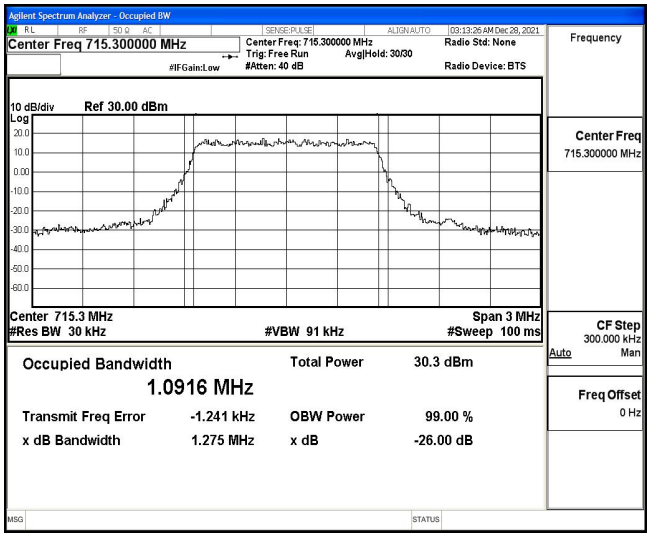
Band12-1.4MHz-QPSK-23017-6RB#0



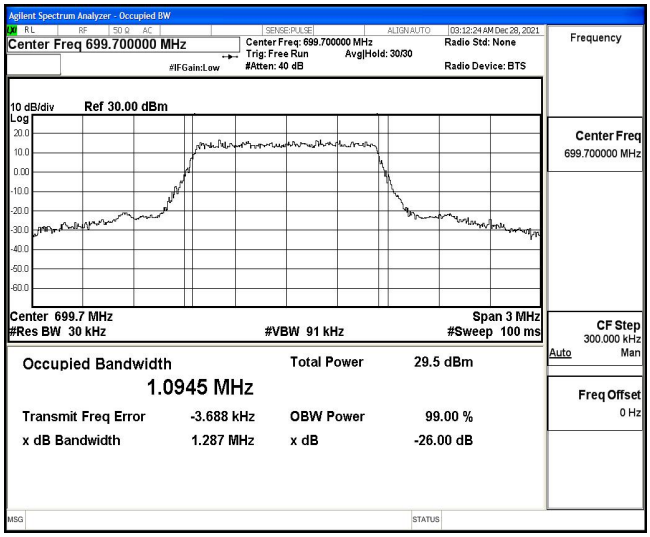
Band12-1.4MHz-QPSK-23095-6RB#0



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



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



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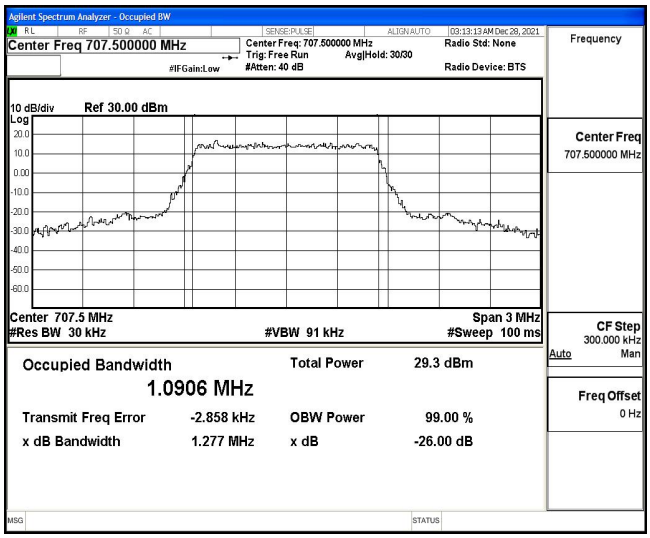

Band12-1.4MHz-16QAM-23173-6RB#0