Appendix for Band 7

Product Name: Environmental variable collector for logistics
Model No: ZS-300L

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.75	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.80	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.89	PASS
Band7	5MHz	QPSK	20775	12RB#0	23.01	PASS
Band7	5MHz	QPSK	20775	12RB#6	22.99	PASS
Band7	5MHz	QPSK	20775	12RB#13	23.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.97	PASS
Band7	5MHz	QPSK	21100	1RB#0	24.06	PASS
Band7	5MHz	QPSK	21100	1RB#12	24.04	PASS
Band7	5MHz	QPSK	21100	1RB#24	24.13	PASS
Band7	5MHz	QPSK	21100	12RB#0	22.84	PASS
Band7	5MHz	QPSK	21100	12RB#6	22.84	PASS
Band7	5MHz	QPSK	21100	12RB#13	22.90	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.92	PASS
Band7	5MHz	QPSK	21425	1RB#0	24.23	PASS
Band7	5MHz	QPSK	21425	1RB#12	24.22	PASS
Band7	5MHz	QPSK	21425	1RB#24	24.24	PASS
Band7	5MHz	QPSK	21425	12RB#0	23.09	PASS
Band7	5MHz	QPSK	21425	12RB#6	23.09	PASS
Band7	5MHz	QPSK	21425	12RB#13	23.10	PASS
Band7	5MHz	QPSK	21425	25RB#0	23.09	PASS
Band7	5MHz	16QAM	20775	1RB#0	23.08	PASS
Band7	5MHz	16QAM	20775	1RB#12	23.17	PASS
Band7	5MHz	16QAM	20775	1RB#24	23.18	PASS
Band7	5MHz	16QAM	20775	12RB#0	22.04	PASS
Band7	5MHz	16QAM	20775	12RB#6	22.16	PASS
Band7	5MHz	16QAM	20775	12RB#13	22.19	PASS
Band7	5MHz	16QAM	20775	25RB#0	22.20	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.18	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.34	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.30	PASS

Band7	5MHz	16QAM	21100	12RB#0	22.01	PASS
Band7	5MHz	16QAM	21100	12RB#6	22.03	PASS
Band7	5MHz	16QAM	21100	12RB#13	21.95	PASS
Band7	5MHz	16QAM	21100	25RB#0	22.18	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.49	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.55	PASS
Band7	5MHz	16QAM	21425	1RB#24	22.62	PASS
Band7	5MHz	16QAM	21425	12RB#0	22.17	PASS
Band7	5MHz	16QAM	21425	12RB#6	22.17	PASS
Band7	5MHz	16QAM	21425	12RB#13	22.19	PASS
Band7	5MHz	16QAM	21425	25RB#0	22.34	PASS
Band7	10MHz	QPSK	20800	1RB#0	24.07	PASS
Band7	10MHz	QPSK	20800	1RB#24	23.90	PASS
Band7	10MHz	QPSK	20800	1RB#49	24.01	PASS
Band7	10MHz	QPSK	20800	25RB#0	23.07	PASS
Band7	10MHz	QPSK	20800	25RB#12	23.07	PASS
Band7	10MHz	QPSK	20800	25RB#25	23.05	PASS
Band7	10MHz	QPSK	20800	50RB#0	23.01	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.74	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.79	PASS
Band7	10MHz	QPSK	21100	1RB#49	23.87	PASS
Band7	10MHz	QPSK	21100	25RB#0	22.92	PASS
Band7	10MHz	QPSK	21100	25RB#12	22.92	PASS
Band7	10MHz	QPSK	21100	25RB#25	22.87	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.98	PASS
Band7	10MHz	QPSK	21400	1RB#0	24.02	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.90	PASS
Band7	10MHz	QPSK	21400	1RB#49	23.96	PASS
Band7	10MHz	QPSK	21400	25RB#0	23.09	PASS
Band7	10MHz	QPSK	21400	25RB#12	23.11	PASS
Band7	10MHz	QPSK	21400	25RB#25	23.10	PASS
Band7	10MHz	QPSK	21400	50RB#0	23.11	PASS
Band7	10MHz	16QAM	20800	1RB#0	22.48	PASS
Band7	10MHz	16QAM	20800	1RB#24	22.50	PASS
Band7	10MHz	16QAM	20800	1RB#49	22.55	PASS
Band7	10MHz	16QAM	20800	25RB#0	22.27	PASS
Band7	10MHz	16QAM	20800	25RB#12	22.27	PASS

Band7	10MHz	16QAM	20800	25RB#25	22.21	PASS
Band7	10MHz	16QAM	20800	50RB#0	22.24	PASS
Band7	10MHz	16QAM	21100	1RB#0	22.72	PASS
Band7	10MHz	16QAM	21100	1RB#24	22.65	PASS
Band7	10MHz	16QAM	21100	1RB#49	22.69	PASS
Band7	10MHz	16QAM	21100	25RB#0	22.06	PASS
Band7	10MHz	16QAM	21100	25RB#12	21.95	PASS
Band7	10MHz	16QAM	21100	25RB#25	22.06	PASS
Band7	10MHz	16QAM	21100	50RB#0	22.18	PASS
Band7	10MHz	16QAM	21400	1RB#0	22.96	PASS
Band7	10MHz	16QAM	21400	1RB#24	22.93	PASS
Band7	10MHz	16QAM	21400	1RB#49	22.94	PASS
Band7	10MHz	16QAM	21400	25RB#0	22.18	PASS
Band7	10MHz	16QAM	21400	25RB#12	22.18	PASS
Band7	10MHz	16QAM	21400	25RB#25	22.24	PASS
Band7	10MHz	16QAM	21400	50RB#0	22.25	PASS
Band7	15MHz	QPSK	20825	1RB#0	24.17	PASS
Band7	15MHz	QPSK	20825	1RB#38	24.18	PASS
Band7	15MHz	QPSK	20825	1RB#74	24.09	PASS
Band7	15MHz	QPSK	20825	38RB#0	23.31	PASS
Band7	15MHz	QPSK	20825	38RB#18	23.30	PASS
Band7	15MHz	QPSK	20825	38RB#37	23.28	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.97	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.79	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.87	PASS
Band7	15MHz	QPSK	21100	1RB#74	23.88	PASS
Band7	15MHz	QPSK	21100	38RB#0	22.68	PASS
Band7	15MHz	QPSK	21100	38RB#18	22.73	PASS
Band7	15MHz	QPSK	21100	38RB#37	22.85	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.81	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.96	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.86	PASS
Band7	15MHz	QPSK	21375	1RB#74	23.94	PASS
Band7	15MHz	QPSK	21375	38RB#0	22.95	PASS
Band7	15MHz	QPSK	21375	38RB#18	22.96	PASS
Band7	15MHz	QPSK	21375	38RB#37	23.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	23.03	PASS

Band7	15MHz	16QAM	20825	1RB#0	23.37	PASS
Band7	15MHz	16QAM	20825	1RB#38	23.30	PASS
Band7	15MHz	16QAM	20825	1RB#74	23.28	PASS
Band7	15MHz	16QAM	20825	38RB#0	23.35	PASS
Band7	15MHz	16QAM	20825	38RB#18	23.30	PASS
Band7	15MHz	16QAM	20825	38RB#37	23.32	PASS
Band7	15MHz	16QAM	20825	75RB#0	22.21	PASS
Band7	15MHz	16QAM	21100	1RB#0	22.72	PASS
Band7	15MHz	16QAM	21100	1RB#38	22.71	PASS
Band7	15MHz	16QAM	21100	1RB#74	22.85	PASS
Band7	15MHz	16QAM	21100	38RB#0	22.72	PASS
Band7	15MHz	16QAM	21100	38RB#18	22.72	PASS
Band7	15MHz	16QAM	21100	38RB#37	22.81	PASS
Band7	15MHz	16QAM	21100	75RB#0	22.07	PASS
Band7	15MHz	16QAM	21375	1RB#0	22.98	PASS
Band7	15MHz	16QAM	21375	1RB#38	22.96	PASS
Band7	15MHz	16QAM	21375	1RB#74	22.97	PASS
Band7	15MHz	16QAM	21375	38RB#0	22.96	PASS
Band7	15MHz	16QAM	21375	38RB#18	22.96	PASS
Band7	15MHz	16QAM	21375	38RB#37	22.99	PASS
Band7	15MHz	16QAM	21375	75RB#0	22.29	PASS
Band7	20MHz	QPSK	20850	1RB#0	24.10	PASS
Band7	20MHz	QPSK	20850	1RB#49	24.07	PASS
Band7	20MHz	QPSK	20850	1RB#99	24.12	PASS
Band7	20MHz	QPSK	20850	50RB#0	23.10	PASS
Band7	20MHz	QPSK	20850	50RB#25	23.08	PASS
Band7	20MHz	QPSK	20850	50RB#50	23.03	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.89	PASS
Band7	20MHz	QPSK	21100	1RB#0	24.24	PASS
Band7	20MHz	QPSK	21100	1RB#49	24.23	PASS
Band7	20MHz	QPSK	21100	1RB#99	24.35	PASS
Band7	20MHz	QPSK	21100	50RB#0	22.95	PASS
Band7	20MHz	QPSK	21100	50RB#25	22.99	PASS
Band7	20MHz	QPSK	21100	50RB#50	22.87	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.93	PASS
Band7	20MHz	QPSK	21350	1RB#0	24.24	PASS
Band7	20MHz	QPSK	21350	1RB#49	24.27	PASS

Band7	20MHz	QPSK	21350	1RB#99	24.34	PASS
Band7	20MHz	QPSK	21350	50RB#0	23.03	PASS
Band7	20MHz	QPSK	21350	50RB#25	23.05	PASS
Band7	20MHz	QPSK	21350	50RB#50	23.06	PASS
Band7	20MHz	QPSK	21350	100RB#0	23.04	PASS
Band7	20MHz	16QAM	20850	1RB#0	22.71	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.59	PASS
Band7	20MHz	16QAM	20850	1RB#99	22.57	PASS
Band7	20MHz	16QAM	20850	50RB#0	22.23	PASS
Band7	20MHz	16QAM	20850	50RB#25	22.22	PASS
Band7	20MHz	16QAM	20850	50RB#50	22.26	PASS
Band7	20MHz	16QAM	20850	100RB#0	22.01	PASS
Band7	20MHz	16QAM	21100	1RB#0	22.62	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.57	PASS
Band7	20MHz	16QAM	21100	1RB#99	22.77	PASS
Band7	20MHz	16QAM	21100	50RB#0	22.14	PASS
Band7	20MHz	16QAM	21100	50RB#25	22.15	PASS
Band7	20MHz	16QAM	21100	50RB#50	22.13	PASS
Band7	20MHz	16QAM	21100	100RB#0	22.08	PASS
Band7	20MHz	16QAM	21350	1RB#0	22.86	PASS
Band7	20MHz	16QAM	21350	1RB#49	22.84	PASS
Band7	20MHz	16QAM	21350	1RB#99	22.95	PASS
Band7	20MHz	16QAM	21350	50RB#0	22.31	PASS
Band7	20MHz	16QAM	21350	50RB#25	22.32	PASS
Band7	20MHz	16QAM	21350	50RB#50	22.29	PASS
Band7	20MHz	16QAM	21350	100RB#0	22.27	PASS

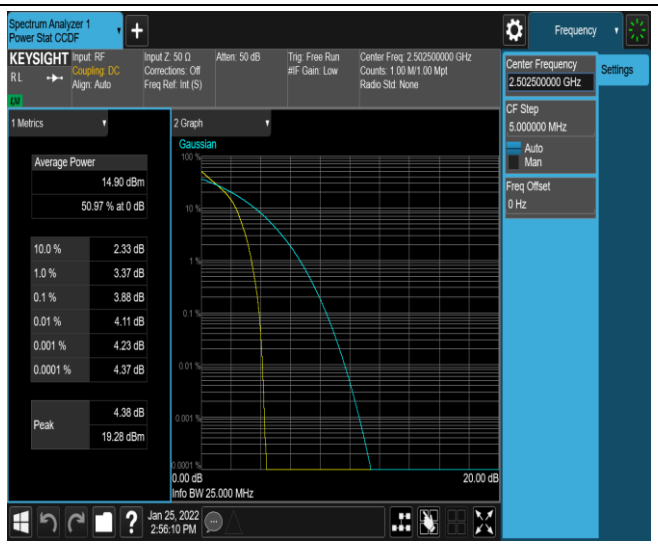
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

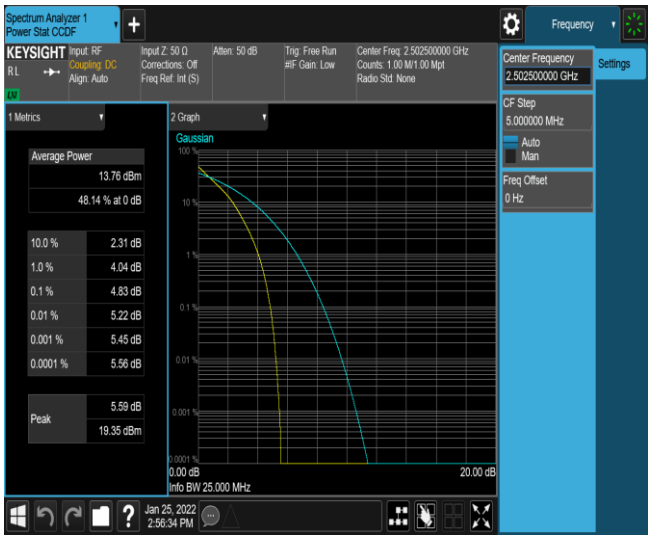
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	3.88	13	PASS
Band7	5MHz	QPSK	20775	25RB#0	4.83	13	PASS
Band7	5MHz	QPSK	21100	1RB#0	3.97	13	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.96	13	PASS
Band7	5MHz	QPSK	21425	1RB#0	3.29	13	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.16	13	PASS
Band7	5MHz	16QAM	20775	1RB#0	4.85	13	PASS
Band7	5MHz	16QAM	20775	25RB#0	5.51	13	PASS
Band7	5MHz	16QAM	21100	1RB#0	5.03	13	PASS
Band7	5MHz	16QAM	21100	25RB#0	5.64	13	PASS
Band7	5MHz	16QAM	21425	1RB#0	4.52	13	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.93	13	PASS
Band7	10MHz	QPSK	20800	1RB#0	4.01	13	PASS
Band7	10MHz	QPSK	20800	50RB#0	4.92	13	PASS
Band7	10MHz	QPSK	21100	1RB#0	4.03	13	PASS
Band7	10MHz	QPSK	21100	50RB#0	5.01	13	PASS
Band7	10MHz	QPSK	21400	1RB#0	3.51	13	PASS
Band7	10MHz	QPSK	21400	50RB#0	4.40	13	PASS
Band7	10MHz	16QAM	20800	1RB#0	4.91	13	PASS
Band7	10MHz	16QAM	20800	50RB#0	5.63	13	PASS
Band7	10MHz	16QAM	21100	1RB#0	5.00	13	PASS
Band7	10MHz	16QAM	21100	50RB#0	5.72	13	PASS
Band7	10MHz	16QAM	21400	1RB#0	4.46	13	PASS
Band7	10MHz	16QAM	21400	50RB#0	5.22	13	PASS
Band7	15MHz	QPSK	20825	1RB#0	4.30	13	PASS
Band7	15MHz	QPSK	20825	75RB#0	5.26	13	PASS
Band7	15MHz	QPSK	21100	1RB#0	4.25	13	PASS
Band7	15MHz	QPSK	21100	75RB#0	5.39	13	PASS
Band7	15MHz	QPSK	21375	1RB#0	4.10	13	PASS
Band7	15MHz	QPSK	21375	75RB#0	5.01	13	PASS
Band7	15MHz	16QAM	20825	1RB#0	5.26	13	PASS
Band7	15MHz	16QAM	20825	75RB#0	5.88	13	PASS
Band7	15MHz	16QAM	21100	1RB#0	5.12	13	PASS
Band7	15MHz	16QAM	21100	75RB#0	5.97	13	PASS
Band7	15MHz	16QAM	21375	1RB#0	5.08	13	PASS

Band7	15MHz	16QAM	21375	75RB#0	5.60	13	PASS
Band7	20MHz	QPSK	20850	1RB#0	4.00	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.14	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	3.91	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.33	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.03	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.97	13	PASS
Band7	20MHz	16QAM	20850	1RB#0	5.03	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.85	13	PASS
Band7	20MHz	16QAM	21100	1RB#0	4.85	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.00	13	PASS
Band7	20MHz	16QAM	21350	1RB#0	5.05	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.69	13	PASS

Test Graphs



Band7-5MHz-QPSK-20775-1RB#0



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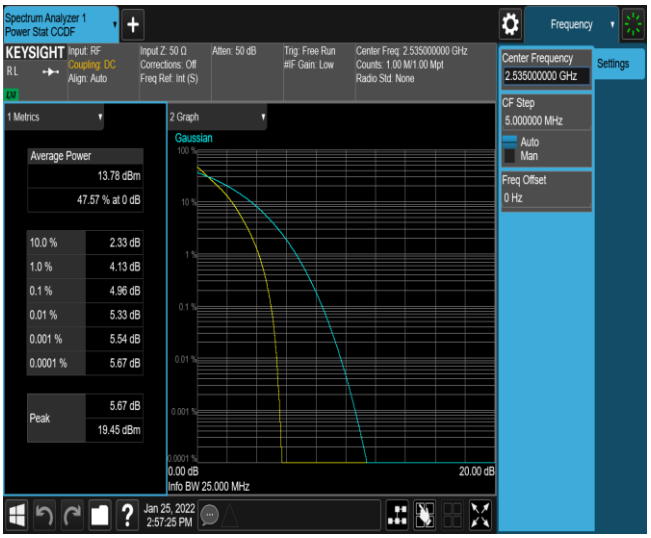
Band7-5MHz-QPSK-21100-1RB#0



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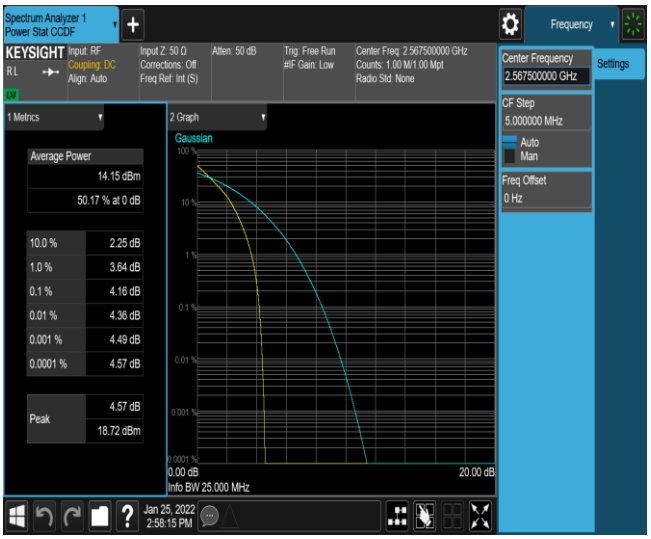
Band7-5MHz-QPSK-21425-1RB#0



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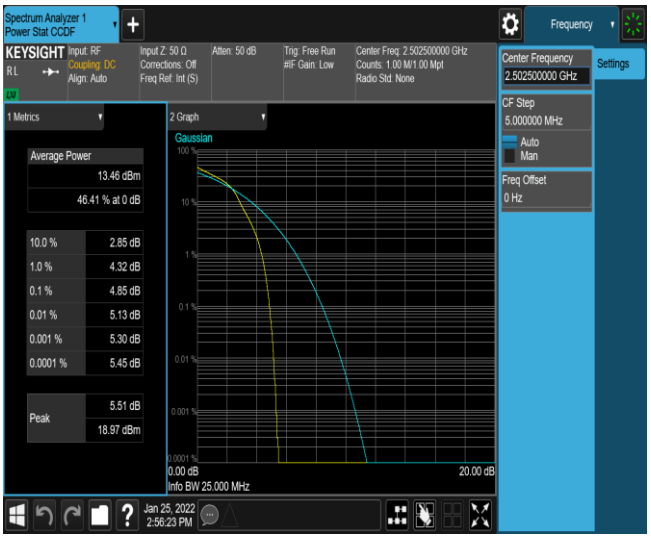

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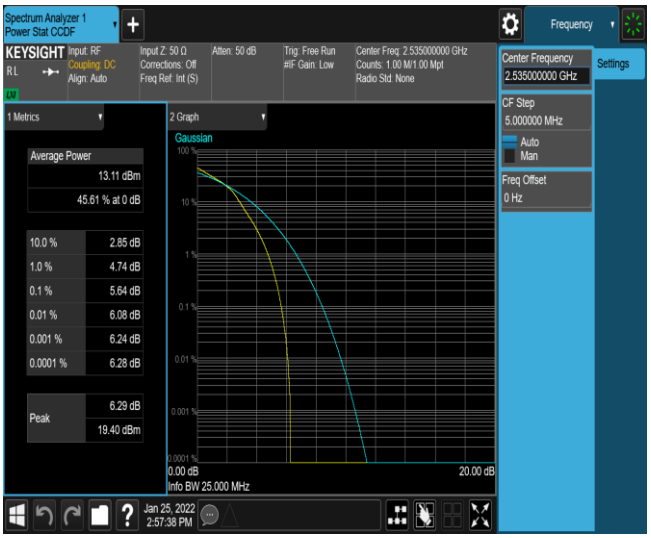
Band7-5MHz-16QAM-20775-25RB#0

Band7-5MHz-16QAM-21100-1RB#0



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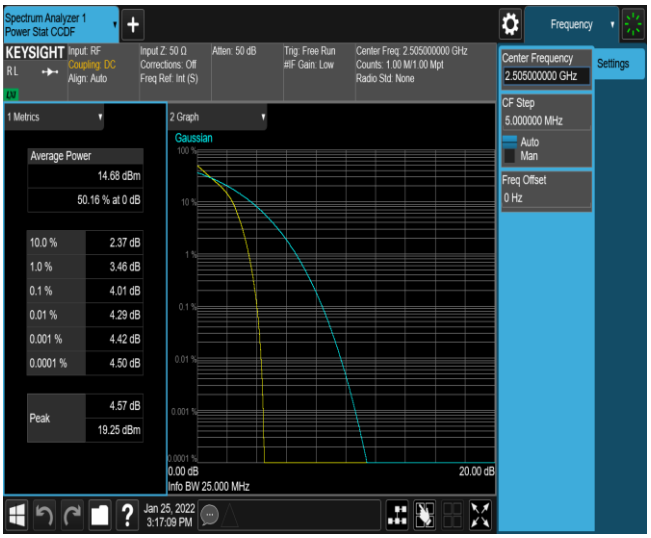
Band7-5MHz-16QAM-21425-25RB#0



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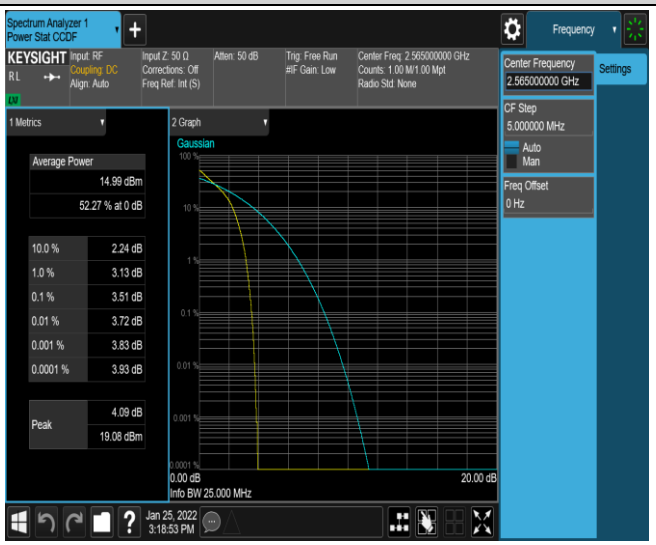
Band7-10MHz-QPSK-21100-50RB#0



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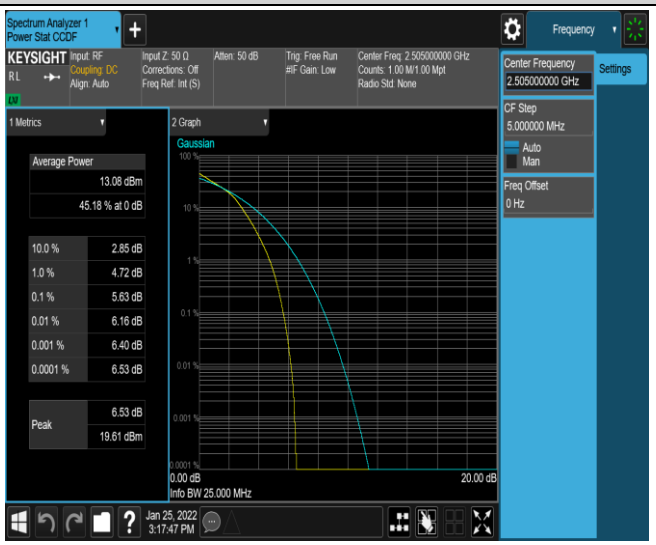
Band7-10MHz-QPSK-21400-50RB#0

Band7-10MHz-16QAM-20800-1RB#0



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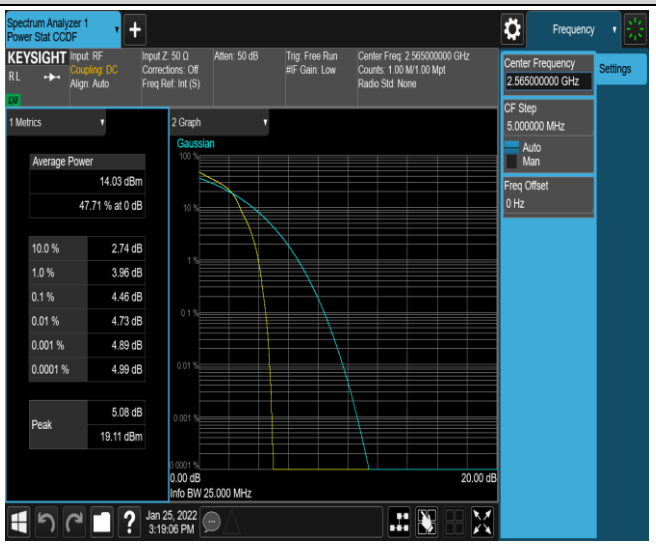

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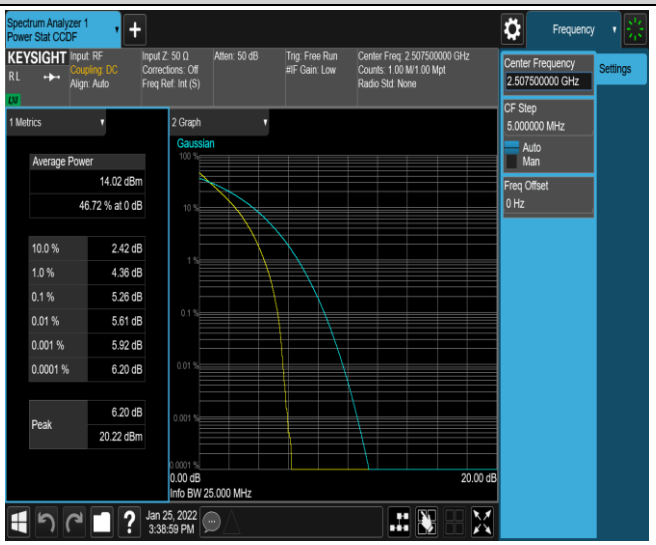

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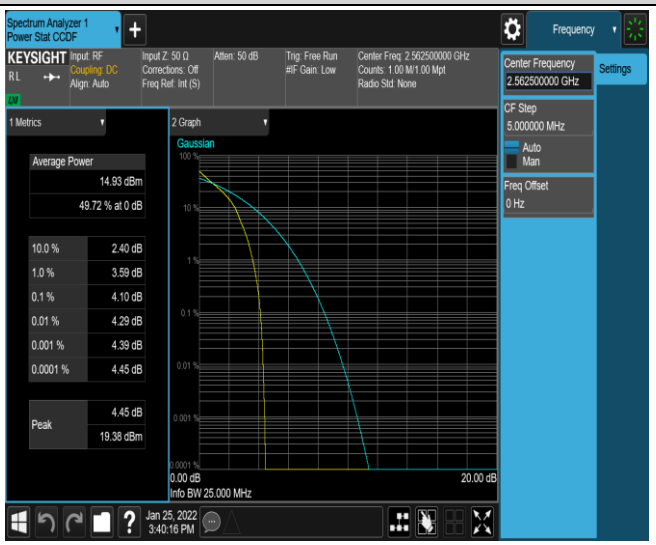

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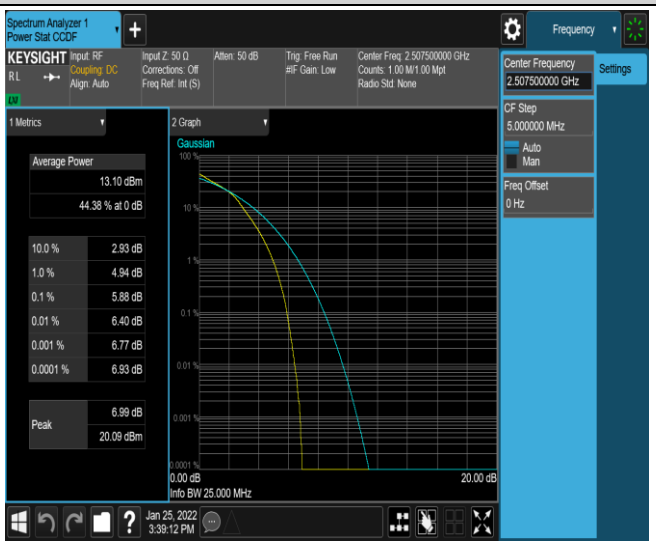
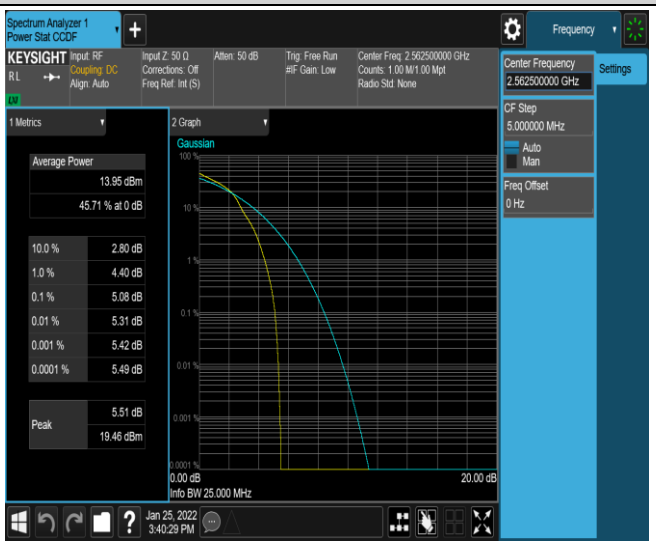


Band7-15MHz-16QAM-20825-75RB#0

Band7-15MHz-16QAM-21100-1RB#0

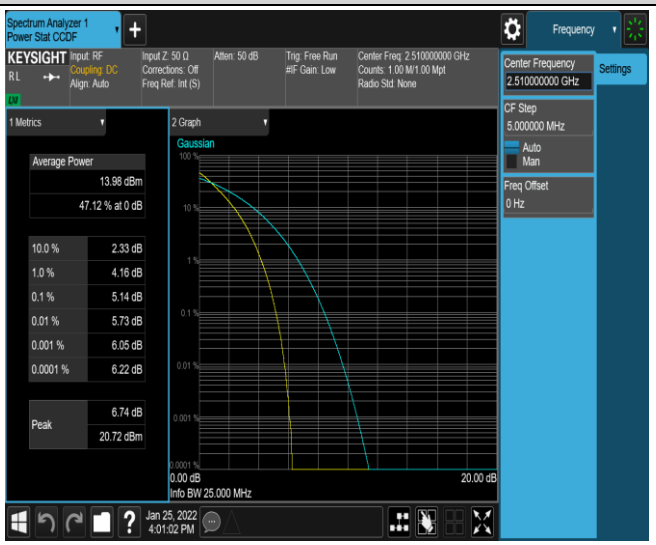
Band7-15MHz-16QAM-21100-75RB#0



Band7-15MHz-16QAM-21375-1RB#0

Band7-15MHz-16QAM-21375-75RB#0

Band7-20MHz-QPSK-20850-1RB#0



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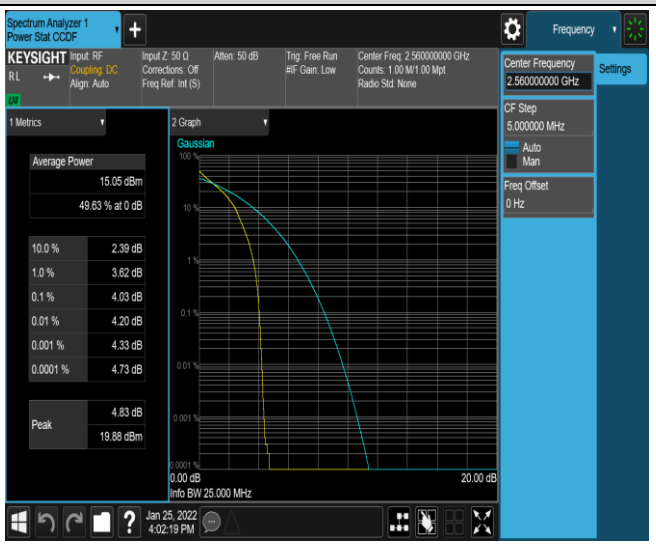

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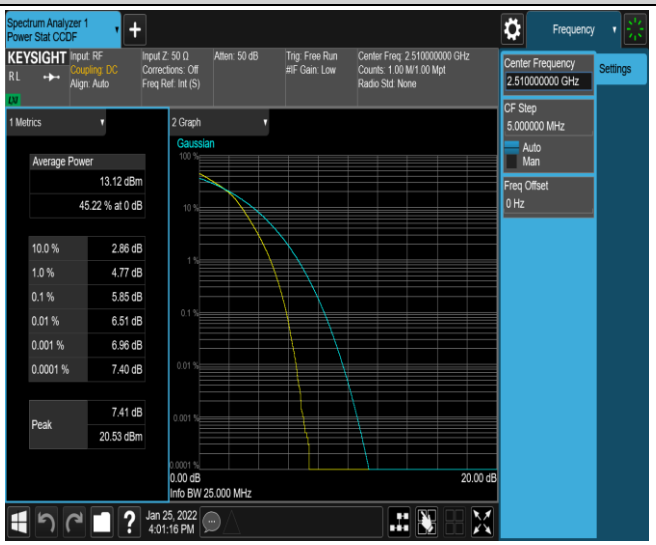

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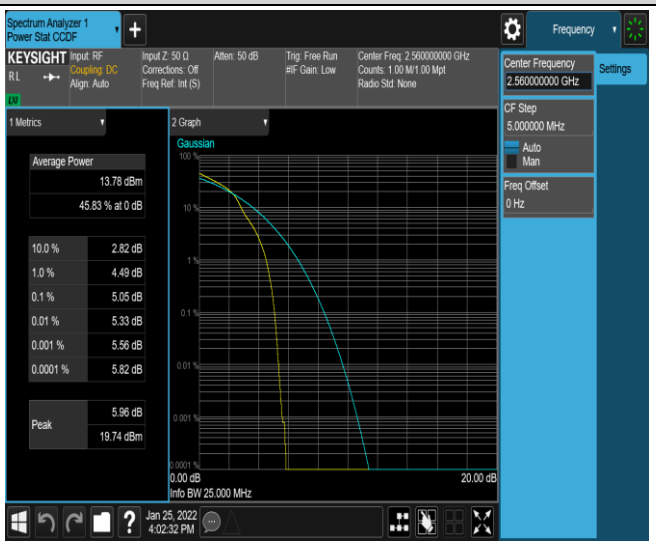


Band7-20MHz-16QAM-21350-1RB#0

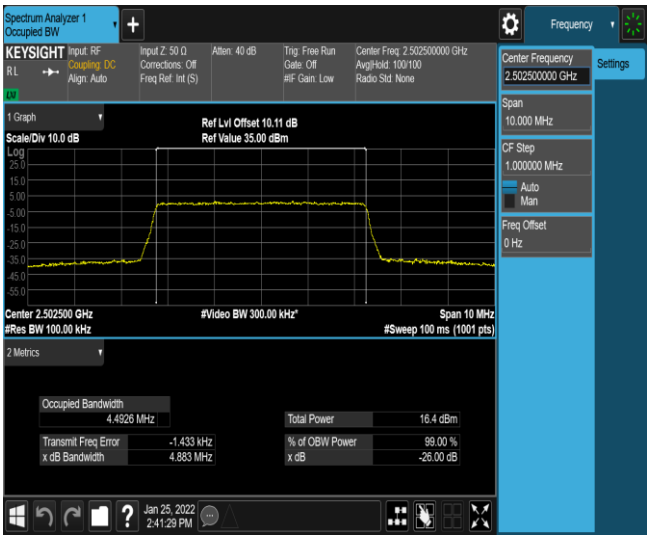
Band7-20MHz-16QAM-21350-100RB#0

Appendix C: 26dB Bandwidth and Occupied Bandwidth

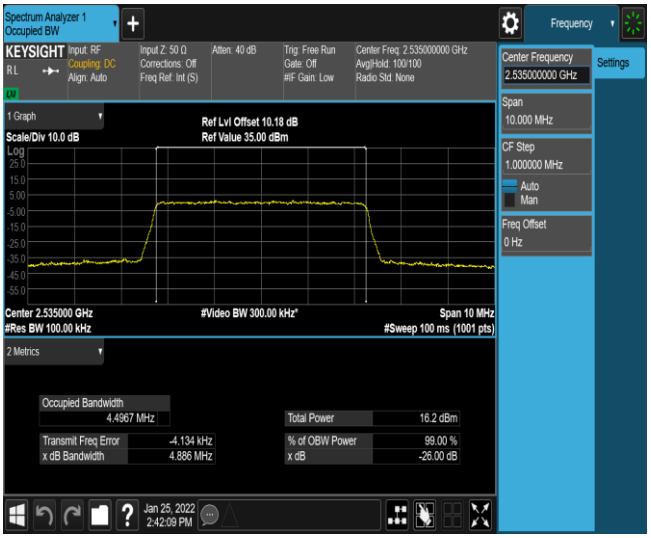
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.4926	4.883	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4967	4.886	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.4984	4.896	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.4957	4.877	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.5029	4.867	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.5005	4.878	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9804	9.584	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9901	9.588	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9775	9.627	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.9693	9.584	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9801	9.594	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9771	9.584	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.467	14.33	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.483	14.29	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.474	14.34	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.458	14.34	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.477	14.29	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.460	14.29	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.970	18.98	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.982	19.10	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.974	19.03	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.960	18.99	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.994	19.02	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.938	19.03	PASS

Test Graphs



Band7-5MHz-QPSK-20775-25RB#0



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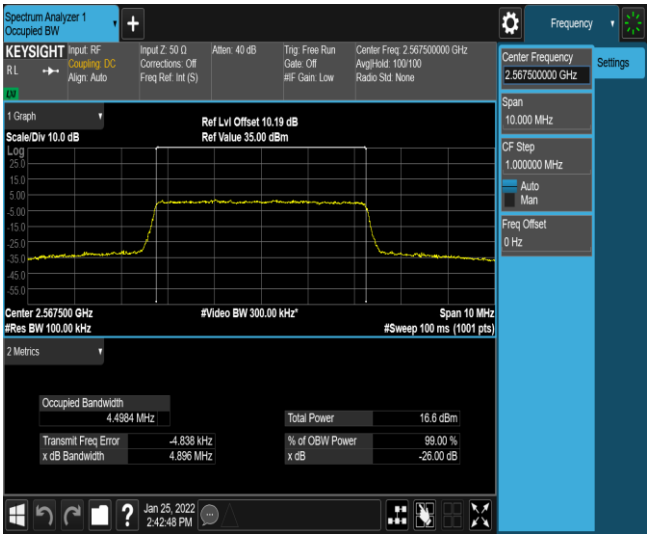

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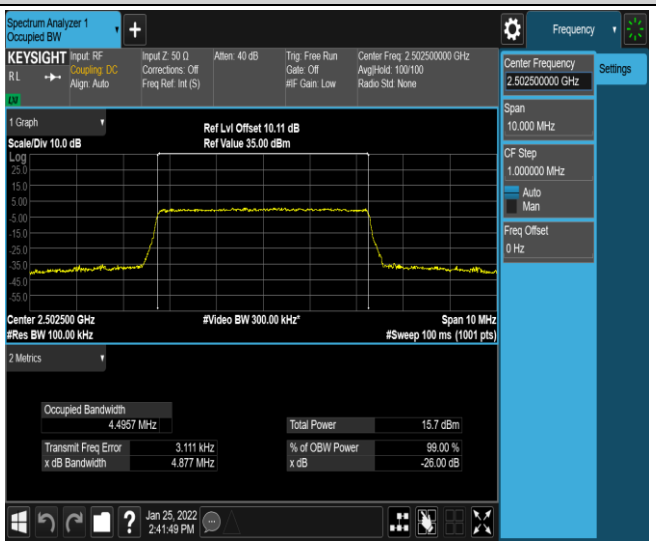

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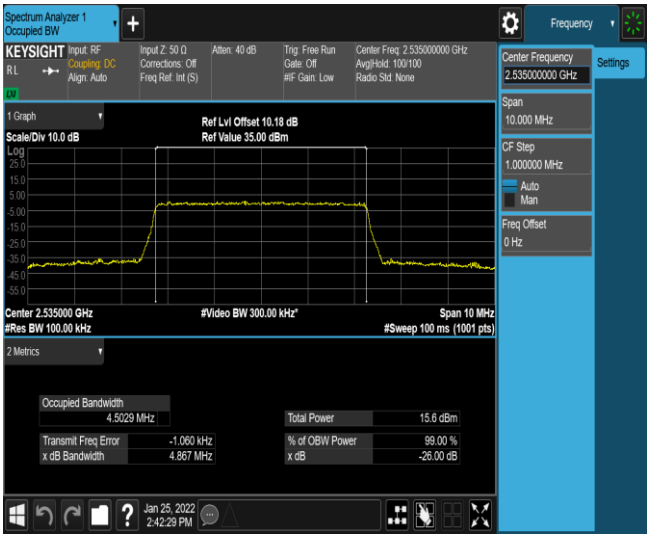

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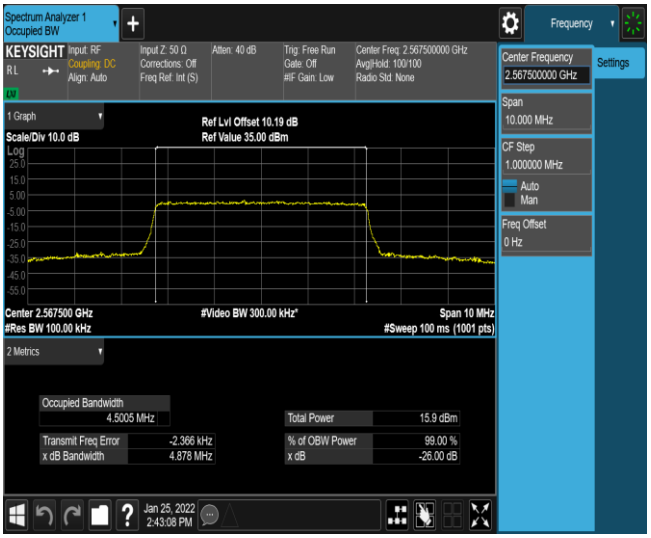

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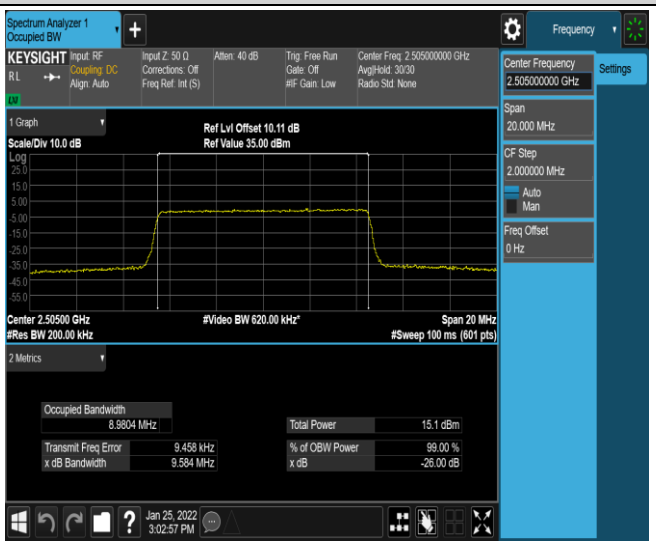

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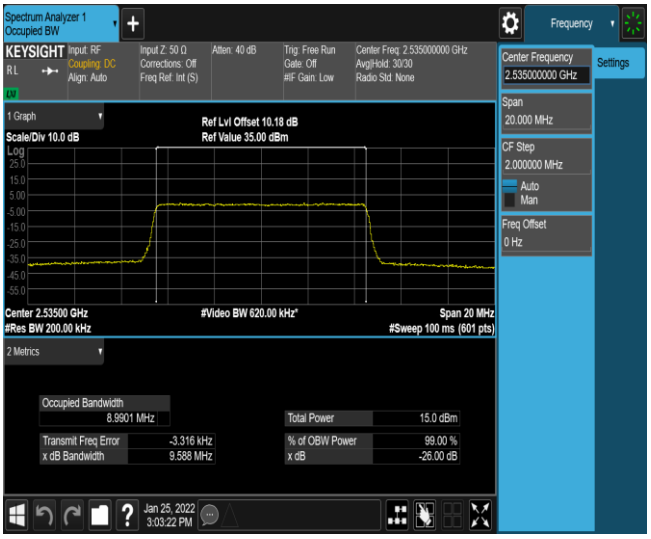

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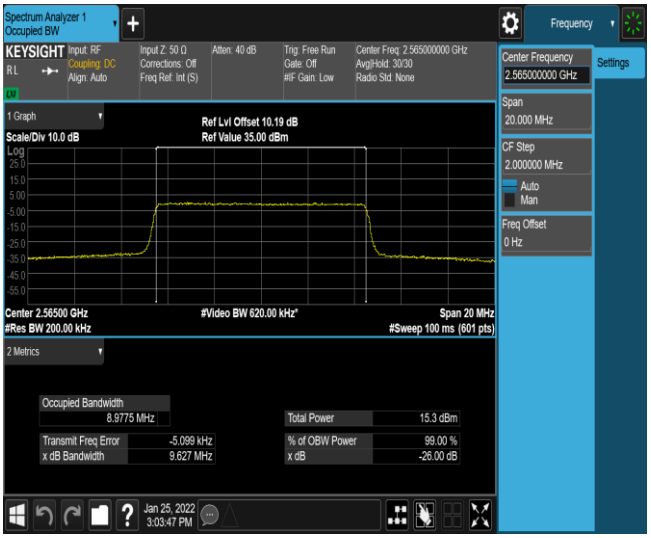

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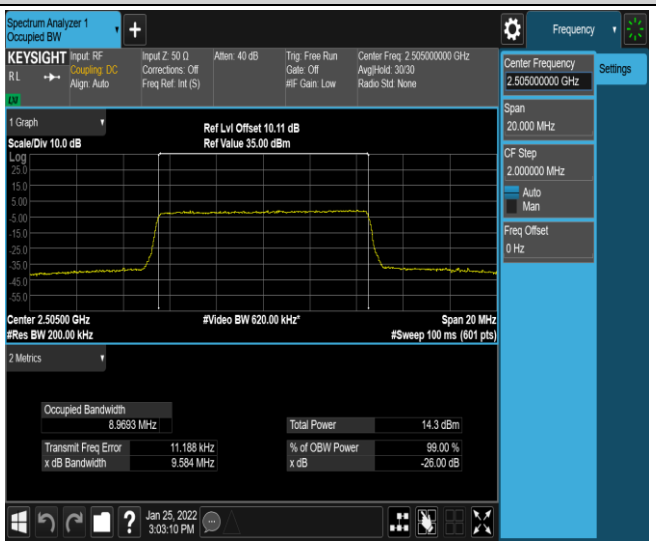

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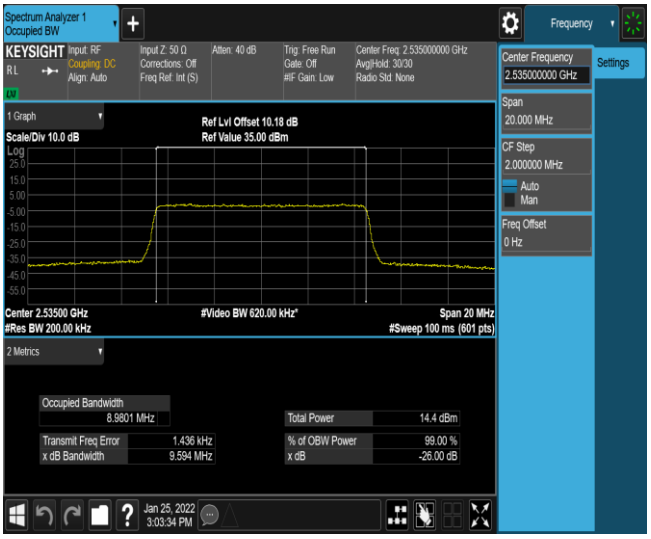

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