Appendix-A LTE Band 30

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Verdict
Band30	5MHz	QPSK	27685	1RB#0	22	22.98	PASS
Band30	5MHz	QPSK	27685	1RB#12	21.87	22.85	PASS
Band30	5MHz	QPSK	27685	1RB#24	22.02	23	PASS
Band30	5MHz	QPSK	27685	25RB#0	21.47	22.45	PASS
Band30	5MHz	QPSK	27710	1RB#0	21.98	22.96	PASS
Band30	5MHz	QPSK	27710	1RB#12	22.03	23.01	PASS
Band30	5MHz	QPSK	27710	1RB#24	21.92	22.9	PASS
Band30	5MHz	QPSK	27710	25RB#0	21.52	22.5	PASS
Band30	5MHz	QPSK	27735	1RB#0	22.06	23.04	PASS
Band30	5MHz	QPSK	27735	1RB#12	21.99	22.97	PASS
Band30	5MHz	QPSK	27735	1RB#24	21.95	22.93	PASS
Band30	5MHz	QPSK	27735	25RB#0	21.49	22.47	PASS
Band30	5MHz	16QAM	27685	1RB#0	20.99	21.97	PASS
Band30	5MHz	16QAM	27685	1RB#12	21.13	22.11	PASS
Band30	5MHz	16QAM	27685	1RB#24	21	21.98	PASS
Band30	5MHz	16QAM	27685	25RB#0	20.52	21.5	PASS
Band30	5MHz	16QAM	27710	1RB#0	21.18	22.16	PASS
Band30	5MHz	16QAM	27710	1RB#12	21.08	22.06	PASS
Band30	5MHz	16QAM	27710	1RB#24	20.87	21.85	PASS
Band30	5MHz	16QAM	27710	25RB#0	20.48	21.46	PASS
Band30	5MHz	16QAM	27735	1RB#0	21.12	22.1	PASS
Band30	5MHz	16QAM	27735	1RB#12	20.98	21.96	PASS
Band30	5MHz	16QAM	27735	1RB#24	20.99	21.97	PASS
Band30	5MHz	16QAM	27735	25RB#0	20.52	21.5	PASS
Band30	5MHz	64QAM	27685	1RB#0	20.48	21.46	PASS
Band30	5MHz	64QAM	27685	1RB#12	20.42	21.4	PASS
Band30	5MHz	64QAM	27685	1RB#24	20.53	21.51	PASS
Band30	5MHz	64QAM	27685	25RB#0	19.39	20.37	PASS
Band30	5MHz	64QAM	27710	1RB#0	20.38	21.36	PASS
Band30	5MHz	64QAM	27710	1RB#12	20.58	21.56	PASS
Band30	5MHz	64QAM	27710	1RB#24	20.53	21.51	PASS
Band30	5MHz	64QAM	27710	25RB#0	19.53	20.51	PASS
Band30	5MHz	64QAM	27735	1RB#0	20.09	21.07	PASS
Band30	5MHz	64QAM	27735	1RB#12	20.03	21.01	PASS
Band30	5MHz	64QAM	27735	1RB#24	20.14	21.12	PASS
Band30	5MHz	64QAM	27735	25RB#0	19.48	20.46	PASS

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Band30	10MHz	QPSK	27710	1RB#0	21.93	22.91	PASS
Band30	10MHz	QPSK	27710	1RB#24	21.94	22.92	PASS
Band30	10MHz	QPSK	27710	1RB#49	21.95	22.93	PASS
Band30	10MHz	QPSK	27710	50RB#0	21.53	22.51	PASS
Band30	10MHz	16QAM	27710	1RB#0	20.86	21.84	PASS
Band30	10MHz	16QAM	27710	1RB#24	21.17	22.15	PASS
Band30	10MHz	16QAM	27710	1RB#49	20.78	21.76	PASS
Band30	10MHz	16QAM	27710	50RB#0	20.44	21.42	PASS
Band30	10MHz	64QAM	27710	1RB#0	20.06	21.04	PASS
Band30	10MHz	64QAM	27710	1RB#24	20.12	21.1	PASS
Band30	10MHz	64QAM	27710	1RB#49	20.13	21.11	PASS
Band30	10MHz	64QAM	27710	50RB#0	19.42	20.4	PASS

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Maximum EIRP and Maximum PSD

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm/5MHz)	EIRP (dBm/5MHz)	Limit (dBm/5MHz)	Verdict
Band30	5MHz	QPSK	27685	1RB#0	22.87	23.85	23.98	PASS
Band30	5MHz	QPSK	27685	1RB#12	22.97	23.95	23.98	PASS
Band30	5MHz	QPSK	27685	1RB#24	23	23.98	23.98	PASS
Band30	5MHz	QPSK	27685	25RB#0	21.06	22.04	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#0	22.97	23.95	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#12	22.53	23.51	23.98	PASS
Band30	5MHz	QPSK	27710	1RB#24	22.49	23.47	23.98	PASS
Band30	5MHz	QPSK	27710	25RB#0	21.1	22.08	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#0	22.87	23.85	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#12	22.63	23.61	23.98	PASS
Band30	5MHz	QPSK	27735	1RB#24	22.46	23.44	23.98	PASS
Band30	5MHz	QPSK	27735	25RB#0	21.09	22.07	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#0	22.51	23.49	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#24	22.53	23.51	23.98	PASS
Band30	10MHz	QPSK	27710	1RB#49	22.57	23.55	23.98	PASS
Band30	10MHz	QPSK	27710	50RB#0	19.06	20.04	23.98	PASS

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Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.51	13	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.48	13	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.44	13	PASS
Band30	5MHz	16QAM	27685	25RB#0	5.28	13	PASS
Band30	5MHz	16QAM	27710	25RB#0	5.32	13	PASS
Band30	5MHz	16QAM	27735	25RB#0	5.32	13	PASS
Band30	10MHz	QPSK	27710	50RB#0	4.61	13	PASS
Band30	10MHz	64QAM	27710	50RB#0	6.01	13	PASS
Band30	10MHz	16QAM	27710	50RB#0	5.31	13	PASS

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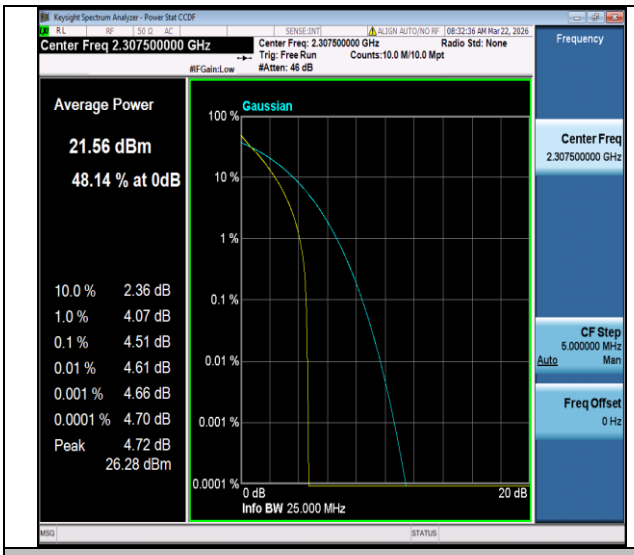
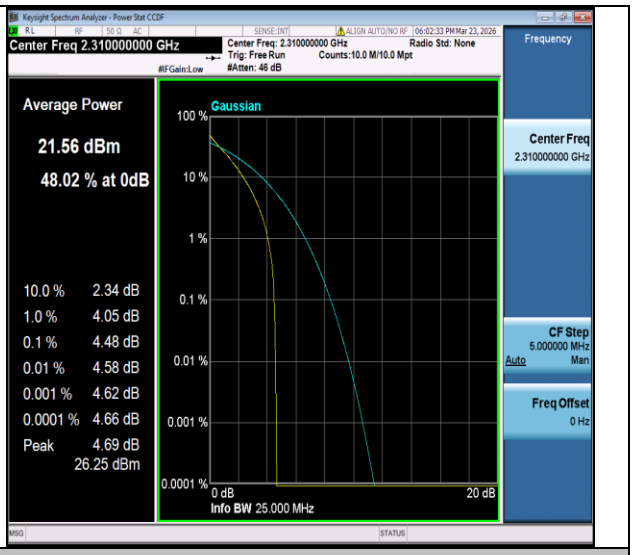
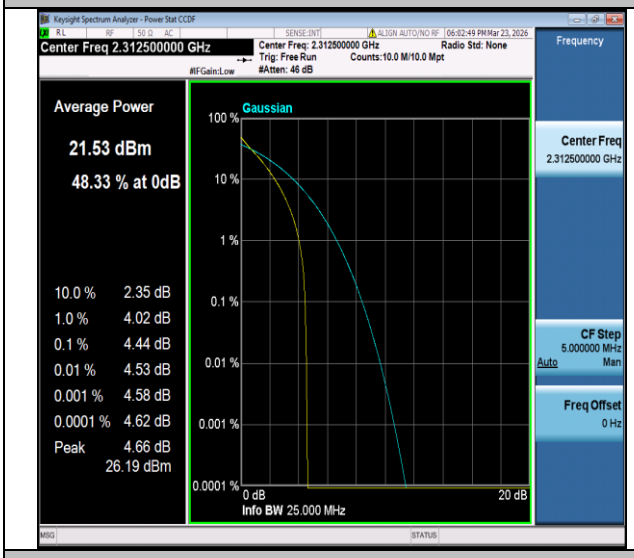
Test Graphs



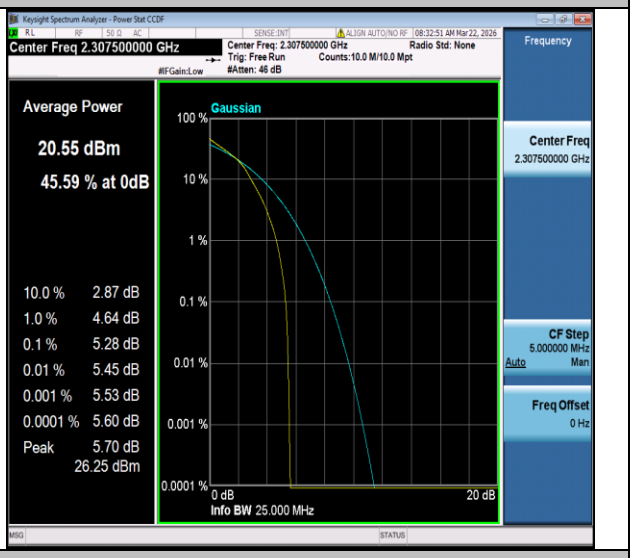
Band30-5MHz-QPSK-27685-25RB#0-PASS



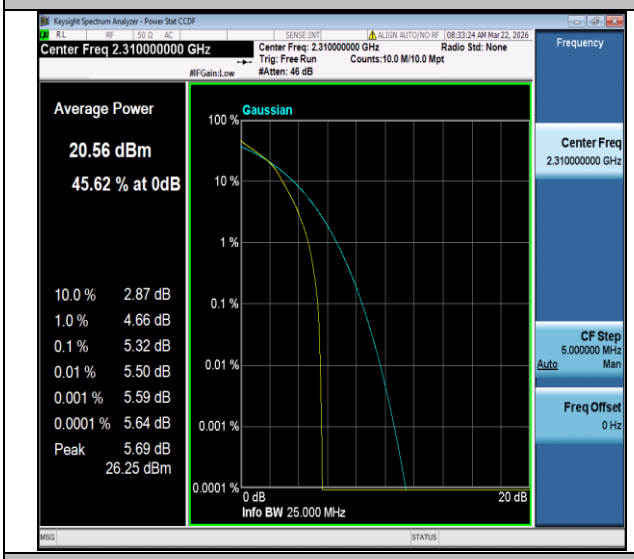
Band30-5MHz-QPSK-27710-25RB#0-PASS



Band30-5MHz-QPSK-27735-25RB#0-PASS



Band30-5MHz-16QAM-27685-25RB#0-PASS



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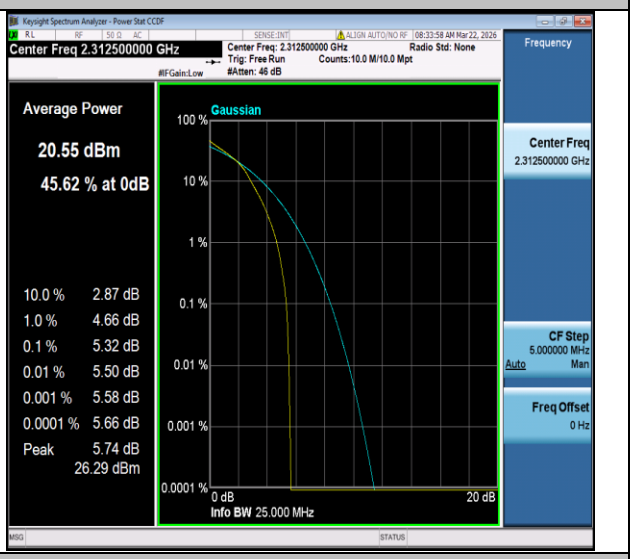

Band30-5MHz-16QAM-27735-25RB#0-PASS

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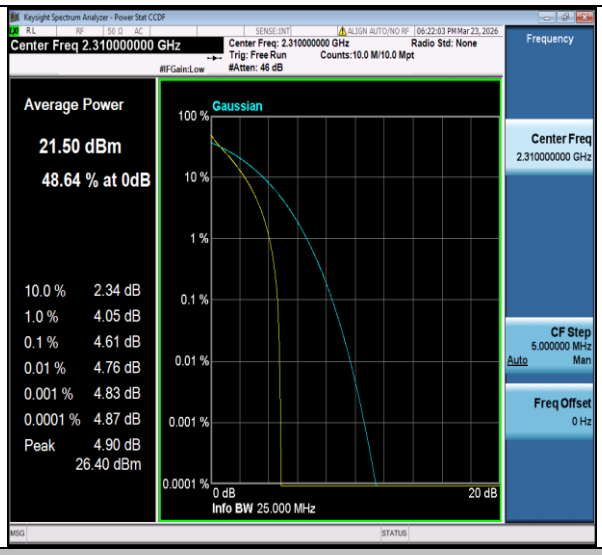
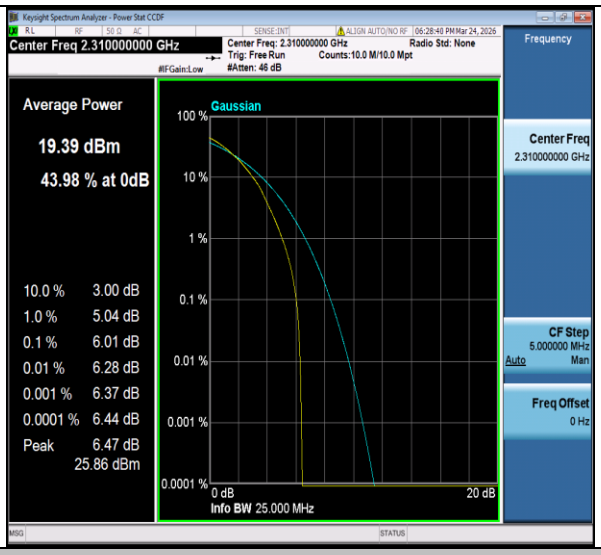
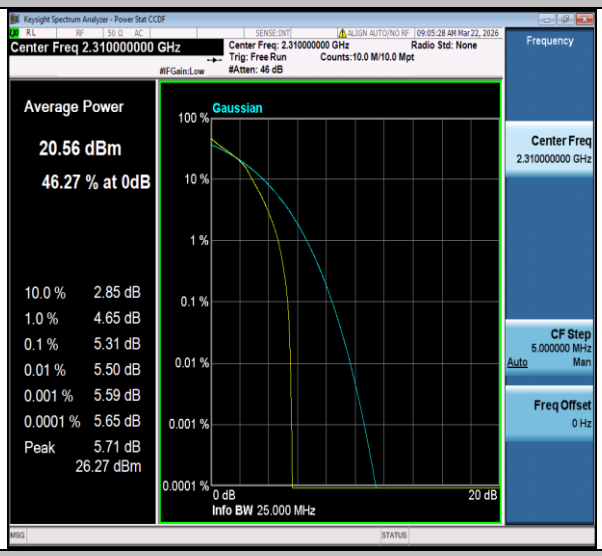


Band30-10MHz-QPSK-27710-50RB#0-PASS



Band30-10MHz-64QAM-27710-50RB#0-PASS



Band30-10MHz-16QAM-27710-50RB#0-PASS

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26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.4889	4.961	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.4885	5.058	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.4904	4.951	PASS
Band30	5MHz	64QAM	27685	25RB#0	4.4992	4.971	PASS
Band30	5MHz	64QAM	27710	25RB#0	4.4996	4.961	PASS
Band30	5MHz	64QAM	27735	25RB#0	4.4980	4.971	PASS
Band30	5MHz	16QAM	27685	25RB#0	4.4858	4.961	PASS
Band30	5MHz	16QAM	27710	25RB#0	4.4928	4.980	PASS
Band30	5MHz	16QAM	27735	25RB#0	4.4923	4.983	PASS
Band30	10MHz	QPSK	27710	50RB#0	9.0131	9.814	PASS
Band30	10MHz	64QAM	27710	50RB#0	8.9828	9.849	PASS
Band30	10MHz	16QAM	27710	50RB#0	8.9685	9.794	PASS

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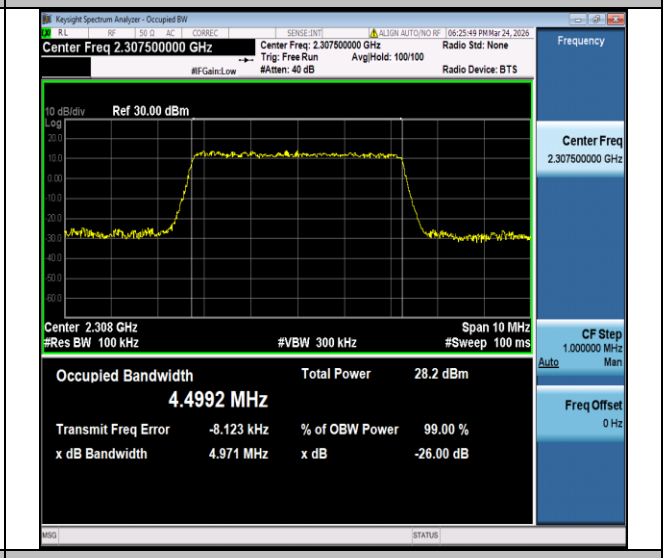
Test Graphs

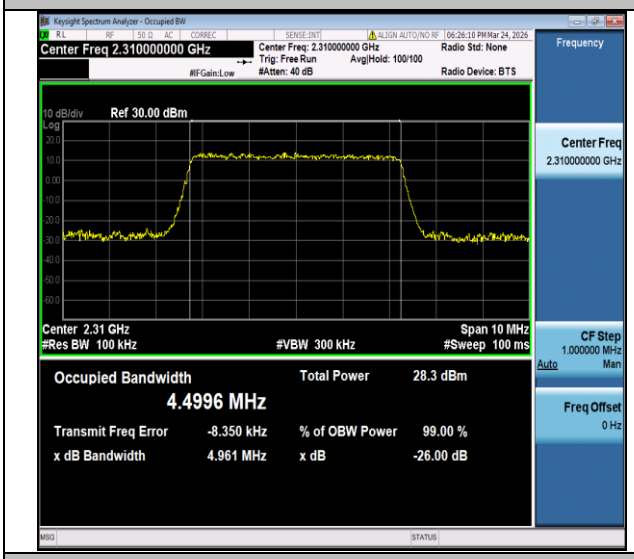
Band30-5MHz-QPSK-27685-25RB#0-PASS

Band30-5MHz-QPSK-27710-25RB#0-PASS

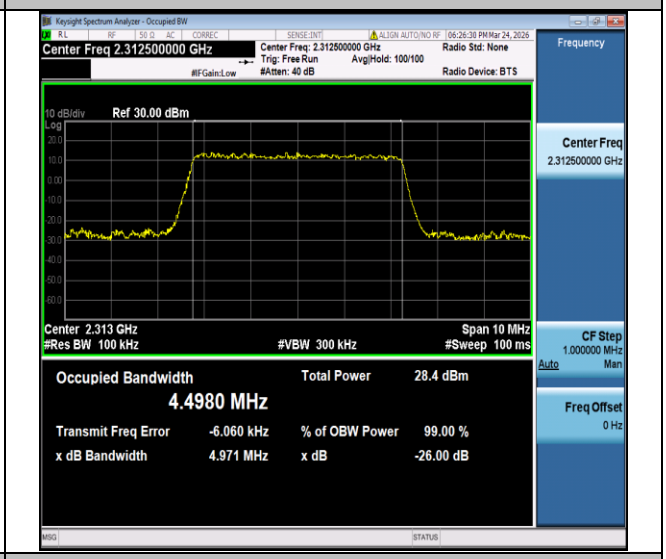
Band30-5MHz-QPSK-27735-25RB#0-PASS



Band30-5MHz-64QAM-27685-25RB#0-PASS



Band30-5MHz-64QAM-27710-25RB#0-PASS



Band30-5MHz-64QAM-27735-25RB#0-PASS

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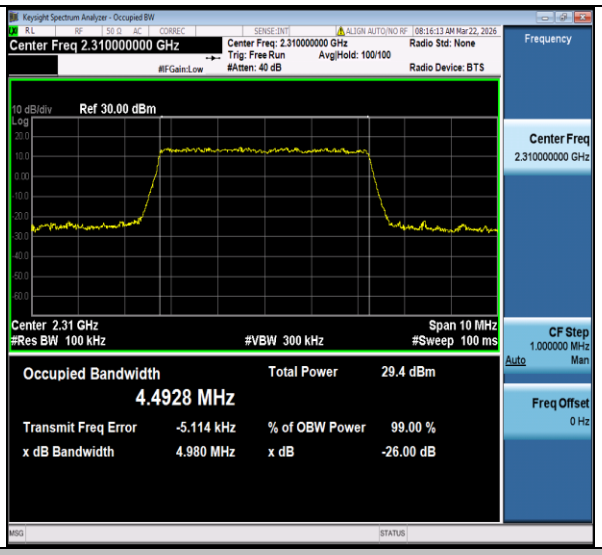
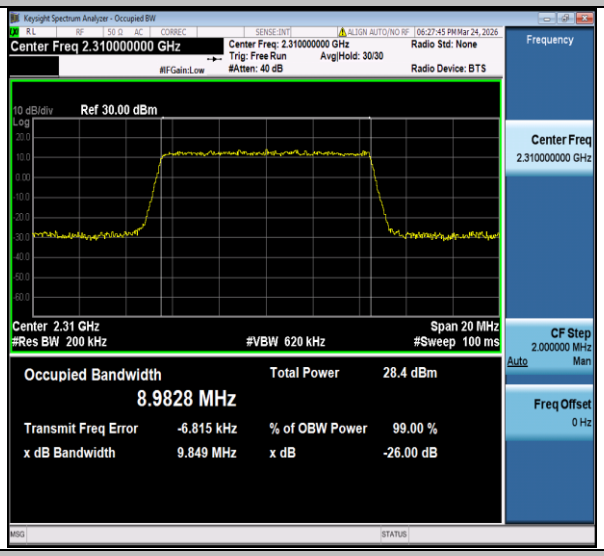
Band30-5MHz-16QAM-27685-25RB#0-PASS



Band30-5MHz-16QAM-27710-25RB#0-PASS

Band30-5MHz-16QAM-27735-25RB#0-PASS

Band30-10MHz-QPSK-27710-50RB#0-PASS



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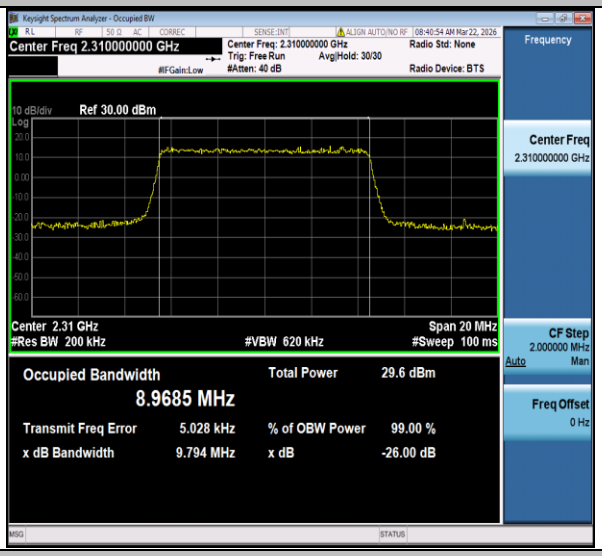

Band30-10MHz-16QAM-27710-50RB#0-PASS

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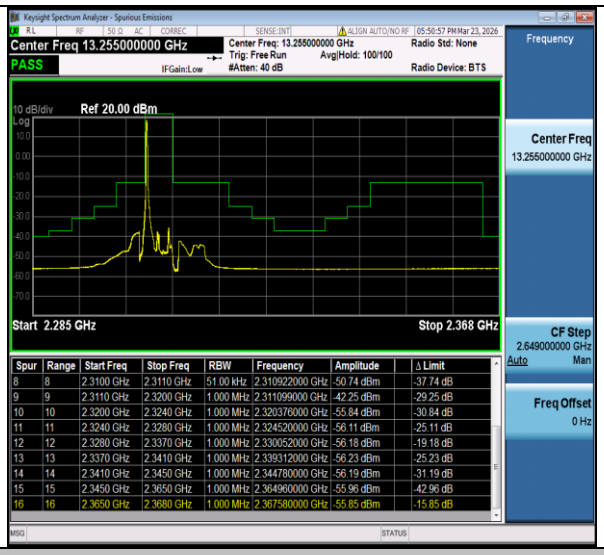
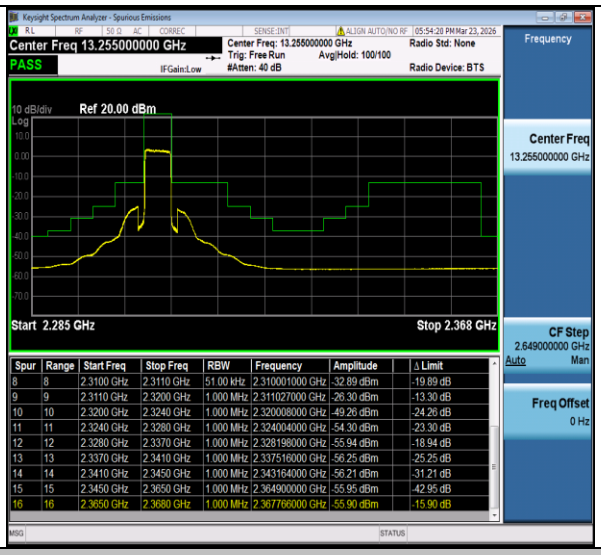
Band Edge

Test Graphs



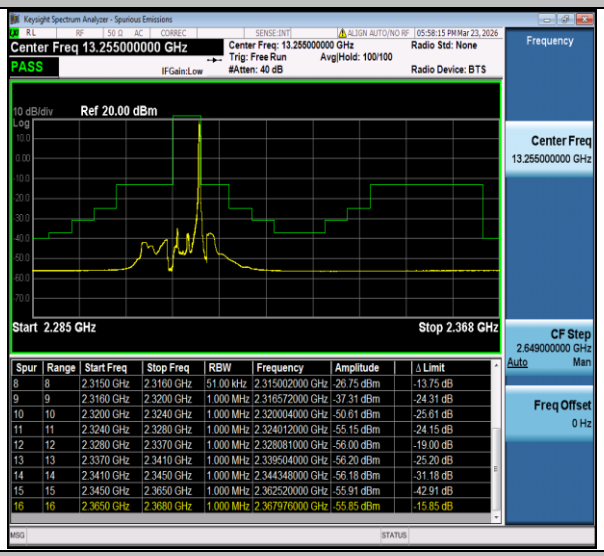
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3100 GHz	2.3110 GHz	51.00 kHz	2.310922000 GHz	-50.74 dBm	-37.74 dB
9	9	2.3110 GHz	2.3200 GHz	1.000 MHz	2.311099000 GHz	-42.25 dBm	-29.25 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320376000 GHz	-55.84 dBm	-30.84 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324520000 GHz	-56.11 dBm	-25.11 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.330052000 GHz	-56.18 dBm	-19.18 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.339312000 GHz	-56.23 dBm	-25.23 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344780000 GHz	-56.19 dBm	-31.19 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.364960000 GHz	-55.96 dBm	-42.96 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367580000 GHz	-55.85 dBm	-15.85 dB

Band30-5MHz-QPSK-27685-1RB#0-PASS



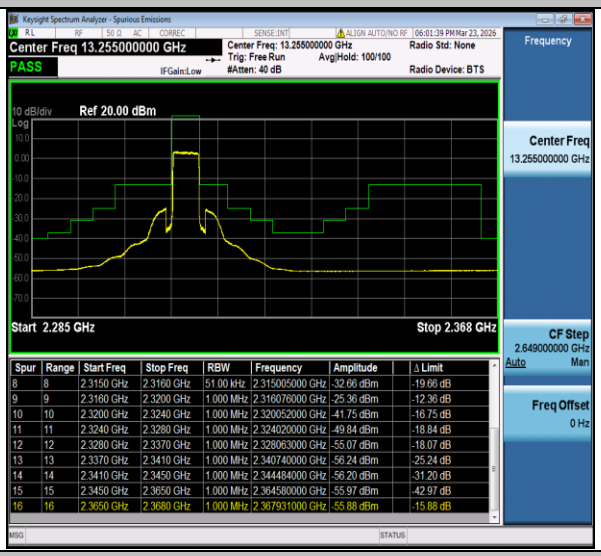
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3100 GHz	2.3110 GHz	51.00 kHz	2.310001000 GHz	-32.89 dBm	-19.89 dB
9	9	2.3110 GHz	2.3200 GHz	1.000 MHz	2.311027000 GHz	-26.30 dBm	-13.30 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320008000 GHz	-49.26 dBm	-24.26 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324004000 GHz	-54.30 dBm	-23.30 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328198000 GHz	-55.94 dBm	-18.94 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337516000 GHz	-56.25 dBm	-25.25 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343164000 GHz	-56.21 dBm	-31.21 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.364900000 GHz	-55.95 dBm	-42.95 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367766000 GHz	-55.90 dBm	-15.90 dB

Band30-5MHz-QPSK-27685-25RB#0-PASS



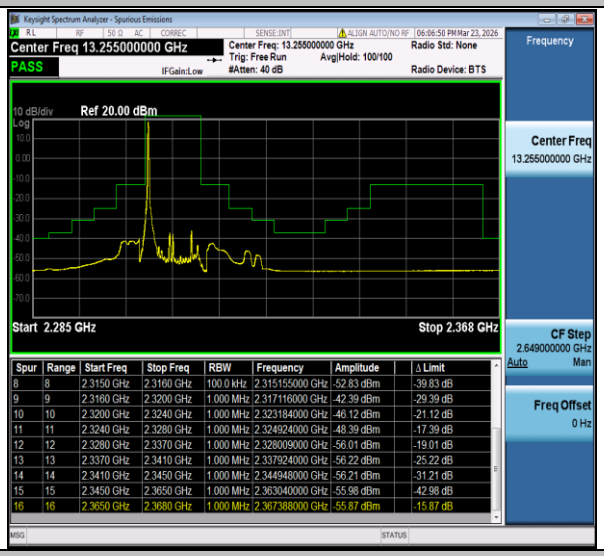
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	51.00 kHz	2.315002000 GHz	-26.75 dBm	-13.75 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316572000 GHz	-37.31 dBm	-24.31 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320004000 GHz	-50.61 dBm	-25.61 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324012000 GHz	-55.15 dBm	-24.15 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328081000 GHz	-56.00 dBm	-19.00 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.339504000 GHz	-56.20 dBm	-25.20 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344348000 GHz	-56.18 dBm	-31.18 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.362520000 GHz	-55.91 dBm	-42.91 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367976000 GHz	-55.85 dBm	-15.85 dB

Band30-5MHz-QPSK-27735-1RB#24-PASS



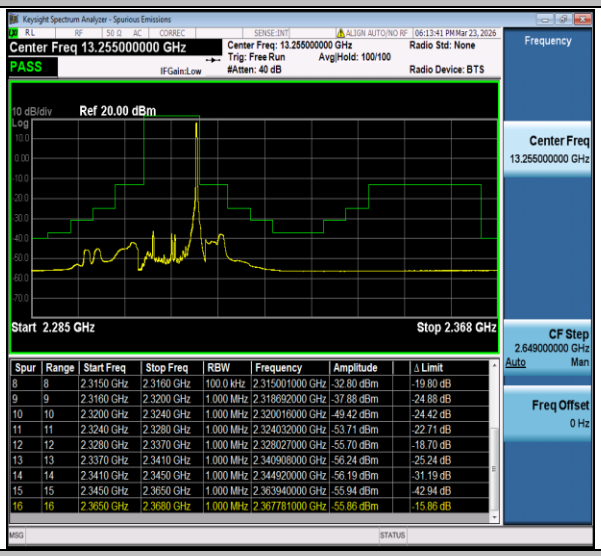
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	51.00 kHz	2.315005000 GHz	-32.66 dBm	-19.66 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316076000 GHz	-25.36 dBm	-12.36 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320052000 GHz	-41.75 dBm	-16.75 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324020000 GHz	-49.84 dBm	-18.84 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328063000 GHz	-55.07 dBm	-18.07 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.340740000 GHz	-56.24 dBm	-25.24 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344484000 GHz	-56.20 dBm	-31.20 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.364580000 GHz	-55.97 dBm	-42.97 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367931000 GHz	-55.88 dBm	-15.88 dB

Band30-5MHz-QPSK-27735-25RB#0-PASS



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315155000 GHz	-52.83 dBm	-39.83 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.317116000 GHz	-42.39 dBm	-29.39 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.323184000 GHz	-46.12 dBm	-21.12 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324924000 GHz	-48.39 dBm	-17.39 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328009000 GHz	-56.01 dBm	-19.01 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.337924000 GHz	-56.22 dBm	-25.22 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344948000 GHz	-56.21 dBm	-31.21 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.363040000 GHz	-55.98 dBm	-42.98 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367388000 GHz	-55.87 dBm	-15.87 dB

Band30-10MHz-QPSK-27710-1RB#0-PASS



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315001000 GHz	-32.80 dBm	-19.80 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.318692000 GHz	-37.88 dBm	-24.88 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320016000 GHz	-49.42 dBm	-24.42 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324032000 GHz	-53.71 dBm	-22.71 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328027000 GHz	-55.70 dBm	-18.70 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.340908000 GHz	-56.24 dBm	-25.24 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.344920000 GHz	-56.19 dBm	-31.19 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.363940000 GHz	-55.94 dBm	-42.94 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367781000 GHz	-55.86 dBm	-15.86 dB

Band30-10MHz-QPSK-27710-1RB#49-PASS

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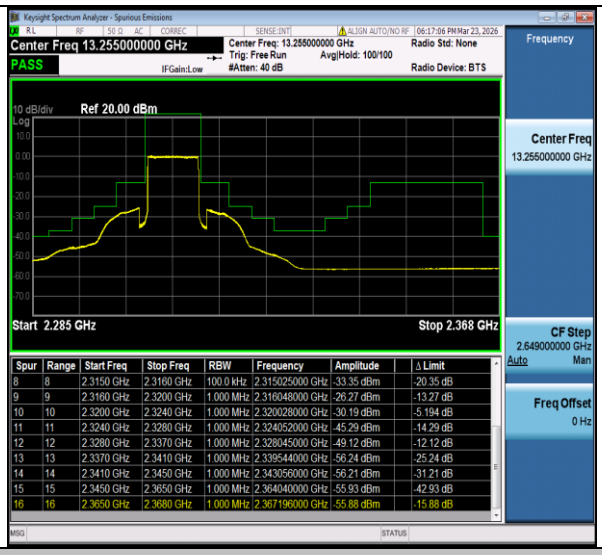

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
8	8	2.3150 GHz	2.3160 GHz	100.0 kHz	2.315025000 GHz	-33.35 dBm	-20.35 dB
9	9	2.3160 GHz	2.3200 GHz	1.000 MHz	2.316048000 GHz	-26.27 dBm	-13.27 dB
10	10	2.3200 GHz	2.3240 GHz	1.000 MHz	2.320028000 GHz	-30.19 dBm	-5.194 dB
11	11	2.3240 GHz	2.3280 GHz	1.000 MHz	2.324052000 GHz	-45.29 dBm	-14.29 dB
12	12	2.3280 GHz	2.3370 GHz	1.000 MHz	2.328045000 GHz	-49.12 dBm	-12.12 dB
13	13	2.3370 GHz	2.3410 GHz	1.000 MHz	2.339544000 GHz	-56.24 dBm	-25.24 dB
14	14	2.3410 GHz	2.3450 GHz	1.000 MHz	2.343056000 GHz	-56.21 dBm	-31.21 dB
15	15	2.3450 GHz	2.3650 GHz	1.000 MHz	2.364040000 GHz	-55.93 dBm	-42.93 dB
16	16	2.3650 GHz	2.3680 GHz	1.000 MHz	2.367196000 GHz	-55.88 dBm	-15.88 dB

Band30-10MHz-QPSK-27710-50RB#0-PASS

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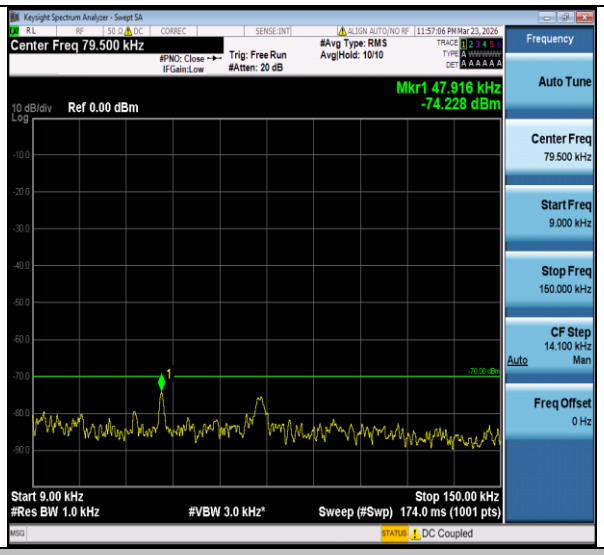
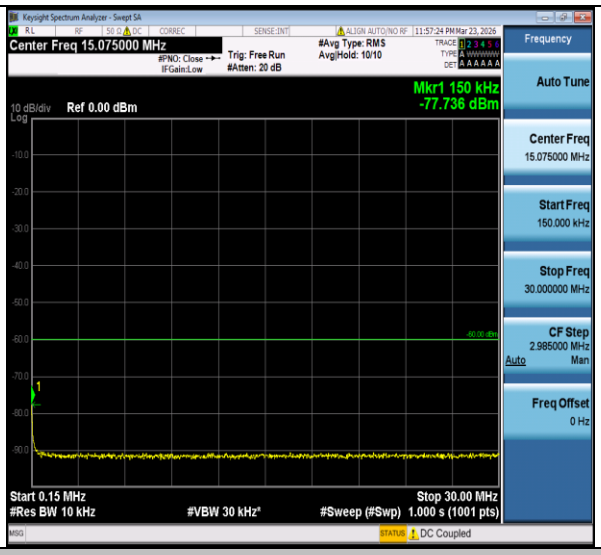
Conducted Spurious Emission

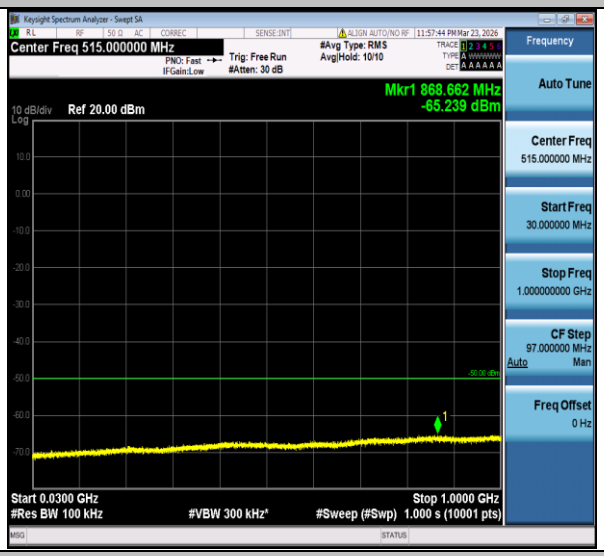
Test Graphs



Band30-10MHz-QPSK-27710-1RB#0-0.009~0.15-PASS

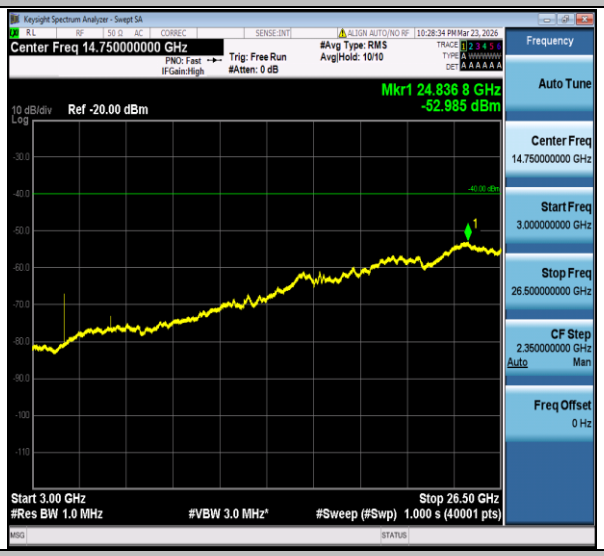


Band30-10MHz-QPSK-27710-1RB#0-0.15~30-PASS



Band30-10MHz-QPSK-27710-1RB#0-30~1000-PASS

Band30-10MHz-QPSK-27710-1RB#0-1000~3000-PASS



Band30-10MHz-QPSK-27710-1RB#0-3000~26500-PASS

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Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	VN	NT	-18.10	-0.007835	PASS
Band30	10MHz	QPSK	27710	50RB#0	VL	NT	5.20	0.002251	PASS
Band30	10MHz	QPSK	27710	50RB#0	VH	NT	-4.00	-0.001732	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
Band30	10MHz	QPSK	27710	50RB#0	NV	-30	1.40	0.000606	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-20	6.00	0.002597	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	-10	15.10	0.006537	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	0	-3.10	-0.001342	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	10	1.30	0.000563	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	20	-7.00	-0.003030	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	30	-17.00	-0.007359	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	40	23.50	0.010173	PASS
Band30	10MHz	QPSK	27710	50RB#0	NV	50	-2.80	-0.001212	PASS

~The End~

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