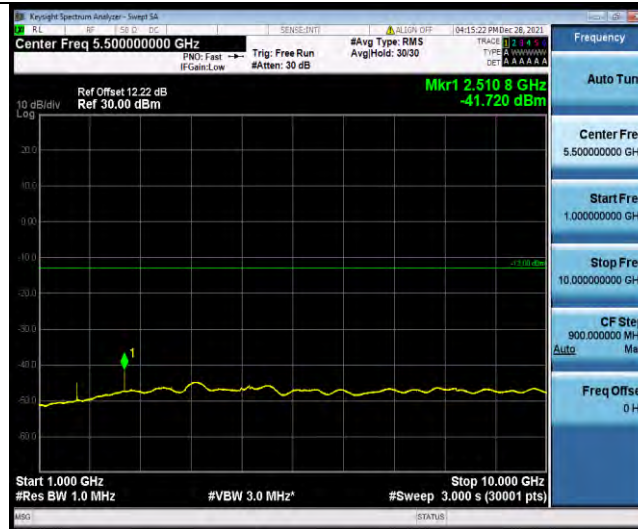




BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03



GSM850-190-3-30~1000MHz



GSM850-190-3-1000~10000MHz



GSM850-251-3-30~1000MHz



BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03



GSM850-251-3-1000~10000MHz



EGPRS850-128-8-30~1000MHz



EGPRS850-128-8-1000~10000MHz



BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03



EGPRS850-190-8-30~1000MHz



EGPRS850-190-8-1000~10000MHz



EGPRS850-251-8-30~1000MHz



BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03



EGPRS850-251-8-1000~10000MHz



FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	NT	3.75	0.004550	±2.5	PASS
GSM850	128	VN	NT	2.36	0.002863	±2.5	PASS
GSM850	128	VH	NT	6.62	0.008032	±2.5	PASS
GSM850	190	VL	NT	6.49	0.007758	±2.5	PASS
GSM850	190	VN	NT	-6.59	-0.007877	±2.5	PASS
GSM850	190	VH	NT	6.33	0.007566	±2.5	PASS
GSM850	251	VL	NT	-9.07	-0.010686	±2.5	PASS
GSM850	251	VN	NT	-7.10	-0.008365	±2.5	PASS
GSM850	251	VH	NT	-8.27	-0.009743	±2.5	PASS
EGPRS850	128	VL	NT	-6.49	-0.007874	±2.5	PASS
EGPRS850	128	VN	NT	-4.97	-0.006030	±2.5	PASS
EGPRS850	128	VH	NT	-4.62	-0.005605	±2.5	PASS
EGPRS850	190	VL	NT	-0.06	-0.000072	±2.5	PASS
EGPRS850	190	VN	NT	-0.77	-0.000920	±2.5	PASS
EGPRS850	190	VH	NT	-2.42	-0.002893	±2.5	PASS
EGPRS850	251	VL	NT	-2.26	-0.002663	±2.5	PASS
EGPRS850	251	VN	NT	-5.10	-0.006008	±2.5	PASS
EGPRS850	251	VH	NT	-2.20	-0.002592	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	NV	-30	3.84	0.004659	±2.5	PASS
GSM850	128	NV	-20	0.65	0.000789	±2.5	PASS
GSM850	128	NV	-10	1.42	0.001723	±2.5	PASS
GSM850	128	NV	0	13.69	0.016610	±2.5	PASS
GSM850	128	NV	10	2.91	0.003531	±2.5	PASS
GSM850	128	NV	20	9.23	0.011199	±2.5	PASS
GSM850	128	NV	30	2.16	0.002621	±2.5	PASS
GSM850	128	NV	40	4.71	0.005715	±2.5	PASS
GSM850	128	NV	50	5.78	0.007013	±2.5	PASS
GSM850	190	NV	-30	13.04	0.015587	±2.5	PASS
GSM850	190	NV	-20	10.36	0.012383	±2.5	PASS
GSM850	190	NV	-10	7.23	0.008642	±2.5	PASS
GSM850	190	NV	0	3.87	0.004626	±2.5	PASS
GSM850	190	NV	10	7.75	0.009264	±2.5	PASS
GSM850	190	NV	20	1.03	0.001231	±2.5	PASS
GSM850	190	NV	30	11.72	0.014009	±2.5	PASS
GSM850	190	NV	40	9.17	0.010961	±2.5	PASS
GSM850	190	NV	50	9.62	0.011499	±2.5	PASS



BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03

GSM850	251	NV	-30	-8.52	-0.010038	±2.5	PASS
GSM850	251	NV	-20	-11.01	-0.012971	±2.5	PASS
GSM850	251	NV	-10	-3.23	-0.003805	±2.5	PASS
GSM850	251	NV	0	-3.10	-0.003652	±2.5	PASS
GSM850	251	NV	10	-1.42	-0.001673	±2.5	PASS
GSM850	251	NV	20	-10.91	-0.012853	±2.5	PASS
GSM850	251	NV	30	-4.94	-0.005820	±2.5	PASS
GSM850	251	NV	40	-11.88	-0.013996	±2.5	PASS
GSM850	251	NV	50	-15.05	-0.017731	±2.5	PASS
EGPRS850	128	NV	-30	-7.23	-0.008772	±2.5	PASS
EGPRS850	128	NV	-20	-2.36	-0.002863	±2.5	PASS
EGPRS850	128	NV	-10	-6.78	-0.008226	±2.5	PASS
EGPRS850	128	NV	0	-7.68	-0.009318	±2.5	PASS
EGPRS850	128	NV	10	-3.07	-0.003725	±2.5	PASS
EGPRS850	128	NV	20	-1.55	-0.001881	±2.5	PASS
EGPRS850	128	NV	30	-0.61	-0.000740	±2.5	PASS
EGPRS850	128	NV	40	-2.13	-0.002584	±2.5	PASS
EGPRS850	128	NV	50	-1.74	-0.002111	±2.5	PASS
EGPRS850	190	NV	-30	1.71	0.002044	±2.5	PASS
EGPRS850	190	NV	-20	-3.45	-0.004124	±2.5	PASS
EGPRS850	190	NV	-10	-0.94	-0.001124	±2.5	PASS
EGPRS850	190	NV	0	-0.23	-0.000275	±2.5	PASS
EGPRS850	190	NV	10	-4.04	-0.004829	±2.5	PASS
EGPRS850	190	NV	20	2.13	0.002546	±2.5	PASS
EGPRS850	190	NV	30	-1.36	-0.001626	±2.5	PASS
EGPRS850	190	NV	40	1.03	0.001231	±2.5	PASS
EGPRS850	190	NV	50	-4.62	-0.005522	±2.5	PASS
EGPRS850	251	NV	-30	-2.68	-0.003157	±2.5	PASS
EGPRS850	251	NV	-20	0.00	0.000000	±2.5	PASS
EGPRS850	251	NV	-10	2.97	0.003499	±2.5	PASS
EGPRS850	251	NV	0	1.97	0.002321	±2.5	PASS
EGPRS850	251	NV	10	0.06	0.000071	±2.5	PASS
EGPRS850	251	NV	20	-1.00	-0.001178	±2.5	PASS
EGPRS850	251	NV	30	2.49	0.002934	±2.5	PASS
EGPRS850	251	NV	40	-2.87	-0.003381	±2.5	PASS
EGPRS850	251	NV	50	-3.39	-0.003994	±2.5	PASS

WCMDA BAND5

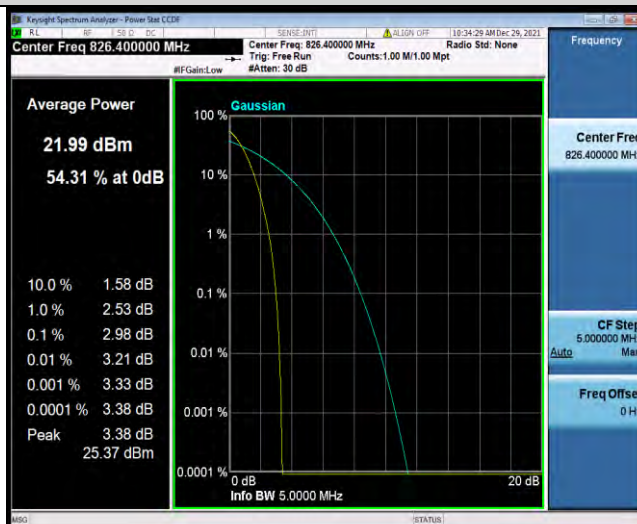
PEAK-TO-AVERAGE RATIO

Test Result

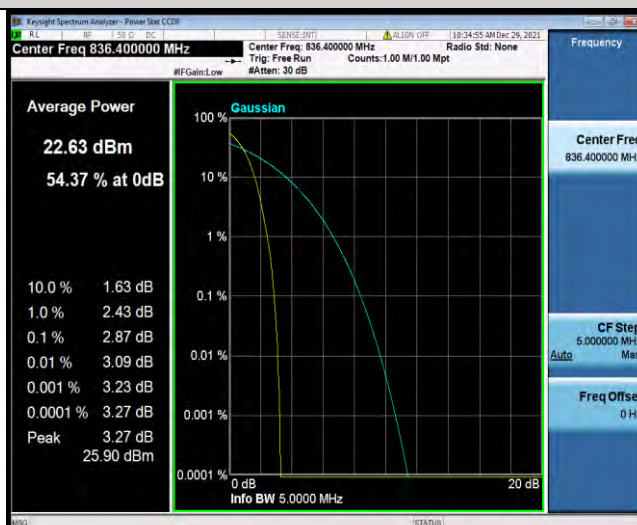
Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band5	4132	2.98	13	PASS
Band5	4182	2.87	13	PASS
Band5	4233	2.76	13	PASS

Test Graphs

Band5-4132



Band5-4182



Band5-4233



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VERITAS

Test Report No.: W7L-P21120037RF03



26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band5	4132	4.1613	4.693	---	PASS
Band5	4182	4.1659	4.689	---	PASS
Band5	4233	4.1667	4.698	---	PASS

Test Graphs





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VERITAS

Test Report No.: W7L-P21120037RF03

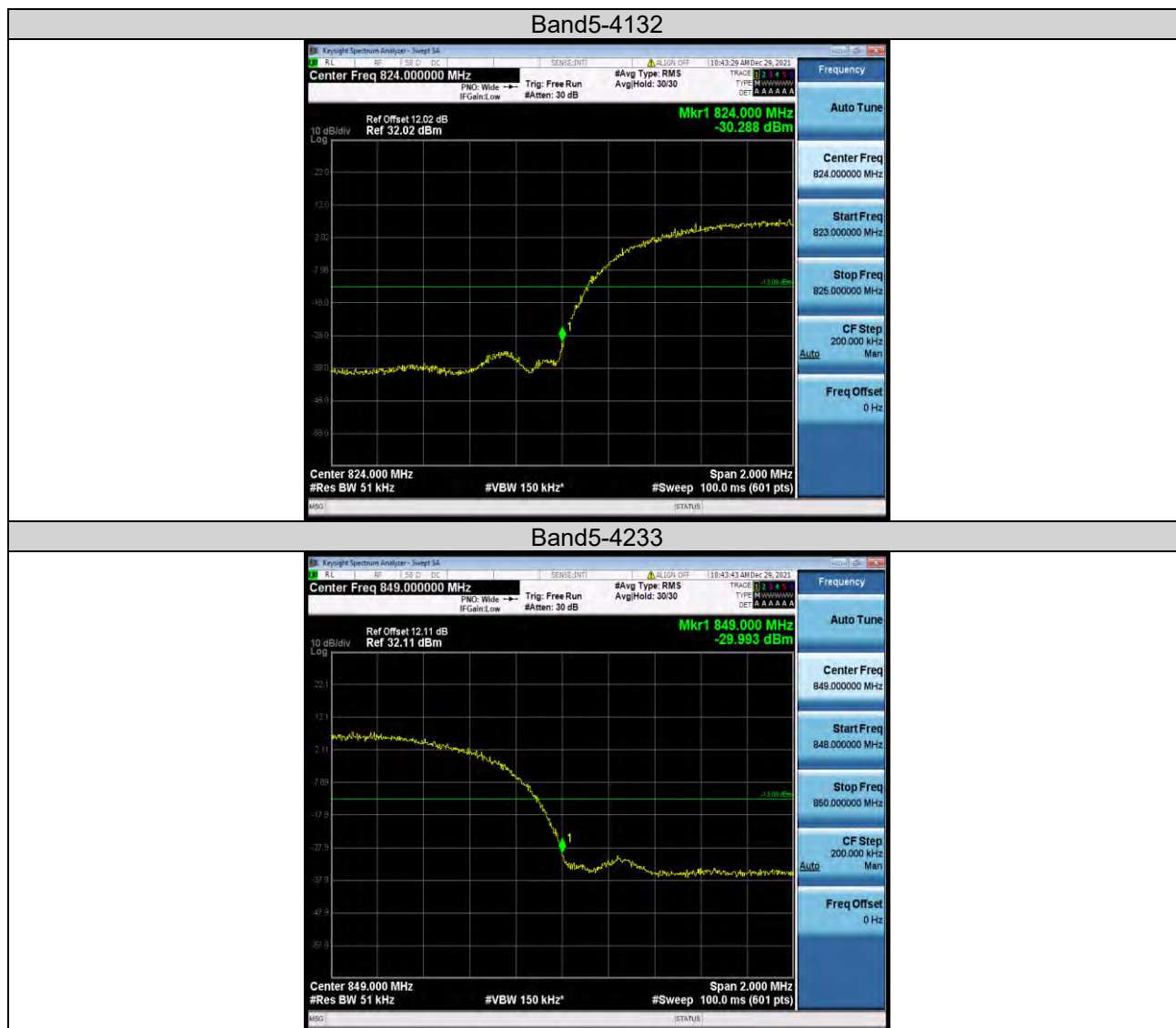


BAND EDGE

Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band5	4132	824.00	-30.29	-13	PASS
Band5	4233	849.00	-29.99	-13	PASS

Test Graphs

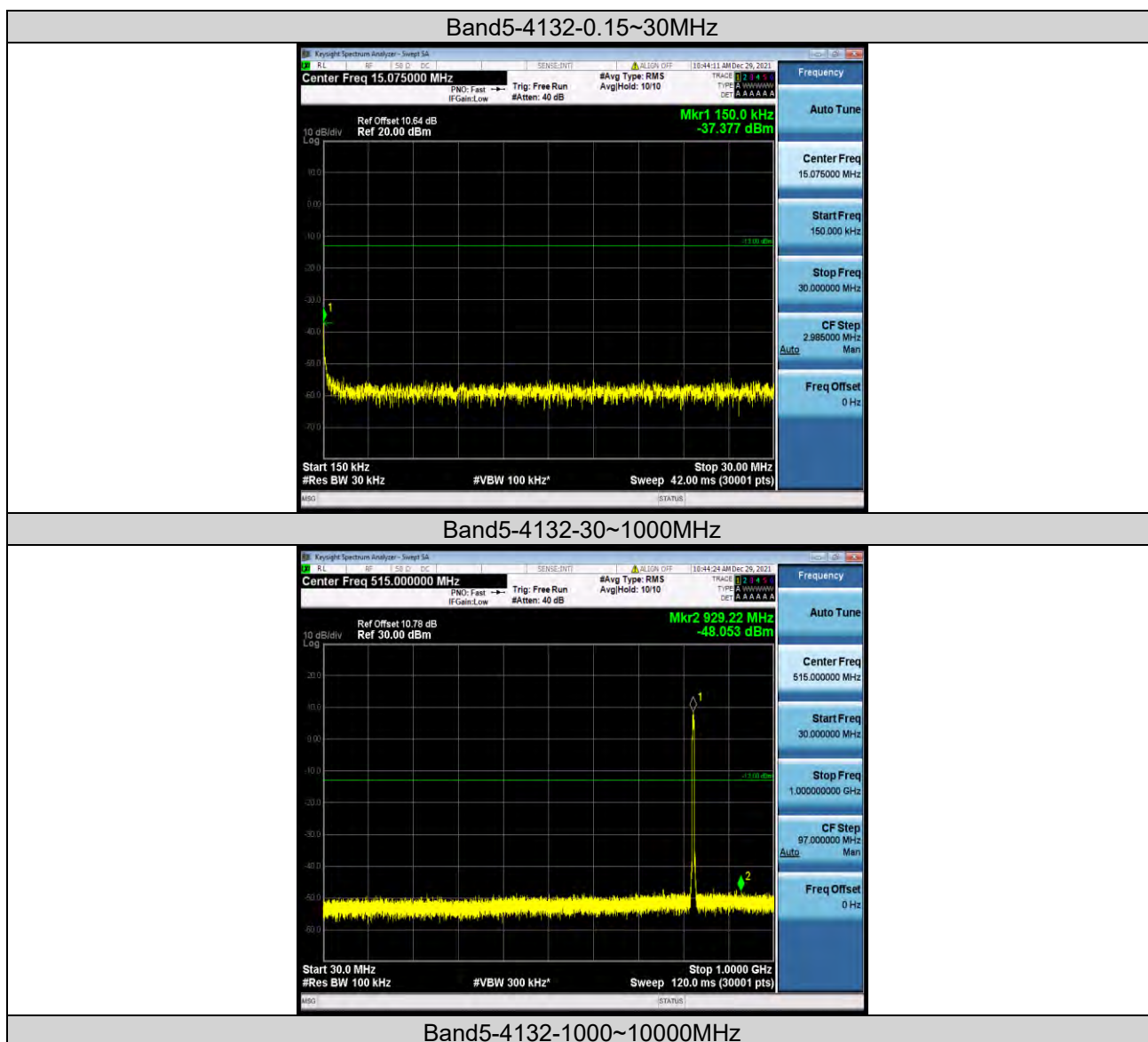


CONDUCTED SPURIOUS EMISSION

Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band5	4132	0.15~30MHz	0.15	-37.38	-13	PASS
Band5	4132	30~1000MHz	929.22	-48.05	-13	PASS
Band5	4132	1000~10000MHz	3815.8	-34.72	-13	PASS
Band5	4182	0.15~30MHz	0.16	-38.75	-13	PASS
Band5	4182	30~1000MHz	954.86	-47.85	-13	PASS
Band5	4182	1000~10000MHz	3770.2	-34.7	-13	PASS
Band5	4233	0.15~30MHz	0.15	-38.73	-13	PASS
Band5	4233	30~1000MHz	995.7	-47.95	-13	PASS
Band5	4233	1000~10000MHz	3797.5	-34.62	-13	PASS

Test Graphs



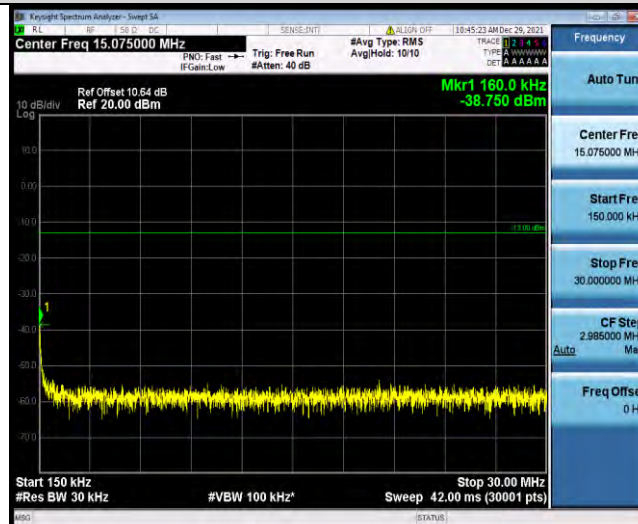


BUREAU
VERITAS

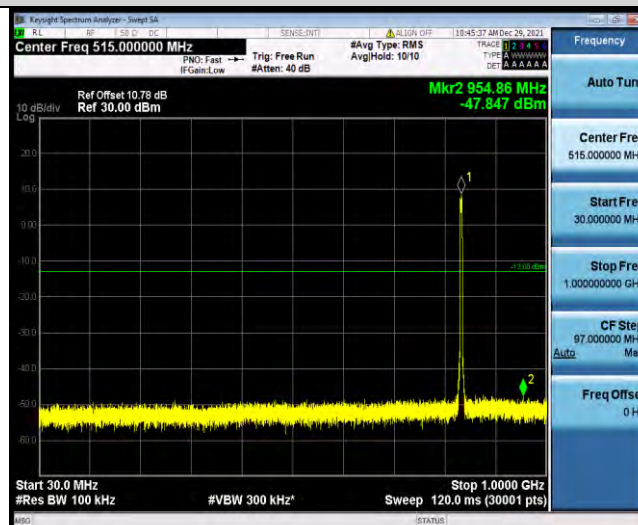
Test Report No.: W7L-P21120037RF03



Band5-4182-0.15~30MHz



Band5-4182-30~1000MHz

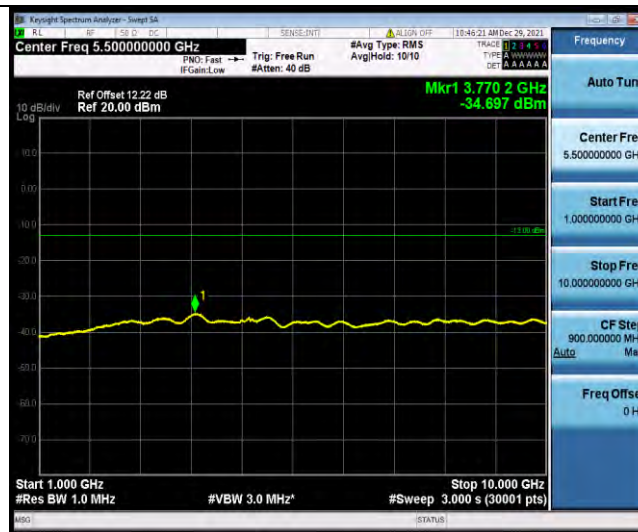


Band5-4182-1000~10000MHz

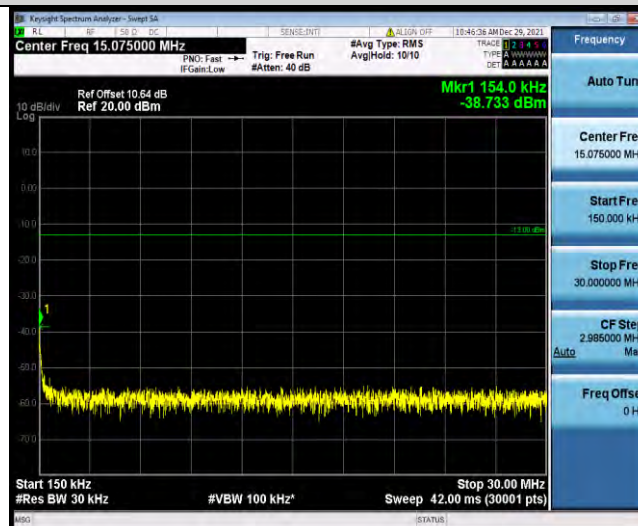


BUREAU
VERITAS

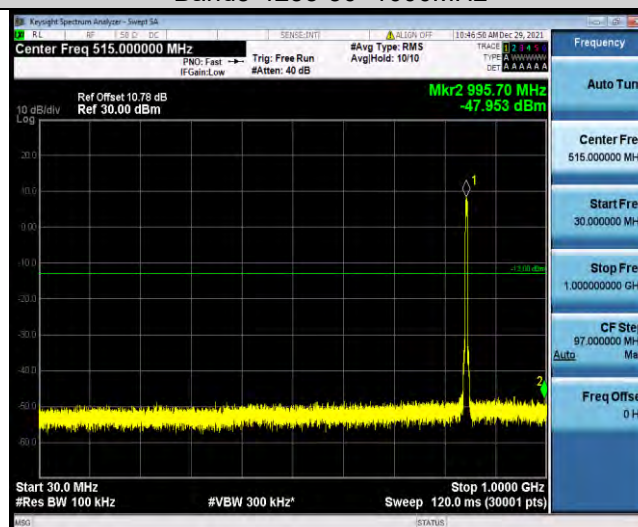
Test Report No.: W7L-P21120037RF03



Band5-4233-0.15~30MHz



Band5-4233-30~1000MHz

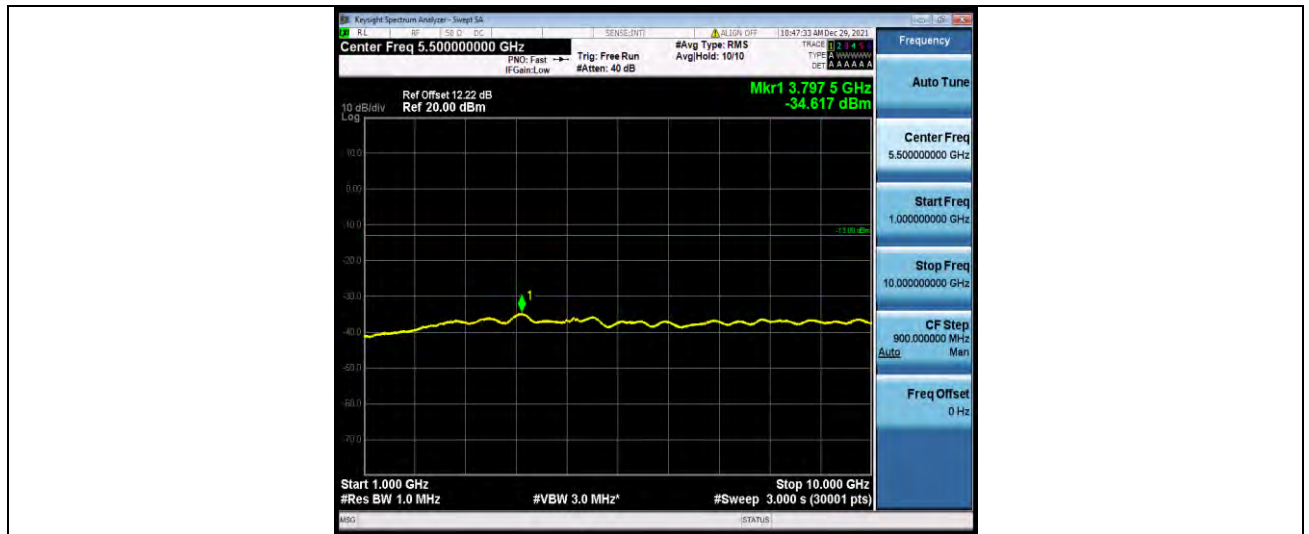


Band5-4233-1000~10000MHz



BUREAU
VERITAS

Test Report No.: W7L-P21120037RF03



FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	4132	VL	NT	0.15	0.000182	±2.5	PASS
Band5	4132	VN	NT	-0.58	-0.000702	±2.5	PASS
Band5	4132	VH	NT	0.12	0.000145	±2.5	PASS
Band5	4182	VL	NT	-0.54	-0.000646	±2.5	PASS
Band5	4182	VN	NT	0.24	0.000287	±2.5	PASS
Band5	4182	VH	NT	-0.59	-0.000705	±2.5	PASS
Band5	4233	VL	NT	-0.65	-0.000768	±2.5	PASS
Band5	4233	VN	NT	-0.69	-0.000815	±2.5	PASS
Band5	4233	VH	NT	-0.18	-0.000213	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	4132	NV	-30	-0.43	-0.000520	±2.5	PASS
Band5	4132	NV	-20	0.38	0.000460	±2.5	PASS
Band5	4132	NV	0	1.99	0.002408	±2.5	PASS
Band5	4132	NV	10	1.59	0.001924	±2.5	PASS
Band5	4132	NV	20	0.17	0.000206	±2.5	PASS
Band5	4132	NV	30	-10.18	-0.0060	±2.5	PASS
Band5	4132	NV	40	-9.32	-0.0054	±2.5	PASS
Band5	4132	NV	50	-8.14	-0.0048	±2.5	PASS
Band5	4182	NV	-30	-0.23	-0.000275	±2.5	PASS
Band5	4182	NV	-20	0.36	0.000430	±2.5	PASS
Band5	4182	NV	0	-0.82	-0.000980	±2.5	PASS
Band5	4182	NV	10	0.18	0.000215	±2.5	PASS
Band5	4182	NV	20	0.74	0.000885	±2.5	PASS
Band5	4182	NV	30	-6.62	-0.0039	±2.5	PASS
Band5	4182	NV	40	-5.92	-0.0035	±2.5	PASS
Band5	4182	NV	50	-4.51	-0.0026	±2.5	PASS
Band5	4233	NV	-30	-1.50	-0.001772	±2.5	PASS
Band5	4233	NV	-20	-0.31	-0.000366	±2.5	PASS
Band5	4233	NV	0	1.60	0.001890	±2.5	PASS
Band5	4233	NV	10	0.89	0.001051	±2.5	PASS
Band5	4233	NV	20	0.97	0.001146	±2.5	PASS
Band5	4233	NV	30	-2.74	-0.0016	±2.5	PASS
Band5	4233	NV	40	-1.56	-0.0009	±2.5	PASS
Band5	4233	NV	50	-0.39	-0.0002	±2.5	PASS

LTE BAND5

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	4.23	13	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	5.13	13	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	4.54	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.06	13	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	4.03	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	4.78	13	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	5.30	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	5.67	13	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	5.43	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	5.76	13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	4.79	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	5.36	13	PASS
Band5	3MHz	QPSK	20415	1RB#0	4.51	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	4.98	13	PASS
Band5	3MHz	QPSK	20525	1RB#0	4.72	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.08	13	PASS
Band5	3MHz	QPSK	20635	1RB#0	3.37	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	4.66	13	PASS
Band5	3MHz	16QAM	20415	1RB#0	5.14	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	5.77	13	PASS
Band5	3MHz	16QAM	20525	1RB#0	5.79	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	5.89	13	PASS
Band5	3MHz	16QAM	20635	1RB#0	4.64	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	5.53	13	PASS
Band5	5MHz	QPSK	20425	1RB#0	4.42	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.09	13	PASS
Band5	5MHz	QPSK	20525	1RB#0	5.02	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.04	13	PASS
Band5	5MHz	QPSK	20625	1RB#0	3.52	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.48	13	PASS
Band5	5MHz	16QAM	20425	1RB#0	5.19	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	5.80	13	PASS
Band5	5MHz	16QAM	20525	1RB#0	5.84	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	5.77	13	PASS
Band5	5MHz	16QAM	20625	1RB#0	4.21	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	5.28	13	PASS
Band5	10MHz	QPSK	20450	1RB#0	4.49	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.24	13	PASS
Band5	10MHz	QPSK	20525	1RB#0	4.84	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.00	13	PASS
Band5	10MHz	QPSK	20600	1RB#0	3.84	13	PASS



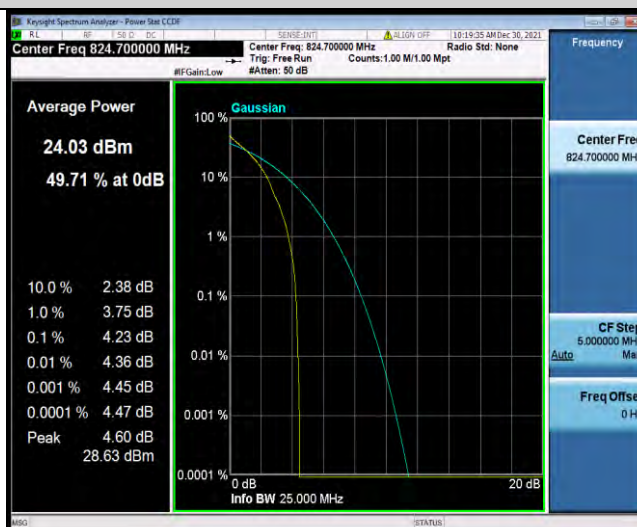
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VERITAS

Test Report No.: W7L-P21120037RF03

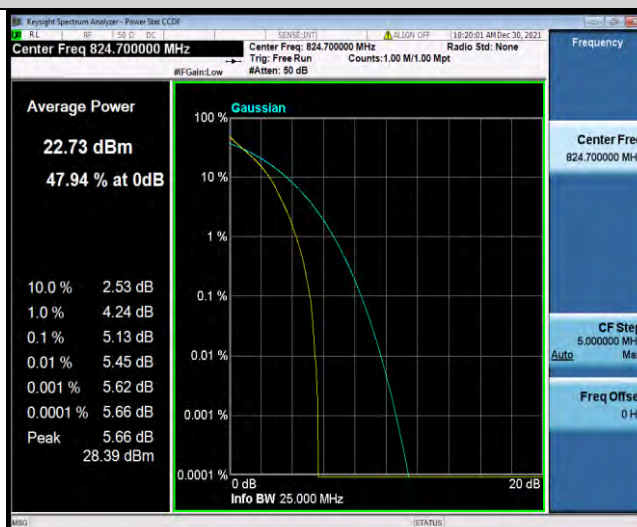
Band5	10MHz	QPSK	20600	50RB#0	4.48	13	PASS
Band5	10MHz	16QAM	20450	1RB#0	5.09	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	6.03	13	PASS
Band5	10MHz	16QAM	20525	1RB#0	5.77	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	5.79	13	PASS
Band5	10MHz	16QAM	20600	1RB#0	4.66	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	5.14	13	PASS
Band5	1.4MHz	64QAM	20407	1RB#0	6.07	13	PASS
Band5	1.4MHz	64QAM	20407	6RB#0	6.22	13	PASS
Band5	1.4MHz	64QAM	20525	1RB#0	5.74	13	PASS
Band5	1.4MHz	64QAM	20525	6RB#0	6.24	13	PASS
Band5	1.4MHz	64QAM	20643	1RB#0	5.56	13	PASS
Band5	1.4MHz	64QAM	20643	6RB#0	6.23	13	PASS
Band5	3MHz	64QAM	20415	1RB#0	6.12	13	PASS
Band5	3MHz	64QAM	20415	15RB#0	6.33	13	PASS
Band5	3MHz	64QAM	20525	1RB#0	5.79	13	PASS
Band5	3MHz	64QAM	20525	15RB#0	6.32	13	PASS
Band5	3MHz	64QAM	20635	1RB#0	5.49	13	PASS
Band5	3MHz	64QAM	20635	15RB#0	6.27	13	PASS
Band5	5MHz	64QAM	20425	1RB#0	6.03	13	PASS
Band5	5MHz	64QAM	20425	25RB#0	6.14	13	PASS
Band5	5MHz	64QAM	20525	1RB#0	5.53	13	PASS
Band5	5MHz	64QAM	20525	25RB#0	6.31	13	PASS
Band5	5MHz	64QAM	20625	1RB#0	5.76	13	PASS
Band5	5MHz	64QAM	20625	25RB#0	6.31	13	PASS
Band5	10MHz	64QAM	20450	1RB#0	5.94	13	PASS
Band5	10MHz	64QAM	20450	50RB#0	6.16	13	PASS
Band5	10MHz	64QAM	20525	1RB#0	5.55	13	PASS
Band5	10MHz	64QAM	20525	50RB#0	6.29	13	PASS
Band5	10MHz	64QAM	20600	1RB#0	5.38	13	PASS
Band5	10MHz	64QAM	20600	50RB#0	6.24	13	PASS

Test Graphs

Band5-1.4MHz-QPSK-20407-1RB#0



Band5-1.4MHz-QPSK-20407-6RB#0



Band5-1.4MHz-QPSK-20525-1RB#0

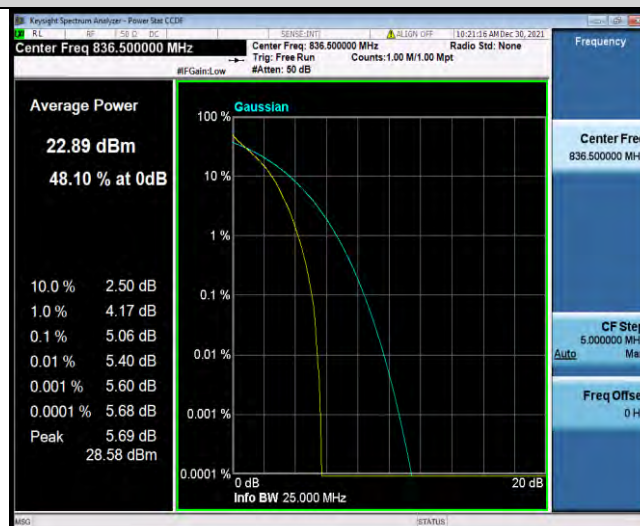


BUREAU
VERITAS

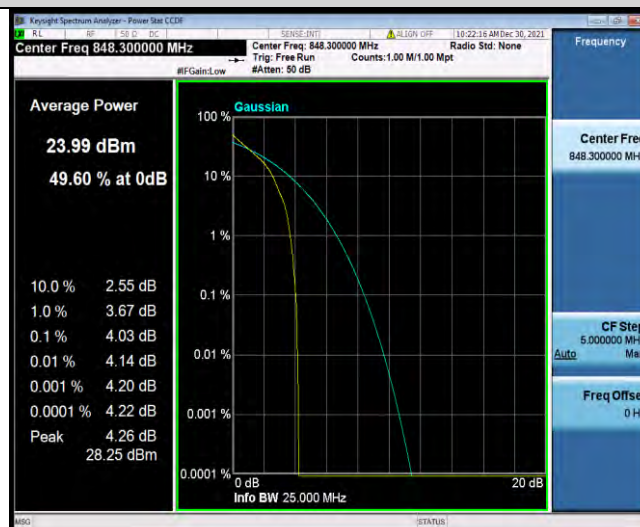
Test Report No.: W7L-P21120037RF03



Band5-1.4MHz-QPSK-20525-6RB#0



Band5-1.4MHz-QPSK-20643-1RB#0



Band5-1.4MHz-QPSK-20643-6RB#0

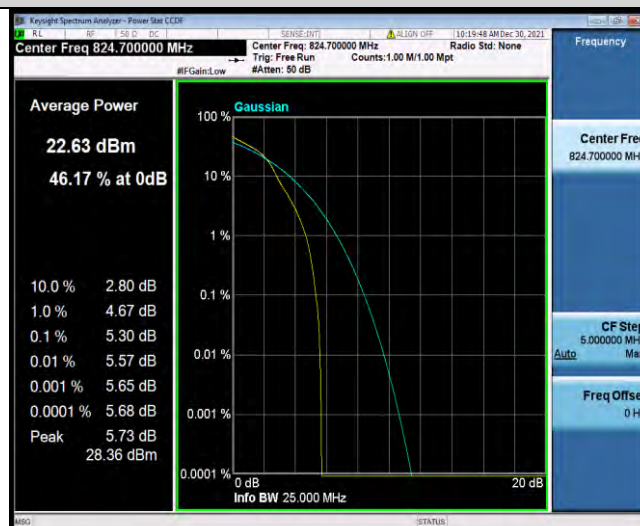


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VERITAS

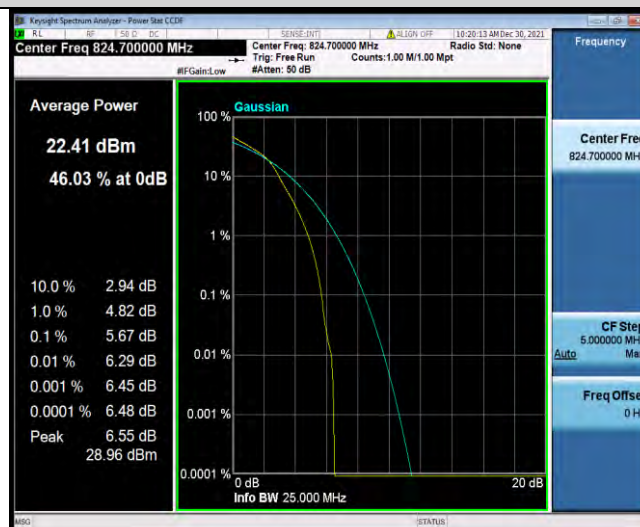
Test Report No.: W7L-P21120037RF03



Band5-1.4MHz-16QAM-20407-1RB#0



Band5-1.4MHz-16QAM-20407-6RB#0

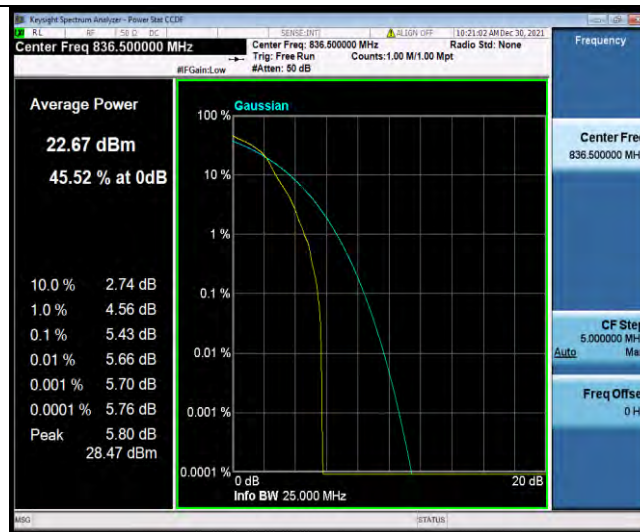


Band5-1.4MHz-16QAM-20525-1RB#0



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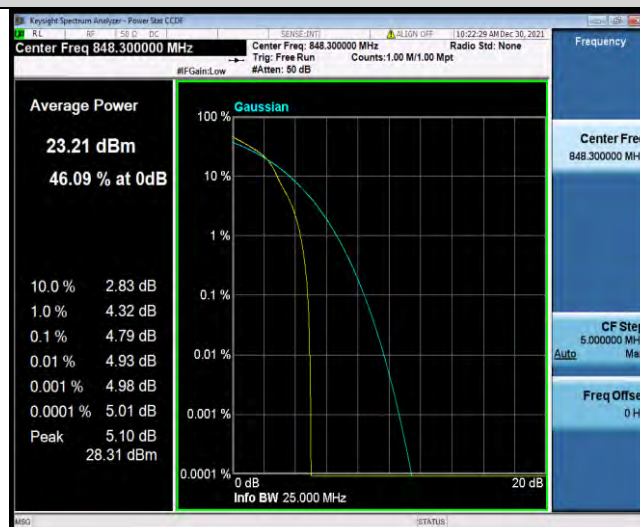
Test Report No.: W7L-P21120037RF03



Band5-1.4MHz-16QAM-20525-6RB#0



Band5-1.4MHz-16QAM-20643-1RB#0



Band5-1.4MHz-16QAM-20643-6RB#0

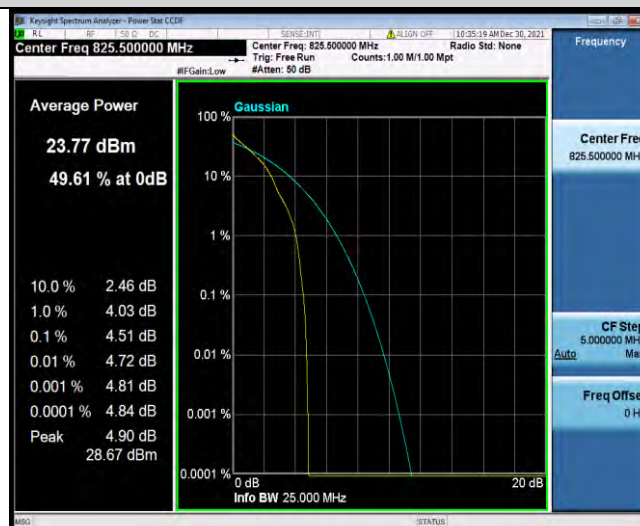


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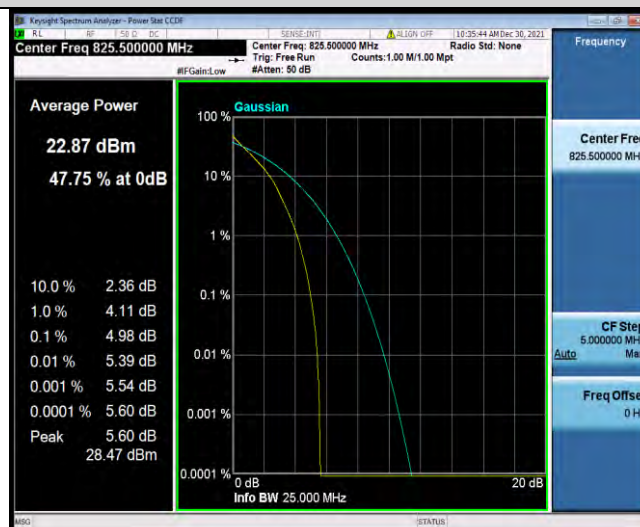
Test Report No.: W7L-P21120037RF03



Band5-3MHz-QPSK-20415-1RB#0



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20525-1RB#0

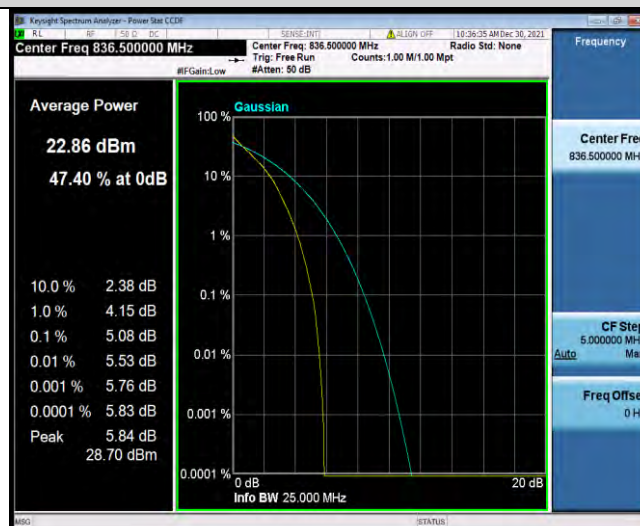


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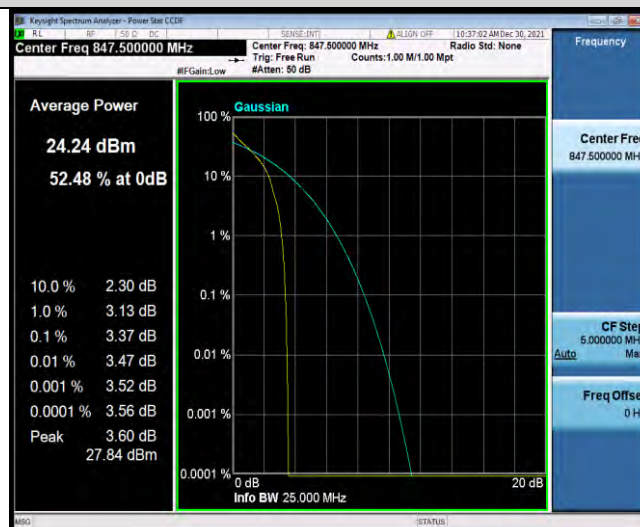
Test Report No.: W7L-P21120037RF03



Band5-3MHz-QPSK-20525-15RB#0



Band5-3MHz-QPSK-20635-1RB#0



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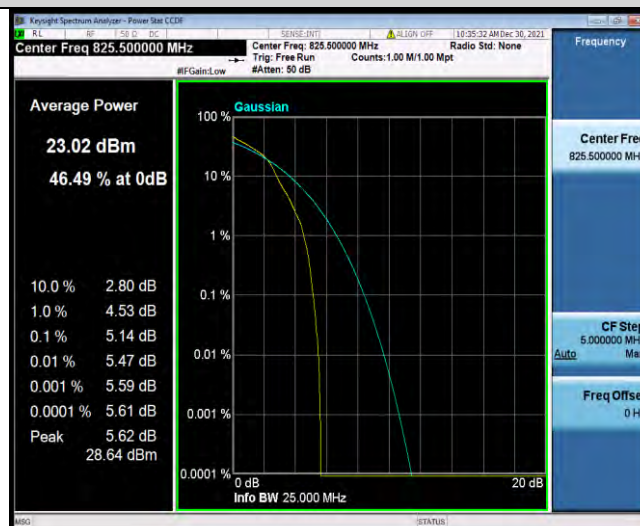


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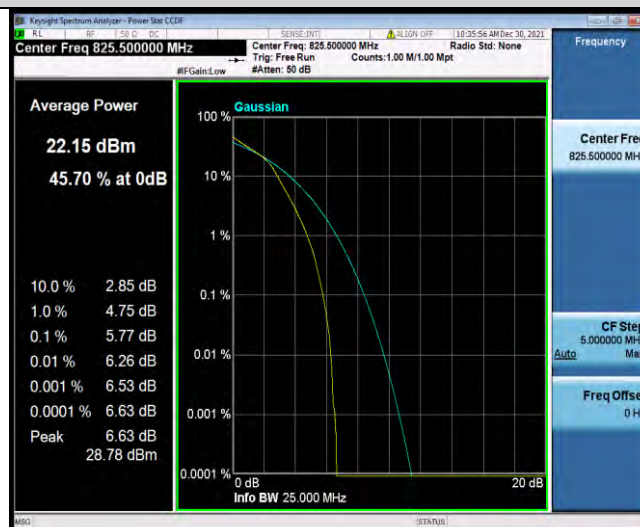
Test Report No.: W7L-P21120037RF03



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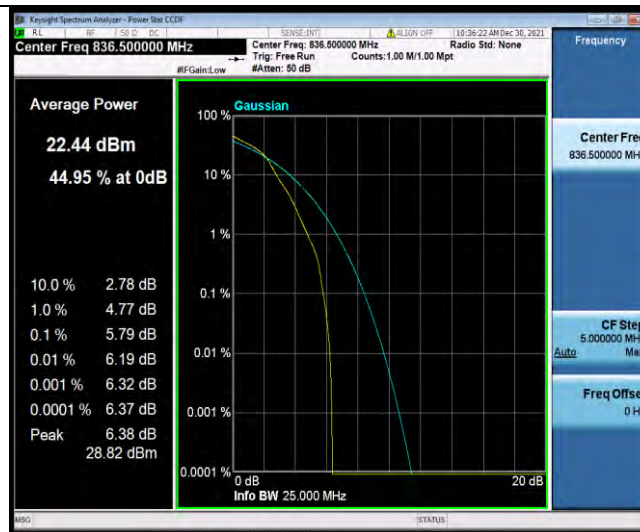


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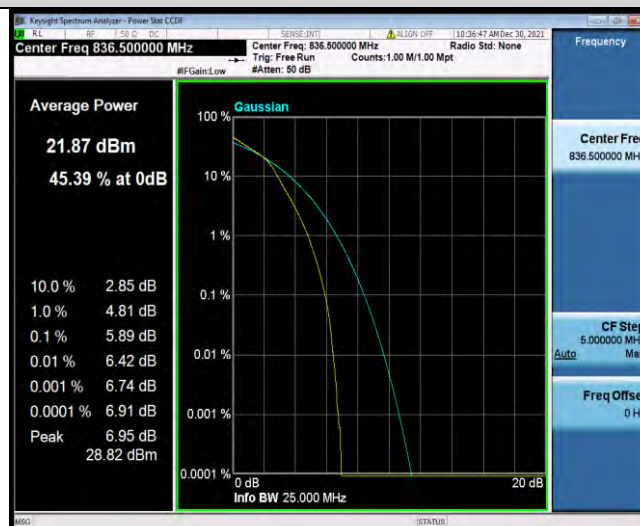


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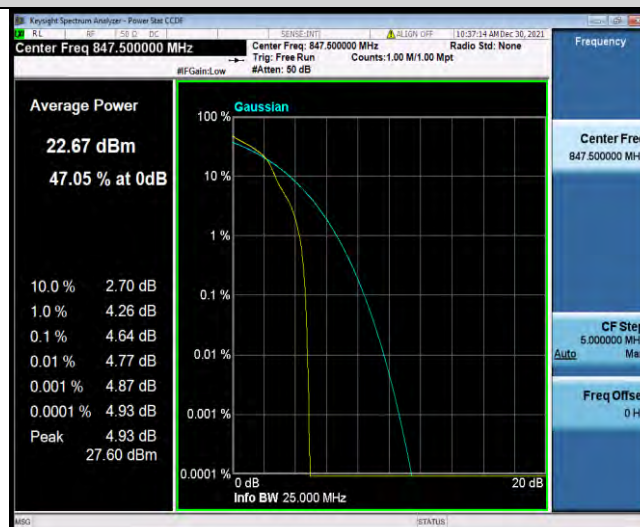
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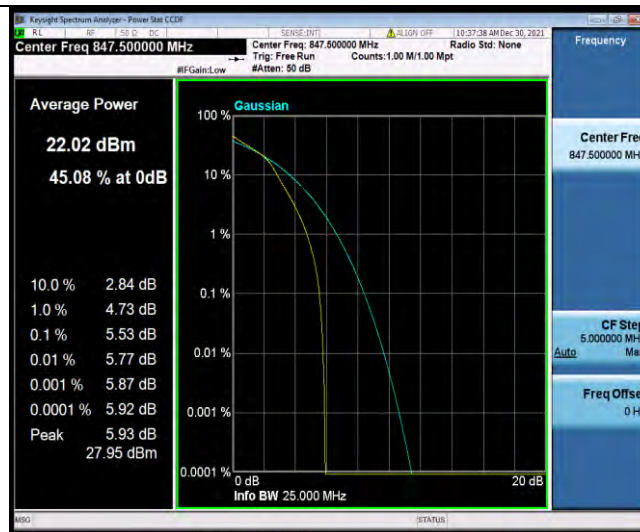


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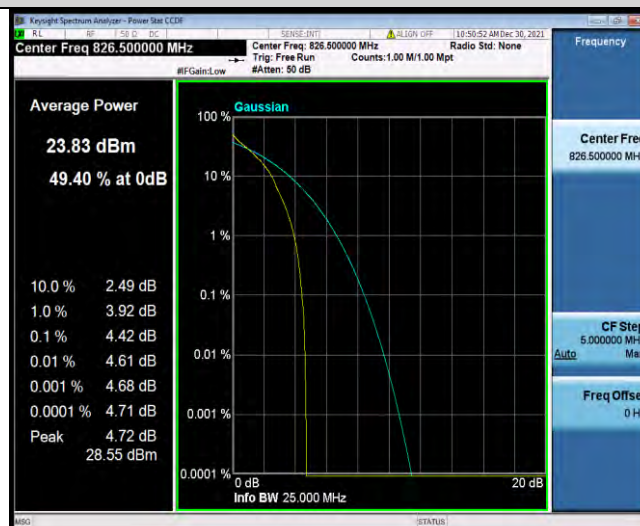


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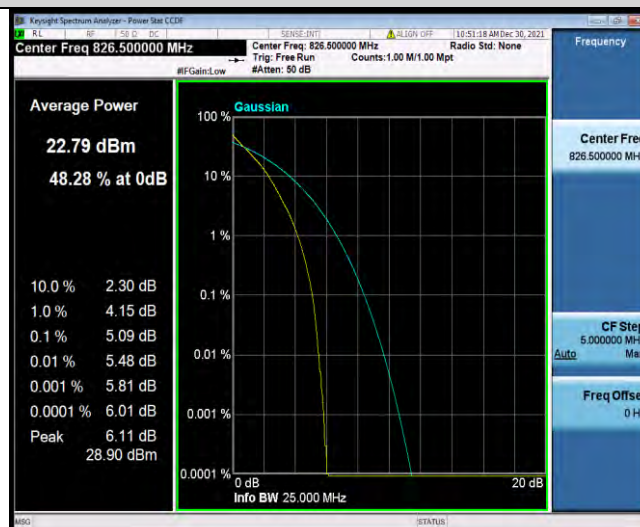
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Band5-5MHz-QPSK-20425-25RB#0

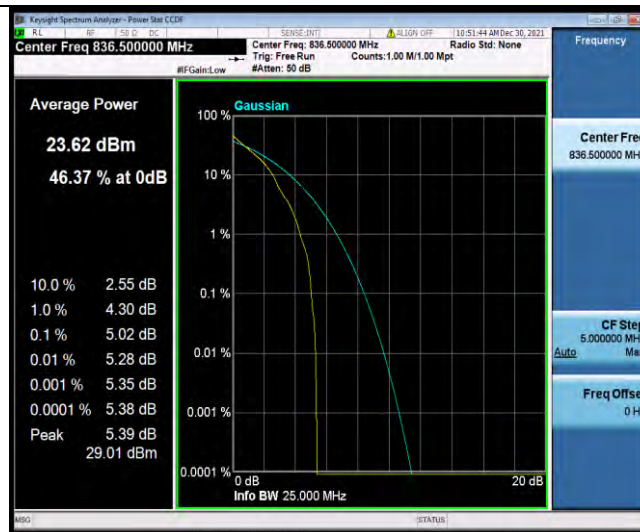


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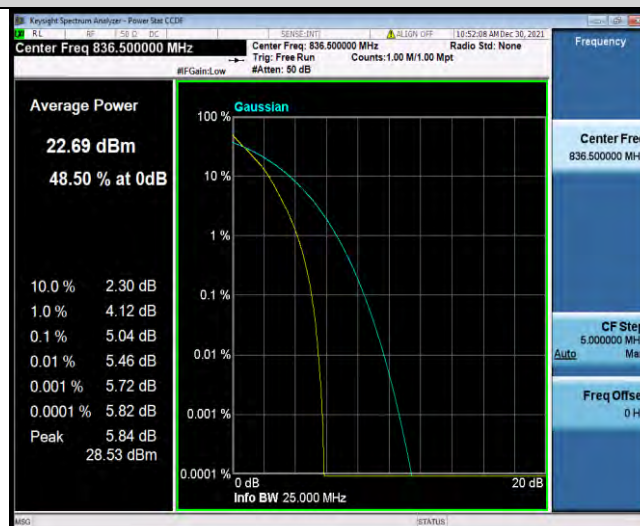


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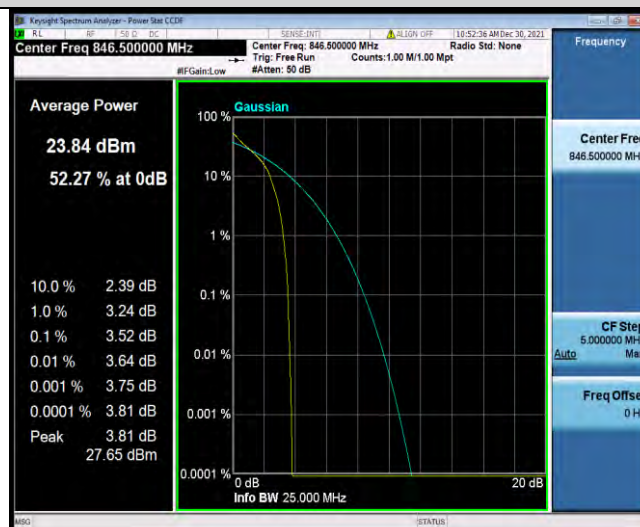
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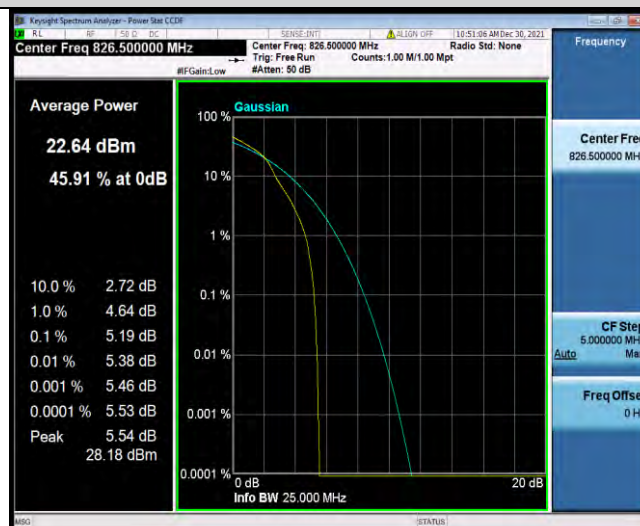


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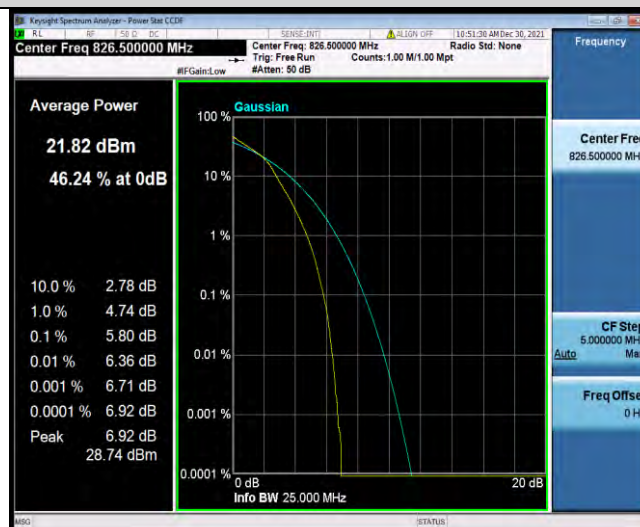
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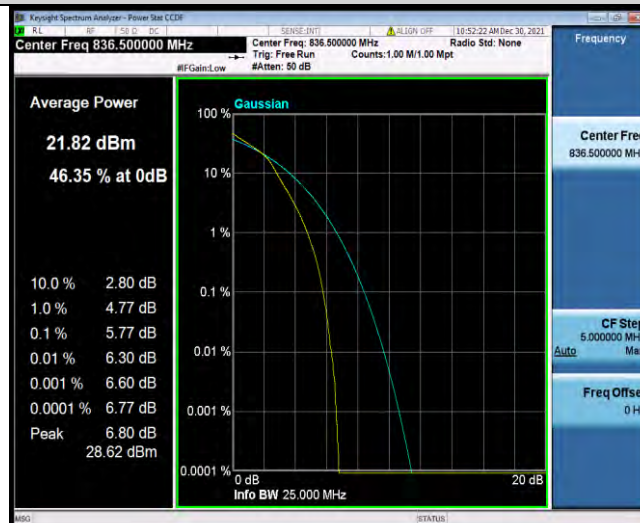


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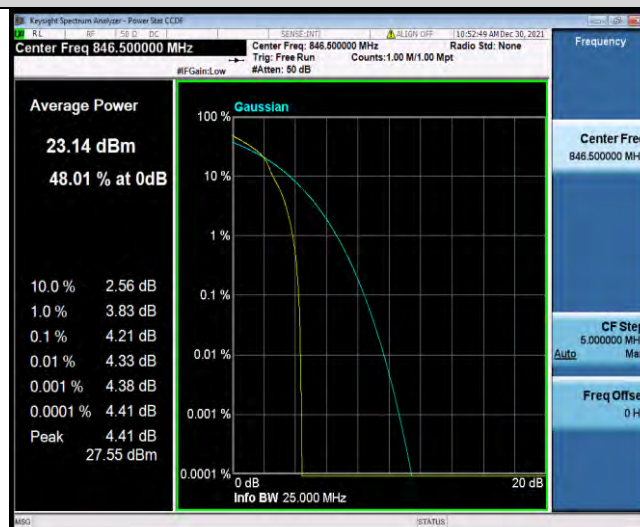
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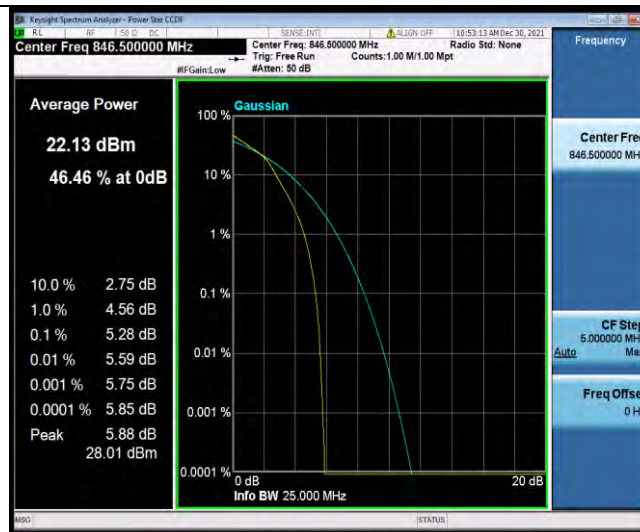


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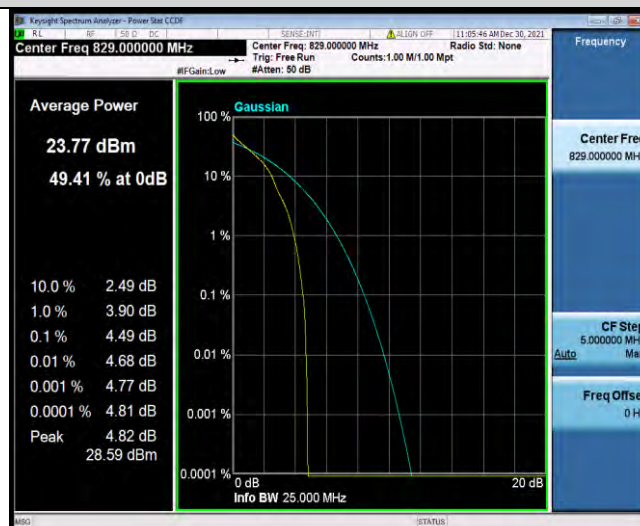


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Test Report No.: W7L-P21120037RF03



Band5-10MHz-QPSK-20450-1RB#0



Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20525-1RB#0

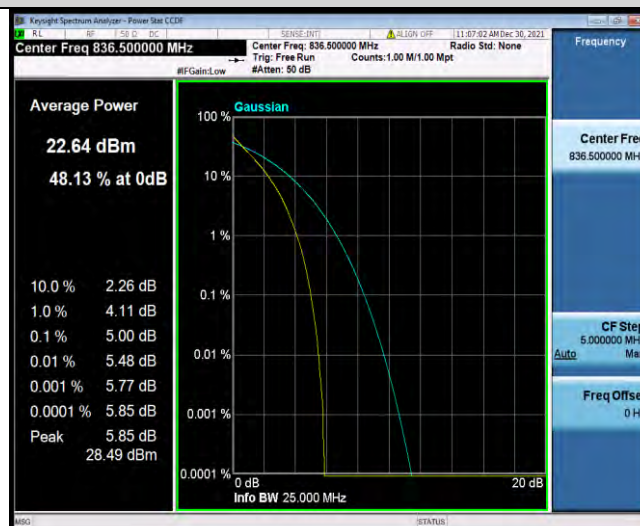


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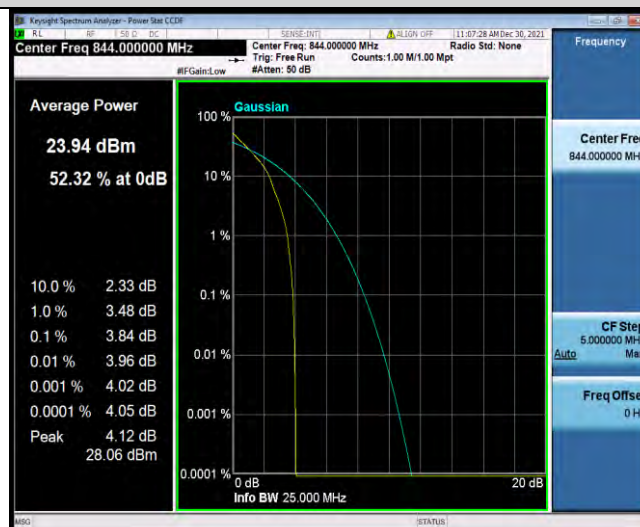
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Band5-10MHz-QPSK-20525-50RB#0



Band5-10MHz-QPSK-20600-1RB#0



Band5-10MHz-QPSK-20600-50RB#0



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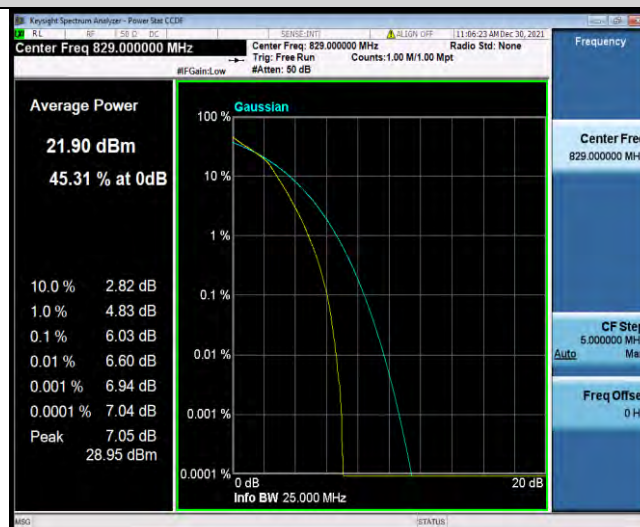
Test Report No.: W7L-P21120037RF03



Band5-10MHz-16QAM-20450-1RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20525-1RB#0