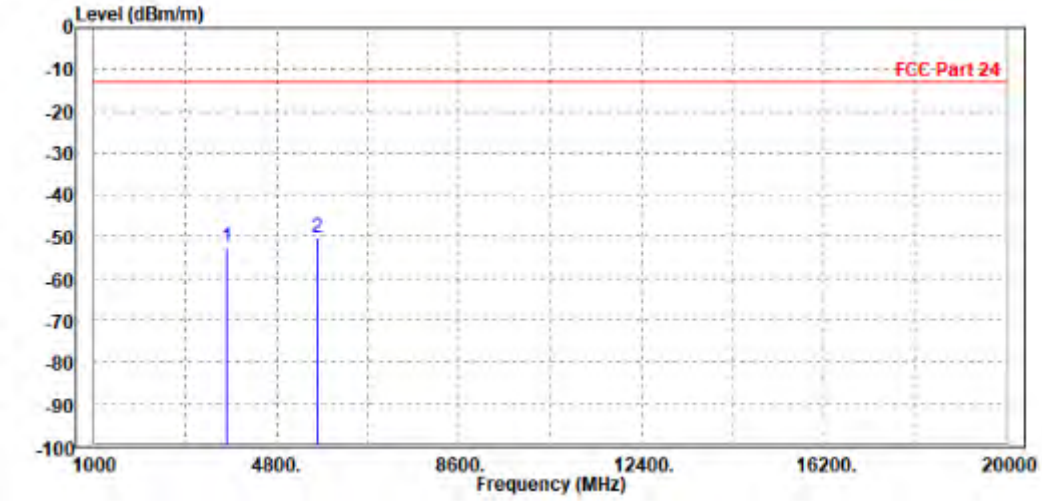
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

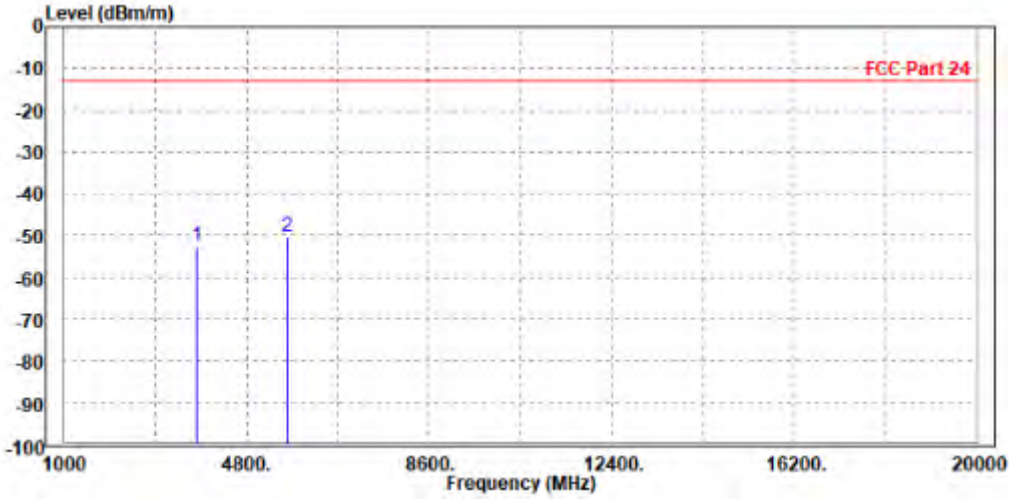
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-52.43	-60.13	-13.00	-39.43	7.70	Peak	Vertical
2 PP	5655.000	-50.02	-61.19	-13.00	-37.02	11.17	Peak	Vertical



CHANNEL BANDWIDTH: 5MHz / QPSK

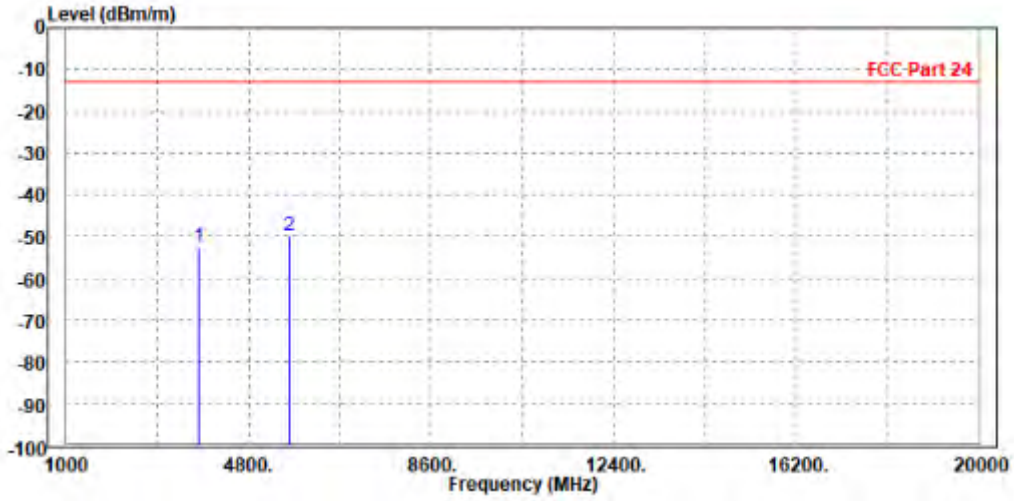
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-52.65	-60.65	-13.00	-39.65	8.00	Peak	Horizontal
2 PP	5655.000	-50.16	-60.93	-13.00	-37.16	10.77	Peak	Horizontal



MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.48	-60.20	-13.00	-39.48	7.72	Peak	Vertical
2 PP	5647.500	-49.92	-61.07	-13.00	-36.92	11.15	Peak	Vertical

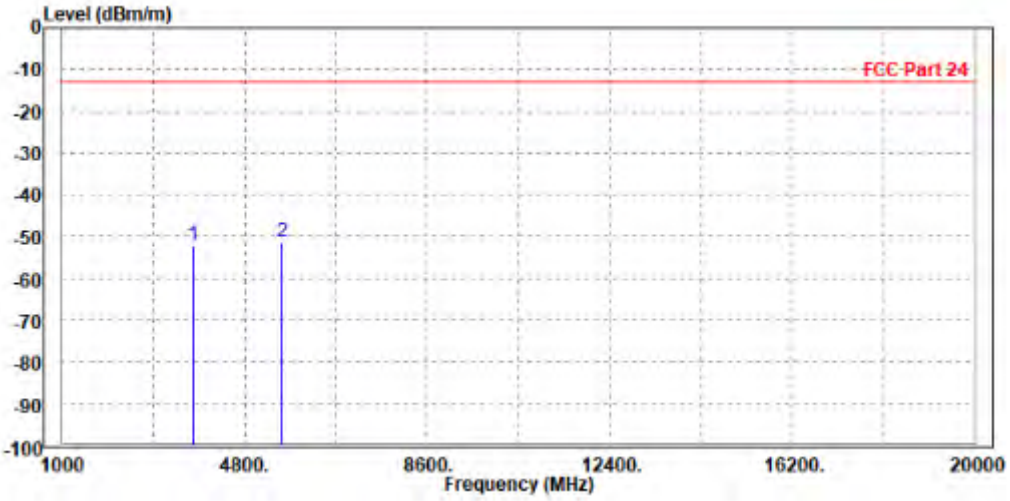


CHANNEL BANDWIDTH: 10MHz / QPSK

CH26090

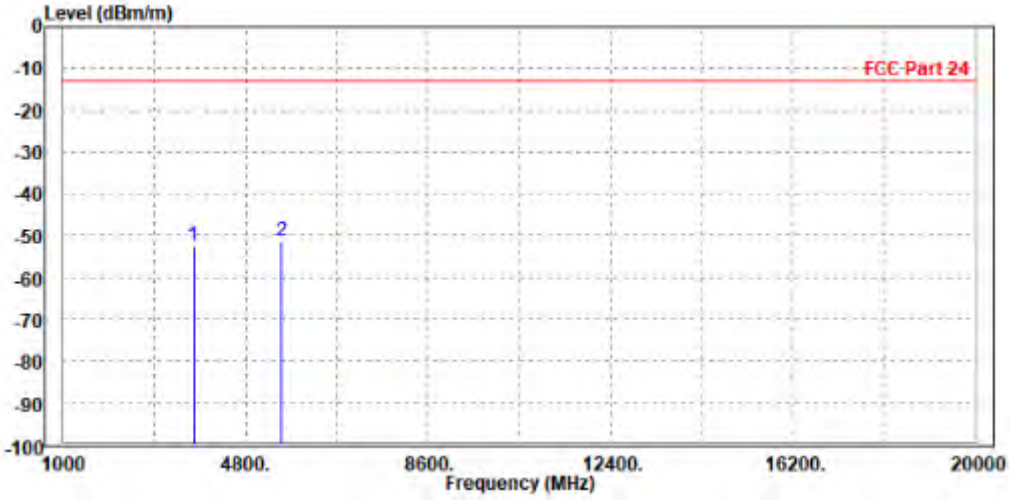
MODE	TX channel 26090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3717.000	-52.16	-60.04	-13.00	-39.16	7.88	Peak	Horizontal
2 PP	5565.000	-51.15	-61.75	-13.00	-38.15	10.60	Peak	Horizontal



MODE	TX channel 26090	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

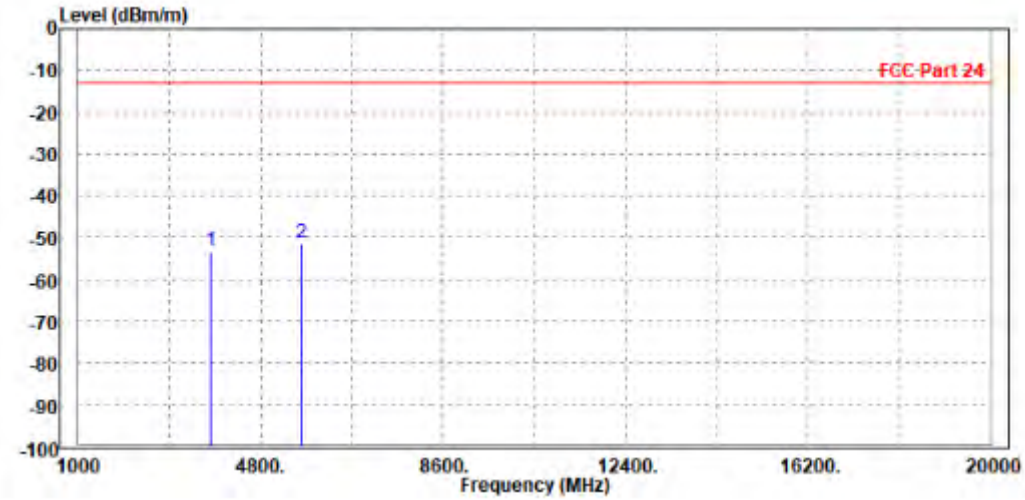
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3710.000	-52.45	-60.07	-13.00	-39.45	7.62	Peak	Vertical
2 PP	5560.000	-51.32	-62.22	-13.00	-38.32	10.90	Peak	Vertical



CH26365

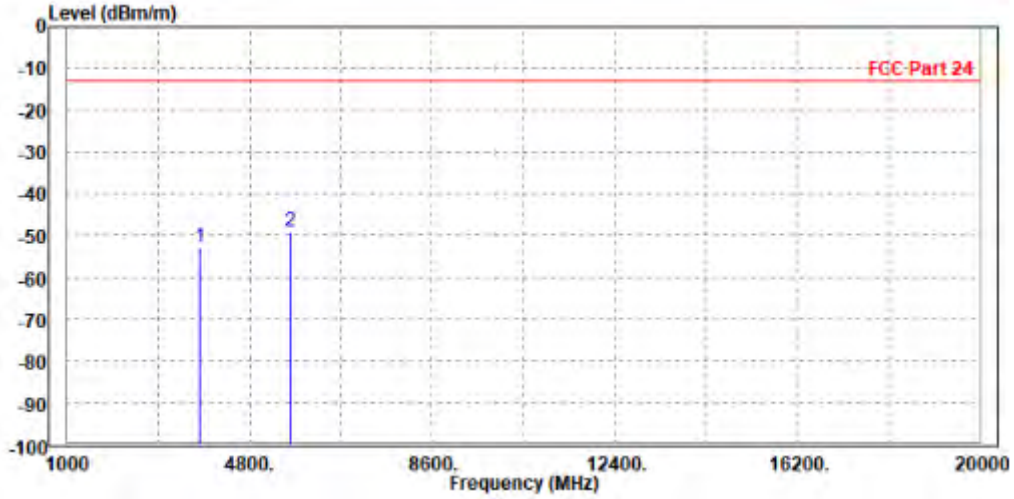
MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-53.05	-61.05	-13.00	-40.05	8.00	Peak	Horizontal
2 PP	5655.000	-51.40	-62.17	-13.00	-38.40	10.77	Peak	Horizontal



MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

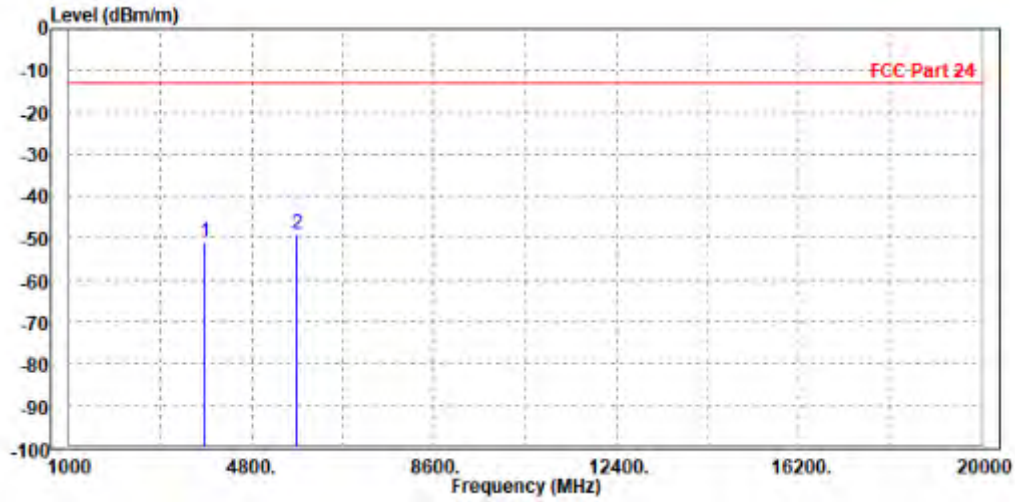
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-52.82	-60.54	-13.00	-39.82	7.72	Peak	Vertical
2 PP	5655.000	-49.20	-60.37	-13.00	-36.20	11.17	Peak	Vertical



CH26640

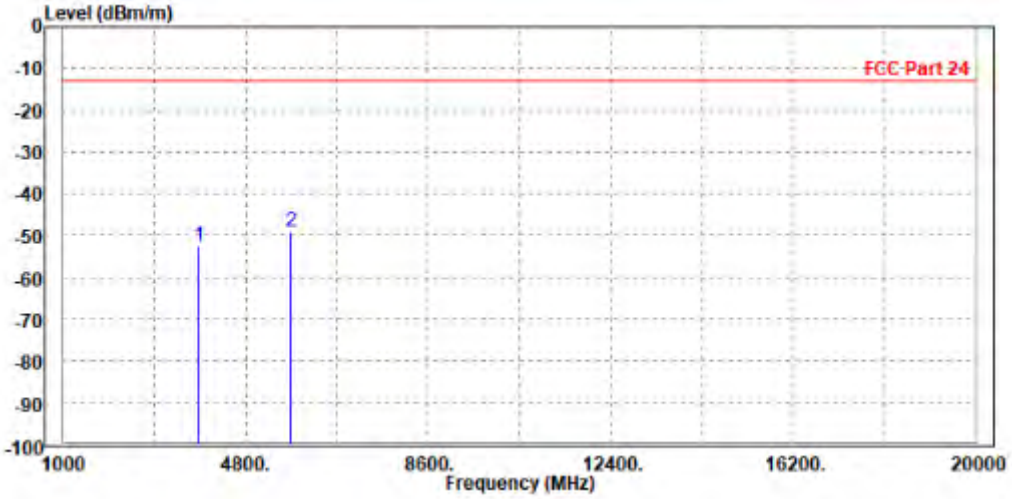
MODE	TX channel 26640	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3820.000	-50.84	-58.98	-13.00	-37.84	8.14	Peak	Horizontal
2 PP	5731.000	-48.87	-59.78	-13.00	-35.87	10.91	Peak	Horizontal



MODE	TX channel 26640	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

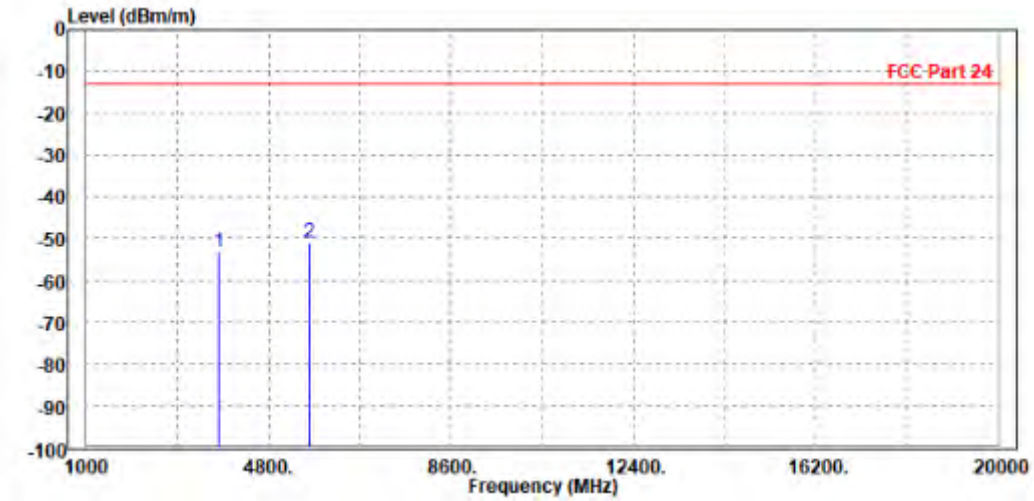
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3812.000	-52.35	-60.12	-13.00	-39.35	7.77	Peak	Vertical
2 PP	5730.000	-48.96	-60.34	-13.00	-35.96	11.38	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

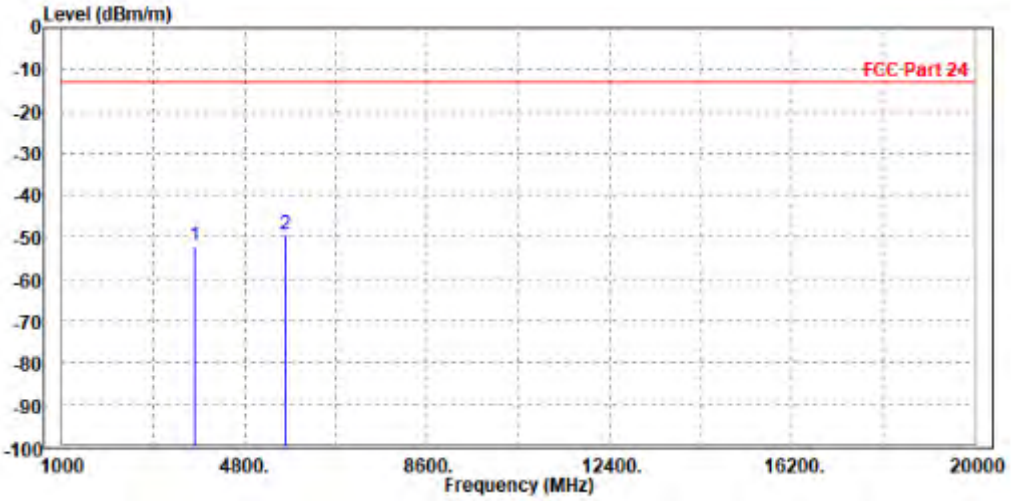
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-53.04	-61.06	-13.00	-40.04	8.02	Peak	Horizontal
2 PP	5647.500	-50.81	-61.57	-13.00	-37.81	10.76	Peak	Horizontal



MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

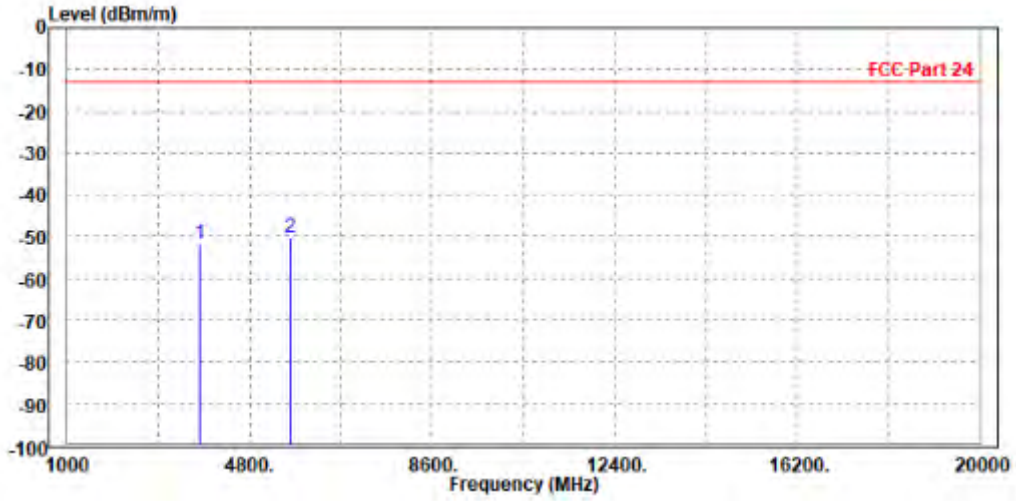
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-52.09	-59.79	-13.00	-39.09	7.70	Peak	Vertical
2 PP	5655.000	-49.26	-60.43	-13.00	-36.26	11.17	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

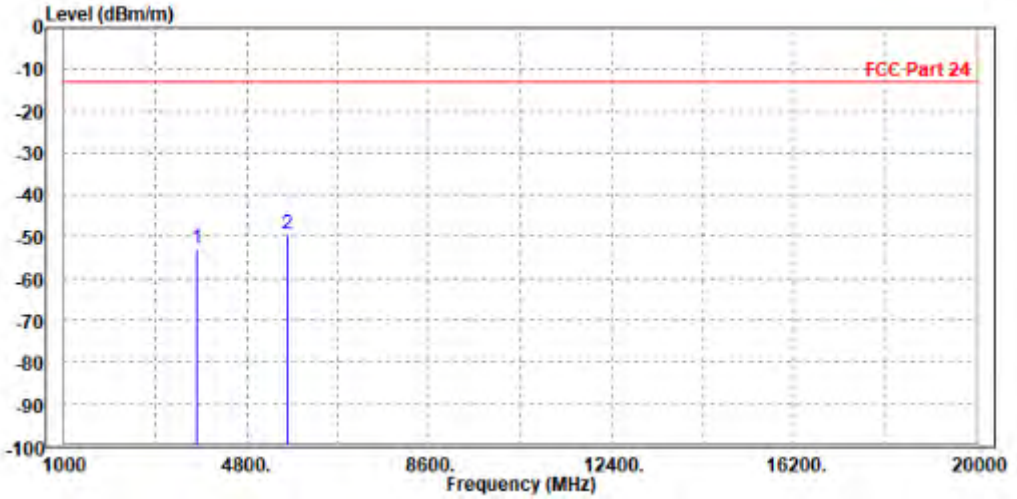
MODE	TX channel 26365	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3765.000	-51.57	-59.57	-13.00	-38.57	8.00	Peak	Horizontal
2 PP	5655.000	-50.17	-60.94	-13.00	-37.17	10.77	Peak	Horizontal



MODE	TX channel 26365	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3774.000	-53.04	-60.76	-13.00	-40.04	7.72	Peak	Vertical
2 PP	5647.500	-49.54	-60.69	-13.00	-36.54	11.15	Peak	Vertical

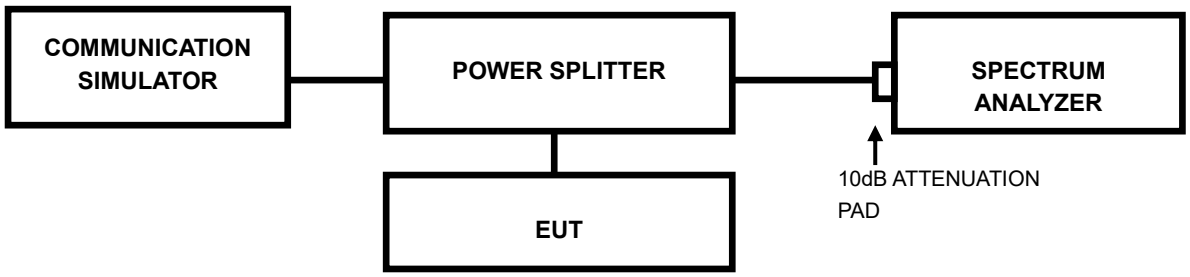


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.

4 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Shenzhen EMC/RF Lab:
Tel: +86-755-88696566
Fax: +86-755-88696577

Email: customerservice.sw@bureauveritas.com
Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

6 Appendix

GSM1900

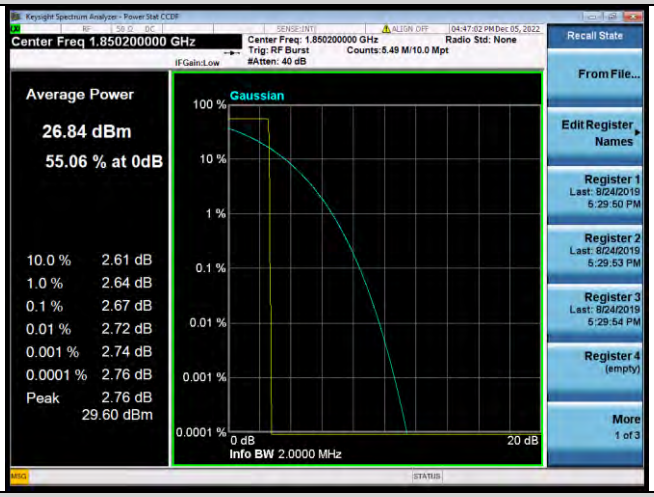
PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

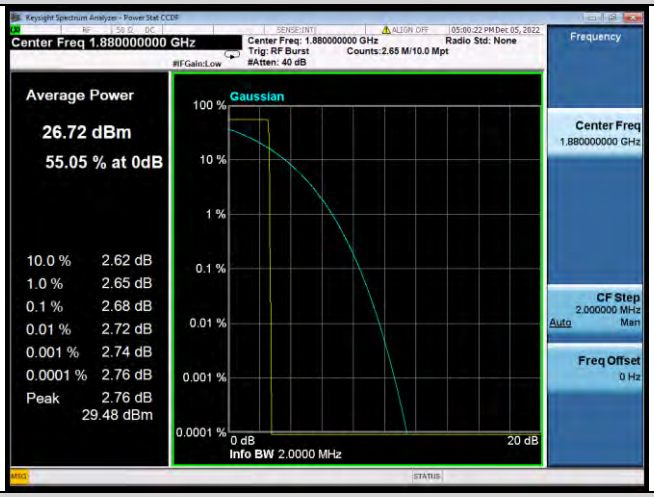
Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	2.67	13	PASS
GSM1900	661	2.68	13	PASS
GSM1900	810	2.68	13	PASS
EGSM1900	512	5.82	13	PASS
EGSM1900	661	5.82	13	PASS
EGSM1900	810	5.81	13	PASS

Test Graphs

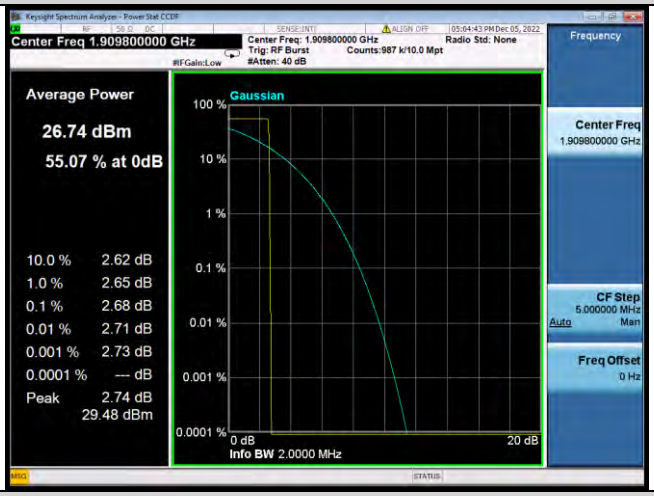
GSM1900-512



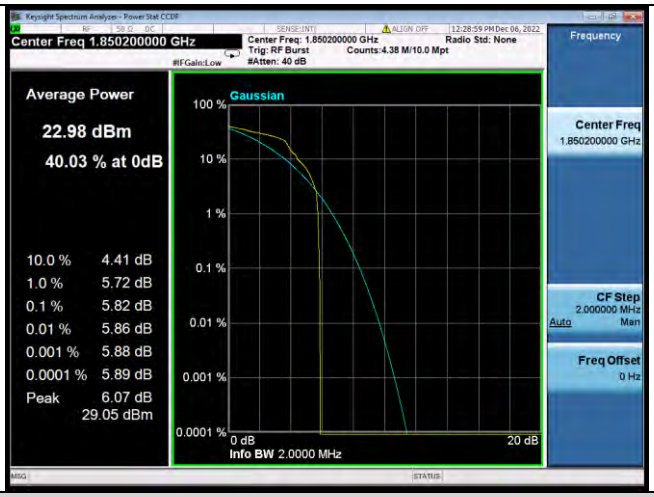
GSM1900-661



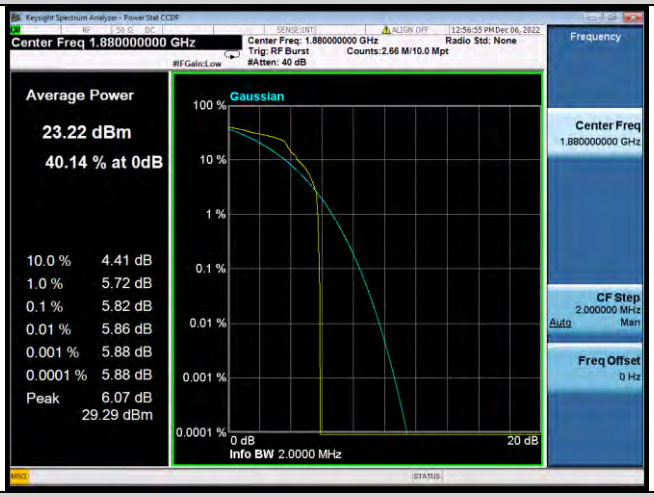
GSM1900-810



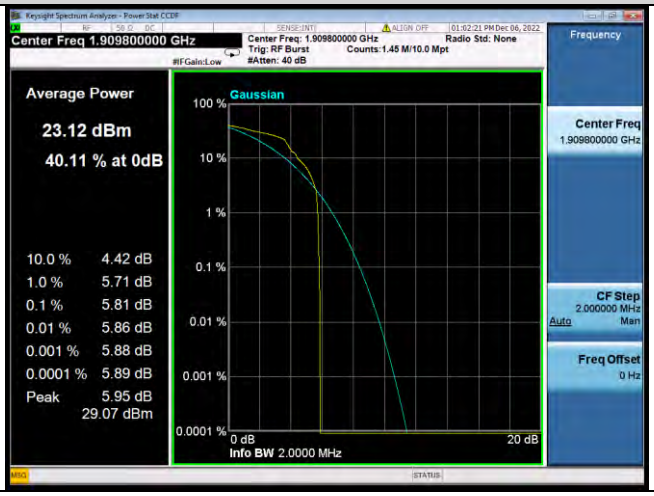
EGSM1900-512



EGSM1900-661



EGSM1900-810



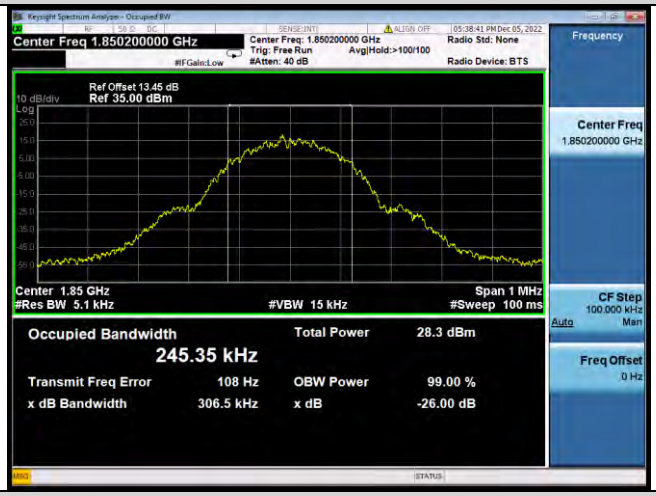
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

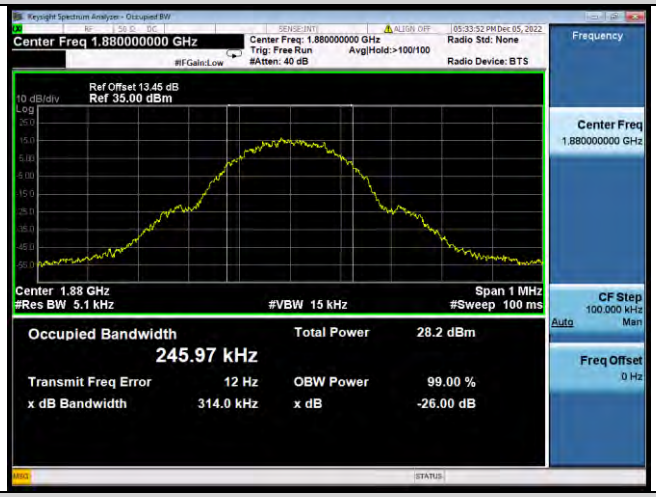
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.24535	0.3065	---	PASS
GSM1900	661	0.24597	0.3140	---	PASS
GSM1900	810	0.24103	0.2977	---	PASS
EGSM1900	512	0.24142	0.3093	---	PASS
EGSM1900	661	0.24407	0.3051	---	PASS
EGSM1900	810	0.24215	0.3079	---	PASS

Test Graphs

GSM1900-512

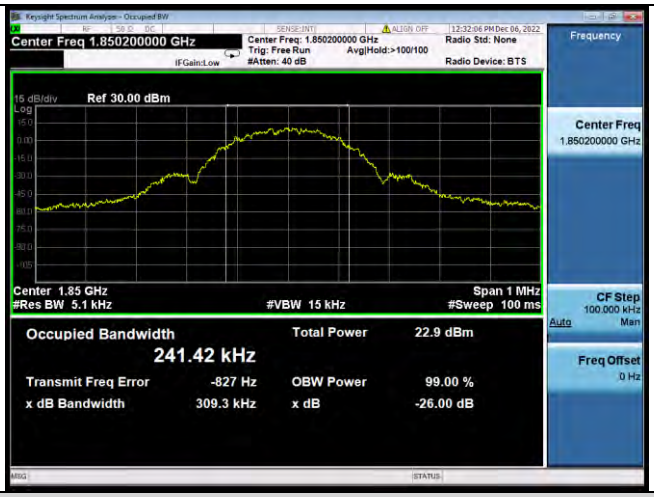


GSM1900-661

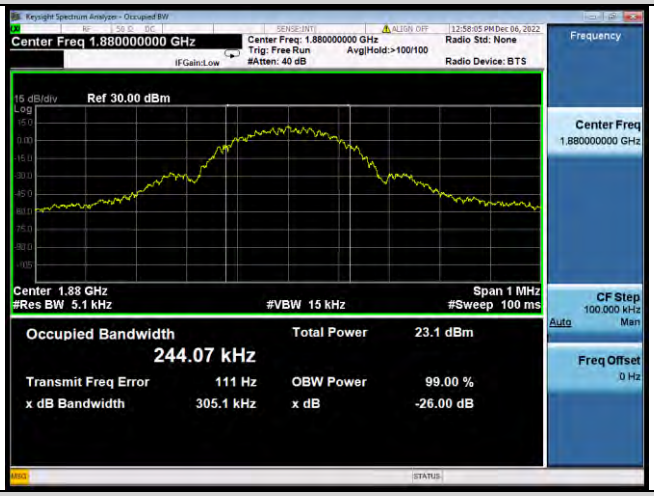


GSM1900-810

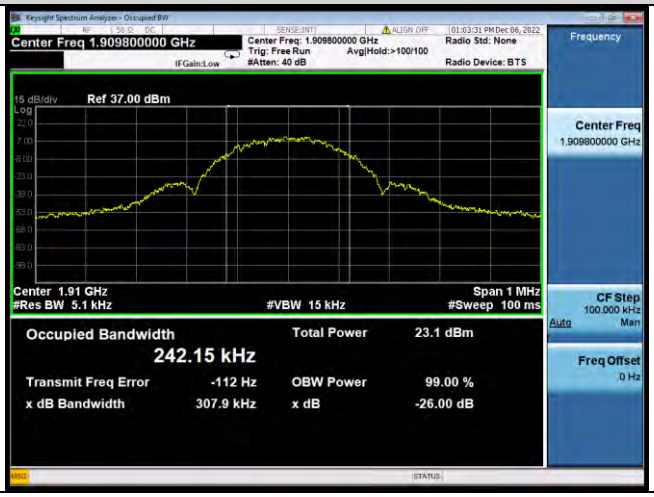
EGSM1900-512



EGSM1900-661



EGSM1900-810



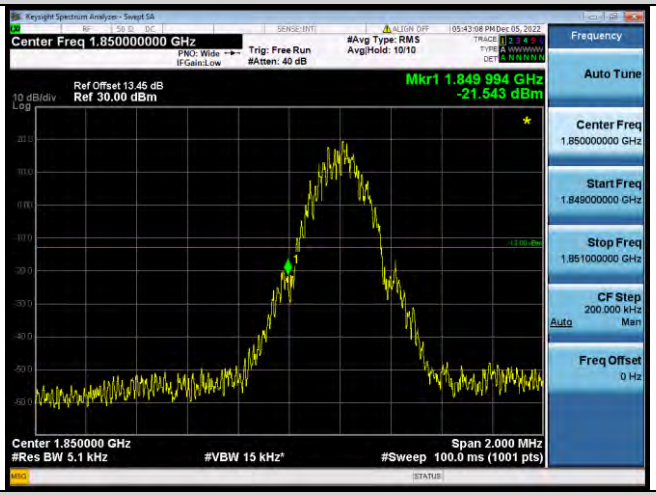
BAND EDGE

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.99	-21.54	-13	PASS
GSM1900	810	1910.00	-24,01	-13	PASS
EGSM1900	512	1849.98	-27.62	-13	PASS
EGSM1900	810	1910.00	-26.73	-13	PASS

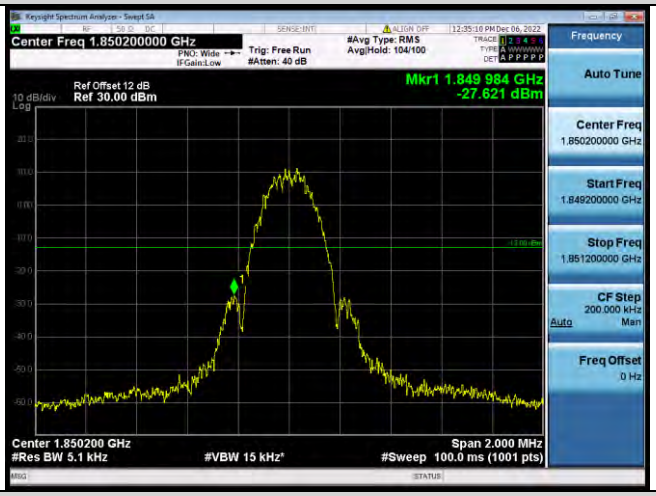
Test Graphs

GSM1900-512

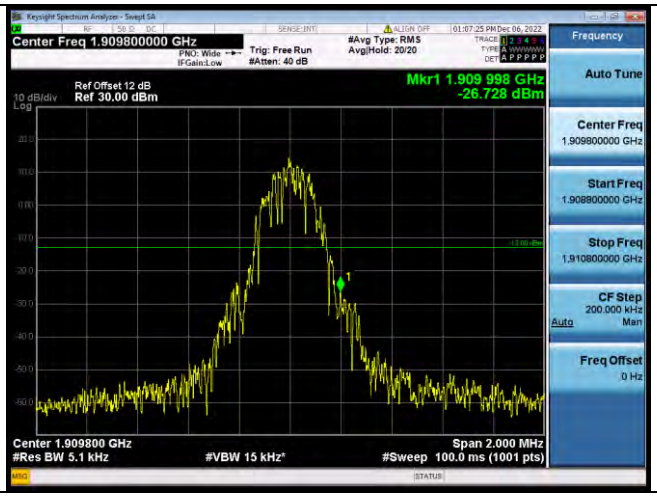


GSM1900-810

EGSM1900-512



EGSM1900-810

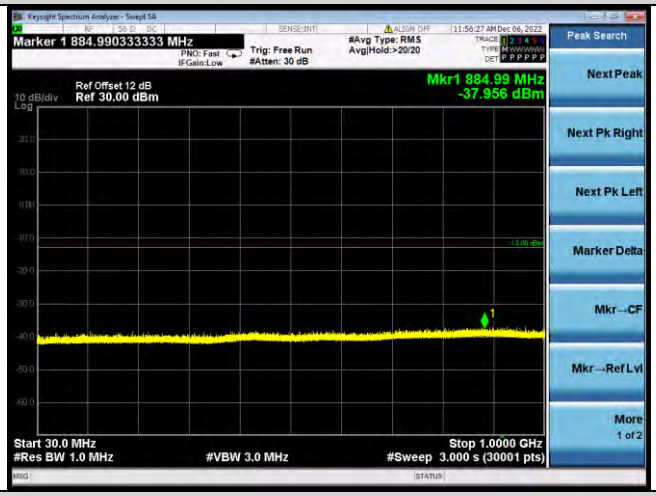
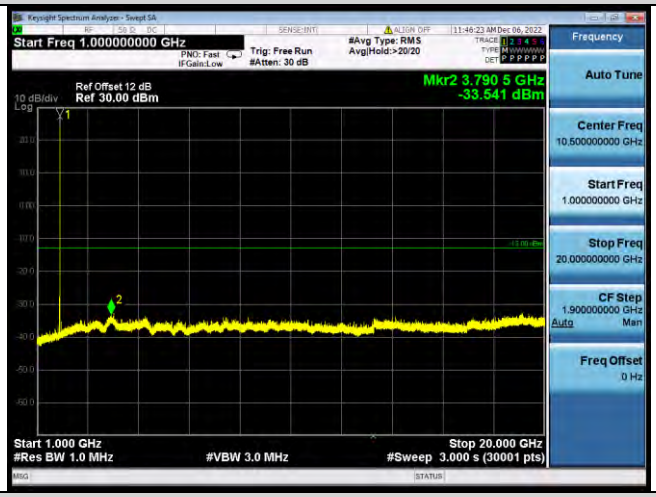
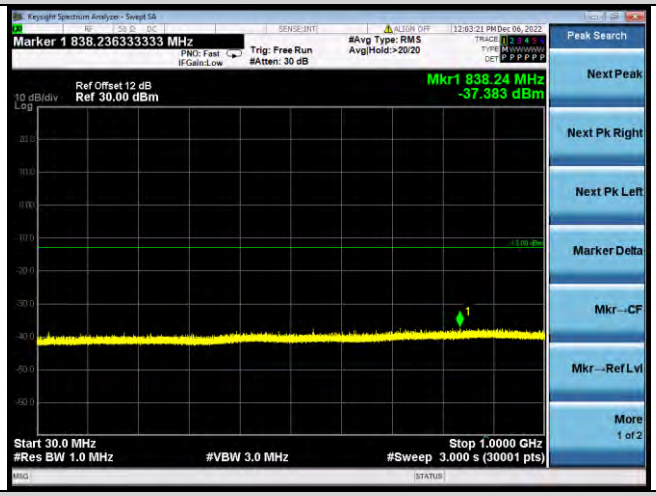

Center Freq 1.909800000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 20/20
Ref Offset 12 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr1 1.909 998 GHz
-26.728 dBm
Center 1.909800 GHz
#Res BW 5.1 kHz
#VBW 15 kHz
Span 2.000 MHz
#Sweep 100.0 ms (1001 pts)
Frequency
Auto Tune
Center Freq
1.909800000 GHz
Start Freq
1.908800000 GHz
Stop Freq
1.910800000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

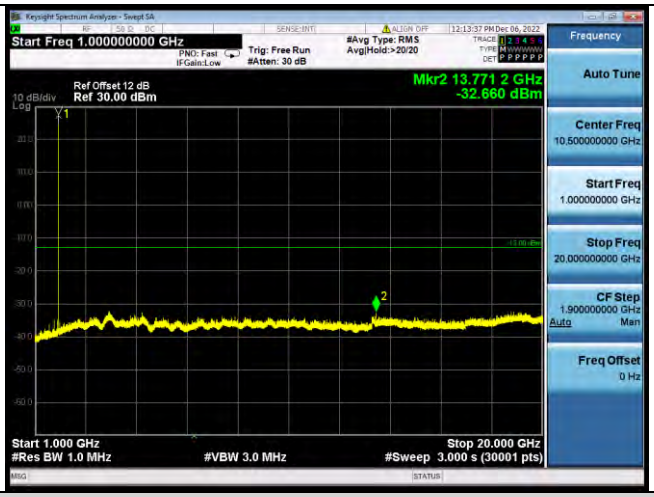
CONDUCTED SPURIOUS EMISSION

Test Result

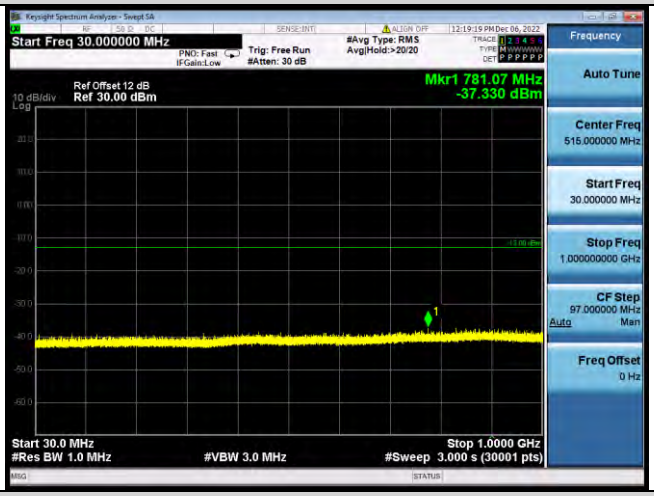
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	30~1000MHz	884.99	-37.96	-13	PASS
GSM1900	512	1000~20000MHz	3790.5	-33.54	-13	PASS
GSM1900	661	30~1000MHz	838.24	-37.38	-13	PASS
GSM1900	661	1000~20000MHz	13771.2	-32.66	-13	PASS
GSM1900	810	30~1000MHz	781.07	-37.33	-13	PASS
GSM1900	810	1000~20000MHz	13669.8	-35.54	-13	PASS
EGSM1900	512	30~1000MHz	960.78	-38.62	-13	PASS
EGSM1900	512	1000~20000MHz	3819.6	-32.47	-13	PASS
EGSM1900	661	30~1000MHz	866.08	-37.44	-13	PASS
EGSM1900	661	1000~20000MHz	3841.1	-32.81	-13	PASS
EGSM1900	810	30~1000MHz	771.82	-40.10	-13	PASS
EGSM1900	810	1000~20000MHz	3846.8	-32.99	-13	PASS

Test Graphs

GSM1900-512-30~1000MHz

GSM1900-512-1000~20000MHz

GSM1900-661-30~1000MHz

GSM1900-661-1000~20000MHz

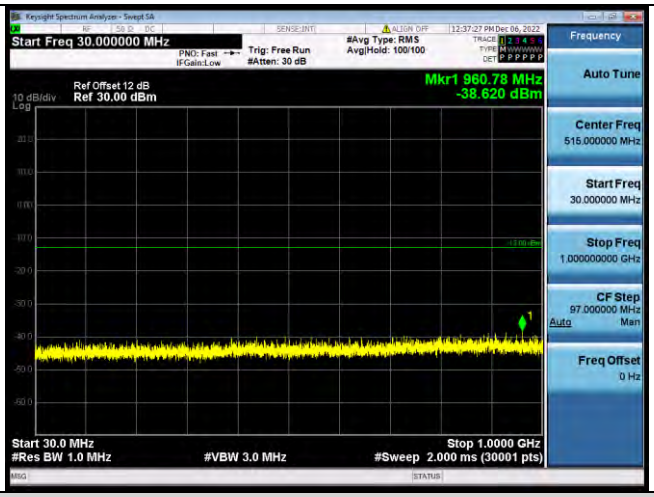


GSM1900-810-30~1000MHz

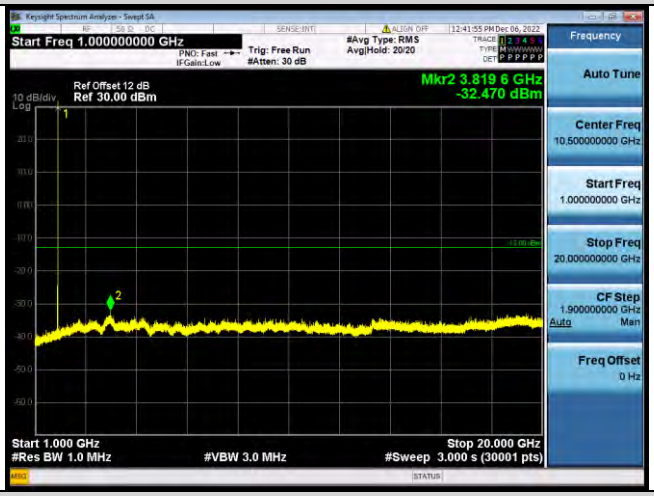


GSM1900-810-1000~20000MHz

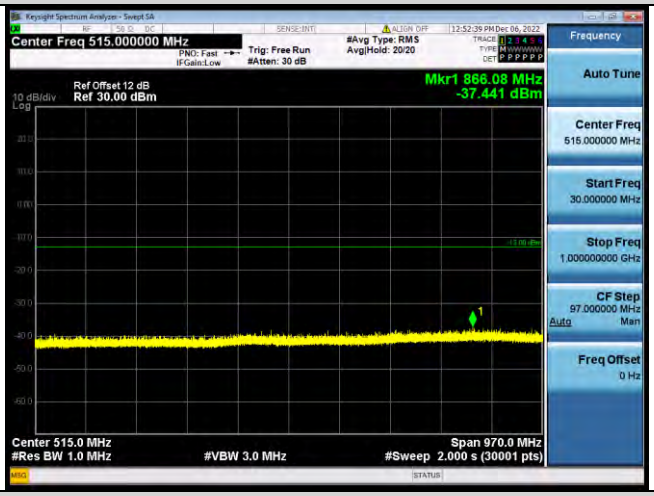
EGSM1900-512-30~1000MHz



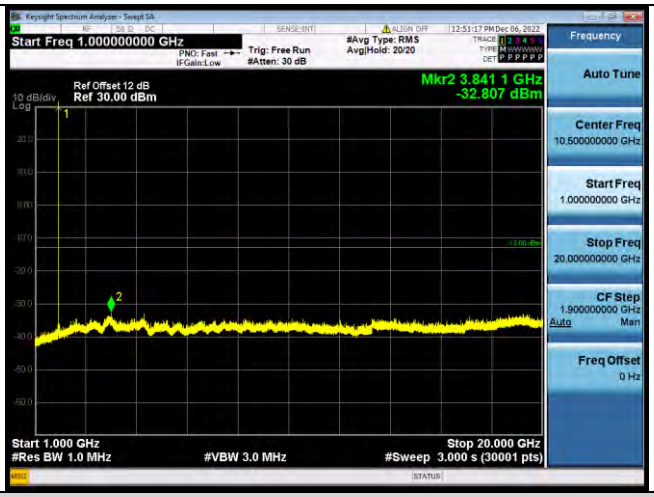
EGSM1900-512-1000~20000MHz



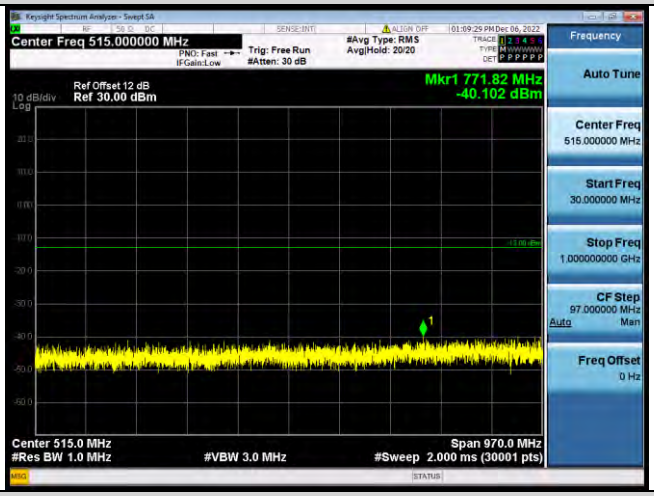
EGSM1900-661-30~1000MHz



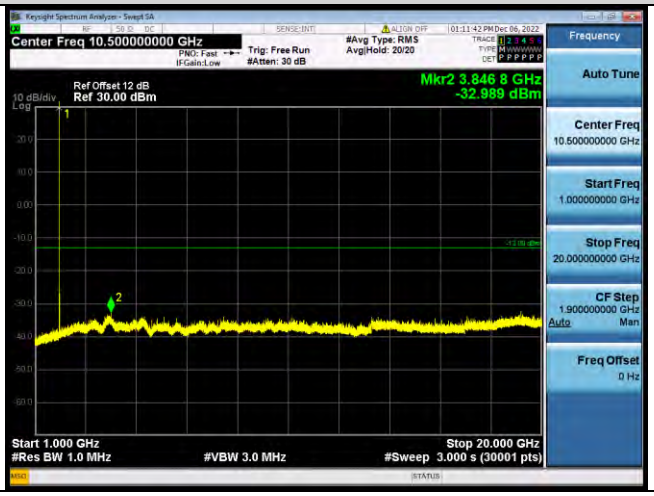
EGSM1900-661-1000~20000MHz



EGSM1900-810-30~1000MHz



EGSM1900-810-1000~20000MHz



FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	VL	NT	28.45	0.015374	±2.5	PASS
GSM1900	512	VN	NT	27.94	0.015100	±2.5	PASS
GSM1900	512	VH	NT	32.80	0.017728	±2.5	PASS
GSM1900	661	VL	NT	38.63	0.020549	±2.5	PASS
GSM1900	661	VN	NT	38.59	0.020528	±2.5	PASS
GSM1900	661	VH	NT	31.49	0.016750	±2.5	PASS
GSM1900	810	VL	NT	19.85	0.010396	±2.5	PASS
GSM1900	810	VN	NT	30.89	0.016173	±2.5	PASS
GSM1900	810	VH	NT	17.44	0.009129	±2.5	PASS
EGSM1900	512	VL	NT	35.86	0.019380	±2.5	PASS
EGSM1900	512	VN	NT	37.24	0.020128	±2.5	PASS
EGSM1900	512	VH	NT	39.94	0.021588	±2.5	PASS
EGSM1900	661	VL	NT	31.17	0.016579	±2.5	PASS
EGSM1900	661	VN	NT	33.85	0.018006	±2.5	PASS
EGSM1900	661	VH	NT	36.42	0.019374	±2.5	PASS
EGSM1900	810	VL	NT	30.38	0.015907	±2.5	PASS
EGSM1900	810	VN	NT	29.84	0.015626	±2.5	PASS
EGSM1900	810	VH	NT	25.90	0.013560	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	NV	-30	26.42	0.014634	±2.5	PASS
GSM1900	512	NV	-20	41.98	0.023253	±2.5	PASS
GSM1900	512	NV	-10	35.92	0.019900	±2.5	PASS
GSM1900	512	NV	0	38.40	0.021271	±2.5	PASS
GSM1900	512	NV	10	38.32	0.021226	±2.5	PASS
GSM1900	512	NV	20	24.58	0.013616	±2.5	PASS
GSM1900	512	NV	30	27.07	0.014997	±2.5	PASS
GSM1900	512	NV	40	38.32	0.021228	±2.5	PASS
GSM1900	512	NV	50	32.85	0.018198	±2.5	PASS
GSM1900	661	NV	-30	40.44	0.021508	±2.5	PASS
GSM1900	661	NV	-20	42.75	0.022738	±2.5	PASS
GSM1900	661	NV	-10	43.80	0.023298	±2.5	PASS
GSM1900	661	NV	0	40.76	0.021681	±2.5	PASS
GSM1900	661	NV	10	33.07	0.017590	±2.5	PASS
GSM1900	661	NV	20	39.96	0.021257	±2.5	PASS
GSM1900	661	NV	30	44.74	0.023798	±2.5	PASS
GSM1900	661	NV	40	35.14	0.018694	±2.5	PASS
GSM1900	661	NV	50	27.48	0.014616	±2.5	PASS
GSM1900	810	NV	-30	24.02	0.012579	±2.5	PASS
GSM1900	810	NV	-20	29.25	0.015318	±2.5	PASS
GSM1900	810	NV	-10	26.08	0.013656	±2.5	PASS
GSM1900	810	NV	0	20.13	0.010540	±2.5	PASS
GSM1900	810	NV	10	29.59	0.015496	±2.5	PASS
GSM1900	810	NV	20	30.52	0.015981	±2.5	PASS
GSM1900	810	NV	30	27.43	0.014360	±2.5	PASS
GSM1900	810	NV	40	29.10	0.015238	±2.5	PASS
GSM1900	810	NV	50	29.04	0.015206	±2.5	PASS
EGSM1900	512	NV	-30	28.95	0.016035	±2.5	PASS
EGSM1900	512	NV	-20	39.40	0.021825	±2.5	PASS
EGSM1900	512	NV	-10	32.34	0.017914	±2.5	PASS
EGSM1900	512	NV	0	24.45	0.013543	±2.5	PASS
EGSM1900	512	NV	10	24.15	0.013377	±2.5	PASS
EGSM1900	512	NV	20	36.21	0.020060	±2.5	PASS
EGSM1900	512	NV	30	21.27	0.011785	±2.5	PASS
EGSM1900	512	NV	40	27.81	0.015405	±2.5	PASS
EGSM1900	512	NV	50	39.36	0.021804	±2.5	PASS
EGSM1900	661	NV	-30	37.23	0.019802	±2.5	PASS
EGSM1900	661	NV	-20	28.86	0.015350	±2.5	PASS
EGSM1900	661	NV	-10	22.65	0.012048	±2.5	PASS
EGSM1900	661	NV	0	35.85	0.019071	±2.5	PASS
EGSM1900	661	NV	10	29.72	0.015809	±2.5	PASS
EGSM1900	661	NV	20	31.35	0.016678	±2.5	PASS
EGSM1900	661	NV	30	32.88	0.017491	±2.5	PASS
EGSM1900	661	NV	40	32.01	0.017026	±2.5	PASS
EGSM1900	661	NV	50	40.05	0.021304	±2.5	PASS

EGSM1900	810	NV	-30	28.55	0.014948	±2.5	PASS
EGSM1900	810	NV	-20	33.00	0.017279	±2.5	PASS
EGSM1900	810	NV	-10	20.28	0.010621	±2.5	PASS
EGSM1900	810	NV	0	14.76	0.007727	±2.5	PASS
EGSM1900	810	NV	10	23.49	0.012301	±2.5	PASS
EGSM1900	810	NV	20	18.57	0.009722	±2.5	PASS
EGSM1900	810	NV	30	31.15	0.016313	±2.5	PASS
EGSM1900	810	NV	40	16.13	0.008446	±2.5	PASS

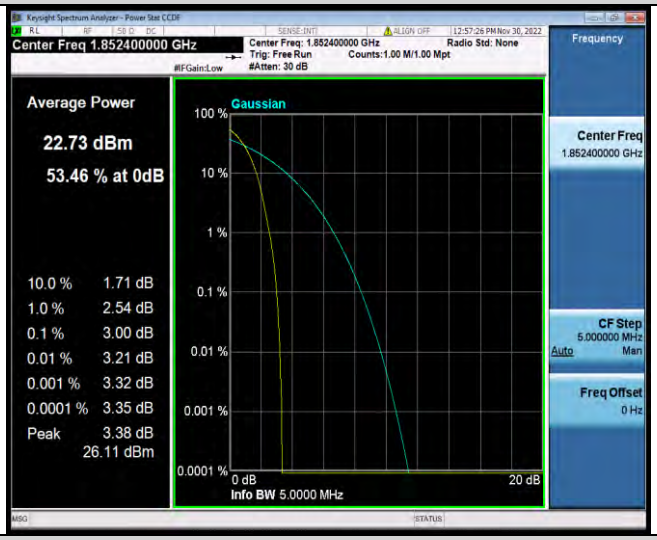
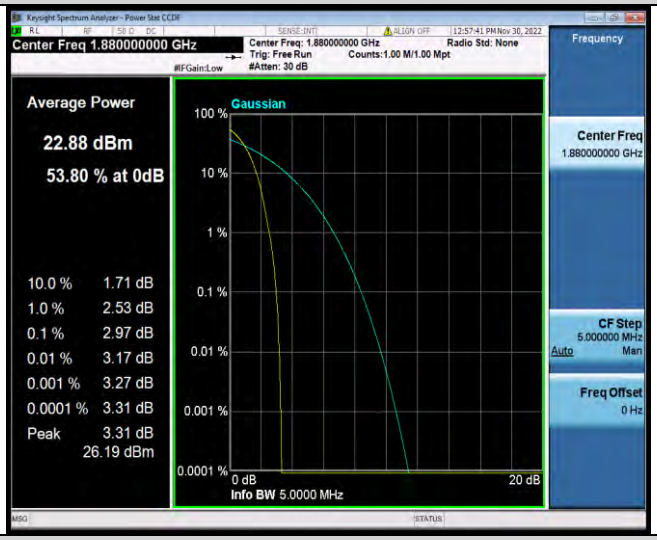
WCDMA BAND2

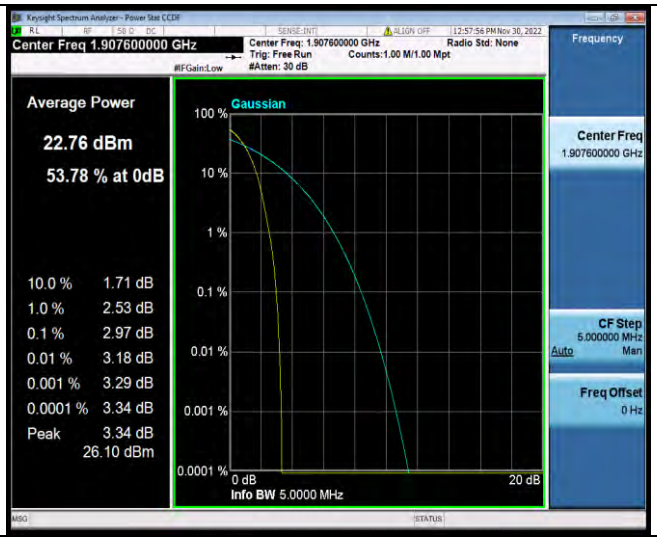
PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.00	13	PASS
Band2	9400	2.97	13	PASS
Band2	9538	2.97	13	PASS

Test Graphs

Band2-9262

Band2-9400

Band2-9538


Keysight Spectrum Analyzer - Power Stat CCDF
Center Freq 1.907600000 GHz
Center Freq: 1.907600000 GHz
Trig: Free Run
#Atten: 30 dB
Counts:1.00 M/1.00 Mpt
Radio Std: None
#IFGain:Low
Frequency
Average Power
22.76 dBm
53.78 % at 0dB
10.0 % 1.71 dB
1.0 % 2.53 dB
0.1 % 2.97 dB
0.01 % 3.18 dB
0.001 % 3.29 dB
0.0001 % 3.34 dB
Peak 3.34 dB
26.10 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 5.0000 MHz
Center Freq
1.907600000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.1660	4.739	---	PASS
Band2	9400	4.1665	4.736	---	PASS
Band2	9538	4.1686	4.743	---	PASS

Test Graphs

Band2-9262

Band2-9400

Band2-9538