

3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $55 + 10 \log_{10}(P)$ dB. The limit of emission is equal to -25dBm.

3.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G.
- c. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15\text{dBi}.$

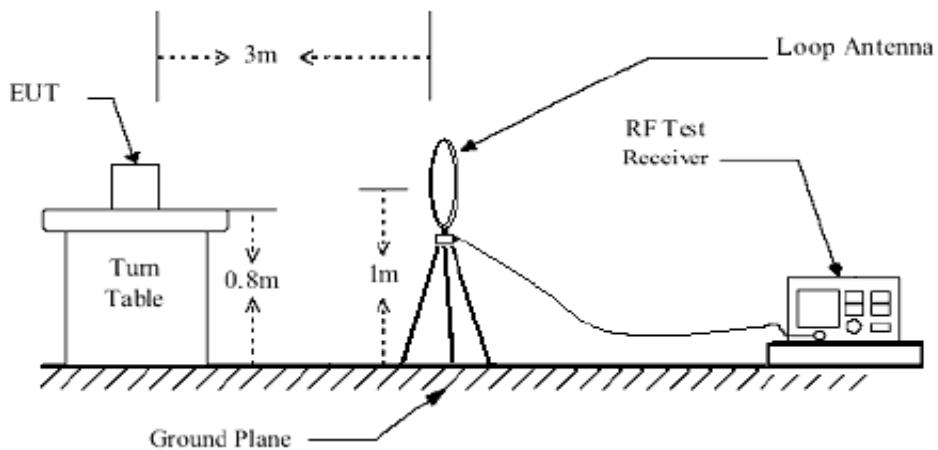
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

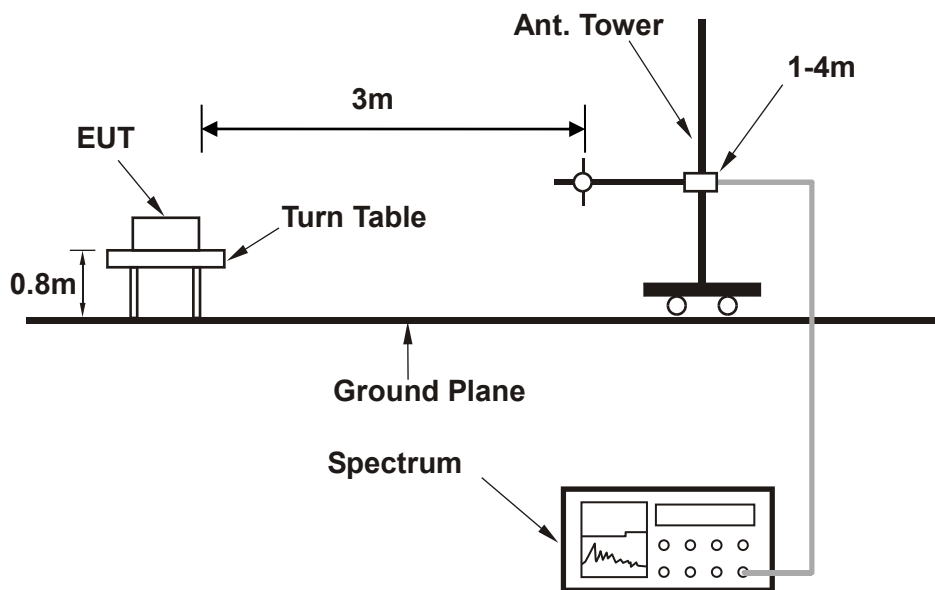
No deviation

3.6.4 TEST SETUP

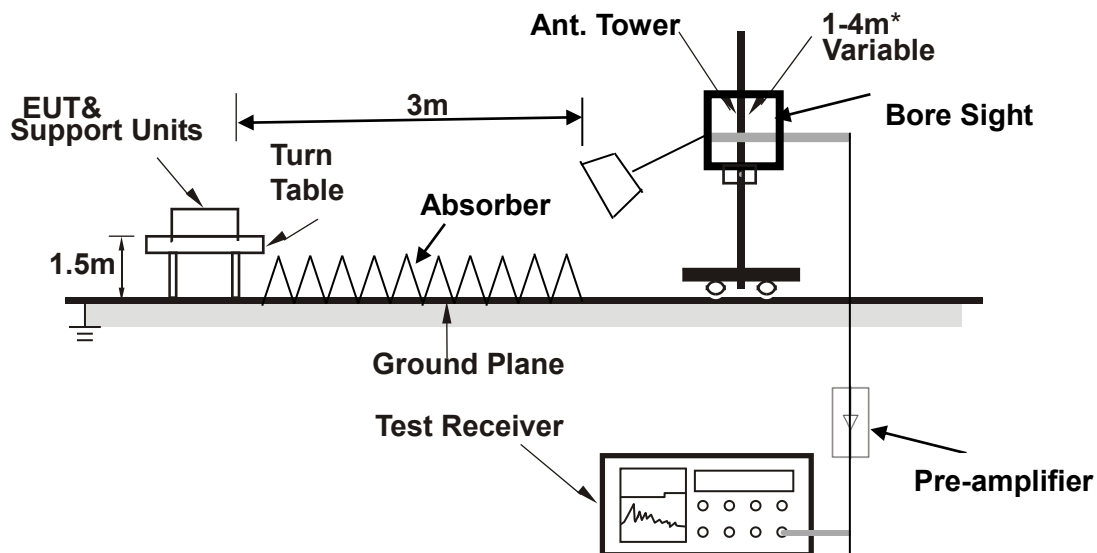
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.6.5 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

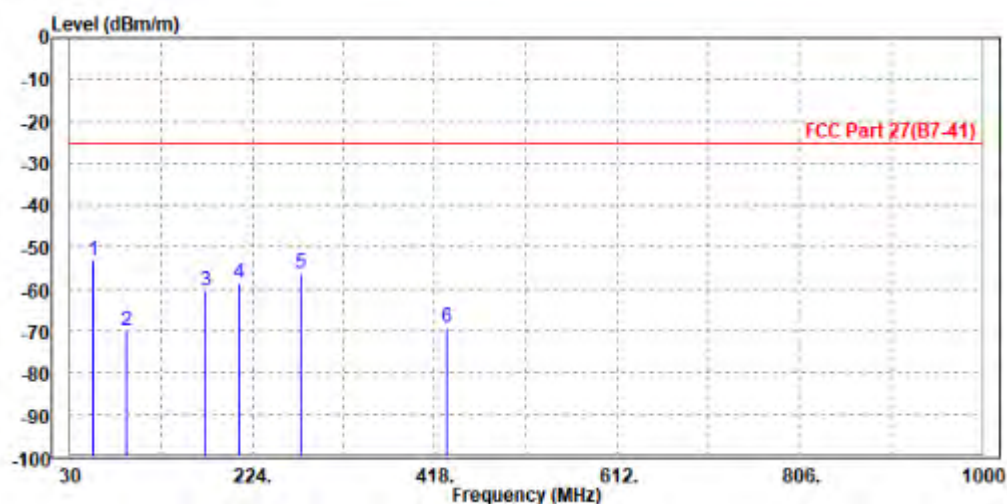
30 MHz – 1GHz data:

LTE Band 41

CHANNEL BANDWIDTH: 5MHz / QPSK

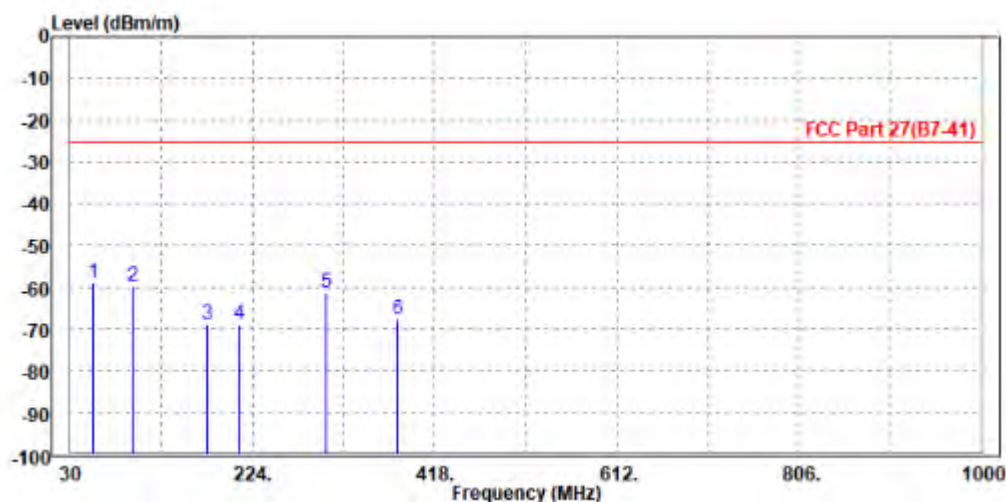
MODE	TX channel 41565	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	55.220	-53.36	-35.46	-25.00	-28.36	-17.90	Peak	Horizontal
2		90.140	-69.94	-48.99	-25.00	-44.94	-20.95	Peak	Horizontal
3		173.560	-60.61	-43.62	-25.00	-35.61	-16.99	Peak	Horizontal
4		209.450	-58.64	-42.34	-25.00	-33.64	-16.30	Peak	Horizontal
5		275.410	-56.22	-44.25	-25.00	-31.22	-11.97	Peak	Horizontal
6		430.610	-69.03	-59.55	-25.00	-44.03	-9.48	Peak	Horizontal



MODE	TX channel 41565	FREQUENCY RANGE	Below 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	PP	55.220	-59.05	-34.72	-25.00	-34.05	-24.33	Peak	Vertical
2		96.930	-59.59	-50.34	-25.00	-34.59	-9.25	Peak	Vertical
3		175.500	-68.76	-50.50	-25.00	-43.76	-18.26	Peak	Vertical
4		210.420	-68.67	-51.57	-25.00	-43.67	-17.10	Peak	Vertical
5		302.570	-61.37	-50.60	-25.00	-36.37	-10.77	Peak	Vertical
6		378.230	-67.71	-58.31	-25.00	-42.71	-9.40	Peak	Vertical





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Test Report No.: W7L-P22090015-1RF06

ABOVE 1GHz

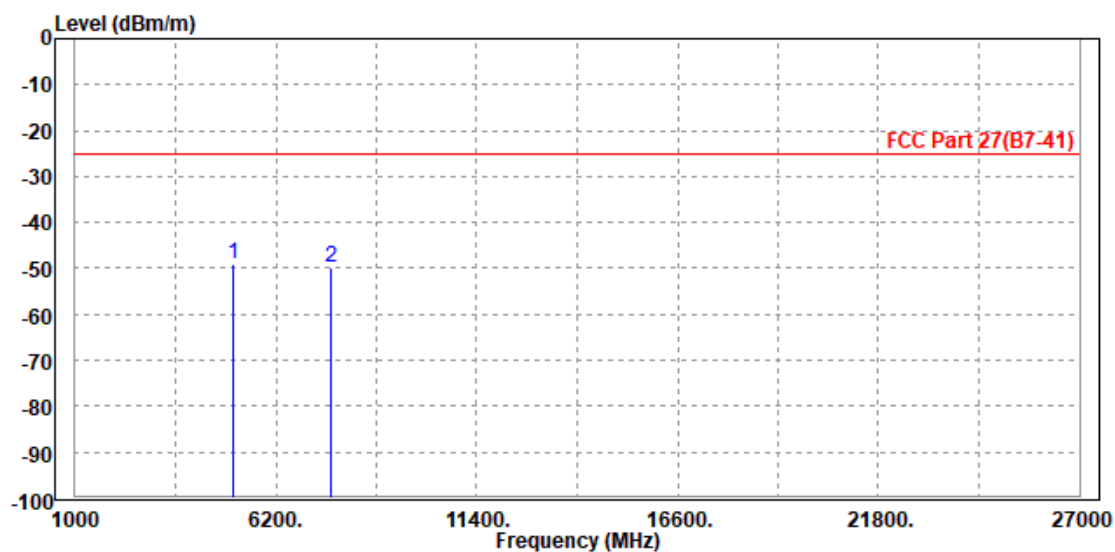
Note: For higher frequency, the emission is too low to be detected.

LTE Band 7

CHANNEL BANDWIDTH: 5MHz / QPSK

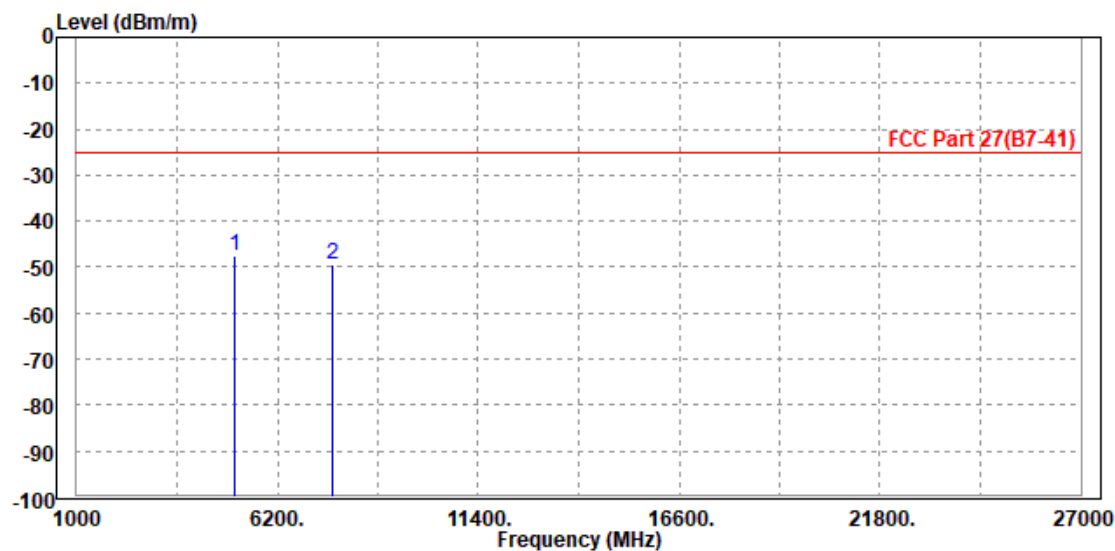
MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	-49.24	-58.01	-25.00	-24.24	8.77	Peak	Horizontal
2	7605.000	-49.99	-61.39	-25.00	-24.99	11.40	Peak	Horizontal



MODE	TX channel 21100	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			

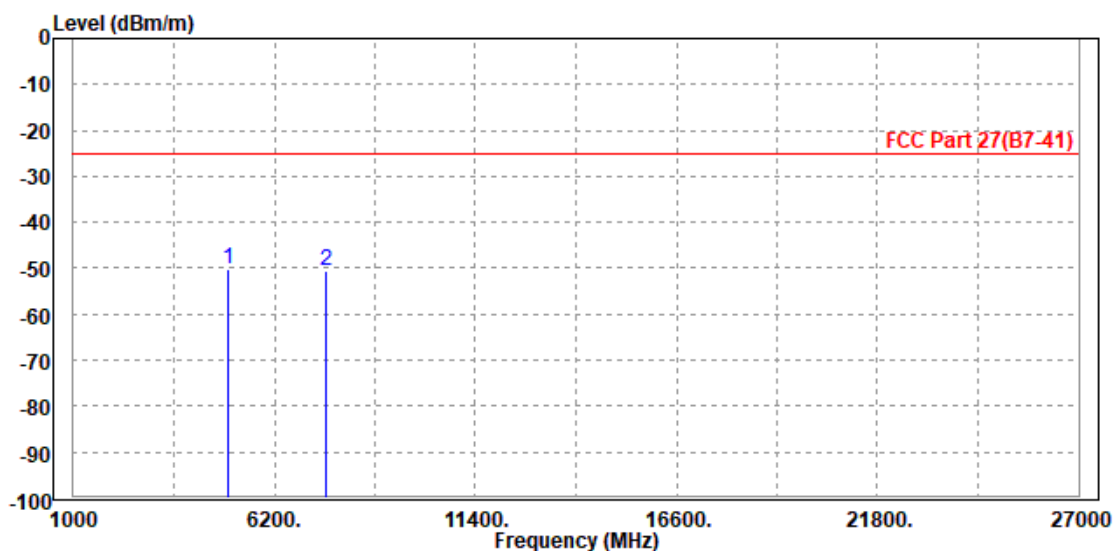
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	-47.65	-57.52	-25.00	-22.65	9.87	Peak	Vertical
2	7605.000	-49.41	-62.19	-25.00	-24.41	12.78	Peak	Vertical



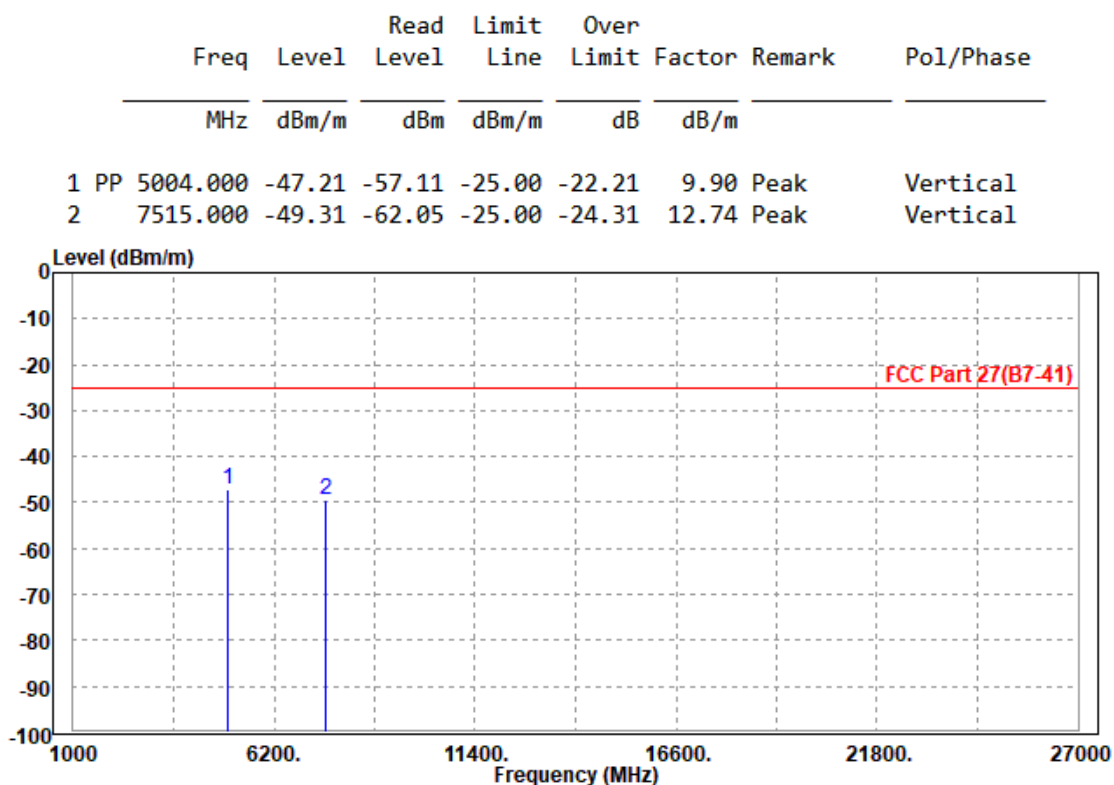
CHANNEL BANDWIDTH: 10MHz / QPSK
CH20800

MODE	TX channel 20800	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 PP	5004.000	-50.12	-58.66	-25.00	-25.12	8.54	Peak	Horizontal
2	7515.000	-50.71	-62.08	-25.00	-25.71	11.37	Peak	Horizontal



MODE	TX channel 20800	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			





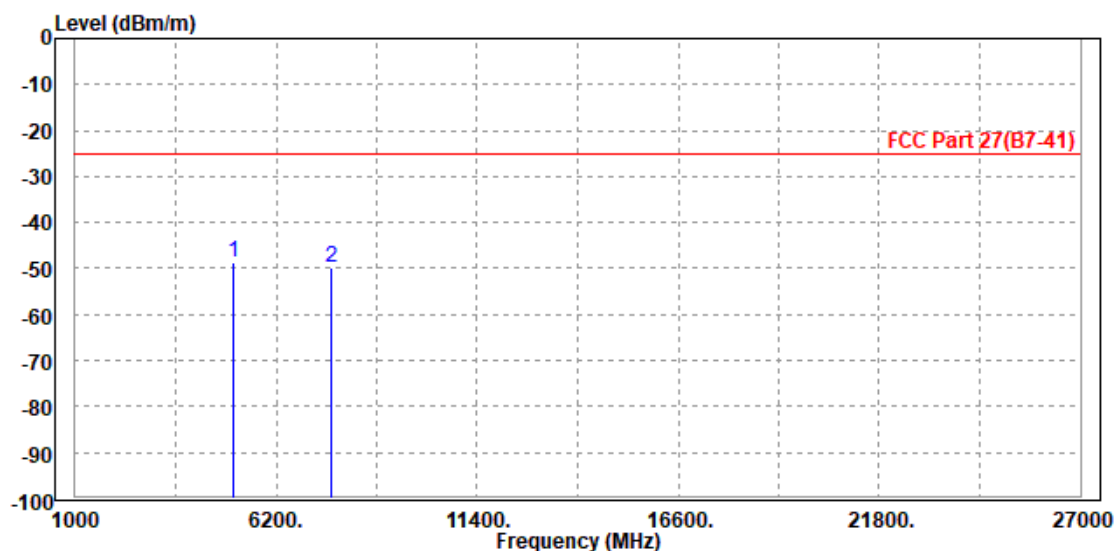
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CH 21100

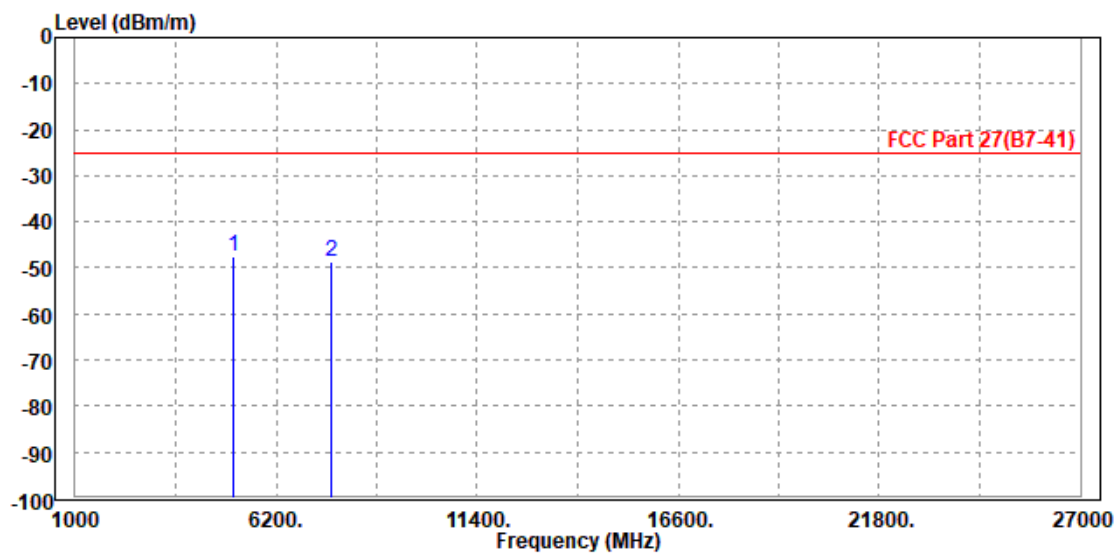
MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	-48.73	-57.50	-25.00	-23.73	8.77	Peak	Horizontal
2	7605.000	-49.95	-61.35	-25.00	-24.95	11.40	Peak	Horizontal



MODE	TX channel 21100	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 PP	5082.000	-47.35	-57.22	-25.00	-22.35	9.87	Peak	Vertical
2	7605.000	-48.70	-61.48	-25.00	-23.70	12.78	Peak	Vertical





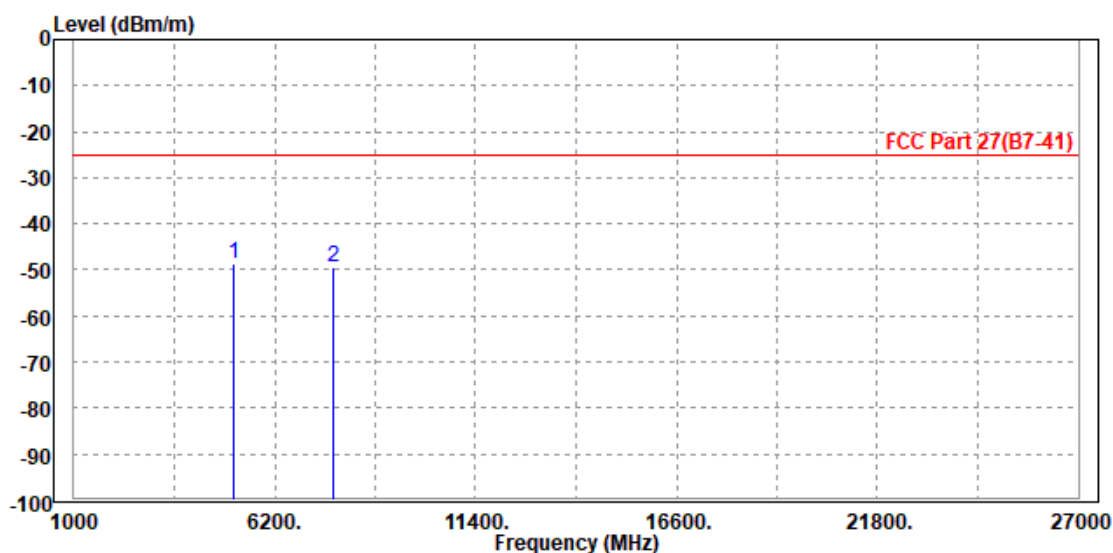
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Test Report No.: W7L-P22090015-1RF06

CH 21400

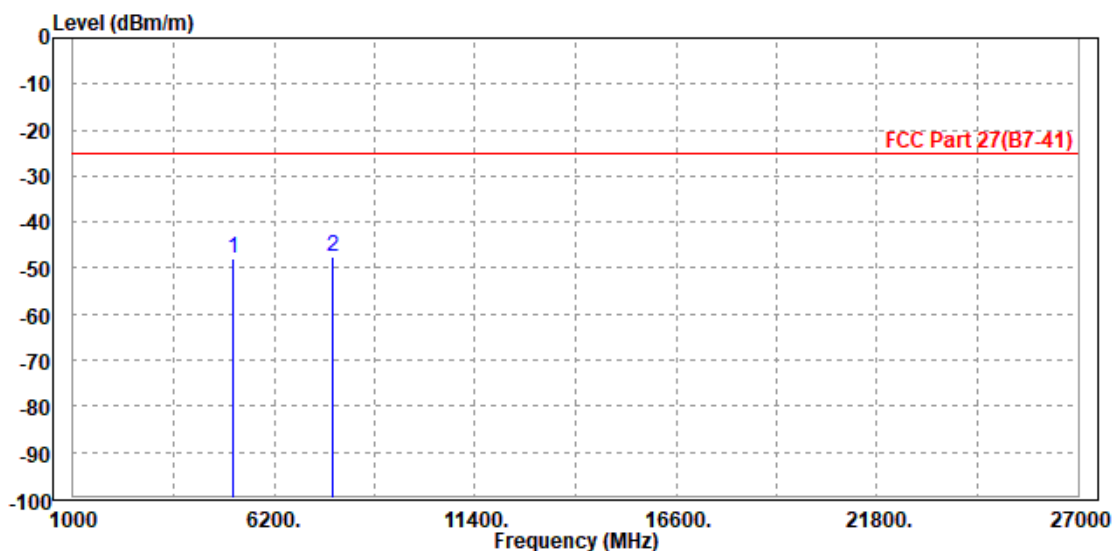
MODE	TX channel 21400	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	5134.000	-48.76	-57.69	-25.00	-23.76	8.93	Peak	Horizontal
2		7695.000	-49.60	-61.04	-25.00	-24.60	11.44	Peak	Horizontal



MODE	TX channel 21400	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	5134.000	-47.93	-57.78	-25.00	-22.93	9.85	Peak	Vertical
2 PP	7695.000	-47.52	-60.33	-25.00	-22.52	12.81	Peak	Vertical





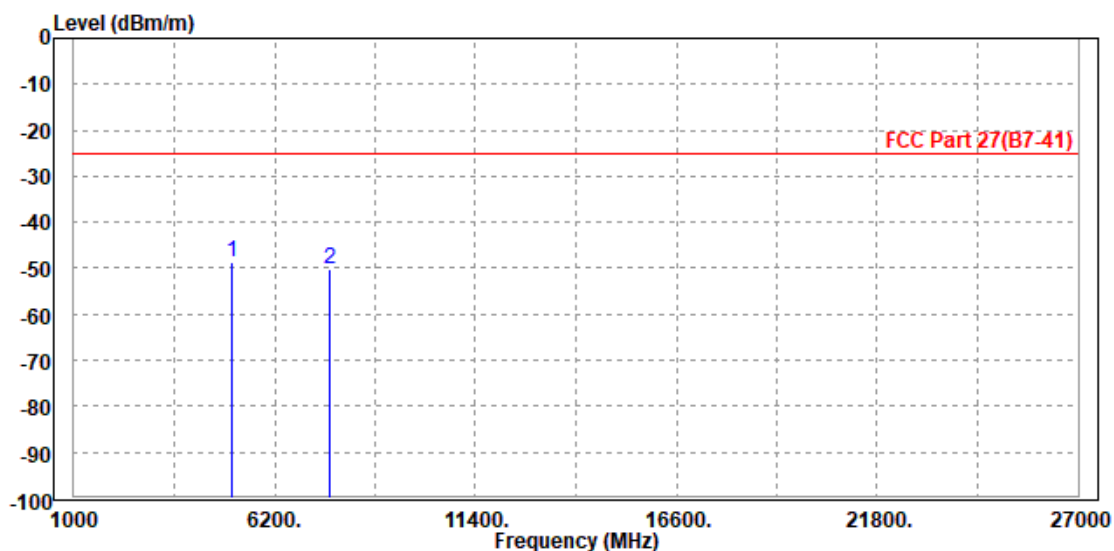
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Test Report No.: W7L-P22090015-1RF06

CHANNEL BANDWIDTH: 15MHz / QPSK

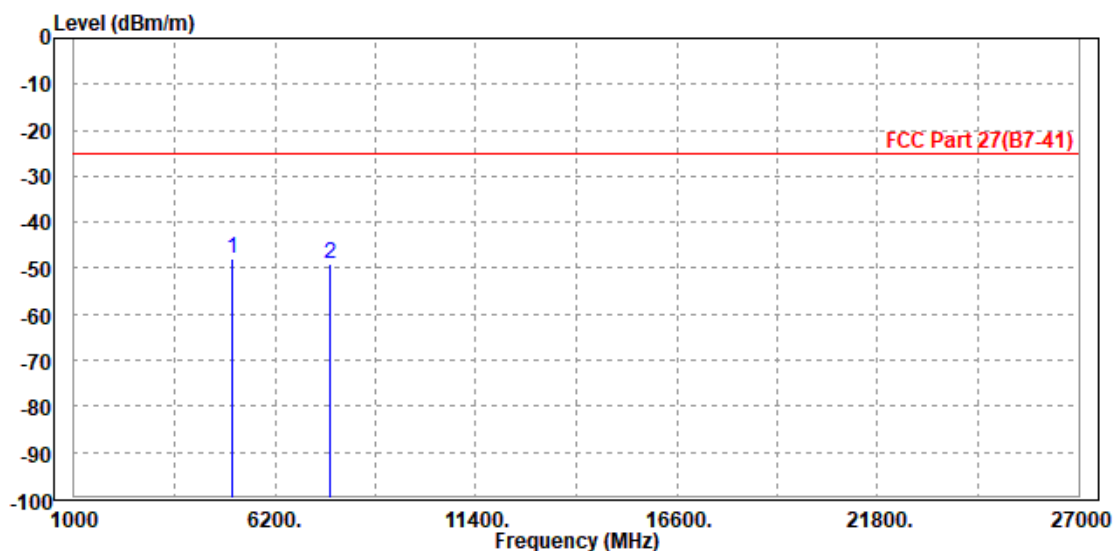
MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	-48.61	-57.38	-25.00	-23.61	8.77	Peak	Horizontal
2	7605.000	-50.28	-61.68	-25.00	-25.28	11.40	Peak	Horizontal



MODE	TX channel 21100	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	PP 5082.000	-47.89	-57.76	-25.00	-22.89	9.87	Peak	Vertical
2	7605.000	-48.94	-61.72	-25.00	-23.94	12.78	Peak	Vertical





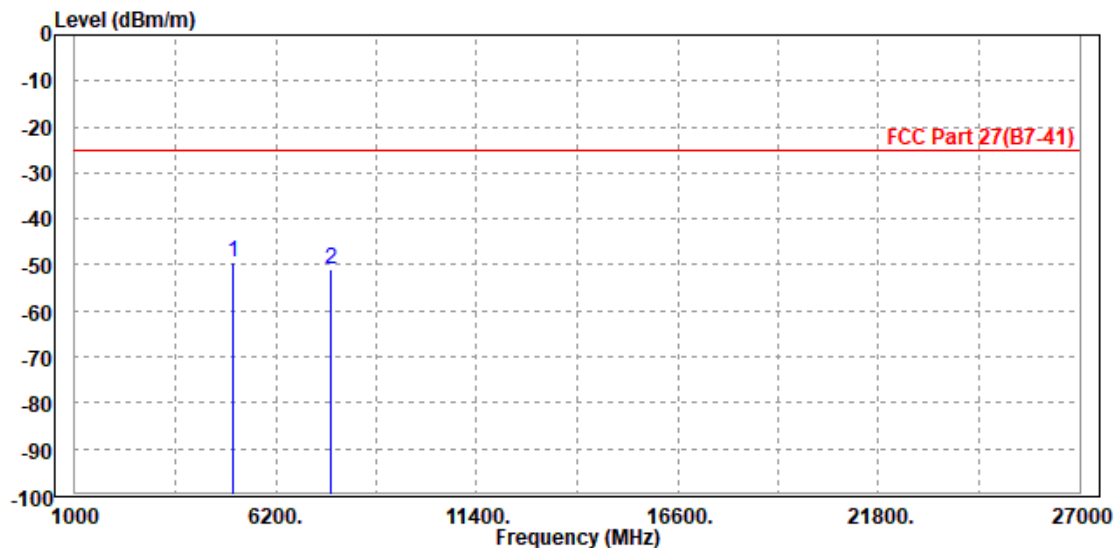
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Test Report No.: W7L-P22090015-1RF06

CHANNEL BANDWIDTH: 20MHz / QPSK

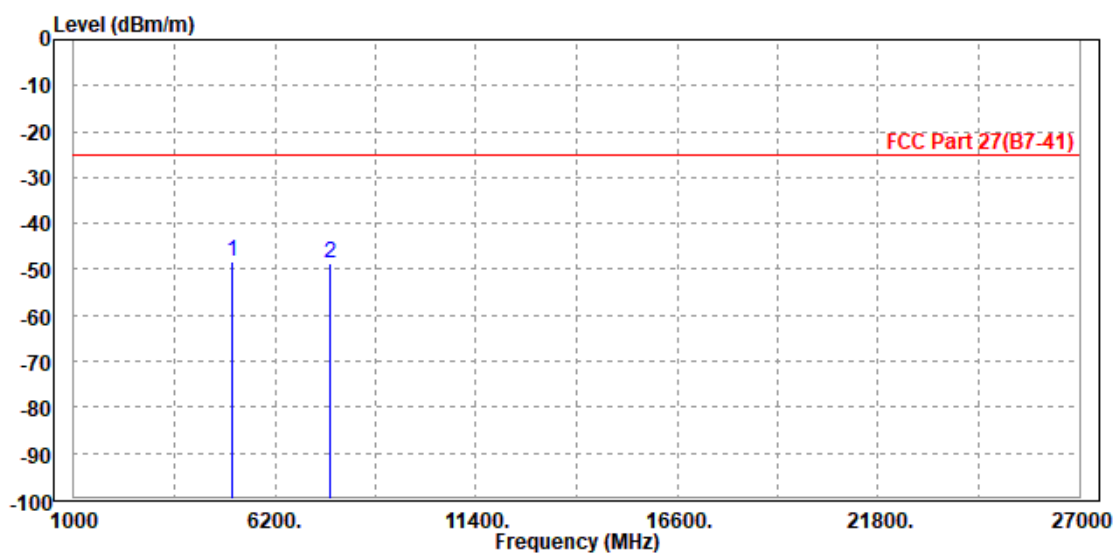
MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	-49.39	-58.16	-25.00	-24.39	8.77	Peak	Horizontal
2	7605.000	-50.79	-62.19	-25.00	-25.79	11.40	Peak	Horizontal



MODE	TX channel 21100	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	PP 5082.000	-48.32	-58.19	-25.00	-23.32	9.87	Peak	Vertical
2	7605.000	-48.51	-61.29	-25.00	-23.51	12.78	Peak	Vertical

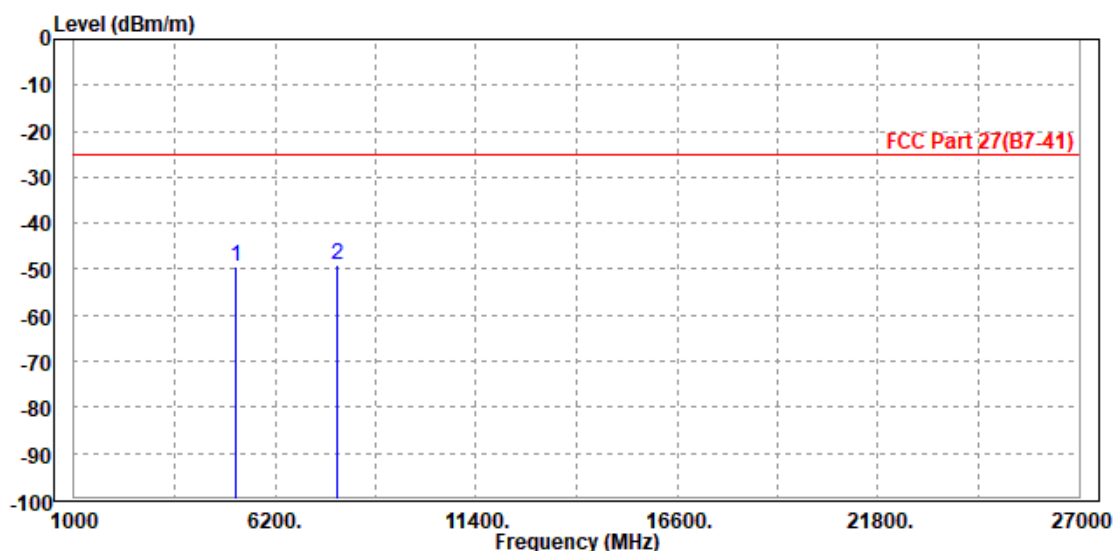


LTE Band 38

CHANNEL BANDWIDTH: 5MHz / QPSK

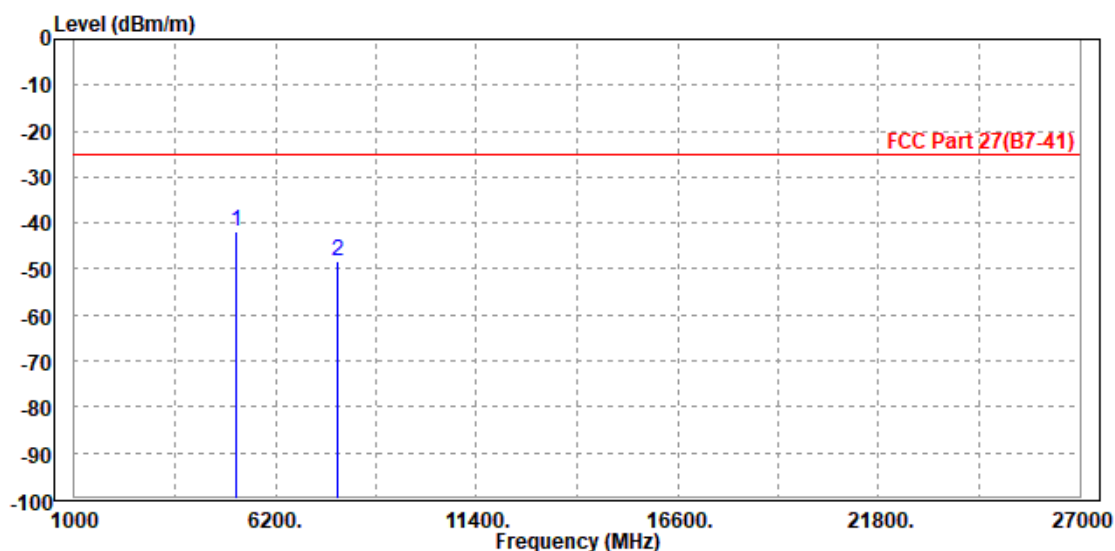
MODE	TX channel 38000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5190.000	-49.56	-58.65	-25.00	-24.56	9.09	Peak	Horizontal
2 PP	7786.000	-49.16	-60.64	-25.00	-24.16	11.48	Peak	Horizontal



MODE	TX channel 38000	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	PP 5186.000	-41.68	-51.51	-25.00	-16.68	9.83	Peak	Vertical
2	7785.000	-48.33	-61.18	-25.00	-23.33	12.85	Peak	Vertical





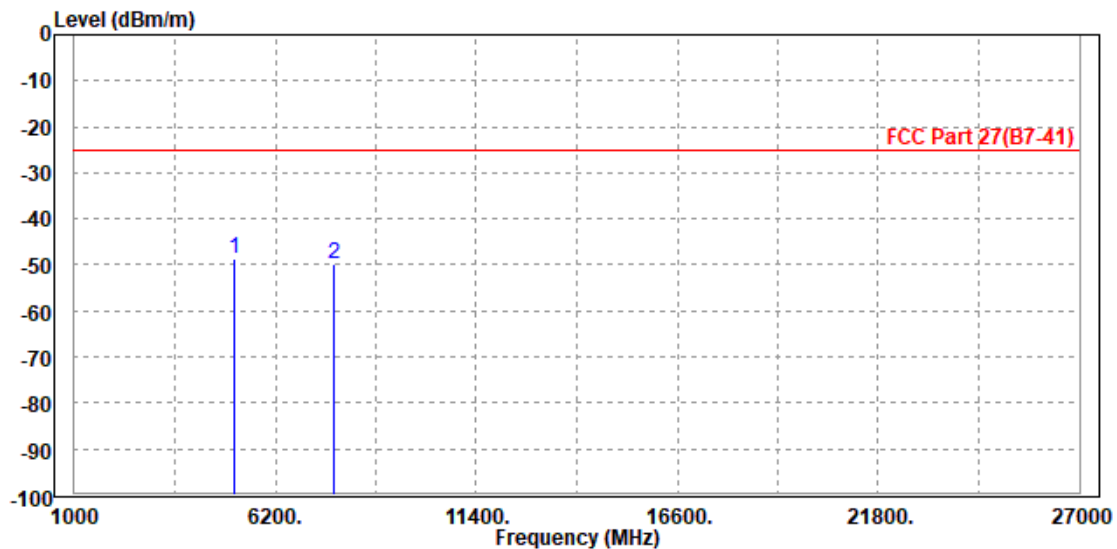
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Test Report No.: W7L-P22090015-1RF06

**CHANNEL BANDWIDTH: 10MHz / QPSK
CH37800**

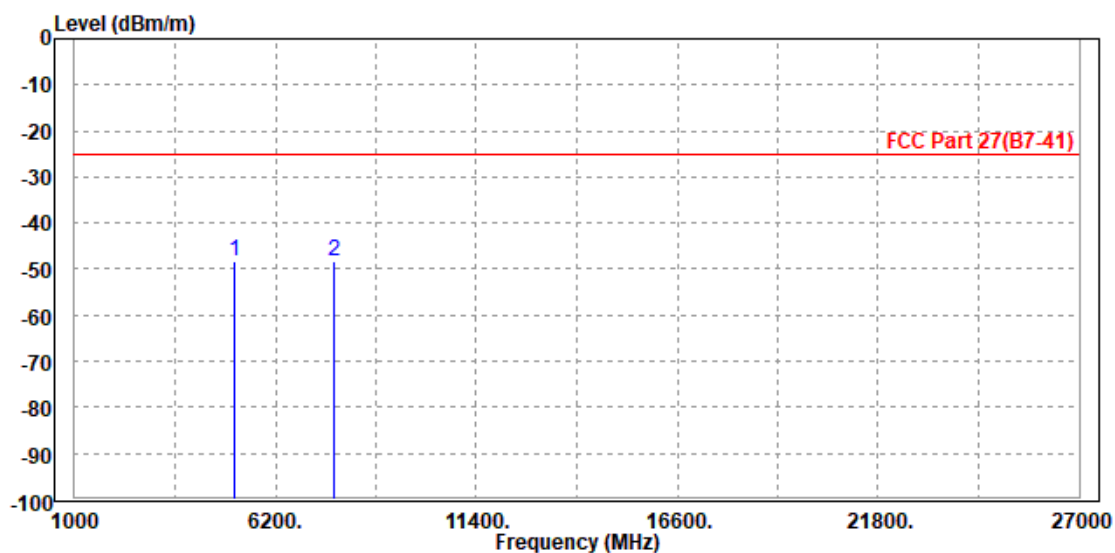
MODE	TX channel 37800	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5160.000	-48.79	-57.79	-25.00	-23.79	9.00	Peak	Horizontal
2	7725.000	-49.76	-61.21	-25.00	-24.76	11.45	Peak	Horizontal



MODE	TX channel 37800	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			

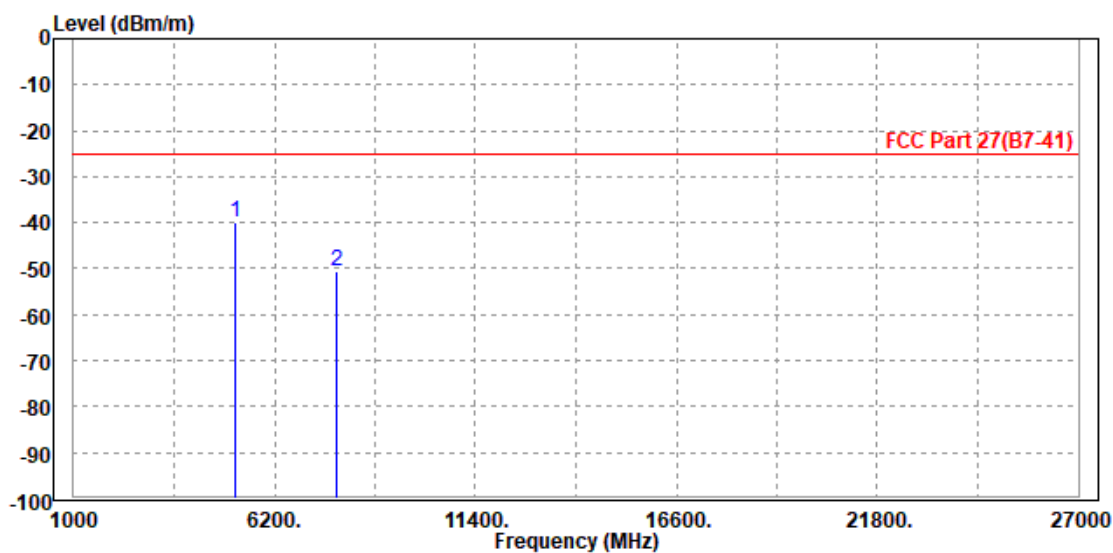
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5160.000	-48.37	-58.21	-25.00	-23.37	9.84	Peak	Vertical
2	7725.000	-48.47	-61.30	-25.00	-23.47	12.83	Peak	Vertical



CH38000

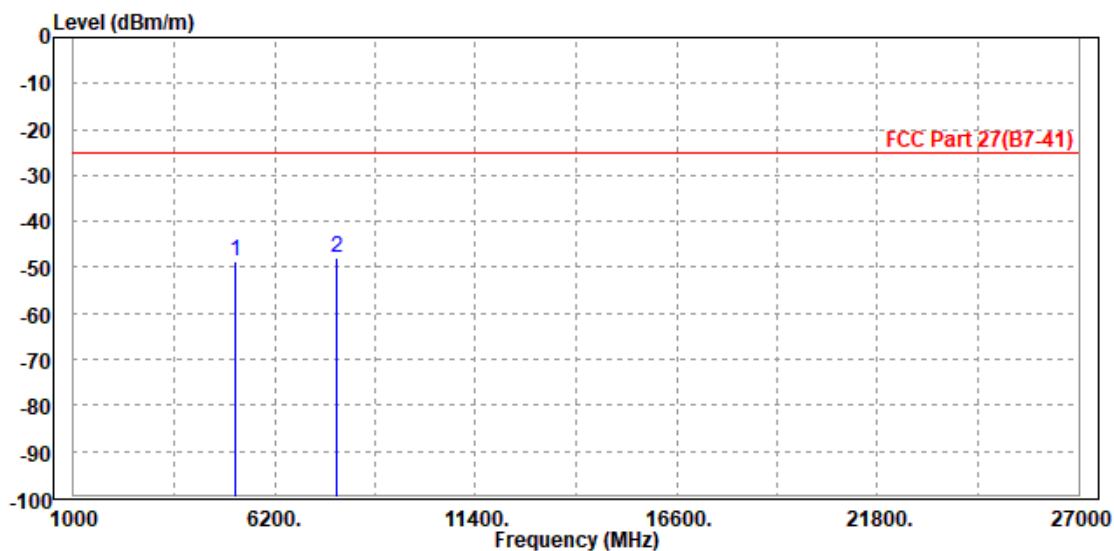
MODE	TX channel 38000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-39.89	-48.97	-25.00	-14.89	9.08	Peak	Horizontal
2	7785.000	-50.75	-62.23	-25.00	-25.75	11.48	Peak	Horizontal



MODE	TX channel 38000	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	5186.000	-48.71	-58.54	-25.00	-23.71	9.83	Peak	Vertical
2 PP	7785.000	-48.01	-60.86	-25.00	-23.01	12.85	Peak	Vertical





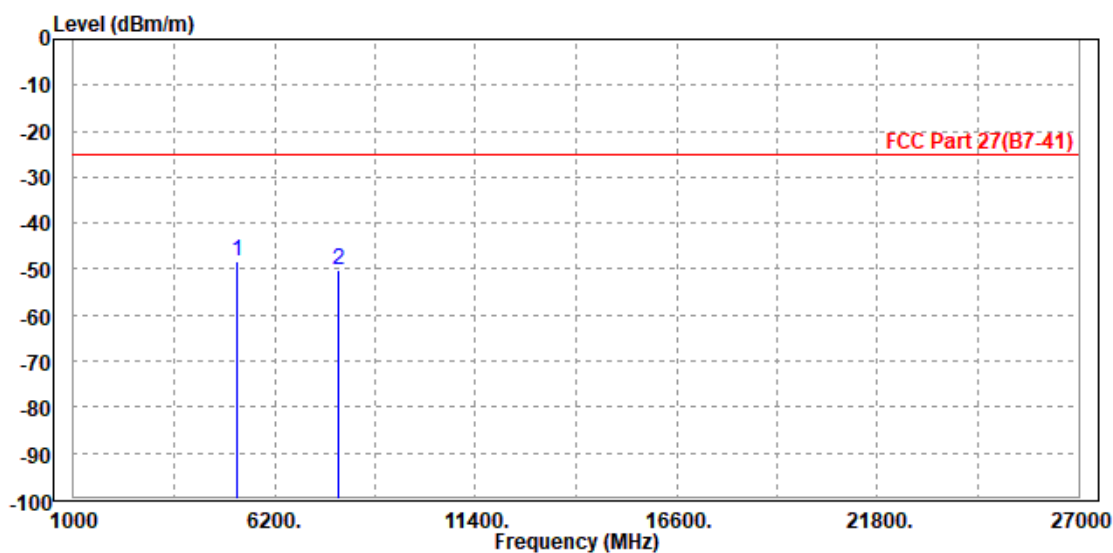
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Test Report No.: W7L-P22090015-1RF06

CH38200

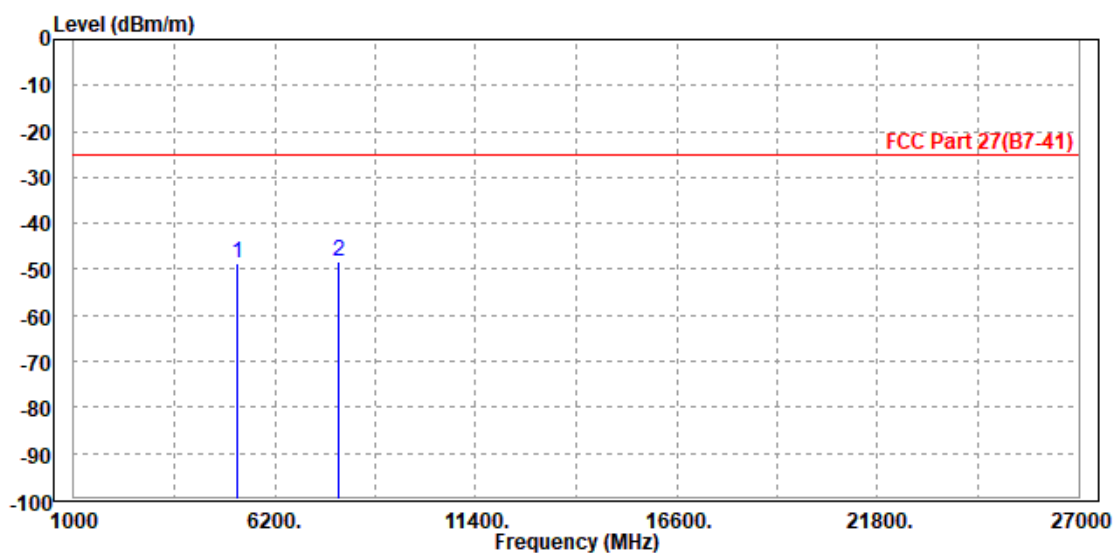
MODE	TX channel 38200	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5238.000	-48.26	-57.50	-25.00	-23.26	9.24	Peak	Horizontal
2	7845.000	-50.25	-61.75	-25.00	-25.25	11.50	Peak	Horizontal



MODE	TX channel 38200	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			

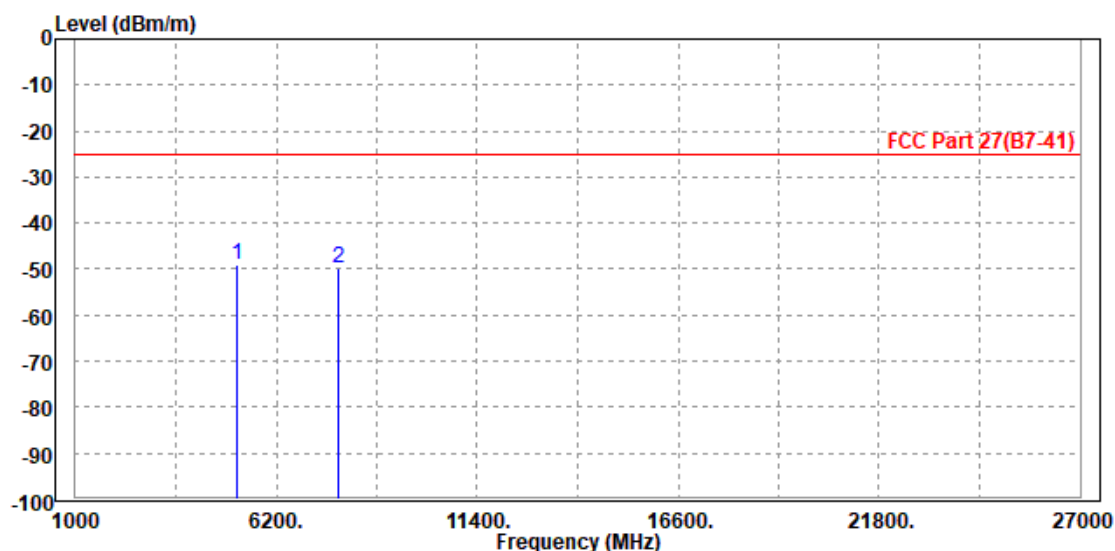
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5238.000	-48.48	-58.29	-25.00	-23.48	9.81	Peak	Vertical
2 PP	7845.000	-48.35	-61.22	-25.00	-23.35	12.87	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

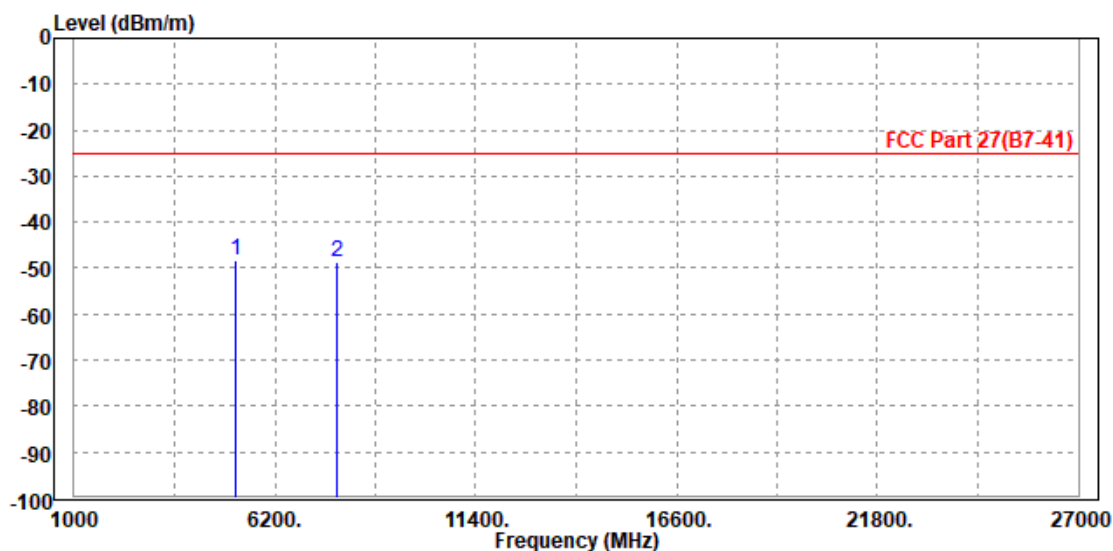
MODE	TX channel 38000	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5190.000	-49.18	-58.27	-25.00	-24.18	9.09	Peak	Horizontal
2	7786.000	-49.62	-61.10	-25.00	-24.62	11.48	Peak	Horizontal



MODE	TX channel 38000	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 PP	5186.000	-48.30	-58.13	-25.00	-23.30	9.83	Peak	Vertical
2	7785.000	-48.71	-61.56	-25.00	-23.71	12.85	Peak	Vertical

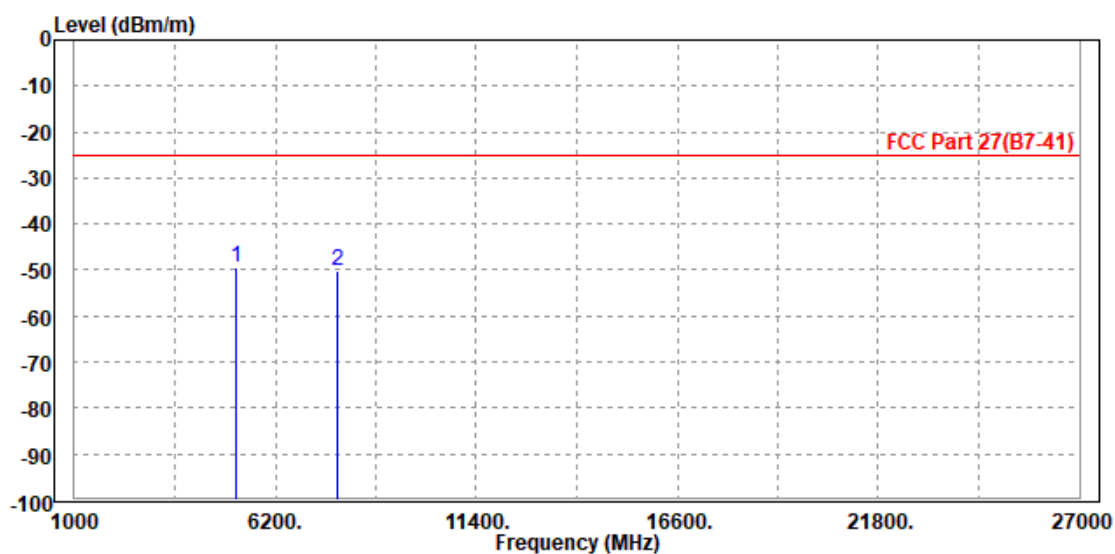


CHANNEL BANDWIDTH: 20MHz / QPSK

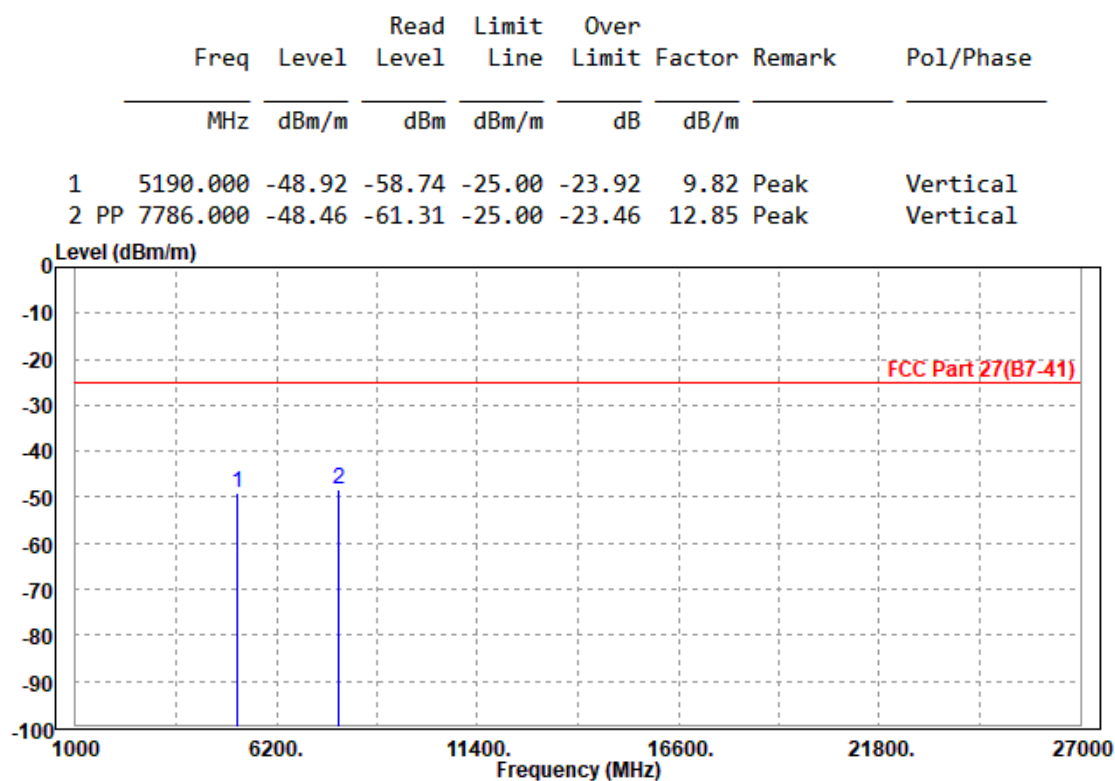
CH 38000

MODE	TX channel 38000	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 PP	5186.000	-49.41	-58.49	-25.00	-24.41	9.08	Peak	Horizontal
2	7785.000	-50.32	-61.80	-25.00	-25.32	11.48	Peak	Horizontal



MODE	TX channel 38000	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			





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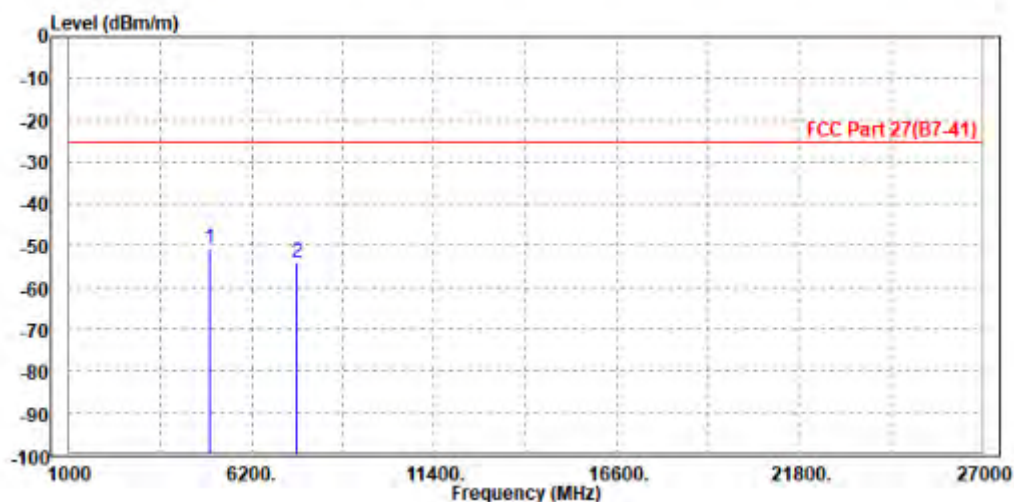
LTE BAND 41

CHANNEL BANDWIDTH: 5MHz / QPSK

CH39675

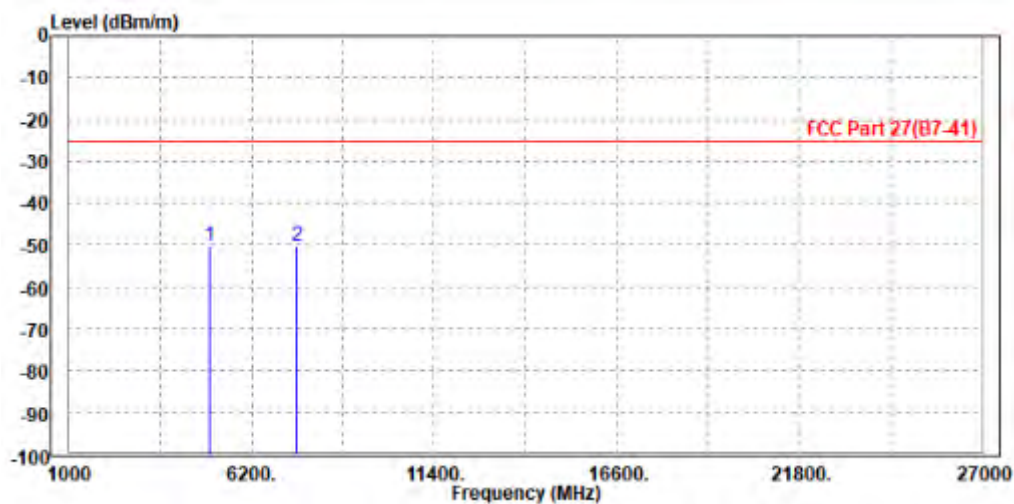
MODE	TX channel 39675	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	4997.000	-50.67	-60.36	-25.00	-25.67	9.69	Peak	Horizontal
2	7500.000	-53.98	-65.40	-25.00	-28.98	11.42	Peak	Horizontal



MODE	TX channel 39675	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			

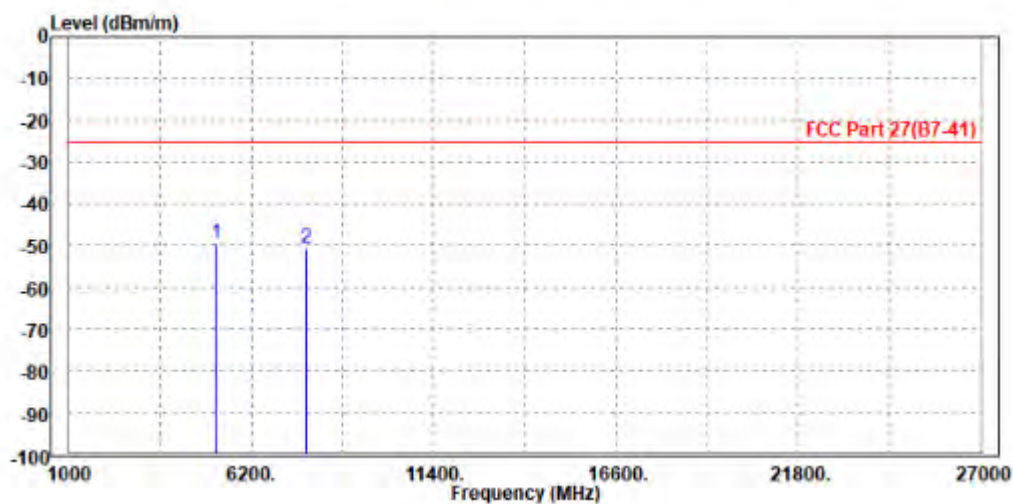
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 5004.000	-50.03	-60.30	-25.00	-25.03	10.27	Peak	Vertical
2	7495.500	-50.29	-64.97	-25.00	-25.29	14.68	Peak	Vertical



CH40620

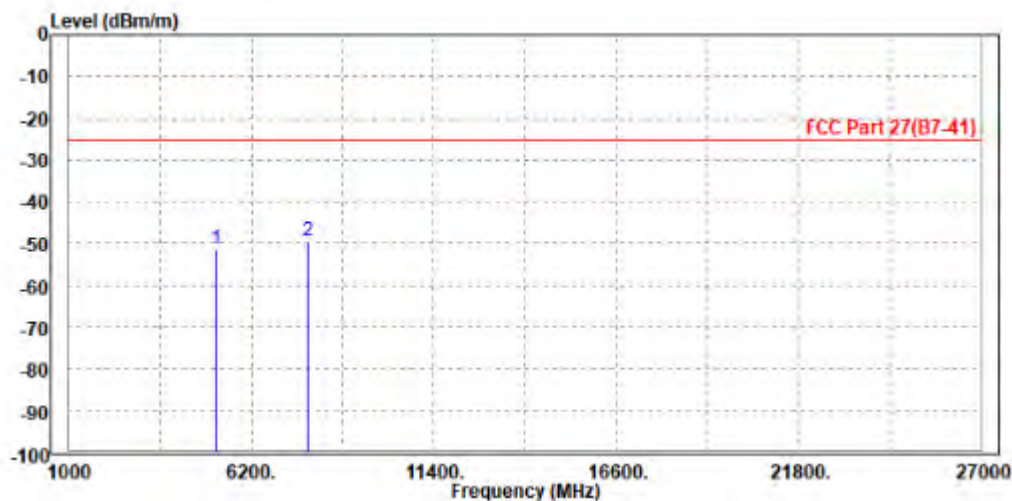
MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	5186.000	-49.53	-59.51	-25.00	-24.53	9.98	Peak	Horizontal
2		7779.000	-50.49	-63.93	-25.00	-25.49	13.44	Peak	Horizontal



MODE	TX channel 40620	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			

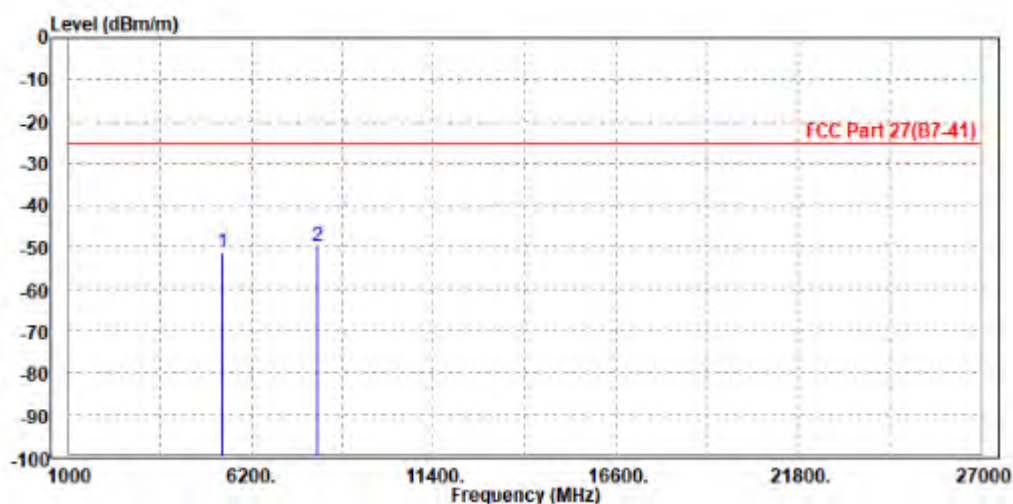
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5186.000	-51.48	-61.92	-25.00	-26.48	10.44	Peak	Vertical
2 PP	7786.000	-49.59	-64.71	-25.00	-24.59	15.12	Peak	Vertical



CH41565

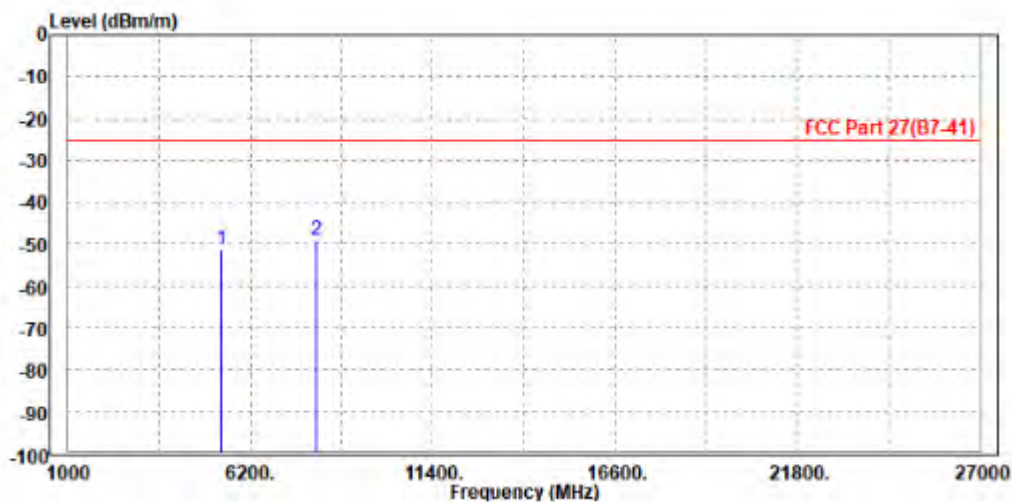
MODE	TX channel 41565	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5368.000	-51.35	-61.62	-25.00	-26.35	10.27	Peak	Horizontal
2 PP	8062.500	-49.65	-64.68	-25.00	-24.65	15.03	Peak	Horizontal



MODE	TX channel 41565	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			

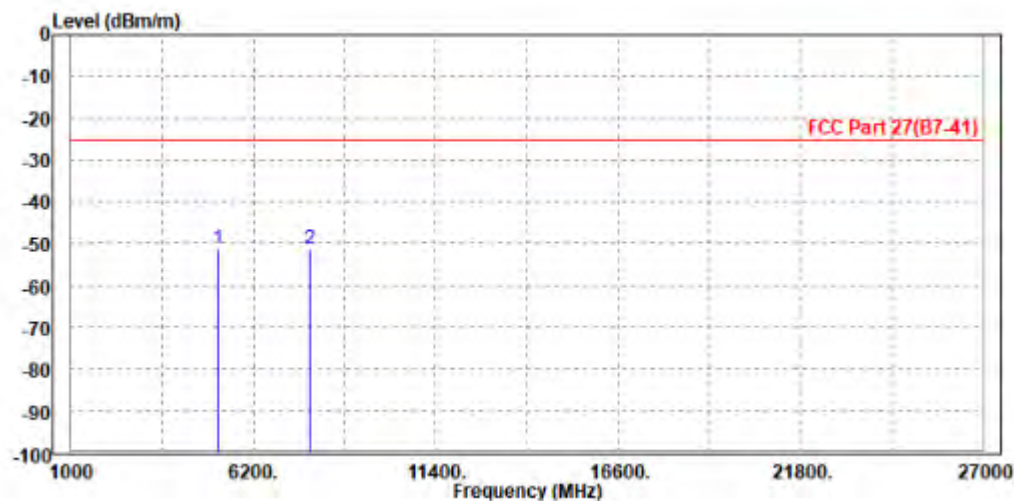
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5375.000	-51.45	-62.06	-25.00	-26.45	10.61	Peak	Vertical
2 PP	8072.000	-49.04	-64.45	-25.00	-24.04	15.41	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

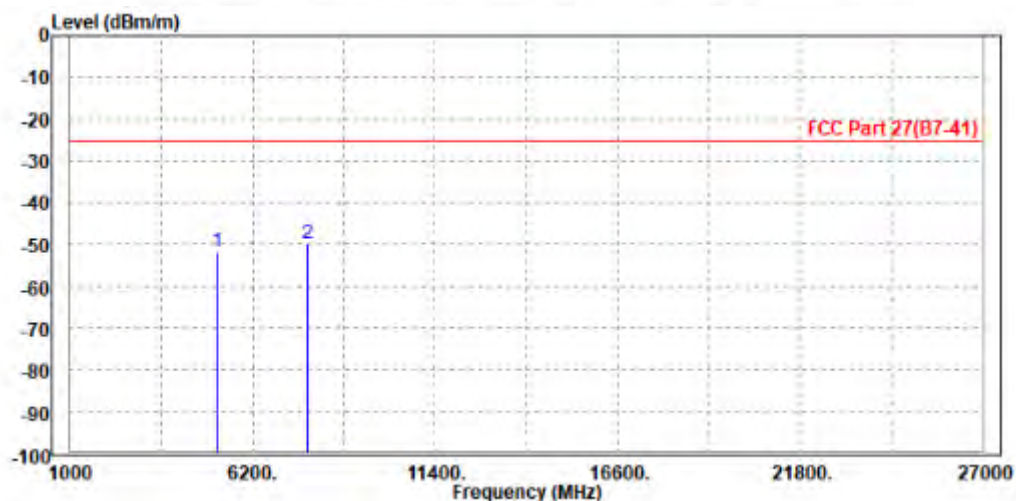
MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	5186.000	-51.21	-61.19	-25.00	-26.21	9.98	Peak	Horizontal
2		7786.000	-51.37	-64.86	-25.00	-26.37	13.49	Peak	Horizontal



MODE	TX channel 40620	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			

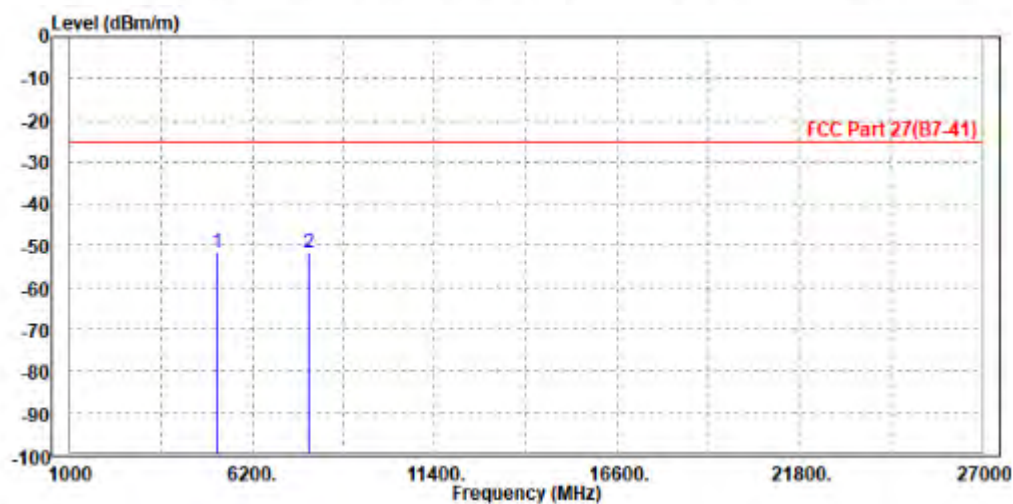
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	5186.000	-51.67	-62.11	-25.00	-26.67	10.44	Peak	Vertical
2 PP	7779.000	-49.63	-64.74	-25.00	-24.63	15.11	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

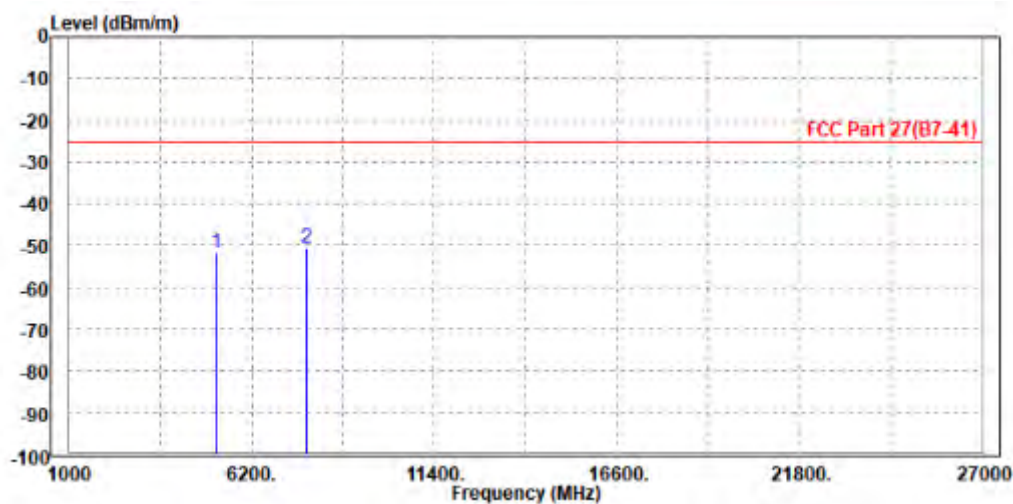
MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-51.54	-61.52	-25.00	-26.54	9.98	Peak	Horizontal
2	7786.000	-51.66	-65.15	-25.00	-26.66	13.49	Peak	Horizontal



MODE	TX channel 40620	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	5186.000	-51.53	-61.97	-25.00	-26.53	10.44	Peak	Vertical
2 PP	7779.000	-50.43	-65.54	-25.00	-25.43	15.11	Peak	Vertical

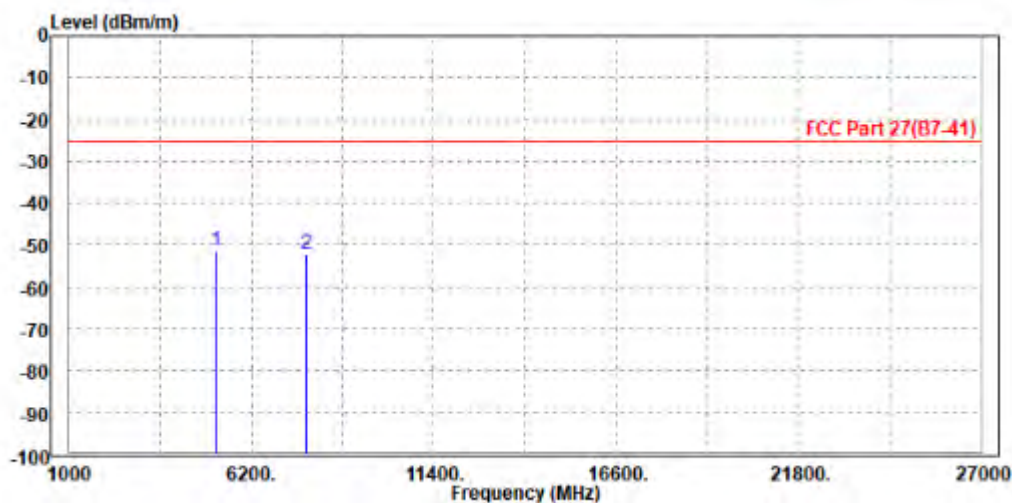


CHANNEL BANDWIDTH: 20MHz / QPSK

CH40620

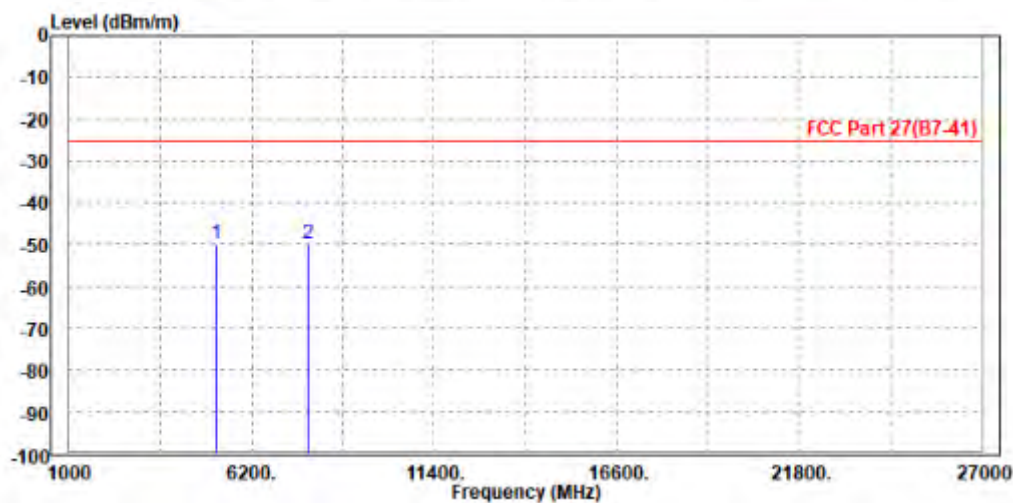
MODE	TX channel 40620	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5186.000	-51.30	-61.28	-25.00	-26.30	9.98	Peak	Horizontal
2	7779.000	-51.93	-65.37	-25.00	-26.93	13.44	Peak	Horizontal



MODE	TX channel 40620	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	5186.000	-49.89	-60.33	-25.00	-24.89	10.44	Peak	Vertical
2 PP	7786.000	-49.85	-64.97	-25.00	-24.85	15.12	Peak	Vertical

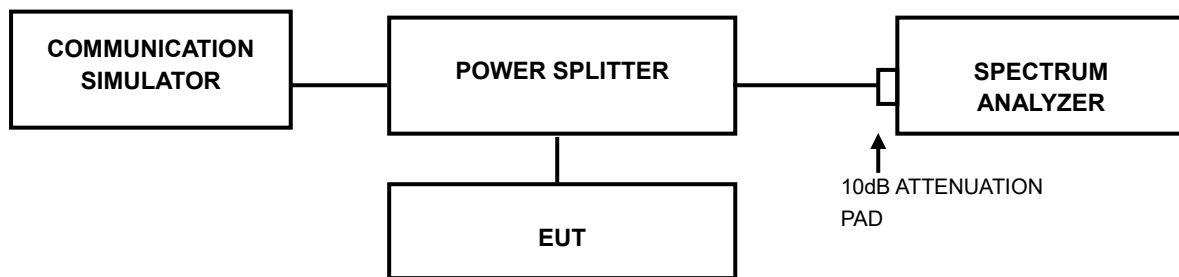


3.7 PEAK TO AVERAGE RATIO

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 $\geq$ 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%.



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3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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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@cn.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.



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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

Appendix A: LTE BAND 7

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	4.23	13	PASS
Band7	5MHz	QPSK	20775	25RB#0	4.99	13	PASS
Band7	5MHz	QPSK	21100	1RB#0	4.71	13	PASS
Band7	5MHz	QPSK	21100	25RB#0	5.01	13	PASS
Band7	5MHz	QPSK	21425	1RB#0	4.76	13	PASS
Band7	5MHz	QPSK	21425	25RB#0	5.07	13	PASS
Band7	5MHz	16QAM	20775	1RB#0	5.09	13	PASS
Band7	5MHz	16QAM	20775	25RB#0	5.77	13	PASS
Band7	5MHz	16QAM	21100	1RB#0	5.50	13	PASS
Band7	5MHz	16QAM	21100	25RB#0	5.70	13	PASS
Band7	5MHz	16QAM	21425	1RB#0	5.42	13	PASS
Band7	5MHz	16QAM	21425	25RB#0	5.83	13	PASS
Band7	5MHz	64QAM	20775	1RB#0	4.44	13	PASS
Band7	5MHz	64QAM	20775	25RB#0	5.28	13	PASS
Band7	5MHz	64QAM	21100	1RB#0	5.09	13	PASS
Band7	5MHz	64QAM	21100	25RB#0	5.28	13	PASS
Band7	5MHz	64QAM	21425	1RB#0	4.36	13	PASS
Band7	5MHz	64QAM	21425	25RB#0	4.74	13	PASS
Band7	10MHz	QPSK	20800	1RB#0	4.57	13	PASS
Band7	10MHz	QPSK	20800	50RB#0	5.12	13	PASS
Band7	10MHz	QPSK	21100	1RB#0	4.56	13	PASS
Band7	10MHz	QPSK	21100	50RB#0	5.10	13	PASS
Band7	10MHz	QPSK	21400	1RB#0	4.51	13	PASS
Band7	10MHz	QPSK	21400	50RB#0	5.06	13	PASS
Band7	10MHz	16QAM	20800	1RB#0	5.45	13	PASS
Band7	10MHz	16QAM	20800	50RB#0	5.88	13	PASS
Band7	10MHz	16QAM	21100	1RB#0	5.28	13	PASS
Band7	10MHz	16QAM	21100	50RB#0	5.77	13	PASS
Band7	10MHz	16QAM	21400	1RB#0	5.18	13	PASS
Band7	10MHz	16QAM	21400	50RB#0	5.78	13	PASS
Band7	10MHz	64QAM	20800	1RB#0	4.82	13	PASS
Band7	10MHz	64QAM	20800	50RB#0	5.35	13	PASS
Band7	10MHz	64QAM	21100	1RB#0	4.66	13	PASS
Band7	10MHz	64QAM	21100	50RB#0	5.35	13	PASS
Band7	10MHz	64QAM	21400	1RB#0	4.16	13	PASS
Band7	10MHz	64QAM	21400	50RB#0	5.04	13	PASS
Band7	15MHz	QPSK	20825	1RB#0	4.36	13	PASS
Band7	15MHz	QPSK	20825	75RB#0	5.54	13	PASS
Band7	15MHz	QPSK	21100	1RB#0	4.41	13	PASS
Band7	15MHz	QPSK	21100	75RB#0	5.43	13	PASS
Band7	15MHz	QPSK	21375	1RB#0	4.77	13	PASS



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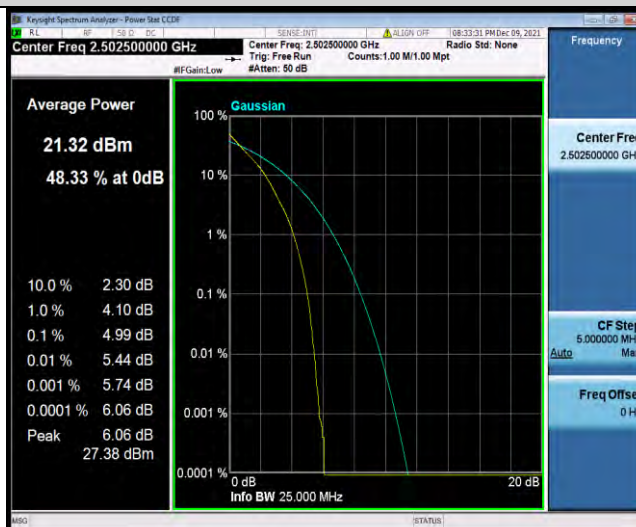
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Band7	15MHz	16QAM	21100	1RB#0	5.43	13	PASS
Band7	15MHz	16QAM	21100	75RB#0	5.95	13	PASS
Band7	15MHz	16QAM	21375	1RB#0	5.47	13	PASS
Band7	15MHz	16QAM	21375	75RB#0	5.96	13	PASS
Band7	15MHz	64QAM	20825	1RB#0	4.59	13	PASS
Band7	15MHz	64QAM	20825	75RB#0	5.63	13	PASS
Band7	15MHz	64QAM	21100	1RB#0	4.59	13	PASS
Band7	15MHz	64QAM	21100	75RB#0	5.55	13	PASS
Band7	15MHz	64QAM	21375	1RB#0	4.19	13	PASS
Band7	15MHz	64QAM	21375	75RB#0	5.20	13	PASS
Band7	20MHz	QPSK	20850	1RB#0	4.60	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.43	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.46	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.35	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.76	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.35	13	PASS
Band7	20MHz	16QAM	20850	1RB#0	5.00	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	6.11	13	PASS
Band7	20MHz	16QAM	21100	1RB#0	5.29	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.03	13	PASS
Band7	20MHz	16QAM	21350	1RB#0	5.47	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	6.00	13	PASS
Band7	20MHz	64QAM	20850	1RB#0	4.67	13	PASS
Band7	20MHz	64QAM	20850	100RB#0	5.51	13	PASS
Band7	20MHz	64QAM	21100	1RB#0	4.37	13	PASS
Band7	20MHz	64QAM	21100	100RB#0	5.34	13	PASS
Band7	20MHz	64QAM	21350	1RB#0	4.05	13	PASS
Band7	20MHz	64QAM	21350	100RB#0	5.14	13	PASS

Test Graphs

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



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



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

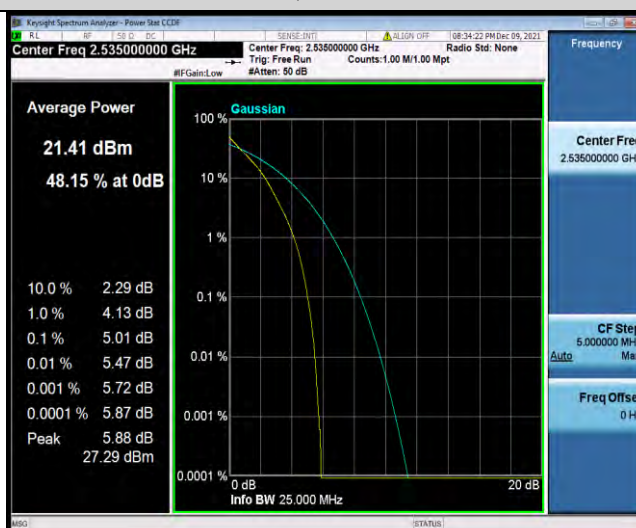


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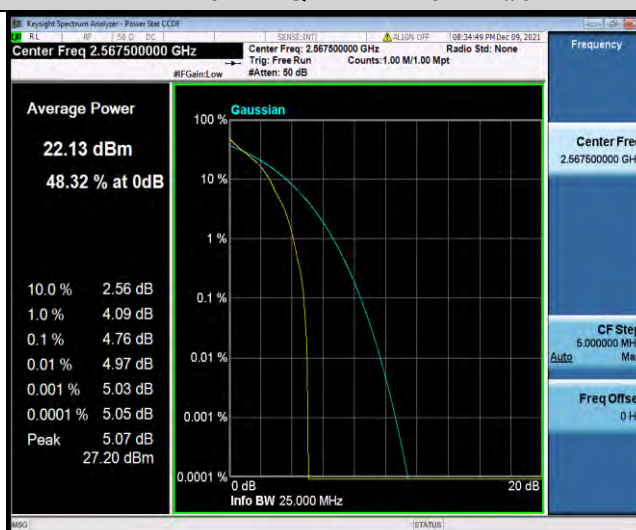
Test Report No.: W7L-P22090015-1RF06



Band7-5MHz-QPSK-21100-25RB#0



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



Band7-5MHz-QPSK-21425-25RB#0



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Band7-5MHz-16QAM-20775-1RB#0



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



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



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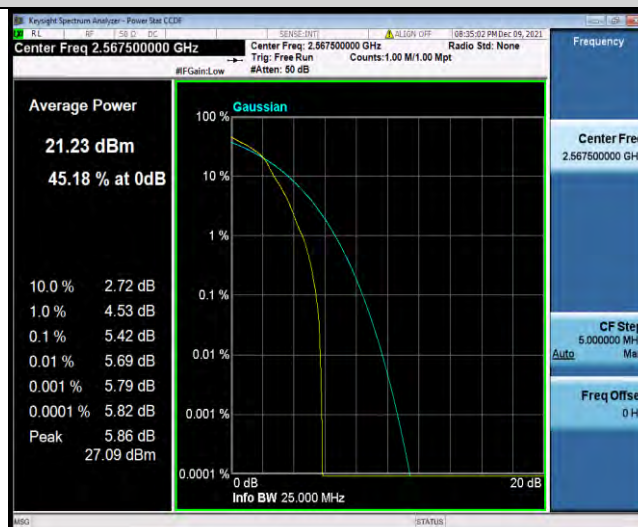
Test Report No.: W7L-P22090015-1RF06



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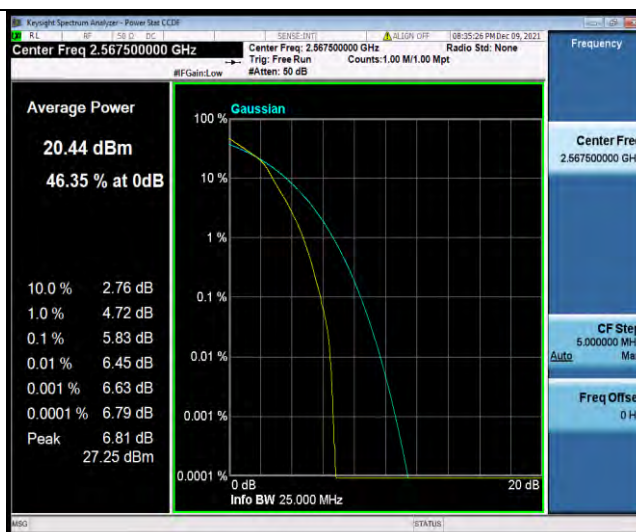


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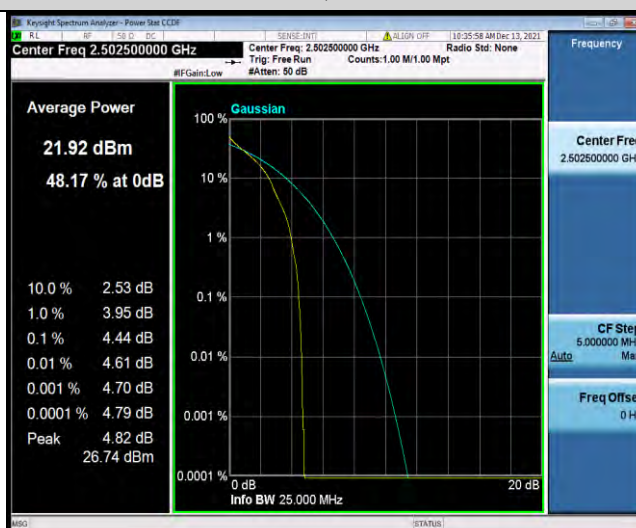


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Test Report No.: W7L-P22090015-1RF06



Band7-5MHz-64QAM-20775-1RB#0



Band7-5MHz-64QAM-20775-25RB#0

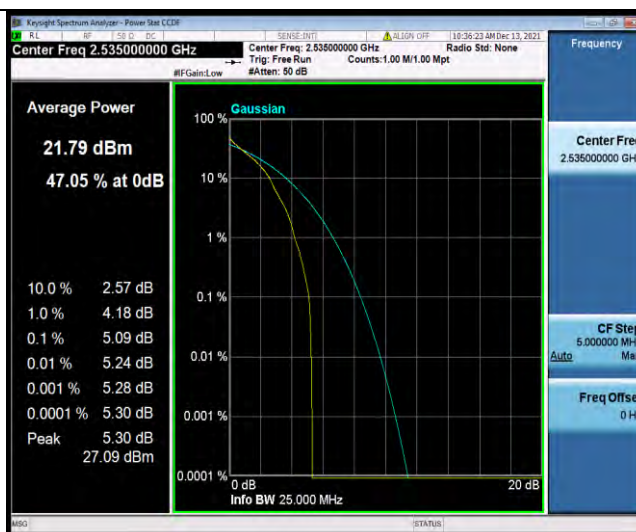


Band7-5MHz-64QAM-21100-1RB#0



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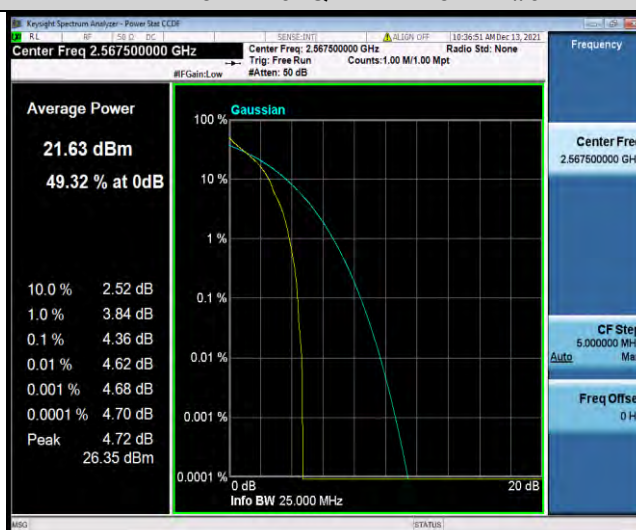
Test Report No.: W7L-P22090015-1RF06



Band7-5MHz-64QAM-21100-25RB#0



Band7-5MHz-64QAM-21425-1RB#0



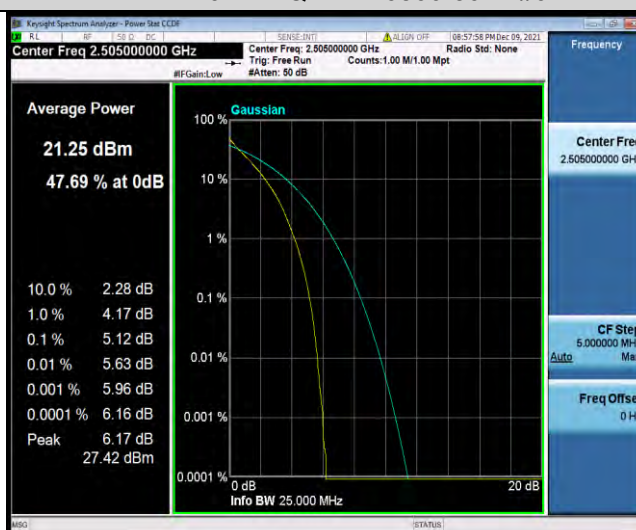
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Band7-10MHz-QPSK-20800-1RB#0



Band7-10MHz-QPSK-20800-50RB#0

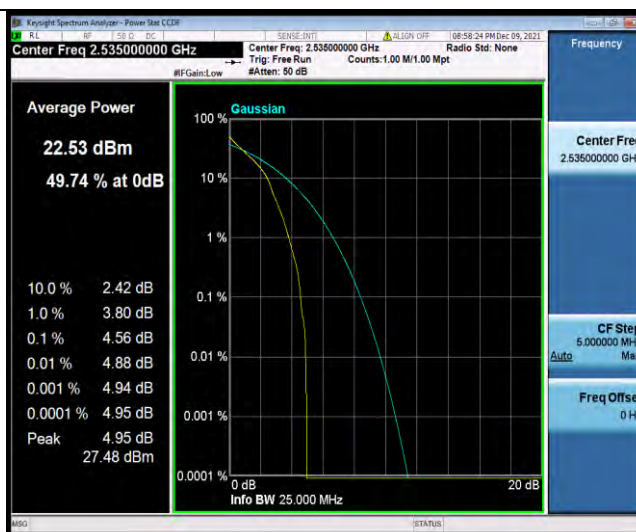


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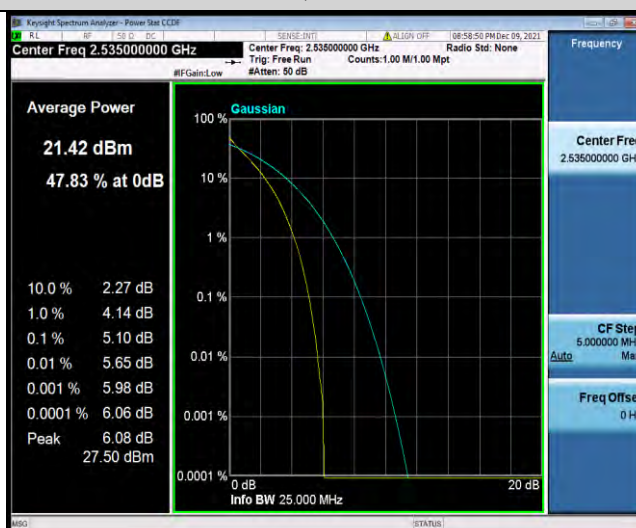


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VERITAS

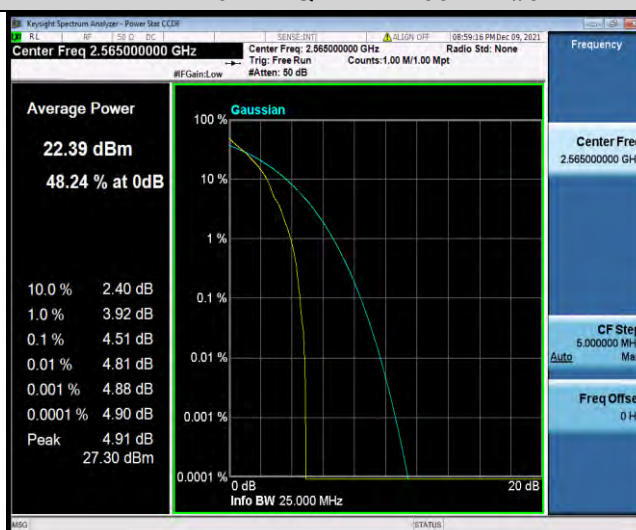
Test Report No.: W7L-P22090015-1RF06



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



Band7-10MHz-QPSK-21400-1RB#0



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