



BUREAU VERITAS

Test Report No.: W7L-P21110007RF17

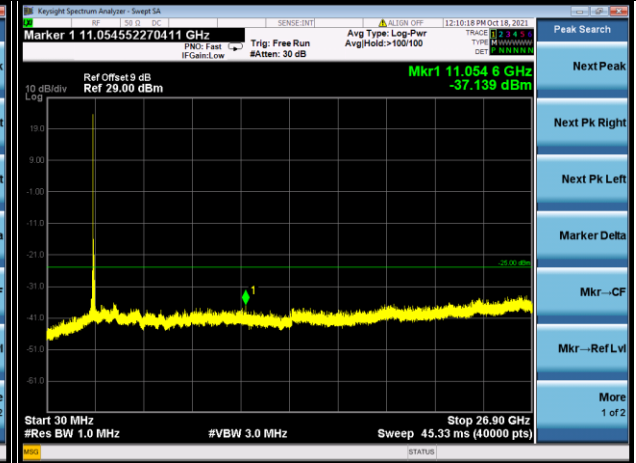
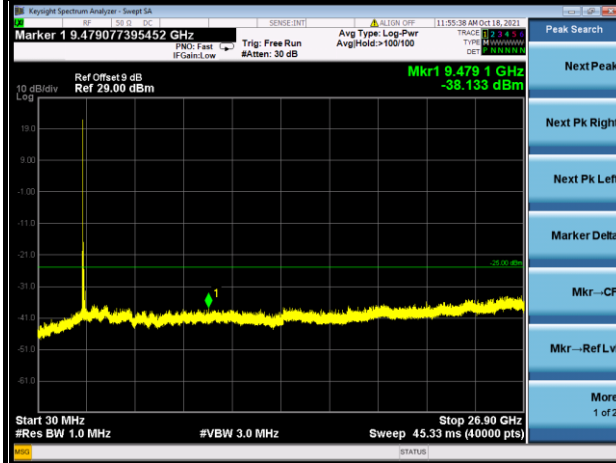
20MHz + 15MHz / QPSK

LOWEST CHANNEL 1RB99&1RB0

MIDDLE CHANNEL 1RB99&1RB0

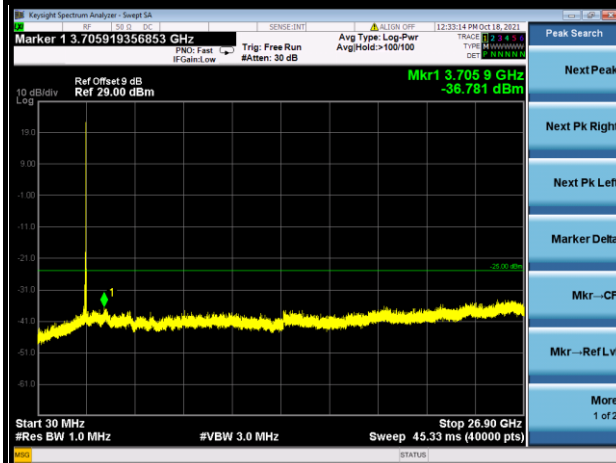
FREQUENCY RANG2E : 30MHz~26.9GHz

FREQUENCY RANGE : 30MHz~26.9GHz



HIGHEST CHANNEL 1RB99&1RB0

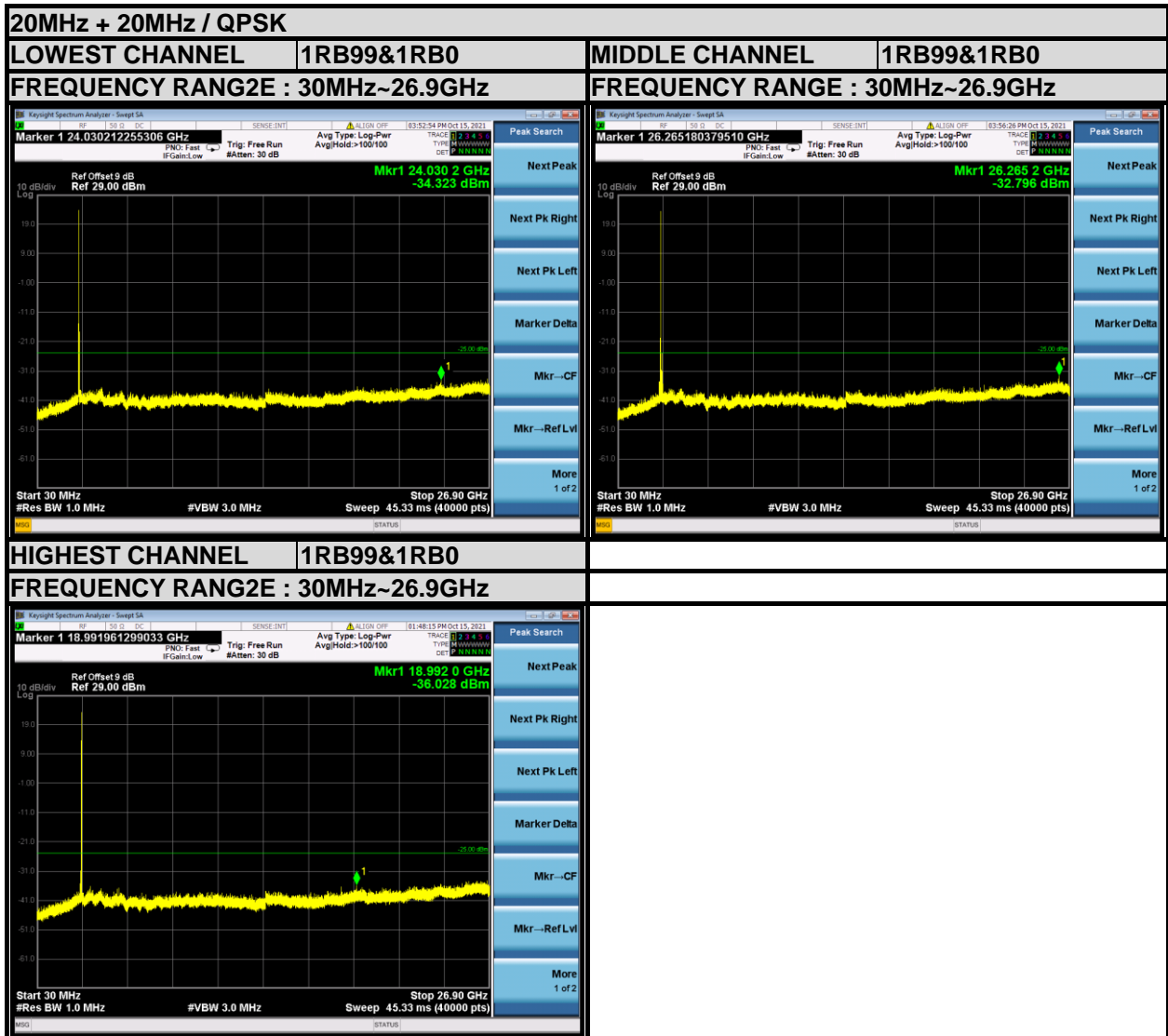
FREQUENCY RANG2E : 30MHz~26.9GHz





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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, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15\text{dB}$.

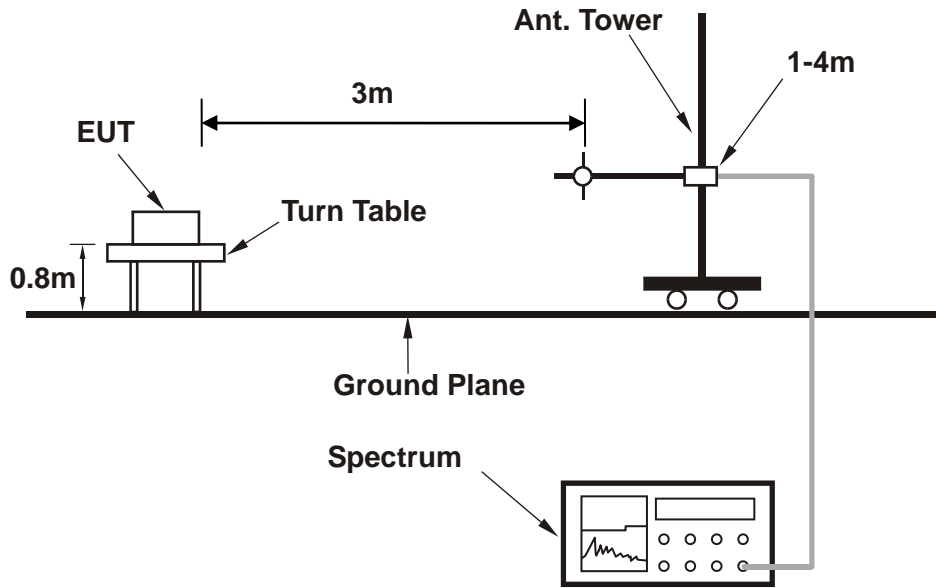
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

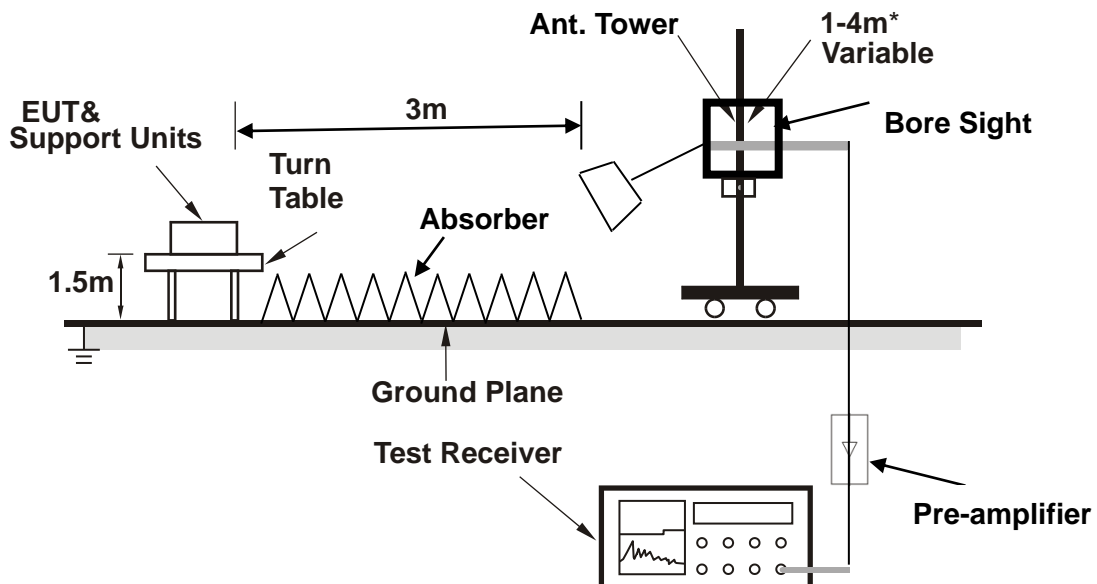
No deviation

3.6.4 TEST SETUP

< Frequency Range 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

BELOW 1GHz WORST-CASE DATA

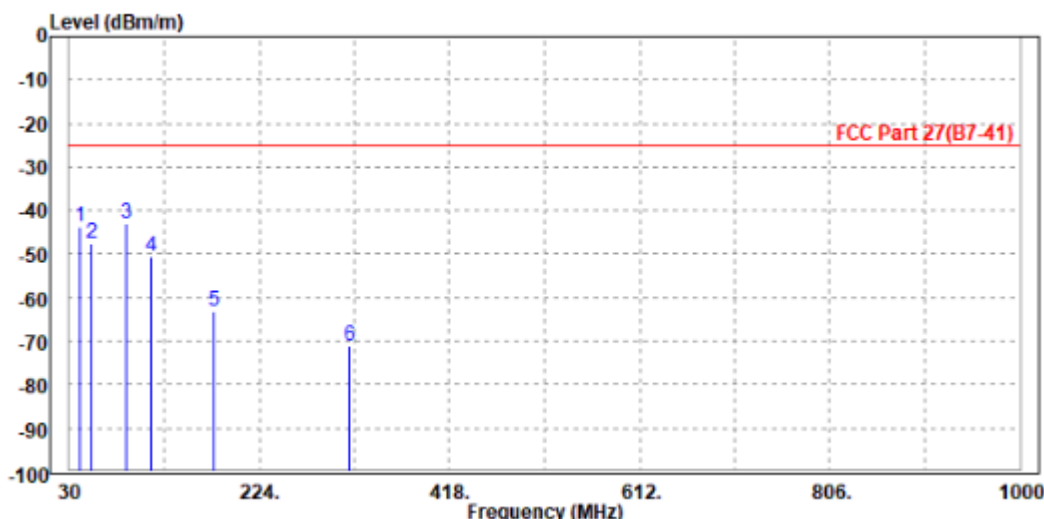
30 MHz – 1GHz data:

LTE Band CA_41C

CHANNEL BANDWIDTH: 20MHz + 5MHz

MODE	TX channel PCC 41440	FREQUENCY RANGE	Below 1000MHz
	TX channel SCC 41557		
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	40.670	-43.60	-55.07	-25.00	-18.60	11.47	Peak	Horizontal
2	52.310	-47.65	-48.39	-25.00	-22.65	0.74	Peak	Horizontal
3 PP	88.200	-42.92	-34.12	-25.00	-17.92	-8.80	Peak	Horizontal
4	113.420	-50.68	-36.72	-25.00	-25.68	-13.96	Peak	Horizontal
5	178.410	-63.02	-45.20	-25.00	-38.02	-17.82	Peak	Horizontal
6	316.150	-71.19	-57.92	-25.00	-46.19	-13.27	Peak	Horizontal

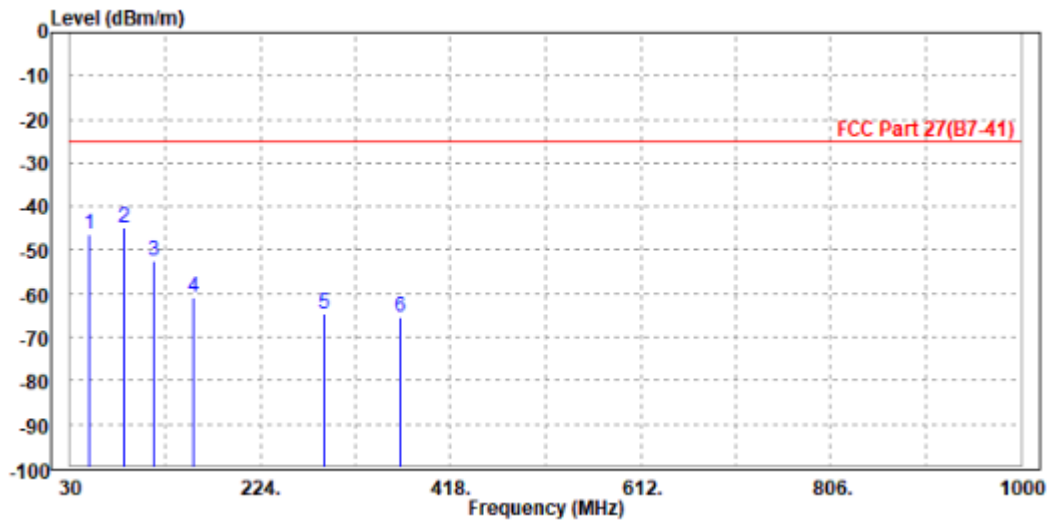




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MODE	TX channel PCC 41440	FREQUENCY RANGE	Below 1000MHz
	TX channel SCC 41557		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	49.400	-46.29	-41.76	-25.00	-21.29	-4.53	Peak	Vertical
2 PP	84.320	-44.88	-34.51	-25.00	-19.88	-10.37	Peak	Vertical
3	115.360	-52.55	-39.85	-25.00	-27.55	-12.70	Peak	Vertical
4	156.100	-60.67	-45.12	-25.00	-35.67	-15.55	Peak	Vertical
5	288.990	-64.77	-53.43	-25.00	-39.77	-11.34	Peak	Vertical
6	366.590	-65.48	-54.42	-25.00	-40.48	-11.06	Peak	Vertical





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Test Report No.: W7L-P21110007RF17

ABOVE 1GHz

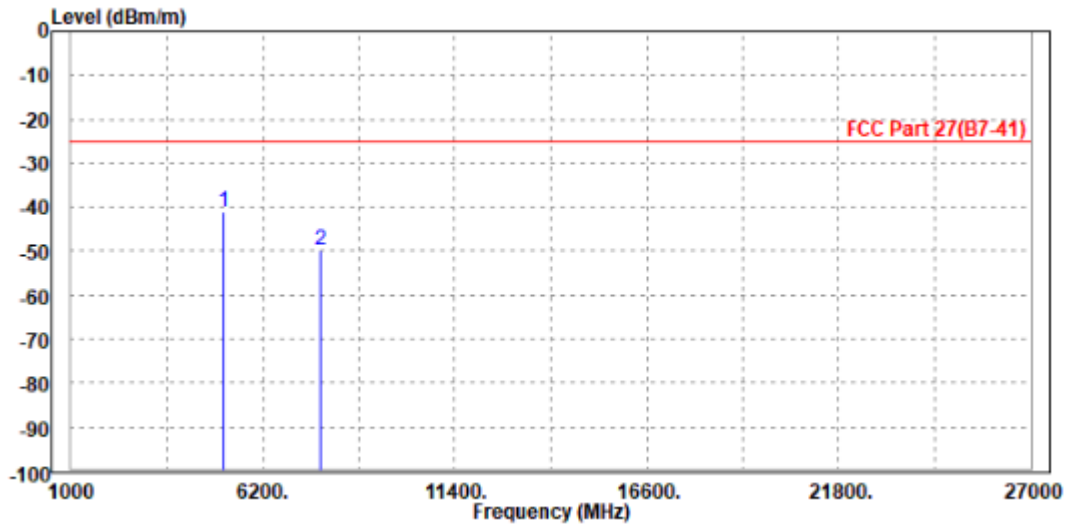
Note: For higher frequency, the emission is too low to be detected.

LTE Band CA_41C

CHANNEL BANDWIDTH: 5MHz + 20MHz

MODE	TX channel PCC 40528	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40645		
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	-41.17	-50.17	-25.00	-16.17	9.00	Peak	Horizontal
2	7751.400	-49.90	-61.36	-25.00	-24.90	11.46	Peak	Horizontal

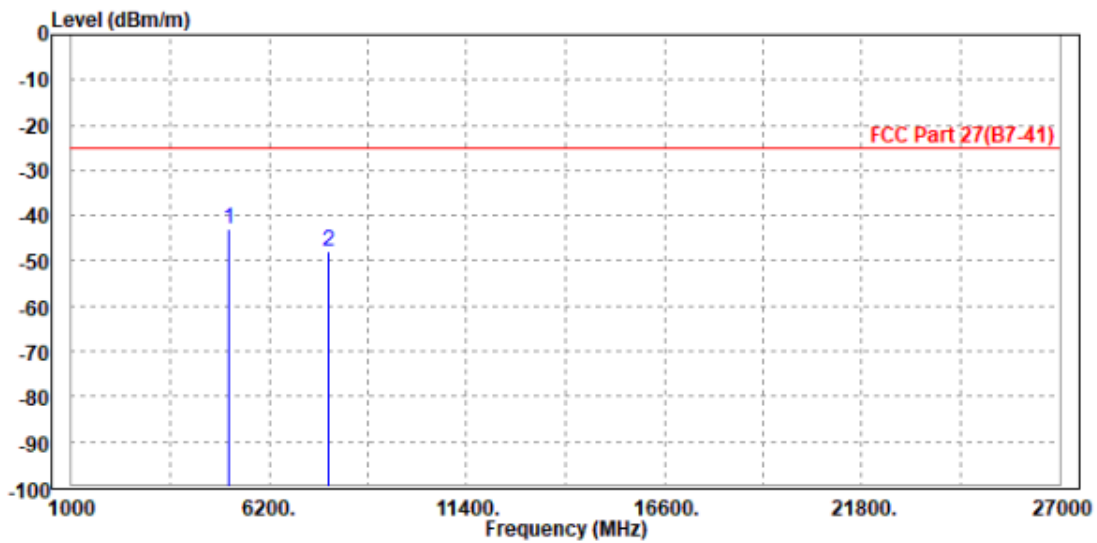




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40528	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40645		
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	-43.11	-52.95	-25.00	-18.11	9.84	Peak	Vertical
2	7751.400	-47.74	-60.58	-25.00	-22.74	12.84	Peak	Vertical



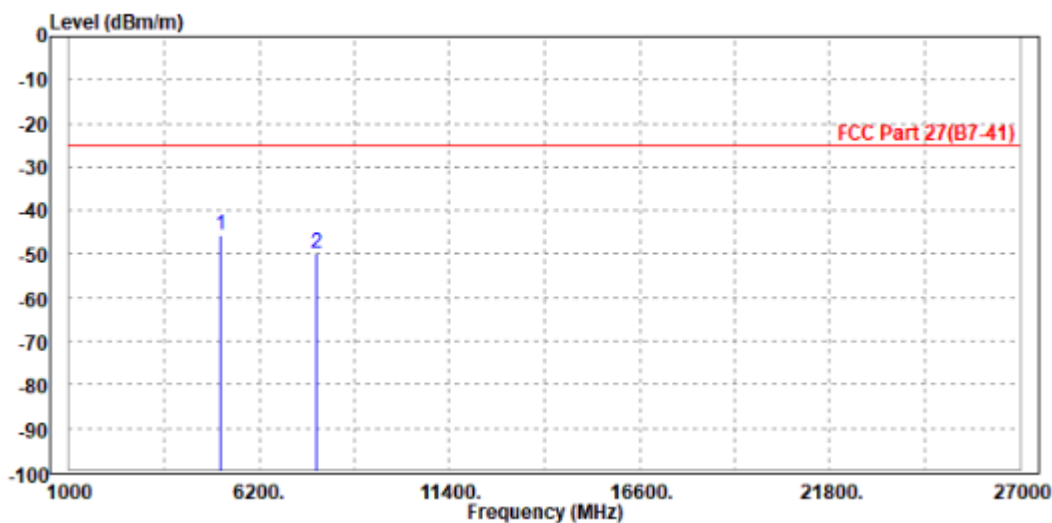


Test Report No.: W7L-P21110007RF17

CHANNEL BANDWIDTH: 10 MHz + 15MHz

MODE	TX channel PCC 40549	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40669		
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	-45.48	-54.48	-25.00	-20.48	9.00	Peak	Horizontal
2	7757.700	-49.90	-61.36	-25.00	-24.90	11.46	Peak	Horizontal

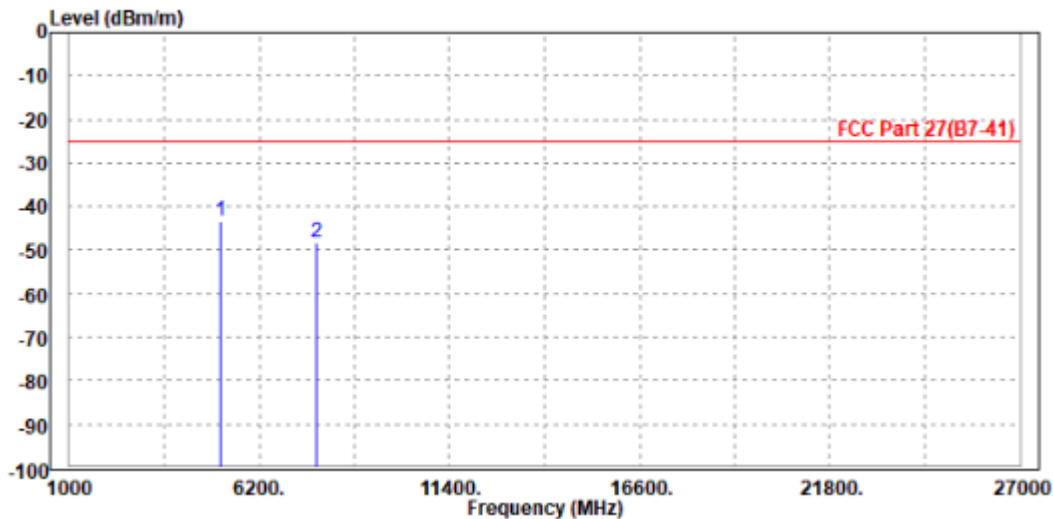




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40549	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40669		
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	-43.40	-53.24	-25.00	-18.40	9.84	Peak	Vertical
2	7757.700	-48.46	-61.30	-25.00	-23.46	12.84	Peak	Vertical



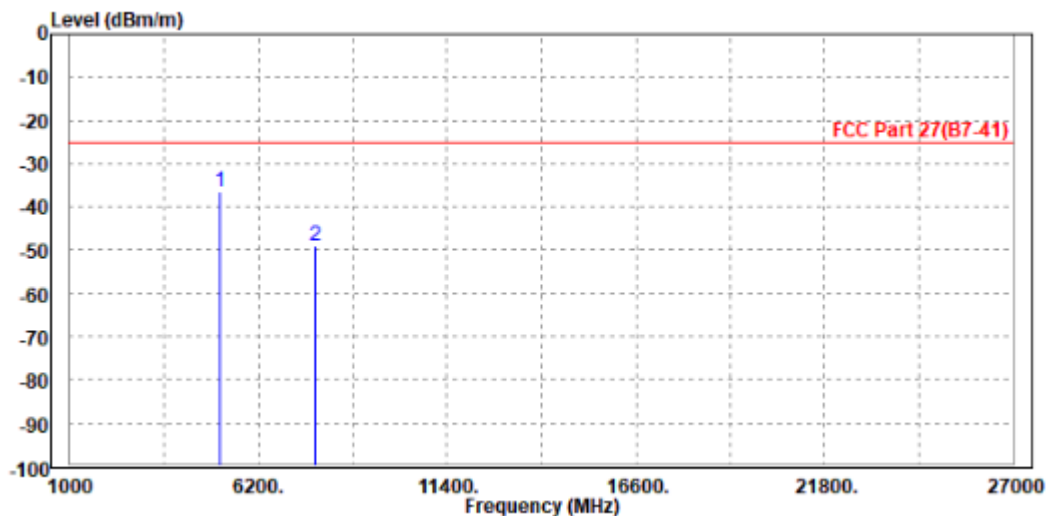


Test Report No.: W7L-P21110007RF17

CHANNEL BANDWIDTH: 10 MHz + 20MHz

MODE	TX channel PCC 40526	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40670		
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	-36.37	-45.37	-25.00	-11.37	9.00	Peak	Horizontal
2	7750.800	-49.16	-60.62	-25.00	-24.16	11.46	Peak	Horizontal

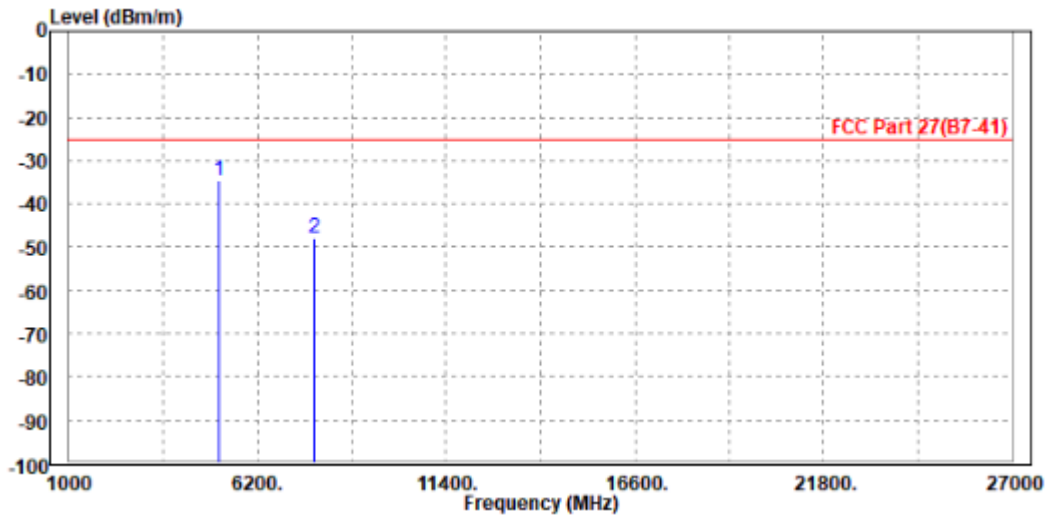




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40526	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40670		
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	-34.65	-44.49	-25.00	-9.65	9.84	Peak	Vertical
2	7750.800	-47.85	-60.69	-25.00	-22.85	12.84	Peak	Vertical



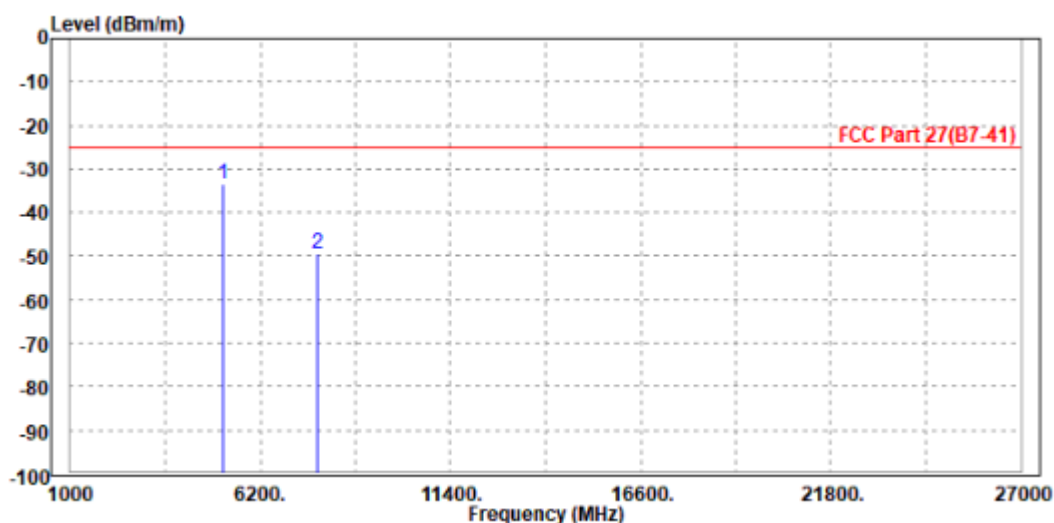


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CHANNEL BANDWIDTH: 15MHz + 10MHz

MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40691		
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	-33.58	-42.66	-25.00	-8.58	9.08	Peak	Horizontal
2	7764.300	-49.49	-60.96	-25.00	-24.49	11.47	Peak	Horizontal

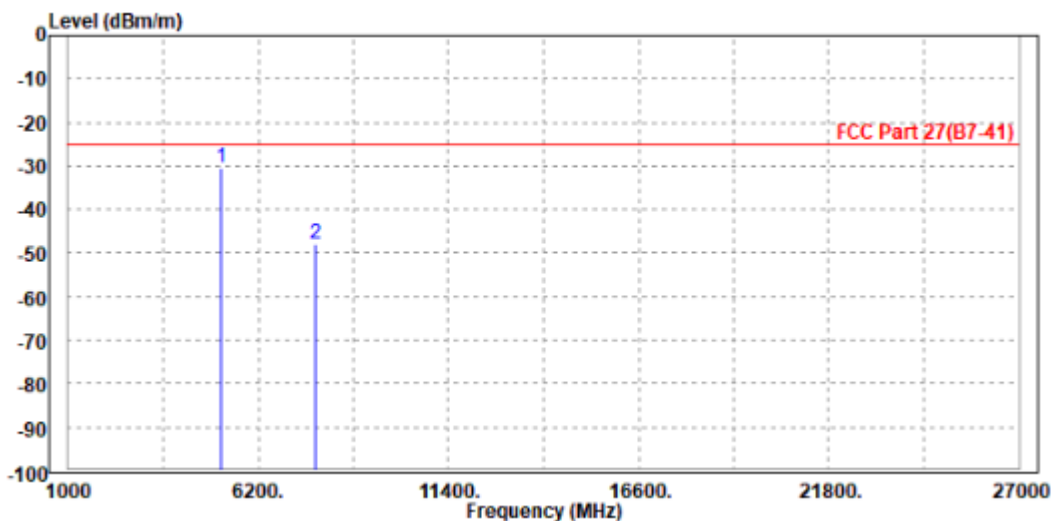




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40691		
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	-30.35	-40.18	-25.00	-5.35	9.83	Peak	Vertical
2	7764.300	-47.93	-60.77	-25.00	-22.93	12.84	Peak	Vertical



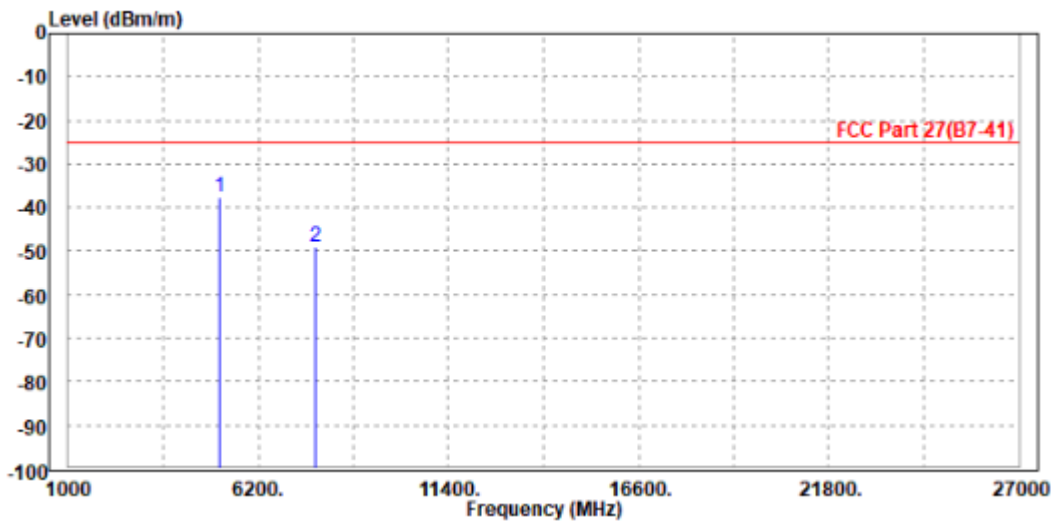


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CHANNEL BANDWIDTH: 15MHz + 15MHz

MODE	TX channel PCC 40545	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40695		
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	-37.67	-46.67	-25.00	-12.67	9.00	Peak	Horizontal
2	7756.500	-49.22	-60.68	-25.00	-24.22	11.46	Peak	Horizontal

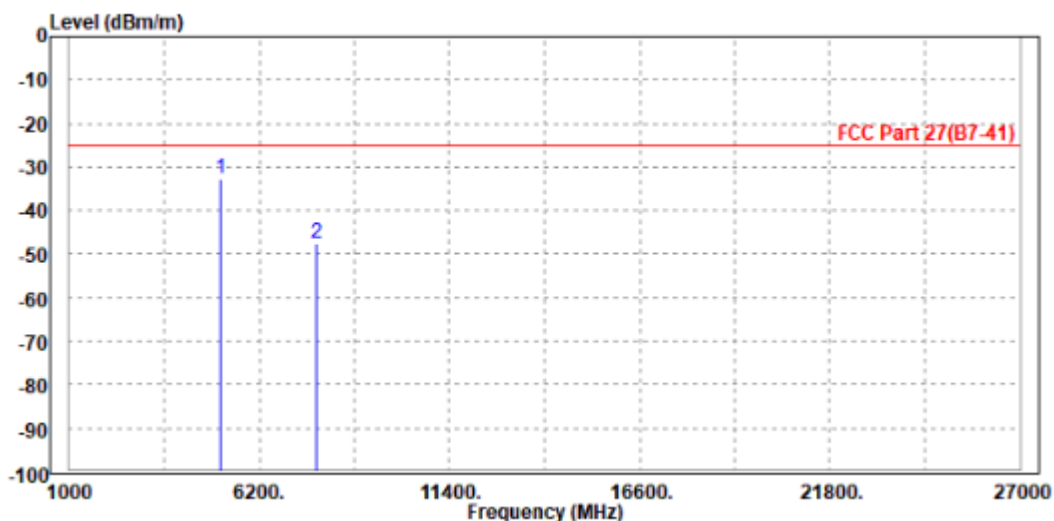




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40545	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40695		
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	-32.53	-42.37	-25.00	-7.53	9.84	Peak	Vertical
2	7756.500	-47.37	-60.21	-25.00	-22.37	12.84	Peak	Vertical



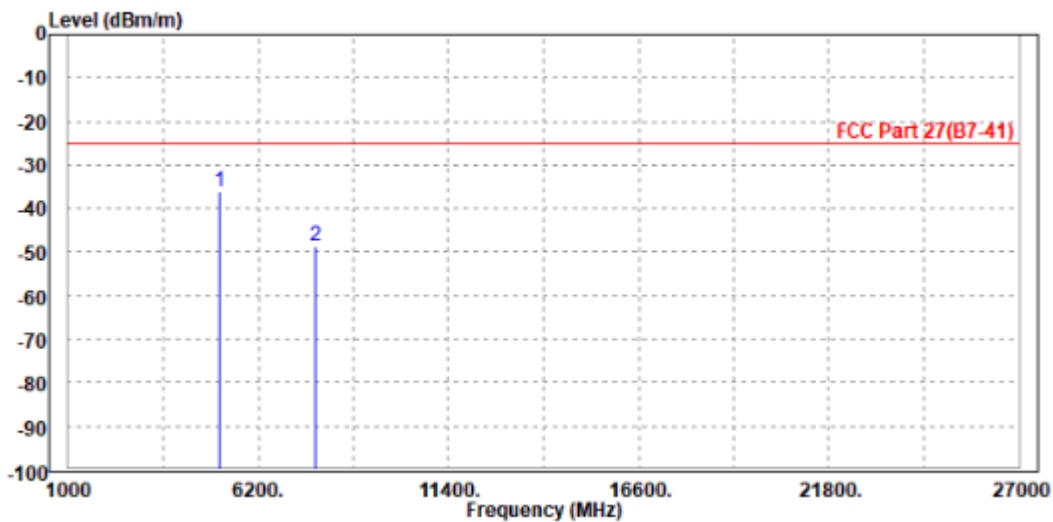


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CHANNEL BANDWIDTH: 15MHz + 20MHz

MODE	TX channel PCC 40523	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40694		
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	-36.14	-45.14	-25.00	-11.14	9.00	Peak	Horizontal
2	7749.900	-48.55	-60.01	-25.00	-23.55	11.46	Peak	Horizontal

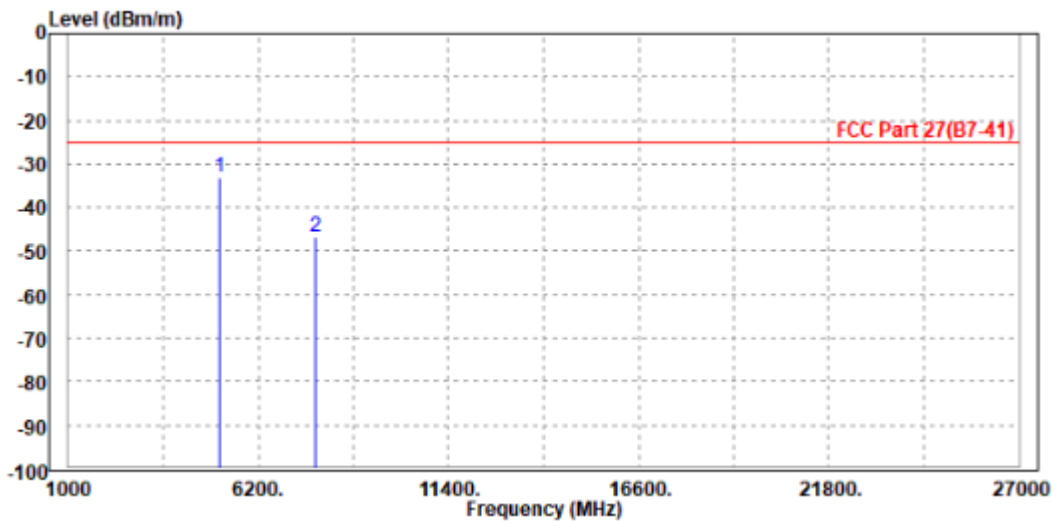




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40523	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40694		
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	-32.99	-42.83	-25.00	-7.99	9.84	Peak	Vertical
2	7749.900	-46.87	-59.71	-25.00	-21.87	12.84	Peak	Vertical



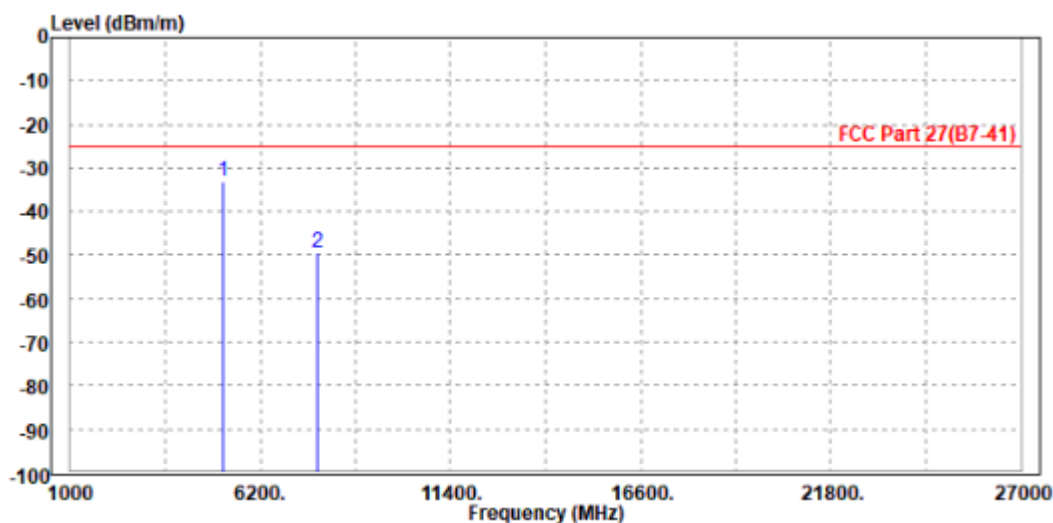


Test Report No.: W7L-P21110007RF17

CHANNEL BANDWIDTH: 20MHz + 5MHz

MODE	TX channel PCC 40595	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40712		
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	-33.22	-42.30	-25.00	-8.22	9.08	Peak	Horizontal
2	7771.500	-49.56	-61.03	-25.00	-24.56	11.47	Peak	Horizontal

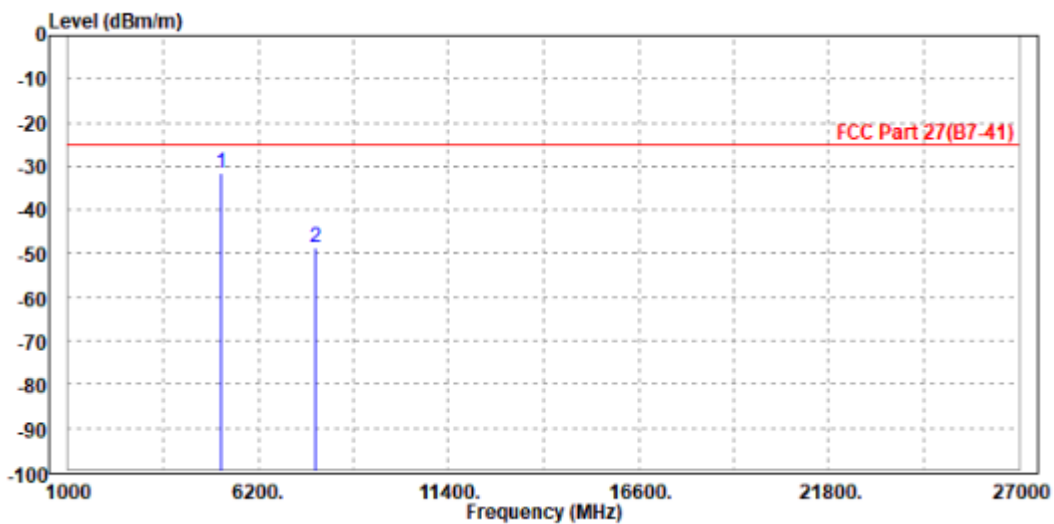




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40595	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40712		
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	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 5186.000	-31.55	-41.38	-25.00	-6.55	9.83	Peak	Vertical
2	7771.500	-48.61	-61.46	-25.00	-23.61	12.85	Peak	Vertical



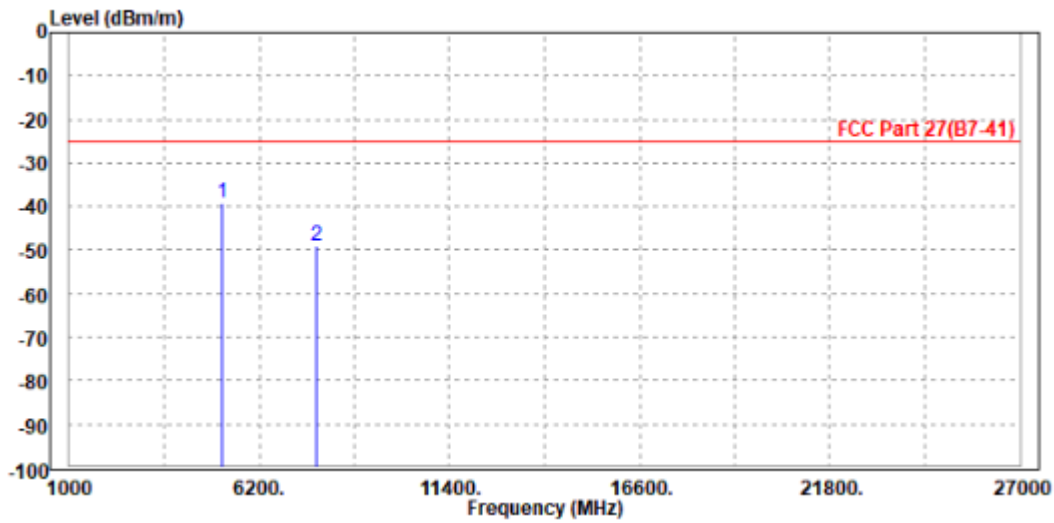


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CHANNEL BANDWIDTH: 20MHz + 10MHz

MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40715		
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	-39.05	-48.13	-25.00	-14.05	9.08	Peak	Horizontal
2	7764.300	-48.94	-60.41	-25.00	-23.94	11.47	Peak	Horizontal

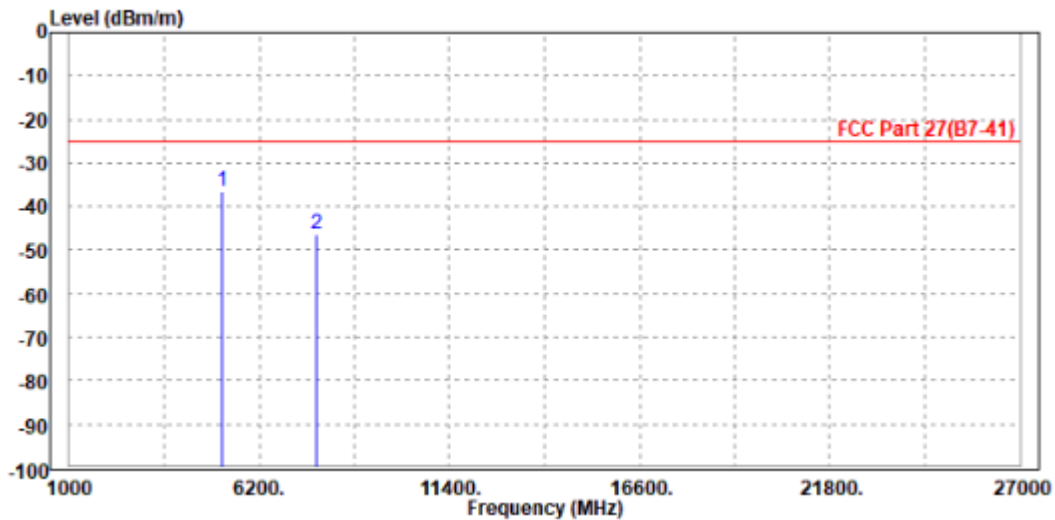




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40571	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40715		
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	-36.54	-46.37	-25.00	-11.54	9.83	Peak	Vertical
2	7764.300	-46.55	-59.39	-25.00	-21.55	12.84	Peak	Vertical



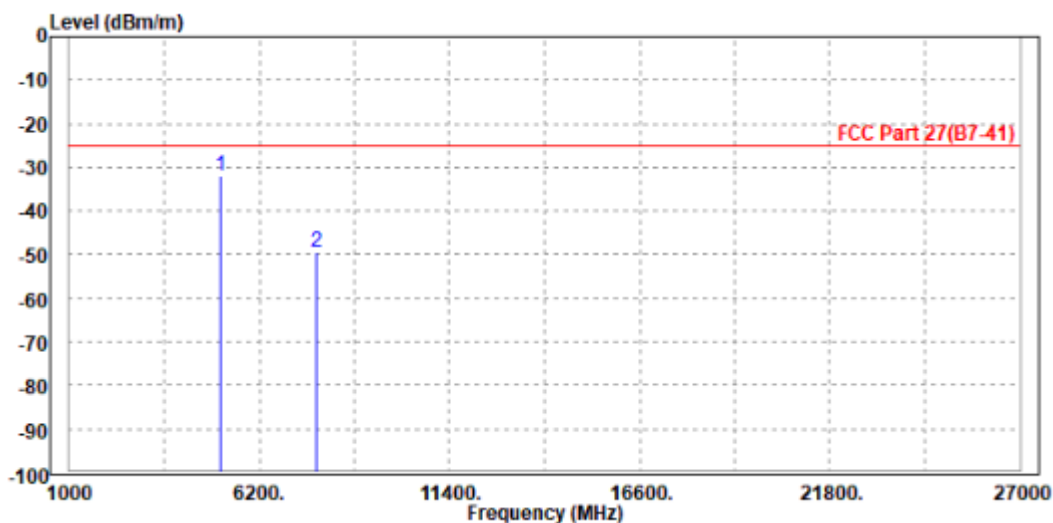


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CHANNEL BANDWIDTH: 20MHz + 15MHz

MODE	TX channel PCC 40546	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40717		
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	-32.06	-41.06	-25.00	-7.06	9.00	Peak	Horizontal
2	7756.800	-49.53	-60.99	-25.00	-24.53	11.46	Peak	Horizontal

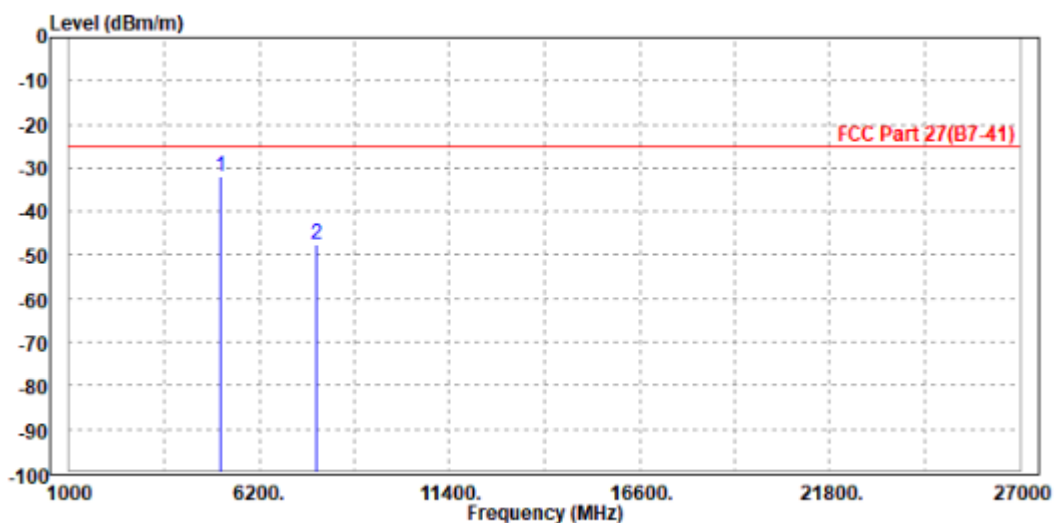




Test Report No.: W7L-P21110007RF17

MODE	TX channel PCC 40546	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40717		
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	-31.82	-41.66	-25.00	-6.82	9.84	Peak	Vertical
2	7756.800	-47.42	-60.26	-25.00	-22.42	12.84	Peak	Vertical





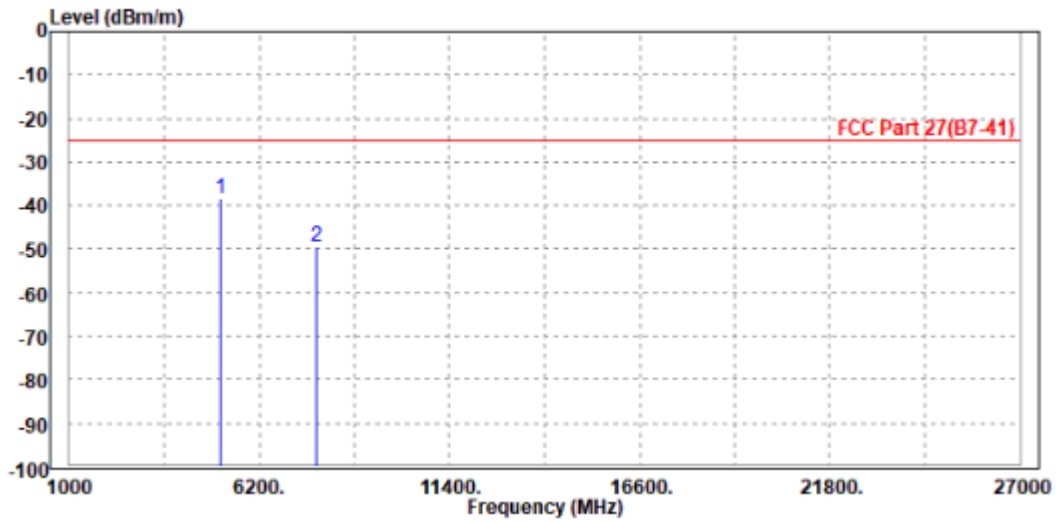
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CHANNEL BANDWIDTH: 20MHz + 20MHz

MODE	TX channel PCC 40521	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40719		
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	-38.33	-47.33	-25.00	-13.33	9.00	Peak	Horizontal
2	7749.300	-49.24	-60.70	-25.00	-24.24	11.46	Peak	Horizontal

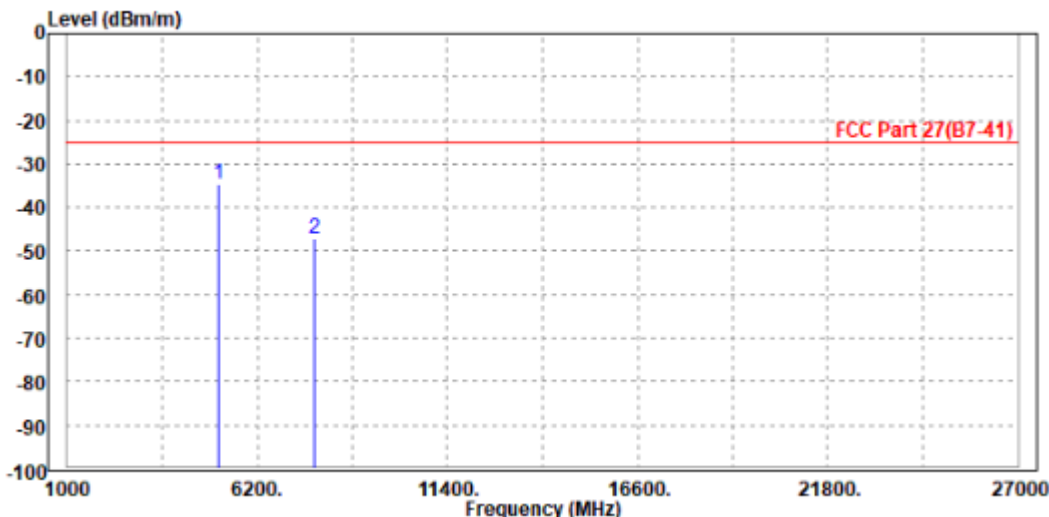




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MODE	TX channel PCC 40521	FREQUENCY RANGE	Above 1000MHz
	TX channel SCC 40719		
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5160.000	-34.61	-44.45	-25.00	-9.61	9.84	Peak	Vertical
2	7749.300	-47.04	-59.88	-25.00	-22.04	12.84	Peak	Vertical





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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:

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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 APPENDIX A – 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.

---END---