

LTE BAND 66

CHANNEL BANDWIDTH: 1.4MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	24.27	-1.5	22.77	189.23	1
132322	1745	24.43	-1.5	22.93	196.34	1
132665	1779.3	24.34	-1.5	22.84	192.31	1

CHANNEL BANDWIDTH: 1.4MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	23.49	-1.5	21.99	158.12	1
132322	1745	23.67	-1.5	22.17	164.82	1
132665	1779.3	23.52	-1.5	22.02	159.22	1

CHANNEL BANDWIDTH: 1.4MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131979	1710.7	22.55	-1.5	21.05	127.35	1
132322	1745	22.7	-1.5	21.2	131.83	1
132665	1779.3	22.57	-1.5	21.07	127.94	1

CHANNEL BANDWIDTH: 3MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	24.35	-1.5	22.85	192.75	1
132322	1745	24.45	-1.5	22.95	197.24	1
132657	1778.5	24.34	-1.5	22.84	192.31	1

CHANNEL BANDWIDTH: 3MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	23.51	-1.5	22.01	158.85	1
132322	1745	23.59	-1.5	22.09	161.81	1
132657	1778.5	23.48	-1.5	21.98	157.76	1

CHANNEL BANDWIDTH: 3MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131987	1711.5	22.58	-1.5	21.08	128.23	1
132322	1745	22.7	-1.5	21.2	131.83	1
132657	1778.5	22.67	-1.5	21.17	130.92	1

CHANNEL BANDWIDTH: 5MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	24.38	-1.5	22.88	194.09	1
132322	1745	24.5	-1.5	23	199.53	1
132647	1777.5	24.34	-1.5	22.84	192.31	1

CHANNEL BANDWIDTH: 5MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	23.52	-1.5	22.02	159.22	1
132322	1745	23.55	-1.5	22.05	160.32	1
132647	1777.5	23.55	-1.5	22.05	160.32	1

CHANNEL BANDWIDTH: 5MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
131997	1712.5	22.61	-1.5	21.11	129.12	1
132322	1745	22.57	-1.5	21.07	127.94	1
132647	1777.5	22.58	-1.5	21.08	128.23	1

CHANNEL BANDWIDTH: 10MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	24.27	-1.5	22.77	189.23	1
132322	1745	24.51	-1.5	23.01	199.99	1
132622	1775	24.4	-1.5	22.9	194.98	1

CHANNEL BANDWIDTH: 10MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	23.54	-1.5	22.04	159.96	1
132322	1745	23.63	-1.5	22.13	163.31	1
132622	1775	23.62	-1.5	22.12	162.93	1

CHANNEL BANDWIDTH: 10MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132022	1715	22.57	-1.5	21.07	127.94	1
132322	1745	22.7	-1.5	21.2	131.83	1
132622	1775	22.57	-1.5	21.07	127.94	1



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CHANNEL BANDWIDTH: 15MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	24.35	-1.5	22.85	192.75	1
132322	1745	24.46	-1.5	22.96	197.7	1
132597	1772.5	24.26	-1.5	22.76	188.8	1

CHANNEL BANDWIDTH: 15MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	23.62	-1.5	22.12	162.93	1
132322	1745	23.54	-1.5	22.04	159.96	1
132597	1772.5	23.51	-1.5	22.01	158.85	1

CHANNEL BANDWIDTH: 15MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132047	1717.5	22.55	-1.5	21.05	127.35	1
132322	1745	22.65	-1.5	21.15	130.32	1
132597	1772.5	22.6	-1.5	21.1	128.82	1

CHANNEL BANDWIDTH: 20MHz QPSK

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	24.39	-1.5	22.89	194.54	1
132322	1745	24.56	-1.5	23.06	202.3	1
132572	1770	24.41	-1.5	22.91	195.43	1

CHANNEL BANDWIDTH: 20MHz 16QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	23.63	-1.5	22.13	163.31	1
132322	1745	23.69	-1.5	22.19	165.58	1
132572	1770	23.63	-1.5	22.13	163.31	1

CHANNEL BANDWIDTH: 20MHz 64QAM

Channel	Frequency (MHz)	Conducted Power (dBm)	G _T -L _c (dB)	EIRP (dBm)	EIRP (mW)	Limit (W)
132072	1720	22.69	-1.5	21.19	131.52	1
132322	1745	22.72	-1.5	21.22	132.43	1
132572	1770	22.71	-1.5	21.21	132.13	1

REMARKS: EIRP Output Power (dBm) = EIRP (dBm) -2.15(dB).

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

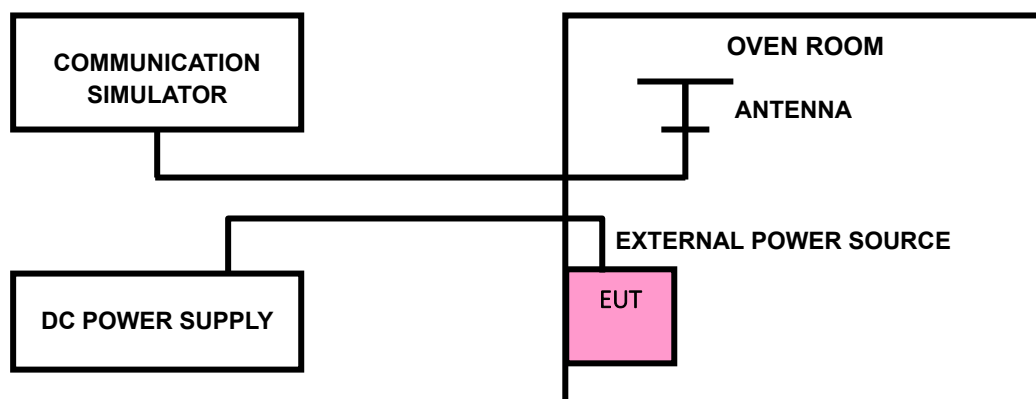
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2.2 TEST PROCEDURE

- The device is placed in the oven room. The oven room could control the temperatures and humidity. Power warms up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be recording the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be holding $\pm 0.5^{\circ}\text{C}$ during the measurement testing. Each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP





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3.2.4 TEST RESULTS

Please Refer to Appendix Of this test report.

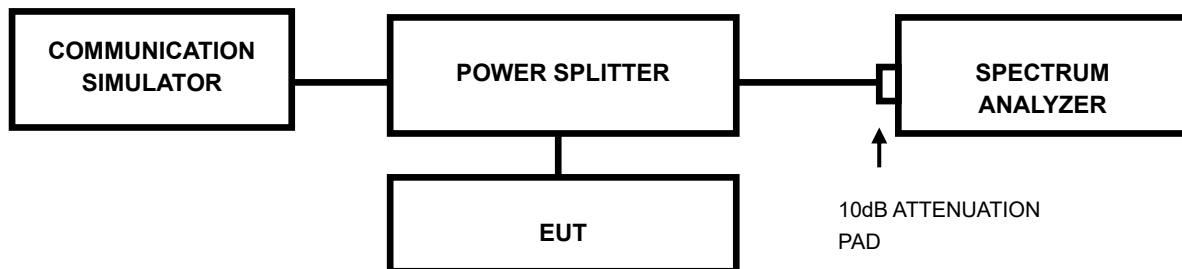
Note: LV = Low voltage (3.6V); NV = Normal voltage (3.84V); HV= High voltage (4.4V).
NT = Normal temperature (25°C)

3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band is such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage. 0.5 % of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



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3.3.4 TEST RESULTS

Please Refer to Appendix Of this test report.



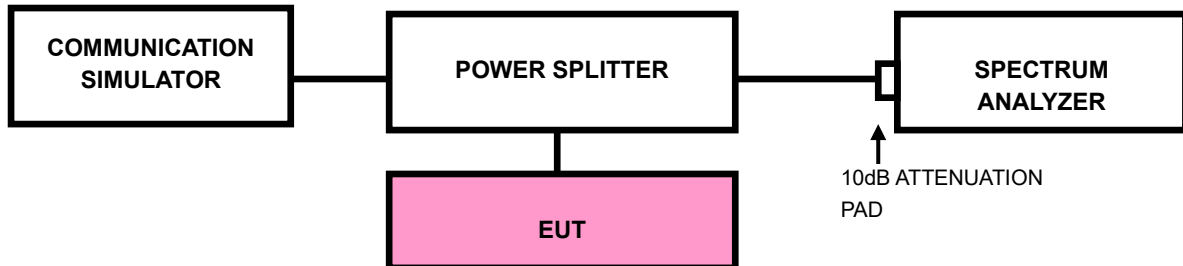
3.4 BAND EDGE MEASUREMENT

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

According to FCC Part 27.53(h) specified that For operations in the 1710-1755 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. However, in the 1-megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

According to FCC Part 27.53(m)(4) specified that For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. For mobile digital stations, in the 1-megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed.

3.4.2 TEST SETUP





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3.4.3 TEST PROCEDURES

- a) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).
- c) Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- d) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- e) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- f) Select the average power (RMS) display detector.
- g) Set the number of measurement points to ≥ 1001 .
- h) Use auto-coupled sweep time.
- i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 30/100KHz.
- k) Record the max trace plot into the test report.



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3.4.4 TEST RESULTS

Please Refer to Appendix Of this test report.

3.5 CONDUCTED SPURIOUS EMISSIONS

3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit is equal to -13dBm .

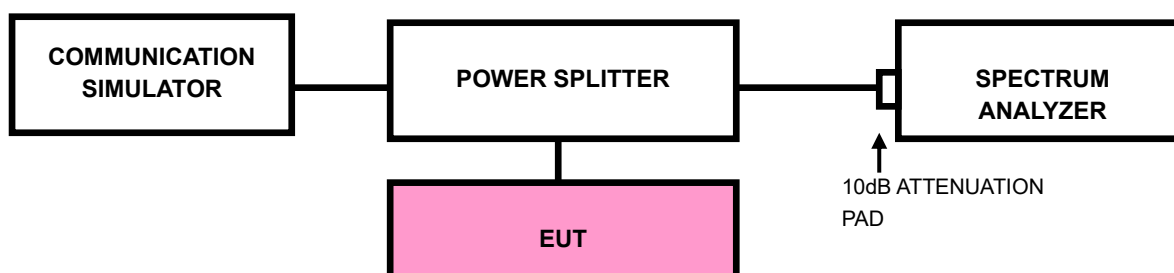
For: Band41

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 .

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle, and high operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

3.5.3 TEST SETUP





Test Report No.: W7L-P24050014RF08

3.5.4 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.

Please Refer to Appendix Of this test report.



3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit is equal to -13dBm .

For: Band41

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. The substitute 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. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$.

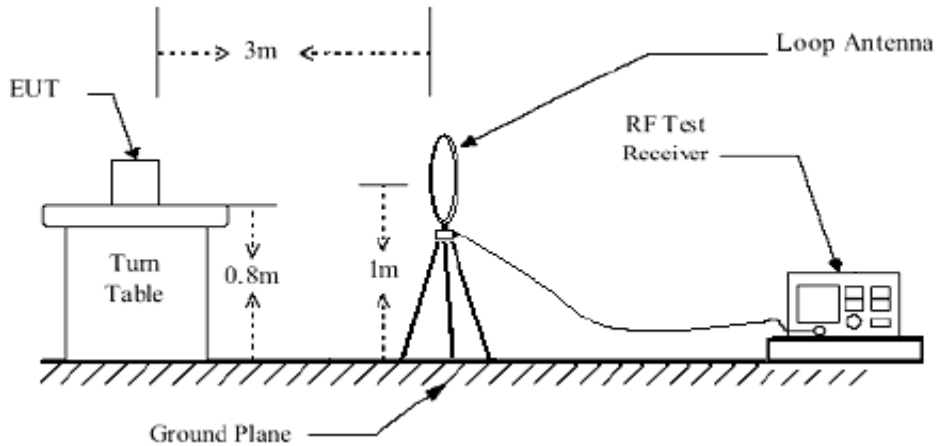
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.6.3 DEVIATION FROM TEST STANDARD

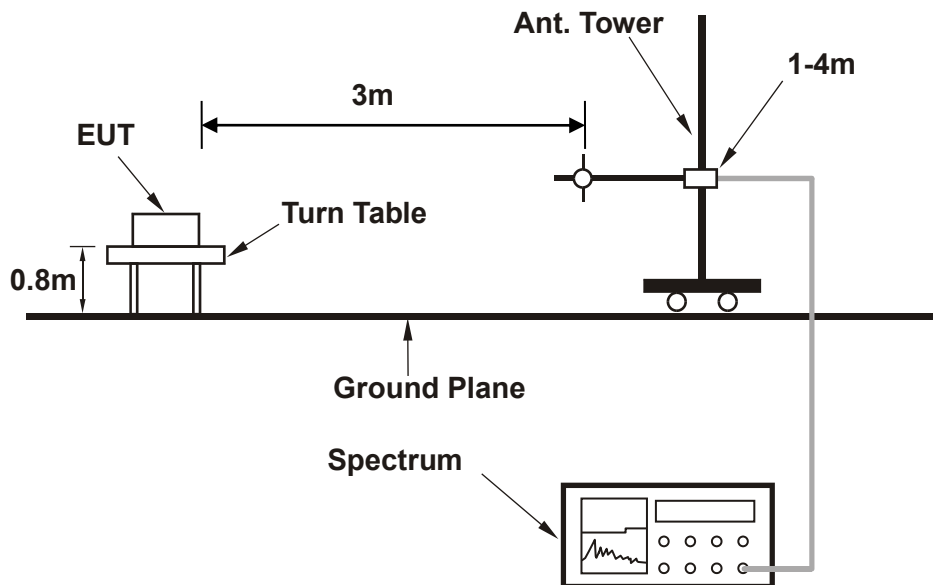
No deviation

3.6.4 TEST SETUP

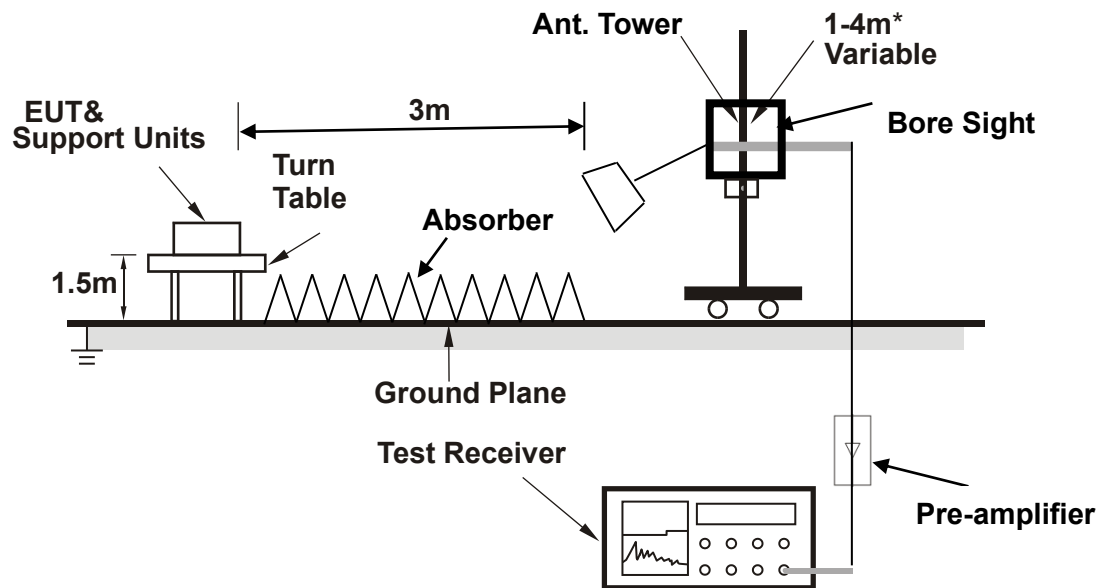
< Frequency Range below 30MHz >



< 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

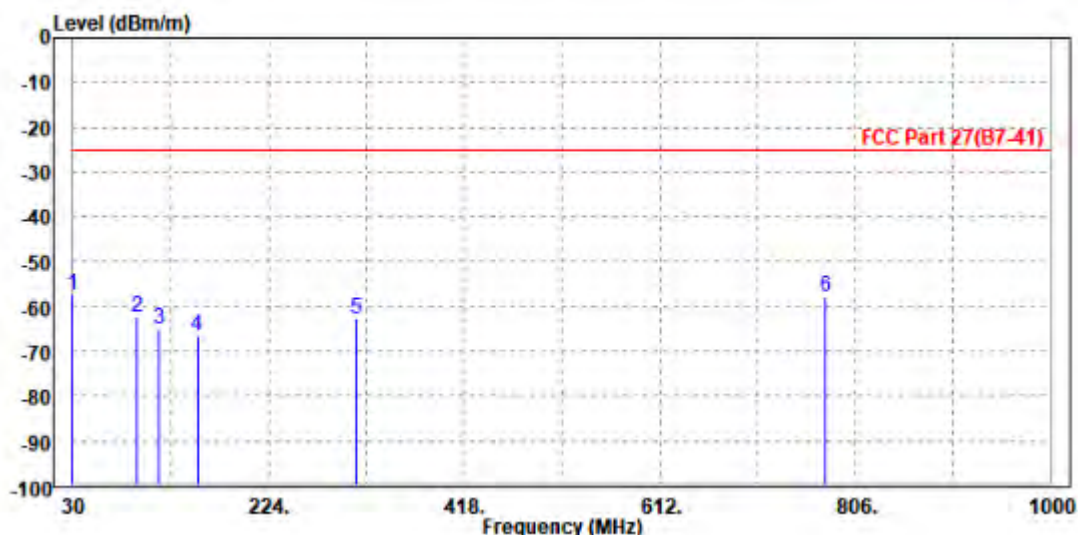
30 MHz – 1GHz data:

LTE Band 41(Ant0) (UP):

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 40620	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	30.000	-57.44	-55.46	-25.00	-32.44	-1.98	Peak	Horizontal
2	94.020	-62.49	-49.66	-25.00	-37.49	-12.83	Peak	Horizontal
3	115.360	-65.03	-49.95	-25.00	-40.03	-15.08	Peak	Horizontal
4	153.190	-66.38	-51.75	-25.00	-41.38	-14.63	Peak	Horizontal
5	311.300	-62.87	-54.28	-25.00	-37.87	-8.59	Peak	Horizontal
6	775.930	-57.95	-62.90	-25.00	-32.95	4.95	Peak	Horizontal

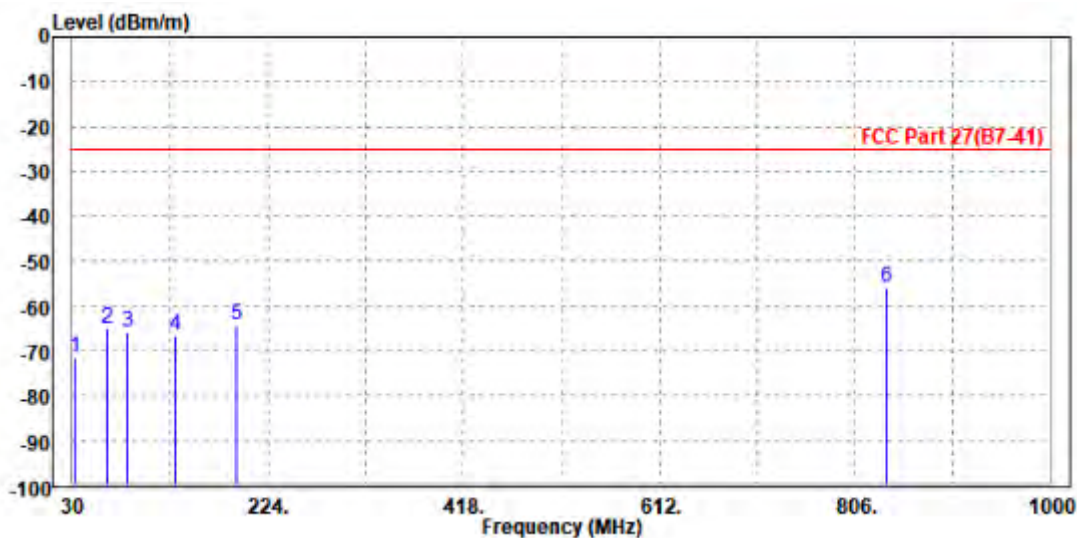




Test Report No.: W7L-P24050014RF08

MODE	TX channel 40620	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	31.940	-71.65	-50.24	-25.00	-46.65	-21.41	Peak	Vertical
2	64.920	-65.13	-45.74	-25.00	-40.13	-19.39	Peak	Vertical
3	84.320	-65.68	-47.40	-25.00	-40.68	-18.28	Peak	Vertical
4	132.820	-66.47	-49.90	-25.00	-41.47	-16.57	Peak	Vertical
5	192.960	-64.34	-57.04	-25.00	-39.34	-7.30	Peak	Vertical
6 PP	838.010	-55.92	-63.64	-25.00	-30.92	7.72	Peak	Vertical





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ABOVE 1GHz

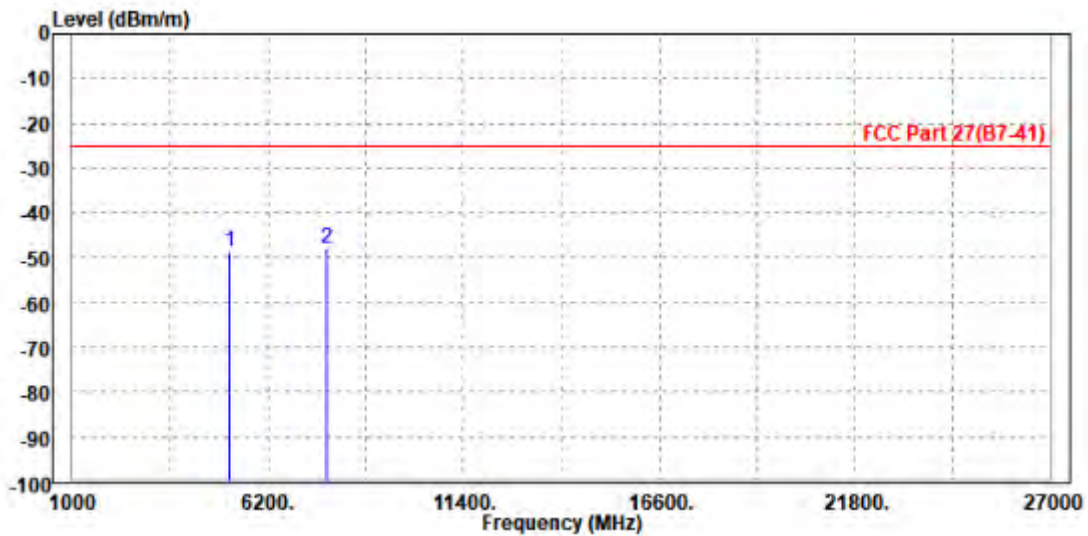
Note: For higher frequency, the emission is too low to be detected.

LTE BAND 41(Ant0) (UP):

CHANNEL BANDWIDTH: 5MHz / 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	5186.000	-48.62	-59.96	-25.00	-23.62	11.34	Peak	Horizontal
2 PP	7779.000	-47.87	-62.69	-25.00	-22.87	14.82	Peak	Horizontal

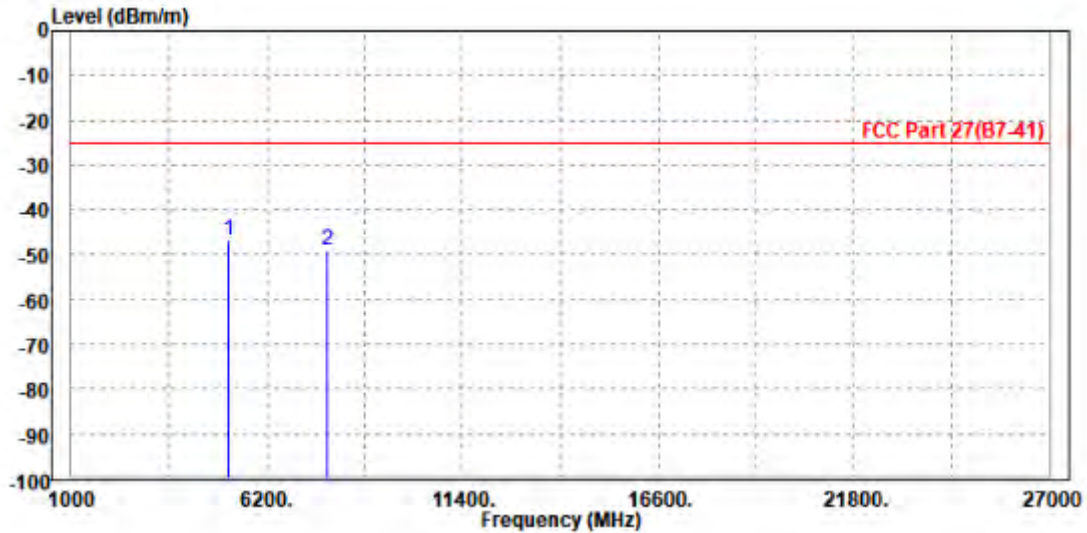




Test Report No.: W7L-P24050014RF08

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	PP 5186.000	-46.95	-58.68	-25.00	-21.95	11.73	Peak	Vertical
2	7786.000	-48.91	-63.17	-25.00	-23.91	14.26	Peak	Vertical





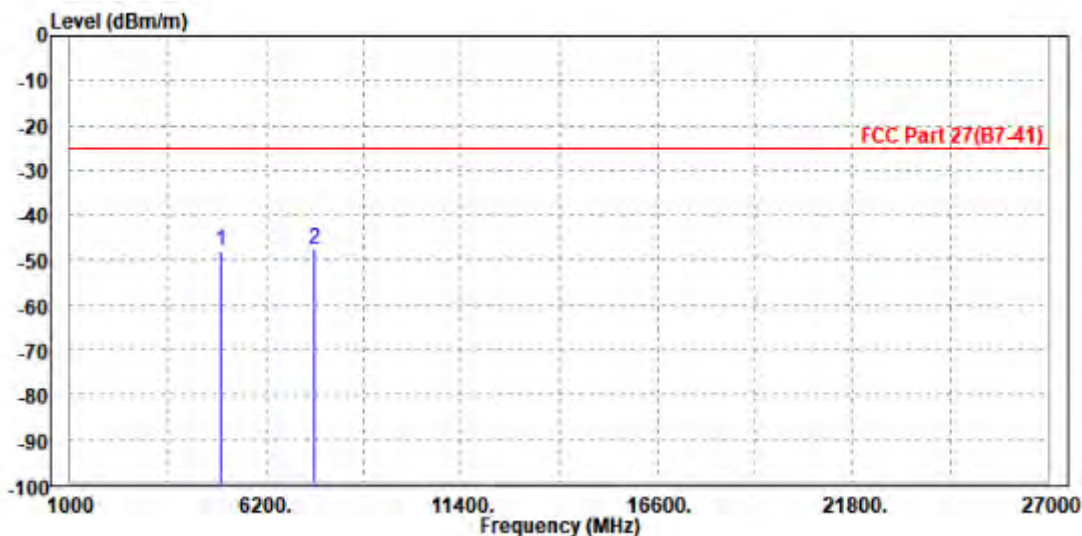
Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 10MHz / QPSK

CH39700

MODE	TX channel 39700	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	5002.000	-47.81	-58.87	-25.00	-22.81	11.06	Peak	Horizontal
2 PP	7500.000	-47.58	-61.92	-25.00	-22.58	14.34	Peak	Horizontal

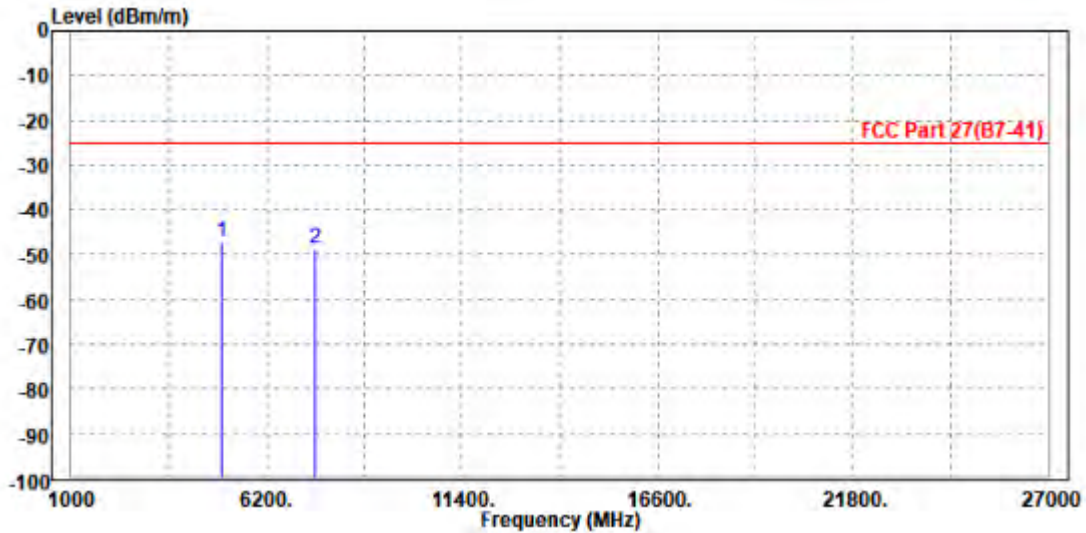




Test Report No.: W7L-P24050014RF08

MODE	TX channel 39700	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	-47.02	-58.40	-25.00	-22.02	11.38	Peak	Vertical
2	7503.000	-48.81	-61.84	-25.00	-23.81	13.03	Peak	Vertical





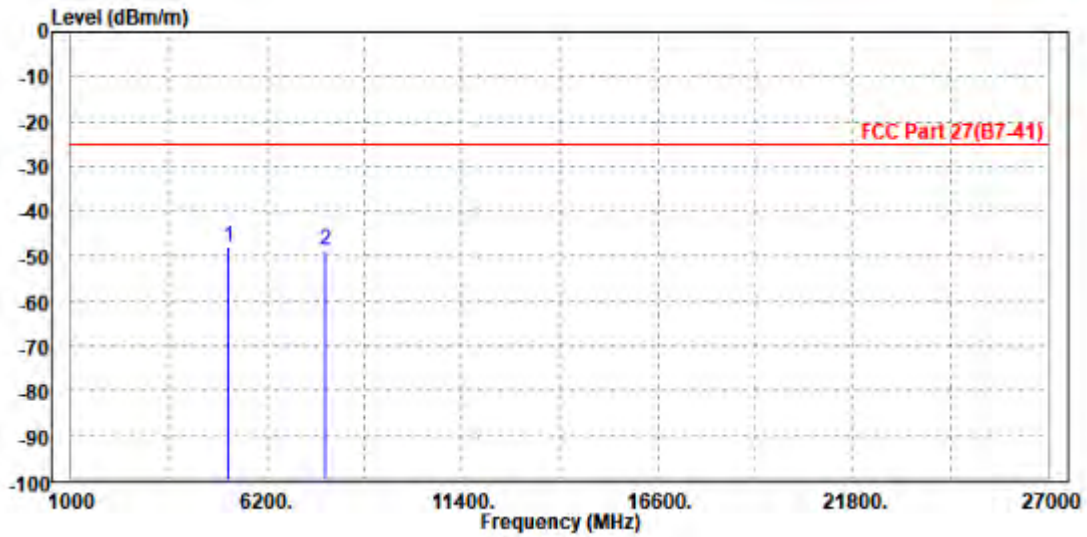
BUREAU VERITAS

Test Report No.: W7L-P24050014RF08

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	-47.83	-59.17	-25.00	-22.83	11.34	Peak	Horizontal
2	7779.000	-48.73	-63.55	-25.00	-23.73	14.82	Peak	Horizontal

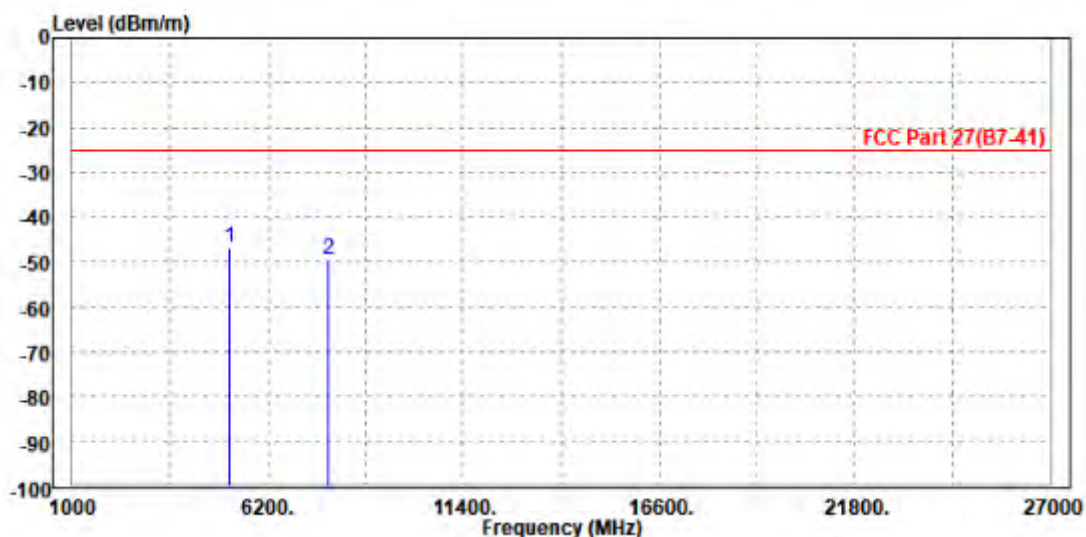




Test Report No.: W7L-P24050014RF08

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	PP 5186.000	-46.63	-58.36	-25.00	-21.63	11.73	Peak	Vertical
2	7786.000	-49.54	-63.80	-25.00	-24.54	14.26	Peak	Vertical



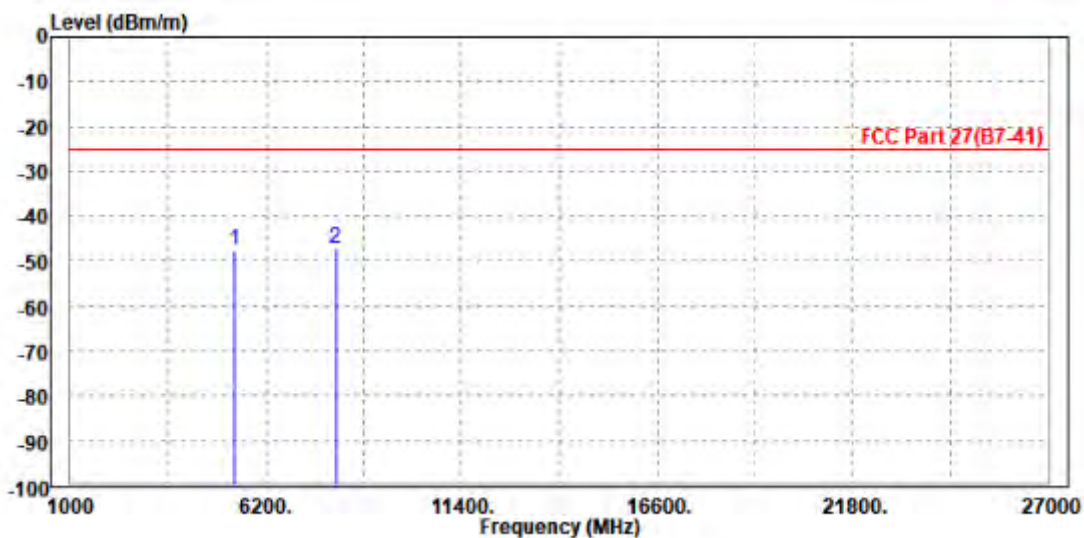


Test Report No.: W7L-P24050014RF08

CH41540

MODE	TX channel 41540	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	-47.48	-59.08	-25.00	-22.48	11.60	Peak	Horizontal
2	PP 8055.000	-47.29	-62.59	-25.00	-22.29	15.30	Peak	Horizontal

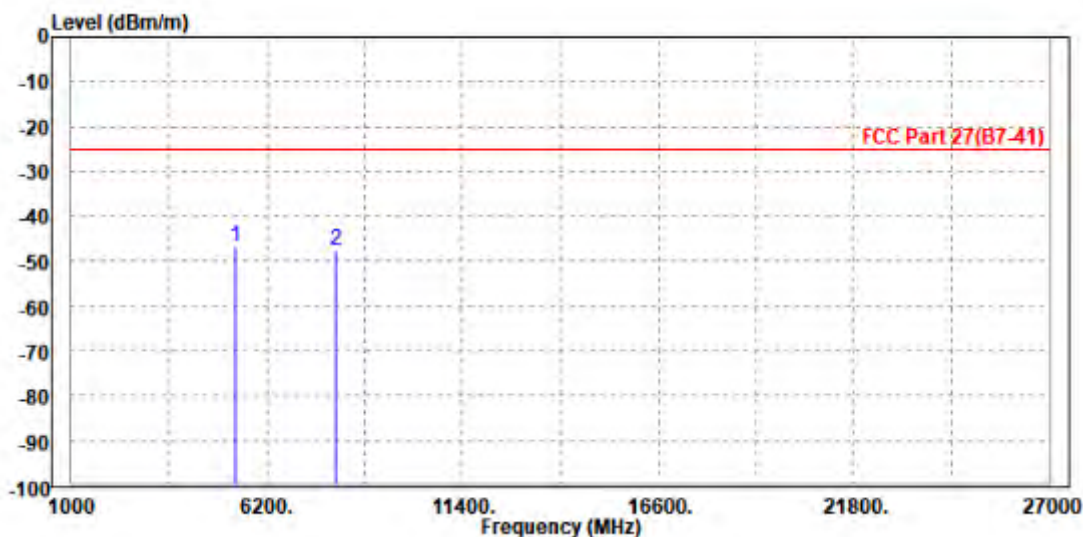




Test Report No.: W7L-P24050014RF08

MODE	TX channel 41540	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 5370.000	-46.91	-59.00	-25.00	-21.91	12.09	Peak	Vertical
2	8046.000	-47.60	-62.95	-25.00	-22.60	15.35	Peak	Vertical



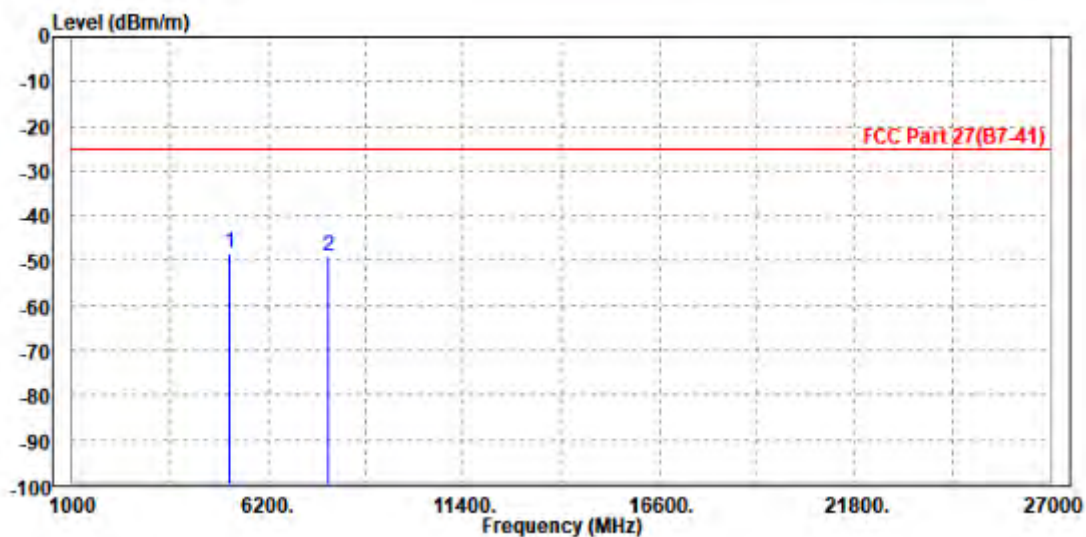


Test Report No.: W7L-P24050014RF08

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	-48.24	-59.58	-25.00	-23.24	11.34	Peak	Horizontal
2	7786.000	-49.08	-63.91	-25.00	-24.08	14.83	Peak	Horizontal

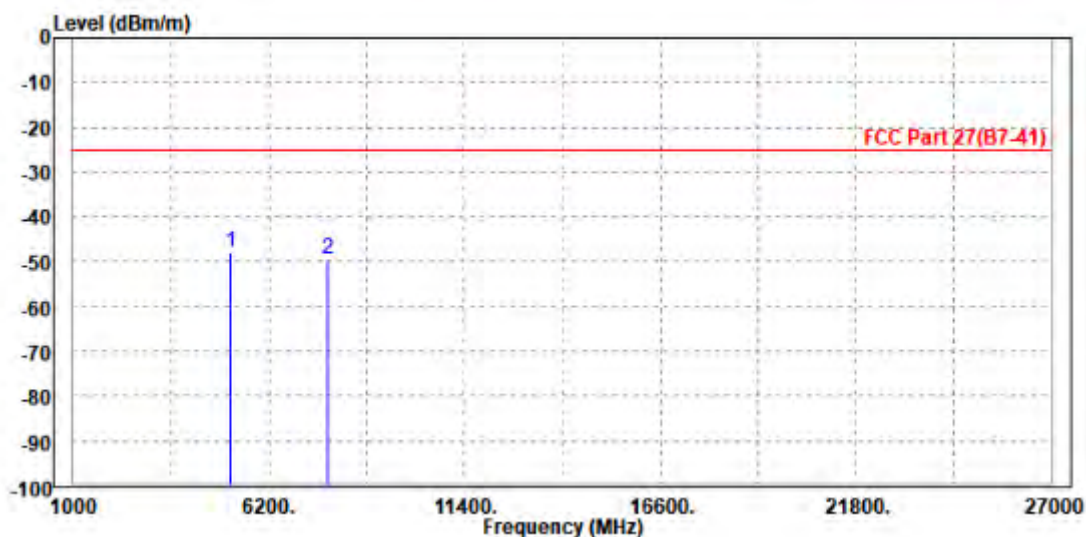




Test Report No.: W7L-P24050014RF08

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	PP 5186.000	-47.88	-59.61	-25.00	-22.88	11.73	Peak	Vertical
2	7779.000	-49.37	-63.60	-25.00	-24.37	14.23	Peak	Vertical



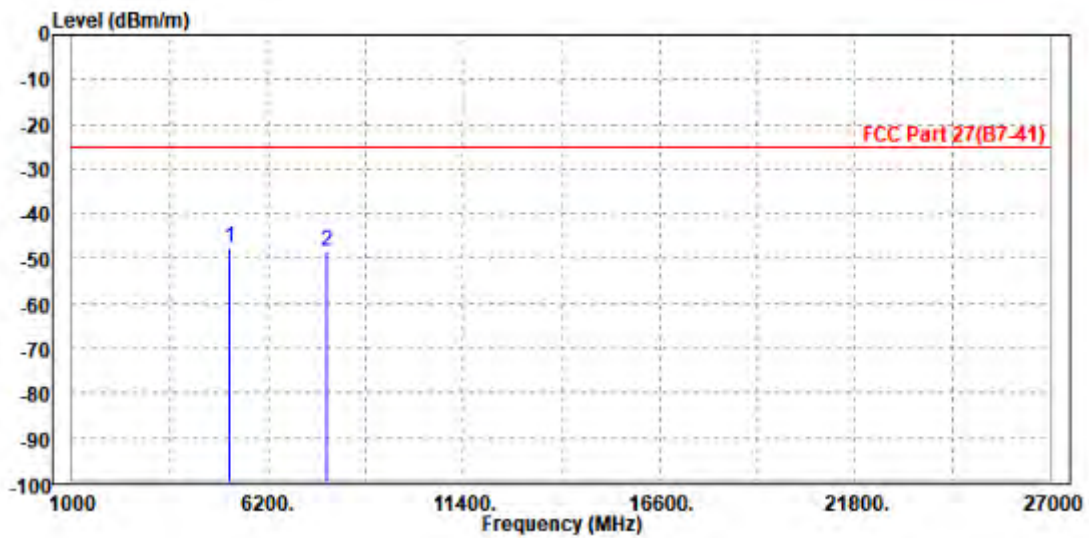


Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 20MHz / 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	-47.48	-58.82	-25.00	-22.48	11.34	Peak	Horizontal
2	7779.000	-48.47	-63.29	-25.00	-23.47	14.82	Peak	Horizontal

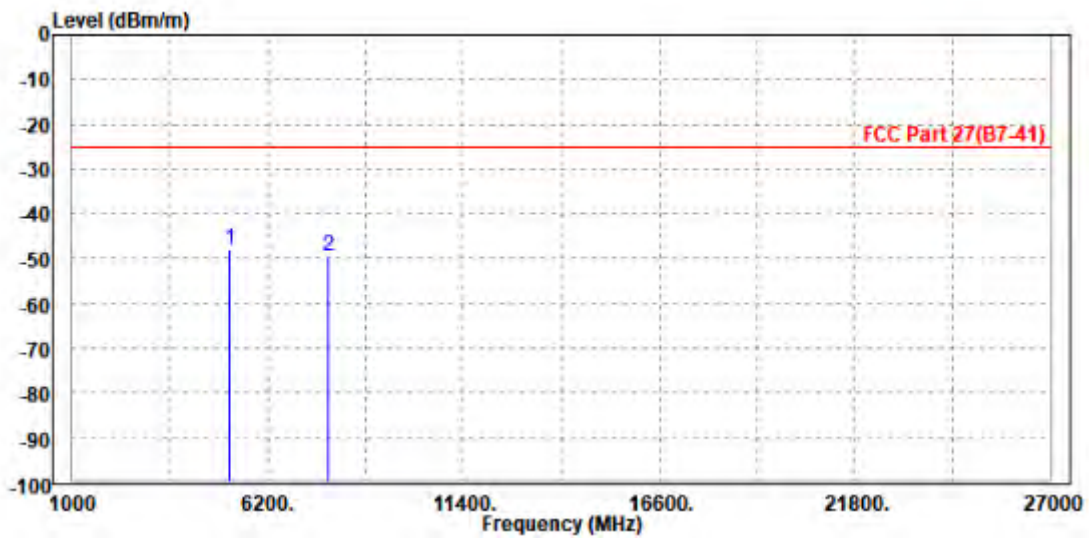




Test Report No.: W7L-P24050014RF08

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	PP 5186.000	-47.88	-59.61	-25.00	-22.88	11.73	Peak	Vertical
2	7786.000	-49.40	-63.66	-25.00	-24.40	14.26	Peak	Vertical





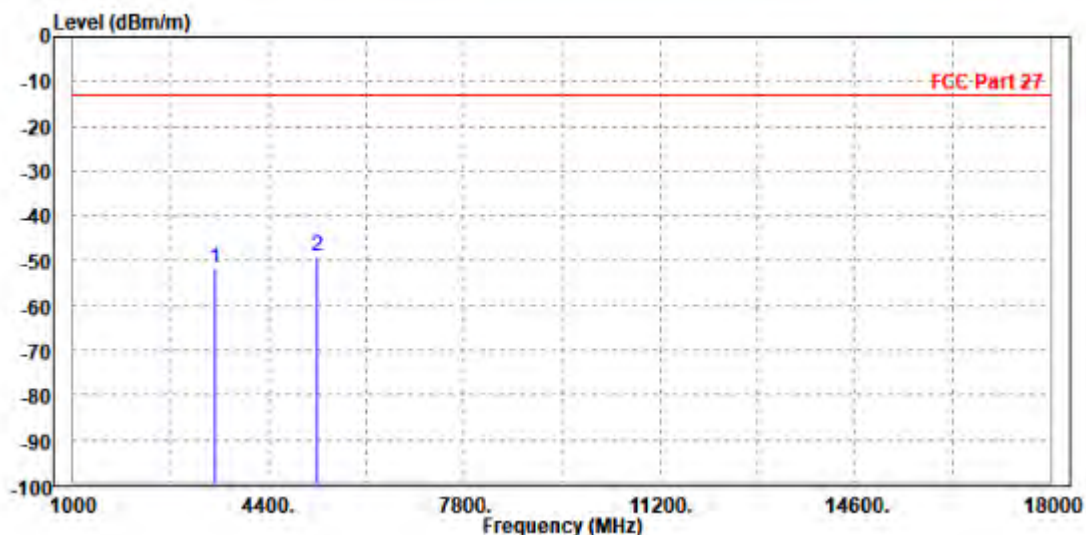
Test Report No.: W7L-P24050014RF08

LTE B66(Ant1) (DOWN):

CHANNEL BANDWIDTH: 1.4MHz / QPSK

MODE	TX channel 132322	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	3482.000	-51.53	-60.08	-13.00	-38.53	8.55	Peak	Horizontal
2	PP 5235.000	-49.13	-60.54	-13.00	-36.13	11.41	Peak	Horizontal

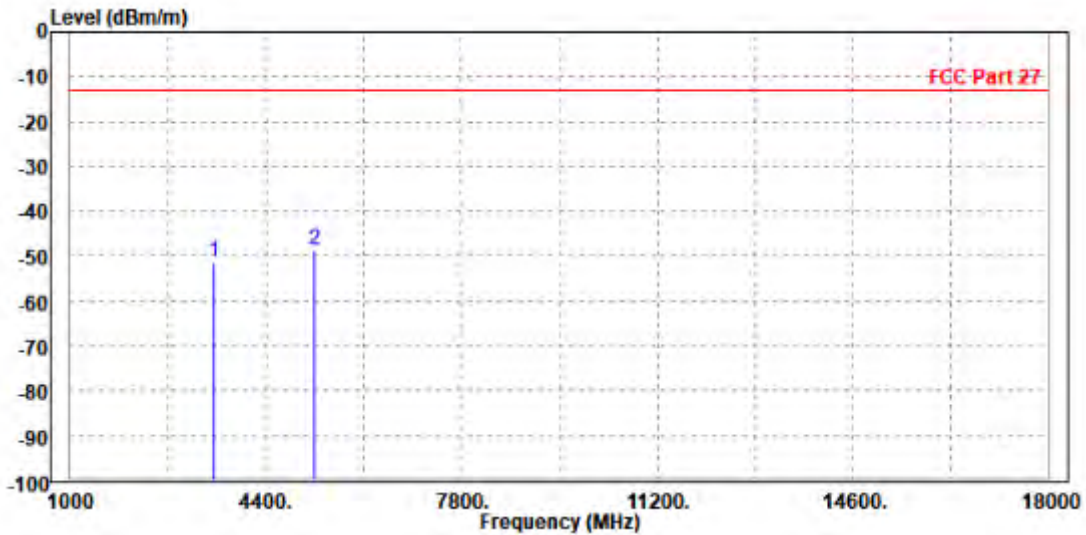




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3490.000	-51.31	-59.95	-13.00	-38.31	8.64	Peak	Vertical
2 PP	5233.000	-48.66	-60.48	-13.00	-35.66	11.82	Peak	Vertical



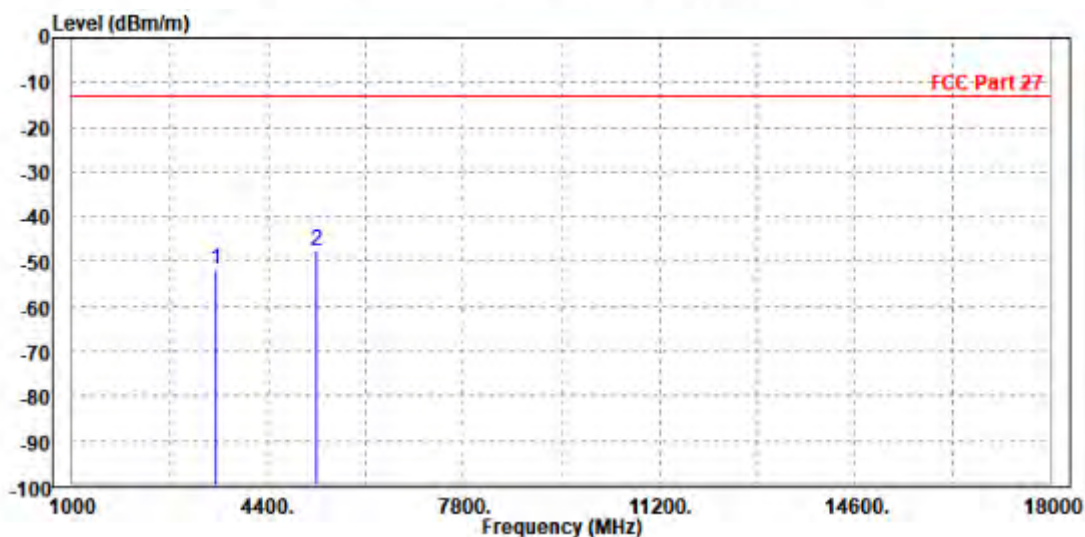


Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 132322	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	3490.000	-51.57	-60.12	-13.00	-38.57	8.55	Peak	Horizontal
2	PP 5233.000	-47.72	-59.12	-13.00	-34.72	11.40	Peak	Horizontal

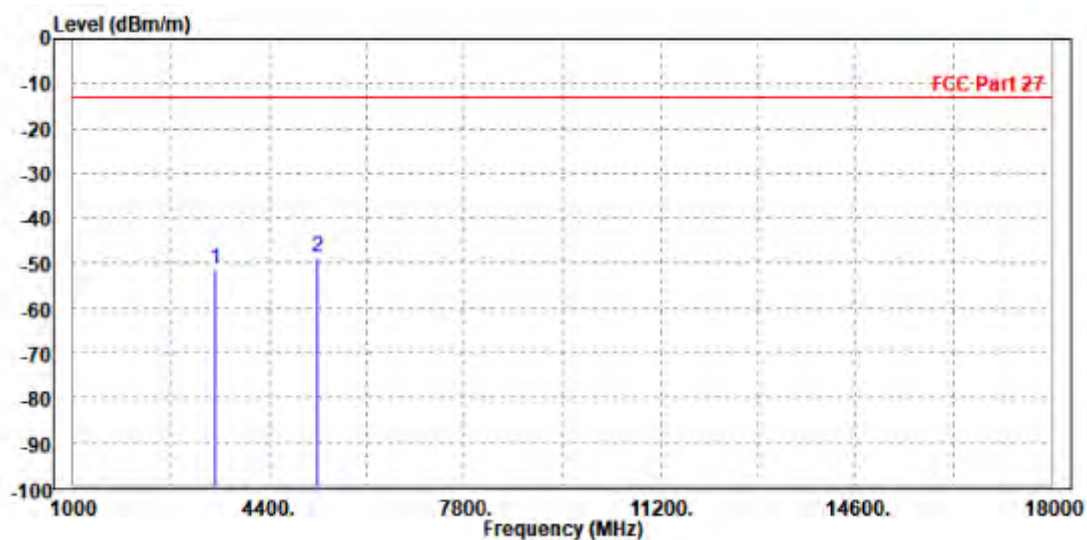




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3482.000	-51.29	-59.94	-13.00	-38.29	8.65	Peak	Vertical
2 PP	5235.000	-48.57	-60.40	-13.00	-35.57	11.83	Peak	Vertical



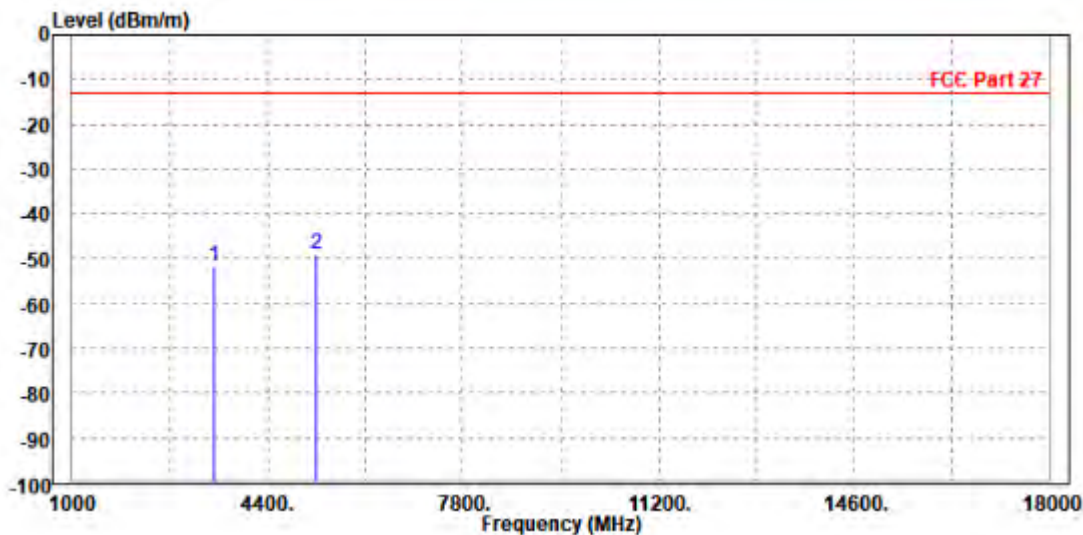


Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 5MHz / QPSK

MODE	TX channel 132322	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	3482.000	-51.58	-60.13	-13.00	-38.58	8.55	Peak	Horizontal
2 PP	5235.000	-49.16	-60.57	-13.00	-36.16	11.41	Peak	Horizontal

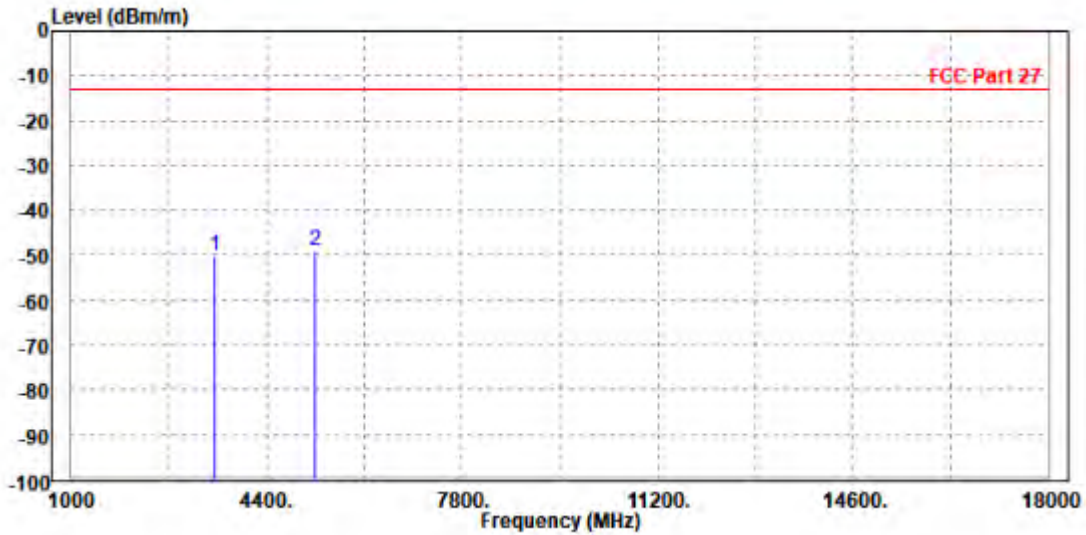




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3490.000	-50.19	-58.83	-13.00	-37.19	8.64	Peak	Vertical
2 PP	5233.000	-48.94	-60.76	-13.00	-35.94	11.82	Peak	Vertical



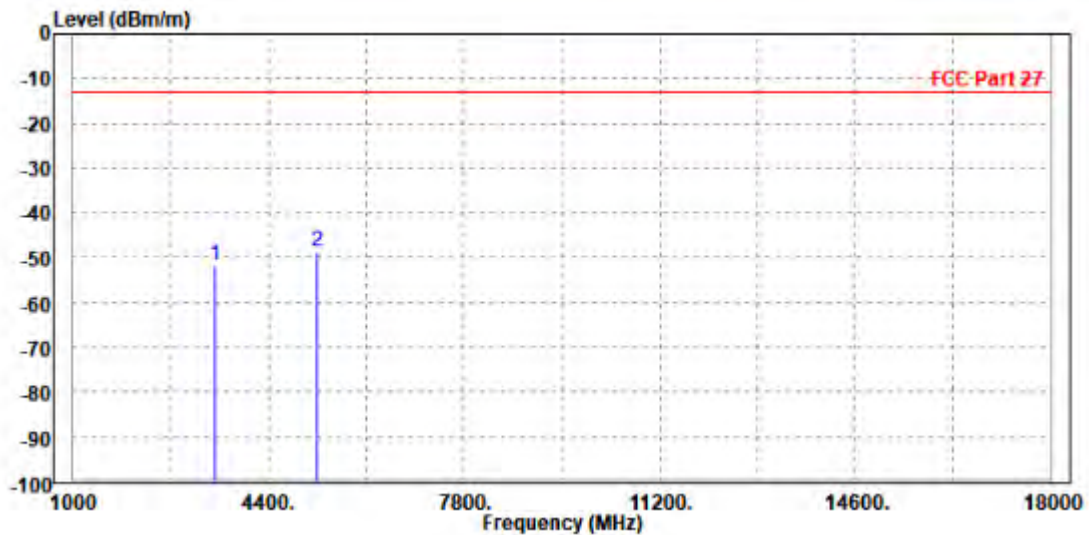


Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 132322	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	3482.000	-51.58	-60.13	-13.00	-38.58	8.55	Peak	Horizontal
2 PP	5235.000	-48.81	-60.22	-13.00	-35.81	11.41	Peak	Horizontal

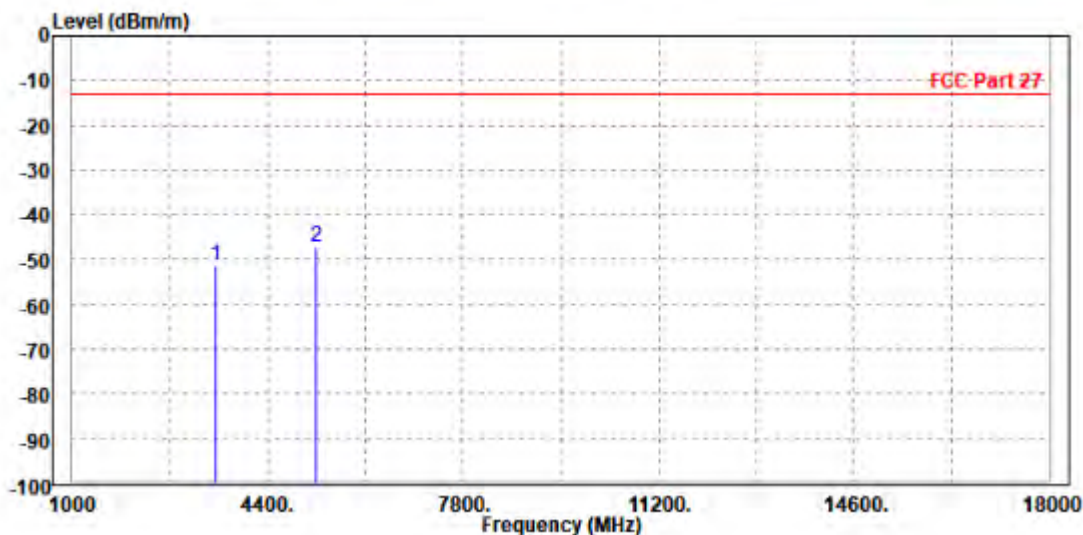




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3490.000	-51.31	-59.95	-13.00	-38.31	8.64	Peak	Vertical
2 PP	5233.000	-47.21	-59.03	-13.00	-34.21	11.82	Peak	Vertical



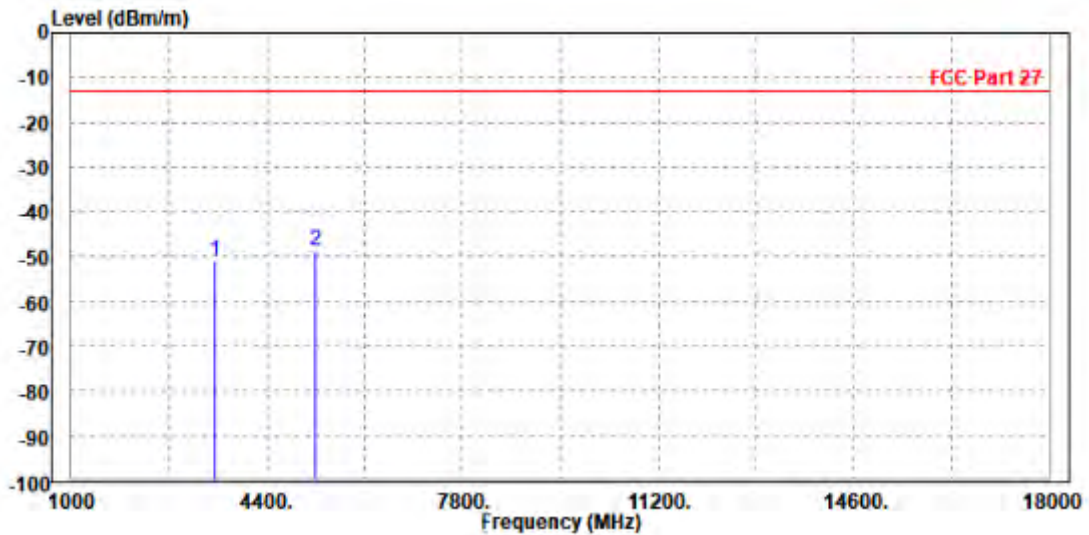


Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 15MHz / QPSK

MODE	TX channel 132322	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	3490.000	-50.99	-59.54	-13.00	-37.99	8.55	Peak	Horizontal
2 PP	5233.000	-48.56	-59.96	-13.00	-35.56	11.40	Peak	Horizontal

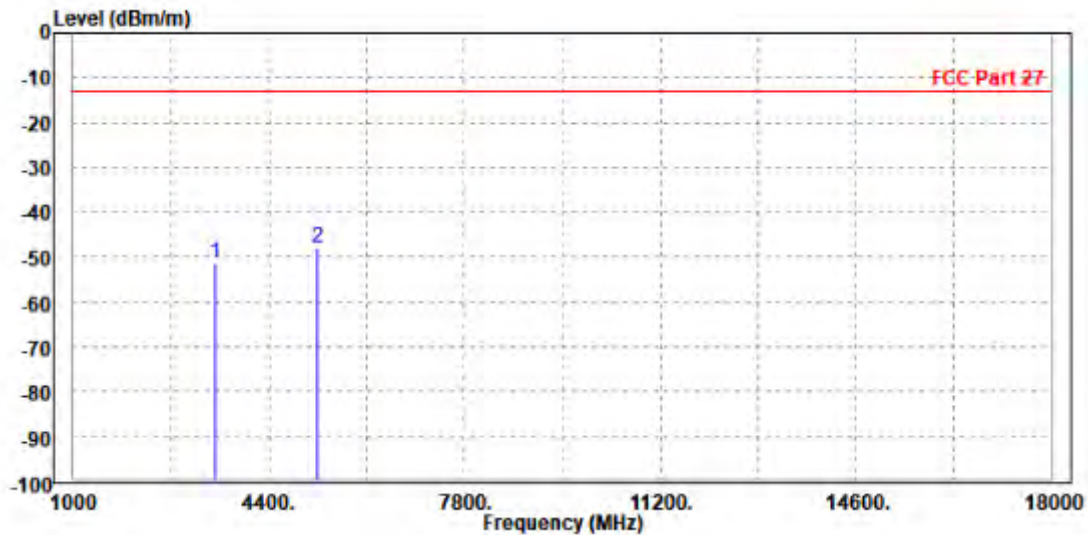




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3482.000	-51.27	-59.92	-13.00	-38.27	8.65	Peak	Vertical
2 PP	5235.000	-47.81	-59.64	-13.00	-34.81	11.83	Peak	Vertical





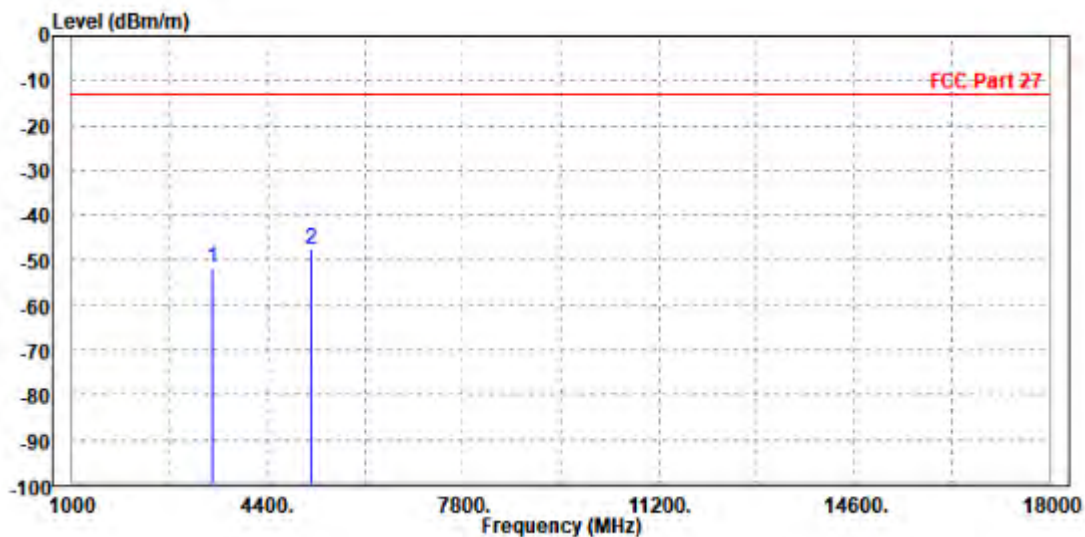
Test Report No.: W7L-P24050014RF08

CHANNEL BANDWIDTH: 20MHz / QPSK

CH132072

MODE	TX channel 132072	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	3440.000	-51.59	-60.11	-13.00	-38.59	8.52	Peak	Horizontal
2 PP	5165.000	-47.61	-58.91	-13.00	-34.61	11.30	Peak	Horizontal

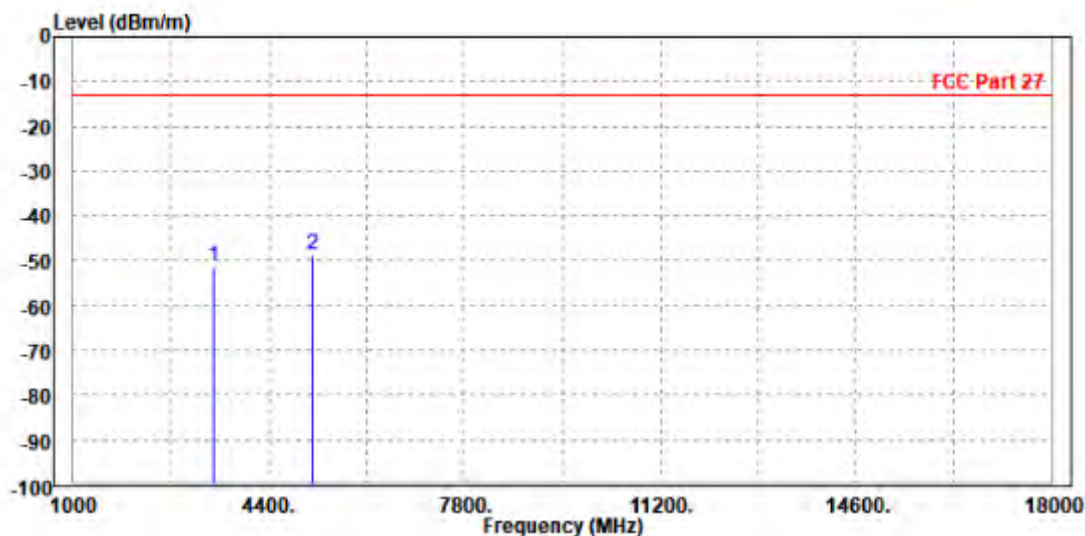




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132072	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	3448.000	-51.26	-59.92	-13.00	-38.26	8.66	Peak	Vertical
2 PP	5160.000	-48.65	-60.33	-13.00	-35.65	11.68	Peak	Vertical



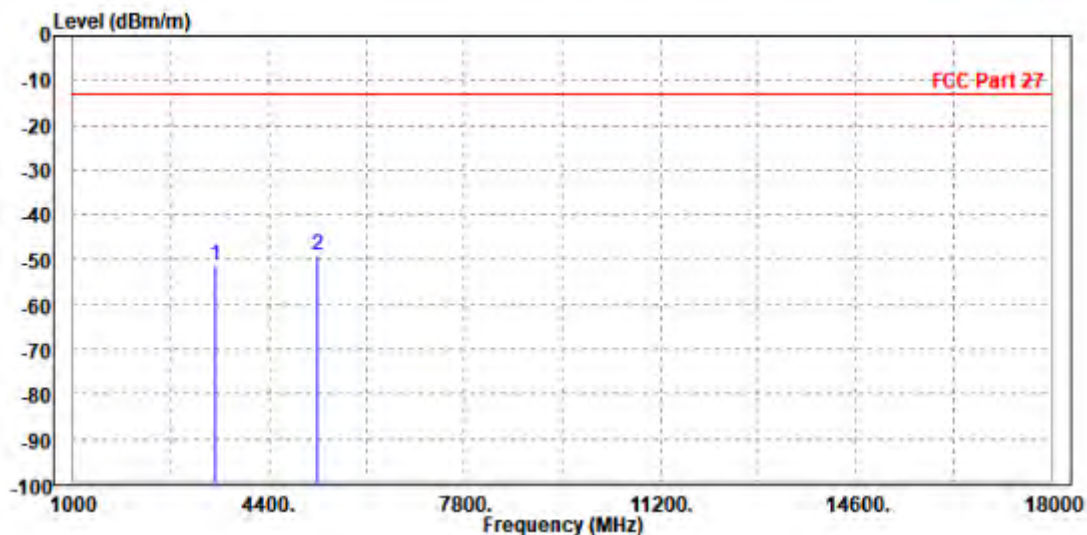


Test Report No.: W7L-P24050014RF08

CH132322

MODE	TX channel 132322	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	3482.000	-51.15	-59.70	-13.00	-38.15	8.55	Peak	Horizontal
2 PP	5235.000	-49.06	-60.47	-13.00	-36.06	11.41	Peak	Horizontal

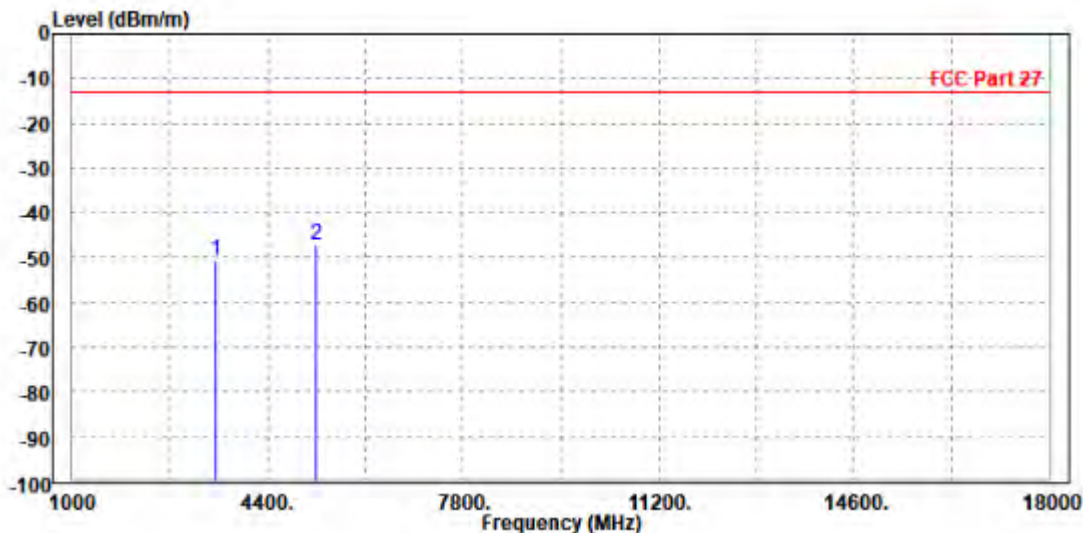




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132322	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	3490.000	-50.71	-59.35	-13.00	-37.71	8.64	Peak	Vertical
2 PP	5233.000	-47.01	-58.83	-13.00	-34.01	11.82	Peak	Vertical





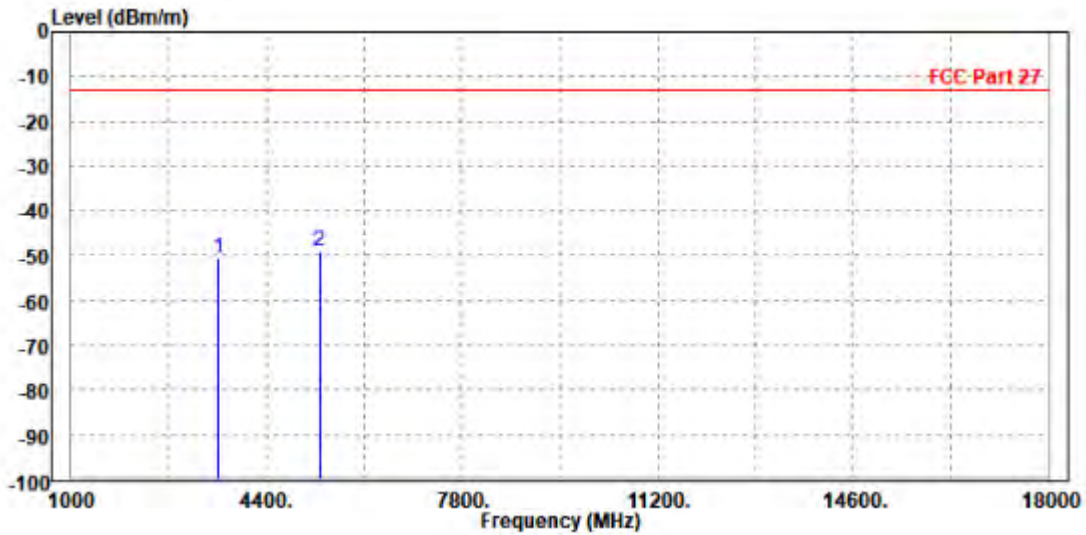
**BUREAU
VERITAS**

Test Report No.: W7L-P24050014RF08

CH132572

MODE	TX channel 132572	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	3550.000	-50.62	-59.14	-13.00	-37.62	8.52	Peak	Horizontal
2 PP	5317.500	-48.96	-60.49	-13.00	-35.96	11.53	Peak	Horizontal

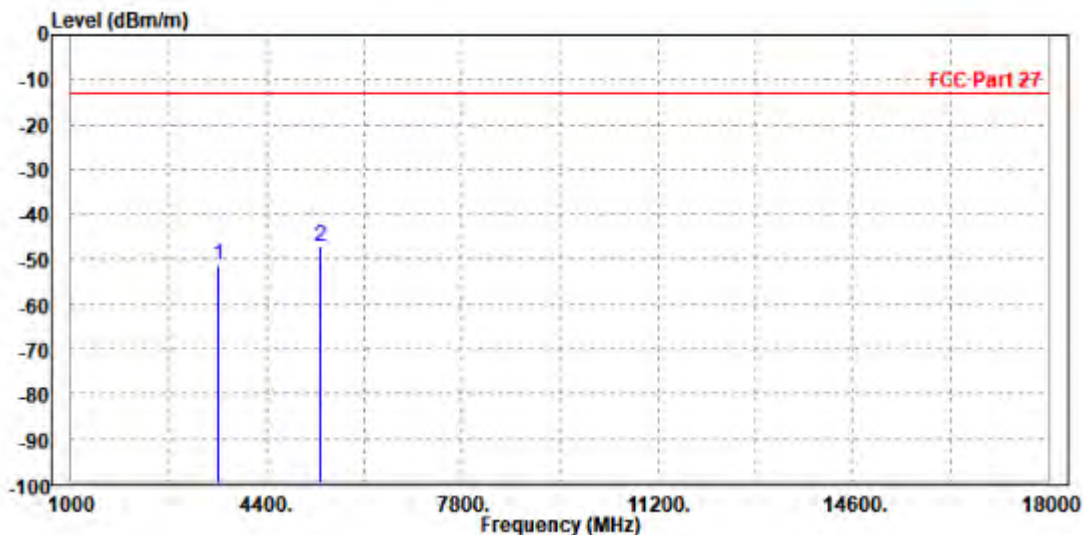




Test Report No.: W7L-P24050014RF08

MODE	TX channel 132572	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	3545.000	-51.39	-60.03	-13.00	-38.39	8.64	Peak	Vertical
2 PP	5318.000	-46.97	-58.96	-13.00	-33.97	11.99	Peak	Vertical

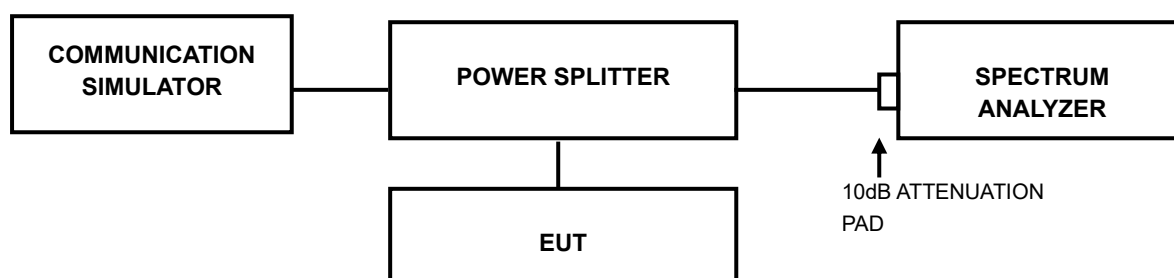


3.7 PEAK TO AVERAGE RATIO

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%.



Test Report No.: W7L-P24050014RF08

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



Test Report No.: W7L-P24050014RF08

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



Test Report No.: W7L-P24050014RF08

5 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.



Test Report No.: W7L-P24050014RF08

6 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.



7 APPENDIX

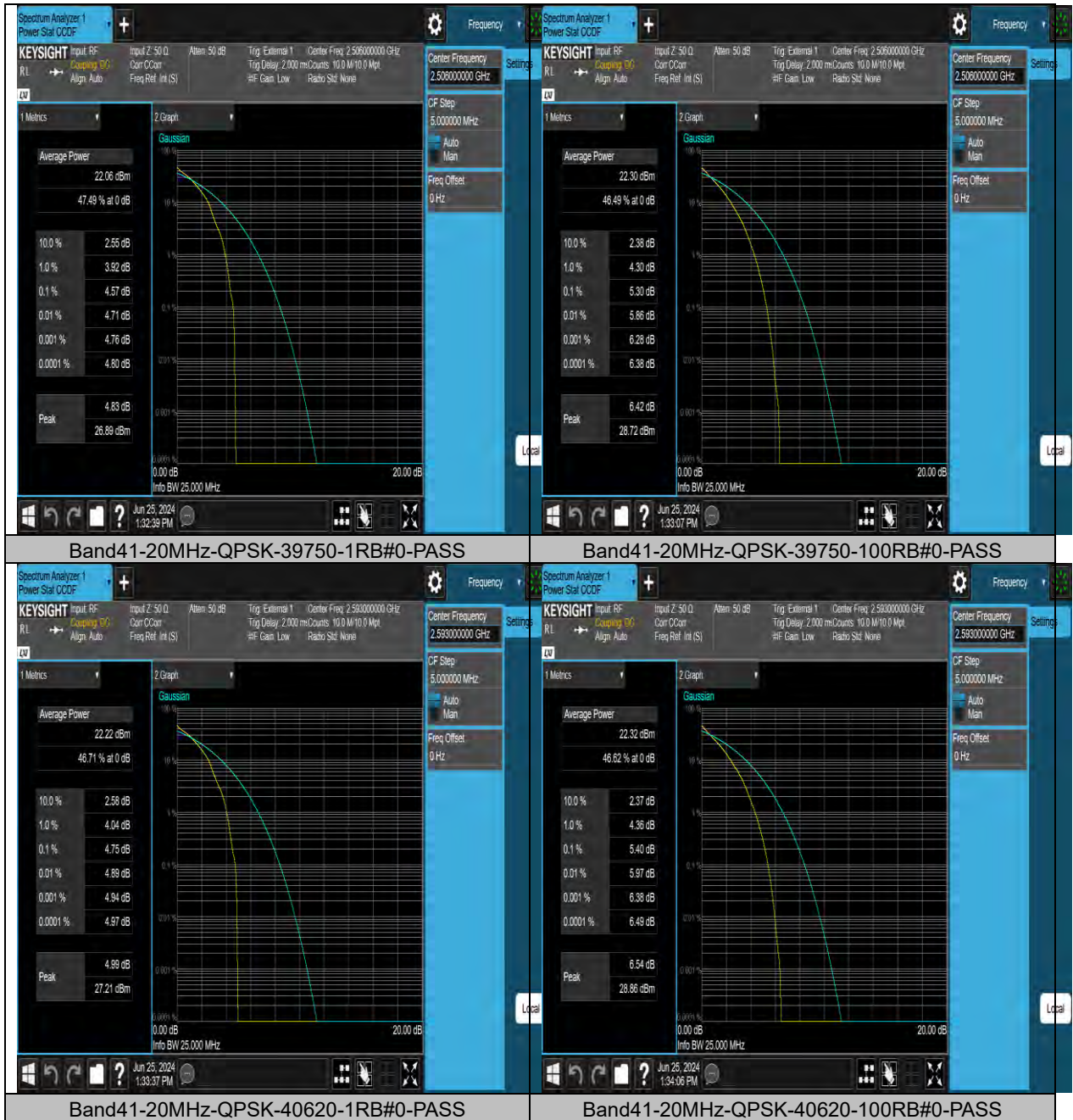
LTE BAND41 (INCLUDING LTE BAND38).

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	20MHz	QPSK	39750	1RB#0	4.57	13	PASS
Band41	20MHz	QPSK	39750	100RB#0	5.30	13	PASS
Band41	20MHz	QPSK	40620	1RB#0	4.75	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	5.40	13	PASS
Band41	20MHz	QPSK	41490	1RB#0	4.86	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	5.50	13	PASS
Band41	20MHz	16QAM	39750	1RB#0	5.37	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	6.10	13	PASS
Band41	20MHz	16QAM	40620	1RB#0	5.57	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	6.21	13	PASS
Band41	20MHz	16QAM	41490	1RB#0	5.72	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	6.30	13	PASS

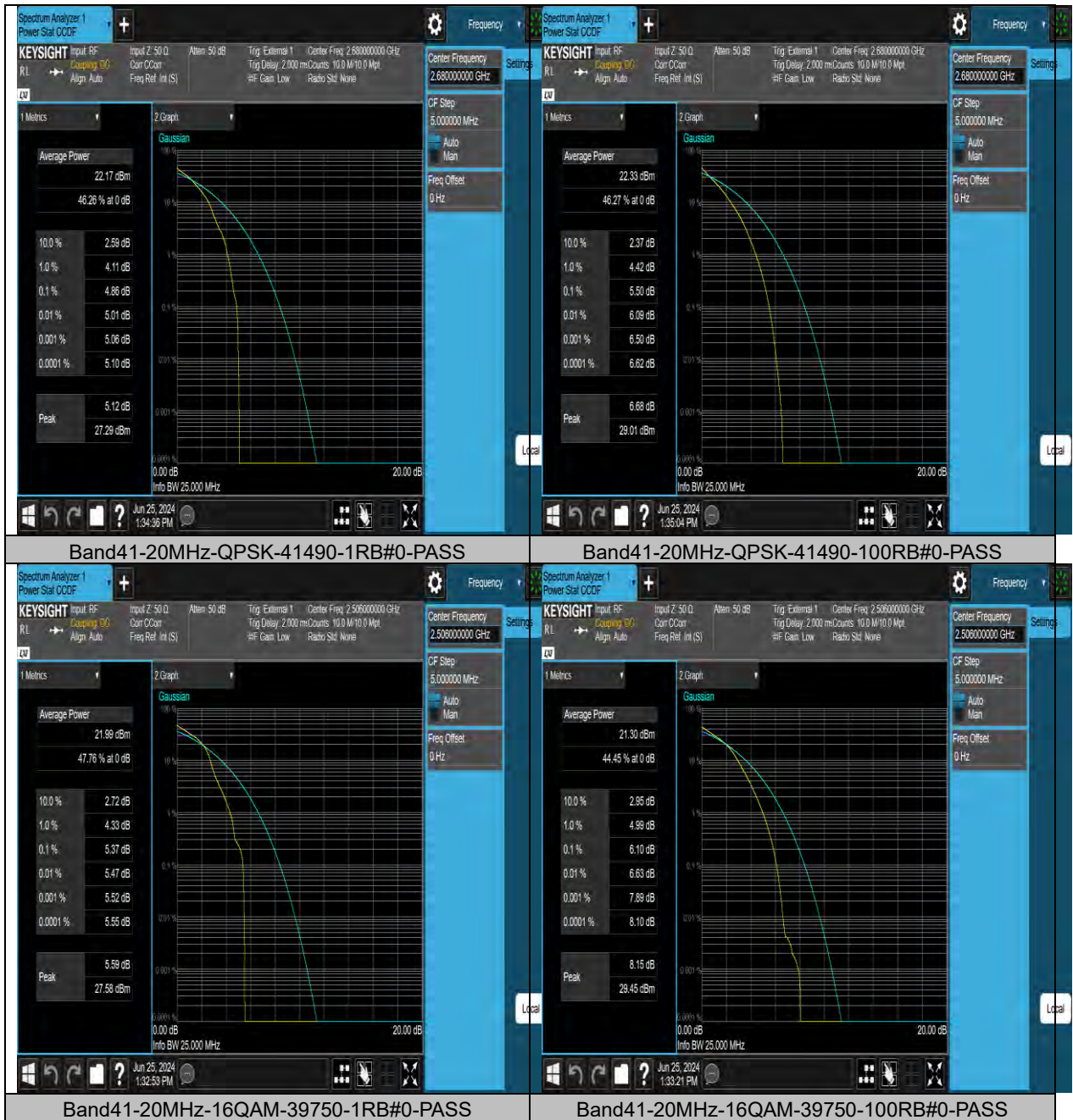
Test Graphs





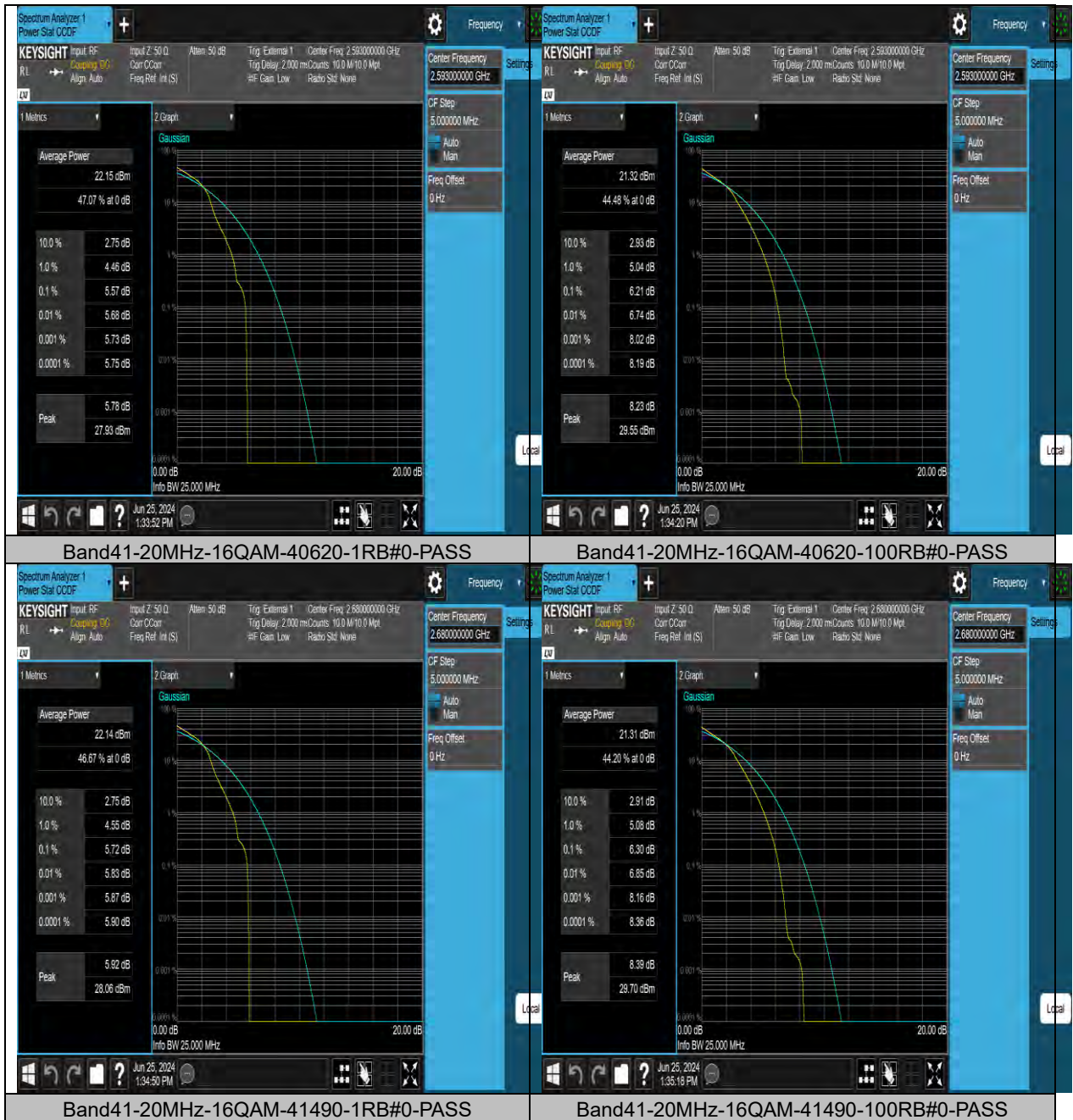
BUREAU VERITAS

Test Report No.: W7L-P24050014RF08





Test Report No.: W7L-P24050014RF08



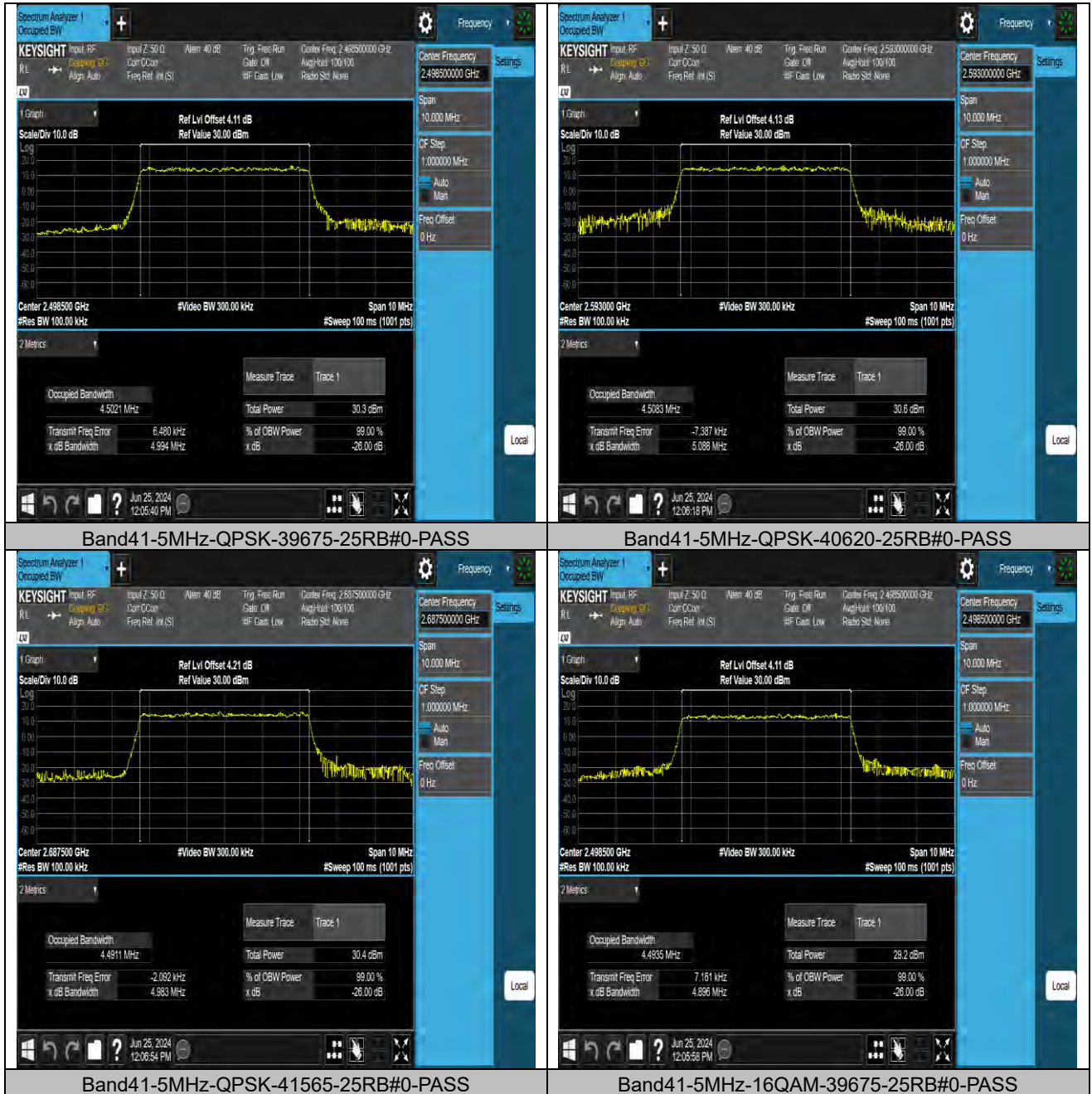


26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.5021	4.994	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.5083	5.088	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.4911	4.983	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.4935	4.896	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.4892	5.291	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.4867	4.920	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.9689	9.759	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.9762	9.713	PASS
Band41	10MHz	QPSK	41540	50RB#0	9.0028	9.751	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.9501	9.771	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.9589	9.716	PASS
Band41	10MHz	16QAM	41540	50RB#0	8.9750	9.815	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.469	14.65	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.465	14.62	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.457	14.56	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.490	14.62	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.479	14.66	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.459	14.59	PASS
Band41	20MHz	QPSK	39750	100RB#0	17.939	19.35	PASS
Band41	20MHz	QPSK	40620	100RB#0	17.978	19.38	PASS
Band41	20MHz	QPSK	41490	100RB#0	17.966	19.37	PASS
Band41	20MHz	16QAM	39750	100RB#0	17.950	19.24	PASS
Band41	20MHz	16QAM	40620	100RB#0	17.935	19.33	PASS
Band41	20MHz	16QAM	41490	100RB#0	17.927	19.33	PASS

Test Graphs



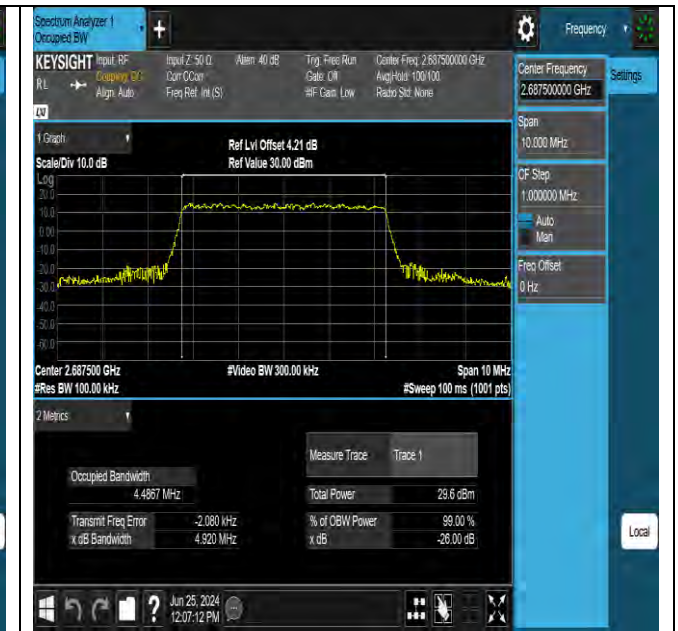


BUREAU VERITAS

Test Report No.: W7L-P24050014RF08



Band41-5MHz-16QAM-40620-25RB#0-PASS



Band41-5MHz-16QAM-41565-25RB#0-PASS



Band41-10MHz-QPSK-39700-50RB#0-PASS



Band41-10MHz-QPSK-40620-50RB#0-PASS



Test Report No.: W7L-P24050014RF08



Band41-10MHz-QPSK-41540-50RB#0-PASS



Band41-10MHz-16QAM-39700-50RB#0-PASS



Band41-10MHz-16QAM-40620-50RB#0-PASS



Band41-10MHz-16QAM-41540-50RB#0-PASS



BUREAU VERITAS

Test Report No.: W7L-P24050014RF08



Band41-15MHz-QPSK-39725-75RB#0-PASS



Band41-15MHz-QPSK-40620-75RB#0-PASS



Band41-15MHz-QPSK-41515-75RB#0-PASS



Band41-15MHz-16QAM-39725-75RB#0-PASS



BUREAU VERITAS

Test Report No.: W7L-P24050014RF08



Band41-15MHz-16QAM-40620-75RB#0-PASS



Band41-15MHz-16QAM-41515-75RB#0-PASS



Band41-20MHz-QPSK-39750-100RB#0-PASS



Band41-20MHz-QPSK-40620-100RB#0-PASS



BUREAU VERITAS

Test Report No.: W7L-P24050014RF08



Band41-20MHz-QPSK-41490-100RB#0-PASS



Band41-20MHz-16QAM-39750-100RB#0-PASS



Band41-20MHz-16QAM-40620-100RB#0-PASS



Band41-20MHz-16QAM-41490-100RB#0-PASS



Test Report No.: W7L-P24050014RF08

BAND EDGE

Test Result

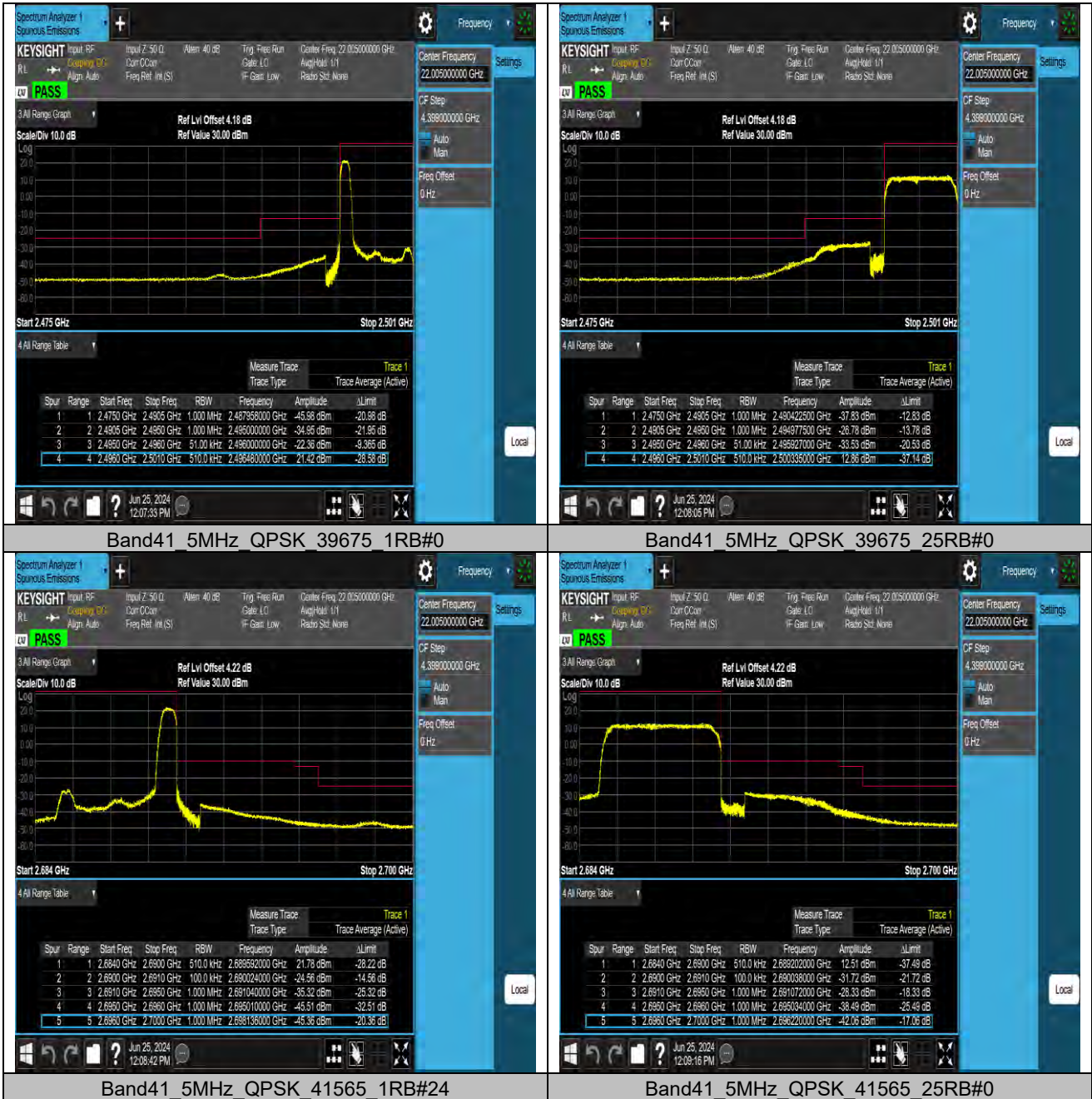
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	-22.36	PASS
Band41	5MHz	QPSK	39675	25RB#0	-37.83	PASS
Band41	5MHz	QPSK	41565	1RB#24	-24.56	PASS
Band41	5MHz	QPSK	41565	25RB#0	-42.06	PASS
Band41	5MHz	16QAM	39675	1RB#0	-21.45	PASS
Band41	5MHz	16QAM	39675	25RB#0	-25.99	PASS
Band41	5MHz	16QAM	41565	1RB#24	-23.96	PASS
Band41	5MHz	16QAM	41565	25RB#0	-27.44	PASS
Band41	10MHz	QPSK	39700	1RB#0	-29.89	PASS
Band41	10MHz	QPSK	39700	50RB#0	-31.60	PASS
Band41	10MHz	QPSK	41540	1RB#49	-31.20	PASS
Band41	10MHz	QPSK	41540	50RB#0	-41.54	PASS
Band41	10MHz	16QAM	39700	1RB#0	-29.79	PASS
Band41	10MHz	16QAM	39700	50RB#0	-31.21	PASS
Band41	10MHz	16QAM	41540	1RB#49	-30.29	PASS
Band41	10MHz	16QAM	41540	50RB#0	-41.97	PASS
Band41	15MHz	QPSK	39725	1RB#0	-44.27	PASS
Band41	15MHz	QPSK	39725	75RB#0	-29.05	PASS
Band41	15MHz	QPSK	41515	1RB#74	-32.15	PASS
Band41	15MHz	QPSK	41515	75RB#0	-39.82	PASS
Band41	15MHz	16QAM	39725	1RB#0	-44.31	PASS
Band41	15MHz	16QAM	39725	75RB#0	-32.53	PASS
Band41	15MHz	16QAM	41515	1RB#74	-32.69	PASS
Band41	15MHz	16QAM	41515	75RB#0	-41.94	PASS
Band41	20MHz	QPSK	39750	1RB#0	-44.96	PASS
Band41	20MHz	QPSK	39750	100RB#0	-33.99	PASS
Band41	20MHz	QPSK	41490	1RB#99	-48.04	PASS
Band41	20MHz	QPSK	41490	100RB#0	-43.60	PASS
Band41	20MHz	16QAM	39750	1RB#0	-45.20	PASS
Band41	20MHz	16QAM	39750	100RB#0	-32.88	PASS
Band41	20MHz	16QAM	41490	1RB#99	-47.77	PASS
Band41	20MHz	16QAM	41490	100RB#0	-44.22	PASS



BUREAU VERITAS

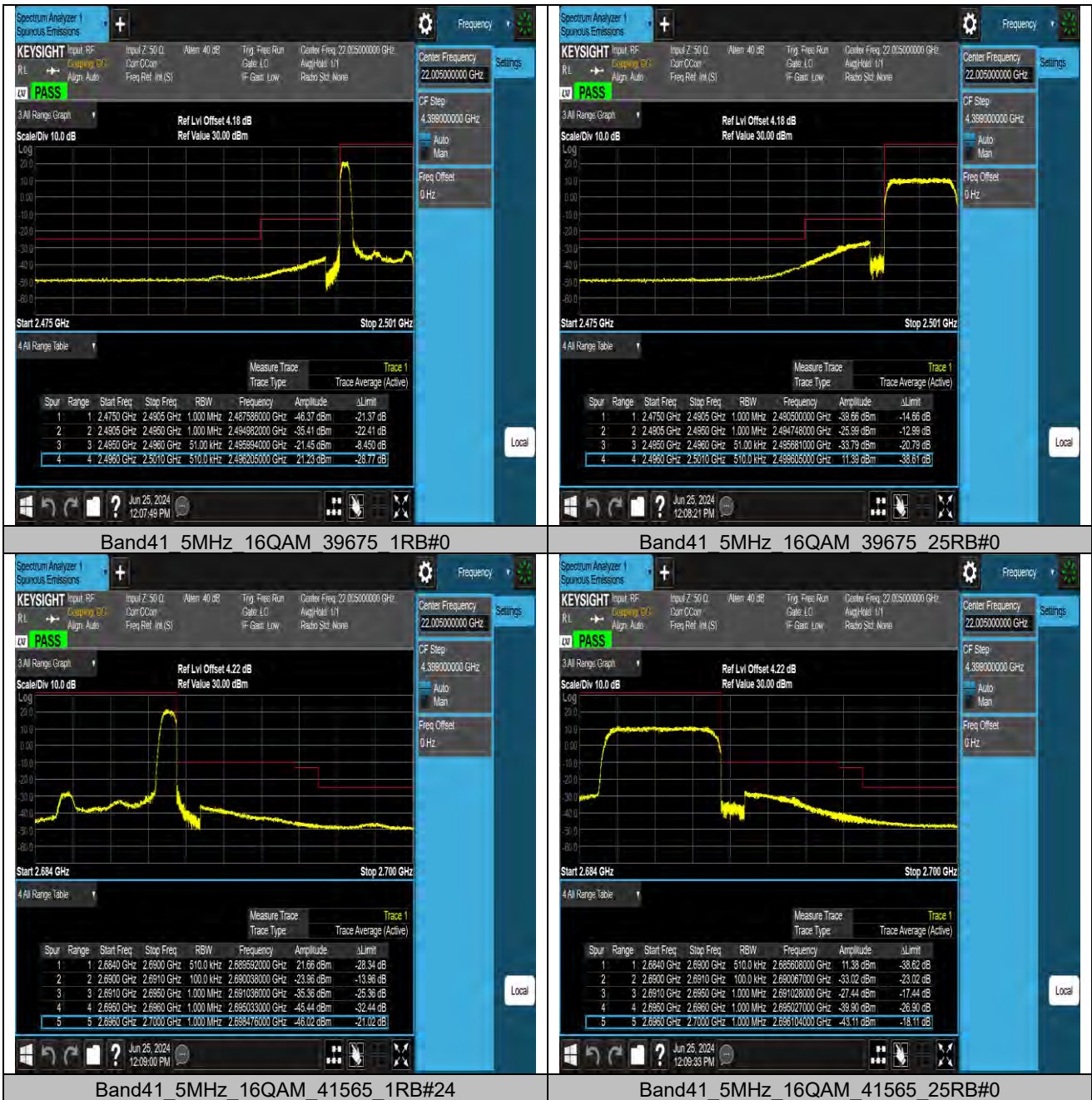
Test Report No.: W7L-P24050014RF08

Test Graphs



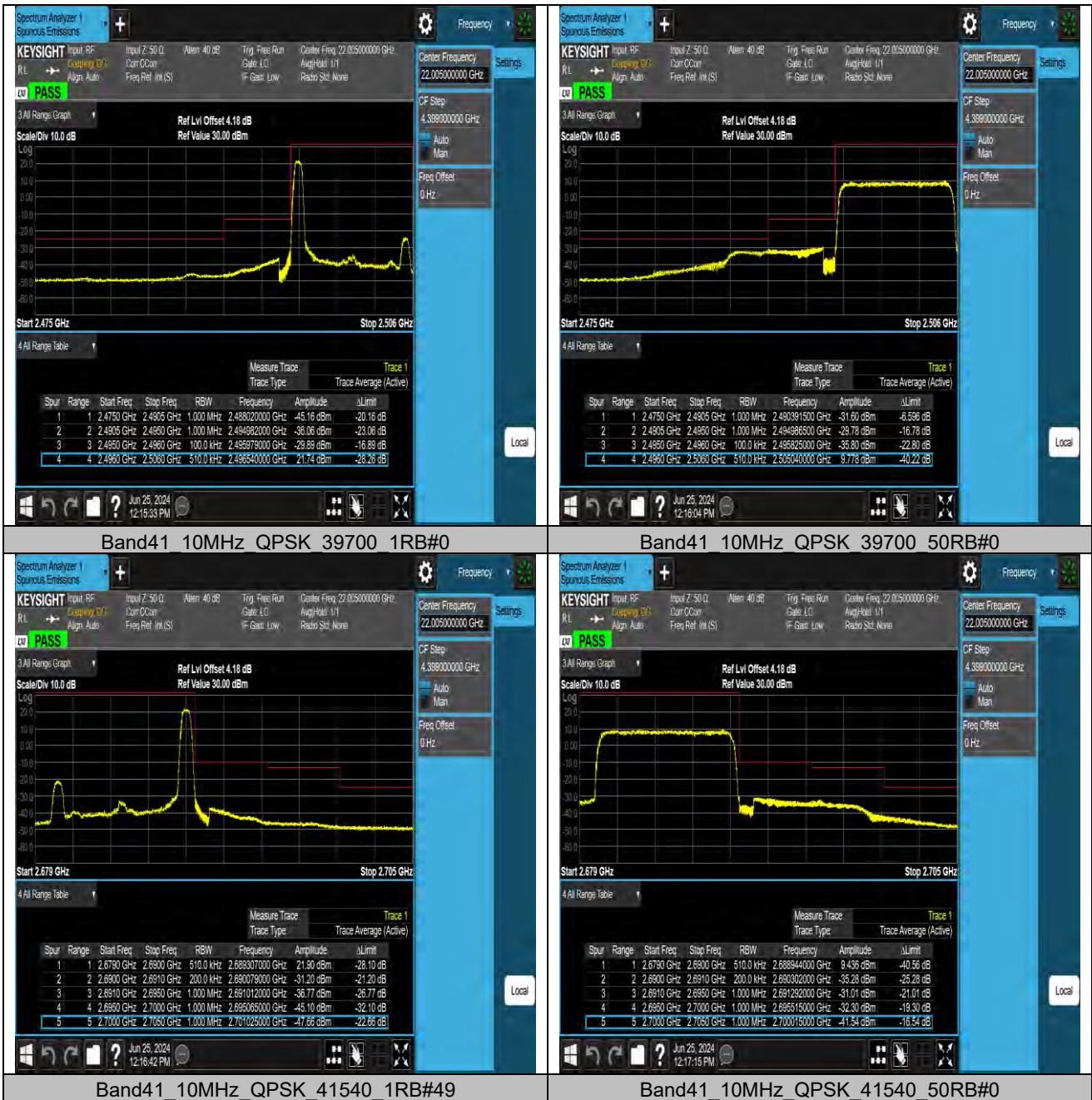


Test Report No.: W7L-P24050014RF08





Test Report No.: W7L-P24050014RF08



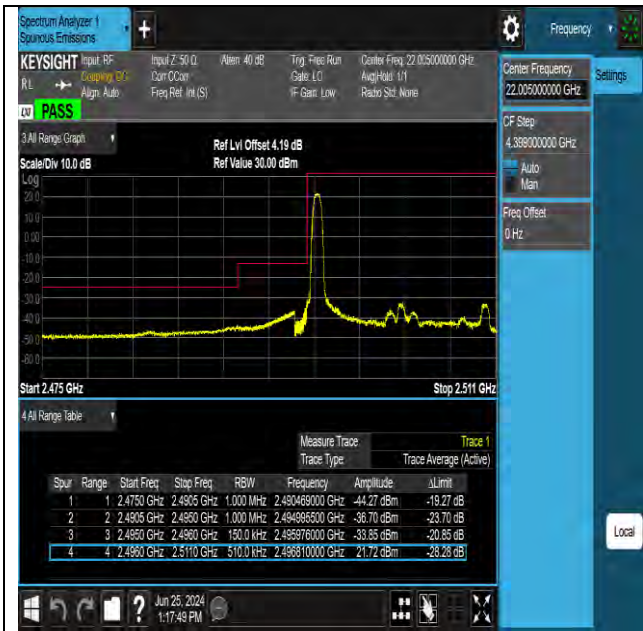


Test Report No.: W7L-P24050014RF08





Test Report No.: W7L-P24050014RF08



Band41 15MHz QPSK 39725 1RB#0



Band41 15MHz QPSK 39725 75RB#0



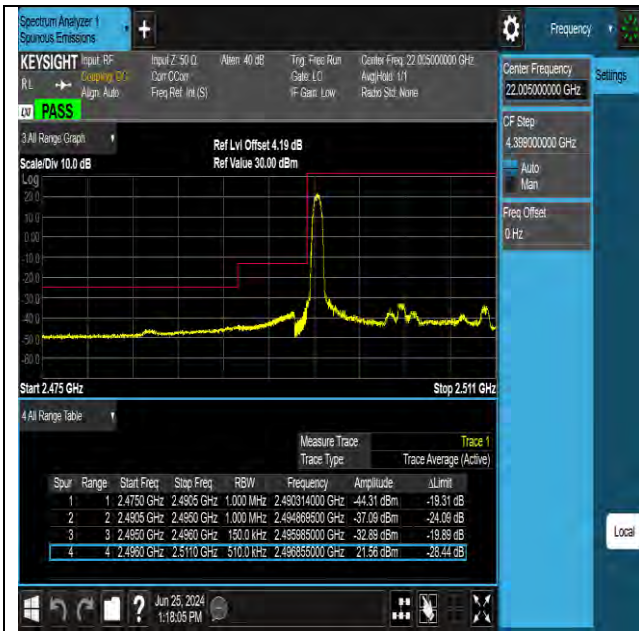
Band41 15MHz QPSK 41515 1RB#74



Band41 15MHz QPSK 41515 75RB#0



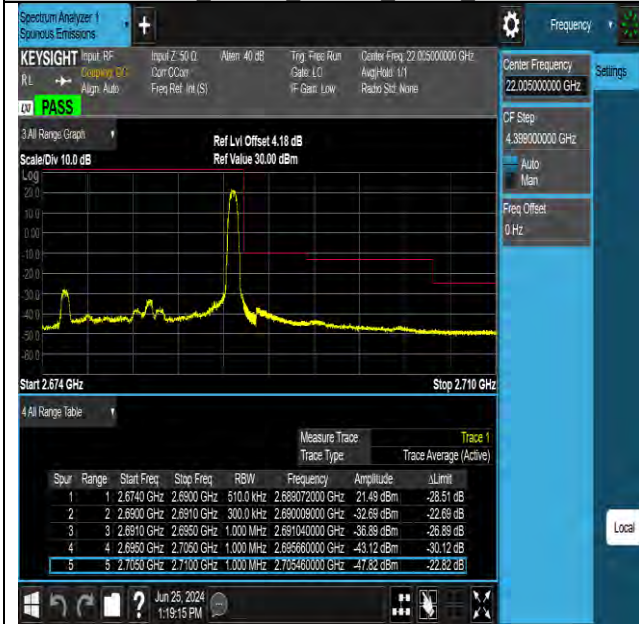
Test Report No.: W7L-P24050014RF08



Band41 15MHz 16QAM 39725 1RB#0



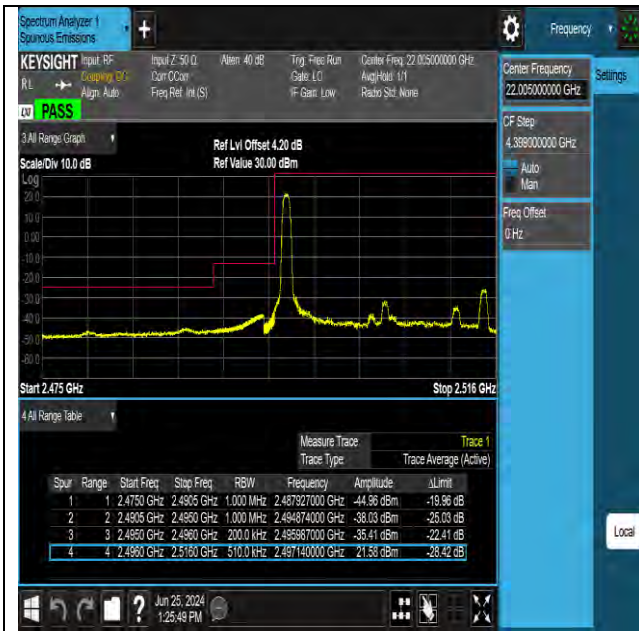
Band41 15MHz 16QAM 39725 75RB#0



Band41 15MHz 16QAM 41515 1RB#74



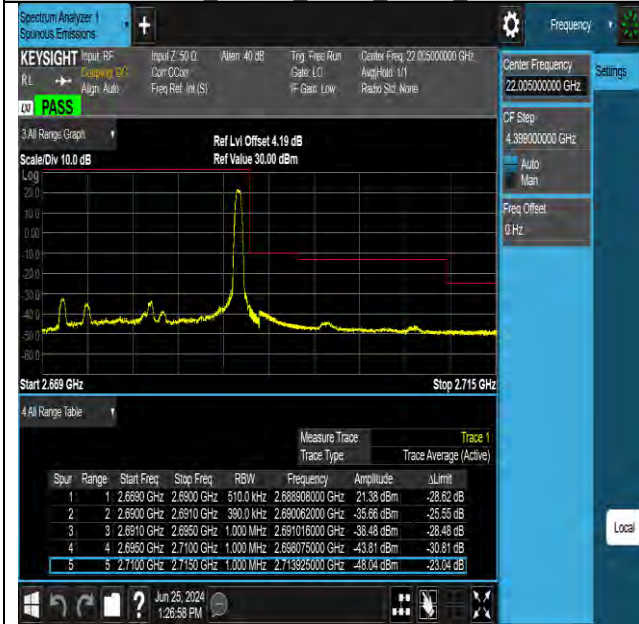
Band41 15MHz 16QAM 41515 75RB#0



Band41 20MHz QPSK 39750 1RB#0



Band41 20MHz QPSK 39750 100RB#0



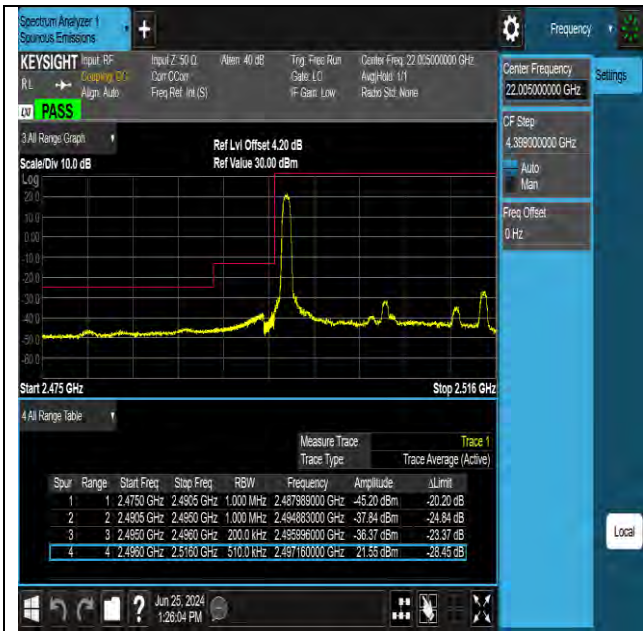
Band41 20MHz QPSK 41490 1RB#99



Band41 20MHz QPSK 41490 100RB#0



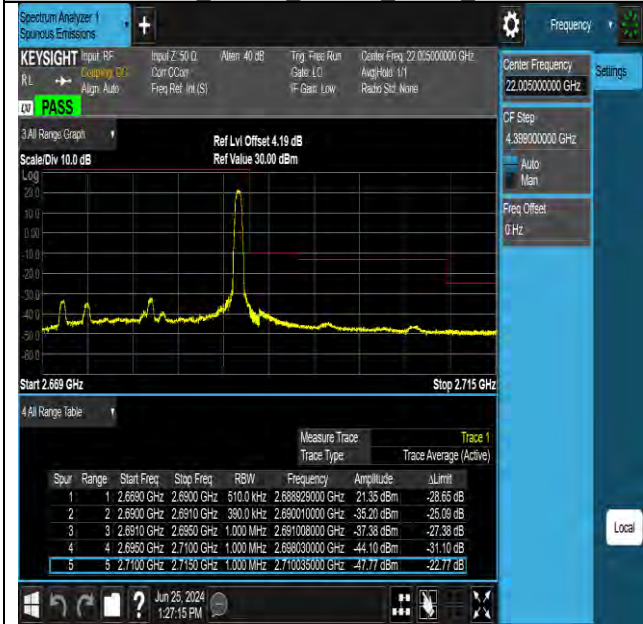
Test Report No.: W7L-P24050014RF08



Band41_20MHz_16QAM_39750_1RB#0



Band41_20MHz_16QAM_39750_100RB#0



Band41_20MHz_16QAM_41490_1RB#99



Band41_20MHz_16QAM_41490_100RB#0



Test Report No.: W7L-P24050014RF08

CONDUCTED SPURIOUS EMISSION

Test Result

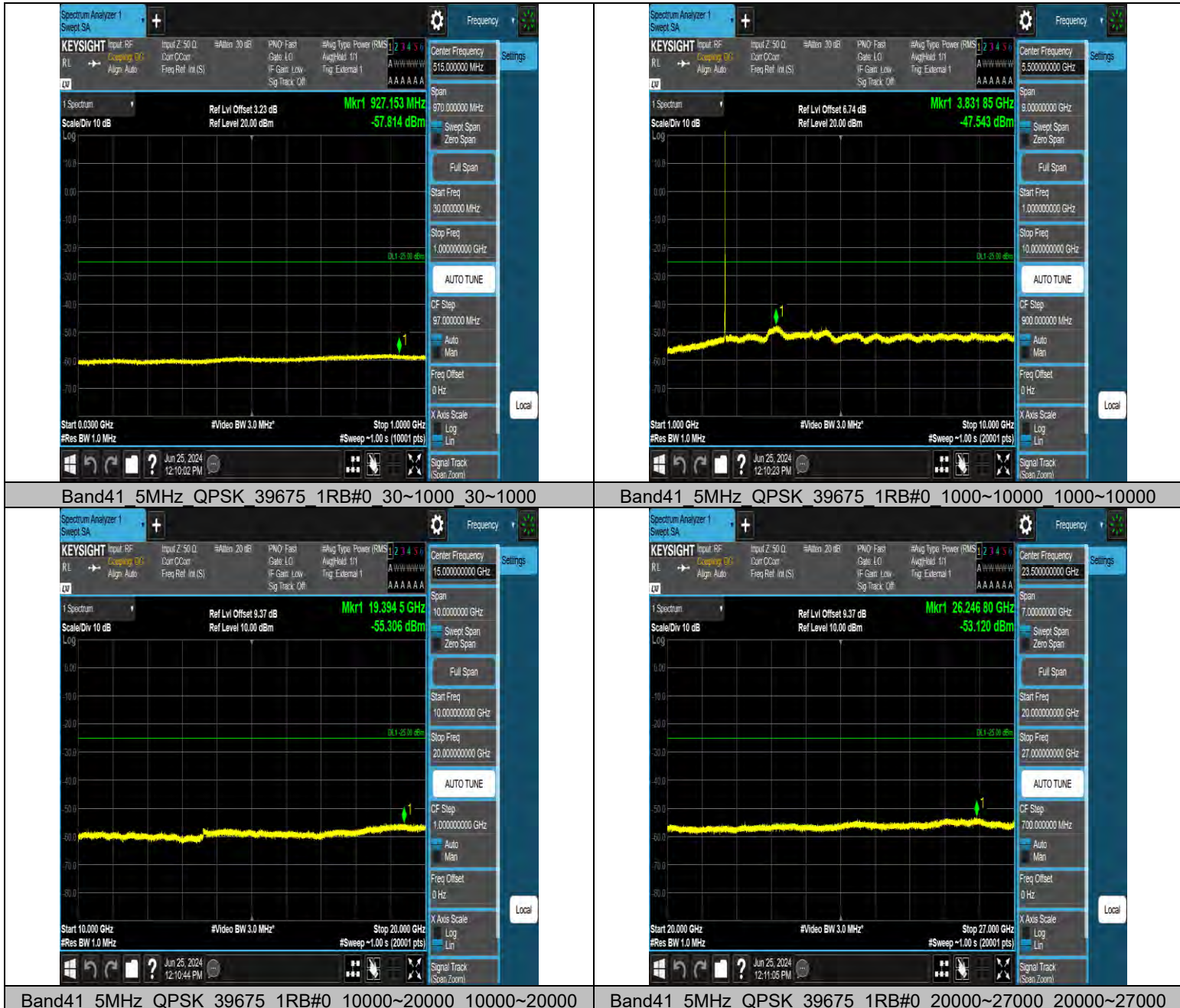
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	30~1000	-57.81	PASS
Band41	5MHz	QPSK	39675	1RB#0	1000~10000	-47.54	PASS
Band41	5MHz	QPSK	39675	1RB#0	10000~20000	-55.31	PASS
Band41	5MHz	QPSK	39675	1RB#0	20000~27000	-53.12	PASS
Band41	5MHz	QPSK	40620	1RB#0	30~1000	-55.38	PASS
Band41	5MHz	QPSK	40620	1RB#0	1000~10000	-47.57	PASS
Band41	5MHz	QPSK	40620	1RB#0	10000~20000	-54.90	PASS
Band41	5MHz	QPSK	40620	1RB#0	20000~27000	-53.12	PASS
Band41	5MHz	QPSK	41565	1RB#0	30~1000	-52.80	PASS
Band41	5MHz	QPSK	41565	1RB#0	1000~10000	-42.76	PASS
Band41	5MHz	QPSK	41565	1RB#0	10000~20000	-55.31	PASS
Band41	5MHz	QPSK	41565	1RB#0	20000~27000	-53.36	PASS
Band41	10MHz	QPSK	39700	1RB#0	30~1000	-57.49	PASS
Band41	10MHz	QPSK	39700	1RB#0	1000~10000	-47.63	PASS
Band41	10MHz	QPSK	39700	1RB#0	10000~20000	-55.26	PASS
Band41	10MHz	QPSK	39700	1RB#0	20000~27000	-52.89	PASS
Band41	10MHz	QPSK	40620	1RB#0	30~1000	-57.39	PASS
Band41	10MHz	QPSK	40620	1RB#0	1000~10000	-47.47	PASS
Band41	10MHz	QPSK	40620	1RB#0	10000~20000	-55.24	PASS
Band41	10MHz	QPSK	40620	1RB#0	20000~27000	-53.21	PASS
Band41	10MHz	QPSK	41540	1RB#0	30~1000	-51.83	PASS
Band41	10MHz	QPSK	41540	1RB#0	1000~10000	-44.56	PASS
Band41	10MHz	QPSK	41540	1RB#0	10000~20000	-54.83	PASS
Band41	10MHz	QPSK	41540	1RB#0	20000~27000	-53.11	PASS
Band41	15MHz	QPSK	39725	1RB#0	30~1000	-57.50	PASS
Band41	15MHz	QPSK	39725	1RB#0	1000~10000	-47.63	PASS
Band41	15MHz	QPSK	39725	1RB#0	10000~20000	-55.24	PASS
Band41	15MHz	QPSK	39725	1RB#0	20000~27000	-53.17	PASS
Band41	15MHz	QPSK	40620	1RB#0	30~1000	-57.55	PASS
Band41	15MHz	QPSK	40620	1RB#0	1000~10000	-47.44	PASS
Band41	15MHz	QPSK	40620	1RB#0	10000~20000	-55.06	PASS
Band41	15MHz	QPSK	40620	1RB#0	20000~27000	-53.04	PASS
Band41	15MHz	QPSK	41515	1RB#0	30~1000	-52.36	PASS
Band41	15MHz	QPSK	41515	1RB#0	1000~10000	-45.24	PASS
Band41	15MHz	QPSK	41515	1RB#0	10000~20000	-54.98	PASS
Band41	15MHz	QPSK	41515	1RB#0	20000~27000	-53.04	PASS
Band41	20MHz	QPSK	39750	1RB#0	30~1000	-57.51	PASS
Band41	20MHz	QPSK	39750	1RB#0	1000~10000	-47.67	PASS
Band41	20MHz	QPSK	39750	1RB#0	10000~20000	-55.08	PASS
Band41	20MHz	QPSK	39750	1RB#0	20000~27000	-53.03	PASS
Band41	20MHz	QPSK	40620	1RB#0	30~1000	-57.56	PASS
Band41	20MHz	QPSK	40620	1RB#0	1000~10000	-47.64	PASS
Band41	20MHz	QPSK	40620	1RB#0	10000~20000	-54.73	PASS
Band41	20MHz	QPSK	40620	1RB#0	20000~27000	-52.87	PASS



Test Report No.: W7L-P24050014RF08

Band41	20MHz	QPSK	41490	1RB#0	30~1000	-52.61	PASS
Band41	20MHz	QPSK	41490	1RB#0	1000~10000	-47.66	PASS
Band41	20MHz	QPSK	41490	1RB#0	10000~20000	-55.17	PASS
Band41	20MHz	QPSK	41490	1RB#0	20000~27000	-52.86	PASS

Test Graphs



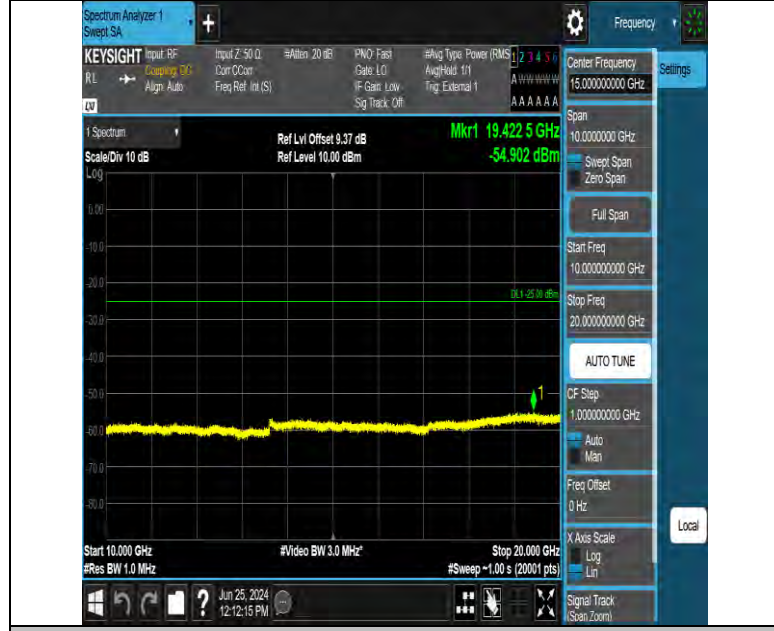


Test Report No.: W7L-P24050014RF08



Band41 5MHz QPSK 40620 1RB#0 30~1000 30~1000

Band41 5MHz QPSK 40620 1RB#0 1000~10000 1000~10000



Band41 5MHz QPSK 40620 1RB#0 10000~20000 10000~20000

Band41 5MHz QPSK 40620 1RB#0 20000~27000 20000~27000

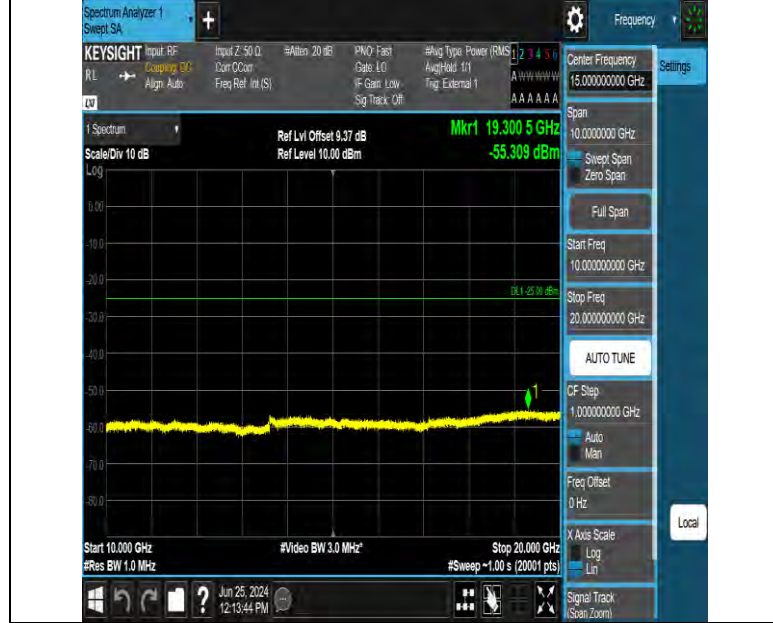


Test Report No.: W7L-P24050014RF08



Band41 5MHz QPSK 41565 1RB#0 30~1000 30~1000

Band41 5MHz QPSK 41565 1RB#0 1000~10000 1000~10000



Band41 5MHz QPSK 41565 1RB#0 10000~20000 10000~20000

Band41 5MHz QPSK 41565 1RB#0 20000~27000 20000~27000

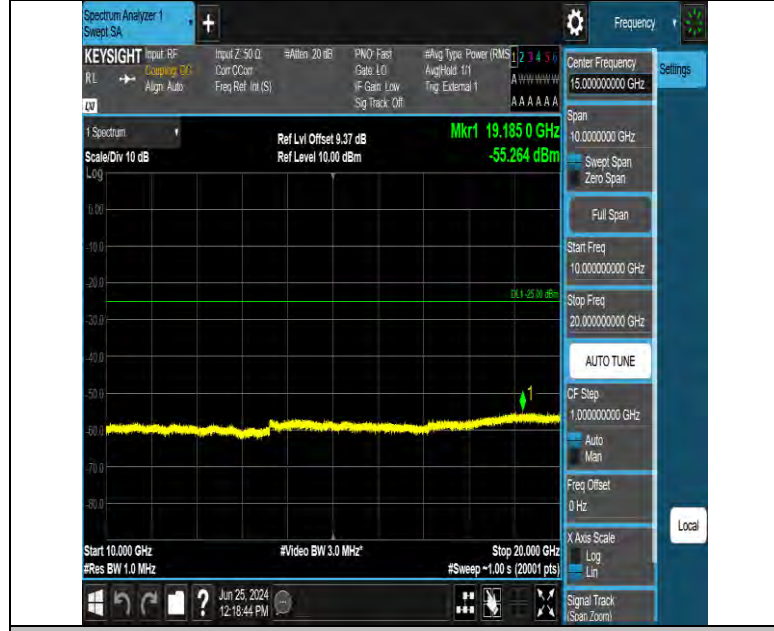


Test Report No.: W7L-P24050014RF08



Band41 10MHz QPSK 39700 1RB#0 30~1000 30~1000

Band41 10MHz QPSK 39700 1RB#0 1000~10000 1000~10000



Band41 10MHz QPSK 39700 1RB#0 10000~20000 10000~20000

Band41 10MHz QPSK 39700 1RB#0 20000~27000 20000~27000

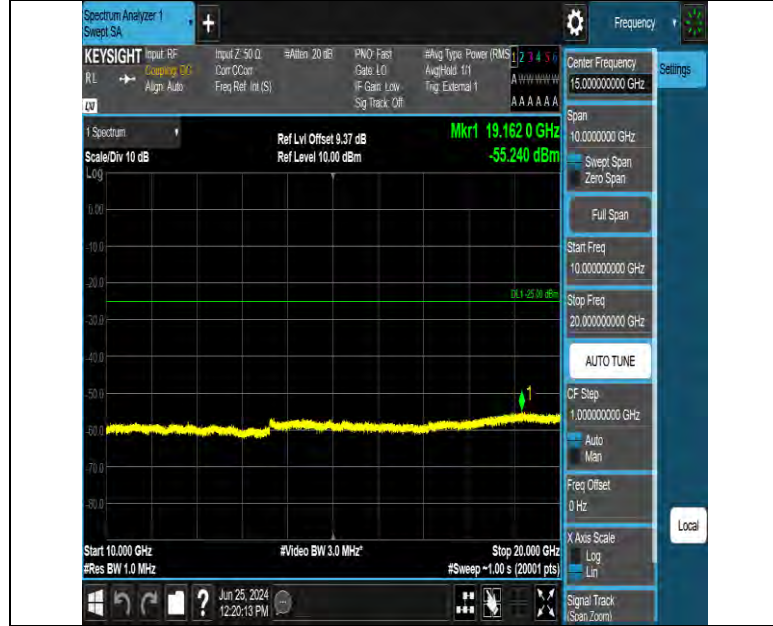


Test Report No.: W7L-P24050014RF08



Band41 10MHz QPSK 40620 1RB#0 30~1000 30~1000

Band41 10MHz QPSK 40620 1RB#0 1000~10000 1000~10000



Band41 10MHz QPSK 40620 1RB#0 10000~20000 10000~20000

Band41 10MHz QPSK 40620 1RB#0 20000~27000 20000~27000



Test Report No.: W7L-P24050014RF08



Band41 10MHz QPSK 41540 1RB#0 30~1000 30~1000

Band41 10MHz QPSK 41540 1RB#0 1000~10000 1000~10000



Band41 10MHz QPSK 41540 1RB#0 10000~20000 10000~20000

Band41 10MHz QPSK 41540 1RB#0 20000~27000 20000~27000

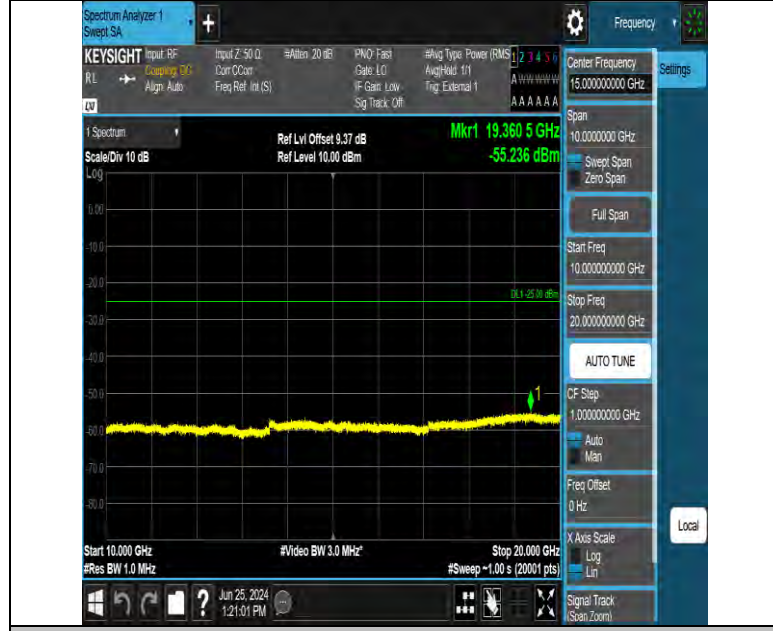


Test Report No.: W7L-P24050014RF08



Band41 15MHz QPSK 39725 1RB#0 30~1000 30~1000

Band41 15MHz QPSK 39725 1RB#0 1000~10000 1000~10000



Band41 15MHz QPSK 39725 1RB#0 10000~20000 10000~20000

Band41 15MHz QPSK 39725 1RB#0 20000~27000 20000~27000

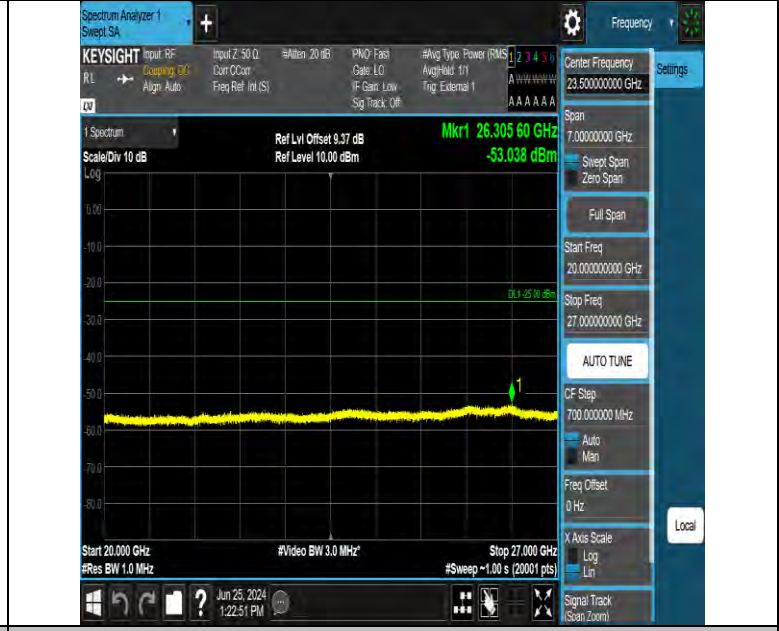
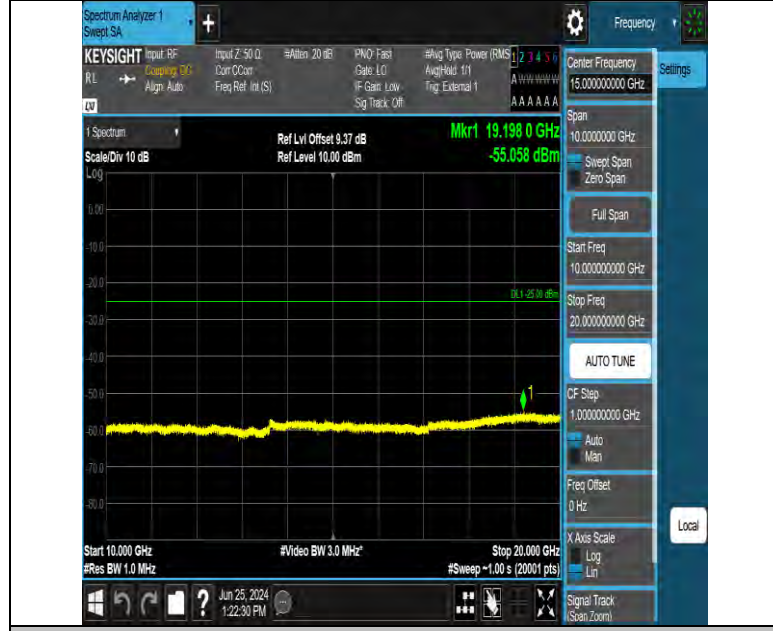


Test Report No.: W7L-P24050014RF08



Band41 15MHz QPSK 40620 1RB#0 30~1000 30~1000

Band41 15MHz QPSK 40620 1RB#0 1000~10000 1000~10000



Band41 15MHz QPSK 40620 1RB#0 10000~20000 10000~20000

Band41 15MHz QPSK 40620 1RB#0 20000~27000 20000~27000

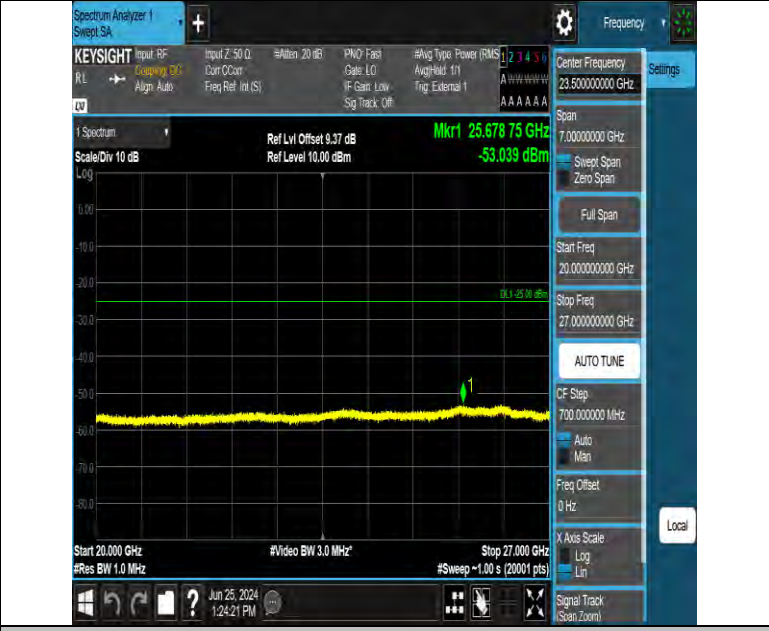
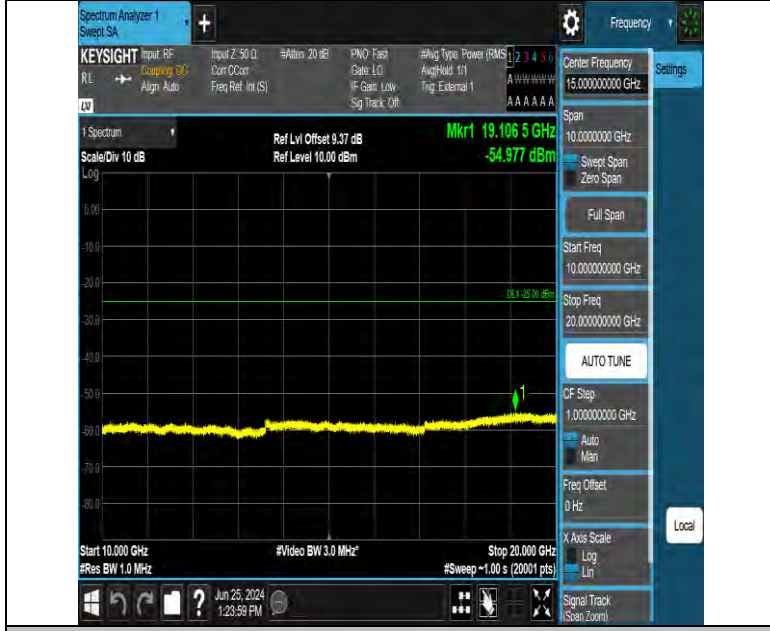


Test Report No.: W7L-P24050014RF08



Band41 15MHz QPSK 41515 1RB#0 30~1000 30~1000

Band41 15MHz QPSK 41515 1RB#0 1000~10000 1000~10000



Band41 15MHz QPSK 41515 1RB#0 10000~20000 10000~20000

Band41 15MHz QPSK 41515 1RB#0 20000~27000 20000~27000

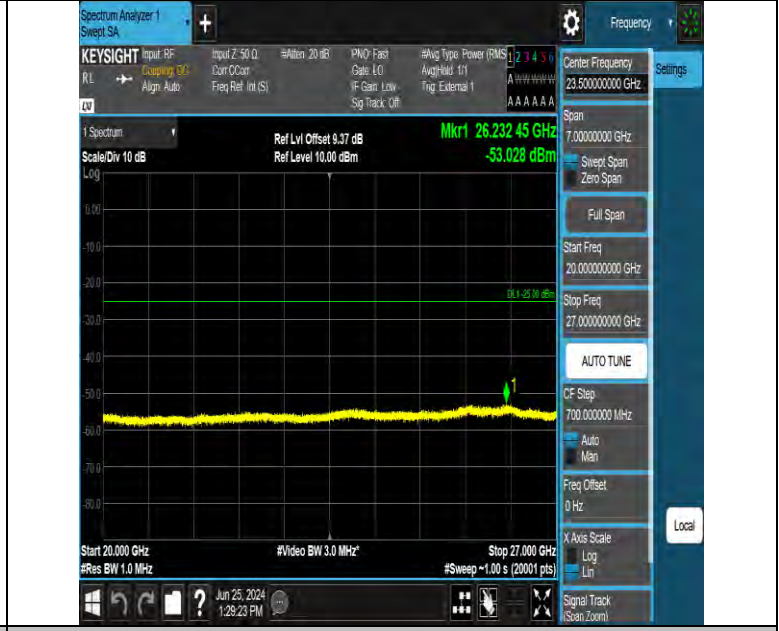
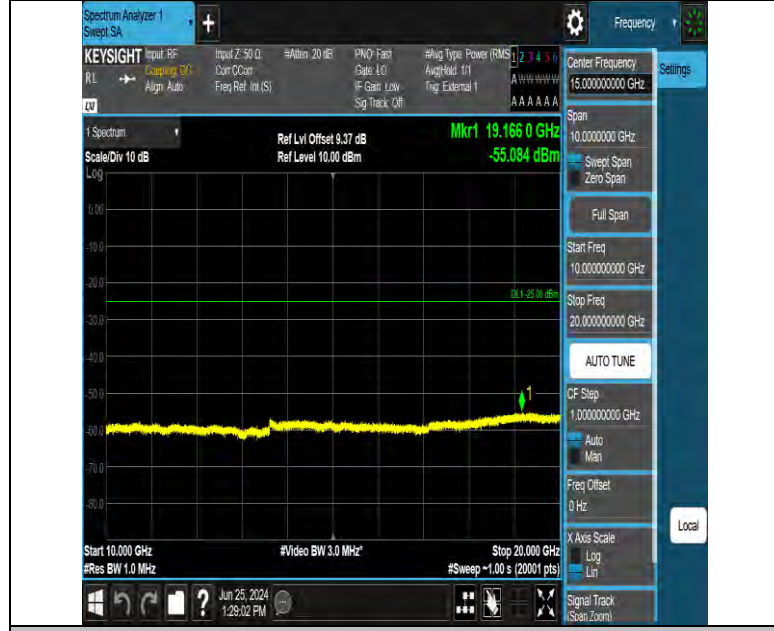


Test Report No.: W7L-P24050014RF08



Band41 20MHz QPSK 39750 1RB#0 30~1000 30~1000

Band41 20MHz QPSK 39750 1RB#0 1000~10000 1000~10000



Band41 20MHz QPSK 39750 1RB#0 10000~20000 10000~20000

Band41 20MHz QPSK 39750 1RB#0 20000~27000 20000~27000

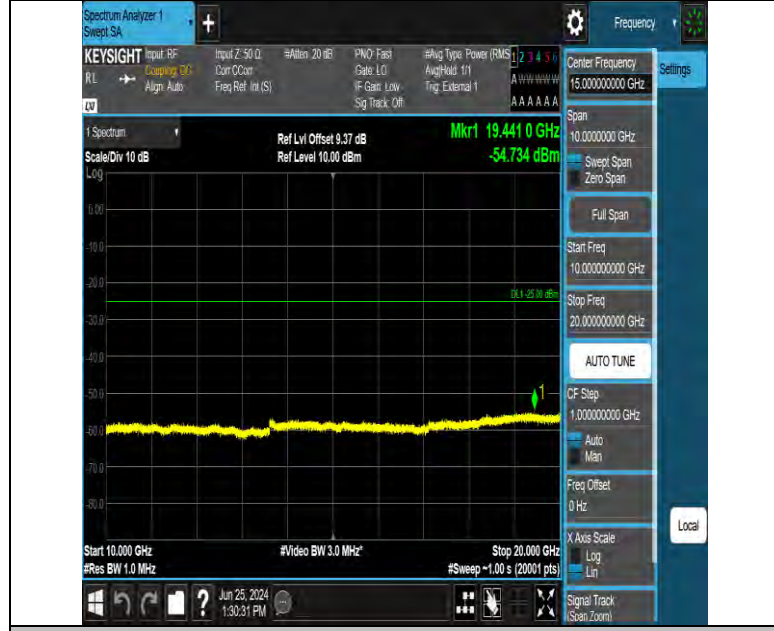


Test Report No.: W7L-P24050014RF08



Band41 20MHz QPSK 40620 1RB#0 30~1000 30~1000

Band41 20MHz QPSK 40620 1RB#0 1000~10000 1000~10000



Band41 20MHz QPSK 40620 1RB#0 10000~20000 10000~20000

Band41 20MHz QPSK 40620 1RB#0 20000~27000 20000~27000

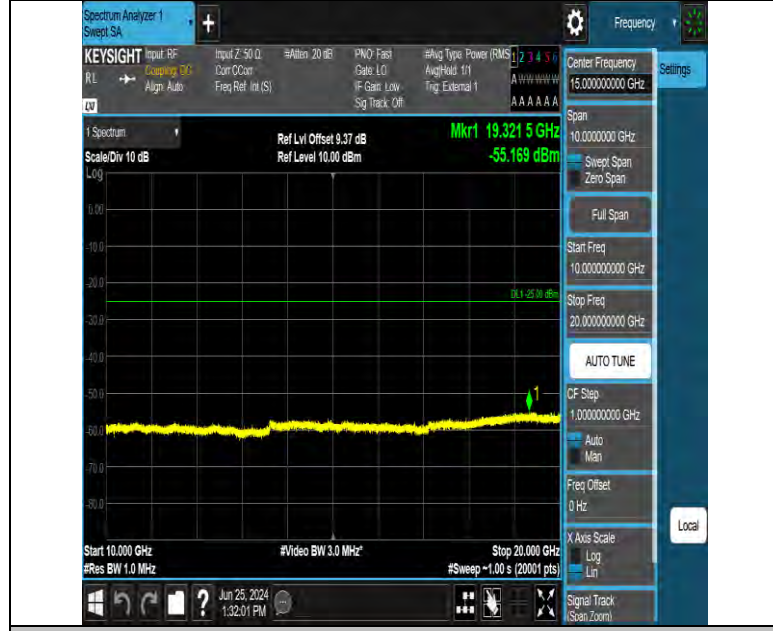


Test Report No.: W7L-P24050014RF08



Band41 20MHz QPSK 41490 1RB#0 30~1000 30~1000

Band41 20MHz QPSK 41490 1RB#0 1000~10000 1000~10000



Band41 20MHz QPSK 41490 1RB#0 10000~20000 10000~20000

Band41 20MHz QPSK 41490 1RB#0 20000~27000 20000~27000

FREQUENCY STABILITY

Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band4_1	10MHz	QPSK	39700	50RB#0	VN	NT	4830.00	1.931228	2496.53853	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	VL	NT	4870.00	1.947221	2496.53867	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	VH	NT	4800.00	1.919232	2496.5385	---	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	VN	NT	-1240.00	-0.461825	---	2689.46631	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	VL	NT	-1280.00	-0.476723	---	2689.46622	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	VH	NT	-1350.00	-0.502793	---	2689.4664	2496-2690	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band4_1	10MHz	QPSK	39700	50RB#0	NV	-30	4650.00	1.859256	2496.53835	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	-20	4820.00	1.927229	2496.53852	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	-10	4820.00	1.927229	2496.53842	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	0	4830.00	1.931228	2496.53858	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	10	4780.00	1.911236	2496.53848	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	20	4820.00	1.927229	2496.53857	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	30	4710.00	1.883247	2496.53851	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	40	4700.00	1.879248	2496.5383	---	2496-2690	PASS
Band4_1	10MHz	QPSK	39700	50RB#0	NV	50	4780.00	1.911236	2496.53853	---	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	NV	-30	-1660.00	-0.618250	---	2689.46604	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	NV	-20	-1580.00	-0.588454	---	2689.46597	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	NV	-10	-1240.00	-0.461825	---	2689.46626	2496-2690	PASS
Band4_1	10MHz	QPSK	41540	50RB#0	NV	0	-1870.00	-0.696	---	2689.4664	2496-2690	PASS



BUREAU
VERITAS

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1	z			#0			00	462		46613	2690	
Band4 1	10MH z	QPSK	41540	50RB #0	NV	10	-1300. 00	-0.484 171	---	2689. 4661	2496- 2690	PASS
Band4 1	10MH z	QPSK	41540	50RB #0	NV	20	-1360. 00	-0.506 518	---	2689. 46619	2496- 2690	PASS
Band4 1	10MH z	QPSK	41540	50RB #0	NV	30	-1160. 00	-0.432 030	---	2689. 46634	2496- 2690	PASS
Band4 1	10MH z	QPSK	41540	50RB #0	NV	40	-1630. 00	-0.607 076	---	2689. 46602	2496- 2690	PASS
Band4 1	10MH z	QPSK	41540	50RB #0	NV	50	-1540. 00	-0.573 557	---	2689. 46616	2496- 2690	PASS



Test Report No.: W7L-P24050014RF08

LTE BAND66 (INDCLUDING LTE BAND4).

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band66	20MHz	QPSK	132072	1RB#0	5.00	13	PASS
Band66	20MHz	QPSK	132072	100RB#0	5.34	13	PASS
Band66	20MHz	QPSK	132322	1RB#0	5.06	13	PASS
Band66	20MHz	QPSK	132322	100RB#0	5.50	13	PASS
Band66	20MHz	QPSK	132572	1RB#0	5.26	13	PASS
Band66	20MHz	QPSK	132572	100RB#0	5.51	13	PASS

Test Graphs

