LTE BAND 13

Channel Bandwidth: 5MHz					
CHANNEL	23205	1 RB	CHANNEL	23255	1 RB
					
CHANNEL	23205	Full RB	CHANNEL	23255	Full RB
					

LTE BAND 13

Channel Bandwidth: 10MHz					
CHANNEL	23230	1 RB	CHANNEL	23230	1 RB
					
CHANNEL	23230	Full RB	CHANNEL	23230	Full RB
					

3.6 CONDUCTED SPURIOUS EMISSIONS

3.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 +10 log10(P) dB. The limit of emission equal to –13dBm

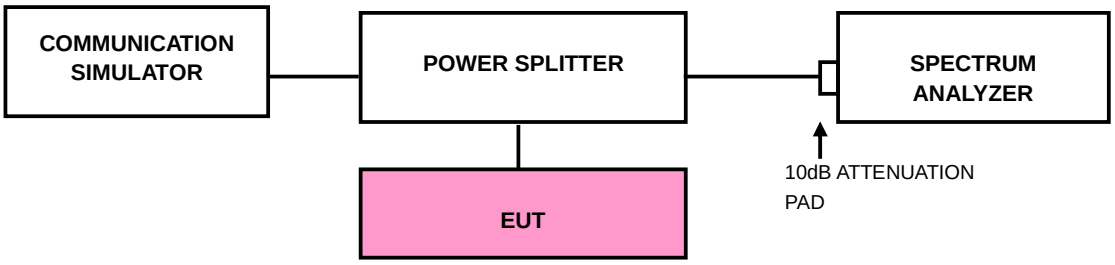
On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

3.6.2 TEST PROCEDURE

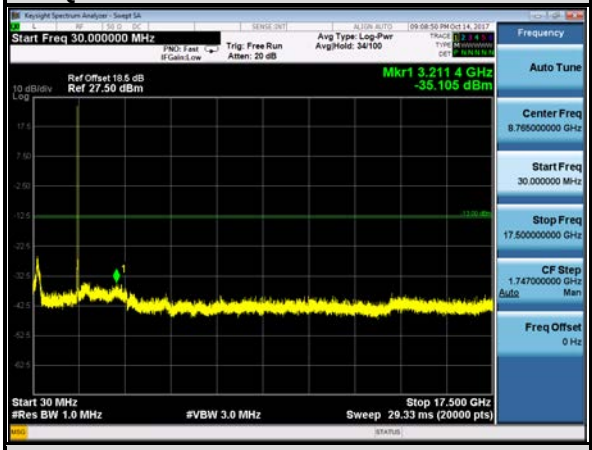
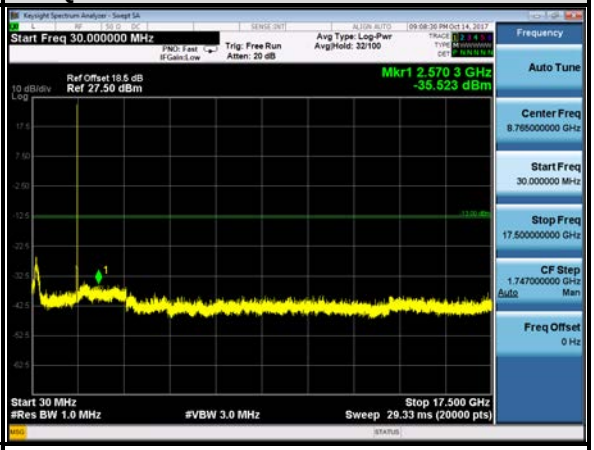
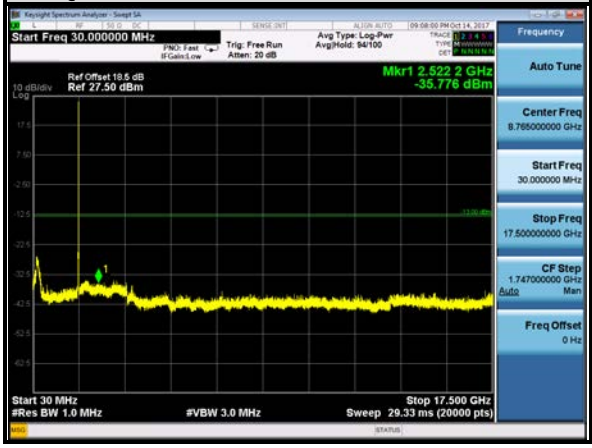
a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.

b. Measuring frequency range is from 30 MHz to 19GHz for WCDMA Band 4 & LTE Band 4, and 30 MHz to 9GHz for LTE Band 12& LTE Band 13. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

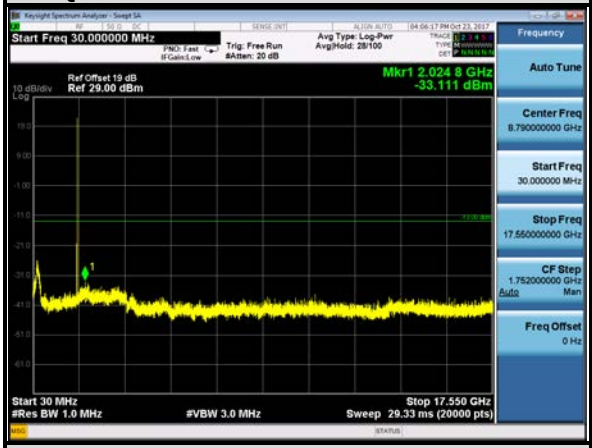
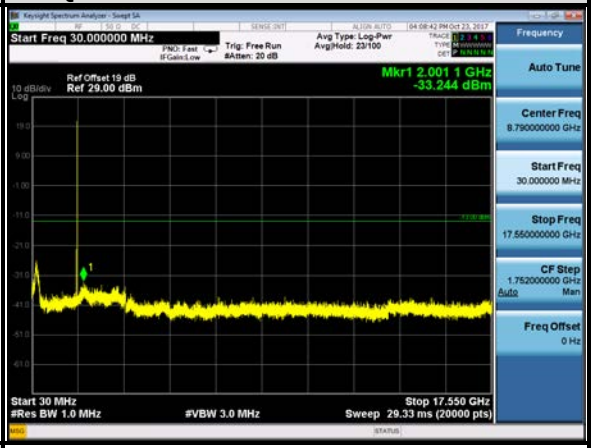
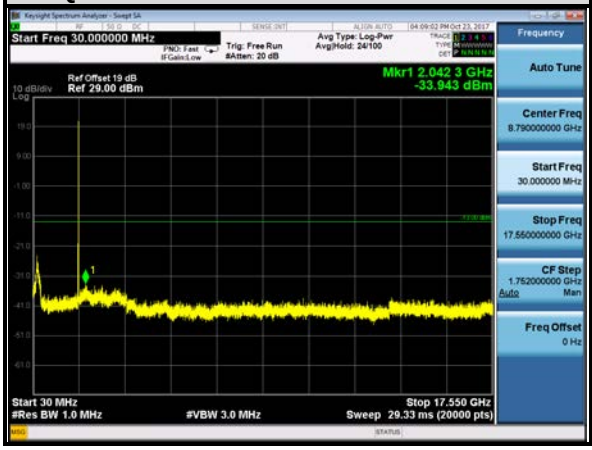
3.6.3 TEST SETUP

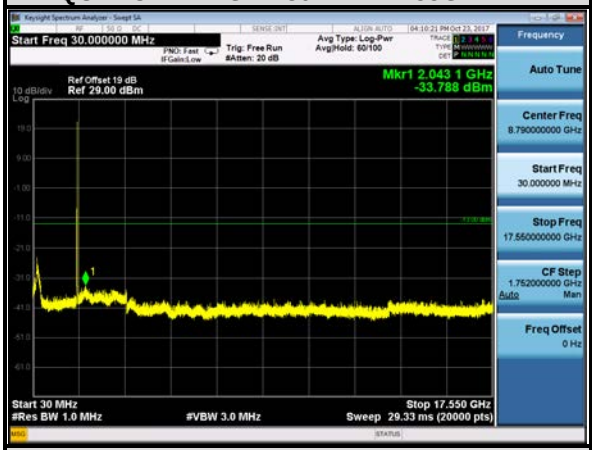
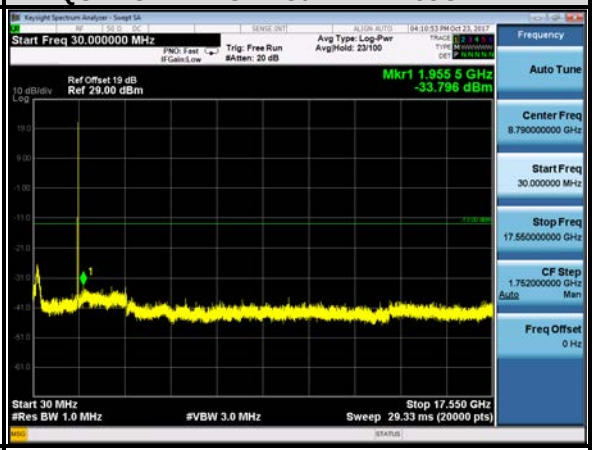
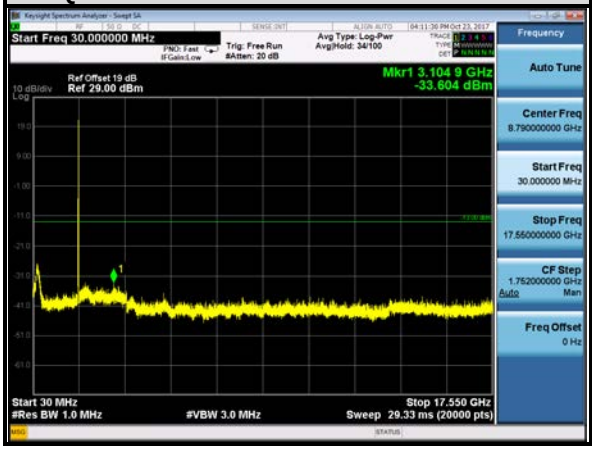


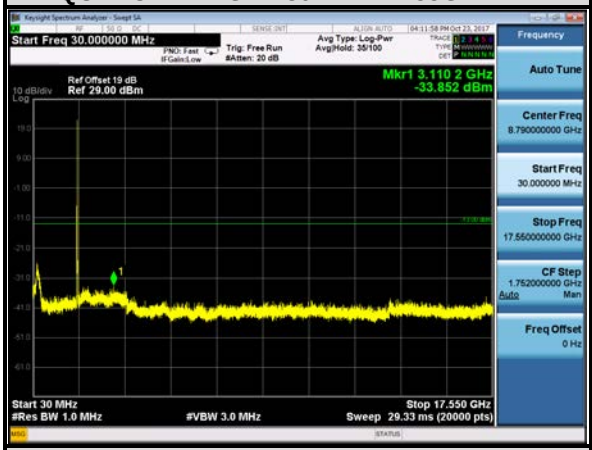
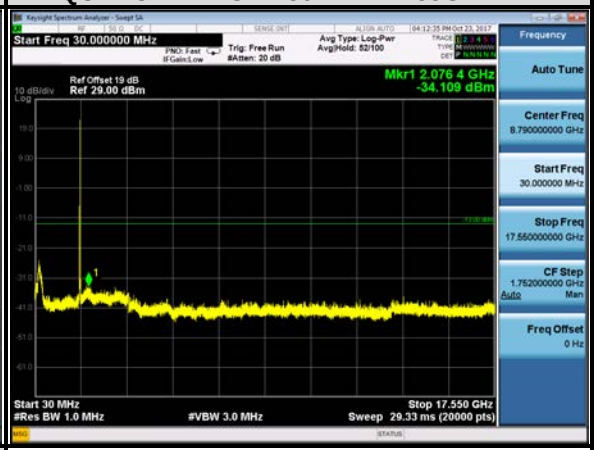
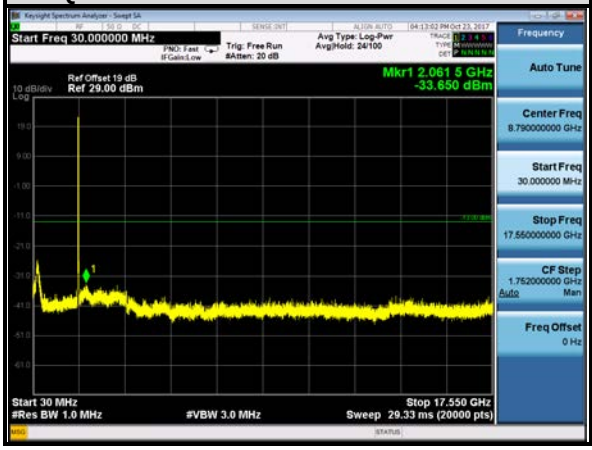
3.6.4 TEST RESULTS

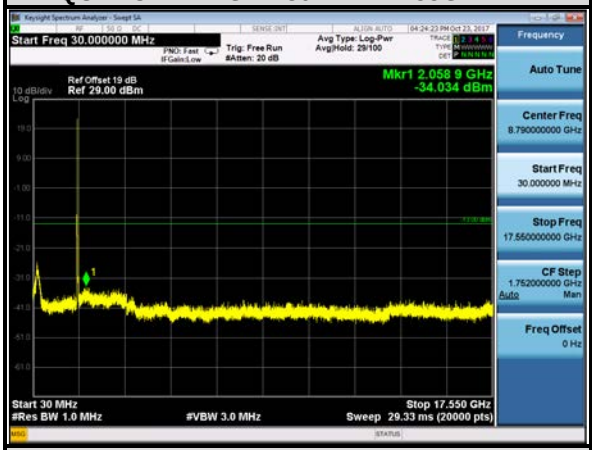
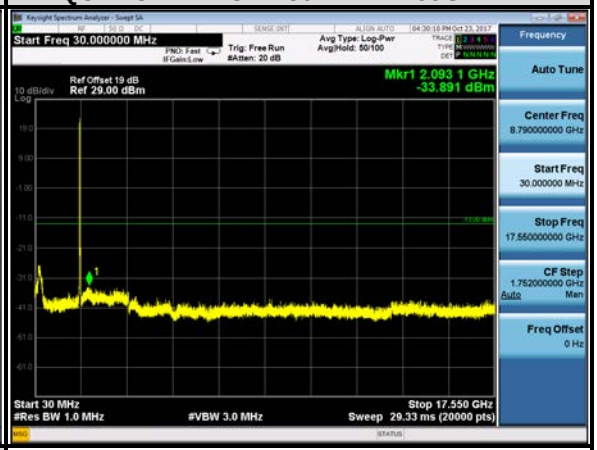
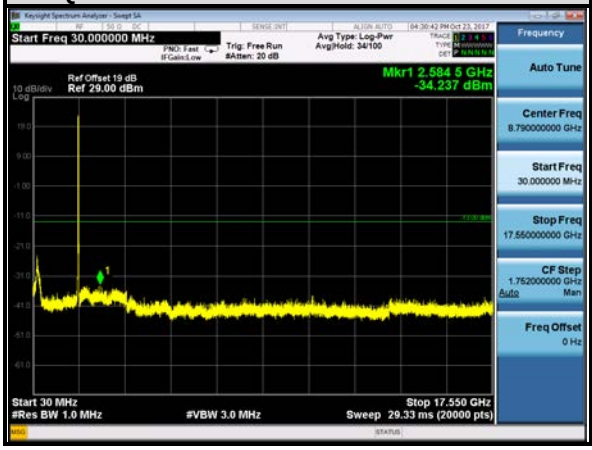
WCDMA	
CHANNEL 1312	CHANNEL 1413
FREQUENCY RANGE : 30MHz~17.5GHz	FREQUENCY RANGE : 30MHz~17.5GHz
	
CHANNEL 1513	
FREQUENCY RANGE : 30MHz~17.5GHz	
	

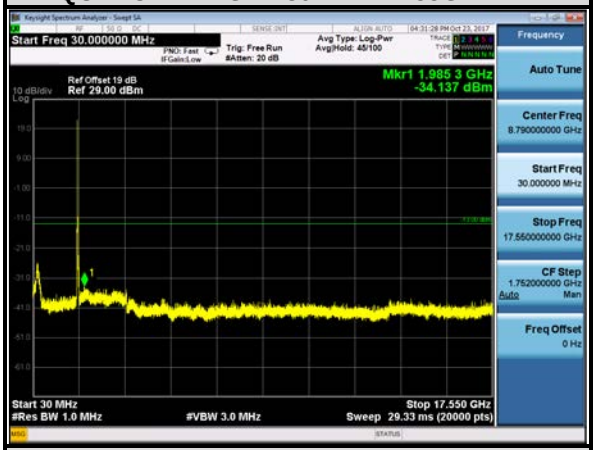
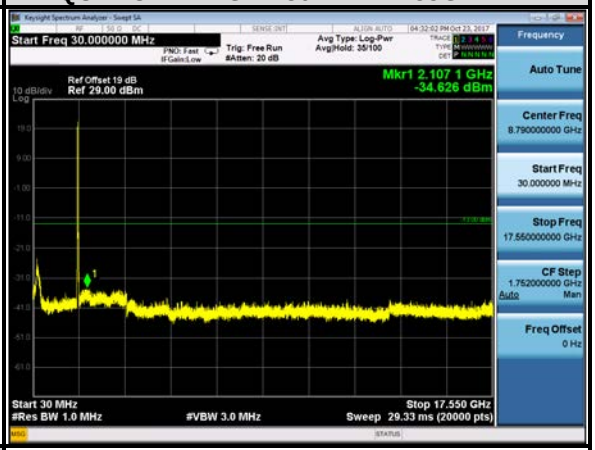
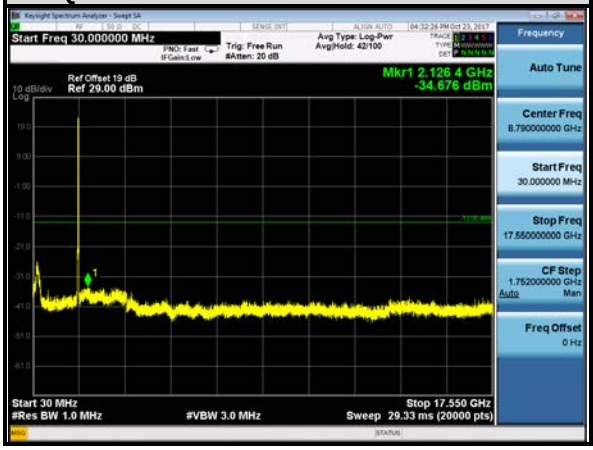
LTE BAND 4

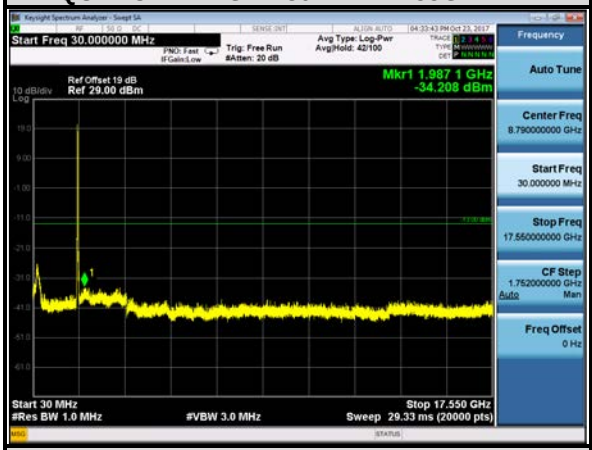
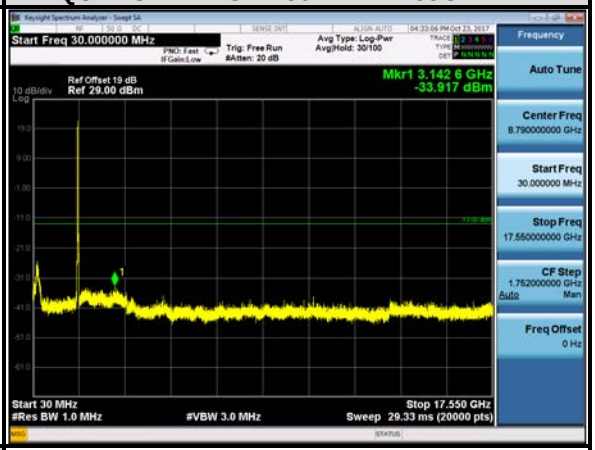
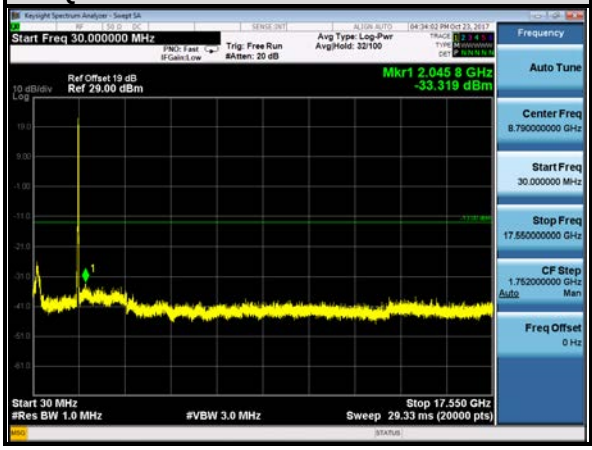
1.4MHz / QPSK	
CHANNEL 19957	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20393	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

3MHz / QPSK	
CHANNEL 19965	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20385	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

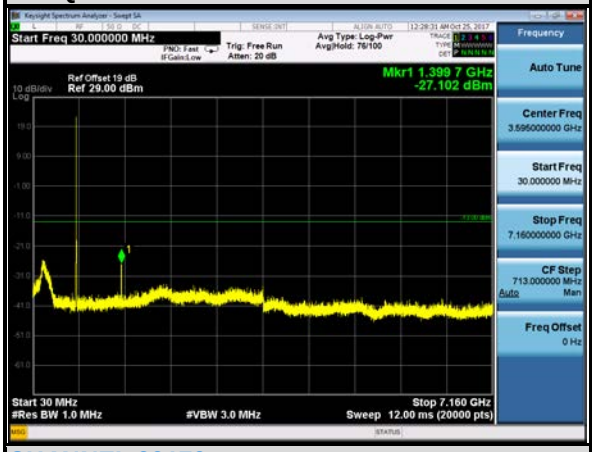
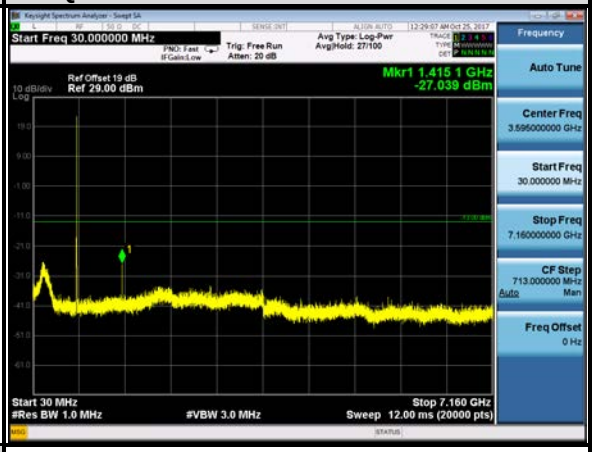
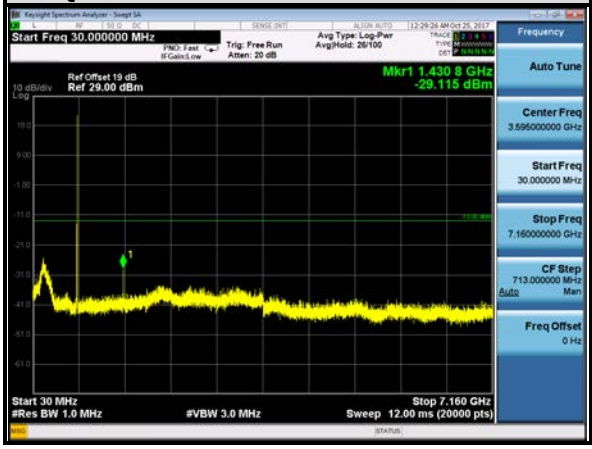
5MHz / QPSK	
CHANNEL 19975	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20375	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

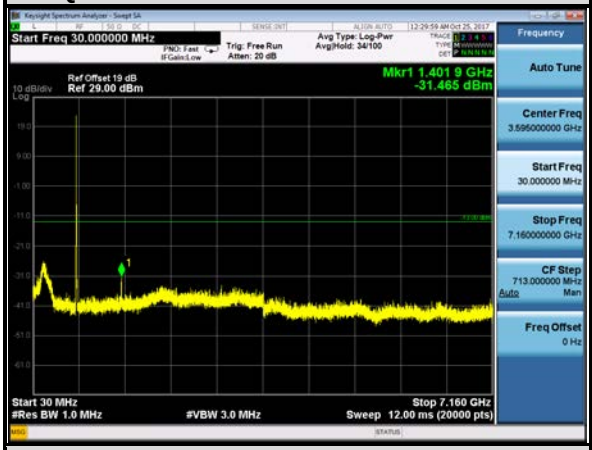
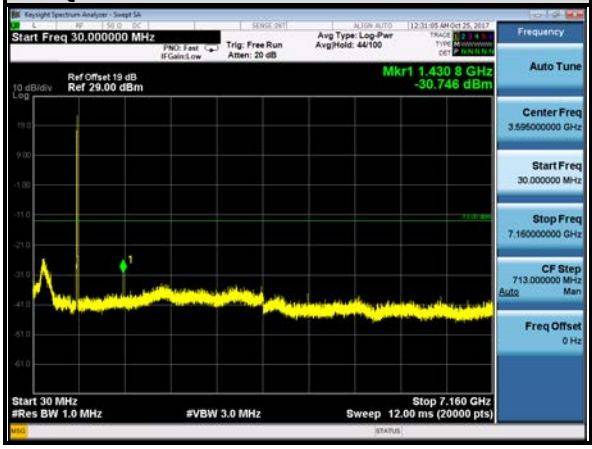
10MHz / QPSK	
CHANNEL 20000	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20350	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

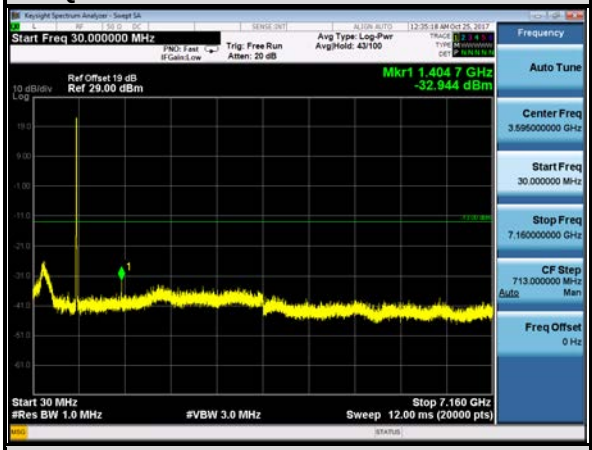
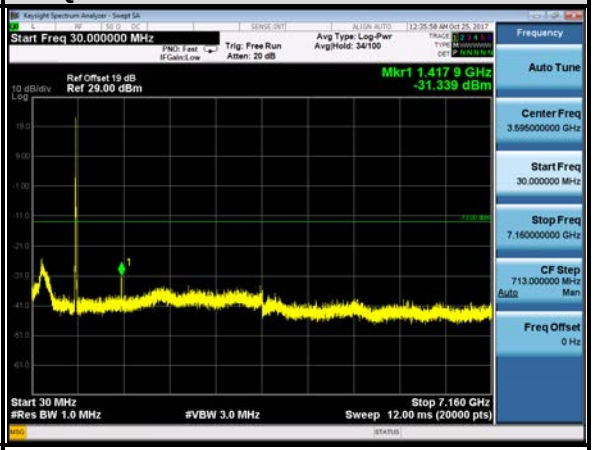
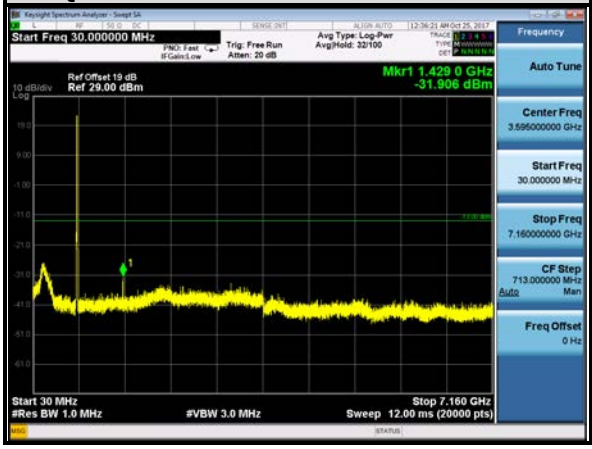
15MHz / QPSK	
CHANNEL 20025	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20325	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

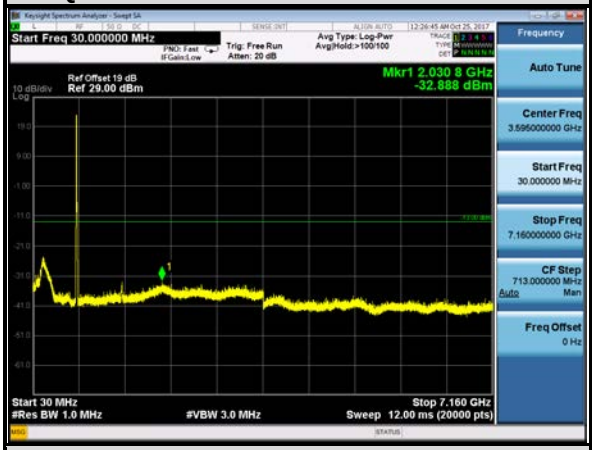
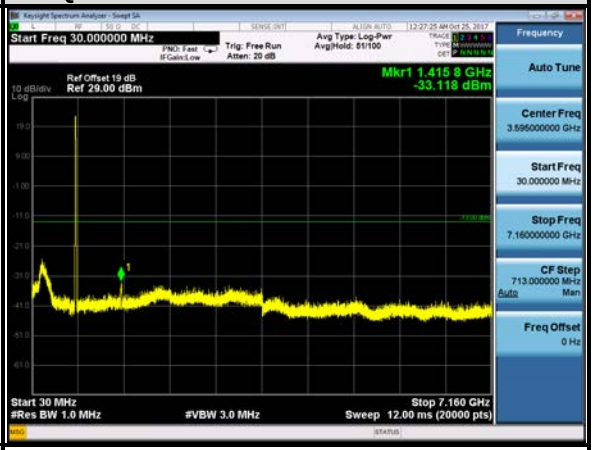
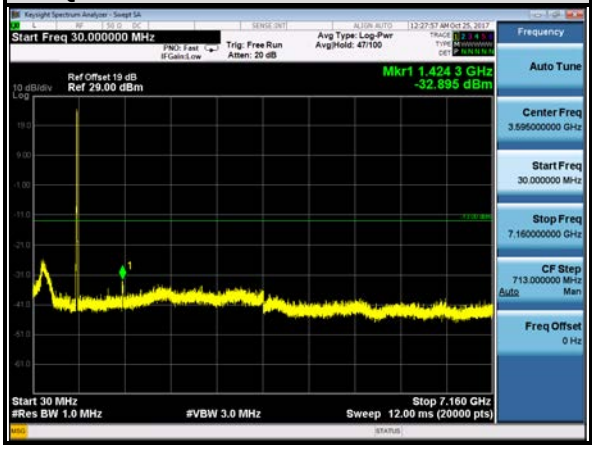
20MHz / QPSK	
CHANNEL 20050	CHANNEL 20175
FREQUENCY RANGE : 30MHz~17.55GHz	FREQUENCY RANGE : 30MHz~17.55GHz
	
CHANNEL 20300	
FREQUENCY RANGE : 30MHz~17.55GHz	
	

LTE BAND 12

1.4MHz / QPSK	
CHANNEL 23017	CHANNEL 23095
FREQUENCY RANGE : 30MHz~7.16GHz	FREQUENCY RANGE : 30MHz~7.16GHz
	
CHANNEL 23173	
FREQUENCY RANGE : 30MHz~7.16GHz	
	

3MHz / QPSK	
CHANNEL 23025	CHANNEL 23095
FREQUENCY RANGE : 30MHz~7.16GHz	FREQUENCY RANGE : 30MHz~7.16GHz
	
CHANNEL 23165	
FREQUENCY RANGE : 30MHz~7.16GHz	
	

5MHz / QPSK	
CHANNEL 23035	CHANNEL 23095
FREQUENCY RANGE : 30MHz~7.16GHz	FREQUENCY RANGE : 30MHz~7.16GHz
	
CHANNEL 23155	
FREQUENCY RANGE : 30MHz~7.16GHz	
	

10MHz / QPSK	
CHANNEL 23060	CHANNEL 23095
FREQUENCY RANGE : 30MHz~7.16GHz	FREQUENCY RANGE : 30MHz~7.16GHz
	
CHANNEL 23130	
FREQUENCY RANGE : 30MHz~7.16GHz	
	

LTE Band 13

5MHz / QPSK

CHANNEL 23205

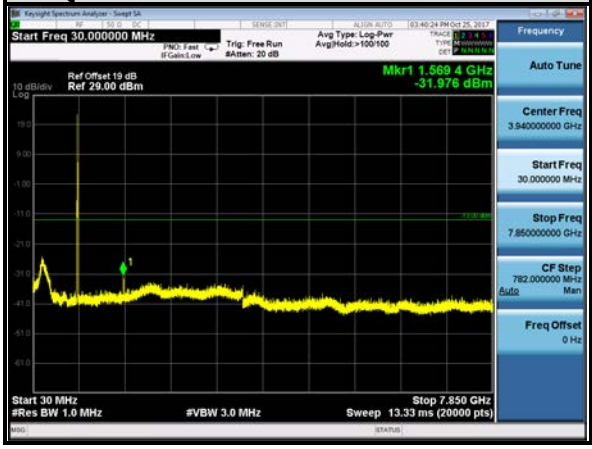
FREQUENCY RANGE : 30MHz~7.85GHz

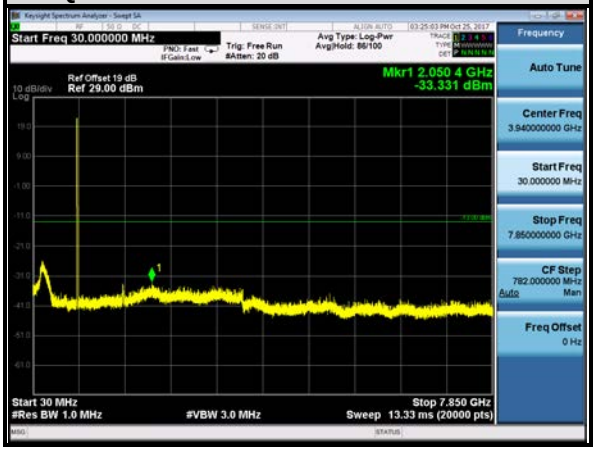
CHANNEL 23230

FREQUENCY RANGE : 30MHz~7.85GHz

CHANNEL 23255

FREQUENCY RANGE : 30MHz~7.85GHz



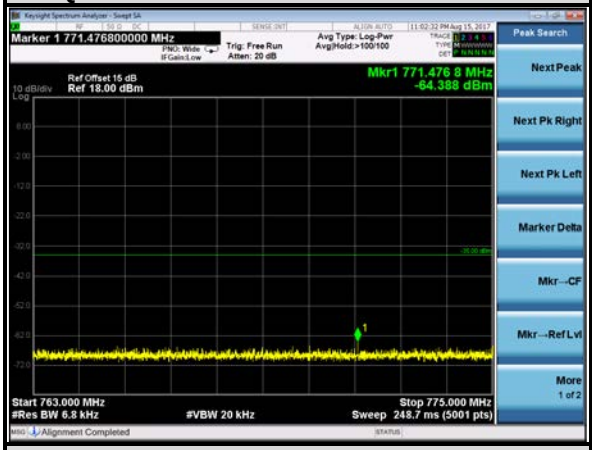
10MHz / QPSK	
CHANNEL 23230	
FREQUENCY RANGE : 30MHz~7.85GHz	
	

LTE BAND 13

5MHz / QPSK

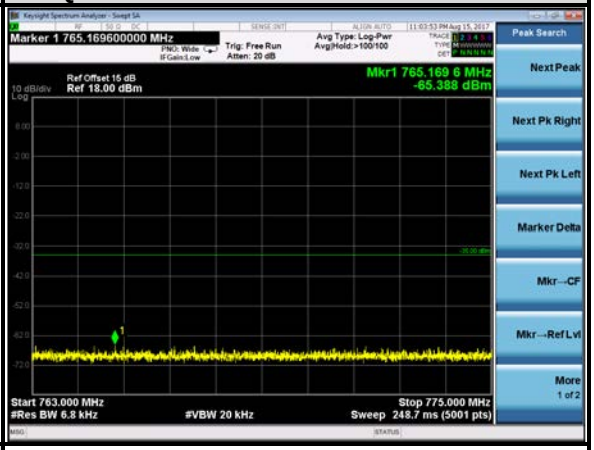
CHANNEL 23205

FREQUENCY RANGE : 763MHz~775MHz



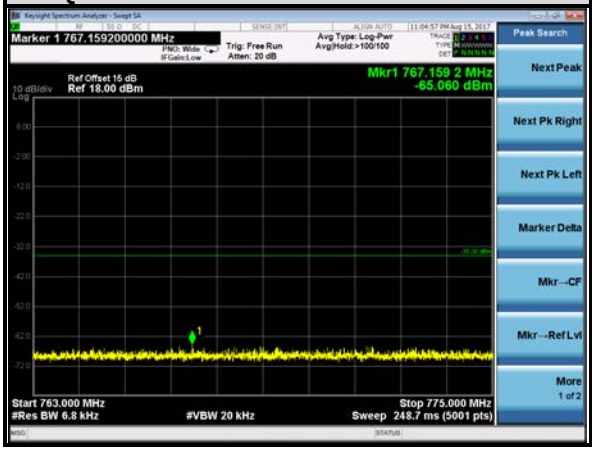
CHANNEL 23230

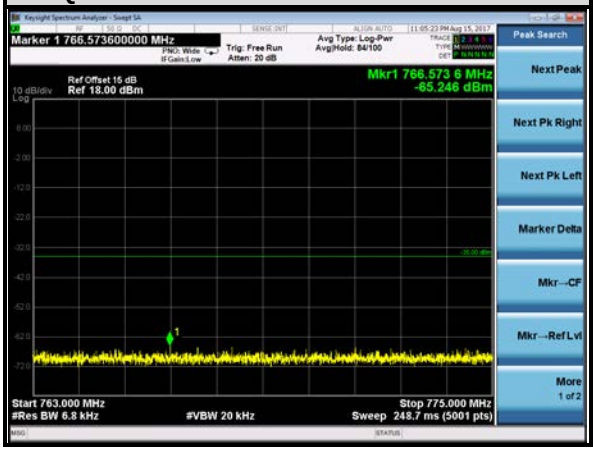
FREQUENCY RANGE : 763MHz~775MHz



CHANNEL 23255

FREQUENCY RANGE : 763MHz~775MHz



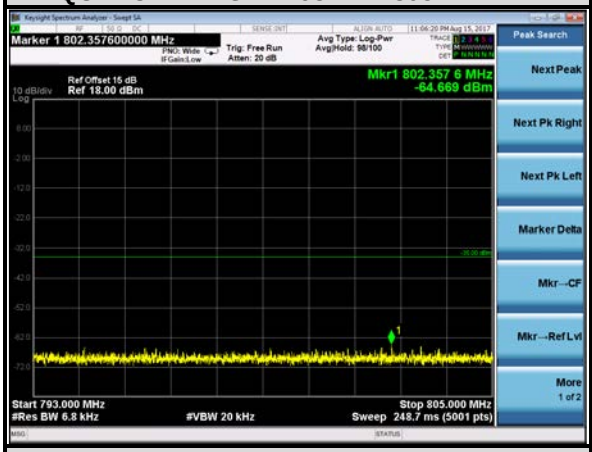
10MHz / QPSK	
CHANNEL 23230	
FREQUENCY RANGE : 763MHz~775MHz	
	

LTE BAND 13

5MHz / QPSK

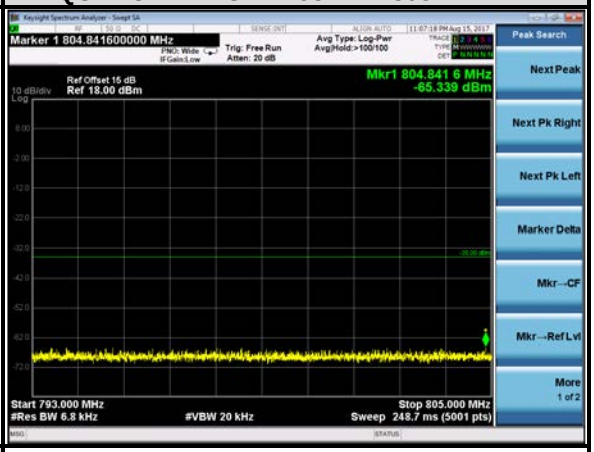
CHANNEL 23205

FREQUENCY RANGE : 793MHz~805MHz



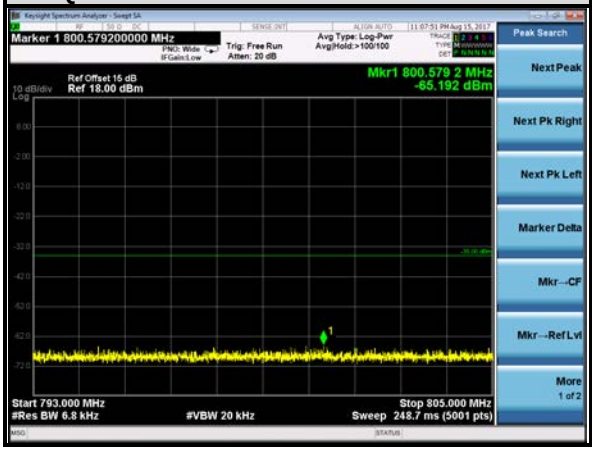
CHANNEL 23230

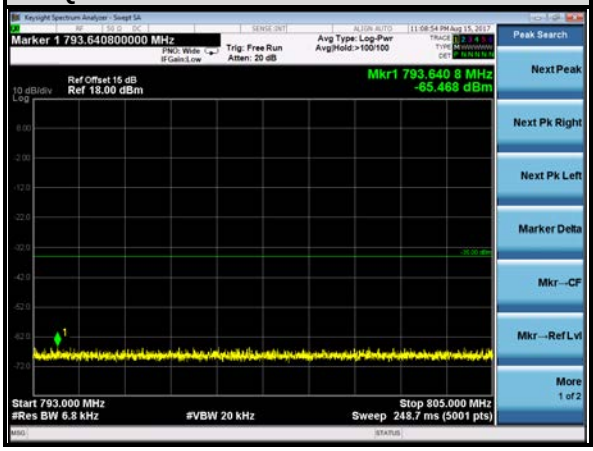
FREQUENCY RANGE : 793MHz~805MHz



CHANNEL 23255

FREQUENCY RANGE : 793MHz~805MHz



10MHz / QPSK	
CHANNEL 23230	
FREQUENCY RANGE : 793MHz~805MHz	
	

3.7 RADIATED EMISSION MEASUREMENT

3.7.1 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 43 +10 log10(P) dB. The limit of emission equal to –13dBm

3.7.2 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 = Output power level of S.G – TX cable loss + 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 power = E.I.P.R power - 2.15dBi.

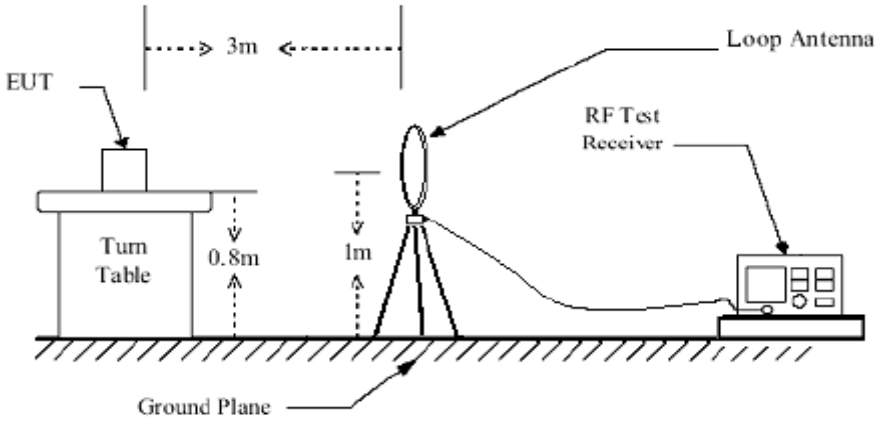
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

3.7.3 DEVIATION FROM TEST STANDARD

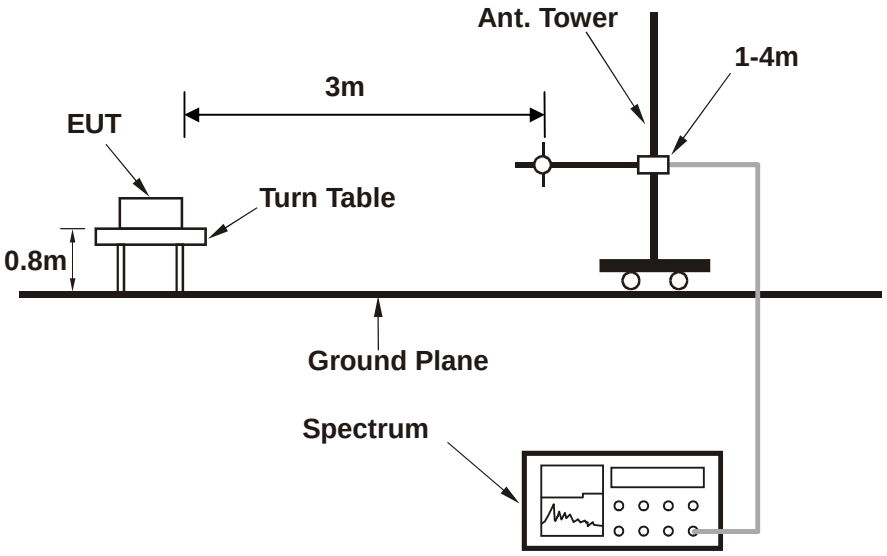
No deviation

3.7.4 TEST SETUP

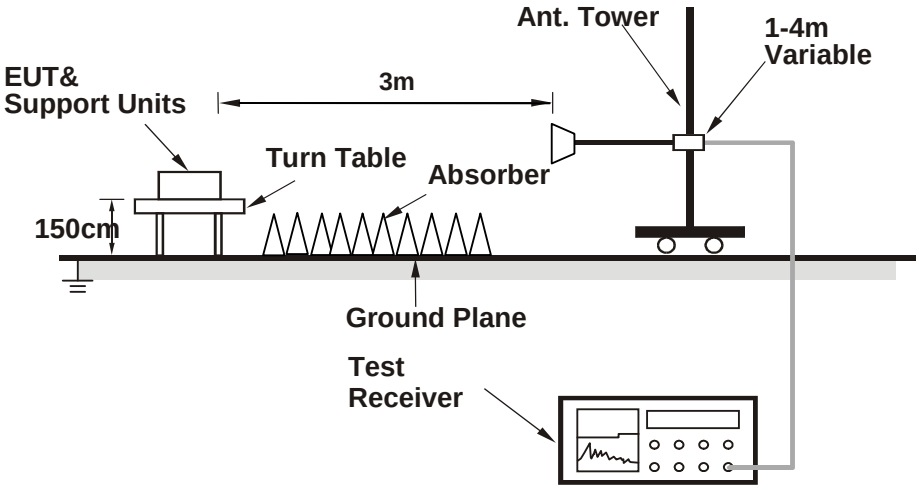
<Below 30MHz>



< Frequency Range 30MHz~1GHz >



< Frequency Range above 1GHz >



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

3.7.5 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

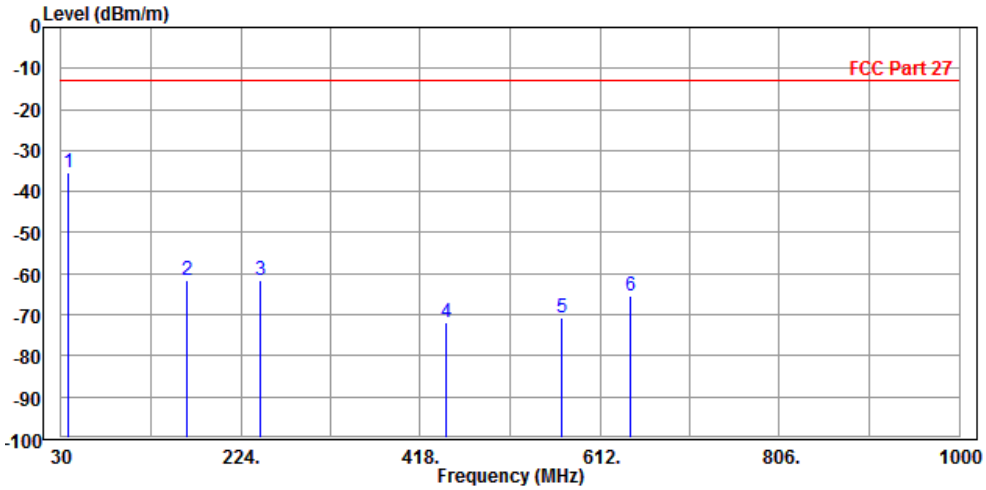
9 KHz – 30 KHz data: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

30 MHz – 1GHz data:

LTE Band 4:

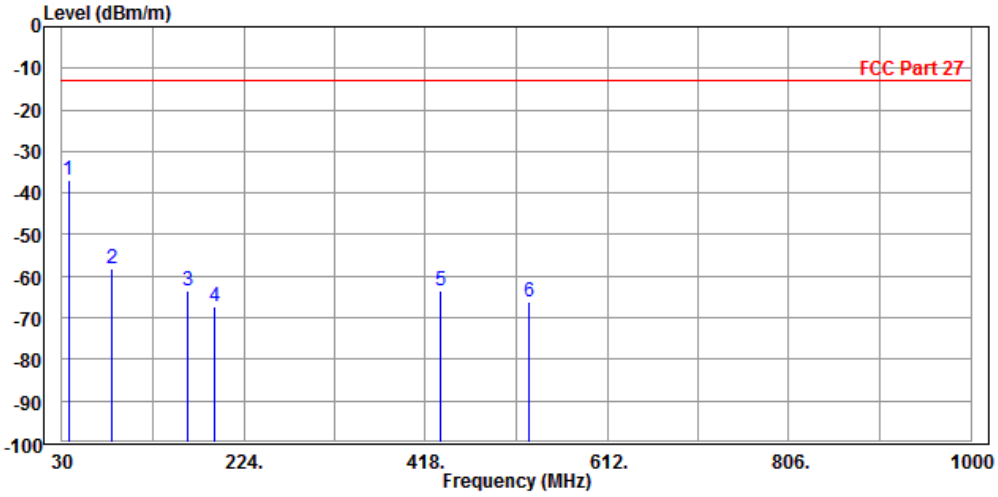
MODE	TX channel 20175	**FREQUENCY RANGE**	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	37.760	-35.47	-47.71	-13.00	-22.47	12.24	Peak	Horizontal
2	165.800	-61.73	-43.47	-13.00	-48.73	-18.26	Peak	Horizontal
3	245.340	-61.45	-45.08	-13.00	-48.45	-16.37	Peak	Horizontal
4	446.130	-71.81	-61.39	-13.00	-58.81	-10.42	Peak	Horizontal
5	570.290	-70.68	-61.49	-13.00	-57.68	-9.19	Peak	Horizontal
6	644.980	-65.40	-58.20	-13.00	-52.40	-7.20	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Below 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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	36.790	-36.88	-35.58	-13.00	-23.88	-1.30	Peak	Vertical
2		83.350	-58.34	-48.00	-13.00	-45.34	-10.34	Peak	Vertical
3		163.860	-63.38	-48.52	-13.00	-50.38	-14.86	Peak	Vertical
4		192.960	-67.22	-55.69	-13.00	-54.22	-11.53	Peak	Vertical
5		434.490	-63.60	-53.94	-13.00	-50.60	-9.66	Peak	Vertical
6		528.580	-66.02	-58.75	-13.00	-53.02	-7.27	Peak	Vertical



ABOVE 1GHz

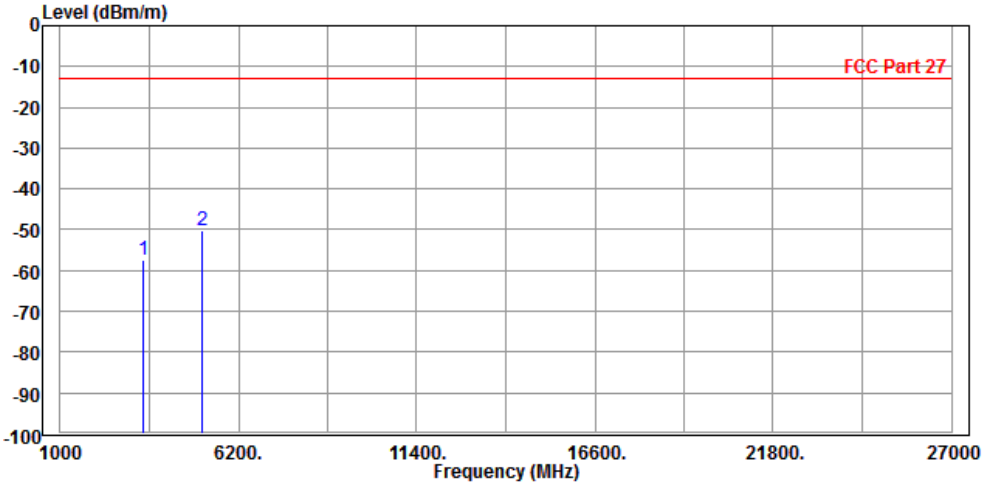
Note: For higher frequency, the emission is too low to be detected.

WCDMA Band IV:

CH 1312

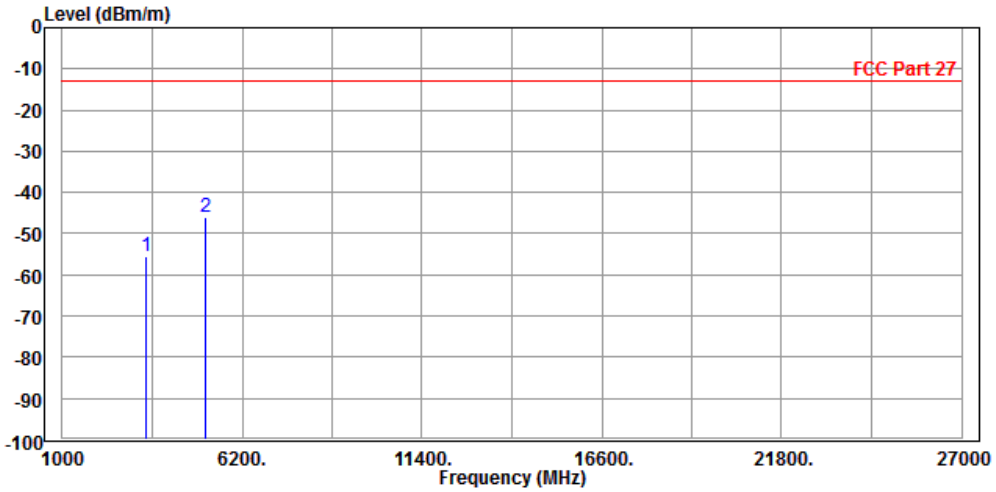
MODE	TX channel 1312	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3418.000	-57.38	-59.23	-13.00	-44.38	1.85	Peak	Horizontal
2 PP	5137.800	-50.29	-58.83	-13.00	-37.29	8.54	Peak	Horizontal



MODE	TX channel 1312	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

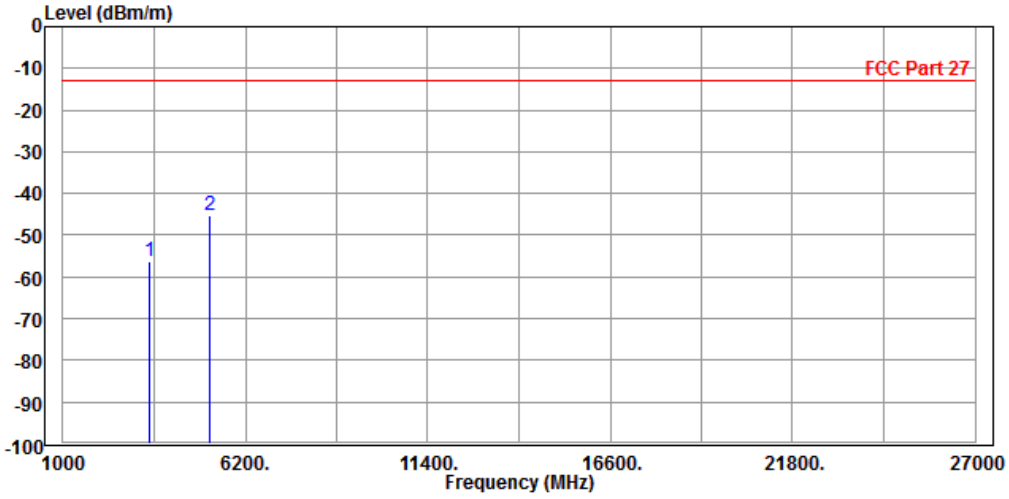
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3425.200	-55.64	-58.11	-13.00	-42.64	2.47	Peak	Vertical
2 PP	5134.000	-45.91	-53.90	-13.00	-32.91	7.99	Peak	Vertical



CH 1413

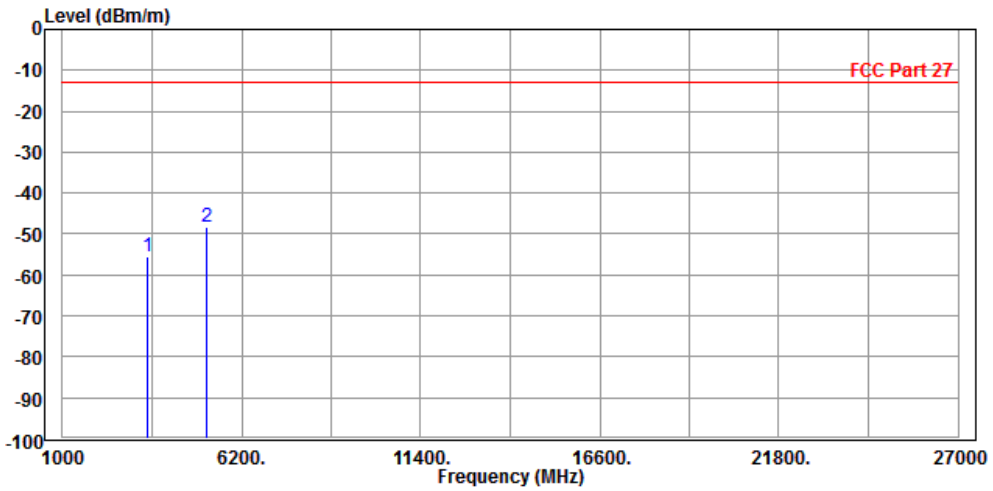
MODE	TX channel 1413	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-56.25	-58.30	-13.00	-43.25	2.05	Peak	Horizontal
2 PP	5197.800	-45.07	-53.68	-13.00	-32.07	8.61	Peak	Horizontal



MODE	TX channel 1413	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

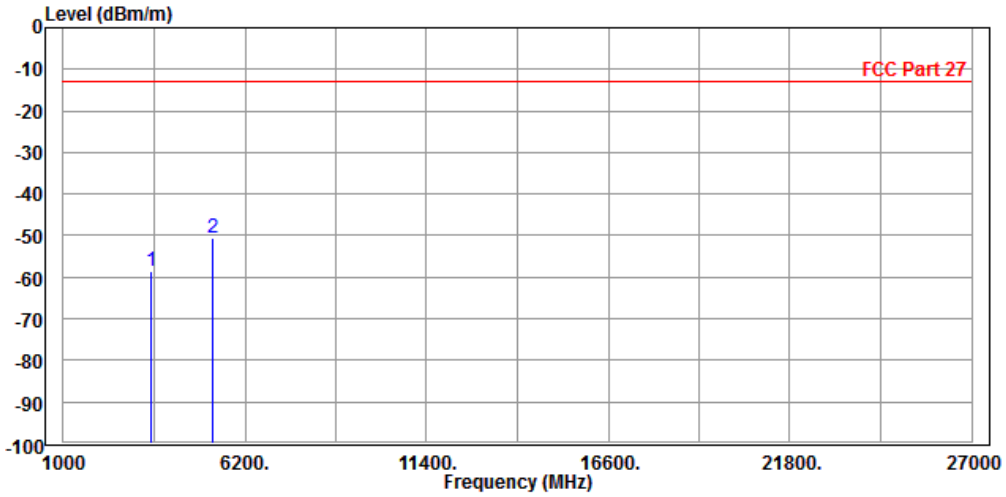
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-55.54	-58.07	-13.00	-42.54	2.53	Peak	Vertical
2 PP	5197.000	-48.38	-56.36	-13.00	-35.38	7.98	Peak	Vertical



CH 1513

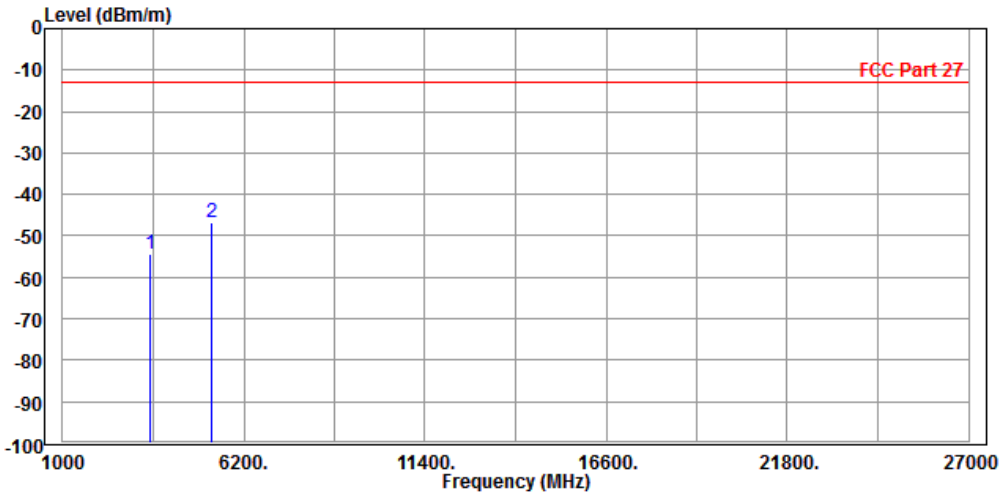
MODE	TX channel 1513	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3505.200	-58.67	-60.86	-13.00	-45.67	2.19	Peak	Horizontal
2 PP	5264.000	-50.66	-59.34	-13.00	-37.66	8.68	Peak	Horizontal



MODE	TX channel 1513	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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	3496.000	-54.39	-56.95	-13.00	-41.39	2.56	Peak	Vertical
2 PP	5257.800	-46.72	-54.70	-13.00	-33.72	7.98	Peak	Vertical



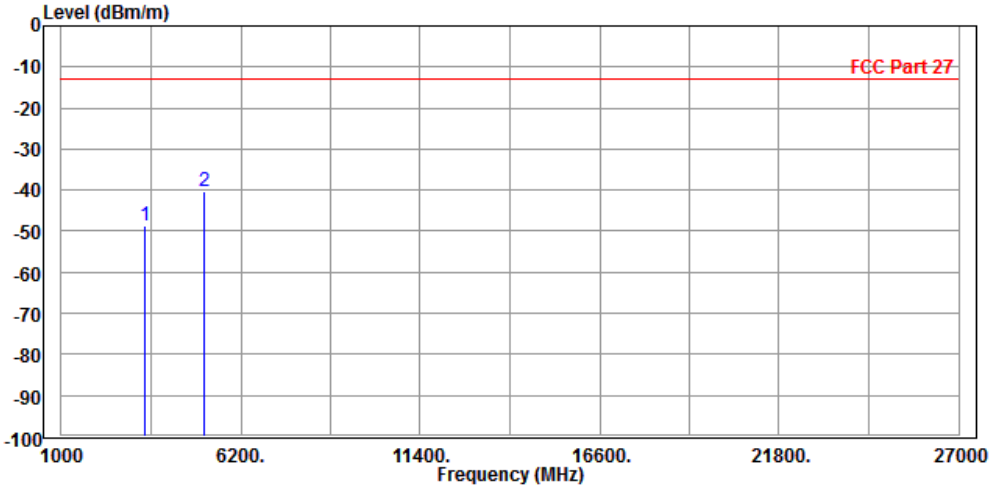
LTE BAND 4

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH 19957

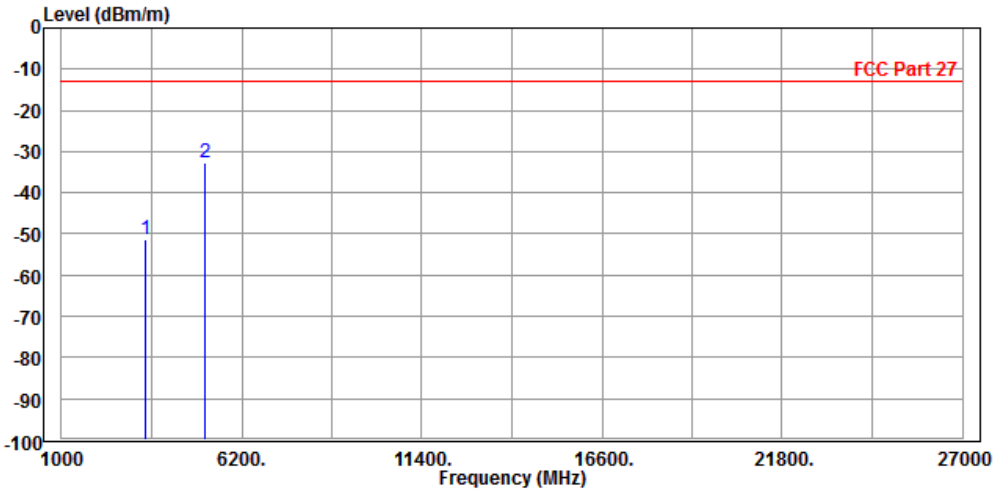
MODE	TX channel 19957	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3418.000	-48.77	-50.62	-13.00	-35.77	1.85	Peak	Horizontal
2 PP	5134.000	-40.38	-48.91	-13.00	-27.38	8.53	Peak	Horizontal



MODE	TX channel 19957	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

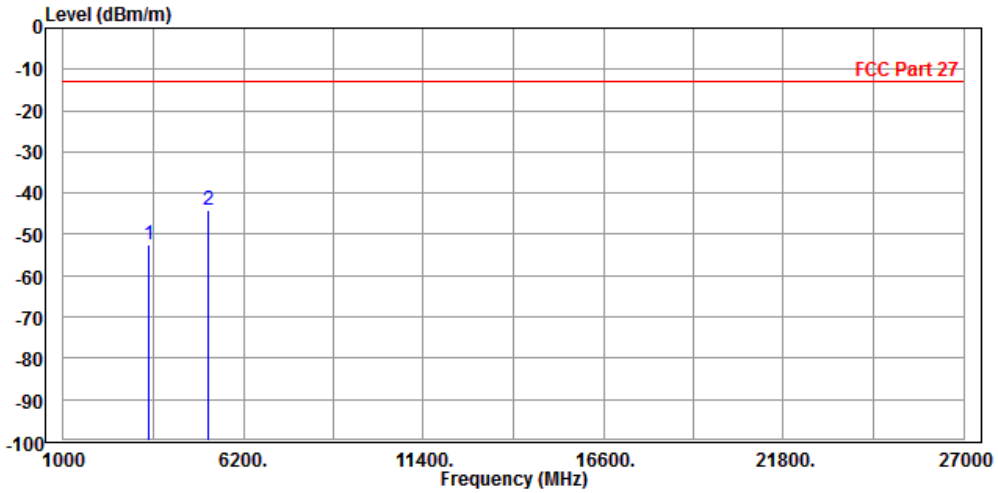
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3418.000	-51.21	-53.68	-13.00	-38.21	2.47	Peak	Vertical
2 PP	5134.000	-32.63	-40.62	-13.00	-19.63	7.99	Peak	Vertical



CH 20175

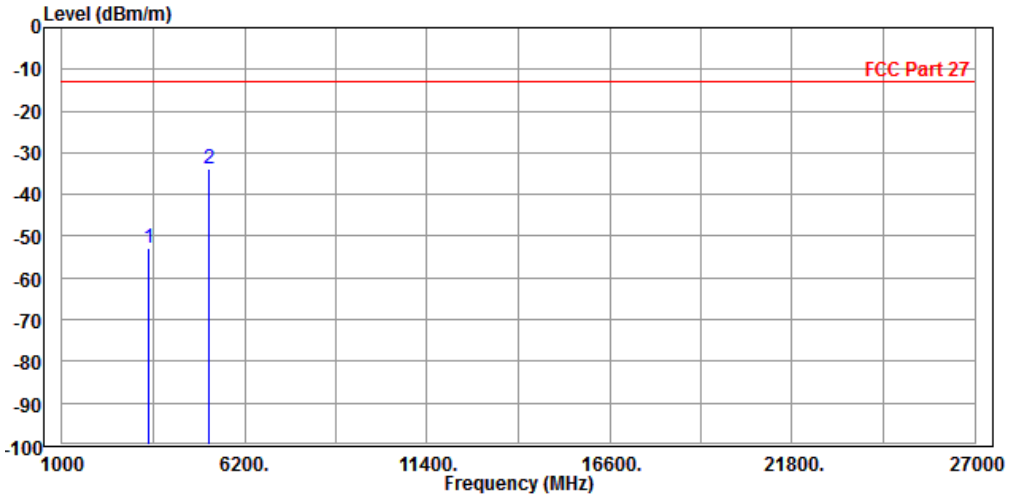
MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-52.46	-54.51	-13.00	-39.46	2.05	Peak	Horizontal
2 PP	5197.000	-44.12	-52.73	-13.00	-31.12	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

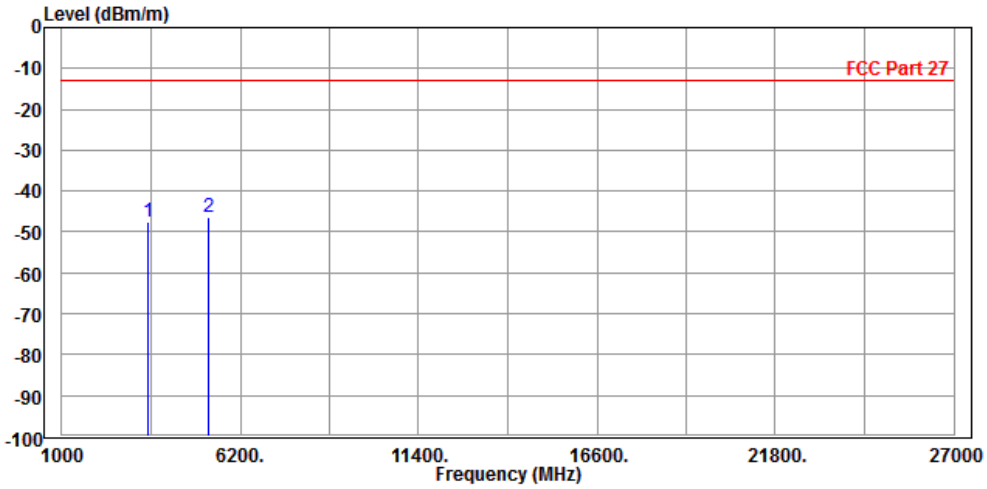
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-53.01	-55.54	-13.00	-40.01	2.53	Peak	Vertical
2 PP	5197.000	-33.83	-41.81	-13.00	-20.83	7.98	Peak	Vertical



CH 20393

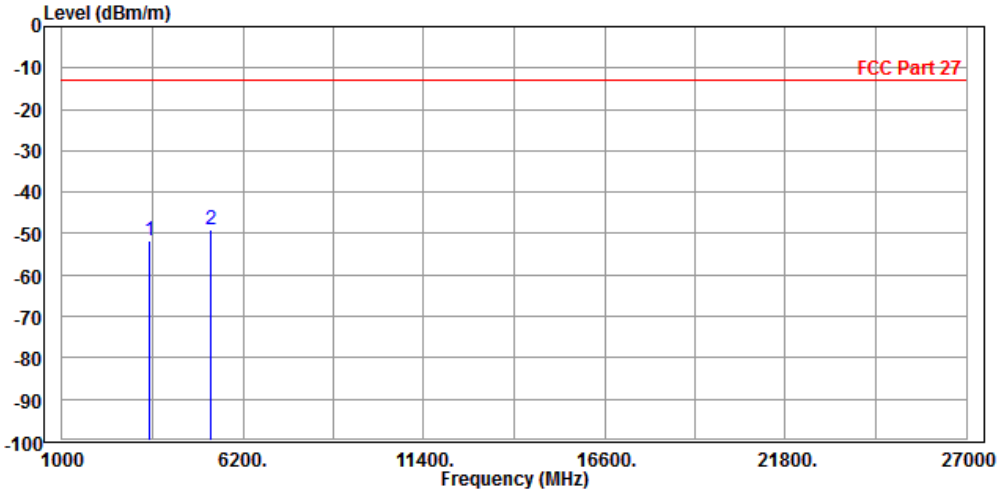
MODE	TX channel 20393	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3496.000	-47.70	-49.85	-13.00	-34.70	2.15	Peak	Horizontal
2 PP	5263.000	-46.26	-54.94	-13.00	-33.26	8.68	Peak	Horizontal



MODE	TX channel 20393	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

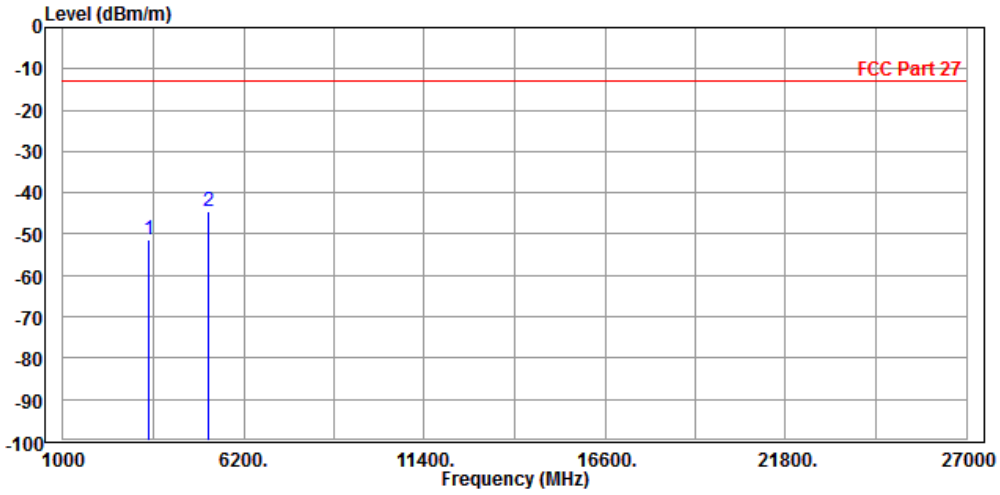
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3496.000	-51.83	-54.39	-13.00	-38.83	2.56	Peak	Vertical
2 PP	5293.000	-49.17	-57.15	-13.00	-36.17	7.98	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

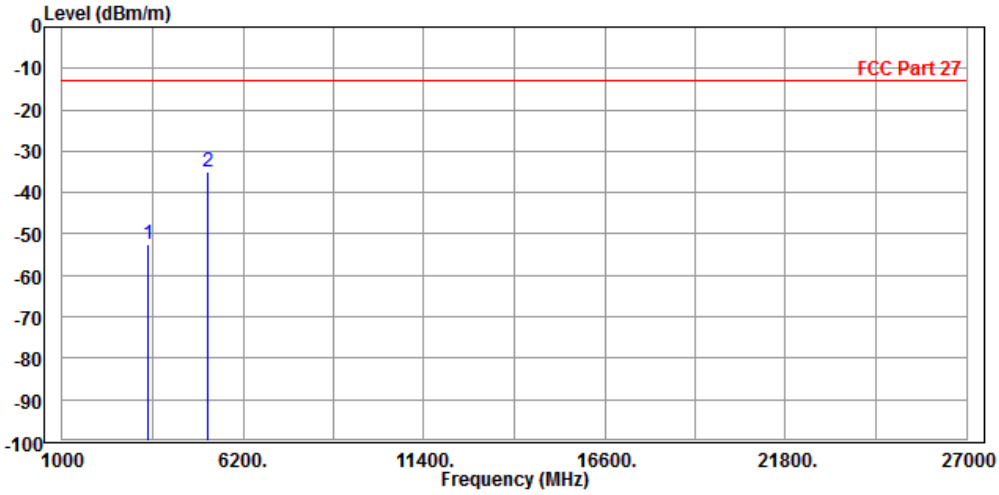
MODE	TX channel 20175	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3470.000	-51.48	-53.53	-13.00	-38.48	2.05	Peak	Horizontal
2	PP	5197.000	-44.46	-53.07	-13.00	-31.46	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

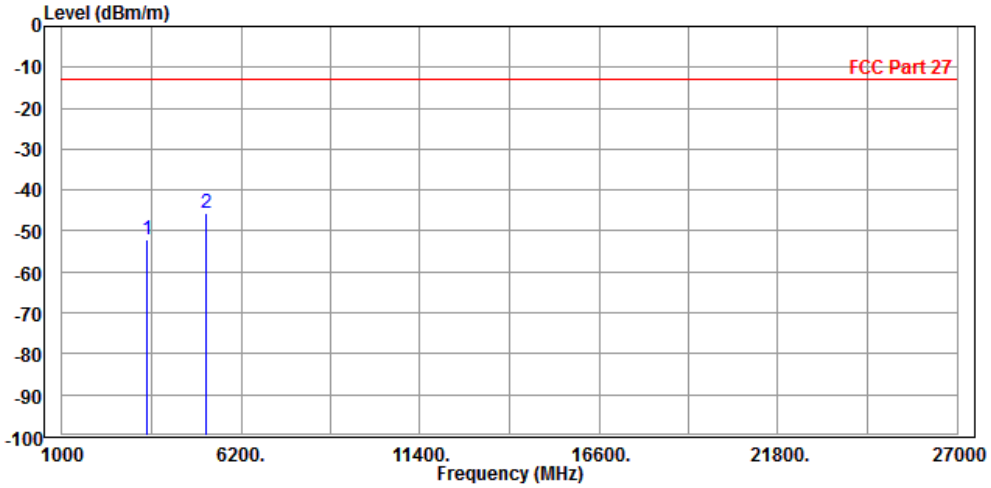
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-52.33	-54.86	-13.00	-39.33	2.53	Peak	Vertical
2 PP	5197.000	-35.13	-43.11	-13.00	-22.13	7.98	Peak	Vertical



CHANNEL BANDWIDTH: 5MHz / QPSK

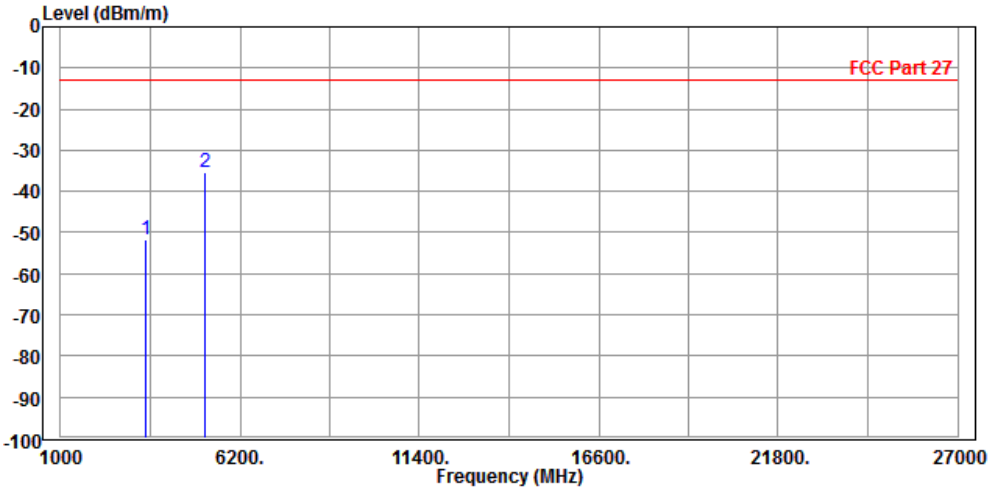
MODE	TX channel 20175	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-51.96	-54.01	-13.00	-38.96	2.05	Peak	Horizontal
2 PP	5197.000	-45.73	-54.34	-13.00	-32.73	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

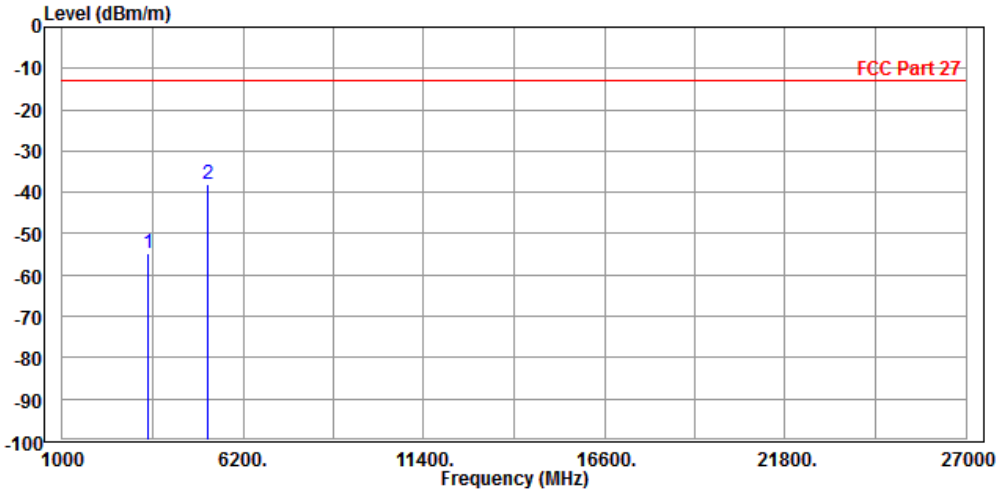
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-51.88	-54.41	-13.00	-38.88	2.53	Peak	Vertical
2 PP	5197.000	-35.52	-43.50	-13.00	-22.52	7.98	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

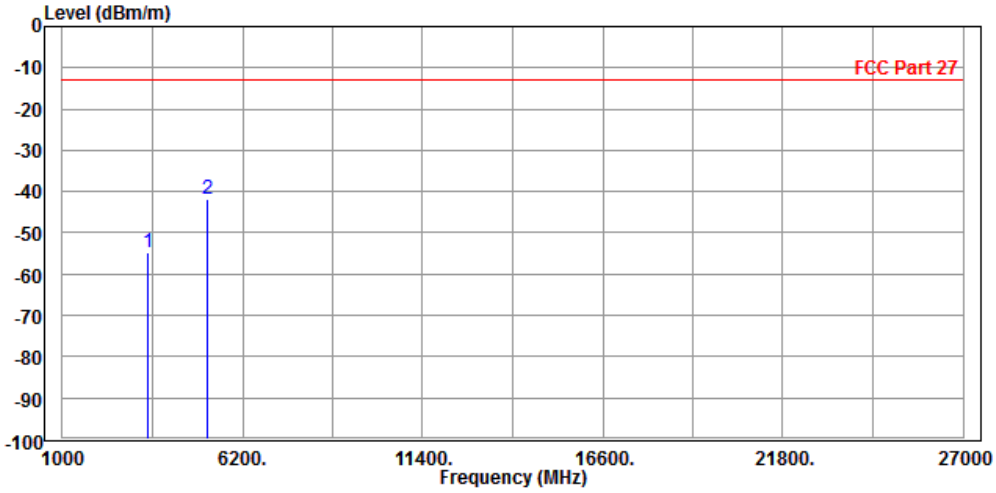
MODE	TX channel 20175	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3470.000	-54.60	-56.65	-13.00	-41.60	2.05	Peak	Horizontal
2	PP	5197.000	-37.87	-46.48	-13.00	-24.87	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

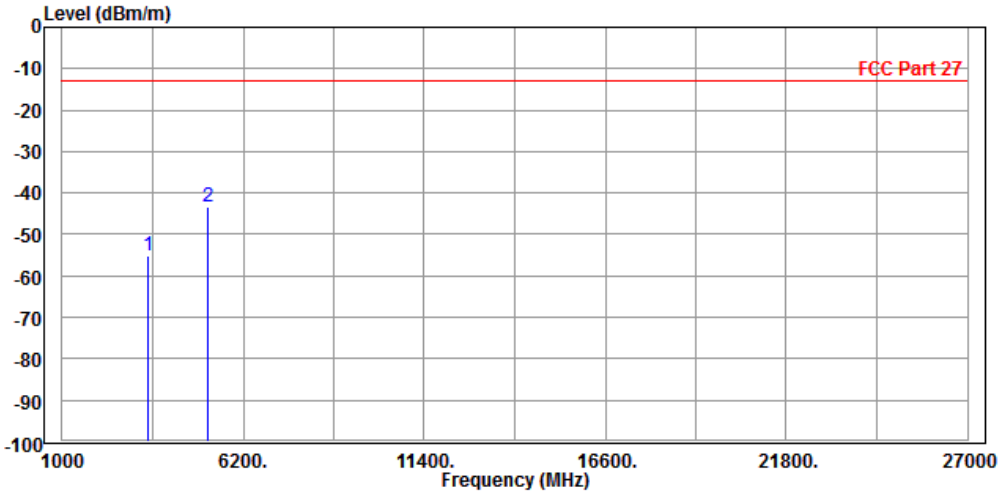
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-54.65	-57.18	-13.00	-41.65	2.53	Peak	Vertical
2 PP	5197.000	-41.85	-49.83	-13.00	-28.85	7.98	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

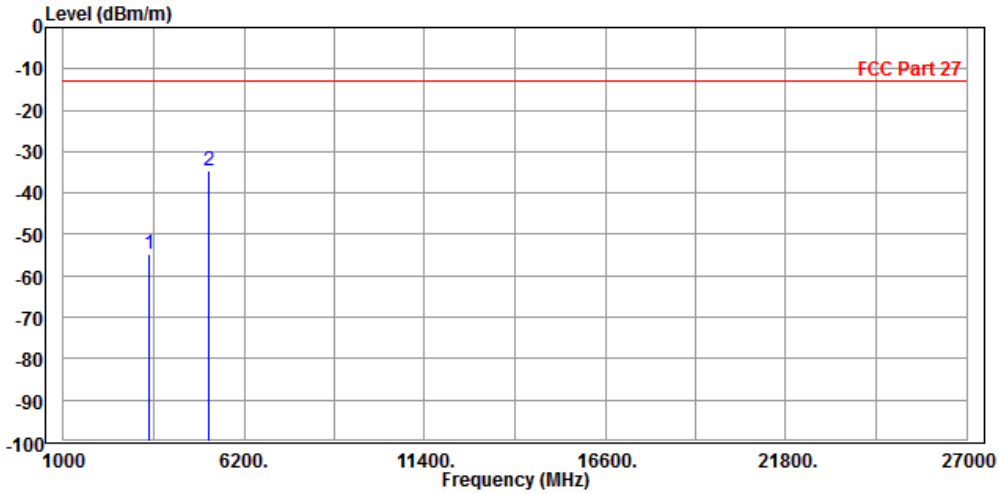
MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1		3470.000	-55.25	-57.30	-13.00	-42.25	2.05	Peak	Horizontal
2	PP	5197.000	-43.18	-51.79	-13.00	-30.18	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

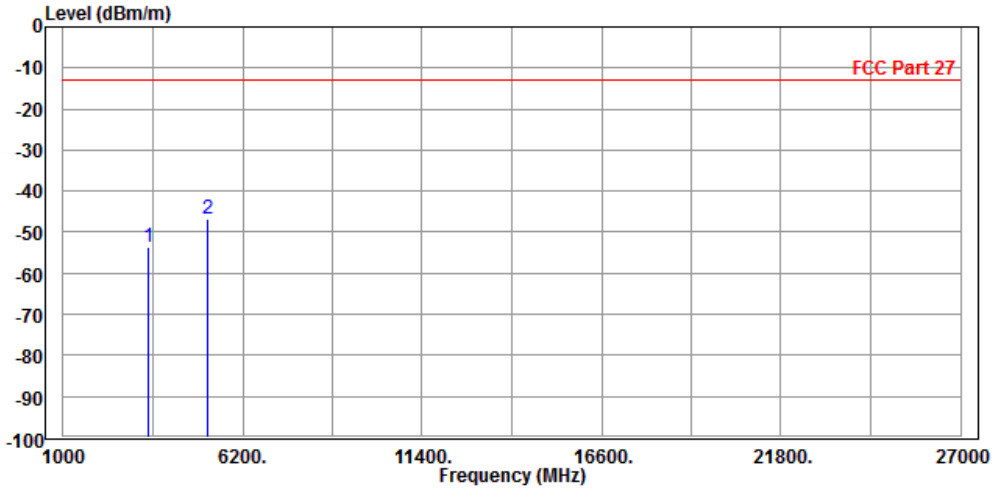
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-54.66	-57.19	-13.00	-41.66	2.53	Peak	Vertical
2 PP	5197.000	-34.67	-42.65	-13.00	-21.67	7.98	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

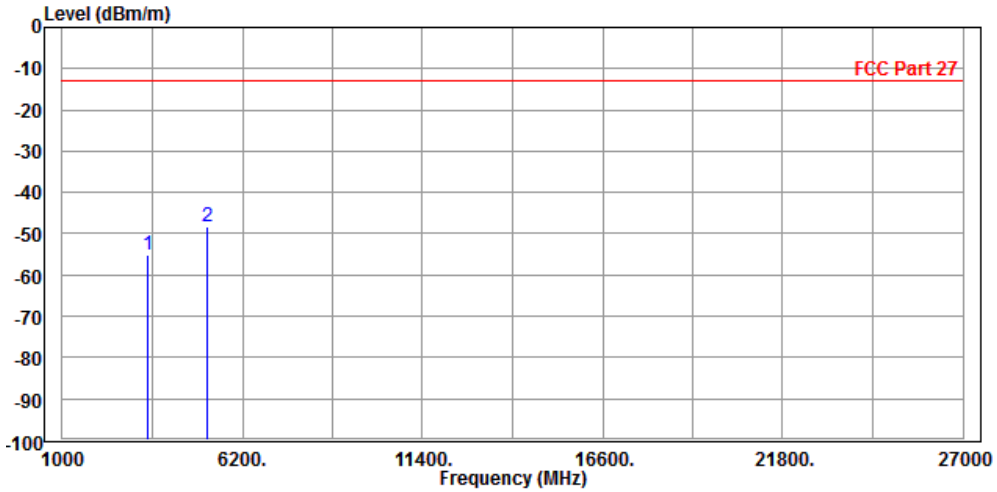
MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3470.000	-53.66	-55.71	-13.00	-40.66	2.05	Peak	Horizontal
2 PP	5197.000	-46.76	-55.37	-13.00	-33.76	8.61	Peak	Horizontal



MODE	TX channel 20175	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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		3470.000	-55.05	-57.58	-13.00	-42.05	2.53	Peak	Vertical
2	PP	5197.000	-48.32	-56.30	-13.00	-35.32	7.98	Peak	Vertical

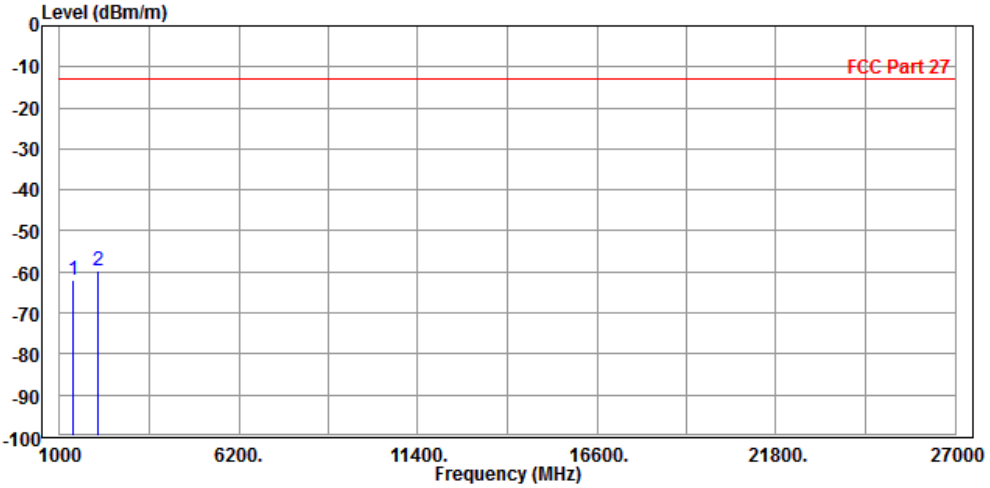


LTE BAND 12

CHANNEL BANDWIDTH: 1.4MHz / QPSK

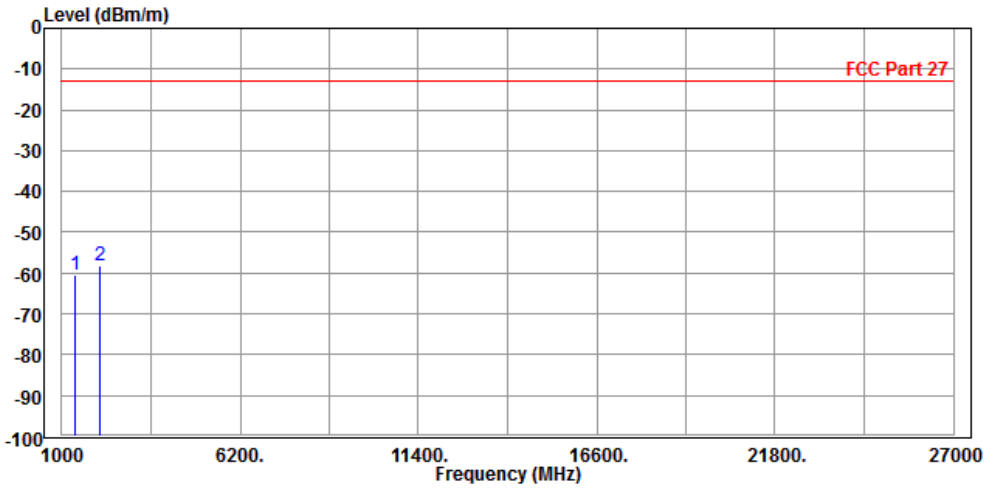
MODE	TX channel 23095	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1403.000	-61.88	-55.08	-13.00	-48.88	-6.80	Peak	Horizontal
2 PP	2092.000	-59.53	-57.57	-13.00	-46.53	-1.96	Peak	Horizontal



MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

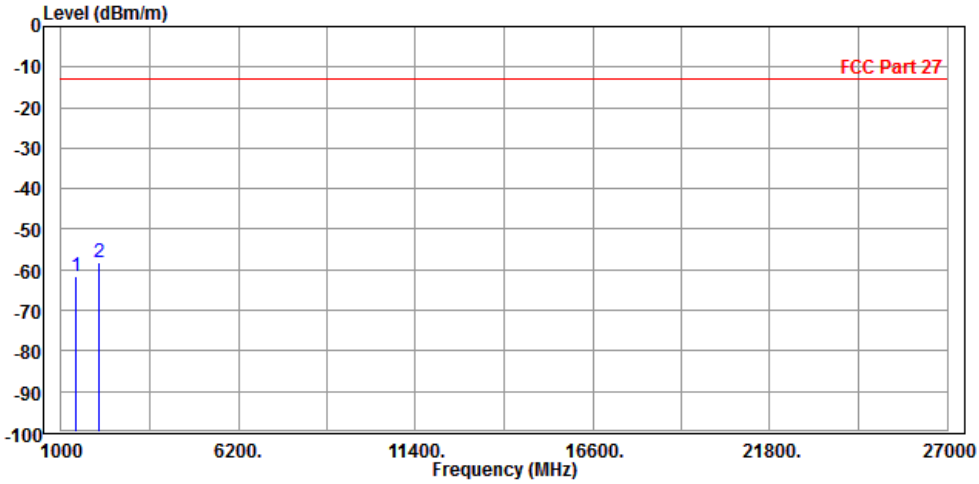
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1403.000	-60.50	-54.98	-13.00	-47.50	-5.52	Peak	Vertical
2 PP	2104.500	-58.03	-57.78	-13.00	-45.03	-0.25	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

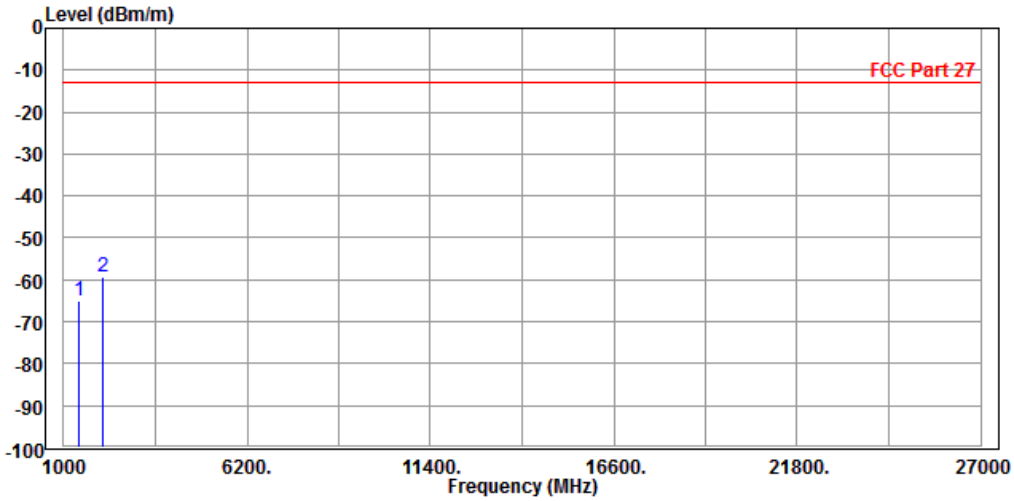
MODE	TX channel 23095	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1416.000	-61.70	-54.98	-13.00	-48.70	-6.72	Peak	Horizontal
2 PP	2123.000	-58.35	-56.42	-13.00	-45.35	-1.93	Peak	Horizontal



MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

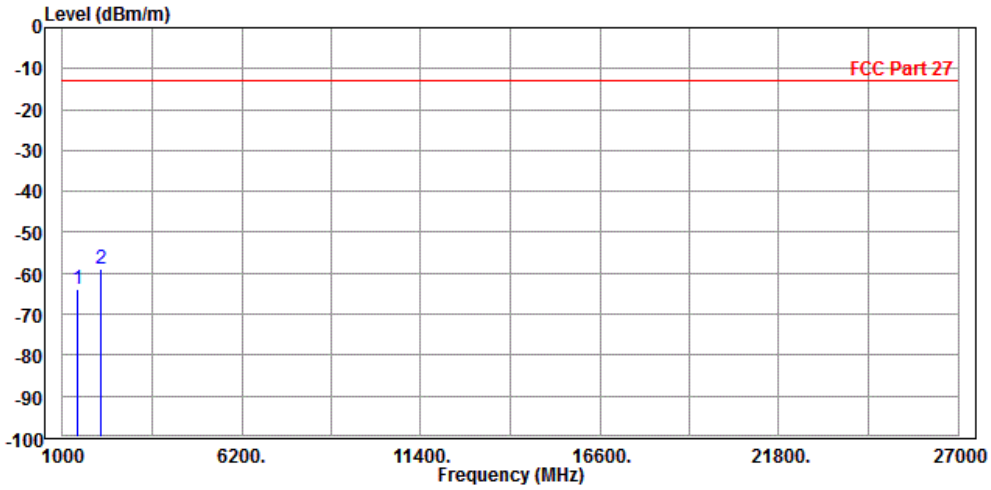
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1415.000	-64.86	-59.41	-13.00	-51.86	-5.45	Peak	Vertical
2 PP	2118.000	-59.41	-59.17	-13.00	-46.41	-0.24	Peak	Vertical



CHANNEL BANDWIDTH: 5MHz / QPSK

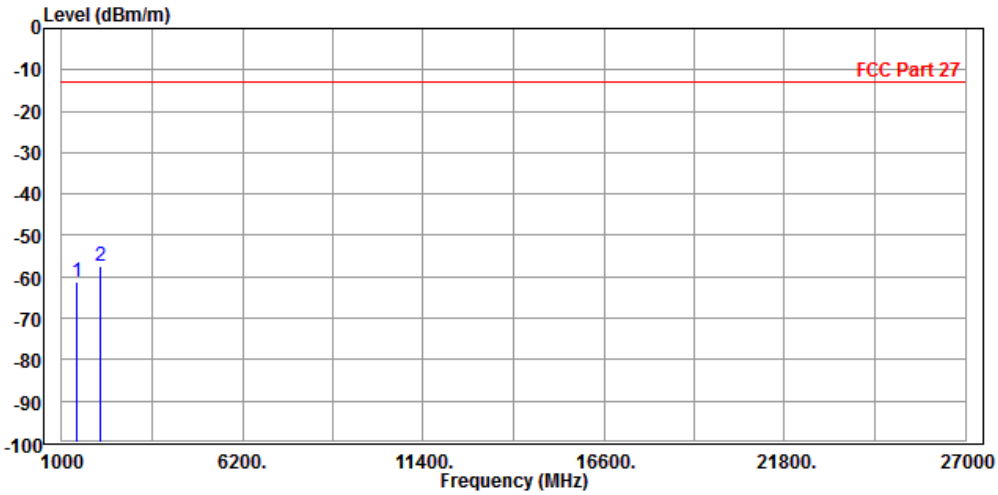
MODE	TX channel 23095	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1415.000	-63.87	-58.42	-13.00	-50.87	-5.45	Peak	Horizontal
2 PP	2118.000	-58.78	-58.54	-13.00	-45.78	-0.24	Peak	Horizontal



MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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	1416.000	-61.20	-55.76	-13.00	-48.20	-5.44	Peak	Vertical
2 PP	2123.000	-57.28	-57.04	-13.00	-44.28	-0.24	Peak	Vertical

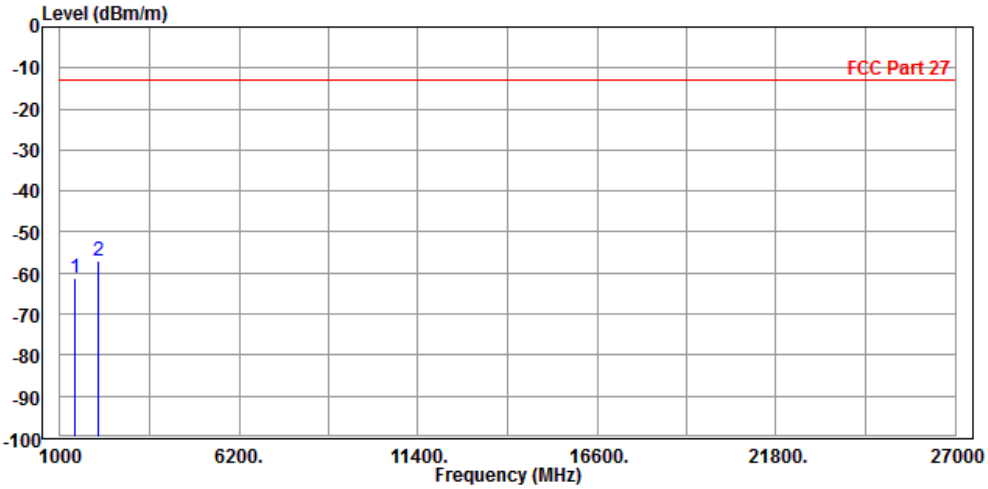


CHANNEL BANDWIDTH: 10MHz / QPSK

CH 23060

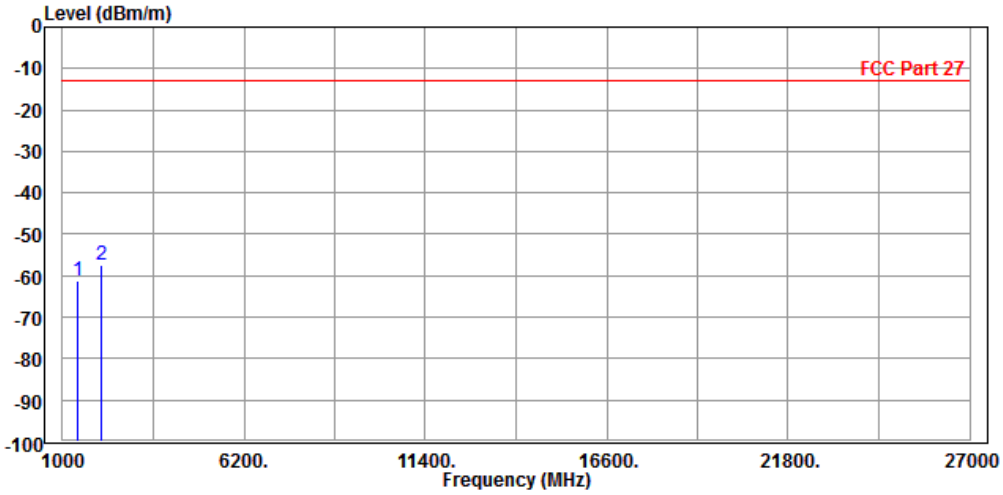
MODE	TX channel 23060	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1416.000	-61.33	-54.61	-13.00	-48.33	-6.72	Peak	Horizontal
2 PP	2112.000	-56.88	-54.94	-13.00	-43.88	-1.94	Peak	Horizontal



MODE	TX channel 23060	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

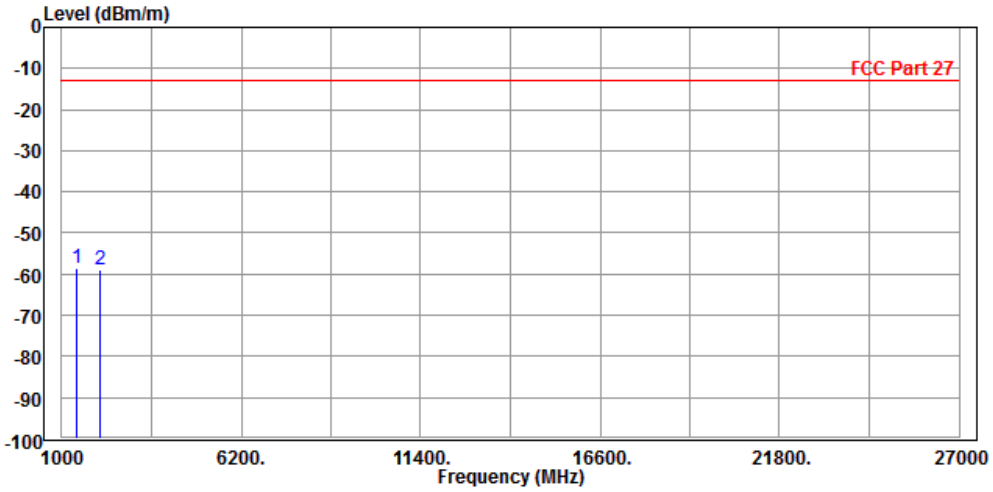
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1416.000	-61.33	-55.89	-13.00	-48.33	-5.44	Peak	Vertical
2 PP	2112.000	-57.37	-57.13	-13.00	-44.37	-0.24	Peak	Vertical



CH 23095

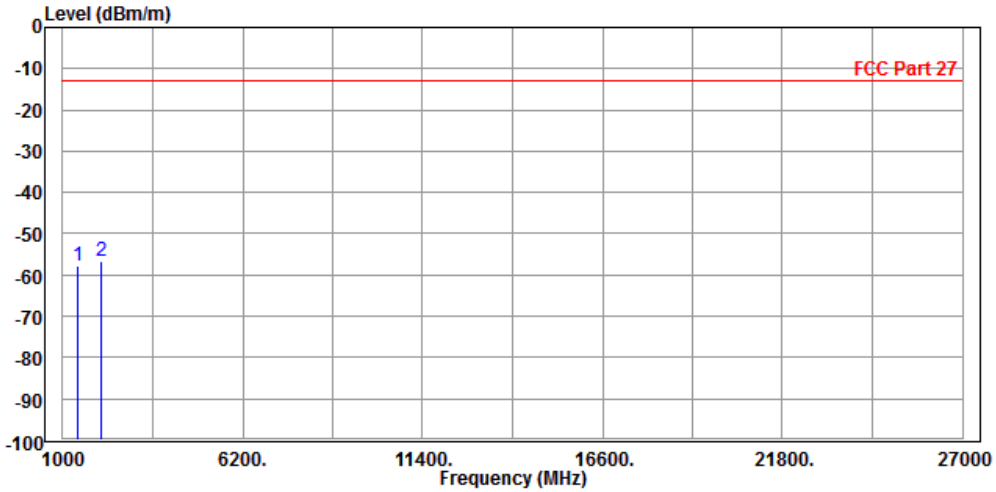
MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1416.000	-58.57	-51.85	-13.00	-45.57	-6.72	Peak	Horizontal
2	2123.000	-59.10	-57.17	-13.00	-46.10	-1.93	Peak	Horizontal



MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

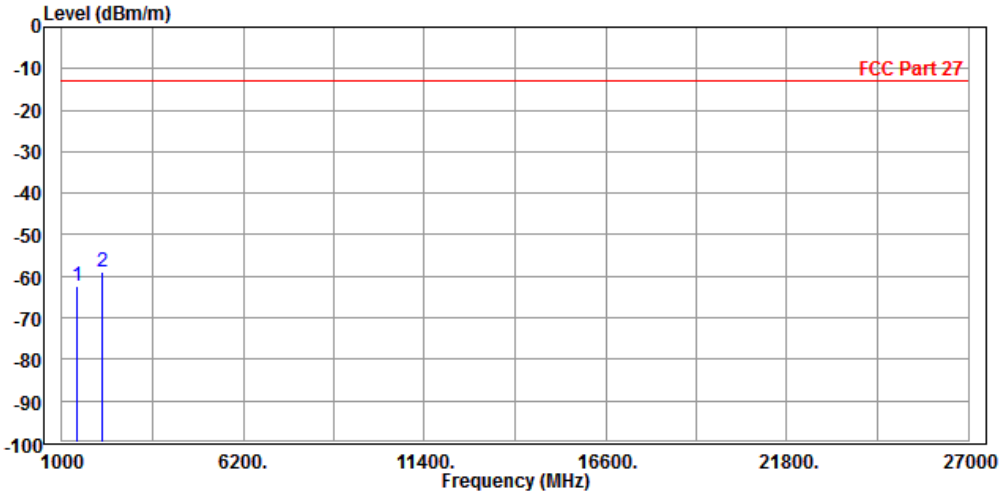
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1415.000	-57.73	-52.28	-13.00	-44.73	-5.45	Peak	Vertical
2 PP	2118.000	-56.77	-56.53	-13.00	-43.77	-0.24	Peak	Vertical



CH 23130

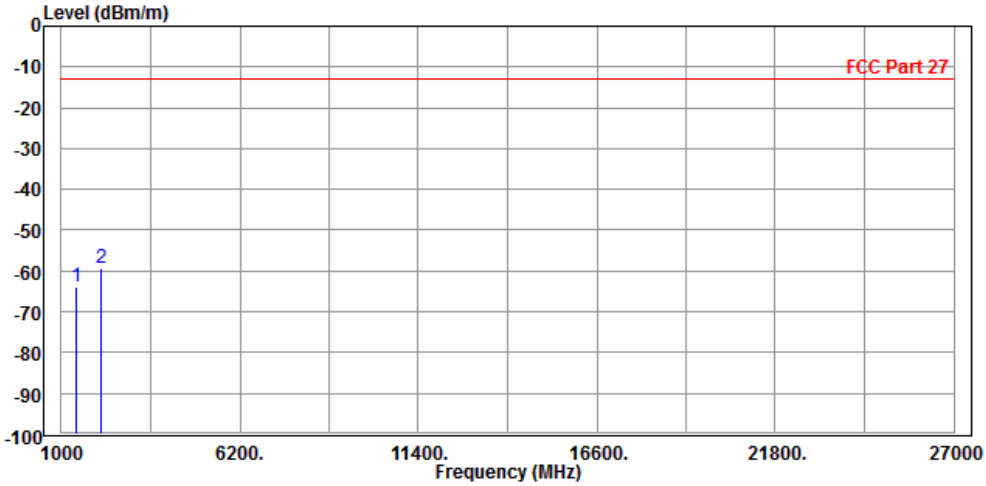
MODE	TX channel 23130	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1416.000	-62.31	-55.59	-13.00	-49.31	-6.72	Peak	Horizontal
2 PP	2133.000	-59.01	-57.08	-13.00	-46.01	-1.93	Peak	Horizontal



MODE	TX channel 23130	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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		1416.000	-63.73	-58.29	-13.00	-50.73	-5.44	Peak	Vertical
2	PP	2133.000	-59.22	-58.98	-13.00	-46.22	-0.24	Peak	Vertical

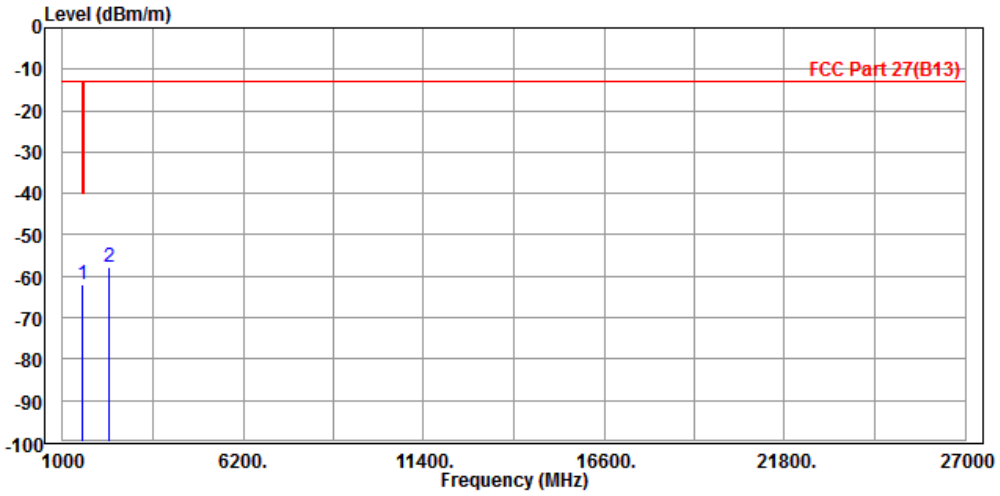


LTE BAND 13

CHANNEL BANDWIDTH: 5MHz / QPSK

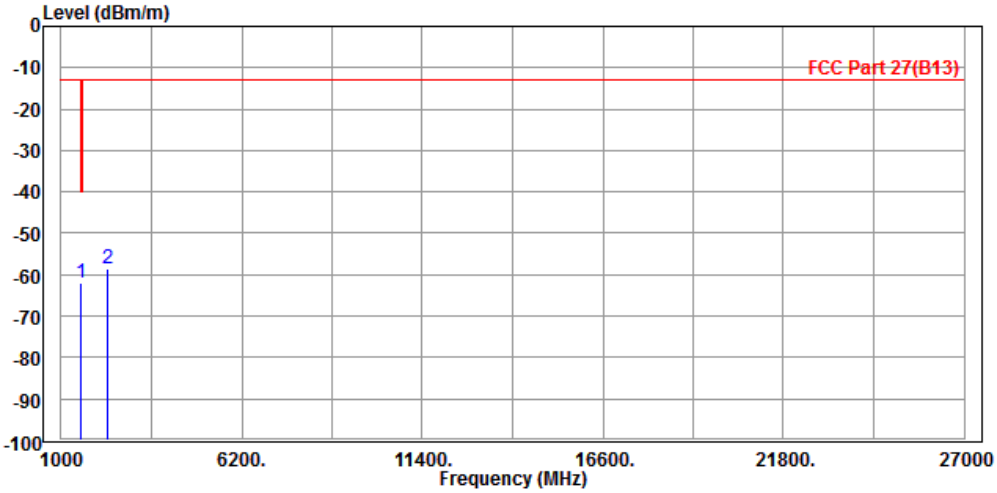
MODE	TX channel 23230	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1572.000	-61.88	-56.28	-40.00	-21.88	-5.60	Peak	Horizontal
2	2346.000	-57.70	-55.94	-13.00	-44.70	-1.76	Peak	Horizontal



MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

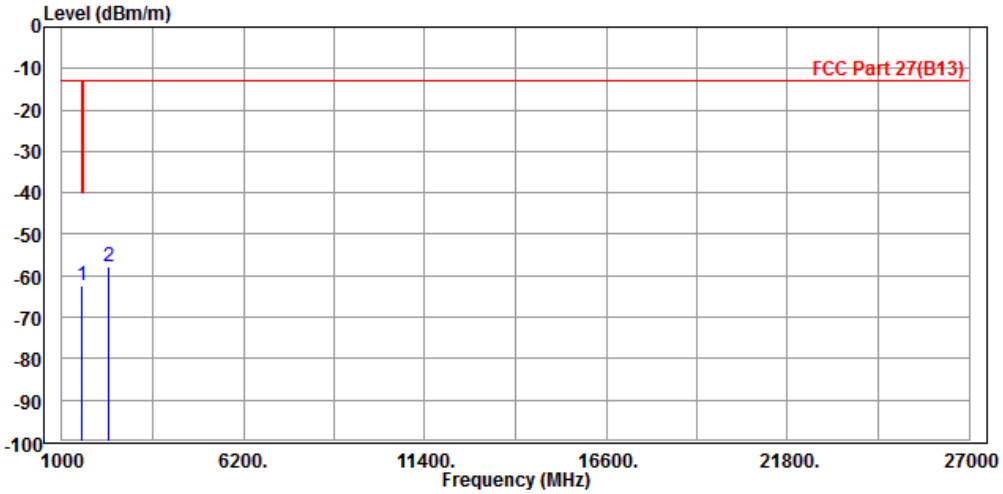
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1564.000	-62.03	-57.70	-40.00	-22.03	-4.33	Peak	Vertical
2	2352.000	-58.65	-58.45	-13.00	-45.65	-0.20	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

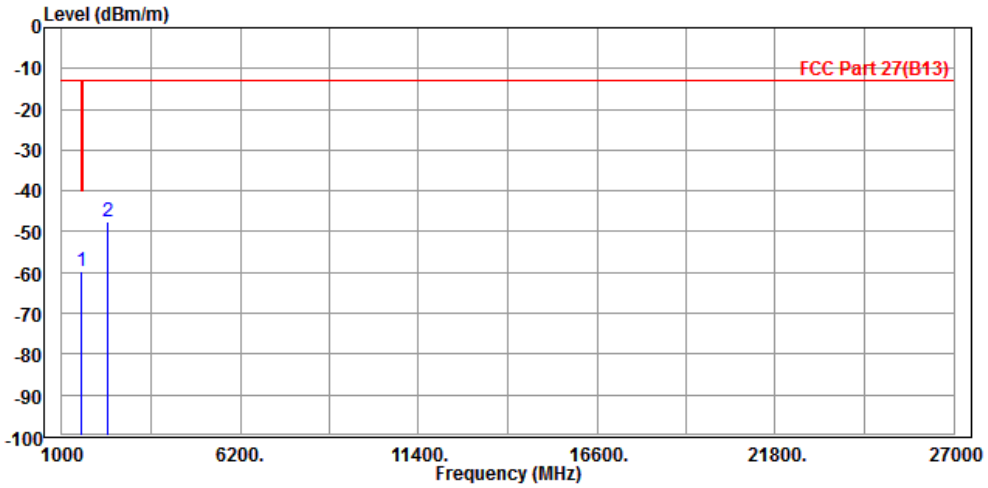
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1572.000	-62.44	-56.84	-40.00	-22.44	-5.60	Peak	Horizontal
2	2346.000	-57.83	-56.07	-13.00	-44.83	-1.76	Peak	Horizontal



MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC 5/9V from adapter
TESTED BY	Simon Yang		
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	1572.000	-59.64	-55.38	-40.00	-19.64	-4.26	Peak	Vertical
2	2346.000	-47.43	-47.23	-13.00	-34.43	-0.20	Peak	Vertical



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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Web Site: www.adt.com.tw

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

5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---