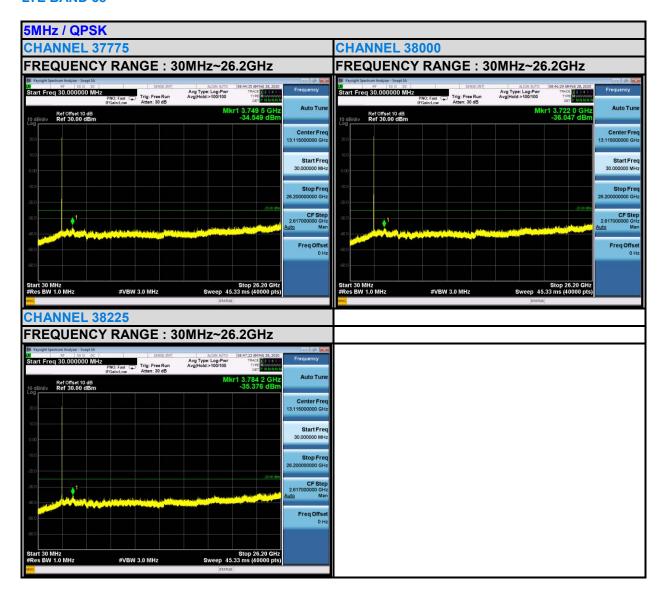
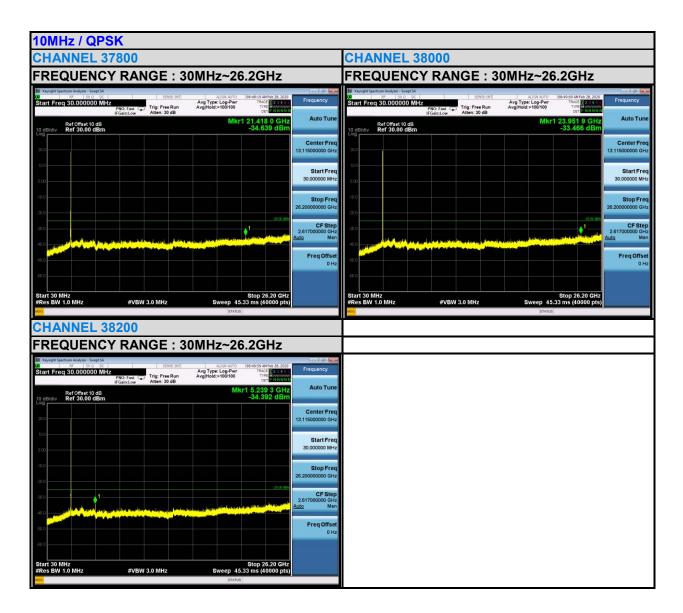




## LTE BAND 38









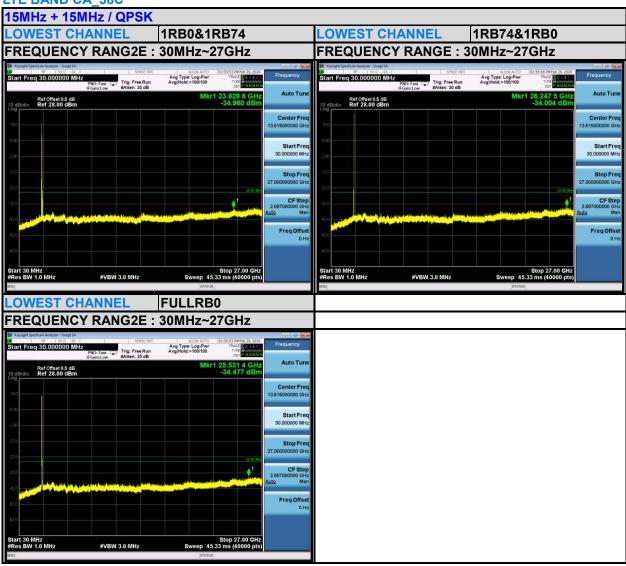




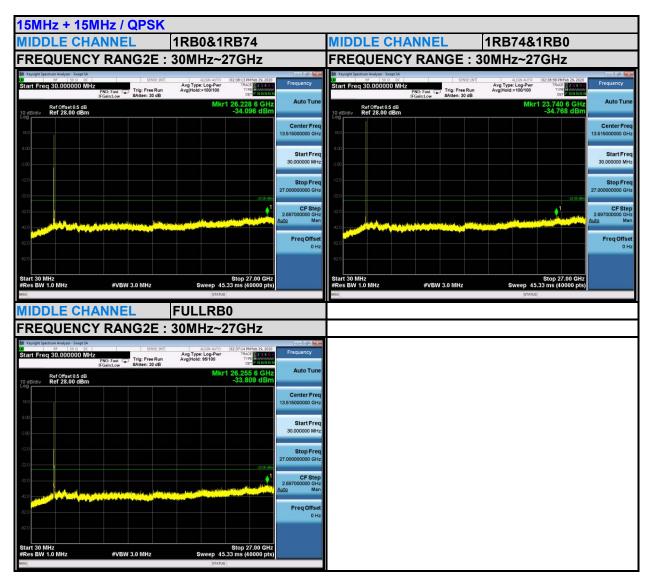




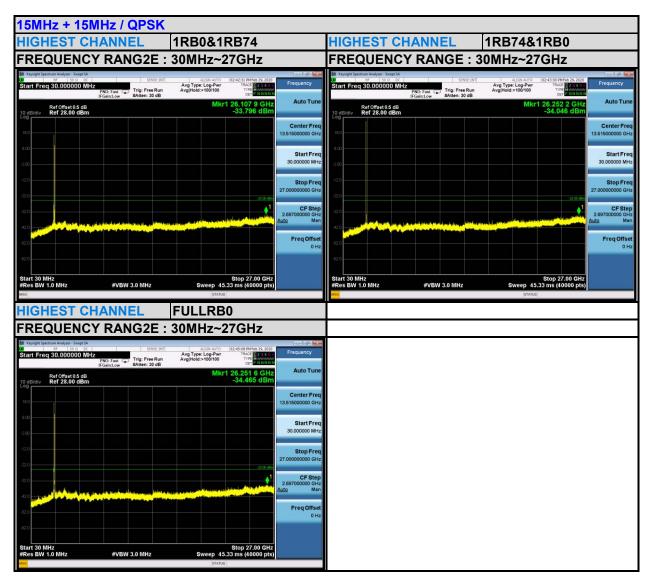
## LTE BAND CA\_38C



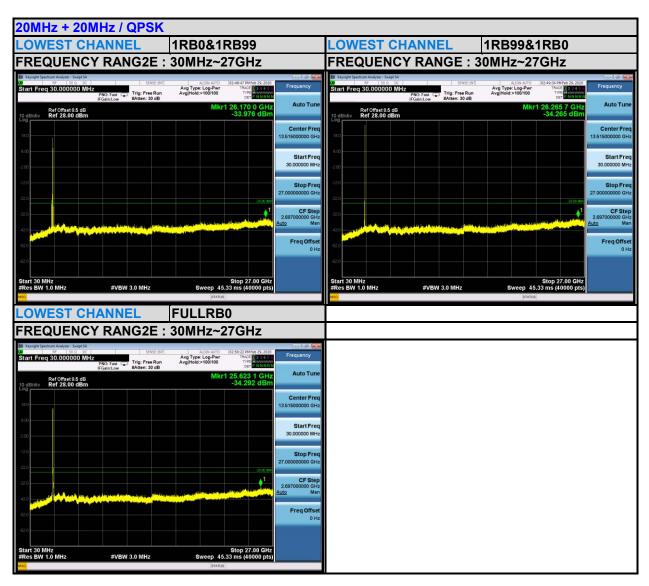




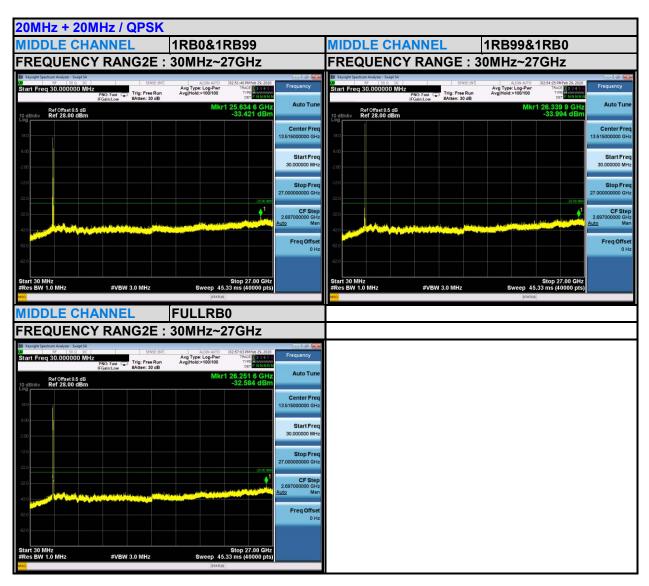




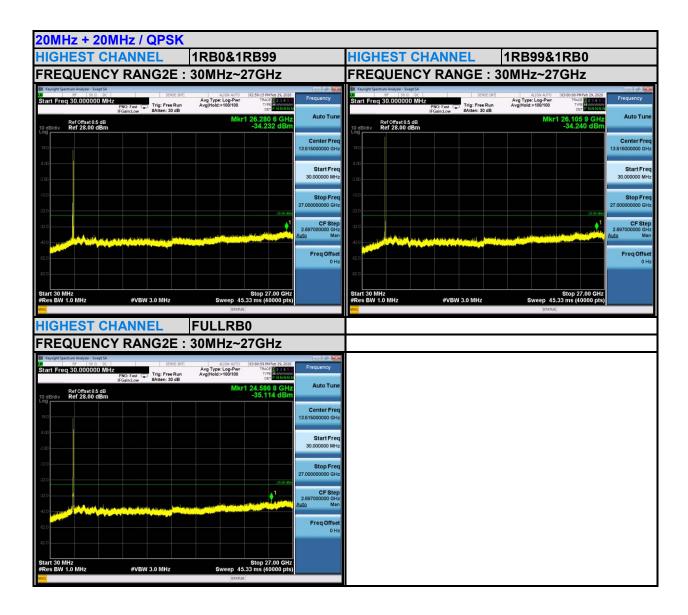














### 3.7 RADIATED EMISSION MEASUREMENT

# 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 55 +10 log10(P) dB. The limit of emission is equal to -25dBm.

#### 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
- 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.

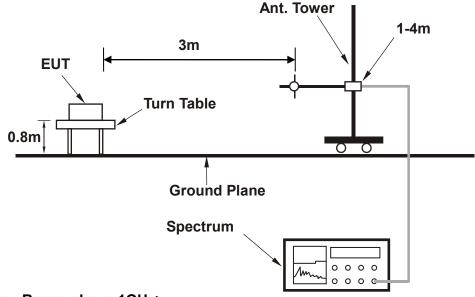
#### 3.7.3 DEVIATION FROM TEST STANDARD

No deviation

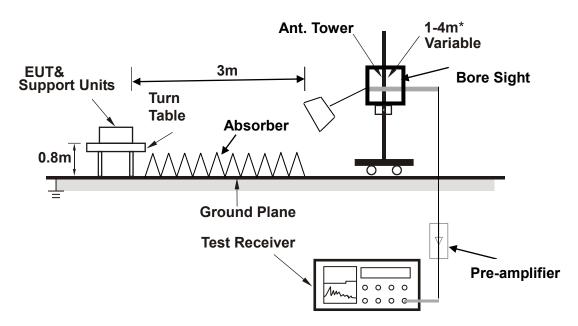


## 3.7.4 TEST SETUP

# < 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).

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# 3.7.5 TEST RESULTS

#### **BELOW 1GHz WORST-CASE DATA**

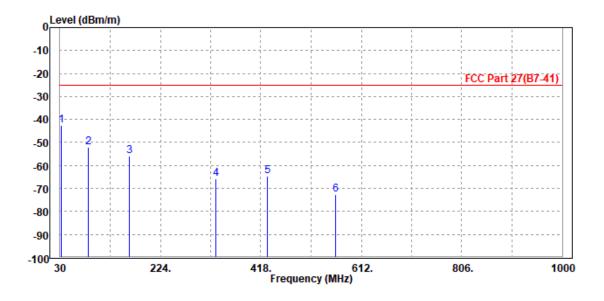
## 30 MHz - 1GHz data:

#### LTE Band 7

**CHANNEL BANDWIDTH: 10MHz / QPSK** 

MODE	TX channel 21100	Below 1000MHz							
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	Star Le	Star Le							
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	31.940	-42.48	-59.15	-25.00	-17.48	16.67	Peak	Horizontal
2	85.290	-52.14	-43.76	-25.00	-27.14	-8.38	Peak	Horizontal
3	164.830	-55.79	-37.49	-25.00	-30.79	-18.30	Peak	Horizontal
4	330.700	-65.85	-53.07	-25.00	-40.85	-12.78	Peak	Horizontal
5	430.610	-64.63	-54.19	-25.00	-39.63	-10.44	Peak	Horizontal
6	562.530	-72.80	-63.47	-25.00	-47.80	-9.33	Peak	Horizontal

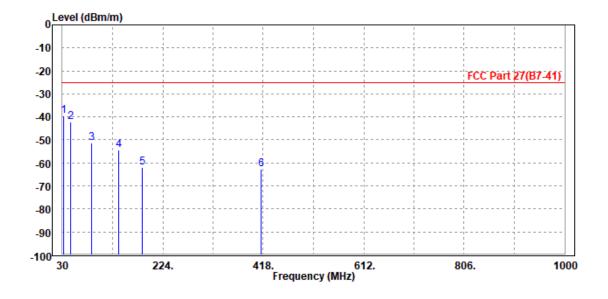


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MODE	TX channel 21100	Below 1000MHz							
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	Star Le	Star Le							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level	Read Level	Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	31.940	-39.52	-42.27	-25.00	-14.52	2.75	Peak	Vertical
2	45.520	-42.09	-38.75	-25.00	-17.09	-3.34	Peak	Vertical
3	86.260	-51.18	-40.75	-25.00	-26.18	-10.43	Peak	Vertical
4	138.640	-54.50	-39.21	-25.00	-29.50	-15.29	Peak	Vertical
5	184.230	-62.15	-49.52	-25.00	-37.15	-12.63	Peak	Vertical
6	413.150	-62.60	-52.15	-25.00	-37.60	-10.45	Peak	Vertical





#### **ABOVE 1GHz**

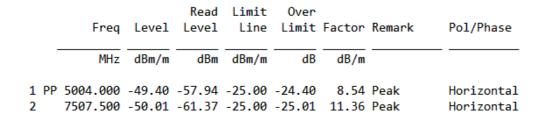
**Note:** For higher frequency, the emission is too low to be detected.

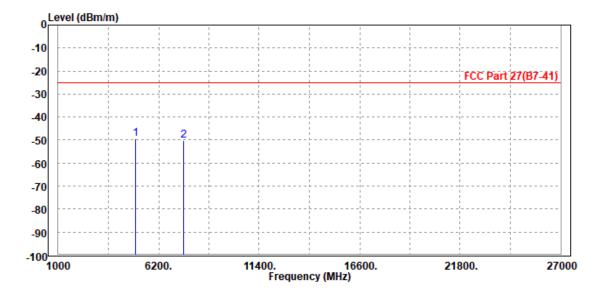
LTE Band 7

**CHANNEL BANDWIDTH: 5MHz / QPSK** 

CH 20775

MODE	TX channel 20775	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	Star Le	Star Le							
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									



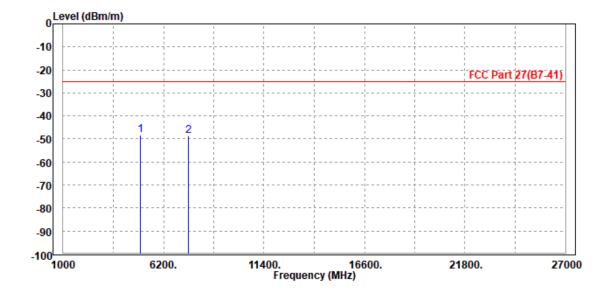


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MODE	TX channel 20775	Above 1000MHz							
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	TESTED BY Star Le								
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
_	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
	5004.000 7507.500							Vertical Vertical

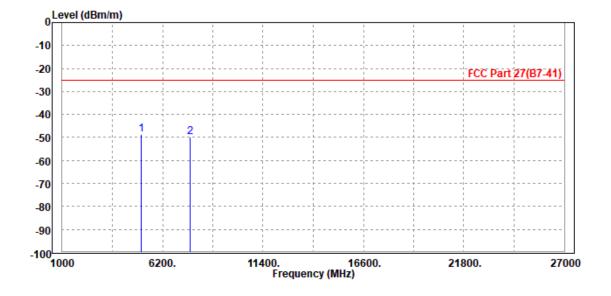




## CH 21100

MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	IINPIII POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	ESTED BY Star Le								
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									

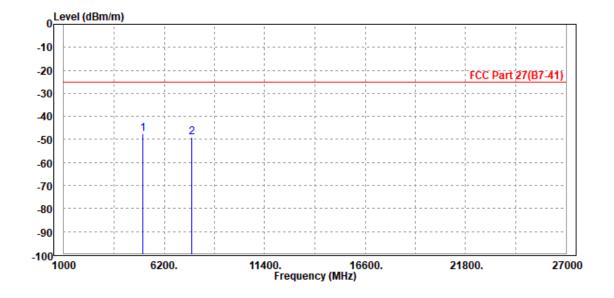
Freq	Level		Limit Line		Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
 5082.000 7605.000							Horizontal Horizontal





MODE	TX channel 21100	Above 1000MHz							
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	IINPIII POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	TESTED BY Star Le								
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 2	5082.000 7605.000							Vertical Vertical

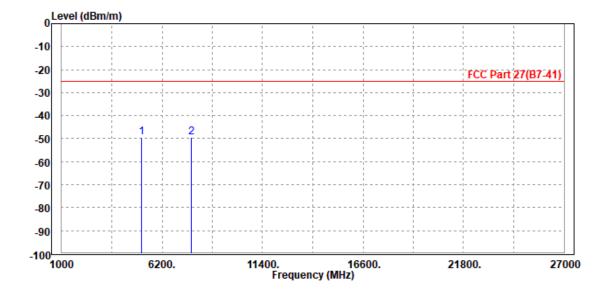




## CH 21425

MODE	TX channel 21425	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	IINPIII POWER	DC5V/9V/10V/12V from adapter						
TESTED BY	Star Le	Star Le							
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									

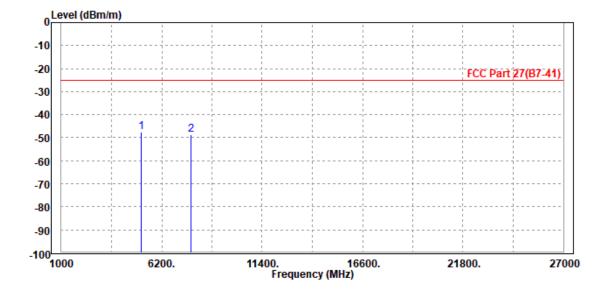
	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 2 PP	5134.000 7702.500							Horizontal Horizontal





MODE	TX channel 21425	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	IINPIII POWER	DC5V/9V/10V/12V from adapter				
TESTED BY	Star Le						
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							

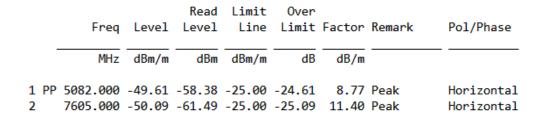
Freq	Level		Limit Line		Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
5134.000 7702.500							Vertical Vertical

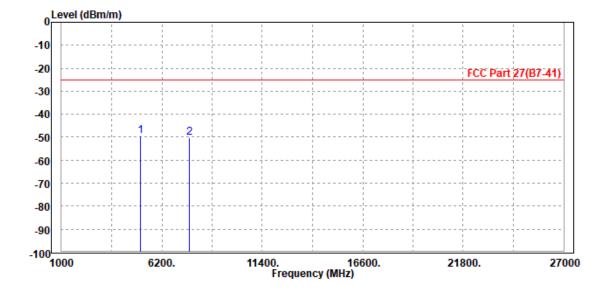




#### CHANNEL BANDWIDTH: 10MHz / QPSK

MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter					
TESTED BY	Star Le	Star Le						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

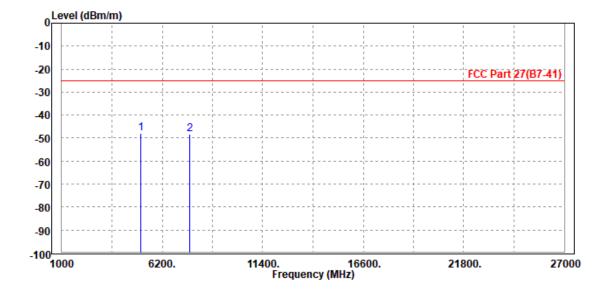






MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter				
TESTED BY	Star Le						
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							

			Read	Limit	0ver			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
	-							
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	5082.000	- <i>4</i> 7 81	-57 68	-25 00	-22 81	9 87	Poak	Vertical
	3002.000	47.01	37.00	23.00	22.01	3.07	I Cuit	VCI CICUI
2	7605.000	-48.13	-60.91	-25.00	-23.13	12.78	Peak	Vertical

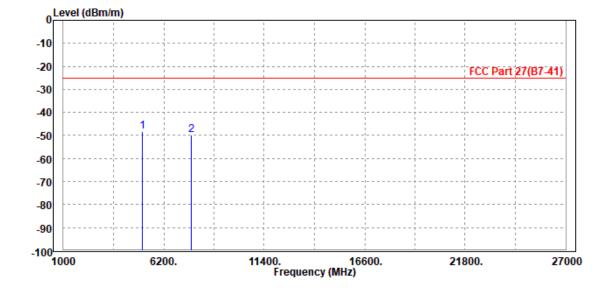




# **CHANNEL BANDWIDTH: 15MHz / QPSK**

MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	IINPIII POWER	DC5V/9V/10V/12V from adapter				
TESTED BY	Star Le						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							

		Read	Limit	0ver			
Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
_							
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
	•		•		•		
P 5082.000	-48.17	-56.94	-25.00	-23.17	8.77	Peak	Horizontal
7000						-	
/605.000	-49.96	-61.36	-25.00	-24.96	11.40	Peak	Horizontal
1	MHz PP 5082.000	MHz dBm/m	Freq Level Level  MHz dBm/m dBm  PP 5082.000 -48.17 -56.94	Freq Level Level Line  MHz dBm/m dBm dBm/m  PP 5082.000 -48.17 -56.94 -25.00	MHz dBm/m dBm dBm/m dB PP 5082.000 -48.17 -56.94 -25.00 -23.17	Freq Level Level Line Limit Factor  MHz dBm/m dBm dBm/m dB dB/m  PP 5082.000 -48.17 -56.94 -25.00 -23.17 8.77	Freq Level Level Line Limit Factor Remark



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MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	DC5V/9V/10V/12V from adapter				
TESTED BY	Star Le						
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
	5082.000 7605.000							Vertical Vertical

