

LTE Band 2 / Chain 0

Channel Bandwidth 15MHz

Channel 675 (1937.5MHz)

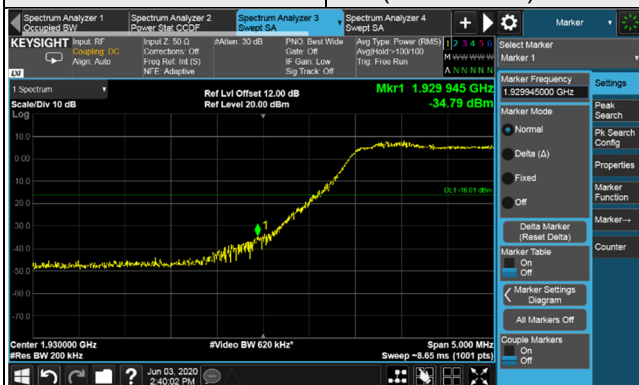


Channel 1125 (1982.5MHz)



Channel Bandwidth 20MHz

Channel 700 (1940.0MHz)



Channel 1100 (1980.0MHz)



LTE Band 2 / Chain 1

Channel Bandwidth 5MHz

Channel 625(1932.5MHz) Channel 1175(1987.5MHz)



Channel Bandwidth 10MHz

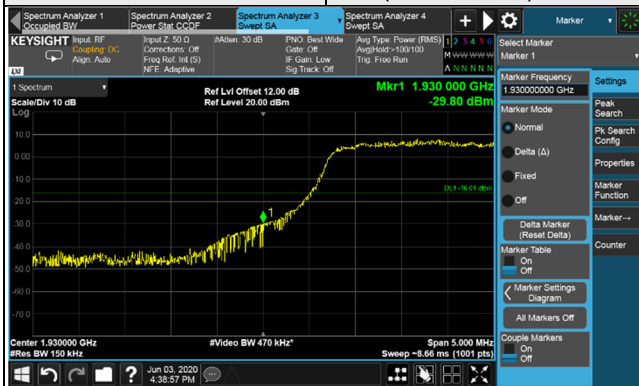
Channel 650(1935.0MHz) Channel 1150(1985.0MHz)



LTE Band 2 / Chain 1

Channel Bandwidth 15MHz

Channel 675 (1937.5MHz)

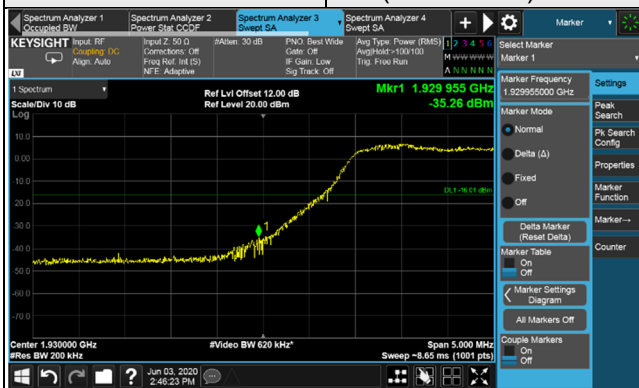


Channel 1125 (1982.5MHz)

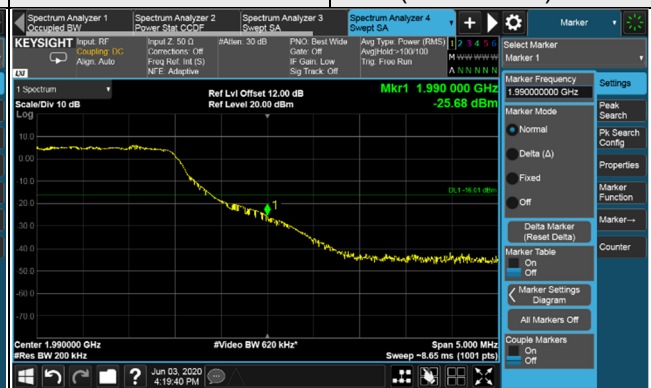


Channel Bandwidth 20MHz

Channel 700 (1940.0MHz)



Channel 1100 (1980.0MHz)

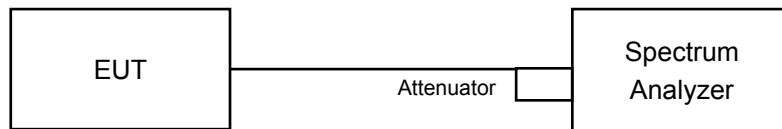


4.6 Peak to Average Ratio

4.6.1 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

4.6.2 Test Setup

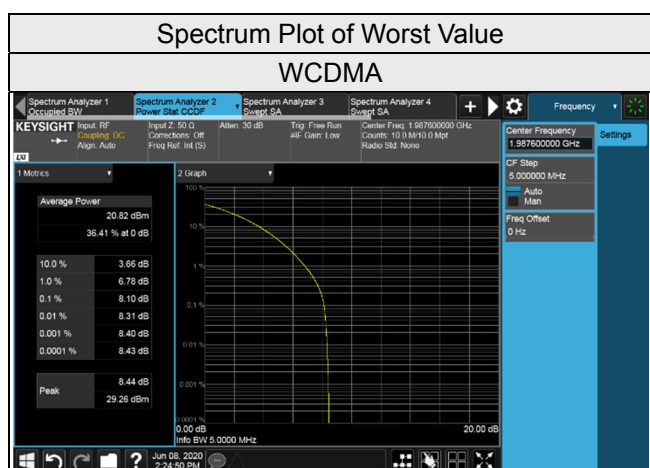


4.6.3 Test Procedures

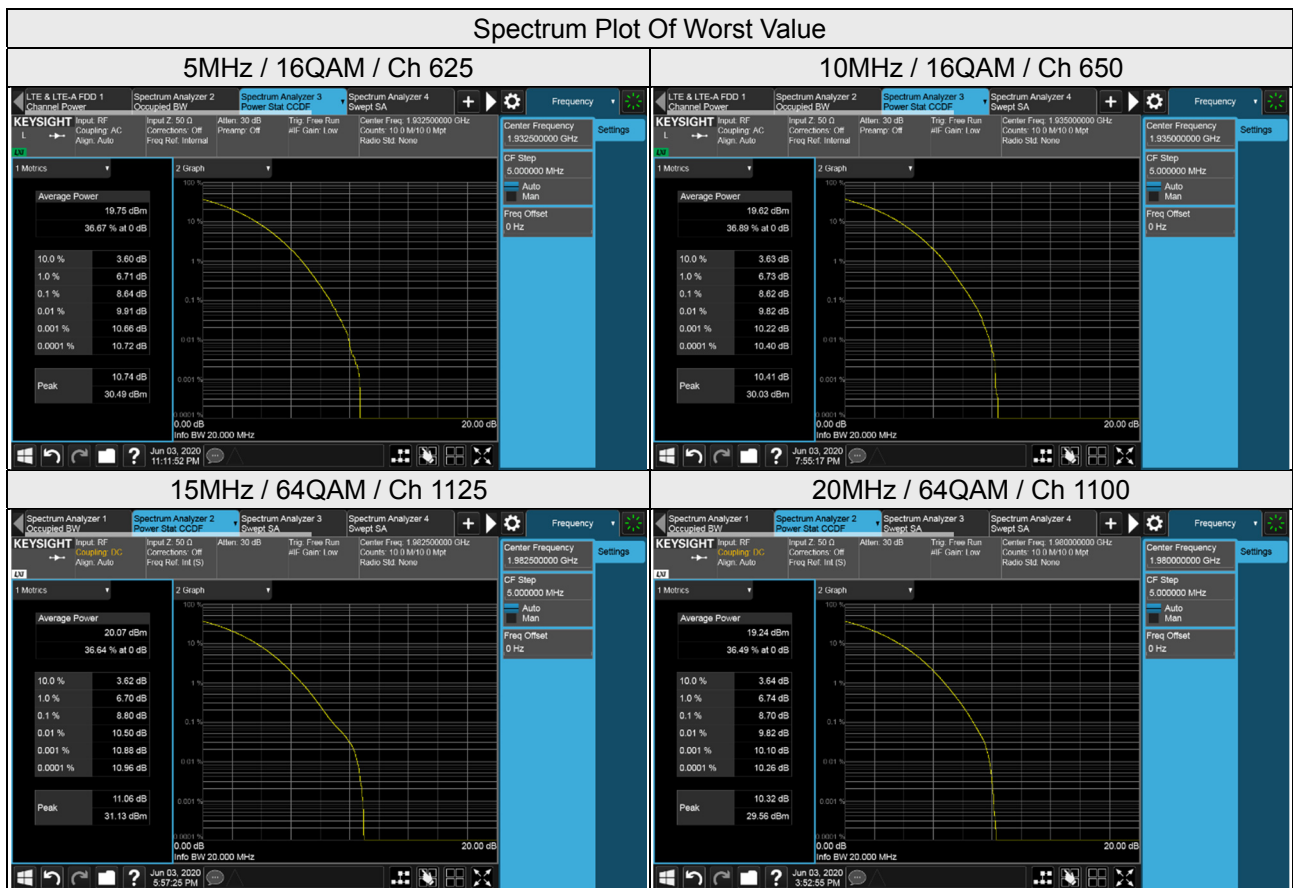
- Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

4.6.4 Test Results

Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		WCDMA
9262	1932.4	8.09
9800	1960.0	8.10
9938	1987.6	8.10



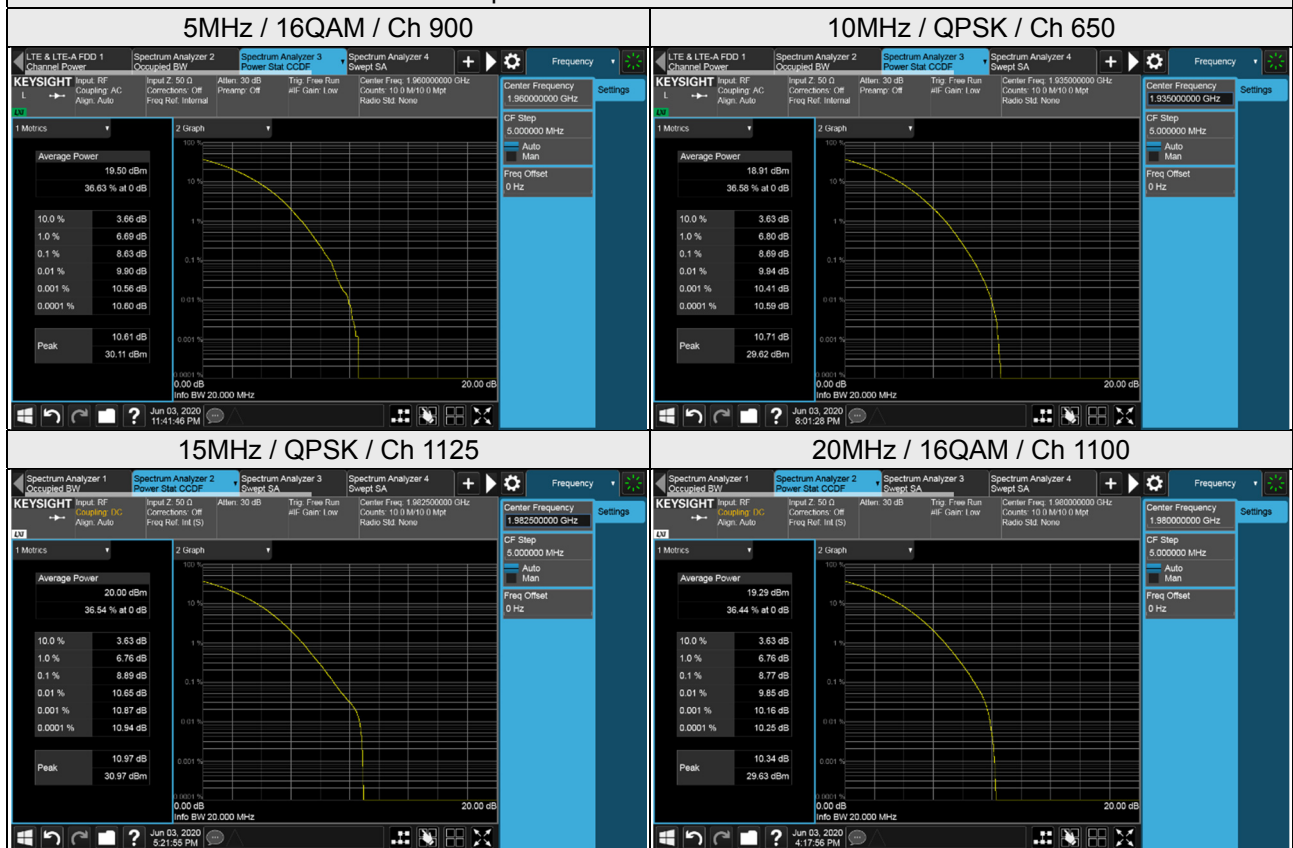
LTE Band 2 / Chain 0									
Channel Bandwidth 5MHz					Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
625	1932.5	8.63	8.64	8.62	650	1935.0	8.62	8.62	8.61
900	1960.0	8.62	8.54	8.51	900	1960.0	8.39	8.39	8.38
1175	1987.5	8.43	8.45	8.43	1150	1985.0	8.60	8.57	8.56
Channel Bandwidth 15MHz					Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
675	1937.5	8.77	8.77	8.77	700	1940.0	8.58	8.59	8.58
900	1960.0	8.45	8.48	8.47	900	1960.0	8.44	8.43	8.43
1125	1982.5	8.79	8.77	8.80	1100	1980.0	8.69	8.70	8.70



LTE Band 2 / Chain 1

Channel Bandwidth 5MHz					Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
625	1932.5	8.45	8.43	8.45	650	1935.0	8.69	8.69	8.69
900	1960.0	8.62	8.63	8.58	900	1960.0	8.39	8.39	8.42
1175	1987.5	8.41	8.44	8.43	1150	1985.0	8.55	8.54	8.55
Channel Bandwidth 15MHz					Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
675	1937.5	8.71	8.69	8.70	700	1940.0	8.54	8.56	8.55
900	1960.0	8.48	8.47	8.49	900	1960.0	8.50	8.52	8.50
1125	1982.5	8.89	8.87	8.85	1100	1980.0	8.77	8.77	8.75

Spectrum Plot Of Worst Value



4.7 Conducted Spurious Emissions

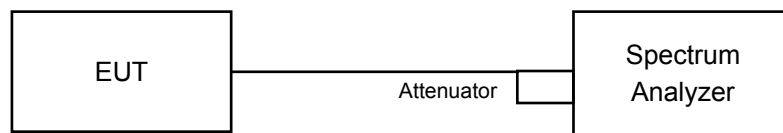
4.7.1 Limits of Conducted Spurious Emissions Measurement

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 equal to -13dBm .

Note:

This device can be implement MIMO function, so the limit of spurious emissions needs to be reduced by $10\log(\text{Numbers}_{\text{Ant}})$ according to FCC KDB 662911 D01 guidance.

4.7.2 Test Setup



4.7.3 Test Procedure

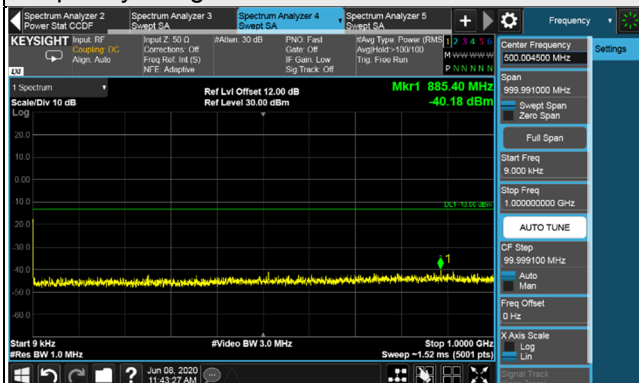
- All measurements were done at 3 channels: low, middle and high operational frequency range.
- When the spectrum scanned from 9kHz to 26.5GHz, it shall be connected to the attenuator with the carried frequency.

4.7.4 Test Results

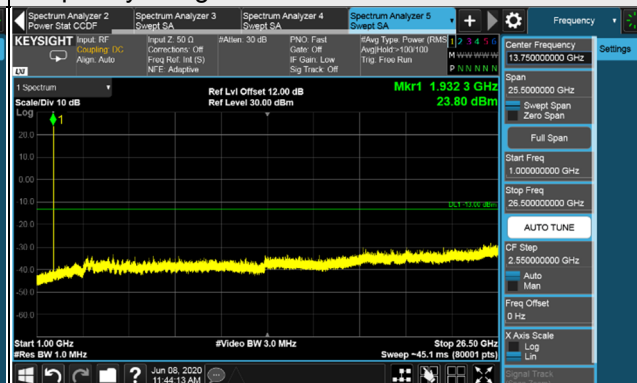
WCDMA

Channel 9662 (1932.4MHz)

Frequency Range : 9kHz~1GHz

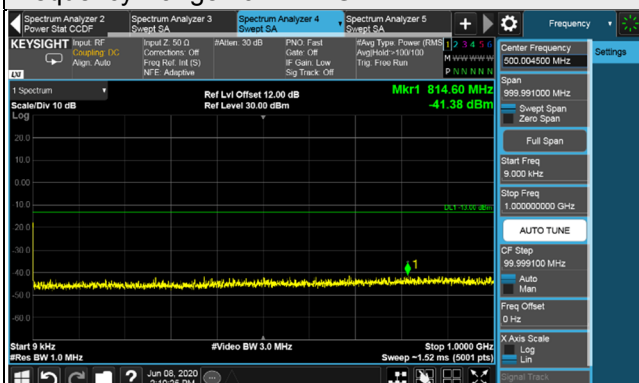


Frequency Range : 1GHz~26.5GHz

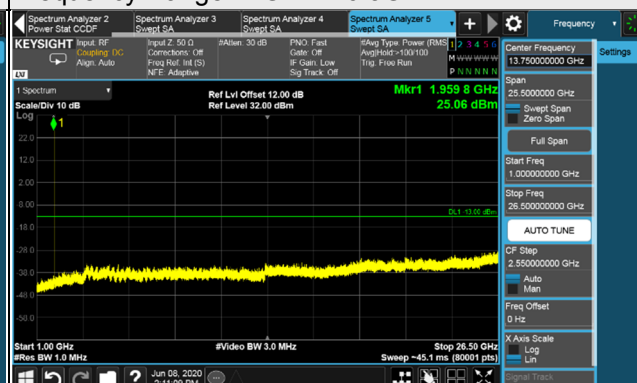


Channel 9800 (1960.0MHz)

Frequency Range : 9kHz~1GHz

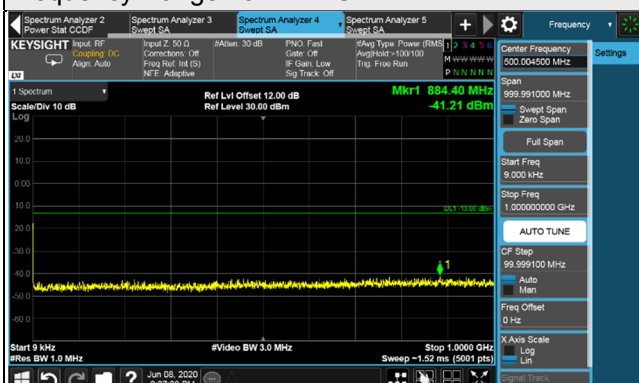


Frequency Range : 1GHz~26.5GHz



Channel 9938 (1987.6MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~26.5GHz

