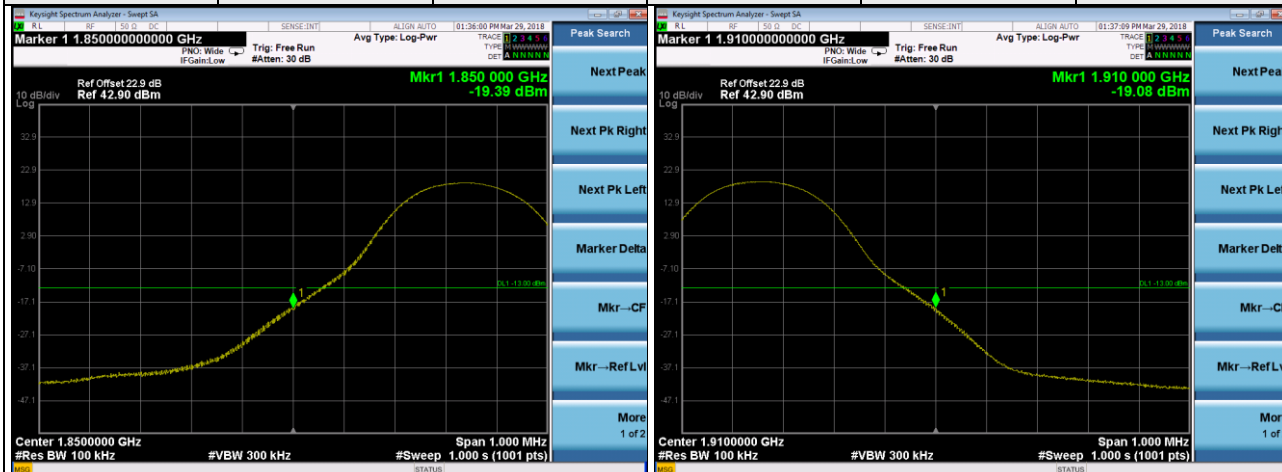


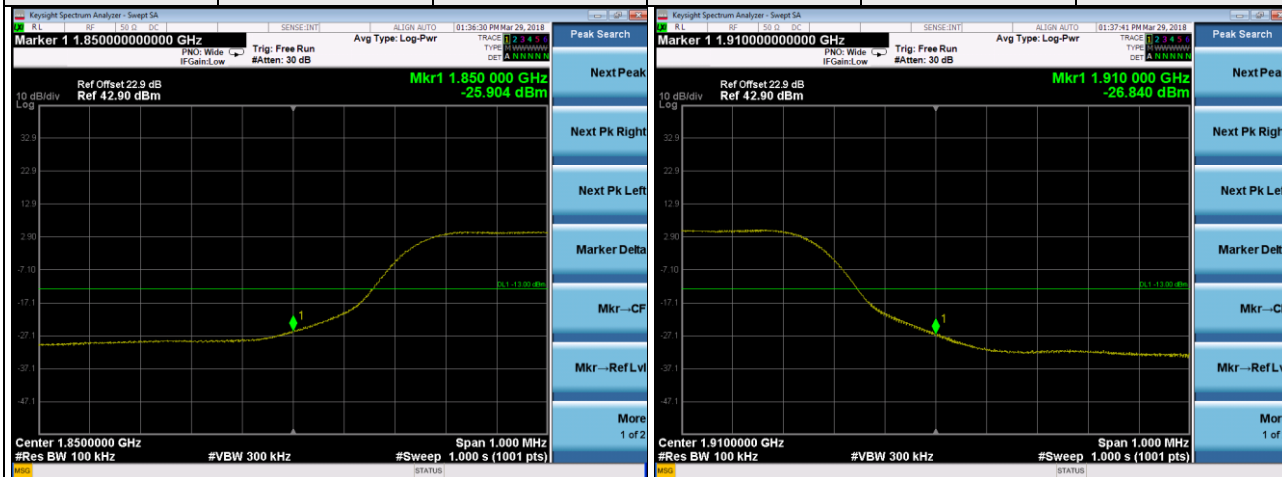
LTE Band 2

Channel Bandwidth 5MHz

Channel	18625	1 RB	Channel	19175	1 RB
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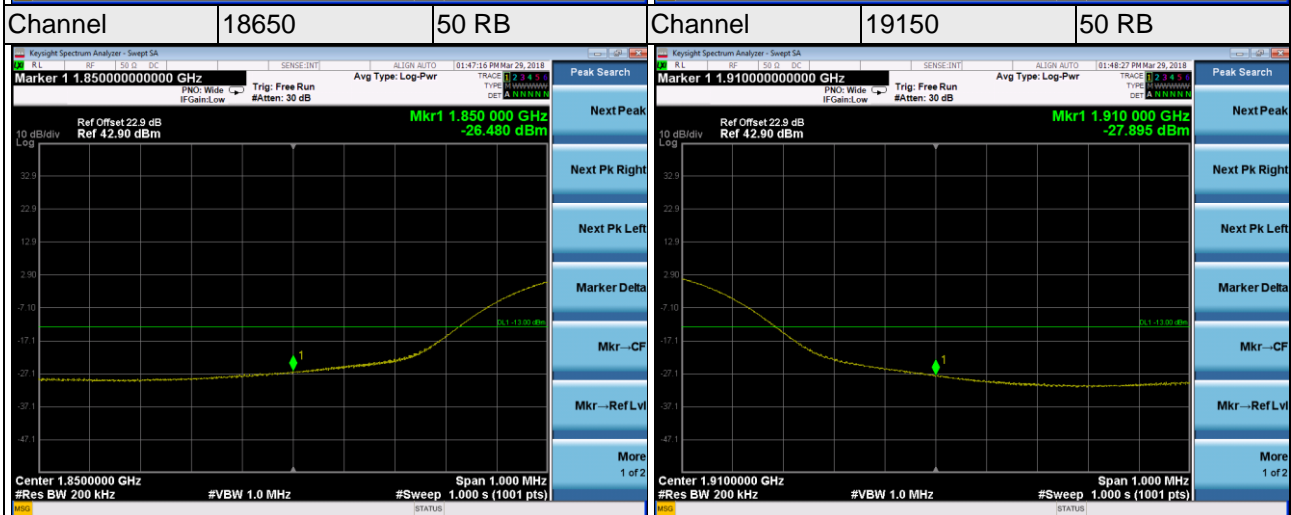
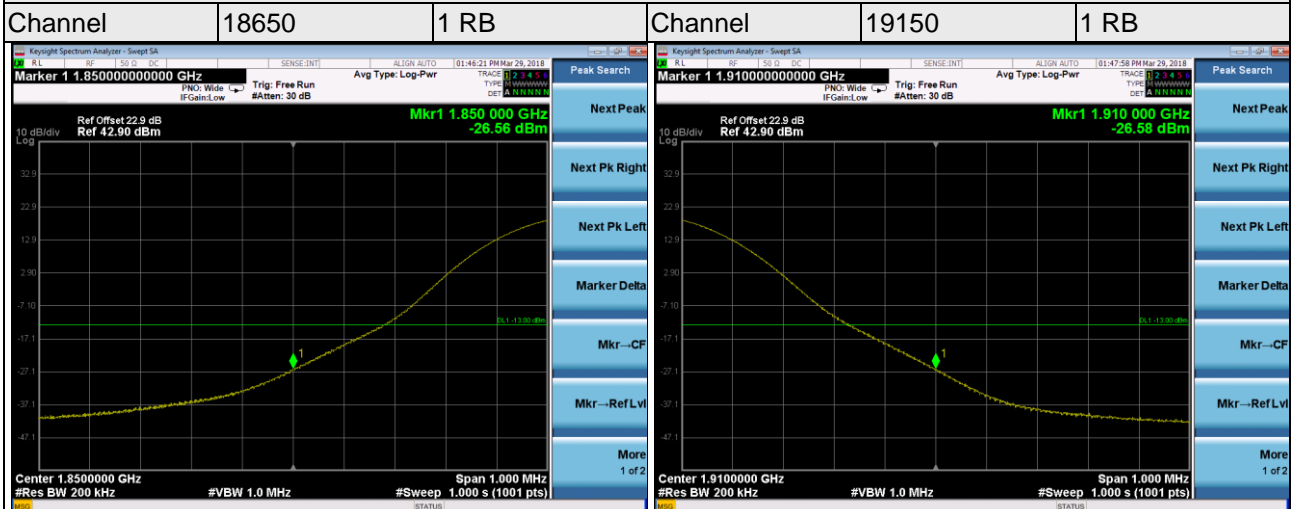


Channel	18625	25 RB	Channel	19175	25 RB
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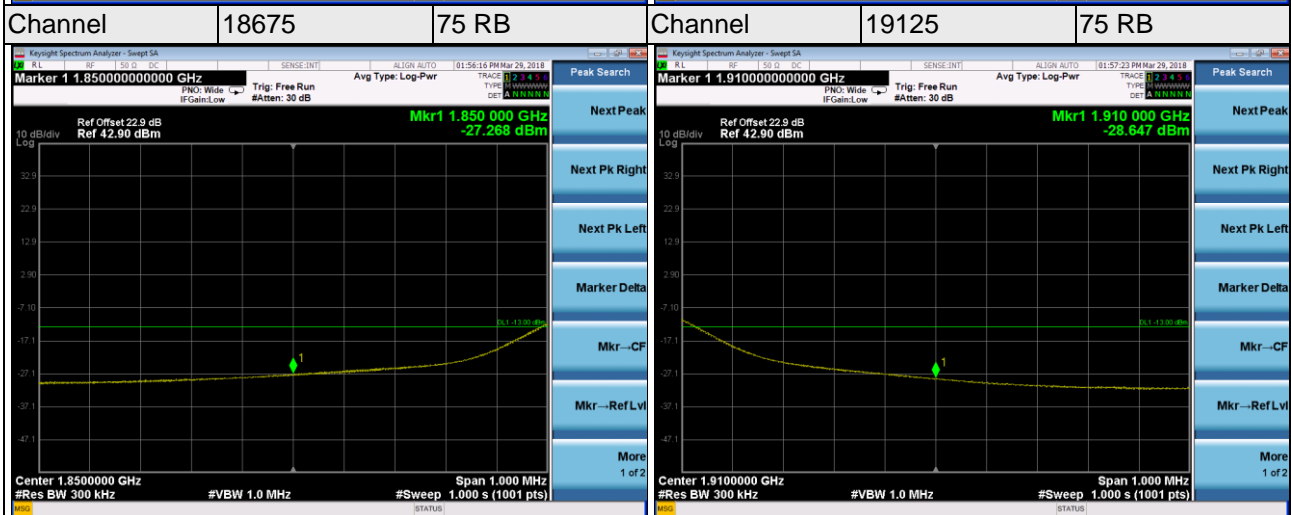
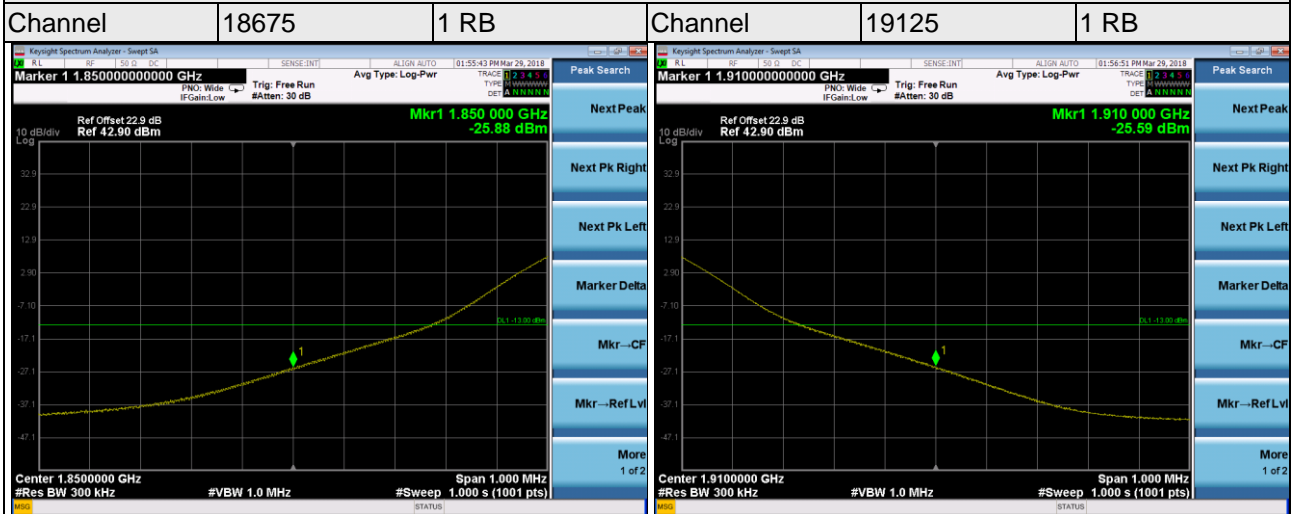
LTE Band 2

Channel Bandwidth 10MHz



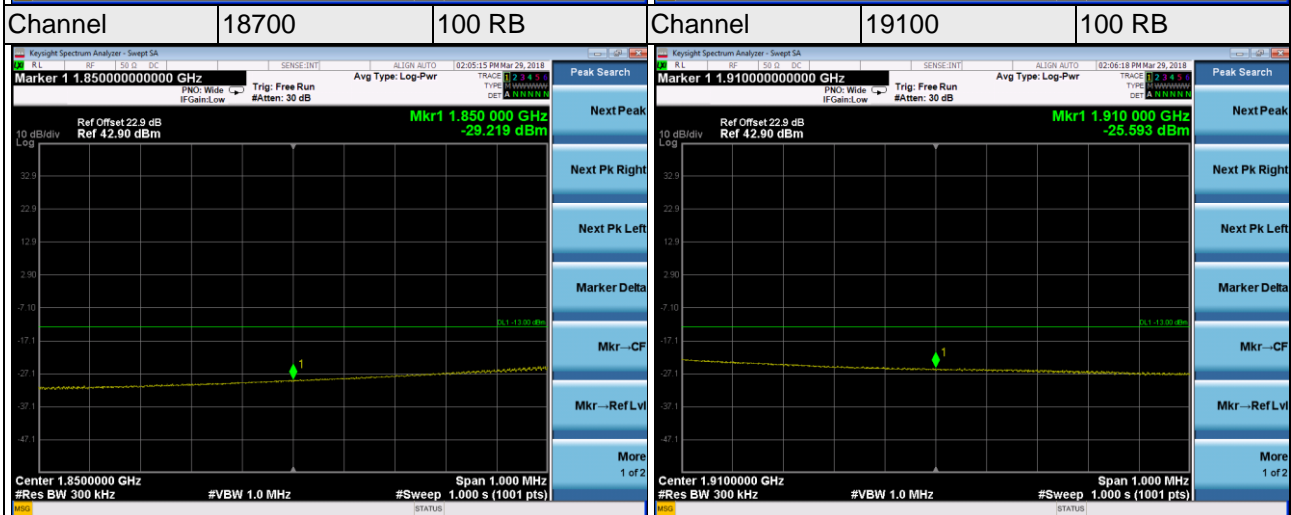
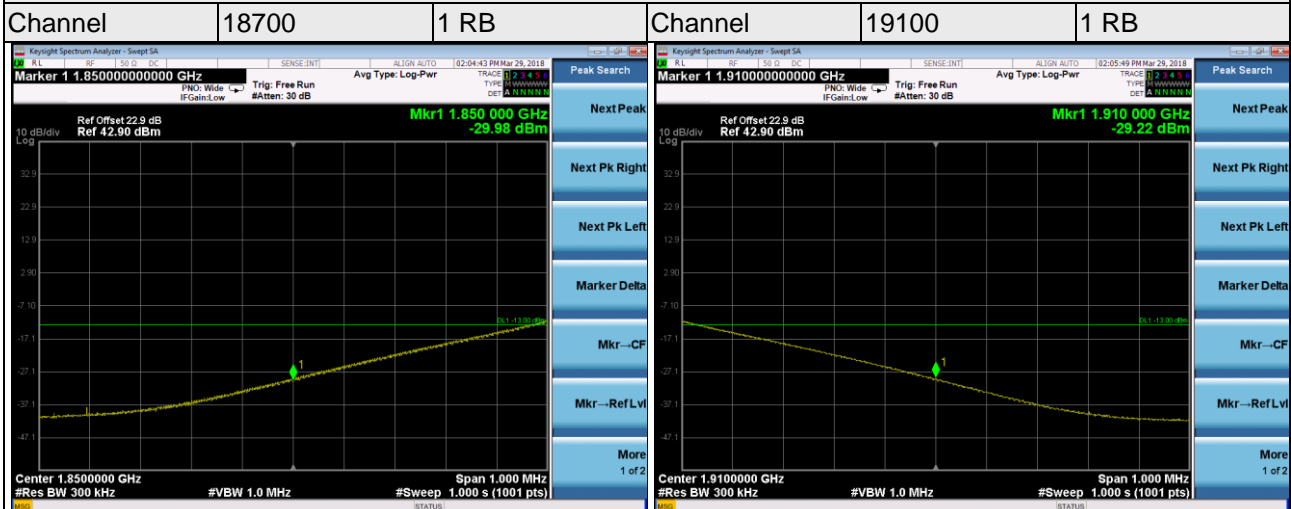
LTE Band 2

Channel Bandwidth 15MHz



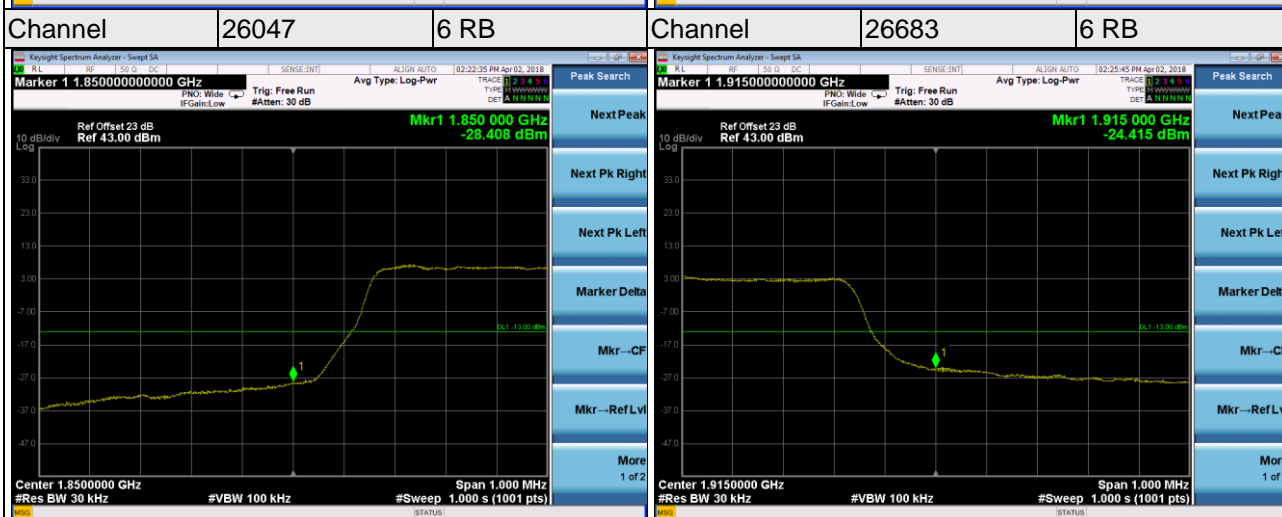
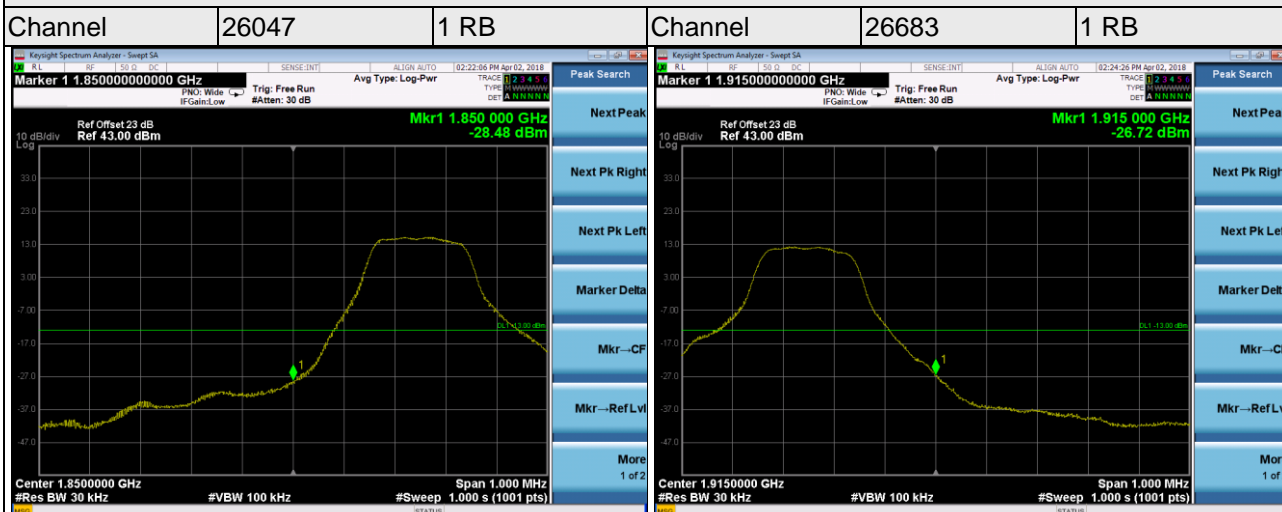
LTE Band 2

Channel Bandwidth 20MHz



LTE Band 25

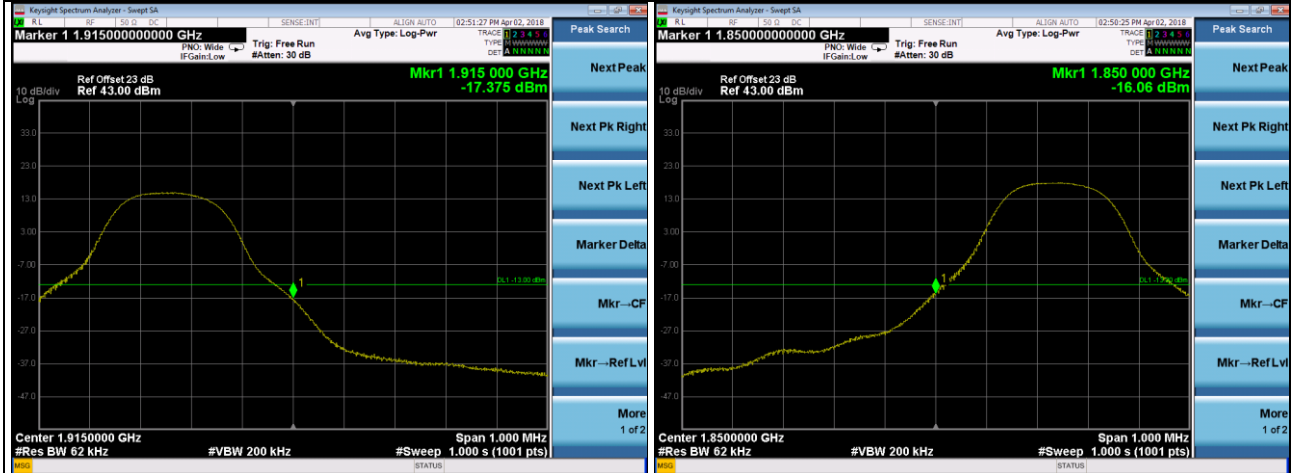
Channel Bandwidth 1.4MHz



LTE Band 25

Channel Bandwidth 3MHz

Channel	26055	1 RB	Channel	26675	1 RB
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Channel	26055	15 RB	Channel	26675	15 RB
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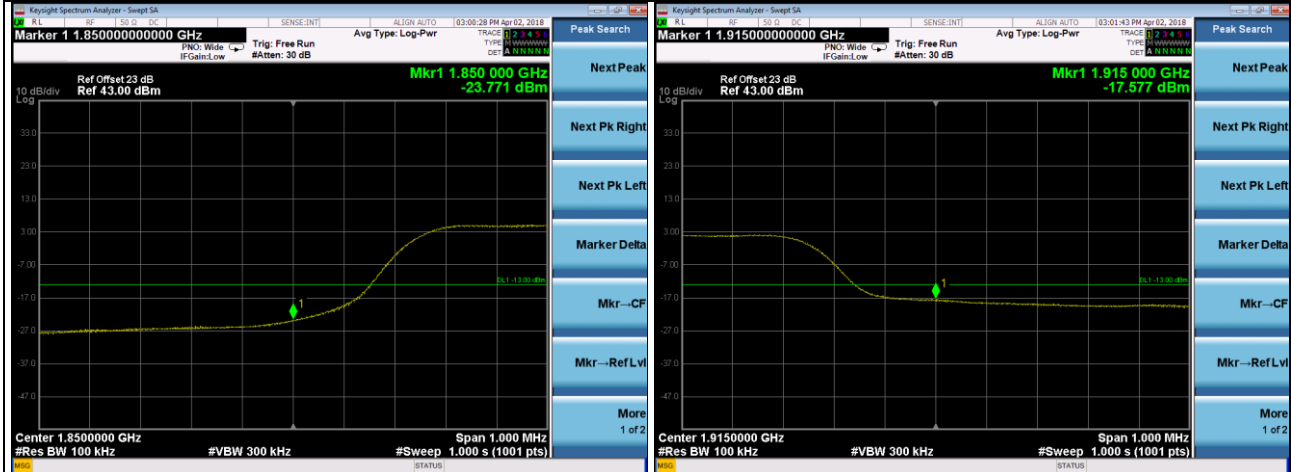
LTE Band 25

Channel Bandwidth 5MHz

Channel	26065	1 RB	Channel	26665	1 RB
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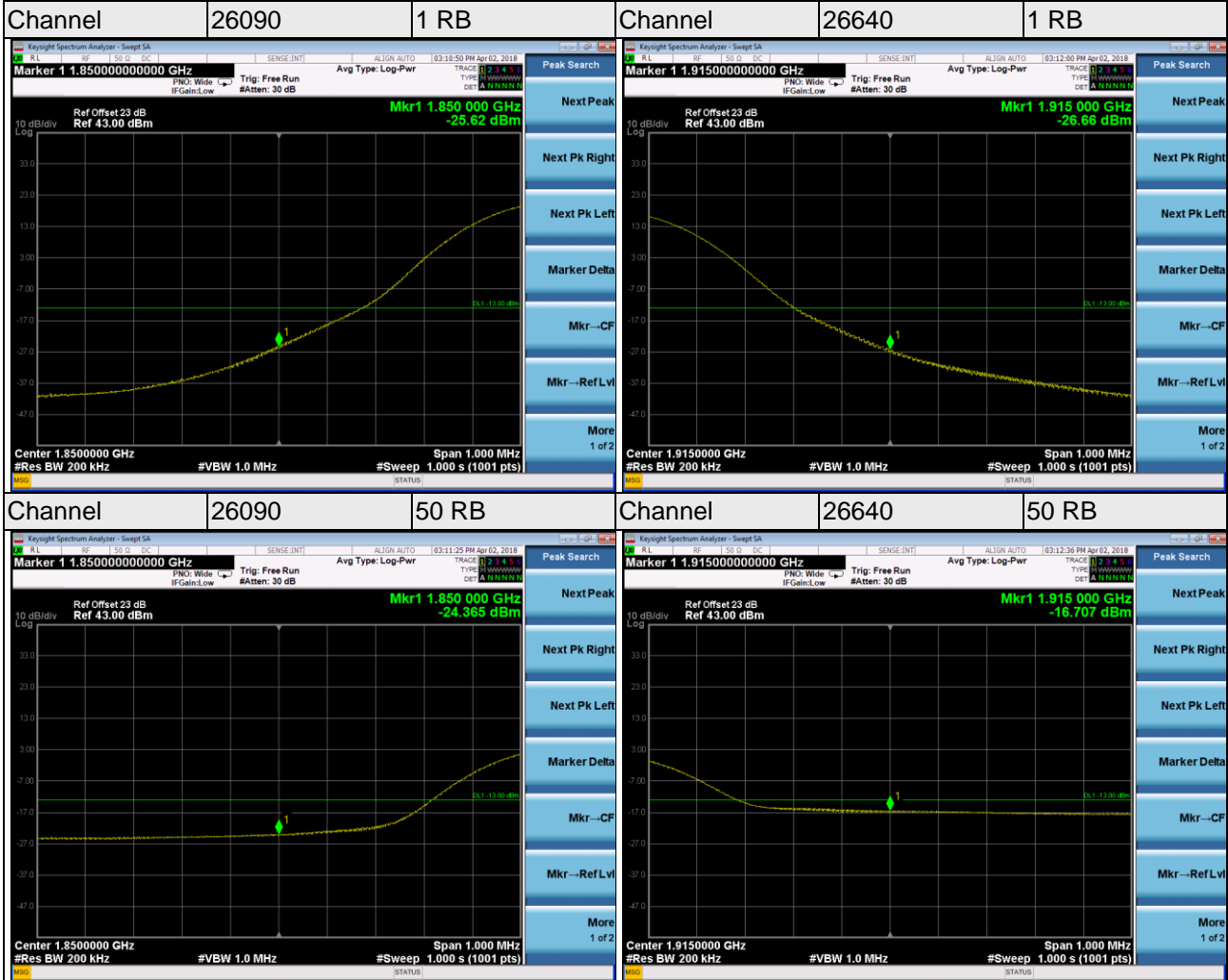


Channel	26065	25 RB	Channel	26665	25 RB
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### LTE Band 25

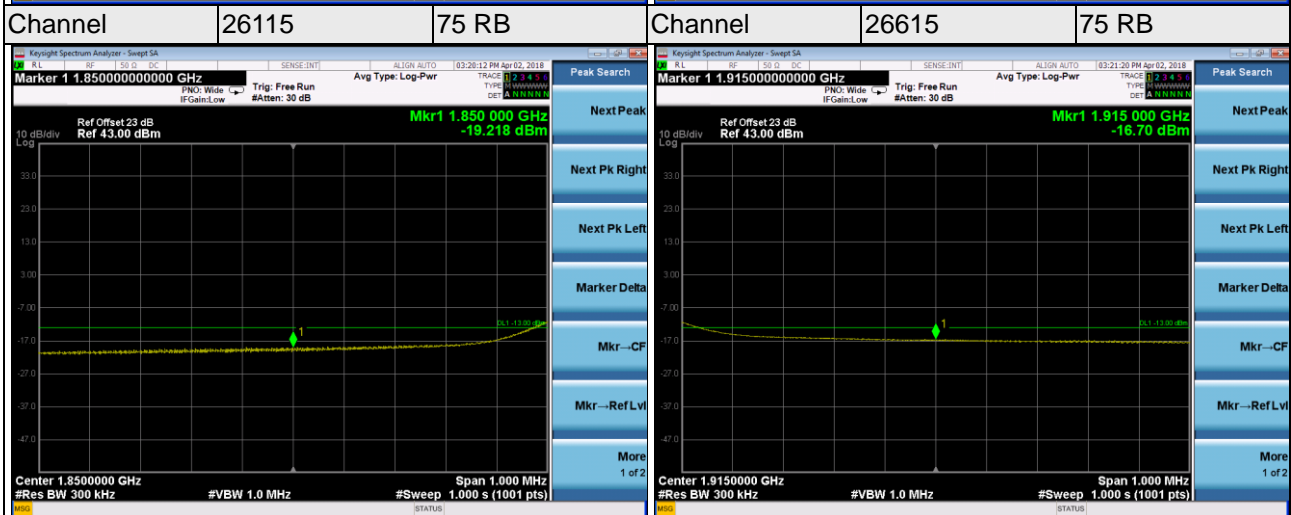
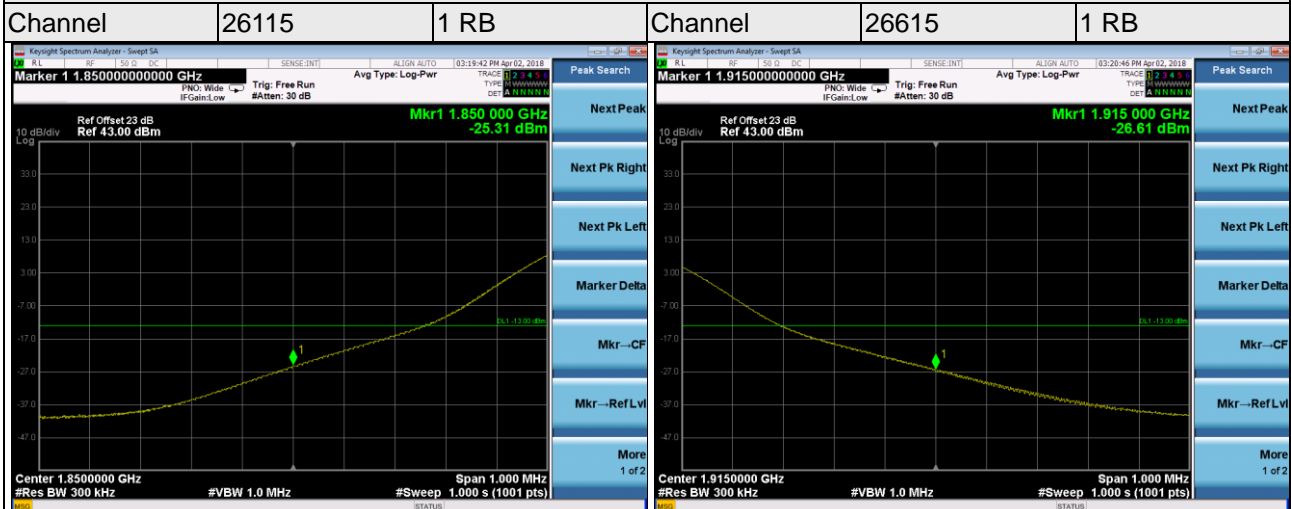
### Channel Bandwidth 10MHz





LTE Band 25

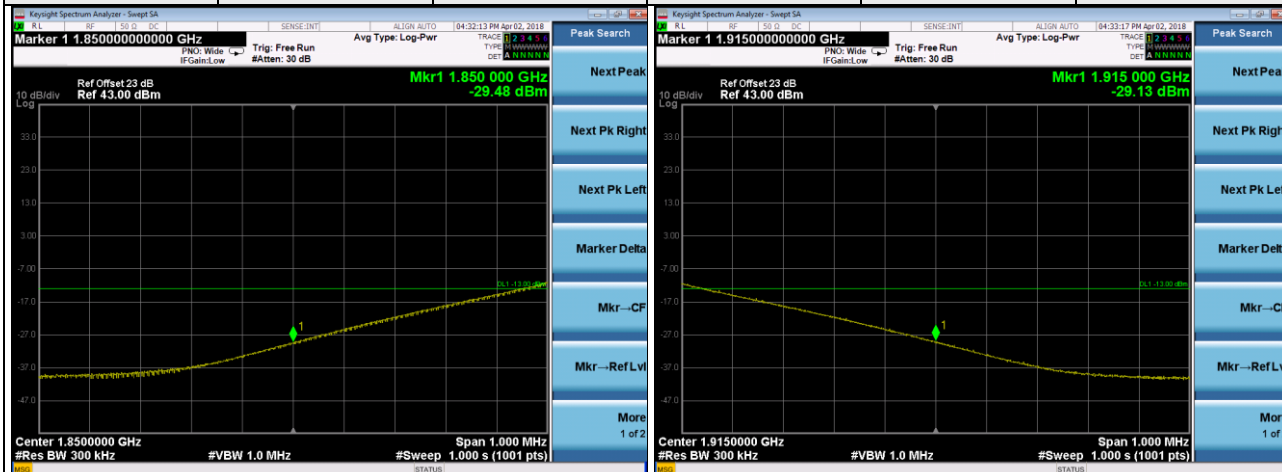
Channel Bandwidth 15MHz



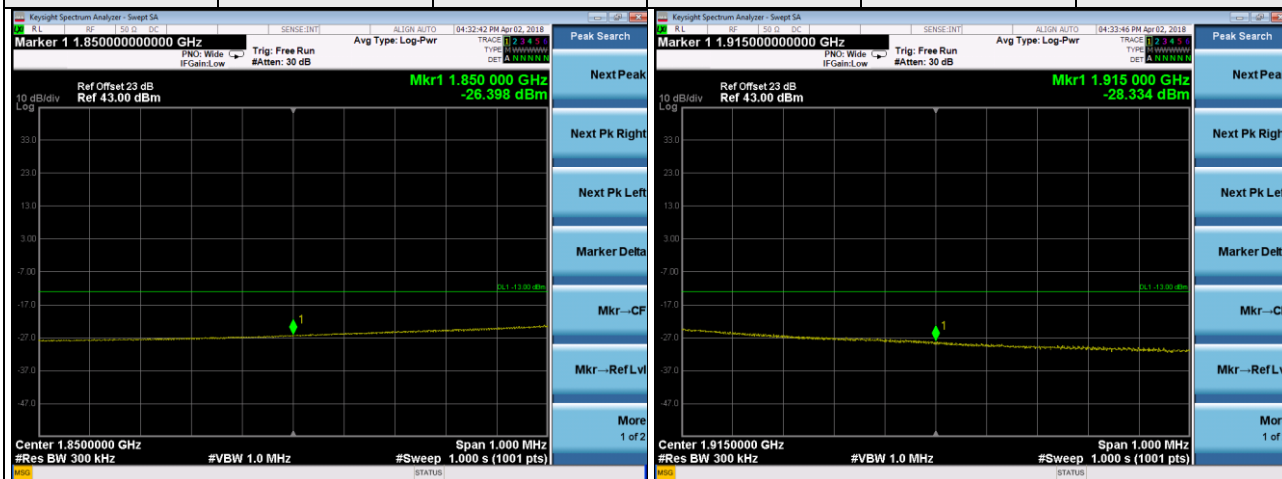
LTE Band 25

Channel Bandwidth 20MHz

Channel	26140	1 RB	Channel	26590	1 RB
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Channel	26140	100 RB	Channel	26590	100 RB
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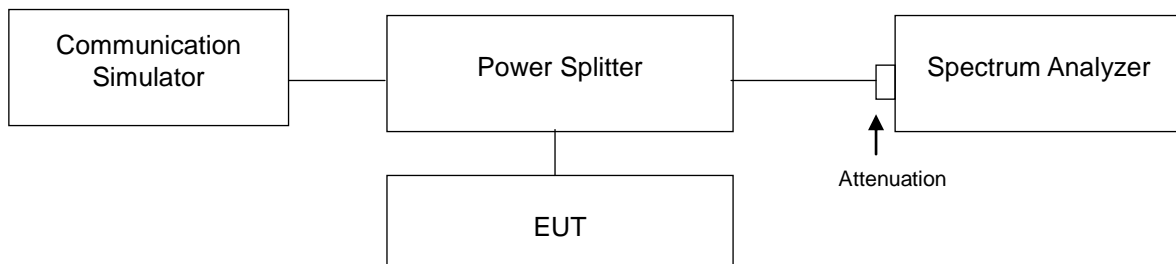


## 4.6 Peak to Average Ratio

### 4.5.1 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

### 4.5.2 Test Setup

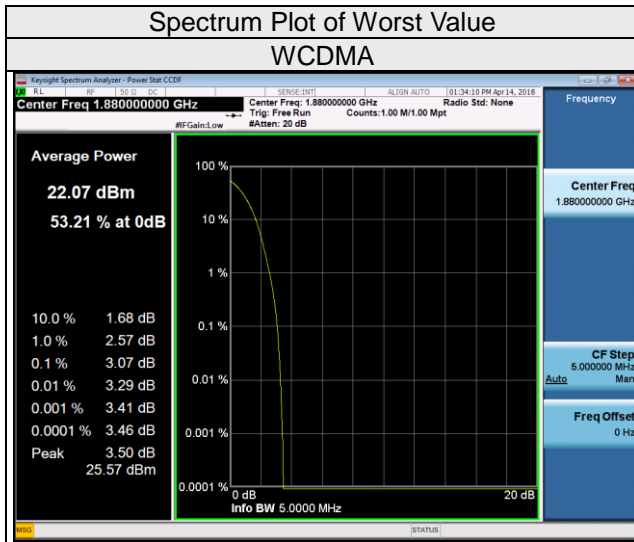


### 4.5.3 Test Procedures

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%.

#### 4.5.4 Test Results

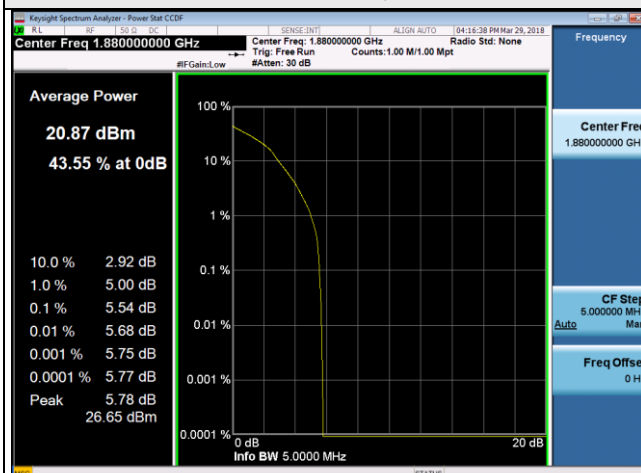
Channel	Freq. (MHz)	Peak to Average Ratio (dB)
		WCDMA
9262	1852.4	3.01
9400	1880	3.07
9538	1907.6	3.04



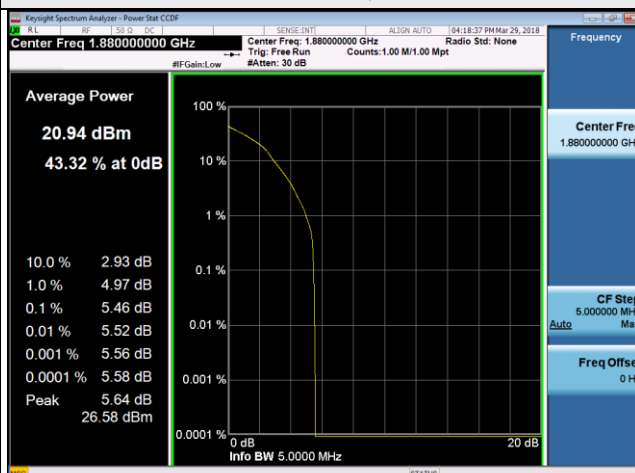
LTE Band 2									
Channel Bandwidth 1.4MHz					Channel Bandwidth 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
18607	1850.7	3.52	5.50	5.53	18615	1851.5	3.48	5.37	5.45
18900	1880	3.85	5.52	5.54	18900	1880	3.65	5.35	5.46
19193	1909.3	3.82	5.05	5.20	19185	1907.5	3.61	5.05	5.31
Channel Bandwidth 5MHz					Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	QPSK	64QAM			QPSK	16QAM	64QAM
18625	1852.5	3.48	5.37	5.41	18650	1855	3.44	5.24	5.36
18900	1880	3.63	5.35	5.40	18900	1880	3.54	5.29	5.39
19175	1907.5	3.62	5.36	5.48	19150	1905	3.55	5.34	5.38
Channel Bandwidth 15MHz					Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	QPSK	64QAM			QPSK	16QAM	64QAM
18675	1857.5	3.36	5.25	5.30	18700	1860	3.38	5.26	5.33
18900	1880	3.46	5.32	5.33	18900	1880	3.47	5.24	5.42
19125	1902.5	3.53	4.81	4.78	19100	1900	3.5	4.18	4.25

### Spectrum Plot of Worst Value

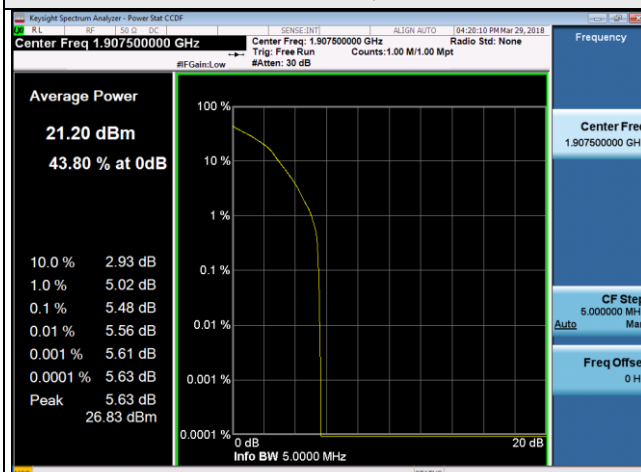
1.4MHz / 64QAM



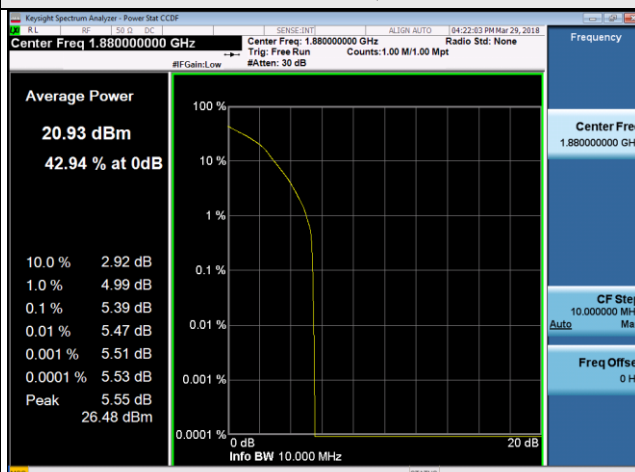
3MHz / 16QAM



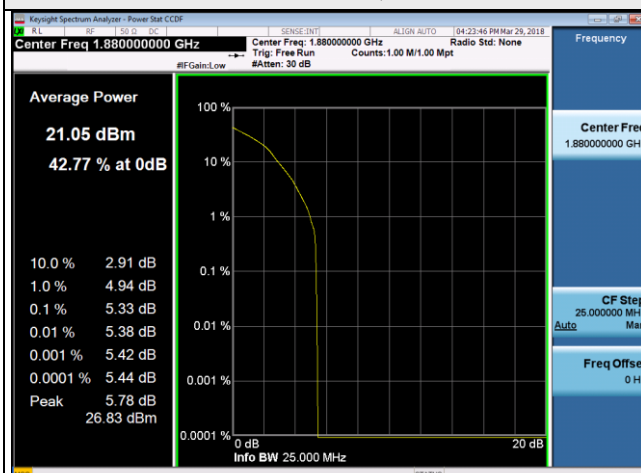
5MHz / 64QAM



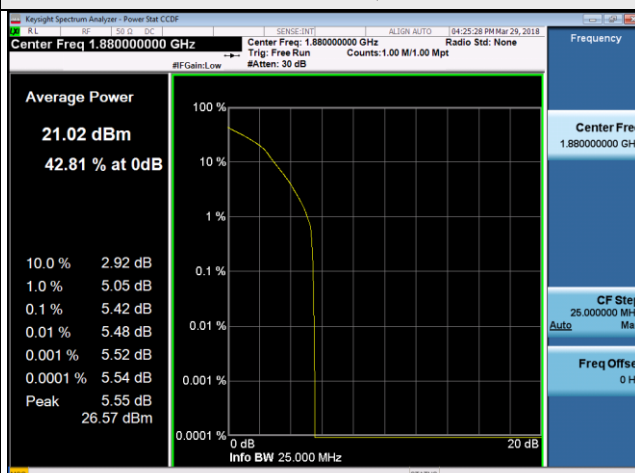
10MHz / 64QAM



15MHz / 16QAM



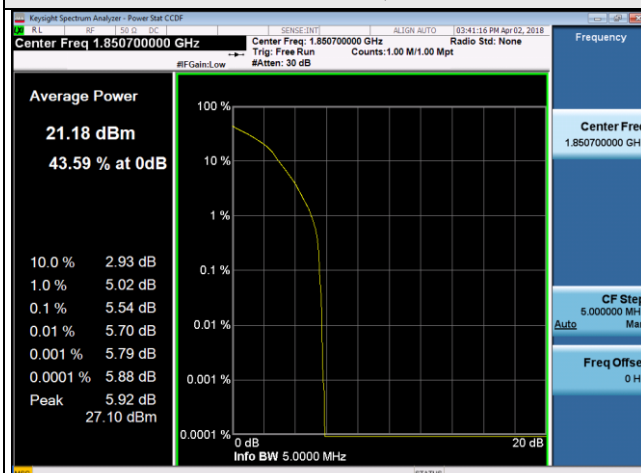
20MHz / 16QAM



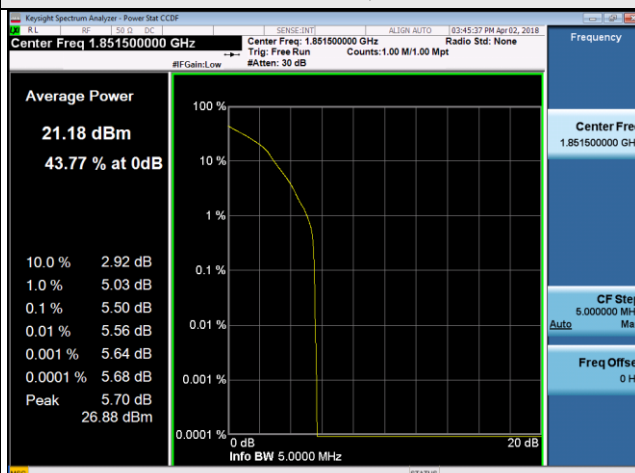
LTE Band 25									
Channel Bandwidth 1.4MHz					Channel Bandwidth 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
26047	1850.7	3.81	5.53	5.54	26055	1851.5	3.62	5.38	5.50
26365	1882.5	3.78	4.58	4.66	26365	1882.5	3.58	4.09	4.29
26683	1914.3	2.96	3.65	3.70	26675	1913.5	2.91	3.67	3.73
Channel Bandwidth 5MHz					Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	QPSK	64QAM			QPSK	16QAM	64QAM
26065	1852.5	3.62	5.42	5.49	26090	1855	3.54	5.32	5.39
26365	1882.5	3.37	4.14	4.19	26365	1882.5	3.14	3.87	3.93
26665	1912.5	3.45	4.27	4.45	26640	1910	3.27	4.11	4.17
Channel Bandwidth 15MHz					Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	QPSK	64QAM			QPSK	16QAM	64QAM
26615	1857.5	3.5	5.26	5.30	26140	1860	3.43	4.81	4.88
26365	1882.5	3.02	3.73	3.80	26365	1882.5	3.44	4.11	4.24
26615	1907.5	2.75	3.42	3.48	26590	1905	3.45	5.18	5.32

### Spectrum Plot of Worst Value

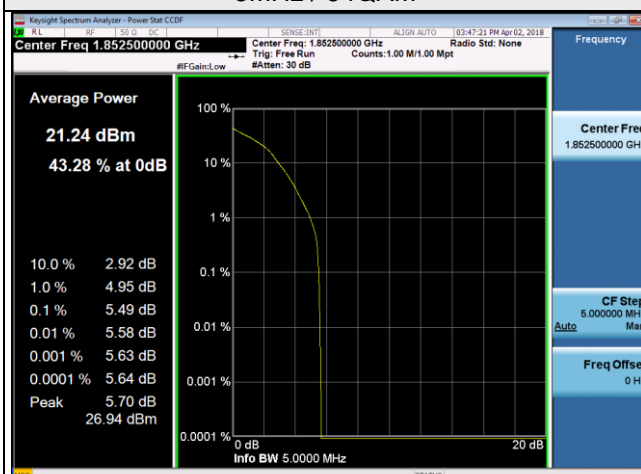
#### 1.4MHz / 64QAM



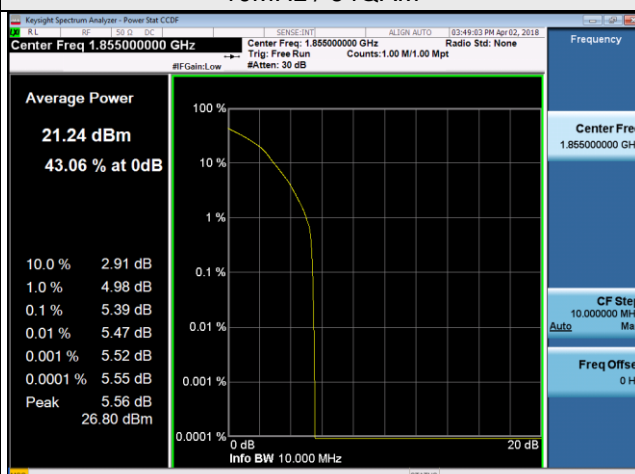
#### 3MHz / 64QAM



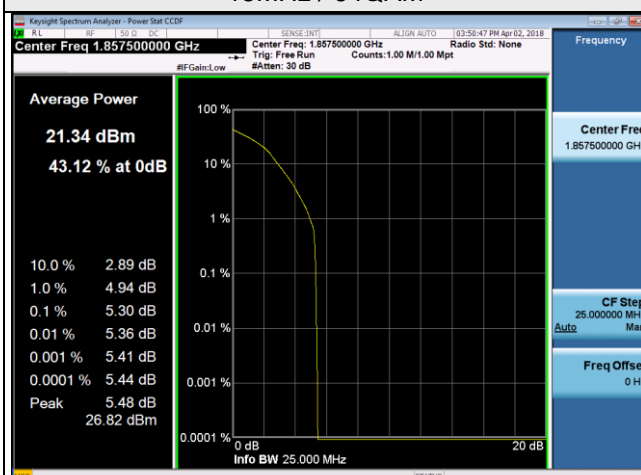
#### 5MHz / 64QAM



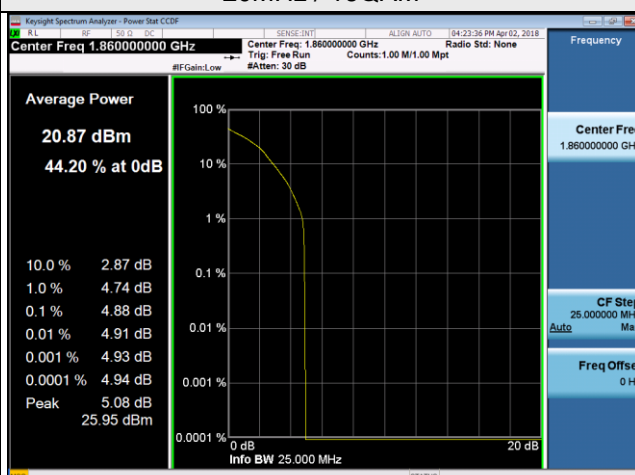
#### 10MHz / 64QAM



#### 15MHz / 64QAM



#### 20MHz / 16QAM



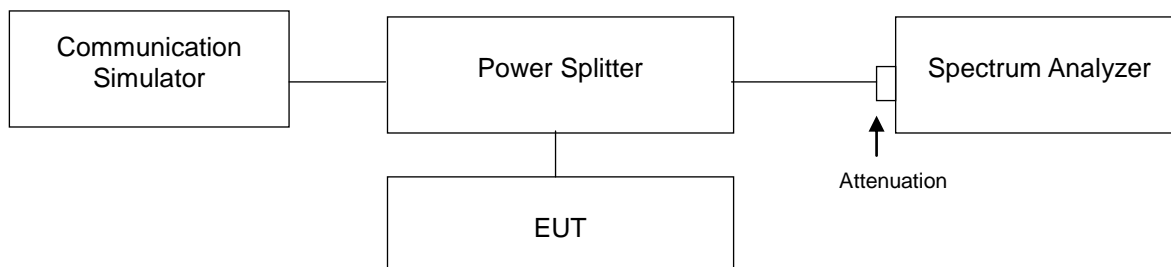


## 4.7 Conducted Spurious Emissions

### 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  $-13\text{dBm}$ .

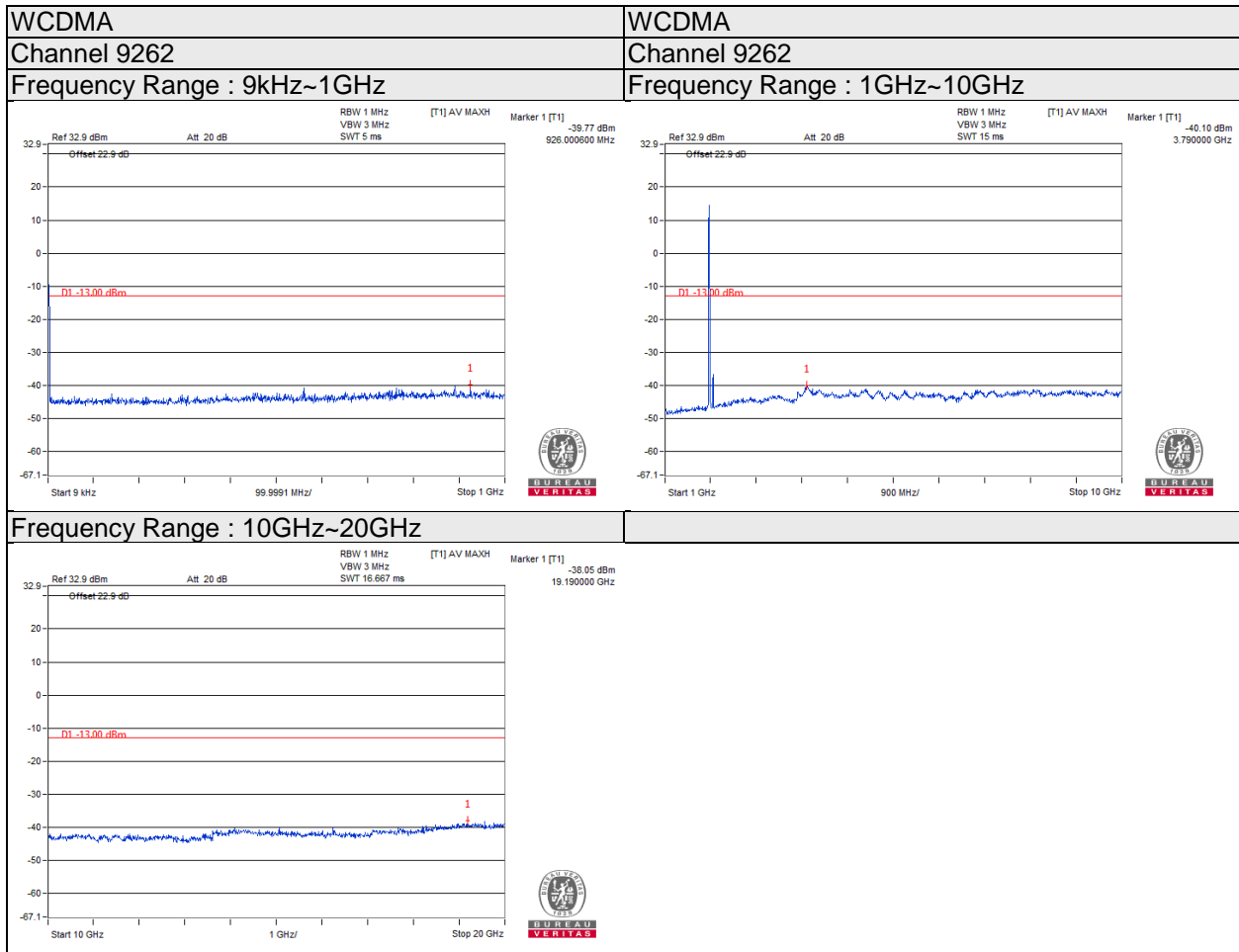
### 4.7.2 Test Setup



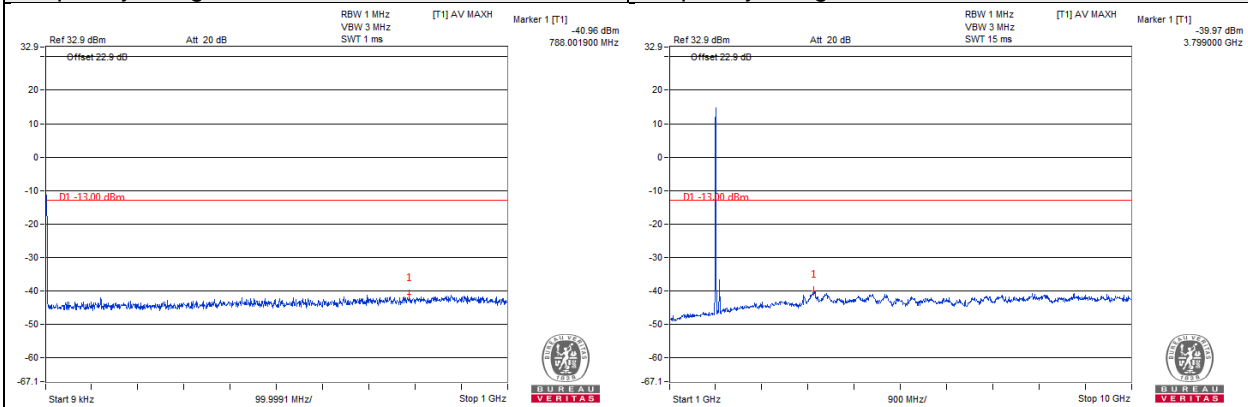
### 4.7.3 Test Procedure

- All measurements were done at middle operational frequency range.
- Measuring frequency range is from 9 kHz to the tenth harmonic of the highest fundamental frequency, it shall be connected to the pad attenuated the carried frequency.  
RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

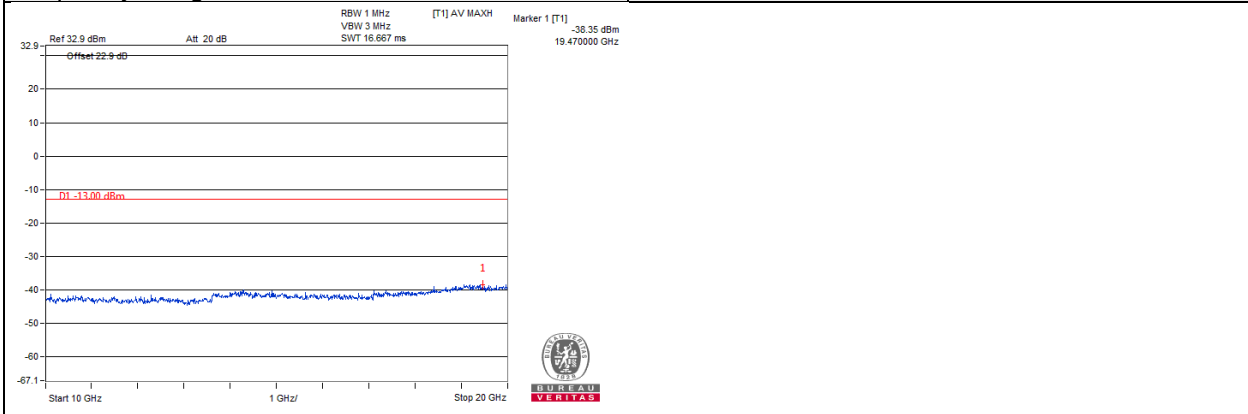
### 4.7.4 Test Results



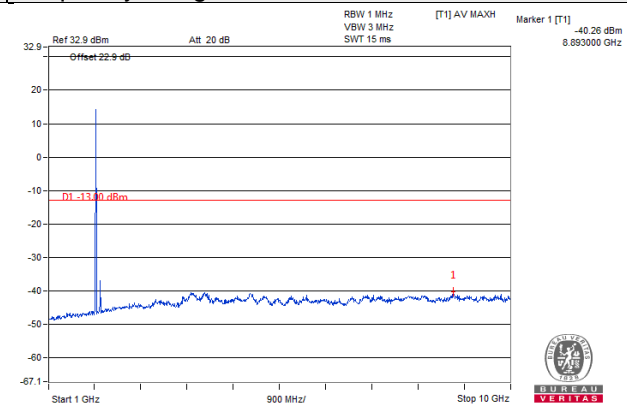
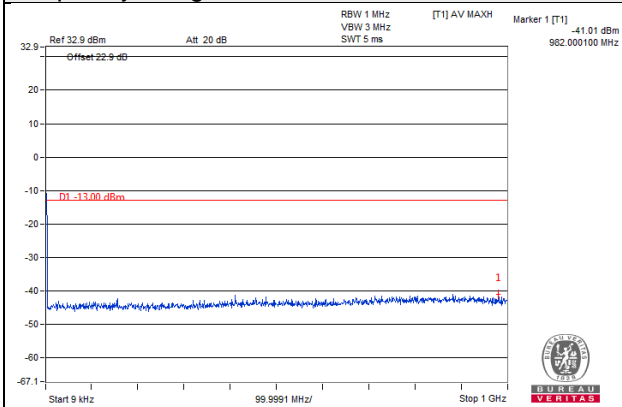
WCDMA	WCDMA
Channel 9400	Channel 9400
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz



Frequency Range : 10GHz~20GHz
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WCDMA	WCDMA
Channel 9538	Channel 9538
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~10GHz



Frequency Range : 10GHz~20GHz
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