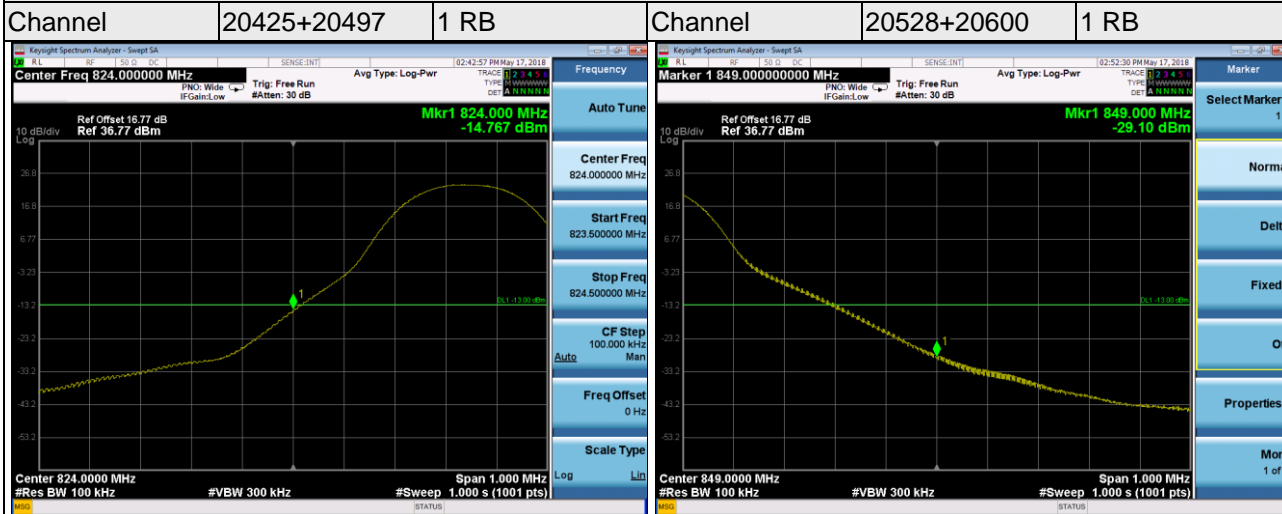
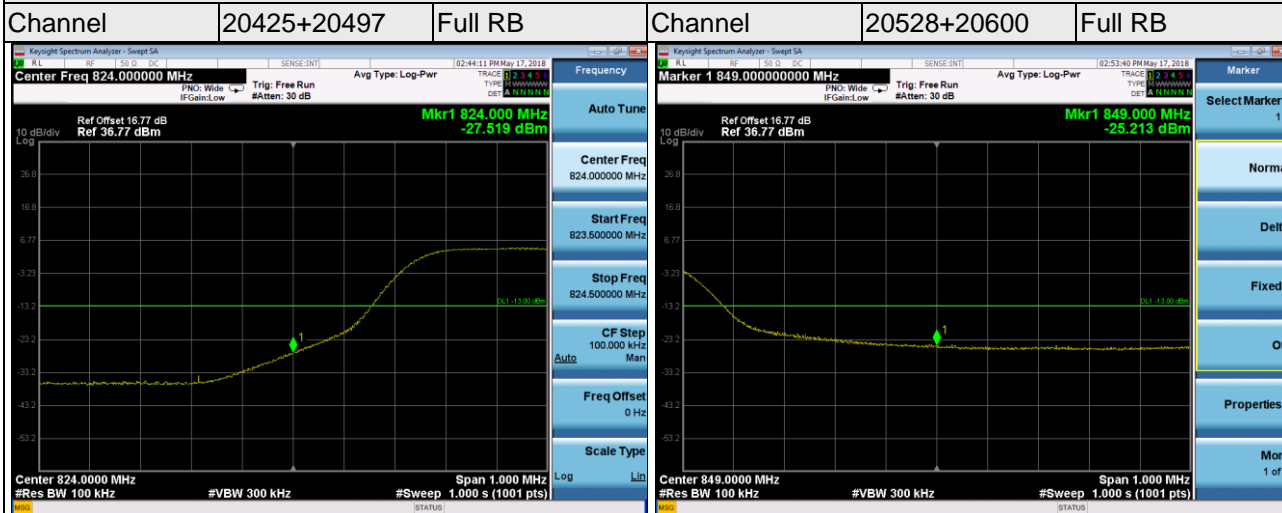


LTE CA\_5C

Channel Bandwidth 5+10MHz

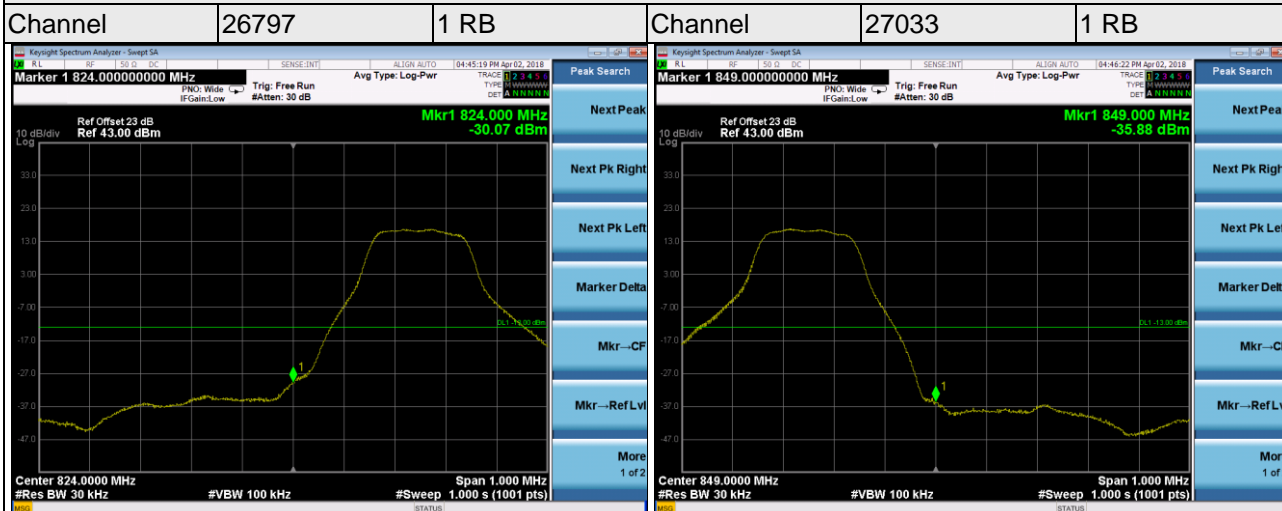


Channel Bandwidth 5+10MHz



LTE Band 26

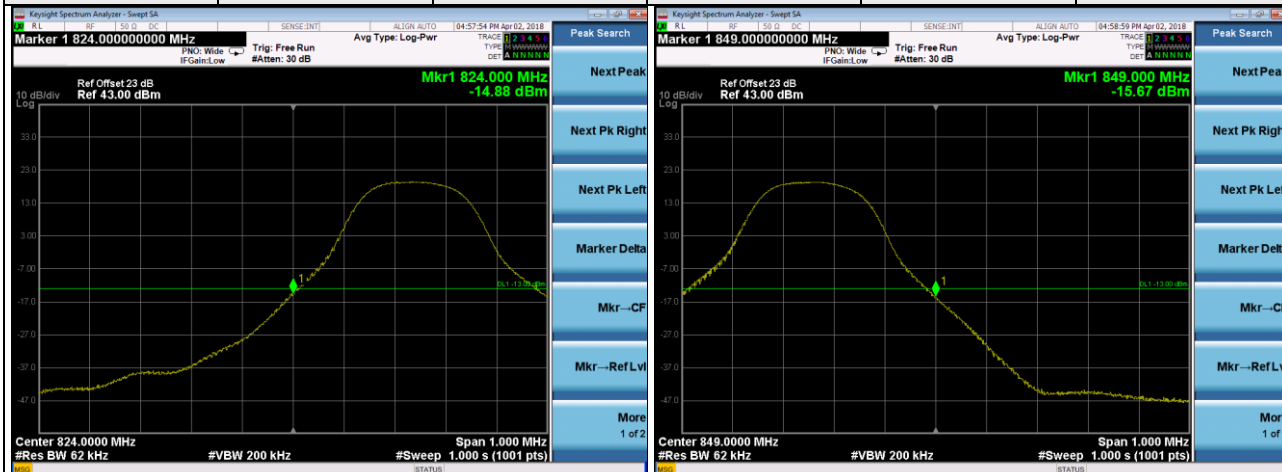
Channel Bandwidth 1.4MHz



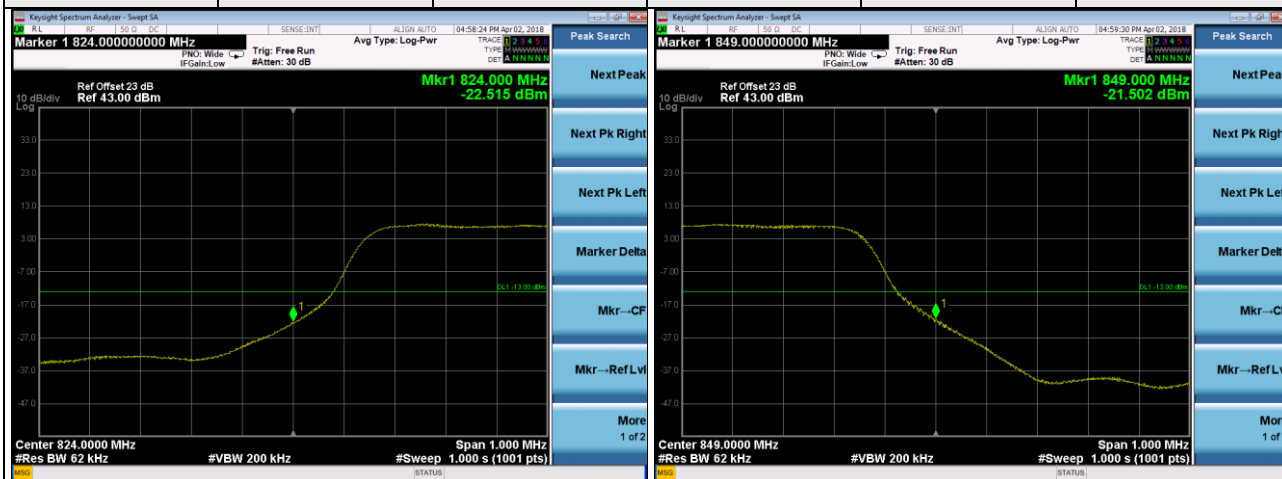
LTE Band 26

Channel Bandwidth 3MHz

Channel	26805	1 RB	Channel	27025	1 RB
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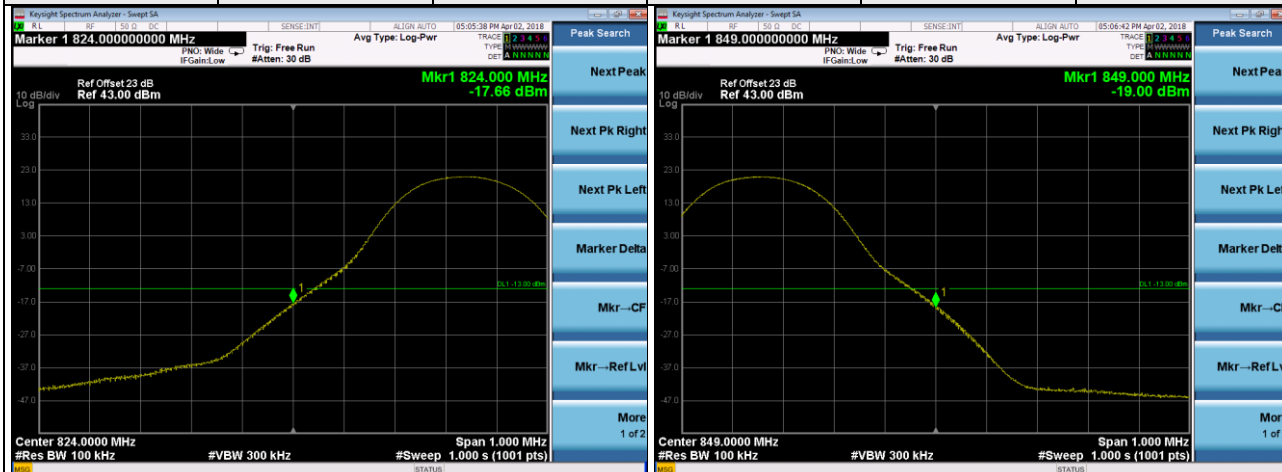
Channel	26805	15 RB	Channel	27025	15 RB
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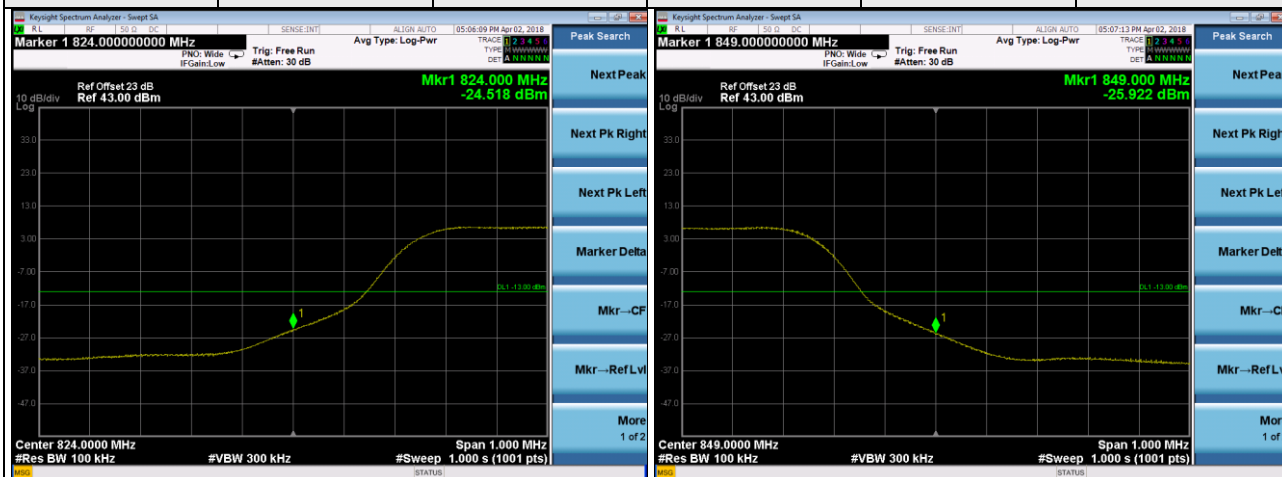
LTE Band 26

Channel Bandwidth 5MHz

Channel	26815	1 RB	Channel	27015	1 RB
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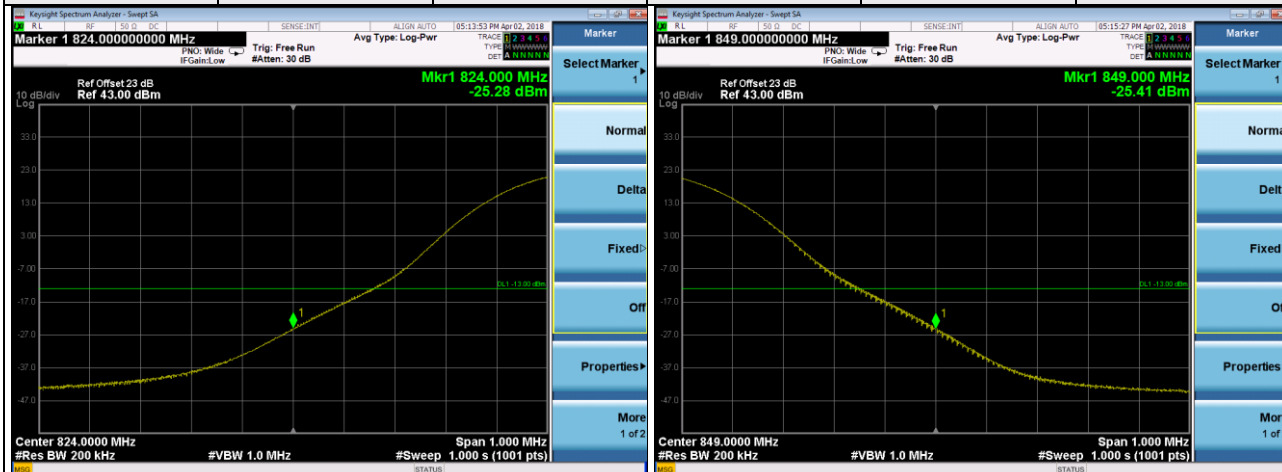
Channel	26815	25 RB	Channel	27015	25 RB
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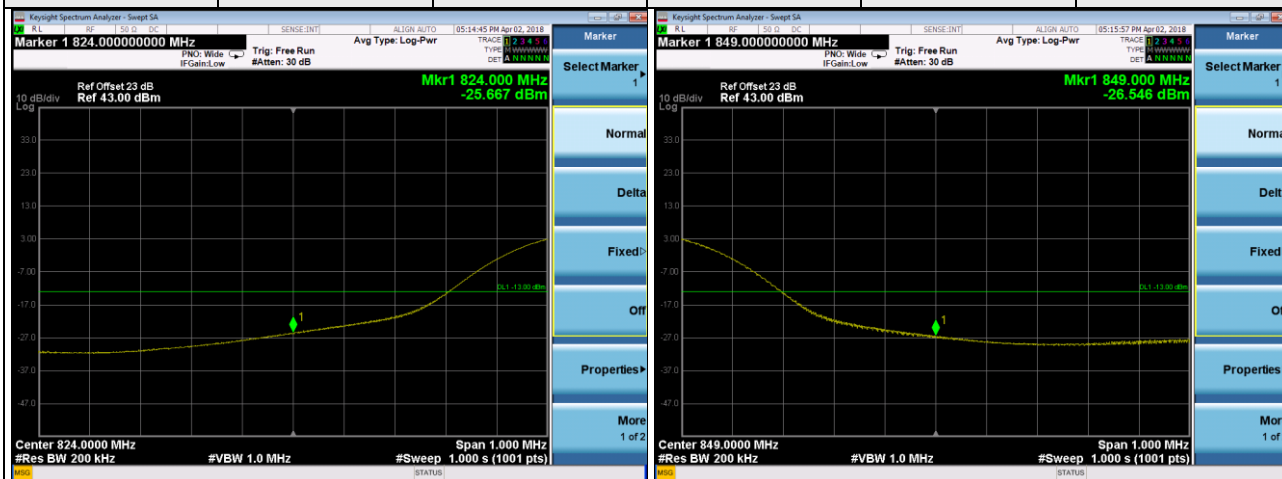
LTE Band 26

Channel Bandwidth 10MHz

Channel	26840	1 RB	Channel	26990	1 RB
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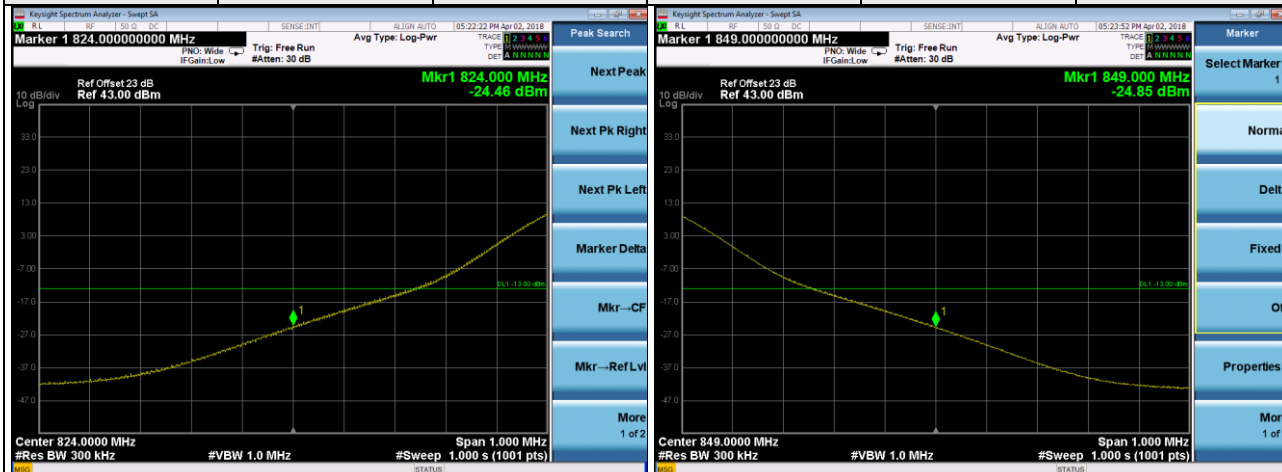
Channel	26840	50 RB	Channel	26990	50 RB
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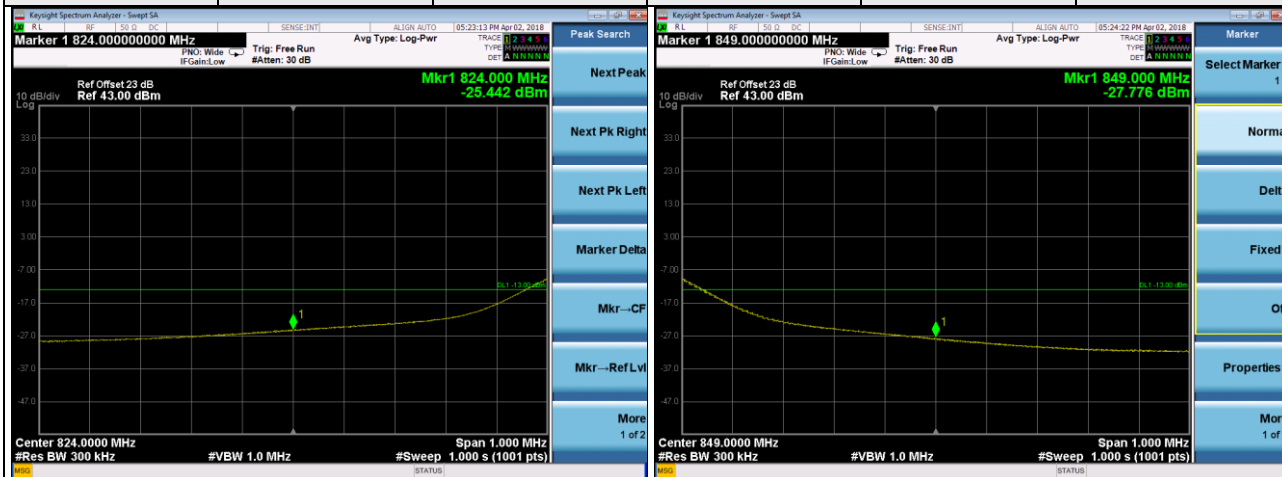
LTE Band 26

Channel Bandwidth 15MHz

Channel	26865	1 RB	Channel	26965	1 RB
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Channel	26865	75 RB	Channel	26965	75 RB
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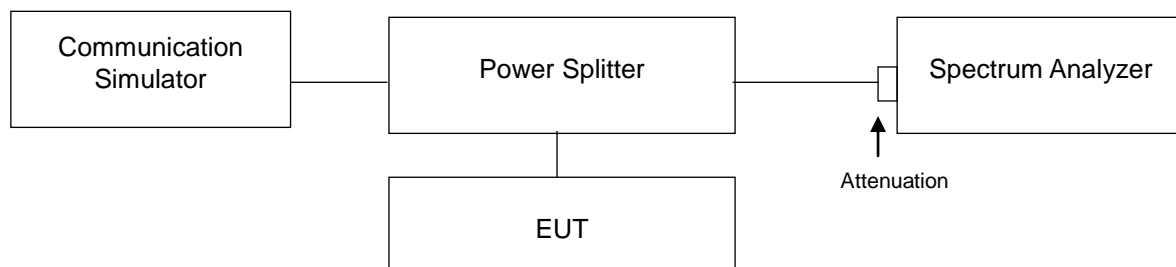


## 4.6 Peak to Average Ratio

### 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

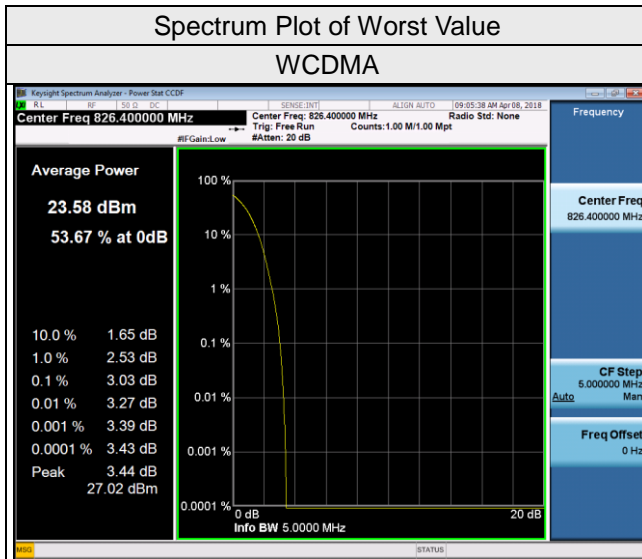


### 4.5.3 Test Procedures

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
4132	826.4	3.03
4183	836.4	3.02
4233	846.6	3.03





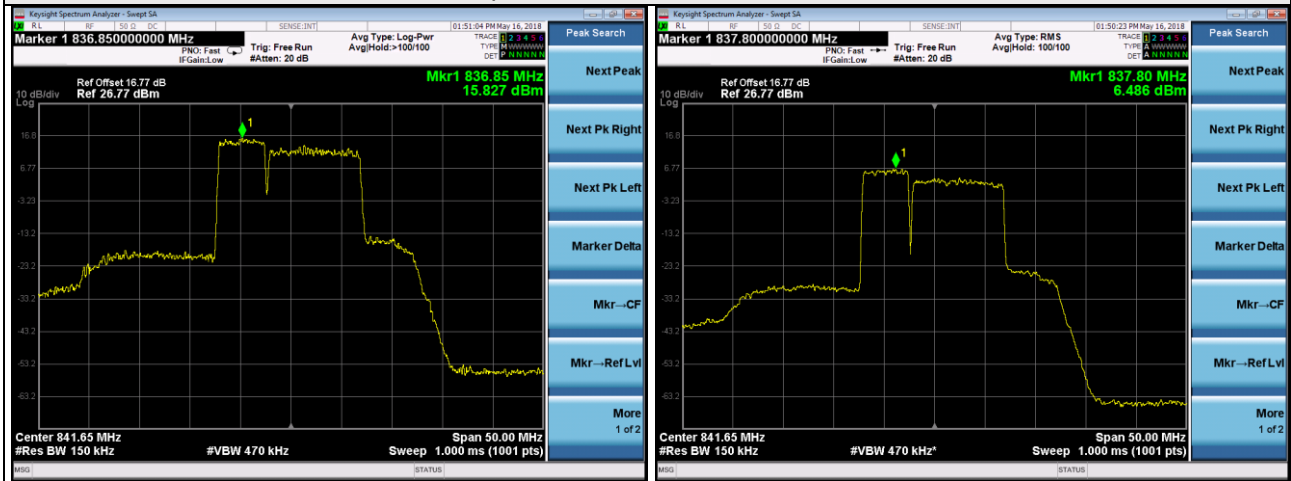
LTE Band 5									
Channel Bandwidth 1.4MHz					Channel Bandwidth 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
20407	824.7	3.86	5.58	5.55	20415	825.5	3.63	5.38	5.50
20525	836.5	3.86	5.54	5.61	20525	836.5	3.64	5.37	5.45
20643	848.3	3.81	5.49	5.50	20635	847.5	3.63	5.29	5.41
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
20425	826.5	3.65	5.38	5.45	20450	829	3.57	5.35	5.40
20525	836.5	3.63	5.34	5.42	20525	836.5	3.55	5.24	5.37
20625	846.5	3.61	5.32	5.39	20600	844	3.53	5.30	5.40



LTE CA\_5C

Channel	Freq. (MHz)	Peak to Average Ratio (dB)		
		Peak	Average	Difference
20528+20600	836.8+844	15.83	6.49	9.34

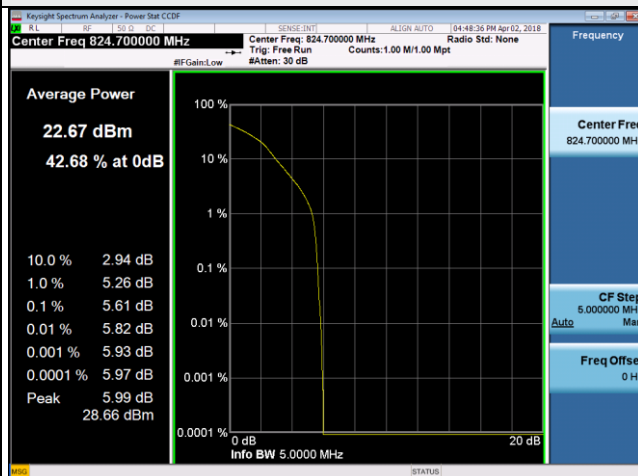
Spectrum Plot of Worst Value



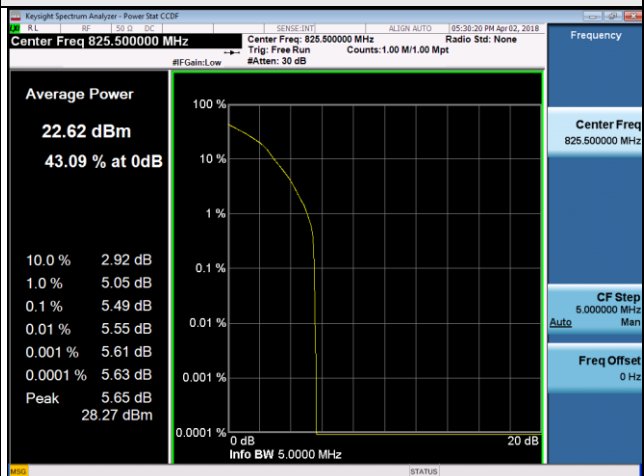
LTE Band 26									
Channel Bandwidth 1.4MHz					Channel Bandwidth 3MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)			Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM			QPSK	16QAM	64QAM
26797	824.7	3.87	5.61	5.58	26805	825.5	3.63	5.41	5.49
26915	836.5	3.86	5.54	5.48	26915	836.5	3.57	5.34	5.43
27033	848.3	3.81	5.51	5.50	27025	847.5	3.55	5.29	5.38
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
26815	826.5	3.65	5.42	5.45	26840	829	3.61	5.34	5.48
26915	836.5	3.65	5.33	5.44	26915	836.5	3.55	5.30	5.40
27015	846.5	3.59	5.31	5.43	26990	844	3.55	5.31	5.40
Channel Bandwidth 15MHz									
Channel	Frequency (MHz)	QPSK							
		QPSK	16QAM	64QAM					
26865	831.5	3.54	5.31	5.43					
26915	836.5	3.55	5.31	5.37					
26965	841.5	3.48	5.18	5.31					

### Spectrum Plot of Worst Value

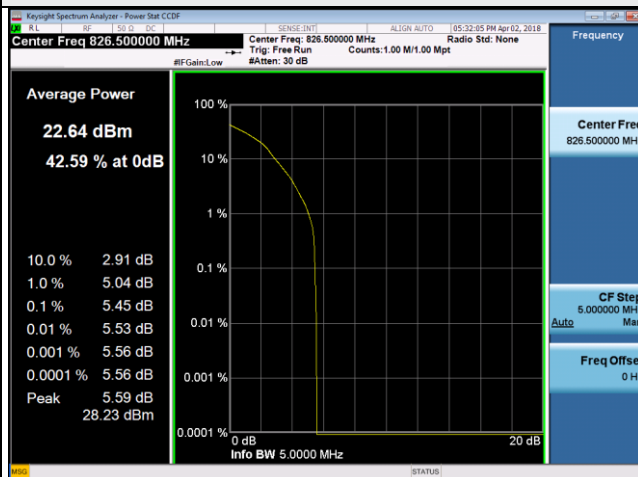
1.4MHz / 16QAM



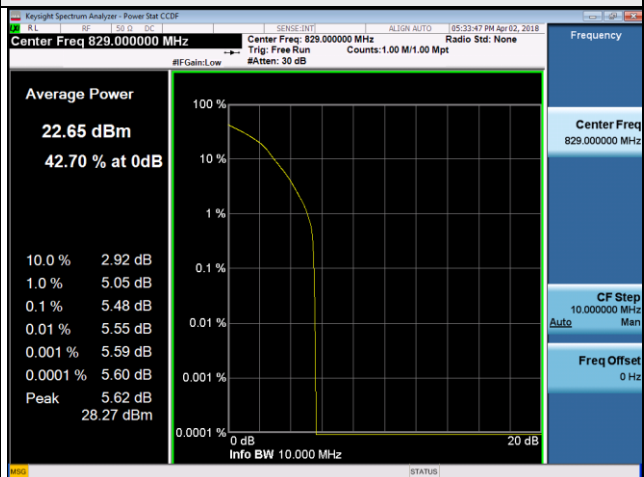
3MHz / 64QAM



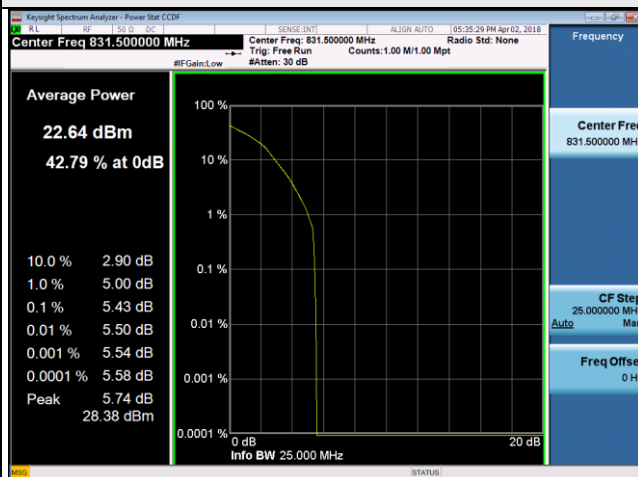
5MHz / 64QAM



10MHz / 64QAM



15MHz / 64QAM

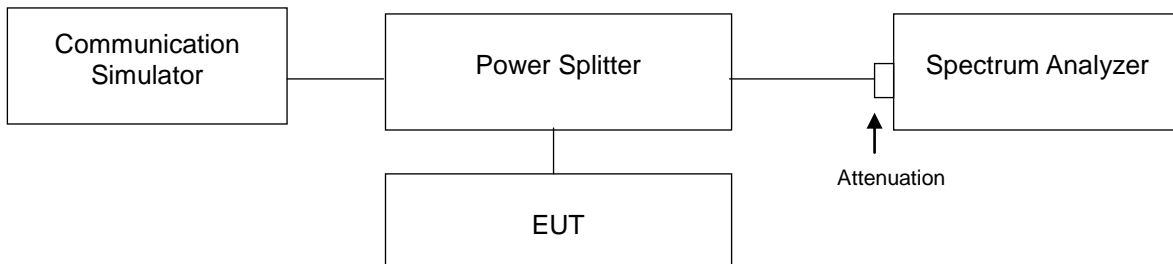


## 4.7 Conducted Spurious Emissions

### 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

- a. All measurements were done at 3 channels: low, middle and high operational frequency range.
- b. When the spectrum scanned from 9 kHz to the tenth harmonic of the highest fundamental frequency, it shall be connected to the 20dB pad attenuated the carried frequency.

### 4.7.4 Test Results

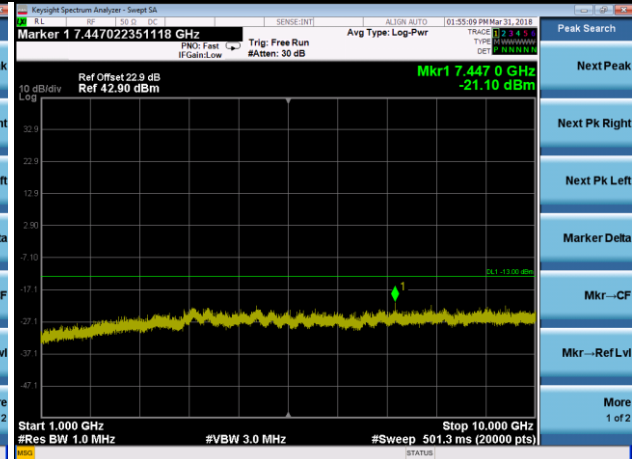
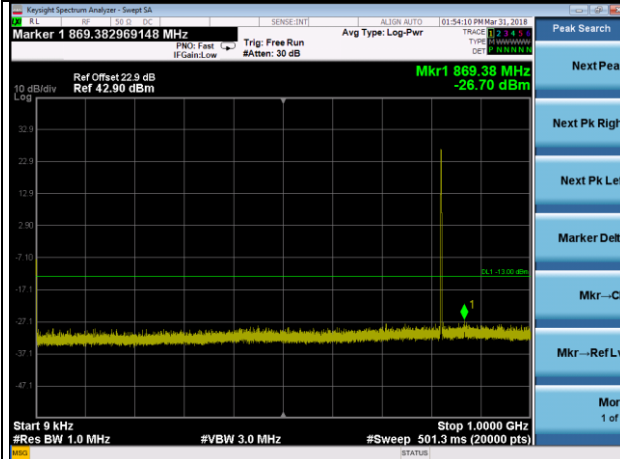


LTE Band 5 Channel Band width: 1.4MHz

Channel 20407

Frequency Range : 9kHz~1GHz

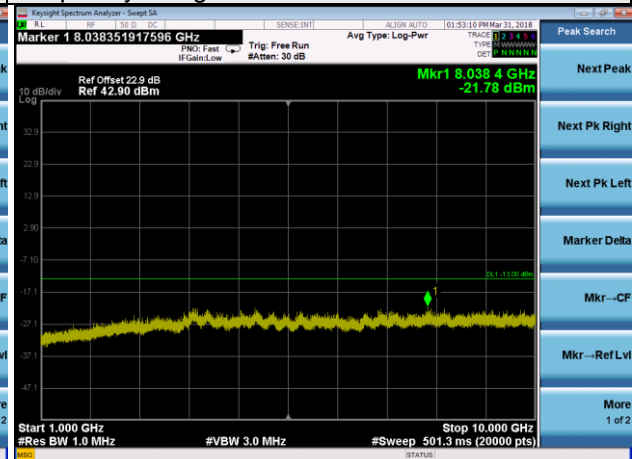
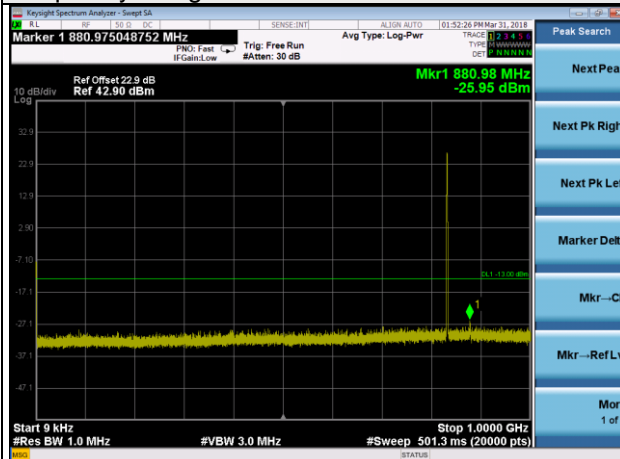
Frequency Range : 1GHz~10GHz



Channel 20525

Frequency Range : 9kHz~1GHz

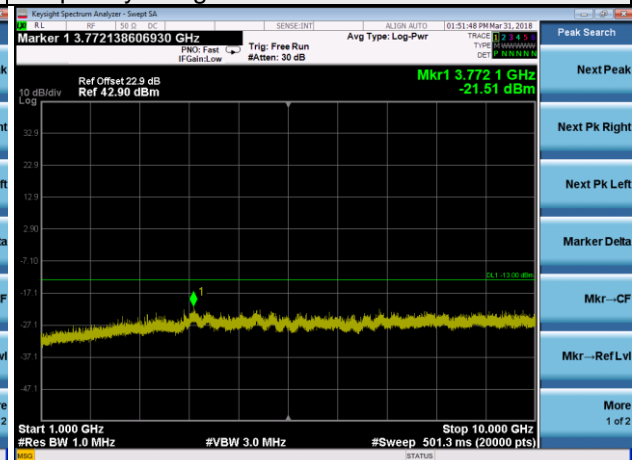
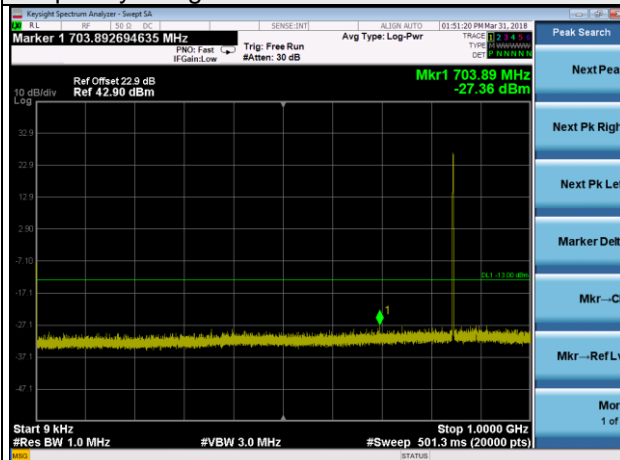
Frequency Range : 1GHz~10GHz



Channel 20643

Frequency Range : 9kHz~1GHz

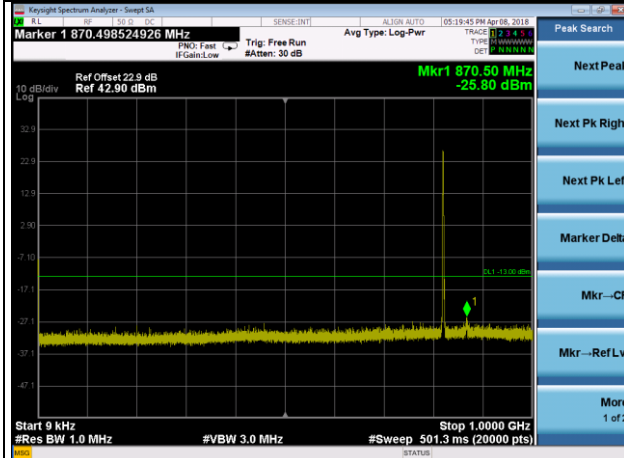
Frequency Range : 1GHz~10GHz



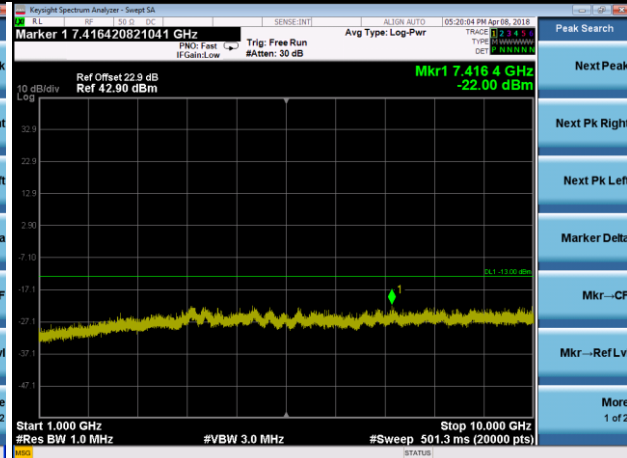
LTE Band 5 Channel Band width: 3MHz

Channel 20415

Frequency Range : 9kHz~1GHz

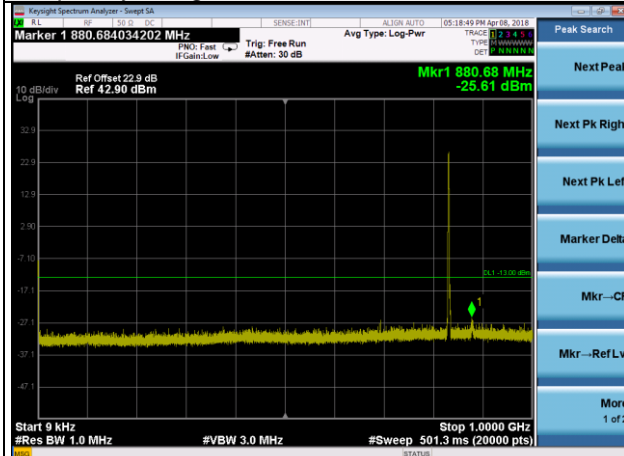


Frequency Range : 1GHz~10GHz

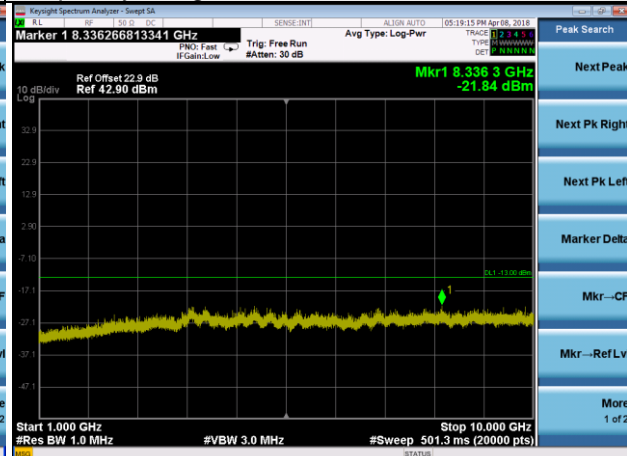


Channel 20525

Frequency Range : 9kHz~1GHz

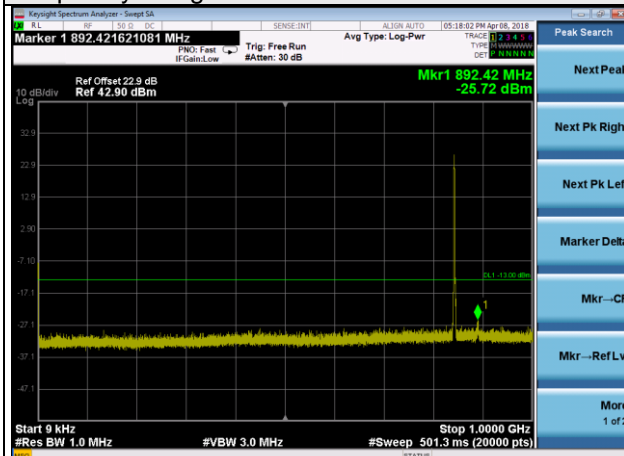


Frequency Range : 1GHz~10GHz

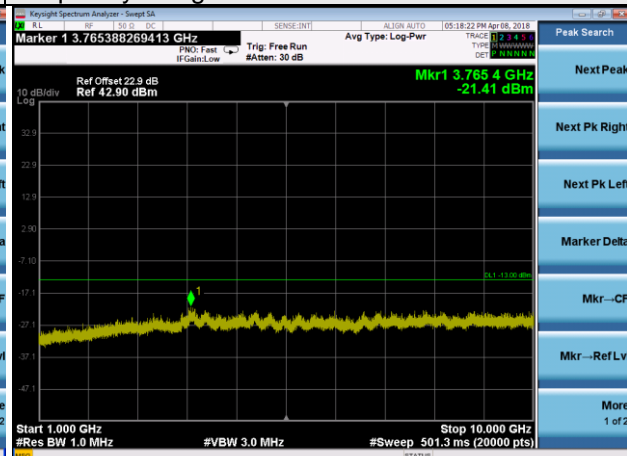


Channel 20635

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~10GHz

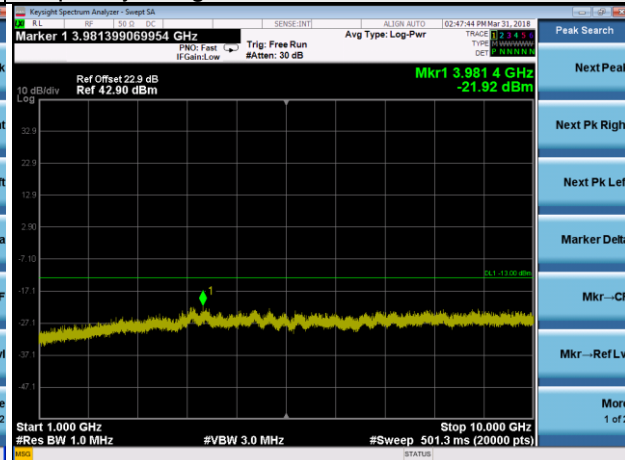
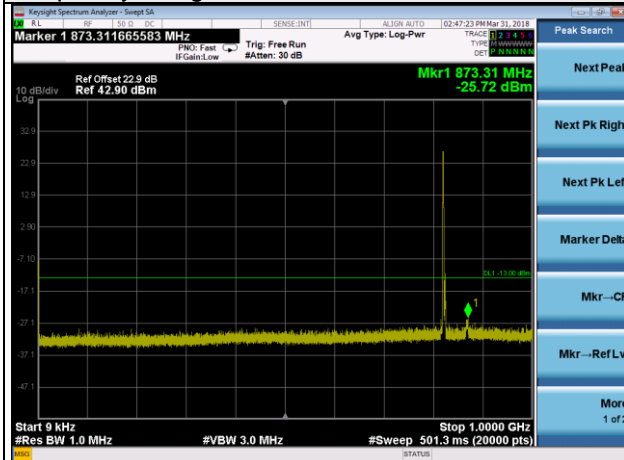




LTE Band 5 Channel Band width: 5MHz

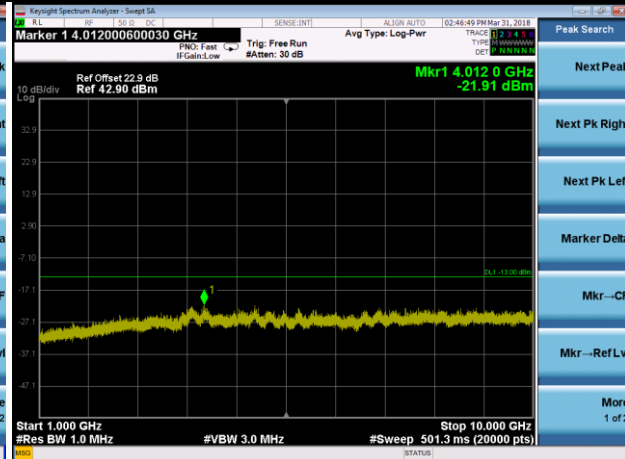
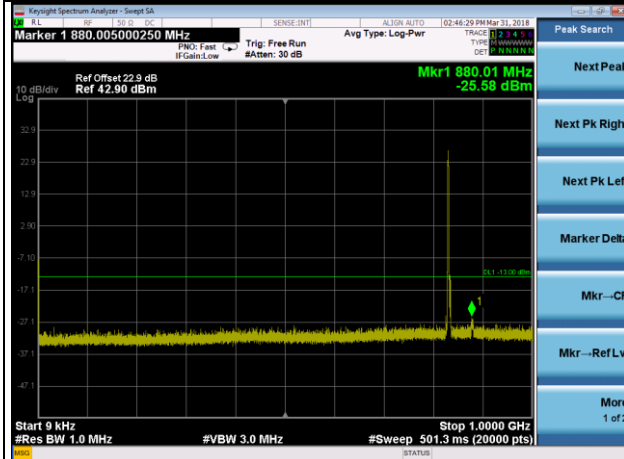
Channel 20425

Frequency Range : 9kHz~1GHz      Frequency Range : 1GHz~10GHz



Channel 20525

Frequency Range : 9kHz~1GHz      Frequency Range : 1GHz~10GHz



Channel 20625

Frequency Range : 9kHz~1GHz      Frequency Range : 1GHz~10GHz

