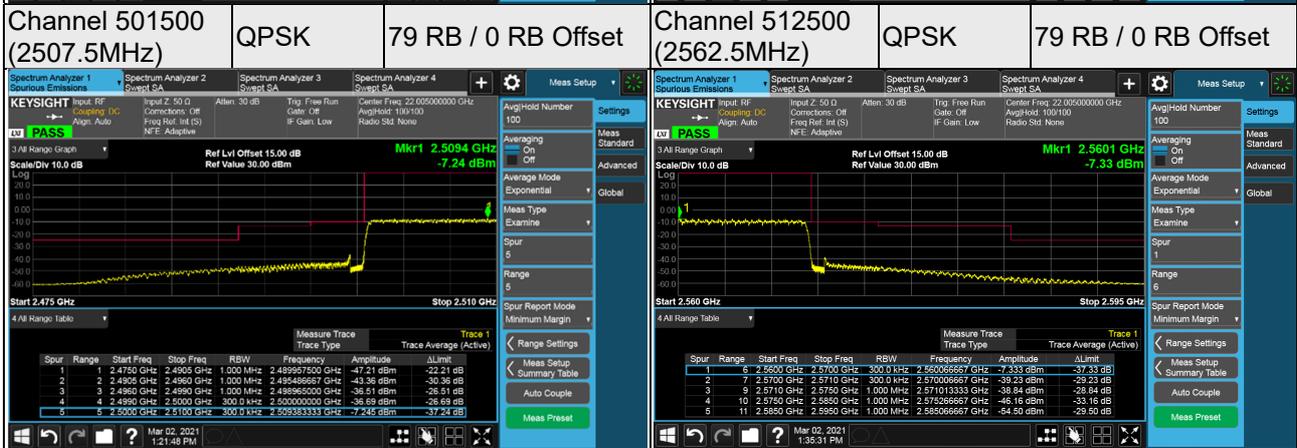
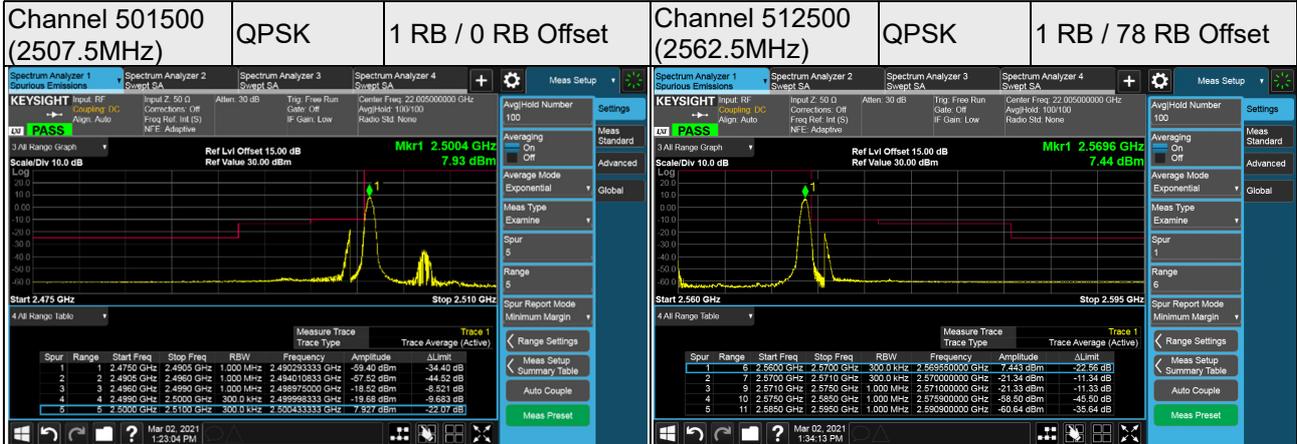


n7, Channel Bandwidth 15MHz



n7, Channel Bandwidth 20MHz

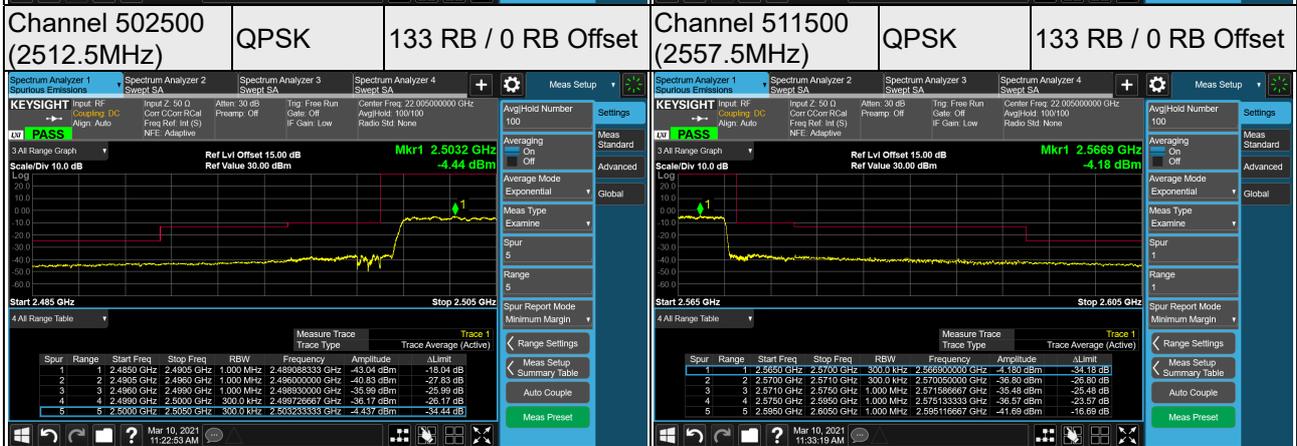
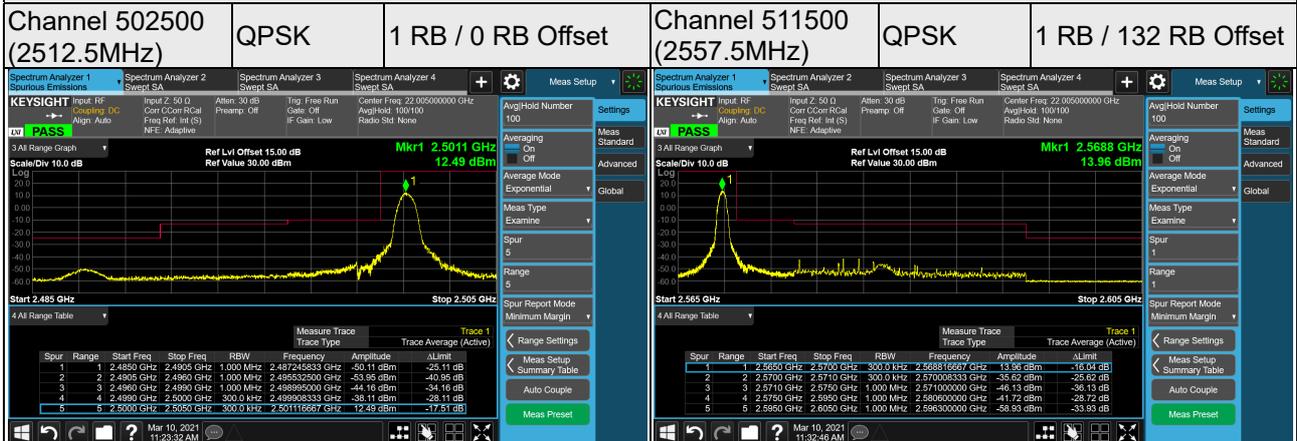
Channel 502000 (2510.0MHz)	QPSK	1 RB / 0 RB Offset	Channel 512000 (2560.0MHz)	QPSK	1 RB / 105 RB Offset
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Channel 502000 (2510.0MHz)	QPSK	106 RB / 0 RB Offset	Channel 512000 (2560.0MHz)	QPSK	106 RB / 0 RB Offset
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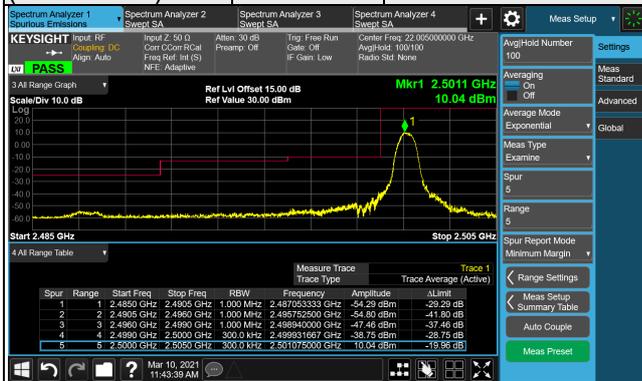


n7, Channel Bandwidth 25MHz

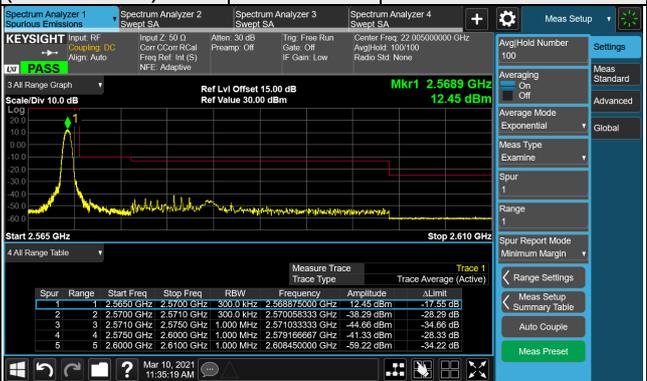


### n7, Channel Bandwidth 30MHz

<b>Channel 503000</b> (2515.0MHz)	<b>QPSK</b>	<b>1 RB / 0 RB Offset</b>	<b>Channel 511000</b> (2555.0MHz)	<b>QPSK</b>	<b>1 RB / 159 RB Offset</b>
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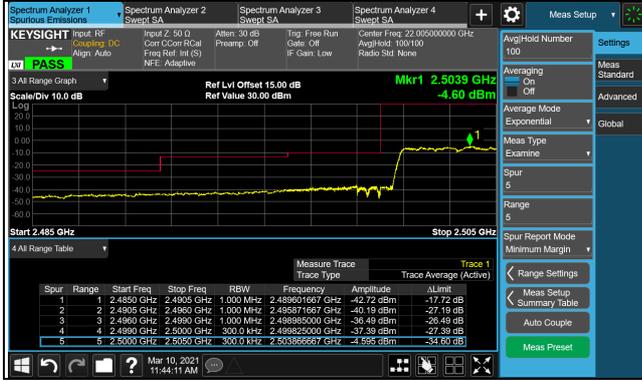


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.487053333 GHz	-54.29 dBm	-17.72 dB
2	2	2.4895 GHz	2.4905 GHz	1.000 MHz	2.489782260 GHz	-54.80 dBm	-41.80 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498940000 GHz	-47.46 dBm	-37.46 dB
4	4	2.4980 GHz	2.5000 GHz	300.0 kHz	2.499931667 GHz	-38.75 dBm	-28.75 dB
5	5	2.5000 GHz	2.5020 GHz	300.0 kHz	2.501019500 GHz	-10.04 dBm	-

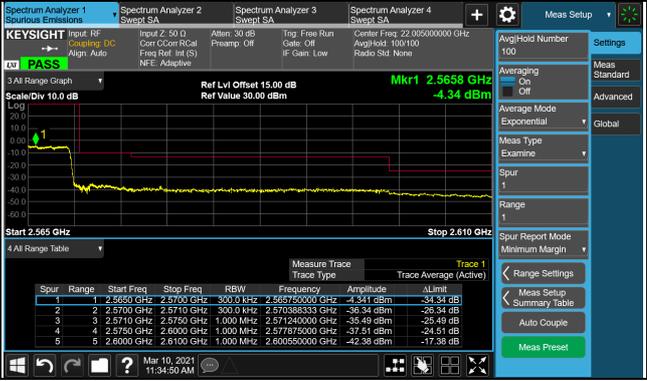


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5650 GHz	2.5700 GHz	300.0 kHz	2.568975000 GHz	12.45 dBm	-
2	2	2.5700 GHz	2.5710 GHz	300.0 kHz	2.570068333 GHz	-38.29 dBm	-28.29 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571033333 GHz	-44.66 dBm	-34.66 dB
4	4	2.5750 GHz	2.6000 GHz	1.000 MHz	2.579166667 GHz	-41.33 dBm	-28.33 dB
5	5	2.6000 GHz	2.6100 GHz	1.000 MHz	2.606450000 GHz	-59.22 dBm	-34.22 dB

<b>Channel 503000</b> (2515.0MHz)	<b>QPSK</b>	<b>160 RB / 0 RB Offset</b>	<b>Channel 511000</b> (2555.0MHz)	<b>QPSK</b>	<b>160 RB / 0 RB Offset</b>
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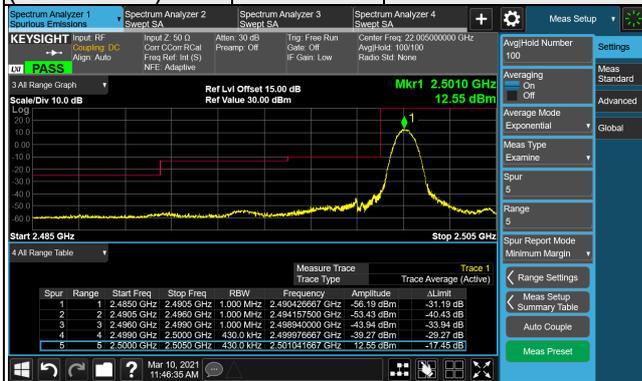
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.489016667 GHz	-42.72 dBm	-17.72 dB
2	2	2.4895 GHz	2.4905 GHz	1.000 MHz	2.489716667 GHz	-40.19 dBm	-27.19 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498850000 GHz	-36.49 dBm	-26.49 dB
4	4	2.4980 GHz	2.5000 GHz	300.0 kHz	2.499890000 GHz	-37.89 dBm	-27.89 dB
5	5	2.5000 GHz	2.5050 GHz	300.0 kHz	2.503886667 GHz	-2.66 dBm	-32.80 dB



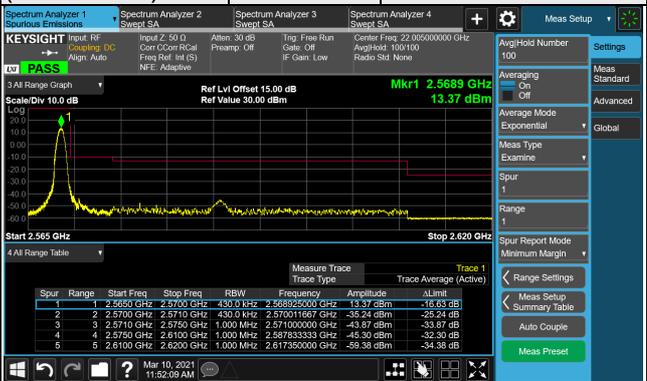
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5650 GHz	2.5700 GHz	300.0 kHz	2.565790000 GHz	-4.34 dBm	-34.34 dB
2	2	2.5700 GHz	2.5710 GHz	300.0 kHz	2.570383333 GHz	-36.54 dBm	-26.54 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571240000 GHz	-35.49 dBm	-26.49 dB
4	4	2.5750 GHz	2.6000 GHz	1.000 MHz	2.577815000 GHz	-37.51 dBm	-24.51 dB
5	5	2.6000 GHz	2.6100 GHz	1.000 MHz	2.606550000 GHz	-42.36 dBm	-17.36 dB

### n7, Channel Bandwidth 40MHz

<b>Channel 504000</b> <b>(2520.0MHz)</b>	<b>QPSK</b>	<b>1 RB / 0 RB Offset</b>	<b>Channel 510000</b> <b>(2550.0MHz)</b>	<b>QPSK</b>	<b>1 RB / 215 RB Offset</b>
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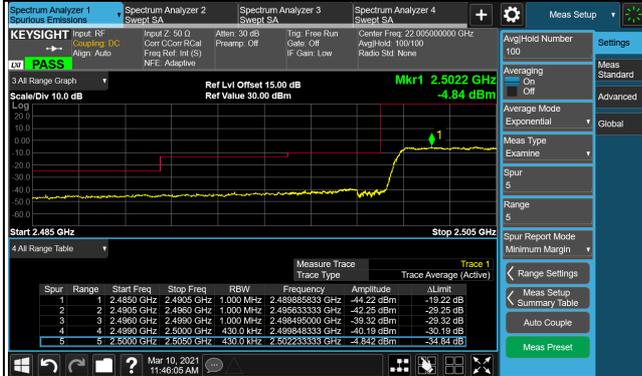


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.490426667 GHz	-56.19 dBm	-31.19 dB
2	2	2.4895 GHz	2.4895 GHz	1.000 MHz	2.494187600 GHz	-53.43 dBm	-40.43 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498940000 GHz	-43.94 dBm	-33.94 dB
4	4	2.4990 GHz	2.5000 GHz	430.0 kHz	2.499976667 GHz	-39.27 dBm	-29.27 dB
5	5	2.5000 GHz	2.5050 GHz	430.0 kHz	2.501021667 GHz	-42.55 dBm	-32.55 dB

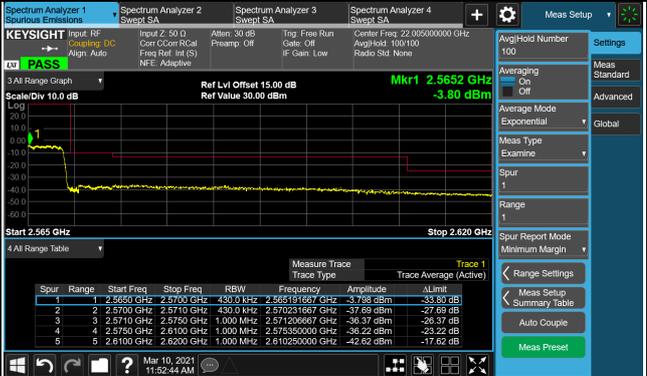


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5650 GHz	2.5710 GHz	430.0 kHz	2.568925000 GHz	13.37 dBm	-16.63 dB
2	2	2.5700 GHz	2.5710 GHz	430.0 kHz	2.570011667 GHz	-35.24 dBm	-25.24 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571000000 GHz	-43.87 dBm	-33.87 dB
4	4	2.5750 GHz	2.6100 GHz	1.000 MHz	2.587833333 GHz	-46.30 dBm	-32.30 dB
5	5	2.6100 GHz	2.6200 GHz	1.000 MHz	2.617350000 GHz	-59.36 dBm	-43.36 dB

<b>Channel 504000</b> <b>(2520.0MHz)</b>	<b>QPSK</b>	<b>216 RB / 0 RB Offset</b>	<b>Channel 510000</b> <b>(2550.0MHz)</b>	<b>QPSK</b>	<b>216 RB / 0 RB Offset</b>
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Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.489833333 GHz	-44.22 dBm	-19.22 dB
2	2	2.4895 GHz	2.4895 GHz	1.000 MHz	2.489933333 GHz	-42.95 dBm	-29.95 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498450000 GHz	-38.32 dBm	-29.32 dB
4	4	2.4990 GHz	2.5000 GHz	430.0 kHz	2.499893333 GHz	-48.19 dBm	-30.19 dB
5	5	2.5000 GHz	2.5050 GHz	430.0 kHz	2.502233333 GHz	-4.84 dBm	-33.84 dB



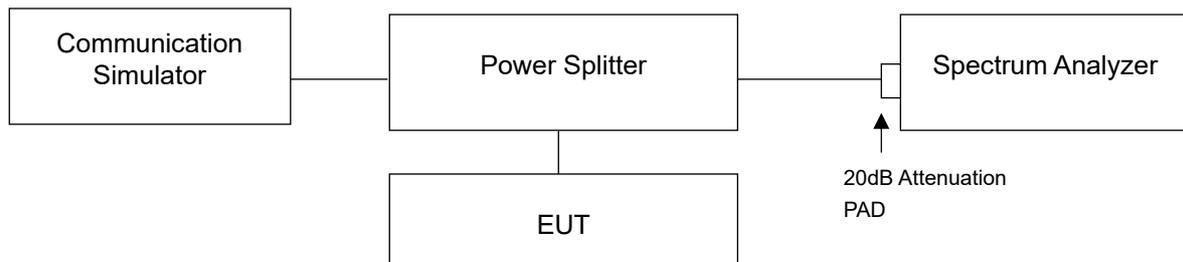
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	2.5650 GHz	2.5710 GHz	430.0 kHz	2.565219167 GHz	-3.80 dBm	-33.80 dB
2	2	2.5700 GHz	2.5710 GHz	430.0 kHz	2.570011667 GHz	-37.65 dBm	-27.65 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571209667 GHz	-36.37 dBm	-26.37 dB
4	4	2.5750 GHz	2.6100 GHz	1.000 MHz	2.575350000 GHz	-36.22 dBm	-26.22 dB
5	5	2.6100 GHz	2.6200 GHz	1.000 MHz	2.610250000 GHz	-42.62 dBm	-32.62 dB

## 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

n7, Channel Bandwidth 5MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
500500	2502.5	3.70	5.93	5.94	6.62	8.41
507000	2535.0	3.95	6.55	6.60	7.03	8.40
513500	2567.5	3.82	6.31	6.18	6.74	8.25
n7, Channel Bandwidth 10MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
501000	2505.0	3.79	6.13	5.99	6.45	8.37
507000	2535.0	4.02	6.64	6.66	7.08	8.36
513000	2565.0	3.91	6.30	6.35	6.77	8.34
n7, Channel Bandwidth 15MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
501500	2507.5	3.99	6.16	6.32	6.71	8.31
507000	2535.0	4.02	6.61	6.60	7.12	8.43
512500	2562.5	3.98	6.37	6.39	6.86	8.24
n7, Channel Bandwidth 20MHz						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
502000	2510.0	4.00	6.42	6.34	6.74	8.41
507000	2535.0	3.84	6.56	6.57	6.97	8.46
512000	2560.0	3.84	6.47	6.46	6.90	8.39
n7, Channel Bandwidth 25MHz						
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
502500	2512.5	4.75	6.52	6.86	7.86	8.57
507000	2535.0	4.40	6.96	7.35	7.89	8.70
511500	2557.5	4.66	7.74	7.95	8.21	9.42

n7, Channel Bandwidth 30MHz

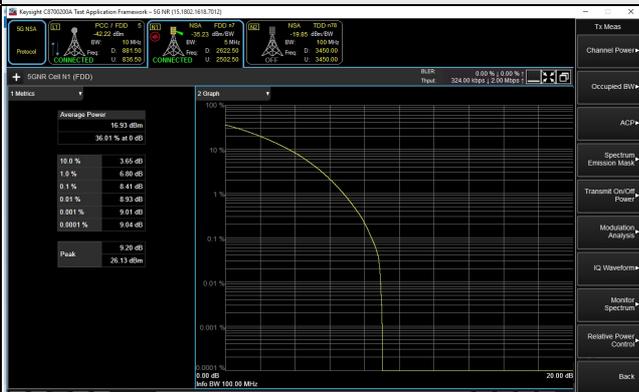
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
503000	2515.0	4.92	7.10	7.40	7.82	8.83
507000	2535.0	4.53	7.13	7.29	7.69	8.67
511000	2555.0	4.98	7.22	7.28	7.81	8.62

n7, Channel Bandwidth 40MHz

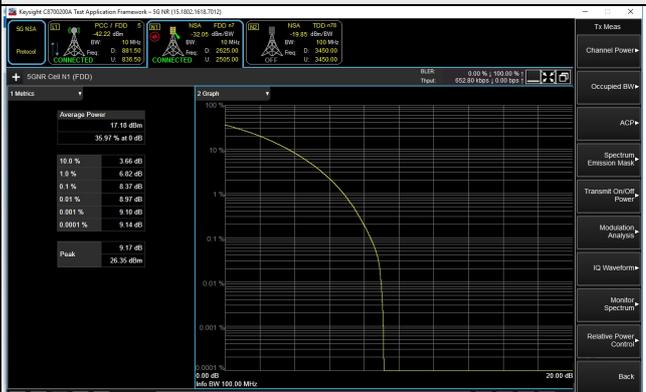
Channel	Frequency (MHz)	Peak To Average Ratio (dB)				
		$\pi/2$ BPSK	QPSK	16QAM	64QAM	256QAM
504000	2520.0	5.08	6.32	6.73	8.16	9.07
507000	2535.0	5.14	6.39	6.66	7.99	9.00
510000	2550.0	4.88	6.50	6.92	8.28	9.09

### Spectrum Plot of Worst Value

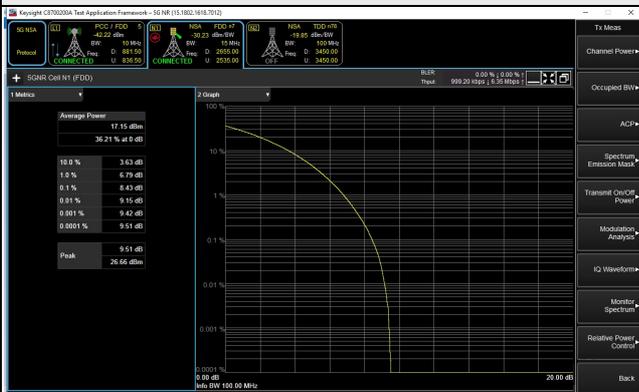
#### 5MHz / 256QAM



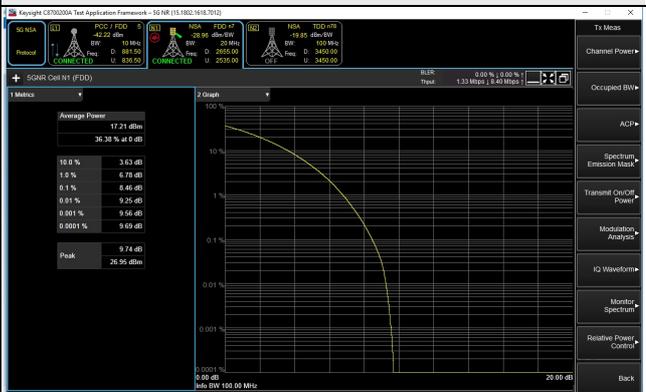
#### 10MHz / 256QAM



#### 15MHz / 256QAM



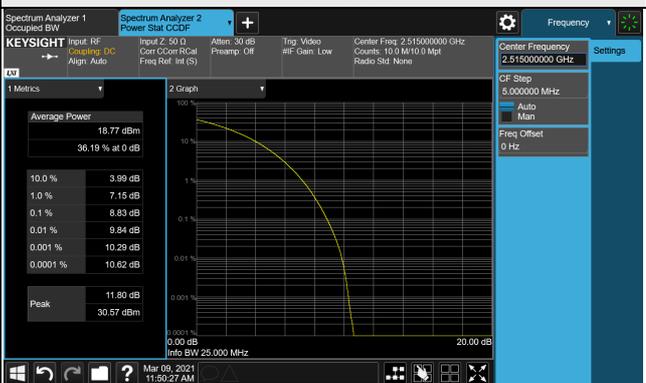
#### 20MHz / 256QAM



#### 25MHz / 256QAM



#### 30MHz / 256QAM



#### 40MHz / 256QAM

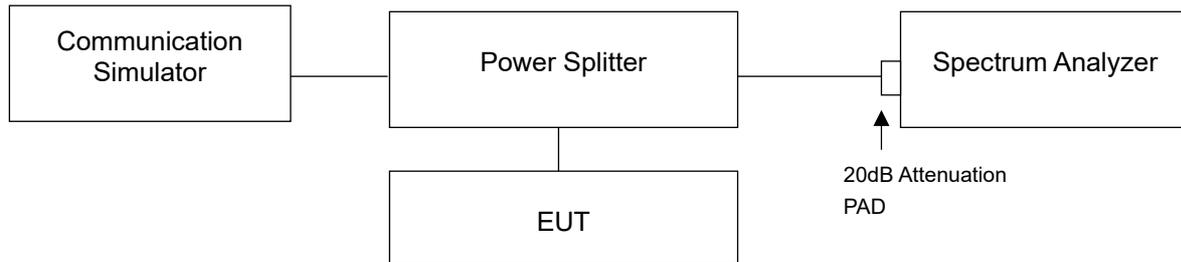


## 4.7 Conducted Spurious Emissions

### 4.7.1 Limits of Conducted Spurious Emissions Measurement

In the FCC 27.53(m)(4), On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log (P)$  dB. The emission limit equal to  $-25\text{dBm}$ .

### 4.7.2 Test Setup



### 4.7.3 Test Procedure

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 9kHz to 30GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

### 4.7.4 Test Results

n7, Channel Bandwidth 5MHz  
 Channel 500500 (2502.5MHz)

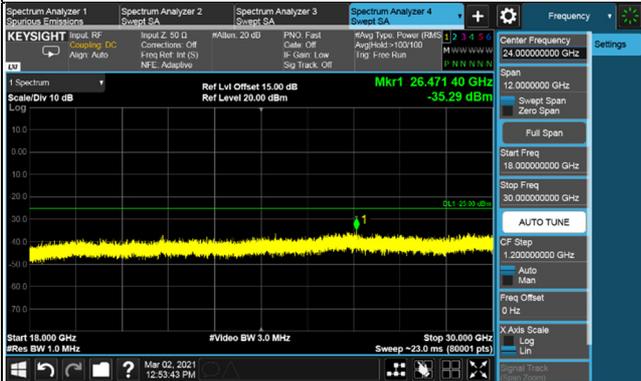
Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 18GHz



Frequency Range : 18GHz ~ 30GHz



\*The 9kHz signal over the limit is from Spectrum.