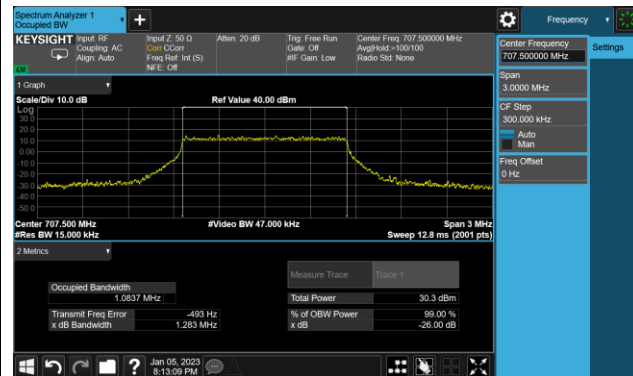
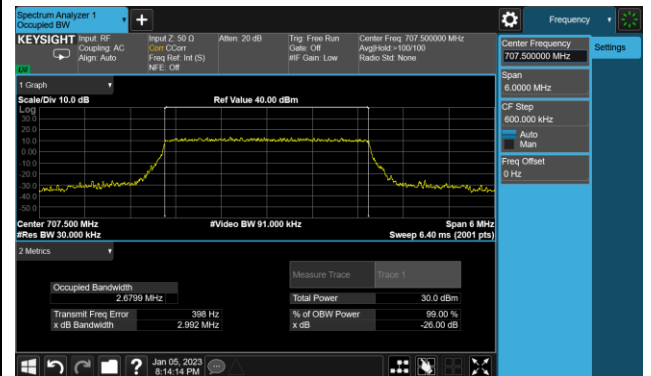


99% Bandwidth - QPSK

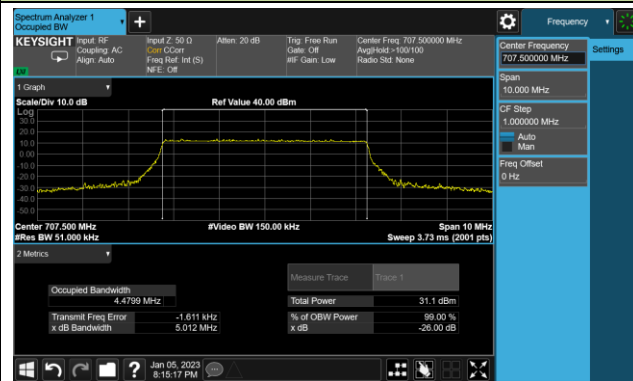
1.4MHz Channel Bandwidth



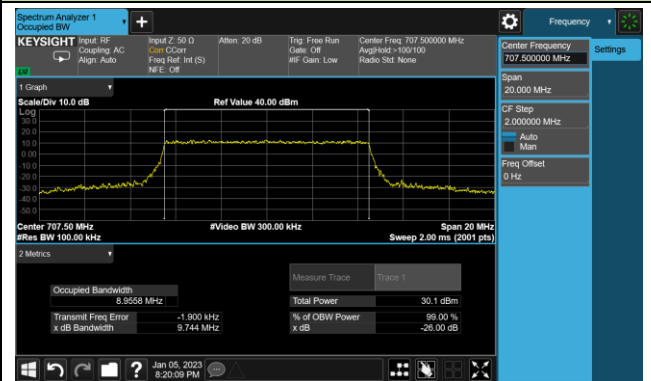
3MHz Channel Bandwidth



5MHz Channel Bandwidth

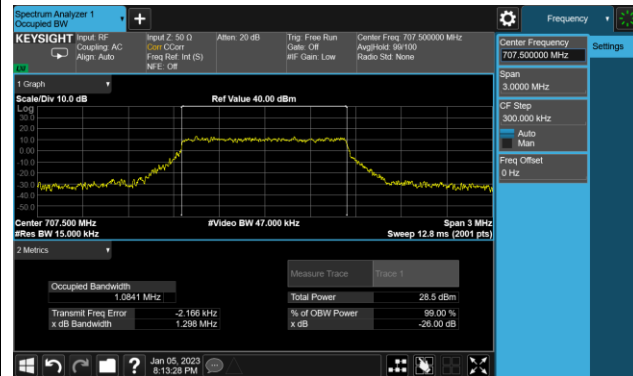


10MHz Channel Bandwidth

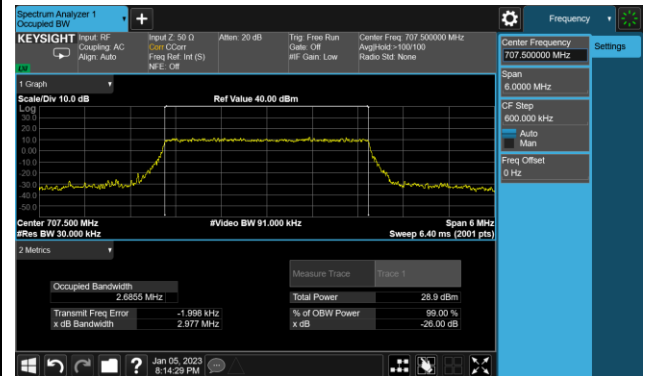


99% Bandwidth - 16QAM

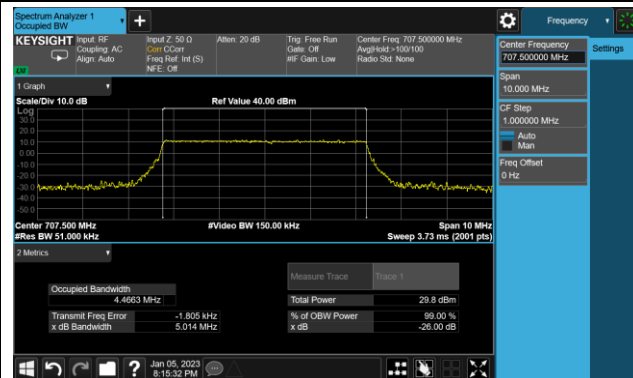
1.4MHz Channel Bandwidth



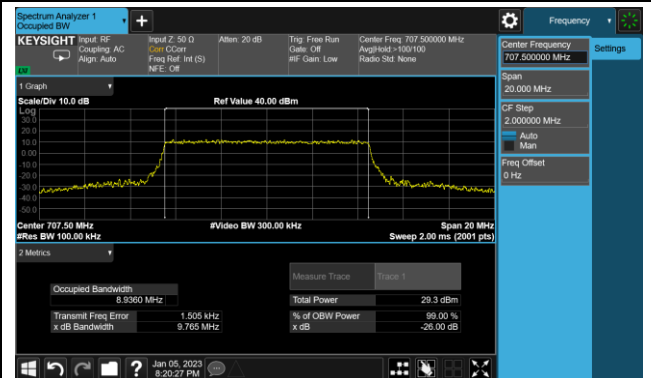
3MHz Channel Bandwidth



5MHz Channel Bandwidth

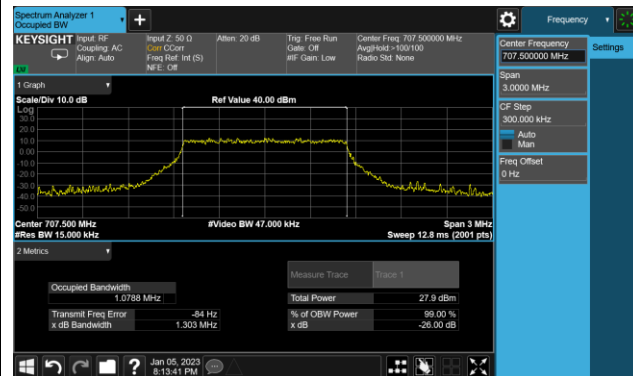


10MHz Channel Bandwidth

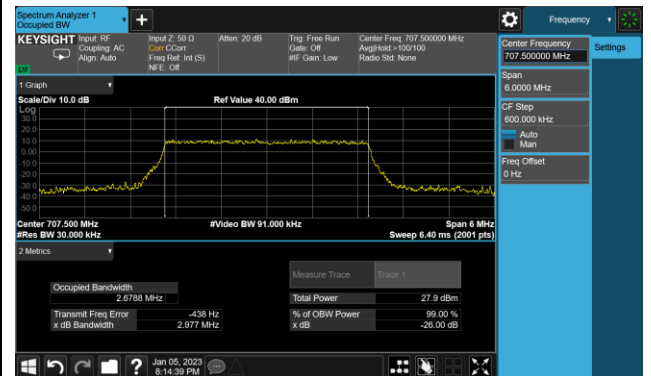


99% Bandwidth - 64QAM

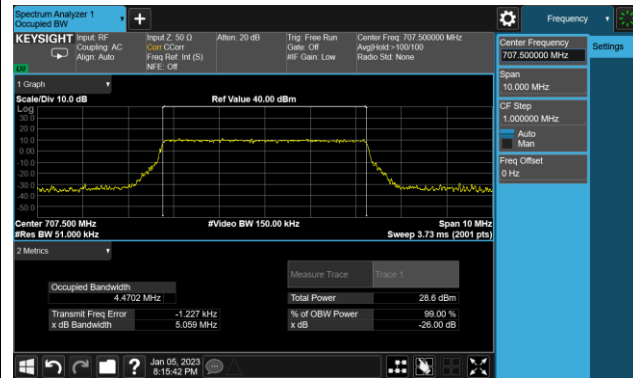
1.4MHz Channel Bandwidth



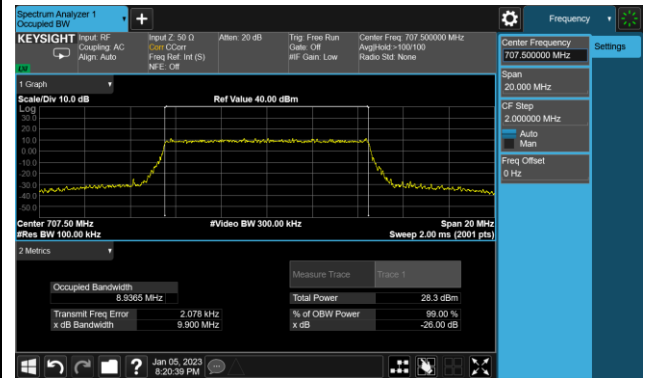
3MHz Channel Bandwidth



5MHz Channel Bandwidth

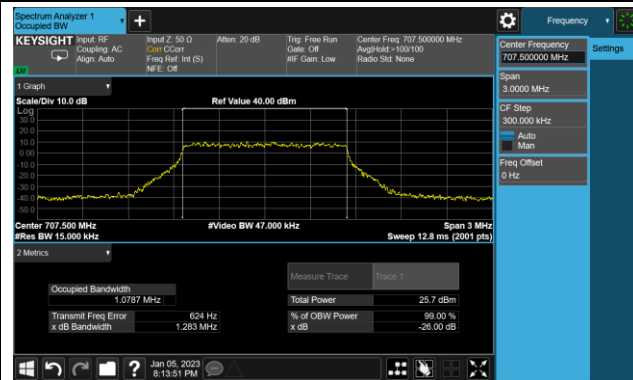


10MHz Channel Bandwidth

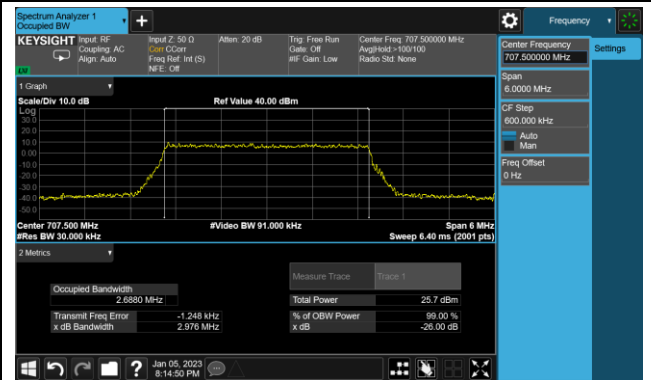


99% Bandwidth - 256QAM

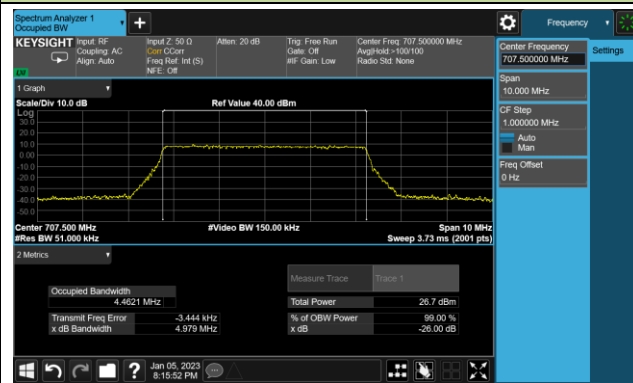
1.4MHz Channel Bandwidth



3MHz Channel Bandwidth



5MHz Channel Bandwidth



10MHz Channel Bandwidth

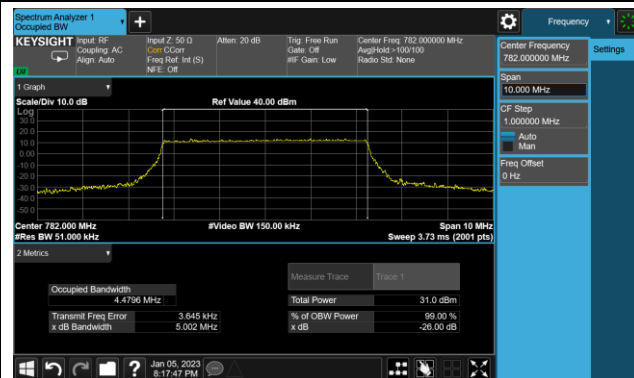


Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-05	Test Band	LTE Band 13

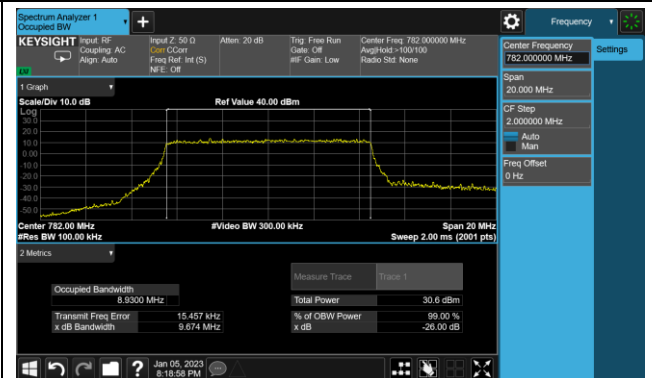
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
782.0	5	4.4796
	10	8.9300
16QAM		
782.0	5	4.4651
	10	8.9316
64QAM		
782.0	5	4.4620
	10	8.9360
256QAM		
782.0	5	4.4597
	10	8.9160

99% Bandwidth - QPSK

5MHz Channel Bandwidth

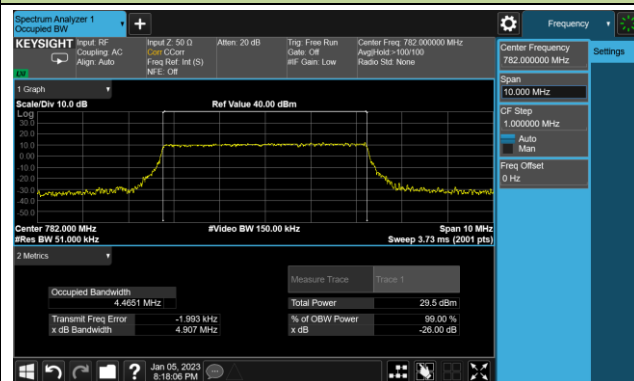


10MHz Channel Bandwidth

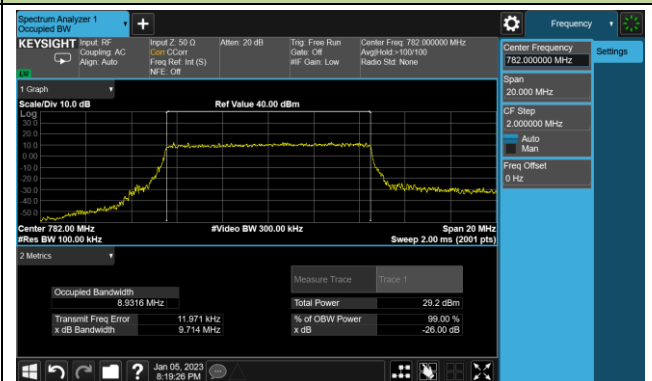


99% Bandwidth - 16QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth

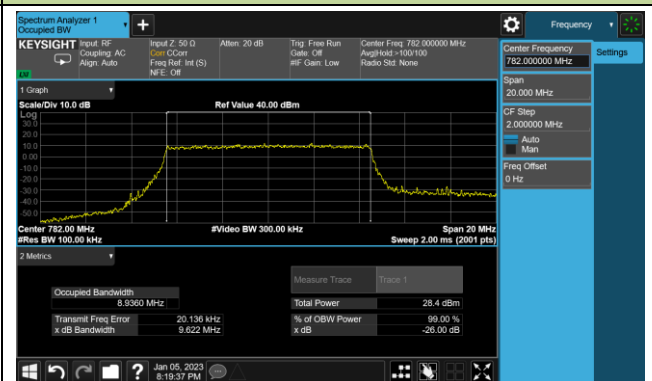


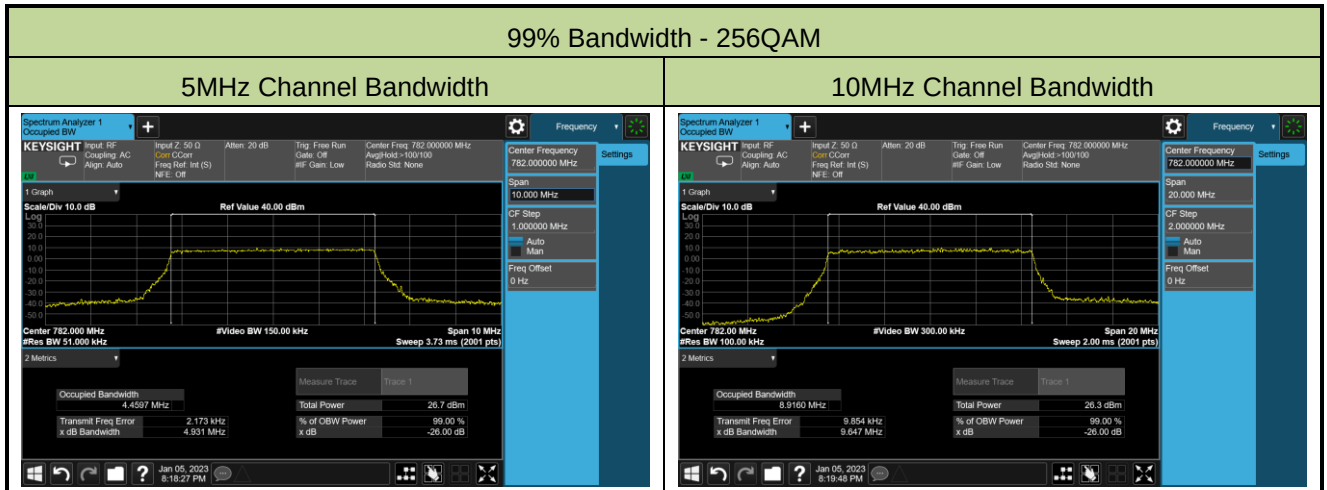
99% Bandwidth - 64QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



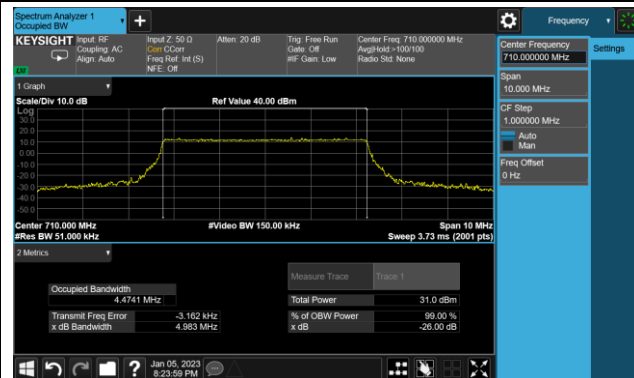


Test Site	SIP-SR1	Test Engineer	Allen Zou
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Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
710.0	5	4.4741
	10	8.9437
16QAM		
710.0	5	4.4664
	10	8.9529
64QAM		
710.0	5	4.4765
	10	8.9505
256QAM		
710.0	5	4.4764
	10	8.9410

99% Bandwidth - QPSK

5MHz Channel Bandwidth

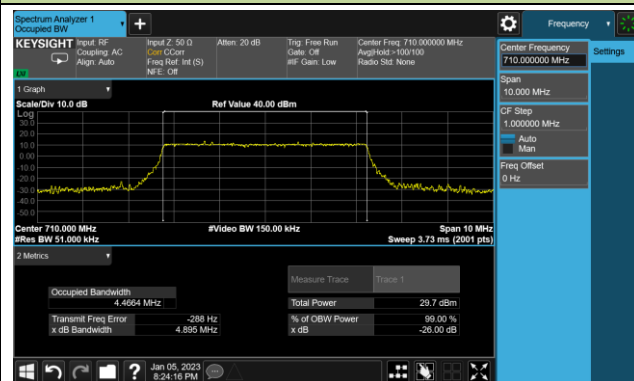


10MHz Channel Bandwidth

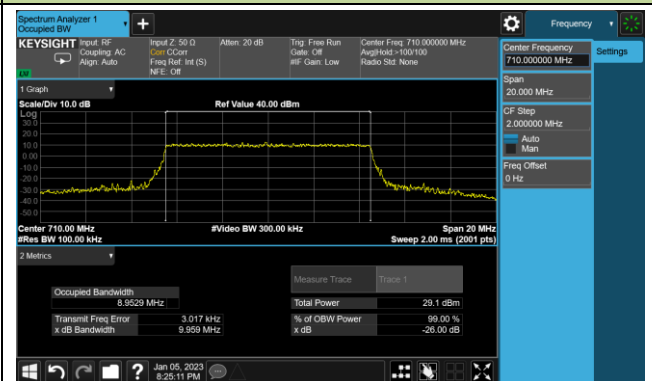


99% Bandwidth - 16QAM

5MHz Channel Bandwidth

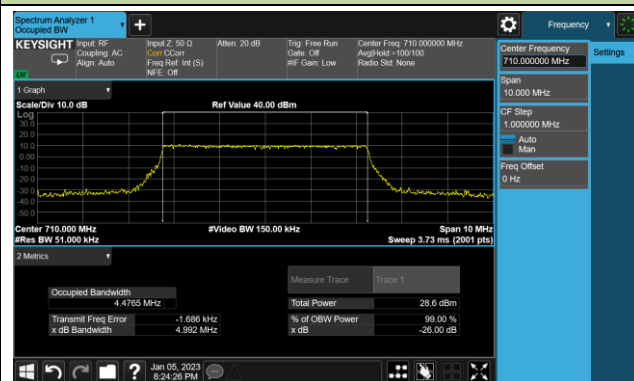


10MHz Channel Bandwidth

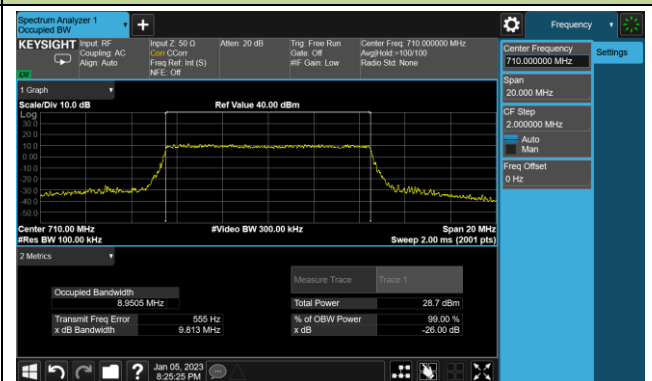


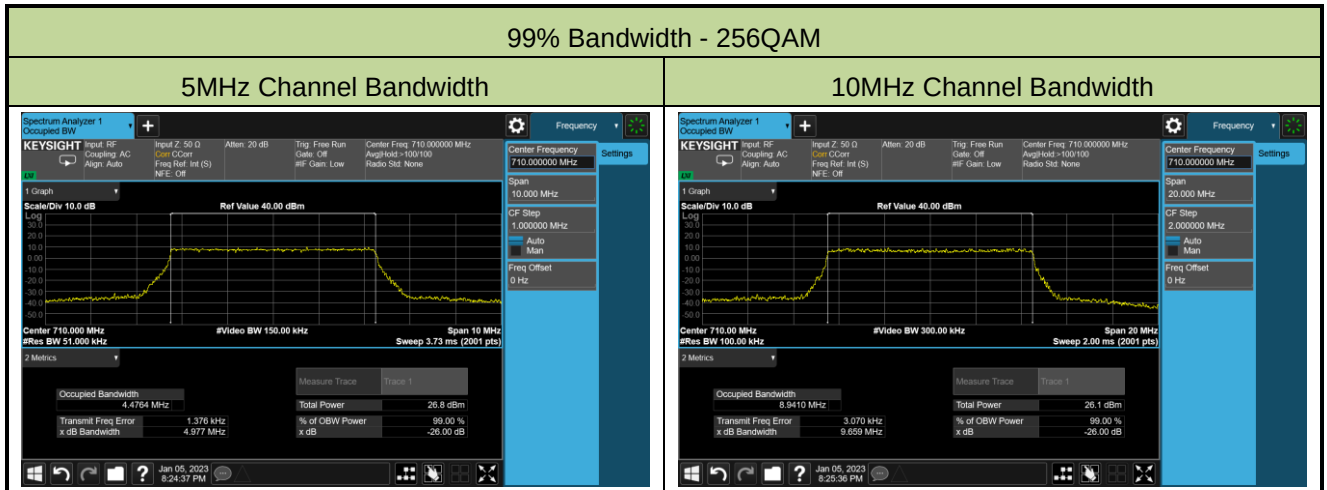
99% Bandwidth - 64QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



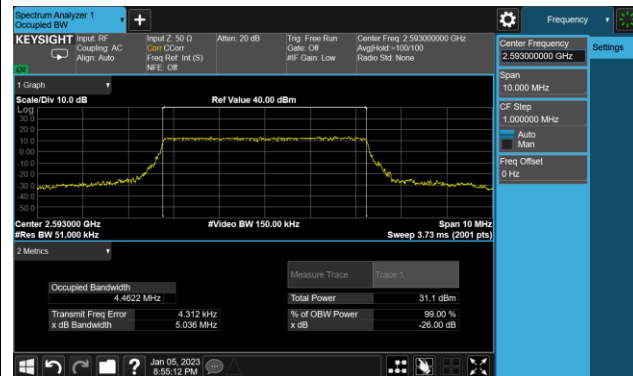


Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-05	Test Band	LTE Band 38/41_HPUE

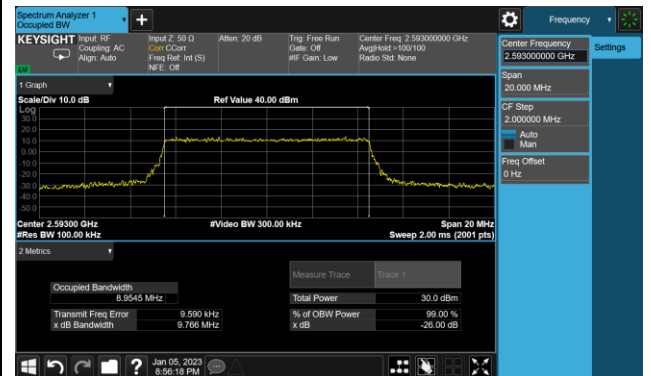
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
2593.0	5	4.4622
	10	8.9545
	15	13.400
	20	17.883
16QAM		
2593.0	5	4.4610
	10	8.9416
	15	13.434
	20	17.921
64QAM		
2593.0	5	4.4777
	10	8.9542
	15	13.406
	20	17.891
256QAM		
2593.0	5	4.4705
	10	8.9508
	15	13.413
	20	17.845

99% Bandwidth - QPSK

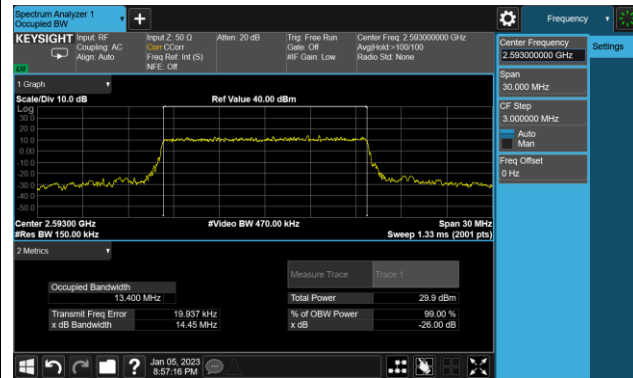
5MHz Channel Bandwidth



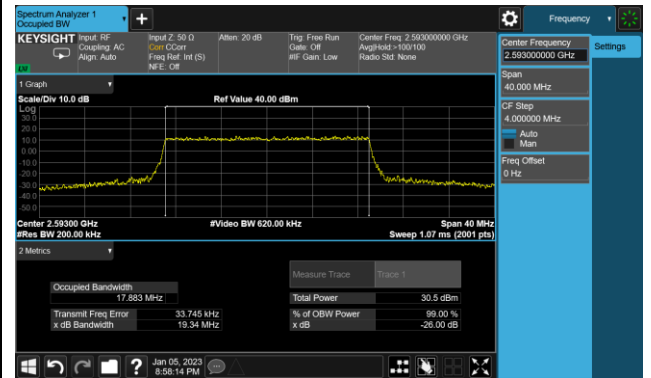
10MHz Channel Bandwidth



15MHz Channel Bandwidth

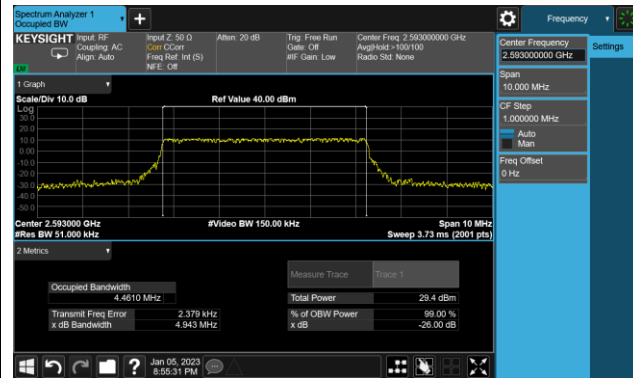


20MHz Channel Bandwidth

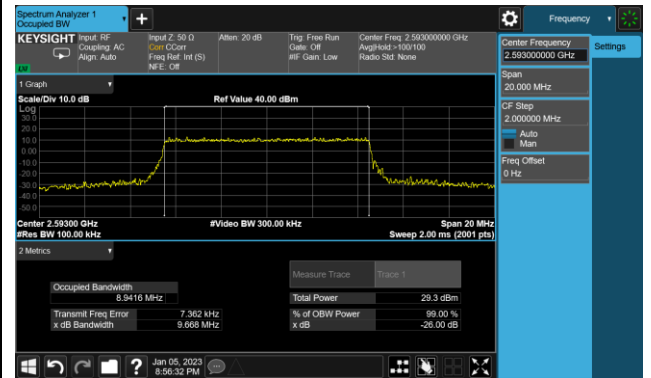


99% Bandwidth - 16QAM

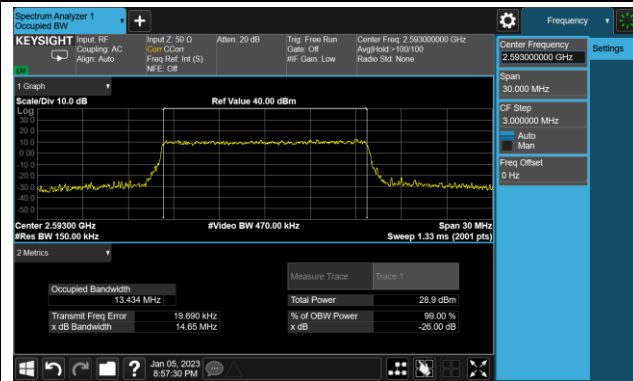
5MHz Channel Bandwidth



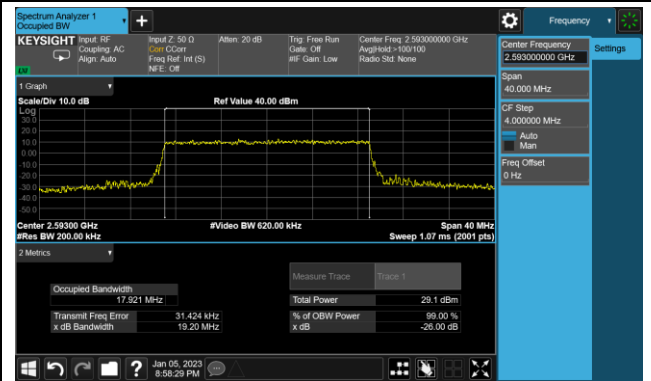
10MHz Channel Bandwidth



15MHz Channel Bandwidth

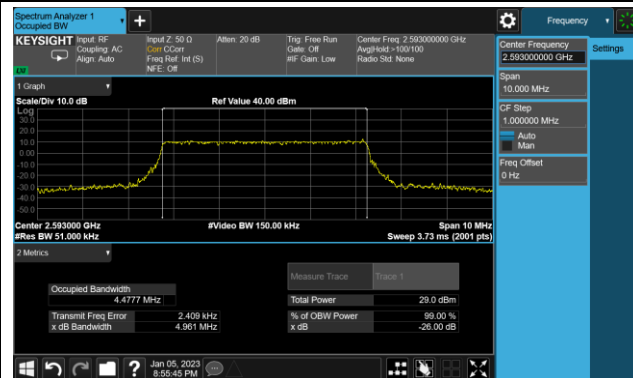


20MHz Channel Bandwidth

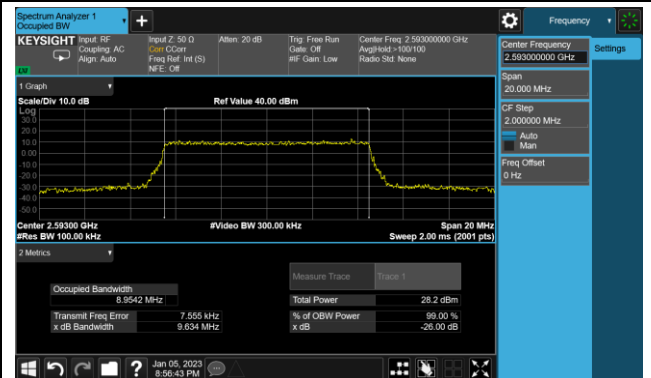


99% Bandwidth - 64QAM

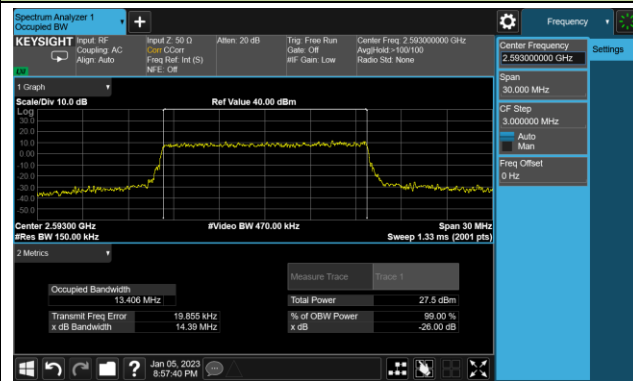
5MHz Channel Bandwidth



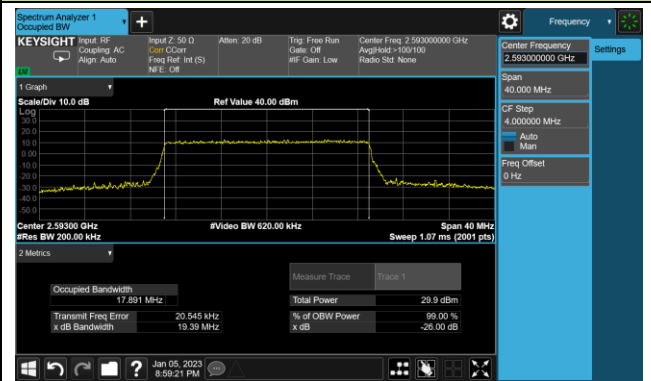
10MHz Channel Bandwidth



15MHz Channel Bandwidth

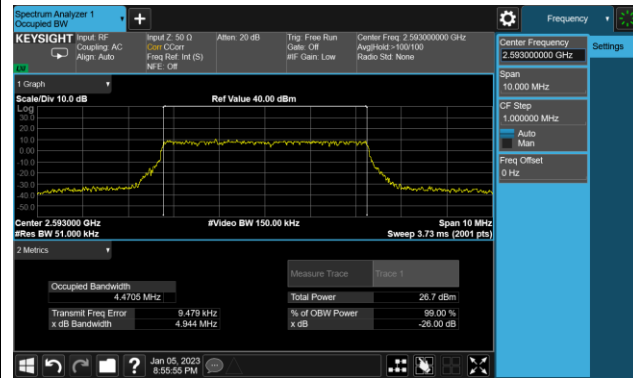


20MHz Channel Bandwidth

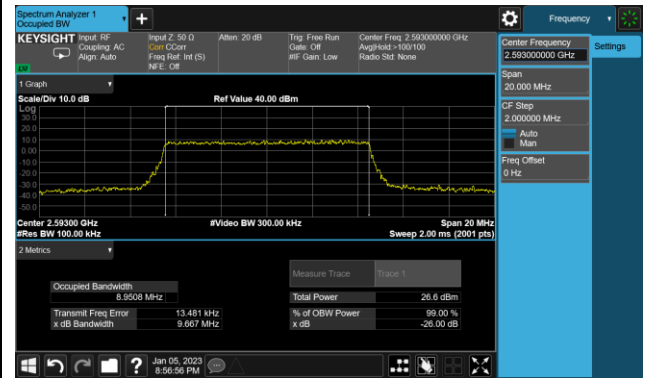


99% Bandwidth - 256QAM

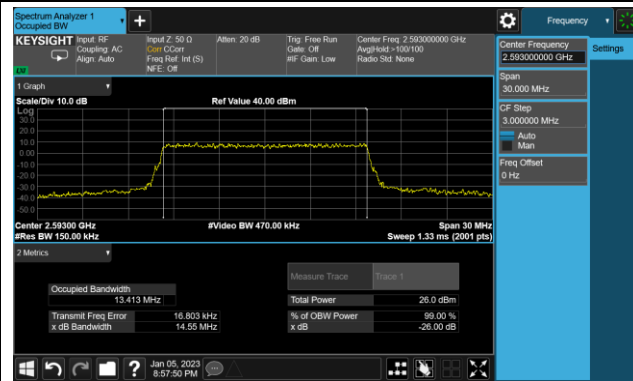
5MHz Channel Bandwidth



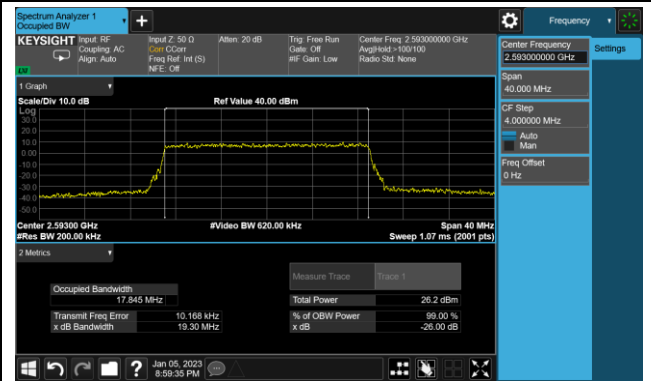
10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

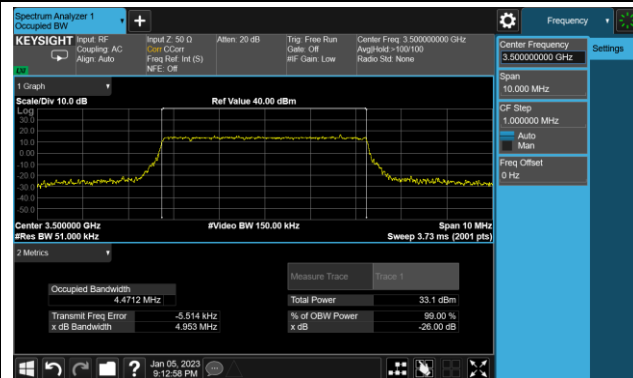


Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-05	Test Band	LTE Band 42_HPUE

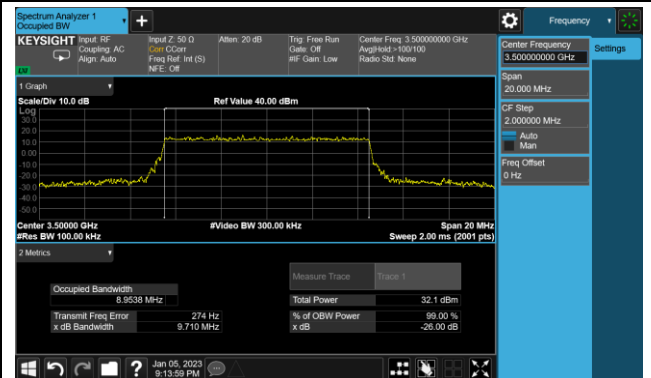
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
3500.0	5	4.4712
	10	8.9538
	15	13.423
	20	17.924
16QAM		
3500.0	5	4.4499
	10	8.9540
	15	13.480
	20	17.842
64QAM		
3500.0	5	4.4602
	10	8.9329
	15	13.430
	20	17.871
256QAM		
3500.0	5	4.4654
	10	8.9621
	15	13.413
	20	17.881

99% Bandwidth - QPSK

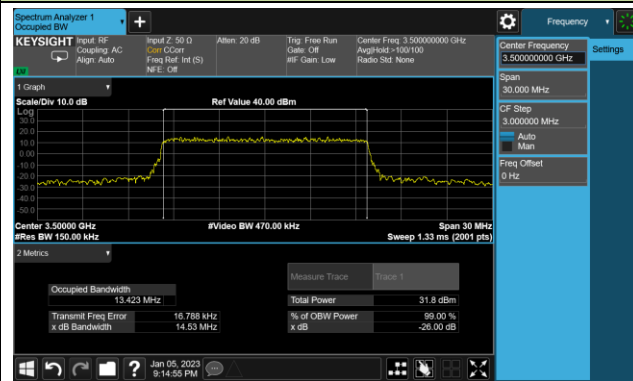
5MHz Channel Bandwidth



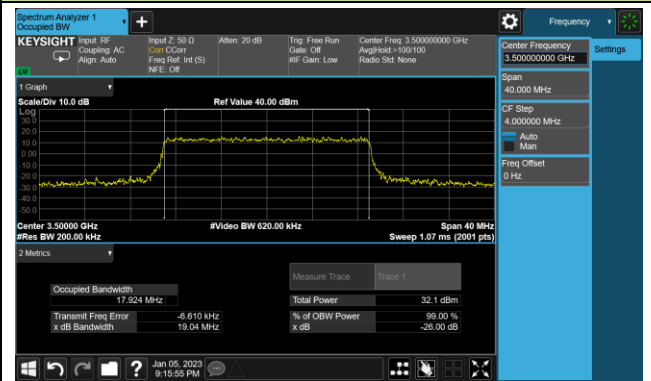
10MHz Channel Bandwidth



15MHz Channel Bandwidth

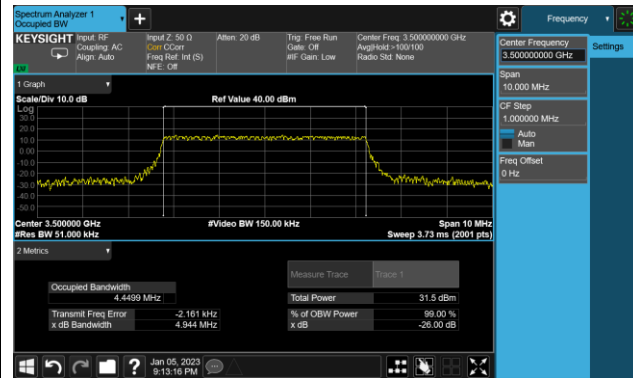


20MHz Channel Bandwidth

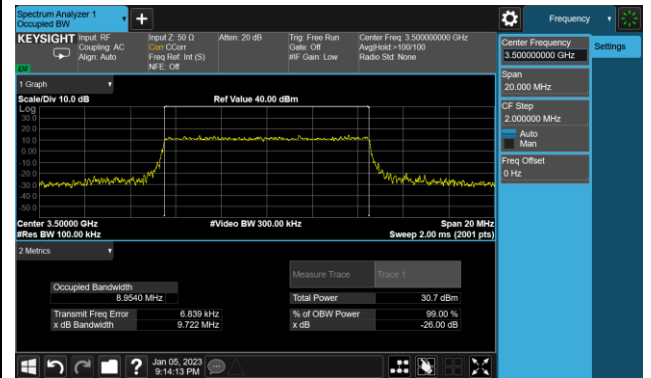


99% Bandwidth - 16QAM

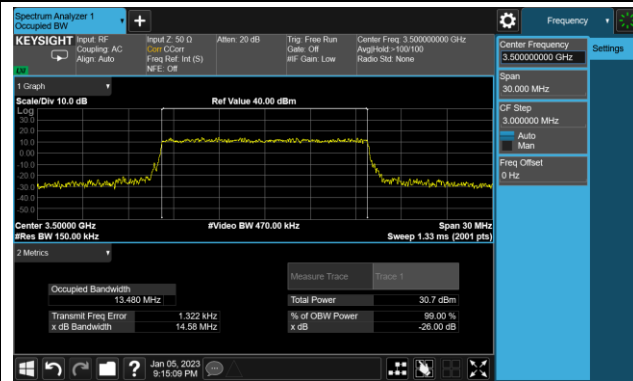
5MHz Channel Bandwidth



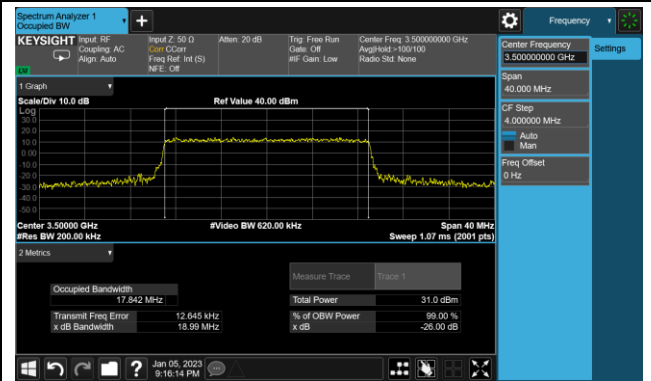
10MHz Channel Bandwidth



15MHz Channel Bandwidth

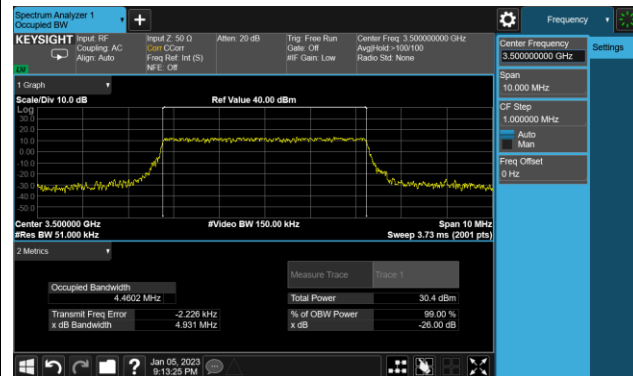


20MHz Channel Bandwidth

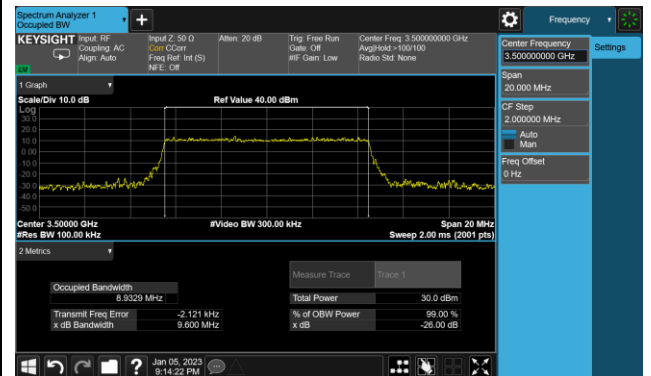


99% Bandwidth - 64QAM

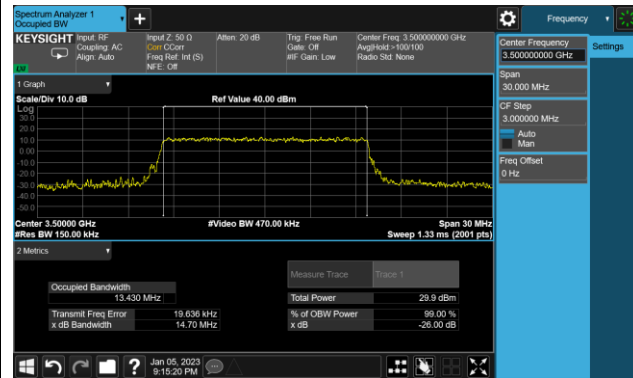
5MHz Channel Bandwidth



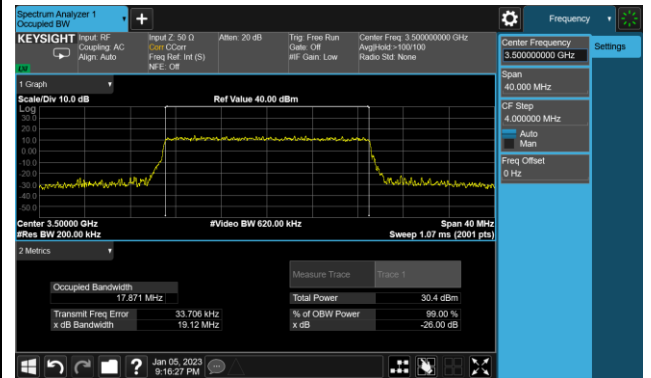
10MHz Channel Bandwidth



15MHz Channel Bandwidth

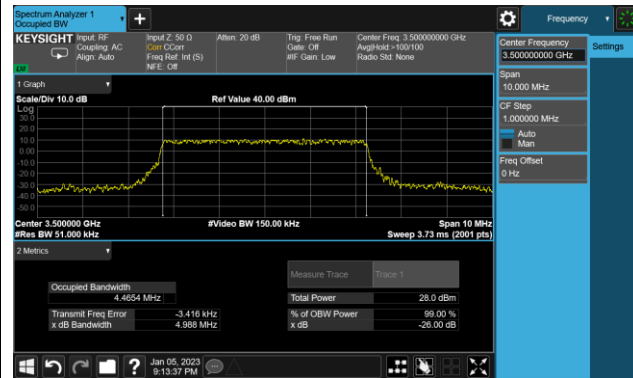


20MHz Channel Bandwidth

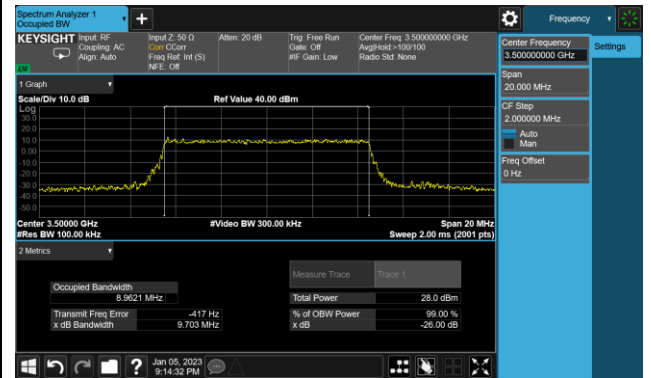


99% Bandwidth - 256QAM

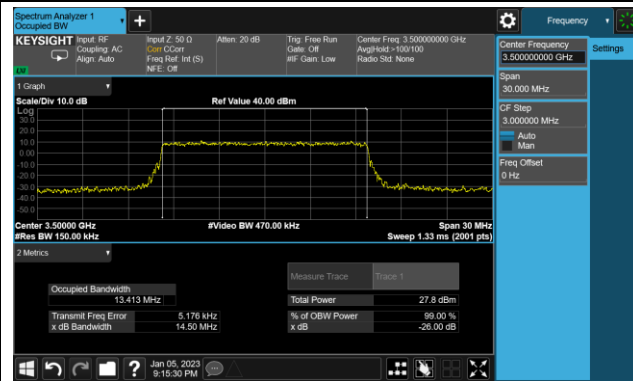
5MHz Channel Bandwidth



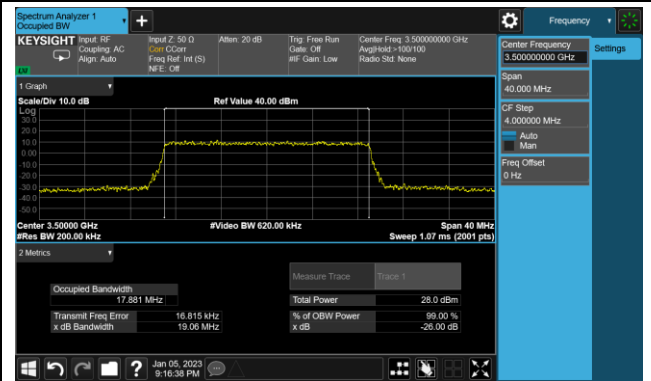
10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

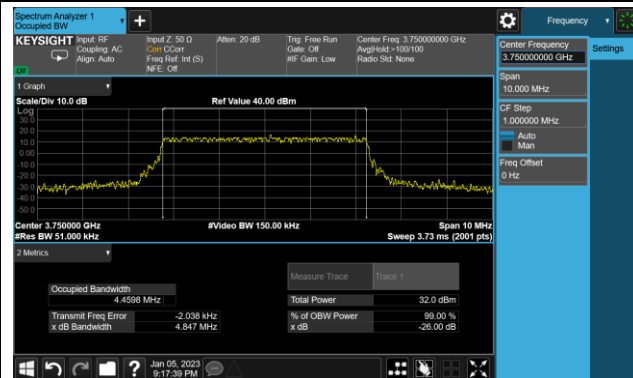


Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-05	Test Band	LTE Band 43_HPUE

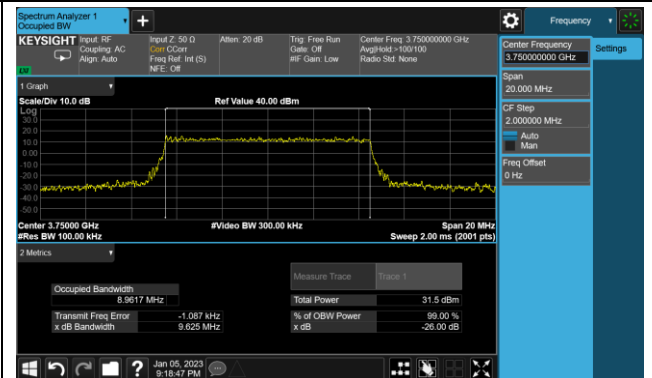
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
3750.0	5	4.4598
	10	8.9617
	15	13.415
	20	17.863
16QAM		
3750.0	5	4.4545
	10	8.9801
	15	13.425
	20	17.866
64QAM		
3750.0	5	4.4770
	10	8.9354
	15	13.399
	20	17.906
256QAM		
3750.0	5	4.4675
	10	8.9736
	15	13.412
	20	17.866

99% Bandwidth - QPSK

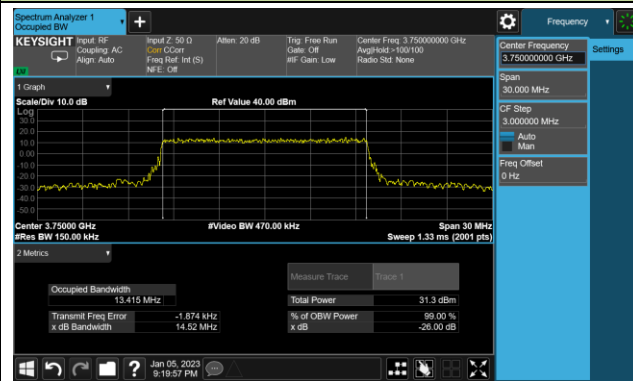
5MHz Channel Bandwidth



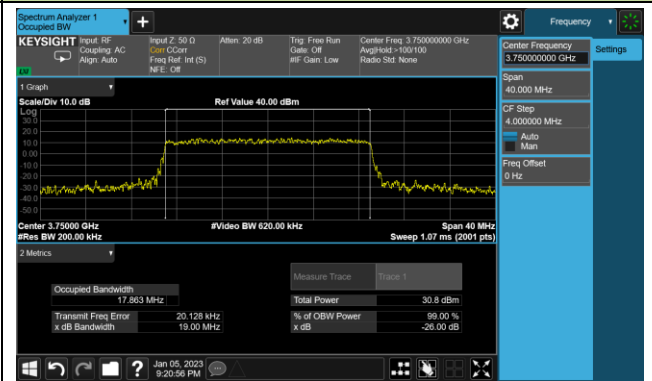
10MHz Channel Bandwidth



15MHz Channel Bandwidth

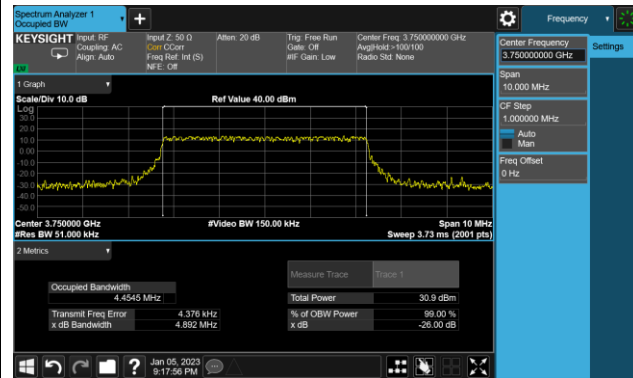


20MHz Channel Bandwidth

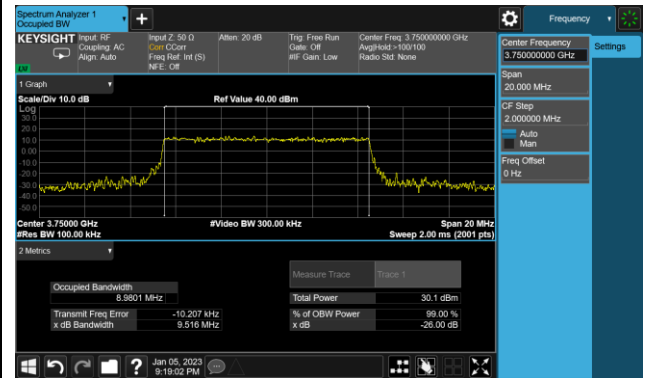


99% Bandwidth - 16QAM

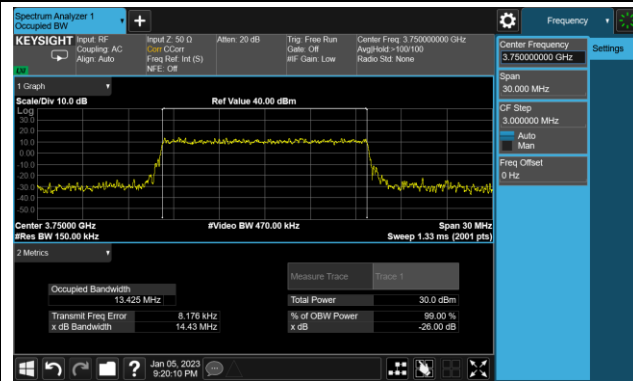
5MHz Channel Bandwidth



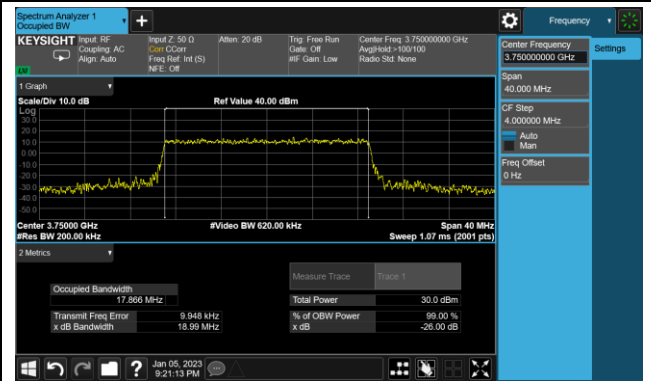
10MHz Channel Bandwidth



15MHz Channel Bandwidth

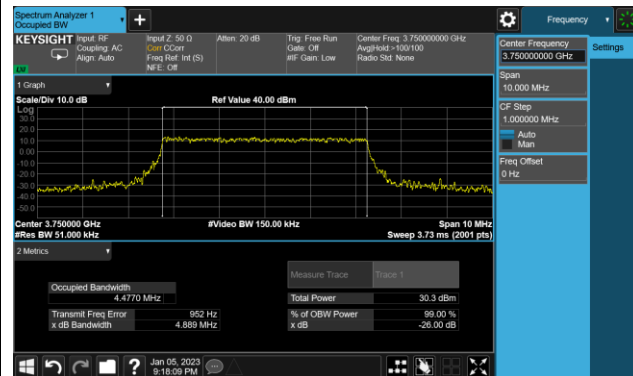


20MHz Channel Bandwidth

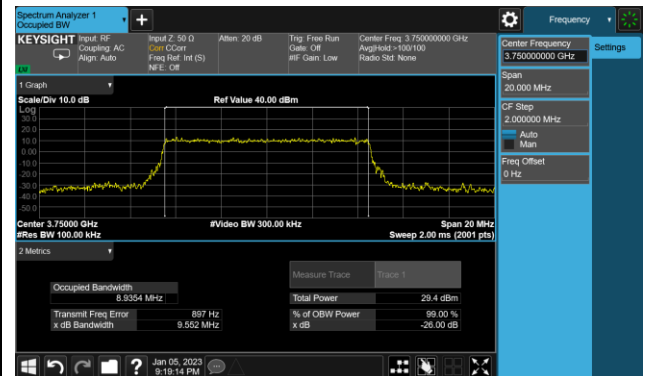


99% Bandwidth - 64QAM

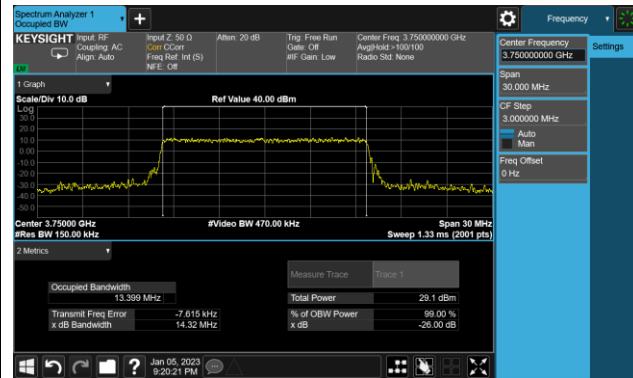
5MHz Channel Bandwidth



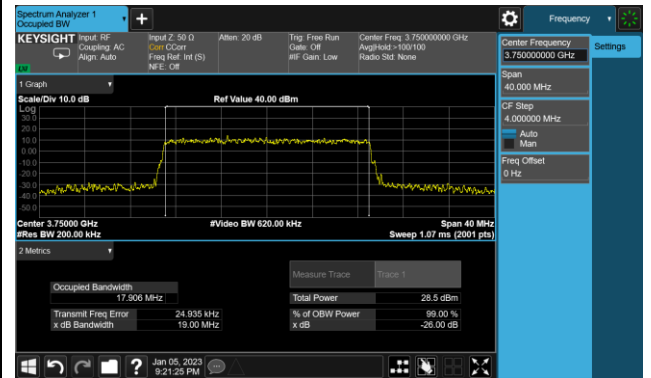
10MHz Channel Bandwidth



15MHz Channel Bandwidth

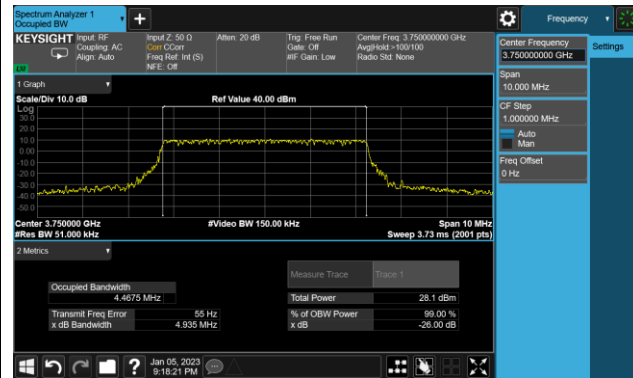


20MHz Channel Bandwidth

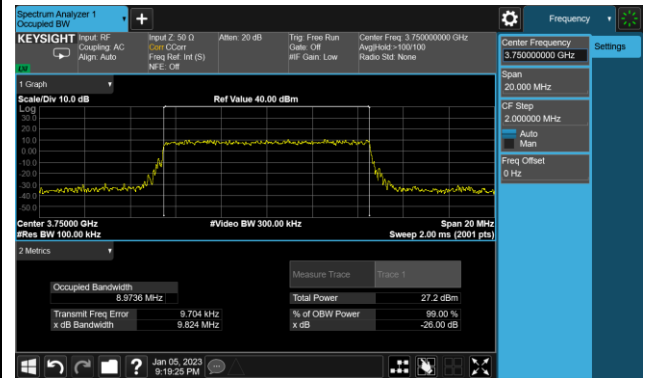


99% Bandwidth - 256QAM

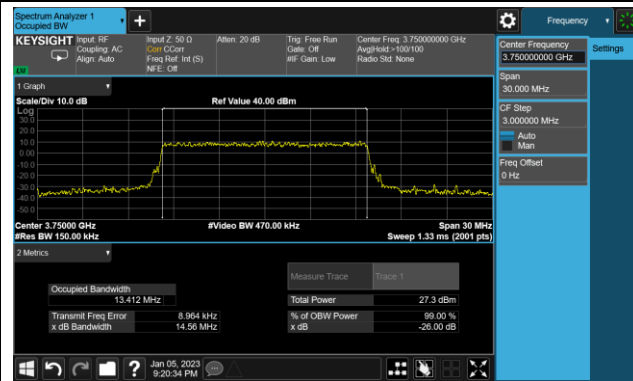
5MHz Channel Bandwidth



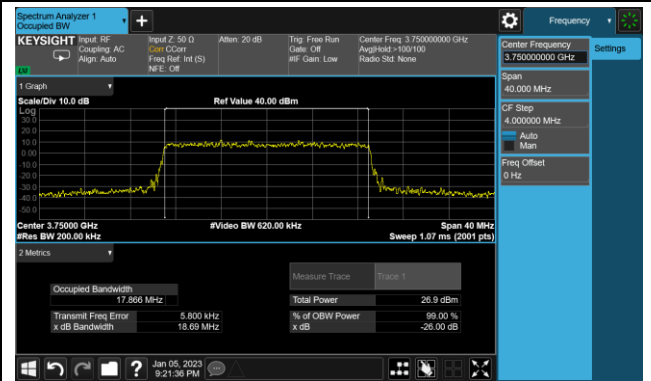
10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

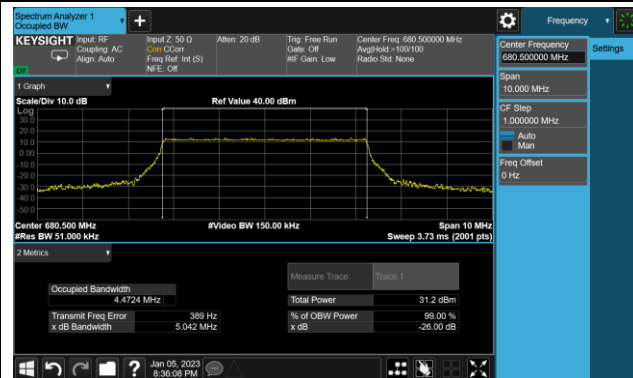


Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-05	Test Band	LTE Band 71

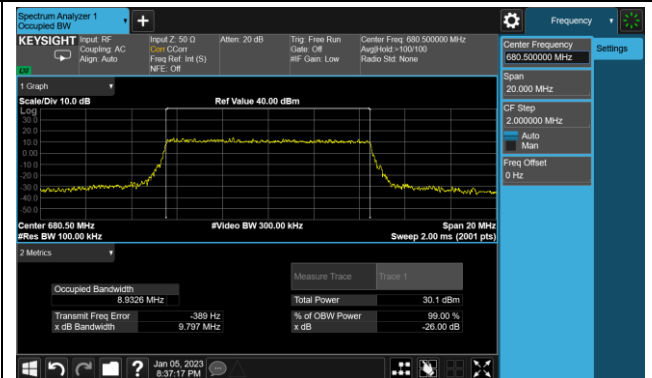
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
680.5	5	4.4724
	10	8.9326
	15	13.419
	20	17.848
16QAM		
680.5	5	4.4740
	10	8.9428
	15	13.426
	20	17.863
64QAM		
680.5	5	4.4698
	10	8.9417
	15	13.394
	20	17.861
256QAM		
680.5	5	4.4732
	10	8.9686
	15	13.431
	20	17.853

99% Bandwidth - QPSK

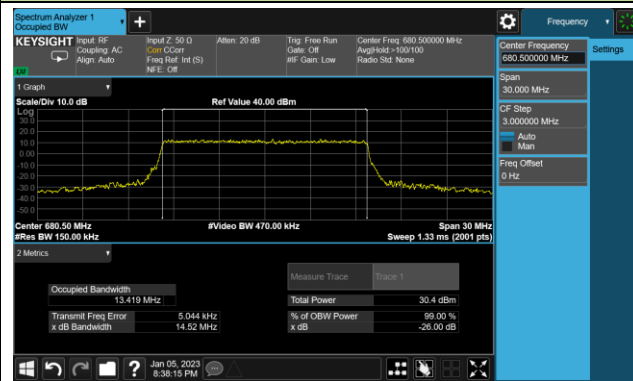
5MHz Channel Bandwidth



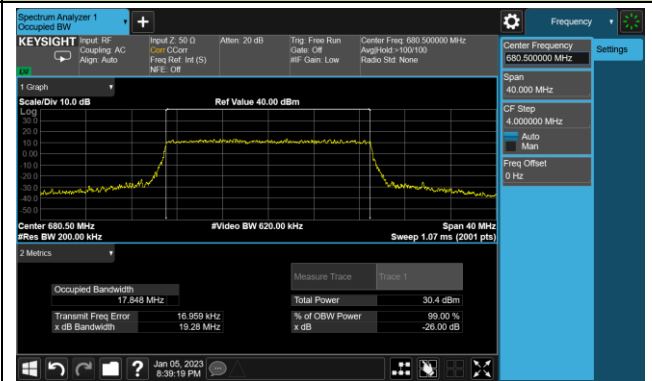
10MHz Channel Bandwidth



15MHz Channel Bandwidth

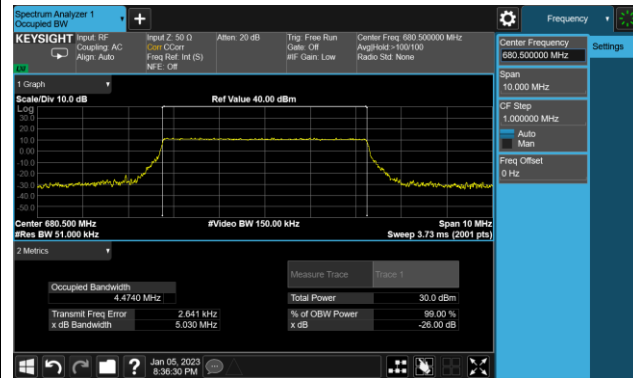


20MHz Channel Bandwidth

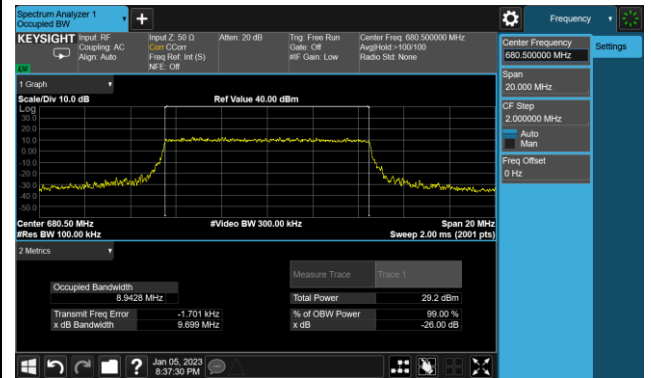


99% Bandwidth - 16QAM

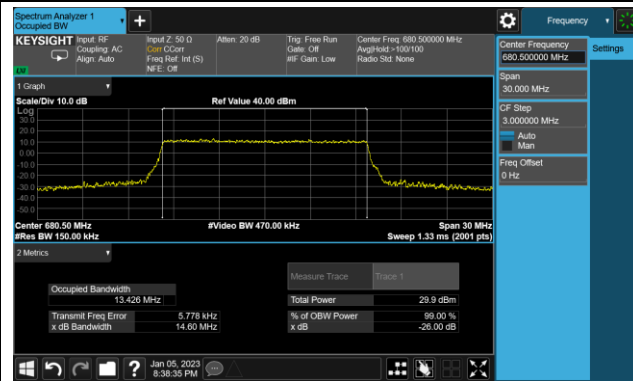
5MHz Channel Bandwidth



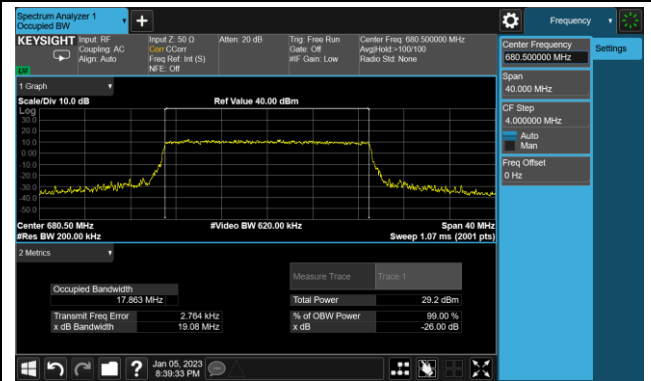
10MHz Channel Bandwidth



15MHz Channel Bandwidth

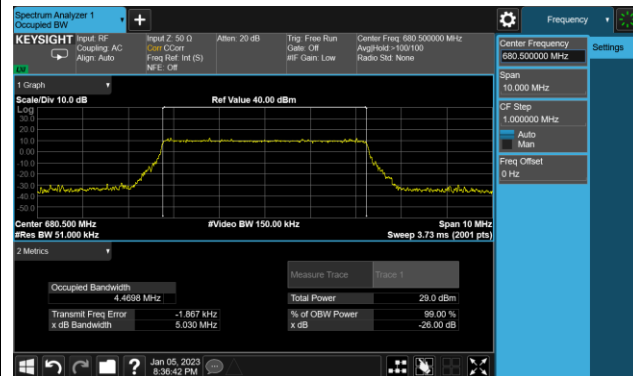


20MHz Channel Bandwidth

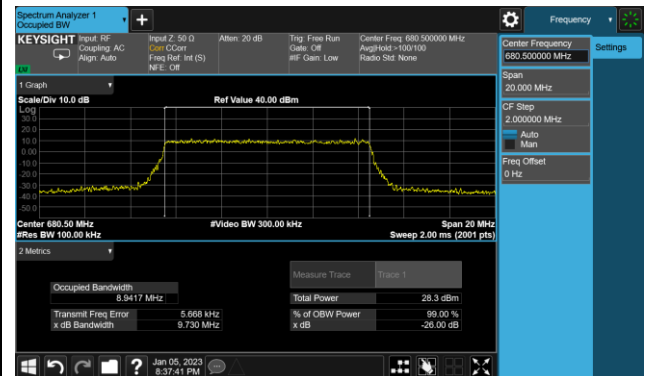


99% Bandwidth - 64QAM

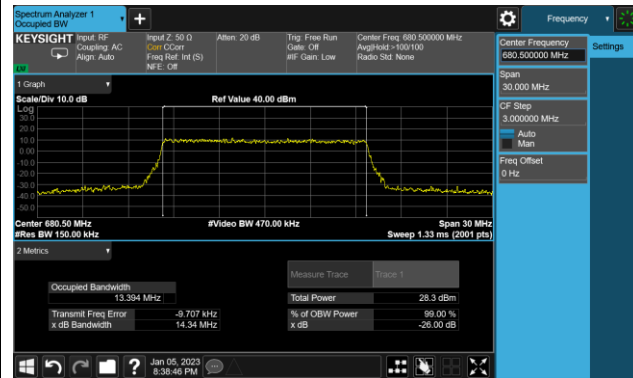
5MHz Channel Bandwidth



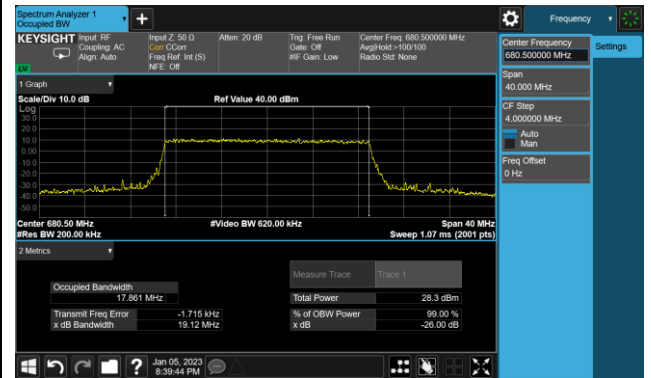
10MHz Channel Bandwidth



15MHz Channel Bandwidth

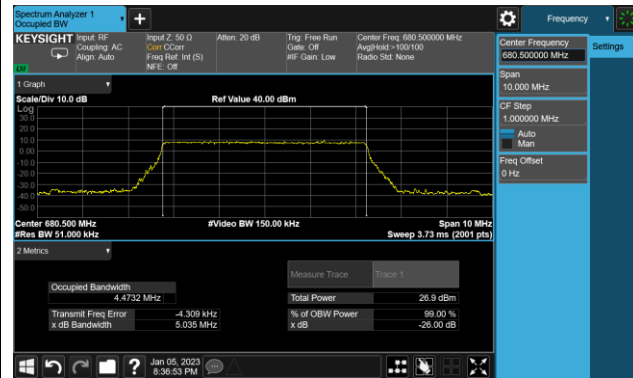


20MHz Channel Bandwidth

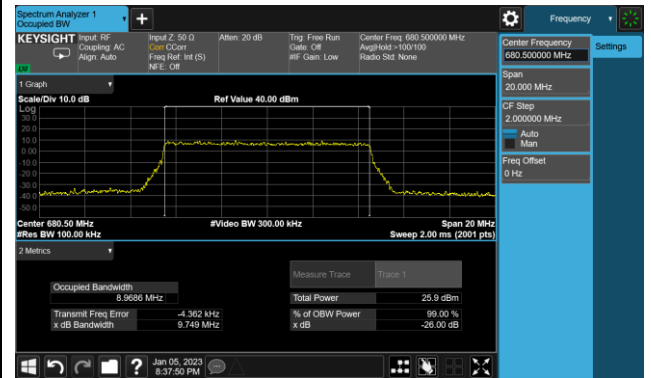


99% Bandwidth - 256QAM

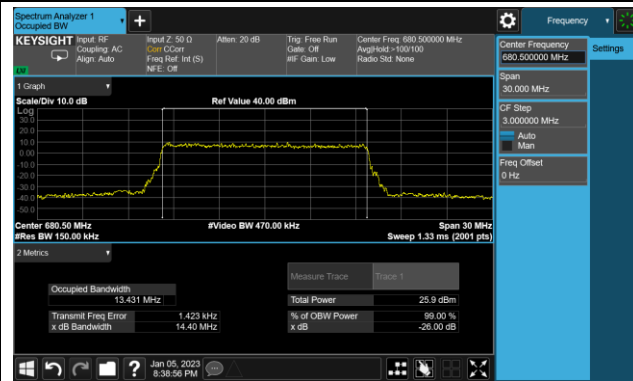
5MHz Channel Bandwidth



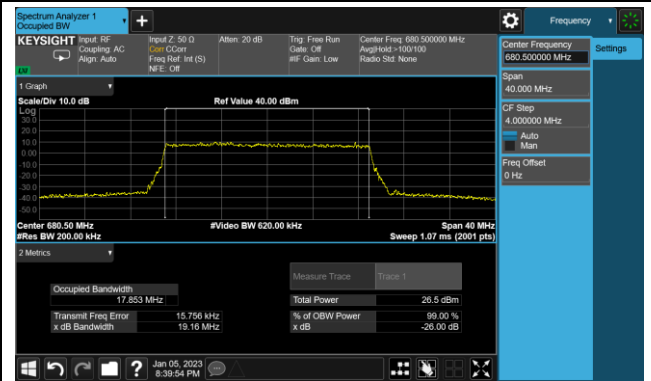
10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth



Test Site	SIP-SR1	Test Engineer	Allen Zou
Test Date	2023-01-12~2023-02-09	Test Band	Intra-Band CA_2C

Modulation	Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK	1870.8 + 1882.5	5+20	22.784
	1872.9 + 1884.9	10+15	23.088
	1870.6 + 1885.0	10+20	27.534
	1875.1 + 1887.1	15+10	23.071
	1872.5 + 1887.5	15+15	28.260
	1870.3 + 1887.4	15+20	32.525
	1877.5 + 1889.2	20+5	22.851
	1875.1 + 1889.5	20+10	27.634
	1872.6 + 1889.7	20+15	32.564
	1870.1 + 1889.9	20+20	37.418
16QAM	1870.8 + 1882.5	5+20	22.776
	1872.9 + 1884.9	10+15	23.036
	1870.6 + 1885.0	10+20	27.542
	1875.1 + 1887.1	15+10	23.030
	1872.5 + 1887.5	15+15	28.305
	1870.3 + 1887.4	15+20	32.577
	1877.5 + 1889.2	20+5	22.823
	1875.1 + 1889.5	20+10	27.741
	1872.6 + 1889.7	20+15	32.567
	1870.1+ 1889.9	20+20	37.407
64QAM	1870.8 + 1882.5	5+20	22.706
	1872.9 + 1884.9	10+15	23.063
	1870.6 + 1885.0	10+20	27.607
	1875.1 + 1887.1	15+10	23.080
	1872.5 + 1887.5	15+15	28.278
	1870.3 + 1887.4	15+20	32.628
	1877.5 + 1889.2	20+5	22.791
	1875.1 + 1889.5	20+10	27.670
	1872.6 + 1889.7	20+15	32.541
	1870.1 + 1889.9	20+20	37.411

Modulation	Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
256QAM	1870.8 + 1882.5	5+20	22.779
	1872.9 + 1884.9	10+15	22.989
	1870.6 + 1885.0	10+20	27.640
	1875.1 + 1887.1	15+10	23.084
	1872.5 + 1887.5	15+15	28.213
	1870.3 + 1887.4	15+20	32.546
	1877.5 + 1889.2	20+5	22.811
	1875.1 + 1889.5	20+10	27.675
	1872.6 + 1889.7	20+15	32.616
	1870.1 + 1889.9	20+20	37.504