

Test Site	SIP-SR1	Test Engineer	Candy Luo
Test Date	2022-12-09	Test Band	n66

Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
1745.0	5	4.48
1745.0	10	9.31
1745.0	15	14.11
1745.0	20	18.92
1745.0	30	28.56
1745.0	40	38.66
16QAM		
1745.0	5	4.46
1745.0	10	9.28
1745.0	15	14.10
1745.0	20	18.92
1745.0	30	28.61
1745.0	40	38.55
64QAM		
1745.0	5	4.48
1745.0	10	9.27
1745.0	15	14.08
1745.0	20	18.95
1745.0	30	28.56
1745.0	40	38.54
256QAM		
1745.0	5	4.47
1745.0	10	9.27
1745.0	15	14.08
1745.0	20	18.91
1745.0	30	28.58
1745.0	40	38.48

99% Bandwidth - QPSK

5MHz Channel Bandwidth



10MHz Channel Bandwidth



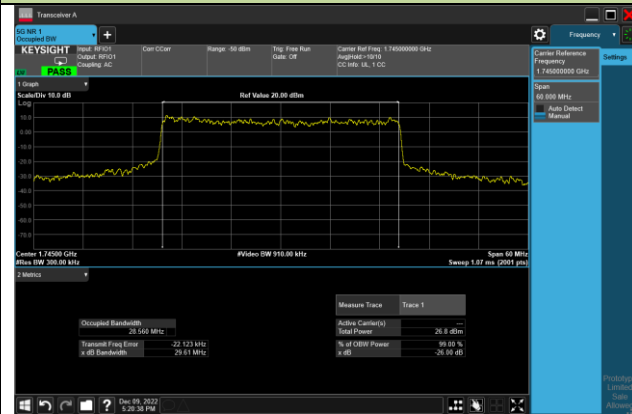
15MHz Channel Bandwidth



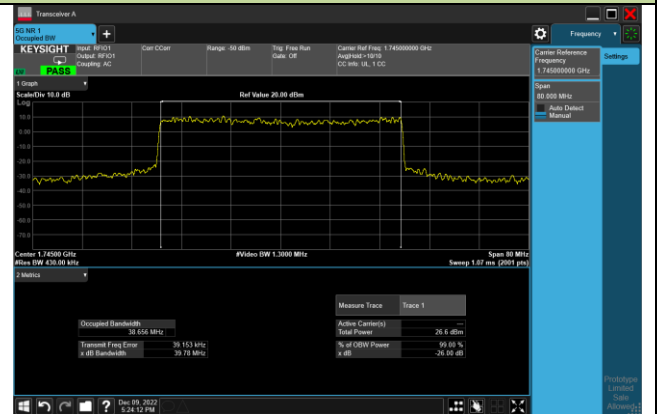
20MHz Channel Bandwidth



30MHz Channel Bandwidth



40MHz Channel Bandwidth



99% Bandwidth - 16QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth



30MHz Channel Bandwidth



40MHz Channel Bandwidth



99% Bandwidth - 64QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



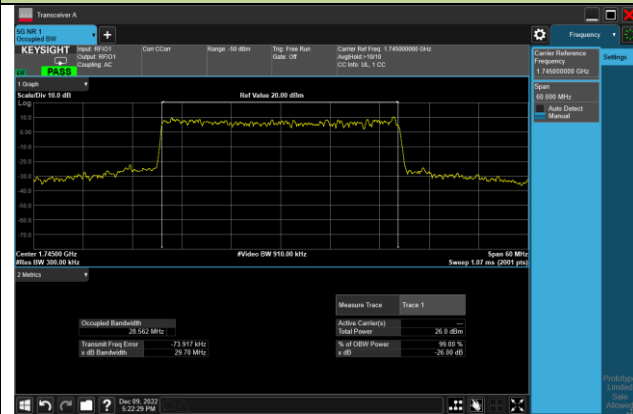
15MHz Channel Bandwidth



20MHz Channel Bandwidth



30MHz Channel Bandwidth



40MHz Channel Bandwidth



99% Bandwidth - 256QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth



30MHz Channel Bandwidth



40MHz Channel Bandwidth

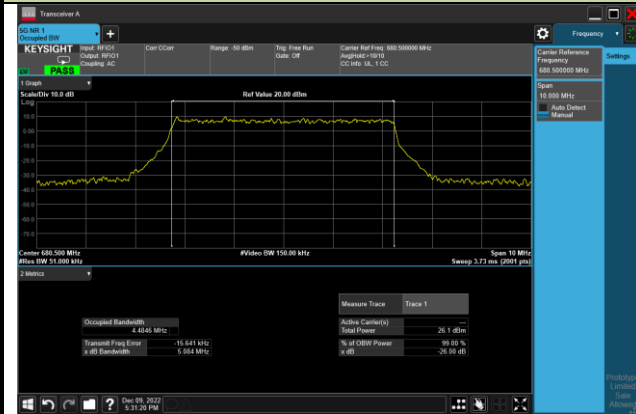


Test Site	SIP-SR1	Test Engineer	Candy Luo
Test Date	2022-12-09	Test Band	n71

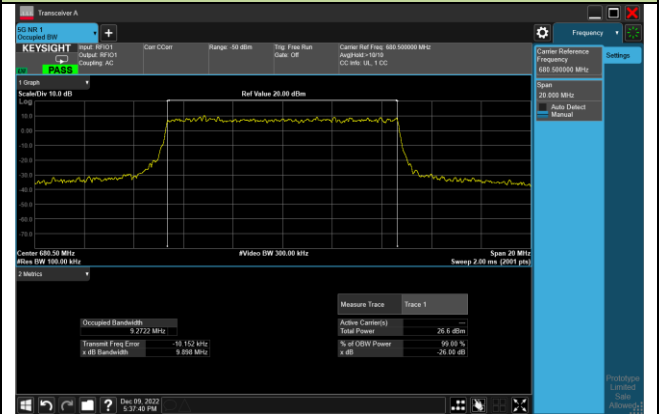
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
680.5	5	4.48
680.5	10	9.27
680.5	15	14.15
680.5	20	18.91
16QAM		
680.5	5	4.46
680.5	10	9.26
680.5	15	14.06
680.5	20	18.86
64QAM		
680.5	5	4.47
680.5	10	9.27
680.5	15	14.14
680.5	20	18.93
256QAM		
680.5	5	4.47
680.5	10	9.30
680.5	15	14.08
680.5	20	18.85

99% Bandwidth - QPSK

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

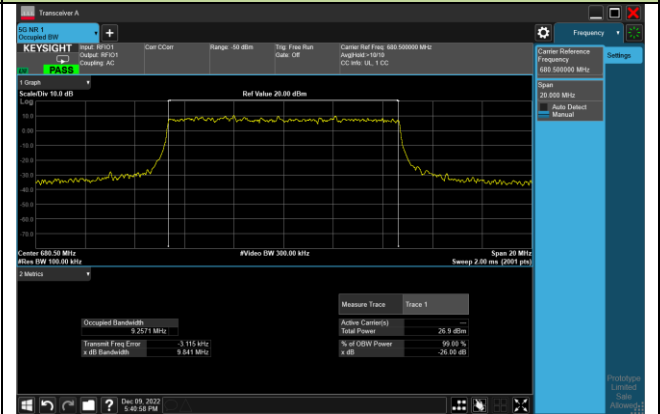


99% Bandwidth - 16QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth

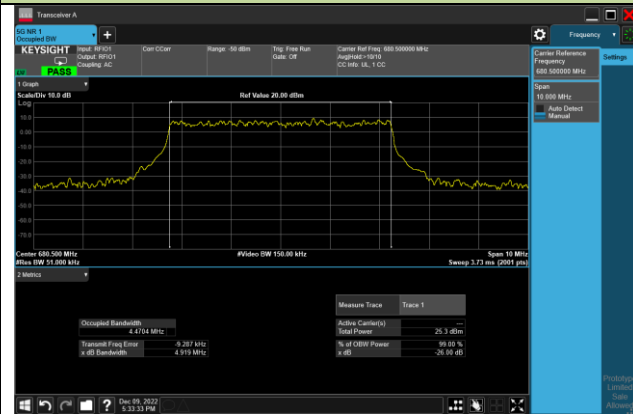


20MHz Channel Bandwidth

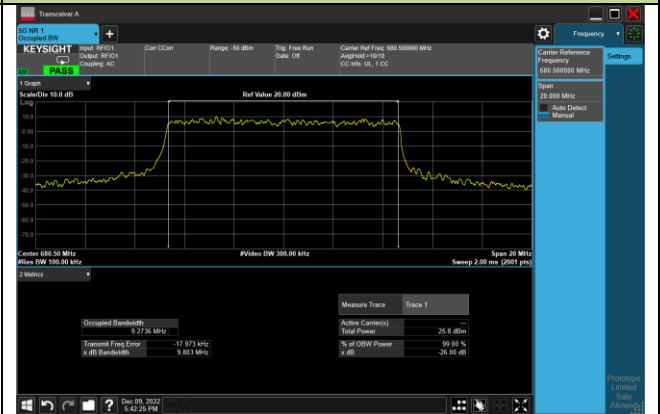


99% Bandwidth - 64QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

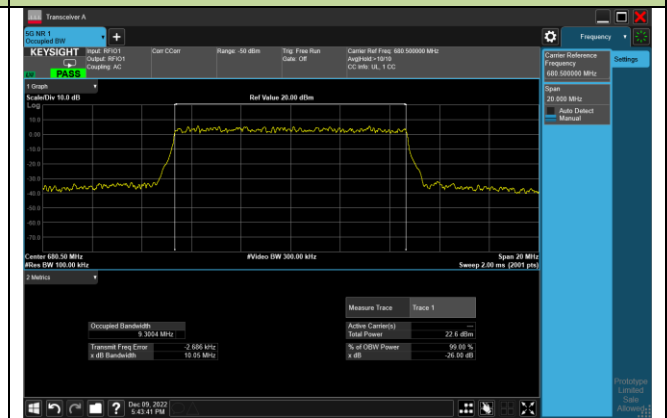


99% Bandwidth - 256QAM

5MHz Channel Bandwidth



10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth

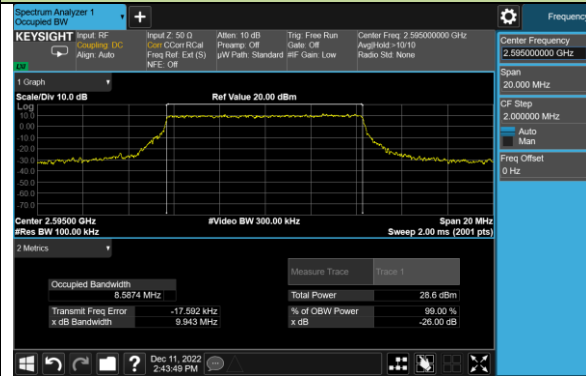


Test Site	SIP-SR1	Test Engineer	Candy Luo
Test Date	2022-12-11	Test Band	n38_HPUE

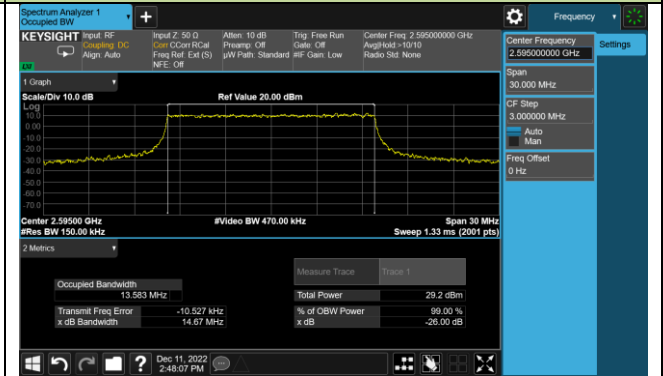
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
2595.00	10	8.59
2595.00	15	13.58
2595.00	20	18.22
2595.00	30	27.89
2595.00	40	37.85
16QAM		
2595.00	10	8.59
2595.00	15	13.59
2595.00	20	18.26
2595.00	30	27.90
2595.00	40	37.80
64QAM		
2595.00	10	8.58
2595.00	15	13.60
2595.00	20	18.26
2595.00	30	27.95
2595.00	40	37.81
256QAM		
2595.00	10	8.60
2595.00	15	13.57
2595.00	20	18.25
2595.00	30	27.90
2595.00	40	37.79

99% Bandwidth - QPSK

10MHz Channel Bandwidth



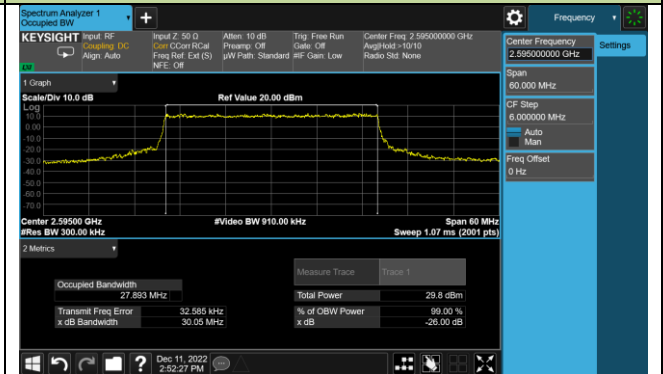
15MHz Channel Bandwidth



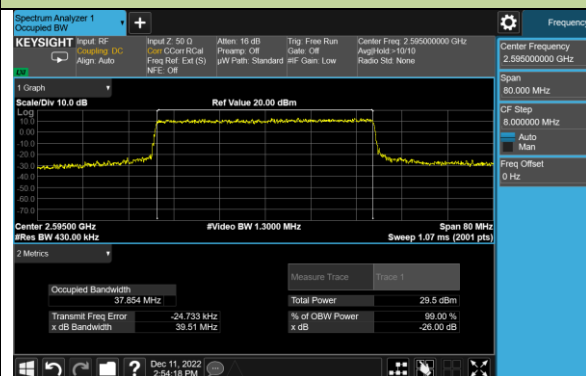
20MHz Channel Bandwidth



30MHz Channel Bandwidth

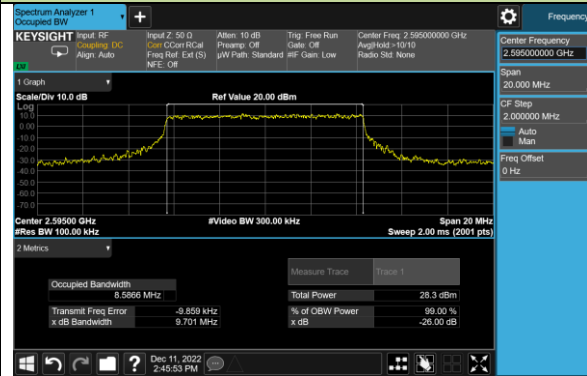


40MHz Channel Bandwidth

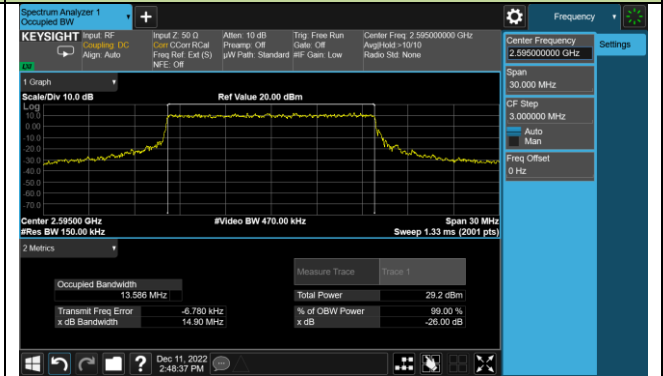


99% Bandwidth - 16QAM

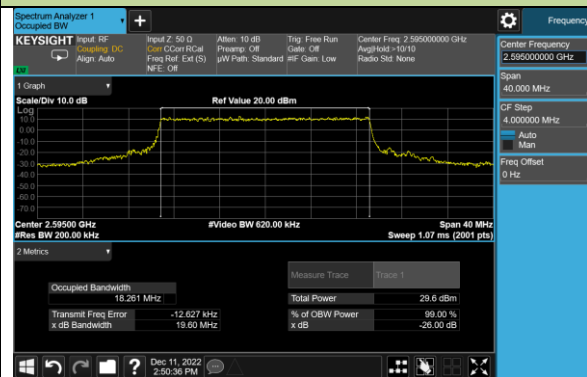
10MHz Channel Bandwidth



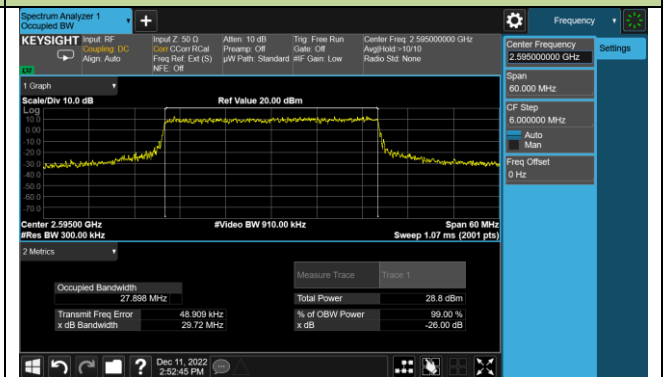
15MHz Channel Bandwidth



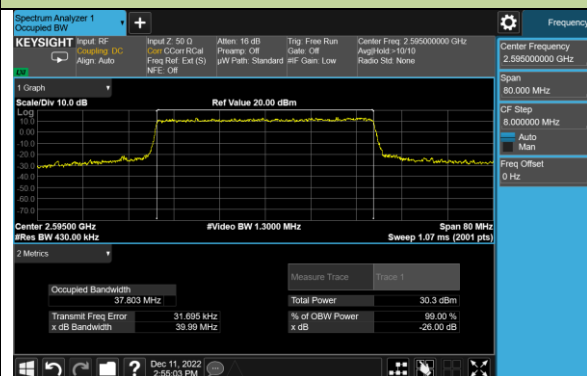
20MHz Channel Bandwidth



30MHz Channel Bandwidth

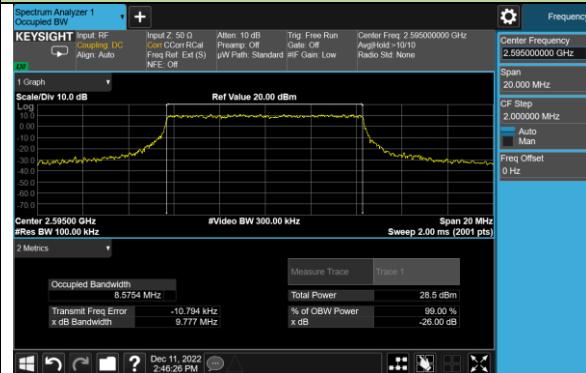


40MHz Channel Bandwidth

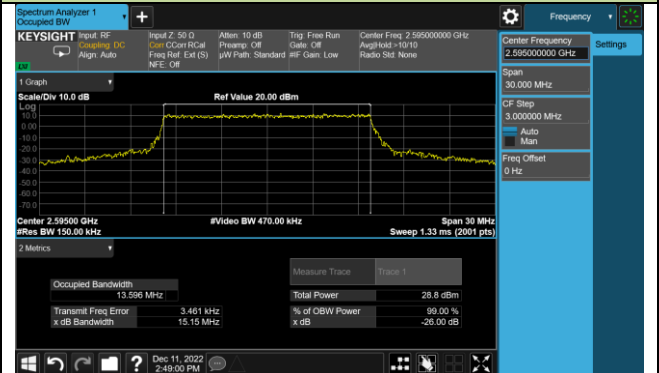


99% Bandwidth - 64QAM

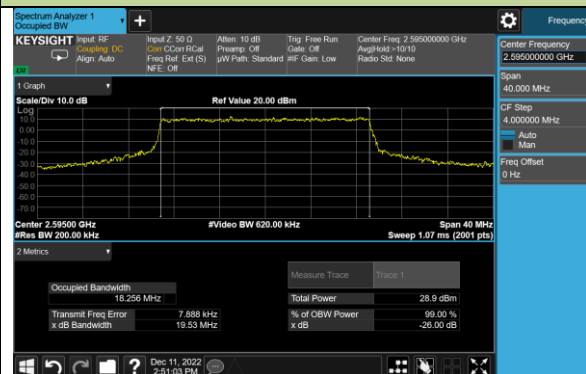
10MHz Channel Bandwidth



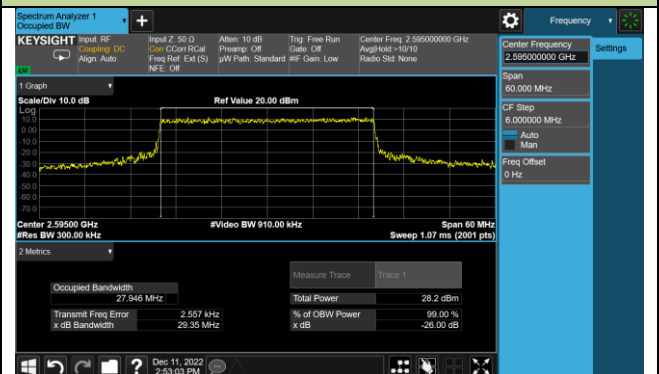
15MHz Channel Bandwidth



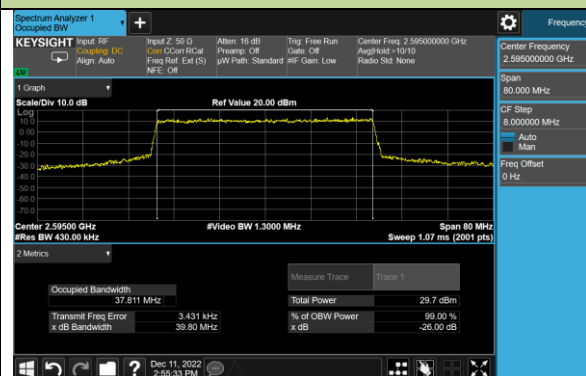
20MHz Channel Bandwidth



30MHz Channel Bandwidth

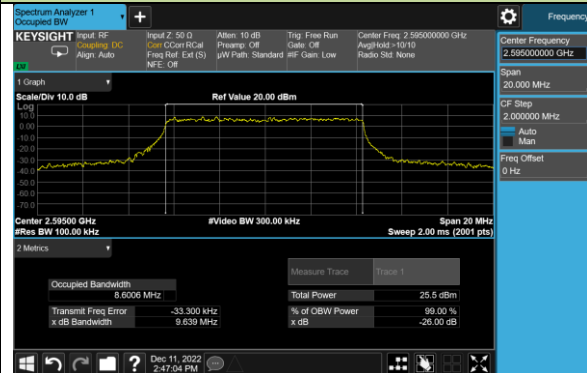


40MHz Channel Bandwidth

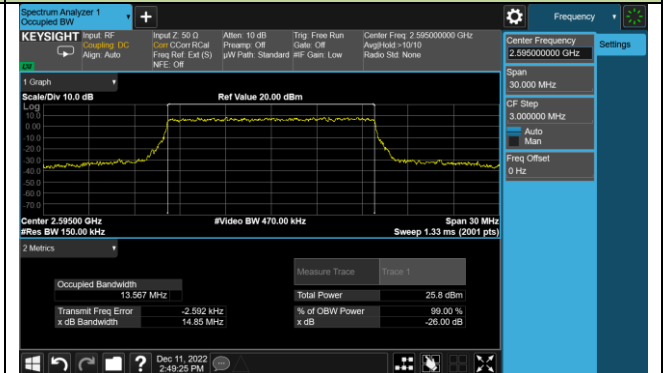


99% Bandwidth - 256QAM

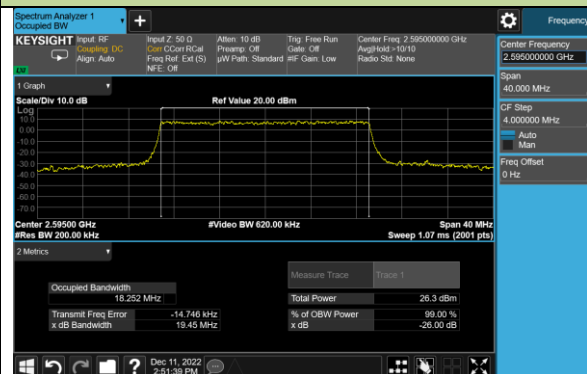
10MHz Channel Bandwidth



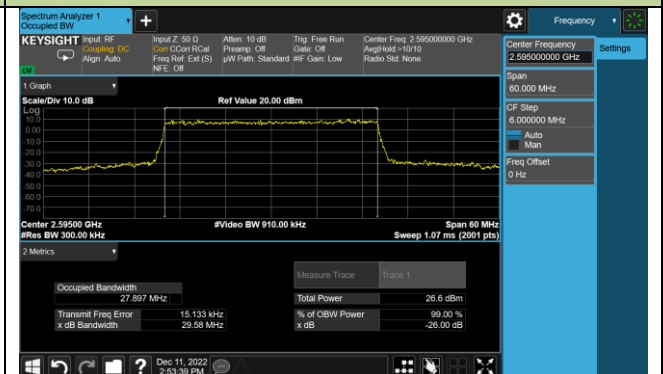
15MHz Channel Bandwidth



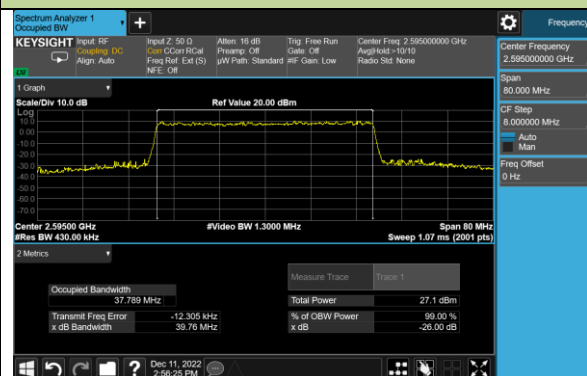
20MHz Channel Bandwidth



30MHz Channel Bandwidth



40MHz Channel Bandwidth



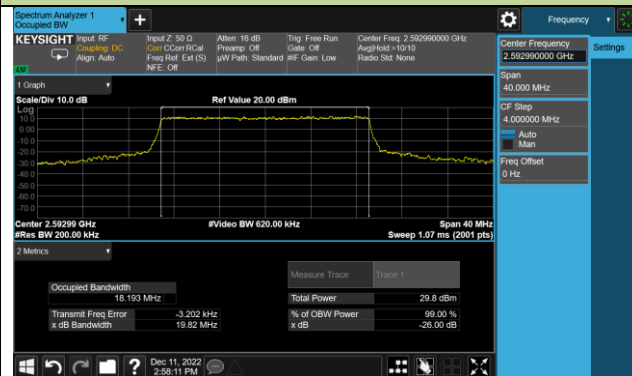
Test Site	SIP-SR1	Test Engineer	Candy Luo
Test Date	2022-12-11	Test Band	n41_HPUE

Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
2592.99	20	18.19
2592.99	30	27.85
2592.99	40	37.84
2592.99	50	47.46
2592.99	60	57.72
2592.99	70	67.28
2592.99	80	77.41
2592.99	90	87.37
2592.99	100	97.45
16QAM		
2592.99	20	18.24
2592.99	30	27.86
2592.99	40	37.75
2592.99	50	47.43
2592.99	60	57.80
2592.99	70	67.43
2592.99	80	77.33
2592.99	90	87.40
2592.99	100	97.38

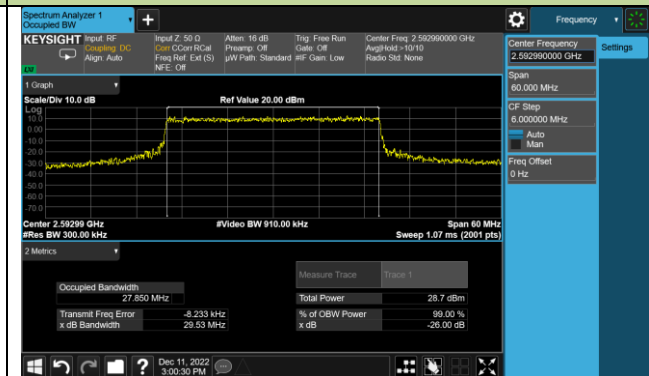
64QAM		
2592.99	20	18.25
2592.99	30	27.89
2592.99	40	37.84
2592.99	50	47.51
2592.99	60	57.79
2592.99	70	67.48
2592.99	80	77.55
2592.99	90	87.38
2592.99	100	97.44
256QAM		
2592.99	20	18.24
2592.99	30	27.90
2592.99	40	37.82
2592.99	50	47.39
2592.99	60	57.73
2592.99	70	67.48
2592.99	80	77.48
2592.99	90	87.41
2592.99	100	97.36

99% Bandwidth - QPSK

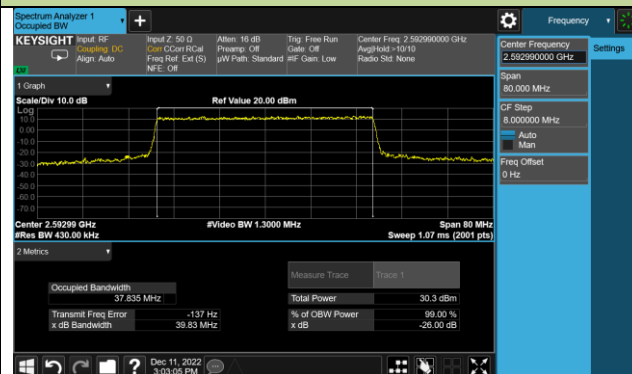
20MHz Channel Bandwidth



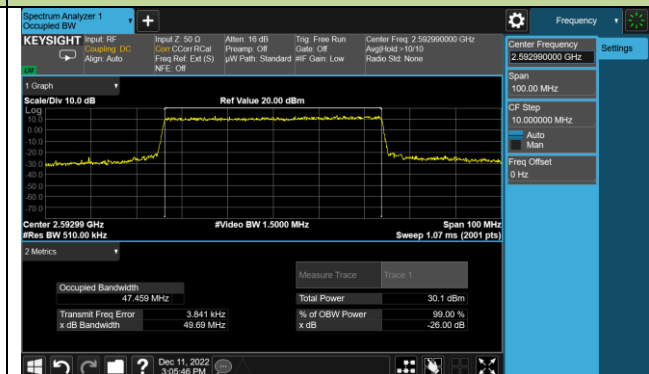
30MHz Channel Bandwidth



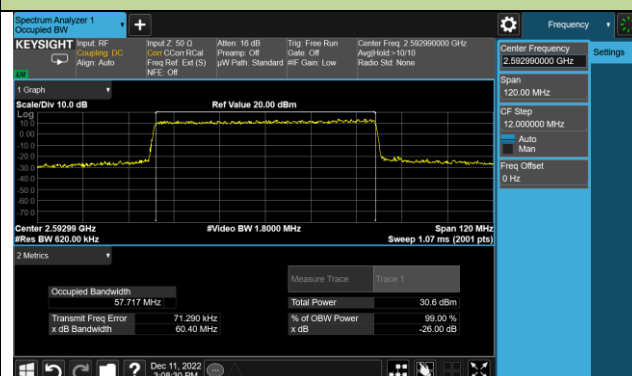
40MHz Channel Bandwidth



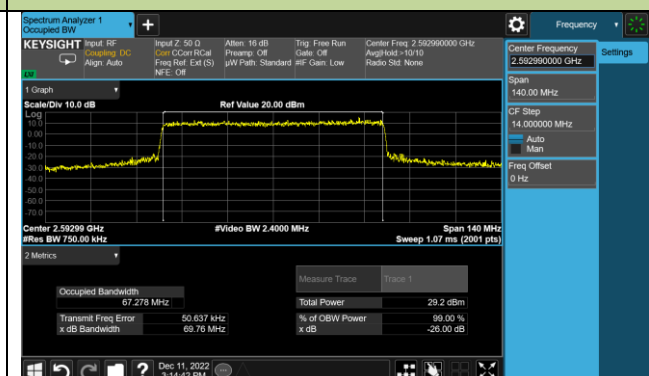
50MHz Channel Bandwidth



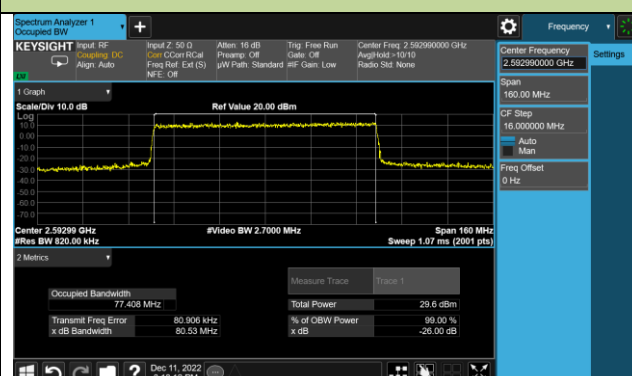
60MHz Channel Bandwidth



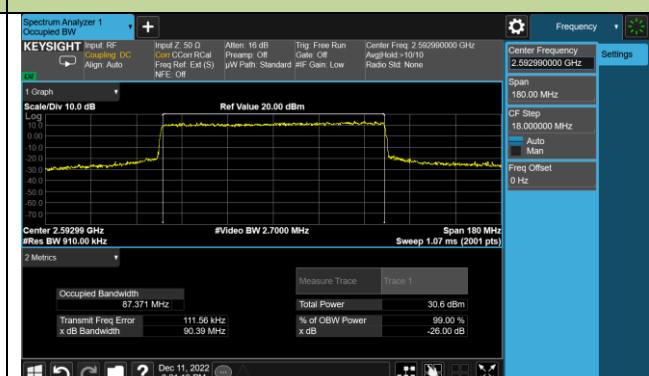
70MHz Channel Bandwidth

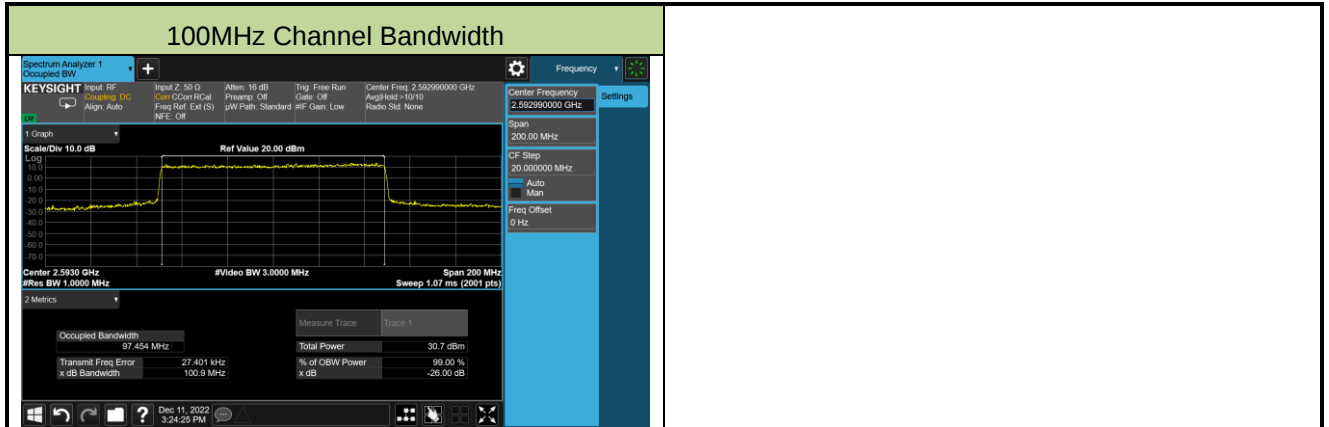


80MHz Channel Bandwidth



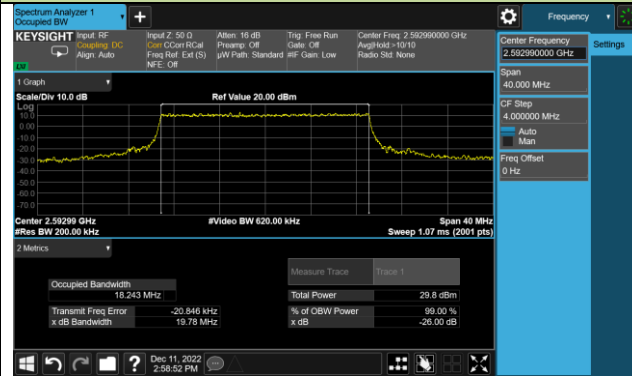
90MHz Channel Bandwidth



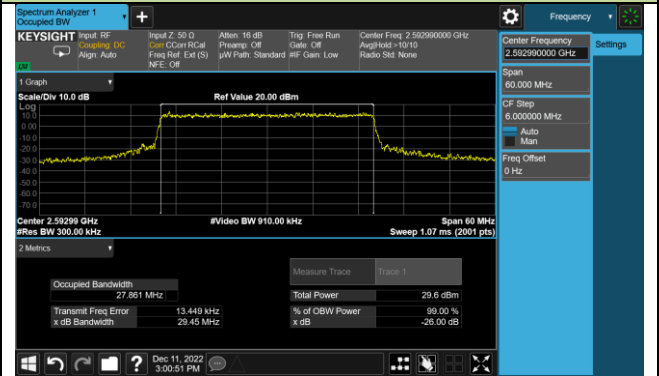


99% Bandwidth - 16QAM

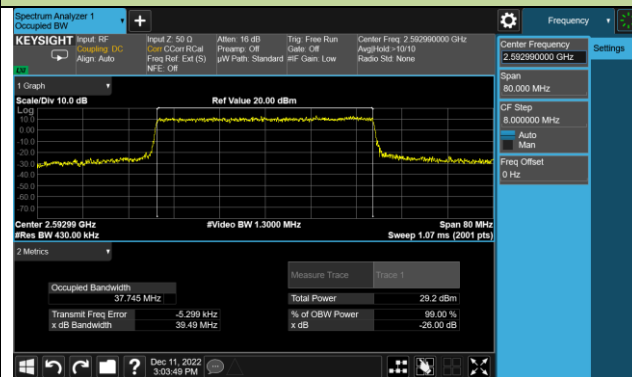
20MHz Channel Bandwidth



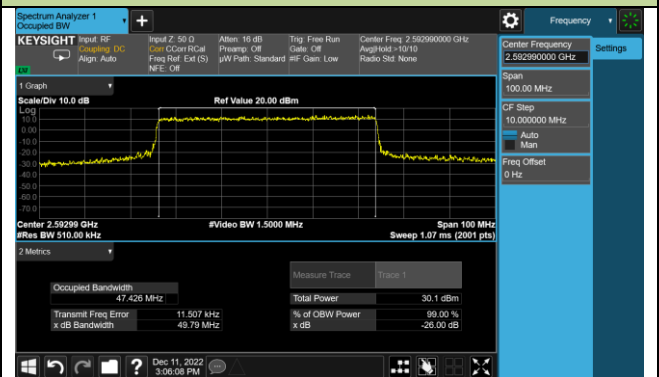
30MHz Channel Bandwidth



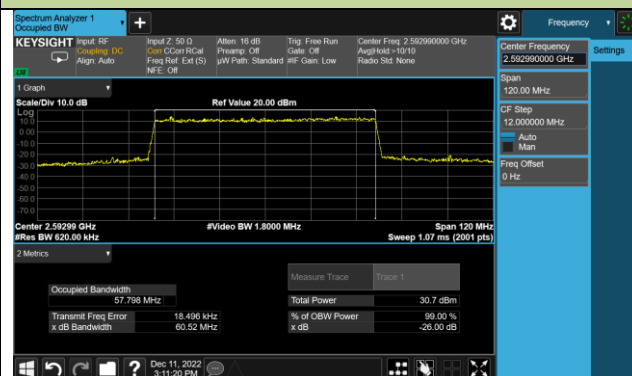
40MHz Channel Bandwidth



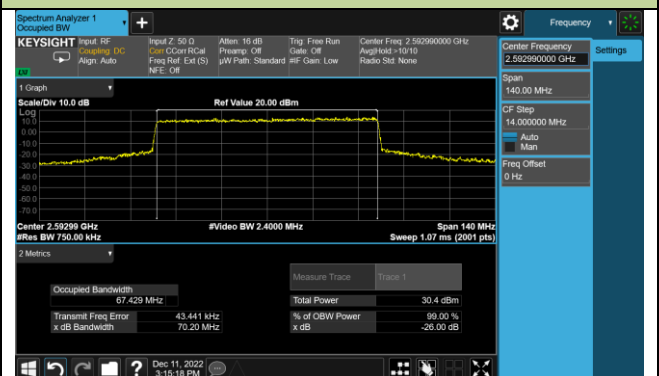
50MHz Channel Bandwidth



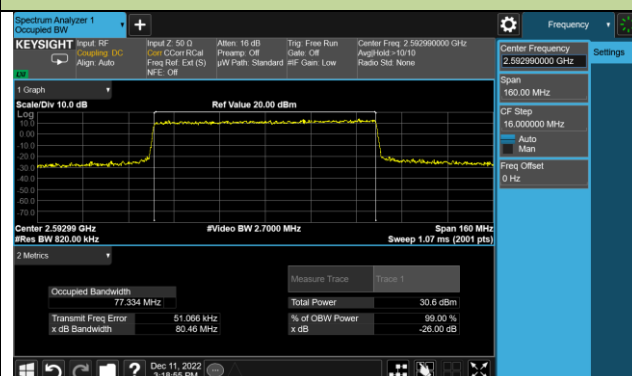
60MHz Channel Bandwidth



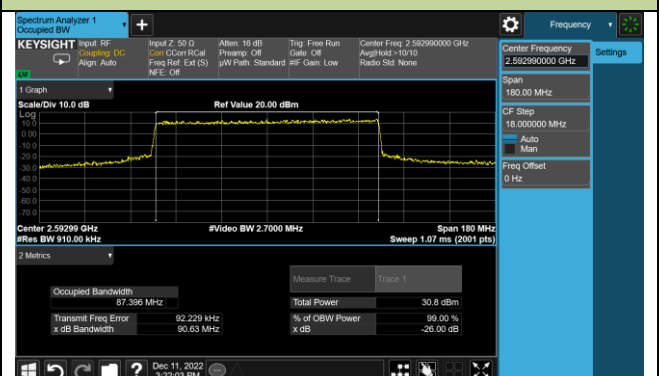
70MHz Channel Bandwidth

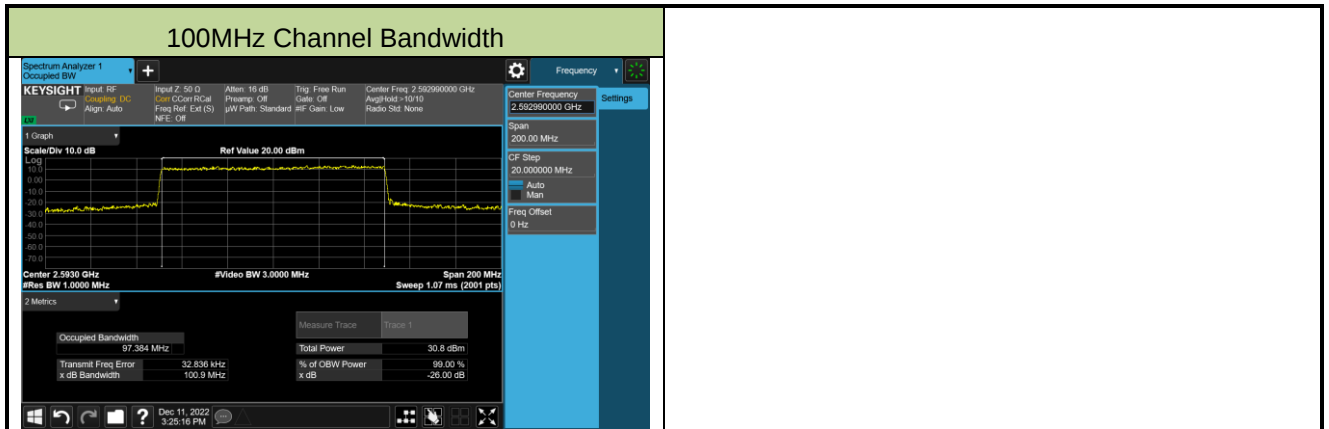


80MHz Channel Bandwidth



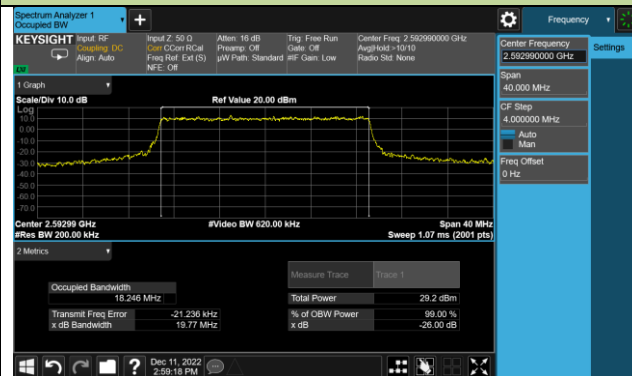
90MHz Channel Bandwidth



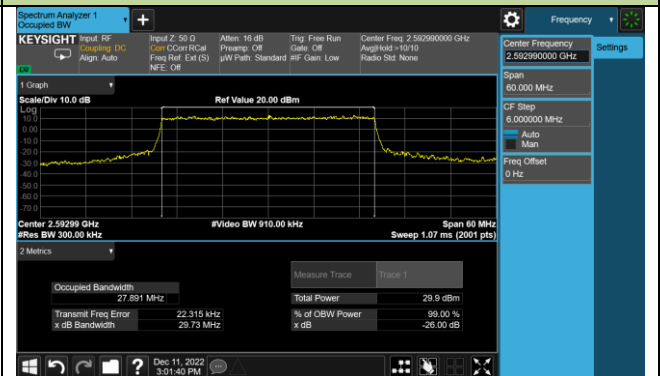


99% Bandwidth - 64QAM

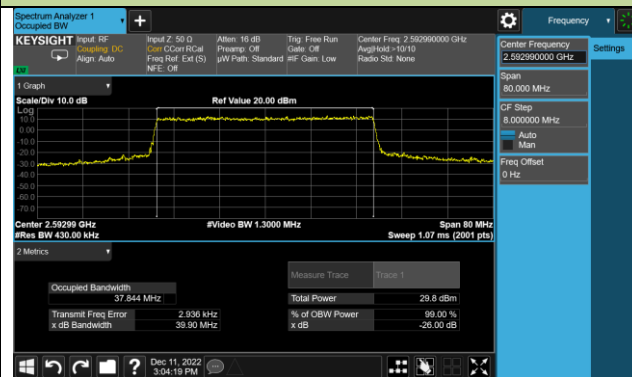
20MHz Channel Bandwidth



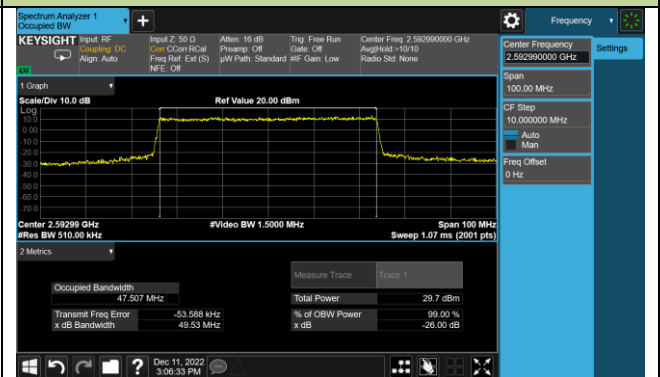
30MHz Channel Bandwidth



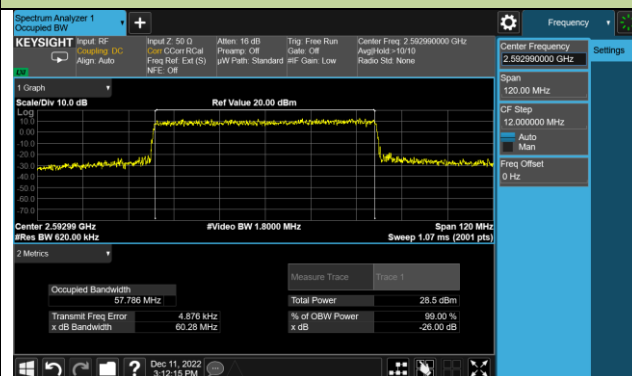
40MHz Channel Bandwidth



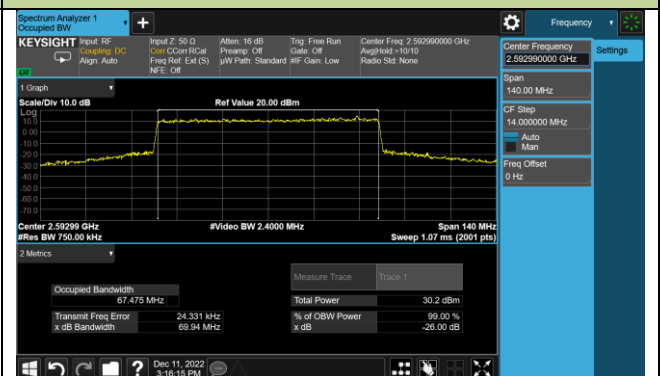
50MHz Channel Bandwidth



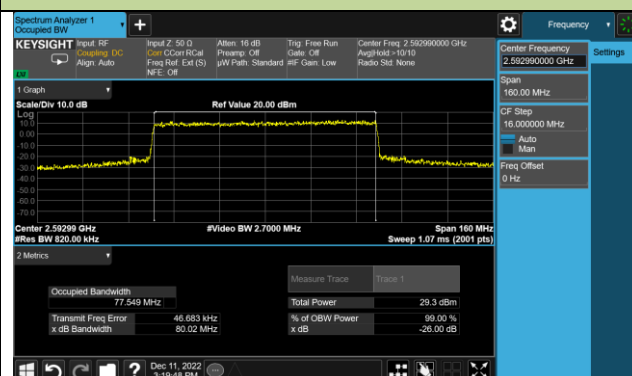
60MHz Channel Bandwidth



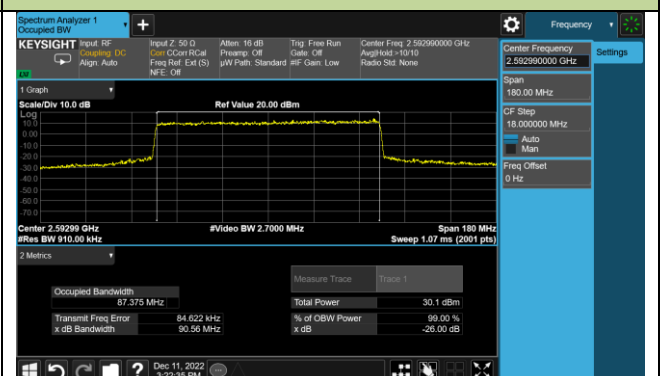
70MHz Channel Bandwidth

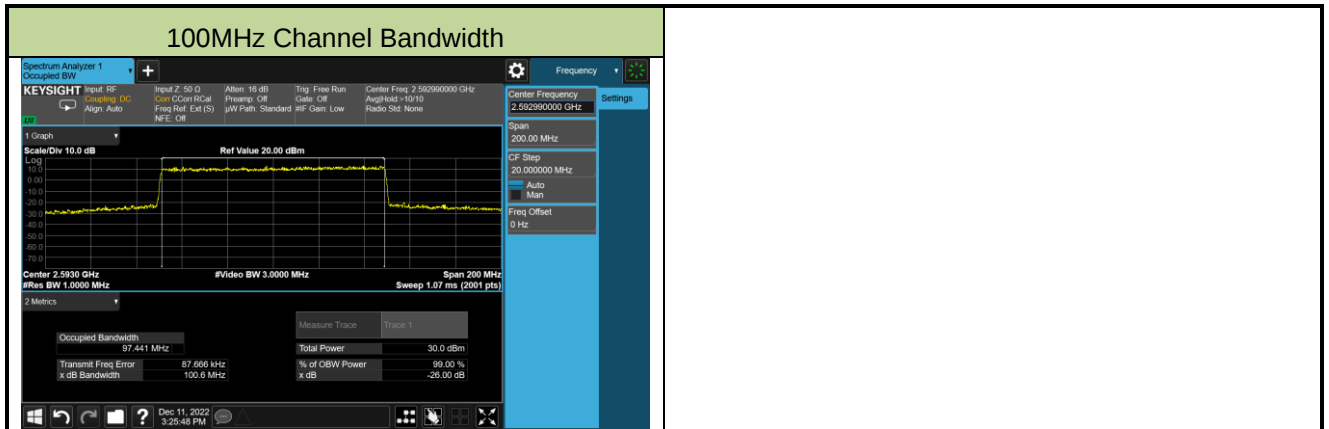


80MHz Channel Bandwidth



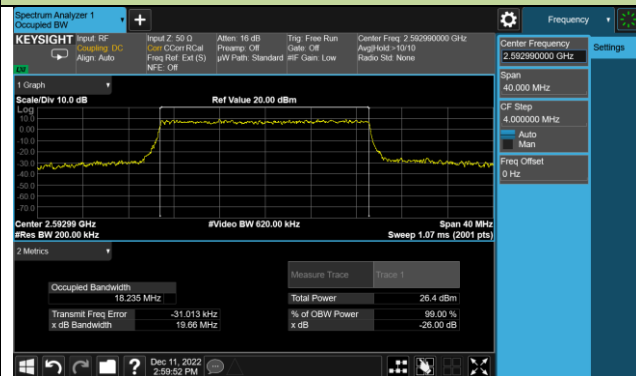
90MHz Channel Bandwidth



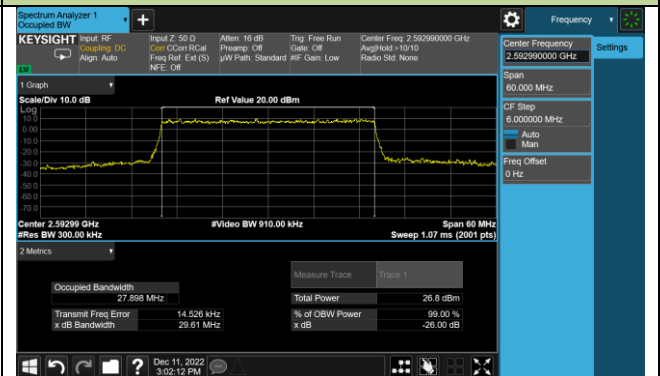


99% Bandwidth - 256QAM

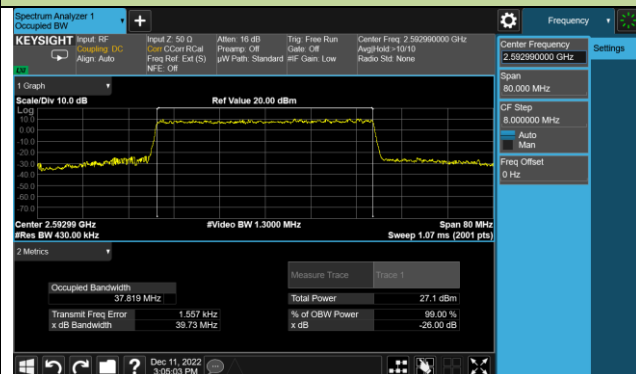
20MHz Channel Bandwidth



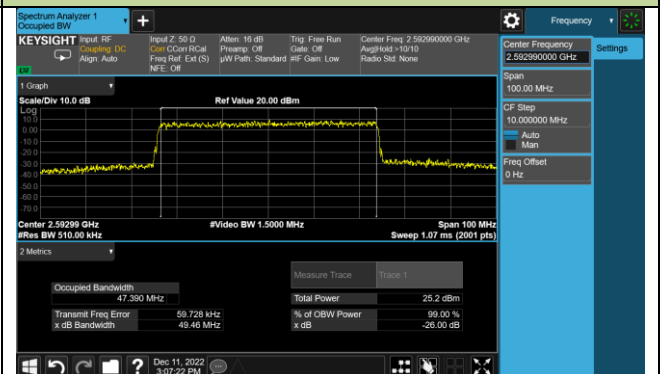
30MHz Channel Bandwidth



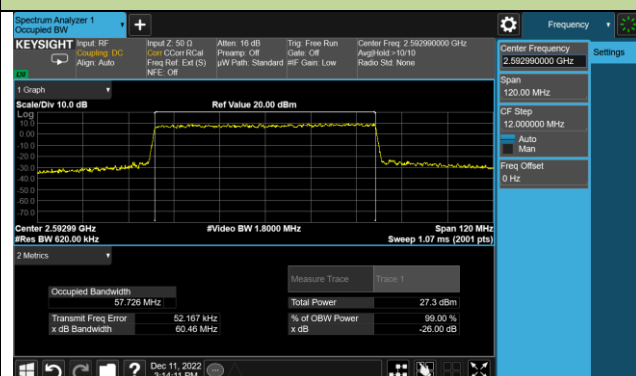
40MHz Channel Bandwidth



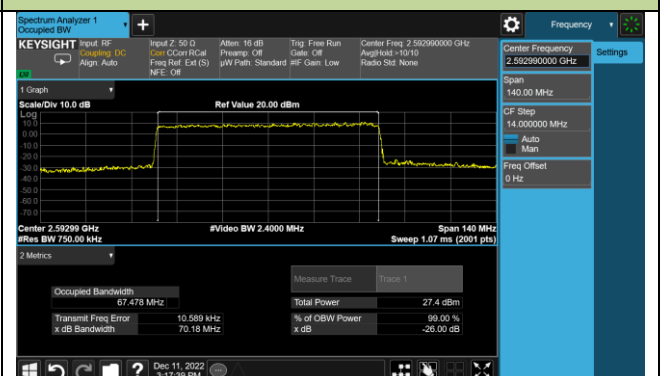
50MHz Channel Bandwidth



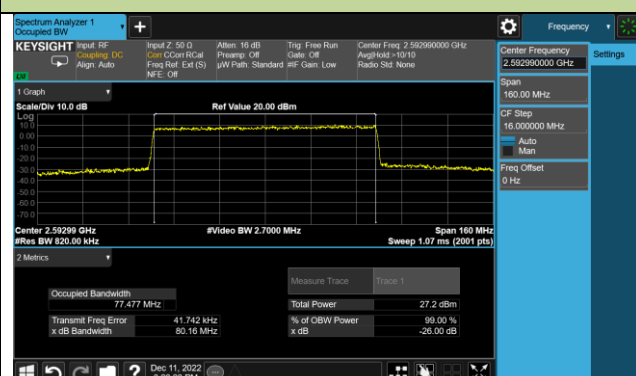
60MHz Channel Bandwidth



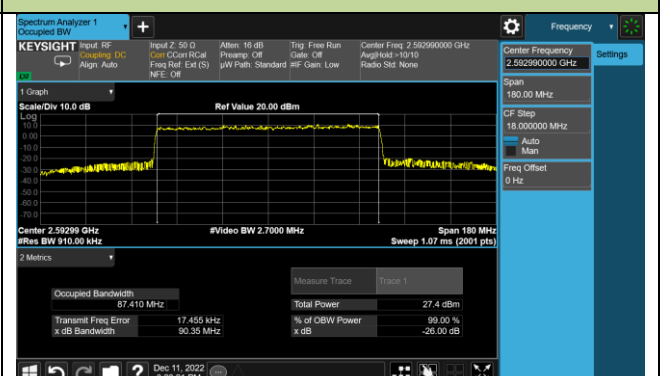
70MHz Channel Bandwidth



80MHz Channel Bandwidth



90MHz Channel Bandwidth





Test Site	SIP-SR1	Test Engineer	Candy Luo
Test Date	2022-12-21	Test Band	n77/n78_HPUE (3450 ~ 3550MHz)

Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
3500.01	10	8.59
3500.01	15	13.59
3500.01	20	18.21
3500.01	30	27.84
3500.01	40	37.85
3500.01	50	47.44
3500.01	60	57.79
3500.01	70	67.53
3500.01	80	77.31
3500.01	90	87.26
3500.01	100	97.19
16QAM		
3500.01	10	8.58
3500.01	15	13.58
3500.01	20	18.18
3500.01	30	27.88
3500.01	40	37.82
3500.01	50	47.48
3500.01	60	57.88
3500.01	70	67.41
3500.01	80	77.37
3500.01	90	87.43
3500.01	100	97.29

64QAM		
3500.01	10	8.60
3500.01	15	13.64
3500.01	20	18.25
3500.01	30	27.85
3500.01	40	37.84
3500.01	50	47.43
3500.01	60	57.78
3500.01	70	67.45
3500.01	80	77.32
3500.01	90	87.42
3500.01	100	97.37
256QAM		
3500.01	10	8.63
3500.01	15	13.58
3500.01	20	18.22
3500.01	30	27.93
3500.01	40	37.80
3500.01	50	47.42
3500.01	60	57.77
3500.01	70	67.31
3500.01	80	77.31
3500.01	90	87.49
3500.01	100	97.24