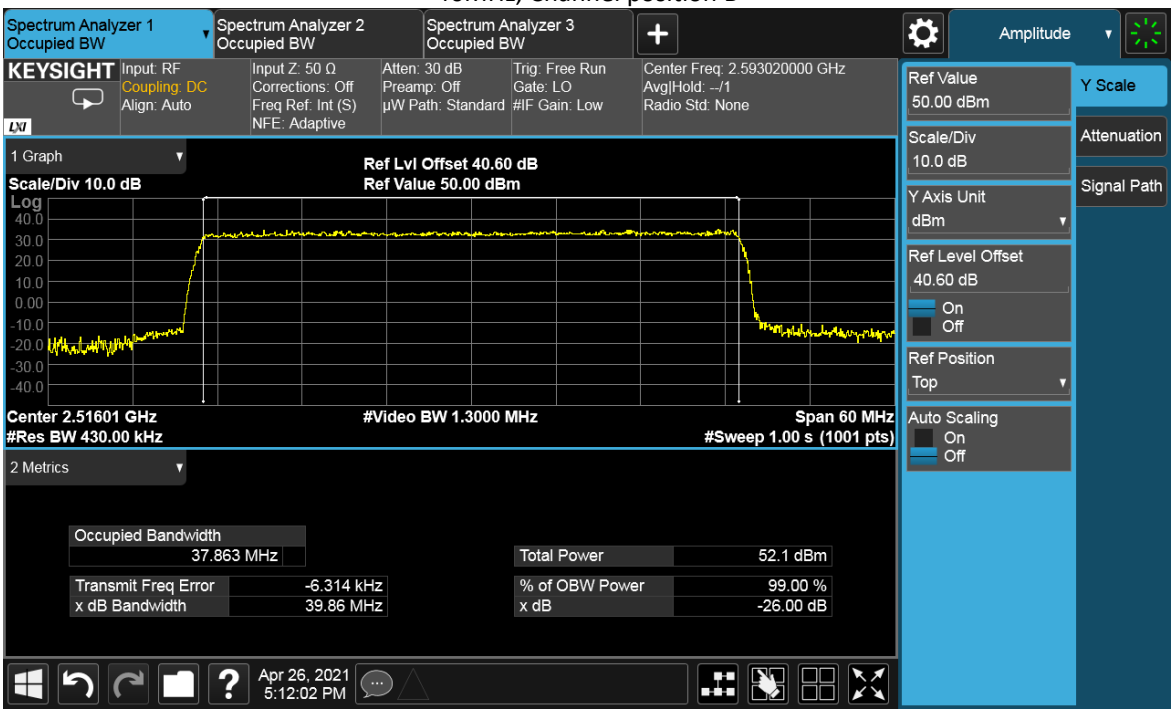
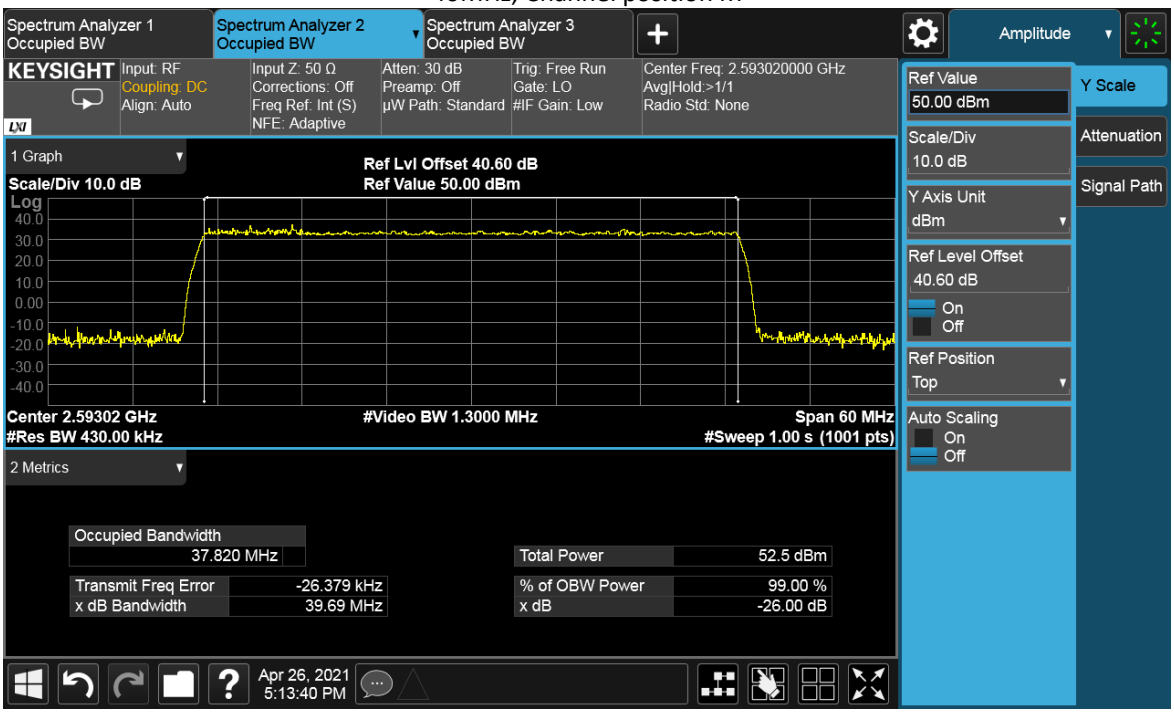
TEST REPORT

40MHz, Channel position B

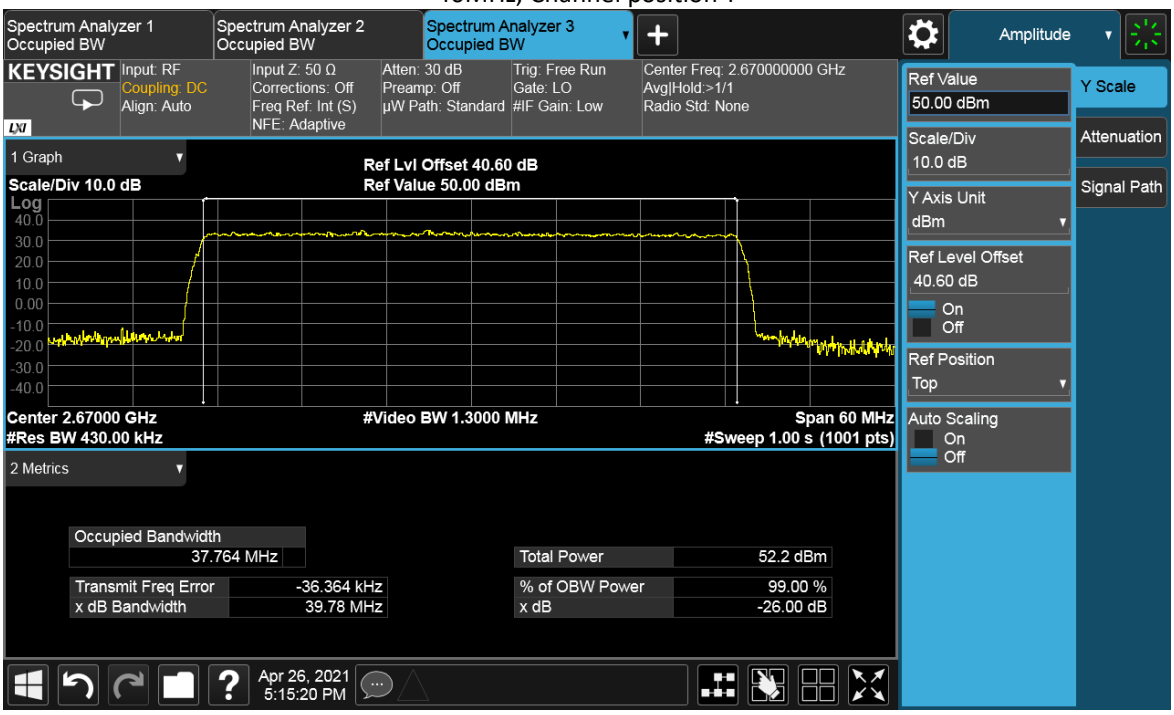


40MHz, Channel position M

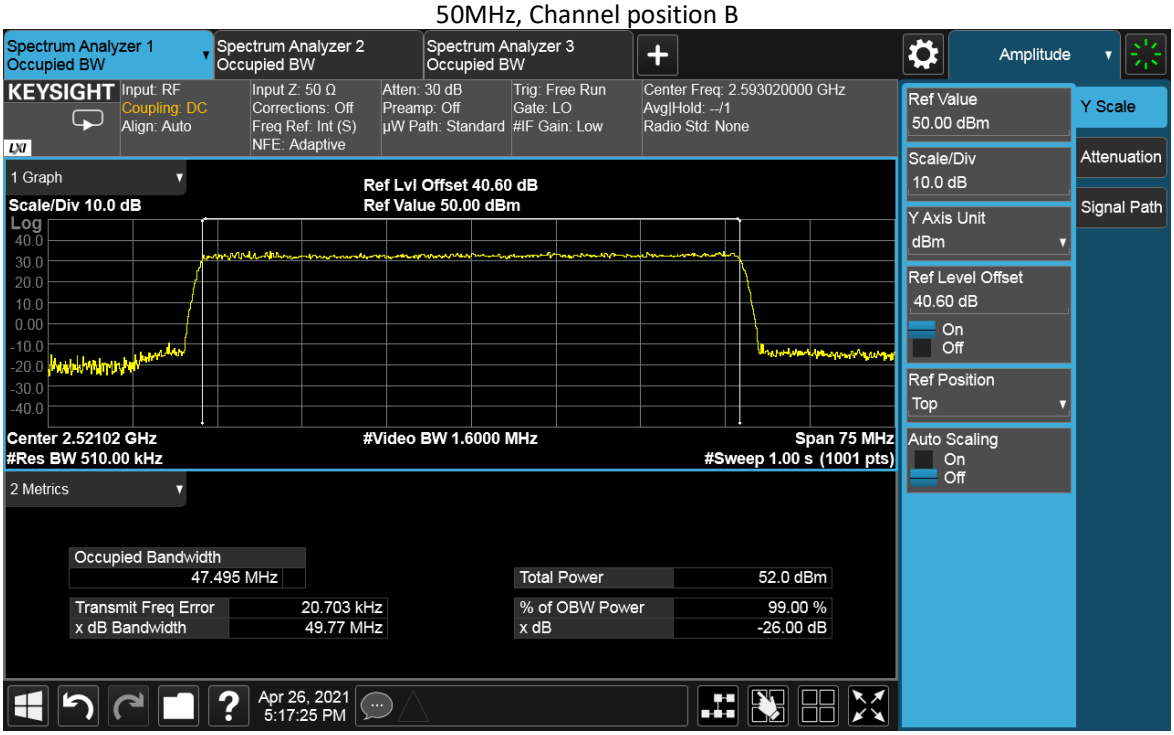


TEST REPORT

40MHz, Channel position T

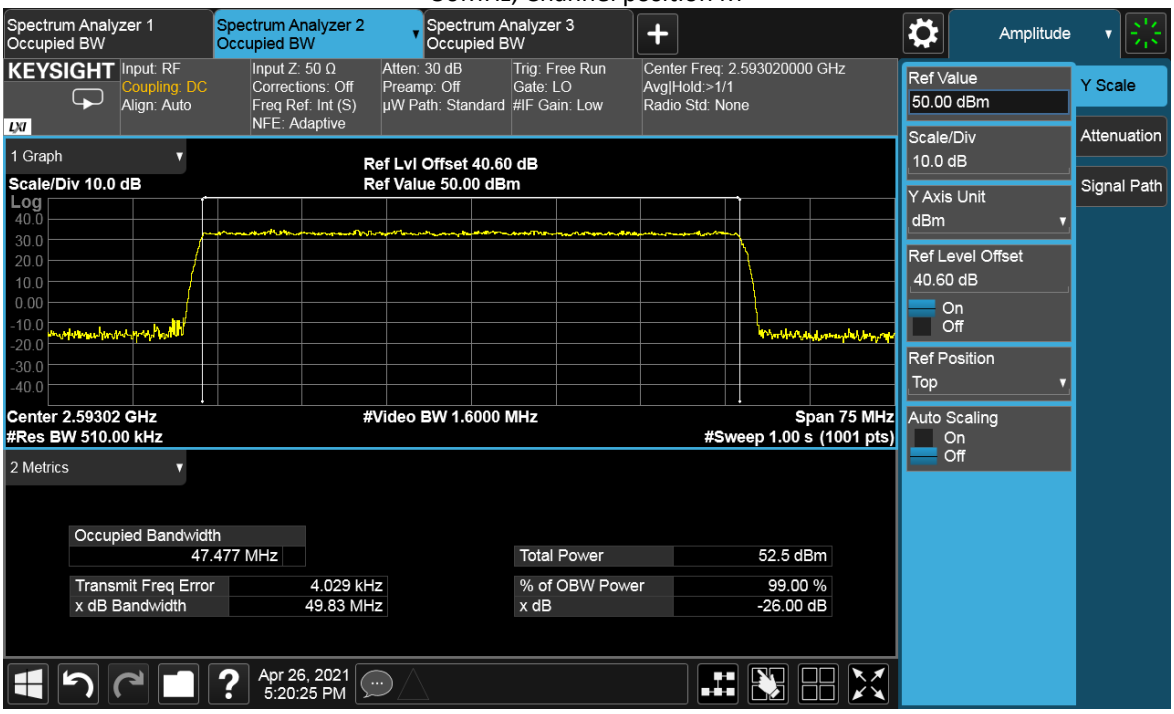


50MHz, Channel position B

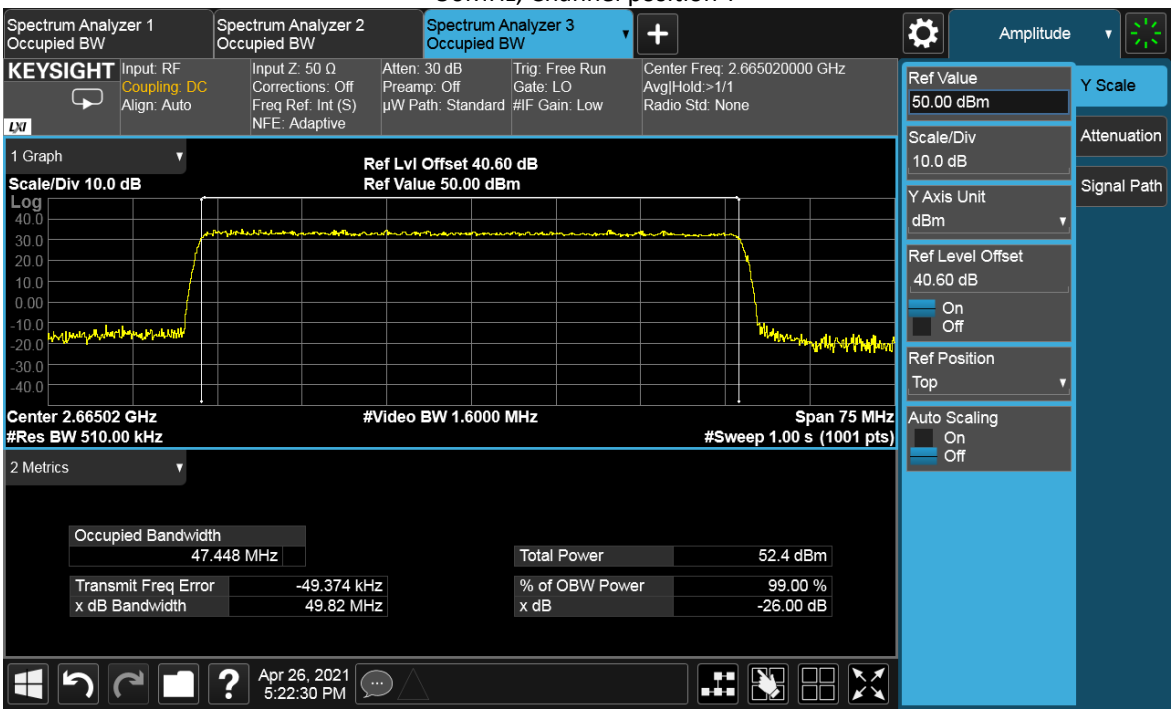


TEST REPORT

50MHz, Channel position M

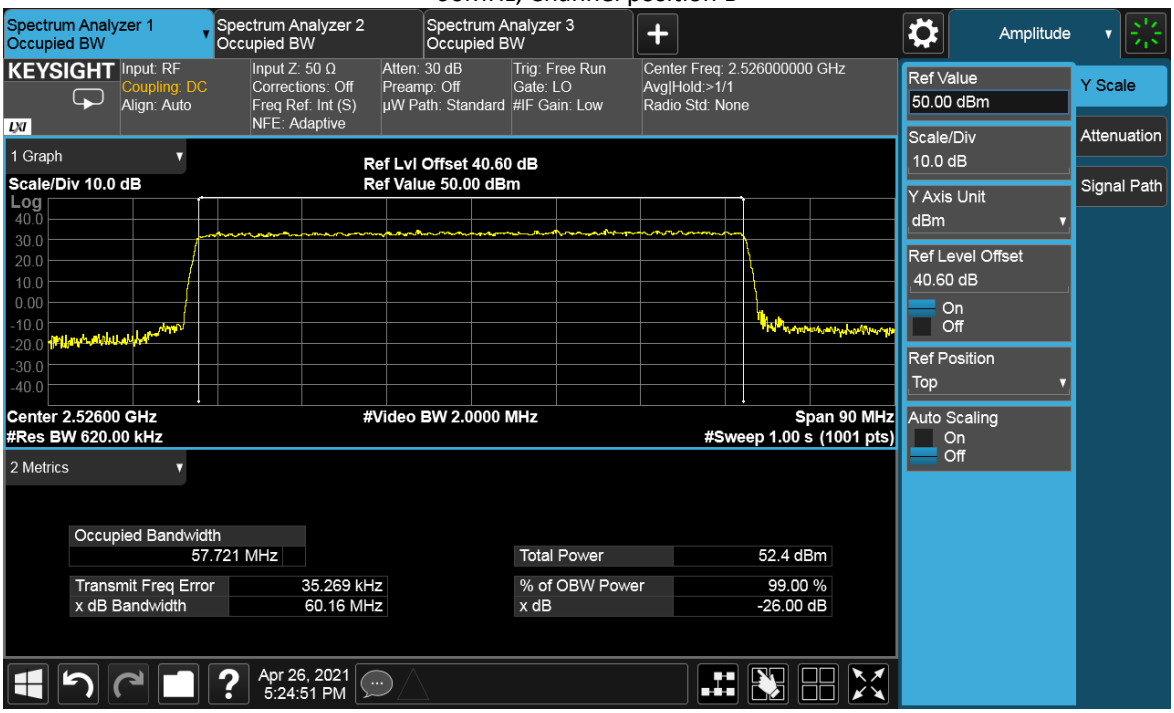


50MHz, Channel position T

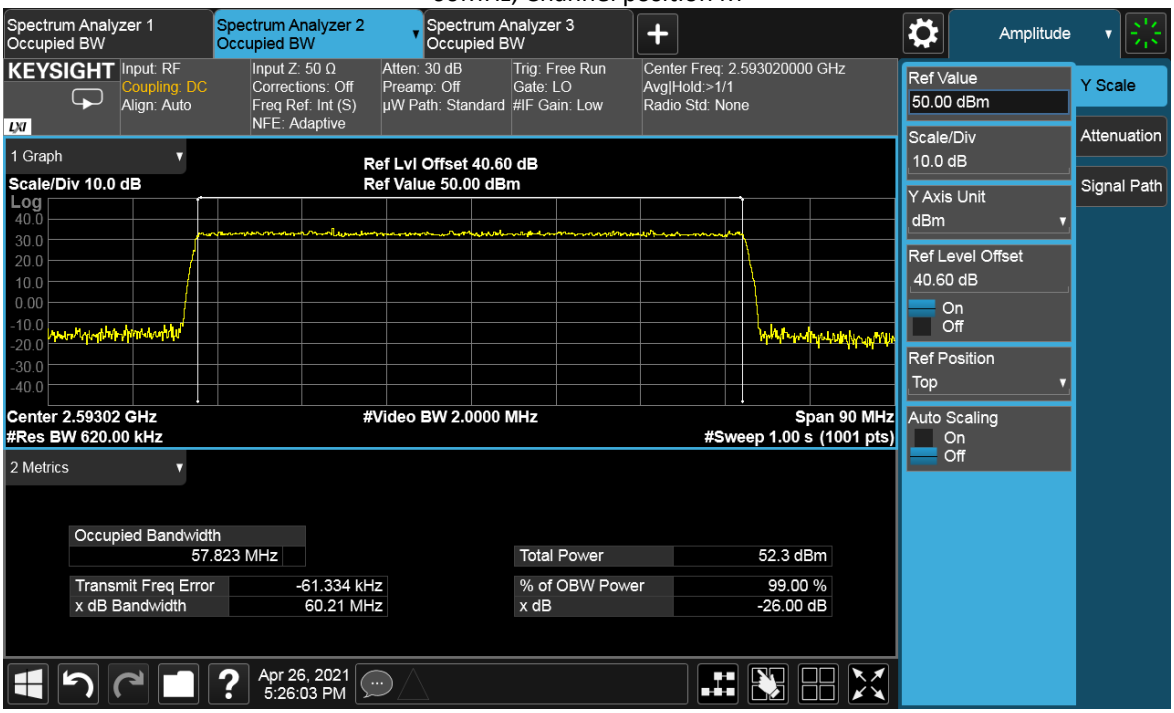


TEST REPORT

60MHz, Channel position B

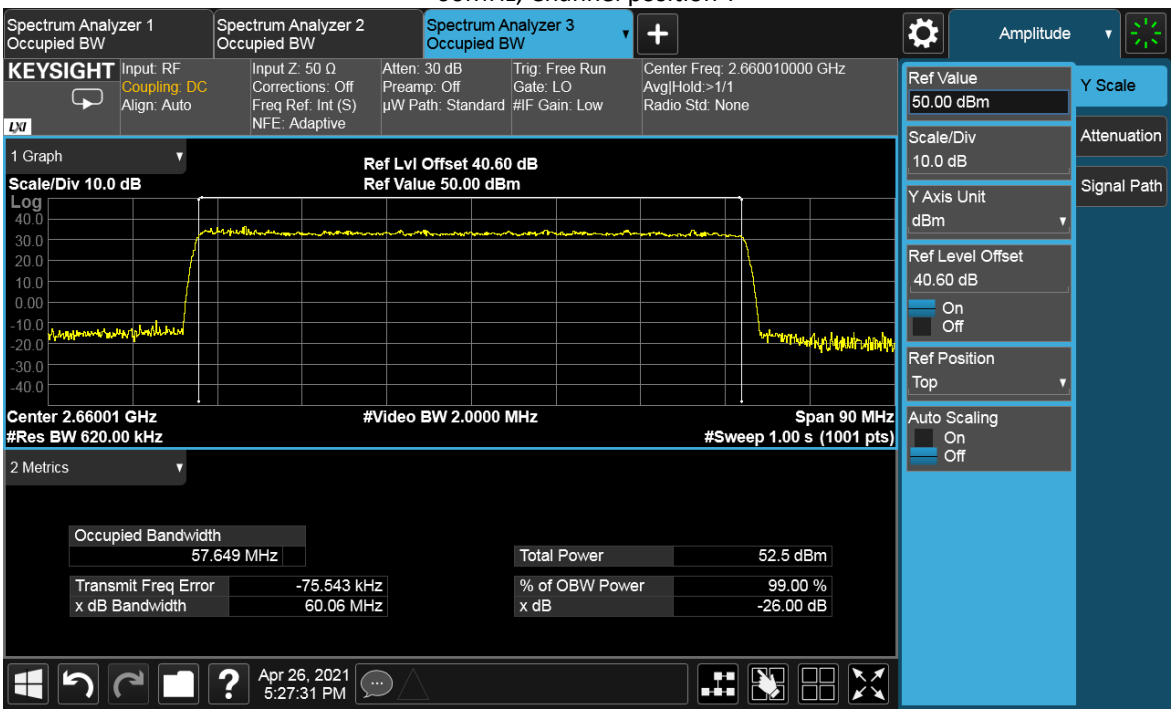


60MHz, Channel position M

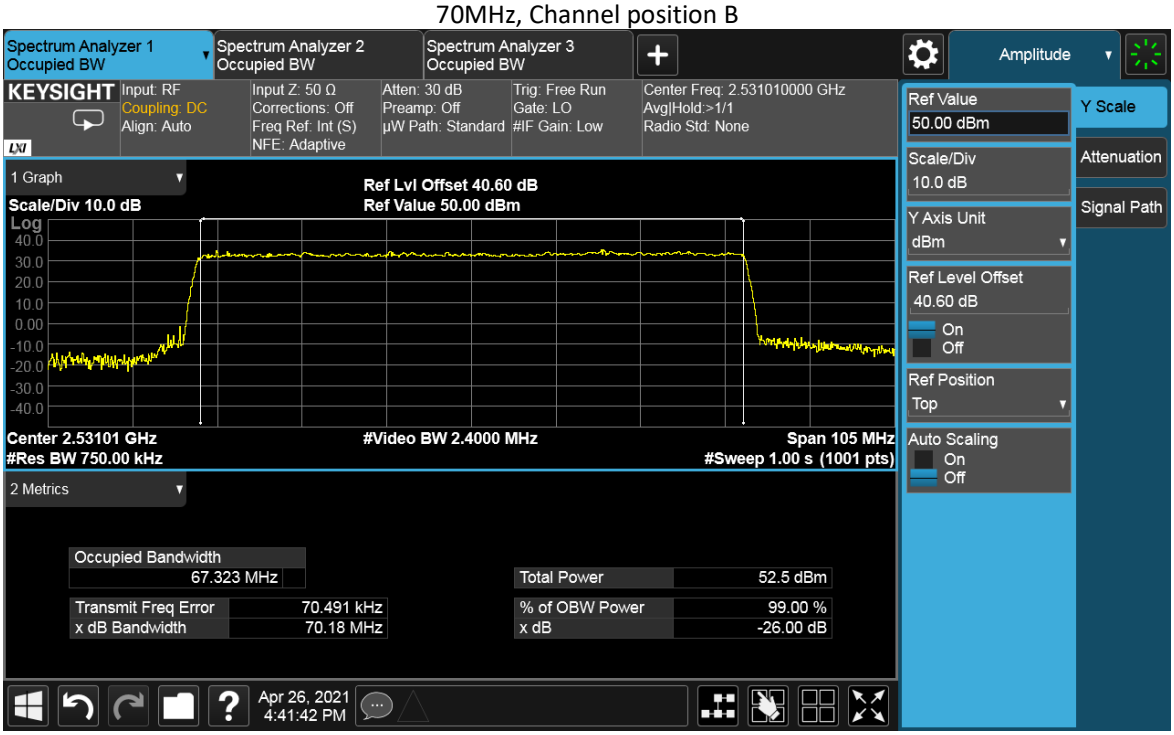


TEST REPORT

60MHz, Channel position T

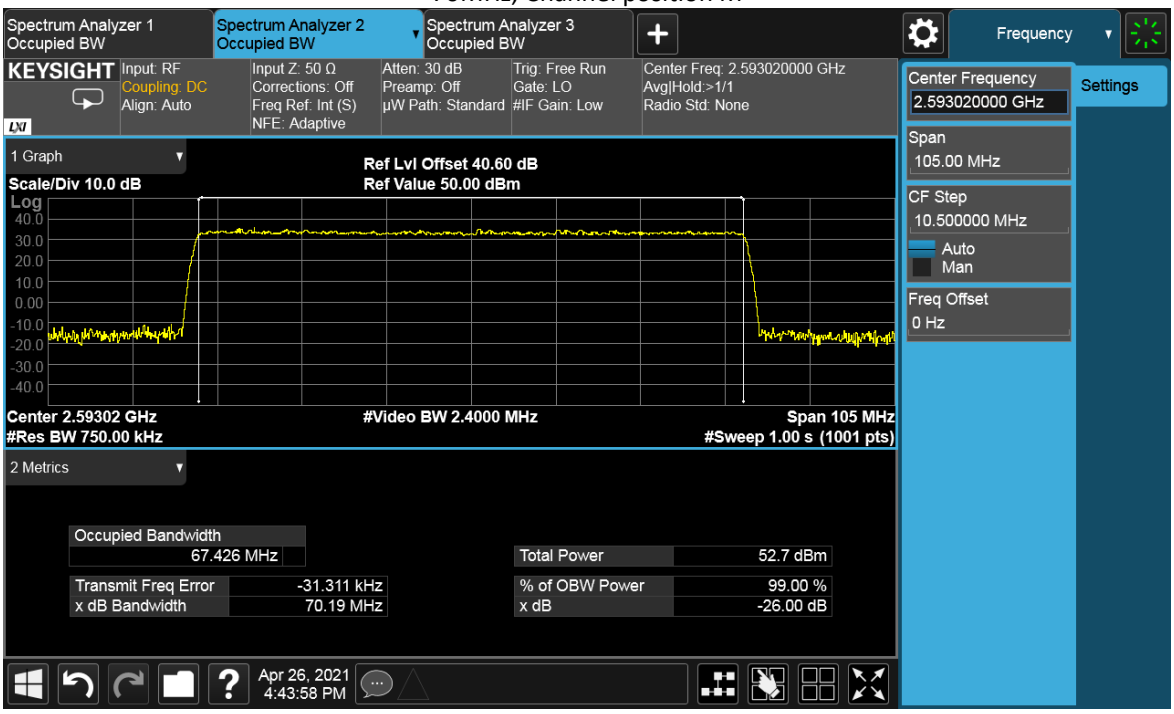


70MHz, Channel position B

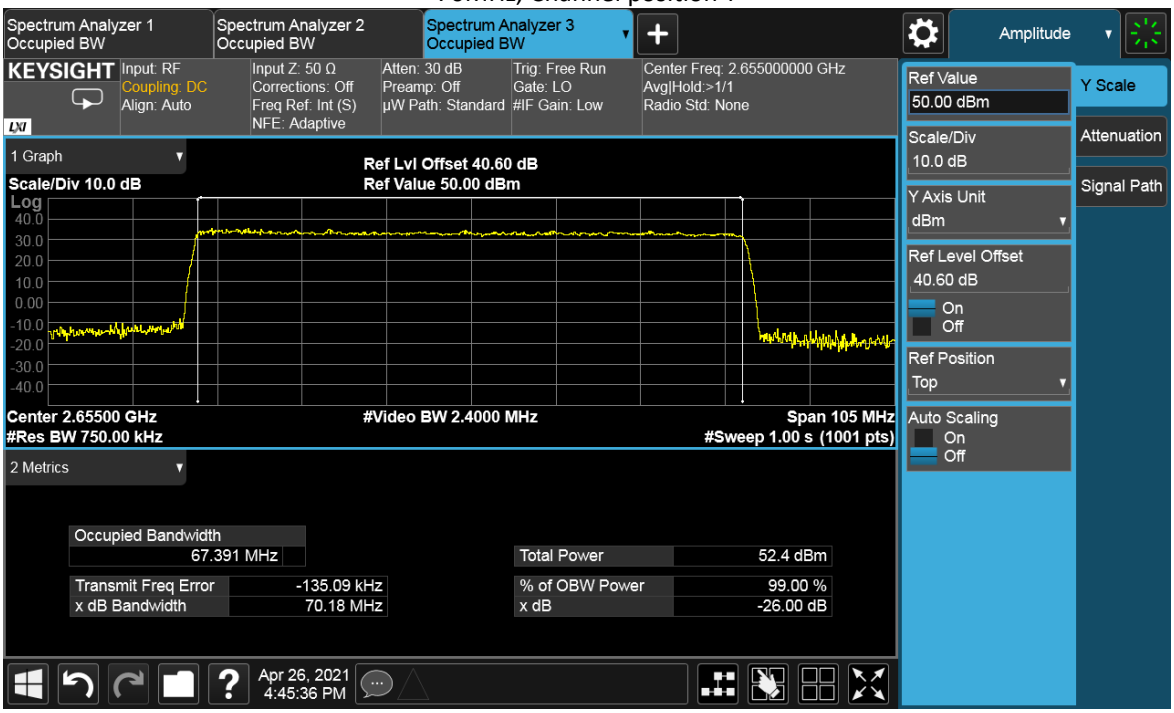


TEST REPORT

70MHz, Channel position M

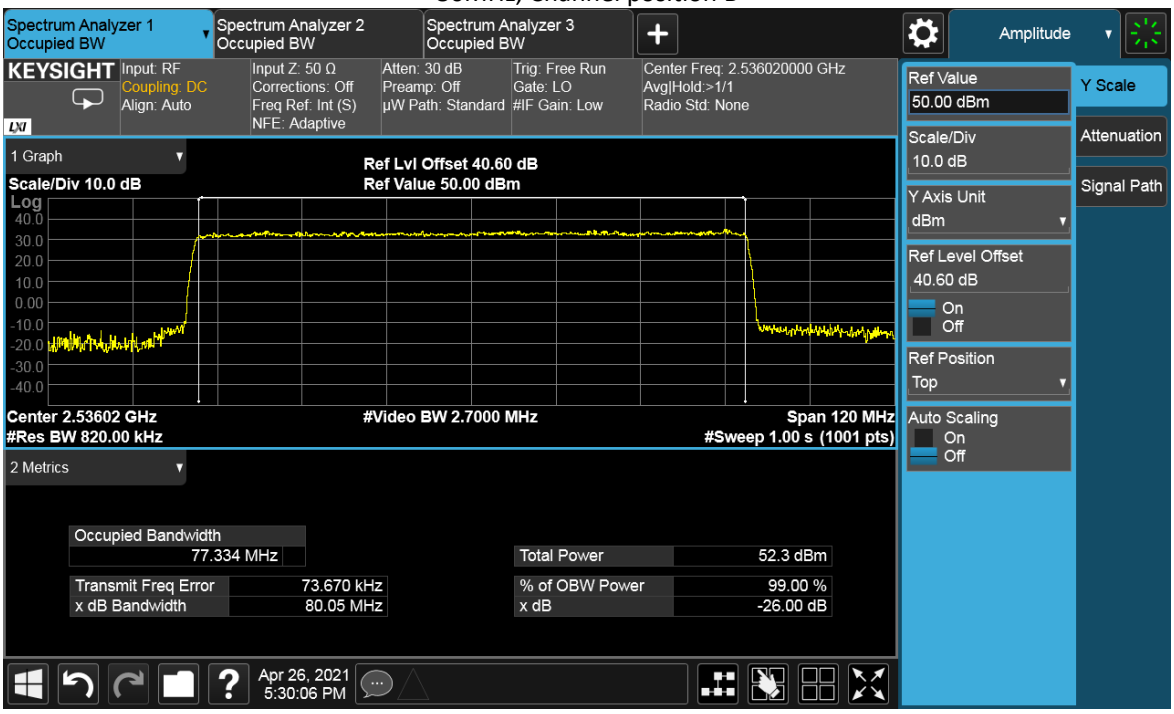


70MHz, Channel position T

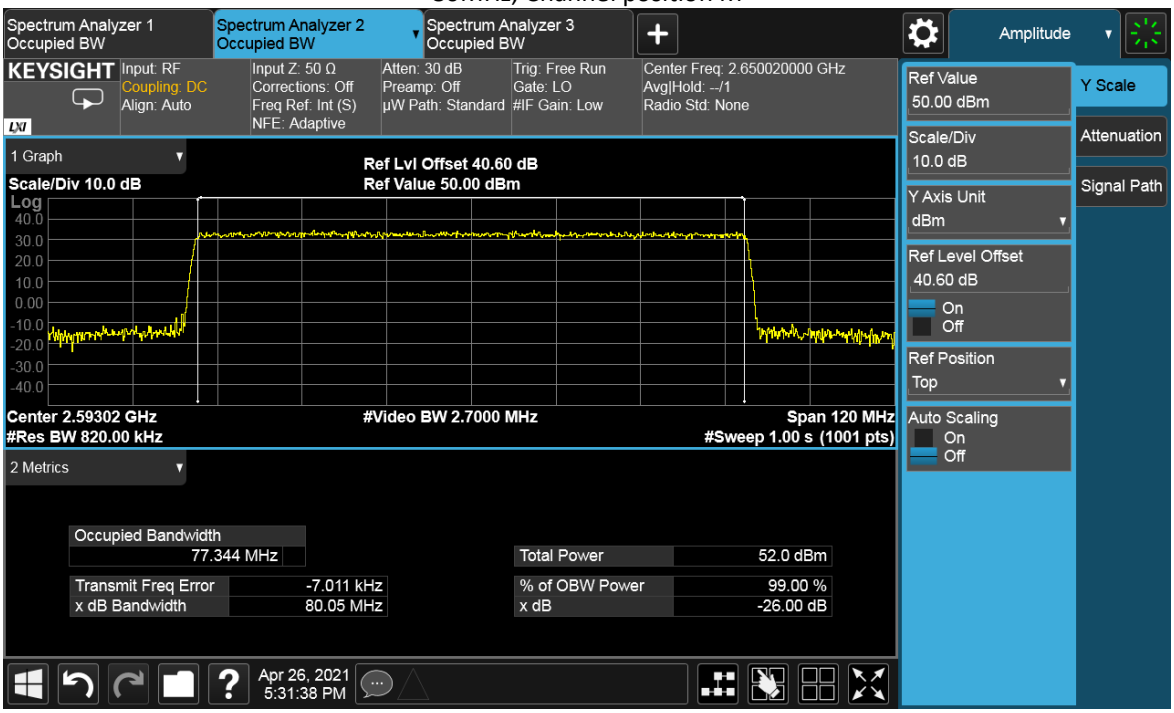


TEST REPORT

80MHz, Channel position B

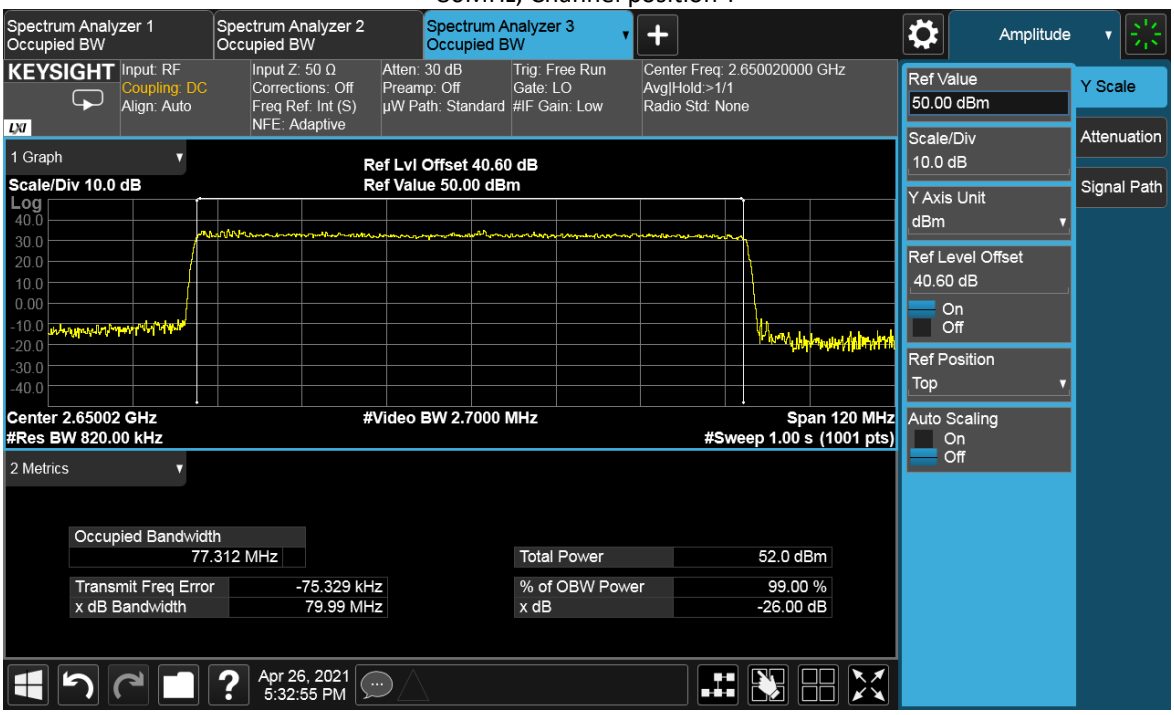


80MHz, Channel position M

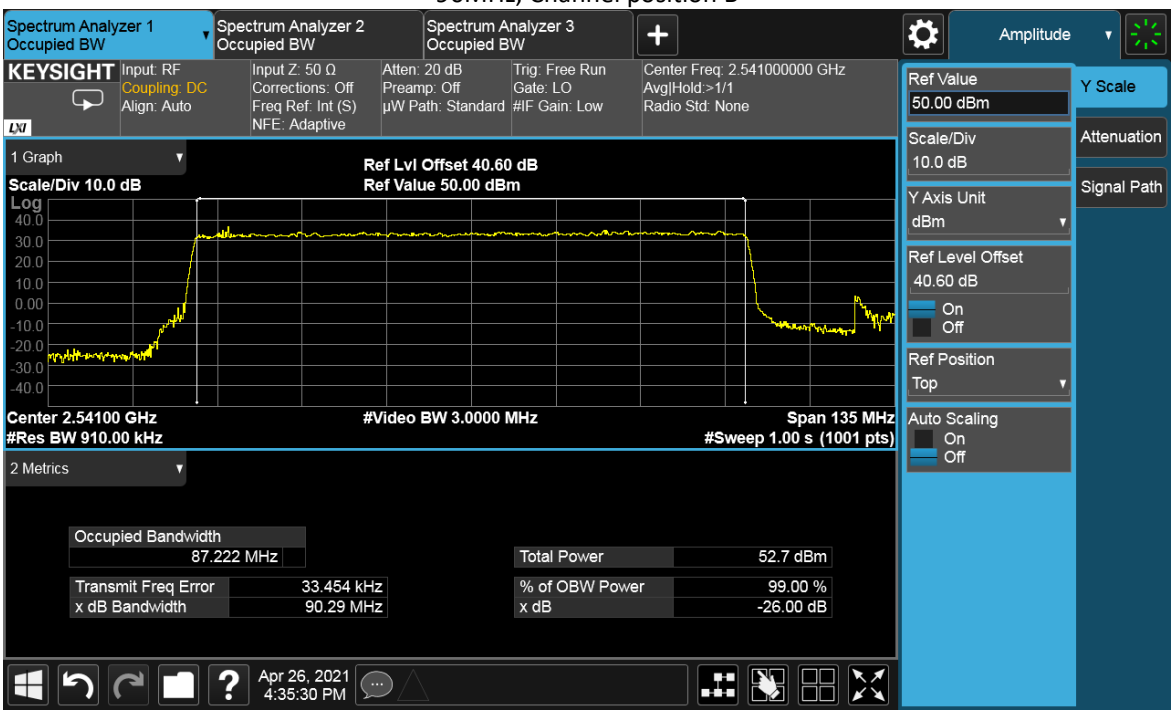


TEST REPORT

80MHz, Channel position T



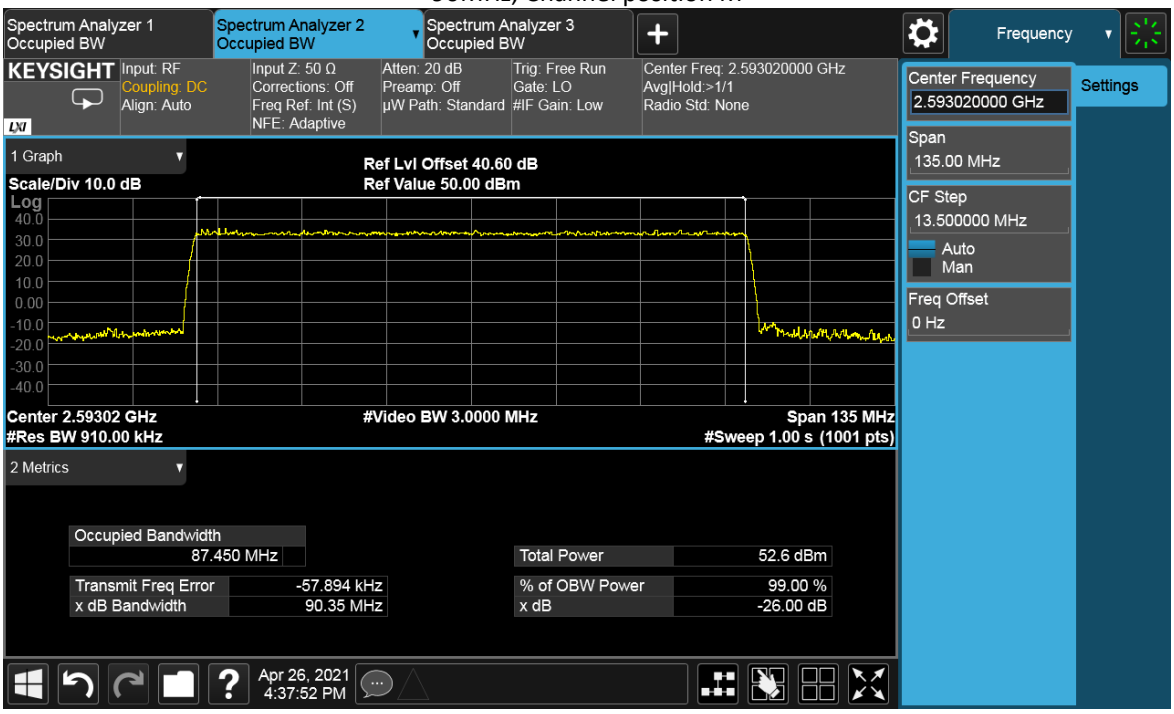
90MHz, Channel position B



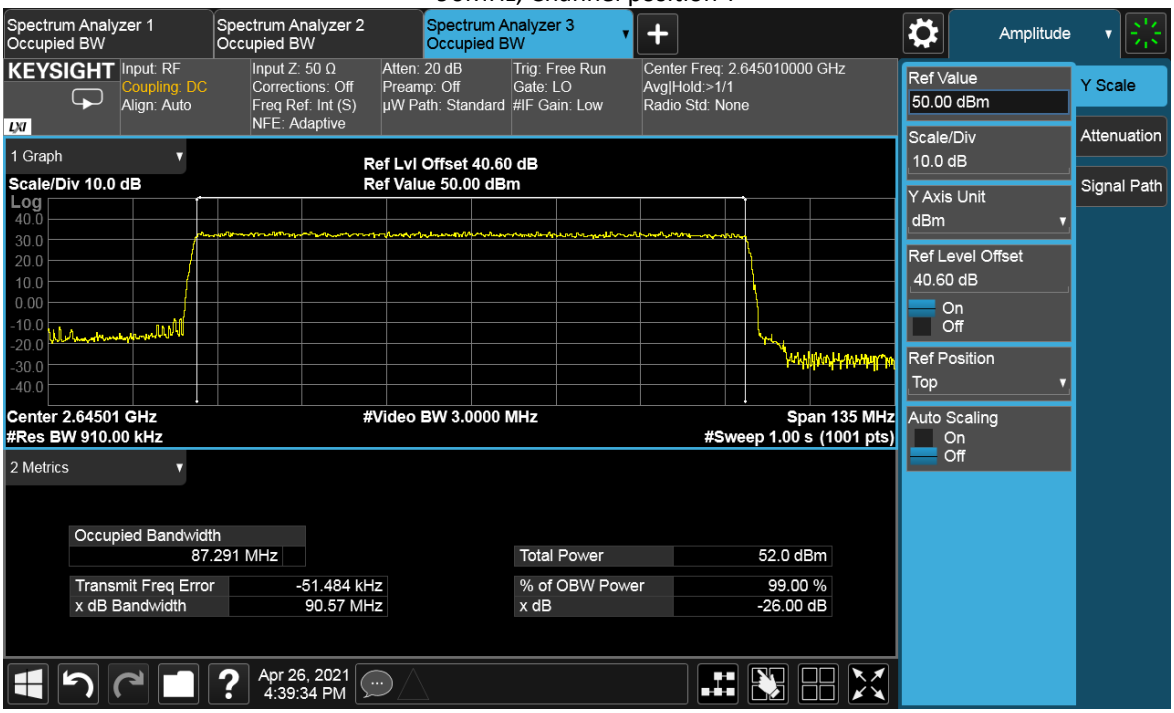
Total Quality. Assured.

TEST REPORT

90MHz, Channel position M

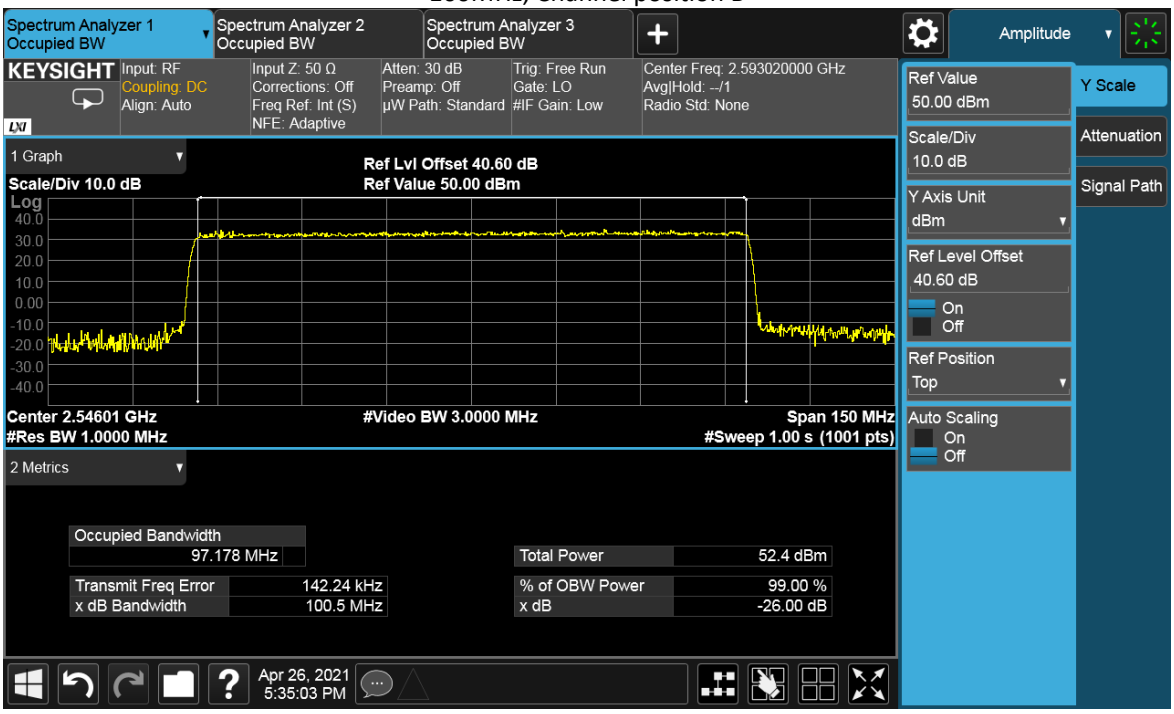


90MHz, Channel position T

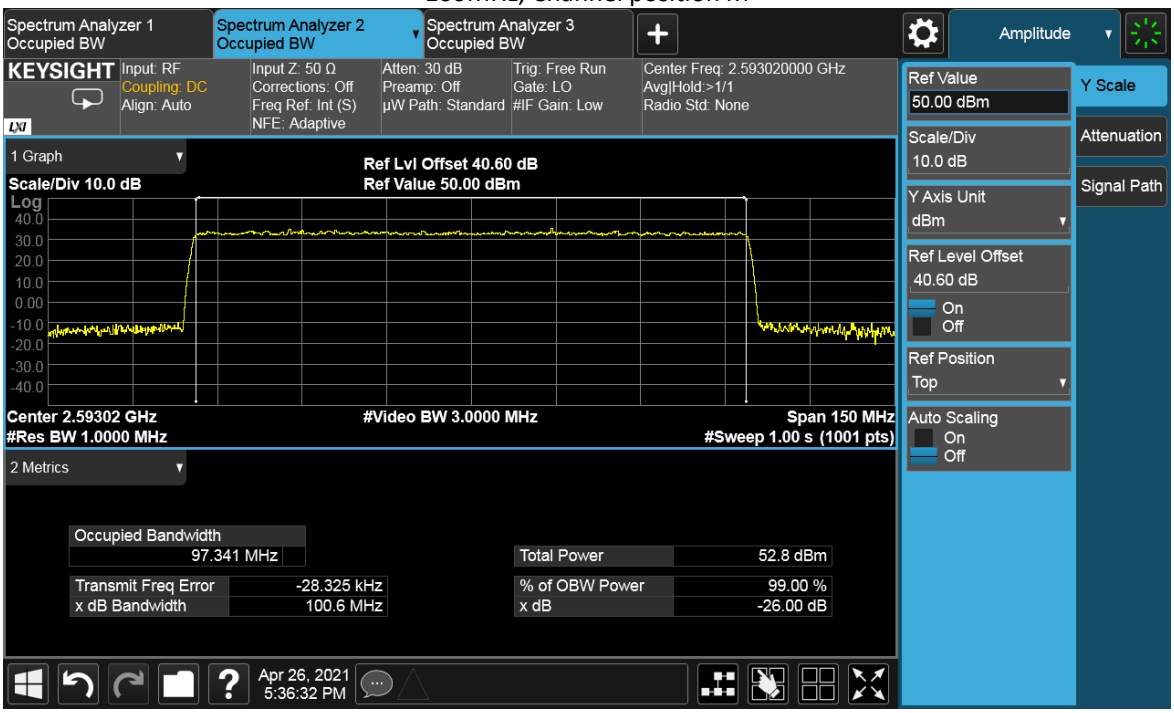


TEST REPORT

100MHz, Channel position B

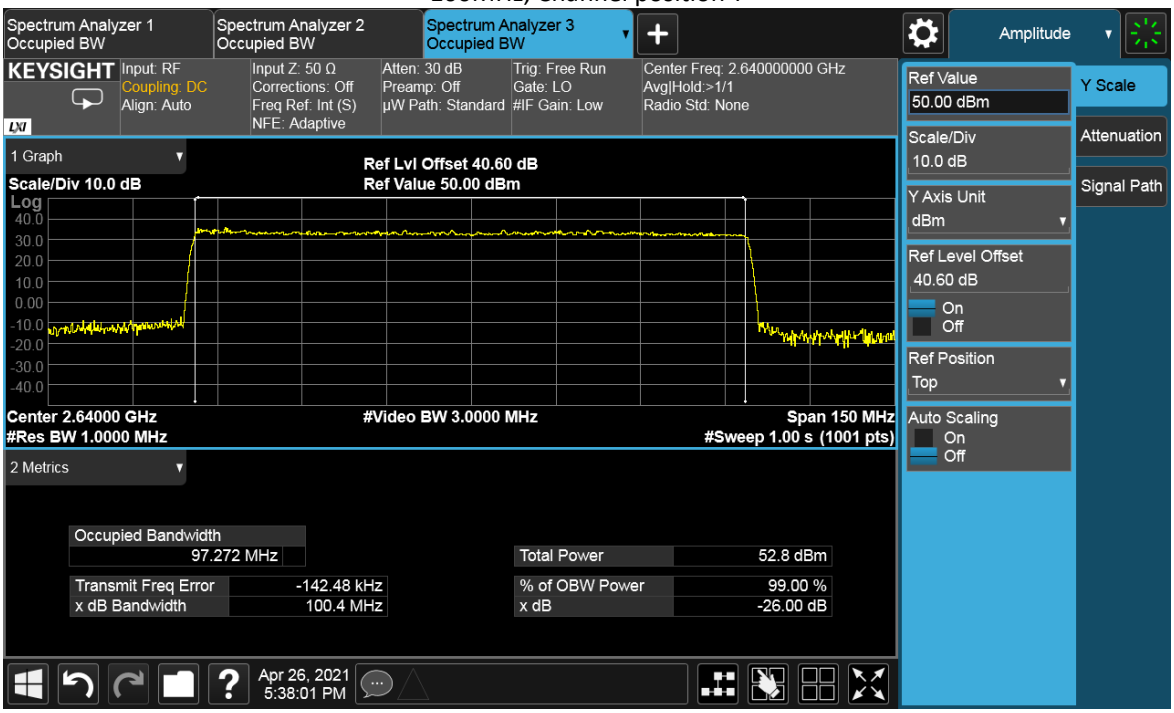


100MHz, Channel position M



TEST REPORT

100MHz, Channel position T



Configuration NR-MIMO-MC

99% Occupied Bandwidth

Antenna Port	Modulation	Bandwidth	Occupied Bandwidth (MHz)		
			Channel Position B	Channel Position M	Channel Position T
B	QPSK	100MHz+60MHz	156.46	156.58	156.56

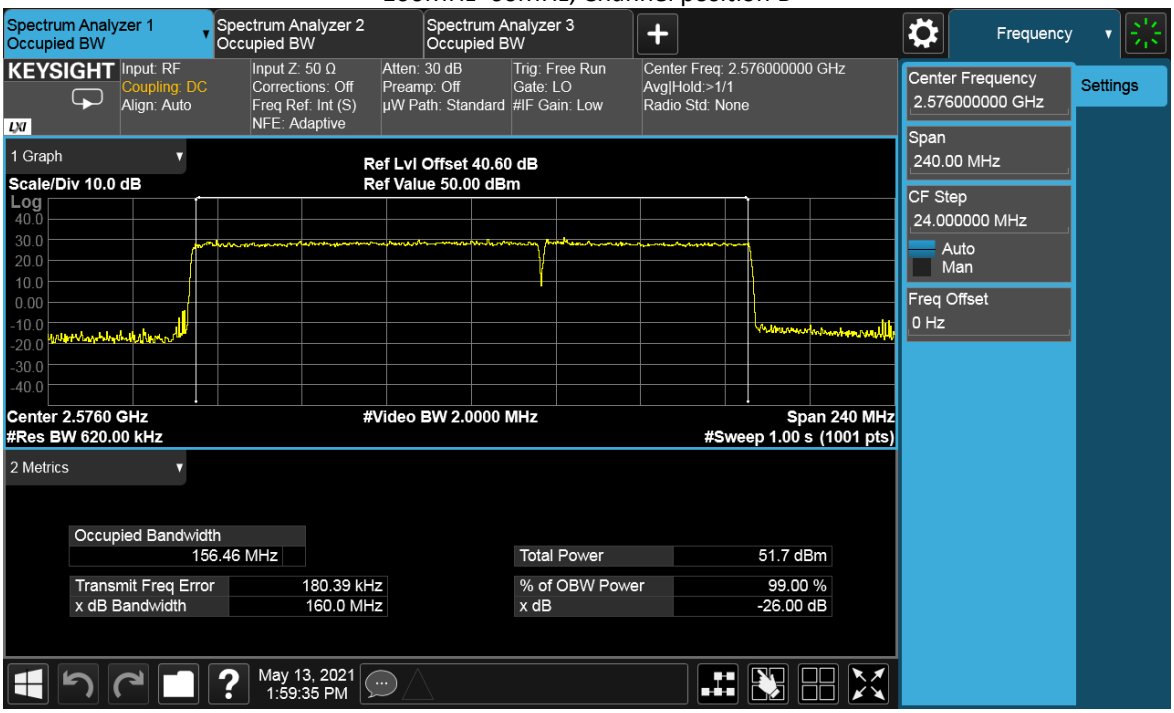
-26dBc Occupied Bandwidth

Antenna Port	Modulation	Bandwidth	Occupied Bandwidth (MHz)		
			Channel Position B	Channel Position M	Channel Position T
B	QPSK	100MHz+60MHz	160.0	160.0	160.1

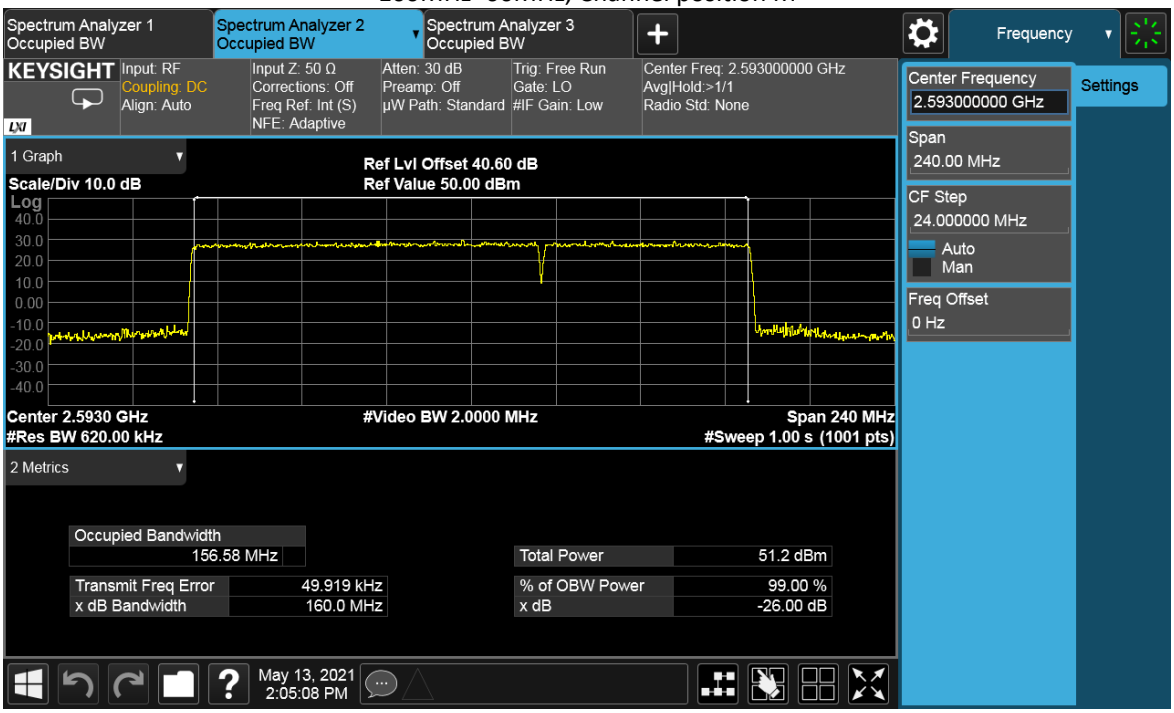
Total Quality. Assured.

TEST REPORT

100MHz+60MHz, Channel position B



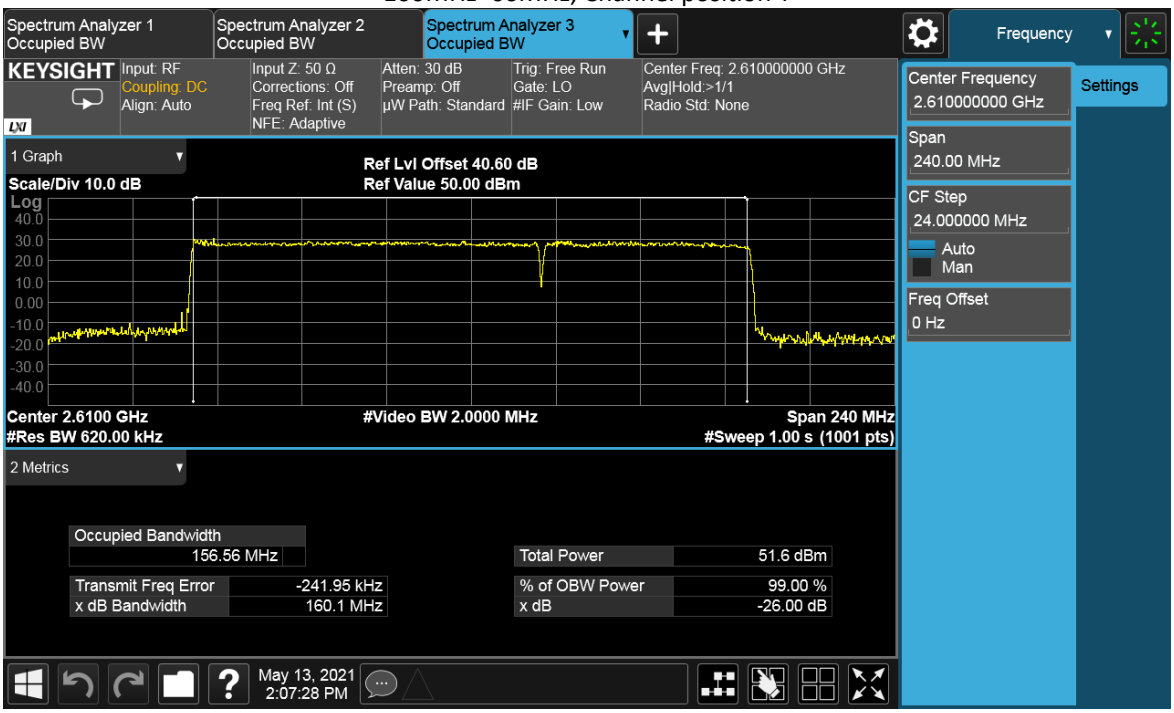
100MHz+60MHz, Channel position M



Total Quality. Assured.

TEST REPORT

100MHz+60MHz, Channel position T



5 Unwanted Emissions at Band Edge

Test result: **Pass**

5.1 Limit

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 + 10log(P) dB.

5.2 Measurement Procedure

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 + 10log(P) dB.

For MIMO mode configurations, the limit was adjusted with a correction of -6.02dB [10Log(1/4)] by using the Measure and Add 10Log(N) dB technique according to KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports . Then the limit was adjusted to -19.02dBm.

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed and a RBW of 1MHz for measurements of emissions > 1MHz away from the band edges.

Spectrum analyzer detector was set as RMS.

5.3 Measurement result

KRC 161 925/1:

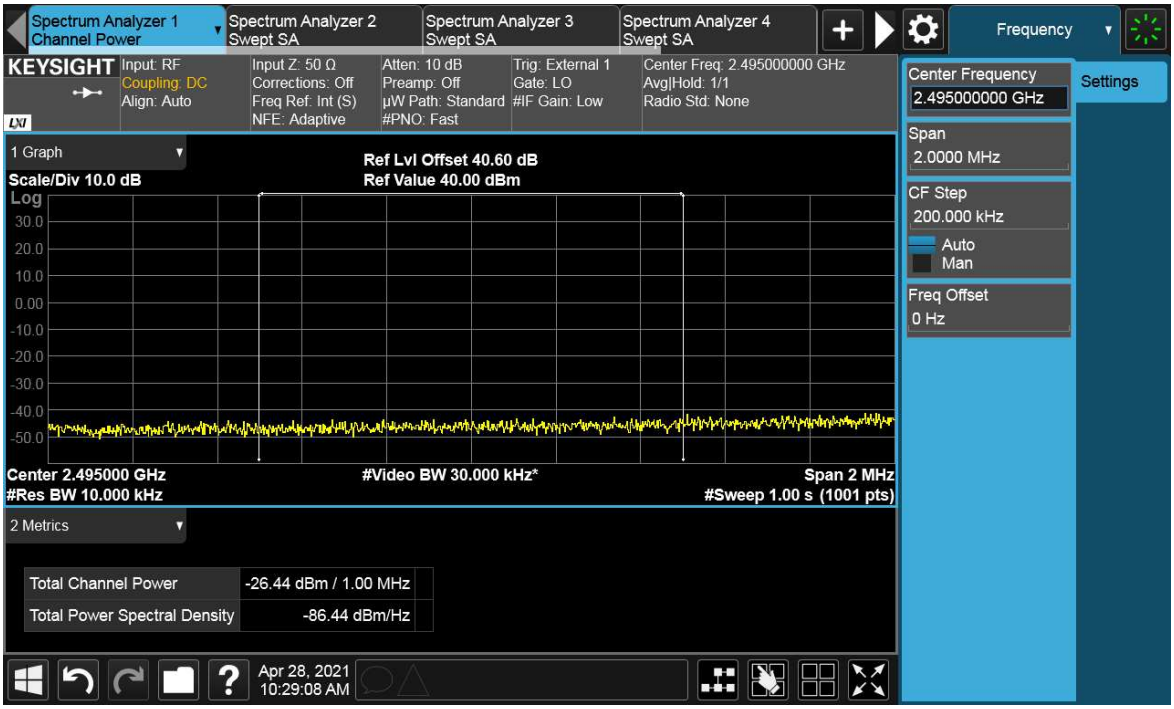
Configuration LTE-MIMO-1C-UE

Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
B	B	QPSK	10	100	-19.02
				1000	-19.02
B	T	QPSK	10	100	-19.02
				1000	-19.02

Channel Position B

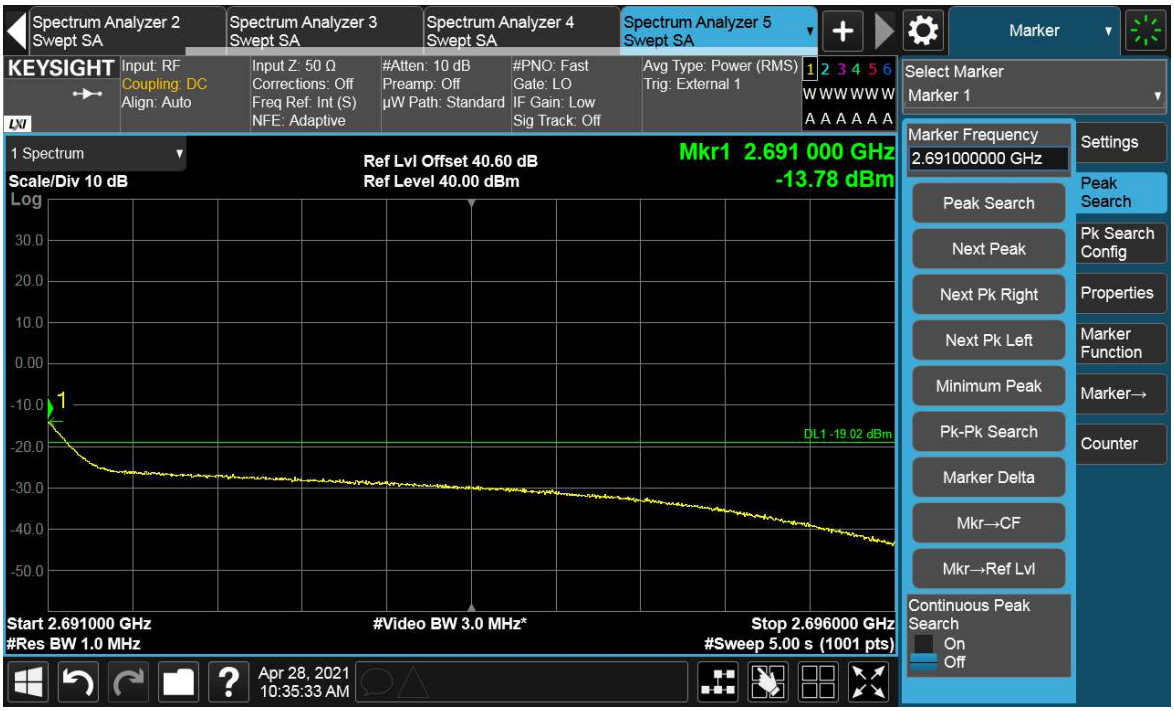
TEST REPORT


Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
Spectrum Analyzer 5 Swept SA
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
#Atten: 10 dB
Preamp: Off
µW Path: Standard
PNO: Best Wide
Gate: LO
IF Gain: Low
Sig Track: Off
Avg Type: Power (RMS)
Trig: External 1
1 Spectrum
Ref Lvl Offset 40.60 dB
Ref Level 40.00 dBm
Mkr1 2.495 000 GHz
-13.23 dBm
Scale/Div 10 dB
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
DL1 -19.02 dBm
Start 2.490000 GHz
#Res BW 1.0 MHz
#Video BW 3.0 MHz*
Stop 2.495000 GHz
#Sweep ~5.03 s (1001 pts)
Apr 28, 2021
10:28:23 AM
Center Frequency
2.492500000 GHz
Settings
Span
5.00000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.490000000 GHz
Stop Freq
2.495000000 GHz
AUTO TUNE
CF Step
500.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)

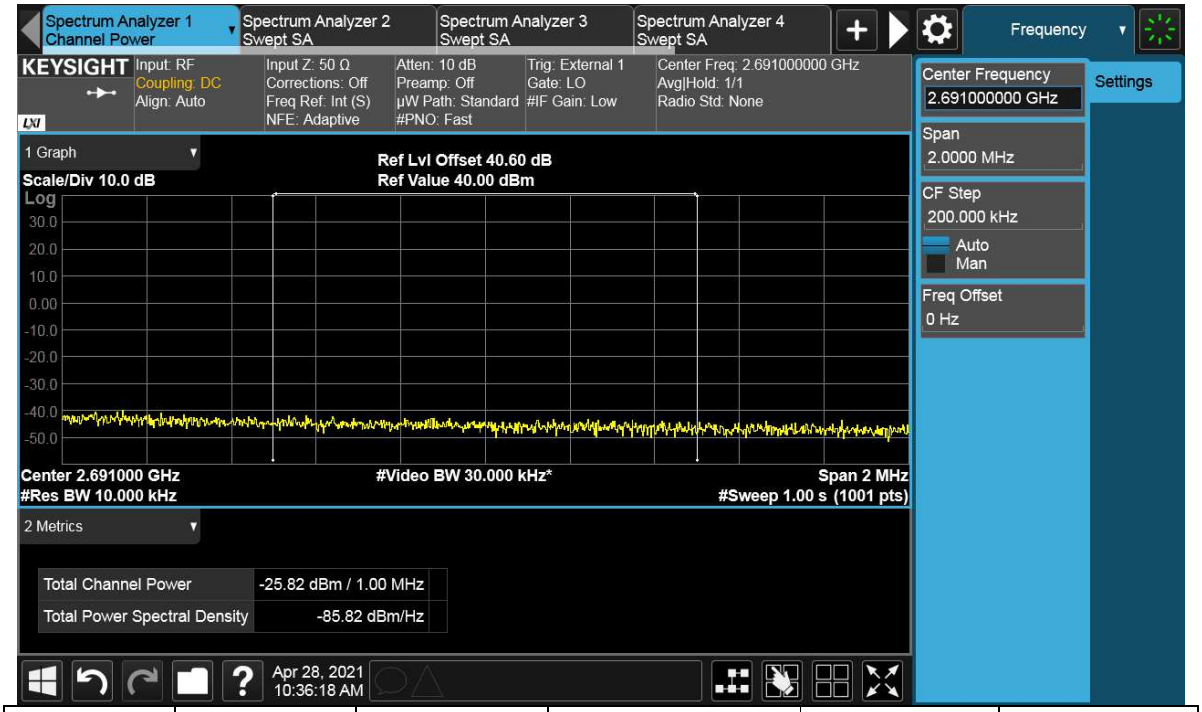

Spectrum Analyzer 1 Channel Power
Spectrum Analyzer 2 Swept SA
Spectrum Analyzer 3 Swept SA
Spectrum Analyzer 4 Swept SA
Frequency
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)
NFE: Adaptive
Atten: 10 dB
Preamp: Off
µW Path: Standard
#PNO: Fast
Trig: External 1
Gate: LO
#IF Gain: Low
Center Freq: 2.495000000 GHz
Avg|Hold: 1/1
Radio Std: None
1 Graph
Ref Lvl Offset 40.60 dB
Ref Value 40.00 dBm
Scale/Div 10.0 dB
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center 2.495000 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 1.00 s (1001 pts)
2 Metrics
Total Channel Power
-26.44 dBm / 1.00 MHz
Total Power Spectral Density
-86.44 dBm/Hz
Apr 28, 2021
10:29:08 AM
Center Frequency
2.495000000 GHz
Settings
Span
2.0000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

TEST REPORT

Channel Position T

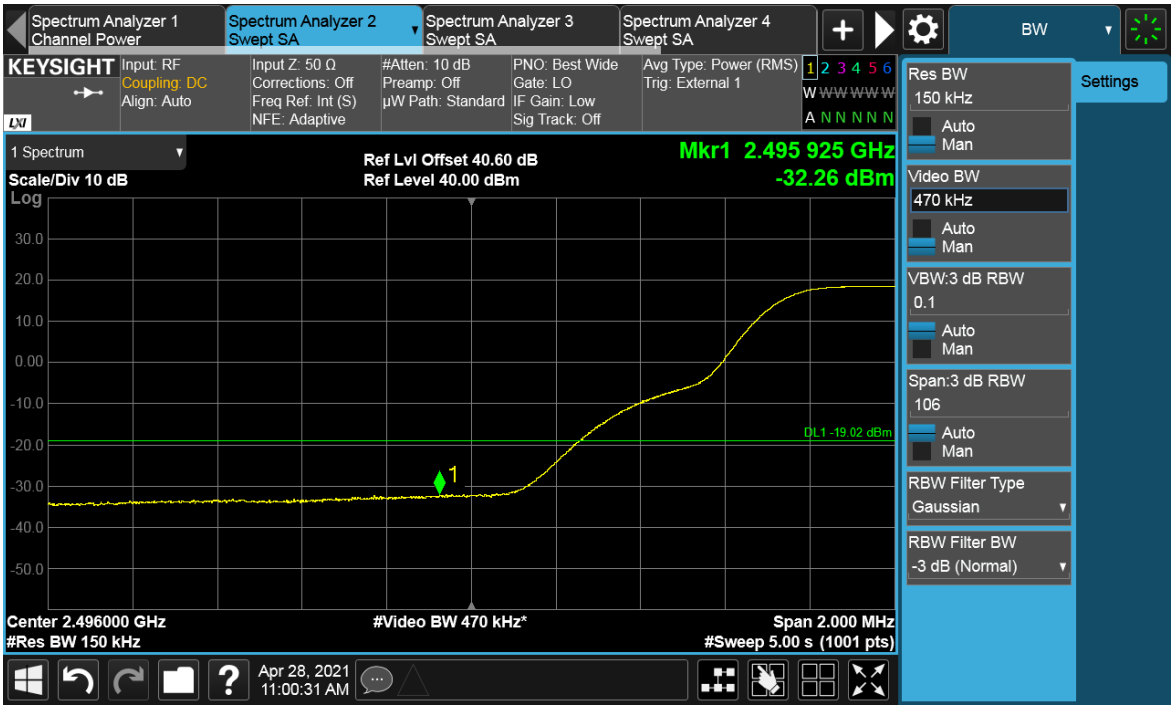


TEST REPORT



Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
B	B	QPSK	15	150	-19.02
				1000	-19.02
B	T	QPSK	15	150	-19.02
				1000	-19.02

Channel Position B



TEST REPORT

Channel Position T

TEST REPORT

Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
B	B	QPSK	20	200	-19.02
				1000	-19.02
B	T	QPSK	20	200	-19.02
				1000	-19.02

Channel Position B