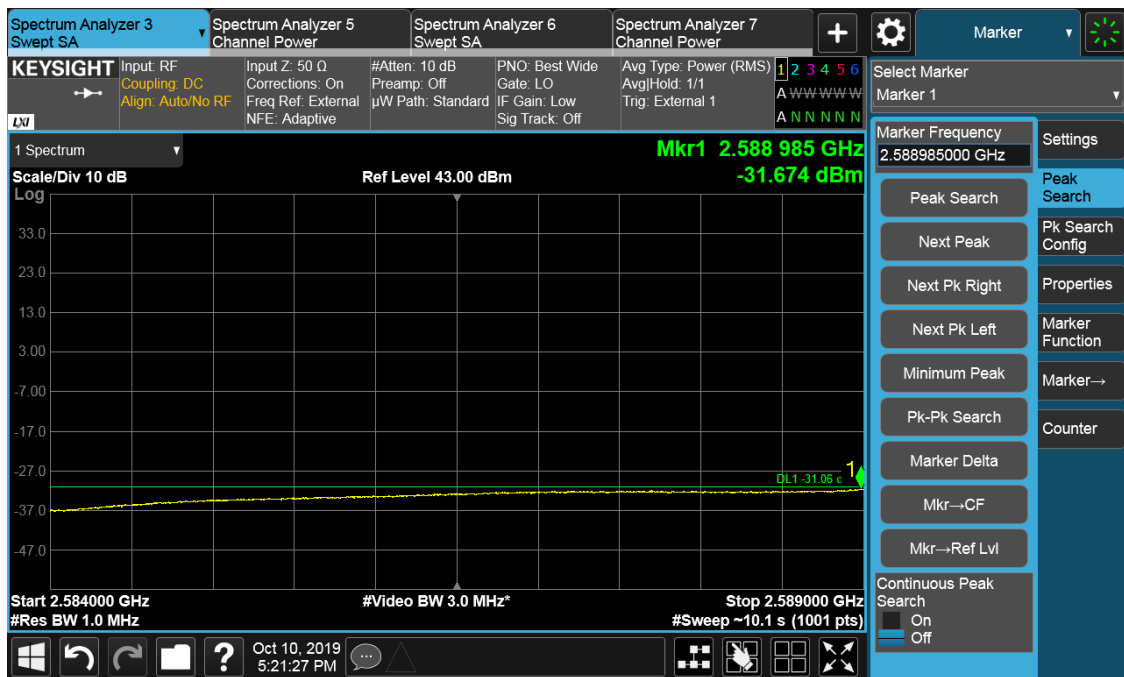
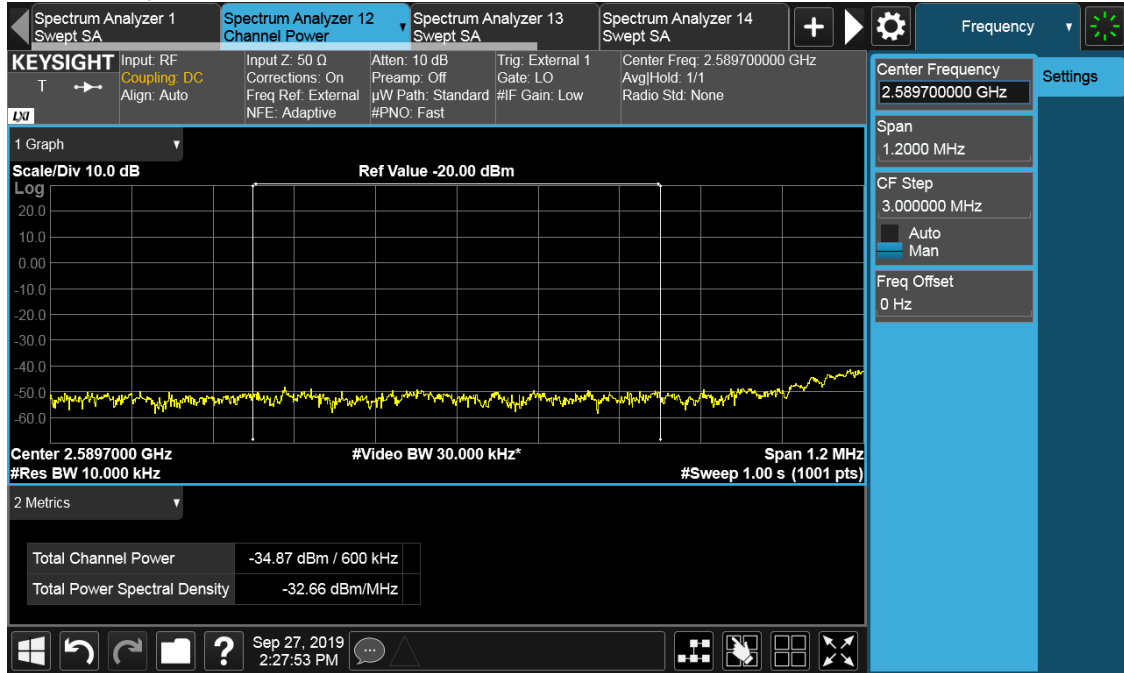
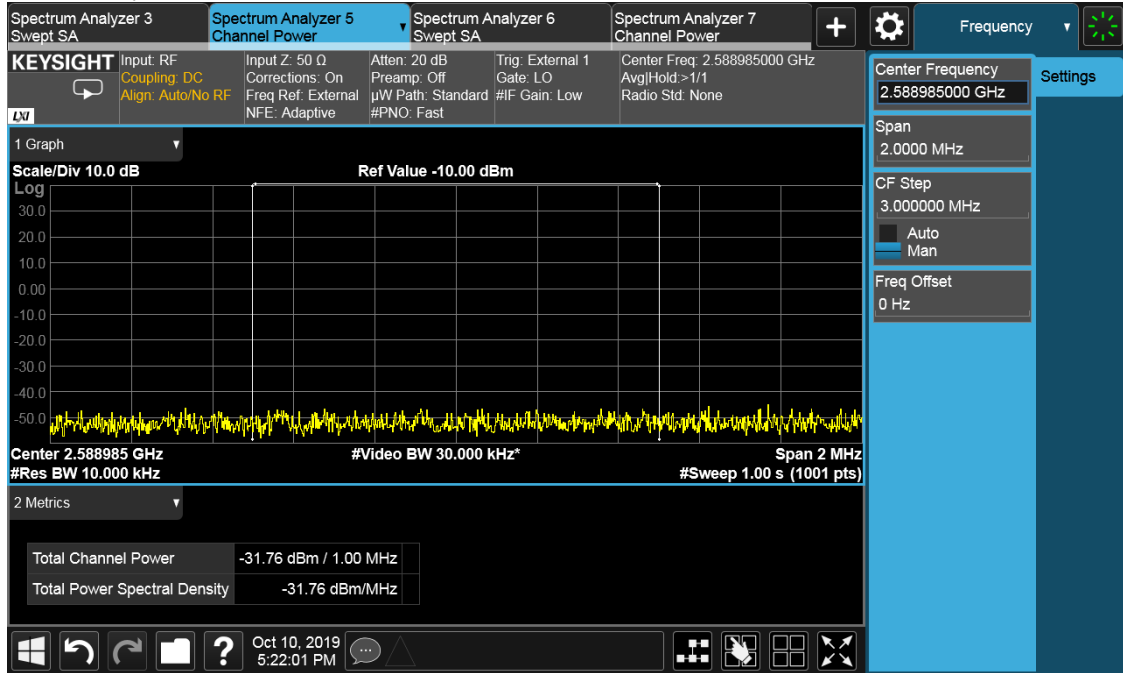


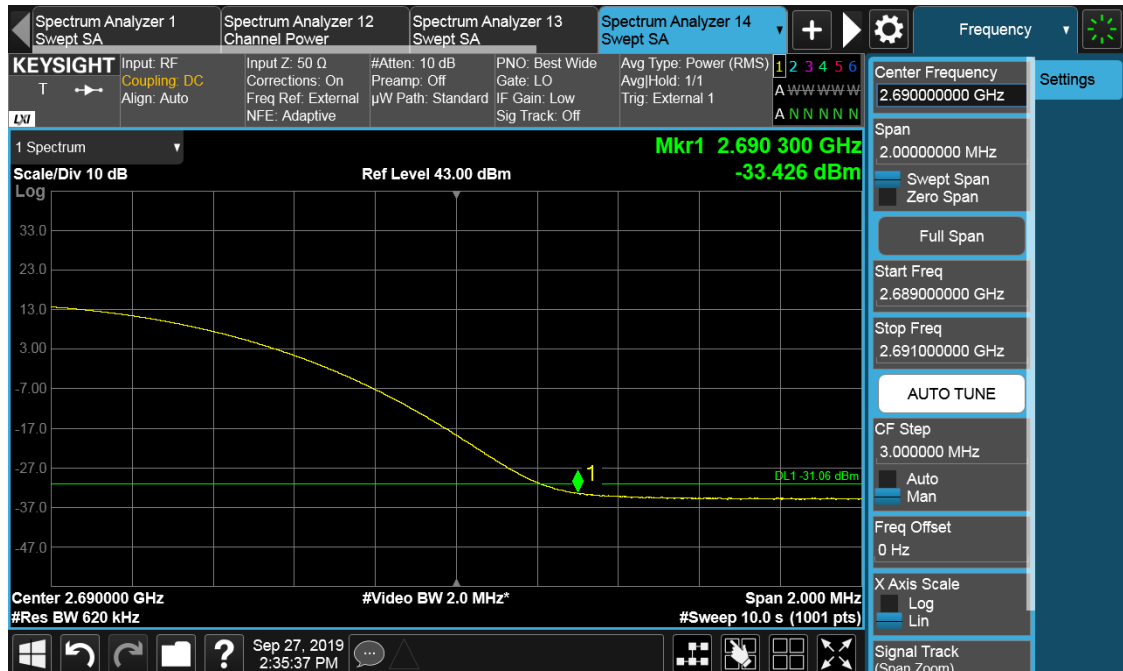
The channel power of 600kHz for 2589.70MHz is -34.87dBm, which is within the limit of -31.06dBm.

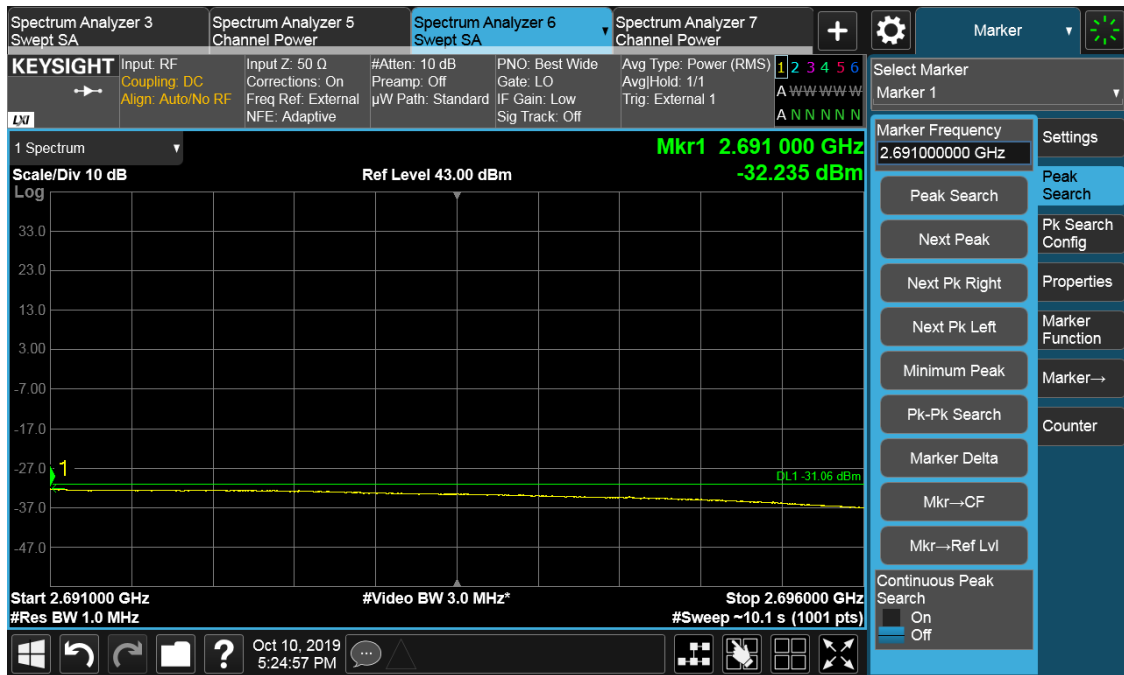


The channel power of 1000kHz for 2588.985MHz is -31.76dBm, which is within the limit of -31.06dBm.

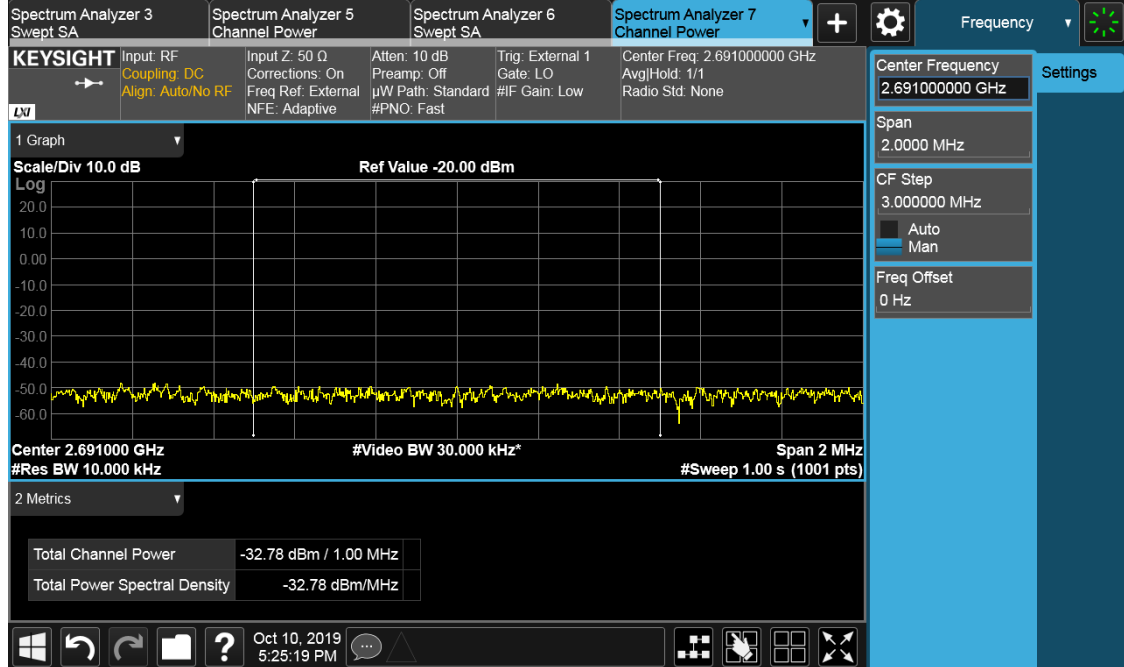


### Channel Position T





The channel power of 1000kHz for 2691.000MHz is -32.78dBm, which is within the limit of -31.06dBm.

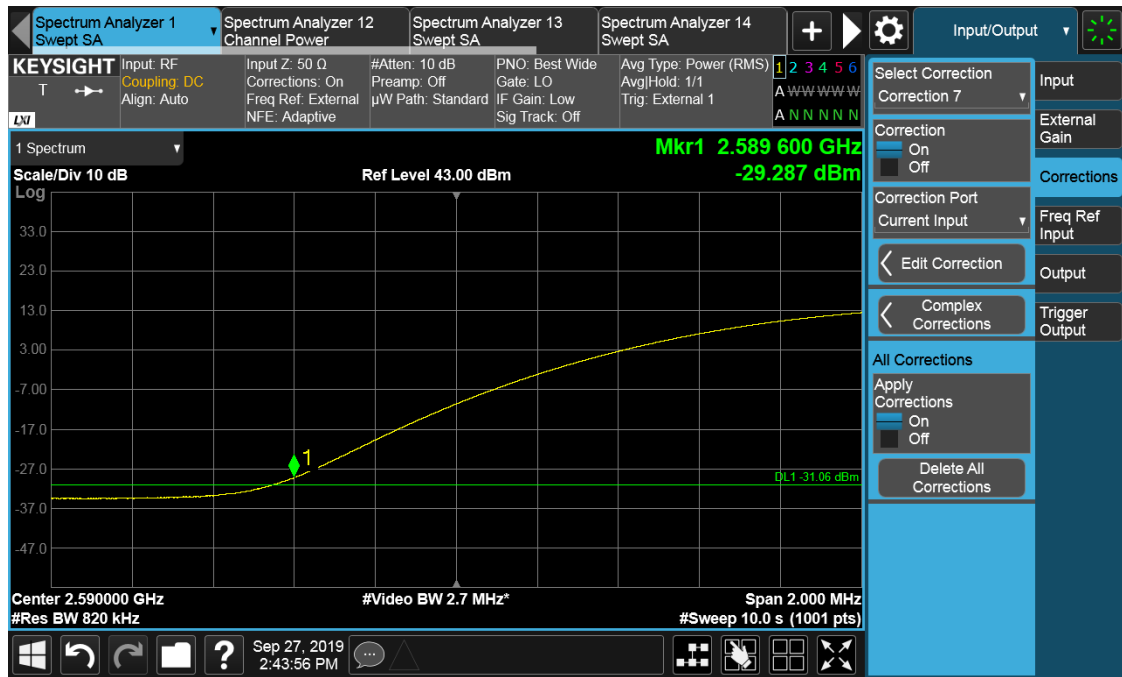


## TEST REPORT

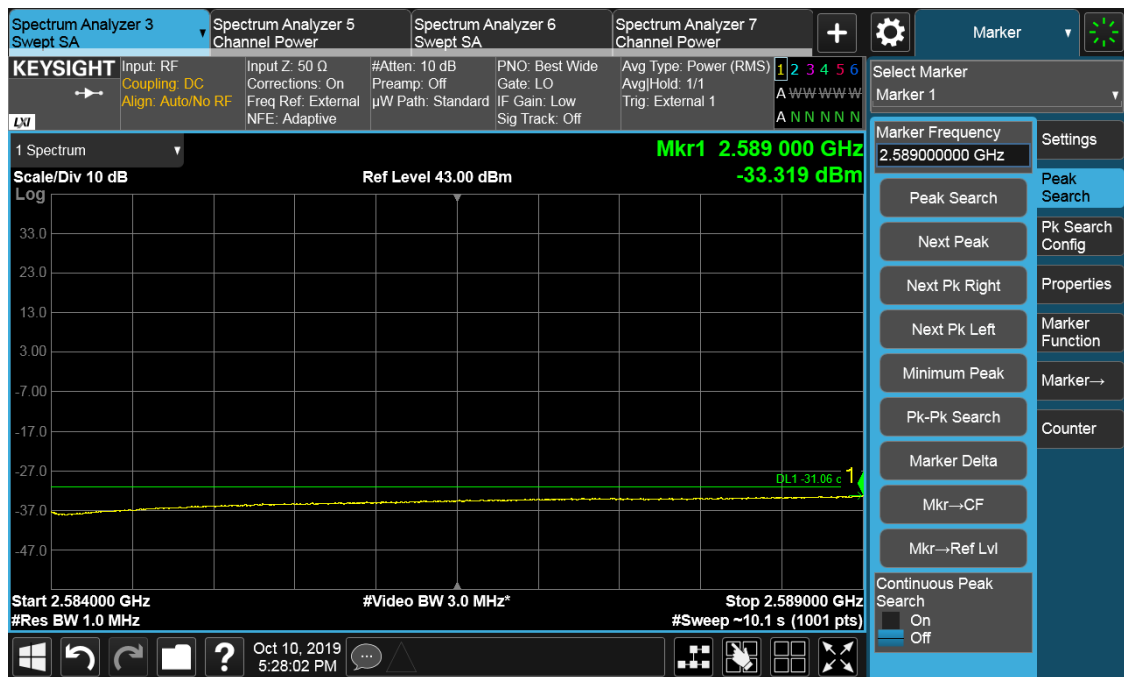
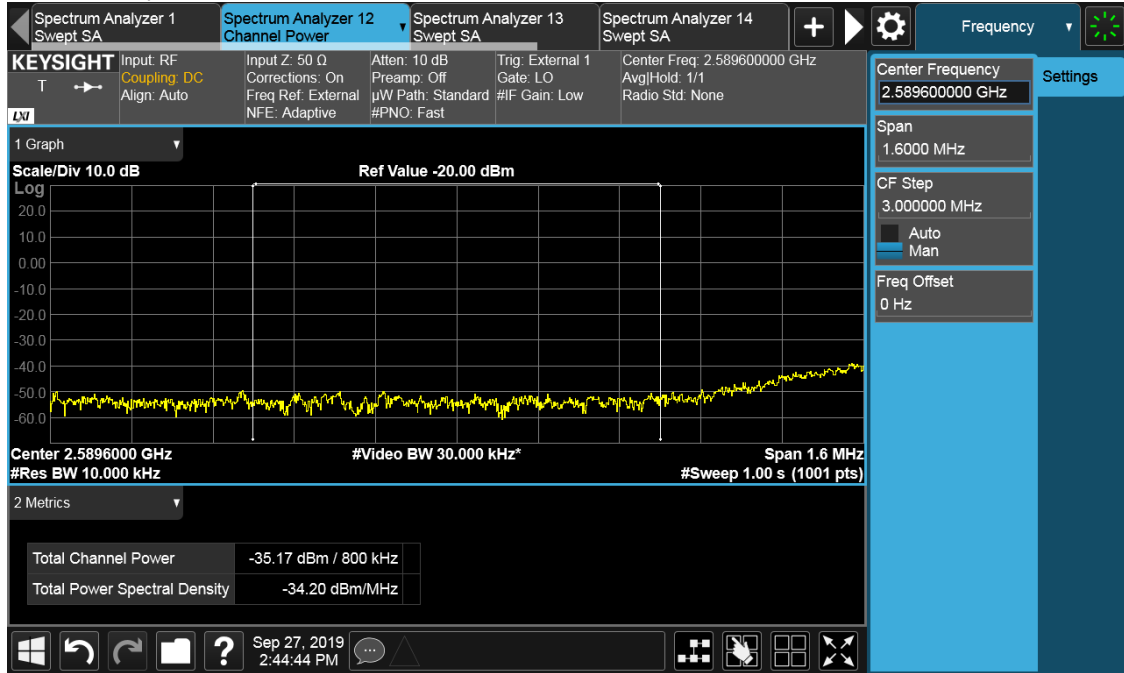
### Configuration NR-MIMO-1C-80

Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	80	820	-31.06
				1000	-31.06
20	T	QPSK	80	820	-31.06
				1000	-31.06

### Channel Position B



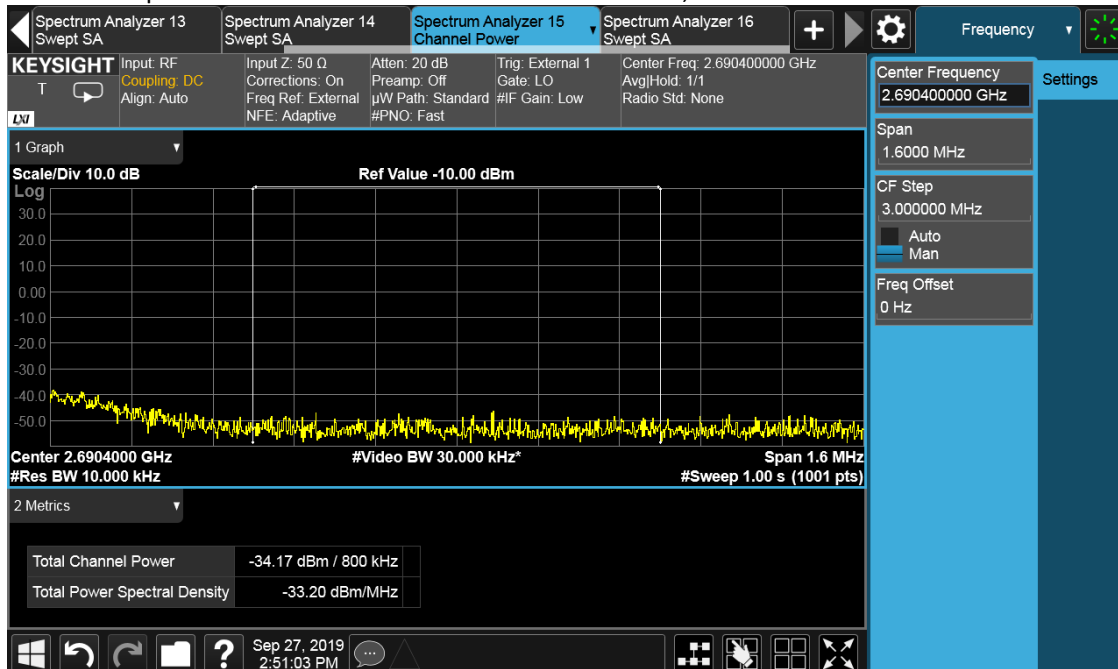
The channel power of 800kHz for 2589.60MHz is -35.17dBm, which is within the limit of -31.06dBm.

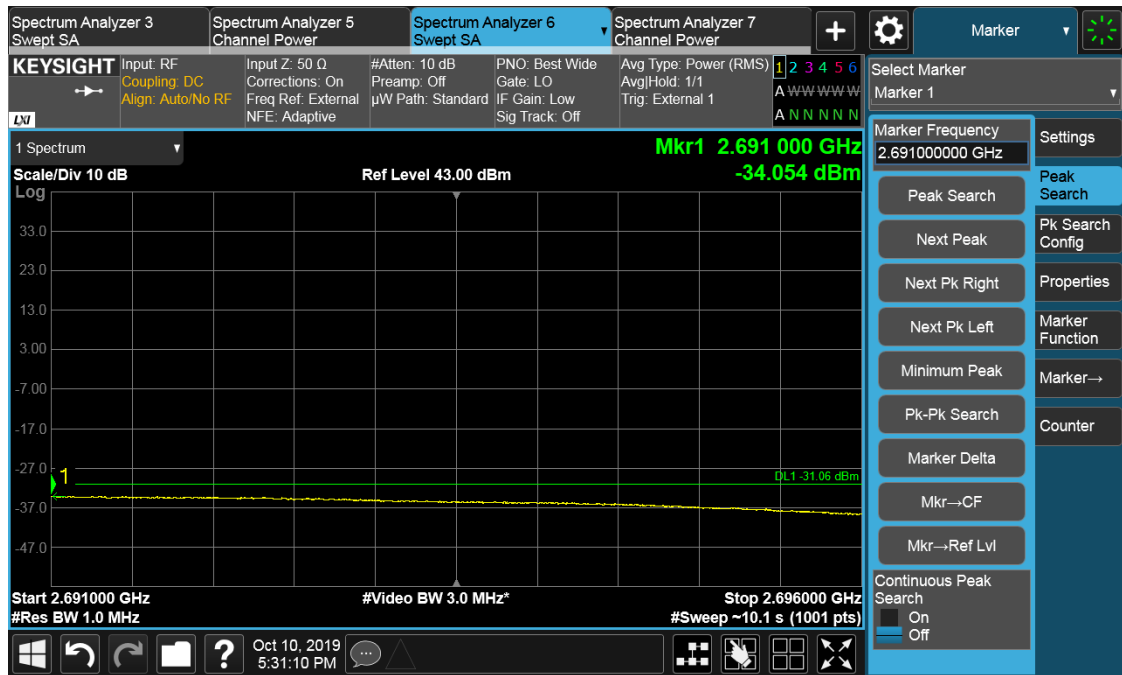


### Channel Position T



The channel power of 800kHz for 2690.40MHz is -34.17dBm, which is within the limit of -31.06dBm.



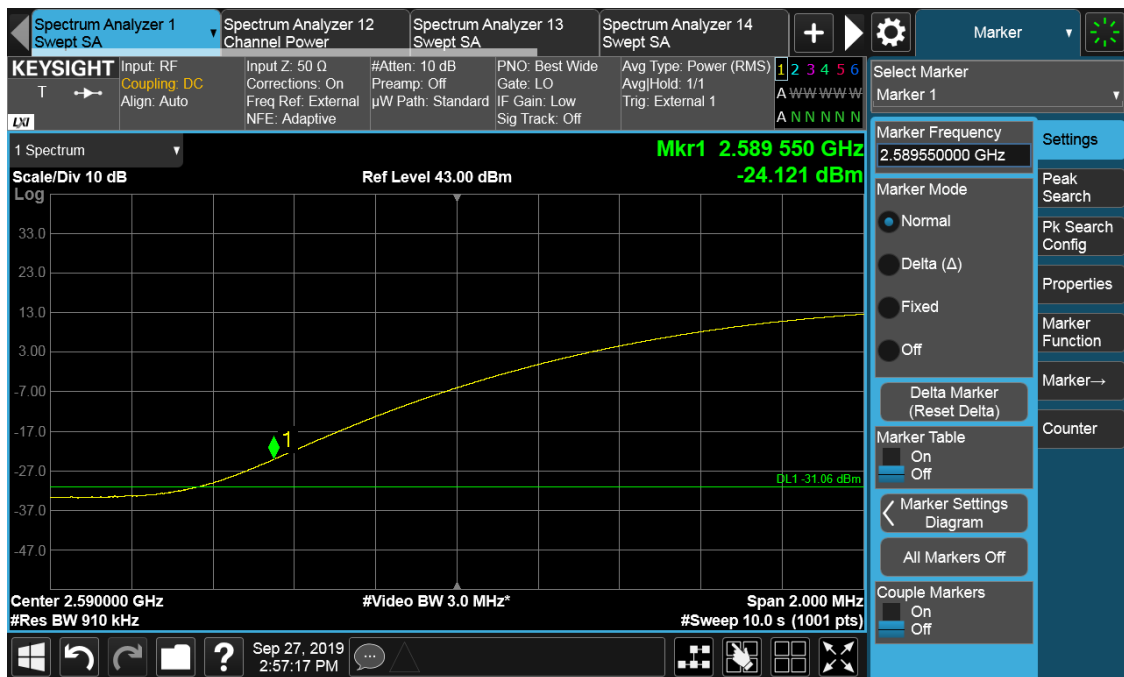


## TEST REPORT

### Configuration NR-MIMO-1C-90

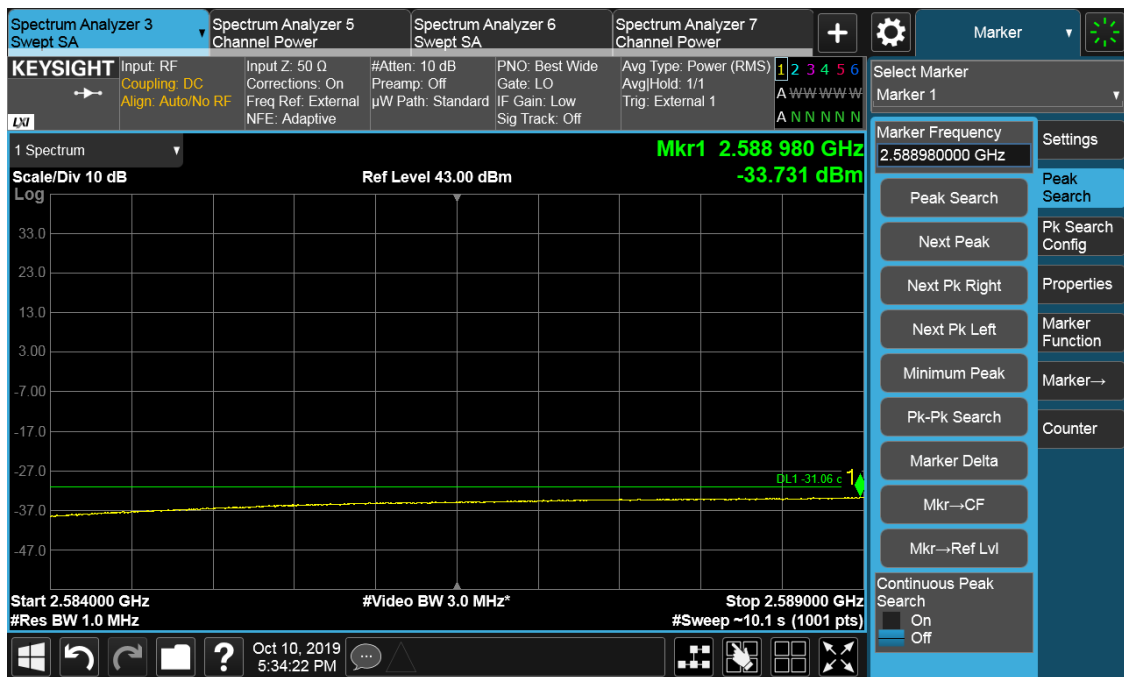
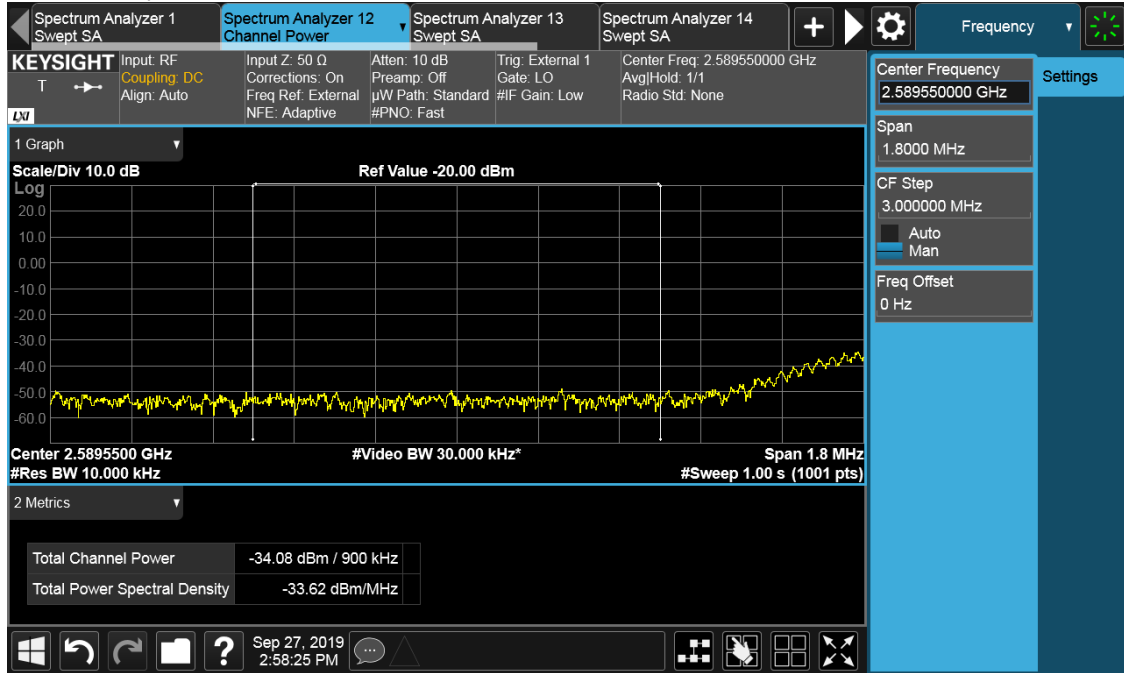
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	90	910	-31.06
				1000	-31.06
20	T	QPSK	90	910	-31.06
				1000	-31.06

### Channel Position B

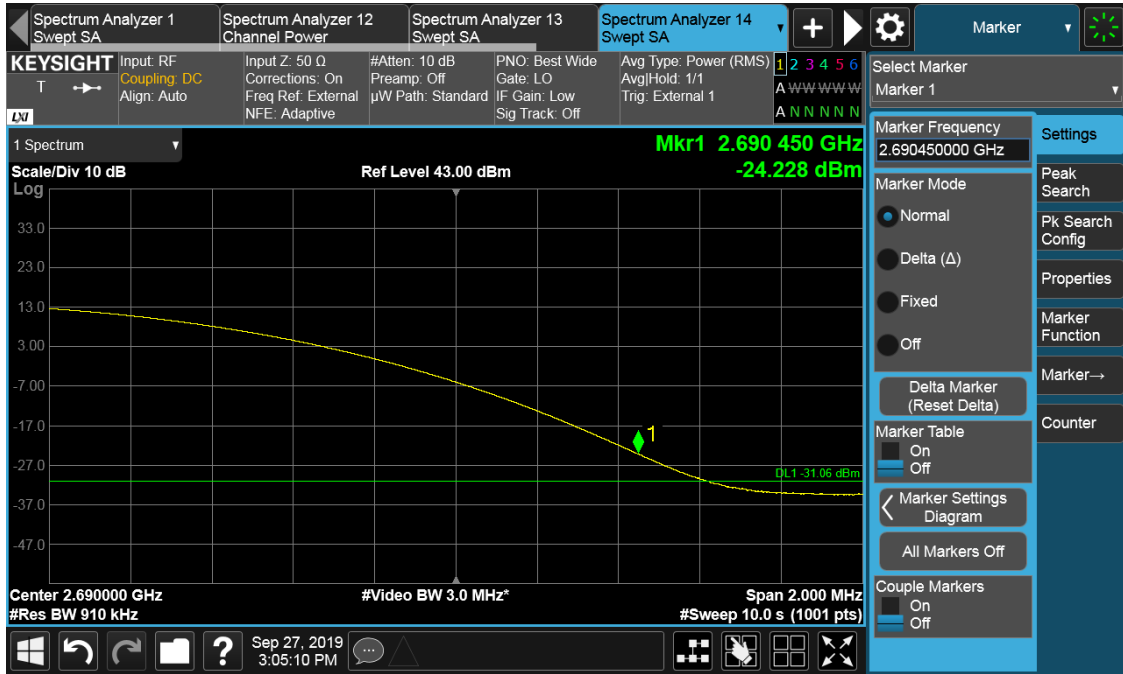




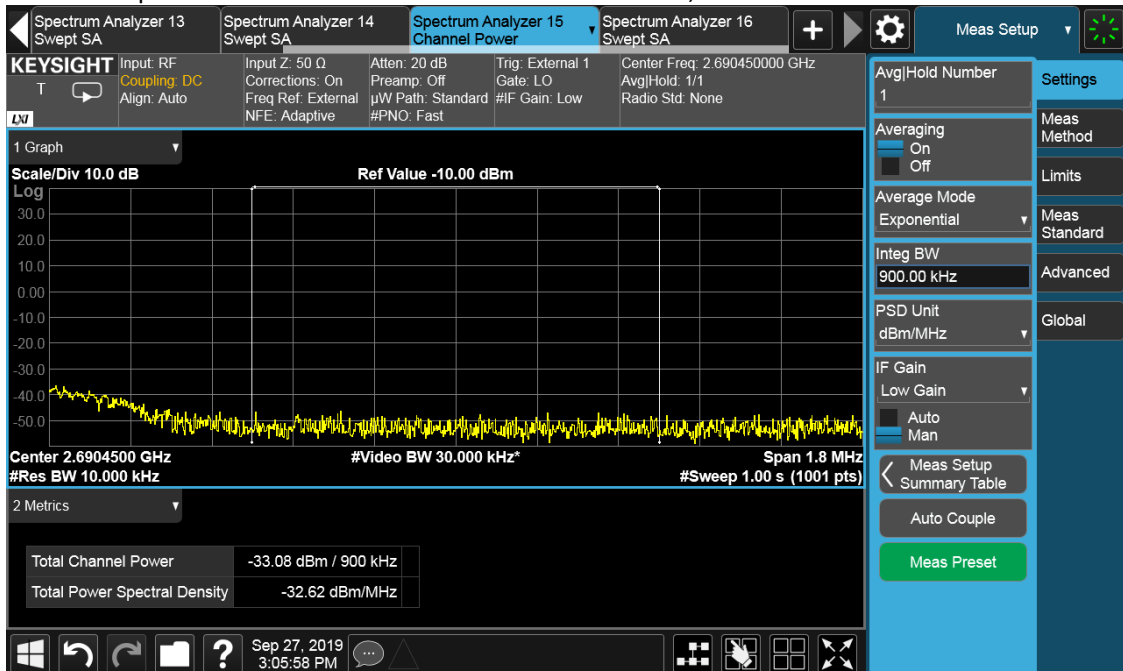
The channel power of 900kHz for 2589.90MHz is -34.08dBm, which is within the limit of -31.06dBm.

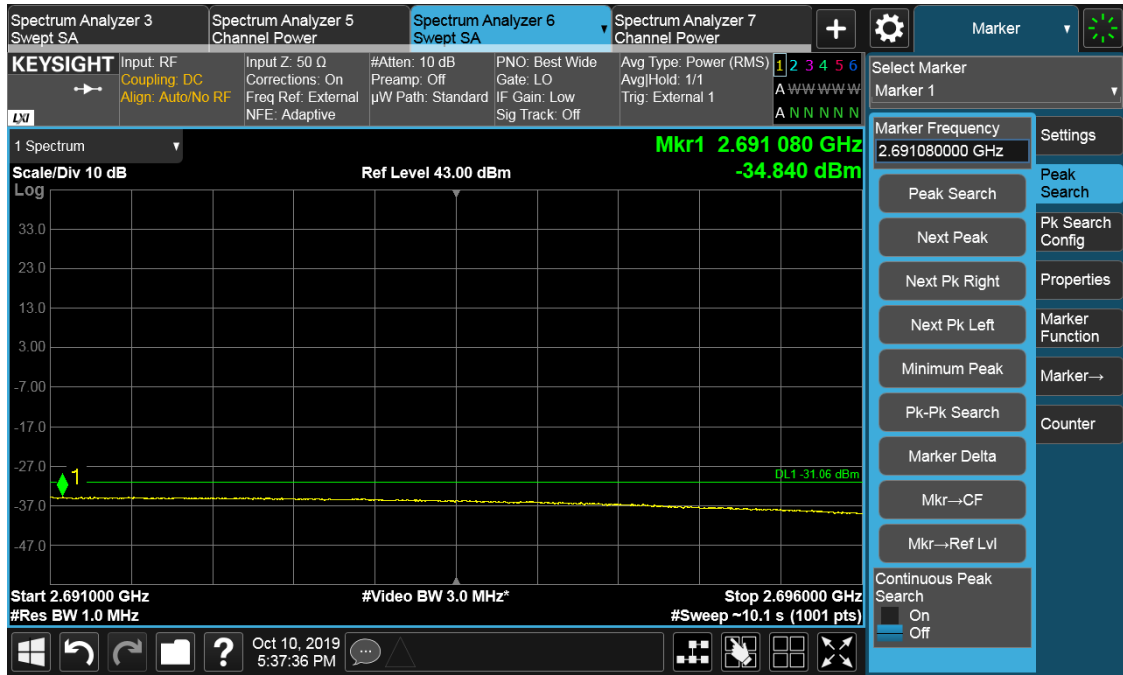


## Channel Position T



The channel power of 900kHz for 2690.450MHz is -39.78dBm, which is within the limit of -31.06dBm.





## 6 Conducted Unwanted Emission

**Test result:** Pass

### 6.1 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  $43 + 10\log(P)$  dB.

### 6.2 Measurement Procedure

In accordance with FCC rules, 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 spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using an attenuator and the frequency spectrum investigated from 9kHz to 27GHz. The resolution bandwidth of 1MHz was employed for frequency band 9kHz to 27GHz. The spectrum analyzer detector was set to RMS.

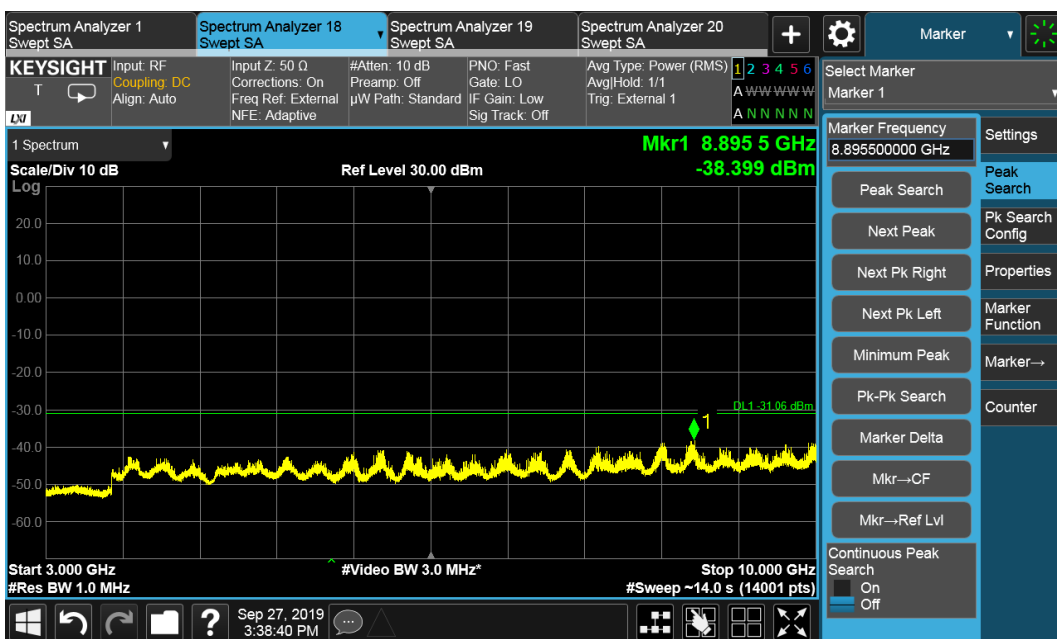
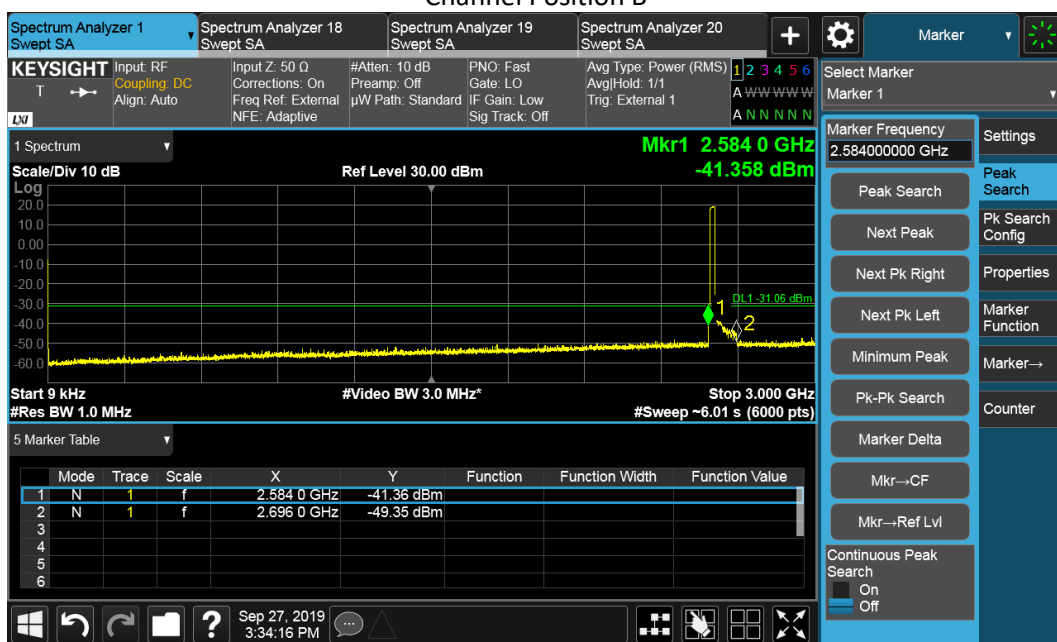
For MIMO mode configurations, the limit was adjusted with a correction of  $-18.06\text{dB}$  [ $10\log(1/64)$ ] by using the Measure and Add  $10\log(N)$  dB technique according to KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports. Then the limit was adjusted to  $-31.06\text{dBm}$ .

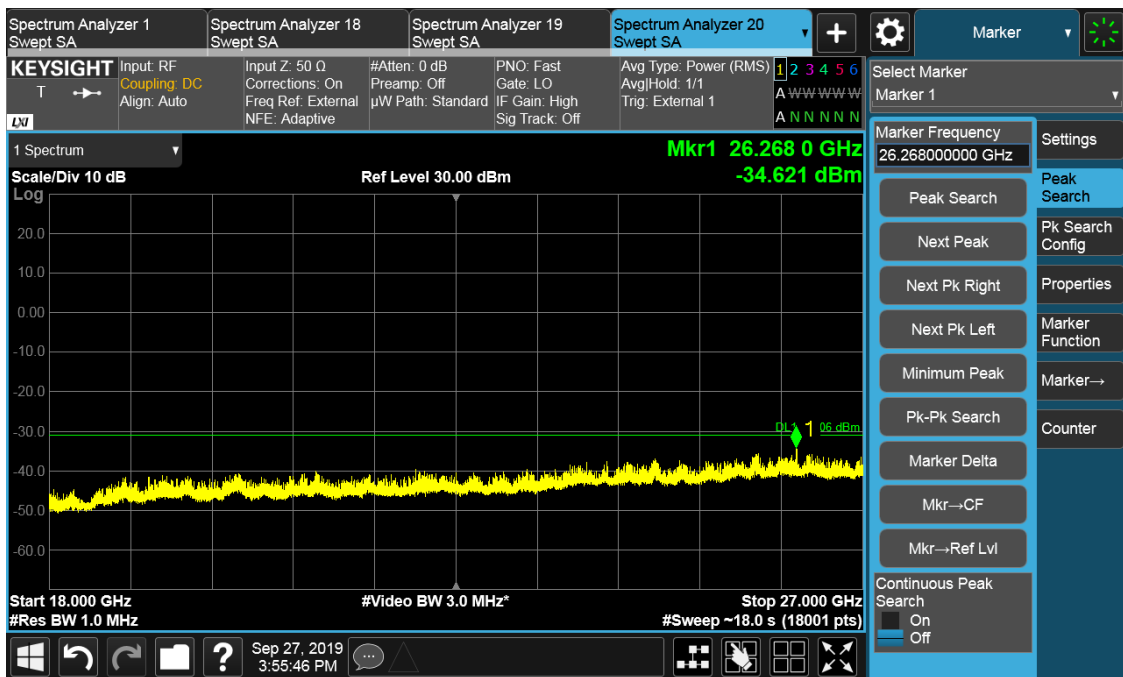
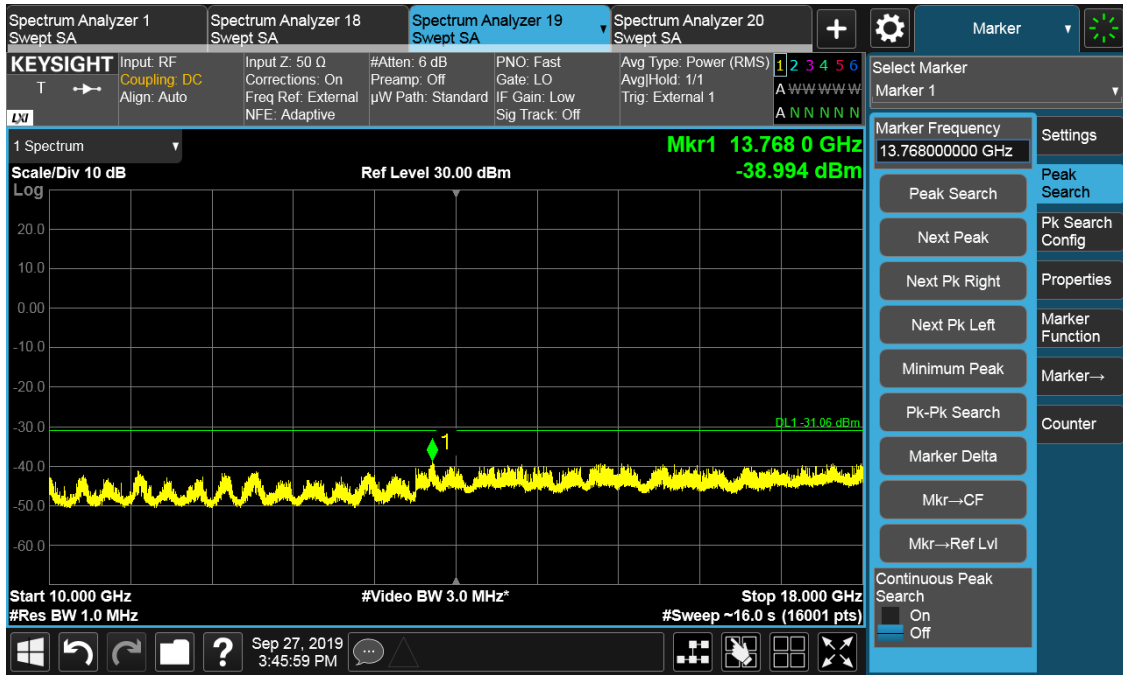
## 6.3 Measurement result

### Configuration NR-MIMO-1C-20

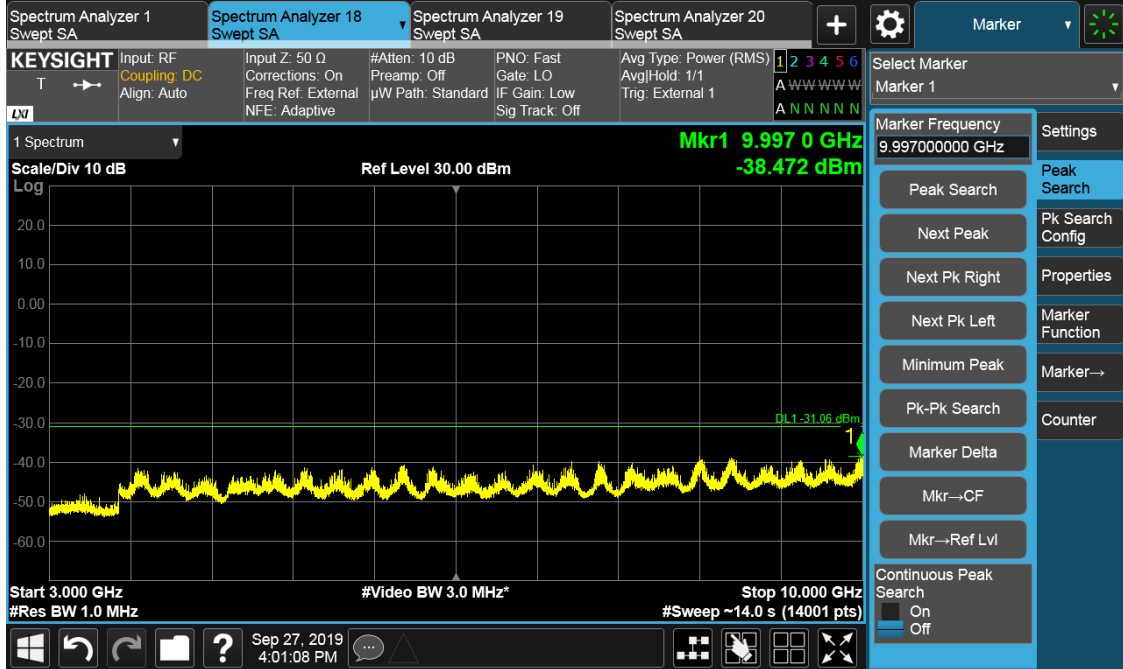
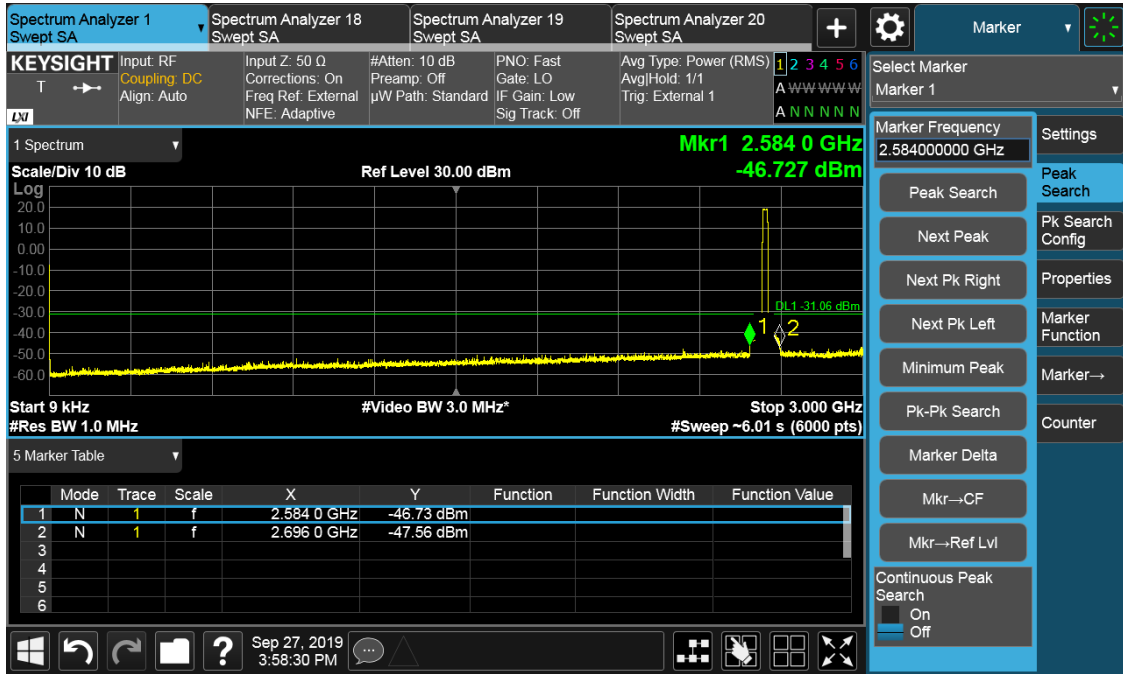
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	20	1000	-31.06
20	M	QPSK	20	1000	-31.06
20	T	QPSK	20	1000	-31.06

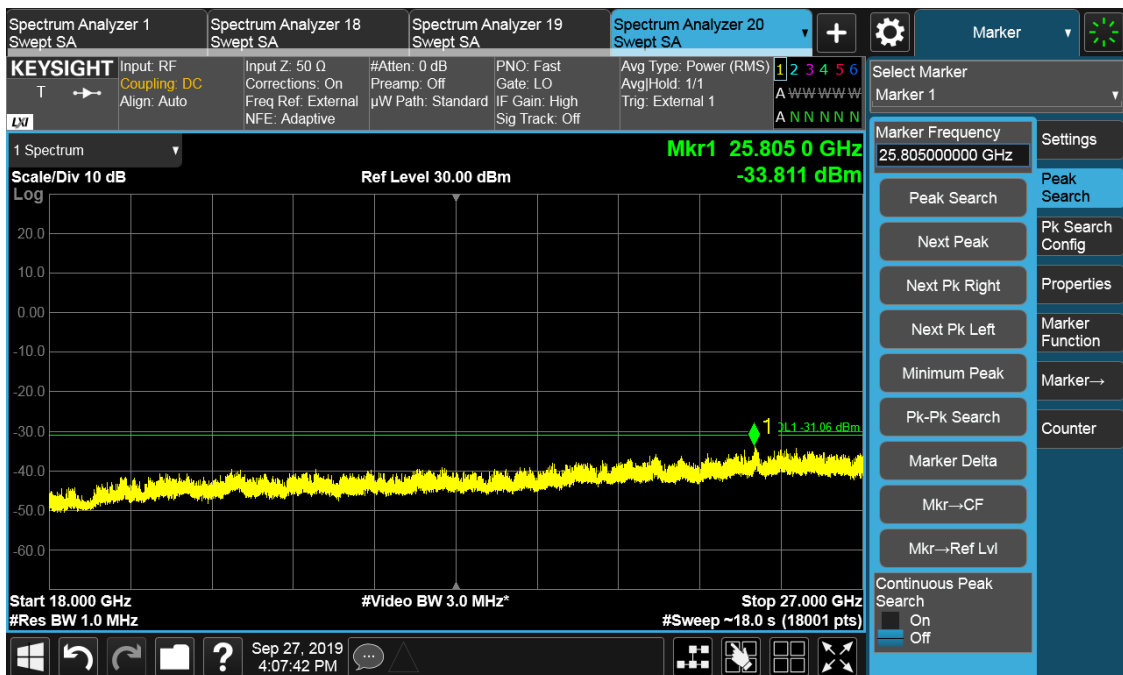
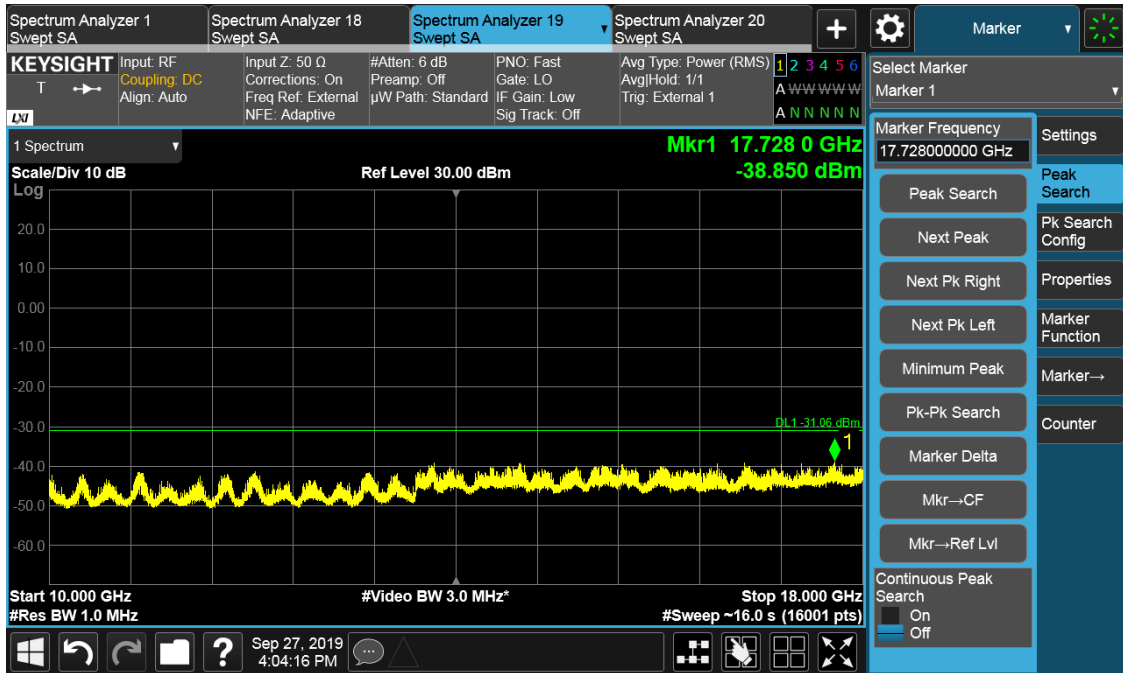
Channel Position B





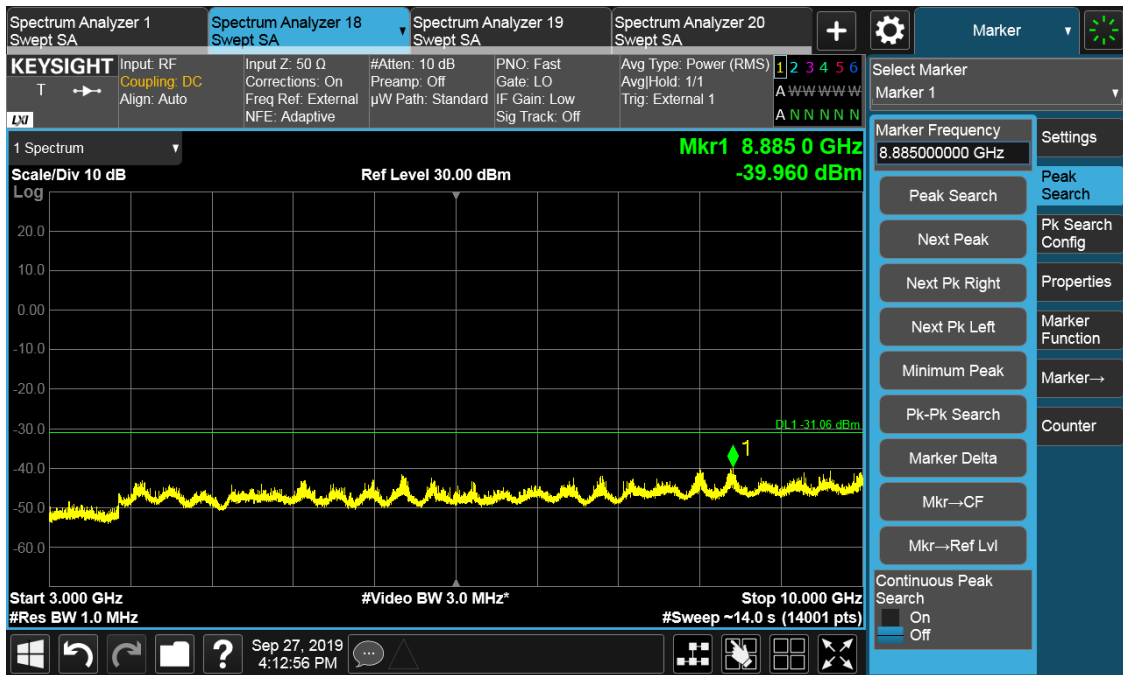
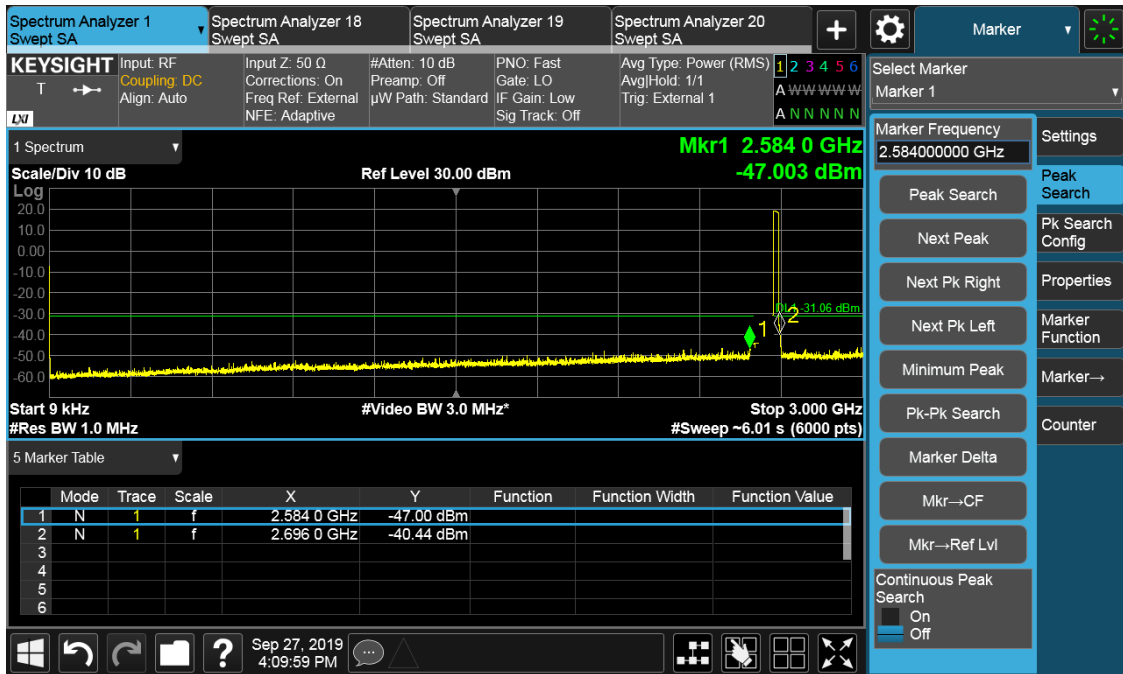
## Channel Position M

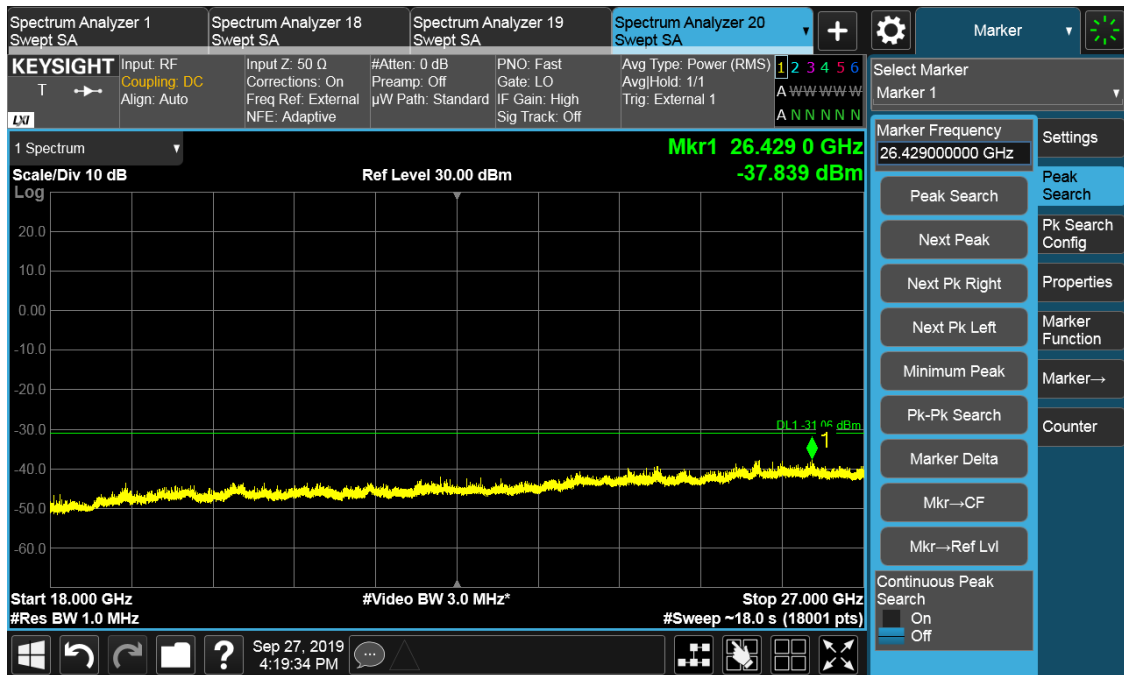
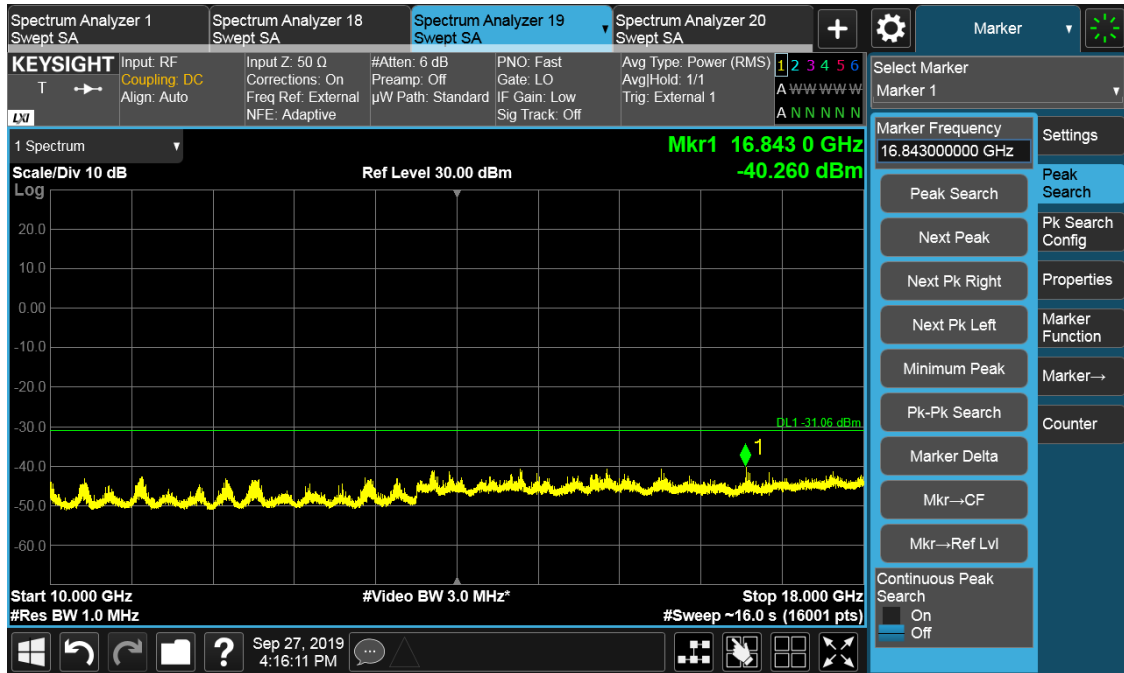






## Channel Position T



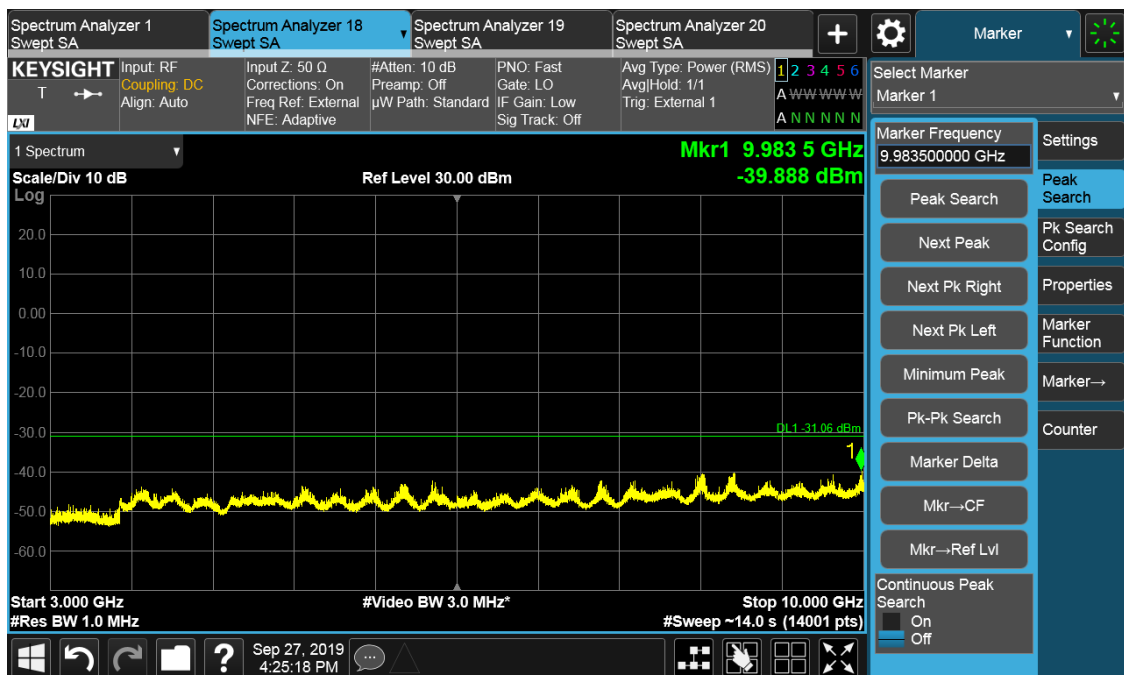


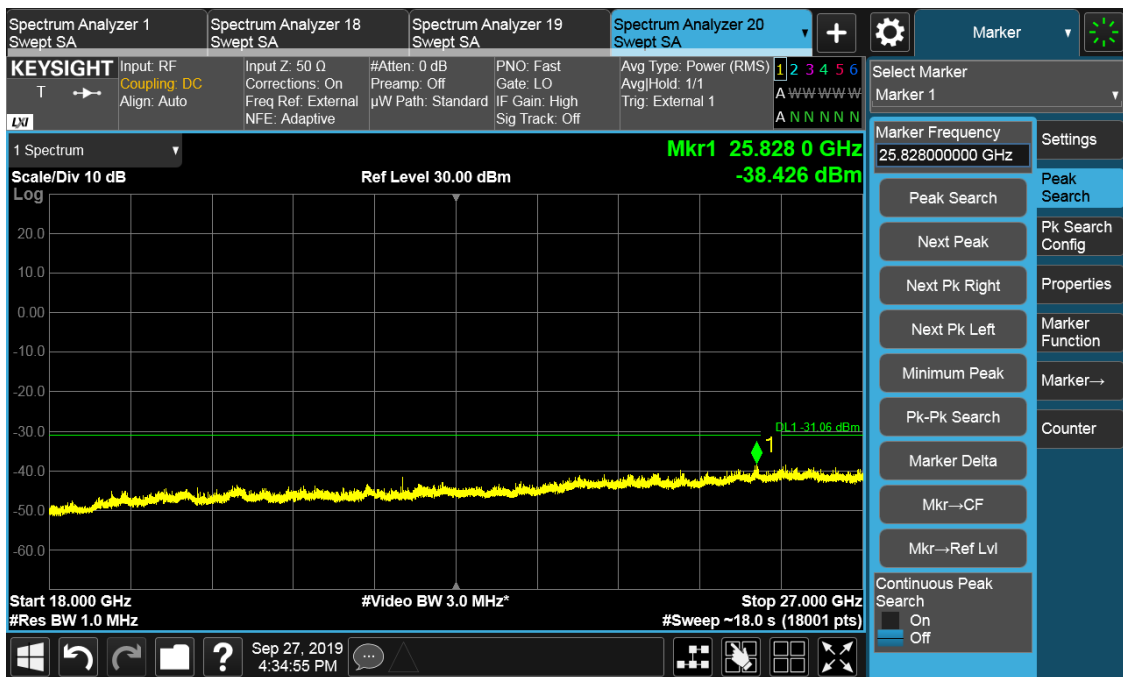
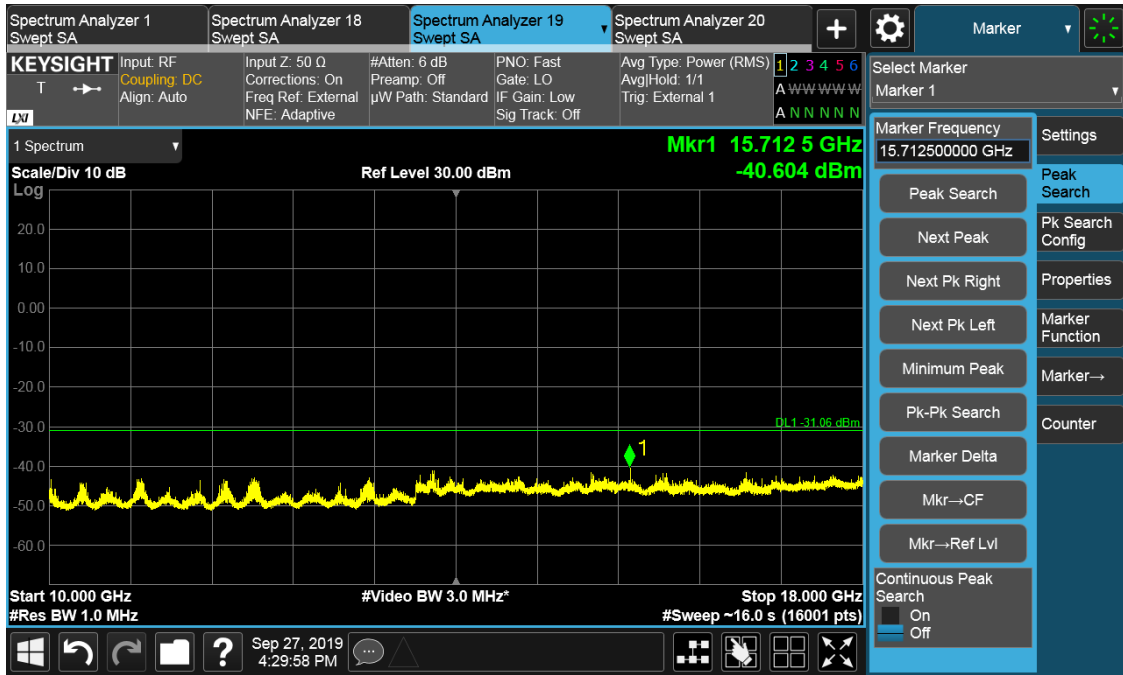
## TEST REPORT

### Configuration NR-MIMO-1C-30

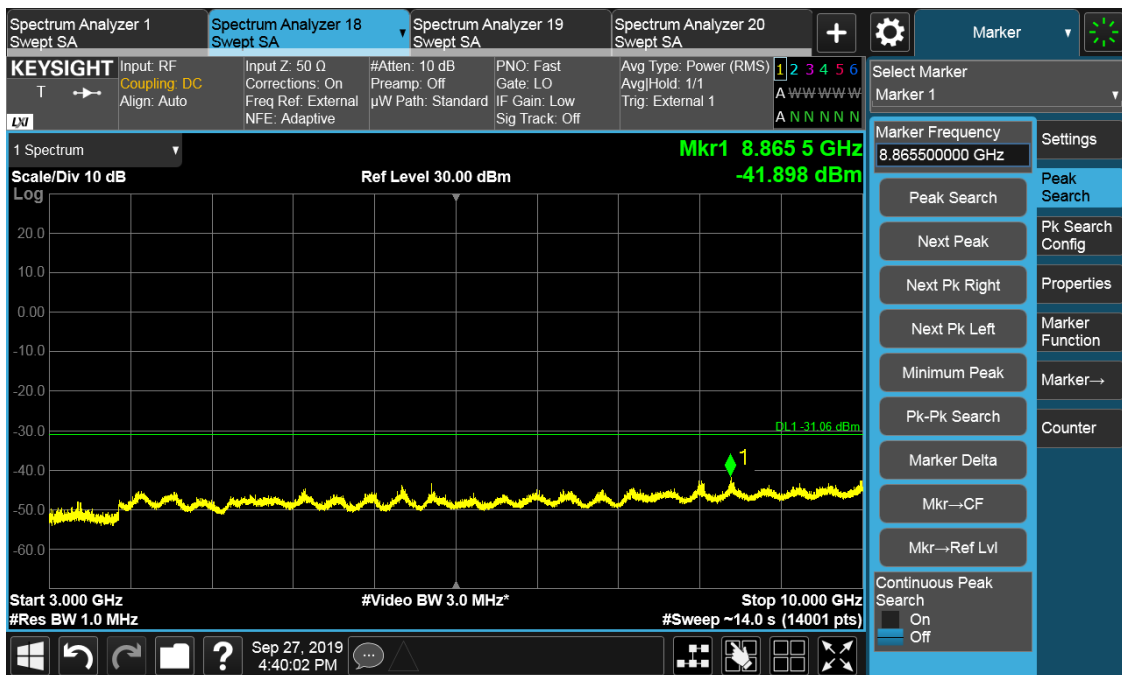
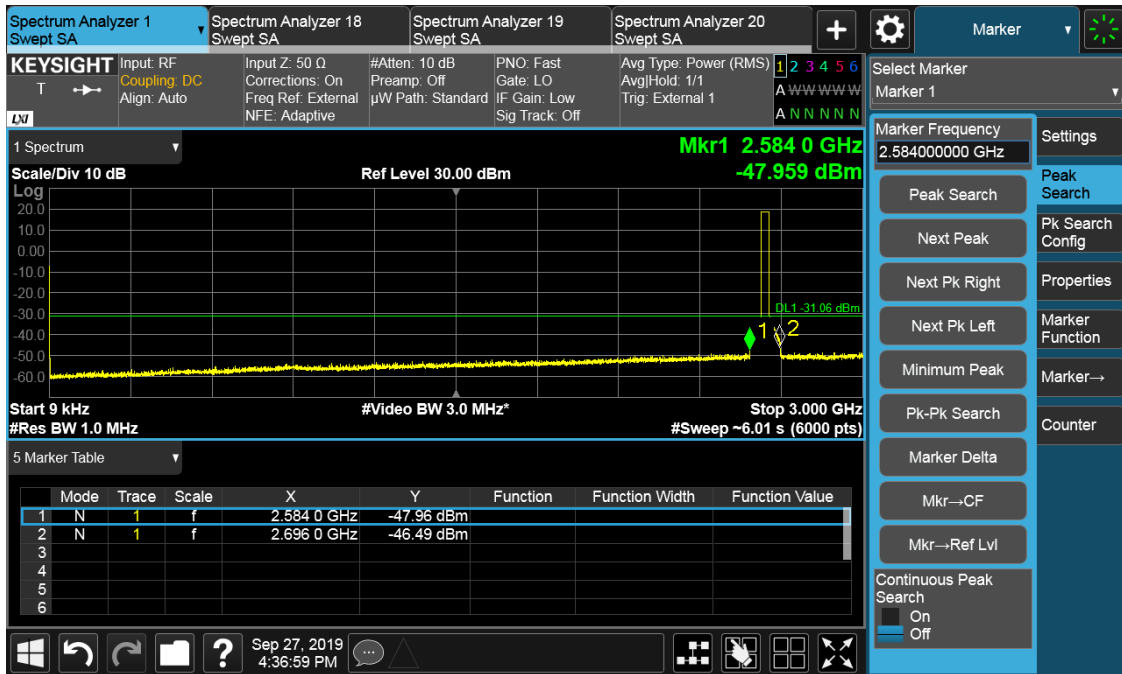
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	30	1000	-31.06
20	M	QPSK	30	1000	-31.06
20	T	QPSK	30	1000	-31.06

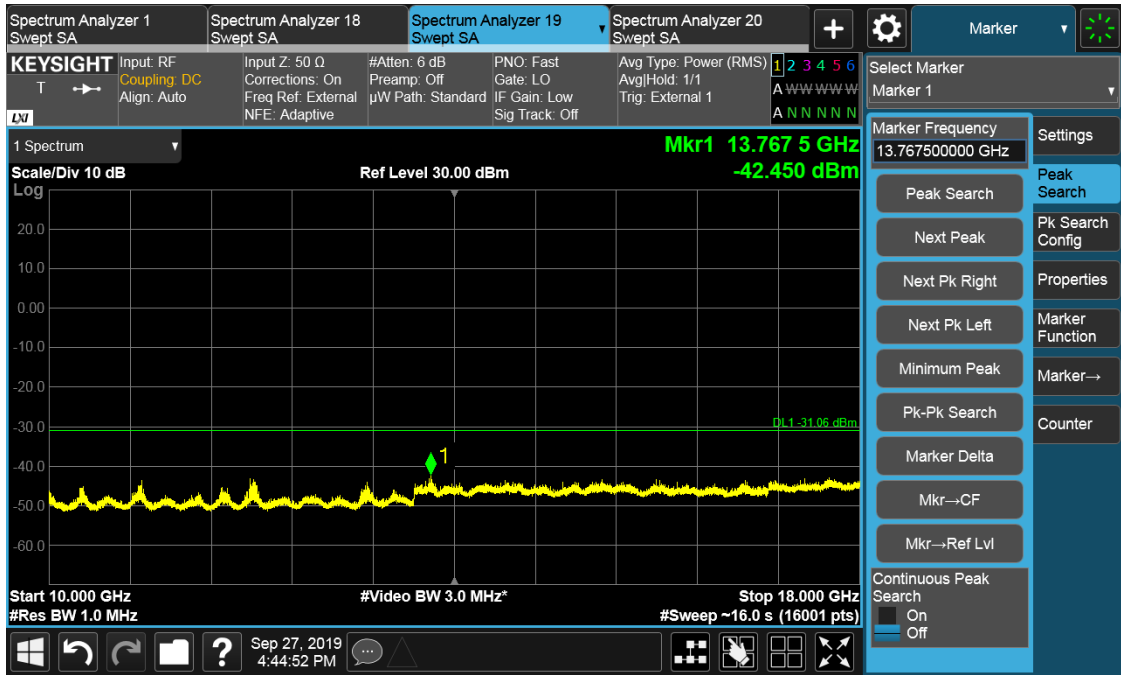
### Channel Position B



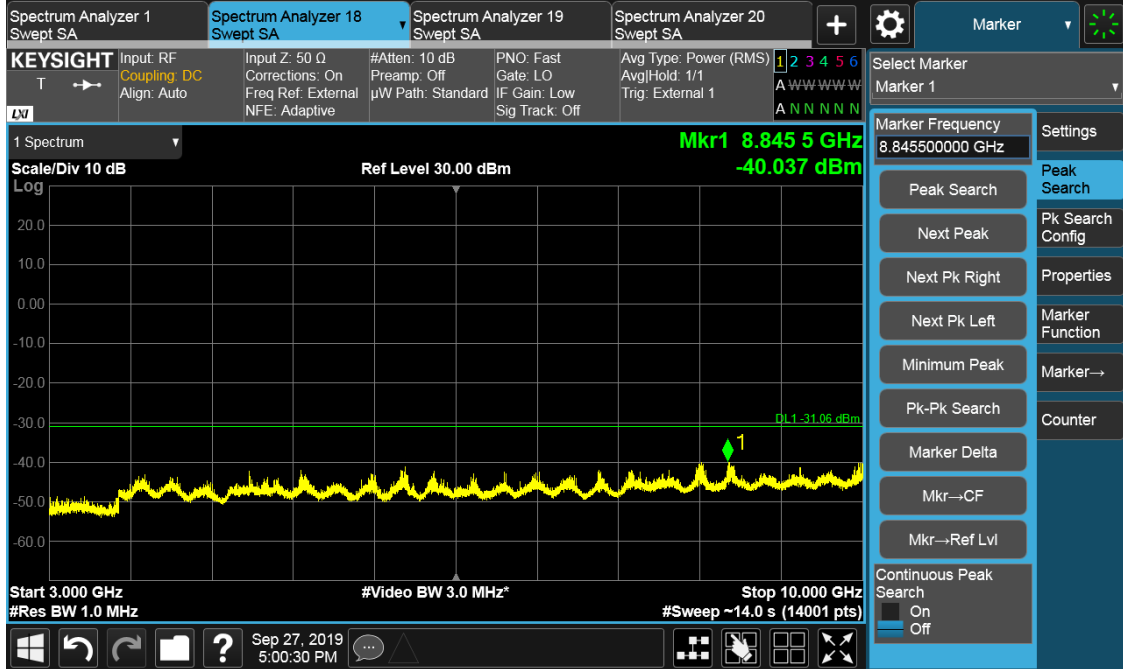
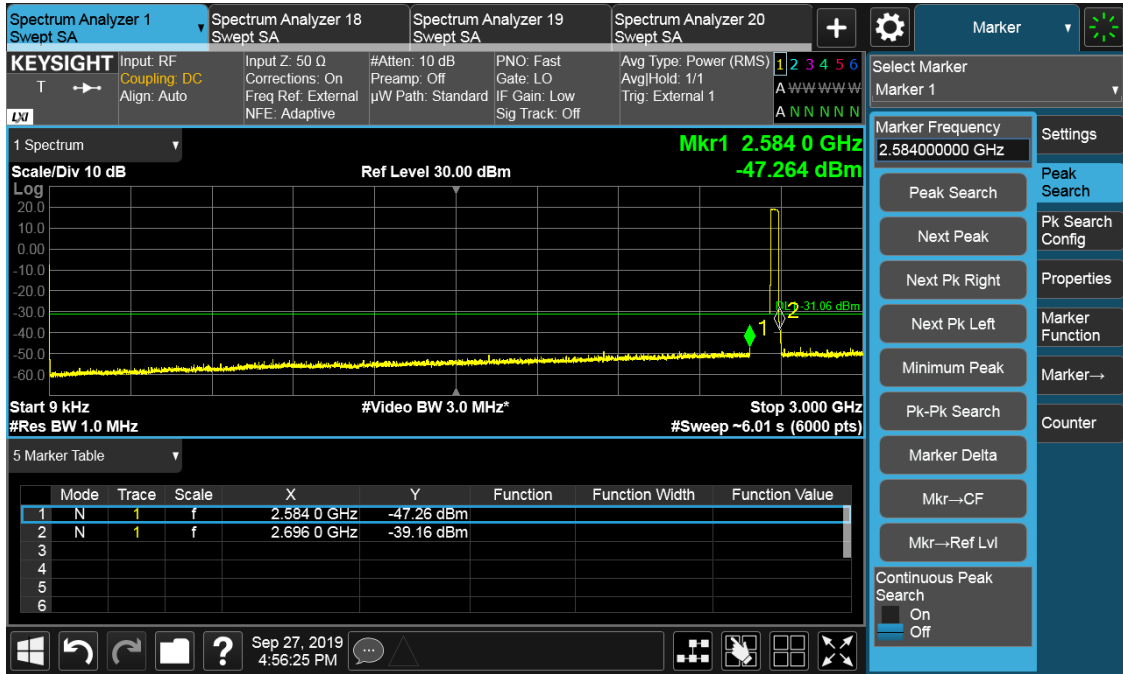


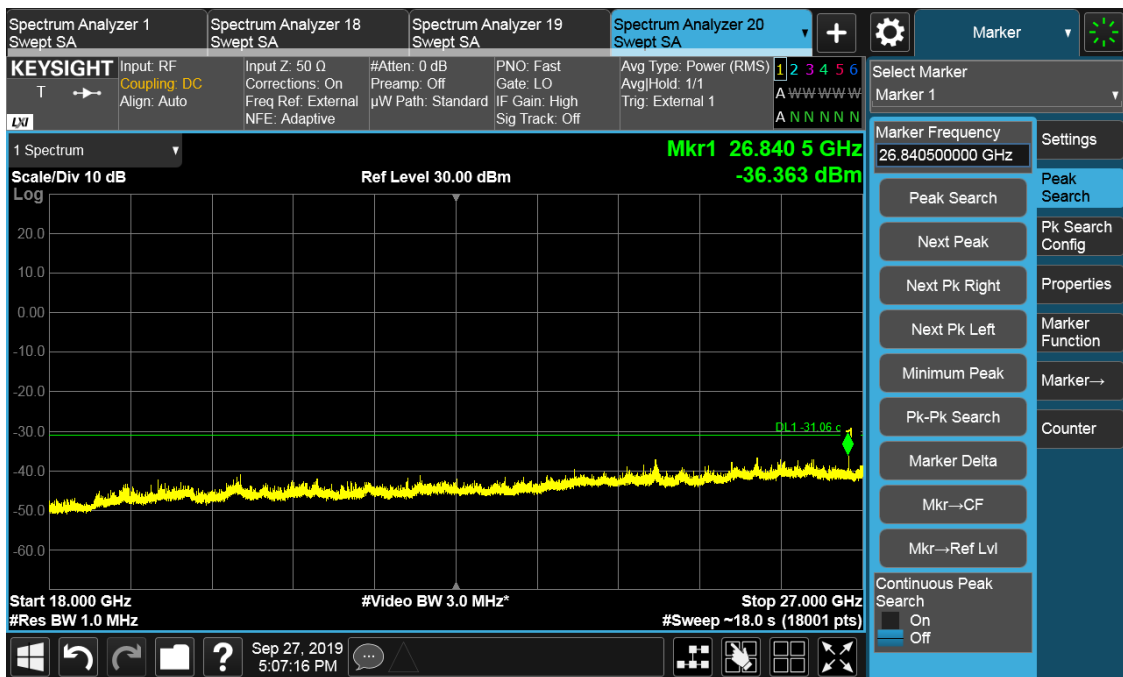
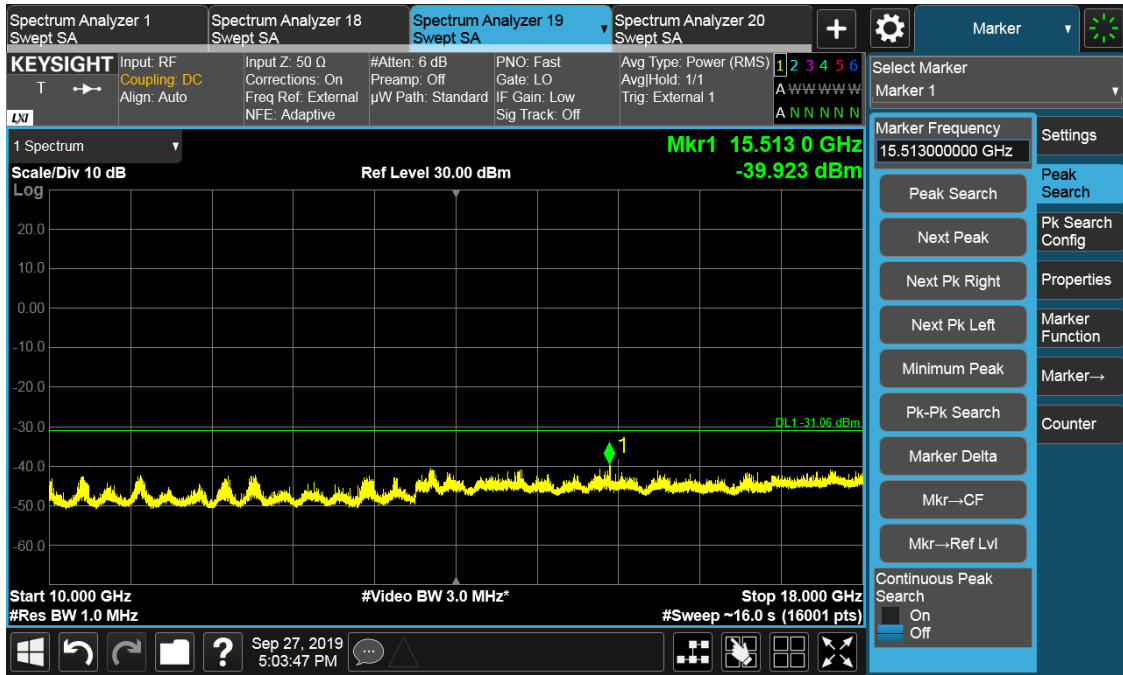
### Channel Position M





## Channel Position T





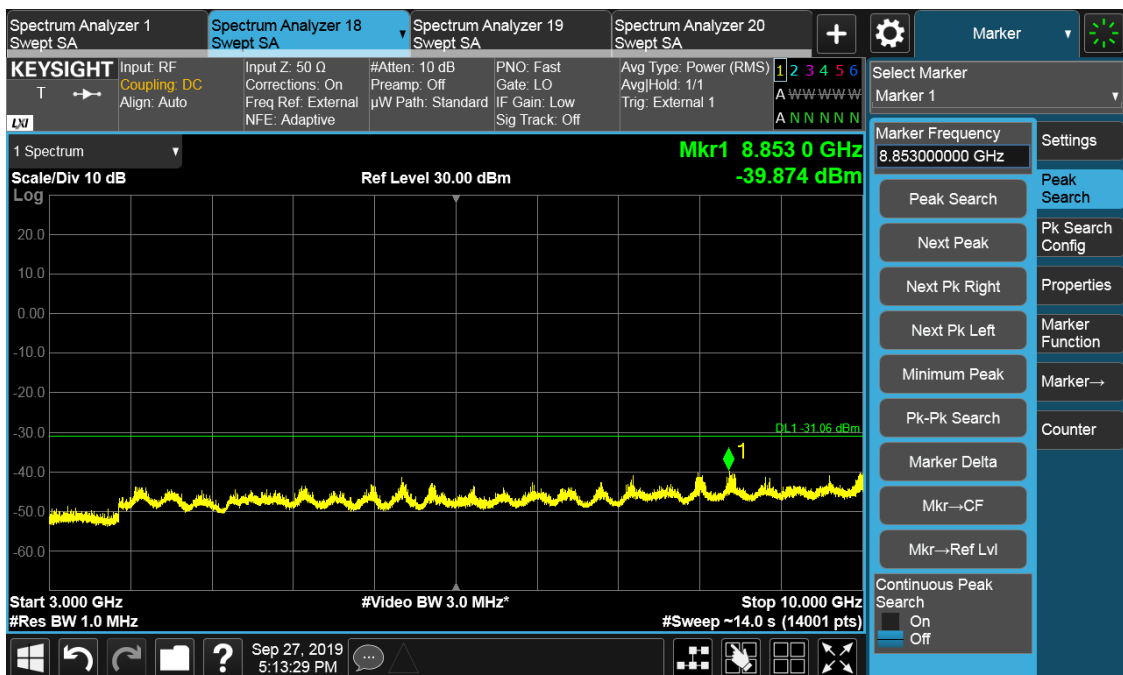
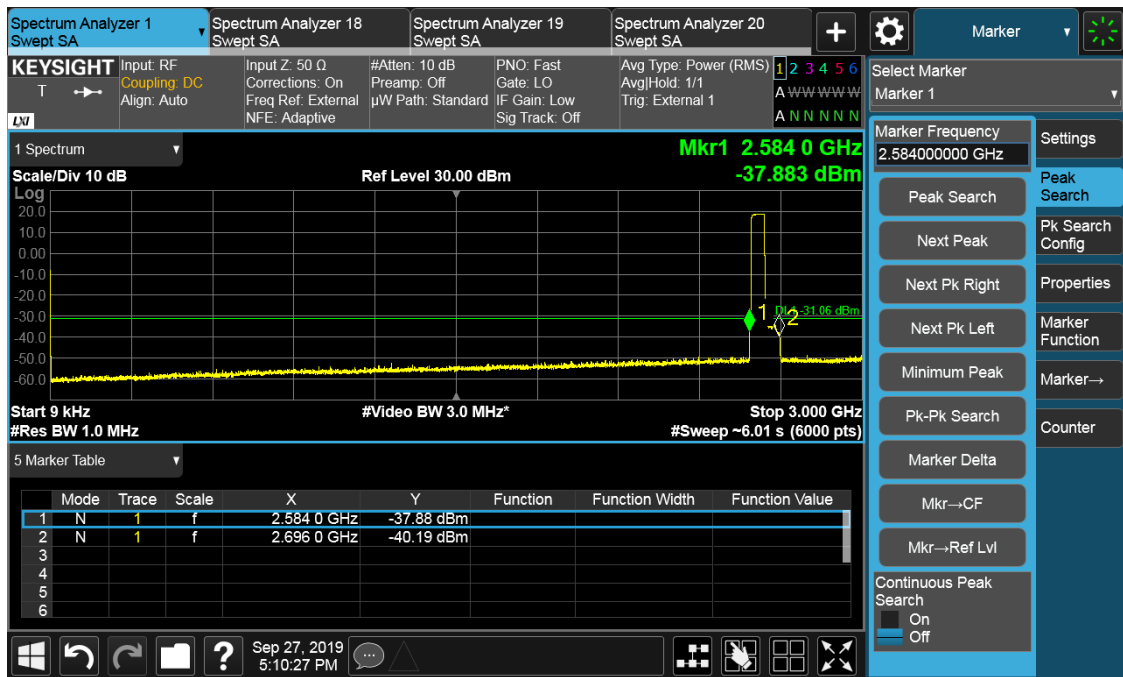


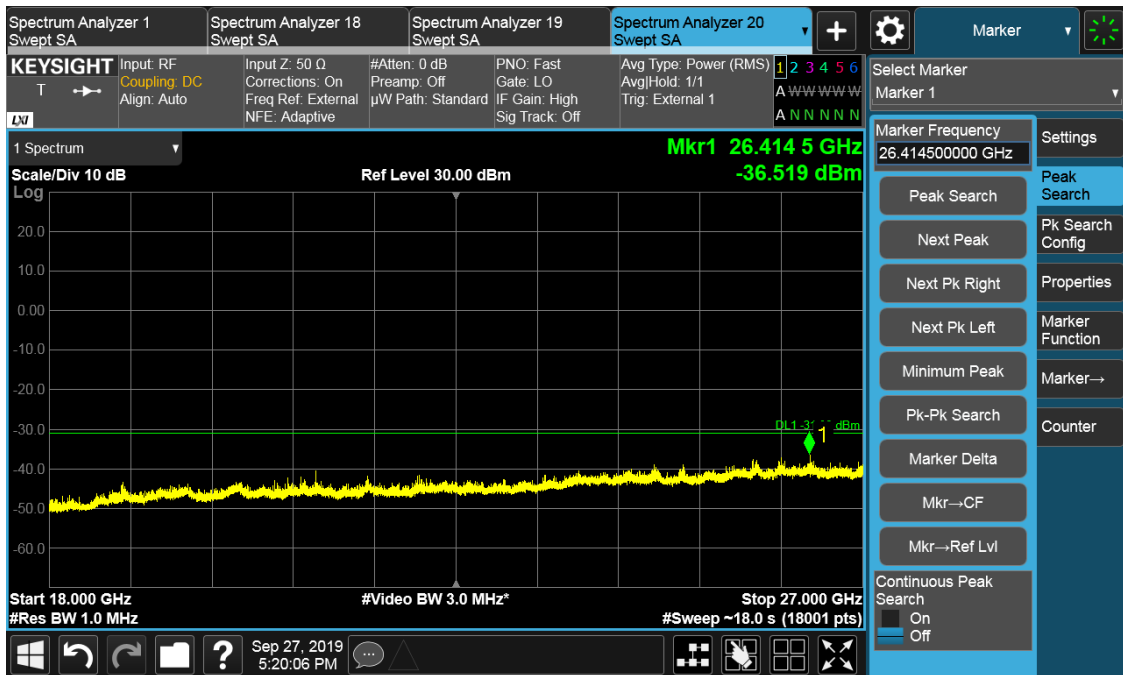
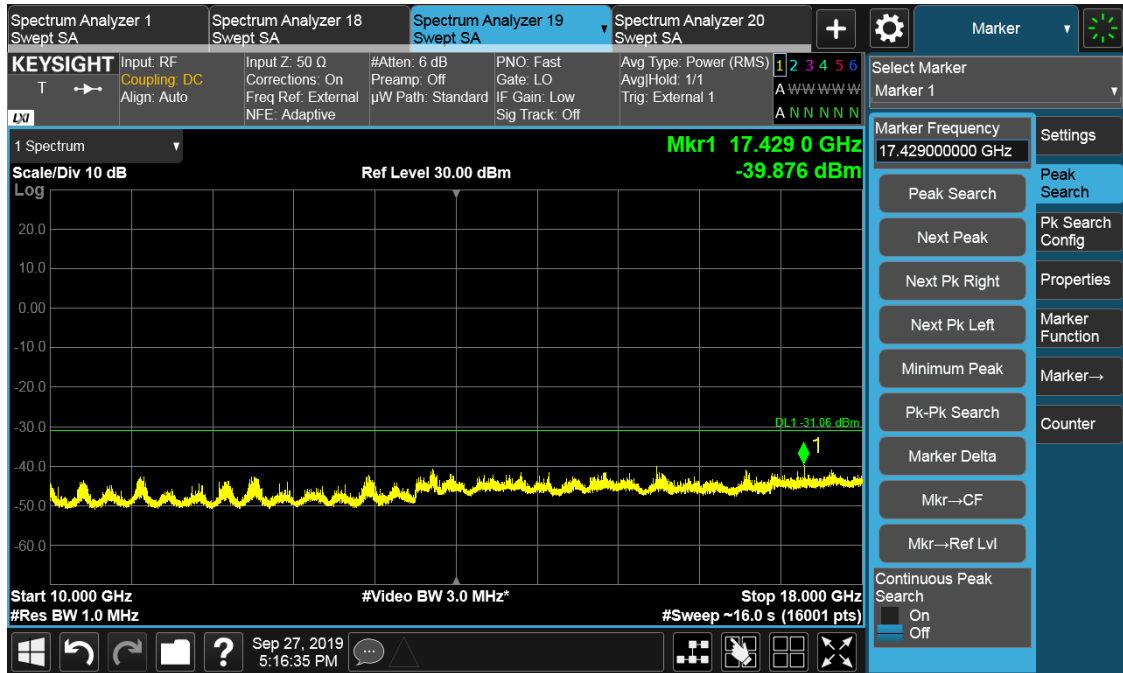
## TEST REPORT

### Configuration NR-MIMO-1C-50

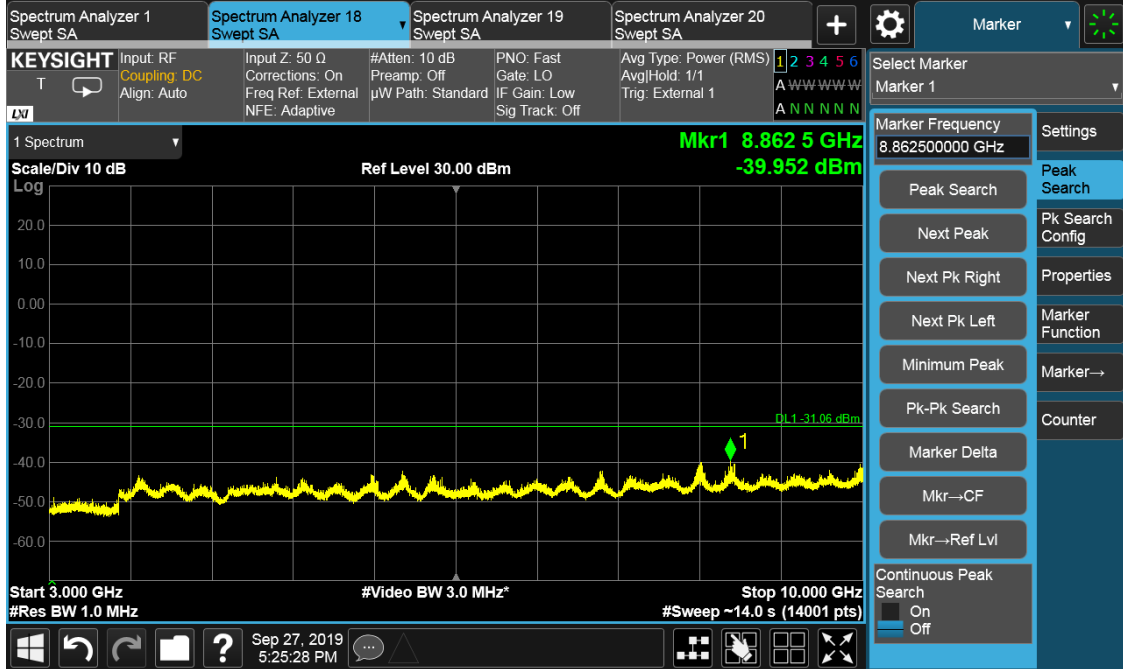
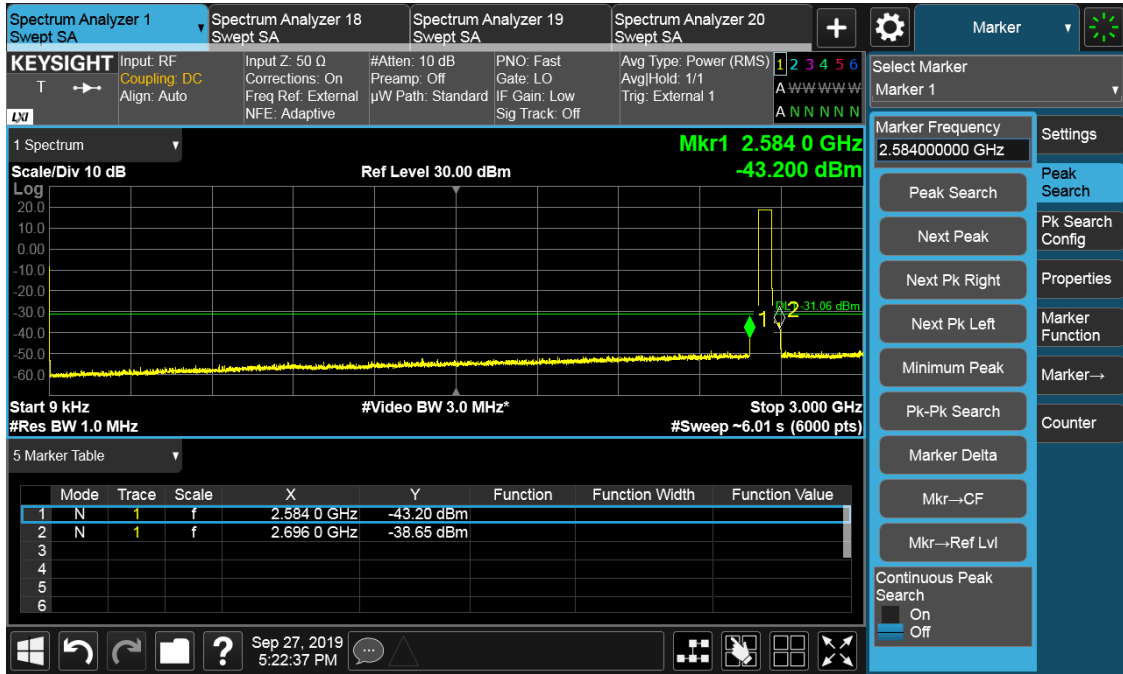
Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	50	1000	-31.06
20	M	QPSK	50	1000	-31.06
20	T	QPSK	50	1000	-31.06

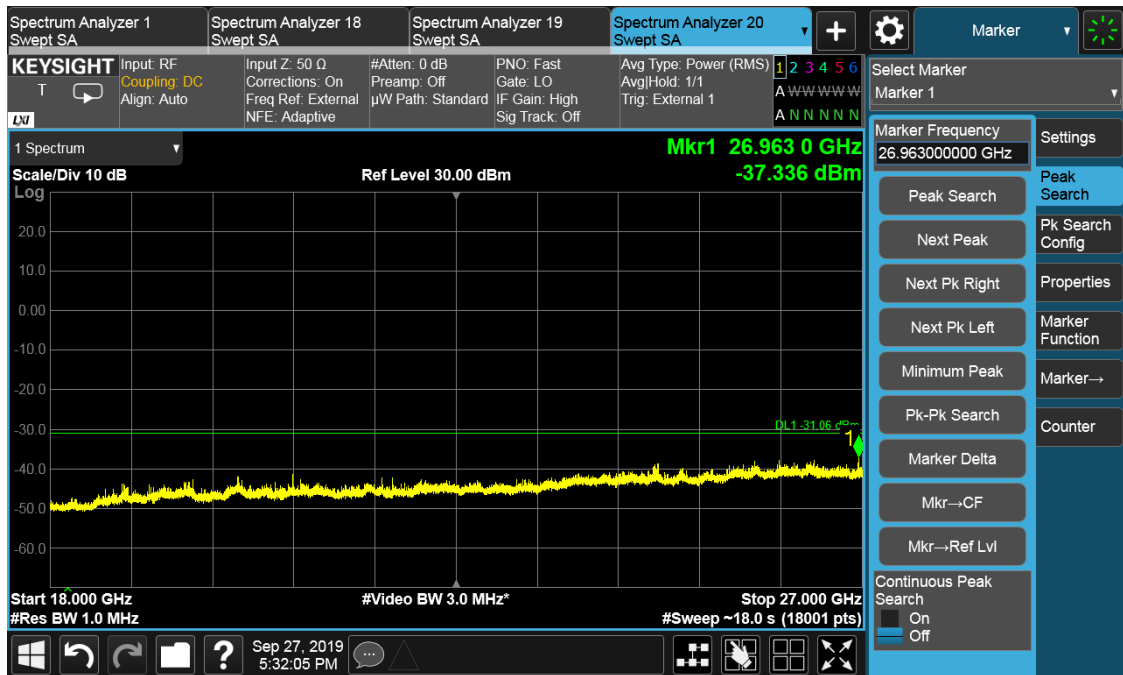
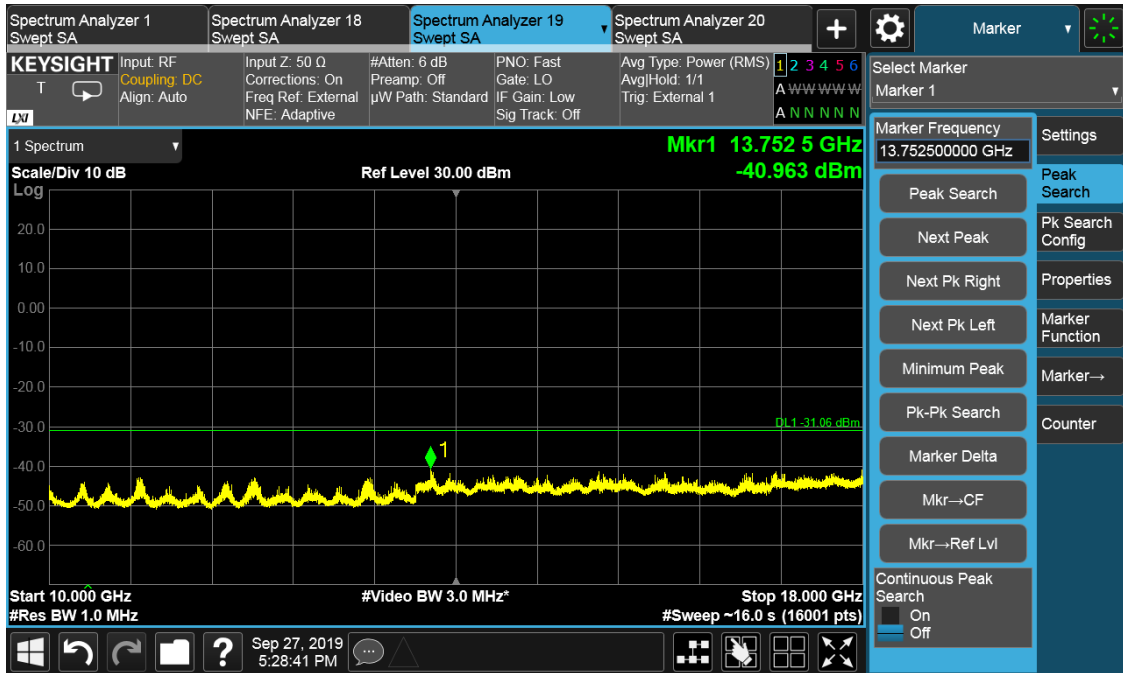
### Channel Position B



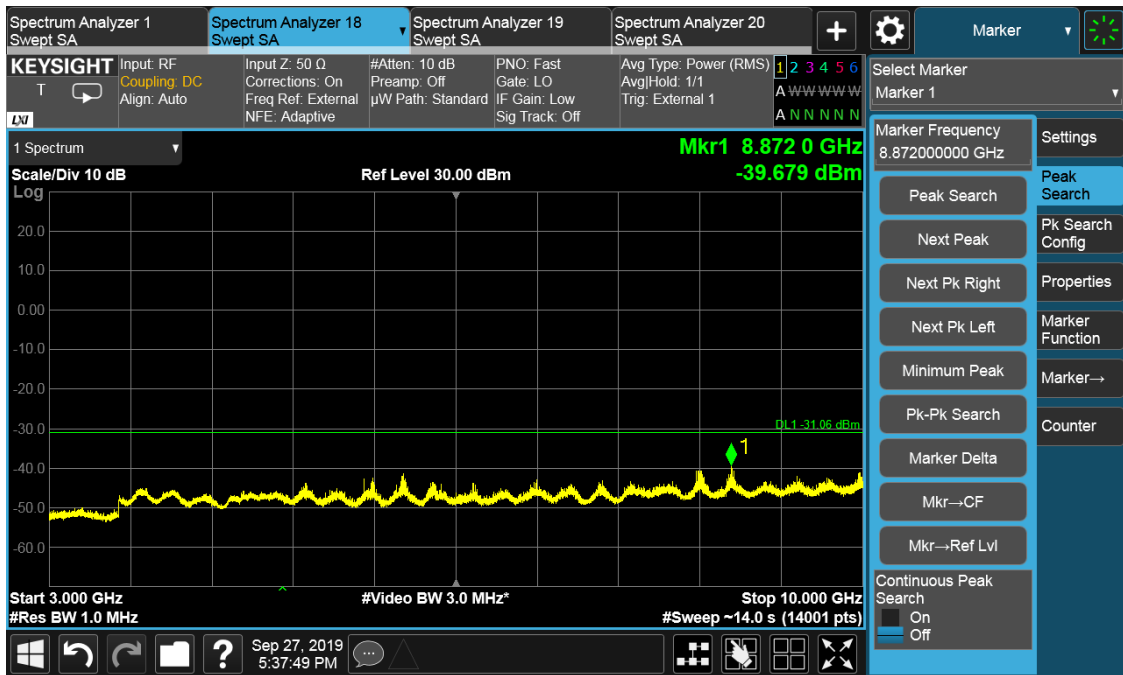


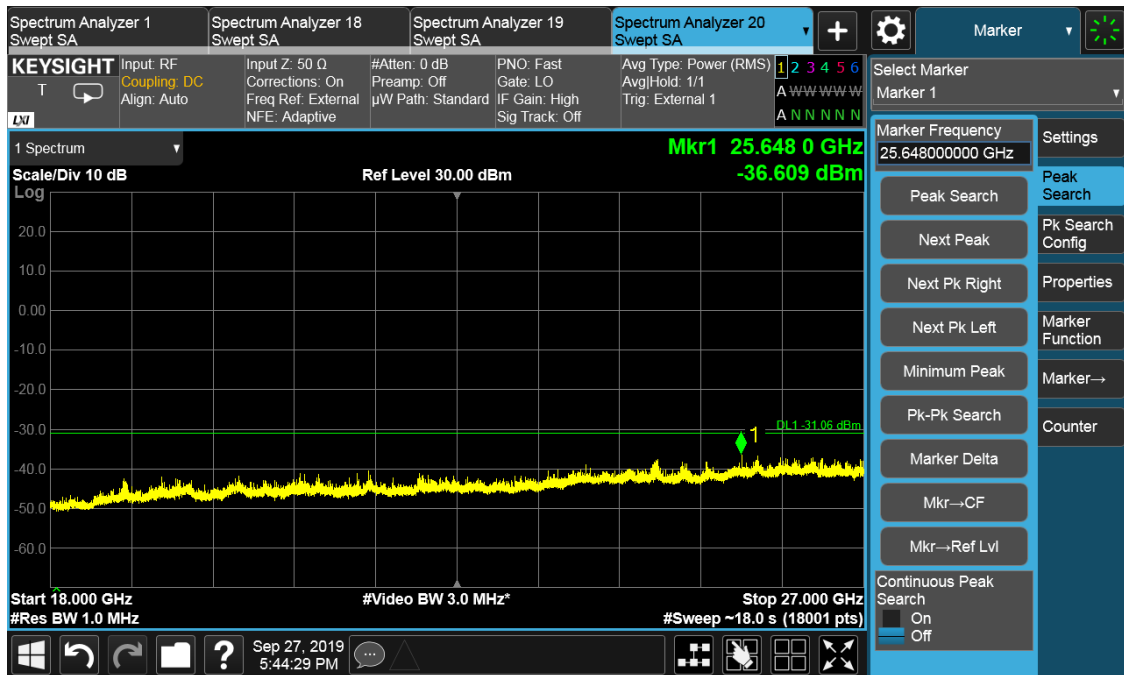
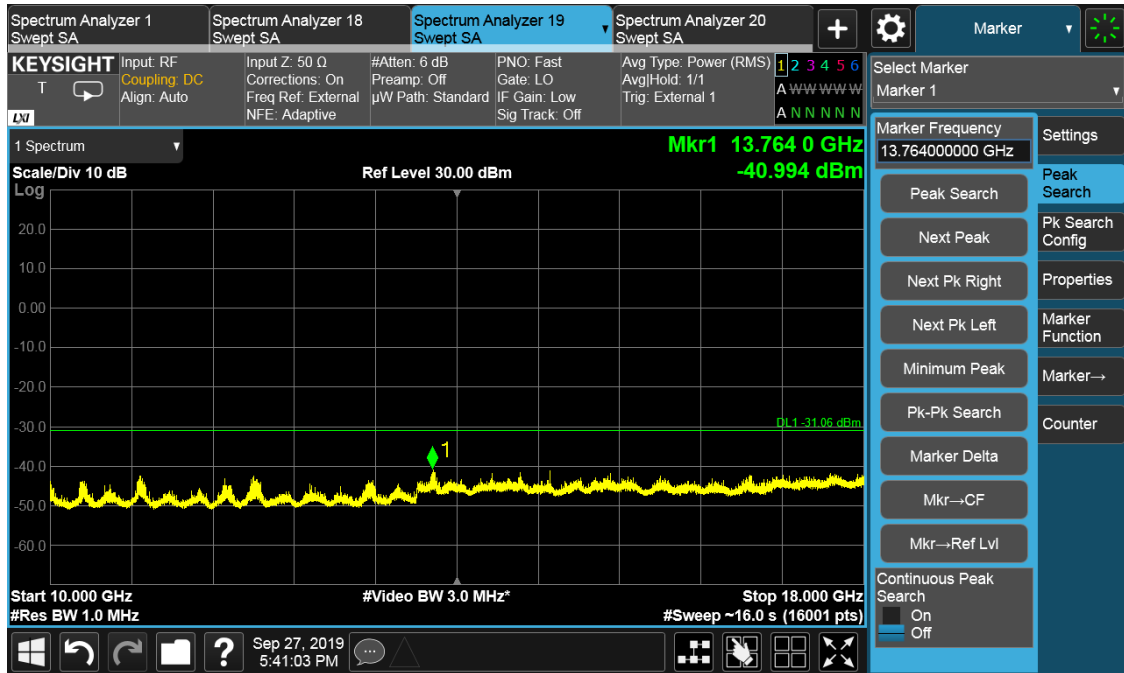
## Channel Position M





## Channel Position T



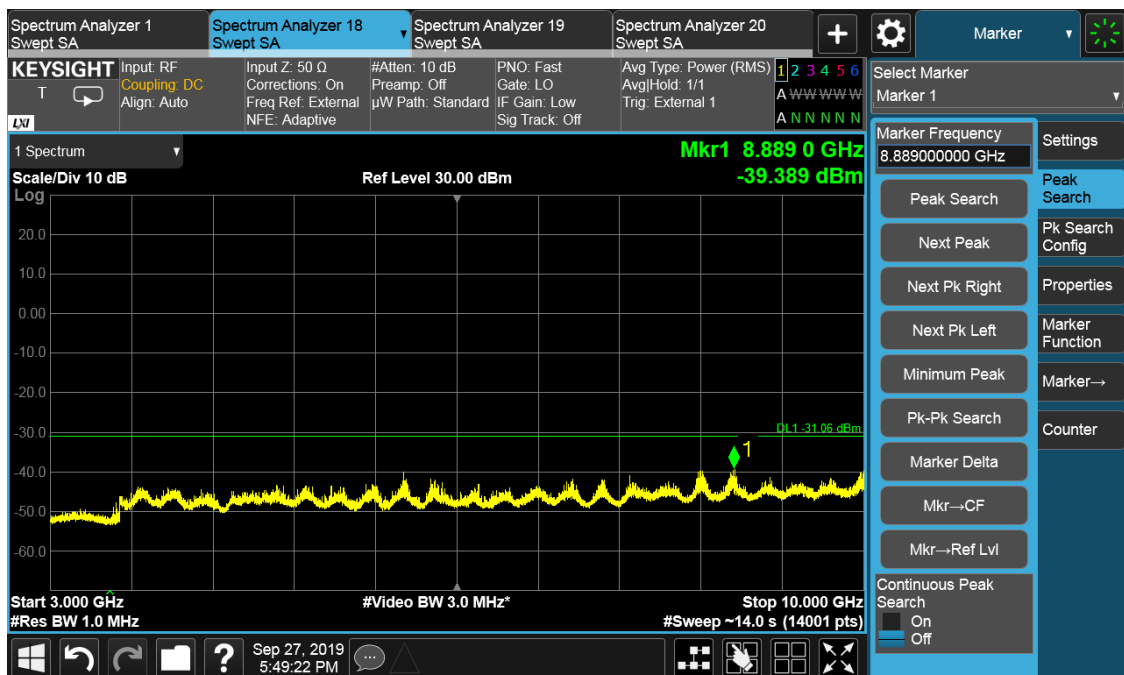
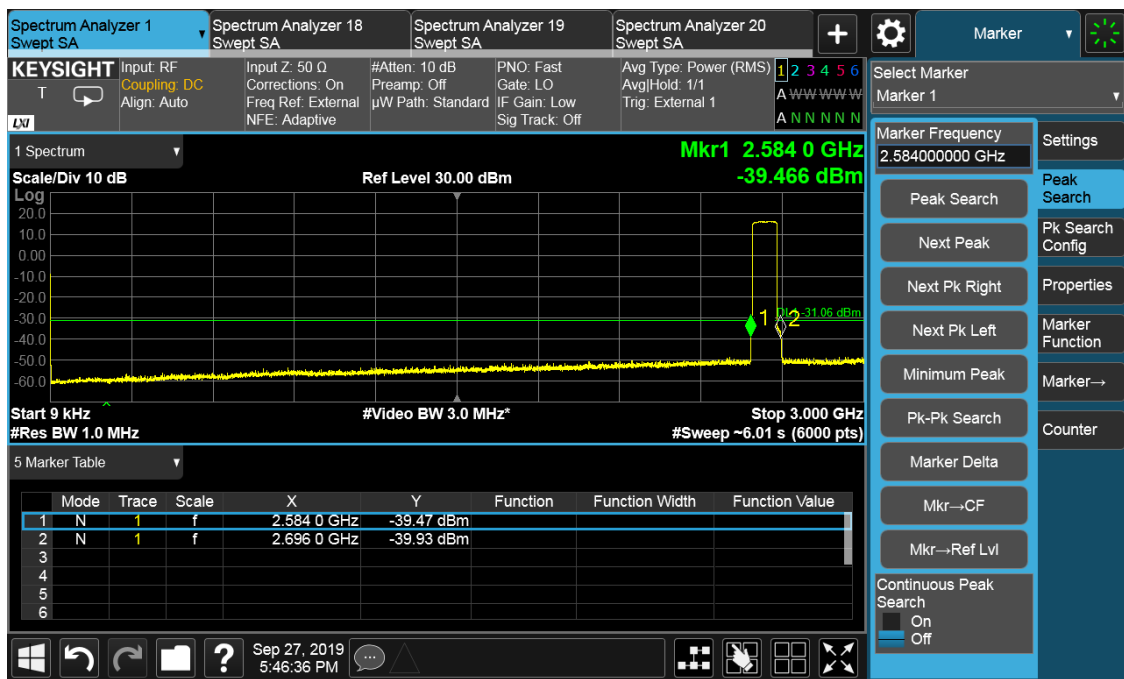


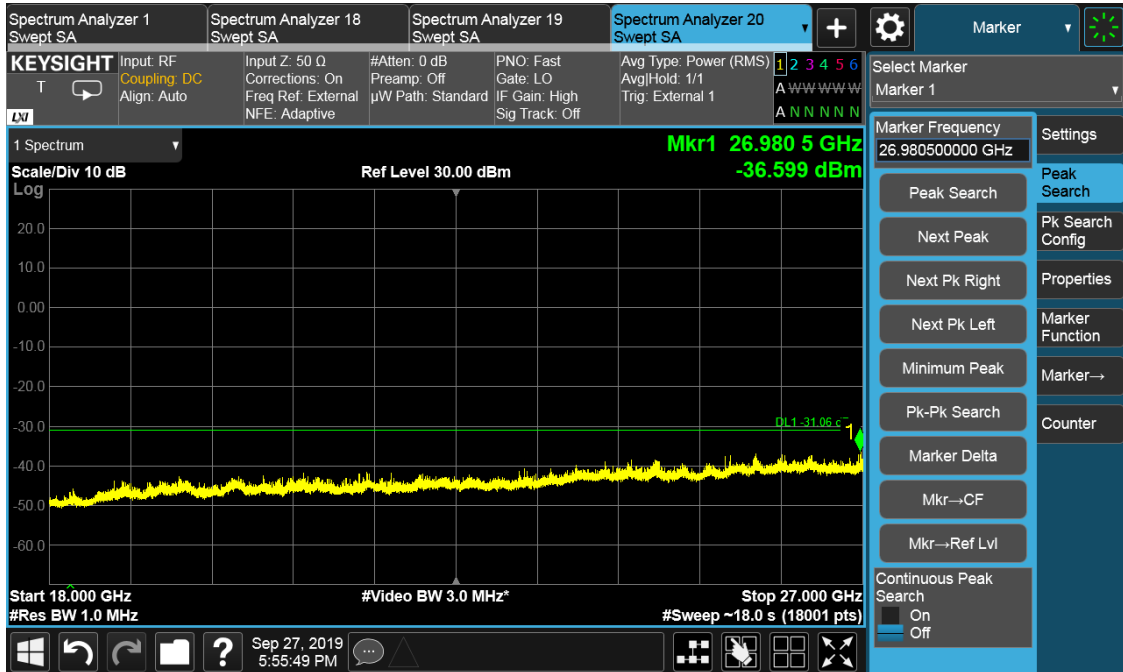
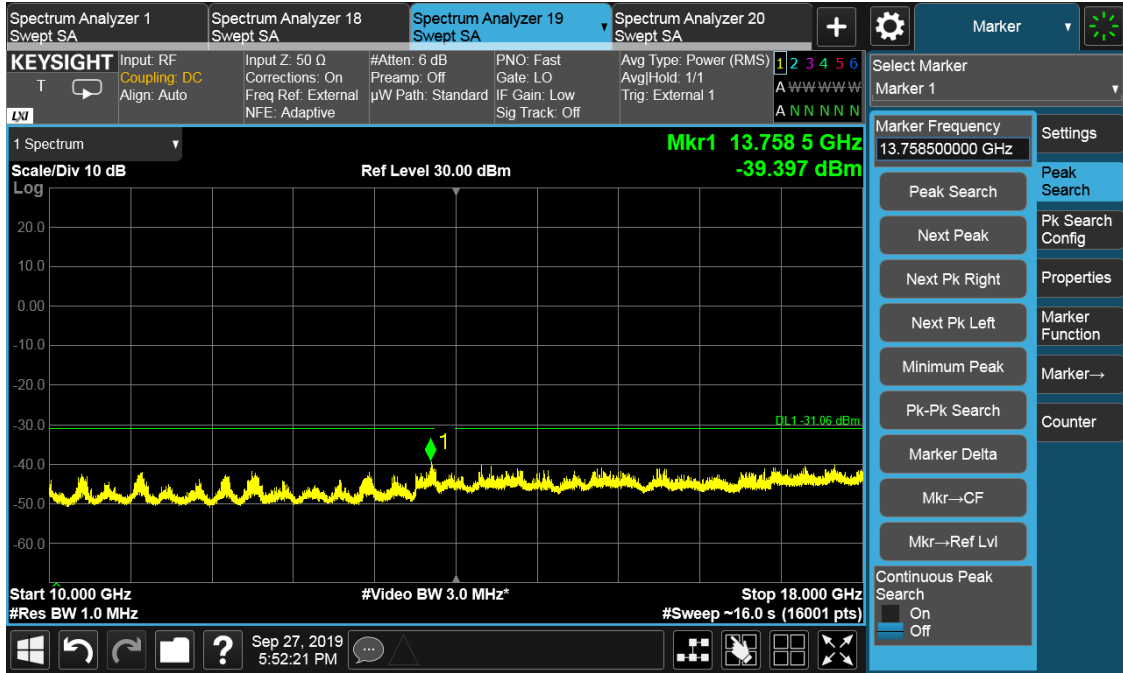
## TEST REPORT

### Configuration NR-MIMO-1C-90

Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
20	B	QPSK	90	1000	-31.06
20	M	QPSK	90	1000	-31.06
20	T	QPSK	90	1000	-31.06

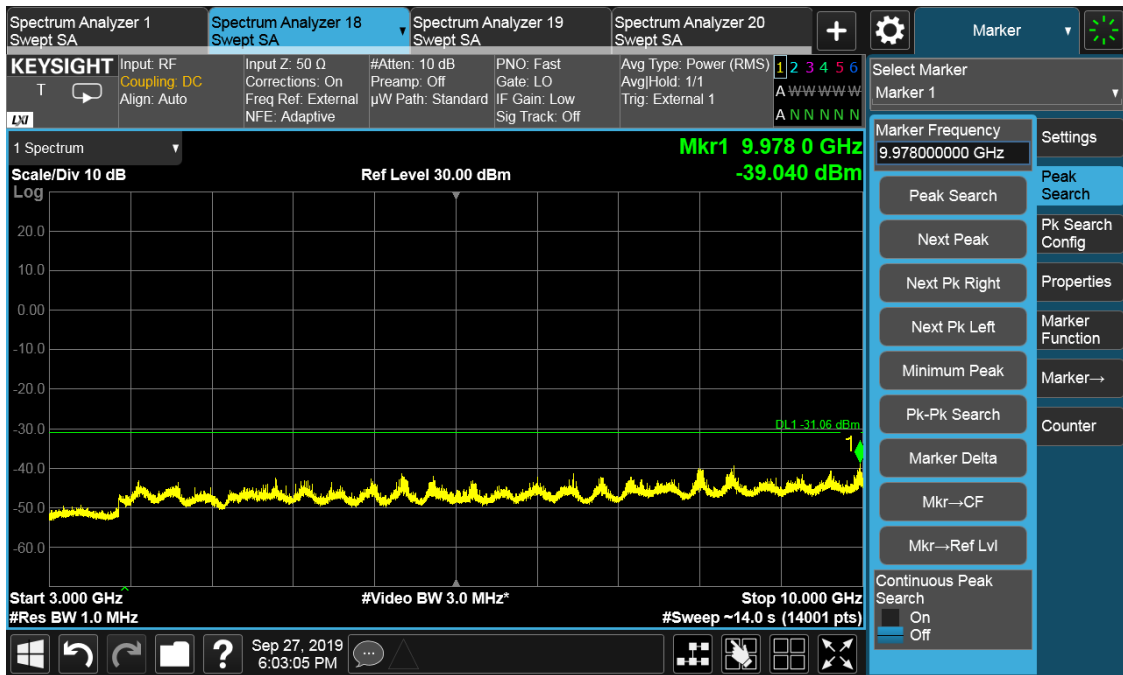
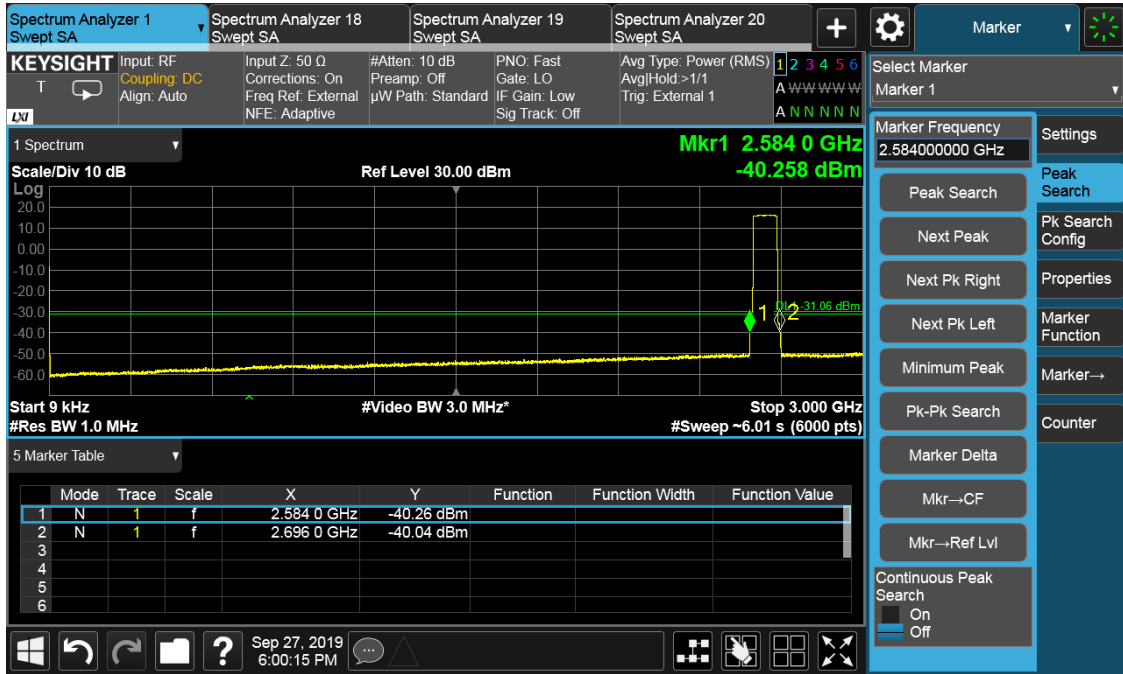
### Channel Position B

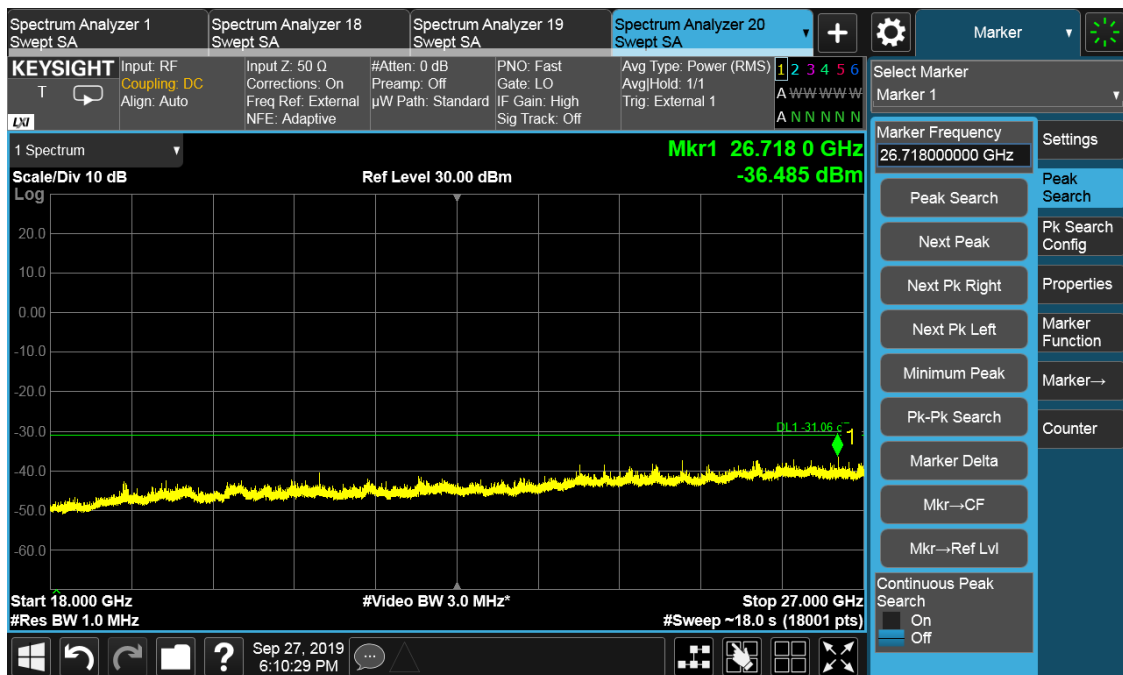
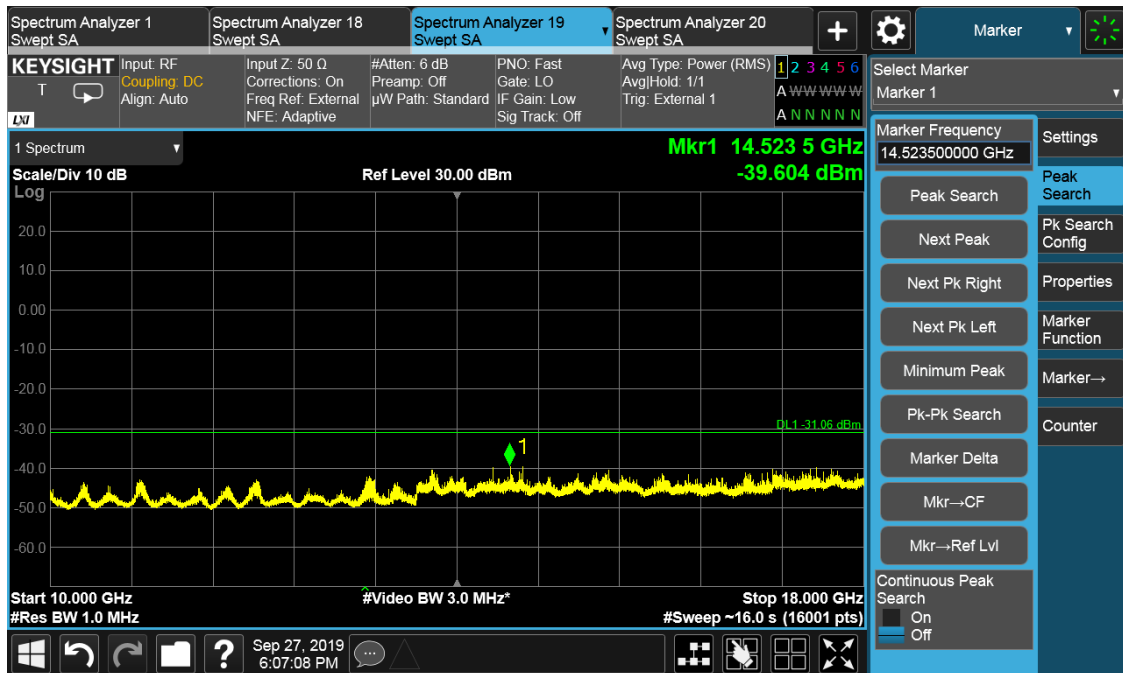




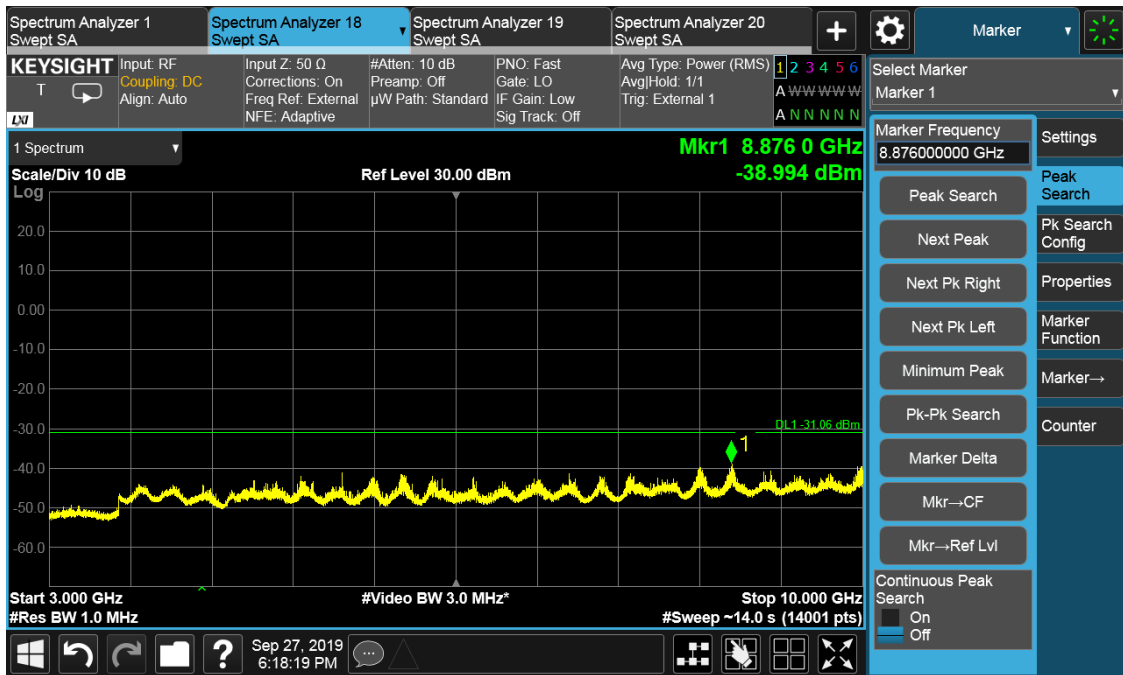
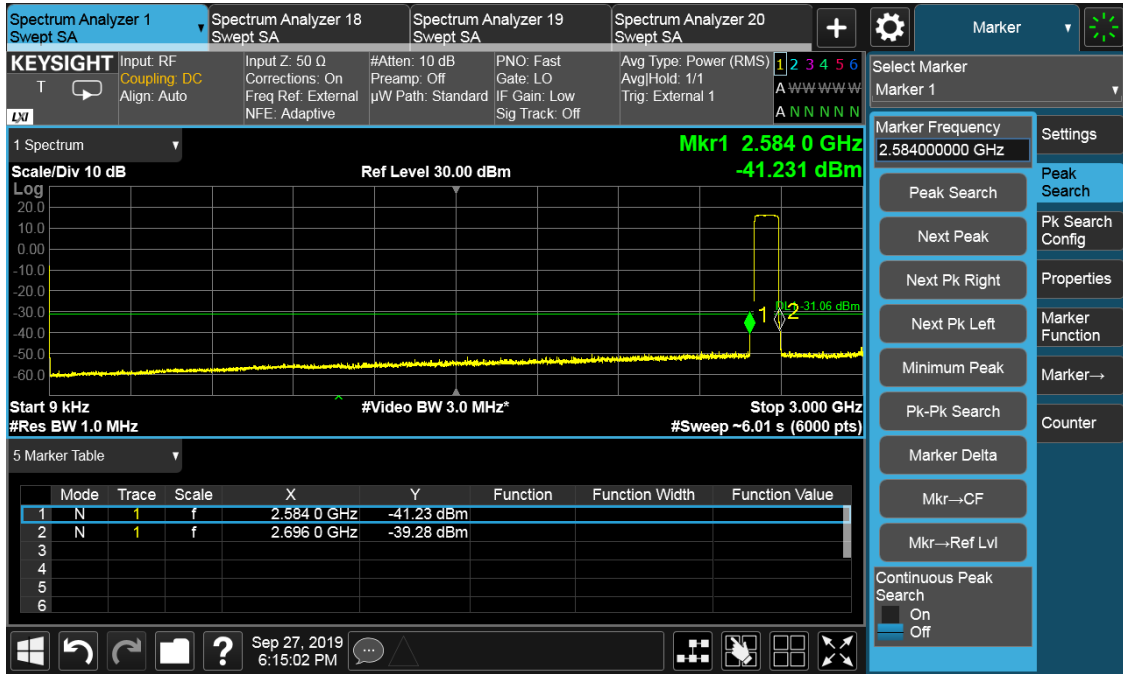


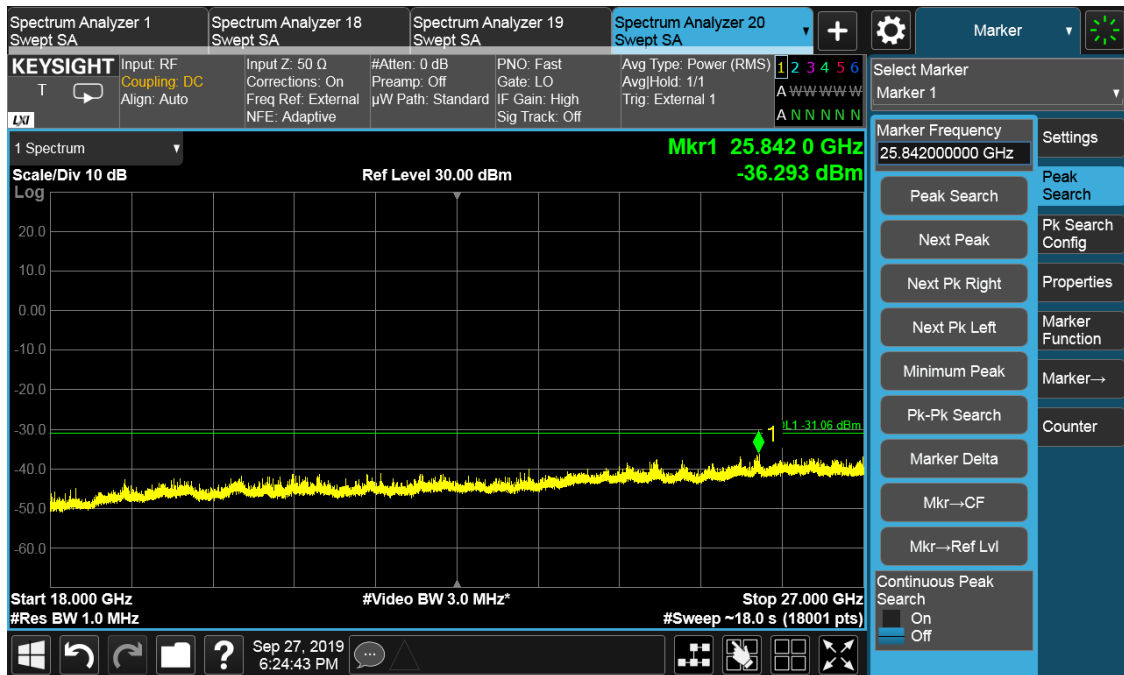
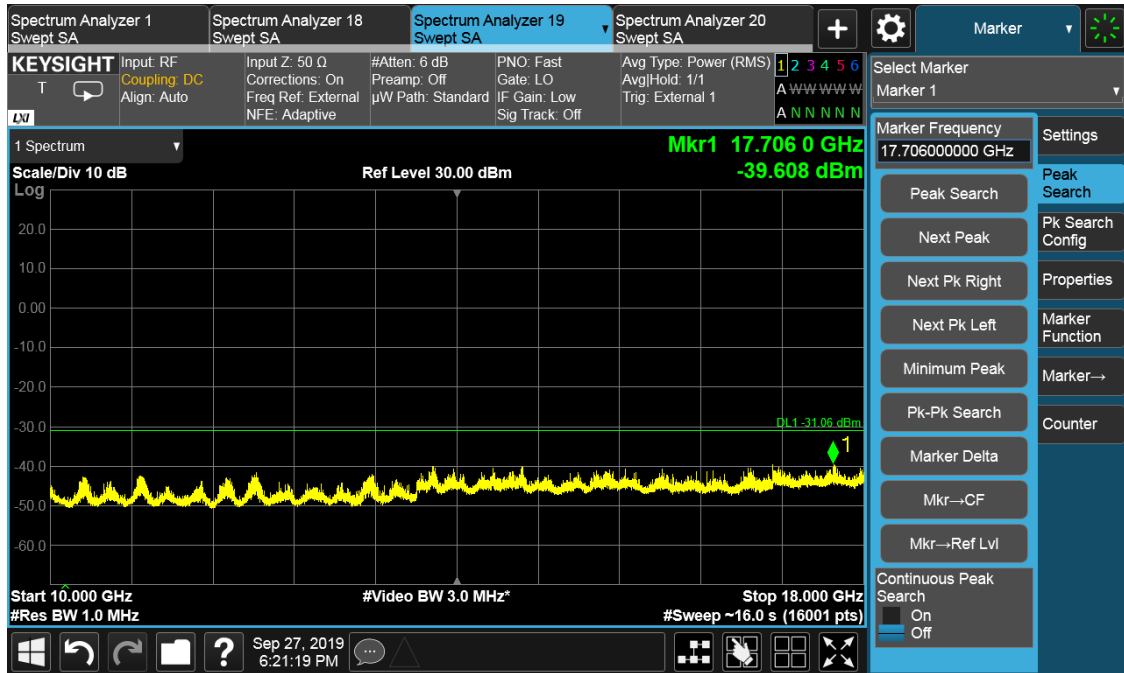
## Channel Position M





## Channel Position T





## 7 Radiated Unwanted Emission

**Test result:** Pass

### 7.1 Limit

The field strength of the carrier has been calculated assuming that the power is to be fed to a half-wave tuned dipoles as per 2.1053 (a).

$$E(\text{V/m}) = (30 \times G_i \times P_o)^{0.5} / d$$

Where

$G_i$  is the antenna gain of ideal half-wave dipoles,

$P_o$  is the power out of the transceiver in W,

$d$  is the measurement distance in meter.

As per FCC Part 27, 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.

Therefore, the limit at 3m measurement distance is:

$$E(\text{V/m}) = 84.4 \text{ dB}\mu\text{V/m}$$

These limits have been used to determine Pass or Fail for the harmonics measured and detailed in the following results.

### 7.2 Measurement Procedure

This measurement is carried out in semi-anechoic chamber.

A preliminary profile of the Spurious Radiated Emissions was obtained by operating the EUT on a remotely controlled turntable within the chamber. Measurements of emissions from the EUT were obtained with the measurement antenna in both horizontal and vertical polarizations.

Emissions identified within the range 30MHz to 27GHz were then formally measured using a peak detector as the worst case.

The limits for outside a licensee's frequency band(s) of operation the power of the spurious emissions have been calculated, as shown below using the following formula:

$$\text{Field Strength of Carrier} - (43 + 10\text{Log}(P)) \text{ dB}$$

Where:

Field Strength is measured in  $\text{dB}\mu\text{V/m}$

P is measured Transmitter Power in Watts

The EUT was measured with the antenna height varied between 1 and 4 m with the turntable rotated between 0 and 360 degrees. The emission of any outside a licensee's frequencies within 20dB of the limit were measured with the substitution method used according to the standard.

The measurements were performed at a 3m distance unless otherwise stated.

**7.3 Measurement result**

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-20	B	1 Carrier	20MHz	QPSK

No emissions were detected within 20dB of the limit.

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-20	T	1 Carrier	20MHz	QPSK

No emissions were detected within 20dB of the limit.

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-20	M	1 Carrier	20MHz	QPSK

No emissions were detected within 20dB of the limit.

30-1000MHz, Horizontal and Vertical

Full Spectrum

