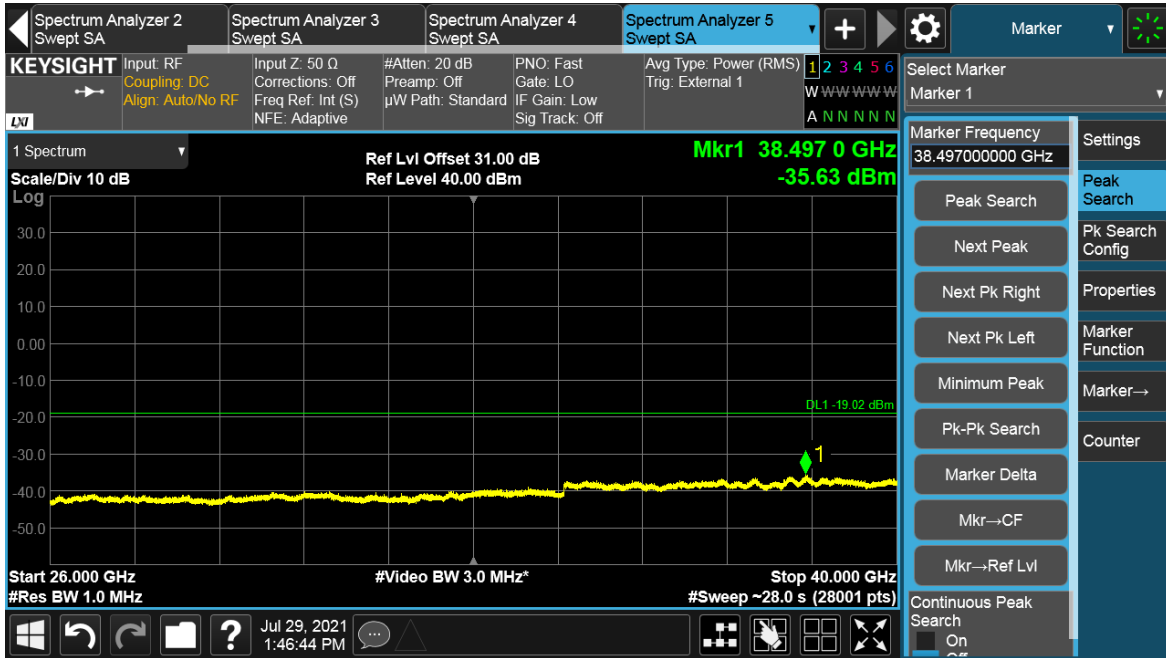


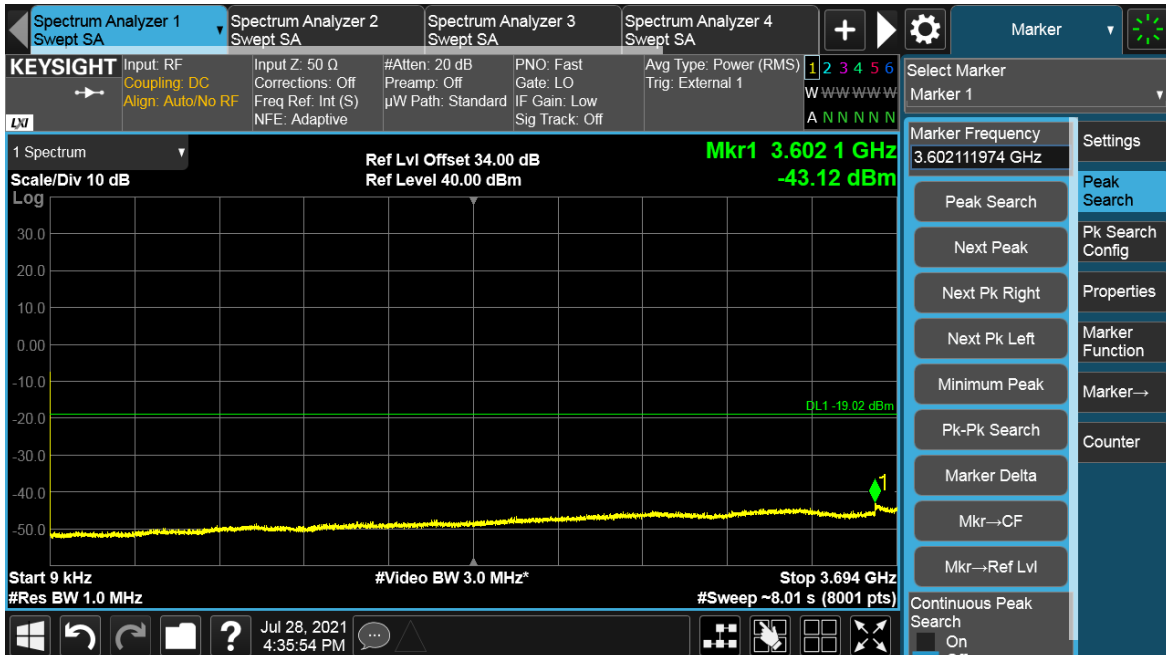
Total Quality. Assured.

TEST REPORT

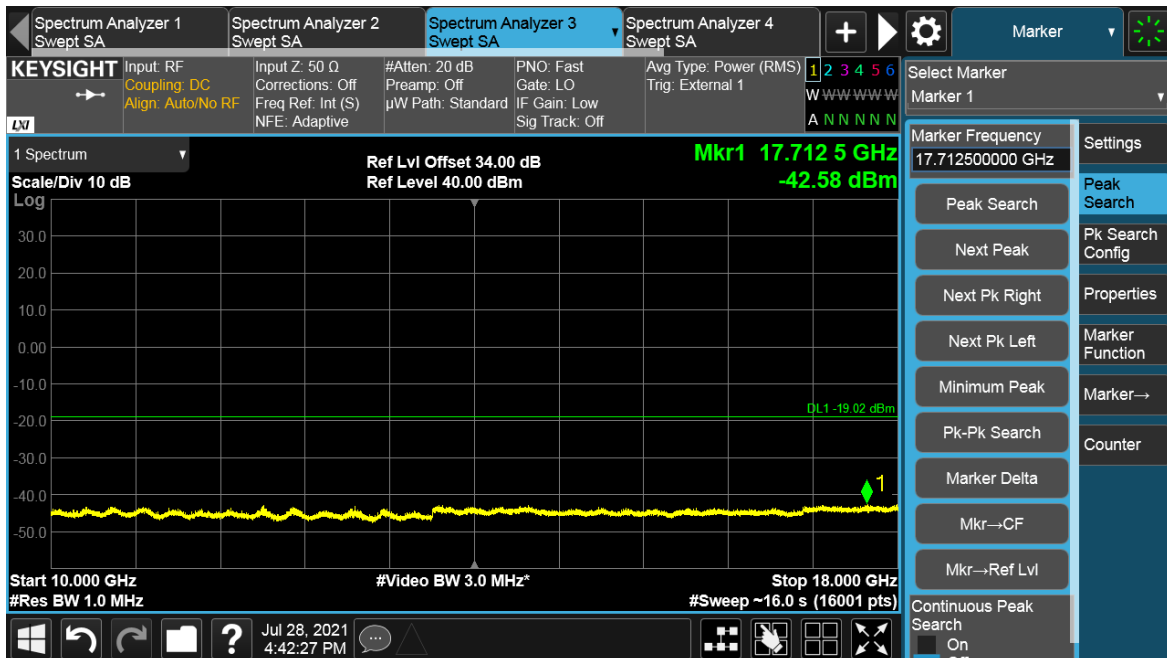
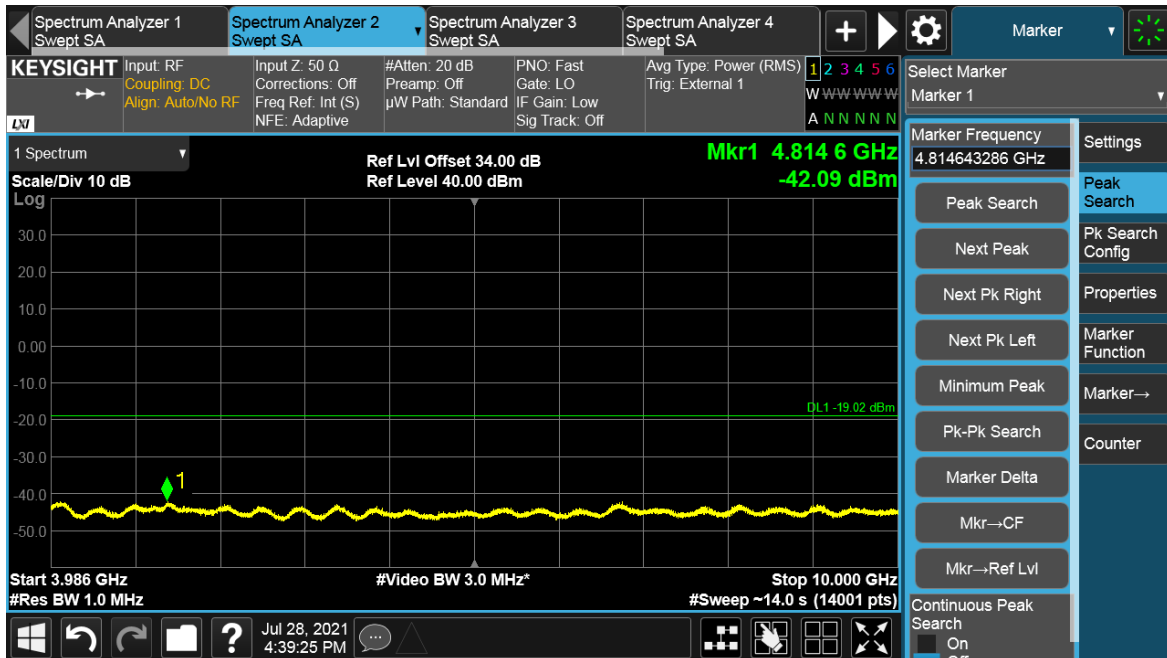


Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
B	B	64QAM	60+100	1000	-19.02
B	T	64QAM	60+100	1000	-19.02

Channel Position B

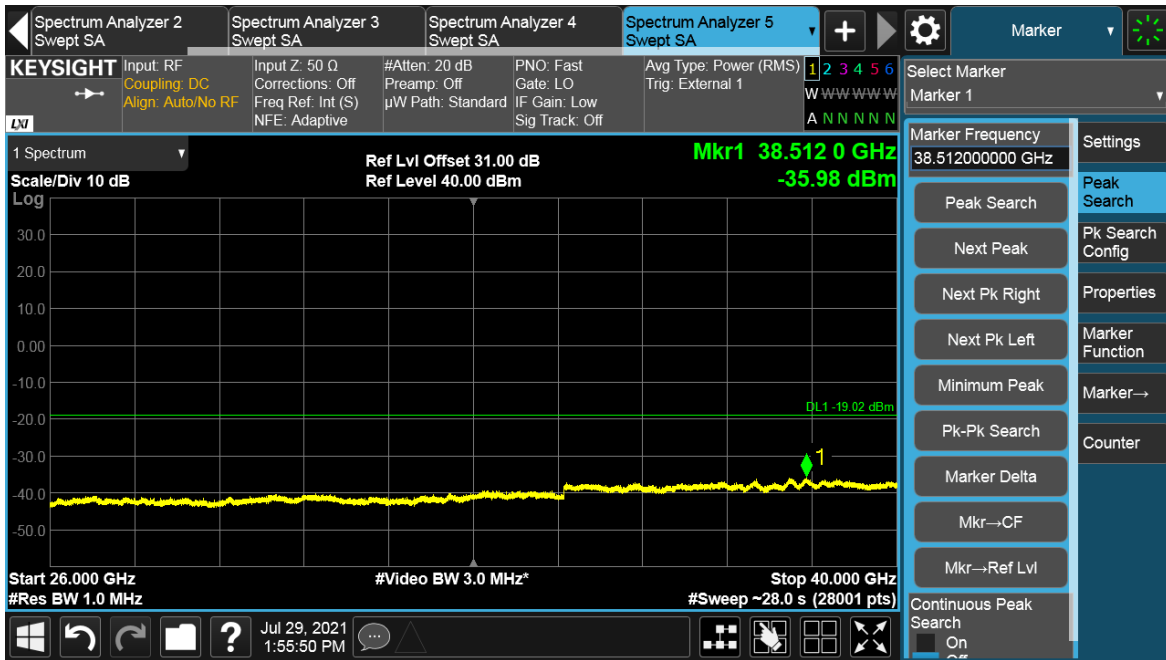
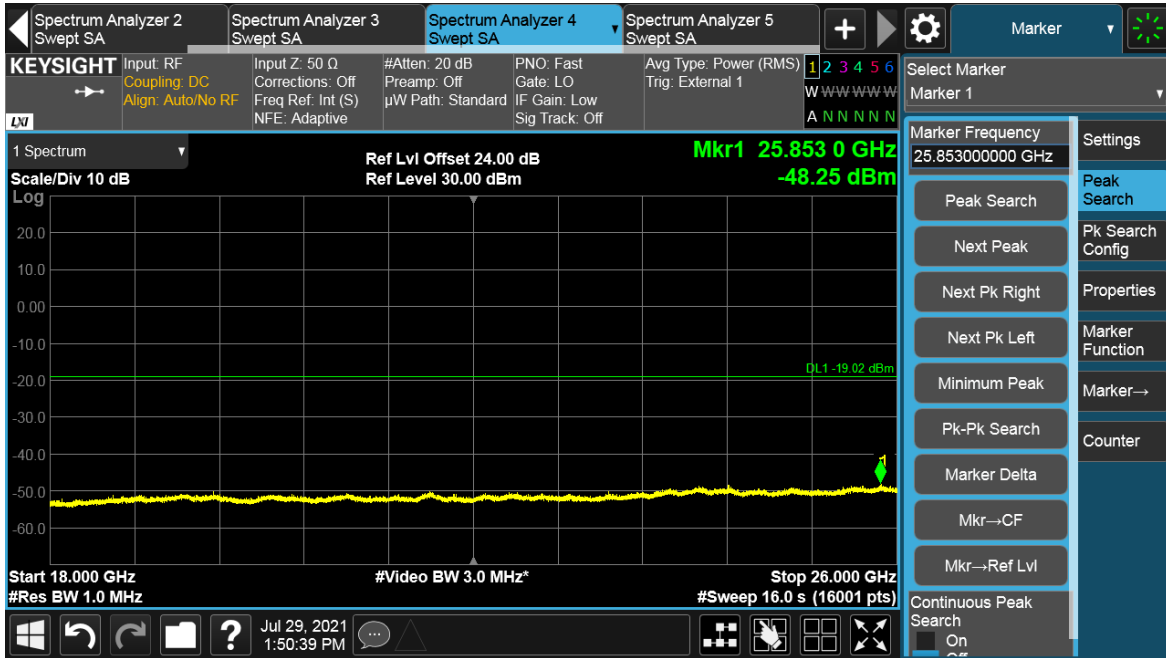


TEST REPORT

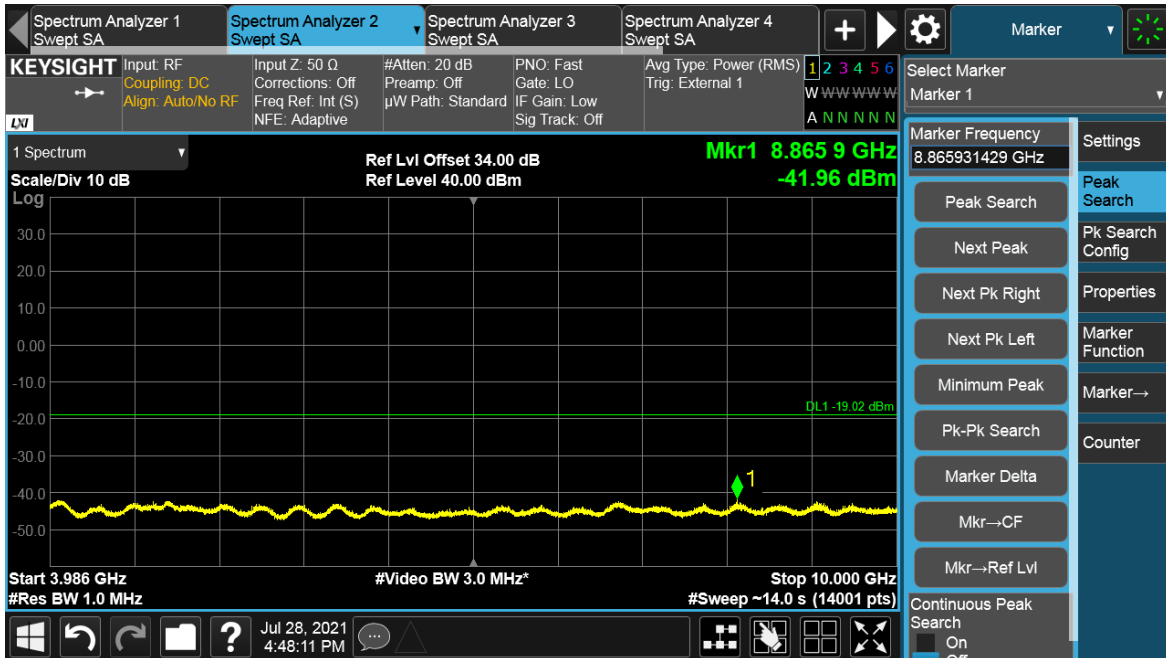
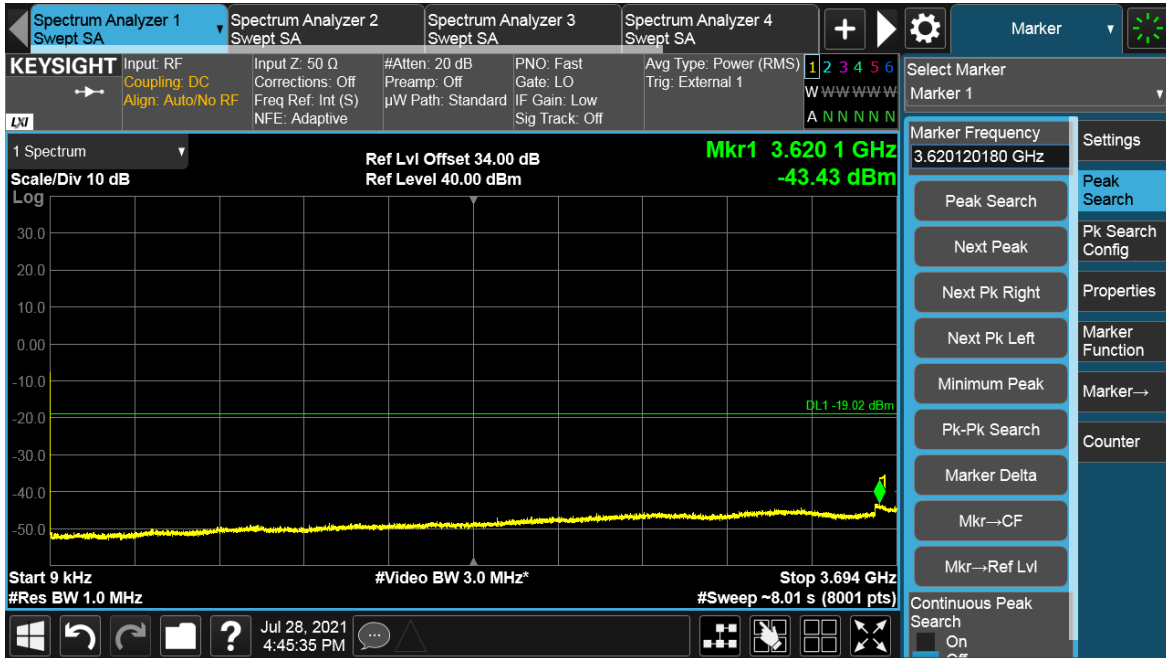


Total Quality. Assured.

TEST REPORT

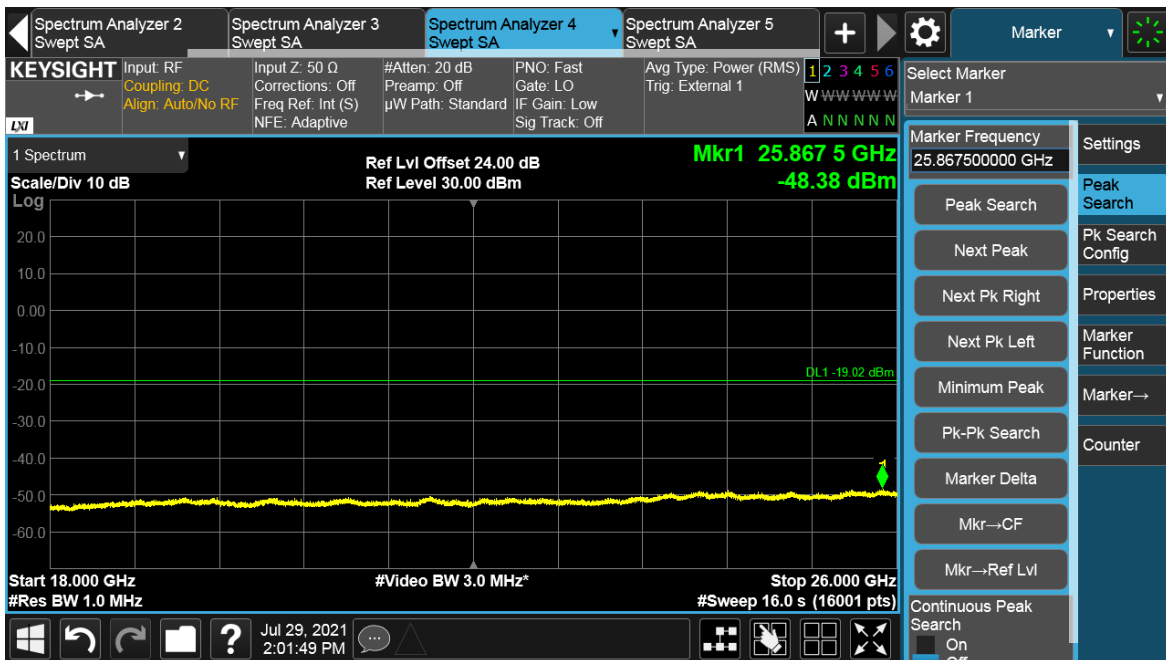
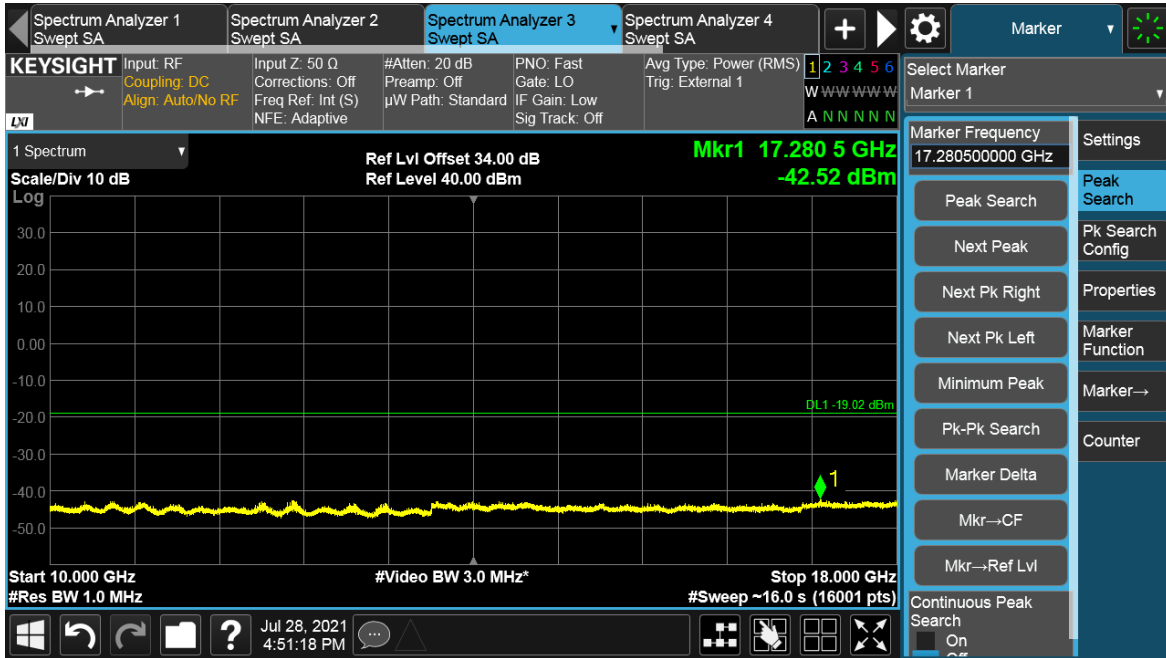


Channel Position T

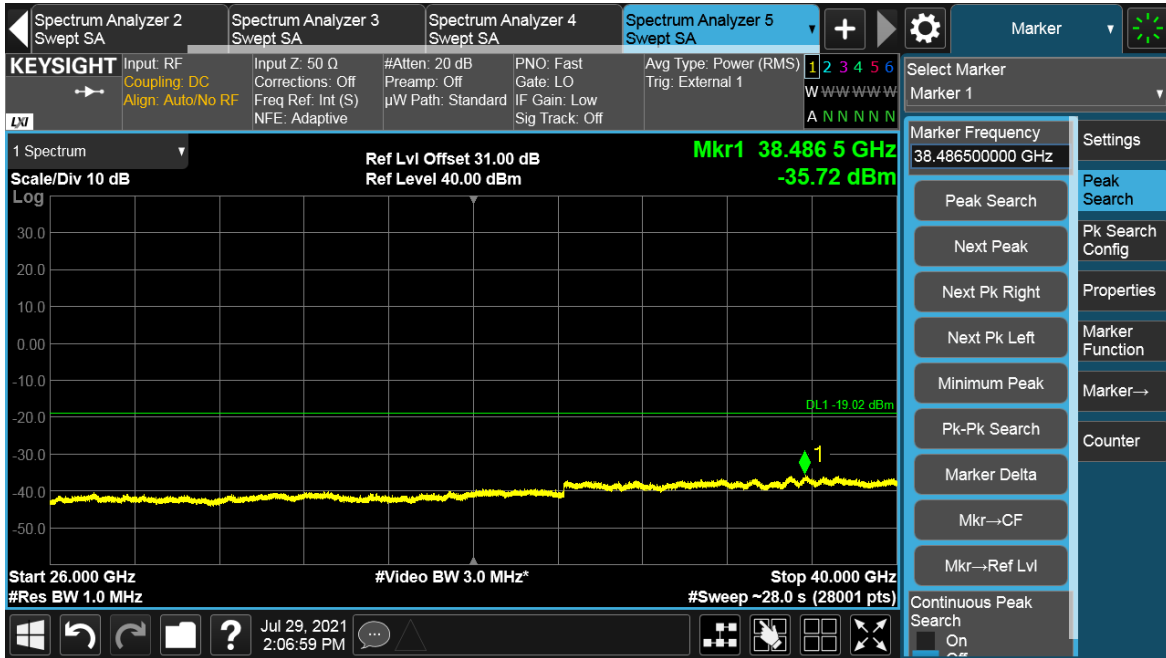


Total Quality. Assured.

TEST REPORT



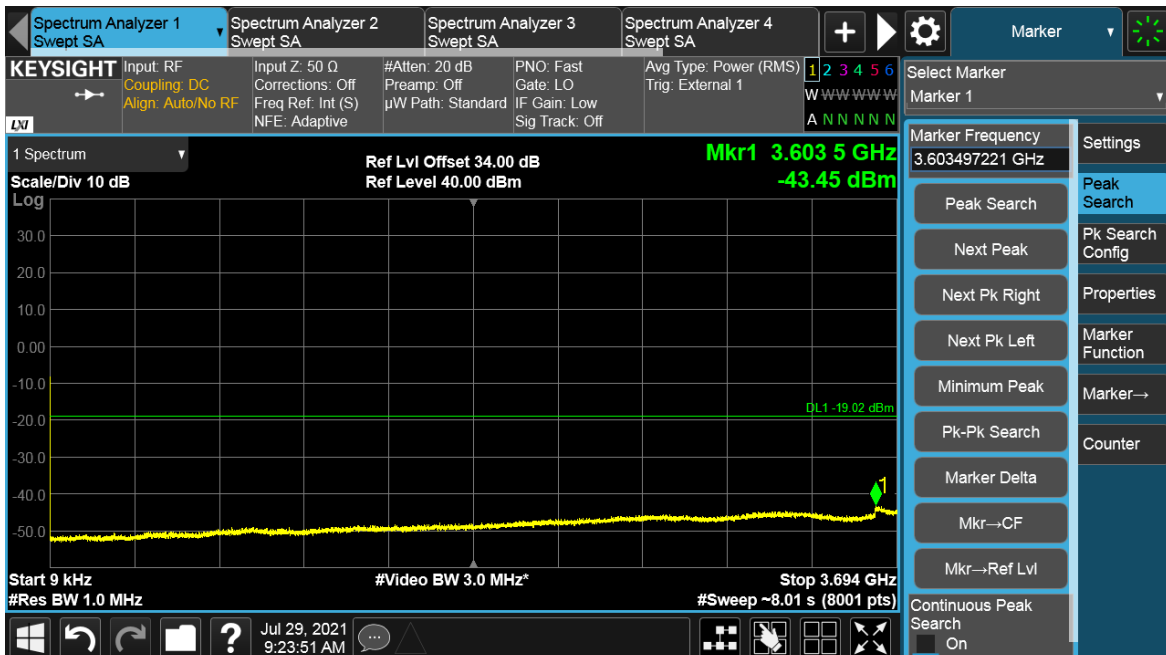
TEST REPORT



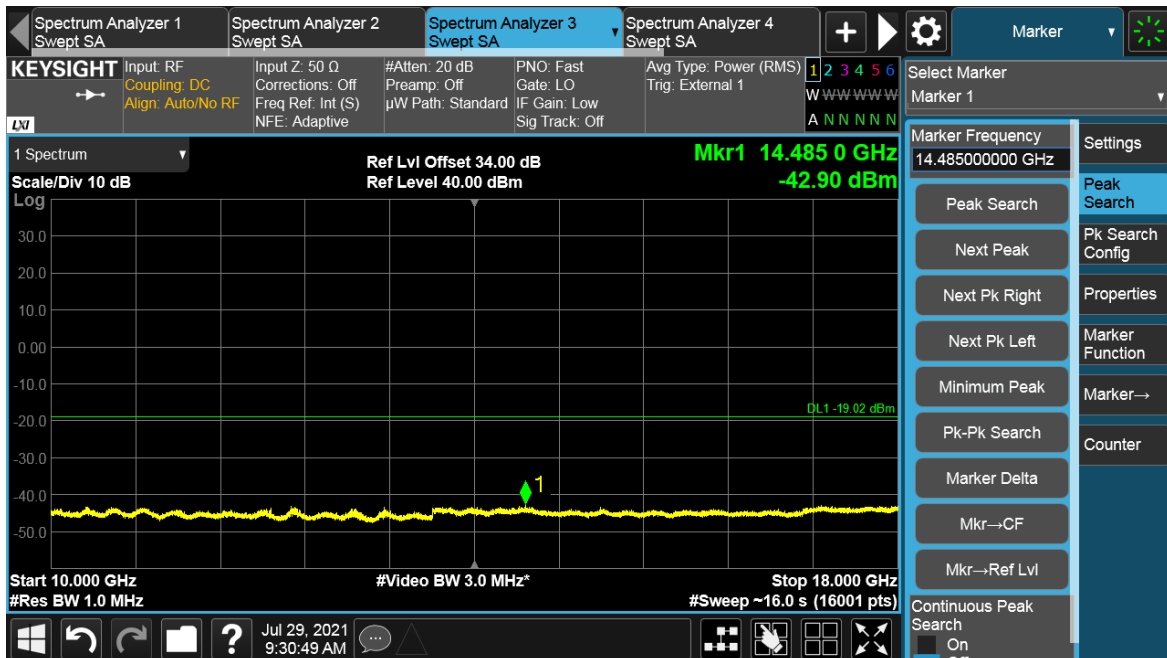
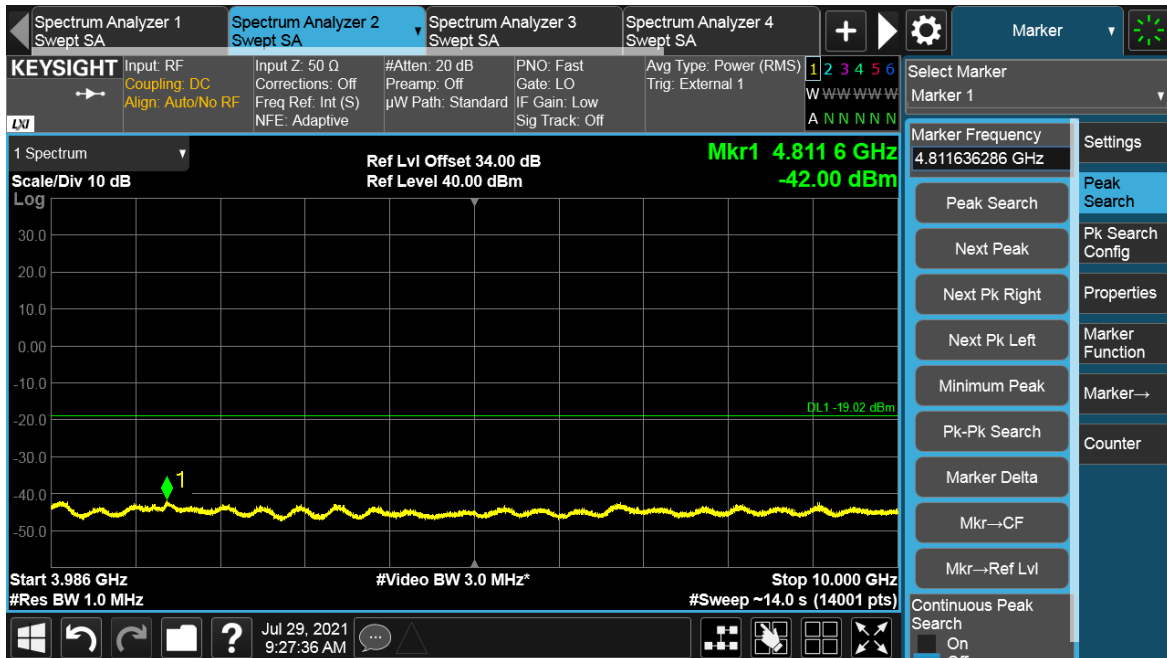
NR-MIMO-6C

Antenna Port	Channel Position	Modulation	Channel Bandwidth (MHz)	RBW (kHz)	Limit (dBm)
B	M	64QAM	20	1000	-19.02
B	T	64QAM	20	1000	-19.02

Channel Position B

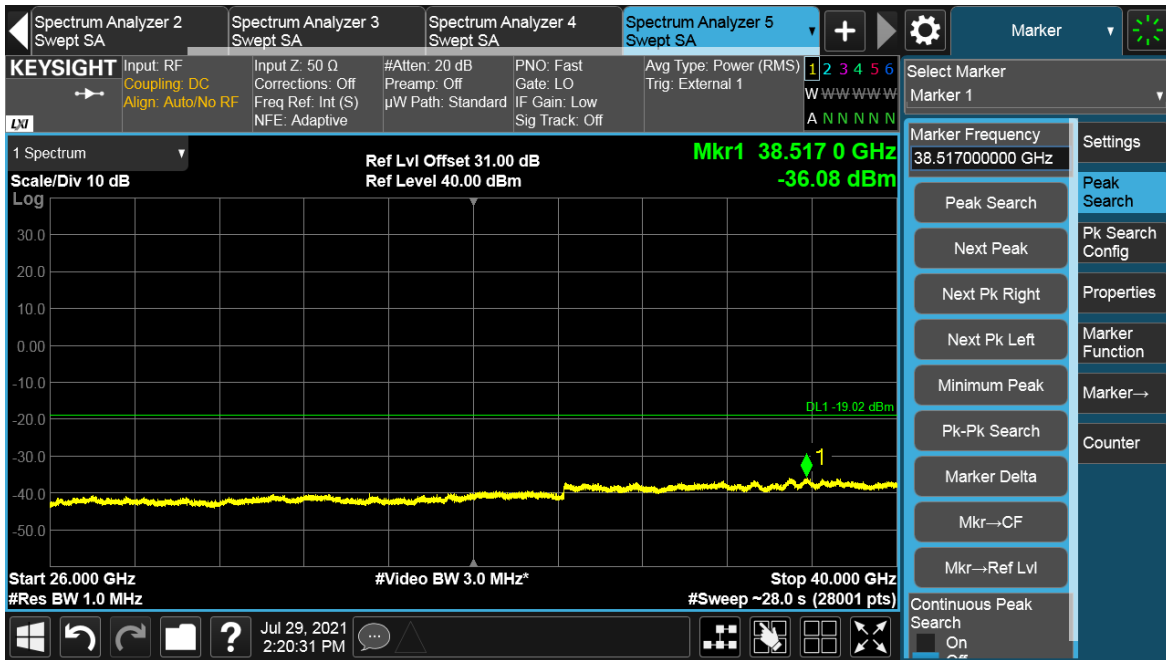
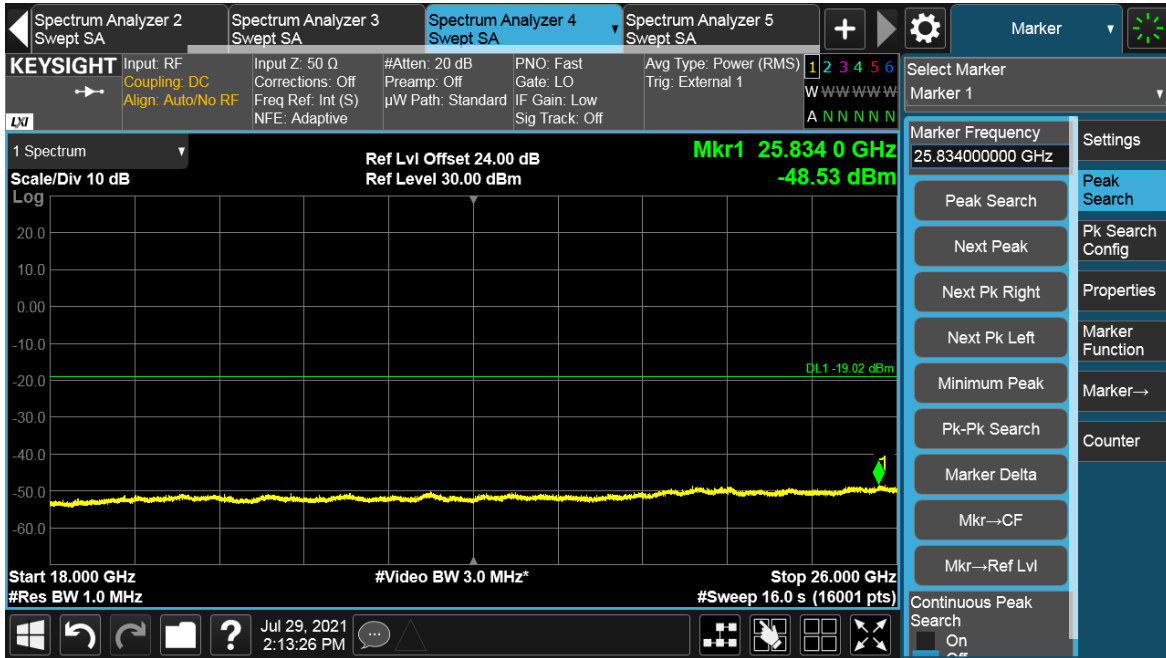


TEST REPORT

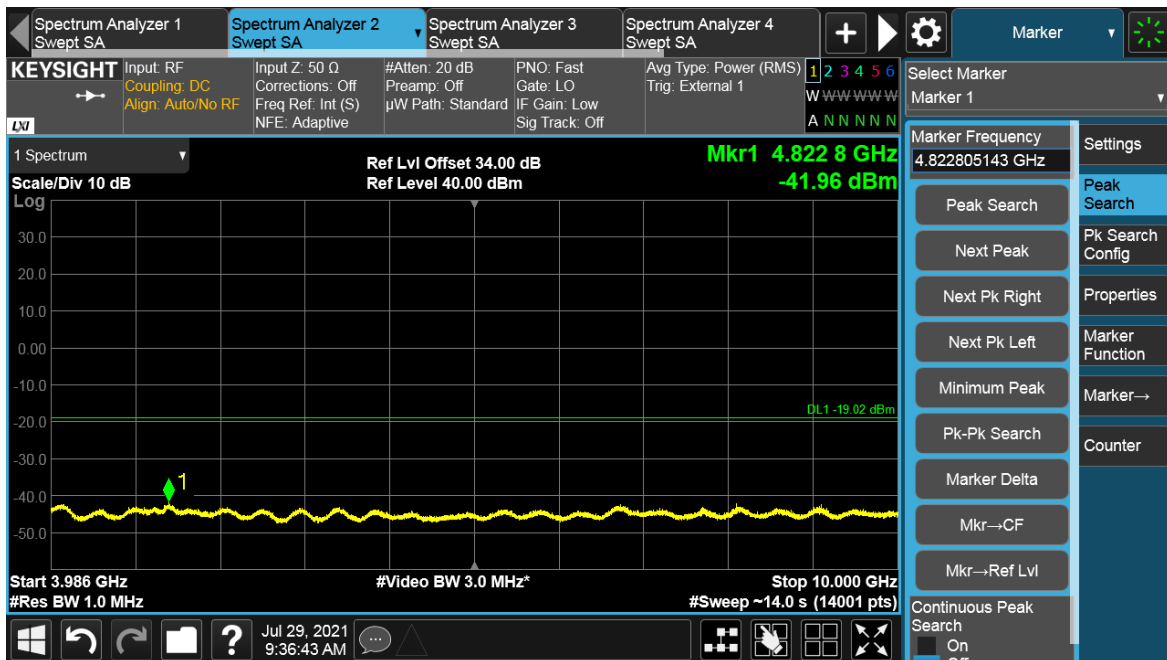
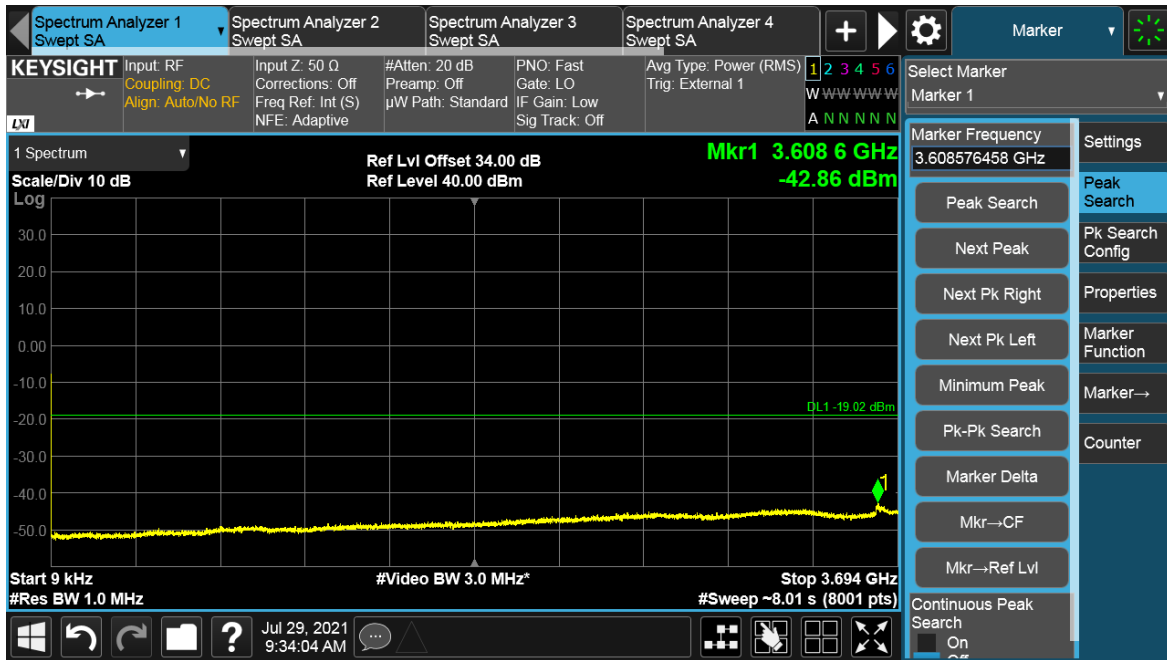


Total Quality. Assured.

TEST REPORT

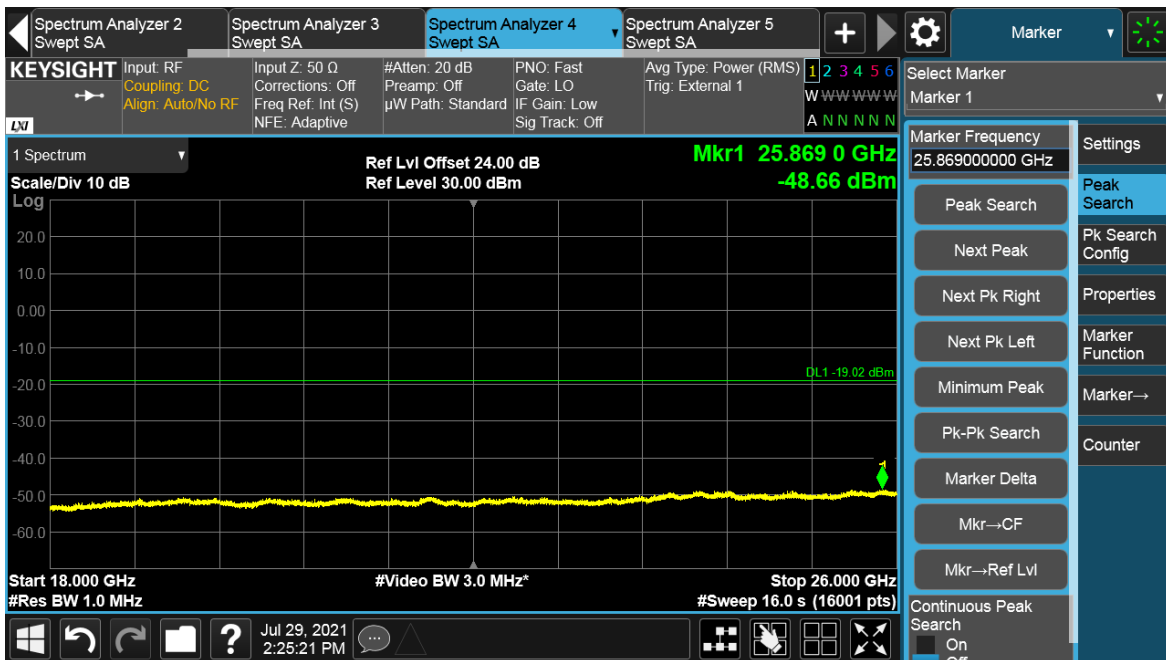
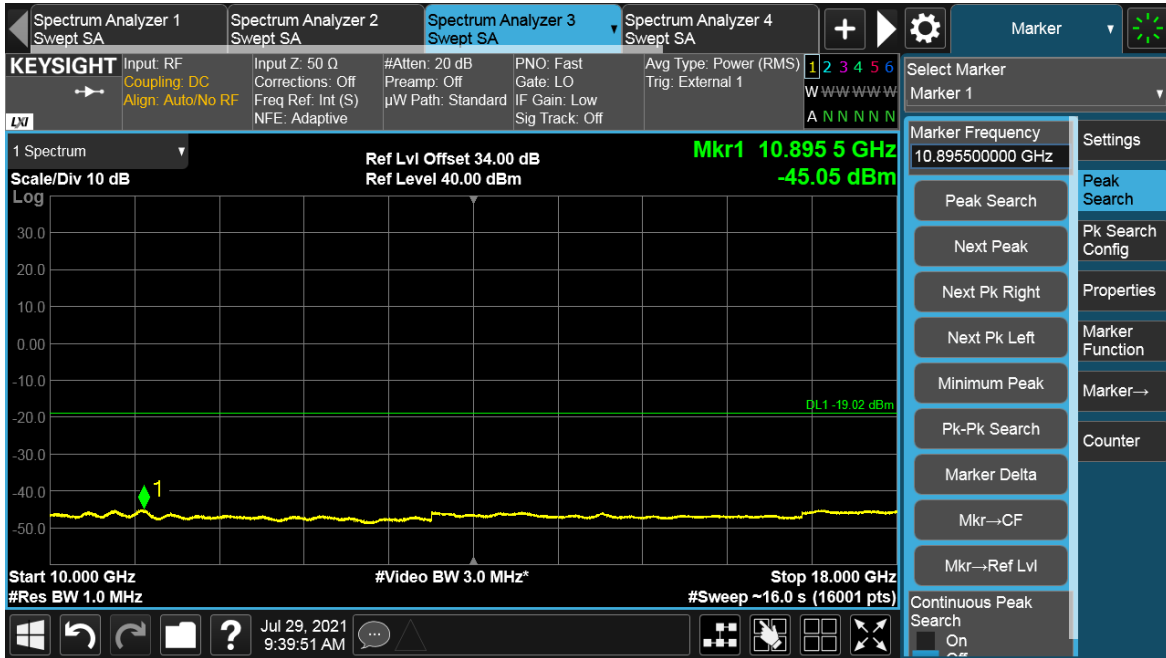


Channel Position T

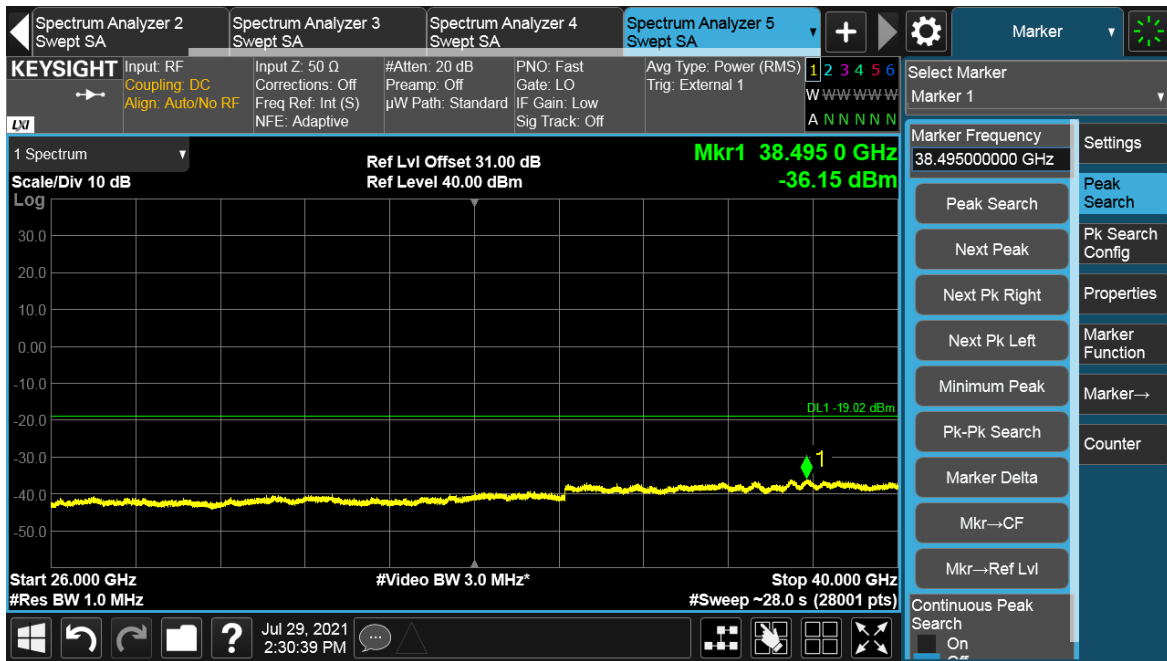


Total Quality. Assured.

TEST REPORT



TEST REPORT



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).

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

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:

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

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 40GHz 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:

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

Where:

Field Strength is measured in dB μ 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.

TEST REPORT

7.3 Measurement result

KRC 161 934/1:

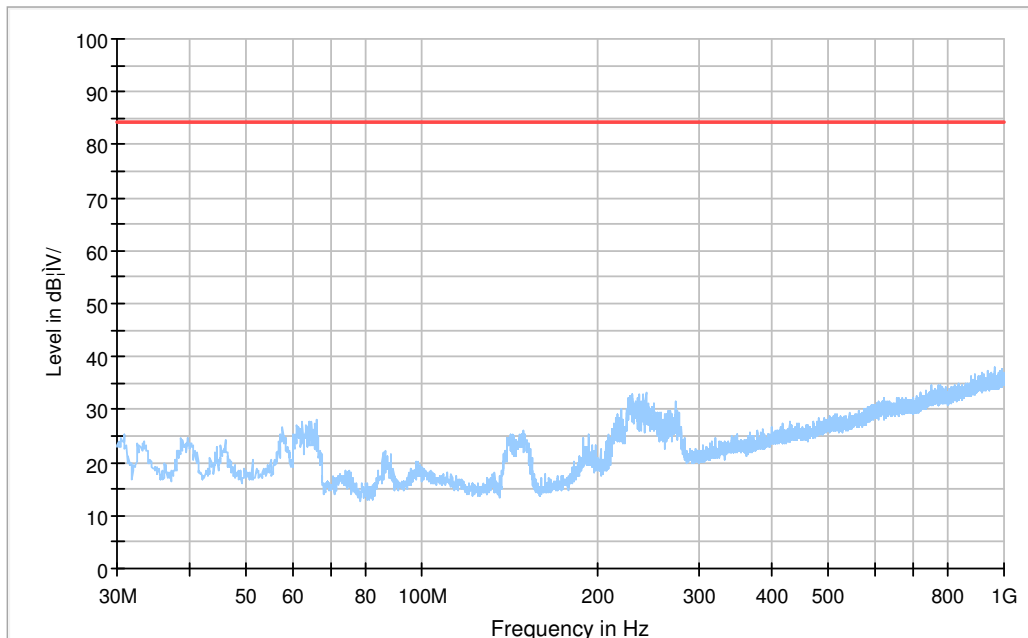
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	B	1 Carrier	30MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	T	1 Carrier	30MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5902.500000	59.02	84.40	25.38

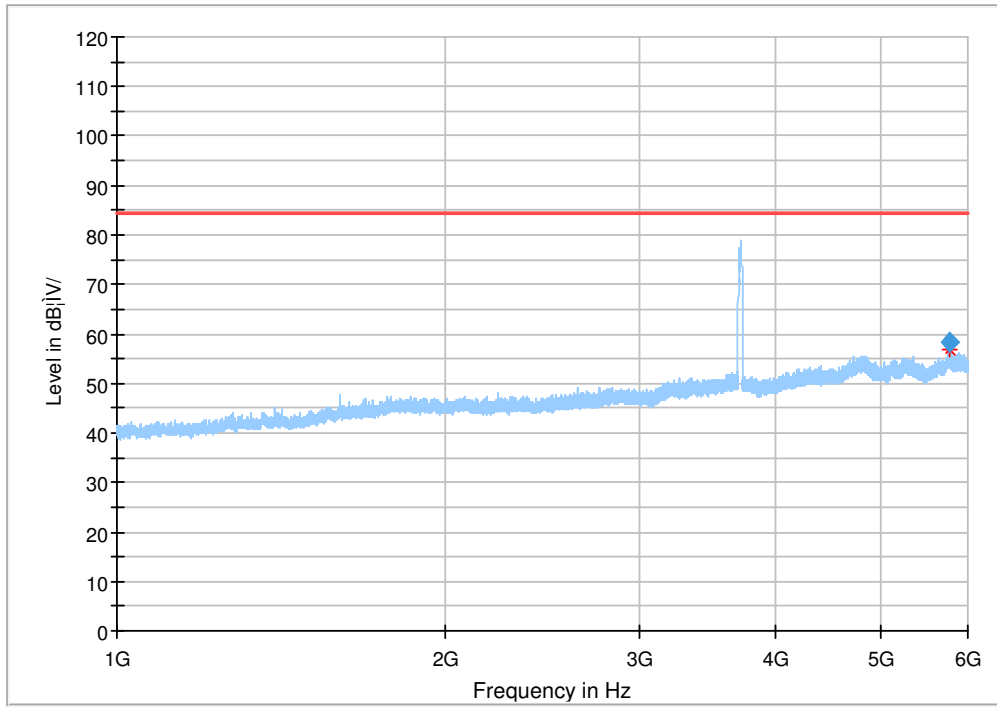
30-1000MHz, Horizontal and Vertical

Full Spectrum



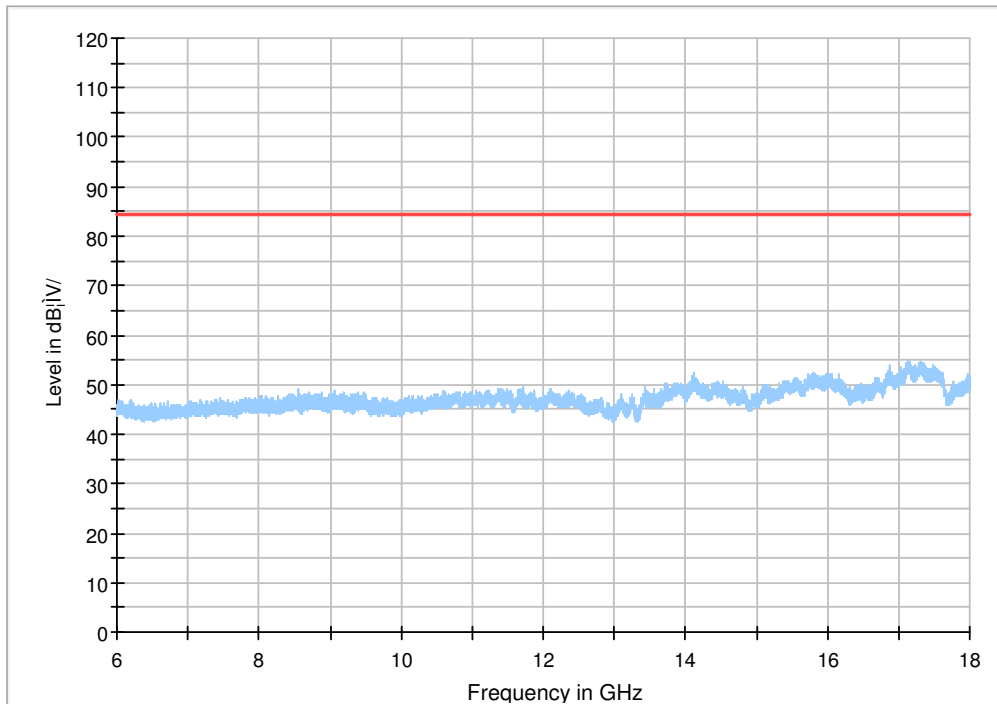
1-6GHz, Horizontal and Vertical

Full Spectrum



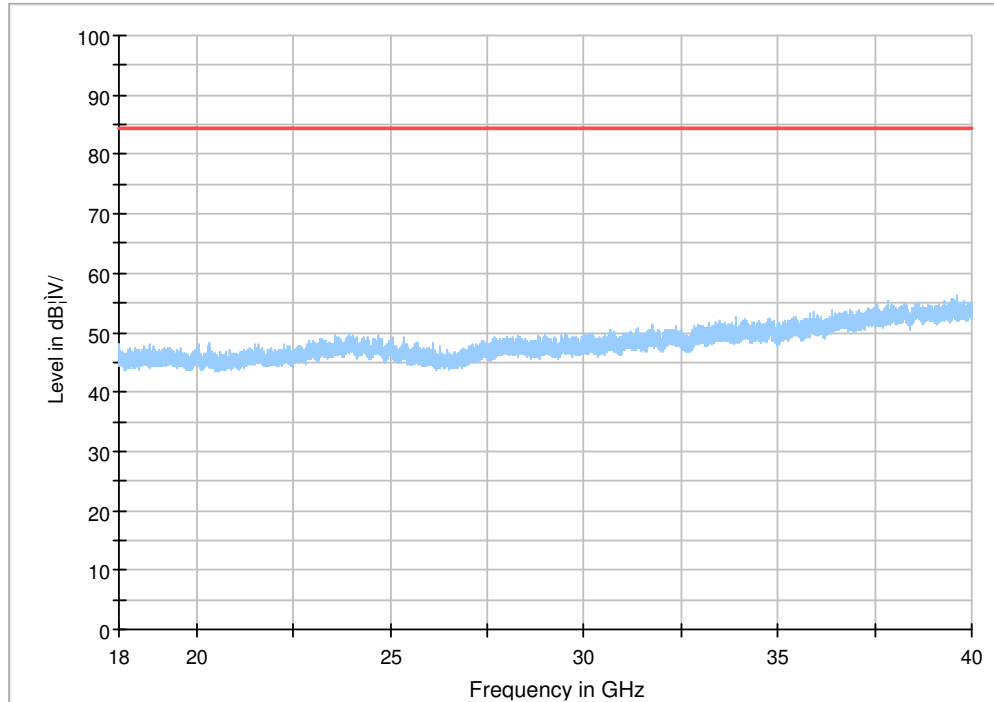
6-18GHz, Horizontal and Vertical

Full Spectrum



18-40GHz, Horizontal and Vertical

Full Spectrum



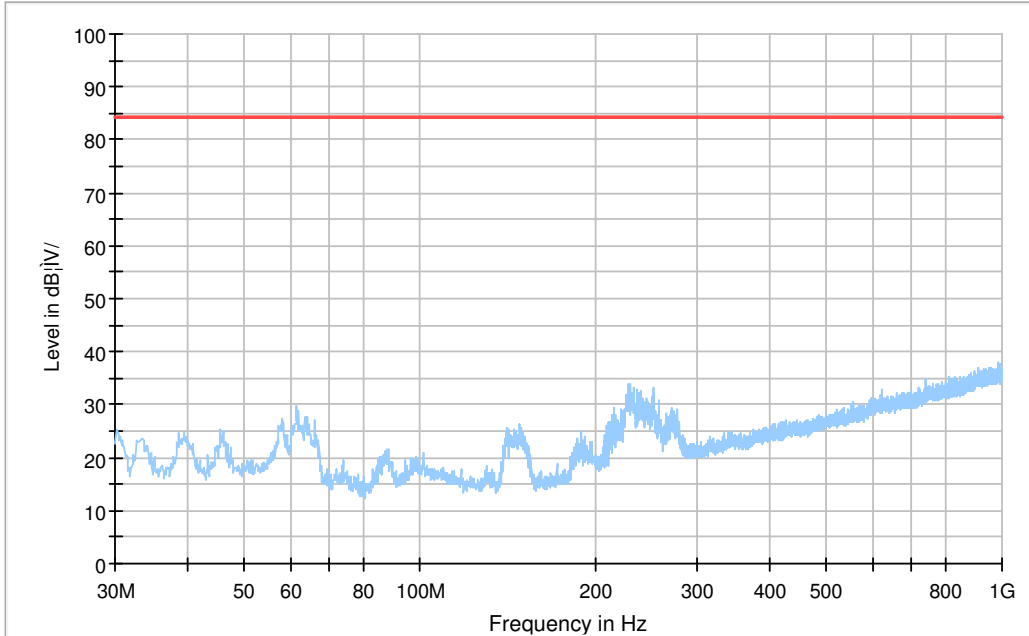
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	B	1 Carrier	100MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	T	1 Carrier	100MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dB μ V/m)	Limits (dB μ V/m)	Margin (dB μ V/m)
Vertical	5768.833333	58.55	84.40	25.85

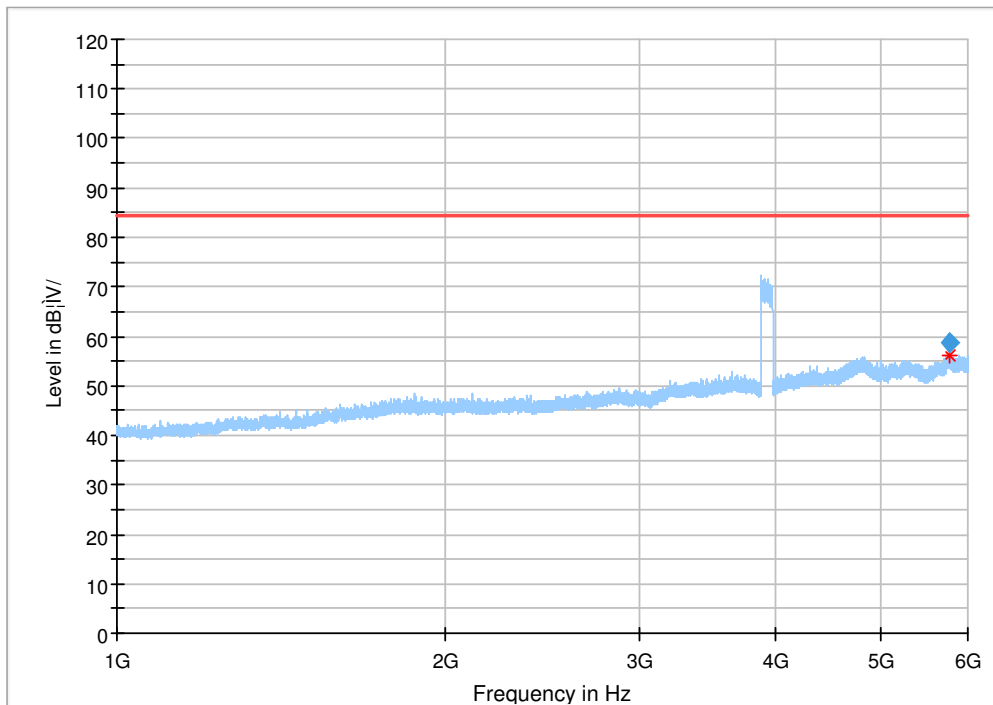
30-1000MHz, Horizontal and Vertical

Full Spectrum

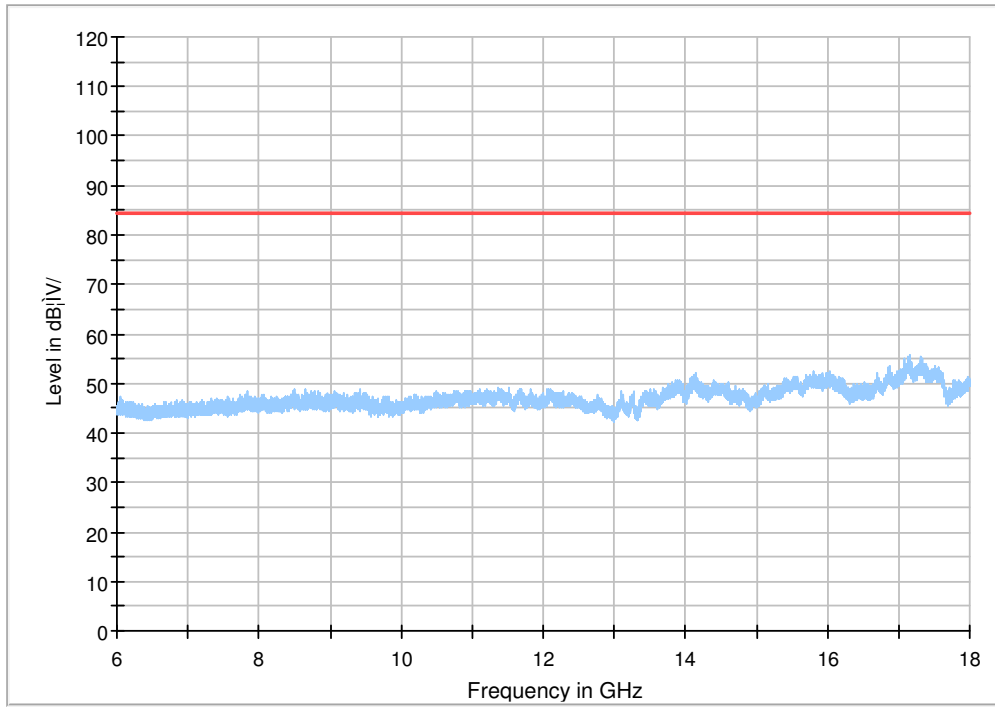


1-6GHz, Horizontal and Vertical

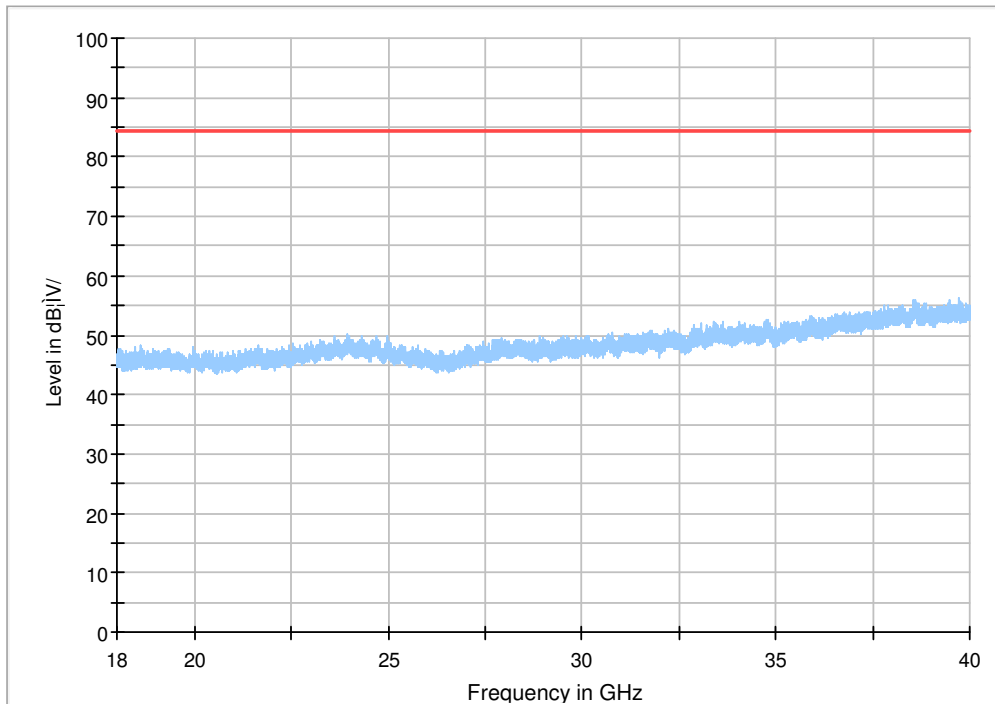
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



TEST REPORT

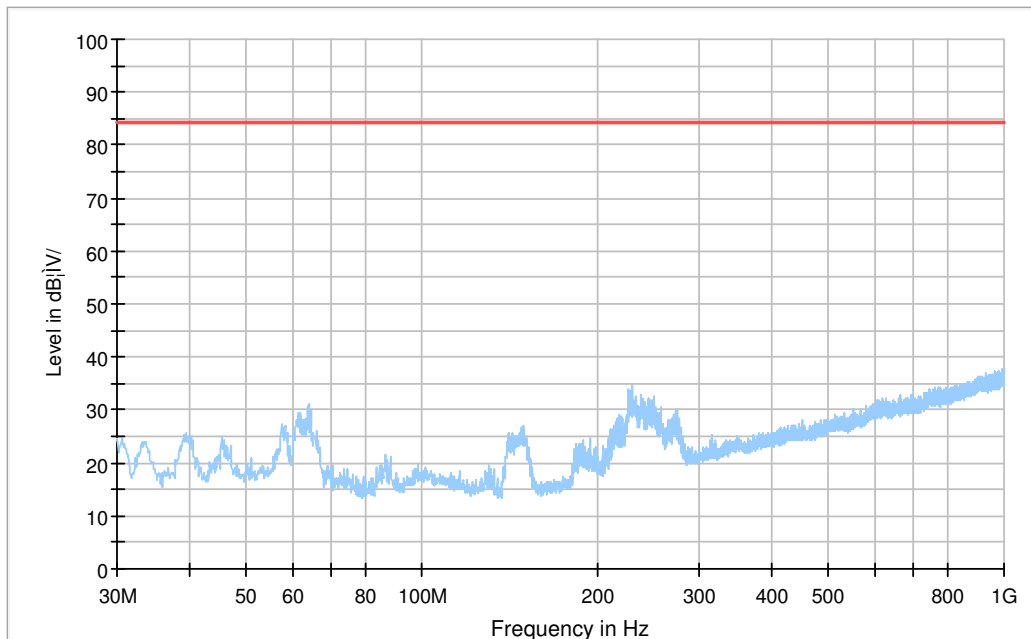
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	30MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	30MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5788.500000	57.98	84.40	26.42

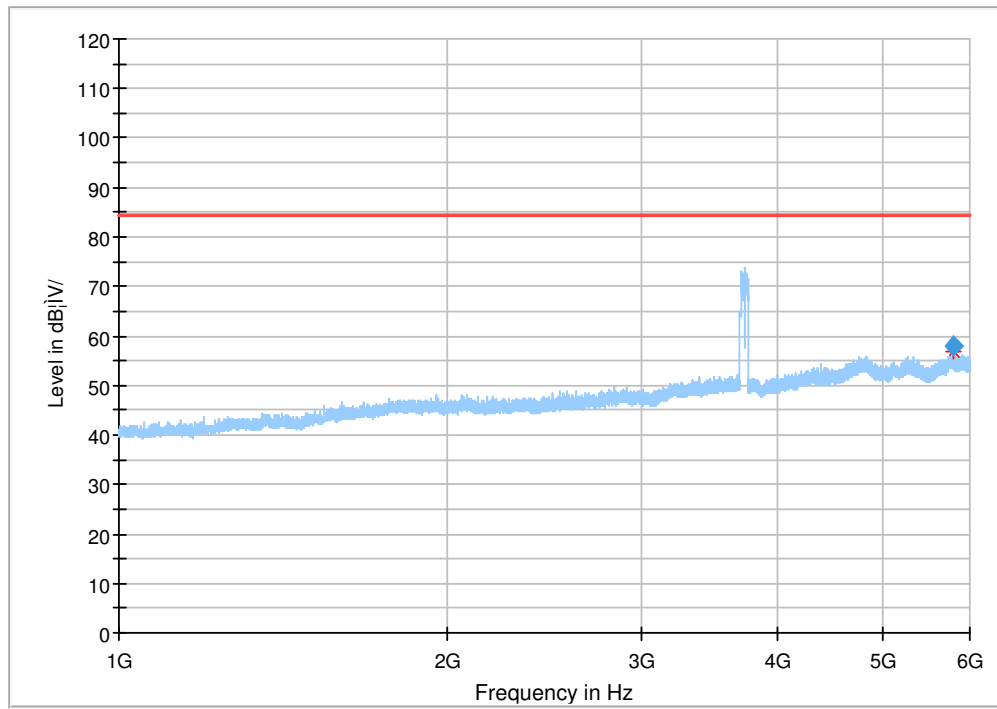
30-1000MHz, Horizontal and Vertical

Full Spectrum



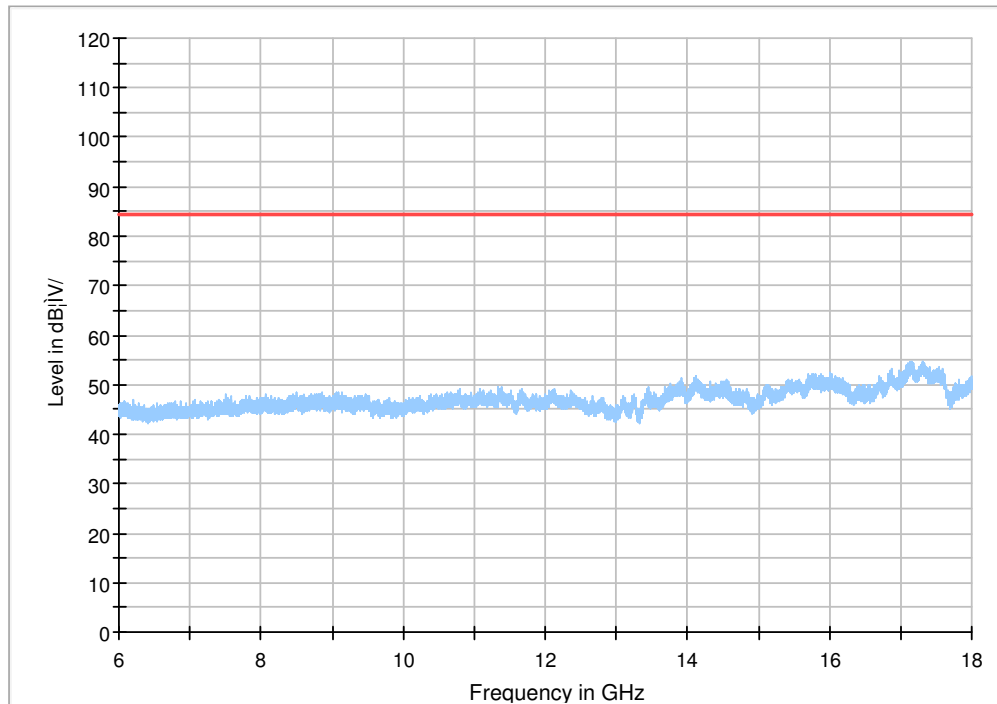
1-6GHz, Horizontal and Vertical

Full Spectrum



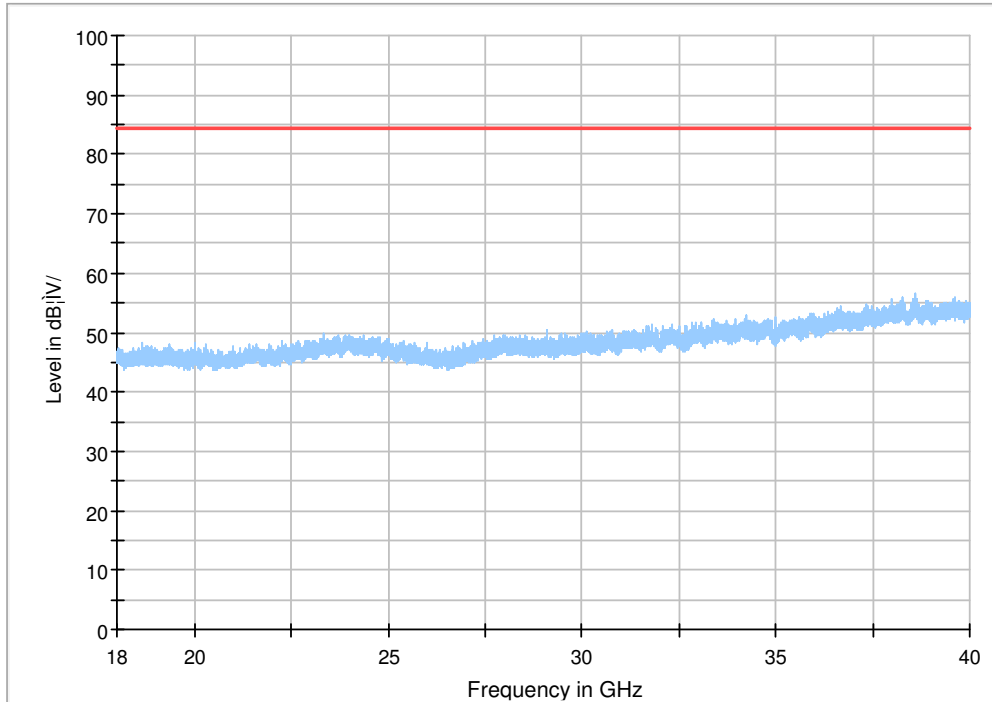
6-18GHz, Horizontal and Vertical

Full Spectrum



18-40GHz, Horizontal and Vertical

Full Spectrum

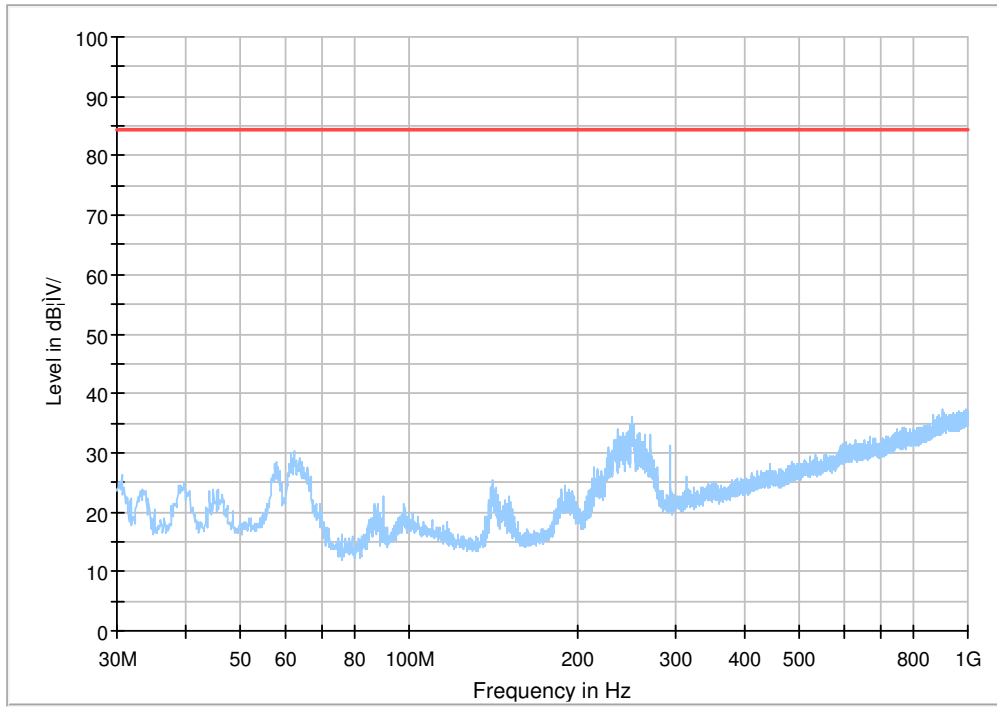


Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	70MHz	64QAM

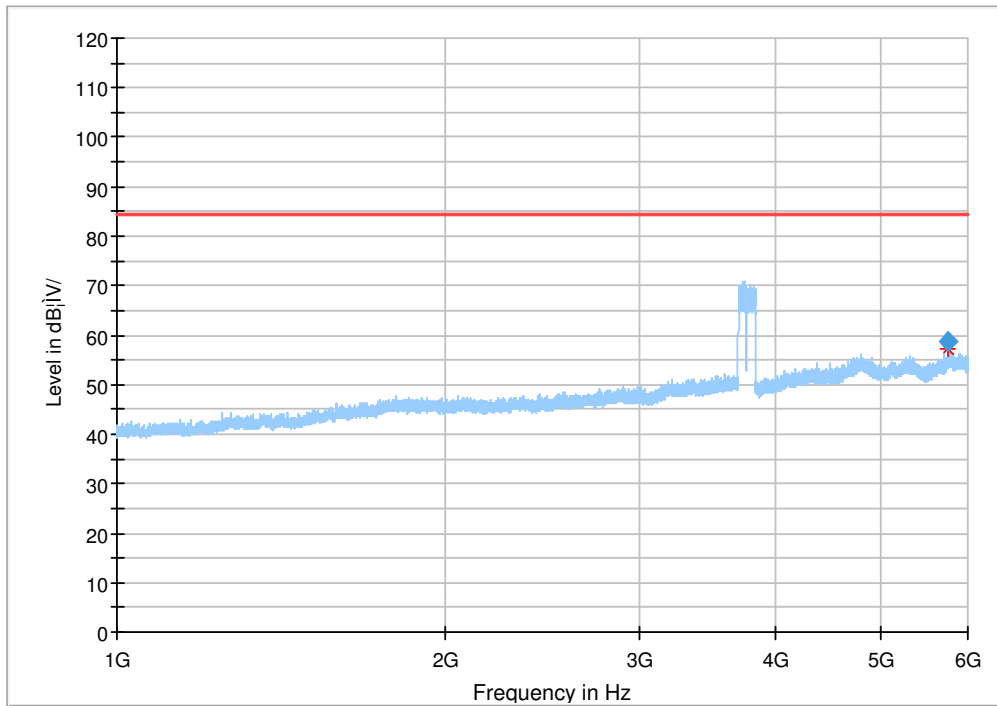
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	70MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5761.500000	58.57	84.40	25.83

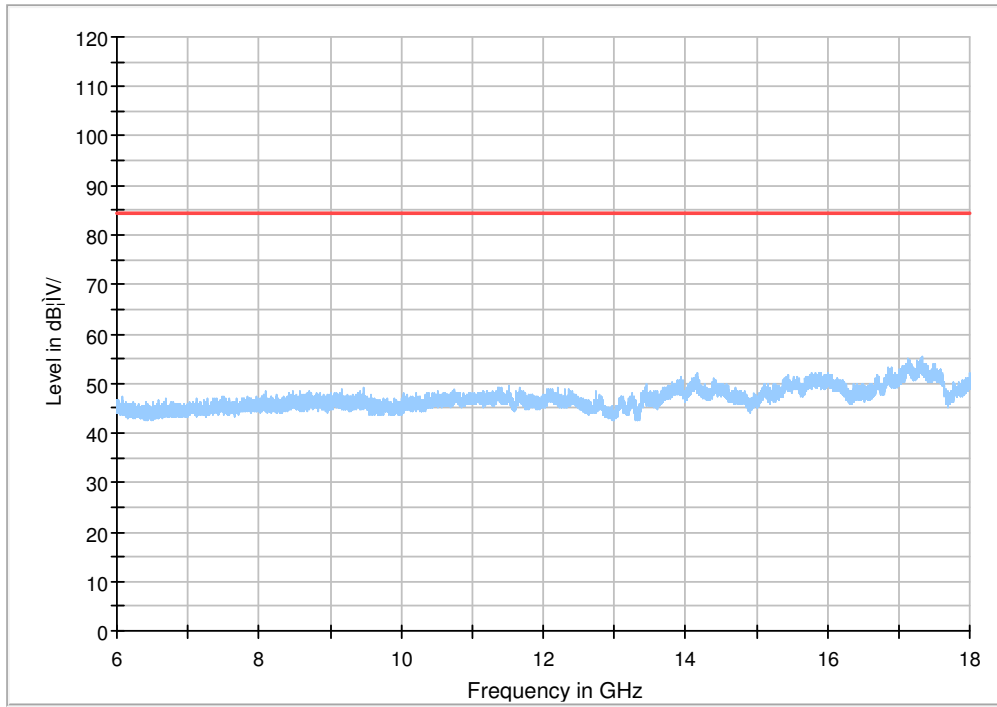
30-1000MHz, Horizontal and Vertical
Full Spectrum



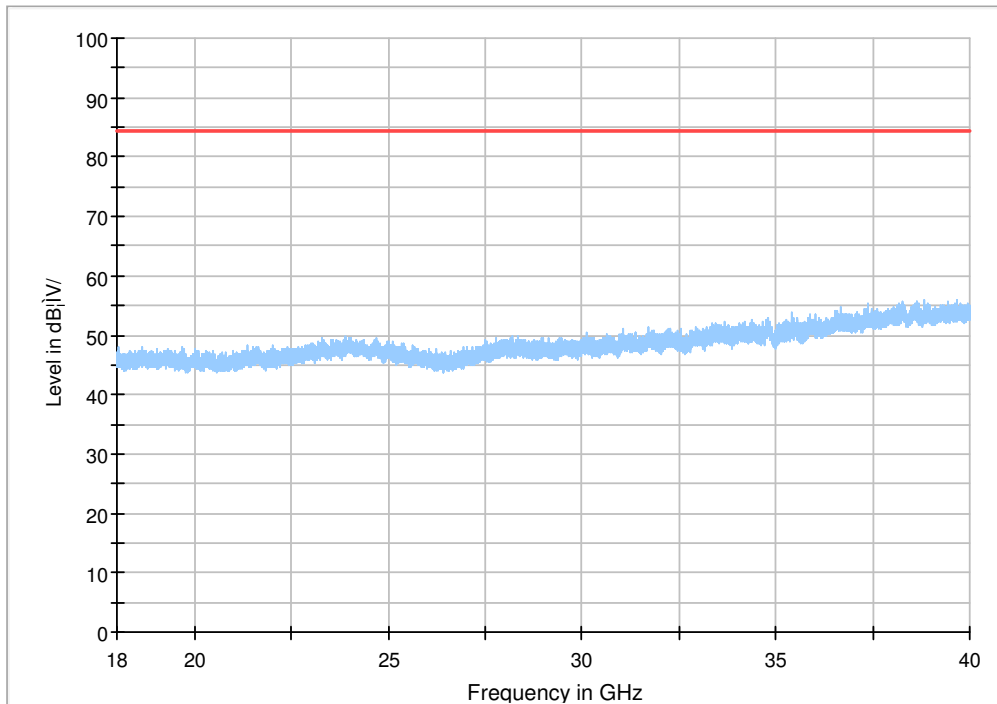
1-6GHz, Horizontal and Vertical
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



TEST REPORT

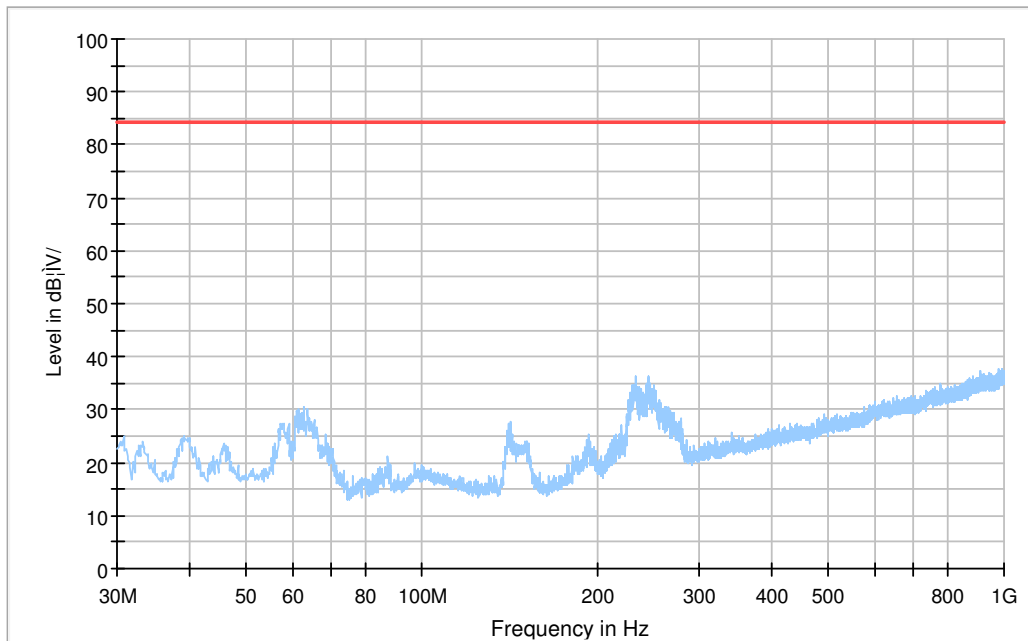
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	60+100MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	60+100MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5768.500000	58.14	84.40	26.26

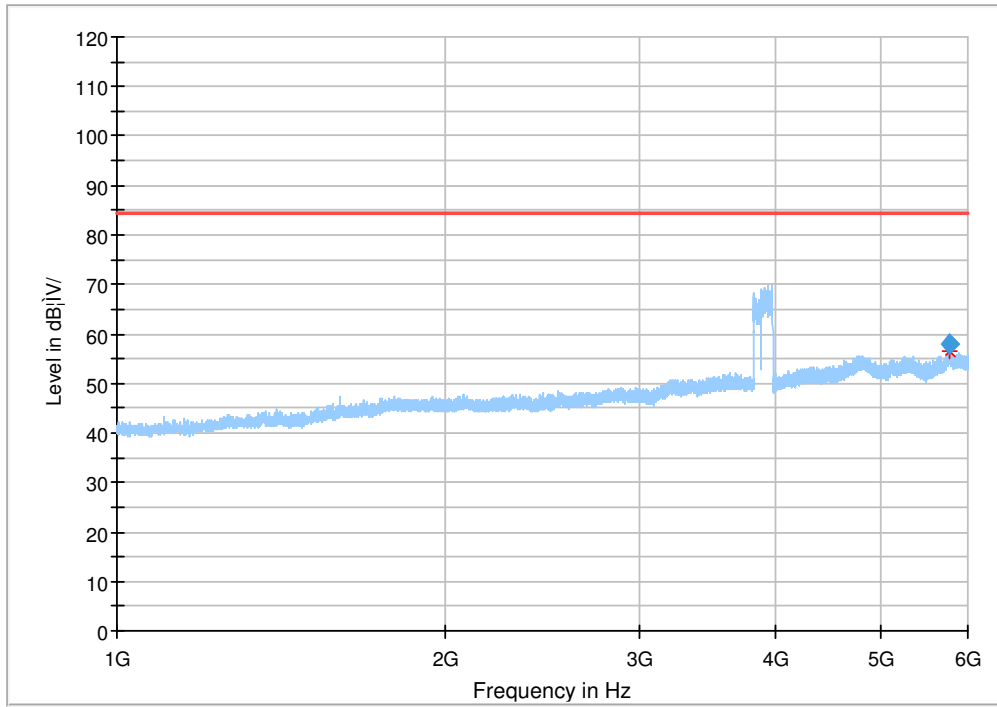
30-1000MHz, Horizontal and Vertical

Full Spectrum



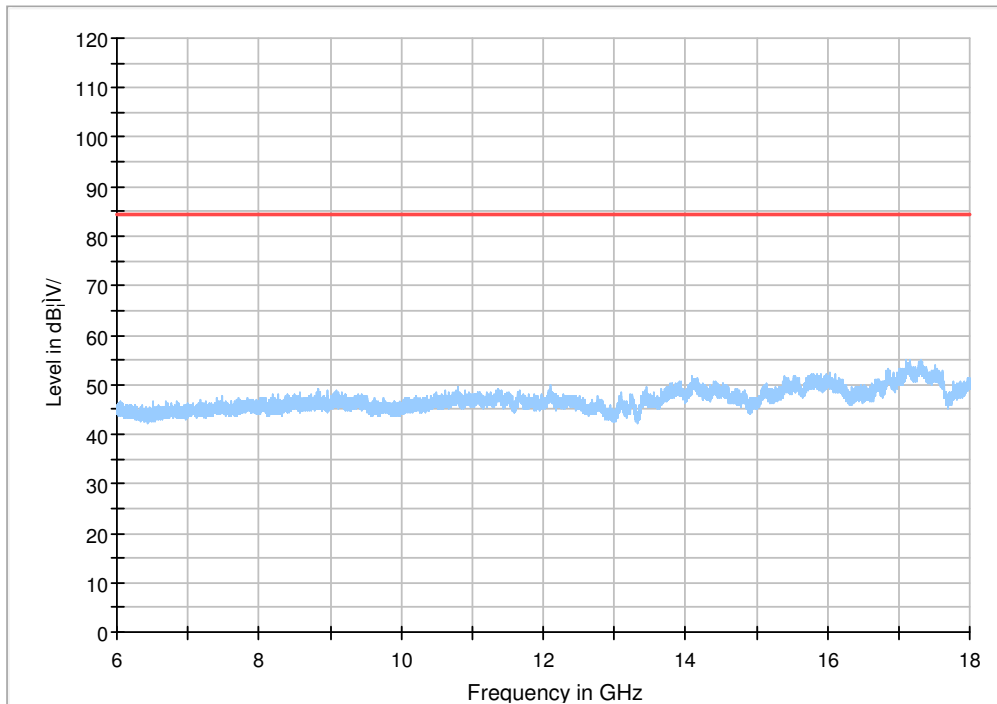
1-6GHz, Horizontal and Vertical

Full Spectrum



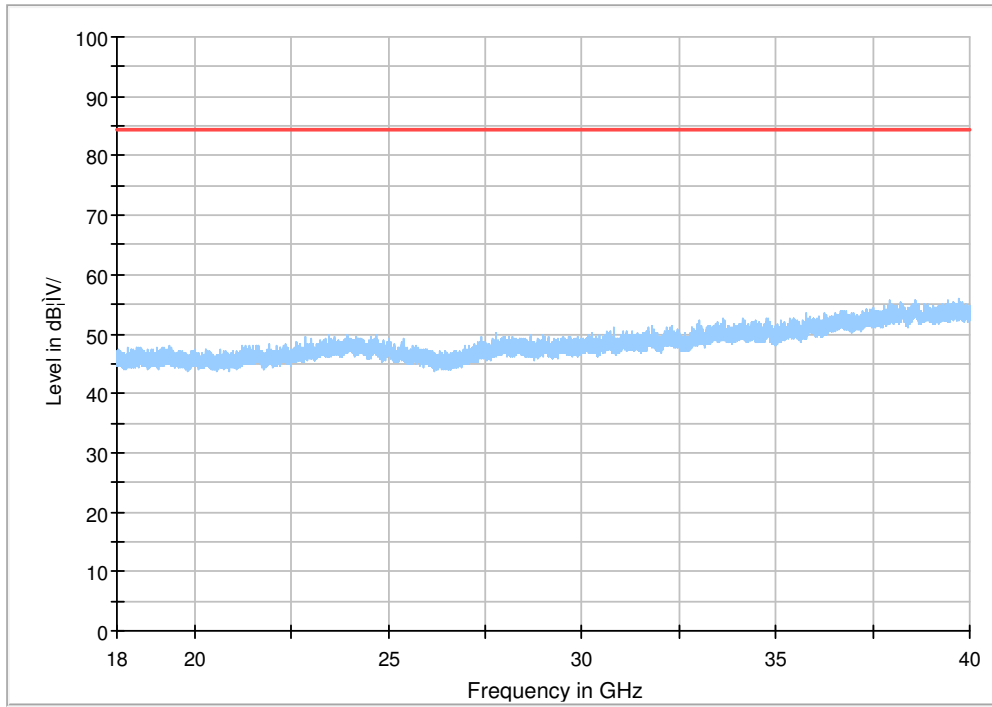
6-18GHz, Horizontal and Vertical

Full Spectrum



TEST REPORT

18-40GHz, Horizontal and Vertical
Full Spectrum

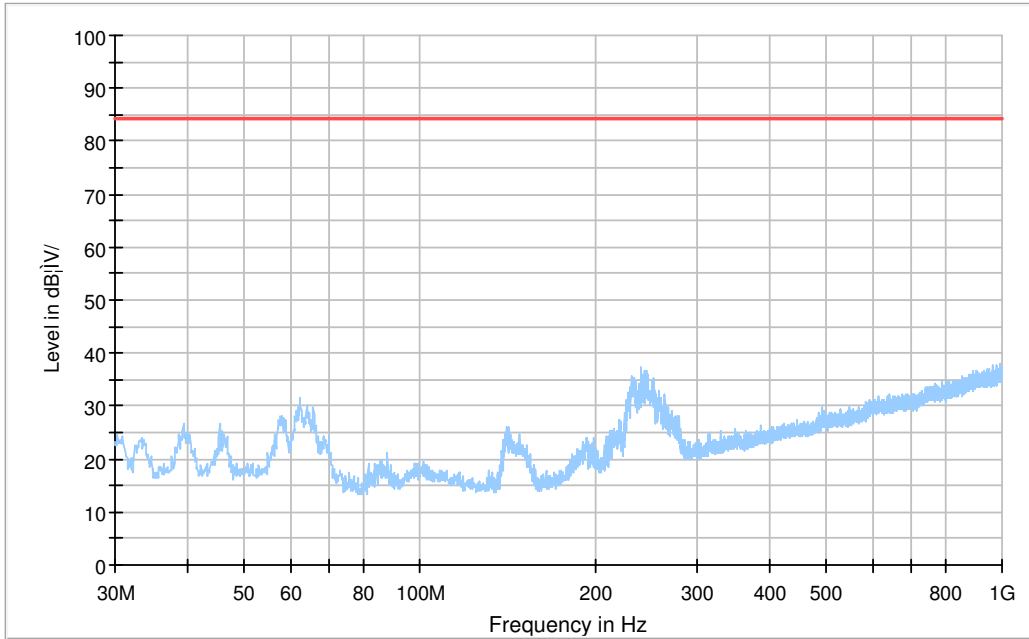


Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-6C-BE	B	6 Carrier	20MHz	64QAM

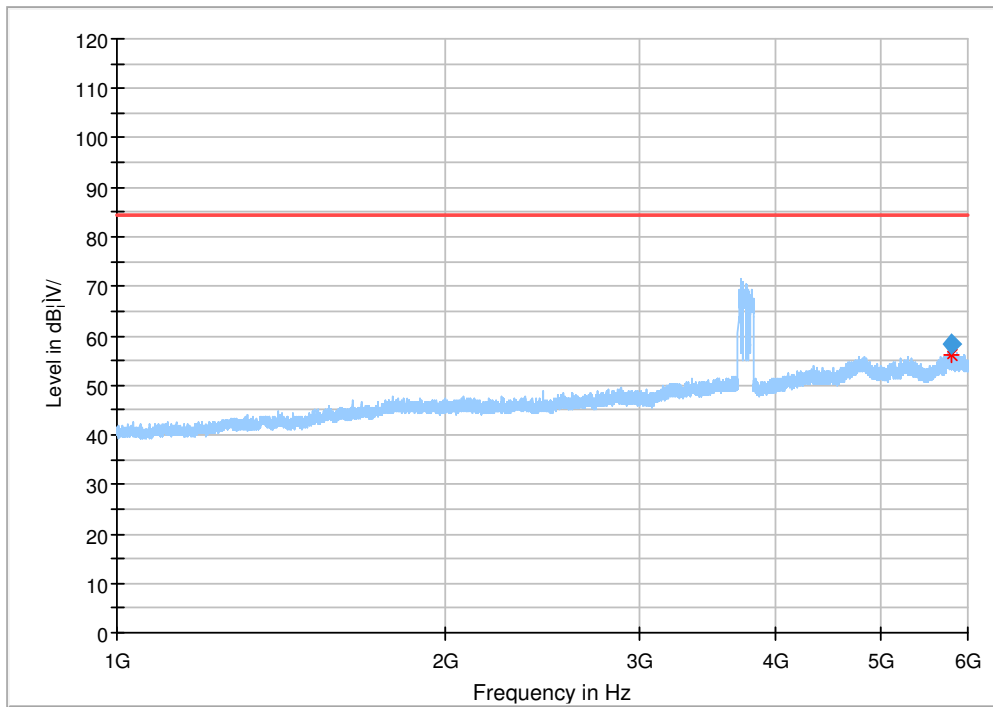
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-6C-BE	T	6 Carrier	20MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBµV/m)	Limits (dBµV/m)	Margin (dBµV/m)
Vertical	5799.333333	58.52	84.40	25.88

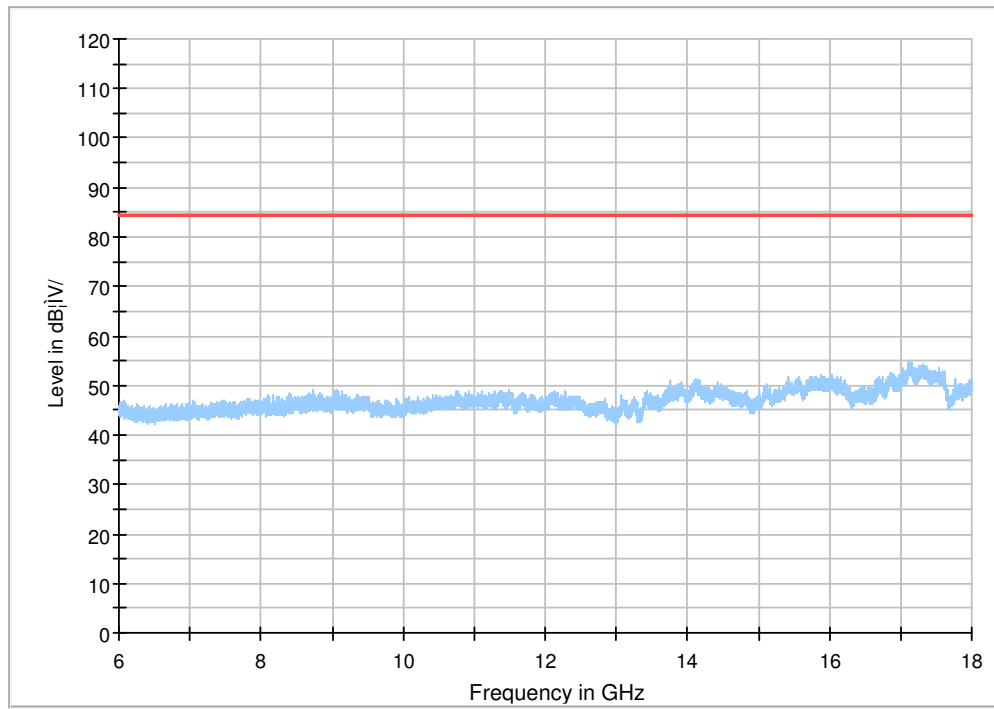
30-1000MHz, Horizontal and Vertical
Full Spectrum



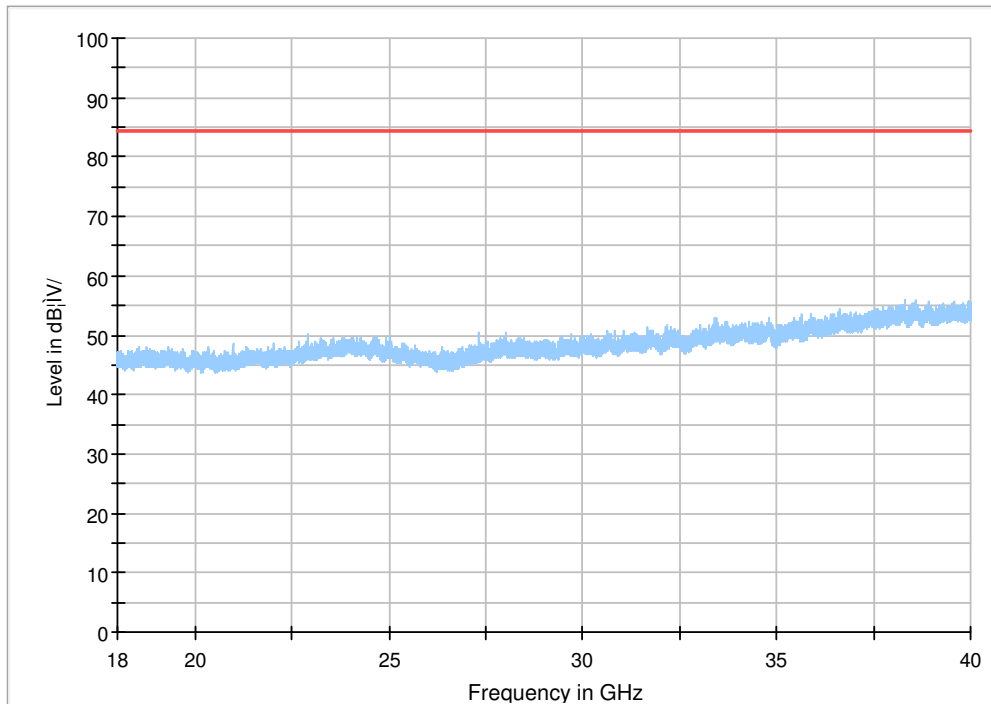
1-6GHz, Horizontal and Vertical
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



TEST REPORT

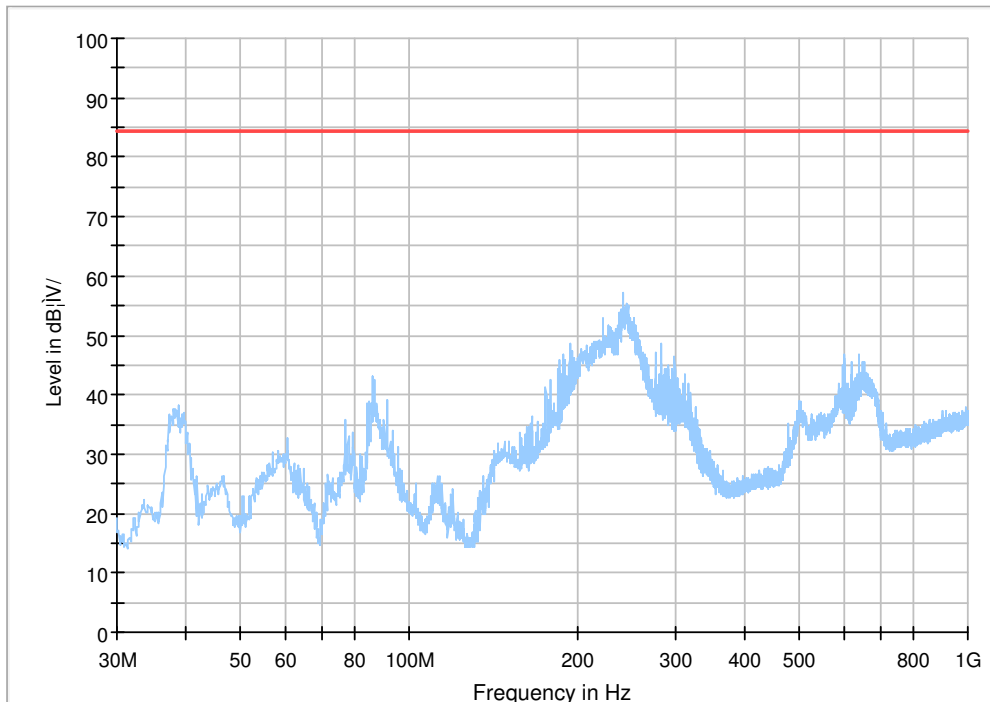
KRD 901 225/4:

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	B	1 Carrier	30MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	T	1 Carrier	30MHz	64QAM

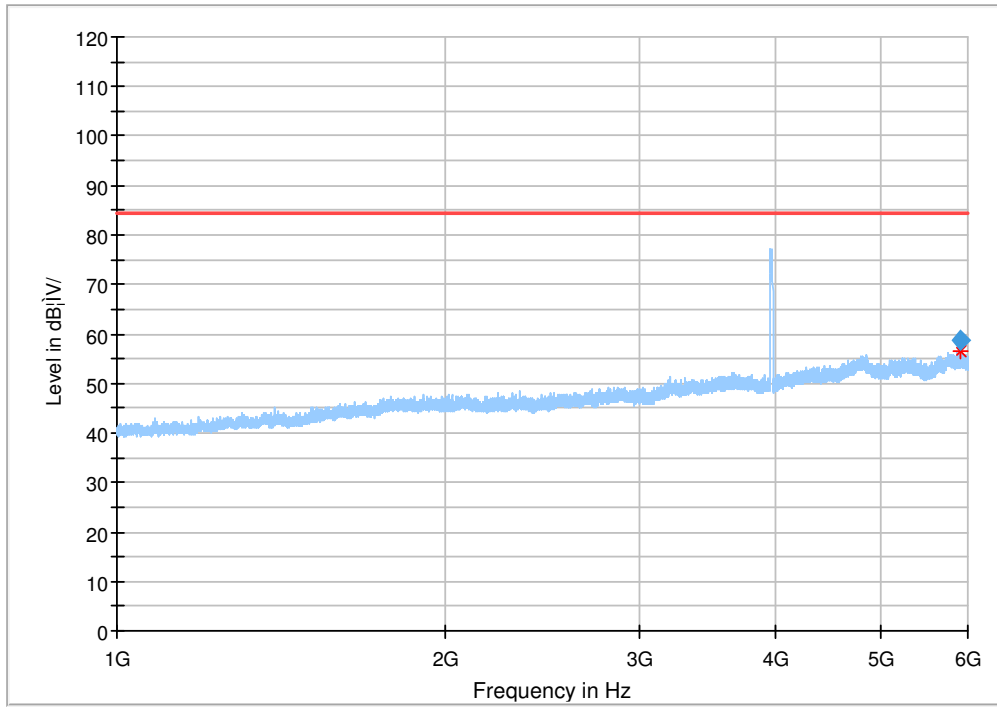
Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5907.833333	58.6	84.40	25.80

30-1000MHz, Horizontal and Vertical
Full Spectrum



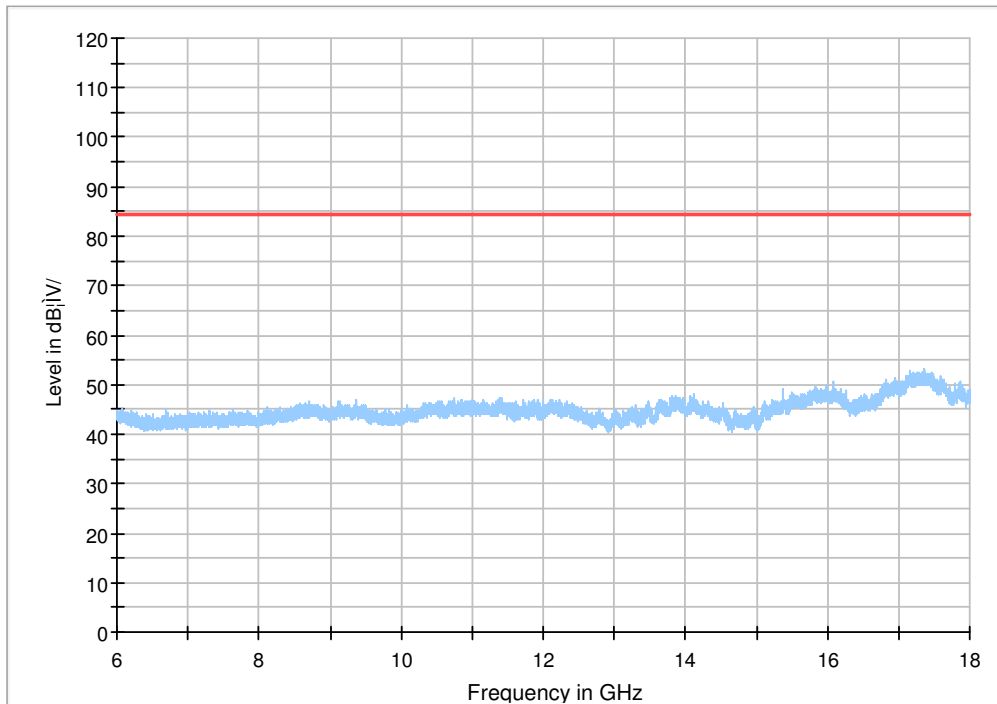
1-6GHz, Horizontal and Vertical

Full Spectrum



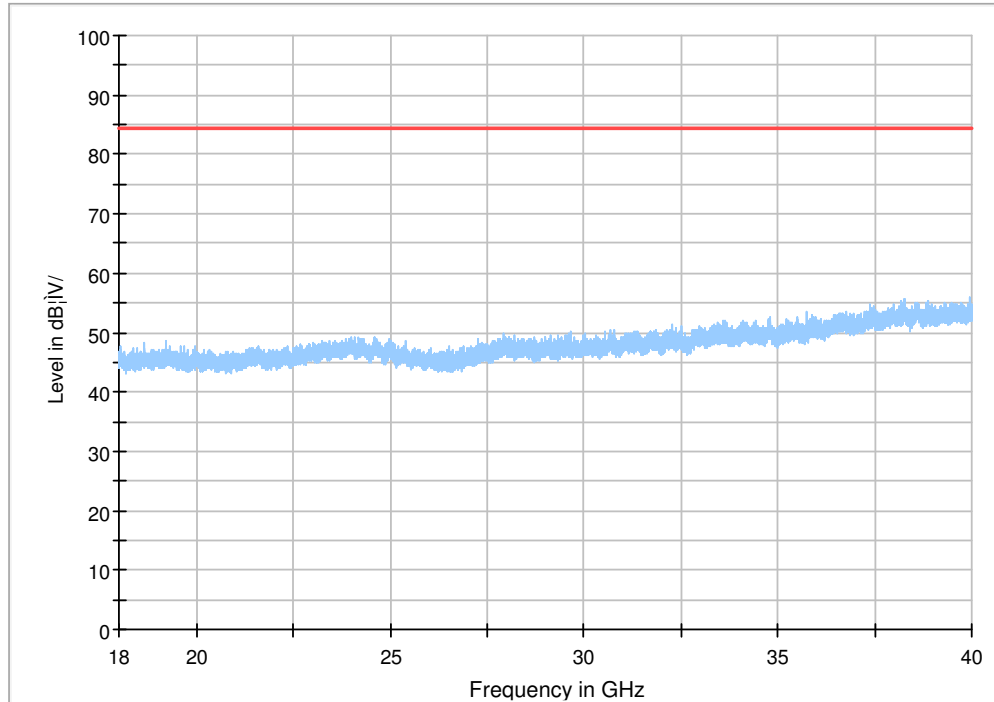
6-18GHz, Horizontal and Vertical

Full Spectrum



18-40GHz, Horizontal and Vertical

Full Spectrum



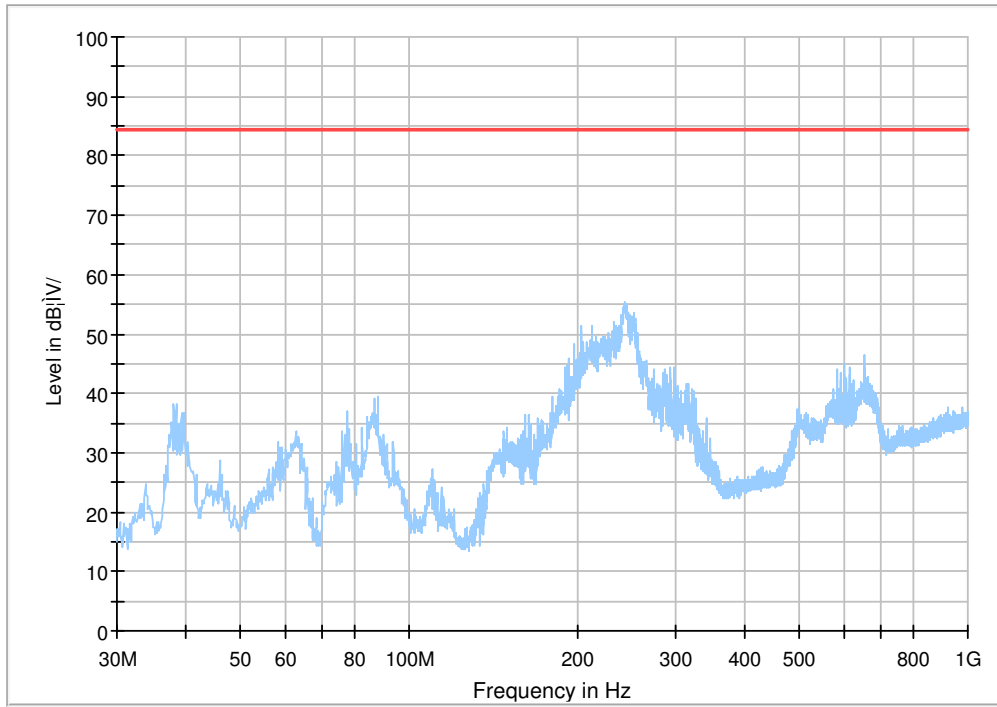
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	B	1 Carrier	100MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-1C-BE	T	1 Carrier	100MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBµV/m)	Limits (dBµV/m)	Margin (dBµV/m)
Vertical	5923.000000	58.31	84.40	26.09

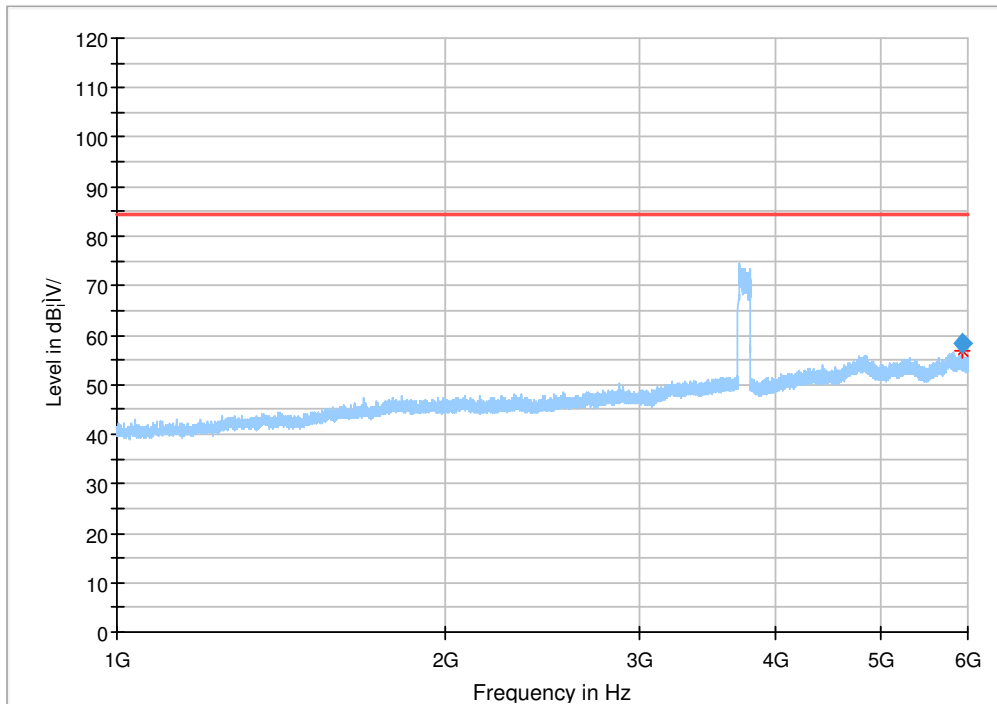
30-1000MHz, Horizontal and Vertical

Full Spectrum

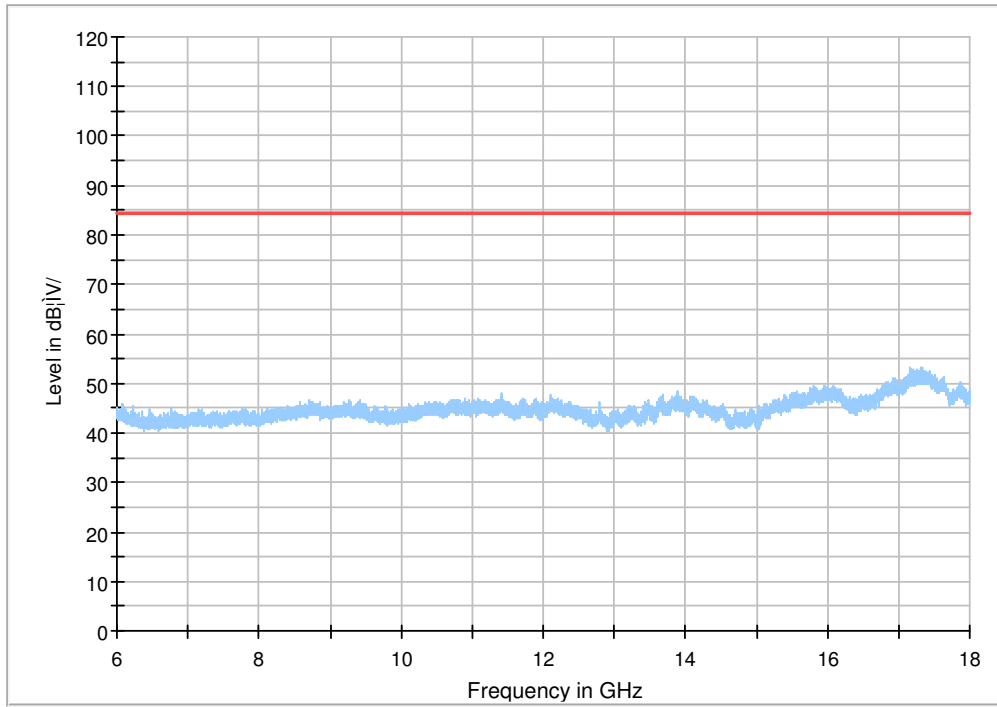


1-6GHz, Horizontal and Vertical

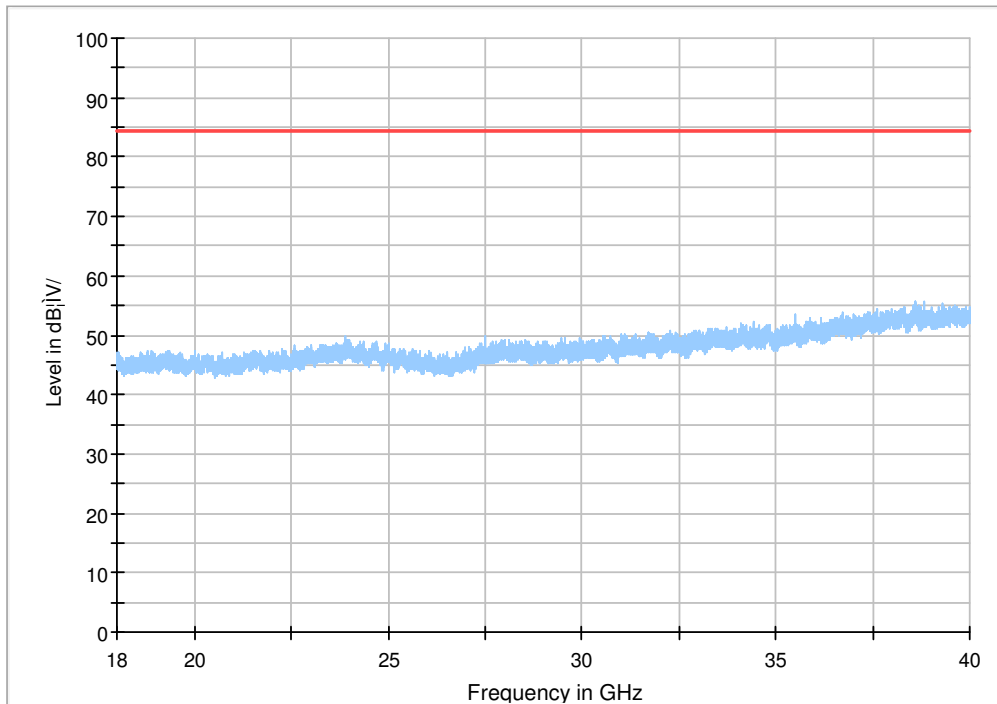
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



TEST REPORT

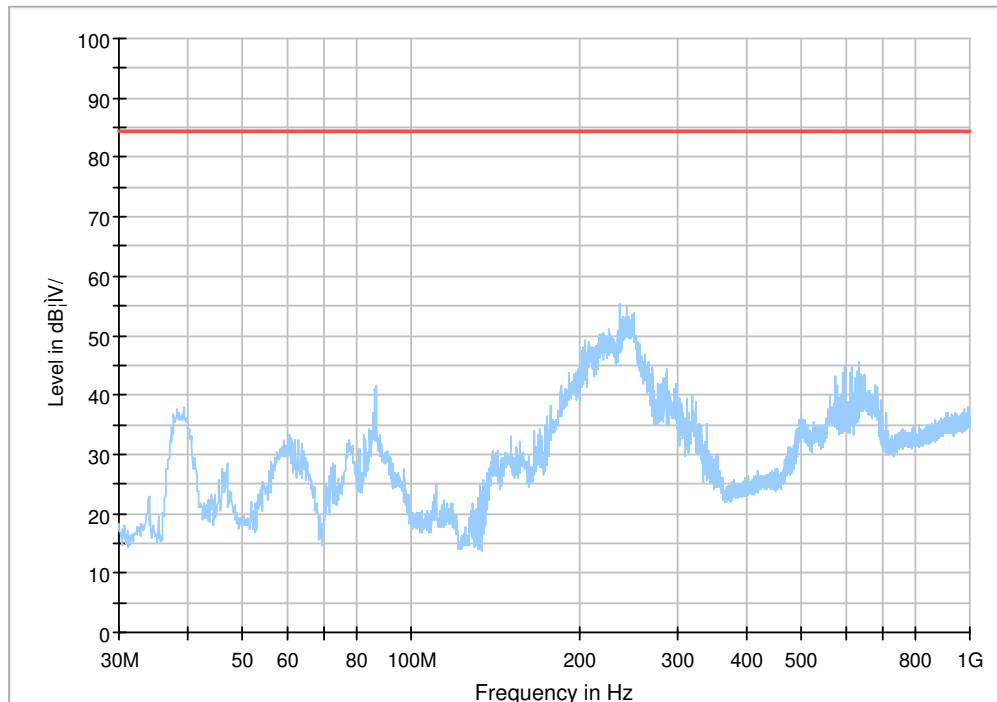
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	30MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	30MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dB μ V/m)	Limits (dB μ V/m)	Margin (dB μ V/m)
Vertical	5887.000000	58.51	84.40	25.89

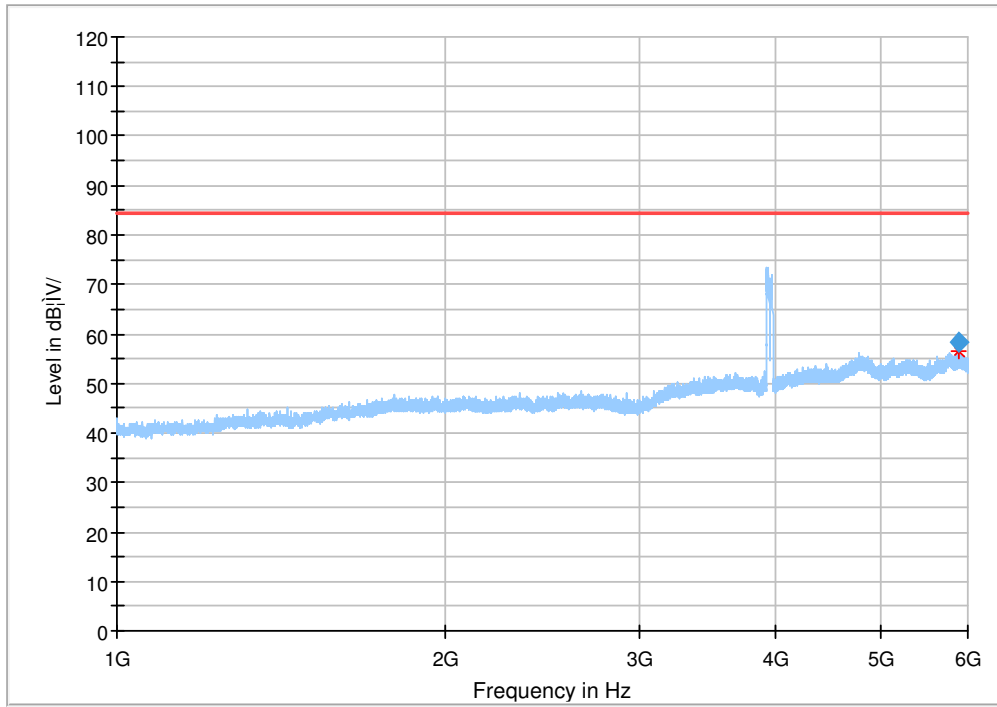
30-1000MHz, Horizontal and Vertical

Full Spectrum



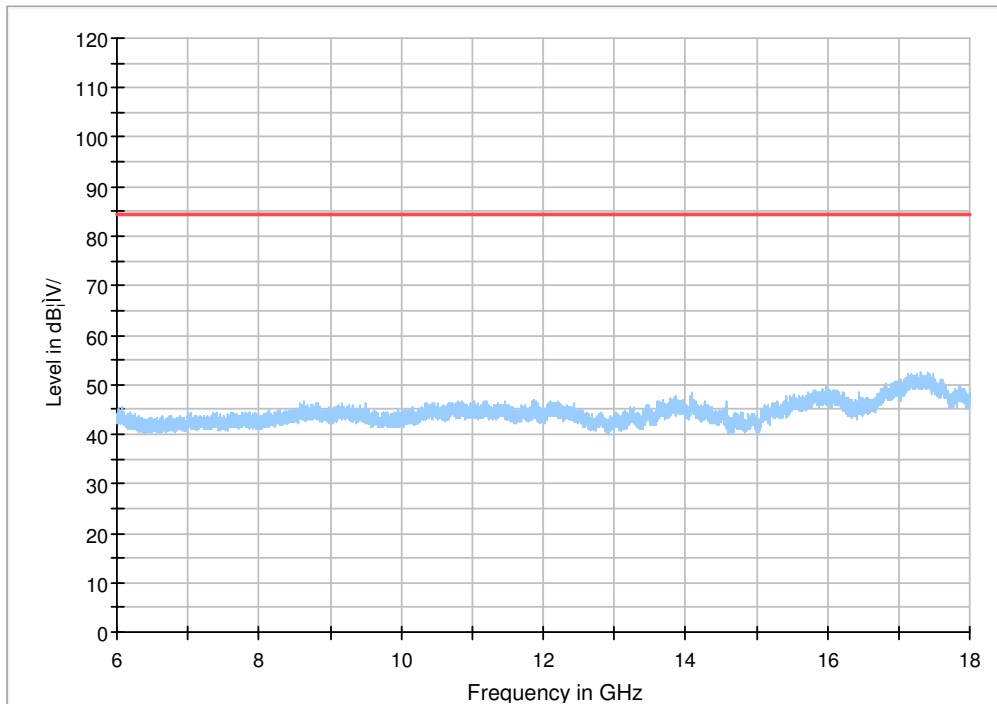
1-6GHz, Horizontal and Vertical

Full Spectrum



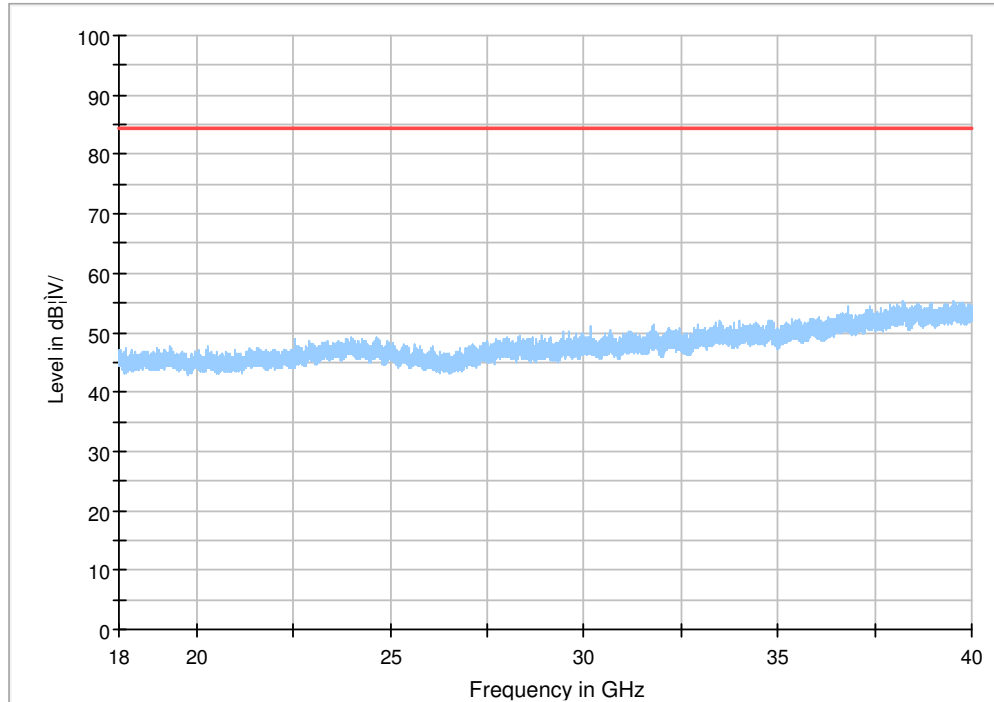
6-18GHz, Horizontal and Vertical

Full Spectrum



18-40GHz, Horizontal and Vertical

Full Spectrum



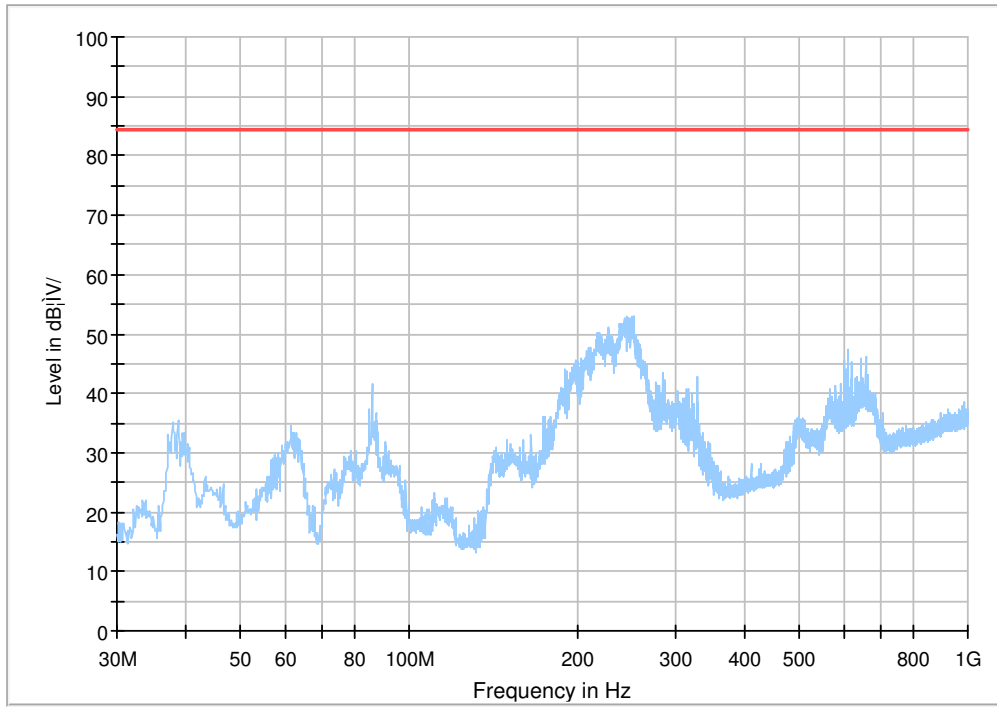
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	70MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	70MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5753.500000	58.49	84.40	25.91

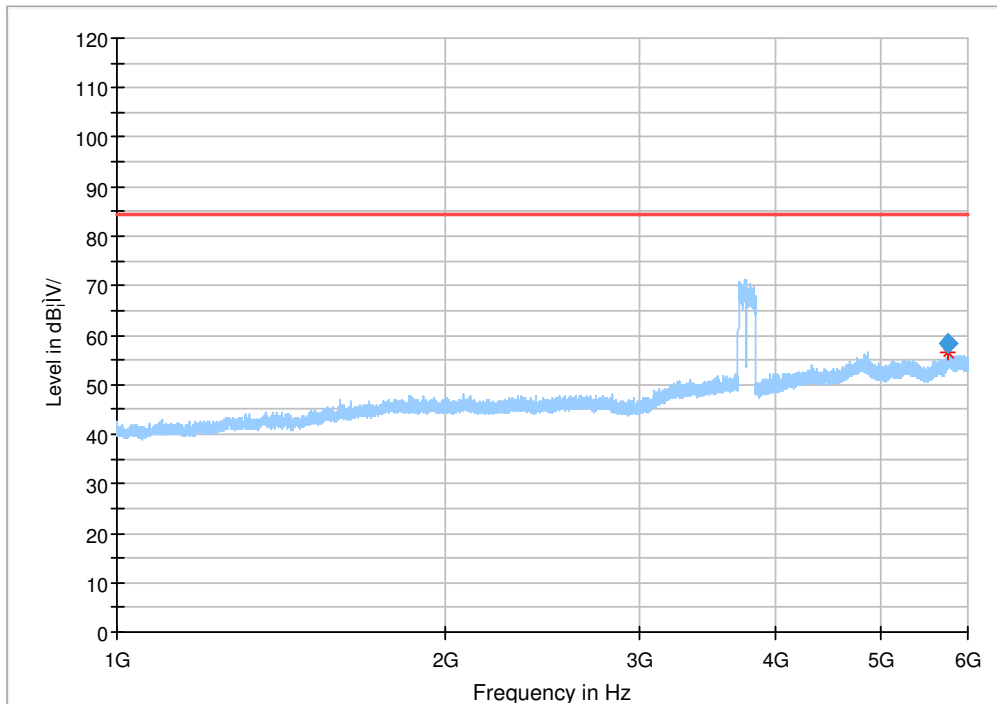
30-1000MHz, Horizontal and Vertical

Full Spectrum

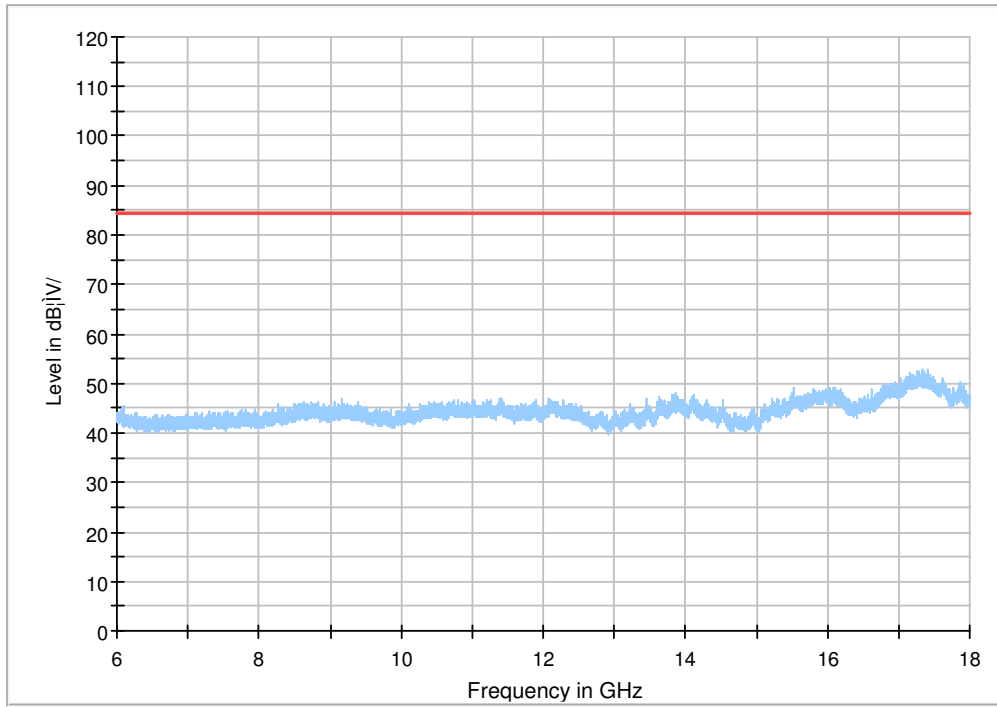


1-6GHz, Horizontal and Vertical

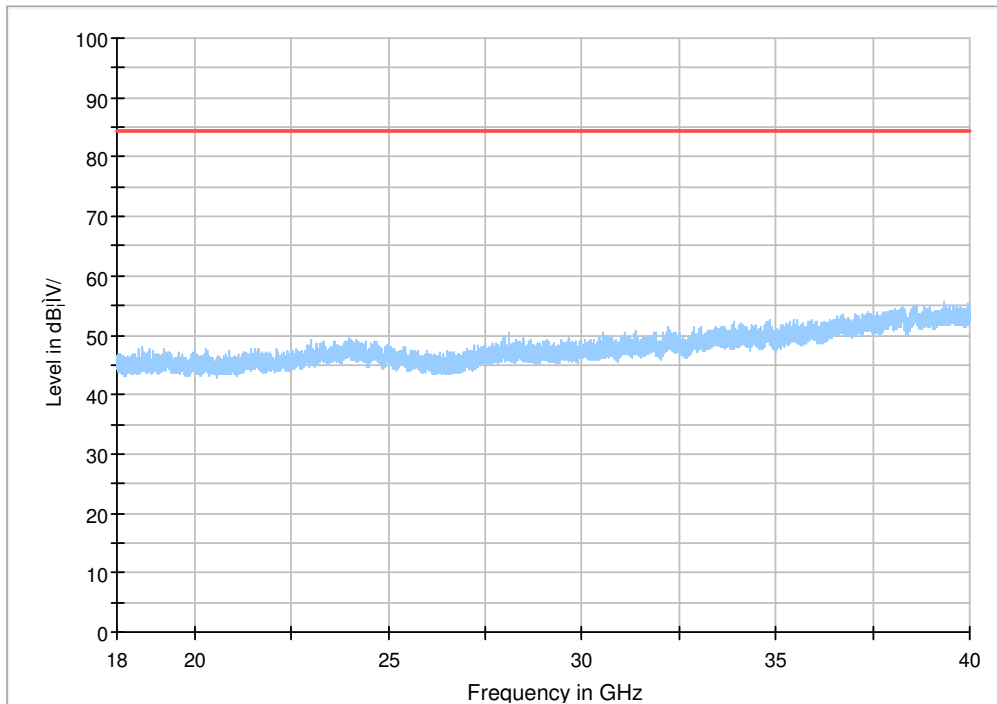
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



TEST REPORT

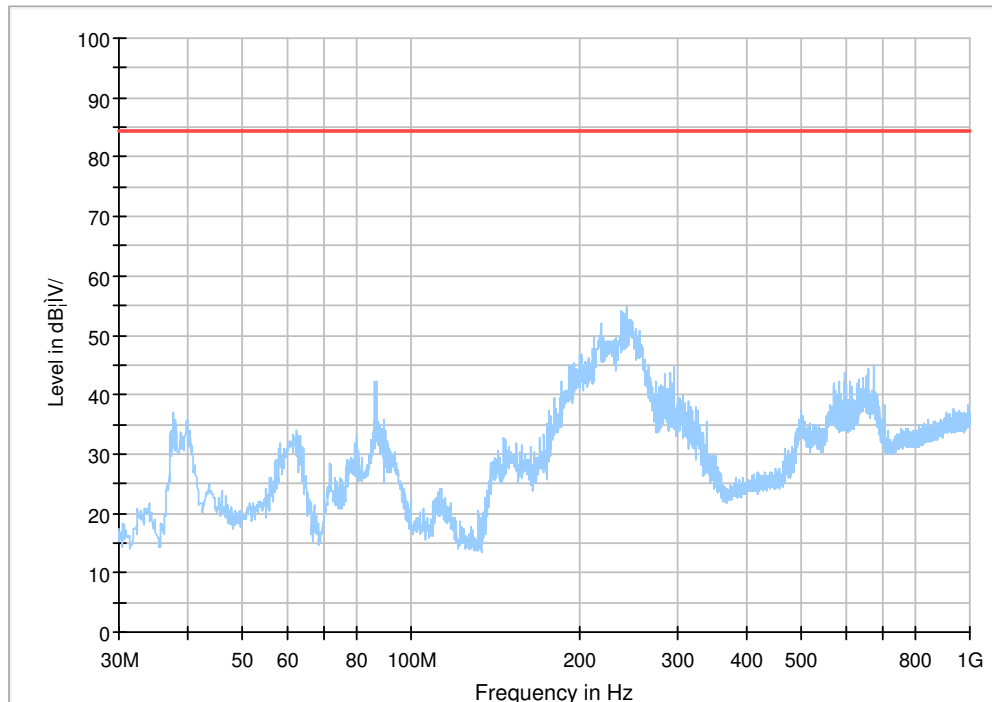
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	B	2 Carrier	60+100MHz	64QAM

Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-2C-BE	T	2 Carrier	60+100MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dBμV/m)	Limits (dBμV/m)	Margin (dBμV/m)
Vertical	5859.000000	57.63	84.40	26.77

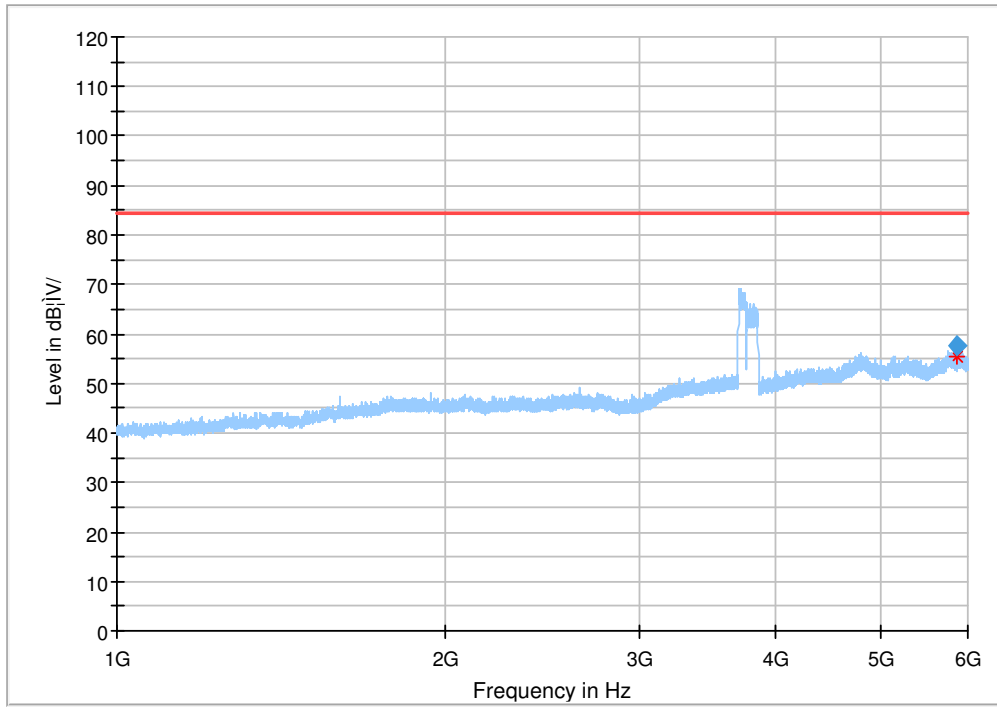
30-1000MHz, Horizontal and Vertical

Full Spectrum



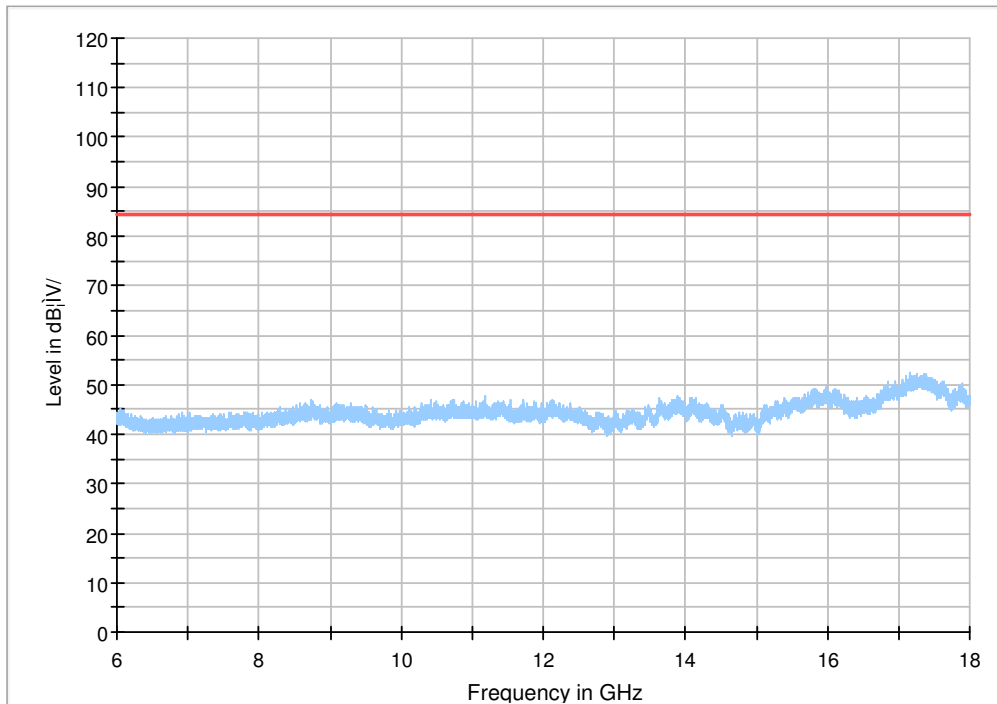
1-6GHz, Horizontal and Vertical

Full Spectrum



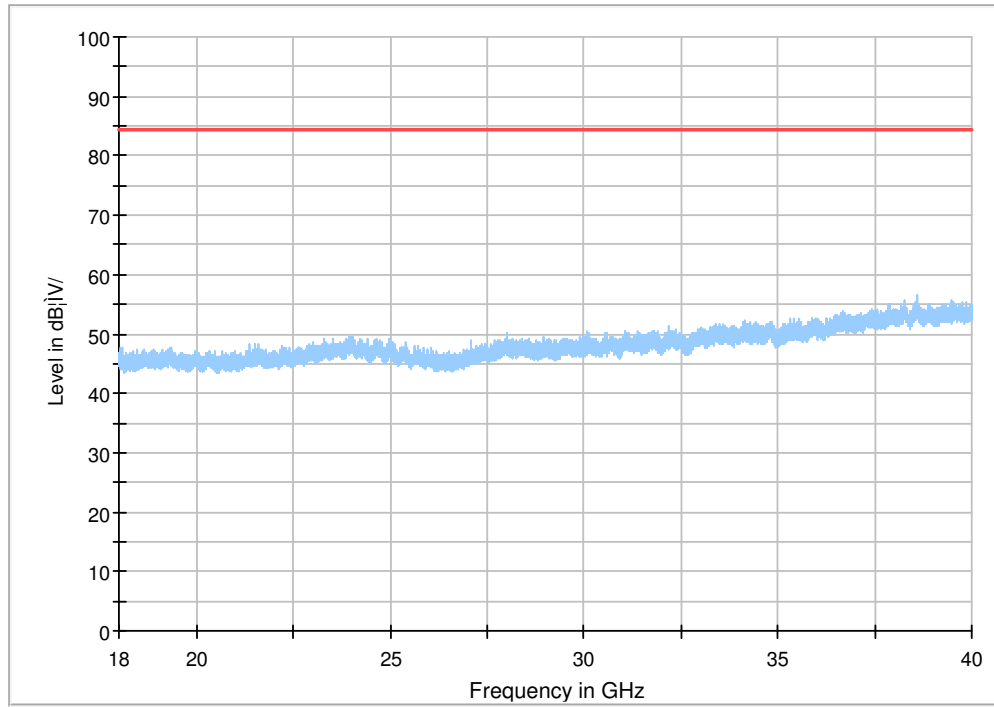
6-18GHz, Horizontal and Vertical

Full Spectrum



TEST REPORT

18-40GHz, Horizontal and Vertical
Full Spectrum

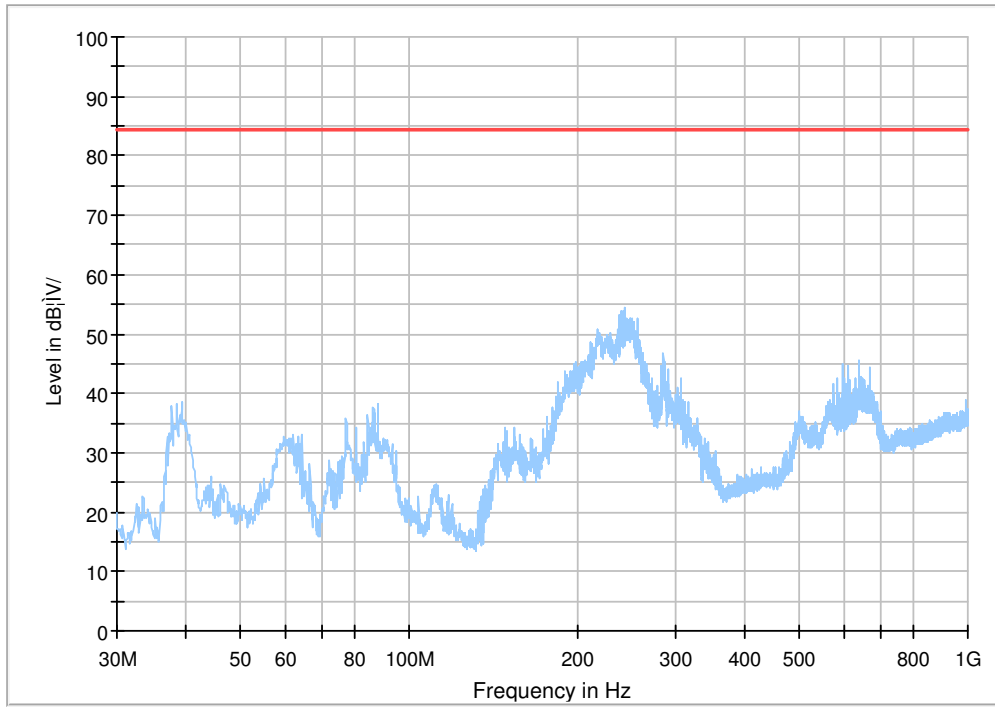


Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-6C-BE	B	6 Carrier	20MHz	64QAM

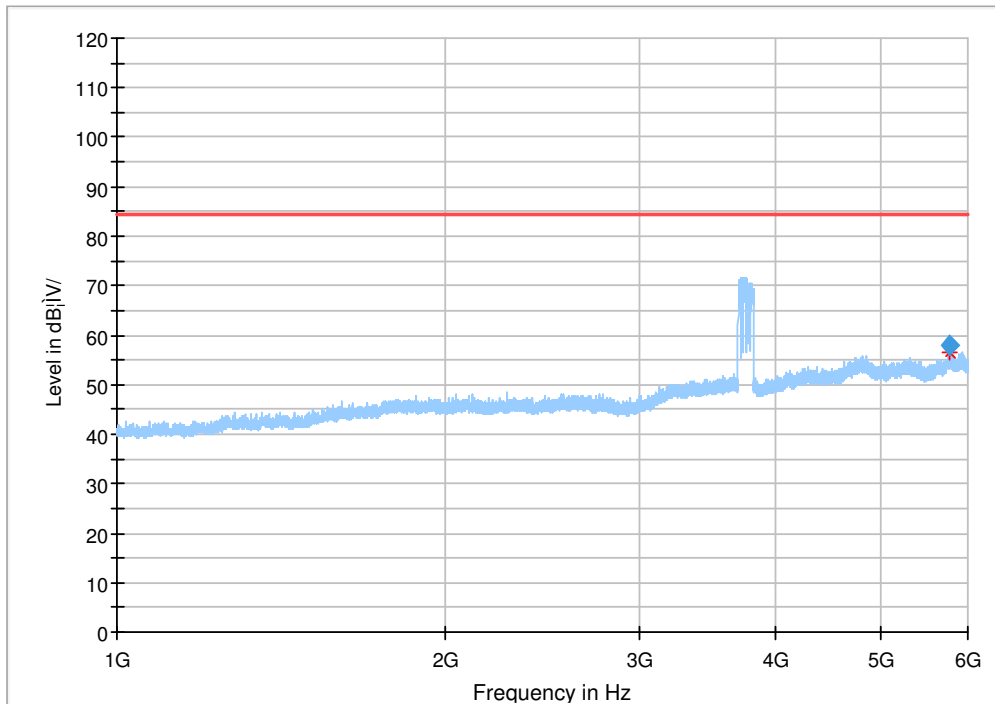
Configuration	Channel Position	Carrier	Carrier Bandwidth	Modulation
NR-MIMO-6C-BE	T	6 Carrier	20MHz	64QAM

Polarization	Frequency (MHz)	Emission level RMS (dB μ V/m)	Limits (dB μ V/m)	Margin (dB μ V/m)
Vertical	5772.000000	58.12	84.40	26.28

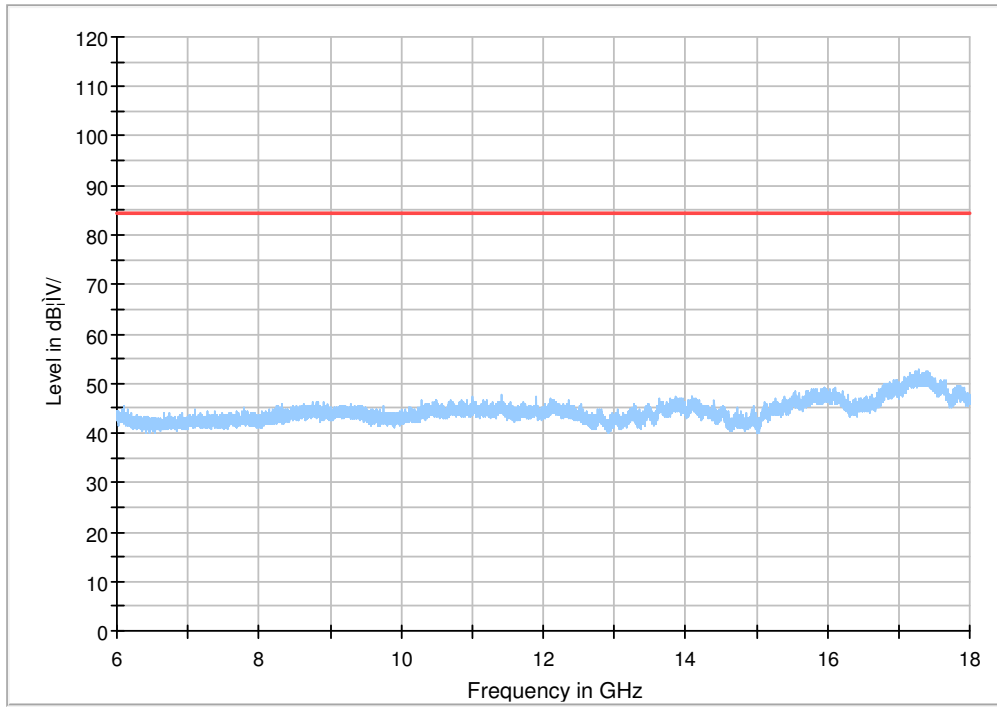
30-1000MHz, Horizontal and Vertical
Full Spectrum



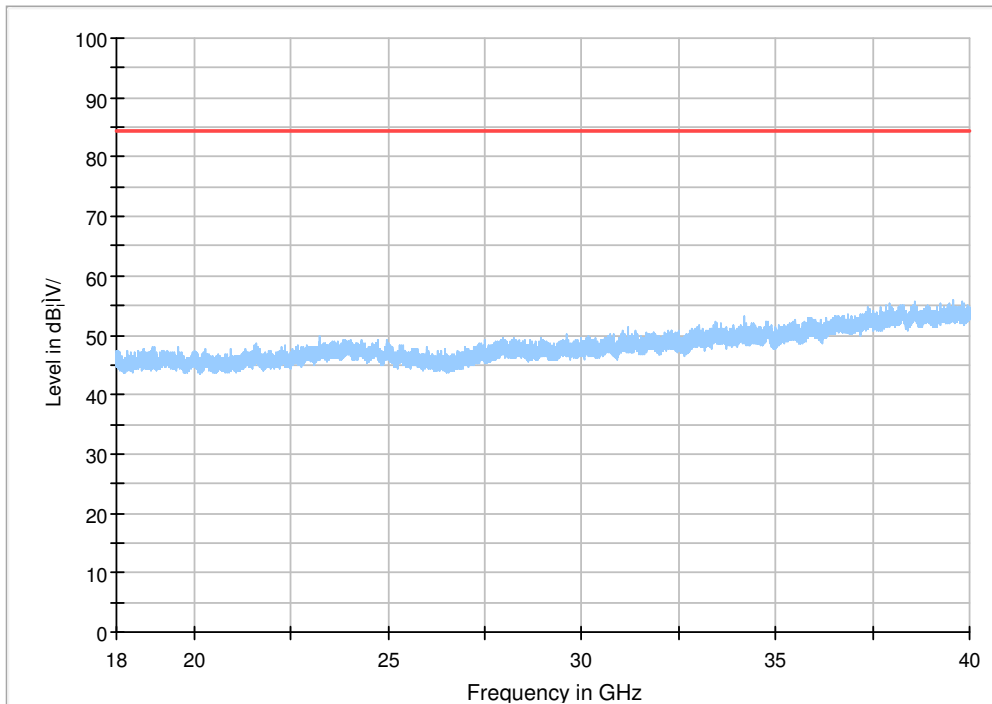
1-6GHz, Horizontal and Vertical
Full Spectrum



6-18GHz, Horizontal and Vertical
Full Spectrum



18-40GHz, Horizontal and Vertical
Full Spectrum



8 Frequency Stability

Test result: **Tested**

8.1 Limit

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

8.2 Measurement Procedure

Temperature Variation

The EUT was tested over the temperature range -30°C to +50°C in 10°C steps with -48 VDC Power Supply. At each temperature step, the Base Station was configured to transmit at maximum power on the middle channel of the operating band.

Voltage Variation

The EUT was tested at the supplied voltages varied from 85 to 115 percent of the nominal values of -48 VDC. At +20°C, the Base Station was configured to transmit at maximum power on the middle channel of the frequency block.

TEST REPORT

8.3 Measurement result

Frequency Error – Temperature Variation

KRC 161 934/1:

Configuration NR-MIMO-1C

Antenna Port	Channel Bandwidth	Modulation	Temperature (°C)	Frequency Stability (Hz)		
				Channel Position B	Channel Position M	Channel Position T
B	100MHz	64QAM	-30	-2.31	-2.25	-2.65
			-20	-2.43	-2.73	-2.85
			-10	-2.21	-2.84	-2.38
			0	-2.28	-2.78	-2.22
			10	-2.74	-2.69	-2.81
			20	-2.57	-2.52	-2.64
			30	-2.41	-2.66	-2.62
			40	-2.51	-2.53	-2.65
			50	-2.75	-2.68	-2.72

Frequency Error – Voltage Variation

Configuration NR-MIMO-1C

Antenna Port	Channel Bandwidth	Modulation	Temperature (°C)	Supply Voltage (V)	Frequency Stability (Hz)		
					Channel Position B	Channel Position M	Channel Position T
B	100MHz	64QAM	20	102	-2.77	-2.44	-2.60
				120	-2.57	-2.52	-2.64
				138	-2.60	-2.45	-2.65

TEST REPORT

KRC 161 934/2:

Configuration NR-MIMO-1C

Antenna Port	Channel Bandwidth	Modulation	Temperature (°C)	Frequency Stability (Hz)		
				Channel Position B	Channel Position M	Channel Position T
B	100MHz	64QAM	-30	-2.85	-3.09	-2.95
			-20	-3.11	-3.07	-3.2
			-10	-3.01	-3.06	-3.46
			0	-3.49	-3.1	-3.28
			10	-2.97	-3.15	-3.14
			20	-3.19	-3.38	-3.22
			30	-3.59	-3.19	-3.52
			40	-3.17	-3.42	-3.48
			50	-3.18	-3.29	-3.36

Frequency Error – Voltage Variation

Configuration NR-MIMO-1C

Antenna Port	Channel Bandwidth	Modulation	Temperature (°C)	Supply Voltage (V)	Frequency Stability (Hz)		
					Channel Position B	Channel Position M	Channel Position T
B	100MHz	64QAM	20	-40.8	-3.31	-3.44	-3.04
				-48.0	-3.19	-3.38	-3.22
				-55.2	-3.49	-3.28	-3.33

***** END *****