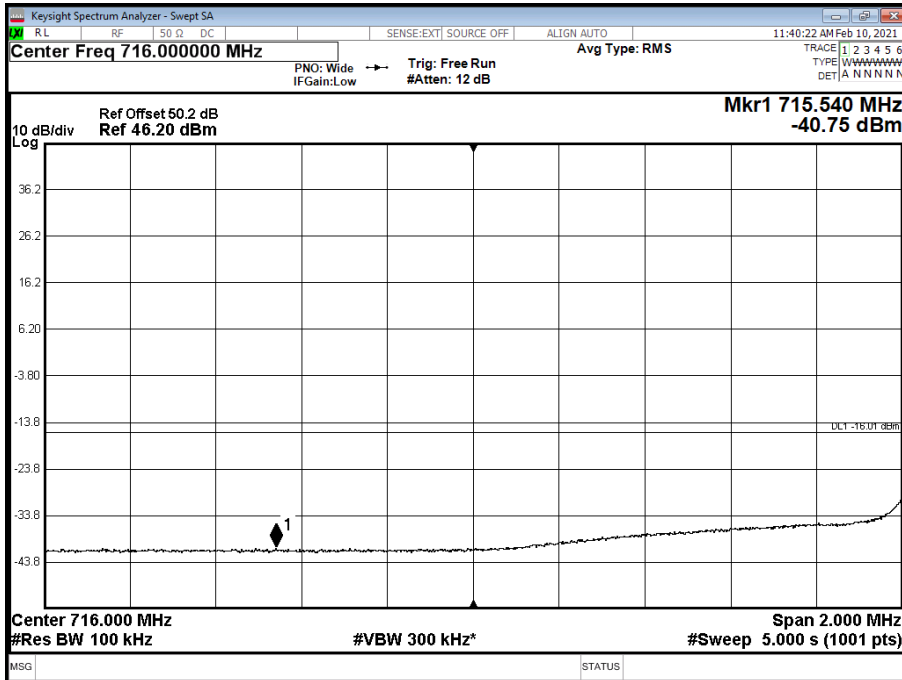
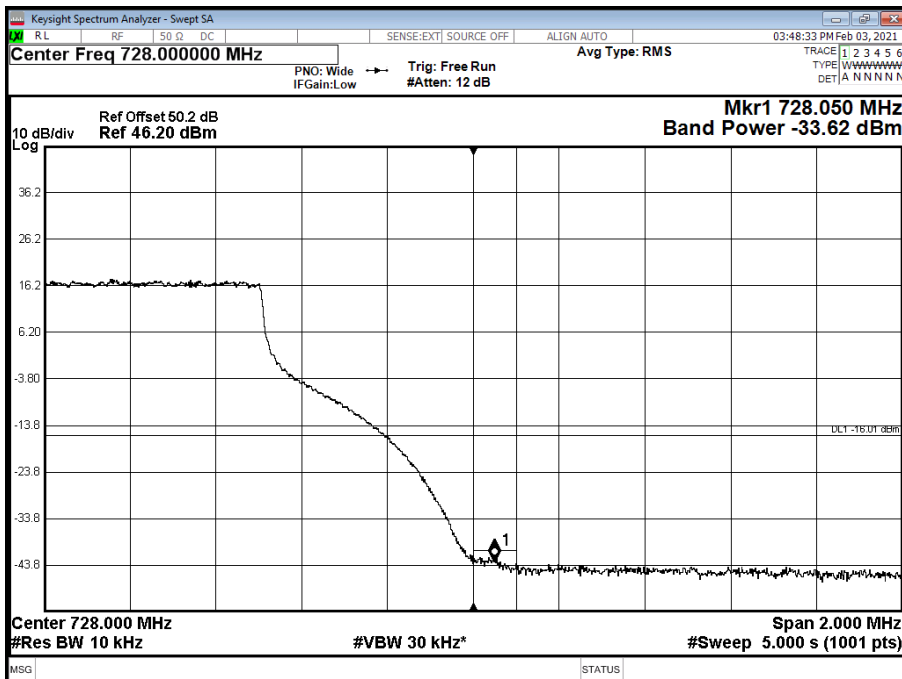




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T



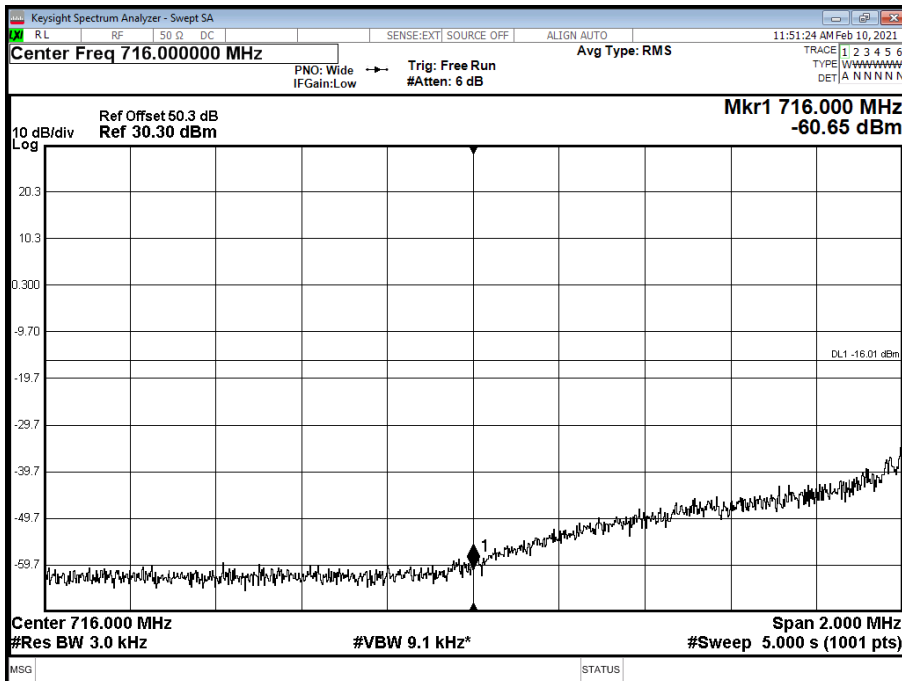


Configuration 2

Maximum Output Power 43 dBm

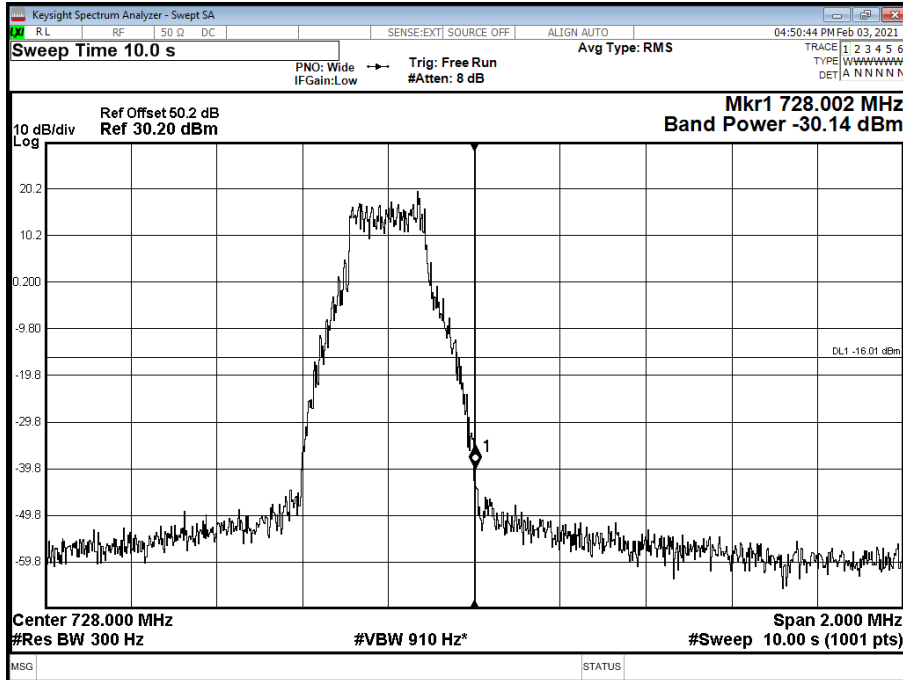
Antenna	NB-IoT SA Modulation	NB-IoT SA Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	400 kHz	717.2	727.8

Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position B





Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position T



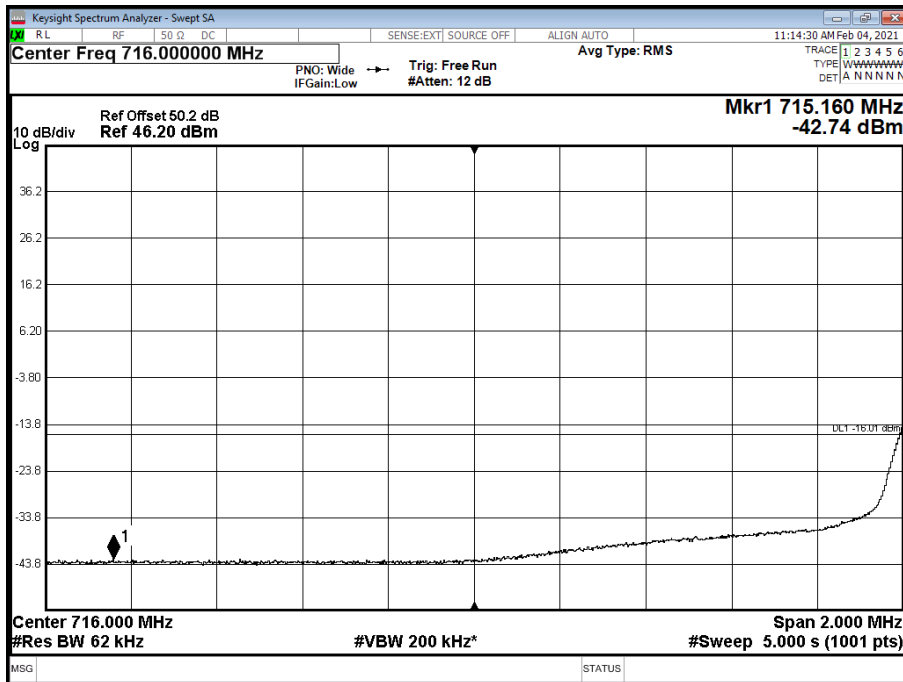
Configuration 3

Maximum Output Power 46 dBm

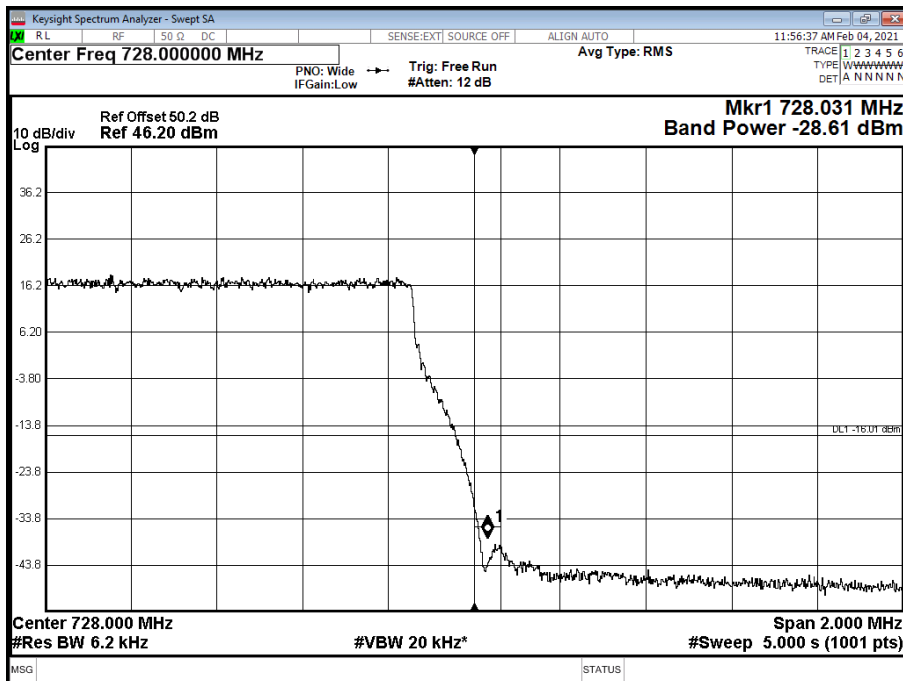
Antenna	LTE Modulation	LTE Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	3.0 MHz	718.5 + 721.5	723.5 + 726.5
A	QPSK	5.0 MHz	719.5 + 724.5	720.5 + 725.5



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position B

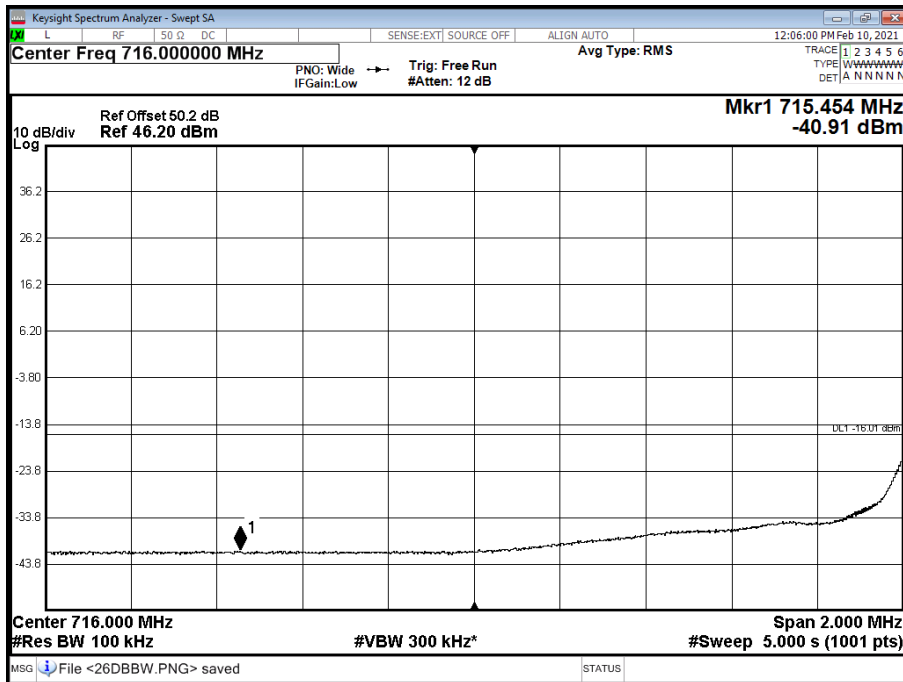


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position T

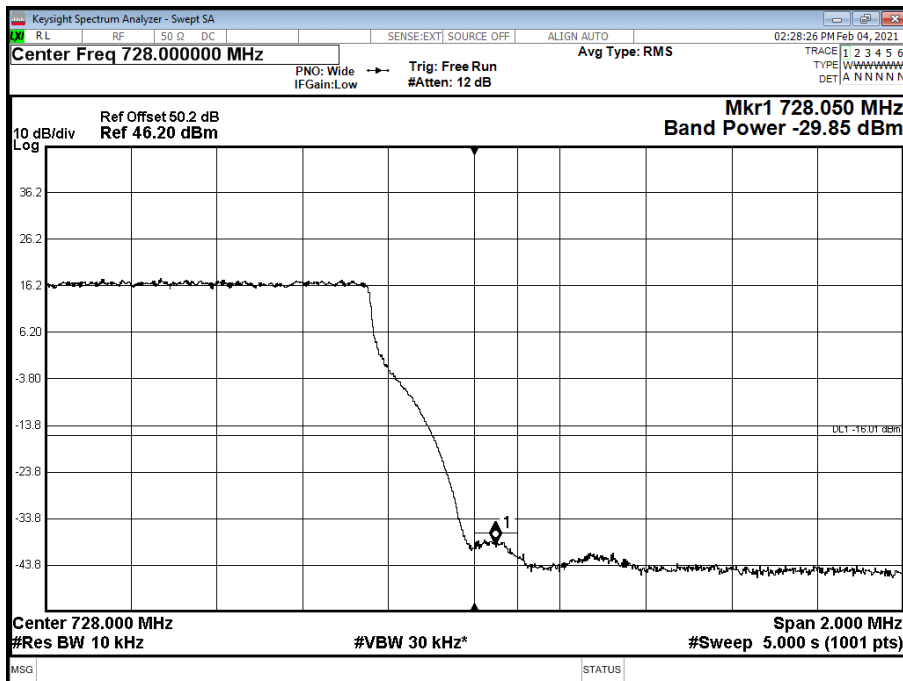




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position B



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position T



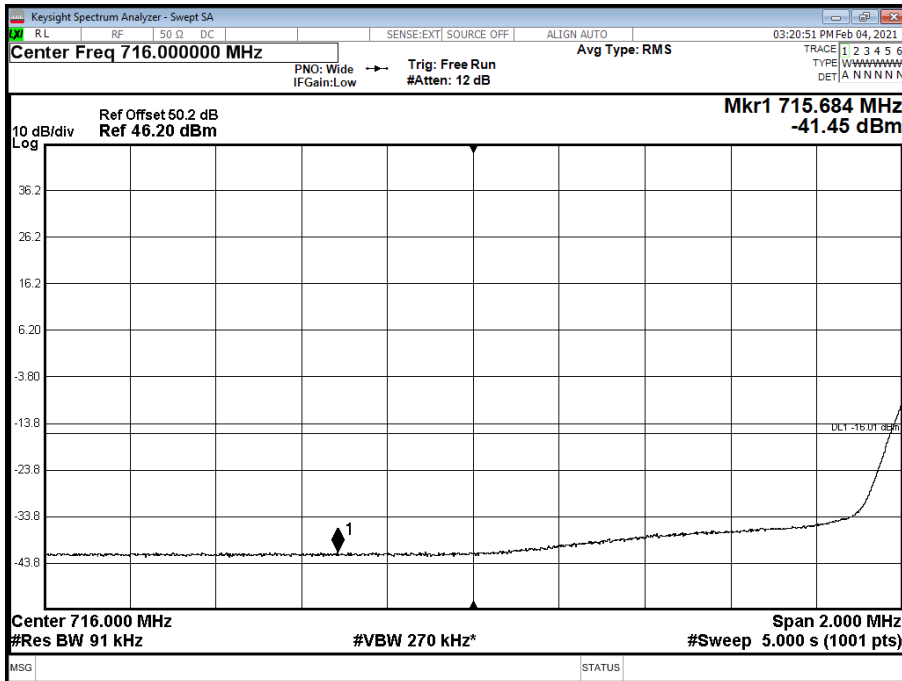


Configuration 4

Maximum Output Power 46 dBm

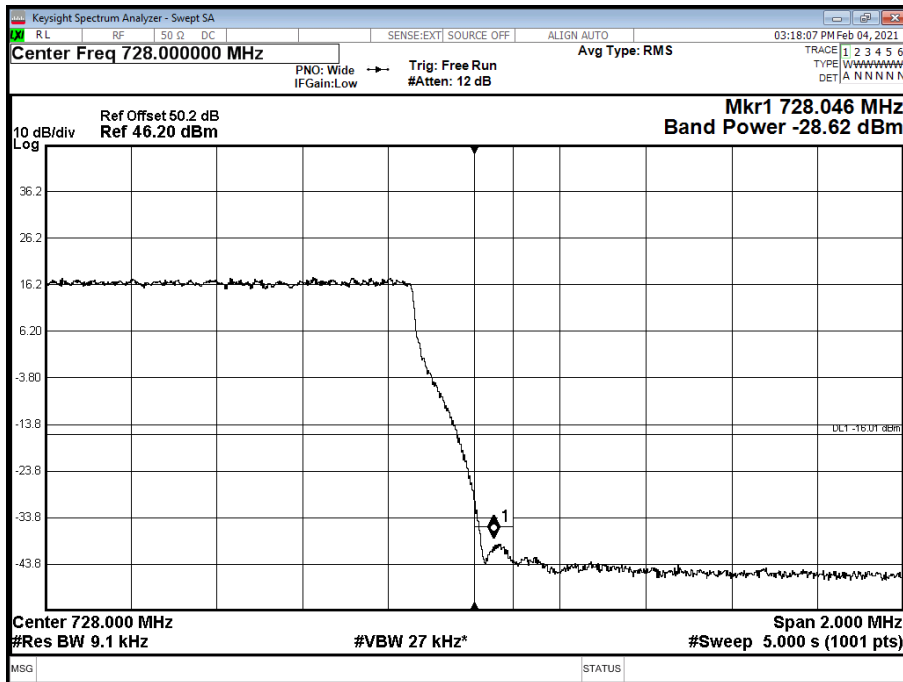
Antenna	LTE Modulation	LTE Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	QPSK	3.0 MHz	718.5 + 721.5 + 724.5	720.5 + 723.5 + 726.5

Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position B





Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position T



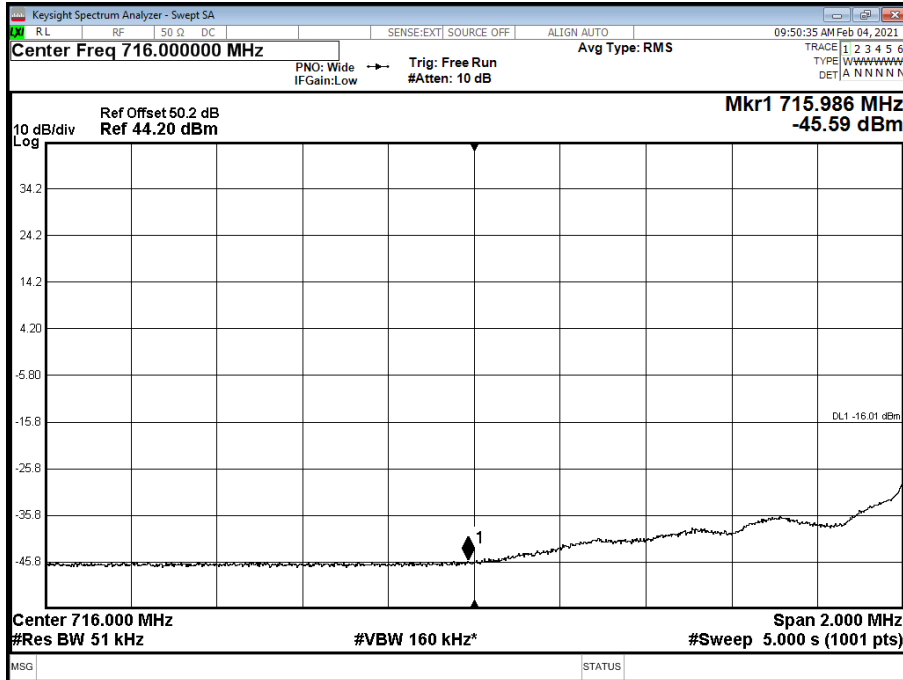
Configuration 5

Maximum Output Power 46 dBm

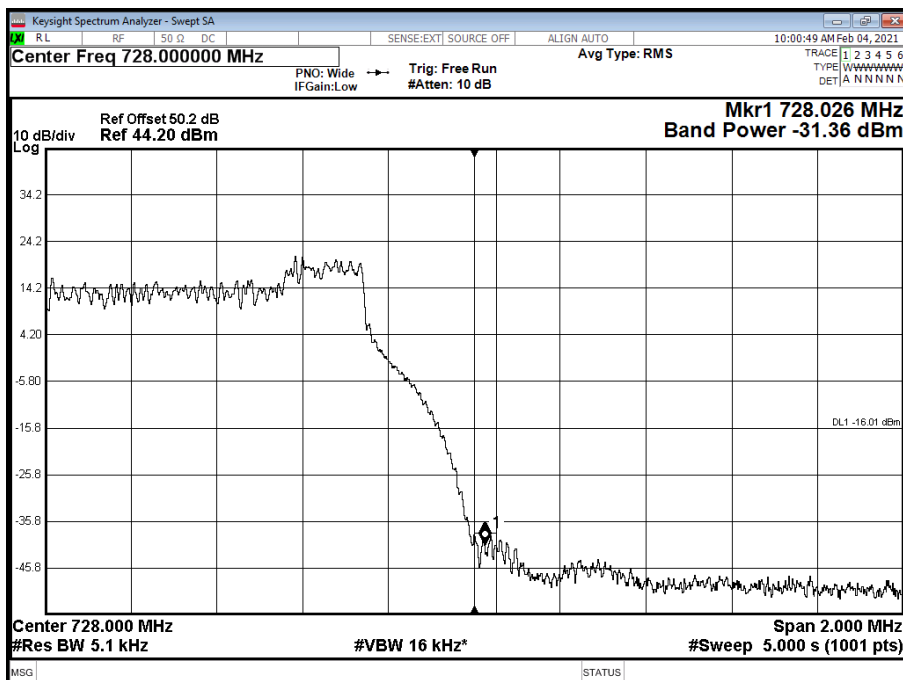
Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	16QAM	5.0 MHz 15 kHz SCS	719.5	725.5
A	16QAM	10.0 MHz 15 kHz SCS	722.0	723.0



Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B

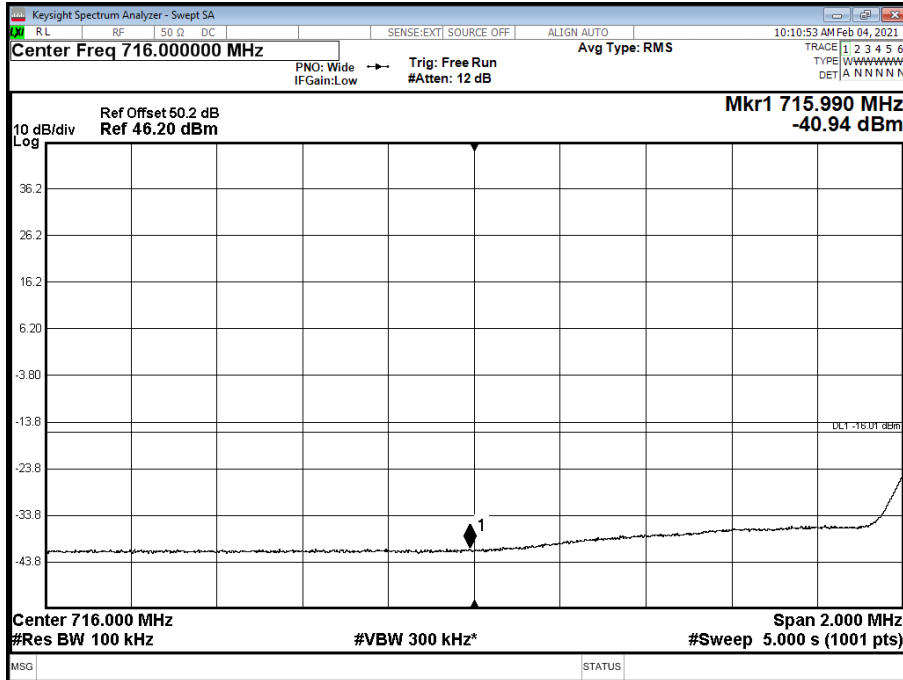


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T

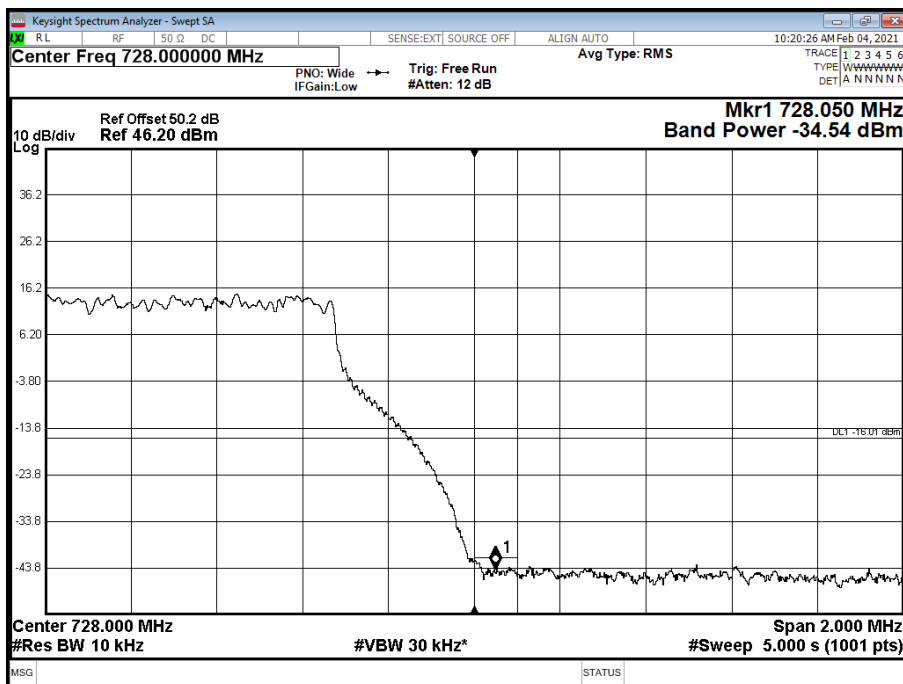




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B



Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T



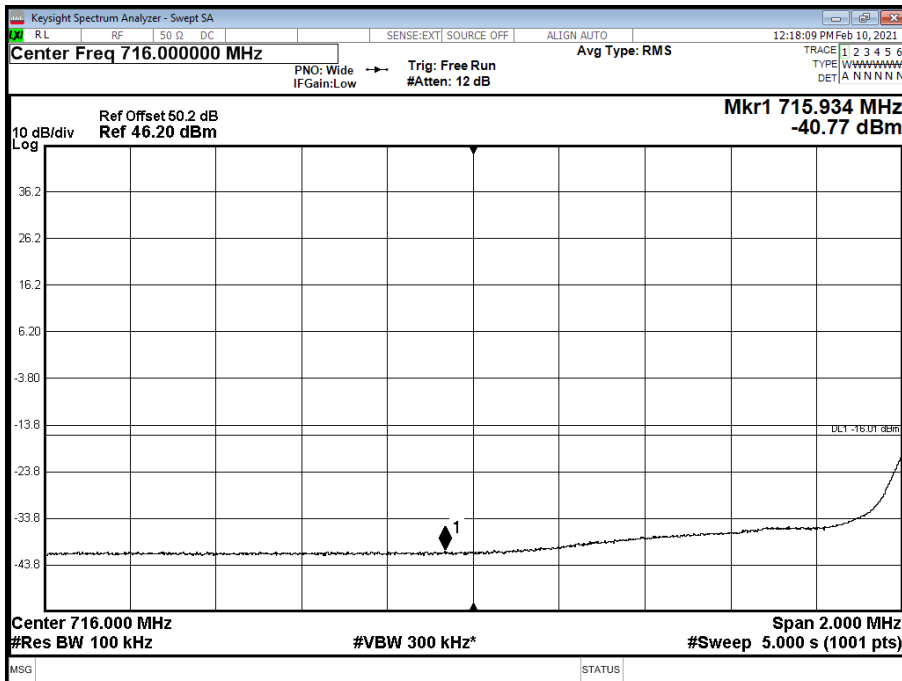


Configuration 6

Maximum Output Power 46 dBm

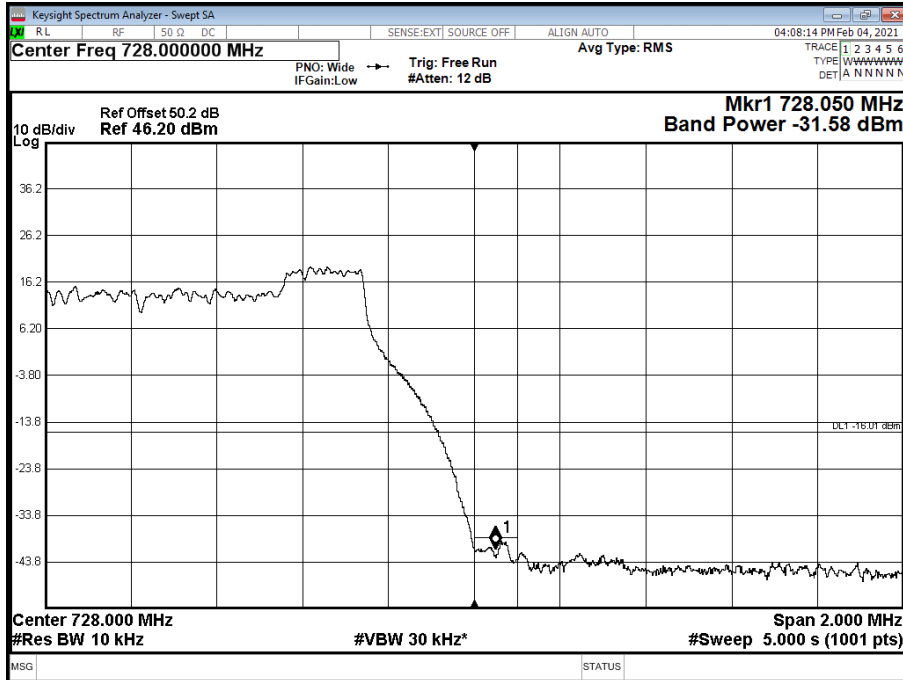
Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
A	16QAM	5.0 MHz 15 kHz SCS	719.5 + 724.5	720.5 725.5

Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B





Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T



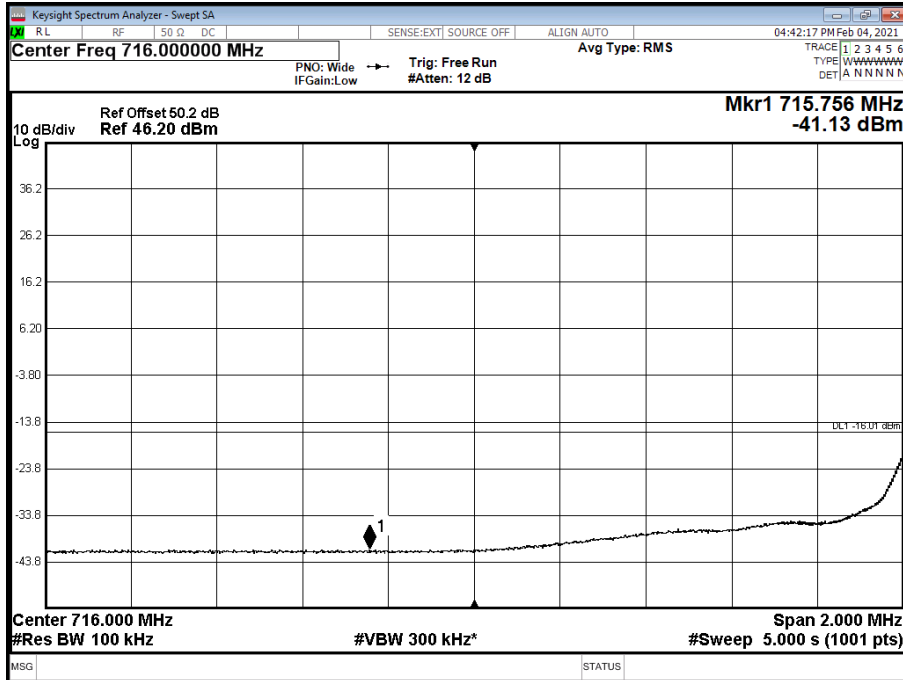
Configuration 7

Maximum Output Power 46 dBm

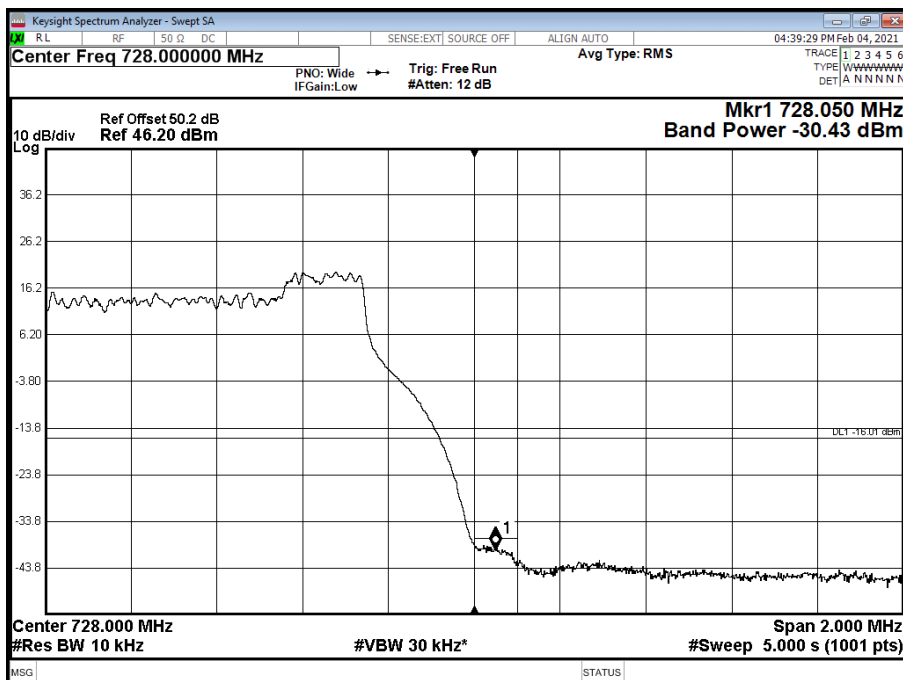
Antenna	LTE / NR Modulation	LTE / NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position BRFBW	Channel Position TRFBW
A	QPSK / 16QAM	5.0 MHz / 5.0 MHz 15 kHz SCS	719.5 + 724.5	720.5 + 725.5



Antenna A - LTE / NR Modulation QPSK / 16QAM - LTE / NR Carrier Bandwidth 5.0 MHz / 5.0 MHz 15 kHz SCS - Channel Position BRFBW



Antenna A - LTE / NR Modulation QPSK / 16QAM - LTE / NR Carrier Bandwidth 5.0 MHz / 5.0 MHz 15 kHz SCS - Channel Position TRFBW



Limit	-16 dBm
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2.4 TRANSMITTER SPURIOUS EMISSIONS

2.4.1 Specification Reference

FCC CFR 47 Part 2, Clause 2.1051
FCC CFR 47 Part 27, Clause 27.53 (h)
ISED RSS-130, Clause 4.7

2.4.2 Date of Test and Modification State

03 and 04 February 2021 - Modification State 0

2.4.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.4 Environmental Conditions

Ambient Temperature	22.0 – 22.5°C
Relative Humidity	36.1 - 42.1%

2.4.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.1.

For dual port, the limit was calculated as being $-13 \text{ dBm} - 10 * \text{Log}(2) = -16 \text{ dBm}$.

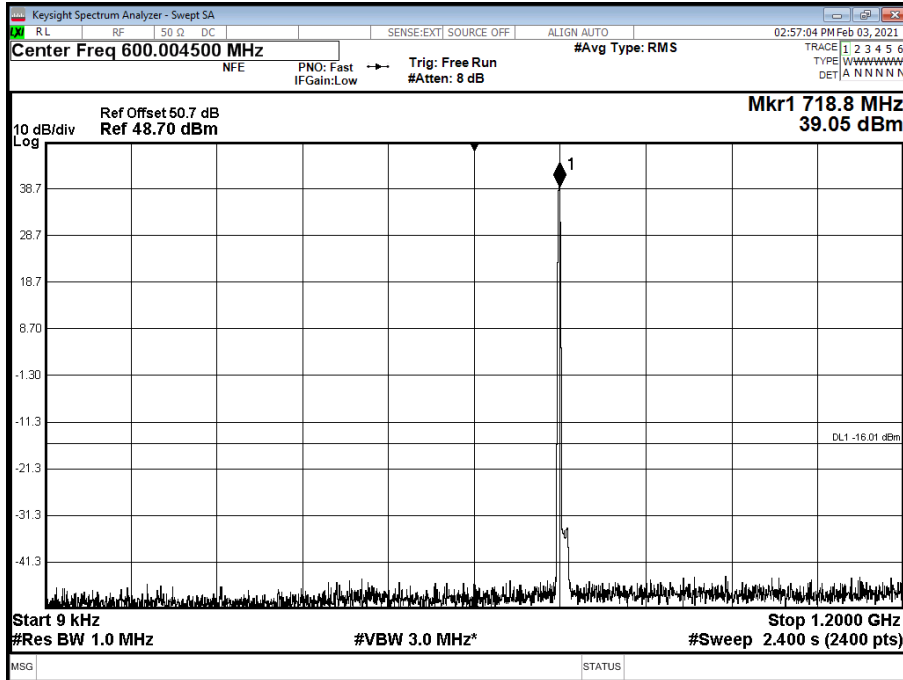
2.4.6 Test Results

Configuration 1

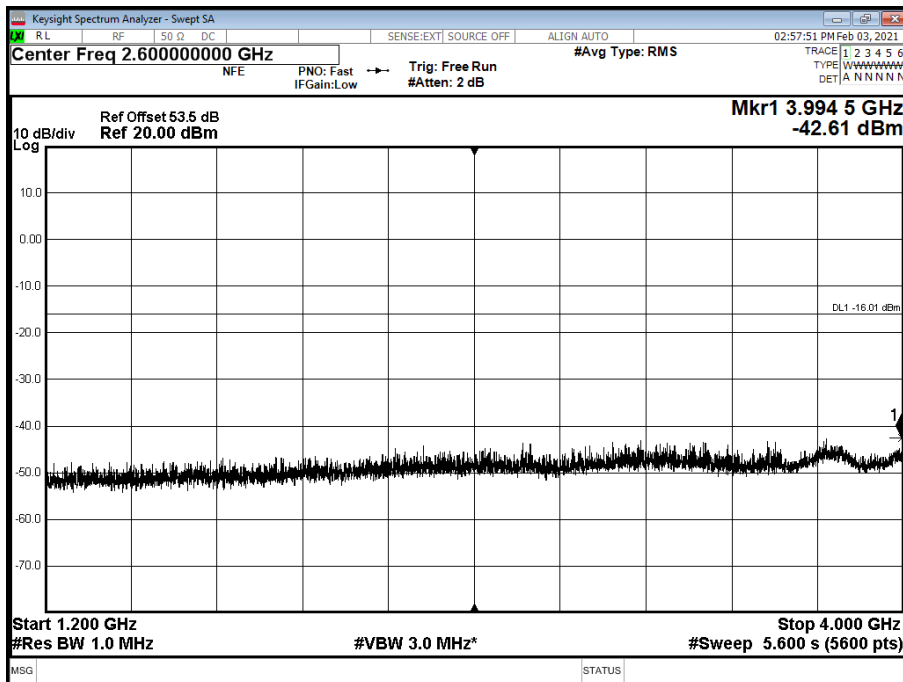
Maximum Output Power 43 dBm



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

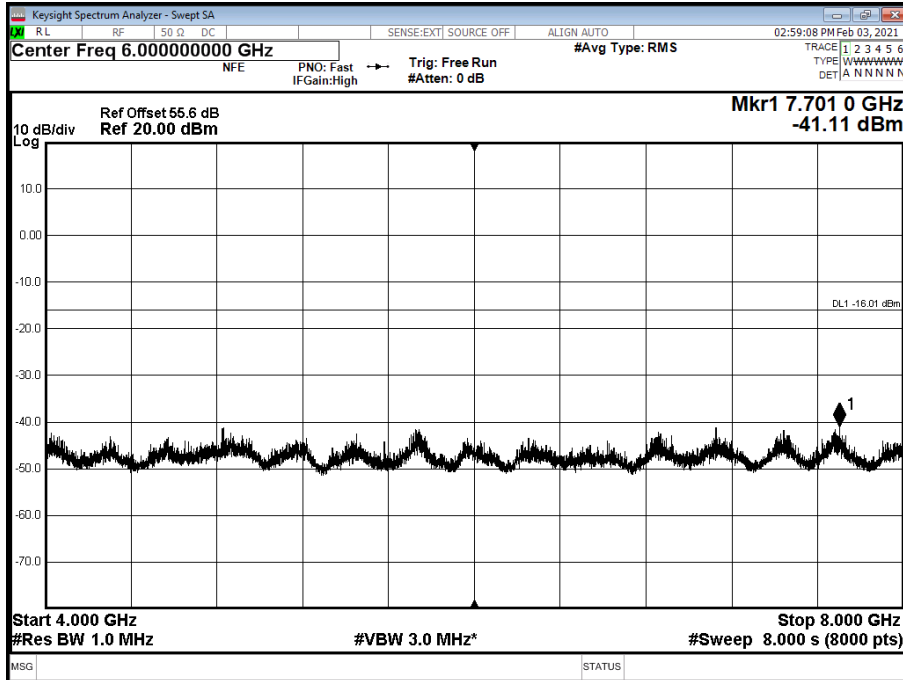


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position B - Band 2 - Range 1200 to 4000 MHz

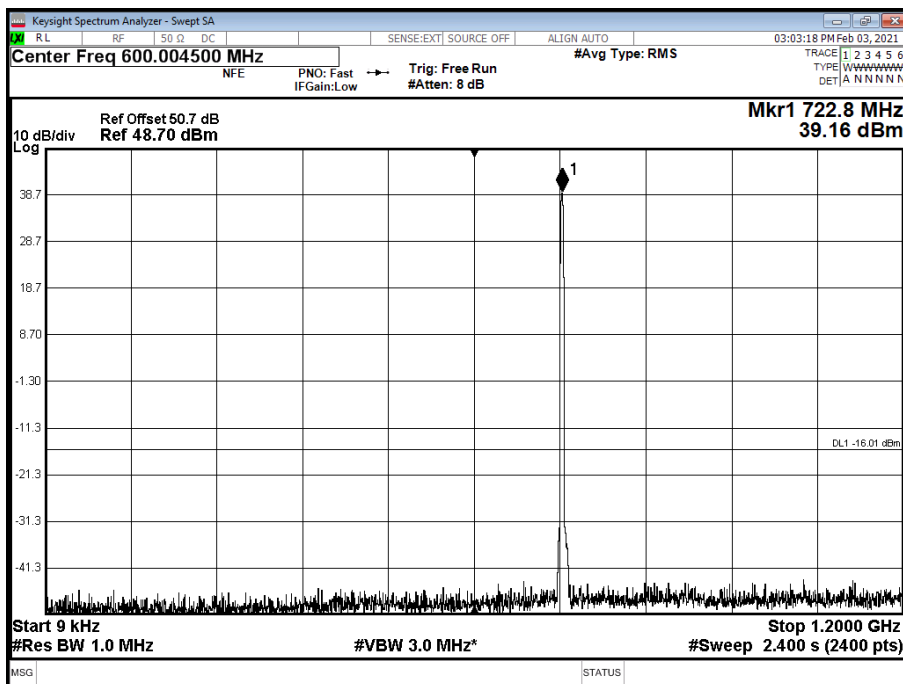




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position B - Band 3 - Range 4000 to 8000 MHz

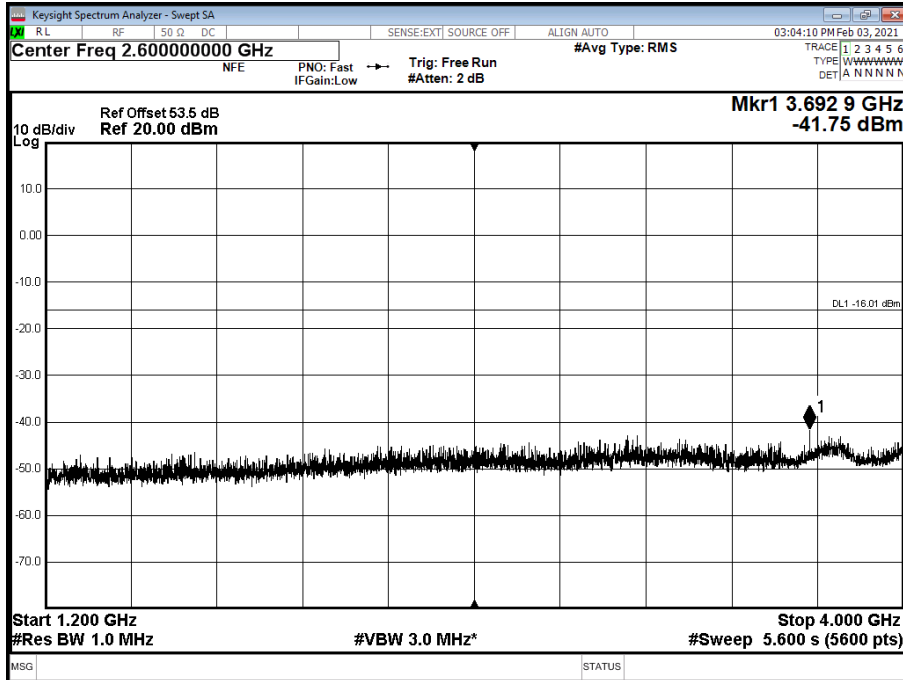


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

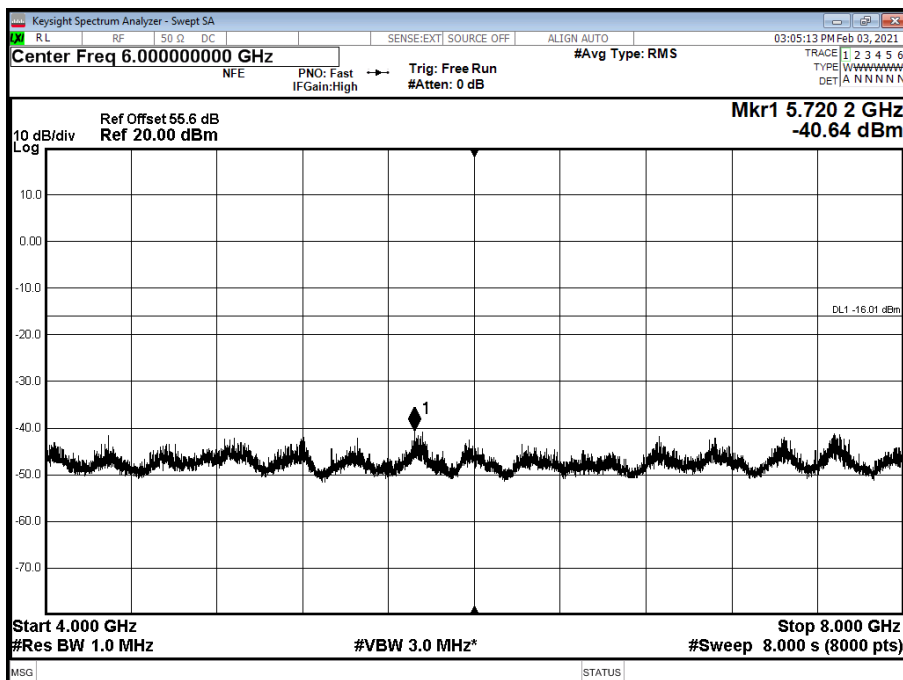




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz

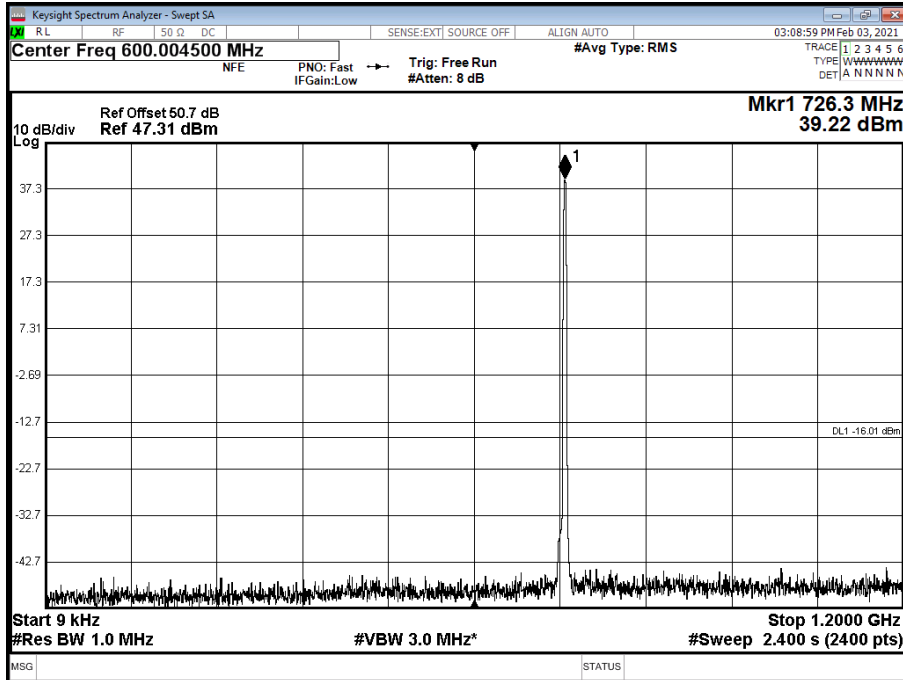


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

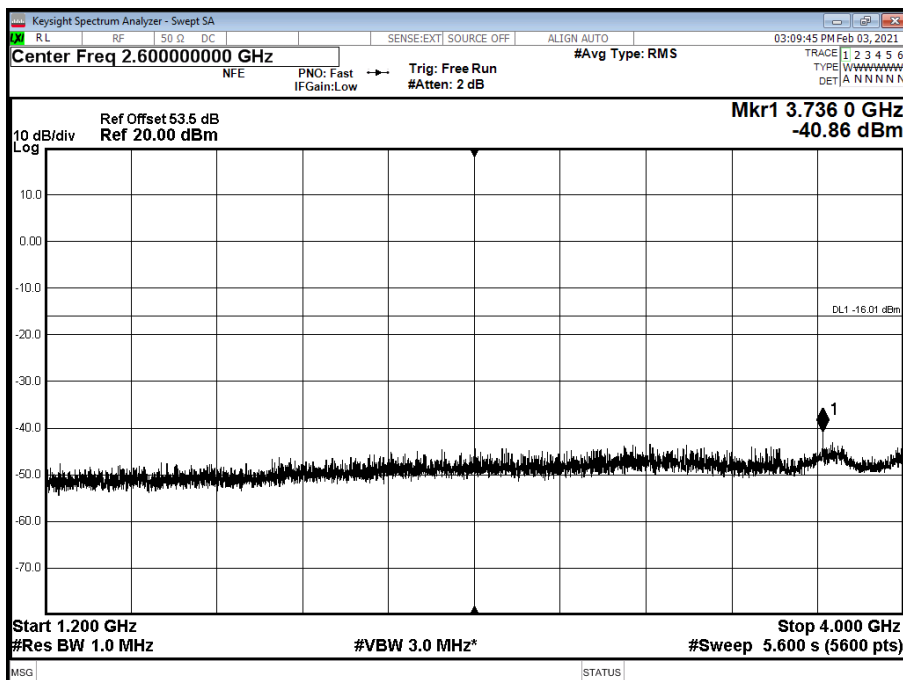




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

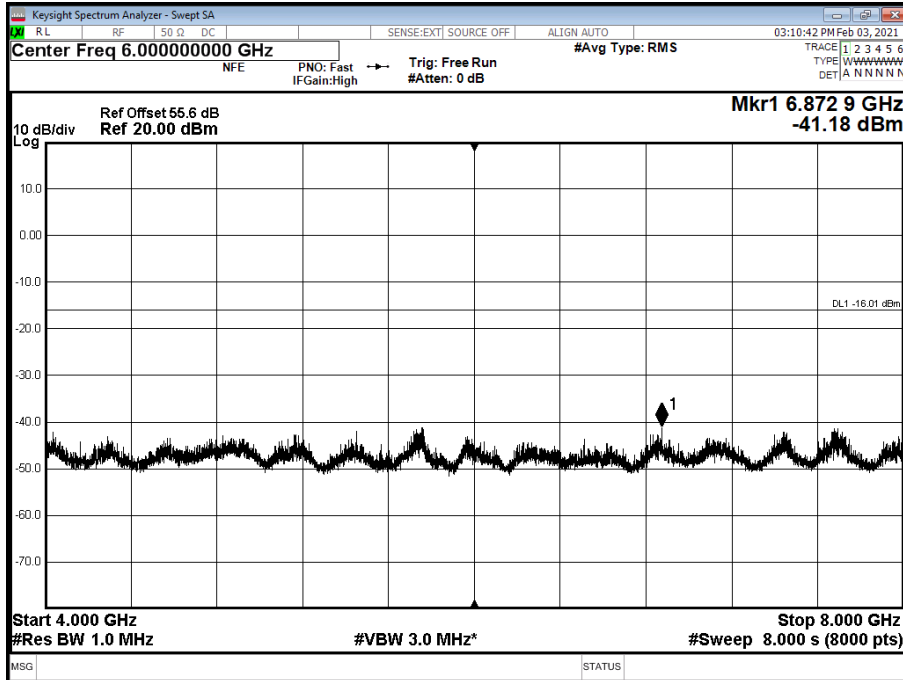


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position T - Band 2 - Range 1200 to 4000 MHz

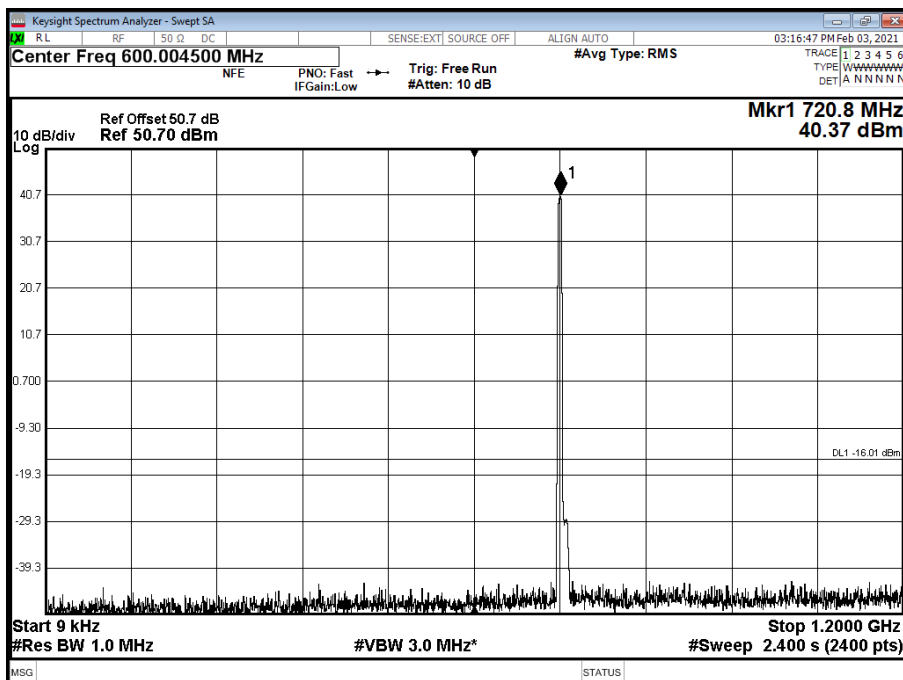




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position T - Band 3 - Range 4000 to 8000 MHz

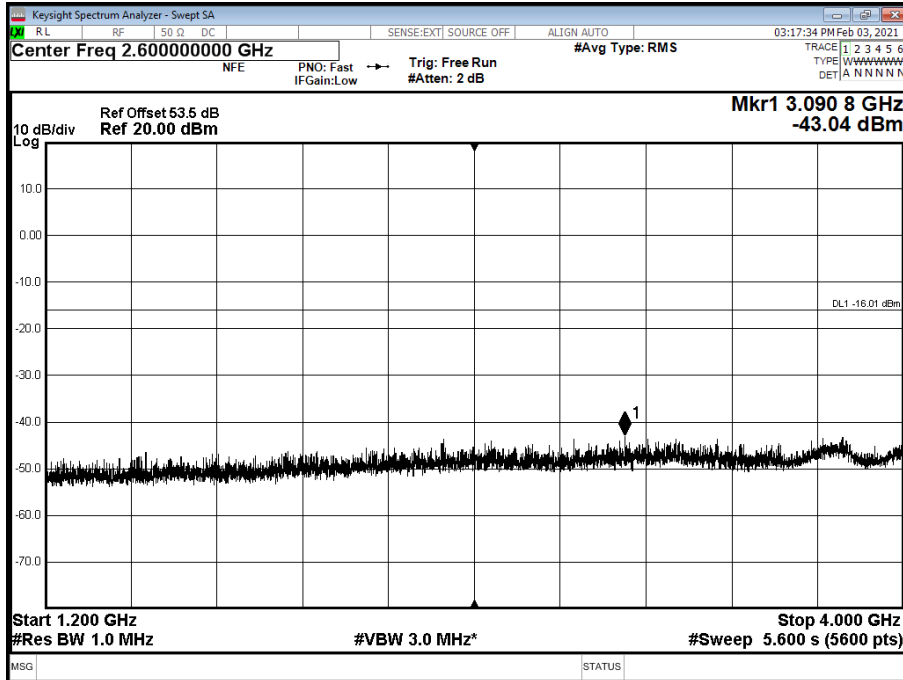


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

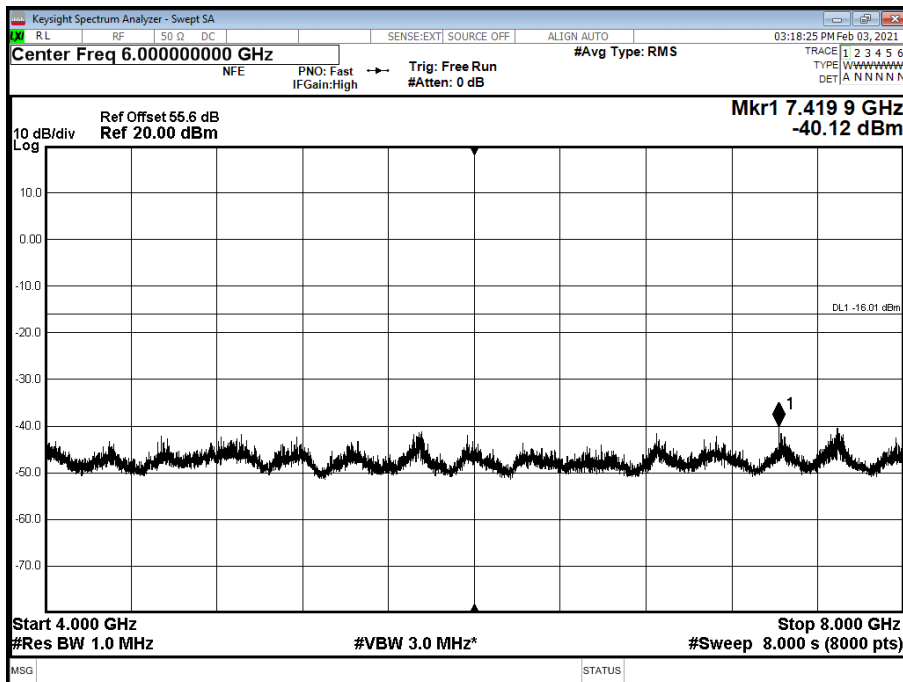




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position B - Band 2 - Range 1200 to 4000 MHz

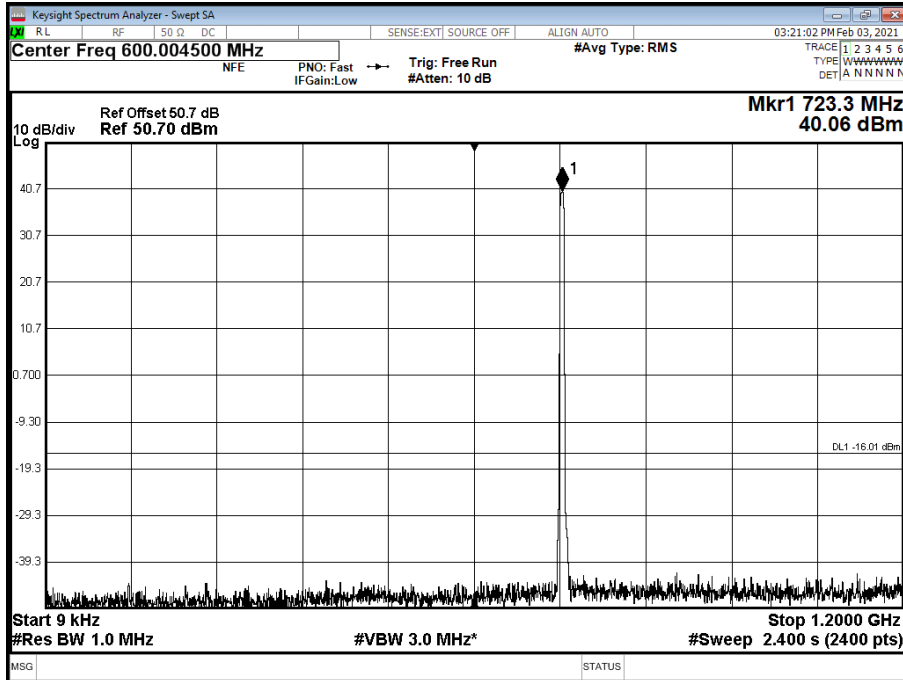


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position B - Band 3 - Range 4000 to 8000 MHz

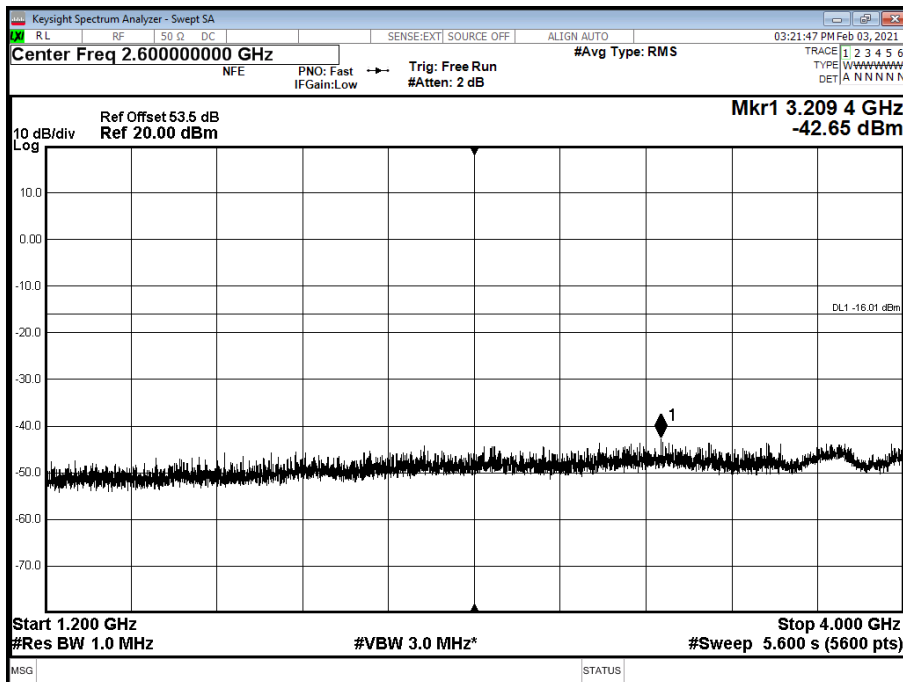




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

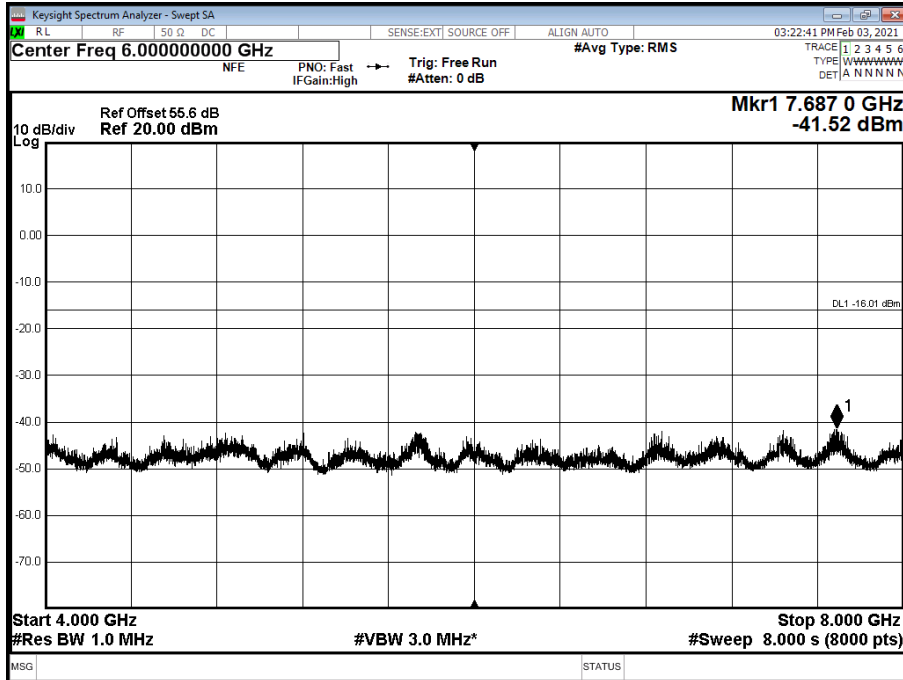


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz

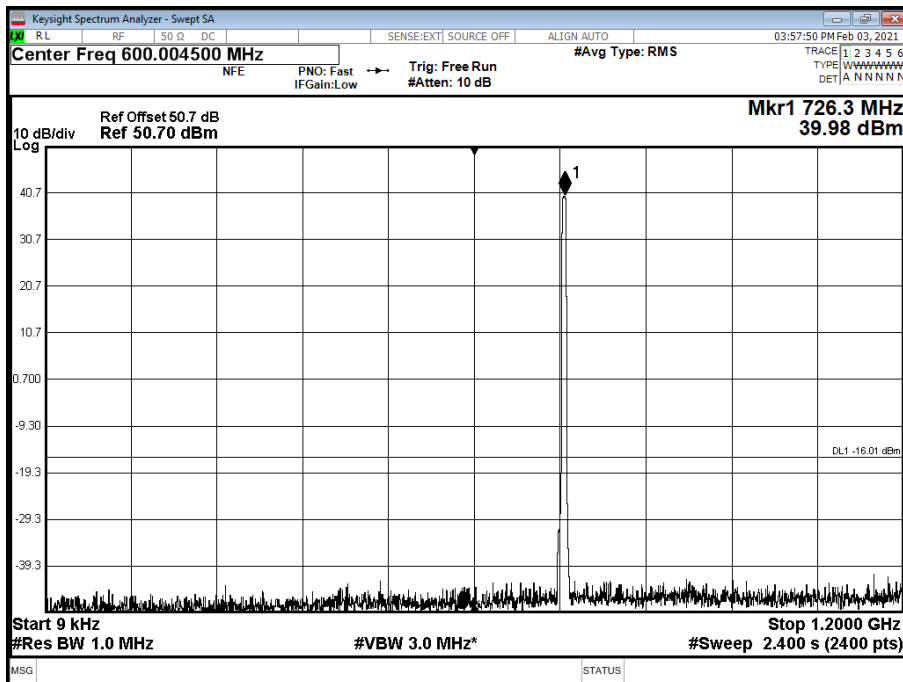




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

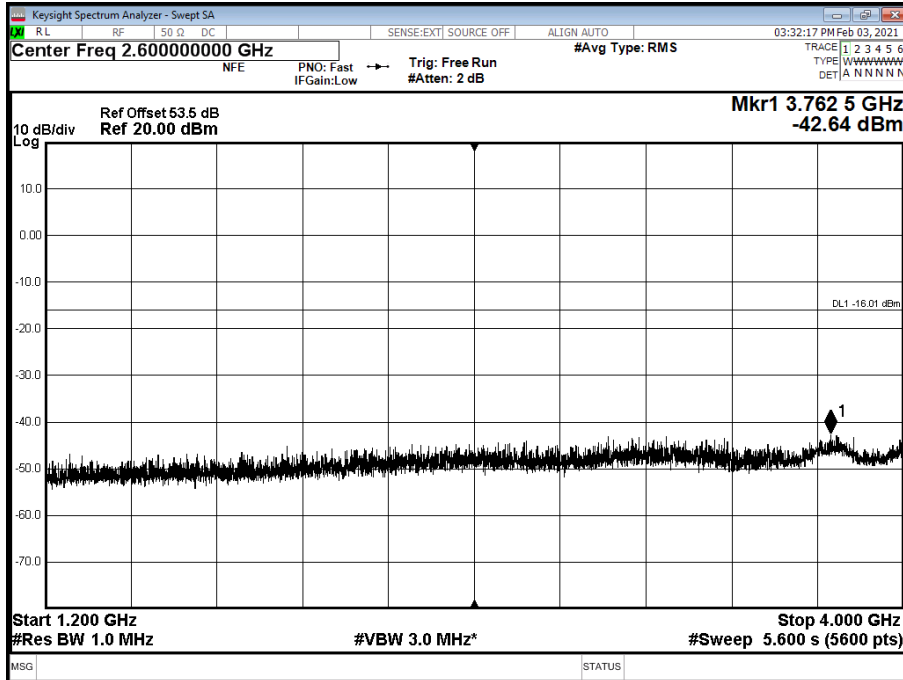


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

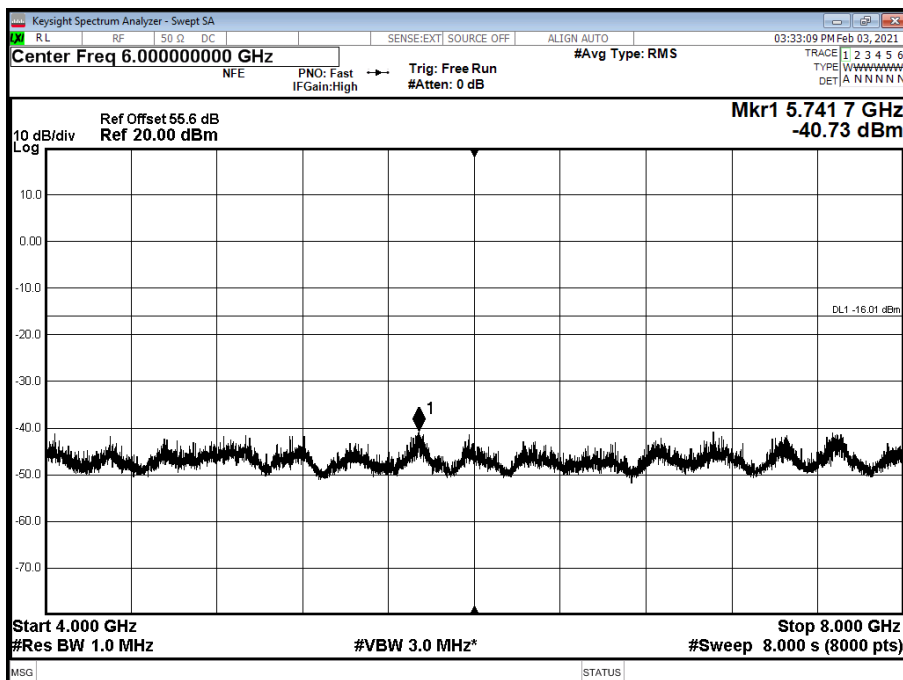




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position T - Band 2 - Range 1200 to 4000 MHz

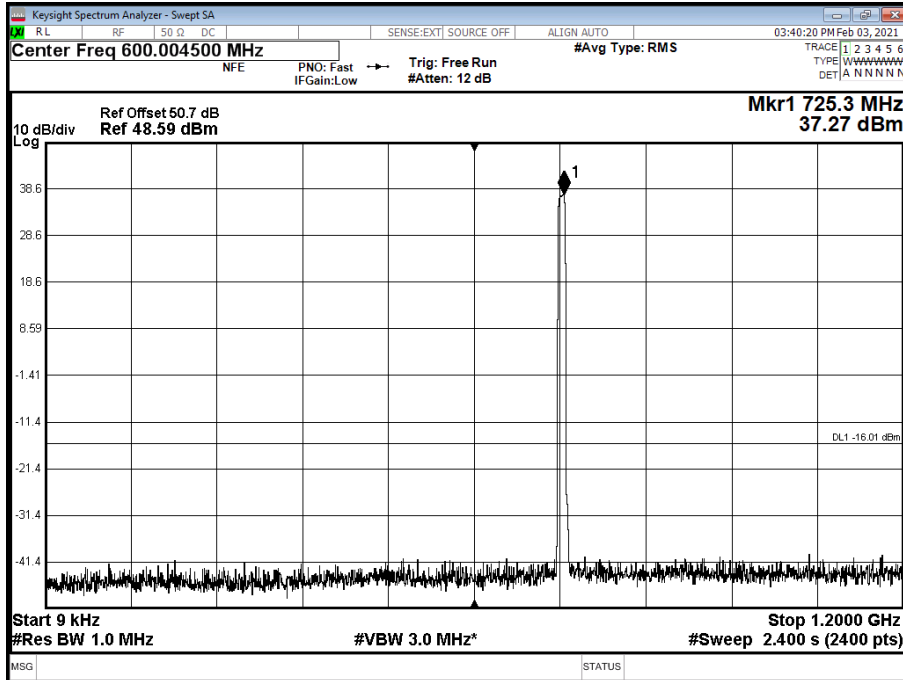


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position T - Band 3 - Range 4000 to 8000 MHz

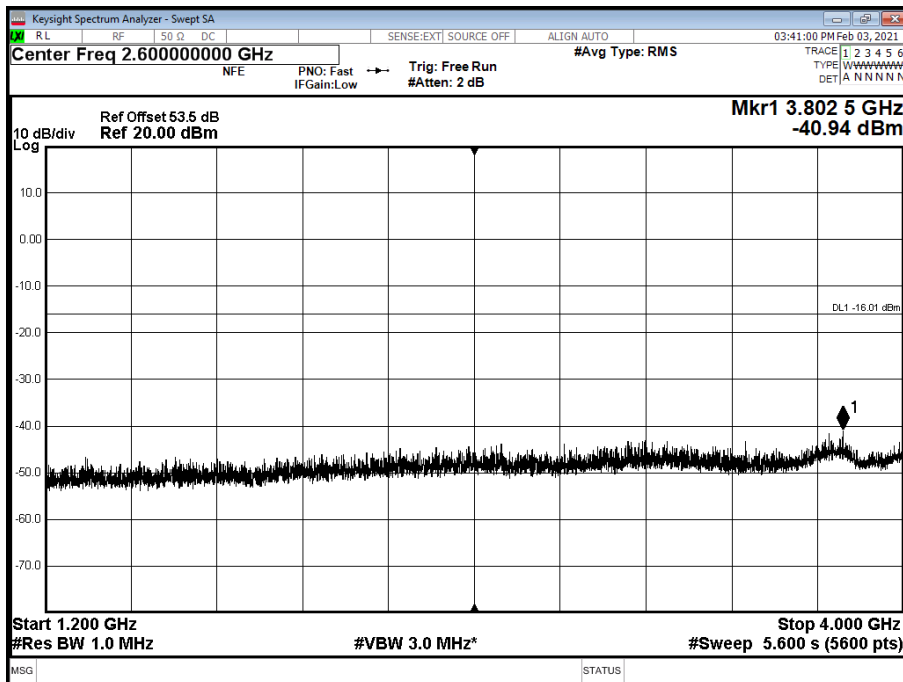




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

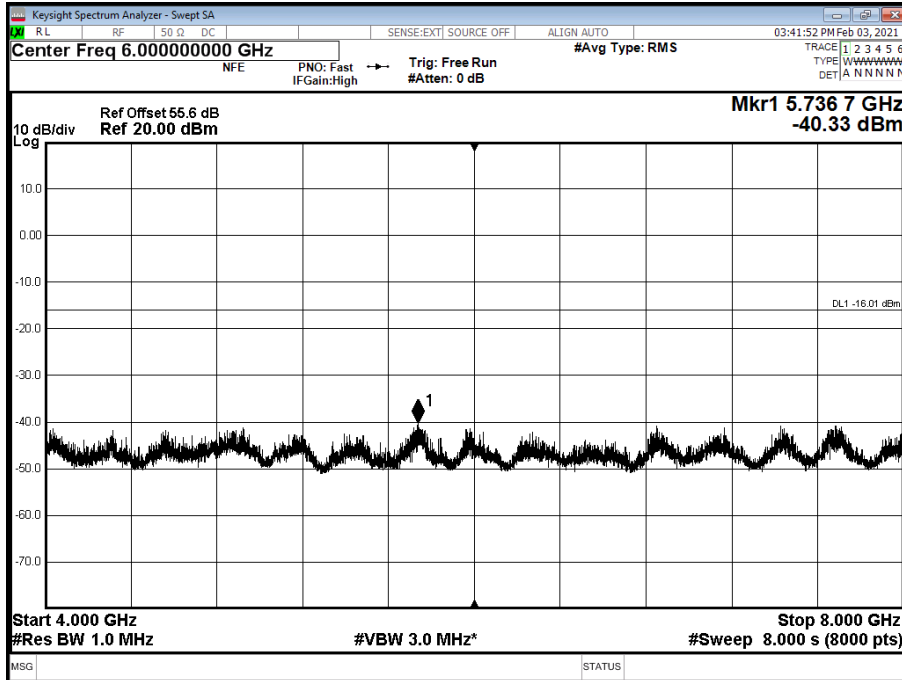


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B - Band 2 - Range 1200 to 4000 MHz

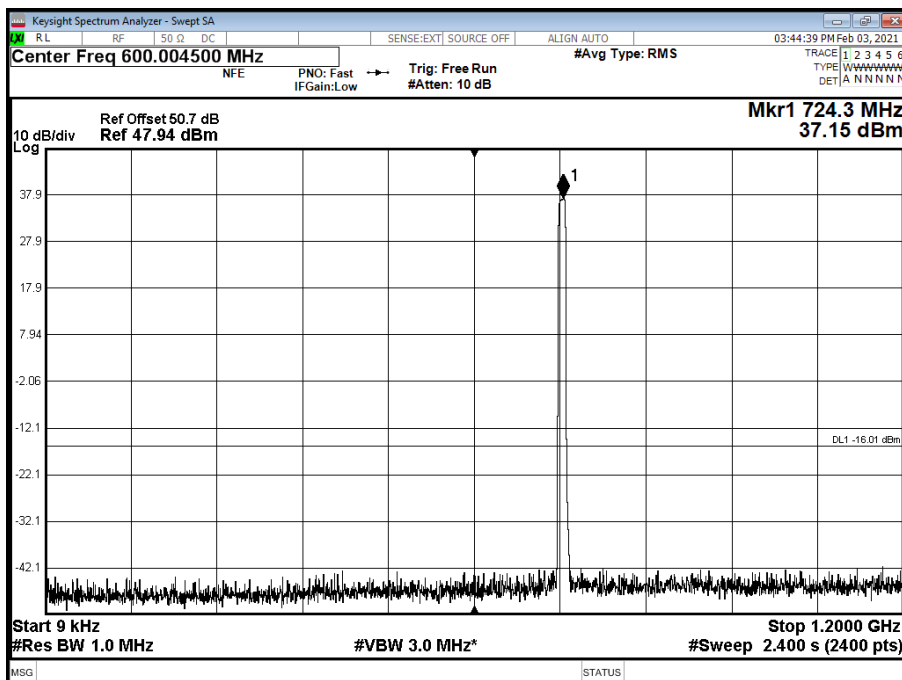




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B - Band 3 - Range 4000 to 8000 MHz

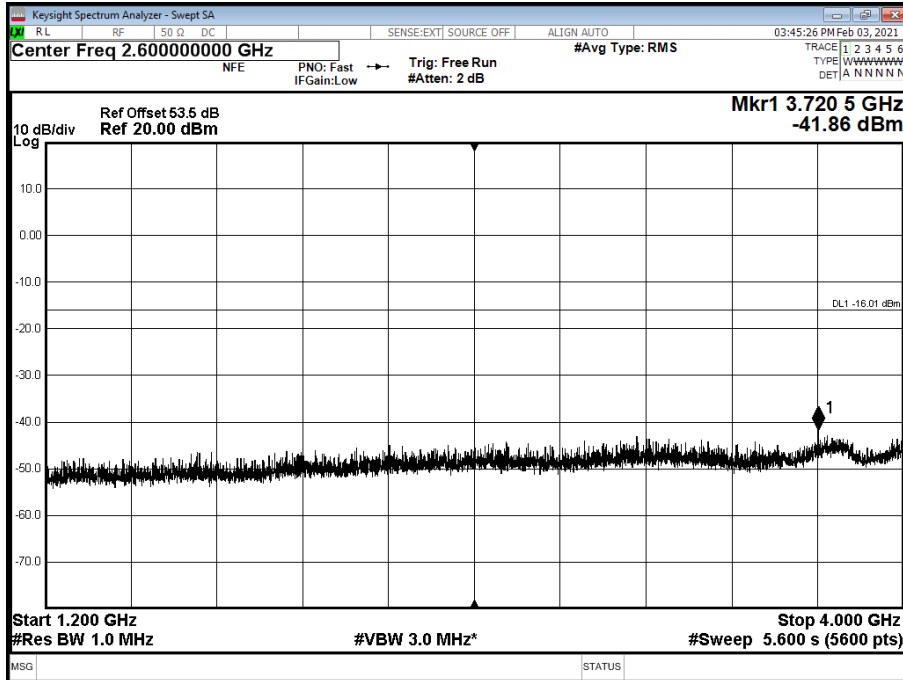


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

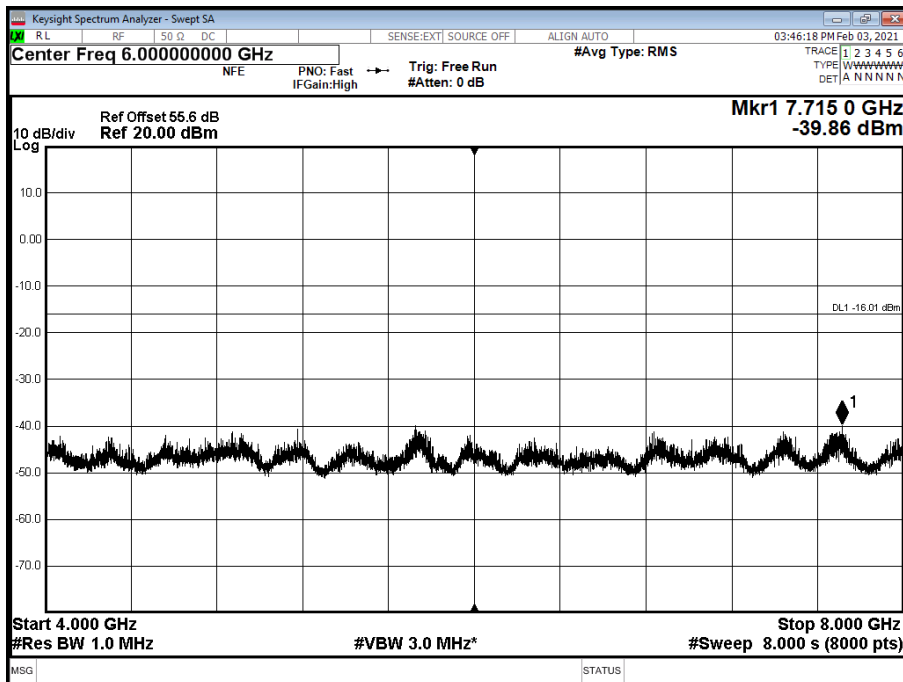




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz

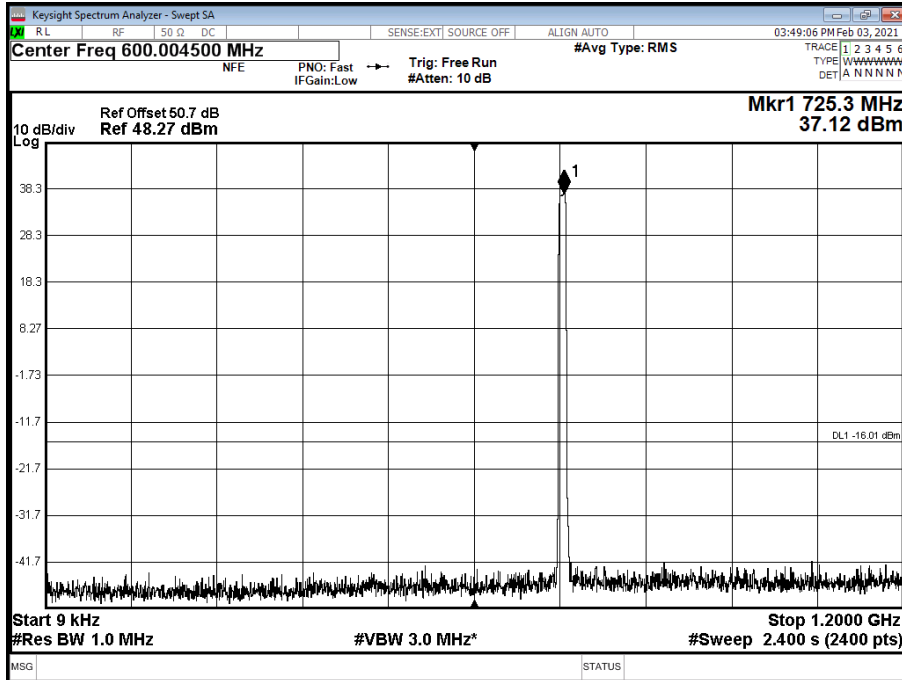


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

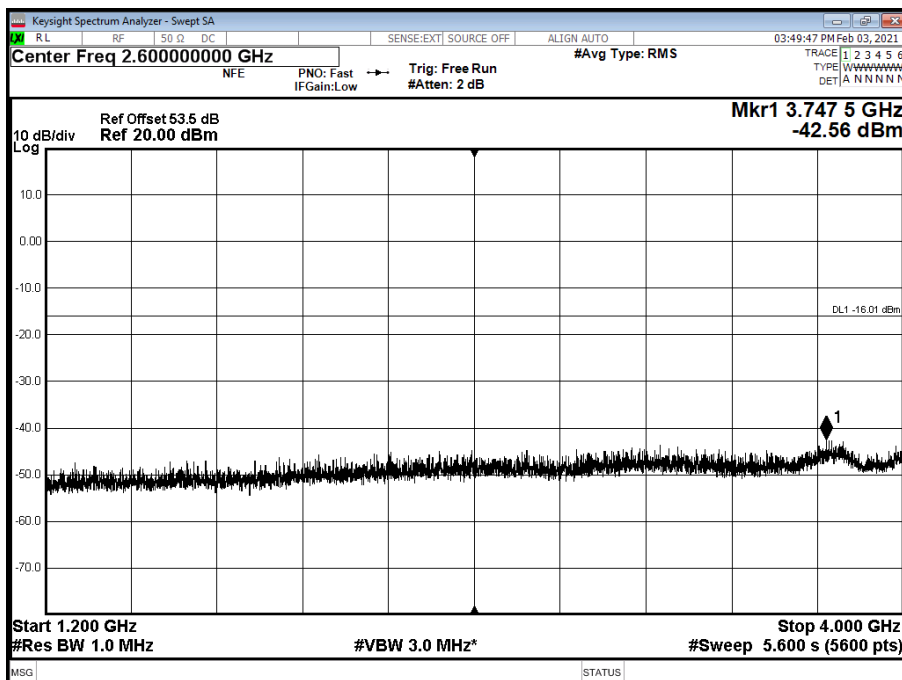




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

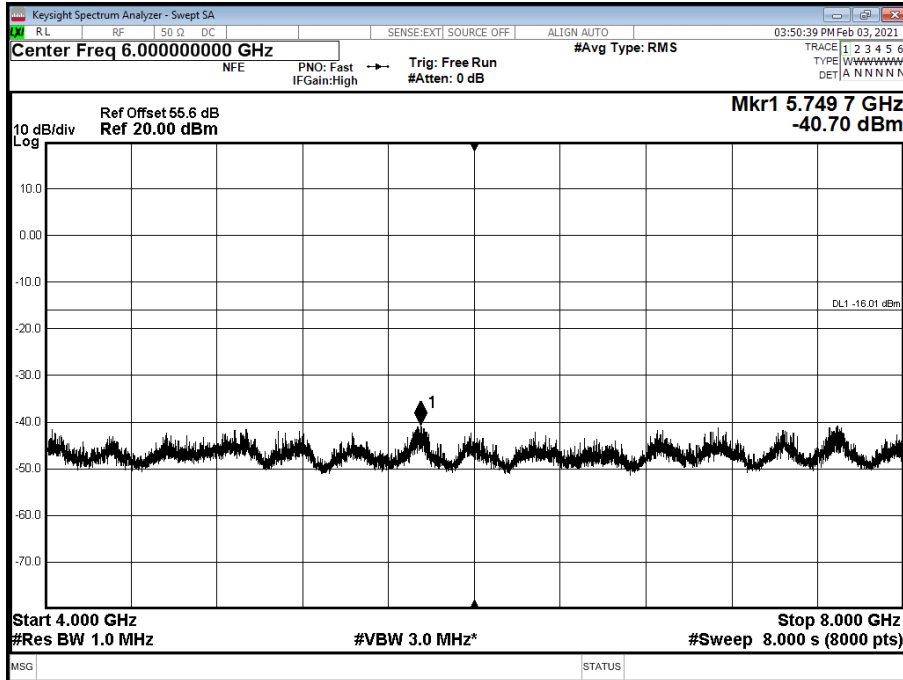


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T - Band 2 - Range 1200 to 4000 MHz





Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T - Band 3 - Range 4000 to 8000 MHz

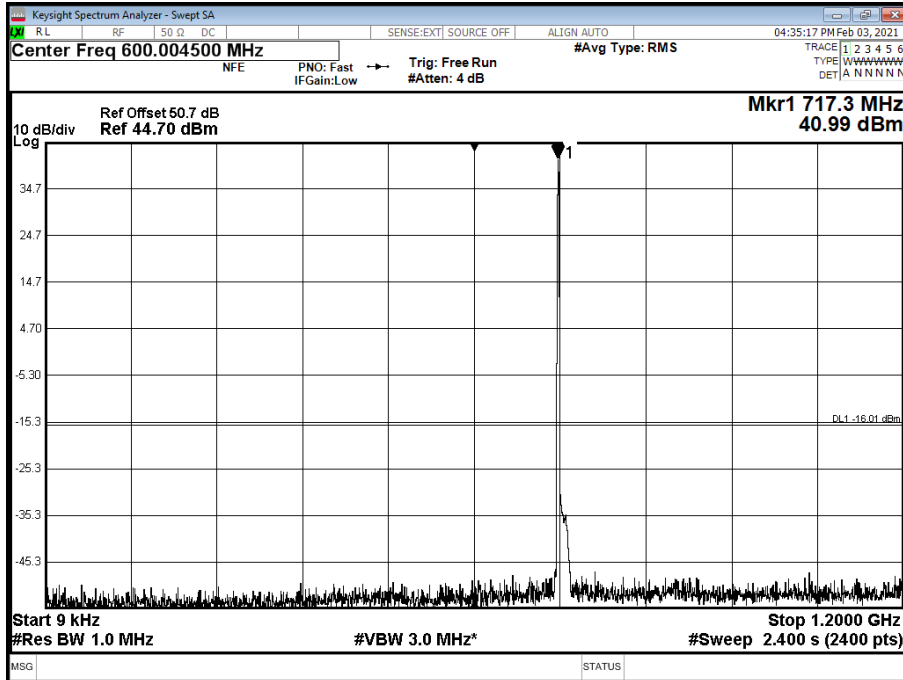


Configuration 2

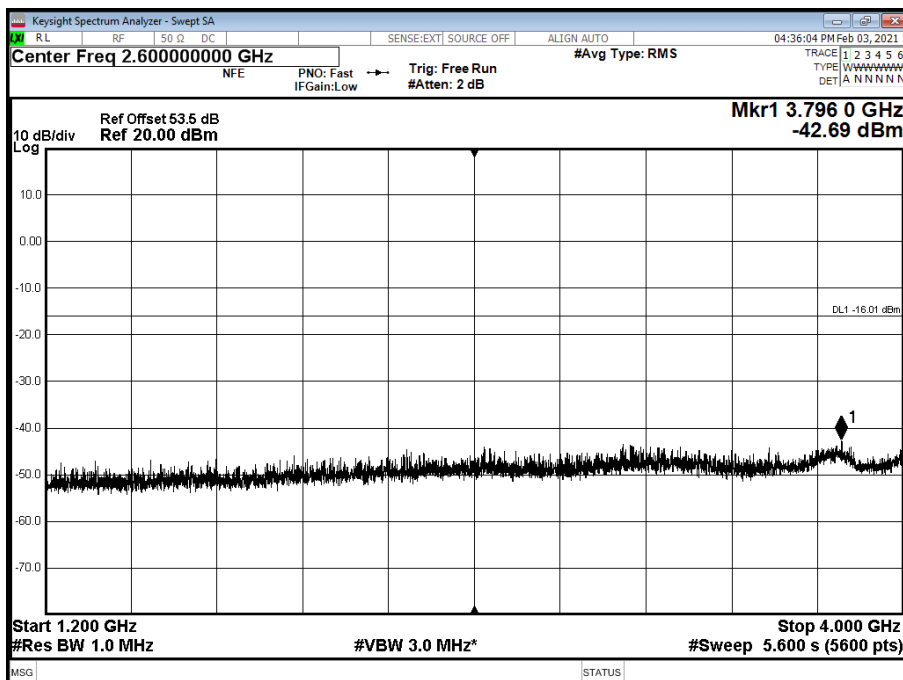
Maximum Output Power 43 dBm



Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

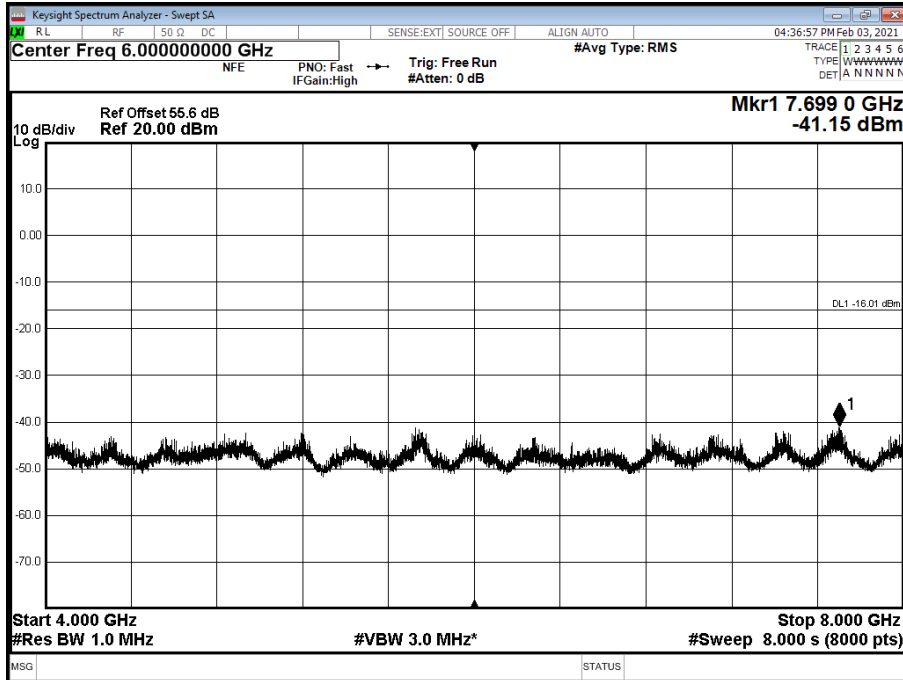


Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position B - Band 2 - Range 1200 to 4000 MHz

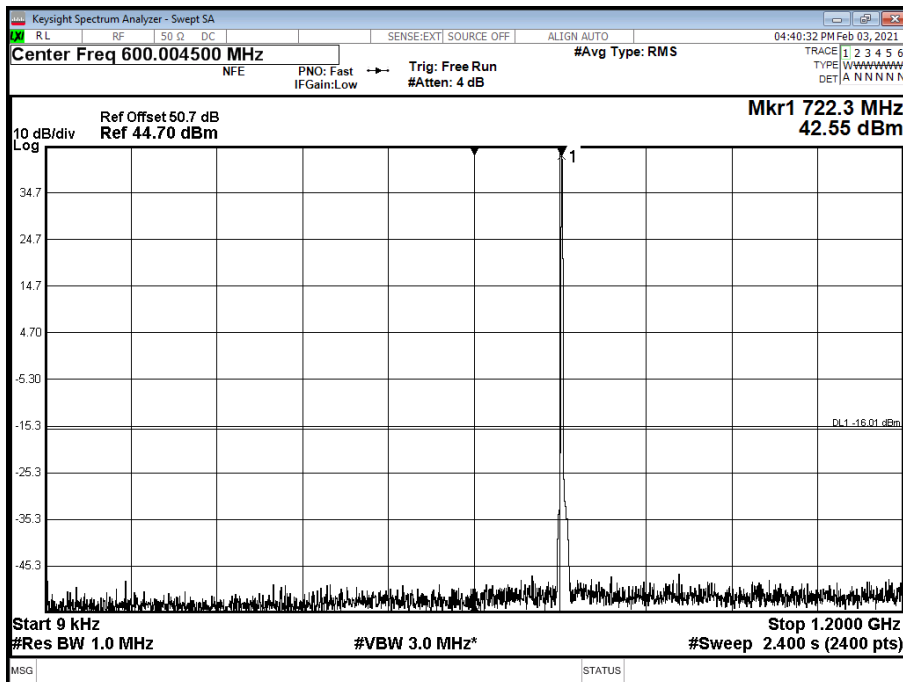




Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position B - Band 3 - Range 4000 to 8000 MHz

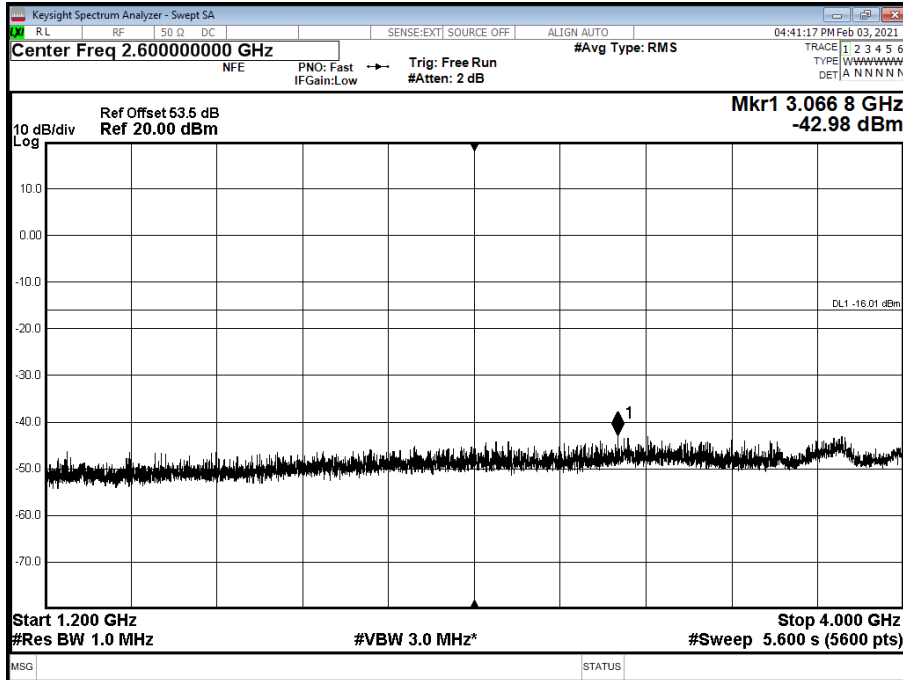


Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

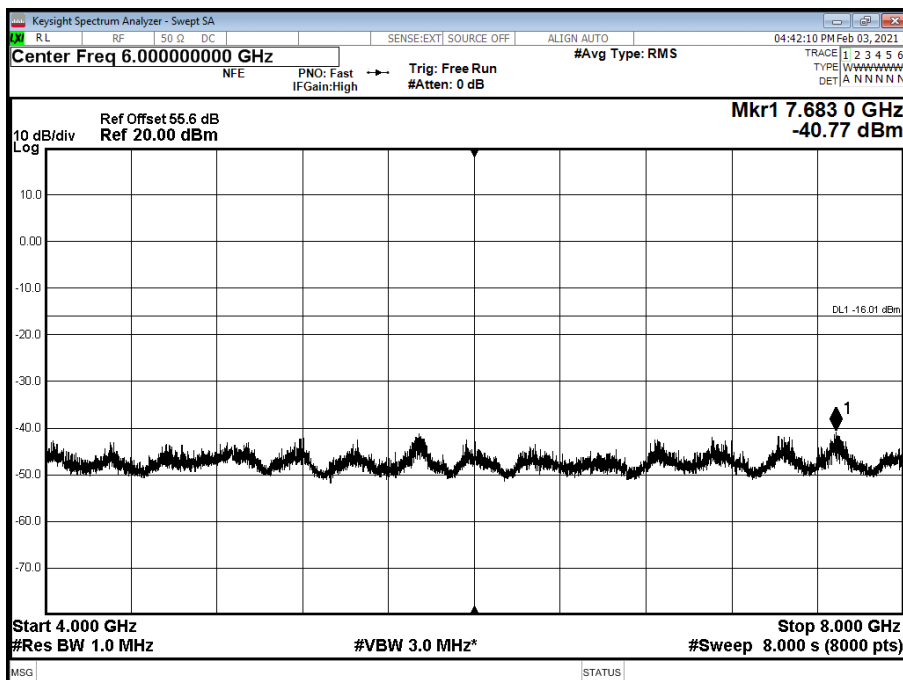




Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz

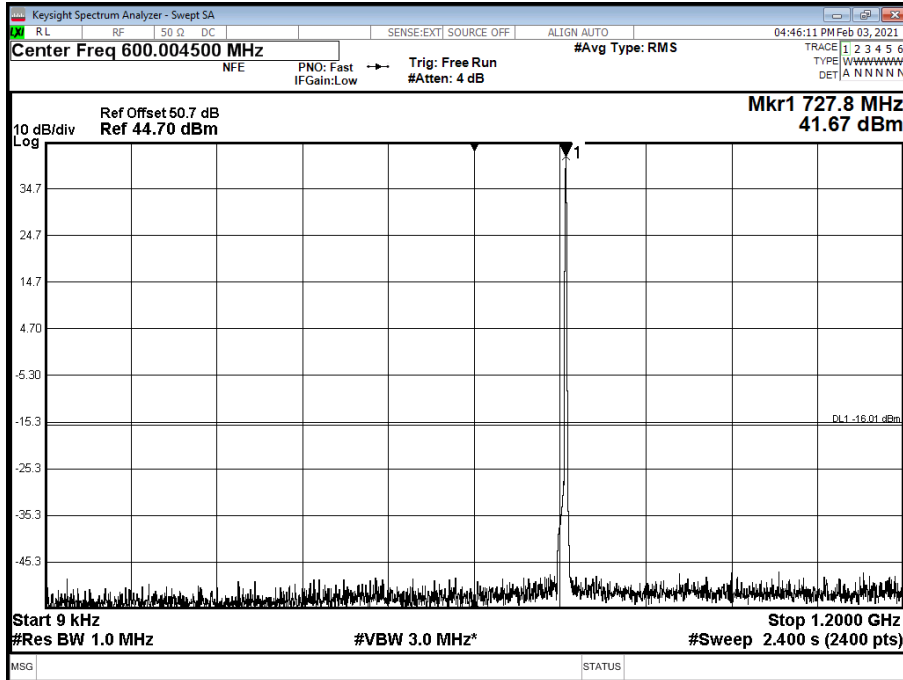


Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

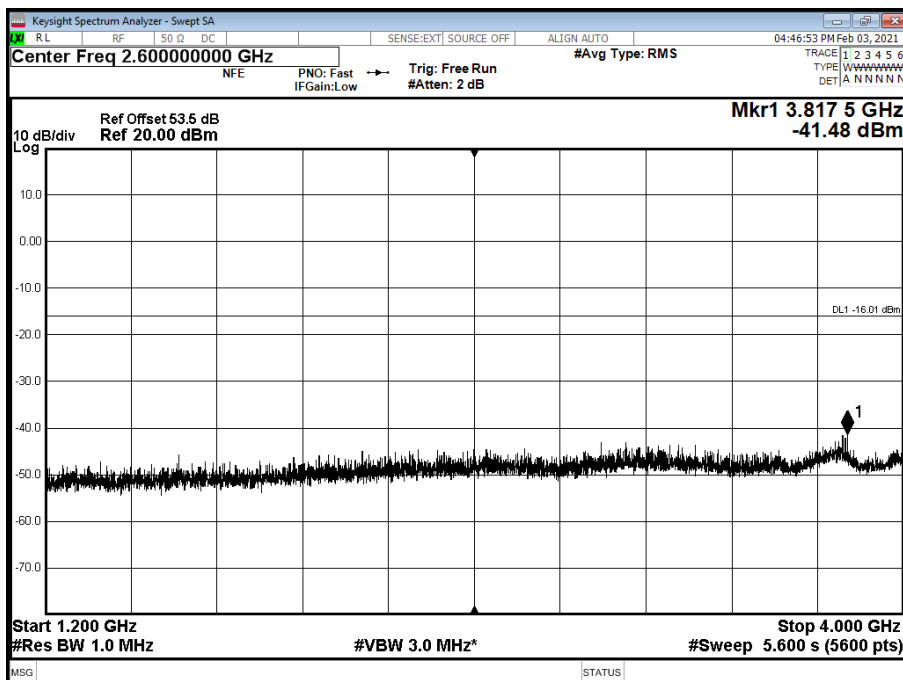




Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

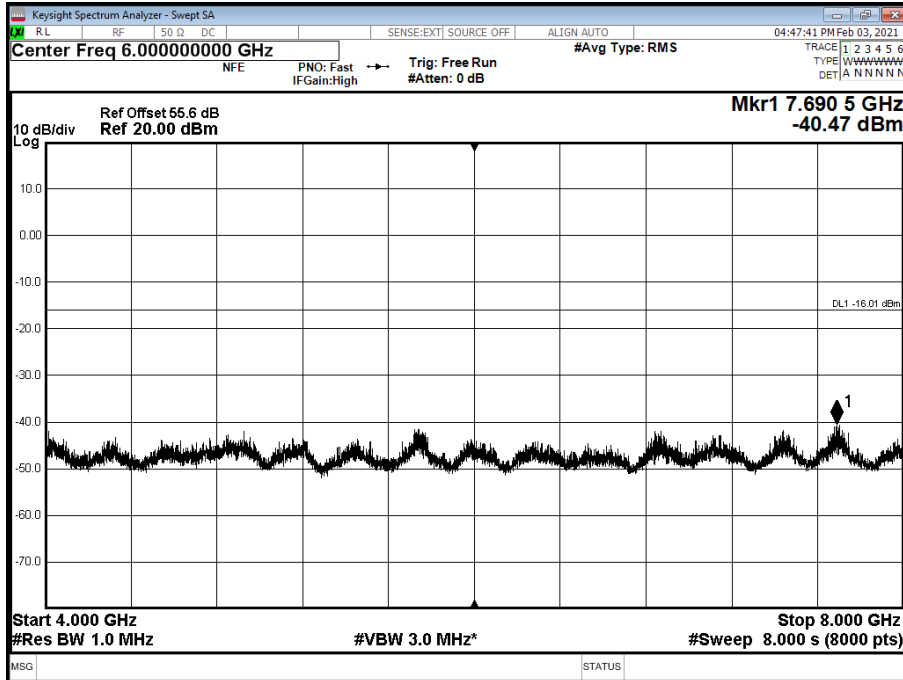


Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position T - Band 2 - Range 1200 to 4000 MHz





Antenna A - NB-IoT SA Modulation QPSK - NB-IoT SA Carrier Bandwidth 400 kHz - Channel Position T - Band 3 - Range 4000 to 8000 MHz

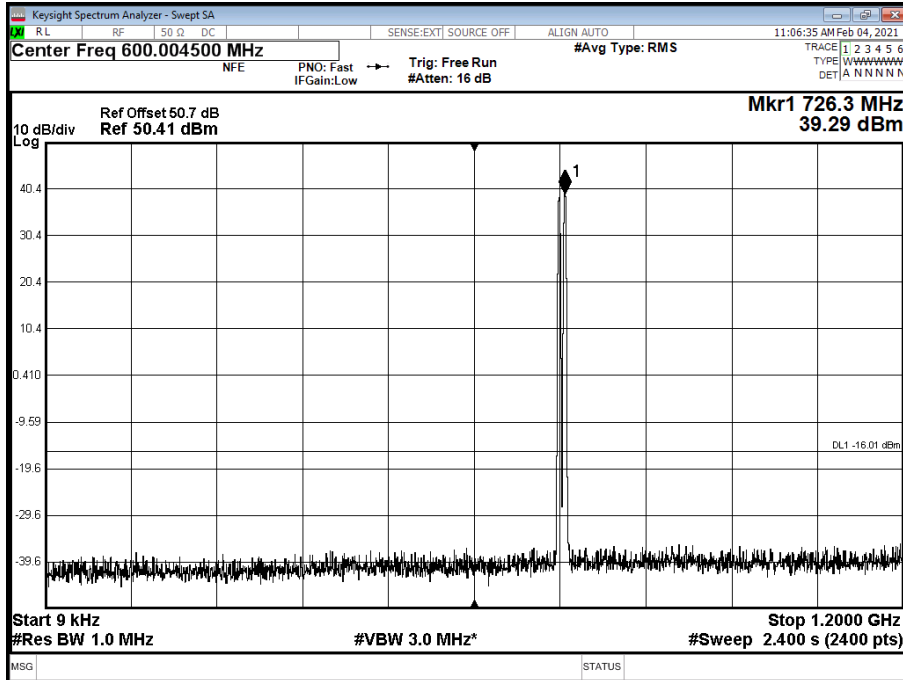


Configuration 3

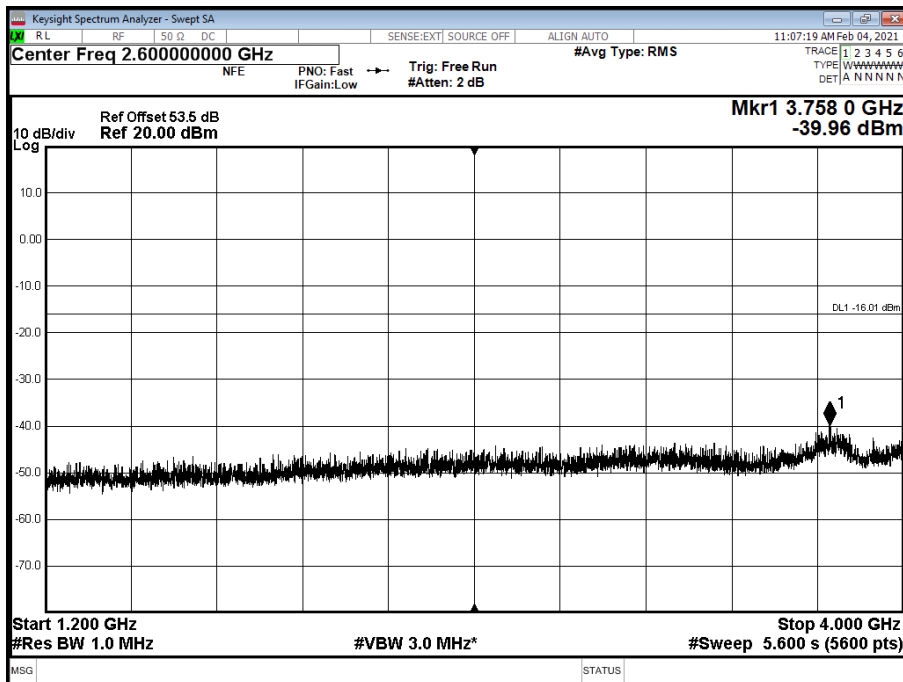
Maximum Output Power 46 dBm



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

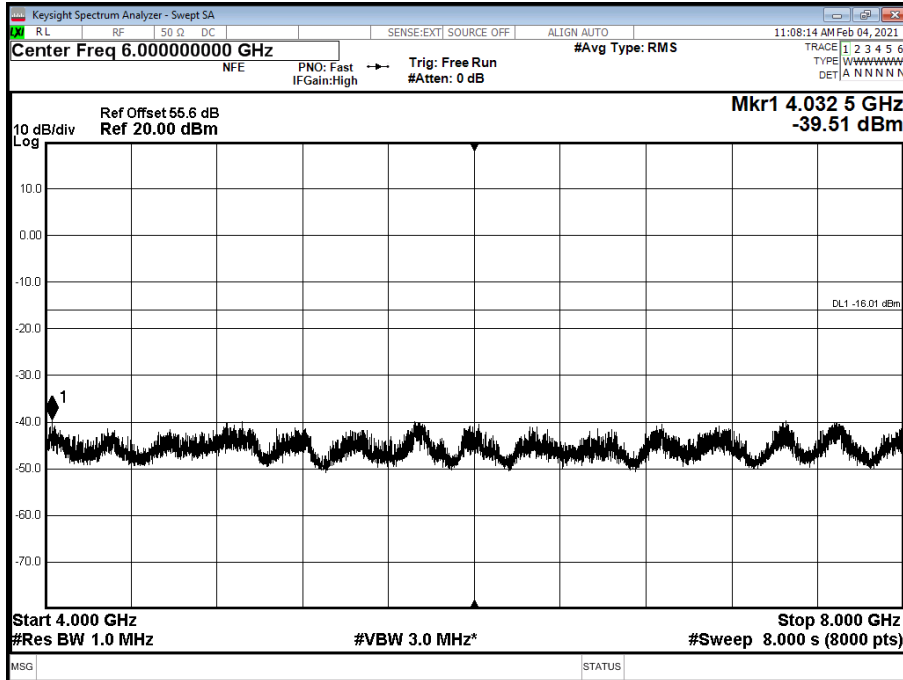


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz

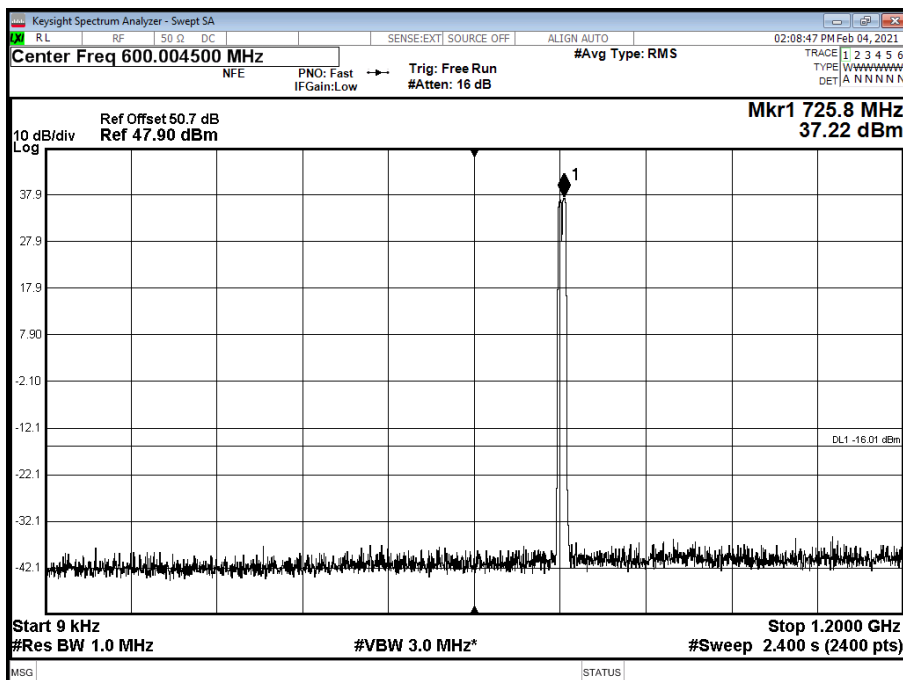




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

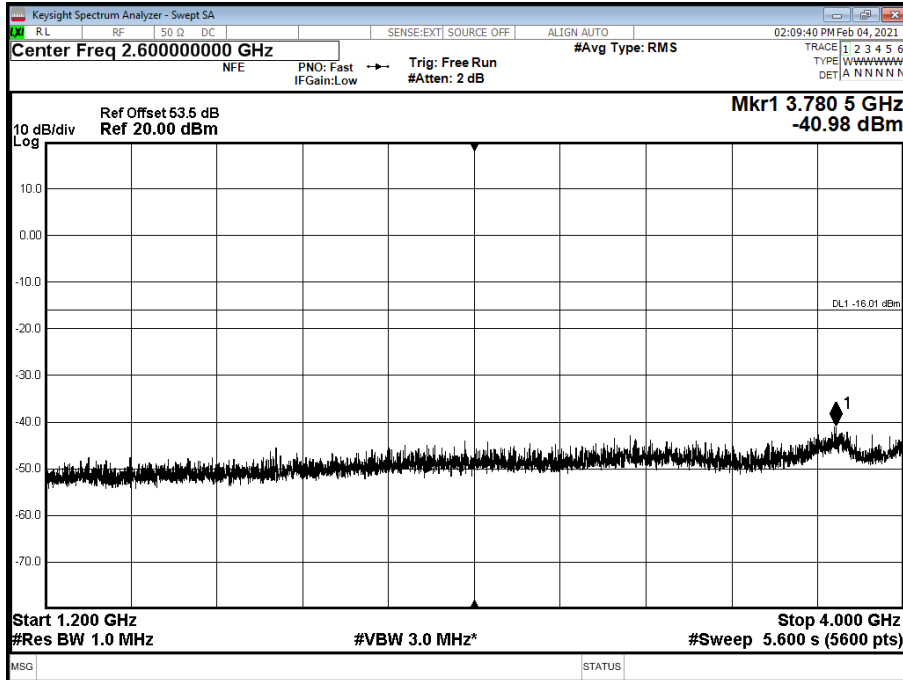


Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

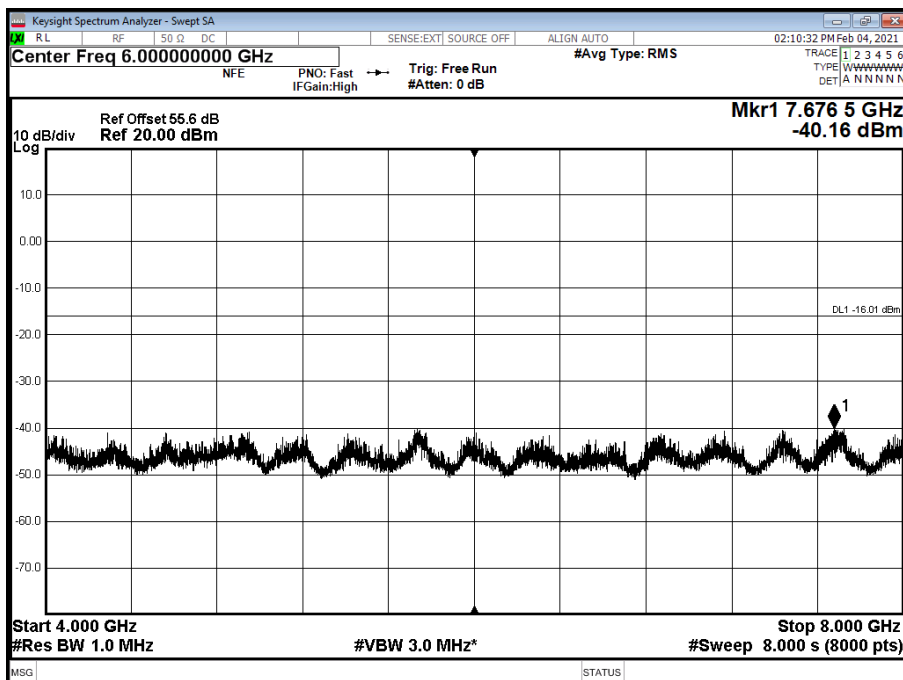




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

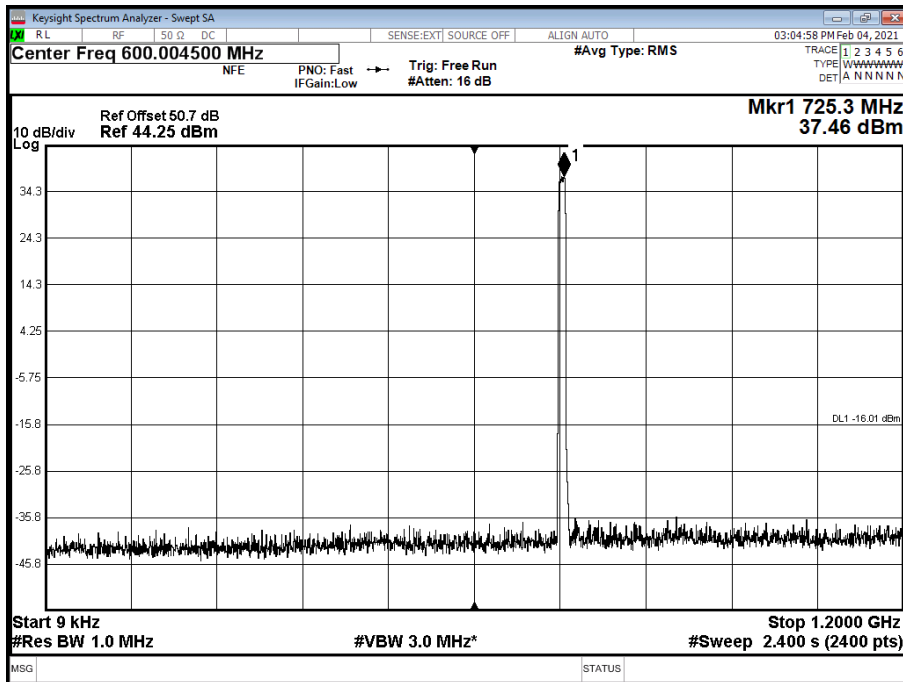




Configuration 4

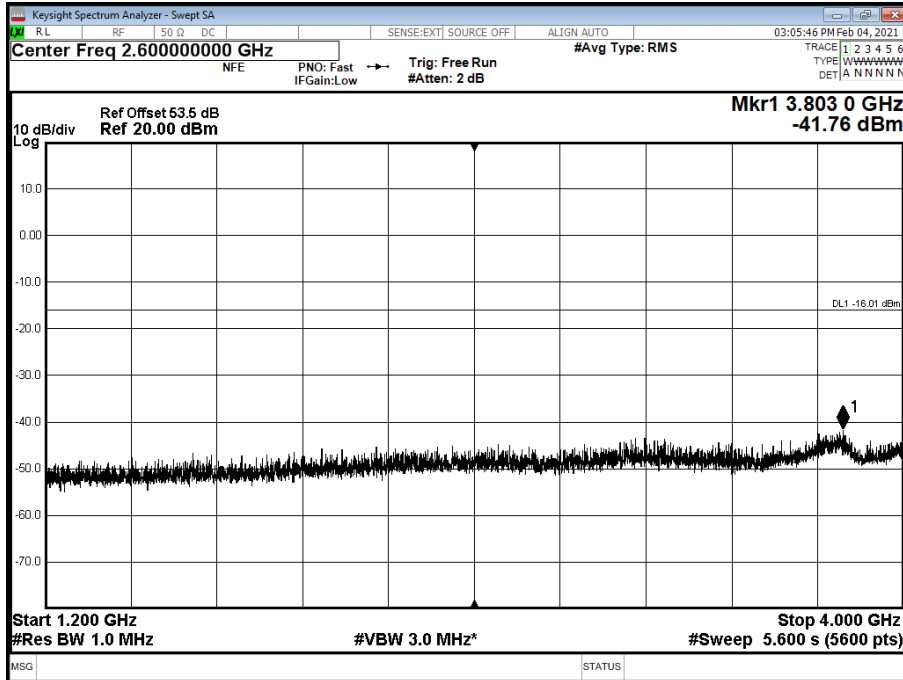
Maximum Output Power 46 dBm

Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

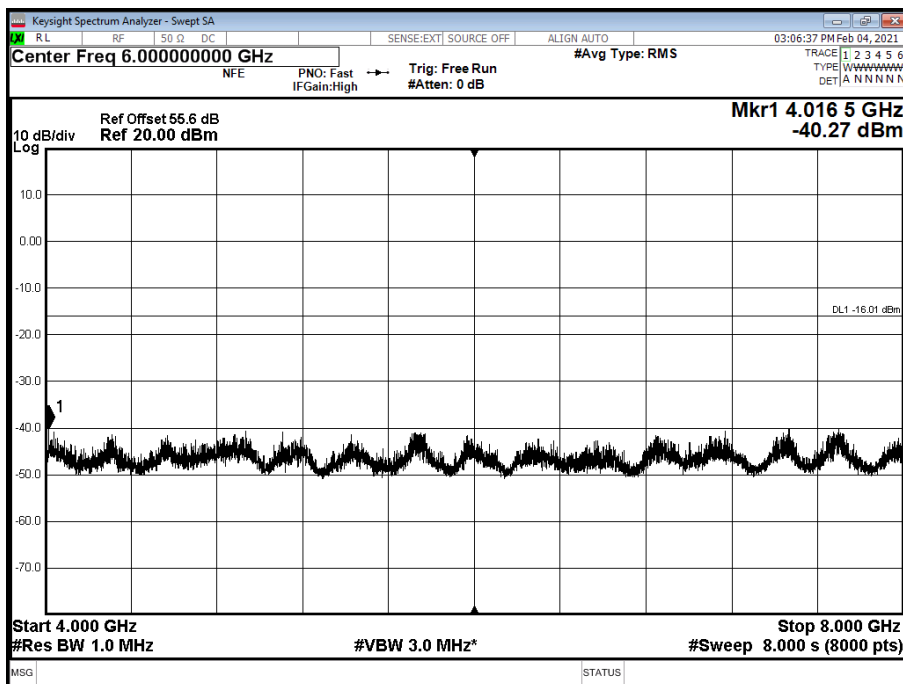




Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 2 - Range 1200 to 4000 MHz



Antenna A - LTE Modulation QPSK - LTE Carrier Bandwidth 3.0 MHz - Channel Position M - Band 3 - Range 4000 to 8000 MHz

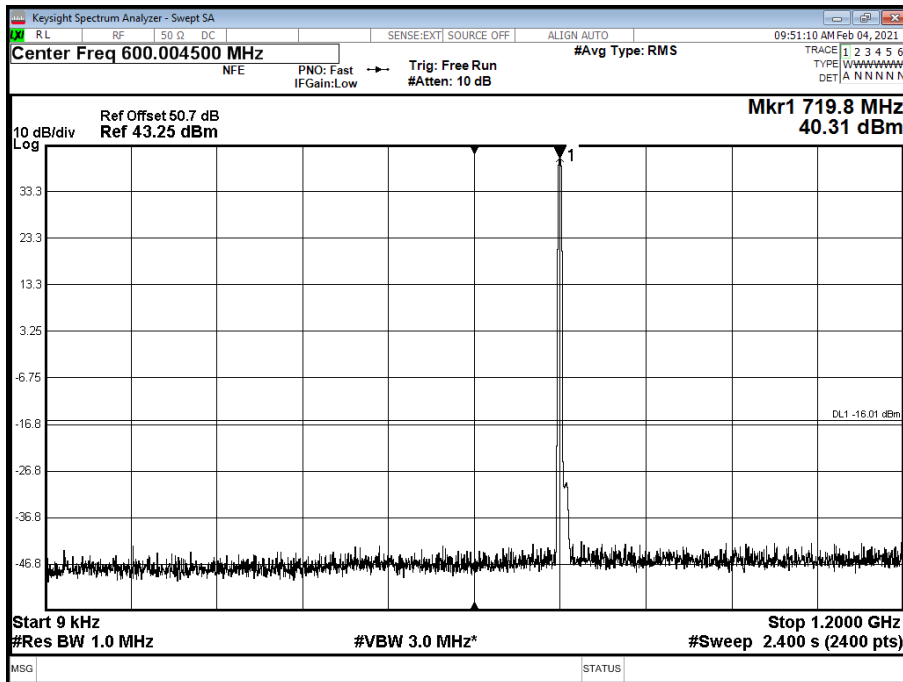




Configuration 5

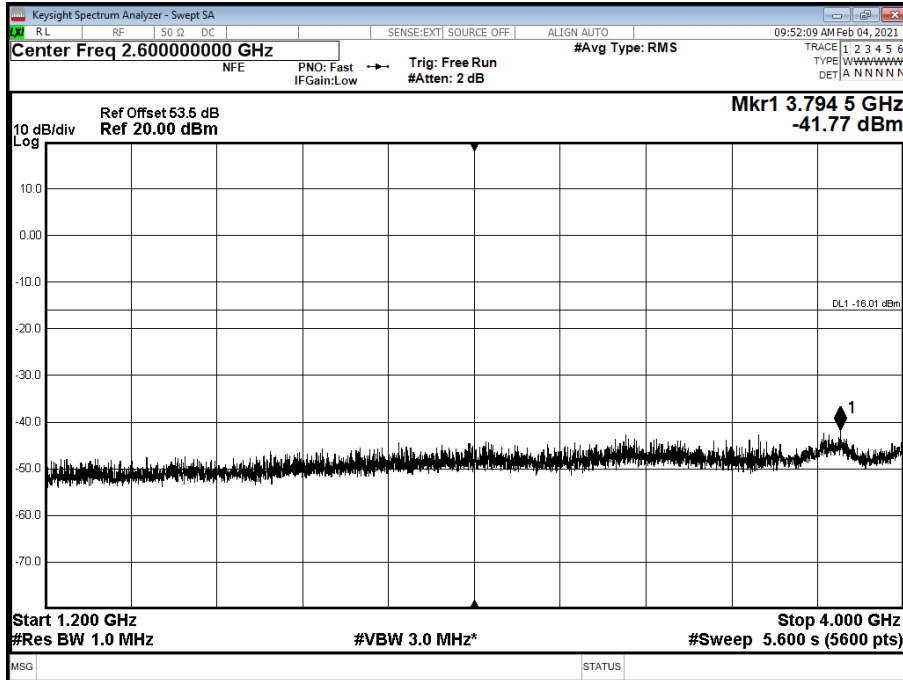
Maximum Output Power 46 dBm

Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

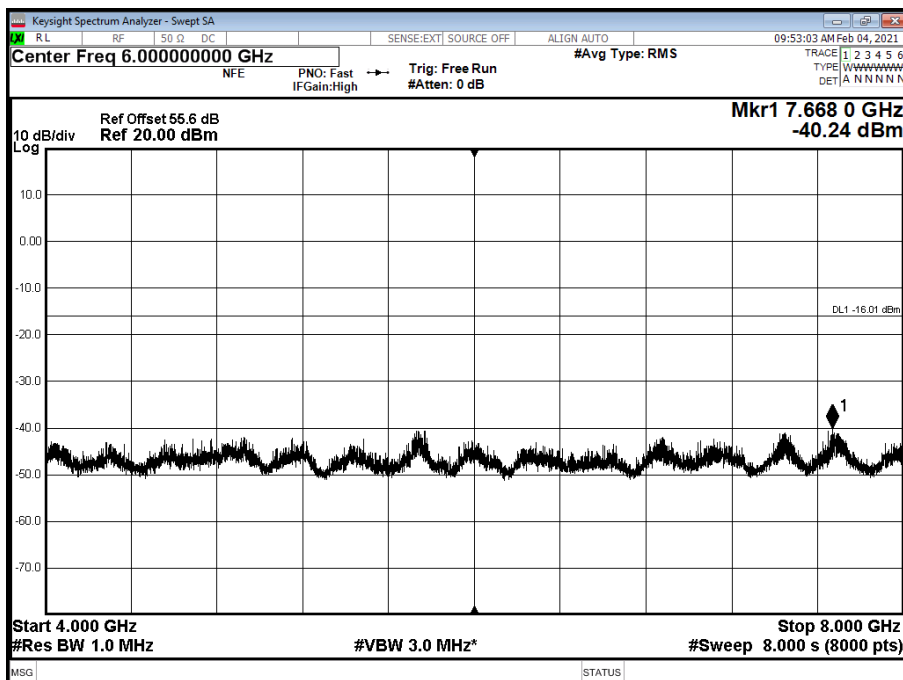




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 2 - Range 1200 to 4000 MHz

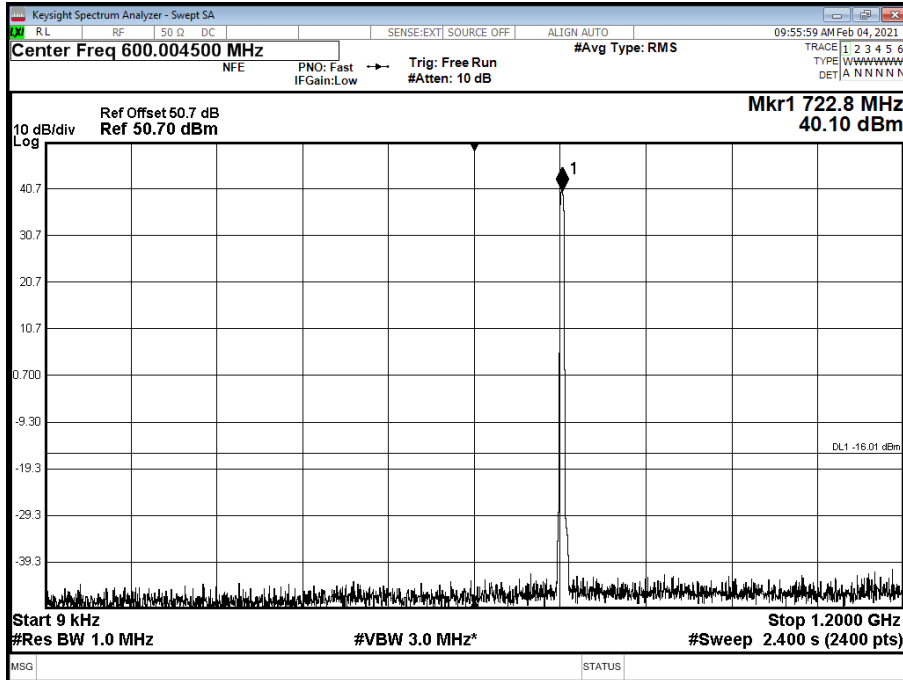


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position B - Band 3 - Range 4000 to 8000 MHz

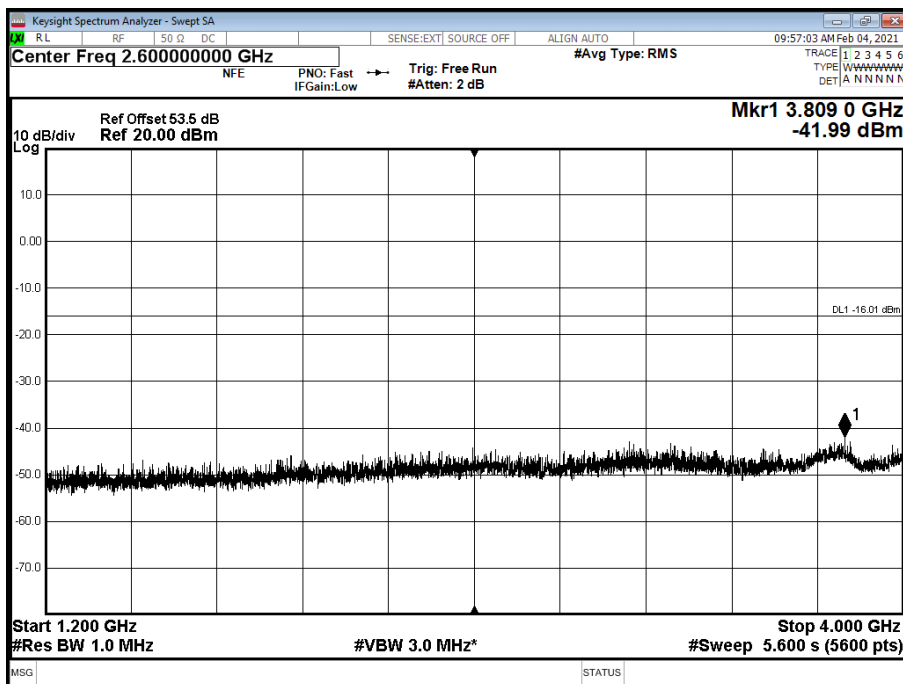




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

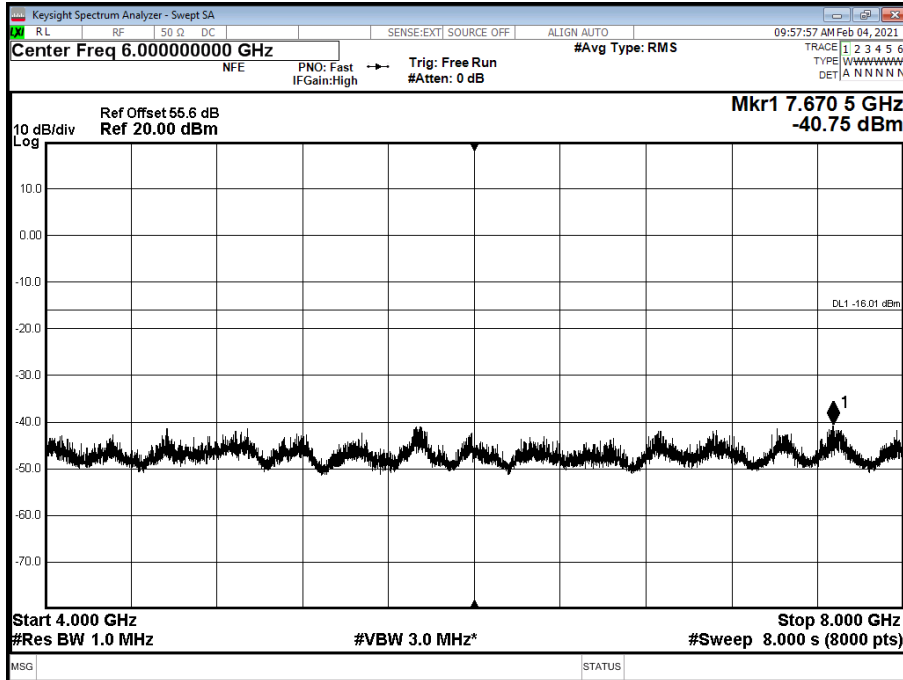


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 2 - Range 1200 to 4000 MHz

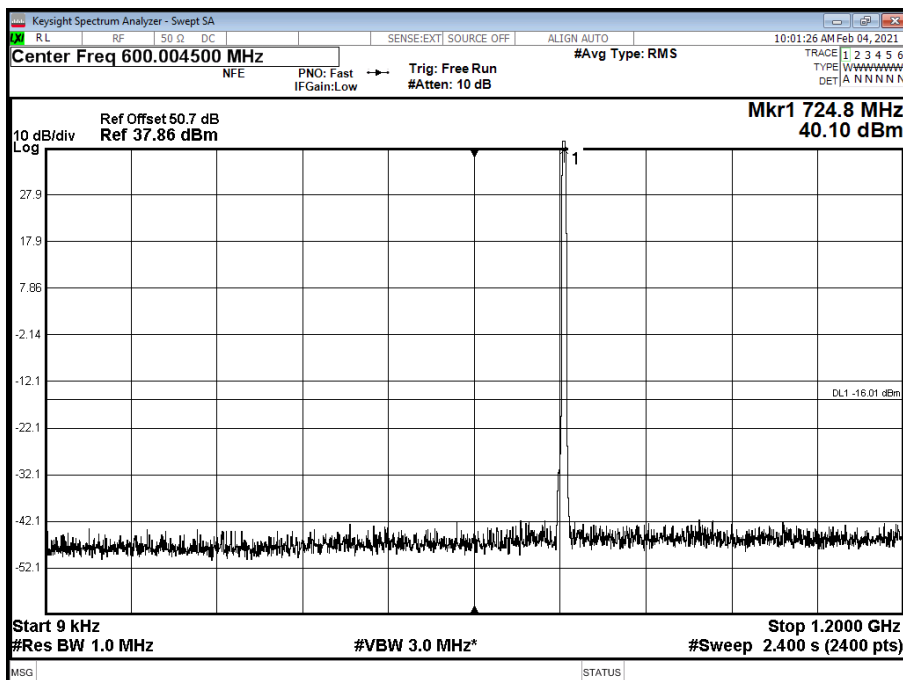




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 3 - Range 4000 to 8000 MHz

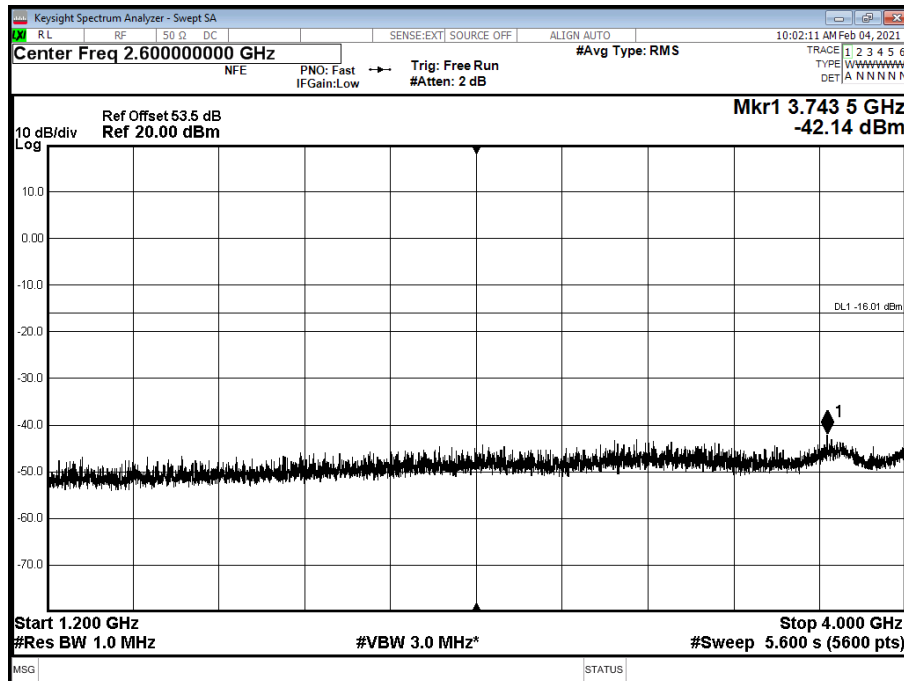


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

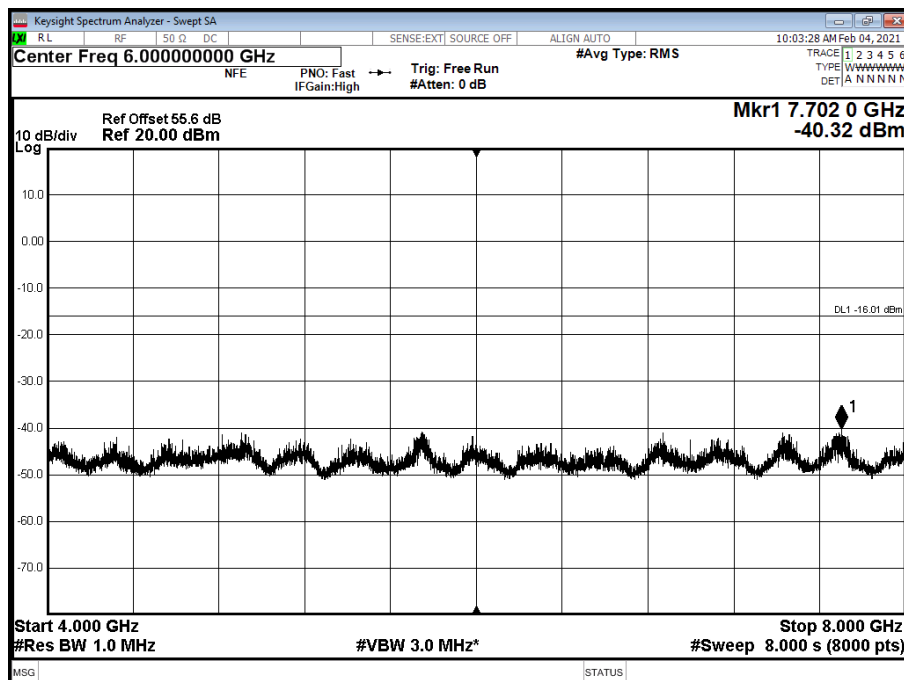




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 2 - Range 1200 to 4000 MHz

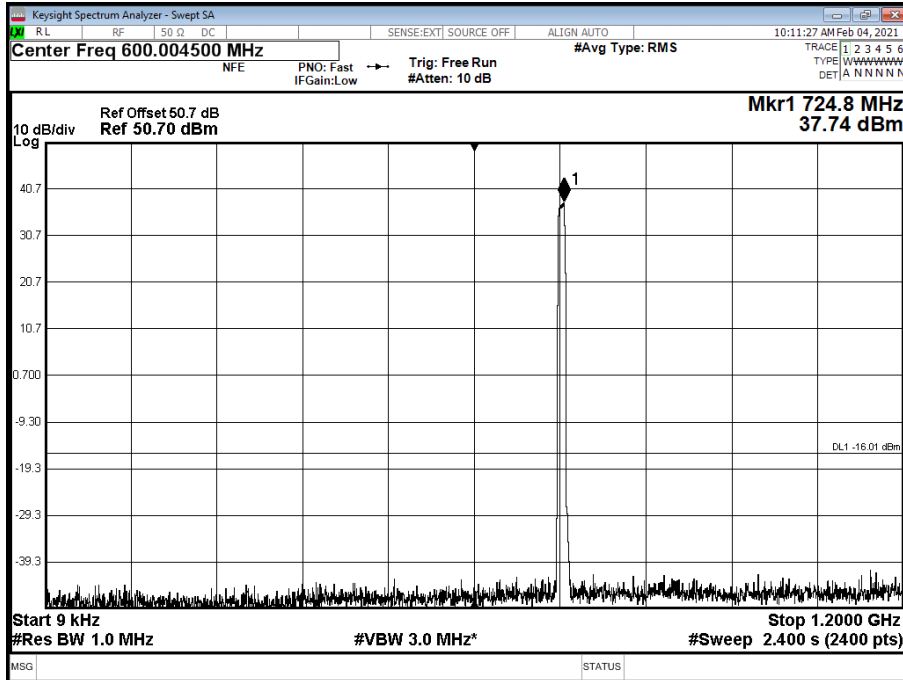


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position T - Band 3 - Range 4000 to 8000 MHz

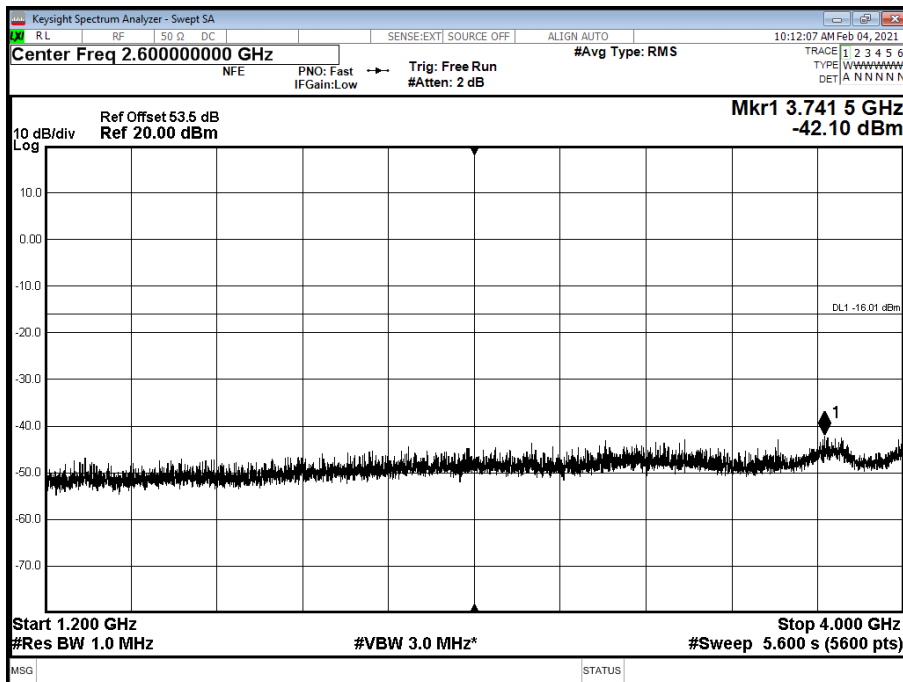




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B - Band 1 - Range 0.009 to 1200 MHz

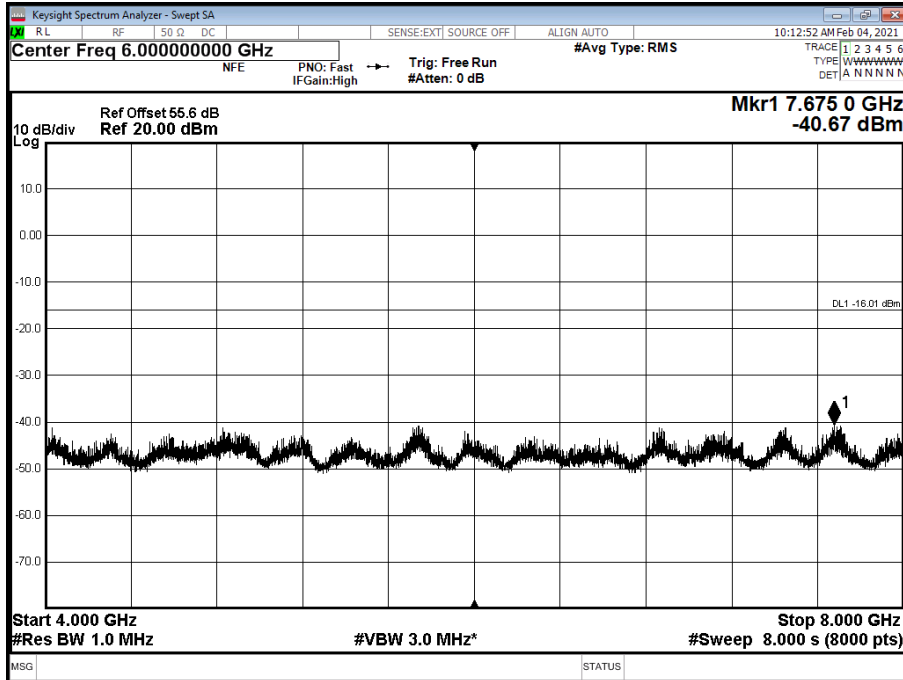


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B - Band 2 - Range 1200 to 4000 MHz

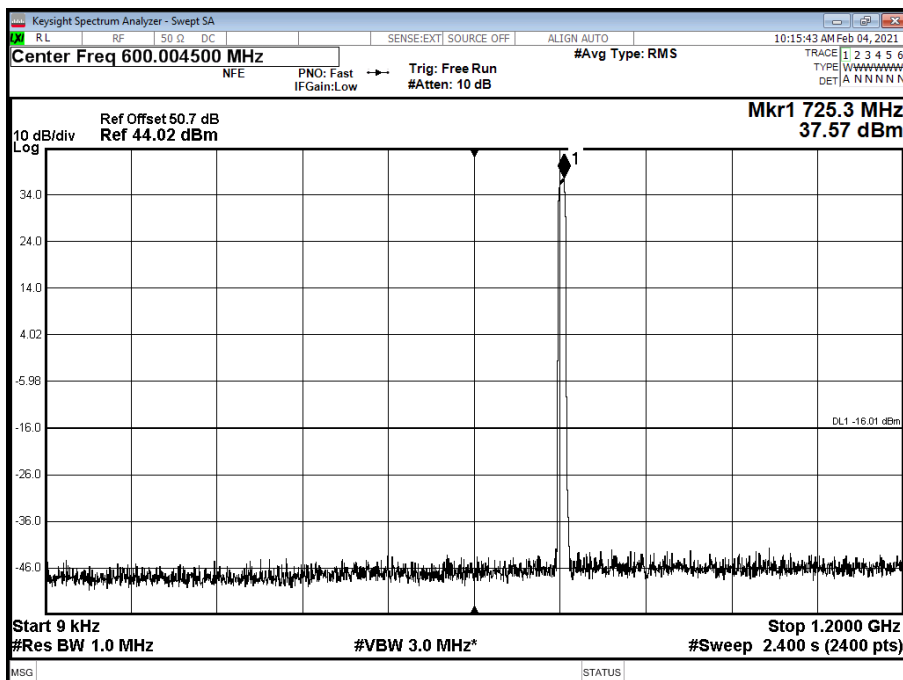




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position B - Band 3 - Range 4000 to 8000 MHz

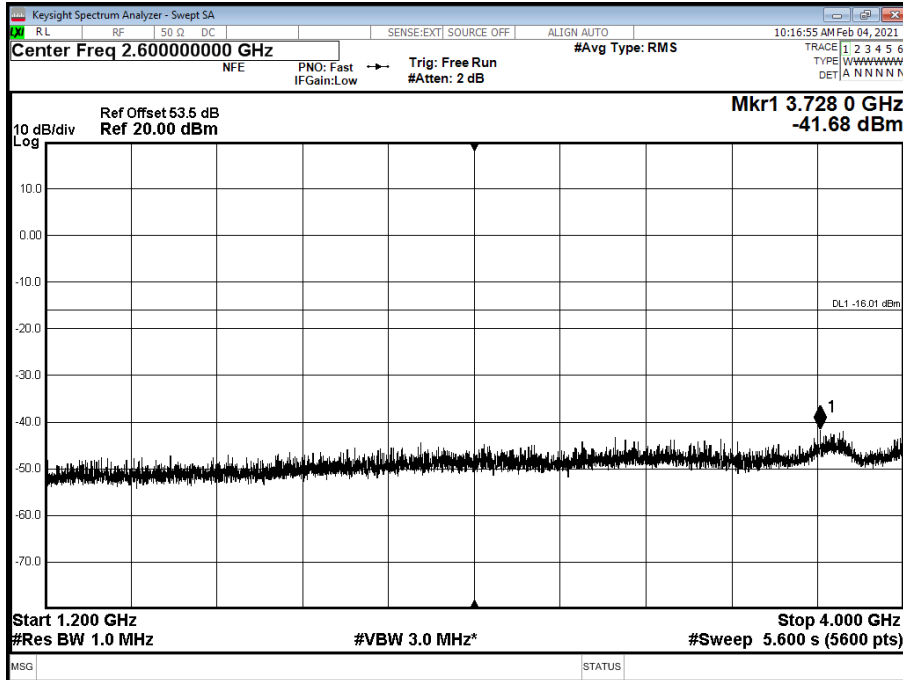


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

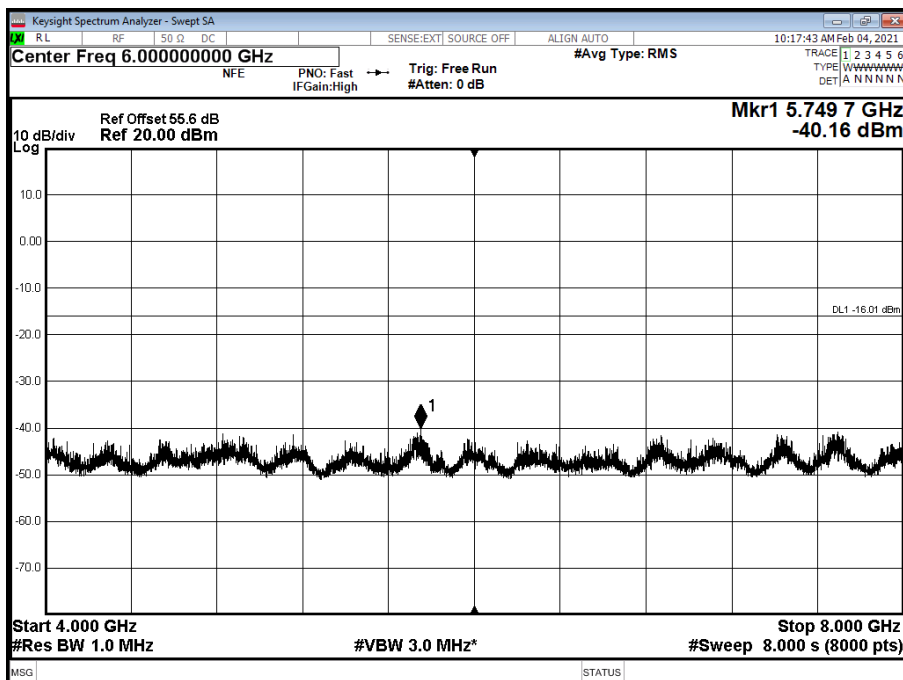




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position M - Band 2 - Range 1200 to 4000 MHz

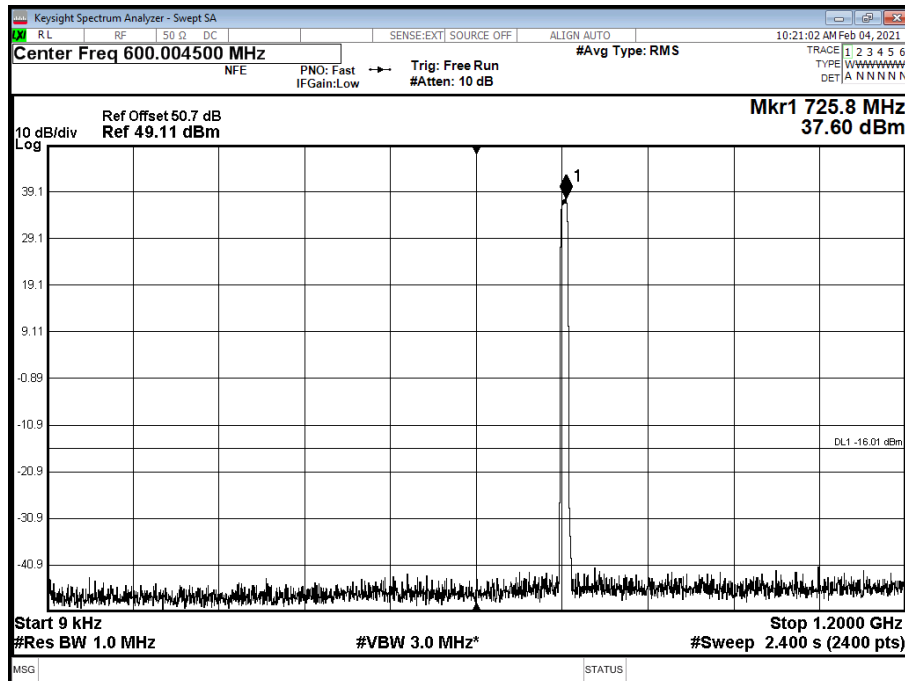


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position M - Band 3 - Range 4000 to 8000 MHz

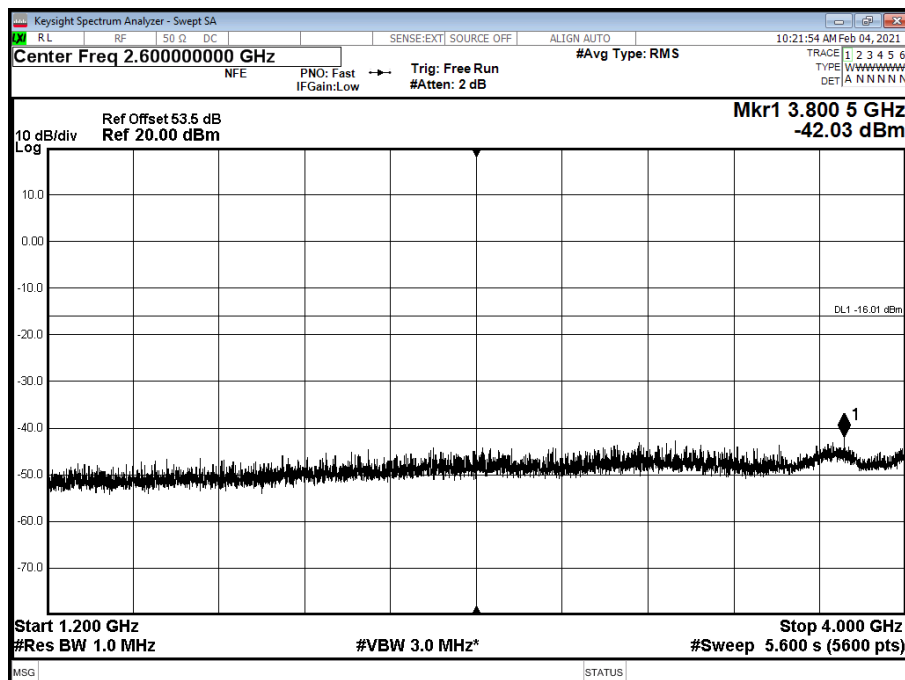




Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T - Band 1 - Range 0.009 to 1200 MHz

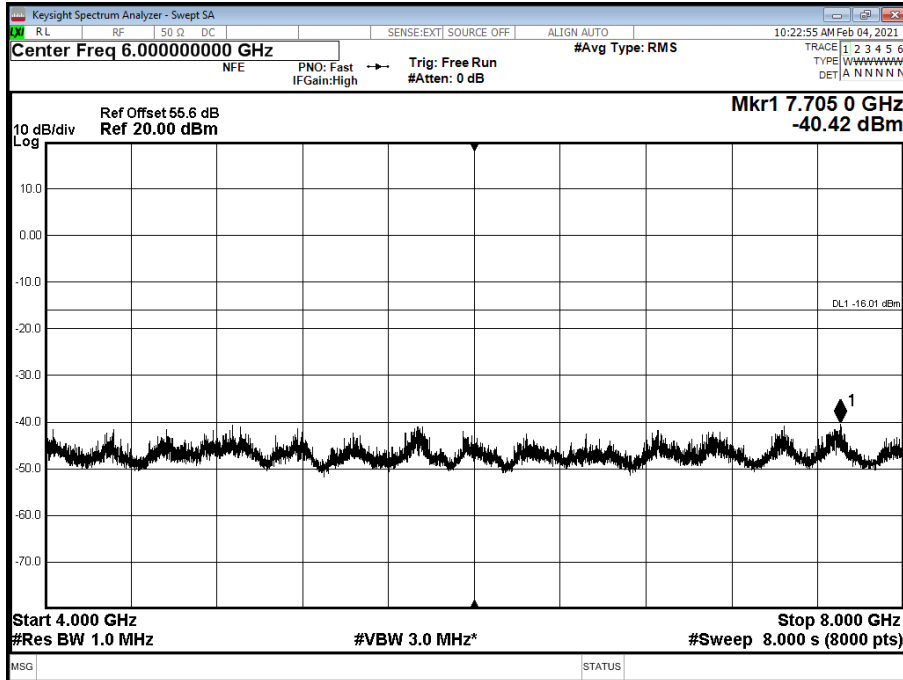


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T - Band 2 - Range 1200 to 4000 MHz





Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 10.0 MHz 15 kHz SCS - Channel Position T - Band 3 - Range 4000 to 8000 MHz

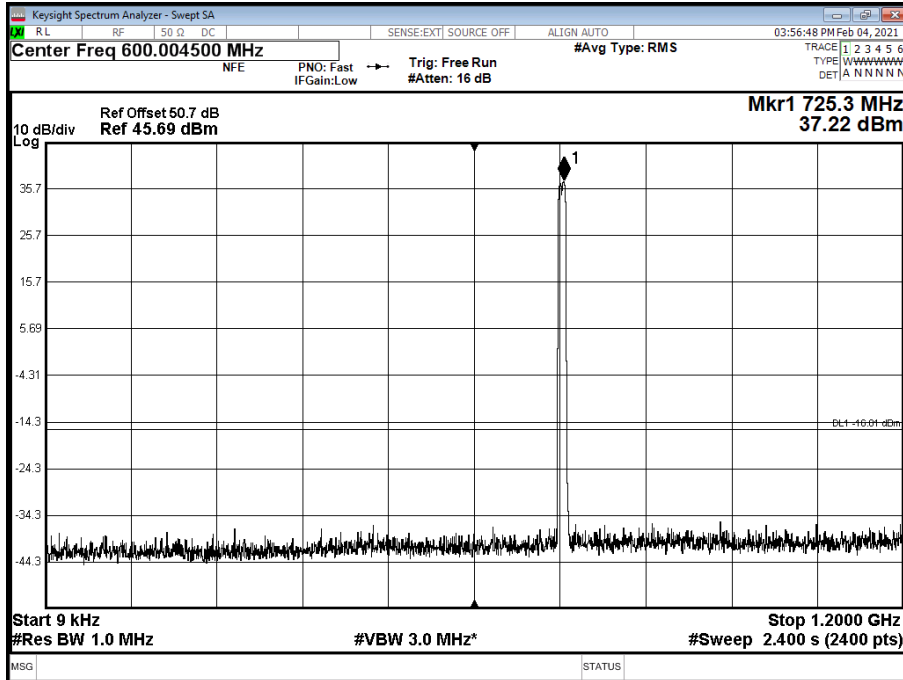


Configuration 6

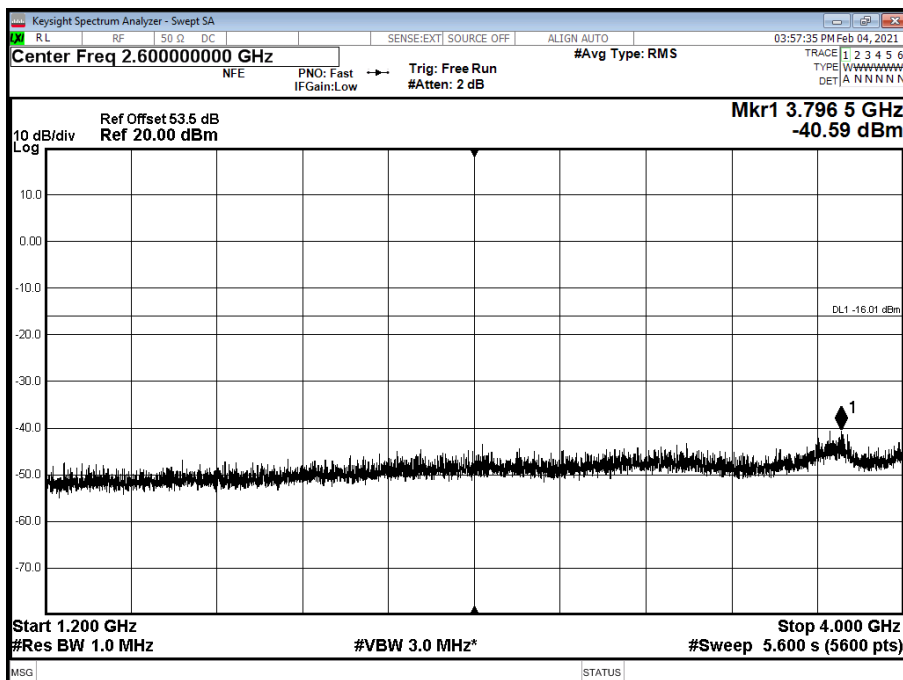
Maximum Output Power 46 dBm



Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 1 - Range 0.009 to 1200 MHz

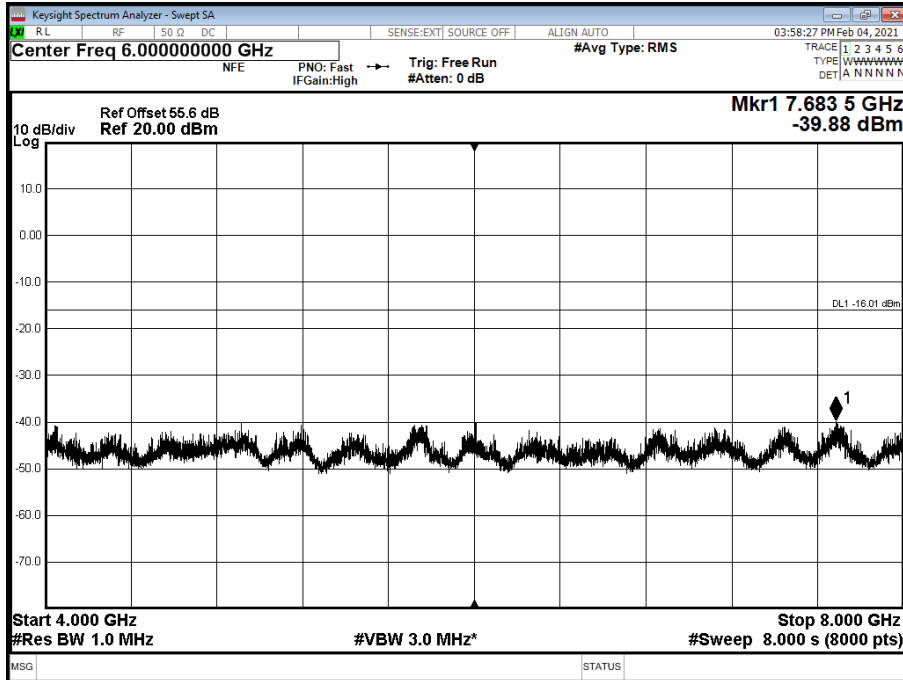


Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 2 - Range 1200 to 4000 MHz





Antenna A - NR Modulation 16QAM - NR Carrier Bandwidth 5.0 MHz 15 kHz SCS - Channel Position M - Band 3 - Range 4000 to 8000 MHz

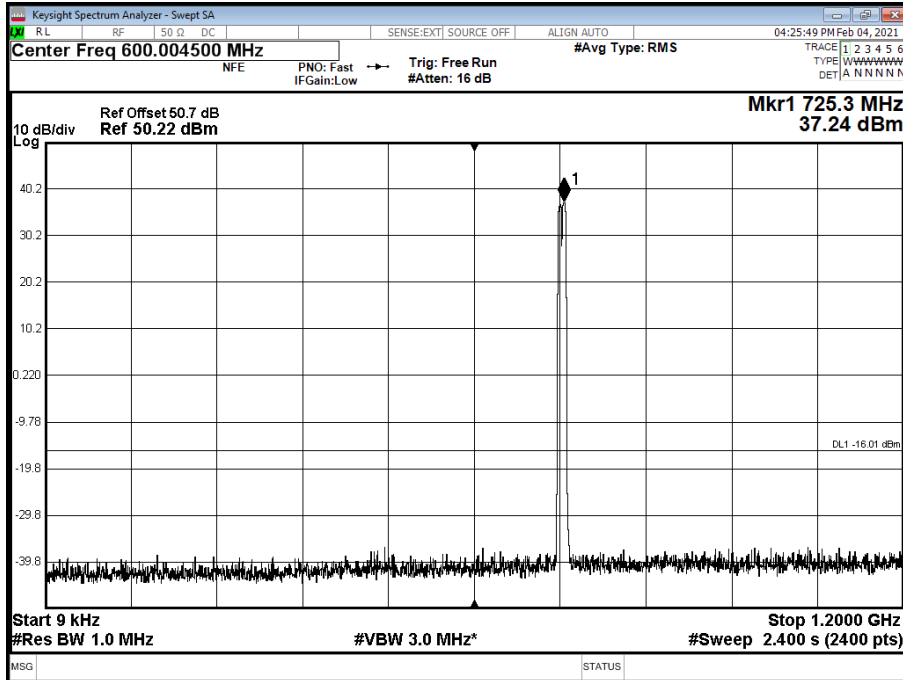


Configuration 7

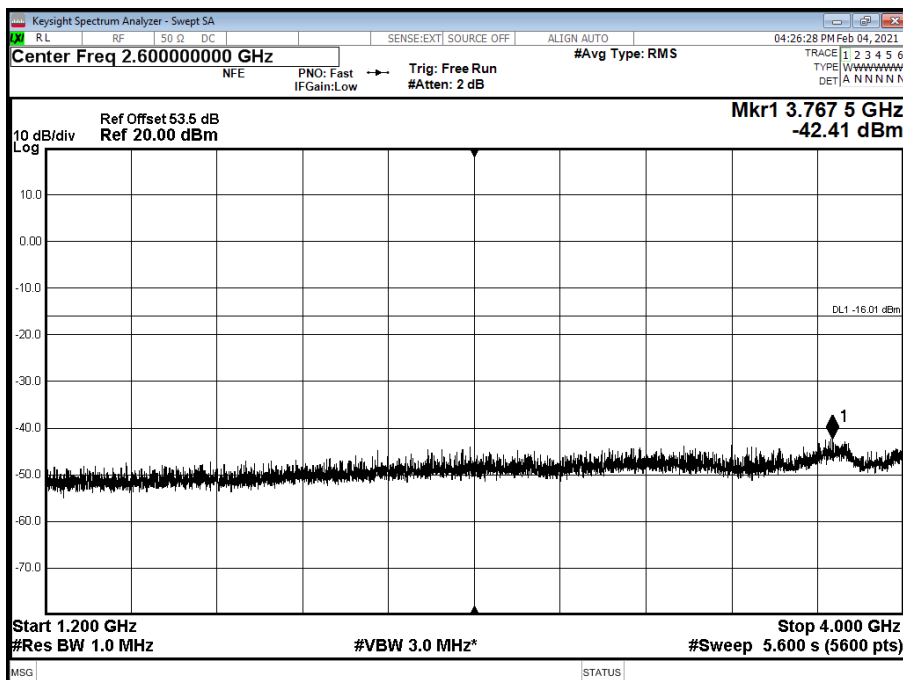
Maximum Output Power 46 dBm



Antenna A - LTE / NR Modulation QPSK / 16QAM - LTE / NR Carrier Bandwidth 5.0 MHz / 5.0 MHz 15 kHz SCS - Channel Position MRFBW - Band 1 - Range 0.009 to 1200 MHz

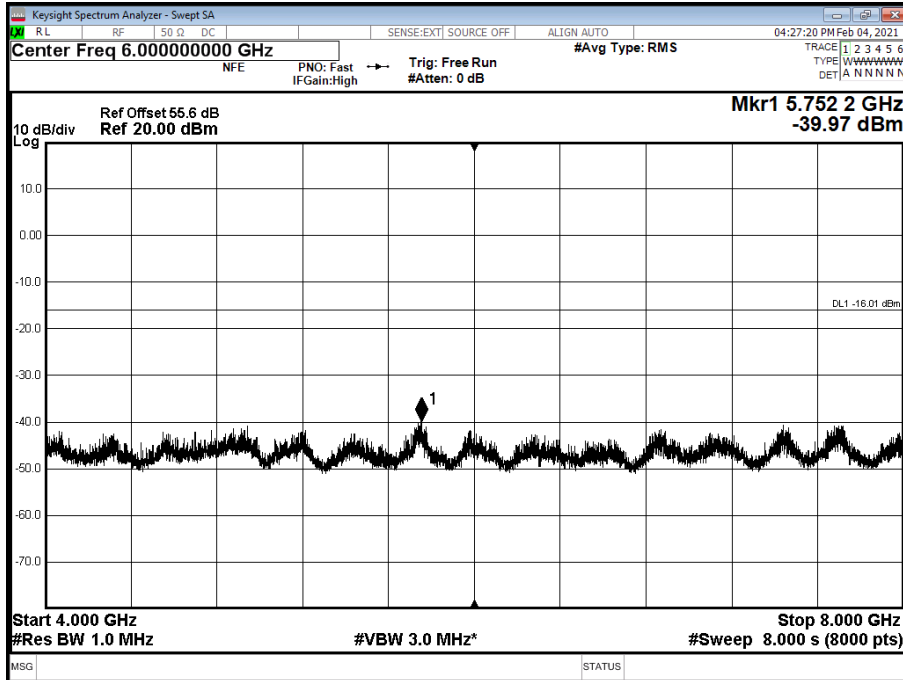


Antenna A - LTE / NR Modulation QPSK / 16QAM - LTE / NR Carrier Bandwidth 5.0 MHz / 5.0 MHz 15 kHz SCS - Channel Position MRFBW - Band 2 - Range 1200 to 4000 MHz





Antenna A - LTE / NR Modulation QPSK / 16QAM - LTE / NR Carrier Bandwidth 5.0 MHz / 5.0 MHz 15 kHz SCS - Channel Position MRFBW - Band 1 - Range 4000 to 8000 MHz



Limit	-16dBm
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2.5 FREQUENCY STABILITY

2.5.1 Specification Reference

FCC CFR 47 Part 2, Clause 2.1055
FCC CFR 47 Part 27, Clause 27.54
ISED RSS-GEN, Clause 6.11
ISED RSS-130, Clause 4.5

2.5.2 Date of Test and Modification State

05 February 2021 - Modification State 0

2.5.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.5.4 Environmental Conditions

Ambient Temperature 20.7°C
Relative Humidity 41.8%

2.5.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 9 and ANSI C63.26 Clause 5.6

The frequency error was obtained by measuring the low/high -26dB frequencies of the configured carrier, adding these frequencies and then dividing by 2 to obtain the centre frequency. The centre frequency was then subtracted from the set carrier frequency to give the frequency error. The -26dB frequency points were also confirmed to be within the configured 5MHz carrier bandwidth.

2.5.6 Test Results

Configuration 1

Maximum Output Power 46 dBm

Temperature	Voltage	Frequency Error (Hz)
		Channel Position M
-30°C	-48.0 V DC	3,509.00
-20°C	-48.0 V DC	6,581.00
-10°C	-48.0 V DC	3,690.00
0°C	-48.0 V DC	-522.00
+10°C	-48.0 V DC	-1,381.00
+20°C	-40.8 V DC	8,334.50
+20°C	-48.0 V DC	6,348.50
+20°C	-55.2 V DC	6,322.50
+30°C	-48.0 V DC	-794.50
+40°C	-48.0 V DC	6,686.00
+50°C	-48.0 V DC	456.00



Configuration 5

Maximum Output Power 46 dBm

Temperature	Voltage	Frequency Error (Hz)
		Channel Position M
-30°C	-48.0 V DC	17,831.50
-20°C	-48.0 V DC	13,760.00
-10°C	-48.0 V DC	17,640.00
0°C	-48.0 V DC	16,955.00
+10°C	-48.0 V DC	15,398.50
+20°C	-40.5 V DC	9,022.50
+20°C	-48.0 V DC	17,242.00
+20°C	-55.2 V DC	15,682.50
+30°C	-48.0 V DC	19,171.00
+40°C	-48.0 V DC	14,959.50
+50°C	-48.0 V DC	22,180.50

Limit	The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.
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SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Maximum Peak Output Power and Peak to Average Ratio - Conducted					
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5480	12	18-Mar-2021
Power Supply	Rohde & Schwarz	HMP4040	4954	-	O/P MON
Multimeter	Fluke	79	3057	12	21-Aug-2021
Attenuator 20dB 100W	Weinschel	48-20-43-LIM	5133	12	03-Dec-2021
Attenuator 30dB 100W	Weinschel	48-30-43-LIM	5135	12	23-Jul-2021
PXA Signal Analyser	Keysight	N9030A	4654	12	06-Nov-2021
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	17-May-2021
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	17-May-2021
Analyser	Keysight	E5063A	5018	12	18-Jul-2021
Calibration Kit	Kesight	85093C	5088	12	08-Jul-2021
Occupied Bandwidth					
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5480	12	18-Mar-2021
Power Supply	Rohde & Schwarz	HMP4040	4954	-	O/P MON
Multimeter	Fluke	79	3057	12	21-Aug-2021
Attenuator 20dB 100W	Weinschel	48-20-43-LIM	5133	12	03-Dec-2021
Attenuator 30dB 100W	Weinschel	48-30-43-LIM	5135	12	23-Jul-2021
PXA Signal Analyser	Keysight	N9030A	4654	12	06-Nov-2021
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	17-May-2021
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	17-May-2021
Analyser	Keysight	E5063A	5018	12	18-Jul-2021
Calibration Kit	Kesight	85093C	5088	12	08-Jul-2021
Hygrometer	Rotronic	A1	2138	12	01-Jul-2021
Band Edge					
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5480	12	18-Mar-2021
Power Supply	Rohde & Schwarz	HMP4040	4954	-	O/P MON
Multimeter	Fluke	79	3057	12	21-Aug-2021
Attenuator 20dB 100W	Weinschel	48-20-43-LIM	5133	12	03-Dec-2021
Attenuator 30dB 100W	Weinschel	48-30-43-LIM	5135	12	23-Jul-2021
PXA Signal Analyser	Keysight	N9030A	4654	12	06-Nov-2021
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	17-May-2021
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	17-May-2021



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Analyser	Keysight	E5063A	5018	12	18-Jul-2021
Calibration Kit	Kesight	85093C	5088	12	08-Jul-2021
Hygrometer	Rotronic	A1	2138	12	01-Jul-2021
Transmitter Spurious Emissions					
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5480	12	18-Mar-2021
Power Supply	Rohde & Schwarz	HMP4040	4954	-	O/P MON
Multimeter	Fluke	79	3057	12	21-Aug-2021
Attenuator 20dB 100W	Weinschel	48-20-43-LIM	5133	12	03-Dec-2021
Attenuator 30dB 100W	Weinschel	48-30-43-LIM	5135	12	23-Jul-2021
PXA Signal Analyser	Keysight	N9030A	4654	12	06-Nov-2021
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	17-May-2021
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	17-May-2021
Analyser	Keysight	E5063A	5018	12	18-Jul-2021
Calibration Kit	Kesight	85093C	5088	12	08-Jul-2021
HPF	Mini-Circuits	NHP 1000+	5260	12	07-Aug-2021
HPF	Advance Power Components	11SH10-3000/X18000-O/O	4411	12	01-Jul-2021
Frequency Stability					
Hygrometer	Rotronic	A1	2138	12	01-Jul-2021
Power Supply	Rohde & Schwarz	HMP4040	4954	-	O/P MON
Multimeter	Fluke	79	3057	12	21-Aug-2021
Attenuator 20dB 100W	Weinschel	48-20-43-LIM	5133	12	03-Dec-2021
Attenuator 30dB 100W	Weinschel	48-30-43-LIM	5135	12	23-Jul-2021
PXA Signal Analyser	Keysight	N9030A	4654	12	06-Nov-2021
Environmental Chamber	ACS	DY110TC	5448	-	O/P MON
Frequency Standard	Symmetricom	8040C	3490	12	27-May-2021
Thermometer	Fluke	51	2267	12	10-Dec-2021

N/A – Not Applicable

O/P Mon – Output Monitored with Calibrated Equipment



3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	Frequency / Parameter	MU
Conducted Maximum Peak Output Power	30 MHz to 20 GHz Amplitude	± 0.89 dB
Conducted Emissions	30 MHz to 20 GHz Amplitude	± 1.5 dB
Frequency Stability	30 MHz to 2 GHz	± 5.0 Hz
Occupied Bandwidth	3MHz	± 20590 Hz
	5MHz	± 33321 Hz
	10MHz	± 65989Hz
Band Edge	30 MHz to 20 GHz Amplitude	±0.89dB

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2007, clause 4.4.3 and 4.5.1.



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).

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ANNEX A

MODULE LIST

Configuration A			
Product	Product No	R-State	Serial No
Radio 2012 B29	KRC161 914/1	R5B	E23C233732
Software Version:	CXP9017316/7	Revision:	R84KA