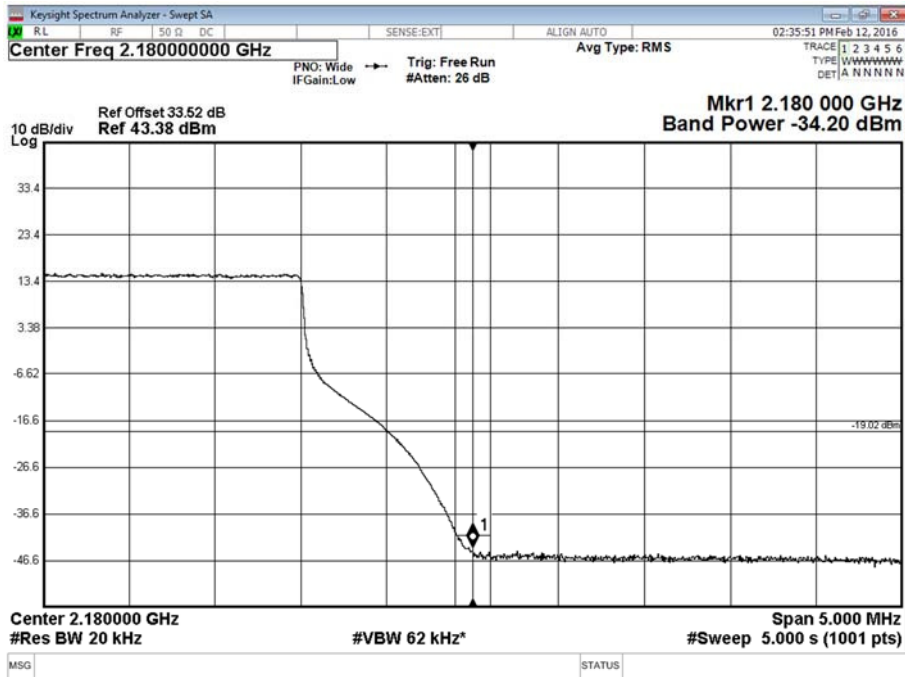


Channel Position T - Bandwidth 20.0 MHz - Antenna D

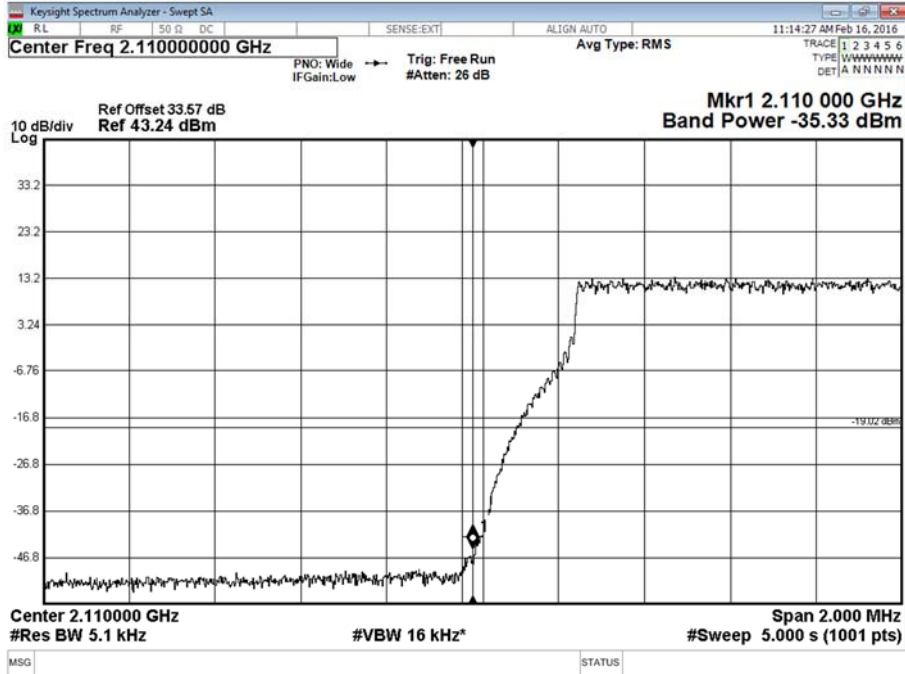


Configuration 4 Antenna A

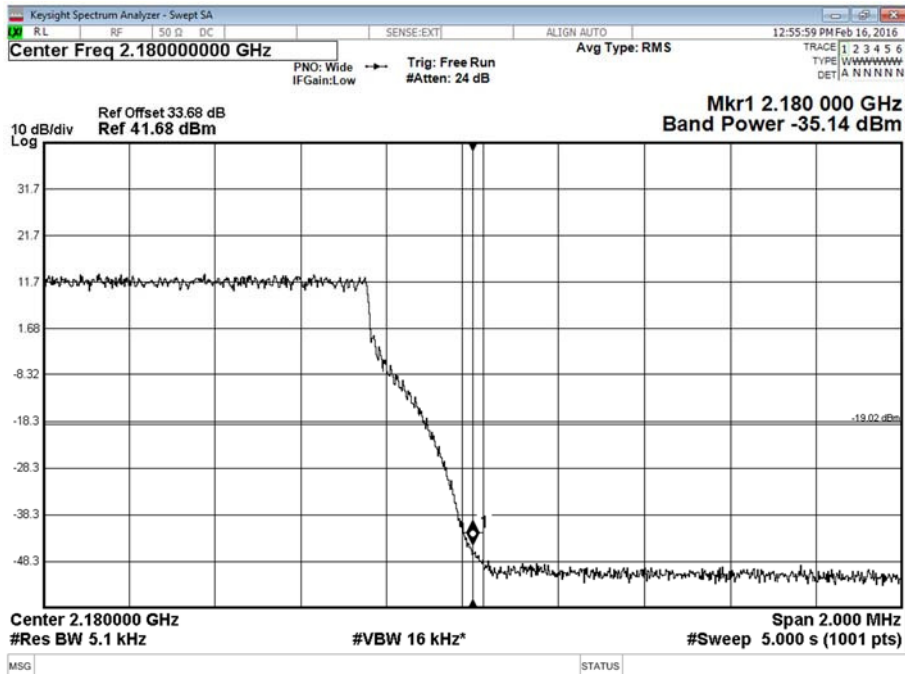
Maximum Output Power 44.77 dBm

Carrier Bandwidth	Modulation	Band Edge (MHz)	
		Channel Position B	Channel Position T
5.0 MHz	QPSK	2112.5 + 2117.5	2172.5 + 2177.5
10.0 MHz	QPSK	2115 + 2125	2165 + 2175
15.0 MHz	QPSK	2117.5 + 2132.5	2157.5 + 2172.5
20.0 MHz	QPSK	2120 + 2140	2150 + 2170

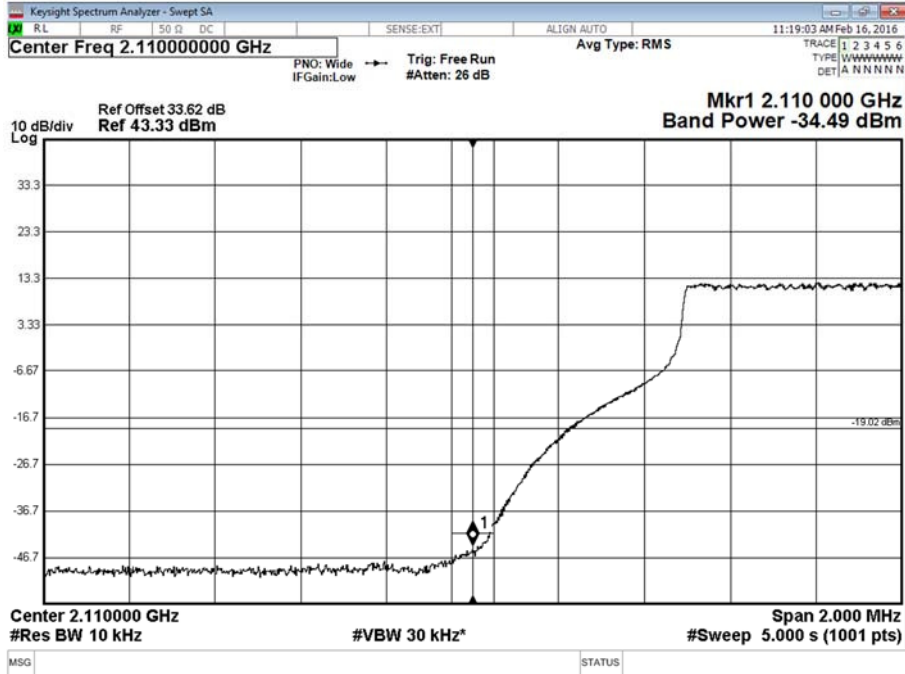
## Channel Position B - Bandwidth 5.0 MHz - Antenna A



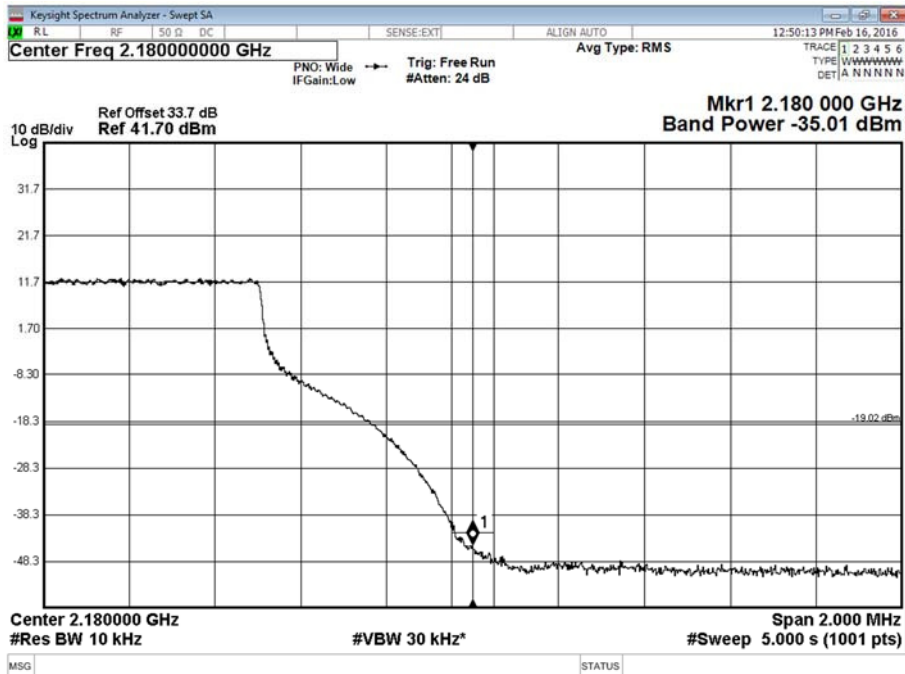
## Channel Position T - Bandwidth 5.0 MHz - Antenna A



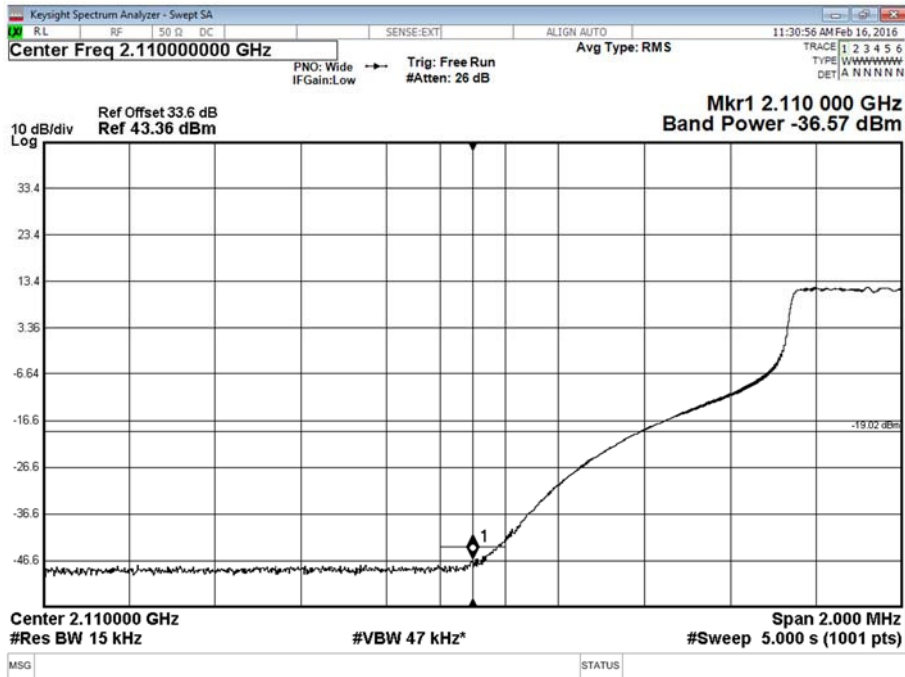
## Channel Position B - Bandwidth 10.0 MHz - Antenna A



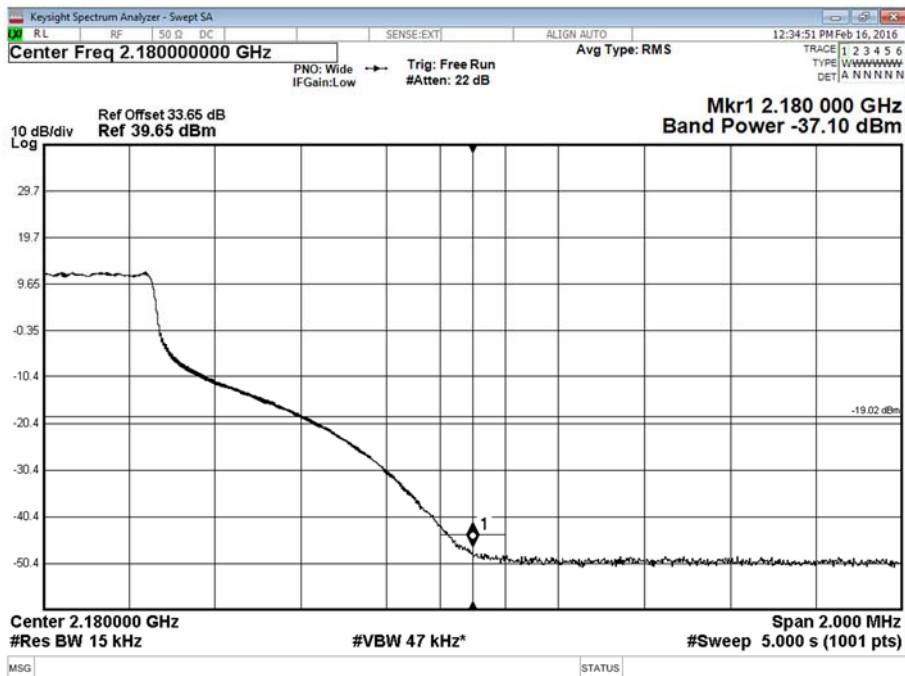
## Channel Position T - Bandwidth 10.0 MHz - Antenna A



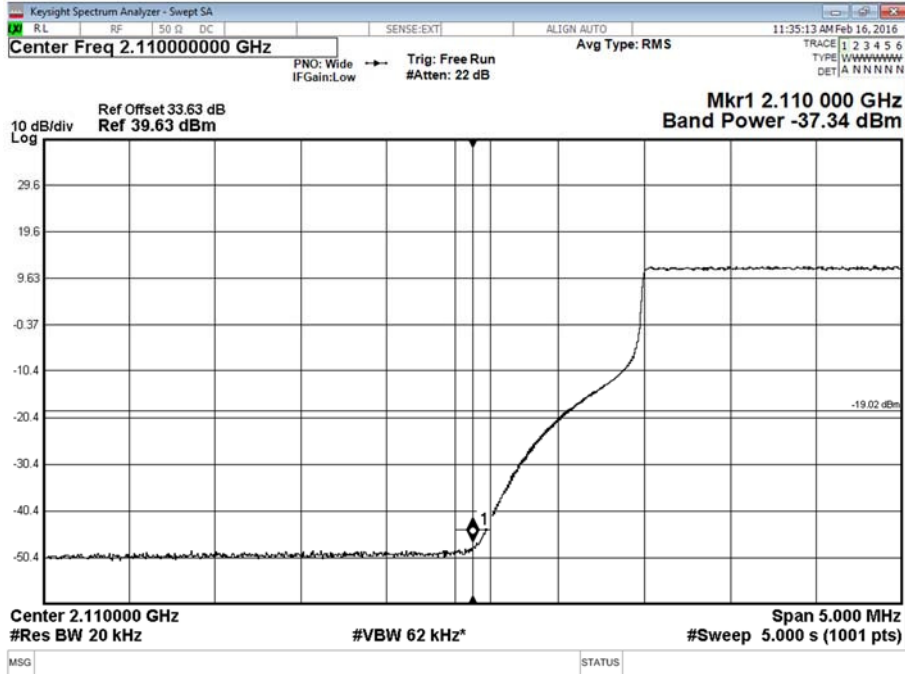
Channel Position B - Bandwidth 15.0 MHz - Antenna A



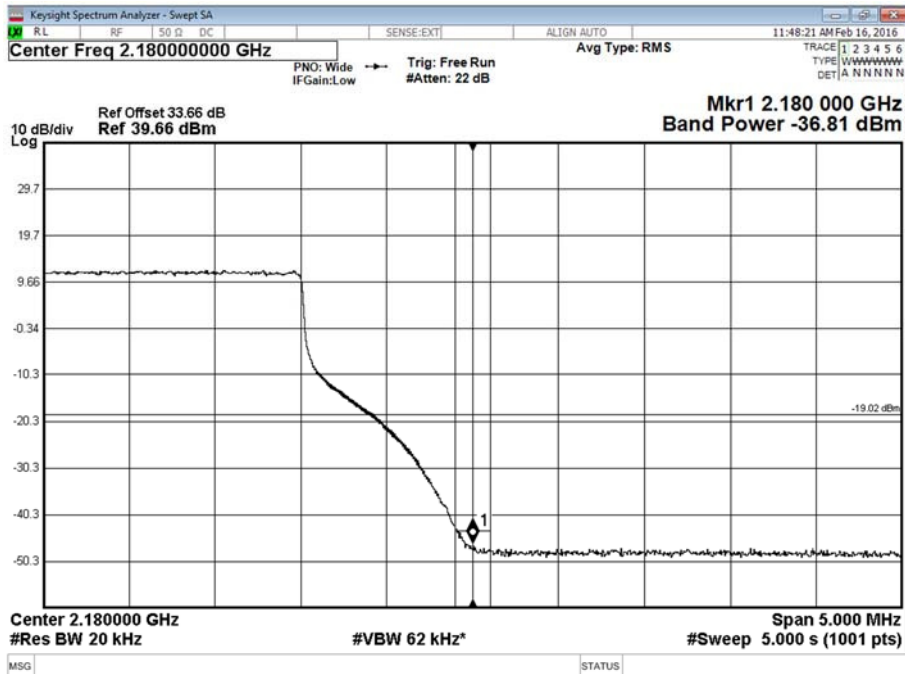
Channel Position T - Bandwidth 15.0 MHz - Antenna A



## Channel Position B - Bandwidth 20.0 MHz - Antenna A



## Channel Position T - Bandwidth 20.0 MHz - Antenna A

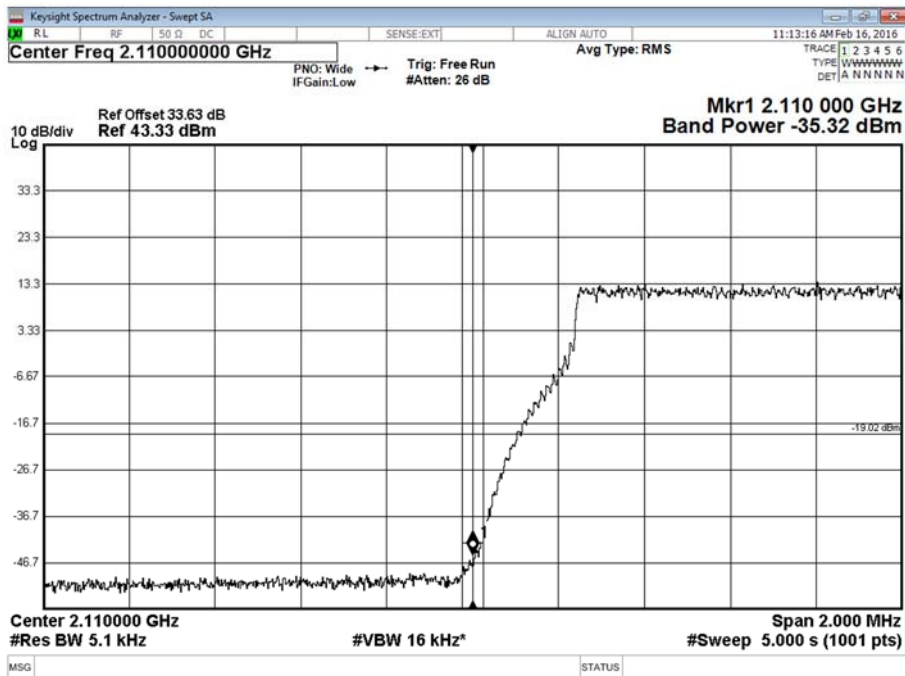


Configuration 4 Antenna B

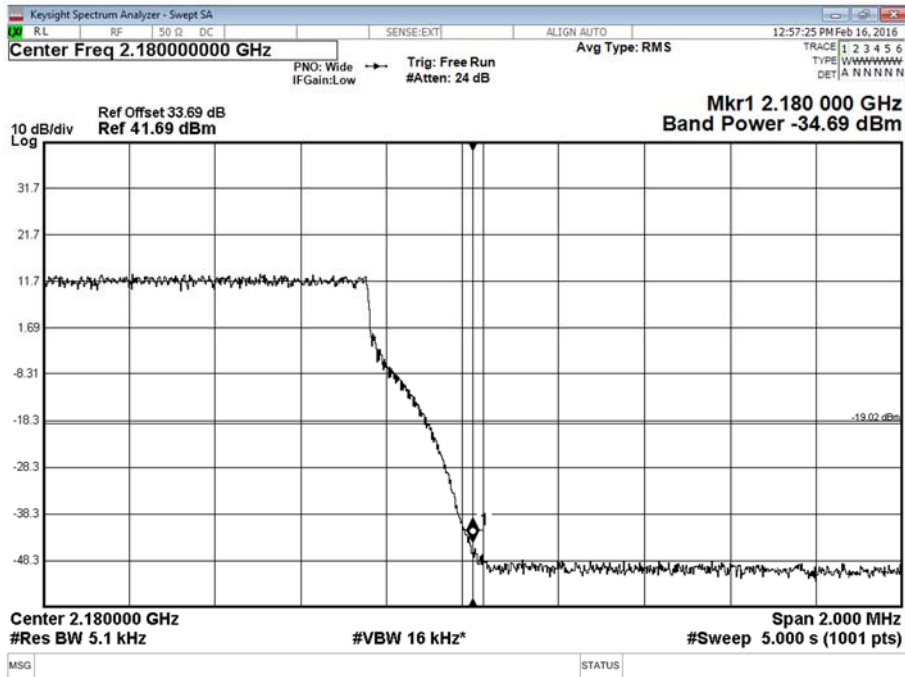
Maximum Output Power 44.77 dBm

Carrier Bandwidth	Modulation	Band Edge (MHz)	
		Channel Position B	Channel Position T
5.0 MHz	QPSK	2112.5 + 2117.5	2172.5 + 2177.5
10.0 MHz	QPSK	2115 + 2125	2165 + 2175
15.0 MHz	QPSK	2117.5 + 2132.5	2157.5 + 2172.5
20.0 MHz	QPSK	2120 + 2140	2150 + 2170

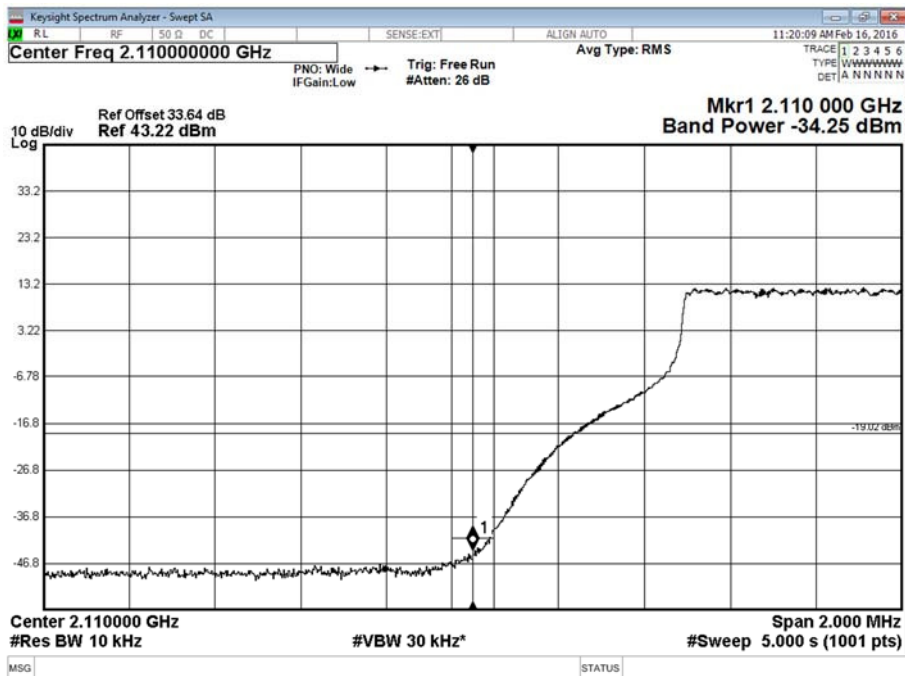
Channel Position B - Bandwidth 5.0 MHz - Antenna B



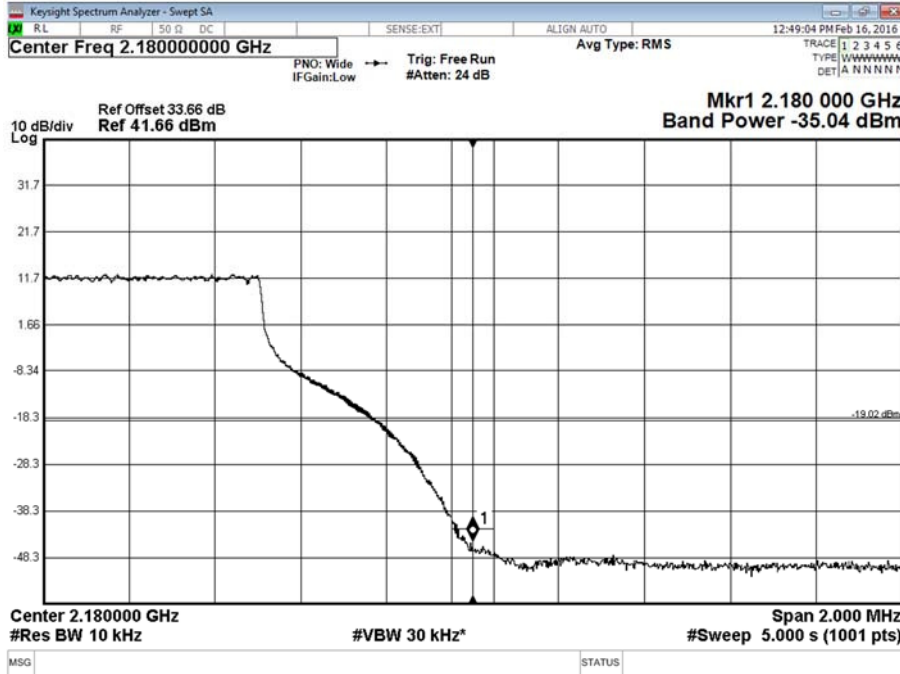
## Channel Position T - Bandwidth 5.0 MHz - Antenna B



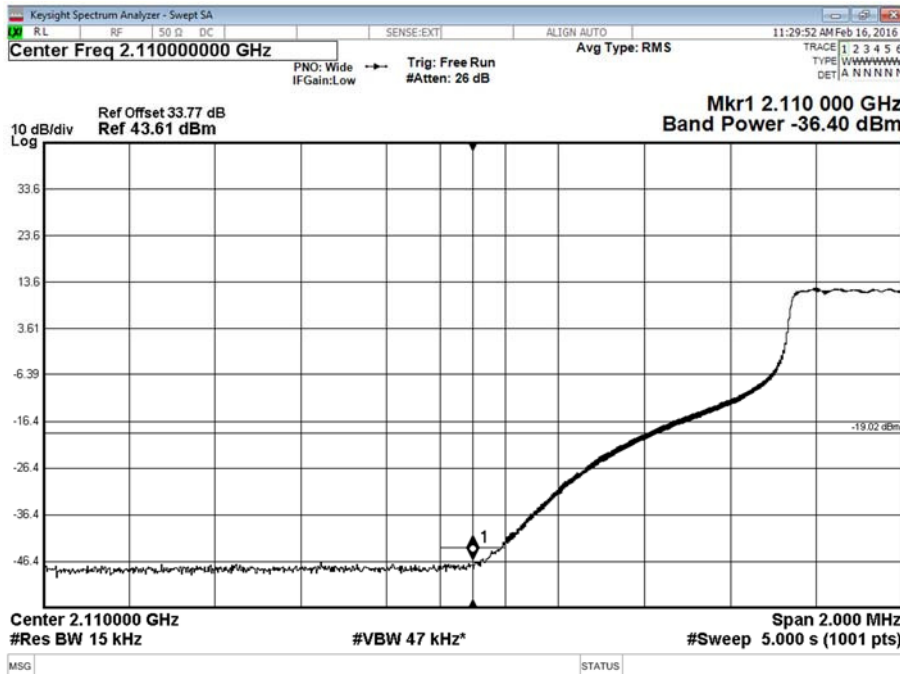
## Channel Position B - Bandwidth 10.0 MHz - Antenna B



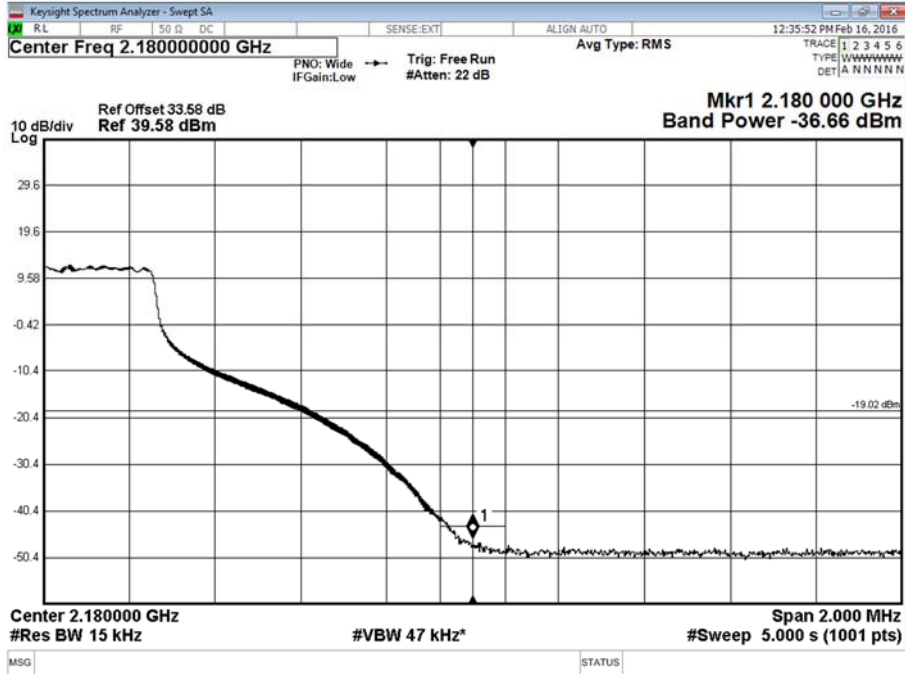
Channel Position T - Bandwidth 10.0 MHz - Antenna B



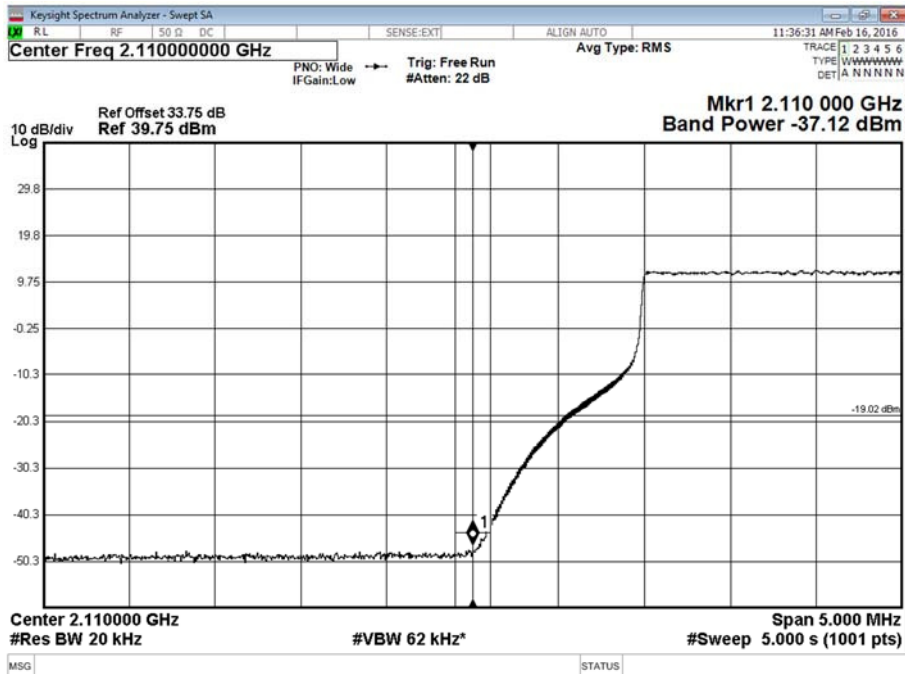
Channel Position B - Bandwidth 15.0 MHz - Antenna B



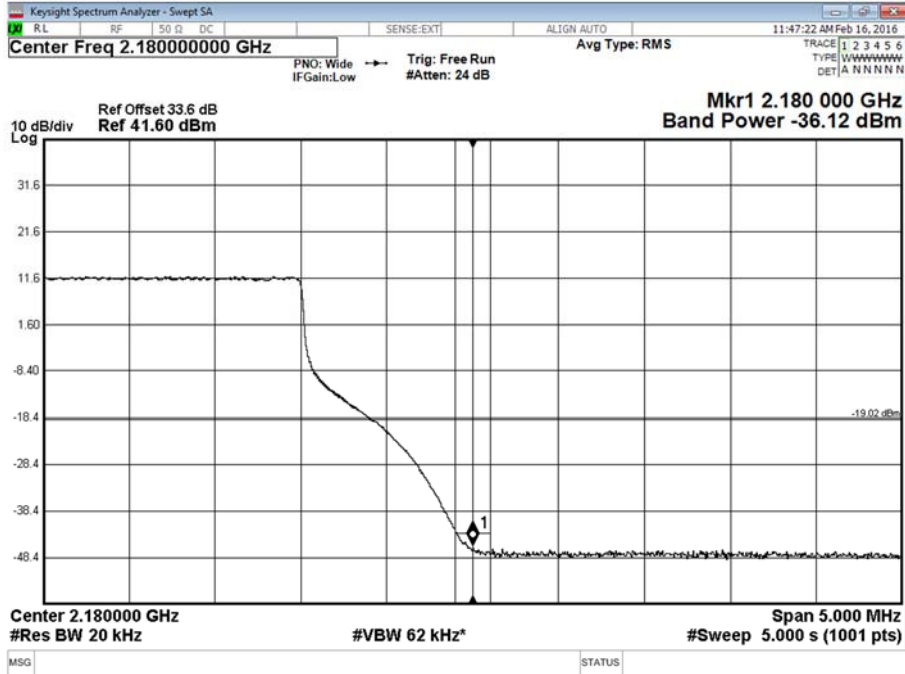
## Channel Position T - Bandwidth 15.0 MHz - Antenna B



## Channel Position B - Bandwidth 20.0 MHz - Antenna B



Channel Position T - Bandwidth 20.0 MHz - Antenna B

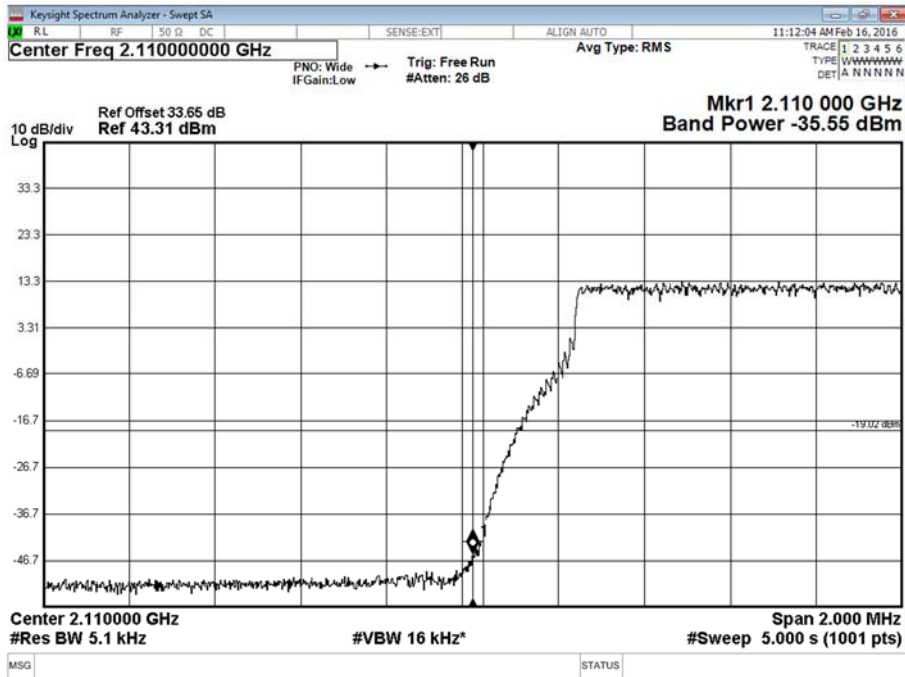


Configuration 4 Antenna C

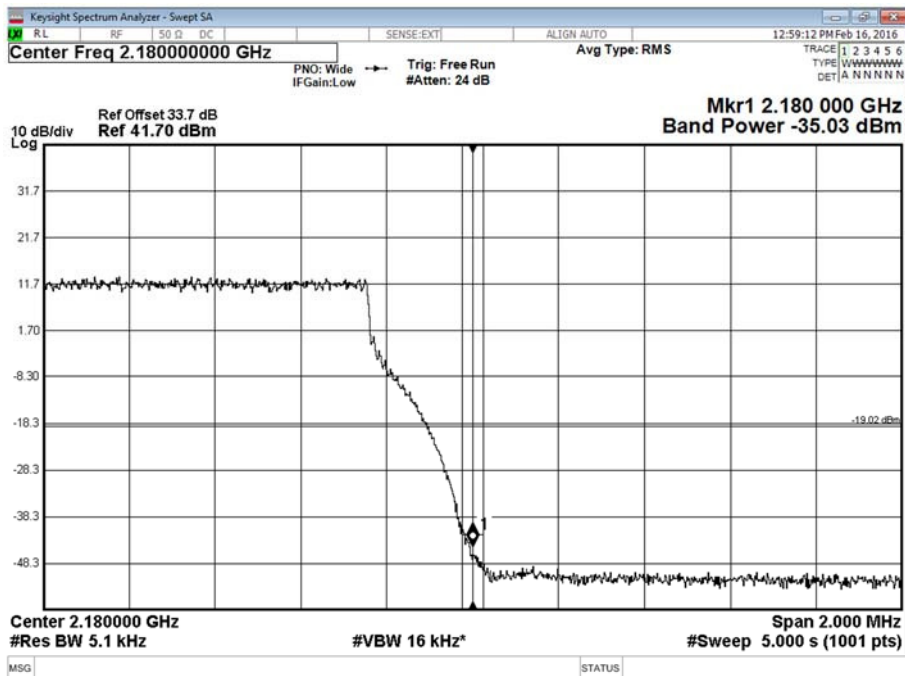
Maximum Output Power 44.77 dBm

Carrier Bandwidth	Modulation	Band Edge (MHz)	
		Channel Position B	Channel Position T
5.0 MHz	QPSK	2112.5 + 2117.5	2172.5 + 2177.5
10.0 MHz	QPSK	2115 + 2125	2165 + 2175
15.0 MHz	QPSK	2117.5 + 2132.5	2157.5 + 2172.5
20.0 MHz	QPSK	2120 + 2140	2150 + 2170

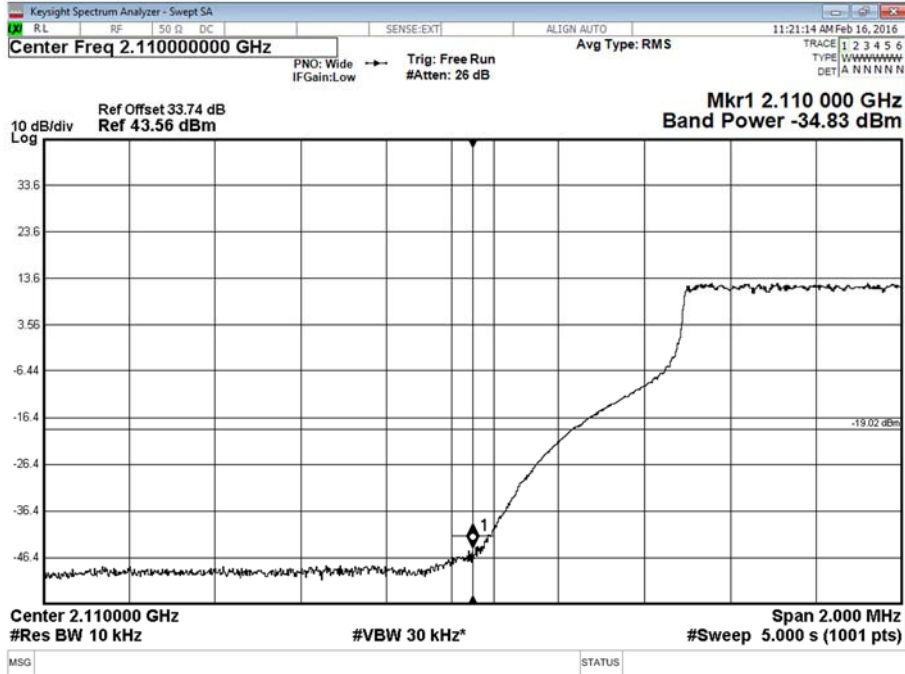
## Channel Position B - Bandwidth 5.0 MHz - Antenna C



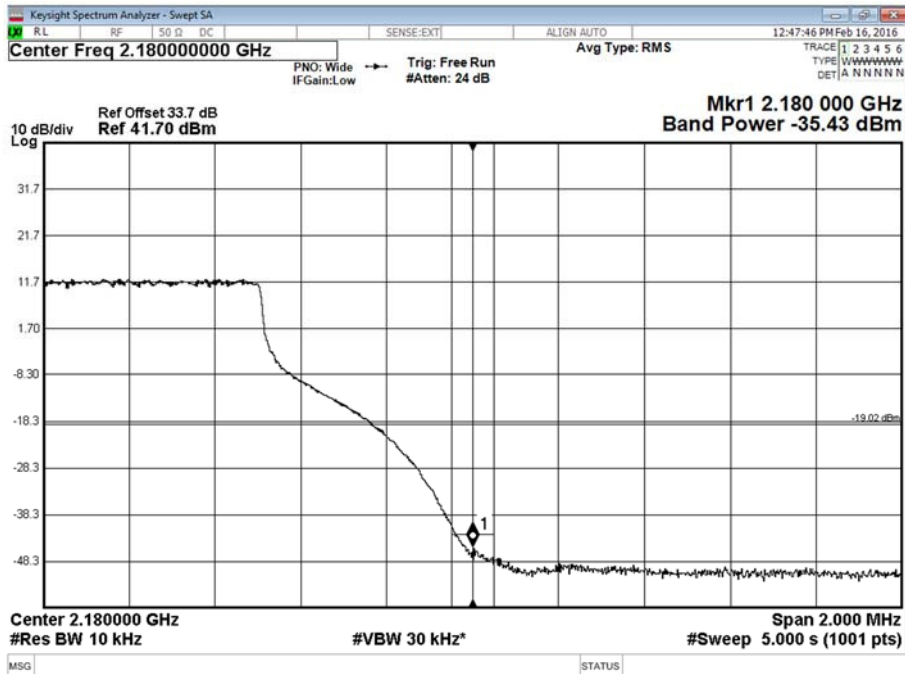
## Channel Position T - Bandwidth 5.0 MHz - Antenna C



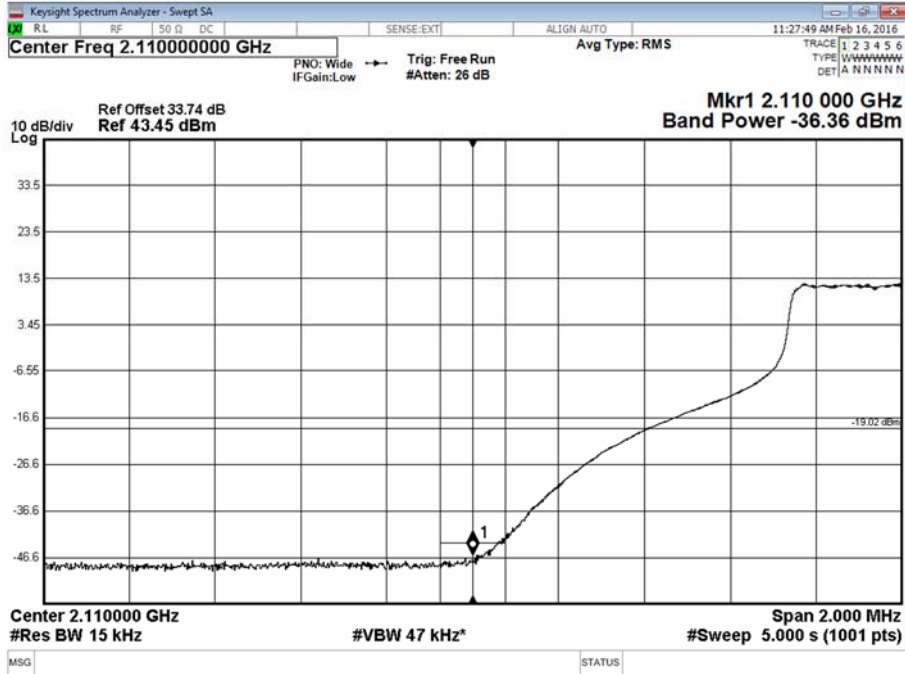
Channel Position B - Bandwidth 10.0 MHz - Antenna C



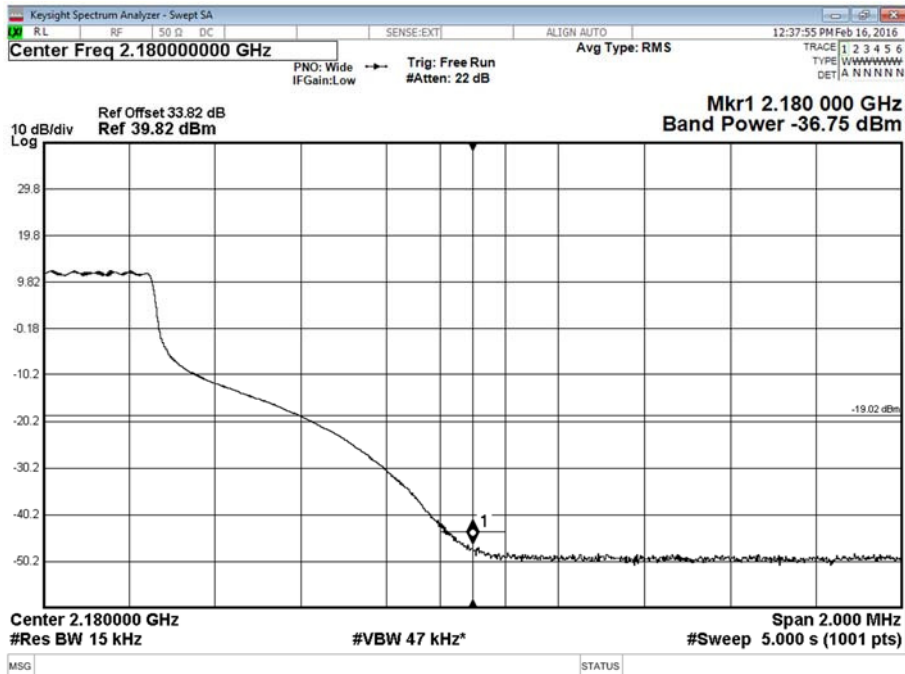
Channel Position T - Bandwidth 10.0 MHz - Antenna C



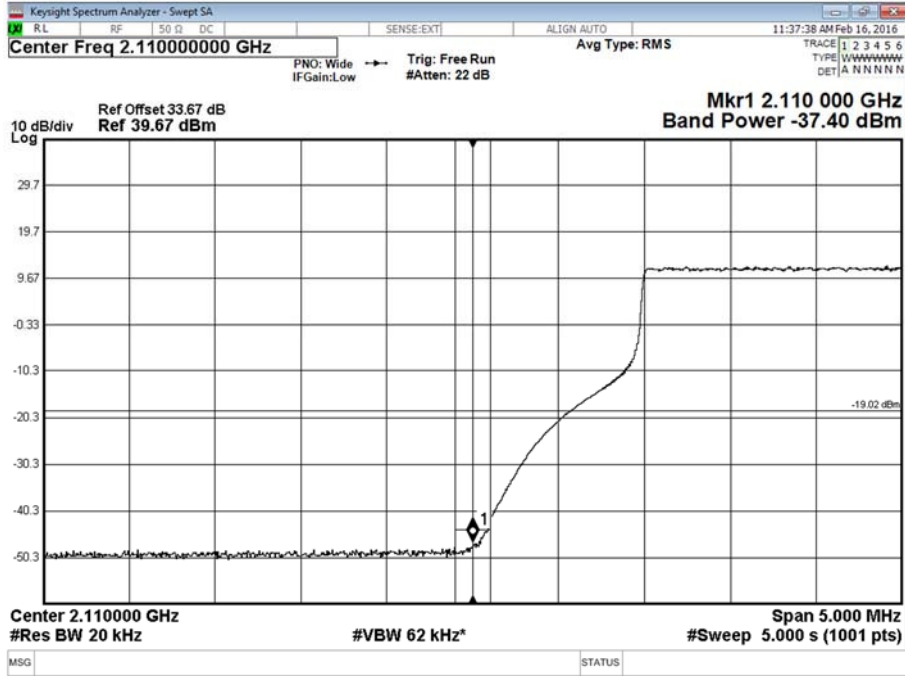
## Channel Position B - Bandwidth 15.0 MHz - Antenna C



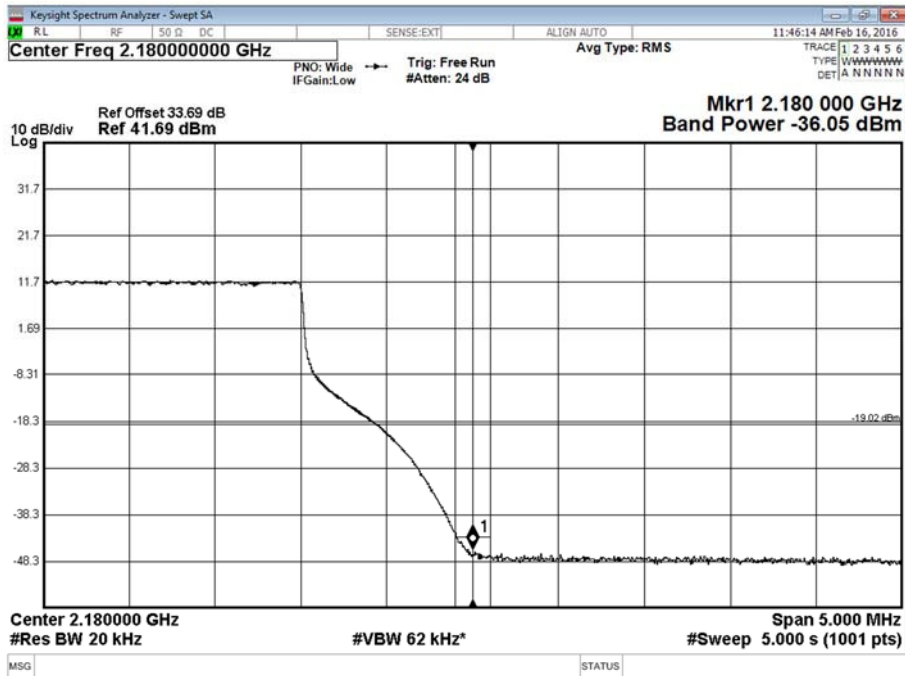
## Channel Position T - Bandwidth 15.0 MHz - Antenna C



Channel Position B - Bandwidth 20.0 MHz - Antenna C



Channel Position T - Bandwidth 20.0 MHz - Antenna C

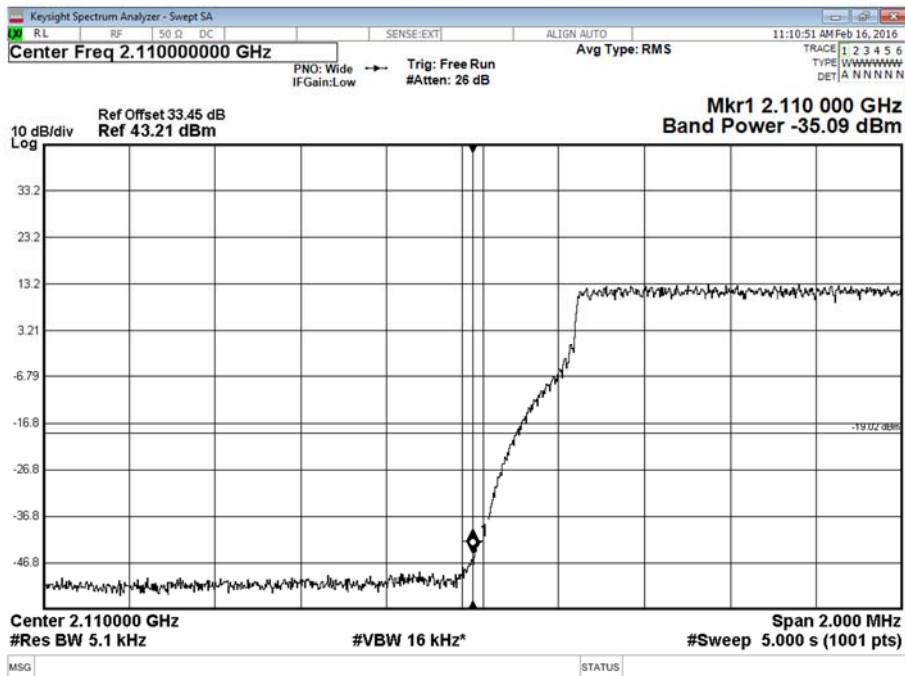


Configuration 4 Antenna D

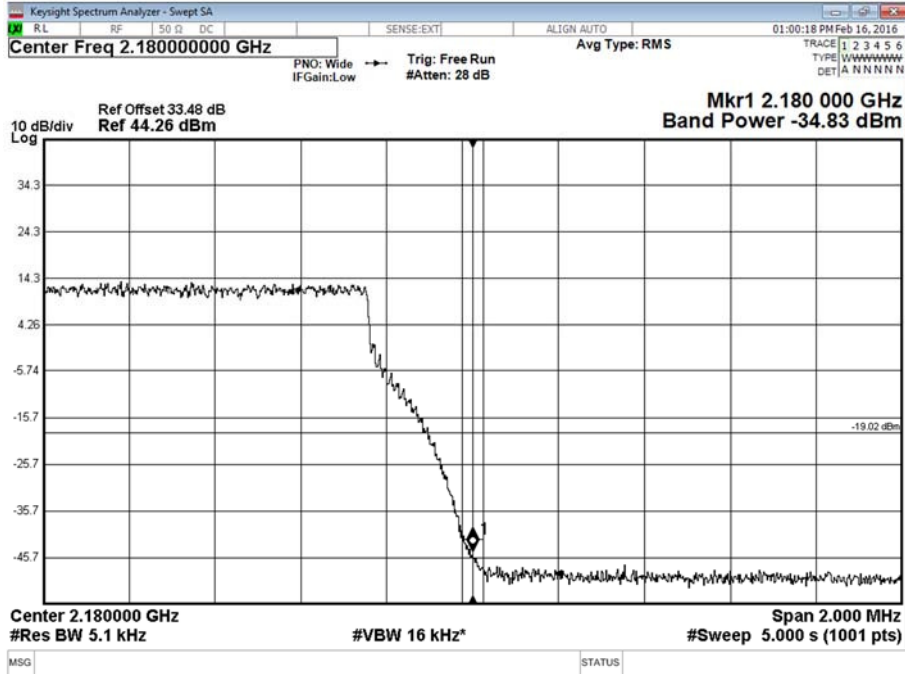
Maximum Output Power 44.77 dBm

Carrier Bandwidth	Modulation	Band Edge (MHz)	
		Channel Position B	Channel Position T
5.0 MHz	QPSK	2112.5 + 2117.5	2172.5 + 2177.5
10.0 MHz	QPSK	2115 + 2125	2165 + 2175
15.0 MHz	QPSK	2117.5 + 2132.5	2157.5 + 2172.5
20.0 MHz	QPSK	2120 + 2140	2150 + 2170

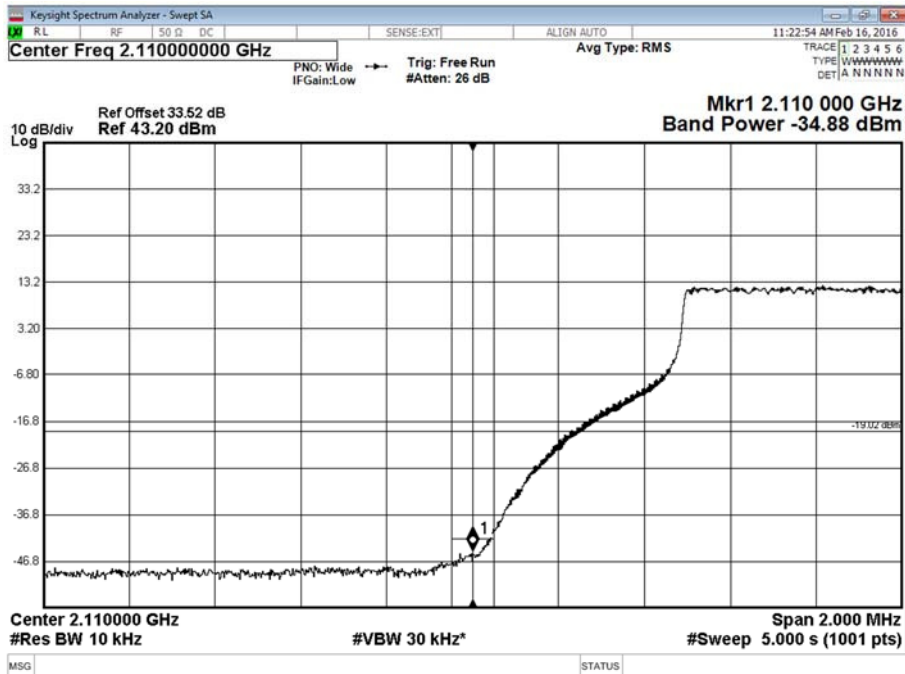
Channel Position B - Bandwidth 5.0 MHz - Antenna D



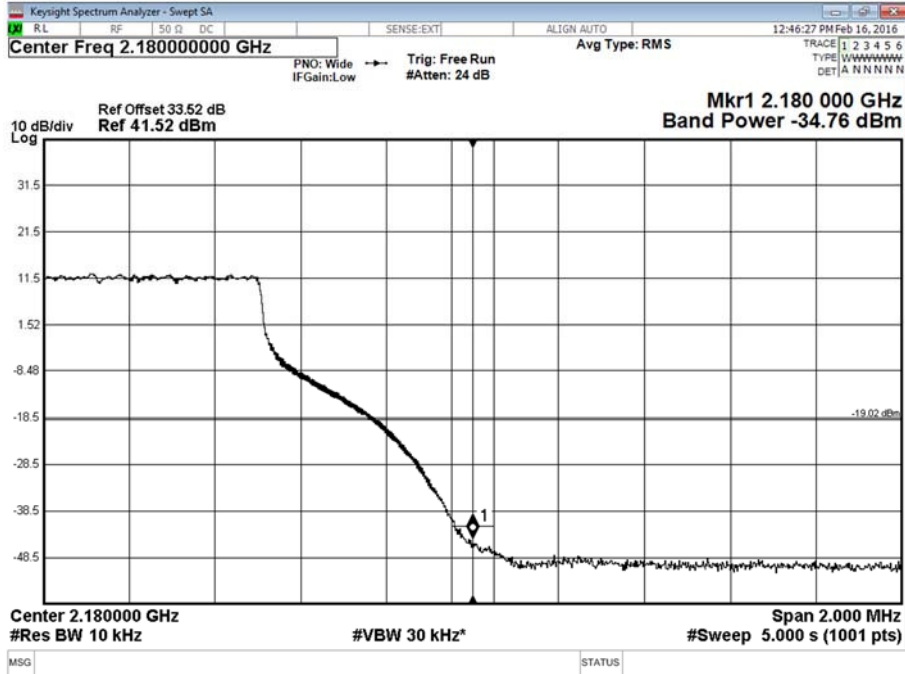
## Channel Position T - Bandwidth 5.0 MHz - Antenna D



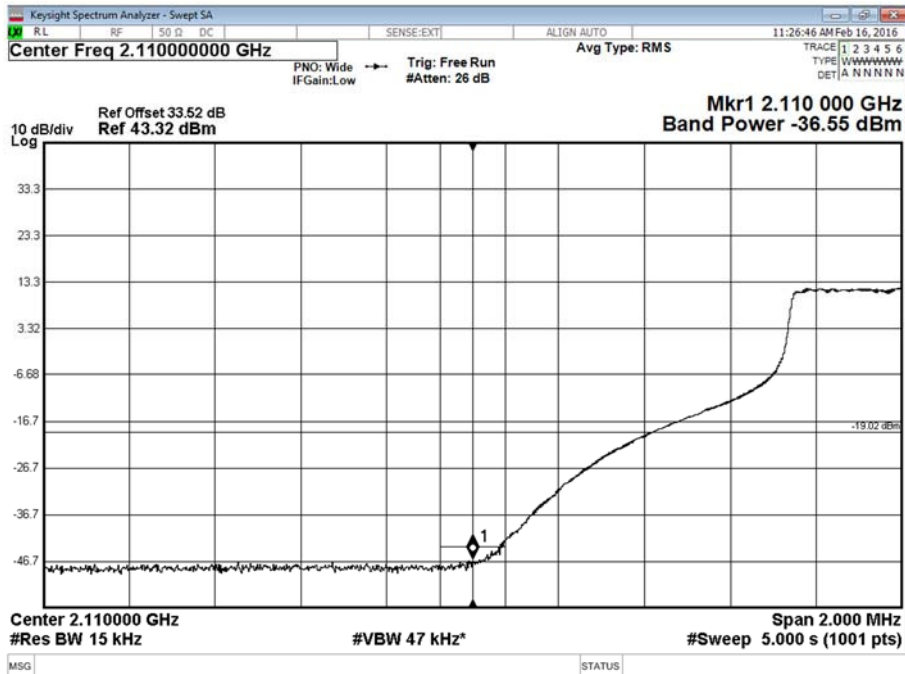
## Channel Position B - Bandwidth 10.0 MHz - Antenna D



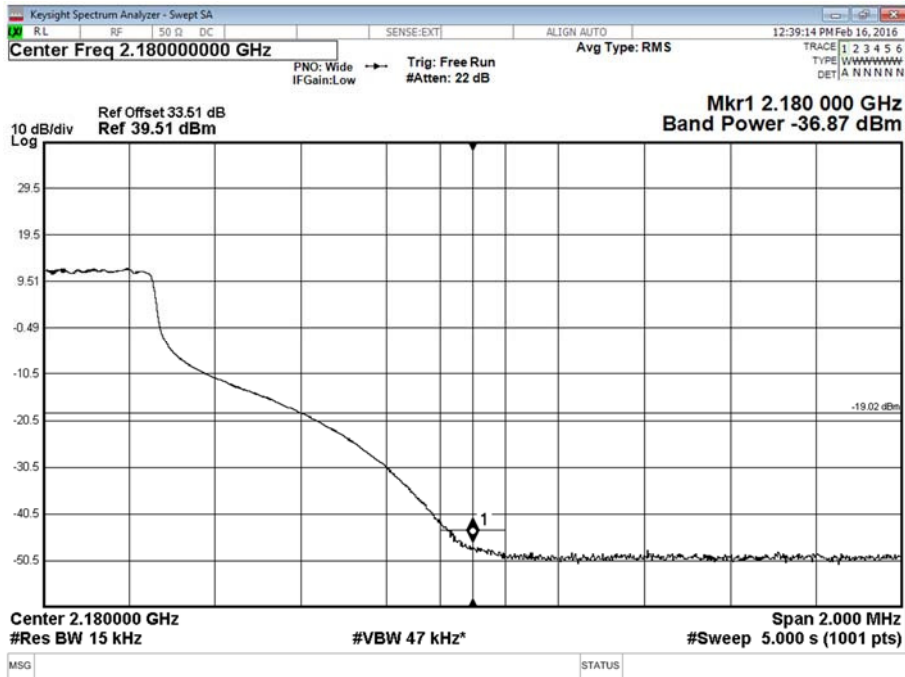
Channel Position T - Bandwidth 10.0 MHz - Antenna D



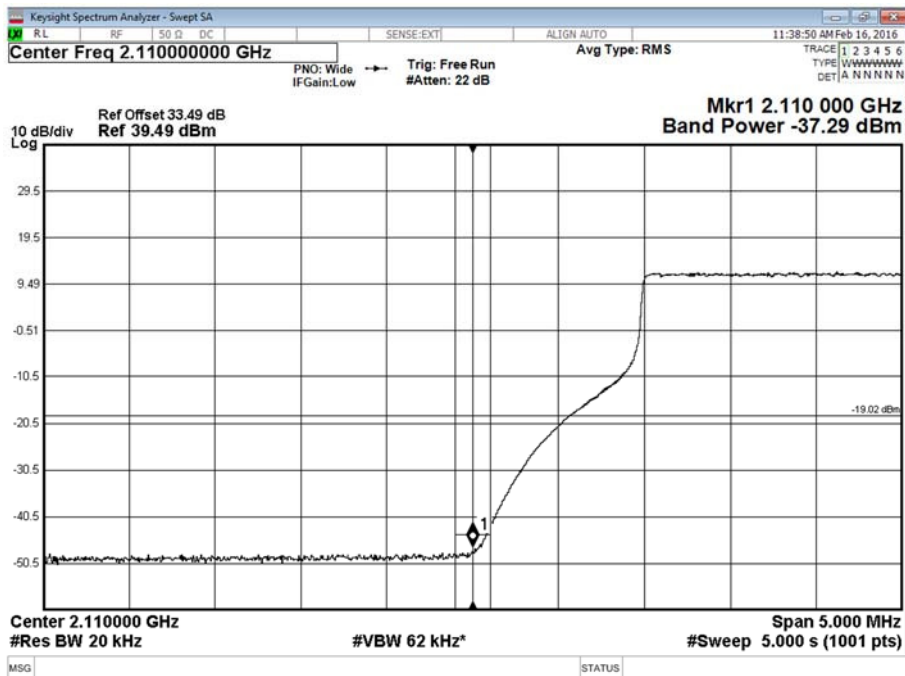
Channel Position B - Bandwidth 15.0 MHz - Antenna D



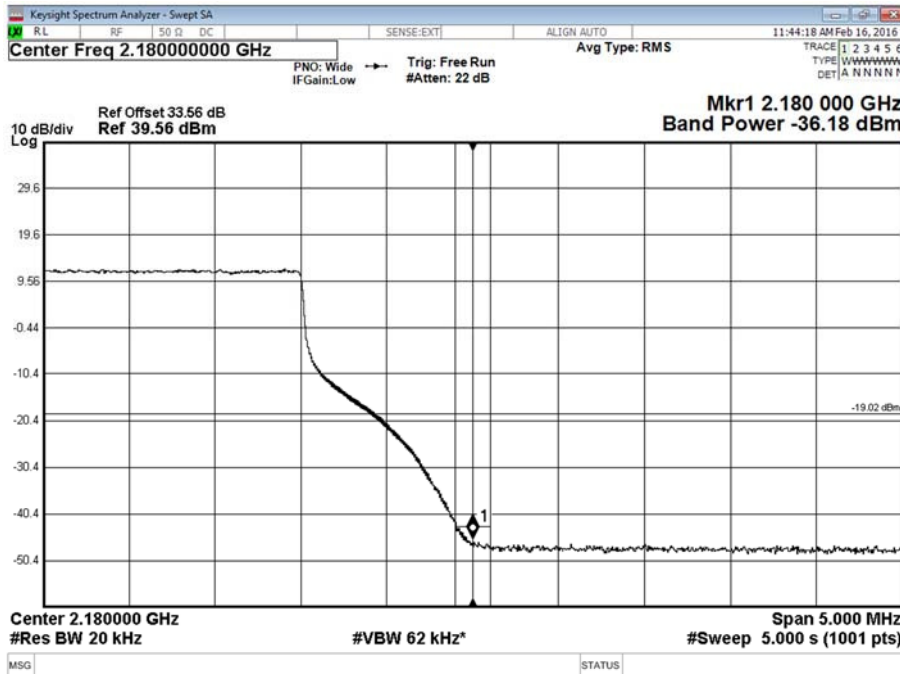
Channel Position T - Bandwidth 15.0 MHz - Antenna D



Channel Position B - Bandwidth 20.0 MHz - Antenna D



Channel Position T - Bandwidth 20.0 MHz - Antenna D



Configuration 6 Antenna A

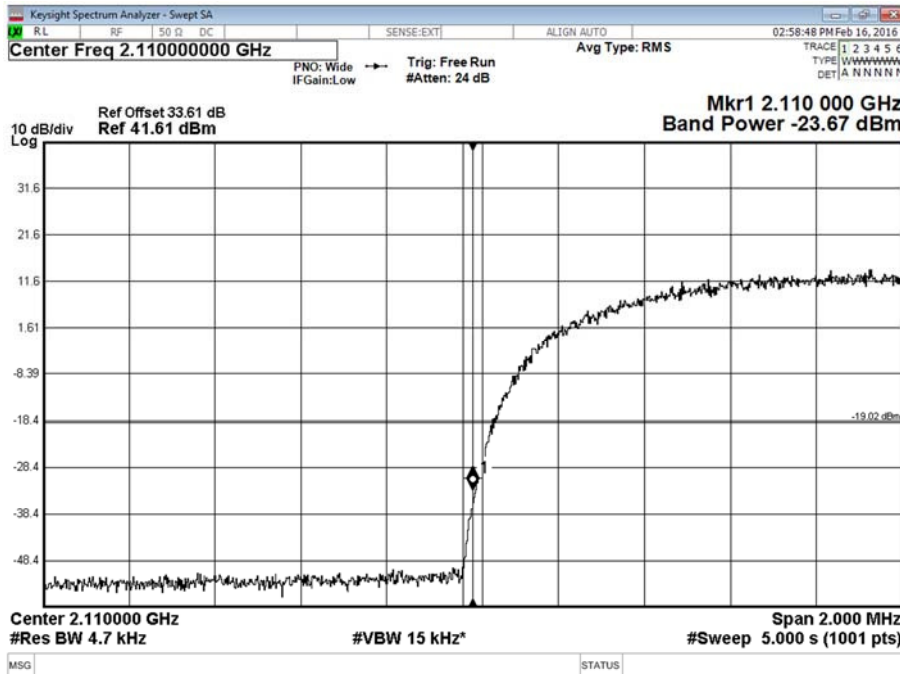
Maximum Output Power 44.77 dBm

WCDMA Modulation / LTE Bandwidth	Band Edge (MHz)	
	Channel Position BRFBW	Channel Position TRFBW
16QAM / 20.0 MHz	2112.4 (W) + 2124.9 (L)	2165.1 (L) + 2177.6 (W)

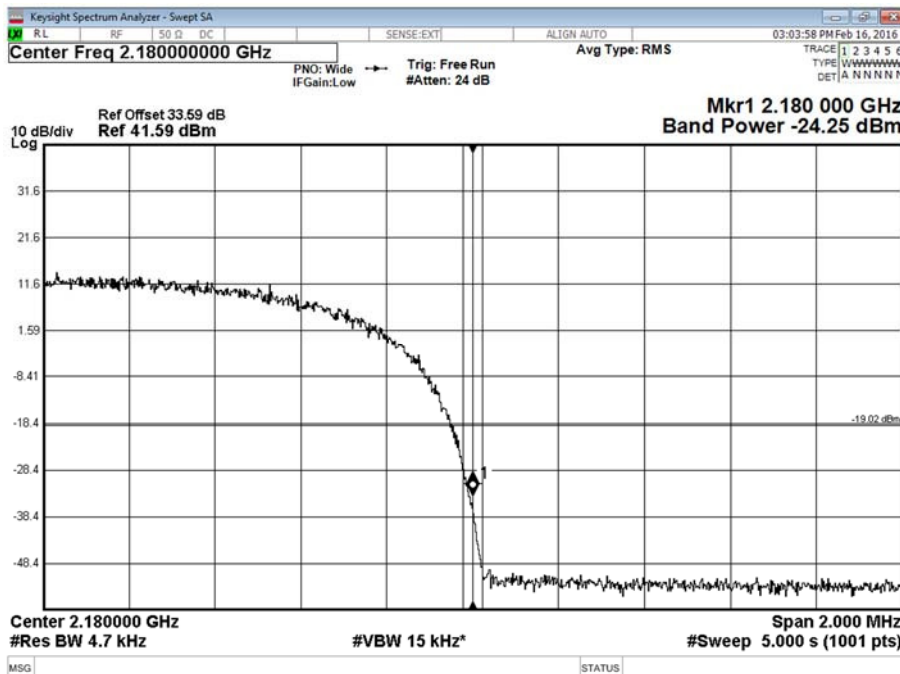
Remarks

LTE Modulation = QPSK

Channel Position BRFBW - Bandwidth 20.0 MHz - Antenna A



Channel Position TRFBW - Bandwidth 20.0 MHz - Antenna A



Configuration 6 Antenna B

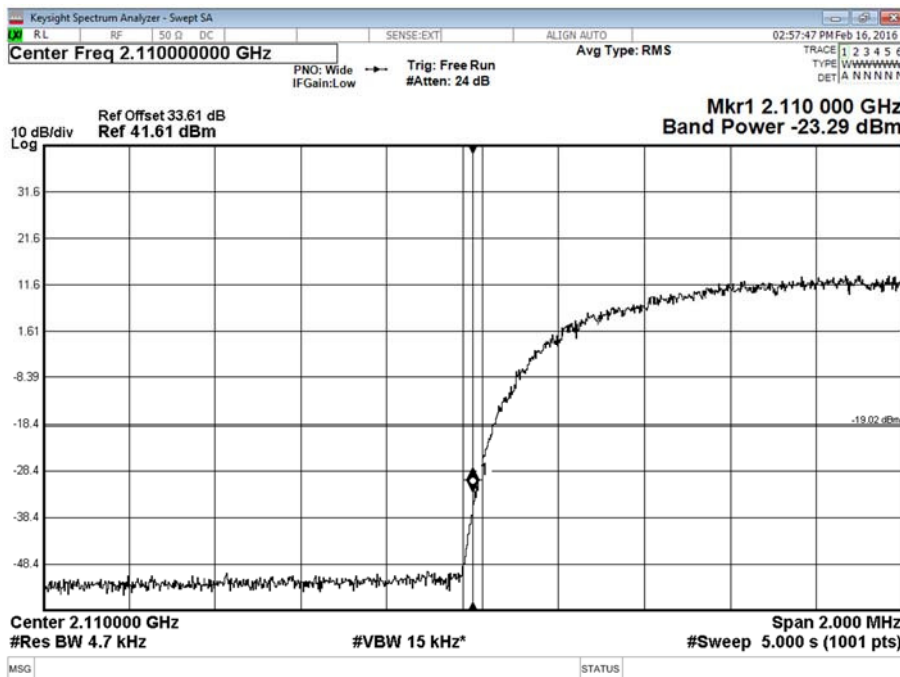
Maximum Output Power 44.77 dBm

WCDMA Modulation / LTE Bandwidth	Band Edge (MHz)	
	Channel Position BRFBW	Channel Position TRFBW
16QAM / 20.0 MHz	2112.4 (W) + 2124.9 (L)	2165.1 (L) + 2177.6 (W)

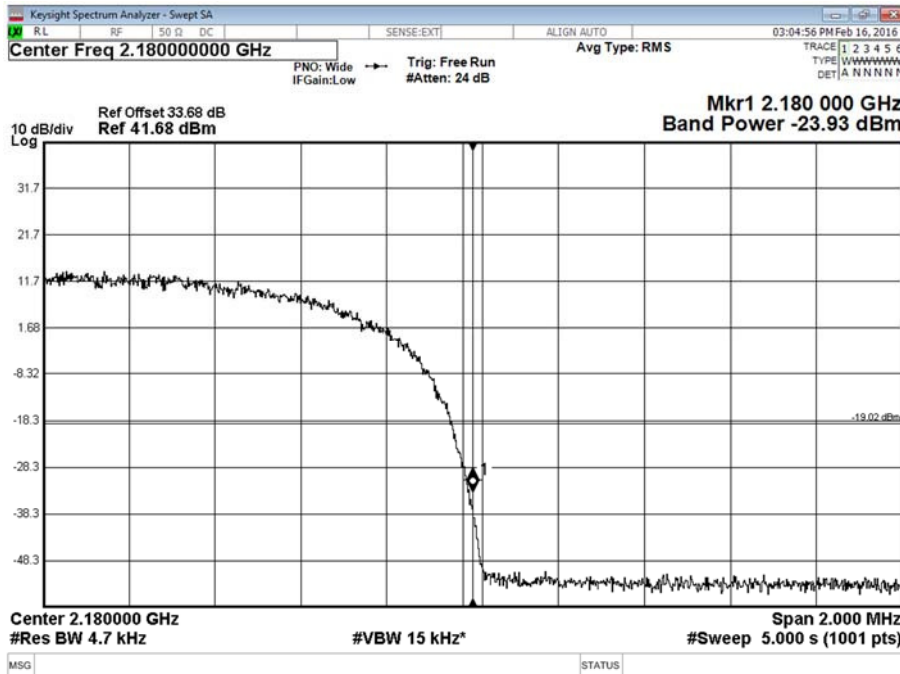
Remarks

LTE Modulation = QPSK

Channel Position BRFBW - Bandwidth 20.0 MHz - Antenna B



Channel Position TRFBW - Bandwidth 20.0 MHz - Antenna B



Configuration 6 Antenna C

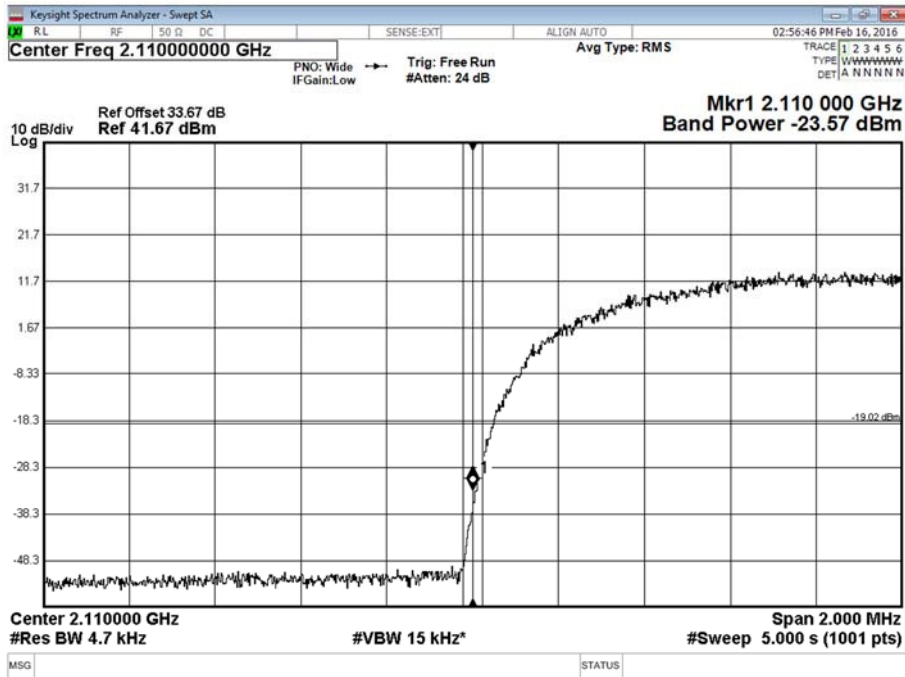
Maximum Output Power 44.77 dBm

WCDMA Modulation / LTE Bandwidth	Band Edge (MHz)	
	Channel Position BRFBW	Channel Position TRFBW
16QAM / 20.0 MHz	2112.4 (W) + 2124.9 (L)	2165.1 (L) + 2177.6 (W)

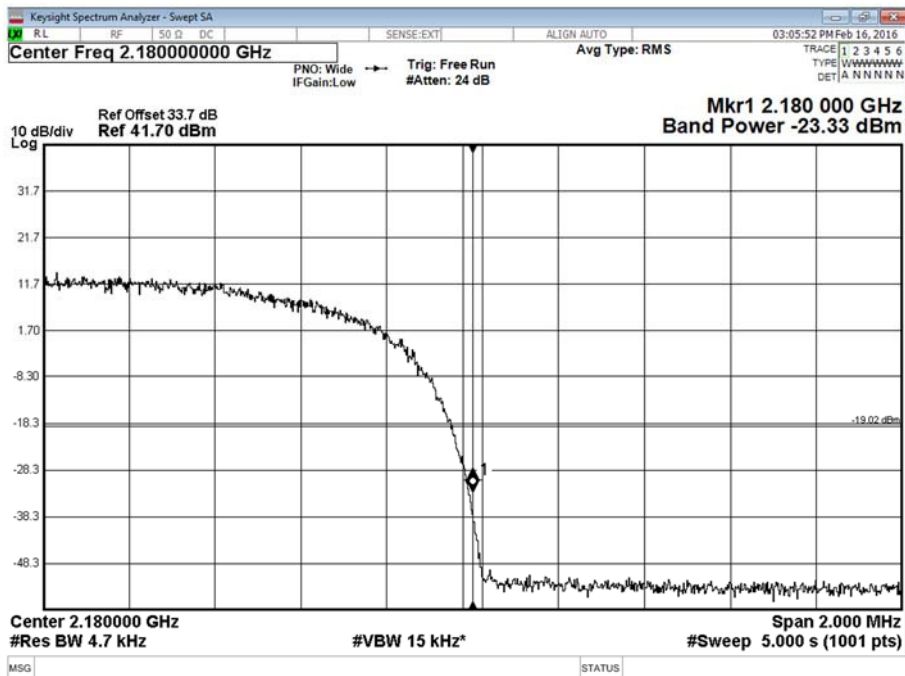
Remarks

LTE Modulation = QPSK

## Channel Position BRFBW - Bandwidth 20.0 MHz - Antenna C



## Channel Position TRFBW - Bandwidth 20.0 MHz - Antenna C



Configuration 6 Antenna D

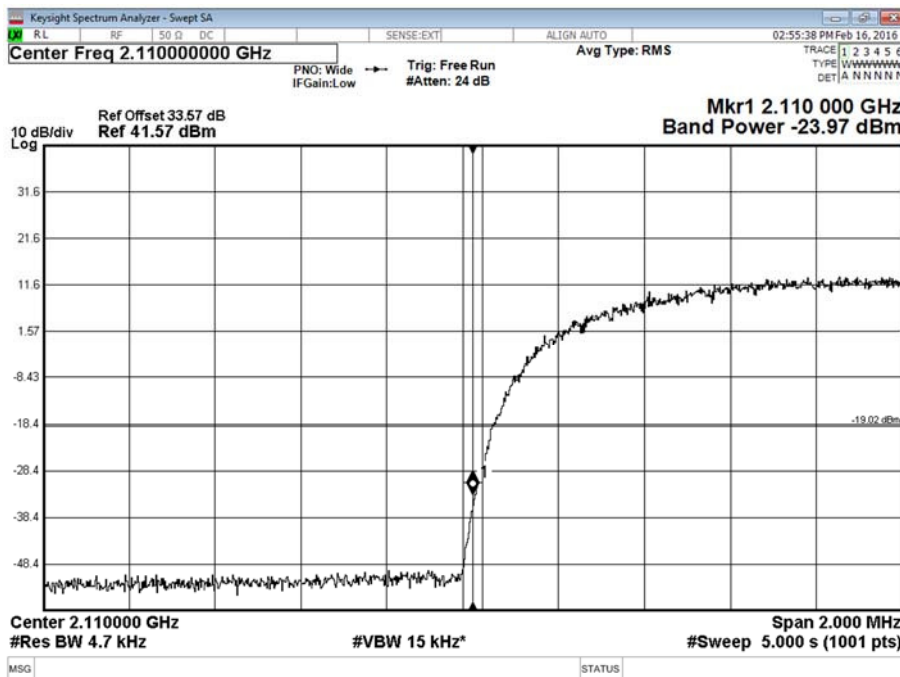
Maximum Output Power 44.77 dBm

WCDMA Modulation / LTE Bandwidth	Band Edge (MHz)	
	Channel Position BRFBW	Channel Position TRFBW
16QAM / 20.0 MHz	2112.4 (W) + 2124.9 (L)	2165.1 (L) + 2177.6 (W)

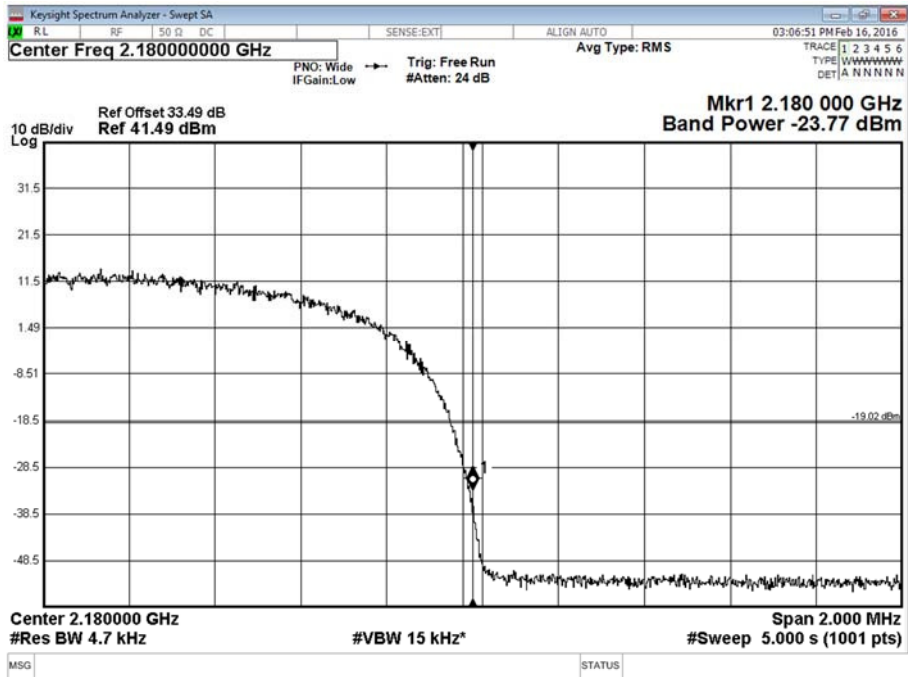
Remarks

LTE Modulation = QPSK

Channel Position BRFBW - Bandwidth 20.0 MHz - Antenna D



Channel Position TRFBW - Bandwidth 20.0 MHz - Antenna D



Limit	-19 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)  
Industry Canada RSS-139, Clause 6.6

### **2.4.2 Date of Test and Modification State**

12 and 16 February 2016 - 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	25.1 - 25.9°C
Relative Humidity	20.4 - 21.8%

### **2.4.5 Test Method**

The EUT was connected to a Signal Analyser via an attenuator and an RF switch for measurements from 9 kHz to 22 GHz except the measurement bands from 3.5 GHz to 12 GHz and 20 GHz to 22 GHz where an additional high pass filter was used.

The path loss between the EUT and the Analyser was measured using a Network Analyser and entered as a Reference Level Offset.

The EUT was set to transmit at its maximum rated output power in the configurations described below.

The analyser was set to measure with RBW/VBW at 1 MHz and 3 MHz respectively using an RMS detector and trace Clear Write.

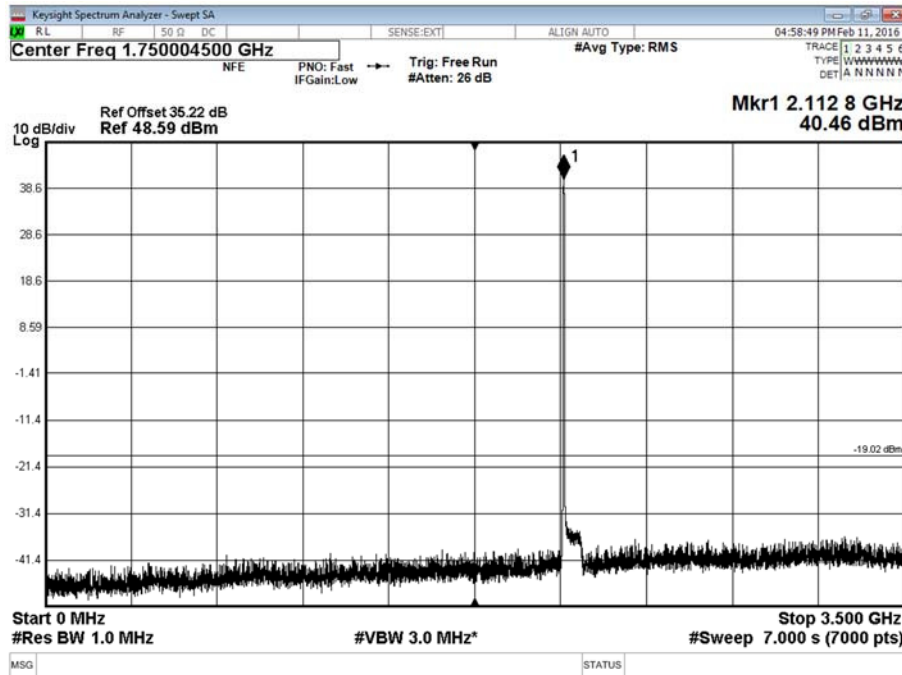
The test limits were set to a worst case value of -19 dBm.

### 2.4.6 Test Results

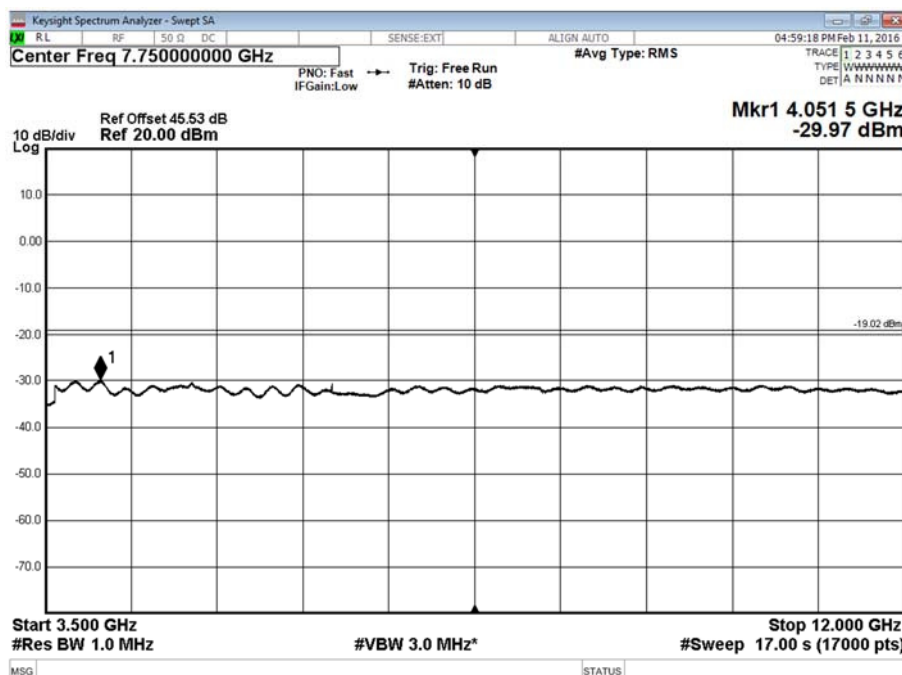
Configuration 1 Antenna A

Maximum Output Power 44.77 dBm

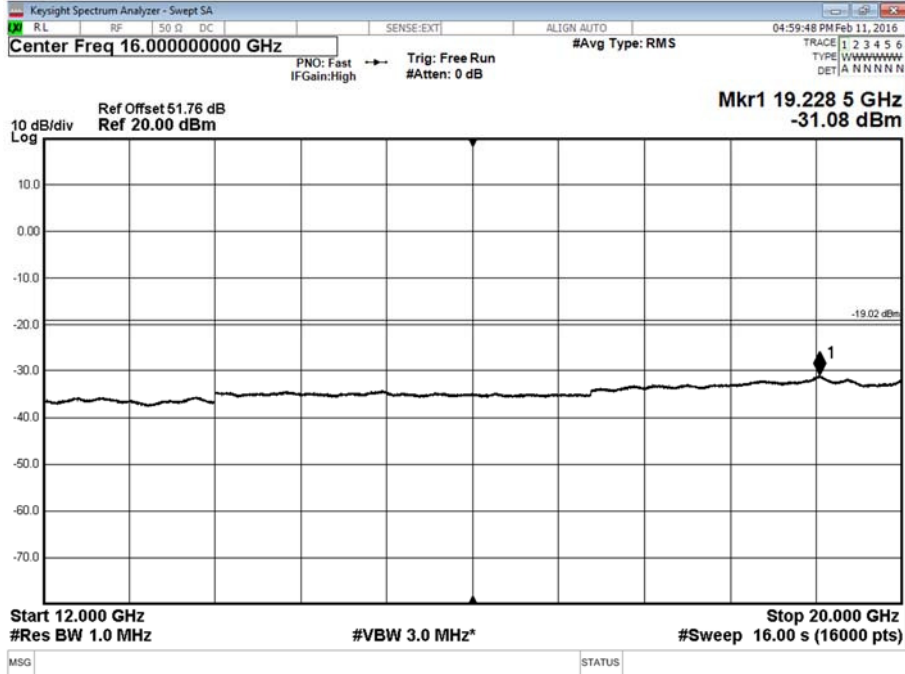
Channel Position B - Bandwidth 5.0 MHz - Antenna A



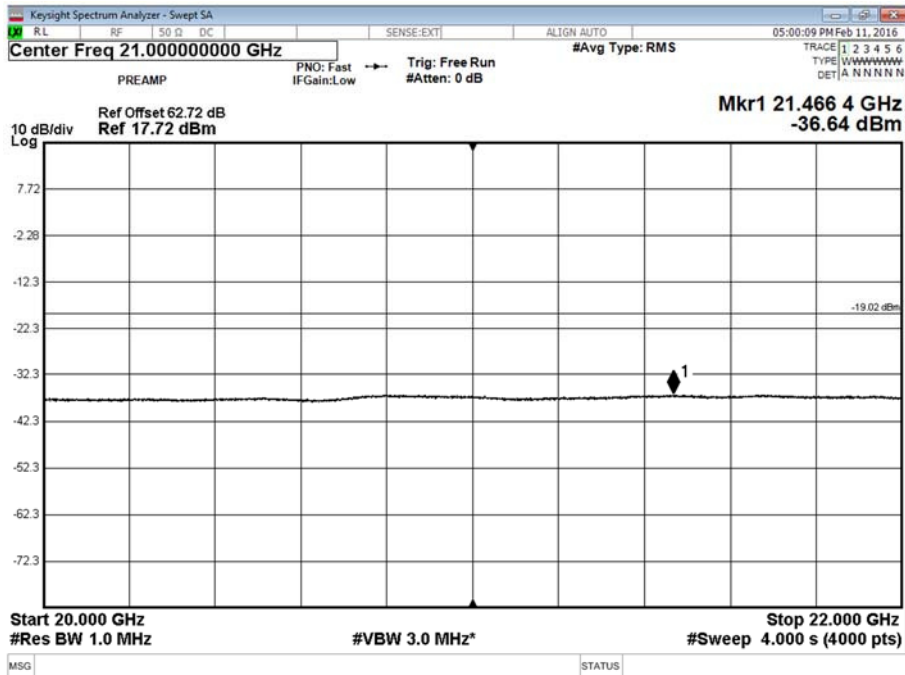
Channel Position B - Bandwidth 5.0 MHz - Antenna A



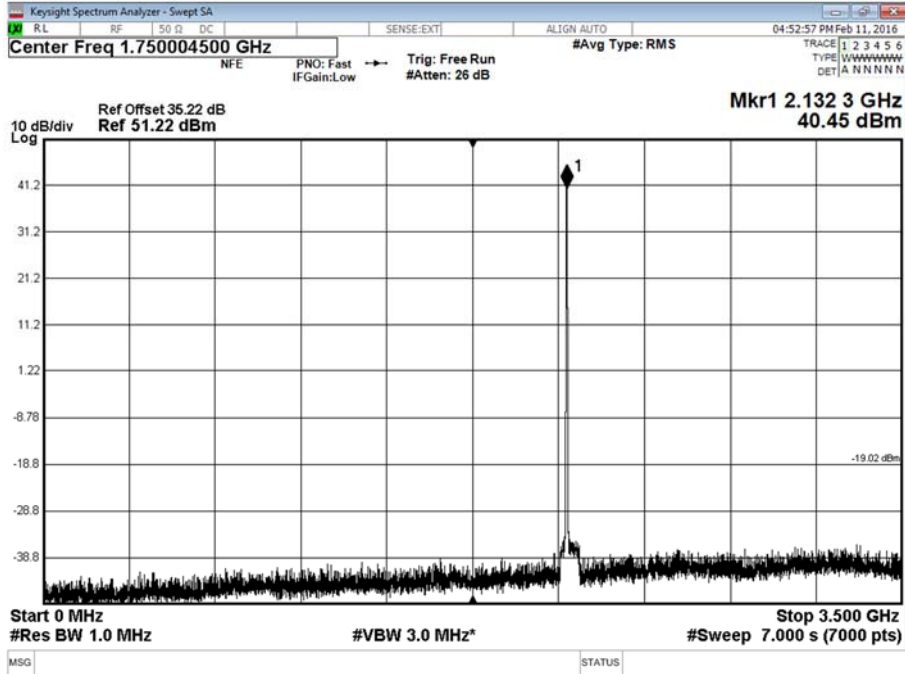
Channel Position B - Bandwidth 5.0 MHz - Antenna A



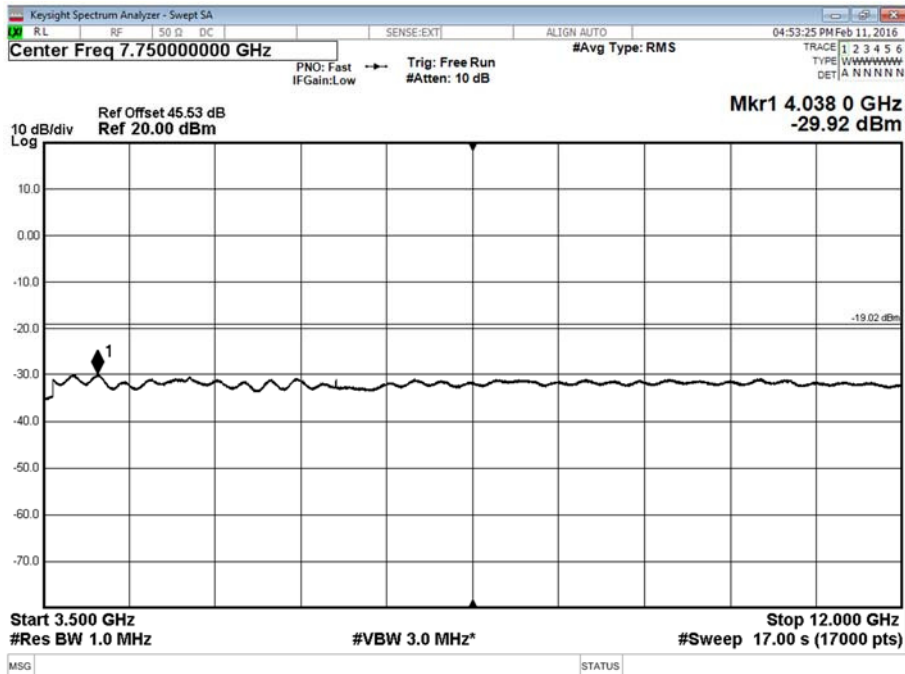
Channel Position B - Bandwidth 5.0 MHz - Antenna A



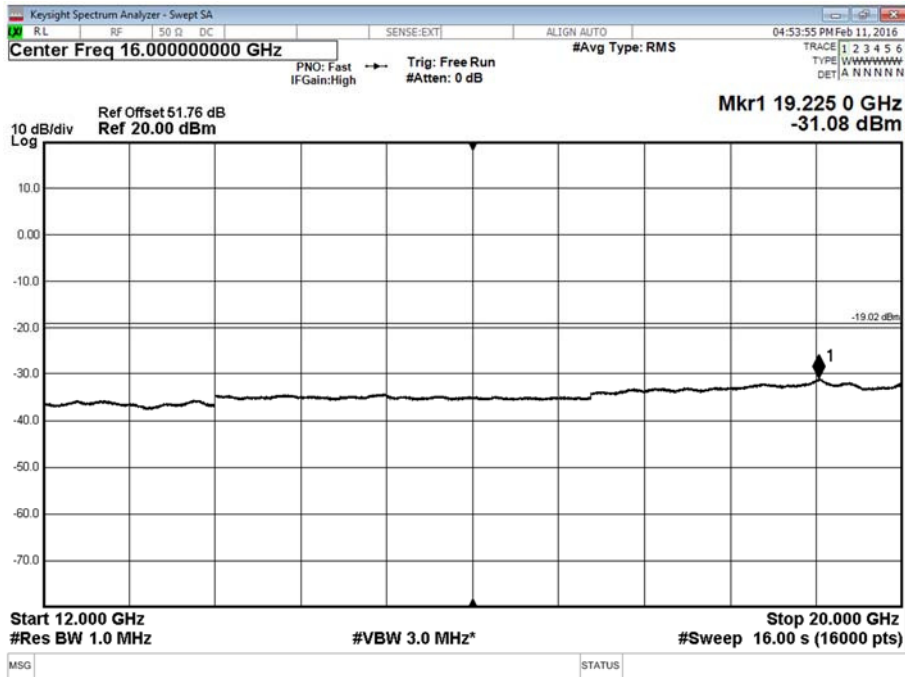
Channel Position M - Bandwidth 5.0 MHz - Antenna A



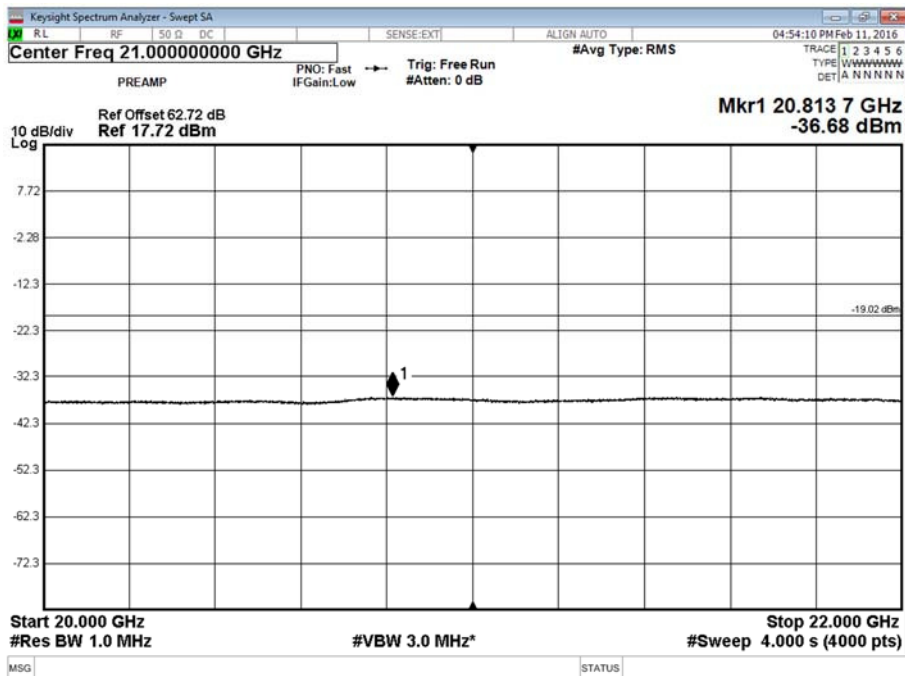
Channel Position M - Bandwidth 5.0 MHz - Antenna A



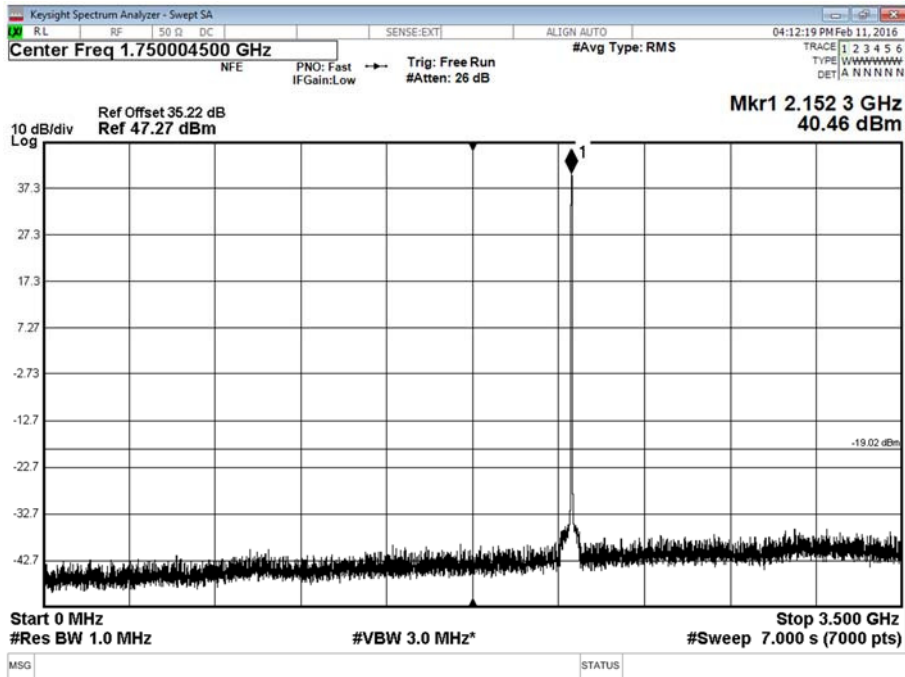
Channel Position M - Bandwidth 5.0 MHz - Antenna A



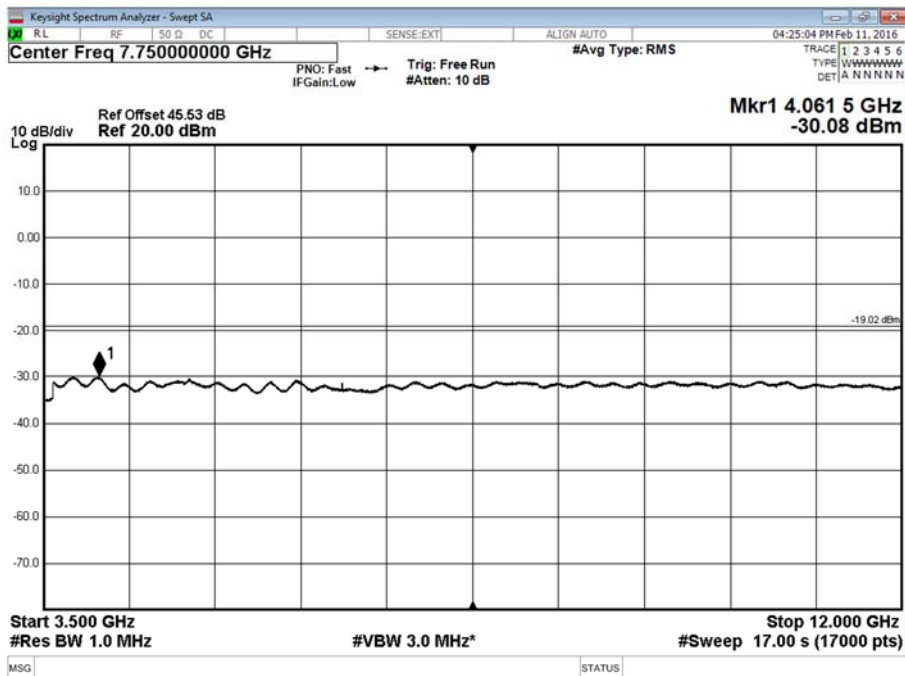
Channel Position M - Bandwidth 5.0 MHz - Antenna A



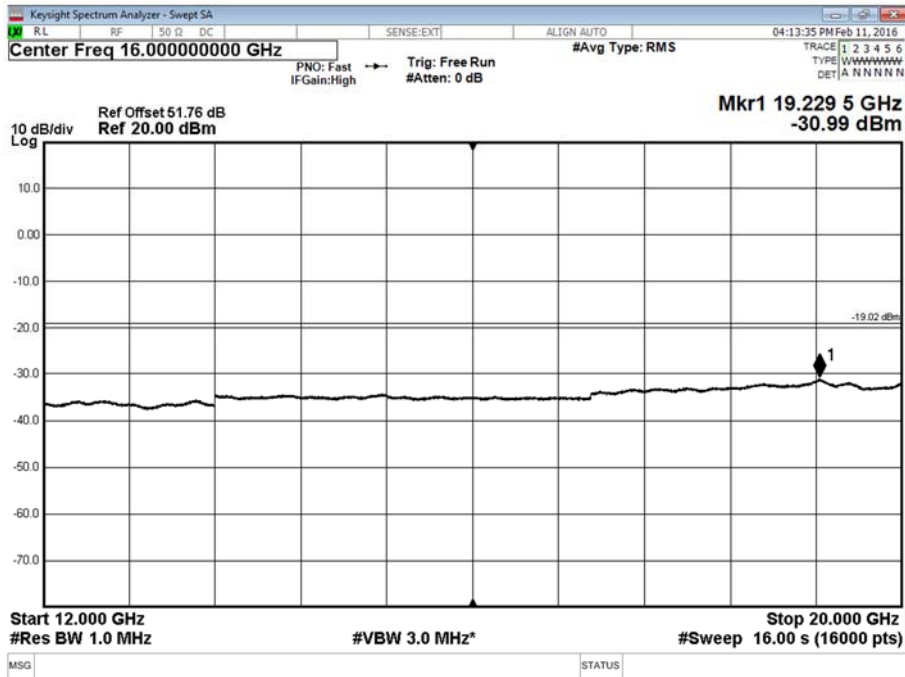
Channel Position T - Bandwidth 5.0 MHz - Antenna A



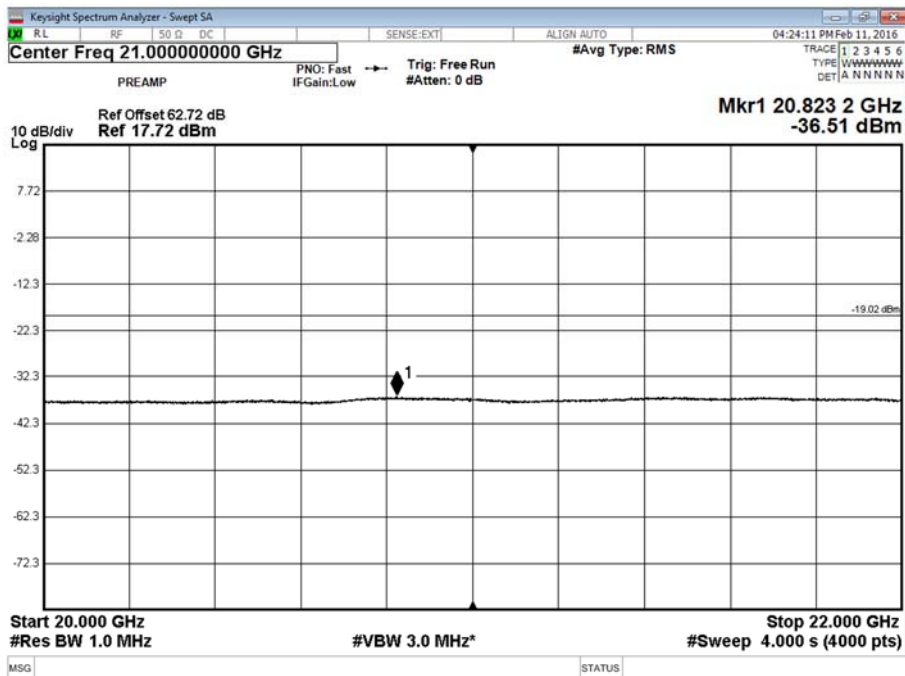
Channel Position T - Bandwidth 5.0 MHz - Antenna A



Channel Position T - Bandwidth 5.0 MHz - Antenna A



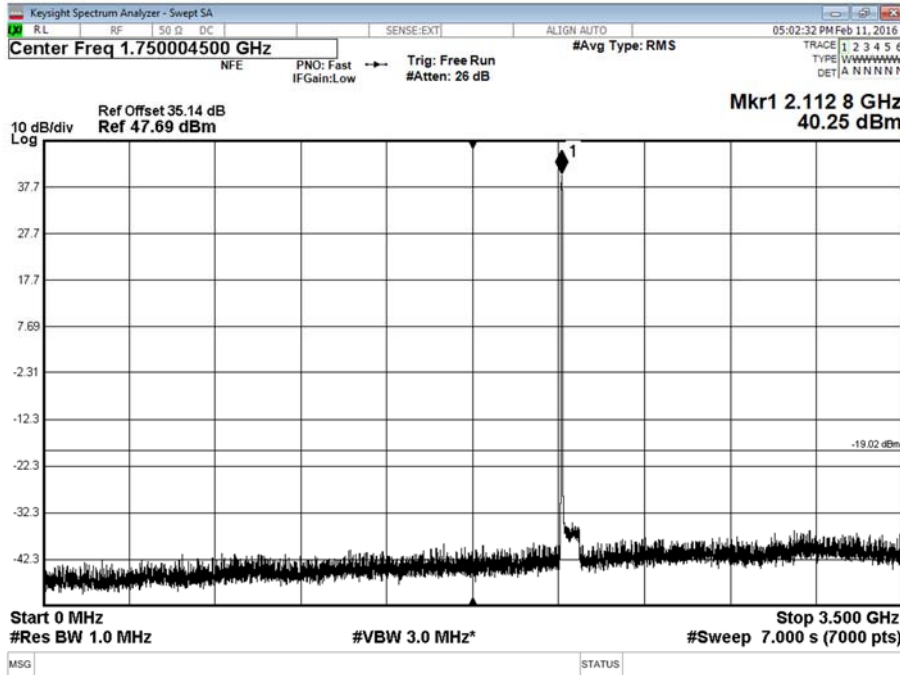
Channel Position T - Bandwidth 5.0 MHz - Antenna A



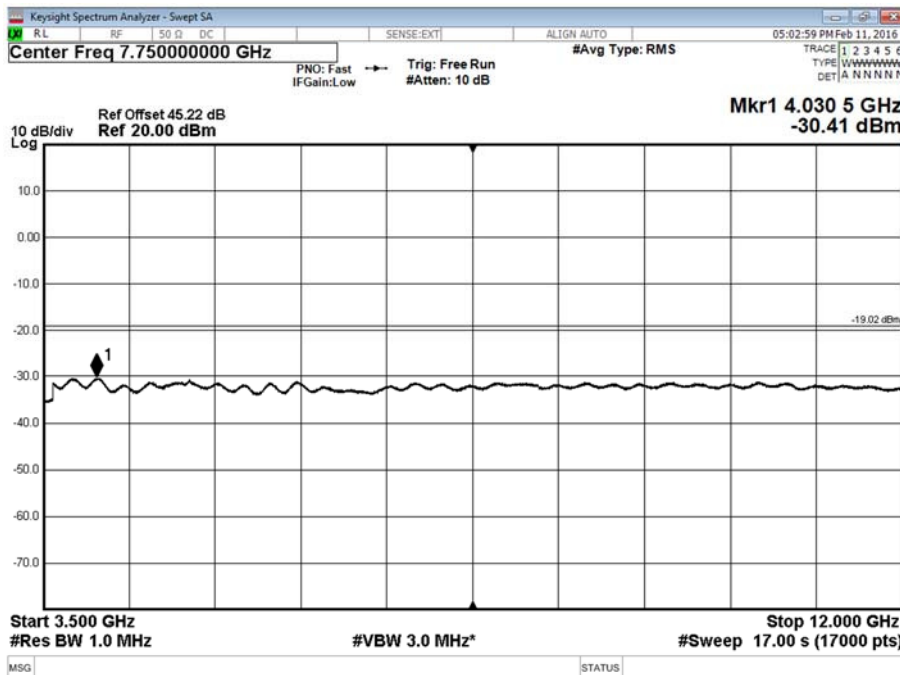
Configuration 1 Antenna B

Maximum Output Power 44.77 dBm

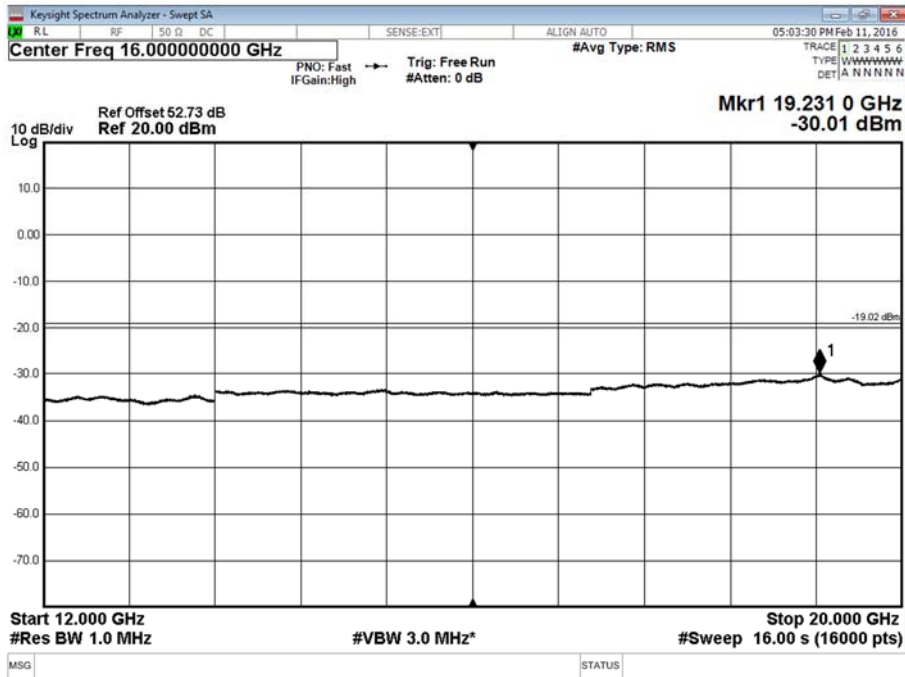
Channel Position B - Bandwidth 5.0 MHz - Antenna B



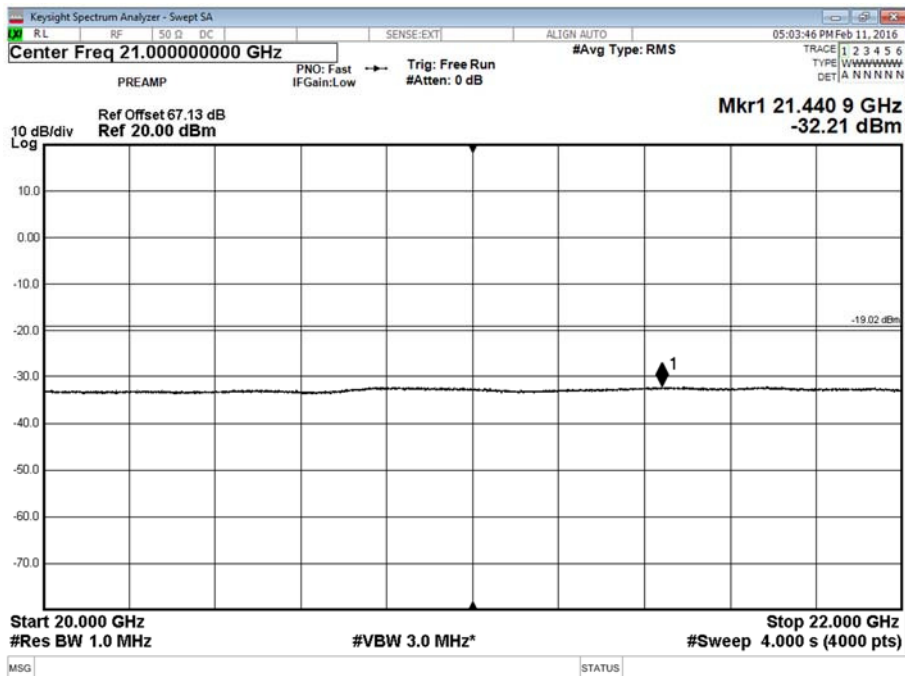
Channel Position B - Bandwidth 5.0 MHz - Antenna B



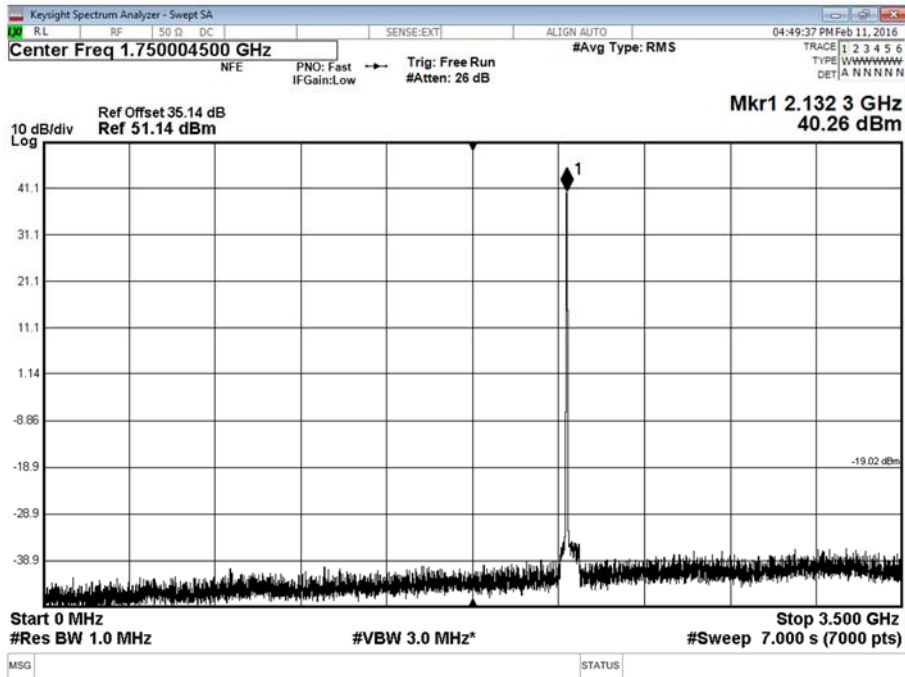
Channel Position B - Bandwidth 5.0 MHz - Antenna B



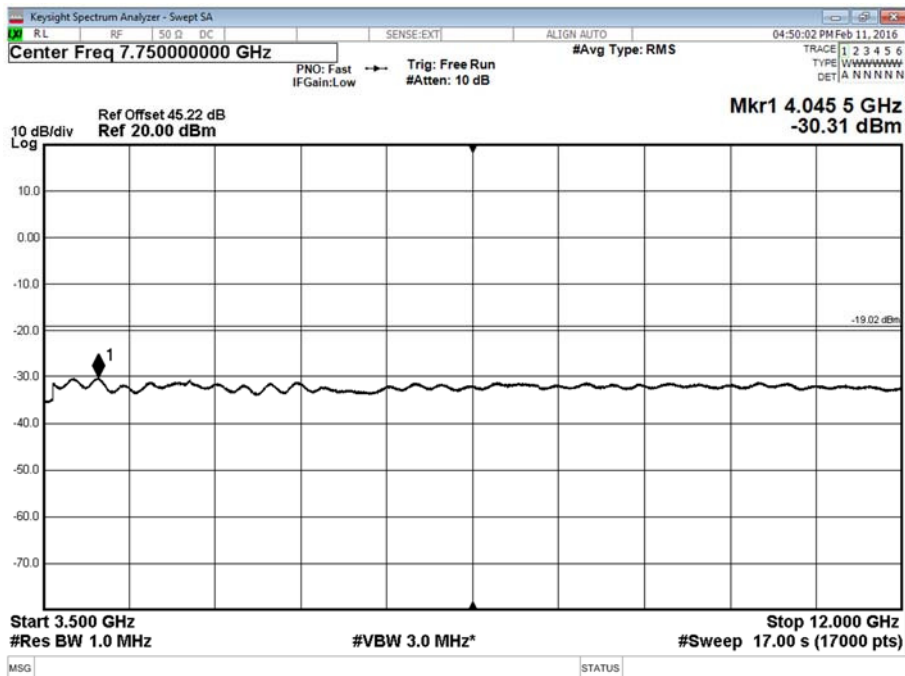
Channel Position B - Bandwidth 5.0 MHz - Antenna B



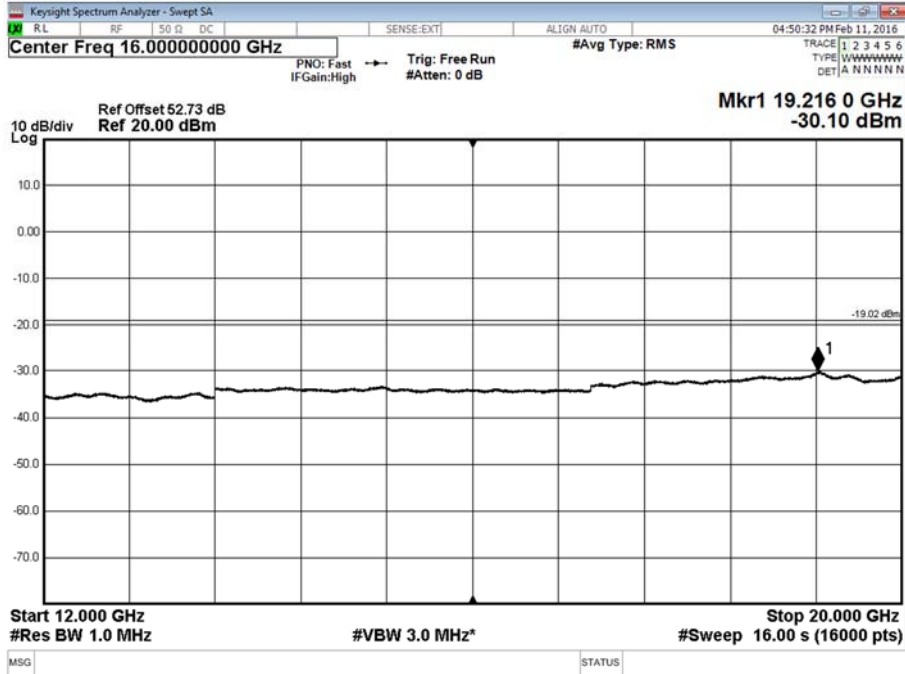
Channel Position M - Bandwidth 5.0 MHz - Antenna B



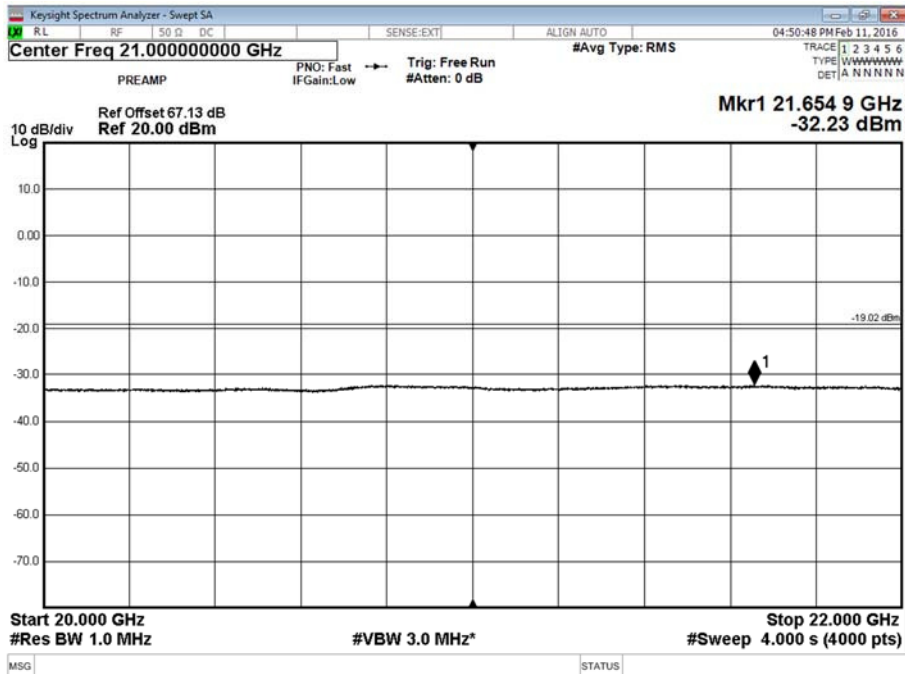
Channel Position M - Bandwidth 5.0 MHz - Antenna B



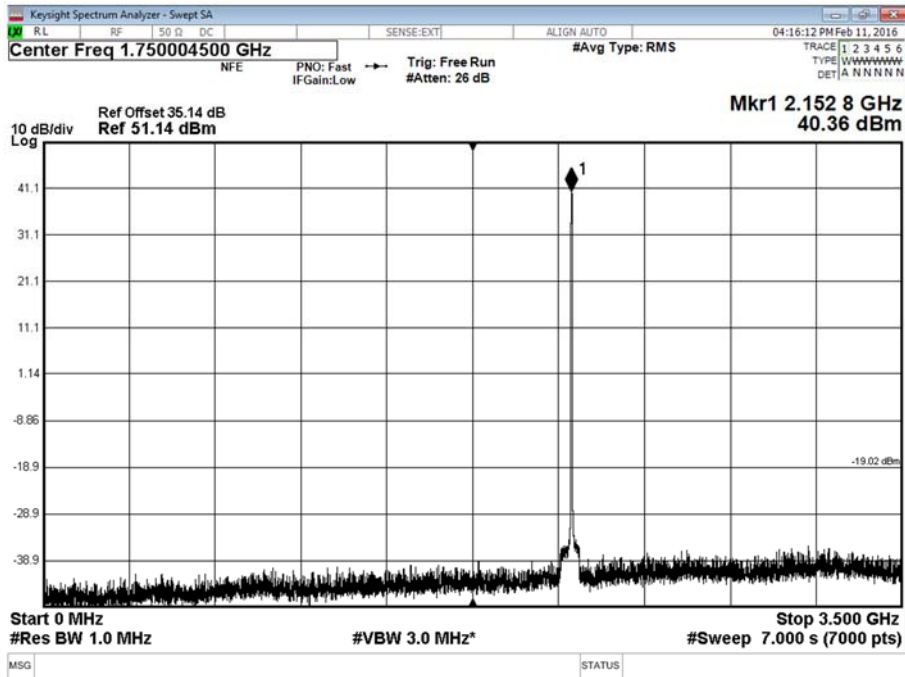
Channel Position M - Bandwidth 5.0 MHz - Antenna B



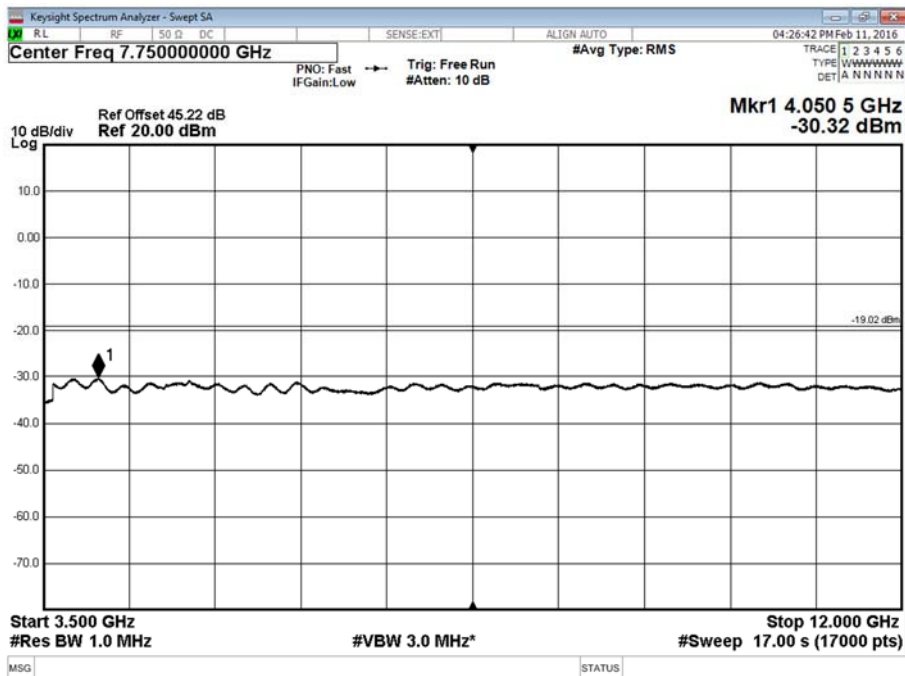
Channel Position M - Bandwidth 5.0 MHz - Antenna B



Channel Position T - Bandwidth 5.0 MHz - Antenna B



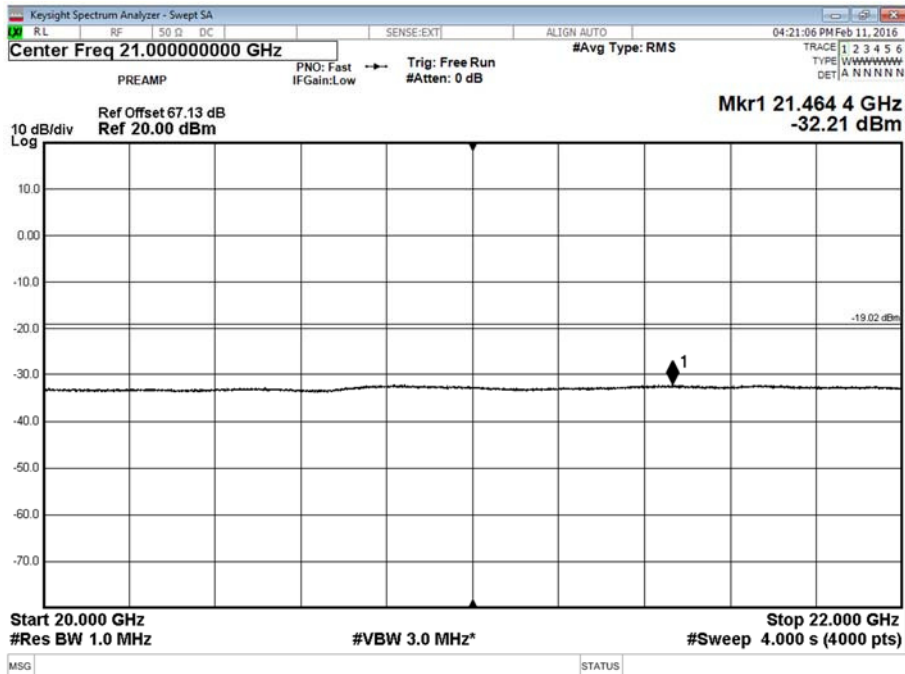
Channel Position T - Bandwidth 5.0 MHz - Antenna B



Channel Position T - Bandwidth 5.0 MHz - Antenna B



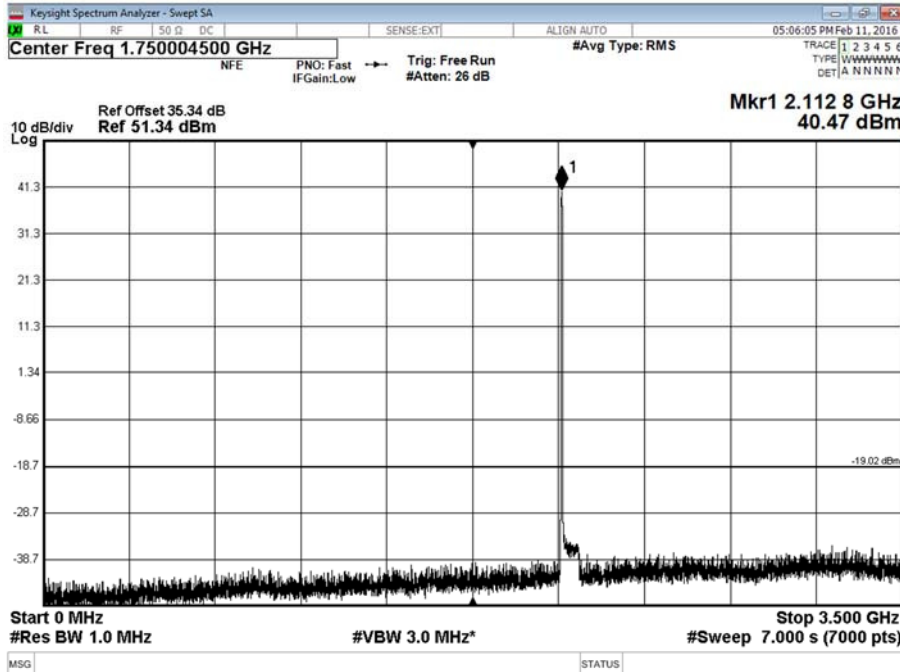
Channel Position T - Bandwidth 5.0 MHz - Antenna B



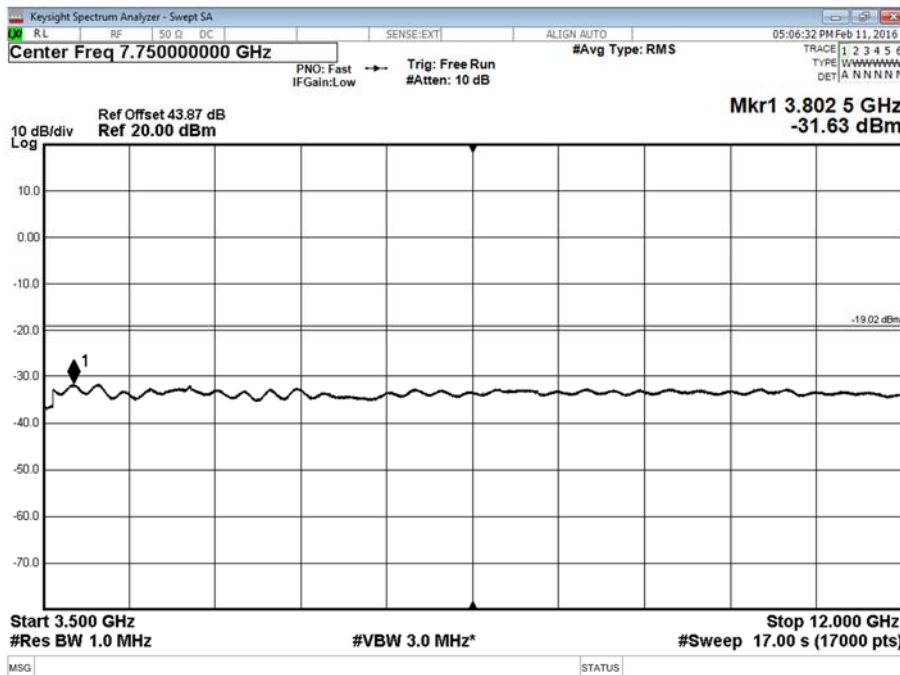
Configuration 1 Antenna C

Maximum Output Power 44.77 dBm

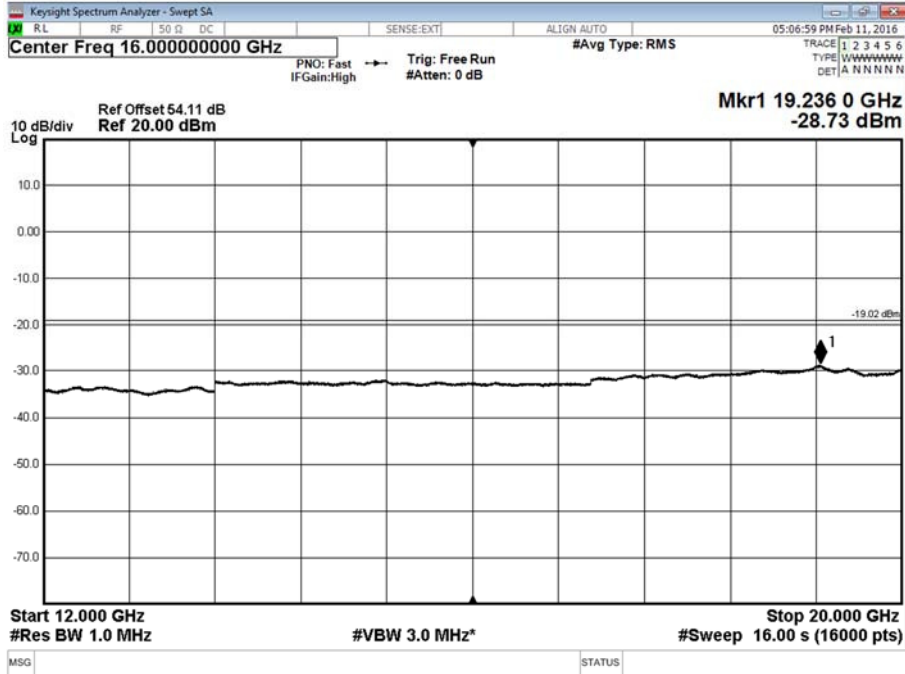
Channel Position B - Bandwidth 5.0 MHz - Antenna C



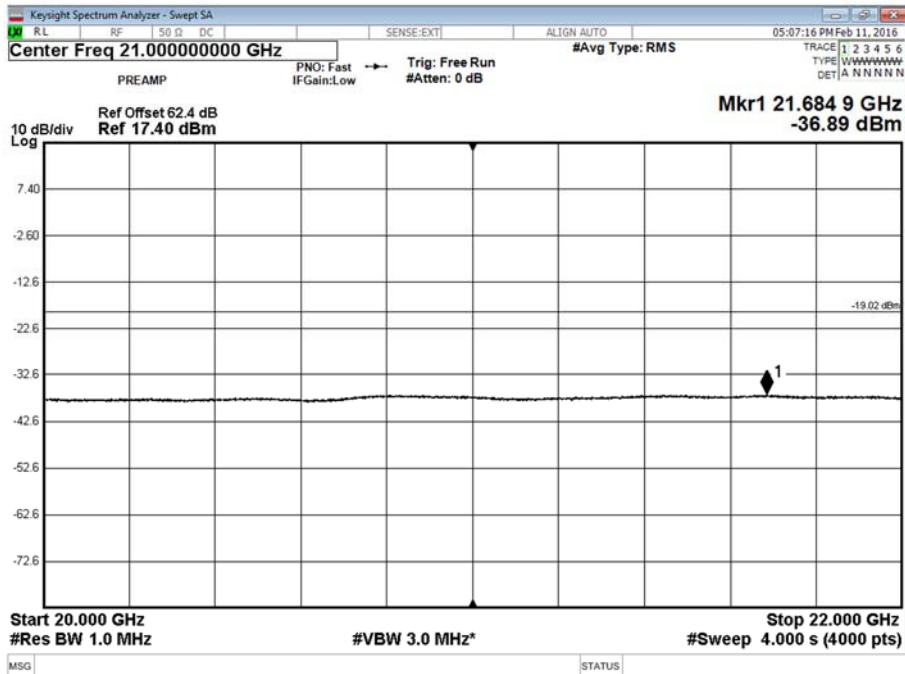
Channel Position B - Bandwidth 5.0 MHz - Antenna C



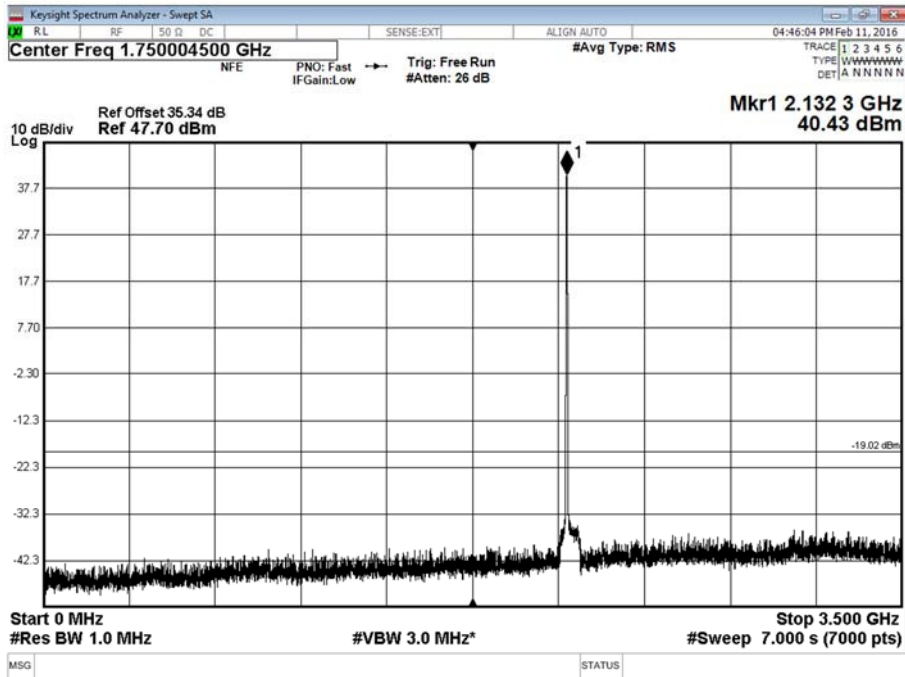
Channel Position B - Bandwidth 5.0 MHz - Antenna C



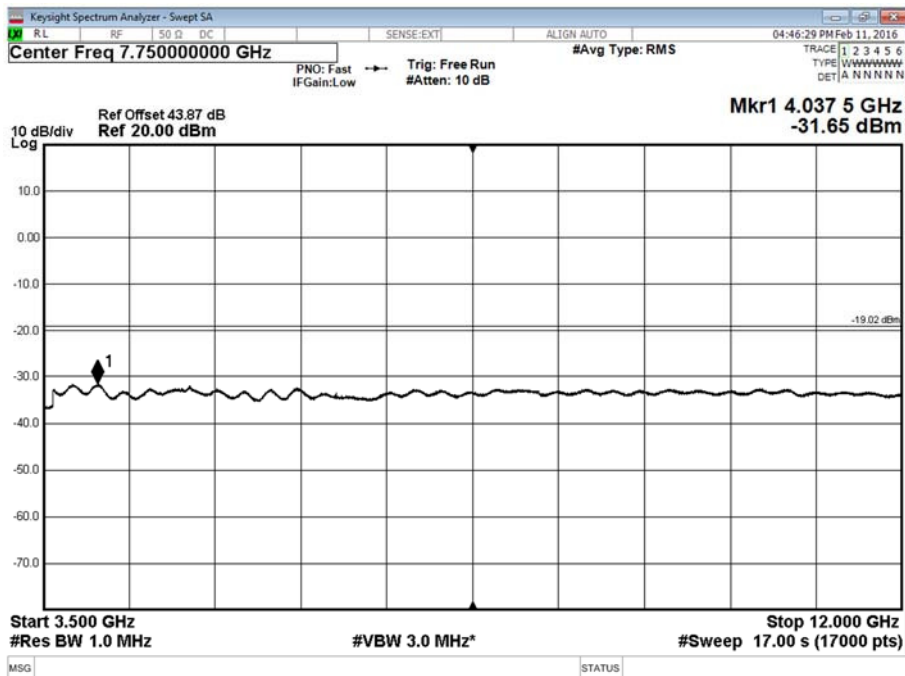
Channel Position B - Bandwidth 5.0 MHz - Antenna C



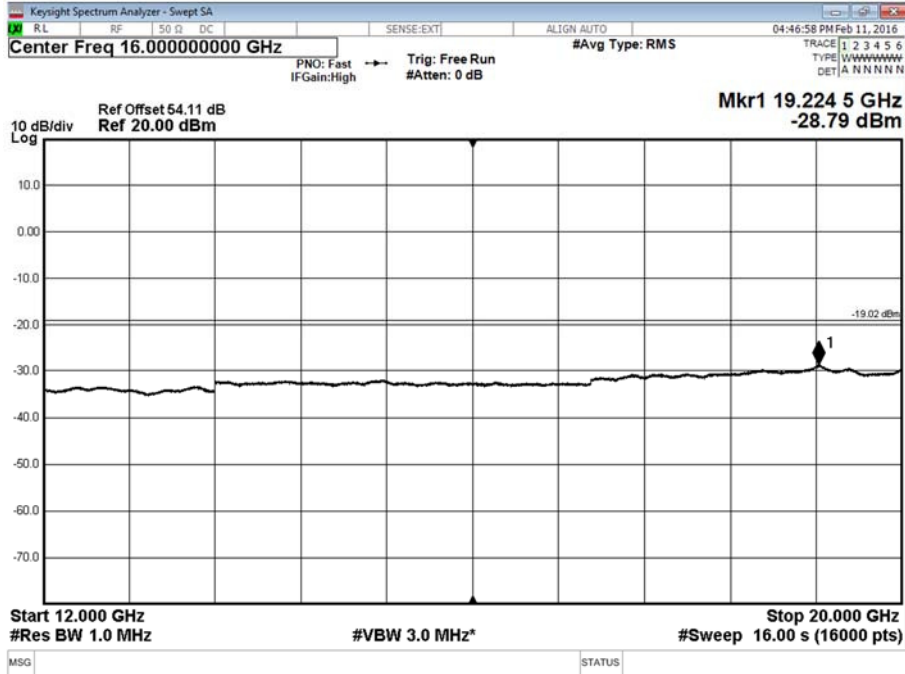
Channel Position M - Bandwidth 5.0 MHz - Antenna C



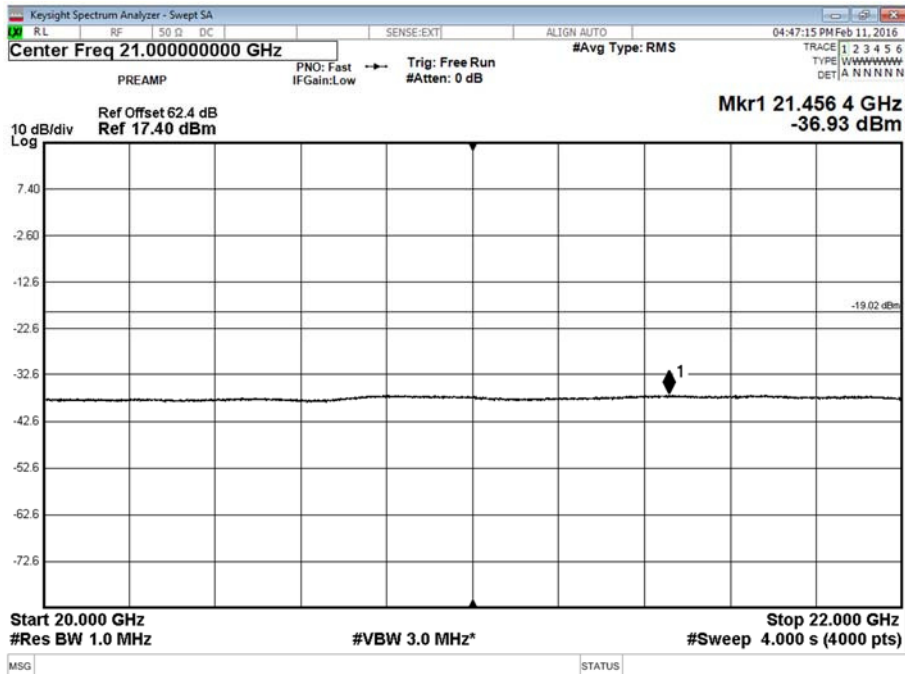
Channel Position M - Bandwidth 5.0 MHz - Antenna C



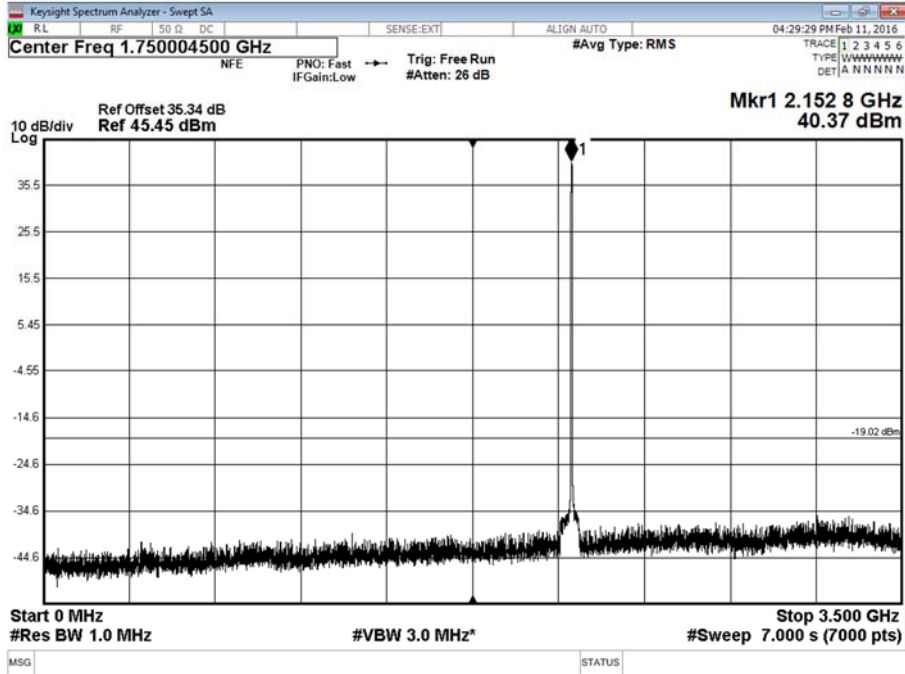
Channel Position M - Bandwidth 5.0 MHz - Antenna C



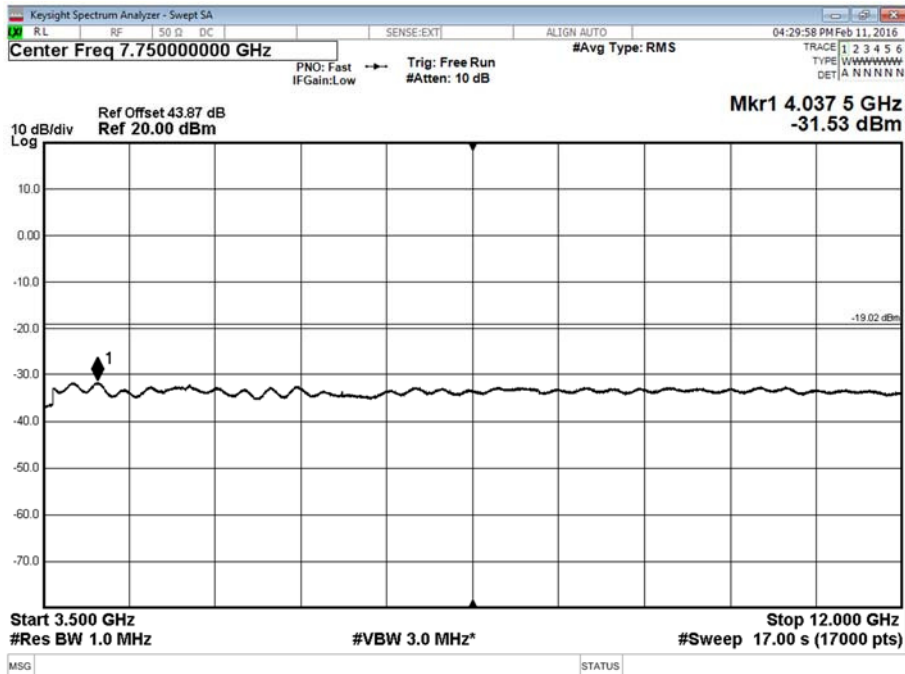
Channel Position M - Bandwidth 5.0 MHz - Antenna C



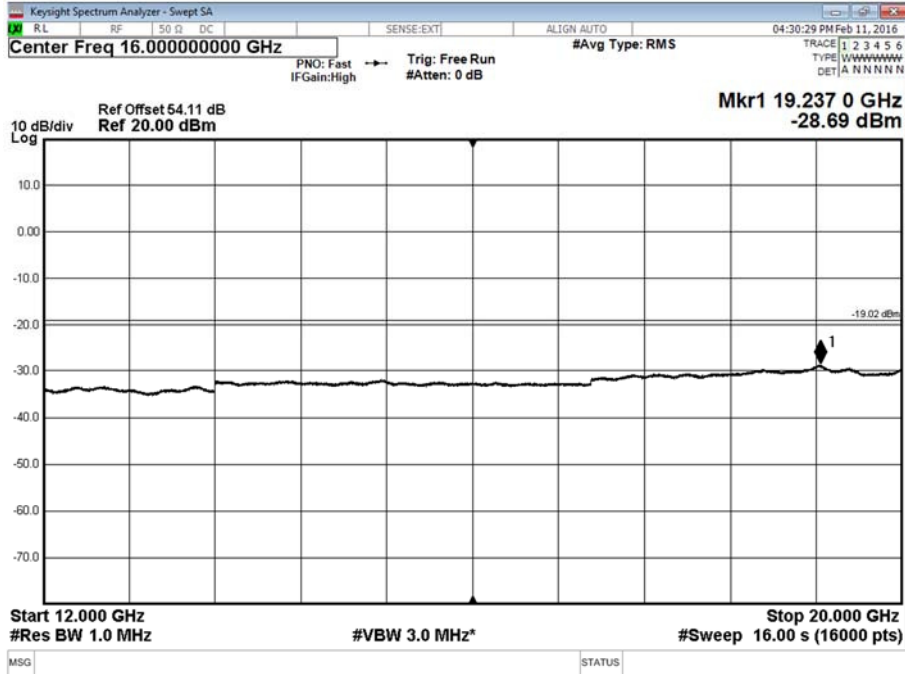
Channel Position T - Bandwidth 5.0 MHz - Antenna C



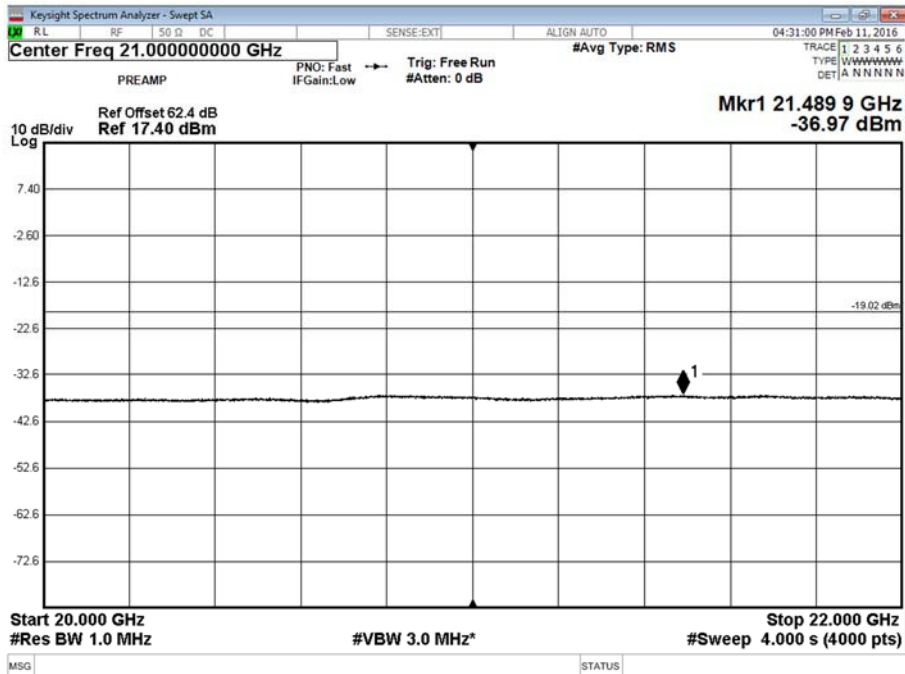
Channel Position T - Bandwidth 5.0 MHz - Antenna C



Channel Position T - Bandwidth 5.0 MHz - Antenna C



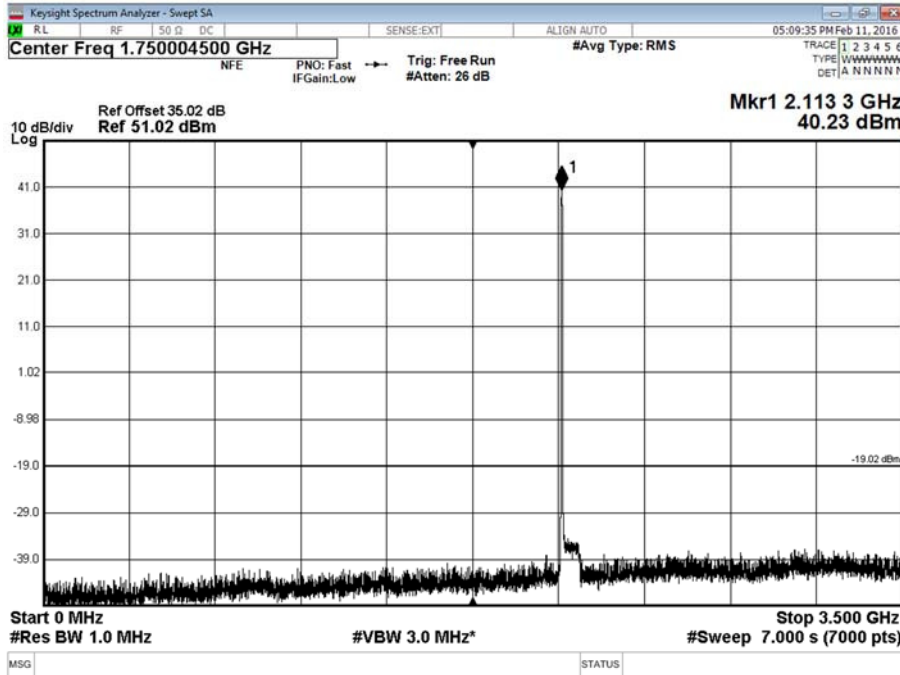
Channel Position T - Bandwidth 5.0 MHz - Antenna C



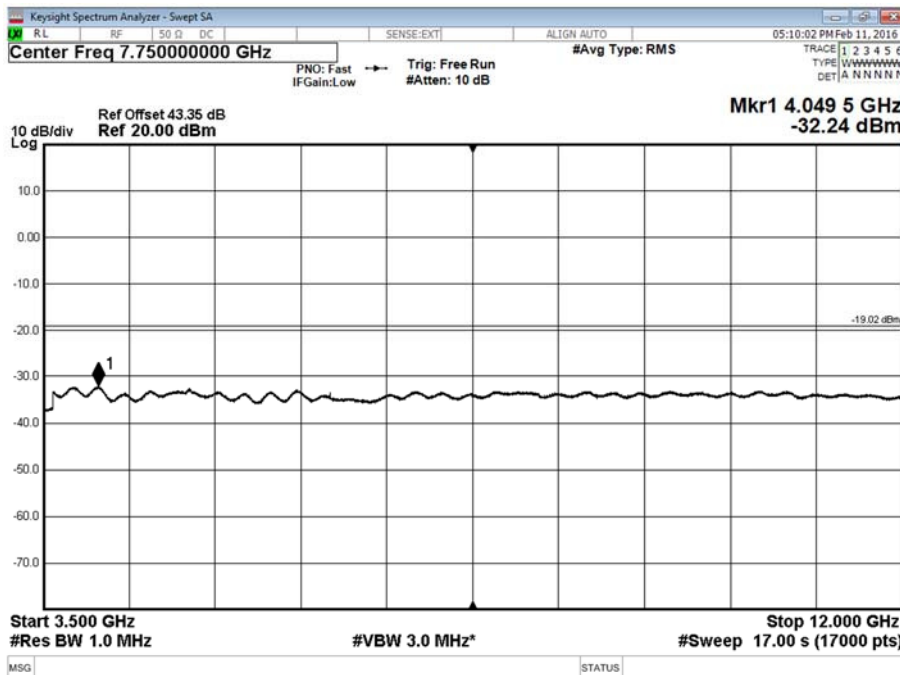
Configuration 1 Antenna D

Maximum Output Power 44.77 dBm

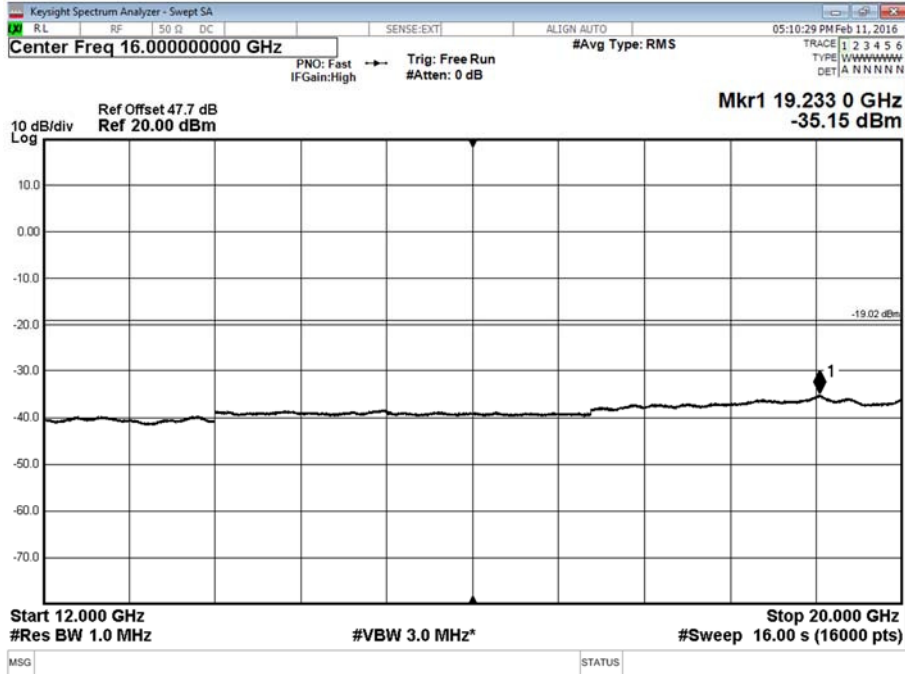
Channel Position B - Bandwidth 5.0 MHz - Antenna D



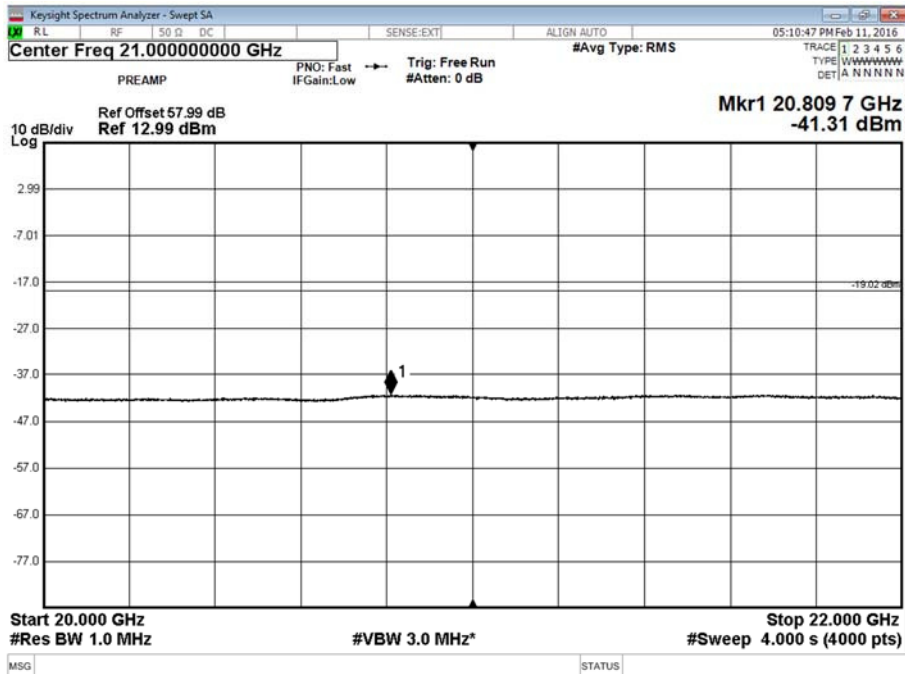
Channel Position B - Bandwidth 5.0 MHz - Antenna D



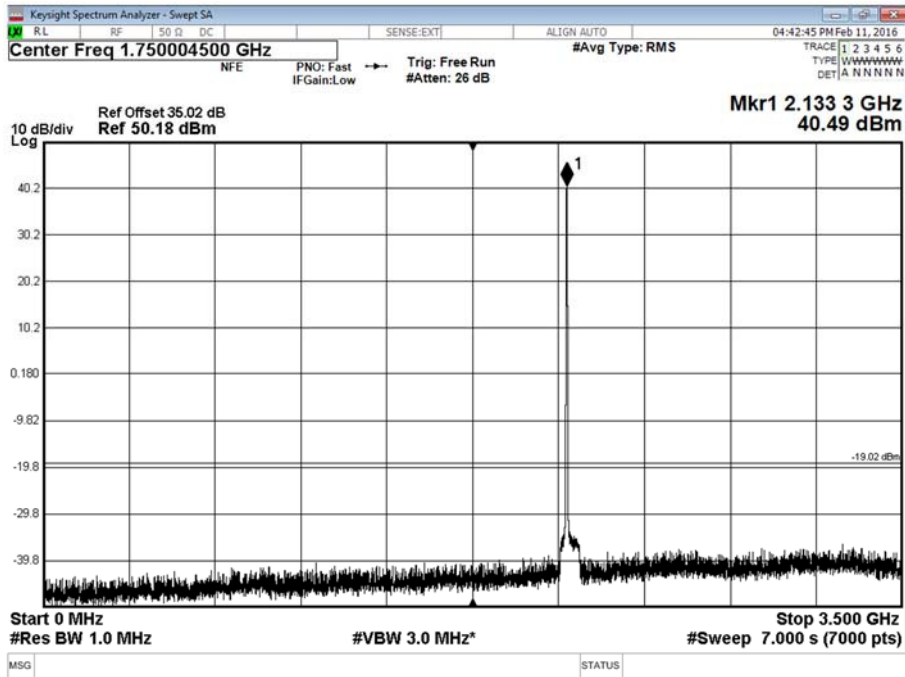
Channel Position B - Bandwidth 5.0 MHz - Antenna D



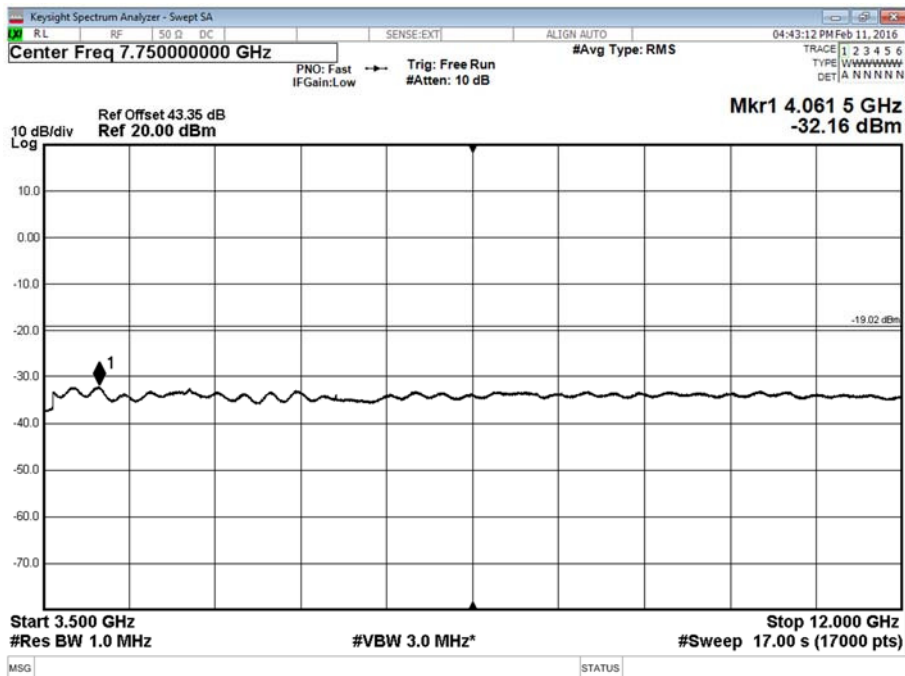
Channel Position B - Bandwidth 5.0 MHz - Antenna D



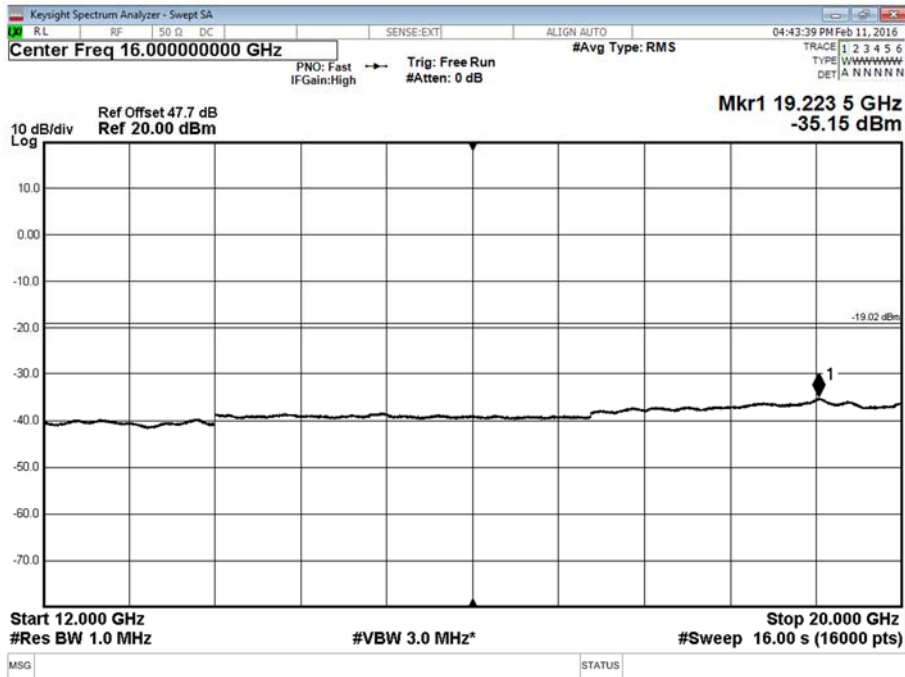
Channel Position M - Bandwidth 5.0 MHz - Antenna D



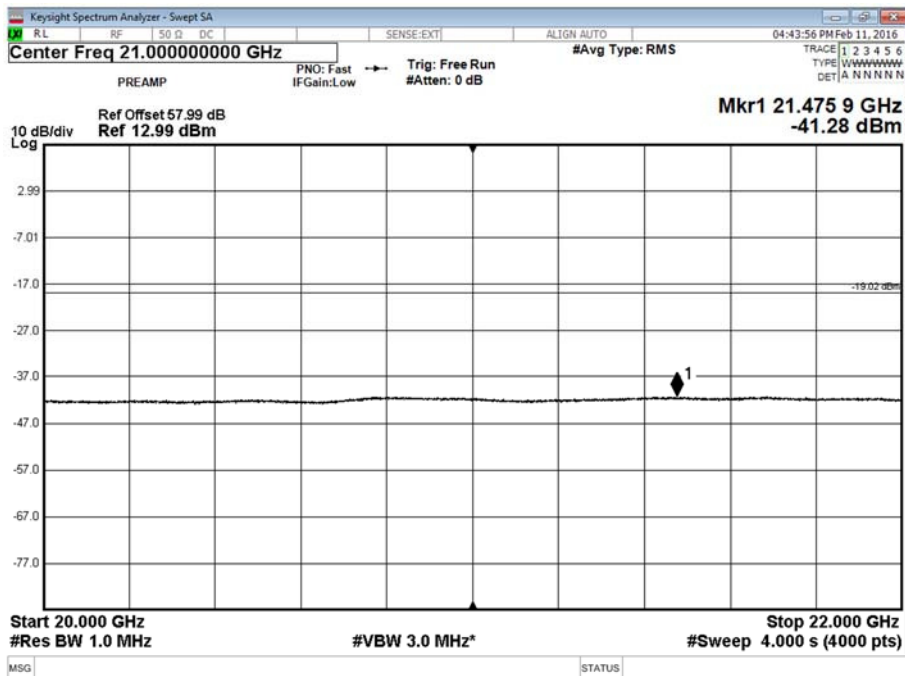
Channel Position M - Bandwidth 5.0 MHz - Antenna D



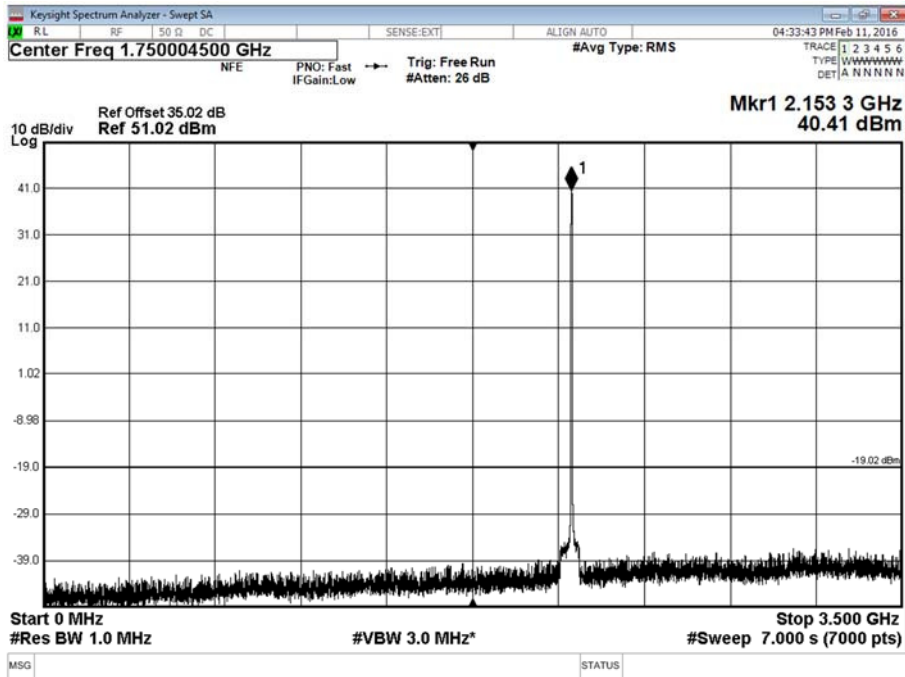
Channel Position M - Bandwidth 5.0 MHz - Antenna D



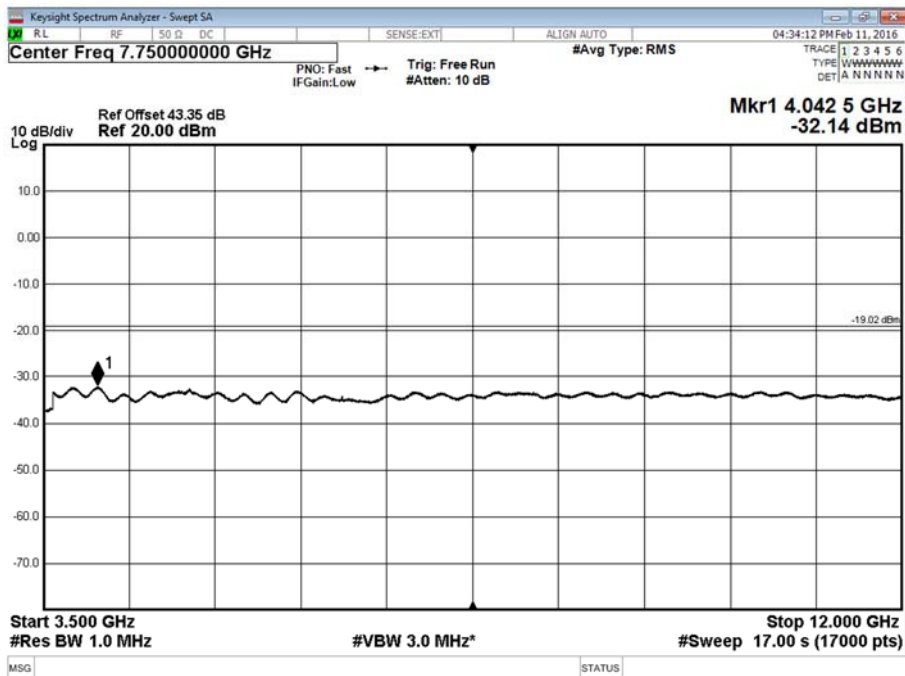
Channel Position M - Bandwidth 5.0 MHz - Antenna D



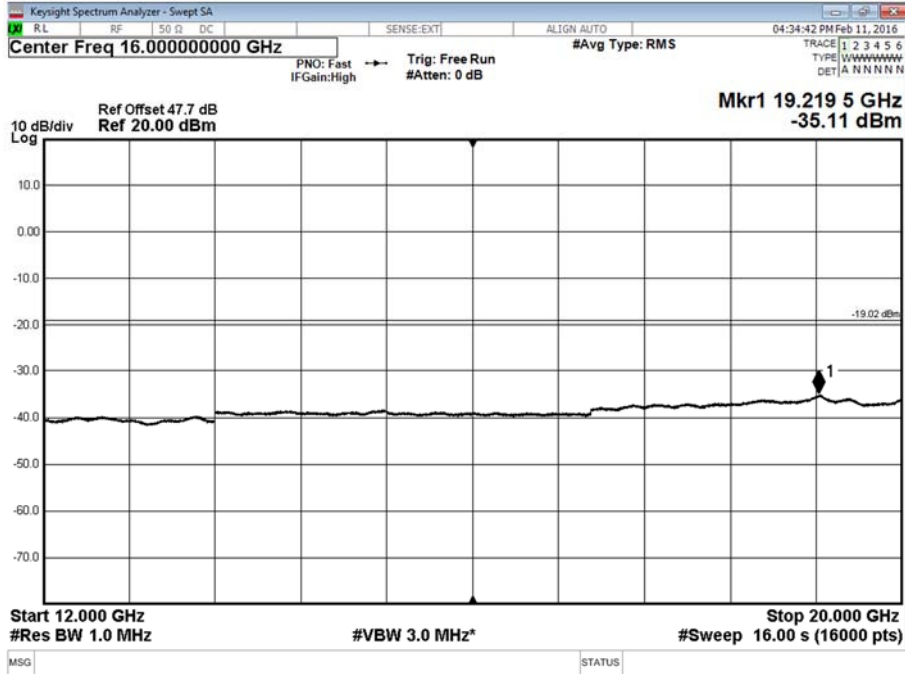
Channel Position T - Bandwidth 5.0 MHz - Antenna D



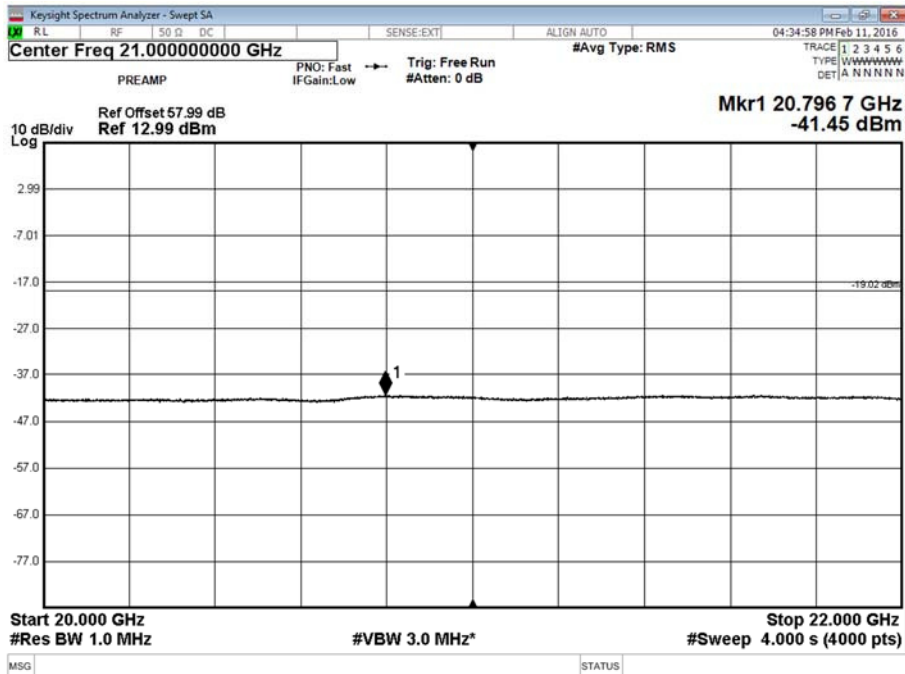
Channel Position T - Bandwidth 5.0 MHz - Antenna D



Channel Position T - Bandwidth 5.0 MHz - Antenna D



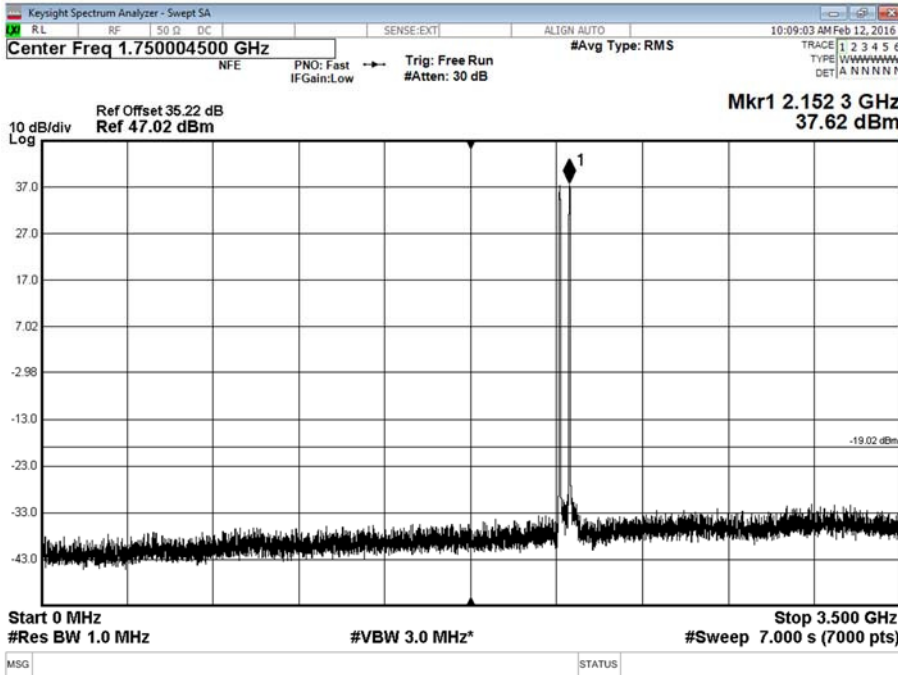
Channel Position T - Bandwidth 5.0 MHz - Antenna D



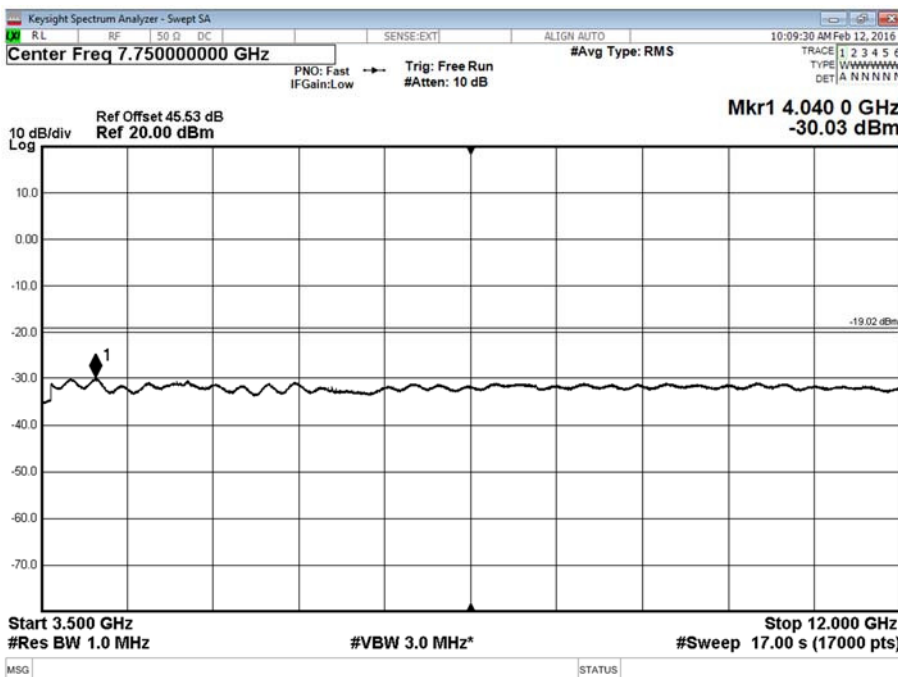
Configuration 2 Antenna A

Maximum Output Power 44.77 dBm

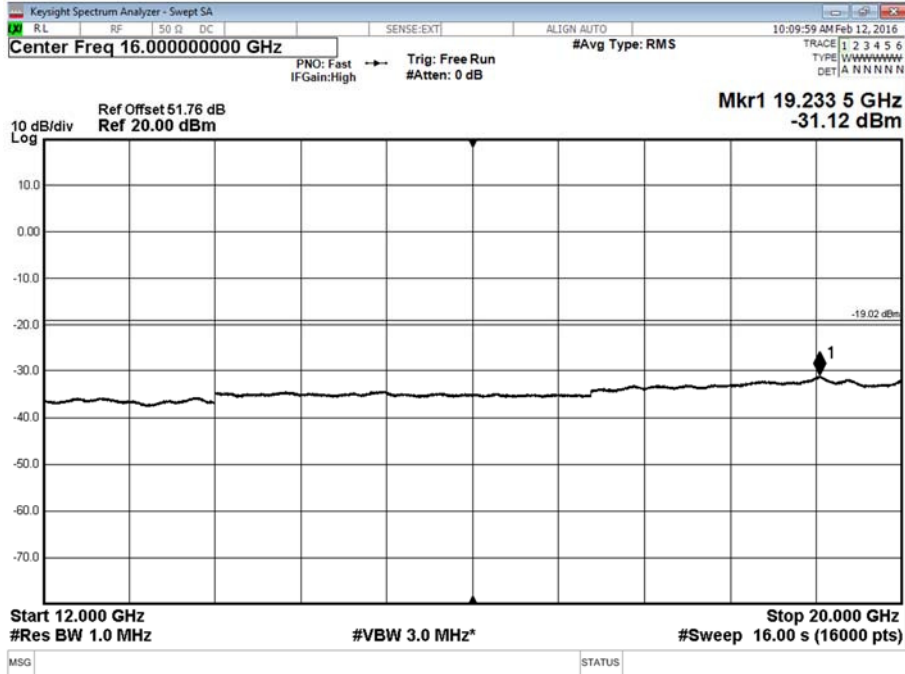
Channel Position M - Bandwidth 5.0 MHz - Antenna A



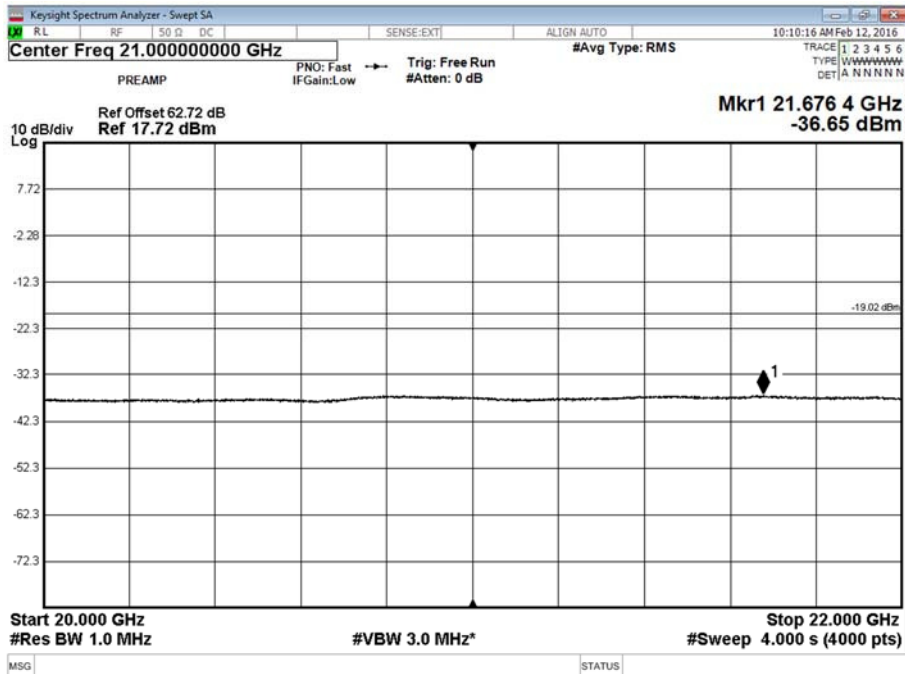
Channel Position M - Bandwidth 5.0 MHz - Antenna A



Channel Position M - Bandwidth 5.0 MHz - Antenna A



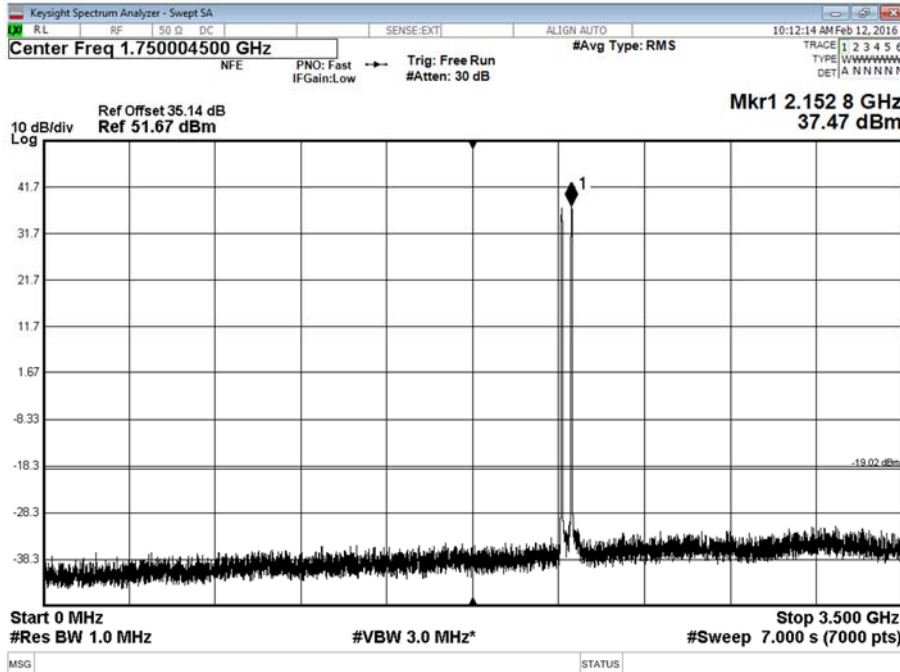
Channel Position M - Bandwidth 5.0 MHz - Antenna A



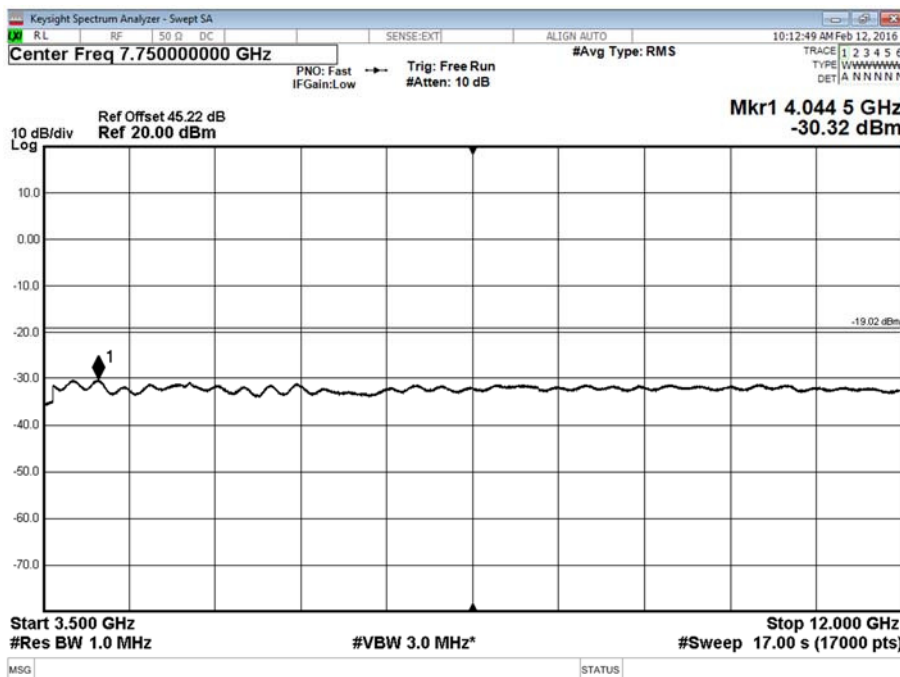
Configuration 2 Antenna B

Maximum Output Power 44.77 dBm

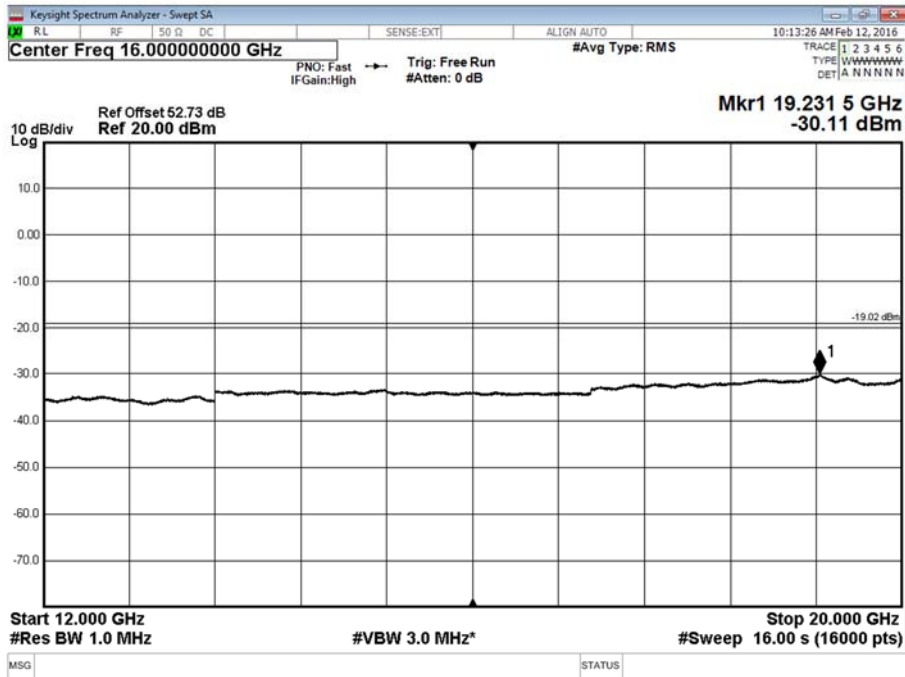
Channel Position M - Bandwidth 5.0 MHz - Antenna B



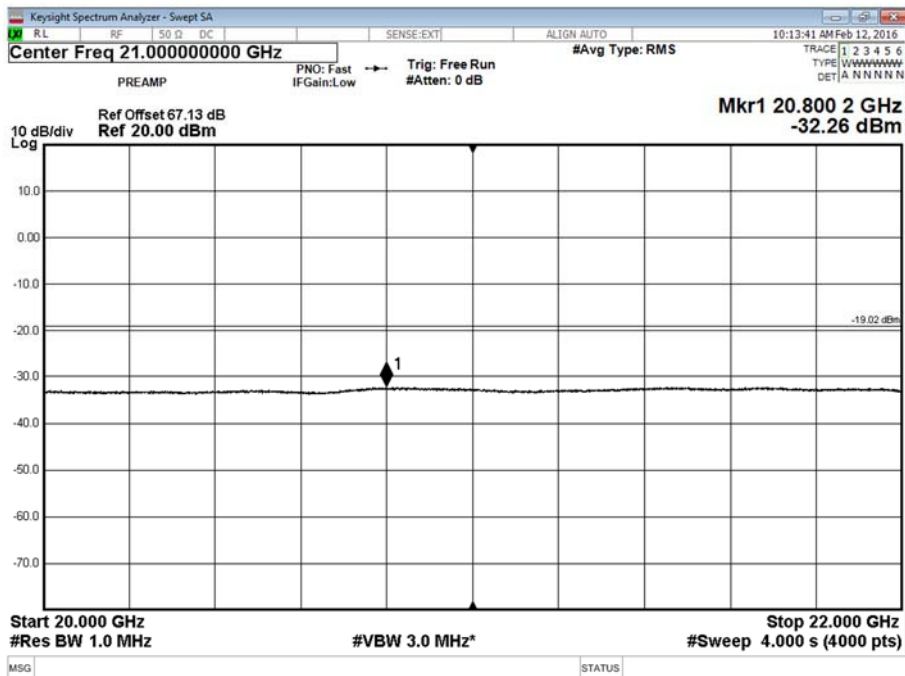
Channel Position M - Bandwidth 5.0 MHz - Antenna B



Channel Position M - Bandwidth 5.0 MHz - Antenna B



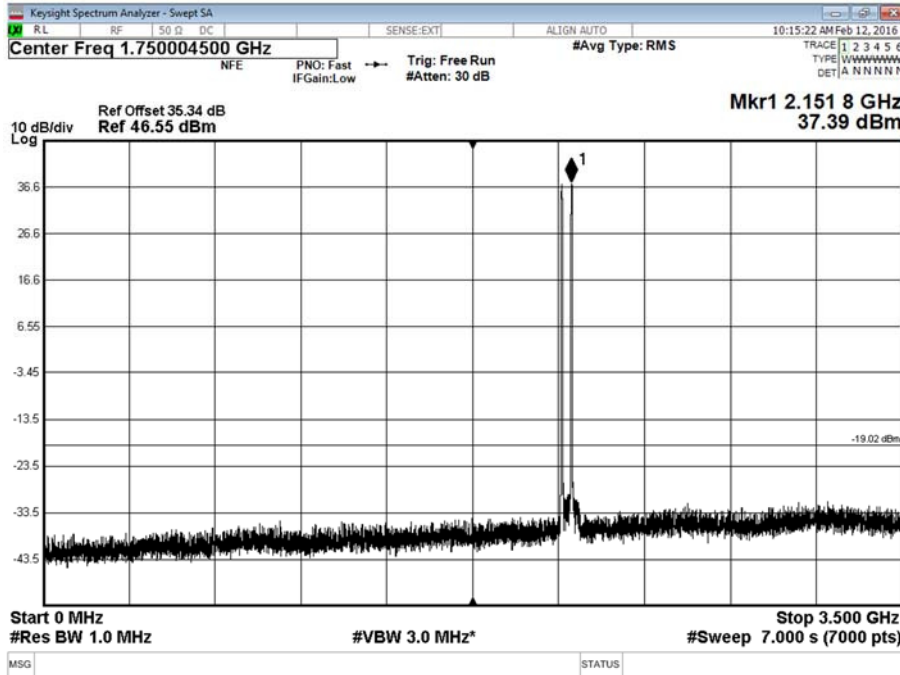
Channel Position M - Bandwidth 5.0 MHz - Antenna B



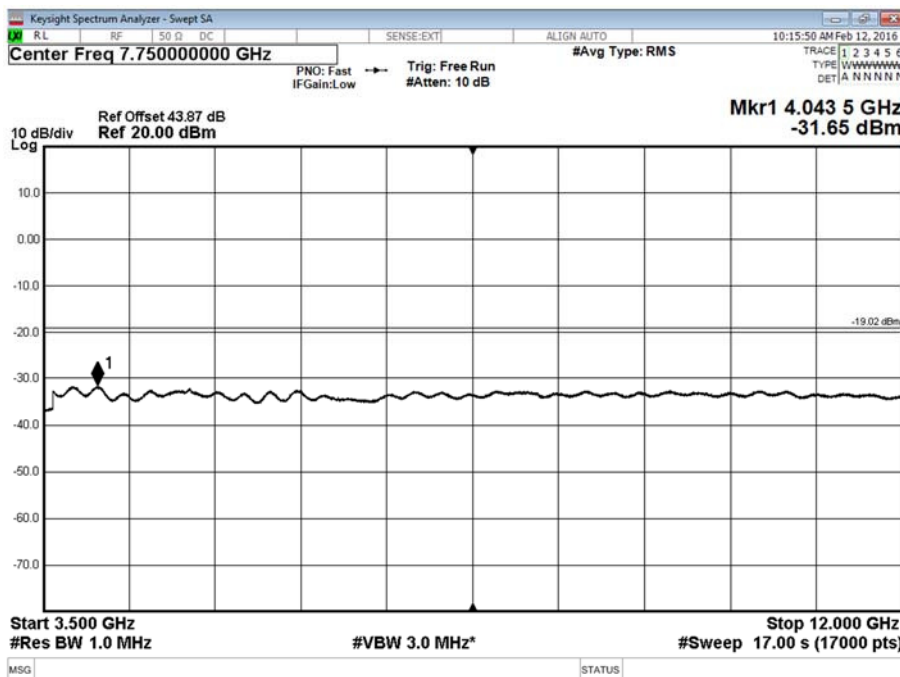
Configuration 2 Antenna C

Maximum Output Power 44.77 dBm

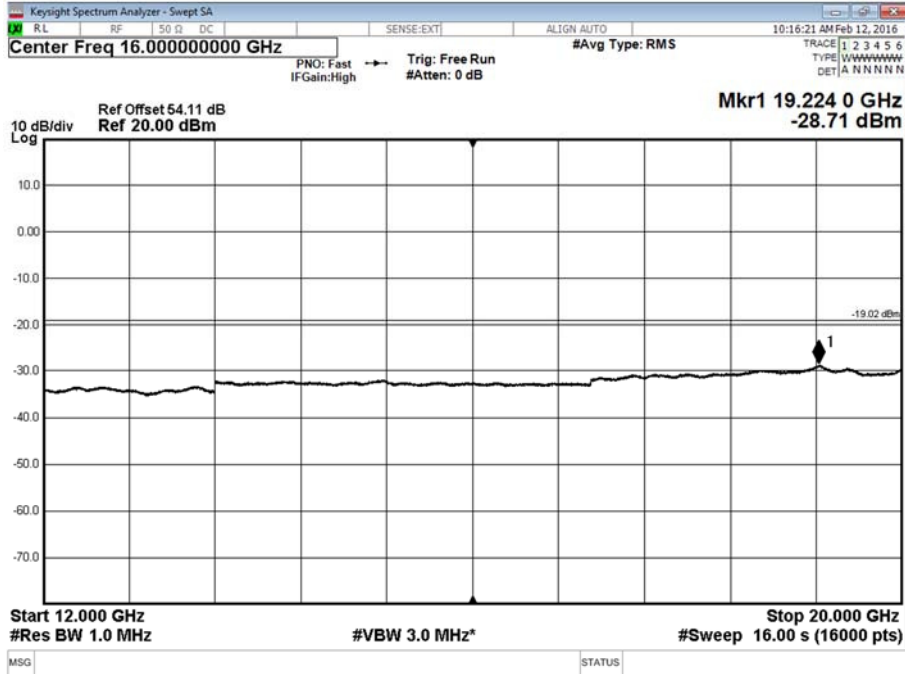
Channel Position M - Bandwidth 5.0 MHz - Antenna C



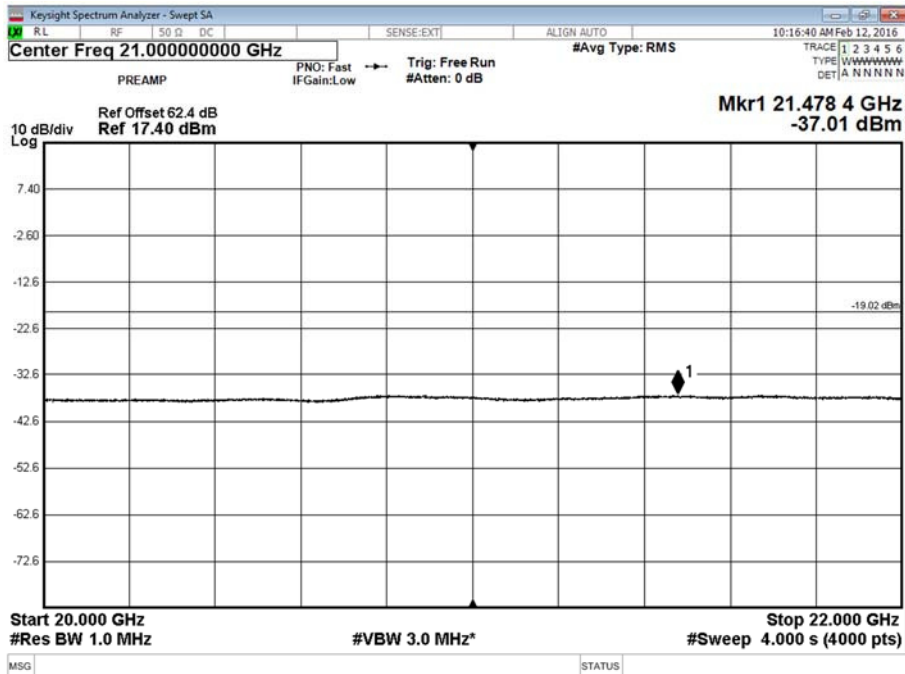
Channel Position M - Bandwidth 5.0 MHz - Antenna C



Channel Position M - Bandwidth 5.0 MHz - Antenna C



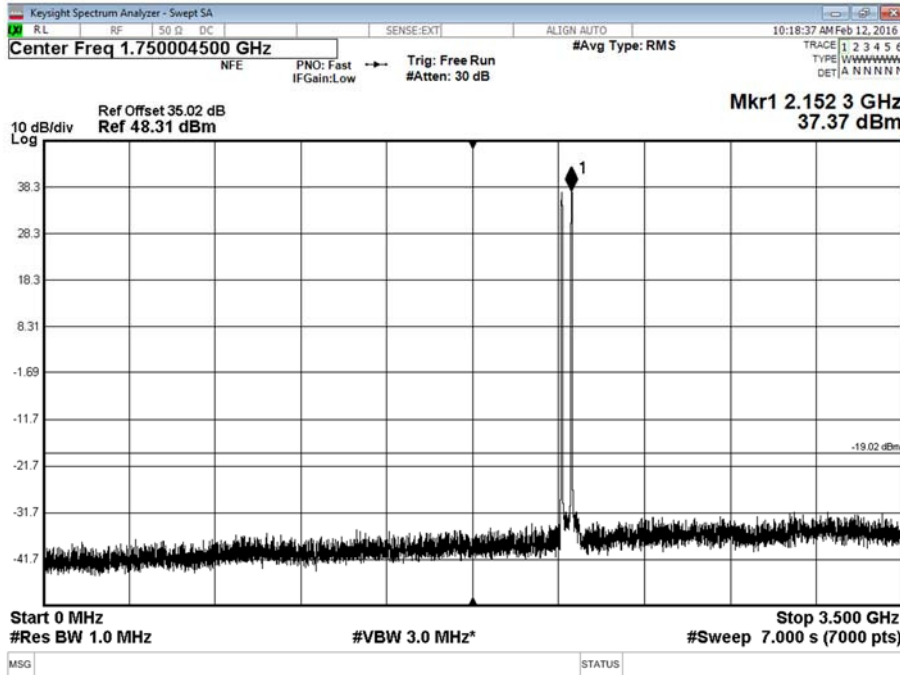
Channel Position M - Bandwidth 5.0 MHz - Antenna C



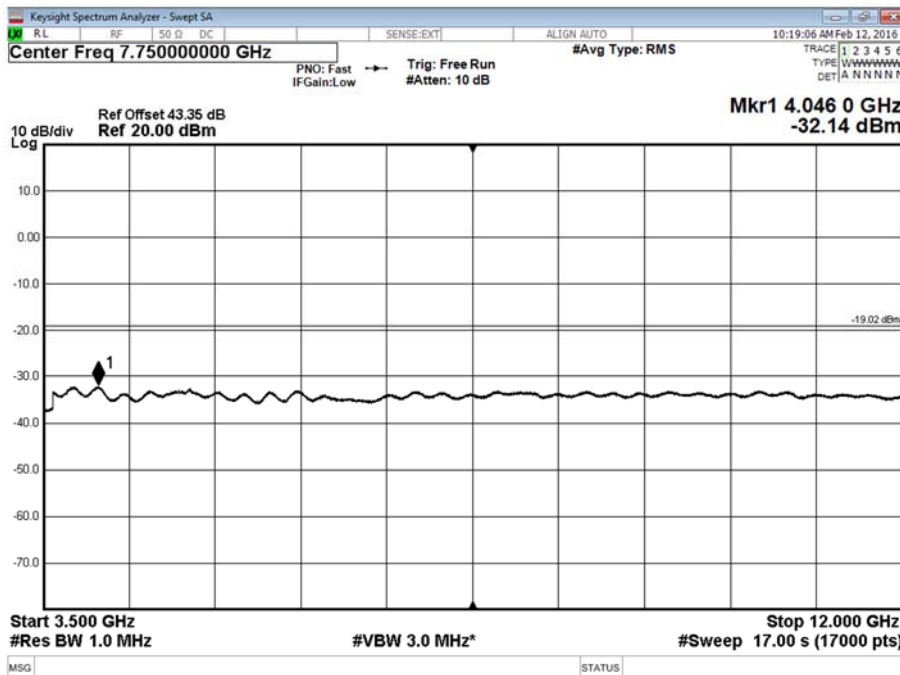
Configuration 2 Antenna D

Maximum Output Power 44.77 dBm

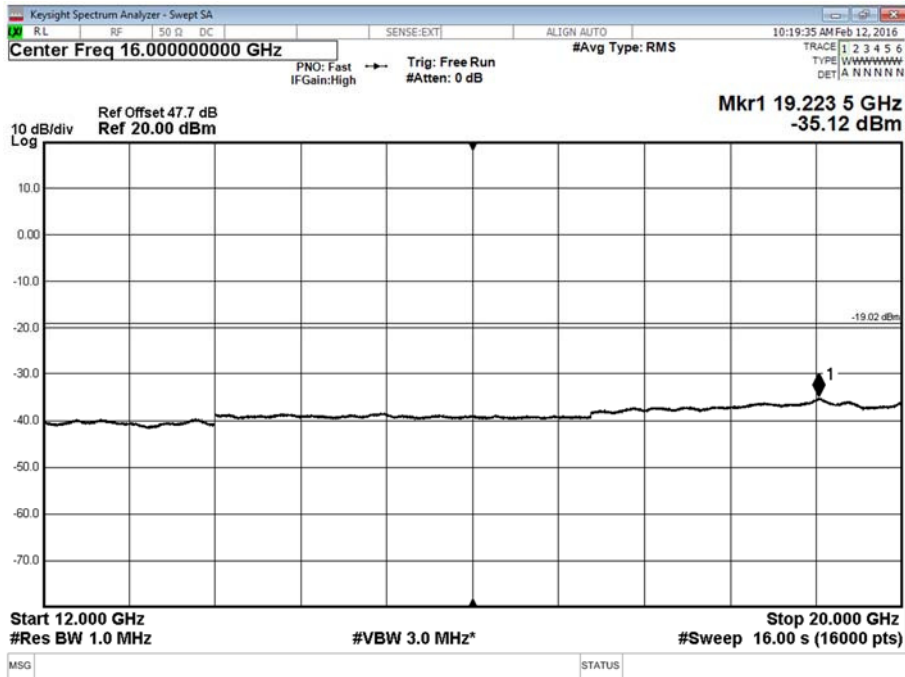
Channel Position M - Bandwidth 5.0 MHz - Antenna D



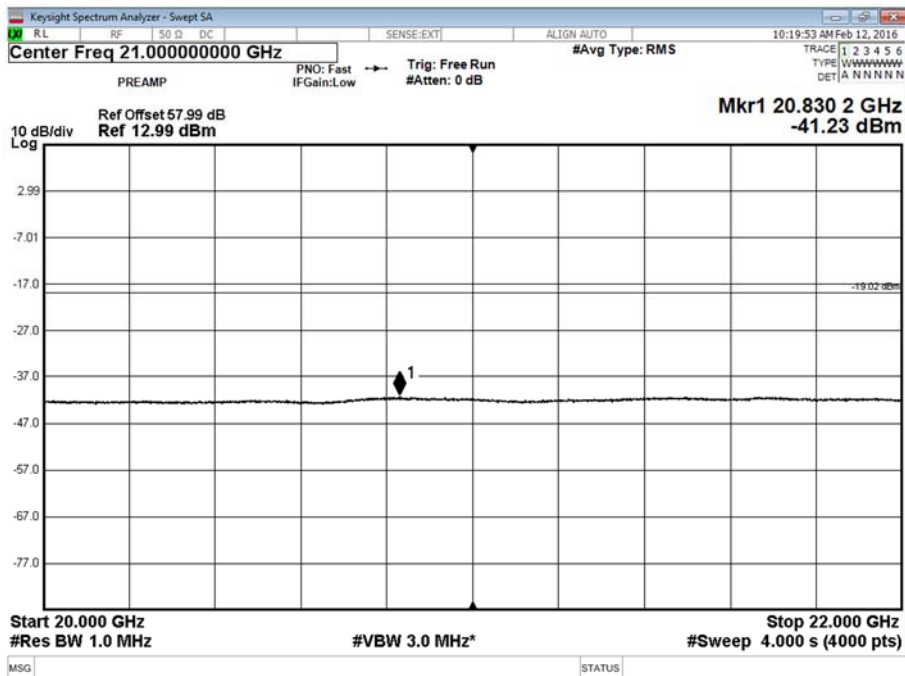
Channel Position M - Bandwidth 5.0 MHz - Antenna D



Channel Position M - Bandwidth 5.0 MHz - Antenna D



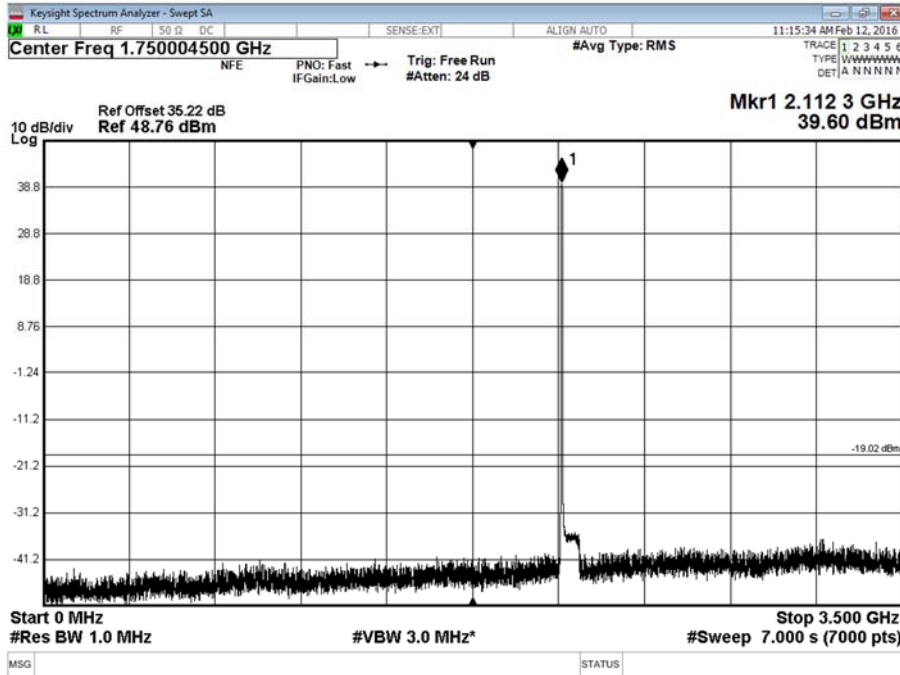
Channel Position M - Bandwidth 5.0 MHz - Antenna D



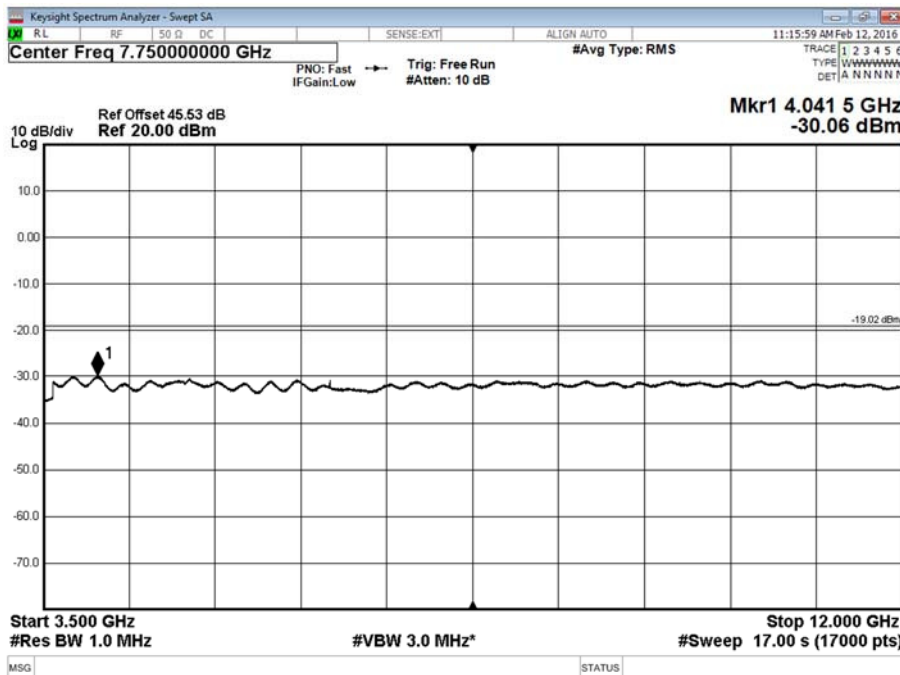
Configuration 3 Antenna A

Maximum Output Power 44.77 dBm

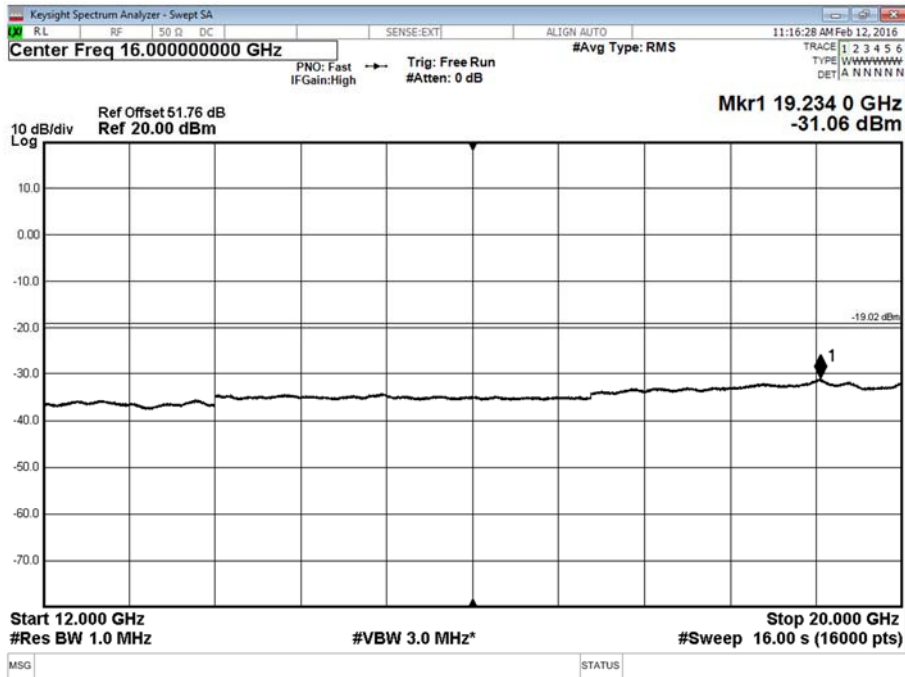
Channel Position B - Bandwidth 5.0 MHz - Antenna A



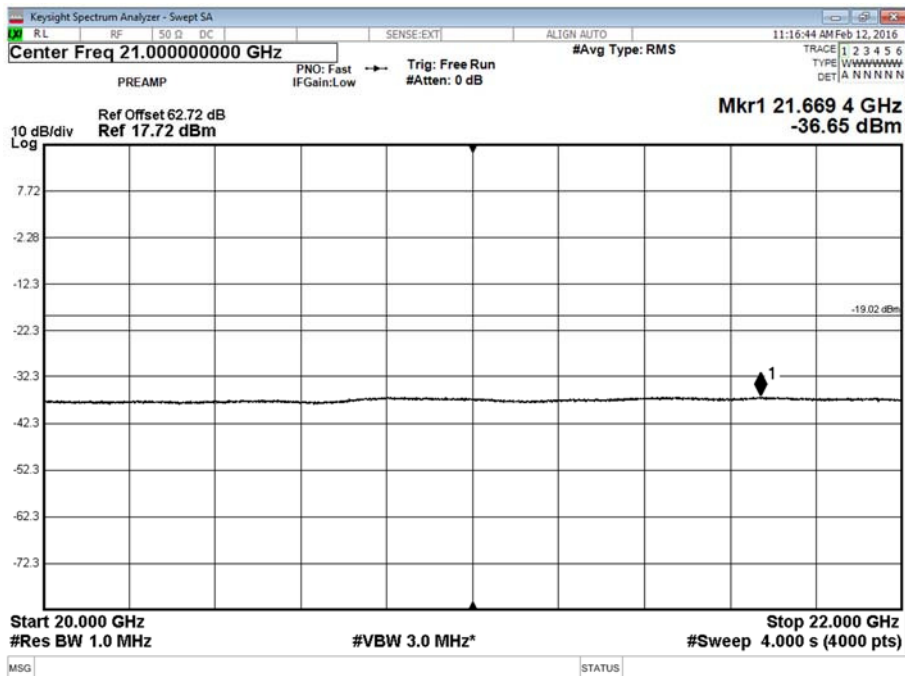
Channel Position B - Bandwidth 5.0 MHz - Antenna A



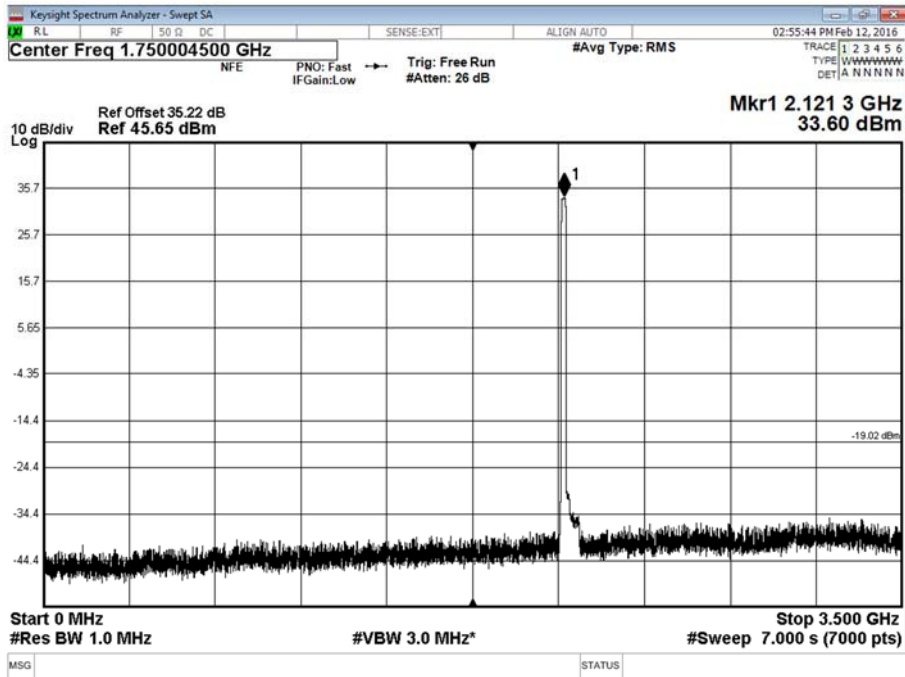
Channel Position B - Bandwidth 5.0 MHz - Antenna A



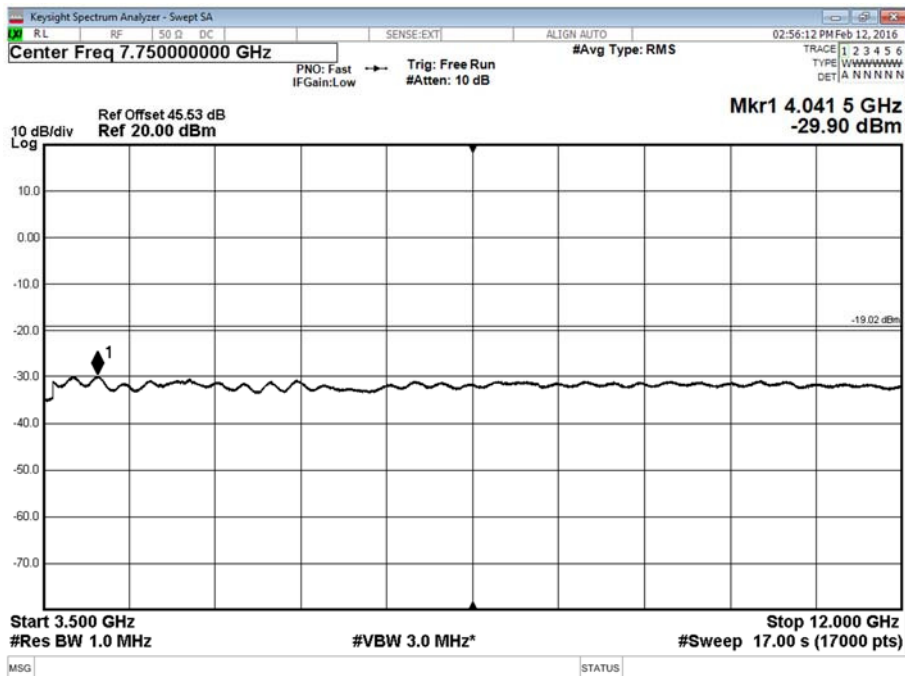
Channel Position B - Bandwidth 5.0 MHz - Antenna A



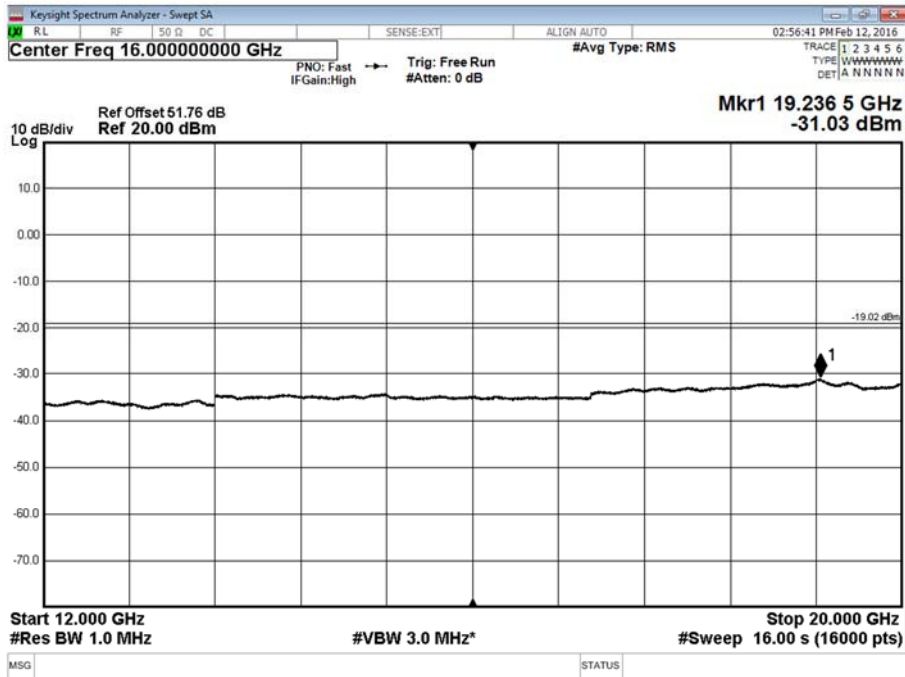
Channel Position B - Bandwidth 20.0 MHz - Antenna A



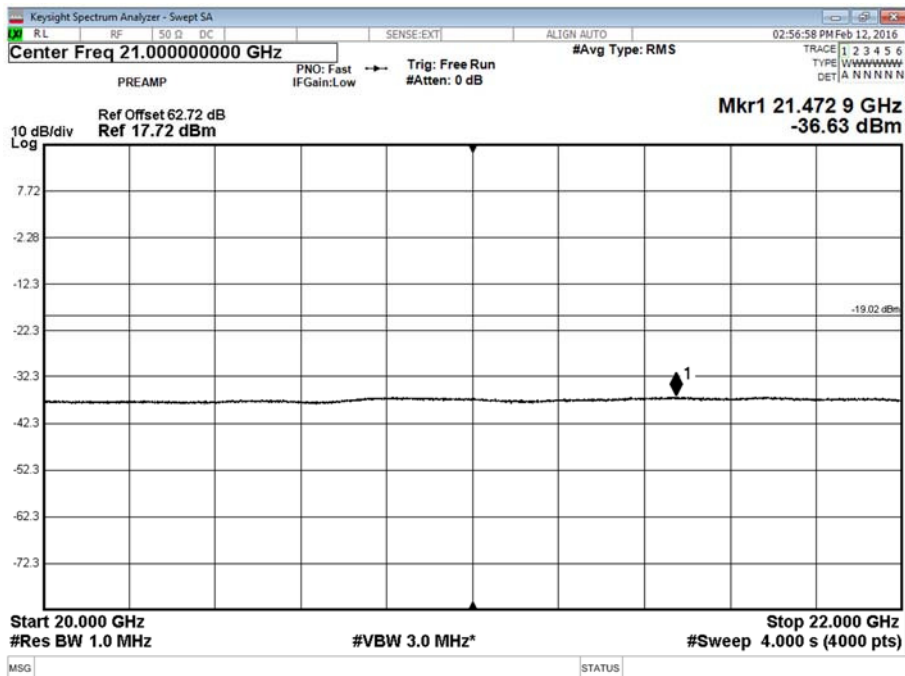
Channel Position B - Bandwidth 20.0 MHz - Antenna A



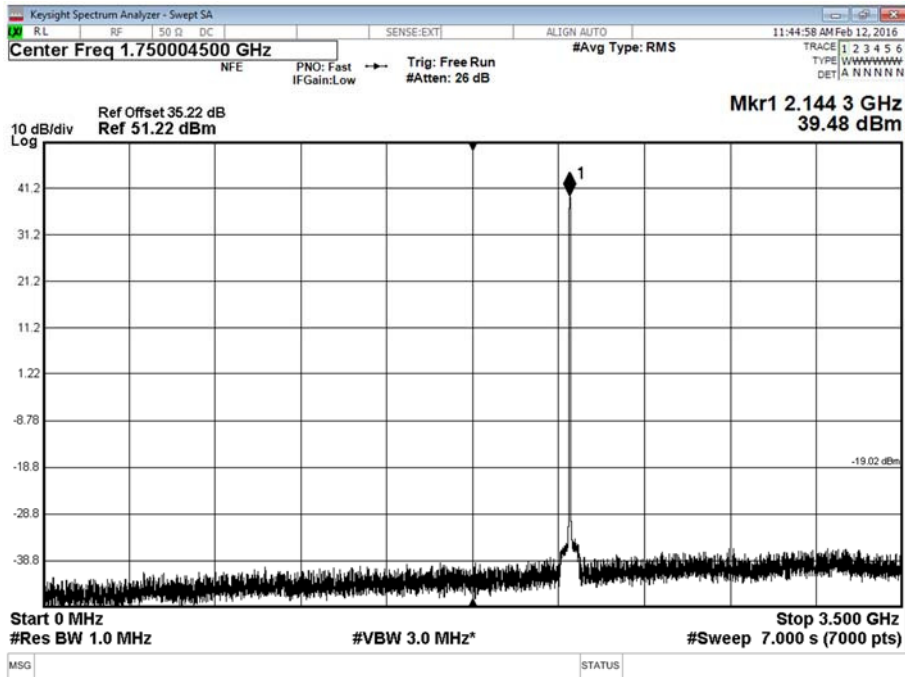
Channel Position B - Bandwidth 20.0 MHz - Antenna A



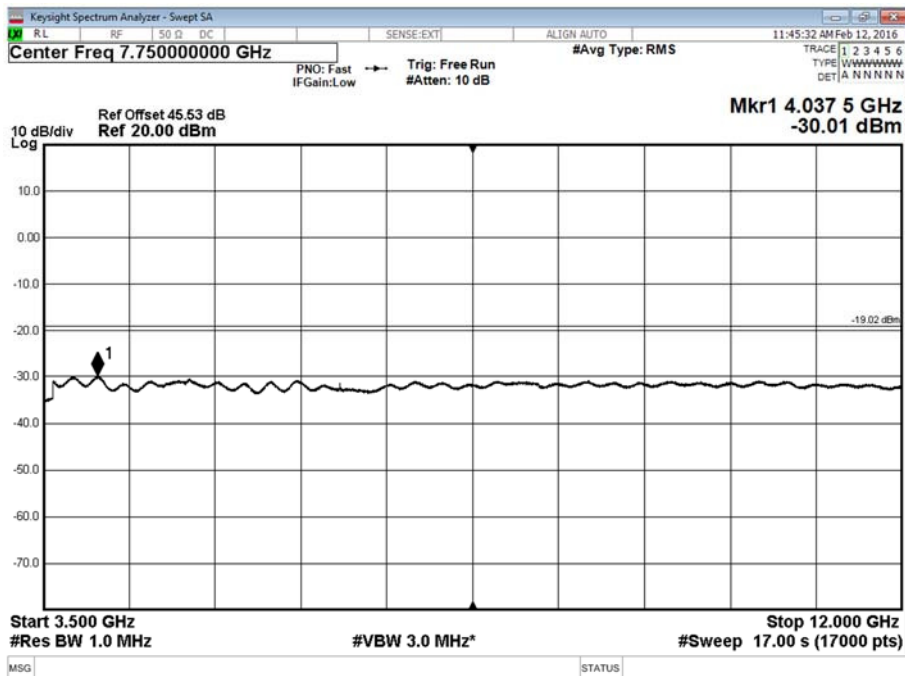
Channel Position B - Bandwidth 20.0 MHz - Antenna A



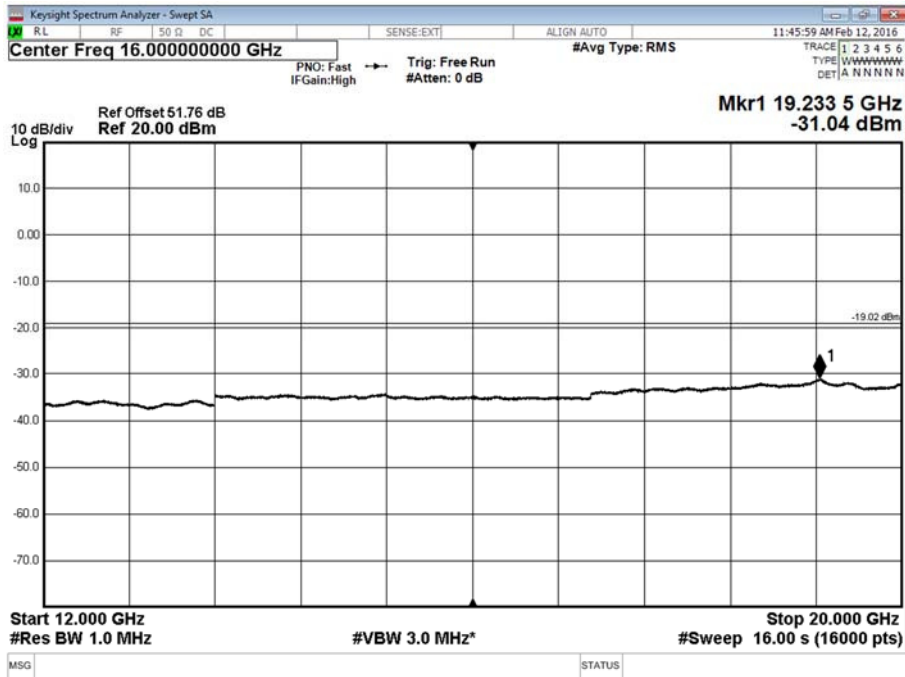
Channel Position M - Bandwidth 5.0 MHz - Antenna A



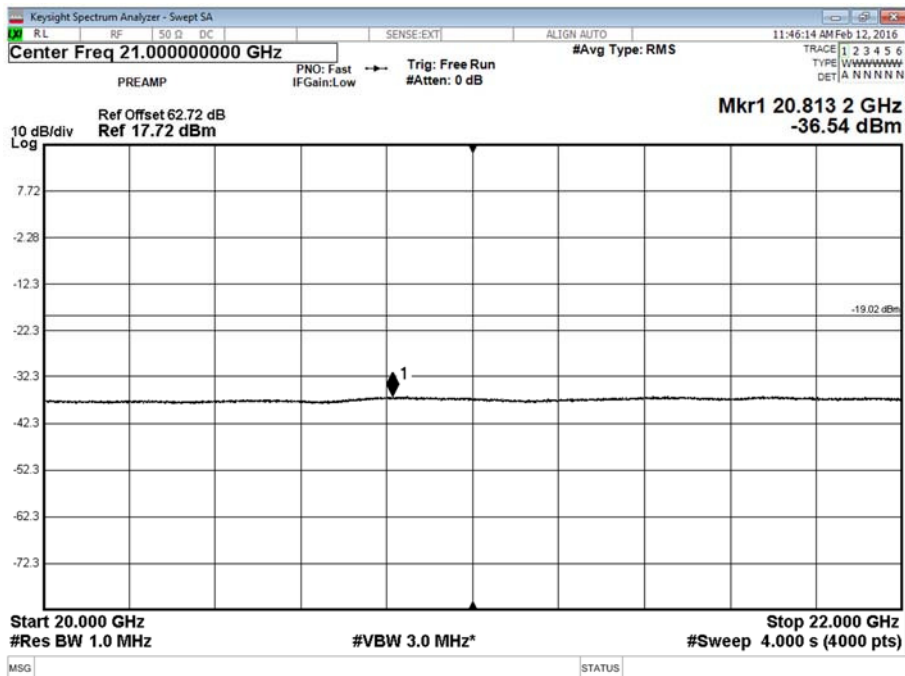
Channel Position M - Bandwidth 5.0 MHz - Antenna A



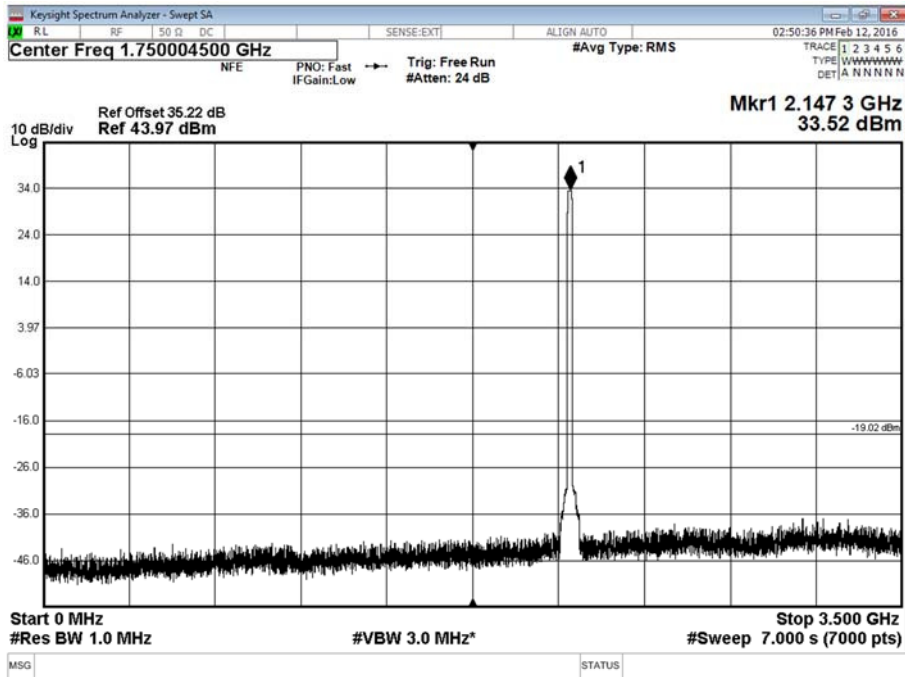
Channel Position M - Bandwidth 5.0 MHz - Antenna A



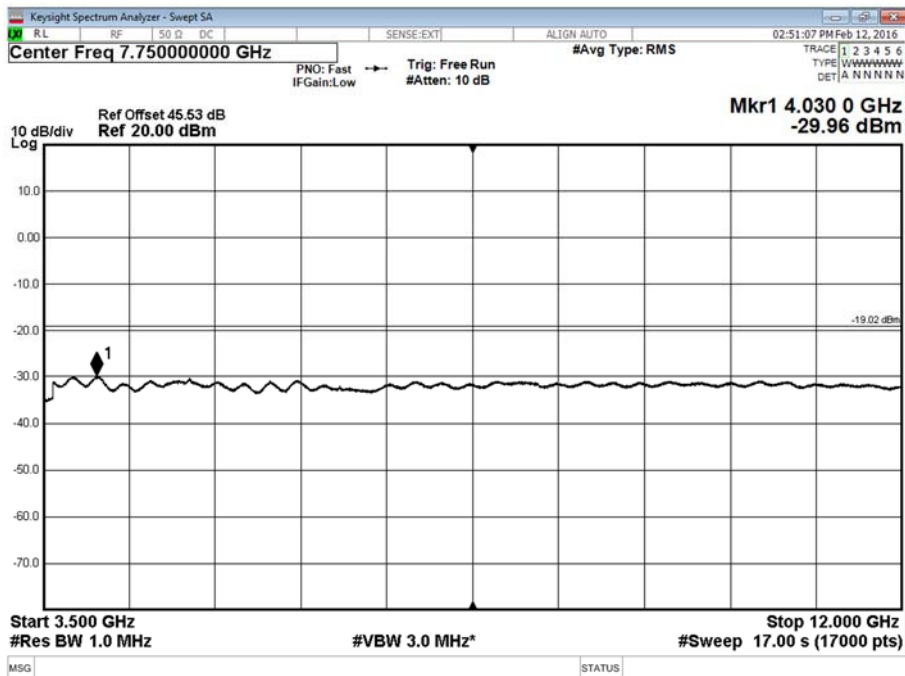
Channel Position M - Bandwidth 5.0 MHz - Antenna A



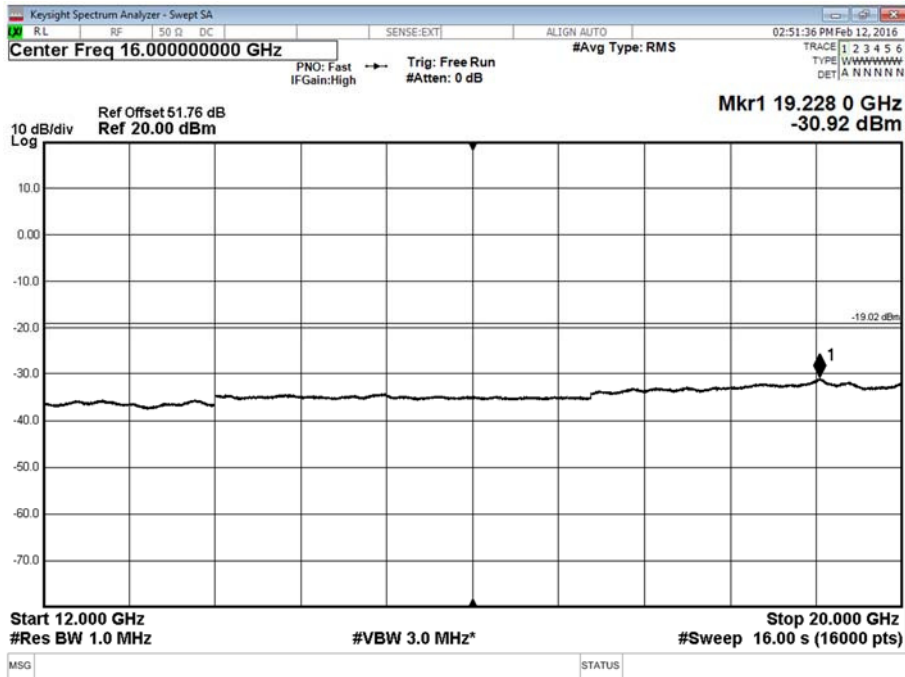
Channel Position M - Bandwidth 20.0 MHz - Antenna A



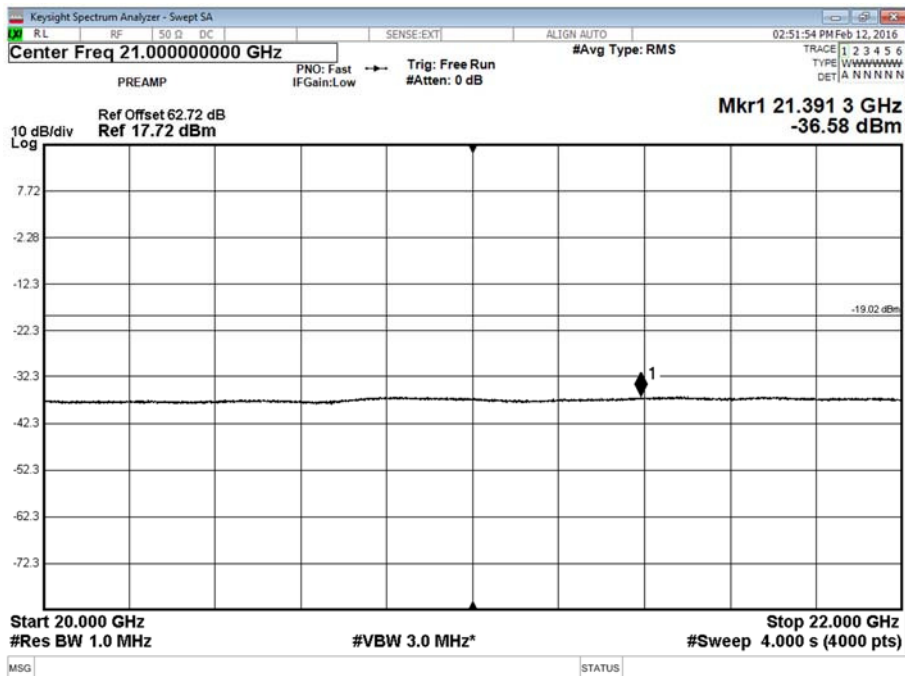
Channel Position M - Bandwidth 20.0 MHz - Antenna A



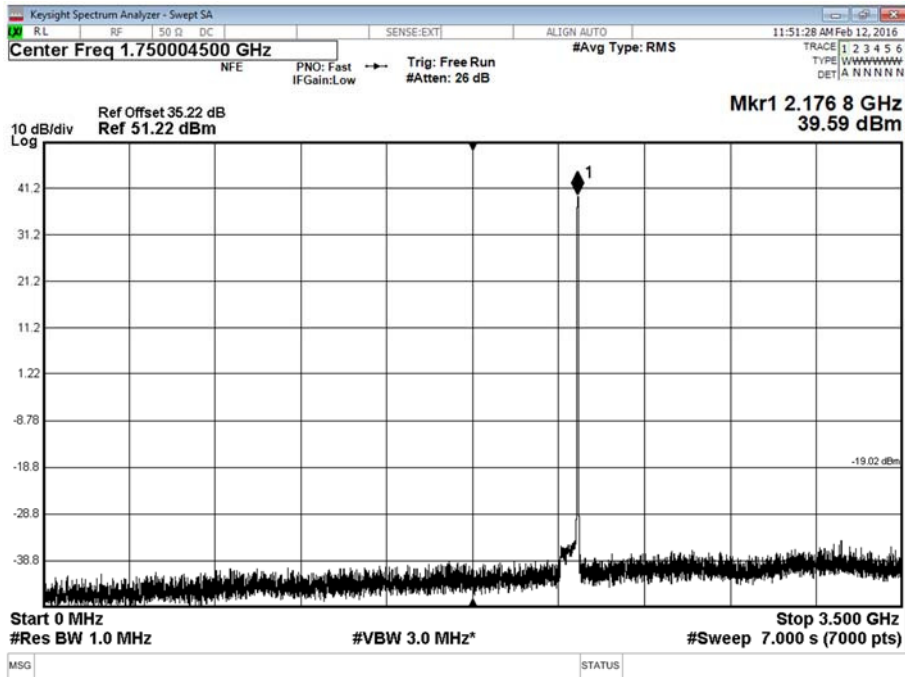
Channel Position M - Bandwidth 20.0 MHz - Antenna A



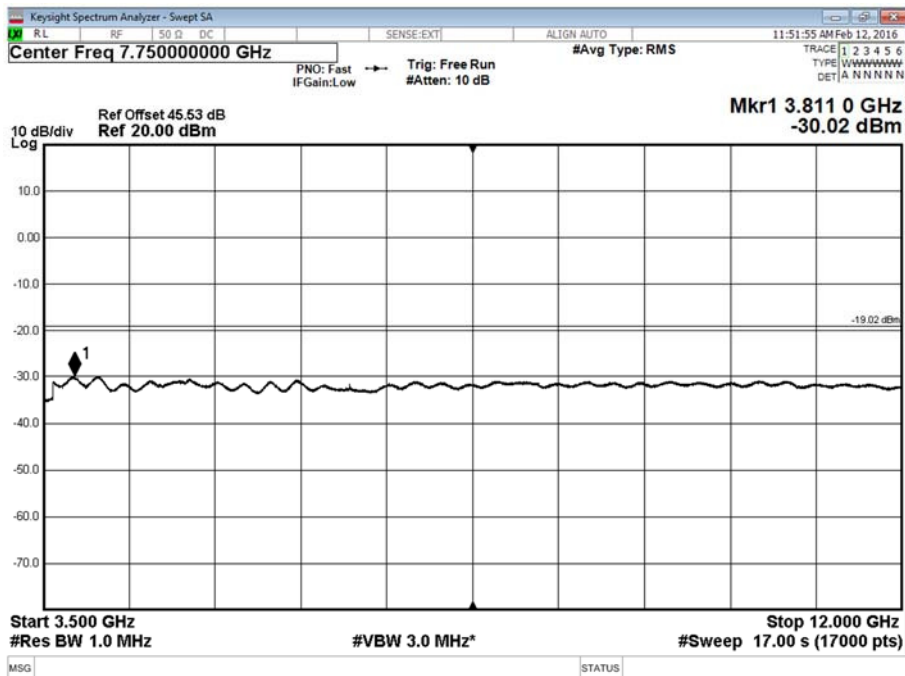
Channel Position M - Bandwidth 20.0 MHz - Antenna A



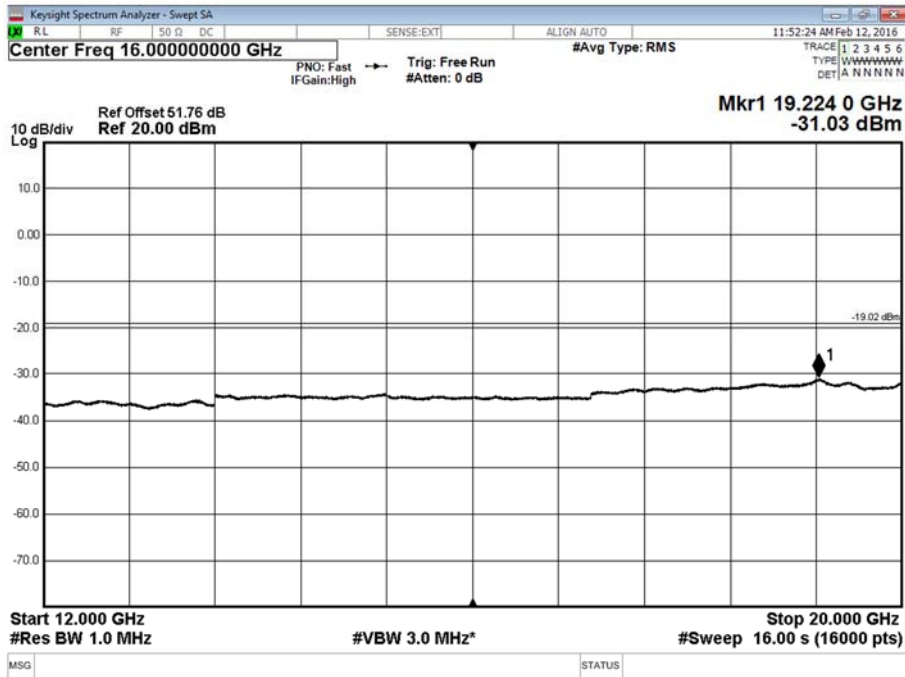
Channel Position T - Bandwidth 5.0 MHz - Antenna A



Channel Position T - Bandwidth 5.0 MHz - Antenna A



Channel Position T - Bandwidth 5.0 MHz - Antenna A



Channel Position T - Bandwidth 5.0 MHz - Antenna A

