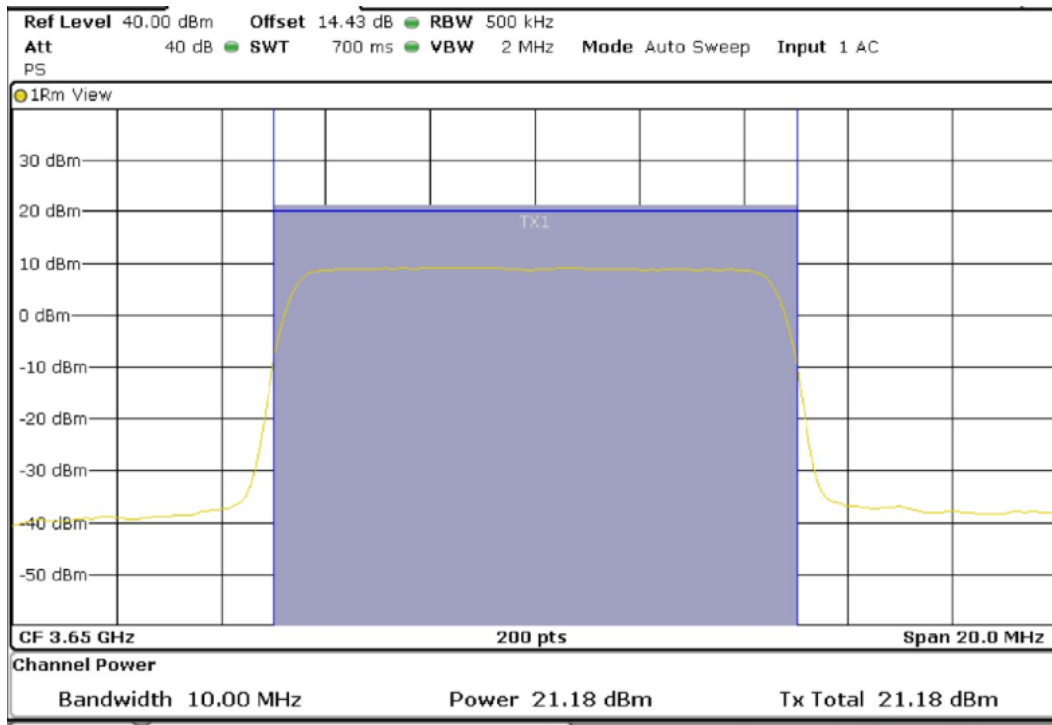
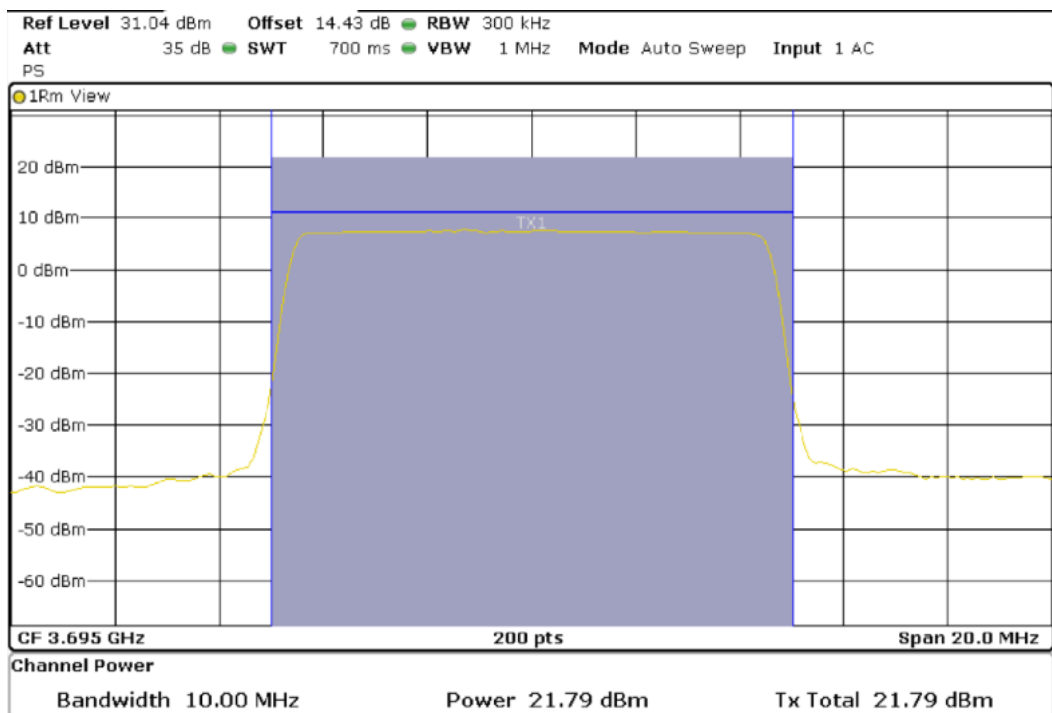


**TEST RESULTS (Cont.):**

**Middle Channel (3650 MHz)**



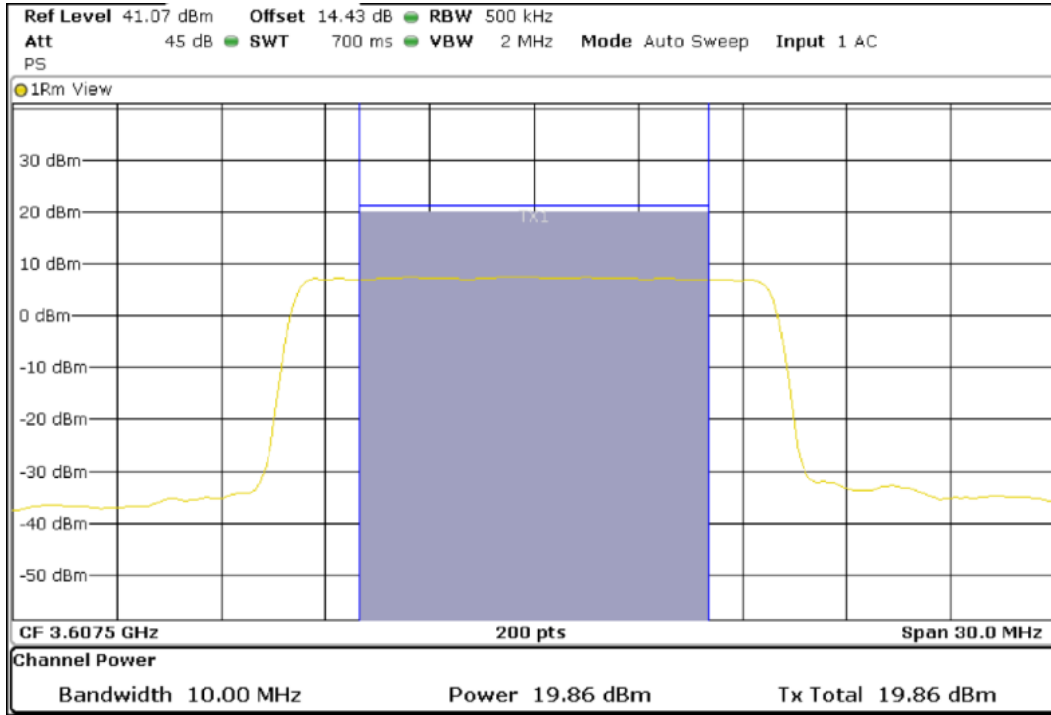
**Highest Channel (3695 MHz)**



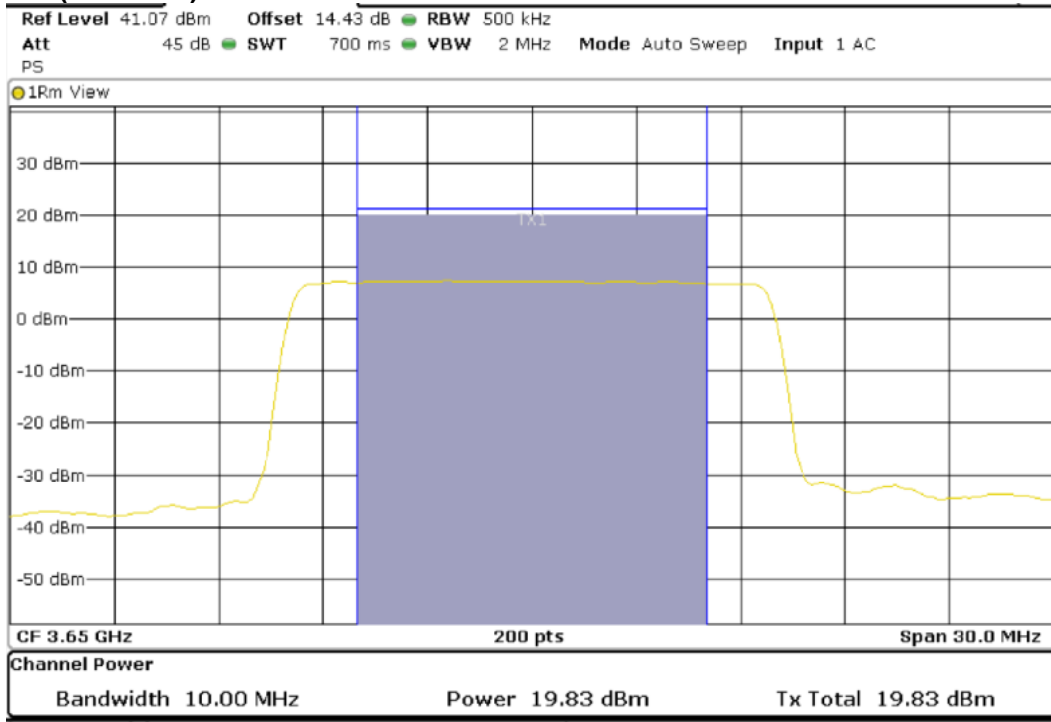
**TEST RESULTS (Cont.):**

**15 MHz BW (QPSK only)**

**Lowest Channel (3607.5 MHz)**



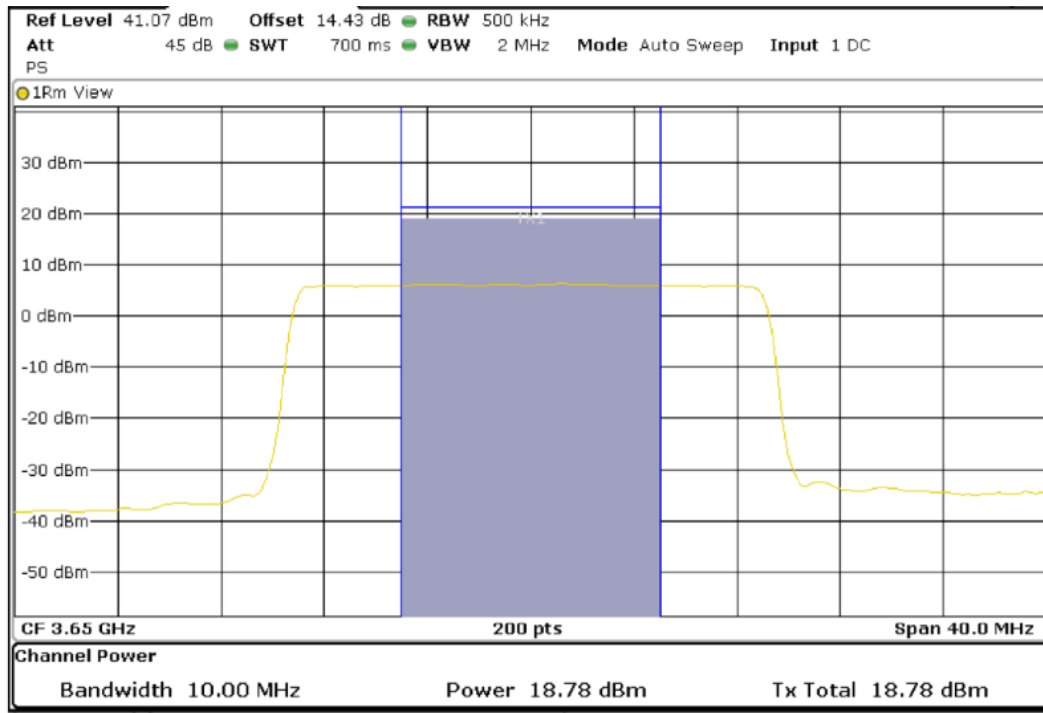
**Middle Channel (3650 MHz)**



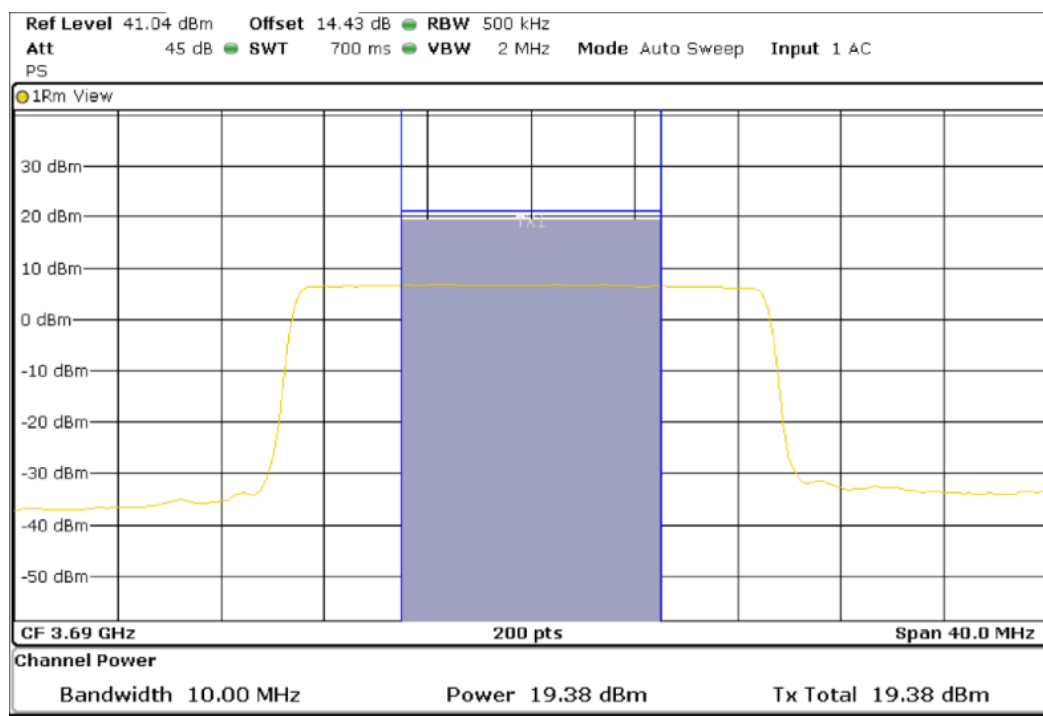


**TEST RESULTS (Cont.):**

**Middle Channel (3650 MHz)**



**Highest Channel (3690 MHz)**



### TEST A.3: 99% OBW AND -26 DB BANDWIDTH

<b>LIMITS:</b>	Product standard:	Part 2.1049
	Test standard:	ANSI C63.26-2015

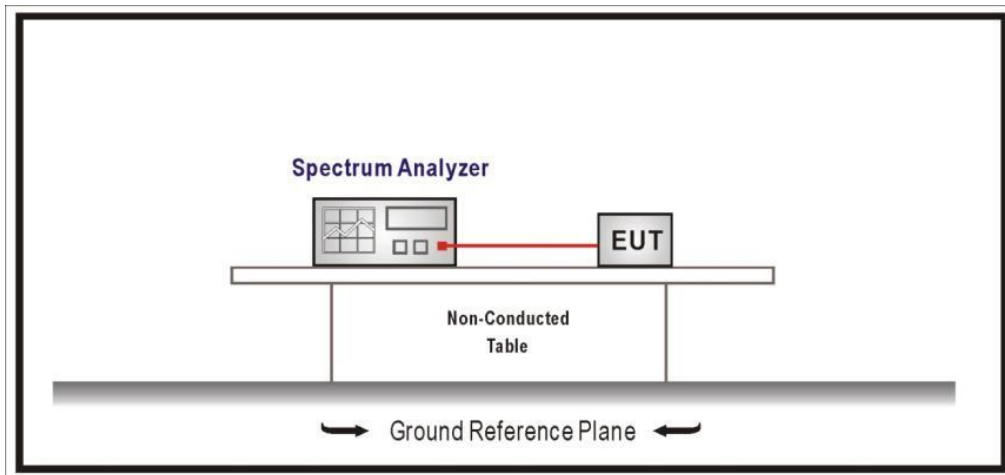
LIMITS

The 99% occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

The -26 dB Bandwidth is the bandwidth of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB from the peak of the carrier.

**TEST SETUP:**

The 99% occupied bandwidth and the -26dB bandwidth were measured directly using the built-in bandwidth measuring option of signal analyzer with following the procedure stated in the section 5.4.3 and 5.4.4 of ANSI C63.26-2015 and the section 4.2 and 4.3 of FCC KDB 971168 D01 v03 r01.



<b>TESTED SAMPLES:</b>	S/01
<b>TESTED CONDITIONS MODES:</b>	TC#01 (Band 48)
<b>TEST RESULTS:</b>	PASS

**Results:**

**5 MHz BW**

QPSK

	Lowest frequency	Middle frequency	Highest frequency
	3552.5 MHz	3625 MHz	3697.5 MHz
99% OBW (MHz)	4.70	4.70	4.67
-26 dB Bandwidth (MHz)	6.08	5.93	5.72
Measurement uncertainty (kHz)	<±8.33		

16QAM

	Lowest frequency	Middle frequency	Highest frequency
	3552.5 MHz	3625 MHz	3697.5 MHz
99% OBW (MHz)	4.67	4.69	4.66
-26 dB Bandwidth (MHz)	5.98	6.05	5.72
Measurement uncertainty (kHz)	<±8.33		

**10 MHz BW**

QPSK

	Lowest frequency	Middle frequency	Highest frequency
	3555 MHz	3625 MHz	3695 MHz
99% OBW (MHz)	9.04	9.04	9.03
-26 dB Bandwidth (MHz)	10.07	10.10	10.07
Measurement uncertainty (kHz)	<±8.33		

16QAM

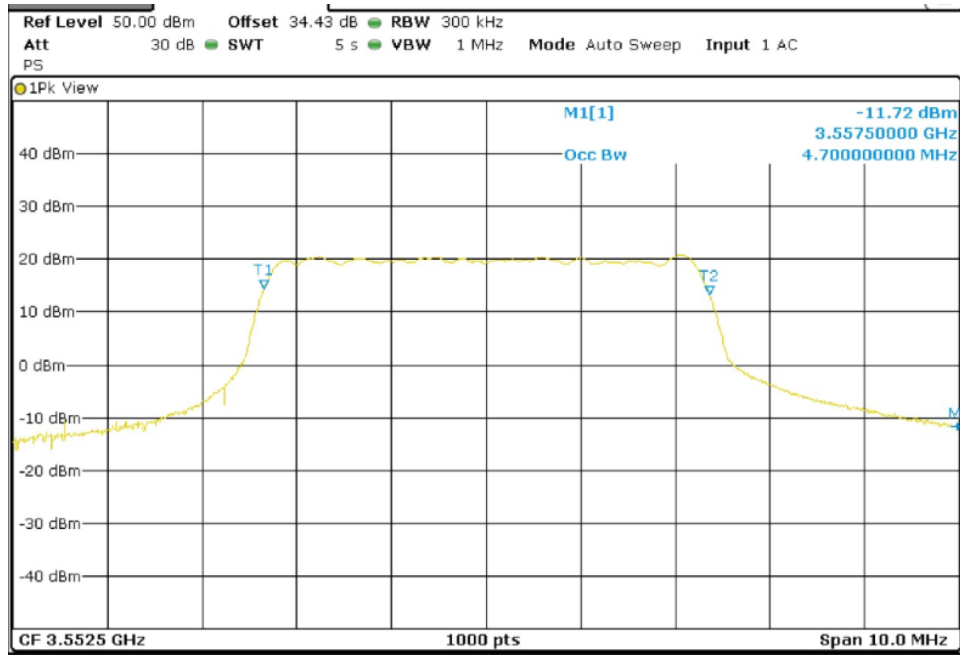
	Lowest frequency	Middle frequency	Highest frequency
	3555 MHz	3625 MHz	3695 MHz
99% OBW (MHz)	9.04	9.06	9.00
-26 dB Bandwidth (MHz)	10.04	10.01	9.96
Measurement uncertainty (kHz)	<±8.33		

TEST RESULTS (Cont.):			
<b>15 MHz BW</b>			
QPSK			
	Lowest frequency 3557.5 MHz	Middle frequency 3625 MHz	Highest frequency 3692.5 MHz
99% OBW (MHz)	13.44	13.47	13.46
-26 dB Bandwidth (MHz)	14.78	14.78	14.73
Measurement uncertainty (kHz)	<±8.33		
16QAM			
	Lowest frequency 3557.5 MHz	Middle frequency 3625 MHz	Highest frequency 3692.5 MHz
99% OBW (MHz)	13.44	13.50	13.55
-26 dB Bandwidth (MHz)	14.73	14.78	14.82
Measurement uncertainty (kHz)	<±8.33		
<b>20 MHz BW</b>			
QPSK			
	Lowest frequency 3560 MHz	Middle frequency 3625 MHz	Highest frequency 3690 MHz
99% OBW (MHz)	17.84	17.92	17.88
-26 dB Bandwidth (MHz)	19.44	19.24	19.32
Measurement uncertainty (kHz)	<±8.33		
16QAM			
	Lowest frequency 3560 MHz	Middle frequency 3625 MHz	Highest frequency 3690 MHz
99% OBW (MHz)	17.92	17.88	17.88
-26 dB Bandwidth (MHz)	19.44	19.28	19.36
Measurement uncertainty (kHz)	<±8.33		
Verdict: PASS (See next plots)			

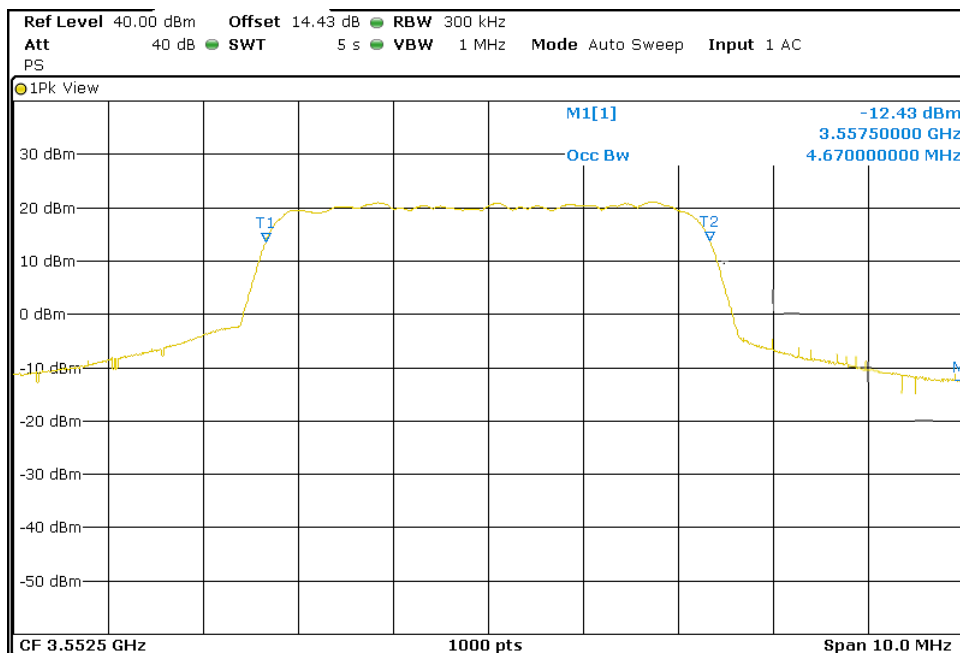
**TEST RESULTS (Cont.):**

**5 MHz BW**

**Lowest Channel (3552.5 MHz) QPSK**



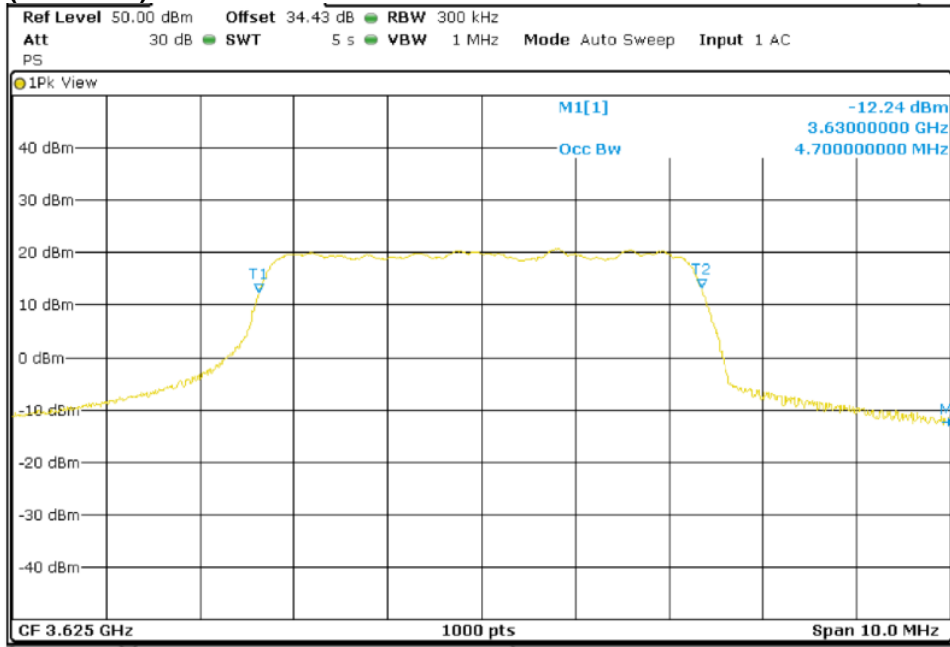
**Lowest Channel (3552.5 MHz) 16QAM**



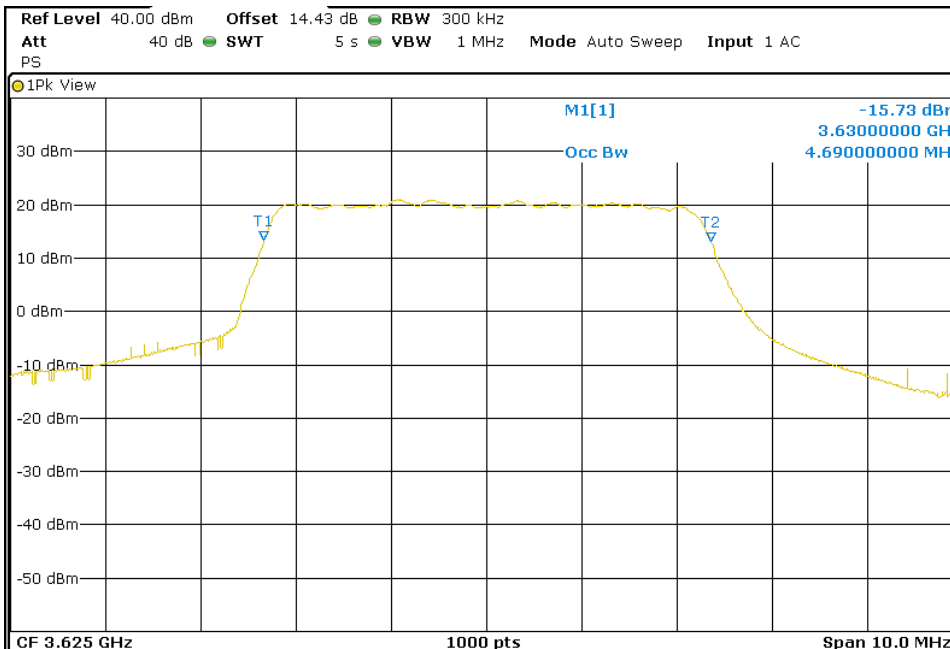


**TEST RESULTS (Cont.):**

**Middle Channel (3625 MHz) QPSK**

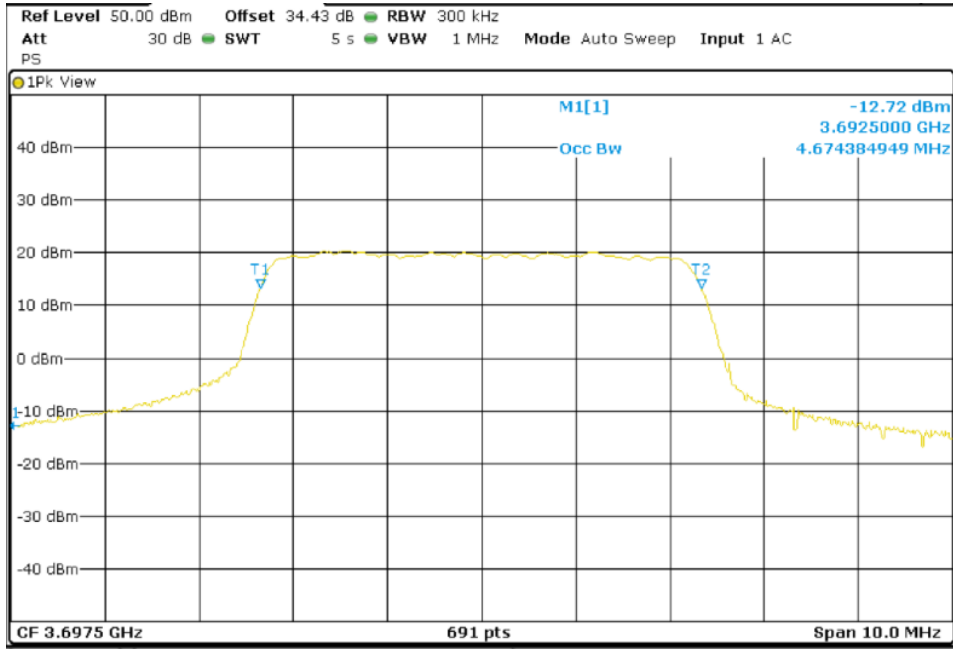


**Middle Channel (3625 MHz) 16QAM**

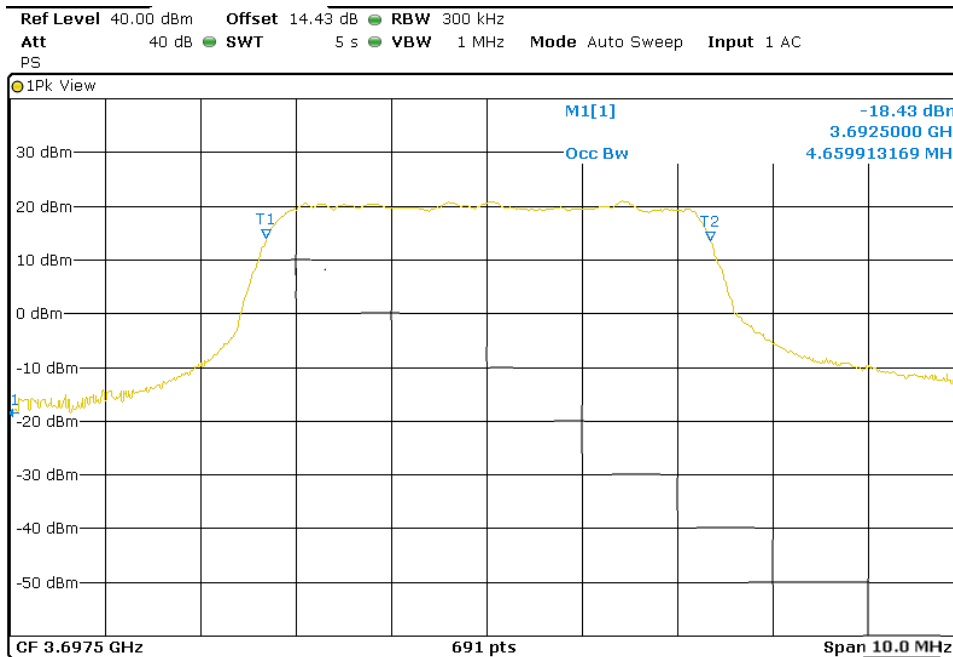


**TEST RESULTS (Cont.):**

**Highest Channel (3697.5 MHz) QPSK**



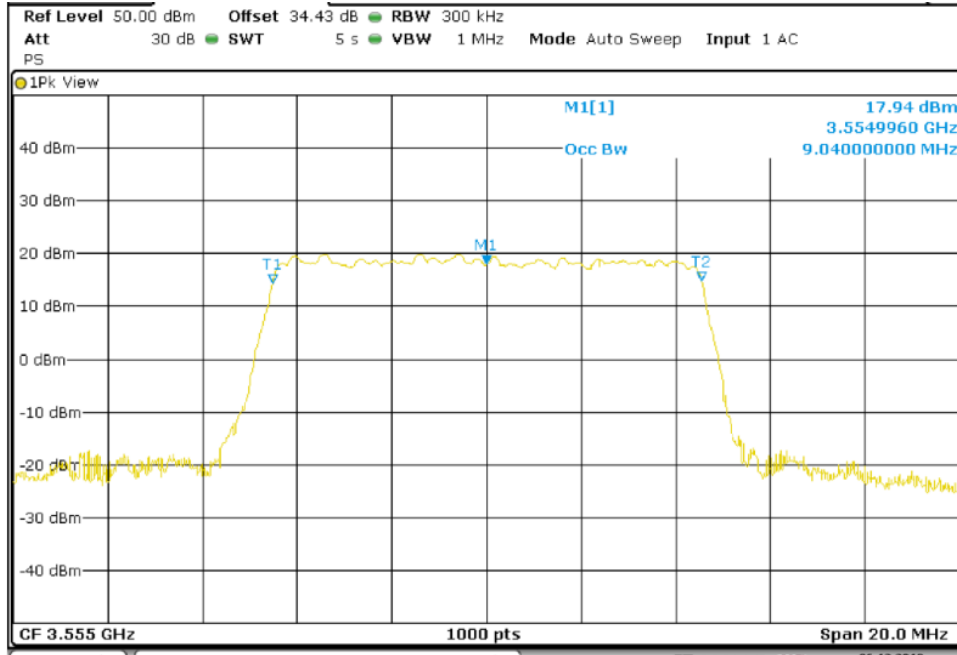
**Highest Channel (3697.5 MHz) 16QAM**



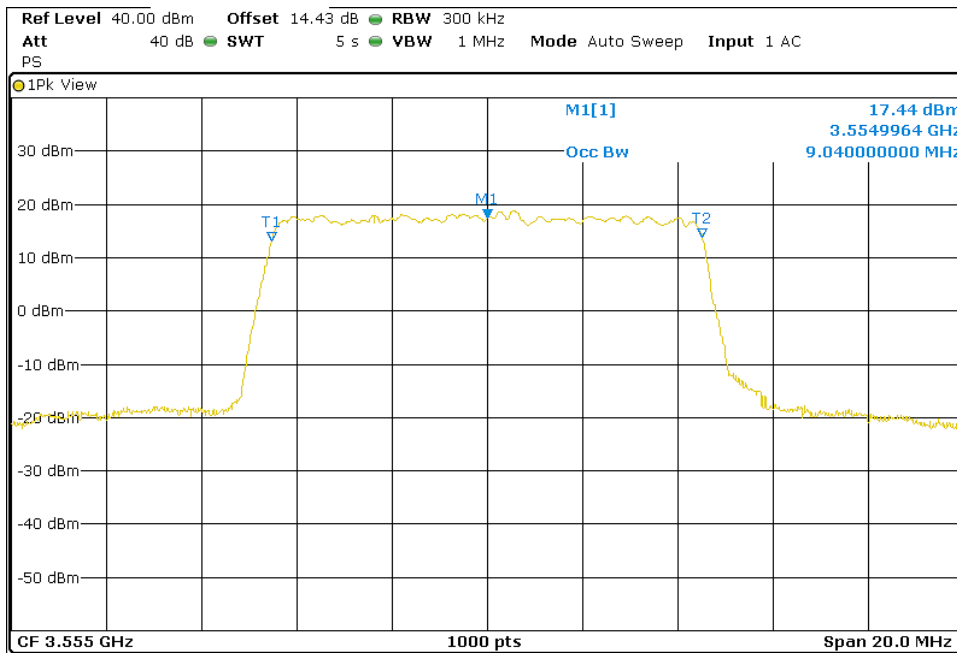
**TEST RESULTS (Cont.):**

**10 MHz BW**

**Lowest Channel (3555 MHz) QPSK**

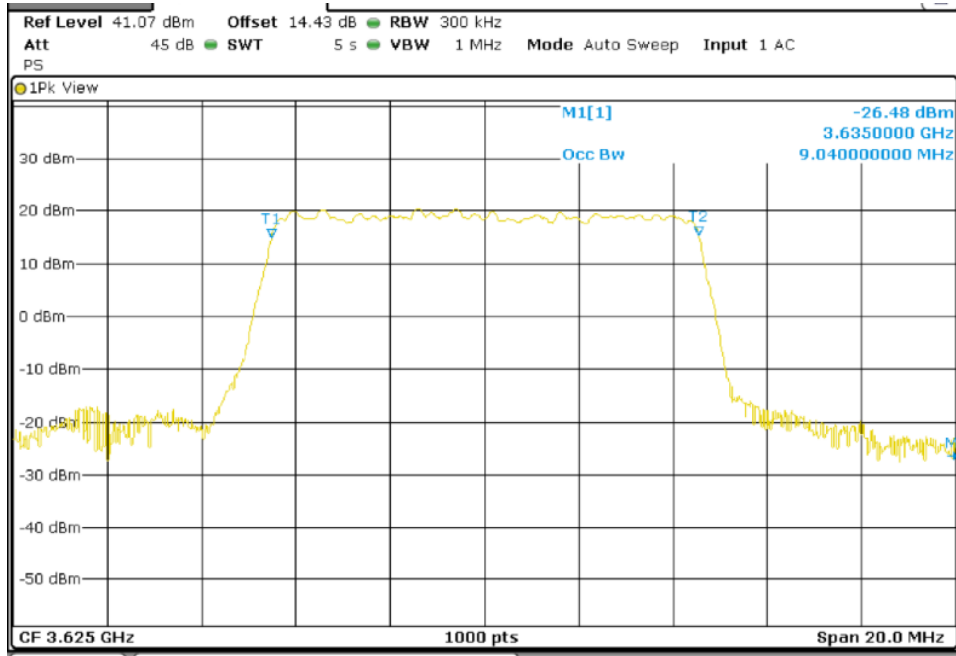


**Lowest Channel (3555 MHz) 16QAM**

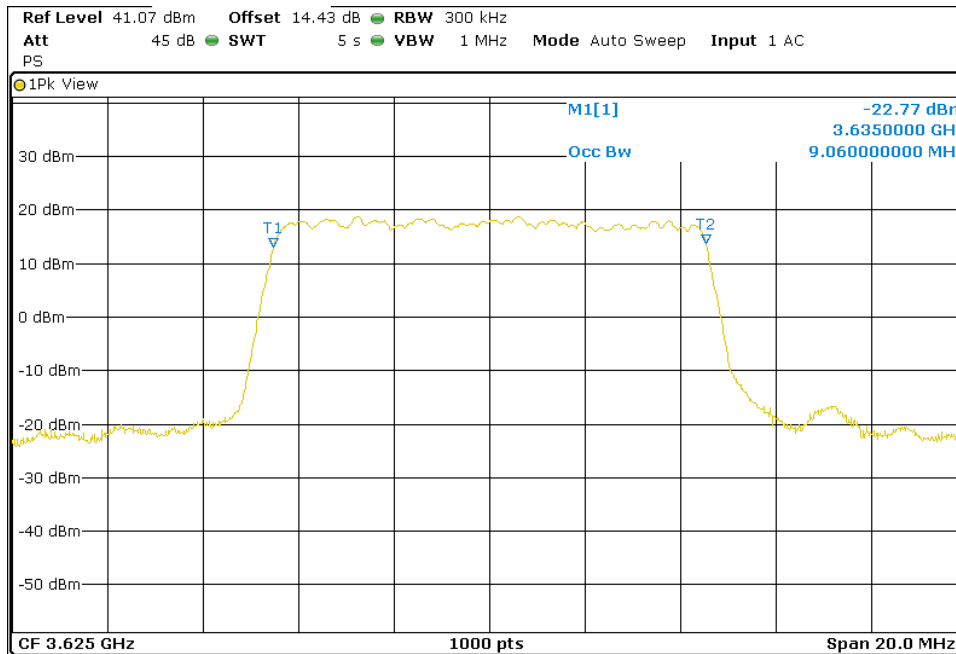


**TEST RESULTS (Cont.):**

**Middle Channel (3625 MHz) QPSK**

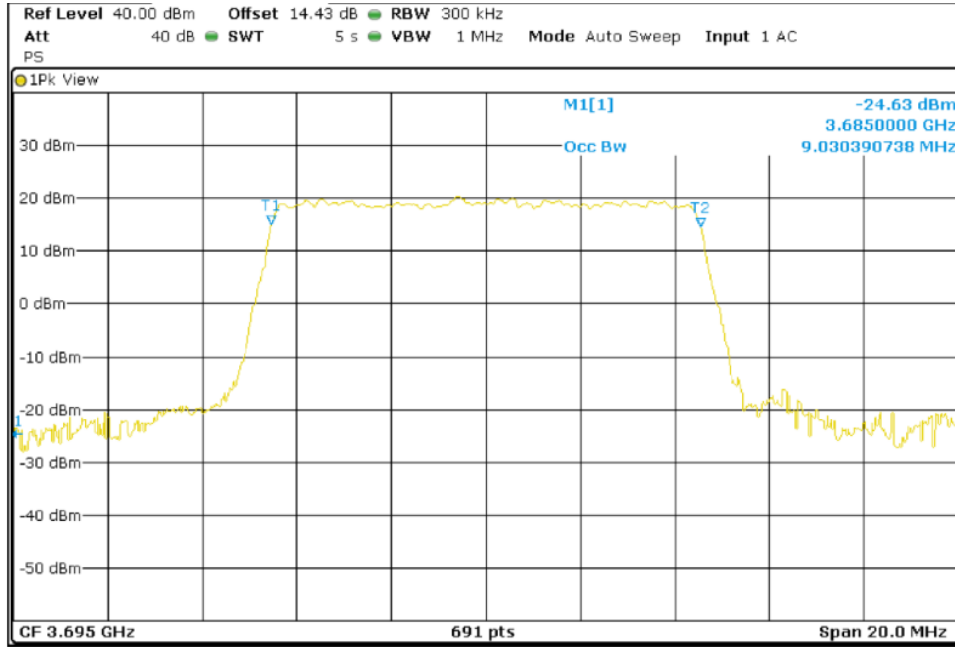


**Middle Channel (3625 MHz) 16QAM**

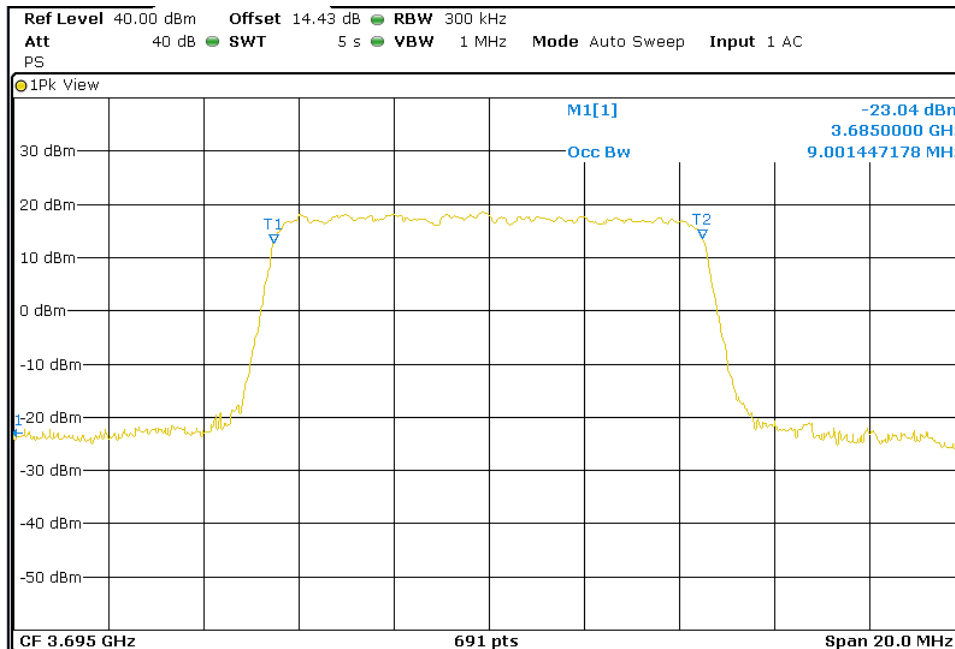


**TEST RESULTS (Cont.):**

**High Channel (3695 MHz) QPSK**



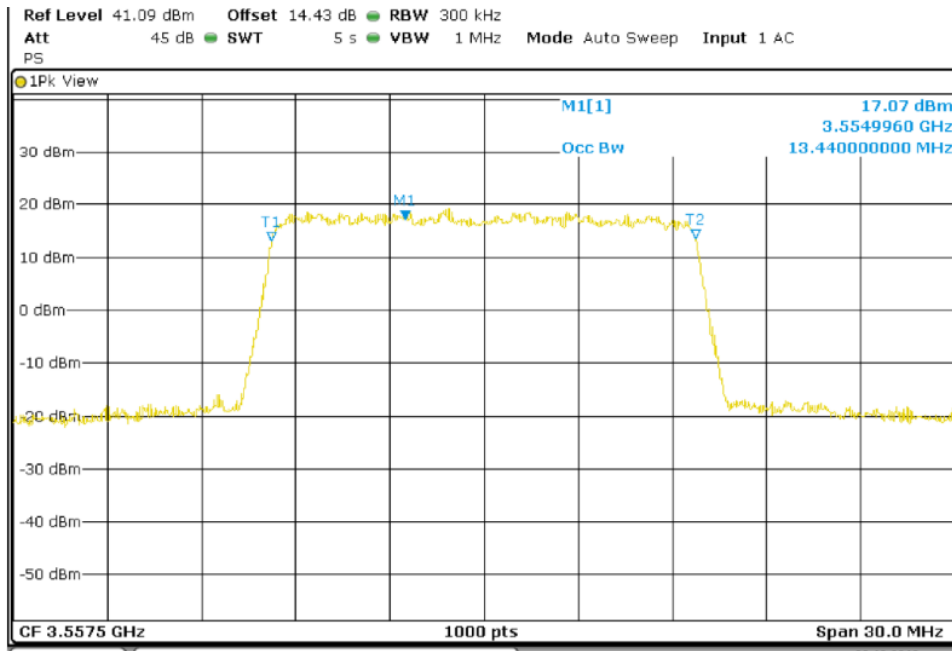
**High Channel (3695 MHz) 16QAM**



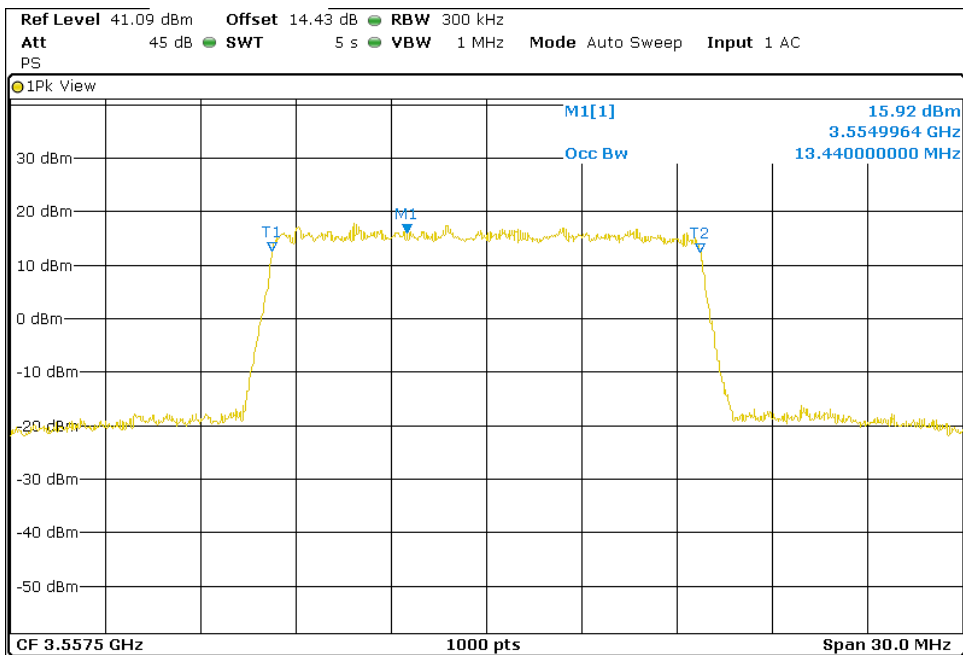
**TEST RESULTS (Cont.):**

**15 MHz BW**

**Lowest Channel (3557.5 MHz) QPSK**

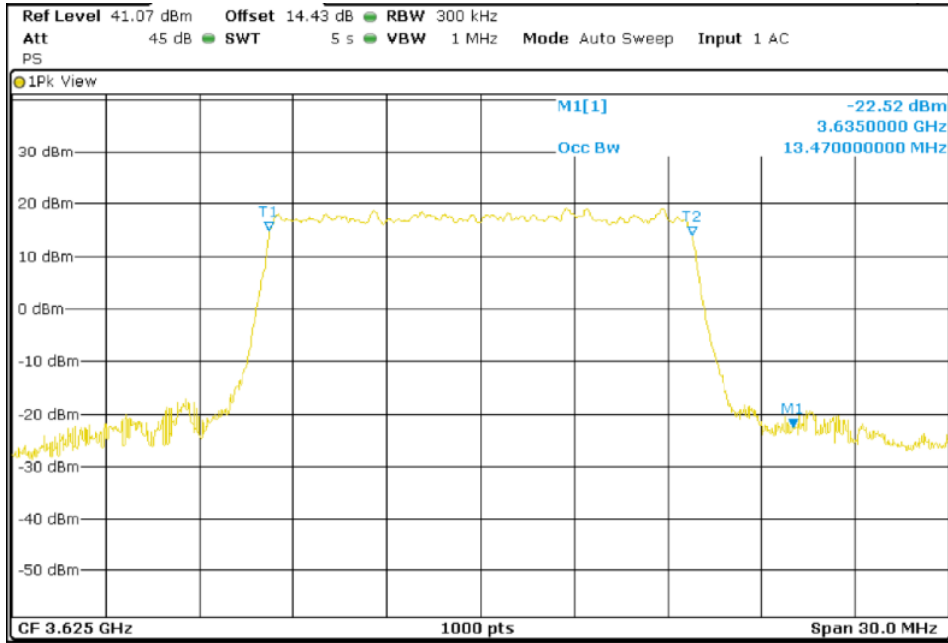


**Lowest Channel (3557.5 MHz) 16QAM**

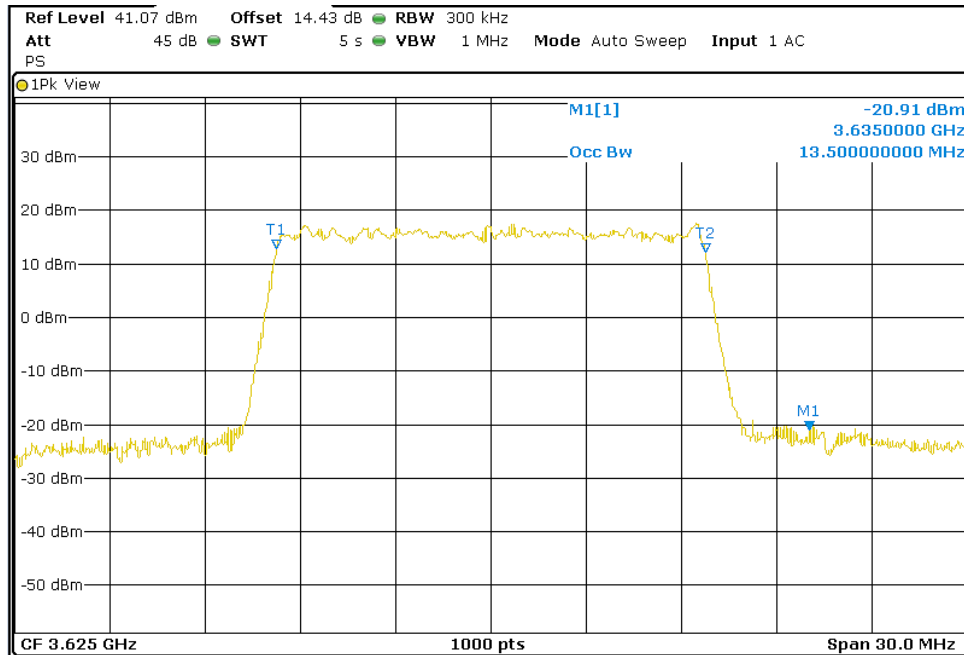


**TEST RESULTS (Cont.):**

**Middle Channel (3625 MHz) QPSK**

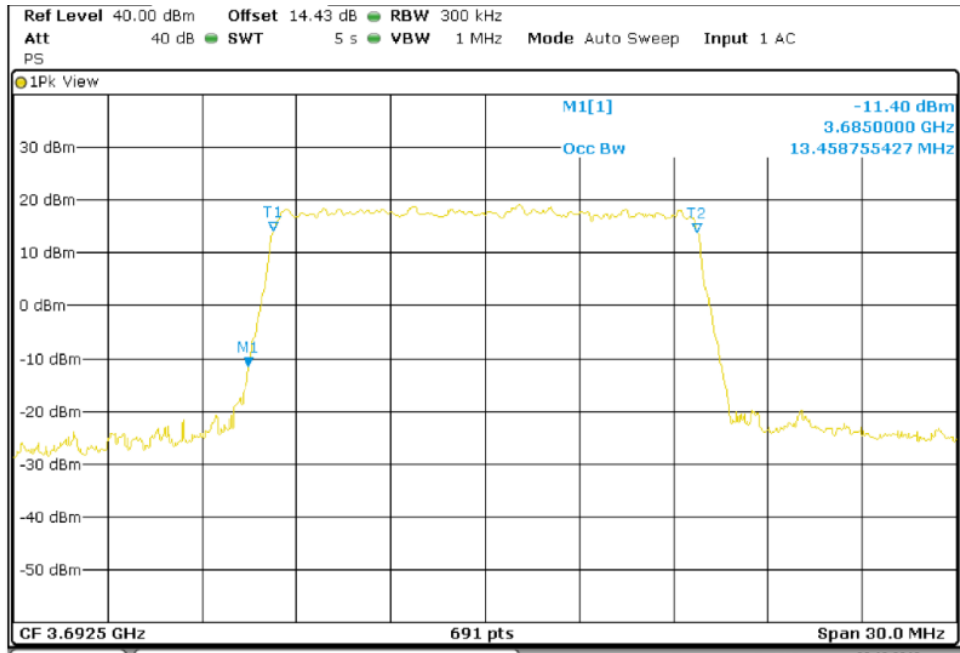


**Middle Channel (3625 MHz) 16QAM**

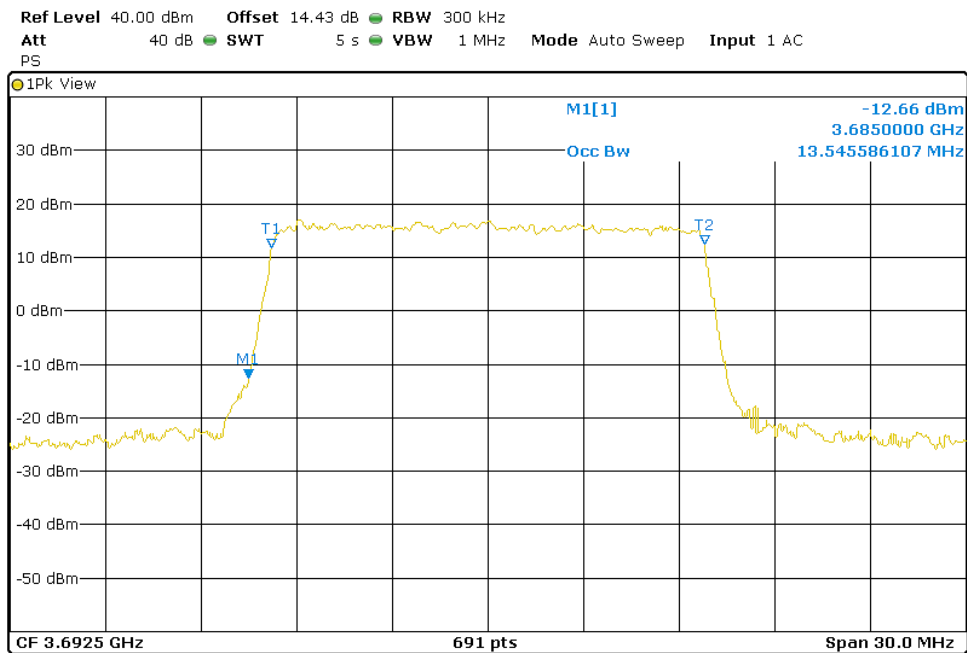


TEST RESULTS (Cont.):

Highest Channel (3692.5 MHz) QPSK



Highest Channel (3692.5 MHz) 16QAM

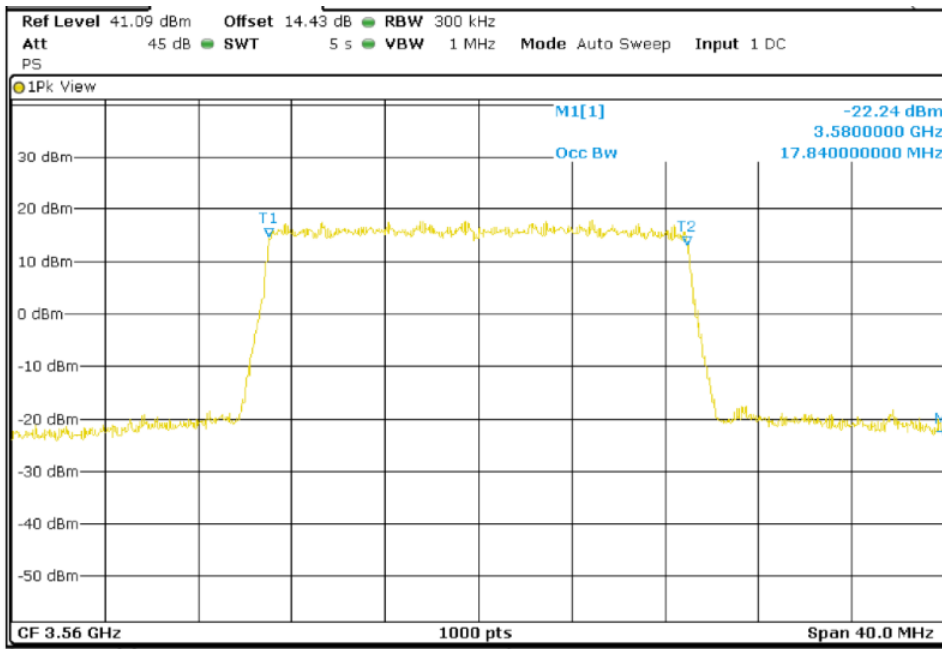




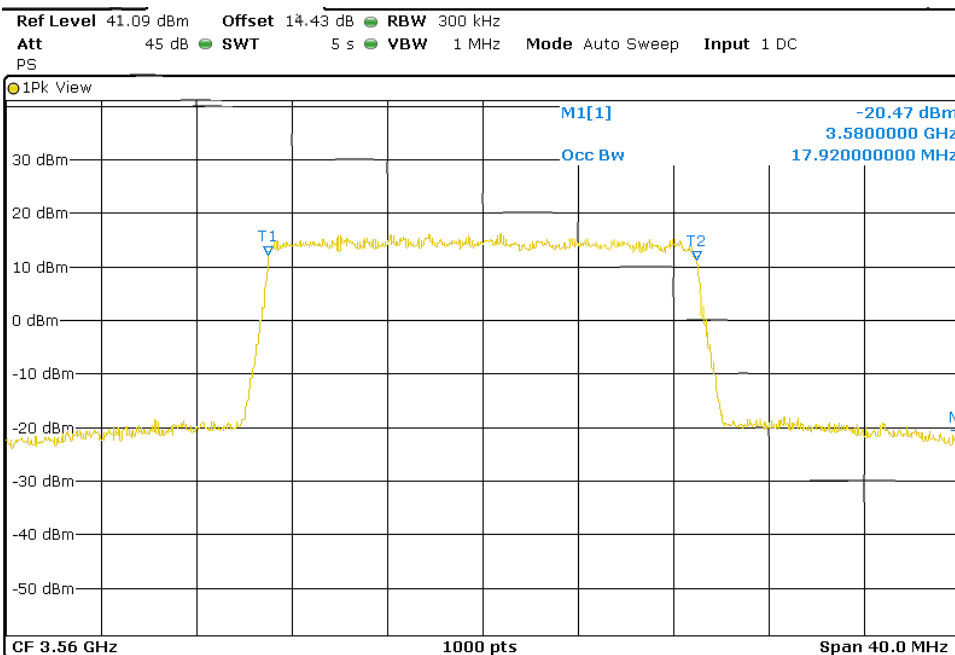
TEST RESULTS (Cont.):

**20 MHz BW**

**Lowest Channel (3560 MHz) QPSK**

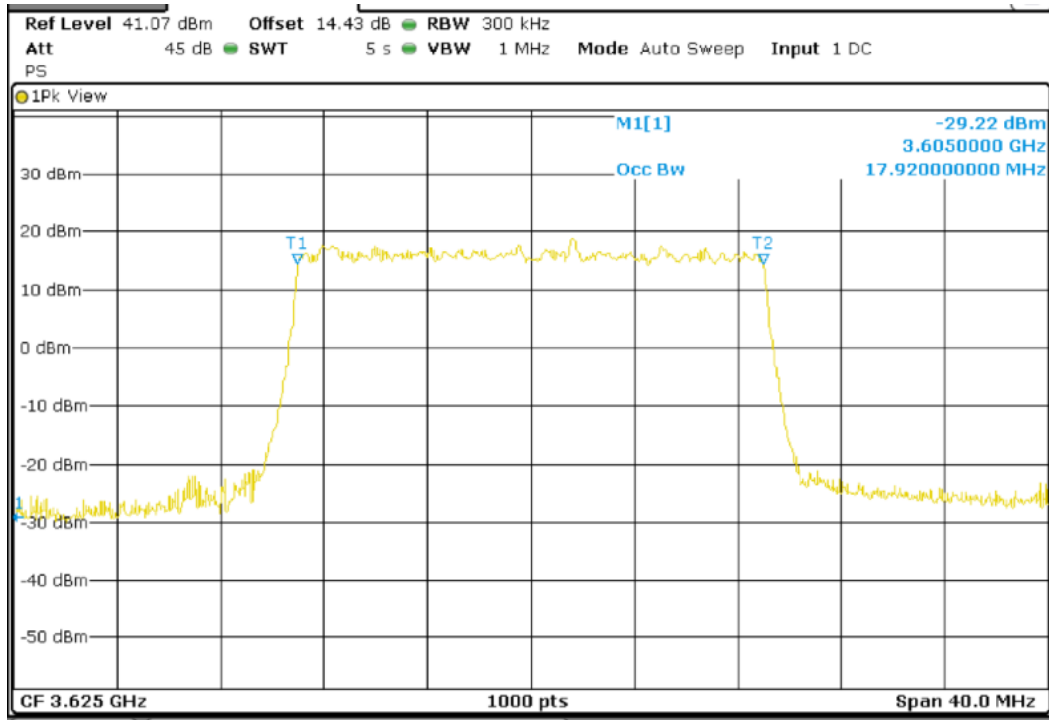


**Lowest Channel (3560 MHz) 16QAM**

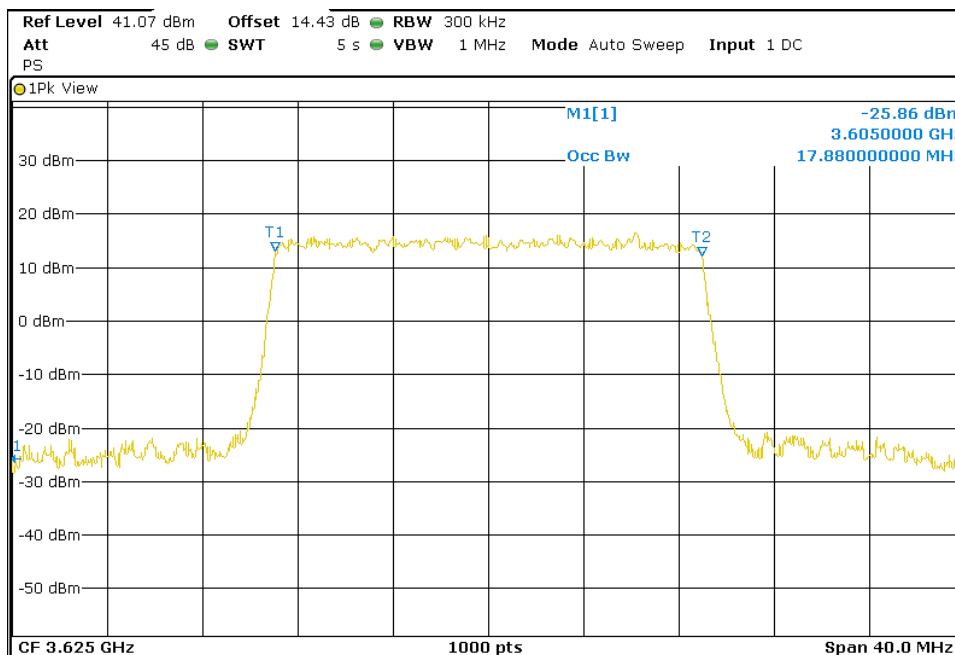


TEST RESULTS (Cont.):

Middle Channel (3625 MHz) QPSK

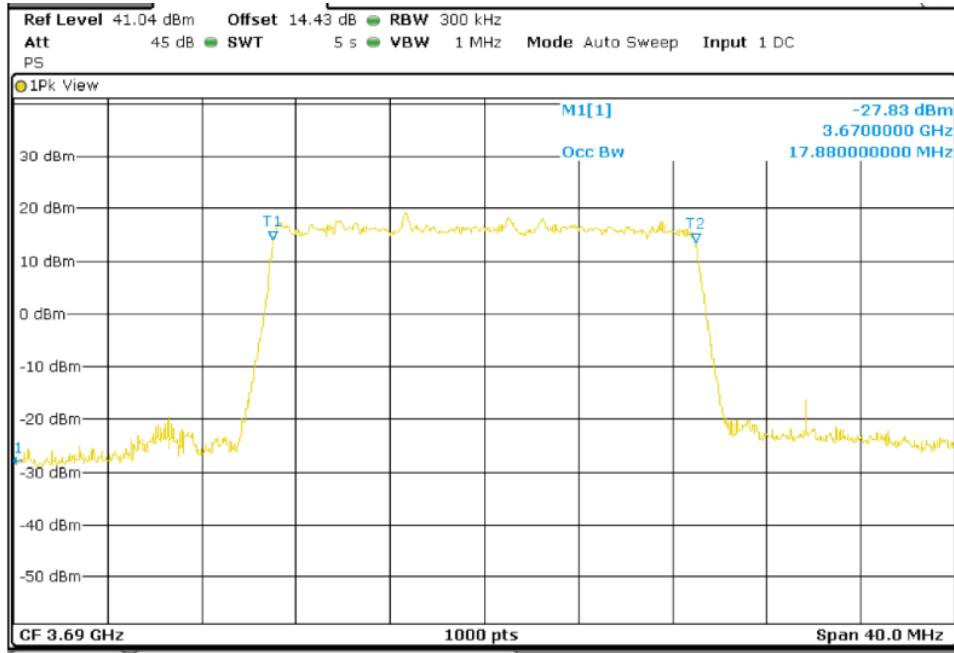


Middle Channel (3625 MHz) 16QAM

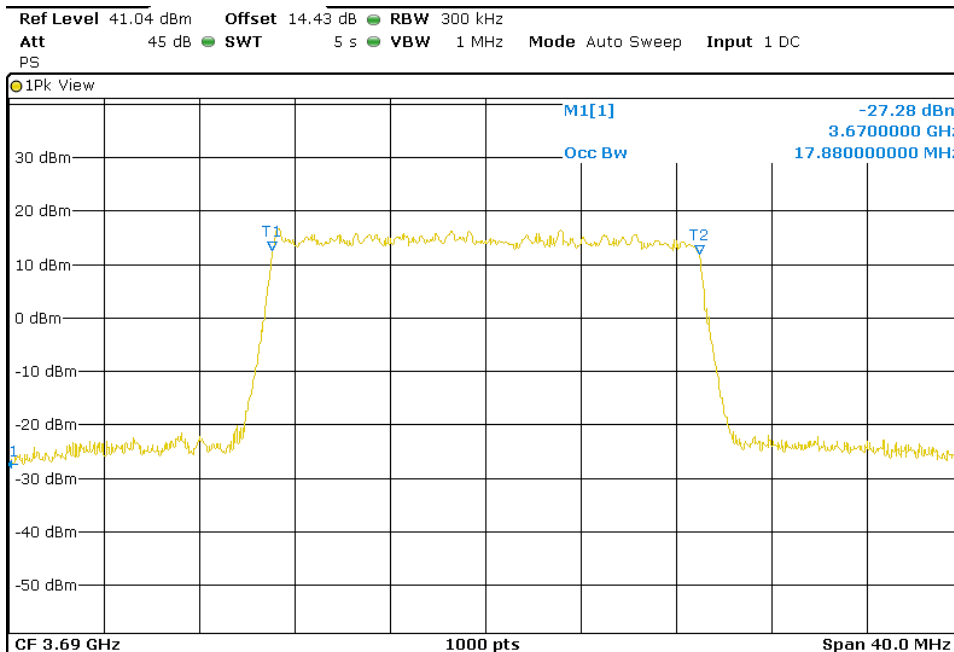


**TEST RESULTS (Cont.):**

**High Channel (3690 MHz) QPSK**



**High Channel (3690 MHz) 16QAM**

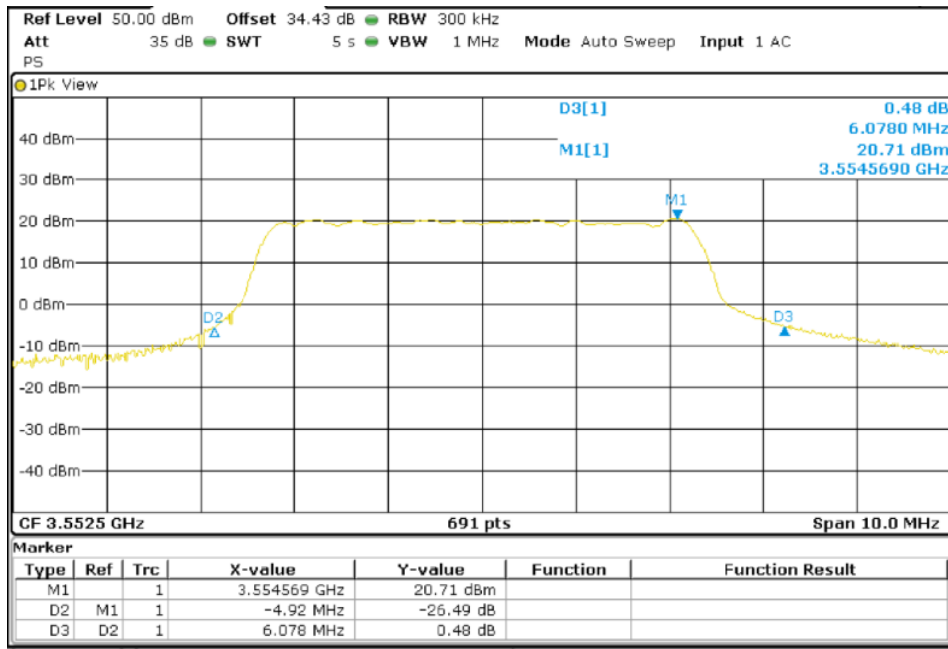


TEST RESULTS (Cont.):

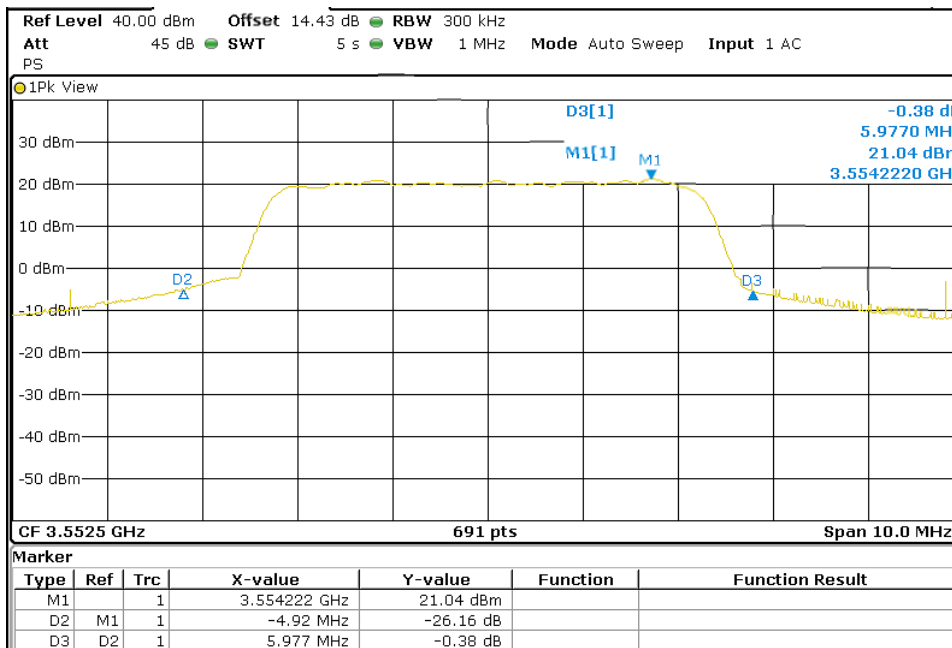
-26dB Bandwidth

**5 MHz BW**

**Lowest Channel (3552.5 MHz) QPSK**

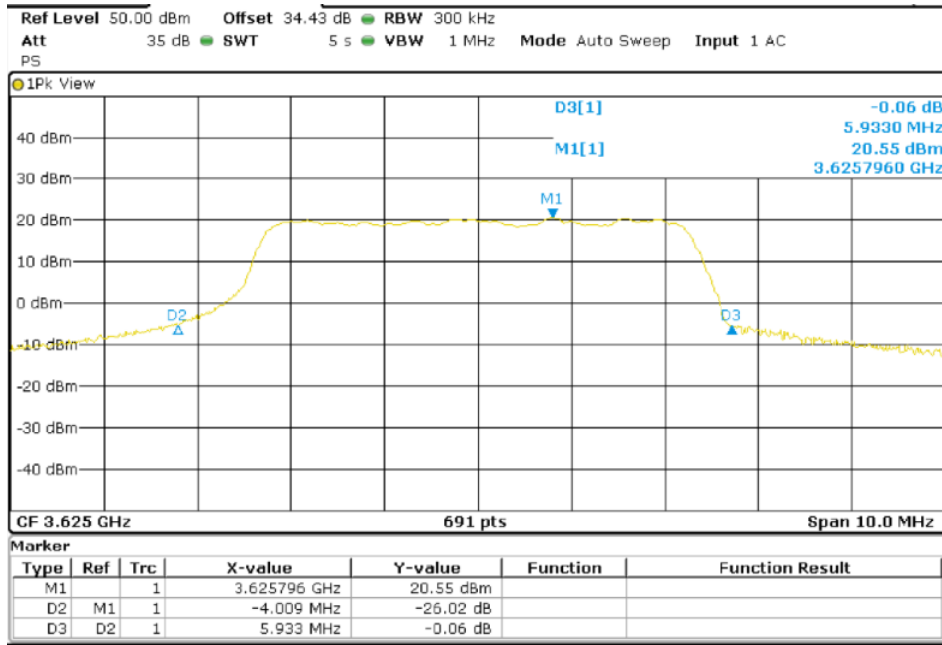


**Lowest Channel (3552.5 MHz) 16QAM**

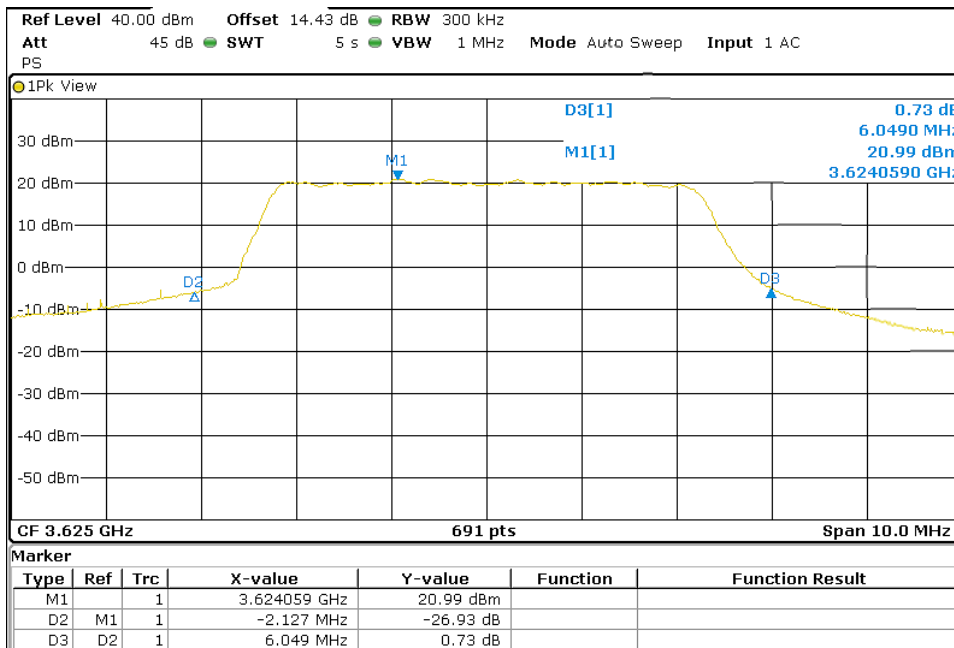


TEST RESULTS (Cont.):

Middle Channel (3625 MHz) QPSK

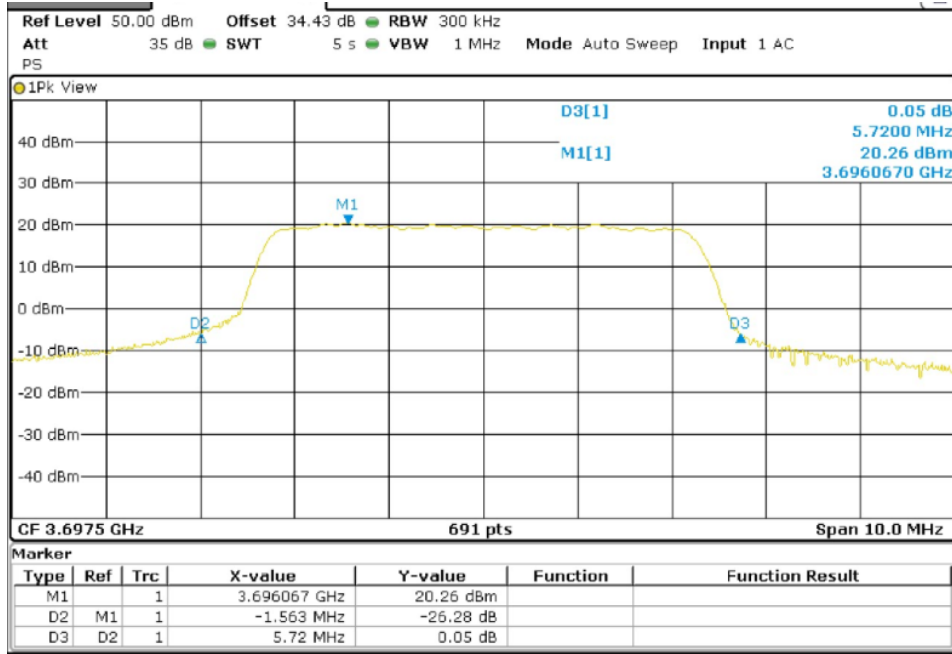


Middle Channel (3625 MHz) 16QAM

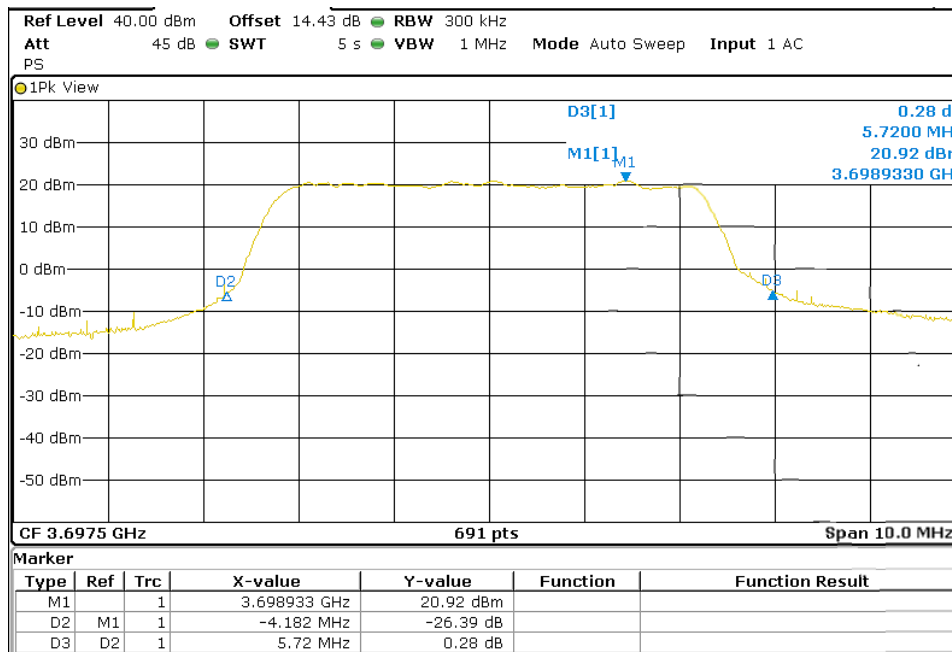


TEST RESULTS (Cont.):

Highest Channel (3697.5 MHz) QPSK



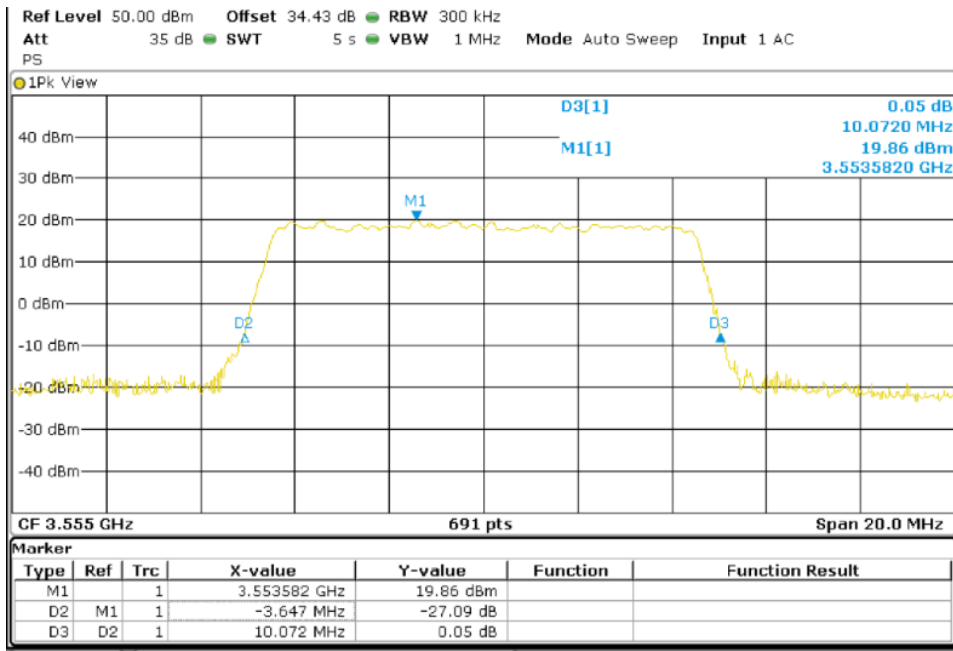
Highest Channel (3697.5 MHz) 16QAM



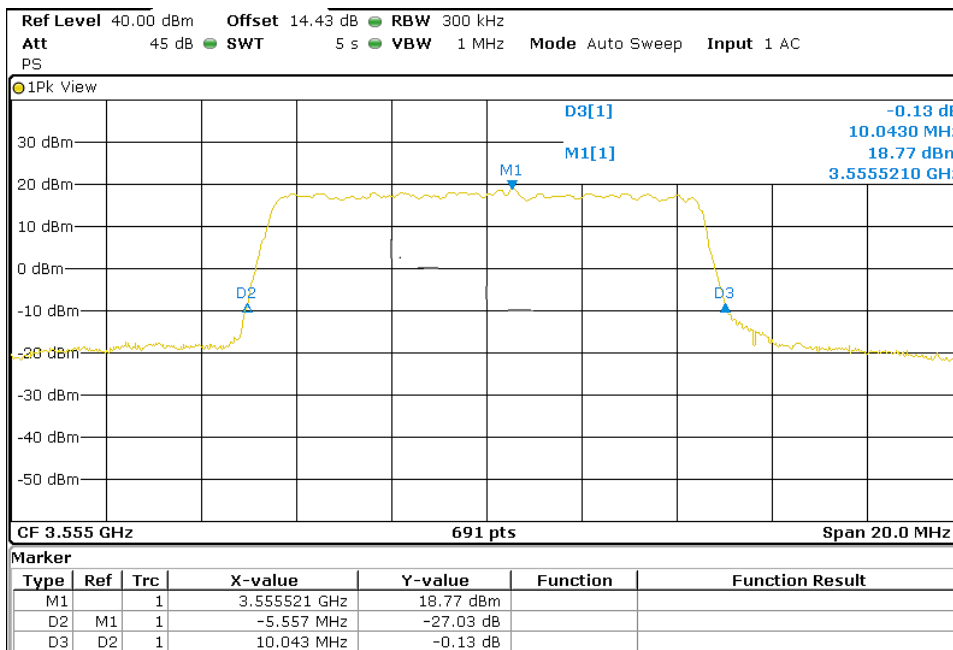
**TEST RESULTS (Cont.):**

**10 MHz BW**

**Lowest Channel (3555 MHz) QPSK**

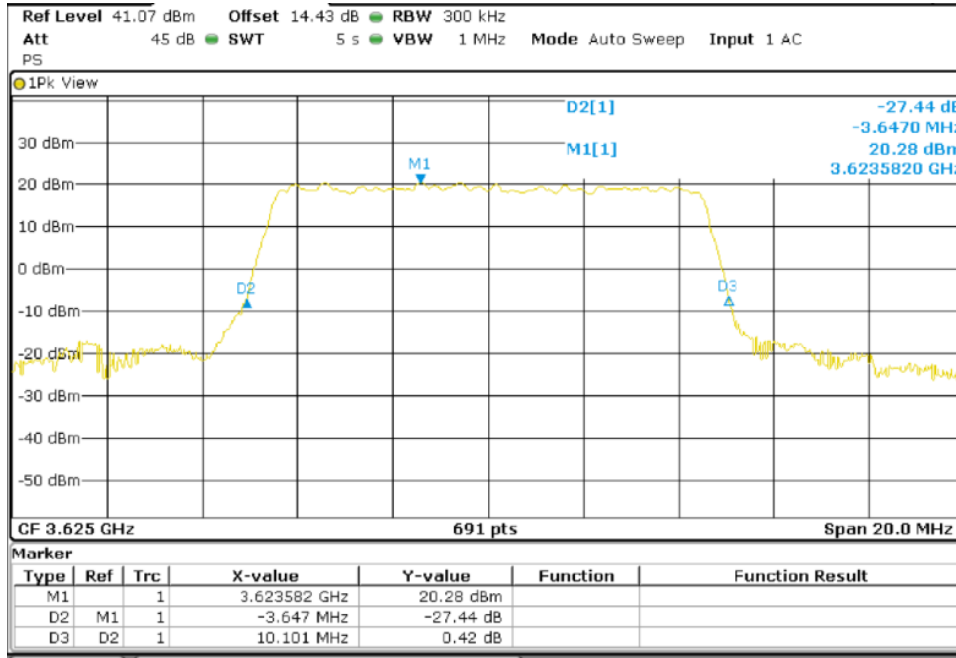


**Lowest Channel (3555 MHz) 16QAM**

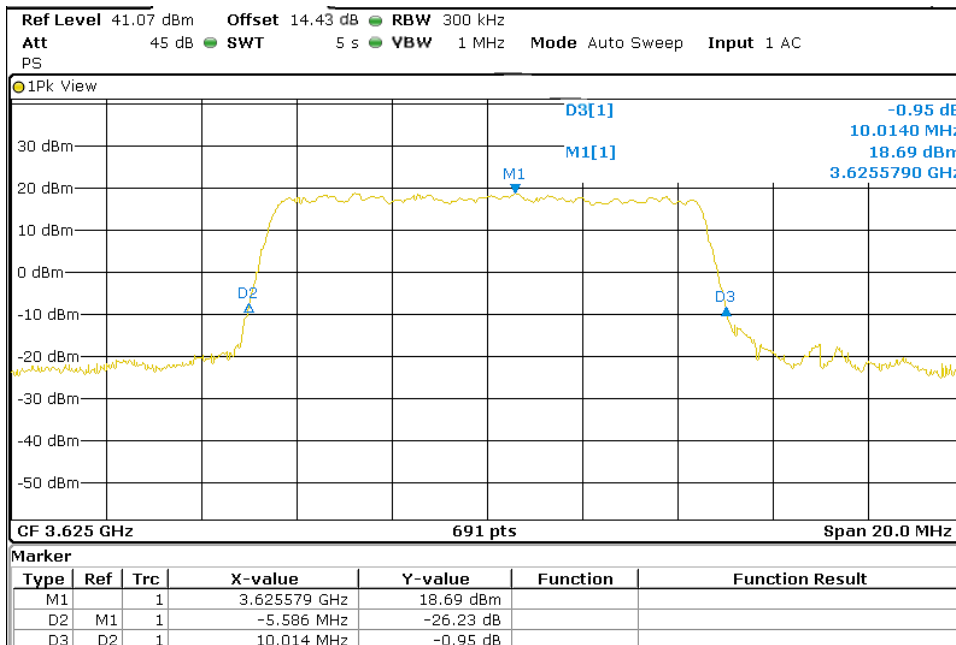


**TEST RESULTS (Cont.):**

**Middle Channel (3625 MHz) QPSK**



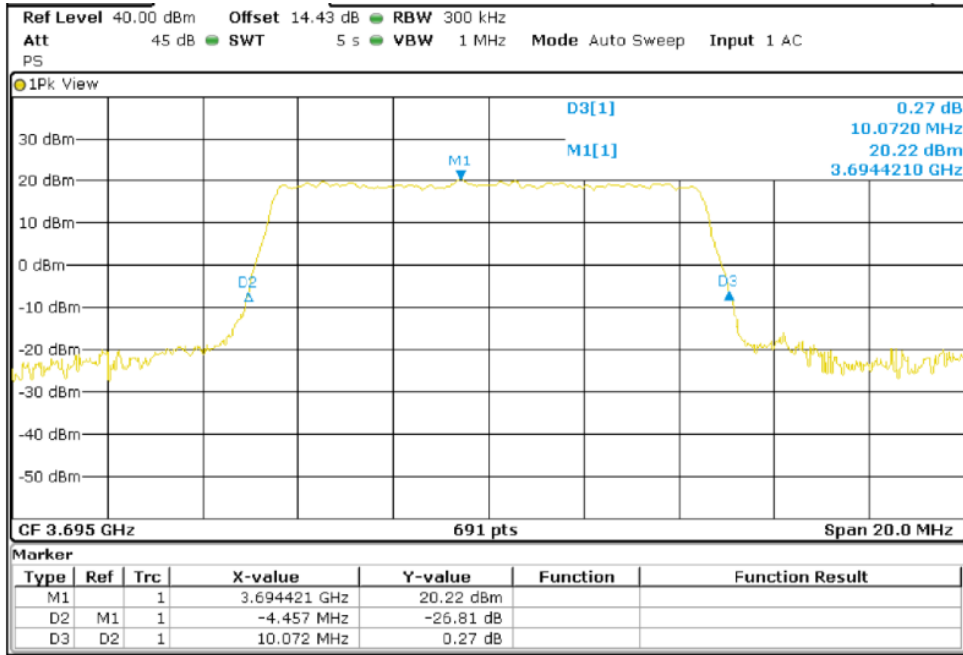
**Middle Channel (3625 MHz) 16QAM**



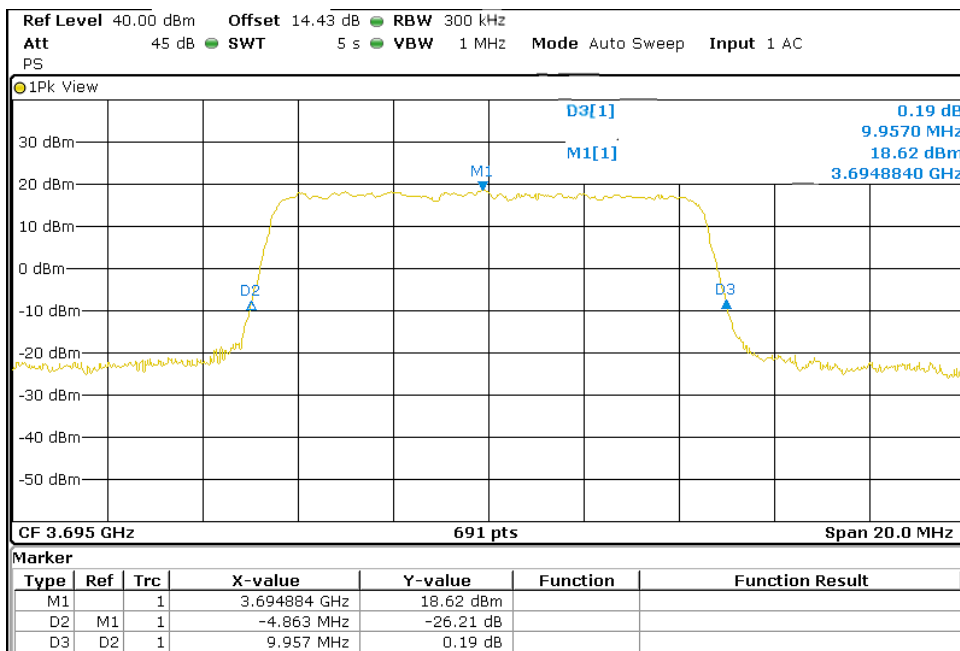


TEST RESULTS (Cont.):

High Channel (3695 MHz) QPSK



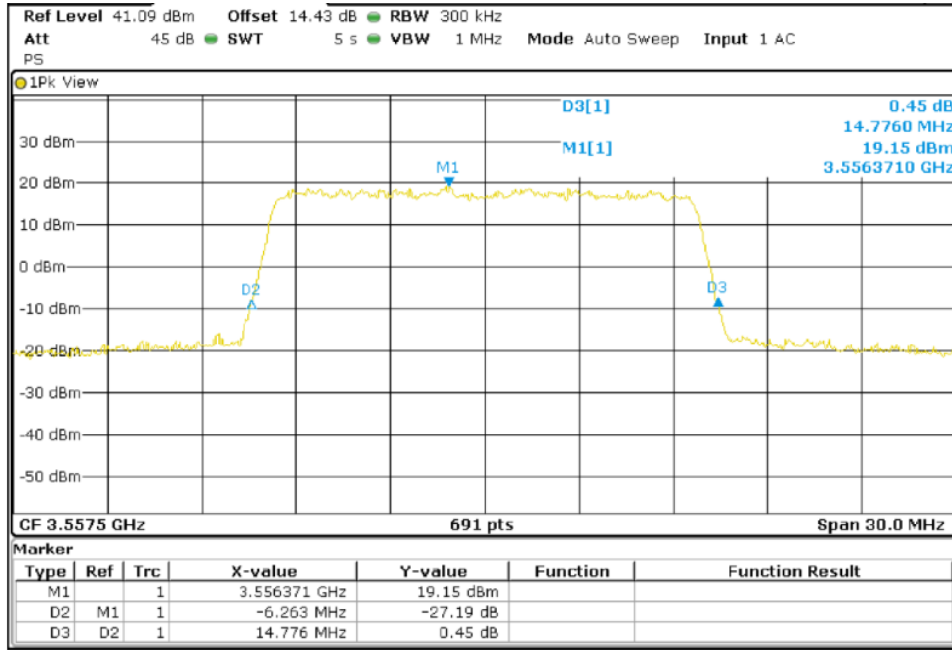
High Channel (3695 MHz) 16QAM



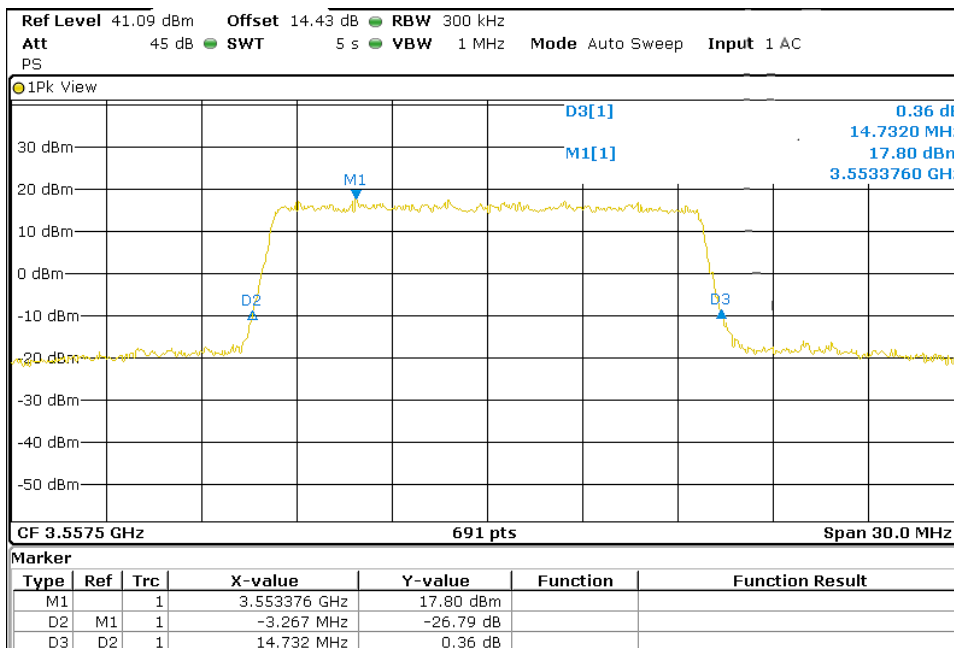
**TEST RESULTS (Cont.):**

**15 MHz BW**

**Lowest Channel (3557.5 MHz) QPSK**

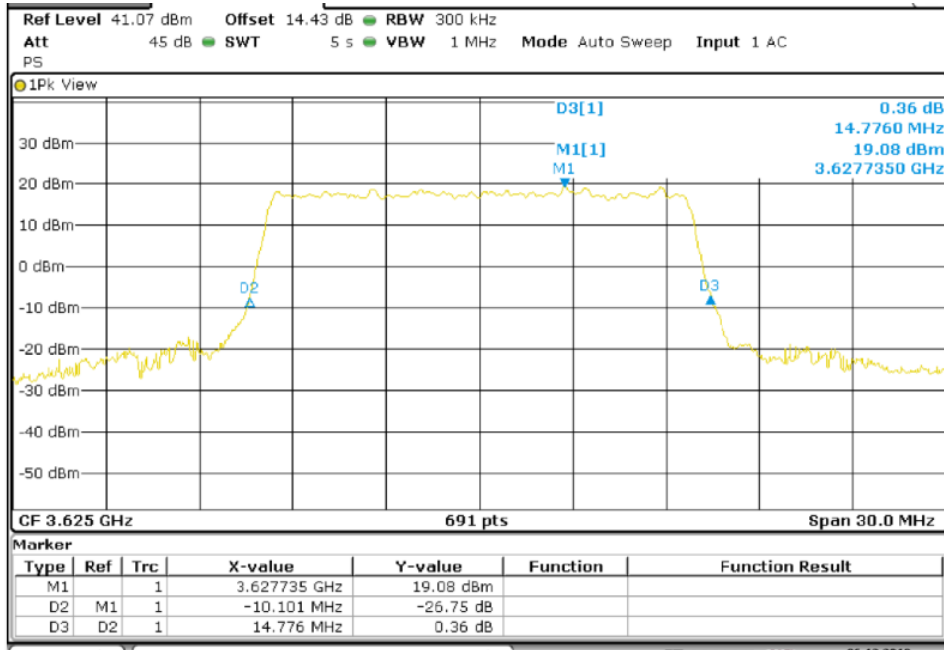


**Lowest Channel (3557.5 MHz) 16QAM**

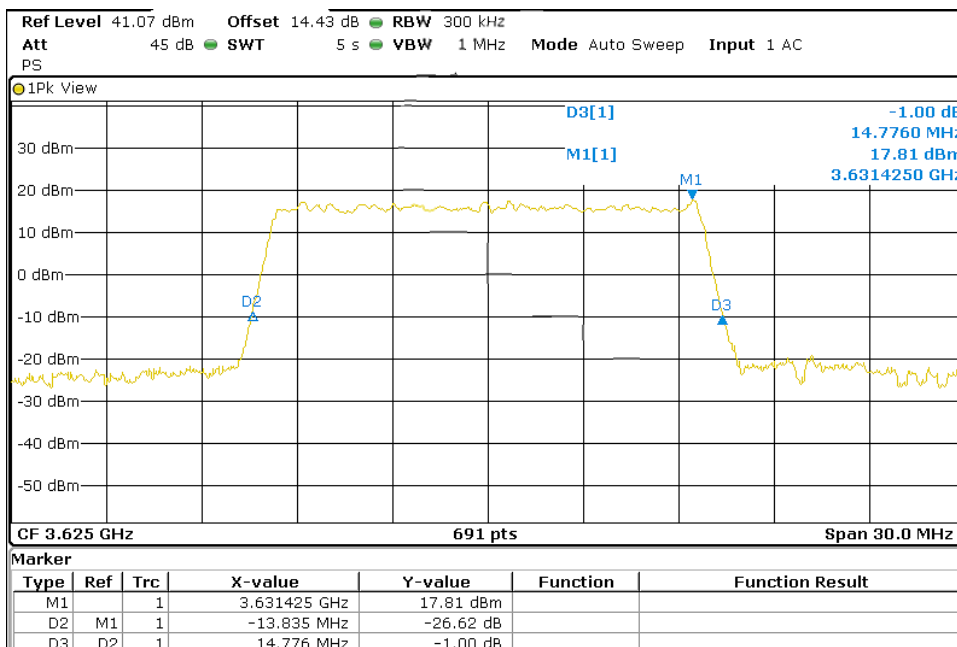


**TEST RESULTS (Cont.):**

**Middle Channel (3625 MHz) QPSK**

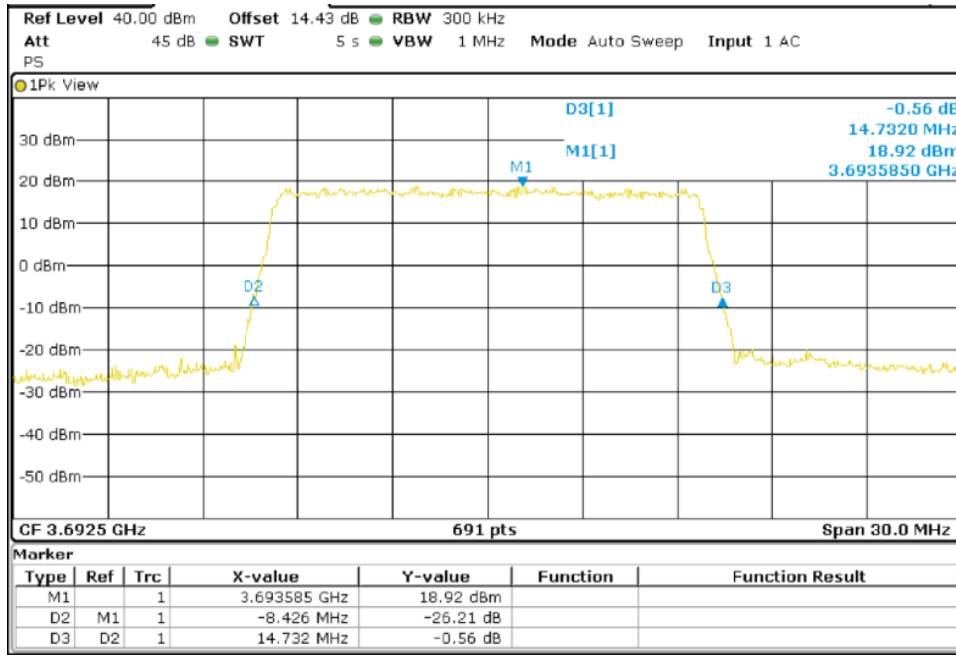


**Middle Channel (3625 MHz) 16QAM**

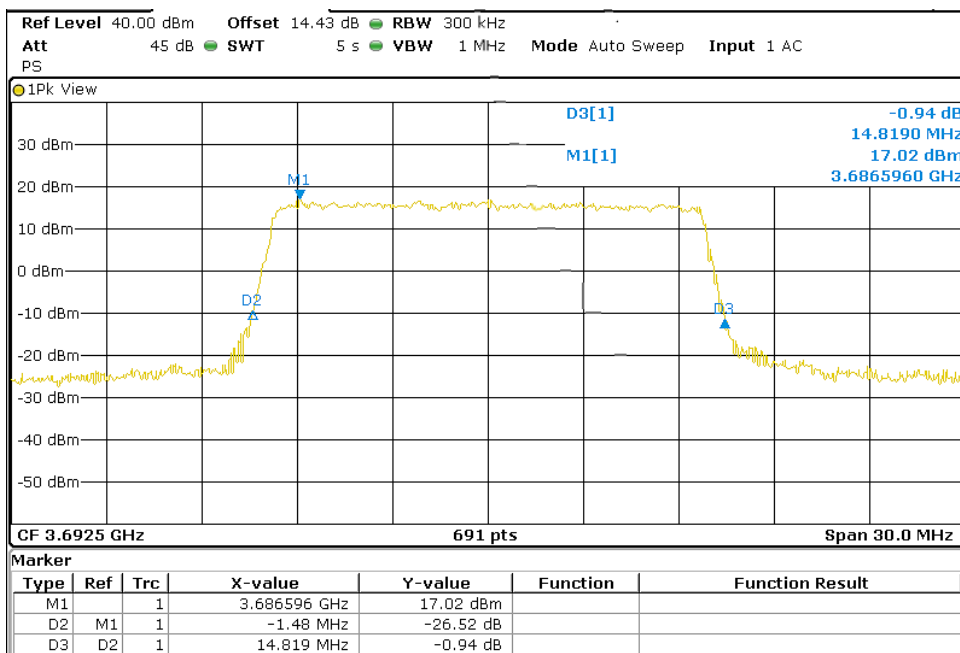


TEST RESULTS (Cont.):

Highest Channel (3692.5 MHz) QPSK



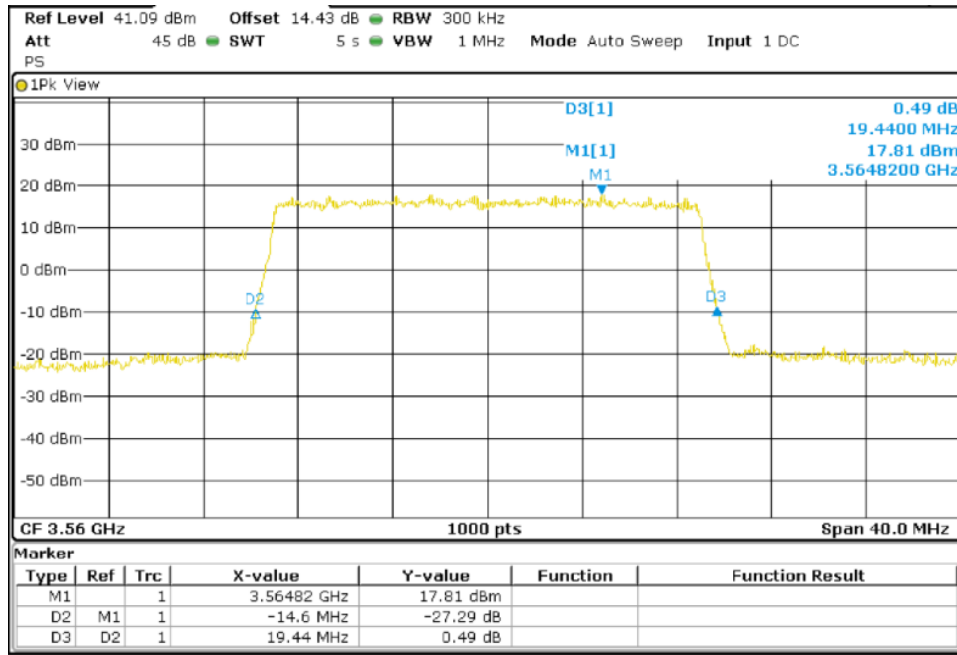
Highest Channel (3692.5 MHz) 16QAM



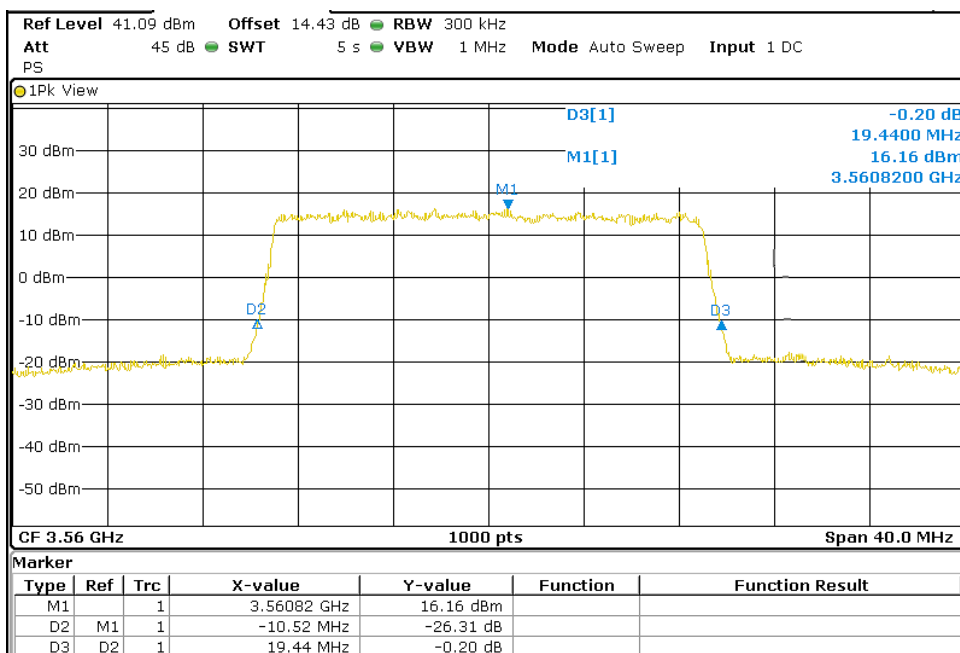
**TEST RESULTS (Cont.):**

**20 MHz BW**

**Lowest Channel (3560 MHz) QPSK**

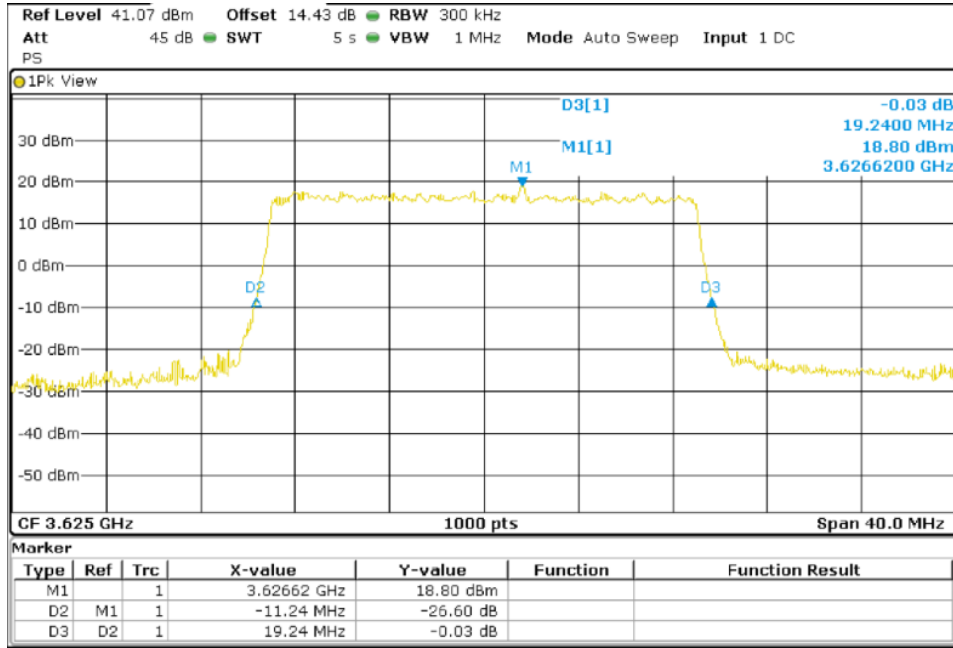


**Lowest Channel (3560 MHz) 16QAM**

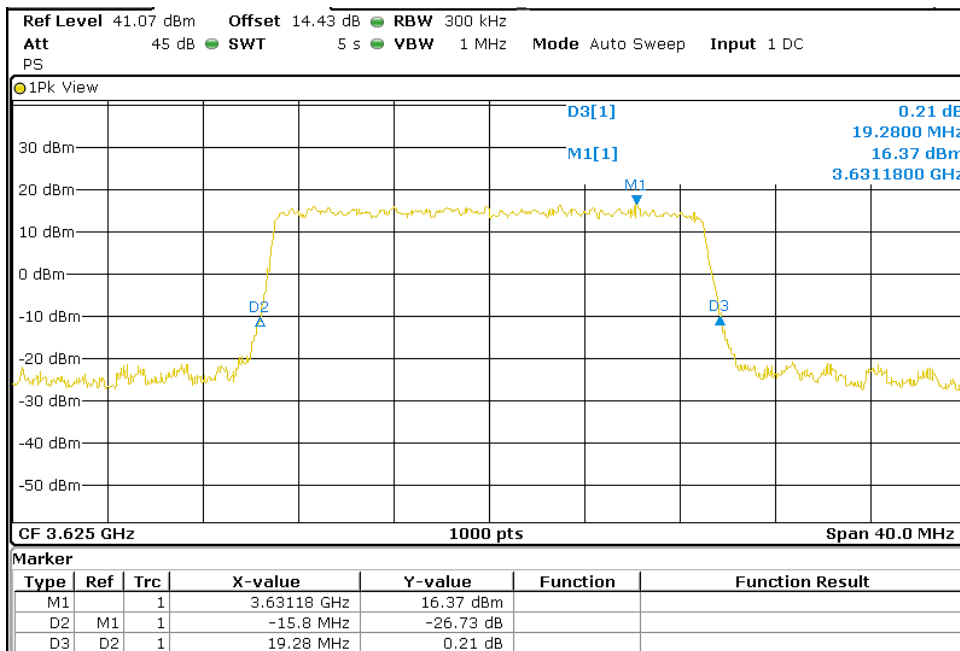


TEST RESULTS (Cont.):

Middle Channel (3625 MHz) QPSK

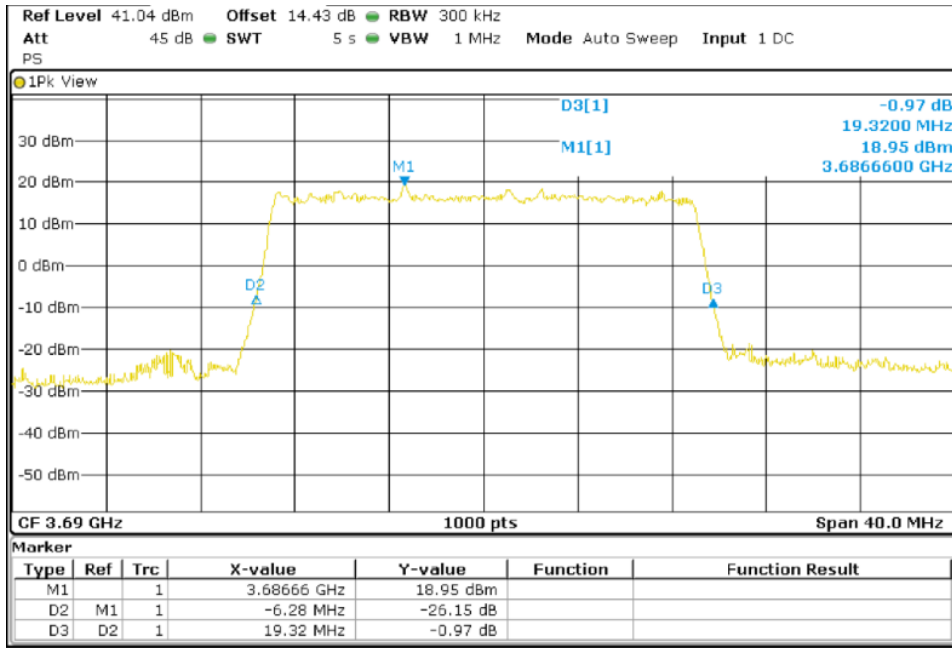


Middle Channel (3625 MHz) 16QAM

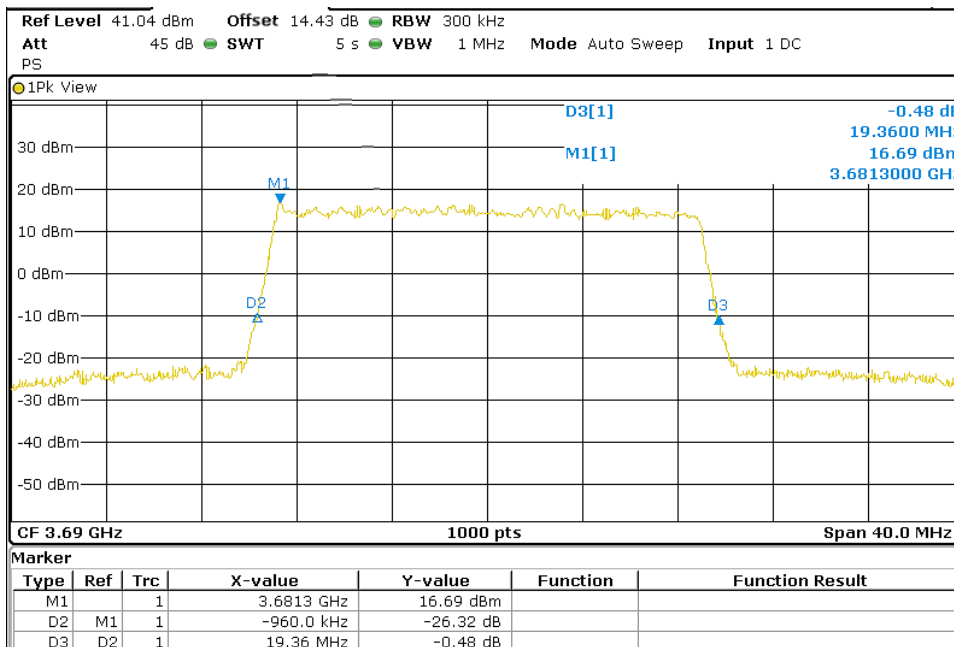


TEST RESULTS (Cont.):

High Channel (3690 MHz) QPSK



High Channel (3690 MHz) 16QAM



<b>TESTED SAMPLES:</b>	S/01
<b>TESTED CONDITIONS MODES:</b>	TC#02 (Band 42)
<b>TEST RESULTS:</b>	PASS

**Results:**

**5 MHz BW**

QPSK

	Lowest frequency	Middle frequency	Highest frequency
	3552.5 MHz	3575 MHz	3597.5 MHz
99% OBW (MHz)	4.70	4.67	4.70
-26 dB Bandwidth (MHz)	6.08	5.77	6.17
Measurement uncertainty (kHz)	<±8.33		

16QAM

	Lowest frequency	Middle frequency	Highest frequency
	3552.5 MHz	3575 MHz	3597.5 MHz
99% OBW (MHz)	4.67	4.68	4.67
-26 dB Bandwidth (MHz)	5.98	5.67	6.01
Measurement uncertainty (kHz)	<±8.33		

**10 MHz BW**

QPSK

	Lowest frequency	Middle frequency	Highest frequency
	3555 MHz	3575 MHz	3595 MHz
99% OBW (MHz)	9.04	9.08	9.05
-26 dB Bandwidth (MHz)	10.07	10.10	10.04
Measurement uncertainty (kHz)	<±8.33		

16QAM

	Lowest frequency	Middle frequency	Highest frequency
	3555 MHz	3575 MHz	3595 MHz
99% OBW (MHz)	9.04	9.04	9.00
-26 dB Bandwidth (MHz)	10.04	10.01	9.96
Measurement uncertainty (kHz)	<±8.33		

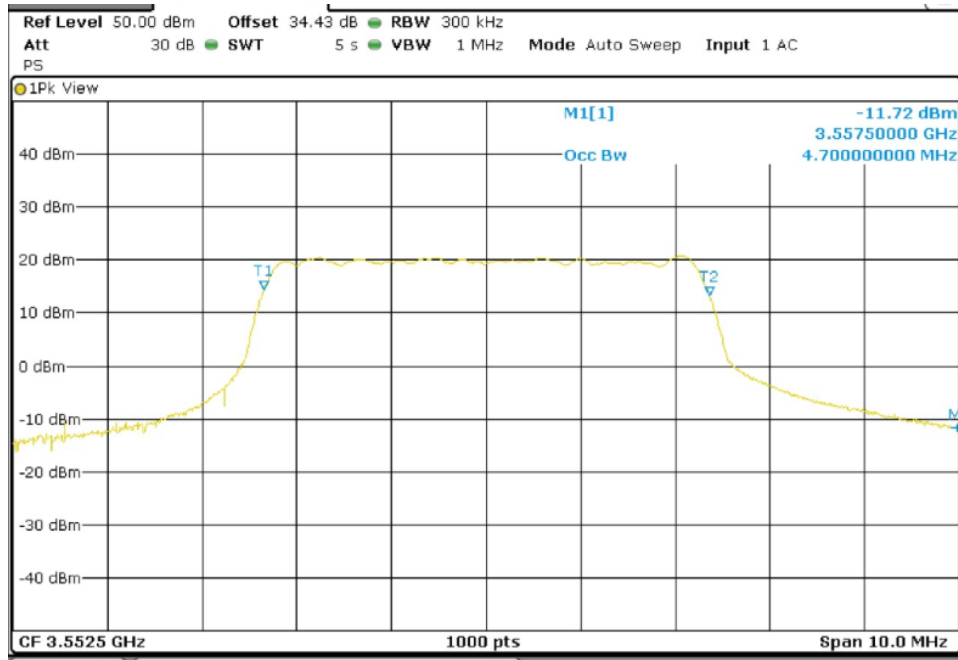


TEST RESULTS (Cont.):			
<b>15 MHz BW</b>			
QPSK			
	Lowest frequency	Middle frequency	Highest frequency
	3557.5 MHz	3575 MHz	3592.5 MHz
99% OBW (MHz)	13.44	13.41	13.47
-26 dB Bandwidth (MHz)	14.78	14.81	14.85
Measurement uncertainty (kHz)	<±8.33		
<b>16QAM</b>			
	Lowest frequency	Middle frequency	Highest frequency
	3557.5 MHz	3575 MHz	3592.5 MHz
99% OBW (MHz)	13.44	13.47	13.50
-26 dB Bandwidth (MHz)	14.73	14.72	14.85
Measurement uncertainty (kHz)	<±8.33		
<b>20 MHz BW</b>			
QPSK			
	Lowest frequency	Middle frequency	Highest frequency
	3560 MHz	3575 MHz	3590 MHz
99% OBW (MHz)	17.84	17.88	17.92
-26 dB Bandwidth (MHz)	19.44	19.44	19.24
Measurement uncertainty (kHz)	<±8.33		
<b>16QAM</b>			
	Lowest frequency	Middle frequency	Highest frequency
	3560 MHz	3575 MHz	3590 MHz
99% OBW (MHz)	17.92	17.84	17.88
-26 dB Bandwidth (MHz)	19.44	19.44	19.32
Measurement uncertainty (kHz)	<±8.33		
Verdict: PASS (See next plots)			

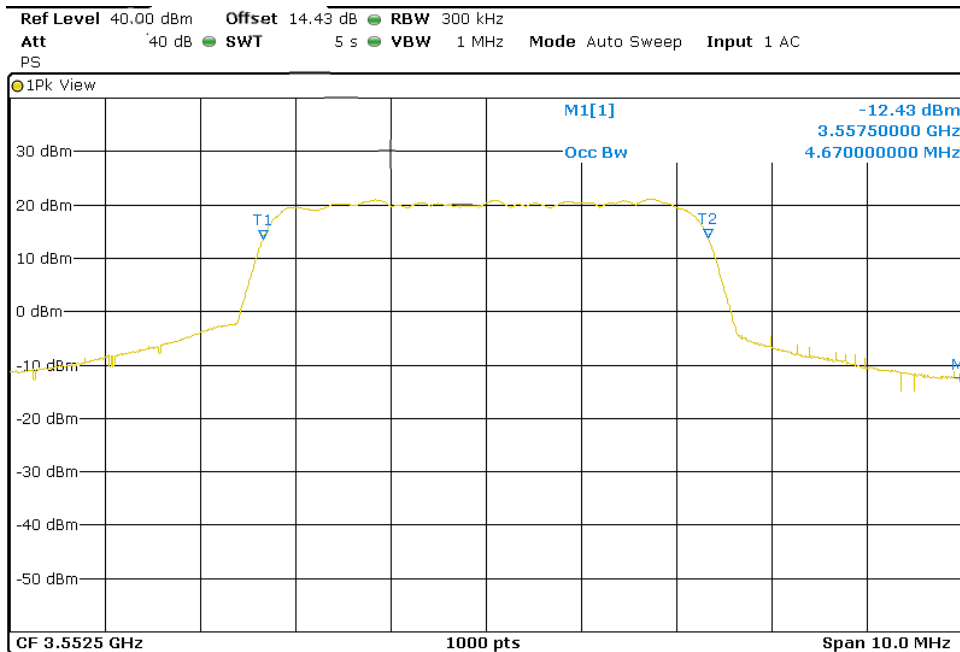
**TEST RESULTS (Cont.):**

**5 MHz BW**

**Lowest Channel (3552.5 MHz) QPSK**

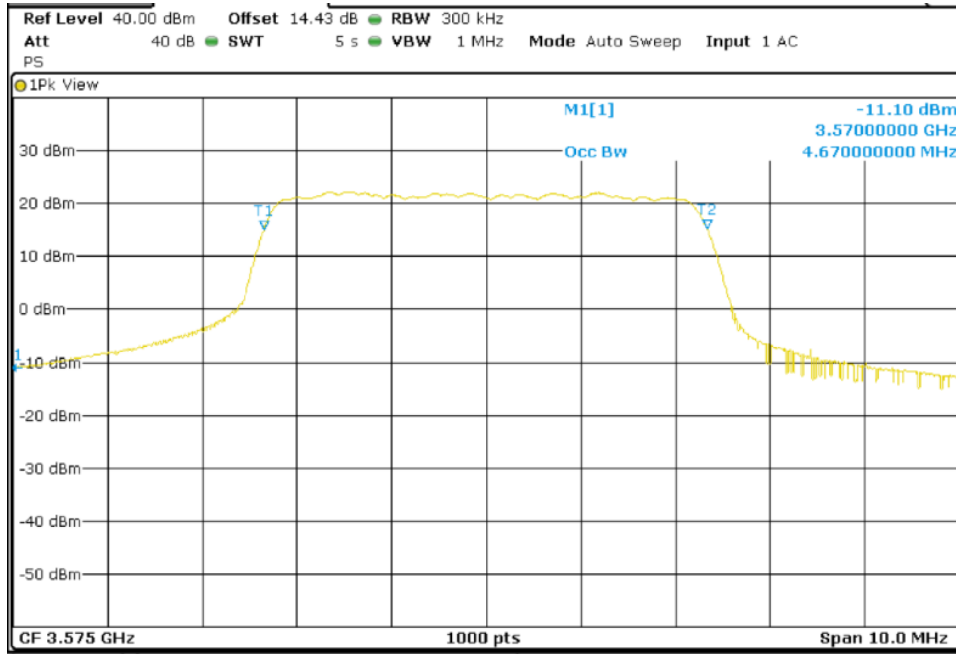


**Lowest Channel (3552.5 MHz) 16QAM**

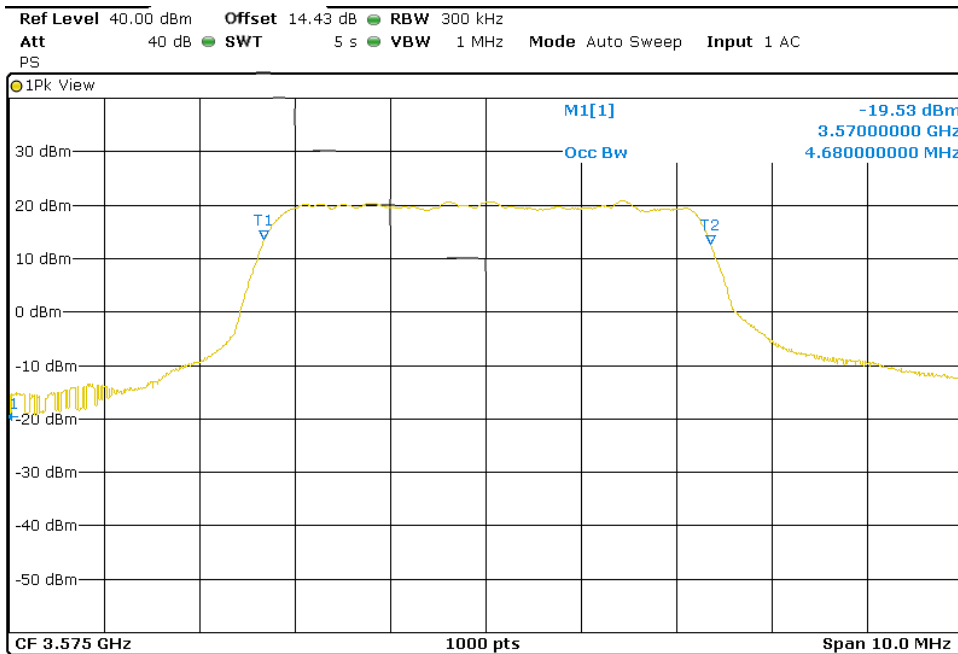


TEST RESULTS (Cont.):

Middle Channel (3575 MHz) QPSK

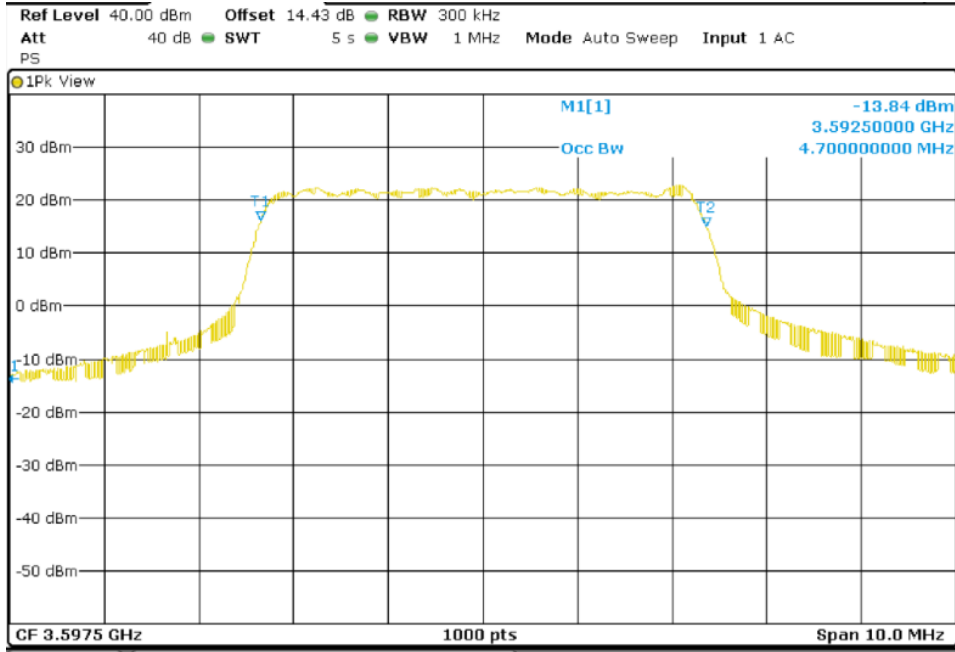


Middle Channel (3575 MHz) 16QAM

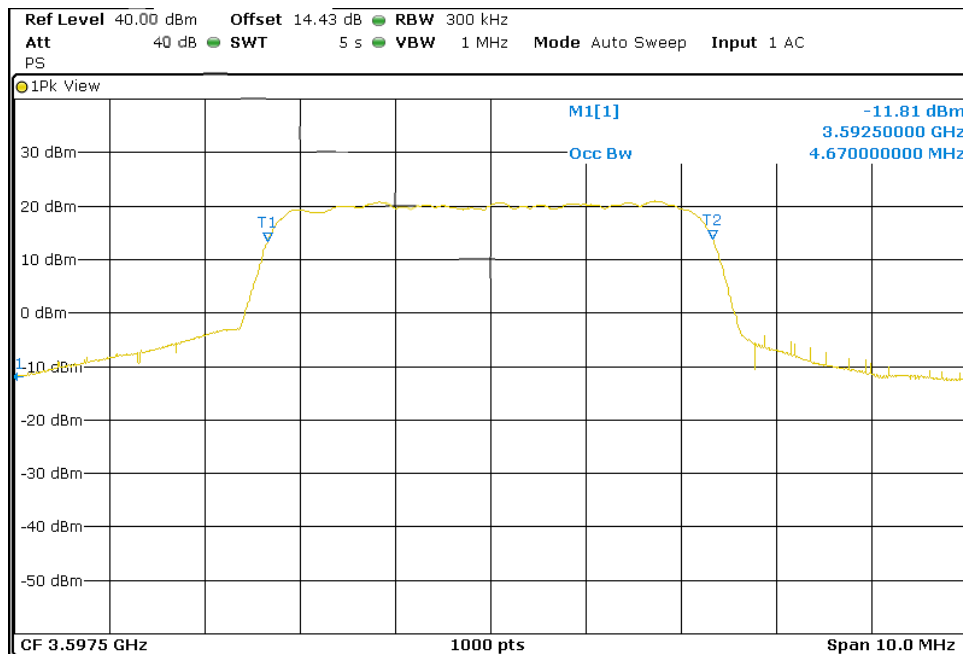


TEST RESULTS (Cont.):

Highest Channel (3597.5 MHz) QPSK



Highest Channel (3597.5 MHz) 16QAM

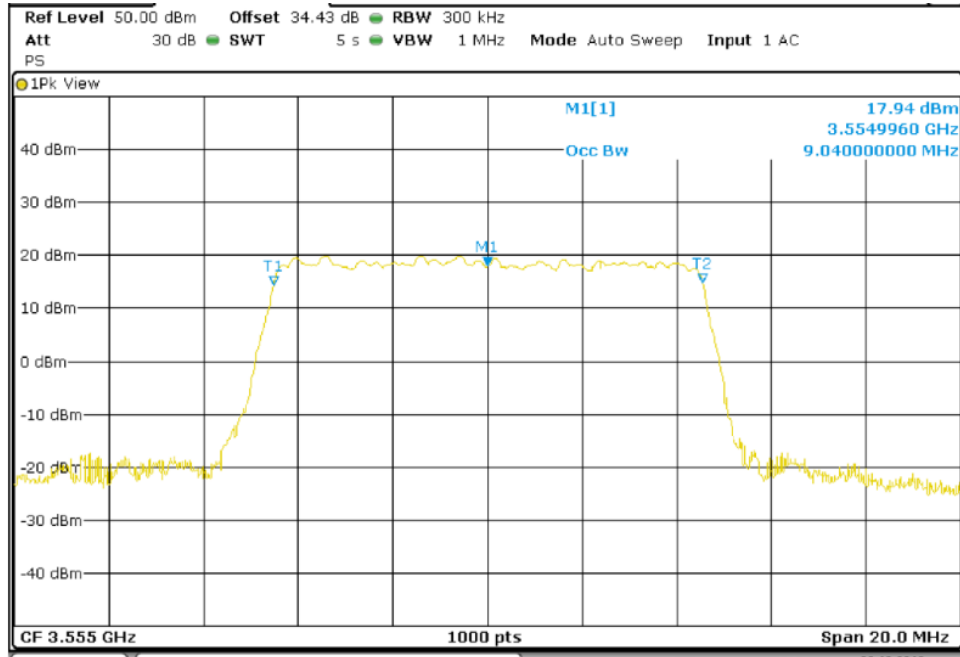


TEST RESULTS (Cont.):

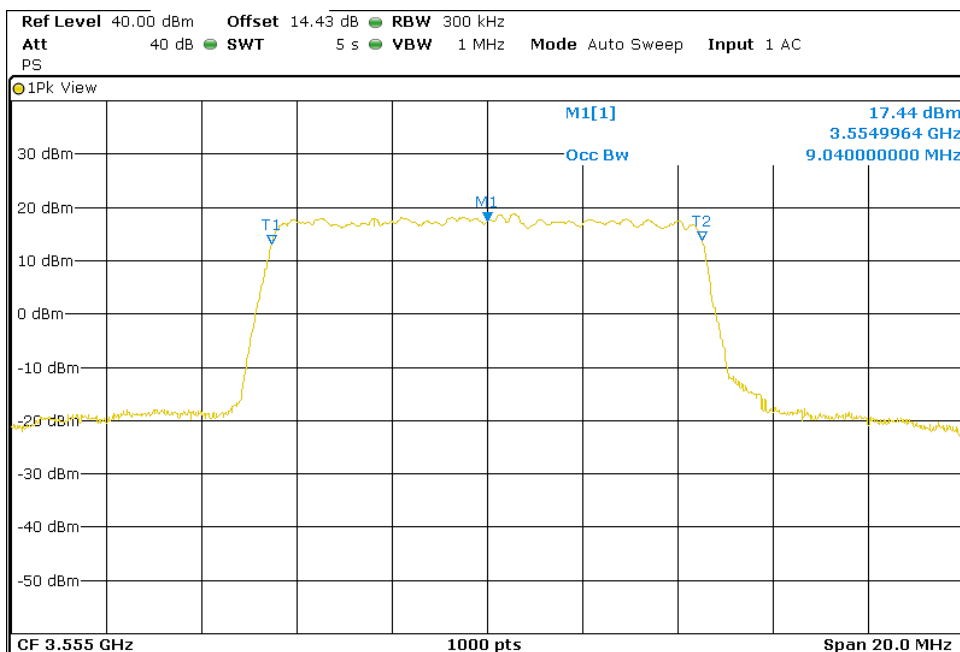
99% OBW

**10 MHz BW**

**Lowest Channel (3555 MHz) QPSK**

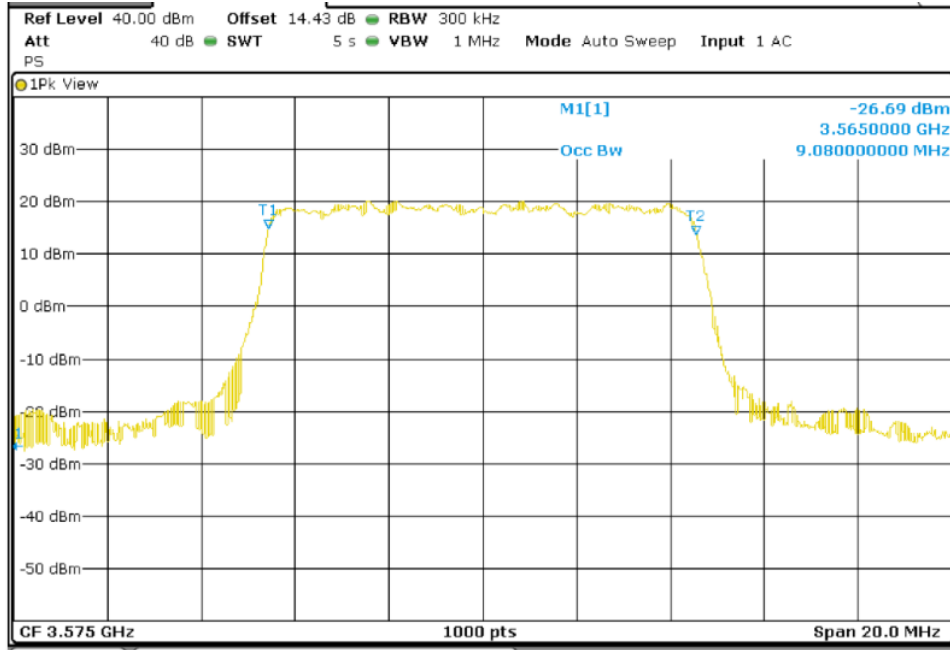


**Lowest Channel (3555 MHz) 16QAM**

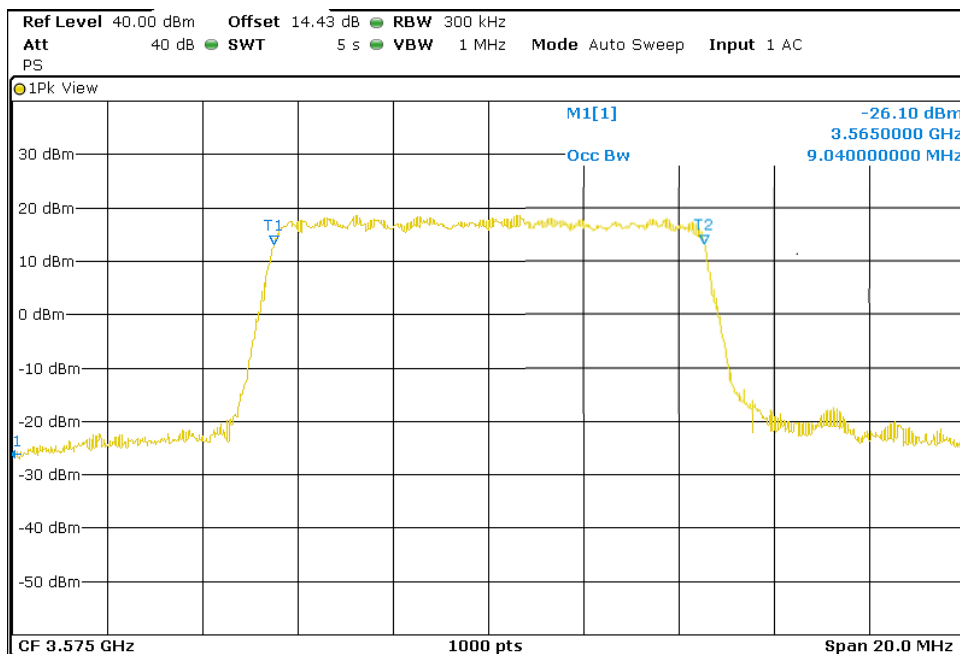


TEST RESULTS (Cont.):

Middle Channel (3575 MHz) QPSK

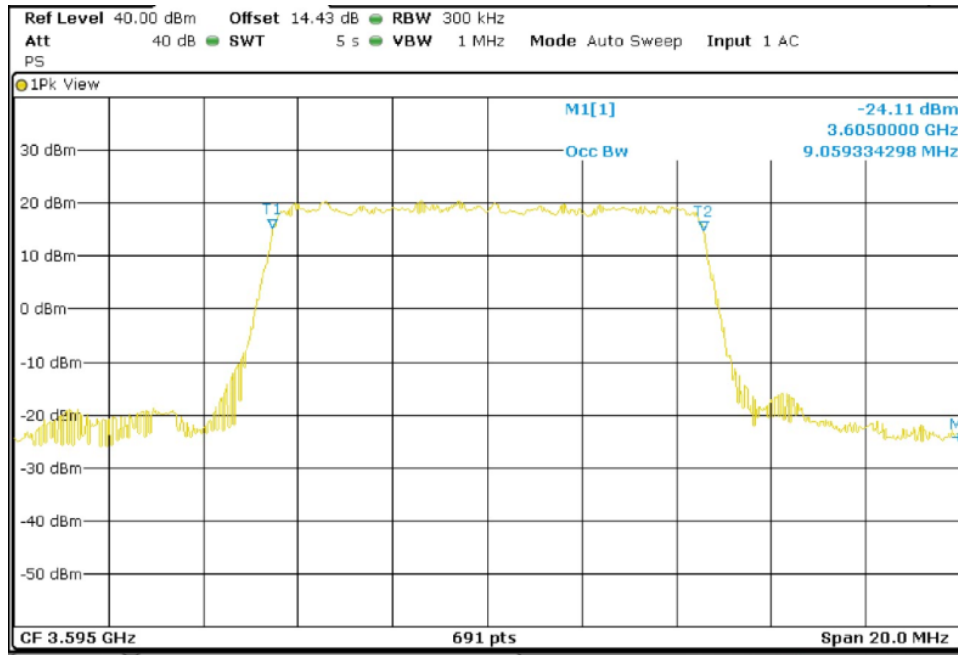


Middle Channel (3575 MHz) 16QAM

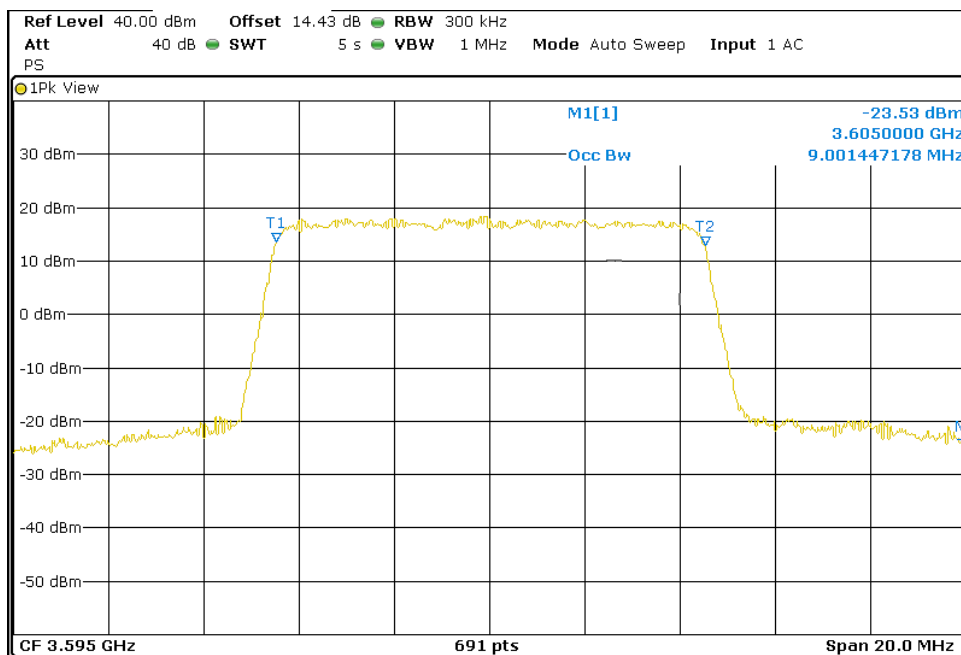


TEST RESULTS (Cont.):

High Channel (3595 MHz) QPSK



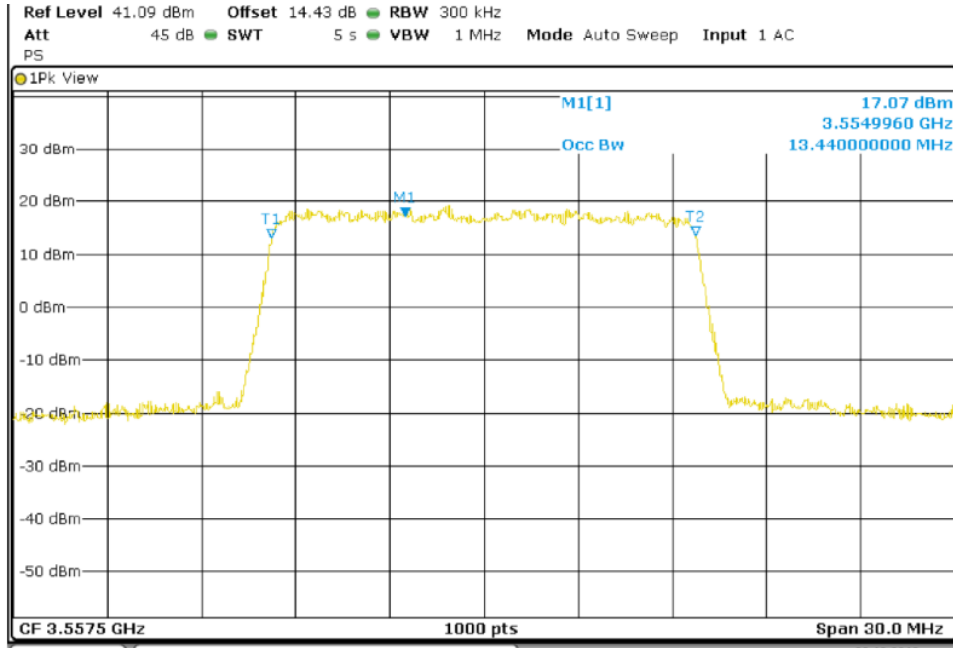
High Channel (3595 MHz) 16QAM



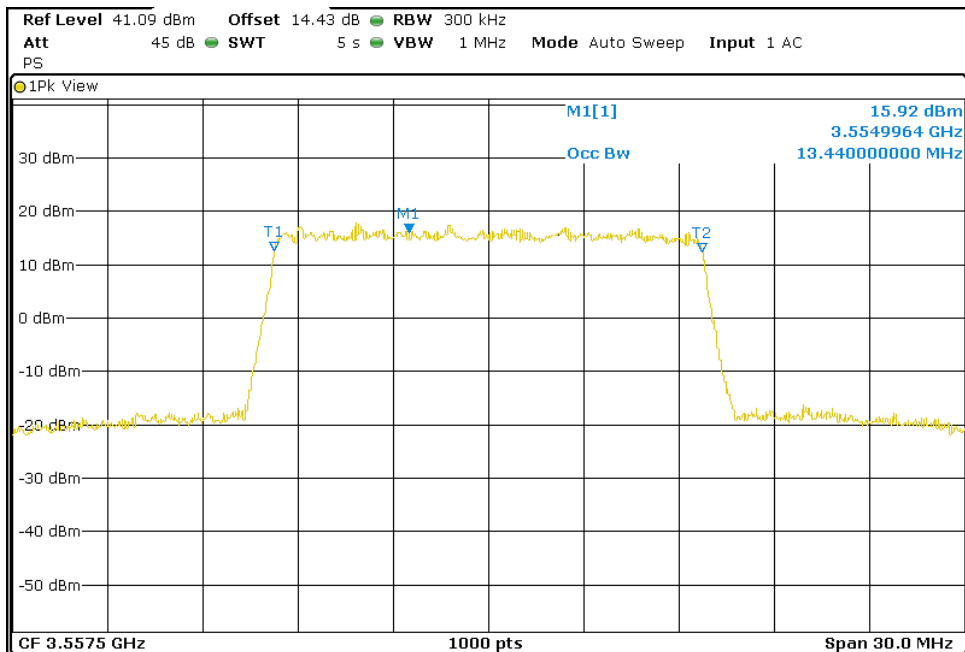
**TEST RESULTS (Cont.):**

**15 MHz BW**

**Lowest Channel (3557.5 MHz) QPSK**



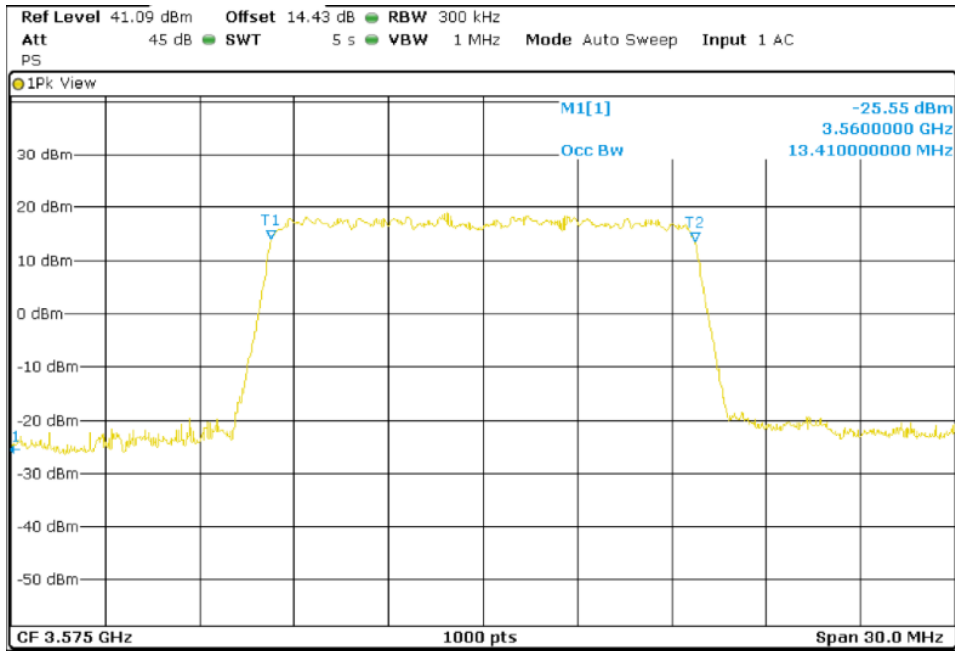
**Lowest Channel (3557.5 MHz) 16QAM**



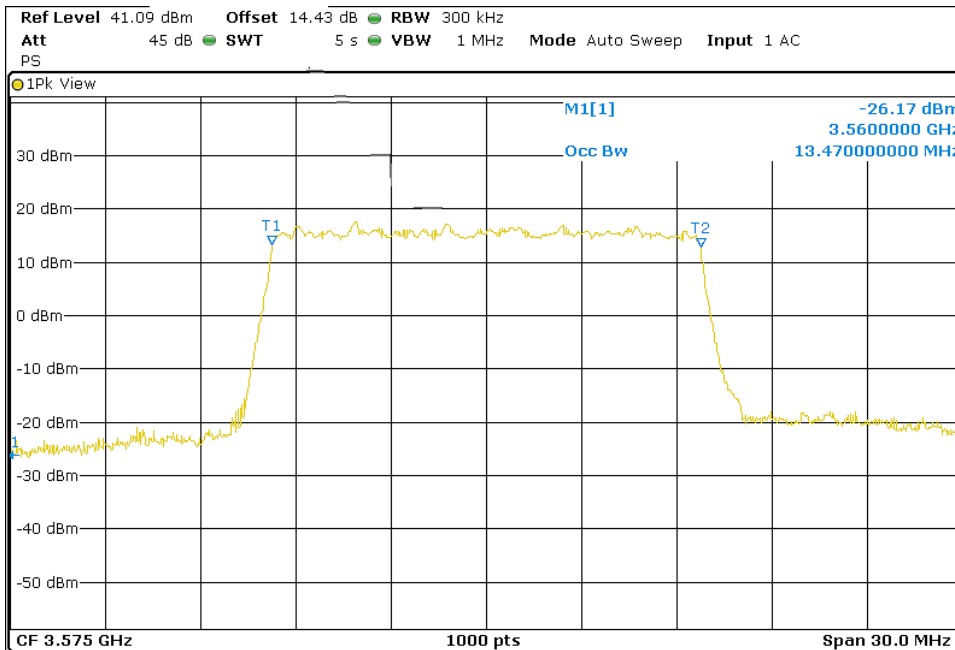


**TEST RESULTS (Cont.):**

**Middle Channel (3575 MHz) QPSK**

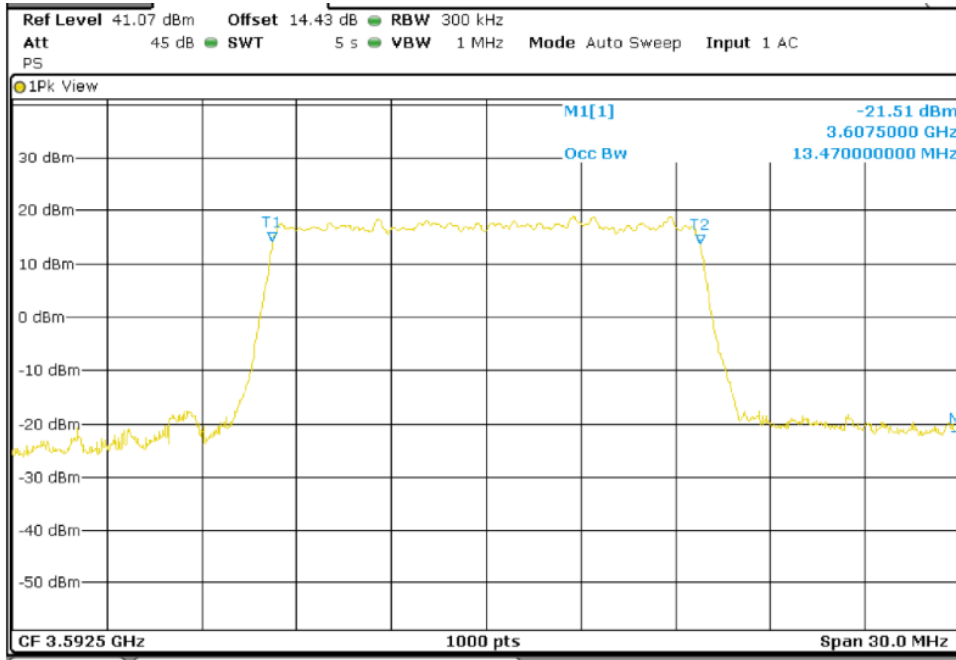


**Middle Channel (3575 MHz) 16QAM**

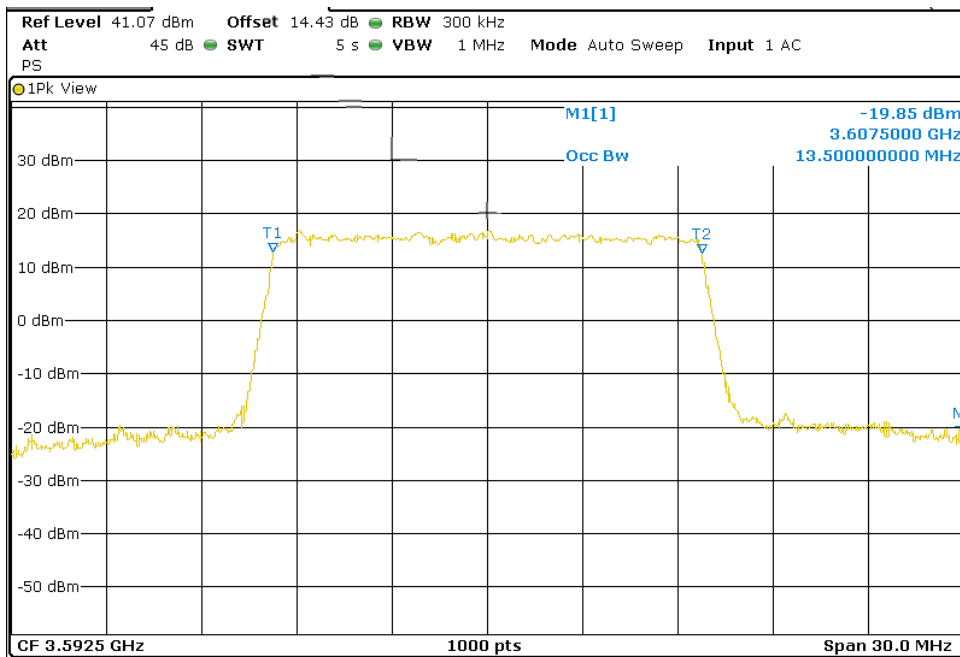


TEST RESULTS (Cont.):

Highest Channel (3592.5 MHz) QPSK



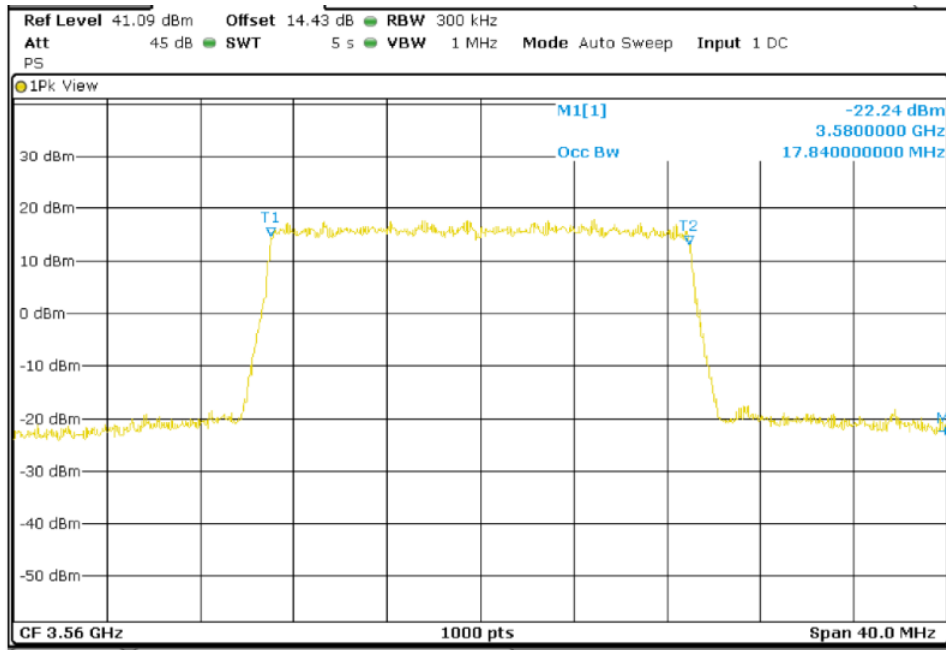
Highest Channel (3592.5 MHz) 16QAM



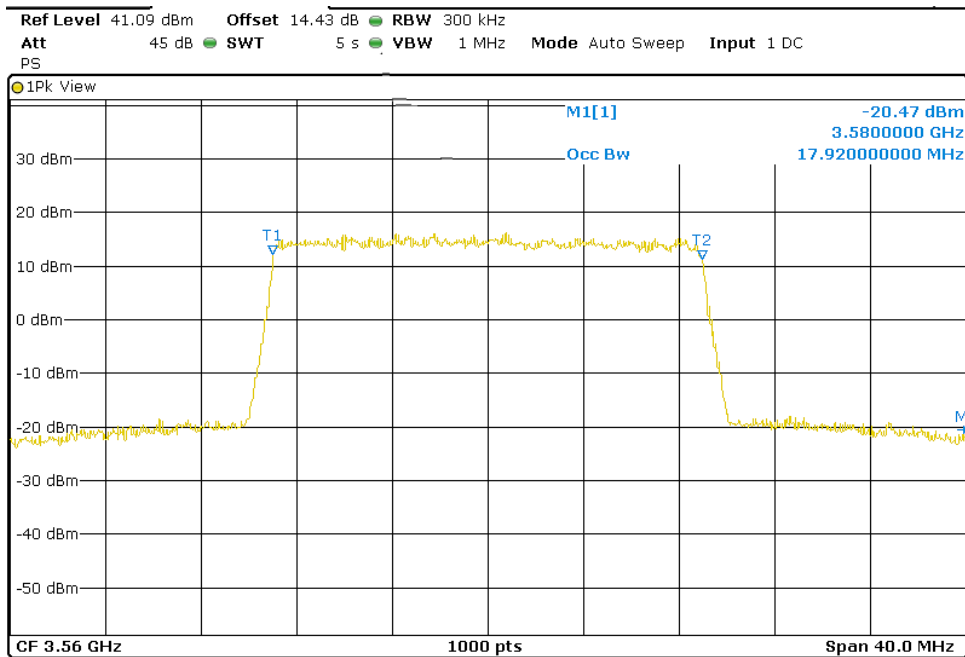
TEST RESULTS (Cont.):

**20 MHz BW**

**Lowest Channel (3560 MHz) QPSK**

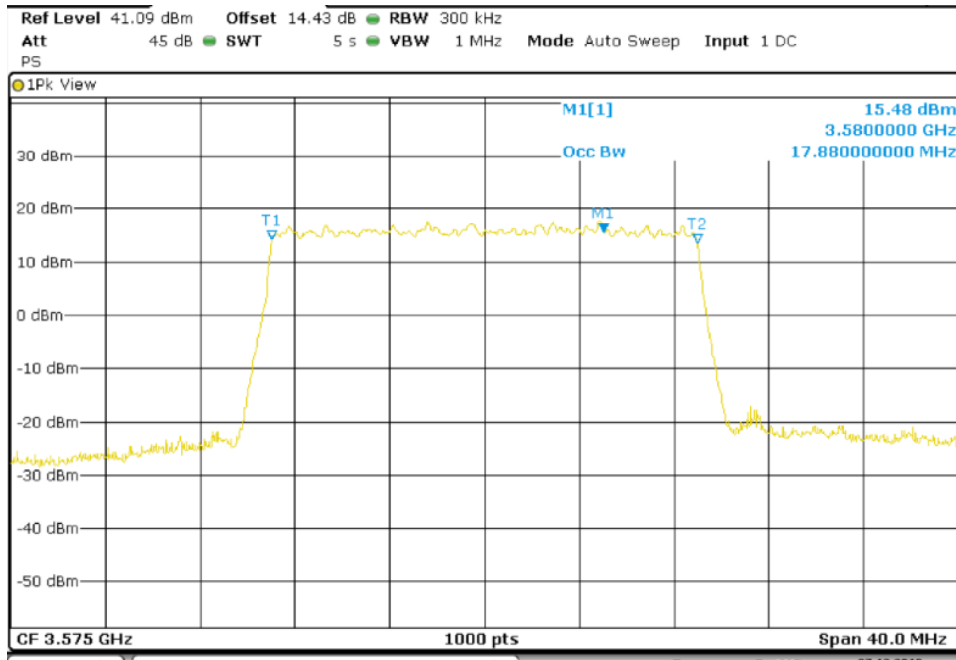


**Lowest Channel (3560 MHz) 16QAM**



TEST RESULTS (Cont.):

Middle Channel (3575 MHz) QPSK



Middle Channel (3575 MHz) 16QAM

