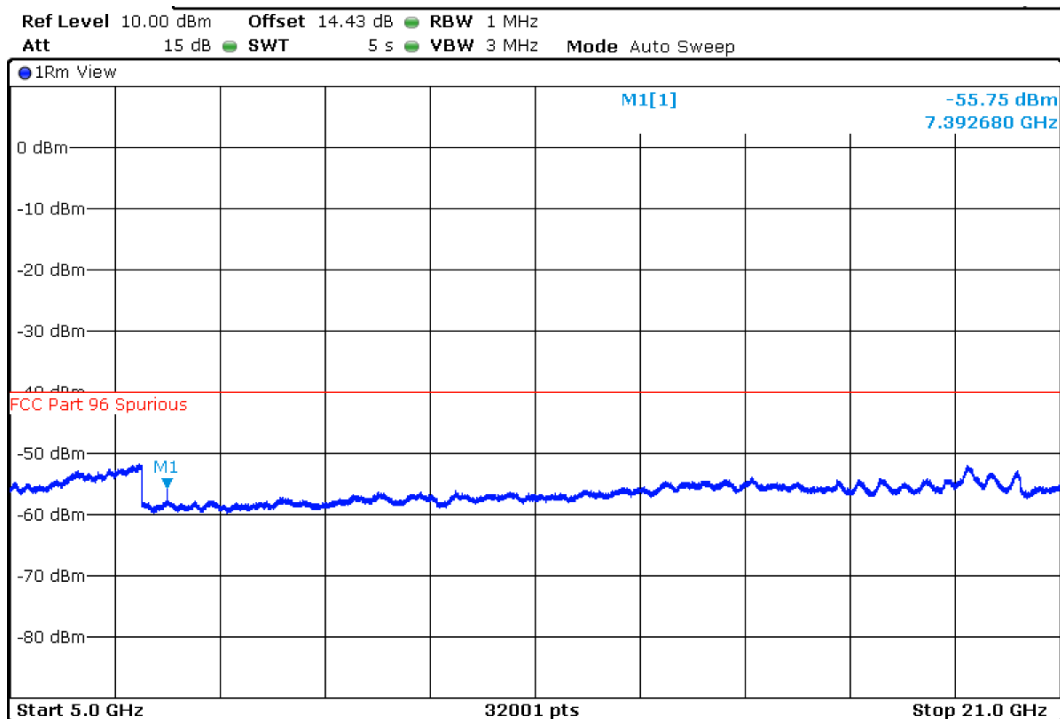


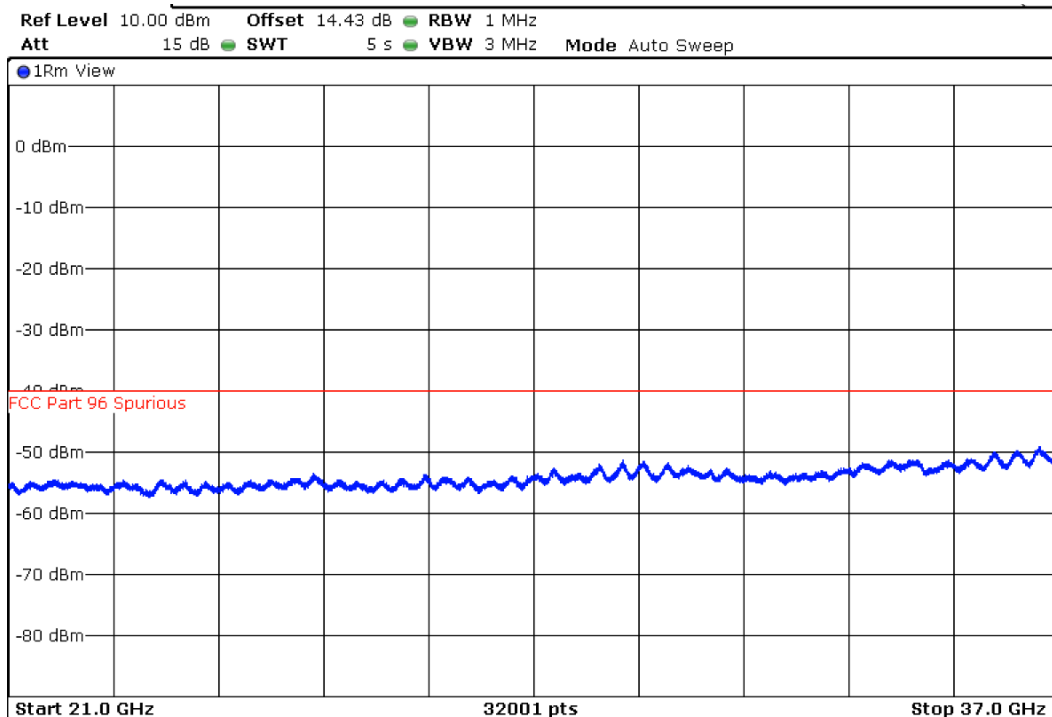
TEST RESULTS (Cont.):

10 MHz BW Highest Channel (3695 MHz)

FREQUENCY RANGE 5-21 GHz



FREQUENCY RANGE 21-37 GHz



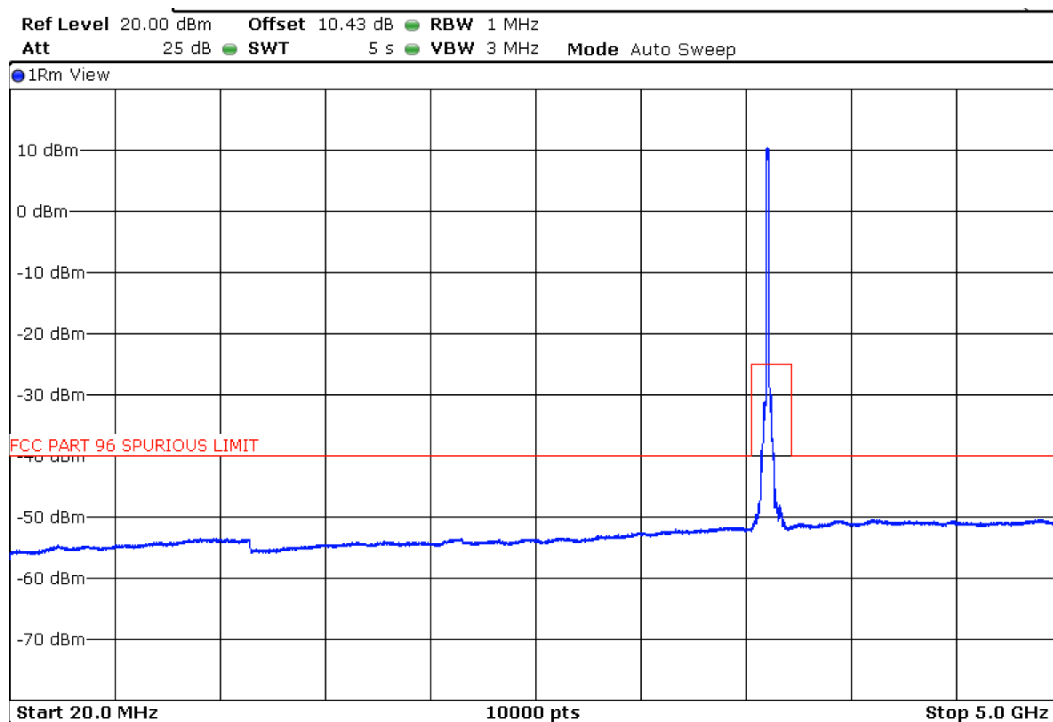
TEST RESULTS (Cont.):

15 MHz BW Lowest Channel (3607.5 MHz)

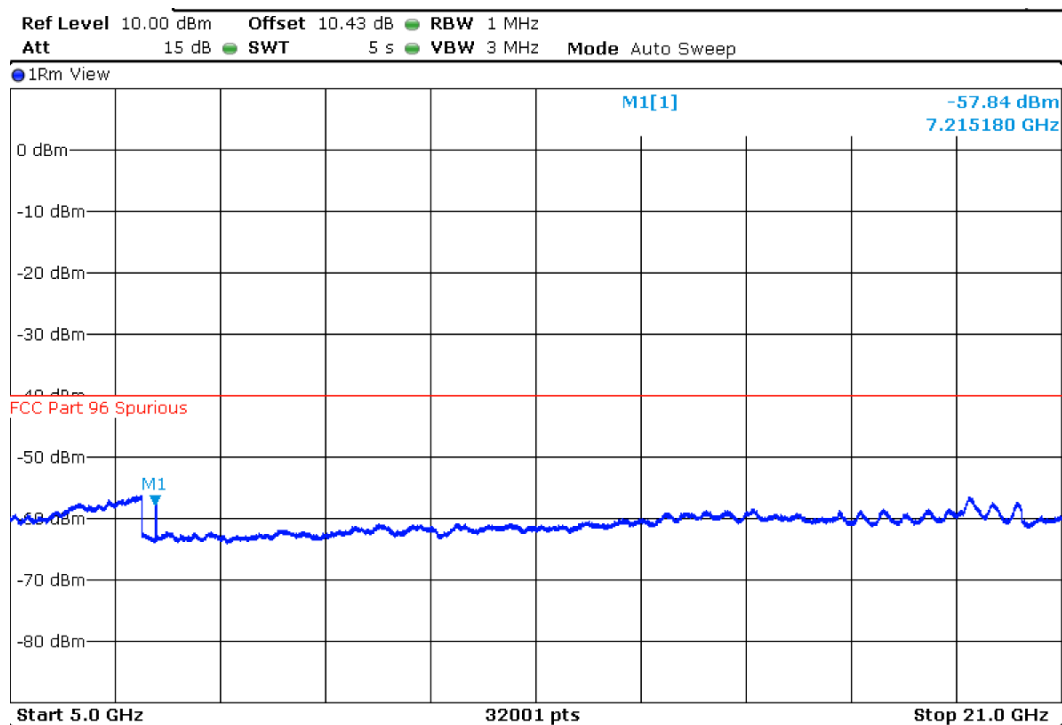
15 MHz BW

Lowest Channel (3607.5 MHz)

FREQUENCY RANGE 20 MHz-5 GHz

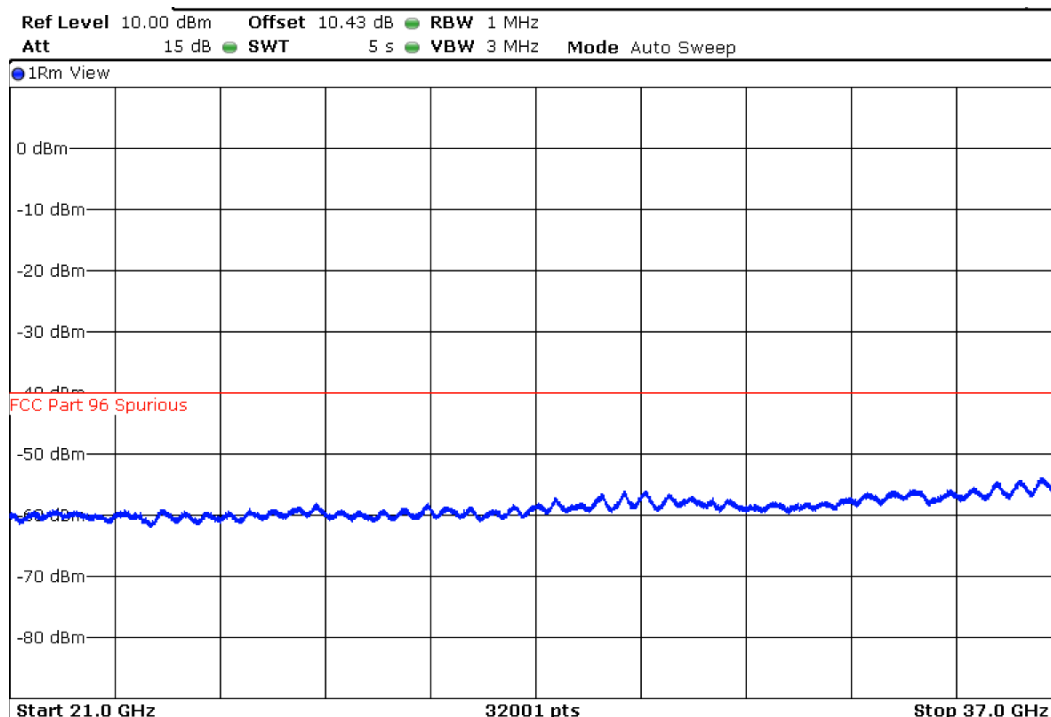


FREQUENCY RANGE 5-21 GHz



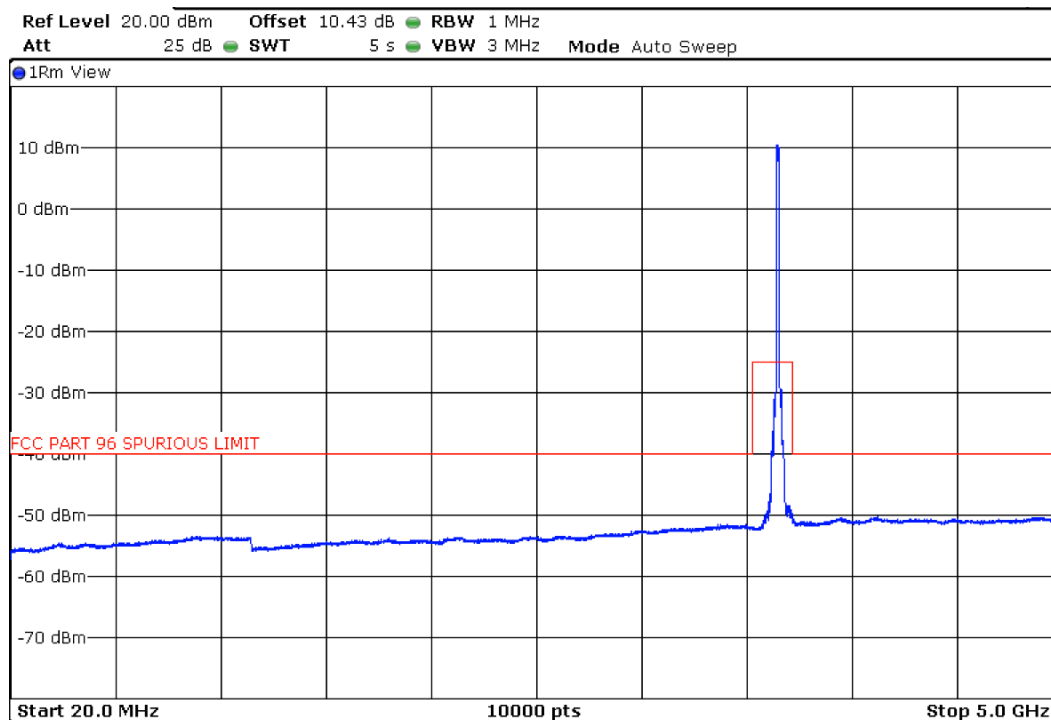
TEST RESULTS (Cont.):

FREQUENCY RANGE 21-37 GHz



Middle Channel (3650 MHz)

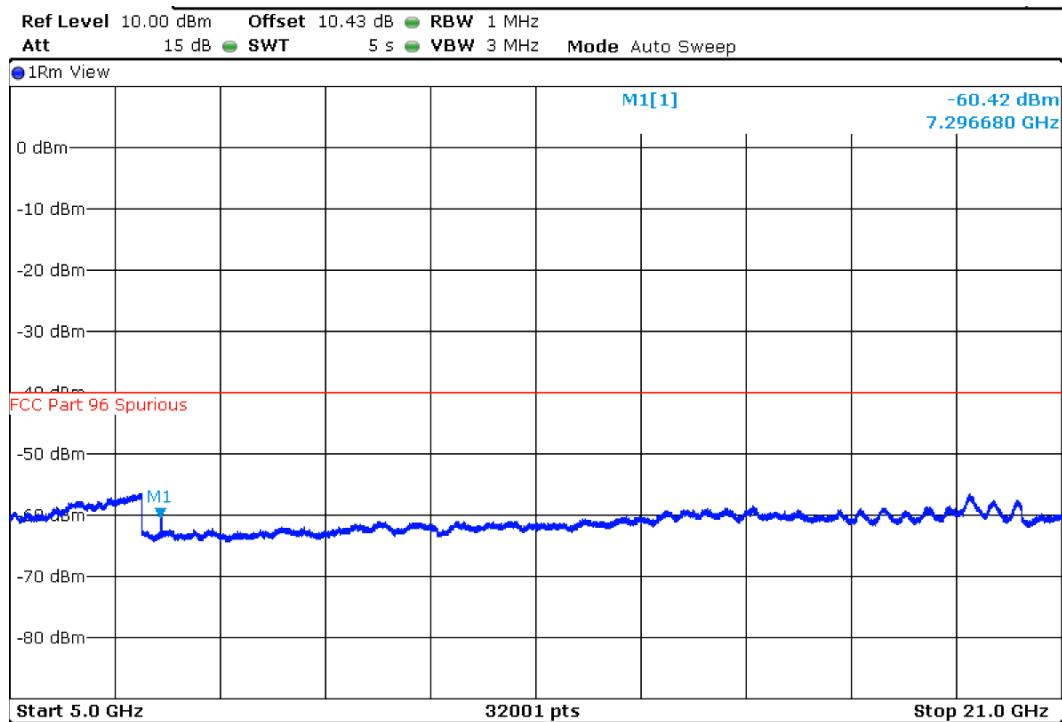
FREQUENCY RANGE 20 MHz-5 GHz



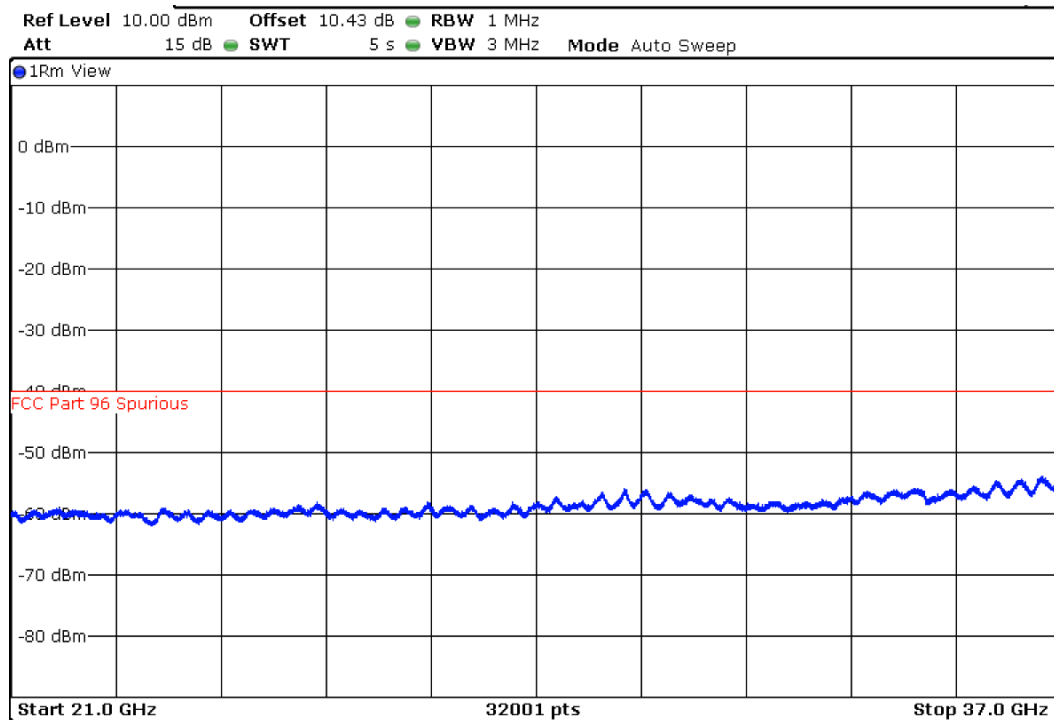
TEST RESULTS (Cont.):

15 MHz BW Middle Channel (3650 MHz)

FREQUENCY RANGE 5-21 GHz



FREQUENCY RANGE 21-37 GHz

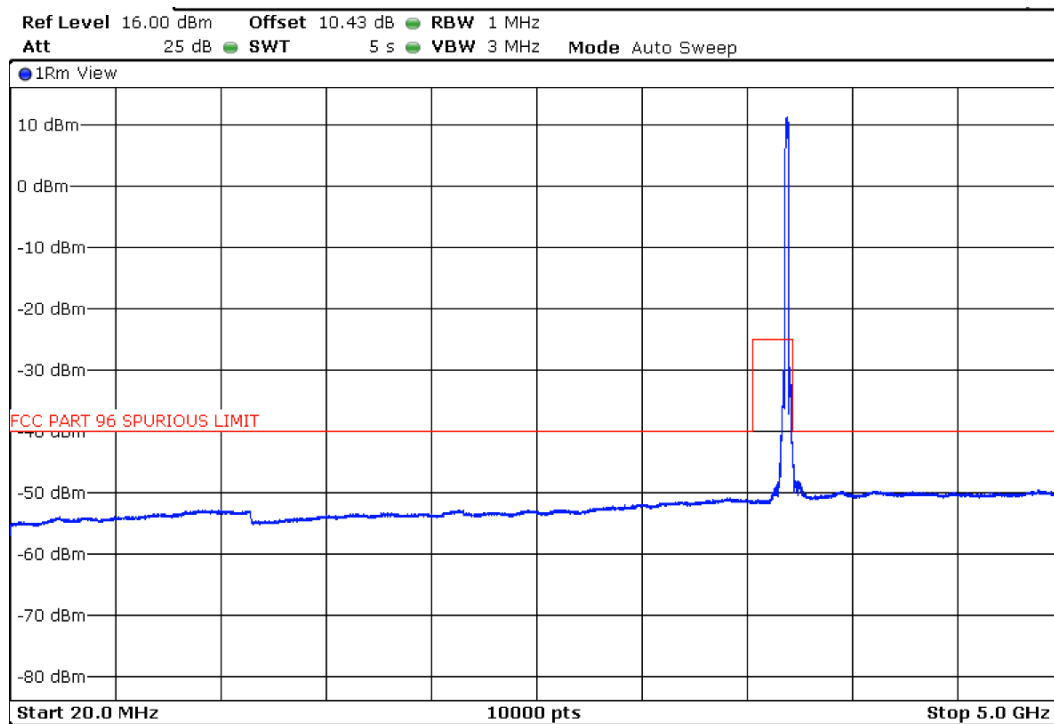


TEST RESULTS (Cont.):

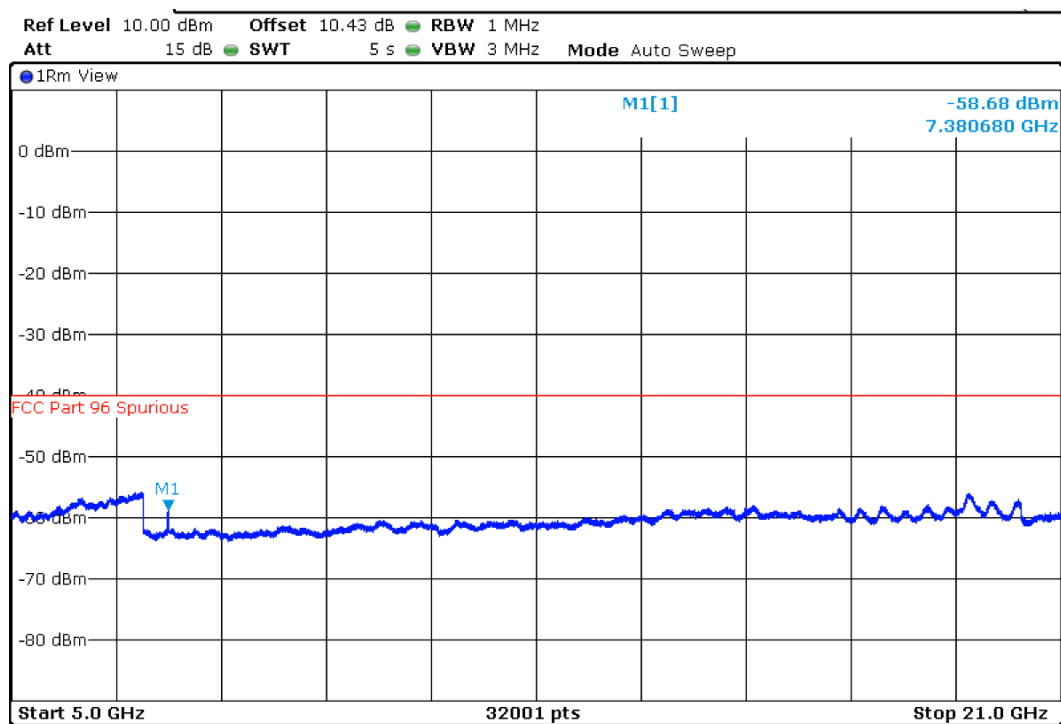
15 MHz BW Highest Channel (3692.5 MHz)

Highest Channel (3692.5 MHz)

FREQUENCY RANGE 20 MHz-5 GHz

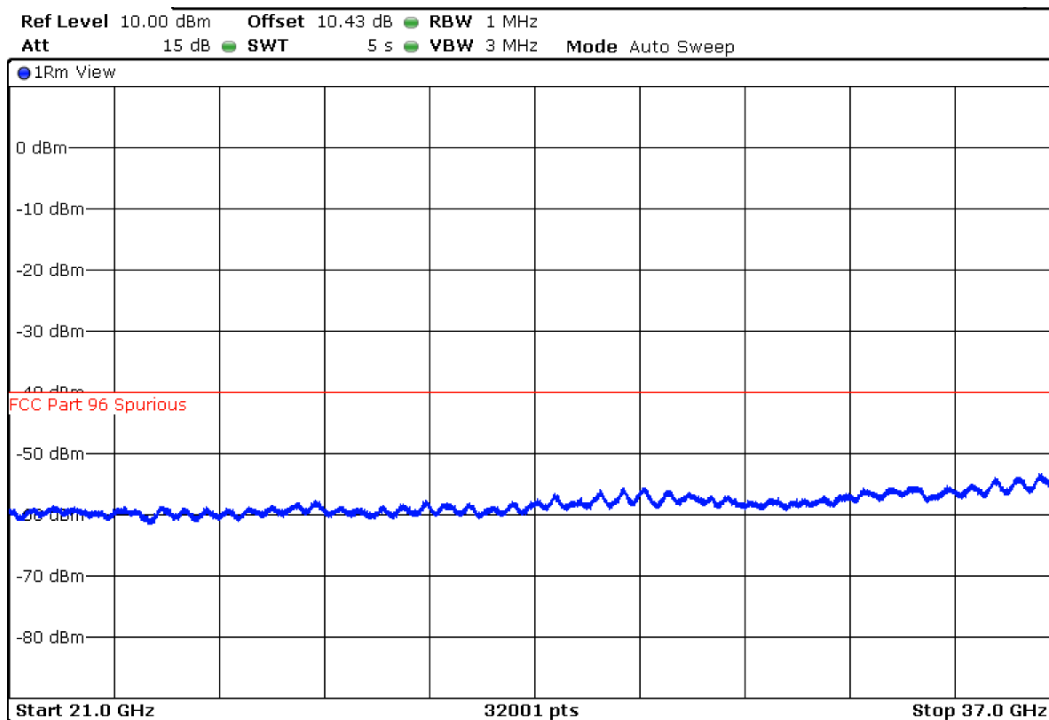


FREQUENCY RANGE 5-21 GHz



TEST RESULTS (Cont.):

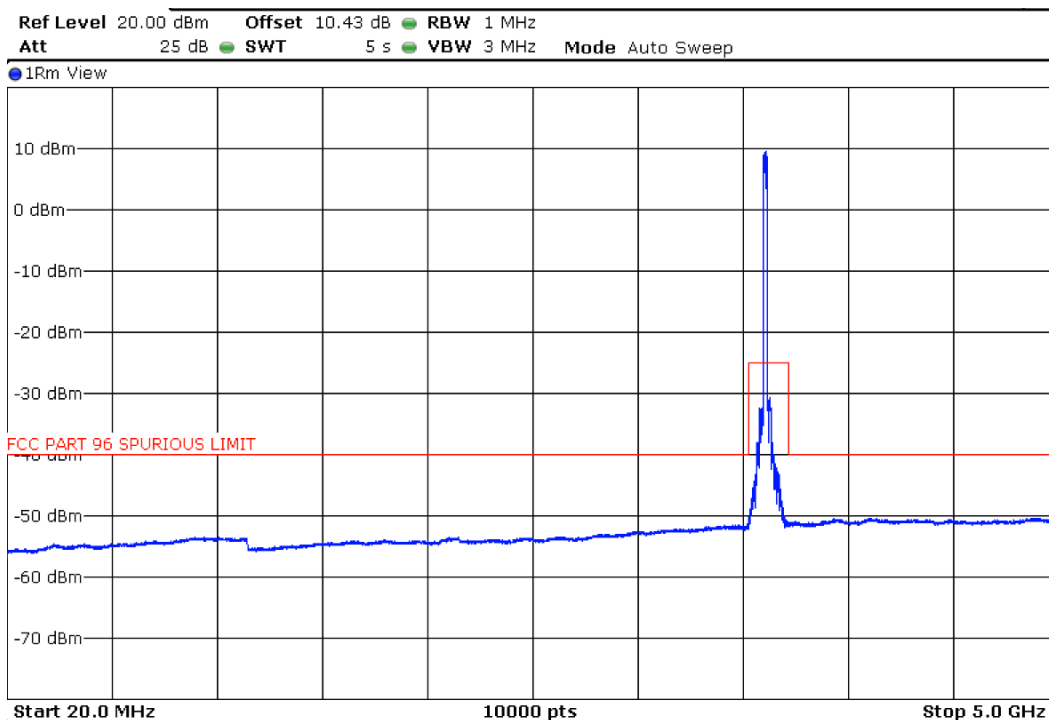
FREQUENCY RANGE 21-37 GHz



20 MHz BW

Lowest Channel (3610 MHz)

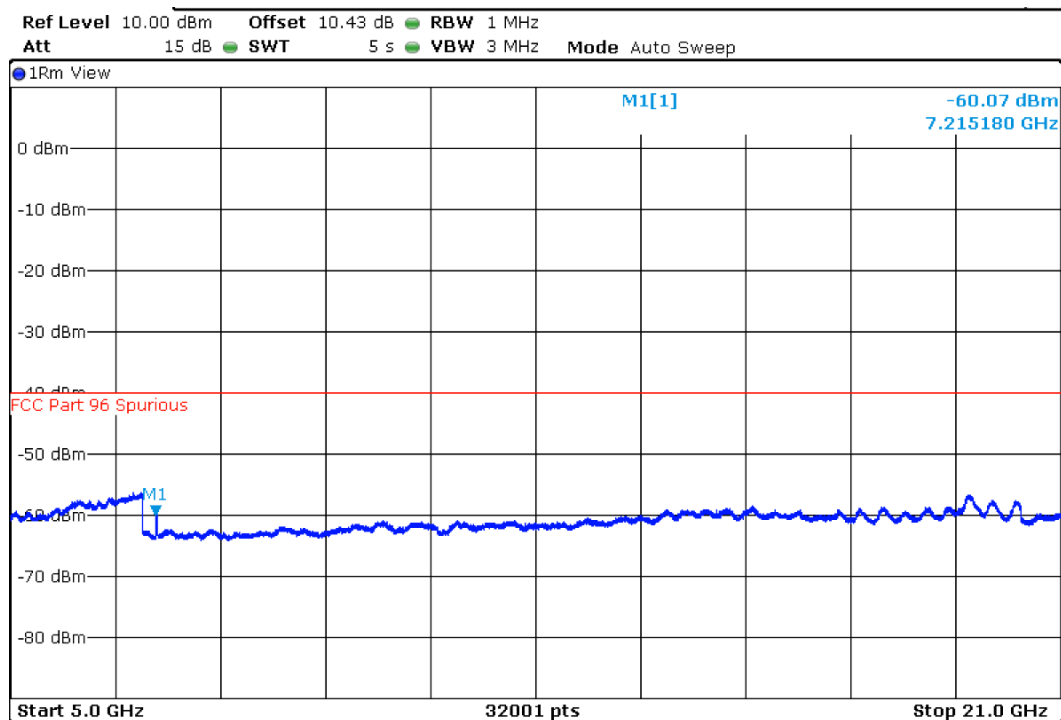
FREQUENCY RANGE 20 MHz-5 GHz



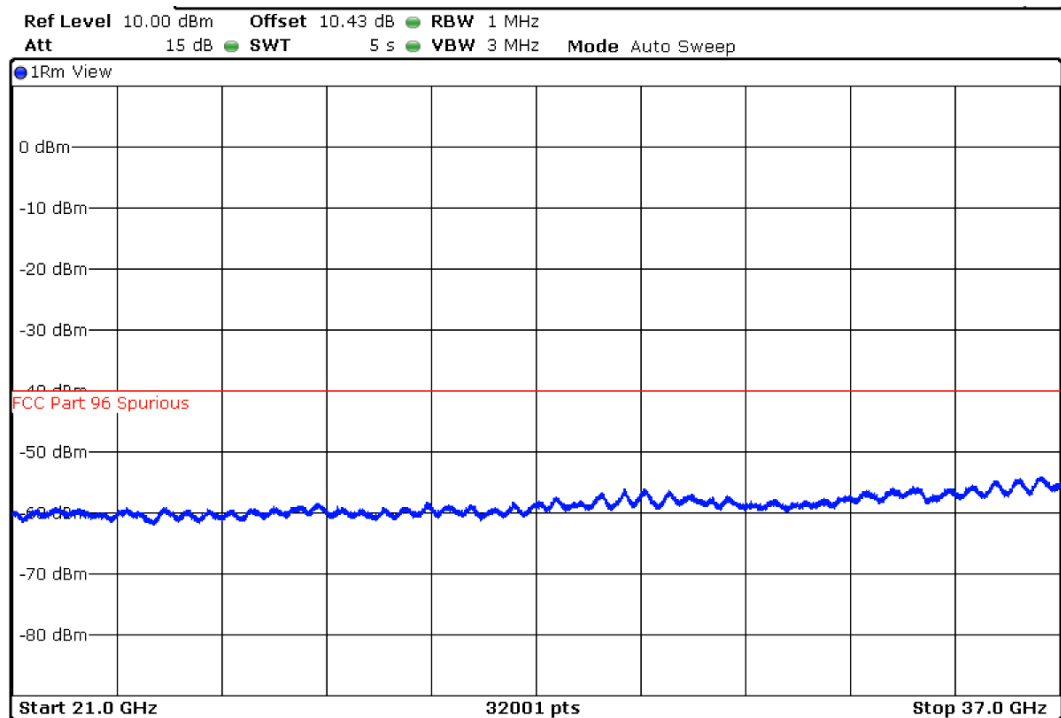
TEST RESULTS (Cont.):

20 MHz BW Lowest Channel (3610 MHz)

FREQUENCY RANGE 5-21 GHz



FREQUENCY RANGE 21-37 GHz

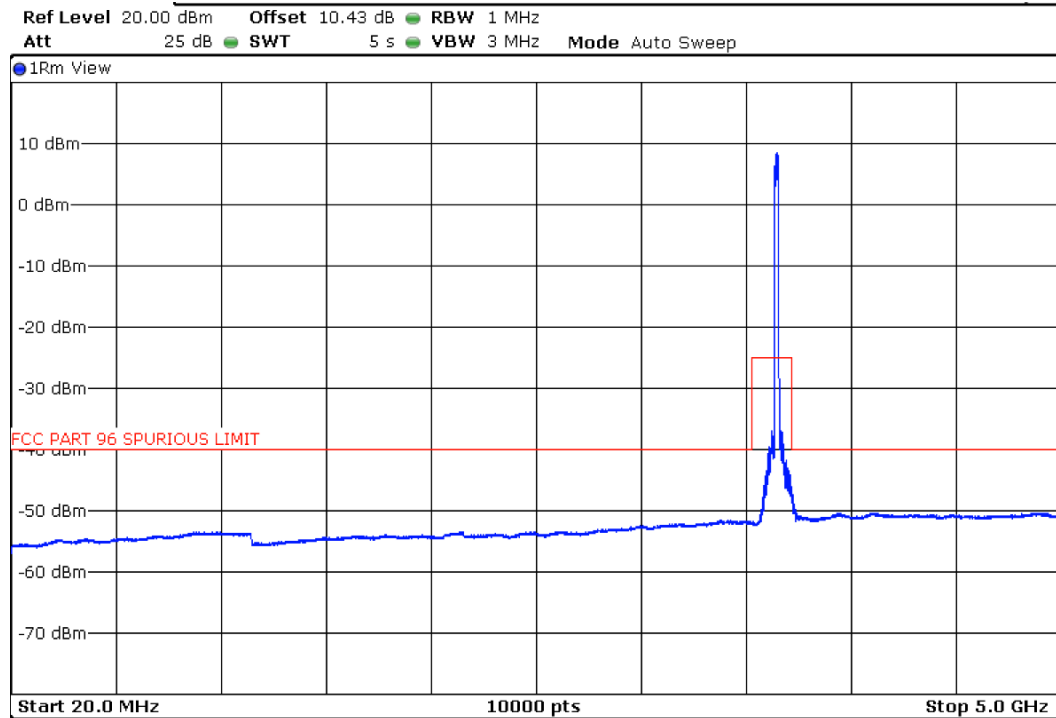


TEST RESULTS (Cont.):

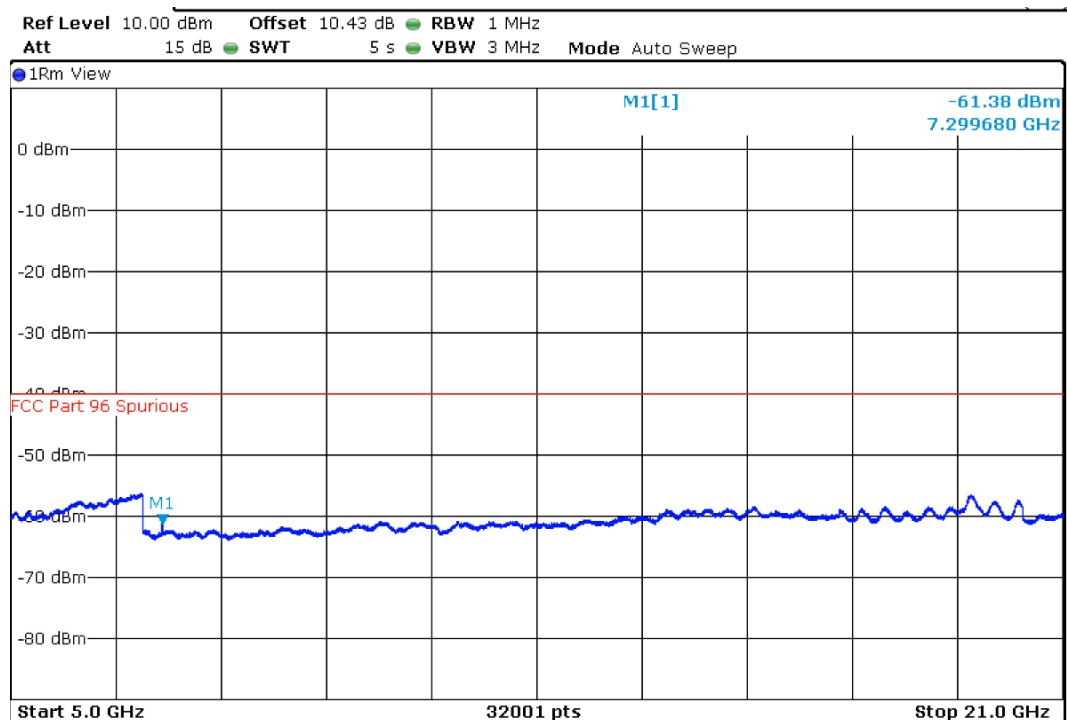
20 MHz BW Middle Channel (3650 MHz)

Middle Channel (3650 MHz)

FREQUENCY RANGE 20 MHz-5 GHz

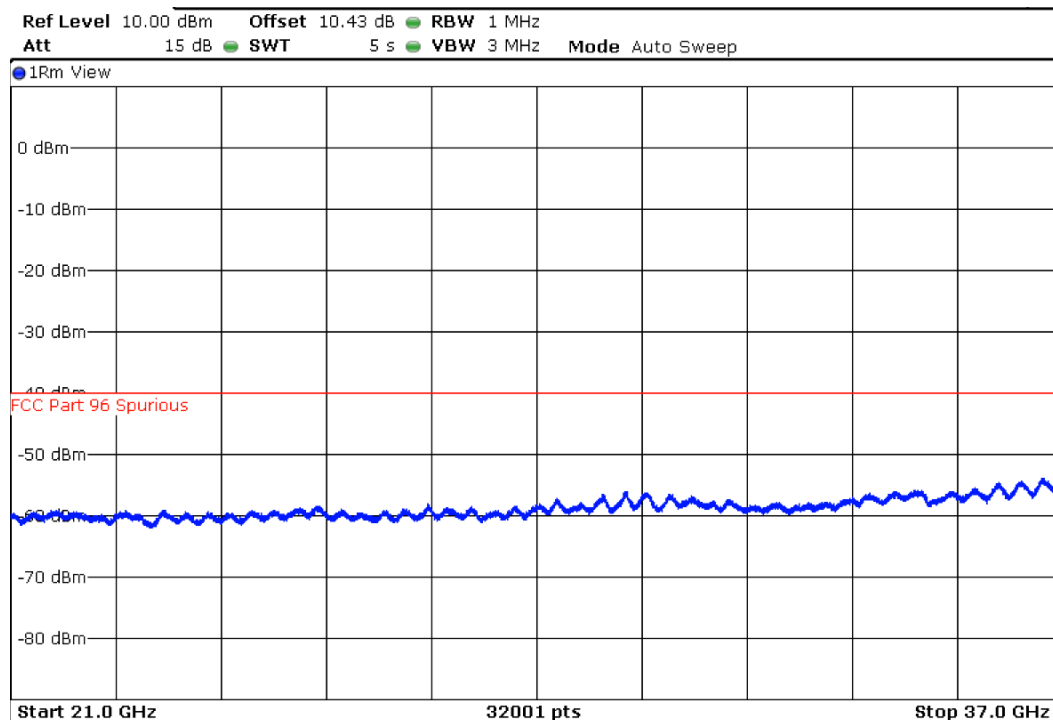


FREQUENCY RANGE 5-21 GHz



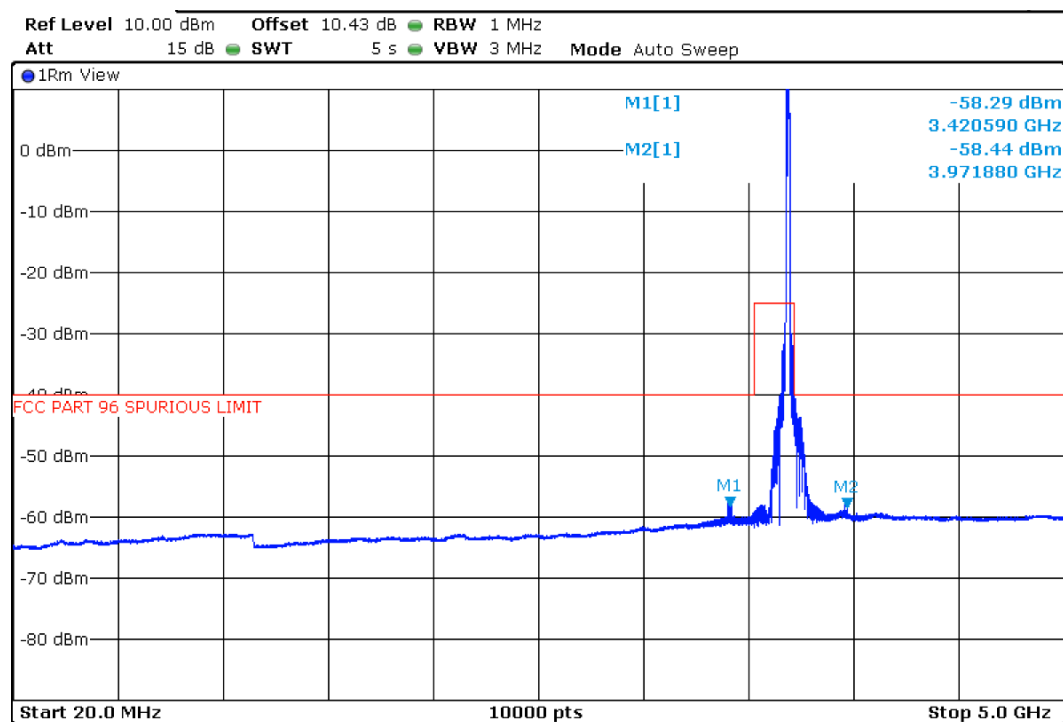
TEST RESULTS (Cont.):

FREQUENCY RANGE 21-37 GHz



Highest Channel (3690 MHz)

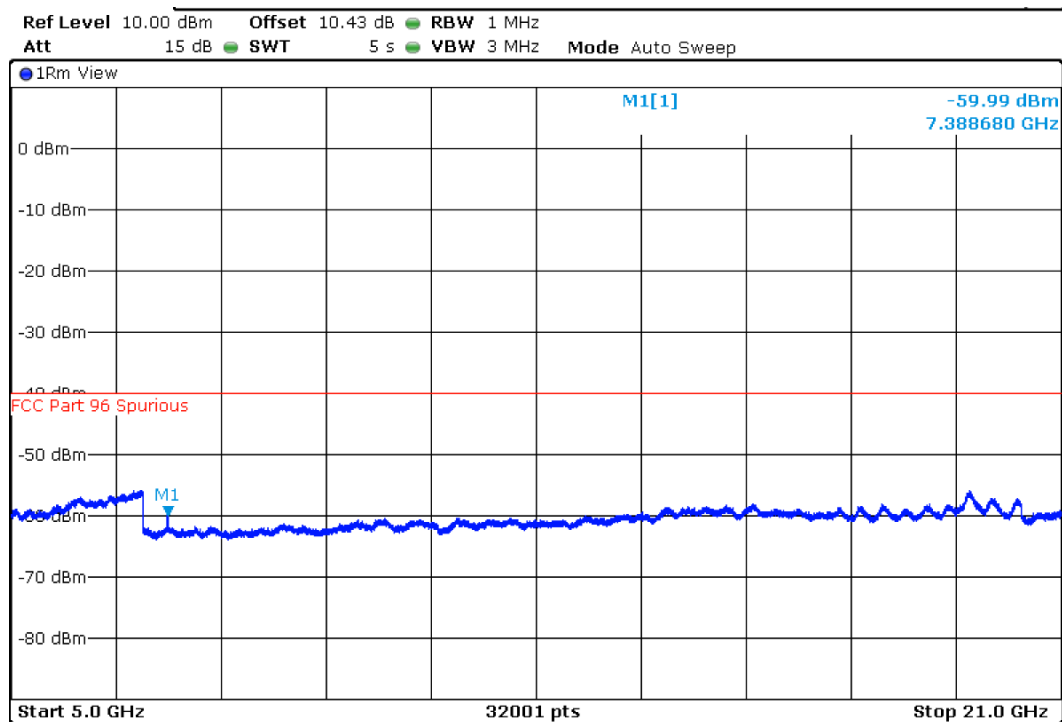
FREQUENCY RANGE 20 MHz-5 GHz



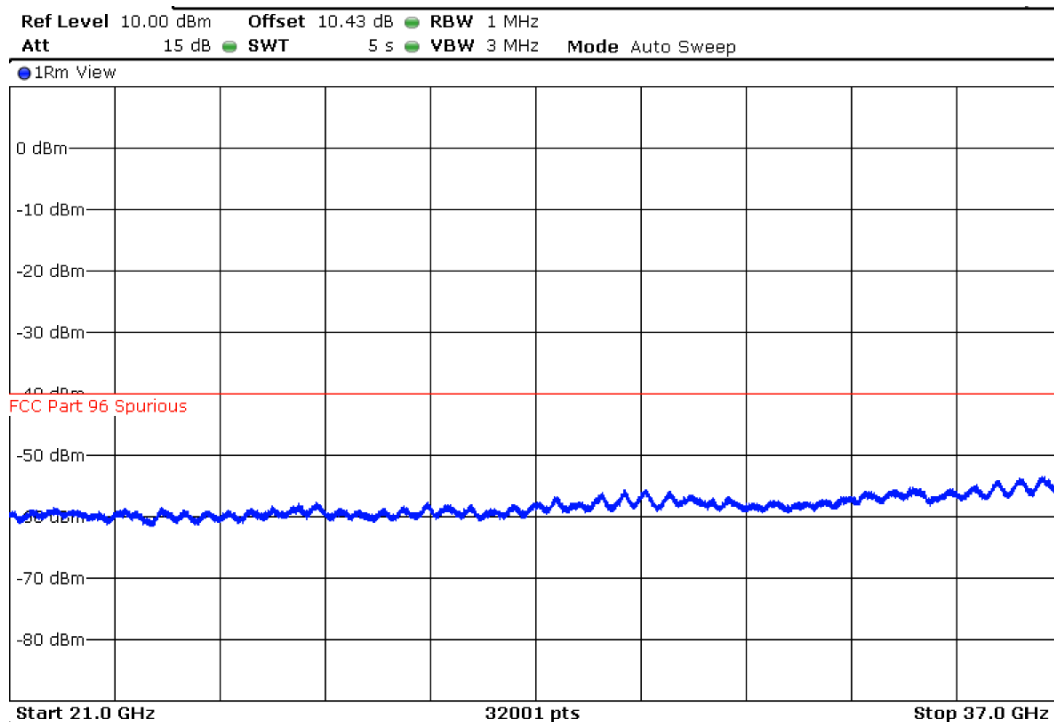
TEST RESULTS (Cont.):

20 MHz BW Highest Channel (3690 MHz)

FREQUENCY RANGE 5-21 GHz



FREQUENCY RANGE 21-37 GHz



TEST A.8: RADIATED SPURIOUS EMISSION

LIMITS:	Product standard:	Part 2.1053
	Test standard:	ANSI C63.26-2015

LIMITS

Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation.

Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate.

The limits for radiated emissions are stated below.

- greater than 10 MHz above and below the assigned channel $\leq 70.2 \text{ dB}\mu\text{V/m}$ (-25 dBm/MHz: conducted limit)
- any emission below 3530 MHz and above 3720 MHz $\leq 55.2 \text{ dB}\mu\text{V/m}$ (-40 dBm/MHz: conducted limit)

TEST SETUP

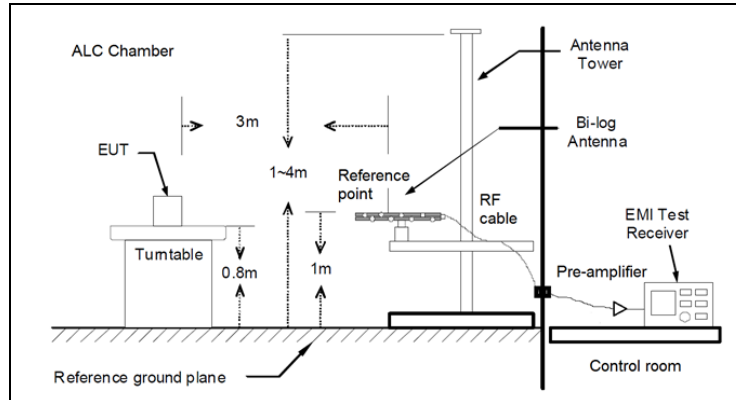
All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at a distance of 3 m for the frequency range 30-1000 MHz (Bilog antenna) and at a distance of 1m for the frequency range 1-40 GHz (1 GHz-18 GHz and 18 GHz-40 GHz Double ridge horn antennas).

For radiated emissions in the range 1-40 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance

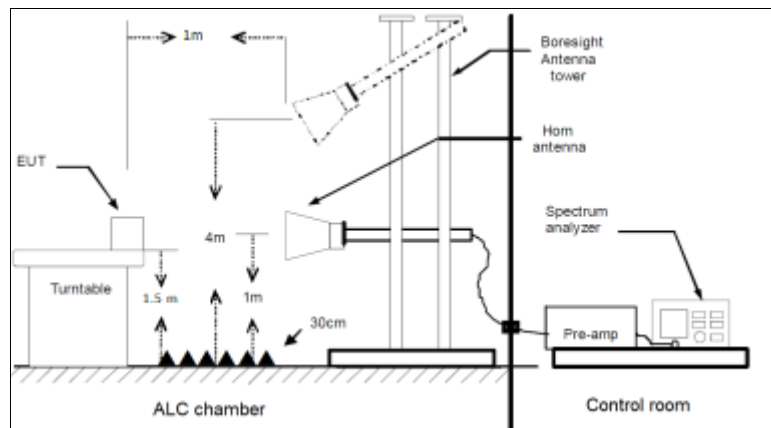
Detected emissions were maximized at each frequency by rotating the EUT and adjusting the measuring antenna height and polarization. The maximum meter reading was recorded. The radiated emissions were measured with RMS detector.

TEST SETUP (Cont.)

Radiated measurements Setup $f < 1$ GHz



Radiated measurements setup $f > 1$ GHz



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

Results:

Frequency range 30 MHz – 1000 MHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs. The plots are shown only for 5 MHz BW as a worst case.

Frequency range 1 GHz – 7 GHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs.

Frequency range 7 GHz – 18 GHz

5 MHz BW

Lowest Channel (3552.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
7103.812500	V	RMS	39.66	± 4.87
14210.156250	V	RMS	45.74	
16310.468750	V	RMS	46.93	

Middle Channel (3625 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the middle channel.

Highest Channel (3697.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
7393.937500	V	RMS	42.32	± 4.87
14780.093750	V	RMS	43.99	

10 MHz BW

Lowest Channel (3555 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the low channel.

Middle Channel (3625 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the middle channel.

TEST RESULTS (Cont.):

Highest Channel (3695 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
7391.531250	H	RMS	40.19	± 4.87

15 MHz BW

Lowest Channel (3557.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
14229.750000	V	RMS	45.44	± 4.87

Middle Channel (3625 MHz):

No radiated spurious signal was detected at less than 20 dB respect to the limit for the middle channel.

Highest Channel (3692.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
7381.218750	V	RMS	40.44	± 4.87
14770.125000	V	RMS	43.12	

20 MHz BW

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels.

Frequency range 18 GHz – 40 GHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs.

Verdict: PASS

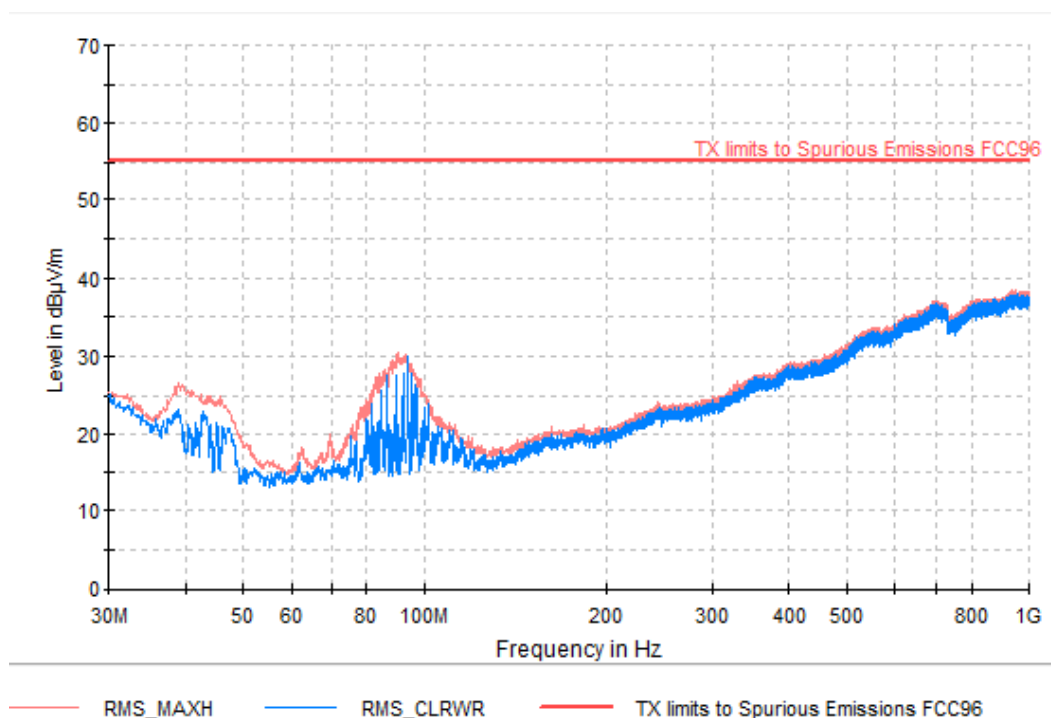
(See next plots)

TEST RESULTS (Cont.):

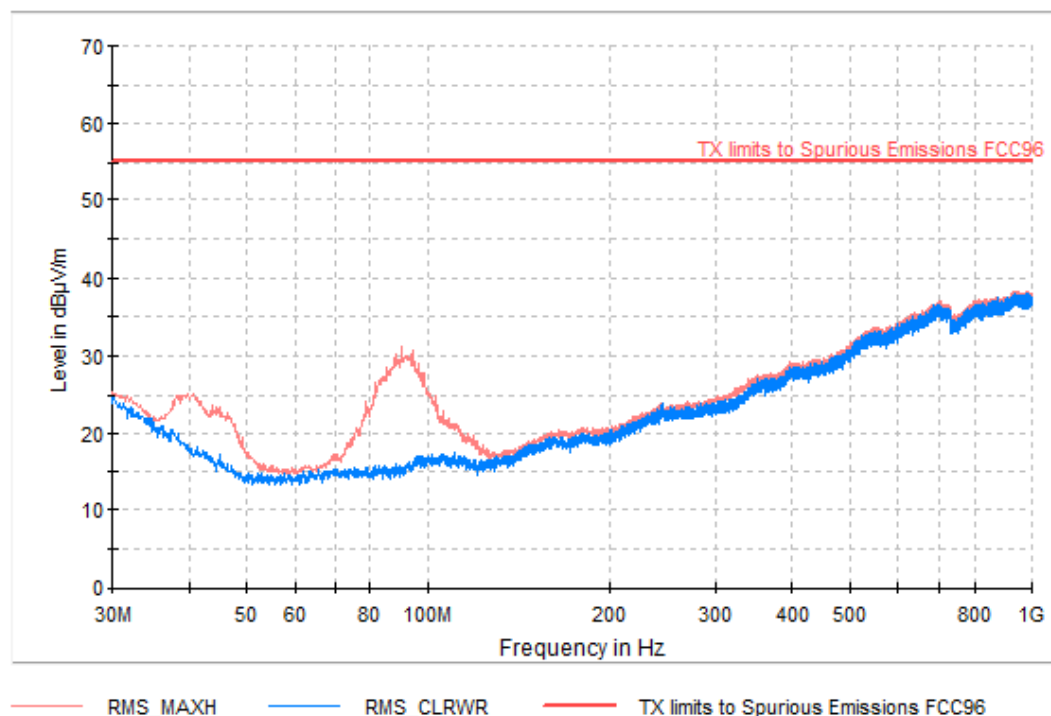
5 MHz BW FREQUENCY RANGE 30 MHz-1 GHz

5 MHz BW

FREQUENCY RANGE 30 MHz-1 GHz
Lowest Channel (3552.5 MHz)



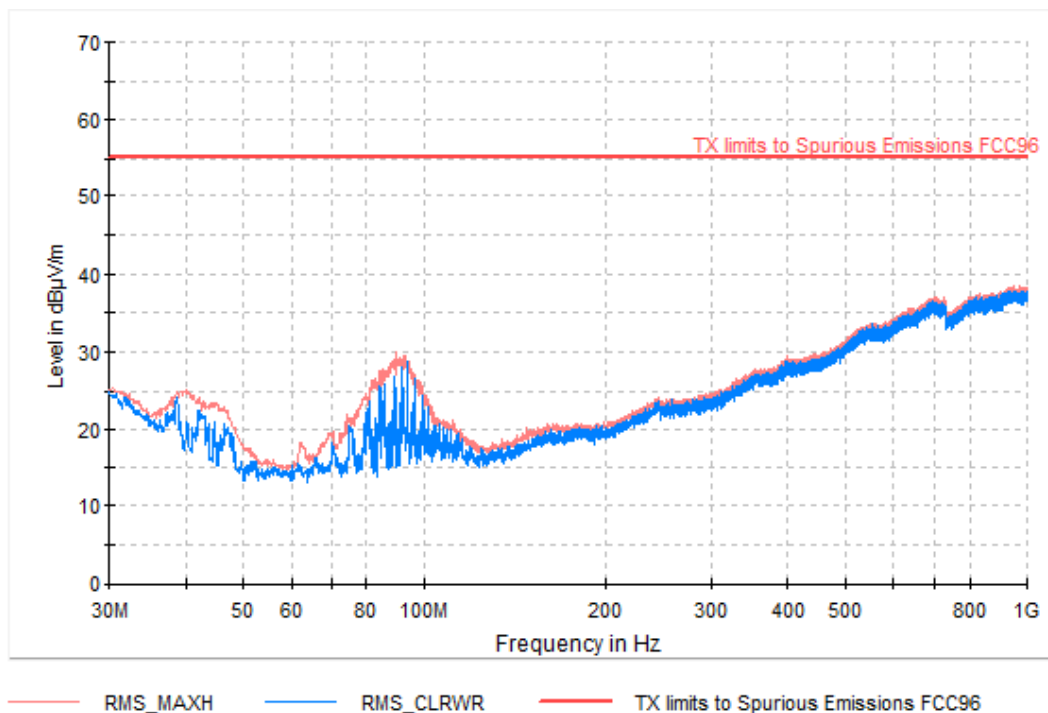
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

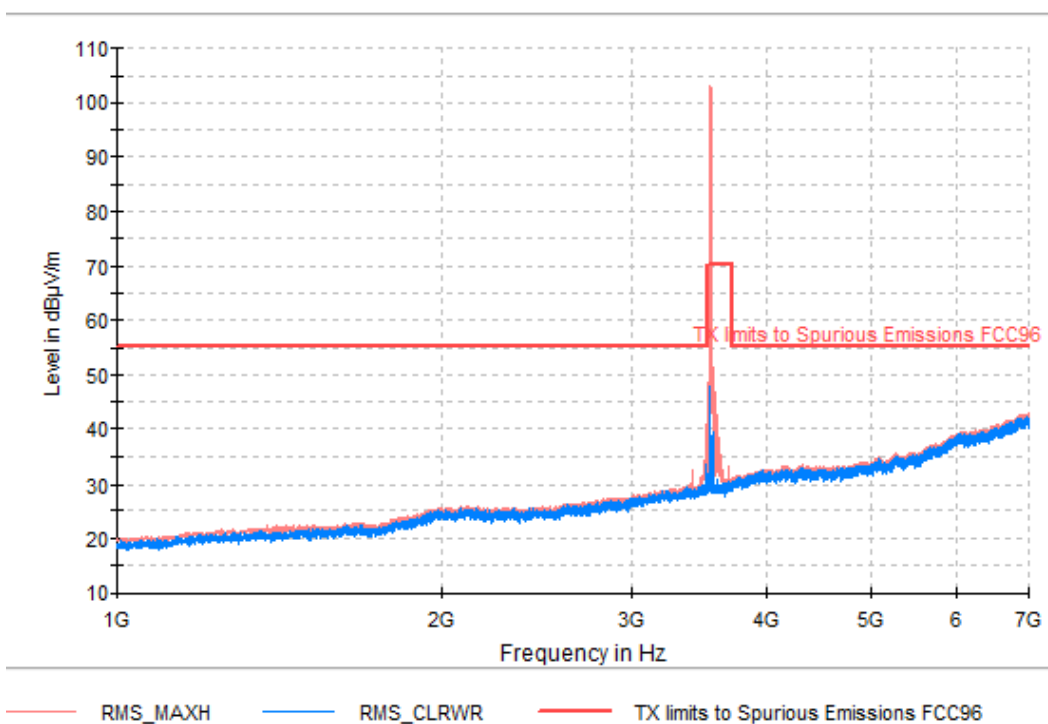
5 MHz BW FREQUENCY RANGE 30 MHz-1 GHz

Highest Channel (3697.5 MHz)



FREQUENCY RANGE 1-7 GHz

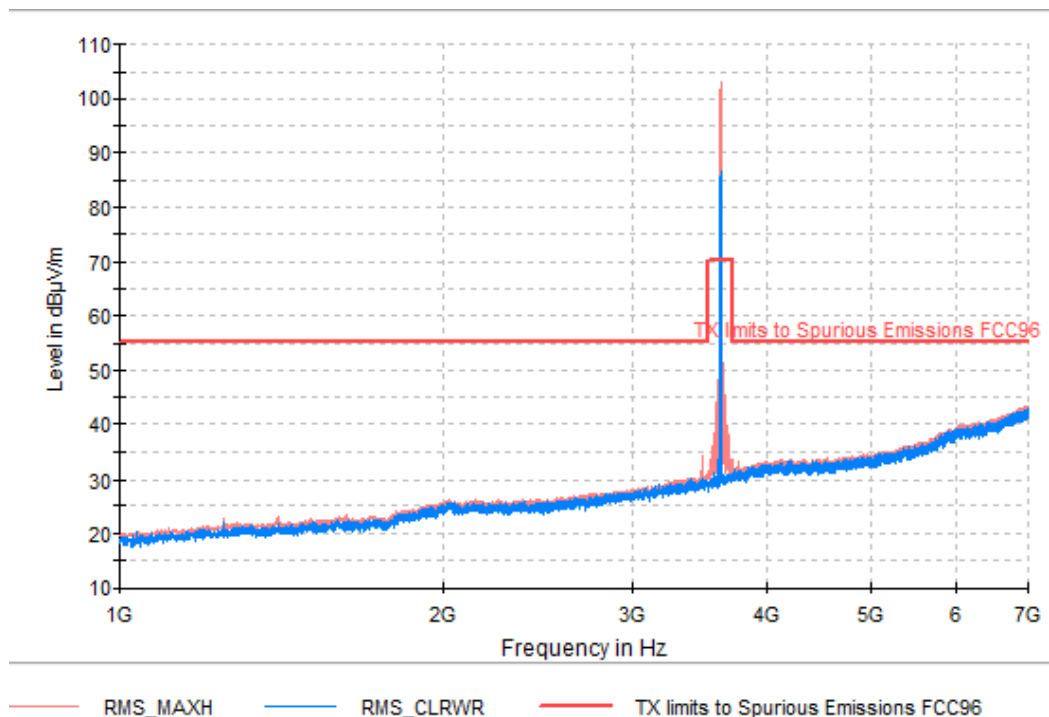
Lowest Channel (3552.5 MHz)



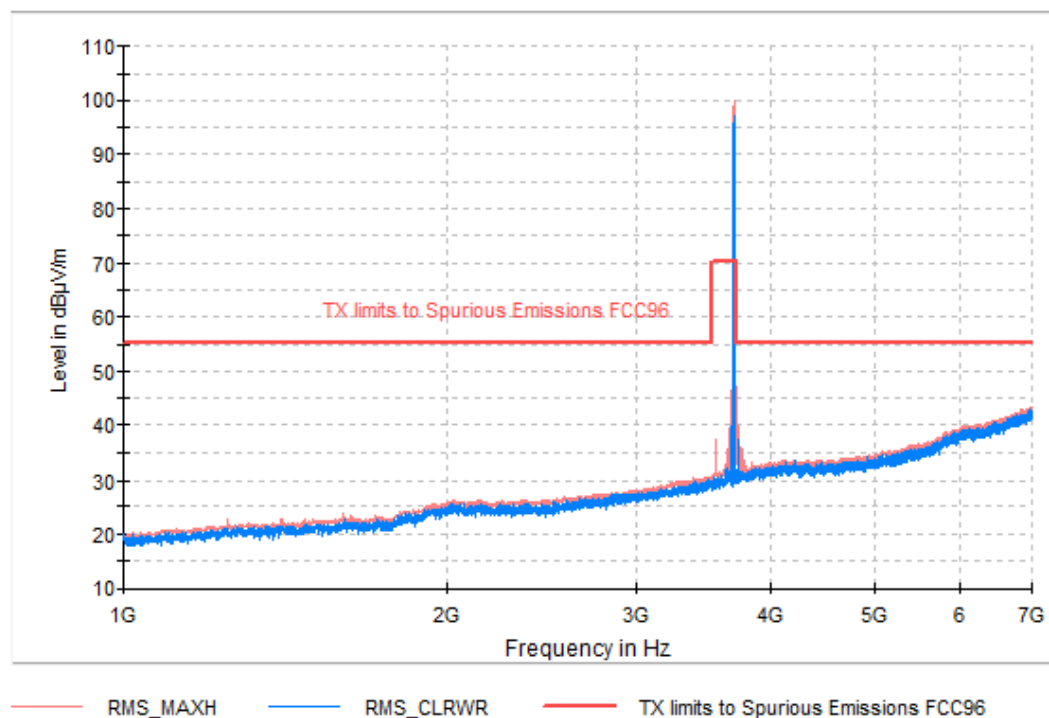
TEST RESULTS (Cont.):

5 MHz BW FREQUENCY RANGE 1-7 GHz

Middle Channel (3625 MHz)



Highest Channel (3697.5 MHz)

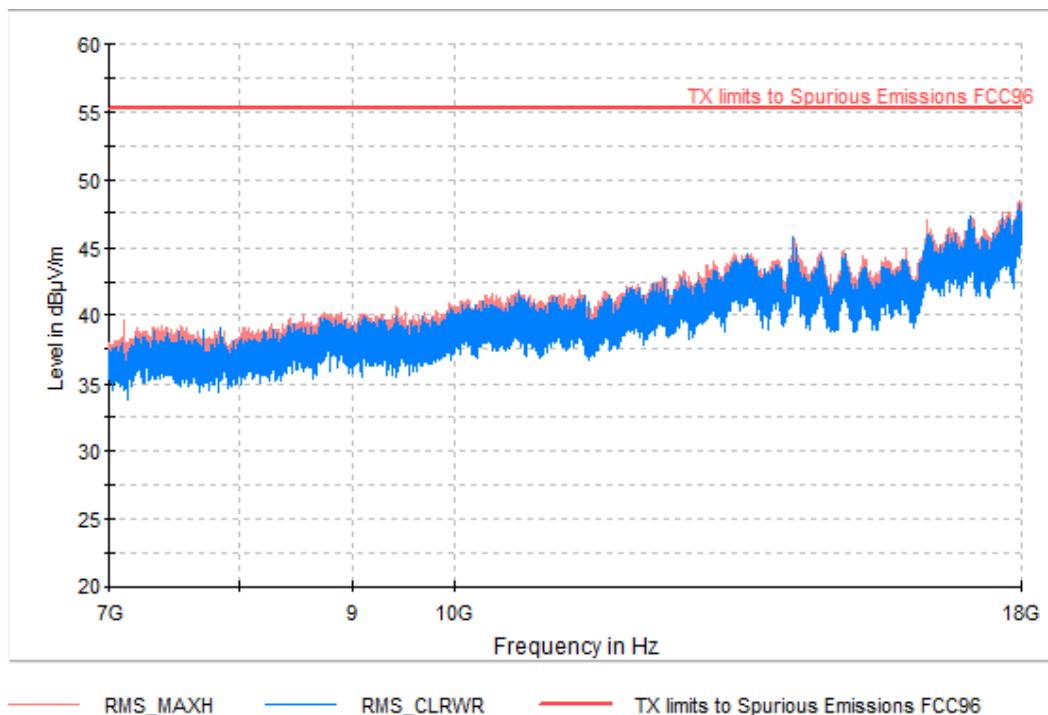


TEST RESULTS (Cont.):

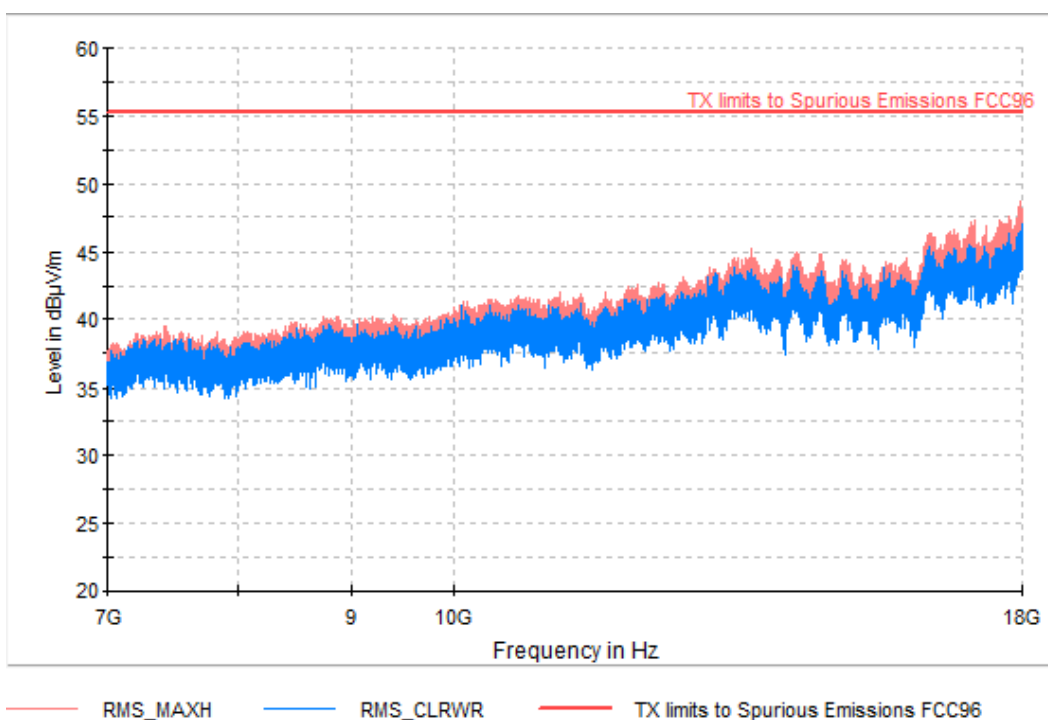
5 MHz BW FREQUENCY RANGE 7-18 GHz

FREQUENCY RANGE 7-18 GHz

Lowest Channel (3552.5 MHz)



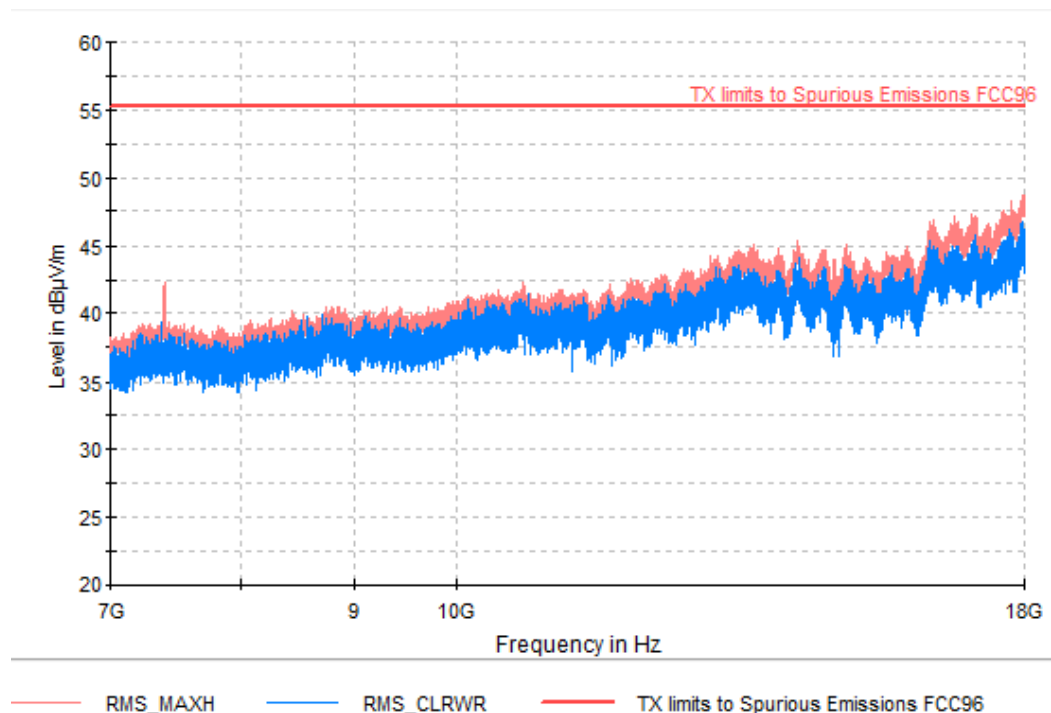
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

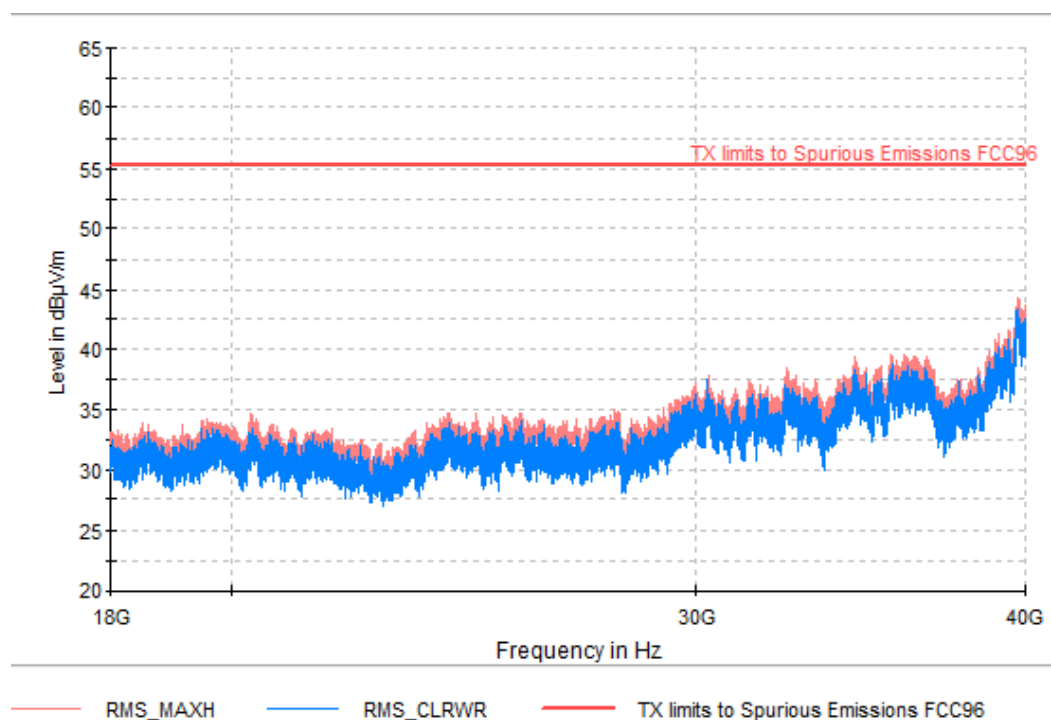
5 MHz BW FREQUENCY RANGE 7-18 GHz

Highest Channel (3697.5 MHz)



FREQUENCY RANGE 18-40 GHz

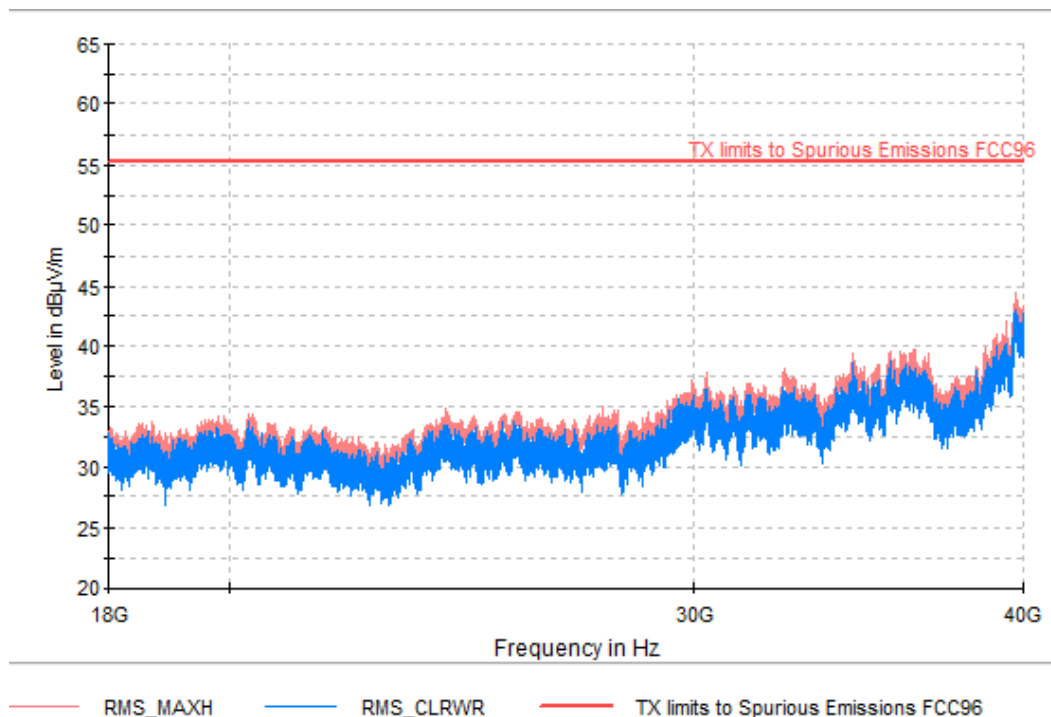
Lowest Channel (3552.5 MHz)



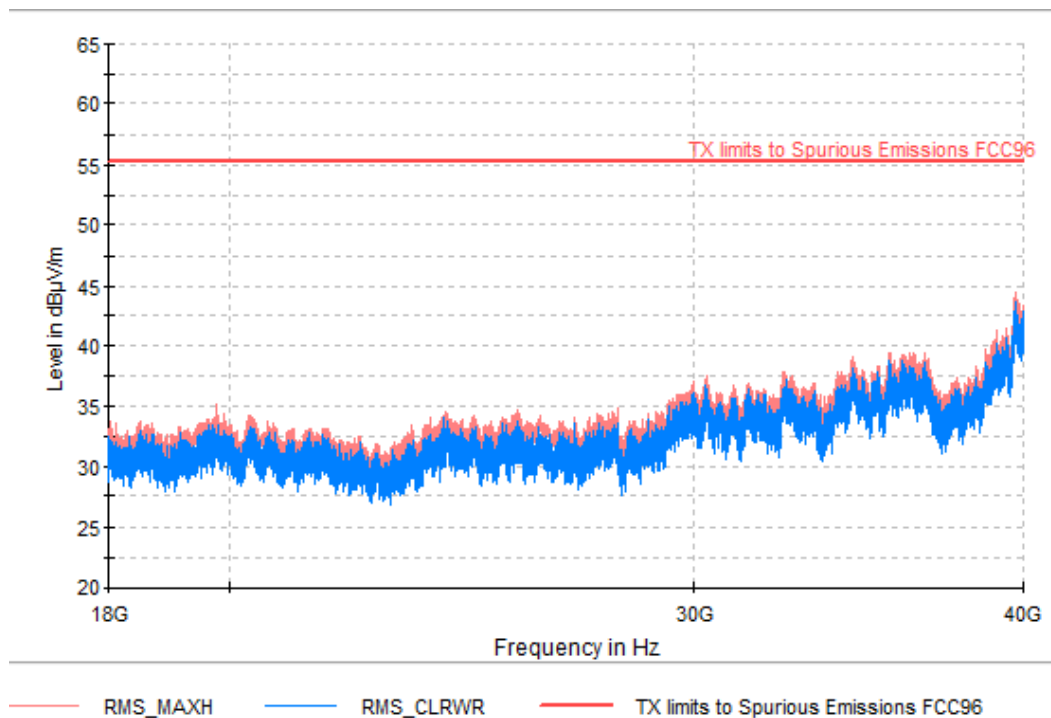
TEST RESULTS (Cont.):

5 MHz BW FREQUENCY RANGE 18-40 GHz

Middle Channel (3625 MHz)



Highest Channel (3697.5 MHz)



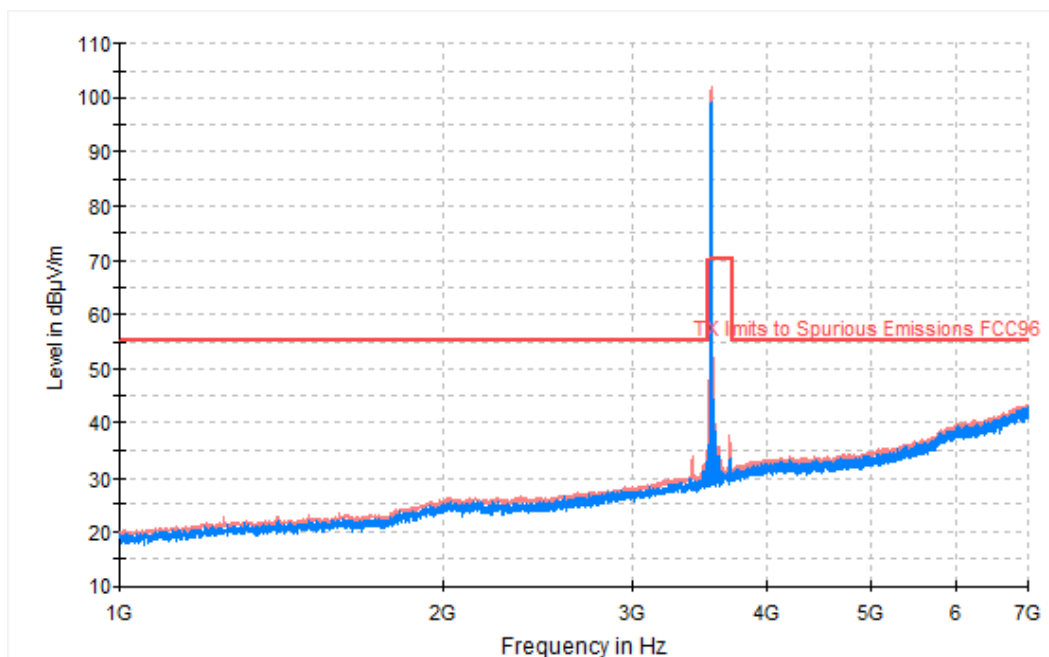
TEST RESULTS (Cont.):

10 MHz BW FREQUENCY RANGE 1-7 GHz

10 MHz BW

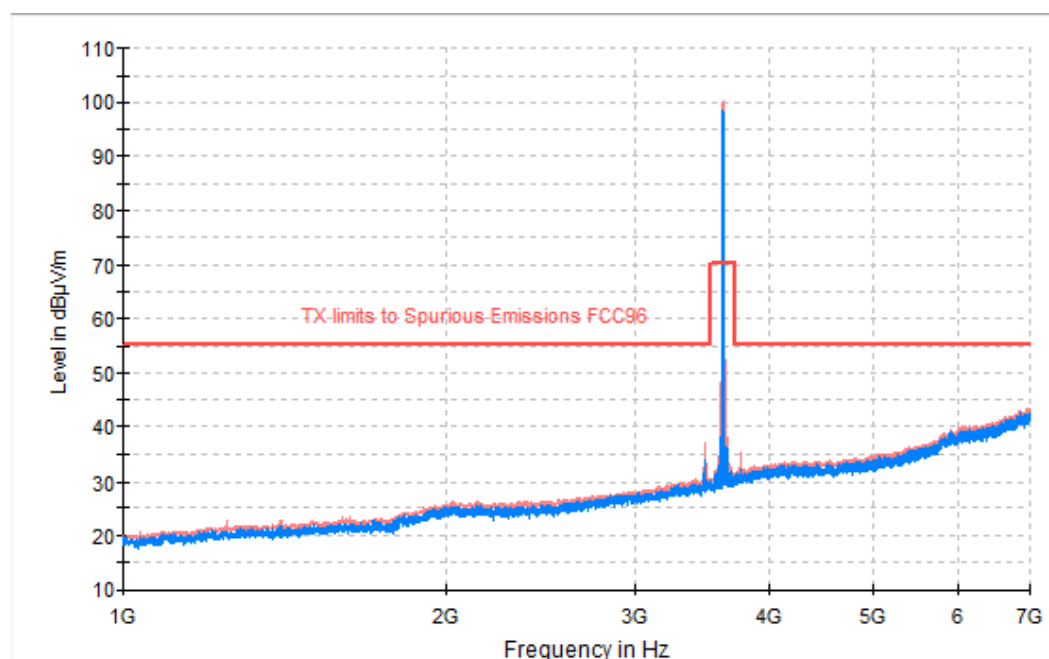
FREQUENCY RANGE 1-7 GHz

Lowest Channel (3555 MHz)



— RMS_MAXH — RMS_CLWR — TX limits to Spurious Emissions FCC96

Middle Channel (3625 MHz)

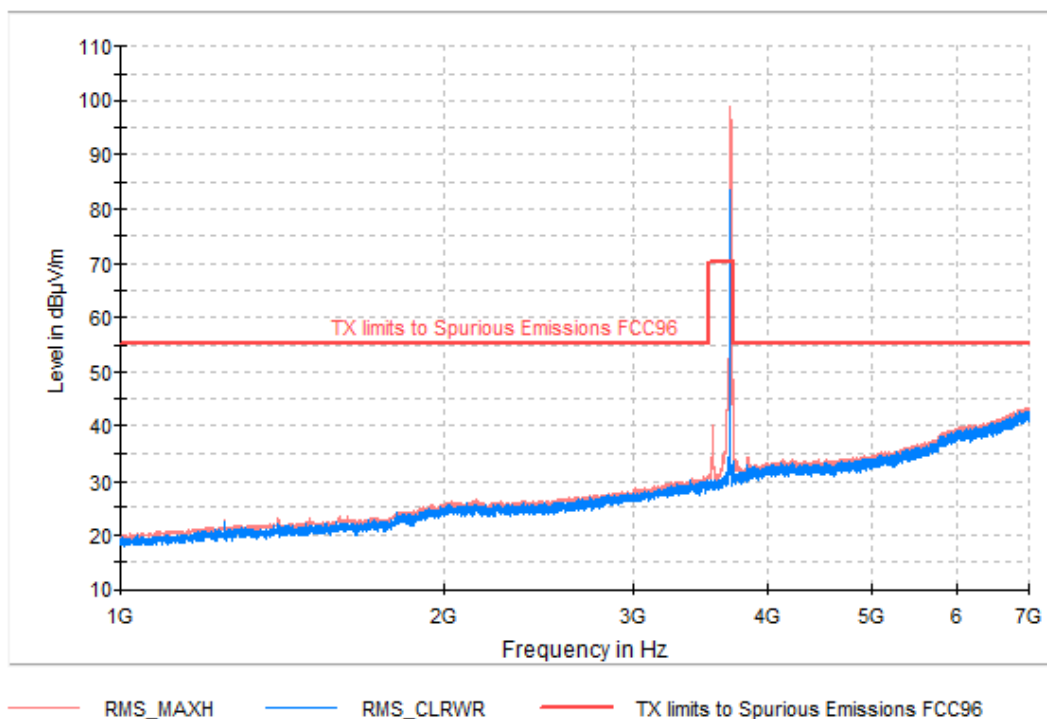


— RMS_MAXH — RMS_CLWR — TX limits to Spurious Emissions FCC96

TEST RESULTS (Cont.):

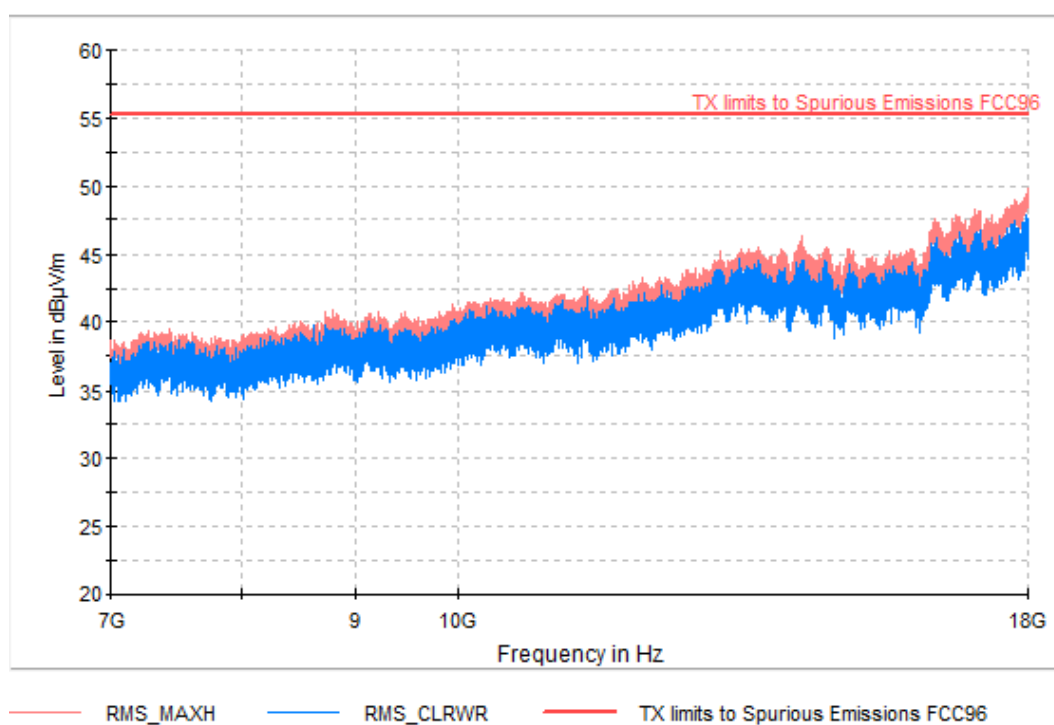
10 MHz BW FREQUENCY RANGE 1-7 GHz

Highest Channel (3695 MHz)



FREQUENCY RANGE 7-18 GHz

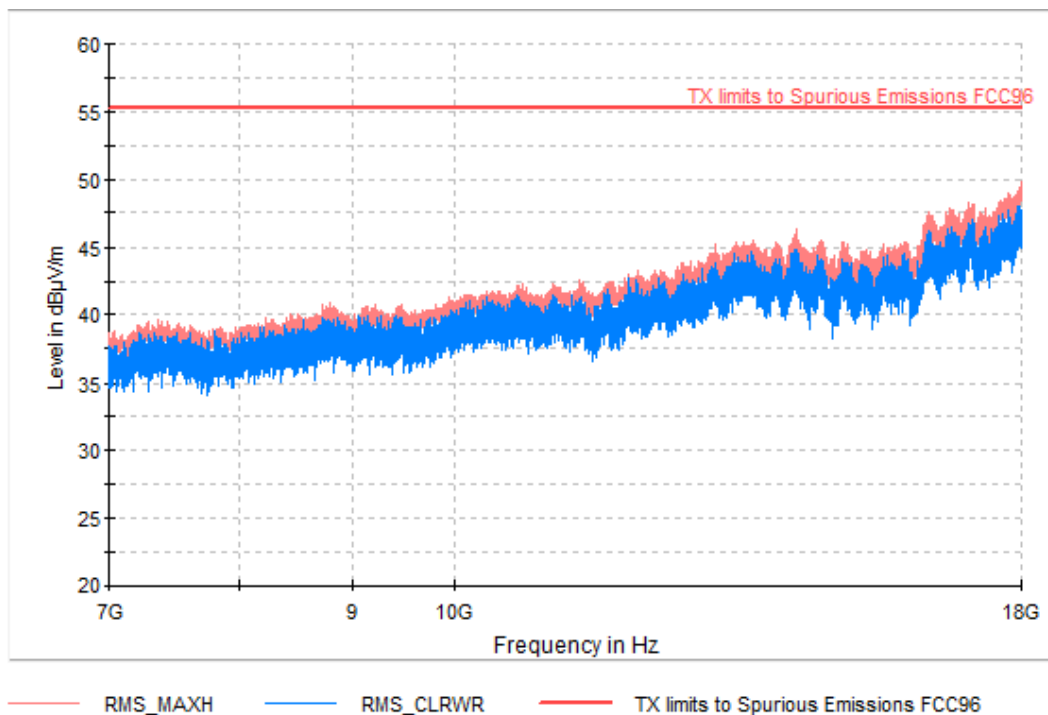
Lowest Channel (3555 MHz)



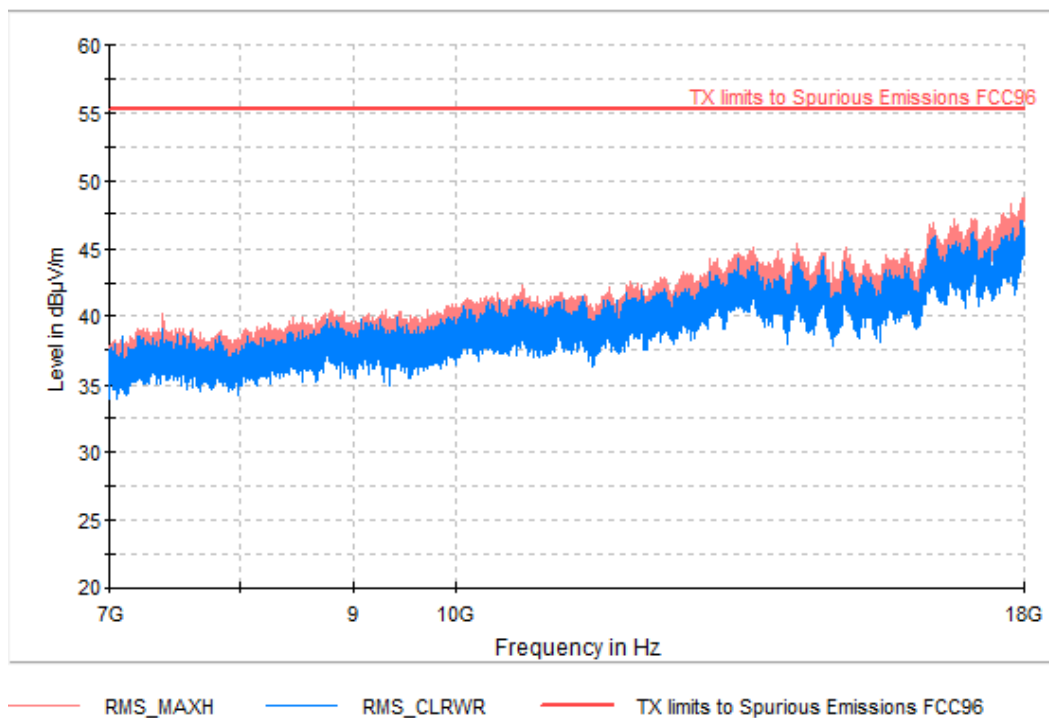
TEST RESULTS (Cont.):

10 MHz BW FREQUENCY RANGE 7-18 GHz

Middle Channel (3625 MHz)



Highest Channel (3695 MHz)

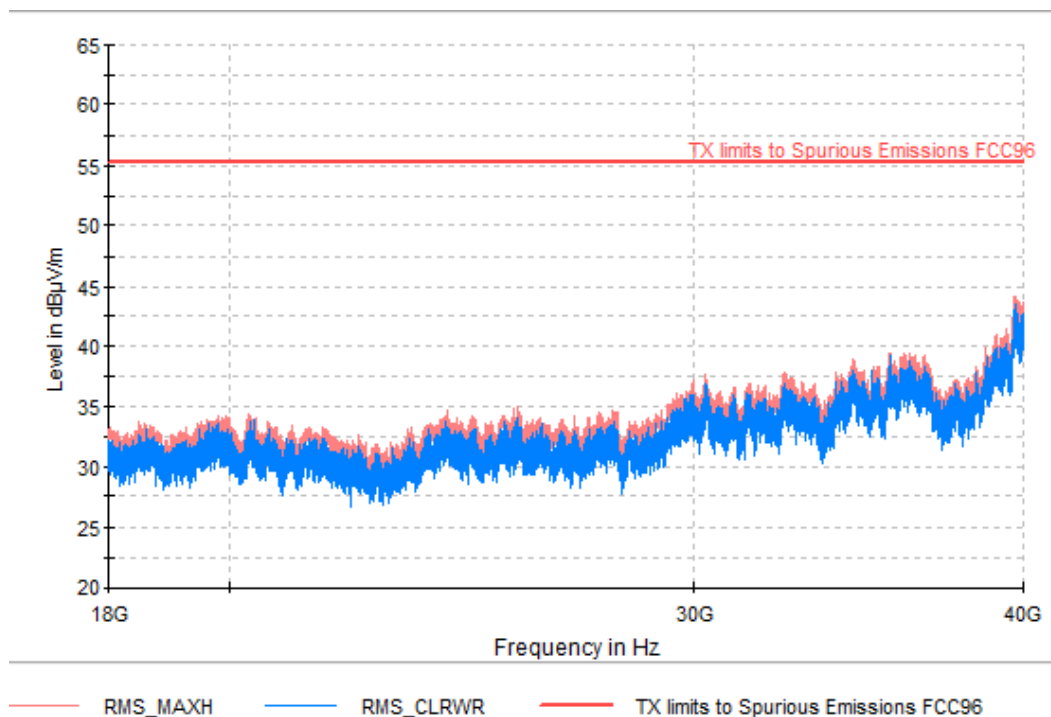


TEST RESULTS (Cont.):

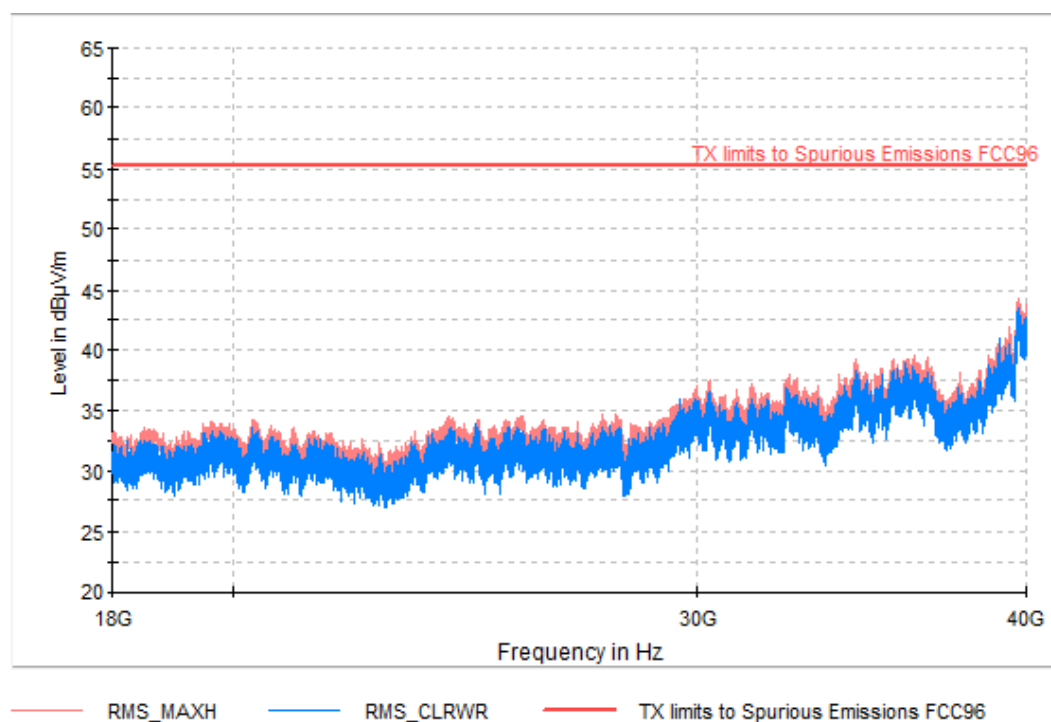
10 MHz BW FREQUENCY RANGE 18-40 GHz

FREQUENCY RANGE 18-40 GHz

Lowest Channel (3555 MHz)



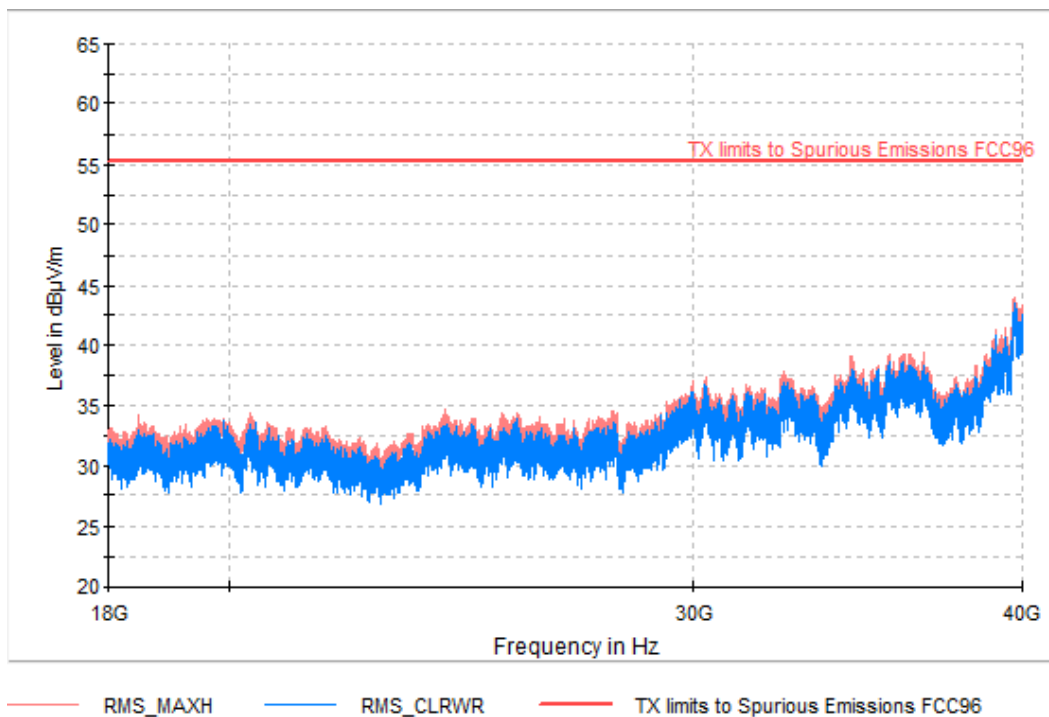
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

10 MHz BW Highest Channel (3695 MHz)

Highest Channel (3695 MHz)



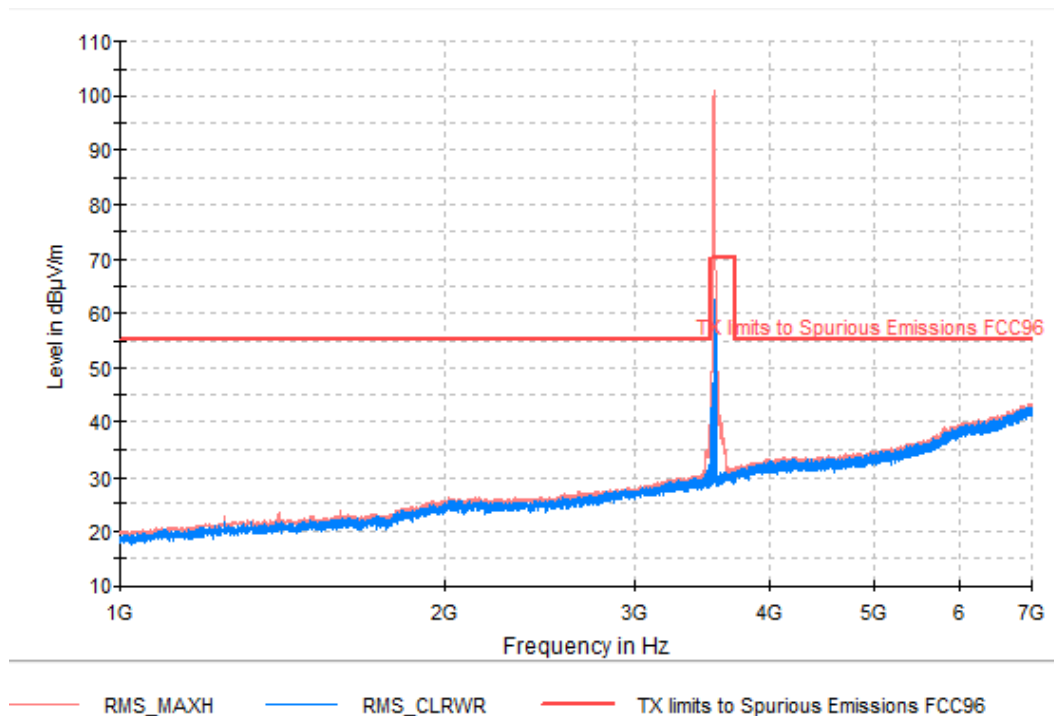
TEST RESULTS (Cont.):

15 MHz BW FREQUENCY RANGE 1-7 GHz

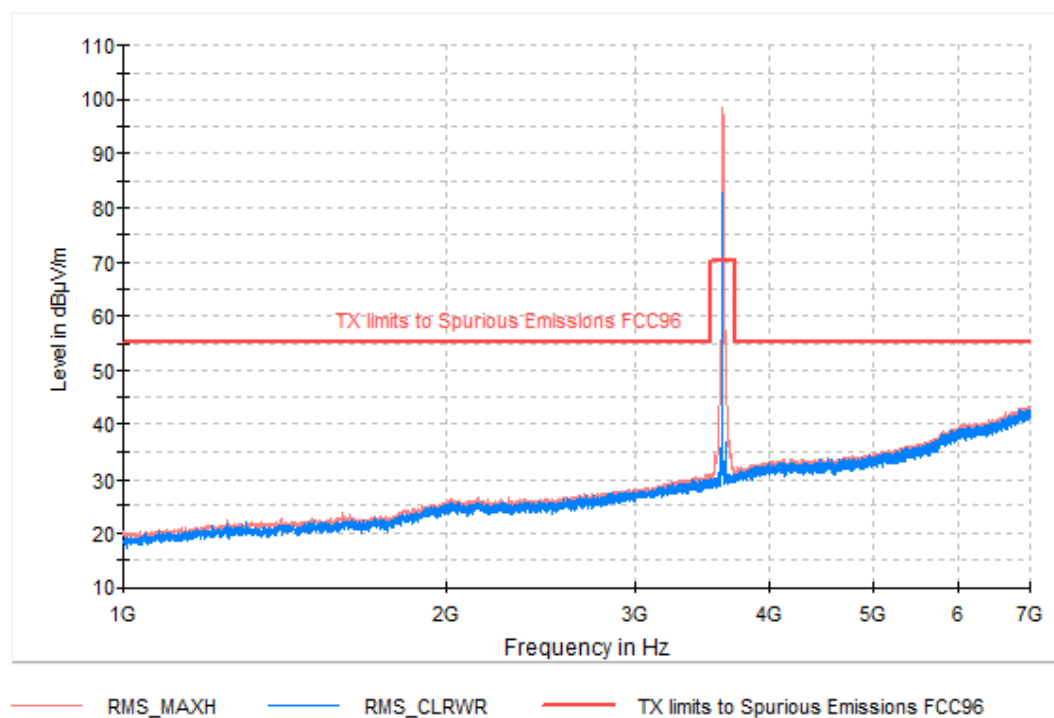
15 MHz BW

FREQUENCY RANGE 1-7 GHz

Lowest Channel (3557.5 MHz)



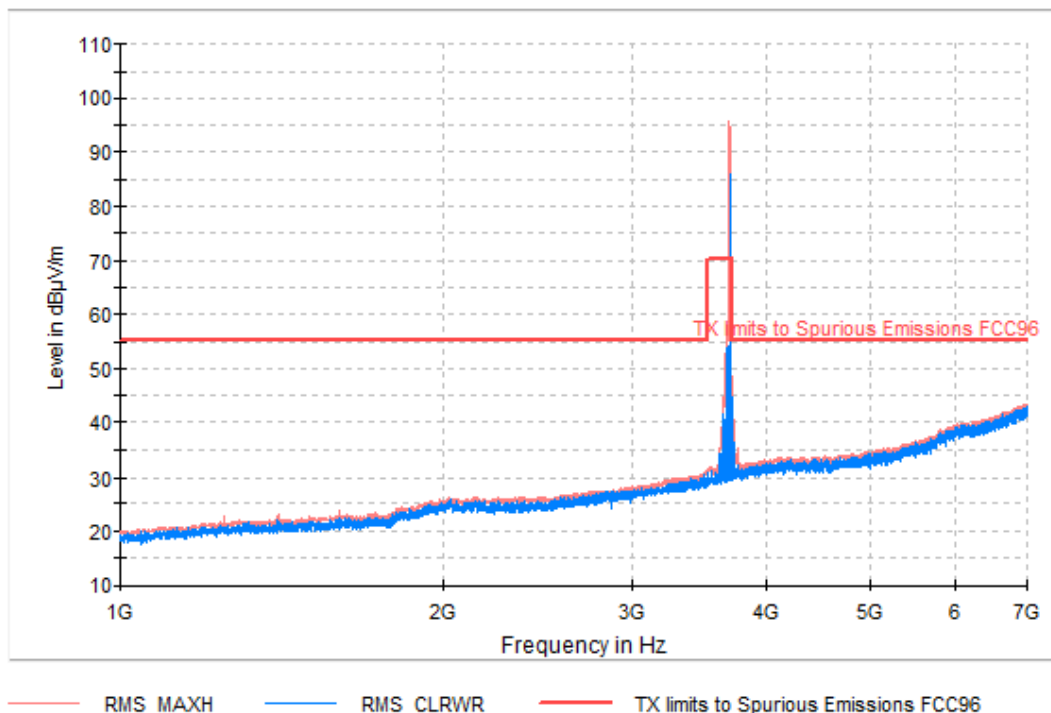
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

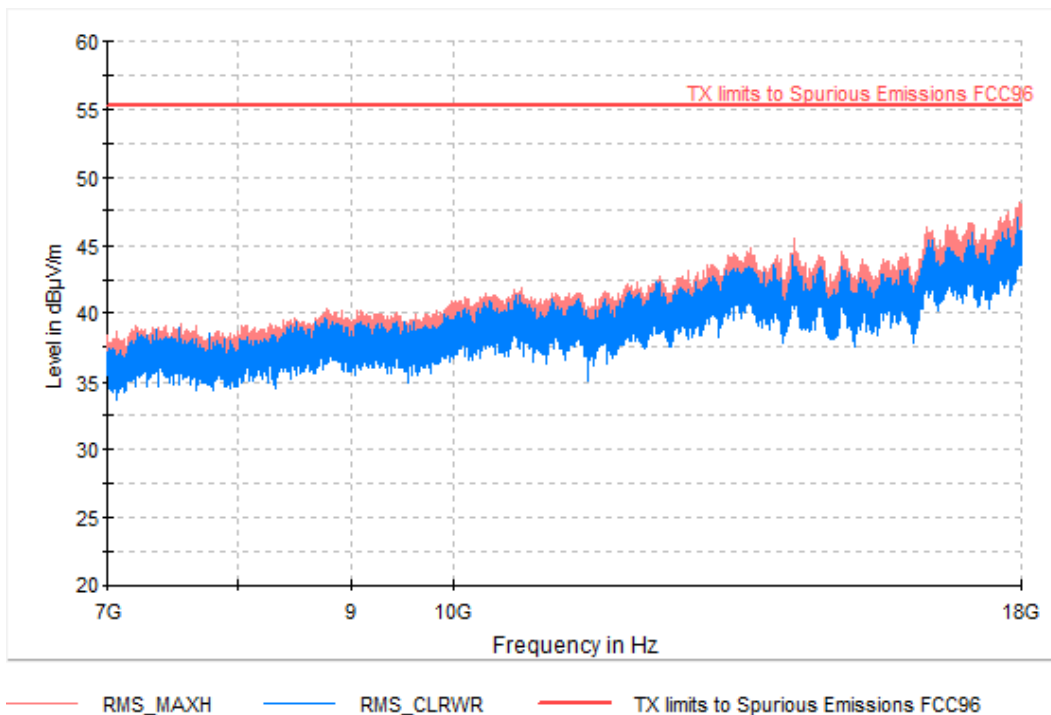
15 MHz BW FREQUENCY RANGE 1-7 GHz

Highest Channel (3692.5 MHz)



FREQUENCY RANGE 7-18 GHz

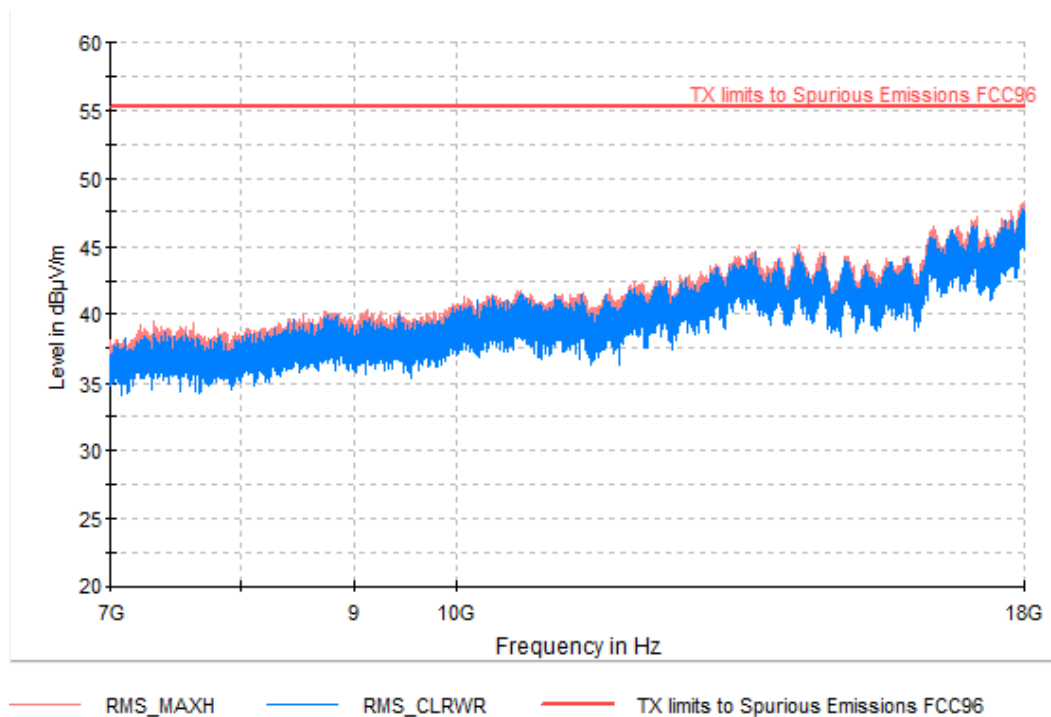
Lowest Channel (3557.5 MHz)



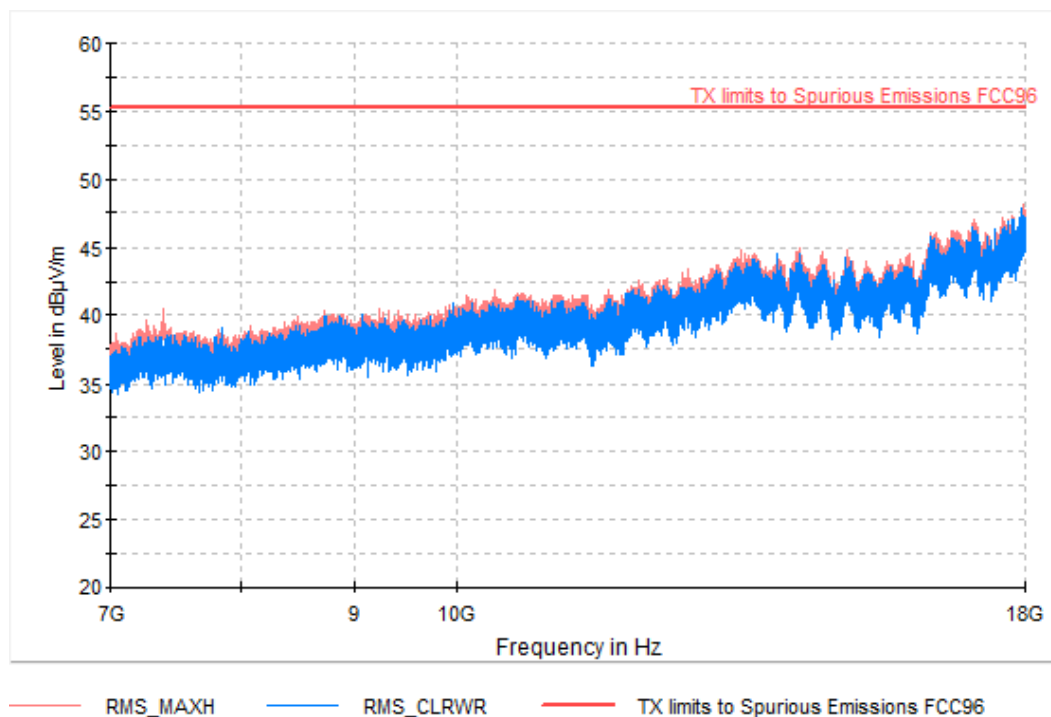
TEST RESULTS (Cont.):

15 MHz BW FREQUENCY RANGE 7-18 GHz

Middle Channel (3625 MHz)



Highest Channel (3692.5 MHz)

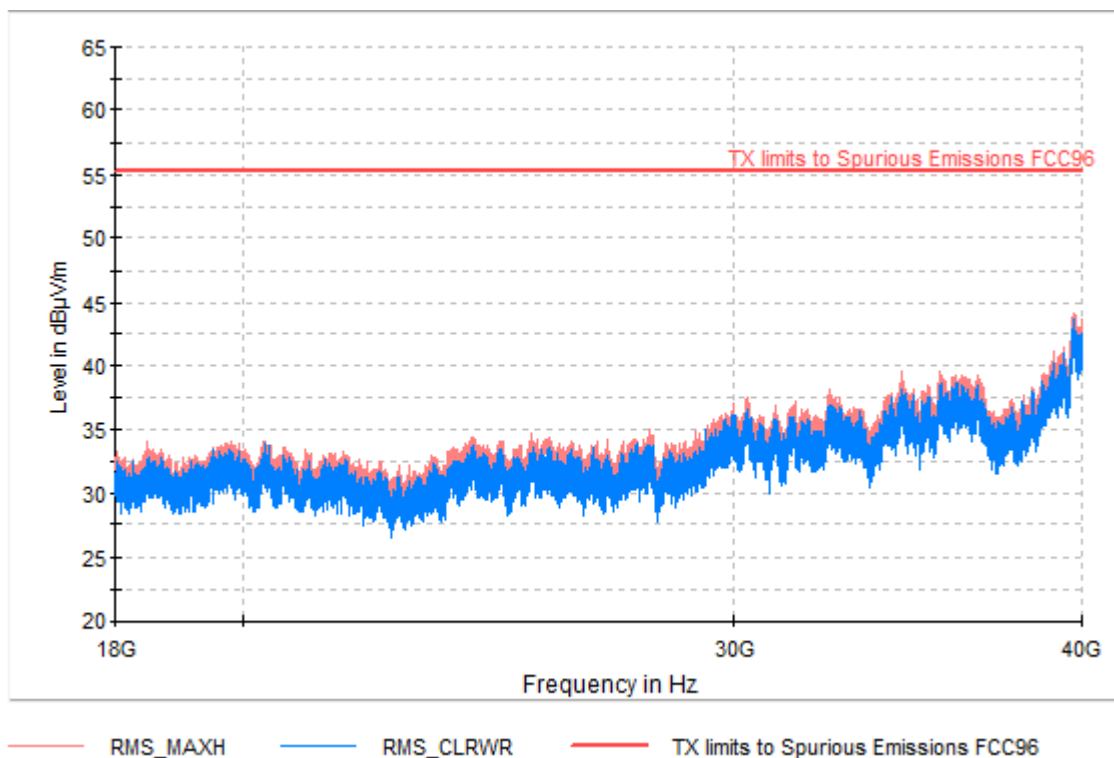


TEST RESULTS (Cont.):

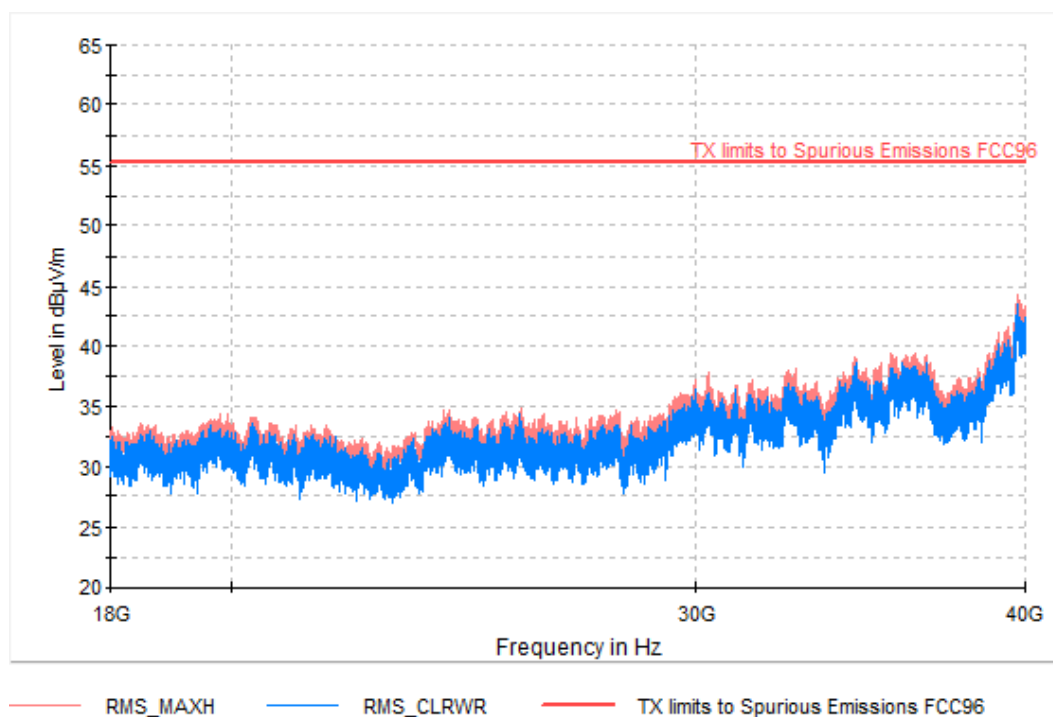
15 MHz BW FREQUENCY RANGE 18-40 GHz

FREQUENCY RANGE 18-40 GHz

Lowest Channel (3557.5 MHz)



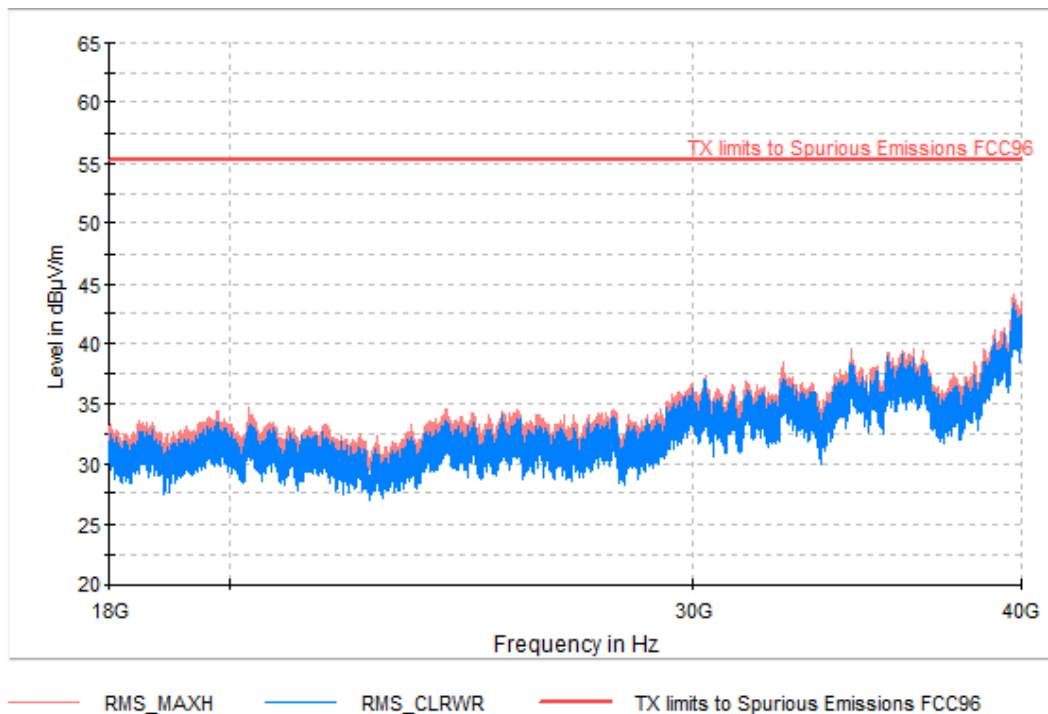
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

15 MHz BW FREQUENCY RANGE 18-40 GHz

Highest Channel (3692.5 MHz)



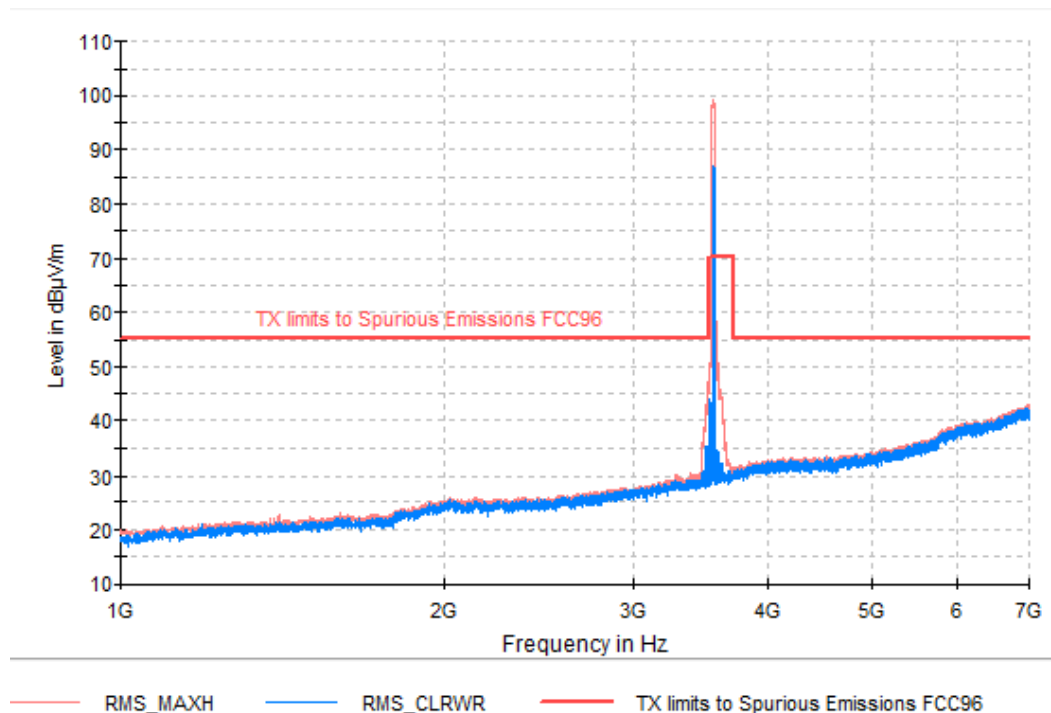
TEST RESULTS (Cont.):

20 MHz BW FREQUENCY RANGE 1-7 GHz

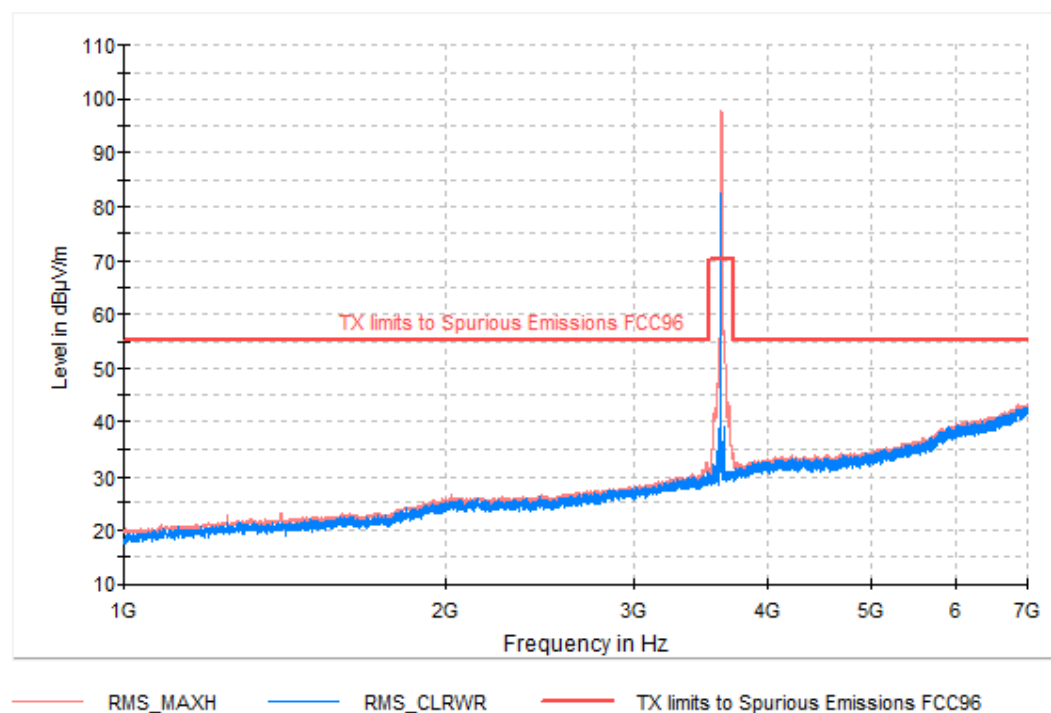
20 MHz BW

FREQUENCY RANGE 1-7 GHz

Lowest Channel (3560 MHz)



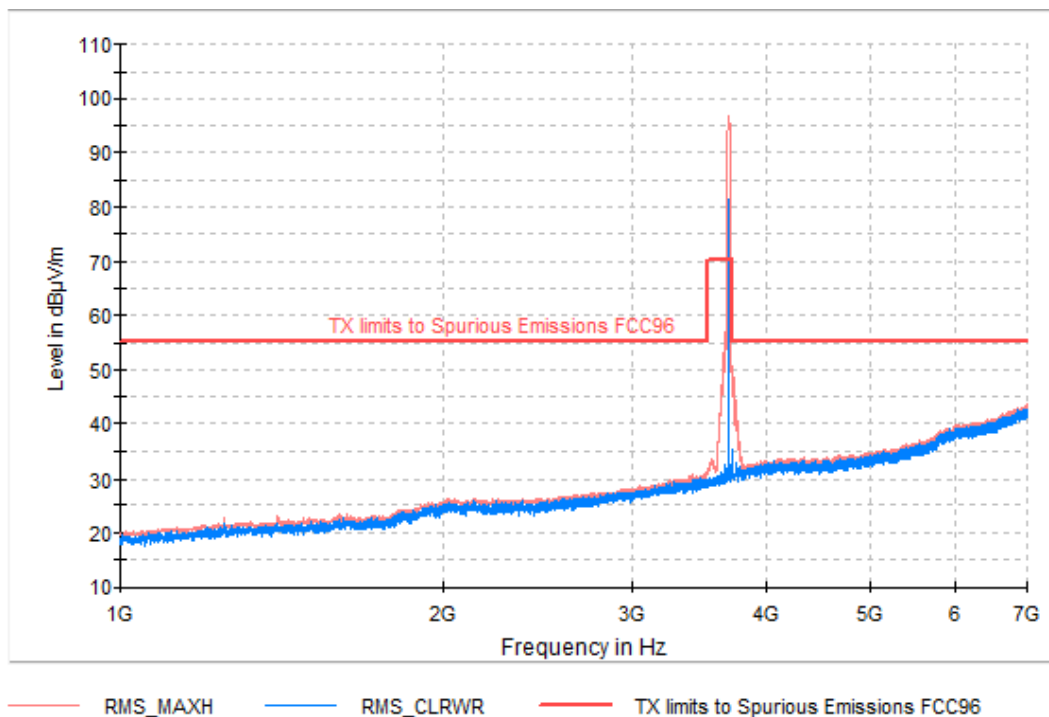
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

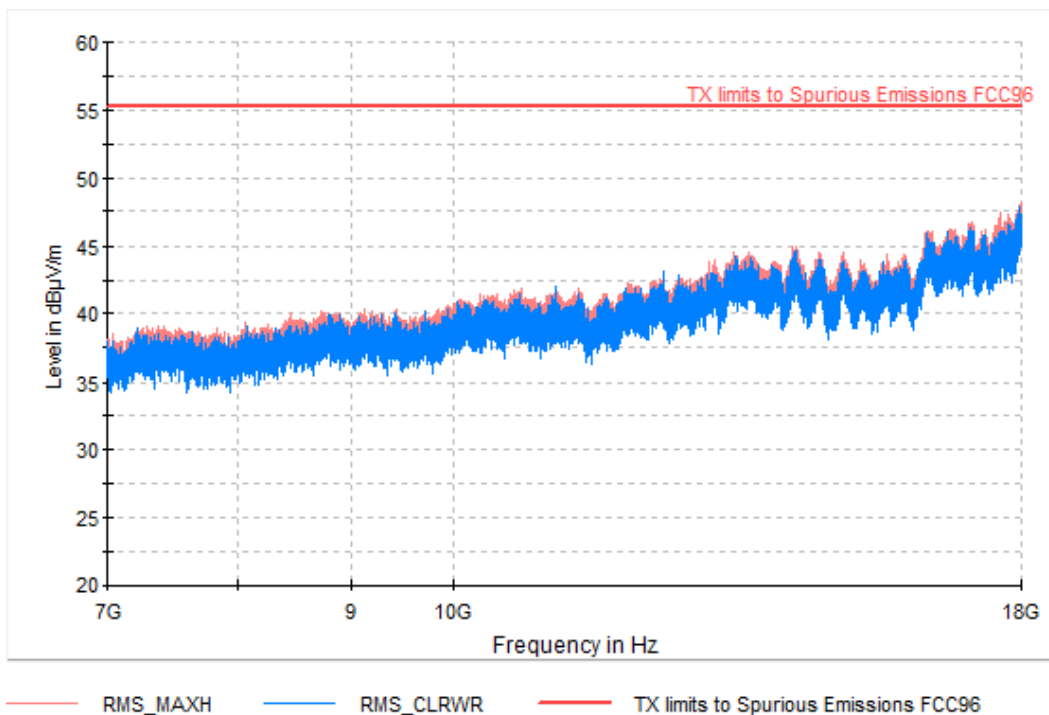
20 MHz BW FREQUENCY RANGE 1-7 GHz

Highest Channel (3690 MHz)



FREQUENCY RANGE 7-18 GHz

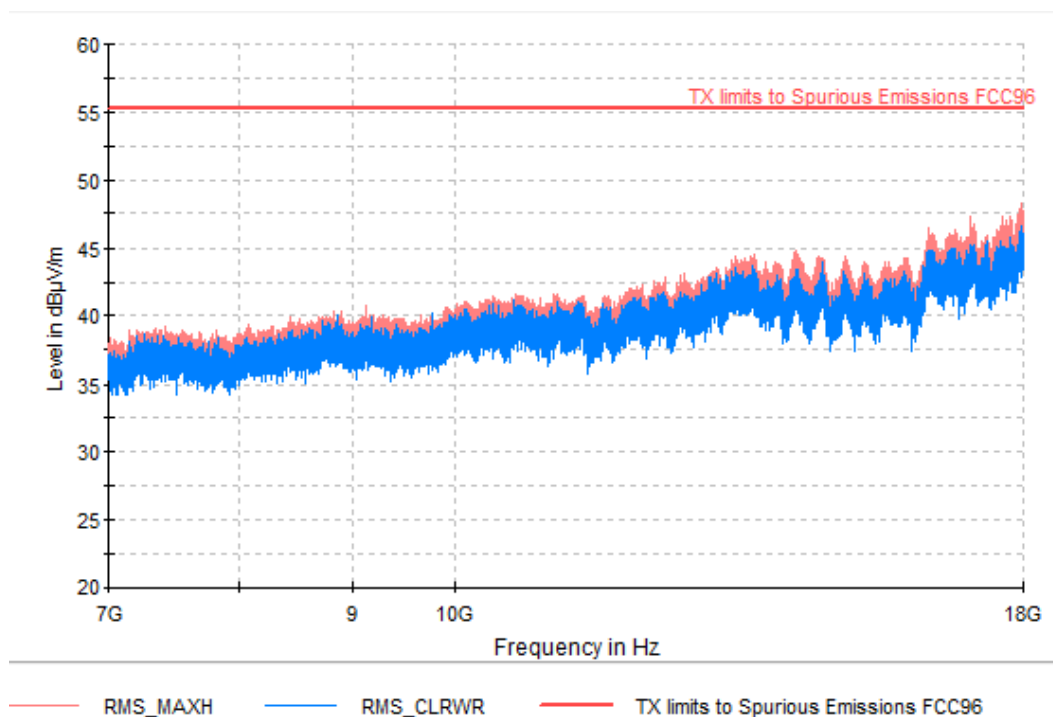
Lowest Channel (3560 MHz)



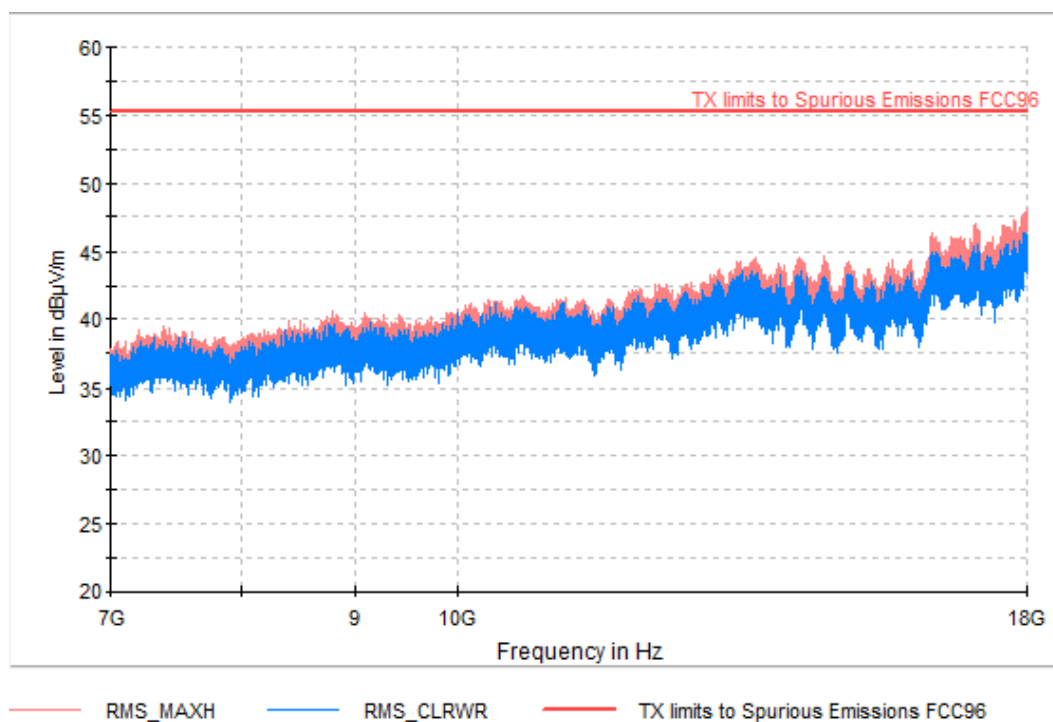
TEST RESULTS (Cont.):

20 MHz BW FREQUENCY RANGE 7-18 GHz

Middle Channel (3625 MHz)



Highest Channel (3690 MHz)

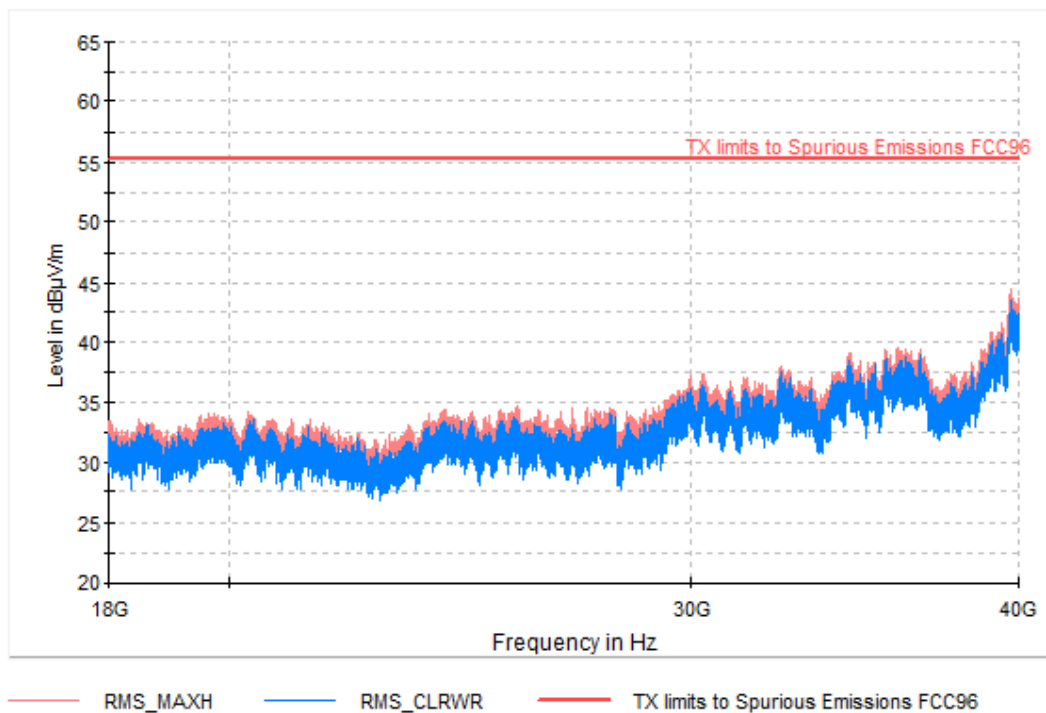


TEST RESULTS (Cont.):

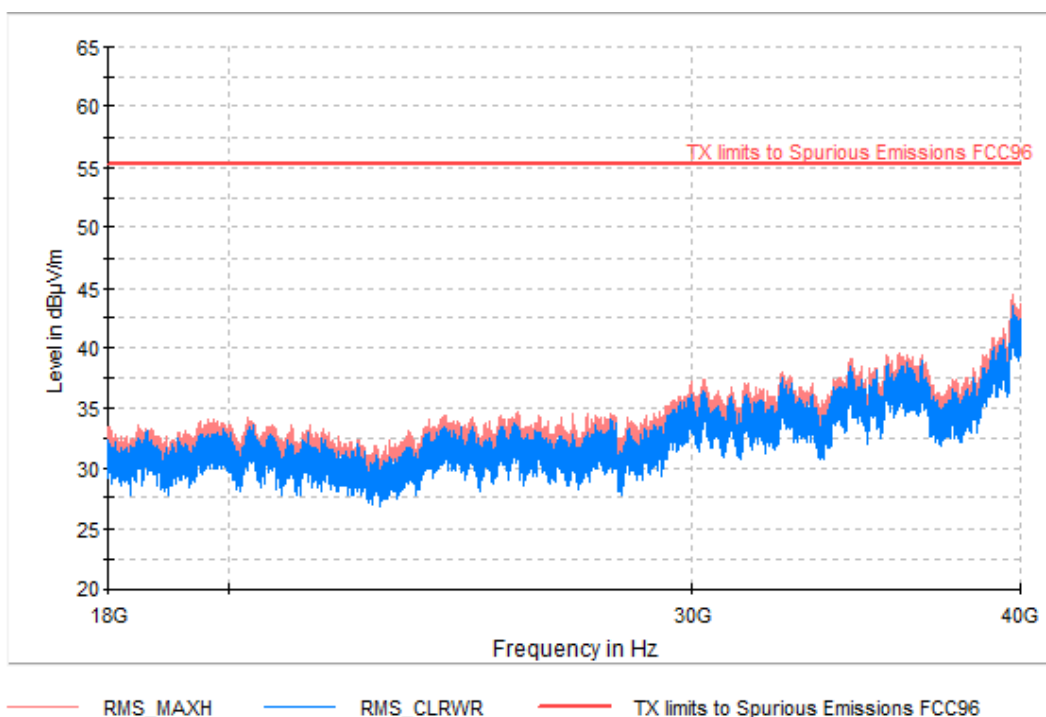
20 MHz BW FREQUENCY RANGE 18-40 GHz

FREQUENCY RANGE 18-40 GHz

Lowest Channel (3560 MHz)



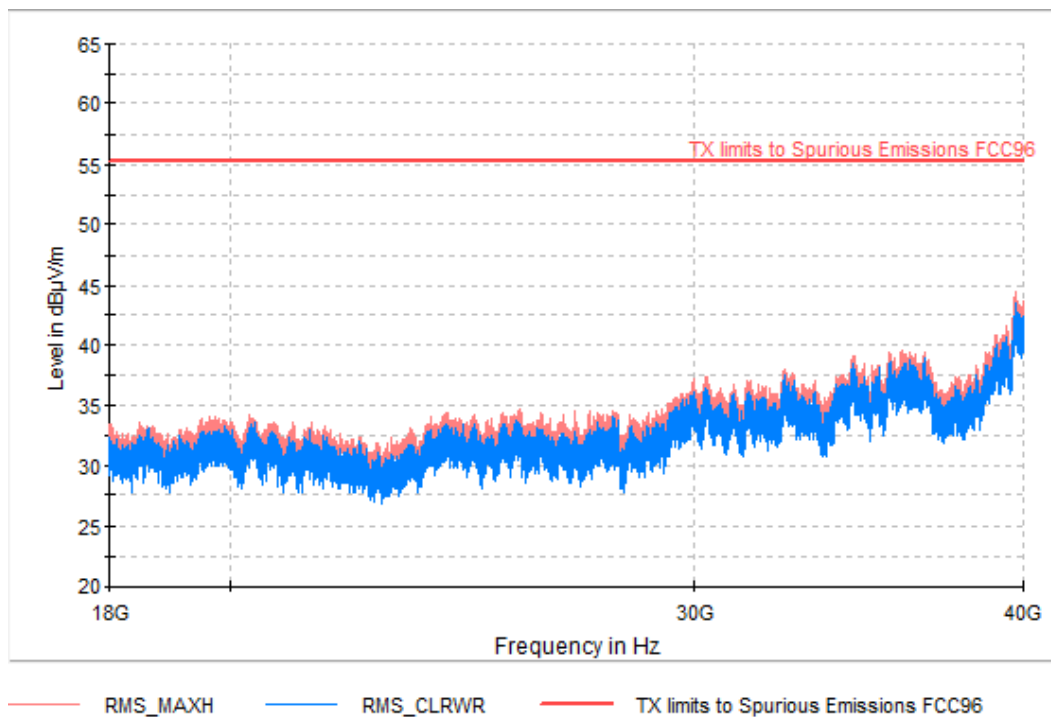
Middle Channel (3625 MHz)



TEST RESULTS (Cont.):

20 MHz BW FREQUENCY RANGE 18-40 GHz

Highest Channel (3690 MHz)



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

Results:

Frequency range 30 MHz – 1000 MHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs. The plots are shown only for 5 MHz BW as a worst case.

Frequency range 1 GHz – 7 GHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs.

Frequency range 7 GHz – 18 GHz

5 MHz BW

Lowest Channel (3552.5 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the low channel.

Middle Channel (3575 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the middle channel.

Highest Channel (3597.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dBμV/m)	Measurement Uncertainty (dB)
7103.812500	V	RMS	39.66	± 4.87
14210.156250	V	RMS	45.74	
16310.468750	V	RMS	46.93	

10 MHz BW

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels.

TEST RESULTS (Cont.):

15 MHz BW

Lowest Channel (3557.5 MHz)

Spurious Frequency (MHz)	Polarization	Detector	Emission Level (dB μ V/m)	Measurement Uncertainty (dB)
14229.750000	V	RMS	45.44	± 4.87

Middle Channel (3575 MHz):

No radiated spurious signal was detected at less than 20 dB respect to the limit for the middle channel.

Highest Channel (3592.5 MHz)

No radiated spurious signal was detected at less than 20 dB respect to the limit for the highest channel.

20 MHz BW

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels.

Frequency range 18 GHz – 40 GHz

No radiated spurious signal was detected at less than 20 dB respect to the limit for the lowest, middle and highest channels in all four BWs.

Verdict: PASS

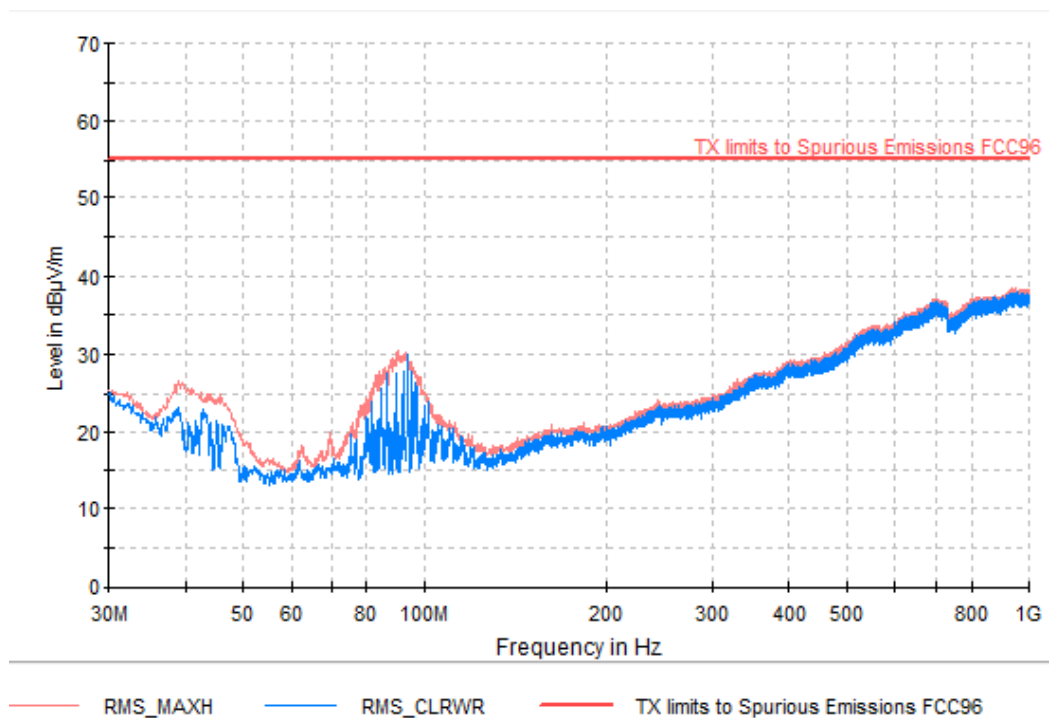
(See next plots)

TEST RESULTS (Cont.):

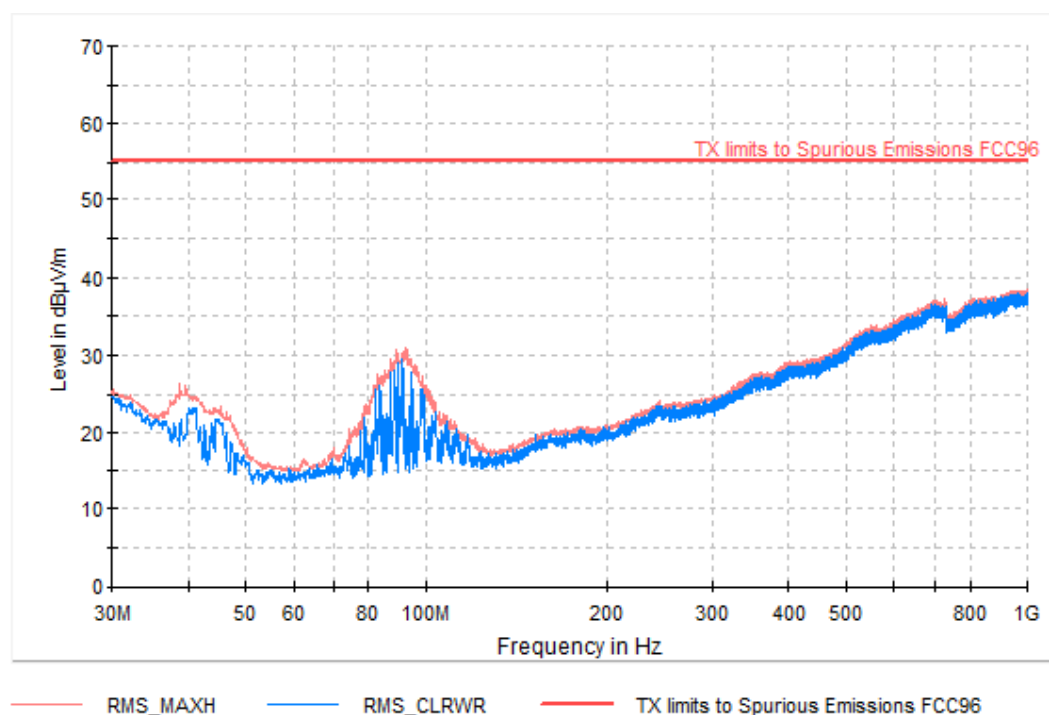
5 MHz BW FREQUENCY RANGE 30 MHz-1 GHz

5 MHz BW

FREQUENCY RANGE 30 MHz-1 GHz
Lowest Channel (3552.5 MHz)



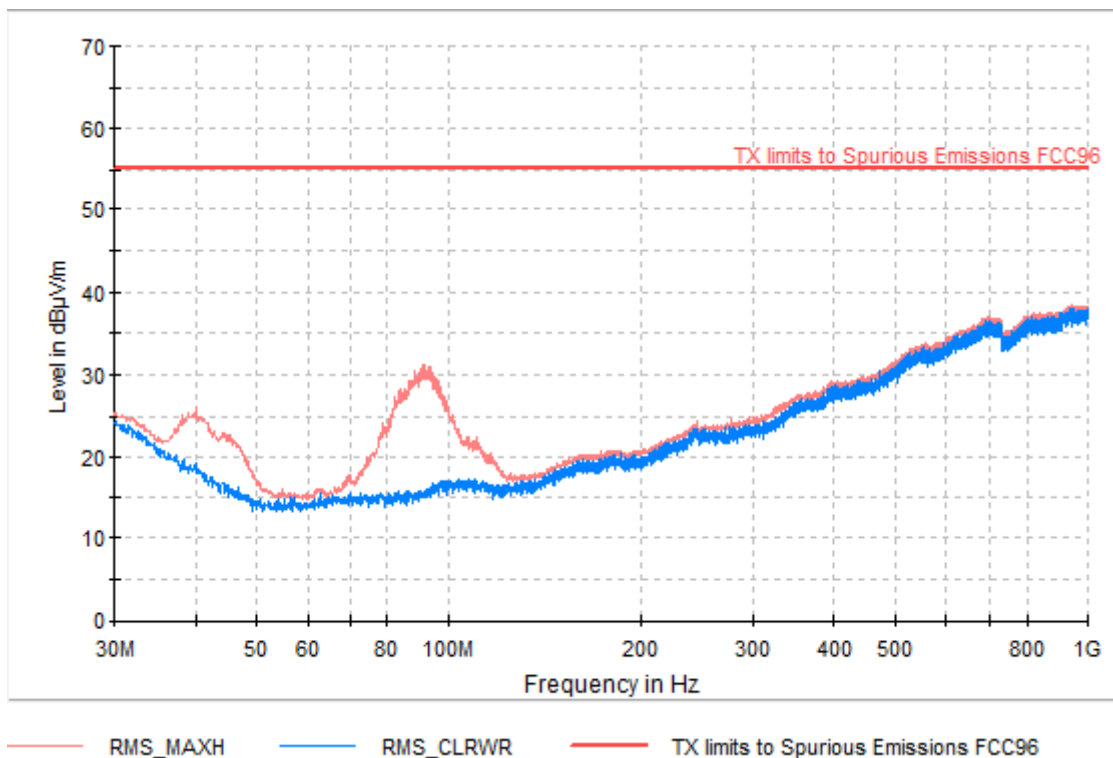
Middle Channel (3575 MHz)



TEST RESULTS (Cont.):

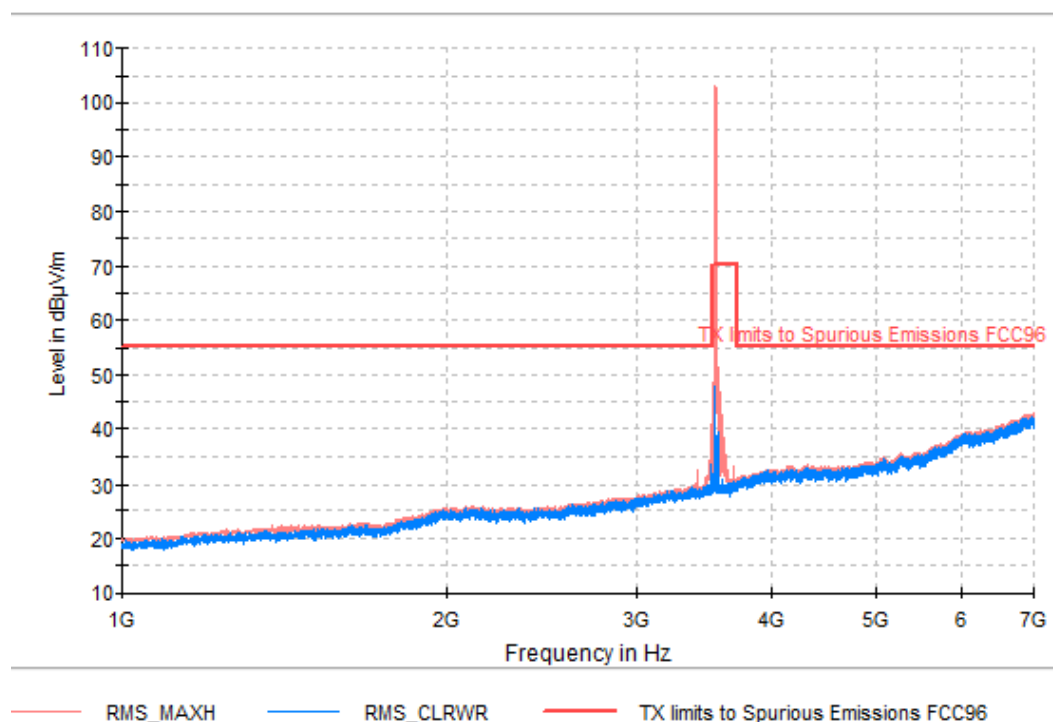
5 MHz BW FREQUENCY RANGE 30 MHz-1 GHz

Highest Channel (3597.5 MHz)



FREQUENCY RANGE 1-7 GHz

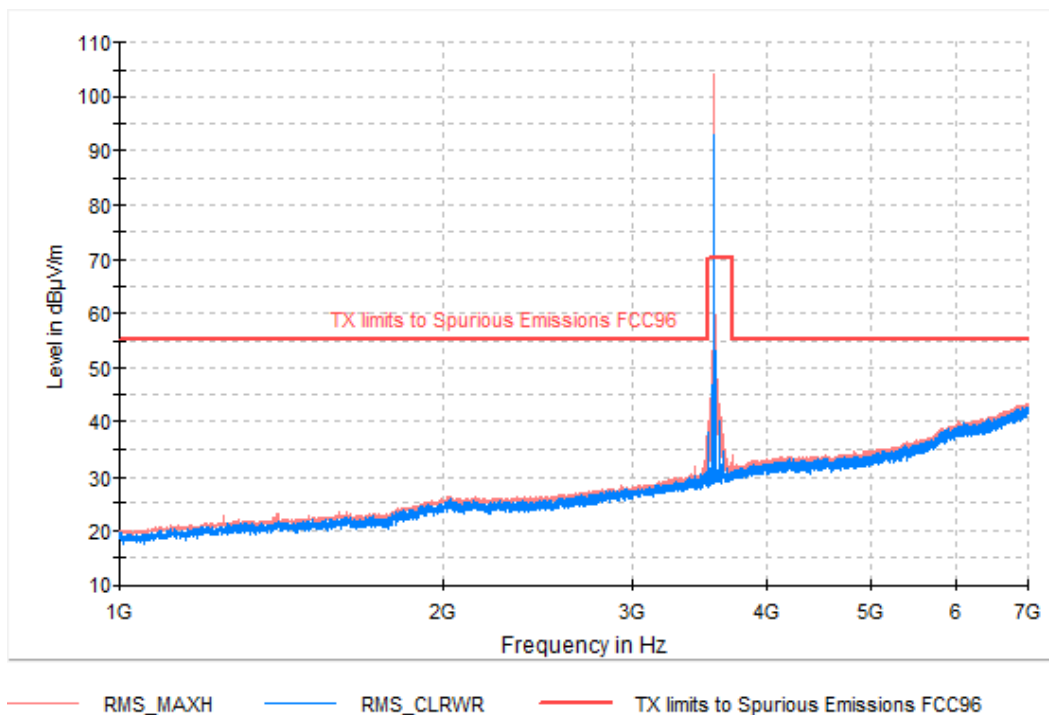
Lowest Channel (3552.5 MHz)



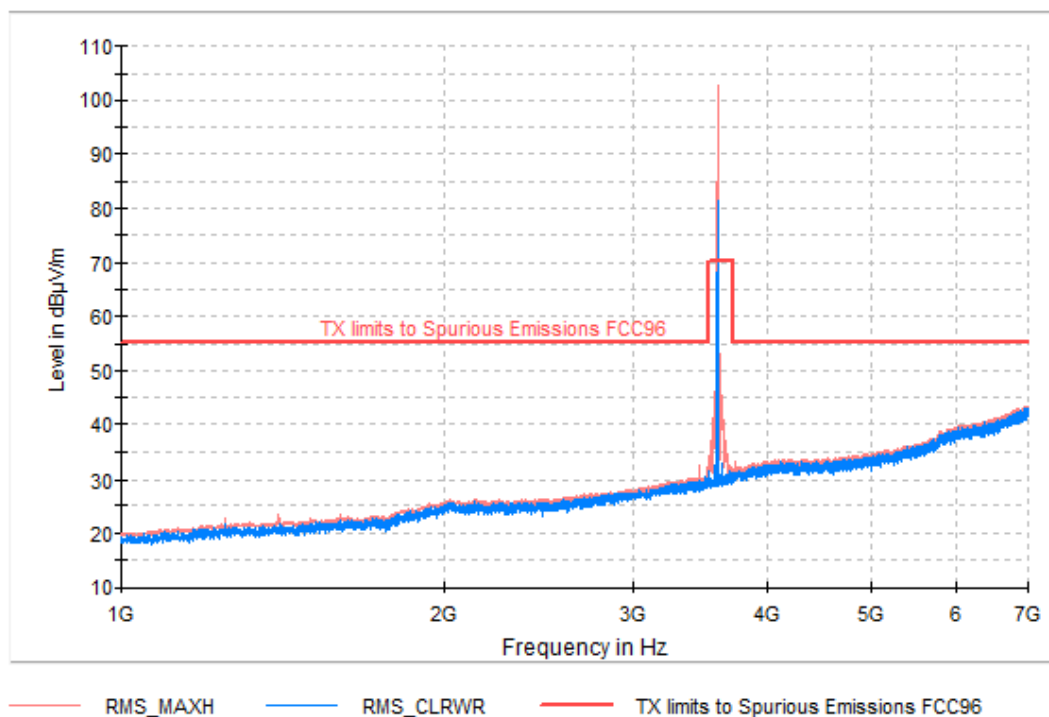
TEST RESULTS (Cont.):

5 MHz BW FREQUENCY RANGE 1-7 GHz

Middle Channel (3575 MHz)



Highest Channel (3597.5 MHz)

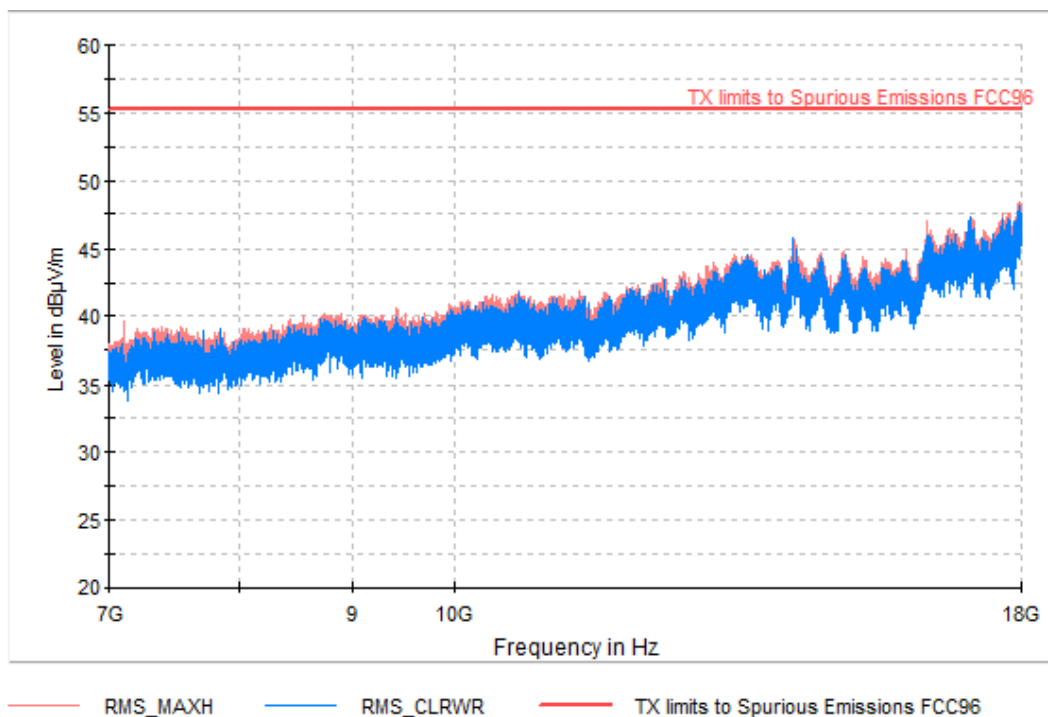


TEST RESULTS (Cont.):

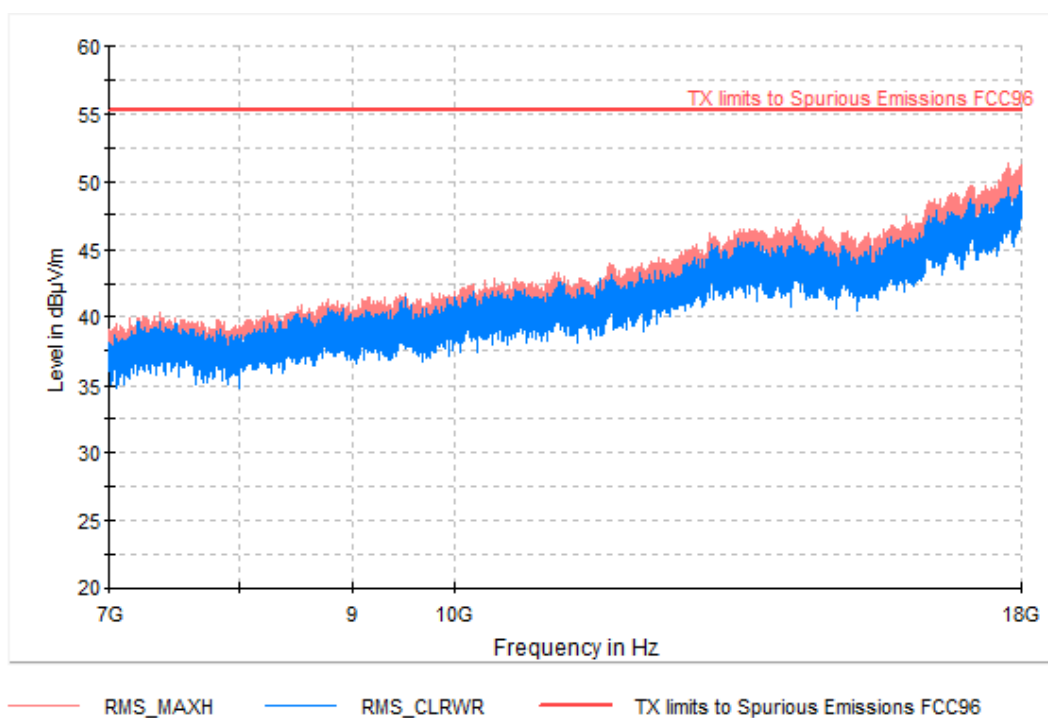
5 MHz BW FREQUENCY RANGE 7-18 GHz

FREQUENCY RANGE 7-18 GHz

Lowest Channel (3552.5 MHz)



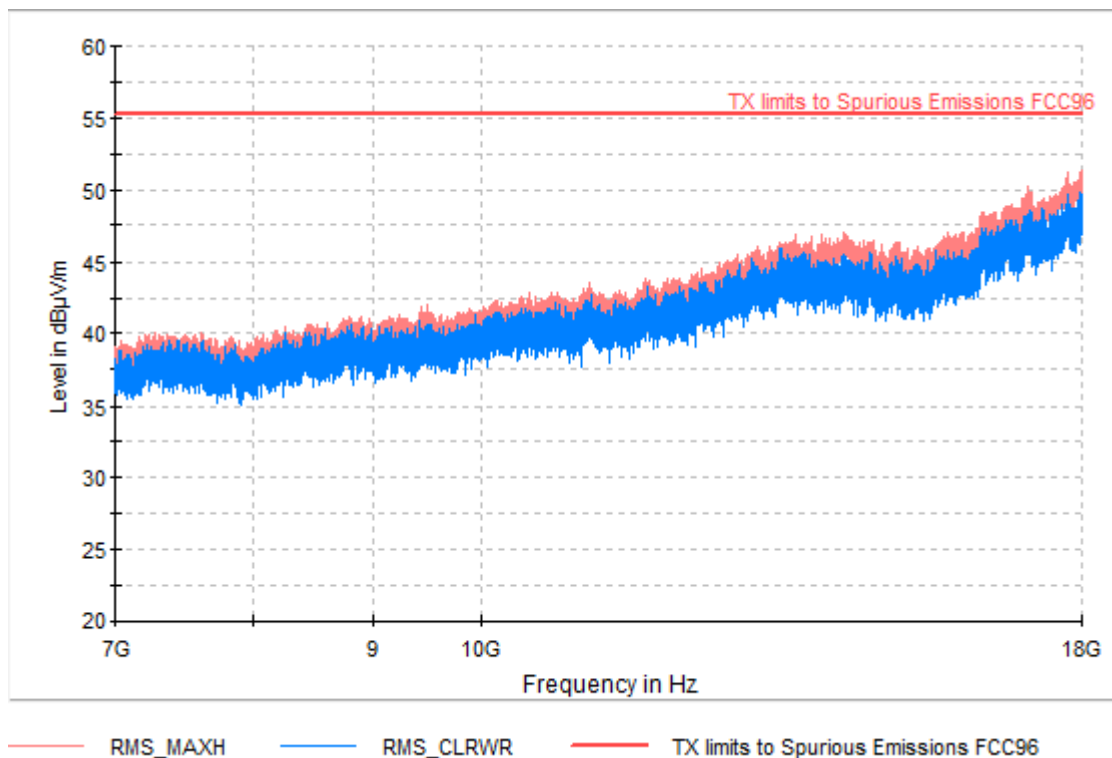
Middle Channel (3575 MHz)



TEST RESULTS (Cont.):

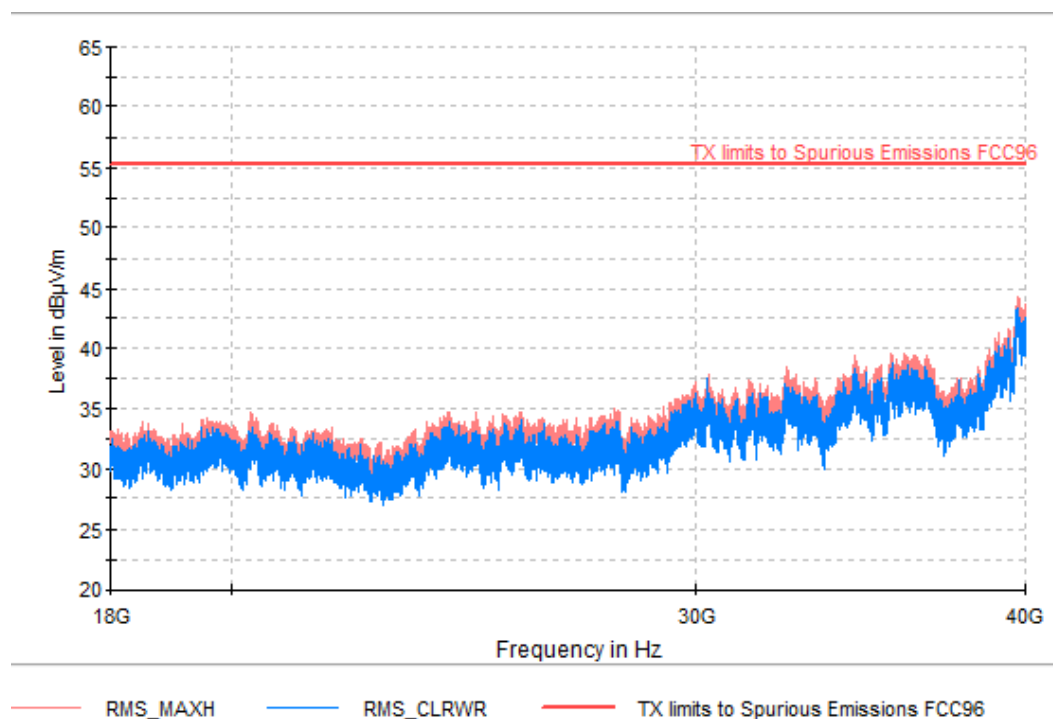
5 MHz BW FREQUENCY RANGE 7-18 GHz

Highest Channel (3597.5 MHz)



FREQUENCY RANGE 18-40 GHz

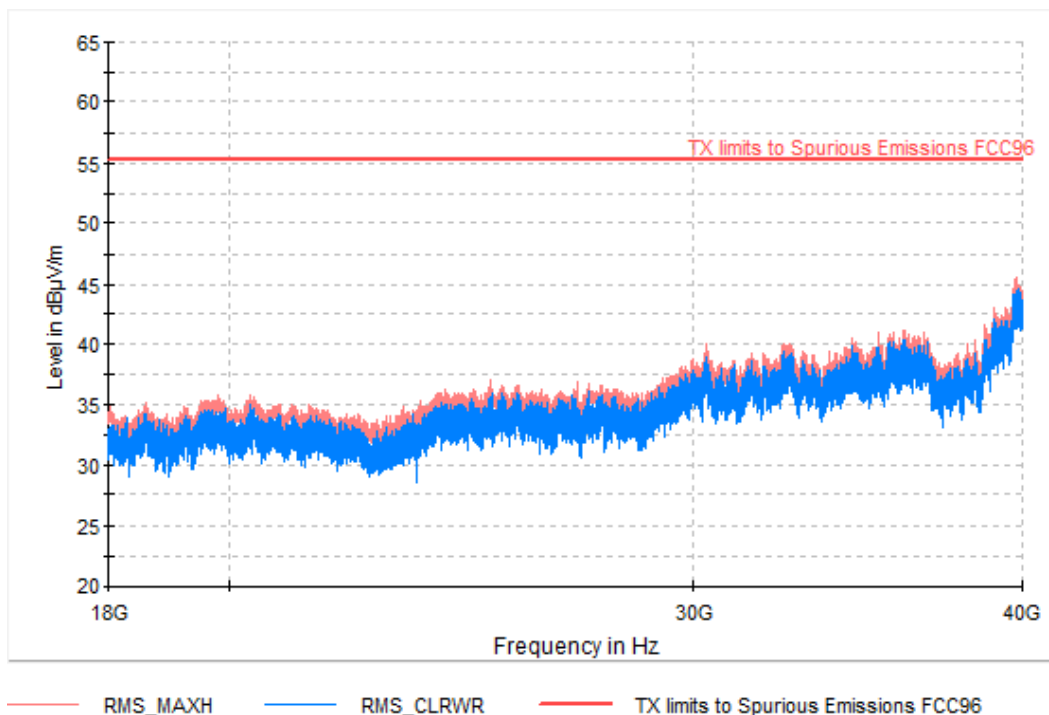
Lowest Channel (3552.5 MHz)



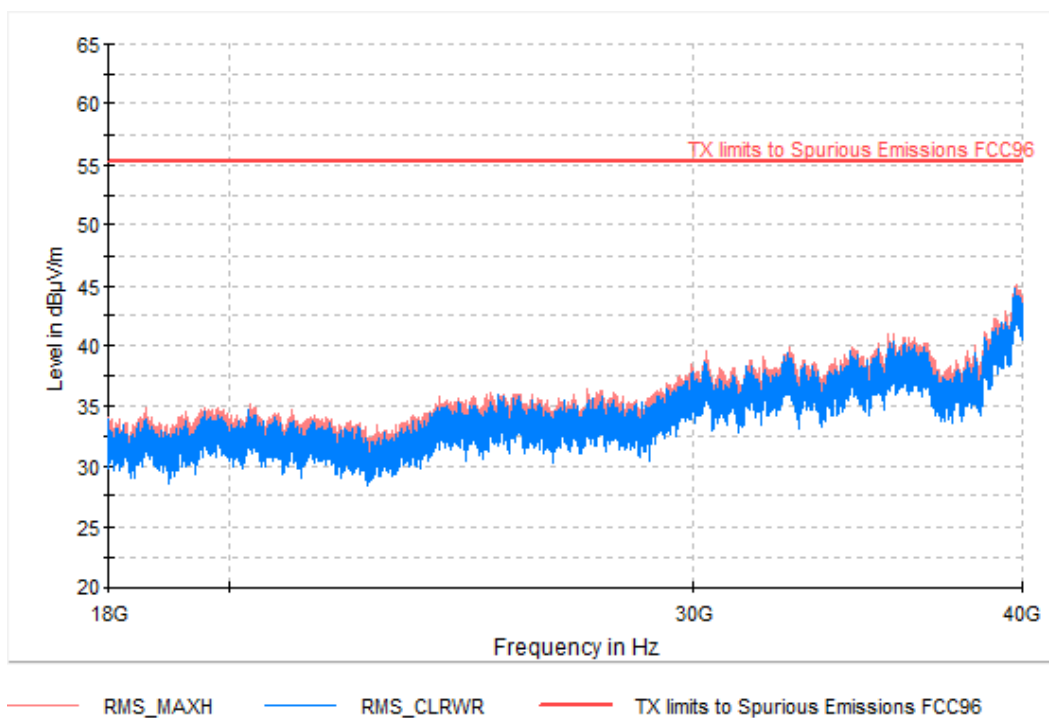
TEST RESULTS (Cont.):

5 MHz BW FREQUENCY RANGE 18-40 GHz

Middle Channel (3575 MHz)



Highest Channel (3597.5 MHz)



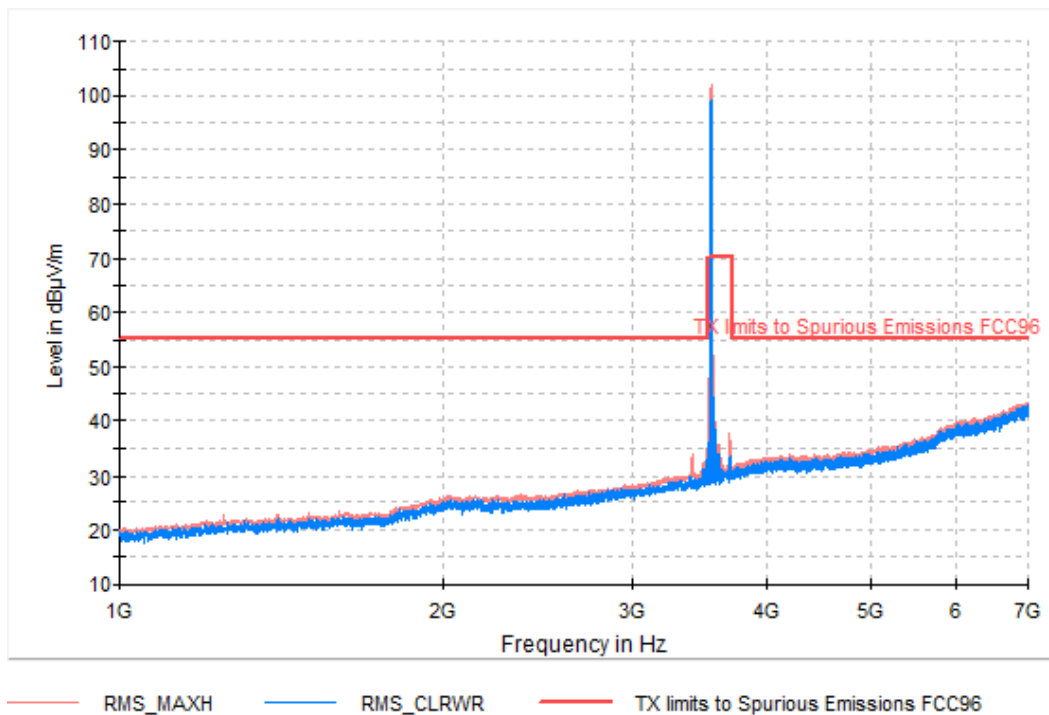
TEST RESULTS (Cont.):

10 MHz BW FREQUENCY RANGE 1-7 GHz

10 MHz BW

FREQUENCY RANGE 1-7 GHz

Lowest Channel (3555 MHz)



Middle Channel (3575 MHz)

