

TEST D.1: 26DB EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH

LIMITS:

Product standard:

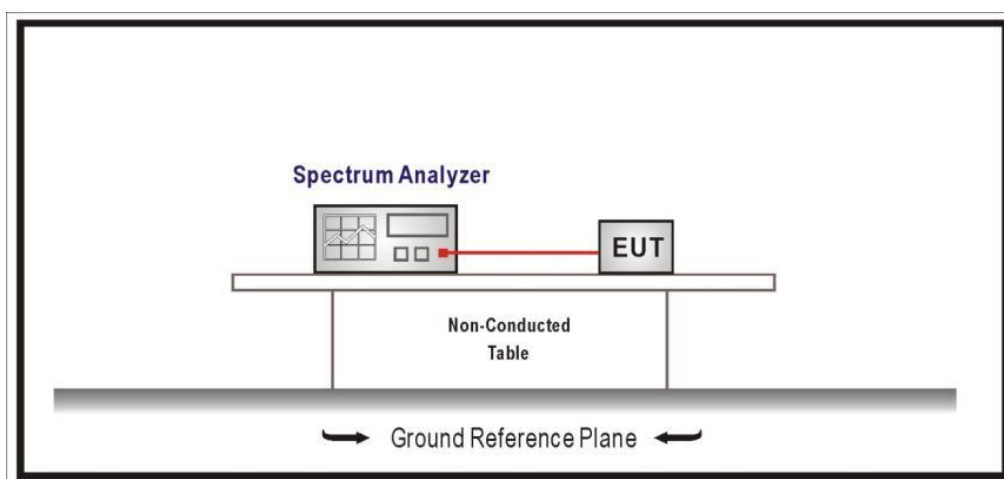
Part 15 Subpart C §15.403 and RSS-247

Test standard:

Part 15 Subpart C §15.403 and RSS-247 6.2.1

No requirements requested

TEST SETUP:



TESTED SAMPLES:

S/01

TESTED CONDITIONS MODES:

TC#01 (a mode)

TEST RESULTS:

PASS

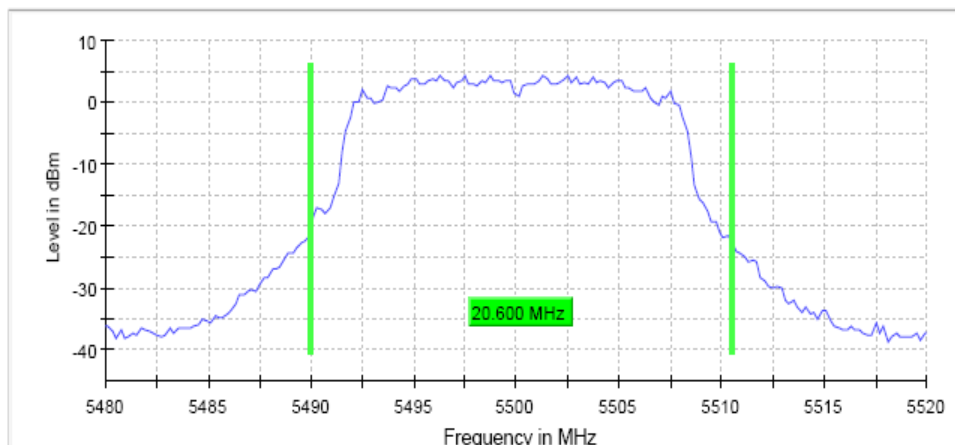
Bandwidth: 20 MHz

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
26dB Bandwidth (MHz)	20.6	20.4	21.2
Occupied bandwidth (MHz)	16.4	16.4	16.2
Measurement uncertainty (kHz)	<± 8.33		

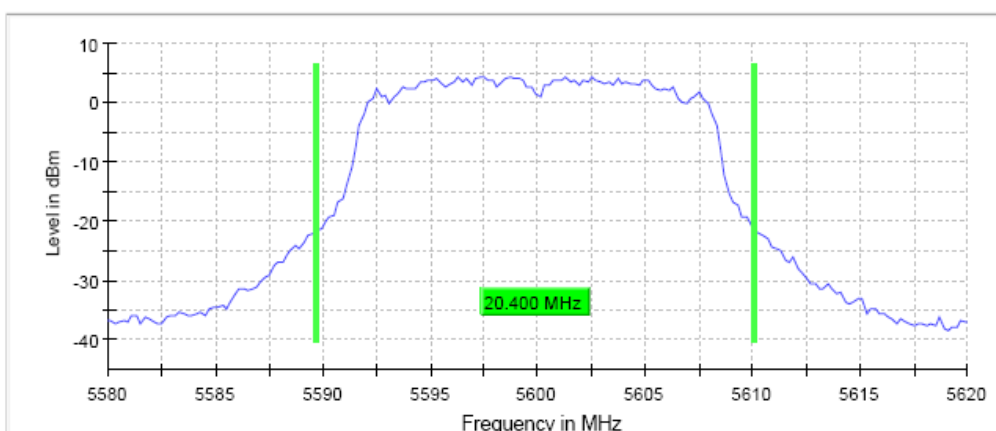
TEST RESULTS (Cont.):

26 dB BANDWIDTH

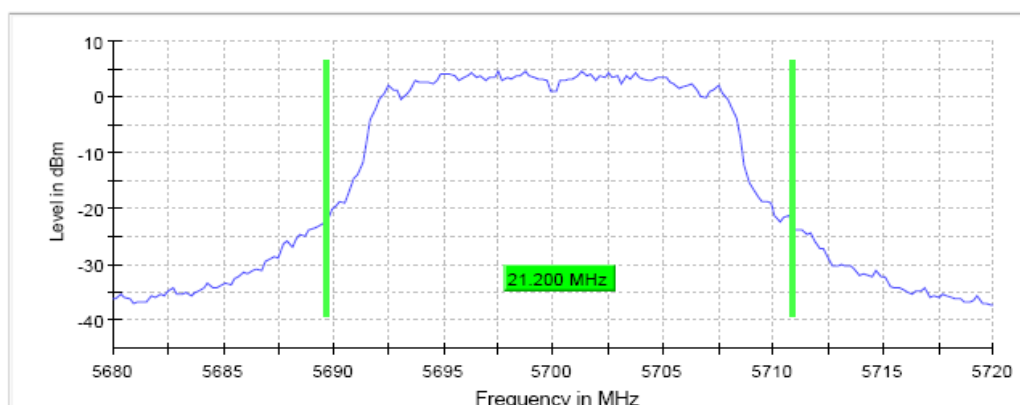
Lowest Channel



Middle Channel



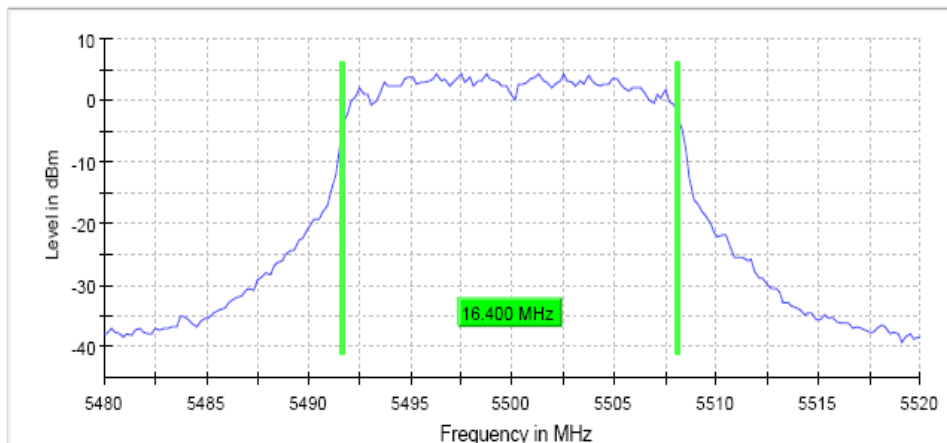
Highest Channel



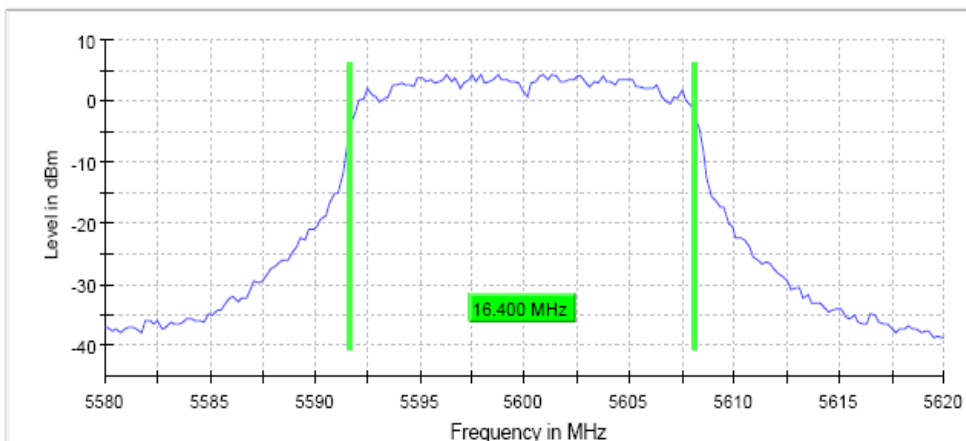
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

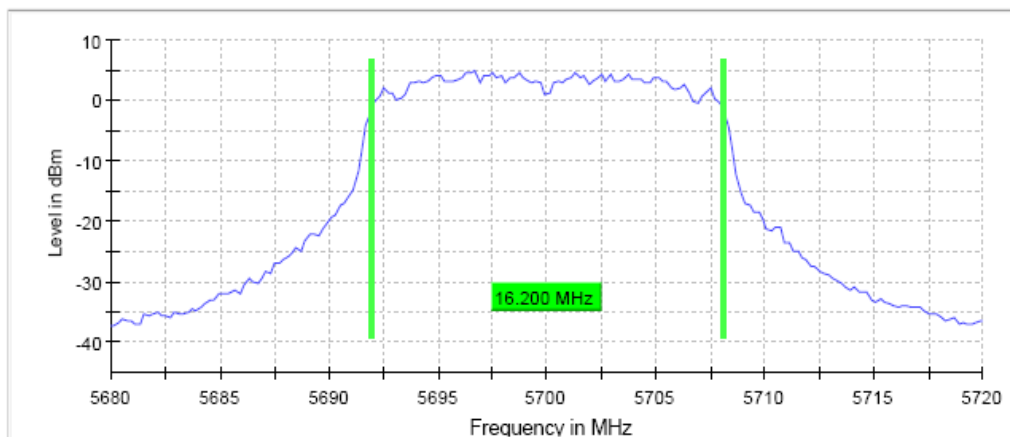
Lowest Channel



Middle Channel



Highest Channel

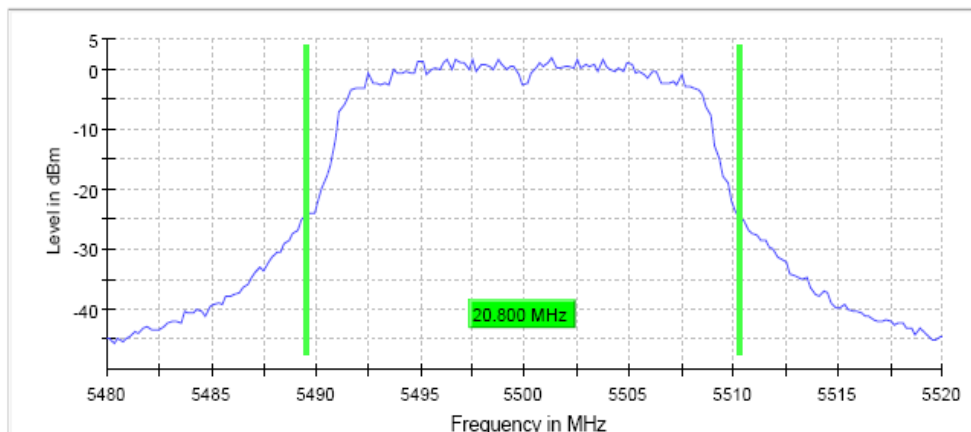


05-14-2020

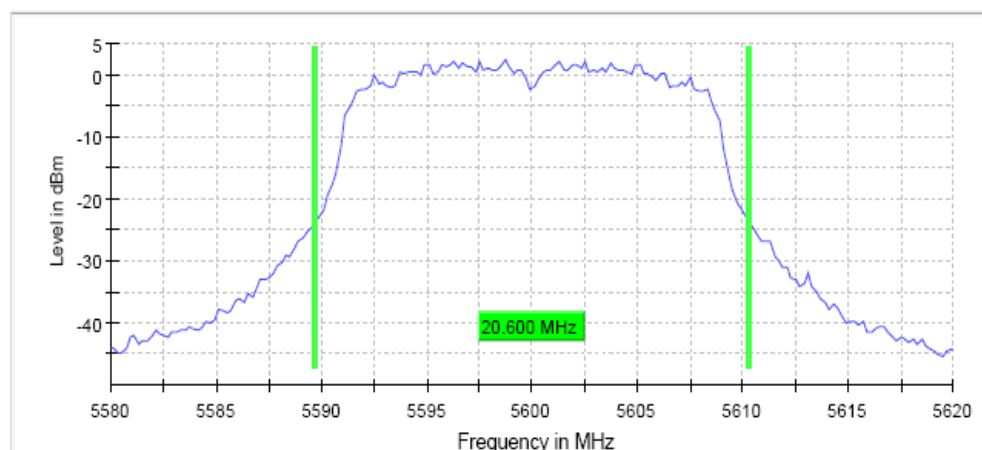
TEST RESULTS (Cont.):

26 dB BANDWIDTH

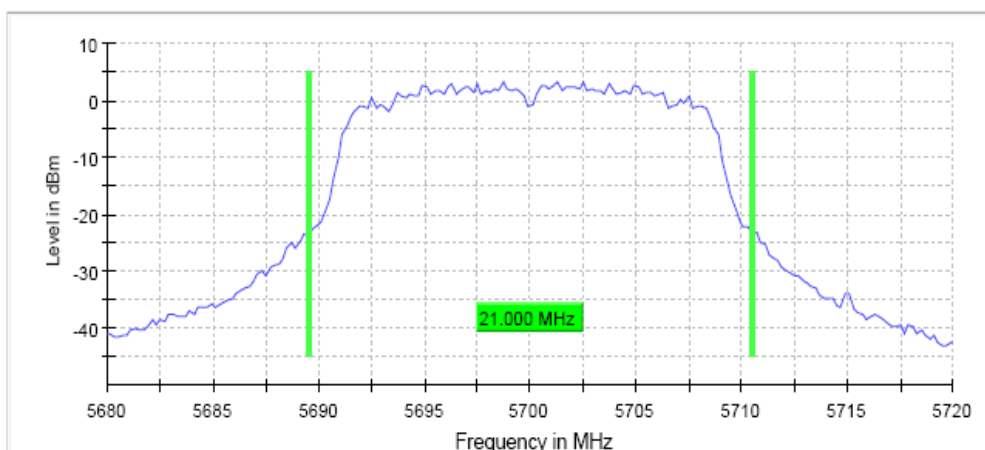
Lowest Channel



Middle Channel



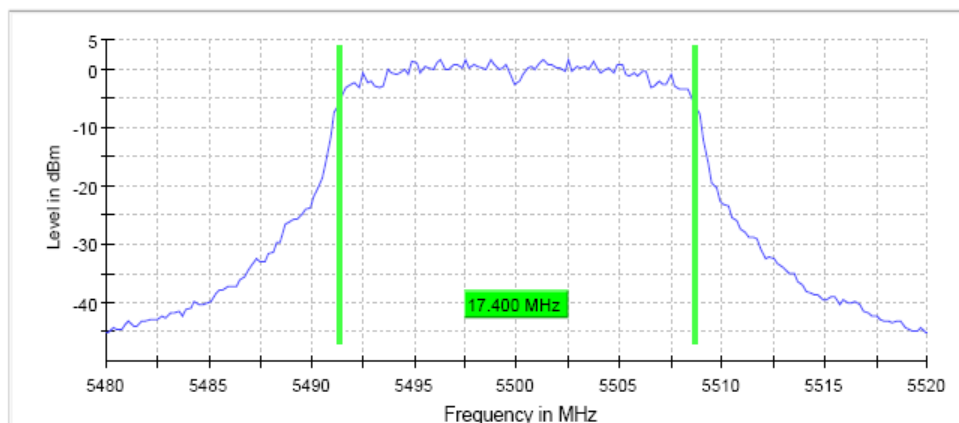
Highest Channel



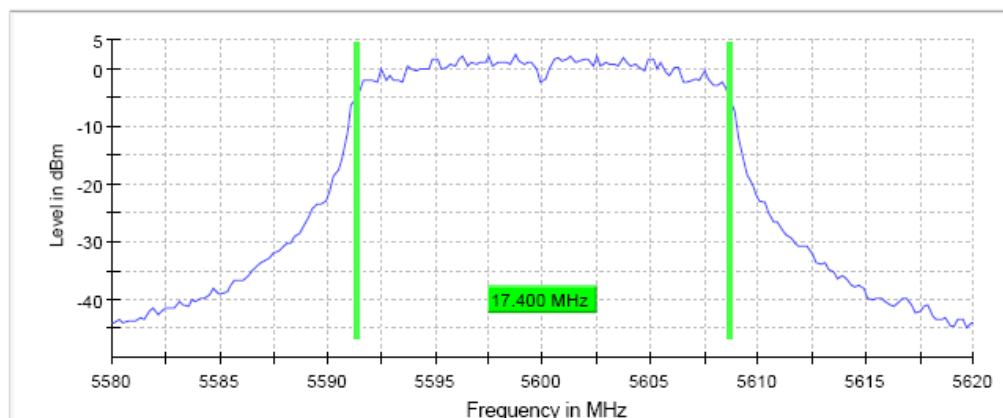
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

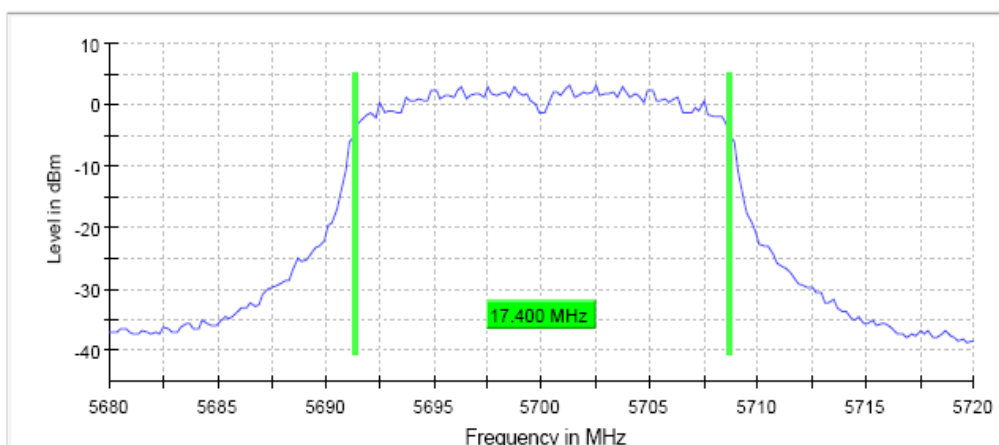
Lowest Channel



Middle Channel



Highest Channel

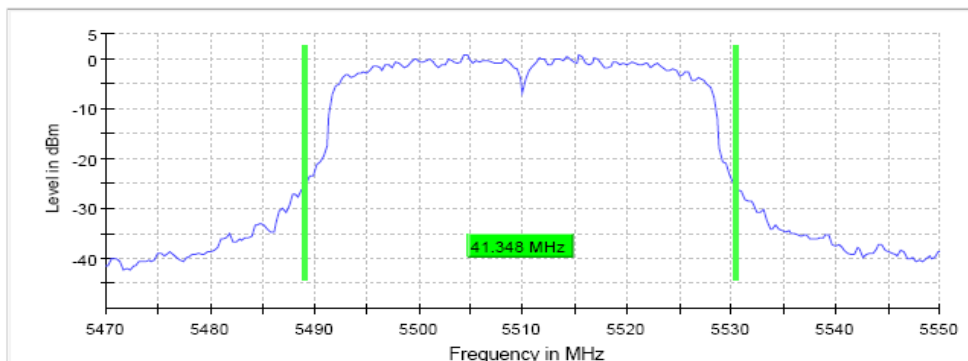


Report No: 2323ERM.006A2 Page 187 of 287 05-14-2020

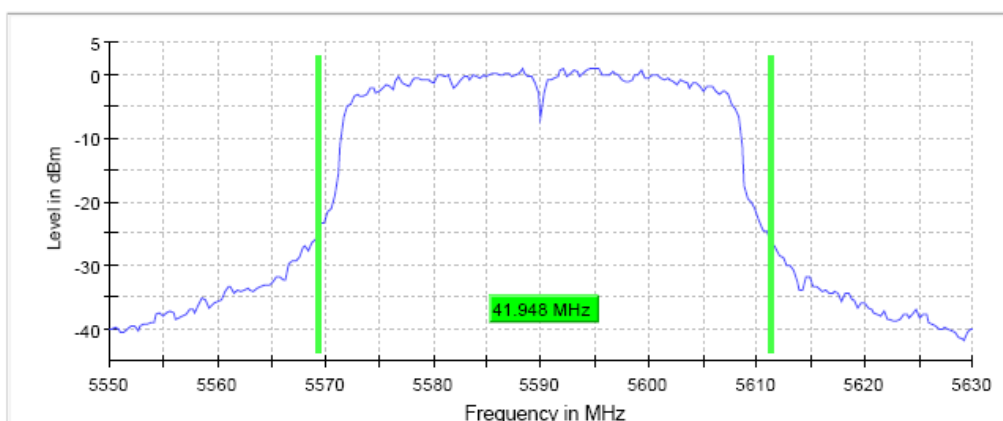
TEST RESULTS (Cont.):

26 dB BANDWIDTH

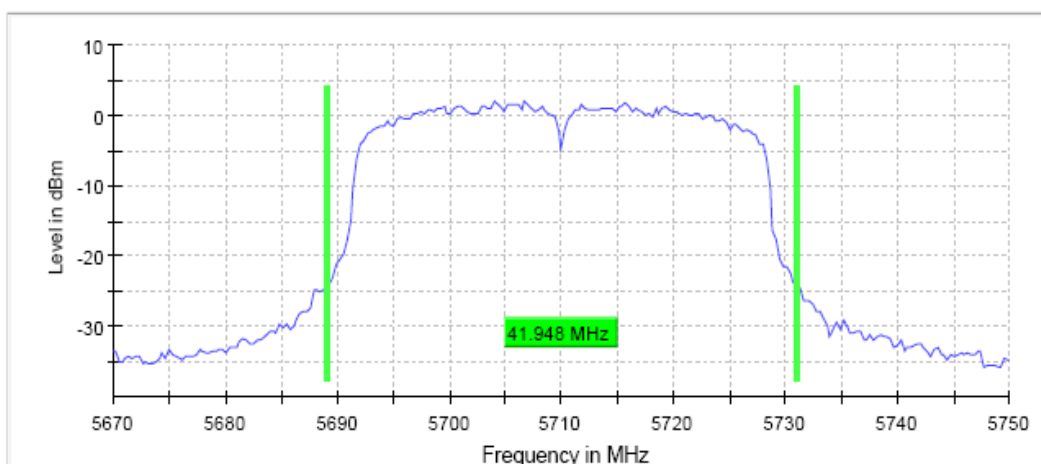
Lowest Channel



Middle Channel



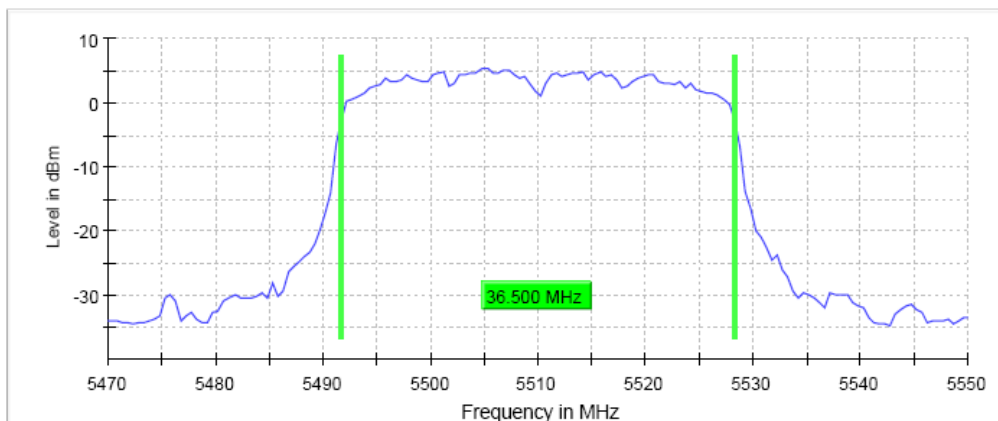
Highest Channel



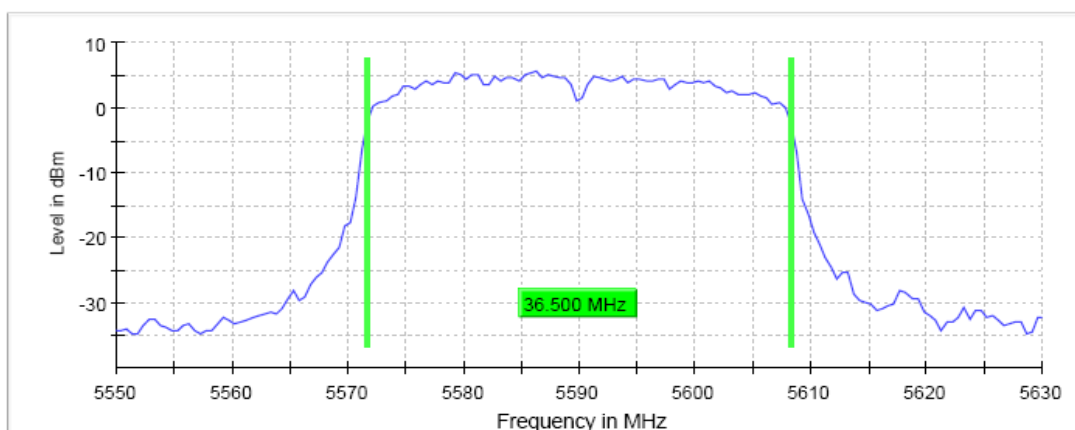
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

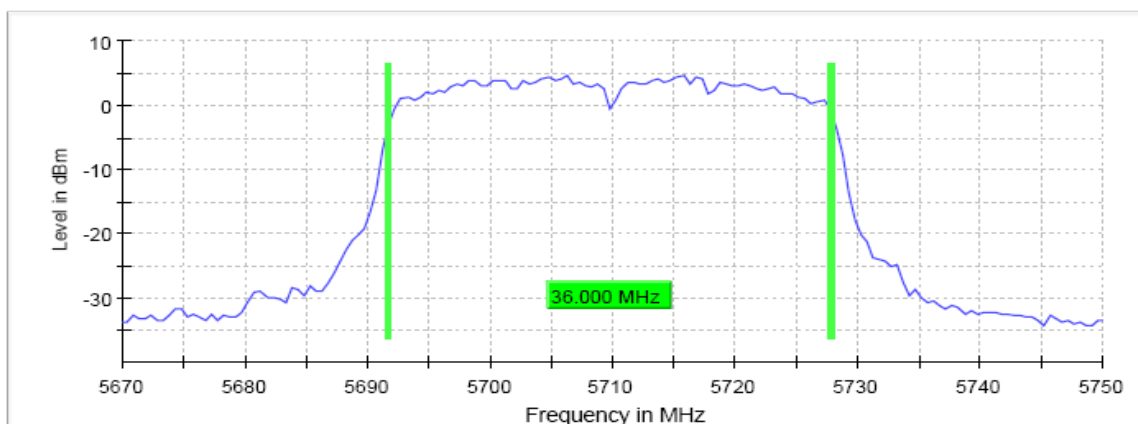
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.55000 GHz	5.67000 GHz
Stop Frequency	5.55000 GHz	5.63000 GHz	5.75000 GHz
Span	80.000 MHz	80.000 MHz	80.000 MHz
RBW	500.000 KHz	500.000 KHz	500.000 KHz
VBW	2.000 MHz	2.000 MHz	2.000 MHz
SweepPoints	160	160	160
Sweeptime	18.962 us	18.962 us	18.962 us
Reference Level	20.000 dBm	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	51 / max. 150	51 / max. 150	32 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable	0.07 dB	0.08 dB	0.00 dB

TESTED SAMPLES:

S/01

TESTED CONDITIONS MODES:

TC#03 (ac mode)

TEST RESULTS:

PASS

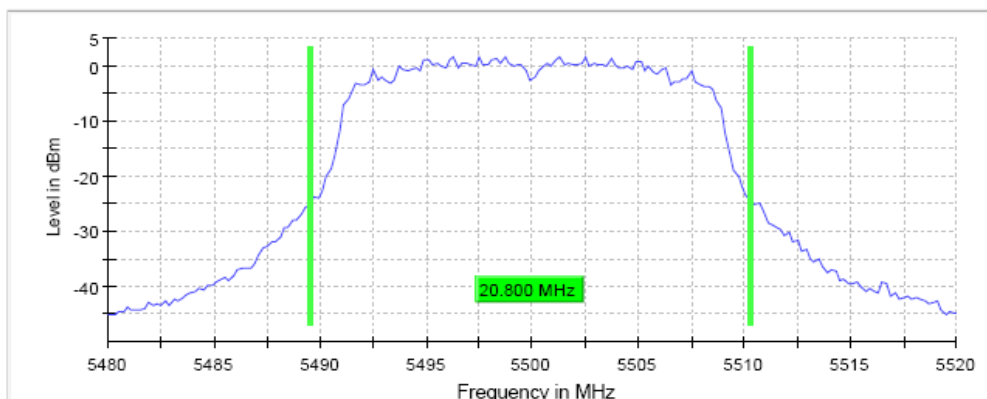
Bandwidth: 20 MHz

	Lowest frequency	Middle frequency	Highest frequency
	5500 MHz	5600 MHz	5700 MHz
26db bandwidth (MHz)	20.8	20.4	21
Occupied bandwidth (MHz)	17.4	17.4	17.4
Measurement uncertainty (kHz)	<± 8.33		

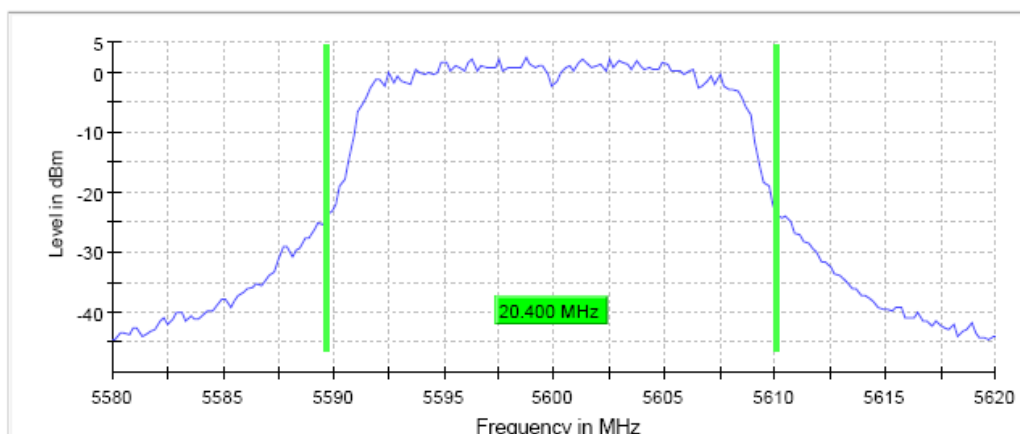
TEST RESULTS (Cont.):

26 dB BANDWIDTH

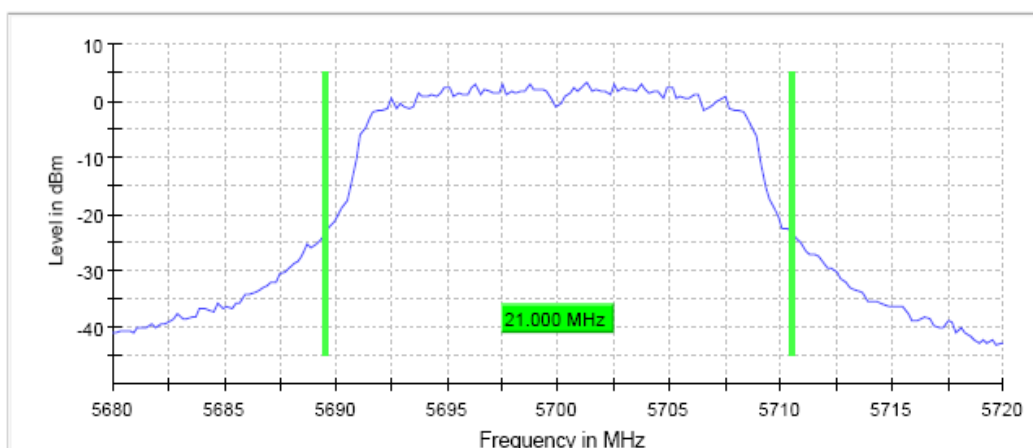
Lowest Channel



Middle Channel



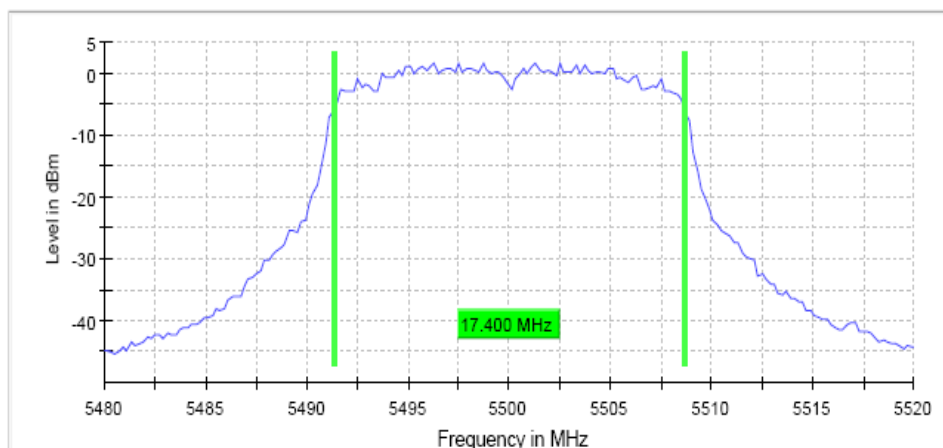
Highest Channel



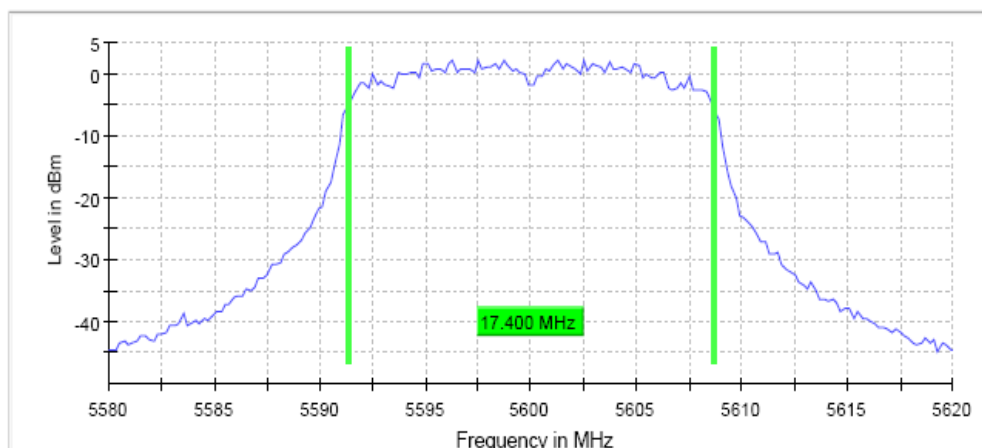
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

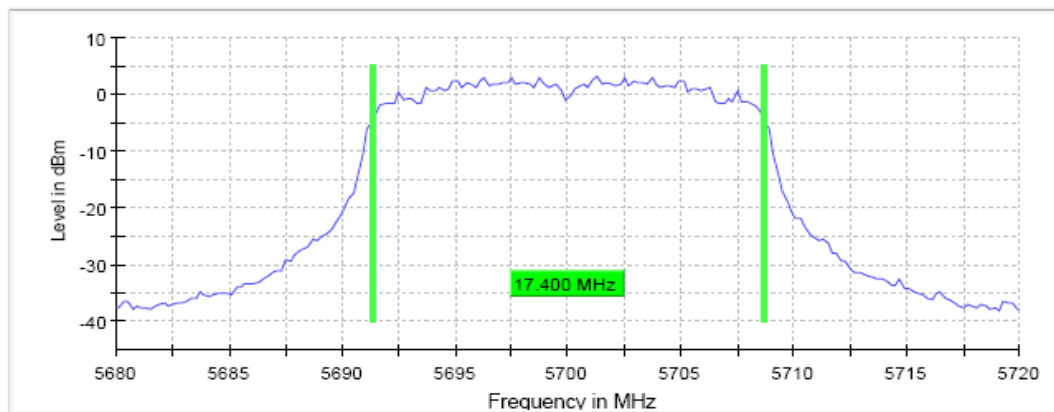
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.48000 GHz	5.58000 GHz	5.68000 GHz
Stop Frequency	5.52000 GHz	5.62000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	200.000 kHz	200.000 KHz	200.000 kHz
VBW	1.000 MHz	1.000 MHz	1.000 MHz
SweepPoints	200	200	200
SweepTime	28.443 μ s	28.443 μ s	28.443 μ s
Reference Level	20.000 dBm	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	50 / max. 150	50 / max. 150	54 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.05 dB	0.00 dB	0.28 dB

TEST RESULTS

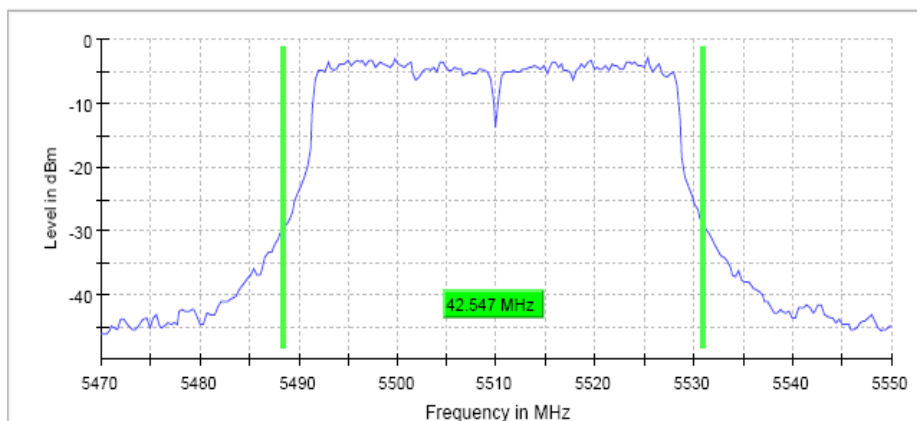
ac mode (40 MHz)

	Lowest frequency 5510 MHz	Middle frequency 5590 MHz	Highest frequency 5710 MHz
26dB bandwidth (MHz)	42.547	43.146	44.045
Occupied bandwidth (MHz)	36.5	36.0	36.5
Measurement uncertainty (kHz)	< $\pm$ 8.33		

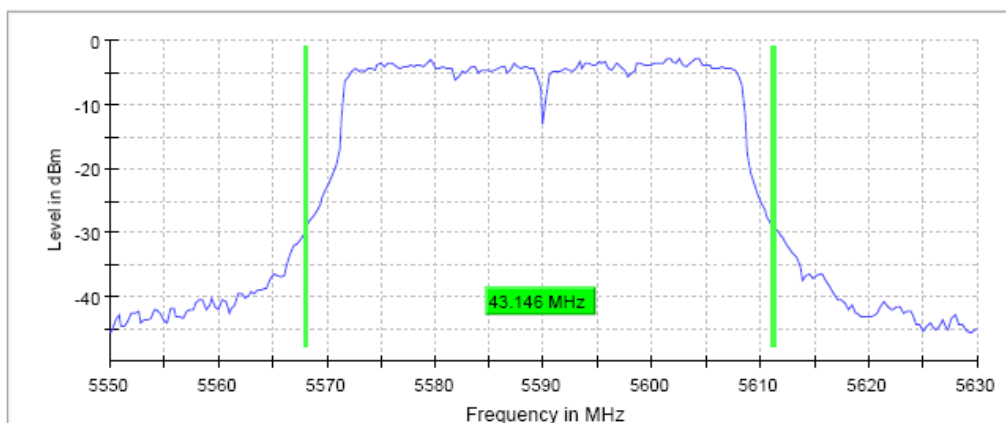
TEST RESULTS (Cont.):

26 dB BANDWIDTH

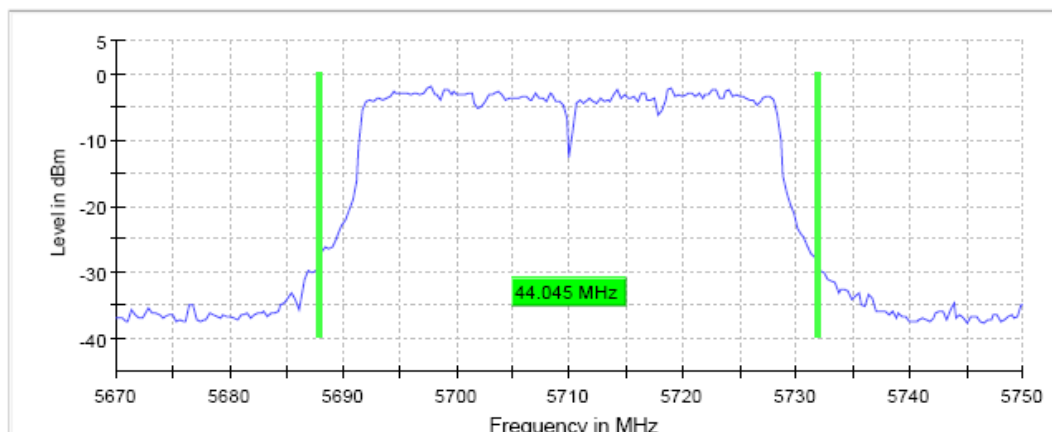
Lowest Channel



Middle Channel



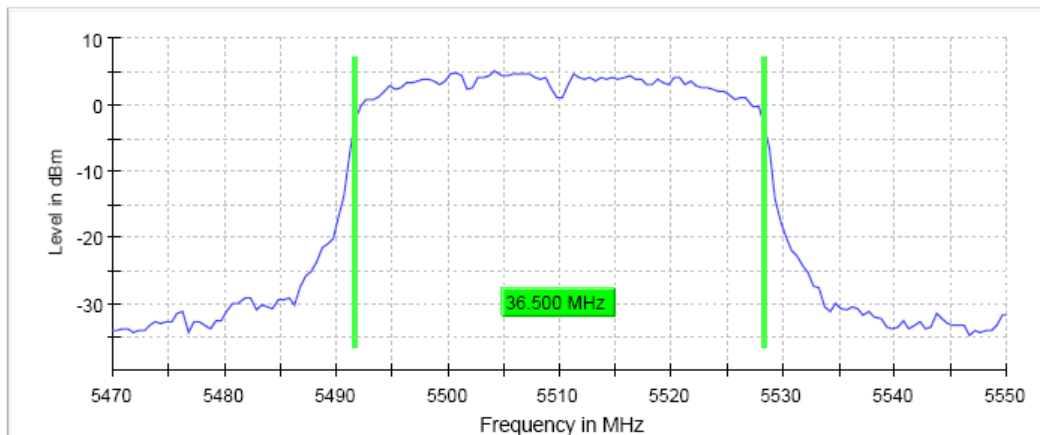
Highest Channel



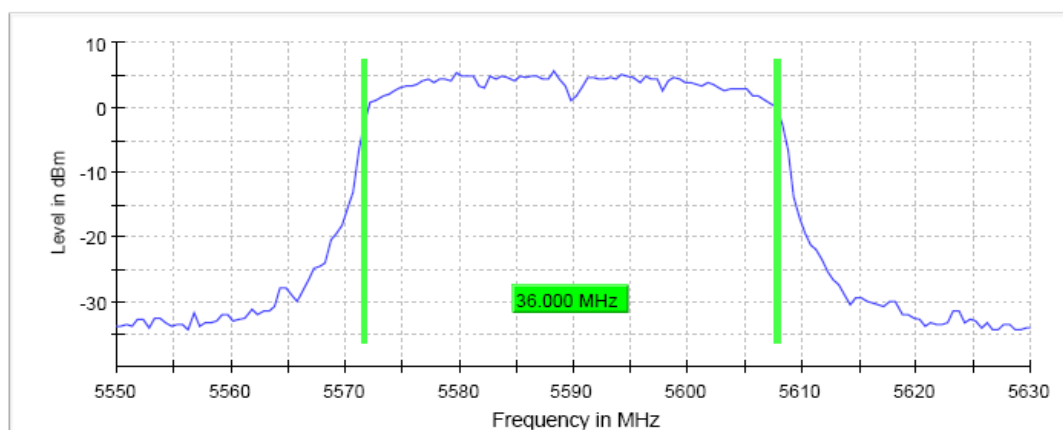
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

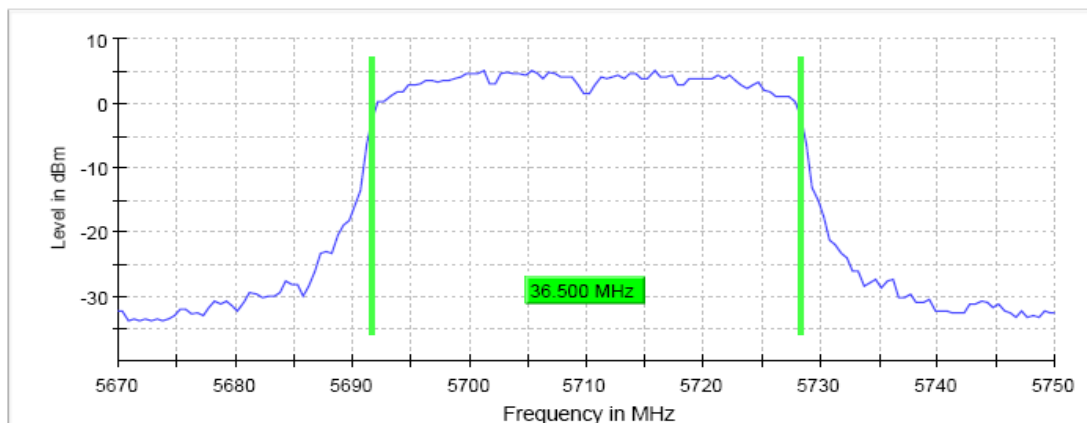
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.55000 GHz	5.67000 GHz
Stop Frequency	5.55000 GHz	5.63000 GHz	5.75000 GHz
Span	80.000 MHz	80.000 MHz	80.000 MHz
RBW	500.000 kHz	500.000 kHz	500.000 kHz
VBW	2.000 MHz	2.000 MHz	2.000 MHz
SweepPoints	160	160	160
Sweeptime	18.962 us	18.962 us	18.962 us
Reference Level	20.000 dBm	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FET	FET	FET
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	49 / max. 150	119 / max. 150	70 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.00 dB	0.00 dB	0.00 dB

TEST RESULTS

ac mode (80 MHz)

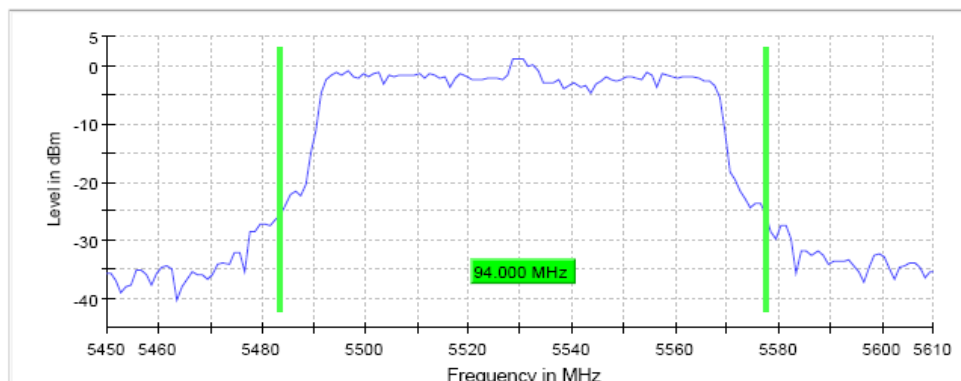
Bandwidth: 80 MHz

	Lowest frequency	Middle frequency	Highest frequency
	5530 MHz	5610 MHz	5690 MHz
26dB bandwidth (MHz)	94	95	94
Occupied bandwidth (MHz)	76.5	76.5	76.5
Measurement uncertainty (kHz)	<± 8.33		

TEST RESULTS (Cont.):

26 dB BANDWIDTH

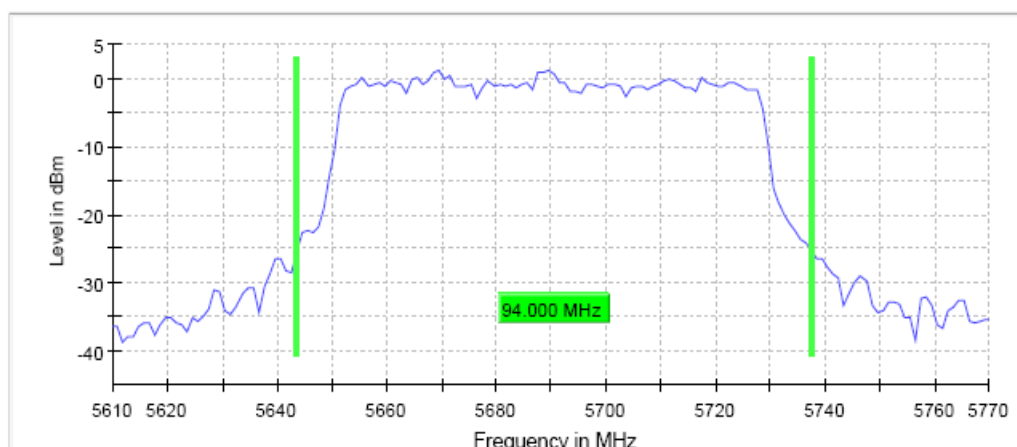
Lowest Channel



Middle Channel



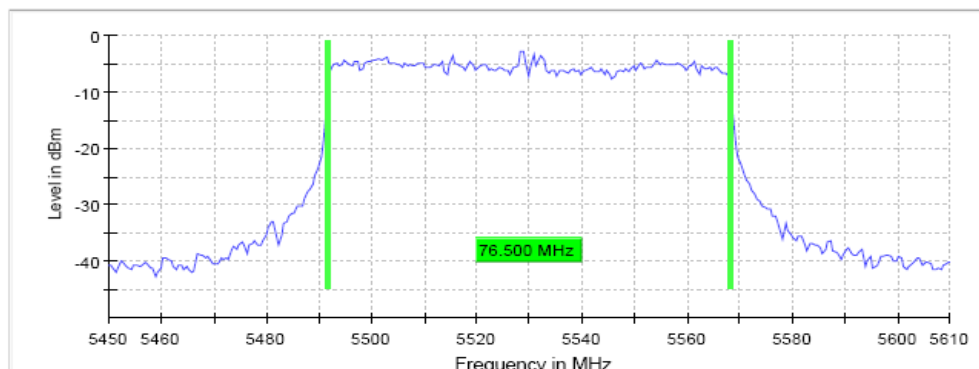
Highest Channel



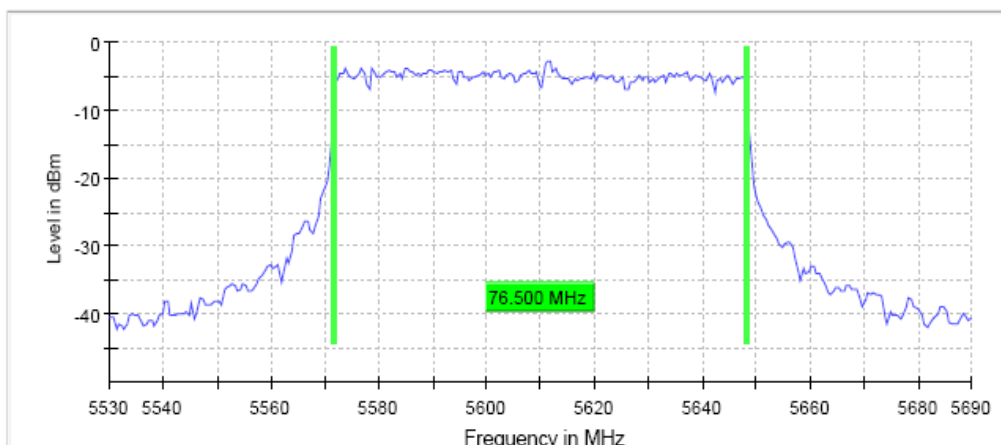
TEST RESULTS (Cont.):

OCCUPIED BANDWIDTH

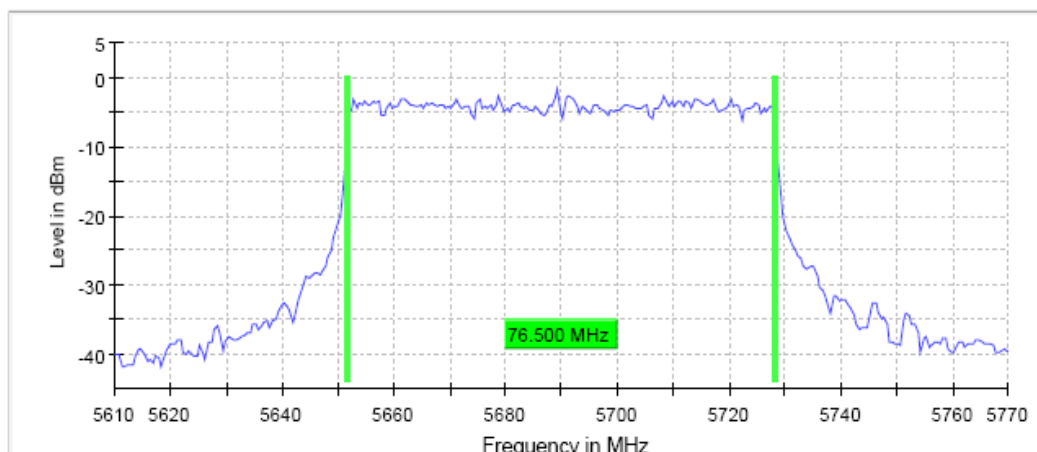
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.45000 GHz	5.53000 GHz	5.61000 GHz
Stop Frequency	5.61000 GHz	5.69000 GHz	5.77000 GHz
Span	160.000 MHz	160.000 MHz	160.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	160	160	160
SweepTime	22.754 μ s	22.754 μ s	22.754 μ s
Reference Level	10.000 dBm	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	30.000 dB	30.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	86 / max. 150	70 / max. 150	53 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.00 dB	0.00 dB	0.00 dB

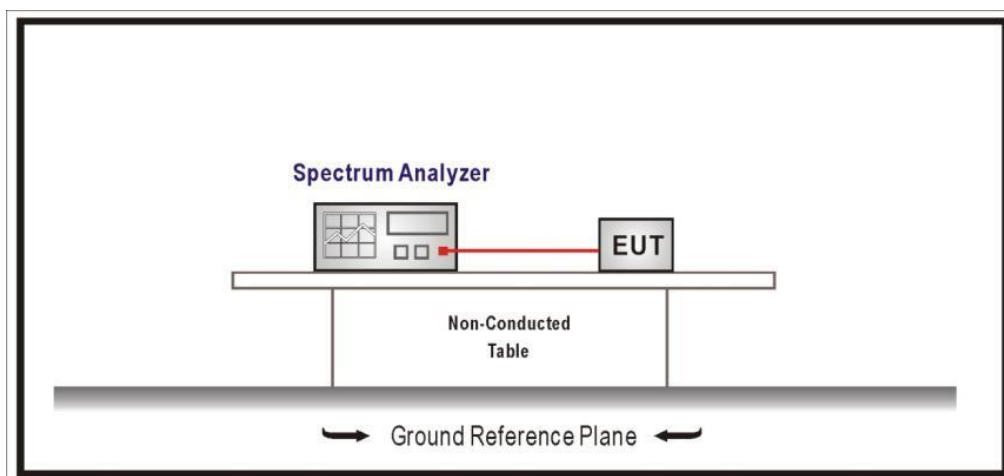
TEST D.2: 6DB EMISSION BANDWIDTH

LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(e) and RSS-247 6.2.4.1

LIMITS:

Within the 5.725 – 5.85 GHz band, the minimum 6dB bandwidth of U-NII devices shall be at least 500 KHz.

TEST SETUP:



TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 (a mode)
TEST RESULTS:	PASS

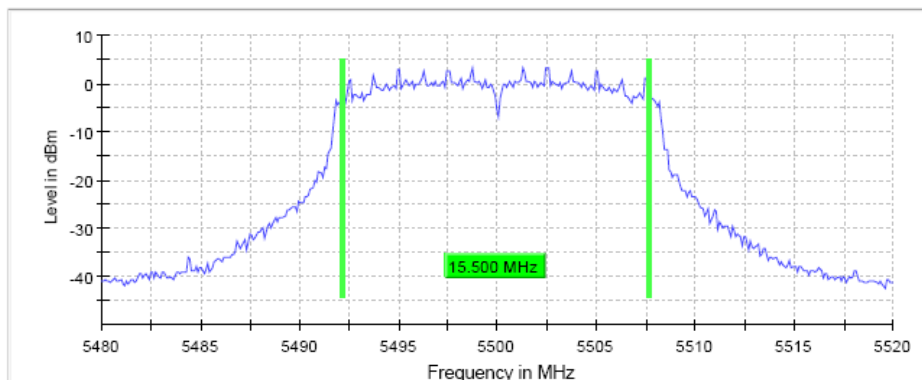
Bandwidth: 20 MHz

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
6dB Bandwidth (MHz)	15.5	15.7	15.3
Measurement uncertainty (kHz)	<± 8.33		

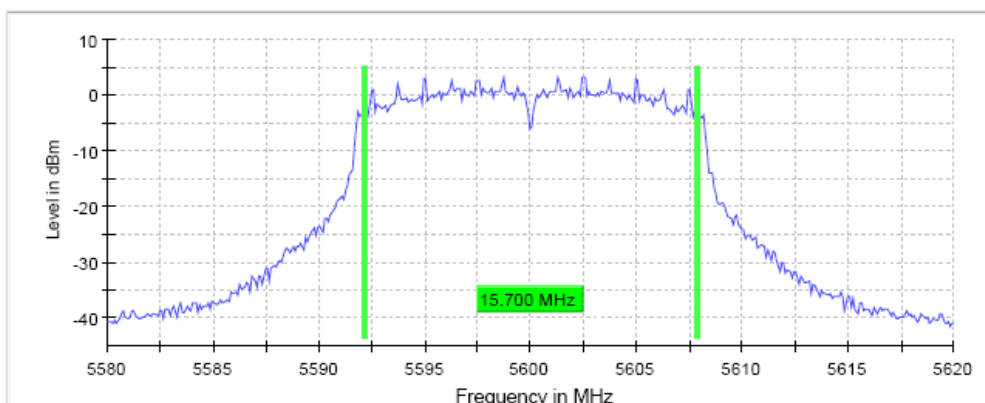
TEST RESULTS (Cont.):

6 dB BANDWIDTH

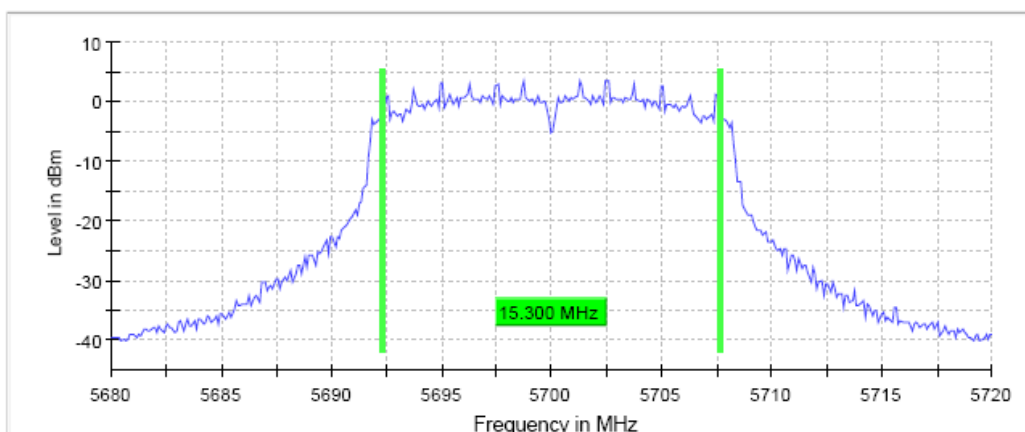
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)			
Measurement			
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.48000 GHz	5.58000 GHz	5.68000 GHz
Stop Frequency	5.52000 GHz	5.62000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 kHz	300.000 kHz	300.000 kHz
SweepPoints	400	400	400
SweepTime	56.886 μs	56.886 μs	56.886 μs
Reference Level	20.000 dBm	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	41 / max. 150	99 / max. 150	59 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.18 dB	0.00 dB	0.00 dB

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

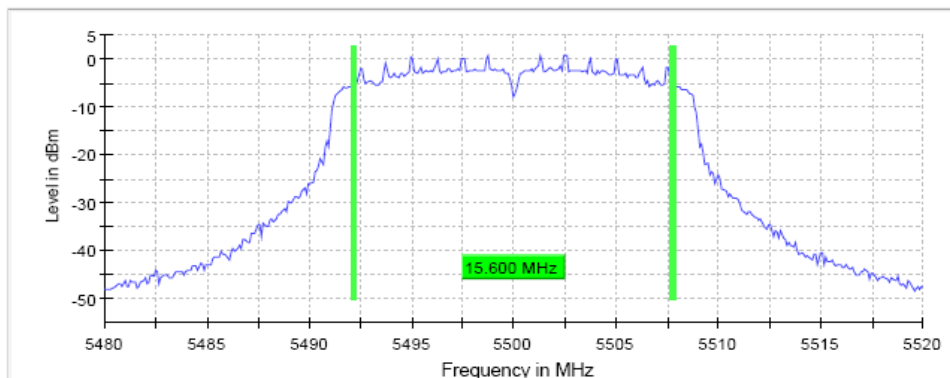
Bandwidth: 20 MHz

	Lowest frequency	Middle frequency	Highest frequency
	5500 MHz	5600 MHz	5700 MHz
6dB bandwidth (MHz)	15.6	15.9	15.4
Measurement uncertainty (kHz)	<± 8.33		

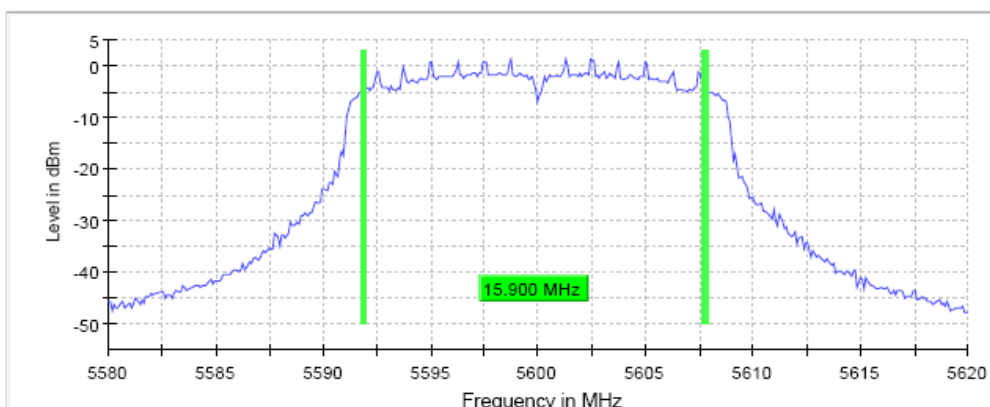
TEST RESULTS (Cont.):

6 dB BANDWIDTH

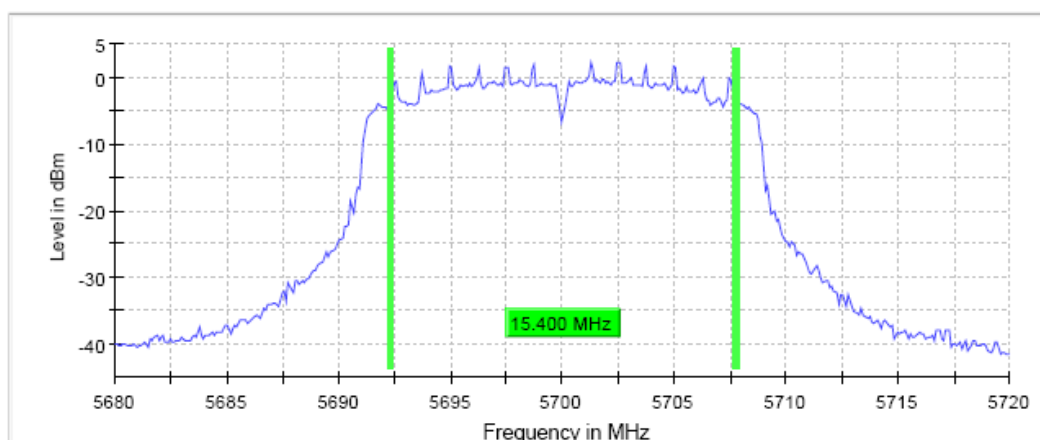
Lowest Channel



Middle Channel



Highest Channel



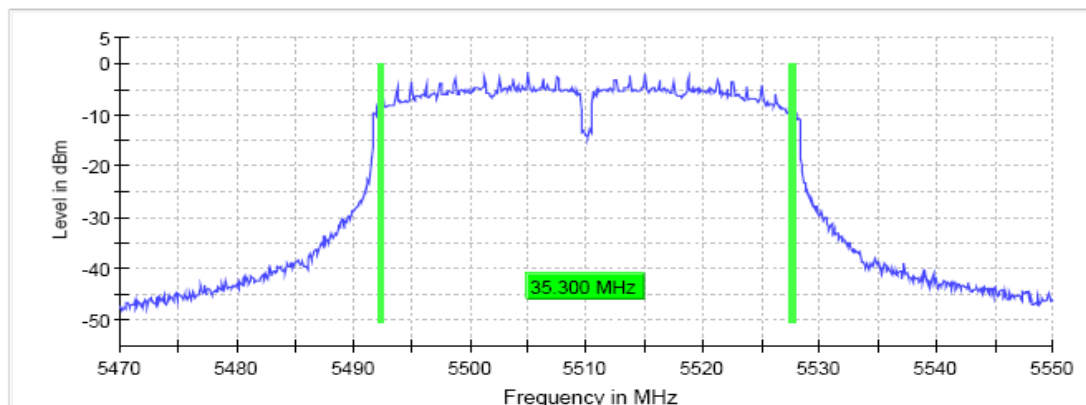
TEST RESULTS (Cont.)			
Measurement			
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.48000 GHz	5.58000 GHz	5.68000 GHz
Stop Frequency	5.52000 GHz	5.62000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 kHz	300.000 kHz	300.000 kHz
SweepPoints	400	400	400
SweepTime	56.886 μs	56.886 μs	56.886 μs
Reference Level	10.000 dBm	10.000 dBm	20.000 dBm
Attenuation	30.000 dB	30.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	64 / max. 150	47 / max. 150	58 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.20 dB	0.00 dB	0.00 dB

TEST RESULTS (Cont.)		n Mode	
Bandwidth: 40 MHz			
	Lowest frequency	Middle frequency	Highest frequency
	5510 MHz	5590 MHz	5710 MHz
6dB bandwidth (MHz)	35.3	35.3	35.3
Measurement uncertainty (kHz)	<± 8.33		

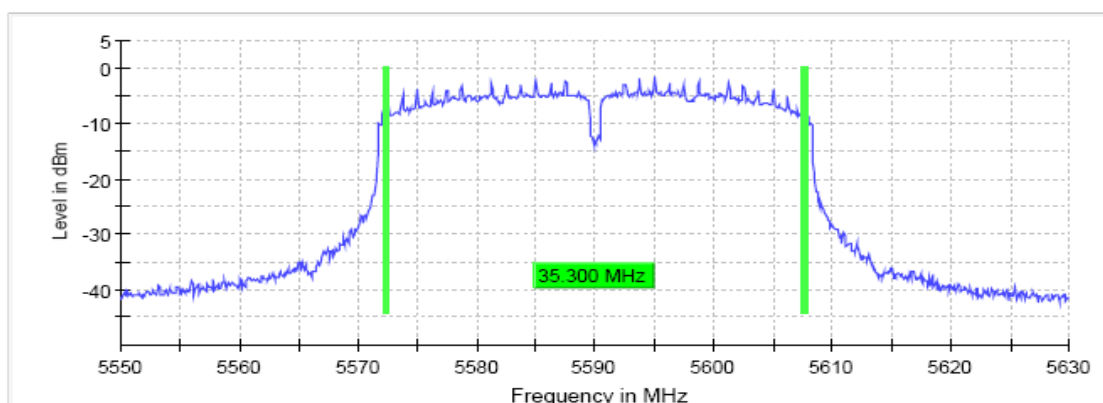
TEST RESULTS (Cont.):

6 dB BANDWIDTH

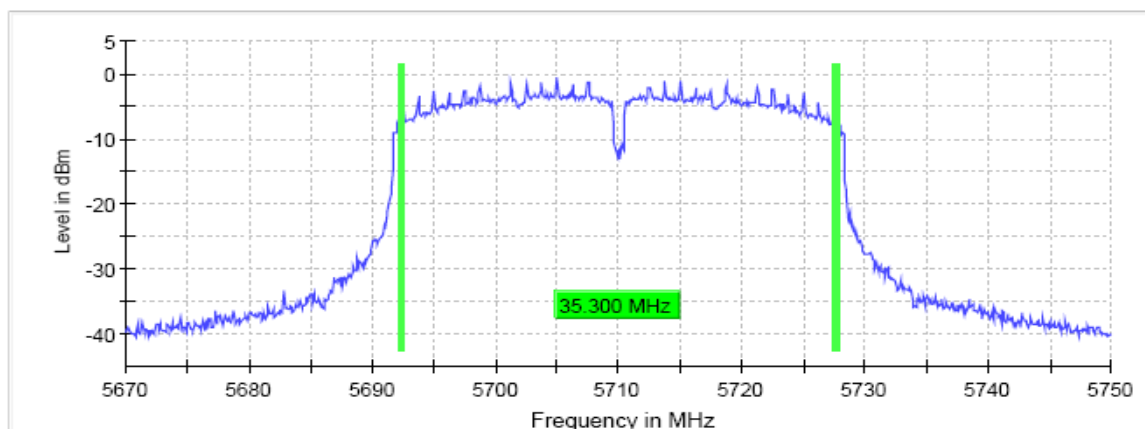
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)			
Measurement			
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.55000 GHz	5.67000 GHz
Stop Frequency	5.55000 GHz	5.63000 GHz	5.75000 GHz
Span	80.000 MHz	80.000 MHz	80.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz	300.000 KHz
SweepPoints	800	800	800
Sweeptime	94.810 us	94.810 us	94.810 us
Reference Level	10.000 dBm	20.000 dBm	20.000 dBm
Attenuation	30.000 dB	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	86 / max. 150	91 / max. 150	100 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable	0.04 dB	0.07 dB	0.08dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode)
TEST RESULTS:	PASS

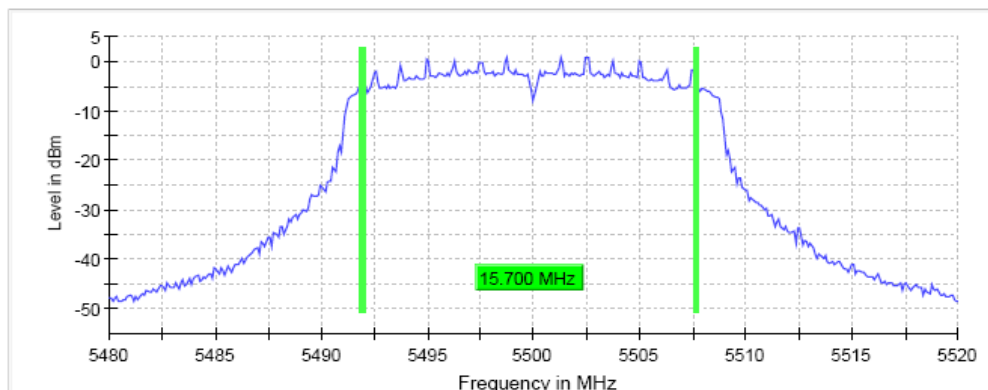
Bandwidth: 20 MHz

	Lowest frequency	Middle frequency	Highest frequency
	5500 MHz	5600 MHz	5700 MHz
6db bandwidth (MHz)	15.7	15.7	15.5
Measurement uncertainty (kHz)	<± 8.33		

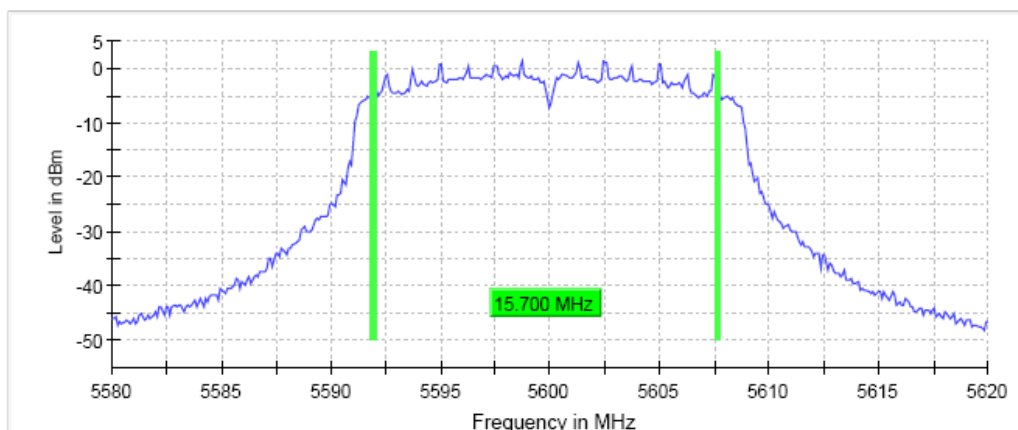
TEST RESULTS (Cont.):

6 dB BANDWIDTH

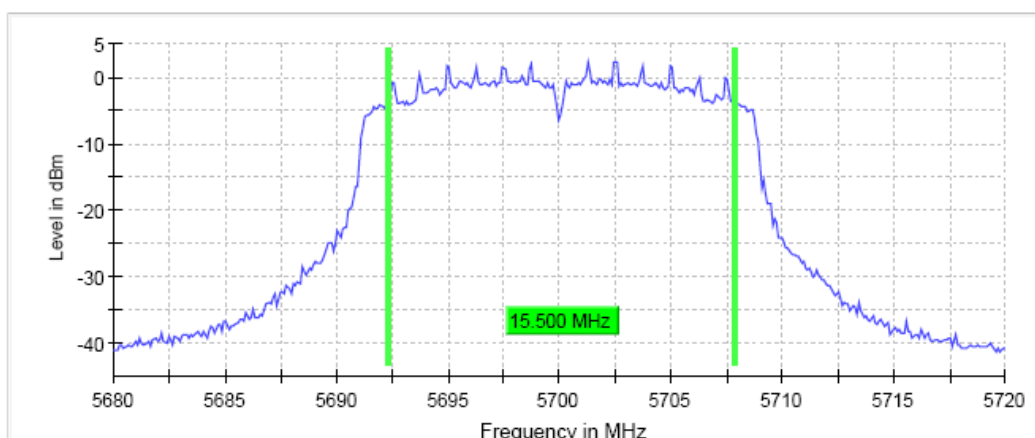
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.48000 GHz	5.58000 GHz	5.68000 GHz
Stop Frequency	5.52000 GHz	5.62000 GHz	5.72000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz	300.000 KHz
SweepPoints	400	400	400
SweepTime	56.886 μ s	56.886 μ s	56.886 μ s
Reference Level	10.000 dBm	10.000 dBm	20.000 dBm
Attenuation	30.000 dB	30.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	42 / max. 150	74 / max. 150	85 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.00 dB	0.07 dB	0.02 dB

TEST RESULTS

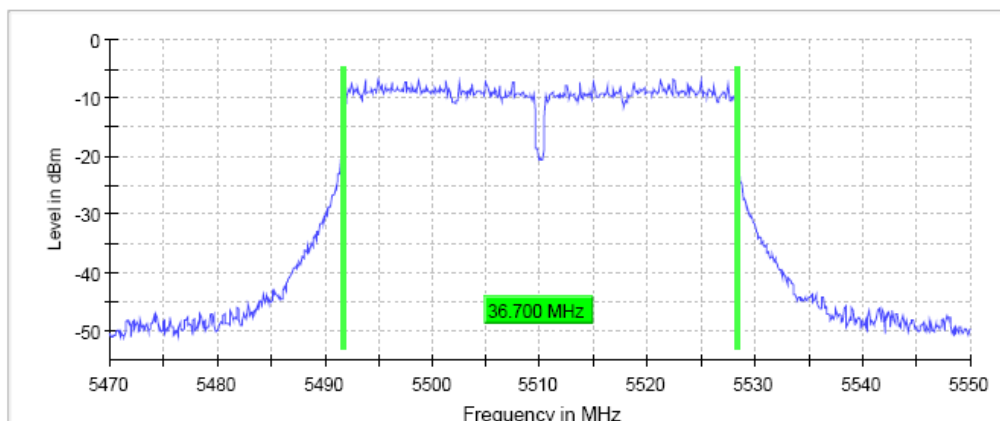
ac mode (40 MHz)

	Lowest frequency	Middle frequency	Highest frequency
	5510 MHz	5590 MHz	5710 MHz
6dB bandwidth (MHz)	36.7	36.7	36.7
Measurement uncertainty (kHz)	< $\pm$ 8.33		

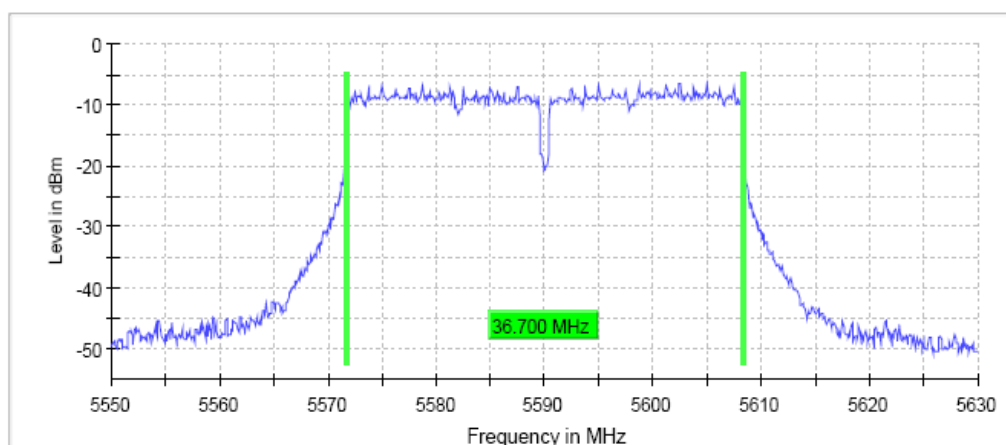
TEST RESULTS (Cont.):

6 dB BANDWIDTH

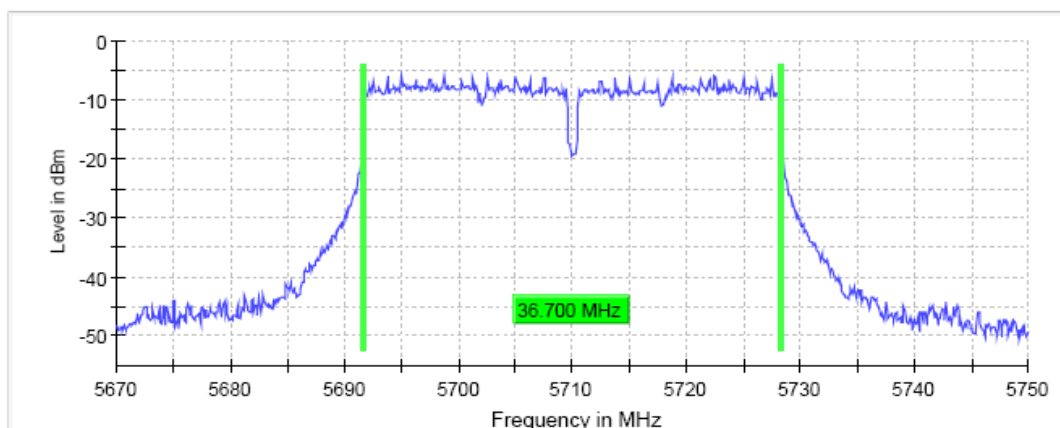
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.55000 GHz	5.67000
Stop Frequency	5.55000 GHz	5.63000 GHz	5.75000
Span	100.000 kHz	100.000 kHz	100.000 kHz
RBW	300.000 KHz	300.000 KHz	300.000 KHz
VBW	800	800	800
SweepPoints	94.810 μ s	94.810 μ s	94.810 μ s
SweepTime	10.000 dBm	10.000 dBm	20.000 dBm
Reference Level	30.000 dB	30.000 dB	40.000 dB
Attenuation	100.000 kHz	100.000 kHz	100.000 kHz
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	127 / max. 150	150 / max. 150	104 / max.
Stable	5 / 5	2 / 5	5 / 5
Max Stable Difference	0.19 dB	0.20 dB	0.24 dB

TEST RESULTS

ac mode (80 MHz)

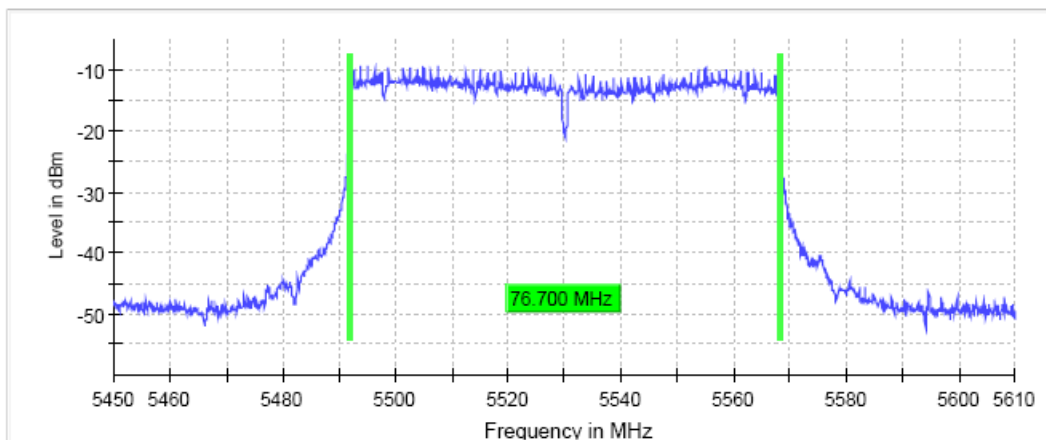
Bandwidth: 80 MHz

	Lowest frequency 5530 MHz	Middle frequency 5610 MHz	Highest frequency 5690 MHz
6dB bandwidth (MHz)	76.7	76.7	76.7
Measurement uncertainty (kHz)	< $\pm$ 8.33		

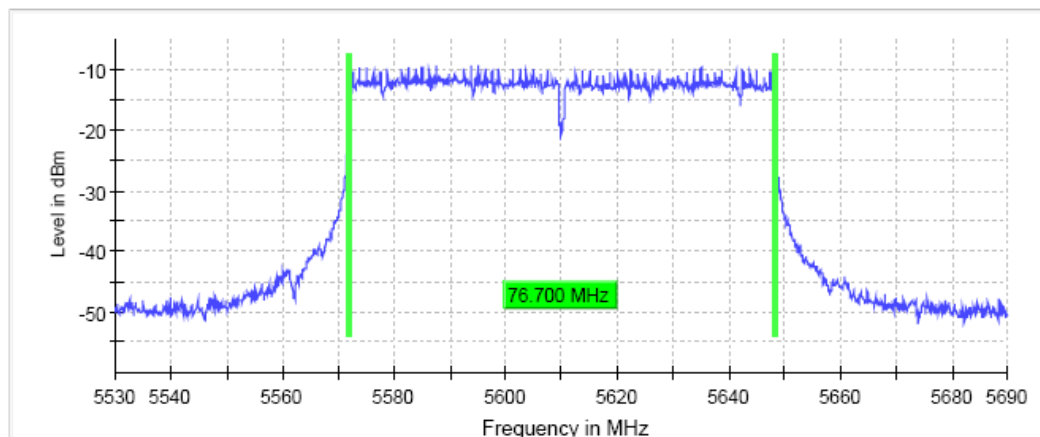
TEST RESULTS (Cont.):

6 dB BANDWIDTH

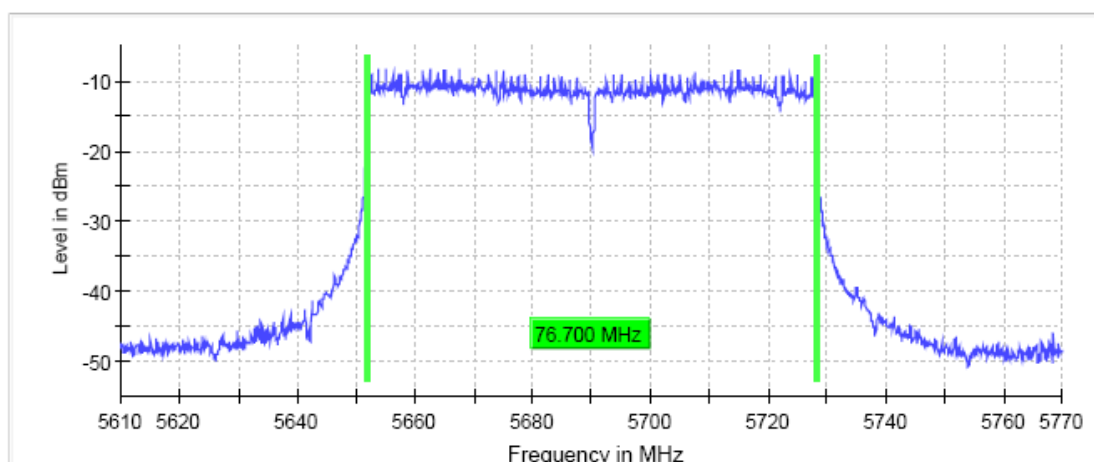
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.45000 GHz	5.53000 GHz	5.61000 GHz
Stop Frequency	5.61000 GHz	5.69000 GHz	5.77000 GHz
Span	160.000 MHz	160.000 MHz	160.000 MHz
RBW	100.000 KHz	100.000 KHz	100.000 KHz
VBW	300.000 KHz	300.000 KHz	300.000 KHz
SweepPoints	1600	1600	1600
SweepTime	189.620 μ s	189.620 μ s	189.620 μ s
Reference Level	10.000 dBm	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	30.000 dB	30.000 dB
Detector	MaxPeak	MaxPeak	MaxPeak
SweepCount	200	200	200
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	FFT	FFT	FFT
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	150 / max. 150	115 / max. 150	150 / max. 150
Stable	1 / 5	5 / 5	0 / 5
Max Stable Difference	0.17 dB	0.29 dB	0.35 dB

TEST D.3: POWER LIMITS. MAXIMUM OUTPUT POWER

LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(a) (1) (4) and RSS-247 6.2.1.1

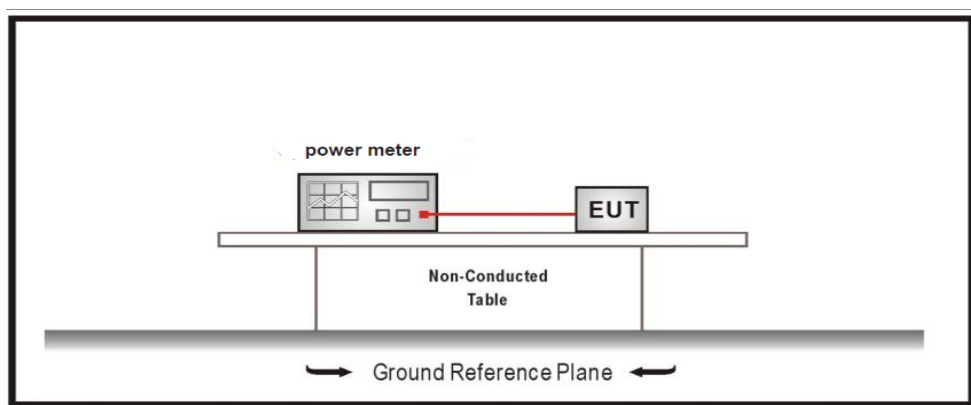
LIMITS

In band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST SETUP

Measured according to ANSI C63.10, Section 11.9.2.3.2 Method AVGPM-G

The EIRP power (dBm) is calculated by adding the declared maximum antenna gain to the measured conducted power



TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 (a mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

Maximum declared antenna gain: 4.5 dBi

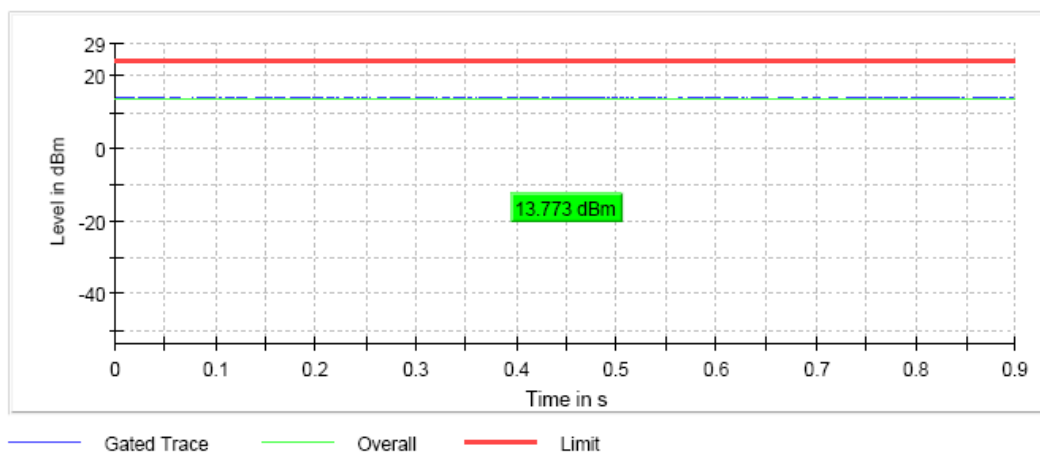
	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Maximum conducted power (dBm)	13.8	13.9	14
Maximum EIRP power (dBm)	18.3	18.4	18.5
Measurement uncertainty (dB)	<±0.78		

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

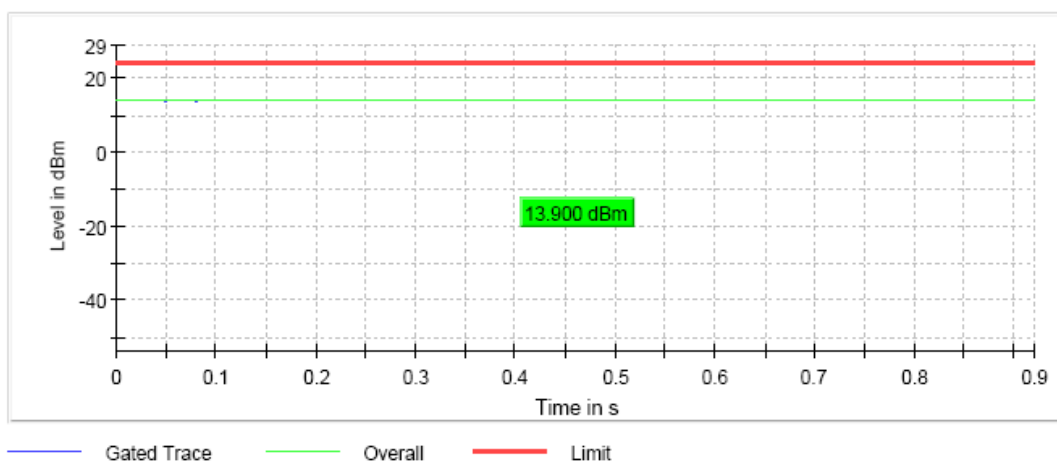
TEST RESULTS (Cont.):

CONDUCTED OUTPUT POWER

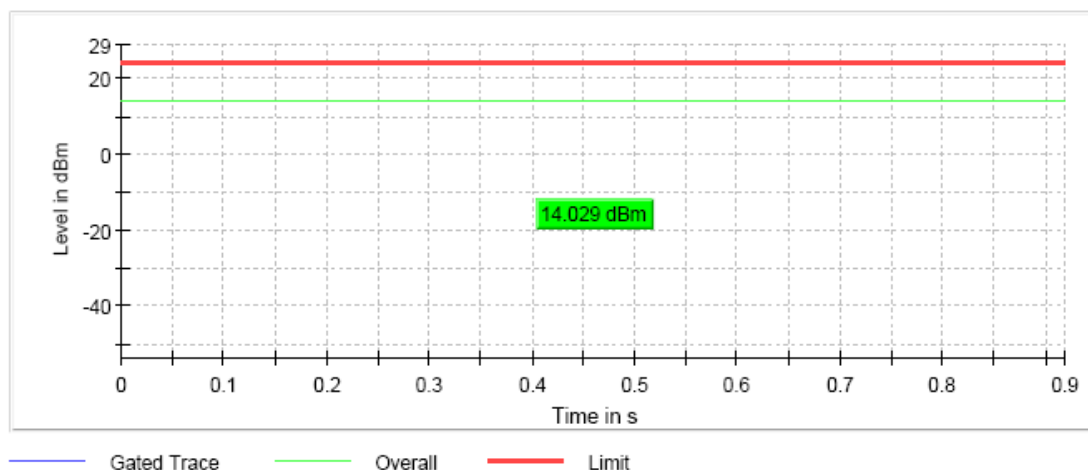
Lowest Channel



Middle Channel



Highest Channel



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

Bandwidth: 20 MHz

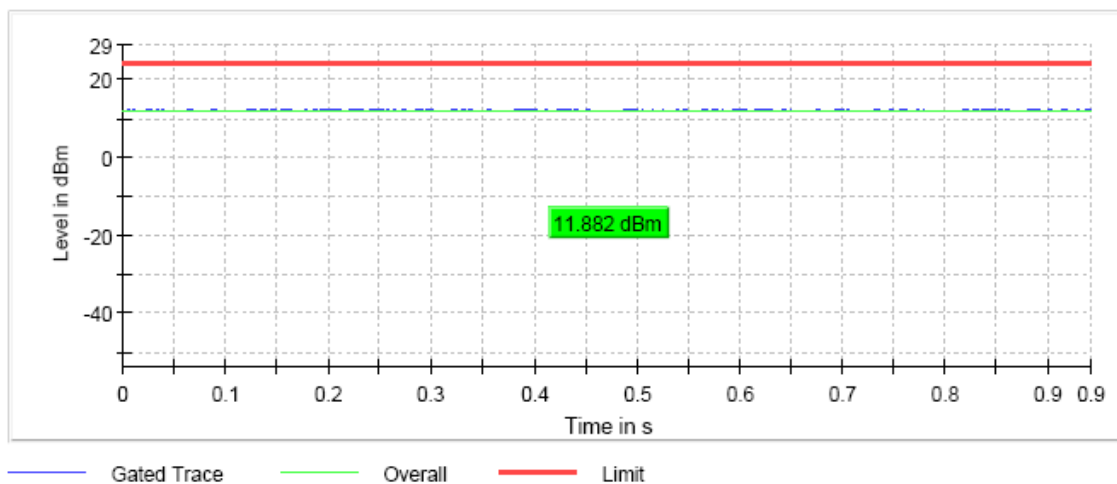
Maximum declared antenna gain: 4.5 dBi

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Maximum conducted power (dBm)	11.9	12.3	12.9
Maximum EIRP power (dBm)	16.4	16.8	17.4
Measurement uncertainty (dB)	<±0.78		

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

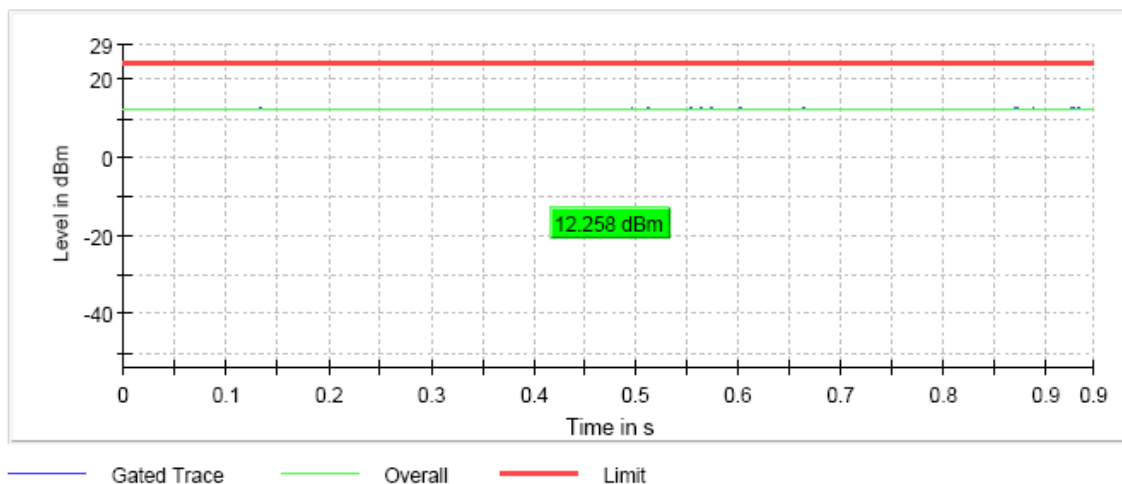
TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER
------------------------------	-------------------------------

Lowest Channel

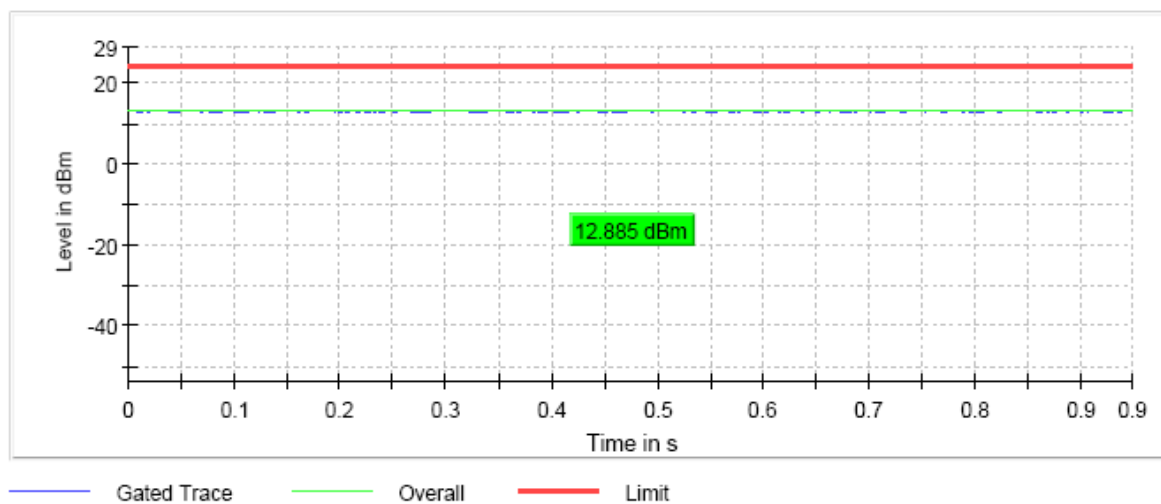


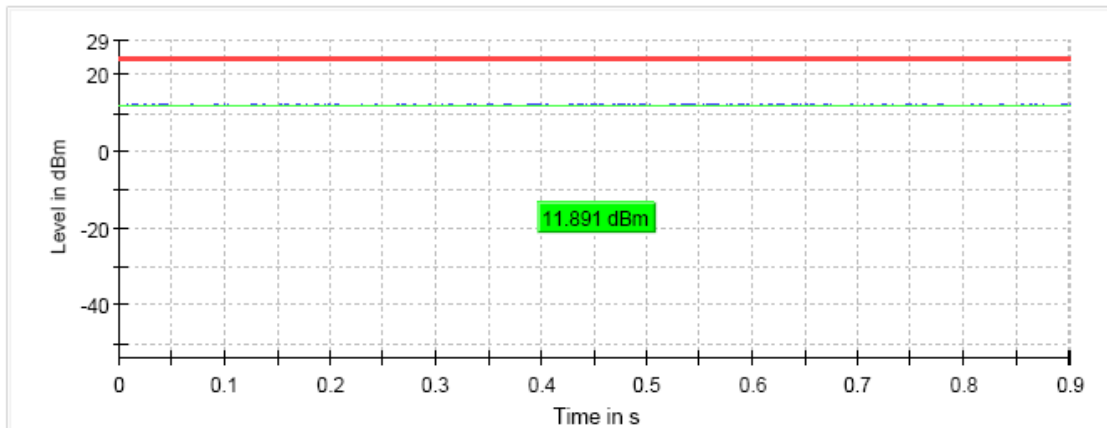
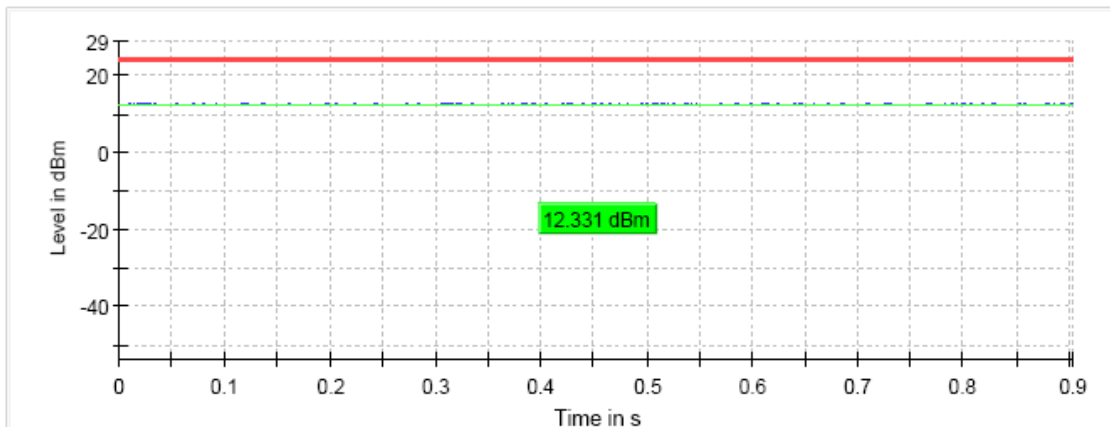
TEST RESULTS (Cont.)

Middle Channel



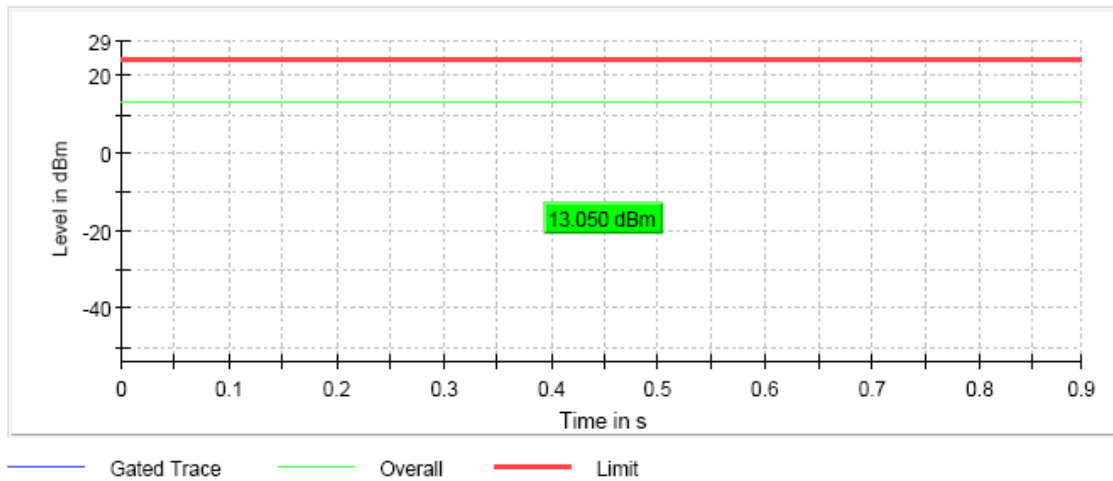
Highest Channel



TEST RESULTS	n Mode (40 MHz)		
Maximum declared antenna gain: 4.5 dBi			
	Lowest frequency 5510 MHz	Middle frequency 5590 MHz	Highest frequency 5710 MHz
Maximum conducted power (dBm)	11.9	12.3	13
Maximum EIRP power (dBm)	16.4	16.8	17.5
Measurement uncertainty (dB)	<±0.78		
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.			
TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER		
Lowest Channel			
 Level in dBm Time in s 11.891 dBm — Gated Trace — Overall — Limit			
Middle Channel			
 Level in dBm Time in s 12.331 dBm — Gated Trace — Overall — Limit			

TEST RESULTS (Cont.)

Highest Channel



TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

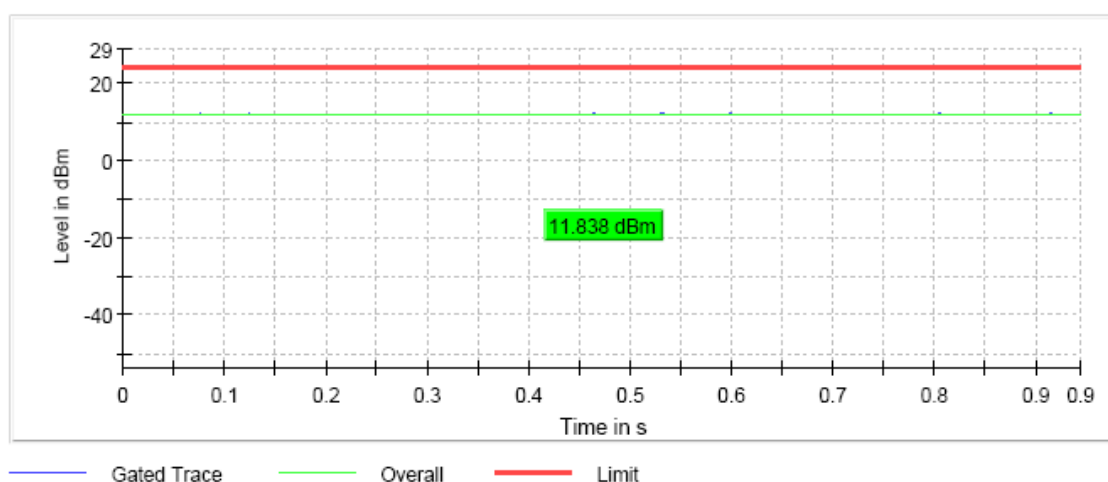
Maximum declared antenna gain: 4.5 dBi

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Maximum conducted power (dBm)	11.8	12.2	12.9
Maximum EIRP power (dBm)	16.3	16.7	17.4
Measurement uncertainty (dB)	<±0.78		

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

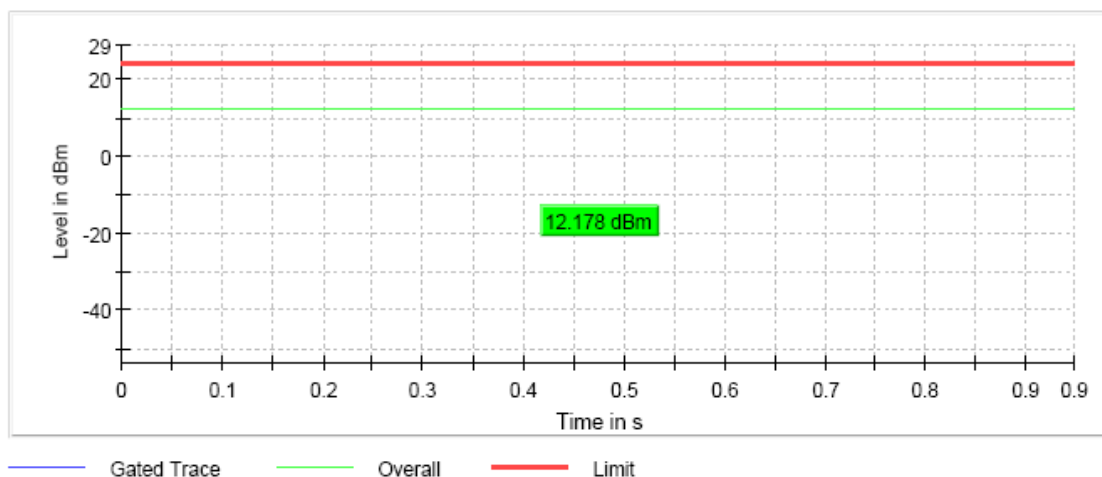
TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER
------------------------------	-------------------------------

Lowest Channel

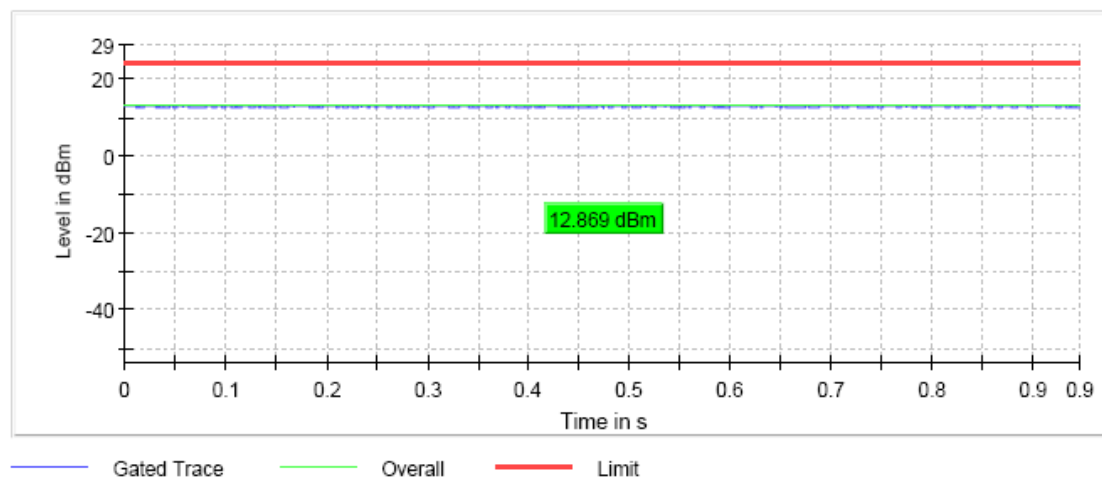


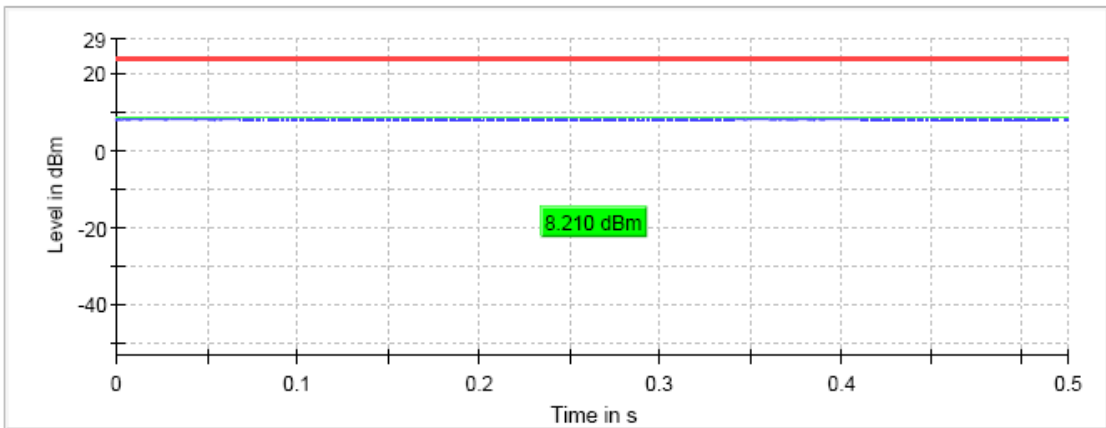
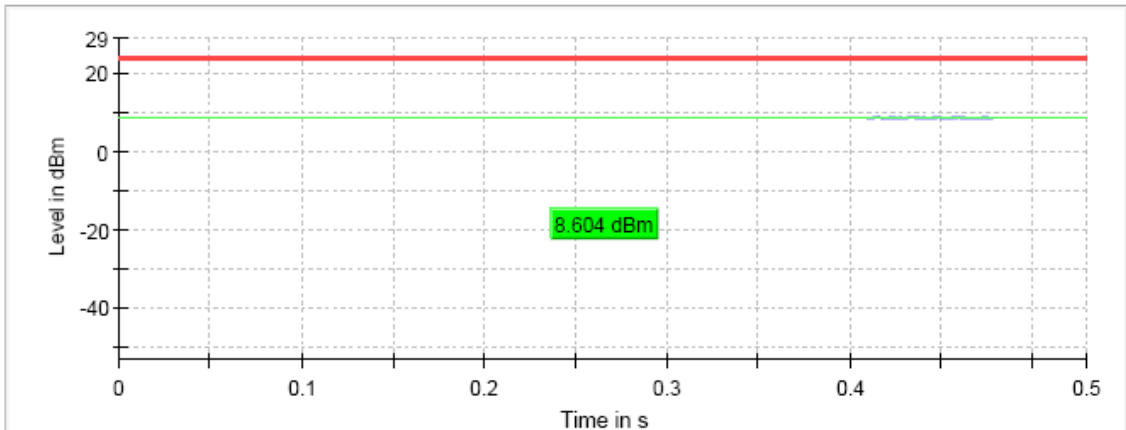
TEST RESULTS (Cont.)

Middle Channel



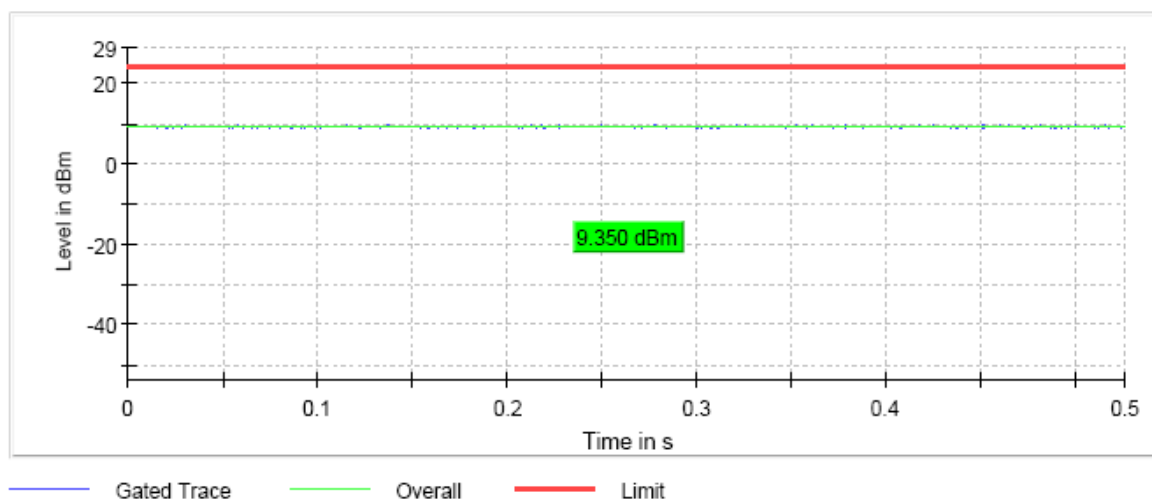
Highest Channel



TEST RESULTS	ac mode (40 MHz)		
Maximum declared antenna gain: 4.5 dBi			
	Lowest frequency 5510 MHz	Middle frequency 5590 MHz	Highest frequency 5710 MHz
Maximum conducted power (dBm)	8.2	8.6	9.4
Maximum EIRP power (dBm)	12.7	13.1	13.9
Measurement uncertainty (dB)	<±0.78		
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.			
TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER		
Lowest Channel			
 Level in dBm Time in s 8.210 dBm — Gated Trace — Overall — Limit			
Middle Channel			
 Level in dBm Time in s 8.604 dBm — Gated Trace — Overall — Limit			

TEST RESULTS (Cont.)

Highest Channel

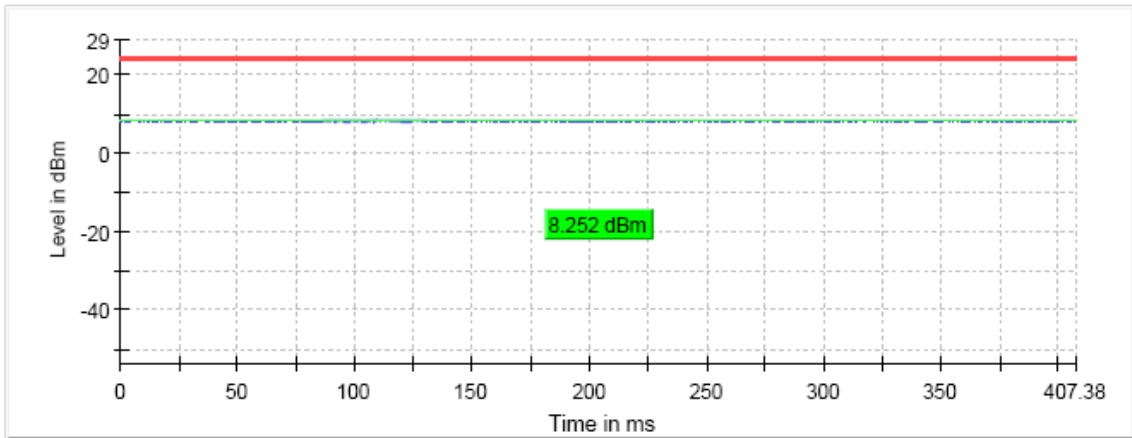


TEST RESULTS	ac mode (80 MHz)		
Maximum declared antenna gain: 4.5 dBi			
	Lowest frequency 5530 MHz	Middle frequency 5610 MHz	Highest frequency 5690 MHz
Maximum conducted power (dBm)	8.3	8.6	9.4
Maximum EIRP power (dBm)	12.8	13.1	13.9
Measurement uncertainty (dB)	<±0.78		

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER		
-----------------------	------------------------	--	--

Lowest Channel



Level in dBm

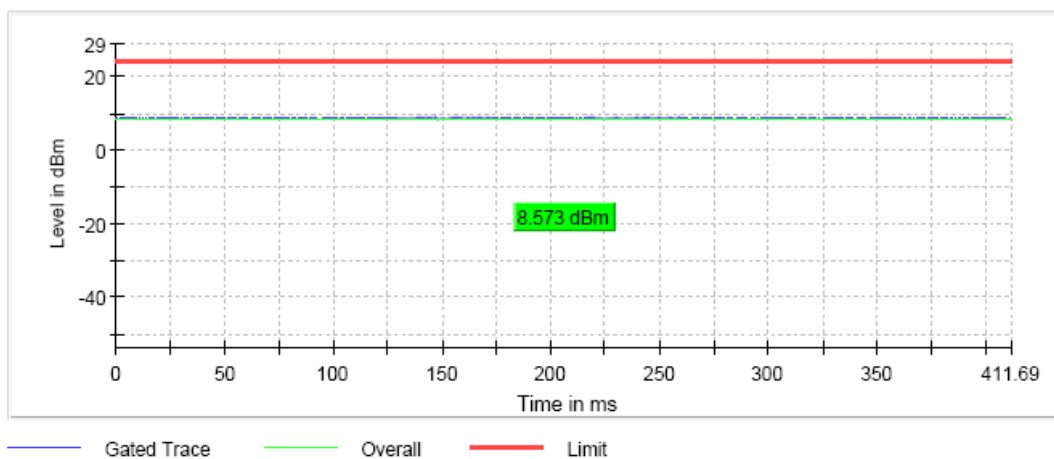
Time in ms

8.252 dBm

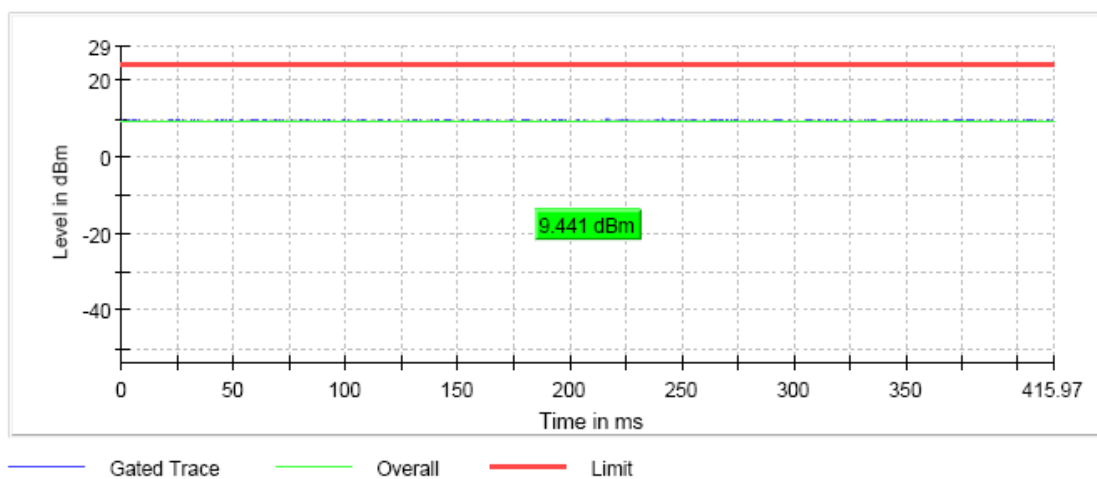
— Gated Trace — Overall — Limit

TEST RESULTS (Cont.)

Middle Channel



Highest Channel



TEST D.4: POWER SPECTRAL DENSITY

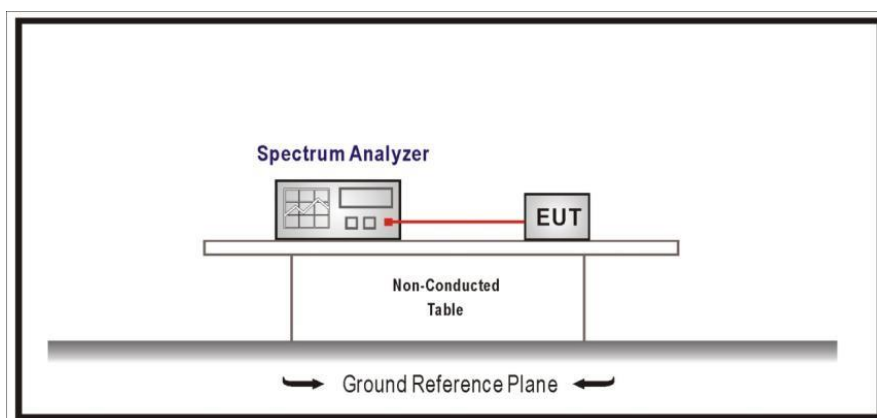
LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(a) (1) (5) and RSS-247 6.2.1.1

LIMITS

In the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST SETUP

For all modes, the maximum power spectral density level in the fundamental emission was measured using the method according to point F) (Method SA-1) of Guidance 789033 D02 General UNII Test Procedures New Rules v01.



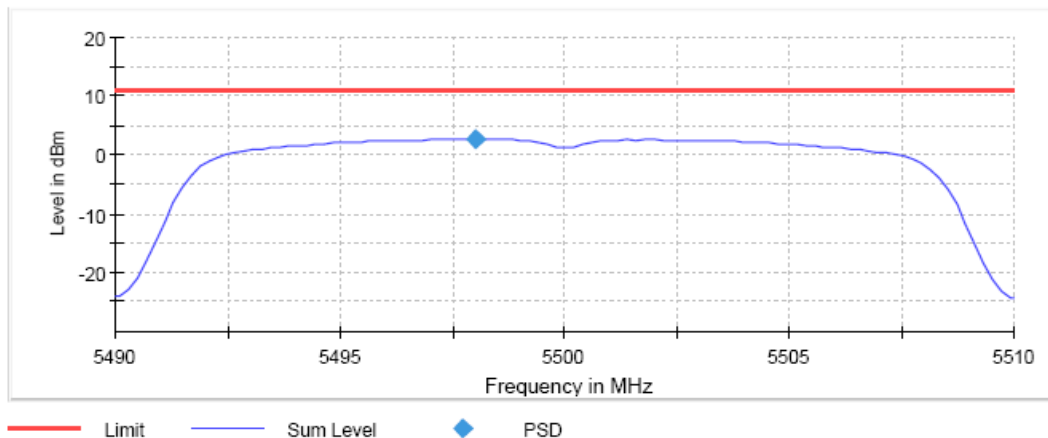
TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 (a mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

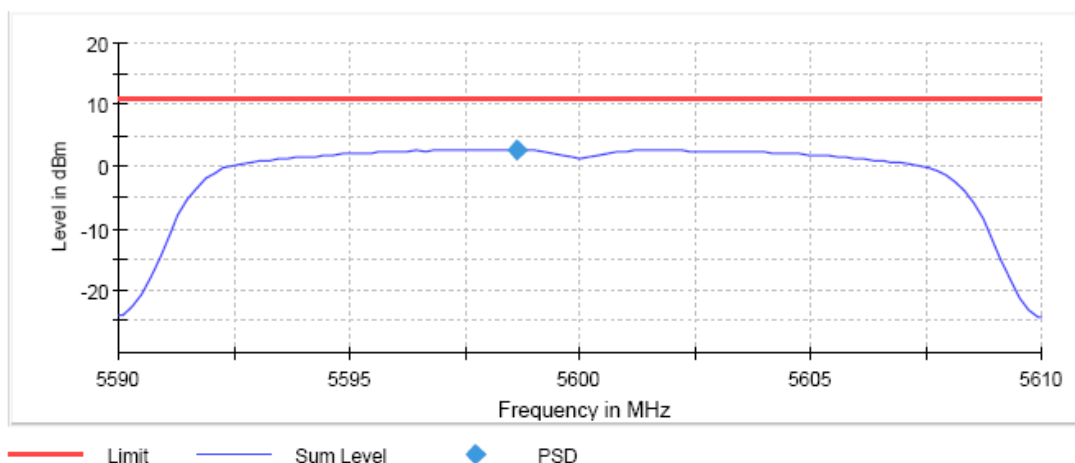
	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Power spectral density (dBm)	2.606	2.668	2.838
Measurement uncertainty (dB)	<±0.78		

TEST RESULTS (Cont.):

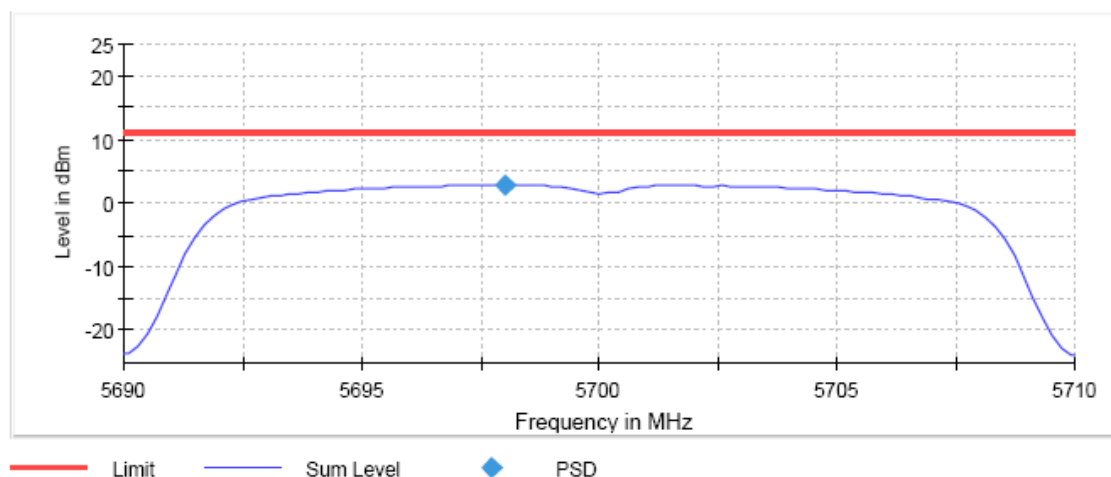
Low Channel



Middle Channel



High Channel



TEST RESULTS (Cont.):

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.59000 GHz	5.69000 GHz
Stop Frequency	5.51000 GHz	5.61000 GHz	5.71000 GHz
Span	20.000 MHz	20.000 MHz	20.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	101	101	101
SweepTime	2.020 s	2.020 s	2.020 s
Reference Level	20.000 dBm	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB	40.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	Sweep	Sweep	Sweep
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable	0.06 dB	0.06 dB	0.05 dB

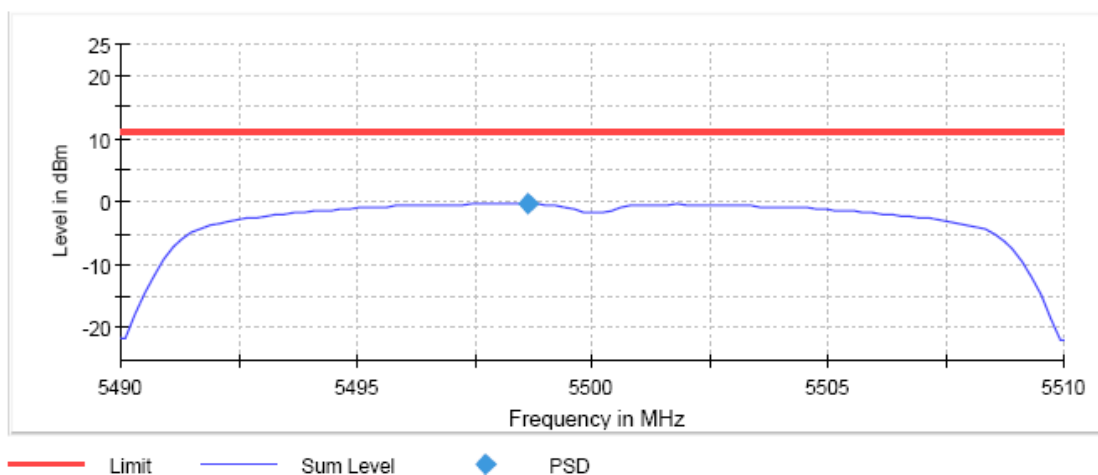
TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#02 (n mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Power spectral density (dBm)	-0.361	0.142	1.046
Measurement uncertainty (dB)	<±0.78		

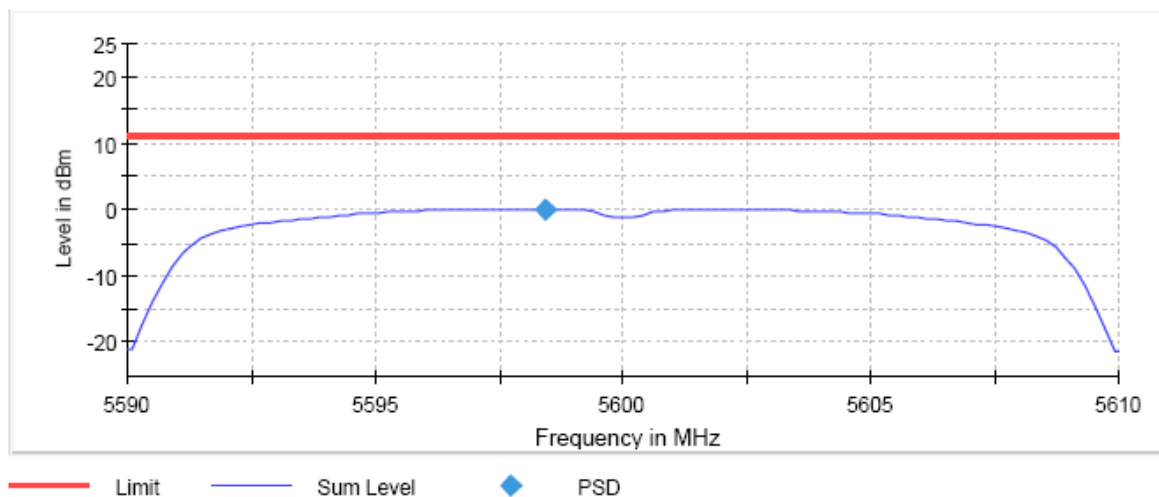
TEST RESULTS (Cont.):	
------------------------------	--

Low Channel

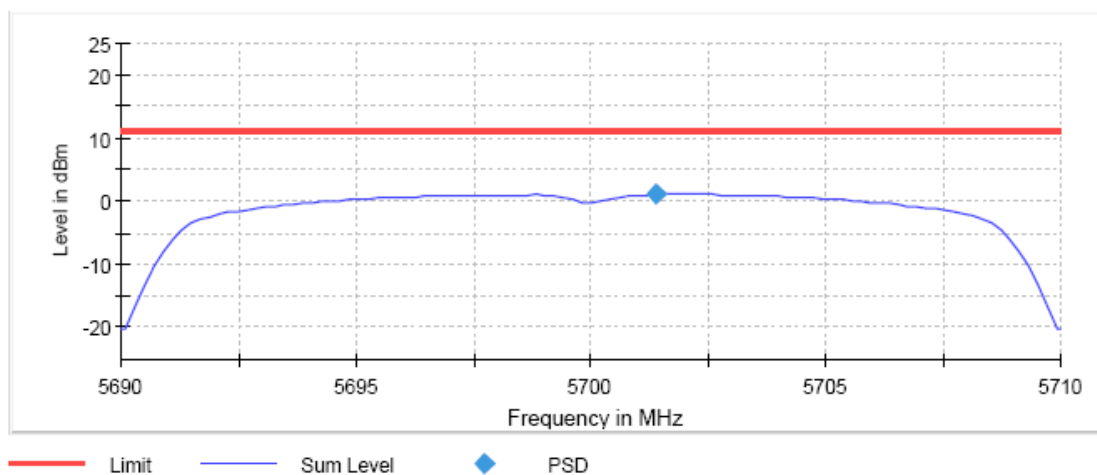


TEST RESULTS (Cont.):

Middle Channel



High Channel



TEST RESULTS (Cont.):

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.59000 GHz	5.69000 GHz
Stop Frequency	5.51000 GHz	5.61000 GHz	5.71000 GHz
Span	20.000 MHz	20.000 MHz	20.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	101	101	101
SweepTime	2.020 s	2.020 s	2.020 s
Reference Level	10.000 dBm	10.000 dBm	20.000 dBm
Attenuation	30.000 dB	30.000 dB	40.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	Sweep	Sweep	Sweep
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable Difference	0.04 dB	0.05 dB	0.05 dB

TEST RESULTS (Cont.):

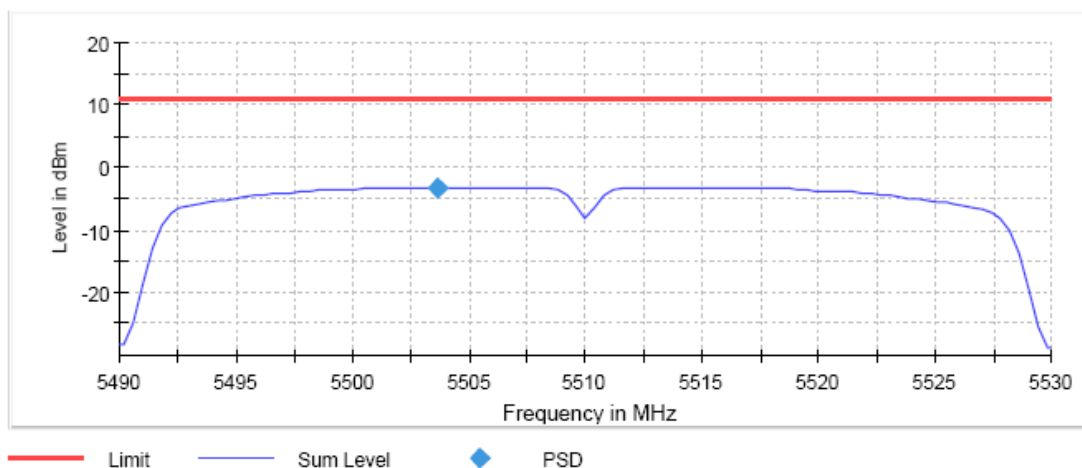
n Mode

Bandwidth: 40 MHz

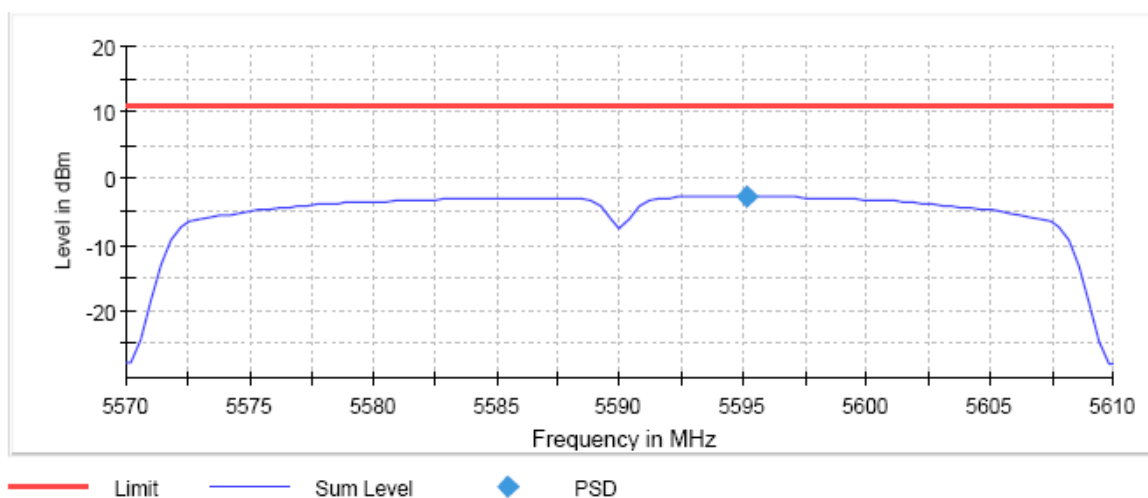
	Lowest frequency 5510 MHz	Middle frequency 5590 MHz	Highest frequency 5710 MHz
Power spectral density (dBm)	-3.155	-2.730	-1.708
Measurement uncertainty (dB)	<±0.78		

TEST RESULTS (Cont.):

Lowest Channel

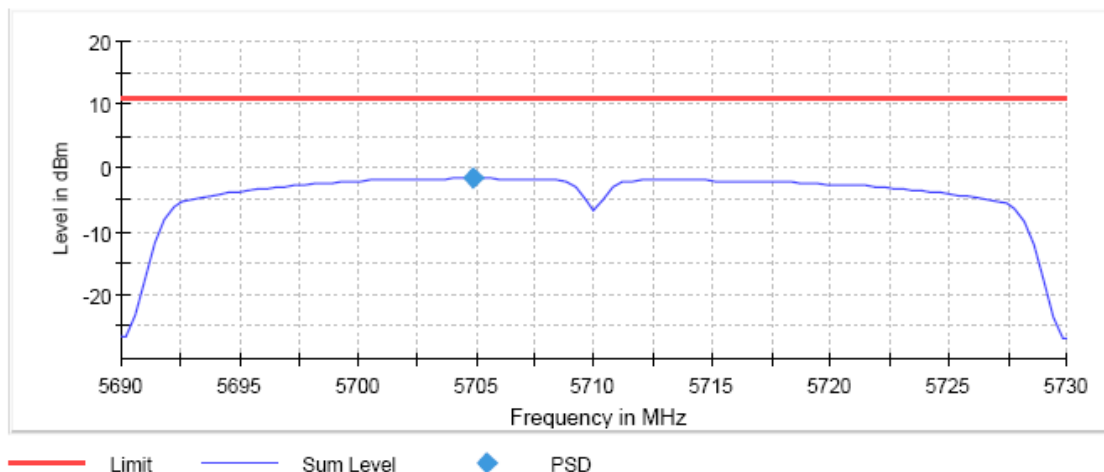


Middle Channel



TEST RESULTS (Cont.):

Highest Channel



Measurement

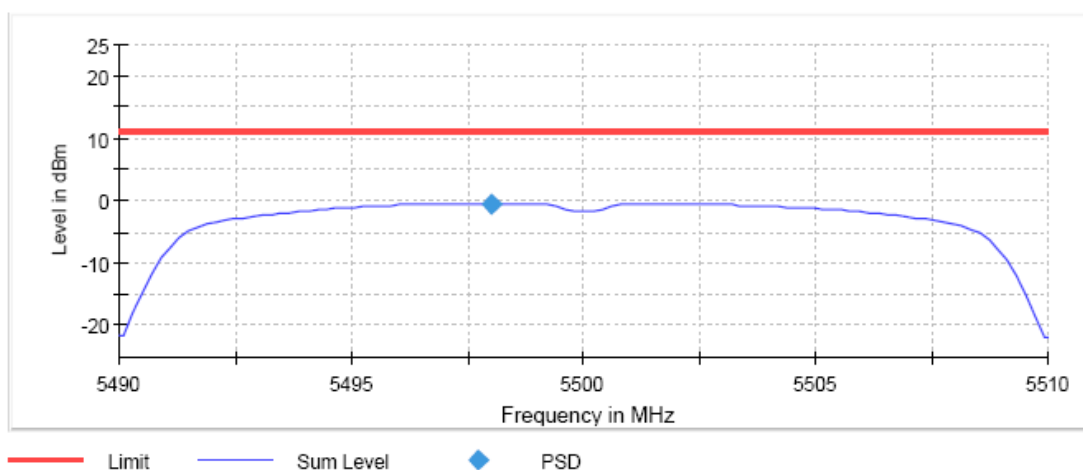
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.57000 GHz	5.69000 GHz
Stop Frequency	5.53000 GHz	5.61000 GHz	5.73000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	101	101	101
Sweeptime	2.020 s	2.020 s	2.020 s
Reference Level	10.000 dBm	20.000 dBm	20.000 dBm
Attenuation	30.000 dB	40.000 dB	40.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	Sweep	Sweep	Sweep
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable	0.05 dB	0.05 dB	0.03 dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode)
TEST RESULTS:	PASS

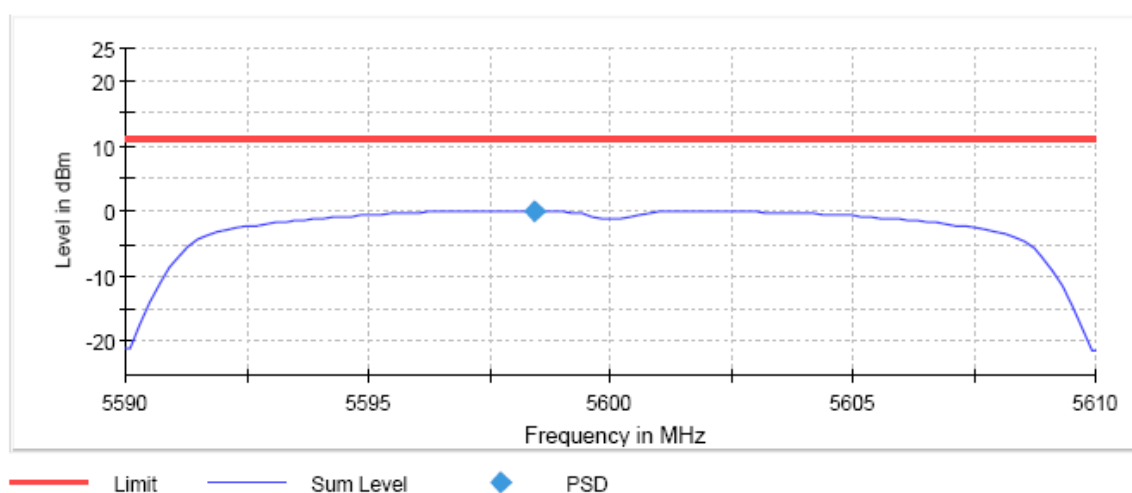
Bandwidth: 20 MHz

	Lowest frequency 5500 MHz	Middle frequency 5600 MHz	Highest frequency 5700 MHz
Power spectral density (dBm)	-0.442	0.097	0.975
Measurement uncertainty (dB)	<±0.78		

Lowest Channel

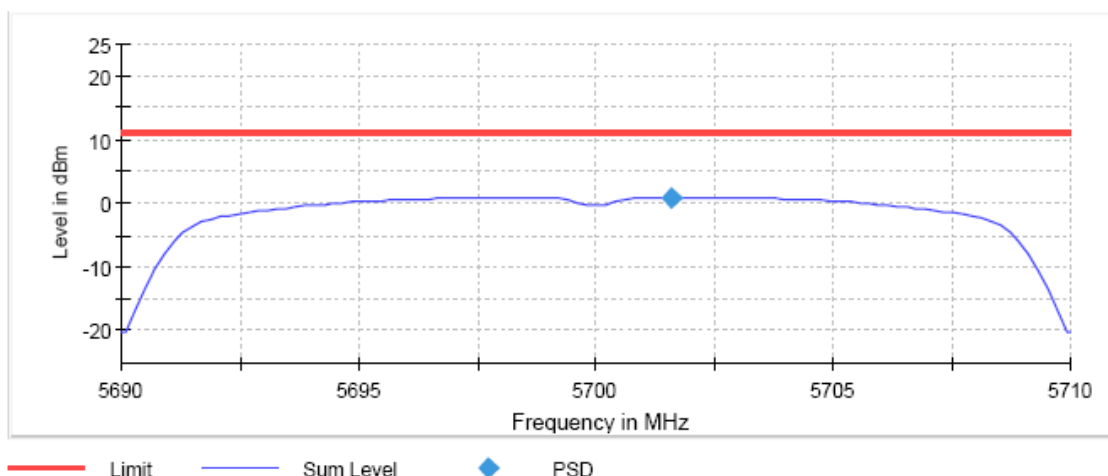


Middle Channel



TEST RESULTS (Cont.)

Highest Channel



Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.59000 GHz	5.69000 GHz
Stop Frequency	5.51000 GHz	5.61000 GHz	5.71000 GHz
Span	20.000 MHz	20.000 MHz	20.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	101	101	101
SweepTime	2.020 s	2.020 s	2.020 s
Reference Level	10.000 dBm	10.000 dBm	20.000 dBm
Attenuation	30.000 dB	30.000 dB	40.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	Sweep	Sweep	Sweep
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable Difference	0.04 dB	0.06 dB	0.06 dB

TEST RESULTS		ac Mode (40 MHz)		
		Lowest frequency 5510 MHz	Middle frequency 5590 MHz	Highest frequency 5710 MHz
Power spectral density (dBm)		-7.023	-7.044	-6.084
Measurement uncertainty (dB)		<±0.78		

TEST RESULTS (Cont.):				
-----------------------	--	--	--	--

Lowest Channel

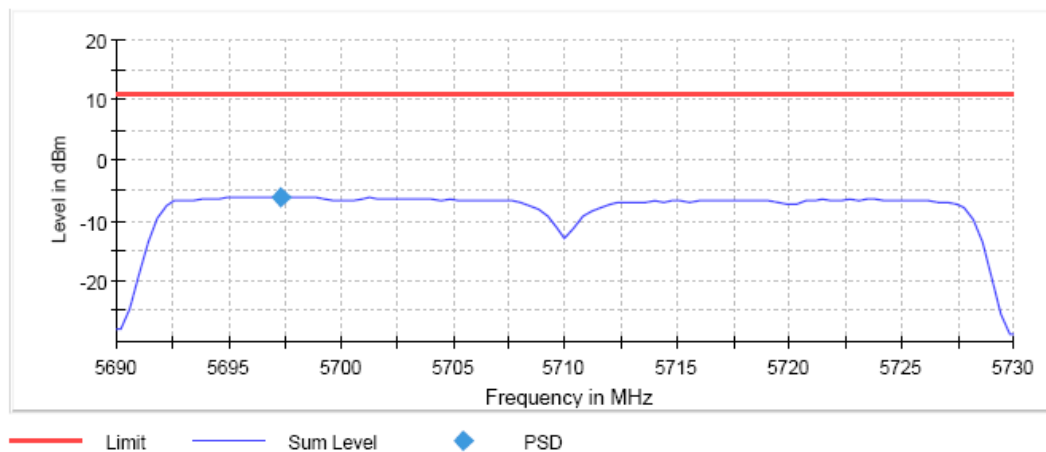
— Limit — Sum Level ◆ PSD

Middle Channel

— Limit — Sum Level ◆ PSD

TEST RESULTS (Cont.):

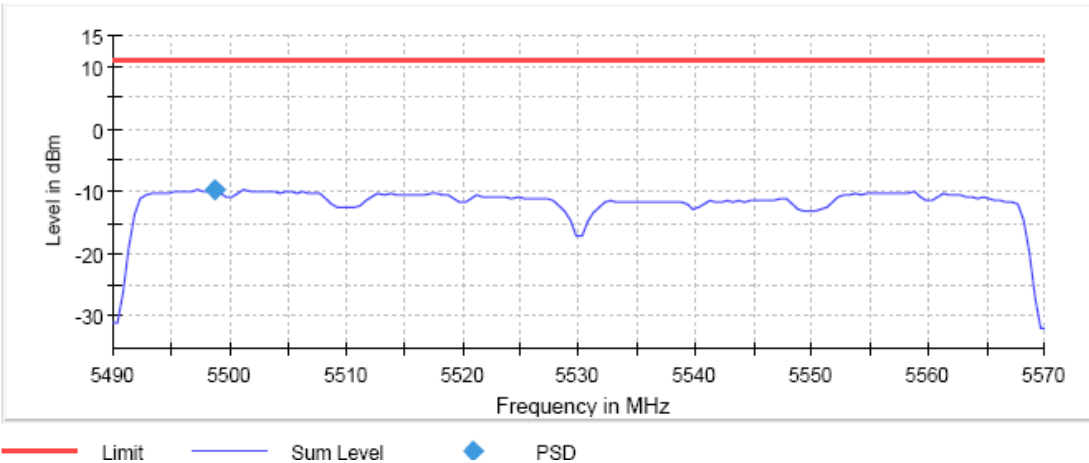
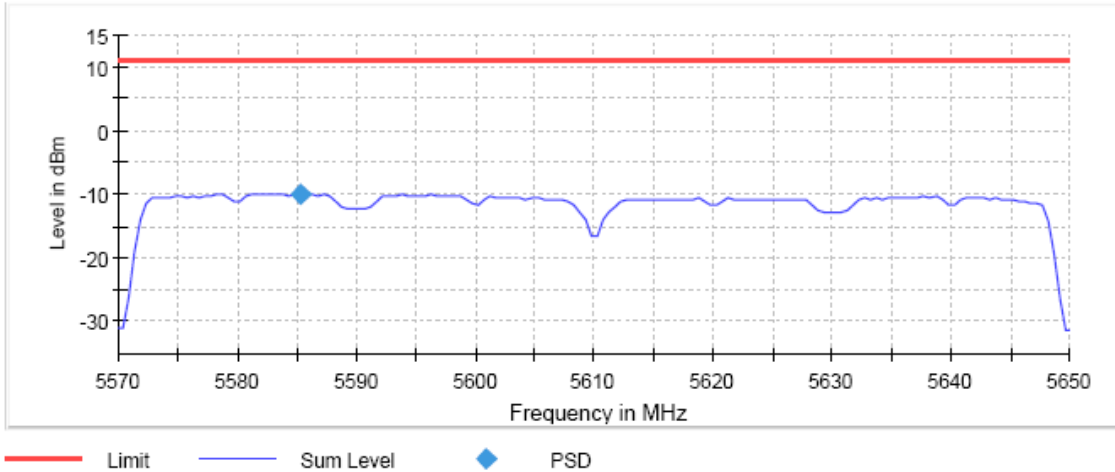
Highest Channel



Measurement

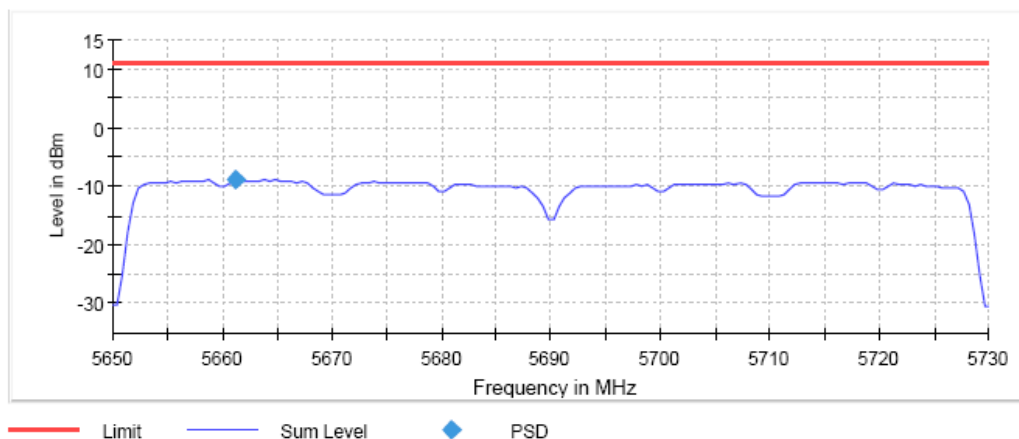
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.57000 GHz	5.69000 GHz
Stop Frequency	5.53000 GHz	5.61000 GHz	5.73000 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	101	101	101
SweepTime	2.020 s	2.020 s	2.020 s
Reference Level	10.000 dBm	20.000 dBm	10.000 dBm
Attenuation	30.000 dB	40.000 dB	30.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
SweepType	Sweep	Sweep	Sweep
Preamp	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable Difference	0.07 dB	0.11 dB	0.04 dB

TEST RESULTS		ac Mode (80 MHz)	
	Lowest frequency	Middle frequency	Highest frequency
	5530 MHz	5610 MHz	5690 MHz
Power spectral density (dBm)	-9.711	-9.961	-8.901
Measurement uncertainty (dB)	<±0.78		

TEST RESULTS (Cont.):	
Lowest Channel	
 Legend: — Limit — Sum Level ◆ PSD	
Middle Channel	
 Legend: — Limit — Sum Level ◆ PSD	

TEST RESULTS (Cont.):

Highest Channel



Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.49000 GHz	5.57000 GHz	5.65000 GHz
Stop Frequency	5.57000 GHz	5.65000 GHz	5.73000 GHz
Span	80.000 MHz	80.000 MHz	80.000 MHz
RBW	1.000 MHz	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz	3.000 MHz
SweepPoints	160	160	160
Sweeptime	3.200 s	3.200 s	3.200 s
Reference Level	10.000 dBm	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	30.000 dB	30.000 dB
Detector	RMS	RMS	RMS
SweepCount	3	3	3
Filter	3 dB	3 dB	3 dB
Trace Mode	Max Hold	Max Hold	Max Hold
Sweeptype	Sweep	Sweep	Sweep
Preamplifier	off	off	off
Stablemode	Trace	Trace	Trace
Stablevalue	0.30 dB	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3	3 / 3
Max Stable Difference	0.11 dB	0.11 dB	0.17 dB

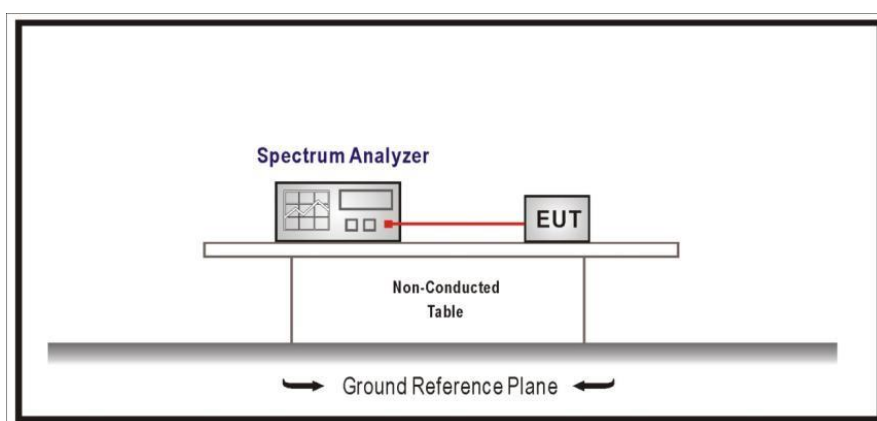
TEST D.5: BAND-EDGE EMISSIONS COMPLIANCE (TRANSMITTER)

LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(b)(1) and RSS-247 6.2.1.2

LIMITS

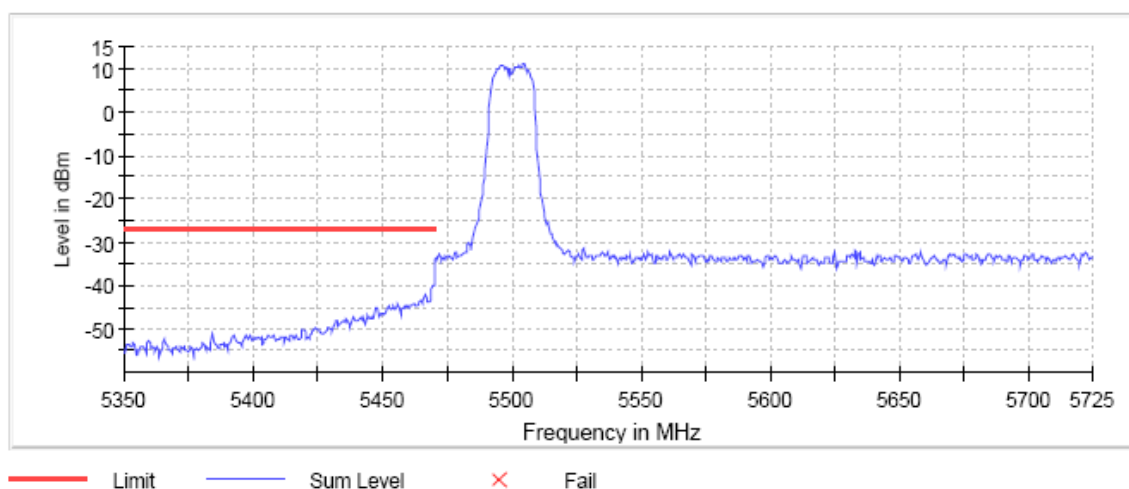
For transmitters operating in the 5.15 – 5.25 GHz band: all emissions outside the frequency band shall not exceed an EIRP of -27 dBm /MHz

TEST SETUP



TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 (a mode)
TEST RESULTS:	PASS

Lowest Channel

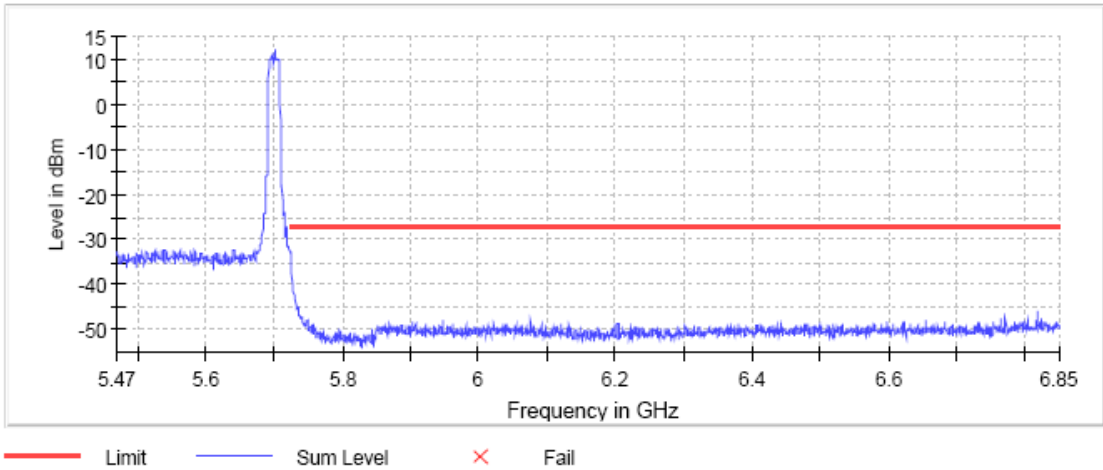


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
SweepTime	34.313 μ s	17.156 μ s
Reference Level	20.000 dBm	-10.000 dBm
Attenuation	40.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	23 / max. 150	11 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.24 dB	0.00 dB

TEST RESULTS (Cont.):

Highest Channel



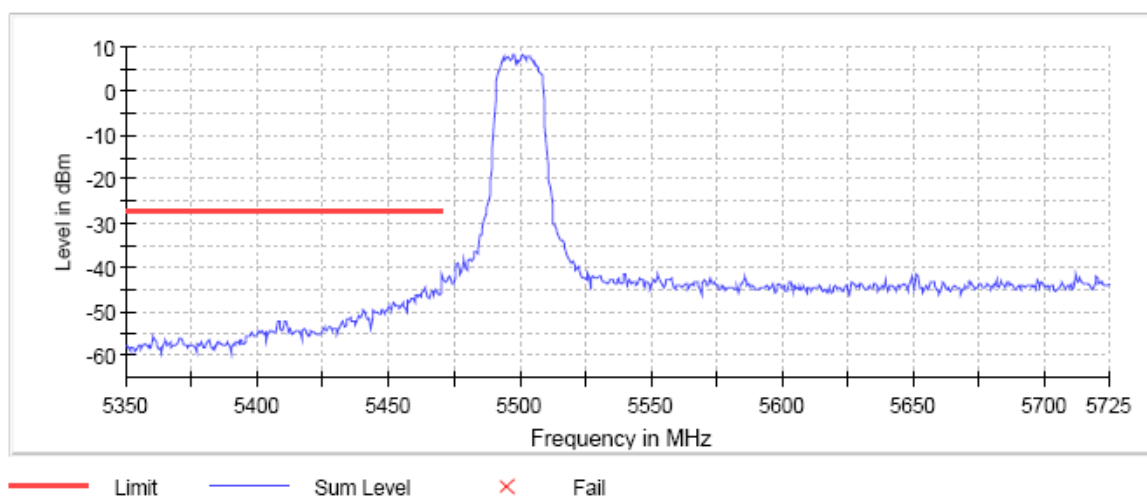
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.72500 GHz
Stop Frequency	5.72500 GHz	6.85000 GHz
Span	255.000 MHz	1.125 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	2250
Sweeptime	34.313 μ s	2.25 ms
Reference Level	20.000 dBm	0.000 dBm
Attenuation	40.000 dB	20.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	16 / max. 150	7 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.34 dB	0.00 dB

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

Bandwidth: 20 MHz

Lowest Channel

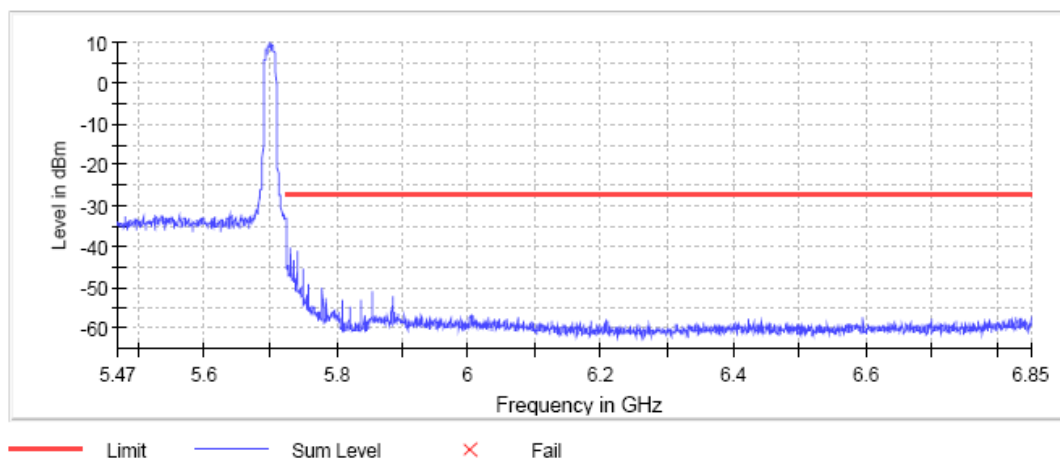


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
Sweeptime	34.313 μ s	17.156 μ s
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	13 / max. 150	9 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.43 dB	0.00 dB

TEST RESULTS (Cont.):

Highest Channel



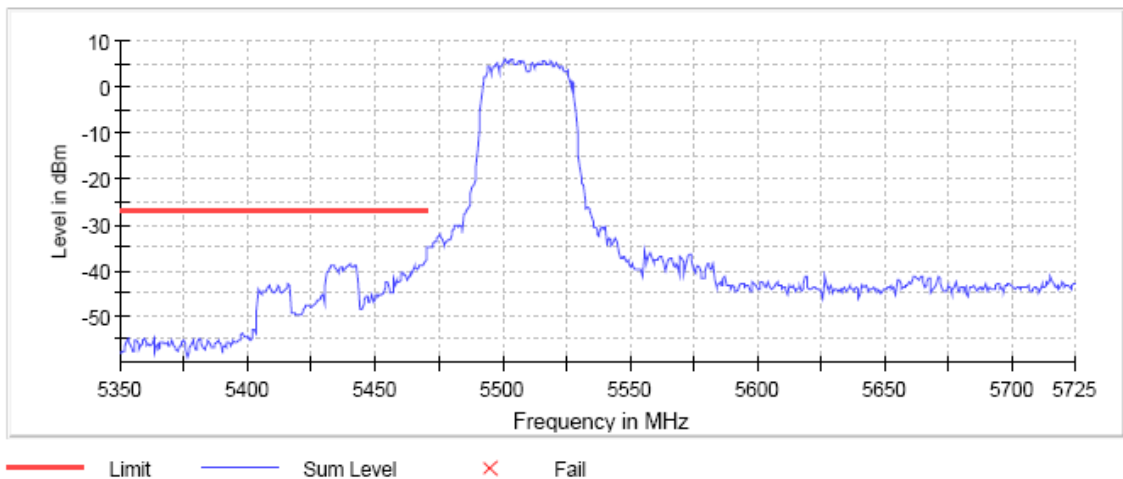
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.72500 GHz
Stop Frequency	5.72500 GHz	6.85000 GHz
Span	255.000 MHz	1.125 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	2250
Sweeptime	34.313 μ s	2.25 ms
Reference Level	20.000 dBm	0.000 dBm
Attenuation	40.000 dB	20.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	15 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.16 dB	0.00 dB

TEST RESULTS (Cont.):

n Mode (40 MHz)

Lowest Channel

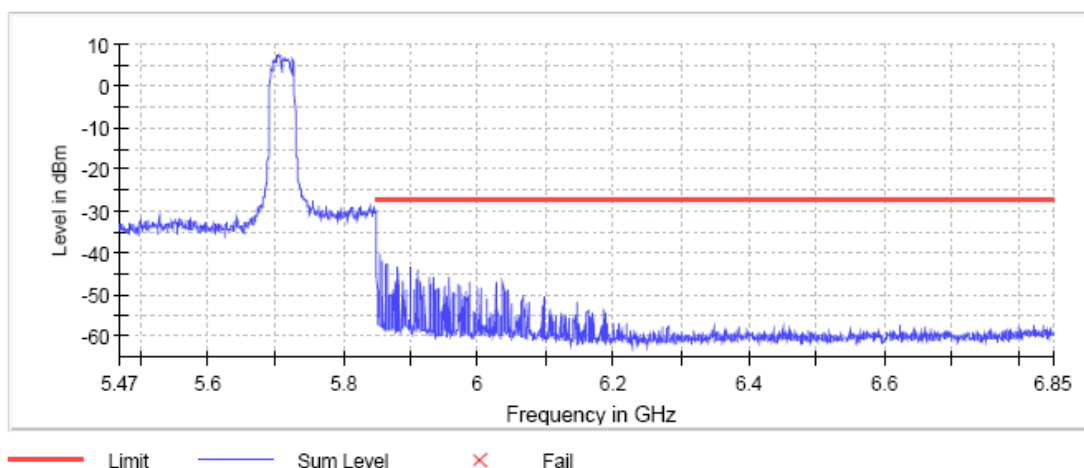


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
Sweeptime	34.313 μ s	17.156 μ s
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	30 / max. 150	20 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.00 dB	0.12 dB

TEST RESULTS (Cont.):

Highest Channel



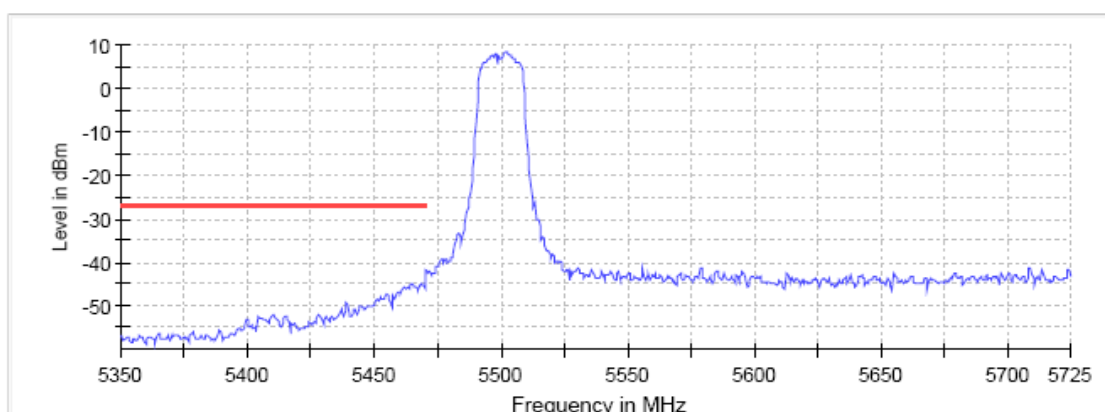
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.85000 GHz
Stop Frequency	5.5000 GHz	6.85000 GHz
Span	380.000 MHz	1.000 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	760	2000
Sweptime	51.469 μ s	2.00 ms
Reference Level	20.000 dBm	-10.000 dBm
Attenuation	40.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweptype	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	31 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.30 dB	0.00 dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mdoe)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

Lowest Channel:



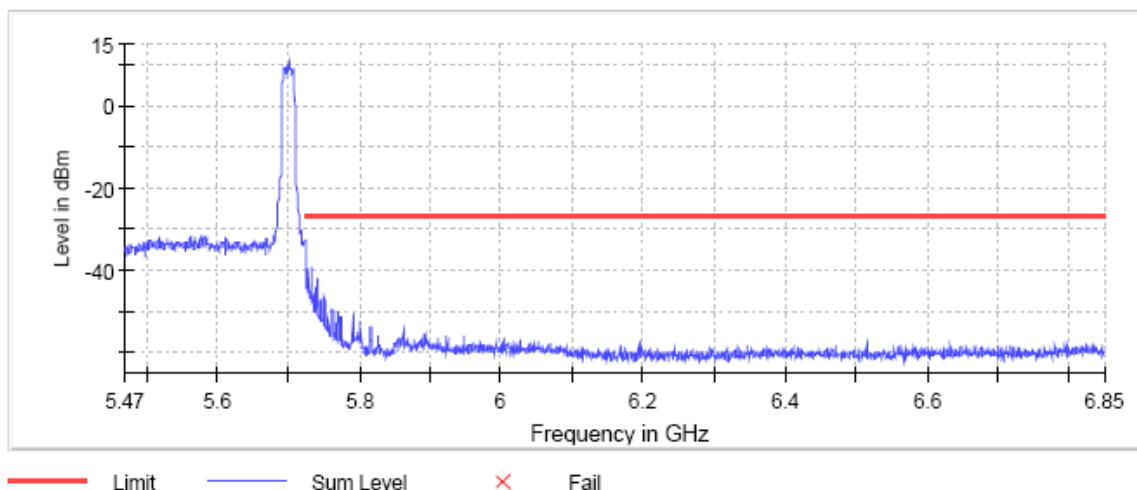
— Limit — Sum Level × Fail

Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
Sweptime	34.313 μ s	17.156 μ s
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	20 / max. 150	16 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.00 dB	0.00 dB

TEST RESULTS (Cont.):

Highest Channel



Measurement

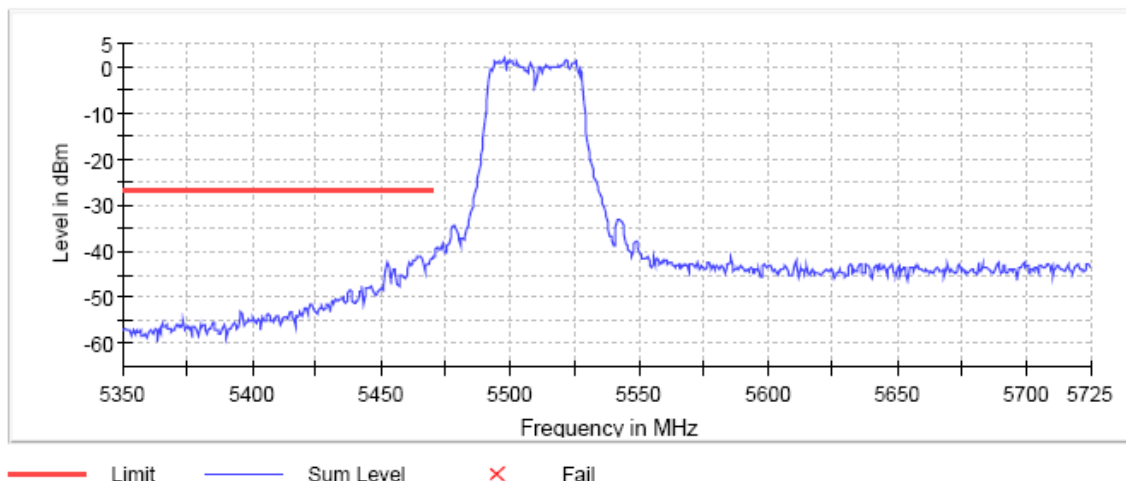
Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.72500 GHz
Stop Frequency	5.72500 GHz	6.85000 GHz
Span	255.000 MHz	1.125 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	2250
SweepTime	34.313 μ s	2.25 ms
Reference Level	20.000 dBm	-10.000 dBm
Attenuation	40.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	17 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.22 dB	0.00 dB

TEST RESULTS (Cont.):

ac mode (40 MHz)

Bandwidth: 40 MHz

Lowest Channel

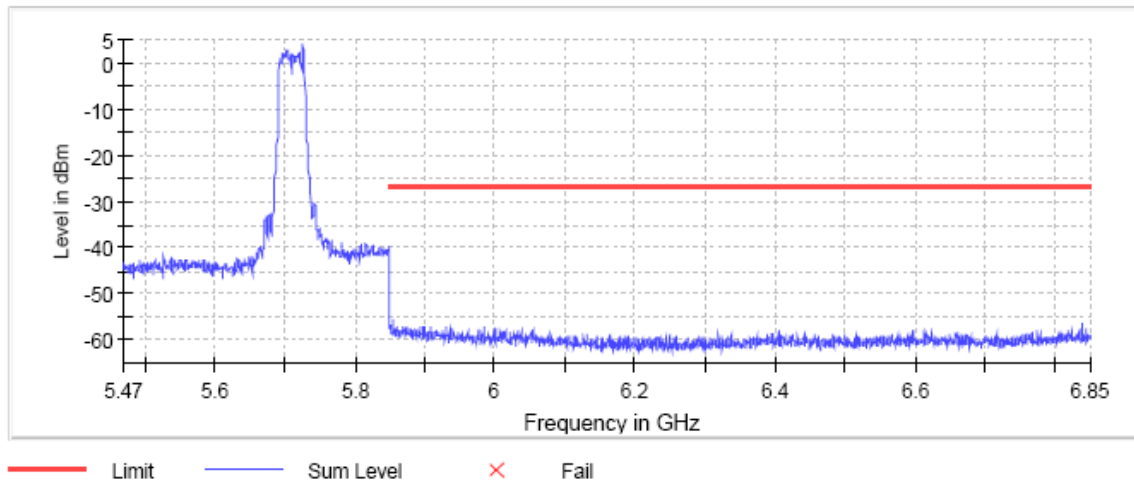


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
SweepTime	34.313 μ s	17.156 μ s
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	20 / max. 150	13 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.00 dB	0.12 dB

TEST RESULTS (Cont.):

Highest Channel



Measurement

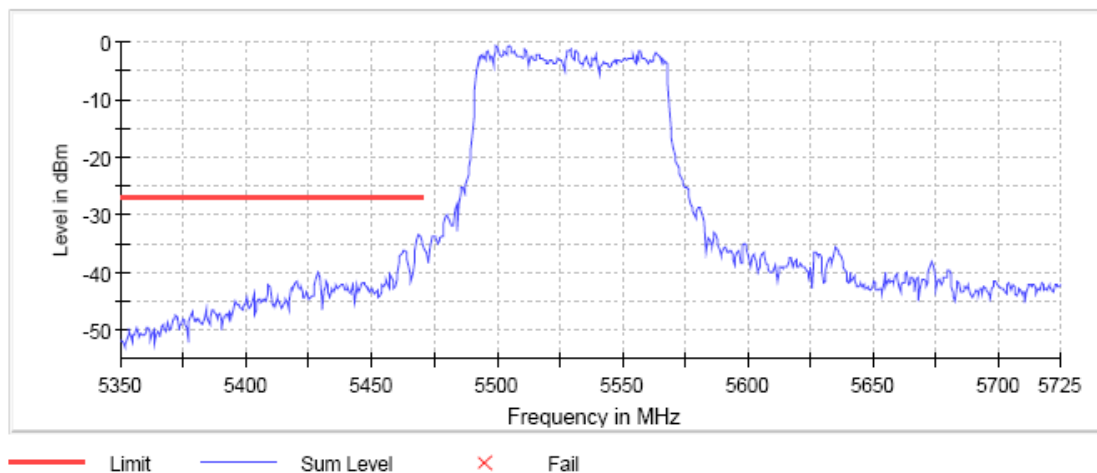
Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	380.000 MHz	1.000 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	760	2000
SweepTime	51.469 μ s	2.00 ms
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	18 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.31 dB	0.00 dB

TEST RESULTS (Cont.):

ac mode (80 MHz)

Bandwidth: 80 MHz

Lowest Channel



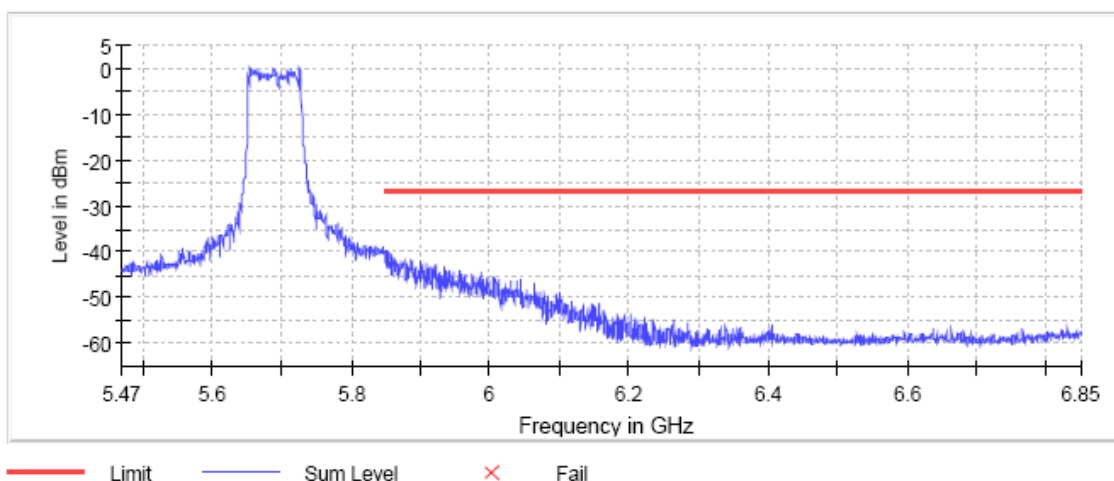
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.35000 GHz
Stop Frequency	5.72500 GHz	5.47000 GHz
Span	255.000 MHz	120.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	510	240
Sweeptime	34.313 μ s	17.156 μ s
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	53 / max. 150	9 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.07 dB	0.00 dB

TEST RESULTS (Cont.):

ac mode (80 MHz)

Highest Channel



Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.47000 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	380.000 MHz	1.000 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	760	2000
Sweeptime	51.469 μ s	2.00 ms
Reference Level	10.000 dBm	-10.000 dBm
Attenuation	30.000 dB	10.000 dB
Detector	Maxpeak	Maxpeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	FFT
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	48 / max. 150	49 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.22 dB	0.00 dB

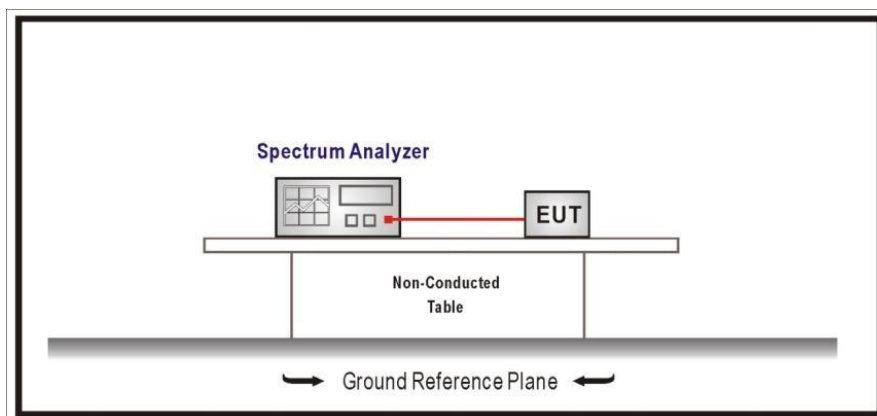
TEST D.6: EMISSION LIMITATIONS CONDUCTED (TRANSMITTER)

LIMITS:	Product standard:	Part 15 Subpart C §15.407, 15.207 and RSS-Gen
	Test standard:	Part 15 Subpart C §15.407(b)(6), 15.207 and RSS-Gen 8.8

LIMITS

In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB instead of 20 dB.

TEST SETUP

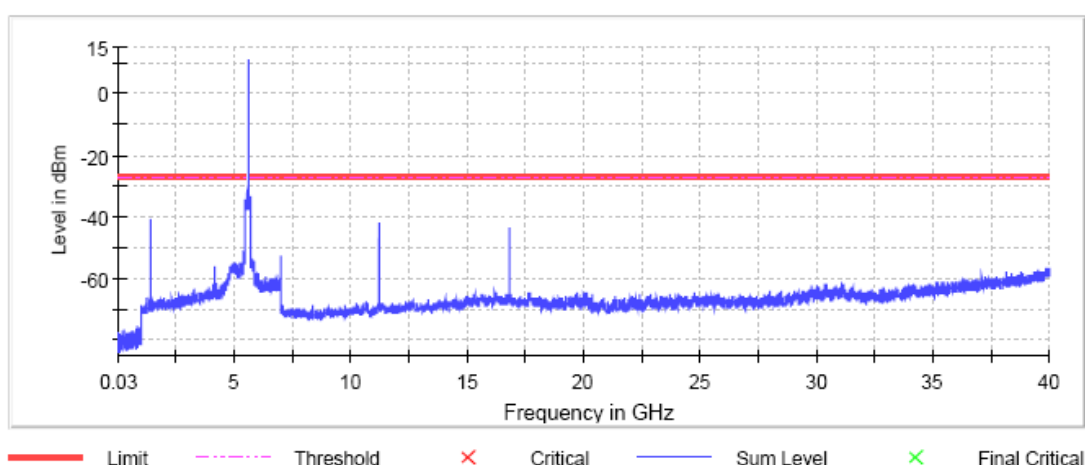


TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 (a mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

Frequency: 5600 MHz

No spurious signal was detected at 20dB below the limit or above for the channel.



Measurement Settings

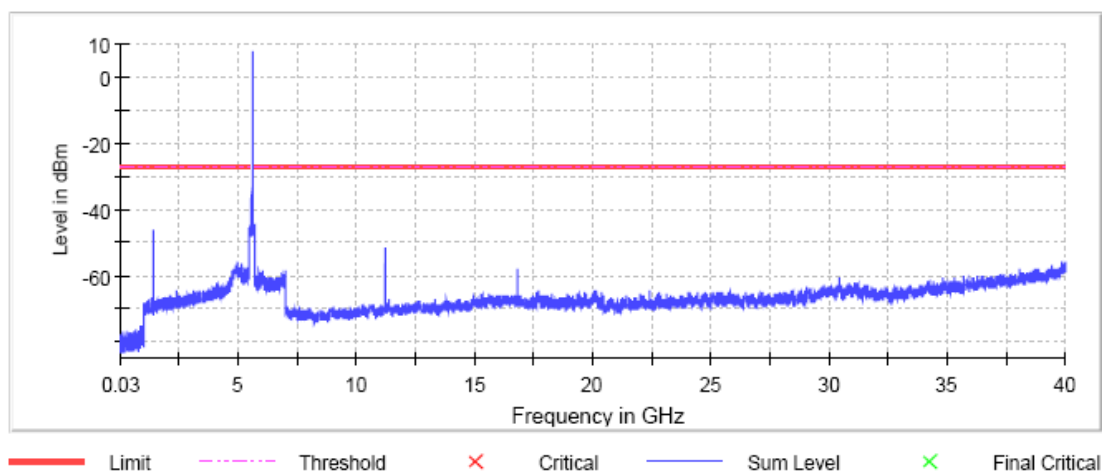
Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	4 / max. 150	12 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.00 dB

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

Bandwidth: 20 MHz

Frequency: 5600 MHz

No spurious signal was detected at 20dB below the limit or above for the channel.



Measurement Settings

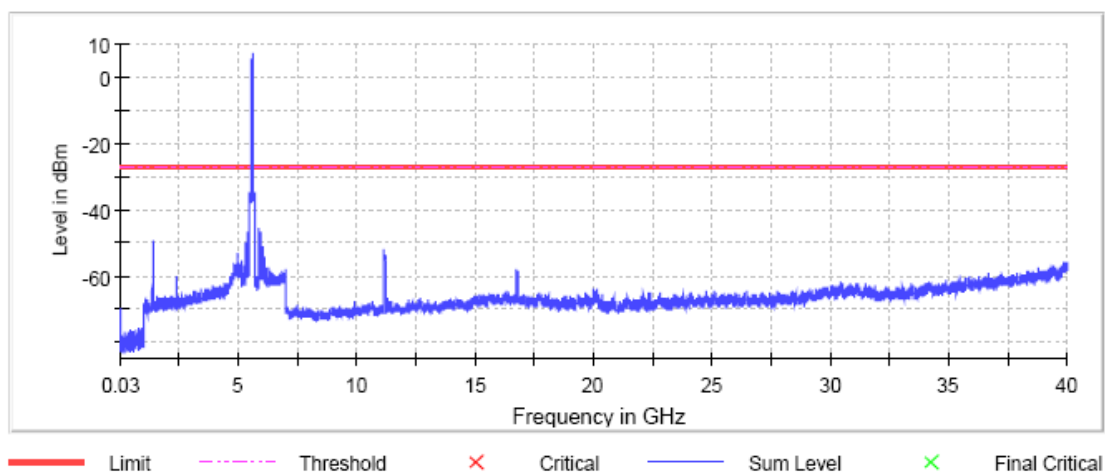
Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	4 / max. 150	9 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.45 dB

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

Bandwidth: 40 MHz

Frequency: 5590 MHz

No spurious signal was detected at 20dB below the limit or above for the channel.



Measurement Settings

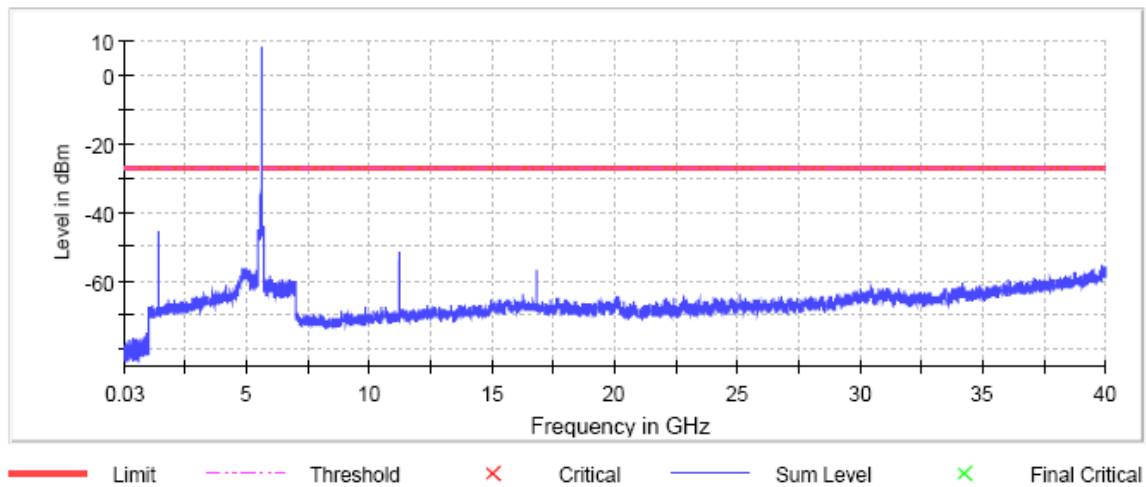
Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	5 / max. 150	11 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.12 dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

Frequency: 5600 MHz

No spurious signal was detected at 20dB below the limit or above for the channel.



Measurement Settings

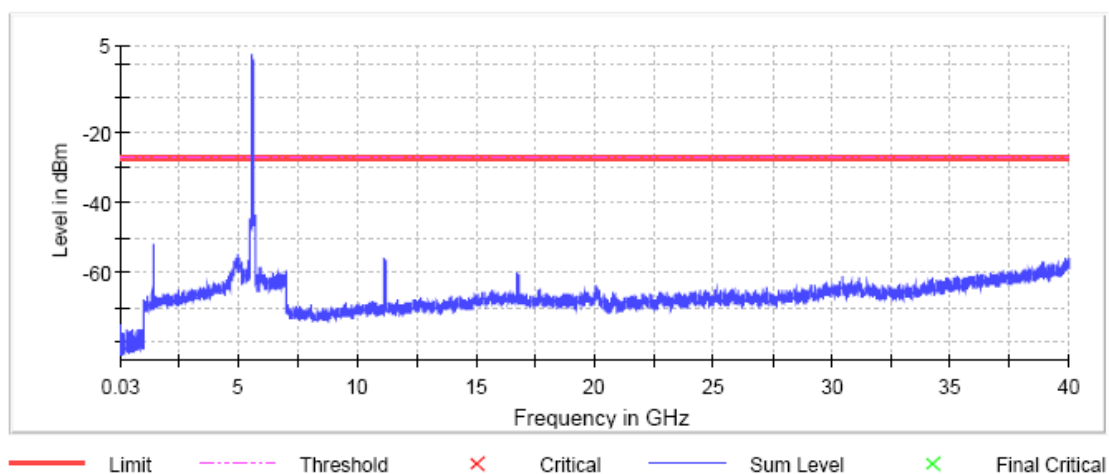
Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	4 / max. 150	21 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.34 dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode)
TEST RESULTS:	PASS

Bandwidth: 40 MHz

Frequency: 5590 MHz

No spurious signal was detected at 20dB below the limit or above for the channel.



Measurement Settings

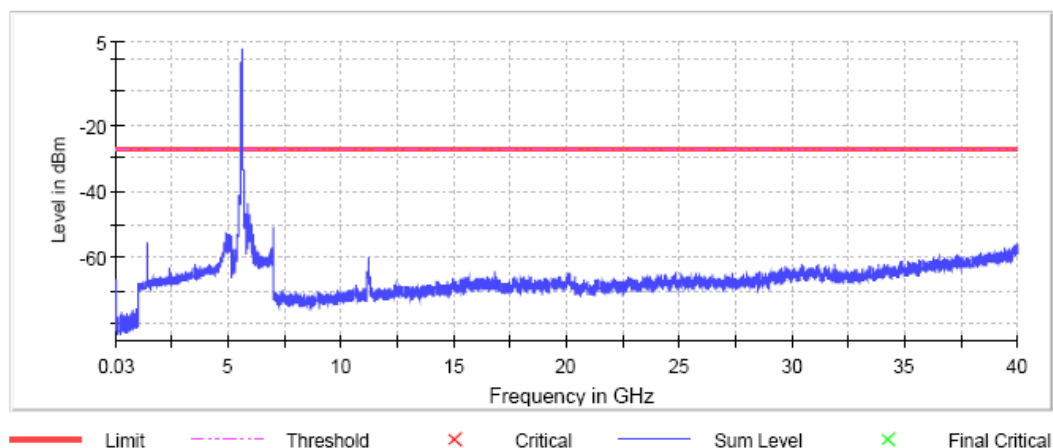
Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	4 / max. 150	23 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.00 dB

TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 (ac mode 80 MHz BW)
TEST RESULTS:	PASS
TEST RESULTS (Cont.):	

Frequency: 5610 MHz

No spurious signal was detected at 20dB below the limit or above for all three channels.

Lowest Channel



Measurement Settings

Setting	Instrument Value	Instrument Value
Start Frequency	30.000 MHz	30.000 MHz
Stop Frequency	40 GHz	40 GHz
RBW	100.000 kHz	1.000 MHz
VBW	300.000 kHz	3.000 MHz
Sweep Points	9700	4150
Sweep time	9.700 ms	4.150 ms
Reference Level	-30.000 dBm	-20.000 dBm
Attenuation	0.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
Sweep Count	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweep type	sweep	Sweep
Preamp	off	off
Stable mode	Trace	Trace
Stable value	0.50 dB	0.50 dB
Run	6 / max. 150	124 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.44 dB	0.24 dB

TEST D.7: UNDESIRABLE RADIATED EMISSIONS (TRANSMITTER)

LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(b) (1)(6)(7) and RSS-247 6.2.1.2

LIMITS

For transmitters operating in the 5.15 – 5.25 GHz band: all emissions outside of the 5.15 – 5.25 GHz band shall not exceed an EIRP of -27 dBm/MHz (68.23 dBμ V/m at 3m distance).

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c) / RSS-Gen):

Frequency Range (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 25000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function

TEST SETUP

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna is situated at 3 m for the frequency range 30-1000 MHz (Bilog antenna) and at 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.

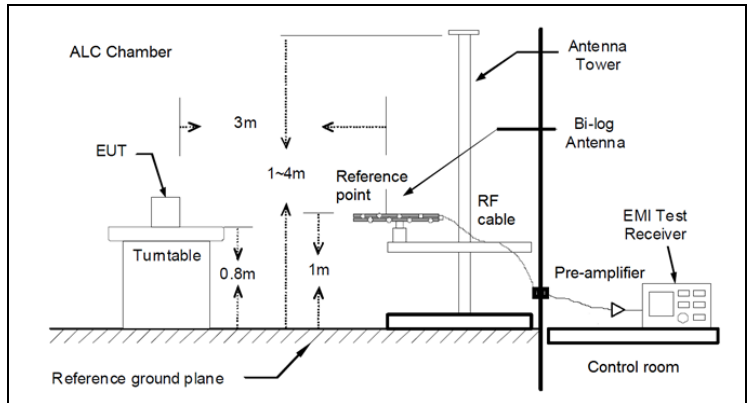
The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

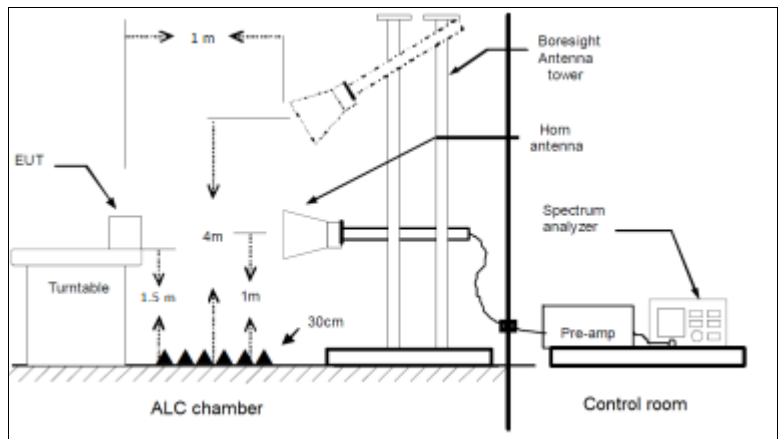
The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

TEST SETUP (CONT.)

Radiated measurements Setup $f < 1$ GHz



Radiated measurements setup $f > 1$ GHz



TESTED SAMPLES:

S/02

TESTED CONDITIONS MODES:

TC#01 (a mode)

TEST RESULTS:

PASS

Co-Location

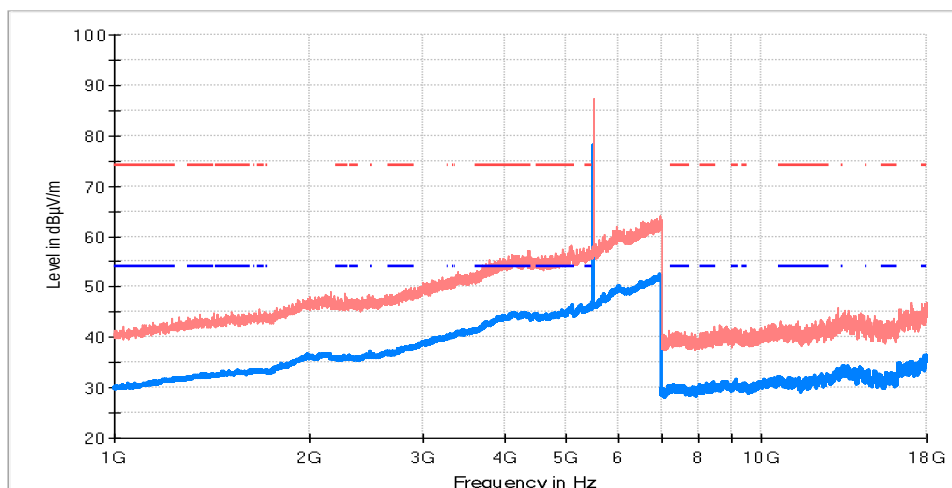
The test was performed with the equipment transmitting first with only the WiFi 5 GHz (WLAN0 CORE0) radio and repeated with the 2.4 GHz BT-EDR (WLAN 0), WiFi 2.4GHz (WLAN0 CORE1) radios transmitting simultaneously to check the impact of the co-location of the other radio interfaces. The results and plots below show the worst results obtained.

Frequency range 1 GHz – 40 GHz

The results and plots below show the maximum measured levels in the 1- 40 GHz range and the restricted band 4.5 – 5.15 GHz.

TEST RESULTS (Cont.)	
FREQUENCY RANGE	1 GHz – 18 GHz

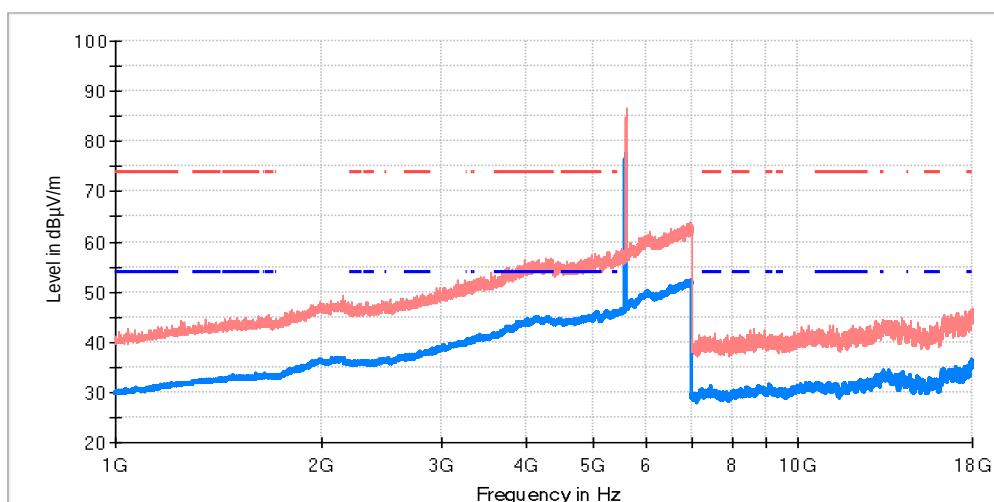
Low Channel



— AVG_MAXH
 — PK+_MAXH
 — TX limits to Spurious Emission FCC15.407 (1 GHz to 40 GHz) Restricted Bands PK Limit
 — TX limits to Spurious Emission FCC15.407 (1 GHz to 40 GHz) Restricted Bands AVG Limit

Middle Channel

RF_FCC_15.407_E Field_1GHz_18GHz

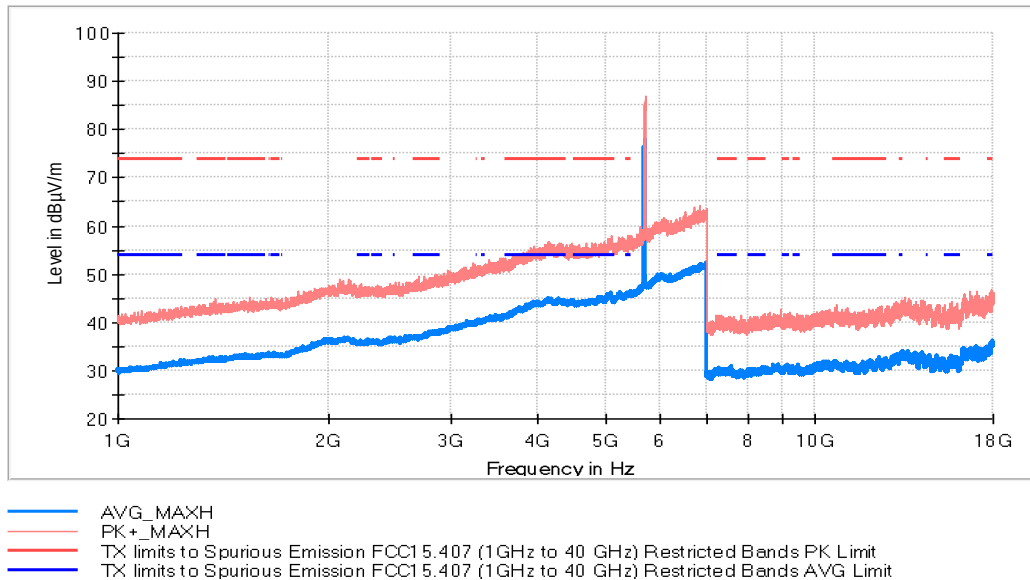


— AVG_MAXH
 — PK+_MAXH
 — TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
 — TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

TEST RESULTS (Cont.)

High Channel

RF_FCC_15.407_E Field_1GHz_18GHz

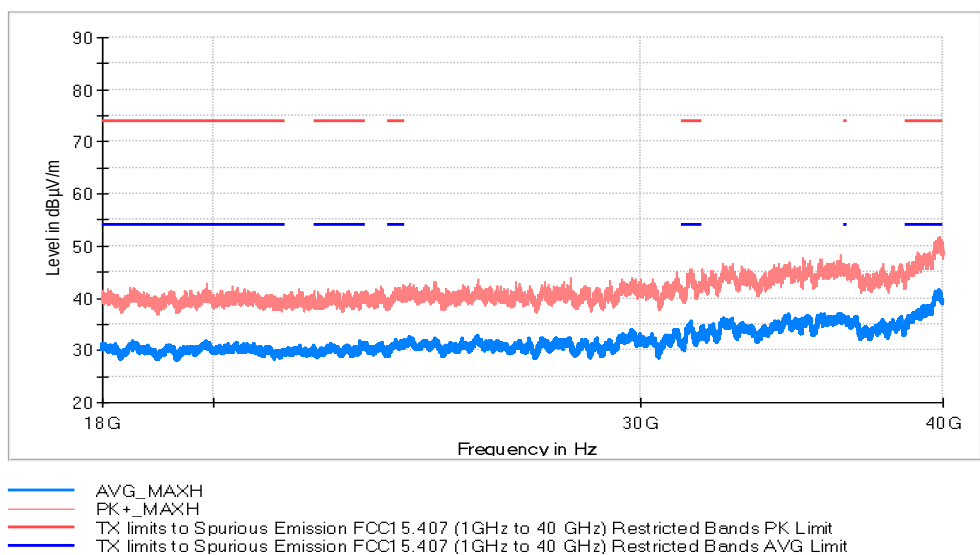


FREQUENCY RANGE

18 GHz – 40 GHz

Low Channel

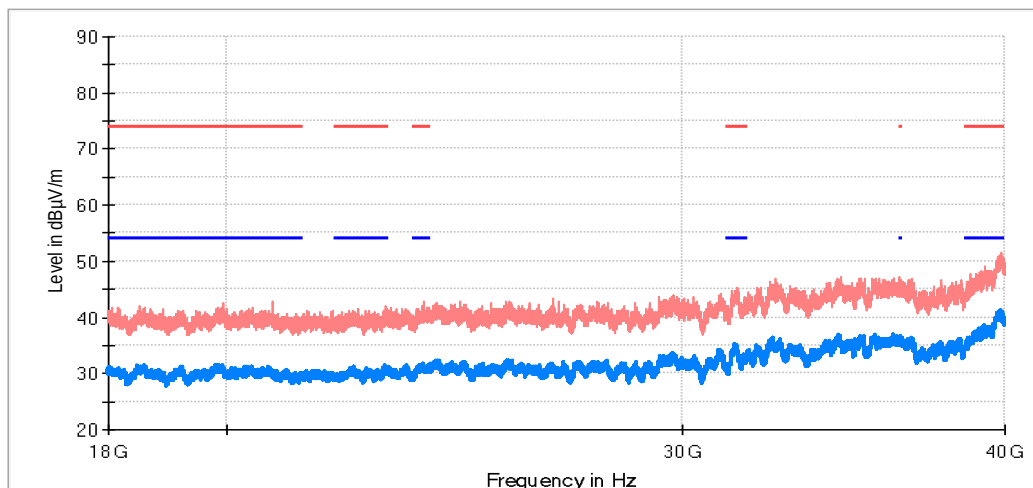
RF_FCC_15.407_E Field_18GHz_40GHz



TEST RESULTS (Cont.)

Middle Channel

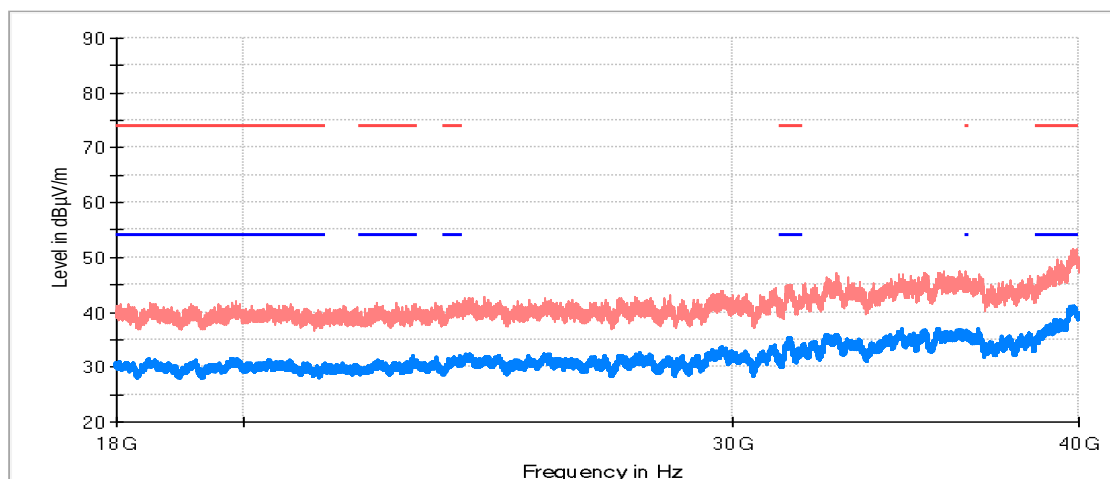
RF_FCC_15.407_E Field_18GHz_40GHz



- AVG_MAXH
- PK+_MAXH
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

High Channel

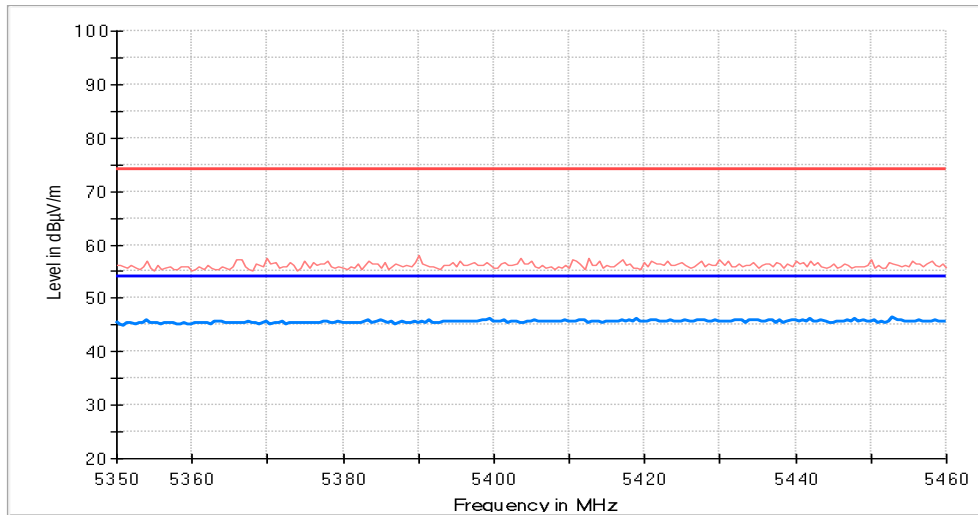
RF_FCC_15.407_E Field_18GHz_40GHz



- AVG_MAXH
- PK+_MAXH
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

RESTRICTED BANDS

5.35 GHz – 5.46 GHz



— AVG_MAXH
 — PK+_MAXH
 — TX limits to Spurious Emission FCC15.407 (1 GHz to 40 GHz) Restricted Bands PK Limit
 — TX limits to Spurious Emission FCC15.407 (1 GHz to 40 GHz) Restricted Bands AVG Limit

TESTED SAMPLES:	S/02
TESTED CONDITIONS MODES:	TC#02 (n mode 20 MHz)
TEST RESULTS:	PASS

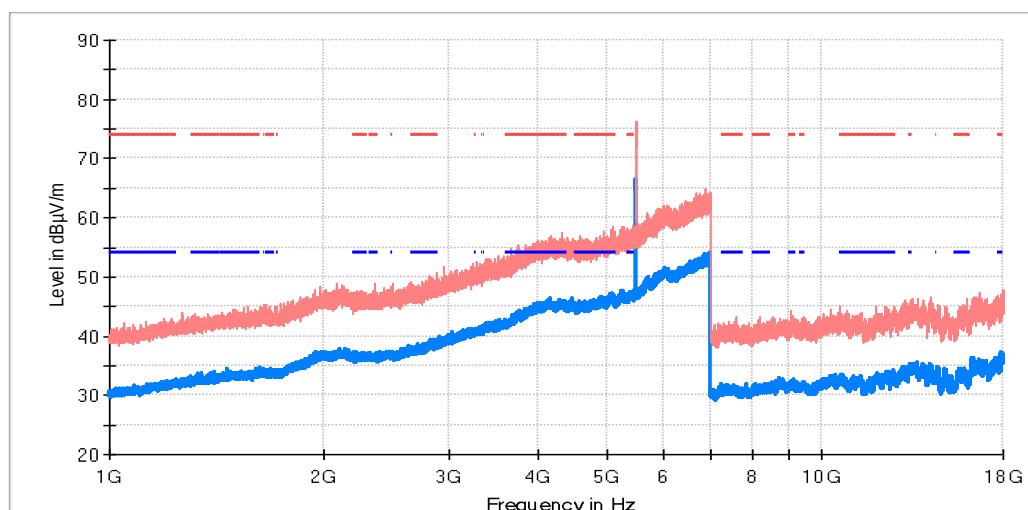
Co-Location

The test was performed with the equipment transmitting first with only the WiFi 5 GHz (WLAN0 CORE0) radio and repeated with the 2.4 GHz BT-EDR (WLAN 0), WiFi 2.4GHz (WLAN0 CORE1) radios transmitting simultaneously to check the impact of the co-location of the other radio interfaces. The results and plots below show the worst results obtained.

Frequency range 1 GHz – 40 GHz

The results and plots below show the maximum measured levels in the 1- 40 GHz range and the restricted band 4.5 – 5.15 GHz.

FREQUENCY RANGE	1 GHz – 18 GHz
-----------------	----------------



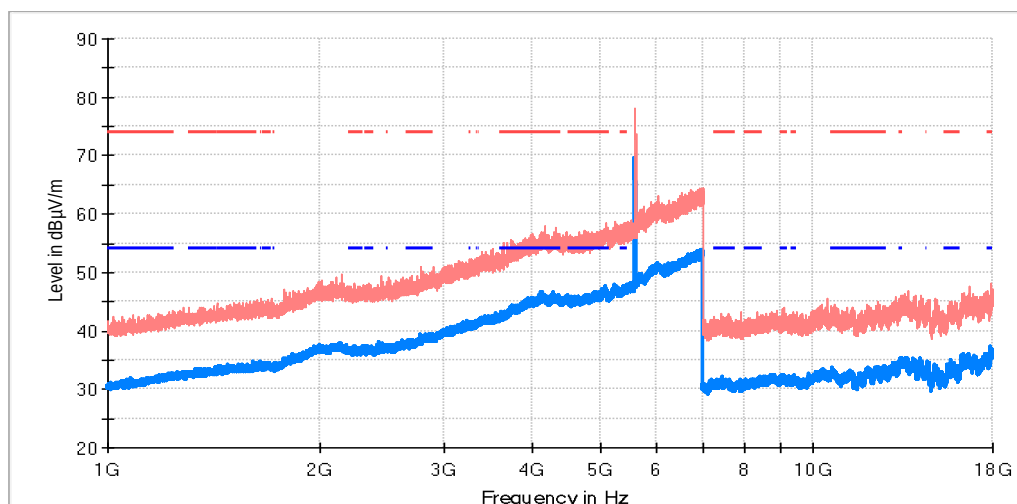
- AVG_MAXH
- PK+ _MAXH
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

Frequency (MHz)	PK+ _MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Comment
5503.545455	75.0	66.4	V	Fundamental

TEST RESULTS (Cont.)

Mid Channel



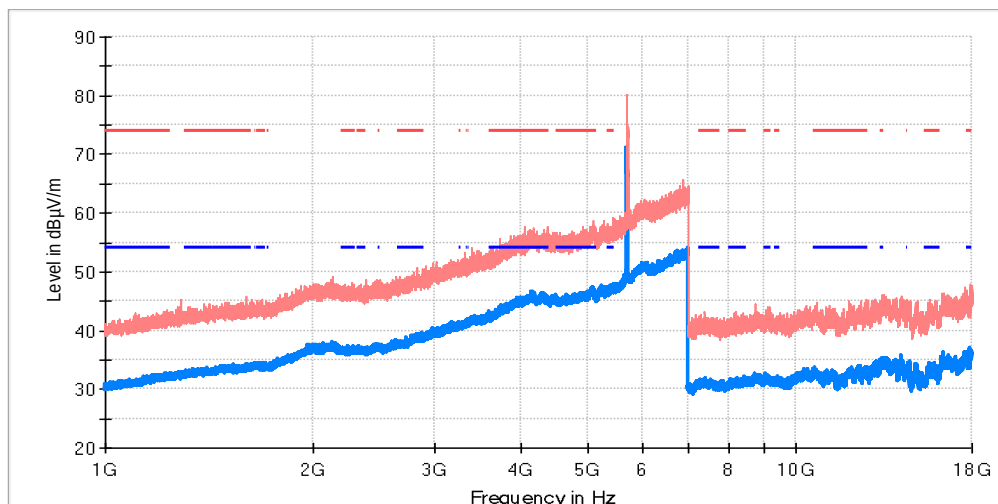
- AVG_MAXH
- PK+_MAXH
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
- TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

Frequency (MHz)	PK+_MAXH (dBuV/m)	AVG_MAXH (dBuV/m)	Pol	Comments
5602.818182	78.0	68.6	V	Fundamental

TEST RESULTS (Cont.)

High Channel



— AVG_MAXH
 — PK+_MAXH
 — TX limits to Spurious Emission FCC1 5.407 (1GHz to 40 GHz) Restricted Bands PK Limit
 — TX limits to Spurious Emission FCC1 5.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

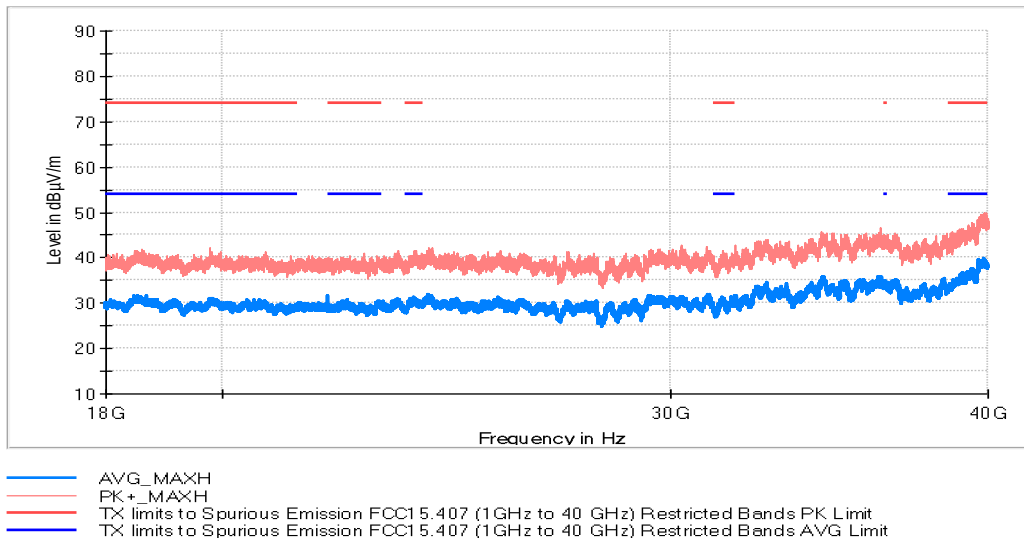
Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Comments
5703.181818	80.2	70.2	V	Fundamental

TEST RESULTS (Cont.)

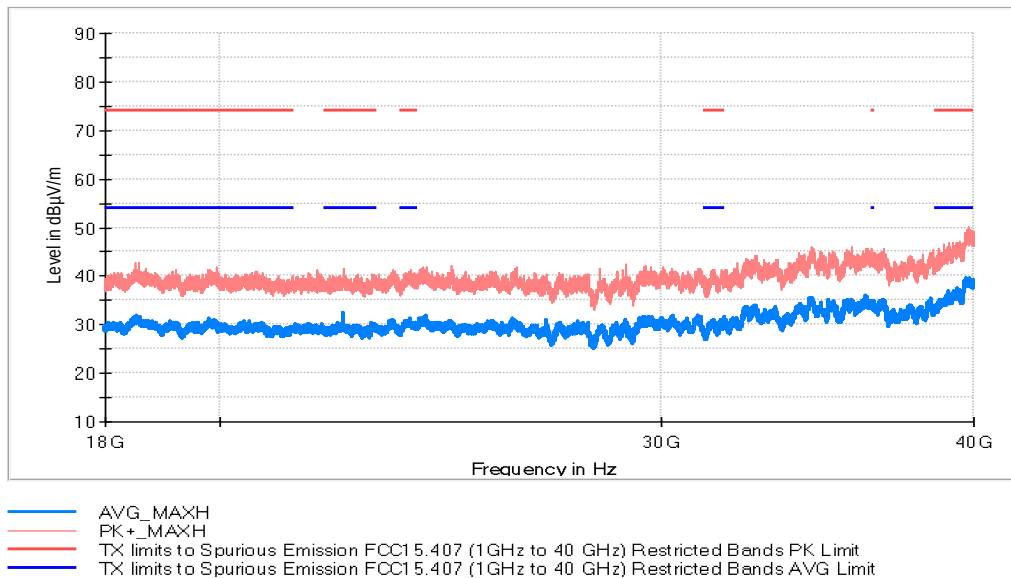
FREQUENCY RANGE

18 GHz – 40 GHz

Low Channel

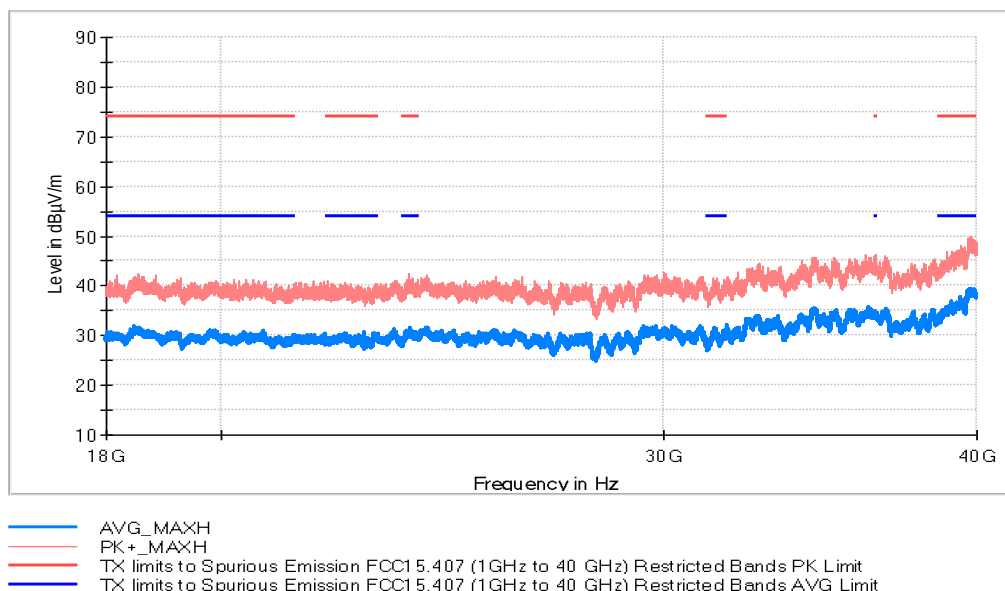


Middle Channel



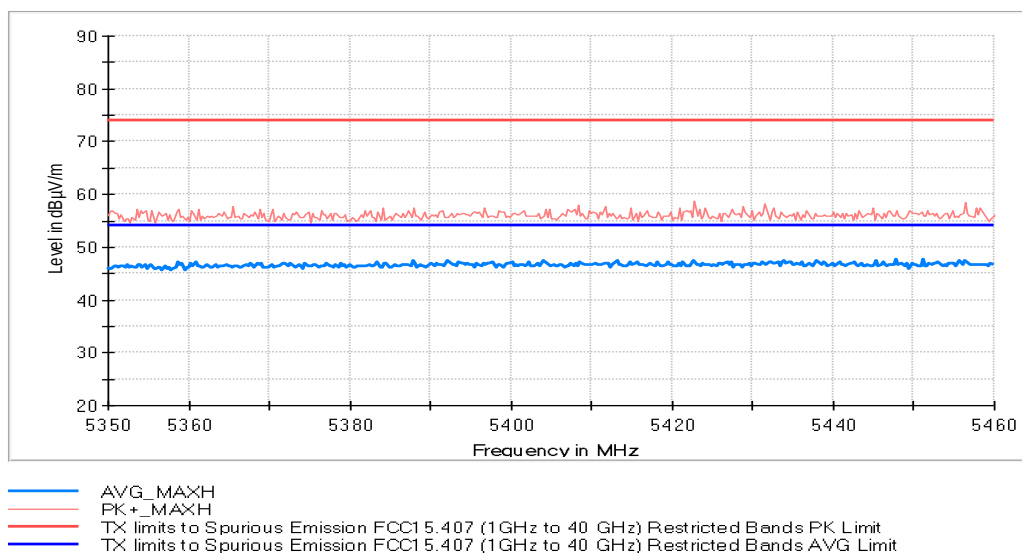
TEST RESULTS (Cont.)

High Channel



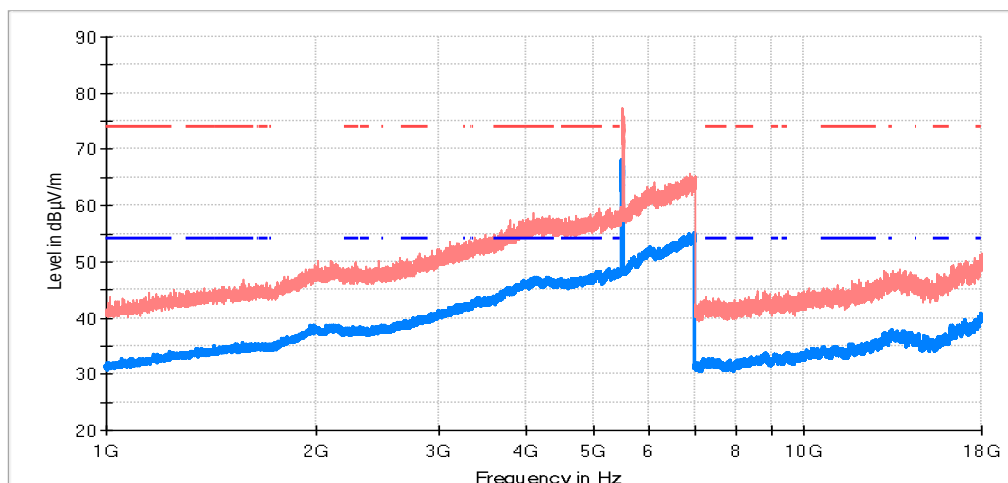
RESTRICTED BANDS

5.35 GHz – 5.46 GHz



TEST RESULTS (Cont.)	n mode (40 MHz)
FREQUENCY RANGE	1 GHz – 18 GHz

Low Channel



— AVG_MAXH
 — PK+_MAXH
 — TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
 — TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Comments
5498.636364	74.43	68.09	V	Fundamental