TEST RESULTS (Cont.)	

Measurement

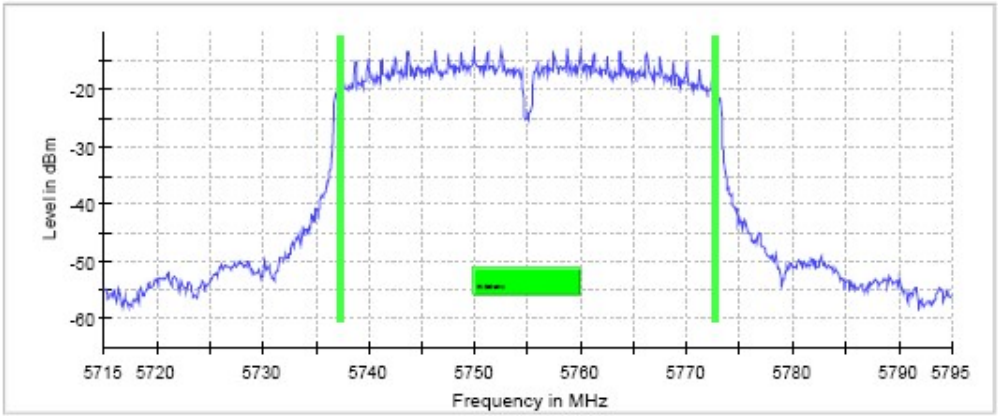
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.76500 GHz	5.80500 GHz
Stop Frequency	5.76500 GHz	5.80500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz	300.000 KHz
SweepPoints	400	400	400
Sweeptime	56.886 us	56.886 us	56.886 us
Reference Level	0.000 dBm	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB	20.000 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	60 / max. 150	37 / max. 150	45 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable	0.06 dB	0.20 dB	0.24 dB

TEST RESULTS (Cont.)	n Mode (40MHz)

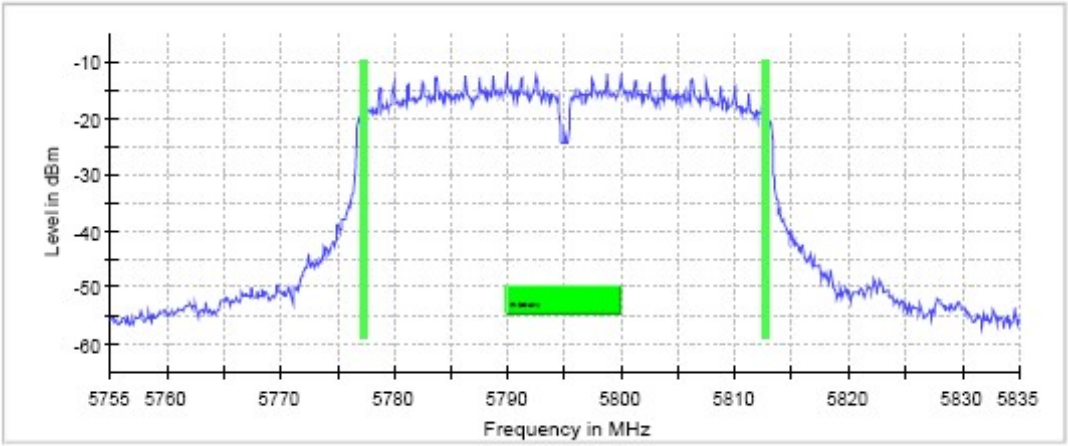
	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
6dB bandwidth (MHz)	35.3	35.3
Measurement uncertainty (kHz)	<± 8.33	

6DB BANDWIDTH	

Lowest Channel



Highest Channel



TEST RESULTS (Cont.)	

Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.71500 GHz	5.75500 GHz
Stop Frequency	5.79500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz
SweepPoints	800	800
Sweeptime	94.810 us	94.810 us
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	53 / max. 150	74 / max. 150
Stable	5 / 5	5 / 5
Max Stable	0.21 dB	0.17 dB

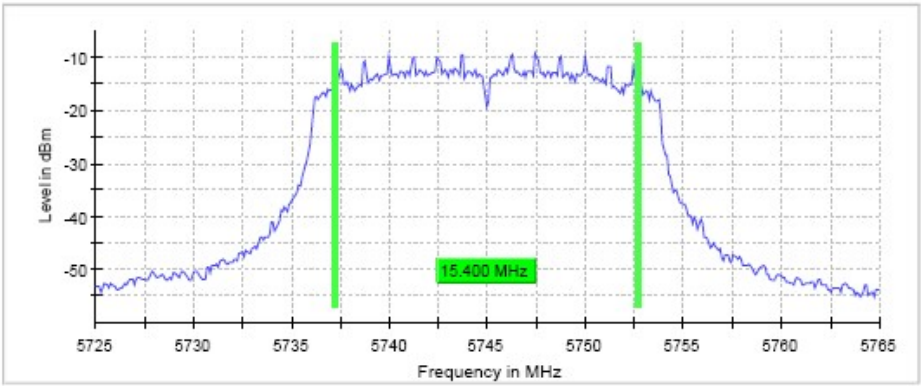
TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#03 **(ac mode)**
TEST RESULTS :	PASS

Bandwidth: 20 MHz

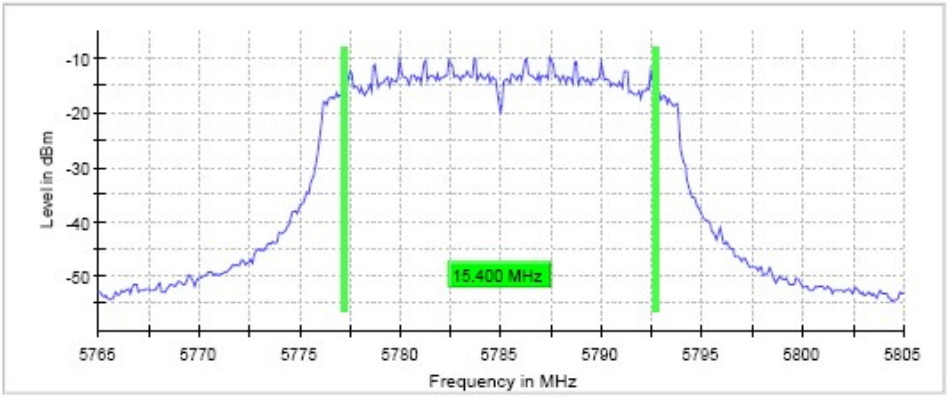
	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
6db bandwidth (MHz)	15.4	15.4	15.4
Measurement uncertainty (kHz)	<± 8.33		

TEST RESULTS (Cont.):	6dB BANDWIDTH

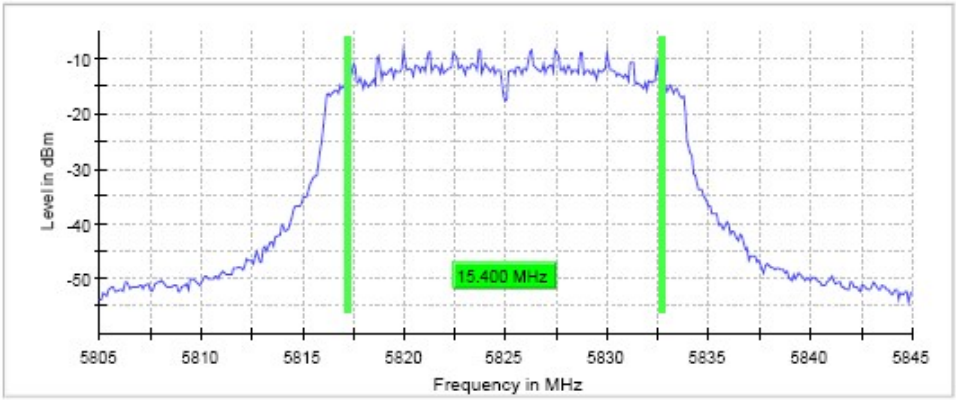
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.)	

Measurement

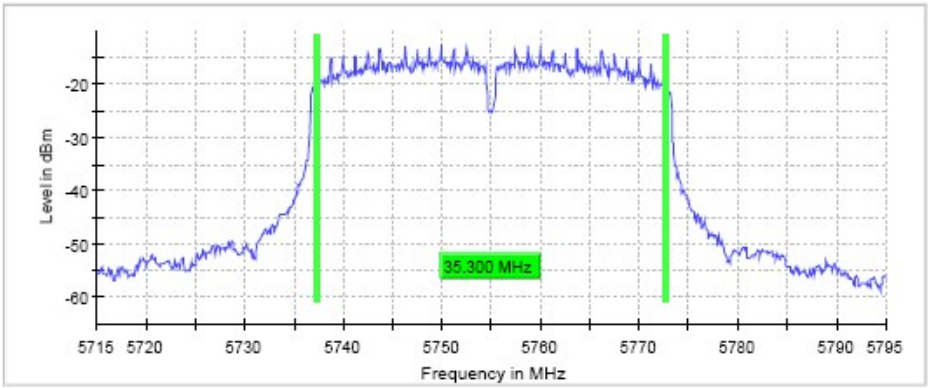
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.76500 GHz	5.80500 GHz
Stop Frequency	5.76500 GHz	5.80500 GHz	5.84500 GHz
Span	40.000 MHz	40.000 MHz	40.000 MHz
RBW	100.000 kHz	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz	300.000 KHz
SweepPoints	400	400	400
Sweeptime	56.886 us	56.886 us	56.886 us
Reference Level	0.000 dBm	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB	20.000 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	68 / max. 150	74 / max. 150	68 / max. 150
Stable	5 / 5	5 / 5	5 / 5
Max Stable Difference	0.05 dB	0.08 dB	0.09 dB

TEST RESULTS (Cont.)	ac Mode (40MHz)

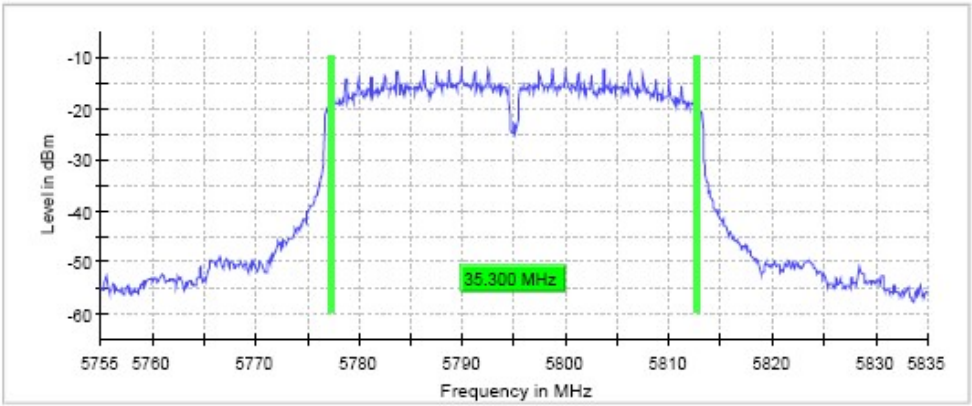
	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
6dB bandwidth (MHz)	35.3	35.3
Measurement uncertainty (kHz)	<± 8.33	

TEST RESULTS (Cont.):	6dB BANDWIDTH

Lowest Channel



Highest Channel



TEST RESULTS (Cont.)	

Measurement

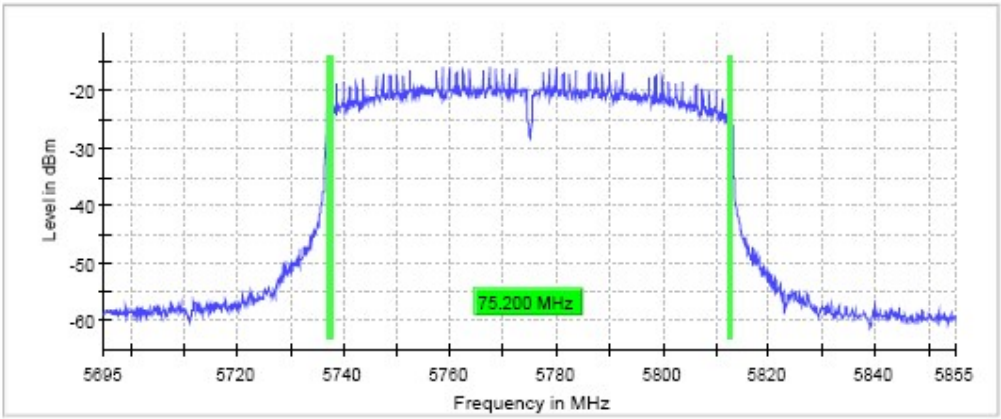
Setting	Instrument Value	Instrument Value
Start Frequency	5.71500 GHz	5.75500 GHz
Stop Frequency	5.79500 GHz	5.83500 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	100.000 kHz
VBW	300.000 KHz	300.000 KHz
SweepPoints	800	800
Sweeptime	94.810 µs	94.810 µs
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	FFT
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	67 / max. 150	57 / max. 150
Stable	5 / 5	5 / 5
Max Stable Difference	0.21 dB	0.16 dB

TEST RESULTS (Cont.)	ac Mode (80MHz)

	Lowest frequency 5775 MHz
6dB bandwidth (MHz)	75.2
Measurement uncertainty (kHz)	<± 8.33

TEST RESULTS (Cont.):	6dB BANDWIDTH

Lowest Channel



Measurement

Setting	Instrument Value
Start Frequency	5.69500 GHz
Stop Frequency	5.85500 GHz
Span	160.000 MHz
RBW	100.000 KHz
VBW	300.000 KHz
SweepPoints	1600
Sweeptime	189.620 µs
Reference Level	0.000 dBm
Attenuation	20.000 dB
Detector	MaxPeak
SweepCount	200
Filter	3 dB
Trace Mode	Max Hold
Sweeptype	FFT
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	132 / max. 150
Stable	5 / 5
Max Stable Difference	0.07 dB

TEST E.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) (3) (4) and RSS-247 6.2.4.1

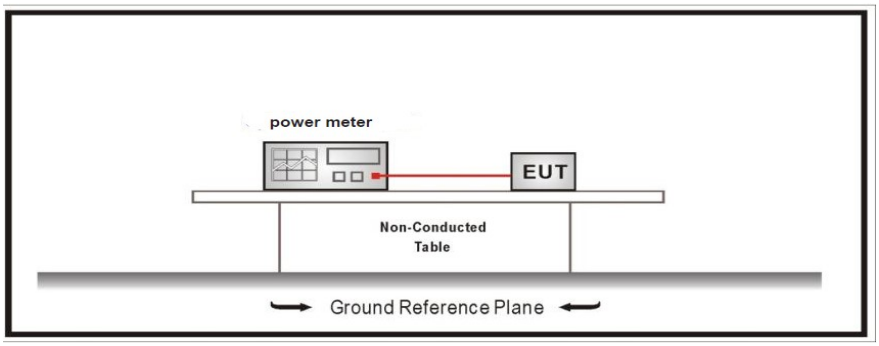
LIMITS

In band 5.725-5.85 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 30 dBm in any 500 KHz 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

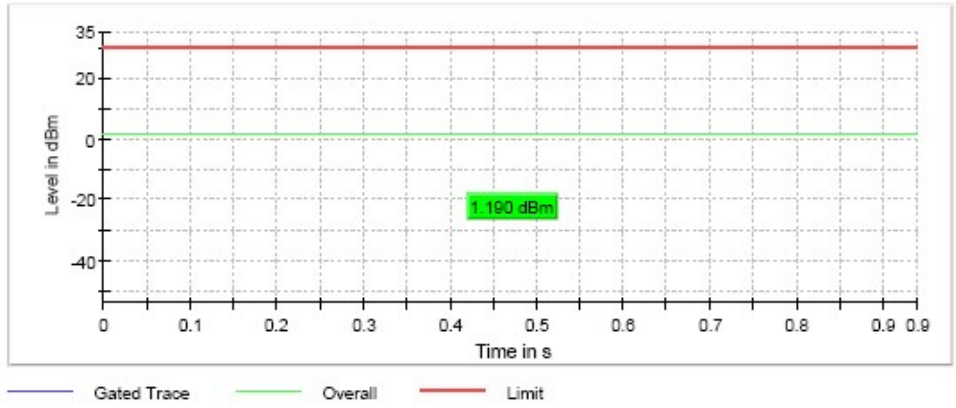
Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Maximum conducted power (dBm)	1.2	0.8	2.3
Maximum EIRP power (dBm)	-1.3	-1.7	-0.2
Measurement uncertainty (dB)	<±0.78		

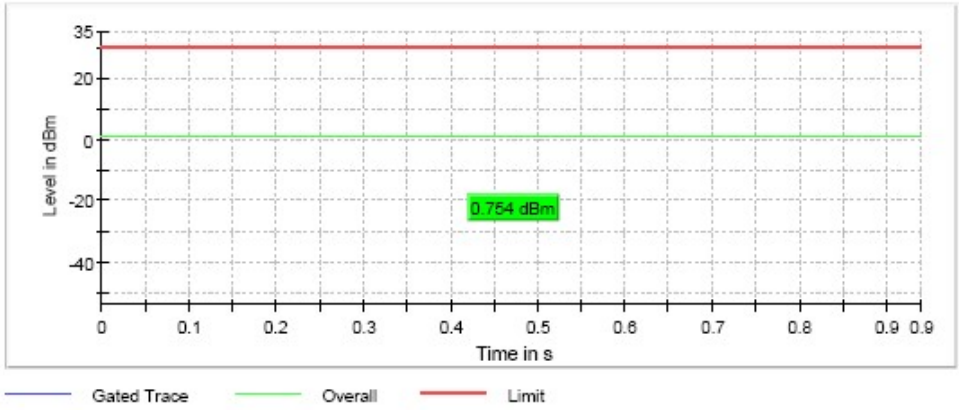
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER

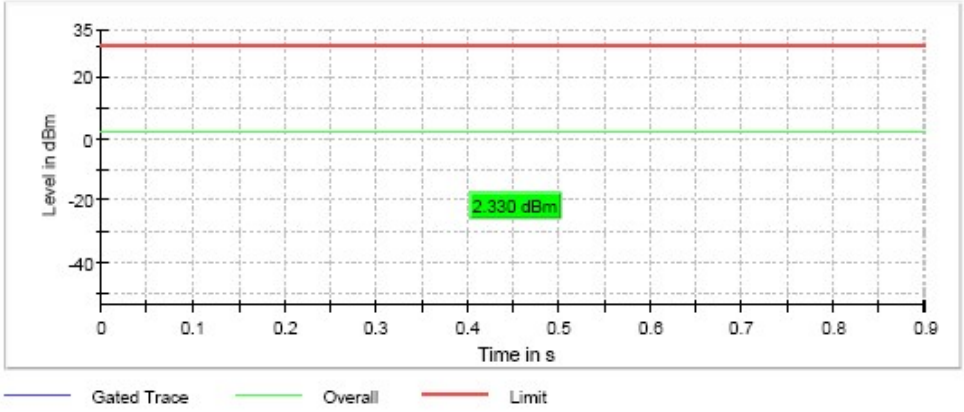
Lowest Channel



Middle Channel



Highest Channel



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

Bandwidth: 20 MHz

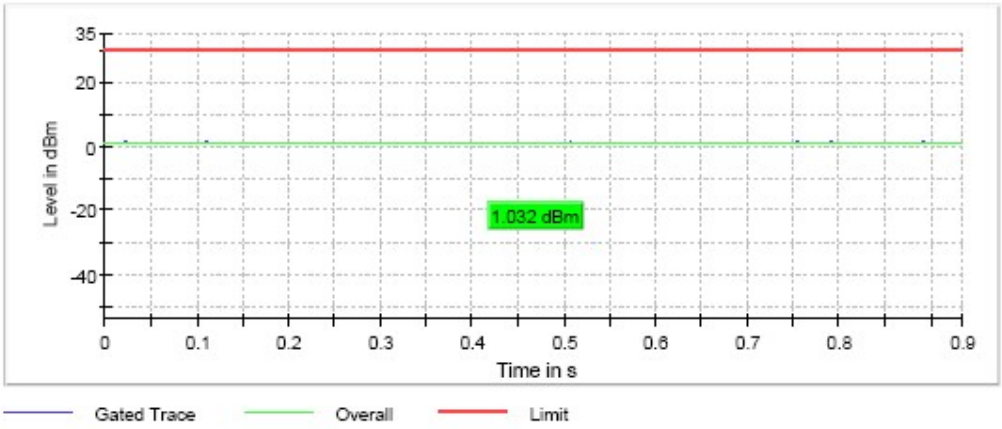
Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Maximum conducted power (dBm)	1.0	0.6	2.2
Maximum EIRP power (dBm)	-1.5	-1.9	-0.3
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.

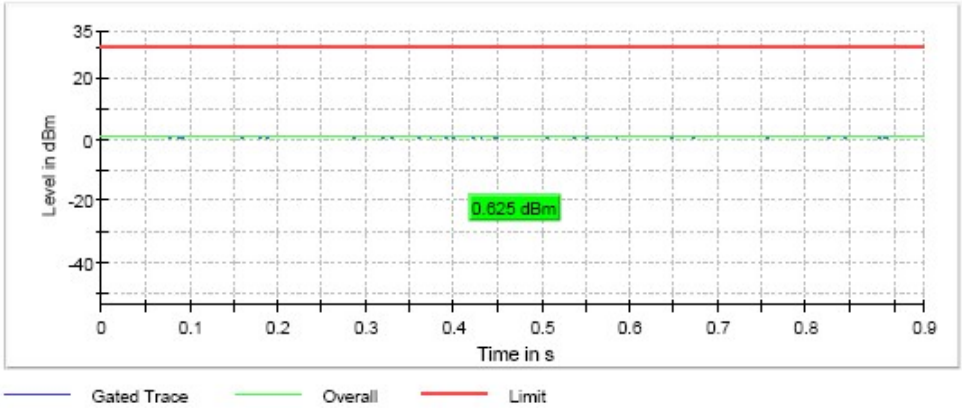
TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER

Lowest Channel

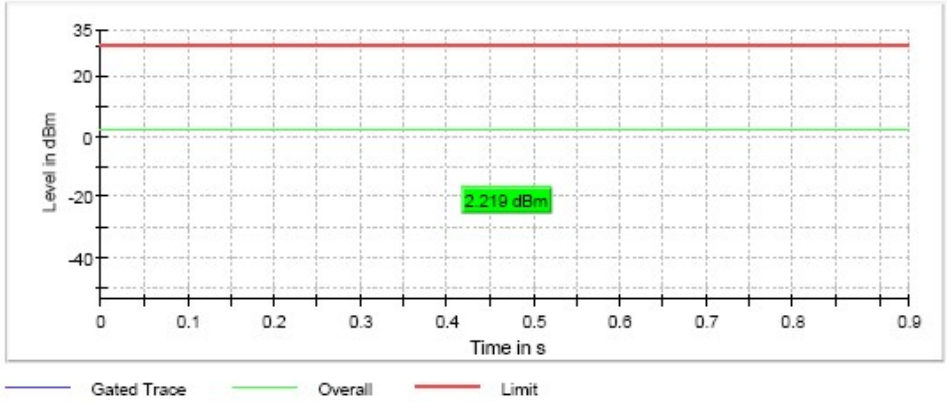


TEST RESULTS (Cont.)	

Middle Channel



Highest Channel



TEST RESULTS (Cont.):	n Mode (40 MHz)

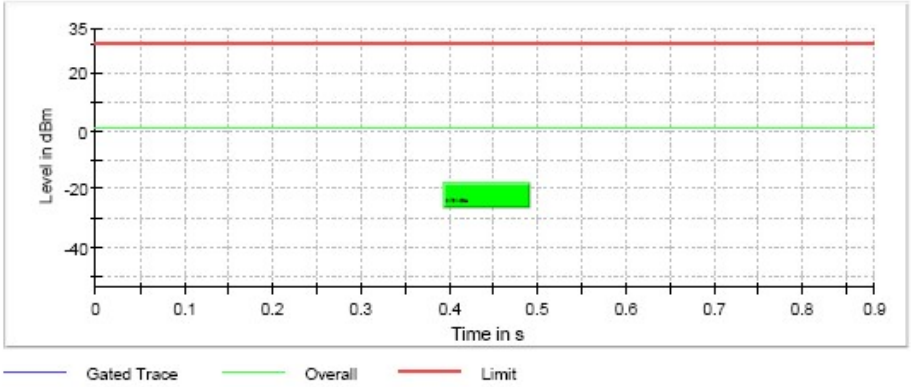
Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
Maximum conducted power (dBm)	0.8	1.5
Maximum EIRP power (dBm)	-1.7	-1.0
Measurement uncertainty (dB)	<±0.78	

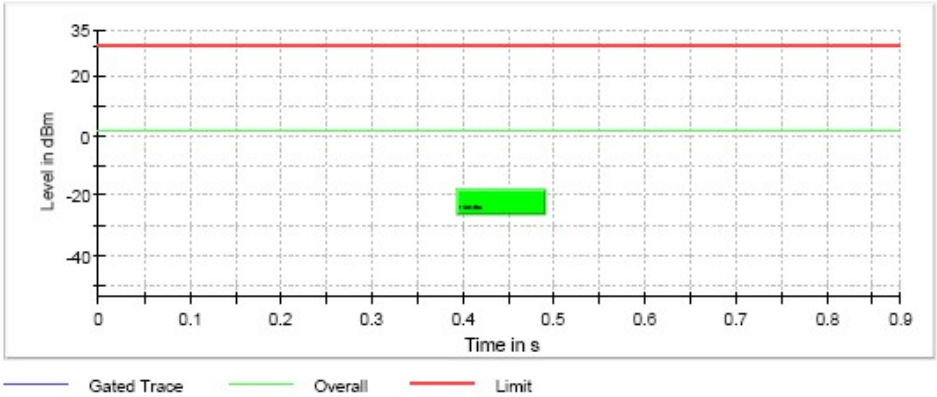
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER

Lowest Channel



Highest Channel



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

Bandwidth: 20 MHz

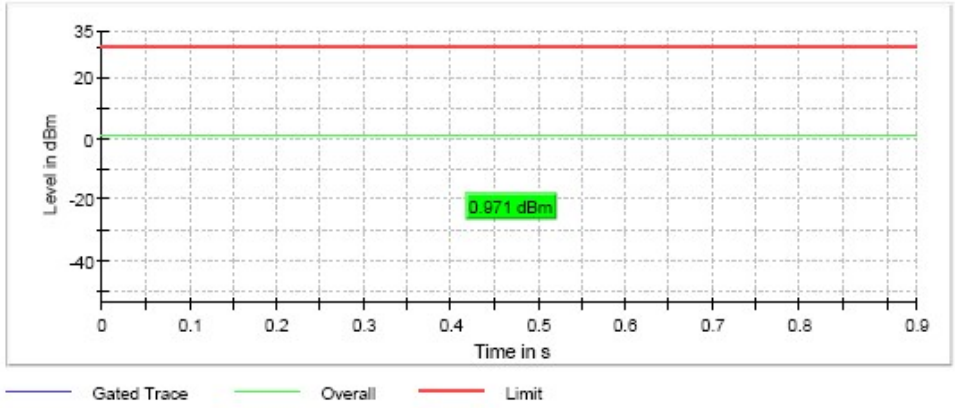
Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Maximum conducted power (dBm)	1.0	0.6	2.2
Maximum EIRP power (dBm)	-1.5	-1.9	-0.3
Measurement uncertainty (dB)	<±0.78		

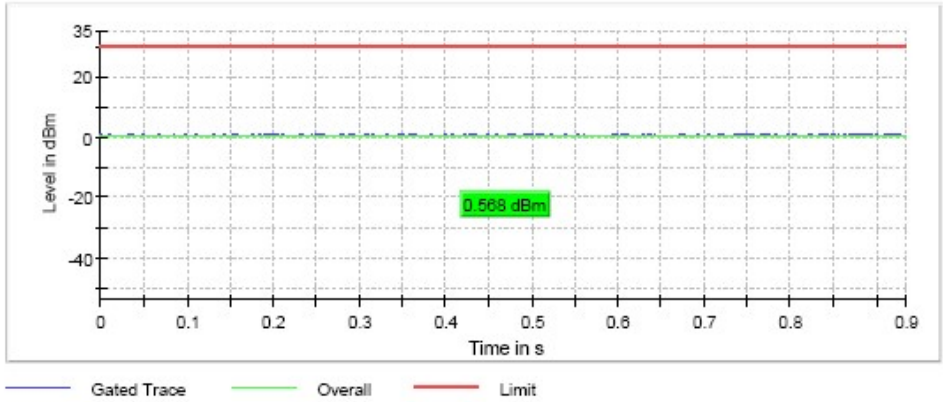
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

TEST RESULTS (Cont.)	

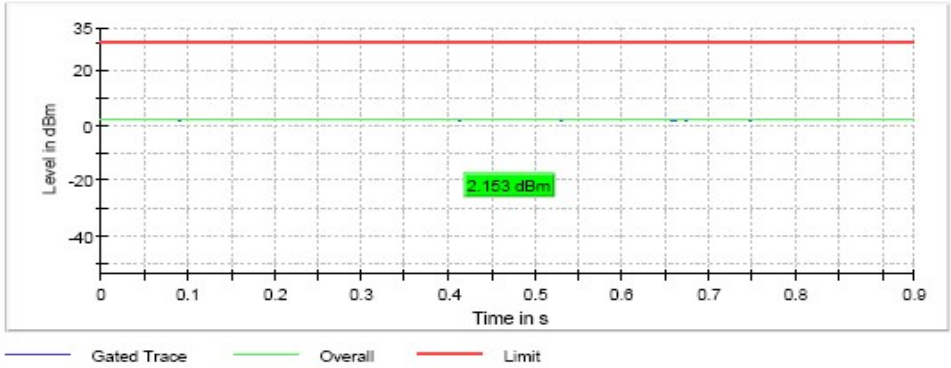
Lowest Channel



Middle Channel



Highest Channel



TEST RESULTS (Cont.):	ac Mode (40 MHz)

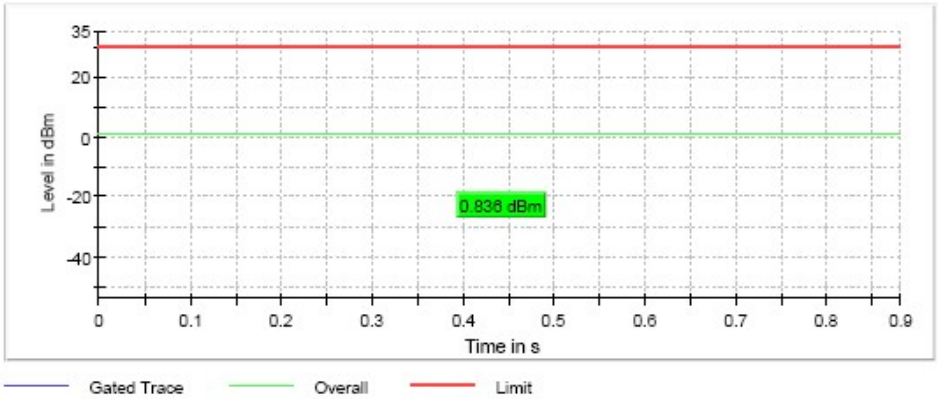
Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
Maximum conducted power (dBm)	0.8	1.7
Maximum EIRP power (dBm)	-1.7	-0.8
Measurement uncertainty (dB)	<±0.78	

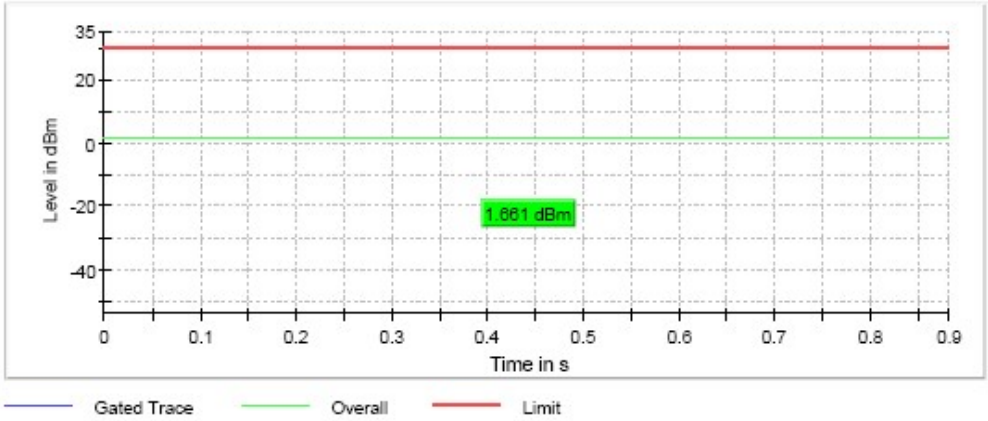
The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

TEST RESULTS (Cont.):	CONDUCTED OUTPUT POWER

Lowest Channel



Highest Channel



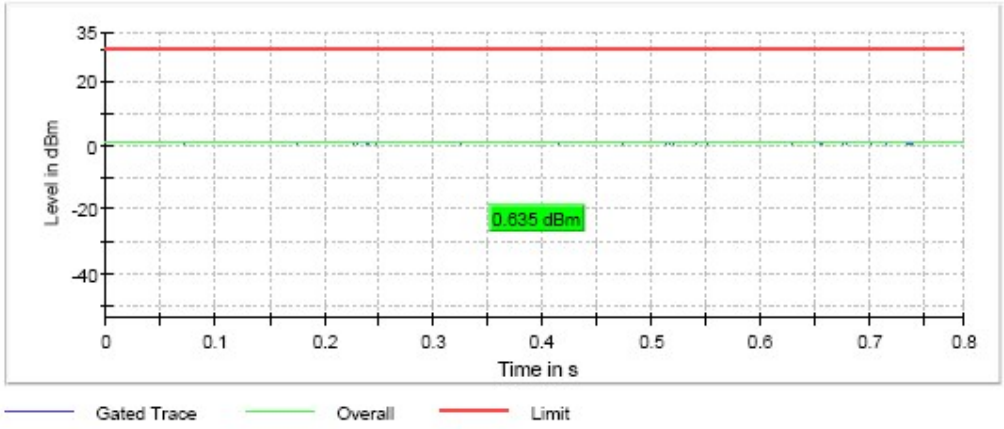
TEST RESULTS (Cont.)	ac Mode (80 MHz)

Maximum declared antenna gain: -2.5 dBi

	Lowest frequency 5775 MHz
Maximum conducted power (dBm)	0.6
Maximum EIRP power (dBm)	-1.9
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.

Lowest Channel



TEST E.4: POWER SPECTRAL DENSITY

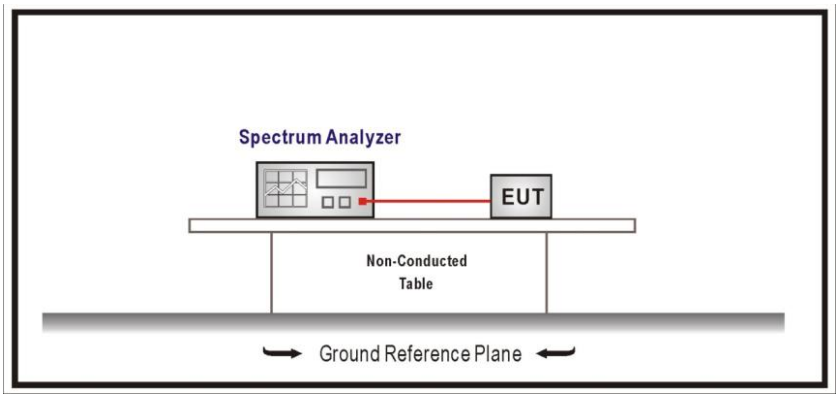
LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(a) (3) (5) and RSS-247 6.2.4.1

LIMITS

In the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500 KHz 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.



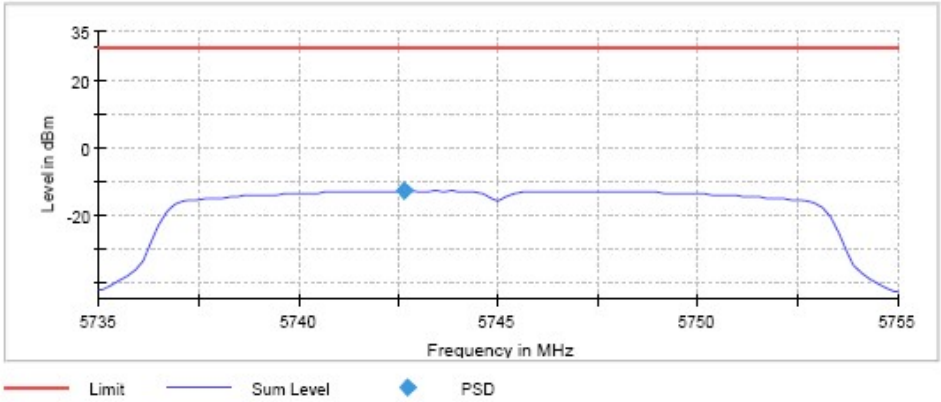
TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#01 **(a mode)**
TEST RESULTS:	PASS

Bandwidth: 20 MHz

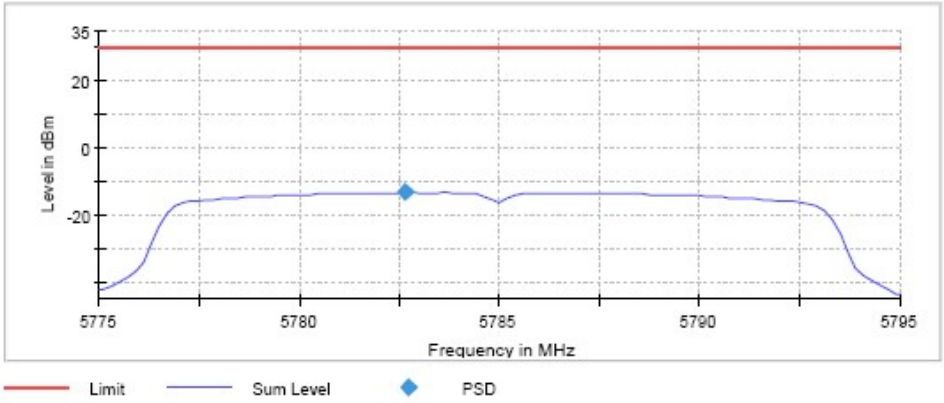
	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Power spectral density (dBm)	-12.938	-13.397	-11.703
Measurement uncertainty (dB)	<±0.78		

TEST RESULTS (Cont.):	

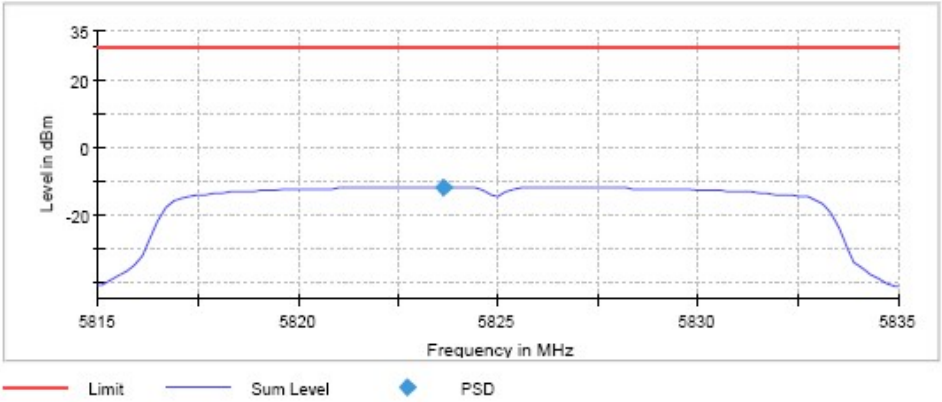
Low Channel



Middle Channel



High Channel



TEST RESULTS (Cont.):	

Measurement

Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.73500 GHz	5.77500 GHz	5.81500 GHz
Stop Frequency	5.75500 GHz	5.79500 GHz	5.83500 GHz
Span	20.000 MHz	20.000 MHz	20.000 MHz
RBW	500.000 KHz	500.000 KHz	500.000 KHz
VBW	2.000 MHz	2.000 MHz	2.000 MHz
SweepPoints	101	101	101
Sweeptime	2.020 s	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB	20.000 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	0.03 dB	0.03 dB	0.05 dB

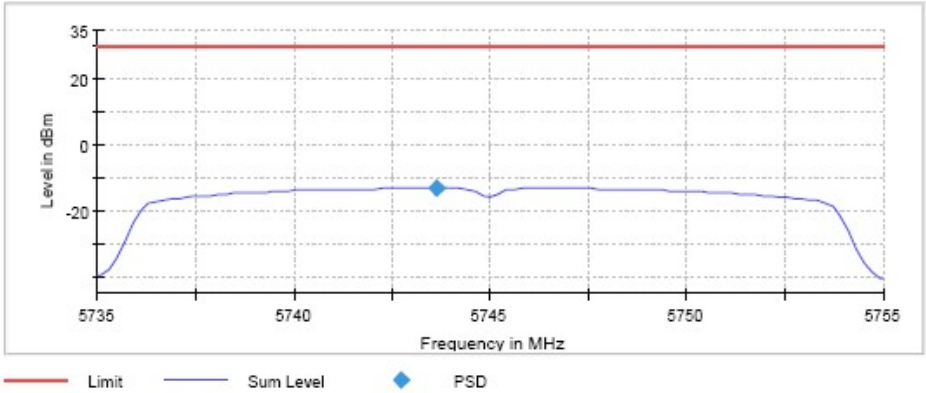
TEST RESULTS (Cont.):	
TESTED SAMPLES:	S/01
TESTED CONDITIONS MODES:	TC#02 (N mode)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

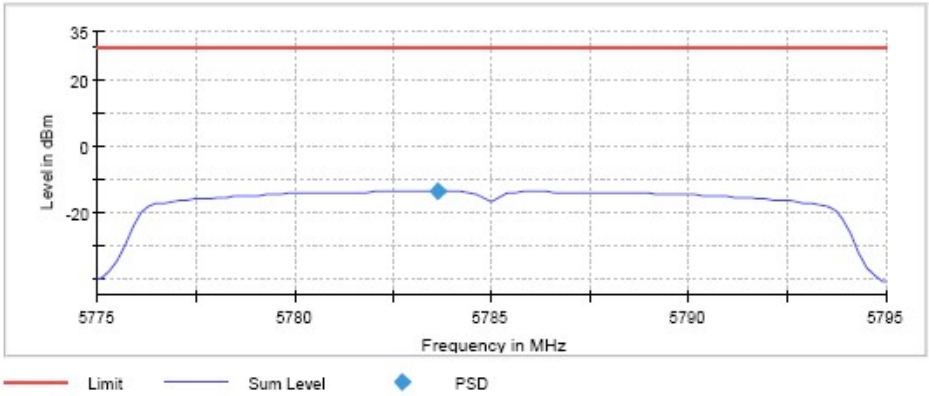
	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Power spectral density (dBm)	-13.294	-13.726	-12.098
Measurement uncertainty (dB)	<±0.78		

TEST RESULTS (Cont.):	

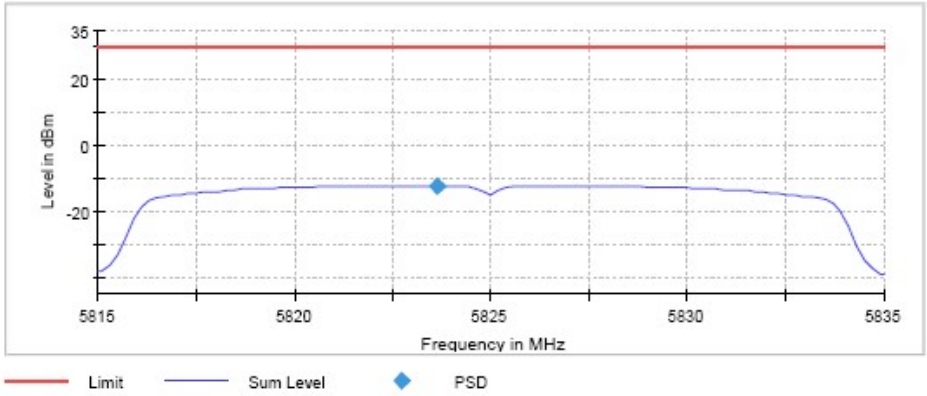
Low Channel



Middle Channel



High Channel



TEST RESULTS (Cont.):	

Measurement

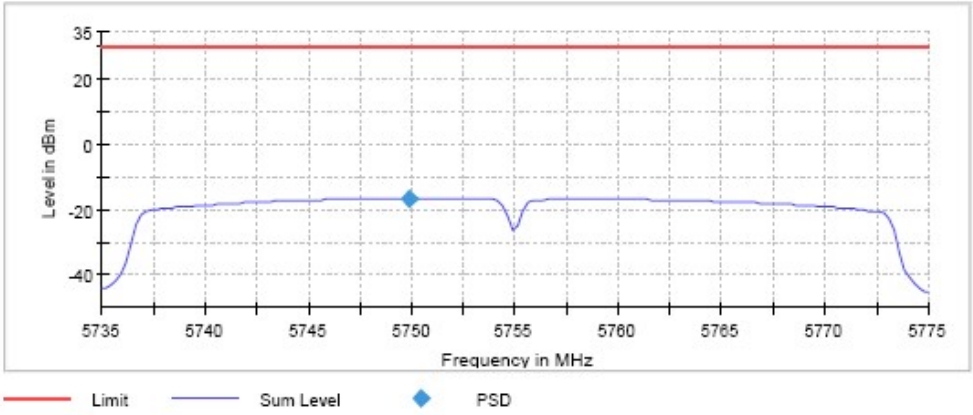
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.73500	5.77500	5.81500
Stop Frequency	5.75500	5.79500	5.83500
Span	20.000	20.000	20.000
RBW	500.000	500.000	500.000
VBW	2.000 MHz	2.000 MHz	2.000 MHz
SweepPoints	101	101	101
Sweeptime	2.020 s	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB	20.000 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.	4 / max.	4 / max.
Stable	3 / 3	3 / 3	3 / 3
Max Stable	0.03 dB	0.04 dB	0.06 dB

TEST RESULTS (Cont.):	n Mode(40 MHz)

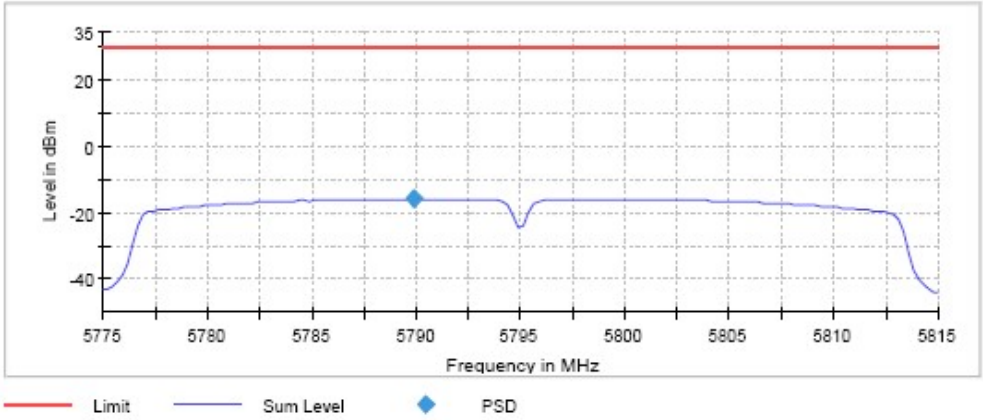
	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
Power spectral density (dBm)	-16.571	-15.928
Measurement uncertainty (dB)	<±0.78	

TEST RESULTS (Cont.):	

Lowest Channel



Highest Channel



TEST RESULTS (Cont.):	

Measurement

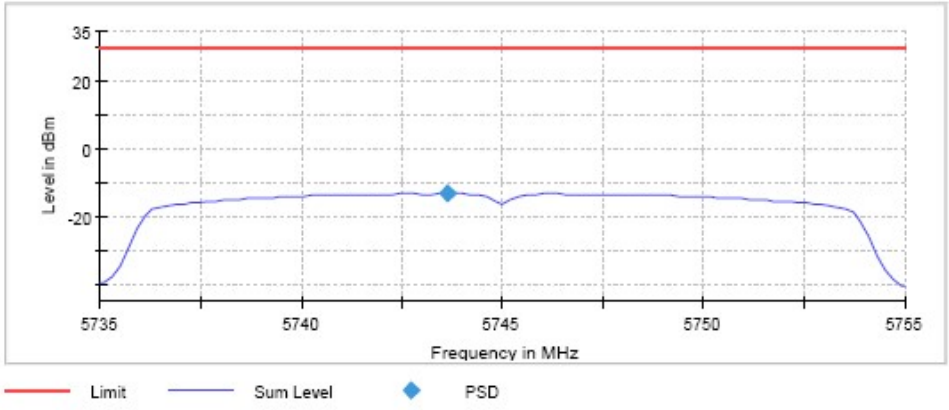
Setting	Instrument Value	Instrument Value
Start Frequency	5.73500 GHz	5.77500
Stop Frequency	5.77500 GHz	5.81500
Span	40.000 MHz	40.000 MHz
RBW	500.000 KHz	500.000
VBW	2.000 MHz	2.000 MHz
SweepPoints	160	160
Sweeptime	3.20 s	3.20 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	RMS	RMS
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.06 dB	0.30 dB

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

Bandwidth: 20 MHz

	Lowest frequency 5745 MHz	Middle frequency 5785 MHz	Highest frequency 5825 MHz
Power spectral density (dBm)	-13.343	-13.766	-12.186
Measurement uncertainty (dB)	<±0.78		

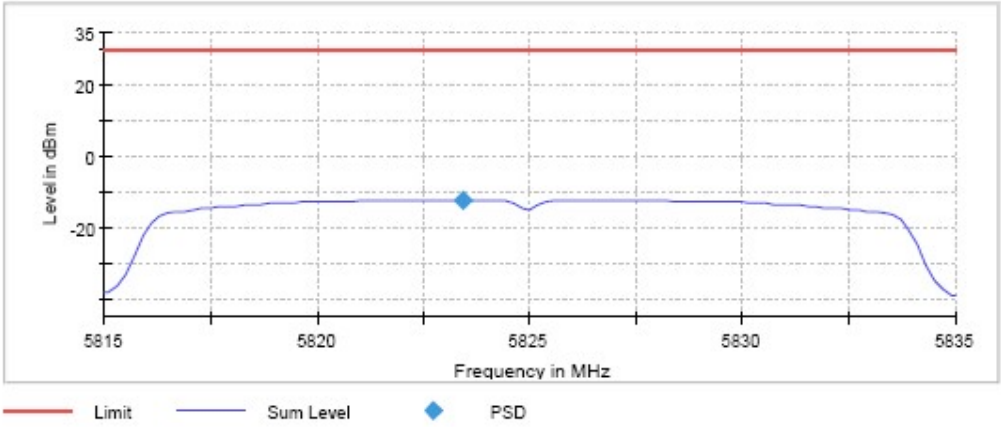
Lowest Channel



Middle Channel

TEST RESULTS (Cont.)	

Highest Channel



Measurement

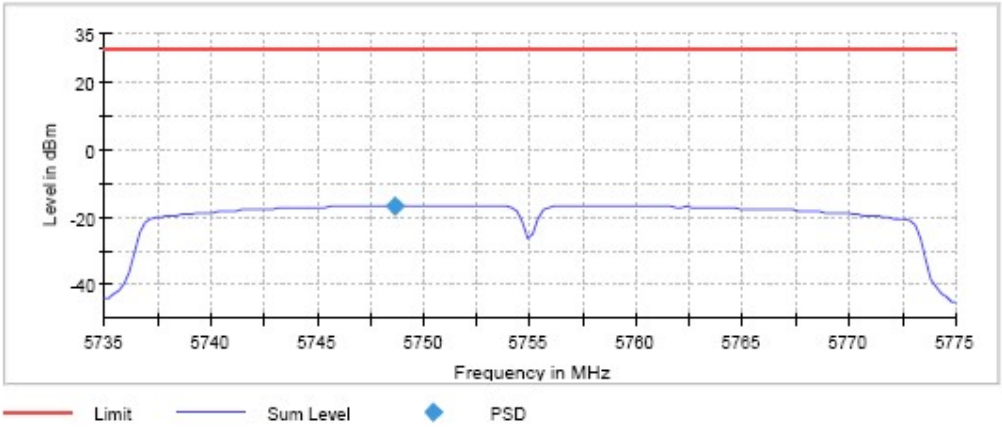
Setting	Instrument Value	Instrument Value	Instrument Value
Start Frequency	5.73500 GHz	5.77500 GHz	5.81500 GHz
Stop Frequency	5.75500 GHz	5.79500 GHz	5.83500 GHz
Span	20.000 MHz	20.000 MHz	20.000 MHz
RBW	500.000 KHz	500.000 KHz	500.000 KHz
VBW	2.000 MHz	2.000 MHz	2.000 MHz
SweepPoints	101	101	101
Sweeptime	2.020 s	2.020 s	2.020 s
Reference Level	0.000 dBm	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB	20.000 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	0.03 dB	0.04 dB	0.05 dB

TEST RESULTS (Cont.):	ac Mode (40 MHz)

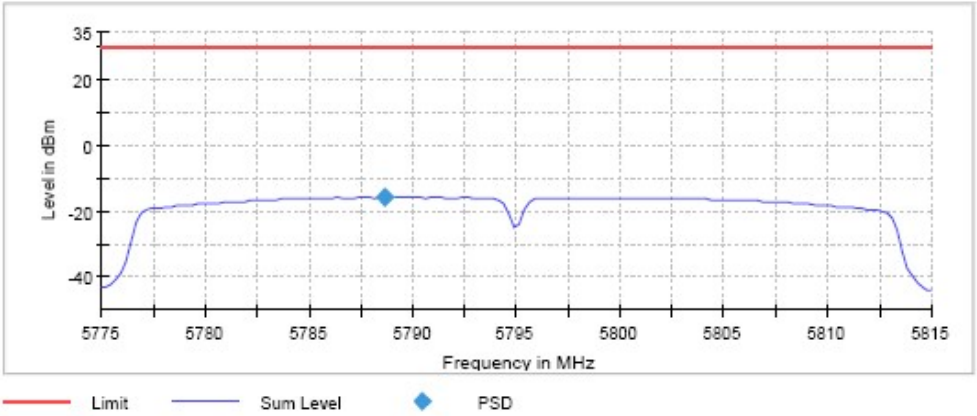
	Lowest frequency 5755 MHz	Highest frequency 5795 MHz
Power spectral density (dBm)	-16.472	-15.800
Measurement uncertainty (dB)	<±0.78	

TEST RESULTS (Cont.):	

Lowest Channel



Highest Channel



TEST RESULTS (Cont.):	

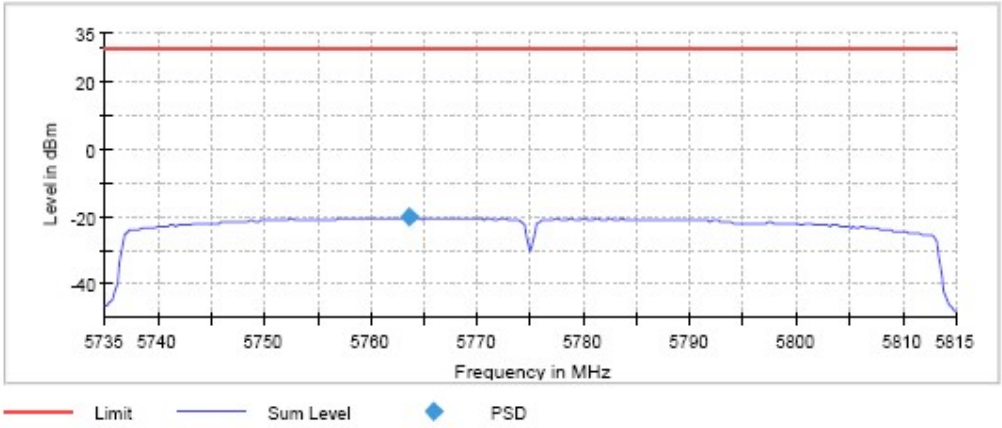
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.73500 GHz	5.77500
Stop Frequency	5.77500 GHz	5.81500
Span	40.000 MHz	40.000 MHz
RBW	500.000 KHz	500.000
VBW	2.000 MHz	2.000 MHz
SweepPoints	160	160
Sweeptime	3.20 s	3.20 s
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	20.000 dB
Detector	RMS	RMS
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	4 / max. 150	4 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.07 dB	0.05 dB

TEST RESULTS (Cont.)	ac Mode (80 MHz)

	Lowest frequency 5775 MHz
Power spectral density (dBm)	-20.279
Measurement uncertainty (dB)	<±0.78

Lowest Channel



Measurement

Setting	Instrument Value
Start Frequency	5.73500 GHz
Stop Frequency	5.81500 GHz
Span	80.000 MHz
RBW	500.000 KHz
VBW	2.000 MHz
SweepPoints	320
Sweeptime	6.40 s
Reference Level	0.000 dBm
Attenuation	20.000 dB
Detector	RMS
SweepCount	3
Filter	3 dB
Trace Mode	Max Hold
Sweeptype	Sweep
Preamp	off
Stablemode	Trace
Stablevalue	0.30 dB
Run	4 / max. 150
Stable	3 / 3
Max Stable	0.09 dB

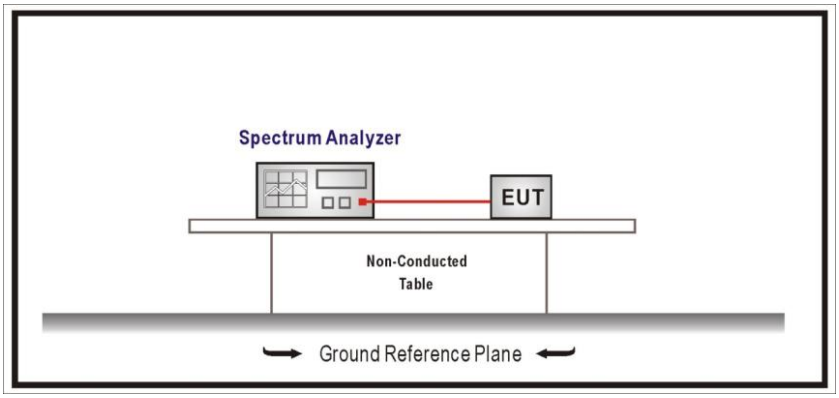
TEST E.5: BAND-EDGE EMISSIONS COMPLIANCE (TRANSMITTER)

LIMITS:	Product standard:	Part 15 Subpart C §15.407 and RSS-247
	Test standard:	Part 15 Subpart C §15.407(b)(4) and RSS-247 6.2.4.2

LIMITS

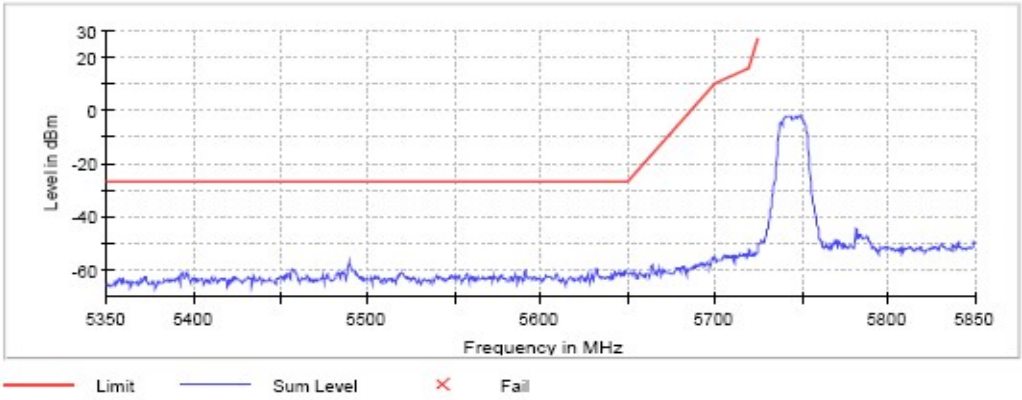
For transmitters operating in the 5.725 – 5.85 GHz band: all emissions shall be limited to a level of -27 dBm /MHz at 75 MHz or more above or below the band-edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

TEST SETUP	



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

LOWEST CHANNEL

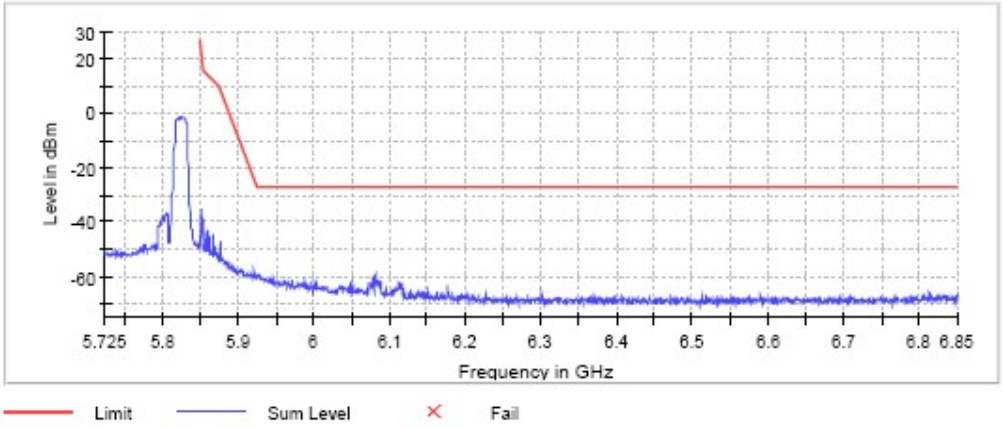


TEST RESULTS (Cont.)	

Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.35000 GHz
Stop Frequency	5.85000 GHz	5.72500 GHz
Span	125.000 MHz	375.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	750
Sweeptime	17.156 µs	51.469 µs
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	12 / max. 150	9 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.32 dB	0.00 dB

TEST RESULTS (Cont.):	Highest Channel



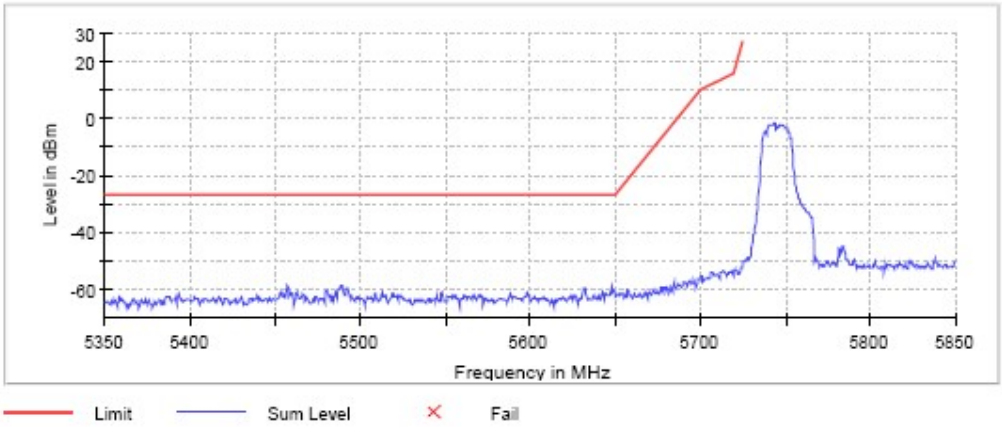
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	14 / max. 150	8 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.47 dB	0.15 dB

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

Bandwidth: 20 MHz

Lowest Channel

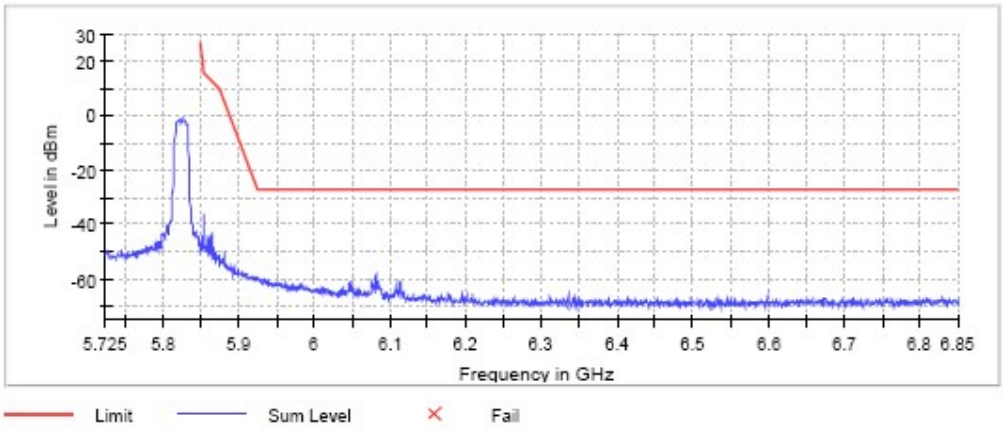


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.35000 GHz
Stop Frequency	5.85000 GHz	5.72500 GHz
Span	125.000 MHz	375.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	750
Sweeptime	17.156 µs	51.469 µs
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	20 / max. 150	7 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.00 dB

TEST RESULTS (Cont.):	

Highest Channel

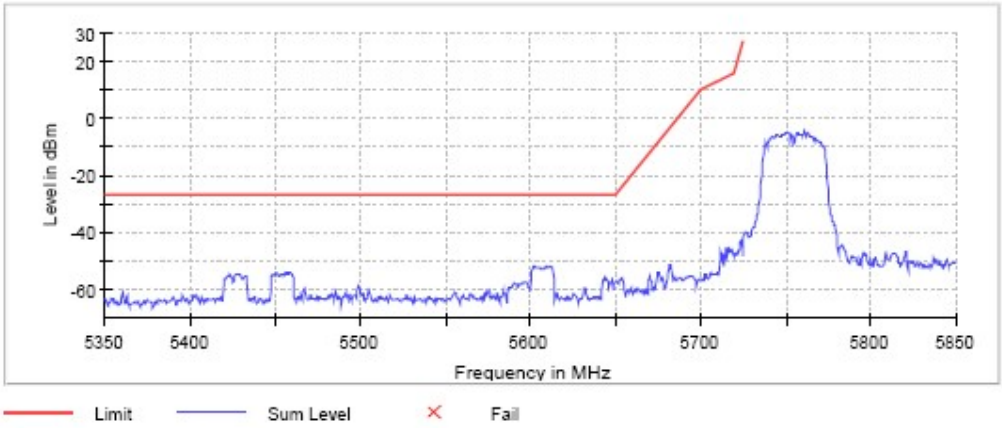


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	21 / max. 150	7 / max. 150
Stable	3 / 3	3 / 3
Max Stable	0.44 dB	0.00 dB

TEST RESULTS (Cont.):	n Mode (40 MHz)

Low**est Channel**

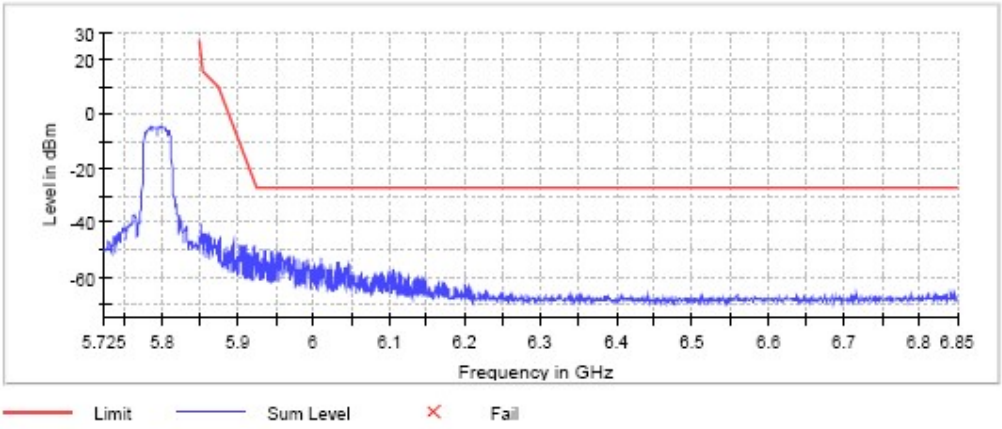


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.35000 GHz
Stop Frequency	5.85000 GHz	5.72500 GHz
Span	125.000 MHz	375.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	750
Sweeptime	17.156 µs	51.469 µs
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	24 / max. 150	12 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.37 dB	0.00 dB

TEST RESULTS (Cont.):	

Highest Channel



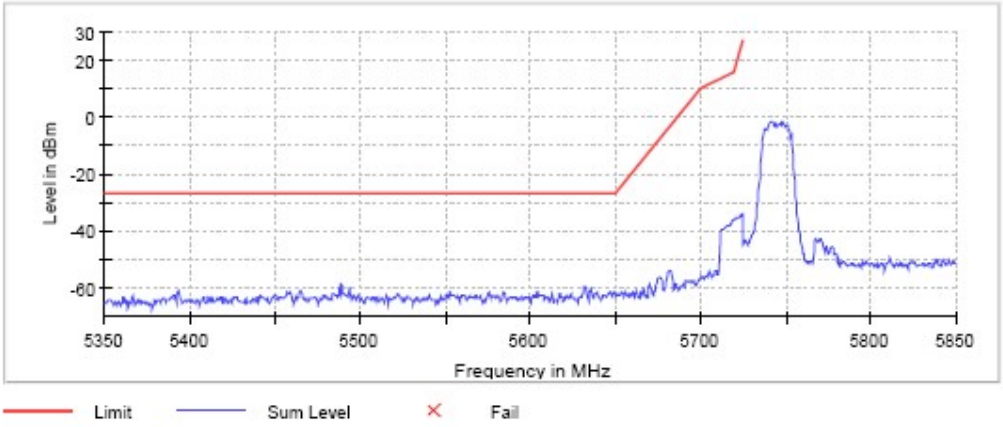
Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	38 / max. 150	24 / 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 mdoe)
TEST RESULTS:	PASS

Bandwidth: 20 MHz

Lowest Channel:

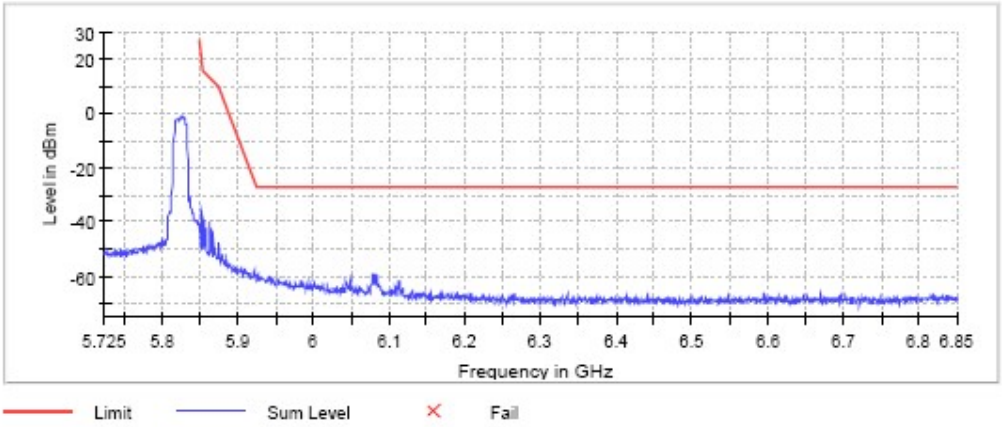


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.35000 GHz
Stop Frequency	5.85000 GHz	5.72500 GHz
Span	125.000 MHz	375.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	750
Sweeptime	17.156 µs	51.469 µs
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	26 / max. 150	6 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.00 dB	0.00 dB

TEST RESULTS (Cont.):	

Highest Channel

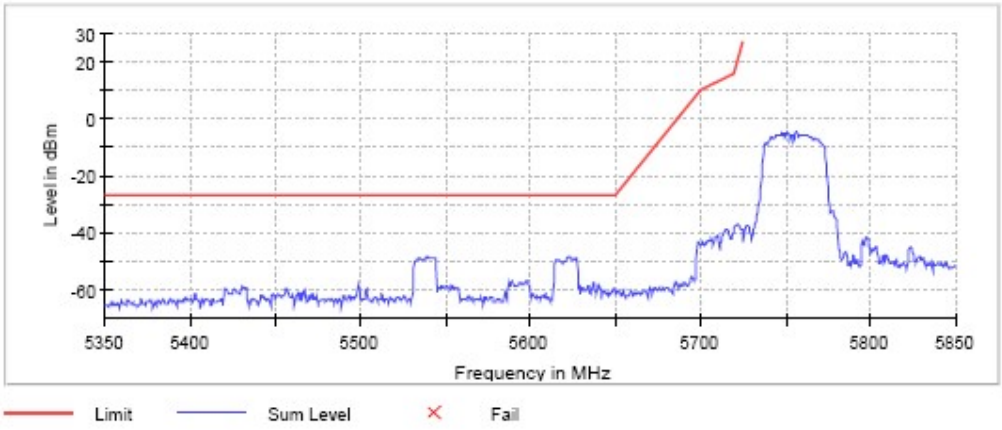


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	17 / max. 150	8 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.44 dB	0.00 dB

TEST RESULTS (Cont.):	ac mode (40 MHz)

Low**est Channel**

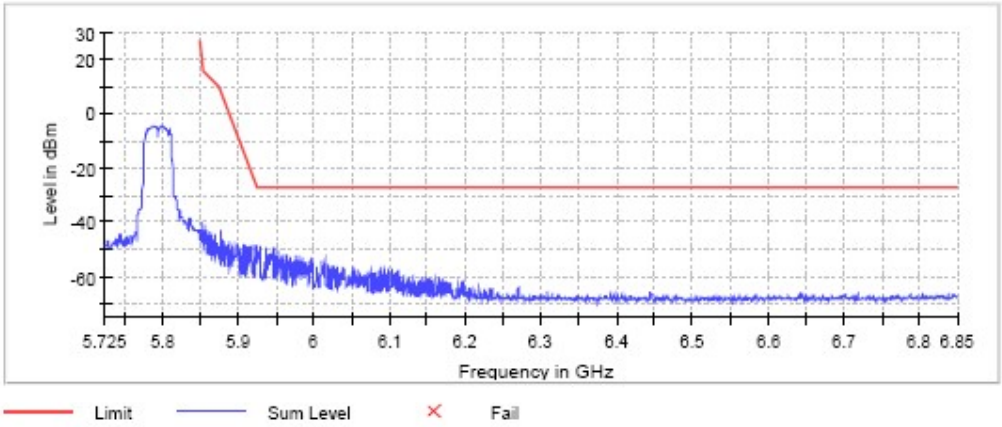


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.35000 GHz
Stop Frequency	5.85000 GHz	5.72500 GHz
Span	125.000 MHz	375.000 MHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	750
Sweeptime	17.156 µs	51.469 µs
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	30 / max. 150	8 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.05 dB	0.00 dB

TEST RESULTS (Cont.):	

Highest Channel

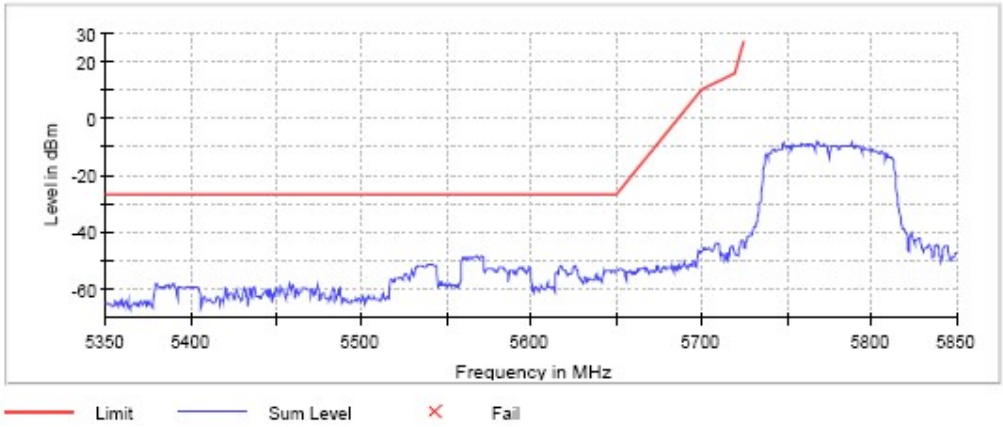


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	30 / max. 150	34 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.19 dB	0.00 dB

TEST RESULTS (Cont.):	ac mode (80 MHz)

Lowest Channel

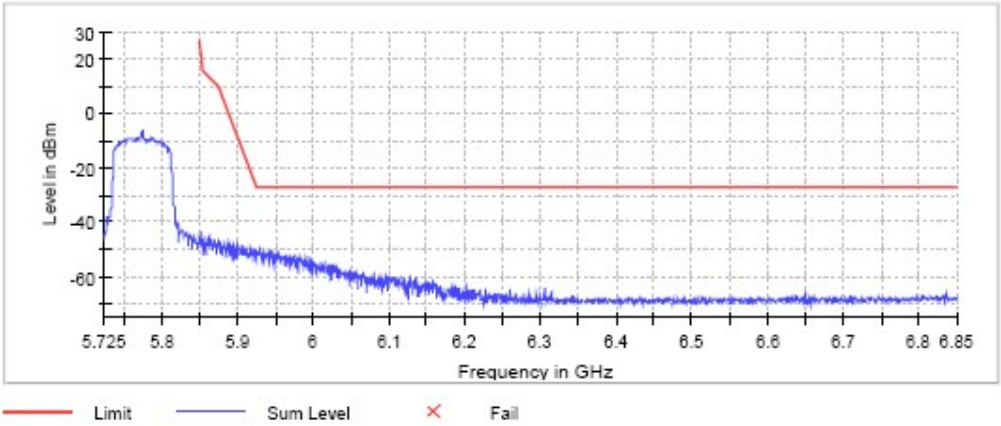


Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	33 / max. 150	9 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.28 dB	0.00 dB

TEST RESULTS (Cont.):	ac mode (80 MHz)

Highest Channel



Measurement

Setting	Instrument Value	Instrument Value
Start Frequency	5.72500 GHz	5.85000 GHz
Stop Frequency	5.85000 GHz	6.85000 GHz
Span	125.000 MHz	1 GHz
RBW	1.000 MHz	1.000 MHz
VBW	3.000 MHz	3.000 MHz
SweepPoints	250	2000
Sweeptime	17.156 µs	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	34 / max. 150	49 / max. 150
Stable	3 / 3	3 / 3
Max Stable Difference	0.32 dB	0.00 dB

TEST E.6: 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) (4)(6)(7) and RSS-247 6.2.4.2

LIMITS

For transmitters operating in the 5.725 – 5.85 GHz band: all emissions shall be limited to a level of -27 dBm /MHz at 75 MHz or more above or below the band-edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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.

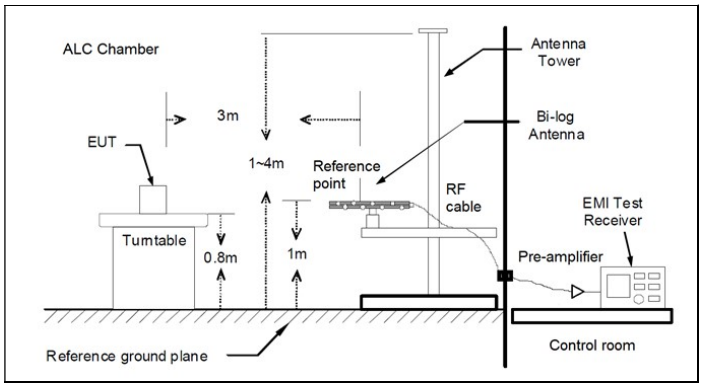
The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360º and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

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

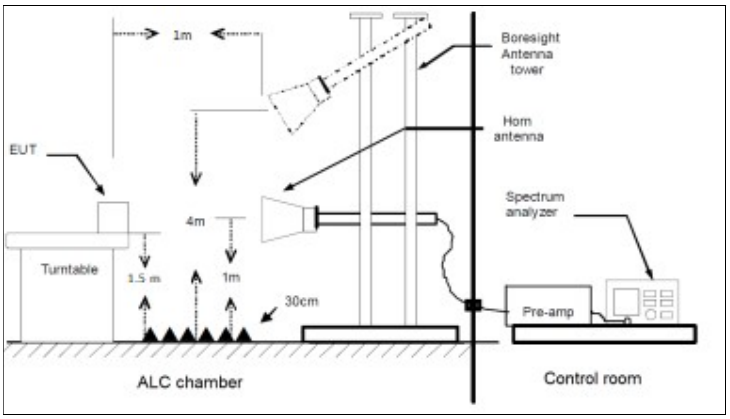
The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

TEST SETUP (CONT.)	

Radiated measurements Setup f < 1 GHz



Radiated measurements setup f > 1 GHz



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

For spurious emissions for OFDM modes 802.11a, 802.11n20/40 and 802.11ac20/40/80 a preliminary scan was performed to determine the worst case.

The tables and plots show the results for the worst case of modulation and data rate: MCS0 for 802.11n20

Frequency range 30 MHz – 1000 MHz

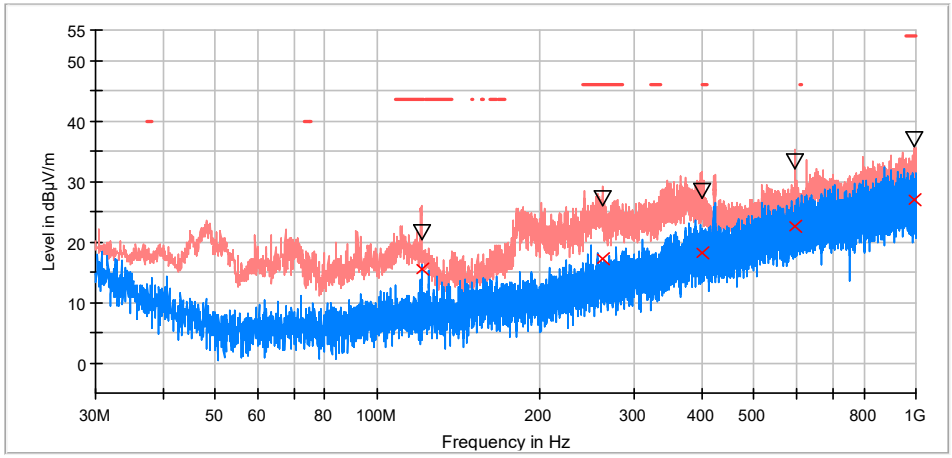
The spurious emissions below 1 GHz do not depend on the operating channel selected in the EUT. The results in the next tables and plots show the maximum measured levels in the 30 MHz – 1000 MHz range

Frequency range 1 GHz – 40 GHz

The results in the next tables and plots show the maximum measured levels in the 1-40 GHz range including the restricted bands 4.5-5.15 GHz and 5.35-5.46 GHz (see next plots).

FREQUENCY RANGE	30 MHz – 1000 MHz

RF_FCC_15.407_E Field_30MHz_1GHz

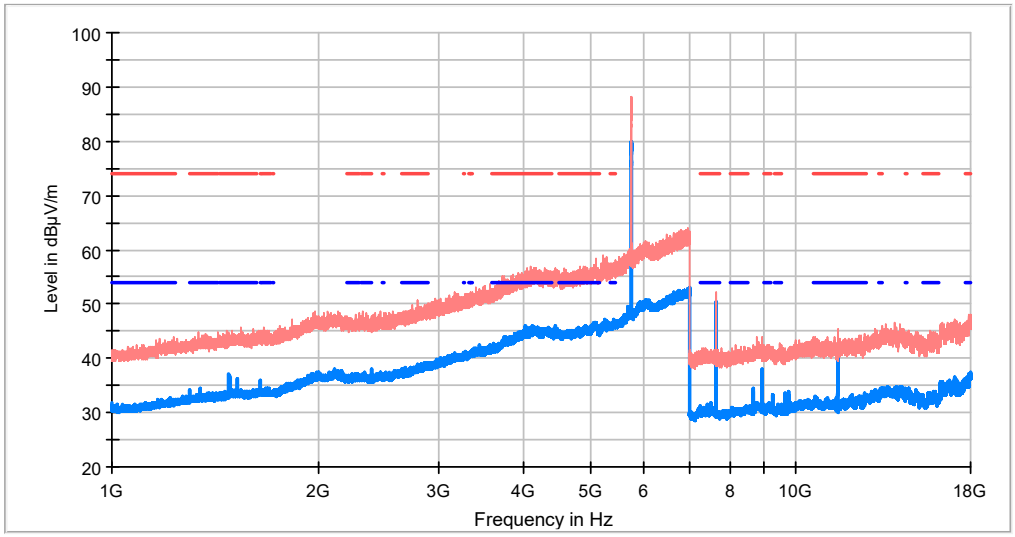


PK+_MAXH
PK+_CLRWR
TX limits to Spurious Emission FCC15.407 (30MHz to 1GHz) Restricted Bands QPK Limit
MaxPeak-PK+ (Single)
QuasiPeak-QPK (Single)

Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)
596.383000	33.2	22.5
262.703000	27.2	17.2
400.831000	28.3	18.1
120.695000	21.7	15.4
996.265500	37.0	26.9

TEST RESULTS (Cont.)	n mode (20 MHz)
FREQUENCY RANGE	1 GHz – 18 GHz

Low Channel



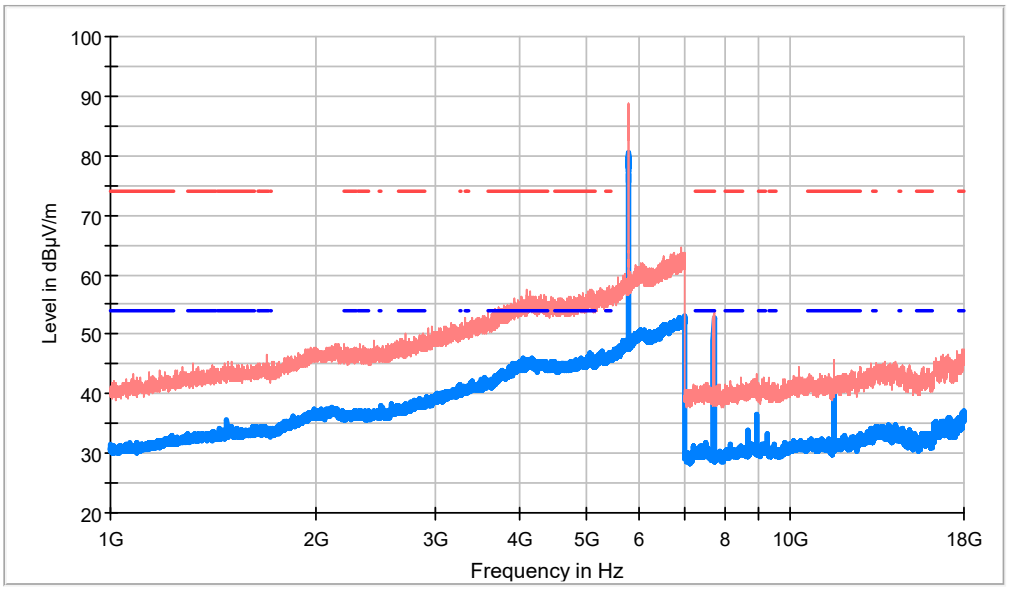
AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Comments
5743.818182	87.07	80.06	H	Fundamental
6999.181818	62.39	52.98	V	
8909.500000	43.37	37.87	V	
11490.000000	45.39	40.48	V	

TEST RESULTS (Cont.)	

Middle Channel



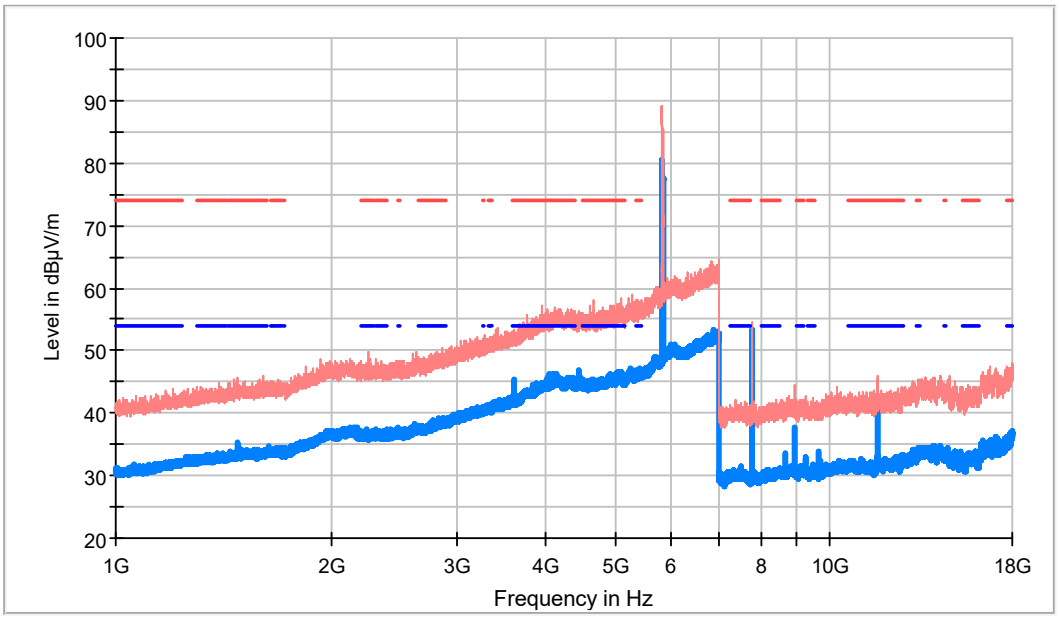
AVG_MAXH
PK+_MAXH
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands PK Limit
TX limits to Spurious Emission FCC15.407 (1GHz to 40 GHz) Restricted Bands AVG Limit

Maximizations

Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Comments
5783.090909	86.10	80.46	H	Fundamental
7713.000000	53.79	52.64	V	
8909.500000	43.23	36.67	V	
11570.000000	45.63	41.41	V	

TEST RESULTS (Cont.)	

High 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
5827.272727	86.88	80.40	H	Fundamental
7766.500000	54.48	53.37	V	
11650.000000	45.86	40.67	H	