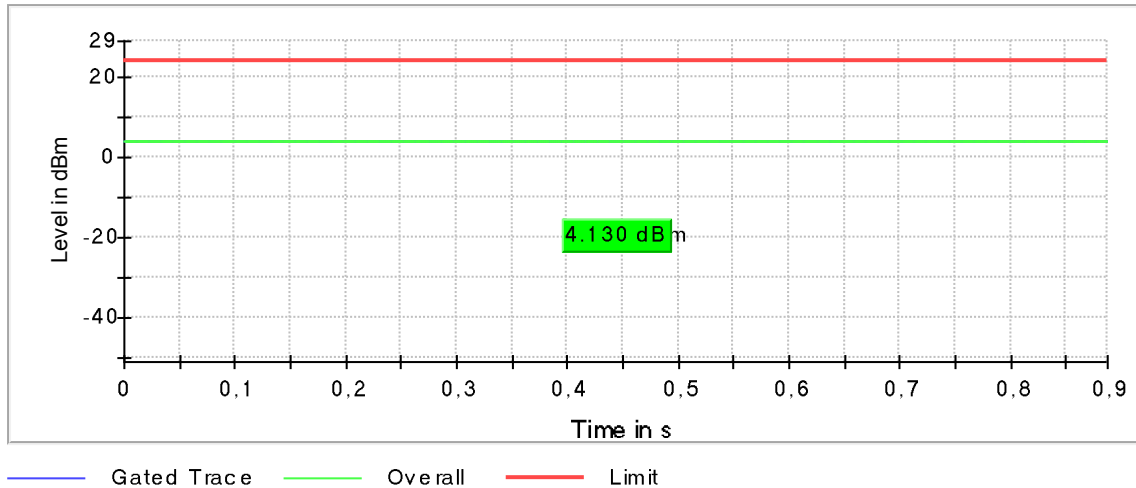


Plot 134: Mode 2, U-NII-1, AVGPm-G Gated Average Power Measurement, low channel

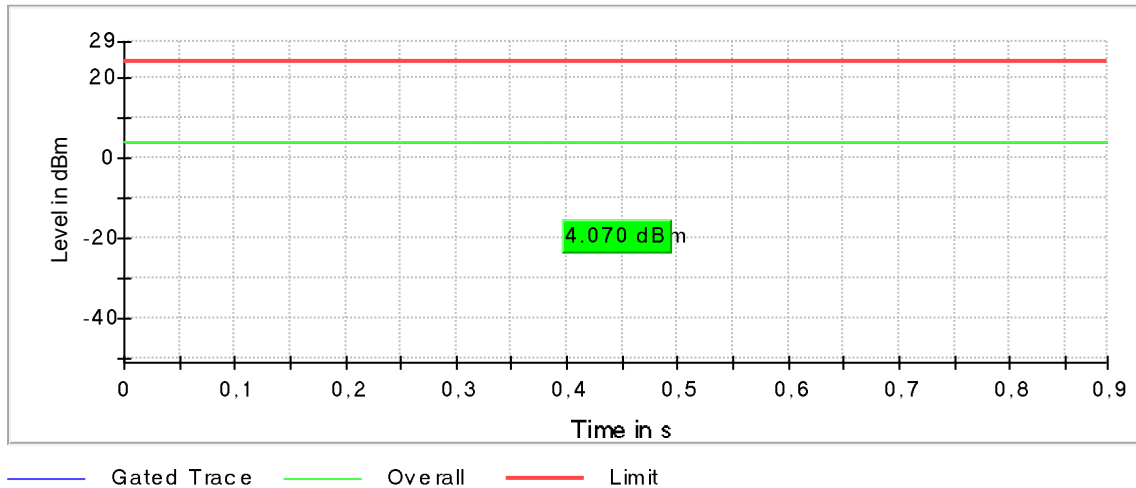
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	4.1	24.0	4.1	88.875	PASS

Plot 135: Mode 2, U-NII-1, AVGPm-G Gated Average Power Measurement, mid channel

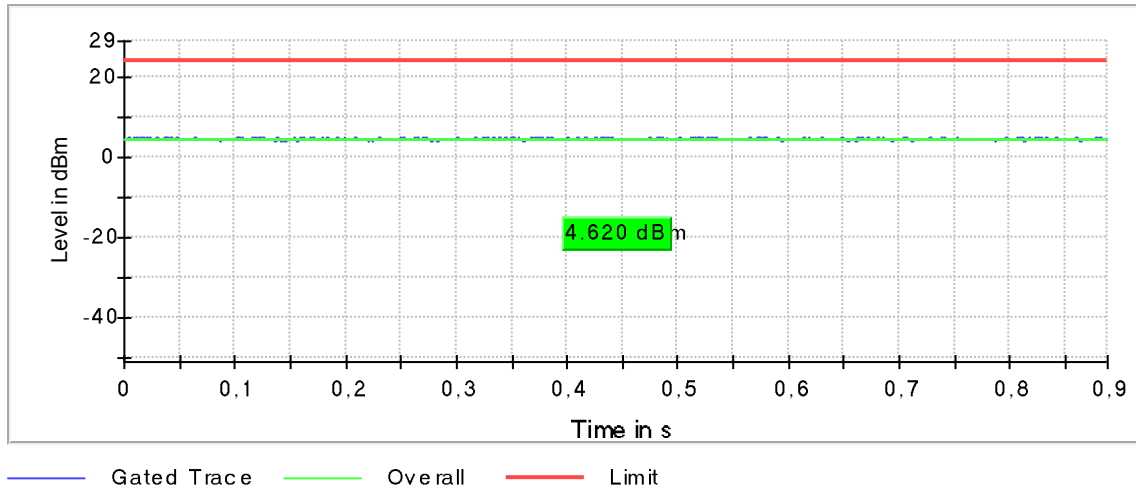
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5220.000000	4.1	24.0	4.1	88.979	PASS

Plot 136: Mode 2, U-NII-1, AVGP-M-G Gated Average Power Measurement, high channel

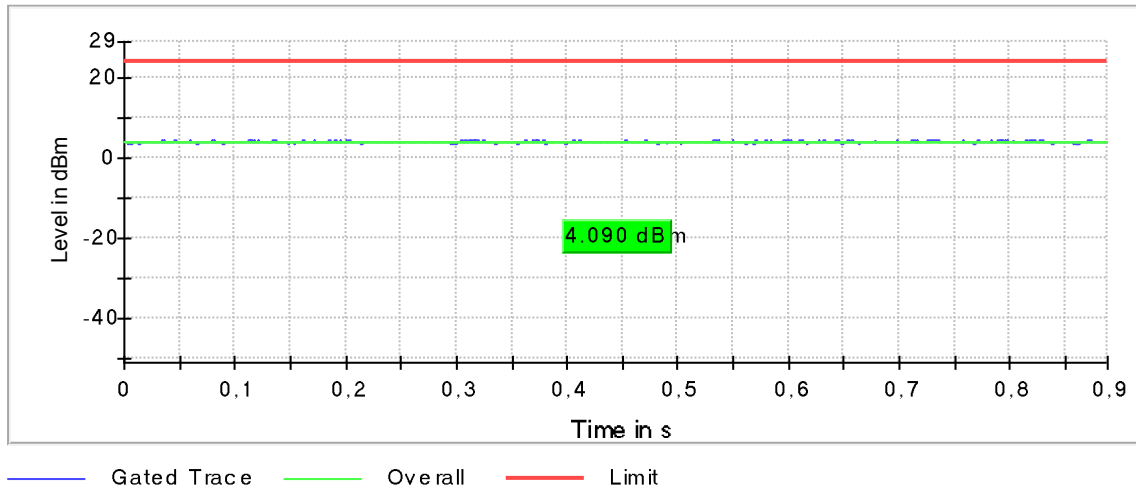
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5240.000000	4.6	24.0	4.6	88.995	PASS

Plot 137: Mode 2, U-NII-2A, AVGP-M-G Gated Average Power Measurement, low channel

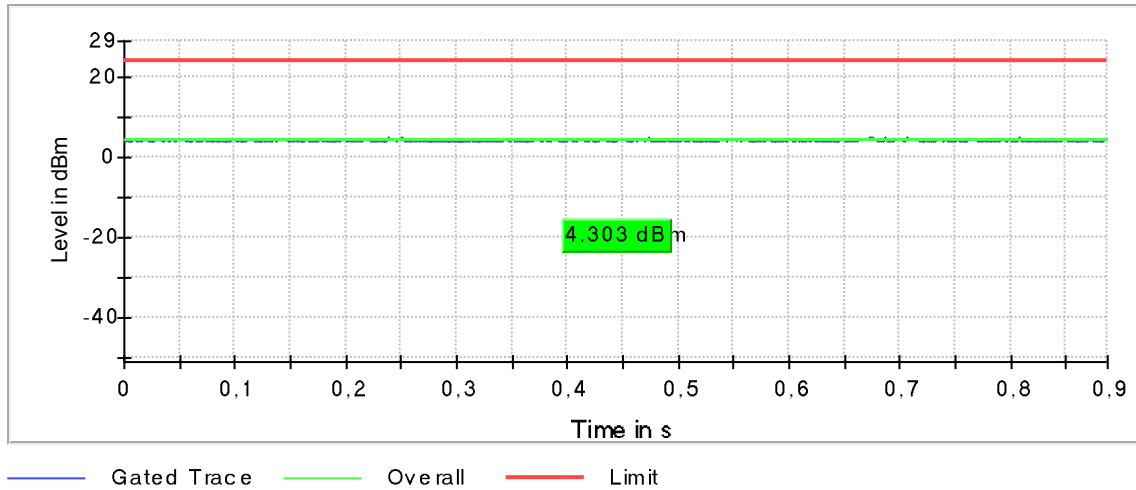
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	4.1	24.0	4.1	88.940	PASS

Plot 138: Mode 2, U-NII-2A, AVGP-M-G Gated Average Power Measurement, mid channel

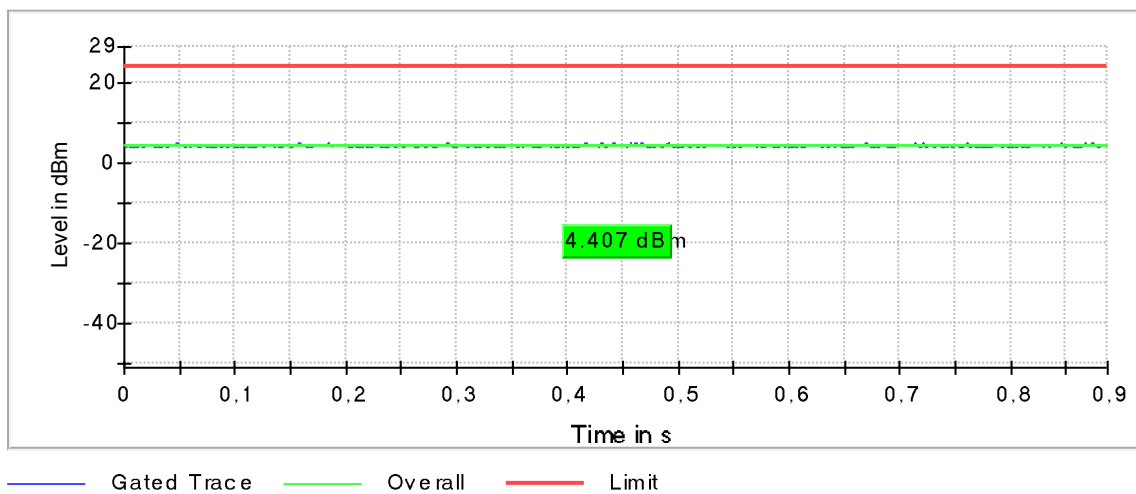
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5300.000000	4.3	24.0	4.3	88.876	PASS

Plot 139: Mode 2, U-NII-2A, AVGP-M-G Gated Average Power Measurement, high channel

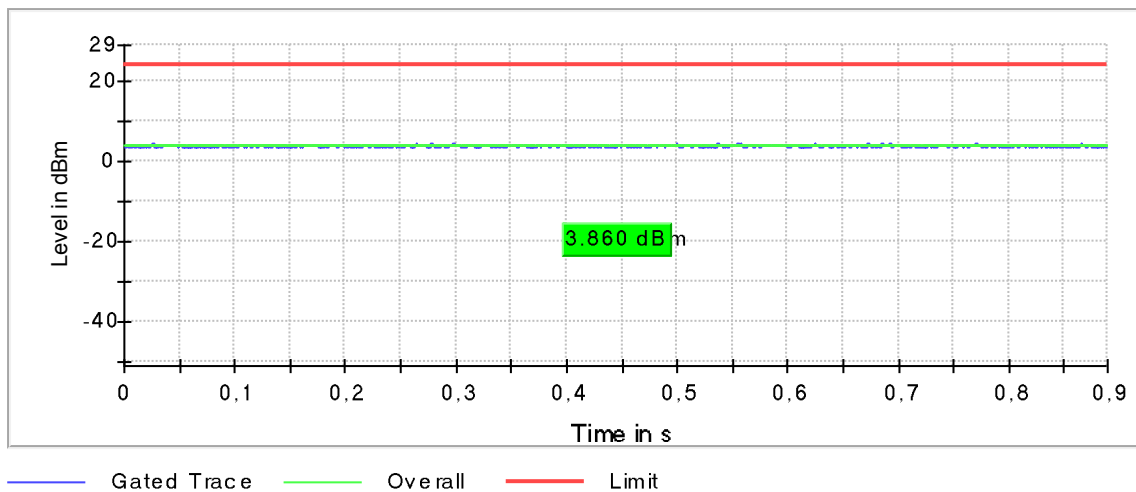
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5320.000000	4.4	24.0	4.4	88.829	PASS

Plot 140: Mode 2, U-NII-2C, AVGP-M-G Gated Average Power Measurement, low channel

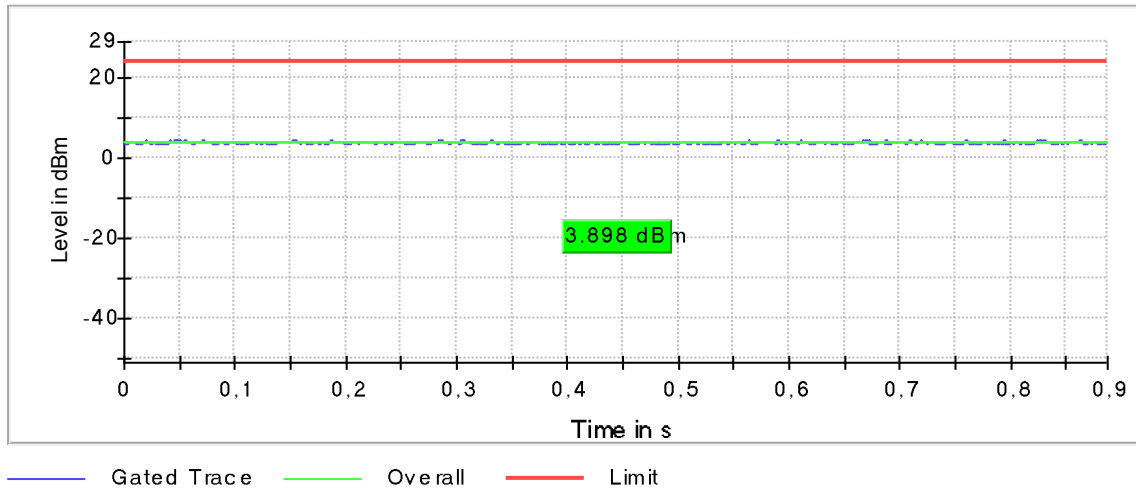
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5500.000000	3.9	24.0	3.9	89.025	PASS

Plot 141: Mode 2, U-NII-2C, AVGP-M-G Gated Average Power Measurement, mid channel

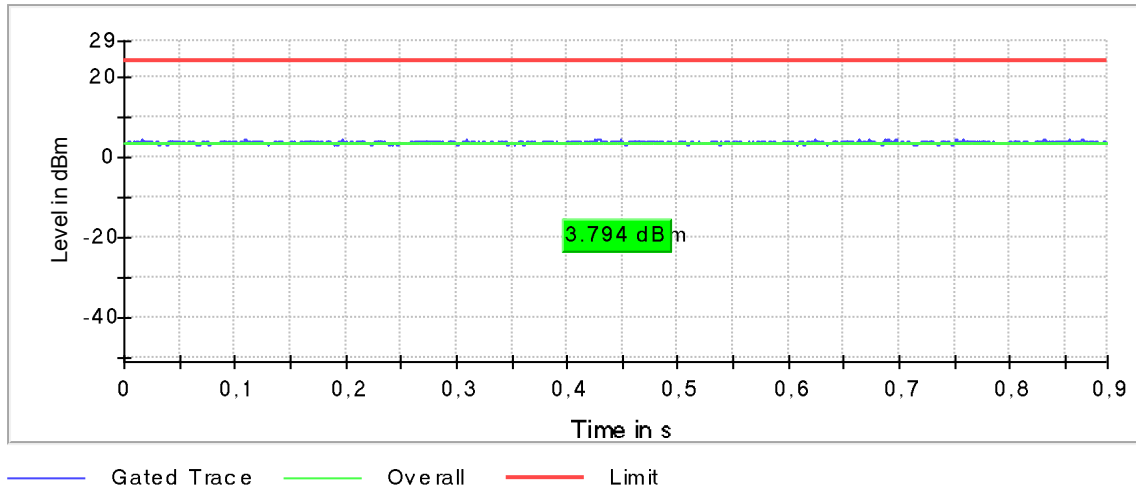
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	3.9	24.0	3.9	88.914	PASS

Plot 142: Mode 2, U-NII-2C, AVGP-M-G Gated Average Power Measurement, high channel

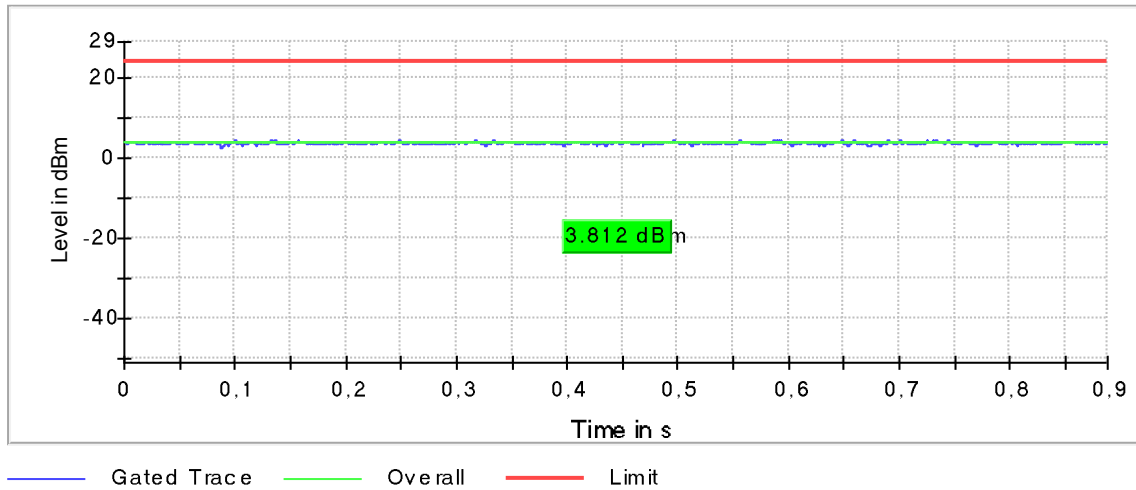
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5700.000000	3.8	24.0	3.8	89.013	PASS

Plot 143: Mode 2, U-NII-2C, AVGP-M-G Gated Average Power Measurement, channel 144

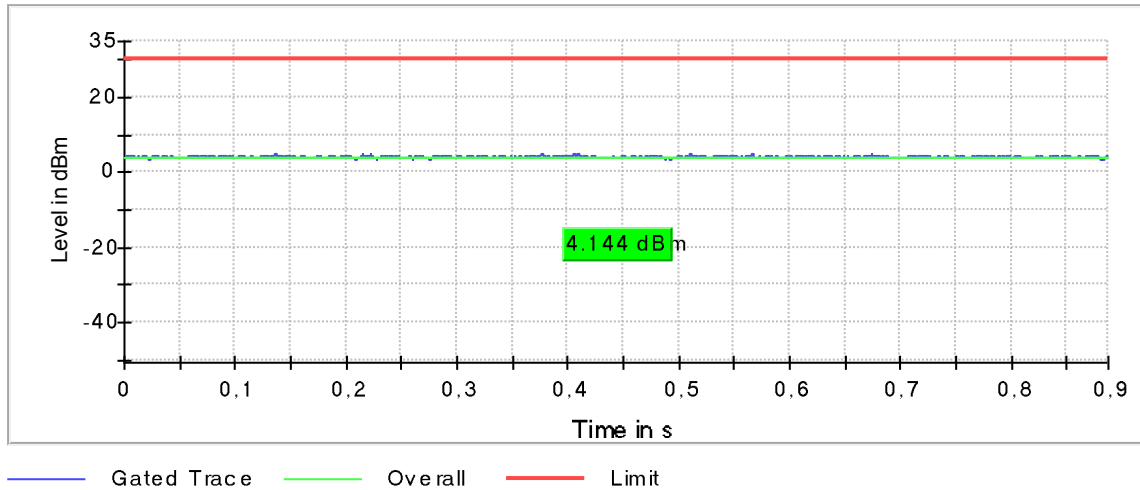
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5720.000000	3.8	24.0	3.8	88.978	PASS

Plot 144: Mode 2, U-NII-3, AVGPM-G Gated Average Power Measurement, low channel

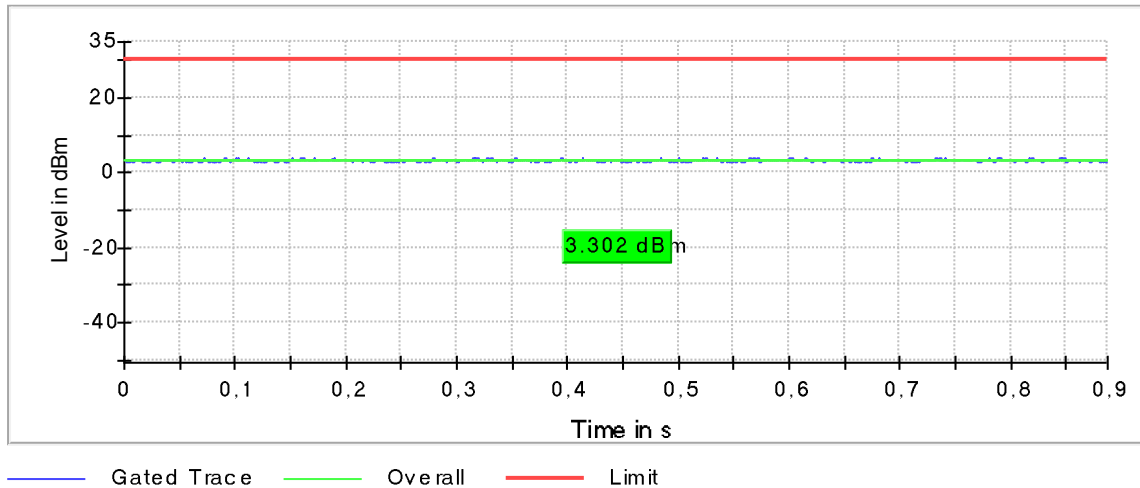
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	4.1	30.0	4.1	88.943	PASS

Plot 145: Mode 2, U-NII-3, AVGPM-G Gated Average Power Measurement, mid channel

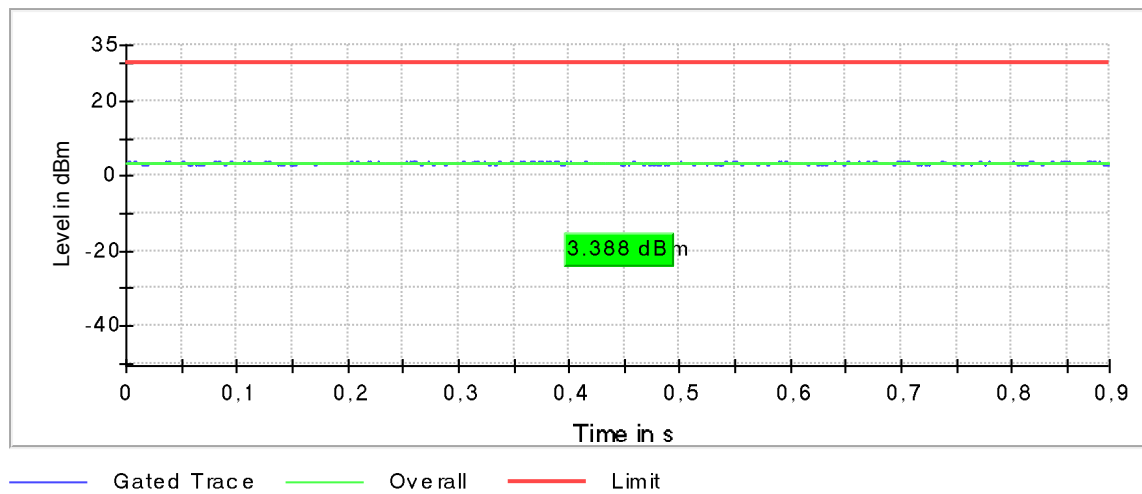
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	3.3	30.0	3.3	88.931	PASS

Plot 146: Mode 2, U-NII-3, AVGPM-G Gated Average Power Measurement, high channel

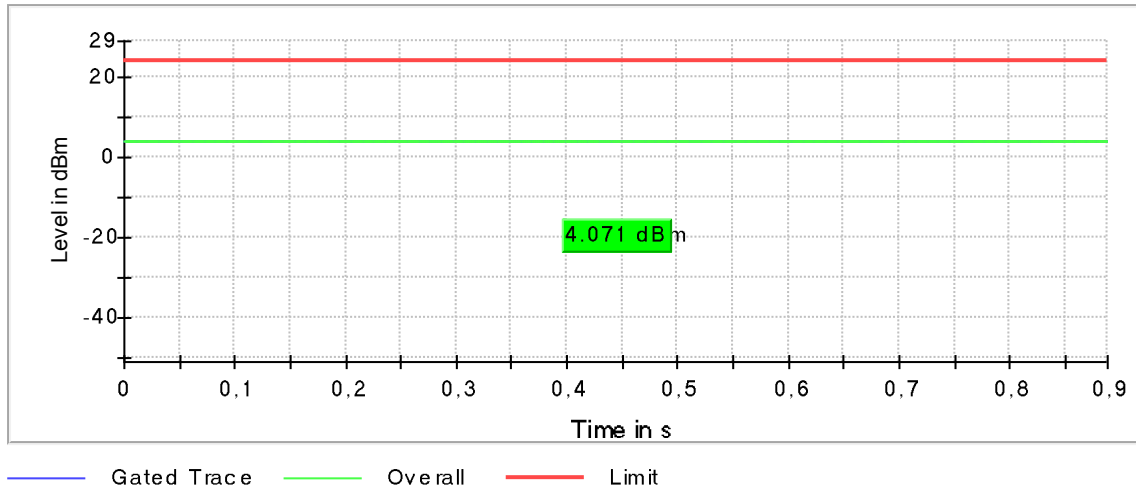
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	3.4	30.0	3.4	89.080	PASS

Plot 147: Mode 4, U-NII-1, AVGPm-G Gated Average Power Measurement, low channel

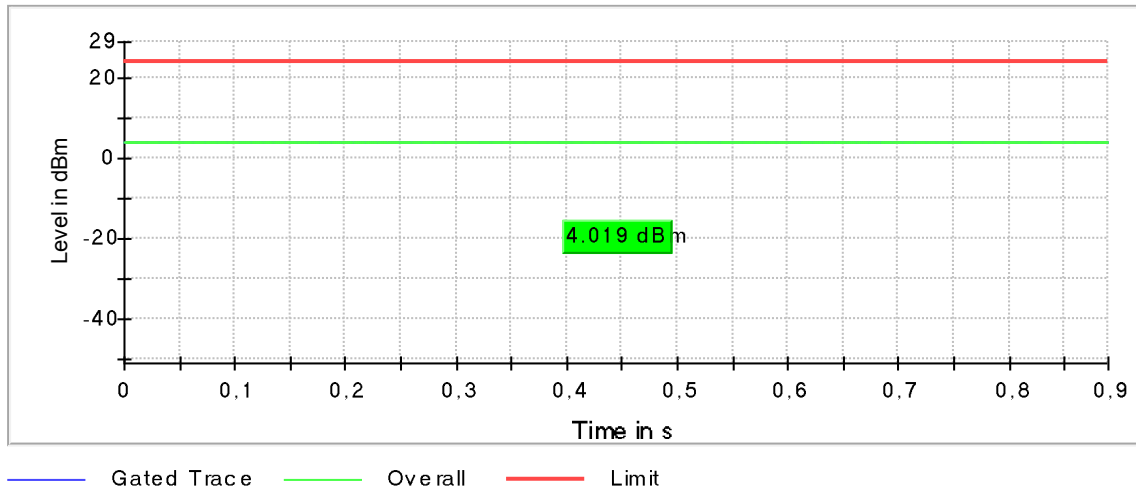
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5180.000000	4.1	24.0	4.1	89.034	PASS

Plot 148: Mode 4, U-NII-1, AVGPm-G Gated Average Power Measurement, mid channel

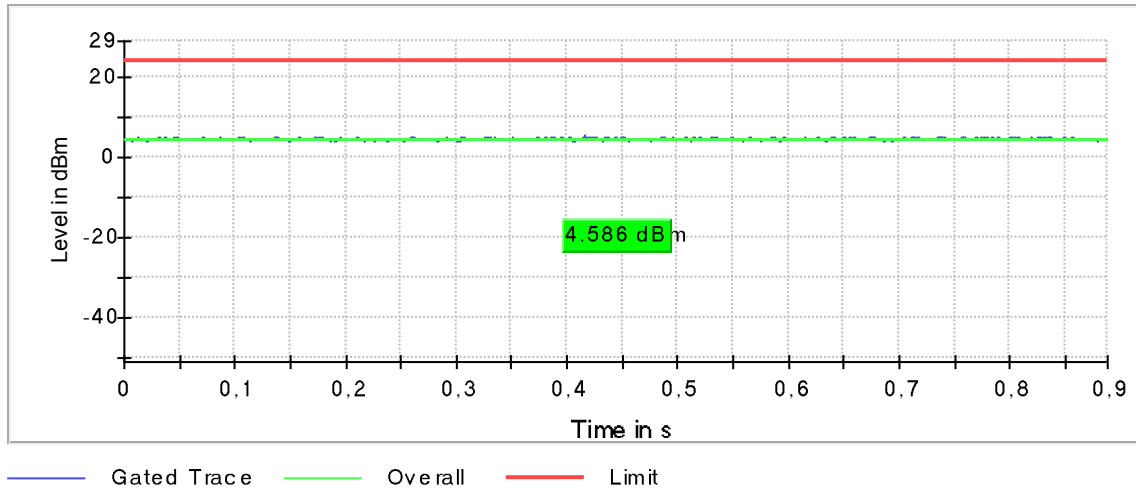
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5220.000000	4.0	24.0	4.0	89.096	PASS

Plot 149: Mode 4, U-NII-1, AVGPm-G Gated Average Power Measurement, high channel

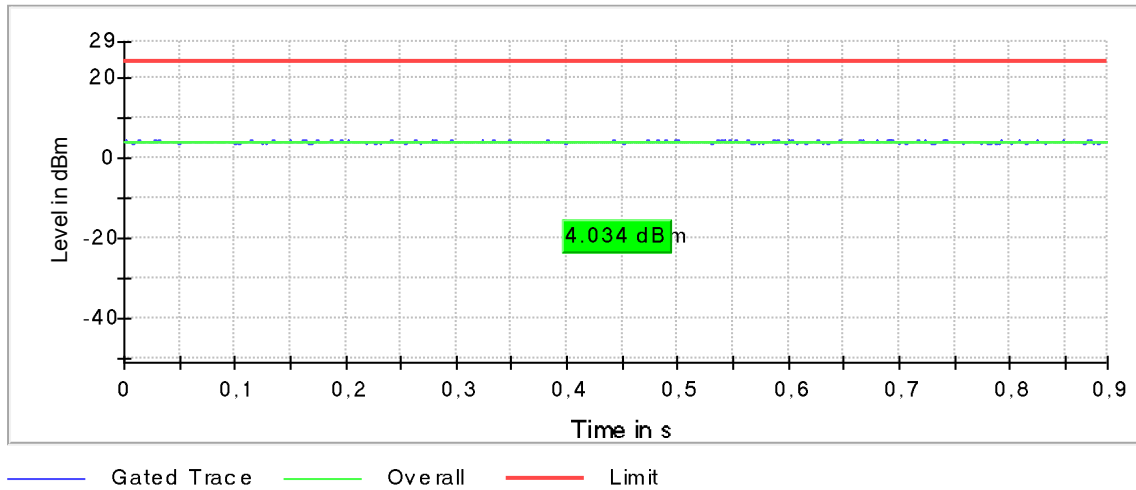
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5240.000000	4.6	24.0	4.6	89.034	PASS

Plot 150: Mode 4, U-NII-2A, AVGPm-G Gated Average Power Measurement, low channel

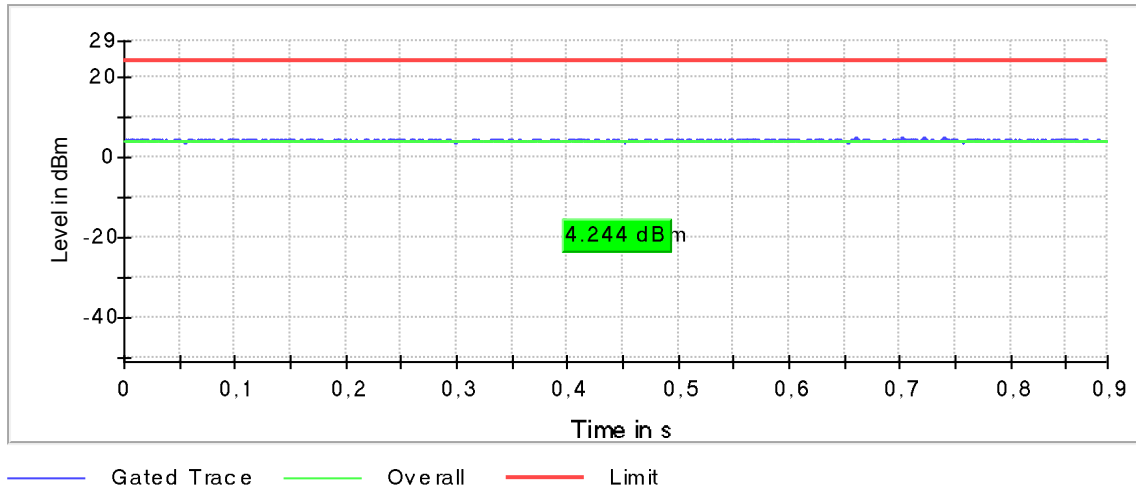
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5260.000000	4.0	24.0	4.0	89.018	PASS

Plot 151: Mode 4, U-NII-2A, AVGPM-G Gated Average Power Measurement, mid channel

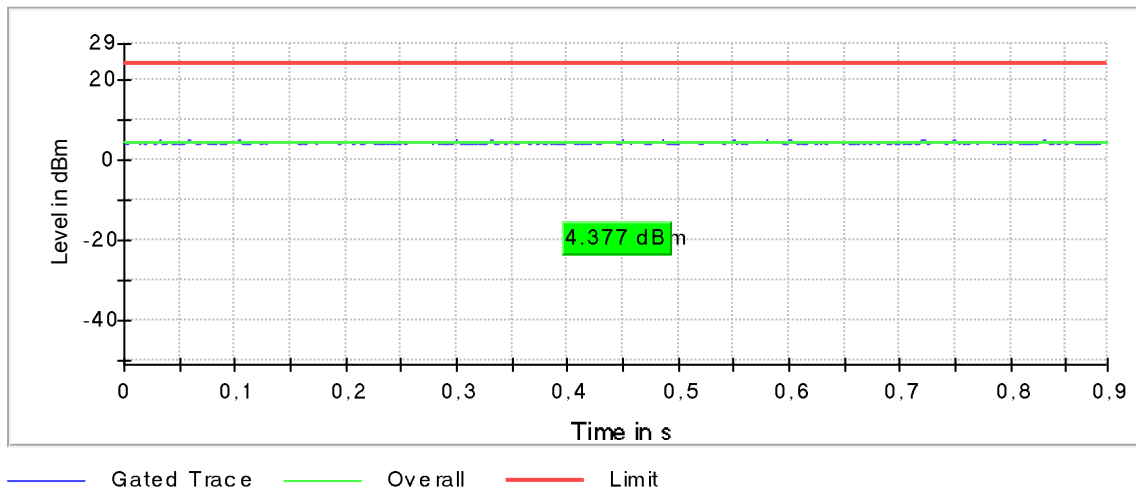
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5300.000000	4.2	24.0	4.2	88.936	PASS

Plot 152: Mode 4, U-NII-2A, AVGPM-G Gated Average Power Measurement, high channel

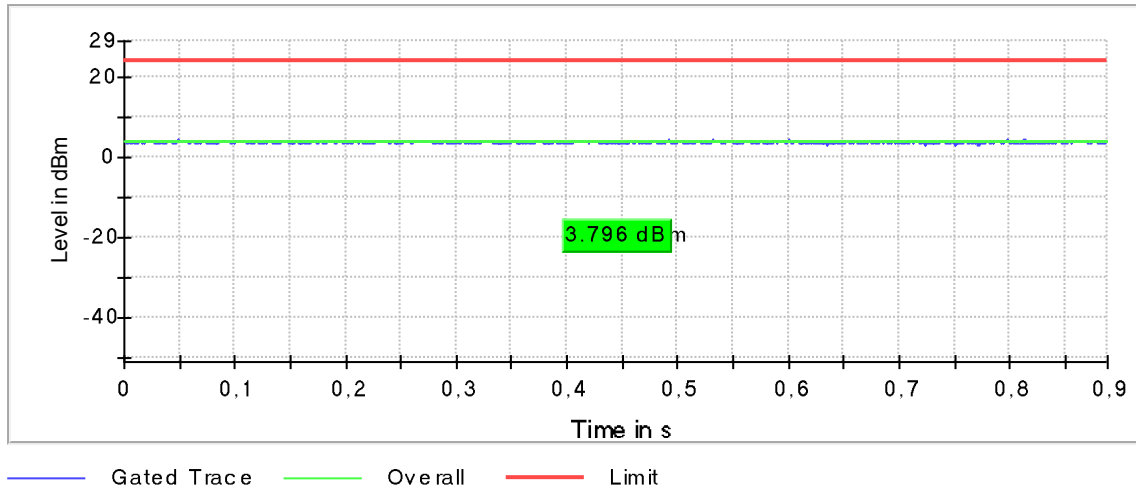
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5320.000000	4.4	24.0	4.4	88.961	PASS

Plot 153: Mode 4, U-NII-2C, AVGP-M-G Gated Average Power Measurement, low channel

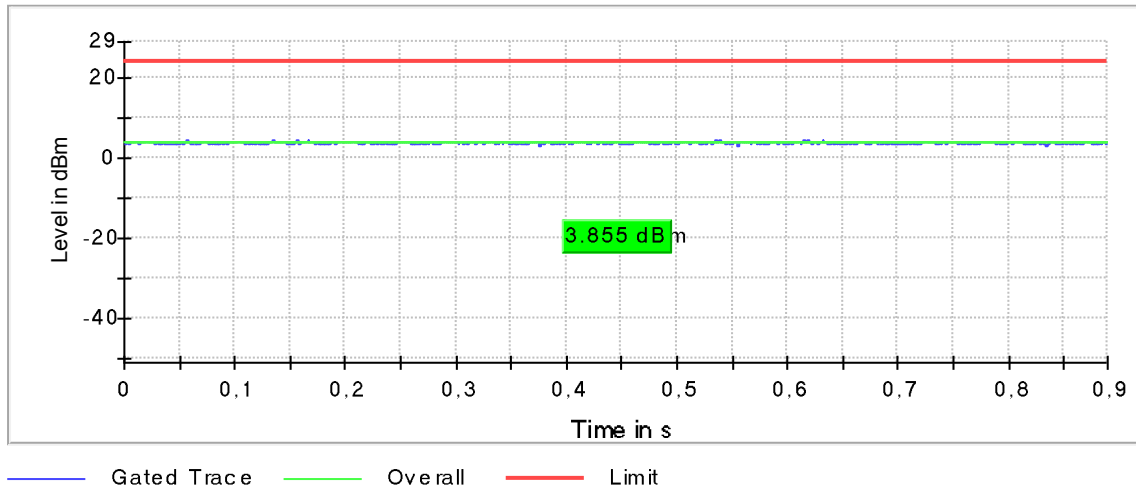
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5500.000000	3.8	24.0	3.8	89.018	PASS

Plot 154: Mode 4, U-NII-2C, AVGP-M-G Gated Average Power Measurement, mid channel

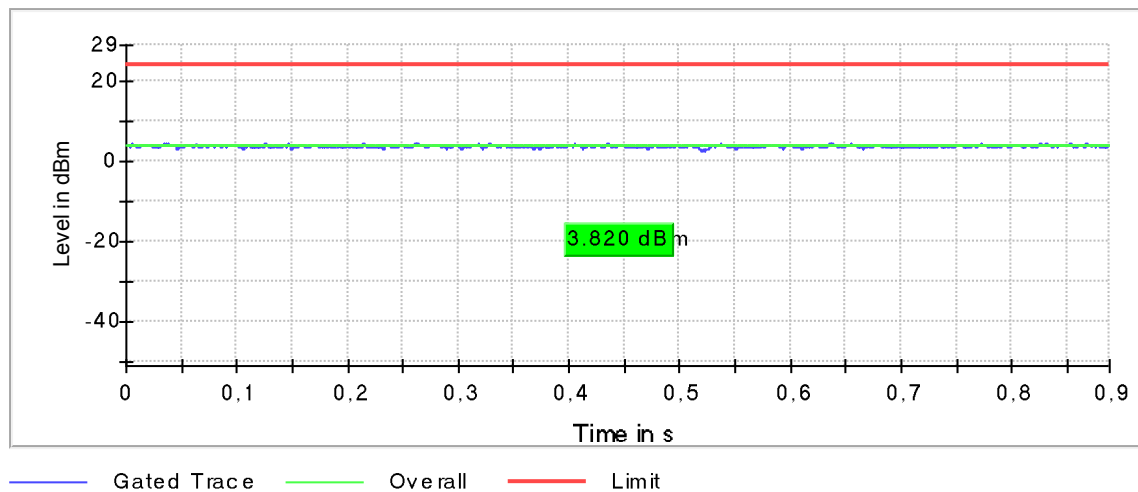
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	3.9	24.0	3.9	89.124	PASS

Plot 155: Mode 4, U-NII-2C, AVGP-M-G Gated Average Power Measurement, high channel

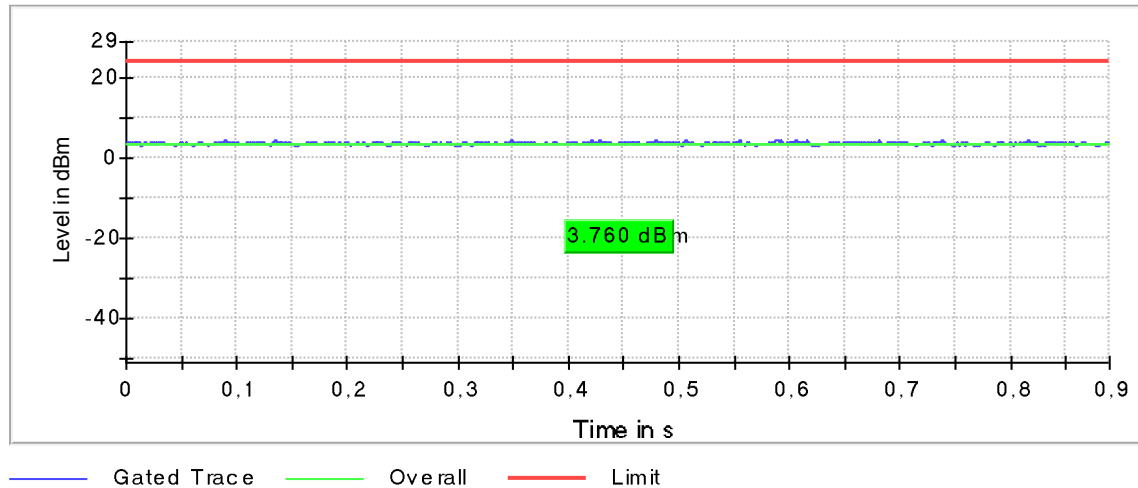
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5700.000000	3.8	24.0	3.8	89.024	PASS

Plot 156: Mode 4, U-NII-2C, AVGP-M-G Gated Average Power Measurement, channel 144

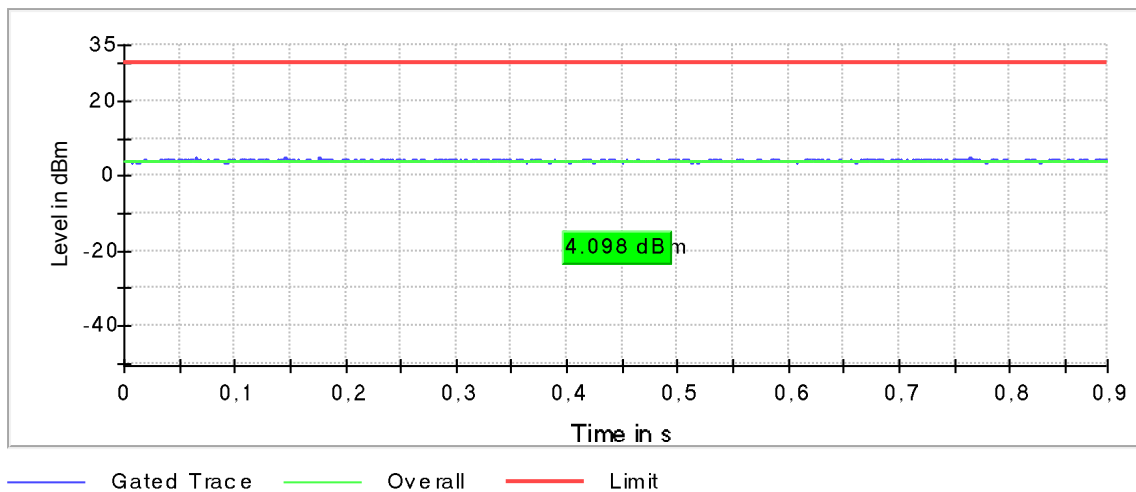
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5720.000000	3.8	24.0	3.8	89.087	PASS

Plot 157: Mode 4, U-NII-3, AVGPM-G Gated Average Power Measurement, low channel

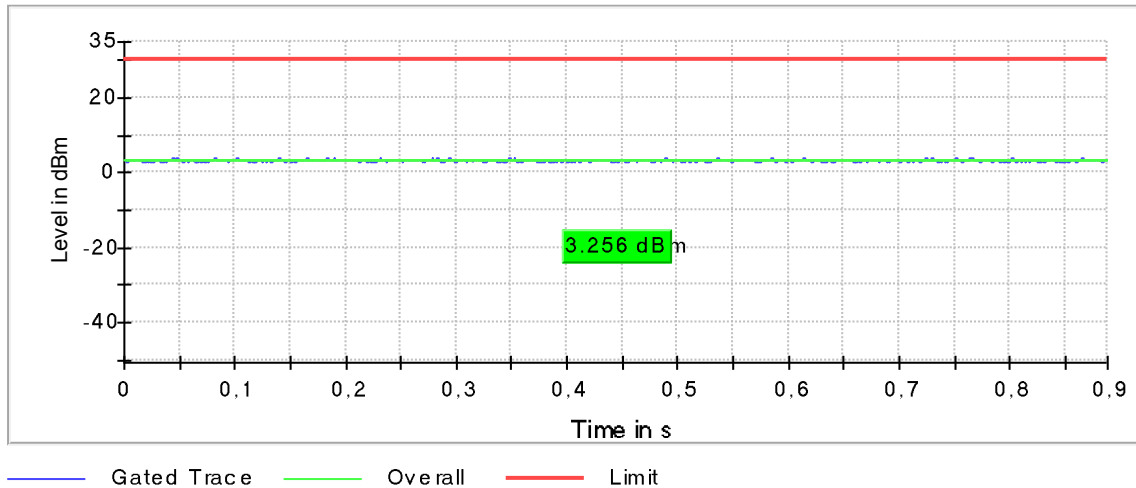
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5745.000000	4.1	30.0	4.1	88.979	PASS

Plot 158: Mode 4, U-NII-3, AVGPM-G Gated Average Power Measurement, mid channel

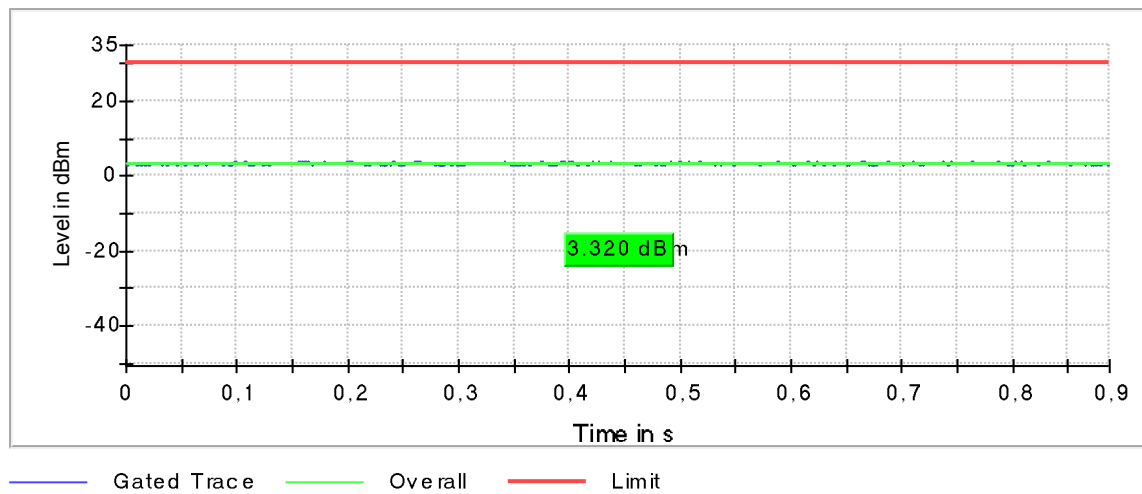
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5785.000000	3.3	30.0	3.3	89.008	PASS

Plot 159: Mode 4, U-NII-3, AVGPM-G Gated Average Power Measurement, high channel

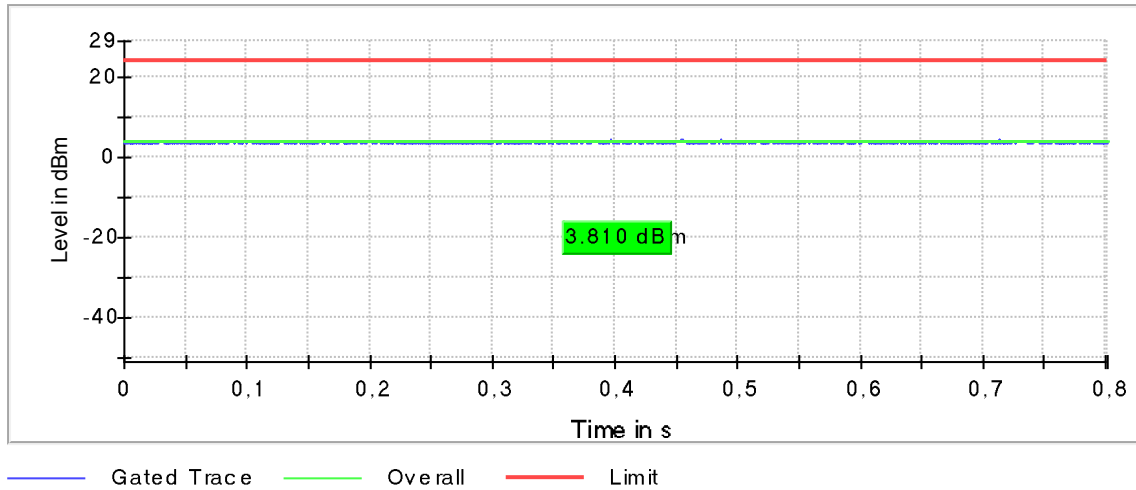
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5825.000000	3.3	30.0	3.3	88.972	PASS

Plot 160: Mode 3, U-NII-1, AVGP-M-G Gated Average Power Measurement, low channel

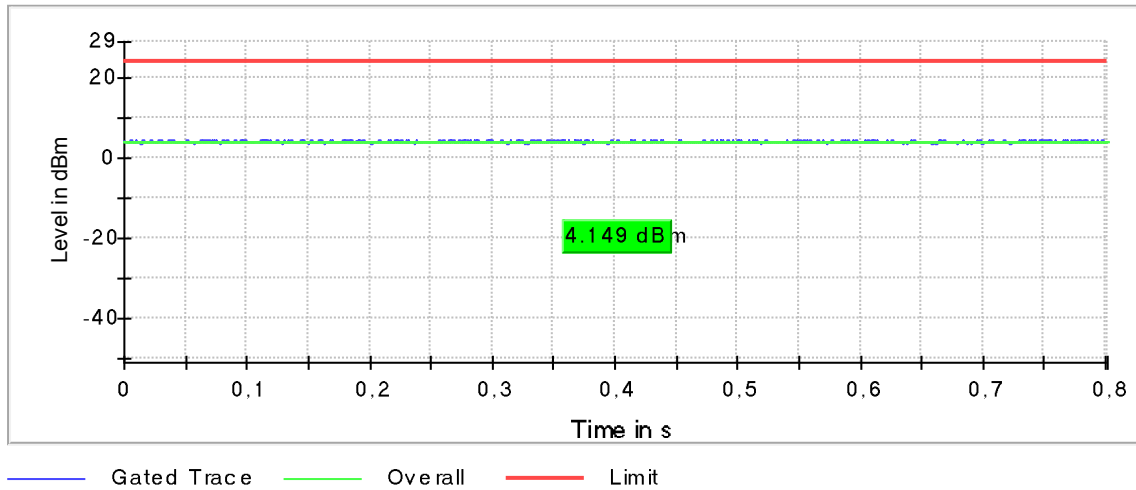
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5190.000000	3.8	24.0	3.8	80.370	PASS

Plot 161: Mode 3, U-NII-1, AVGP-M-G Gated Average Power Measurement, high channel

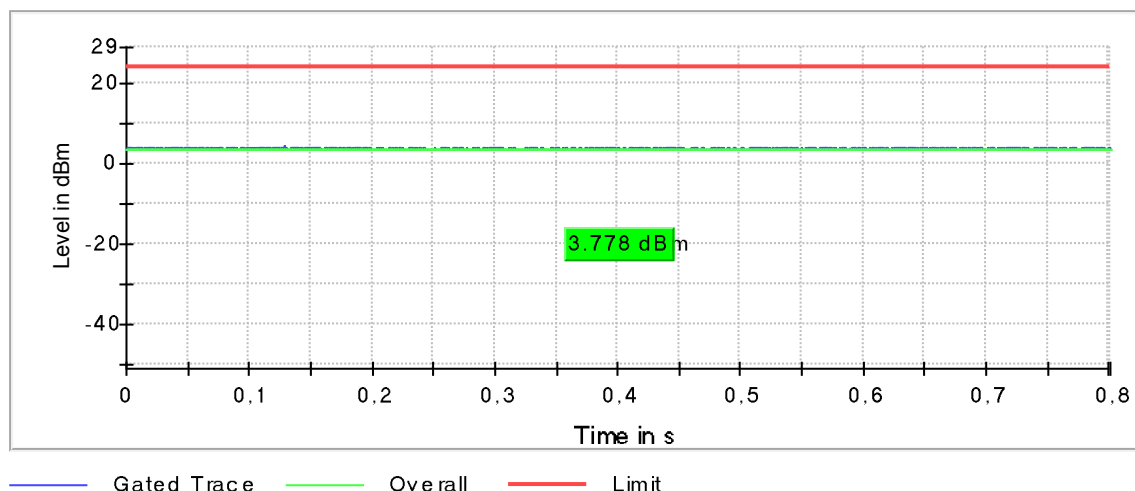
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5230.000000	4.1	24.0	4.1	80.360	PASS

Plot 162: Mode 3, U-NII-2A, AVGP-M-G Gated Average Power Measurement, low channel

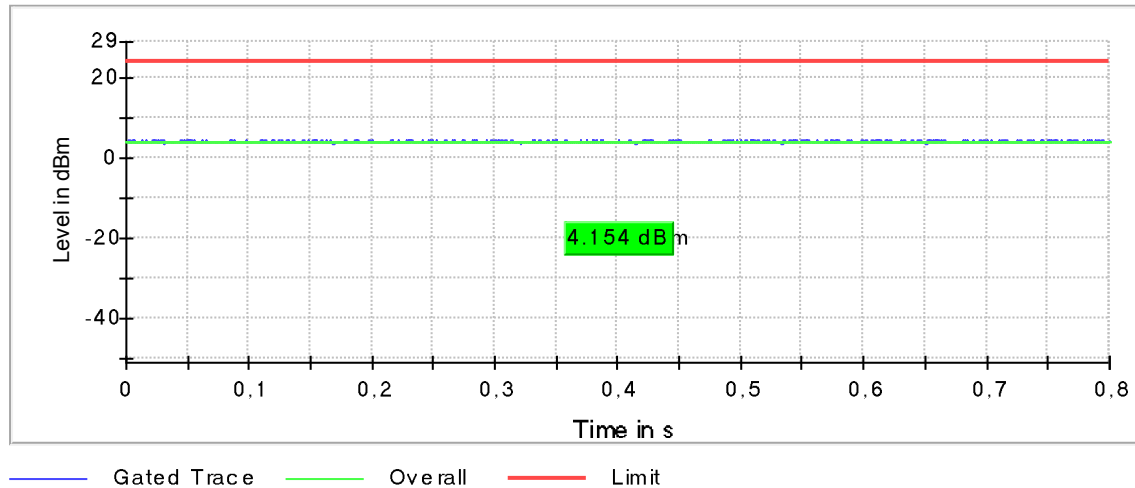
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5270.000000	3.8	24.0	3.8	80.334	PASS

Plot 163: Mode 3, U-NII-2A, AVGP-M-G Gated Average Power Measurement, high channel

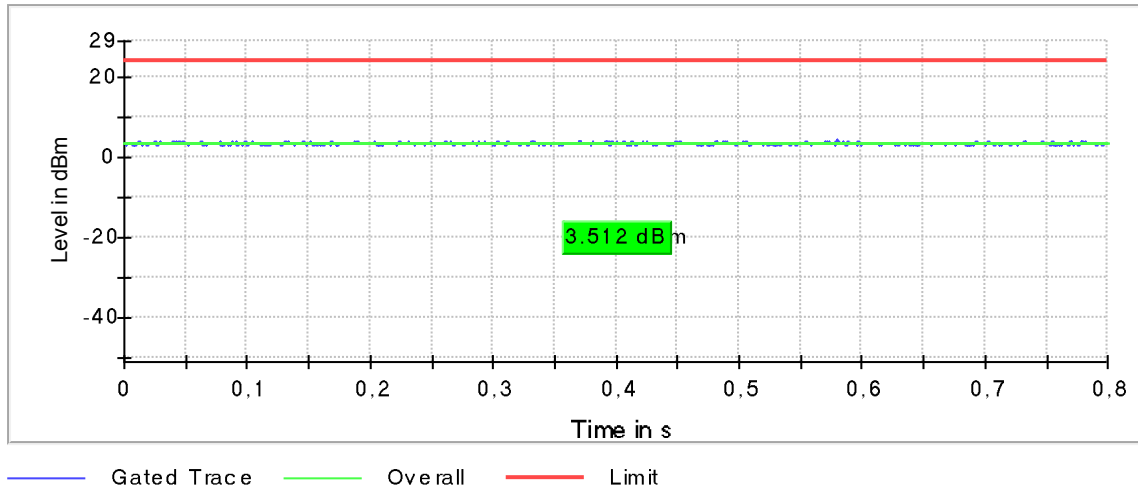
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5310.000000	4.2	24.0	4.2	80.182	PASS

Plot 164: Mode 3, U-NII-2C, AVGP-M-G Gated Average Power Measurement, low channel

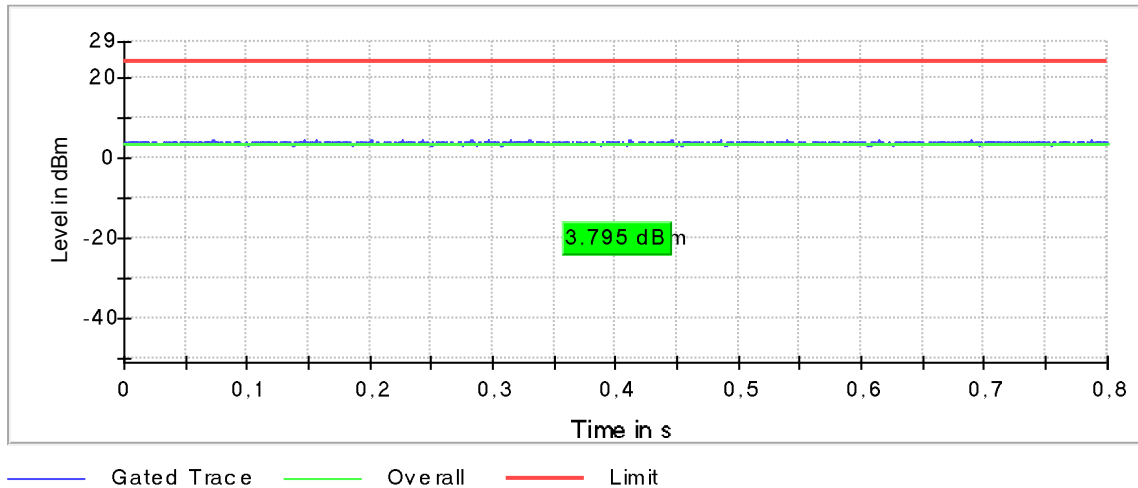
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5510.000000	3.5	24.0	3.5	80.179	PASS

Plot 165: Mode 3, U-NII-2C, AVGP-M-G Gated Average Power Measurement, mid channel

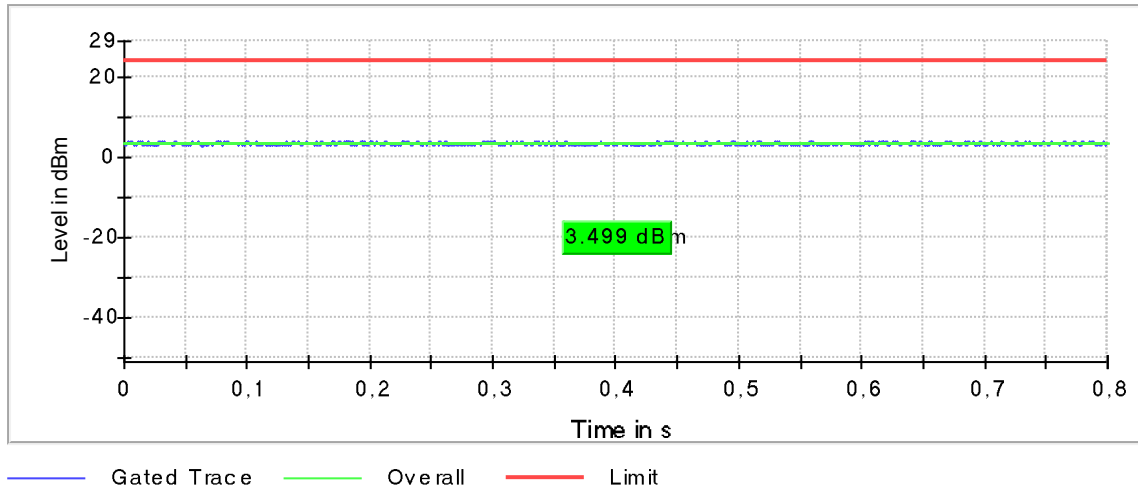
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5630.000000	3.8	24.0	3.8	80.257	PASS

Plot 166: Mode 3, U-NII-2C, AVGPM-G Gated Average Power Measurement, high channel

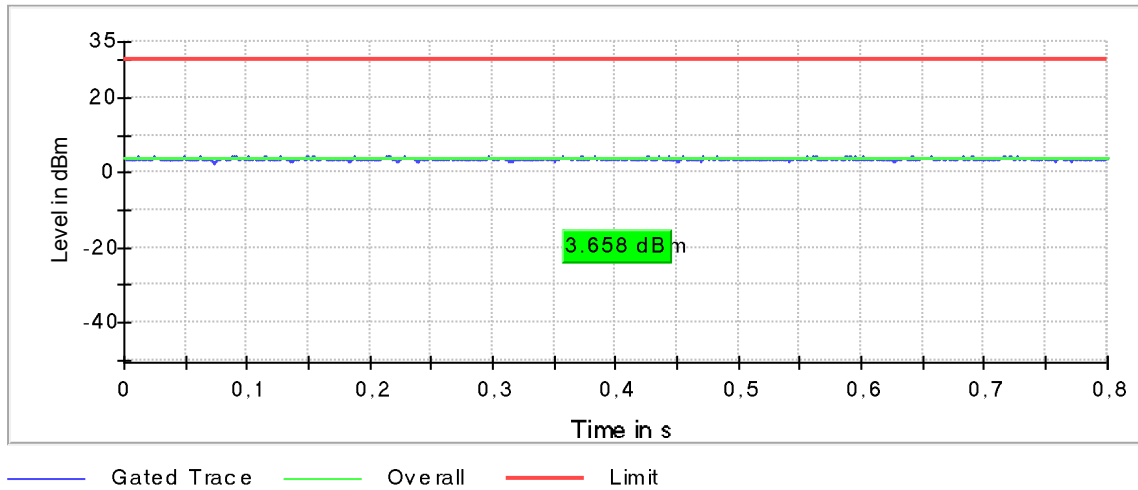
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5710.000000	3.5	24.0	3.5	80.203	PASS

Plot 167: Mode 3, U-NII-3, AVGPM-G Gated Average Power Measurement, low channel

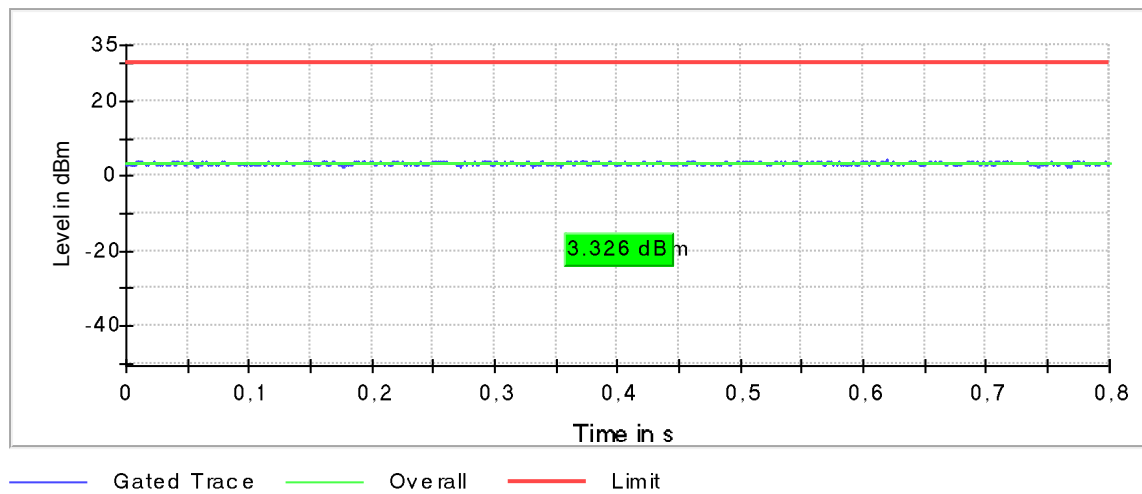
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5755.000000	3.7	30.0	3.7	80.230	PASS

Plot 168: Mode 3, U-NII-3, AVGP-M-G Gated Average Power Measurement, high channel

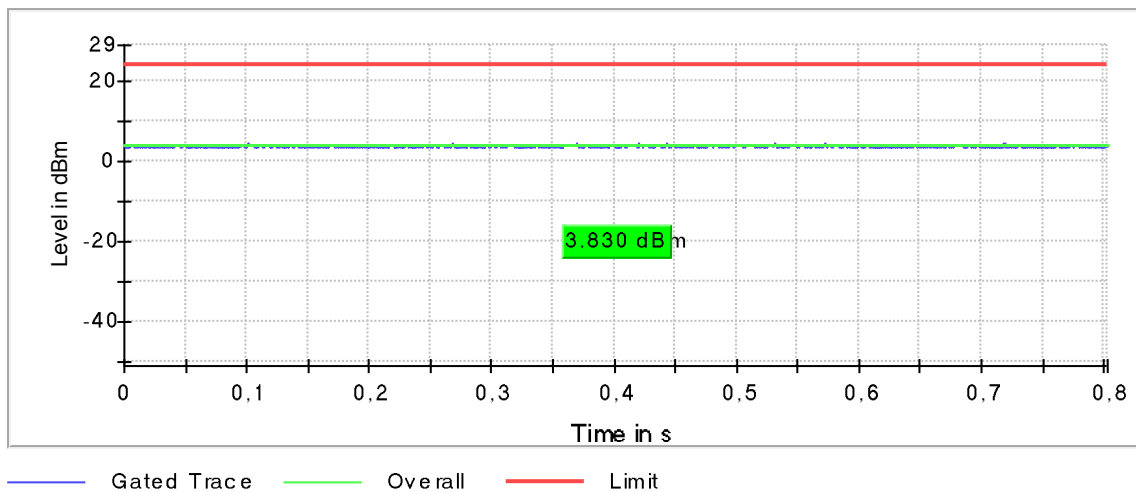
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5795.000000	3.3	30.0	3.3	80.295	PASS

Plot 169: Mode 5, U-NII-1, AVGPM-G Gated Average Power Measurement, low channel

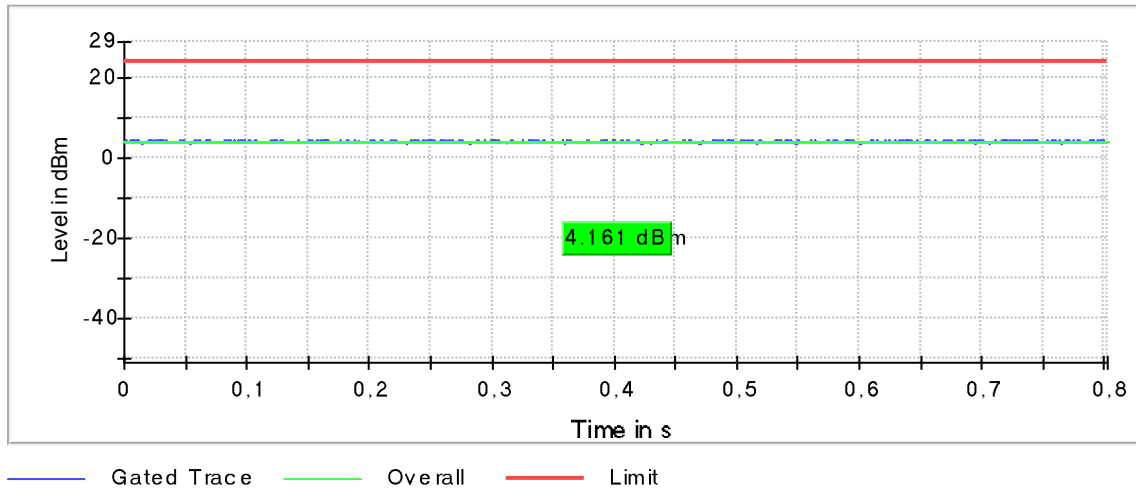
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5190.000000	3.8	24.0	3.8	80.547	PASS

Plot 170: Mode 5, U-NII-1, AVGPM-G Gated Average Power Measurement, high channel

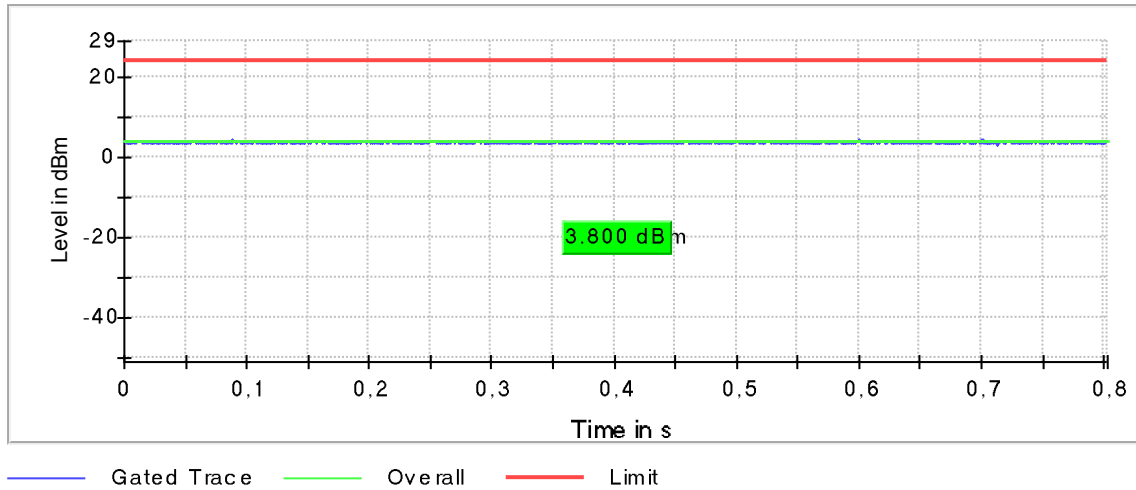
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5230.000000	4.2	24.0	4.2	80.429	PASS

Plot 171: Mode 5, U-NII-2A, AVGP-M-G Gated Average Power Measurement, low channel

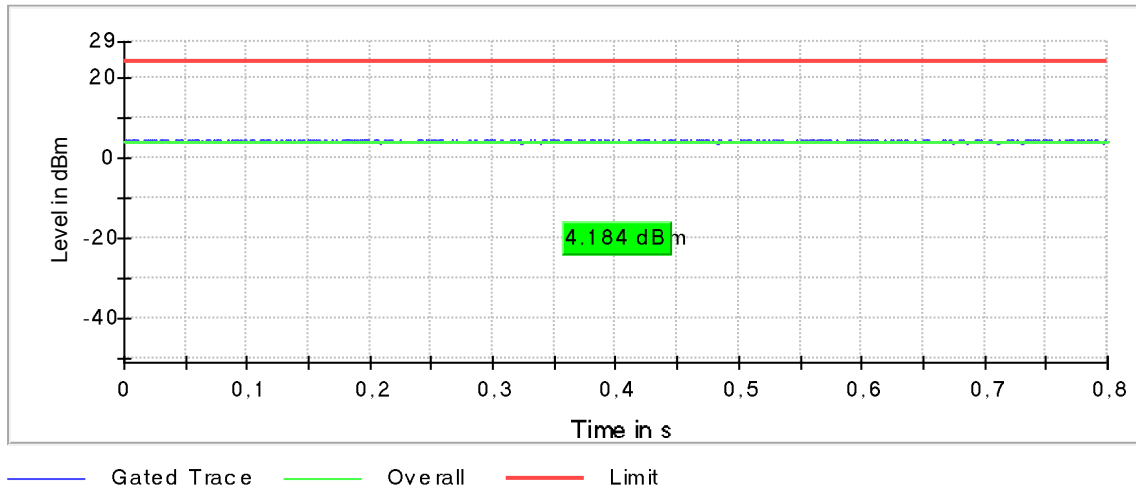
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5270.000000	3.8	24.0	3.8	80.504	PASS

Plot 172: Mode 5, U-NII-2A, AVGP-M-G Gated Average Power Measurement, high channel

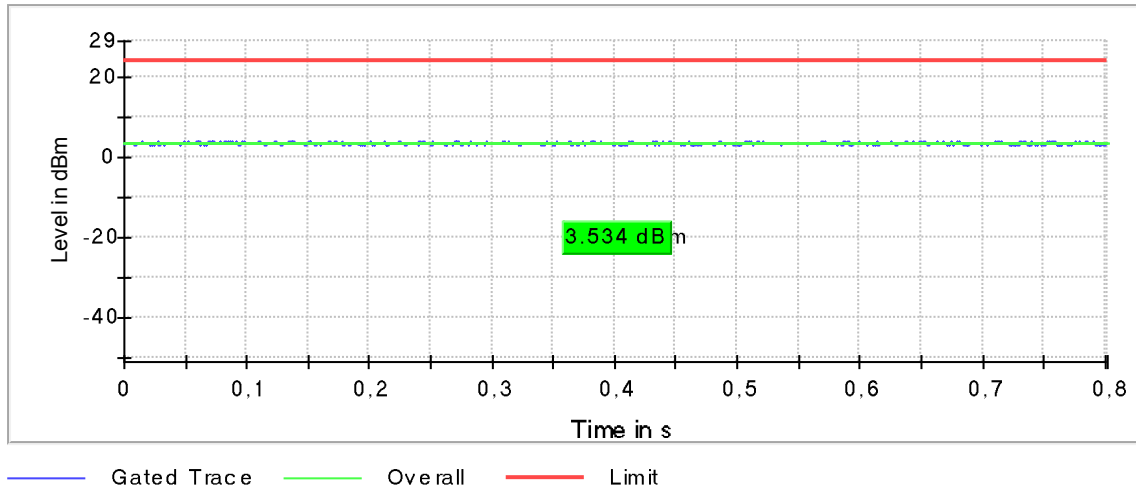
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5310.000000	4.2	24.0	4.2	80.217	PASS

Plot 173: Mode 5, U-NII-2C, AVGP-G Gated Average Power Measurement, low channel

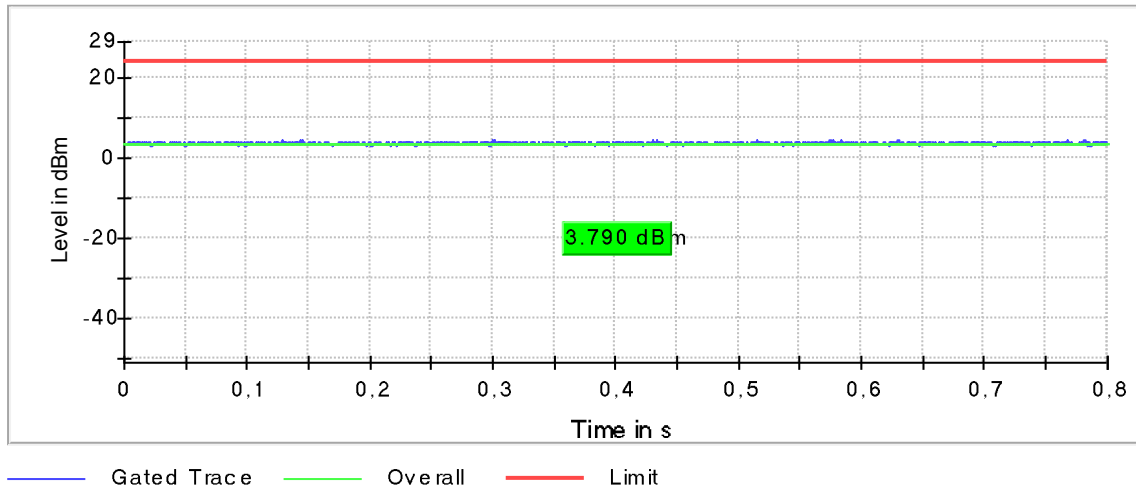
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5510.000000	3.5	24.0	3.5	80.417	PASS

Plot 174: Mode 5, U-NII-2C, AVGP-G Gated Average Power Measurement, mid channel

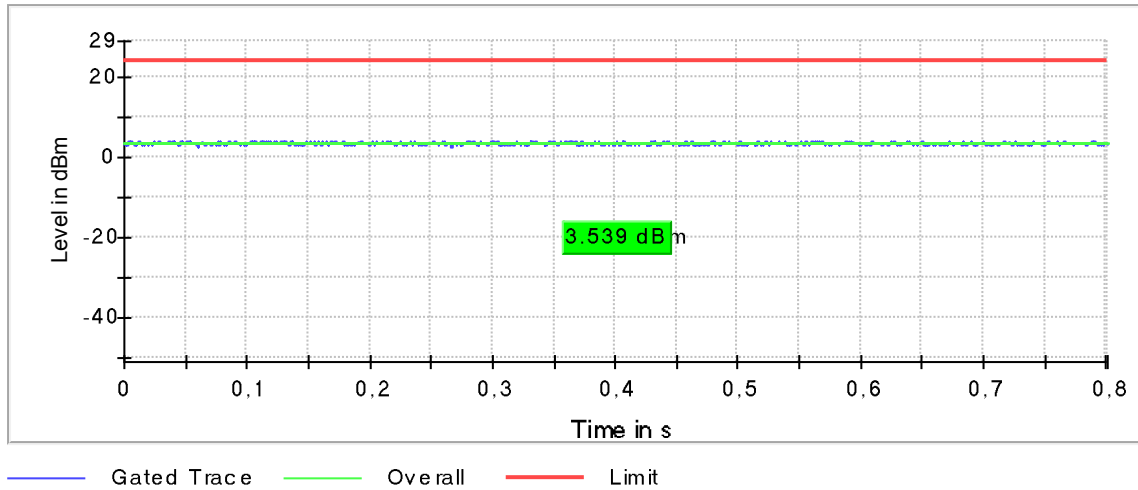
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5630.000000	3.8	24.0	3.8	80.246	PASS

Plot 175: Mode 5, U-NII-2C, AVGPM-G Gated Average Power Measurement, high channel

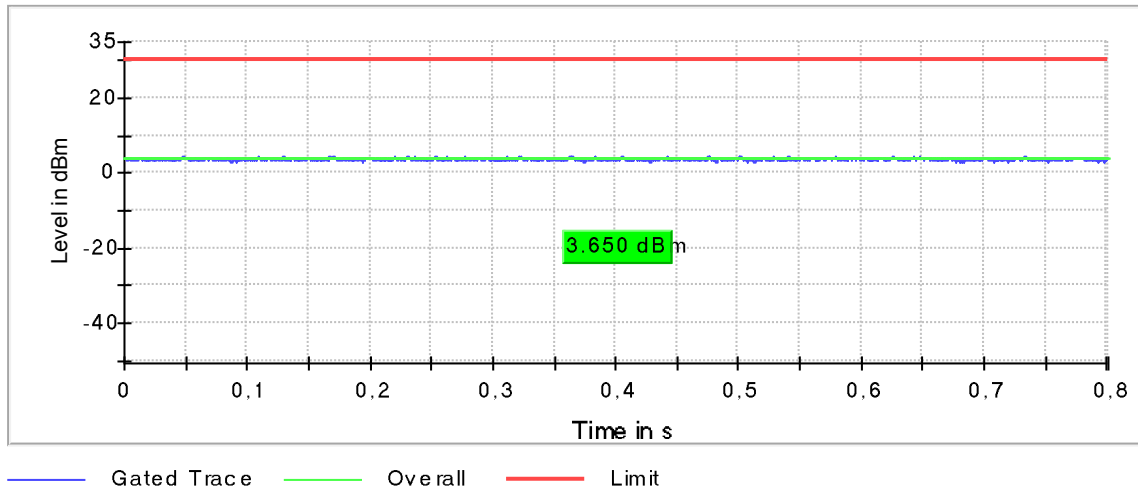
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5710.000000	3.5	24.0	3.5	80.321	PASS

Plot 176: Mode 5, U-NII-3, AVGPM-G Gated Average Power Measurement, low channel

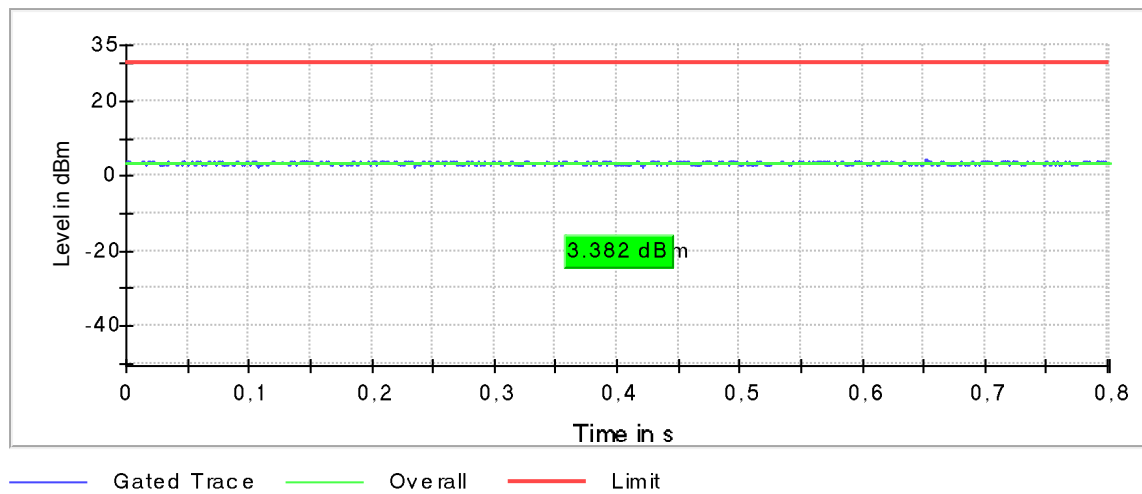
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5755.000000	3.6	30.0	3.6	80.319	PASS

Plot 177: Mode 3, U-NII-3, AVGP-M-G Gated Average Power Measurement, high channel

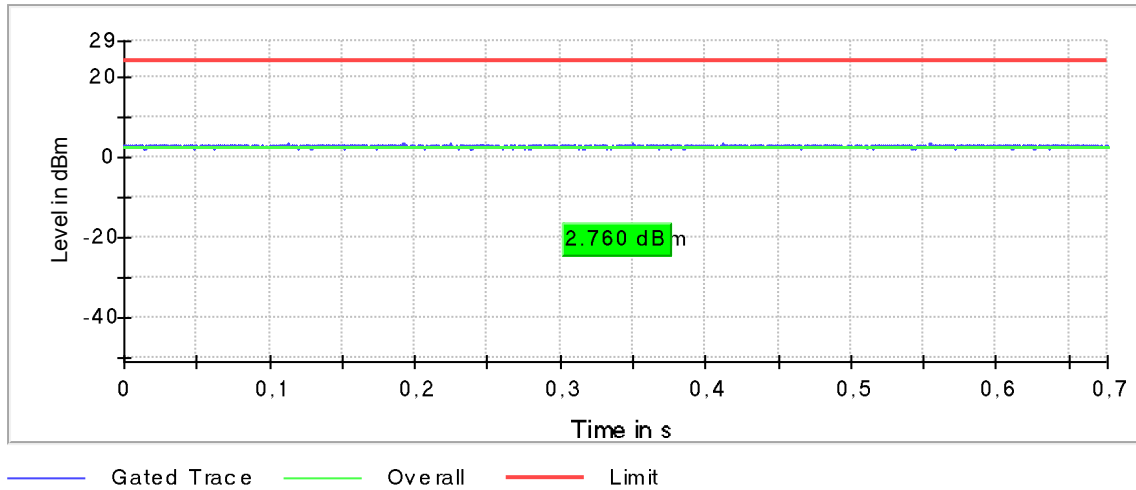
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5795.000000	3.4	30.0	3.4	80.355	PASS

Plot 178: Mode 6, U-NII-1, AVGPm-G Gated Average Power Measurement, mid channel

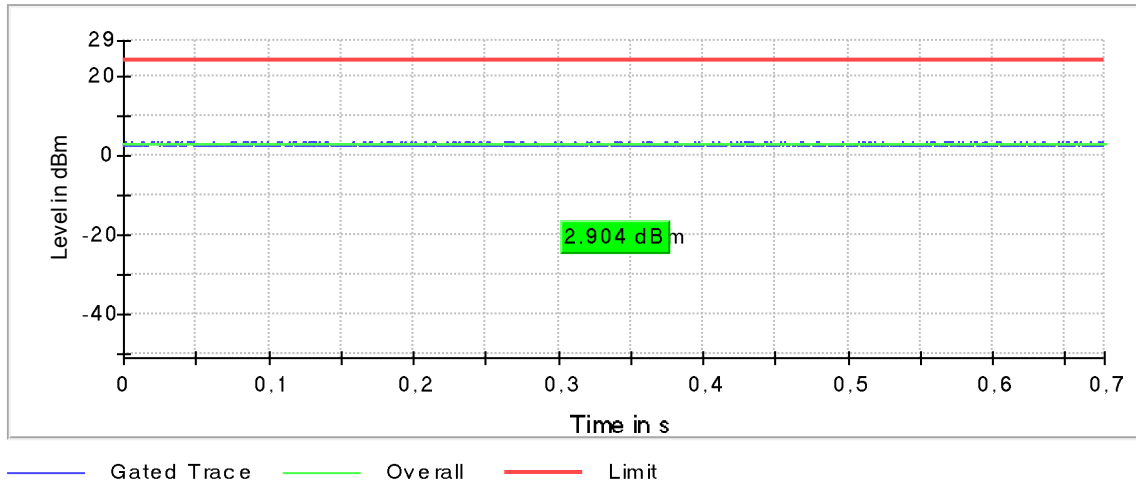
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5210.000000	2.8	24.0	2.8	67.969	PASS

Plot 179: Mode 6, U-NII-2A, AVGPm-G Gated Average Power Measurement, mid channel

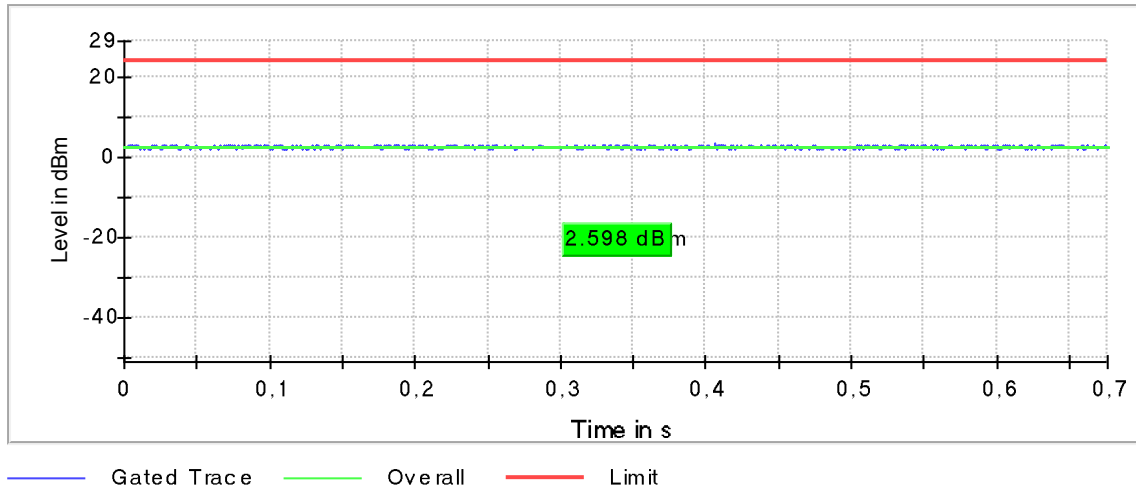
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5290.000000	2.9	24.0	2.9	67.992	PASS

Plot 180: Mode 6, U-NII-2C, AVGP-M-G Gated Average Power Measurement, low channel

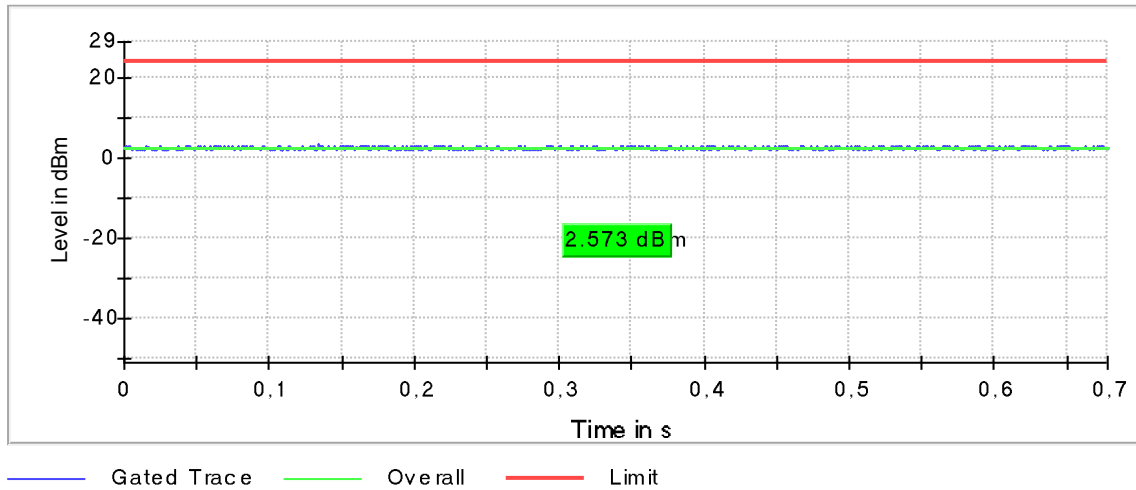
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5530.000000	2.6	24.0	2.6	67.912	PASS

Plot 181: Mode 6, U-NII-2C, AVGP-M-G Gated Average Power Measurement, mid channel

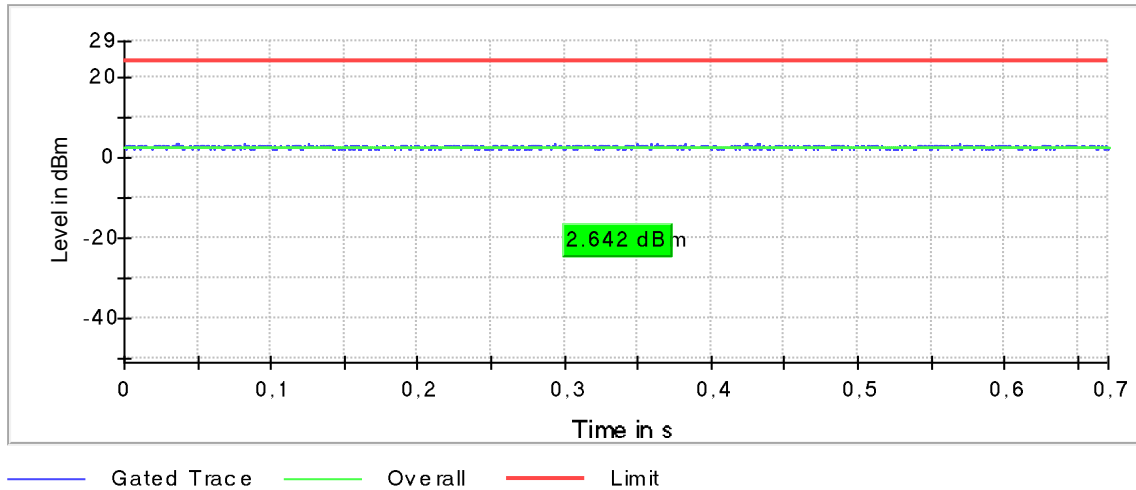
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5610.000000	2.6	24.0	2.6	68.112	PASS

Plot 182: Mode 6, U-NII-2C, AVGPM-G Gated Average Power Measurement, high channel

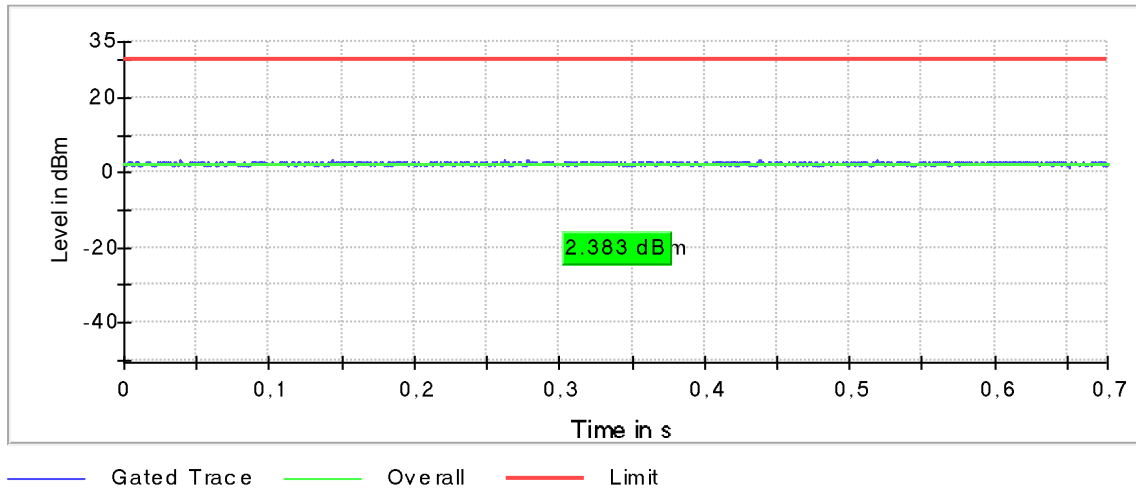
Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5690.000000	2.6	24.0	2.6	67.369	PASS

Plot 183: Mode 6, U-NII-3, AVGPM-G Gated Average Power Measurement, mid channel

Gated Trace



DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5775.000000	2.4	30.0	2.4	68.069	PASS

7.5 Antenna Gain (calculated)

Applicability

This requirement applies to unlicensed National Information Infrastructure (U-NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.85 GHz bands

Description

The antenna gain is defined as the difference between radiated peak power (Peak EIRP) subtracted by the conducted peak power of the module, given in dBi.

Limit

§15.407 (a), RSS-247 section 6.2:

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: 8.2 with radiated test sample 61314, 8.4 with conducted test sample 61313

Test Results: 20 MHz Bandwidth, a-mode

Test Results 5.150 – 5.350 GHz

Mode 1	channel 36	channel 48	channel 52	channel 64	Limit
Radiated power [dBm]	5.9	5.0	5.0	5.9	≤ 36
Conducted power [dBm]	4.8	5.3	4.7	5.1	≤ 30
Calculated antenna gain [dBi]	1.1	-0.3	0.3	0.8	≤ 6

Test Results 5.470 – 5.725 GHz

Mode 1	channel 100	channel 120	channel 140	channel 144	Limit
Radiated power [dBm]	6.4	5.8	6.2	6.2	≤ 36
Conducted power [dBm]	4.5	4.5	4.4	4.4	≤ 30
Calculated antenna gain [dBi]	1.9	1.3	1.8	1.8	≤ 6

Test Results 5.725 – 5.850 GHz

Mode 1	channel 149	channel 157	channel 165	Limit
Radiated power [dBm]	6.0	4.4	5.3	≤ 36
Conducted power [dBm]	4.7	4.0	4.1	≤ 30
Calculated antenna gain [dBi]	1.3	0.4	1.2	≤ 6

Comment:	---
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Verdict	- PASS -	see next plots*
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*description of line and marker for all radiated Peak Power measurements:



positive Peak (Max Hold) trace during pre-scan



Max Peak value

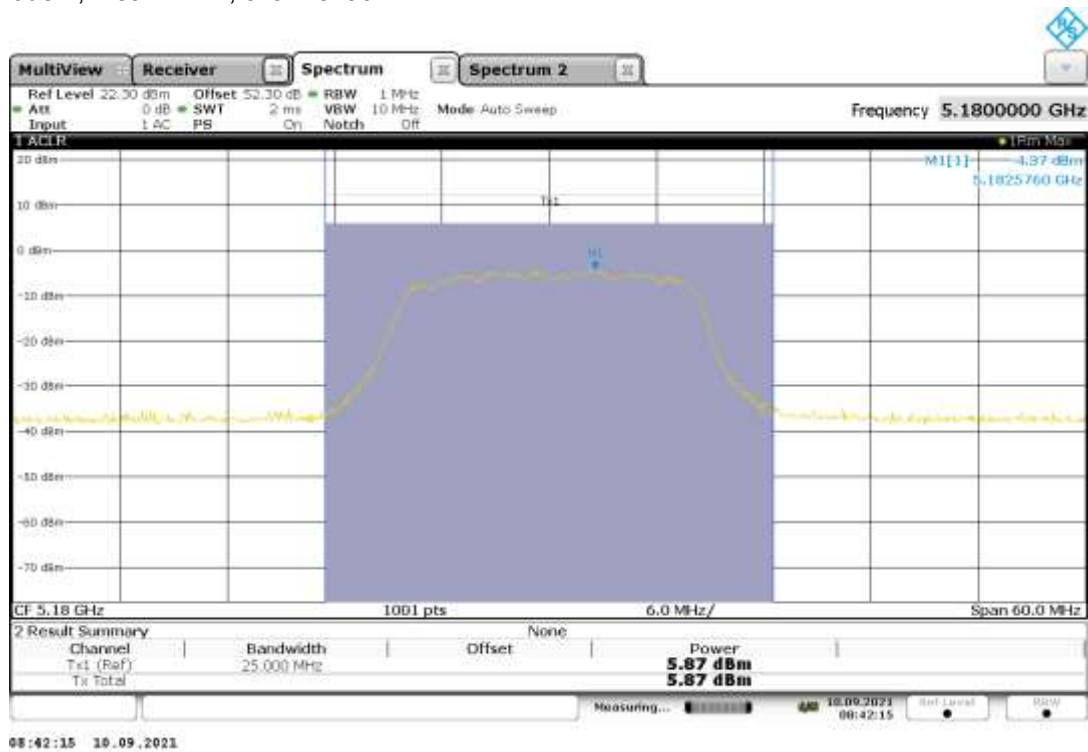


final Quasi Peak value

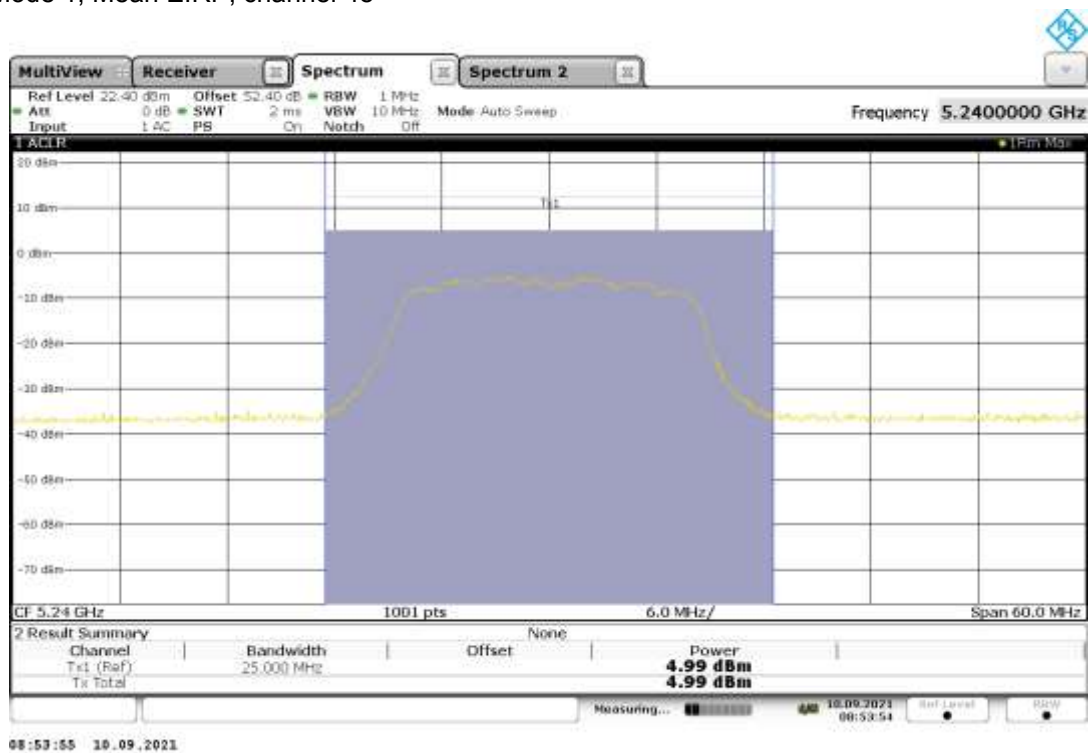
TR no.: 21065785-21222-0

2021-09-10

Plot 184: Mode 1, Mean EIRP, channel 36



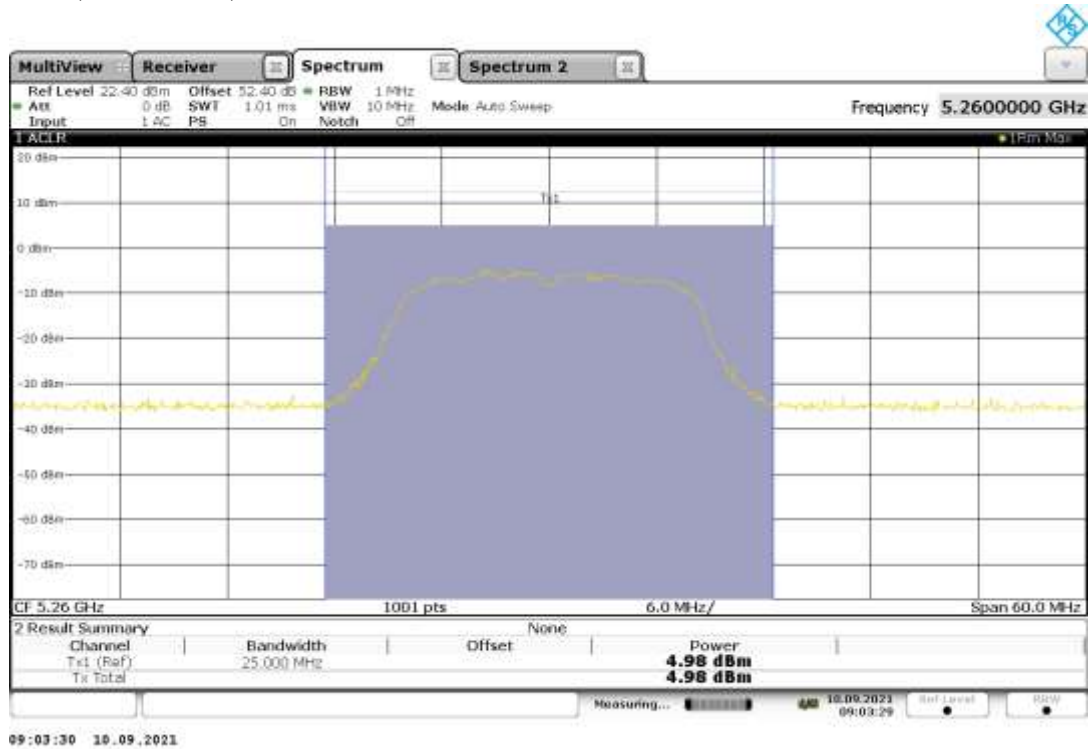
Plot 185: Mode 1, Mean EIRP, channel 48



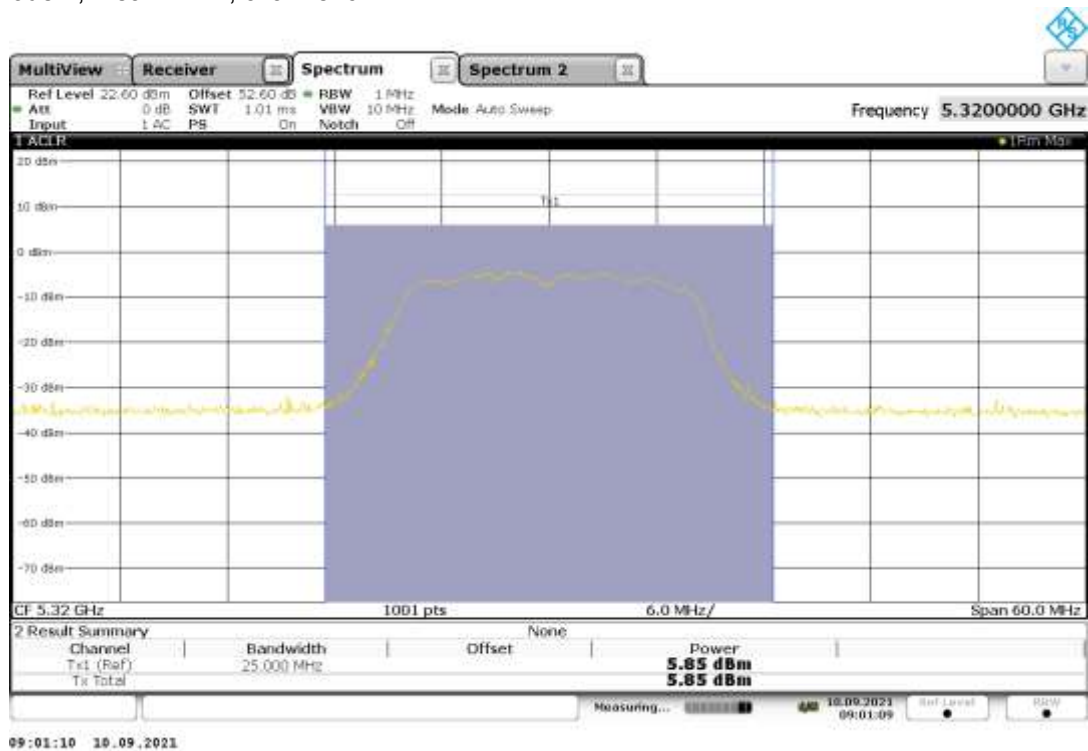
TR no.: 21065785-21222-0

2021-09-10

Plot 186: Mode 1, Mean EIRP, channel 52



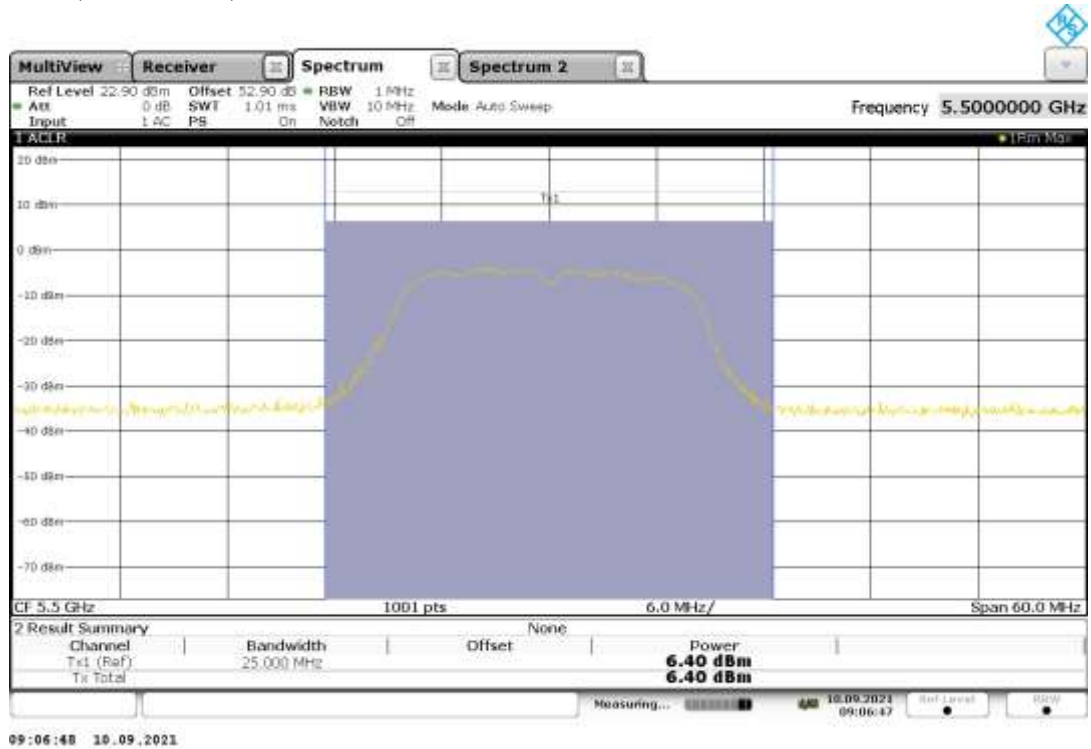
Plot 187: Mode 1, Mean EIRP, channel 64



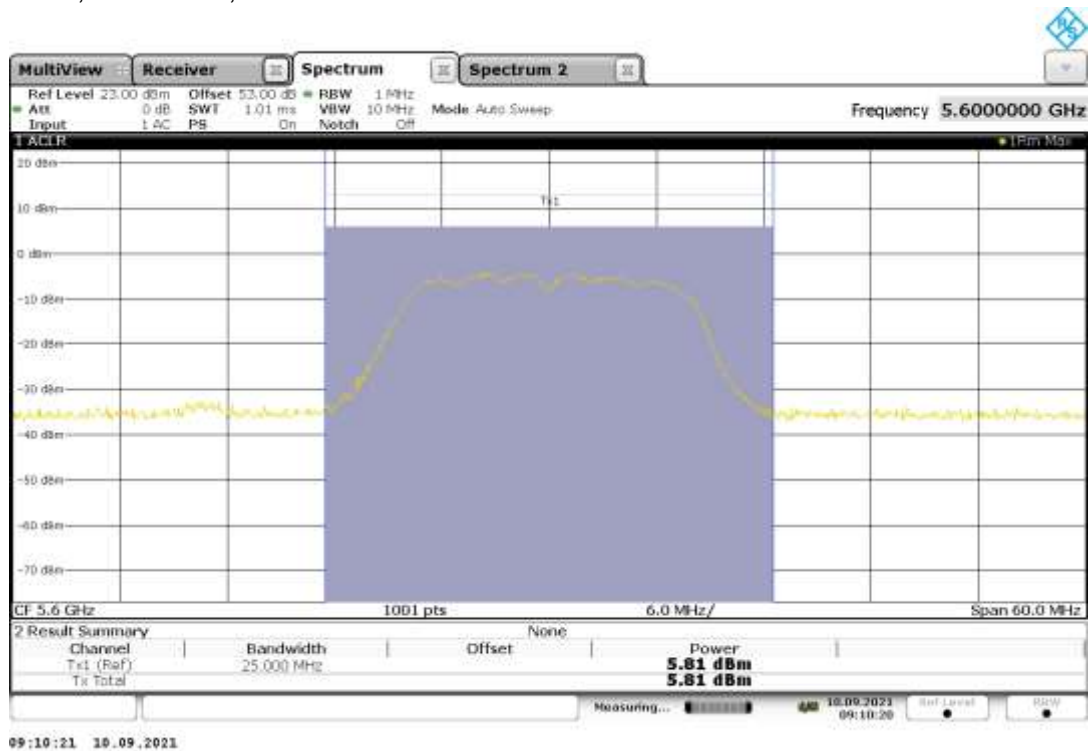
TR no.: 21065785-21222-0

2021-09-10

Plot 188: Mode 1, Mean EIRP, channel 100



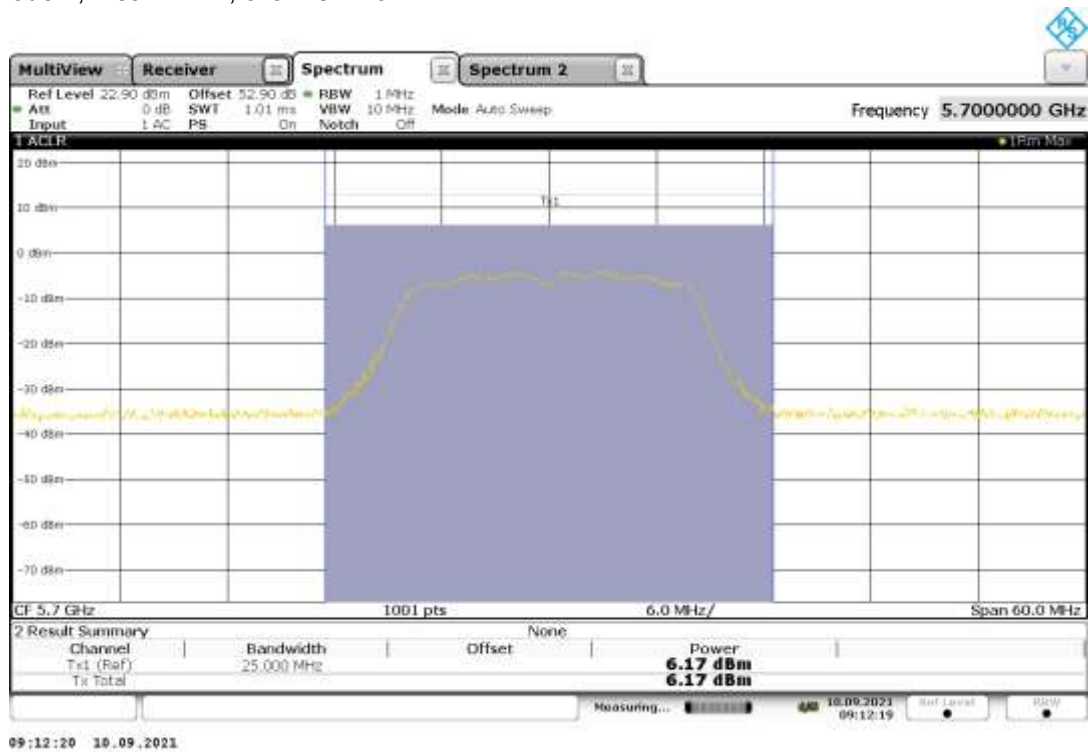
Plot 189: Mode 1, Mean EIRP, channel 120



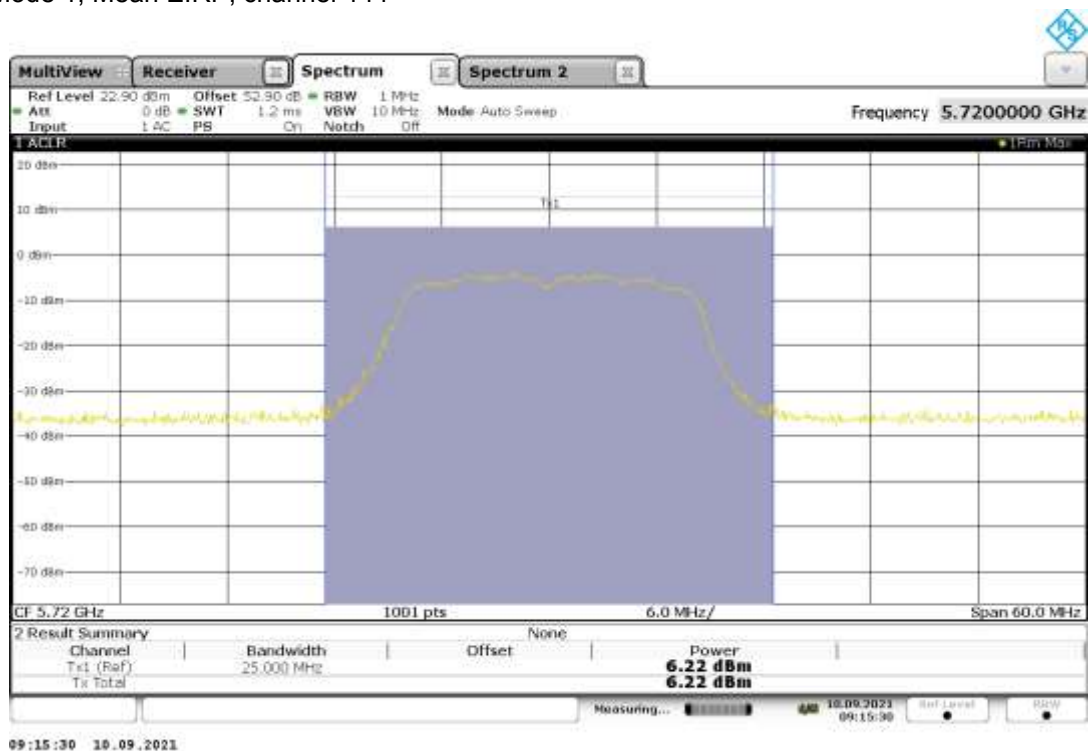
TR no.: 21065785-21222-0

2021-09-10

Plot 190: Mode 1, Mean EIRP, channel 140



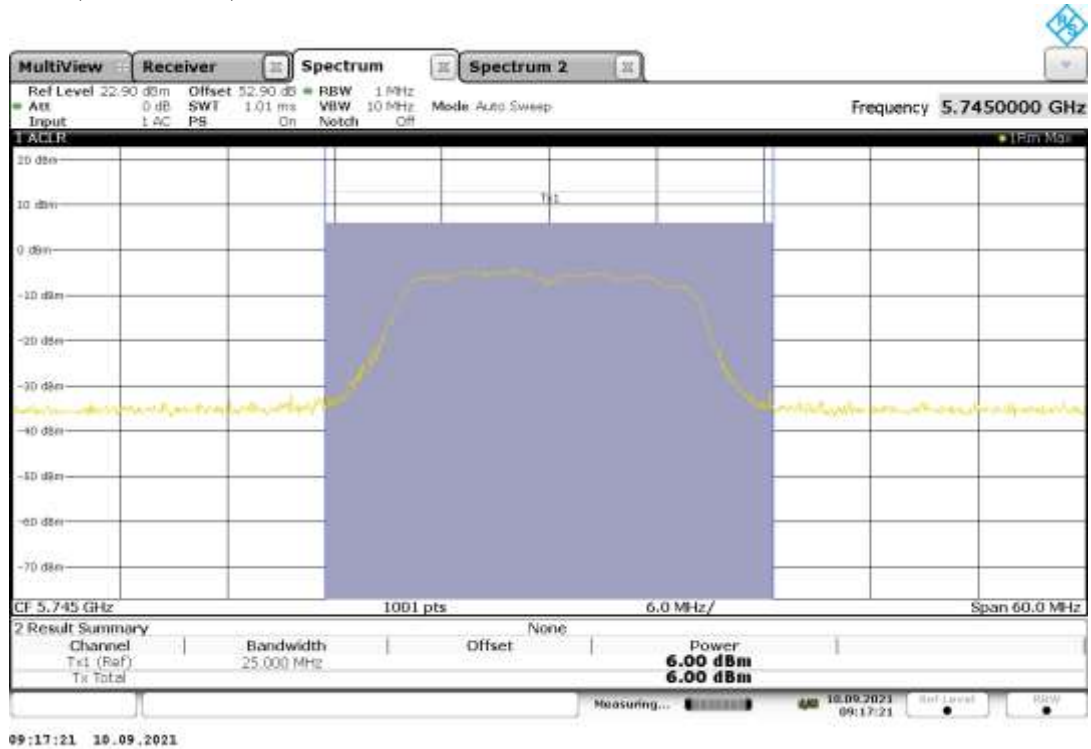
Plot 191: Mode 1, Mean EIRP, channel 144



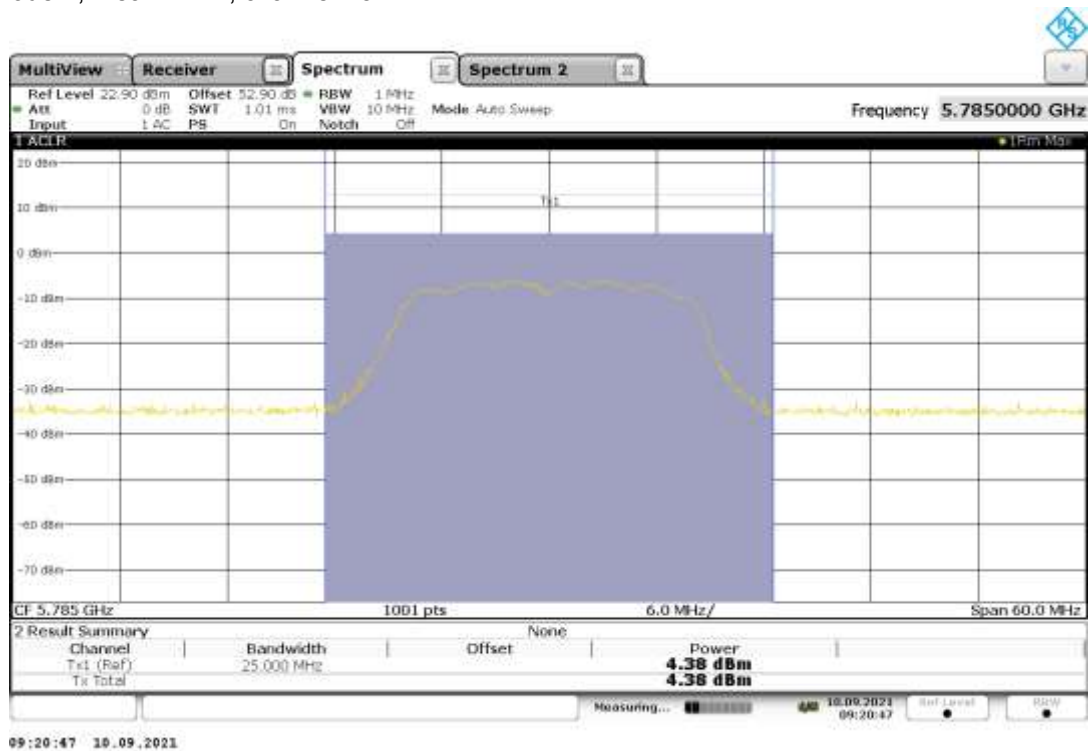
TR no.: 21065785-21222-0

2021-09-10

Plot 192: Mode 1, Mean EIRP, channel 149



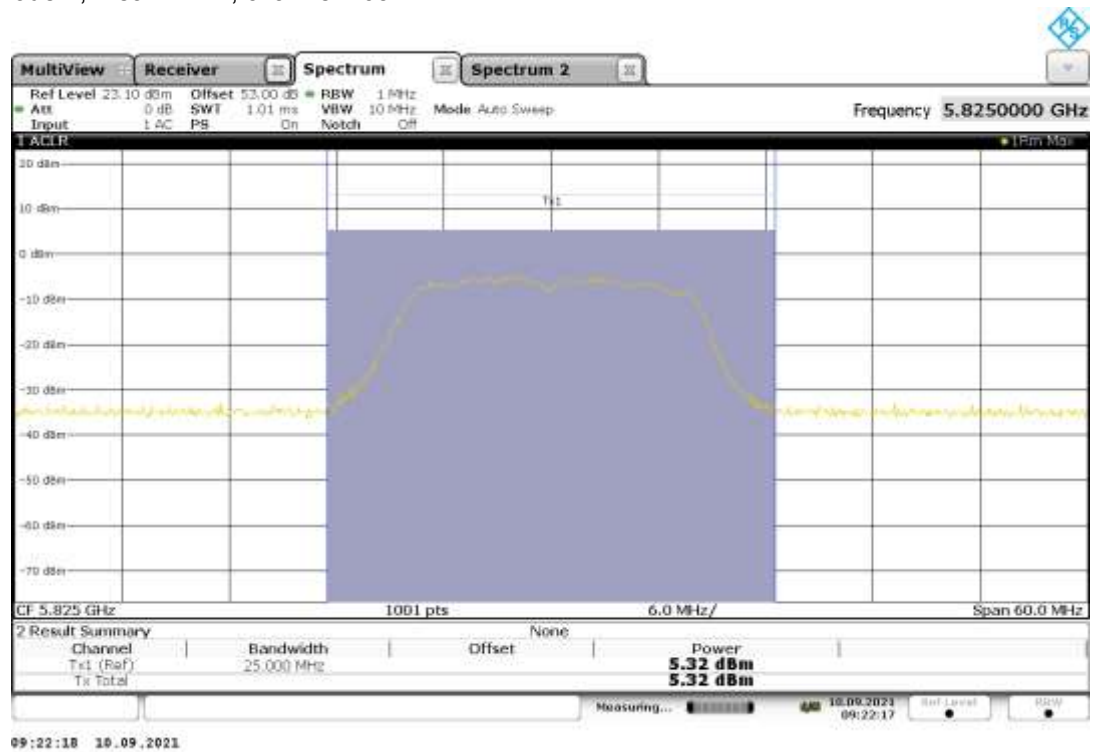
Plot 193: Mode 1, Mean EIRP, channel 157



TR no.: 21065785-21222-0

2021-09-10

Plot 194: Mode 1, Mean EIRP, channel 165



7.6 Peak Power Spectral Density (PSD)

Applicability

This requirement applies to unlicensed National Information Infrastructure (U-NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.85 GHz bands.

Description

The Power Spectral Density (PSD) is defined as the conducted peak power spectral density in a 3 kHz bandwidth during any time of continuous transmission.

Limits

§15.407 (a)

- For client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band
- For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.
- For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band

RSS 247 section 6.2:

- Frequency band 5470-5600 and 5650-5725 MHz:
 - The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
- Frequency band 5725-5850 MHz:
 - The power spectral density shall not exceed 30 dBm in any 500-kHz band.

Test procedure

KDB 789033 D02, F.

ANSI C63.10, 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

Test setup: 8.4 with conducted test sample 60337

Test Results 20 MHz

EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-1 (5150 MHz to 5250 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 1	-7.6	-7.3	-7.9	11.0
Mode 2	-8.5	-8.3	-8.7	11.0
Mode 4	-8.5	-8.4	-8.6	11.0

Test Results 20 MHz

EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-2A (5250 MHz to 5350 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 1	-8.0	-7.6	-8.0	11.0
Mode 2	-8.7	-8.4	-8.9	11.0
Mode 4	-8.7	-8.3	-8.8	11.0

Test Results 20 MHz

EUT Mode	Peak Power Spectral Density				Limit Max [dBm]
	U-NII-2C (5470 MHz to 5725 MHz)				
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	Channel 144 [dBm]	
Mode 1	-7.8	-7.6	-7.7	-8.0	11.0
Mode 2	-8.8	-8.9	-8.6	-8.9	11.0
Mode 4	-8.9	-9.0	-8.7	-8.8	11.0

Test Results 20 MHz

EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-3 (5725 MHz to 5850 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 1	-10.9	-10.4	-10.4	30.0
Mode 2	-11.7	-11.2	-11.3	30.0
Mode 4	-11.8	-11.3	-11.3	30.0

Test Results 40 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-1 (5150 MHz to 5250 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 3	-13.7	--	-12.2	11.0

Test Results 40 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-2A (5250 MHz to 5350 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 3	-12.4	--	-12.2	11.0

Test Results 40 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-2C (5470 MHz to 5725 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 3	-15.5	-12.3	-12.6	11.0

Test Results 40 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-3 (5725 MHz to 5850 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 3	-15.5	--	-14.8	30.0

Test Results 80 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-1 (5150 MHz to 5250 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 6	--	2.0	--	11.0

Test Results 80 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-2A (5250 MHz to 5350 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 6	--	2.0	--	11.0

Test Results 80 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-2C (5470 MHz to 5725 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 6	1.4	1.6	2.0	11.0

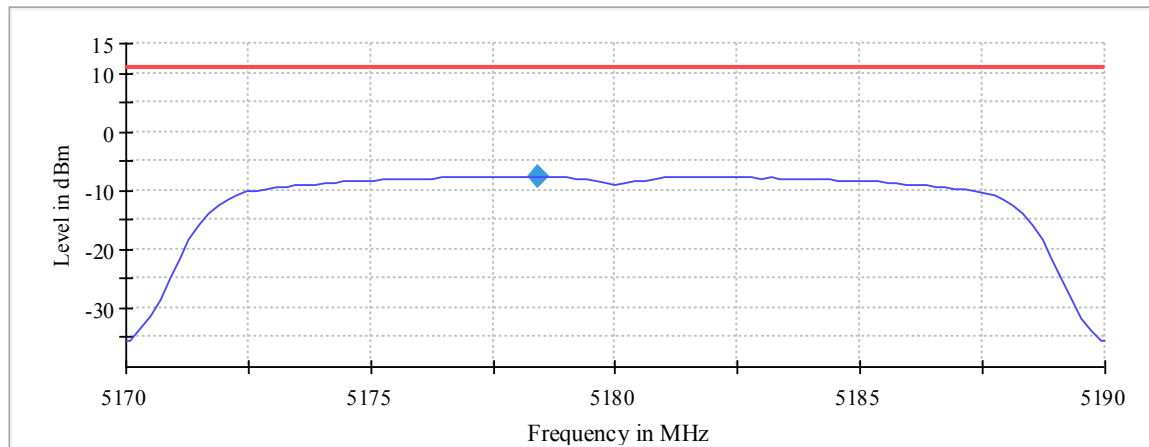
Test Results 80 MHz				
EUT Mode	Peak Power Spectral Density			Limit Max [dBm]
	U-NII-3 (5725 MHz to 5850 MHz)			
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 6	--	2.1	--	30.0

Comment:	---
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Verdict	- PASS -	see next plots
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Plot 195: Mode 1, U-NII-1, Peak PSD, low channel

Power Spectral Density (SA-1)

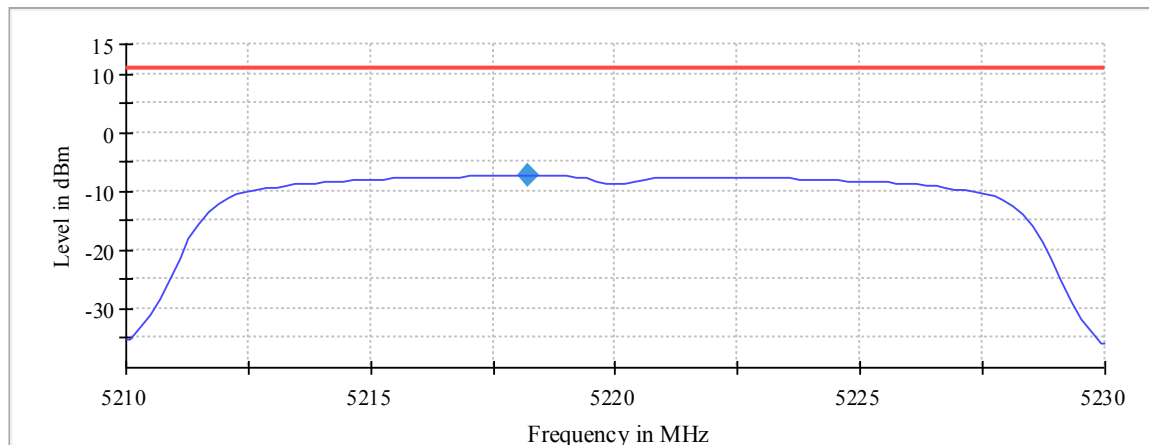


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5178.415842	-7.640	11.0	PASS

Plot 196: Mode 1, U-NII-1, Peak PSD, mid channel

Power Spectral Density (SA-1)

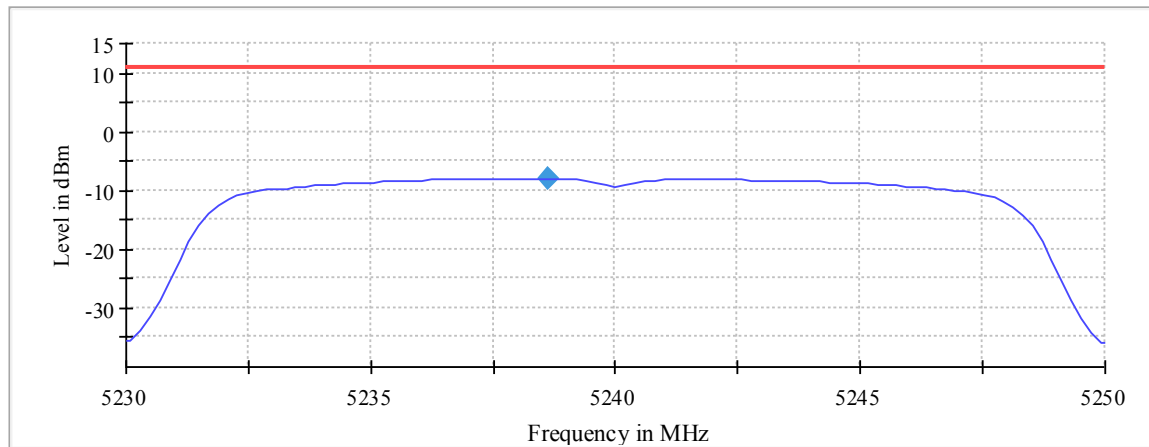


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5220.000000	5218.217822	-7.257	11.0	PASS

Plot 197: Mode 1, U-NII-1, Peak PSD, high channel

Power Spectral Density (SA-1)

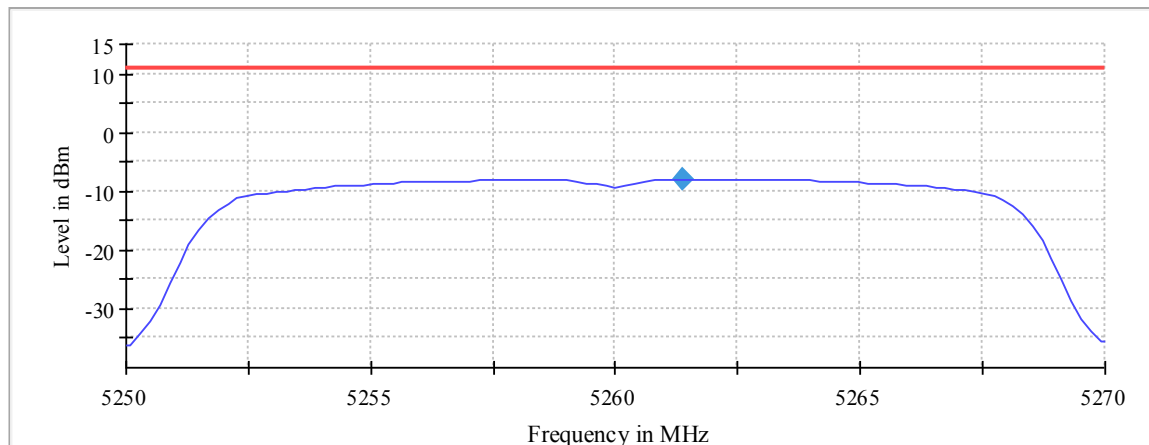


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5238.613861	-7.923	11.0	PASS

Plot 198: Mode 1, U-NII-2A, Peak PSD, low channel

Power Spectral Density (SA-1)

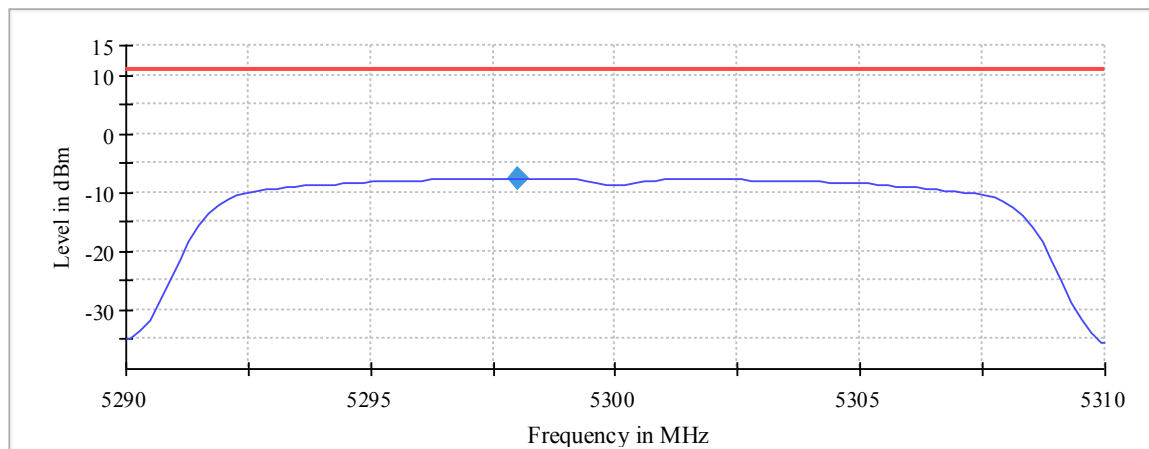


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5261.386139	-8.002	11.0	PASS

Plot 199: Mode 1, U-NII-2A, Peak PSD, mid channel

Power Spectral Density (SA-1)

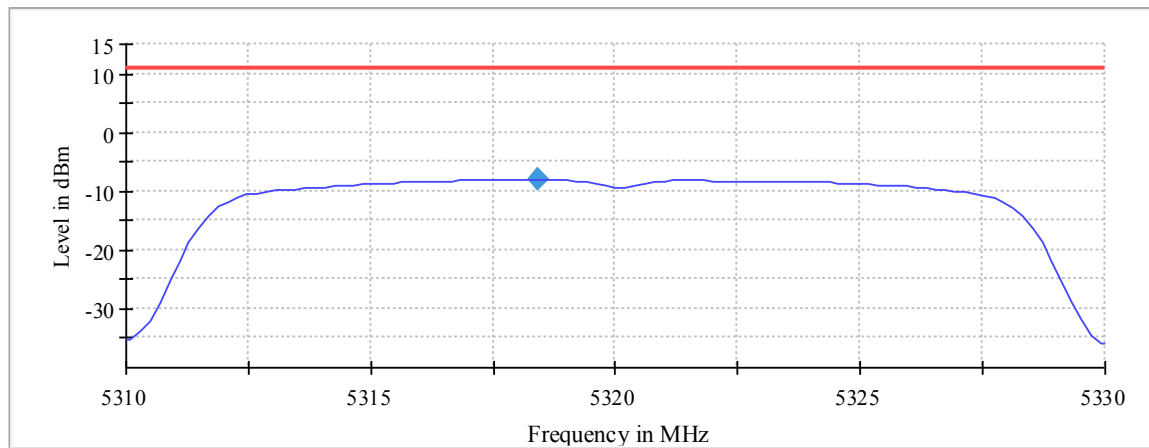


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5298.019802	-7.558	11.0	PASS

Plot 200: Mode 1, U-NII-2A, Peak PSD, high channel

Power Spectral Density (SA-1)

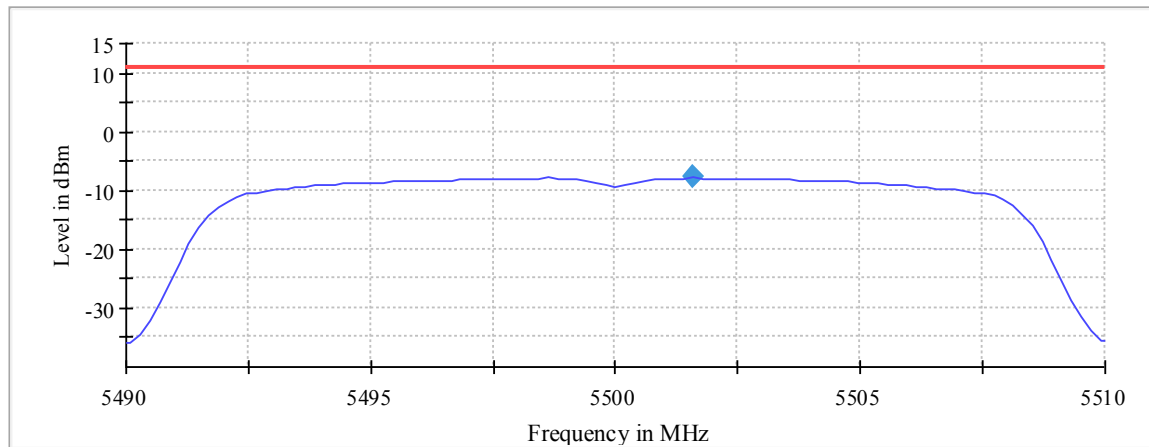


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5320.000000	5318.415842	-7.977	11.0	PASS

Plot 201: Mode 1, U-NII-2C, Peak PSD, low channel

Power Spectral Density (SA-1)

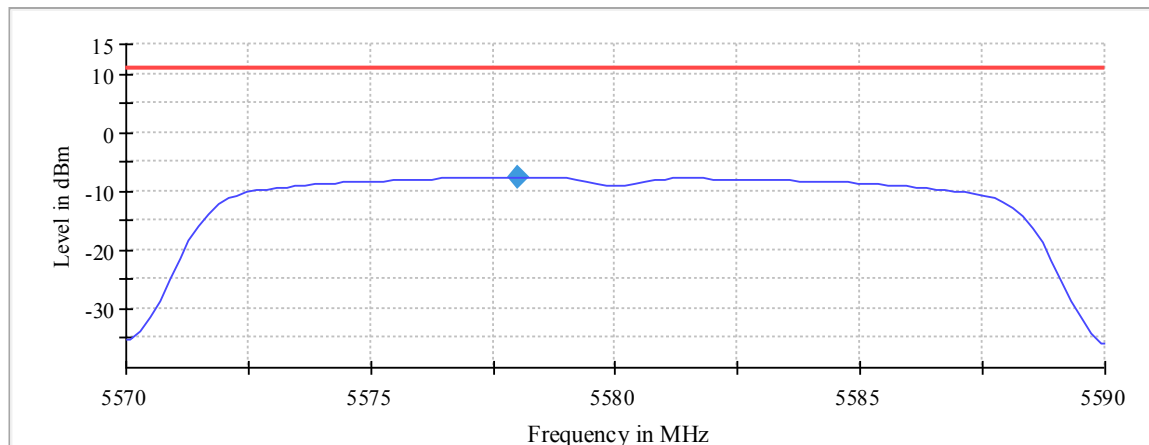


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5500.000000	5501.584158	-7.819	11.0	PASS

Plot 202: Mode 1, U-NII-2C, Peak PSD, mid channel

Power Spectral Density (SA-1)

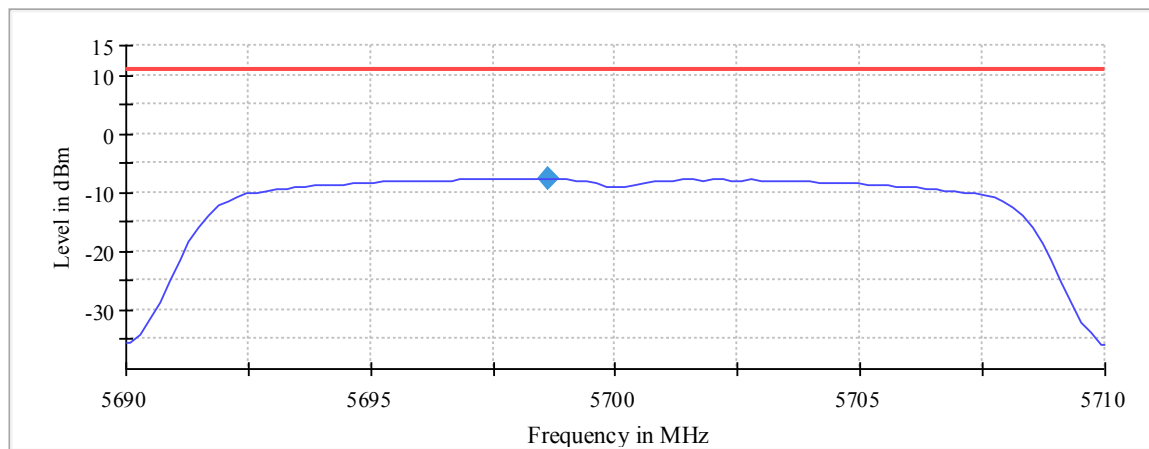


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5580.000000	5578.019802	-7.637	11.0	PASS

Plot 203: Mode 1, U-NII-2C, Peak PSD, high channel

Power Spectral Density (SA-1)

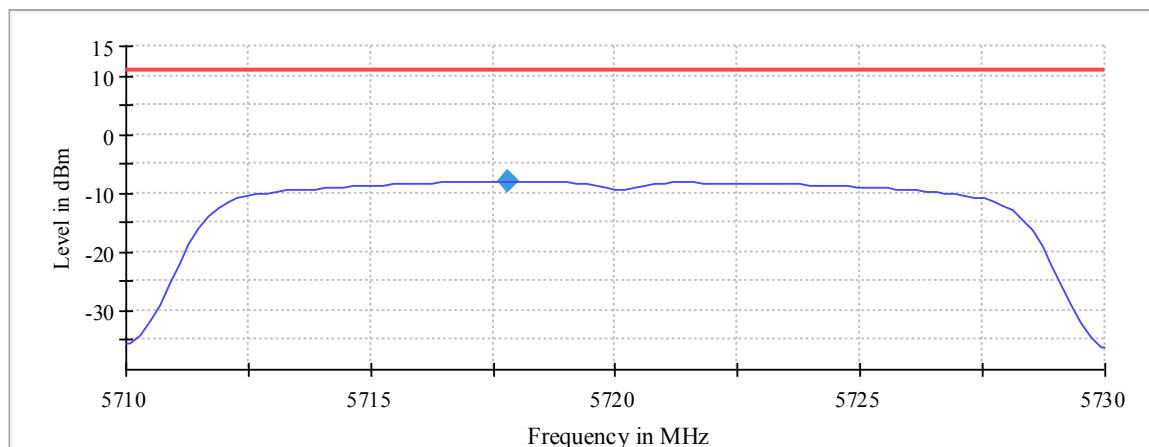


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5700.000000	5698.613861	-7.675	11.0	PASS

Plot 204: Mode 1, U-NII-2C, Peak PSD, channel 144

Power Spectral Density (SA-1)

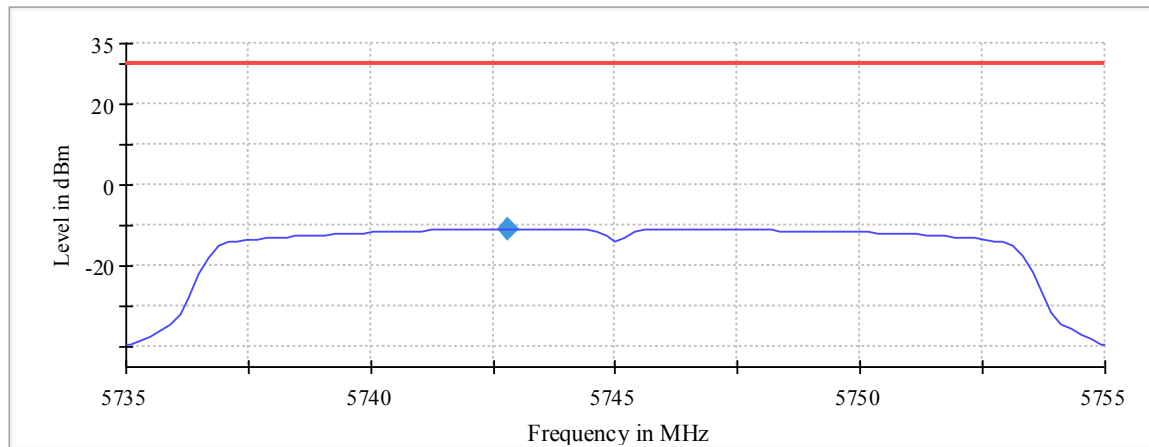


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5720.000000	5717.821782	-7.955	11.0	PASS

Plot 205: Mode 1, U-NII-3, Peak PSD, low channel

Power Spectral Density (SA-1)

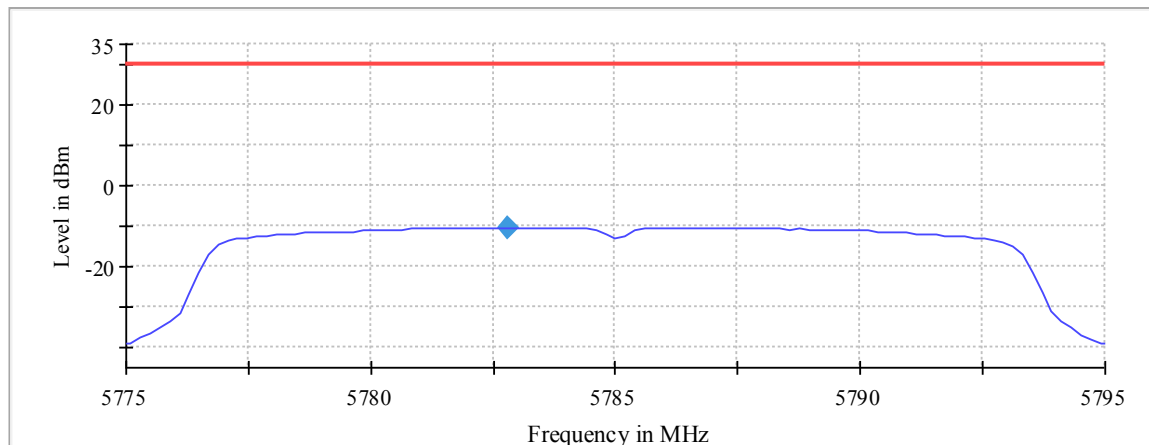


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5742.821782	-10.919	30.0	PASS

Plot 206: Mode 1, U-NII-3, Peak PSD, mid channel

Power Spectral Density (SA-1)

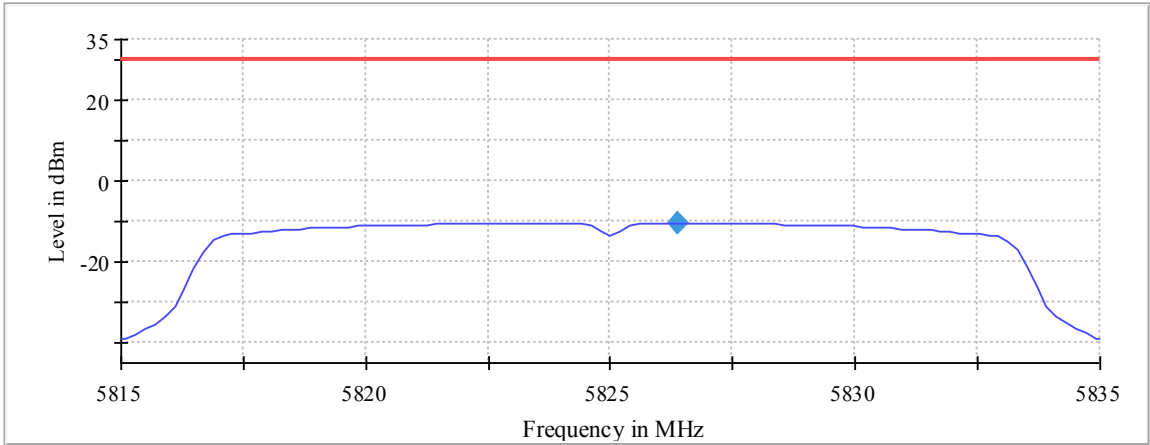


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5782.821782	-10.356	30.0	PASS

Plot 207: Mode 1, U-NII-3, Peak PSD, high channel

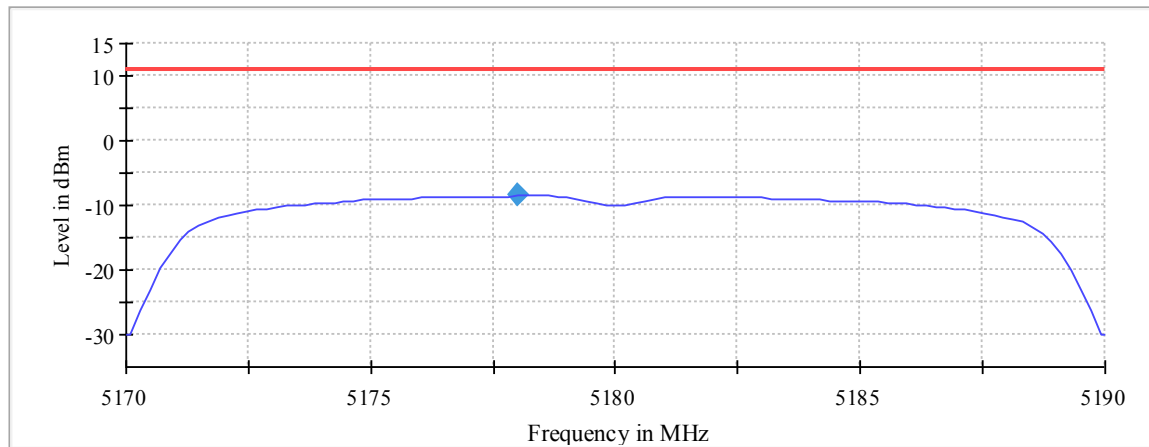
Power Spectral Density (SA-1)



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5826.386139	-10.404	30.0	PASS

Plot 208: Mode 2, U-NII-1, Peak PSD, low channel

Power Spectral Density (SA-1)

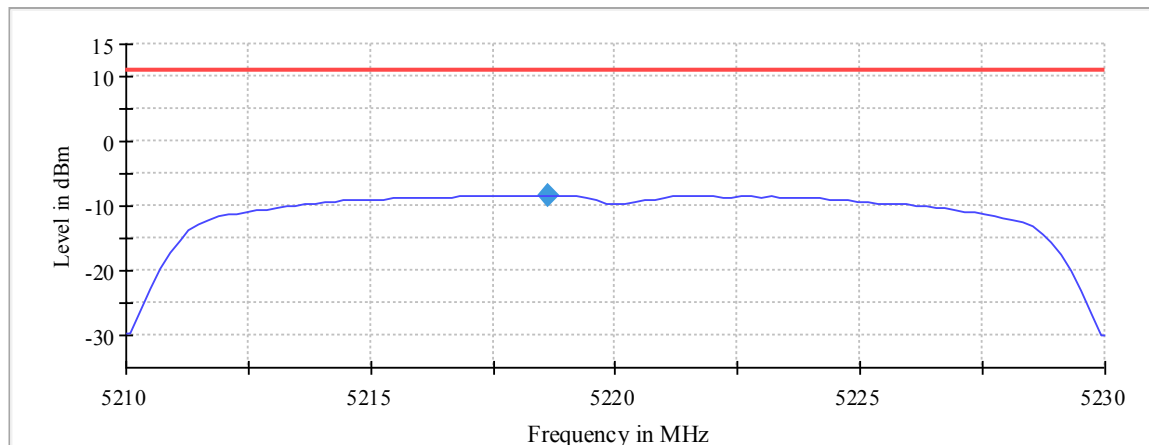


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5178.019802	-8.539	11.0	PASS

Plot 209: Mode 2, U-NII-1, Peak PSD, mid channel

Power Spectral Density (SA-1)

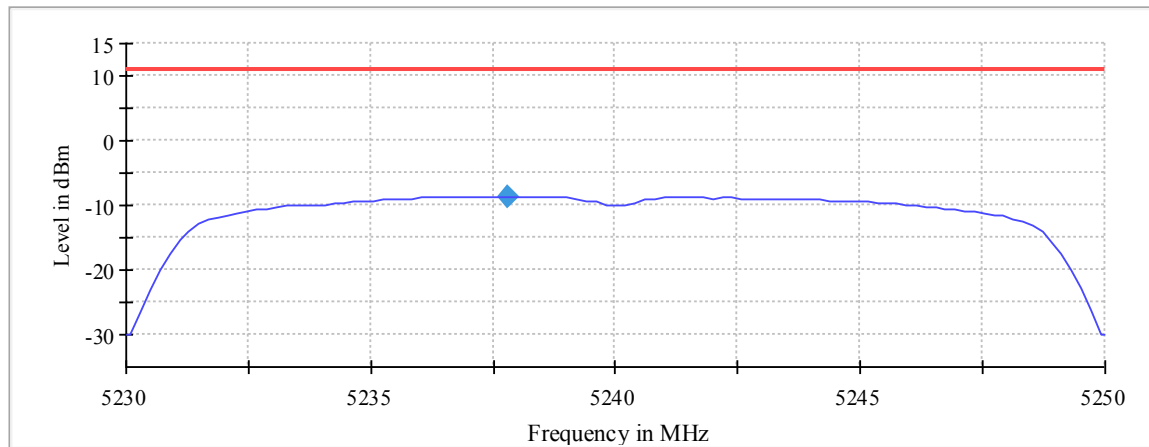


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5220.000000	5218.613861	-8.287	11.0	PASS

Plot 210: Mode 2, U-NII-1, Peak PSD, high channel

Power Spectral Density (SA-1)

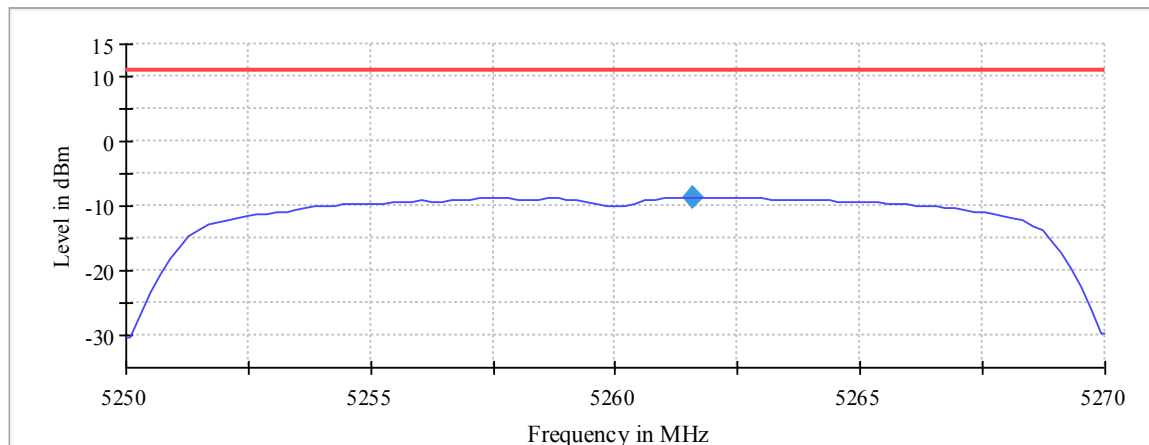


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5237.821782	-8.676	11.0	PASS

Plot 211: Mode 2, U-NII-2A, Peak PSD, low channel

Power Spectral Density (SA-1)

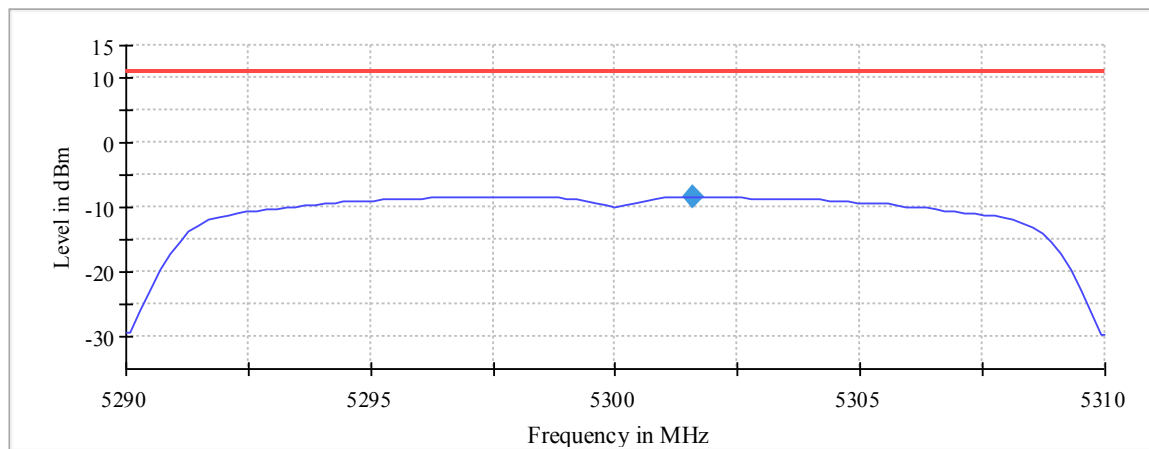


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5261.584158	-8.691	11.0	PASS

Plot 212: Mode 2, U-NII-2A, Peak PSD, mid channel

Power Spectral Density (SA-1)

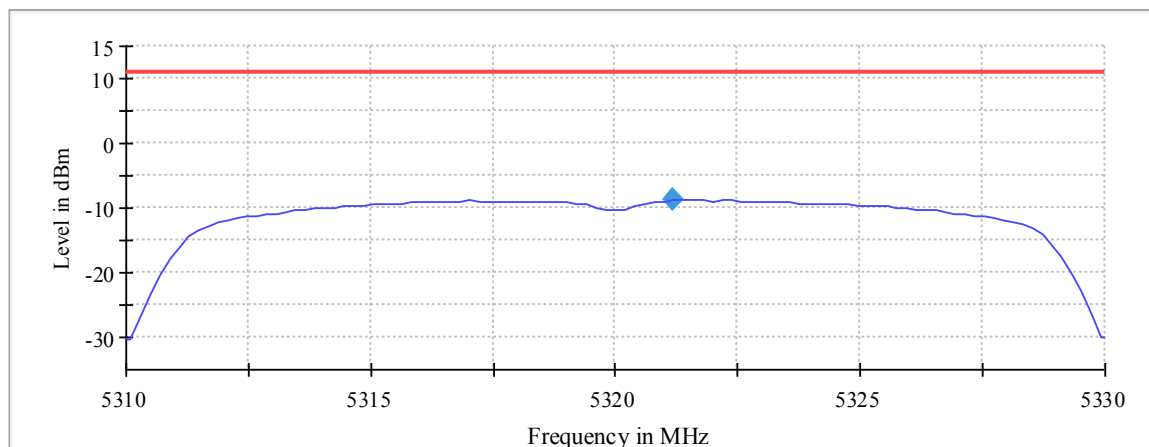


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5301.584158	-8.412	11.0	PASS

Plot 213: Mode 2, U-NII-2A, Peak PSD, high channel

Power Spectral Density (SA-1)

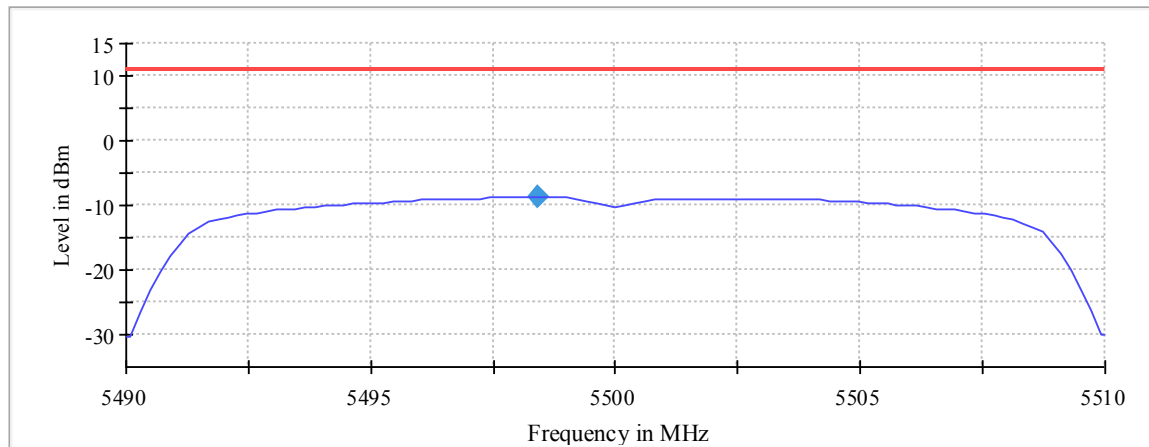


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5320.000000	5321.188119	-8.870	11.0	PASS

Plot 214: Mode 2, U-NII-2C, Peak PSD, low channel

Power Spectral Density (SA-1)

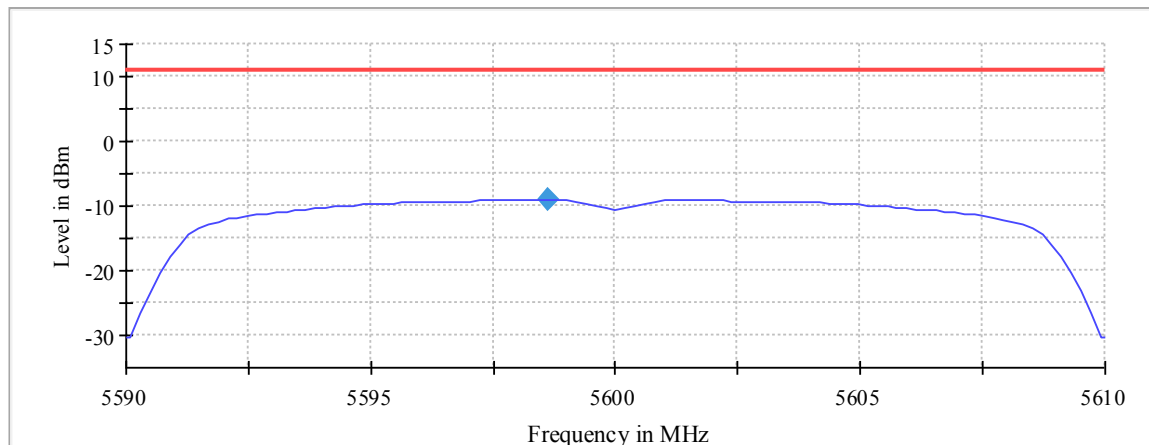


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5500.000000	5498.415842	-8.766	11.0	PASS

Plot 215: Mode 2, U-NII-2C, Peak PSD, mid channel

Power Spectral Density (SA-1)

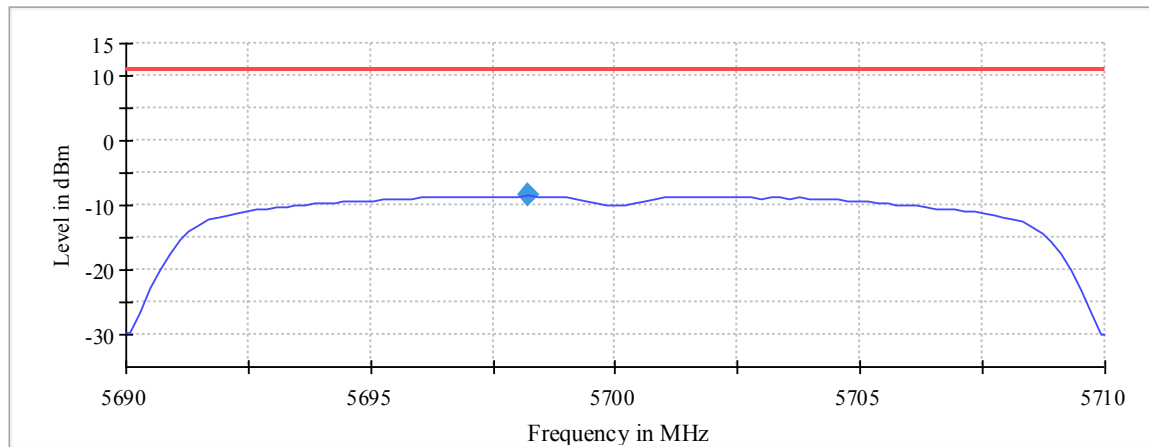


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5598.613861	-8.933	11.0	PASS

Plot 216: Mode 2, U-NII-2C, Peak PSD, high channel

Power Spectral Density (SA-1)

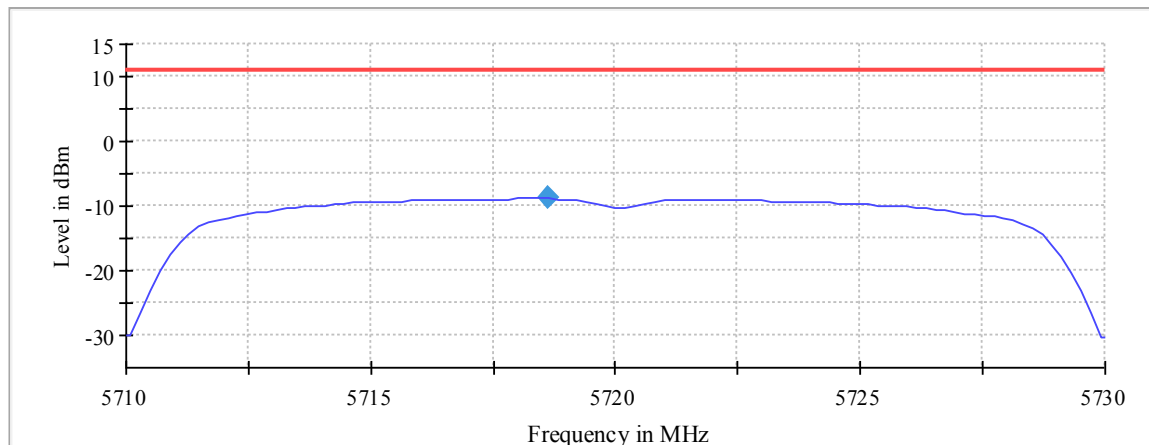


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5700.000000	5698.217822	-8.569	11.0	PASS

Plot 217: Mode 2, U-NII-2C, Peak PSD, channel 144

Power Spectral Density (SA-1)

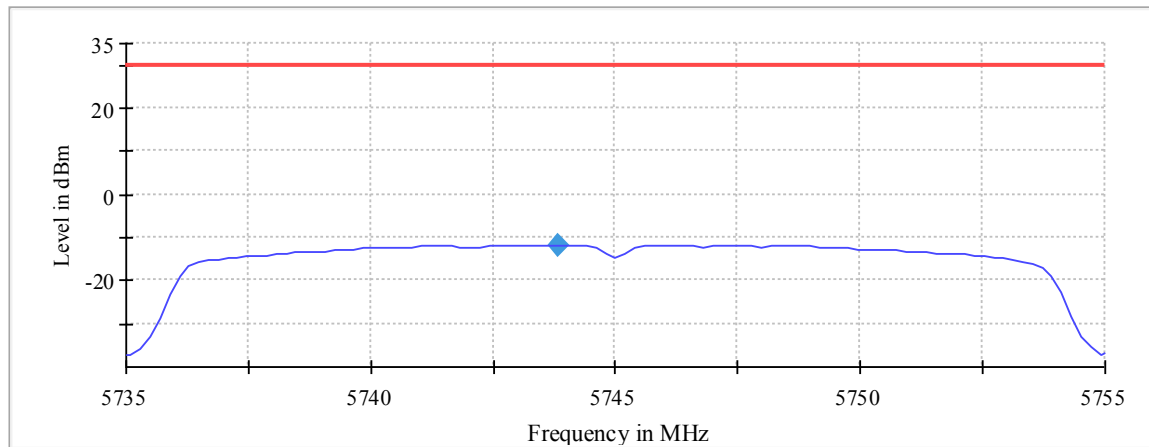


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5720.000000	5718.613861	-8.853	11.0	PASS

Plot 218: Mode 2, U-NII-3, Peak PSD, low channel

Power Spectral Density (SA-1)

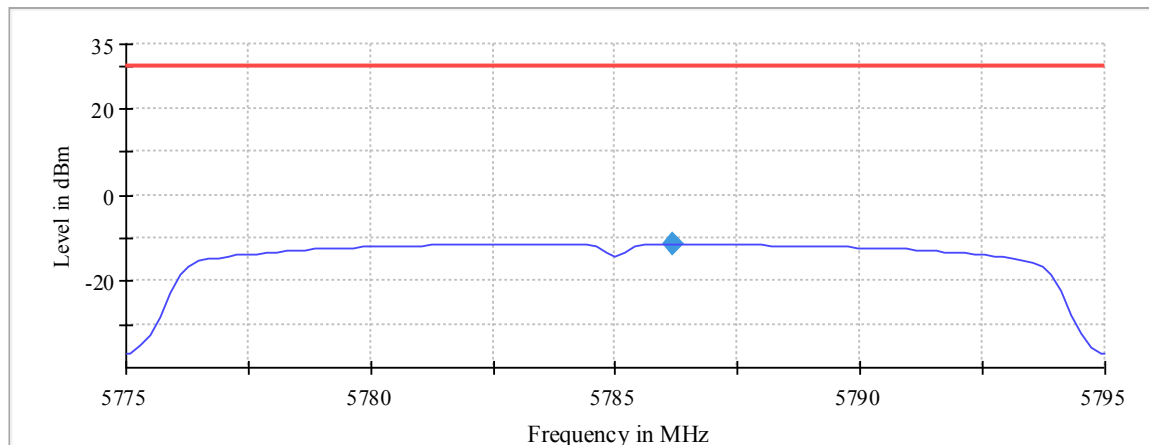


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5743.811881	-11.665	30.0	PASS

Plot 219: Mode 2, U-NII-3, Peak PSD, mid channel

Power Spectral Density (SA-1)

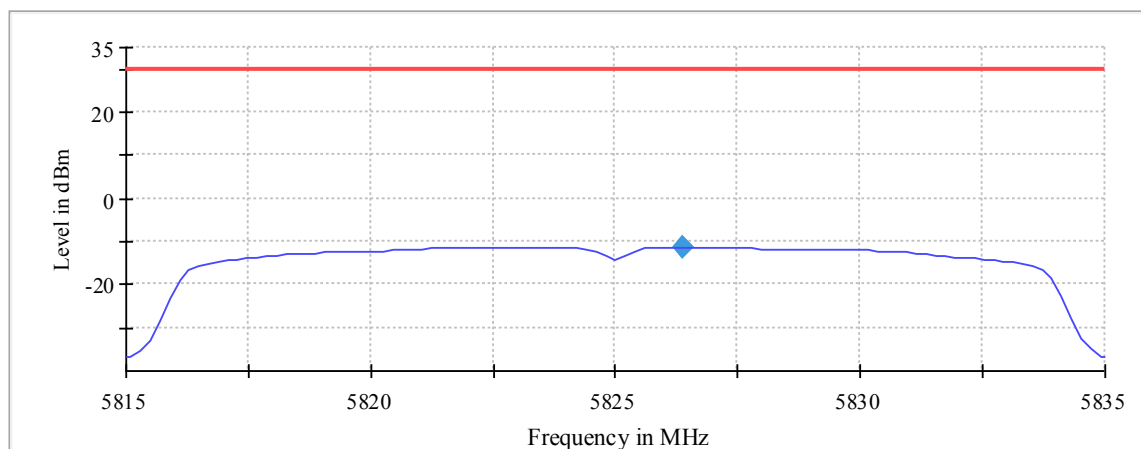


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5786.188119	-11.245	30.0	PASS

Plot 220: Mode 2, U-NII-3, Peak PSD, high channel

Power Spectral Density (SA-1)

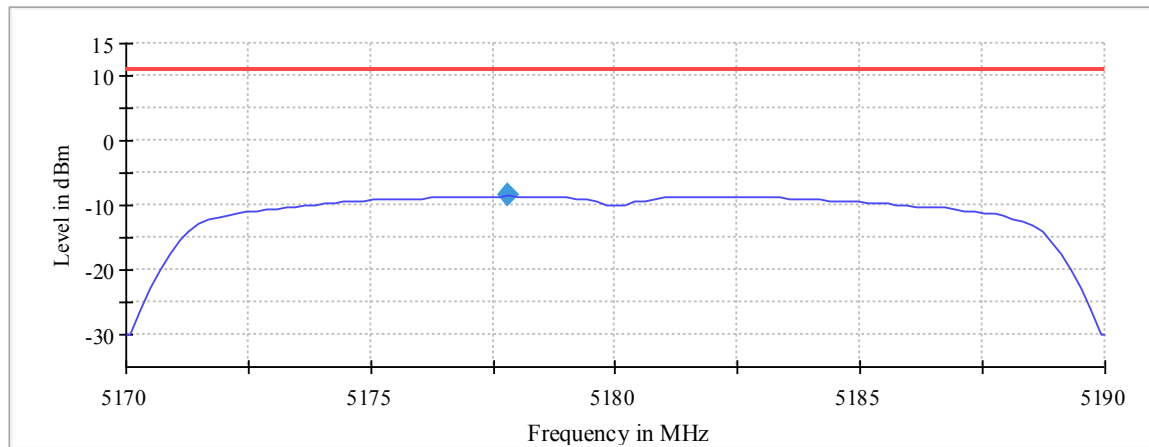


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5826.386139	-11.331	30.0	PASS

Plot 221: Mode 4, U-NII-1, Peak PSD, low channel

Power Spectral Density (SA-1)

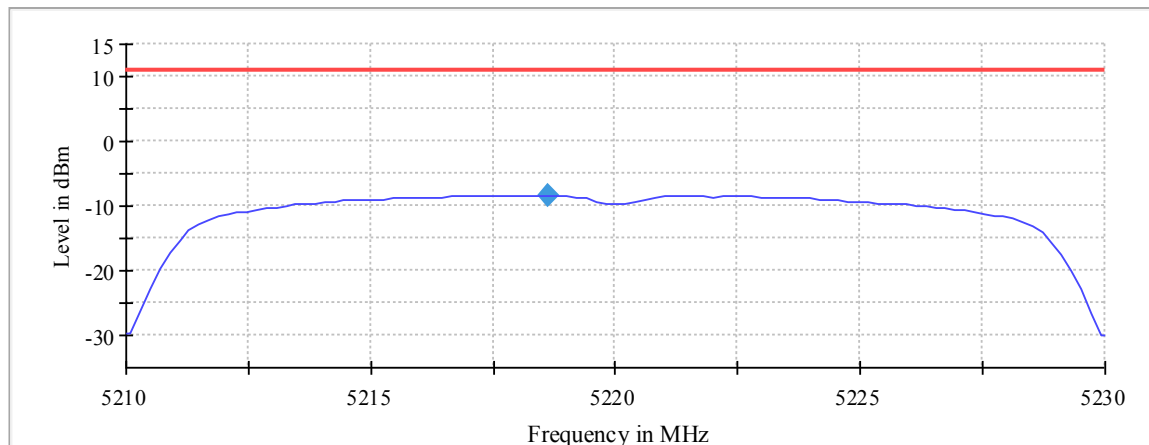


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5180.000000	5177.821782	-8.549	11.0	PASS

Plot 222: Mode 4, U-NII-1, Peak PSD, mid channel

Power Spectral Density (SA-1)

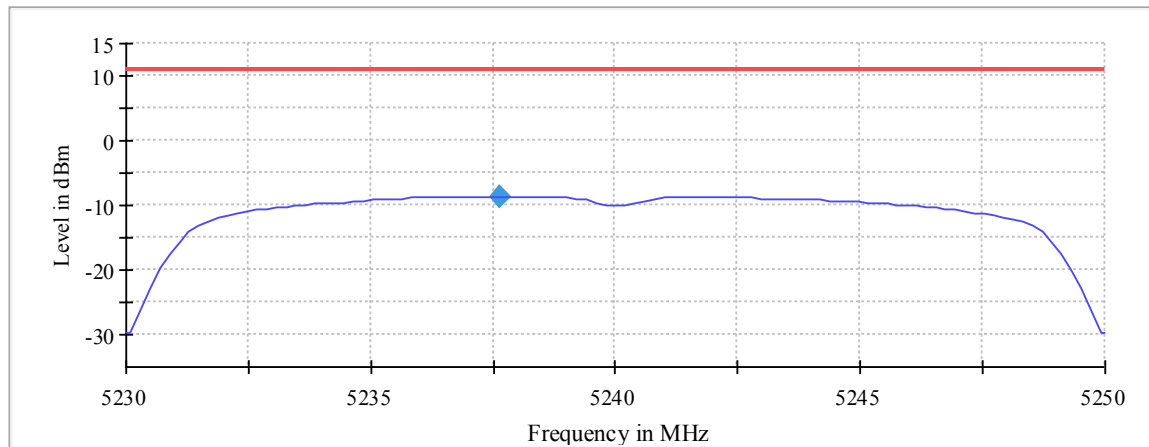


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5220.000000	5218.613861	-8.368	11.0	PASS

Plot 223: Mode 4, U-NII-1, Peak PSD, high channel

Power Spectral Density (SA-1)

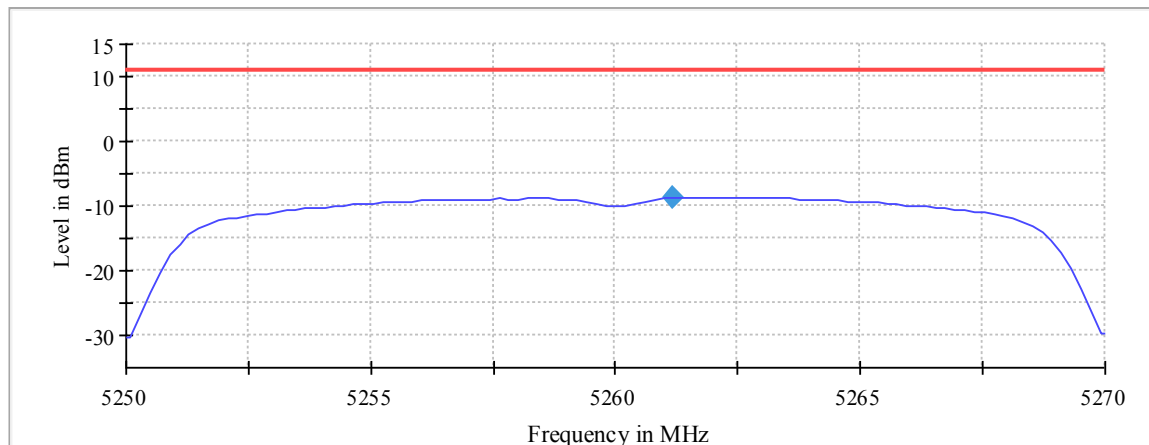


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5240.000000	5237.623762	-8.620	11.0	PASS

Plot 224: Mode 4, U-NII-2A, Peak PSD, low channel

Power Spectral Density (SA-1)

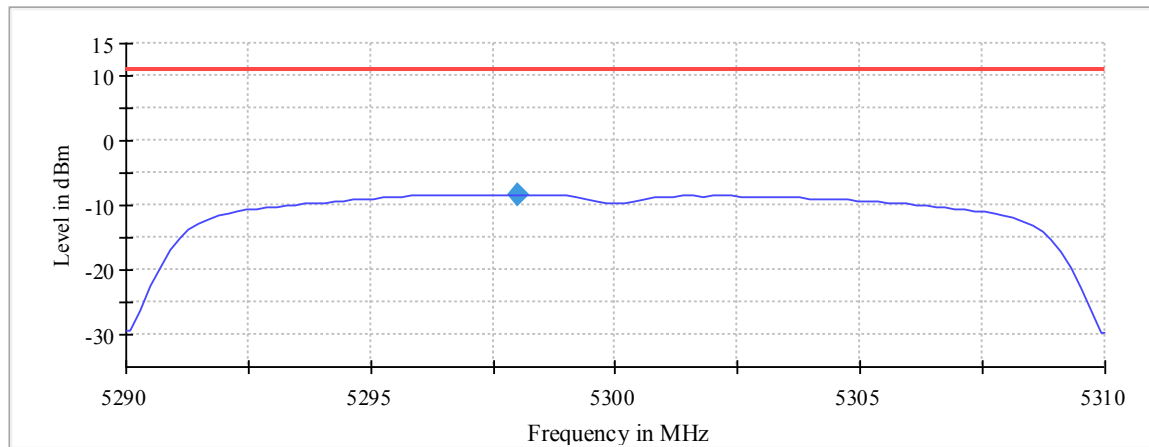


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5260.000000	5261.188119	-8.678	11.0	PASS

Plot 225: Mode 4, U-NII-2A, Peak PSD, mid channel

Power Spectral Density (SA-1)

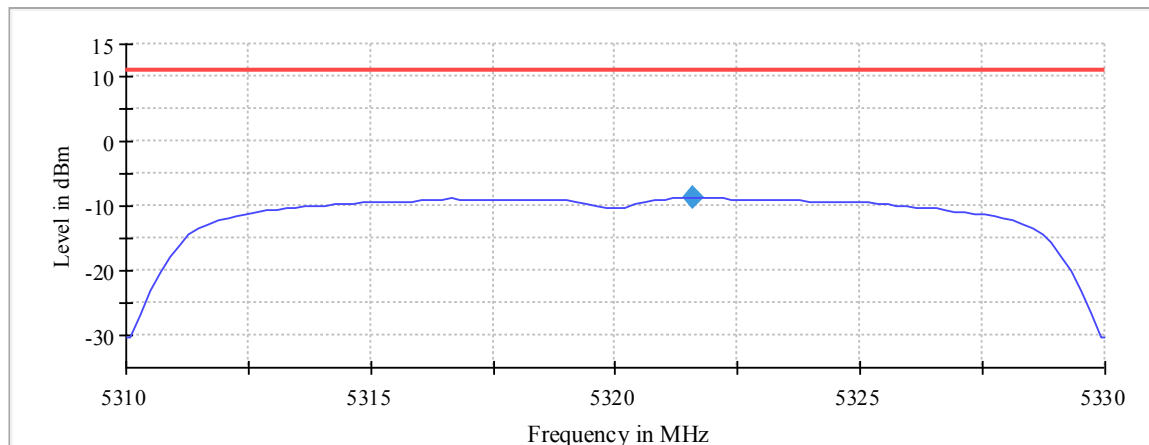


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5300.000000	5298.019802	-8.338	11.0	PASS

Plot 226: Mode 4, U-NII-2A, Peak PSD, high channel

Power Spectral Density (SA-1)

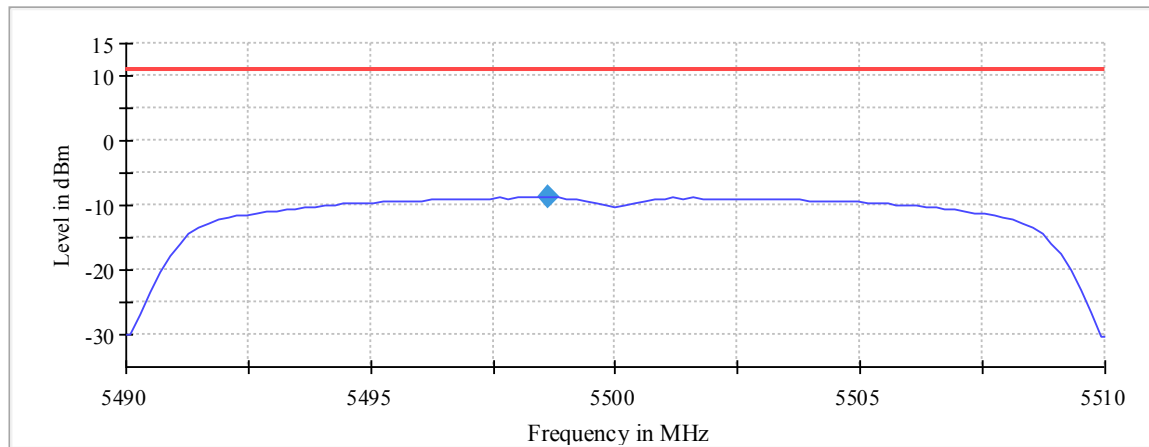


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5320.000000	5321.584158	-8.768	11.0	PASS

Plot 227: Mode 4, U-NII-2C, Peak PSD, low channel

Power Spectral Density (SA-1)

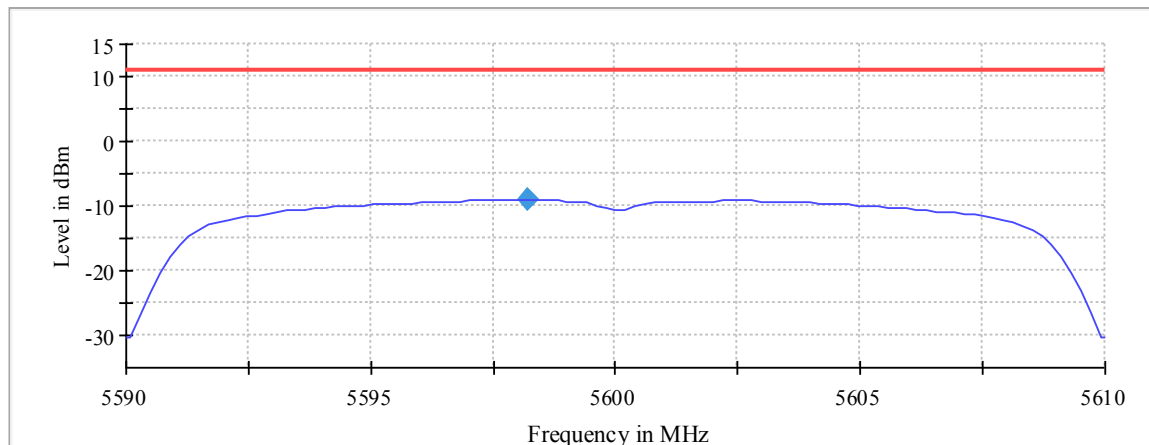


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5500.000000	5498.613861	-8.852	11.0	PASS

Plot 228: Mode 4, U-NII-2C, Peak PSD, mid channel

Power Spectral Density (SA-1)

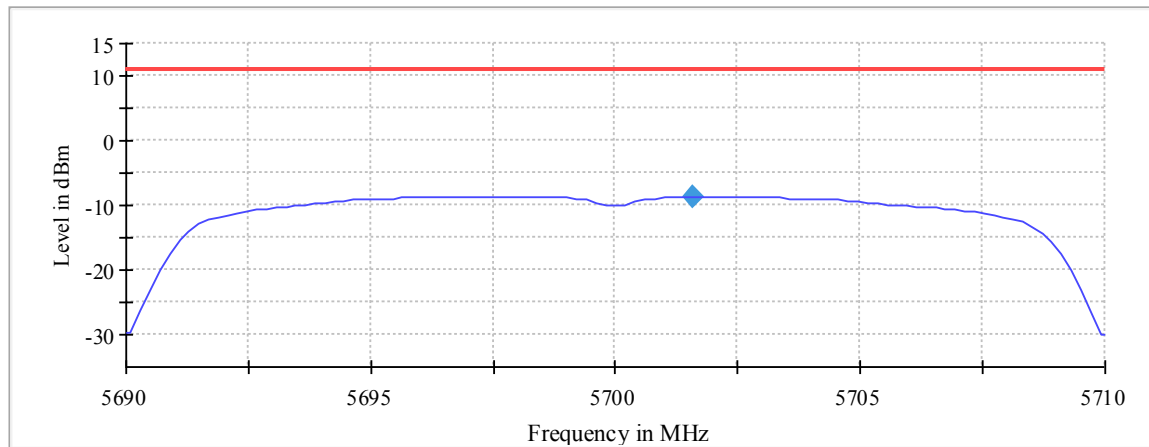


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5598.217822	-8.982	11.0	PASS

Plot 229: Mode 4, U-NII-2C, Peak PSD, high channel

Power Spectral Density (SA-1)

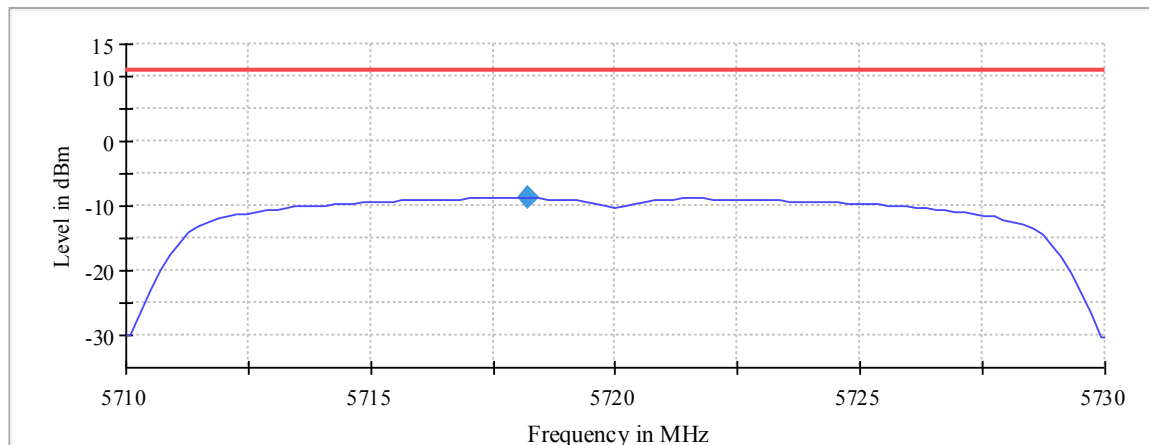


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5700.000000	5701.584158	-8.673	11.0	PASS

Plot 230: Mode 4, U-NII-2C, Peak PSD, channel 144

Power Spectral Density (SA-1)

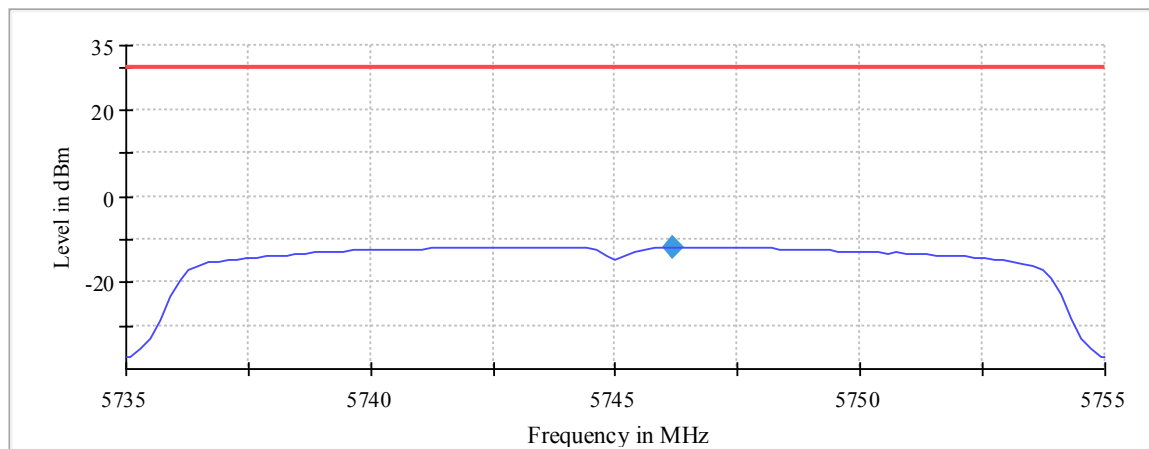


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5720.000000	5718.217822	-8.831	11.0	PASS

Plot 231: Mode 4, U-NII-3, Peak PSD, low channel

Power Spectral Density (SA-1)

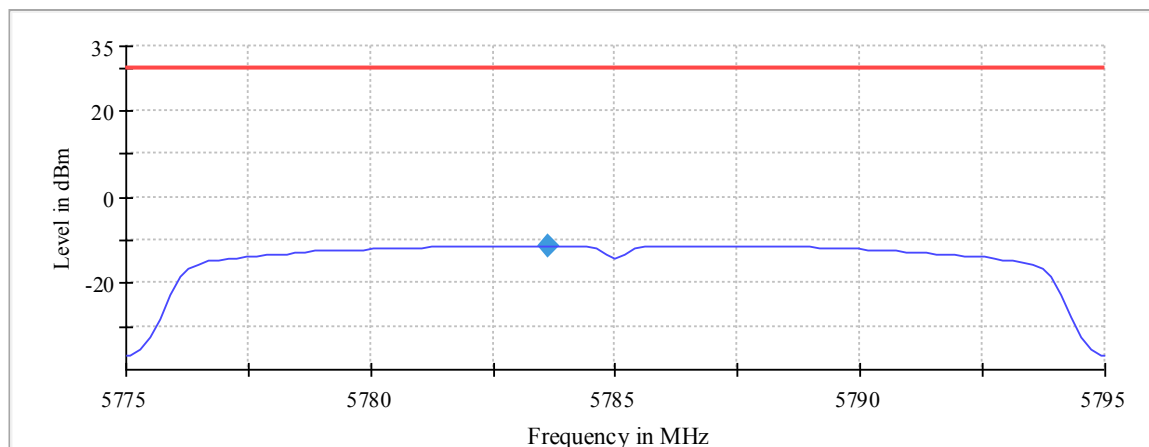


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5745.000000	5746.188119	-11.763	30.0	PASS

Plot 232: Mode 4, U-NII-3, Peak PSD, mid channel

Power Spectral Density (SA-1)

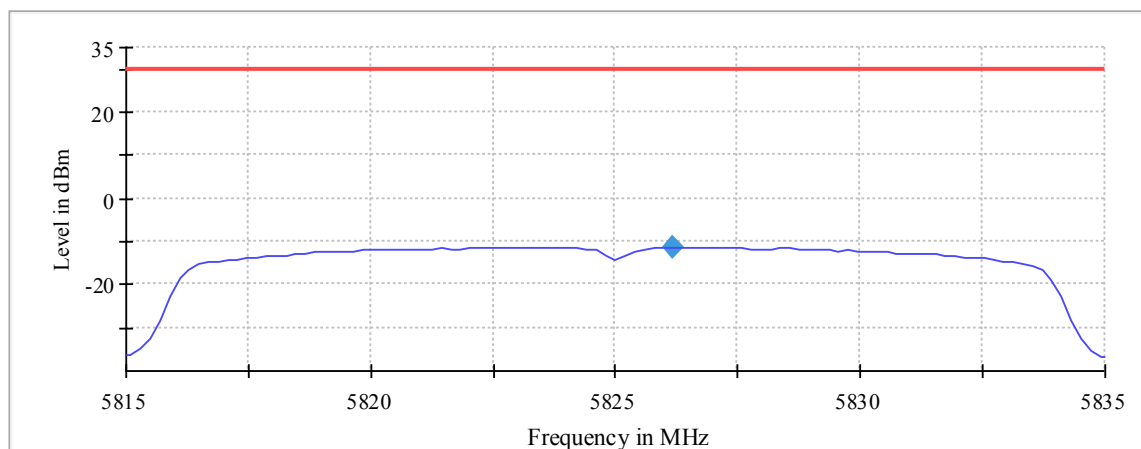


— Limit ◆ PSD — Sum Level

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5785.000000	5783.613861	-11.291	30.0	PASS

Plot 233: Mode 4, U-NII-3, Peak PSD, high channel

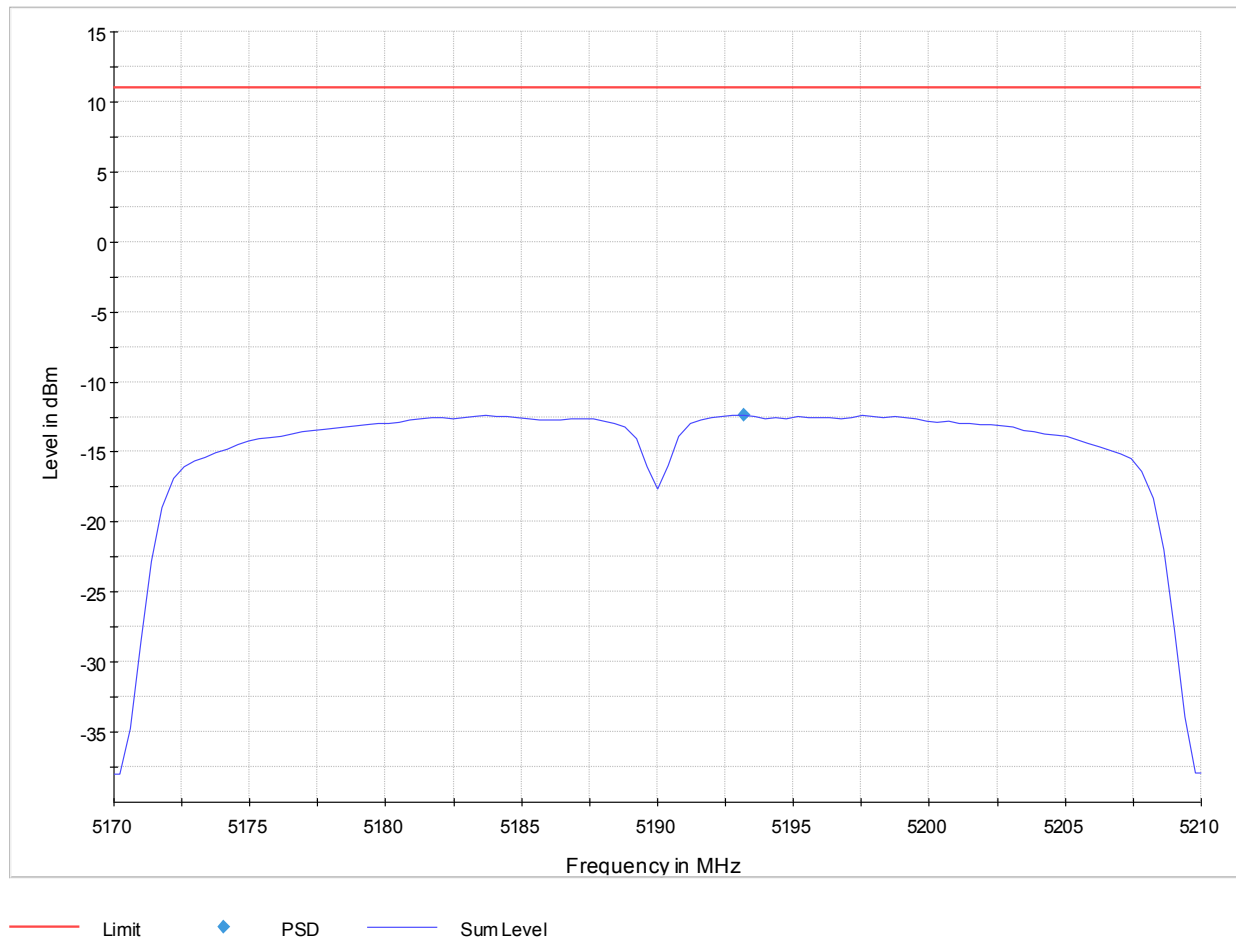
Power Spectral Density (SA-1)



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5825.000000	5826.188119	-11.333	30.0	PASS

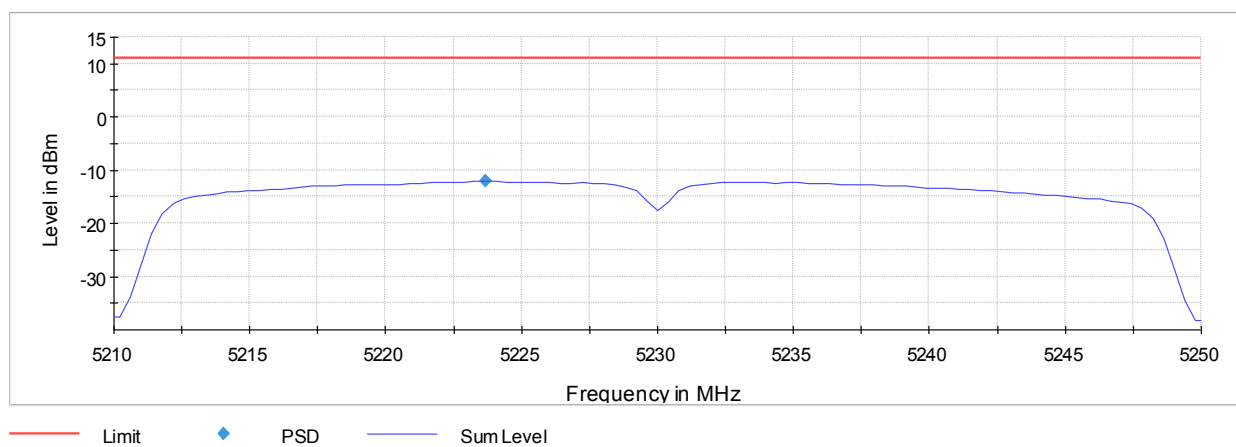
Plot 234: Mode 3, U-NII-1, Peak PSD, low channel

Power Spectral Density (SA-1)



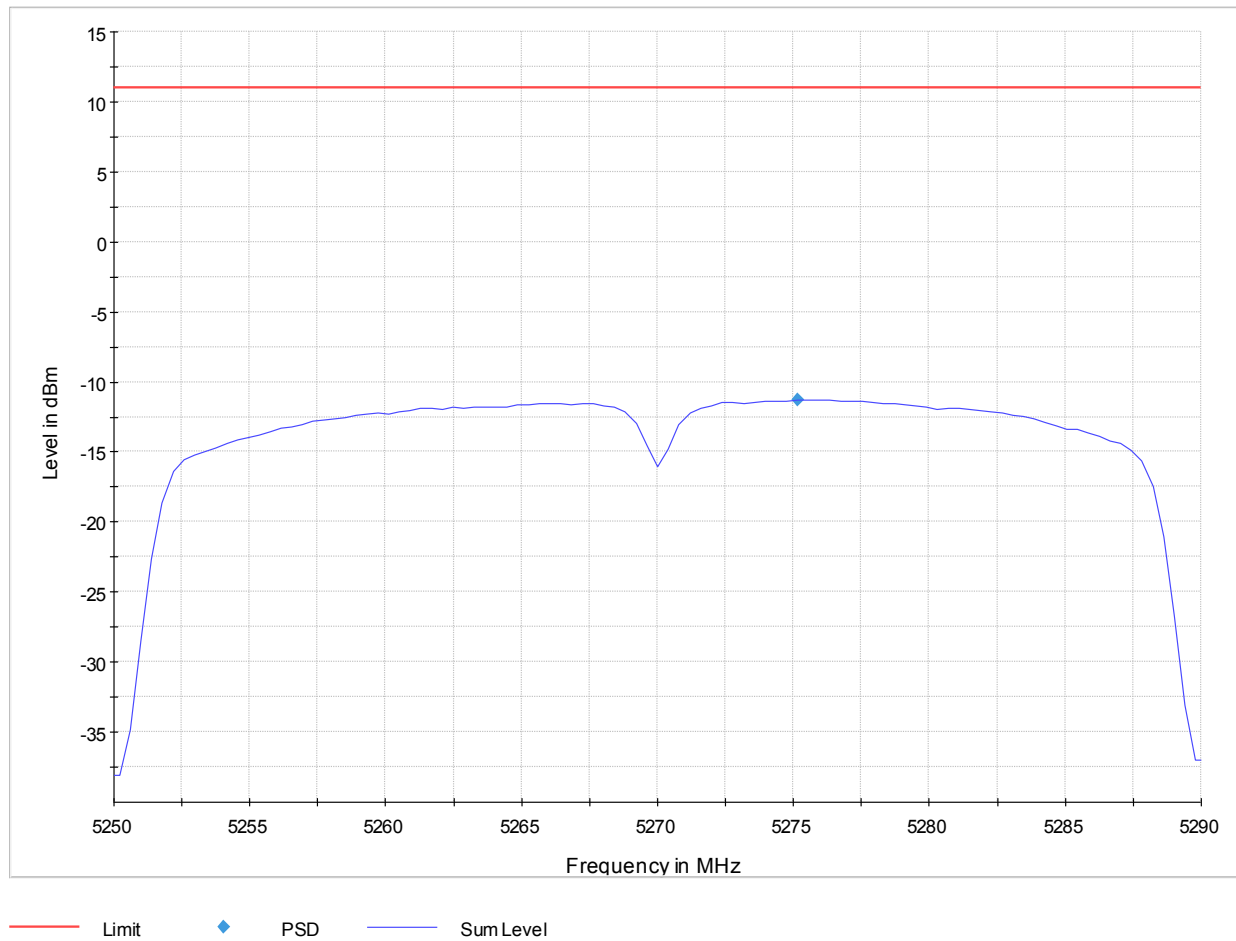
Plot 235: Mode 3, U-NII-1, Peak PSD, high channel

Power Spectral Density (SA-1)



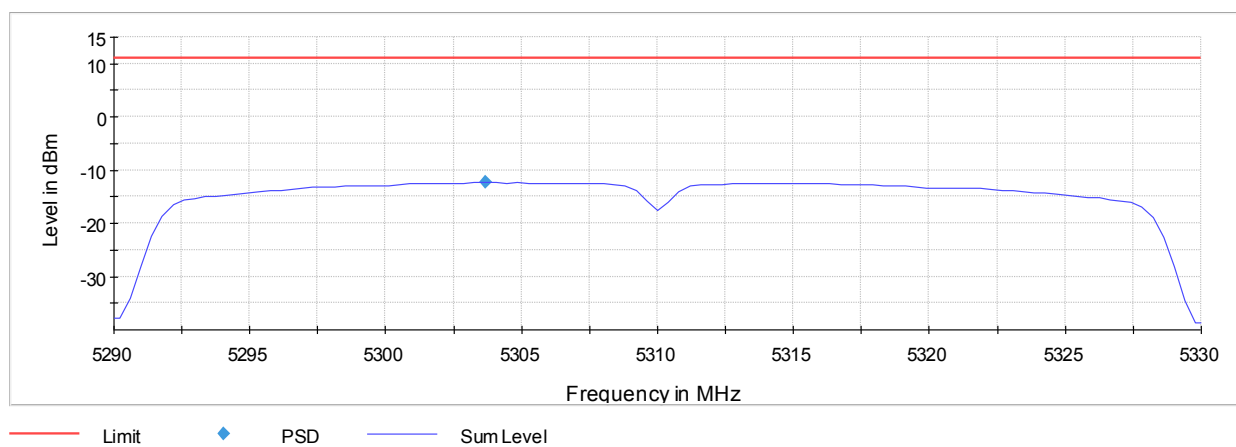
Plot 236: Mode 3, U-NII-2A, Peak PSD, low channel

Power Spectral Density (SA-1)



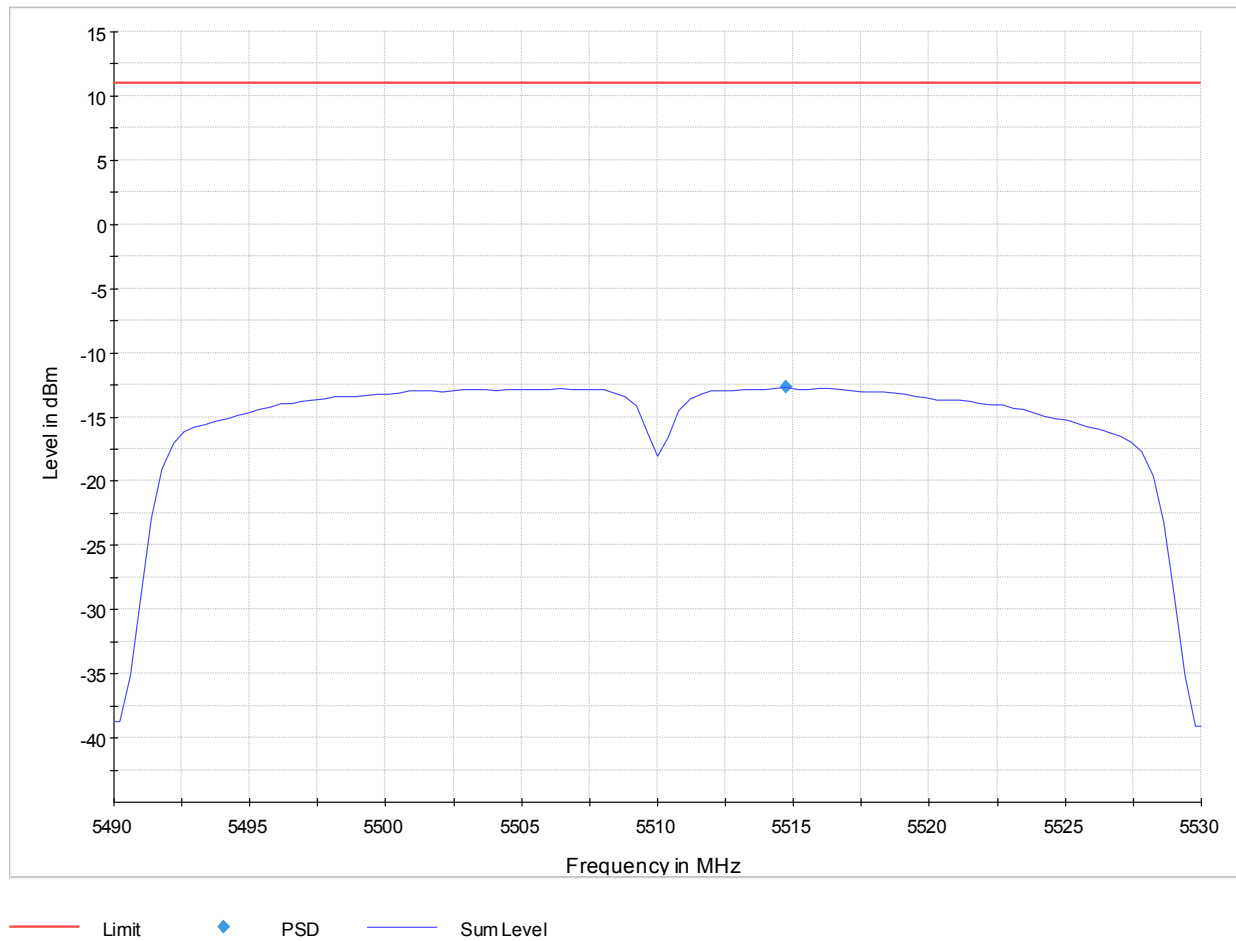
Plot 237: Mode 3, U-NII-2A, Peak PSD, high channel

Power Spectral Density (SA-1)



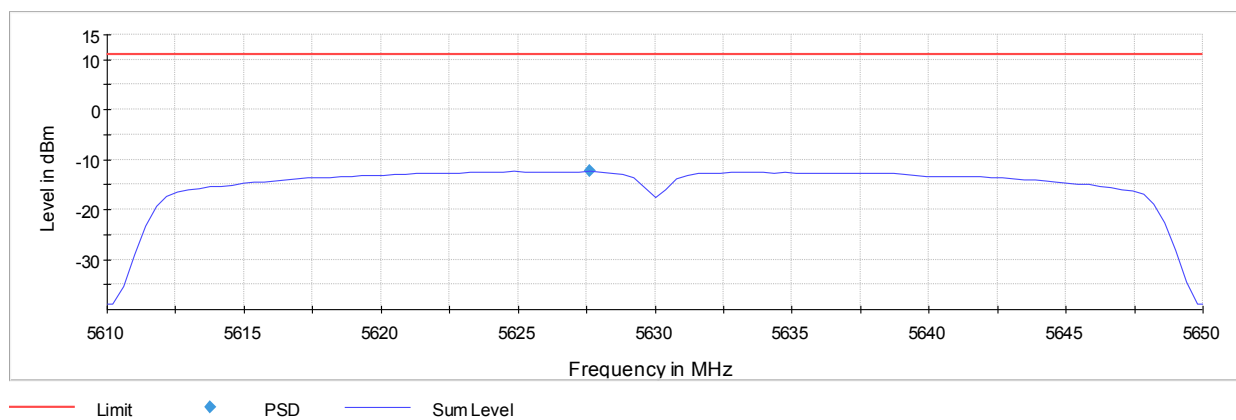
Plot 238: Mode 3, U-NII-2C, Peak PSD, low channel

Power Spectral Density (SA-1)

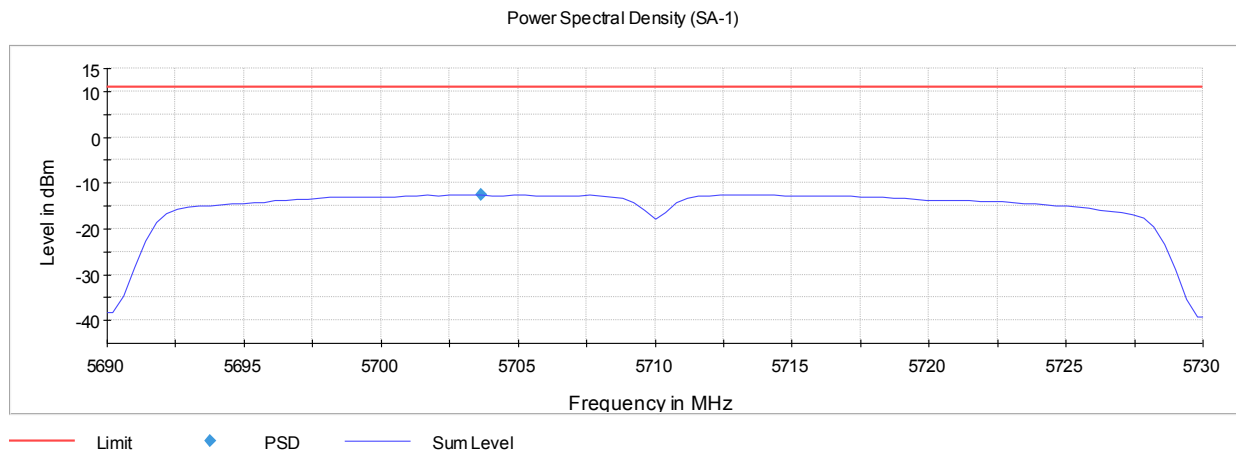


Plot 239: Mode 3, U-NII-2C, Peak PSD, mid channel

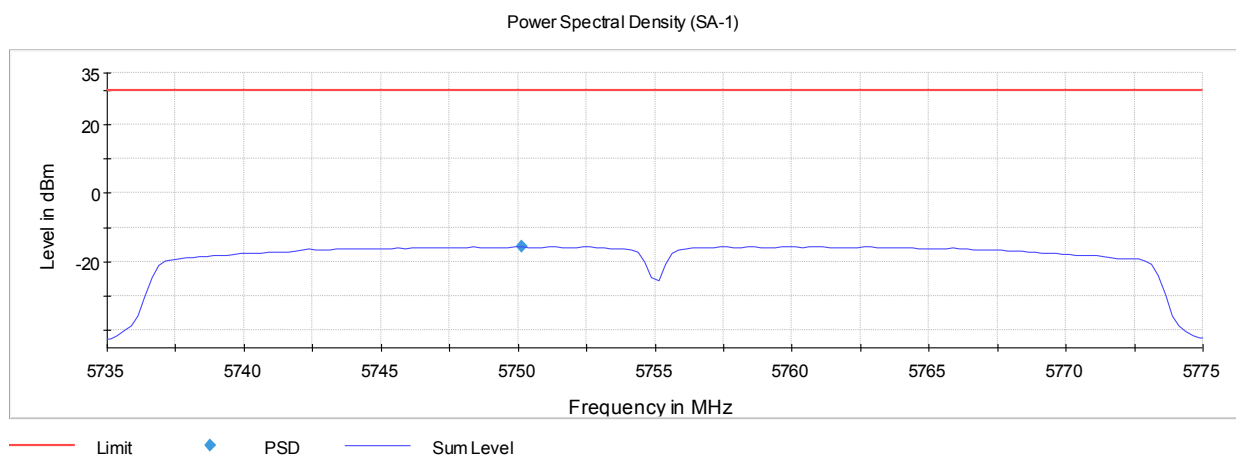
Power Spectral Density (SA-1)



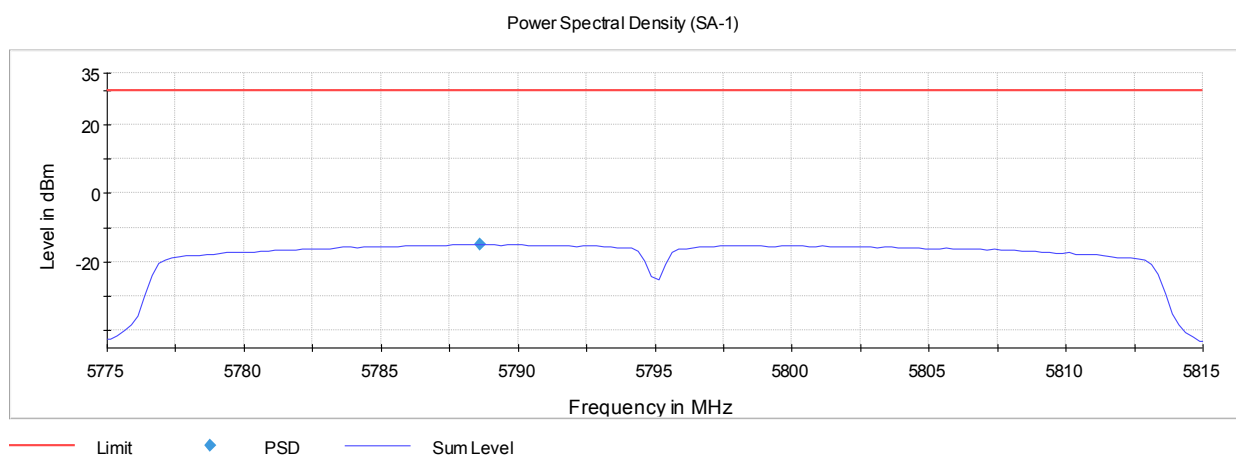
Plot 240: Mode 3, U-NII-2C, Peak PSD, high channel



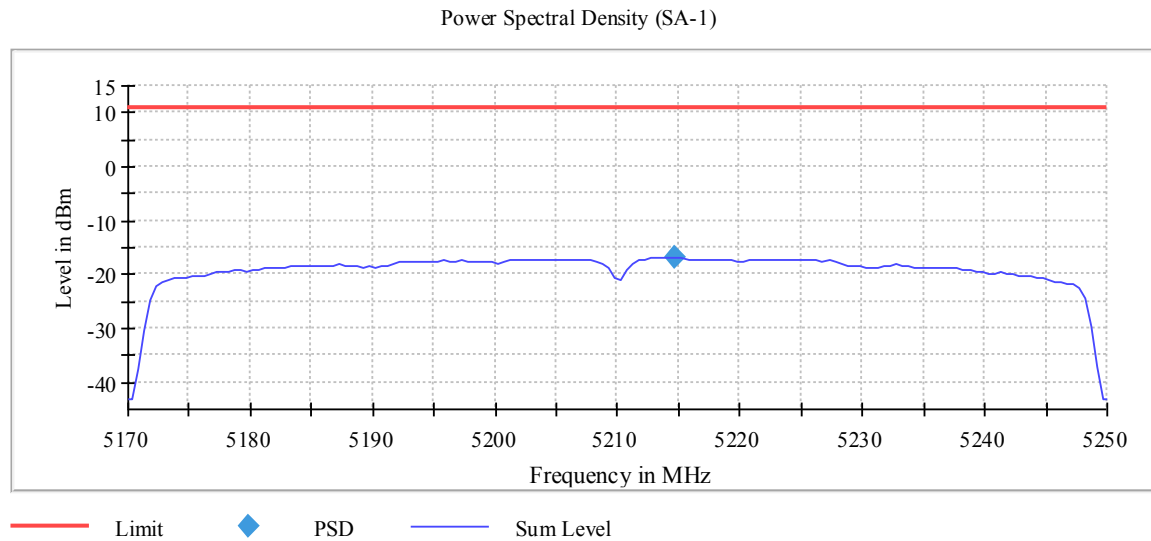
Plot 241: Mode 3, U-NII-3, Peak PSD, low channel



Plot 242: Mode 3, U-NII-3, Peak PSD, high channel

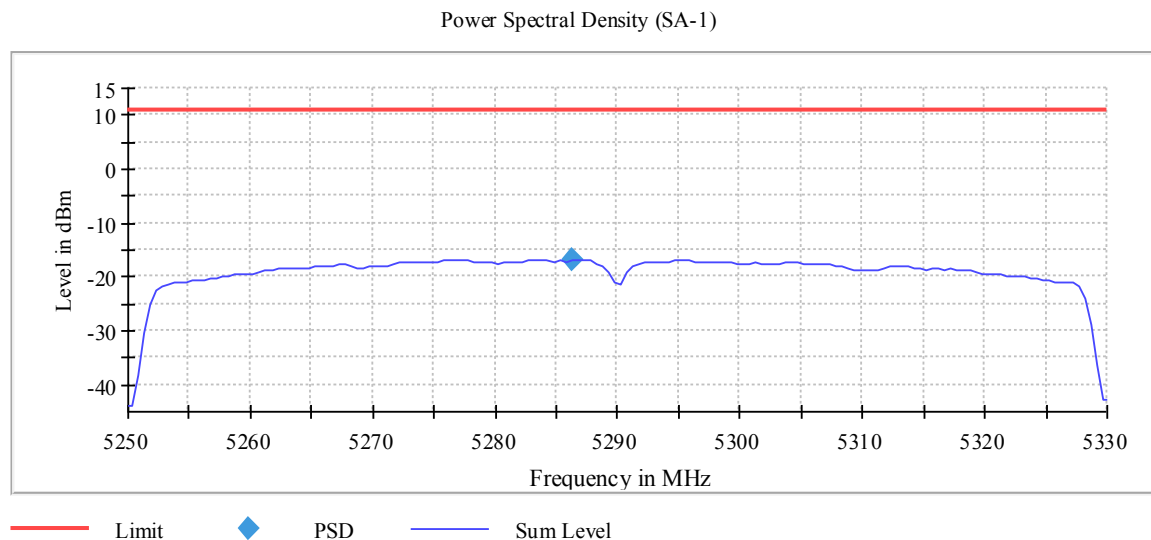


Plot 243: Mode 6, U-NII-1, Peak PSD, mid channel



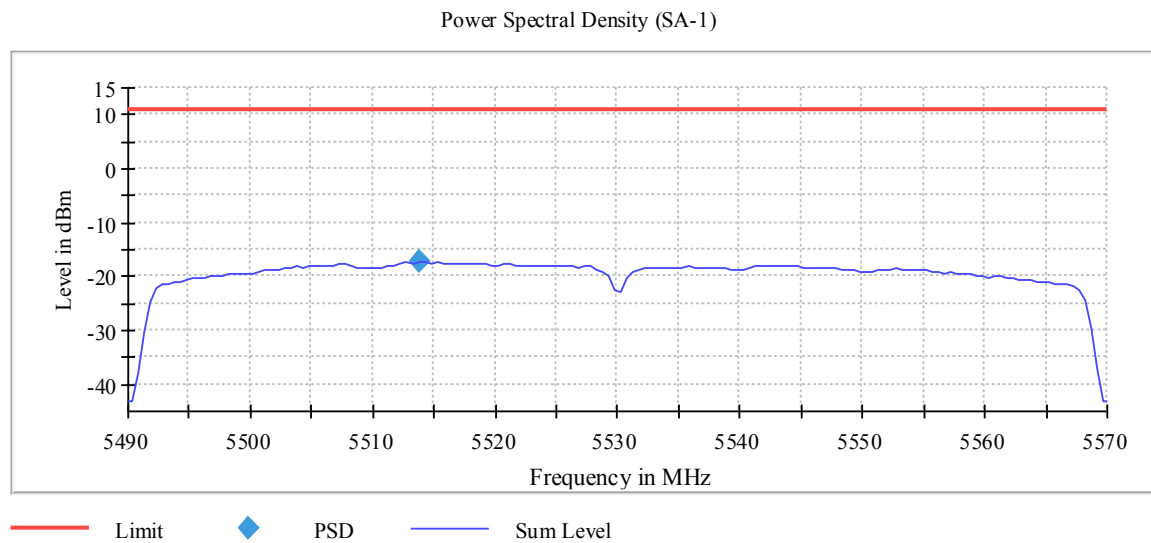
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5210.000000	5214.750000	-16.928	11.0	PASS

Plot 244: Mode 6, U-NII-2A, Peak PSD, mid channel



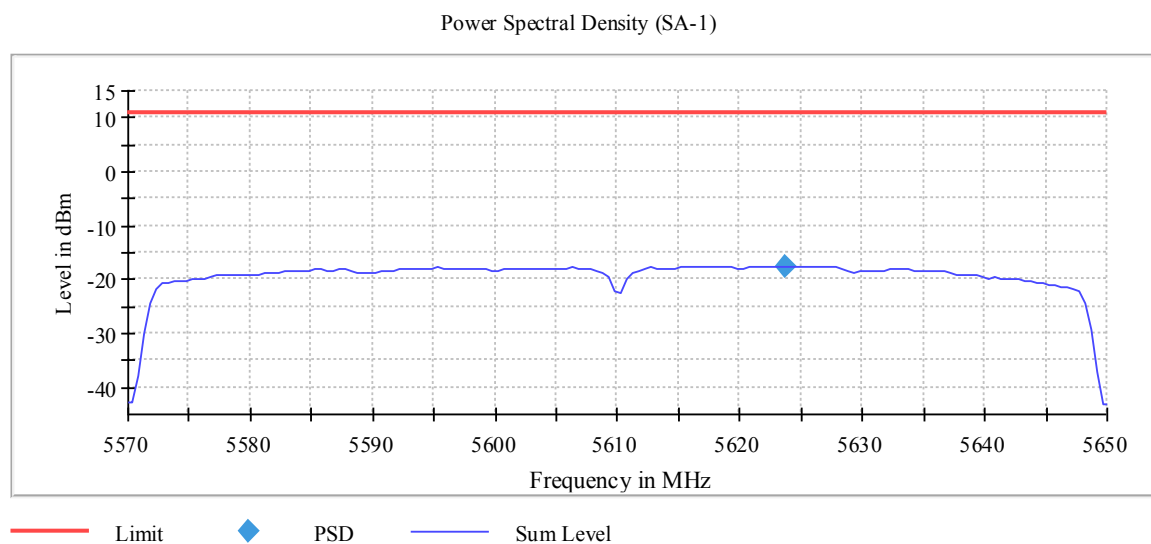
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5290.000000	5286.250000	-16.888	11.0	PASS

Plot 245: Mode 6, U-NII-2C, Peak PSD, low channel



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5530.000000	5530.750000	-17.314	11.0	PASS

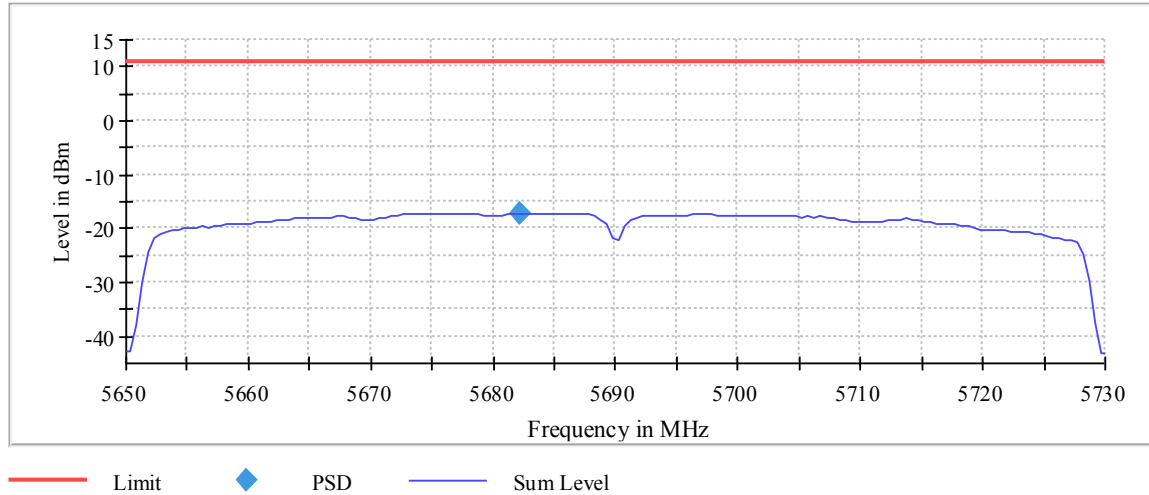
Plot 246: Mode 6, U-NII-2C, Peak PSD, mid channel



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5610.000000	5623.750000	-17.512	11.0	PASS

Plot 247: Mode 6, U-NII-2C, Peak PSD, high channel

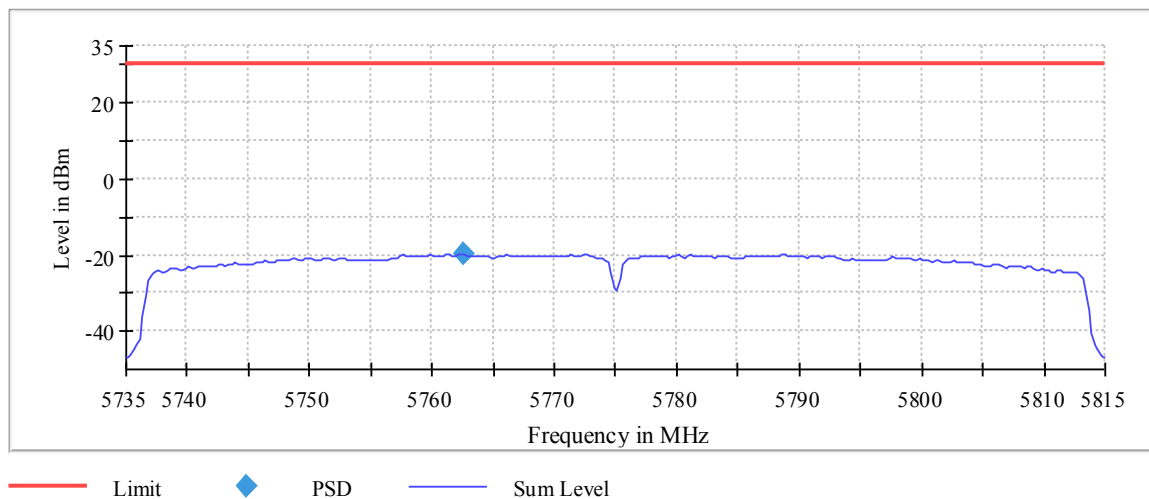
Power Spectral Density (SA-1)



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5690.000000	5682.250000	-17.081	11.0	PASS

Plot 248: Mode 6, U-NII-3, Peak PSD, mid channel

Power Spectral Density (SA-1)



DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5775.000000	5762.625000	-19.708	30.0	PASS

7.7 Band Edge Compliance (BEC), conducted

Applicability

This requirement applies to unlicensed National Information Infrastructure (U-NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.85 GHz bands.

Description

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.3.d ii

Unwanted band-edge emissions may be measured using either of the special band-edge measurement techniques (the marker-delta or integration methods). Note that the marker-delta method is primarily a radiated measurement technique that requires the 99% occupied bandwidth edge to be within 2 MHz of the authorized band edge, whereas the integration method can be used in either a radiated or conducted measurement without any special requirement with regards to the displacement of the unwanted emission(s) relative to the authorized bandwidth.

Limits

§15.407(b)

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725–5.85 GHz band:
 - (i) 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, and from 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, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Test procedure

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.3.d ii and ANSI C63.10-2013.

Channel filter is used for doing integration in the measurement device.

Test setup: 8.4 with conducted test sample 60337 (see section 5.2)

Test results 20 MHz

BEC	low channel [dBc]	high channel [dBc]	Limit [dBc]
Mode 1, U-NII-1 & U-NII-2A	> 45	> 40	≥ 27
Mode 1, U-NII-2C	> 40	> 50	≥ 27
Mode 1, U-NII-3	> 50	> 50	≥ 27

Test results 40 MHz

BEC	low channel [dBc]	high channel [dBc]	Limit [dBc]
Mode 3, U-NII-1 & U-NII-2A	> 40	> 40	≥ 27
Mode 3, U-NII-2C	> 40	> 40	≥ 27
Mode 3, U-NII-3	> 40	> 40	≥ 27

Test results 80 MHz

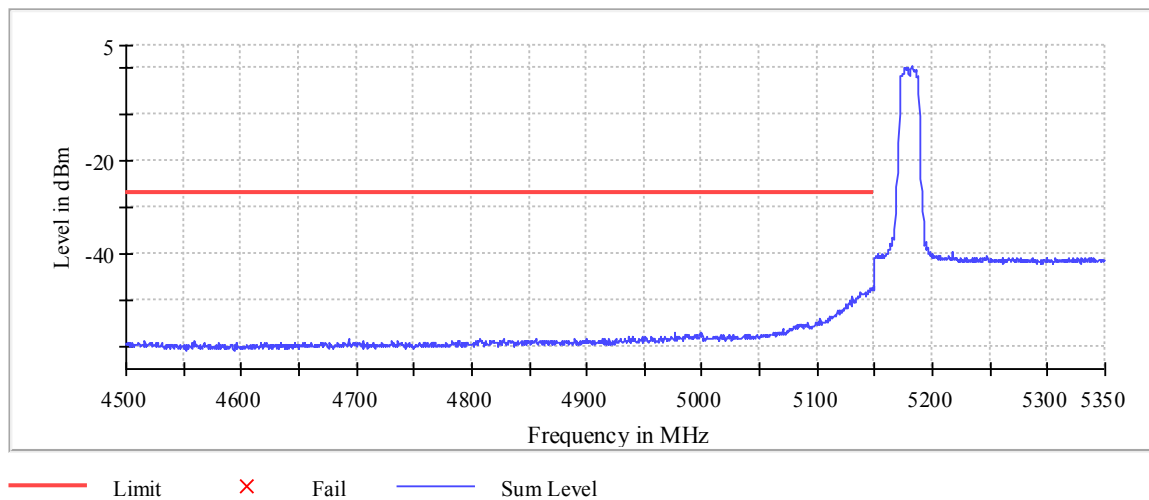
BEC	low channel [dBc]	high channel [dBc]	Limit [dBc]
Mode 6, U-NII-1 & U-NII-2A	> 35	> 45	≥ 27
Mode 6, U-NII-2C	> 45	> 50	≥ 27
Mode 6, U-NII-3	> 50	> 45	≥ 27

Comment:

Verdict**- PASS -***see next plots*

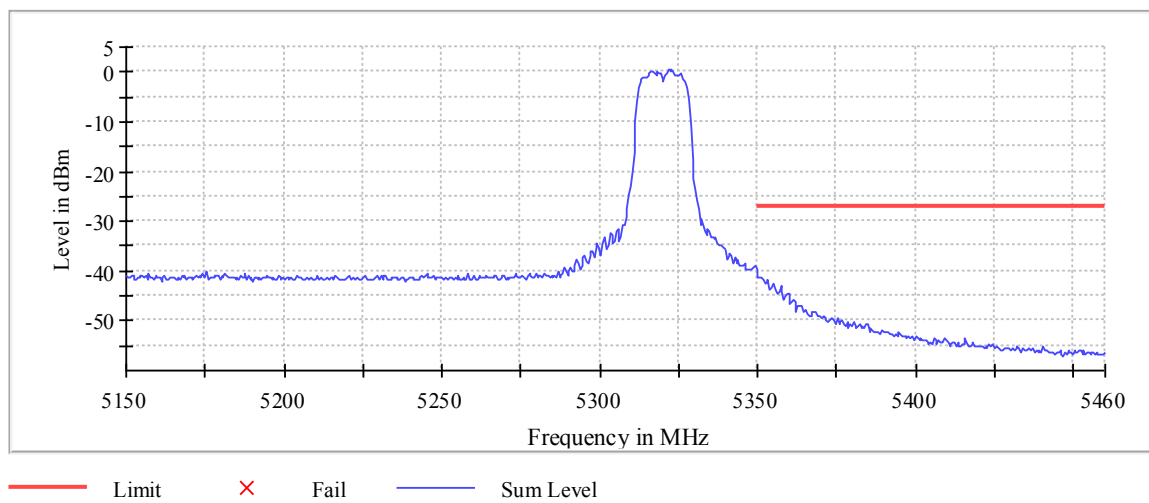
Plot 249: Mode 1, BEC, U-NII-1 & U-NII-2A, low channel, 5180 MHz

Band Edge



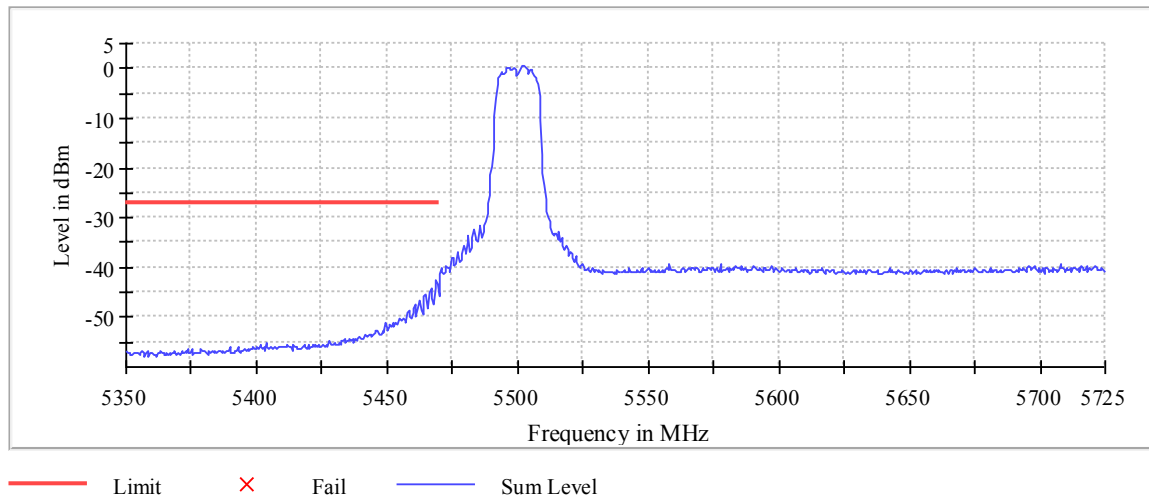
Plot 250: Mode 1, BEC, U-NII-1 & U-NII-2A, high channel, 5320 MHz

Band Edge



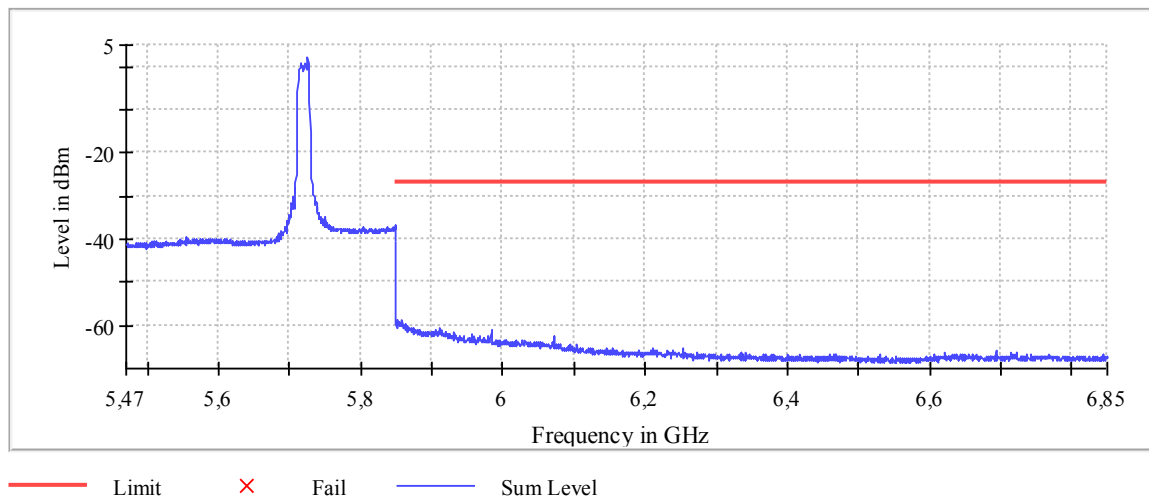
Plot 251: Mode 1, BEC, U-NII-2C, low channel

Band Edge

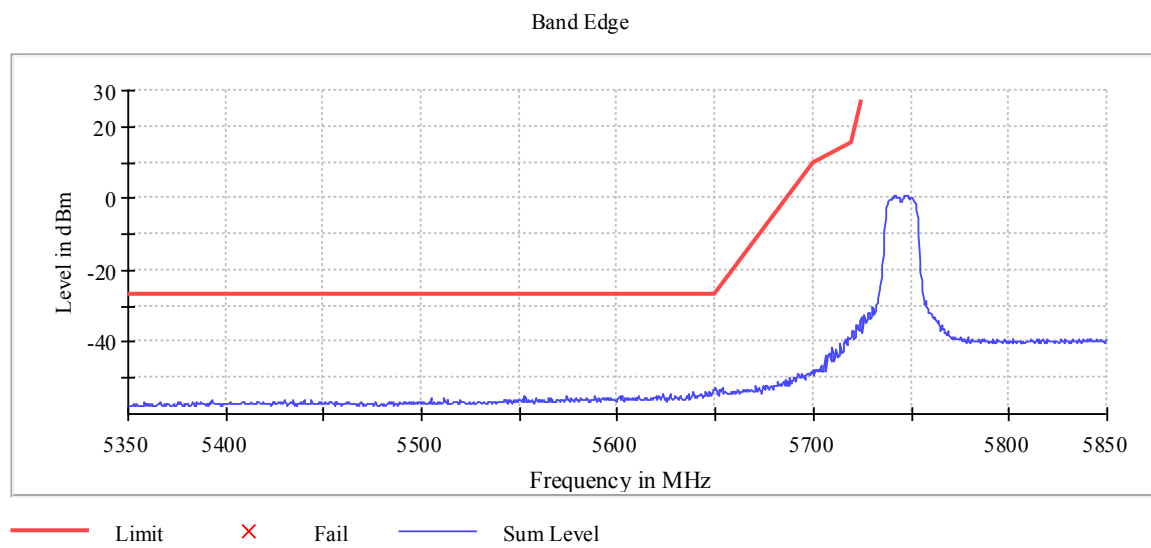


Plot 252: Mode 1, BEC, U-NII-2C, high channel

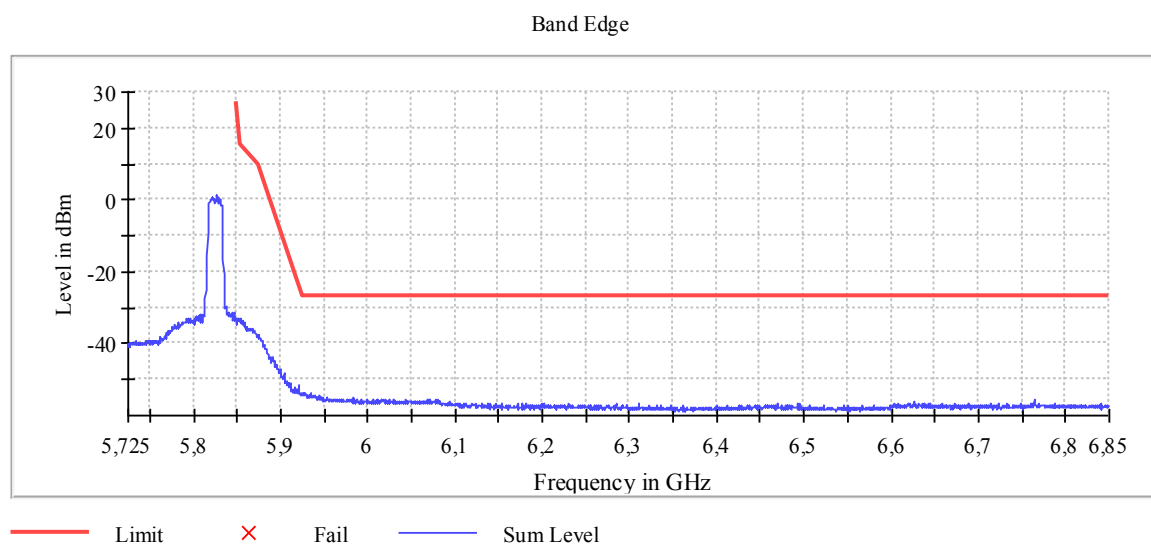
Band Edge



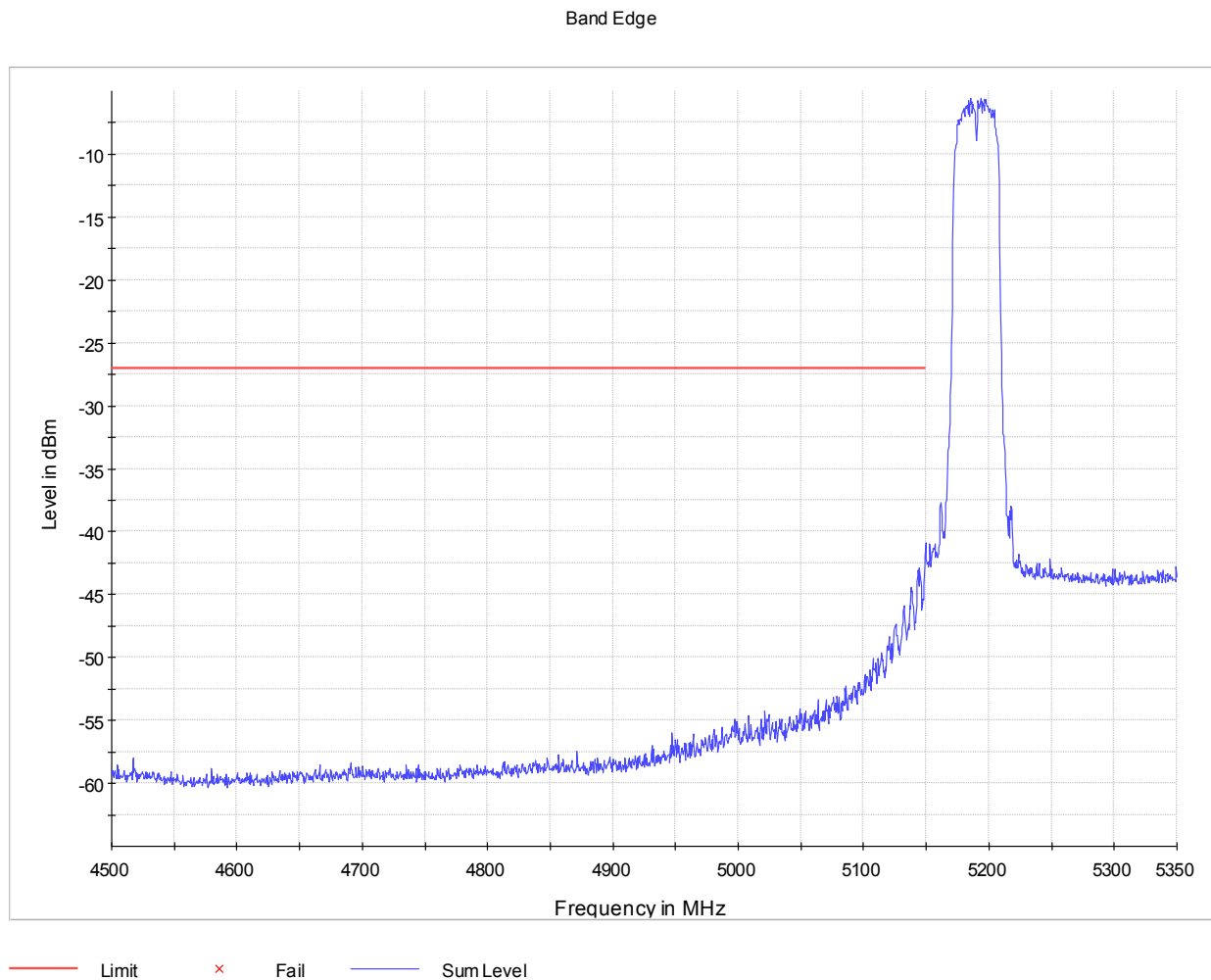
Plot 253: Mode 1, BEC, U-NII-3, low channel



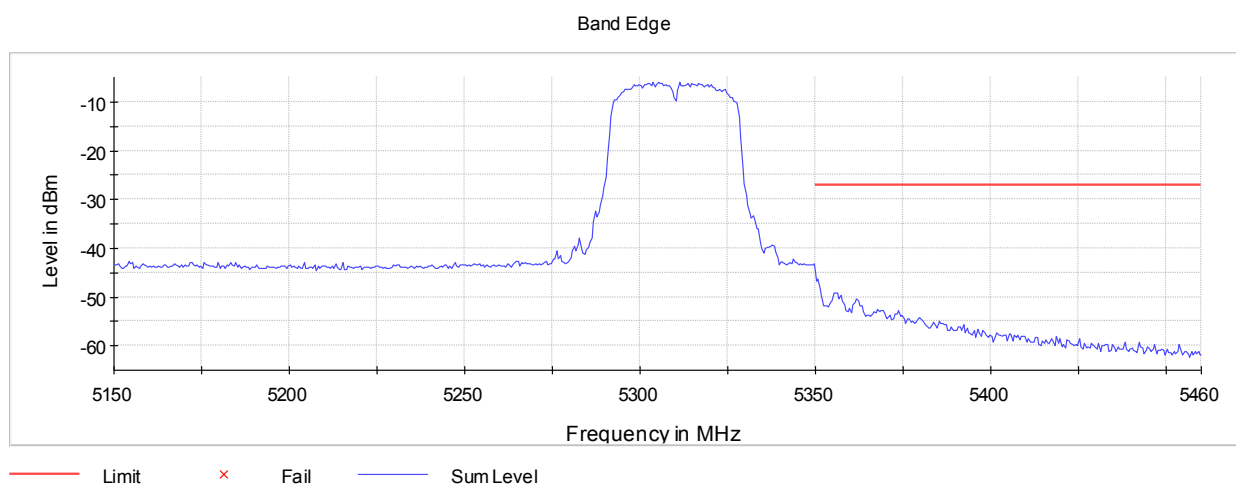
Plot 254: Mode 1, BEC, U-NII-3, high channel



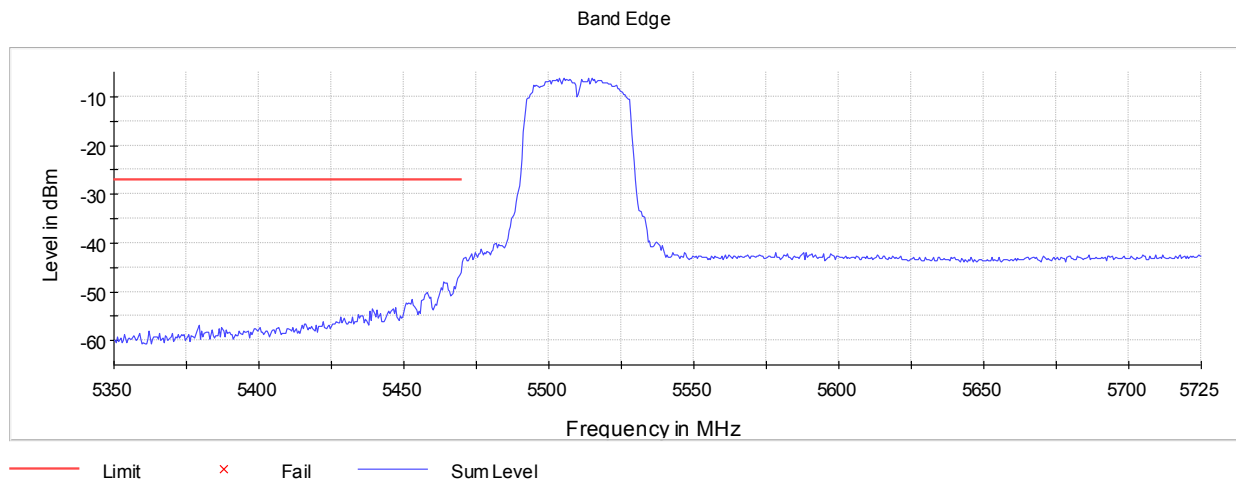
Plot 255: Mode 3, BEC, U-NII-1 & U-NII-2A, low channel, 5190 MHz



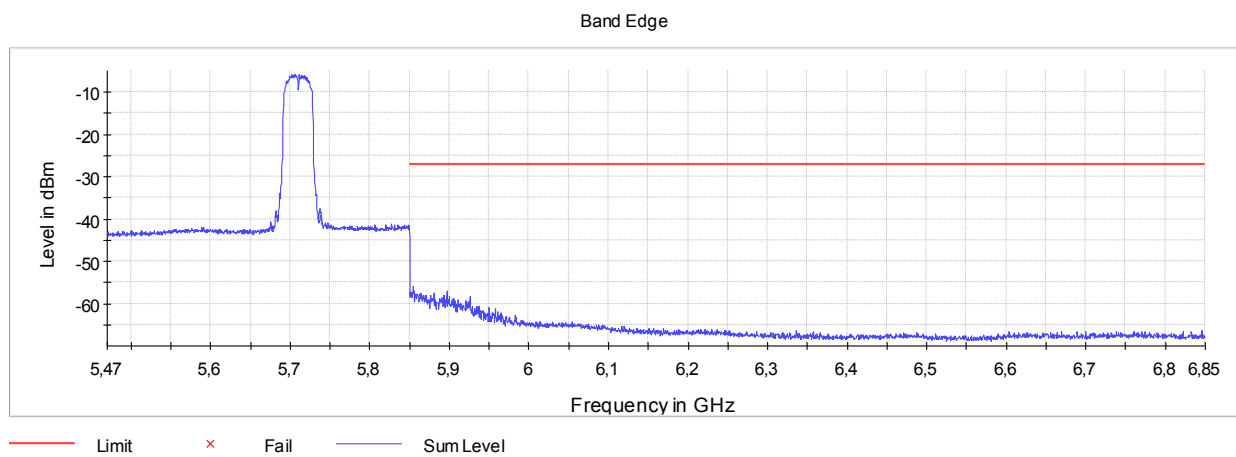
Plot 256: Mode 3, BEC, U-NII-1 & U-NII-2A, high channel, 5310 MHz



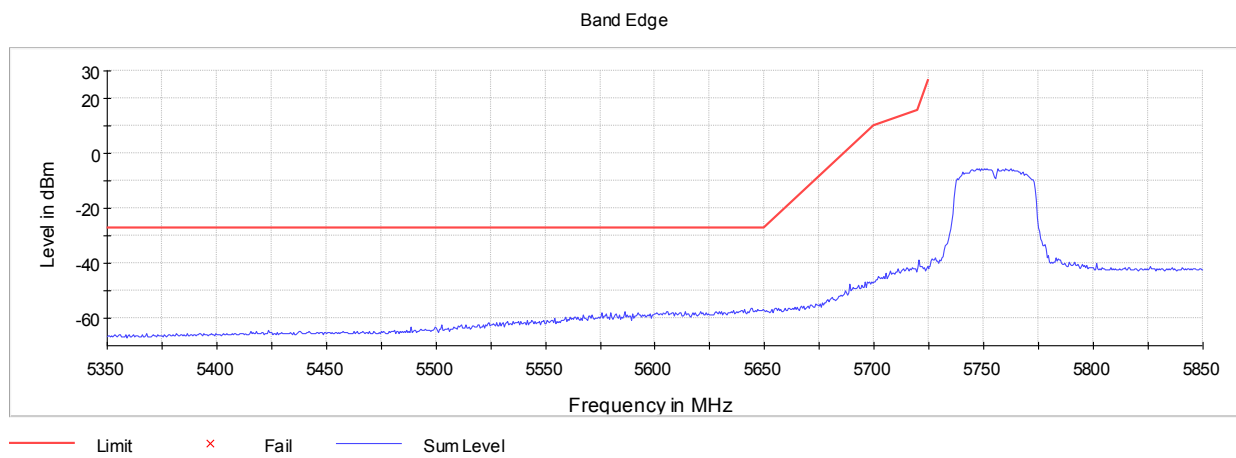
Plot 257: Mode 3, BEC, U-NII-2C, low channel



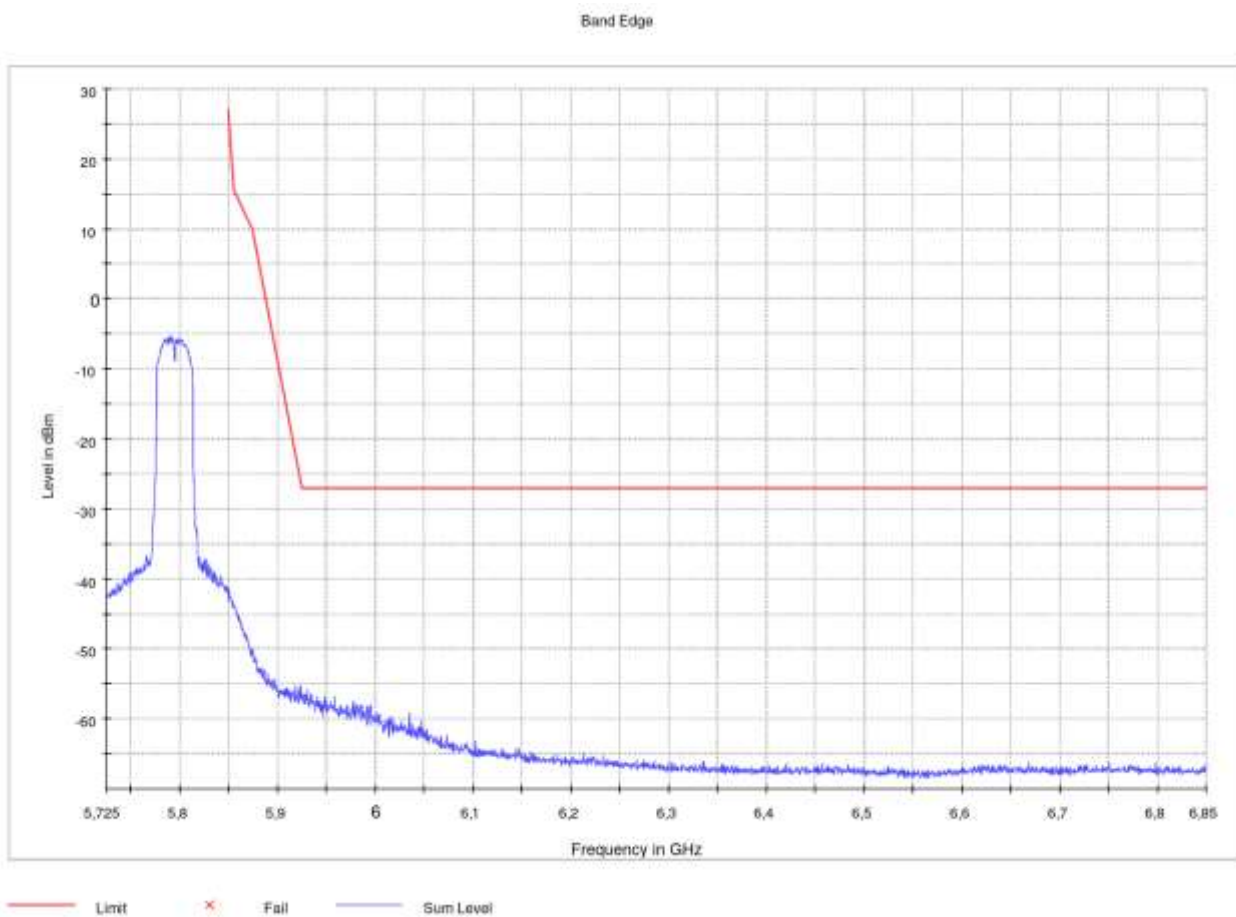
Plot 258: Mode 3, BEC, U-NII-2C, high channel



Plot 259: Mode 3, BEC, U-NII-3, low channel

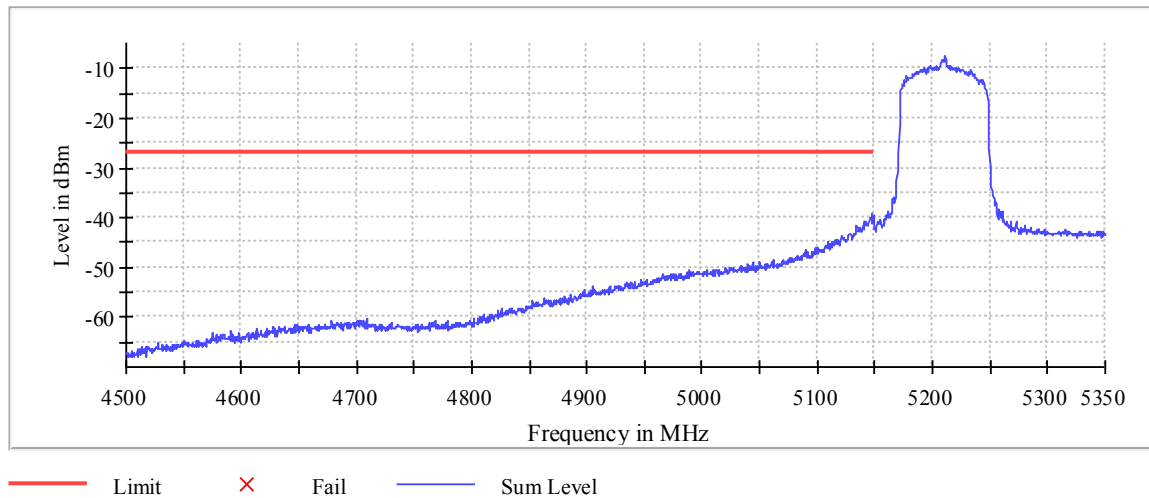


Plot 260: Mode 3, BEC, U-NII-3, high channel



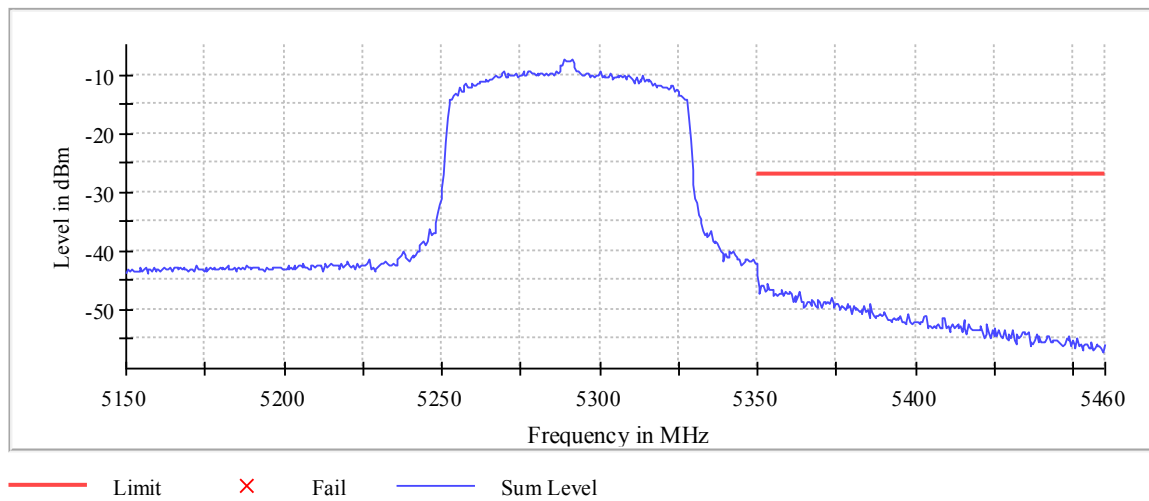
Plot 261: Mode 6, BEC, U-NII-1 & U-NII-2A, low channel, 5210 MHz

Band Edge



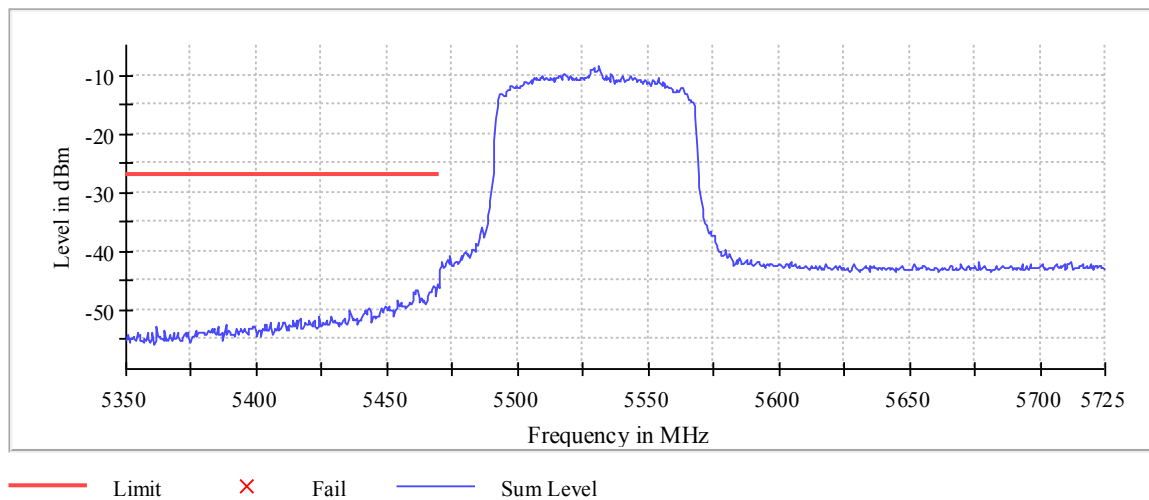
Plot 262: Mode 6, BEC, U-NII-1 & U-NII-2A, high channel, 5290 MHz

Band Edge



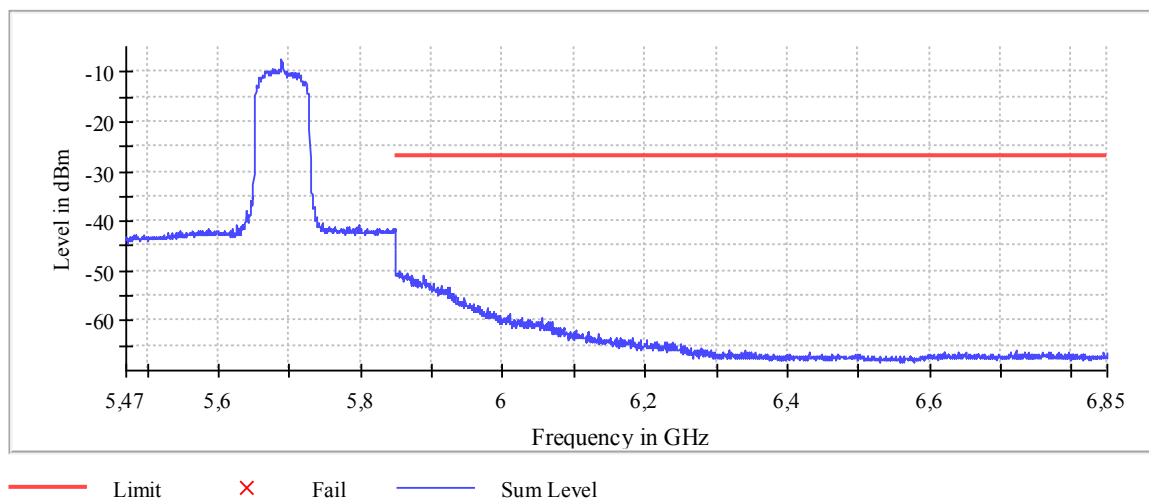
Plot 263: Mode 6, BEC, U-NII-2C, low channel, 5530 MHz

Band Edge



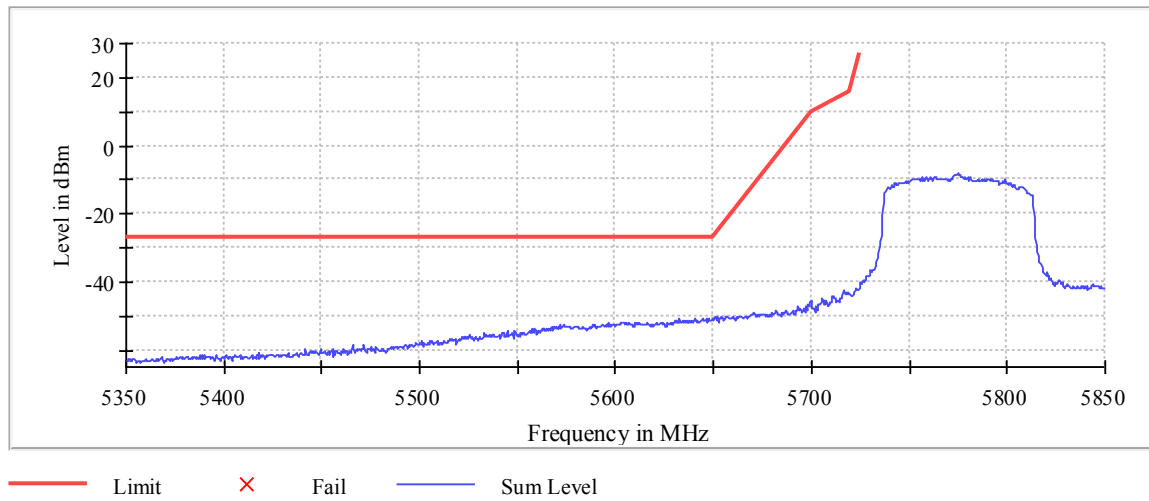
Plot 264: Mode 6, BEC, U-NII-2C, high channel, 5690

Band Edge



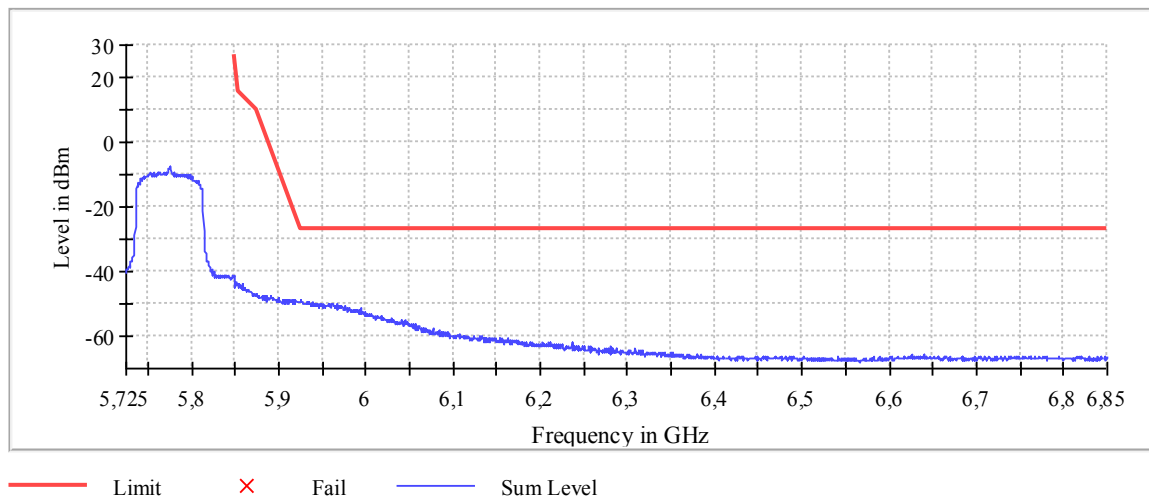
Plot 265: Mode 6, BEC low, U-NII-3, channel 155, 5775 MHz

Band Edge



Plot 266: Mode 6, BEC high, U-NII-3, channel 155, 5775 MHz

Band Edge



7.8 Band Edge Compliance (BEC), radiated

Applicability

This requirement applies to unlicensed National Information Infrastructure (U-NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.85 GHz bands.

Description

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.3.d ii

Unwanted band-edge emissions may be measured using either of the special band-edge measurement techniques (the marker-delta or integration methods). Note that the marker-delta method is primarily a radiated measurement technique that requires the 99% occupied bandwidth edge to be within 2 MHz of the authorized band edge, whereas the integration method can be used in either a radiated or conducted measurement without any special requirement with regards to the displacement of the unwanted emission(s) relative to the authorized bandwidth.

Limits

§15.407(b)

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725–5.85 GHz band:
 - (i) 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, and from 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, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Test procedure

The marker-delta method as described in ANSI C63.10, 6.10.6 or the integration method as described in ANSI C63.10, 11.13.3 can be used to perform measurements of the unwanted emissions level at the band edges.

Test setup: 8.2 with radiated test sample 61314 (see section 5.2)

Test results 20 MHz

testing mode, frequency band	low channel [dB μ V/m @3m]	high channel [dB μ V/m @3m]	Limit AVG / Peak [dB μ V/m @3m]	Verdict
Mode 1, U-NII-1 & U-NII-2A	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -
Mode 1, U-NII-2C & U-NII-3	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -

Test results 40 MHz

testing mode, frequency band	low channel [dB μ V/m @3m]	high channel [dB μ V/m @3m]	Limit AVG / Peak [dB μ V/m @3m]	Verdict
Mode 3, U-NII-1 & U-NII-2A	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -
Mode 3, U-NII-2C & U-NII-3	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -

Test results 80 MHz

testing mode, frequency band	low channel [dB μ V/m @3m]	high channel [dB μ V/m @3m]	Limit AVG / Peak [dB μ V/m @3m]	Verdict
Mode 6, U-NII-1 & U-NII-2A	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -
Mode 3, U-NII-2C & U-NII-3	≤ 50 AVG / ≤ 65 PK	≤ 50 AVG / ≤ 65 PK	≤ 54 AVG / ≤ 74 PK	- PASS -

Comment:

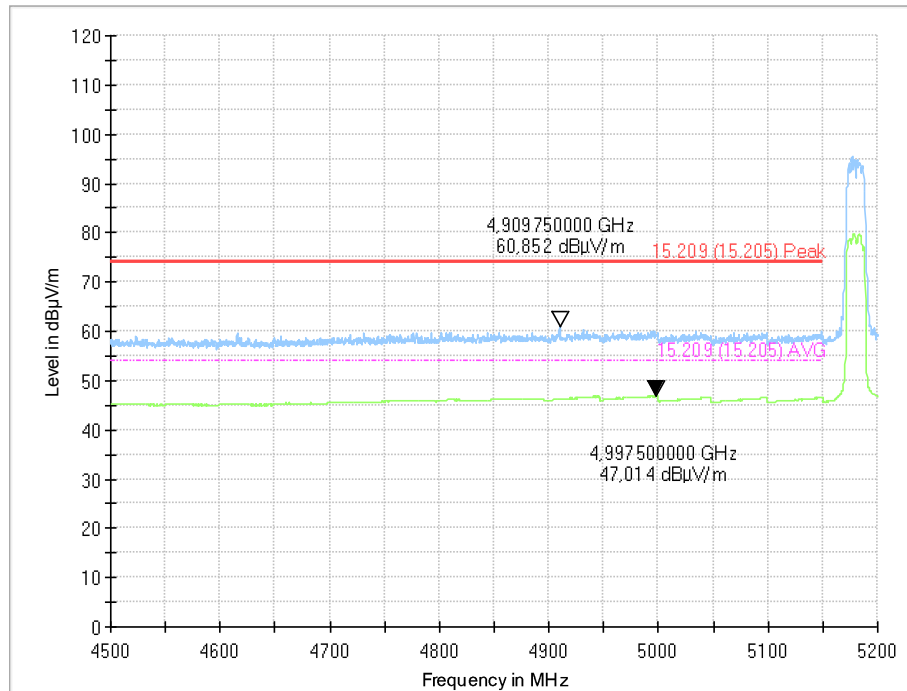
Verdict
- PASS -
*see next plots**

* description of traces for radiated Bend Edge Compliance (BEC) measurements:

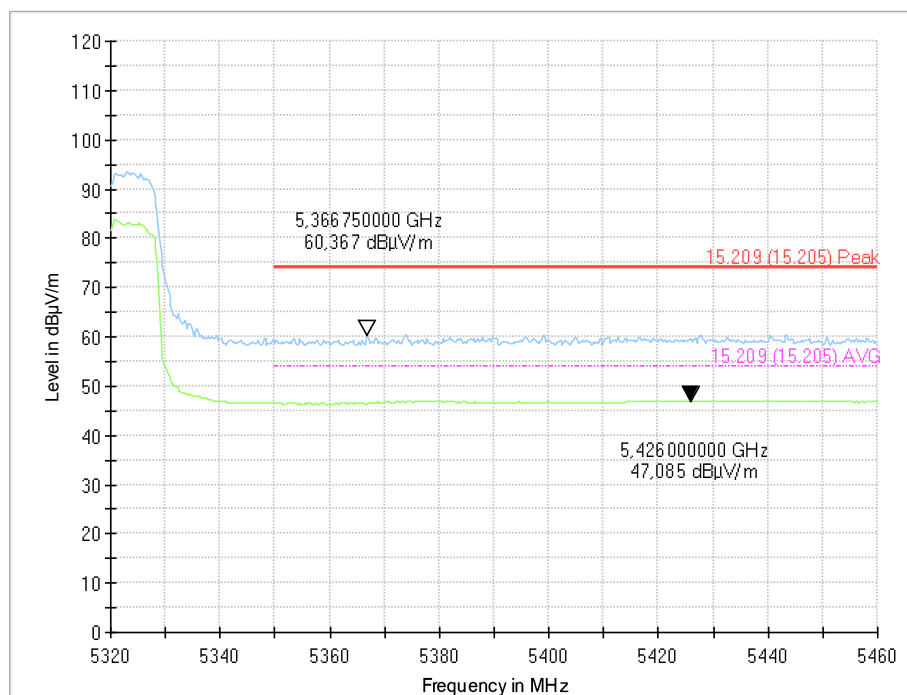


positive Peak (Max Hold) trace
average Peak (Max Hold) trace

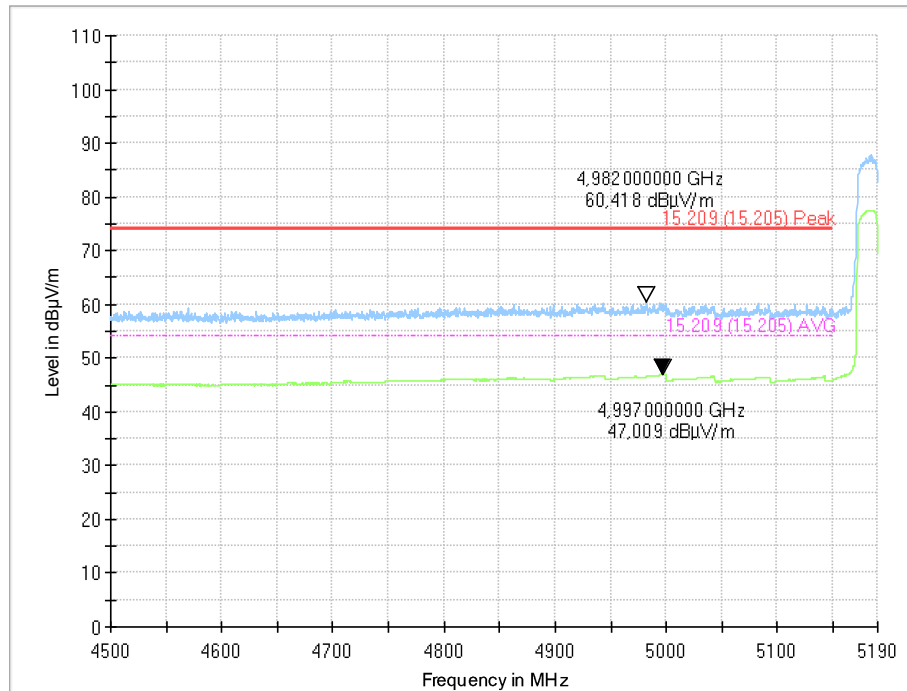
Plot 267: Mode 1, BEC low, channel 36, 5180 MHz



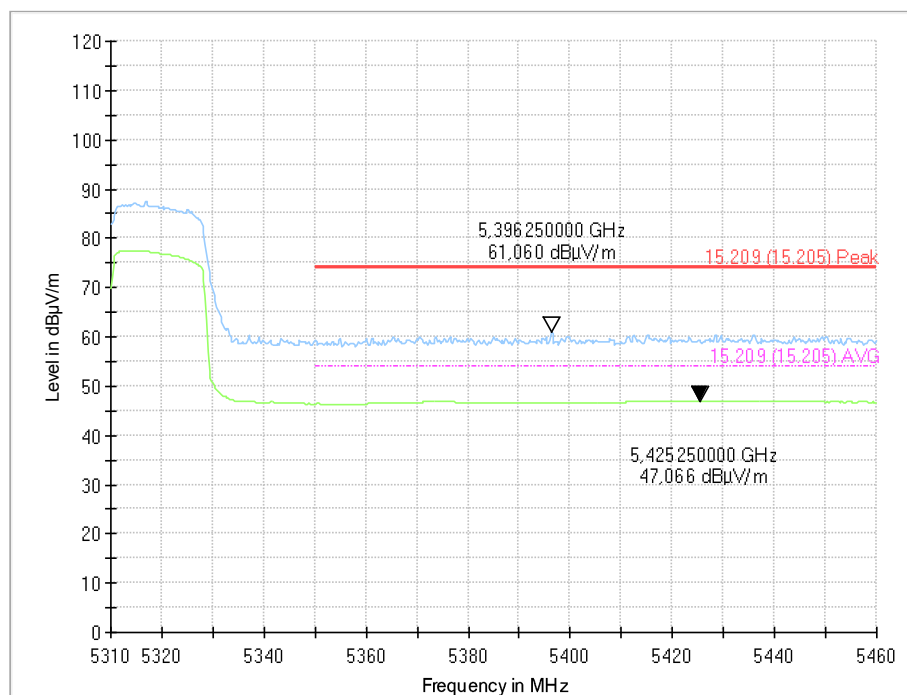
Plot 268: Mode 1, BEC high, channel 64, 5320 MHz



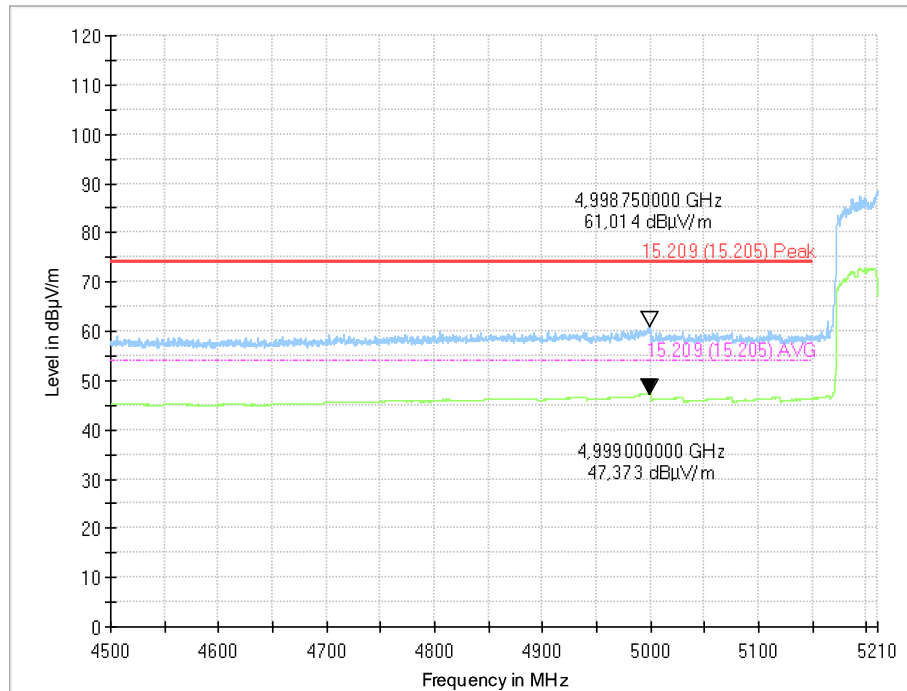
Plot 269: Mode 3, BEC low, channel 38, 5190 MHz, 40 MHz channel bandwidth



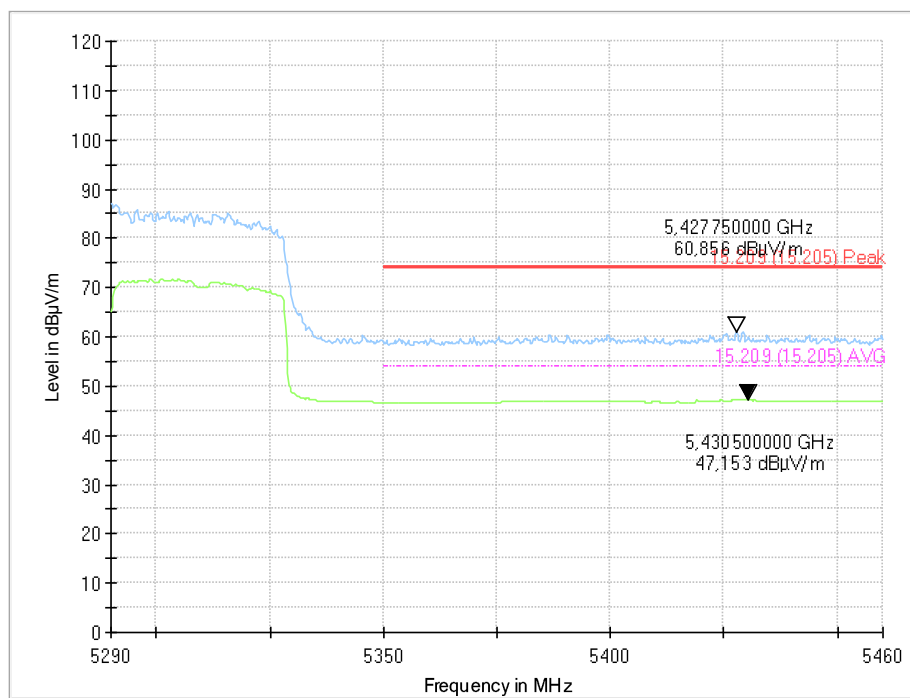
Plot 270: Mode 3, BEC high, channel 62, 5310 MHz, 40 MHz channel bandwidth



Plot 271: Mode 6, BEC low, channel 42, 5210 MHz, 80 MHz channel bandwidth



Plot 272: Mode 6, BEC high, channel 58, 5290 MHz, 80 MHz channel bandwidth



7.9 Conducted Spurious Emissions (CSE)

Applicability

This requirement applies to unlicensed National Information Infrastructure (U-NII) devices operating in the 5.15–5.35 GHz, 5.47–5.725 GHz and 5.725–5.85 GHz bands.

Description

Spurious emission / unwanted emissions are emission on a frequency or frequencies which are outside the authorized band and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products and frequency conversion products.

Limits

§15.407(b)

All emissions out- side of the operational frequency band shall not exceed an e.i.r.p. of-27 dBm/MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

Test procedure

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.4&5 and ANSI C63.10-2013

Test setup: 8.4 with conducted test sample 60337 (see section 5.2)

Test results: 20 MHz channels					
EUT Mode / Channel	Frequency [MHz]	Peak/RMS Detector	Level [dBm]	Limit [dBm]	Verdict
Mode 1 / channel 36	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 48	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 52	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 64	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 100	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 120	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 140	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 144	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 149	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 157	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 1 / channel 165	see next plots	MaxPeak	see next plots*	see next plots	- passed -

* all detected peaks are more than 6 dB below the limit

Test results: 40 MHz channels					
EUT Mode / Channel	Frequency [MHz]	Peak/RMS Detector	Level [dBm]	Limit [dBm]	Verdict
Mode 3 / channel 38	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 46	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 54	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 62	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 102	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 126	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 142	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 151	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 3 / channel 159	see next plots	MaxPeak	see next plots*	see next plots	- passed -

* all detected peaks are more than 6 dB below the limit

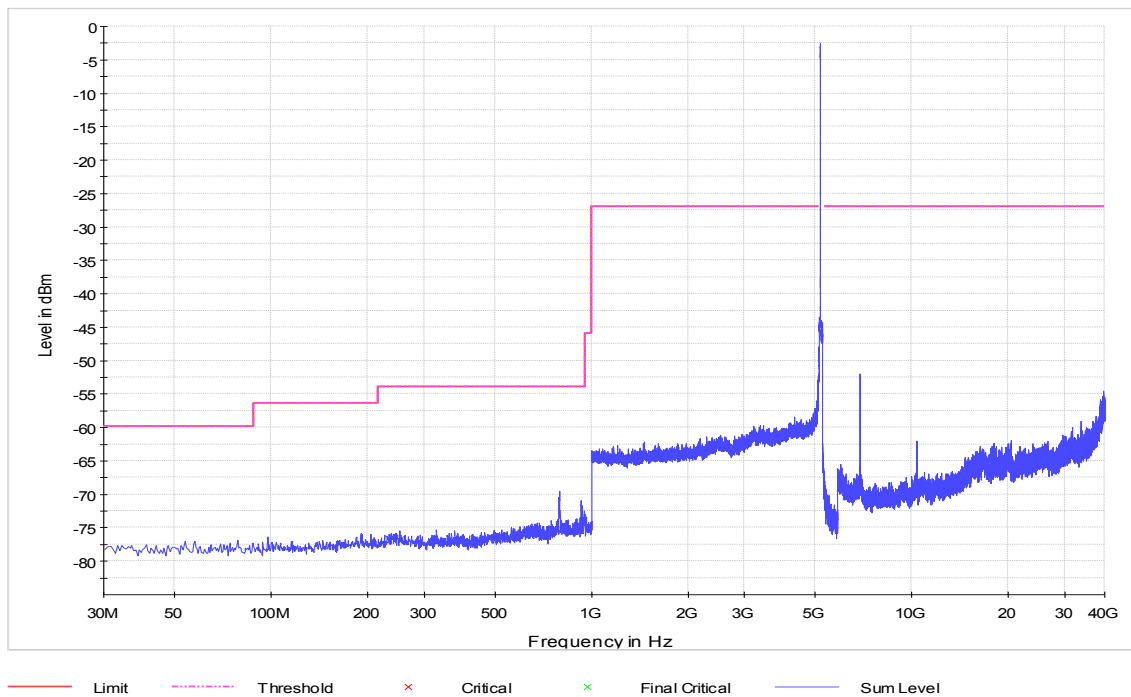
Test results: 80 MHz channels					
EUT Mode / Channel	Frequency [MHz]	Peak/RMS Detector	Level [dBm]	Limit [dBm]	Verdict
Mode 6 / channel 42	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 6 / channel 58	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 6 / channel 106	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 6 / channel 122	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 6 / channel 138	see next plots	MaxPeak	see next plots*	see next plots	- passed -
Mode 6 / channel 155	see next plots	MaxPeak	see next plots*	see next plots	- passed -

* all detected peaks are more than 6 dB below the limit

Comment:	---				
Verdict	- PASS -		see next plots		

Plot 273: Mode 1, U-NII-1, CSE, channel 36, 5180 MHz

Spurious



Plot 274: Mode 1, U-NII-1, CSE, channel 48, 5240 MHz

Spurious

