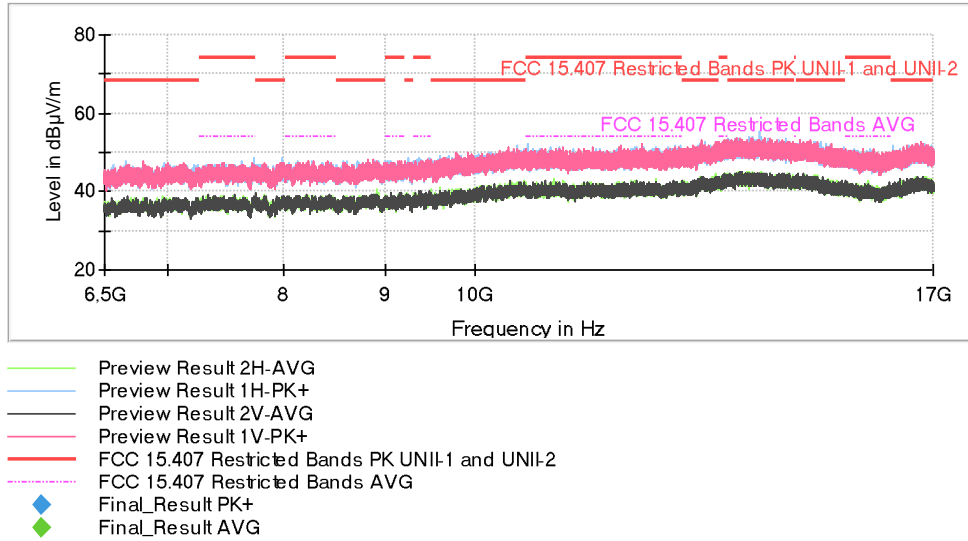


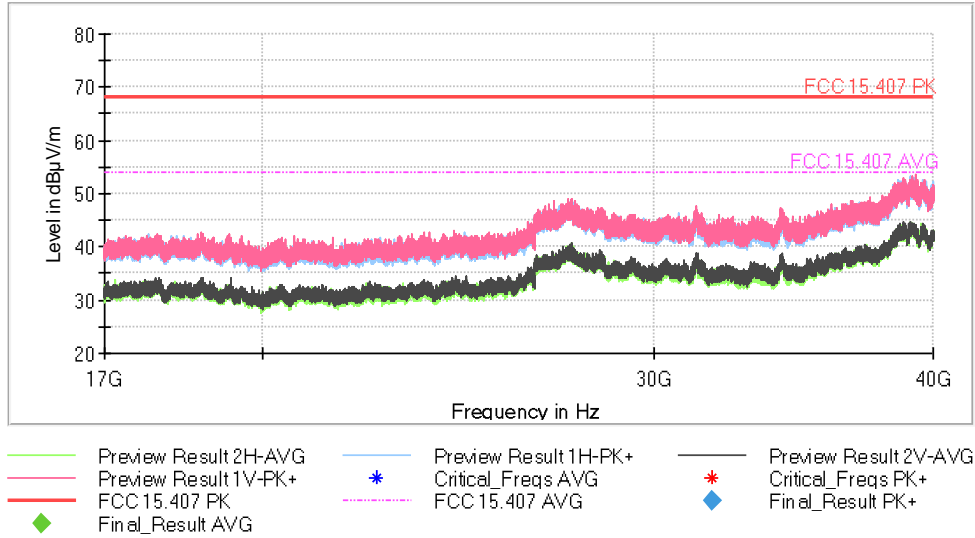
FREQUENCY RANGE 6.5 - 17 GHz:

- Single Channel 42 (5210 MHz):



FREQUENCY RANGE 17 - 40 GHz:

This plot is valid for Low, Middle and High Channels.



MIMO worst case: 802.11 n20 (index MCS0).

Frequency range 30 MHz - 1 GHz

The spurious emissions below 1 GHz do not depend either on the operating channel or the modulation mode selected in the EUT.

Spurious frequencies detected at less than 20 dB below the limit:

Spurious frequency (MHz)	Emission Level (dBµV/m)	Polarization	Detector
600.026563	30.29	V	Quasi-Peak
874.991250	30.33	V	Quasi-Peak

Measurement Uncertainty (dB) < ± 5.1

Frequency range 1 - 40 GHz

Spurious frequencies with peak levels above the average limit (54 dBµV/m at 3 m) are measured with an average detector for checking compliance with the average limit.

- Low Channel. Spurious frequencies detected at less than 20 dB below the limit:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
1.375100	42.13	V	Peak
1.625100	42.79	V	Peak
1.687500	43.23	H	Peak

- Middle Channel. Spurious frequencies detected at less than 20 dB below the limit:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
1.374900	41.55	V	Peak
1.624800	42.76	V	Peak
1.687300	42.06	H	Peak

- High Channel. Spurious frequencies detected at less than 20 dB below the limit:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
1.374800	41.17	V	Peak
1.625000	43.17	V	Peak
1.687500	42.68	H	Peak

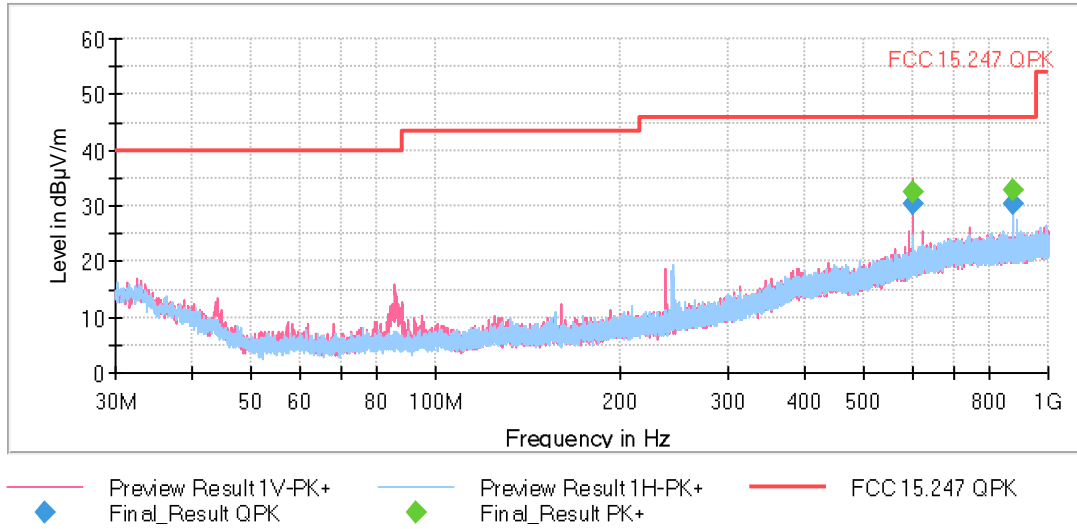
Measurement Uncertainty (dB): 1 GHz – 6.5 GHz < ±4.11
 6.5 GHz – 17 GHz < ±4.32
 17 GHz – 40 GHz < ±4.75

Verdict: PASS

MIMO worst case

FREQUENCY RANGE 30 MHz - 1 GHz:

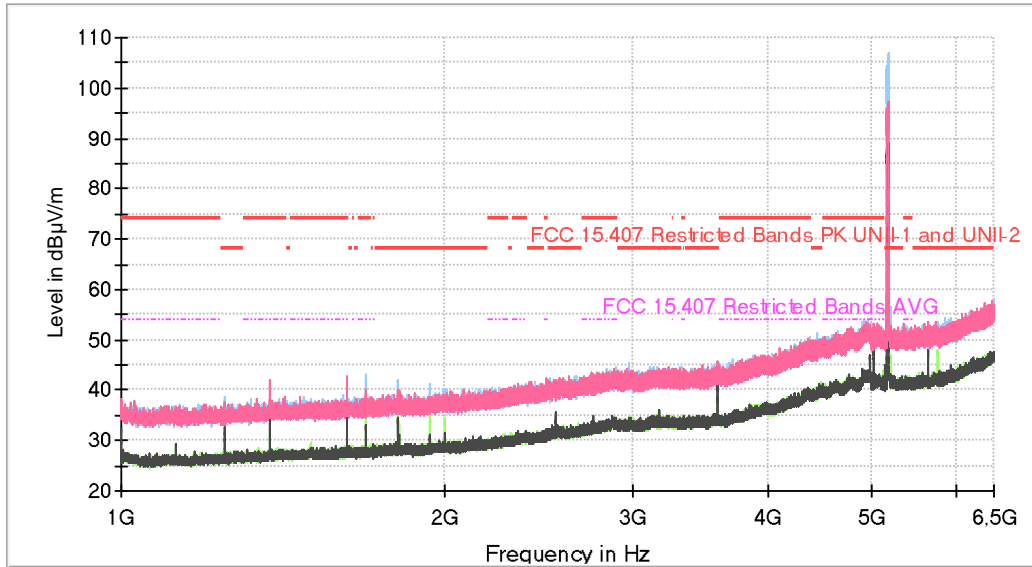
This plot is valid for Low, Middle and High Channels.



FREQUENCY RANGE 1 - 6.5 GHz:

- Low Channel 36 (5180 MHz):

Full Spectrum

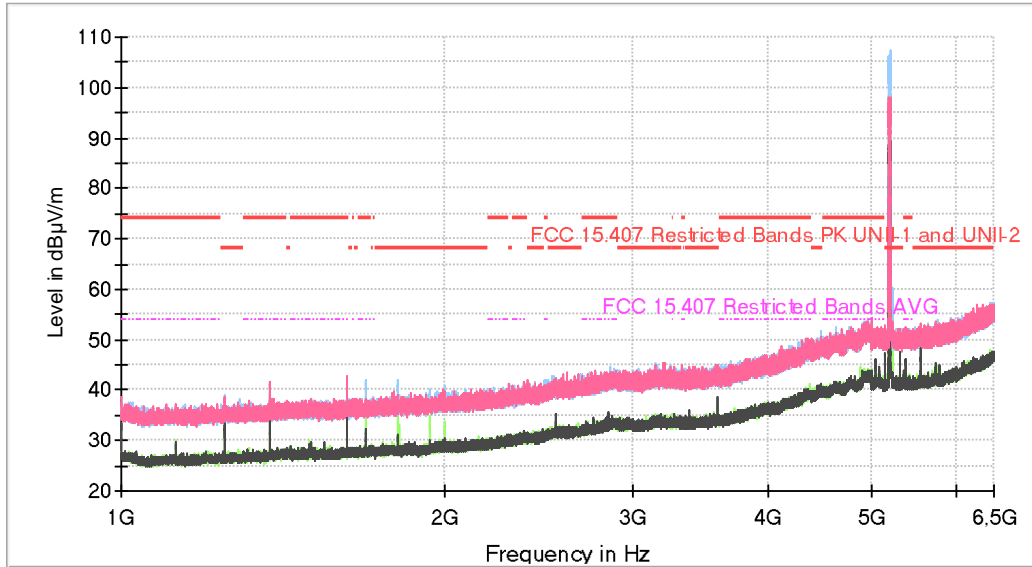


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

Note: The peak shown in the plot above the limit is the carrier frequency.

- Middle Channel 44 (5220 MHz):

Full Spectrum

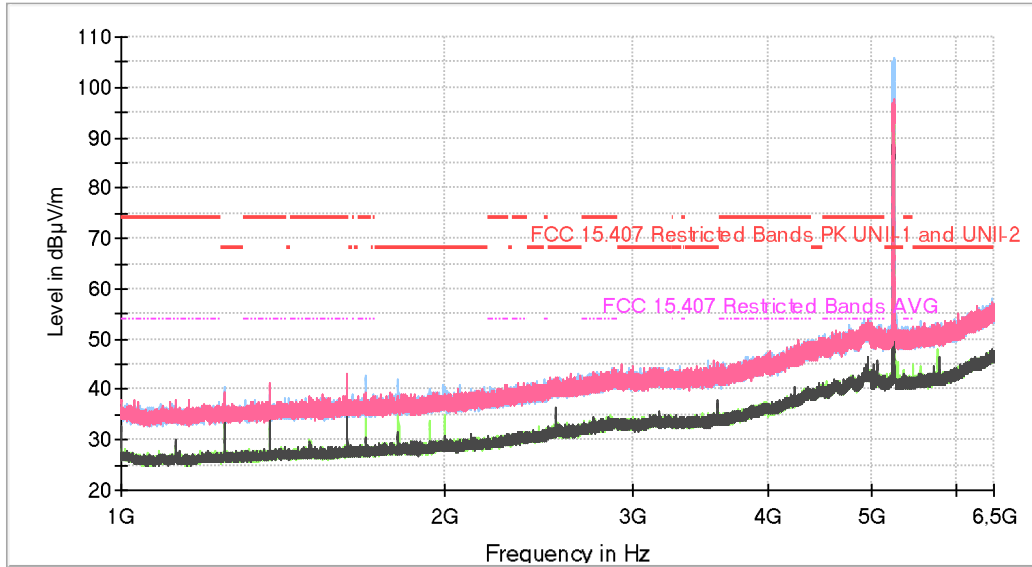


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

Note: The peak shown in the plot above the limit is the carrier frequency.

- High Channel 48 (5240 MHz):

Full Spectrum

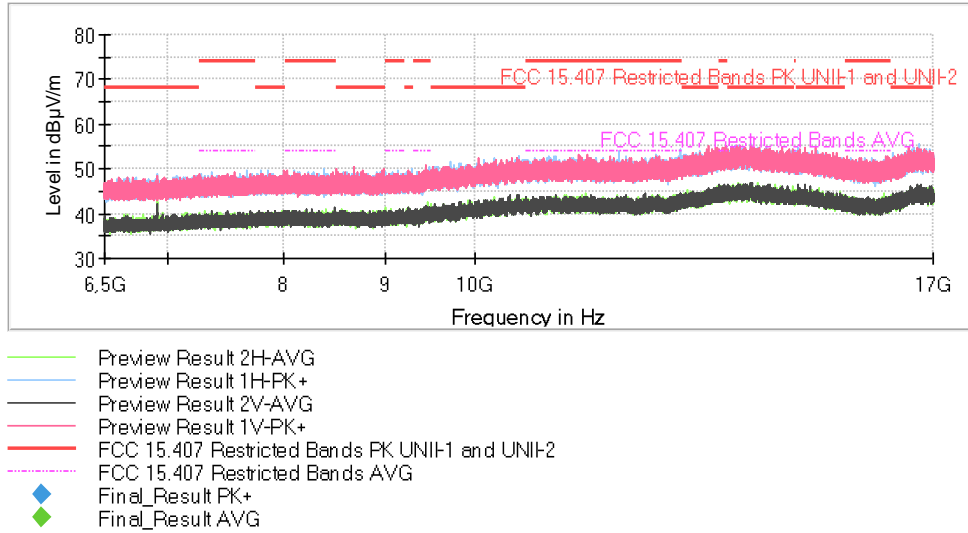


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- ◆ Final_Result PK+
- ◆ Final_Result AVG

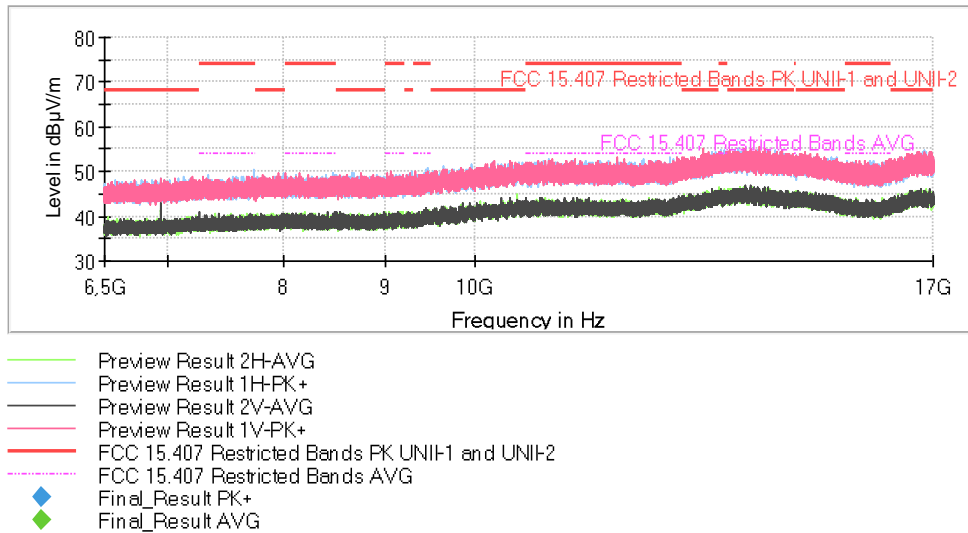
Note: The peak shown in the plot above the limit is the carrier frequency.

FREQUENCY RANGE 6.5 - 17 GHz:

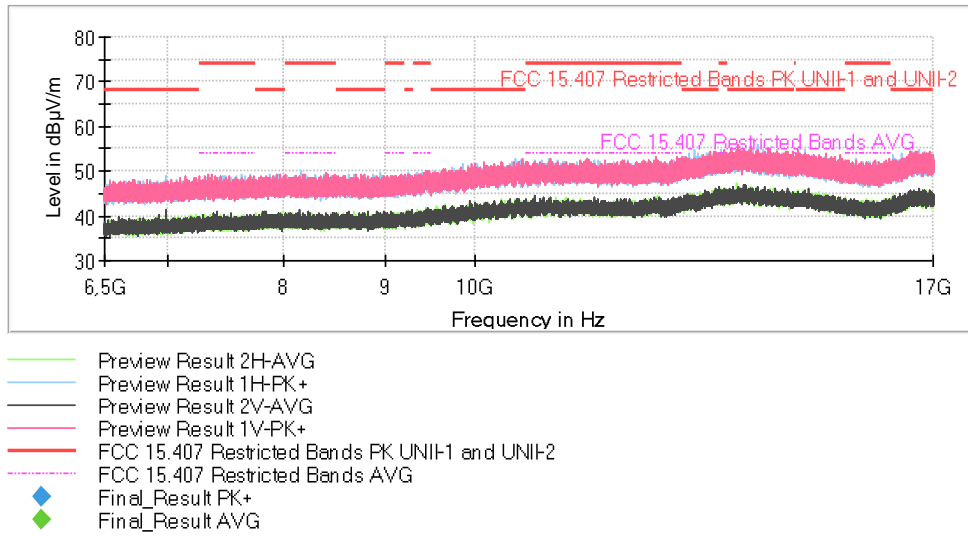
- Low Channel 36 (5180 MHz):



- Middle Channel 44 (5220 MHz):

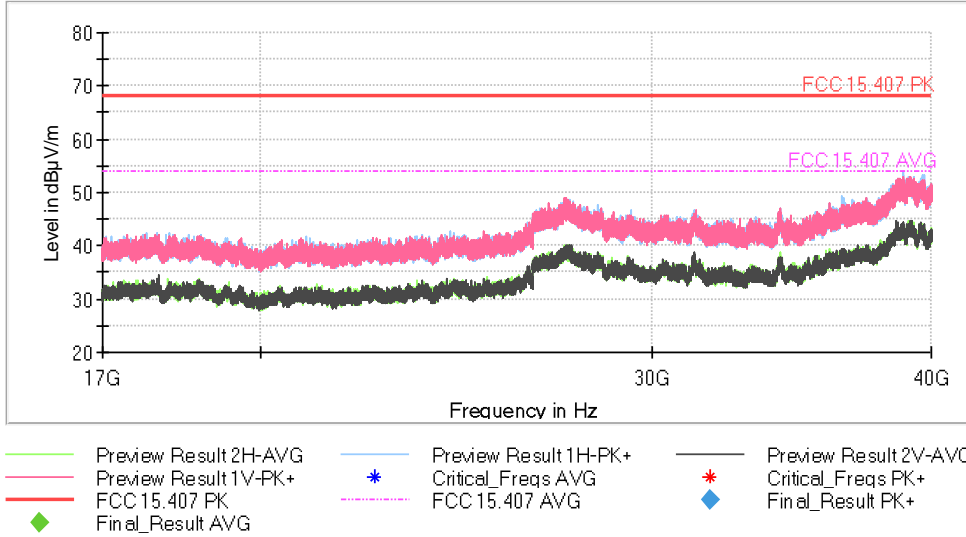


- High Channel 48 (5240 MHz):



FREQUENCY RANGE 17 - 40 GHz:

This plot is valid for Low, Middle and High Channels.



FCC 15.407 (b)(1) Transmitter Band Edge Radiated Emissions

SPECIFICATION:

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 EIRP of –27 dBm/MHz (68.23 dBµV/m at 3 m distance).

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

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 - 40000	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, specified when measuring with peak detector function.

RESULTS:

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.

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

All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27dBm/MHz. There are restricted bands of operation below band edge at 4.50-5.15 GHz also above the upper band edge at 5.35-5.46 GHz therefore the provisions of FCC Part 15.205 apply.

Field strength measurements using peak detector performed in the restricted bands below 5.15 GHz and above 5.35 GHz.

Spurious frequencies with peak levels above the average limit (54 dBµV/m at 3 m) are measured with an average detector for checking compliance with the average limit.

Preliminary tests determined the SISO worst case: Chain 1.

Test performed on all the supported modes of the EUT, in the worst data rates after preliminary testing.

BAND EDGE EMISSIONS: For U-NII-1 band edge spurious emissions inside of the Restricted Bands 4.50-5.15 GHz and 5.35-5.46 GHz.

The Lower Band Edge Channel and the Upper Band Edge Channel were tested for all modes.

SISO worst case (Chain 1)

• **SISO 802.11 a20:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.020400	53.94	V	Peak
5.117500	51.54	H	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. Spurious emissions inside the Restricted Band 5.35-5.46 GHz.

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.383900	51.07	V	Peak

• **SISO 802.11 n20:**

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. Spurious emissions inside the Restricted Band 5.35-5.46 GHz.

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.385700	53.02	V	Peak

- **SISO 802.11 ac20:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.068900	53.06	V	Peak
5.146300	53.61	H	Peak

- Upper Band Edge. No spurious emissions inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. Spurious emissions inside the Restricted Band 5.35-5.46 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.356500	52.60	H	Peak

- **SISO 802.11 he20 – SU Full channel allocation:**

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **SISO 802.11 he20 – RU Subcarrier allocation (RU26):**

The next RU combinations were tested as worst cases:

Low Channel: RU26 Offset 0
 High Channel: RU26 Offset 8

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.962900	52.43	V	Peak
5.031300	52.55	V	Peak
5.136200	50.58	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **SISO 802.11 n40:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.998800	53.91	H	Peak
5.077300	52.33	H	Peak
5.121800	52.17	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- **SISO 802.11 ac40:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dB μ V/m)	Polarization	Detector
4.935500	52.85	V	Peak
5.039600	52.63	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- **SISO 802.11 he40 – SU Full channel allocation:**

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **SISO 802.11 he40 – RU Subcarrier allocation (RU26):**

The next RU combinations were tested as worst cases:

Low Channel: RU26 Offset 0
 High Channel: RU26 Offset 17

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. Spurious emissions found inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.030600	51.28	V	Peak
5.136600	50.74	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz:

• **SISO 802.11 ac80:**

- SINGLE CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.995000	54.98	H	Peak
	44.90		Average

- Upper Band Edge. No spurious emissions inside the Restricted Band 5.35-5.46 GHz.

- **SISO 802.11 he80 – SU Full channel allocation:**

- SINGLE CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dB μ V/m)	Polarization	Detector
4.834200	51.97	V	Peak
5.078900	44.90	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

Measurement Uncertainty (dB) < \pm 4.6

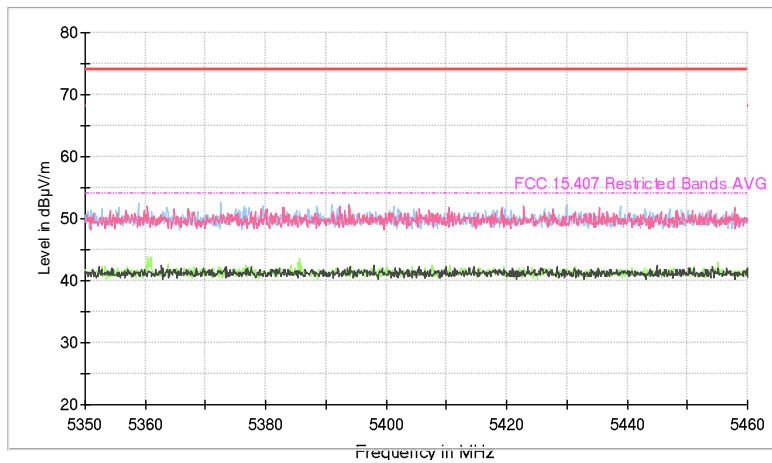
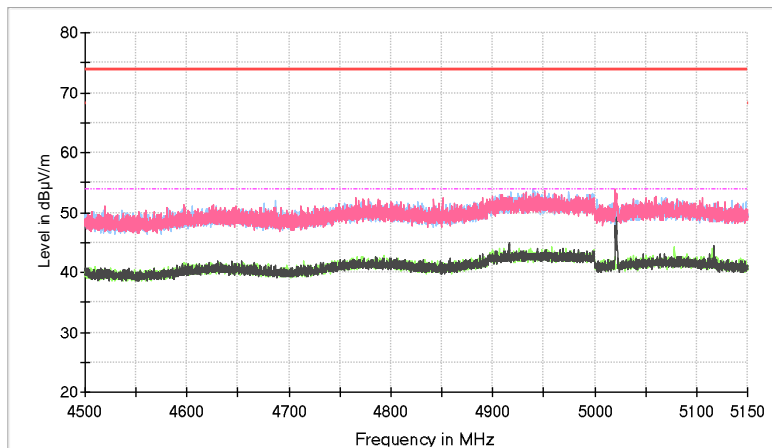
Verdict: PASS

The measurement settings for band edge measurements is as follows:

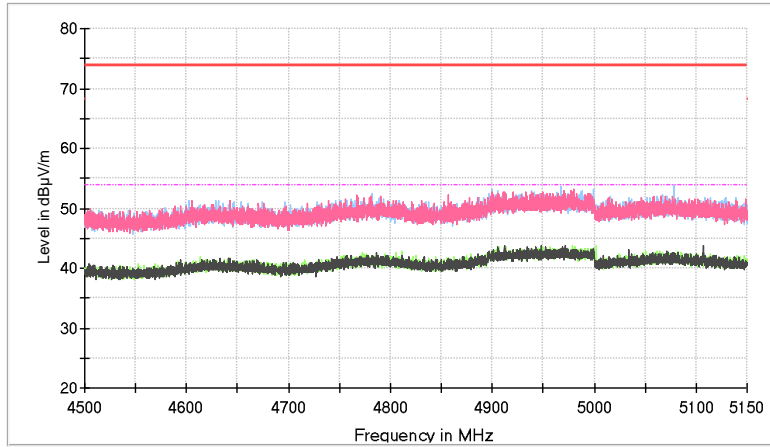
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44] 1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

• **SISO 802.11 a20 (Chain 1):**

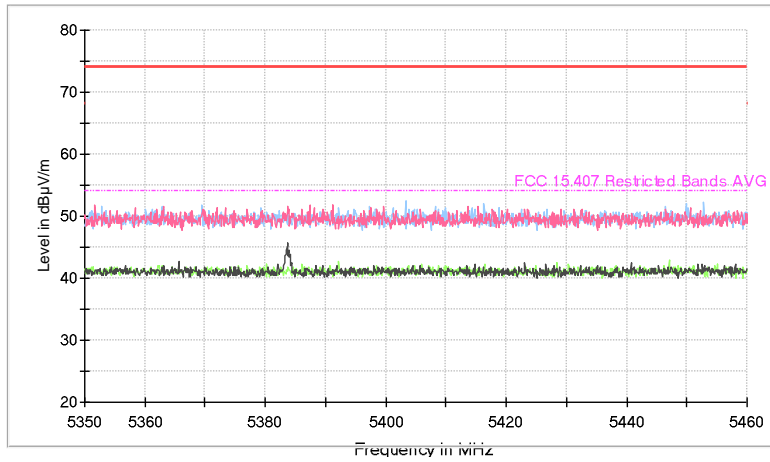
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge - High Channel (Restricted Bands)



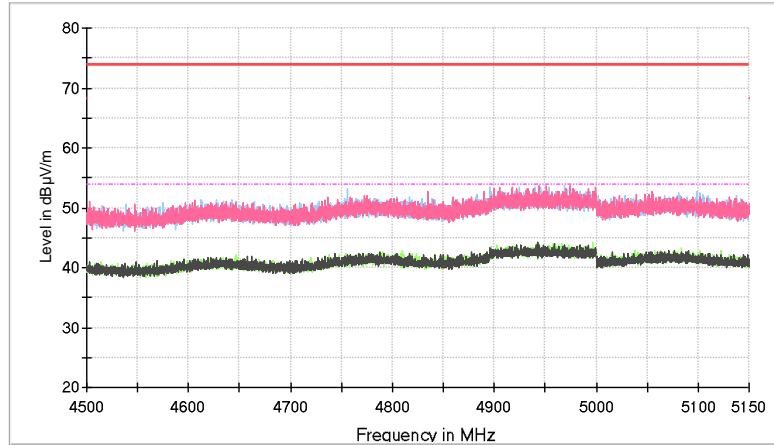
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



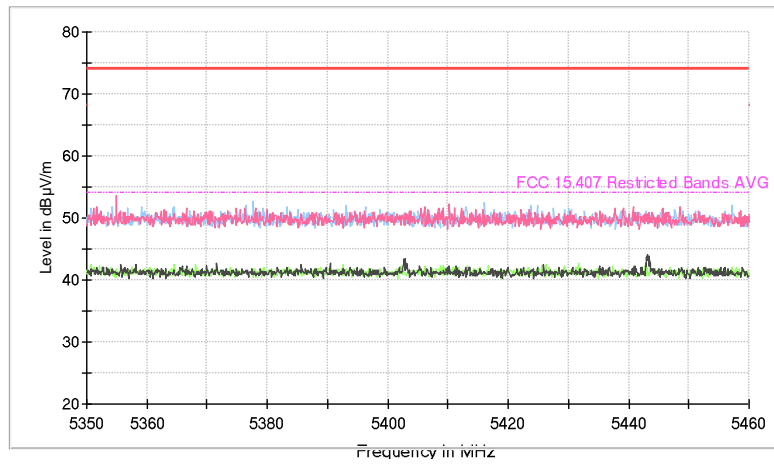
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 n20 (Chain 1):**

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)

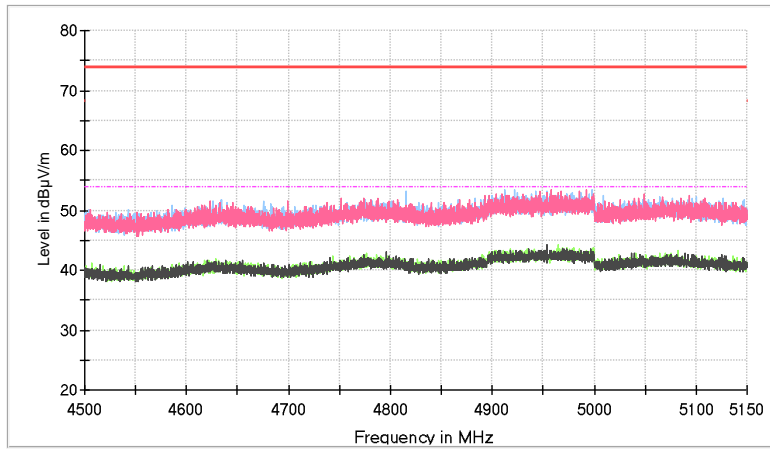


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
— FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

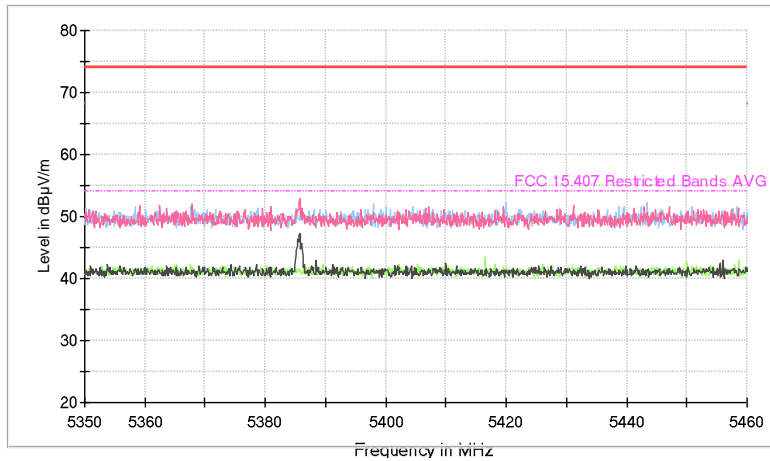


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
— FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

- Lower Band Edge and Upper Band Edge - High Channel (Restricted Bands)



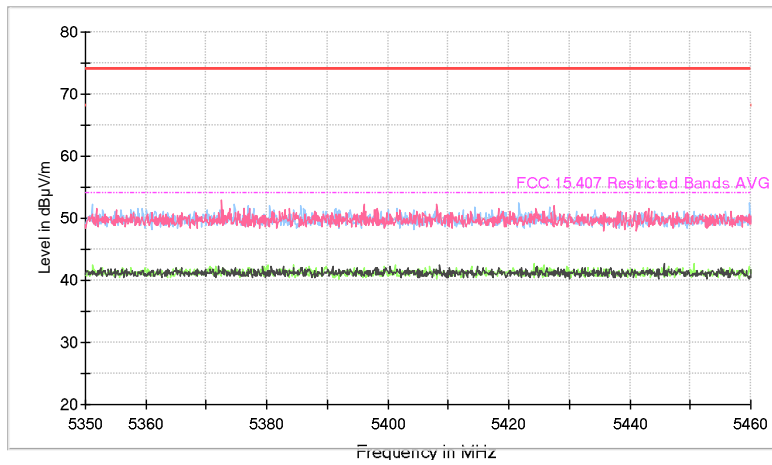
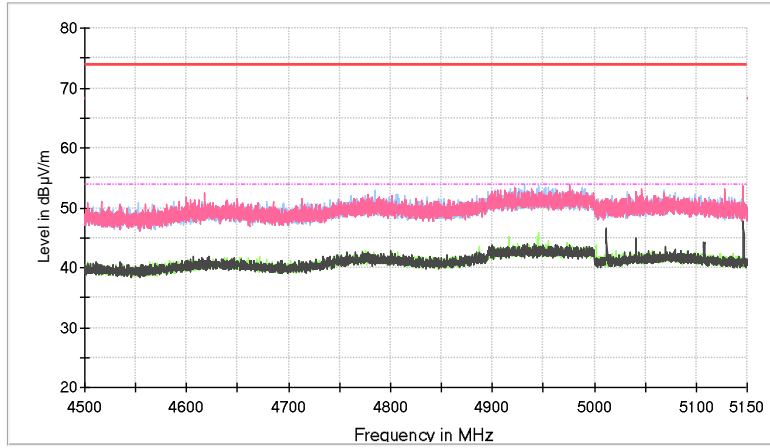
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



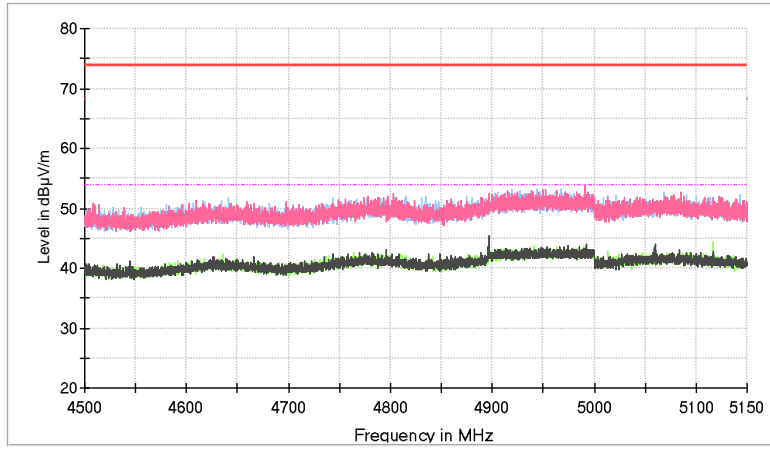
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 ac20 (Chain 1):**

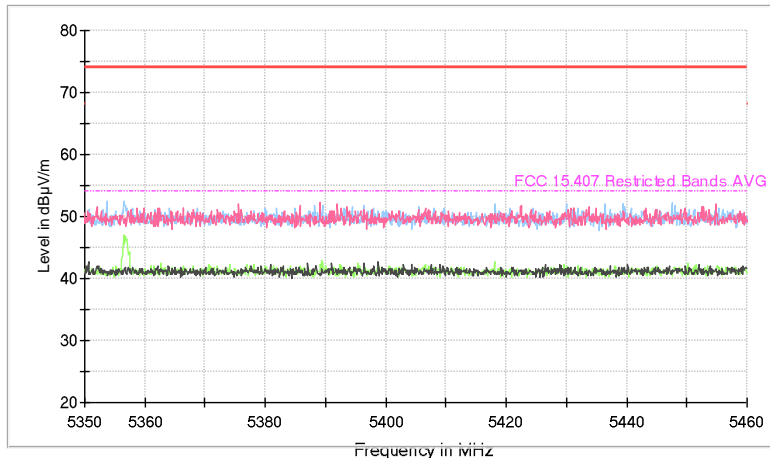
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



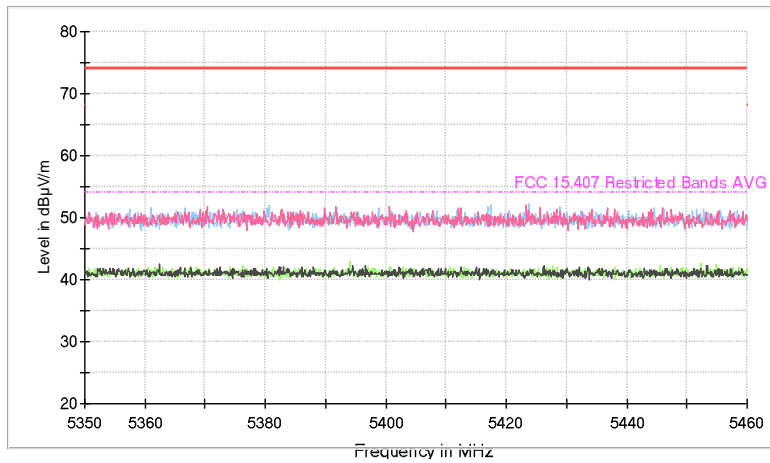
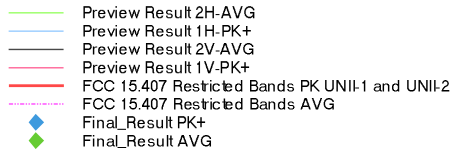
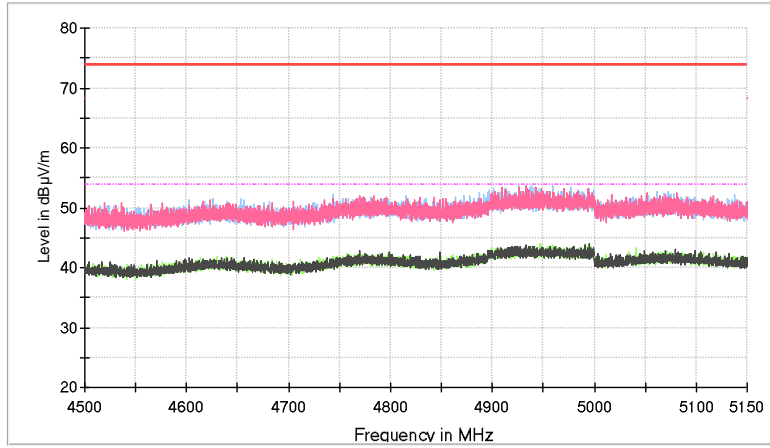
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



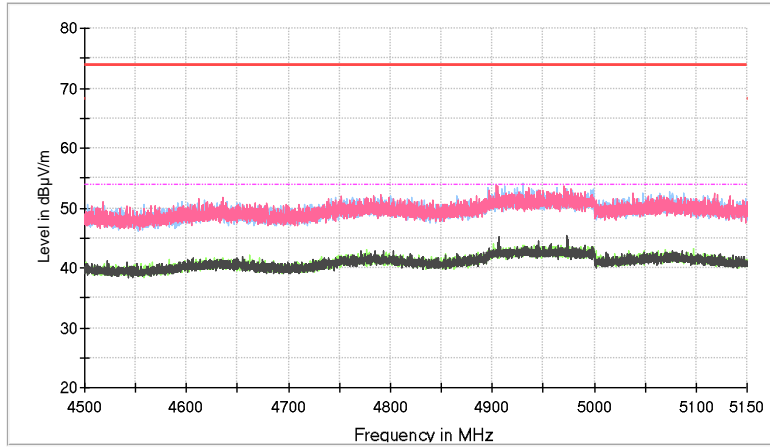
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• SISO 802.11 he20 (Chain 1) – SU Full Channel allocation:

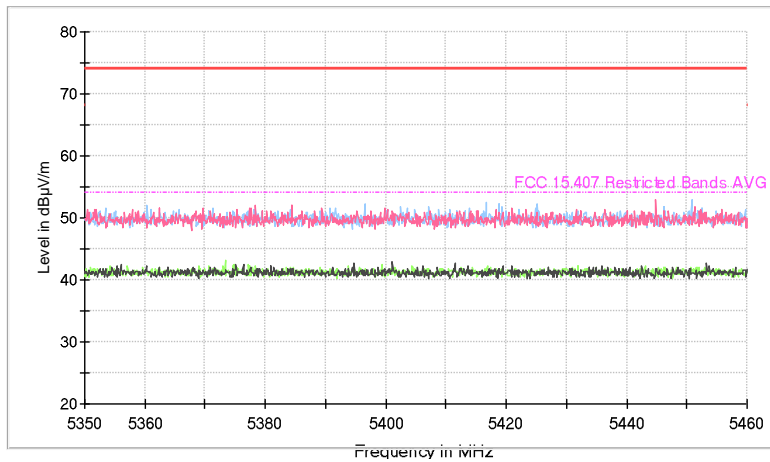
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



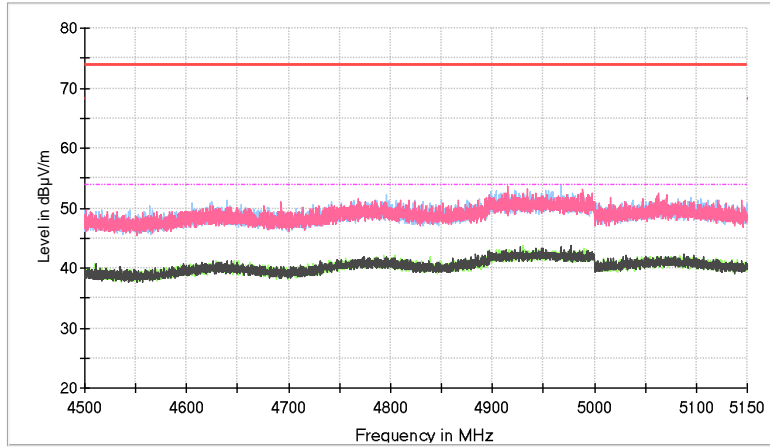
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



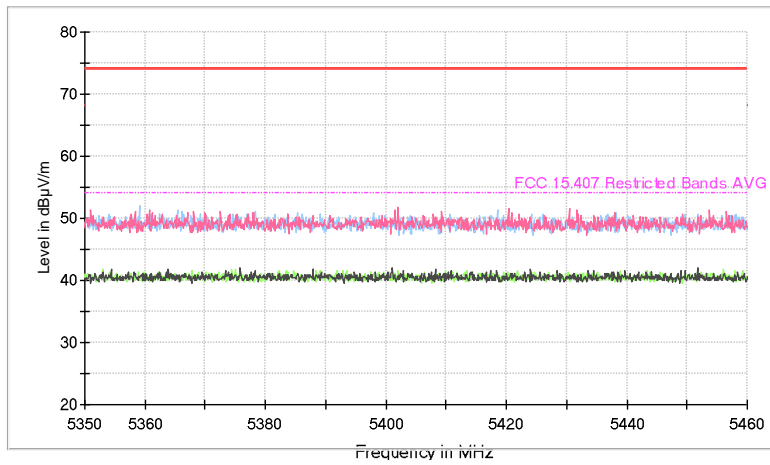
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• SISO 802.11 he20 (Chain 1) – RU Subcarrier allocation (RU26):

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands) / RU26 Offset 0

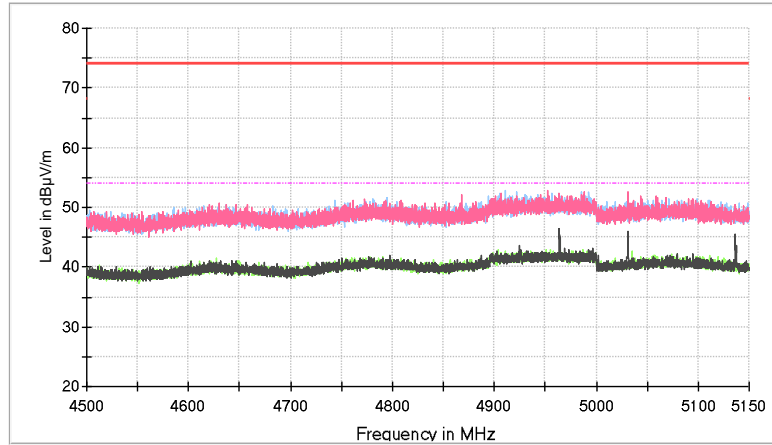


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

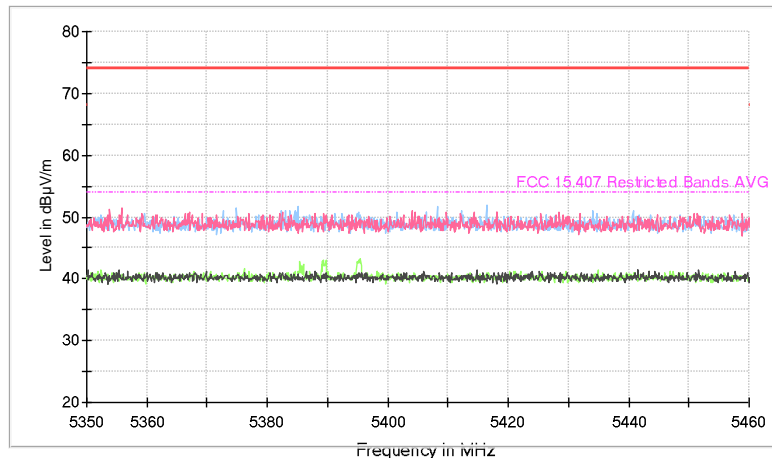


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands) / RU26 Offset 8



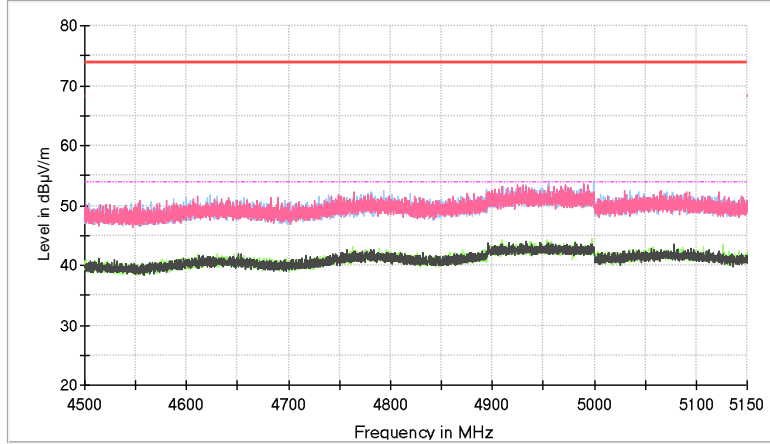
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



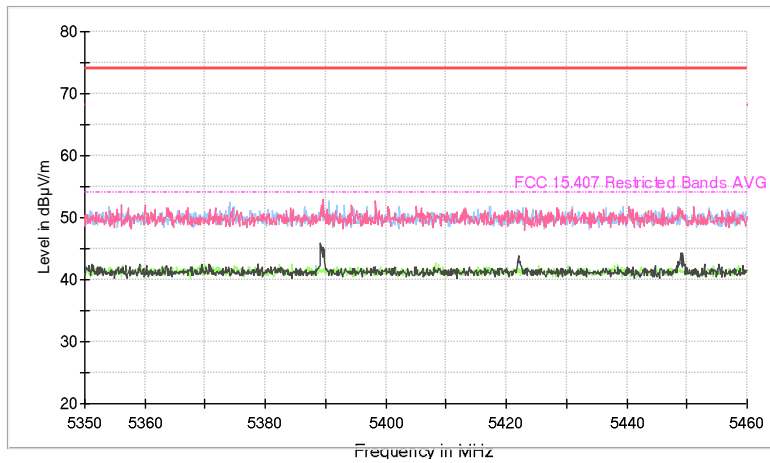
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 n40 (Chain 1):**

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)

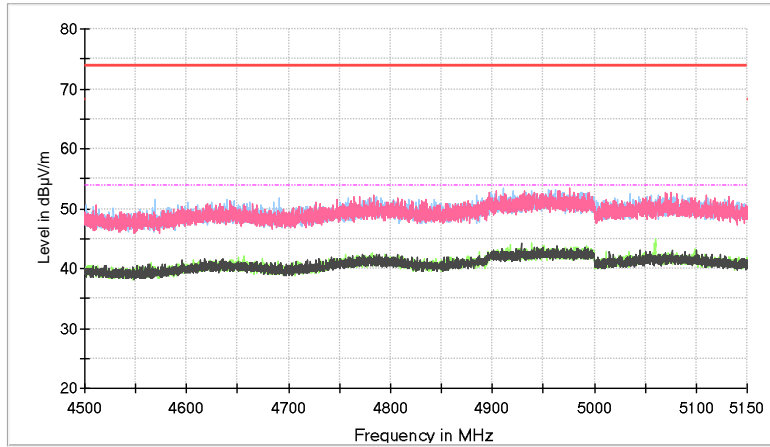


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- - - FCC 15.407 Restricted Bands AVG
- ◆ Final_Result PK+
- ◆ Final_Result AVG

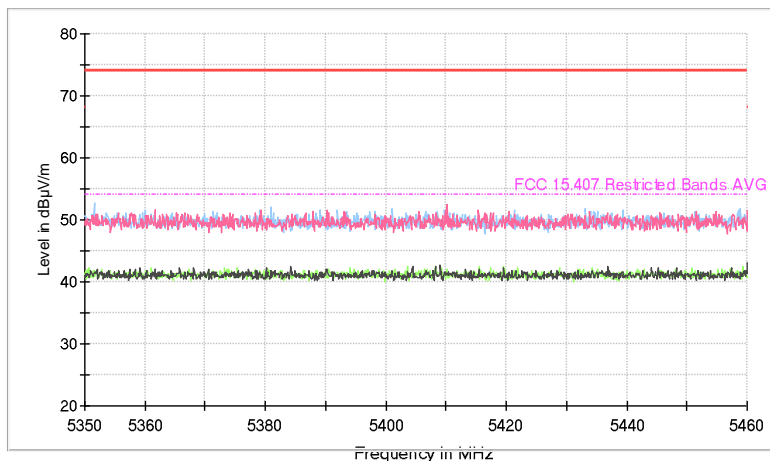


- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- - - FCC 15.407 Restricted Bands AVG
- ◆ Final_Result PK+
- ◆ Final_Result AVG

- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



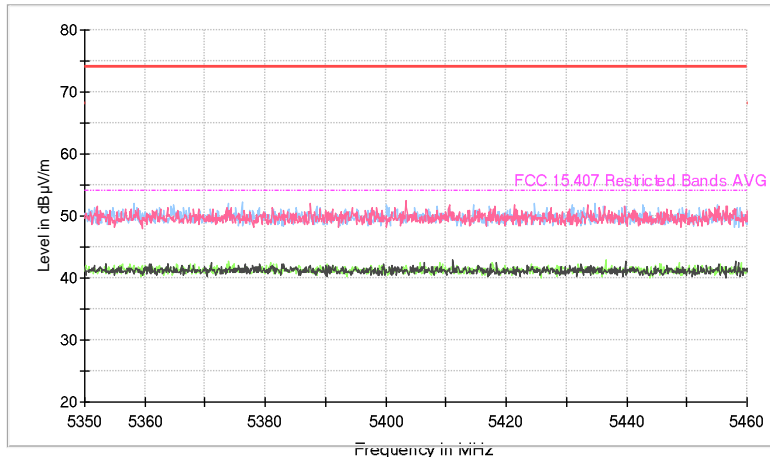
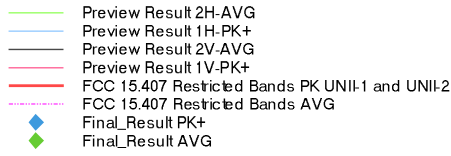
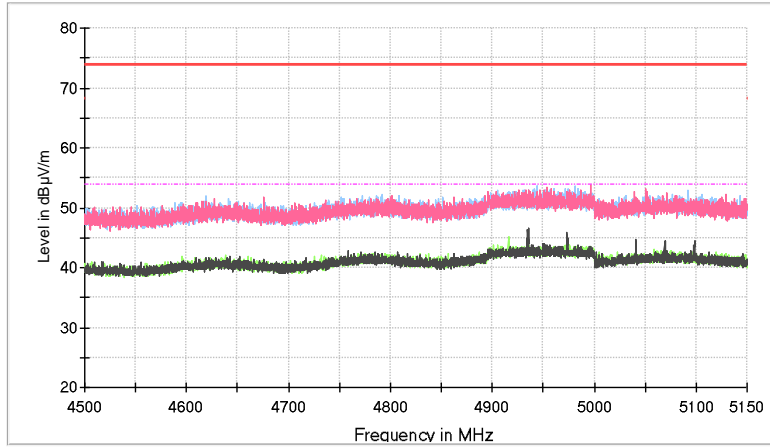
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



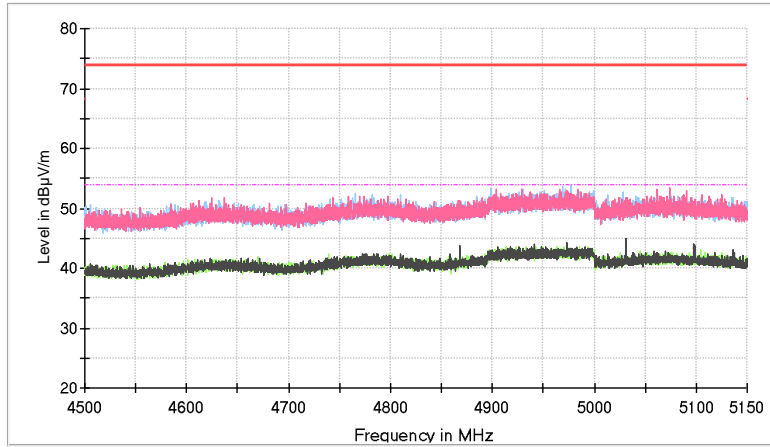
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 ac40 (Chain 1):**

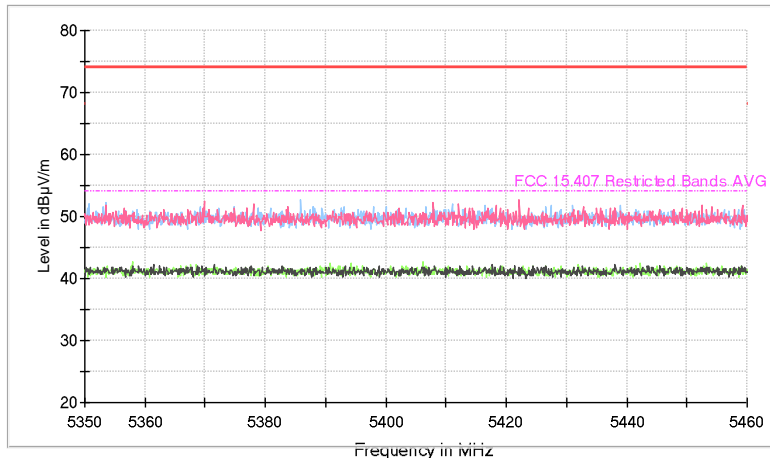
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



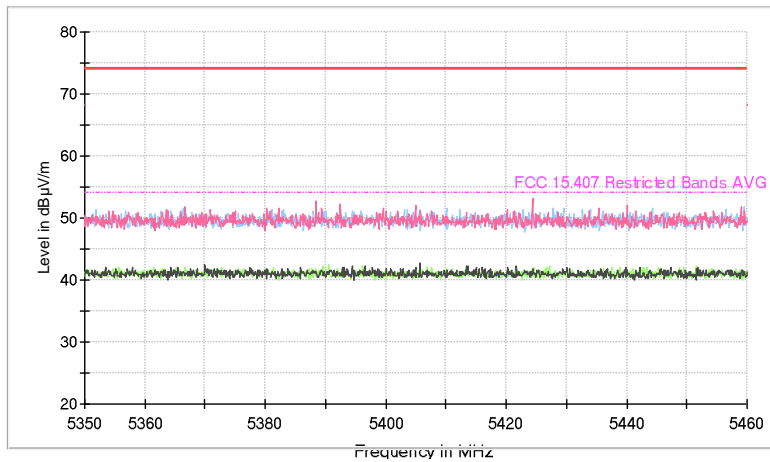
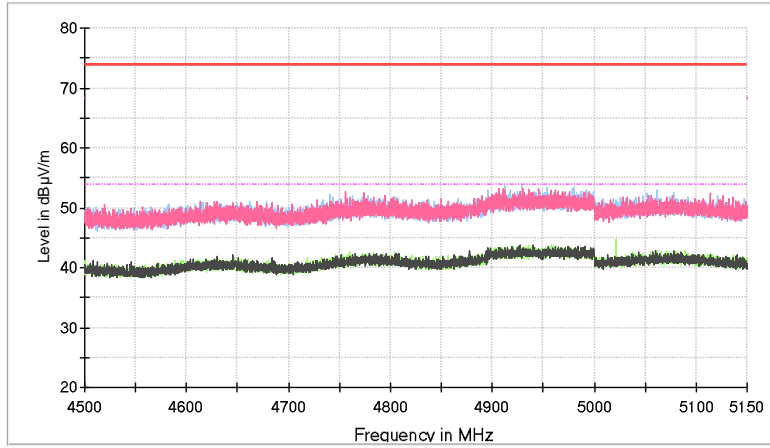
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



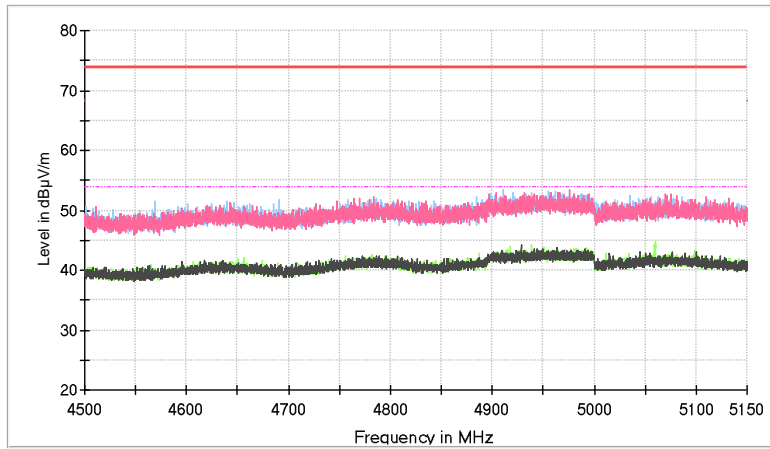
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 he40 (Chain 1) – SU Full channel allocation:**

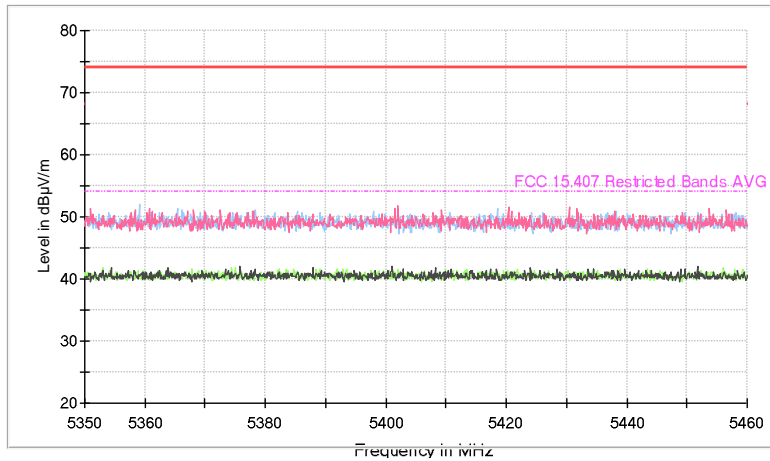
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



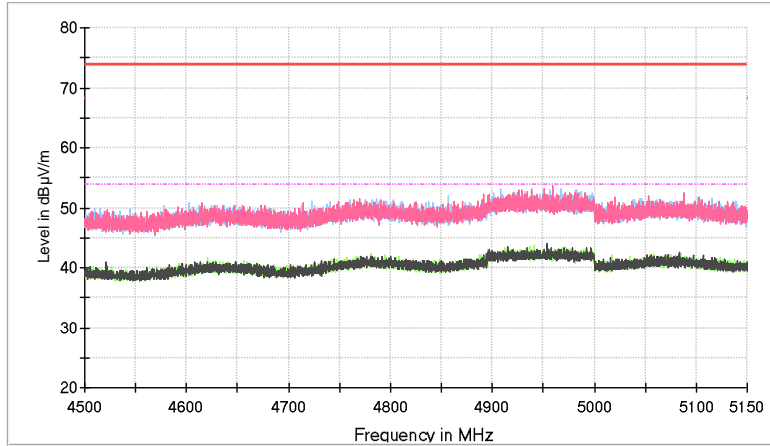
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



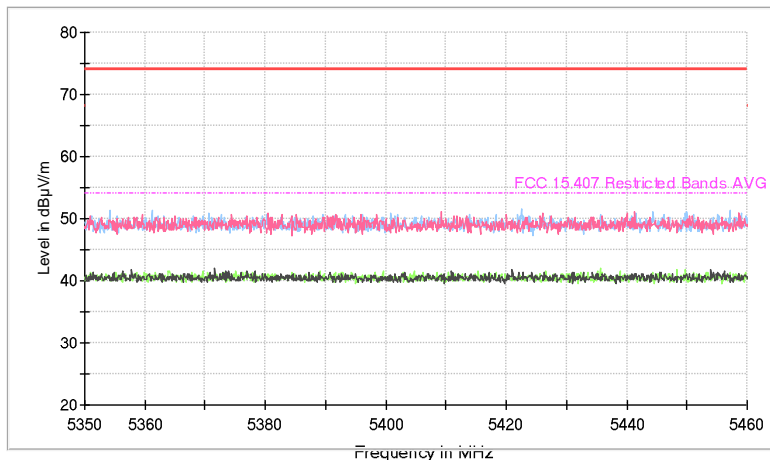
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• SISO 802.11 he40 (Chain 1) – RU Subcarrier allocation (RU26):

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands) / RU26 Offset0

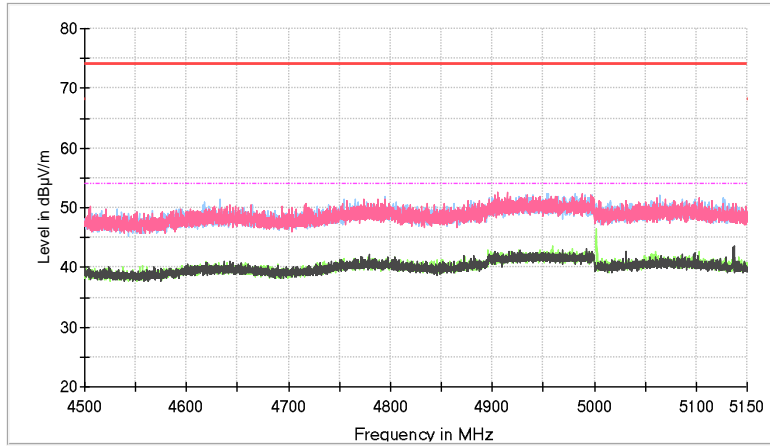


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- - - FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

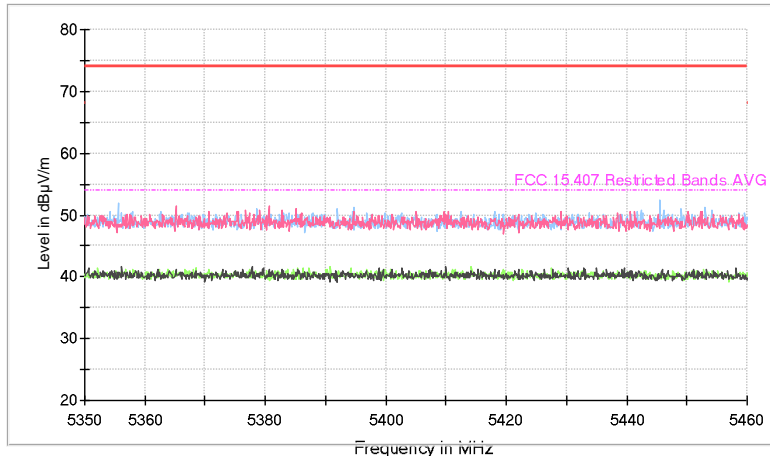


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- - - FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands) / RU26 Offset 17



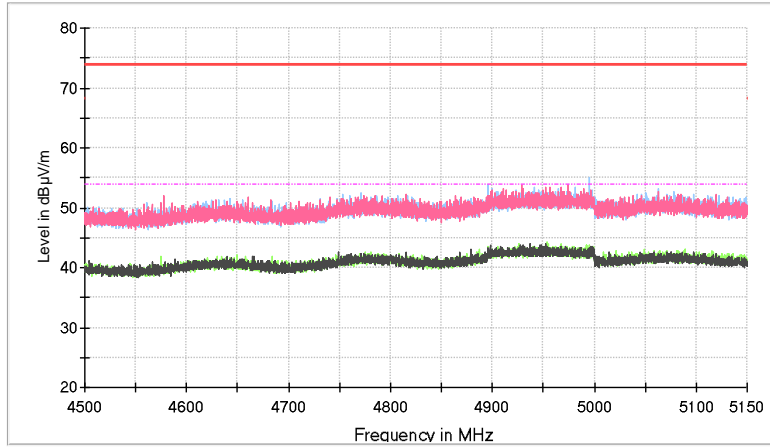
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



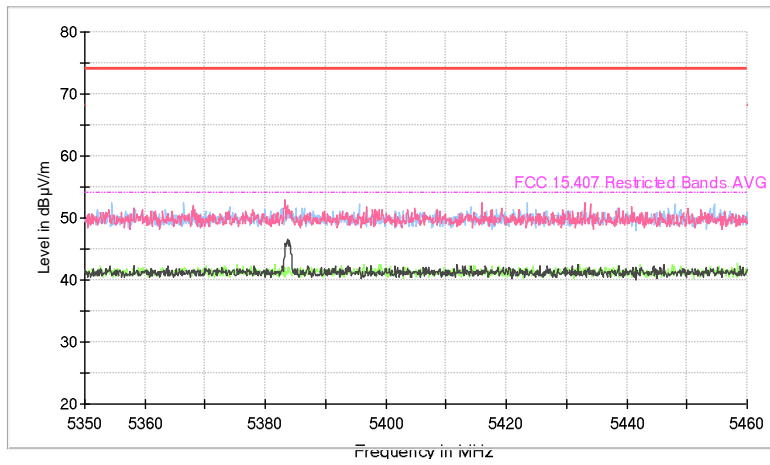
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 ac80 (Chain 1):**

- Lower Band Edge and Upper Band Edge – Single Channel (Restricted Bands)



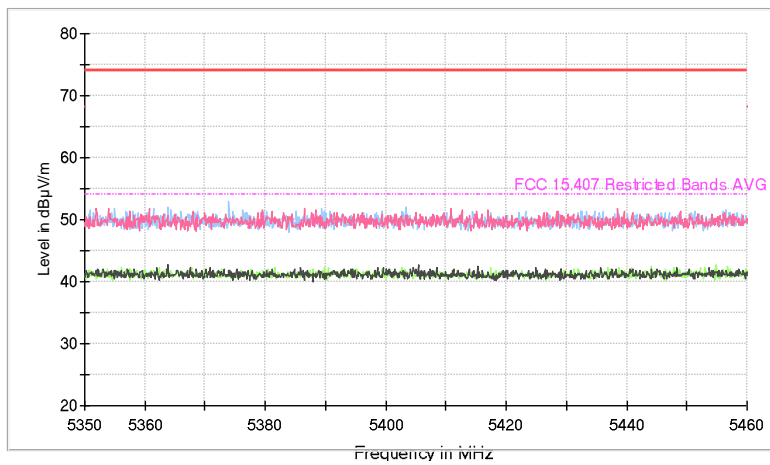
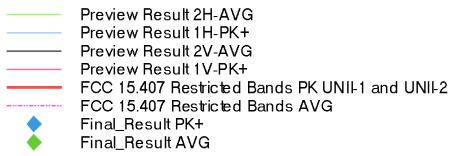
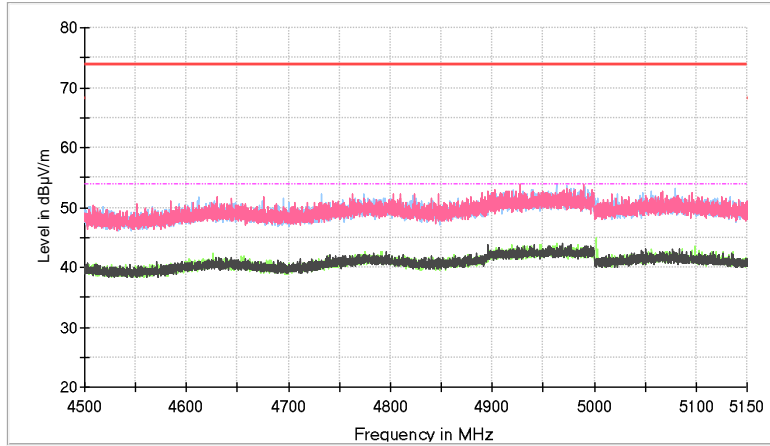
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• **SISO 802.11 he80 (Chain 1) – SU Full channel allocation:**

- Lower Band Edge and Upper Band Edge – Single Channel (Restricted Bands)



MIMO

• MIMO 802.11 a20:

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.0204000	52.65	V	Peak
5.0413000	51.97	H	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• MIMO 802.11 n20:

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions found inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.9727000	52.71	V	Peak
5.0119000	53.15	V	Peak
5.1438000	51.83	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.9637000	53.51	V	Peak
5.0691000	51.62	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 ac20:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.052300	51.34	V	Peak
5.149900	49.40	H	Peak

- Upper Band Edge. No spurious emissions inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 he20 – SU Full channel allocation:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions found inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.973300	52.06	V	Peak
5.089000	52.57	V	Peak
5.146100	52.91	H	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. Spurious emissions found inside the Restricted Band 5.35-5.46 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.386000	51.11	V	Peak
5.403000	52.75	H	Peak

• **MIMO 802.11 he20 – RU Subcarrier allocation (RU26):**

The next RU combinations were tested as worst cases:

Low Channel: RU26 Offset 0
 High Channel: RU26 Offset 8

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBμV/m)	Polarization	Detector
5.040400	50.84	V	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 n40:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBμV/m)	Polarization	Detector
5.097300	51.48	V	Peak
5.149300	53.20	H	Peak

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 ac40:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.973800	52.92	V	Peak
5.079400	53.24	V	Peak
5.117500	50.27	V	Peak
5.147000	56.05	H	Peak
	43.34		AVG

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 he40 – SU Full channel allocation:**

- LOW CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
4.992900	53.62	H	Peak
5.066900	52.07	H	Peak
5.126600	51.07	V	Peak
5.149680	56.68	H	Peak
	43.68		AVG

- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 he40 – RU Subcarrier allocation (RU26):**

The next RU combinations were tested as worst cases:

Low Channel: RU26 Offset 0
 High Channel: RU26 Offset 17

- LOW CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz.

- HIGH CHANNEL:

- Lower Band Edge. No spurious emissions found inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. No spurious emissions found inside the Restricted Band 5.35-5.46 GHz:

• **MIMO 802.11 ac80:**

- SINGLE CHANNEL:

- Lower Band Edge. Spurious emissions inside the Restricted Band 4.50-5.15 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.0980000	51.79	V	Peak
5.1492000	56.61	H	Peak
	44.42		AVG

- Upper Band Edge. No spurious emissions inside the Restricted Band 5.35-5.46 GHz.

• **MIMO 802.11 he80 – SU Full channel allocation:**

- SINGLE CHANNEL:

- Lower Band Edge. No spurious emissions inside the Restricted Band 4.50-5.15 GHz.
- Upper Band Edge. Spurious emissions found inside the Restricted Band 5.35-5.46 GHz:

Spurious frequency (GHz)	Emission Level (dBµV/m)	Polarization	Detector
5.3532000	52.57	H	Peak

Measurement Uncertainty (dB) < ± 4.6

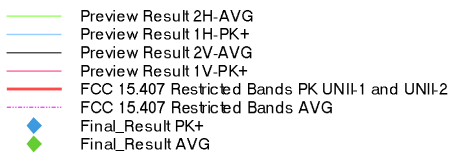
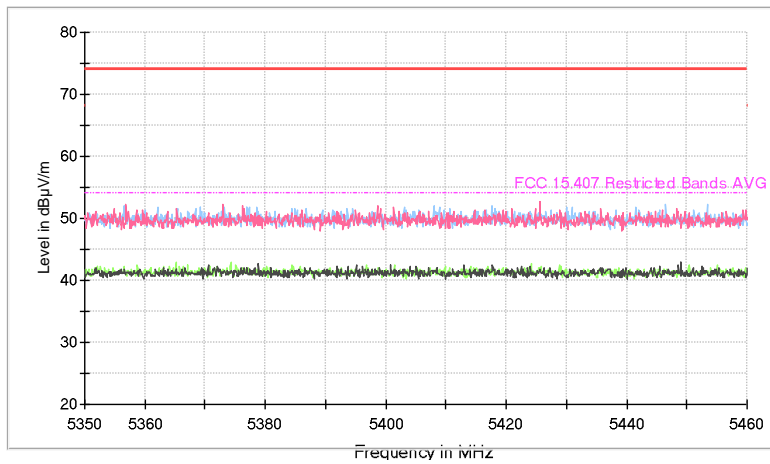
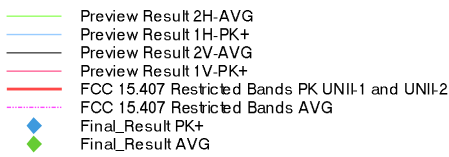
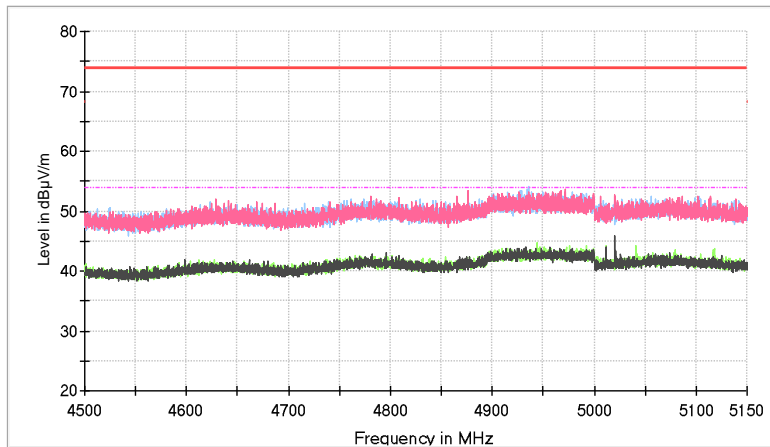
Verdict: PASS

The measurement settings for band edge measurements is as follows:

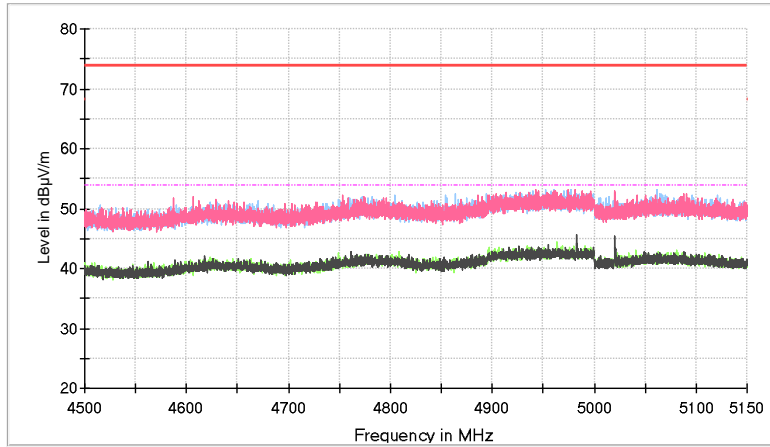
Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
Receiver: [ESW 44] 1 GHz - 6,5 GHz	100 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

• MIMO 802.11 a20:

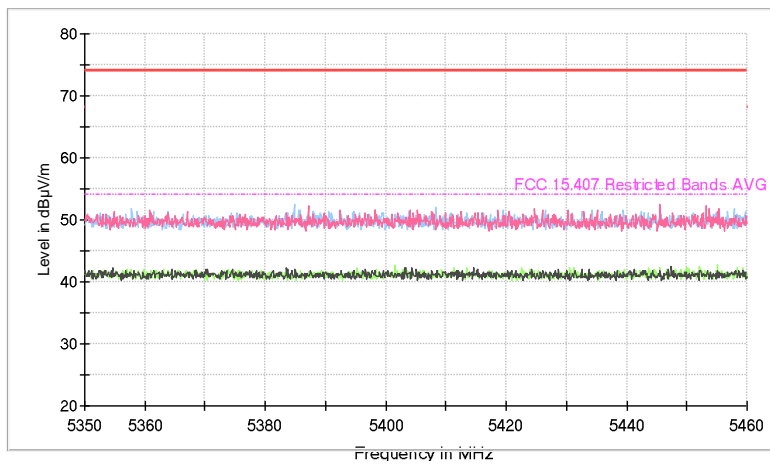
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



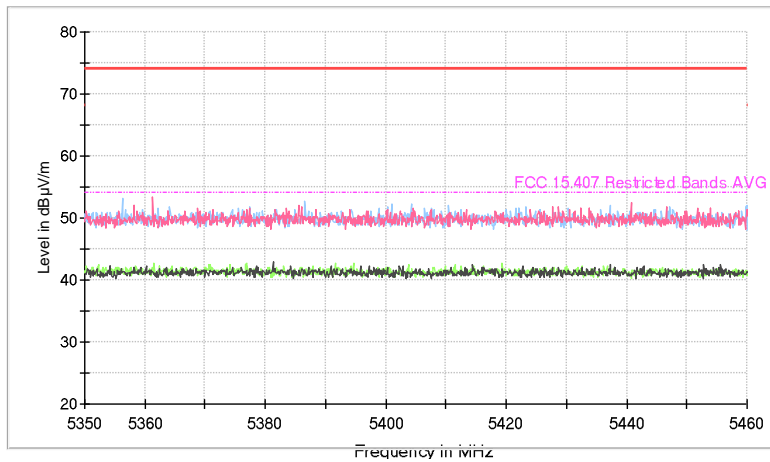
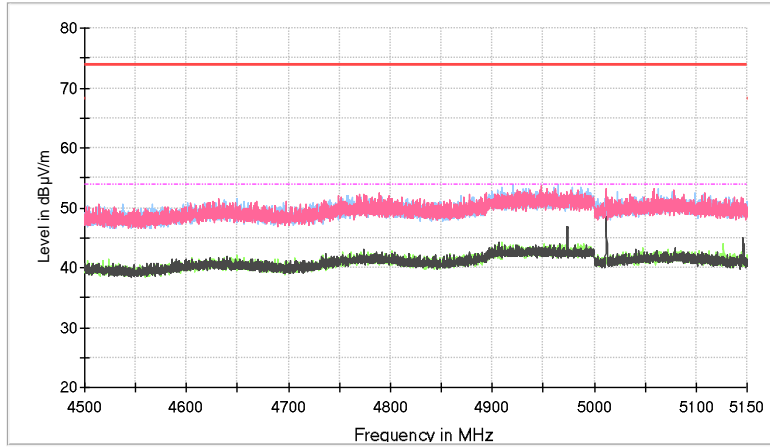
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



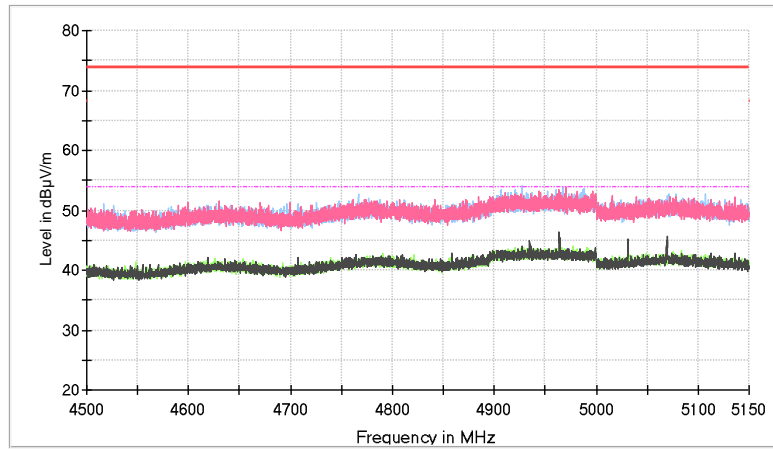
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
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• MIMO 802.11 n20:

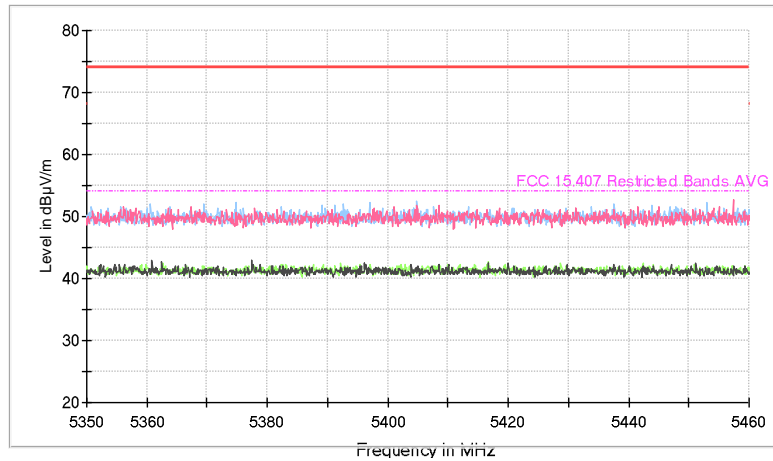
- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



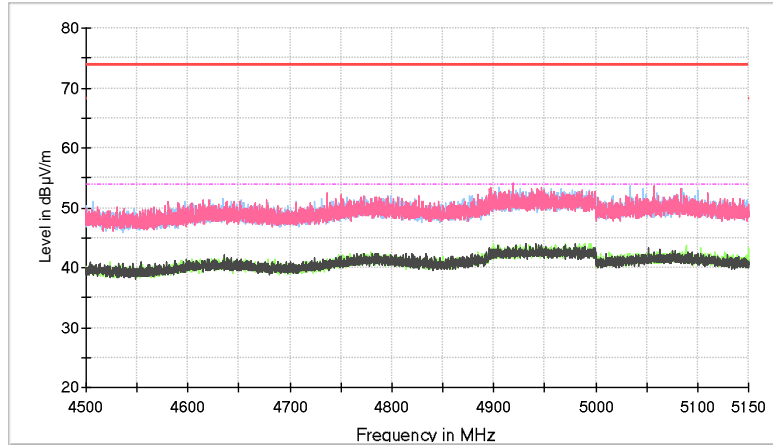
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



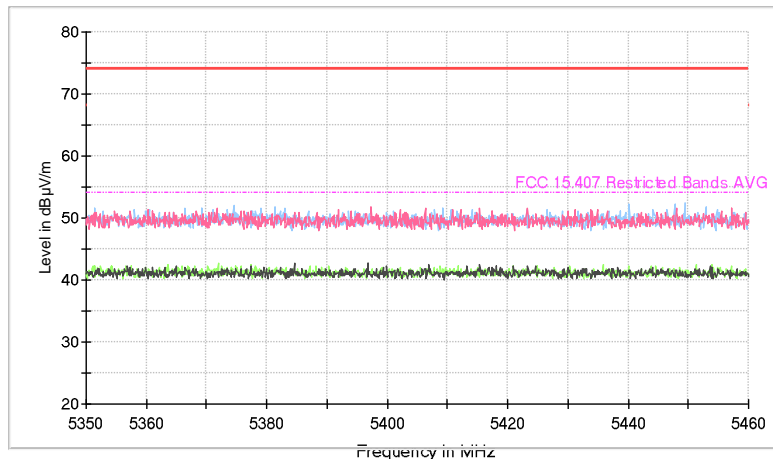
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• MIMO 802.11 ac20:

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)

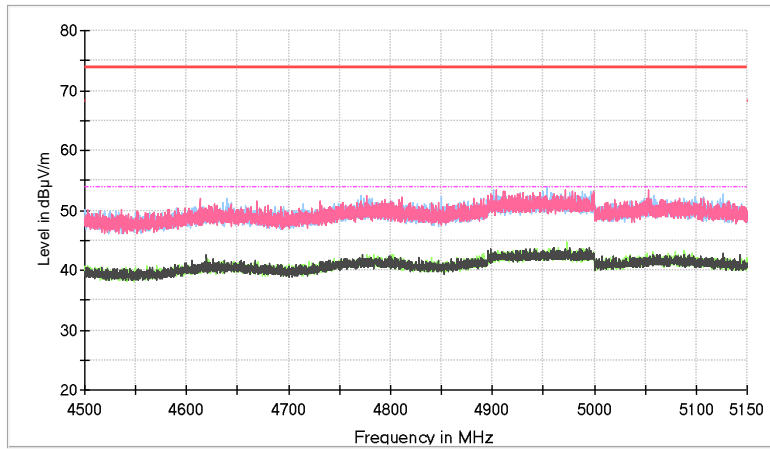


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
— FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

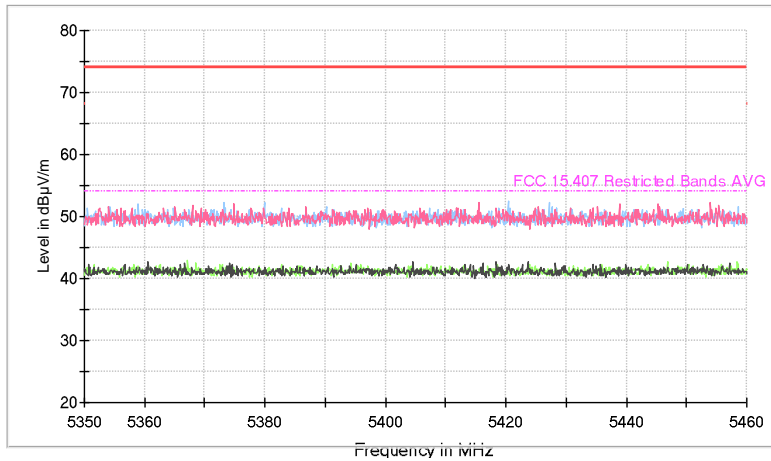


— Preview Result 2H-AVG
— Preview Result 1H-PK+
— Preview Result 2V-AVG
— Preview Result 1V-PK+
— FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
— FCC 15.407 Restricted Bands AVG
◆ Final_Result PK+
◆ Final_Result AVG

- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)



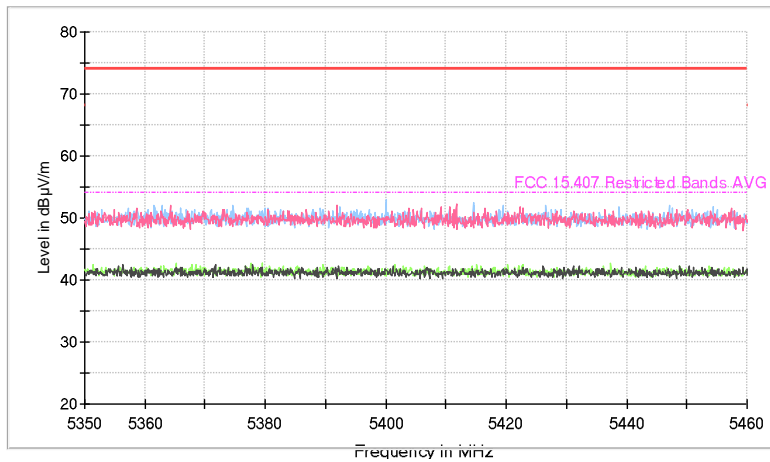
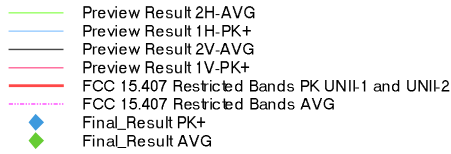
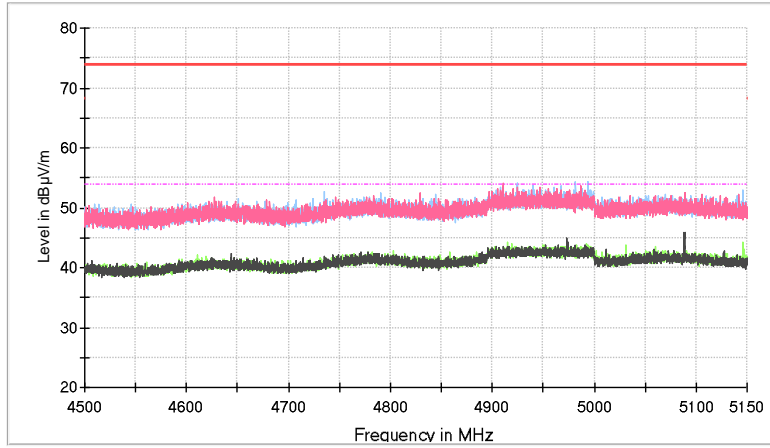
- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG



- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- Final_Result PK+
- Final_Result AVG

• MIMO 802.11 he20 – SU Full channel allocation:

- Lower Band Edge and Upper Band Edge – Low Channel (Restricted Bands)



- Lower Band Edge and Upper Band Edge – High Channel (Restricted Bands)

