

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Results

Freq (MHz)	PSD (dBm)
2412.00000	-15.761000
2442.00000	-14.903000
2462.00000	-16.206000

Verdict

Pass

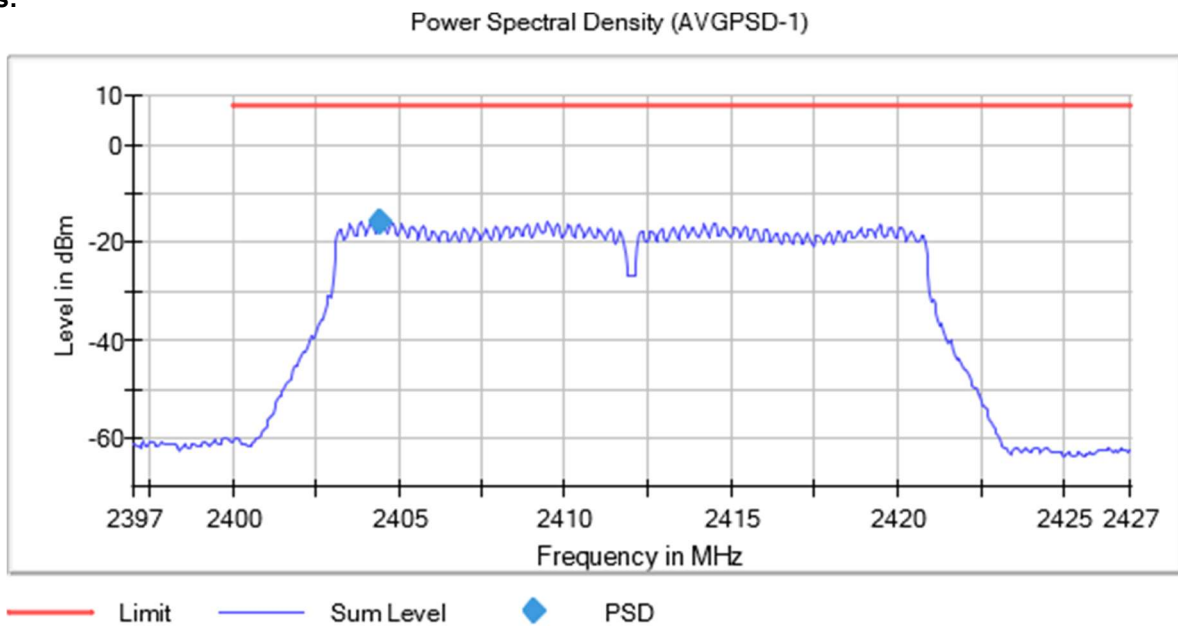
Uncertainty

Measurement uncertainty (dB) <±0.99

Attachments

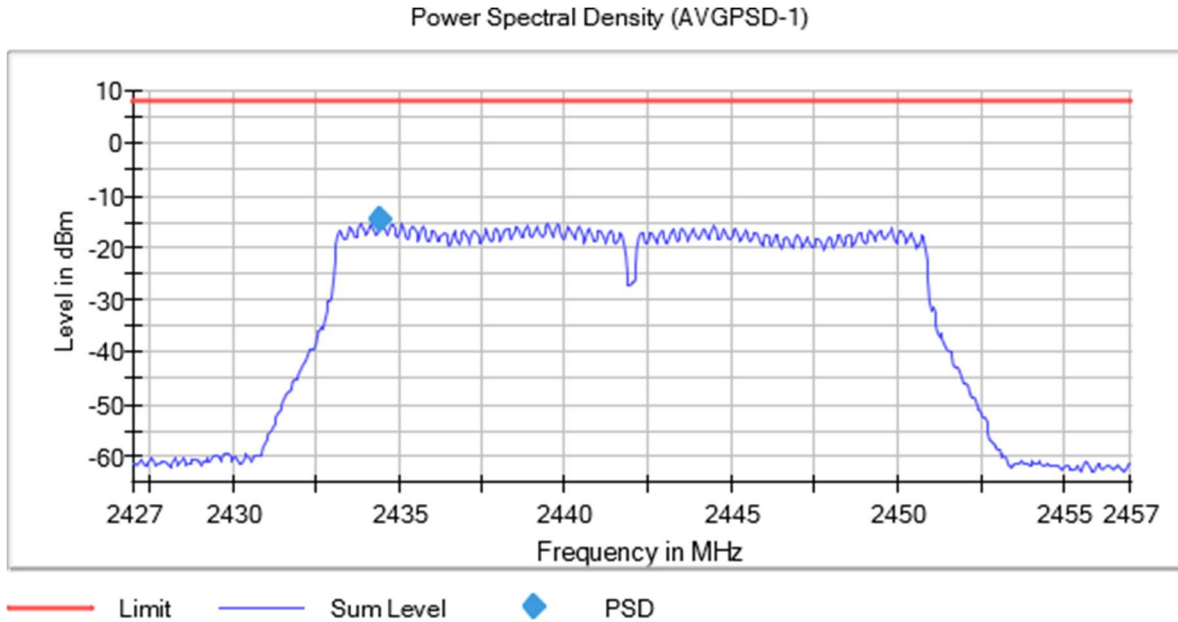
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Images:



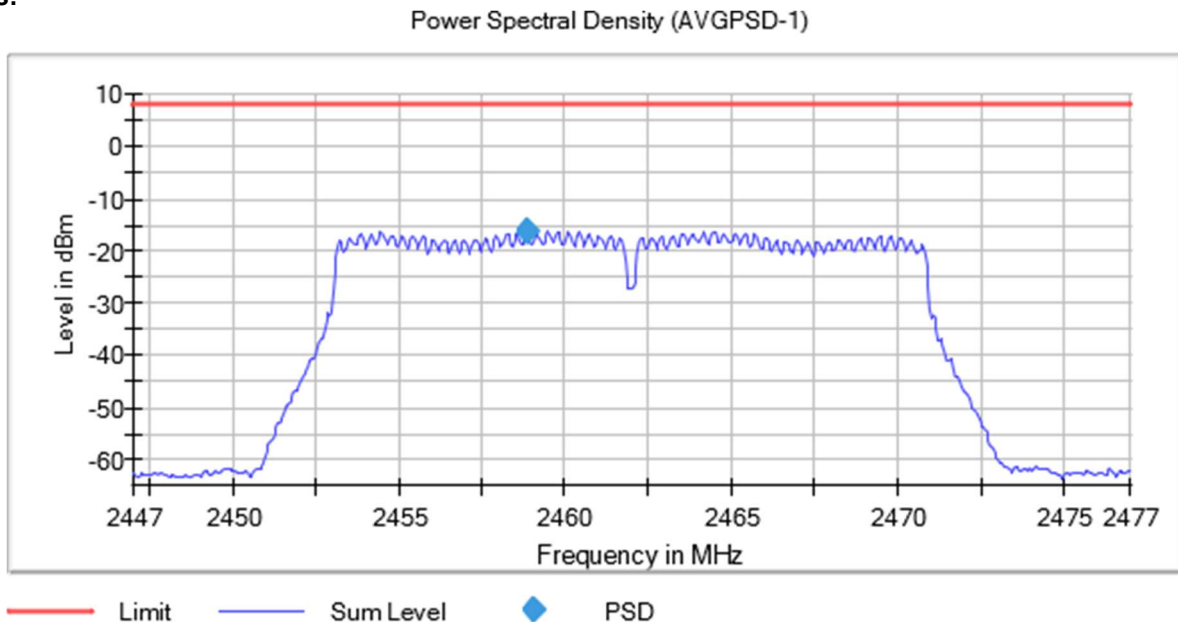
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2442.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Images:



FCC 15.247 (b) / RSS-247 5.4 (d) Maximum output power and antenna gain

SPECIFICATION:

For systems using digital modulation in the 2400-2483.5 MHz band: 1 watt (30 dBm).
 The e.i.r.p. shall not exceed 4 W (36 dBm) (Canada).

Results

Modulation: 802.11g (OFDM 6 Mbit/s)

Operation Band (MHz)	Equipment	Avg Power Conducted (dBm)	Maximum EIRP Power (dBm)
2412.00	Digital Transmission System (DTS)	9.30	11.50
2442.00	Digital Transmission System (DTS)	8.70	10.90
2462.00	Digital Transmission System (DTS)	8.80	11.00

Modulation: 802.11b (DSSS 1 Mbit/s)

Operation Band (MHz)	Equipment	Avg Power Conducted (dBm)	Maximum EIRP Power (dBm)
2412.00	Digital Transmission System (DTS)	8.90	11.10
2442.00	Digital Transmission System (DTS)	8.80	11.00
2462.00	Digital Transmission System (DTS)	8.60	10.80

Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Operation Band (MHz)	Equipment	Avg Power Conducted (dBm)	Maximum EIRP Power (dBm)
2412.00	Digital Transmission System (DTS)	6.50	8.70
2442.00	Digital Transmission System (DTS)	6.60	8.80
2462.00	Digital Transmission System (DTS)	6.10	8.30

Verdict

Pass

Uncertainty

Measurement uncertainty (dB) <±0.99

RSS-247 5.5 / FCC 15.247 (d) [Bndedge] Band-edge emissions compliance (Transmitter)

Limits

In any 100 kHz bandwidths outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Results

Radiated measurements were used to show compliance with the limits in the restricted bands 2.31-2.39 GHz and 2.4835-2.5 GHz.

Verdict

Pass

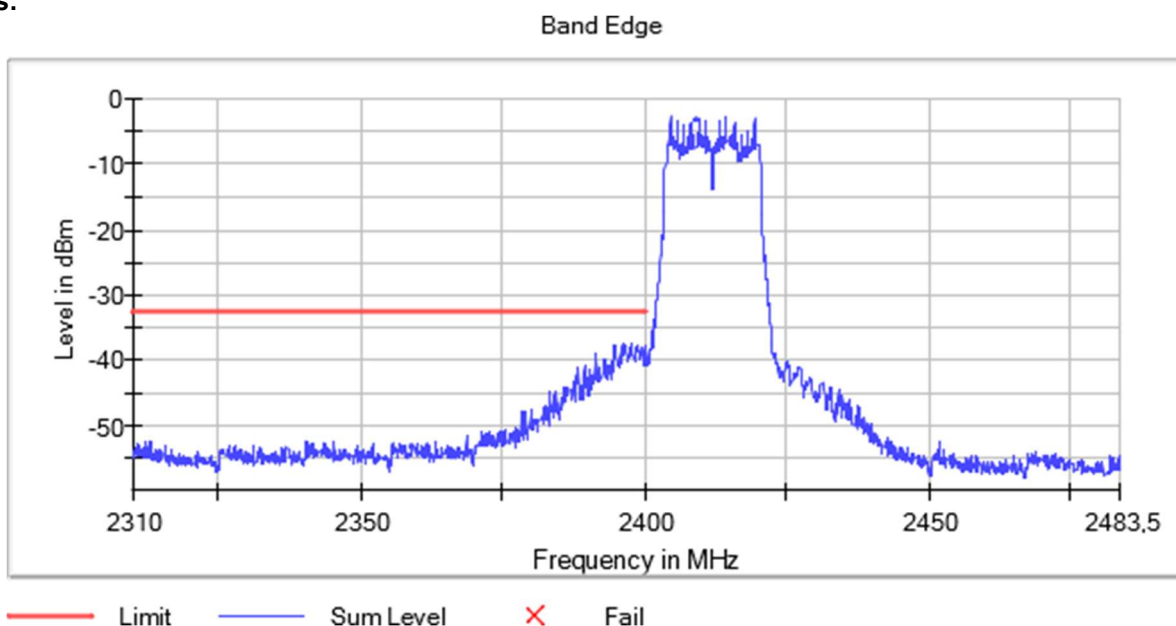
Uncertainty

Measurement uncertainty (dB) $< \pm 1.53$

Attachments

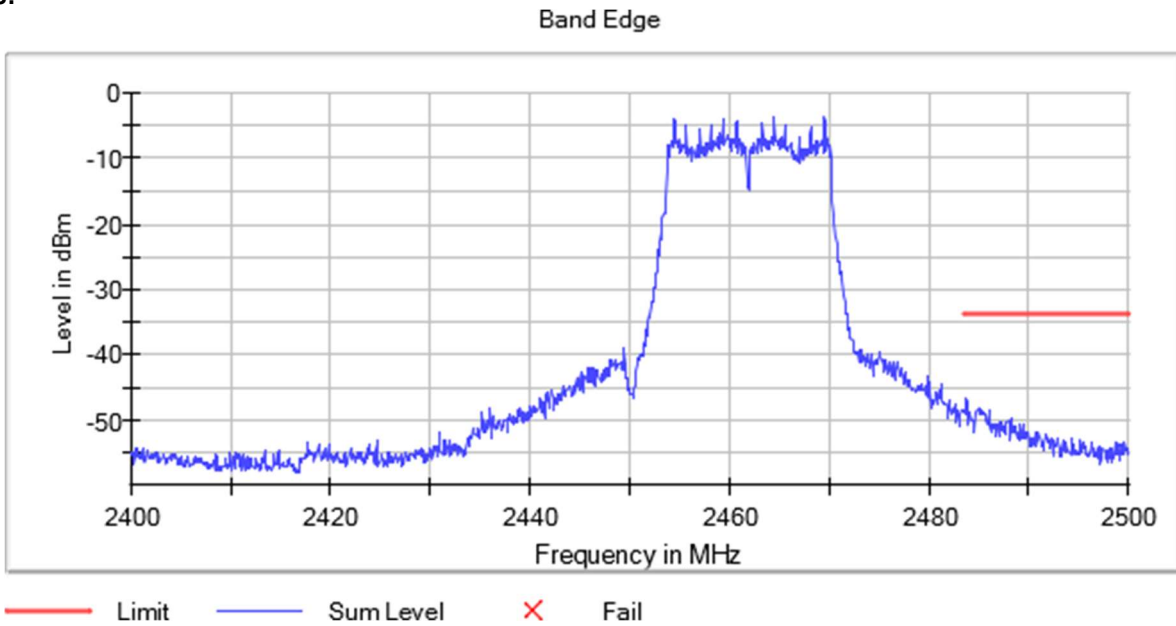
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Measurement Point = 1

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Measurement Point = 1

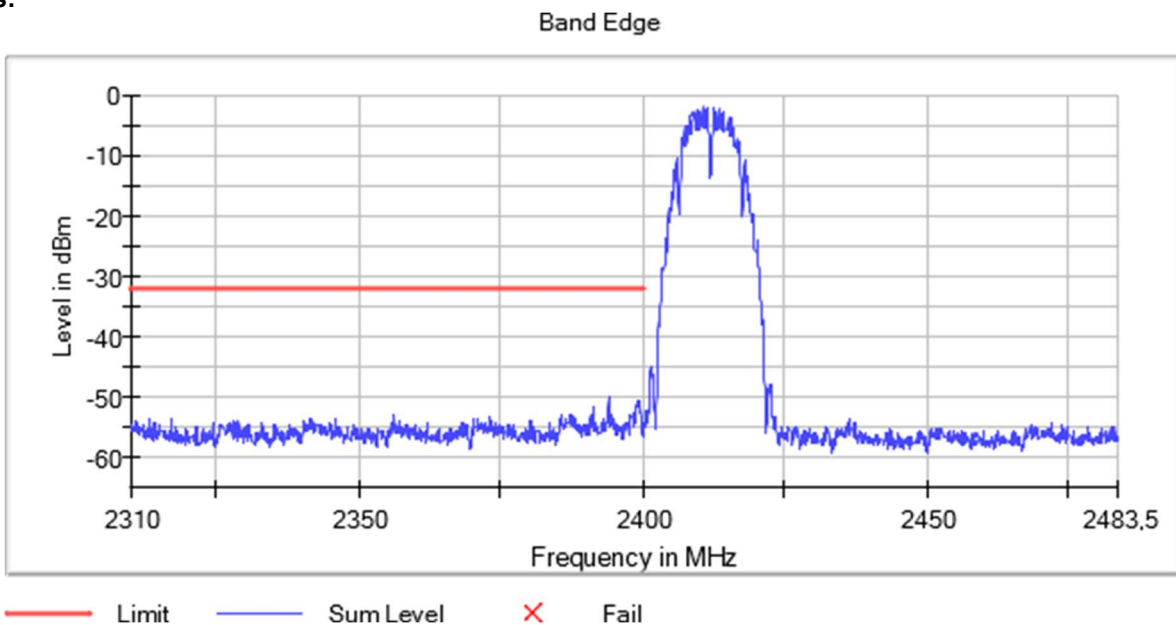
Images:



Attachments

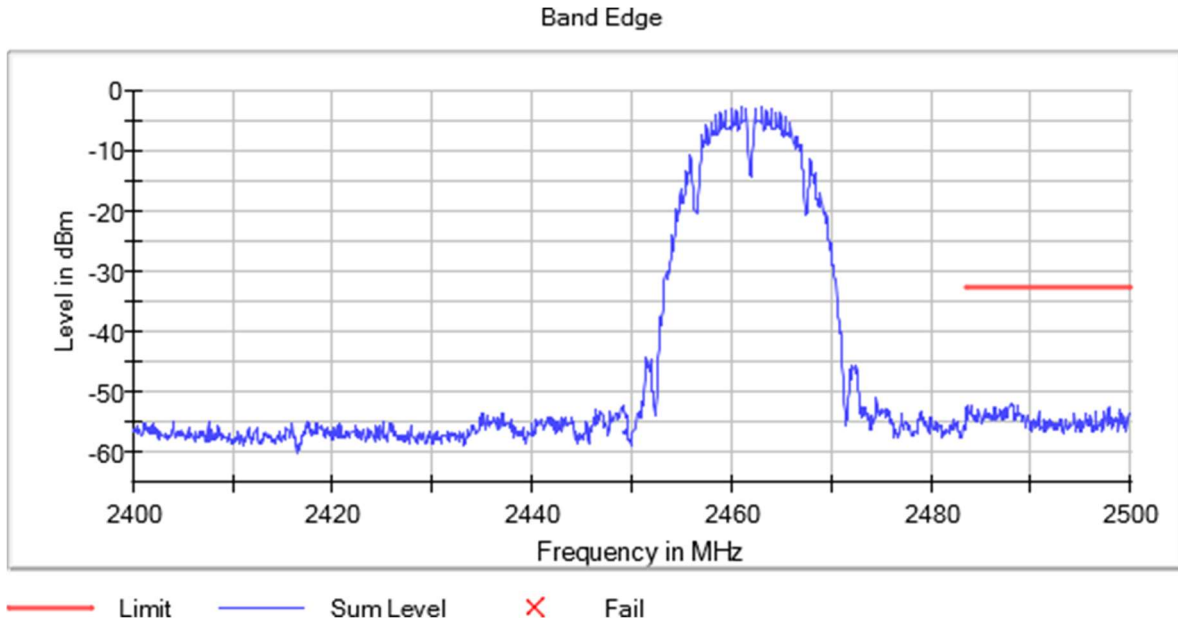
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Measurement Point = 1

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Measurement Point = 1

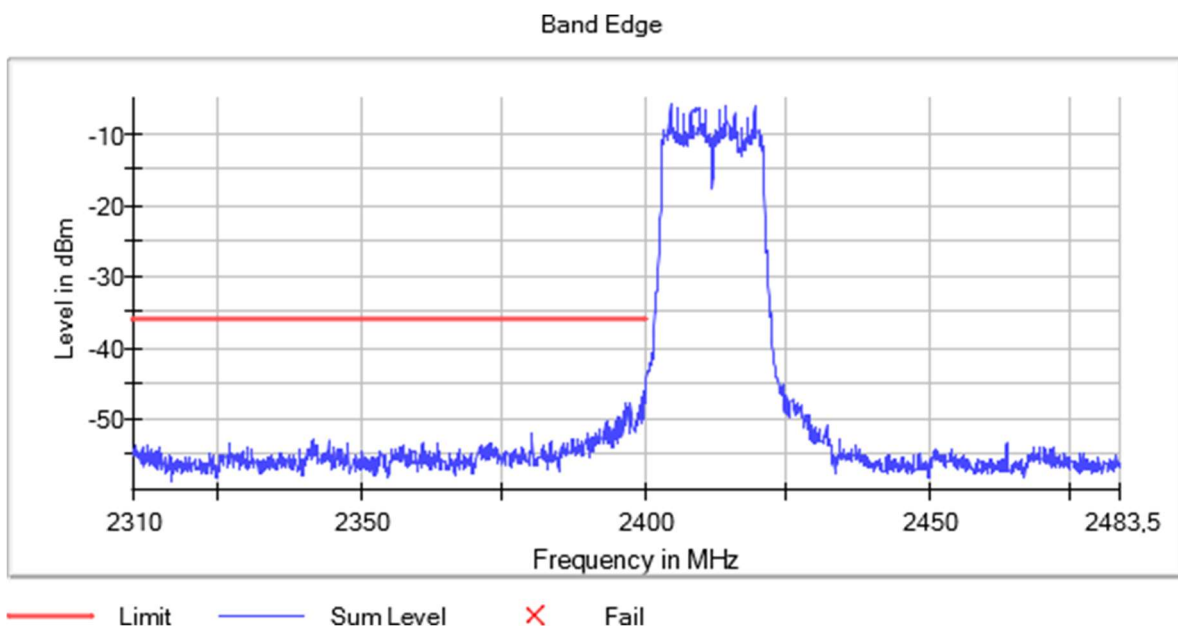
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Attachments

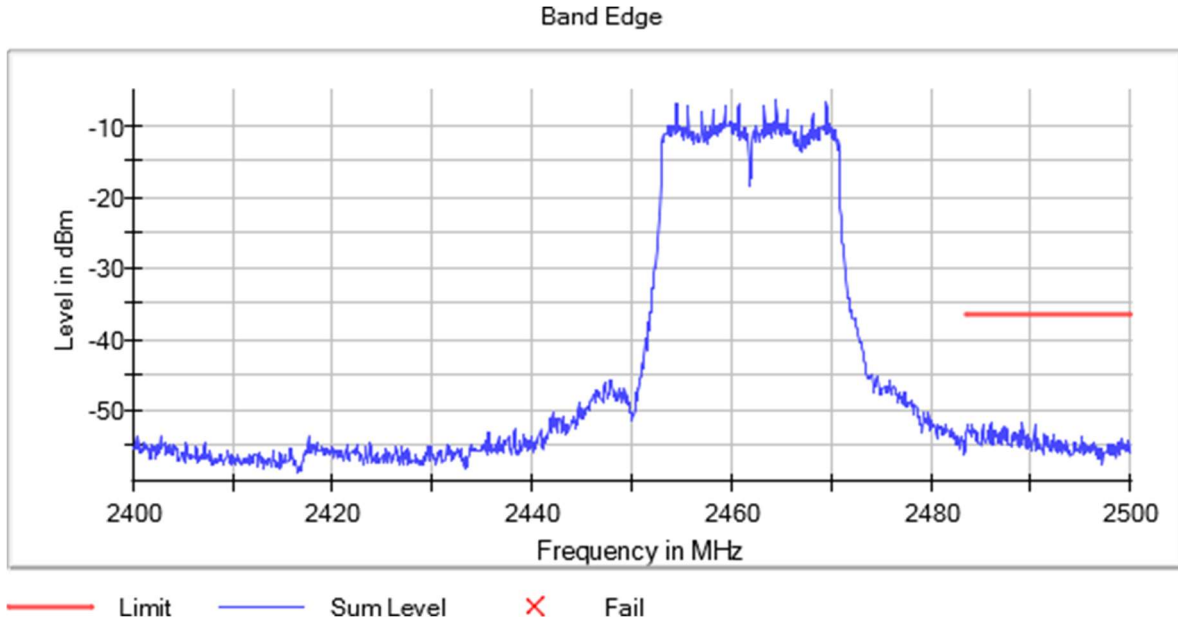
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s), Measurement Point = 1

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital
Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s), Measurement Point = 1

Images:



RSS-247 5.5 / FCC 15.247 (d) [RSE] Emission limitations radiated (Transmitter)

Limits

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

Frequency Range (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	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
Above 960	500	54	3

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

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

RSS-247: Attenuation below the general field strength limits specified in RSS-Gen is not required.

Modulation: 802.11g (OFDM 6 Mbit/s)

Results

Freq (MHz)	Freq Rng (GHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
2462.00000	[3, 17]	5374.252200	36.65	V	AVG
		5374.252200	43.44	V	PK
2412.00000	[0.03, 1]	351.070000	33.17	H	PK
		351.070000	29.14	H	QP
		517.651333	26.56	V	PK
		517.651333	22.20	V	QP
		548.756000	26.45	H	PK
		548.756000	20.66	H	QP
		824.915000	29.26	H	PK
		824.915000	24.82	H	QP

Verdict

Pass

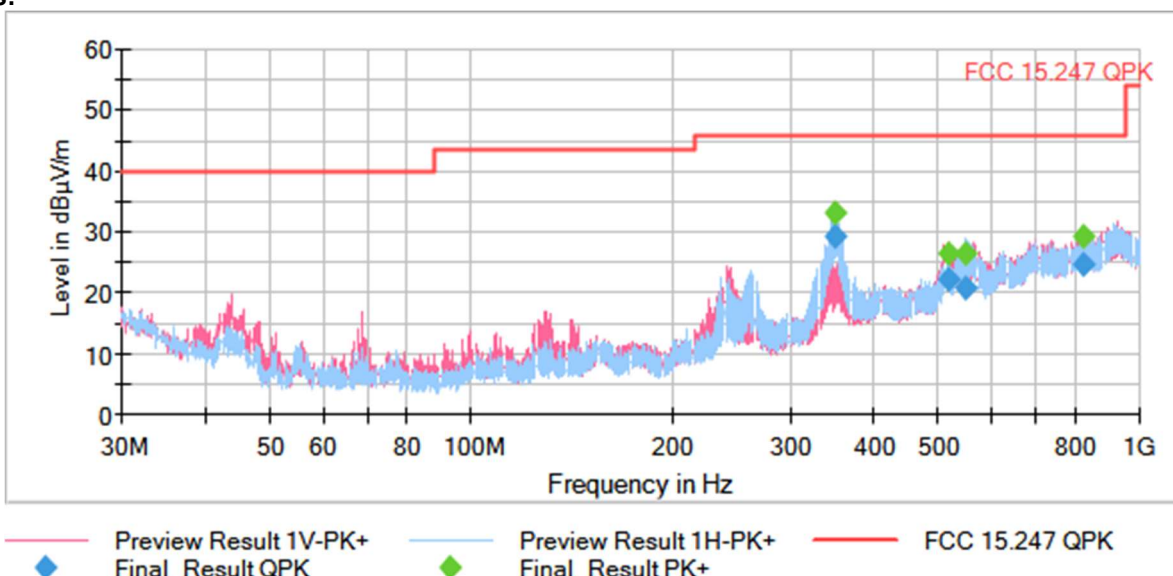
Uncertainty

Measurement Uncertainty (dB): 0.03 GHz ≤ f ≤ 1 GHz: <± 5.17
 1 GHz ≤ f ≤ 3 GHz: <± 4.11
 3 GHz < f ≤ 17 GHz: <± 5.13
 17 GHz < f ≤ 26 GHz: <± 4.81

Attachments

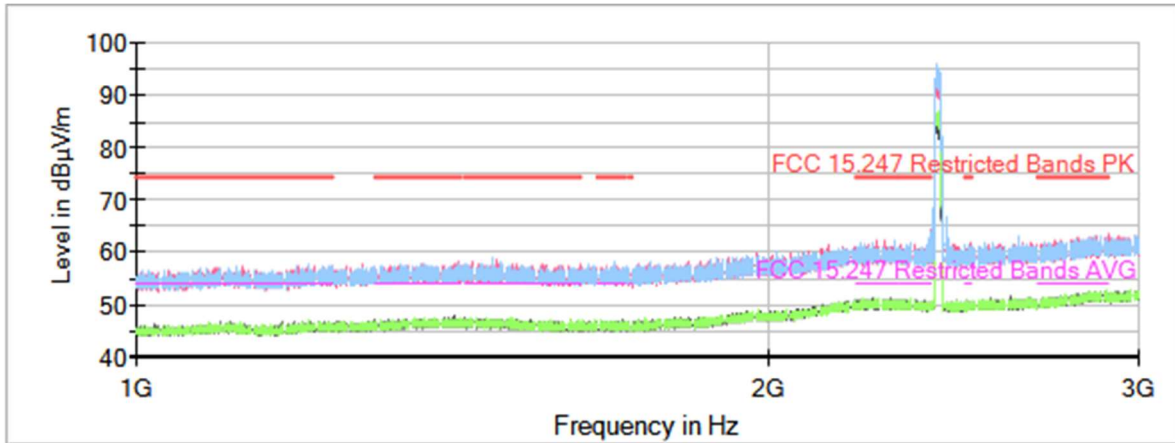
Operation Band MHz = [2400, 2483.5], Frequency MHz = The spurious frequencies detected do not depend neither on the operating channel, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [0.03, 1], Measurement Point = 1

Images:



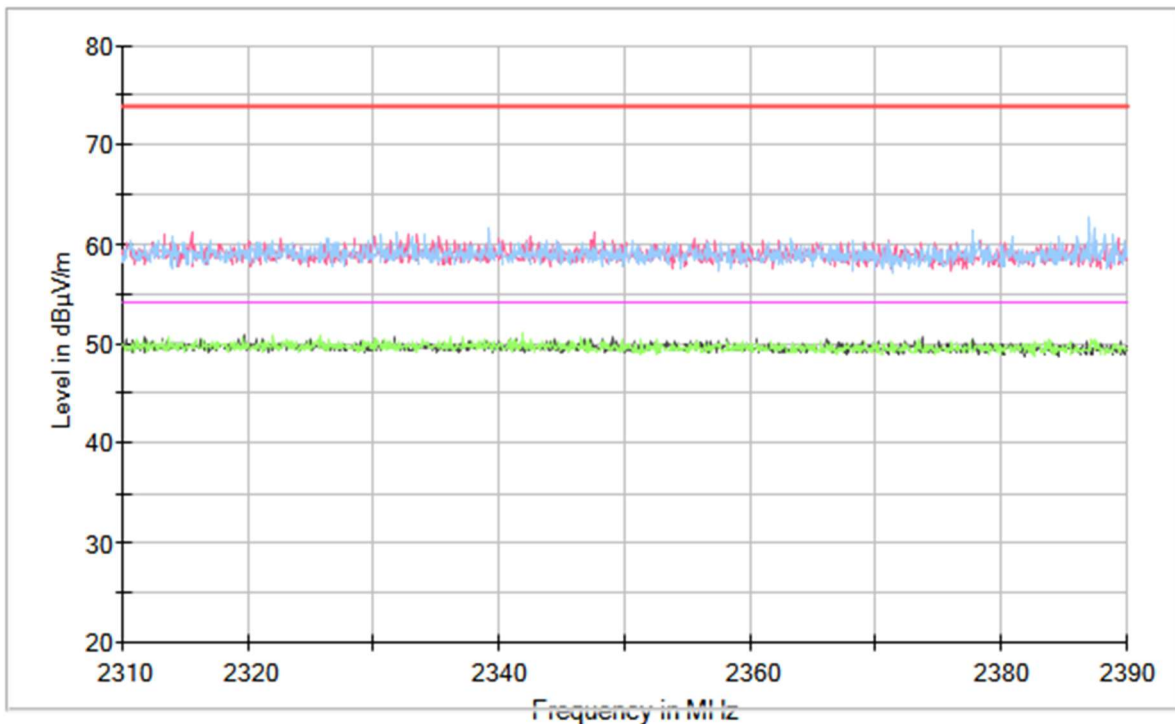
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [1, 3], Measurement Point = 1

Images:



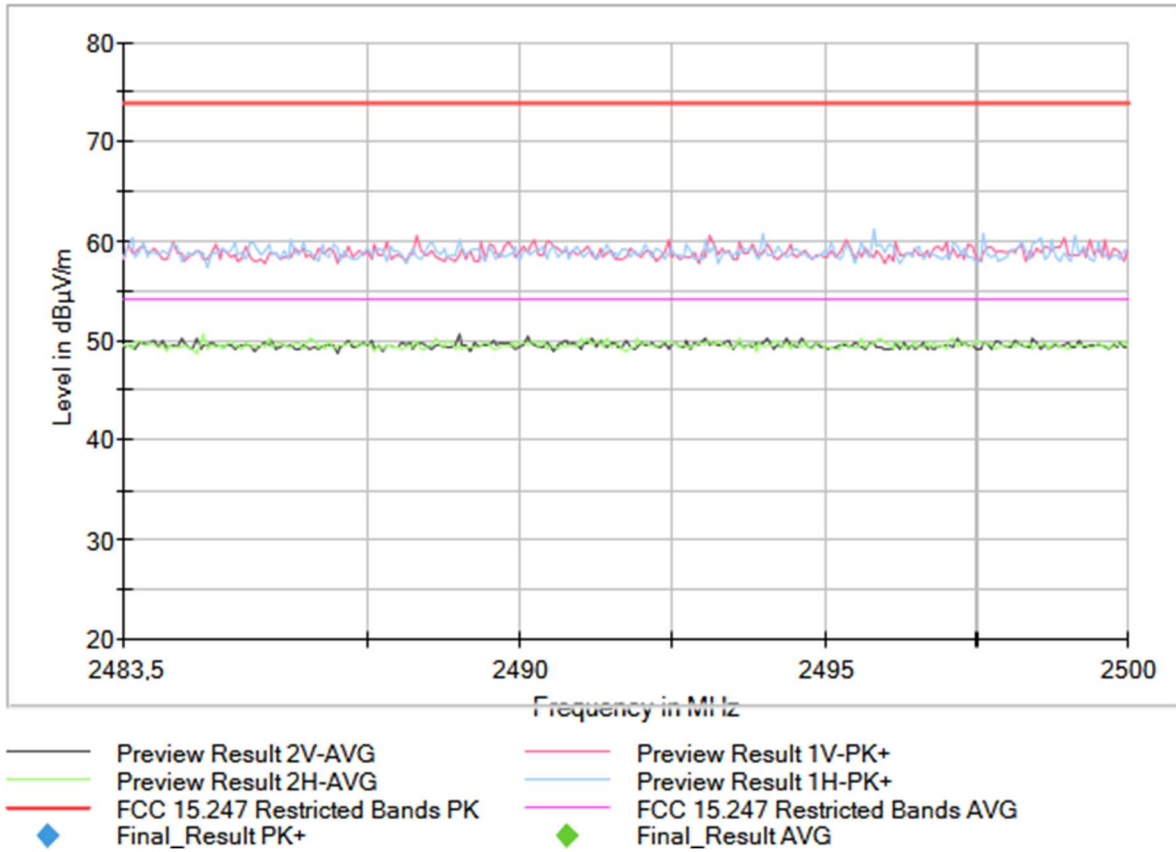
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| — | Preview Result 2V-AVG | — | Preview Result 1V-PK+ |
| — | Preview Result 2H-AVG | — | Preview Result 1H-PK+ |
| — | FCC 15.247 Restricted Bands PK | — | FCC 15.247 Restricted Bands AVG |
| ◆ | Final_Result PK+ | ◆ | Final_Result AVG |

Full Spectrum



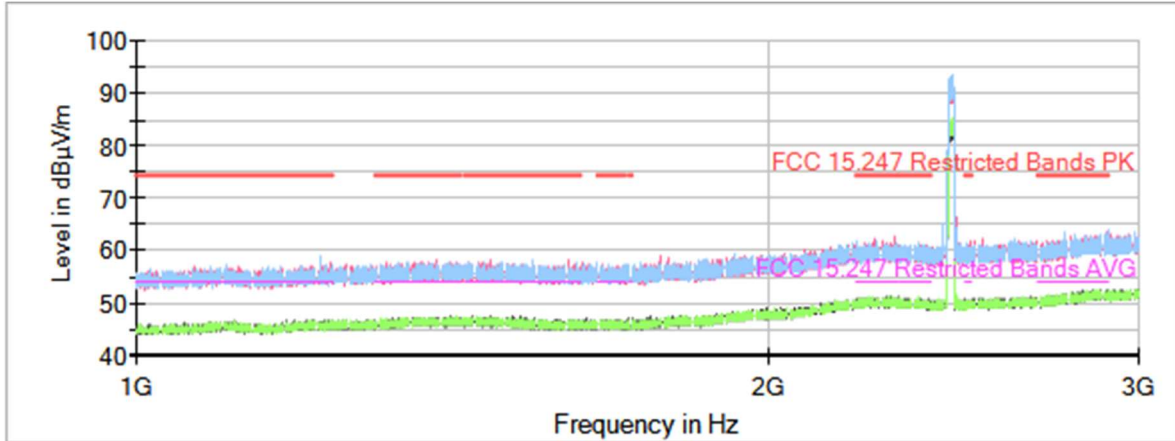
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Full Spectrum



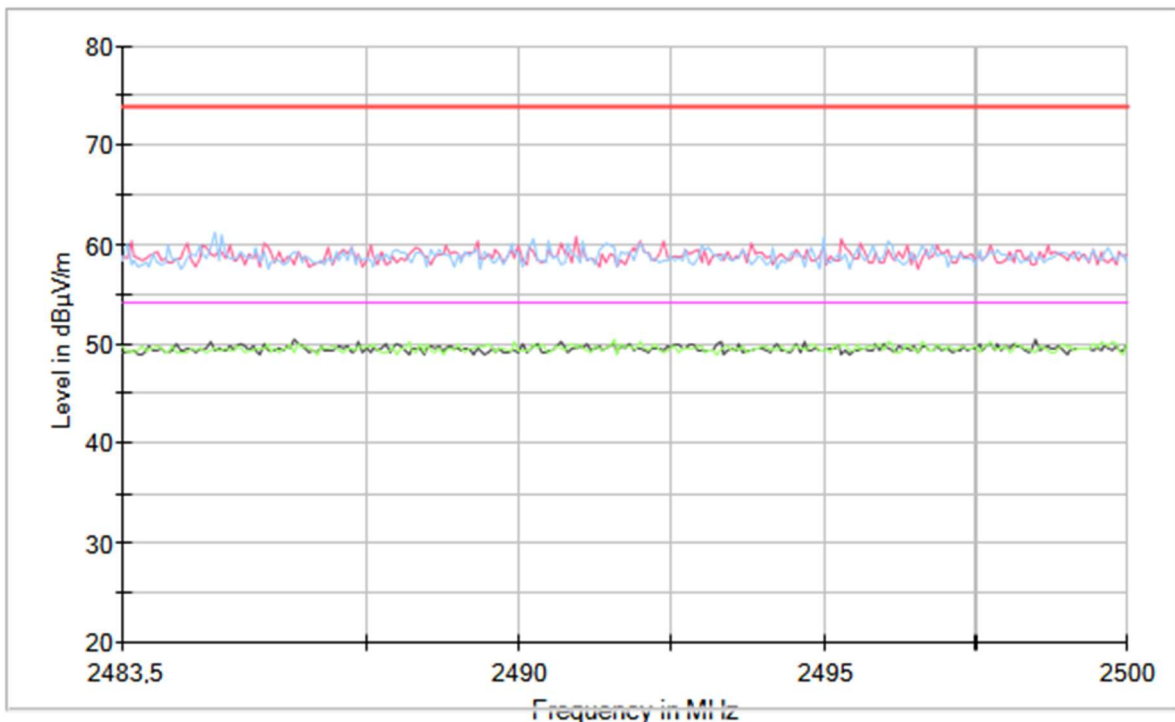
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2442.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [1, 3], Measurement Point = 1

Images:



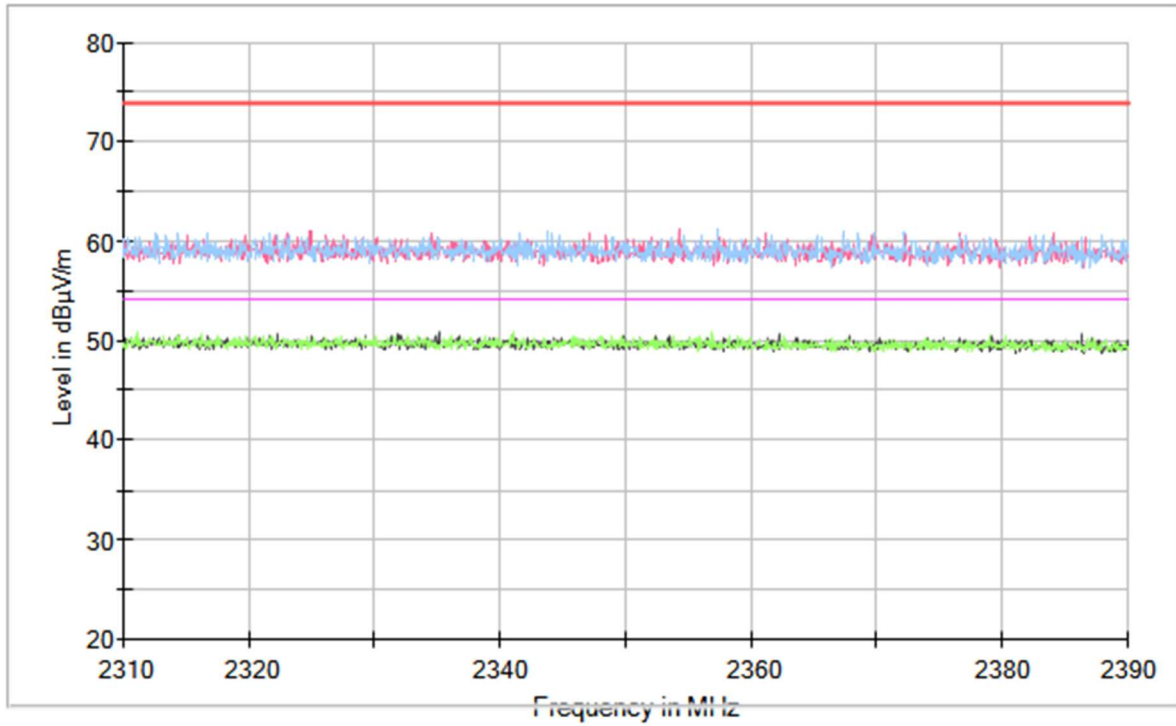
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Full Spectrum



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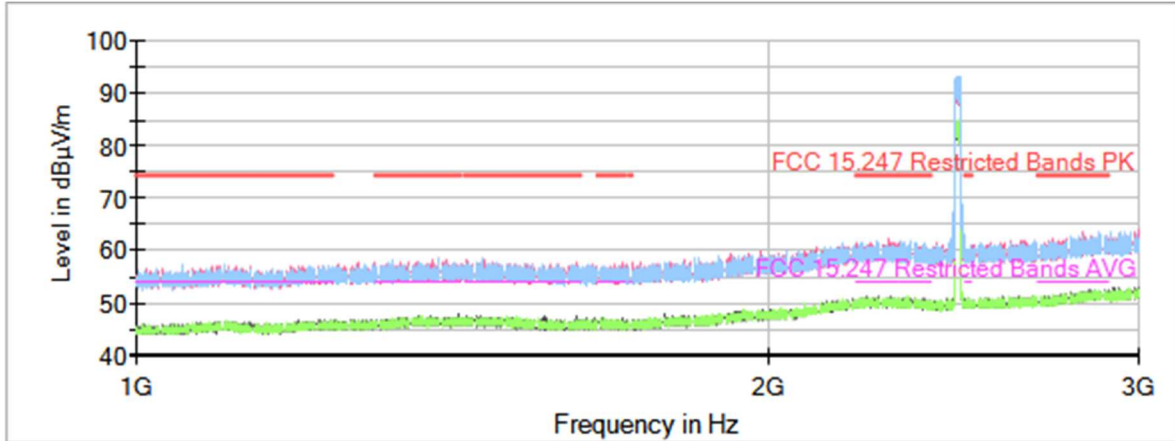
Full Spectrum



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| — | Preview Result 2H-AVG | — | Preview Result 1H-PK+ |
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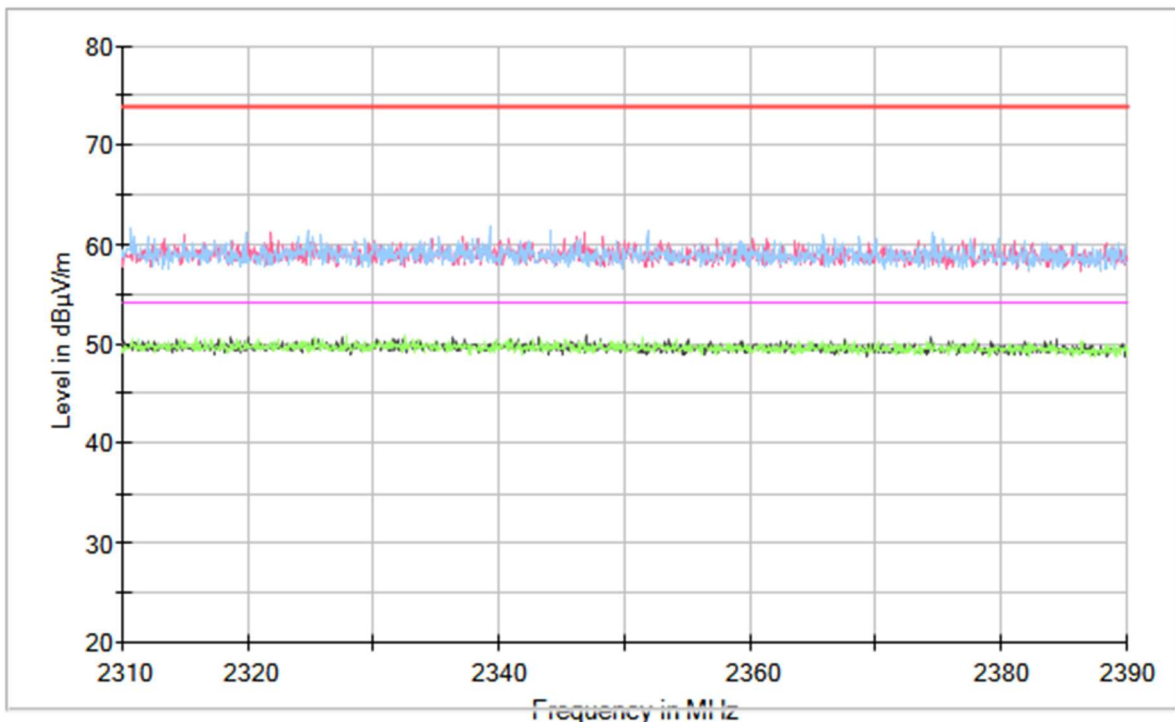
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [1, 3], Measurement Point = 1

Images:



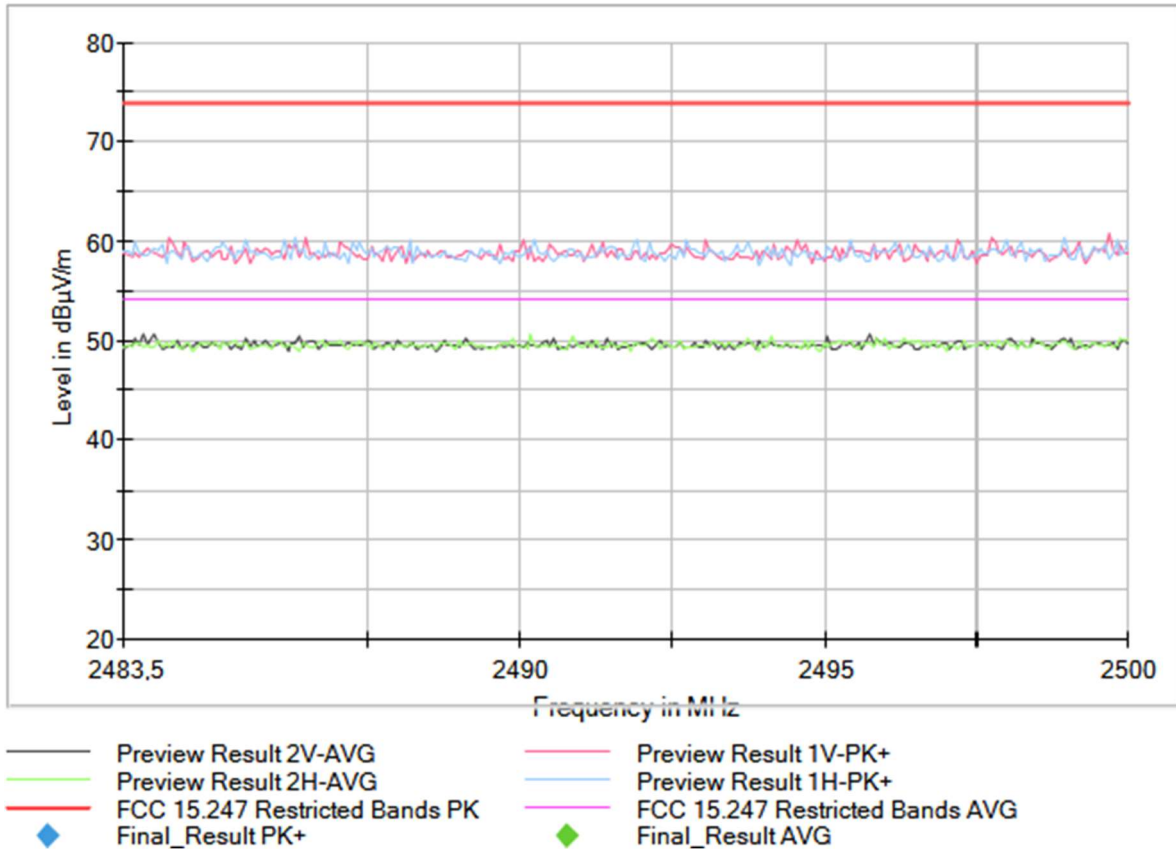
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Full Spectrum



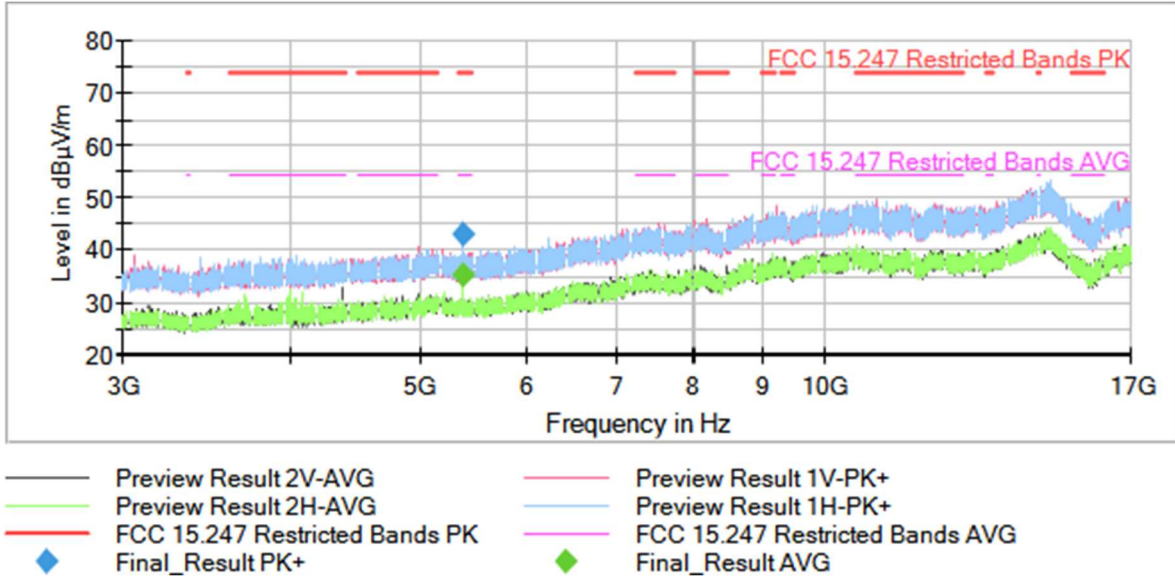
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Full Spectrum



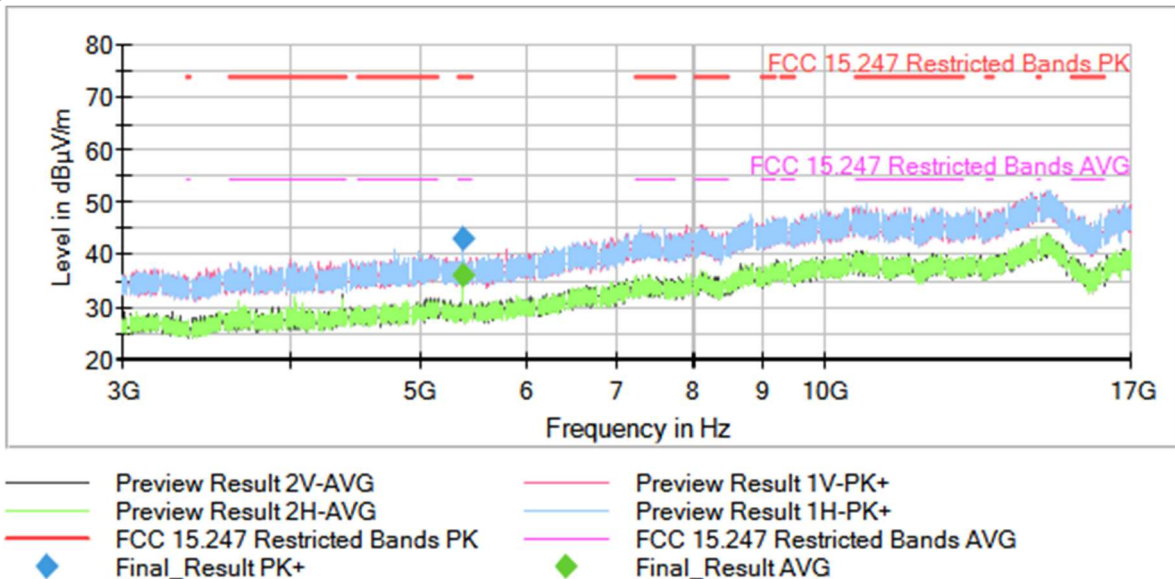
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



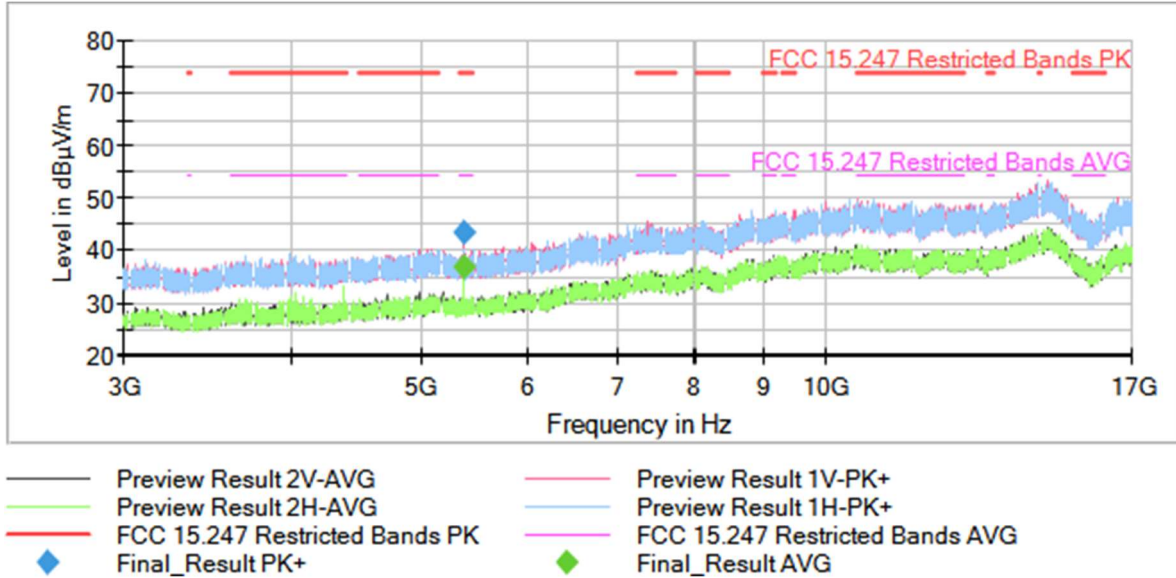
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2442.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



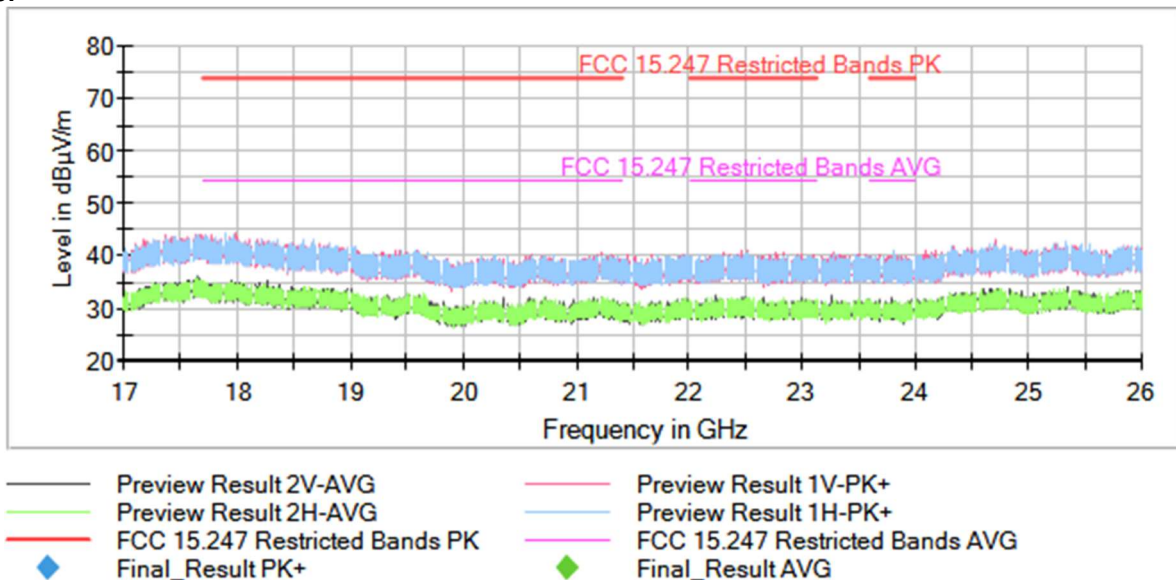
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = The spurious frequencies detected do not depend neither on the operating channel, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11g (OFDM 6 Mbit/s), Frequency Range GHz = [17, 26], Measurement Point = 1

Images:



Modulation: 802.11b (DSSS 1 Mbit/s)

Results

Freq (MHz)	Freq Rng (GHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	PoI	Detector
2412.00000	[3, 17]	5374.748500	35.66	V	AVG
2412.00000		5374.748500	43.16	V	PK
2412.00000	[0.03, 1]	237.741667	27.30	V	PK
2412.00000		237.741667	23.93	V	QP
2412.00000		349.000667	33.09	H	PK
2412.00000		349.000667	28.69	H	QP
2412.00000		511.346333	26.62	V	PK
2412.00000		511.346333	22.35	V	QP
2412.00000		562.045000	27.49	V	PK
2412.00000		562.045000	22.45	V	QP
2412.00000		834.938333	28.85	H	PK
2412.00000		834.938333	23.50	H	QP

Verdict

Pass

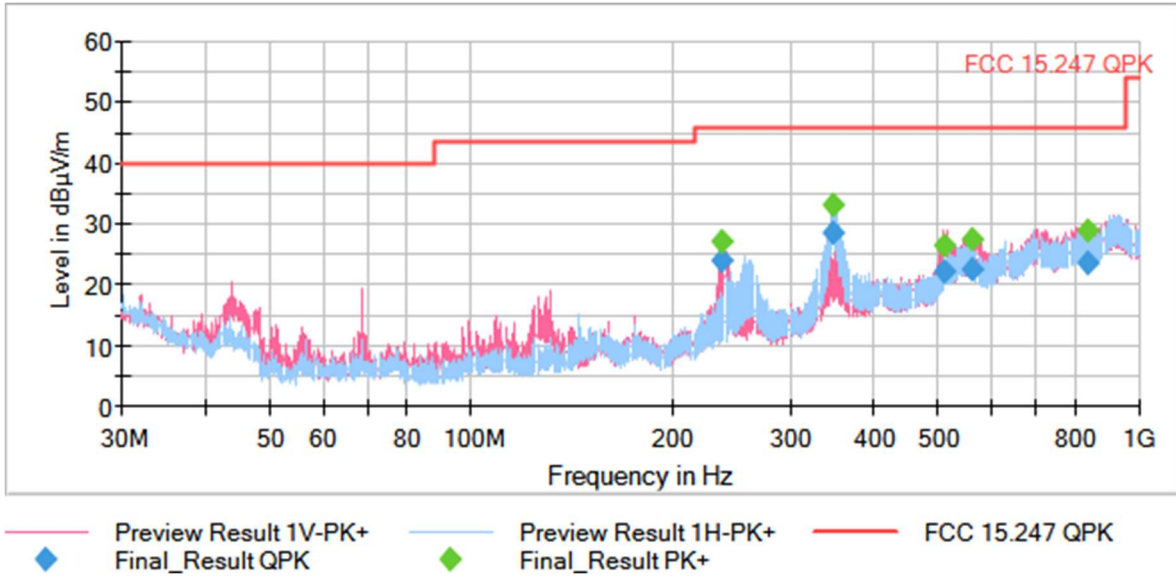
Uncertainty

Measurement Uncertainty (dB): 0.03 GHz ≤ f ≤ 1 GHz: <± 5.17
 1 GHz ≤ f ≤ 3 GHz: <± 4.11
 3 GHz < f ≤ 17 GHz: <± 5.13
 17 GHz < f ≤ 26 GHz: <± 4.81

Attachments

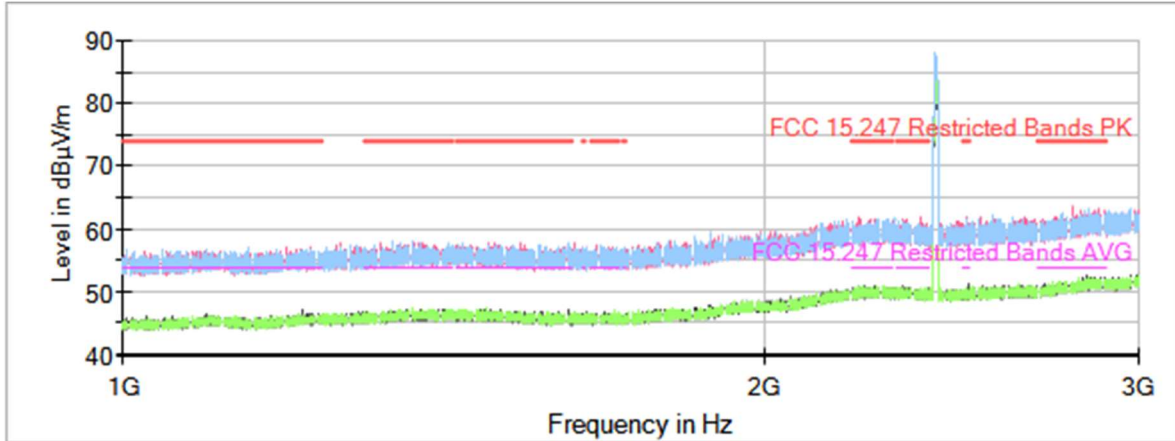
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Images:



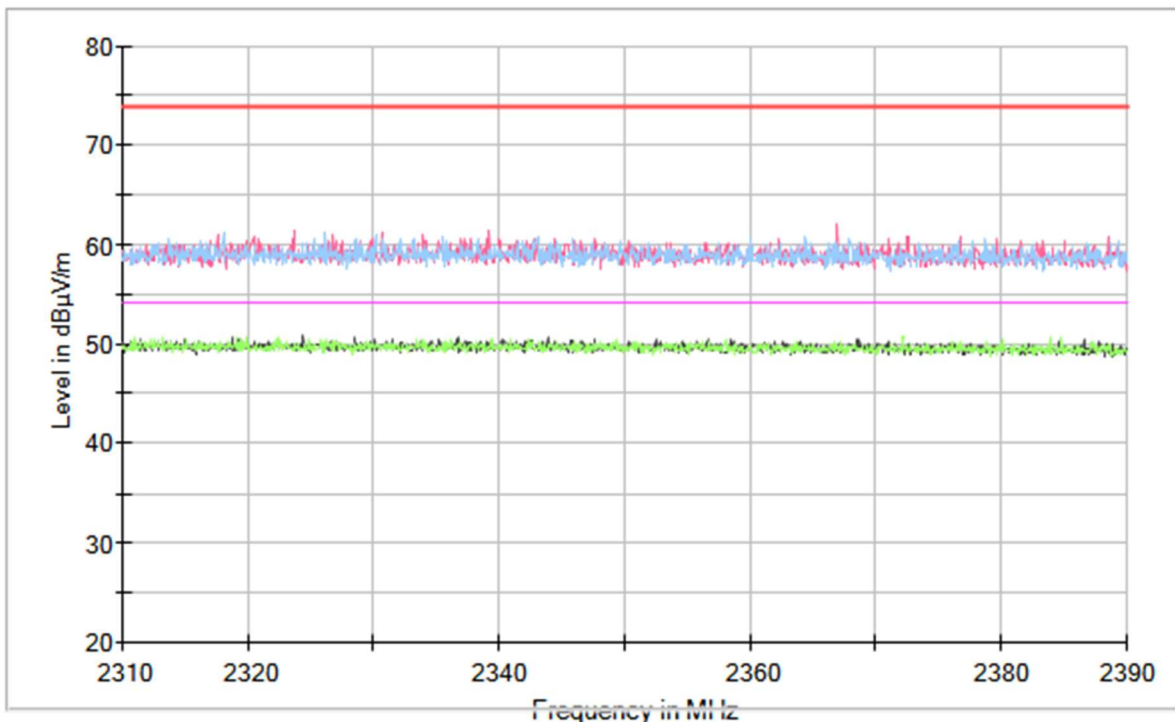
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Images:



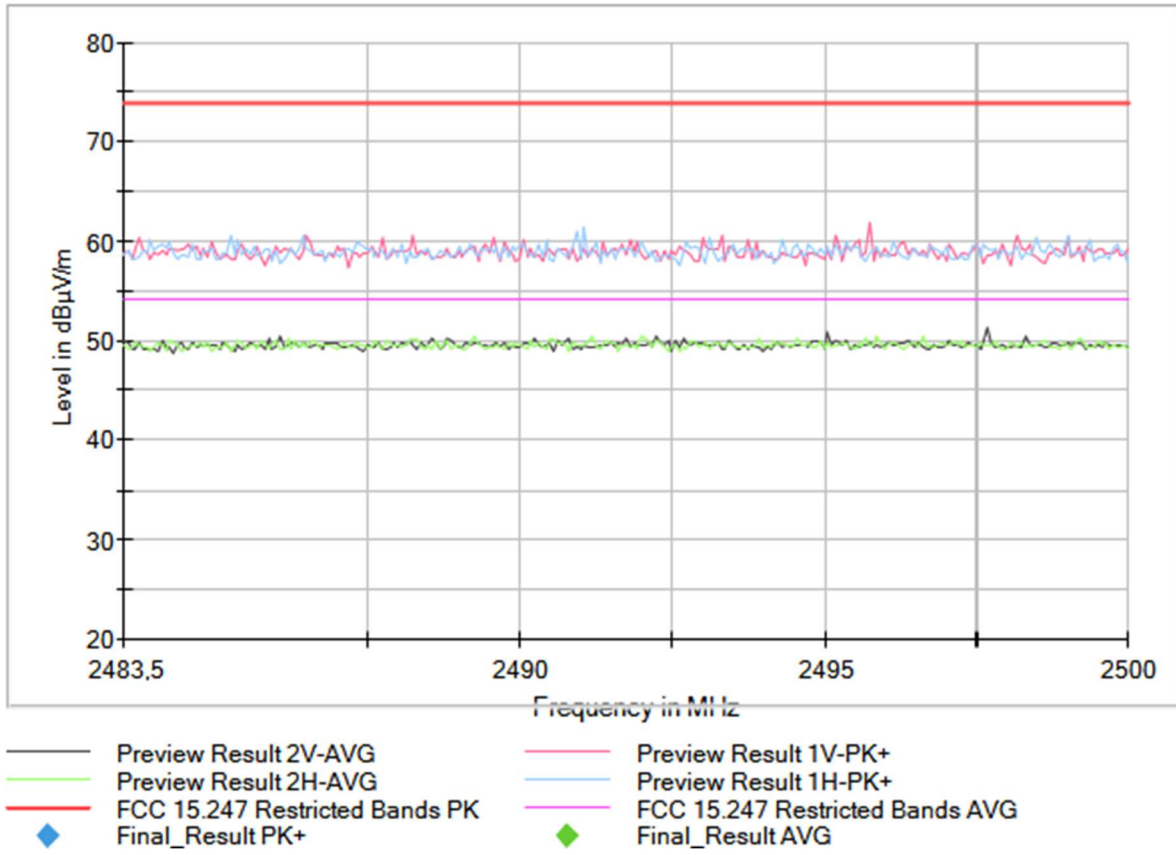
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| ◆ | Final_Result PK+ | ◆ | Final_Result AVG |

Full Spectrum



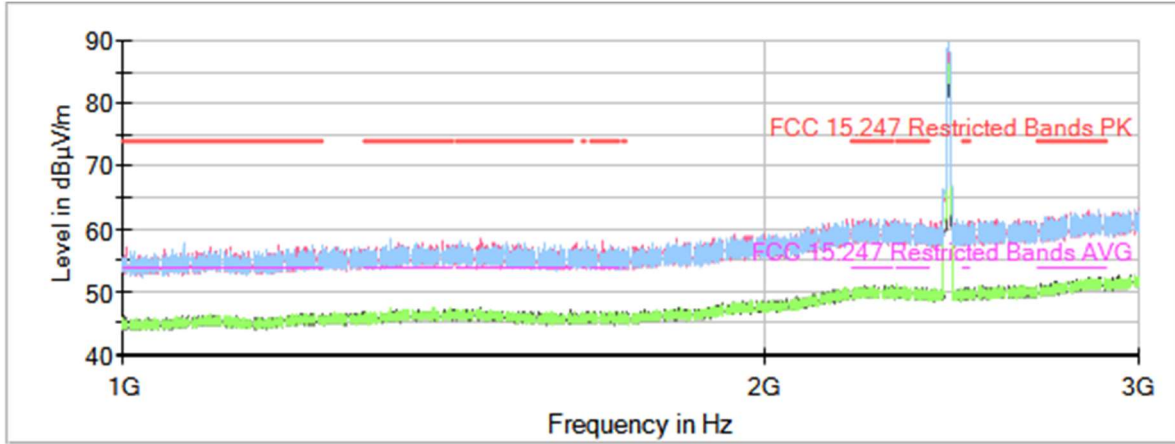
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Full Spectrum



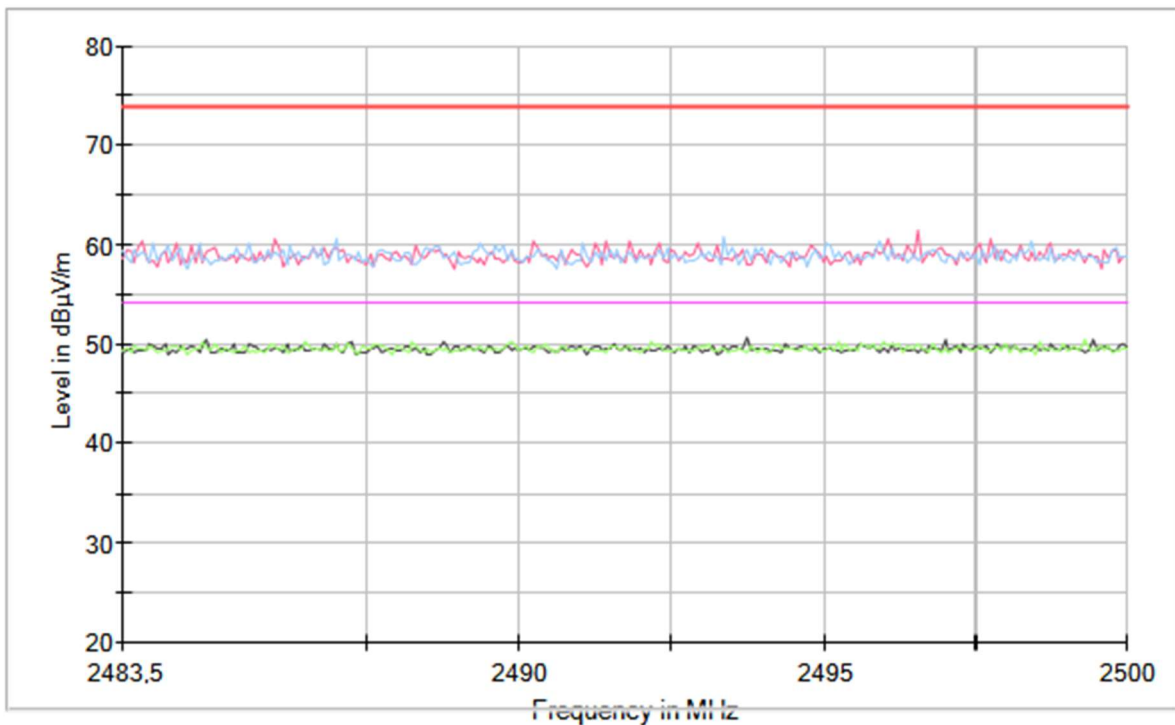
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Images:



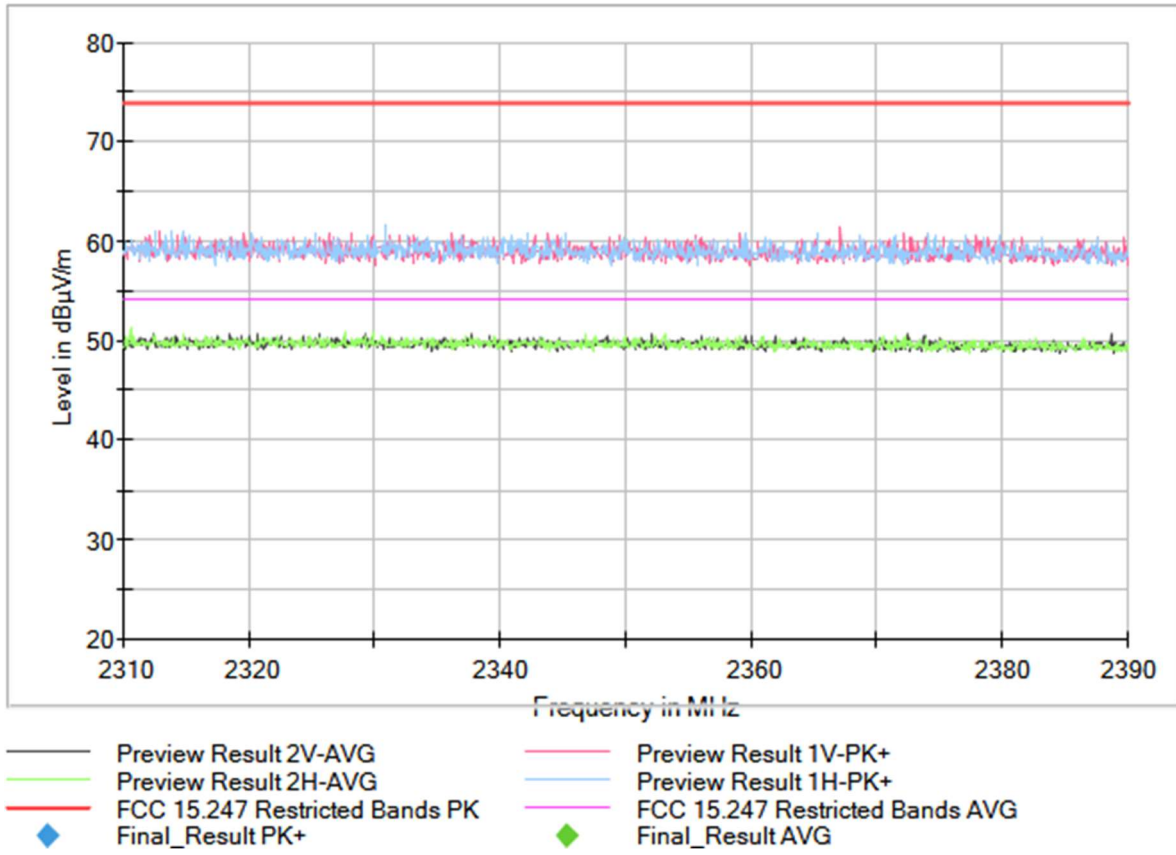
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Full Spectrum



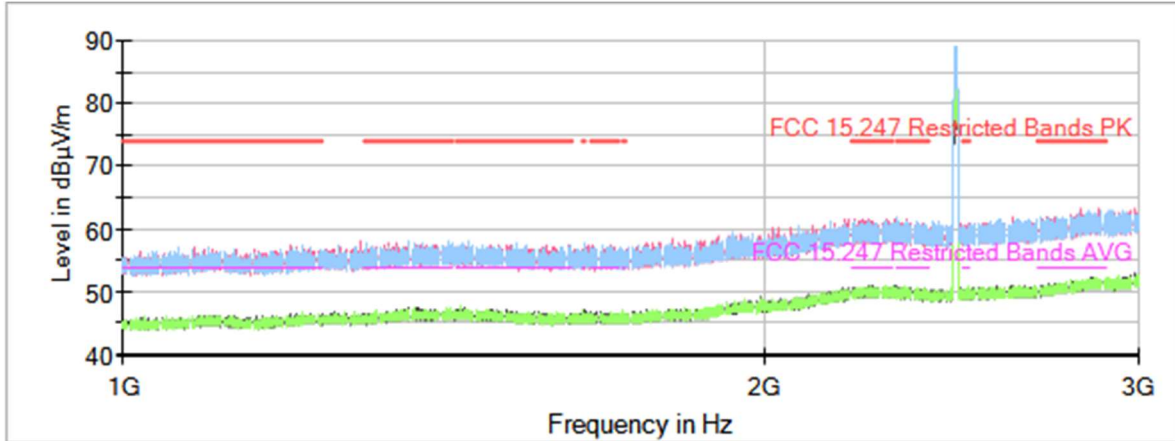
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Full Spectrum



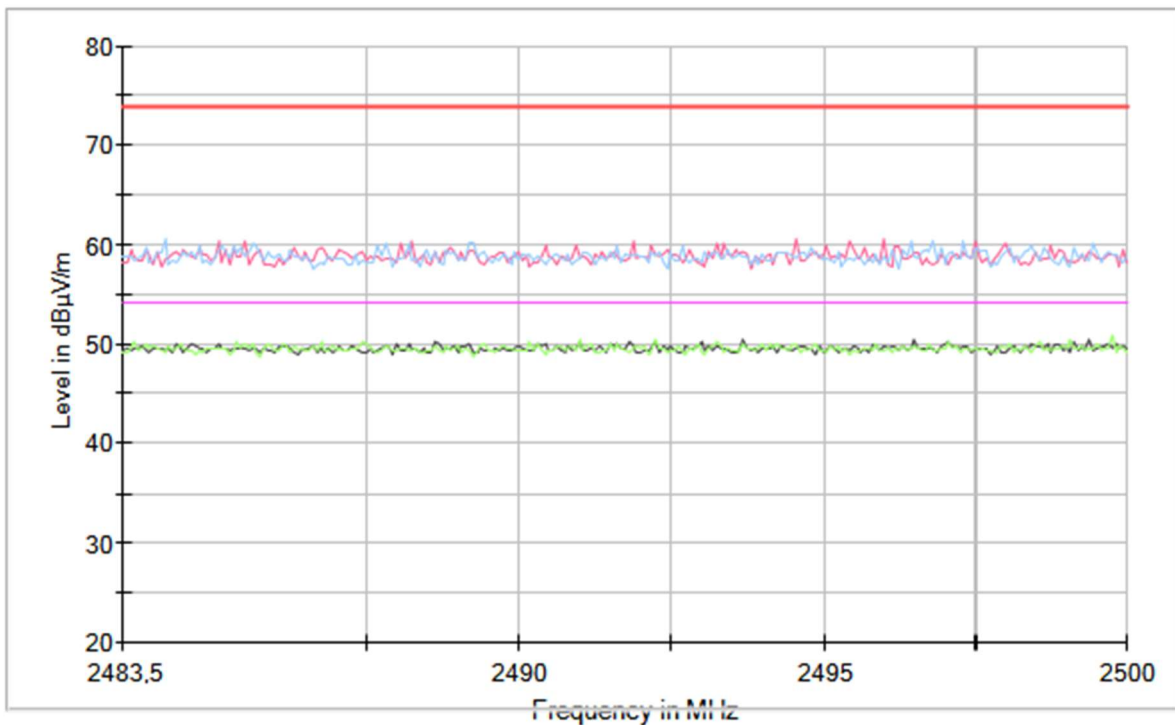
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Frequency Range GHz = [1, 3], Measurement Point = 1

Images:



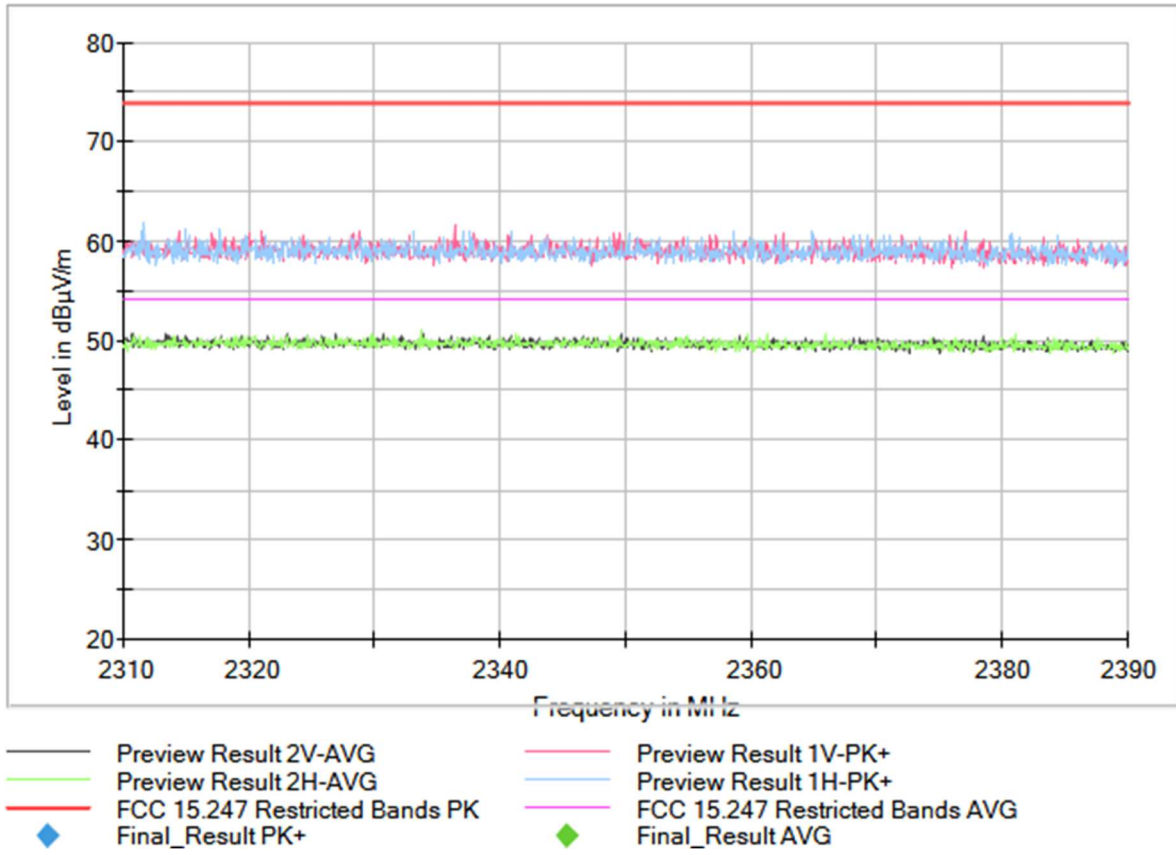
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Full Spectrum



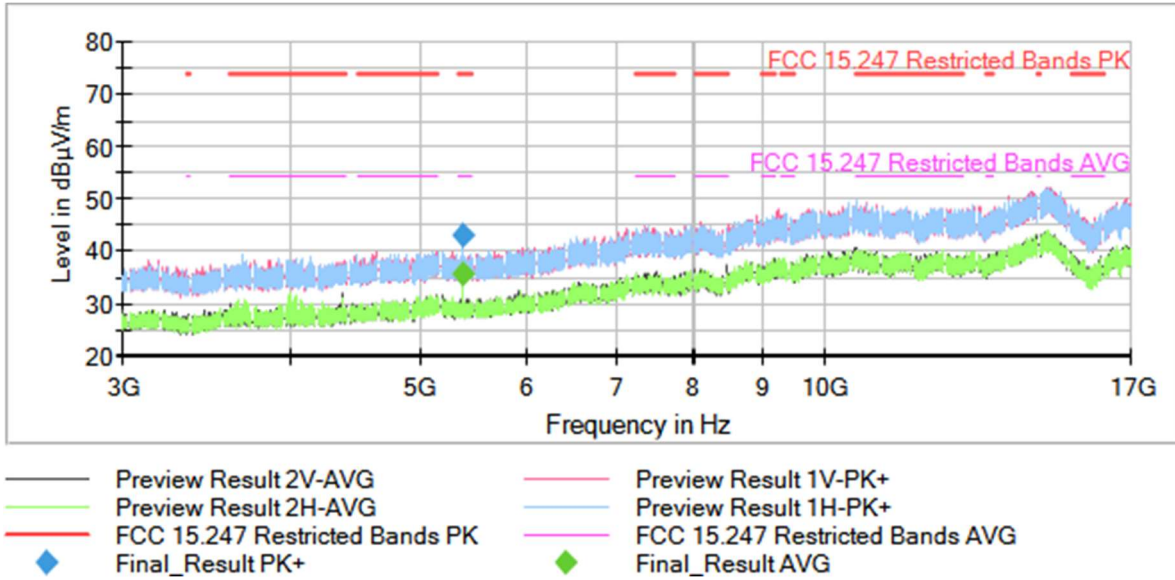
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Full Spectrum



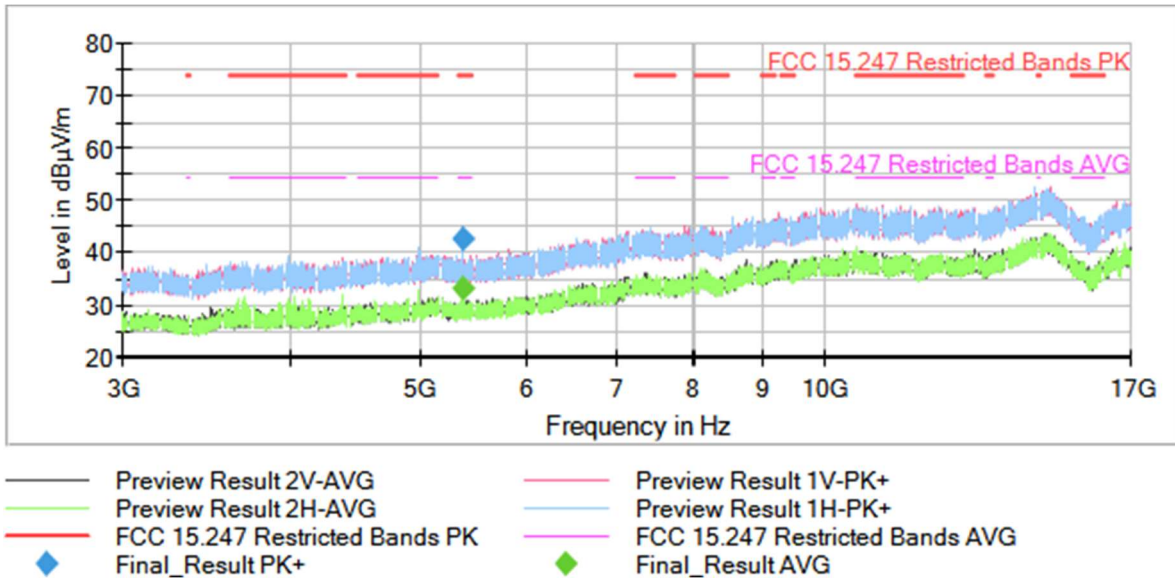
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



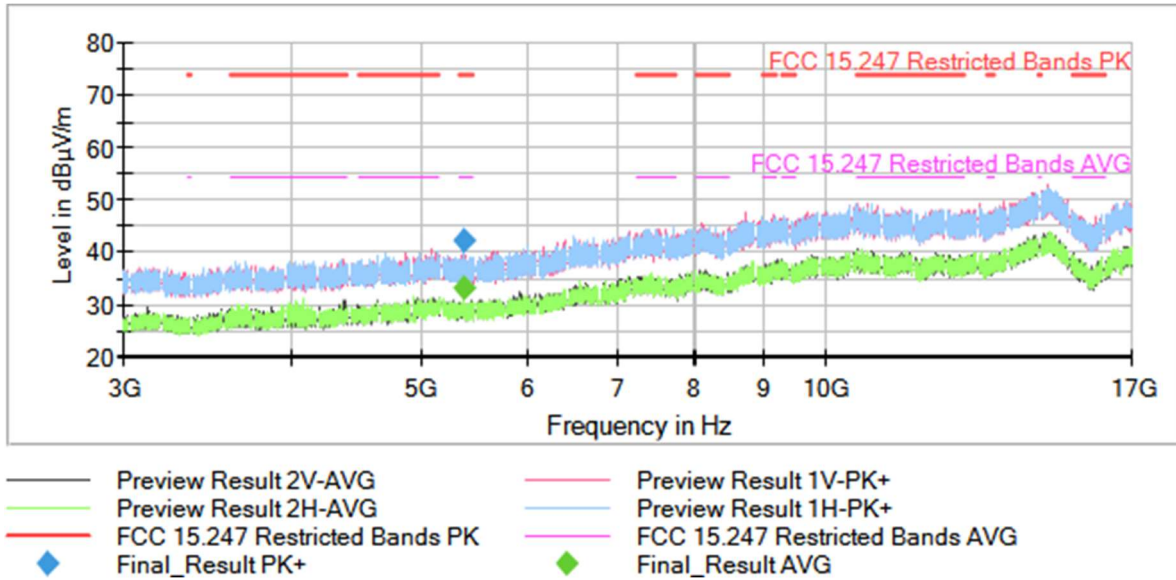
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2442.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



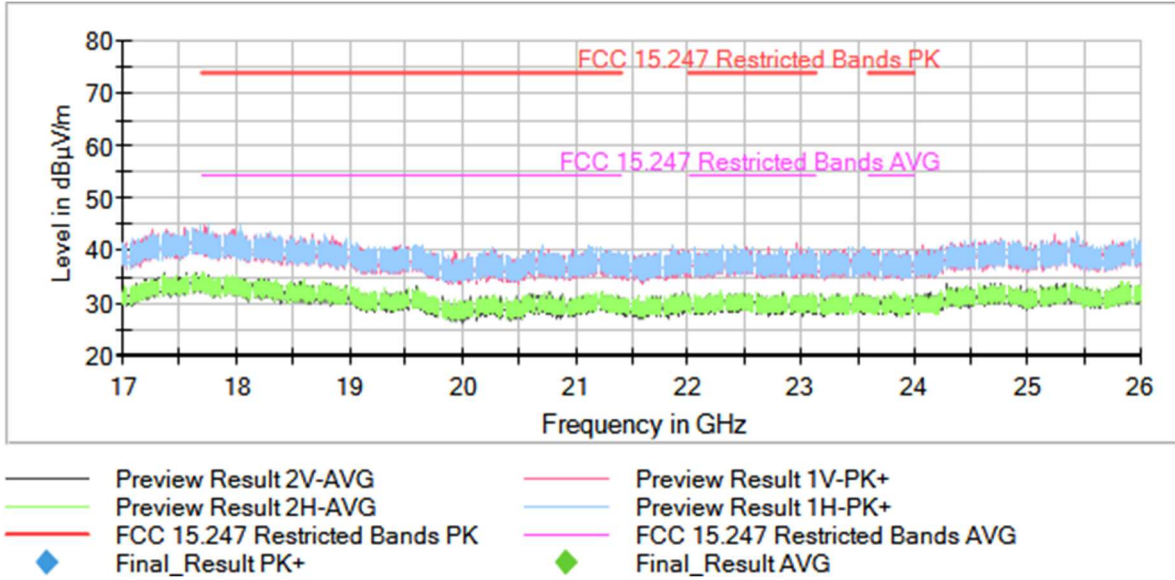
Operation Band MHz = [2400, 2483.5], Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Frequency Range GHz = [3, 17], Measurement Point = 1

Images:



Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital
Transmission System (DTS), Modulation = 802.11b (DSSS 1 Mbit/s), Frequency Range GHz = [17, 26],
Measurement Point = 1

Images:



Modulation: 802.11n HT20 (OFDM MCS0 6.5 Mbit/s)

Results

Freq (MHz)	Freq Rng (GHz)	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
2412.00000	[0.03, 1]	351.102333	33.75	H	PK
2412.00000		351.102333	29.29	H	QP
2412.00000		511.346333	28.74	V	PK
2412.00000		511.346333	24.63	V	QP
2412.00000		553.444333	25.80	H	PK
2412.00000		553.444333	20.94	H	QP
2412.00000		824.947333	30.57	H	PK
2412.00000		824.947333	27.12	H	QP

Verdict

Pass

Uncertainty

Measurement Uncertainty (dB): 0.03 GHz ≤ f ≤ 1 GHz: <± 5.17
 1 GHz ≤ f ≤ 3 GHz: <± 4.11
 3 GHz < f ≤ 17 GHz: <± 5.13
 17 GHz < f ≤ 26 GHz: <± 4.81

Attachments

Operation Band MHz = [2400, 2483.5], Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Modulation = 802.11n HT20 (OFDM MCS0 6.5 Mbit/s), Frequency Range GHz = [0.03, 1], Measurement Point = 1

Images:

