

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

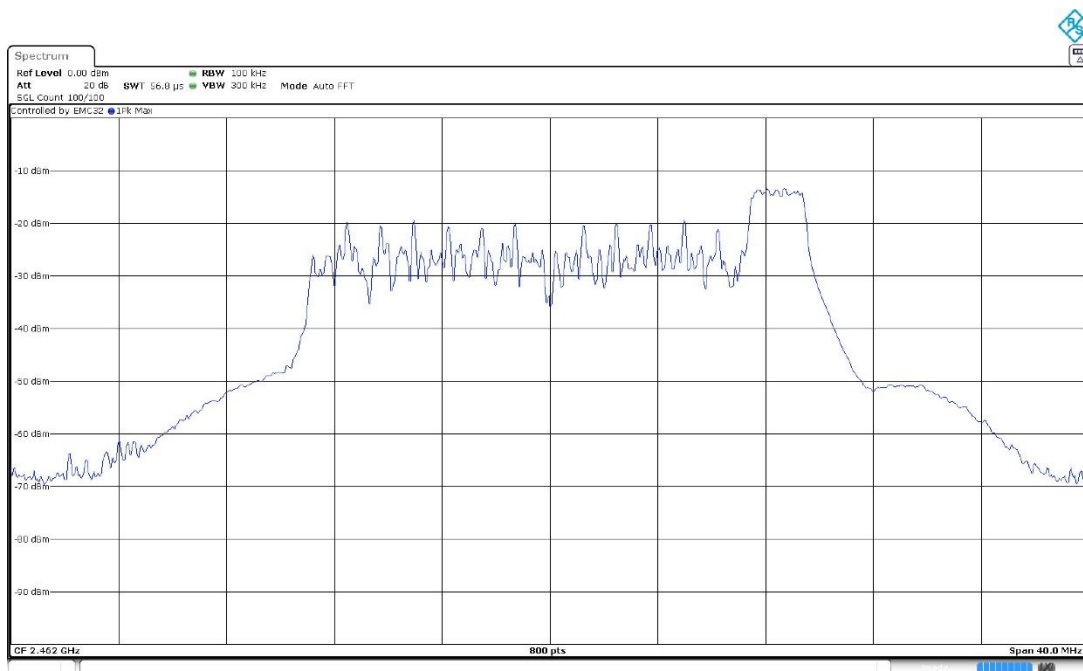
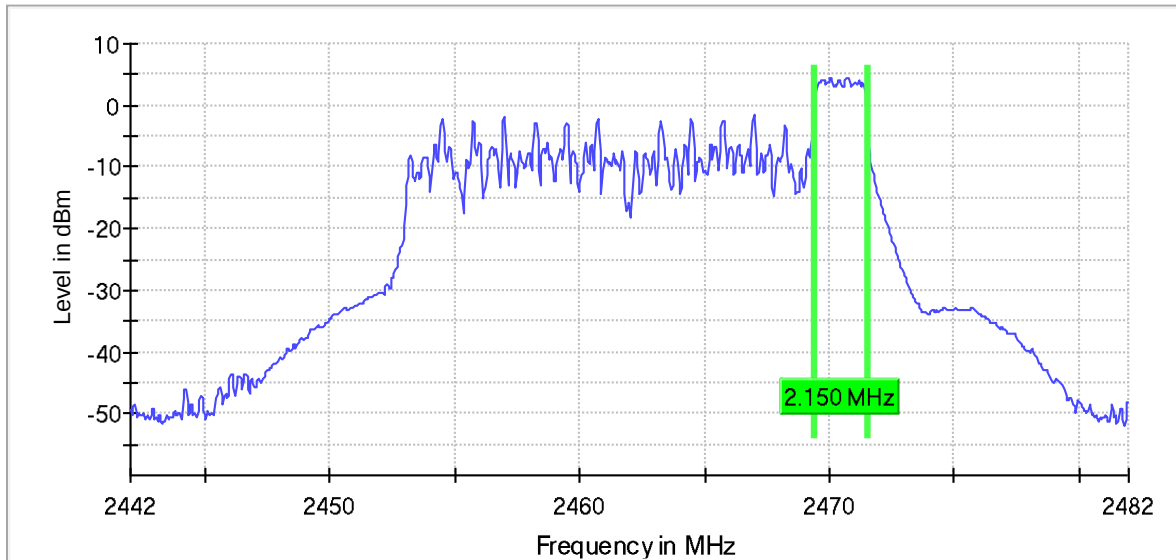
Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:

6 dB Bandwidth



RSS-247 5.4 / FCC 15.247 (b) Maximum Average Conducted Output Power

Limits

FCC 15.247 (b) (3)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

RSS 5.4 (d)

For DTSS employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Avg Power (dBm)	E.I.R.P. (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	9.01	9.11
		2437.00000		8.61	8.71
		2462.00000		8.64	8.74

Modulation: 802.11g (OFDM 6 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Avg Power (dBm)	E.I.R.P. (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	9.03	9.13
		2437.00000		8.62	8.72
		2462.00000		8.69	8.79

Modulation: 802.11n HT20 (OFDM MCS0)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Avg Power (dBm)	E.I.R.P. (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	8.82	8.92
		2437.00000		8.41	8.51
		2462.00000		8.46	8.56

Modulation: 802.11ax HE20 (OFDMA MCS0) SU

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Avg Power (dBm)	E.I.R.P. (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	10.94	11.04
		2437.00000		10.34	10.44
		2462.00000		10.77	10.87

Modulation: 802.11ax HE20 (OFDMA MCS0) RU26

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Avg Power (dBm)	E.I.R.P. (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	12.64	12.74
		2437.00000		11.86	11.96
		2462.00000		12.56	12.66

Verdict

Pass

RSS-247 5.2 (b) / FCC 15.247 (e) Power spectral density

Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Antenna Gain for MIMO PSD:

$$\begin{aligned} \text{Directional Gain} &= G_{ANT} + \text{Array Gain} \\ \text{Array Gain} &= 10 \log(N_{ANT}/N_{SS}) = 10 \log(2/1) = 3.01 \text{ dB} \\ \text{Directional Gain} &= 0.1 + 3.01 = 3.11 \text{ dBi} \end{aligned}$$

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	PSD (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	-8.26
		2437.00000		-8.44
		2462.00000		-8.57

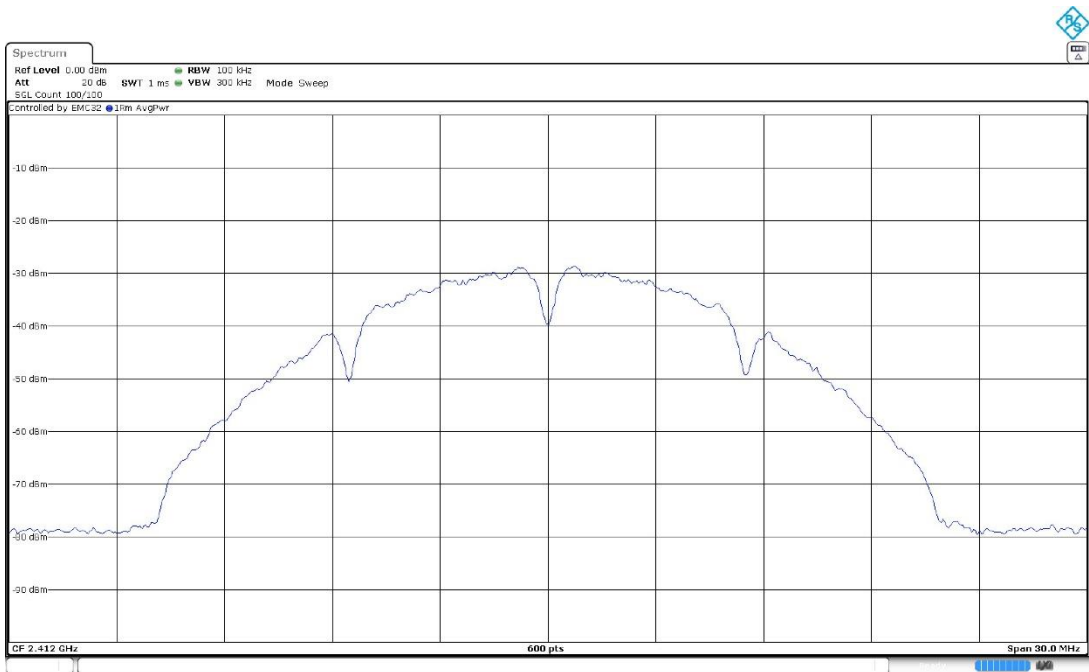
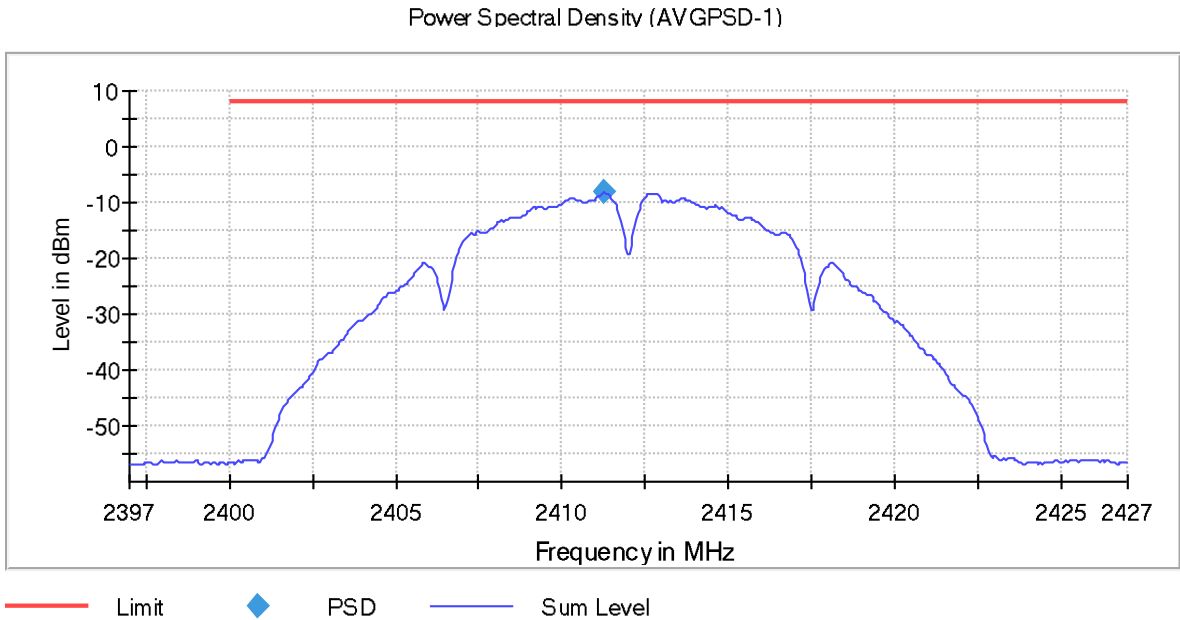
Verdict

Pass

Attachments

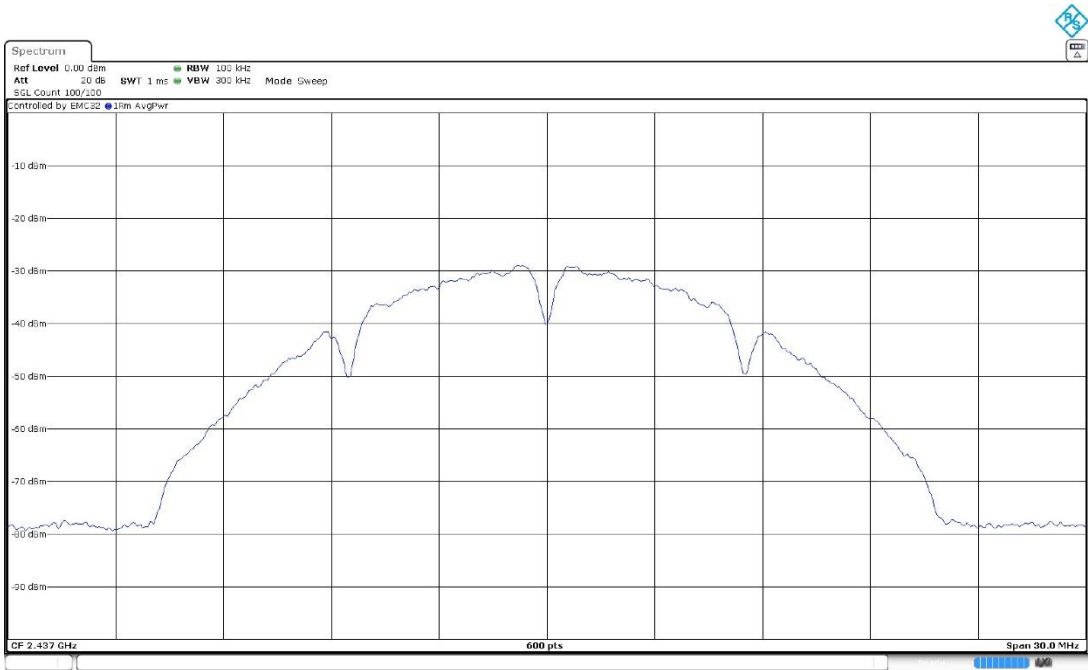
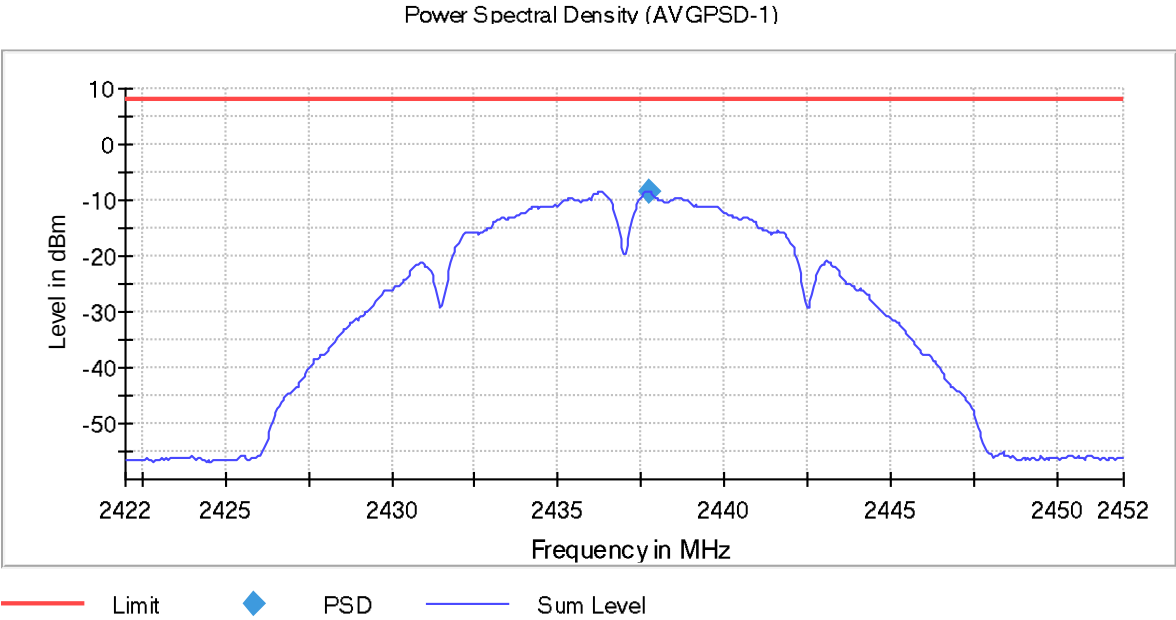
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



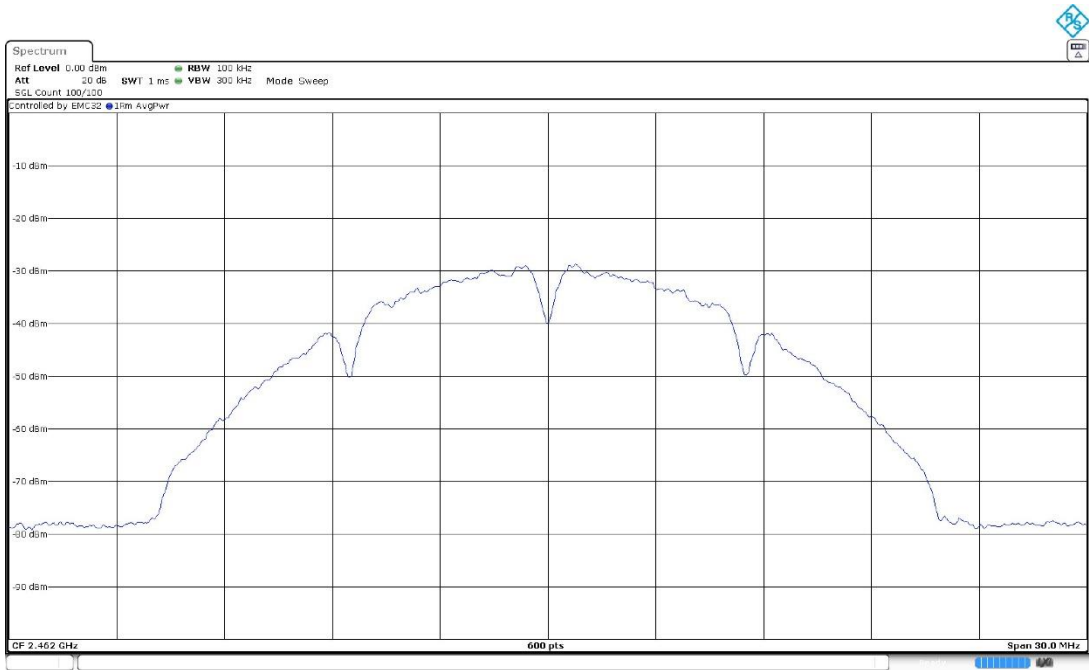
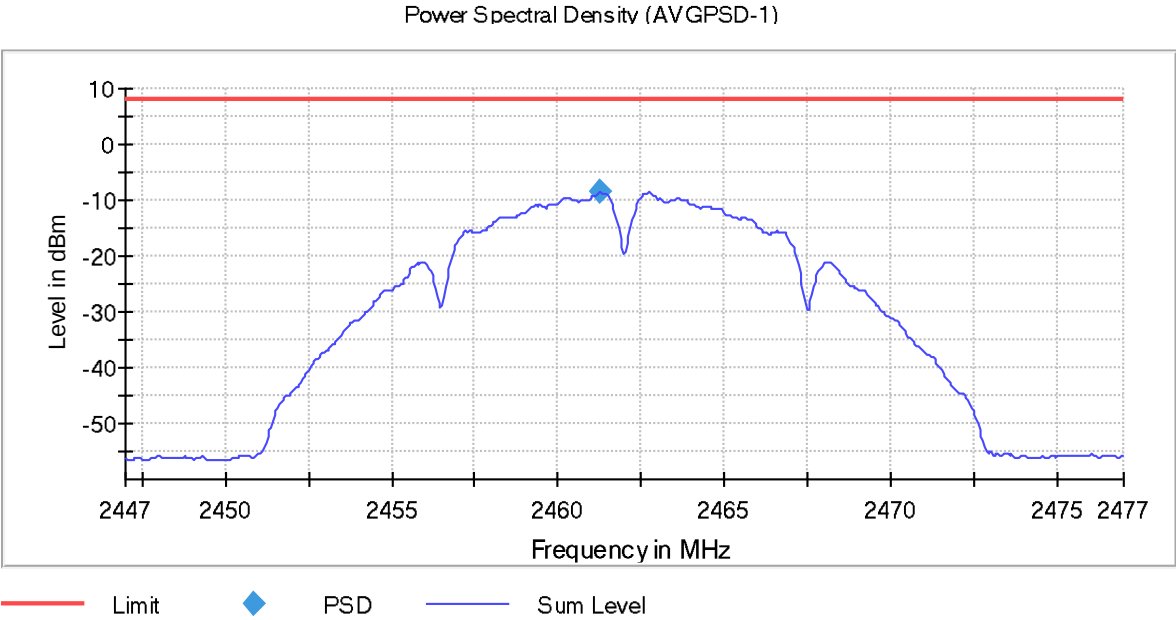
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 2+4
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



Modulation: 802.11g (OFDM 6 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	PSD (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	-12.34
		2437.00000		-12.69
		2462.00000		-12.82

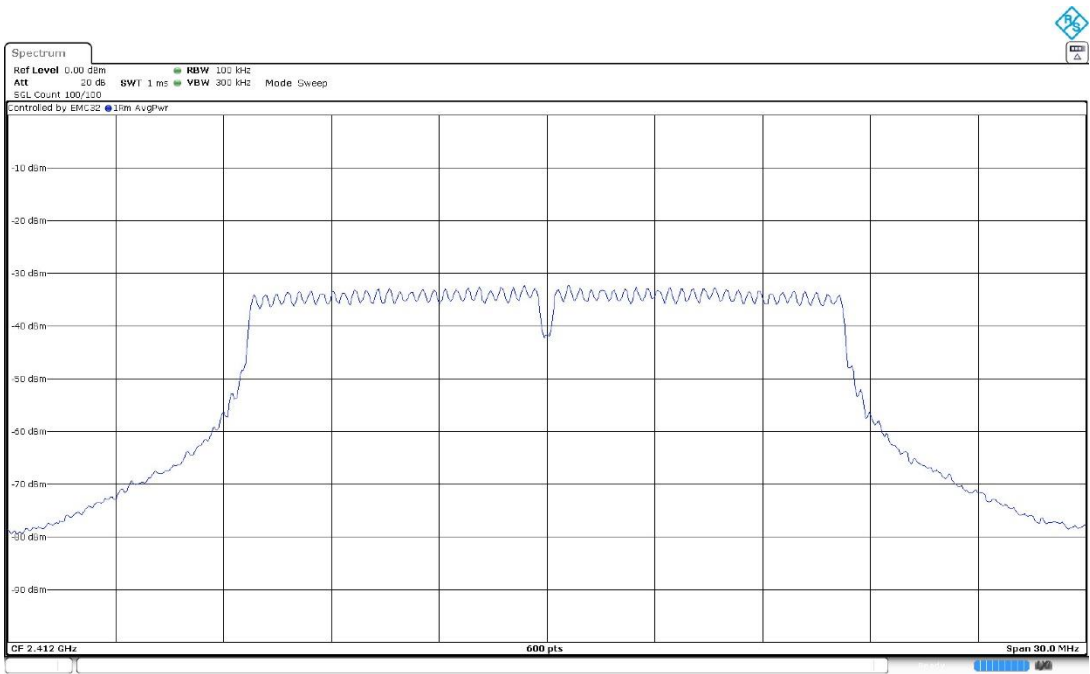
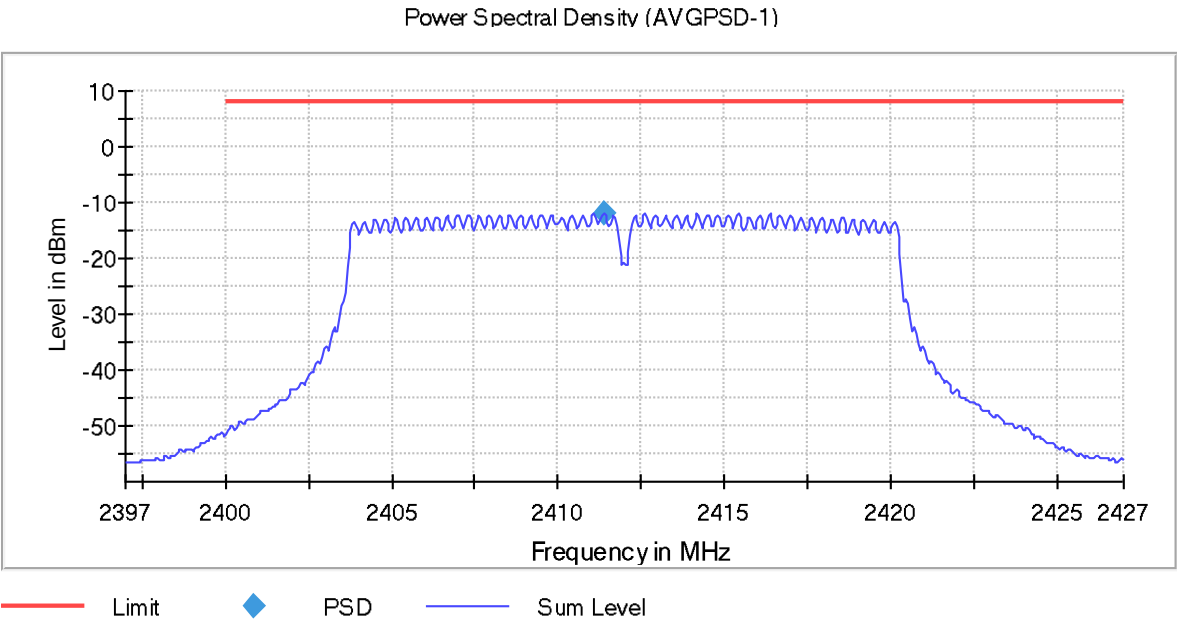
Verdict

Pass

Attachments

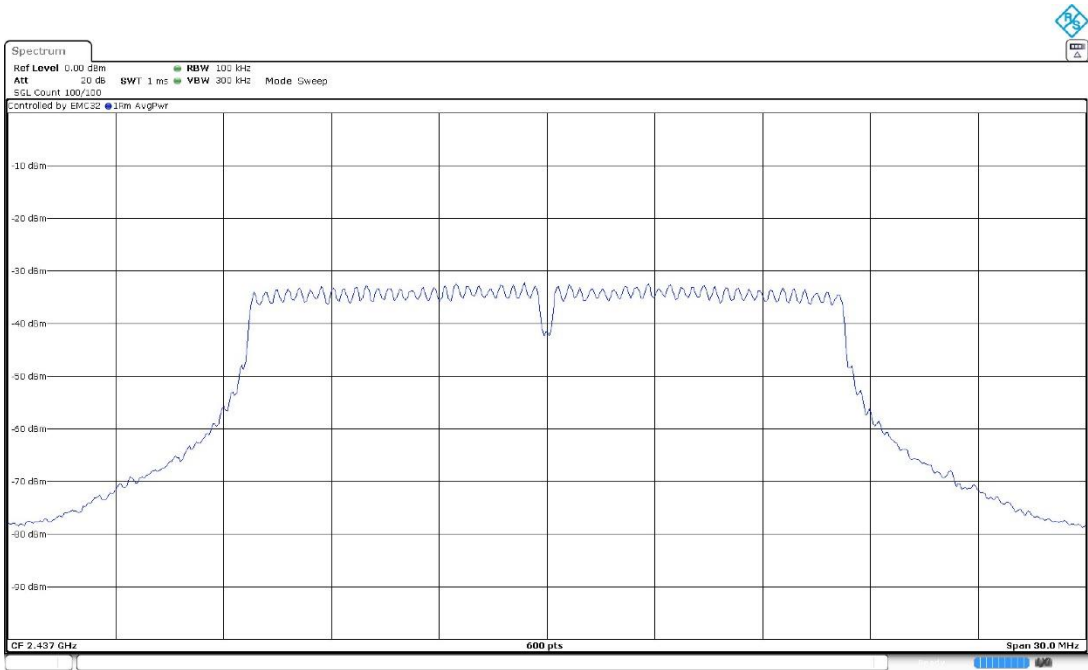
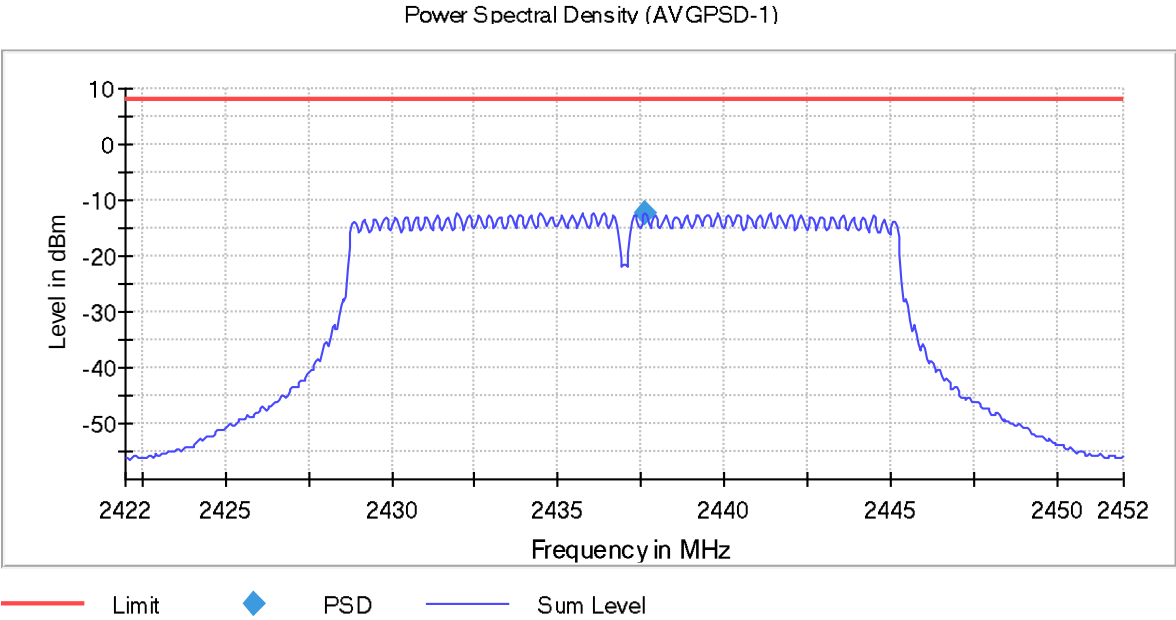
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 2+4
Modulation = 802.11g (OFDM 6 Mbit/s)

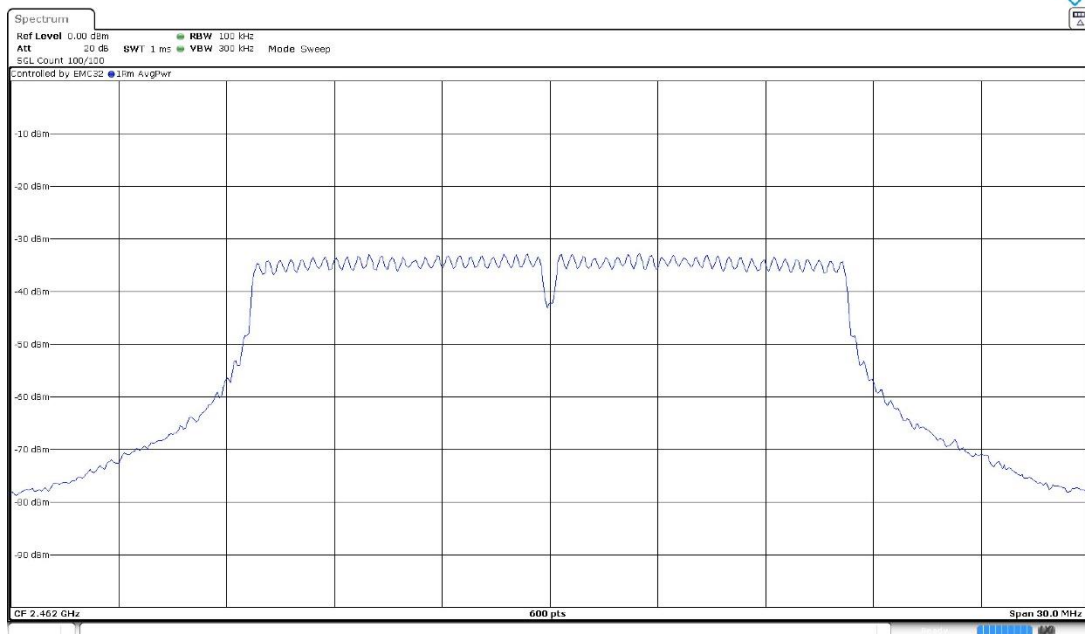
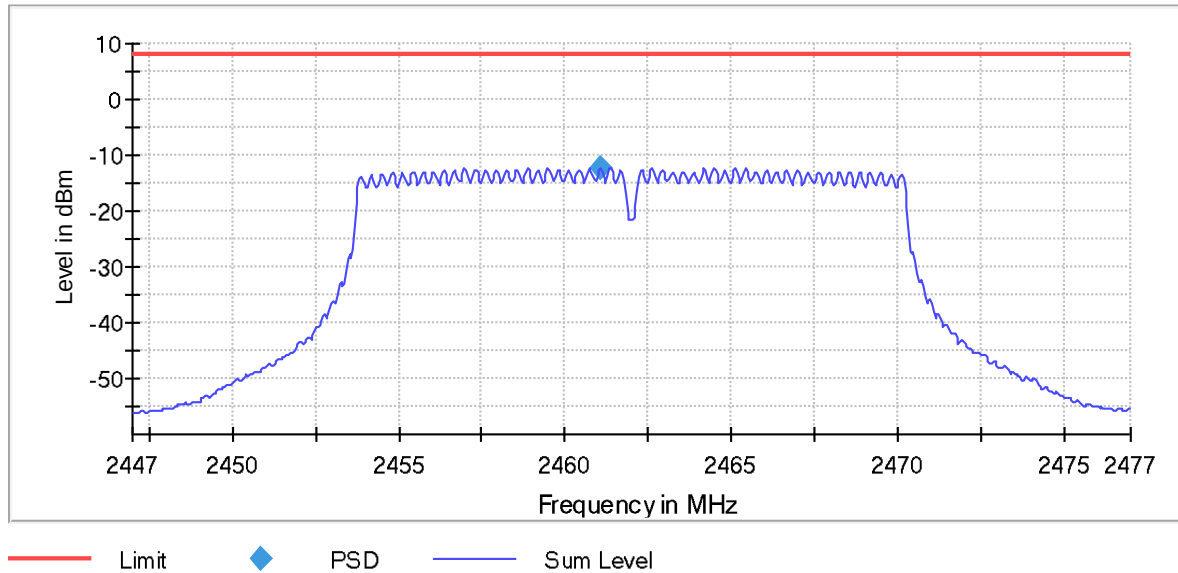
Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:

Power Spectral Density (AVG PSD-1)



Modulation: 802.11n HT20 (OFDM MCS0)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	PSD (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	-12.34
		2437.00000		-12.69
		2462.00000		-12.82

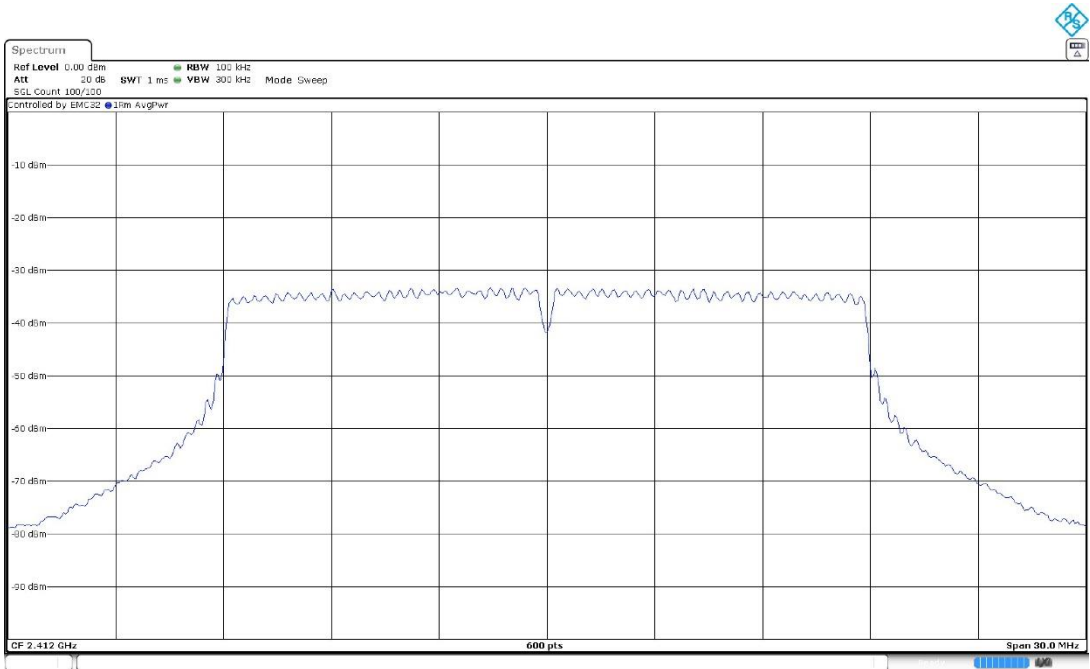
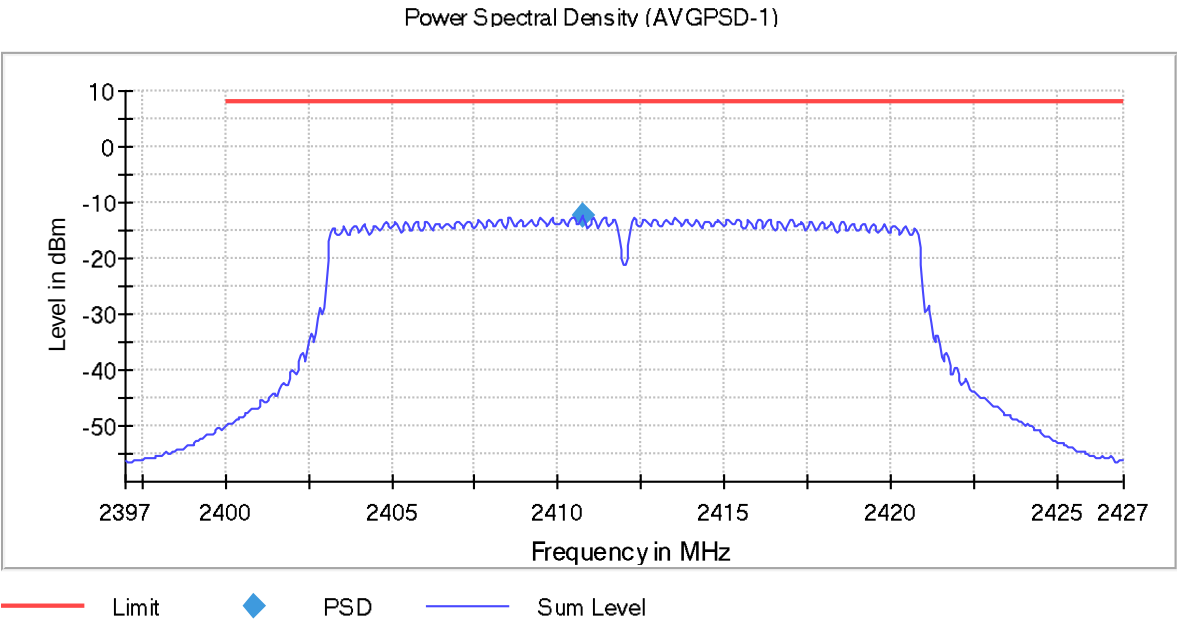
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

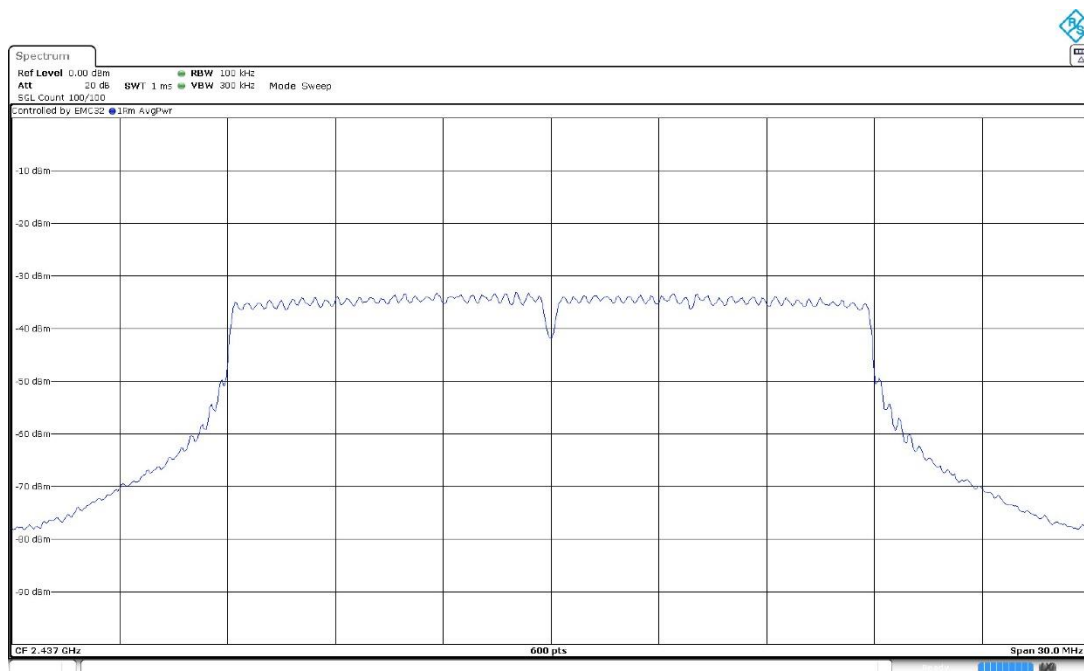
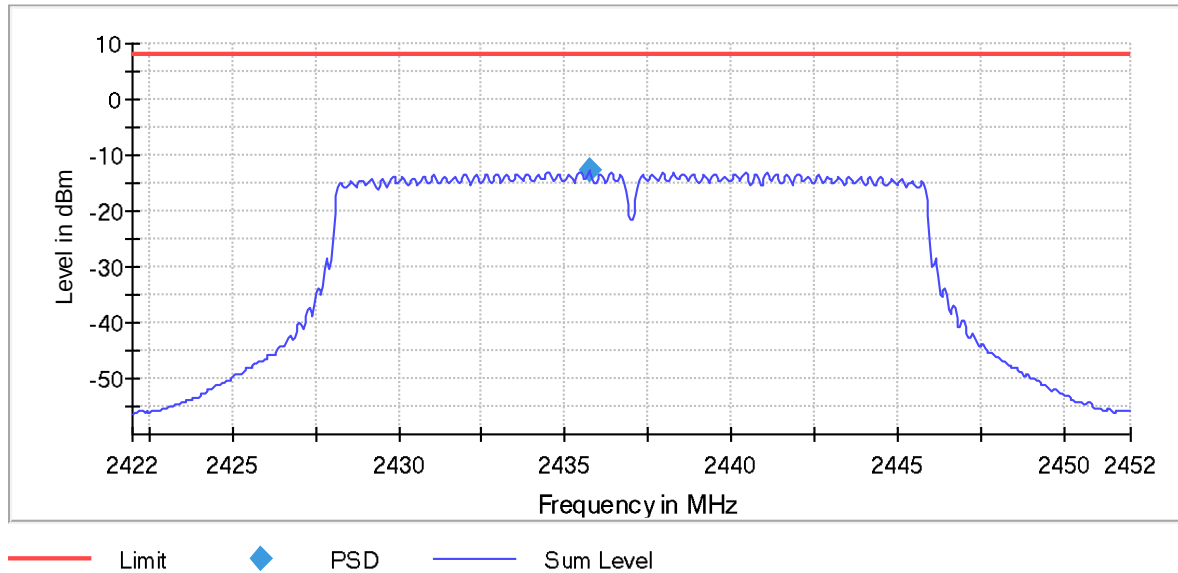
Frequency MHz = 2437.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

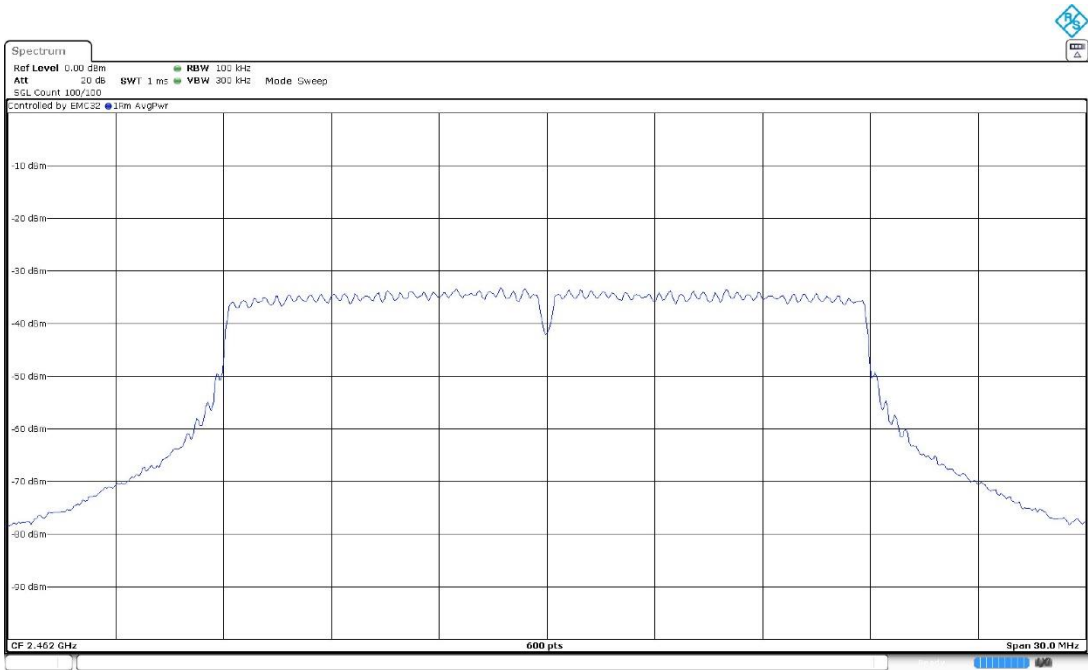
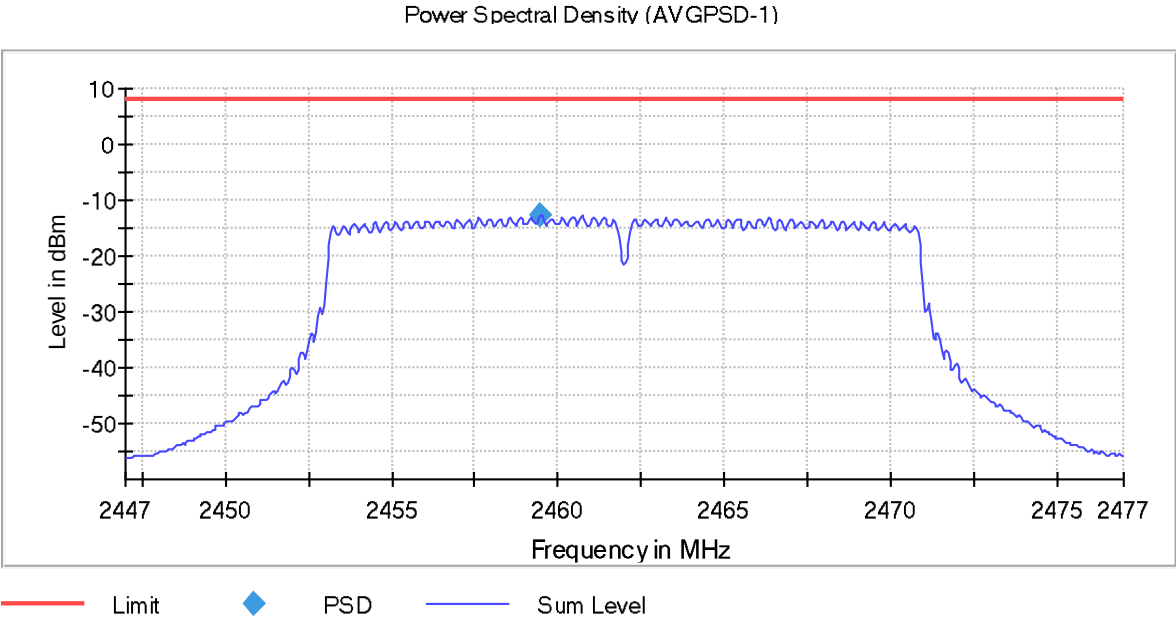
Images:

Power Spectral Density (AVG PSD-1)



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Modulation: 802.11ax HE20 (OFDMA MCS0)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	PSD (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	-11.43
		2437.00000		-11.91
		2462.00000		-11.59

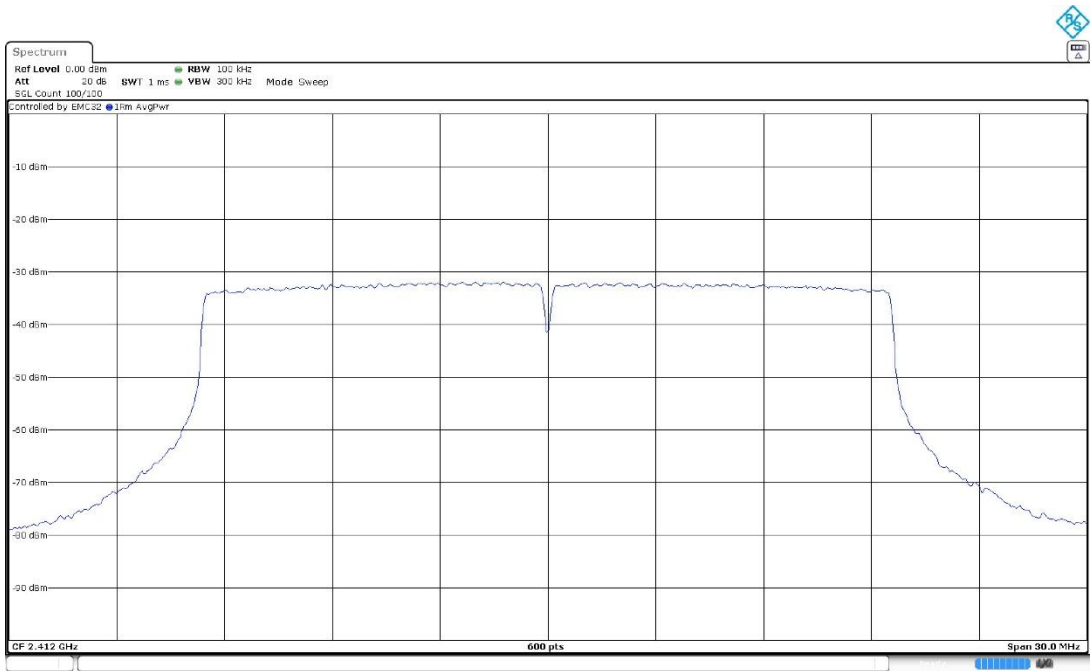
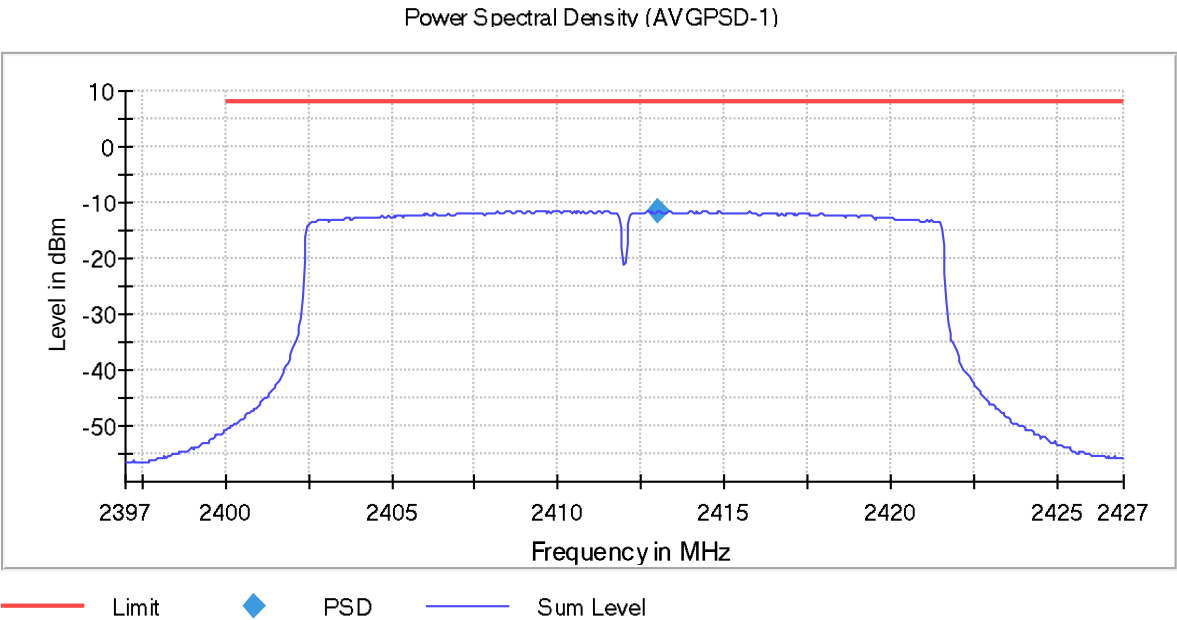
Verdict

Pass

Attachments

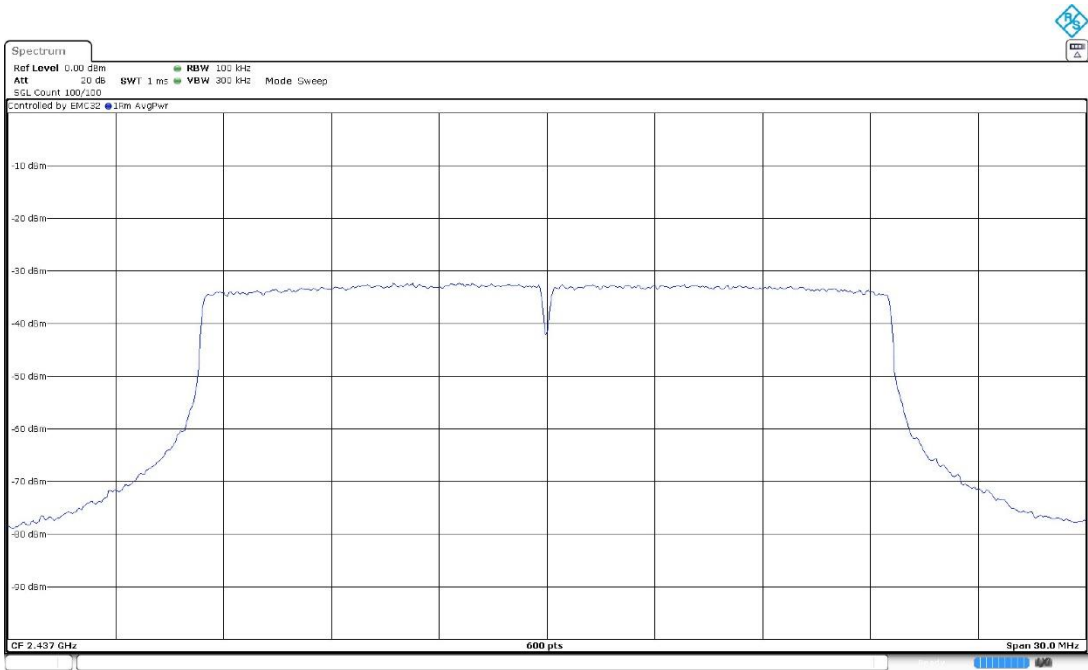
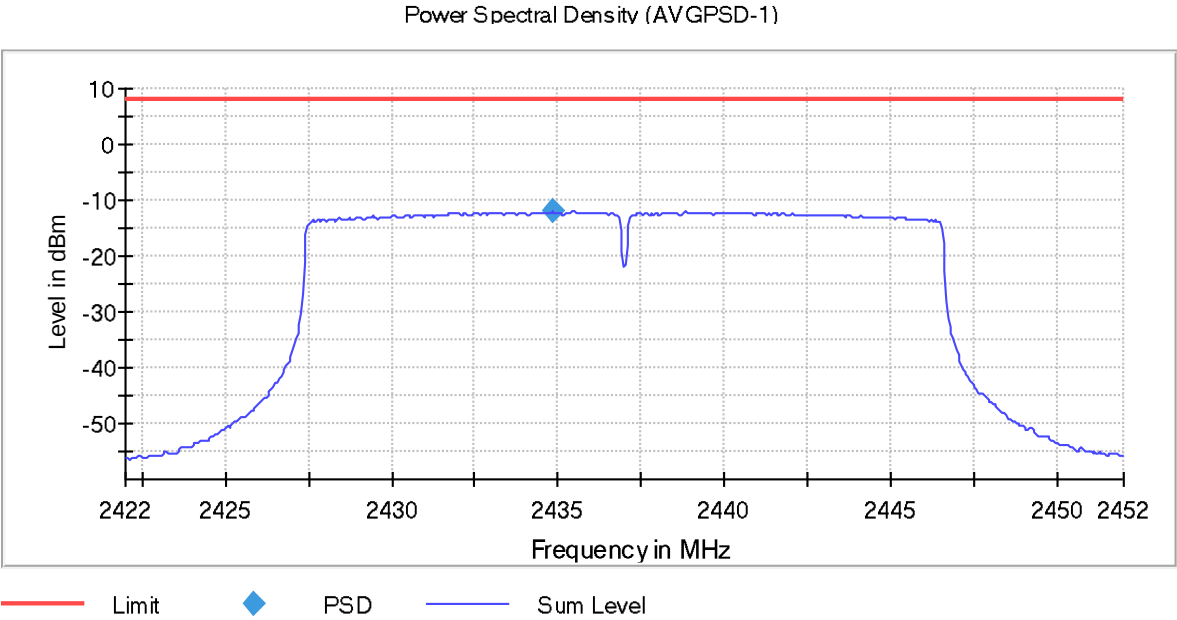
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:



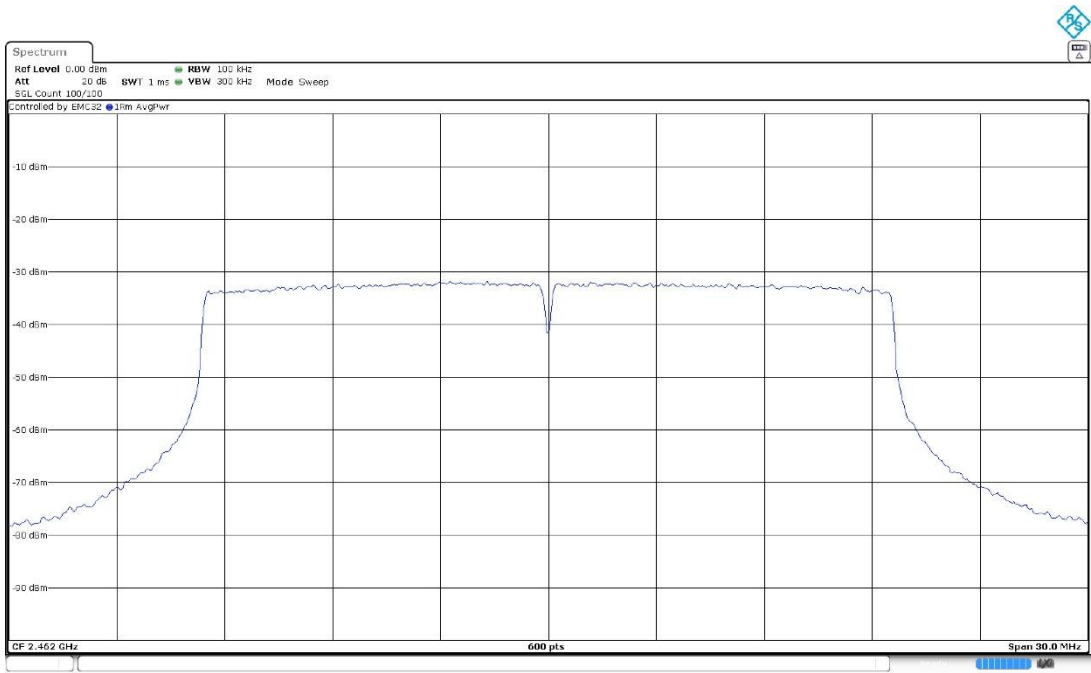
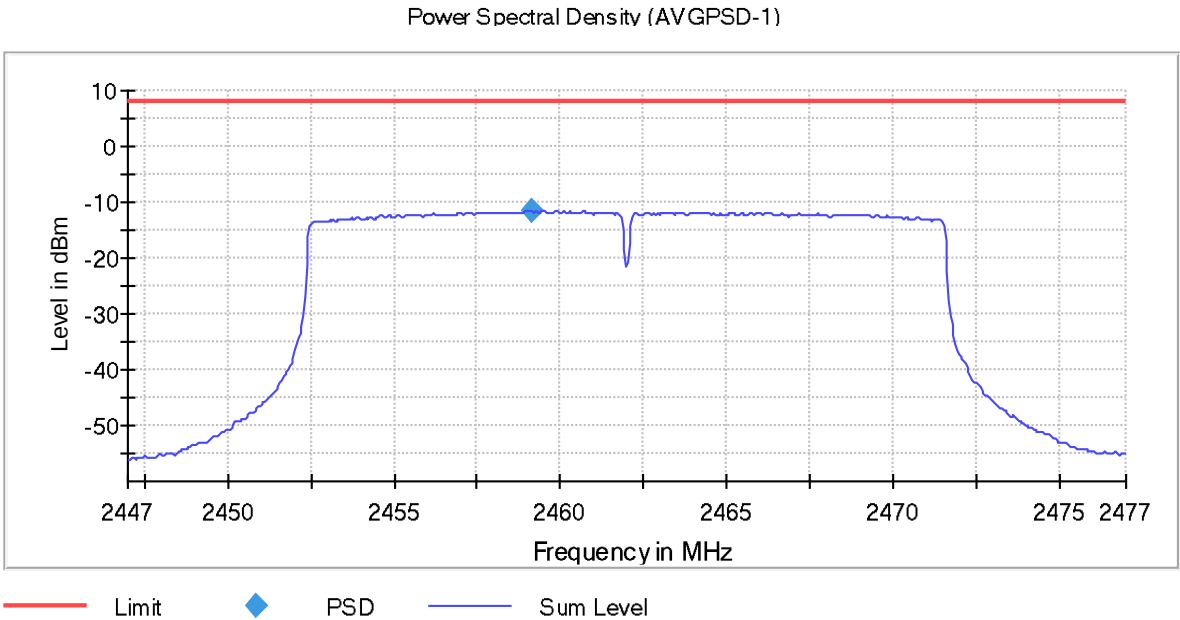
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:



Modulation: 802.11ax HE20 (OFDMA MCS0) RU26

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	PSD (dBm)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	2+4	-0.15
		2437.00000		-1.15
		2462.00000		-0.07

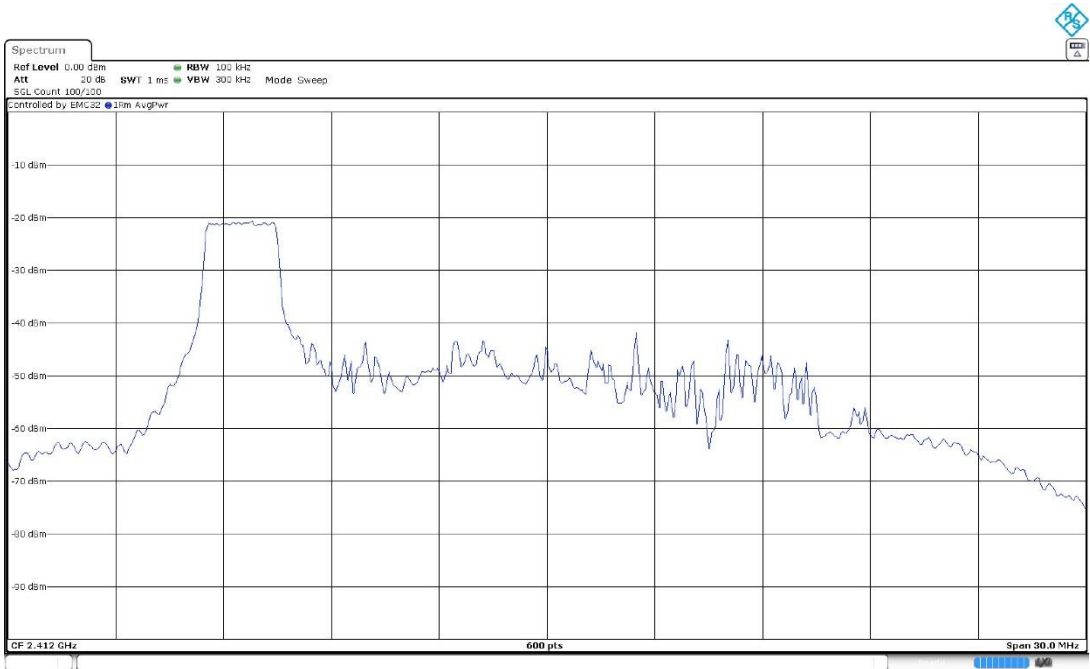
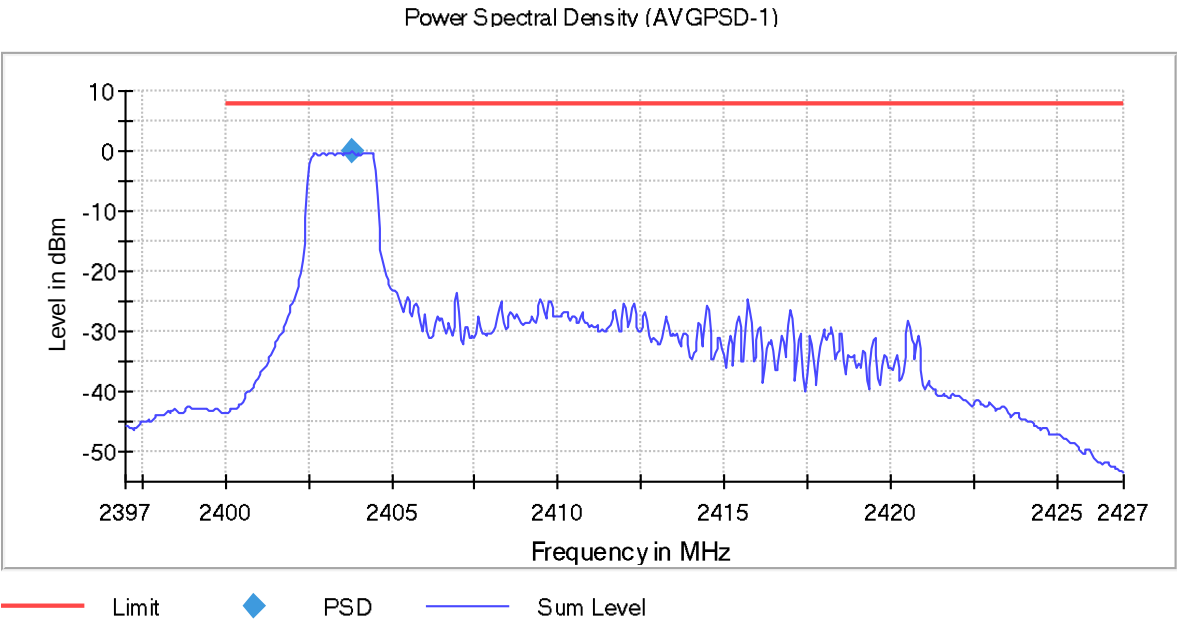
Verdict

Pass

Attachments

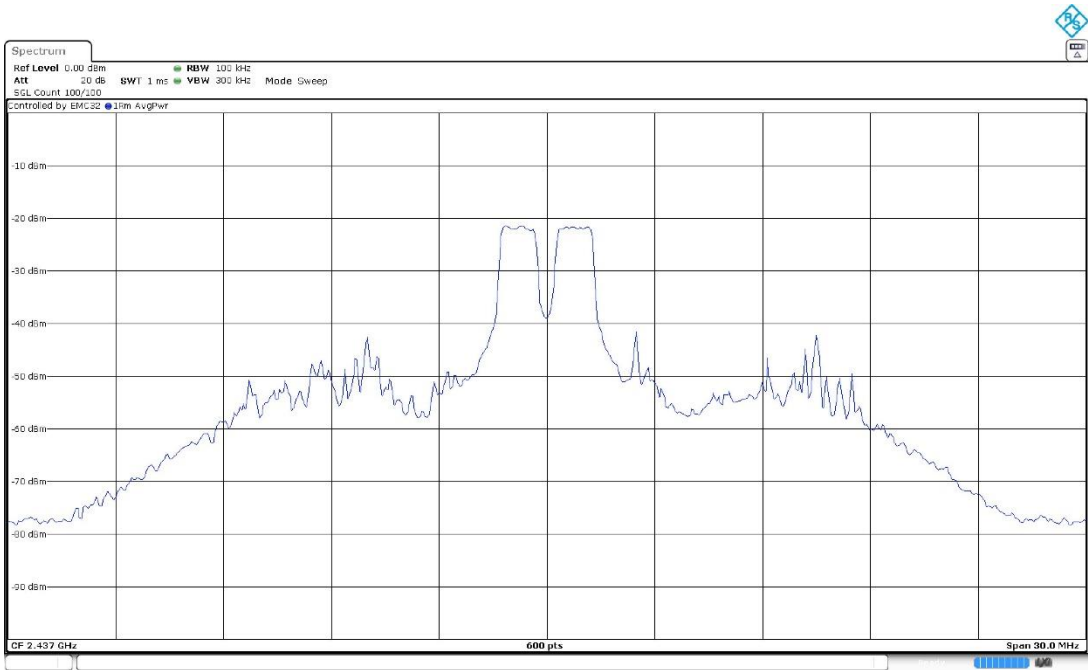
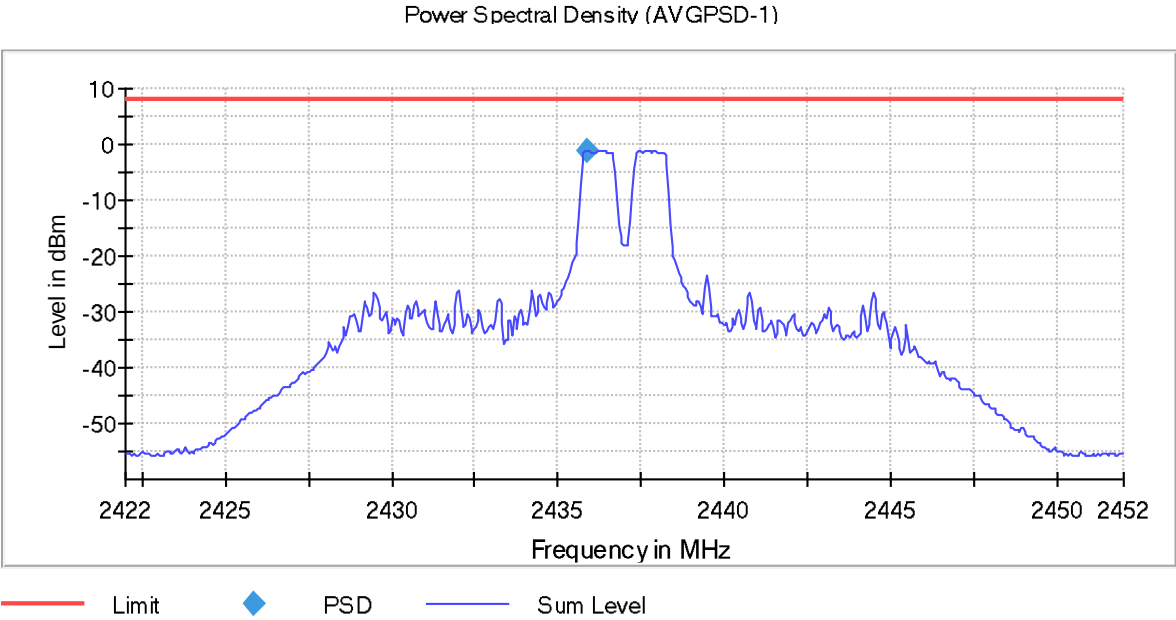
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:



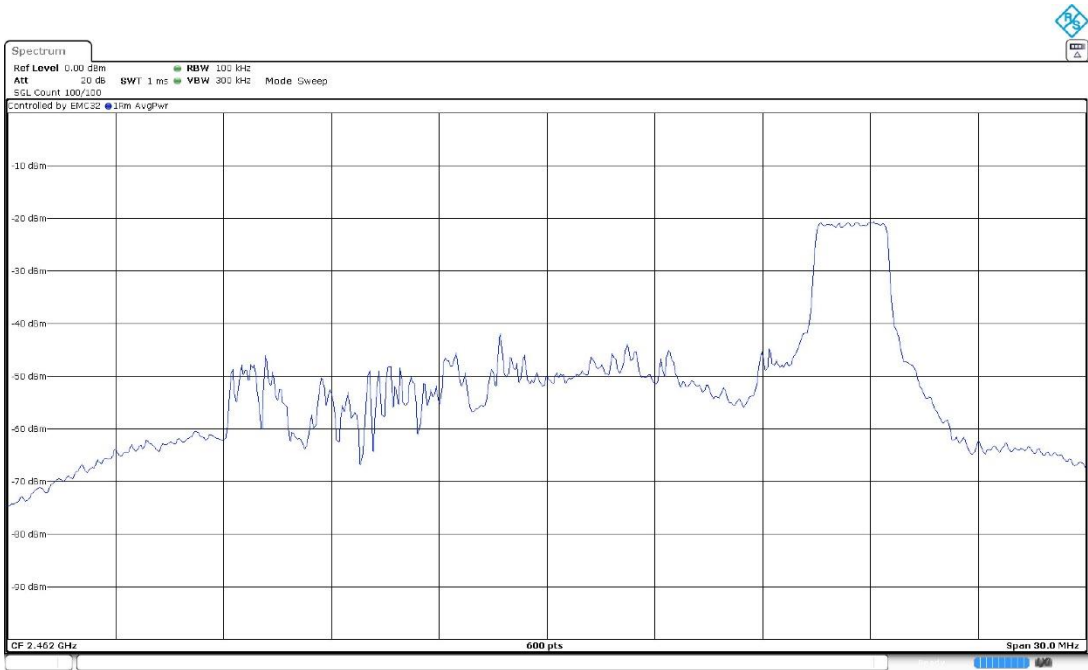
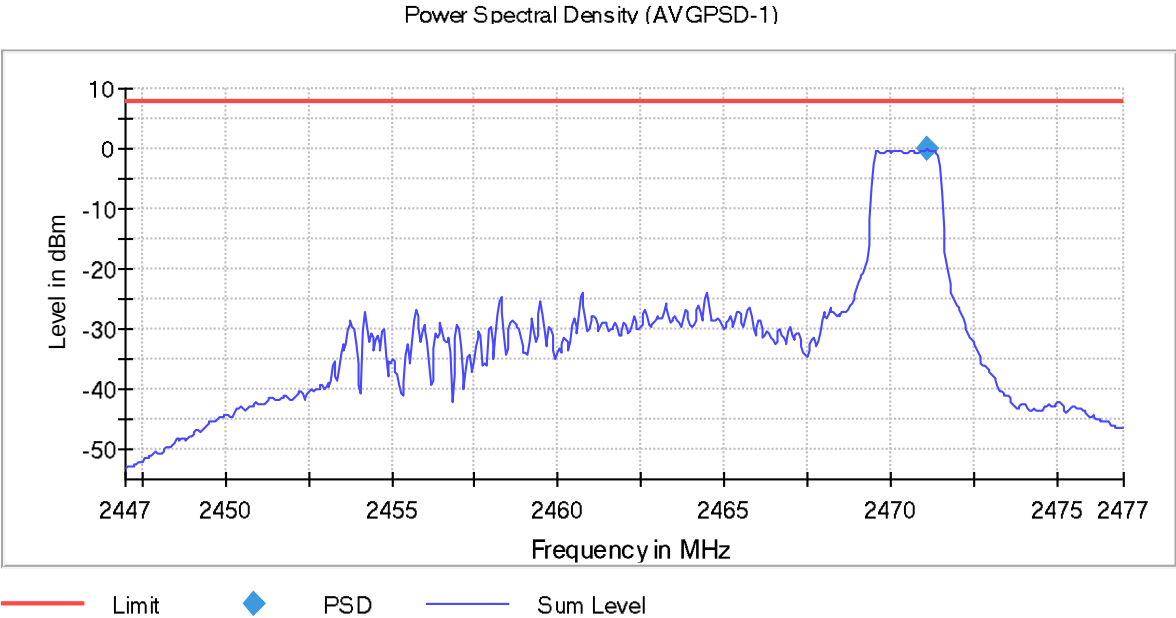
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:



Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:



RSS-247 5.5 / FCC 15.247 (d) 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.

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

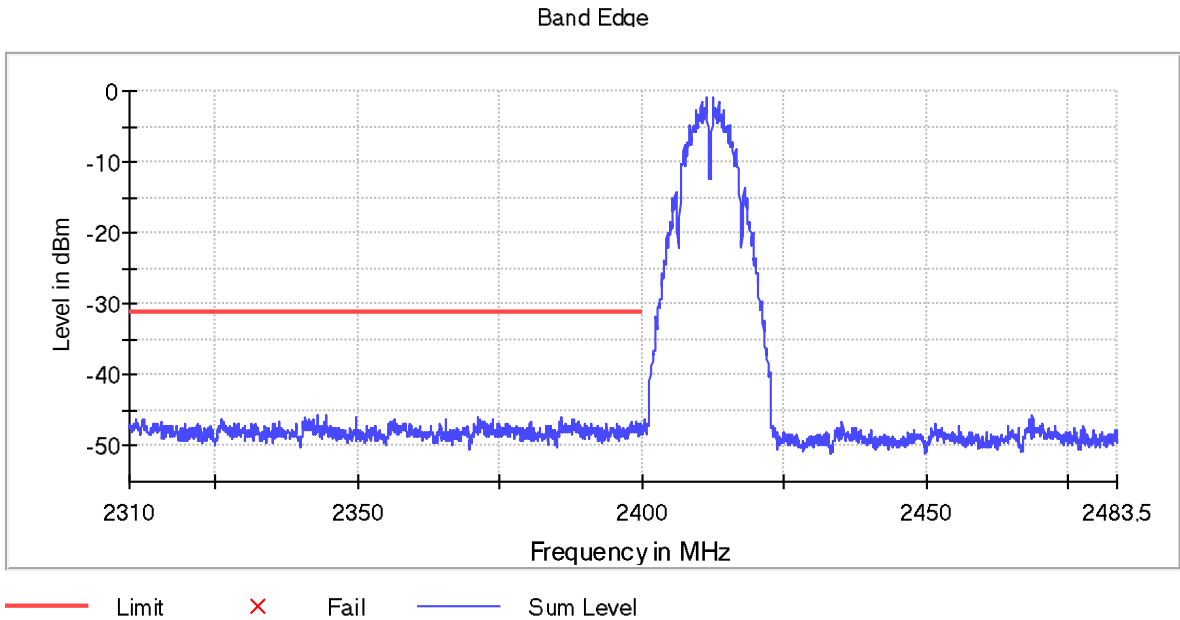
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



Tables:

Spectrum Analyzer Parameters 1

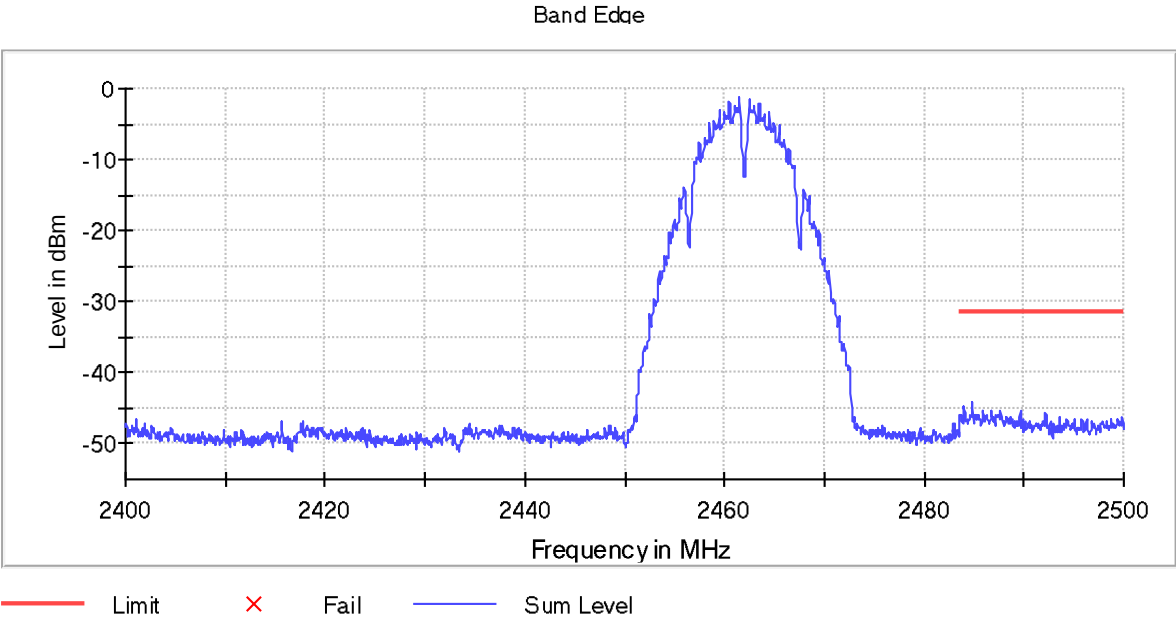
Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.50 dB

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11b (DSSS 1 Mbit/s)

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	12 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.09 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.48350 GHz	2.48350 GHz
Stop Frequency	2.50000 GHz	2.50000 GHz
Span	16.500 MHz	16.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	330	~ 330
SweepTime	18.945 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Modulation: 802.11g (OFDM 6 Mbit/s)

Results

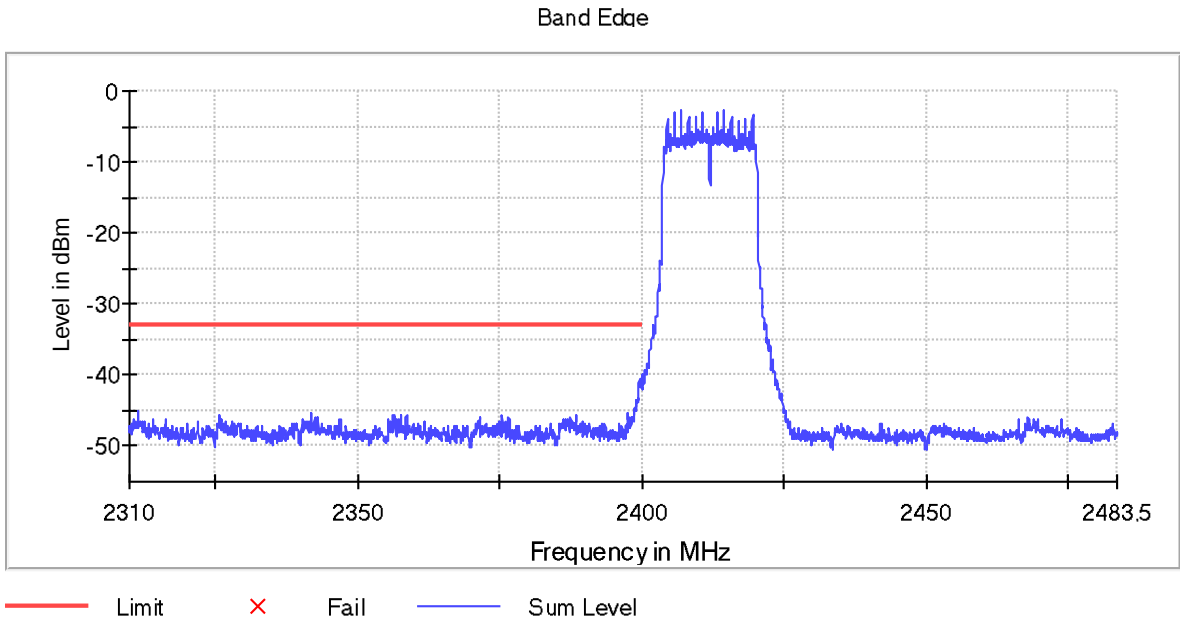
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2+4
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:



Tables:

Spectrum Analyzer Parameters 1

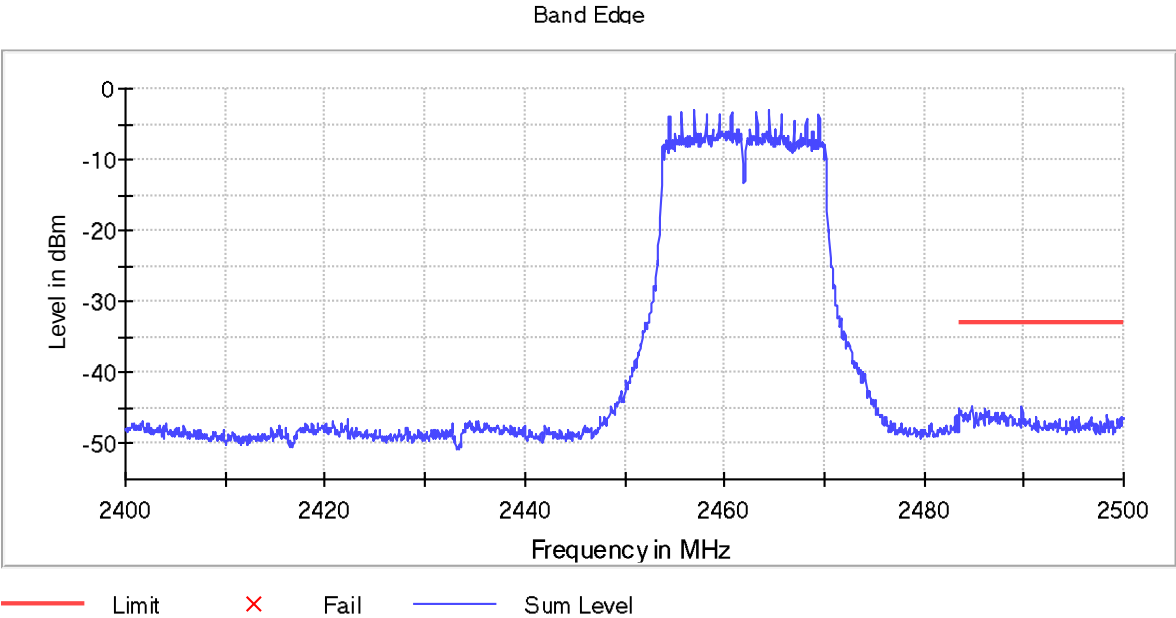
Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	27 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.09 dB	0.50 dB

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2+4
Modulation = 802.11g (OFDM 6 Mbit/s)

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	21 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.29 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.48350 GHz	2.48350 GHz
Stop Frequency	2.50000 GHz	2.50000 GHz
Span	16.500 MHz	16.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	330	~ 330
SweepTime	18.945 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Modulation: 802.11n HT20 (OFDM MCS0)

Results

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

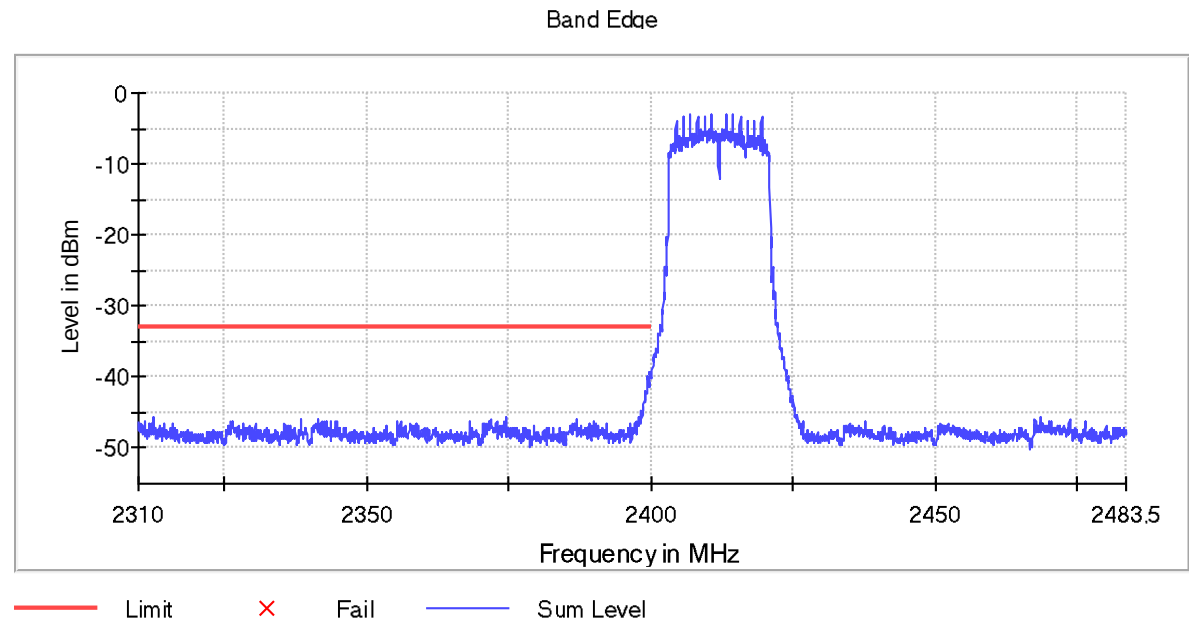
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	37 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.15 dB	0.50 dB

Operation Band MHz = [2400, 2483.5]

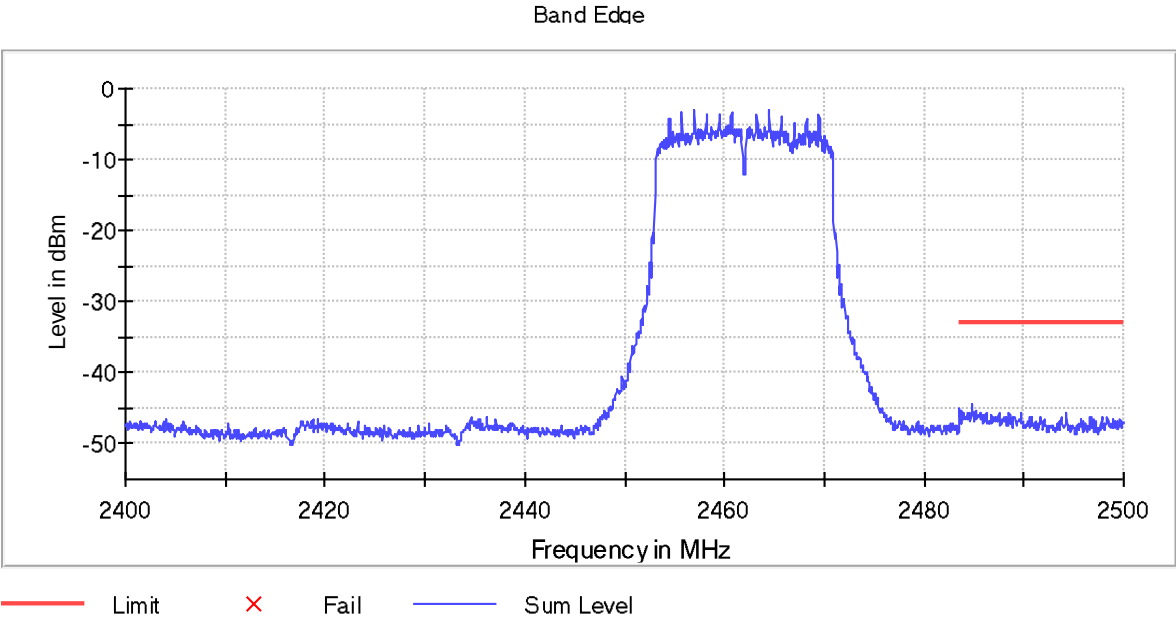
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	45 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.39 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.48350 GHz	2.48350 GHz
Stop Frequency	2.50000 GHz	2.50000 GHz
Span	16.500 MHz	16.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	330	~ 330
SweepTime	18.945 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Modulation: 802.11ax HE20 (OFDMA MCS0) SU

Results

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

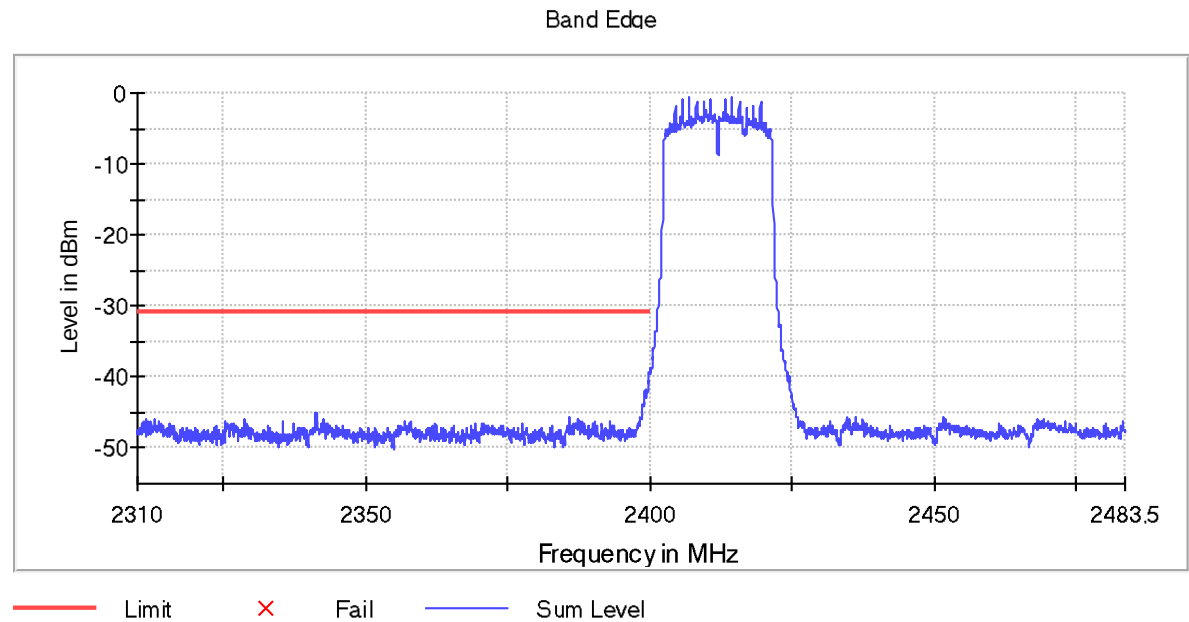
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

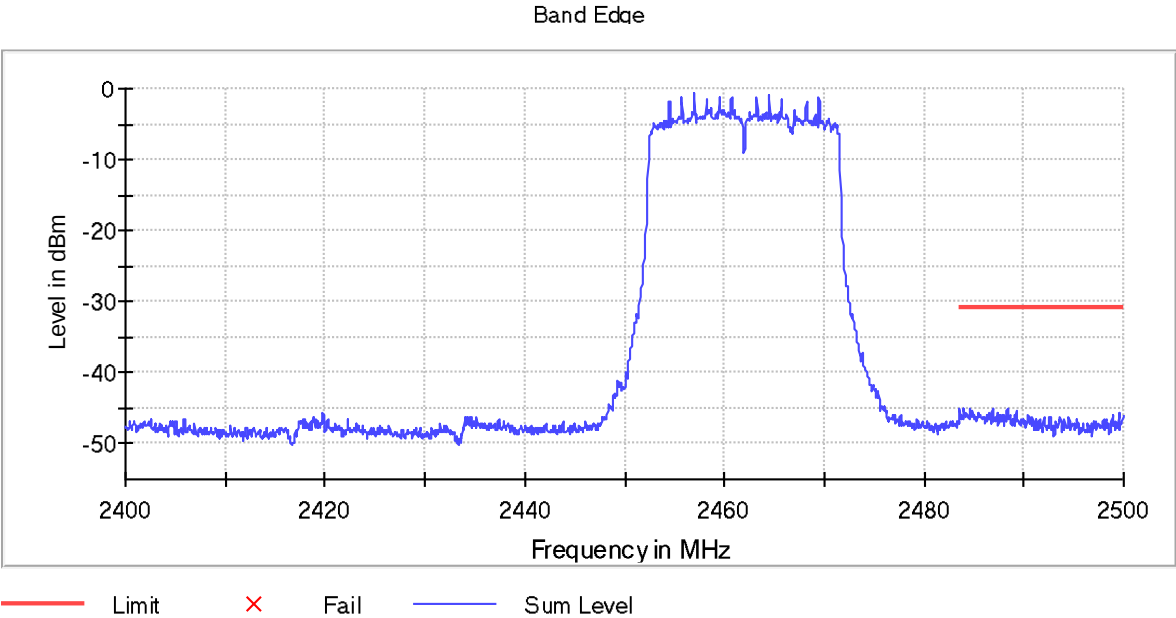
Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	71 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Operation Band MHz = [2400, 2483.5]
Frequency MHz = 2462.00000
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Equipment Type = Digital Transmission System (DTS)
Active Port = 2+4

Images:



Tables:

Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	63 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.38 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.48350 GHz	2.48350 GHz
Stop Frequency	2.50000 GHz	2.50000 GHz
Span	16.500 MHz	16.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	330	~ 330
SweepTime	18.945 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Modulation: 802.11ax HE20 (OFDMA MCS0) RU26

Results

Verdict

Pass

Operation Band MHz = [2400, 2483.5]

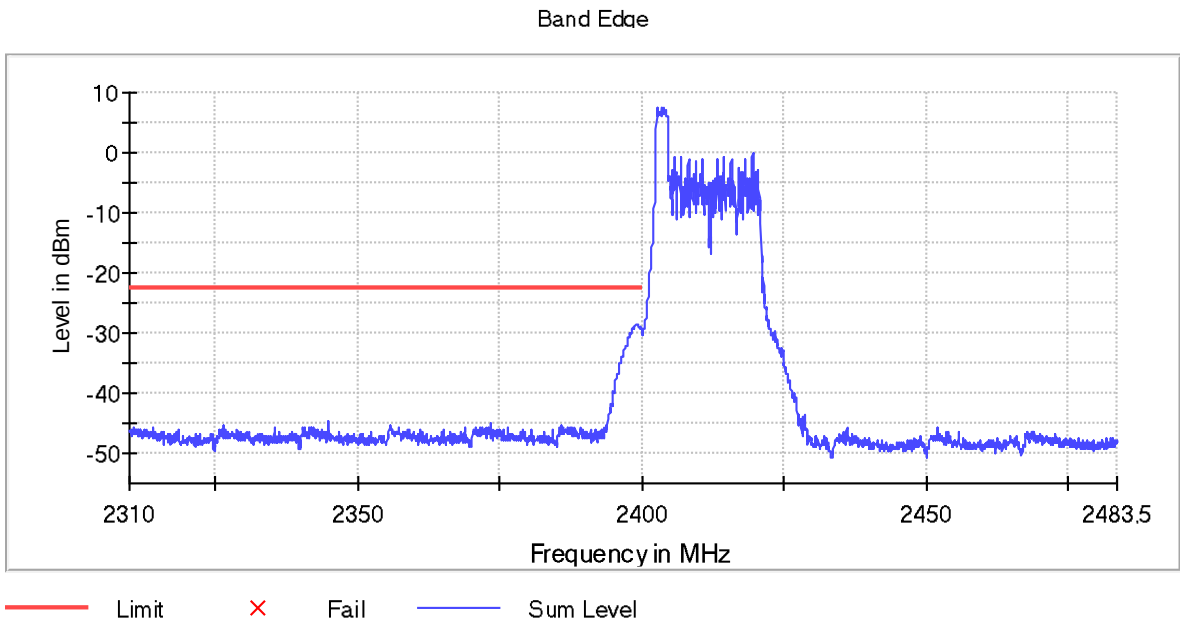
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:



Tables:
Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	19 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Operation Band MHz = [2400, 2483.5]

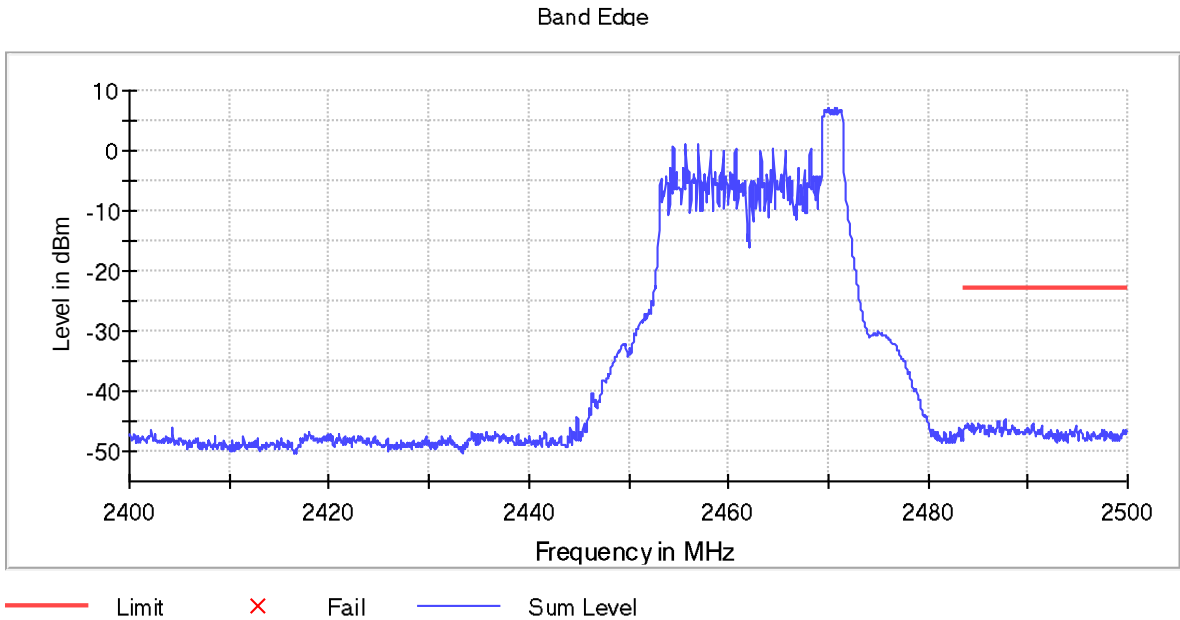
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:



Tables:
Spectrum Analyzer Parameters 1

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	24 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Spectrum Analyzer Parameters 2

Setting	Instrument Value	Target Value
Start Frequency	2.48350 GHz	2.48350 GHz
Stop Frequency	2.50000 GHz	2.50000 GHz
Span	16.500 MHz	16.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	330	~ 330
SweepTime	18.945 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

RSS-247 5.5 / FCC 15.247 (d) 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.

Frequency range tested for Radiated emissions:

Start frequency: no radiofrequency signal generated in the device found below 10th sub-harmonic, no further investigation required.

Stop frequency: it has been performed the radiated spurious emissions until 10th harmonic.

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

Freq Rng (GHz)	Operation Band (MHz)	Equipment	Freq (MHz)	Port	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	Pol	Detector
[0.03, 1]	[2400, 2483.5]	Digital Transmission System (DTS)	2402.00000	2+4	30.485	33.57	V	PK
					30.485	28.00	V	QP
					51.631	32.07	V	PK
					51.631	25.87	V	QP
					60.846	33.86	V	PK
					60.846	29.13	V	QP
					180.980	41.05	V	PK
					180.980	37.35	V	QP
					210.662	34.05	V	PK
					210.662	30.00	V	QP
					249.996	35.78	H	PK
					249.996	33.58	H	QP

Modulation: 802.11g (OFDM 6 Mbit/s)

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11n HT20 (OFDM MCS0)

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11ax HE20 (OFDMA MCS0) SU

Results

No spurious frequencies detected at less than 20 dB below the limit.

Modulation: 802.11ax HE20 (OFDMA MCS0) RU26

Results

No spurious frequencies detected at less than 20 dB below the limit.

Verdict

Pass

Attachments

Frequency Range GHz = [0.03, 1]

Equipment Type = Digital Transmission System (DTS)

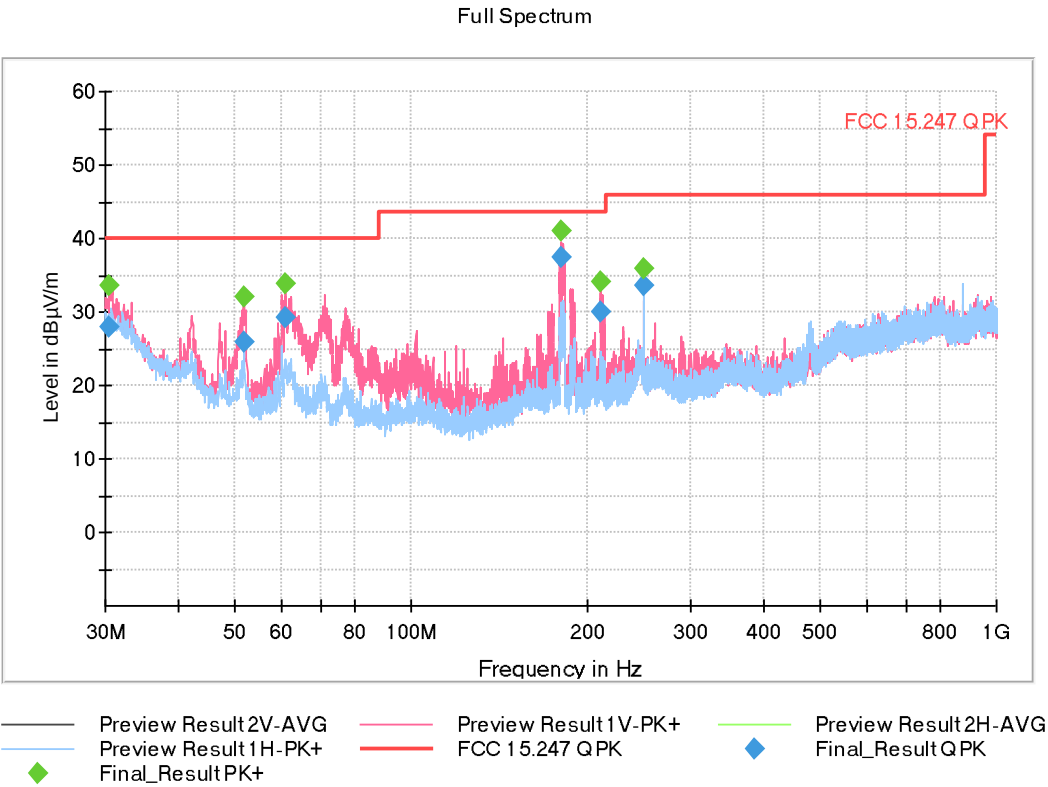
Active Port = 2+4

Operation Band MHz = [2400, 2483.5]

Frequency MHz = The spurious frequencies detected do not depend on the operating channel.

Modulation = The spurious frequencies detected do not depend on the modulation.

Images:



Tables:

Spectrum Analyzer Parameters

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48,5 kHz	PK+	100 kHz	1 s	0 dB

Frequency Range GHz = [1, 17]

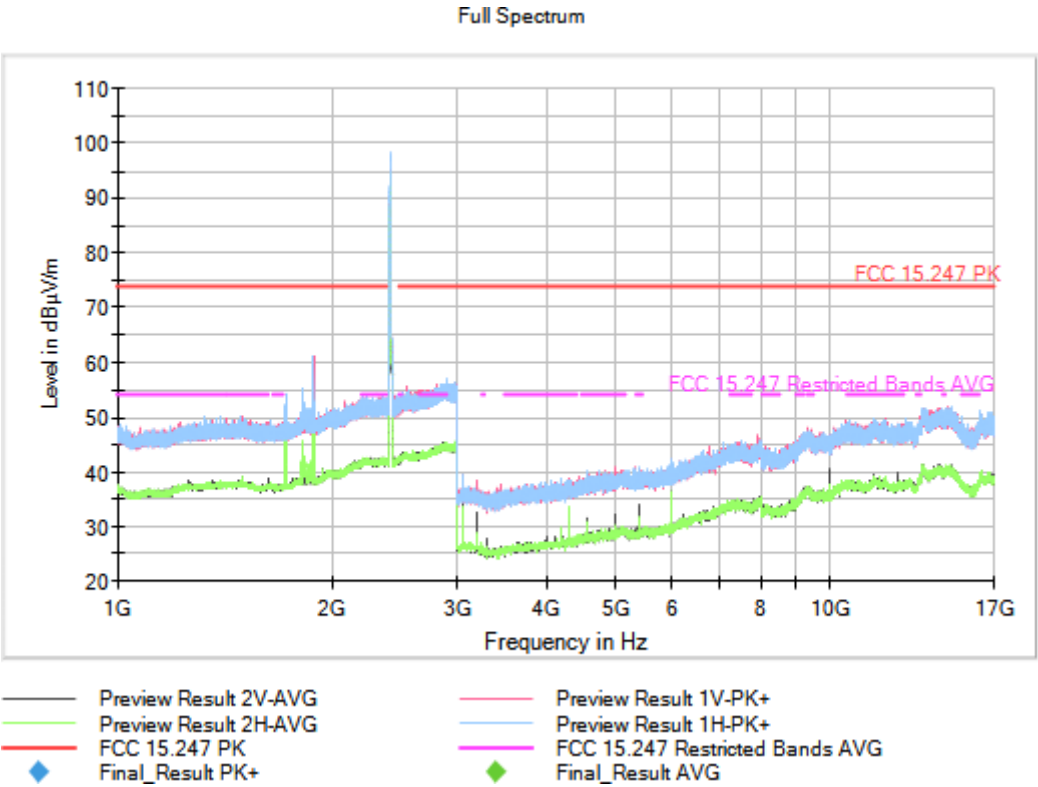
Operation Band MHz = [2400, 2483.5]

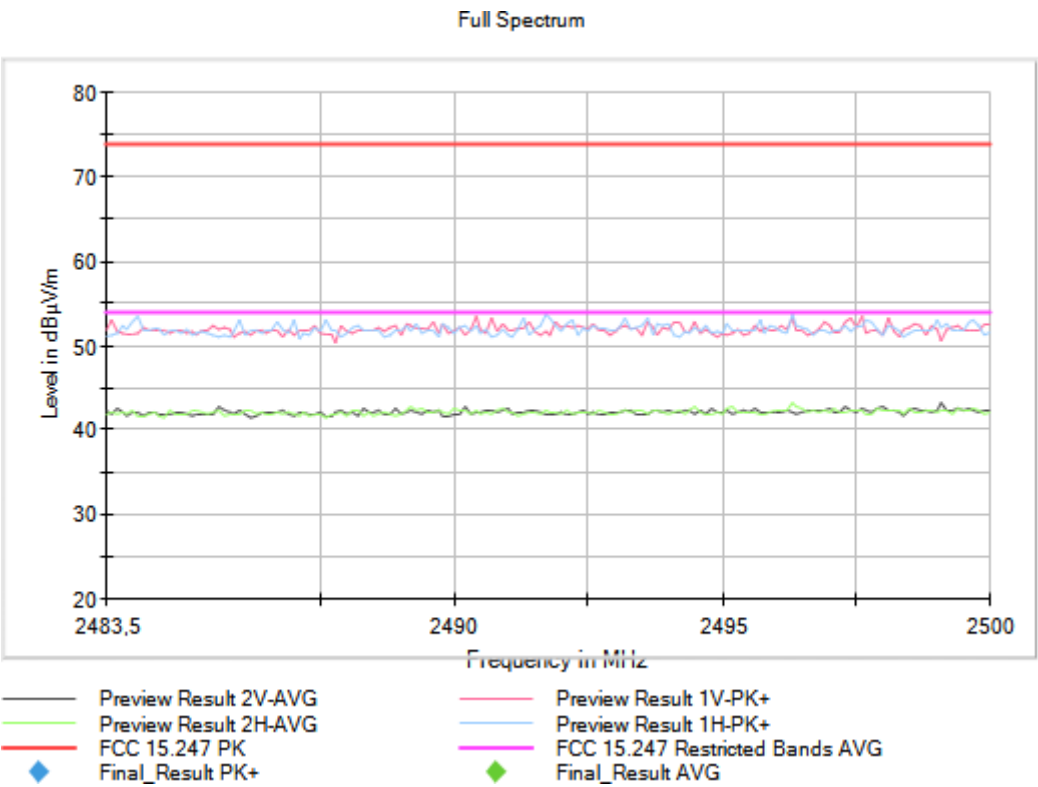
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11b (DSSS 1 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

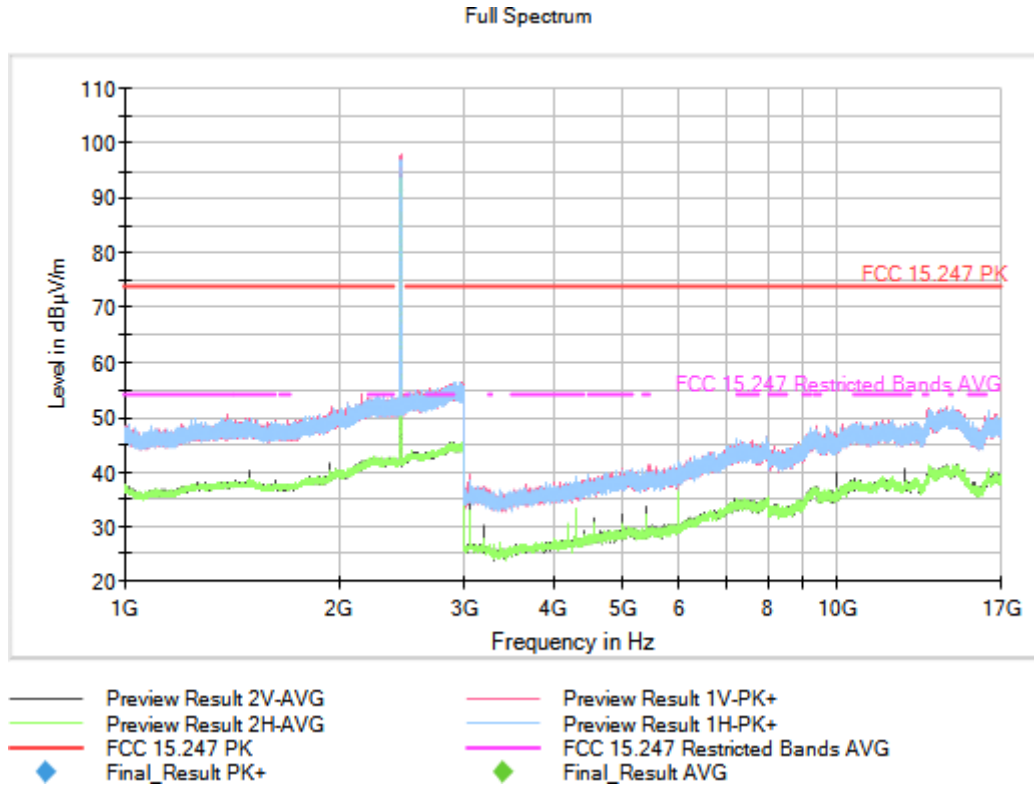
Operation Band MHz = [2400, 2483.5]

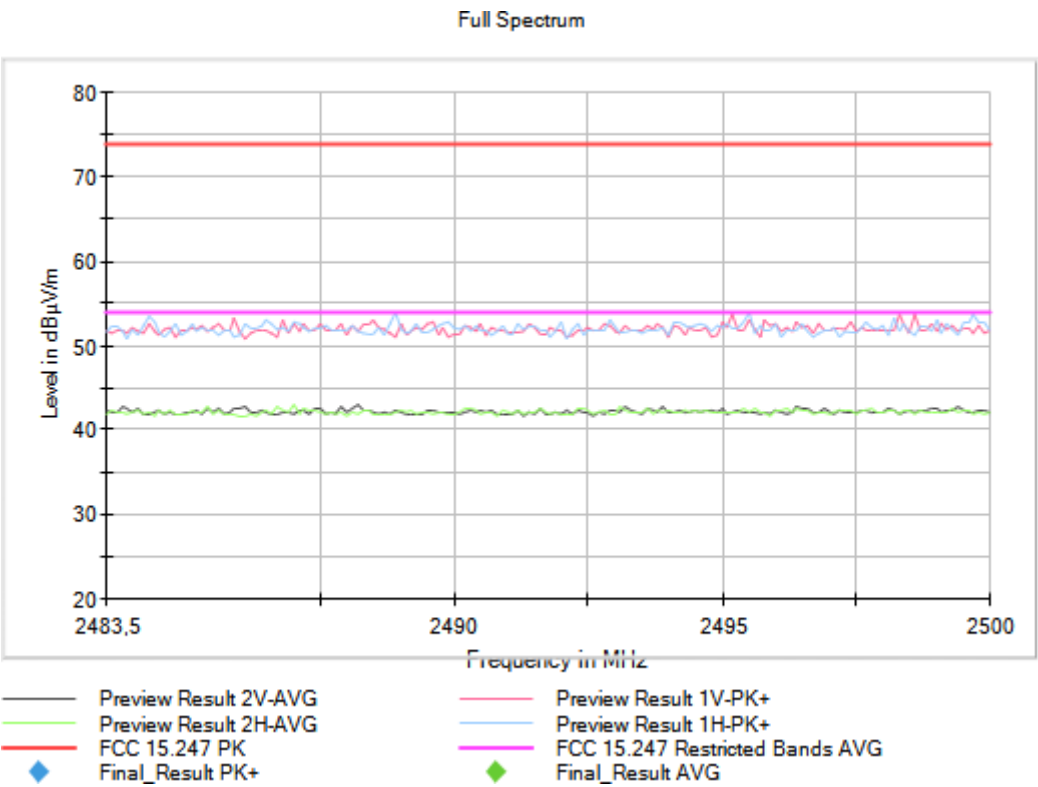
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 2+4

Modulation = 802.11b (DSSS 1 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

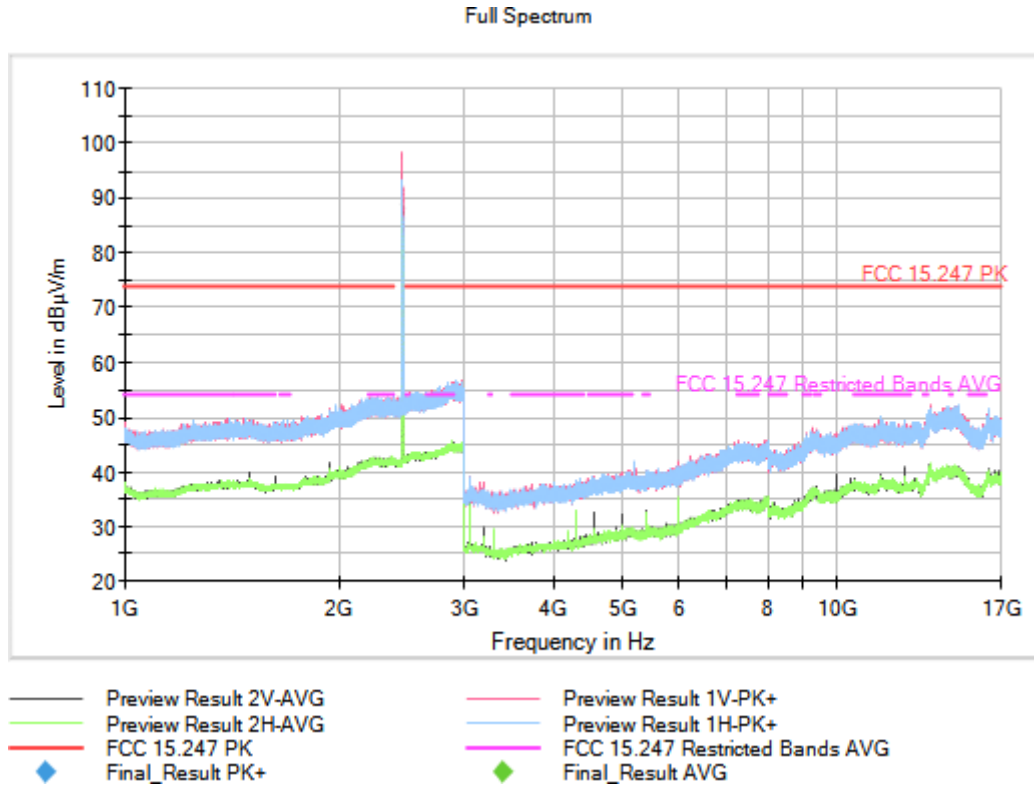
Operation Band MHz = [2400, 2483.5]

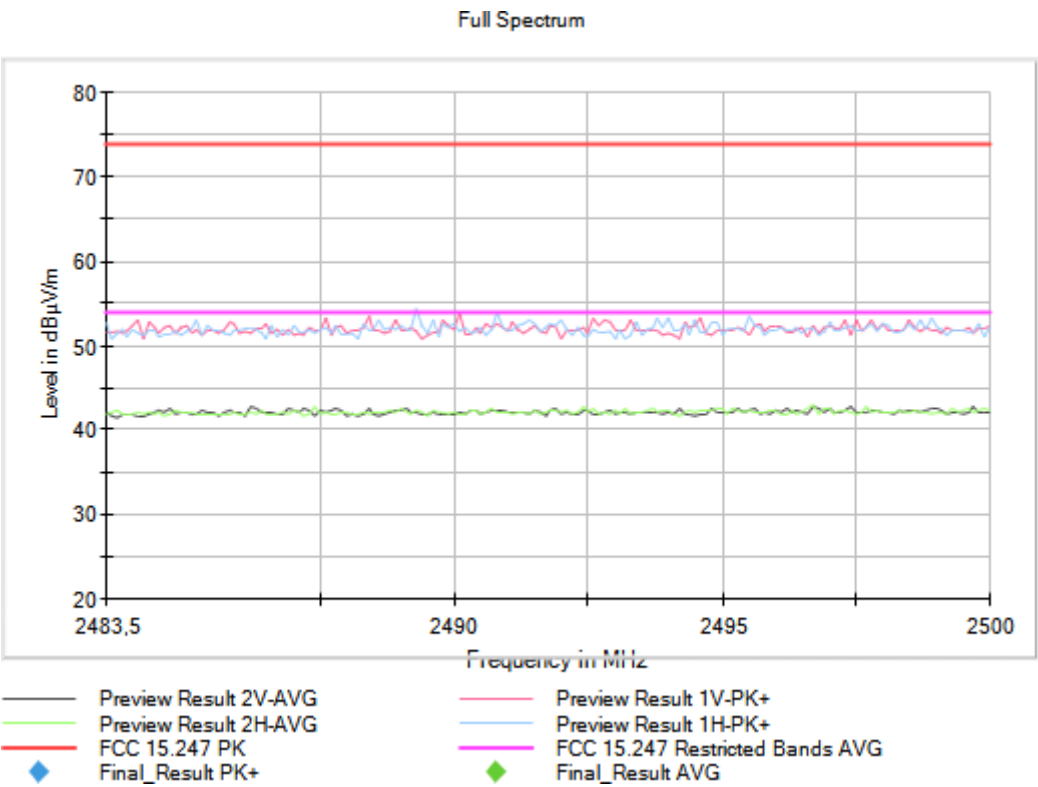
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11b (DSSS 1 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

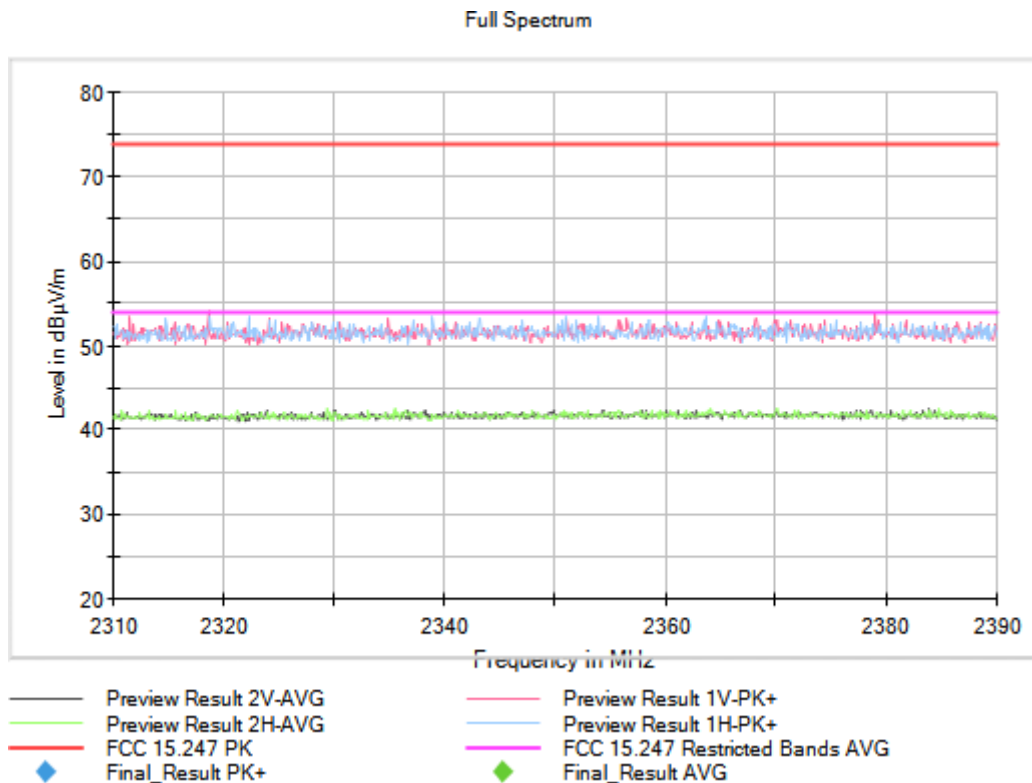
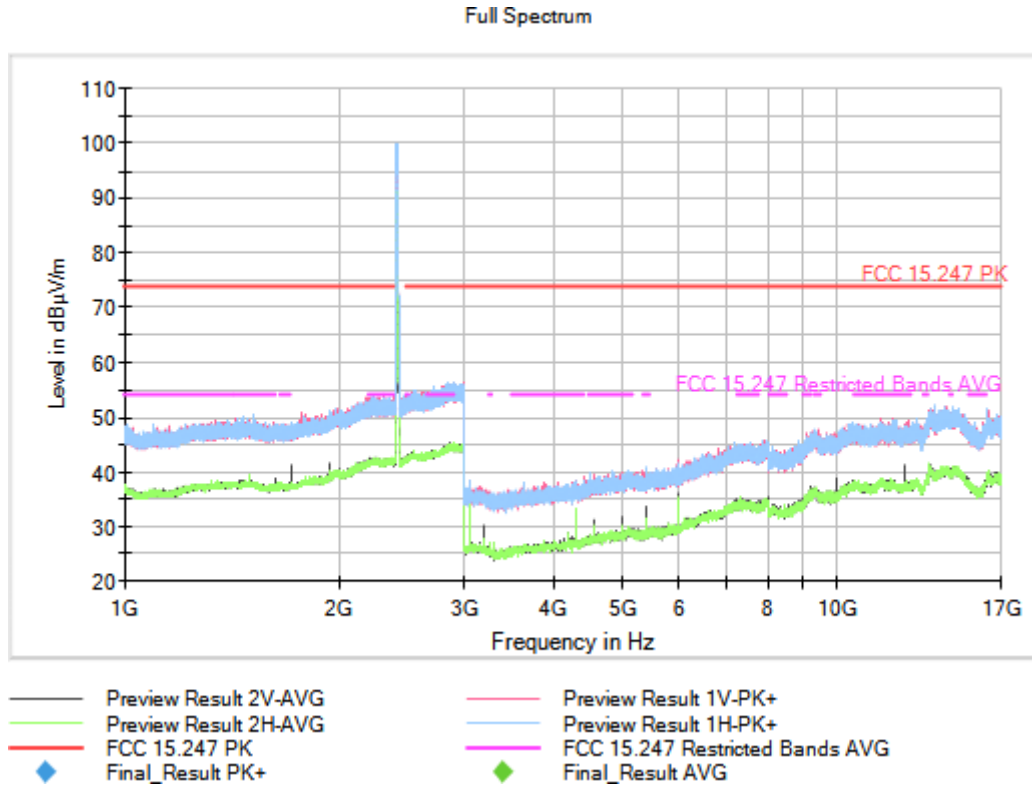
Operation Band MHz = [2400, 2483.5]

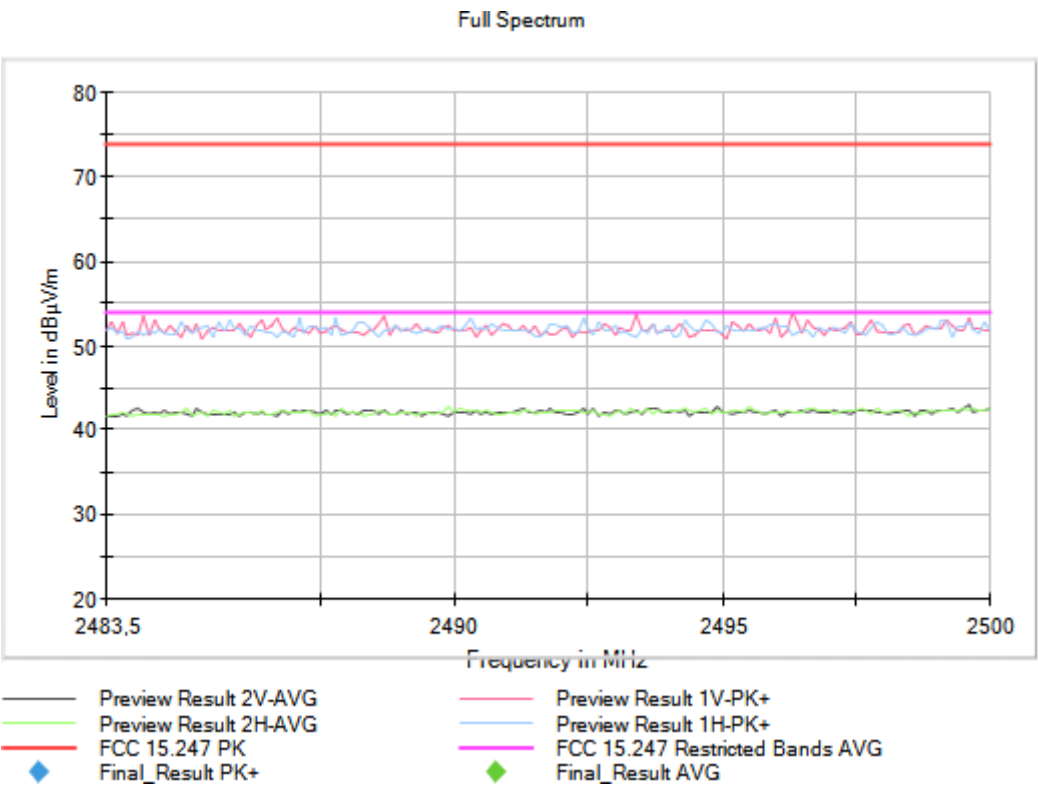
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11g (OFDM 6 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

Operation Band MHz = [2400, 2483.5]

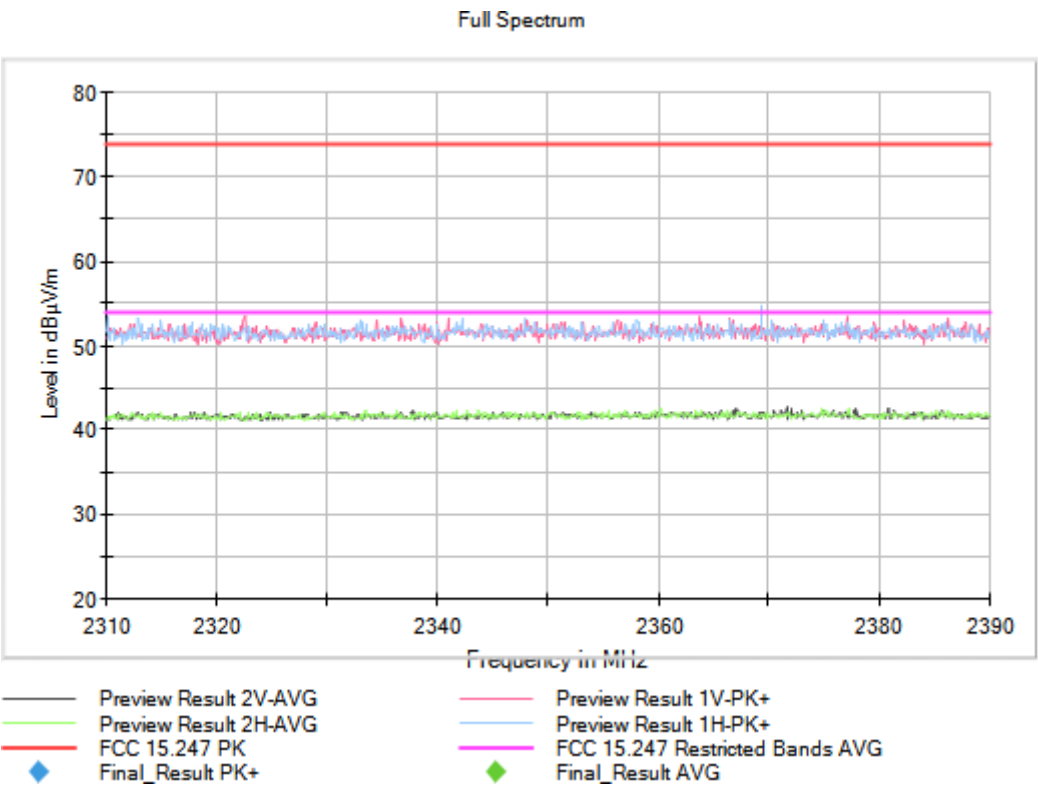
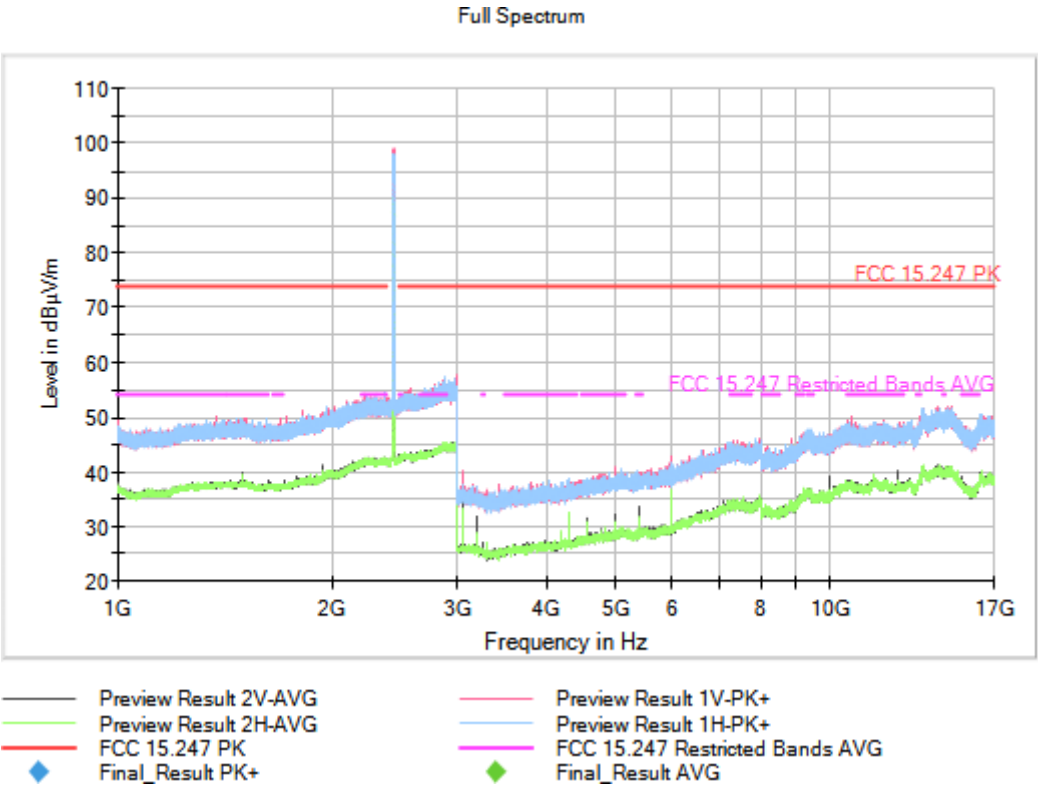
Equipment Type = Digital Transmission System (DTS)

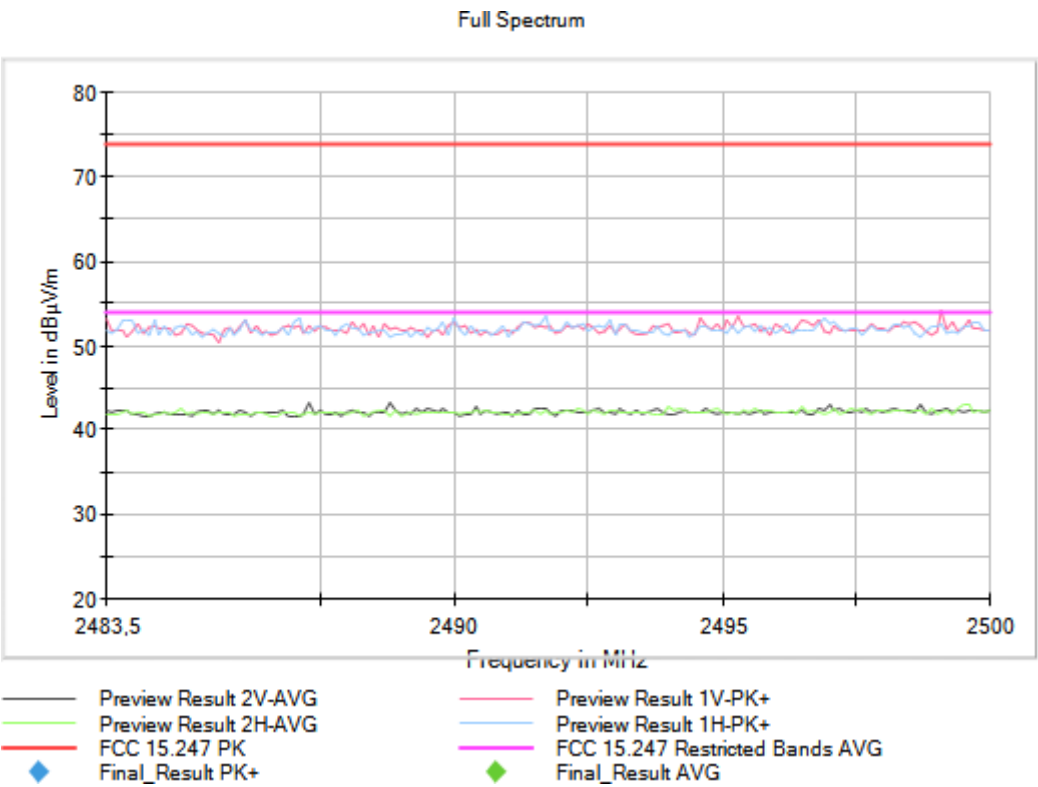
Frequency MHz = 2437.00000

Active Port = 2+4

Modulation = 802.11g (OFDM 6 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

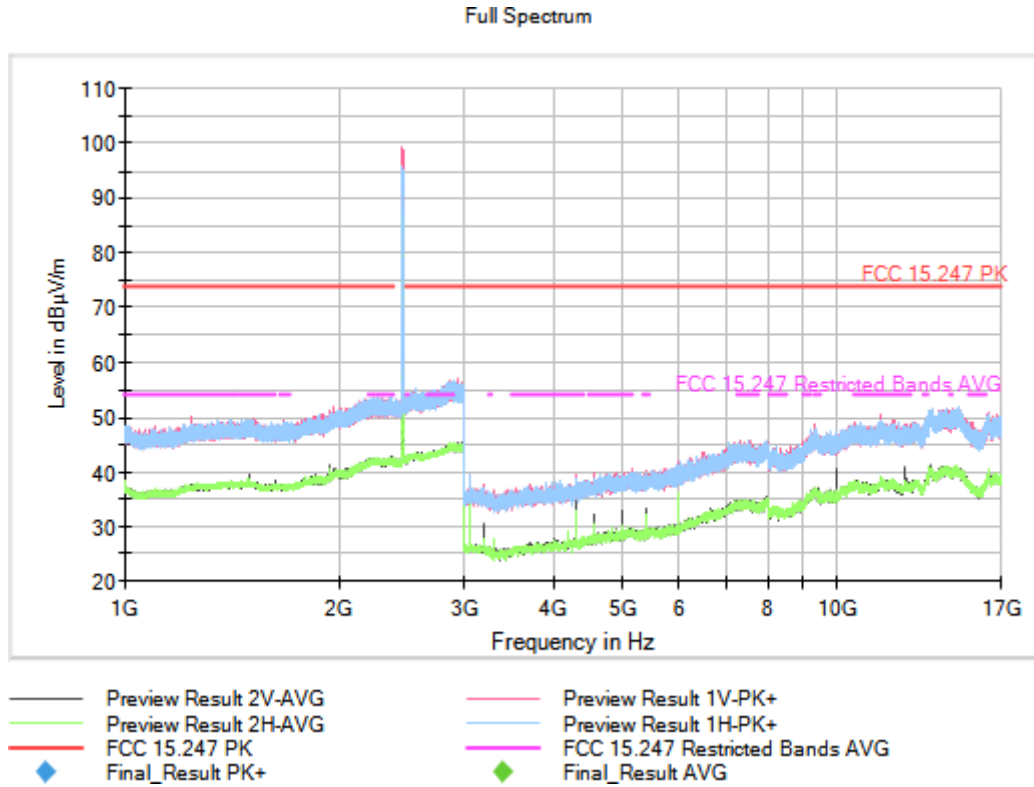
Operation Band MHz = [2400, 2483.5]

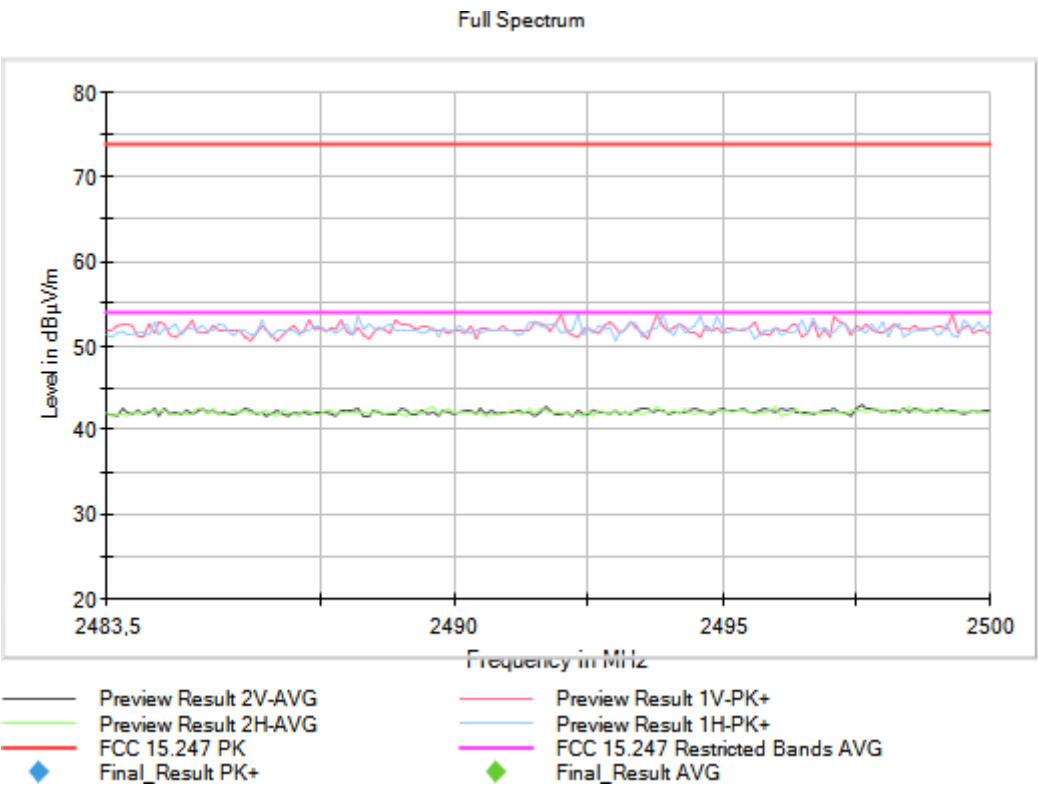
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11g (OFDM 6 Mbit/s)

Images:





Frequency Range GHz = [1, 17]

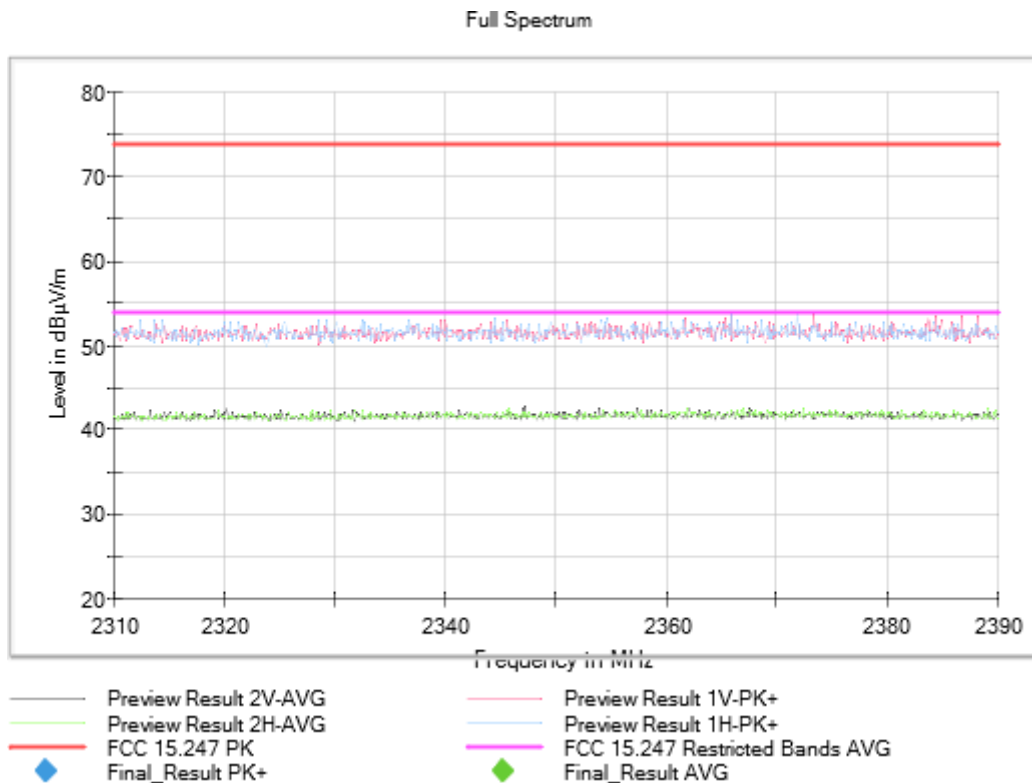
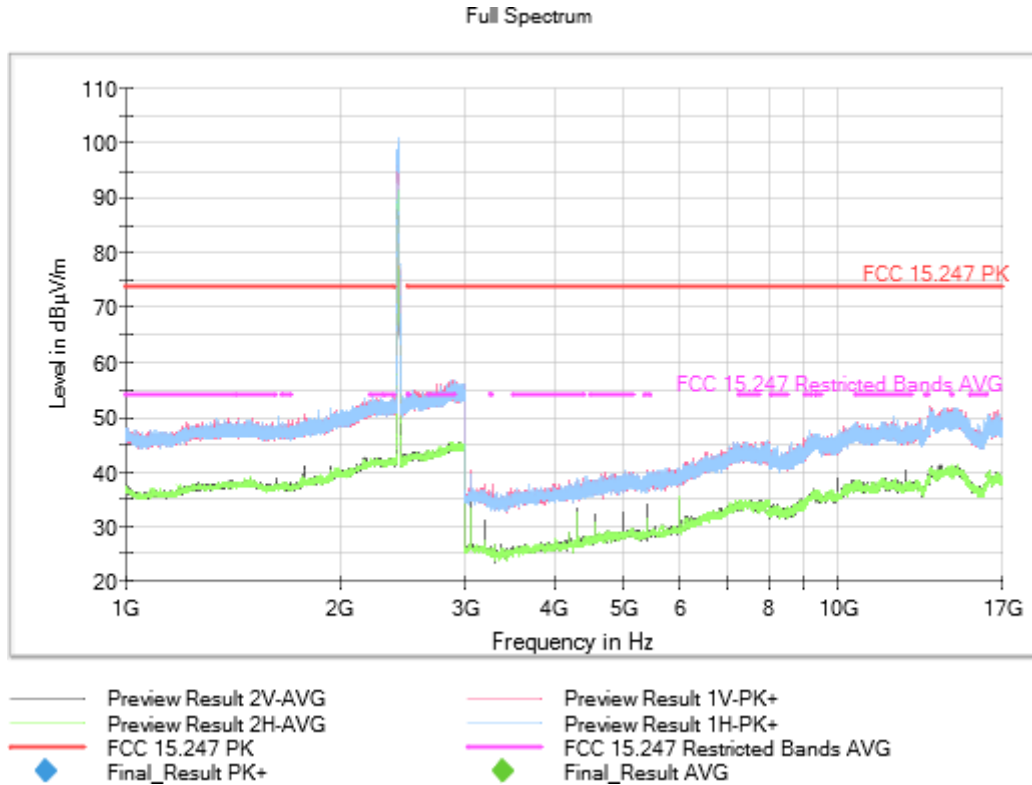
Operation Band MHz = [2400, 2483.5]

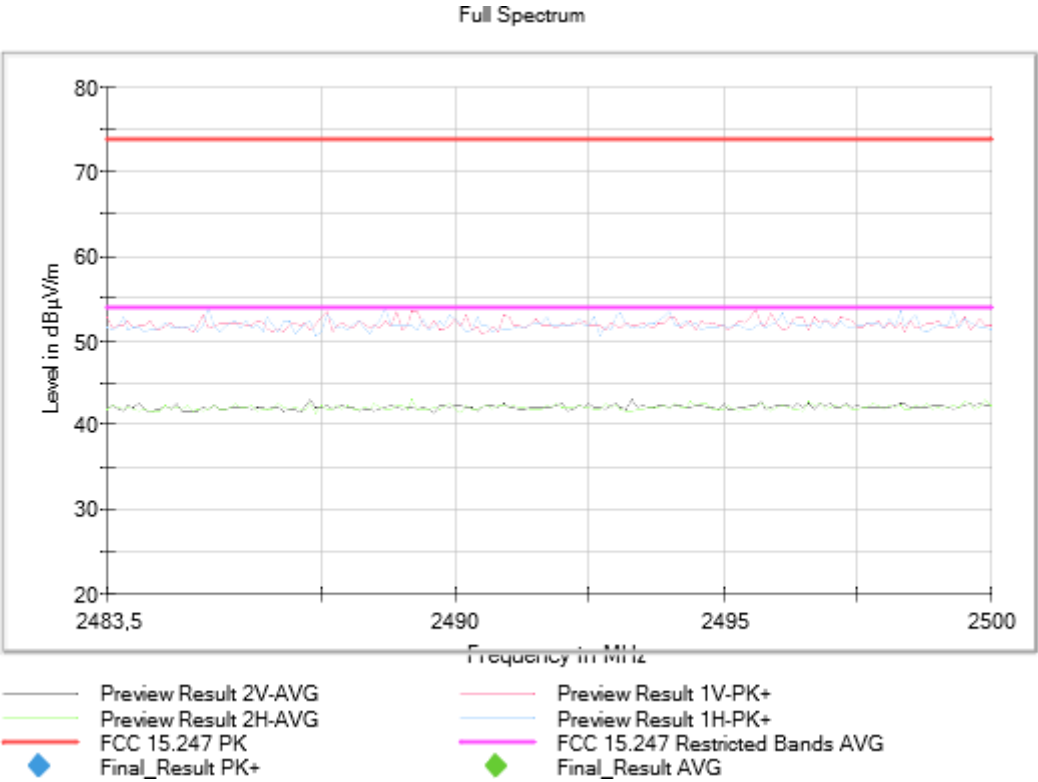
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2412.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:





Frequency Range GHz = [1, 17]

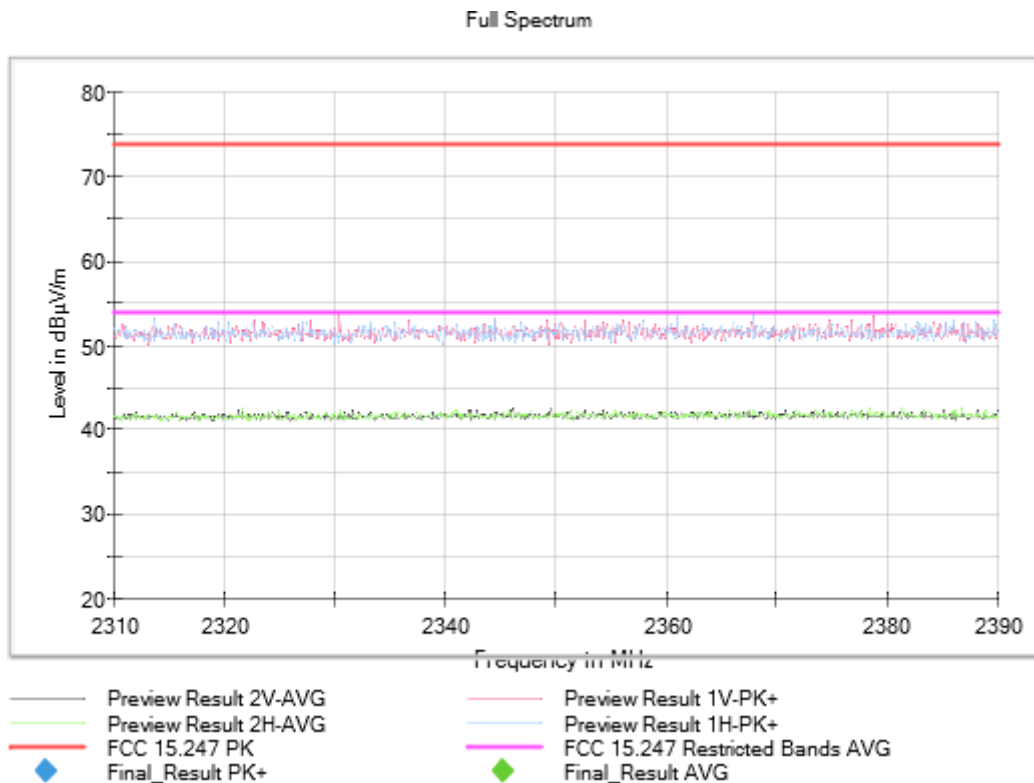
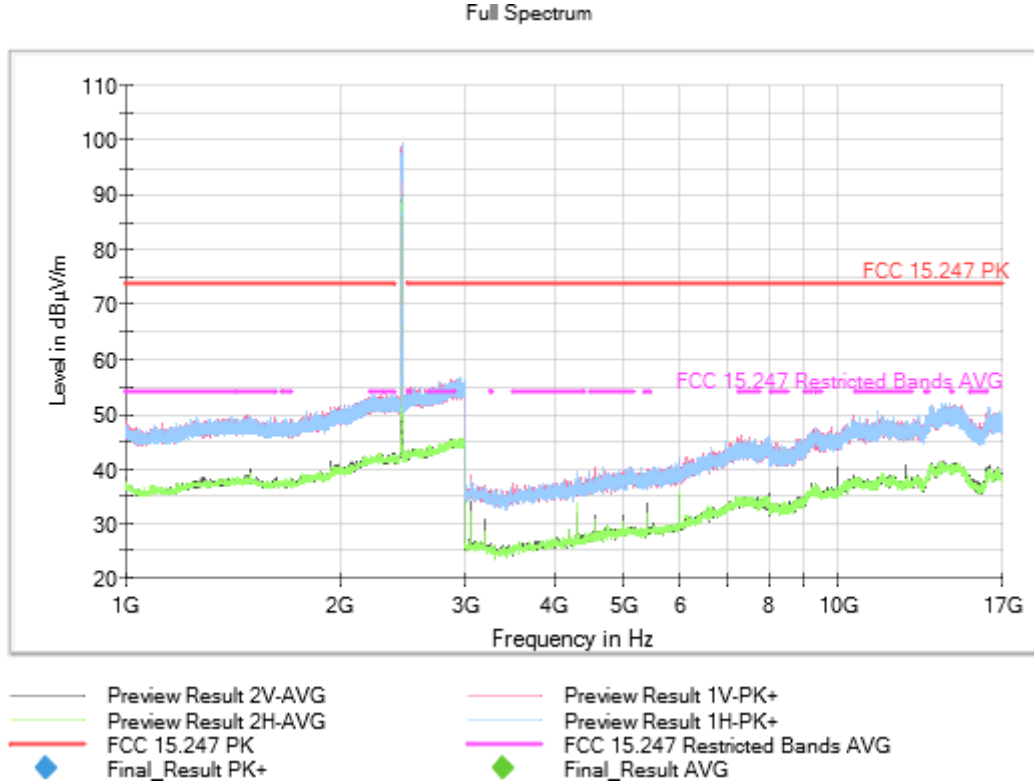
Operation Band MHz = [2400, 2483.5]

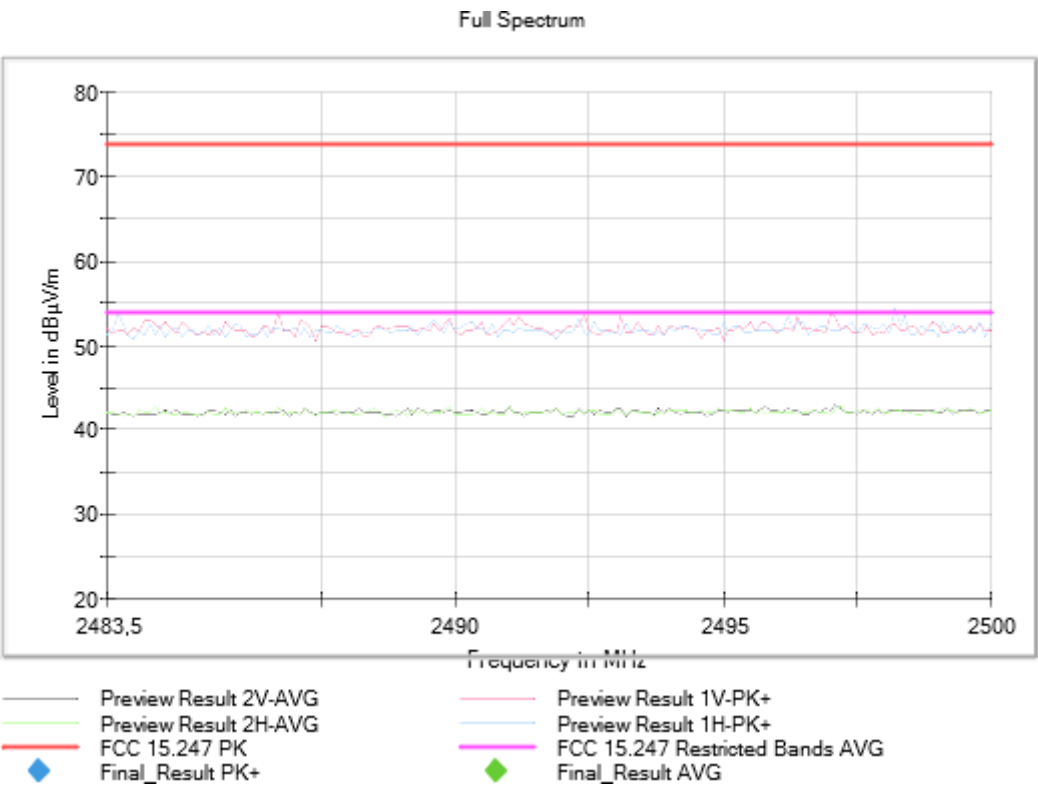
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:





Frequency Range GHz = [1, 17]

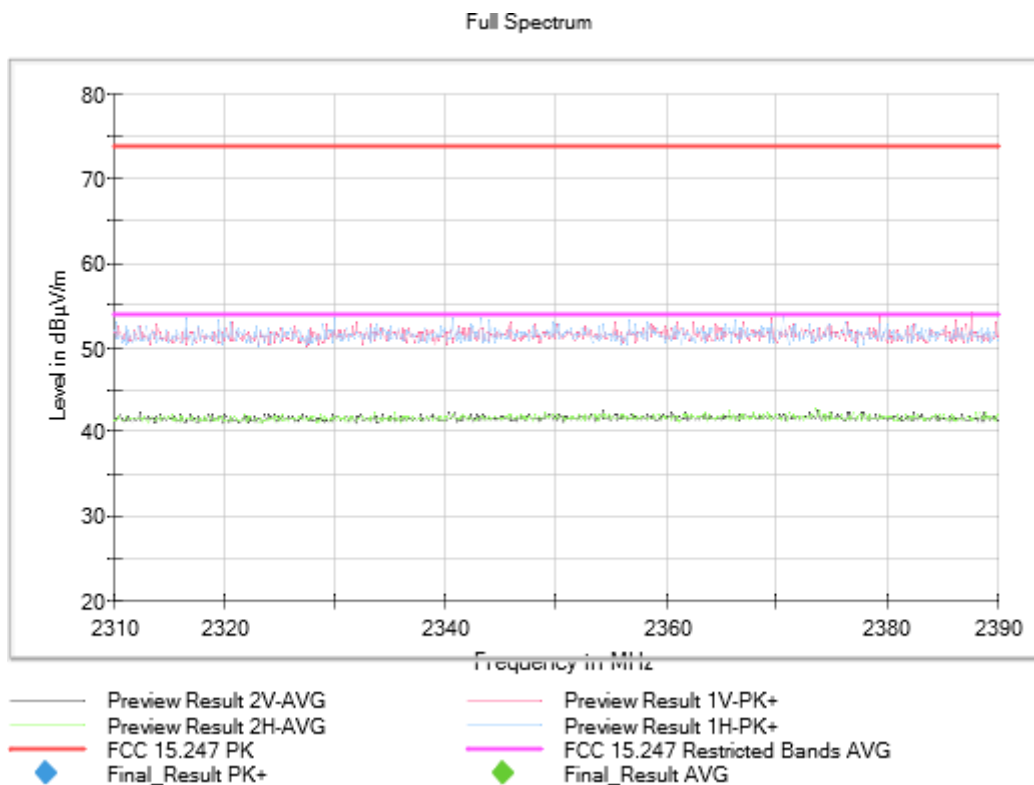
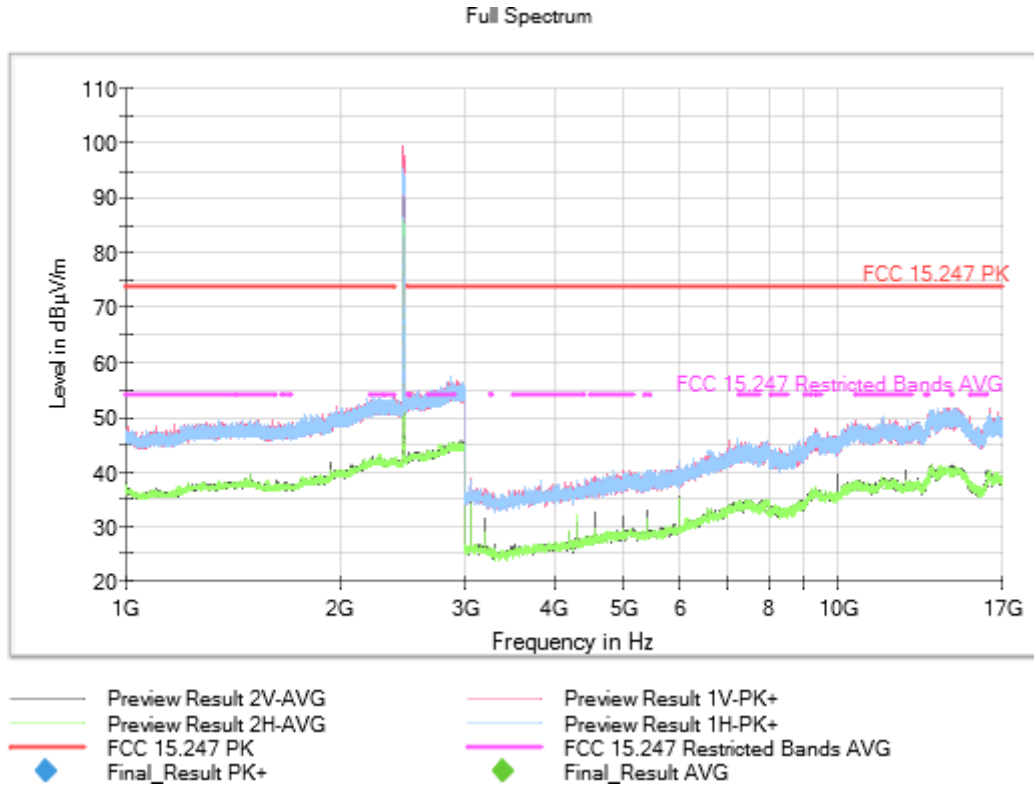
Operation Band MHz = [2400, 2483.5]

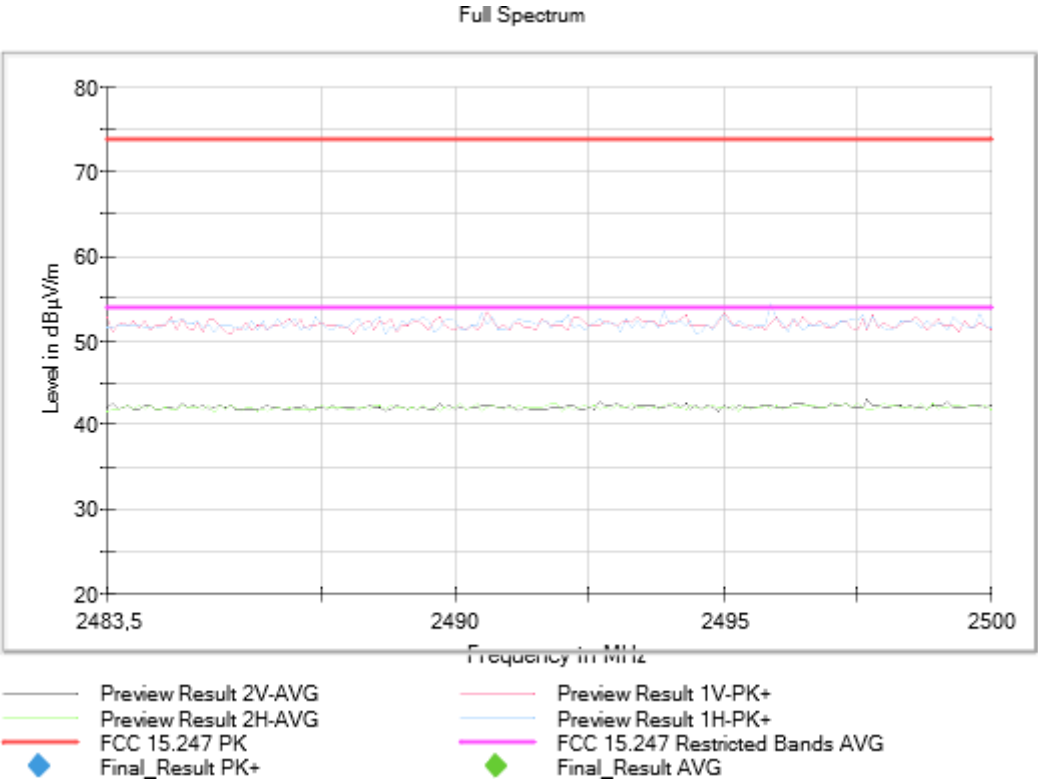
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2462.00000

Active Port = 2+4

Modulation = 802.11n HT20 (OFDM MCS0)

Images:





Frequency Range GHz = [1, 17]

Operation Band MHz = [2400, 2483.5]

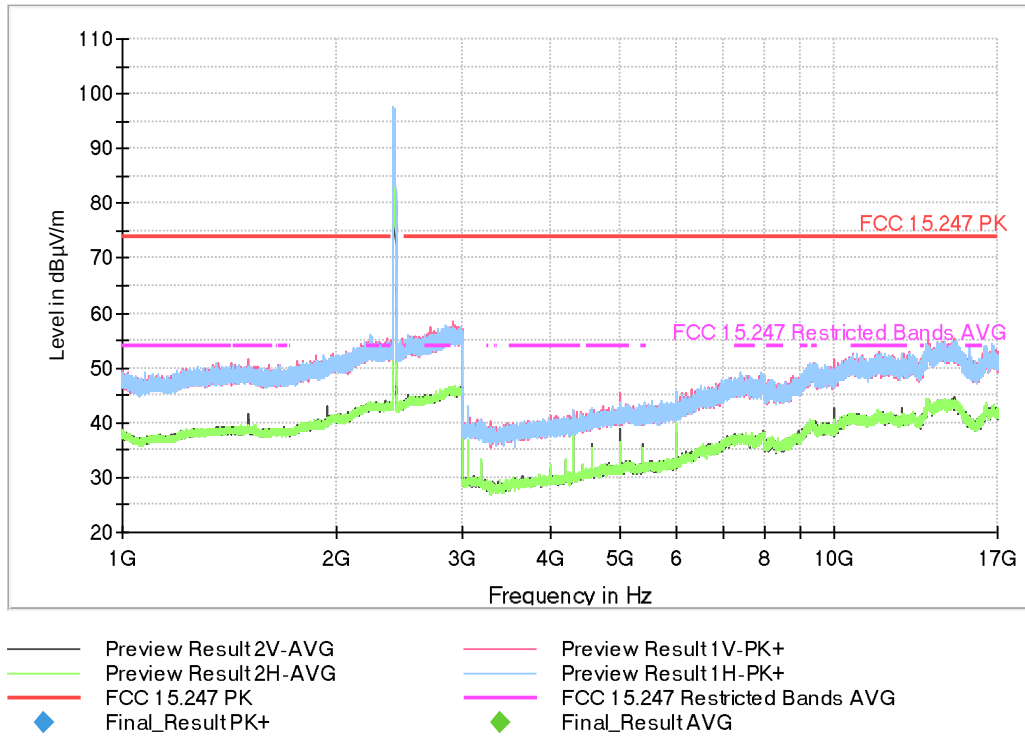
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2412.00000

Active Port = 2+4

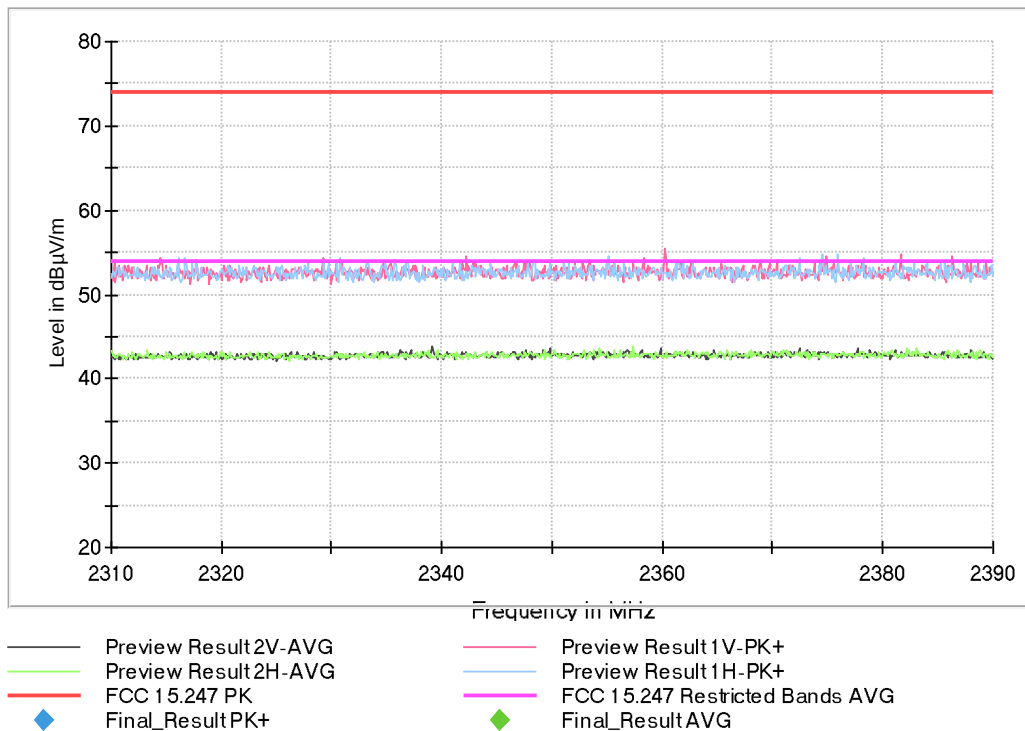
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:

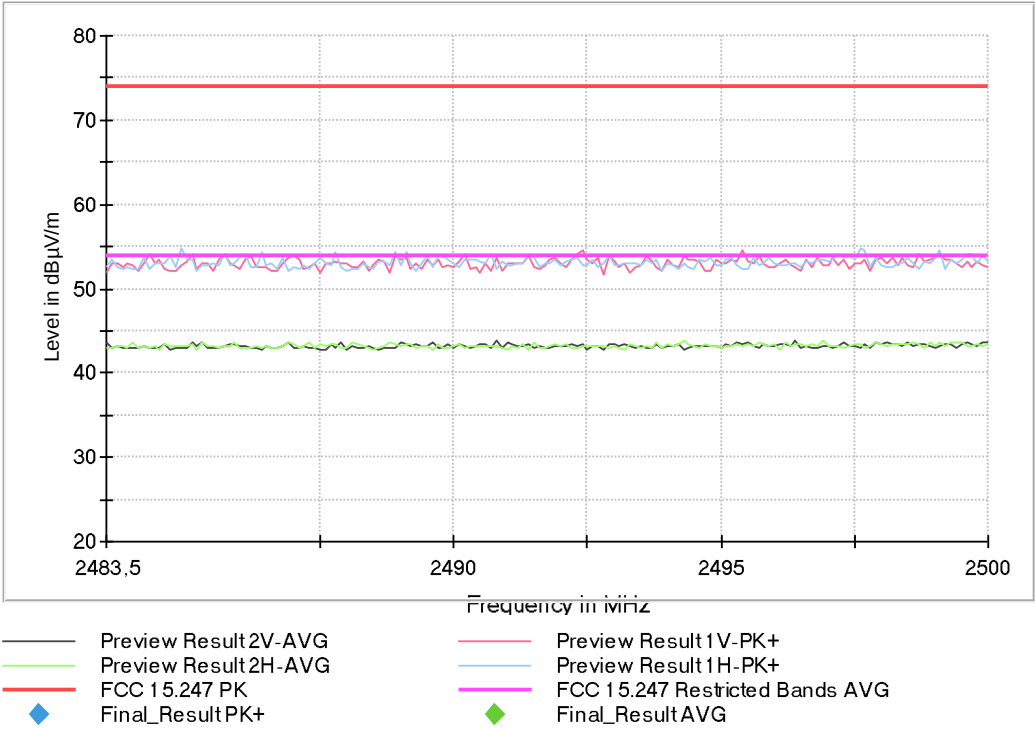
Full Spectrum



Full Spectrum



Full Spectrum



Frequency Range GHz = [1, 17]

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

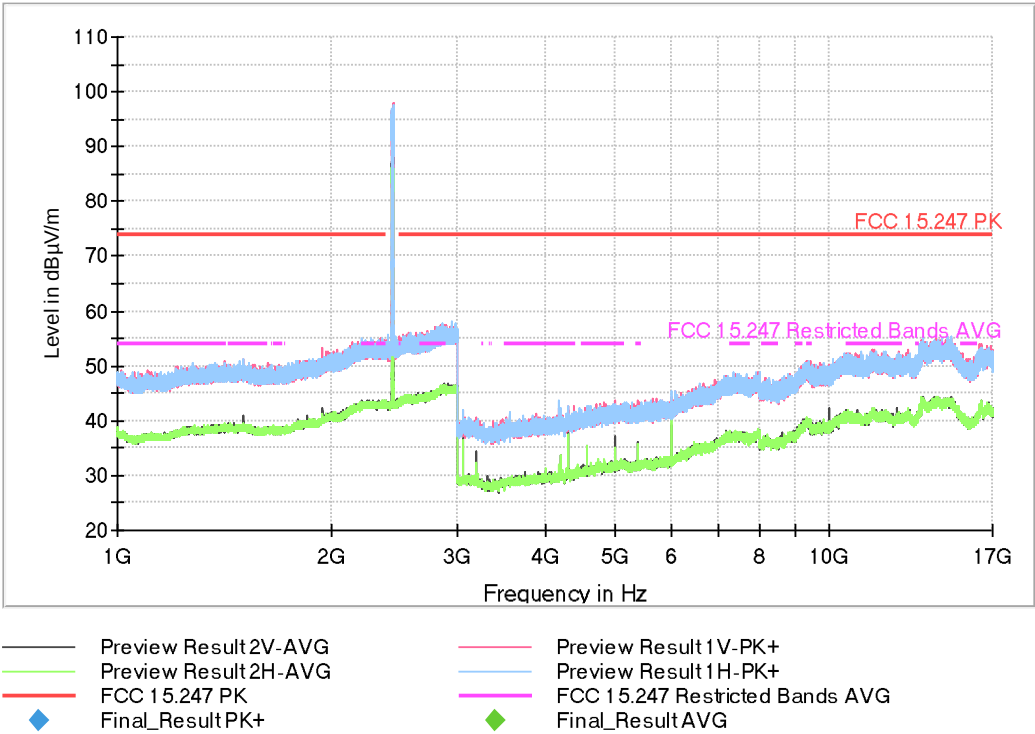
Frequency MHz = 2437.00000

Active Port = 2+4

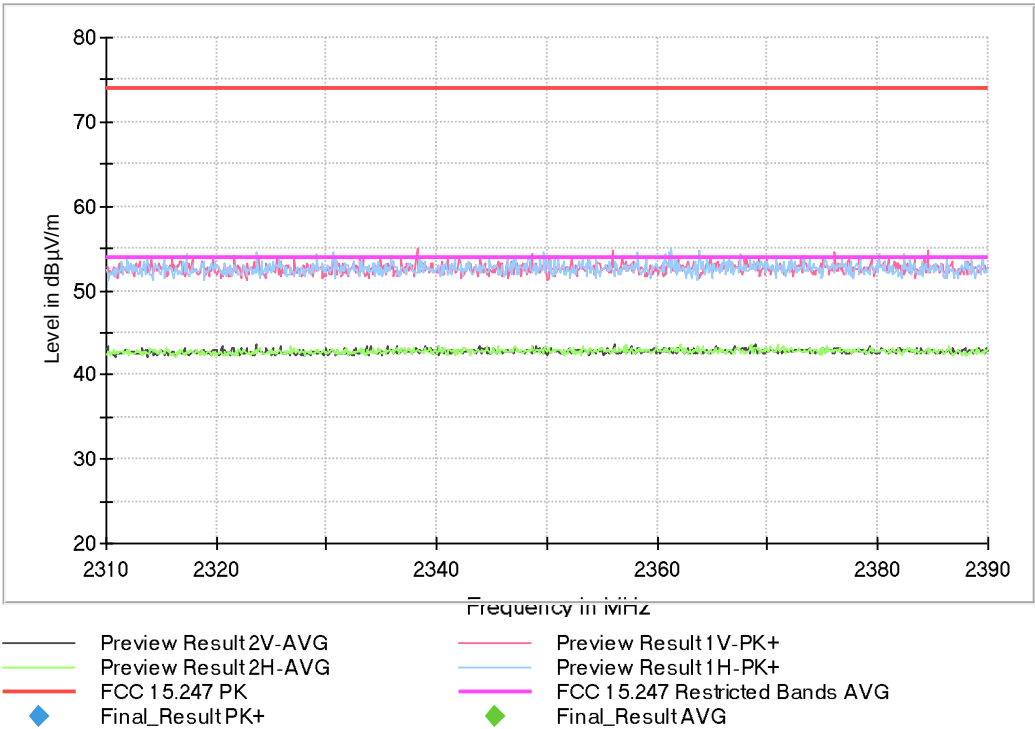
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:

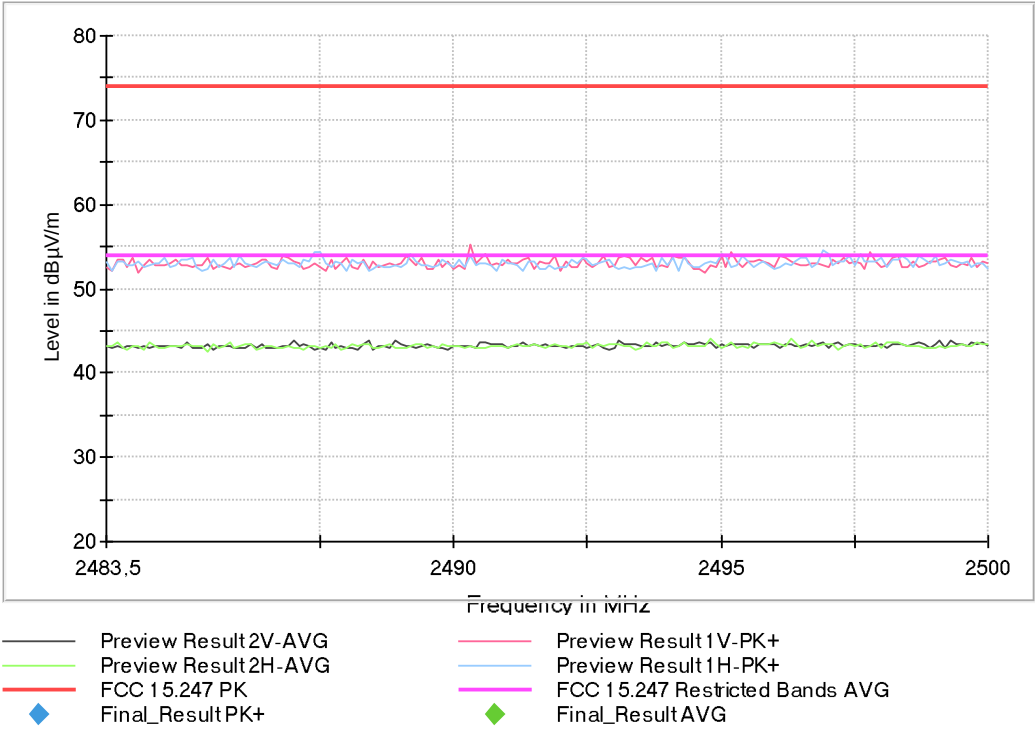
Full Spectrum



Full Spectrum



Full Spectrum



Frequency Range GHz = [1, 17]

Equipment Type = Digital Transmission System (DTS)

Active Port = 2+4

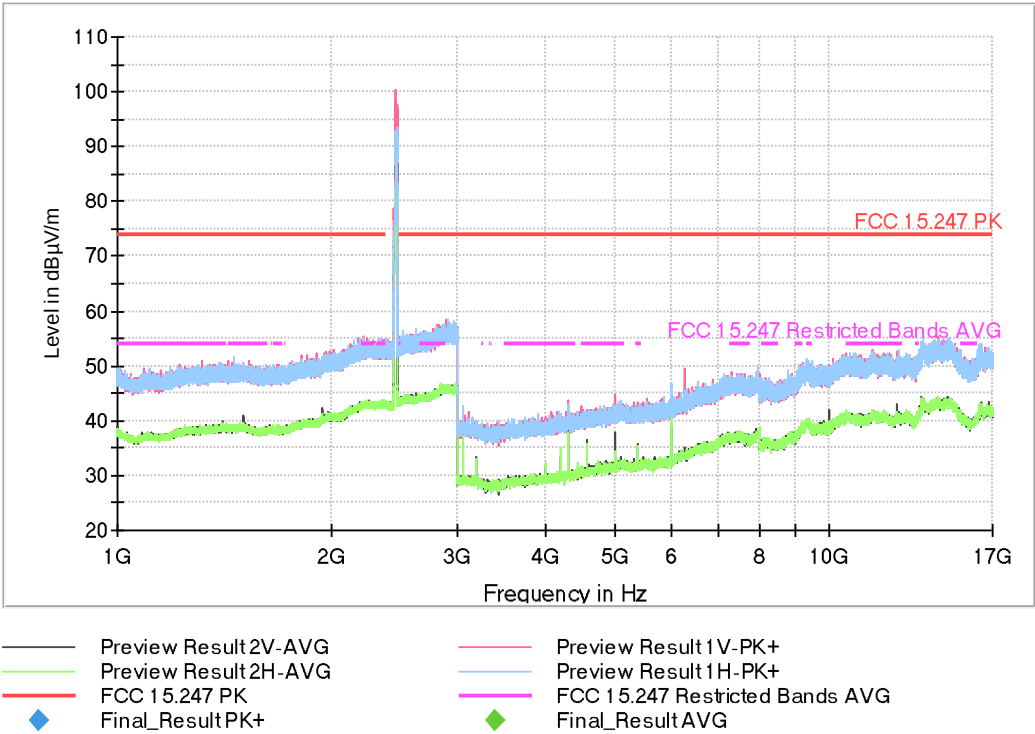
Operation Band MHz = [2400, 2483.5]

Frequency MHz = 2462.00000

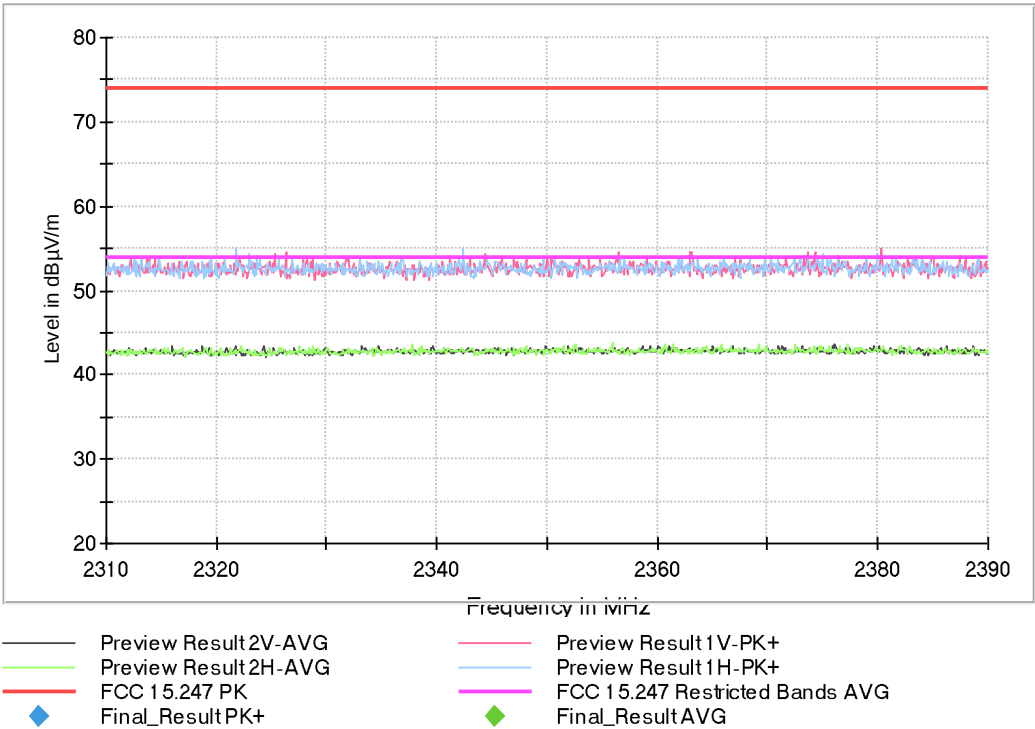
Modulation = 802.11ax HE20 (OFDMA MCS0) SU

Images:

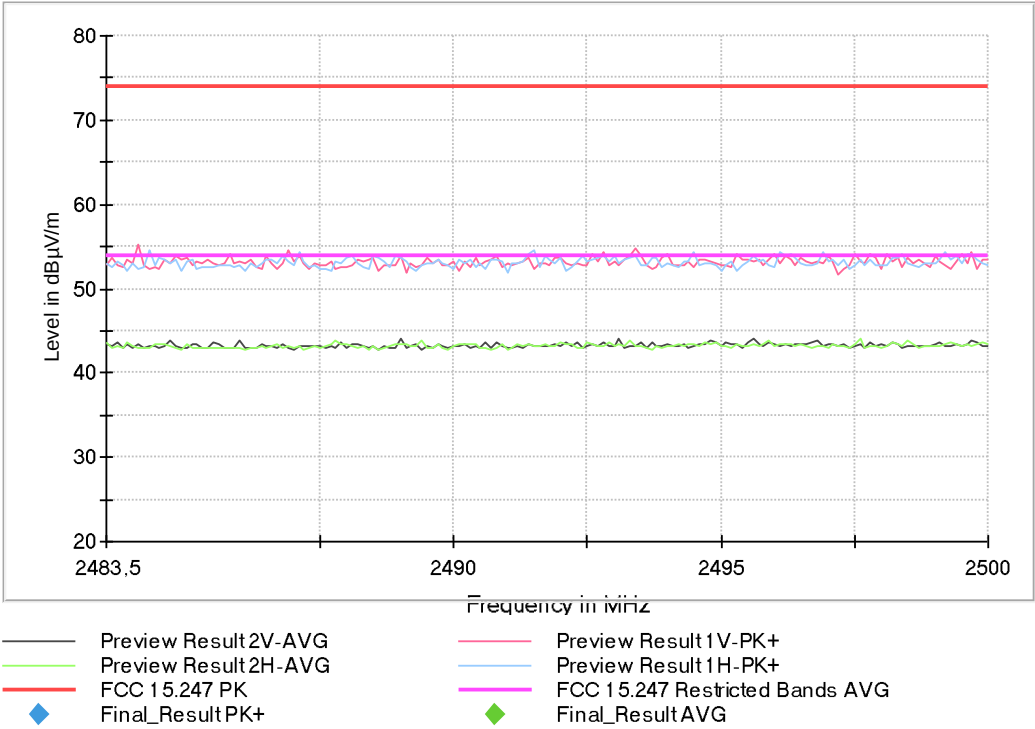
Full Spectrum



Full Spectrum



Full Spectrum



Frequency Range GHz = [1, 17]

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

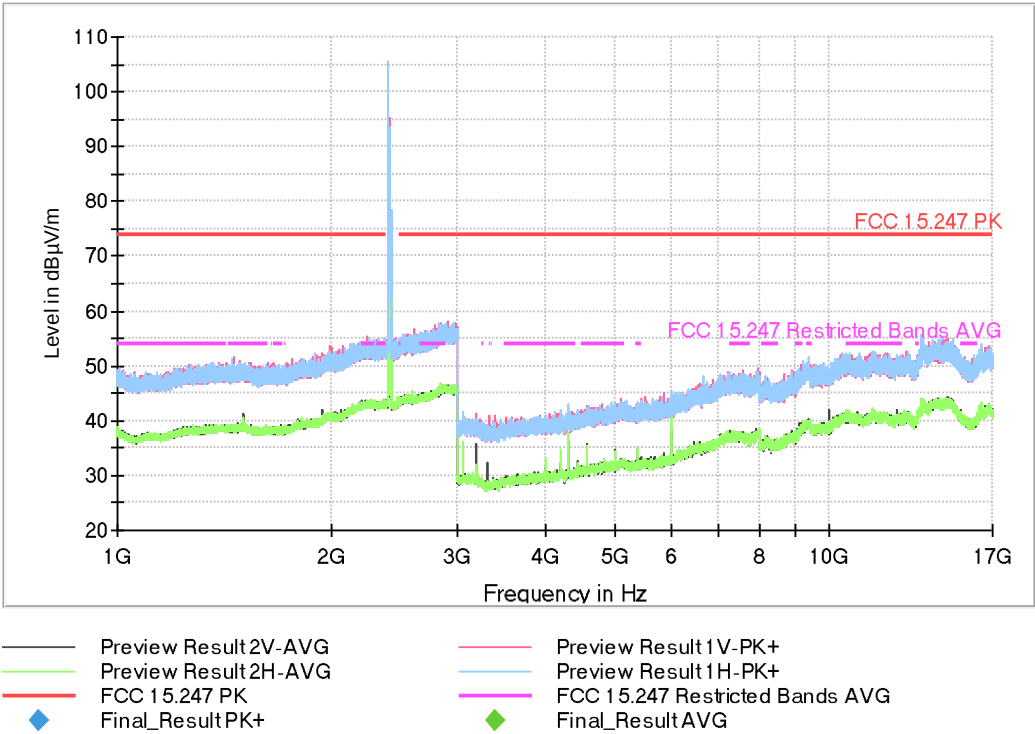
Frequency MHz = 2412.00000

Active Port = 2+4

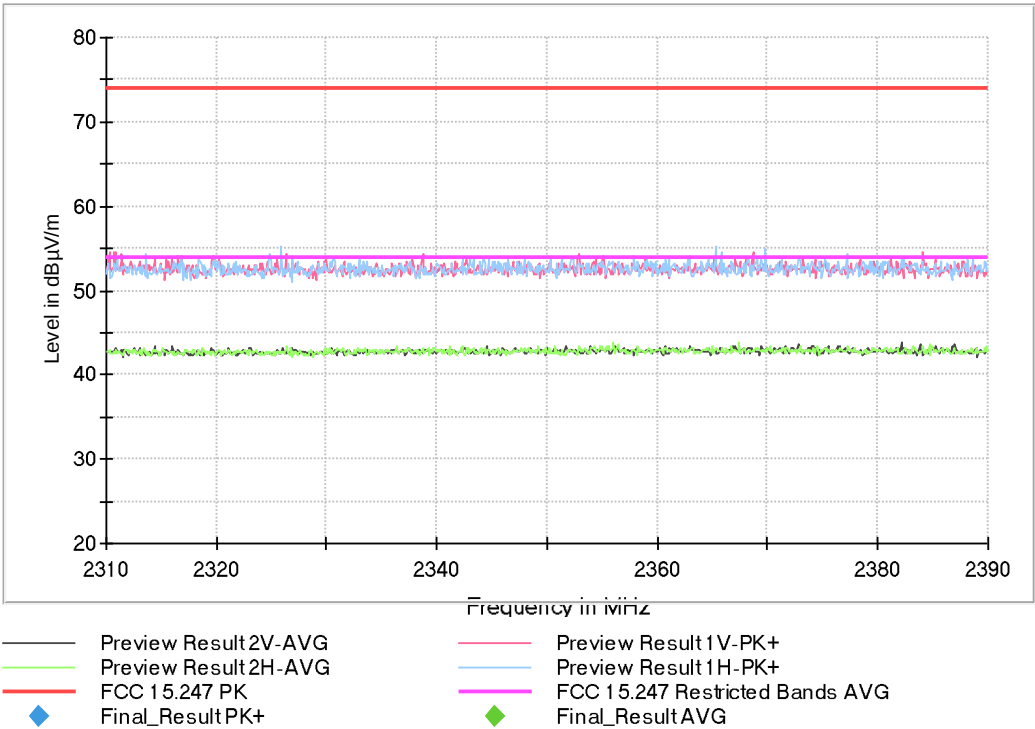
Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:

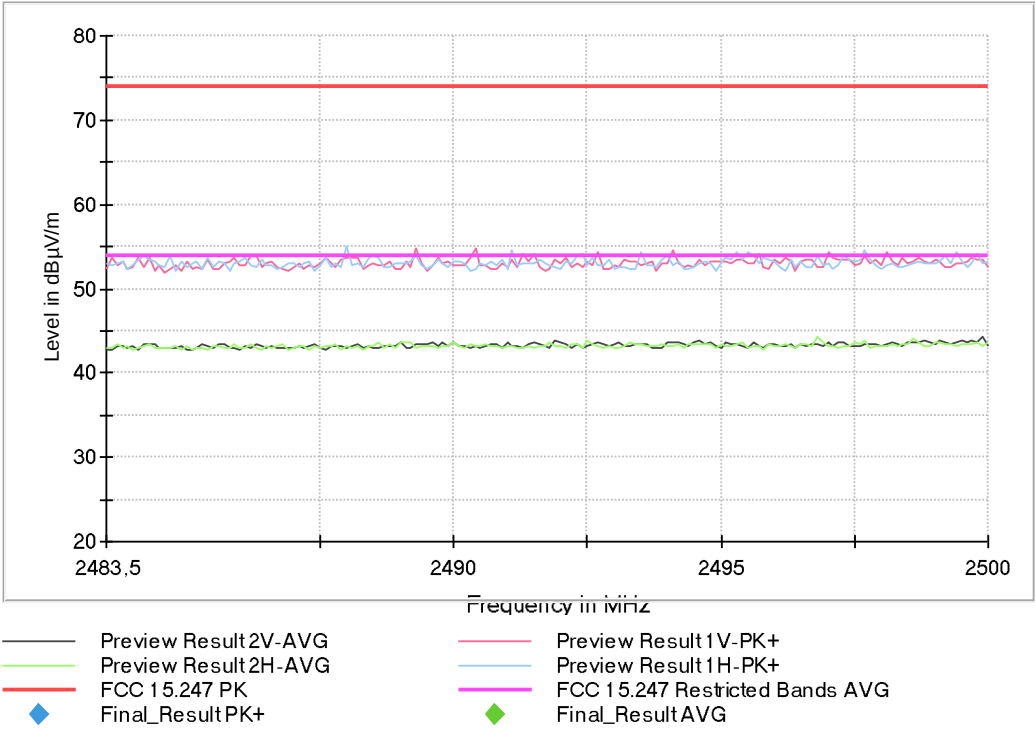
Full Spectrum



Full Spectrum



Full Spectrum



Frequency Range GHz = [1, 17]

Equipment Type = Digital Transmission System (DTS)

Active Port = 2+4

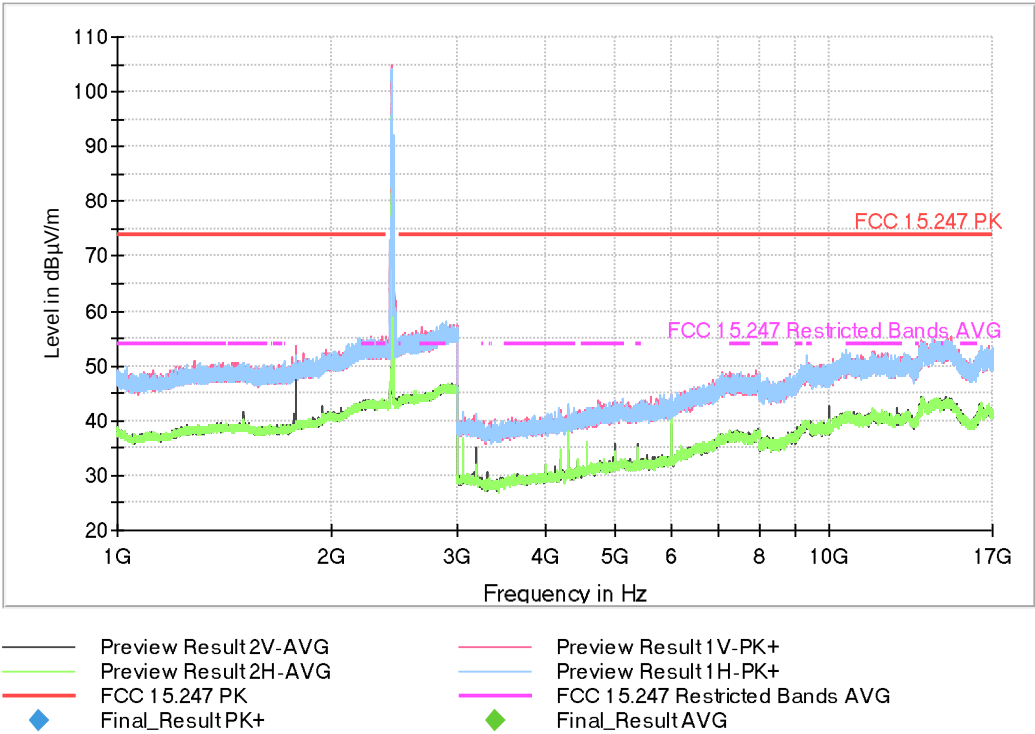
Operation Band MHz = [2400, 2483.5]

Frequency MHz = 2437.00000

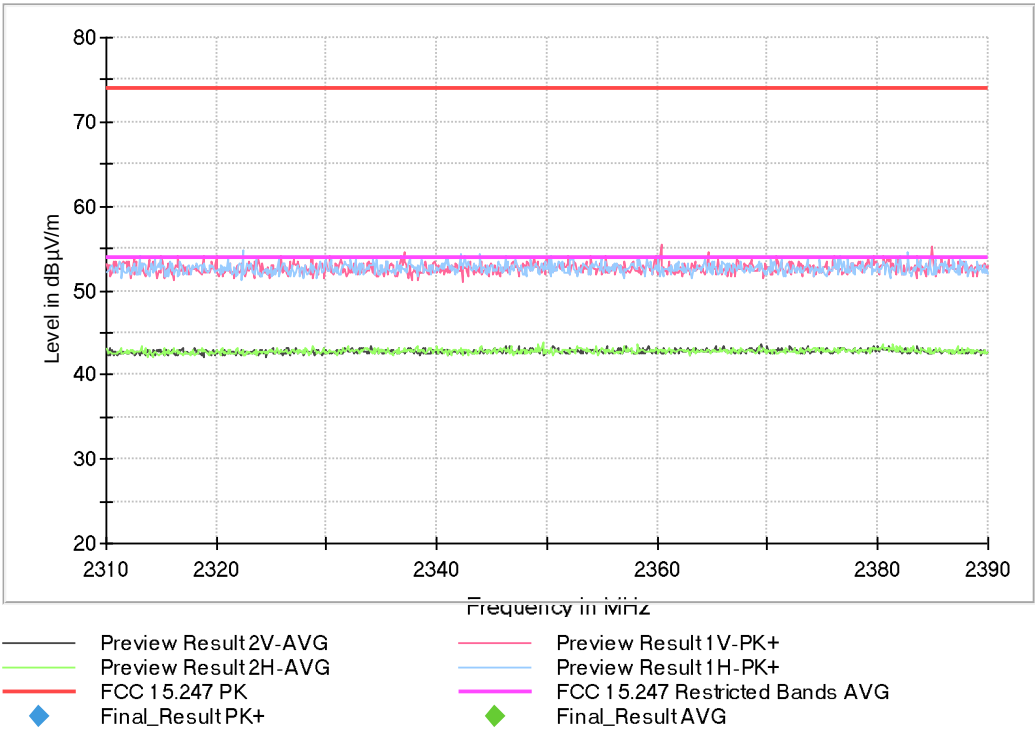
Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

Images:

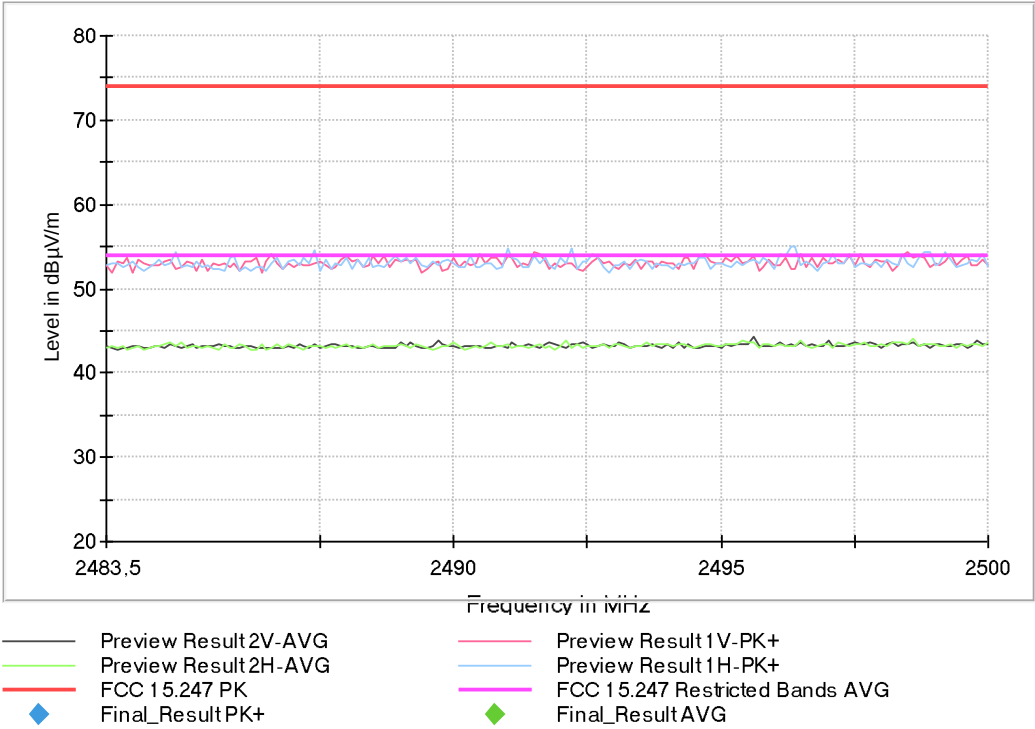
Full Spectrum



Full Spectrum

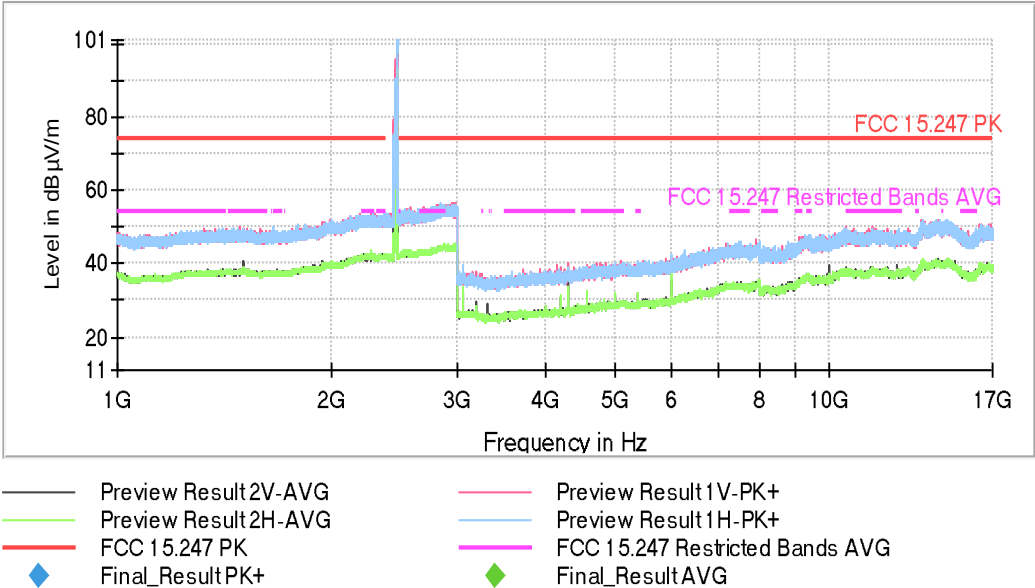


Full Spectrum

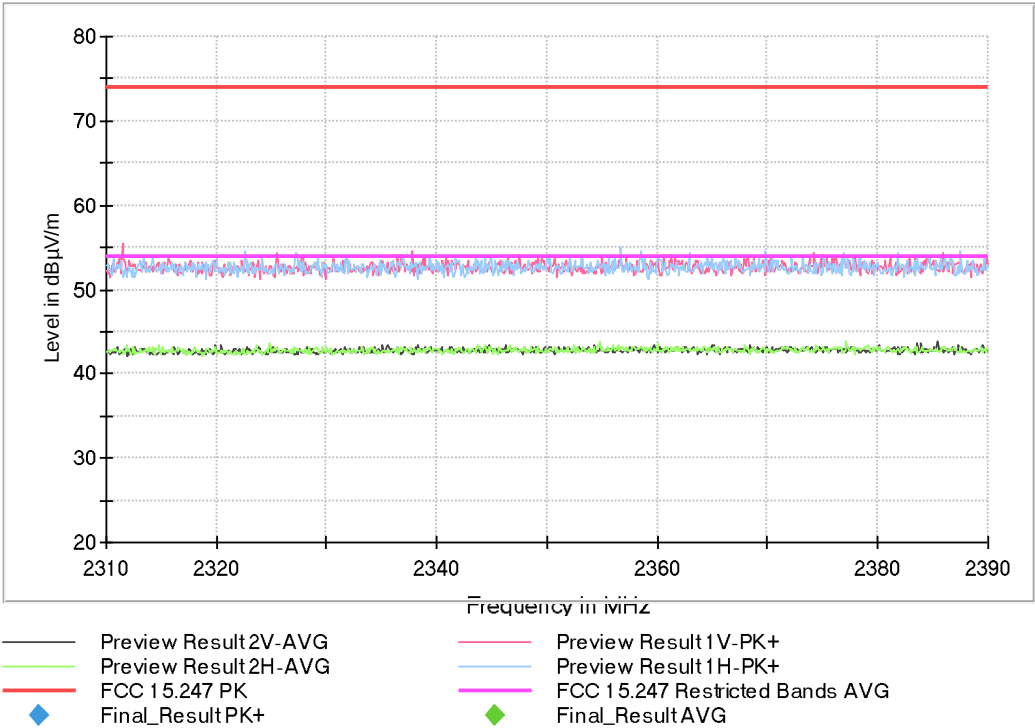


Frequency Range GHz = [1, 17] Operation Band MHz = [2400, 2483.5]
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2462.00000
Active Port = 2+4 Modulation = 802.11ax HE20 (OFDMA MCS0) RU26

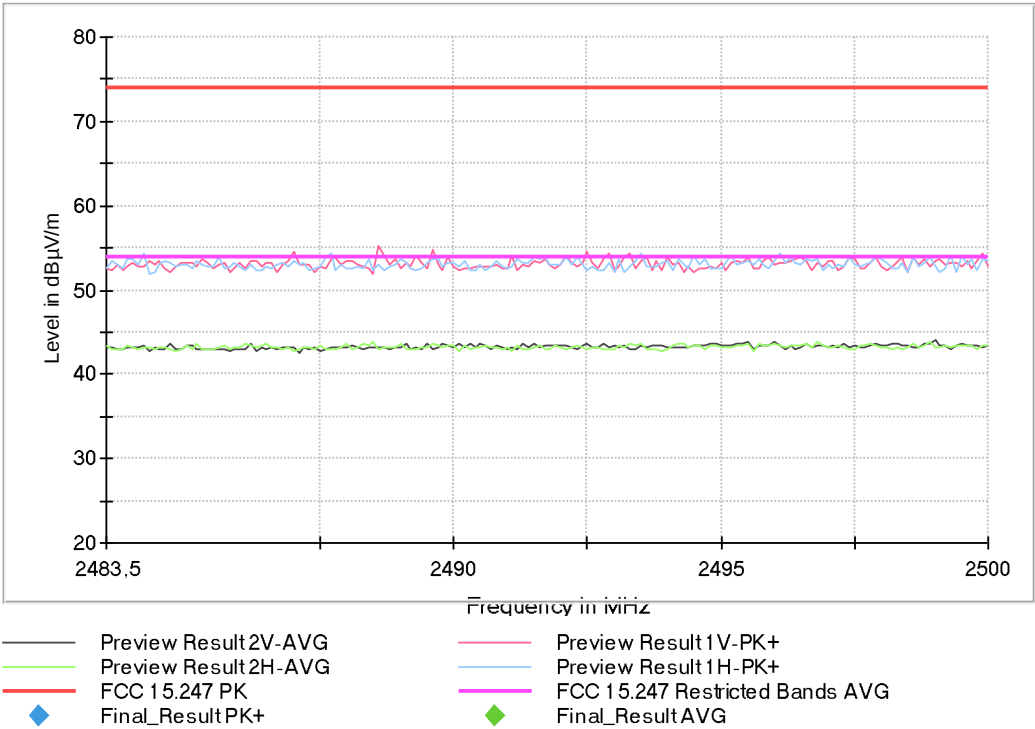
Images:



Full Spectrum



Full Spectrum



Tables:

Spectrum Analyzer Parameters

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 2,39 GHz	400 kHz	PK+	1 MHz	0,01 s	0 dB
2,39 GHz - 2,484 GHz	40 kHz	PK+	100 kHz	0,01 s	0 dB
2,484 GHz - 3 GHz	400 kHz	PK+	1 MHz	0,01 s	0 dB
3 GHz - 17 GHz	400 kHz	PK+	1 MHz	0,01 s	0 dB

Frequency Range GHz = [17, 26]

Equipment Type = Digital Transmission
System (DTS)

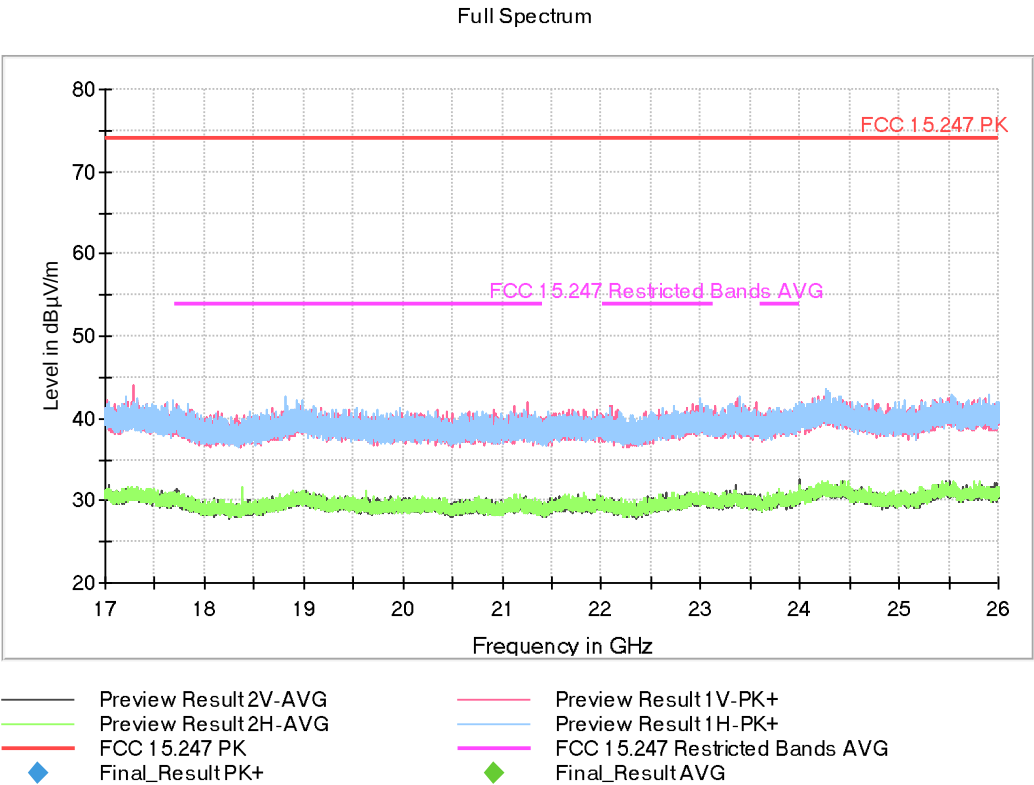
Active Port = 1

Operation Band MHz = [2400, 2483.5]

Frequency MHz = The spurious frequencies detected do not depend on the operating channel.

Modulation = The spurious frequencies detected do not depend on the modulation.

Images:



Tables:

Spectrum Analyzer Parameters

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
17 GHz - 26 GHz	400 kHz	PK+	1 MHz	0,01 s	0 dB