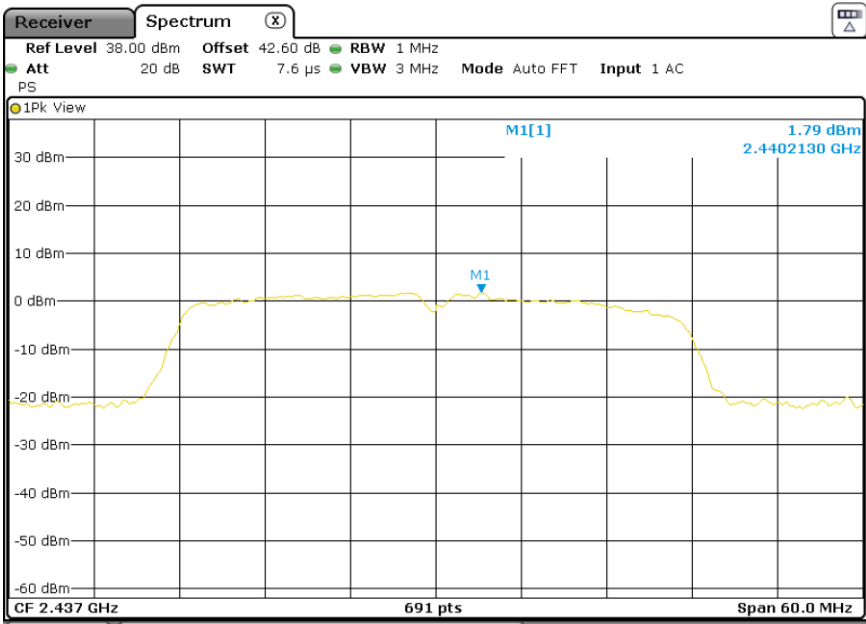


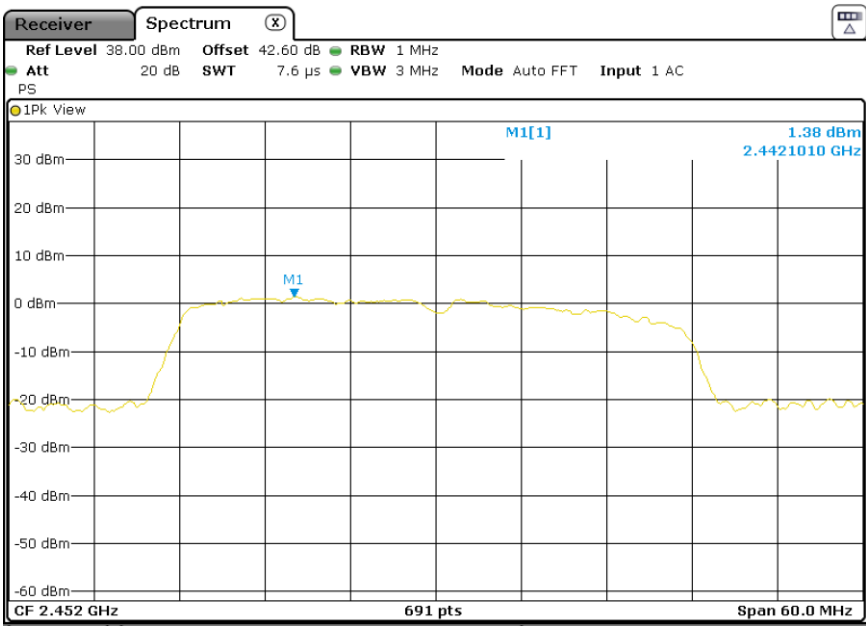
Frequency MHz = 2437.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40,
Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



Frequency MHz = 2452.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40,
Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

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

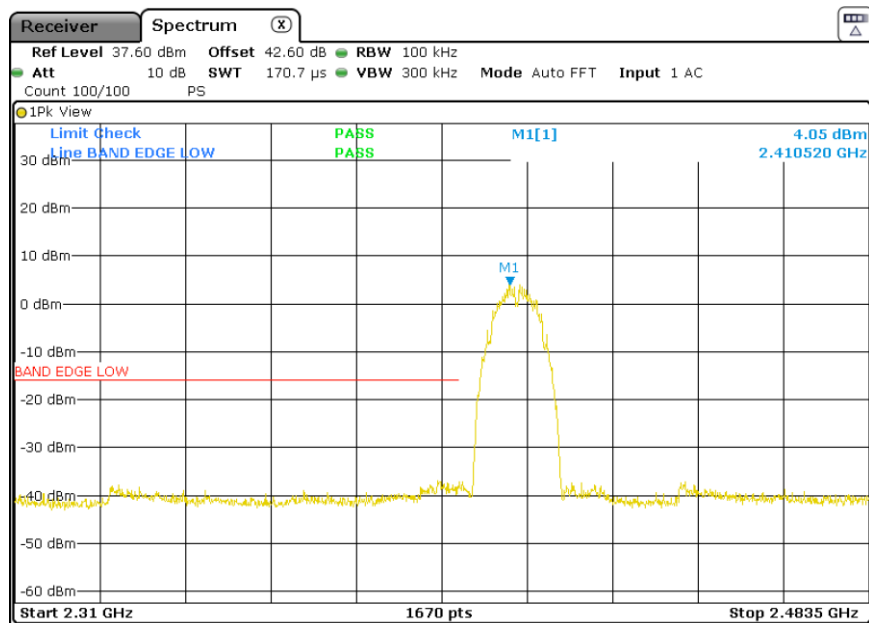
Verdict

Pass

Attachments

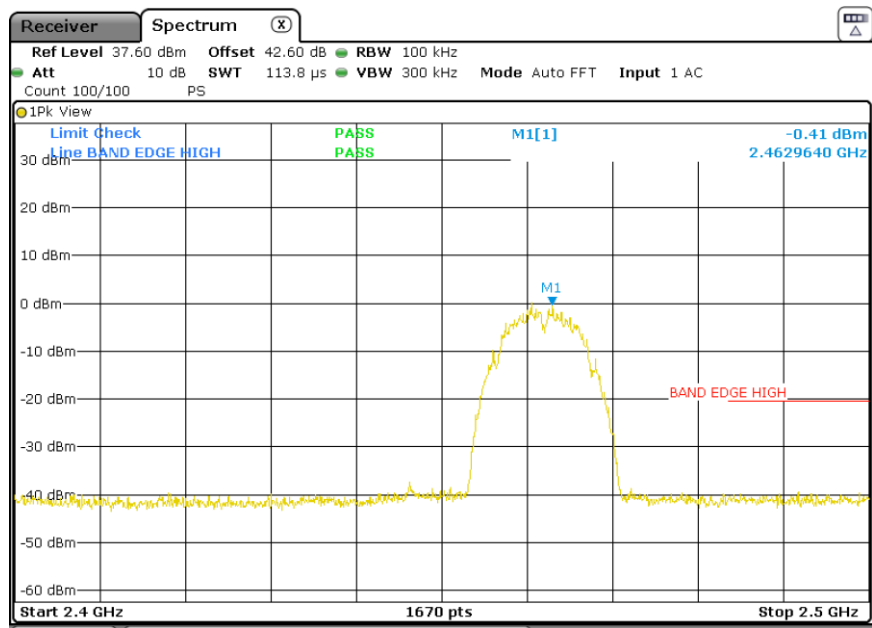
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20, Modulation = 802.11b (DSSS 1 Mbit/s), Number of Transmission Chains = 1, Measurement Point = 1, Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11b (DSSS 1 Mbit/s), Number of Transmission Chains = 1, Measurement Point = 1,
Active Port = 1

Images:



Modulation: 802.11g (OFDM 6 Mbit/s)

Results

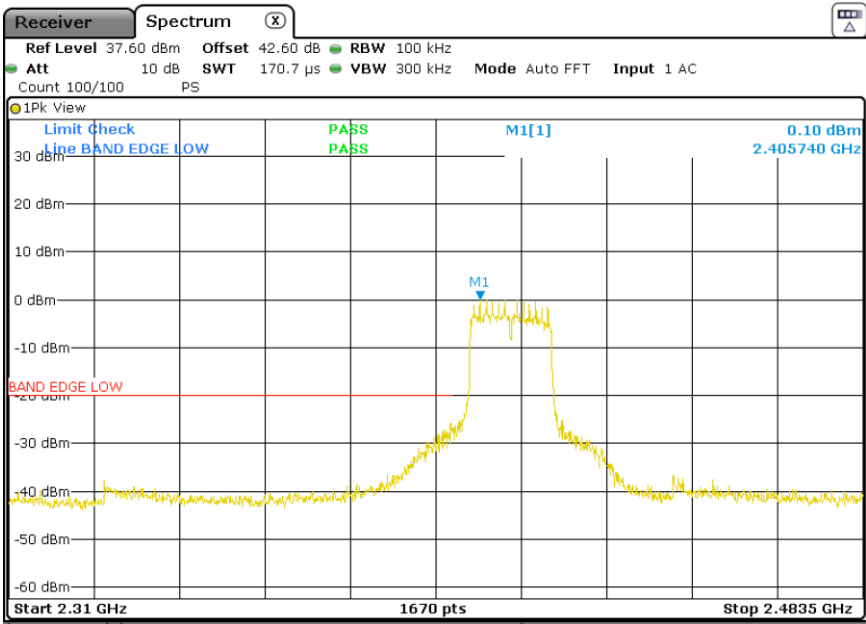
Verdict

Pass

Attachments

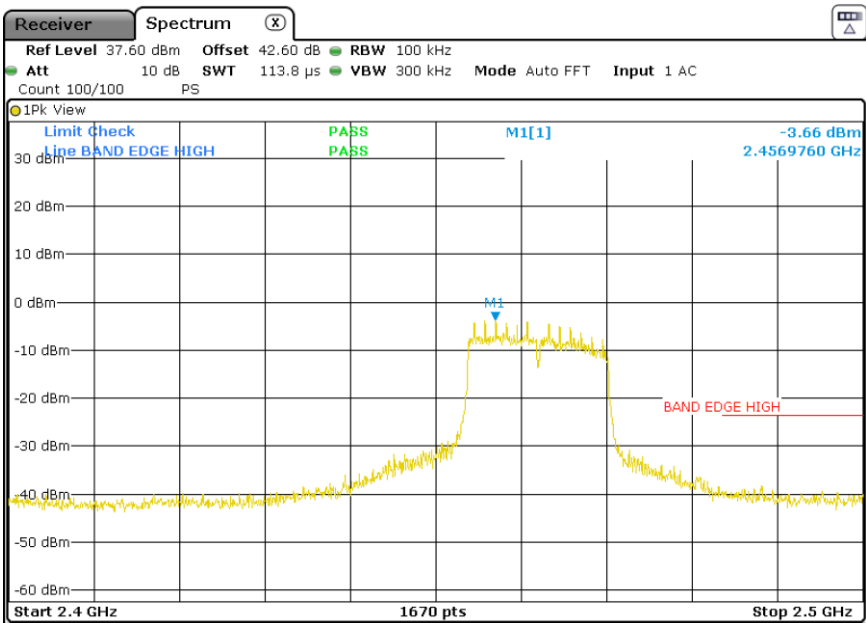
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11g (OFDM 6 Mbit/s), Number of Transmission Chains = 1, Measurement Point = 1,
Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11g (OFDM 6 Mbit/s), Number of Transmission Chains = 1, Measurement Point = 1,
Active Port = 1

Images:



Modulation: 802.11n HT20 (OFDM MCS0)

Results

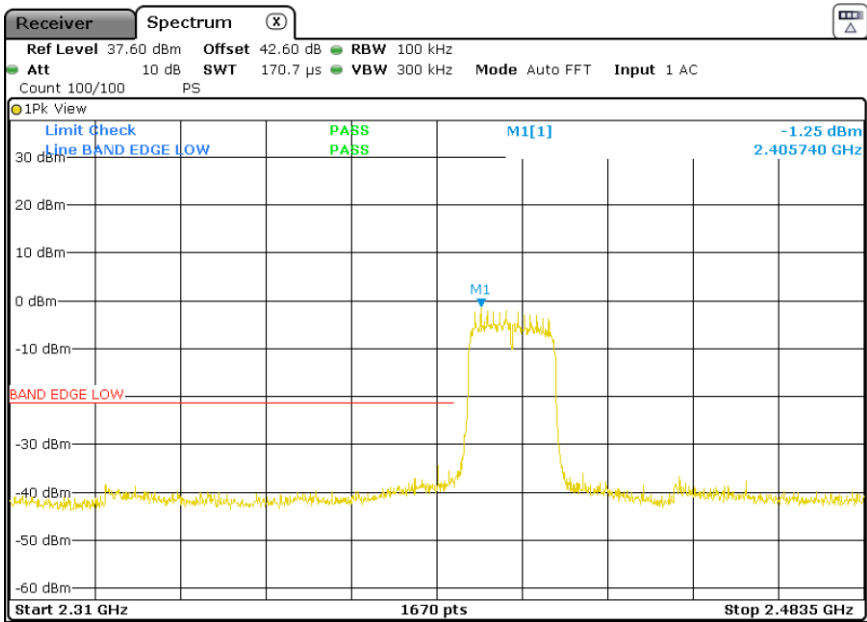
Verdict

Pass

Attachments

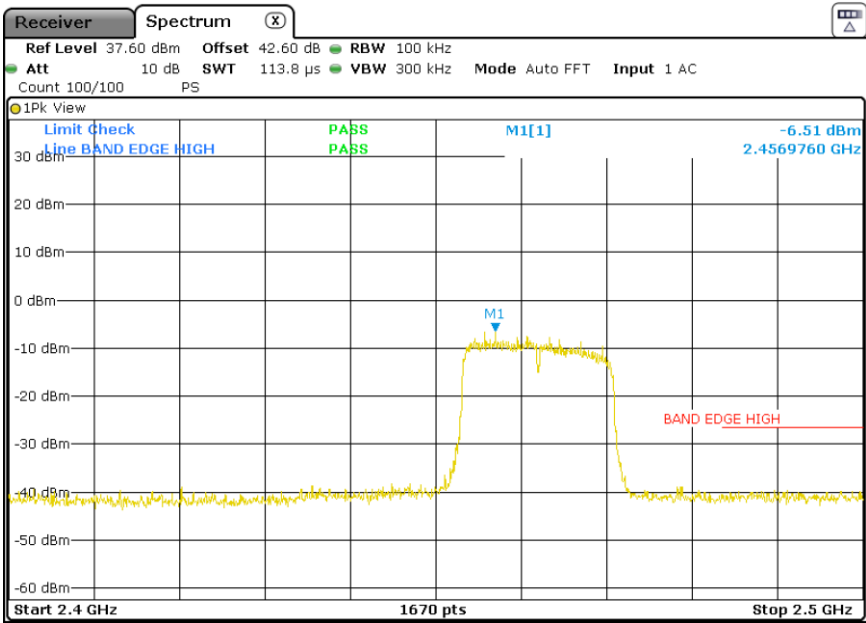
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11n HT20 (OFDM MCS0), Number of Transmission Chains = 1, Measurement Point = 1,
Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11n HT20 (OFDM MCS0), Number of Transmission Chains = 1, Measurement Point = 1,
Active Port = 1

Images:



Modulation: 802.11n HT40 (OFDM MCS8 13.5 Mbit/s)

Results

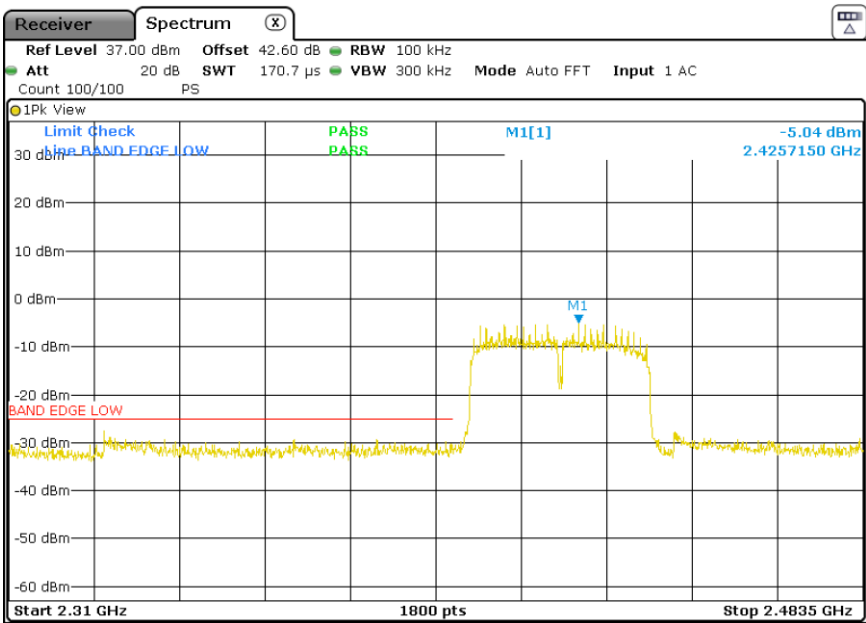
Verdict

Pass

Attachments

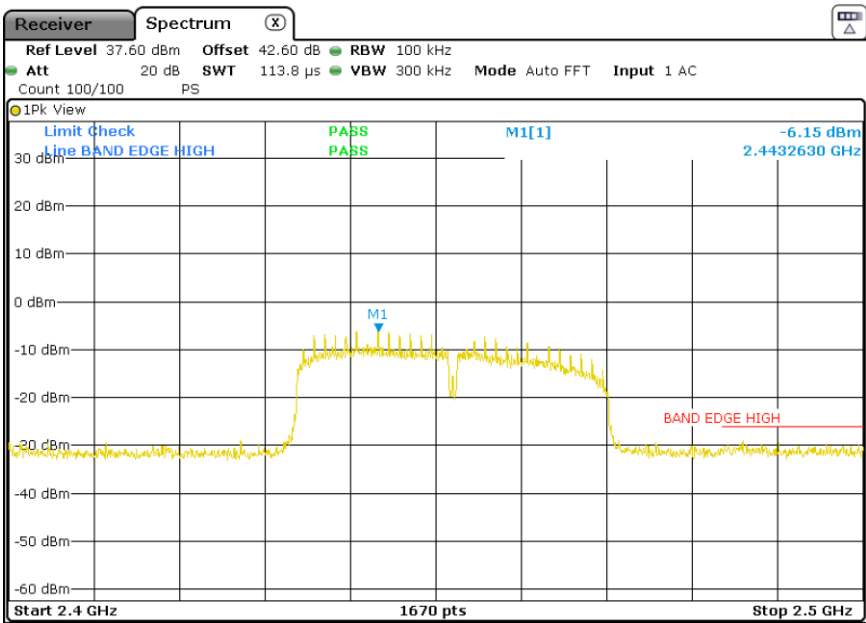
Frequency MHz = 2422.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40, Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Measurement Point = 1, Active Port = 1

Images:



Frequency MHz = 2452.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40, Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Measurement Point = 1, Active Port = 1

Images:



FCC 2.1049 / 99dBw Occupied Channel Bandwidth 99%

Limits

No Limit has been set to this test case

Modulation: 802.11b (DSSS 1 Mbit/s)

Results

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Occ Ch BW (MHz)
2412.00000	Digital Transmission System (DTS)	20	1	1	13.198
2437.00000					13.372
2462.00000					13.719

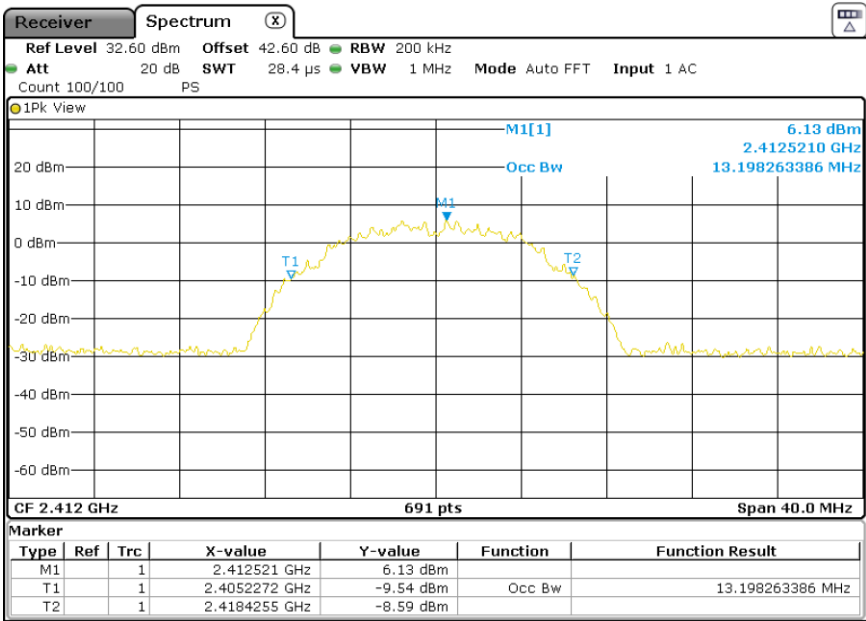
Verdict

Pass

Attachments

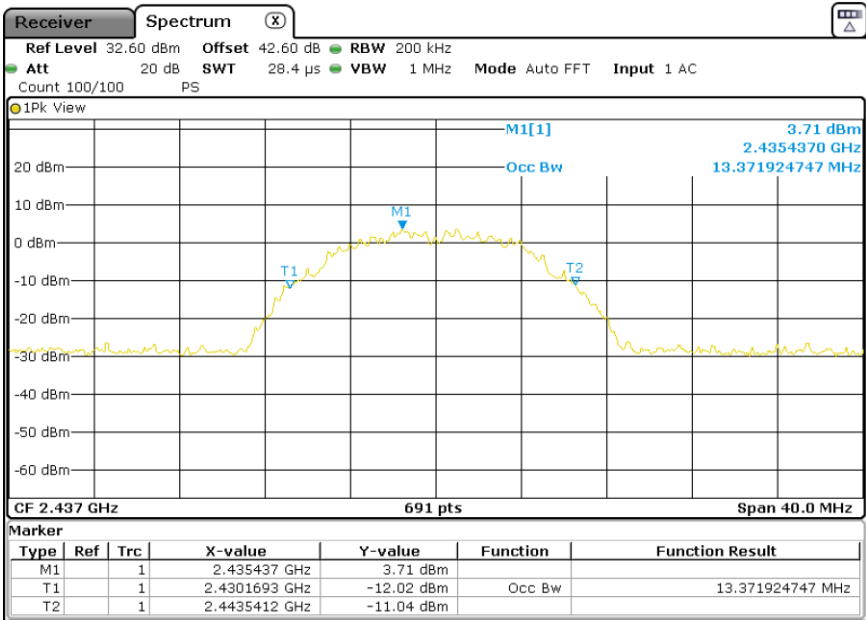
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20, Modulation = 802.11b (DSSS 1 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



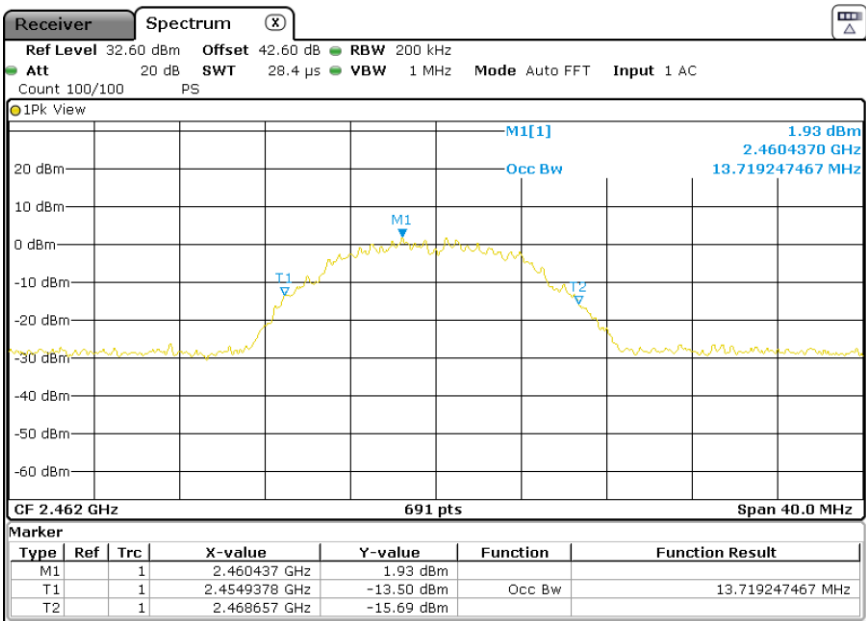
Frequency MHz = 2437.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11b (DSSS 1 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11b (DSSS 1 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



Modulation: 802.11g (OFDM 6 Mbit/s)

Results

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Occ Ch BW (MHz)
2412.00000	Digital Transmission System (DTS)	20	1	1	16.787
2437.00000					16.845
2462.00000					17.539

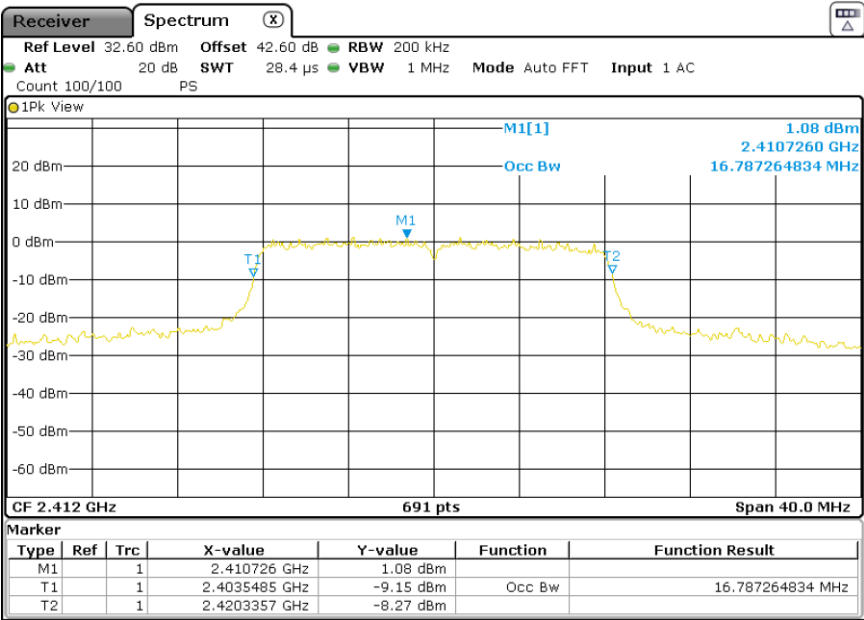
Verdict

Pass

Attachments

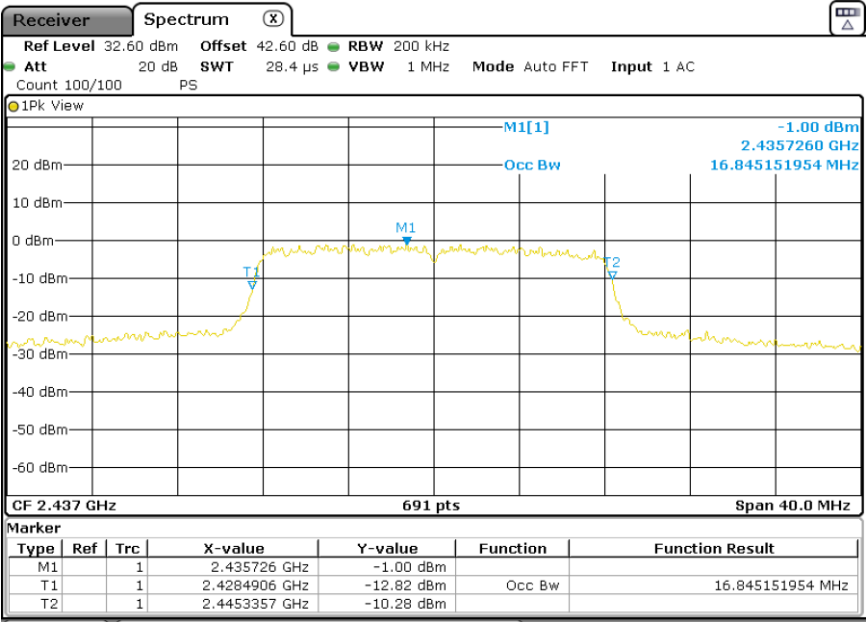
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20, Modulation = 802.11g (OFDM 6 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



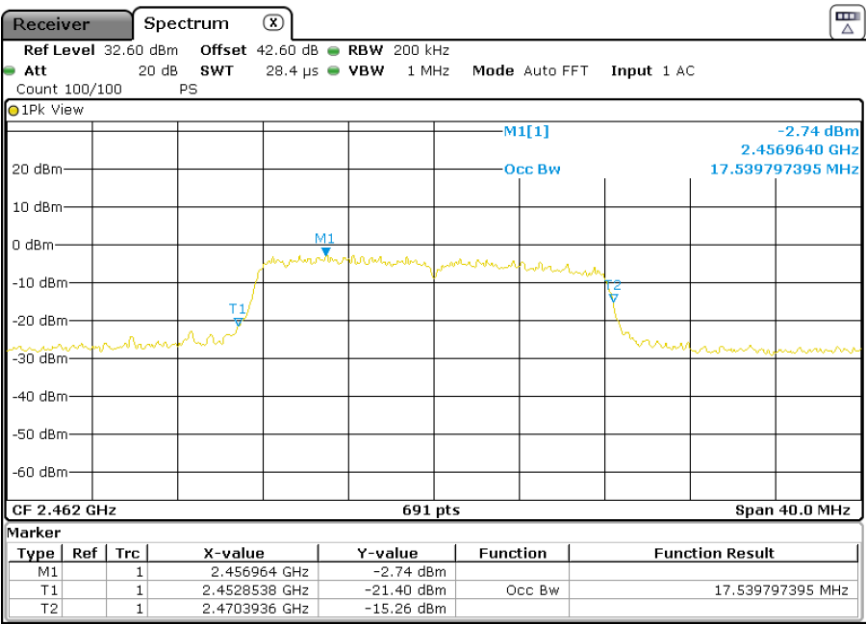
Frequency MHz = 2437.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11g (OFDM 6 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11g (OFDM 6 Mbit/s), Number of Transmission Chains = 1, Active Port = 1

Images:



Modulation: 802.11n HT20 (OFDM MCS0)

Results

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Occ Ch BW (MHz)
2412.00000	Digital Transmission System (DTS)	20	1	1	17.482
2437.00000					17.539
2462.00000					18.234

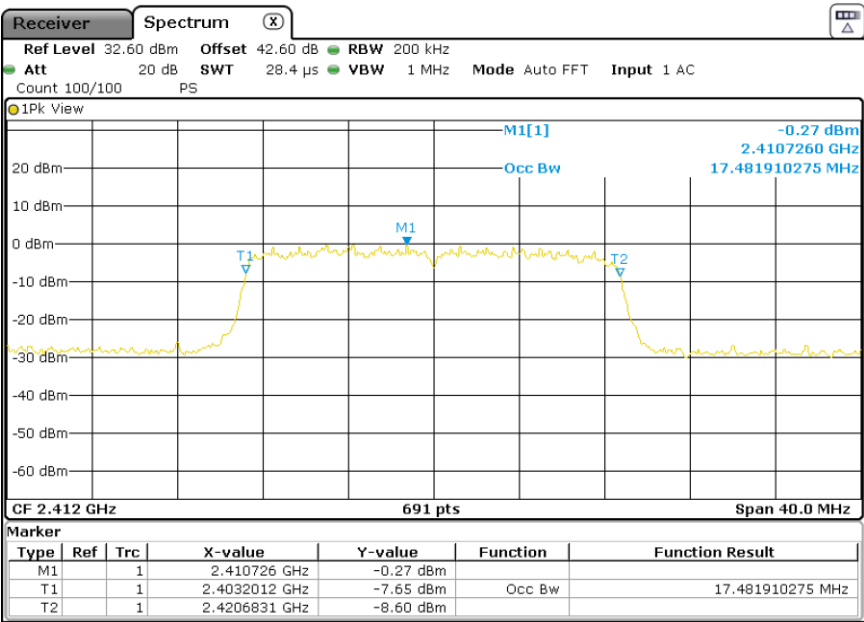
Verdict

Pass

Attachments

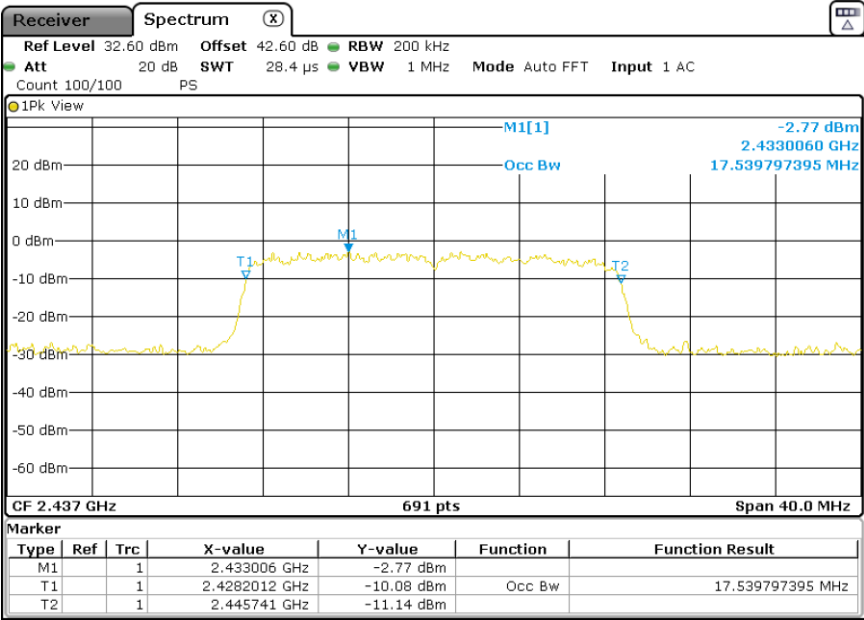
Frequency MHz = 2412.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20, Modulation = 802.11n HT20 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



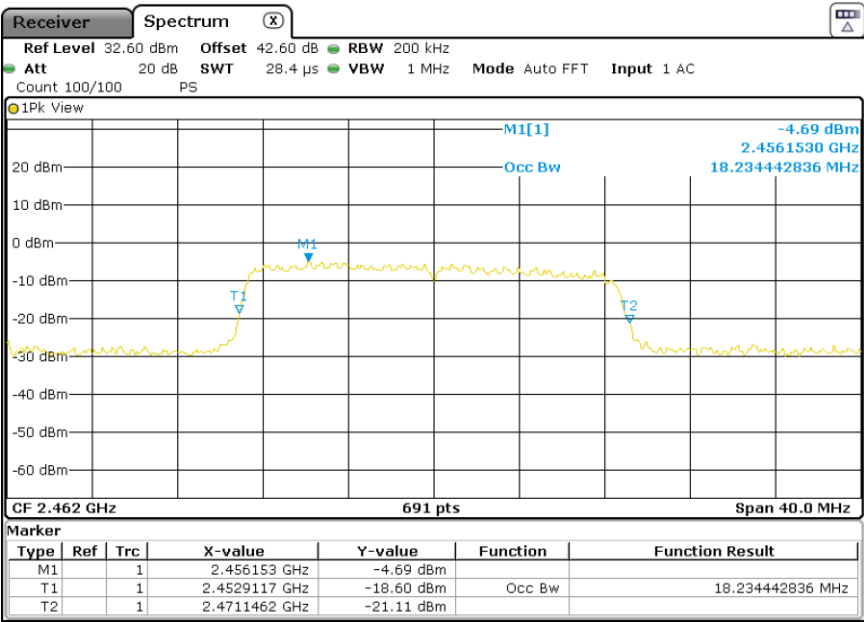
Frequency MHz = 2437.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11n HT20 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



Frequency MHz = 2462.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 20,
Modulation = 802.11n HT20 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



Modulation: 802.11n HT40 (OFDM MCS0)

Results

Freq (MHz)	Equipment	BW (MHz)	# of Tx Chains	Port	Occ Ch BW (MHz)
2422.00000	Digital Transmission System (DTS)	40	1	1	36.932
2437.00000					39.942
2452.00000					42.489

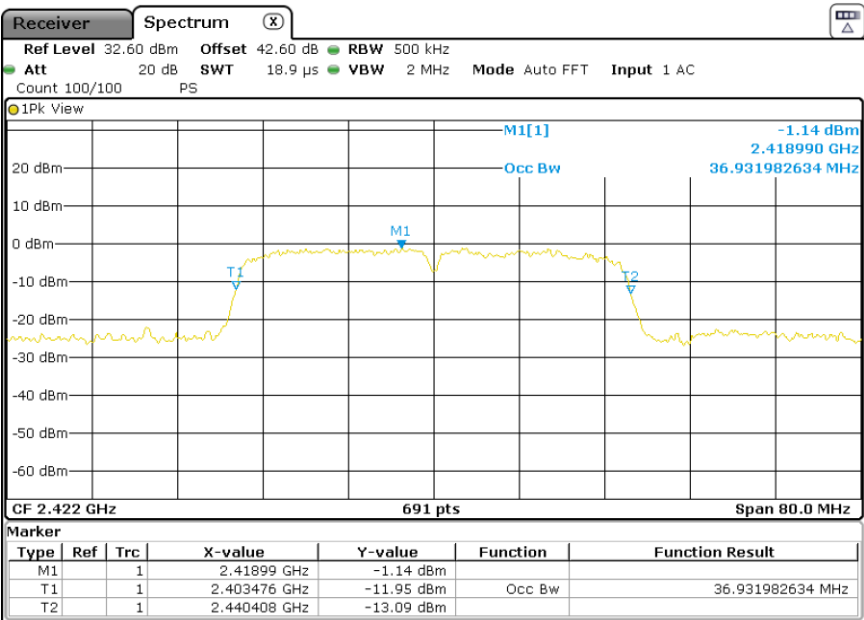
Verdict

Pass

Attachments

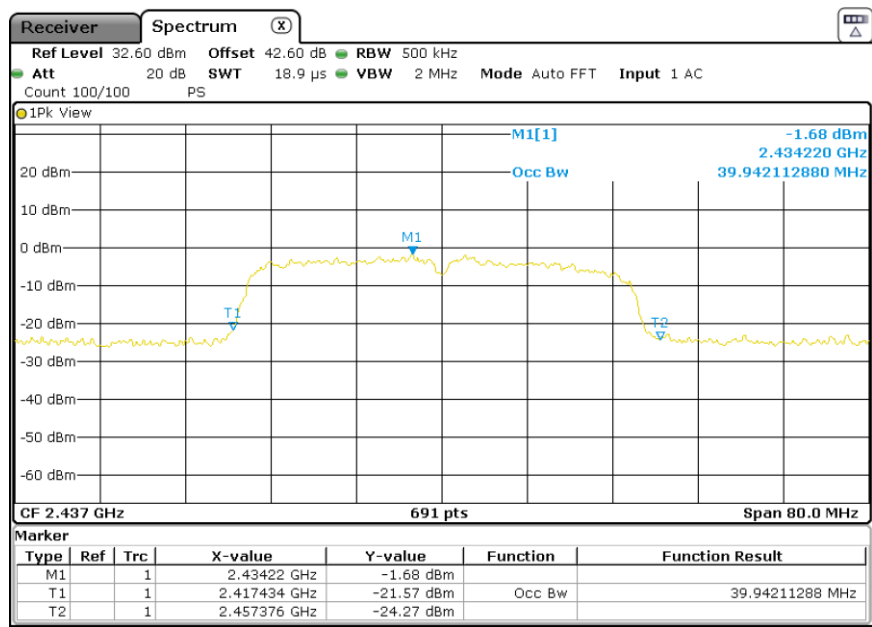
Frequency MHz = 2422.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40, Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



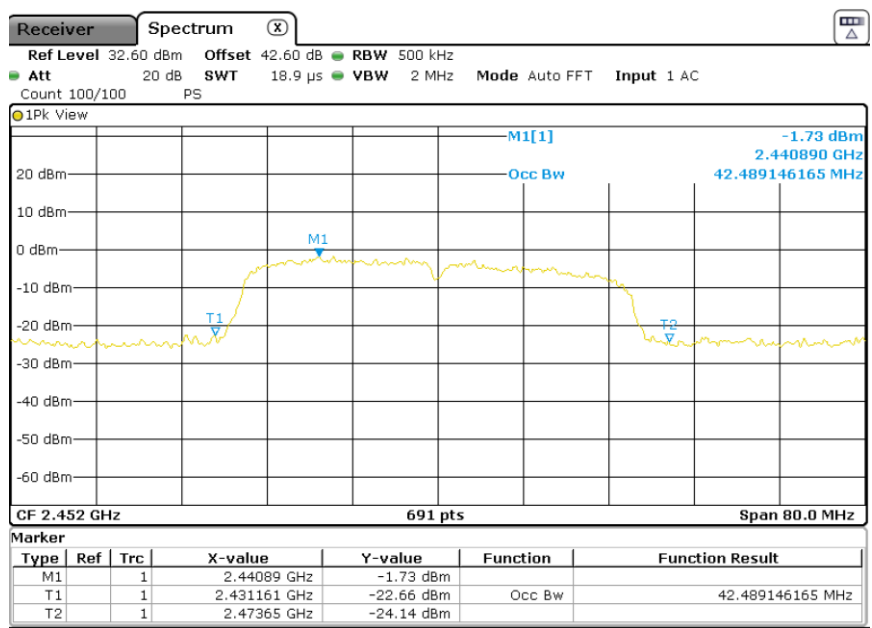
Frequency MHz = 2437.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40,
Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



Frequency MHz = 2452.00000, Equipment Type = Digital Transmission System (DTS), Bandwidth MHz = 40,
Modulation = 802.11n HT40 (OFDM MCS0), Number of Transmission Chains = 1, Active Port = 1

Images:



RSS-247 5.5 / FCC 15.247 (d) EMISSION LIMITATIONS RADIATED (TRANSMITTER)

Limits

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

Frequency Range (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 25000	500	54	3

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

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

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

Verdict

Pass

Modulation: 802.11b

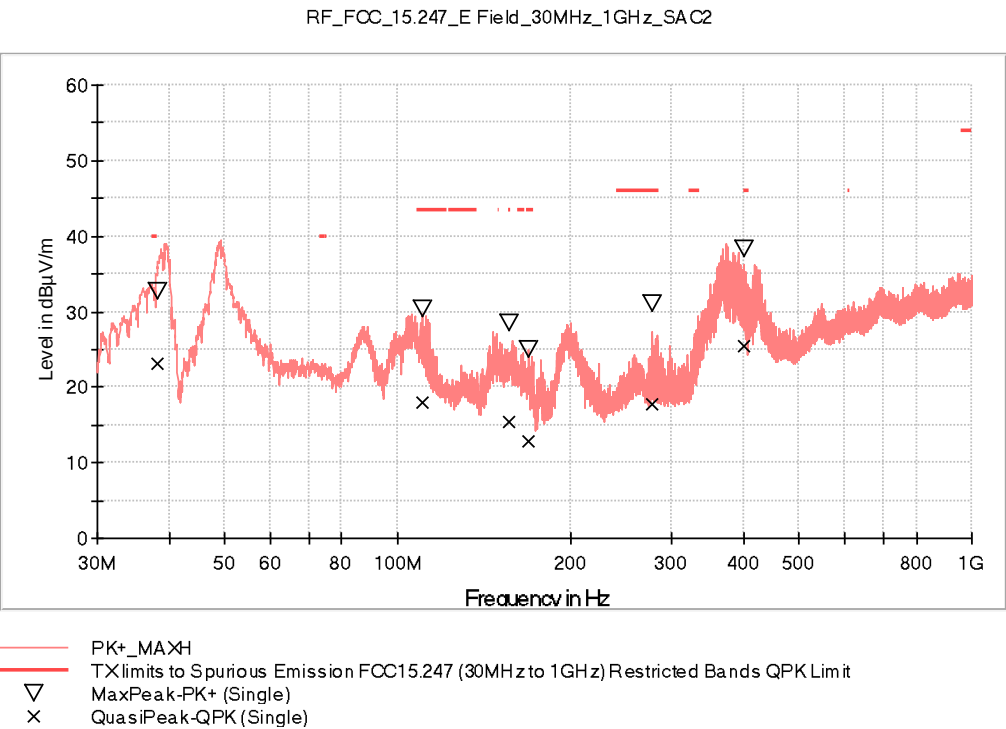
Frequency range 9KHz – 30 MHz

No radiofrequency signal generated in the device found below 10° sub-harmonic, no further investigation required.
The spurious emissions below 1 GHz do not depend on the operating channel and mode selected in the EUT.

Results

Frequency range 30 - 1000 MHz

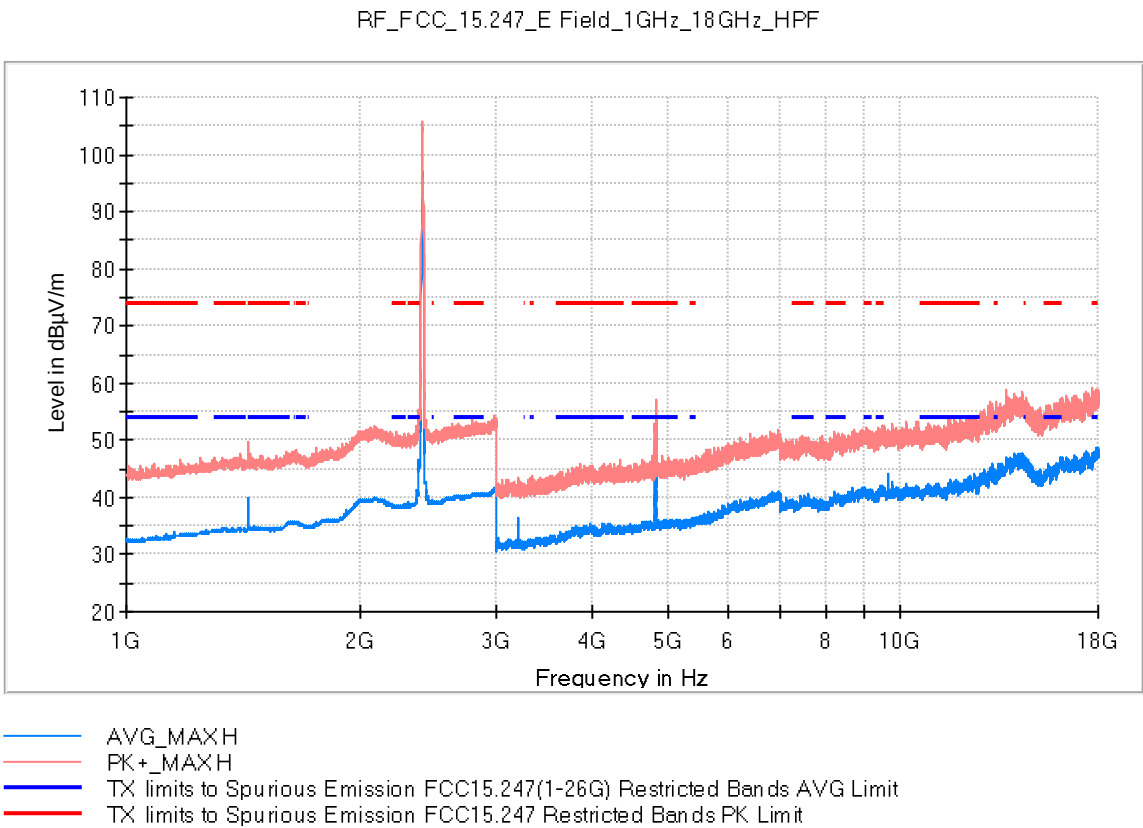
Middle Channel



Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBµV/m)
38.099500	32.7	23.1	V	16.9	40.0
110.607000	30.3	17.9	V	25.6	43.5
156.779000	28.5	15.4	V	28.1	43.5
169.534500	25.0	12.9	V	30.6	43.5
277.592500	31.1	17.8	H	28.2	46.0
400.588500	38.3	25.4	V	20.7	46.0

Frequency range: 1 – 18 GHz

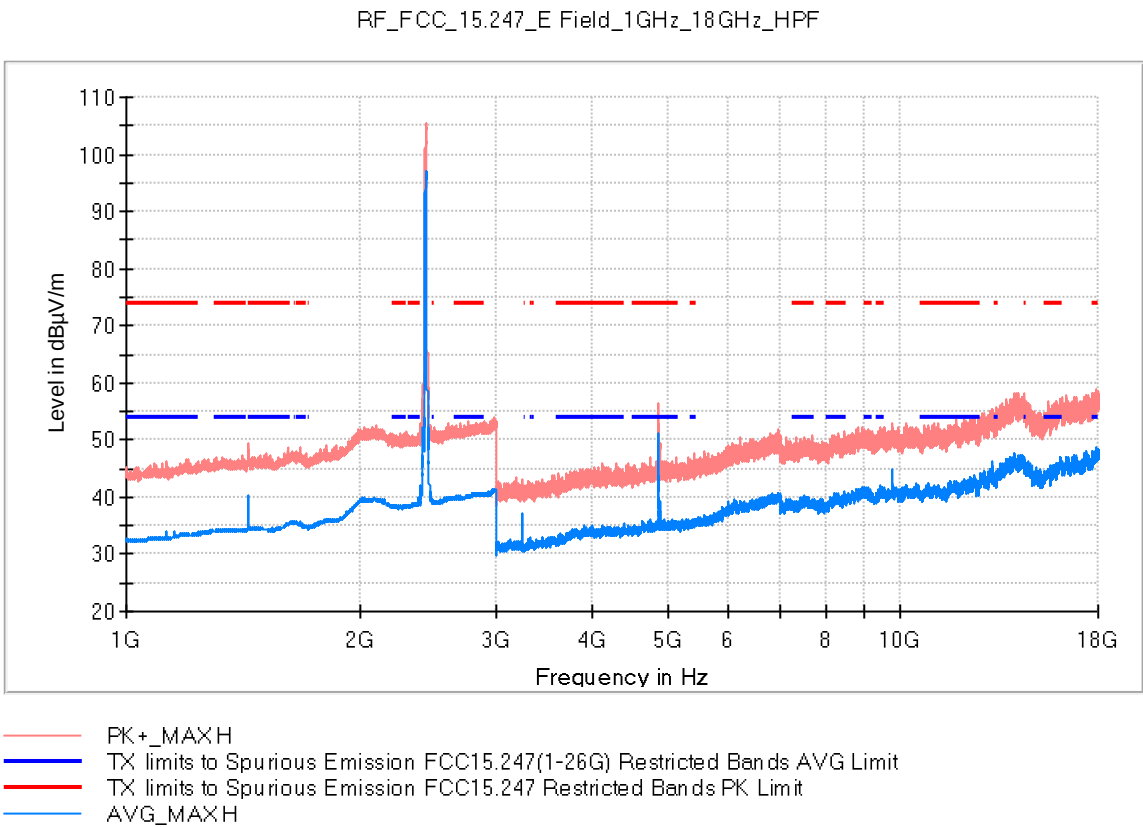
Lowest Channel



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1440.000000	49.7	39.8	H	14.2	54.0	
2411.000000	104.0	97.1	V	---	---	Fundamental
4824.000000	56.8	52.0	H	---	---	2nd Harmonics
9647.500000	50.8	43.9	H	---	---	4th Harmonics
12275.000000	52.9	43.7	V	10.3	54.0	

Frequency range: 1 – 18 GHz

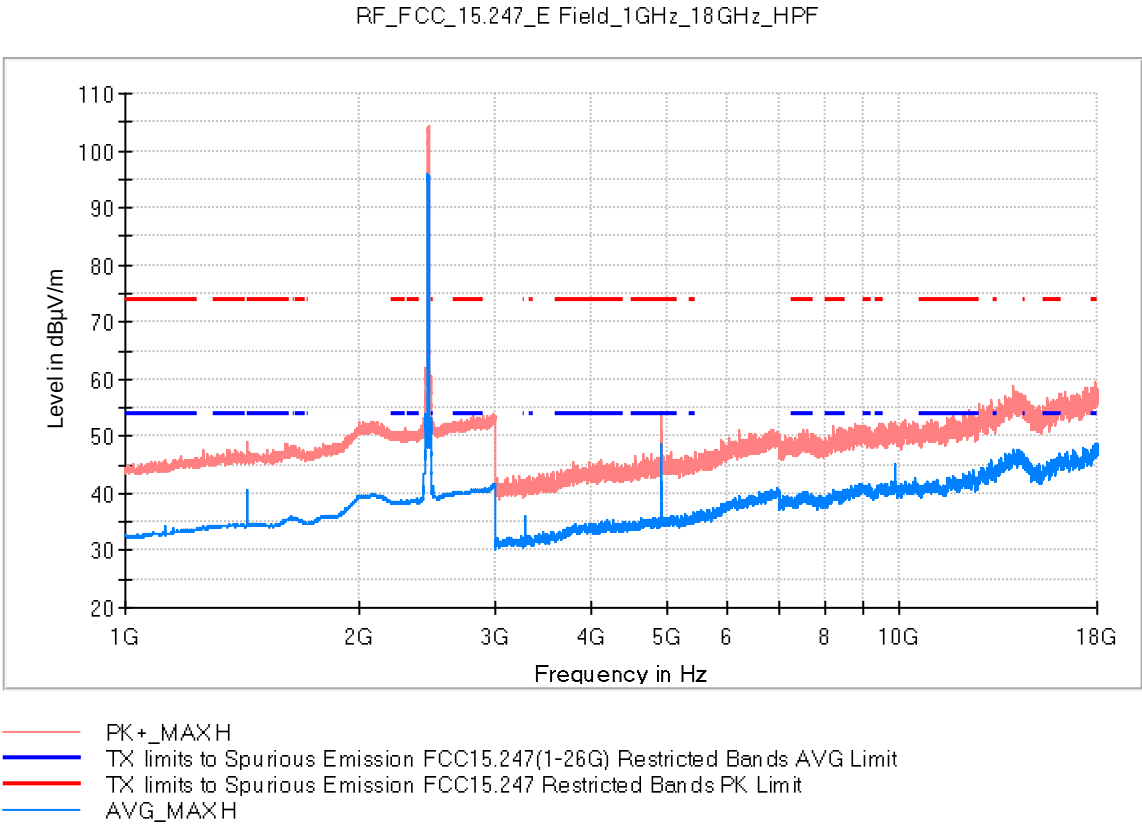
Middle Channel



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1440.00000	49.3	40.3	H	13.7	54.0	
2436.00000	104.3	97.1	V	---	---	Fundamental
4874.00000	56.5	51.1	V	---	---	2nd Harmonics
9748.00000	52.0	44.8	V	---	---	4th Harmonics
16073.0000	55.7	46.8	V	7.2	54.0	

Frequency range: 1 – 18 GHz

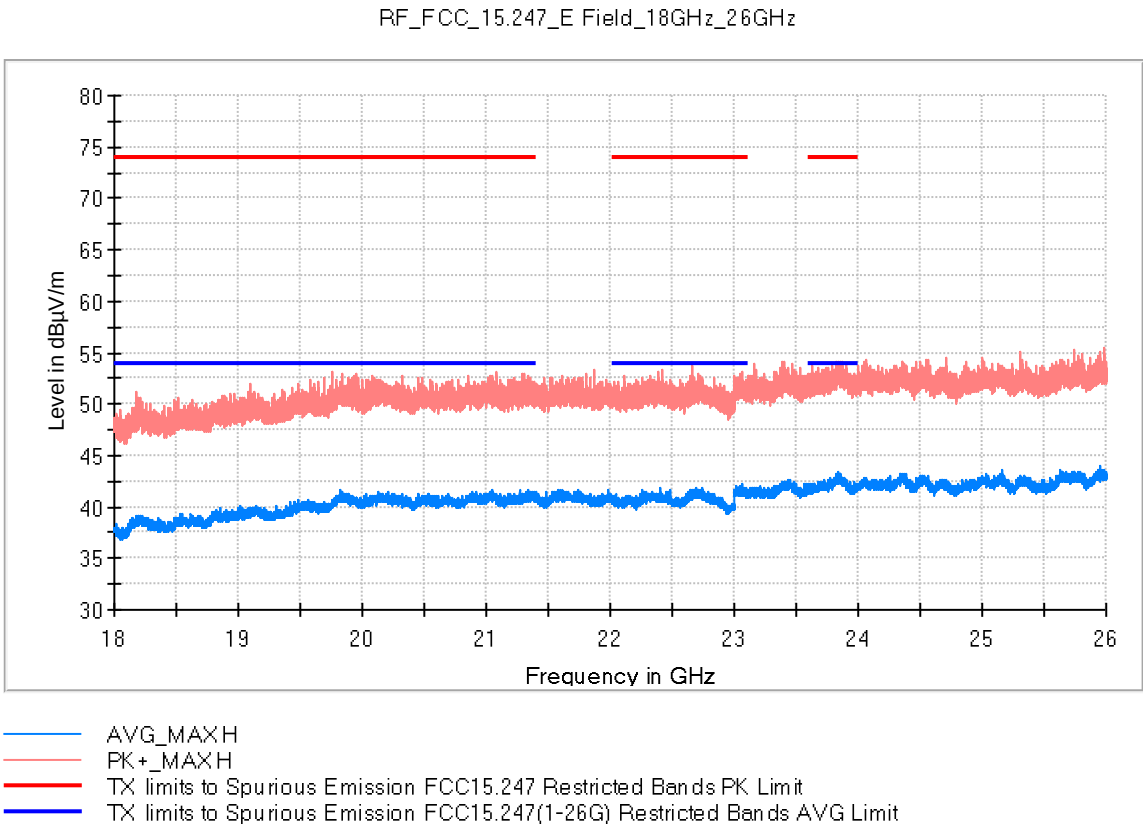
Highest Channel



Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBμV/m)	Comment
1440.000000	48.0	40.8	V	13.2	54.0	
2461.000000	103.2	96.2	H	---	---	Fundamental
4924.000000	54.3	48.8	V	---	---	2nd Harmonics
9848.000000	52.6	45.3	H	---	---	4th Harmonics
16079.000000	55.5	47.0	V	7.0	54.0	

Frequency range 18 - 26 GHz

Lowest Channel

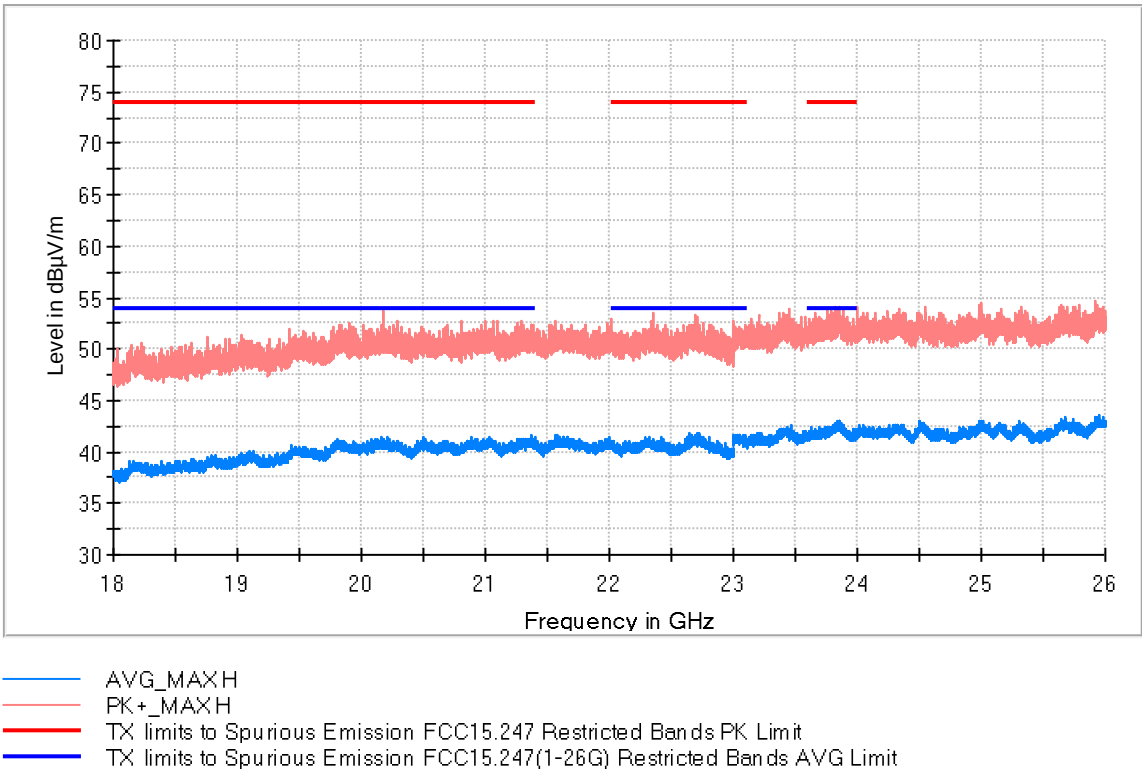


Frequency (MHz)	PK+_MAXH (dBμV/m)	AVG_MAXH (dBμV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBμV/m)
19827.000000	51.9	41.7	V	12.3	54.0
23833.500000	52.5	43.5	H	10.5	54.0

Frequency range 18 - 26 GHz

Middle Channel

RF_FCC_15.247_E Field_18GHz_26GHz

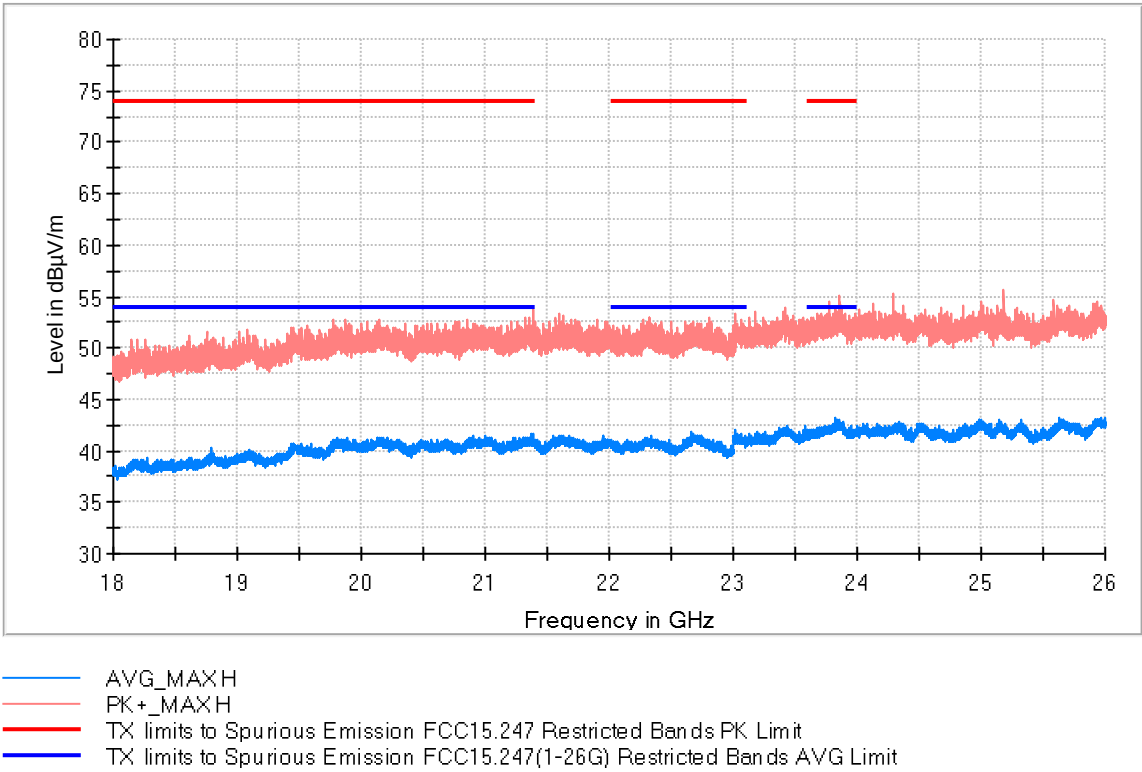


Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
20211.500000	51.3	41.6	V	12.4	54.0
23824.000000	51.5	42.9	V	11.1	54.0

Frequency range 18 - 26 GHz

Highest Channel

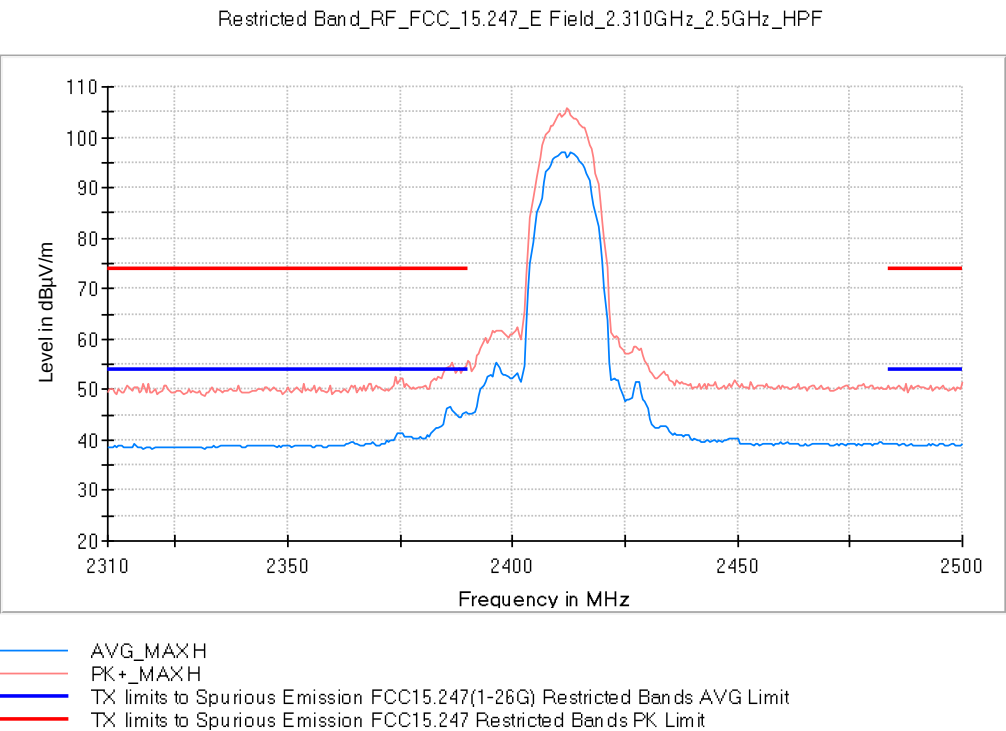
RF_FCC_15.247_E Field_18GHz_26GHz



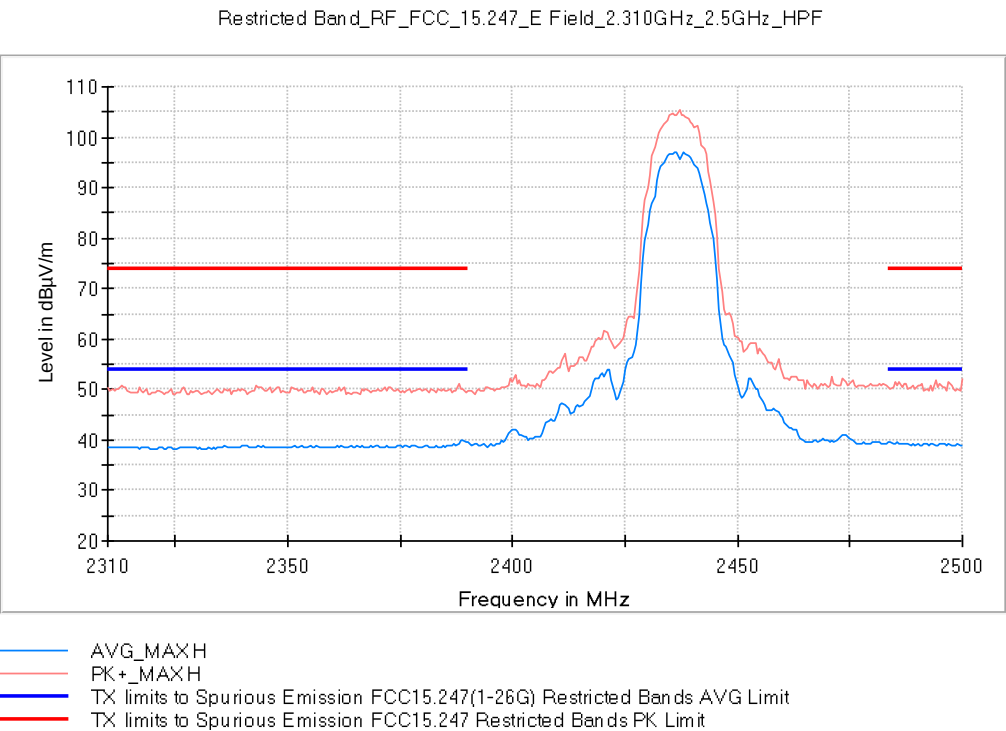
Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
23009.500000	51.0	42.2	V	11.8	54.0
23829.500000	51.7	43.2	V	10.8	54.0

Restricted Bands (2.31 GHz - 2.5 GHz)

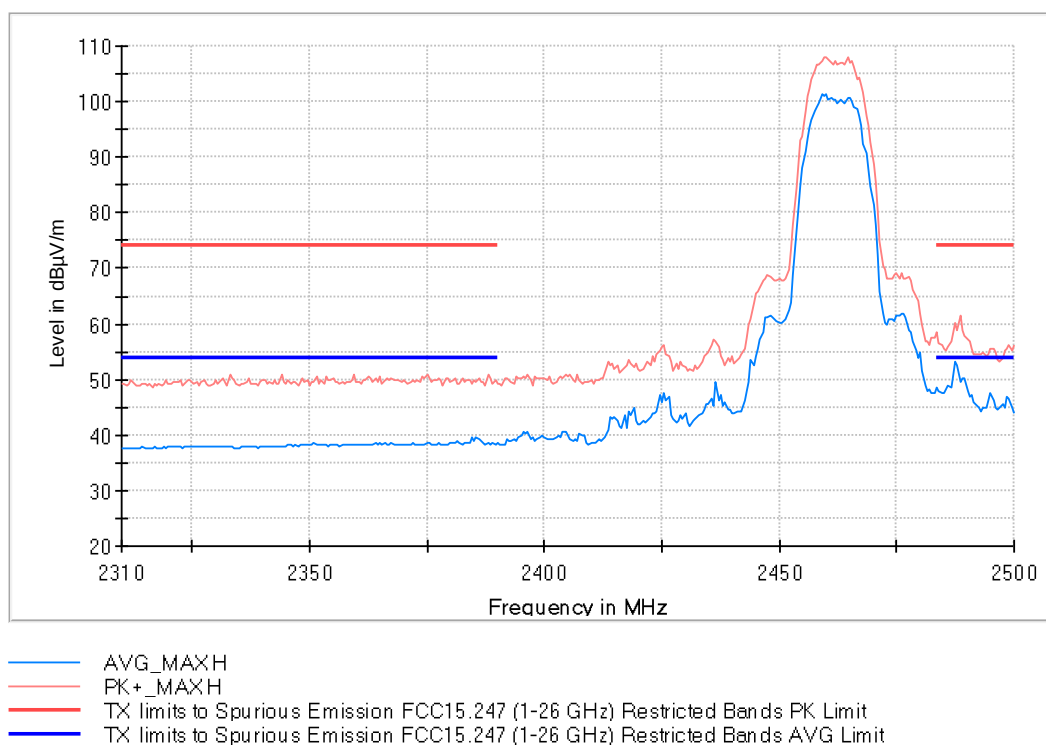
Lowest Channel



Middle Channel



Highest Channel

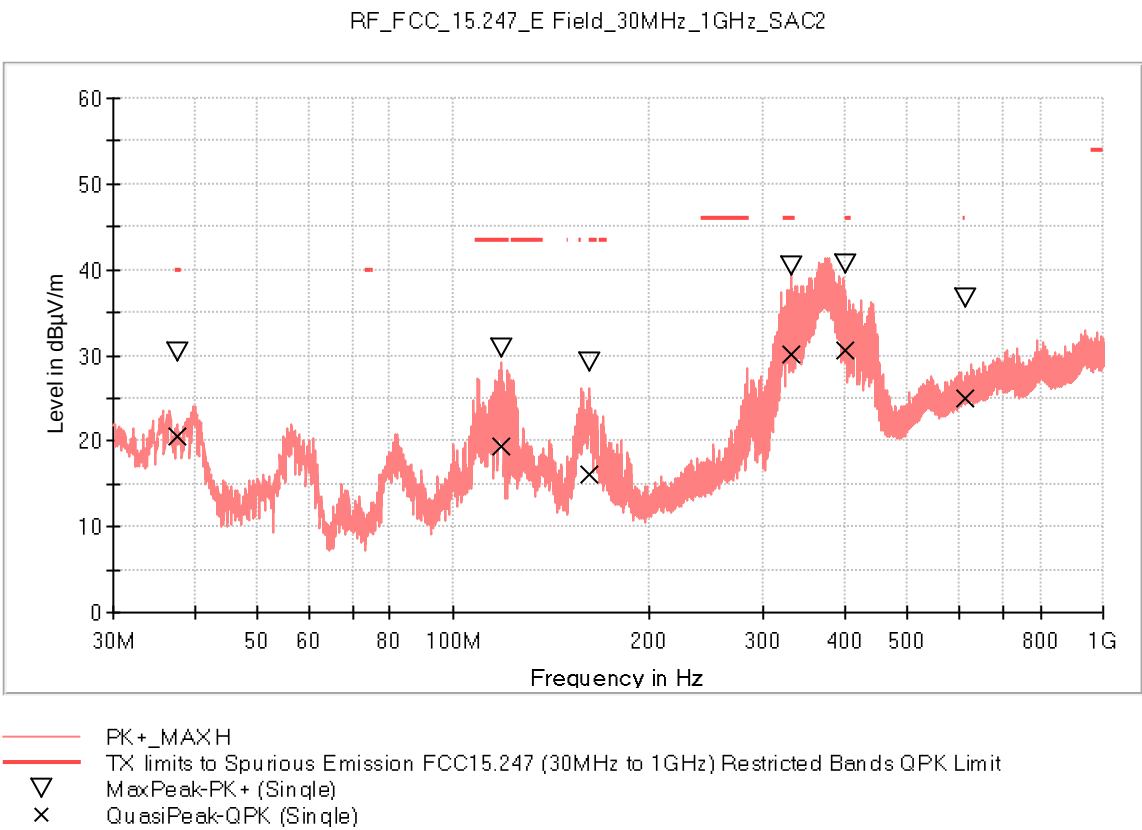


Modulation: 802.11g

Results

Frequency range 30 - 1000 MHz

Middle Channel



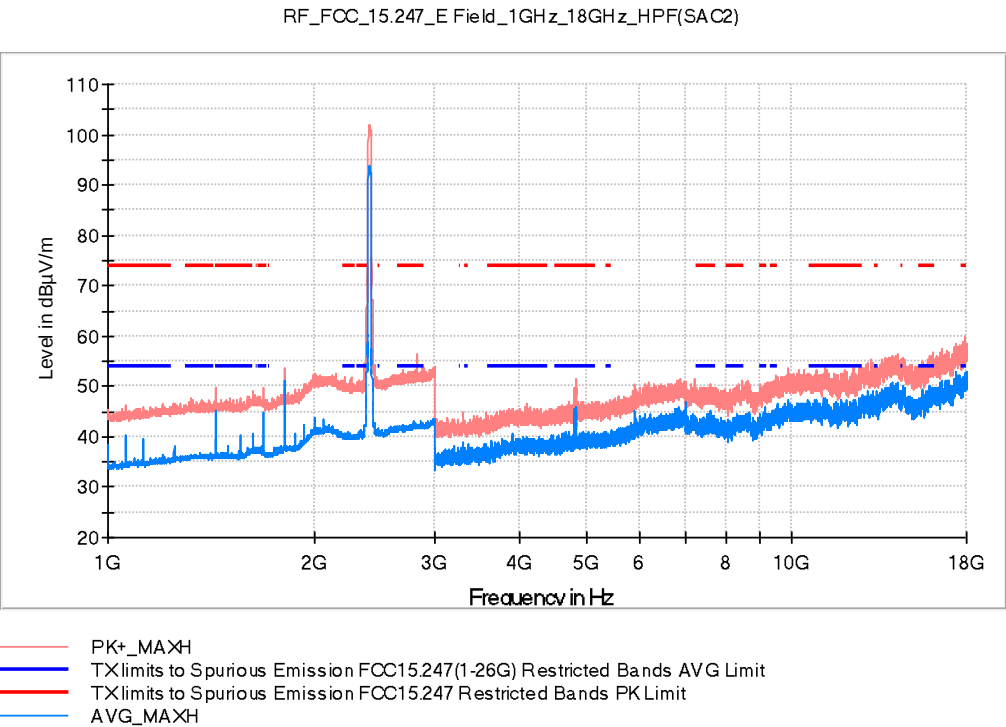
Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Pol	Margin - QPK (dB)	Limit - QPK (dBµV/m)
37.663000	30.3	20.5	V	19.5	40.0
118.512500	30.7	19.4	V	24.1	43.5
162.356500	29.2	16.1	V	27.5	43.5
330.506000	40.4	30.0	H	16.0	46.0
400.103500	40.6	30.7	V	15.3	46.0
611.709000	36.8	25.0	V	21.0	46.0

Modulation: 802.11g

Results

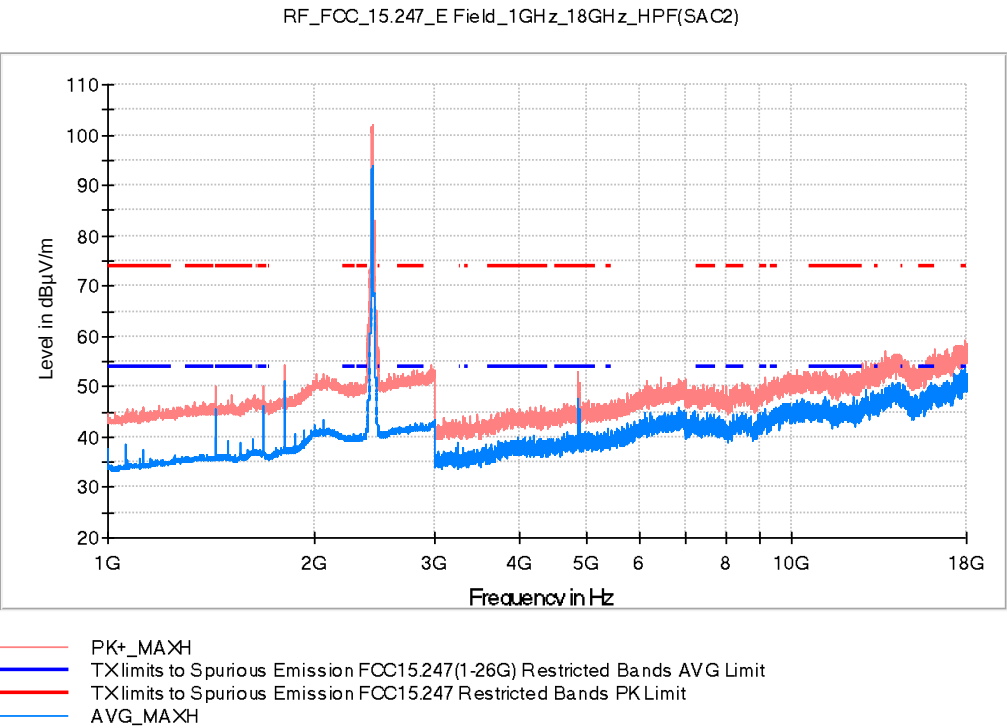
Frequency range 1 - 18 GHz

Lowest Channel



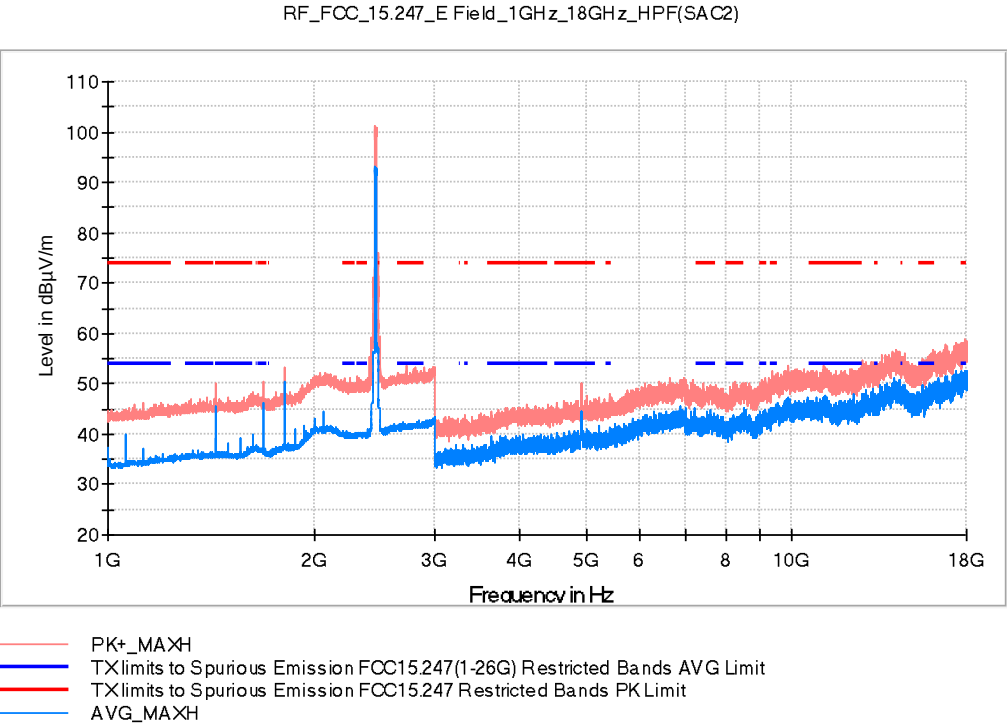
Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1437.500000	49.6	45.2	V	8.8	54.0	
2390.000000	66.5	53.0	V	1.0	54.0	
2407.500000	101.7	93.8	V	---	---	Fundamental
4823.000000	51.5	45.9	V	8.1	54.0	2nd Harmonic

Middle Channel



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1687.500000	50.2	46.1	V	7.9	54.0	
2435.500000	101.3	93.8	V	---	---	Fundamental
2485.000000	51.7	40.7	V	13.3	54.0	
4871.500000	52.1	47.6	V	6.4	54.0	2nd Harmonic

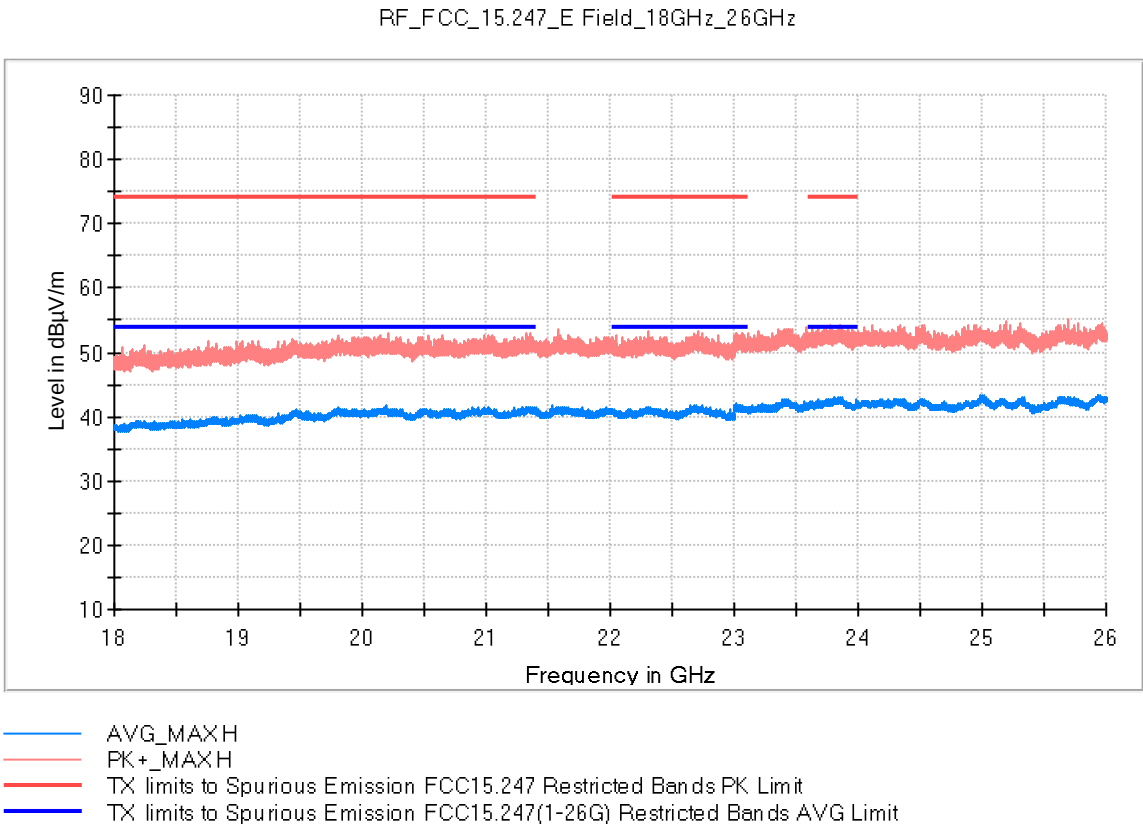
Highest Channel



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1687.500000	50.4	46.2	V	7.8	54.0	
2461.000000	100.5	93.1	V	---	---	Fundamental
2483.500000	66.7	52.9	V	1.1	54.0	
4916.500000	48.8	44.7	V	9.3	54.0	2nd Harmonic

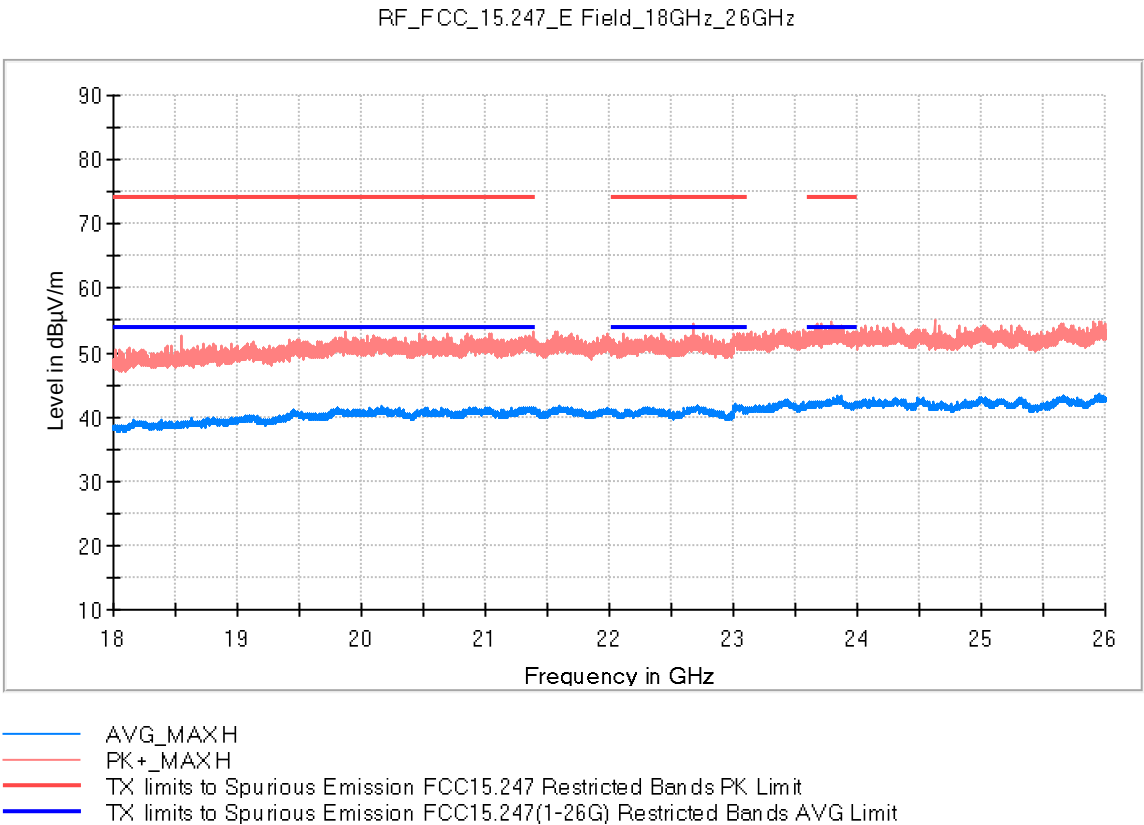
Frequency range 18 - 26 GHz

Lowest Channel



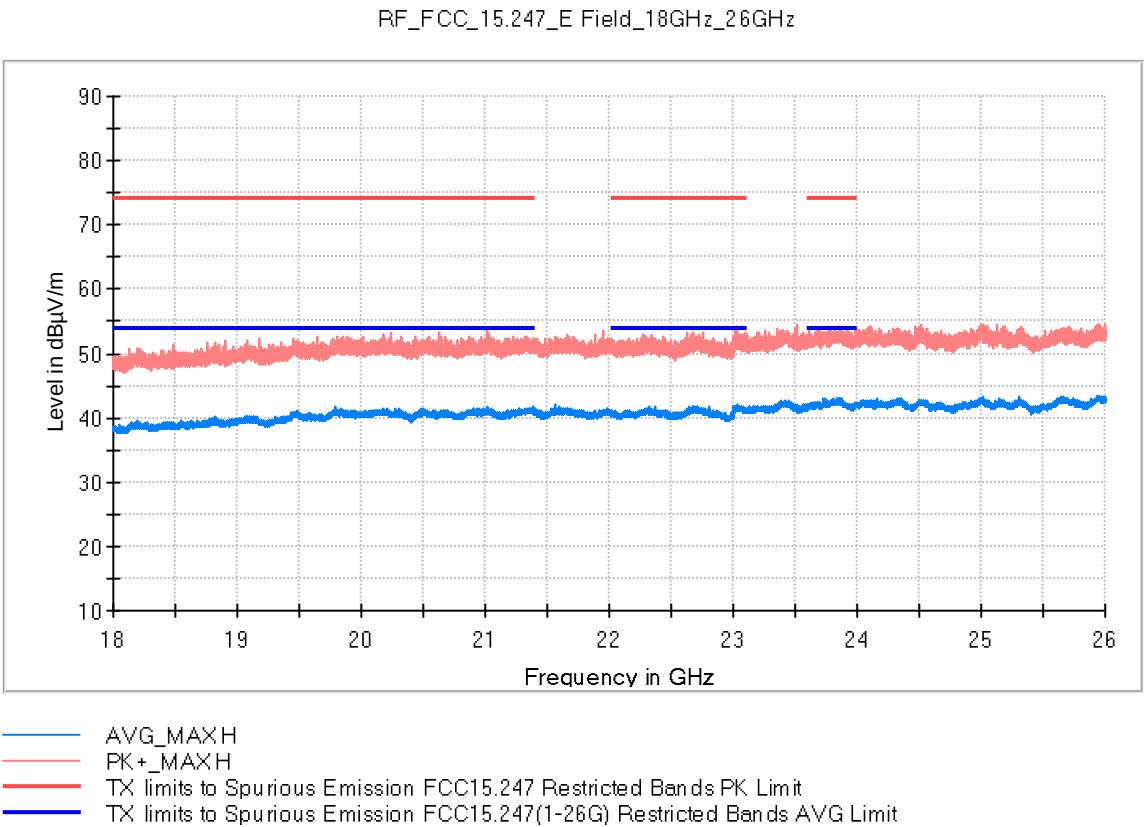
Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
23809.000000	51.6	42.9	V	11.1	54.0

Middle Channel



Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
23864.500000	52.4	43.2	V	10.8	54.0

Highest Channel

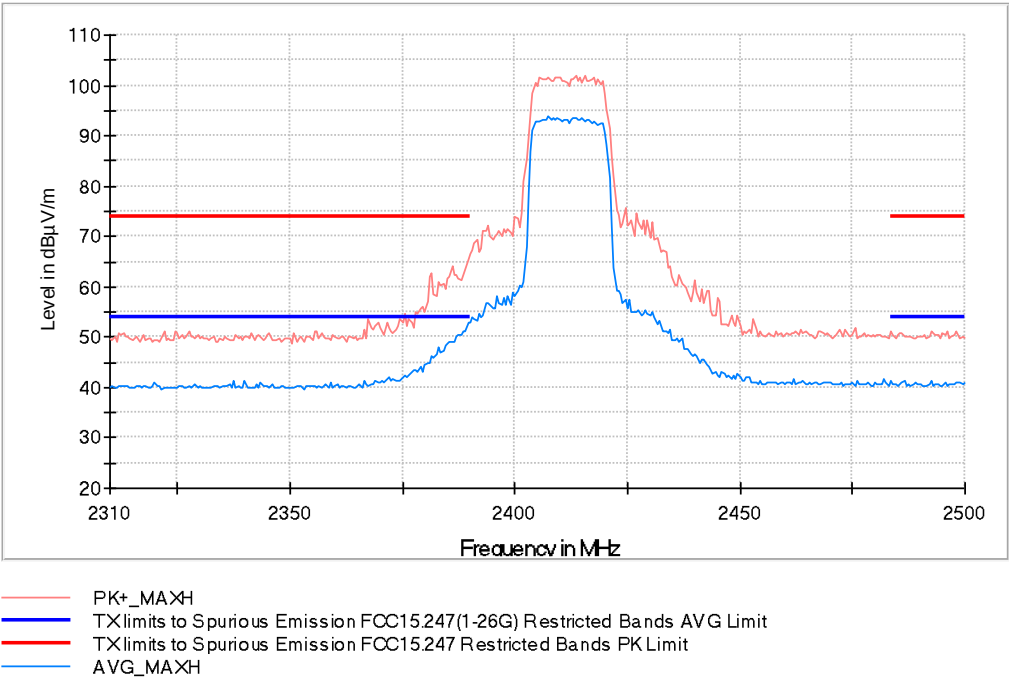


Frequency (MHz)	PK+_MAXH (dBµV/m)	AVG_MAXH (dBµV/m)	Pol	Margin - AVG (dB)	Limit - AVG (dBµV/m)
23842.500000	52.4	43.1	V	10.9	54.0

Restricted Bands (2.31 GHz - 2.5 GHz)

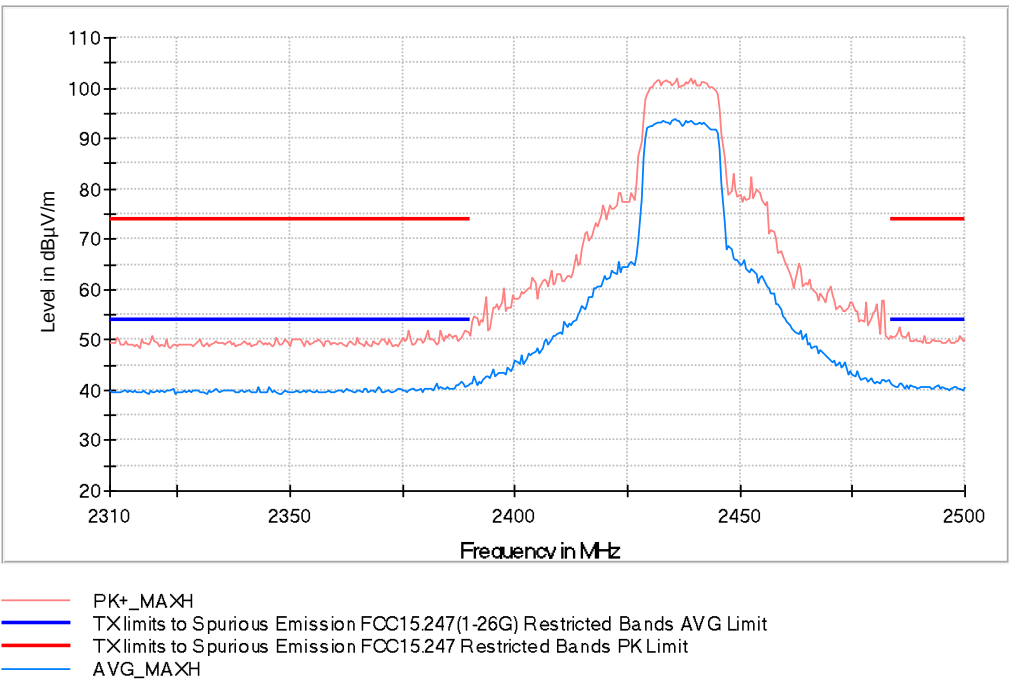
Lowest Channel

Copy of RF_FCC_15.247_E Field_1GHz_18GHz_HPF(SAC2)



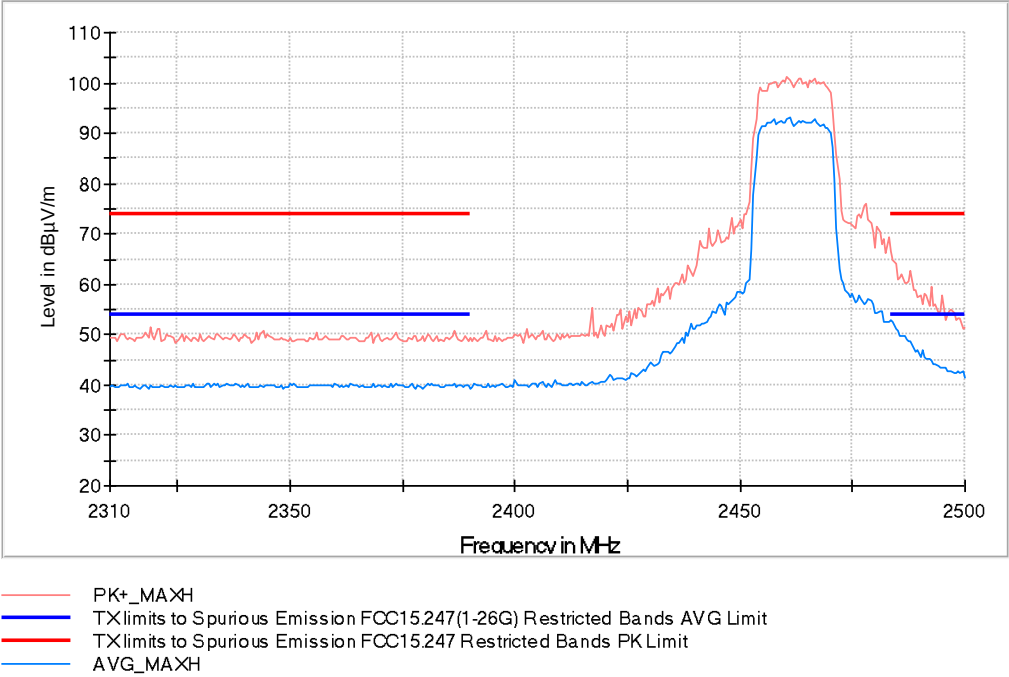
Middle Channel

Copy of RF_FCC_15.247_E Field_1GHz_18GHz_HPF(SAC2)



Highest Channel

Copy of RF_FCC_15.247_E Field_1GHz_18GHz_HPF(SAC2)



Spectrum Analyzer Parameters

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	100 kHz	1 s	20 dB
1 GHz - 3 GHz	500 kHz	PK+; AVG	1 MHz	1 s	20 dB
3 GHz - 18 GHz	500 kHz	PK+; AVG	1 MHz	1 s	20 dB
18 GHz - 26 GHz	500 kHz	PK+; AVG	1 MHz	1 s	20 dB