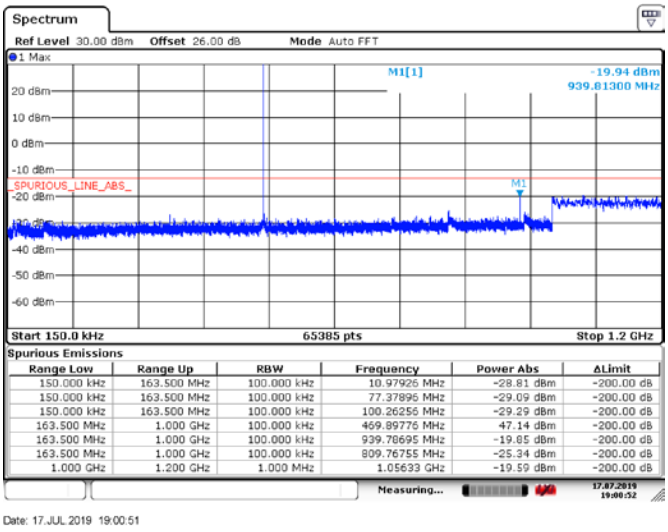
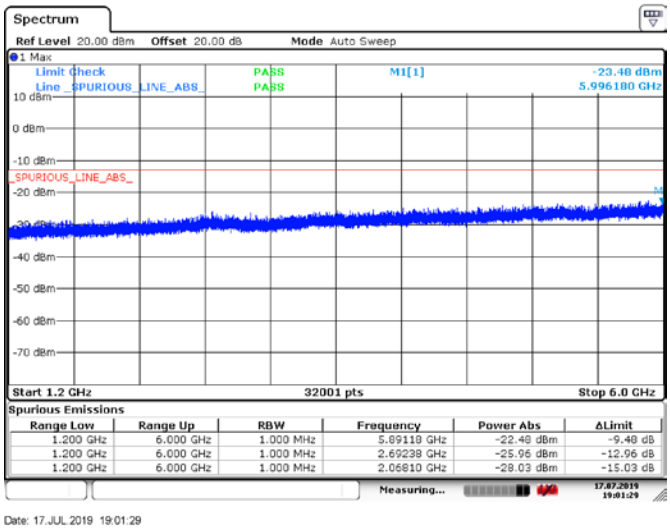


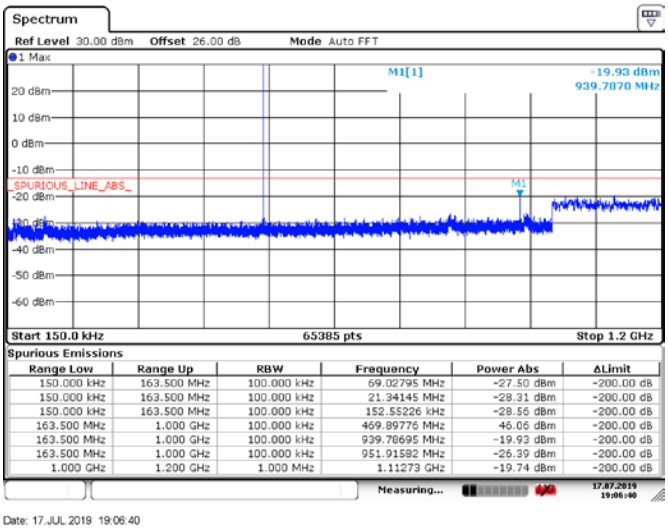
Date: 17.JUL.2019 19:00:51

Figure 6.5-33: *Conducted Spurious Emissions below 1.2 GHz, Tx @high channel of 460 MHz band, 25W 0.35TETRA modulation*



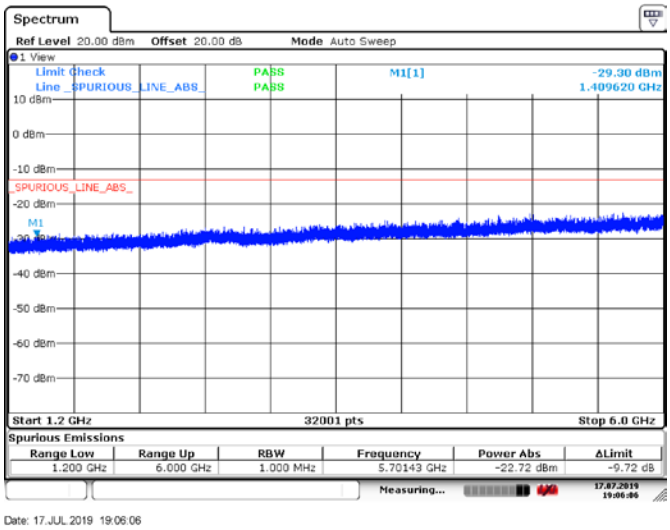
Date: 17.JUL.2019 19:01:29

Figure 6.5-34: *Conducted Spurious Emissions above 1.2 GHz, Tx @high channel of 460 MHz band, 25W 0.35TETRA modulation*



Date: 17.JUL.2019 19:06:40

Figure 6.5-35: *Conducted Spurious Emissions below 1.2 GHz, Tx @high channel of 460 MHz band, 10W 25kHzTEDS modulation*



Date: 17.JUL.2019 19:06:06

Figure 6.5-36: *Conducted Spurious Emissions above 1.2 GHz, Tx @high channel of 460 MHz band, 10W 25kHzTEDS modulation*

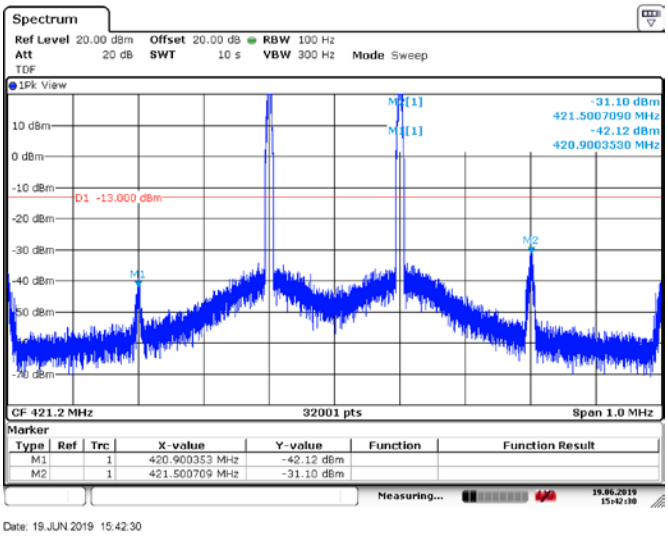


Figure 6.5-37: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 420 MHz band, 2X15W 7k60FXW modulation*

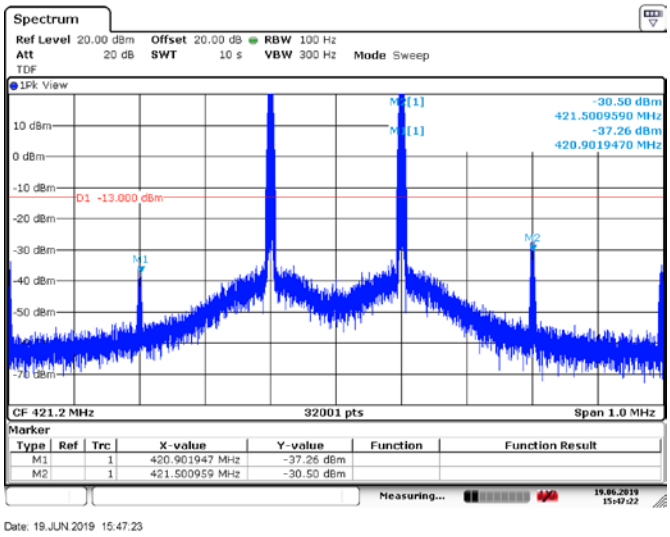


Figure 6.5-38: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 420 MHz band, 2X15W 16K0F3E modulation*

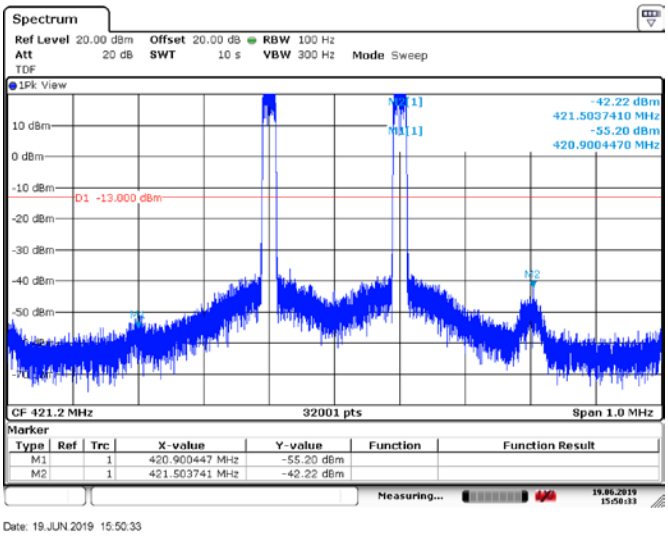


Figure 6.5-39: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 420 MHz band, 2X10W 0.35TETRA modulation*

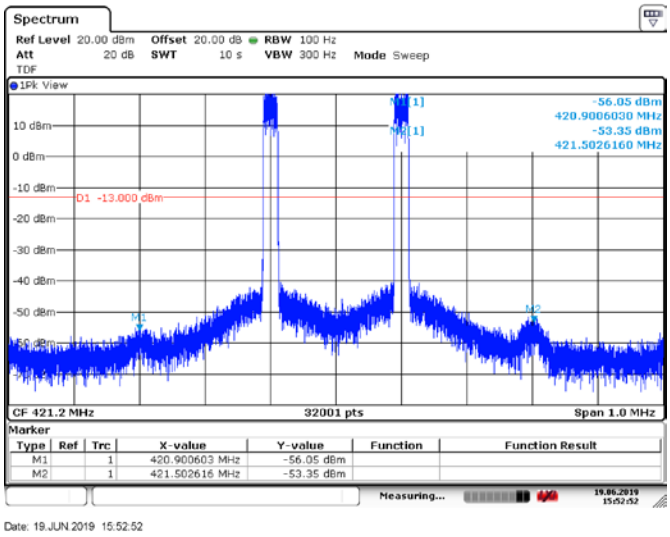
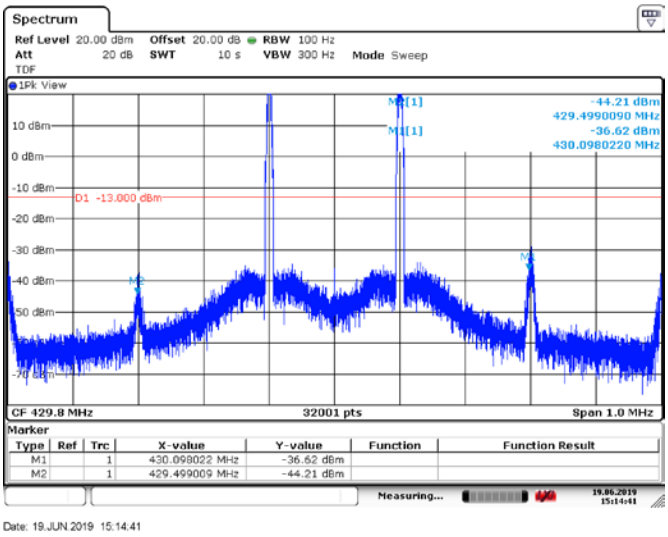
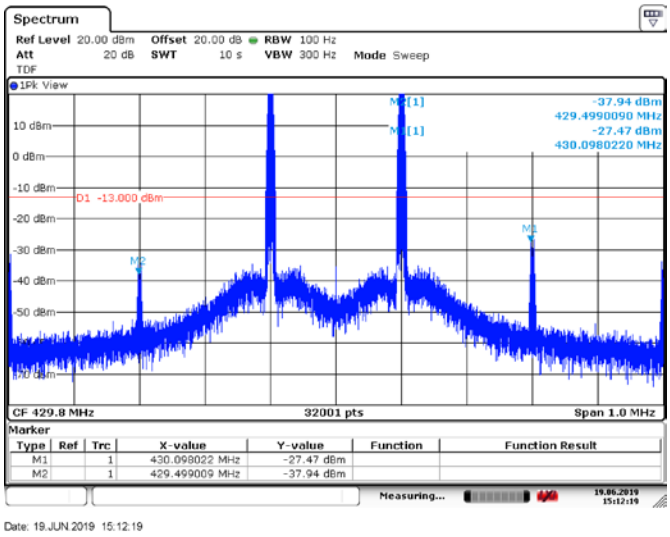


Figure 6.5-40: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 420 MHz band ,2X7W 25kHzTEDS modulation*



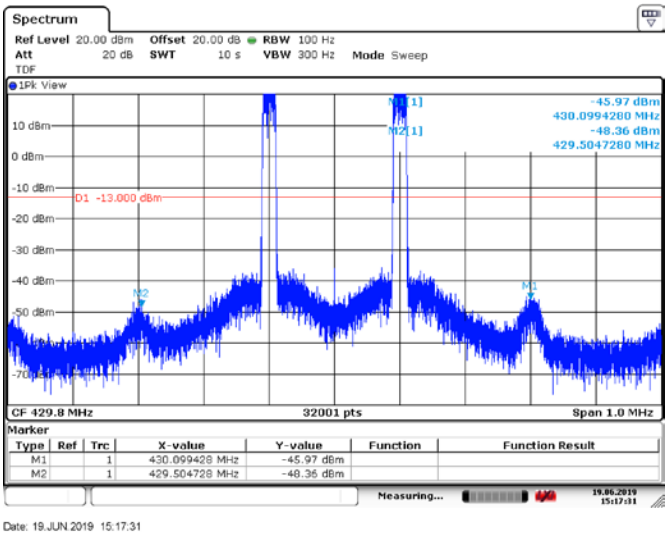
Date: 19.JUN.2019 15:14:41

Figure 6.5-41: *Conducted Spurious Emissions from inter-modulation products, Tx @high channel of 420 MHz band, 2X15W 7k60FXW modulation*



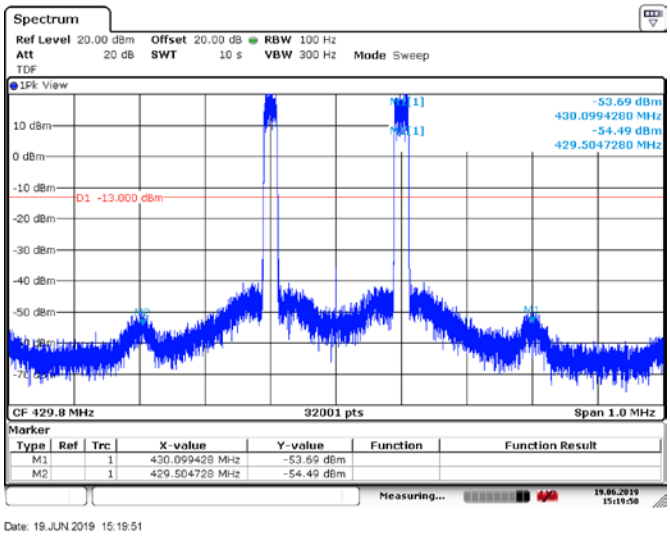
Date: 19.JUN.2019 15:12:19

Figure 6.5-42: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 420 MHz band, 2X15W 16K0F3E modulation*



Date: 19.JUN.2019 15:17:31

Figure 6.5-43: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 420 MHz band, 2X10W 0.35TETRA modulation*



Date: 19.JUN.2019 15:19:51

Figure 6.5-44: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 420 MHz band ,2X7W 25kHzTEDS modulation*

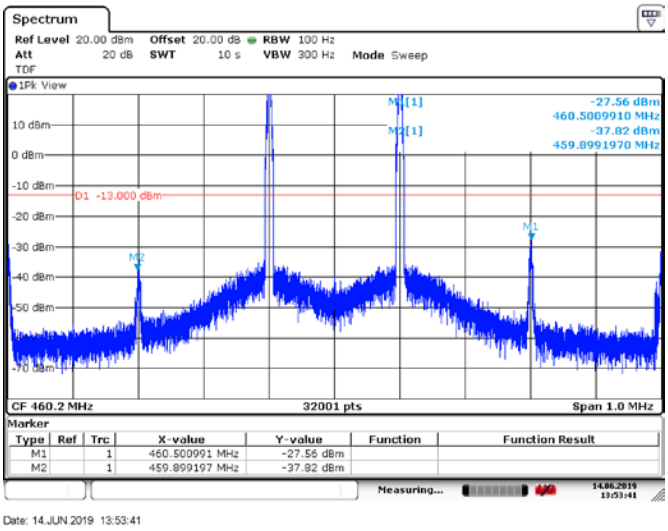


Figure 6.5-45: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 460 MHz band, 2X15W 7k60FXW modulation*

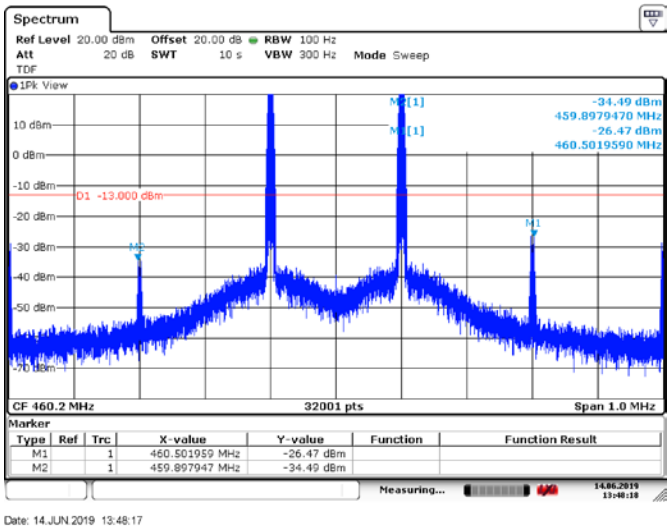


Figure 6.5-46: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 460 MHz band, 2X15W 16K0F3E modulation*

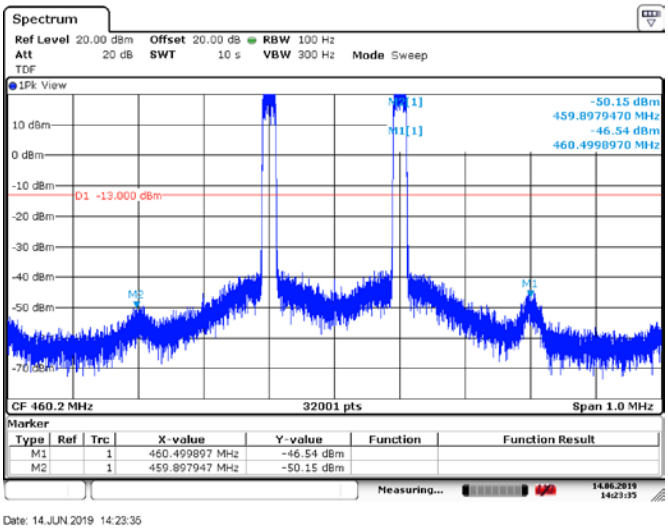


Figure 6.5-47: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 460 MHz band, 2X10W 0.35TETRA modulation*

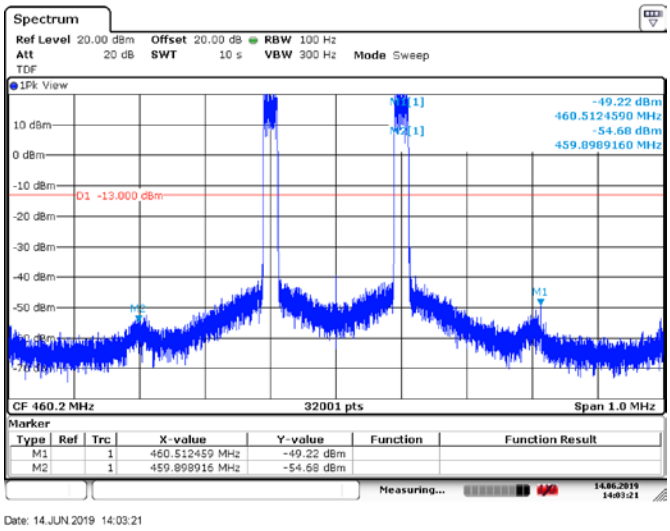
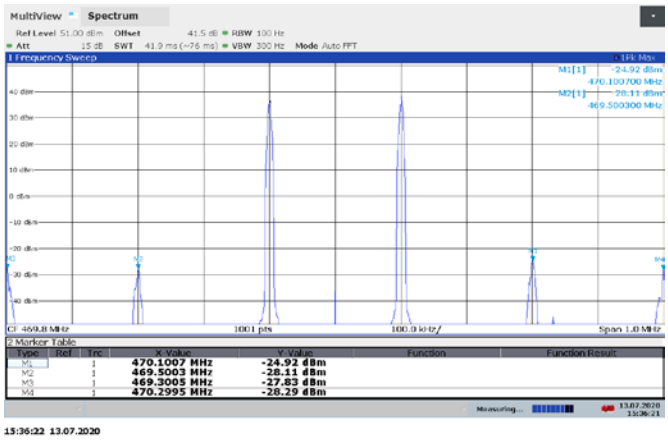
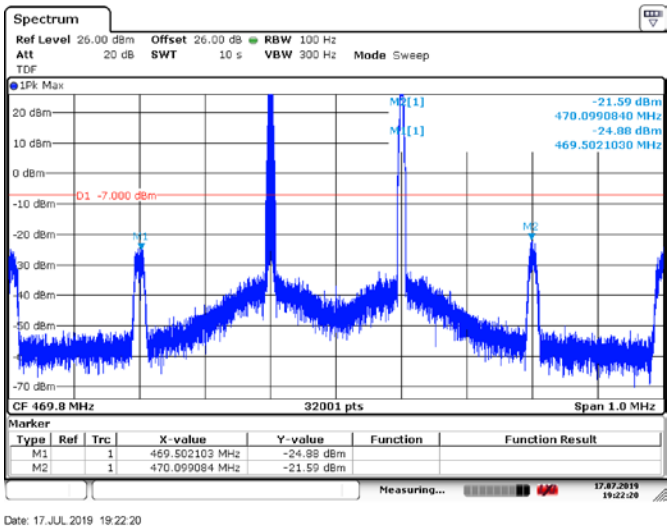


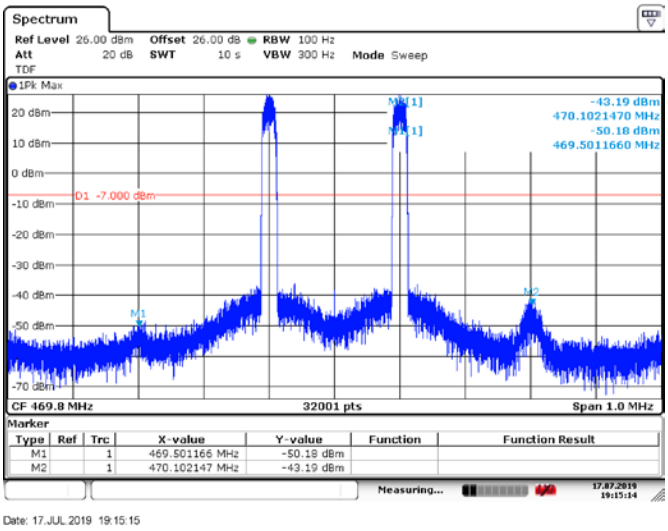
Figure 6.5-48: *Conducted Spurious Emissions from inter-modulation products, Tx @low channel of 460 MHz band ,2X7W 25kHzTEDS modulation*





bFigure 6.5-49: *Conducted Spurious Emissions from inter-modulation products, Tx @high channel of 460 MHz band, 2X15W 7k60FXW modulation*

Figure 6.5-50: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 460 MHz band, 2X15W 16K0F3E modulation*



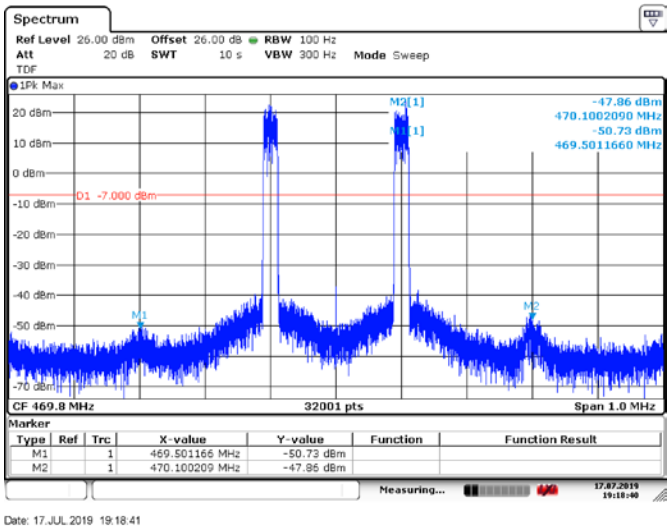


Figure 6.5-51: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 460 MHz band, 2X10W 0.35TETRA modulation*

Figure 6.5-52: *Conducted Spurious Emissions from inter-modulation products, Tx @ high channel of 460 MHz band ,2X7W 25kHzTEDS modulation*

6.6 FCC 90.210 and RSS-119 5.8Emission limits, radiated method

6.6.1 Definitions and limits

FCC §90.210
(b) Emission Mask B. For transmitters that are equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:
(1) On any frequency removed from the assigned frequency by more than 50 percent, but not more than 100 percent of the authorized bandwidth: At least 25 dB.
(2) On any frequency removed from the assigned frequency by more than 100 percent, but not more than 250 percent of the authorized bandwidth: At least 35 dB.
(3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least 43 + 10 log (P) dB.

(d) *Emission Mask D—12.5 kHz channel bandwidth equipment.* For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:
(1) On any frequency from the center of the authorized bandwidth f_0 to 5.625 kHz removed from f_0: Zero dB.
(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5.625 kHz but no more than 12.5 kHz: At least 7.27(f_d−2.88 kHz) dB.
(3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB, whichever is the lesser attenuation.
(4) The reference level for showing compliance with the emission mask shall be established using a resolution bandwidth sufficiently wide (usually two or three times the channel bandwidth) to capture the true peak emission of the equipment under test. In order to show compliance with the emission mask up to and including 50 kHz removed from the edge of the authorized bandwidth, adjust the resolution bandwidth to 100 Hz with the measuring instrument in a peak hold mode. A sufficient number of sweeps must be measured to insure that the emission profile is developed. If video filtering is used, its bandwidth must not be less than the instrument resolution bandwidth. For emissions beyond 50 kHz from the edge of the authorized bandwidth, see paragraph (o) of this section. If it can be shown that use of the above instrumentation settings does not accurately represent the true interference potential of the equipment under test, an alternate procedure may be used provided prior Commission approval is obtained.

(e) *Emission Mask E—6.25 kHz or less channel bandwidth equipment.* For transmitters designed to operate with a 6.25 kHz or less bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:
(1) On any frequency from the center of the authorized bandwidth f_0 to 3.0 kHz removed from f_0: Zero dB.
(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 3.0 kHz but no more than 4.6 kHz: At least 30 + 16.67(f_d−3 kHz) or 55 + 10 log (P) or 65 dB, whichever is the lesser attenuation.
(3) On any frequency removed from the center of the authorized bandwidth by more than 4.6 kHz: At least 55 + 10 log (P) or 65 dB, whichever is the lesser attenuation.
(4) The reference level for showing compliance with the emission mask shall be established using a resolution bandwidth sufficiently wide (usually two or three times the channel bandwidth) to capture the true peak emission of the equipment under test. In order to show compliance with the emission mask up to and including 50 kHz removed from the edge of the authorized bandwidth, adjust the resolution bandwidth to 100 Hz with the measuring instrument in a peak hold mode. A sufficient number of sweeps must be measured to insure that the emission profile is developed. If video filtering is used, its bandwidth must not be less than the instrument resolution bandwidth. For emissions beyond 50 kHz from the edge of the authorized bandwidth, see paragraph (o) of this section. If it can be shown that use of the above instrumentation settings does not accurately represent the true interference potential of the equipment under test, an alternate procedure may be used provided prior Commission approval is obtained.

RSS-119

5.5 Channel Bandwidth, Authorized Bandwidth, Occupied Bandwidth and Spectrum Masks

For the purpose of this document, channel bandwidth is the channel width in which the equipment is designed to operate.

The maximum permissible occupied bandwidth shall not exceed the authorized bandwidth specified in Table 3 for the equipment's frequency band. The authorized bandwidth is defined as the maximum width of the band of frequencies used to derive spectrum masks and is not necessarily equivalent to the bandwidth found on radio and spectrum licences.

The channel bandwidths, authorized bandwidths and spectrum masks are given in Table 3 for equipment having an output power greater than 120 mW. For equipment with an output power that does not exceed 120 mW, Section 5.10 applies.

Table 3 — Channel Bandwidths, Authorized Bandwidths and Spectrum Masks

Frequency Band (MHz)	Related SRSP for Channelling Plan and ERP	Channel Bandwidth (kHz)	Authorized Bandwidth (kHz)	Spectrum Masks for Equipment with Audio Filter	Spectrum Masks for Equipment Without Audio Filter
138-144, 148-149.9 and 150.05-174	SRSP-500	30	20	B	C
		15	11.25	D	D
		7.5	6	E	E

5.8 Transmitter Unwanted Emissions

The spectrum plots of the unwanted emissions shall comply with the masks specified in Table 3.

Descriptions of these permissible emission masks are given in the sections that follow.

The term displacement frequency, fd, used in these sections refers to the difference between the channel frequency and the emission component frequency expressed in kilohertz, and p is the transmitter output power in Watts.

5.8.1 Emission Mask B for Transmitters Equipped with an Audio Low-Pass Filter

The power of any emission shall be attenuated below the transmitter output power P (dBW) as specified in Table 5.

Table 5 — Emission Mask B

Displacement Frequency, fd (kHz)	Minimum Attenuation (dB)	Resolution Bandwidth (Hz)
$10 < fd \leq 20$	25	300
$20 < fd \leq 50$	35	300
$fd > 50$	$43 + 10 \log10(p)$	Specified in Section 4.2.1

5.8.3 Emission Mask D for Transmitters Equipped with or Without an Audio Low-Pass Filter

The power of any emission shall be attenuated below the transmitter output power P (dBW) as specified in Table 7.

Table 7 — Emission Mask D

Displacement Frequency, fd (kHz)	Minimum Attenuation (dB)	Resolution Bandwidth (Hz)
$.625 < f_d \leq 12.5$	$7.27(f_d - 2.88)$	Specified in Section 4.2.2
$f_d > 12.5$	Whichever is the lesser: 70 or $50 + 10 \log_{10}(p)$	Specified in Section 4.2.2

5.8.4 Emission Mask E for Transmitters Equipped with or Without an Audio Low-Pass Filter

The power of any emission shall be attenuated below the transmitter output power P (dBW) as specified in Table 8.

Table 8 — Emission Mask E

Displacement Frequency, fd (kHz)	Minimum Attenuation (dB)	Resolution Bandwidth (Hz)
$3 < f_d \leq 4.6$	Whichever is the lesser: $30 + 16.67(f_d - 3)$ or $55 + 10 \log_{10}(p)$	Specified in Section 4.2.2
$f_d > 4.6$	Whichever is the lesser: 57 or $55 + 10 \log_{10}(p)$	Specified in Section 4.2.2

6.6.2 Test summary

Test date	June 7, 2019
Test engineer	Yong Huang

6.6.3 Observations, settings and special notes

Tests were performed as per test method described in ANSI C63.26, clause 5.5

The spectrum was searched from 30 MHz to the 10th harmonic.
Spectrum Analyzer's setting:

Detector mode	Peak
Resolution bandwidth	100 kHz below 1 GHz/1 MHz above 1 GHz
Video bandwidth	RBW × 3
Trace mode	Max Hold

6.6.4 Test data

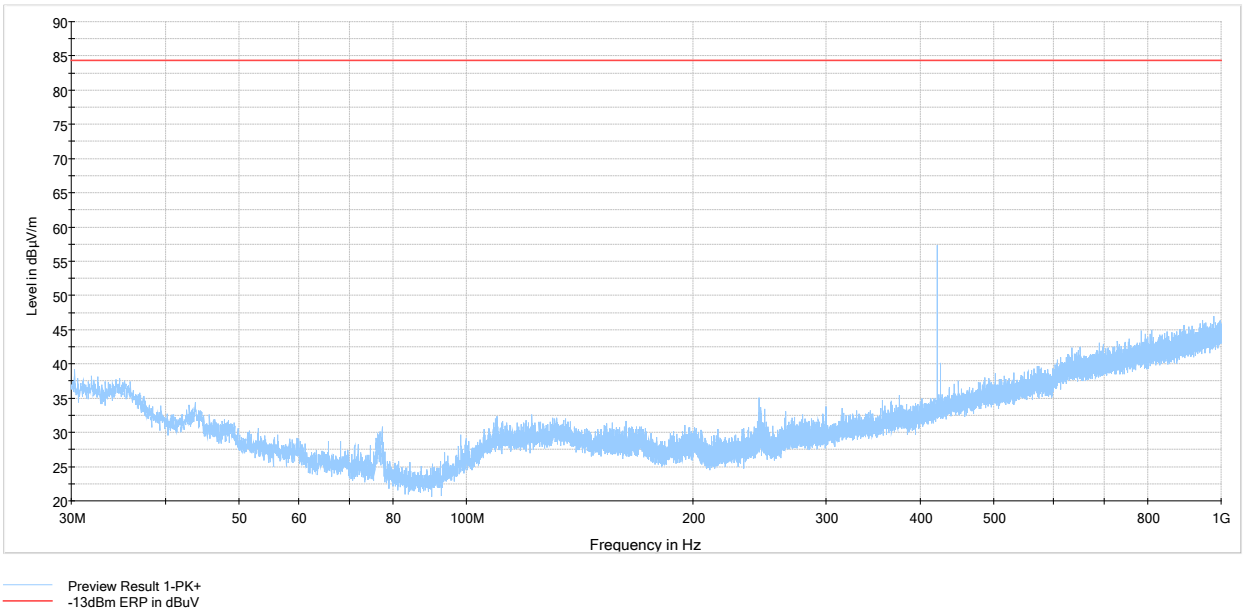


Figure 6.6-1: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 420 MHz band, 50W 7k60FXW modulation*

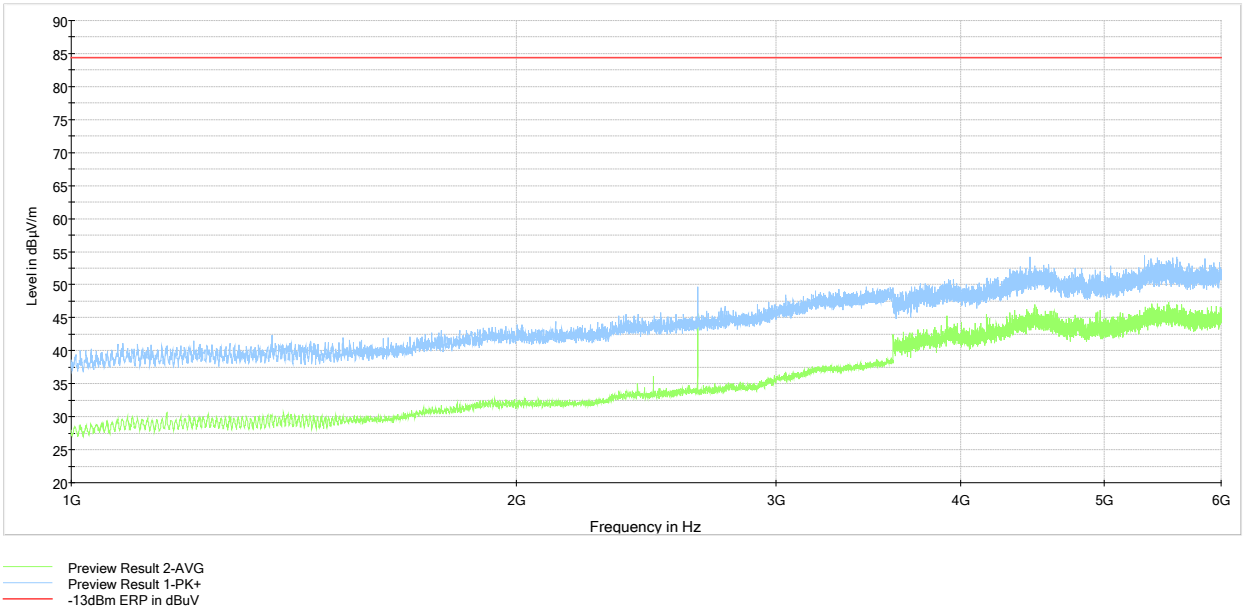


Figure 6.6-2: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 420 MHz band, 50W 7k60FXW modulation*

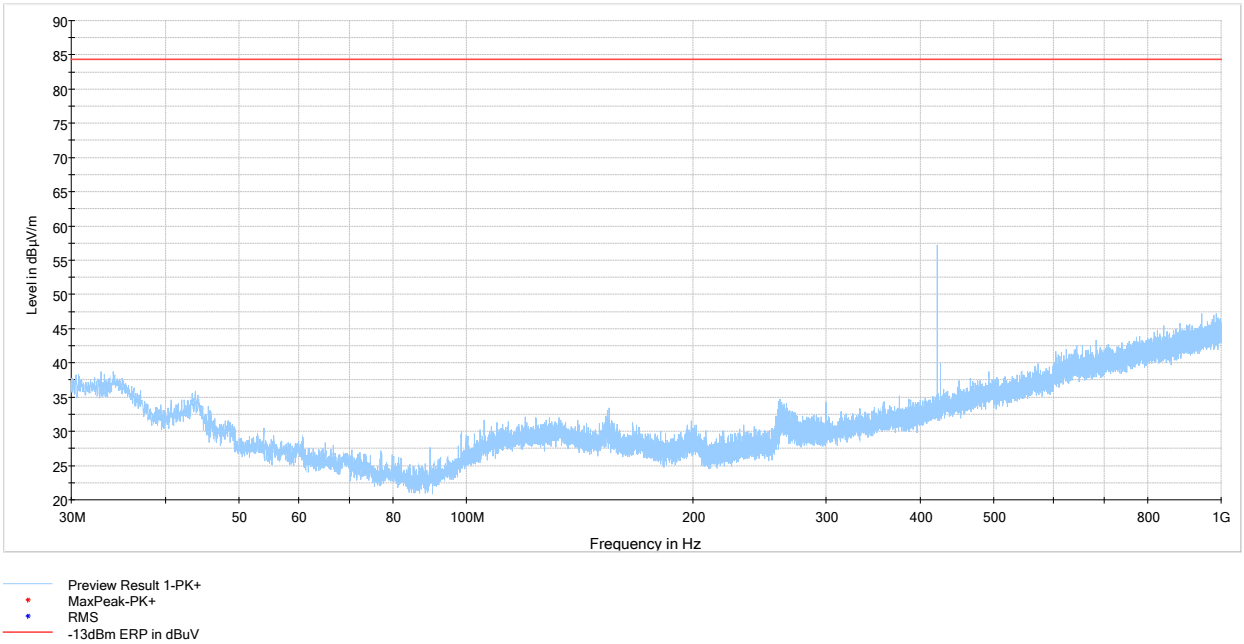


Figure 6.6-3: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 420 MHz band, 50W 16K0F3E modulation*

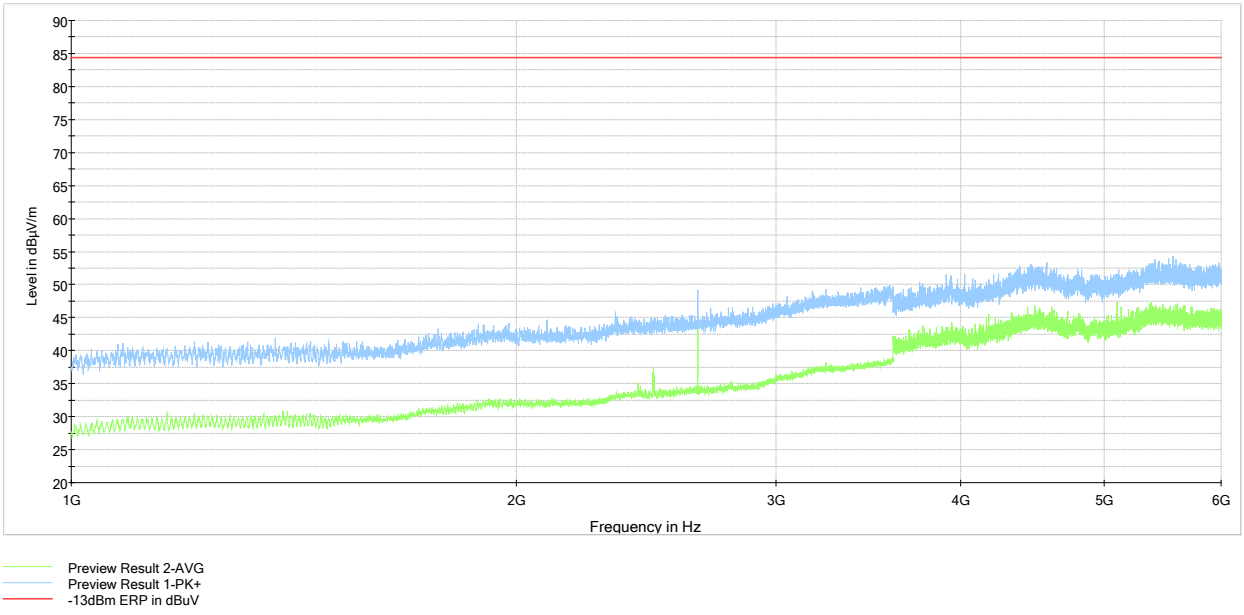


Figure 6.6-4: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 420 MHz band, 50W 16K0F3E modulation*

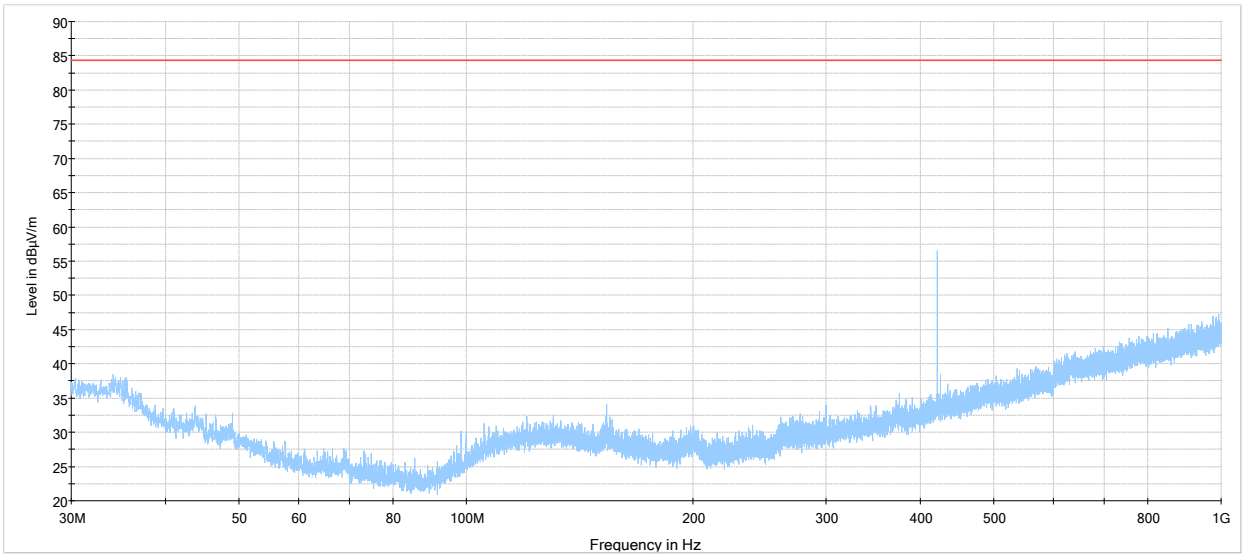


Figure 6.6-5: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 420 MHz band, 25W 0.35TETRA modulation*

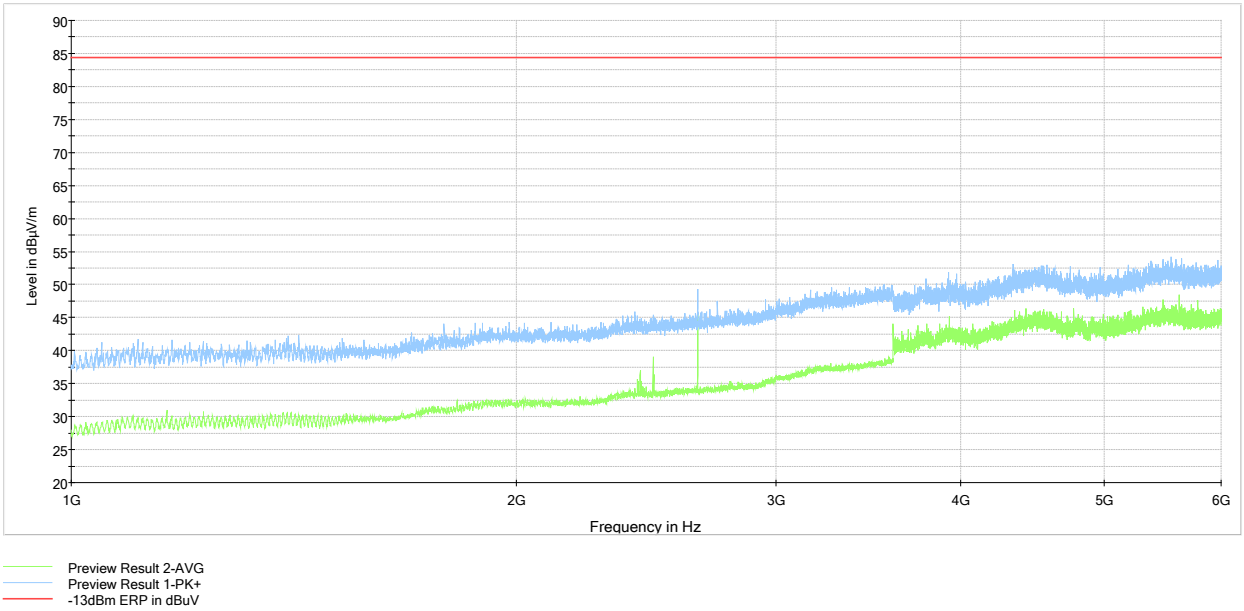


Figure 6.6-6: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 420 MHz band, 25W 0.35TETRA modulation*

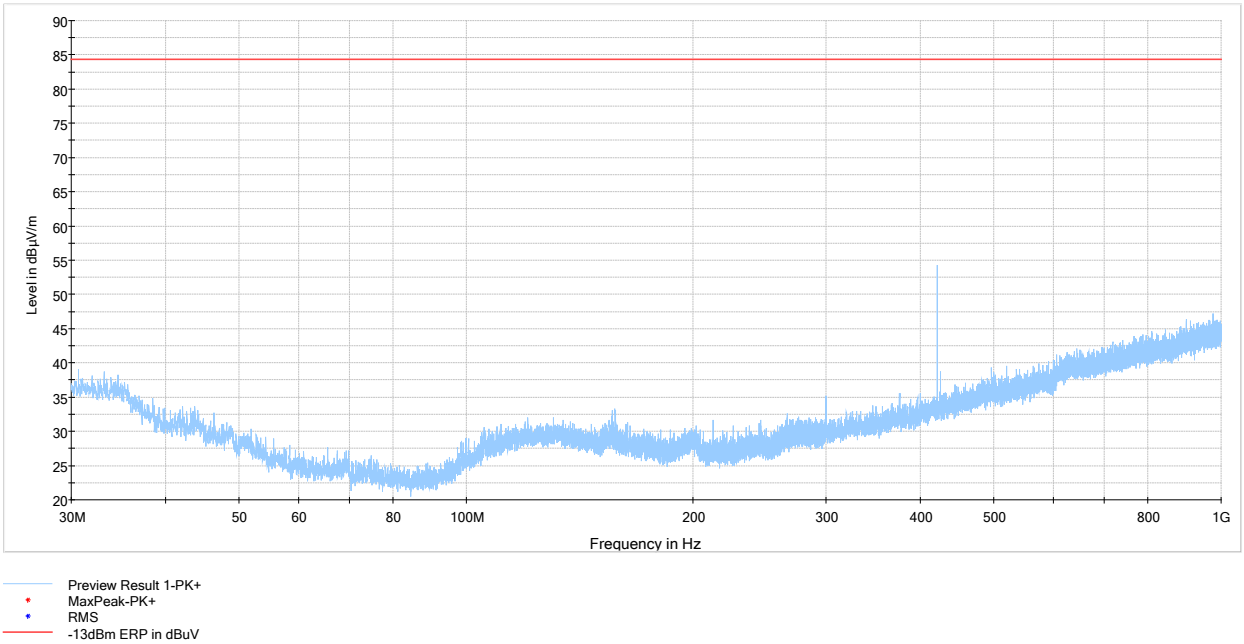


Figure 6.6-7: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 420 MHz band, 25W 25kTEDS modulation*

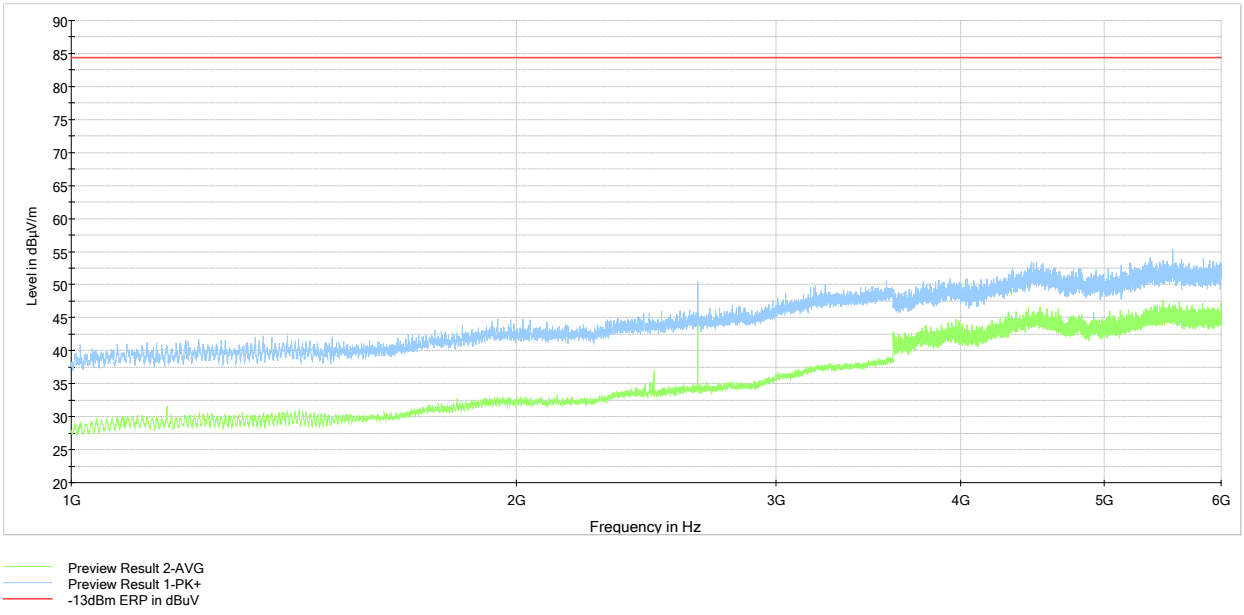


Figure 6.6-8: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 420 MHz band, 25W 25kTEDS modulation*

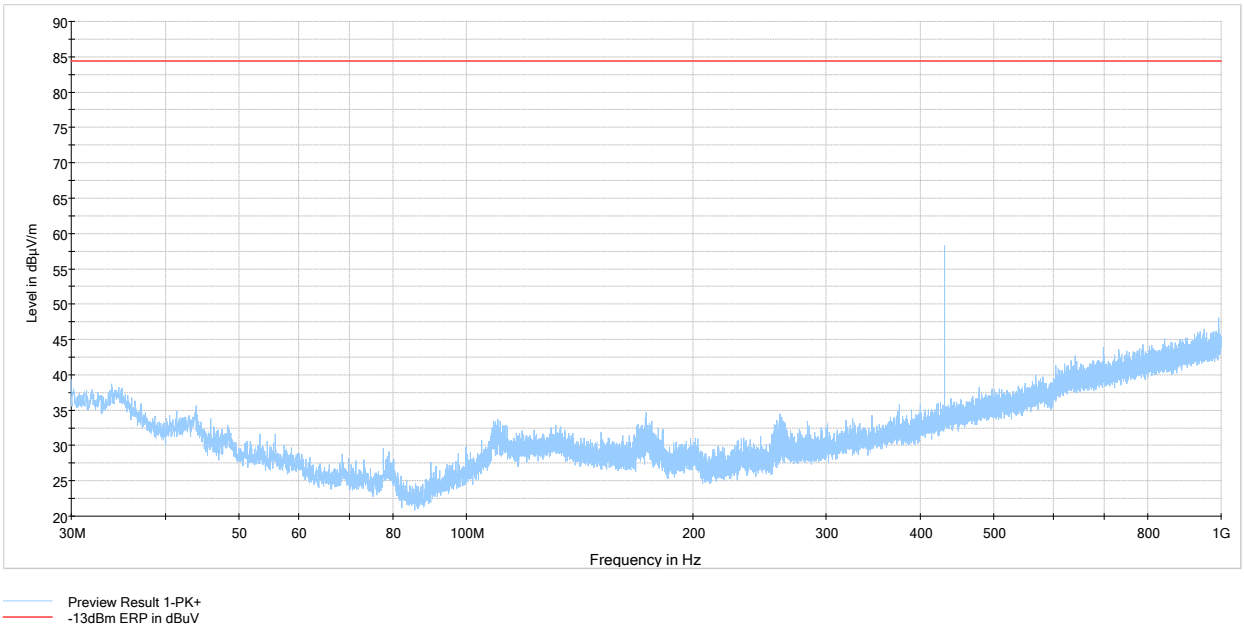


Figure 6.6-9: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 420 MHz band, 50W 7k60FXW modulation*

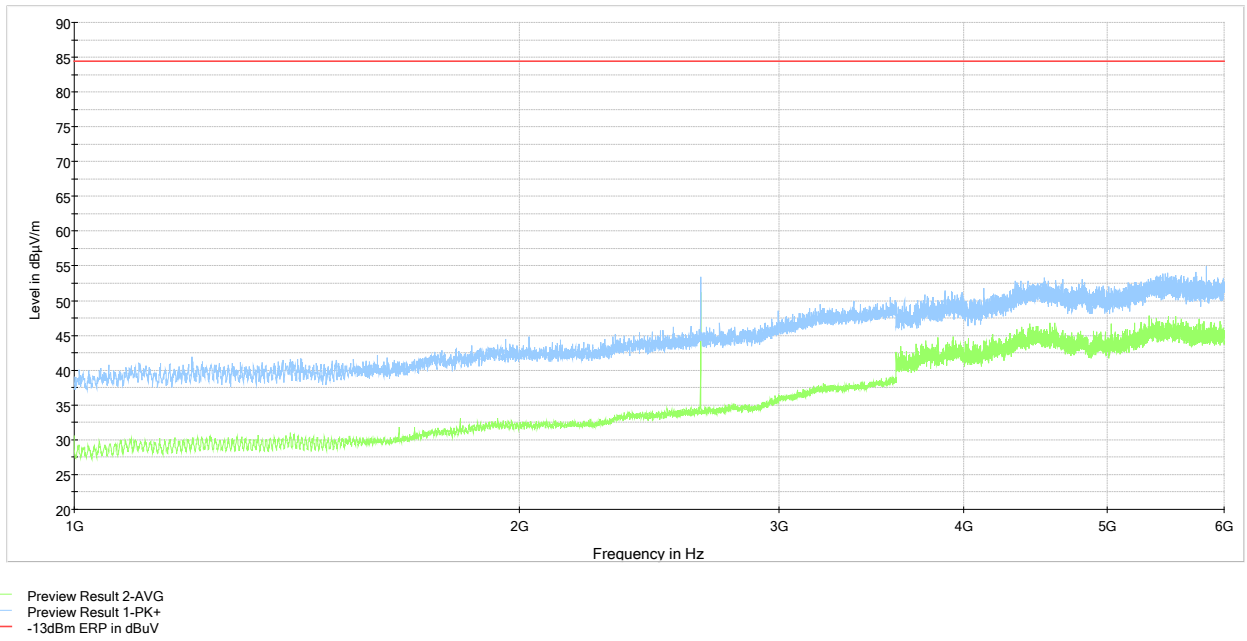


Figure 6.6-10: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 420 MHz band, 50W 7k60FXW modulation*

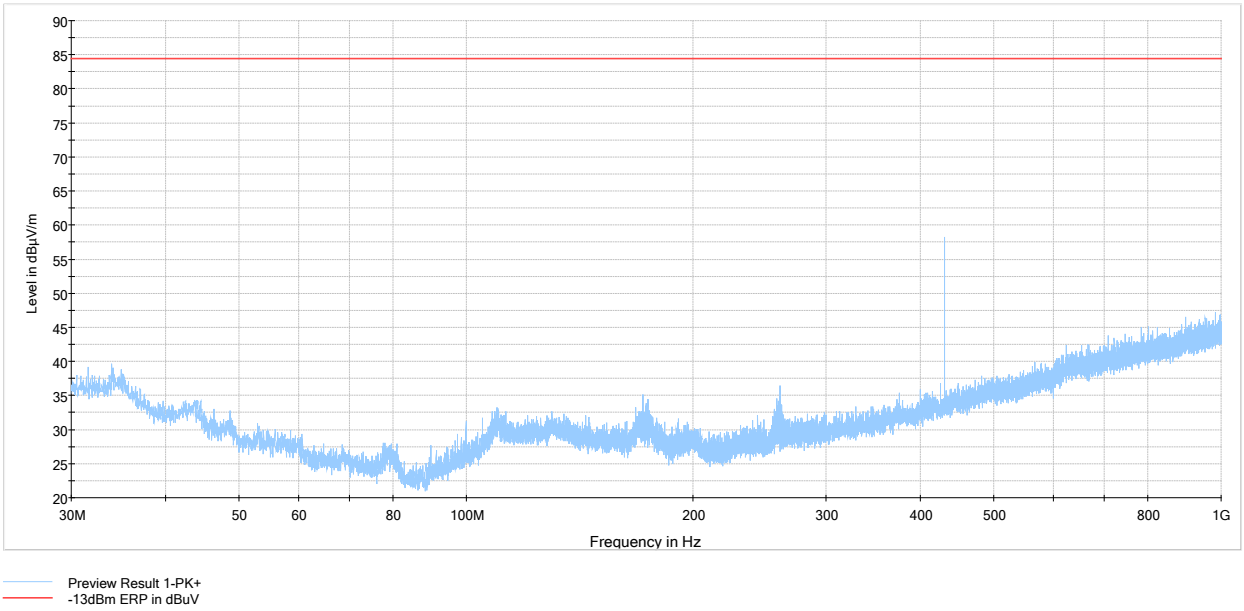


Figure 6.6-11: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 420 MHz band, 50W 16K0F3E modulation*

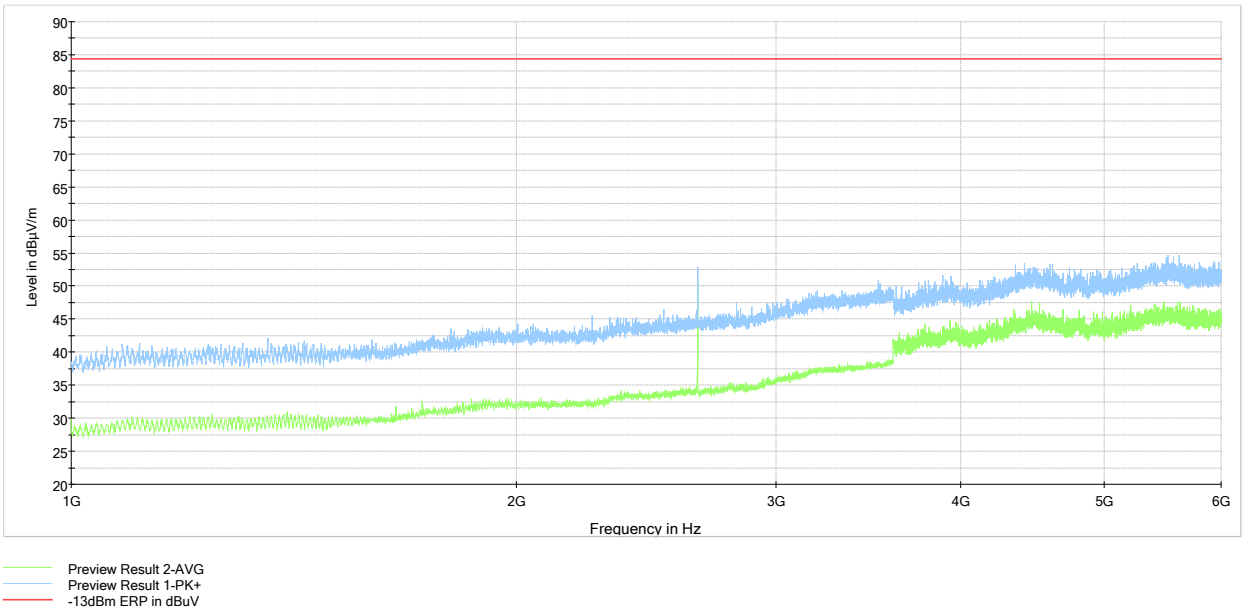


Figure 6.6-12: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 420 MHz band, 50W 16K0F3E modulation*

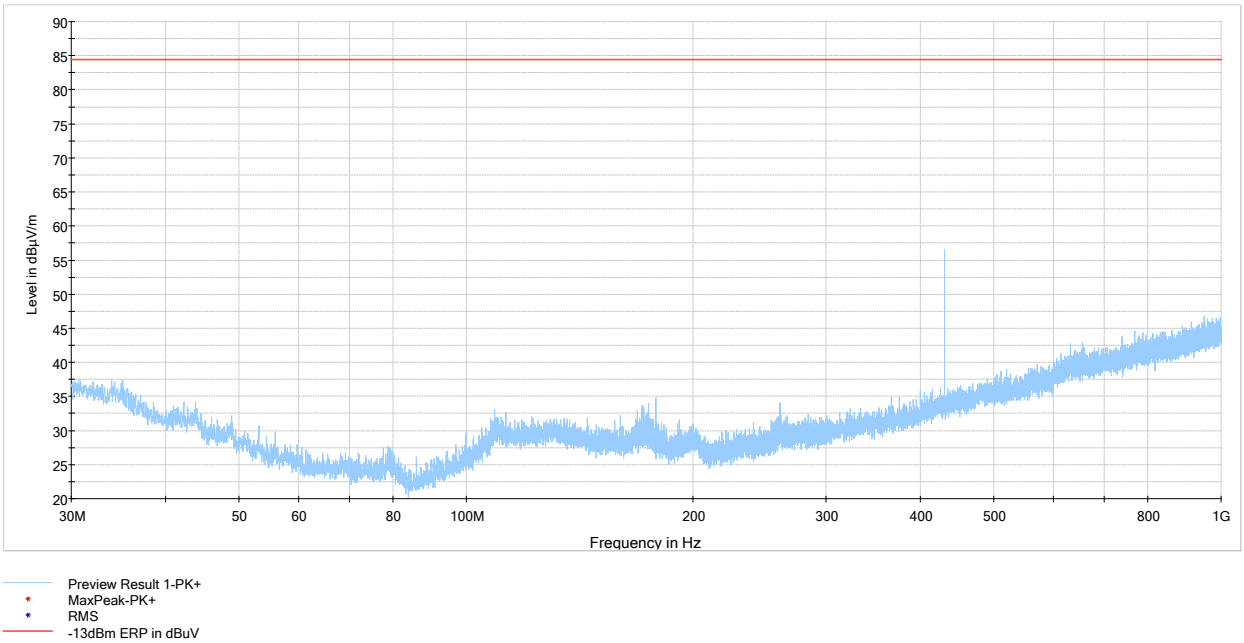


Figure 6.6-13: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 420 MHz band, 25W 0.35TETRA modulation*

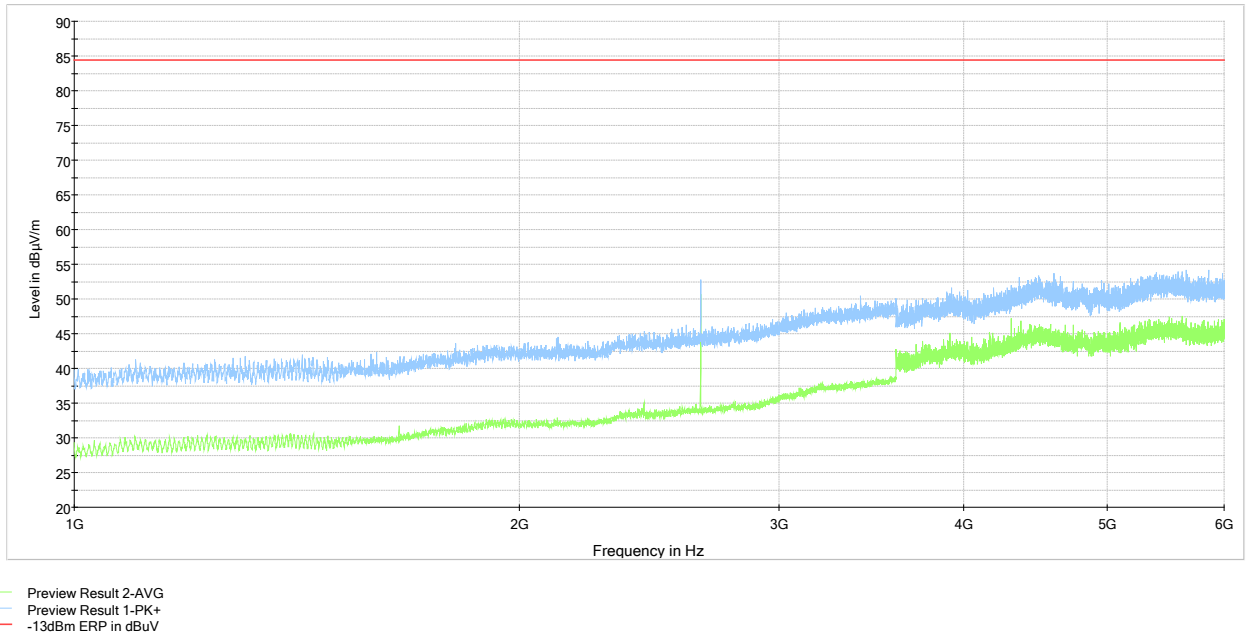


Figure 6.6-14: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 420 MHz band, 25W 0.35TETRA modulation*

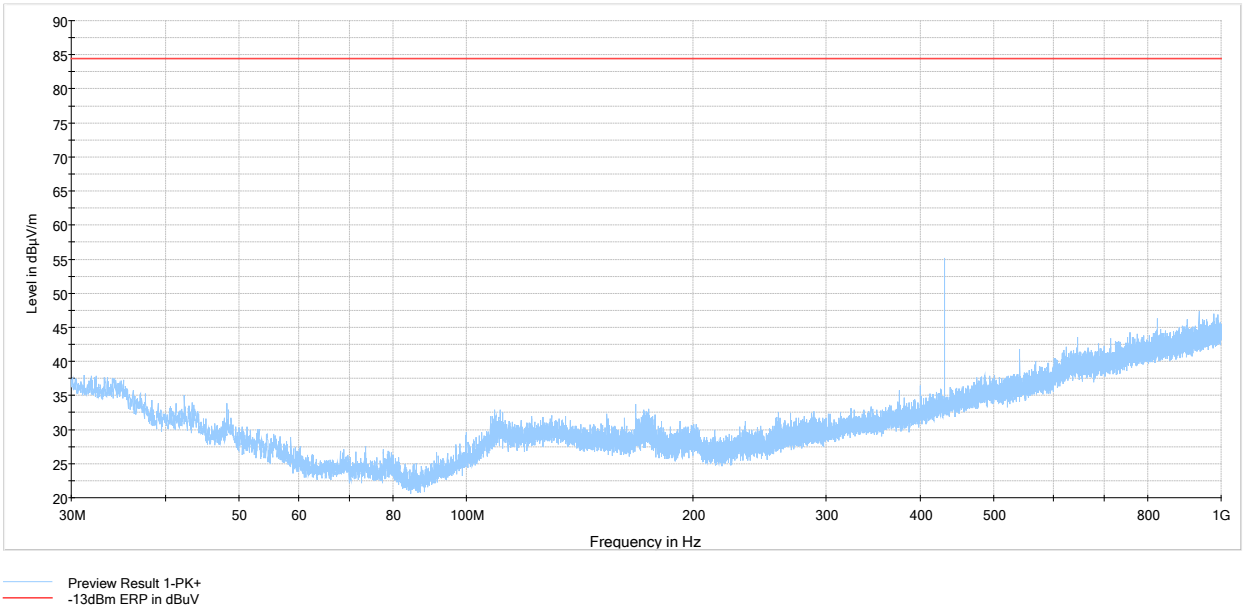


Figure 6.6-15: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @high channel of 420 MHz band, 25W 25kTEDS modulation*

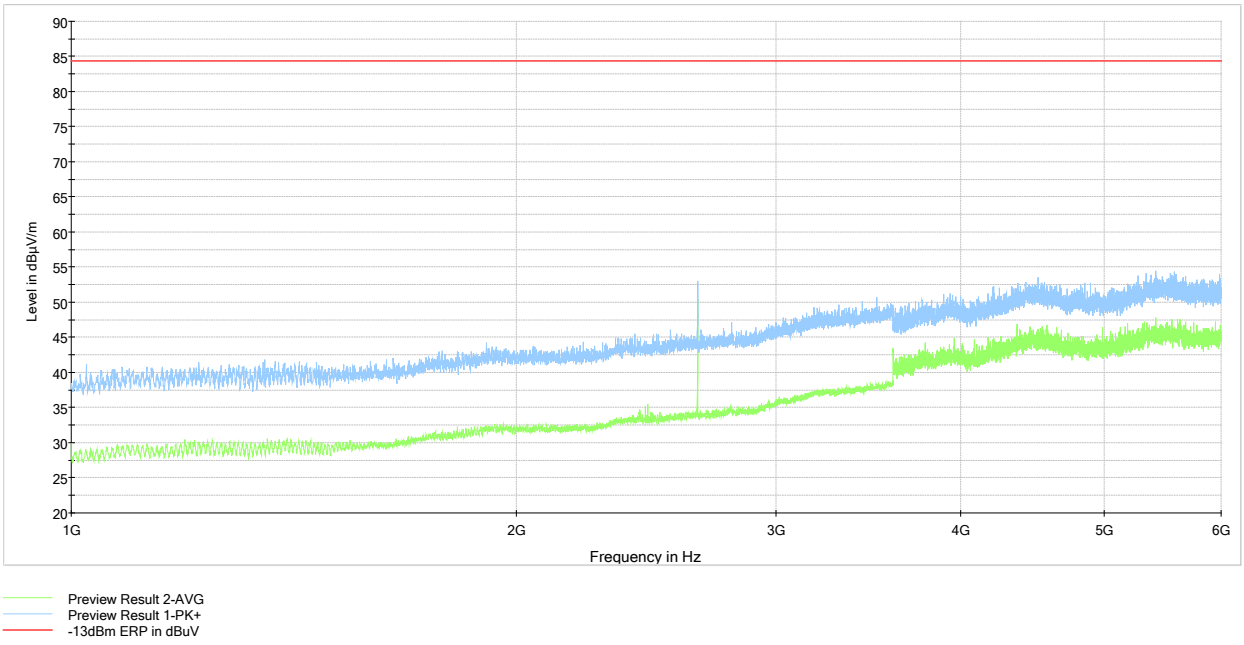


Figure 6.6-16: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @high channel of 420 MHz band, 25W 0. 25kTEDS modulation*

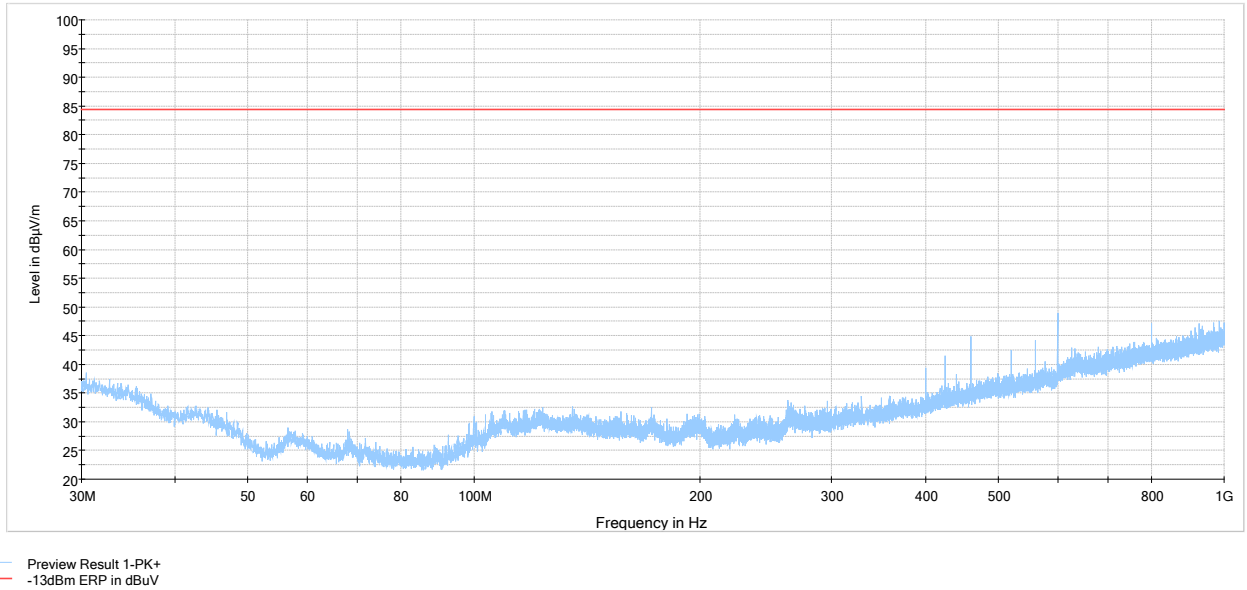


Figure 6.6-17: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 460 MHz band, 50W 7k60FXW modulation*

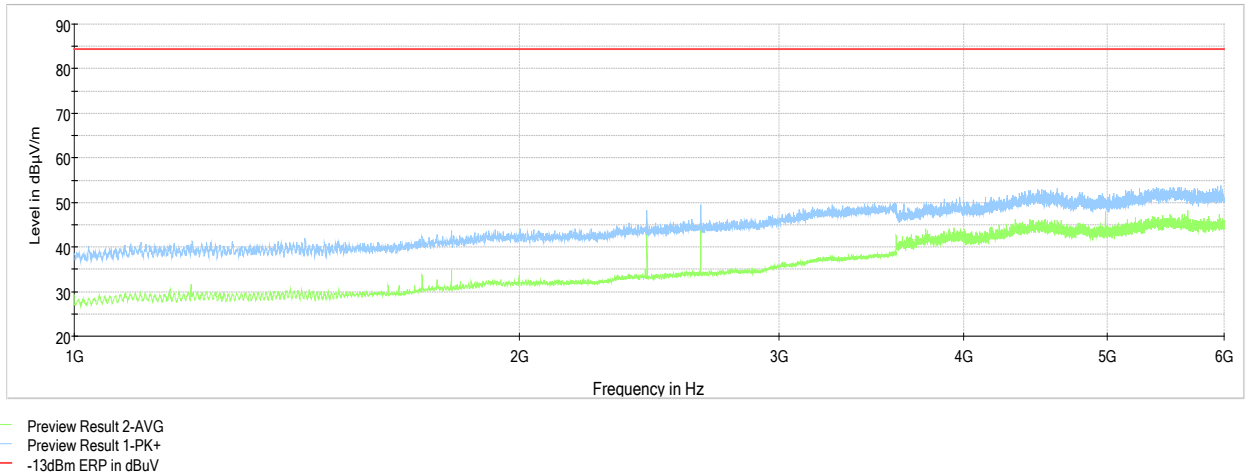


Figure 6.6-18: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 460 MHz band, 50W 7k60FXW modulation*

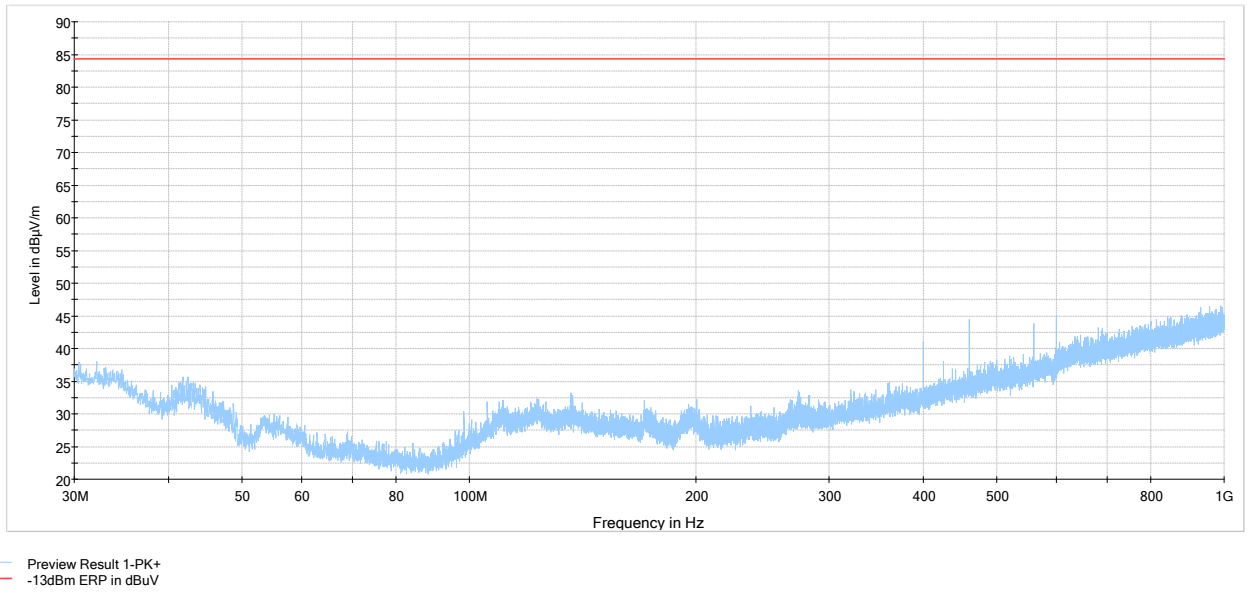


Figure 6.6-19: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 460 MHz band, 50W 16K0F3E modulation*

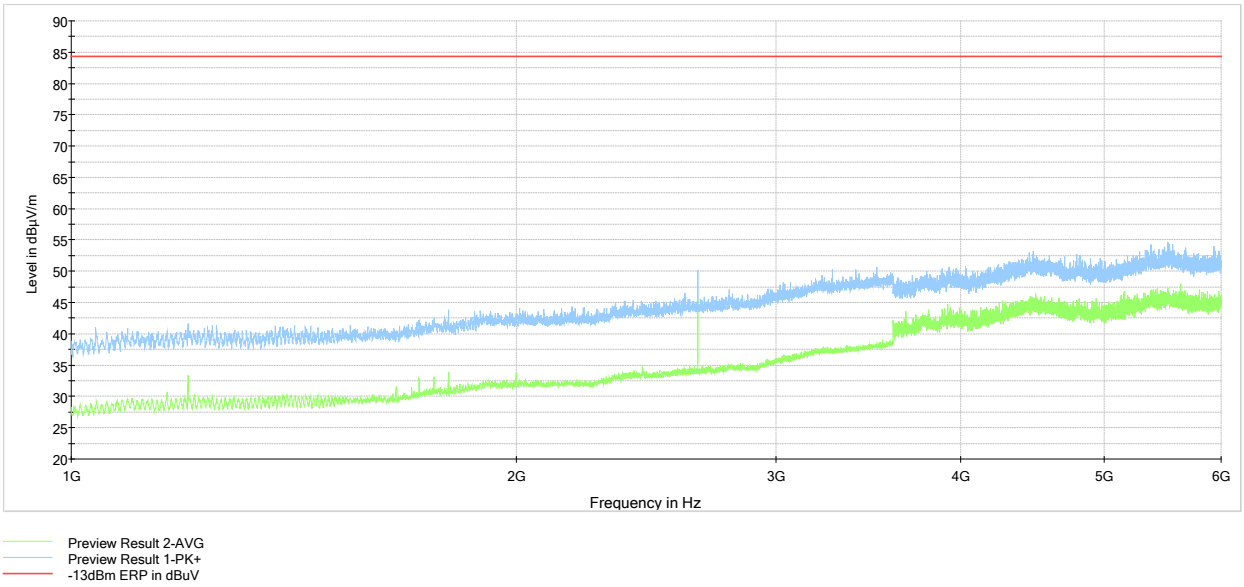


Figure 6.6-20: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 460 MHz band, 50W 16K0F3E modulation*

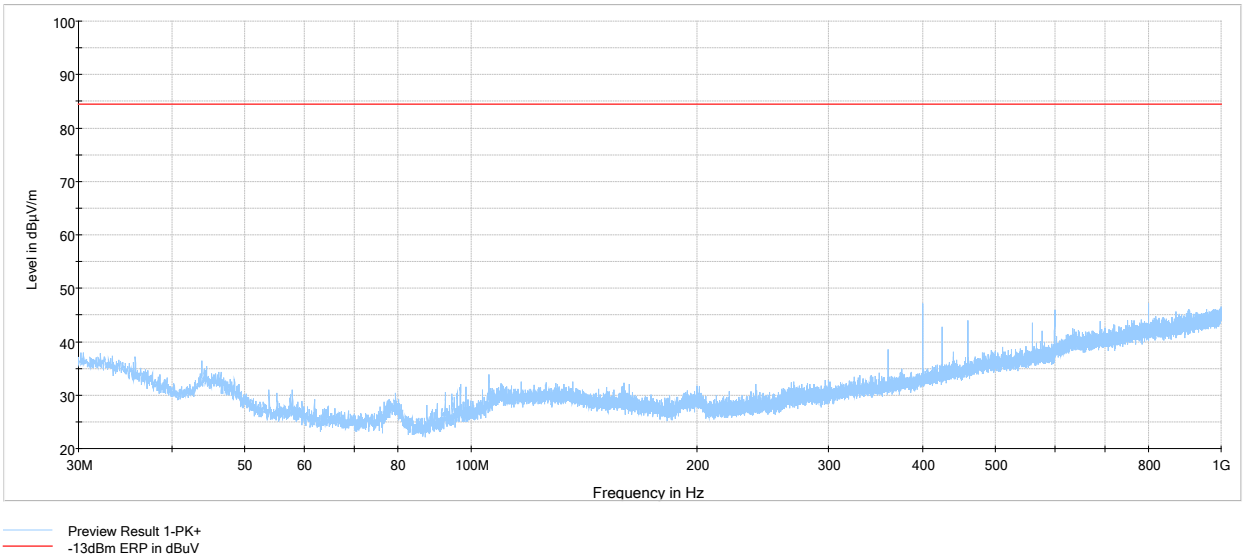


Figure 6.6-21: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @low channel of 460 MHz band, 25W 0.35TETRA modulation*

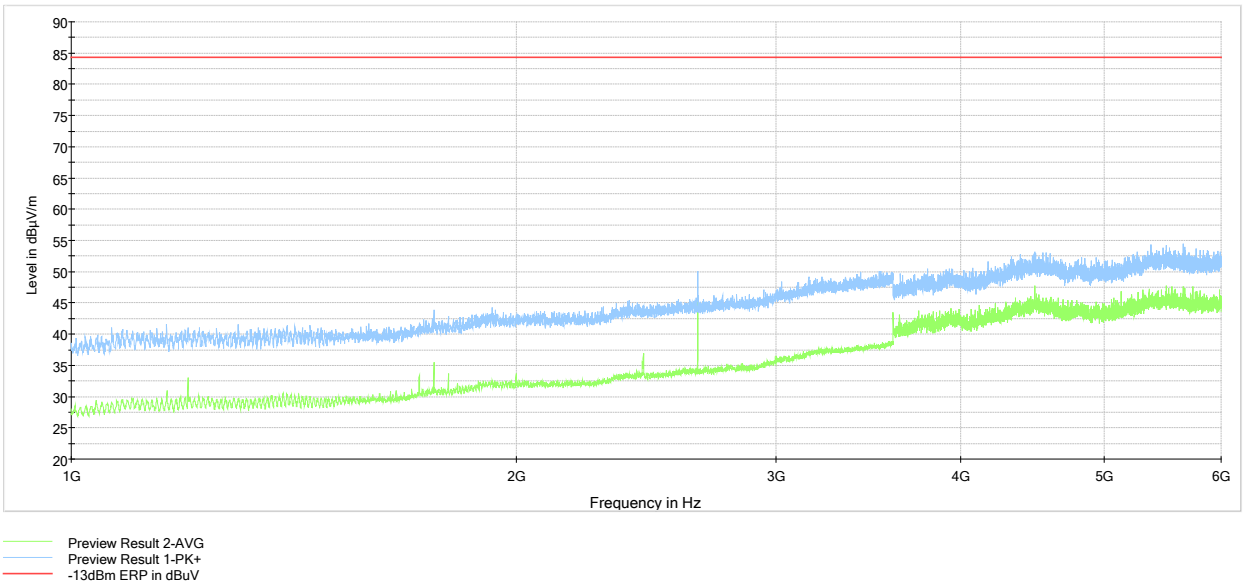


Figure 6.6-22: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @low channel of 460 MHz band, 25W 0.35TETRA modulation*

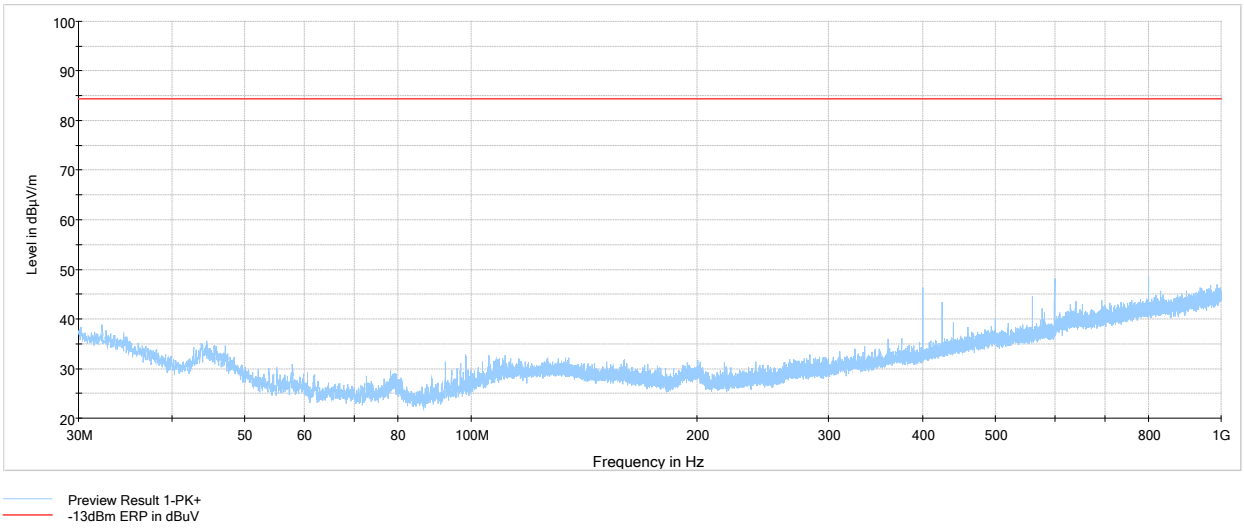


Figure 6.6-23: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ low channel of 460 MHz band, 25W 25kTEDS modulation*

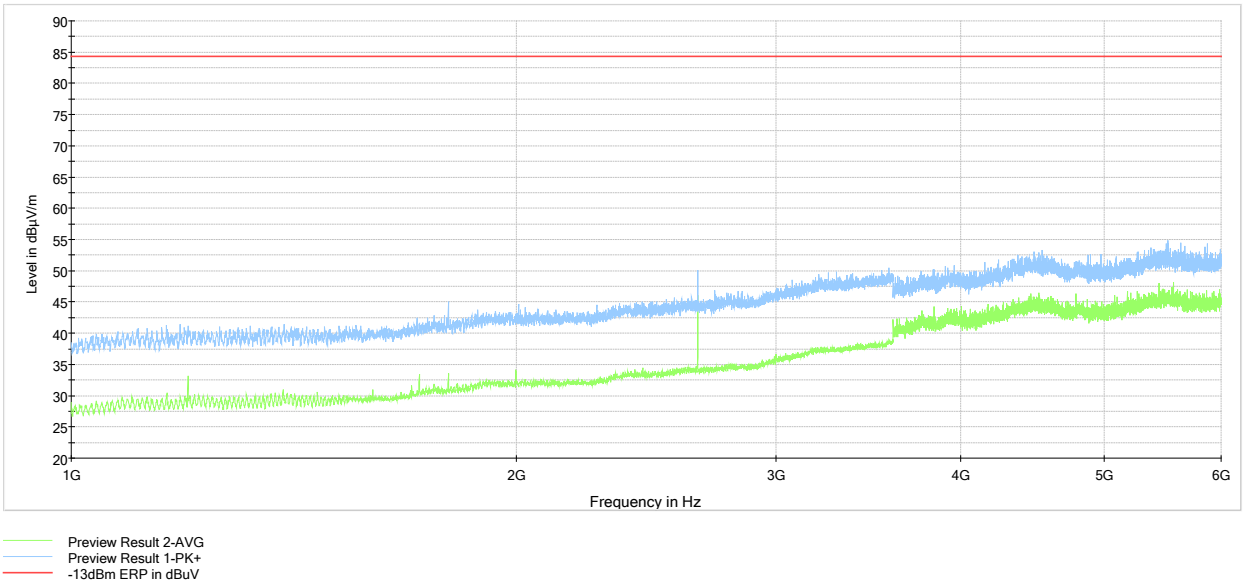


Figure 6.6-24: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ low channel of 460 MHz band, 25W 25kTEDS modulation*

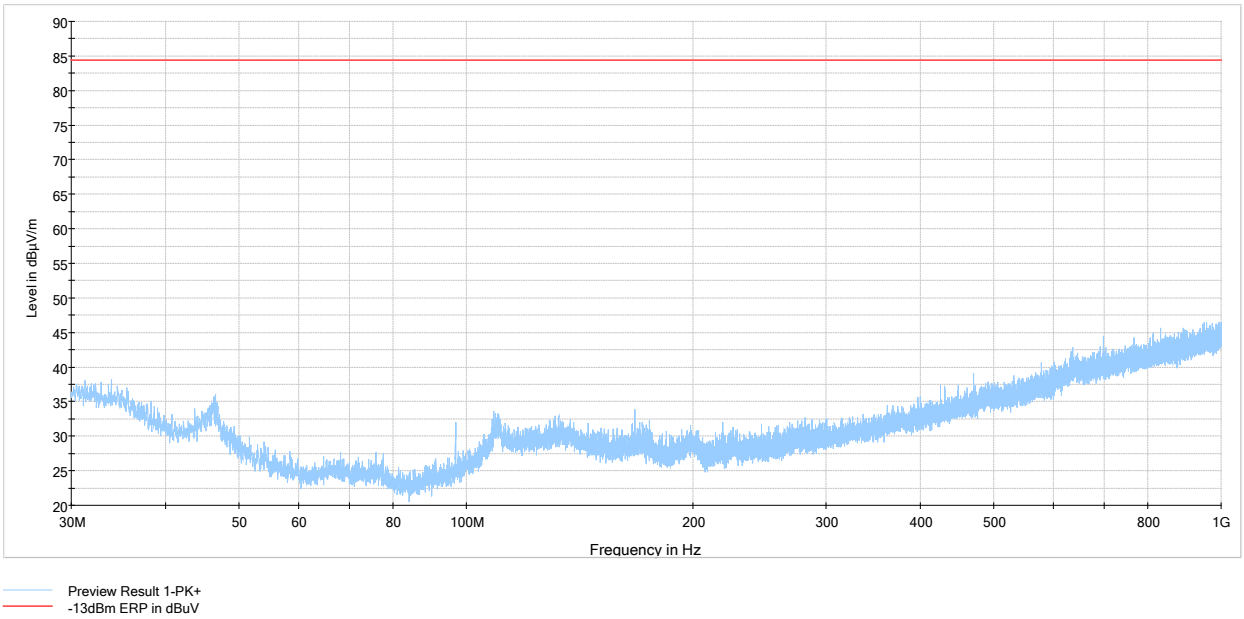


Figure 6.6-25: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 460 MHz band, 50W 7k60FXW modulation*

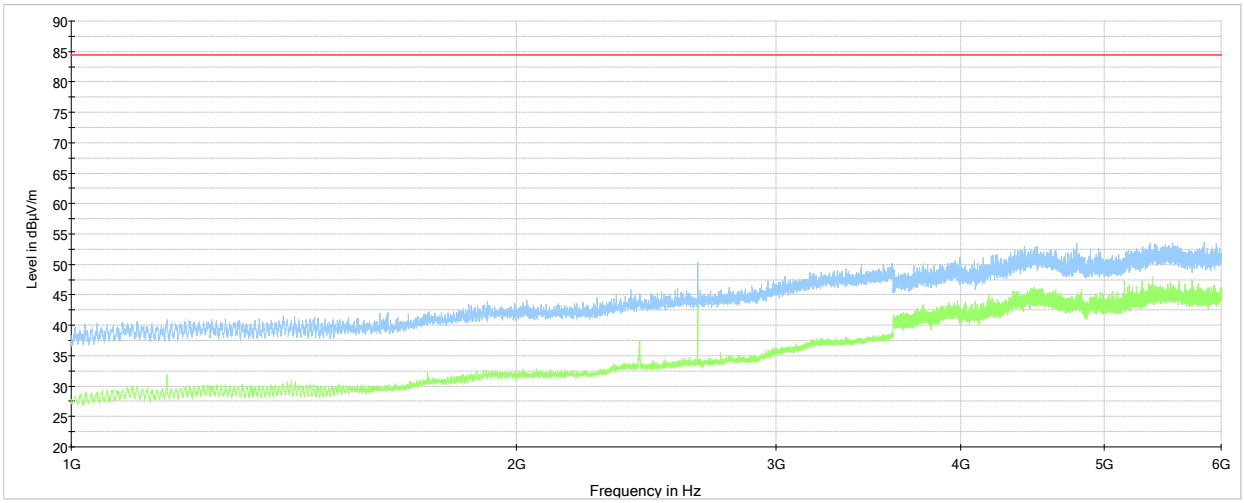


Figure 6.6-26: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 460 MHz band, 50W 7k60FXW modulation*

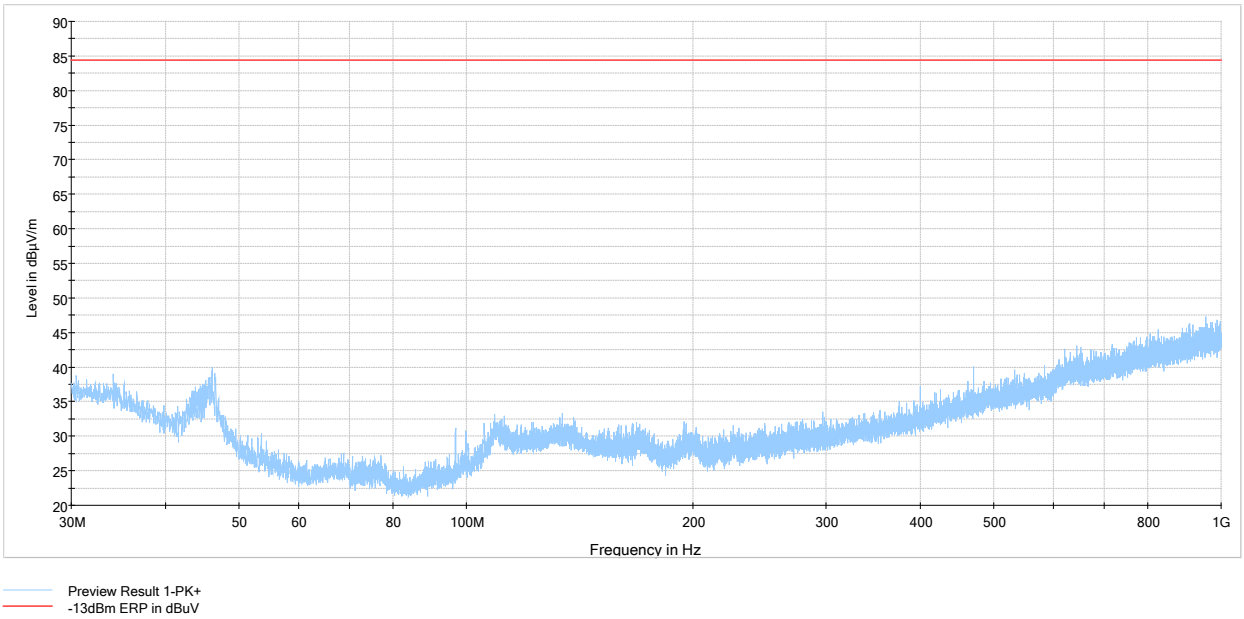


Figure 6.6-27: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 460 MHz band, 50W 16K0F3E modulation*

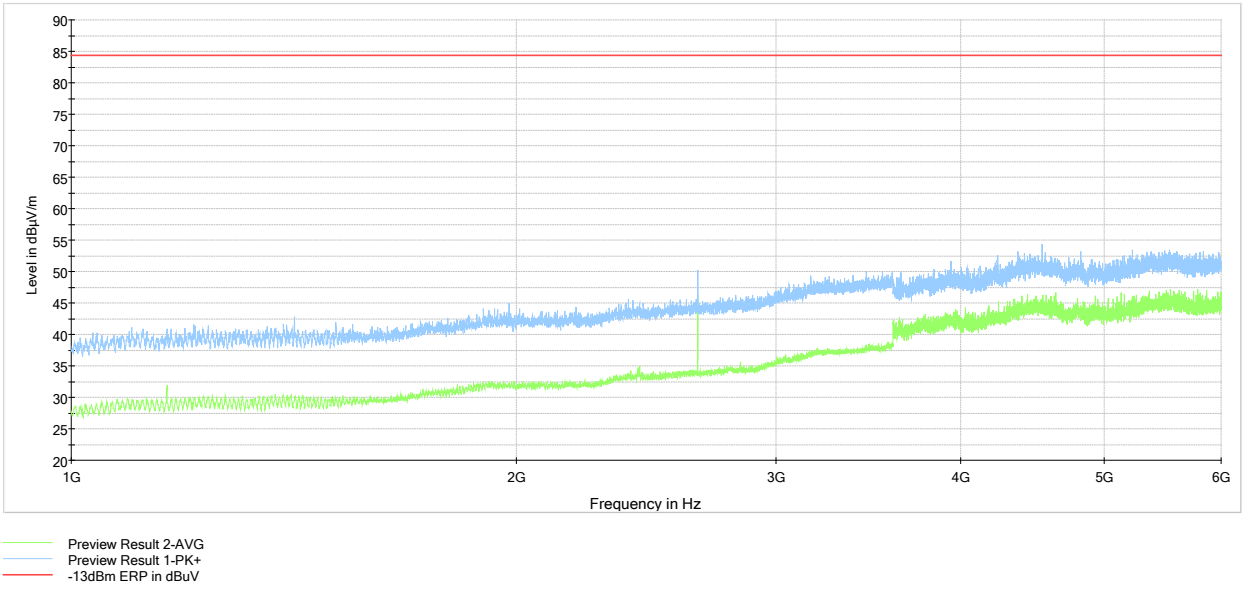


Figure 6.6-28: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 460 MHz band, 50W 16K0F3E modulation*

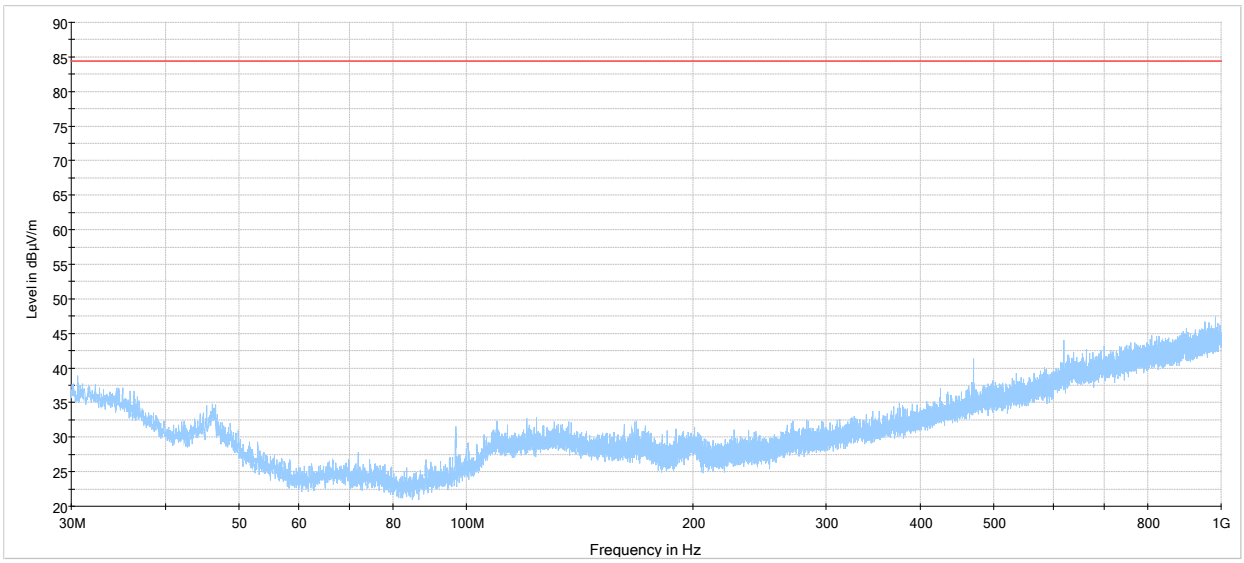


Figure 6.6-29: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @ high channel of 460 MHz band, 25W 0.35TETRA modulation*

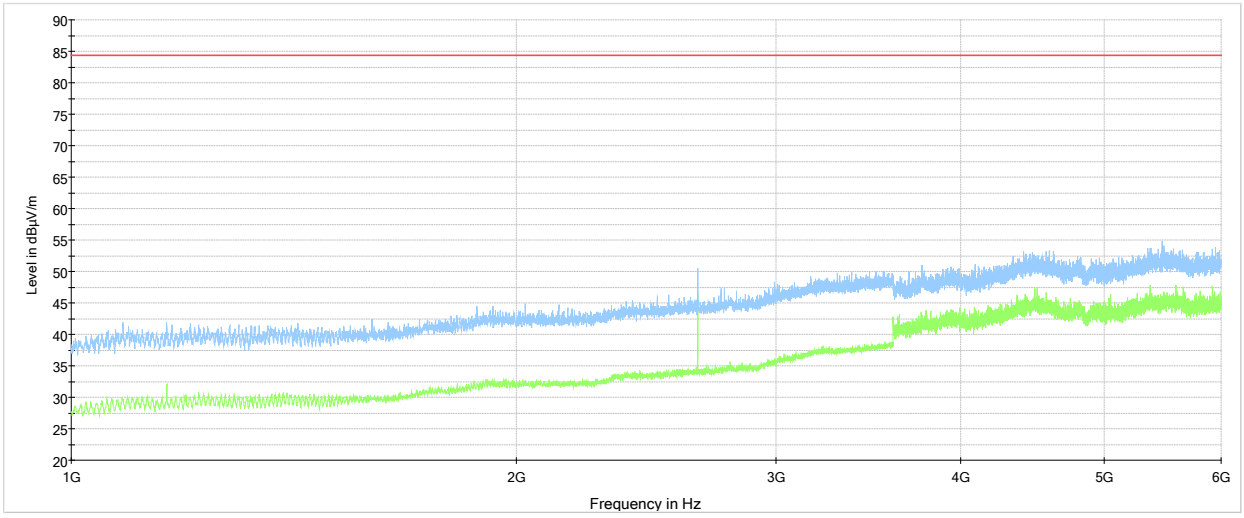


Figure 6.6-30: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @ high channel of 460 MHz band, 25W 0.35TETRA modulation*

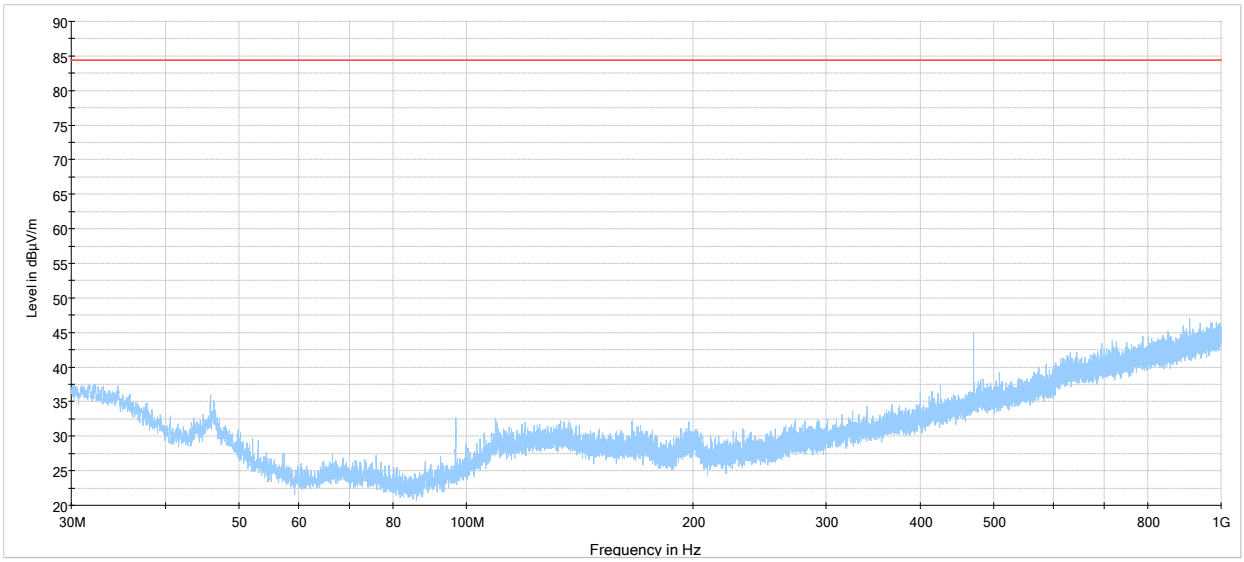


Figure 6.6-31: *Cabinet Radiated Spurious Emissions below 1 GHz, Tx @high channel of 460 MHz band, 25W 25kTEDS modulation*

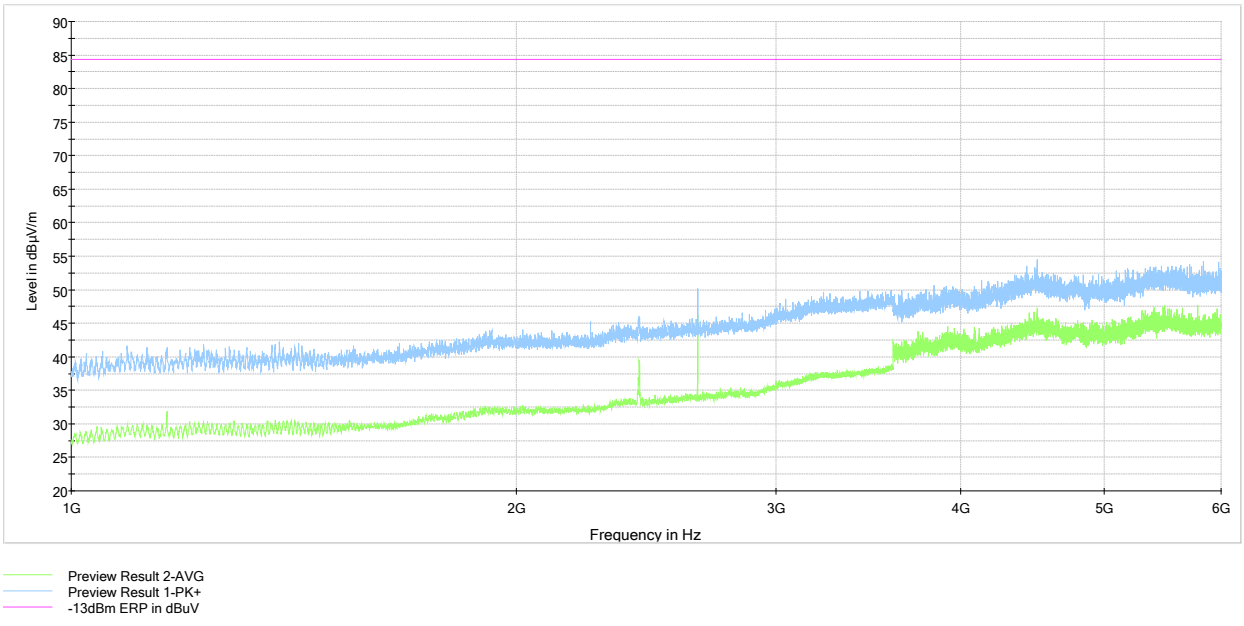


Figure 6.6-32: *Cabinet Radiated Spurious Emissions above 1 GHz, Tx @high channel of 460 MHz band, 25W 25kTEDS modulation*

6.7 §90.214 and RSS-119 5.9 Transient frequency behavior

6.7.1 Definitions and limits

FCC§90.214:
Transmitters designed to operate in the 150-174 MHz and 421-512 MHz frequency bands must maintain transient frequencies within the maximum frequency difference limits during the time intervals indicated:

me intervals[1] [2]	Maximum frequency difference[3]	All equipment	
		150 to 174 MHz	421 to 512 MHz
Transient Frequency Behavior for Equipment Designed to Operate on 25 kHz Channels			
t_1[4]	±25.0 kHz	5.0 ms	10.0 ms
t_2	±12.5 kHz	20.0 ms	25.0 ms
t_3[4]	±25.0 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 12.5 kHz Channels			
t_1[4]	±12.5 kHz	5.0 ms	10.0 ms
t_2	±6.25 kHz	20.0 ms	25.0 ms
t_3[4]	±12.5 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 6.25 kHz Channels			
t_1[4]	±6.25 kHz	5.0 ms	10.0 ms
t_2	±3.125 kHz	20.0 ms	25.0 ms
t_3[4]	±6.25 kHz	5.0 ms	10.0 ms

[1] t_{on} is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.
t_1 is the time period immediately following t_{on}.
t_2 is the time period immediately following t_1.
t_3 is the time period from the instant when the transmitter is turned off until t_{off}.
t_{off} is the instant when the 1 kHz test signal starts to rise.
[2] During the time from the end of t_2 to the beginning of t_3, the frequency difference must not exceed the limits specified in §90.213.
[3] Difference between the actual transmitter frequency and the assigned transmitter frequency.
[4] If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

RSS-119, 5.9 Transient Frequency Behaviour

When a transmitter is turned on, the radio frequency may take some time to stabilize. During this initial period, the frequency error or frequency difference (i.e., between the instantaneous and the steady state frequencies) shall not exceed the limits specified in Table 18.
Any suitable method of measurement can be used provided that it is fully described in the test report. A suitable and recommended method is given in TIA Standard 603.

Table 18 — Transient Frequency Behaviour

Channel Bandwidth (kHz)	Time Intervals (Notes Footnote 1, Footnote 2)	Maximum Frequency Difference (kHz)	Transient Duration Limit (ms)	
			138-174 MHz	406.1-512 MHz
25	t_1	±25	5	10
	t_2	±12.5	20	25
	t_3	±25	5	10
12.5	t_1	±12.5	5	10
	t_2	±6.25	20	25
	t_3	±12.5	5	10
6.25	t_1	±6.25	5	10
	t_2	±3.125	20	25
	t_3	±6.25	5	10

Table 18 notes

Table note 1

ton: the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.

t1: the time period immediately following ton.
t2: the time period immediately following t1.
t3: the time period from the instant when the transmitter is turned off until toff.
toff: the instant when the 1 kHz test signal starts to rise.

Return to footnote 1 referrer

Table note 2

If the transmitter carrier output power rating is 6 W or less, the frequency difference during the time periods t1 and t3 may exceed the maximum frequency difference for these time periods. The corresponding plot of frequency versus time during t1 and t3 shall be recorded in the test report.

6.7.2 Test summary

Test date	July 10, 2019
Test engineer	Kevin Rose and Yong Huang

6.7.3 Observations, settings and special notes

Tests were performed as per test method described in ANSI C63.26, clause 6.5.2.2

6.7.4 Test data

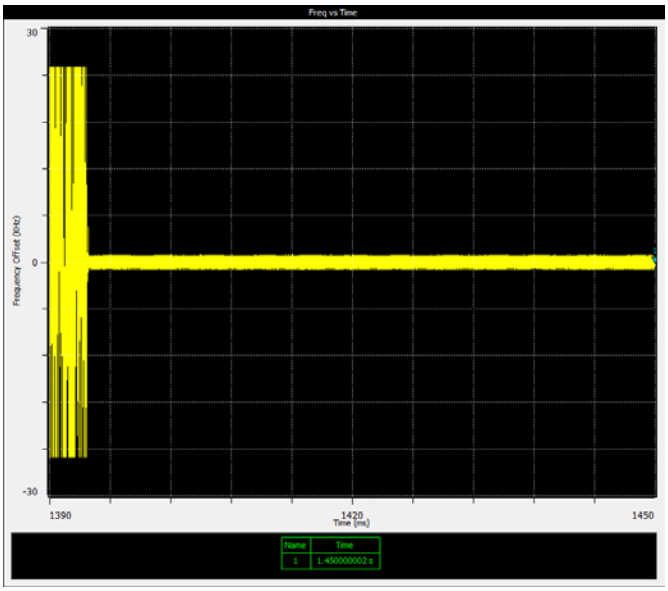


Figure 6.7-1: *Transient Frequency behavior, Tx @ mid channel 25 k channel, switch ON*

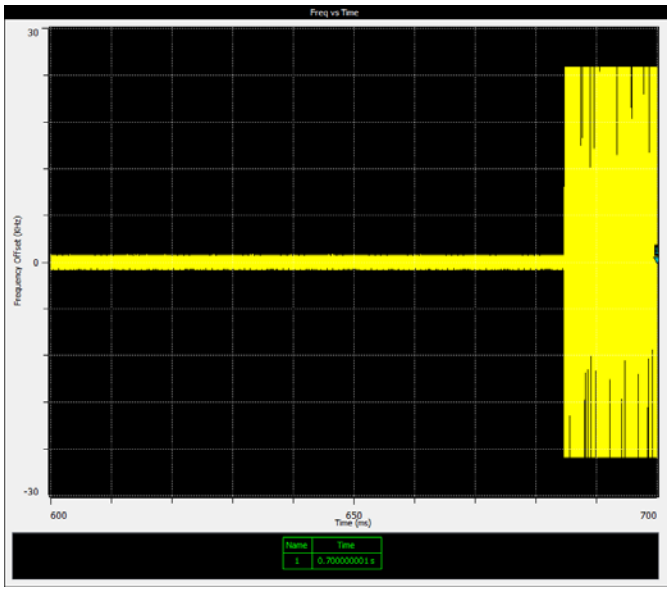


Figure 6.7-2: *Transient Frequency behavior, Tx @ mid channel 25 k channel, switch OFF*

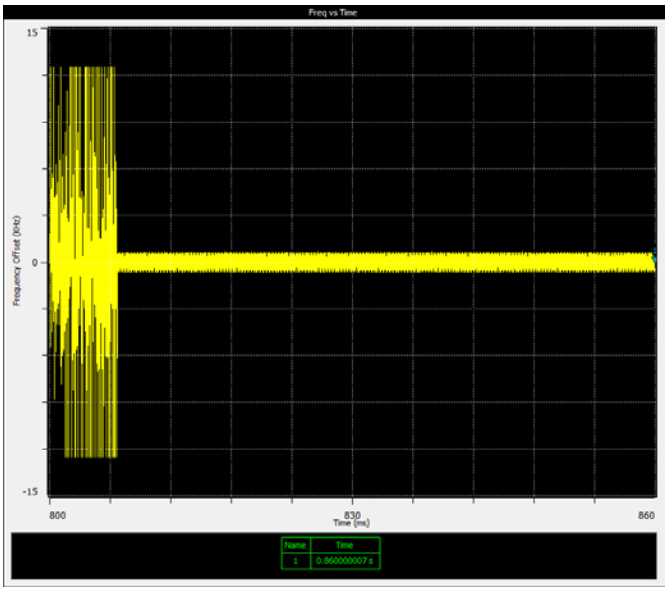


Figure 6.7-3: *Transient Frequency behavior, Tx @ mid channel 12.5 k channel, switch ON*

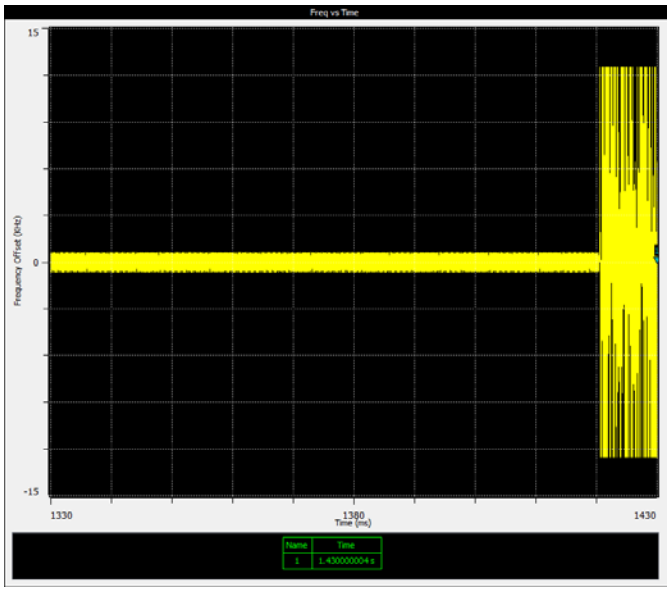


Figure 6.7-4: *Transient Frequency behavior, Tx @ mid channel 12.5 k channel, switch OFF*

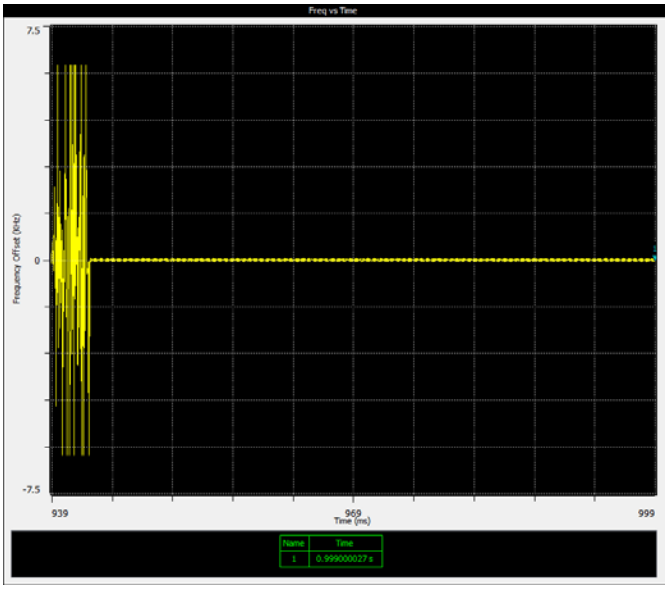


Figure 6.7-5: *Transient Frequency behavior, Tx @ mid channel 6.25 k channel, switch ON*

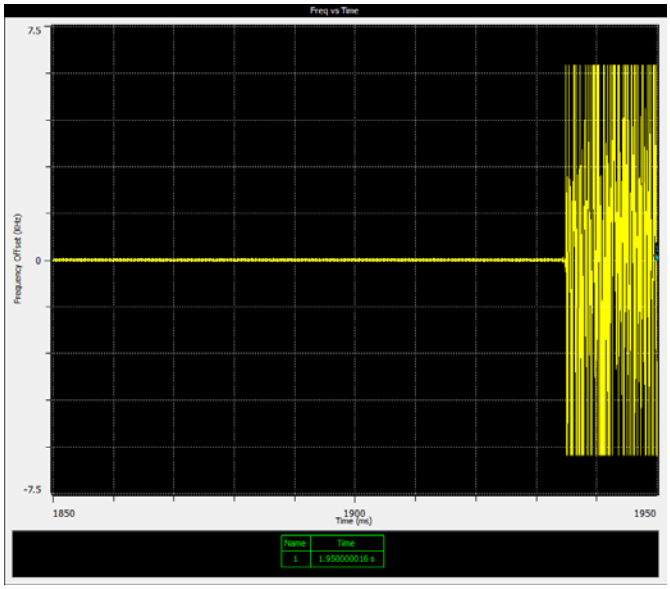


Figure 6.7-6: *Transient Frequency behavior, Tx @ mid channel 6.25 k channel, switch OFF*

6.8 FCC 90.213and RSS-119 5.3 Frequency stability

6.8.1 Definitions and limits

FCC§90.213(a):
(a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table:

Table 6.8-1: Minimum frequency stability

Frequency range (MHz)	Fixed and base stations (±ppm)	Mobile stations (±ppm)	
		Over 2 watts output power	2 watts or less output power
421-512	[7] [11] [14]2.5	[8]5	[8]5

[7]In the 421-512 MHz band, fixed and base stations with a 12.5 kHz channel bandwidth must have a frequency stability of 1.5 ppm. Fixed and base stations with a 6.25 kHz channel bandwidth must have a frequency stability of 0.5 ppm.
[8]In the 421-512 MHz band, mobile stations designed to operate with a 12.5 kHz channel bandwidth must have a frequency stability of 2.5 ppm. Mobile stations designed to operate with a 6.25 kHz channel bandwidth must have a frequency stability of 1.0 ppm.
[11]Paging transmitters operating on paging-only frequencies must operate with frequency stability of 5 ppm in the 150-174 MHz band and 2.5 ppm in the 421-512 MHz band.
[14]Control stations may operate with the frequency tolerance specified for associated mobile frequencies.

RSS-119, 5.3 Transmitter Frequency Stability

The carrier frequency shall not depart from the reference frequency in excess of the values given in Table 1. For transmitters that have an output power of less than 120 mW, the frequency stability shall comply with the limits listed in Table 1 or, alternatively, with the conditions in Section 5.10.

For fixed and base station equipment, in lieu of meeting the frequency stability limit specified in Table 1, the test report can show that the frequency stability is met by demonstrating that the unwanted emission limits, related to the equipment's nominal carrier frequency measured under normal operation, are met when the equipment is tested at the temperature and supply voltage variations specified for the frequency stability measurement in RSS-Gen.

Table 1 — Transmitter Frequency Stability

Frequency Band (MHz)	Channel Bandwidth (kHz)	Frequency Stability (ppm)		
		Base/Fixed	Mobile Station	
			Output Power >2 W	Output Power ≤2 W
406.1-430 and 450-470	25 [table note 2]	0.5	1	1
	25	2.5	5	5
	12.5	1.5	2.5	2.5

[2] This provision is for digital equipment with a channel bandwidth of 25 kHz and an occupied bandwidth greater than 20 kHz. The mobile station's frequency stability values given in Table 1 are for mobile, portable and control transmitters using automatic frequency control (AFC) to lock onto the base station signal. When the mobile, portable and control transmitters are operating without using AFC to lock onto the base station signal, the frequency stability limit shall be better than 1 kHz and the equipment's unwanted emissions measured with maximum frequency shift shall still comply with emission mask Y (Section 5.8.10) at nominal carrier frequency.

6.8.2 Test summary

Test date	June 7, 2019
Test engineer	Yong Huang

6.8.3 Observations, settings and special notes

Tests were performed as per test method described in ANSI C63.26, clause 5.6

Test was performed on supply voltage variations as per client rated, no frequency deviation was observed.

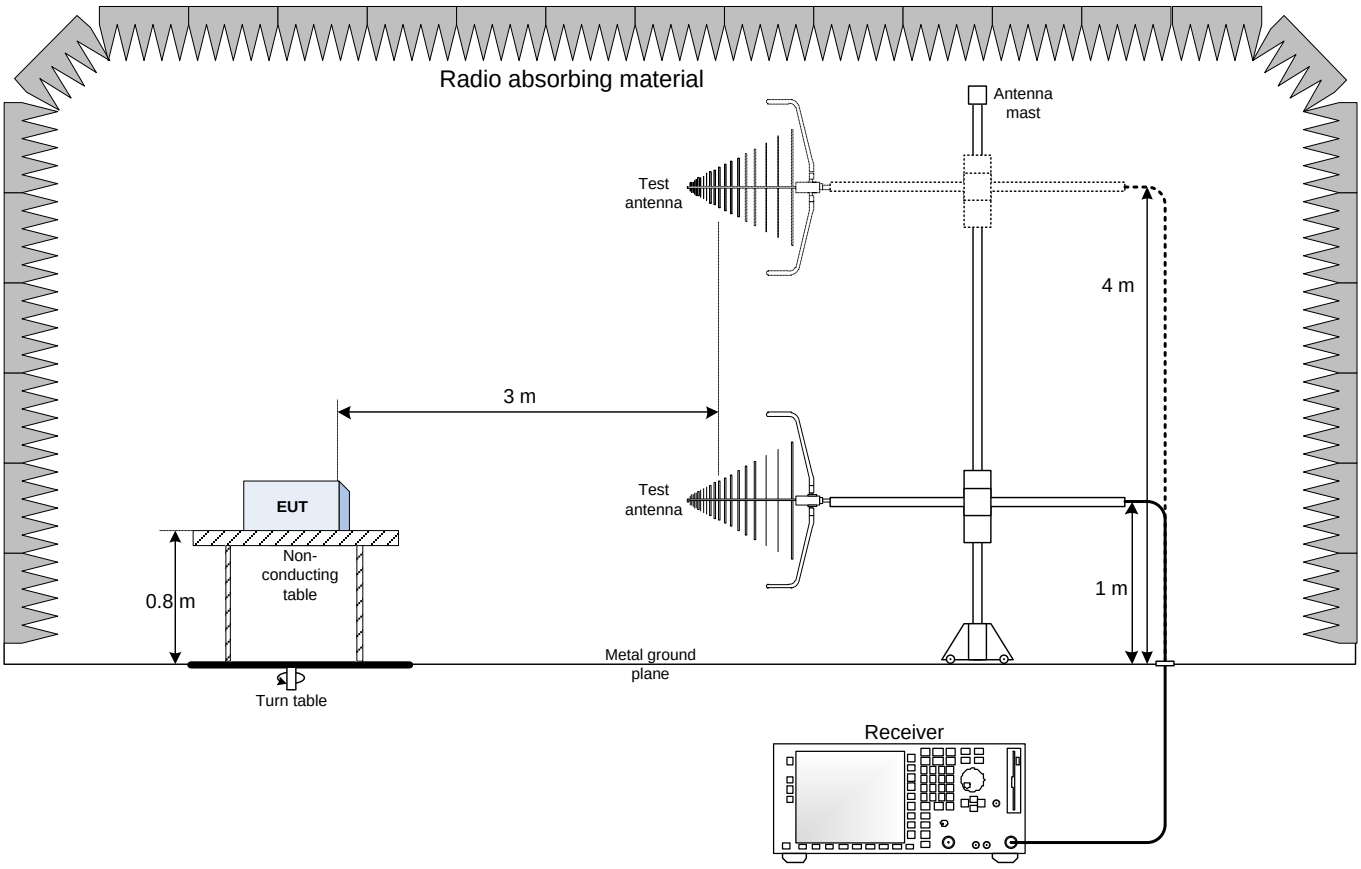
6.8.4 Test data

Table 6.8-2: Frequency drift measurement results

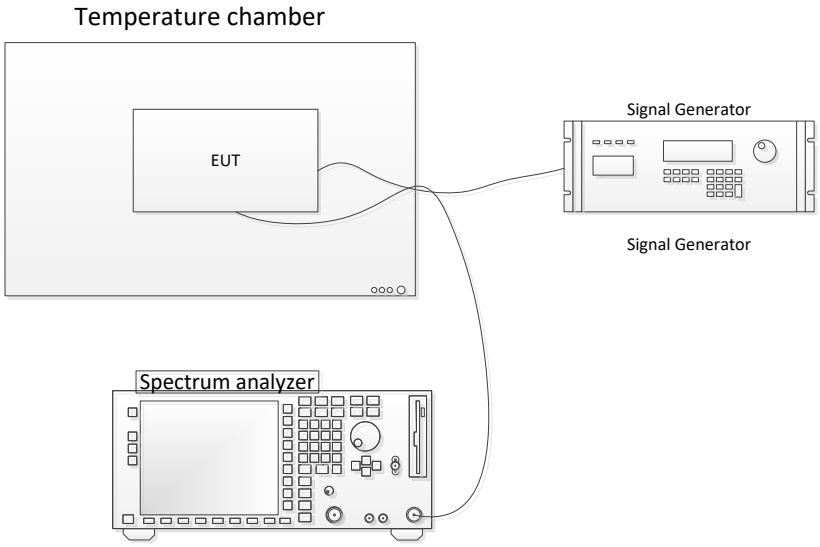
Test conditions	Frequency, Hz	Drift, Hz	Drift, ppm	Limit ±ppm	Margin, ±ppm
+50 °C, Nominal	460099978.1	43.20	0.09	0.5	0.41
+40 °C, Nominal	460099968.8	33.90	0.07	0.5	0.43
+30 °C, Nominal	460099947.2	12.30	0.03	0.5	0.47
+20 °C, 87.5%	460099934.9	0	0	5	5
+20 °C, Nominal	460099934.9	Reference	Reference	Reference	Reference
+20 °C, 115%	460099934.9	0	0	5	5
+10 °C, Nominal	460099929.7	-5.20	-0.01	0.5	0.49
0 °C, Nominal	460099933.4	-1.50	0.00	0.5	0.50
−10 °C, Nominal	460099940.0	5.10	0.01	0.5	0.49
−20 °C, Nominal	460100088.2	153.30	0.33	0.5	0.17
−30 °C, Nominal	460100065.9	131.00	0.28	0.5	0.22

Section 7. Block diagrams of test set-ups

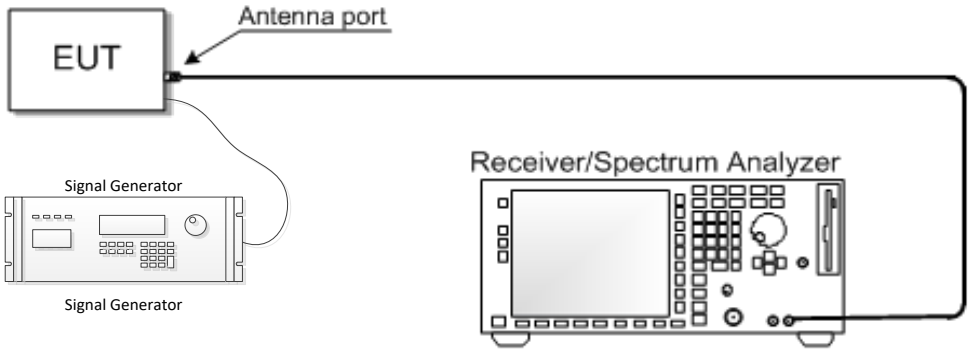
7.1 Radiated emissions set-up



7.2 Frequency stability set-up



7.3 conducted method set-up



(End of report)