

Exhibit 6: Test Report

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All data at 25 KHz is not applicable for FCC Review

Exhibit 6

EXHIBIT 6A: RF Power Output -- Pursuant 47 CFR 2.1046 & 90.205

(Test Conducted at EME Lab in May 2016)

A. Conducted Transmit Power

Test Frequency (MHz)	Transmit Power (W)
450.0000	0.96
460.0000	1.00
470.0000	0.93

Table 1. RF Power Output**B. Effective Radiated Power**

Please see attached TIMCO 792AUT16 & 792AUT16 Test Reports as part of the package for ERP test results.

EXHIBIT 6A

EXHIBIT 6B: Modulation Characteristics -- Pursuant 47 CFR 2.1047 & 90.207

According to CFR 47 section 2.1047(a), for Voice Modulation Communication Equipment, the frequency response of the audio modulation circuit over a range of 100 to 5000Hz shall be measured. *(Measured in April 2016 @ MSI Plantation Eng. Lab)*

A. Modulation Limiting for 12.5 KHz bandwidth.

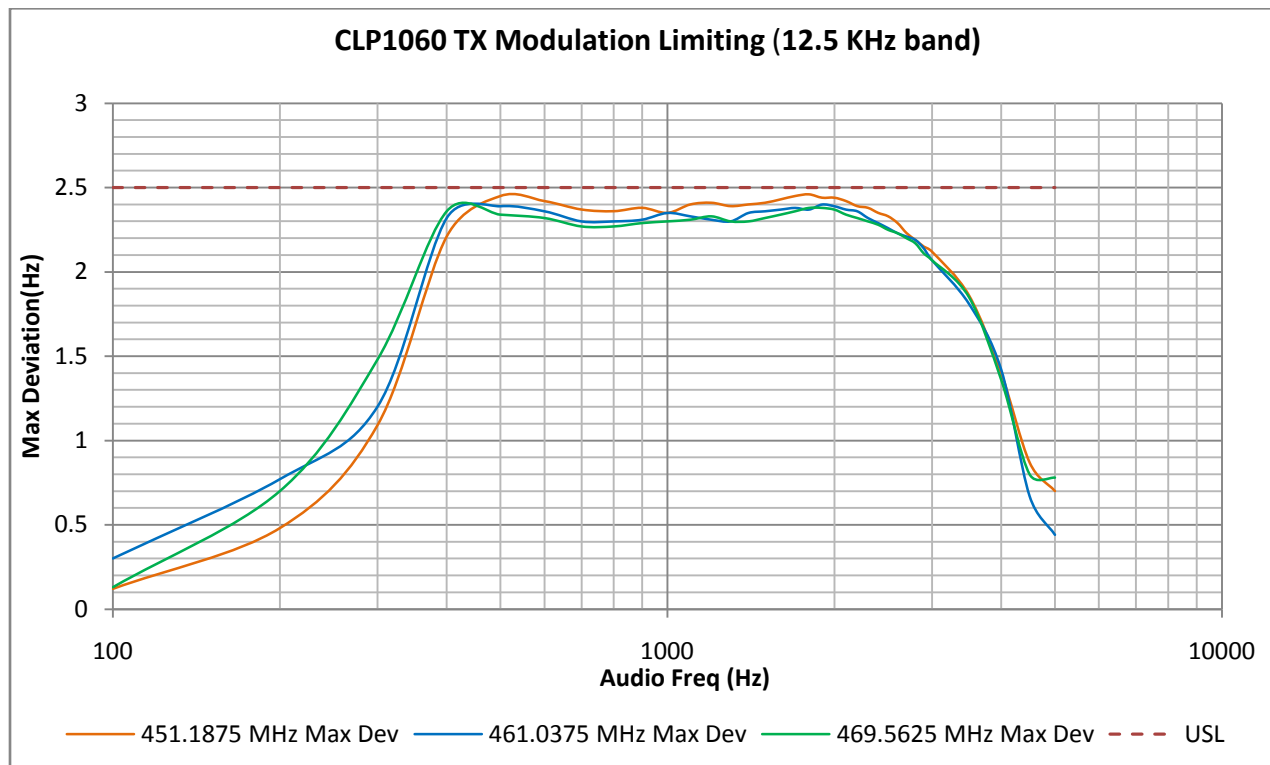


Figure 6B-1: Modulation limiting for 12.5 KHz band.

EXHIBIT 6B-1

B. Modulation Limiting for 25 KHz bandwidth.

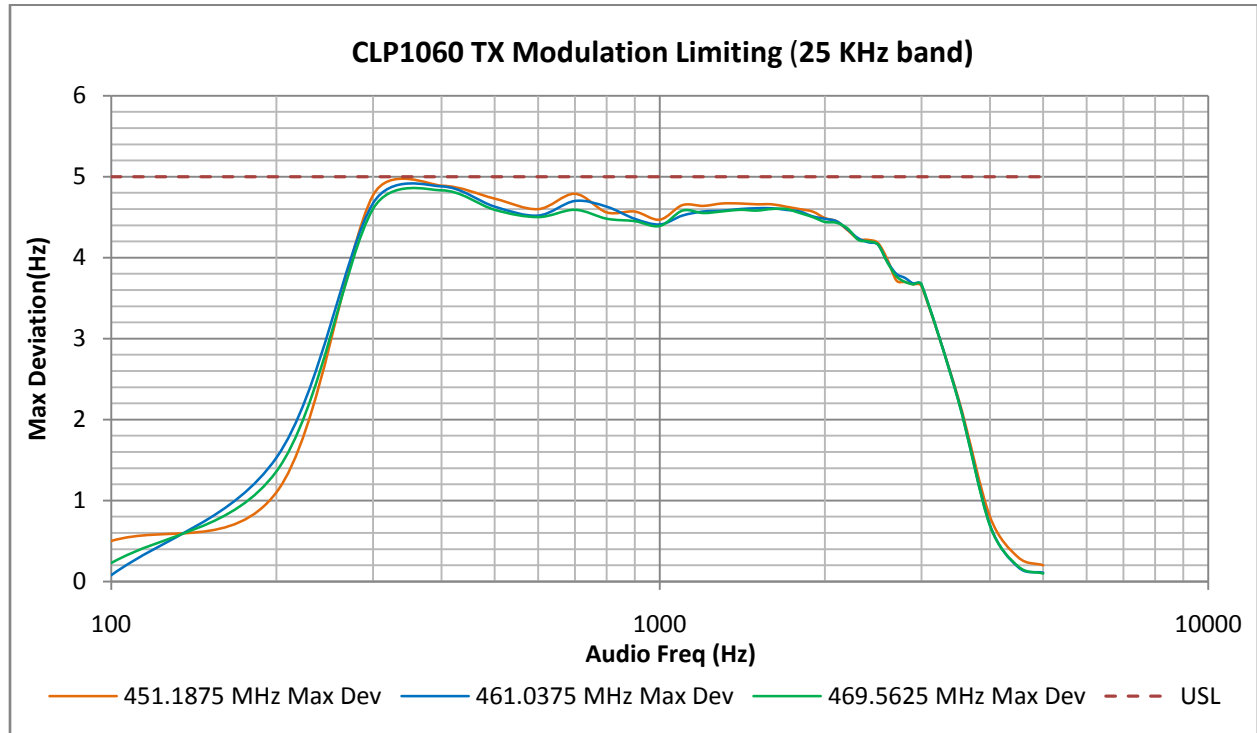


Figure 6B-2: Modulation limiting for 25 KHz band.

EXHIBIT 6B-2

C. Audio Response

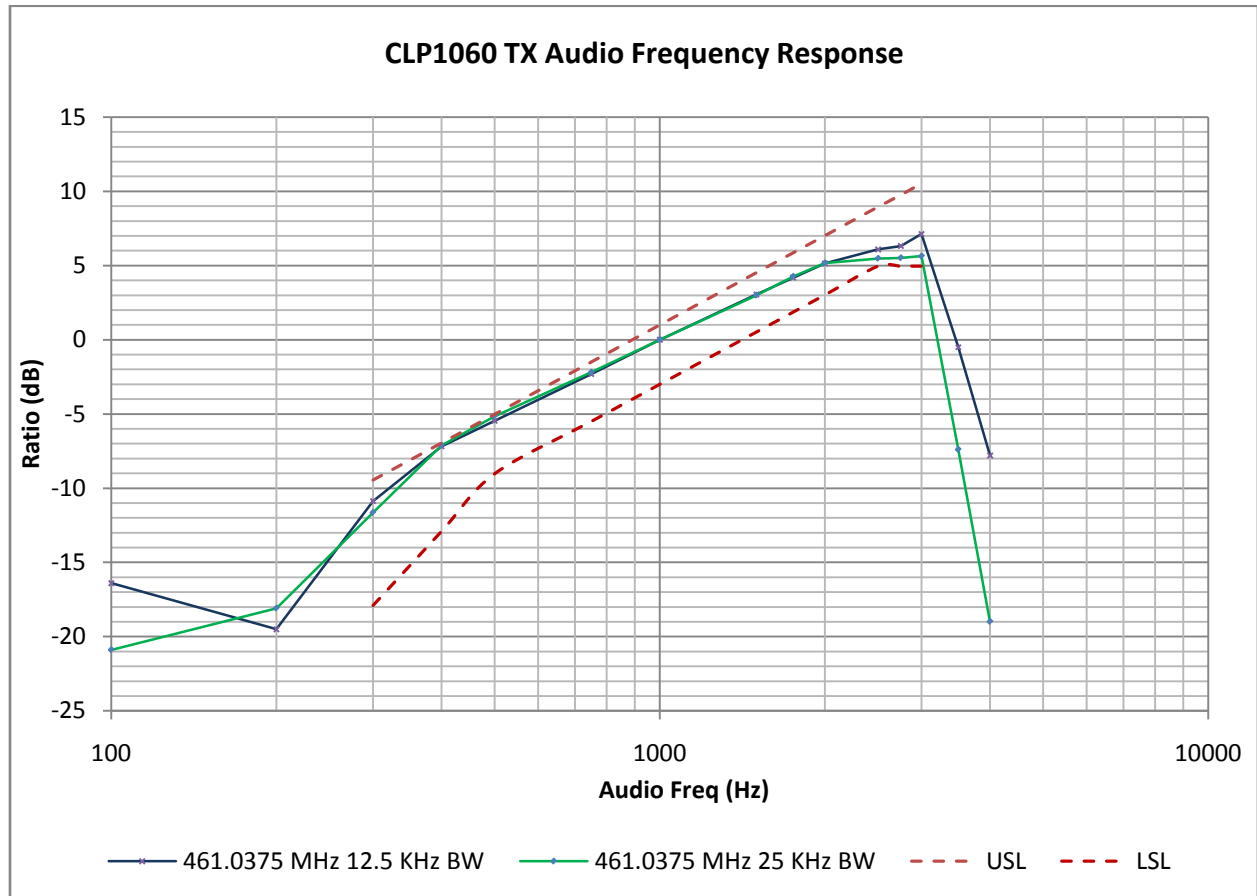


Figure 6B-3: Audio Response.

EXHIBIT 6B-3

EXHIBIT 6C: Occupied Bandwidth and Emission Mask – Pursuant 47 CFR 2.1049 & 90.209, 90.210 (Measured in April 2016 @ MSI Plantation Eng. Lab)

A. Occupied Bandwidth Spectrum 12.5 KHz channel BW

According to FCC Part 90.209, equipment with 12.5 KHz channel bandwidth will be authorized 11.25 KHz bandwidth. Equipment with 25 KHz channel bandwidth will be authorized 20 KHz bandwidth.

- a. 451.1875 MHz, 12.5KHz Band, 99% Occupied BW = 10.52 KHz

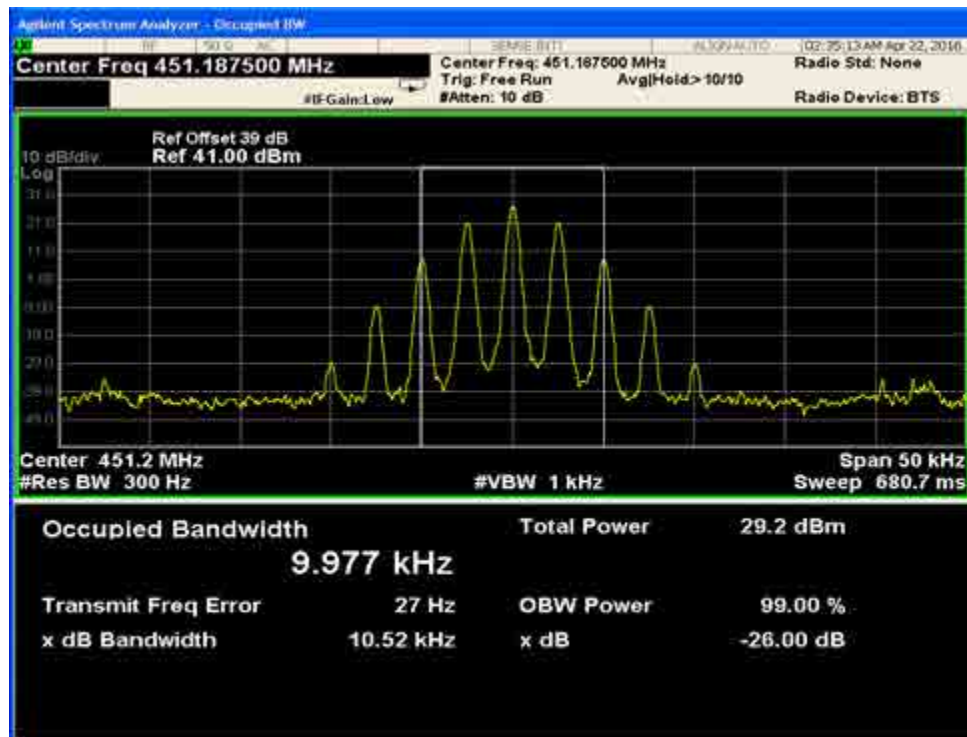


Figure 6C-1: 451.1875 MHz 12.5 KHz channel occupied bandwidth

EXHIBIT 6C-1

- b. 461.0375 MHz, 12.5KHz Band, 99% Occupied BW = 10.53 KHz

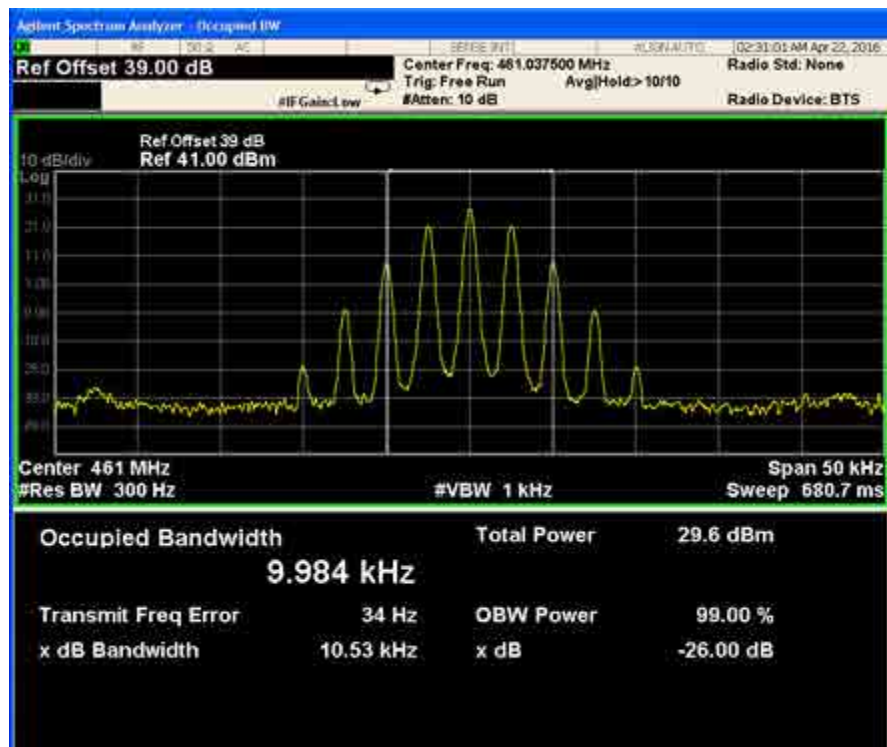


Figure 6C-2: 461.0375 MHz 12.5KHz channel occupied bandwidth

EXHIBIT 6C-2

- c. 469.5625 MHz, 12.5KHz Band, 99% Occupied BW = 10.53 KHz

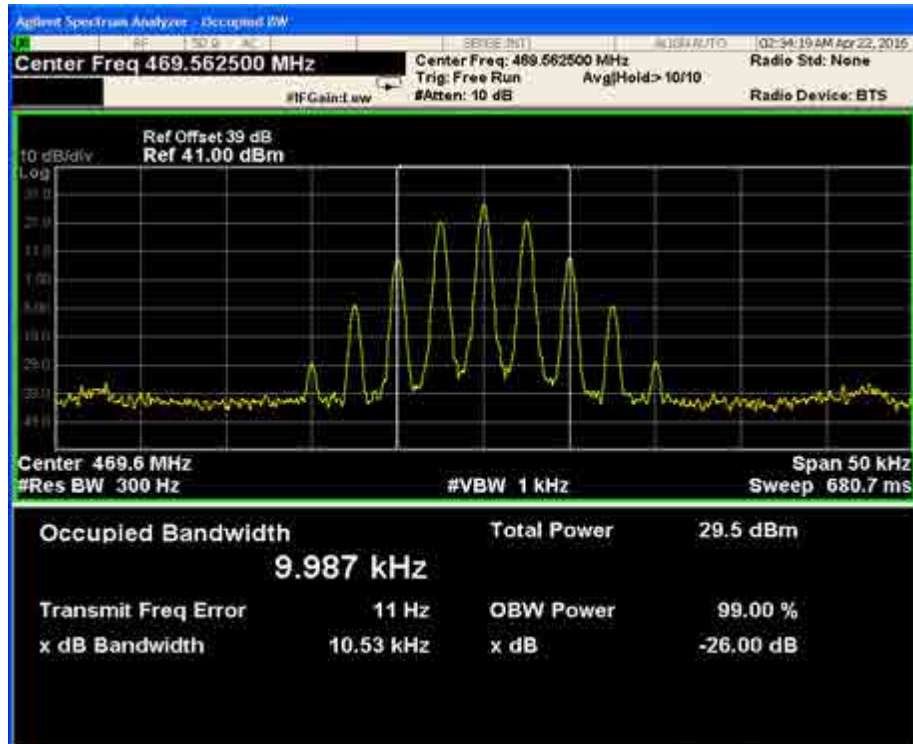


Figure 6C-3: 469.5625 MHz 12.5KHz channel occupied bandwidth

EXHIBIT 6C-3

B. Occupied Bandwidth Spectrum 25 KHz channel bandwidth

- a. 451.1875 MHz, 25KHz Band, 99% Occupied BW = 15.74 KHz

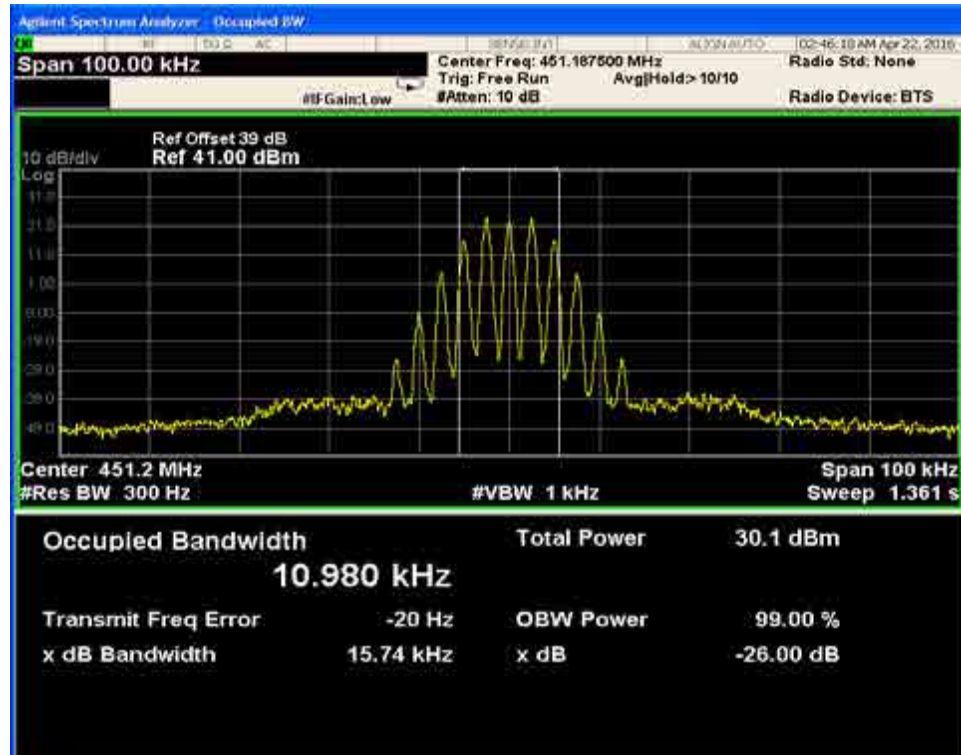


Figure 6C-4: 451.1875 MHz 25 KHz channel occupied bandwidth

EXHIBIT 6C-4

- b. 461.0375 MHz, 25KHz Band, 99% Occupied BW = 15.76 KHz

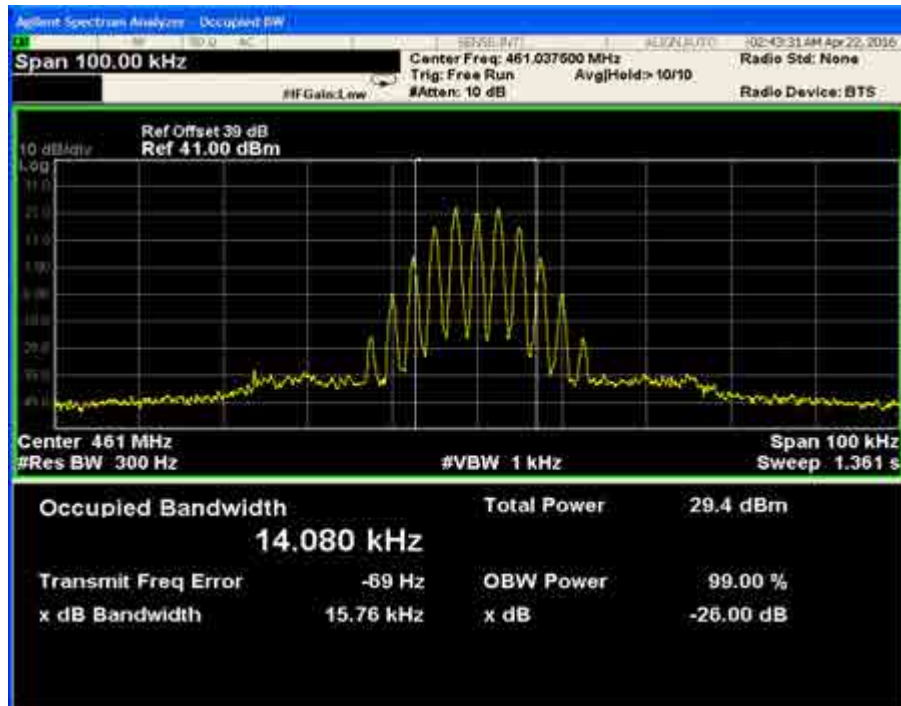


Figure 6C-5: 461.0375 MHz 25KHz channel occupied bandwidth

EXHIBIT 6C-5

c. 469.5625 MHz, 25KHz Band, 99% Occupied BW = 15.77 KHz

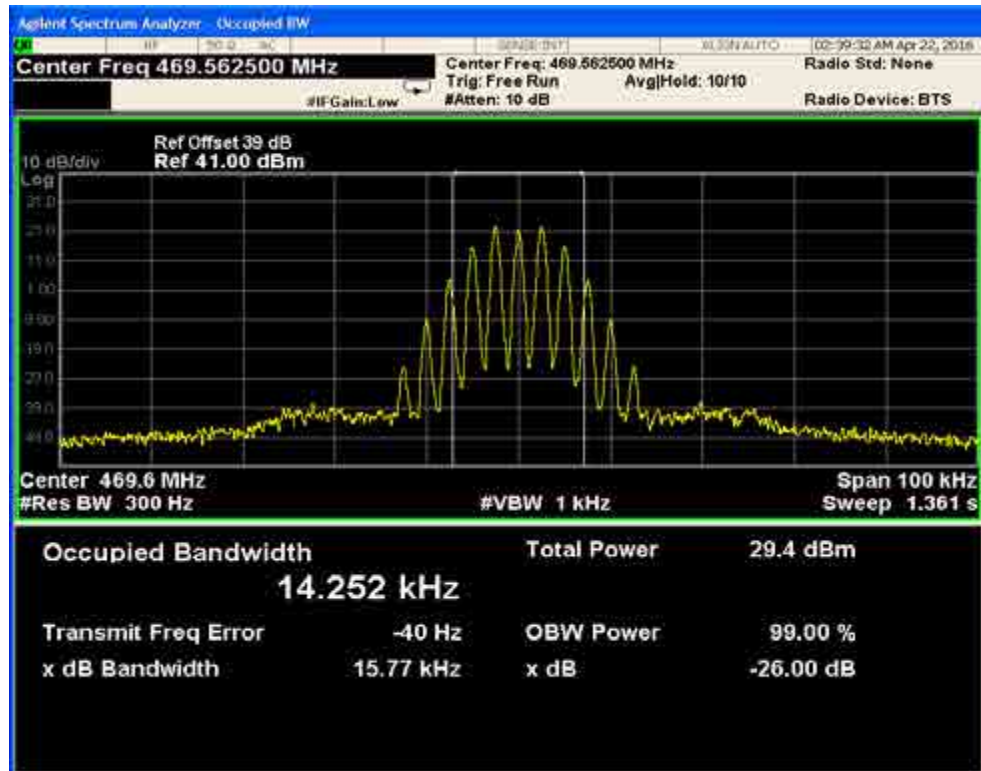


Figure 6C-6: 469.5625 MHz 25 KHz channel occupied bandwidth

EXHIBIT 6C-6

C. Emission Mask Spectrum Per FCC 47 CFR, 90.210:

Emission Type (Carson's Rule): 11K0F3E

$BW = 2(3 \text{ KHz maximum modulation frequency} + 2.5 \text{ KHz Deviation}) = 11\text{K}$

a. 451.1875 MHz, 12.5 KHz Channel. Without PL

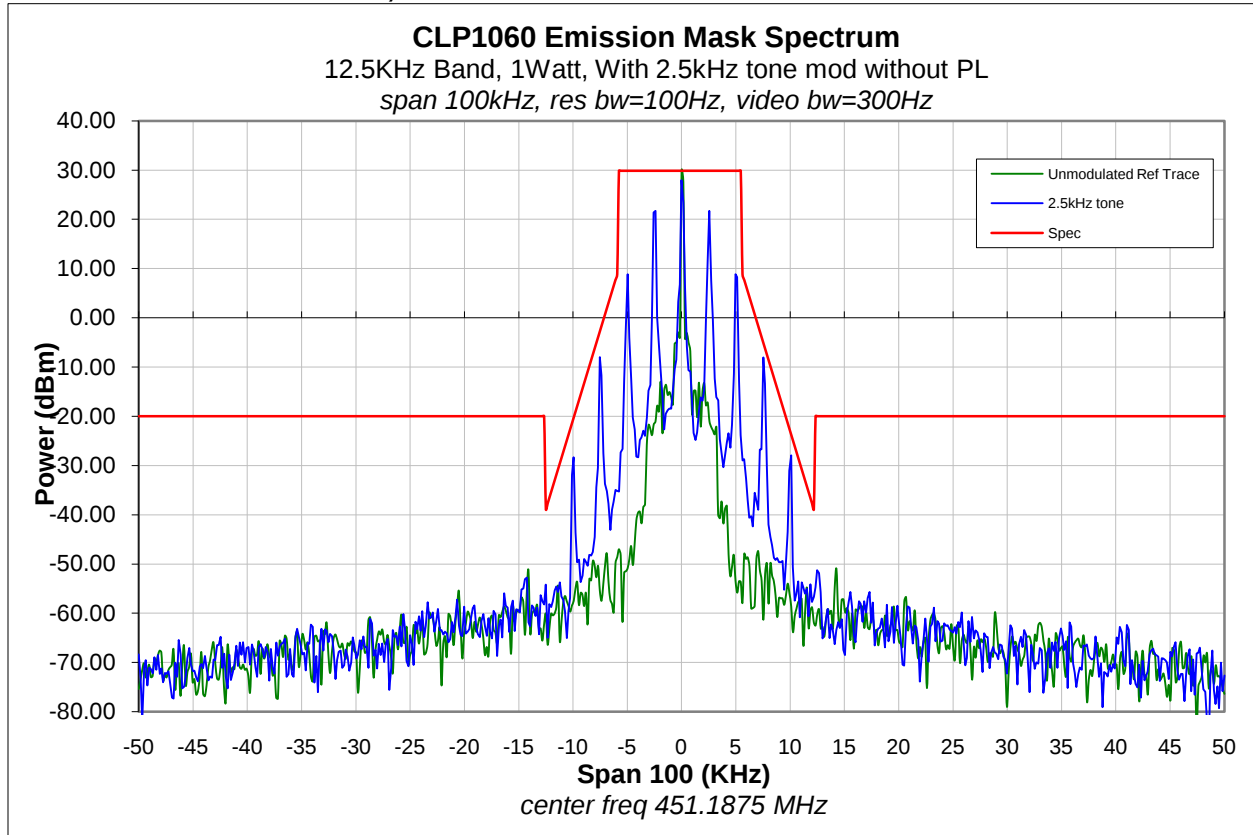


Figure 6C-7: 451.1875 MHz 12.5 KHz channel emission mask spectrum without PL

EXHIBIT 6C-7

b. 451.1875 MHz, 12.5 KHz Channel. With PL

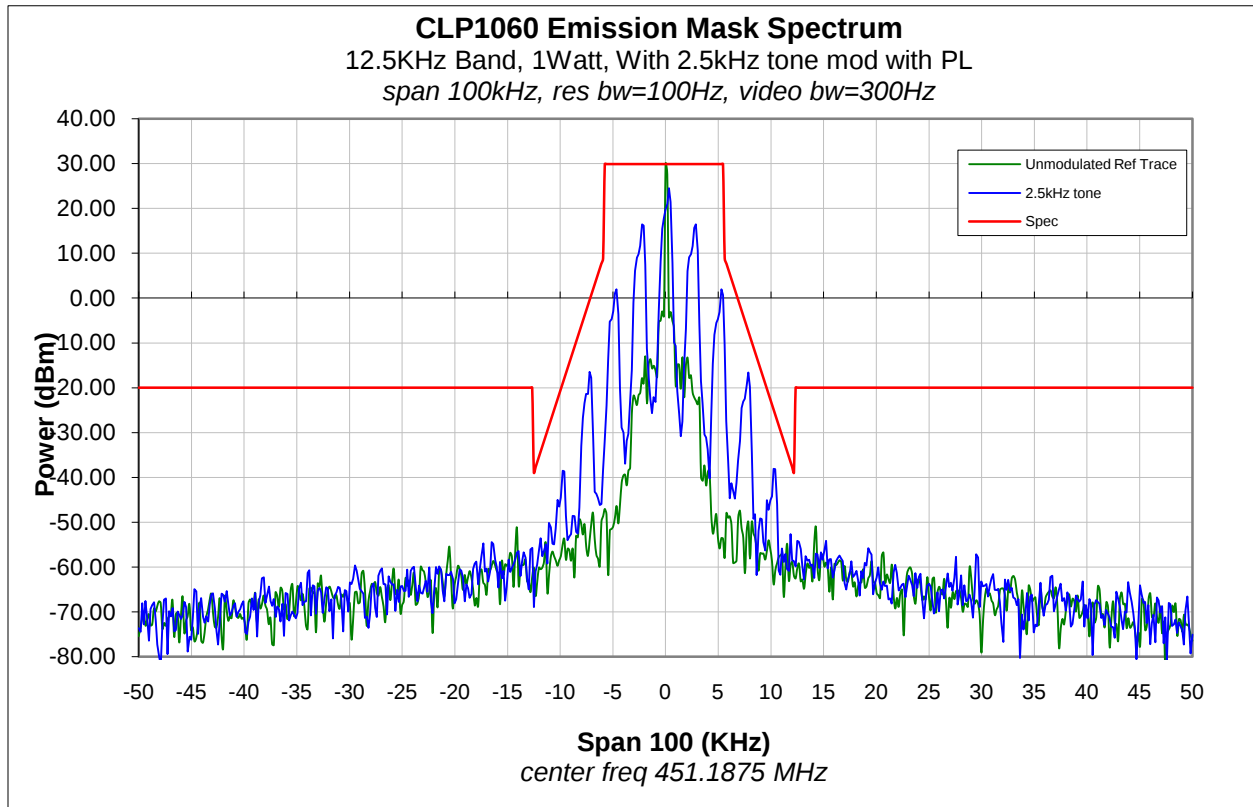


Figure 6C-8: 451.1875 MHz 12.5 KHz channel emission mask spectrum with PL

EXHIBIT 6C-8

c. **461.0375 MHz, 12.5 KHz Channel. Without PL**

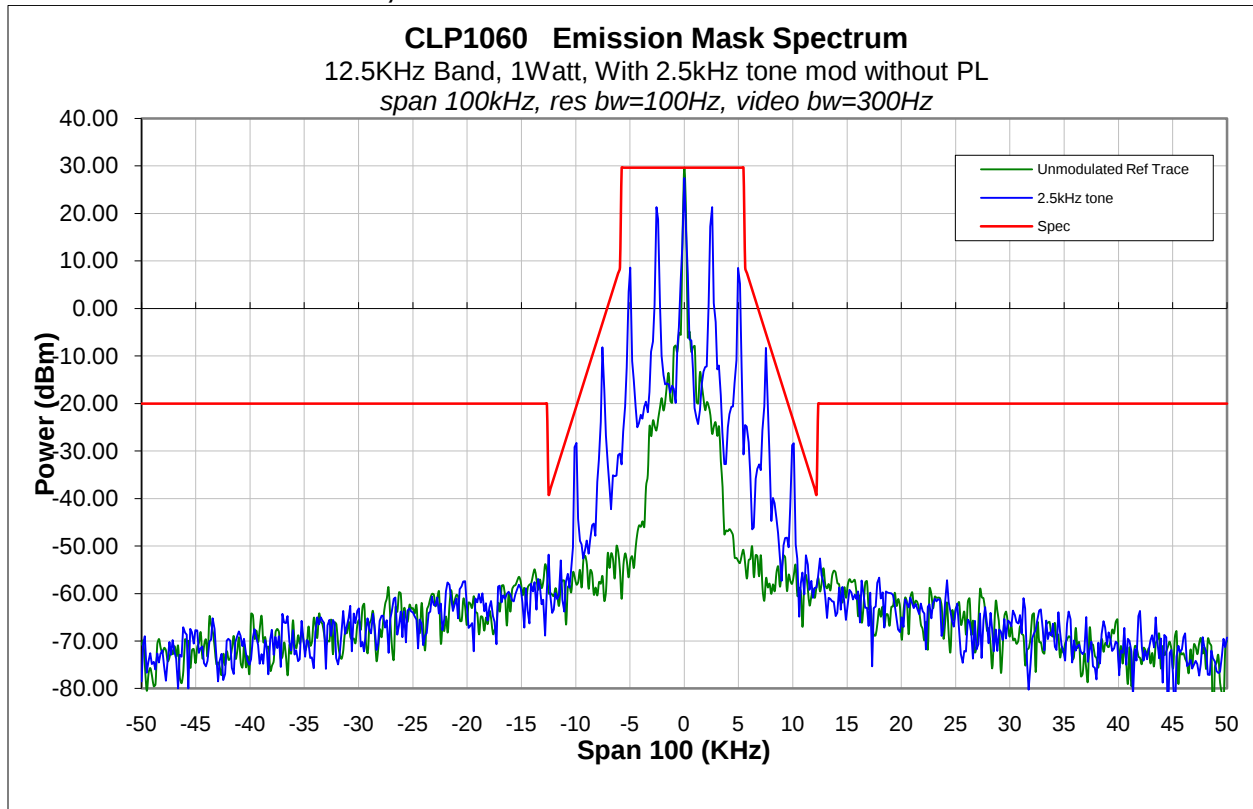


Figure 6C-9: 461.0375 MHz 12.5KHz channel emission mask spectrum without PL

EXHIBIT 6C-9

d. 461.0375 MHz, 12.5 KHz Channel. With PL

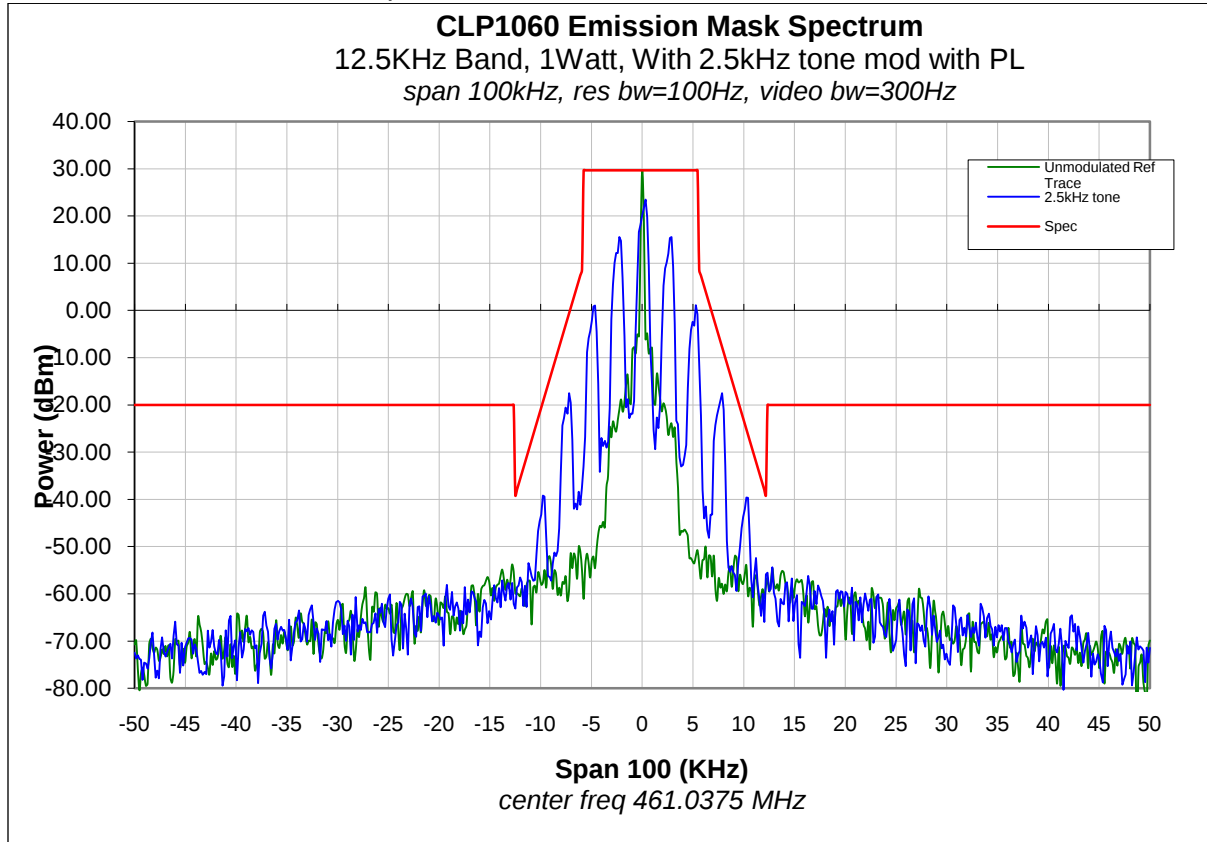


Figure 6C-10 461.0375 MHz 12.5KHz channel emission mask spectrum with PL

EXHIBIT 6C-10

e. 469.5625 MHz, 12.5 KHz Channel. Without PL

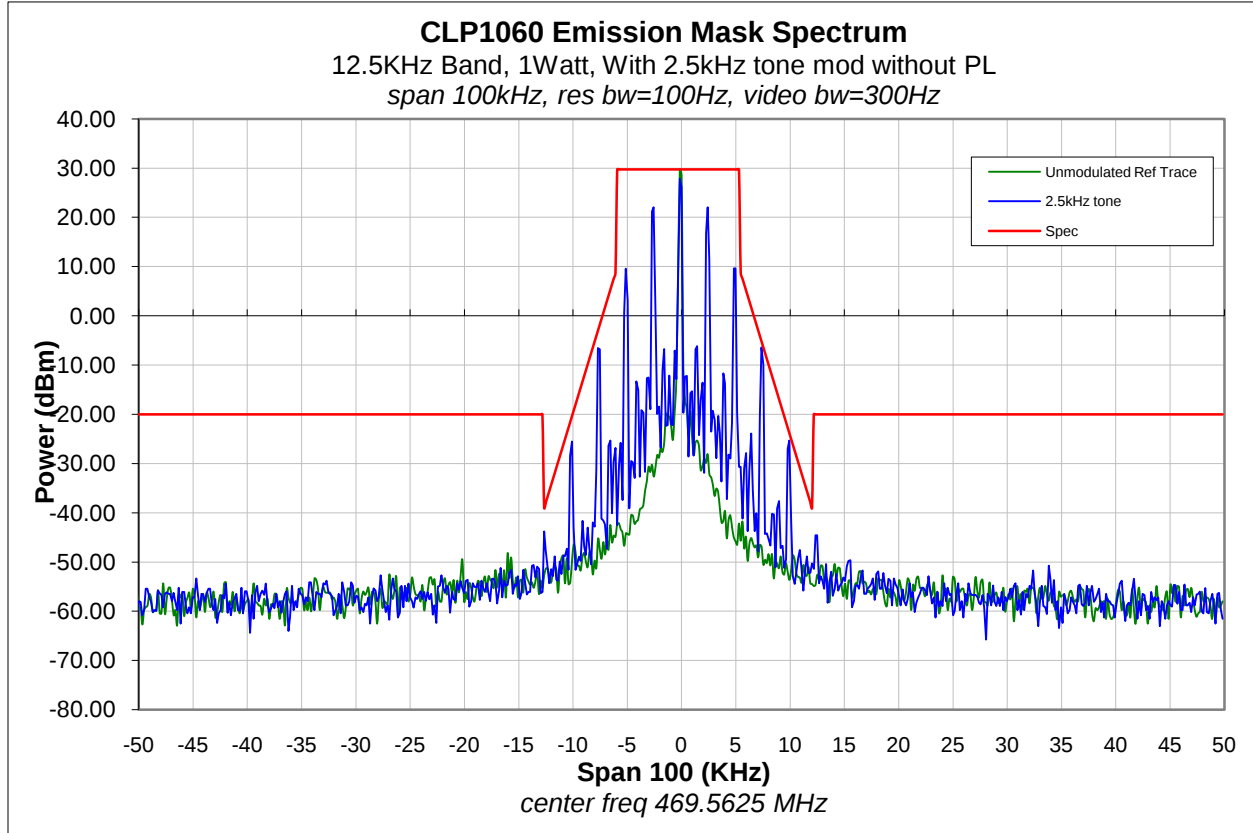


Figure 6C-8: 469.5625 MHz 12.5 KHz channel Emission Mask Spectrum without PL

EXHIBIT 6C-11

f. 469.5625 MHz, 12.5 KHz Channel. With PL

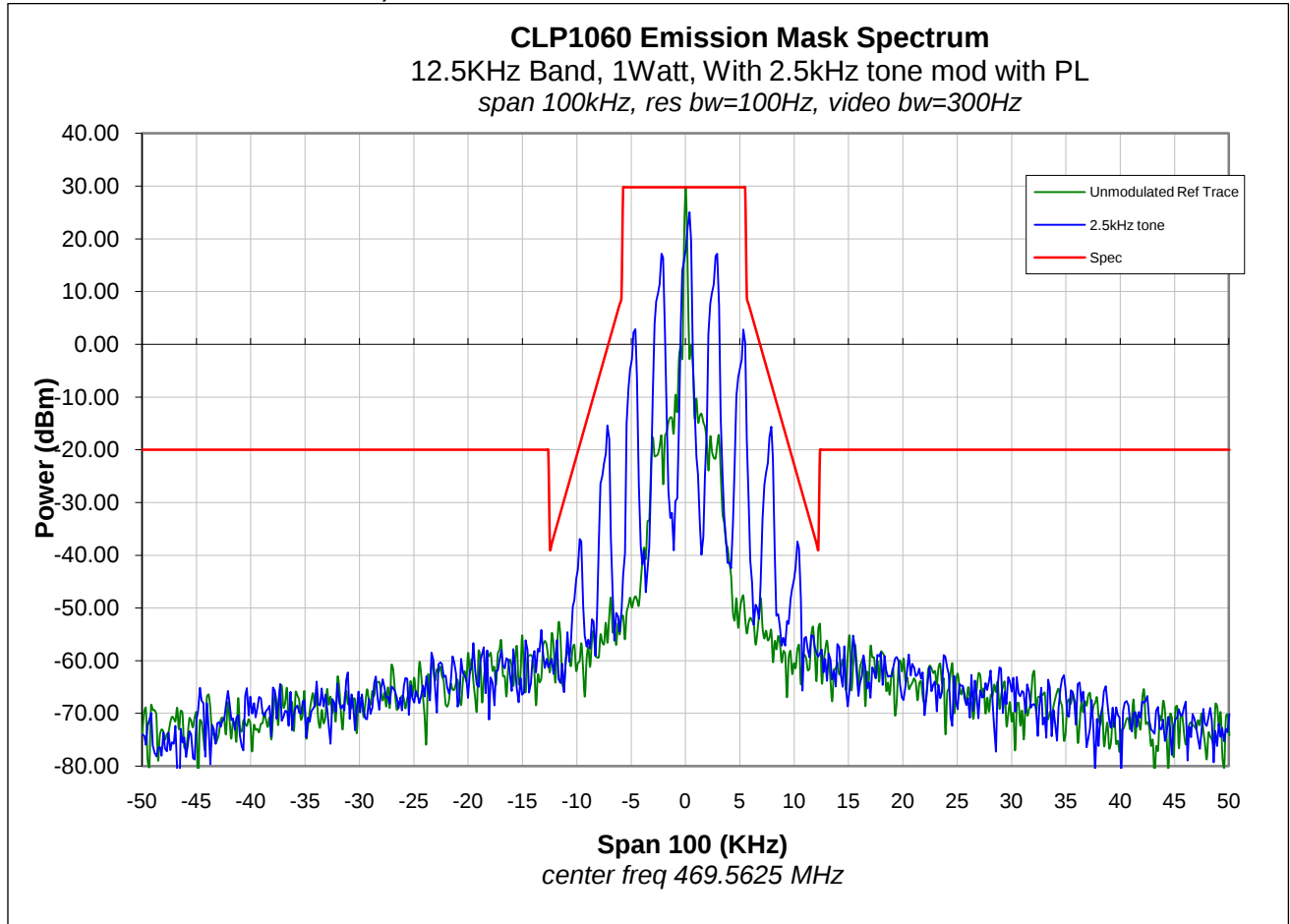


Figure 6C-9: 469.5625 MHz 12.5 KHz channel Emission Mask Spectrum with PL

EXHIBIT 6C-12

D. Emission Mask Spectrum Per FCC 47 CFR, 90.210:

Emission Type (Carson's Rule): 16K0F3E

$BW = 2(3 \text{ KHz maximum modulation frequency} + 5 \text{ KHz Deviation}) = 16K0$

g. **451.1875 MHz, 25 KHz Channel.** Without PL

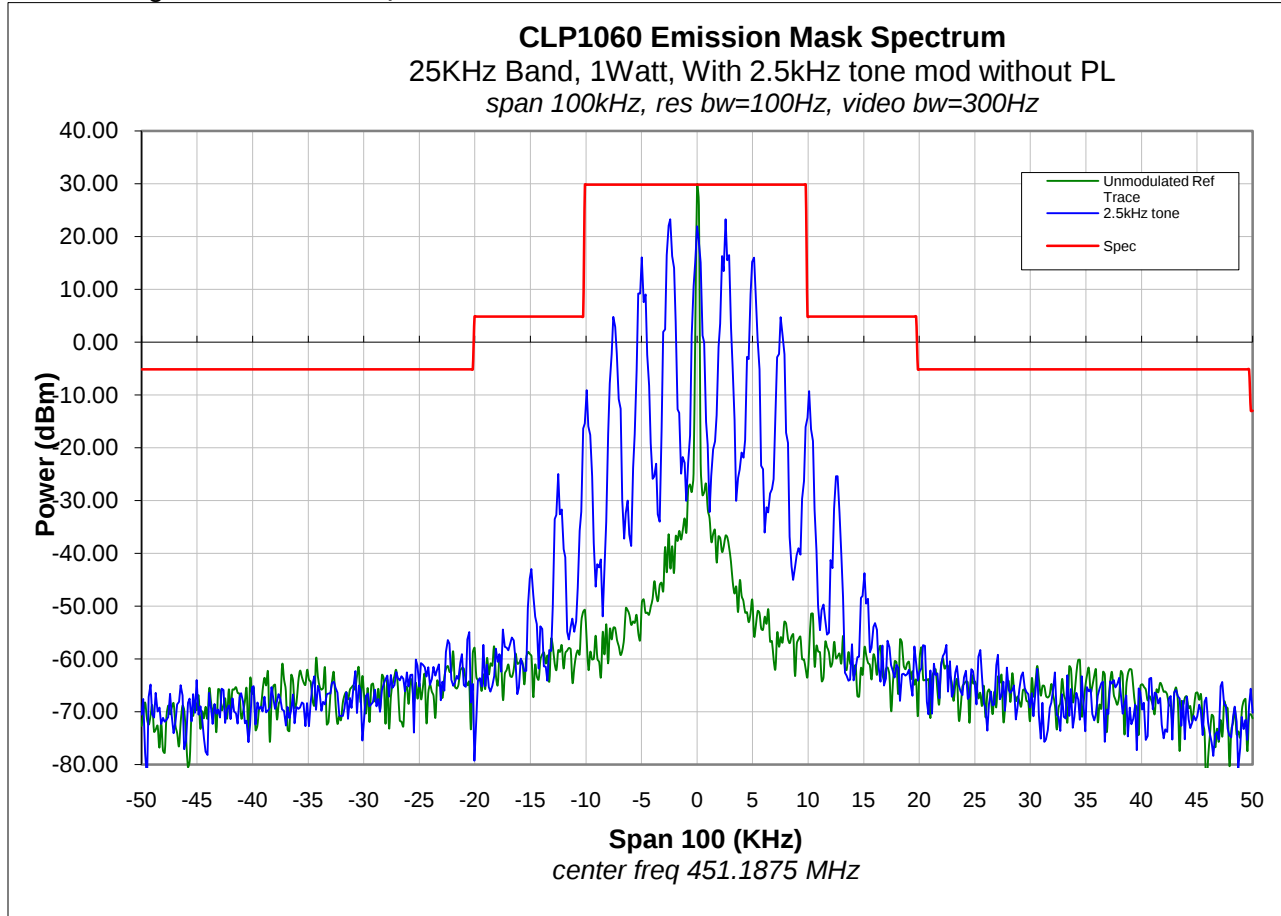


Figure 6C-10: 451.1875 MHz 25 KHz channel emission mask spectrum without PL

EXHIBIT 6C-13

h. 451.1875 MHz, 25 KHz Channel. With PL

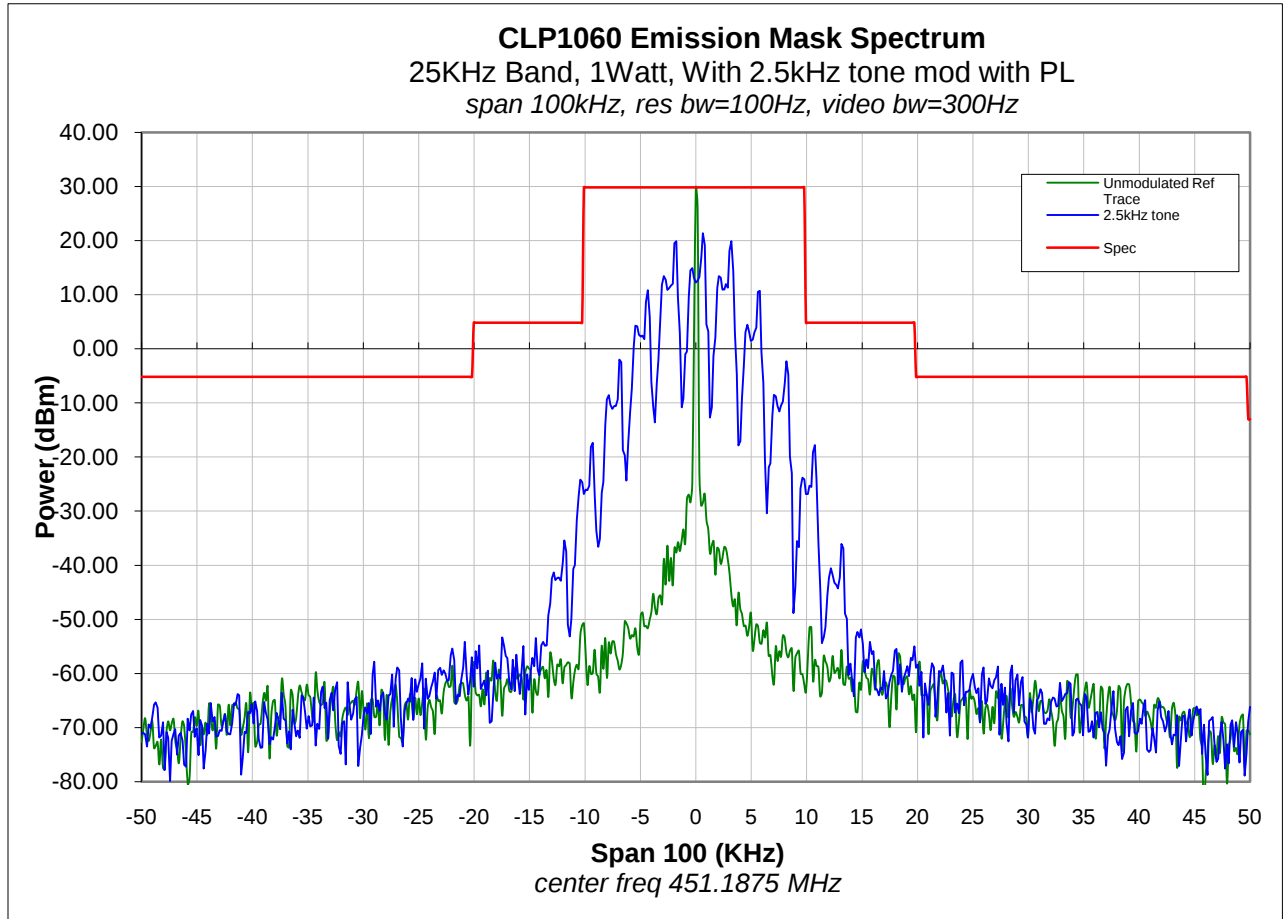


Figure 6C-8: 451.1875 MHz 25 KHz channel emission mask spectrum with PL

EXHIBIT 6C-14

i. **461.0375 MHz, 25 KHz Channel. Without PL**

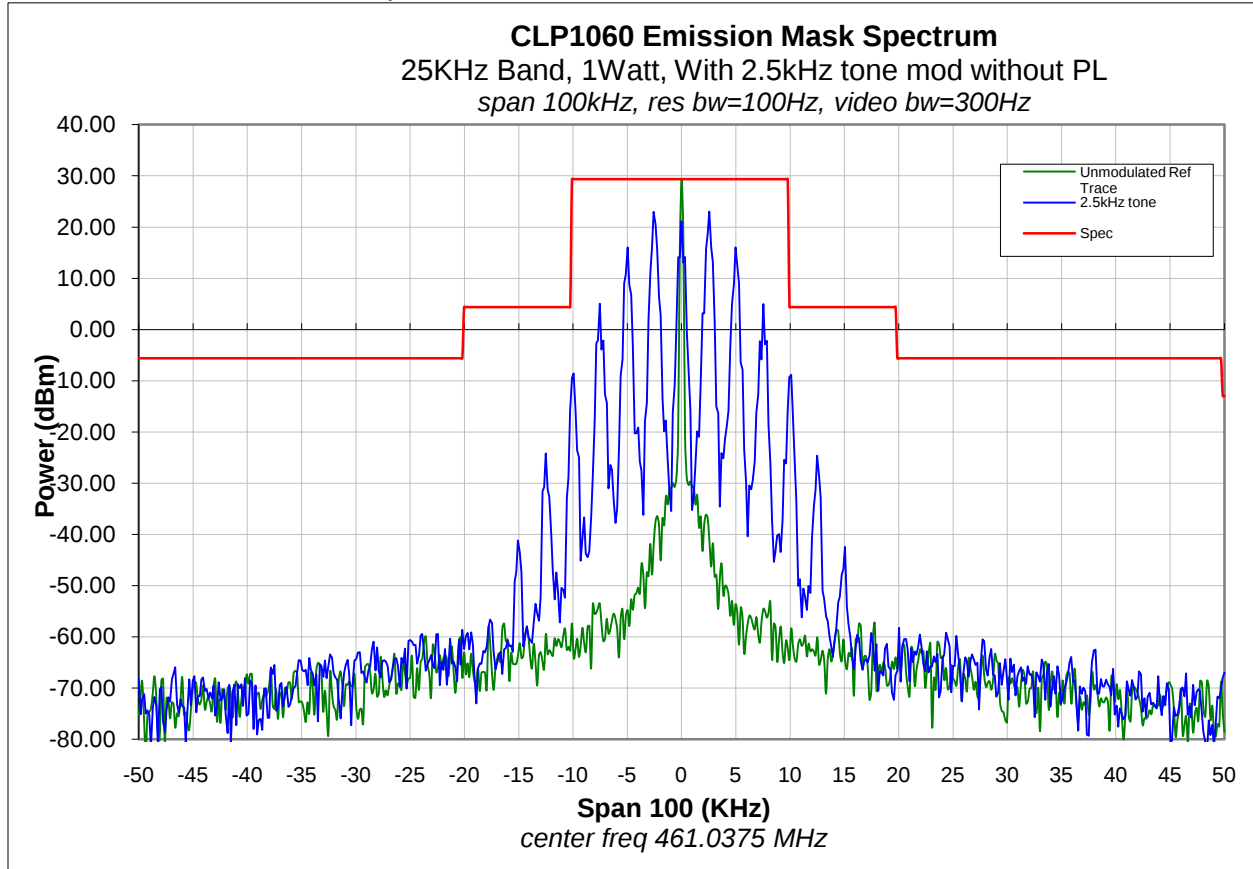


Figure 6C-9: 461.0375 MHz 25KHz channel emission mask spectrum without PL

EXHIBIT 6C-15

j. 461.0375 MHz, 25 KHz Channel. With PL

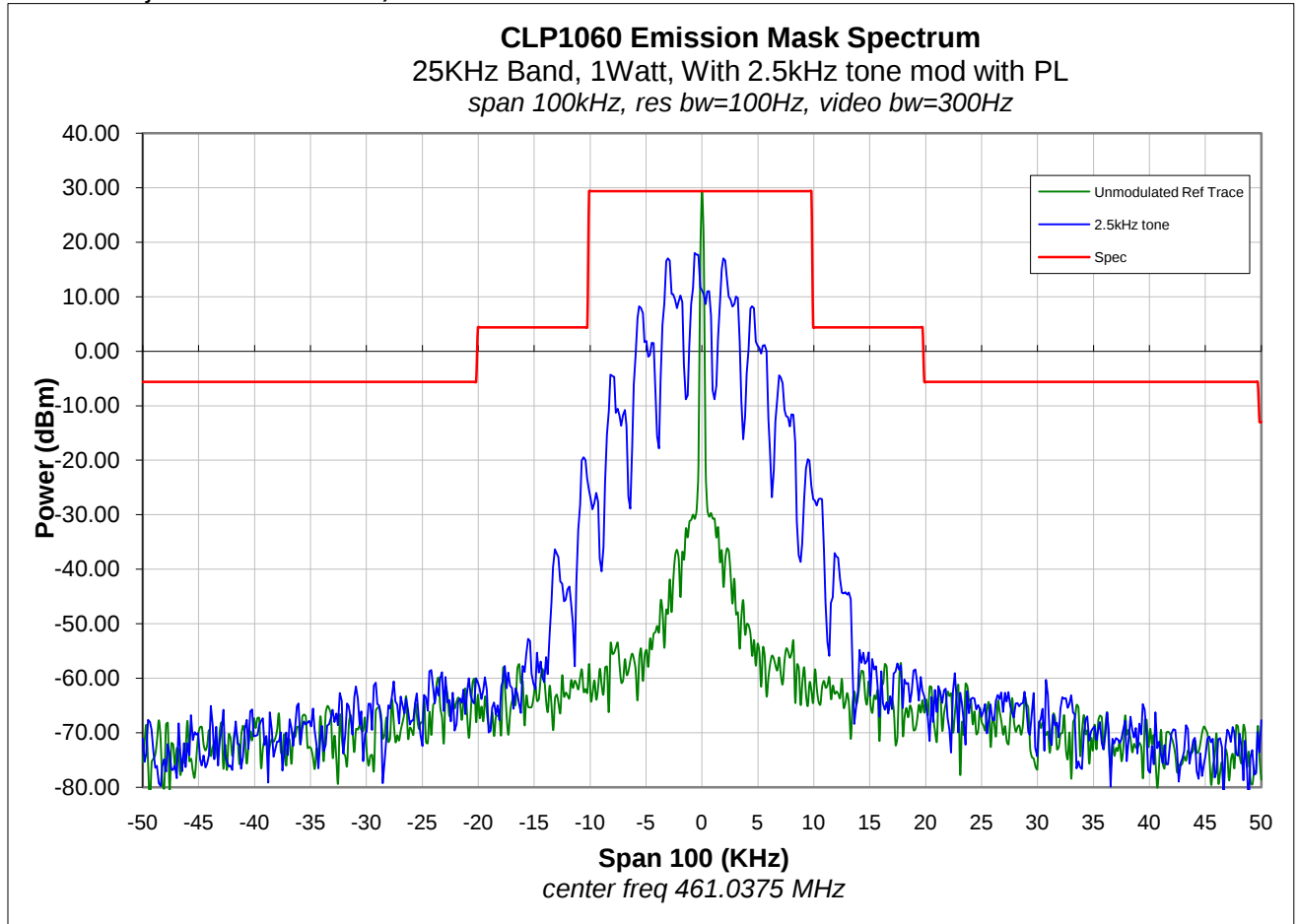


Figure 6C-10 461.0375 MHz 25KHz channel emission mask spectrum with PL

EXHIBIT 6C-16

k. **469.5625 MHz, 25 KHz Channel. Without PL**

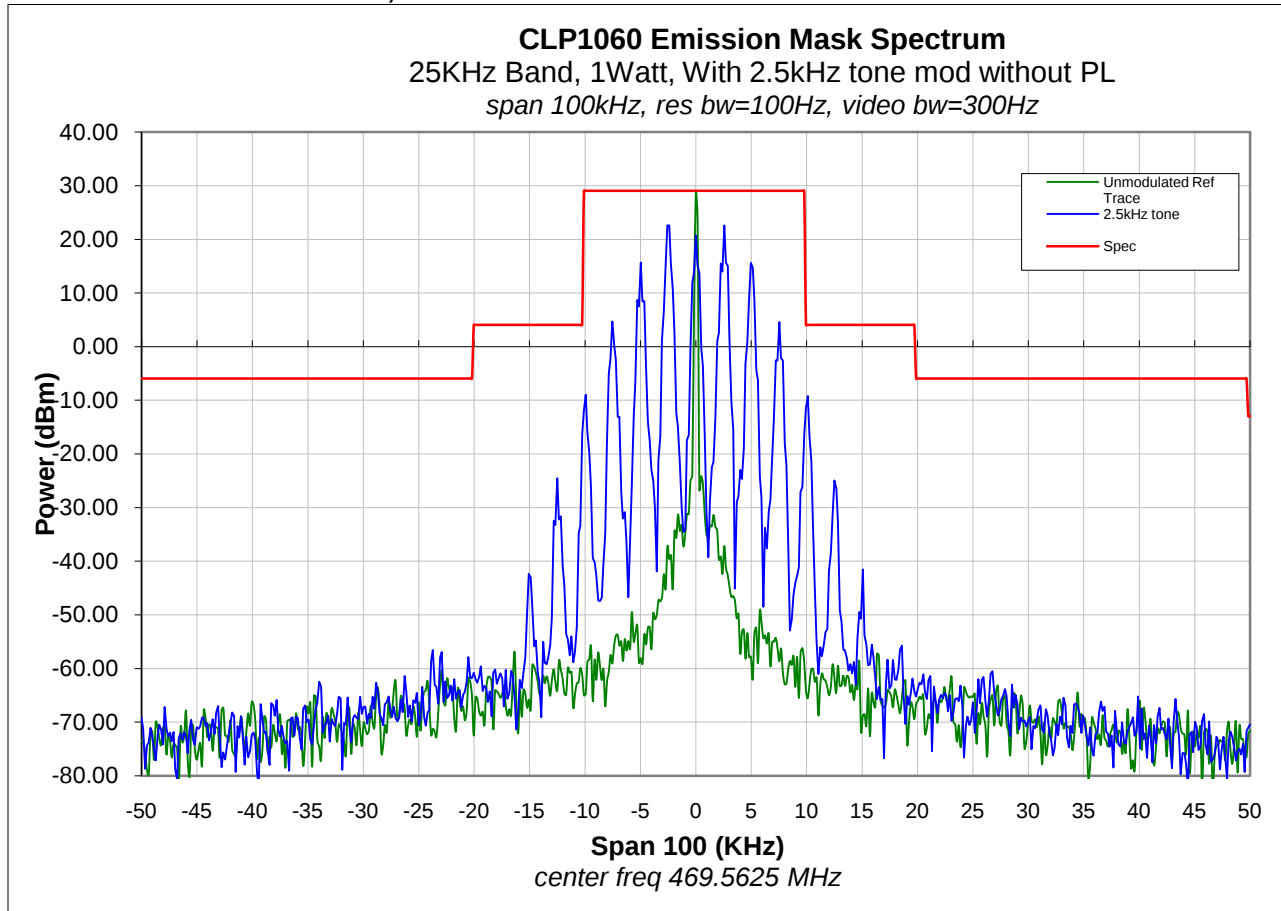


Figure 6C-8: 469.5625 MHz 25 KHz channel Emission Mask Spectrum without PL

EXHIBIT 6C-17

I. 469.5625 MHz, 25 KHz Channel. With PL

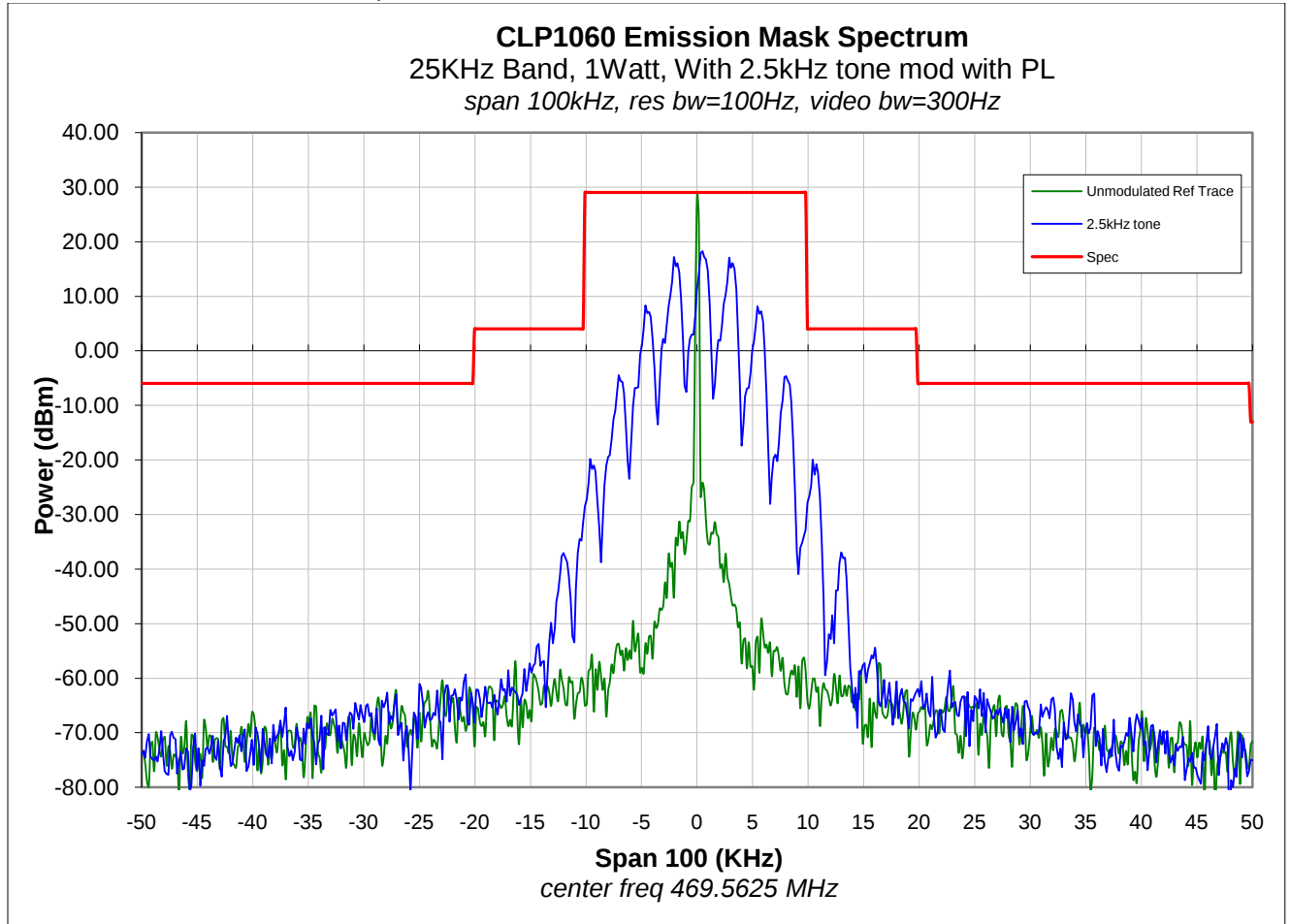


Figure 6C-9: 469.5625 MHz 25 KHz channel Emission Mask Spectrum with PL

EXHIBIT 6C-18



FCC ID: AZ489FT7092/IC: 109U-89FT7092

Exhibit 6D Transmit Radiated Spurious Emissions -- Pursuant 47 CFR 2.1051, 2.1053, 90.210. (Test Conducted at Timco Engineering Inc)

Please see attached TIMCO 792AUT16 & 792AUT16 TestReports as part of the package for spurious emissions test results.

EXHIBIT 6D

Exhibit 6E Frequency Stability -- Pursuant 47 CFR 2.1055, 90.213.

(Measured in April 2016 @ MSI Plantation Eng. Lab)

According to FCC Part 2 Section 2.1055 (a)(1), the frequency stability shall be measured with variation of ambient temperature from -30 °C to +50°Ccentigrade.

According to FCC Part 2 Section 2.1055 (a) (2), for battery powered equipment, the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point, which is specified by the manufacture.

According to §90.213, the frequency stability limit is 2.5 ppm for 12.5 KHz channel separation

A. Frequency Stability vs. Temperature

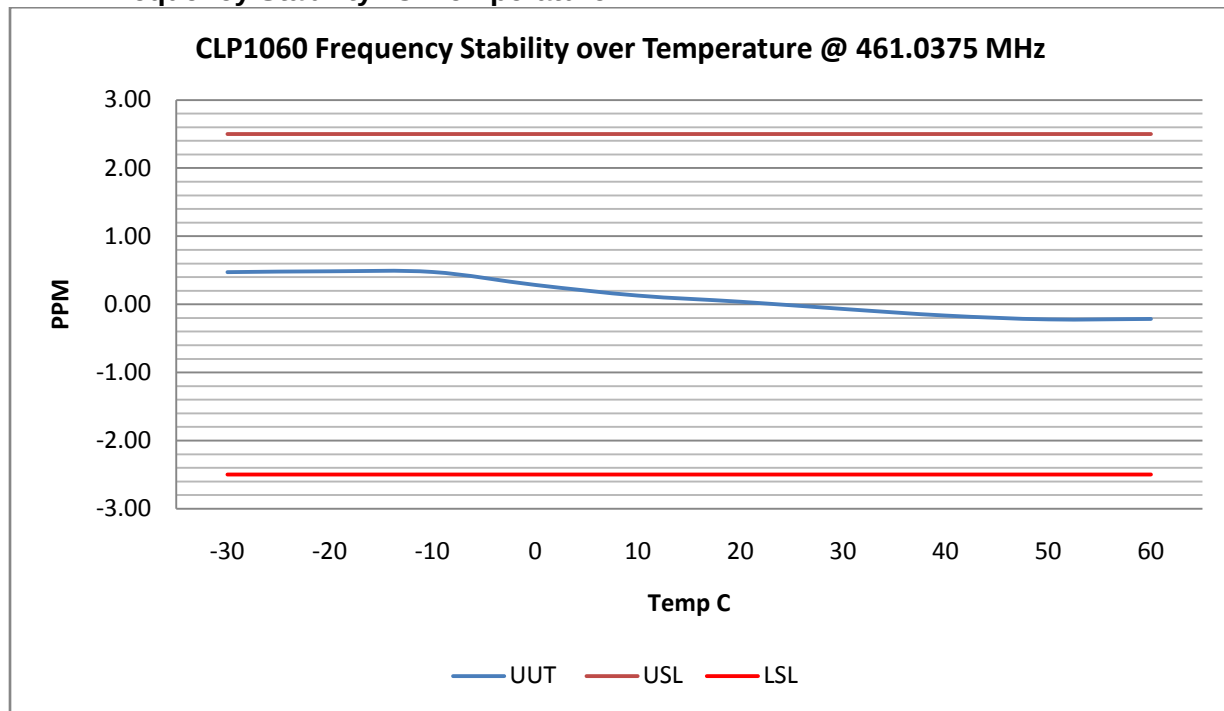


Figure 6E-1: Frequency Stability over Temperature

EXHIBIT 6E-1

B. Frequency Stability vs. Voltage

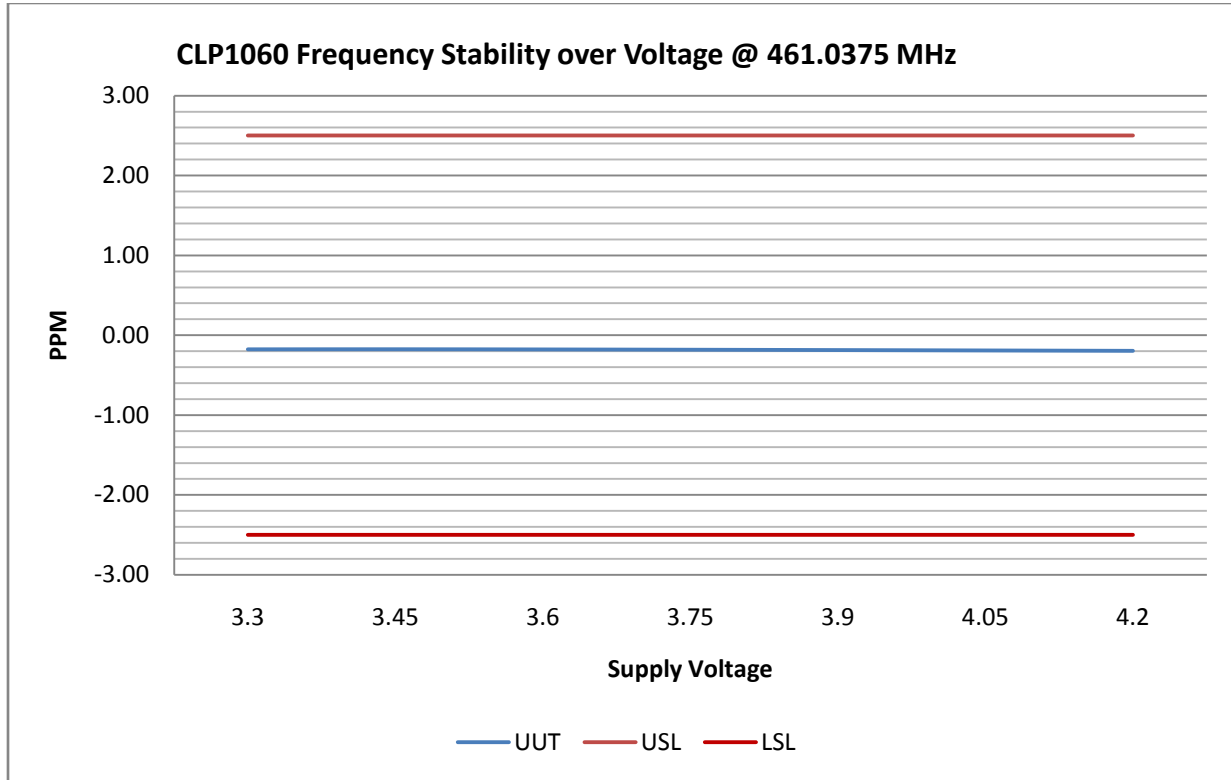


Figure 6E-2: Frequency Stability over Supply Voltage

EXHIBIT 6E-2

Exhibit 6F Transient Frequency Behavior -- Pursuant 47, 90.214

(Measured in April 2016 @ MSI Plantation Eng. Lab)

Transient frequency behavior is a measure of the difference, as a function in time, of the actual transmitter frequency to the assigned transmitter frequency when the transmitted RF output power is switched on or off. Transmitters designed to operate in the 421-512 MHz frequency bands must maintain transient frequencies within the maximum frequency difference limits during the time intervals indicated in 90.214.

A. Transient Frequency Behavior Off to On @461.0375 MHz

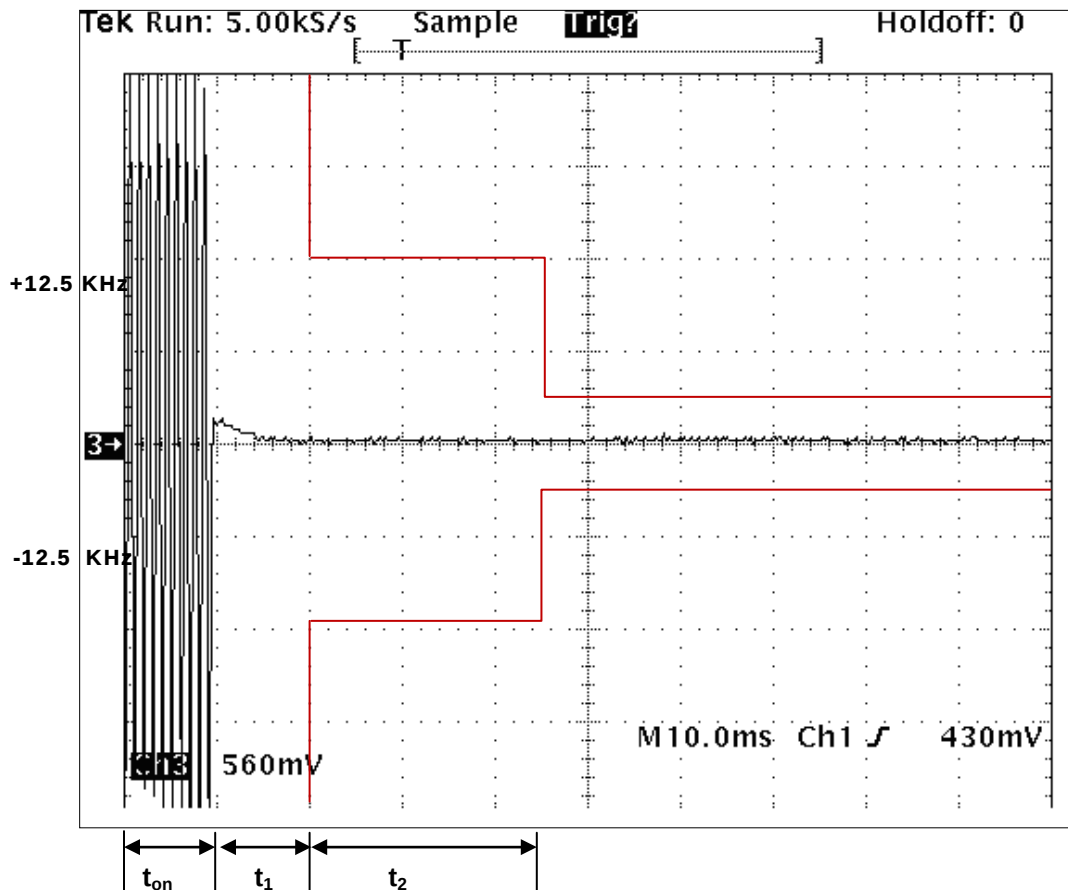


Figure 6F-1: Transient Frequency Behavior Off to On

EXHIBIT 6F-1

B. Transient Frequency Behavior On to Off @461.0375 MHz

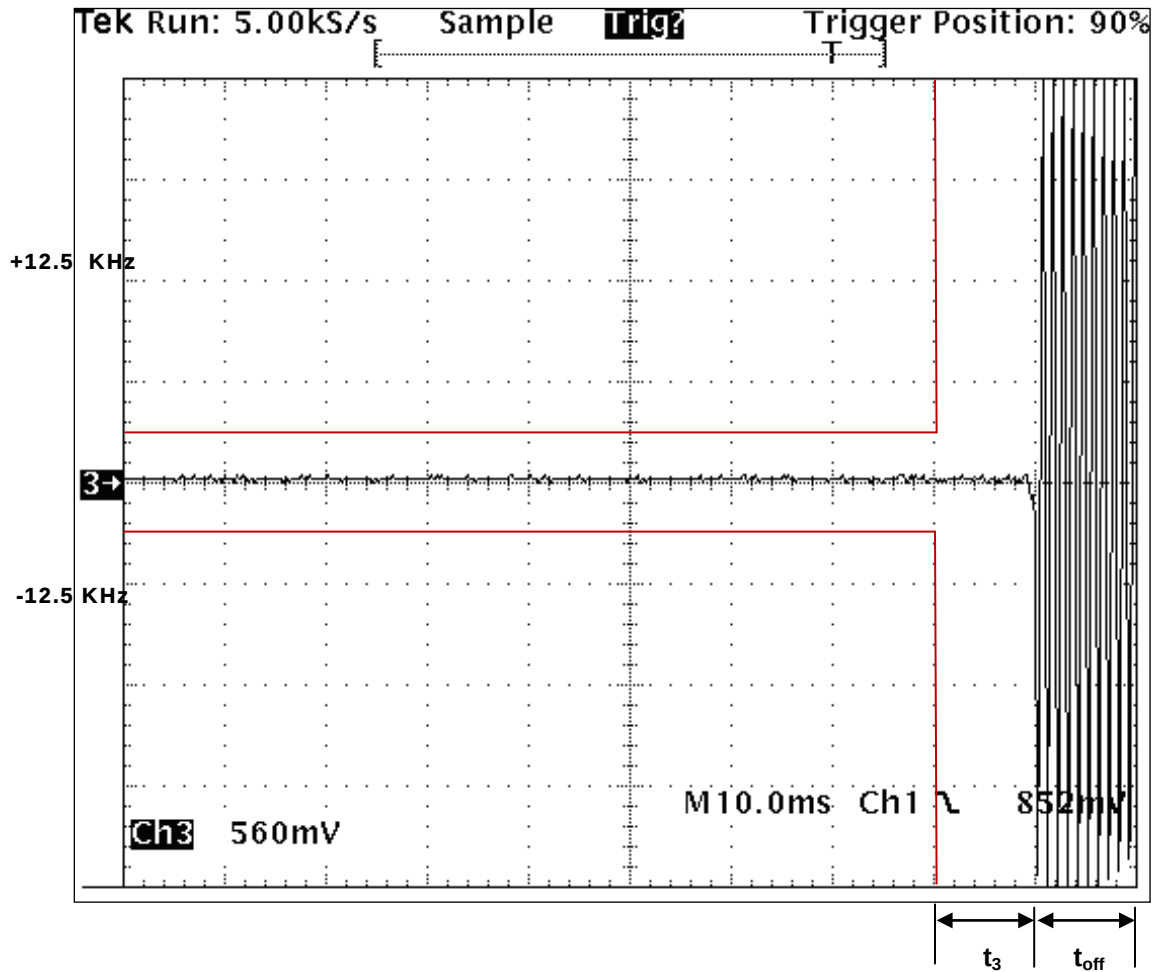


Figure 6F-2: Transient Frequency Behavior On to Off

EXHIBIT 6F-2