

EXHIBIT 6**INDEX OF SUBMITTED MEASURED DATA**

Important Note: The data in this test report meets or exceeds the technical requirements of FCC Rule Parts 22, 74, 80, and 90

This exhibit contains the measured data for this equipment as follows:

EXHIBIT 6A – RF Power Output (Table)**EXHIBIT 6B – Audio Frequency Response**

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6B-2 –153.0125 MHz, 25 kHz Channel Spacing

EXHIBIT 6C – Audio Low Pass Filter Response

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6C-2 –153.0125 MHz, 25 kHz Channel Spacing

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6E-12: 153.0125 MHz, 25 kHz, DTMF and DPL Tone Modulation, 16K0F3E Mask B
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6E-19: 153.0125 MHz, O.153 Test Pattern 4FSK Voice (F2 BER) and Data Modulation, 7K60FXE Mask D
6E-20: 153.0125 MHz, O.153 Test Pattern 4FSK Voice (F2 Silent) and Data Modulation, 7K60FXD Mask D

EXHIBIT 6F – Radiated Spurious Emissions

6F-1 – 138.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

6F-2 – 153.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

6F-3 – 162.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

6F-4 – 173.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

6F-5 – 138.0125 MHz, 25 kHz Channel Spacing, 1.26W

6F-6 – 153.0125 MHz, 25 kHz Channel Spacing, 1.26W

6F-7 – 162.0125 MHz, 25 kHz Channel Spacing, 1.26W

6F-8 – 173.0125 MHz, 25 kHz Channel Spacing, 1.26W

EXHIBIT 6G – Conducted Spurious Emissions

- 6G-1 – 138.0125 MHz, 12.5 kHz Channel Spacing, 1.26W
- 6G-2 – 138.0125 MHz, 25 kHz Channel Spacing, 1.26W
- 6G-3 – 153.0125 MHz, 12.5 kHz Channel Spacing, 1.26W
- 6G-4 – 153.0125 MHz, 25 kHz Channel Spacing, 1.26W
- 6G-5 – 162.0125 MHz, 12.5 kHz Channel Spacing, 1.26W
- 6G-6 – 162.0125 MHz, 25 kHz Channel Spacing, 1.26W
- 6G-7 – 173.0125 MHz, 12.5 kHz Channel Spacing, 1.26W
- 6G-8 – 173.0125 MHz, 25 kHz Channel Spacing, 1.26W

EXHIBIT 6H – Frequency Stability

- 6H-1 – 153.0125 MHz, 12.5 kHz Channel Spacing
- 6H-2 – 153.0125 MHz, 25 kHz Channel Spacing

EXHIBIT 6I – Transient Frequency Behavior

- 6I-1 – 153.0125 MHz, 12.5 kHz Channel Spacing – Transmitter On
- 6I-2 – 153.0125 MHz, 12.5 kHz Channel Spacing – Transmitter Off
- 6I-3 – 153.0125 MHz, 25 kHz Channel Spacing – Transmitter On
- 6I-4 – 153.0125 MHz, 25 kHz Channel Spacing – Transmitter Off

EXHIBIT 6A**RF Conducted Power Output Data** -- Pursuant 47 CFR 2.1046(a), 2.1033(c)(6), 2.1033(c)(7) and 2.1033(c)(8)**Frequency = 138.0125 MHz**

Output RF power	1.25 Watts
DC Voltage	7.40 Volts
DC Current	0.81 Amps

Frequency = 153.0125 MHz:

Output RF power	1.25 Watts
DC Voltage	7.40 Volts
DC Current	0.87 Amps

Frequency = 162.0125 MHz:

Output RF power	1.25 Watts
DC Voltage	7.40 Volts
DC Current	0.91 Amps

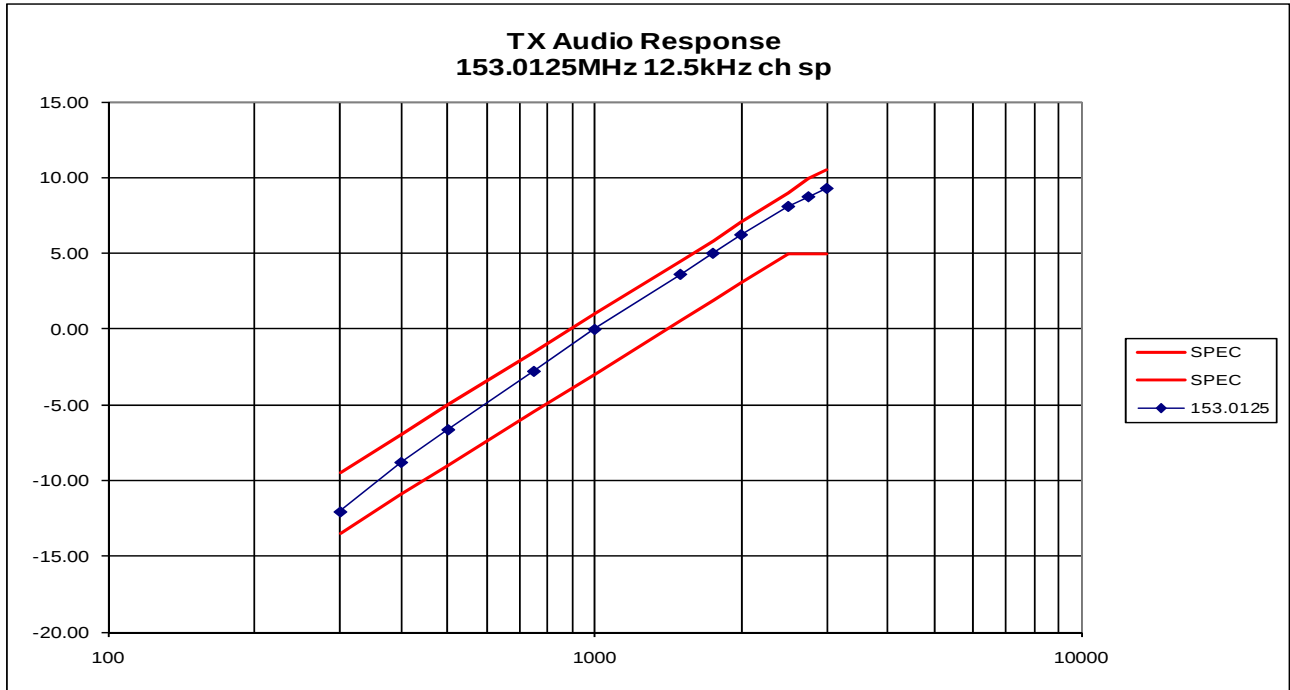
Frequency = 173.0125 MHz:

Output RF power	1.25 Watts
DC Voltage	7.40 Volts
DC Current	0.89 Amps

EXHIBIT 6B**Transmit Audio Response** - Pursuant 47 CFR 2.1047 and 2.1033(c) (13)**Audio Frequency Response**

(Freq: 153.0125 MHz, ChSp: 12.5 kHz)

Exhibit 6B-1

**Audio Frequency Response**

(Freq: 153.0125 MHz, ChSp: 25 kHz)

Exhibit 6B-2

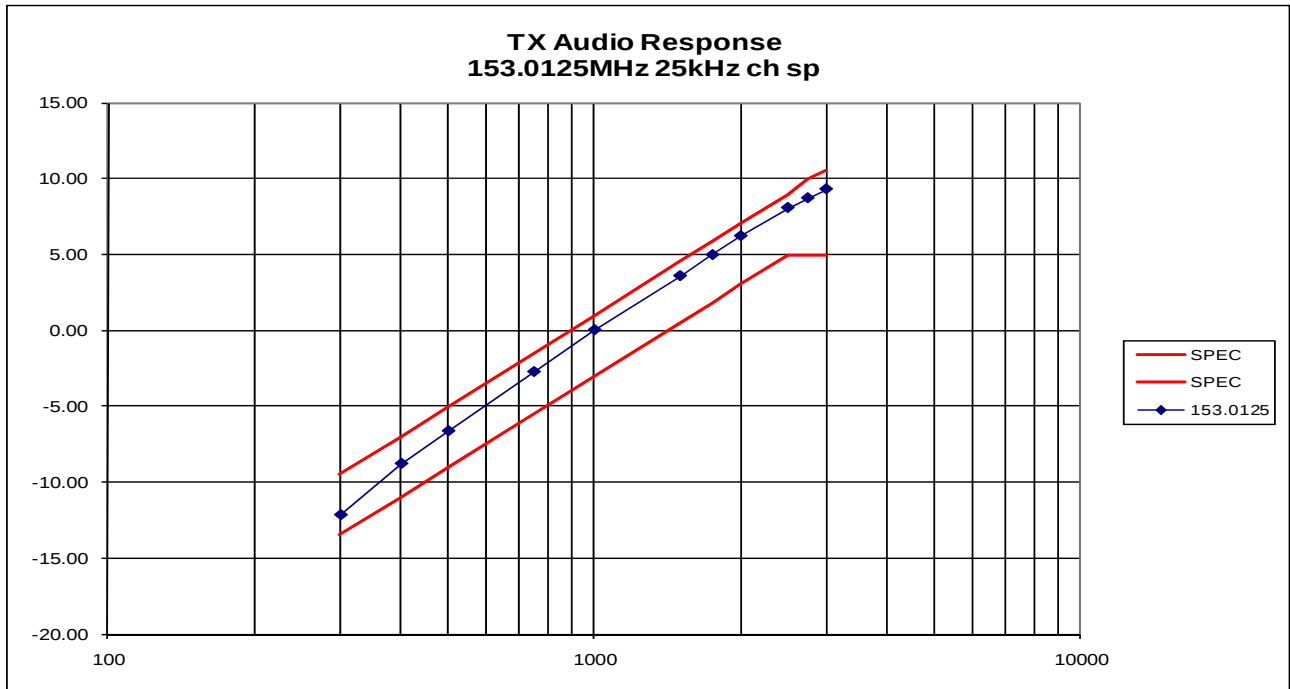
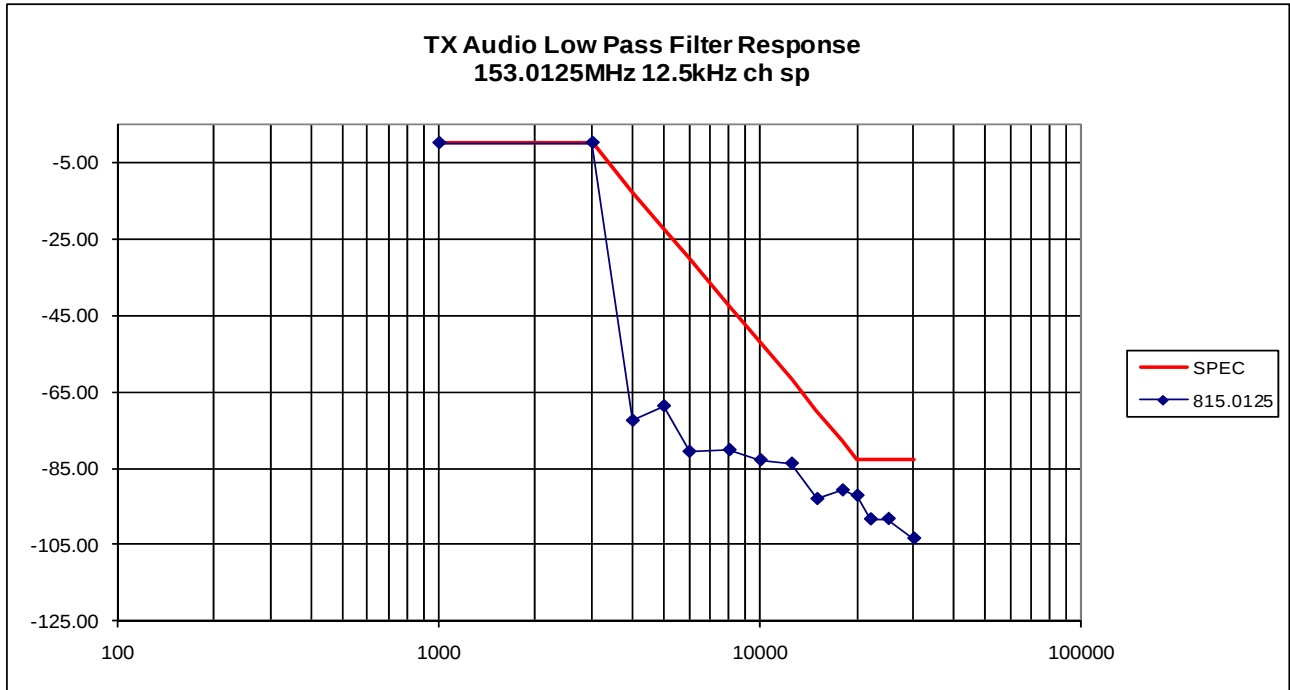


EXHIBIT 6C**Audio Low Pass Filter Response-** Pursuant 47 CFR 2.1047 and 2.1033(c)(13)**Transmit Low Pass Filter Frequency Response**

(Freq: 153.0125 MHz, ChSp: 12.5 kHz)

Exhibit 6C-1

**Transmit Low Pass Filter Frequency Response**

Freq: 153.0125 MHz, ChSp: 25 kHz

Exhibit 6C-2

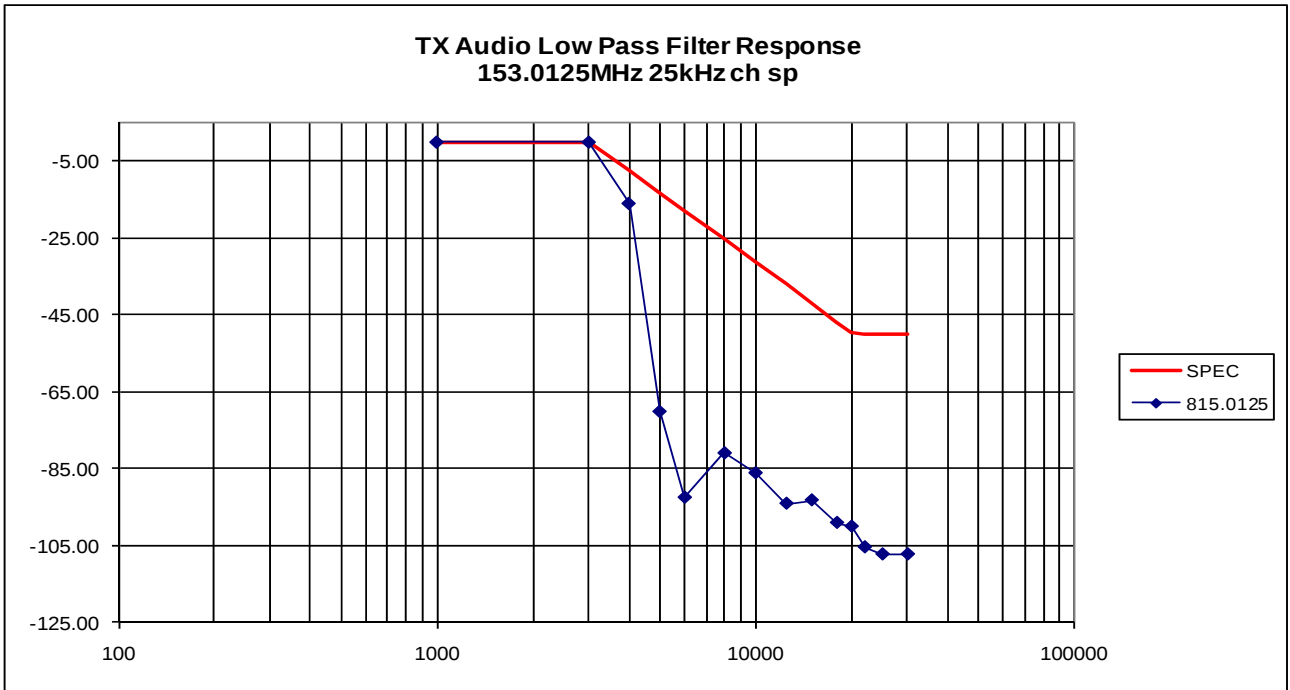


EXHIBIT 6D**Modulation Limiting - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)****Freq: 153.0125 MHz, ChSp: 12.5 kHz**

Exhibit 6D-1

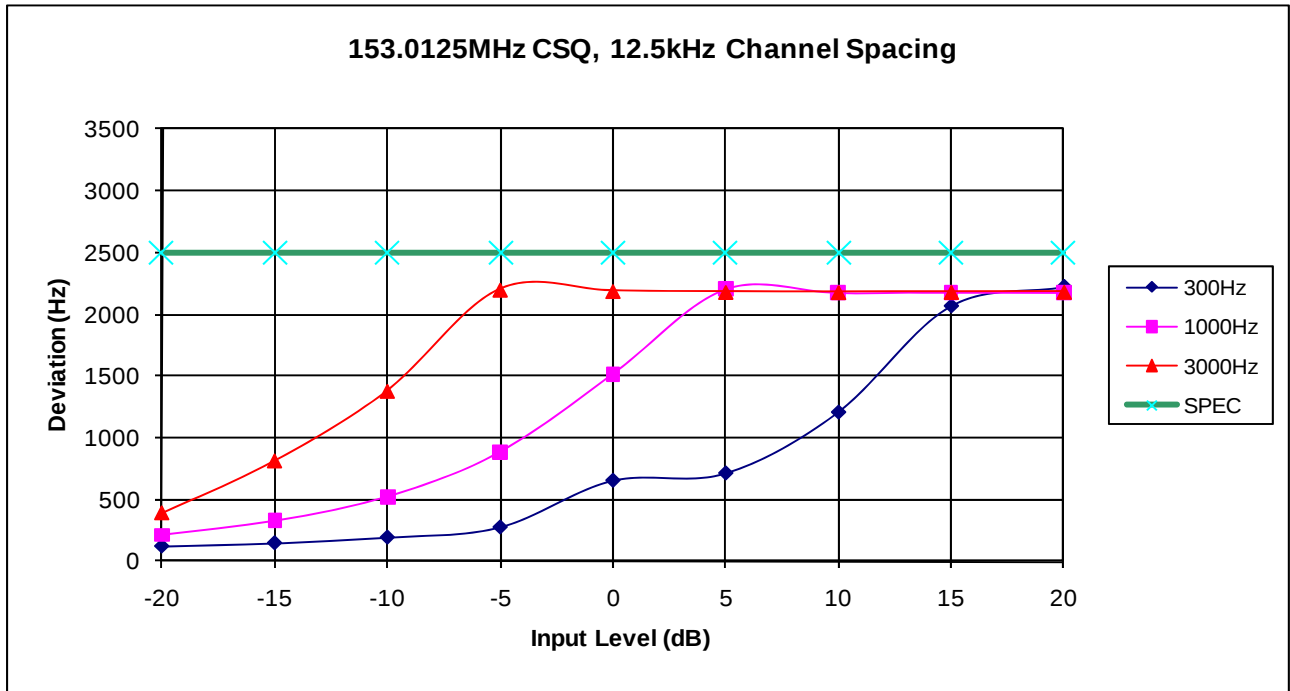
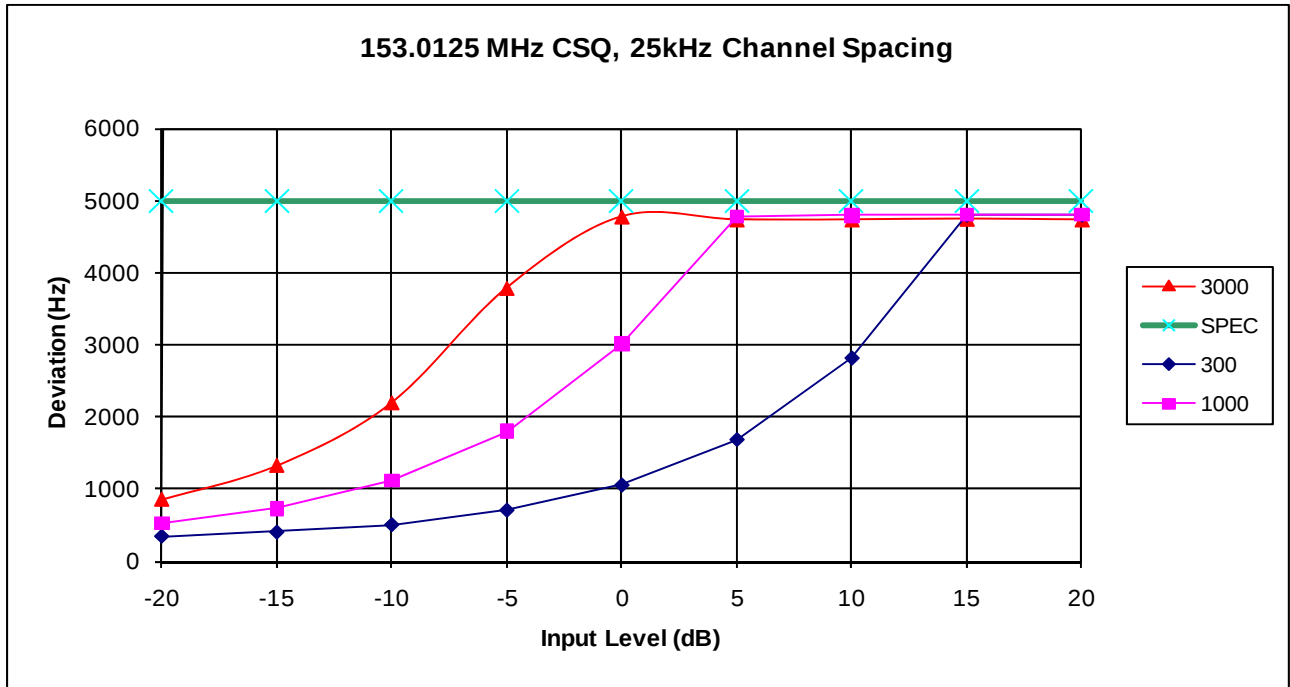
**Freq: 153.0125 MHz, ChSp: 25 kHz**

Exhibit 6D-2



BANDWIDTH CALCULATIONS:

Carson's Rule for FM modulation is utilized to compute the bandwidth shown in the FCC emission designator. Carson's Rule is:

$$BW = 2 * (M + D)$$

where: BW = Bandwidth
M= Maximum modulating frequency
D = Deviation

Shown below are the calculations required for FCC ID: ABZ99FT3089

Standard Audio Modulation (12.5 kHz Channelization, Analog Voice):
Emission Designator 11K0F3E

In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} \Rightarrow 11K0$
F3E portion of the designator indicates voice.

Therefore, the entire designator for 12.5 kHz channelization analog voice is 11K0F3E.

Standard Audio Modulation (25 kHz Channelization, Analog Voice):
Emission Designator 16K0F3E

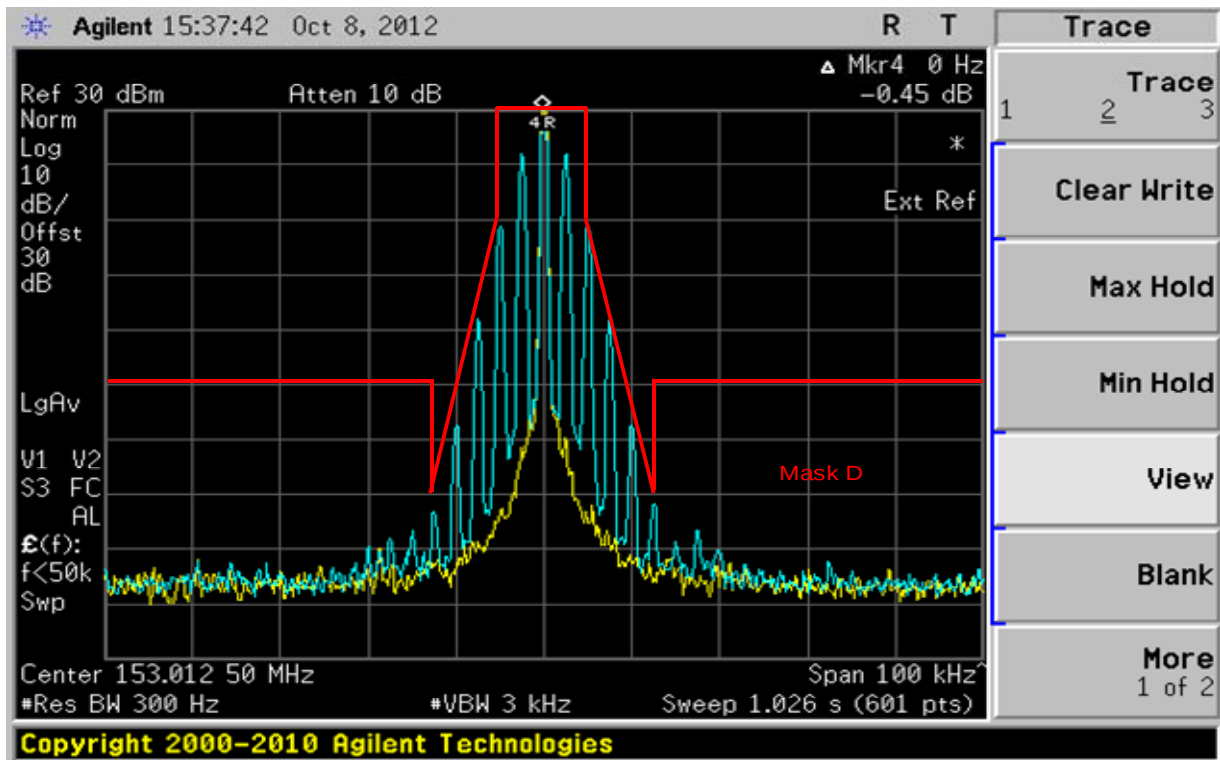
In this case, the maximum modulating frequency is 3 kHz with a 5 kHz deviation.

$BW = 2(M+D) = 2*(3 \text{ kHz} + 5 \text{ kHz}) = 16 \text{ kHz} \Rightarrow 16K0$
F3E portion of the designator indicates voice.

Therefore, the entire designator for 25 kHz channelization analog voice is 16K0F3E

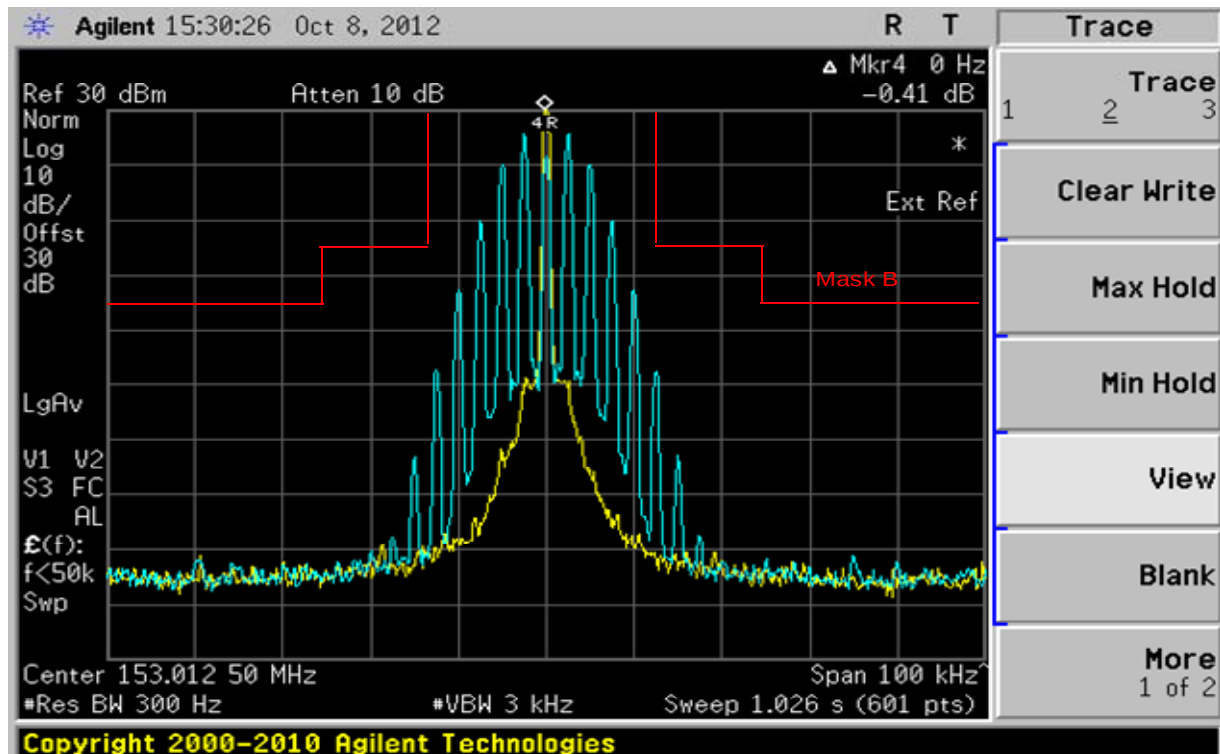
EXHIBIT 6E**Occupied Bandwidth Data** -- Pursuant 47 CFR 2.1049, 90.210 (b) & (d)

Exhibit 6E-1



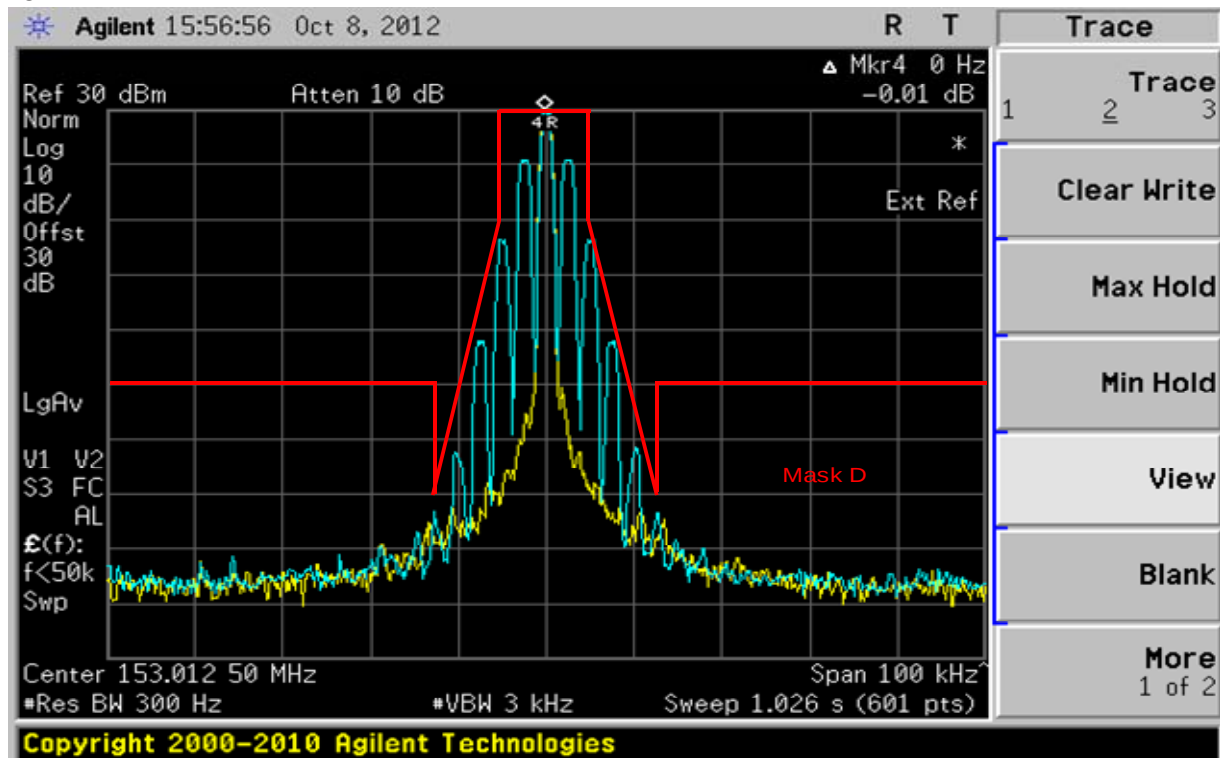
153.0125 MHz, 12.5 kHz Channel Spacing, 2500 Hz Audio Modulation Only, 11K0F3E Mask D

Exhibit 6E-2



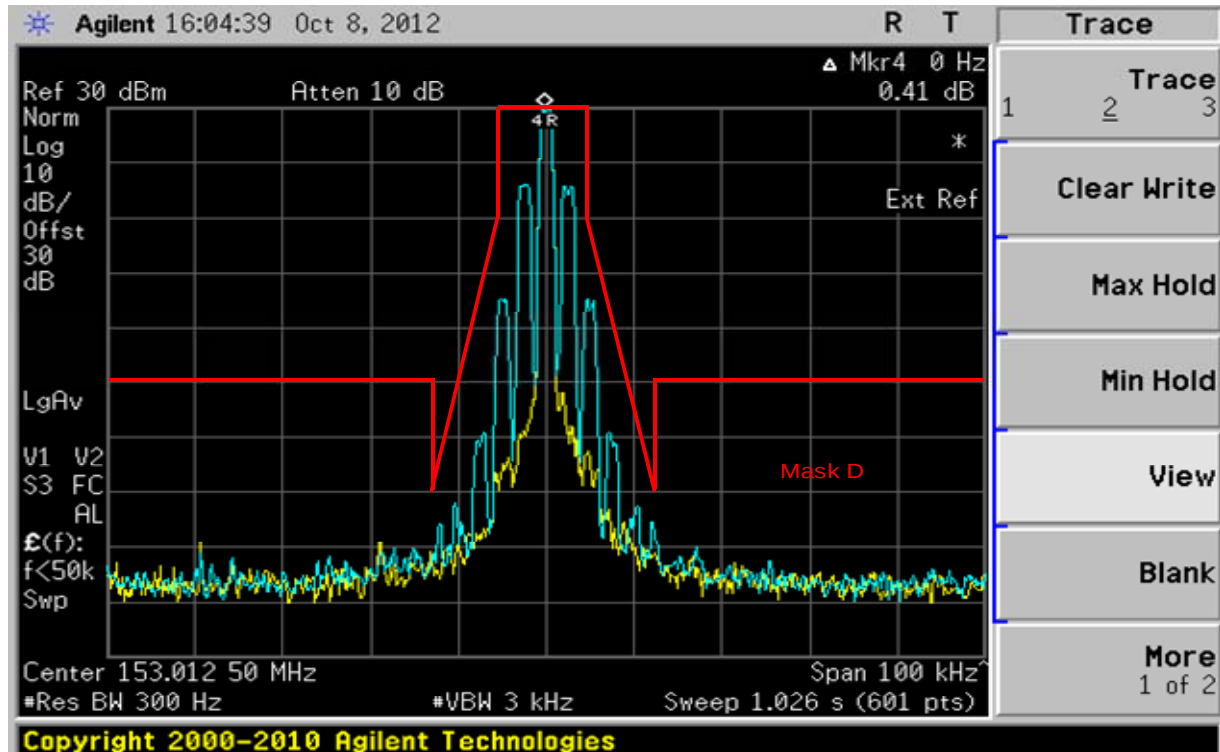
153.0125 MHz, 25 kHz Channel Spacing, 2500 Hz Audio Modulation Only, 16K0F3E Mask B

Exhibit 6E-3



153.0125 MHz, 12.5 kHz, 2500 Hz Audio and PL Tone Modulation, 11K0F3E Mask D

Exhibit 6E-4



153.0125 MHz, 12.5 kHz, 2500 Hz Audio and DPL Tone Modulation, **11K0F3E Mask D**

Exhibit 6E-5

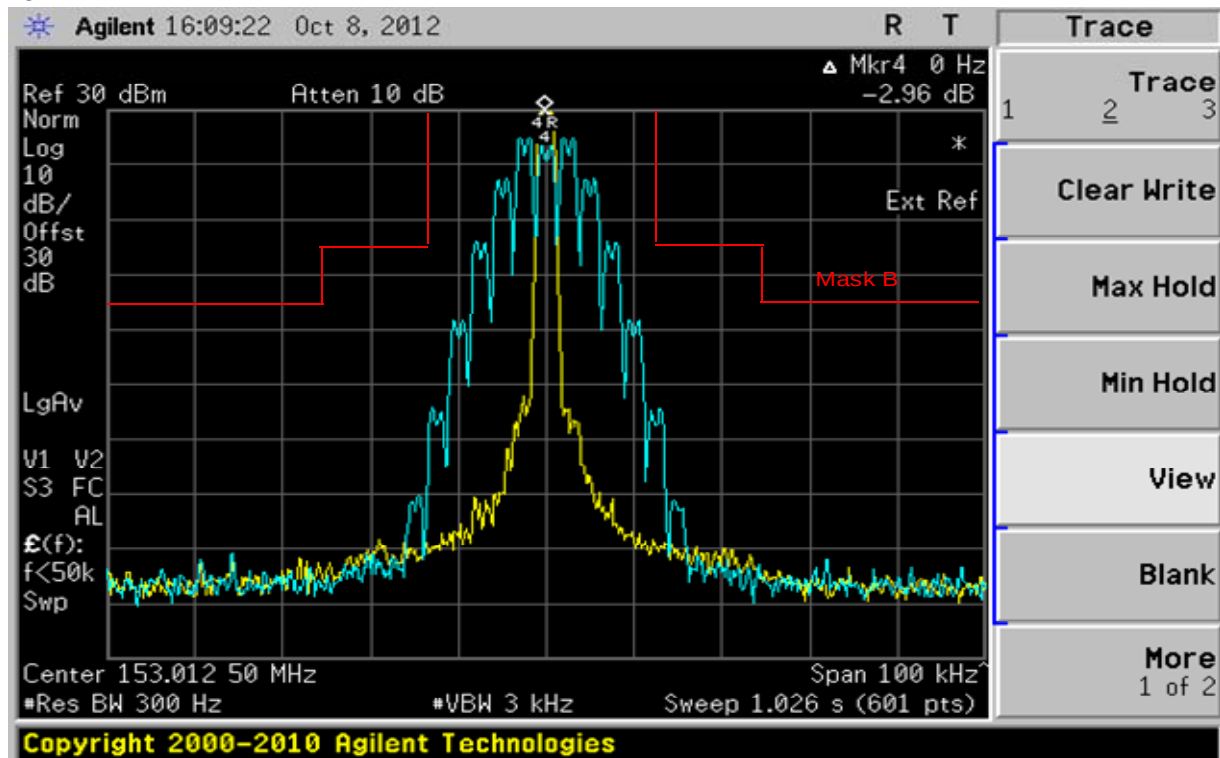
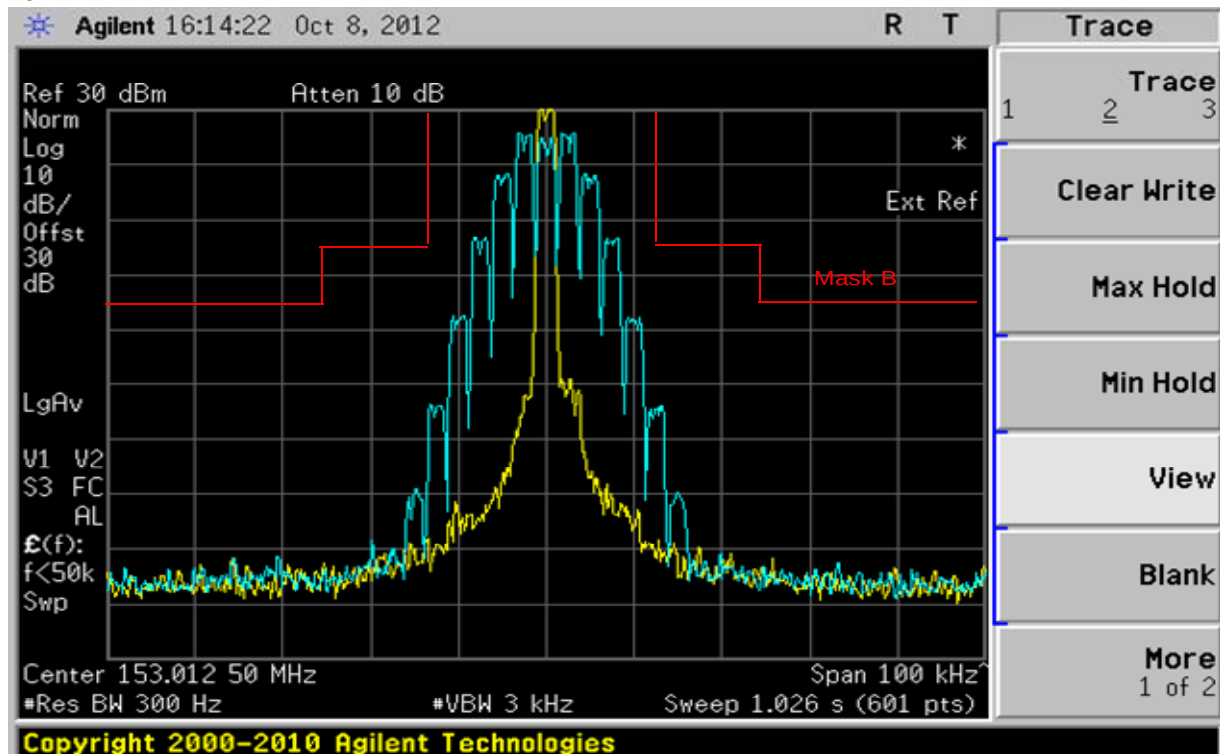
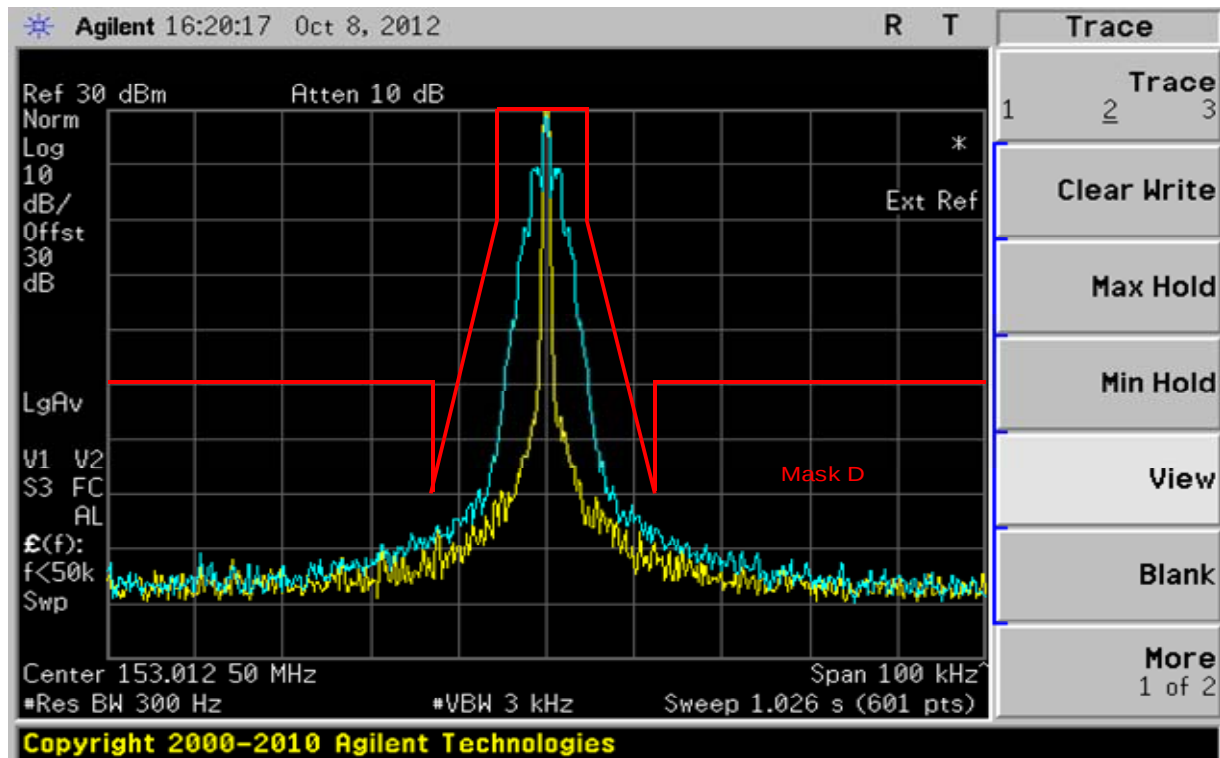
153.0125 MHz, 25 kHz, 2500 Hz Audio and PL Tone Modulation, **16K0F3E Mask B**

Exhibit 6E-6



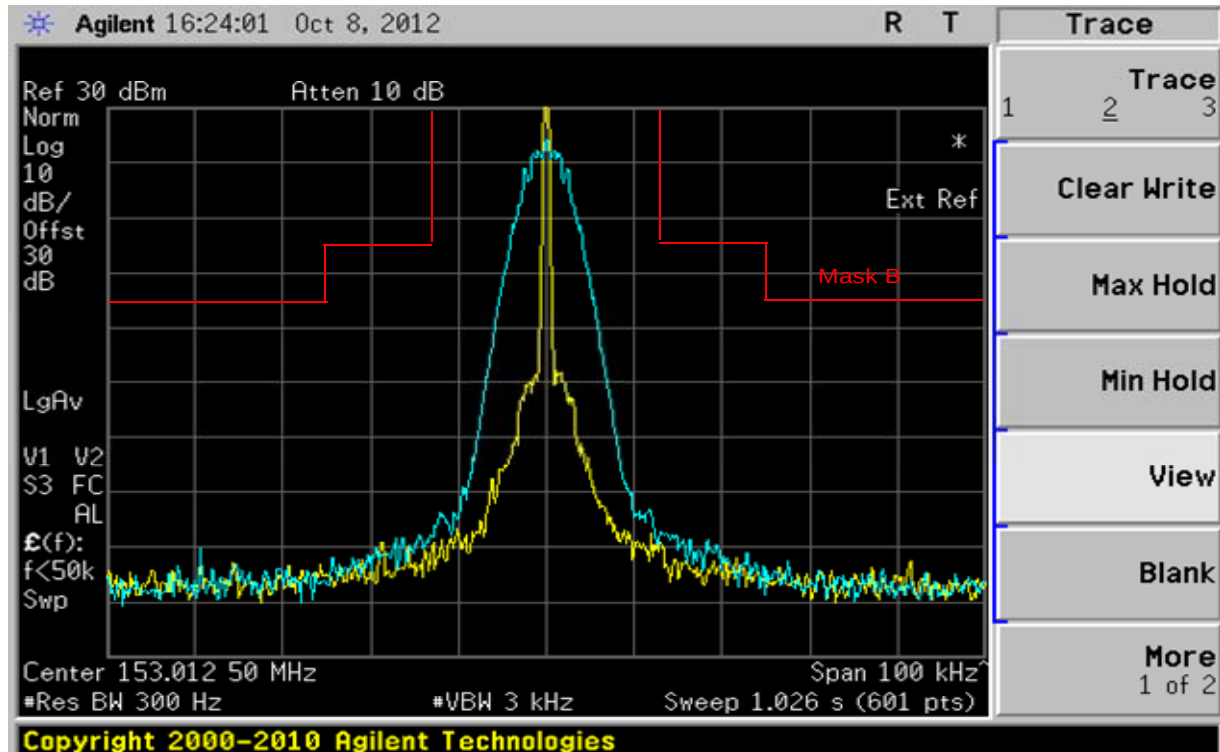
153.0125 MHz, 25 kHz, 2500 Hz Audio and DPL Tone Modulation, 16K0F3E Mask B

Exhibit 6E-7



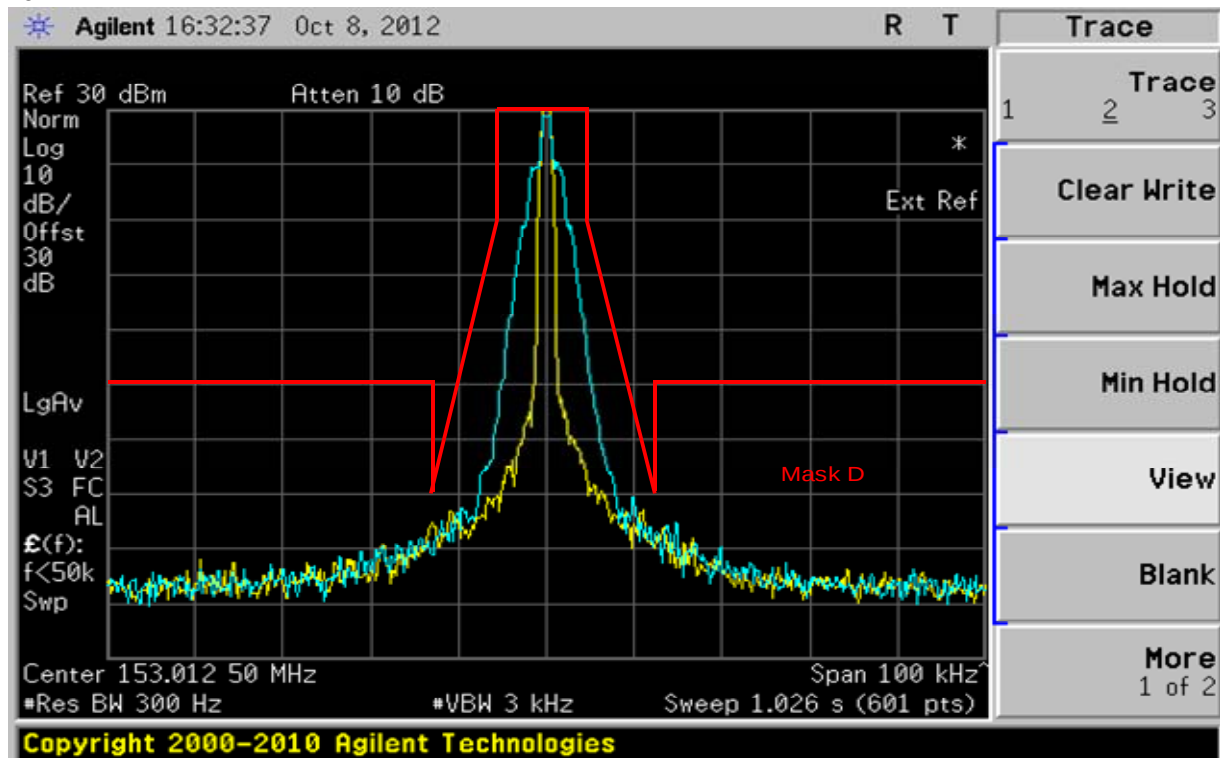
153.0125 MHz, 12.5 kHz Channel Spacing, DTMF Modulation Only, 11K0F3E Mask D

Exhibit 6E-8



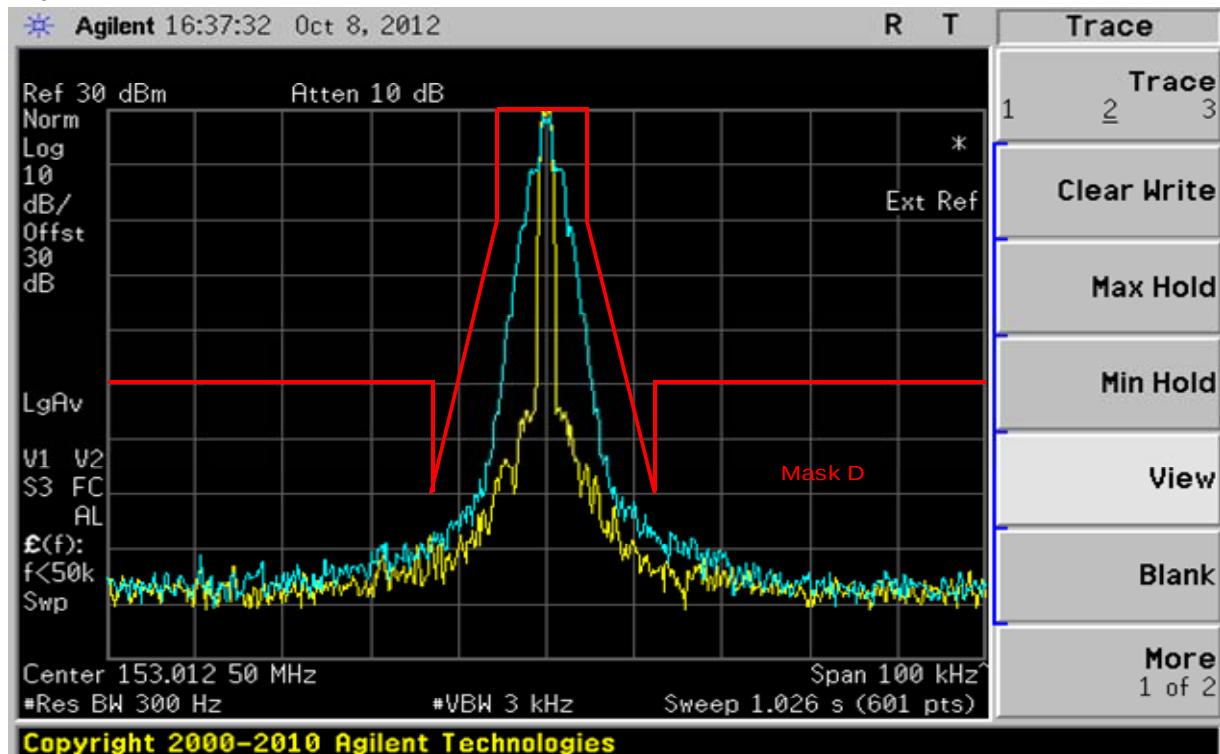
153.0125 MHz, 25 kHz Channel Spacing, DTMF Modulation Only, 16K0F3E Mask B

Exhibit 6E-9



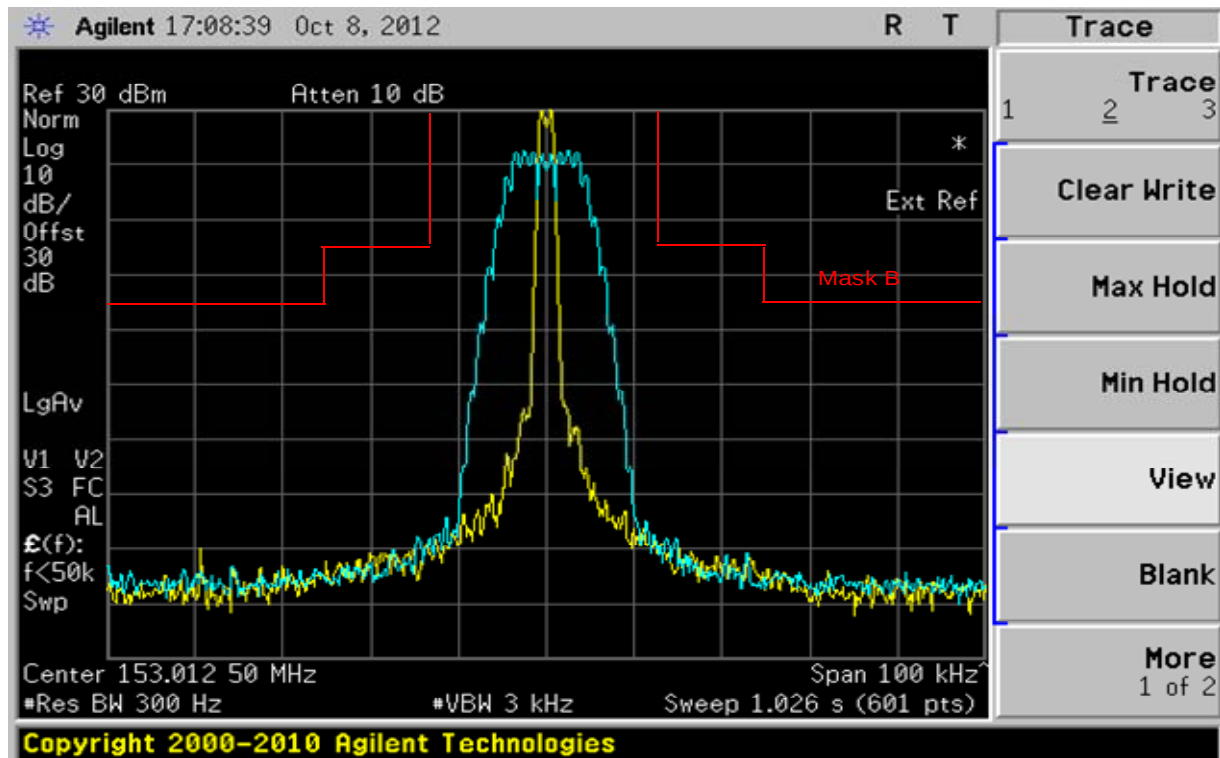
153.0125 MHz, 12.5 kHz Channel Spacing, DTMF and PL Tone Modulation, 11K0F3E Mask D

Exhibit 6E-10



153.0125 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask D

Exhibit 6E-11



153.0125 MHz, 25 kHz Channel Spacing, DTMF and PL Tone Modulation, 16K0F3E Mask B

Exhibit 6E-12

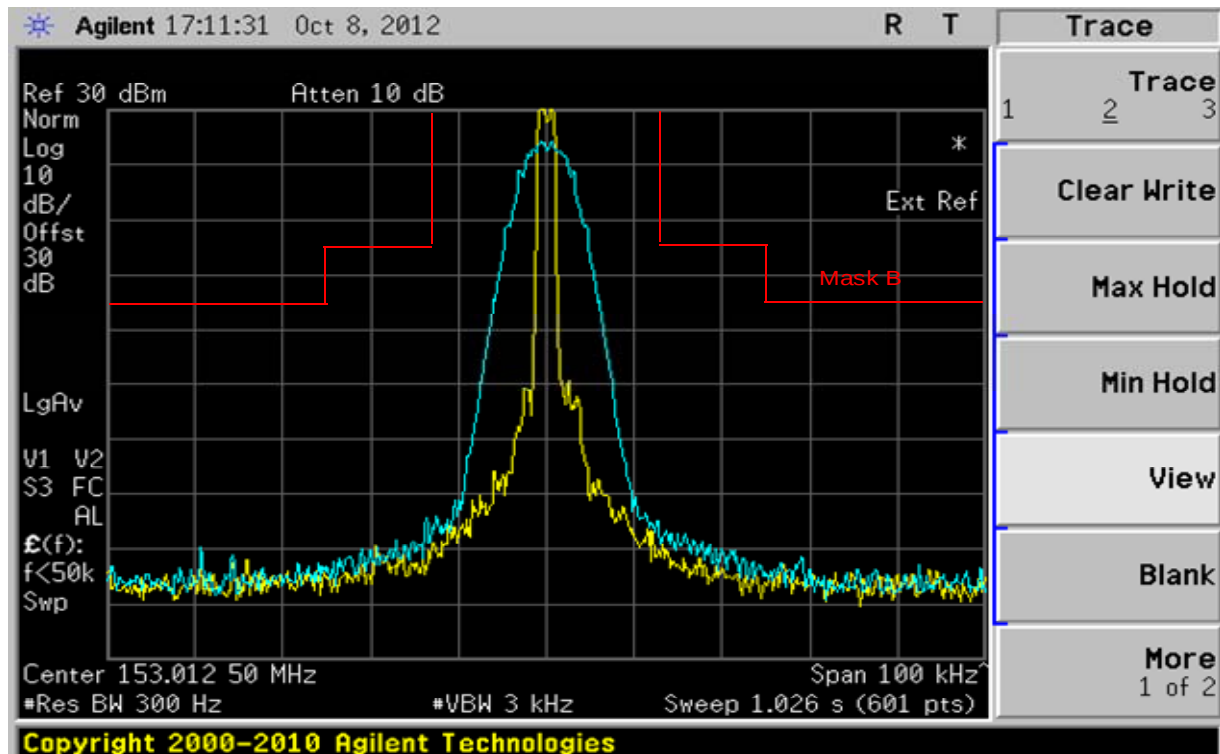
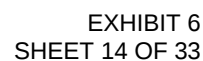


Exhibit 6E-13



Exhibit 6E-14



153.0125 MHz, 25 kHz, 2000/3000 Hz FSK Data Modulation Only, **16K0F3E Mask B**

Exhibit 6E-15

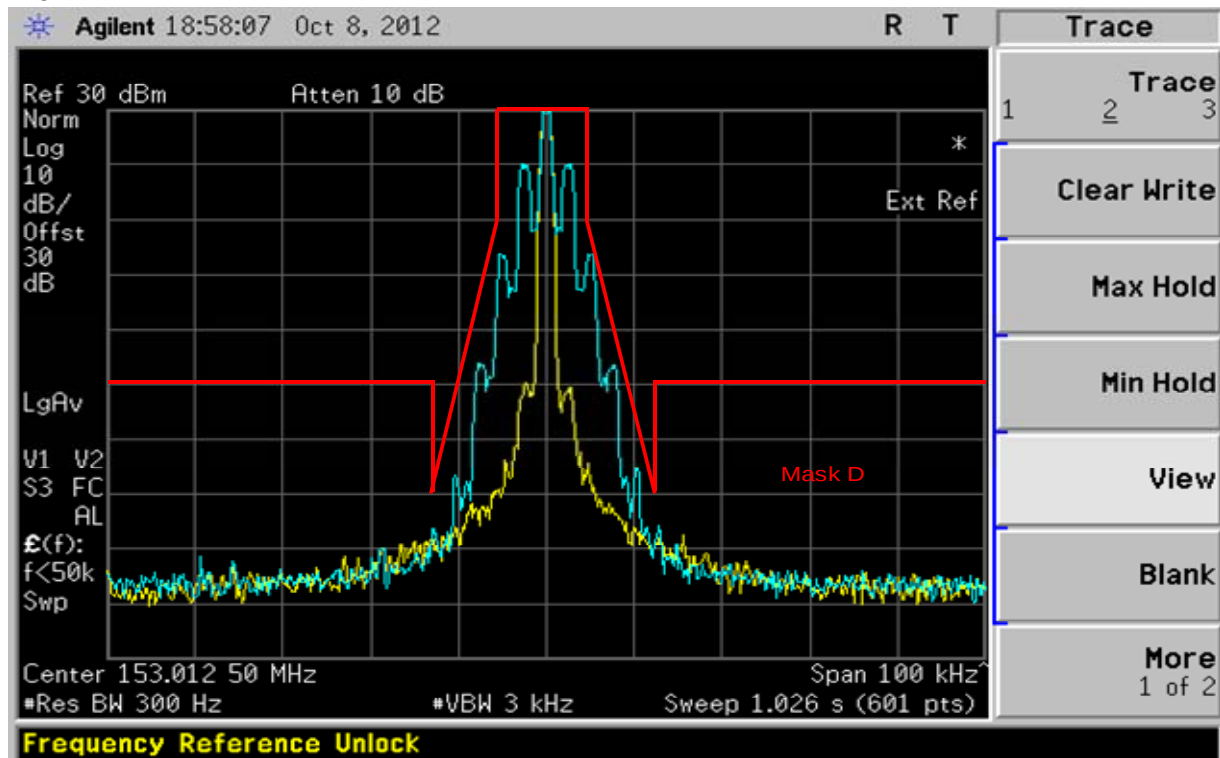
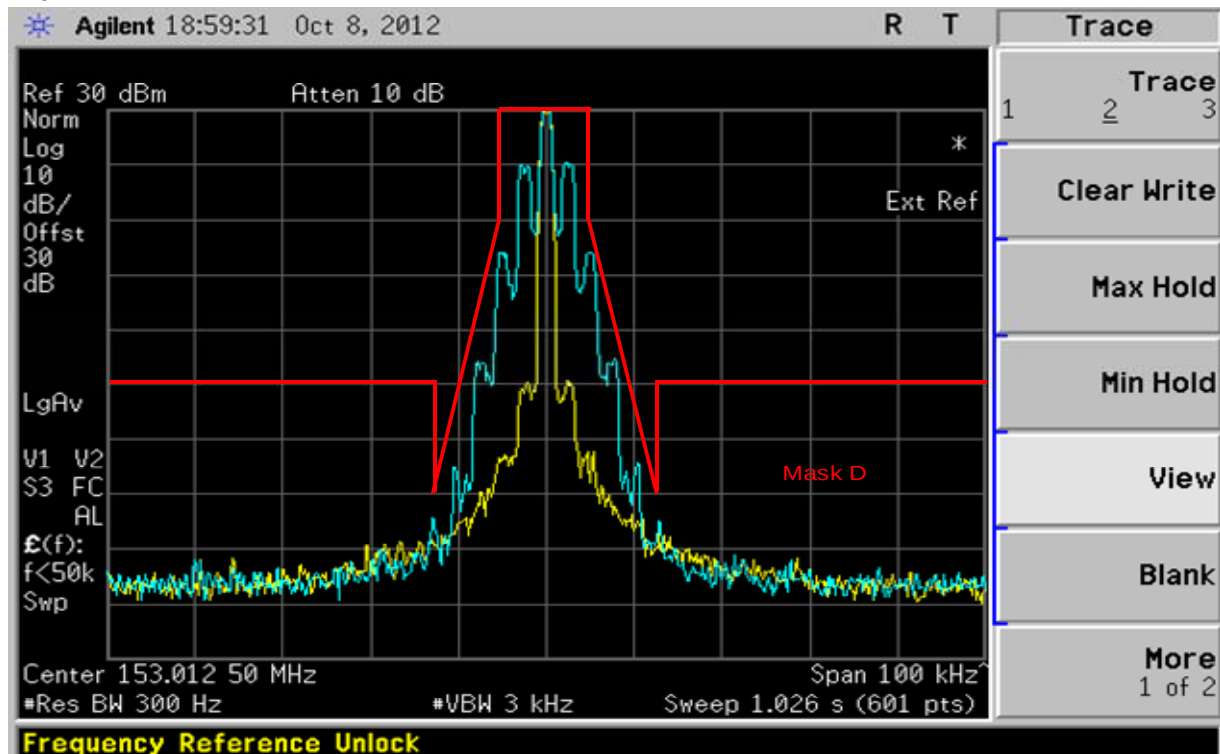
153.0125 MHz, 12.5 kHz, 2000/3000 Hz FSK Data and PL Tone Modulation, **11K0F3E Mask D**

Exhibit 6E-16



153.0125 MHz, 12.5 kHz, 2000/3000 Hz FSK Data and DPL Tone Modulation, **11K0F3E Mask D**

Exhibit 6E-17

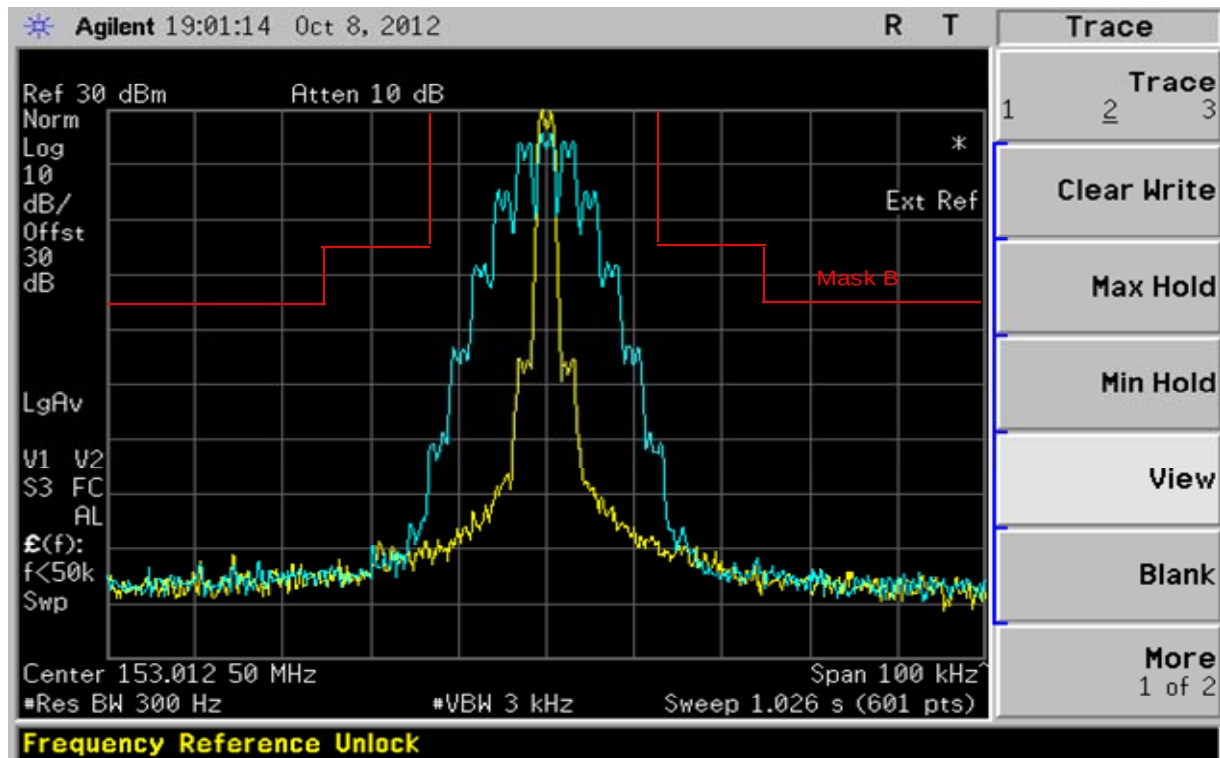
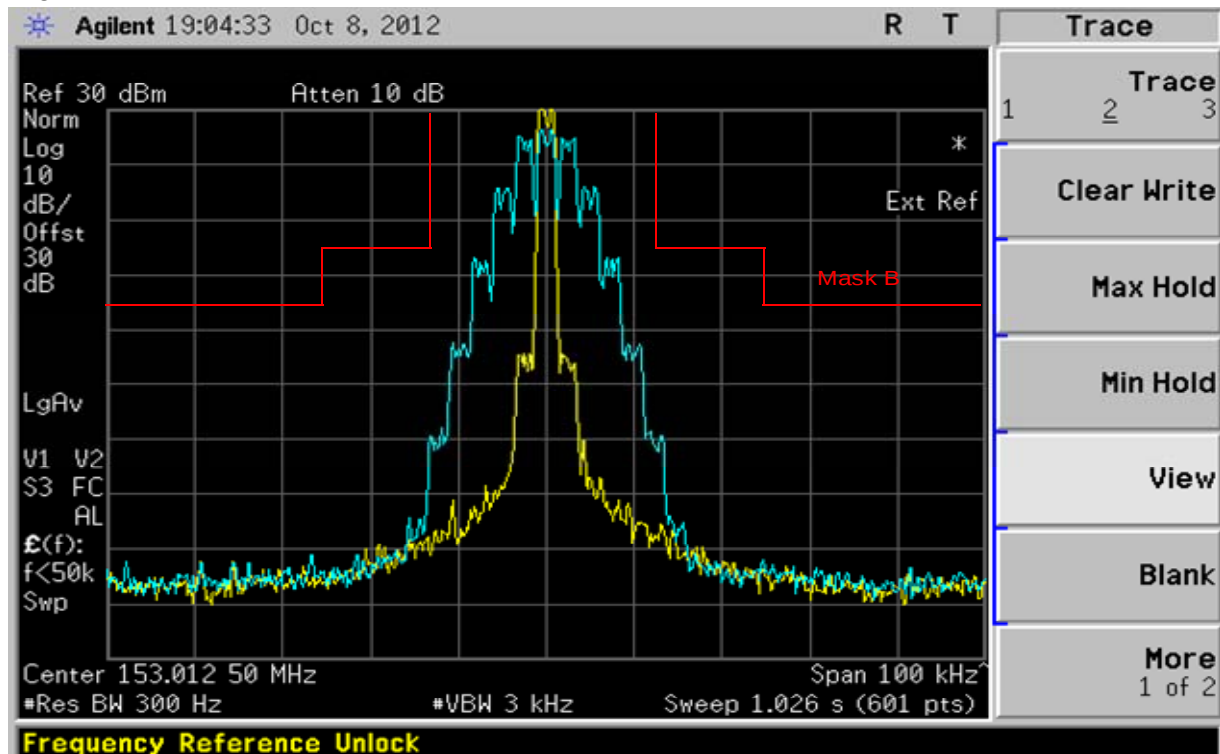
153.0125 MHz, 25 kHz, 2000/3000 Hz FSK Data and PL Tone Modulation, **16K0F3E Mask B**

Exhibit 6E-18



153.0125 MHz, 25 kHz, 2000/3000 Hz FSK Data and DPL Tone Modulation, **16K0F3E Mask B**

Exhibit 6E-19

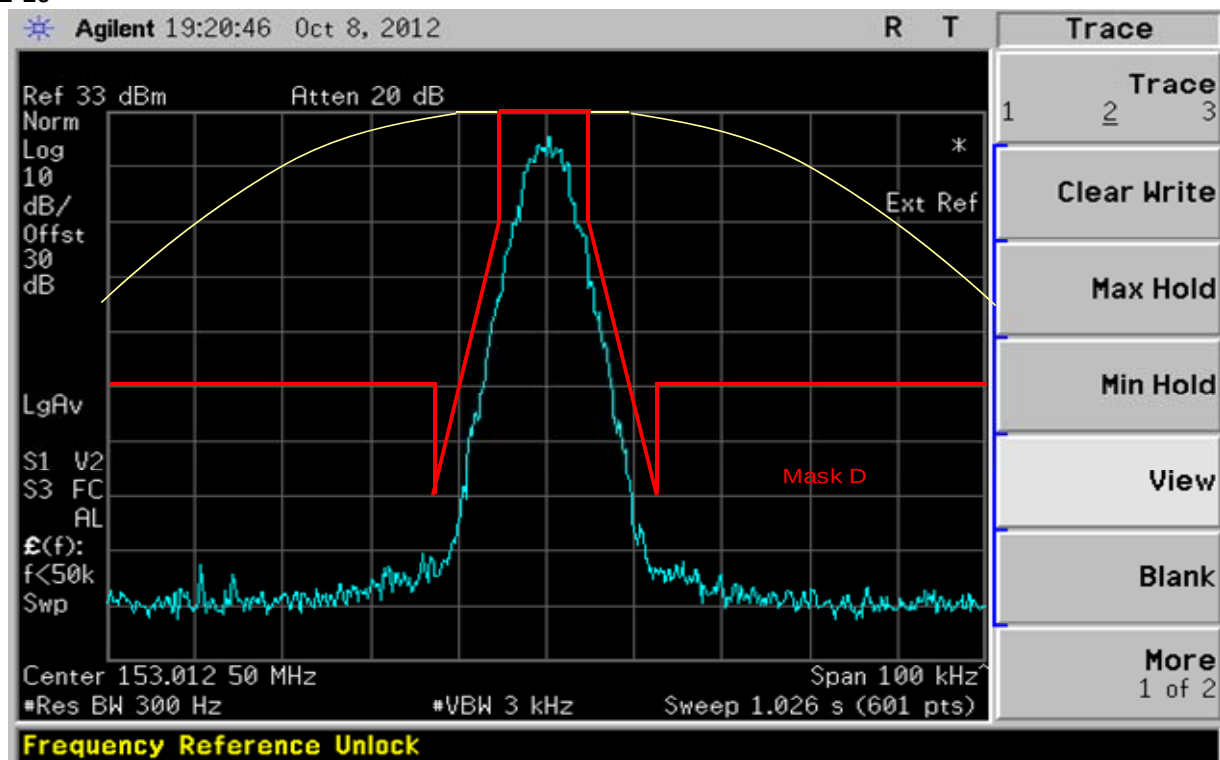
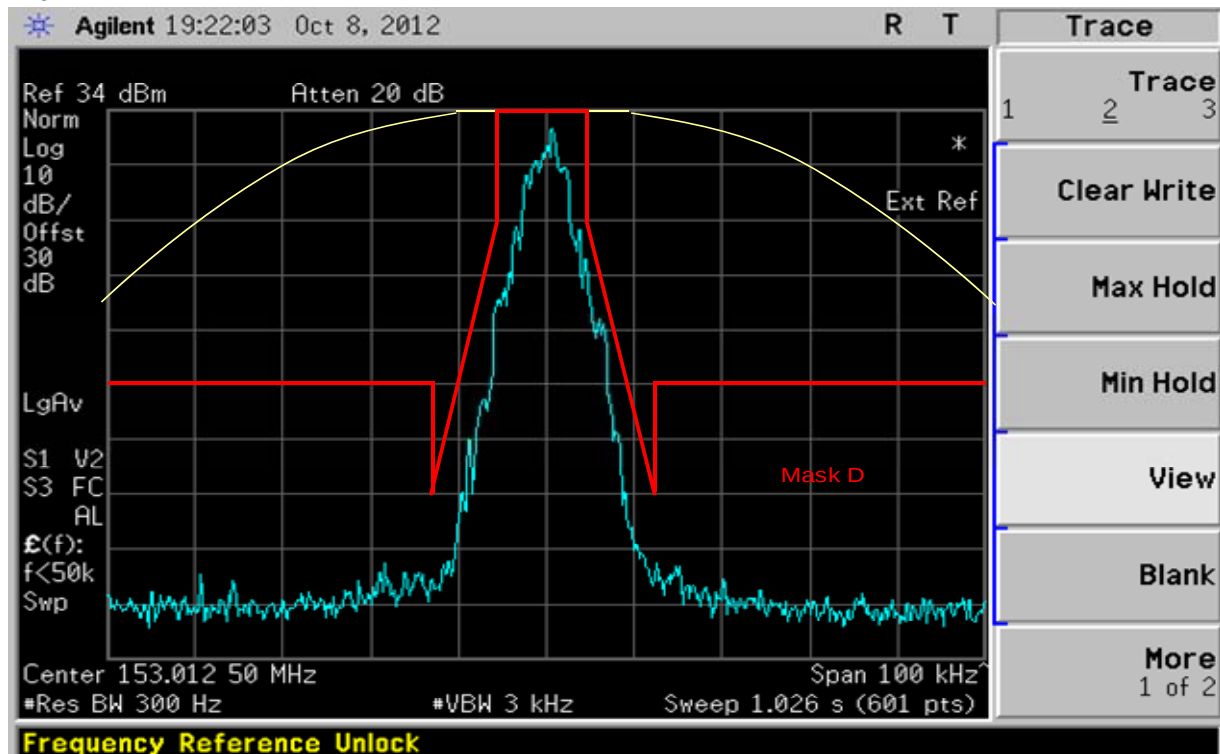
153.0125 MHz, O.153 Test Pattern 4FSK Voice (F2 BER) and Data Modulation, **7K60FXE Mask D**

Exhibit 6E-20



153.0125 MHz, O.153 Test Pattern 4FSK Voice (F2 Silent) and Data Modulation, 7K60FXD Mask D

****NOTE:-**

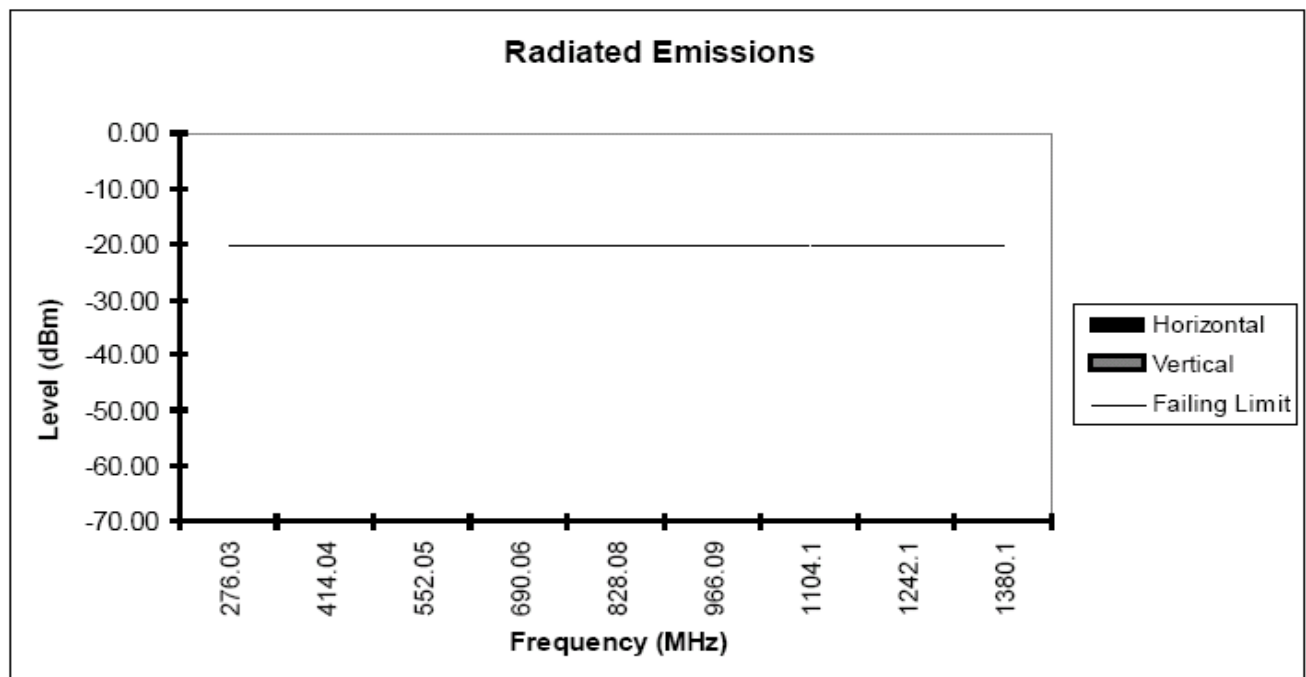
- **All measurements of Occupied Bandwidth which are shown on the above plots are measured using a Spectrum Analyzer**
- **Measurement using a Spectrum Analyzer must use a 30dB attenuation in order to avoid damage to it**
- **Therefore the reference power level (Ref) shown on each plot refers to its true power level**

EXHIBIT 6F**Transmitter Radiated Spurious Emissions - Pursuant 47 CFR 2.1053 and 2.1033(c)(13)**

Exhibit 6F-1

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

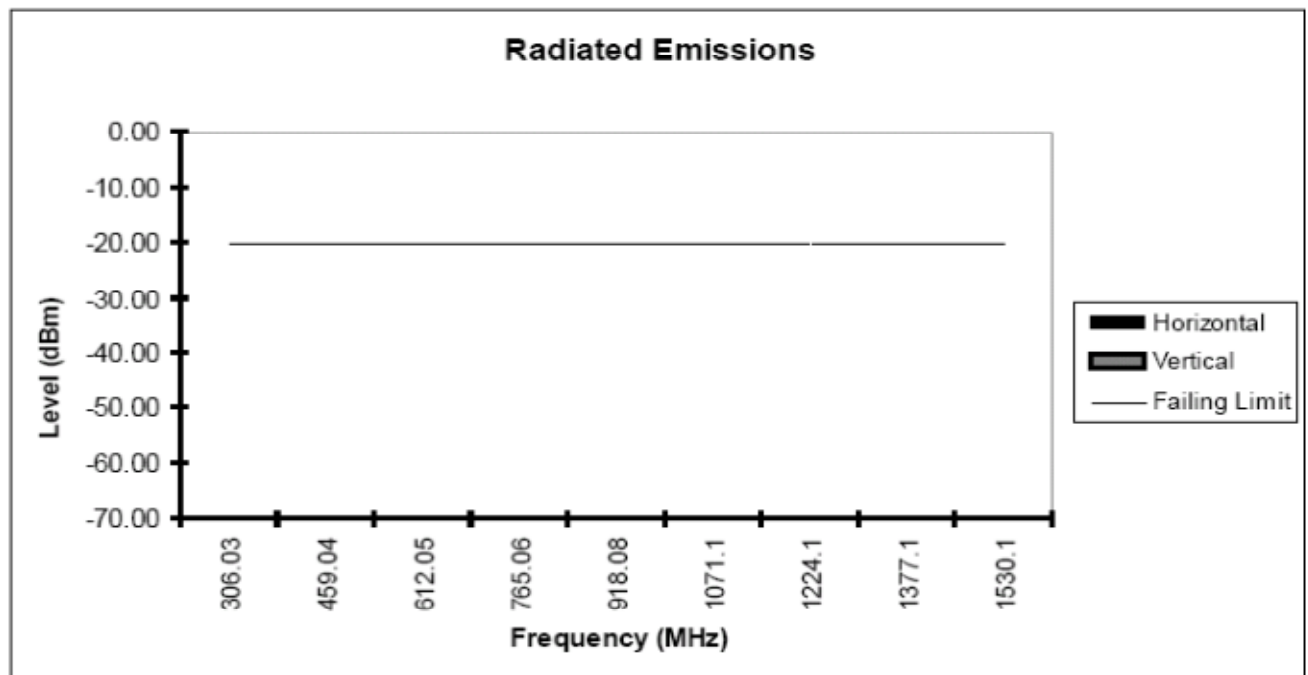


6F-1 – 138.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

Exhibit 6F-2

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

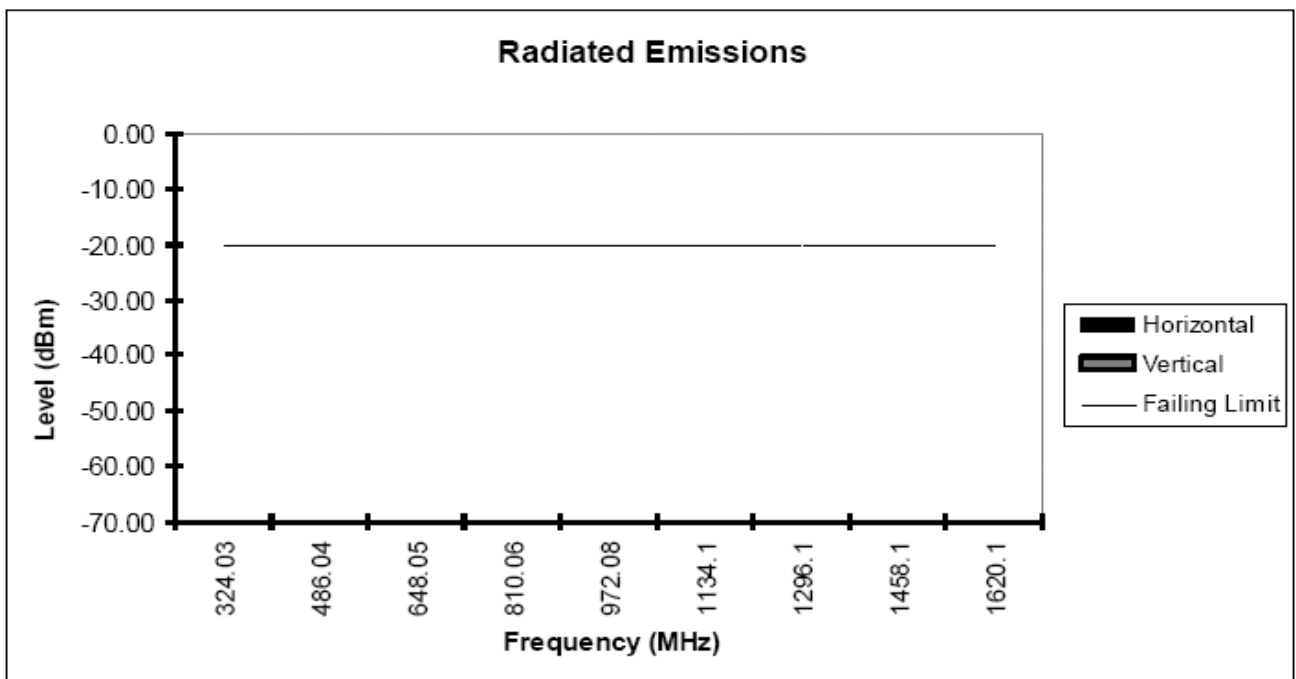


6F-2 – 153.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

Exhibit 6F-3

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

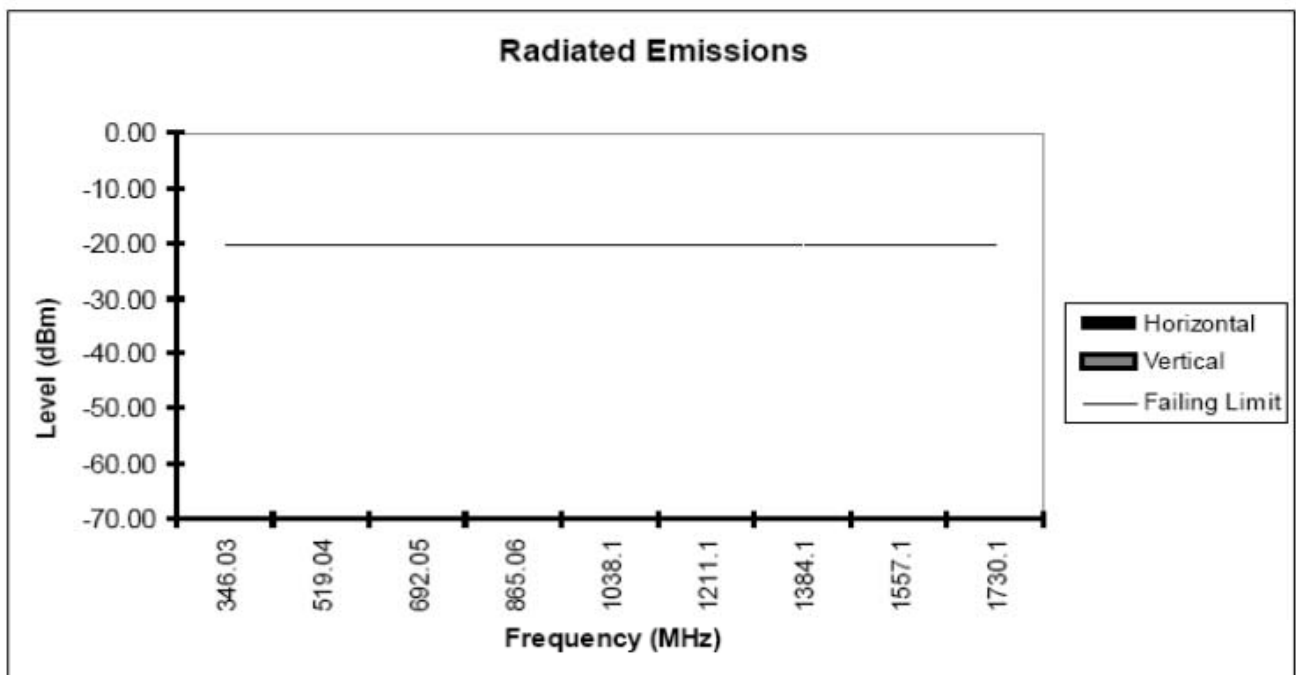


6F-3 – 162.9875 MHz, 12.5 kHz Channel Spacing, 1.26W

Exhibit 6F-4

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

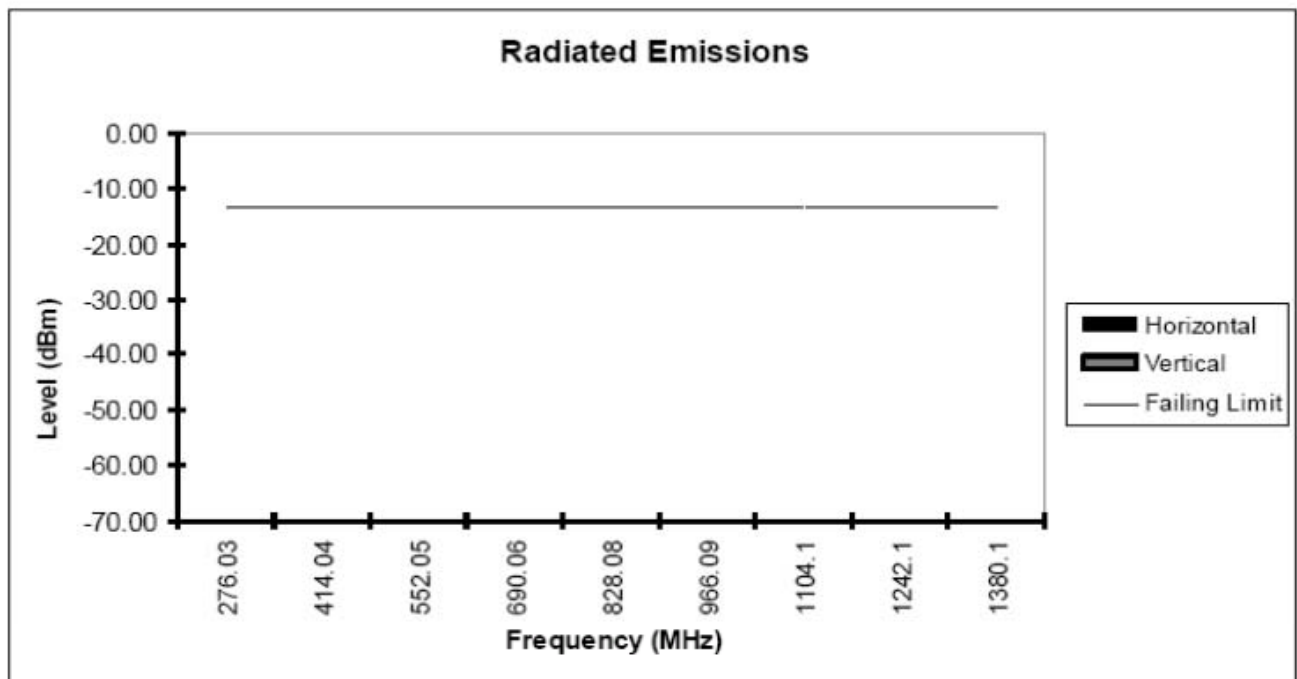


6F-4 – 173.0125 MHz, 12.5 kHz Channel Spacing, 1.26W

Exhibit 6F-5

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

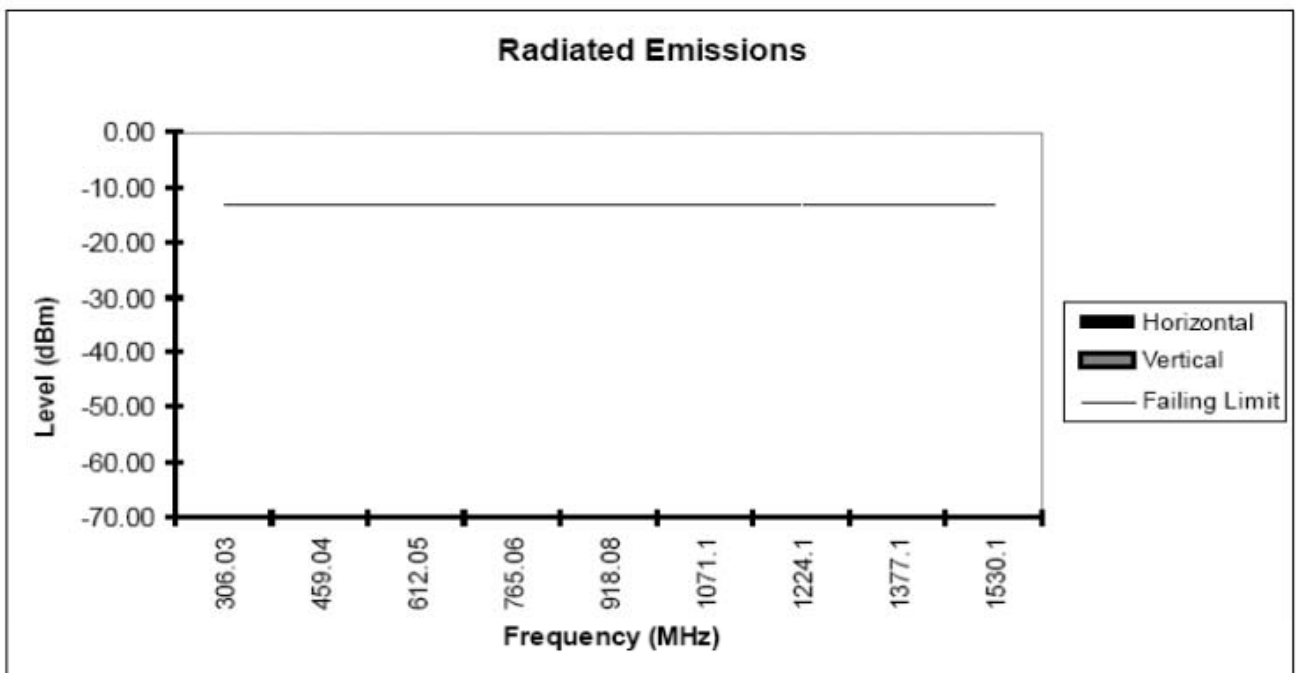


6F-5 – 138.0125 MHz, 25 kHz Channel Spacing, 1.26W

Exhibit 6F-6

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

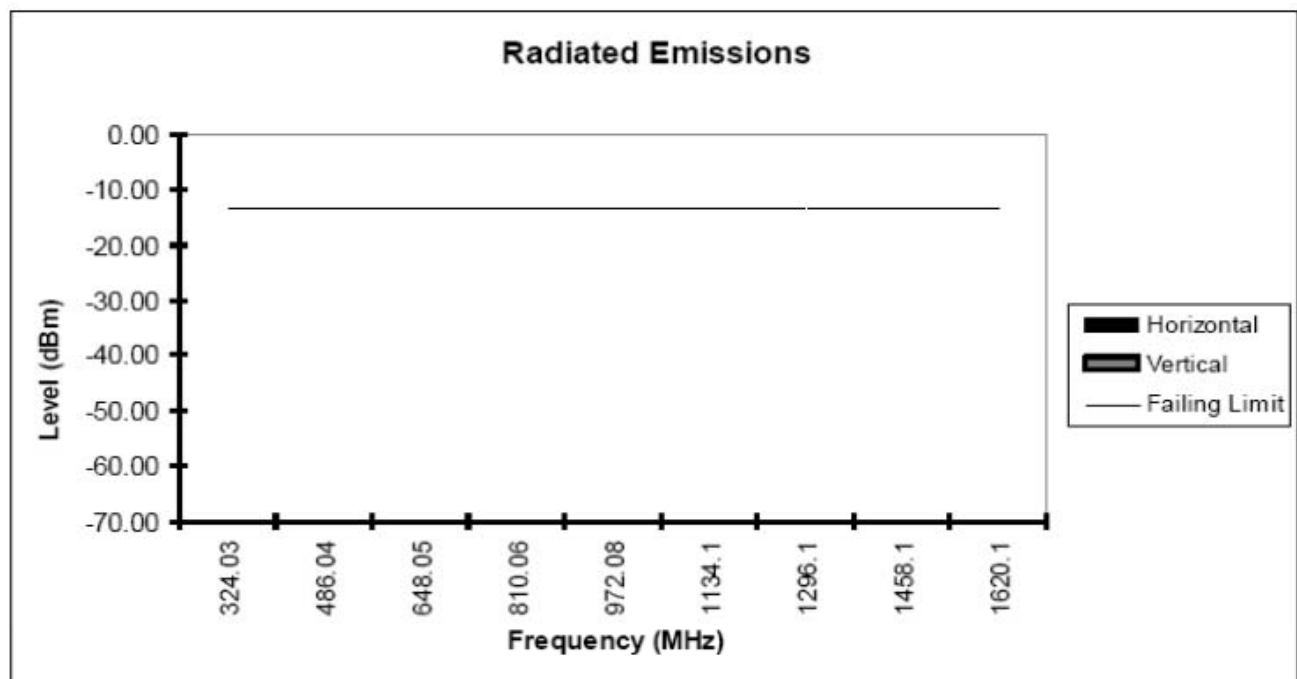


6F-6 – 153.0125 MHz, 25 kHz Channel Spacing, 1.26W

Exhibit 6F-7

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.

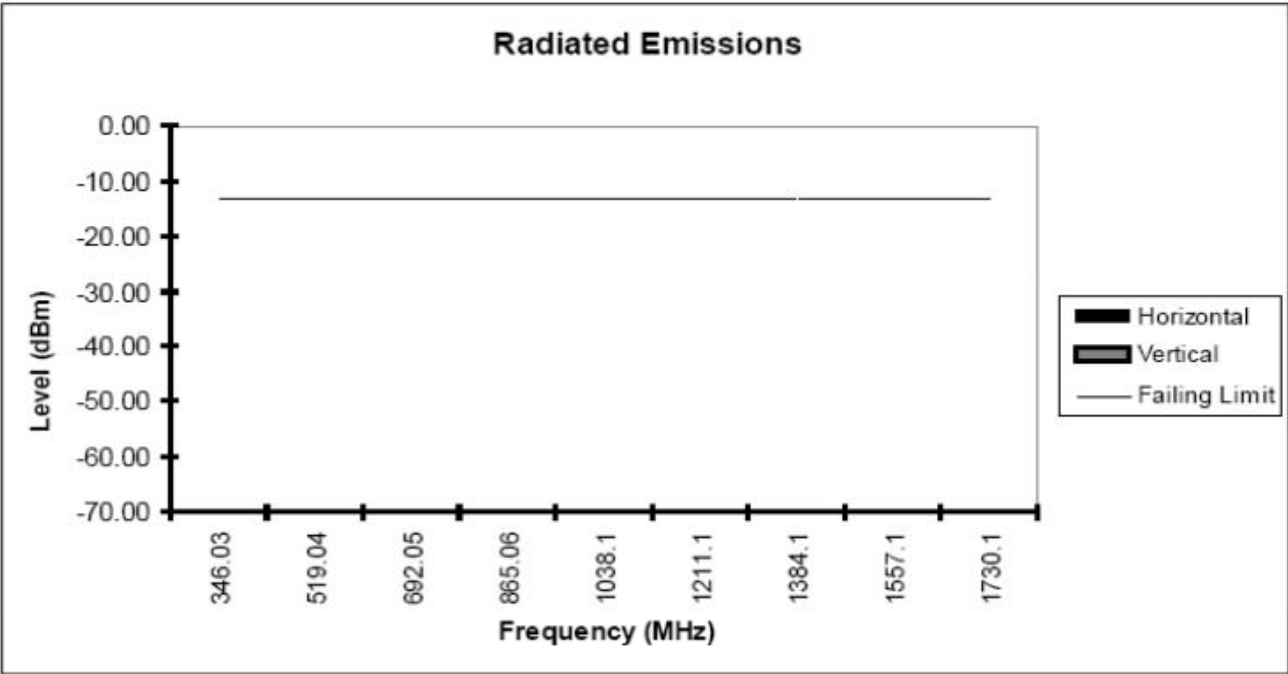


6F-7 – 162.0125 MHz, 25 kHz Channel Spacing, 1.26W

Exhibit 6F-8

Frequency (MHz)	Spectrum Analyzer Level (dBm)	Antenna Polarity (H/V)	Antenna Height (cm)	Angle (degrees)	Correction Factor (dB)	Spurious ERP (dBm)	Limit (dBm)	Margin (dB)
Noise Floor								

Note: All spurious emissions are attenuated below the limits and the noise floor of the measurement equipment.



6F-8 – 173.0125 MHz, 25 kHz Channel Spacing, 1.26W

EXHIBIT 6G**Transmitter Conducted Spurious Emissions** - Pursuant 47 CFR 2.1051 and 2.1033(c) (13)

Note: Lines on graphs correspond to the FCC limit of -13dBm for 25kHz and -20dBm for 12.5kHz.
Spurs which are not shown is less than 100dB

Exhibit 6G-1

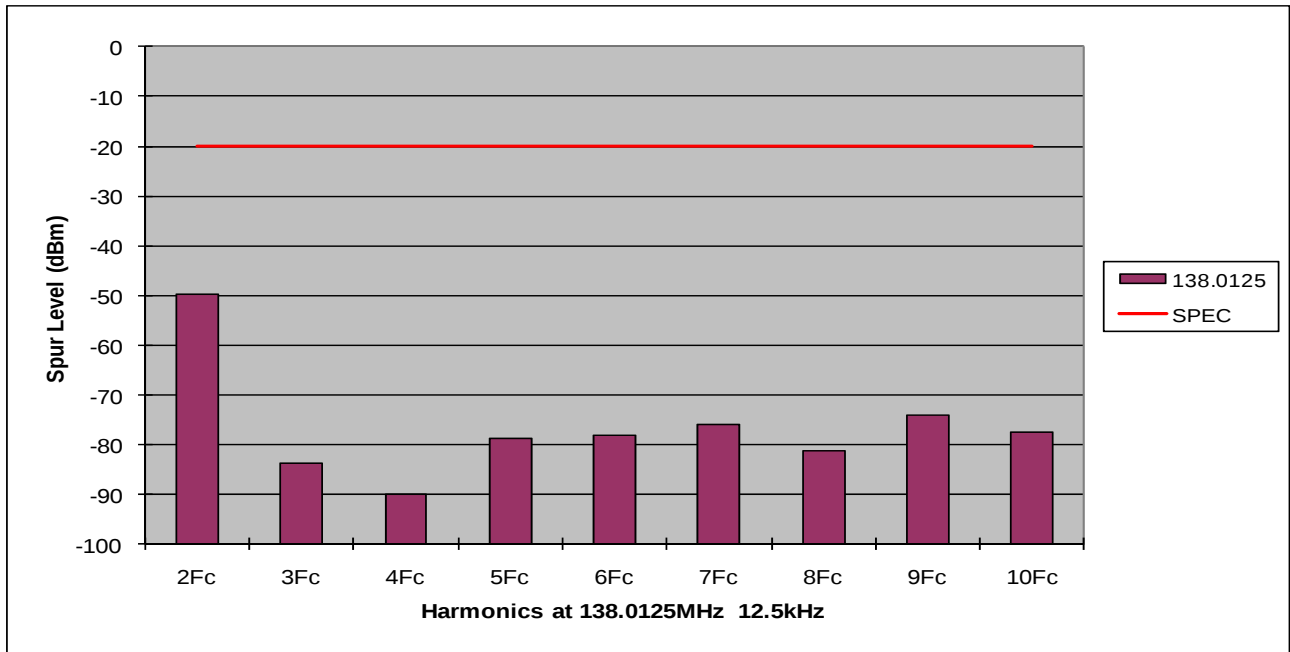
Harmonics at 138.0125 MHz, 12.5 kHz channel spacing at 1.26W

Exhibit 6G-2

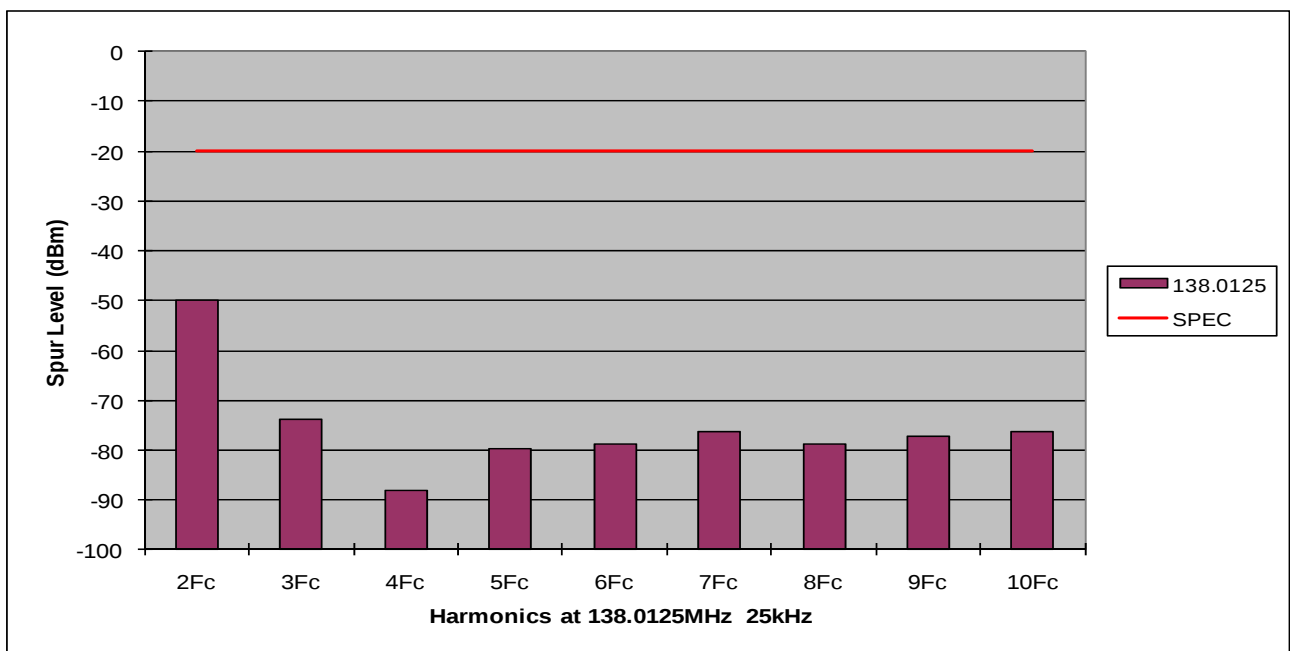
Harmonics at 138.0125 MHz, 25 kHz channel spacing at 1.26W

Exhibit 6G-3

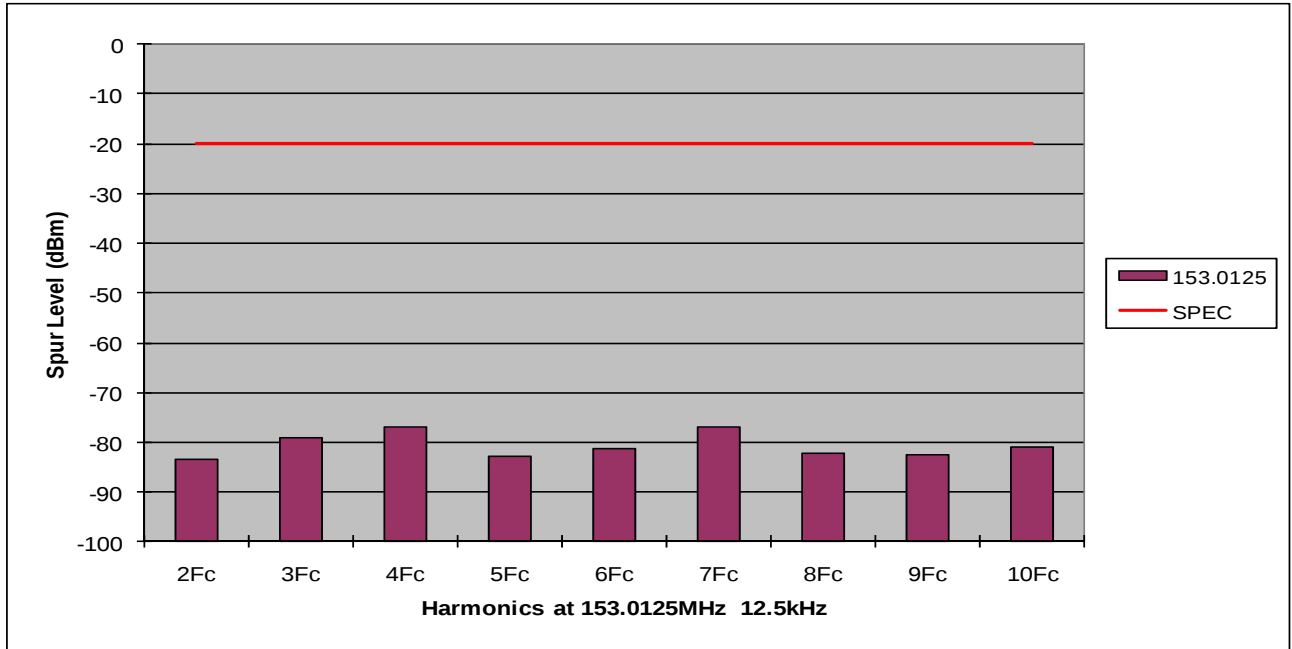
Harmonics at 153.0125 MHz, 12.5 kHz channel spacing at 1.26W

Exhibit 6G-4

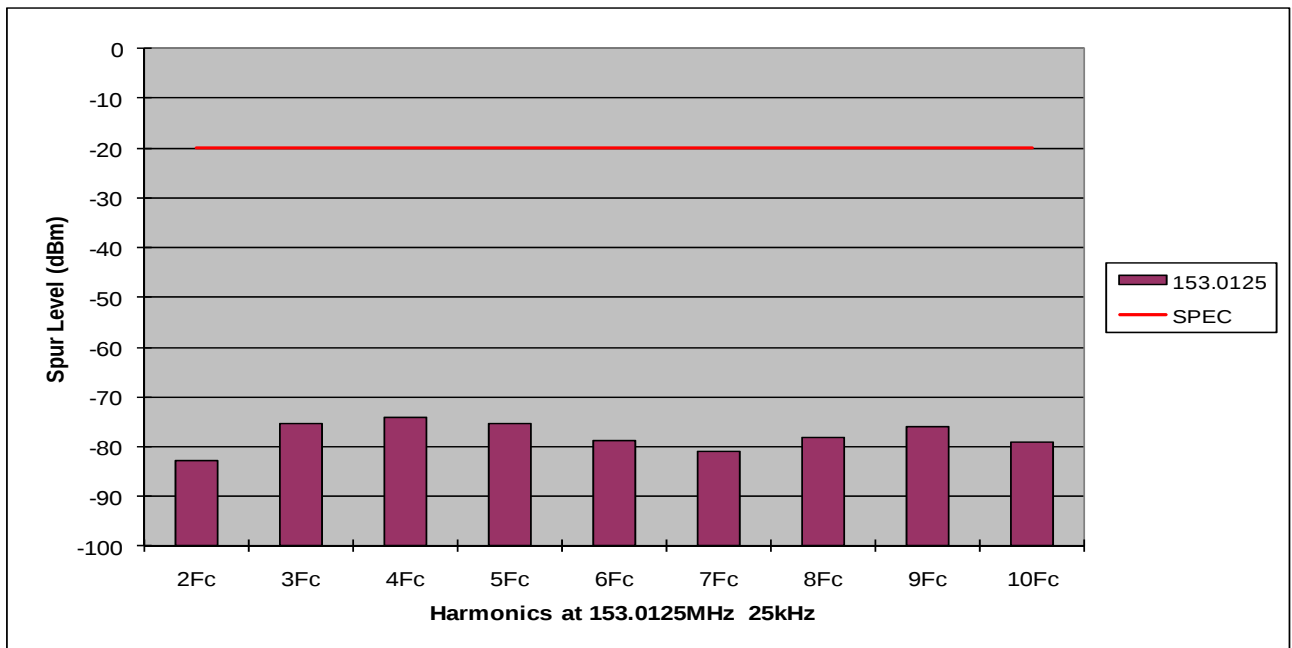
Harmonics at 153.0125 MHz, 25 kHz channel spacing at 1.26W

Exhibit 6G-5

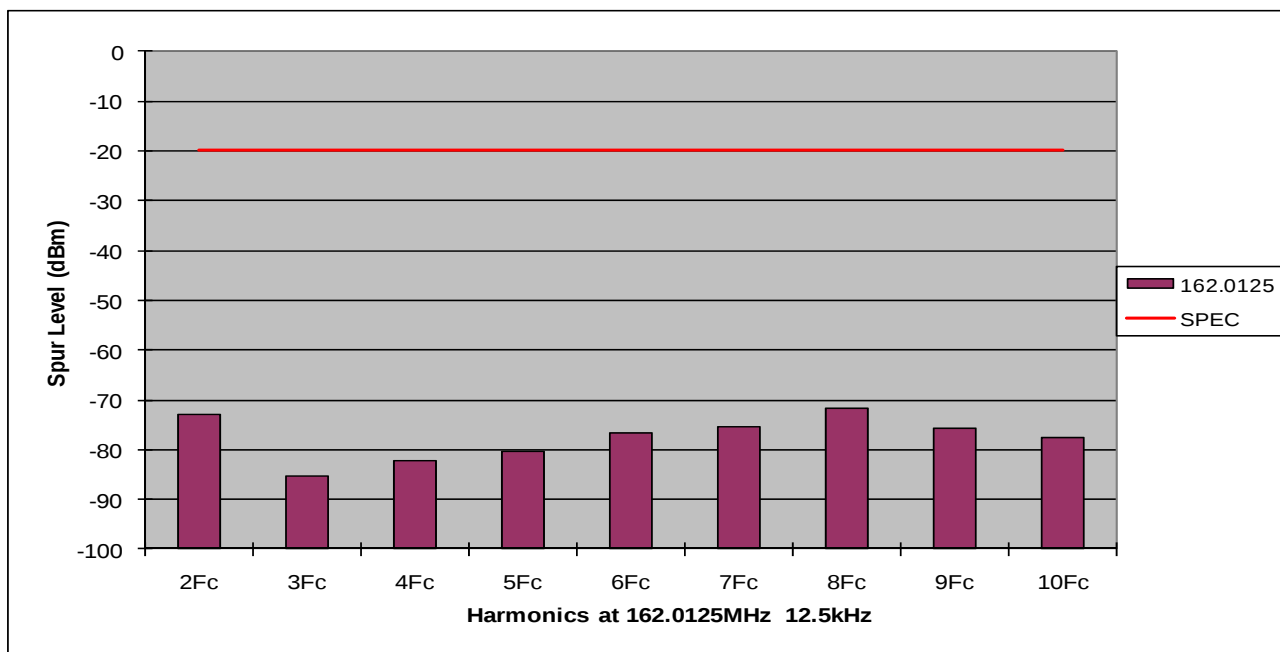
Harmonics at 162.0125 MHz, 12.5 kHz channel spacing at 1.26W

Exhibit 6G-6

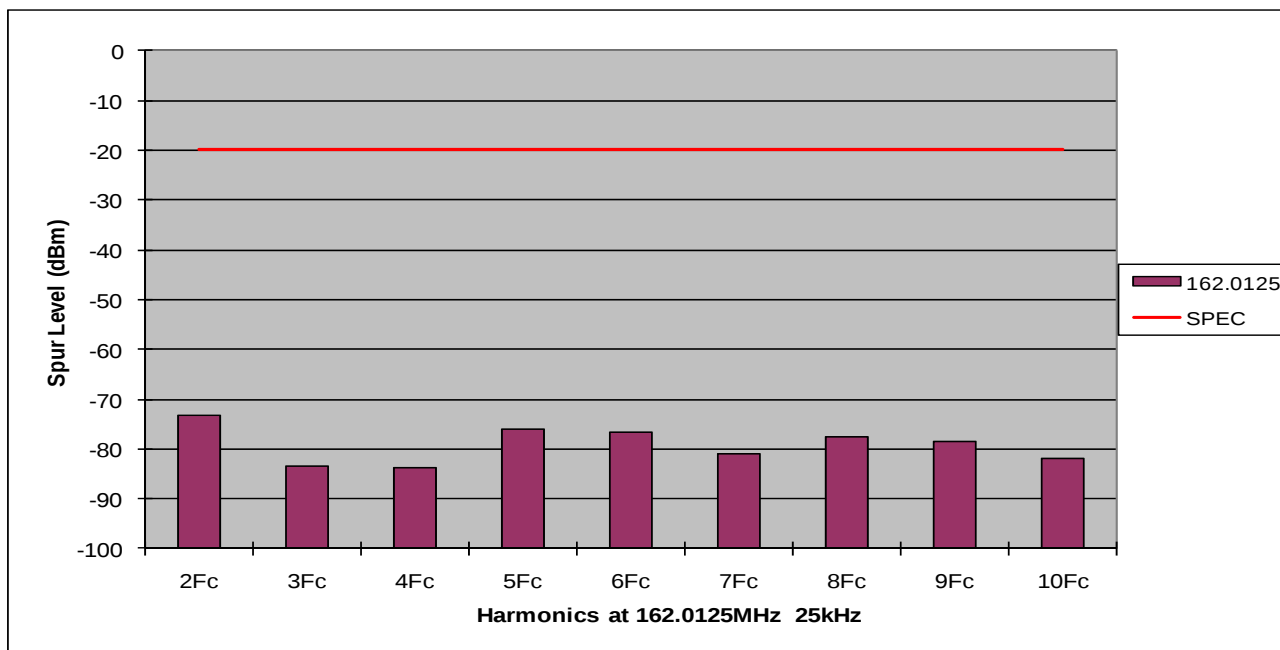
Harmonics at 162.0125 MHz, 25 kHz channel spacing at 1.26W

Exhibit 6G-7

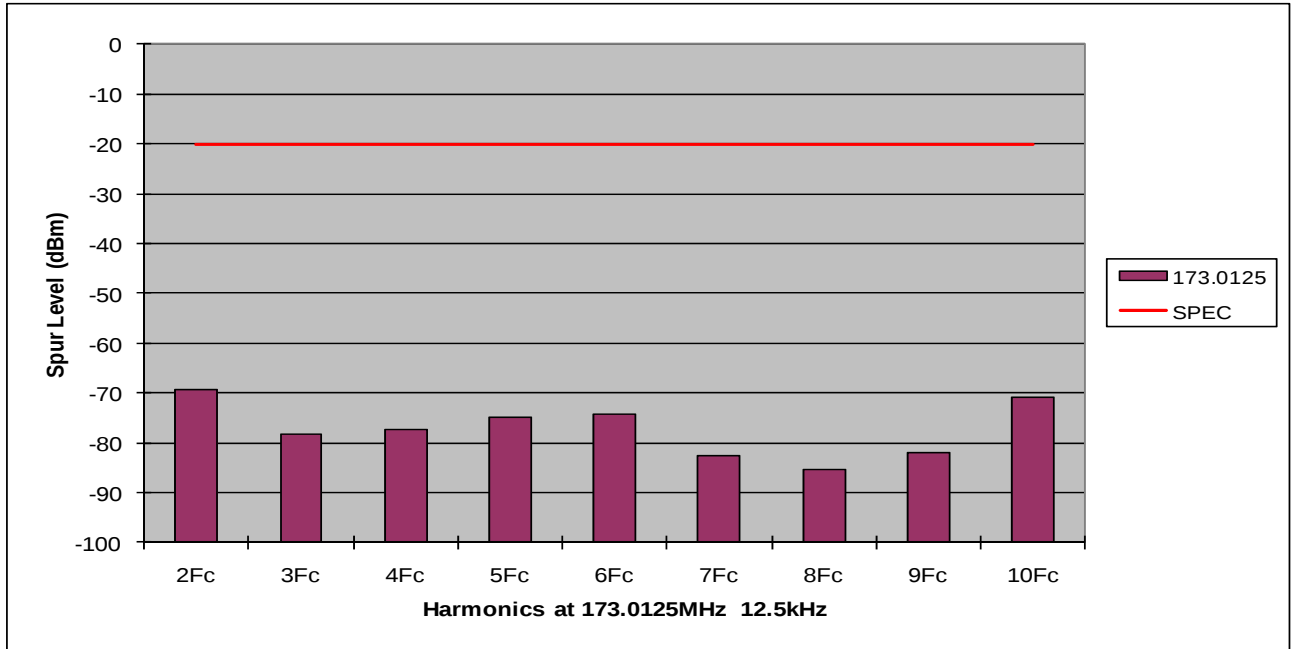
Harmonics at 173.0125 MHz, 12.5 kHz channel spacing at 1.26W

Exhibit 6G-8

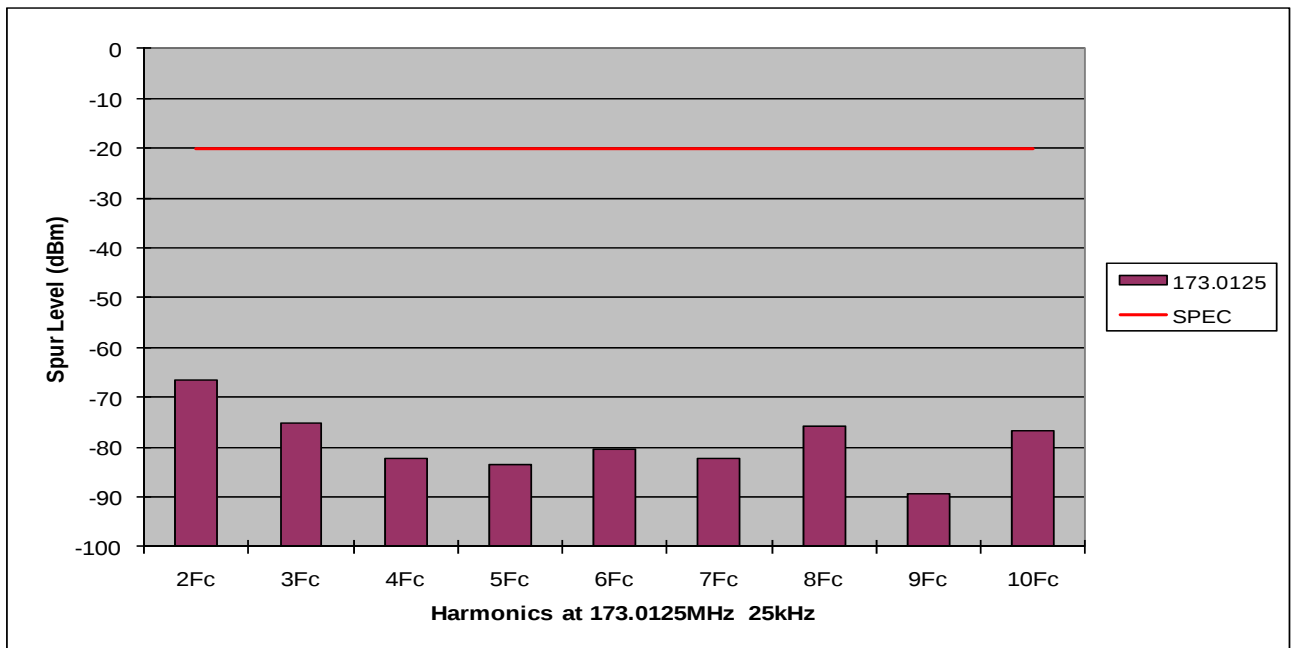
Harmonics at 173.0125 MHz, 25 kHz channel spacing at 1.26W

Exhibit 6H: Frequency Stability - Pursuant 47 CFR 2.1055 and 2.1033(c)(13)

Exhibit 6H-1

Frequency Stability (153.0125 MHz) vs. Temperature

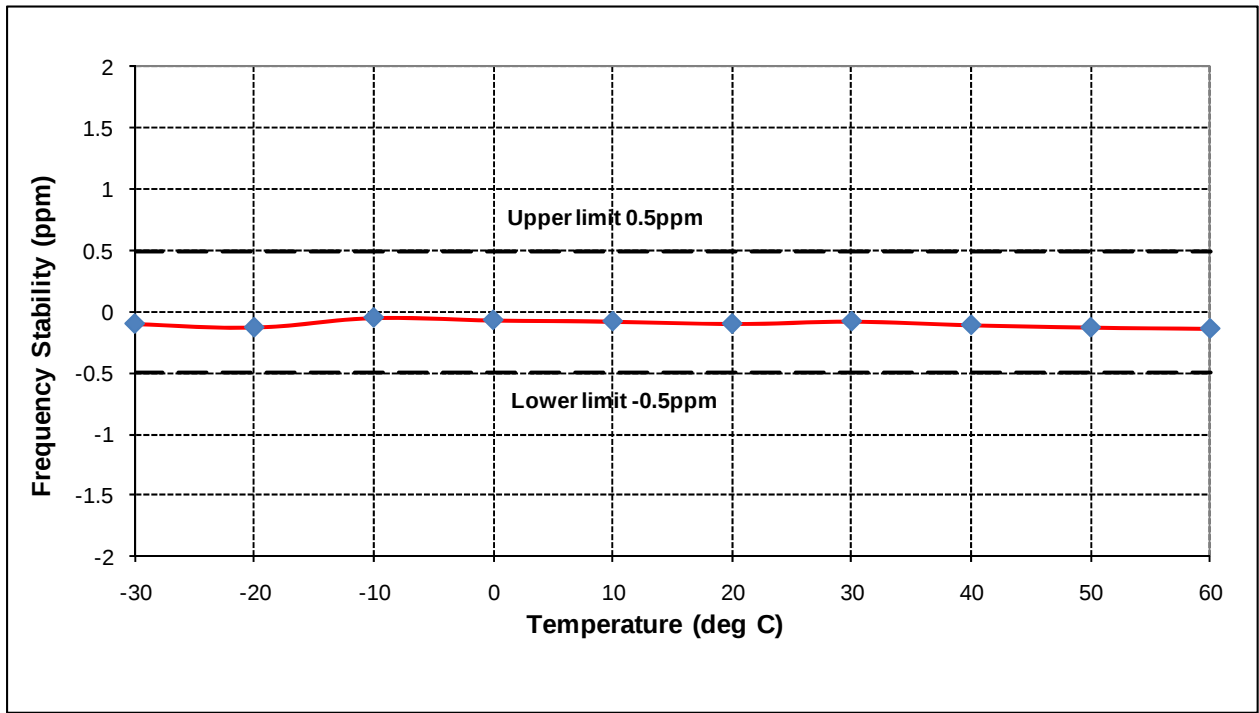


Exhibit 6H-2

Frequency Stability (153.0125 MHz) vs Supply Voltage

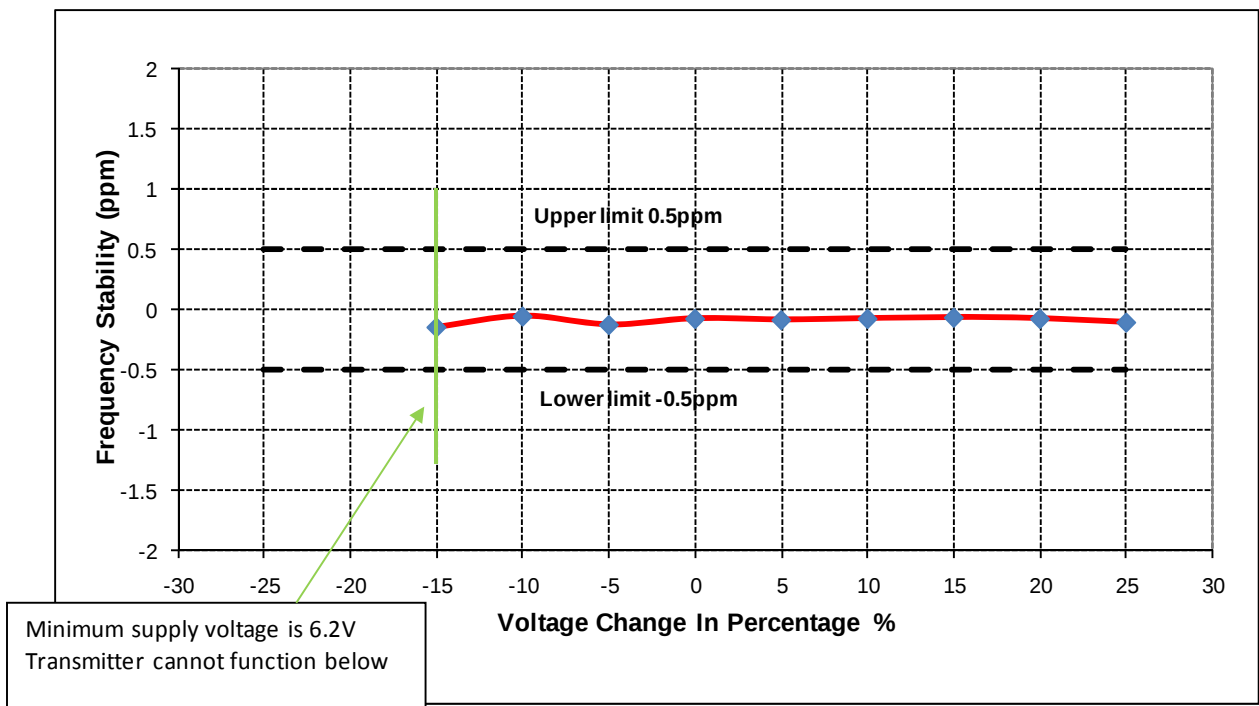
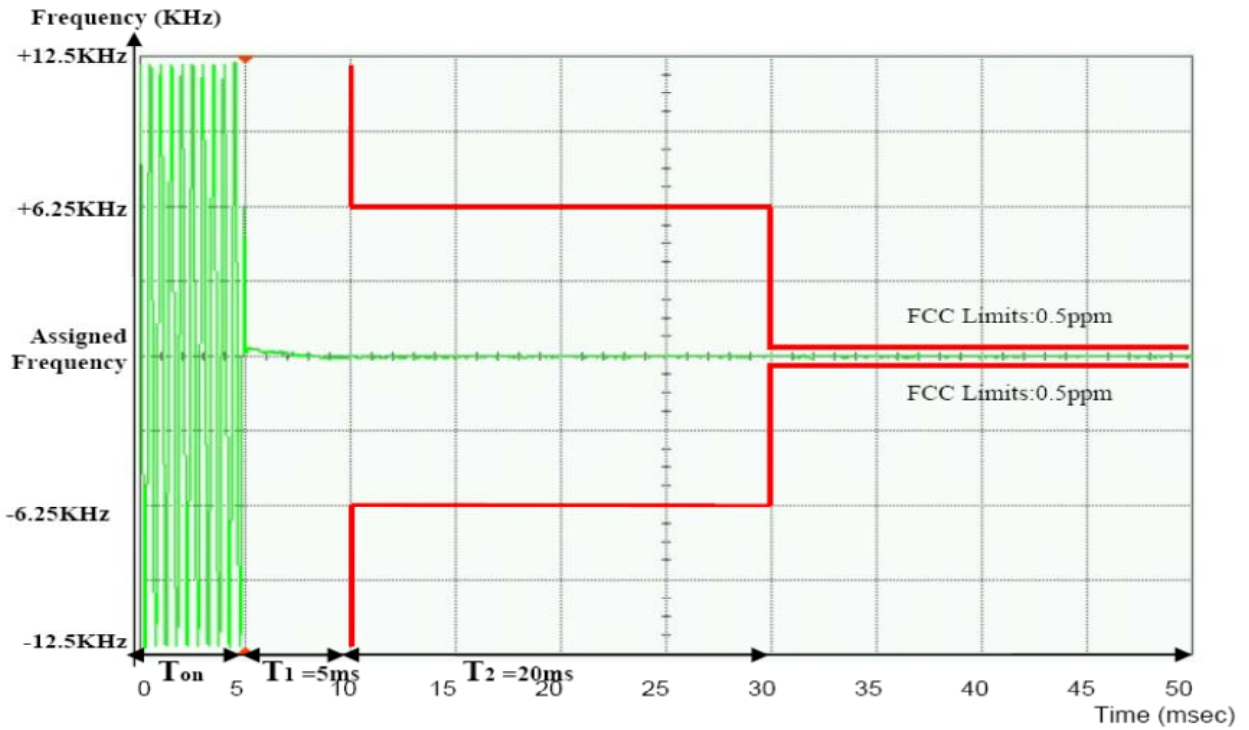


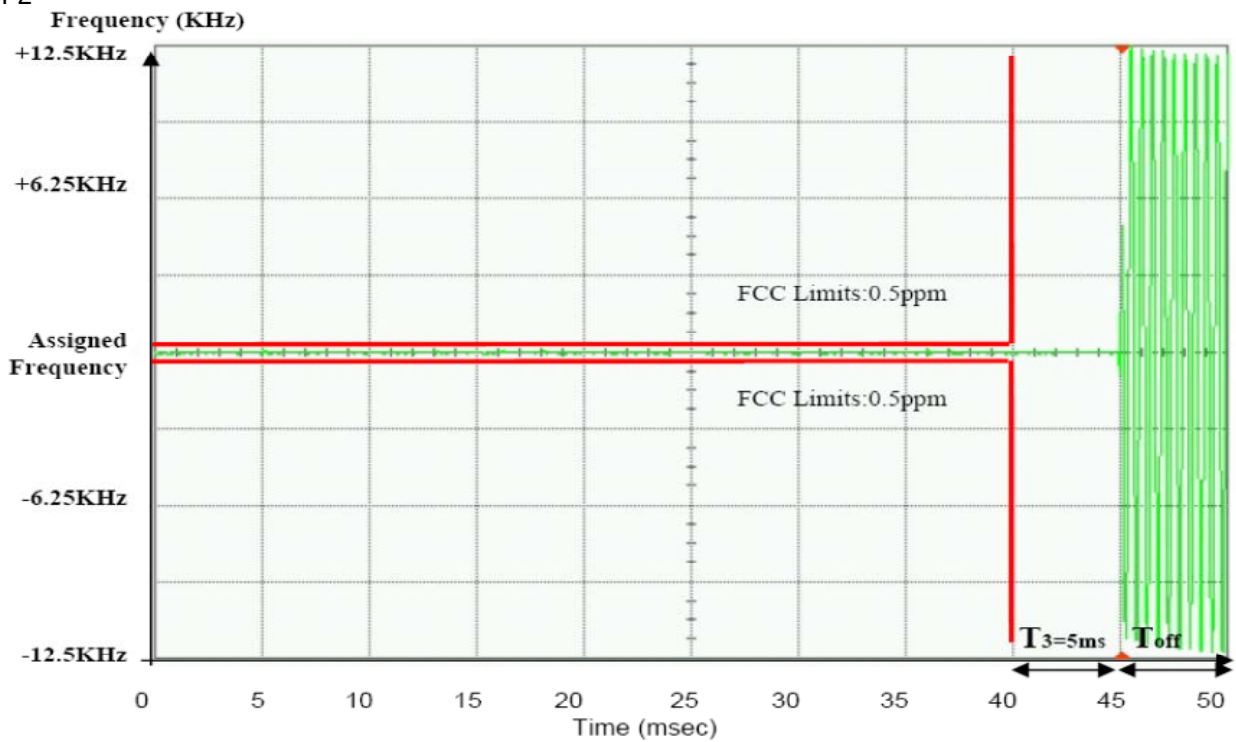
EXHIBIT 6I: Transient Frequency Behavior

Exhibit 6I-1



TX 153.0125 MHz – 12.5 kHz Channel Spacing – Transmitter On

Exhibit 6I-2



TX 153.0125 MHz – 12.5 kHz Channel Spacing – Transmitter Off

Exhibit 6I-3

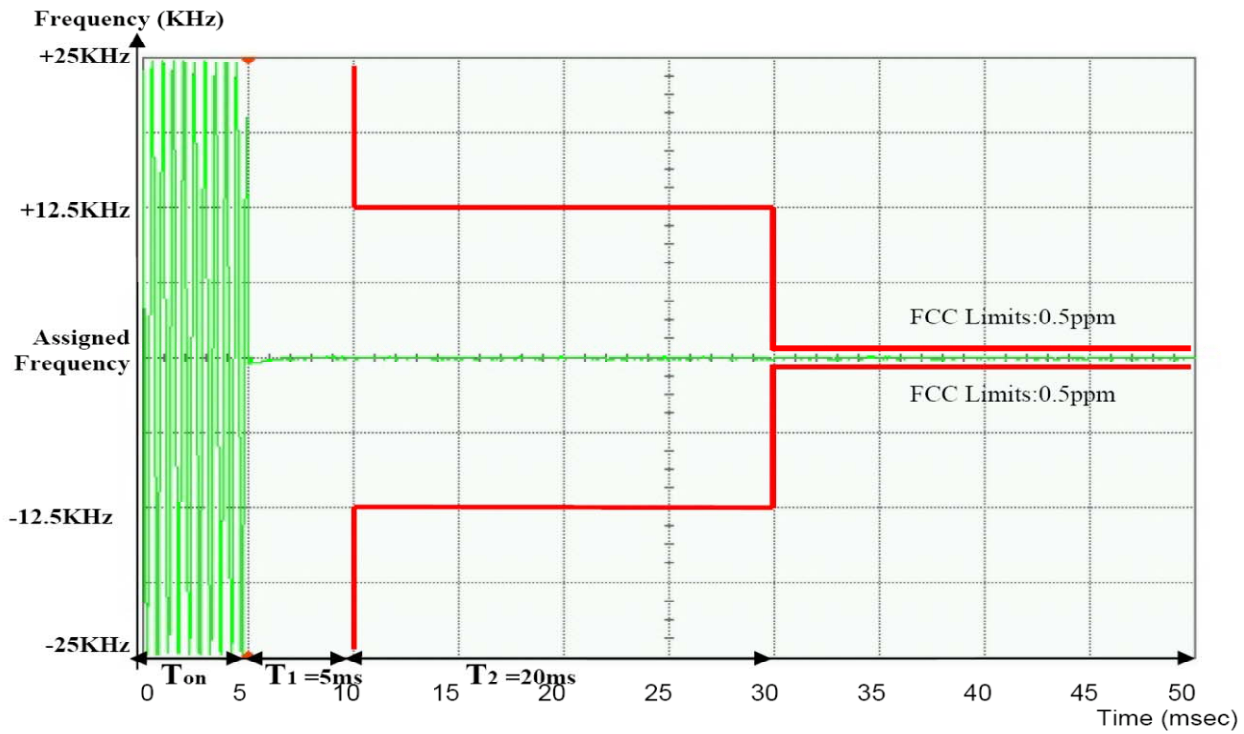


Exhibit 6I-4

