

EXHIBIT #6

Test Report

FCC: Pursuant 2.1033 (c), 90, 80, 74, 22
IC: RSS-Gen, RSS-119, and RSS-182

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Exhibit 6A: RF Output Power (conducted)

The RF output power was measured with the indicated voltage and current applied into the RF amplifying device.

APX8500 V/U/7-800 MHz

TX Output Power and TX DC Current

(Nominal DC Voltage 13.6V, Primary Supply Voltage 13.6V, Temp 25°C)

Frequency MHz	Low Power Readings		Max Power Readings	
	Output Power (W)	Current (A)	Output Power (W)	Current (A)
138.0125	1	1.788	60	9.413
158.55	1	1.788	60	9.7
161.7	1	1.8	60	10.1
173.3875	1	1.688	60	9.1
380.0125	1	1.875	54	10.613
406.2	1	1.713	54	9.038
450.65	1	1.75	54	9.475
459.125	1	1.725	54	9.338
467.775	1	1.713	54	9.338
469.9875	1	1.65	54	9.275
482.0125	1	1.713	54	9.55
511.9875	1	1.813	48	9.9
519.9875	1	1.9	30	7.85
764.0125	1	1.963	36	8.263
768.0125	1	1.95	36	8.175
769.0125	1	1.95	2	2.313
769.0875	1	1.95	36	8.175
774.8875	1	1.938	36	8.113
775.9875	1	1.838	36	8
798.0125	1	1.925	36	8.35
799.0875	1	1.938	36	8.35
804.9125	1	1.95	36	8.638
805.9875	1	1.838	36	8.525
806.0125	1	1.95	42	9.675
814.9875	1	1.975	42	10.063
823.9875	1	2.013	42	10.513
851.0125	1	2.138	42	10.975
860.0125	1	2.138	42	10.738
868.8875	1	2.125	42	10.325

Exhibit 6A- 1: Conducted RF Output Power

Note 1: The output power for frequencies in the range 156 – 162 MHz is higher than the limits specified under rule part 80.215(c)(1) for the following reasons:

- Data submitted to FCC is used by other regions to certify the product, and they do not have similar limits.
- Also, frequencies in this range overlap with other FCC/ IC rule parts where the power is not limited to 50W.

However, when the product gets shipped to the customers, the power will be limited in software to not exceed any more than what is required to comply with the regulatory limits, taking into consideration the measurement uncertainty.

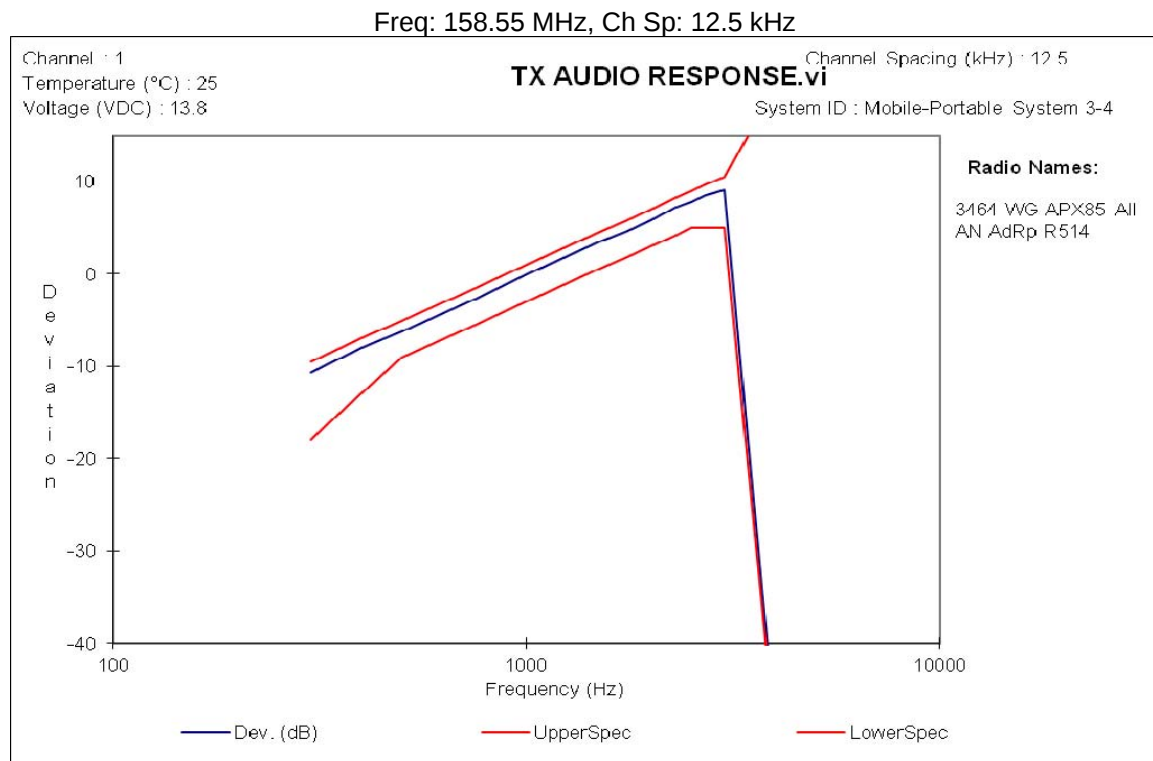
Note 2: The output power for frequencies in the range 456 - 470 MHz is higher than the limits specified under rule part 80.215(e)(3) for the following reasons:

- Data submitted to FCC is used by other regions to certify the product, and they do not have similar limits.
- Also, frequencies in this range overlap with other FCC/ IC rule parts where the power is not limited to 4W.

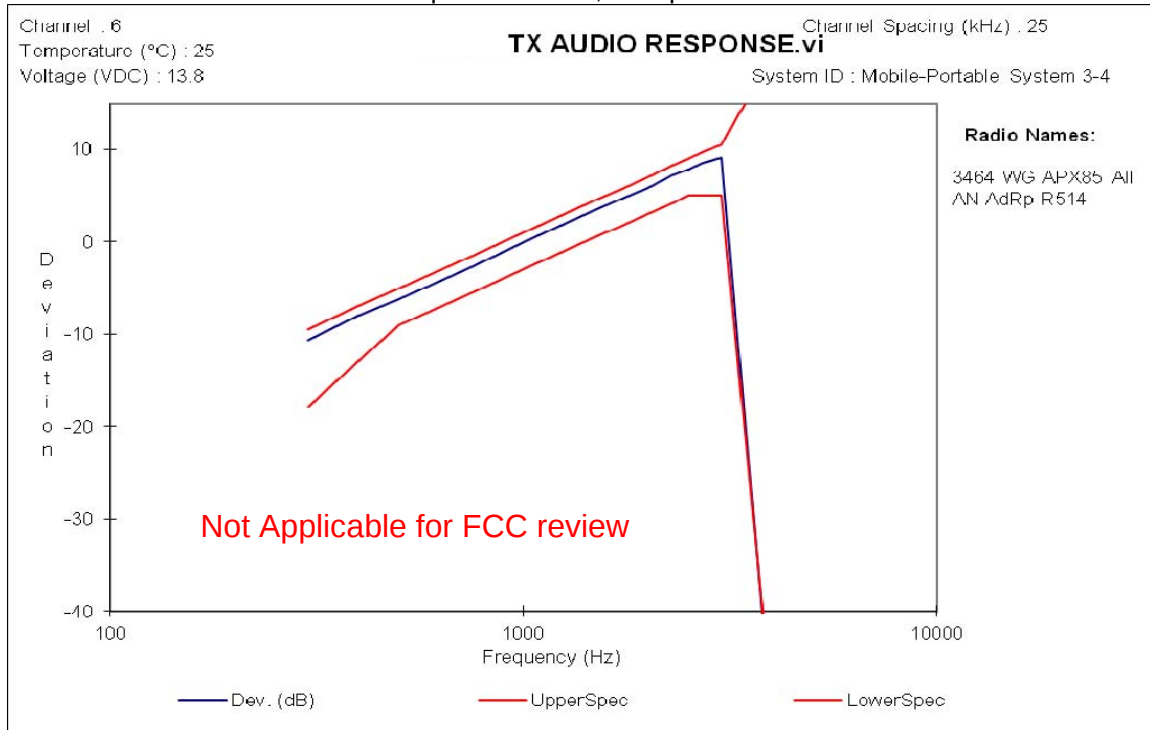
However, the product will be certified for 1W in those freq ranges for rule part 80.

Note 3: The output power for frequencies in the 7/800 MHz bands are higher than the limits specified under RSS-119 Issue 12, Section 5.4 as the same data is used by other regions to certify the product, and they do not have similar limits.

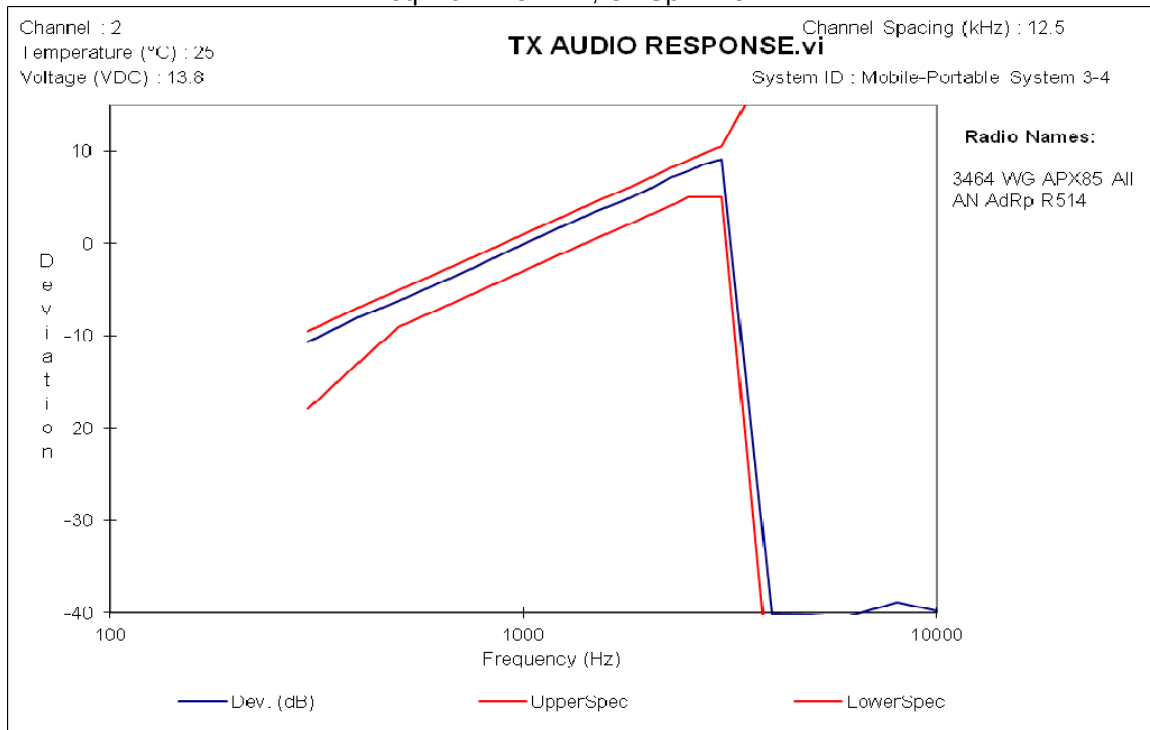
However, when the product gets shipped to the customers, the power will be limited in software to not exceed any more than what is required to comply with the regulatory limits, taking into consideration the measurement uncertainty.

Exhibit 6B: Audio Frequency Response**Equipment under test:** M37TSS9PW1AN S/N: AM3C524**Measurement Criteria** **Compliance Testing**
Audio Frequency Response**Measurement Lab** ATE P25 Compliance Lab
8000 West Sunrise Blvd
Fort Lauderdale FL, 33322**Results Summary:** EUT meets the test requirements**Test Configurations:** Audio Frequency Response @ 12.5 kHz channel spacing
Frequency: 158.55 MHz, 467.775 MHz, 769.0875 MHz, and 823.9875 MHz. Audio Frequency Response @ 25 kHz channel spacing
Frequency: 158.55 MHz, 511.9875 MHz, 769.0875 MHz, and 823.9875 MHz.**Exhibit 6B- 1: Audio Response - Frequency 158.55 MHz, Ch Sp: 12.5 kHz**

Freq: 158.55 MHz, Ch Sp: 25 kHz

**Exhibit 6B- 2: Audio Response - Frequency 158.55 MHz, Ch Sp: 25 kHz**

Freq: 467.775 MHz, Ch Sp: 12.5 kHz

**Exhibit 6B- 3: Audio Response - Frequency 467.775 MHz, Ch Sp: 12.5 kHz**

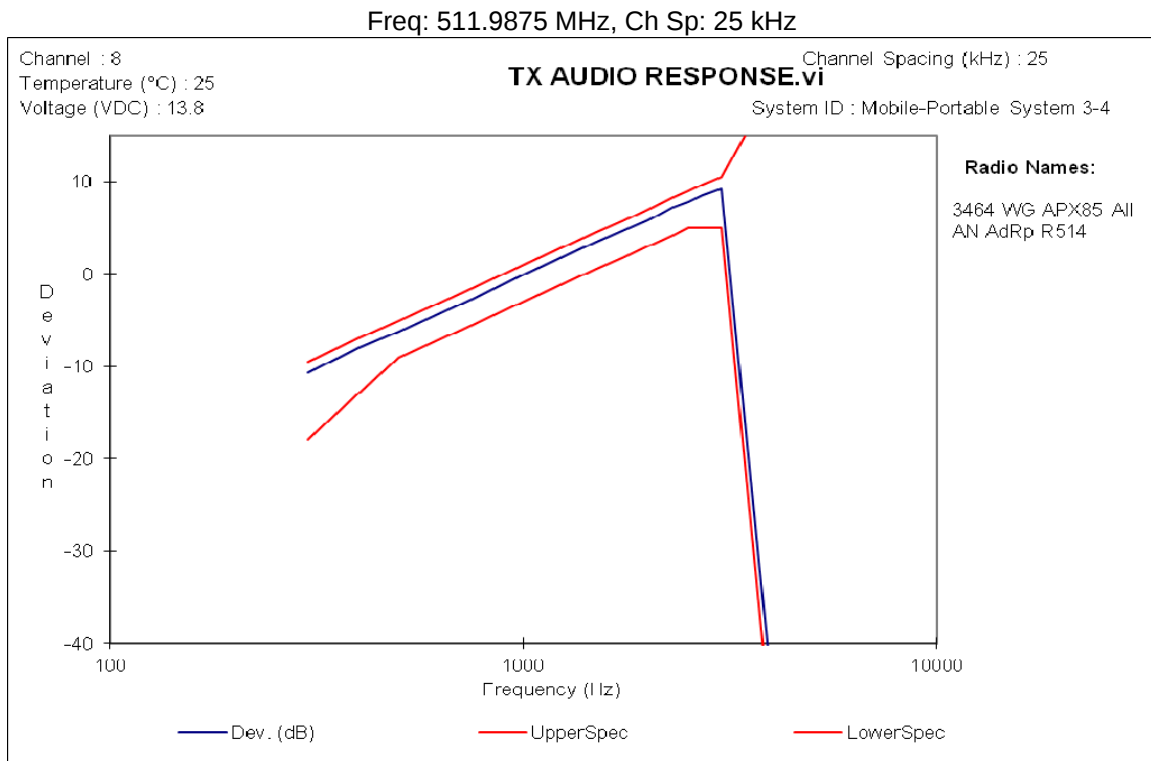


Exhibit 6B- 4: Audio Response - Frequency 511.9875 MHz, Ch Sp: 25 kHz

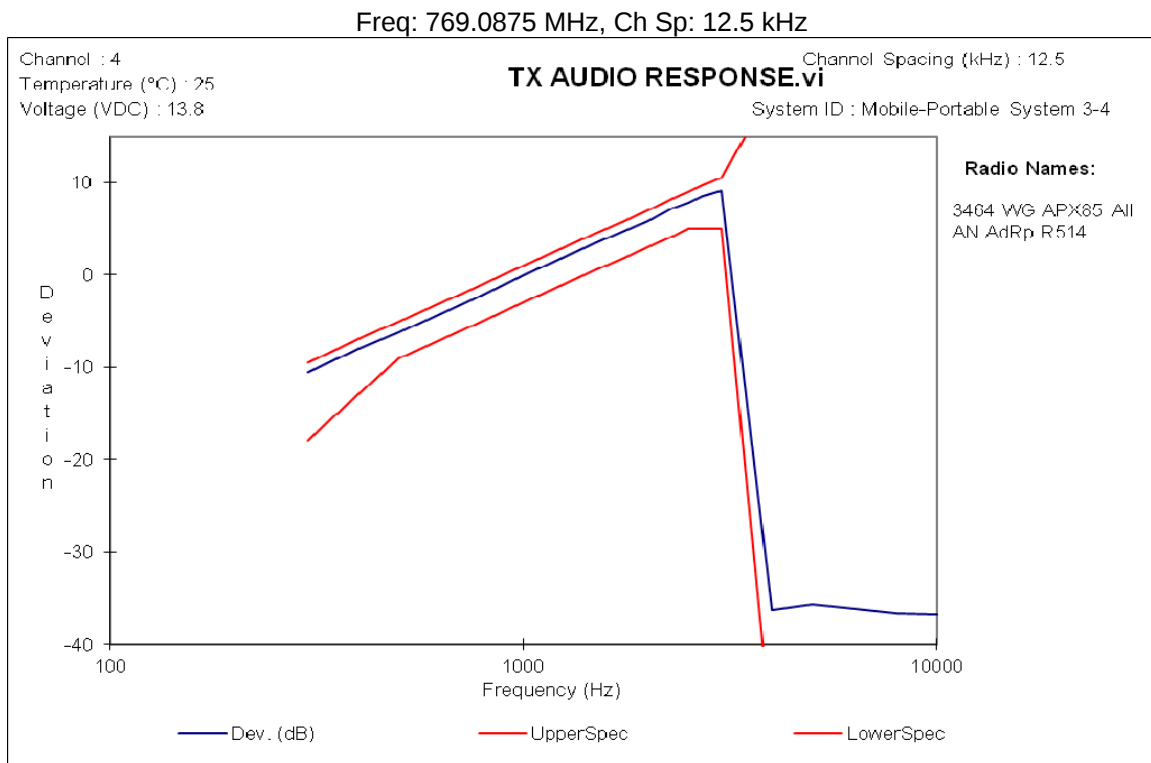
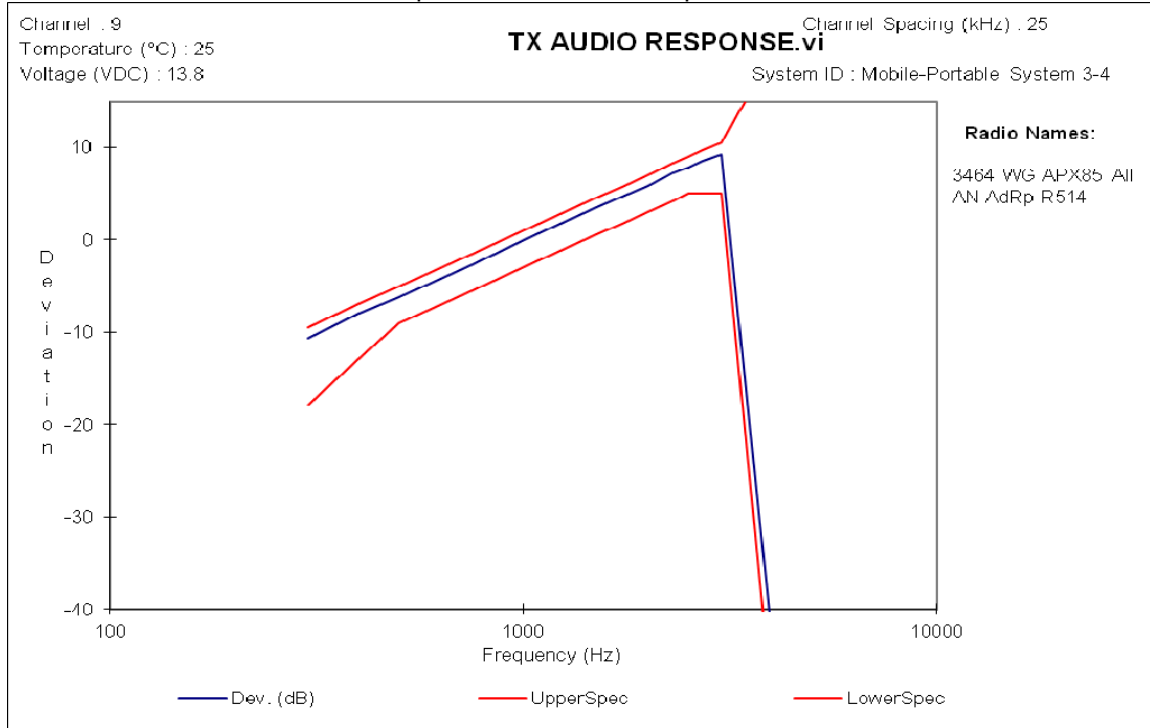
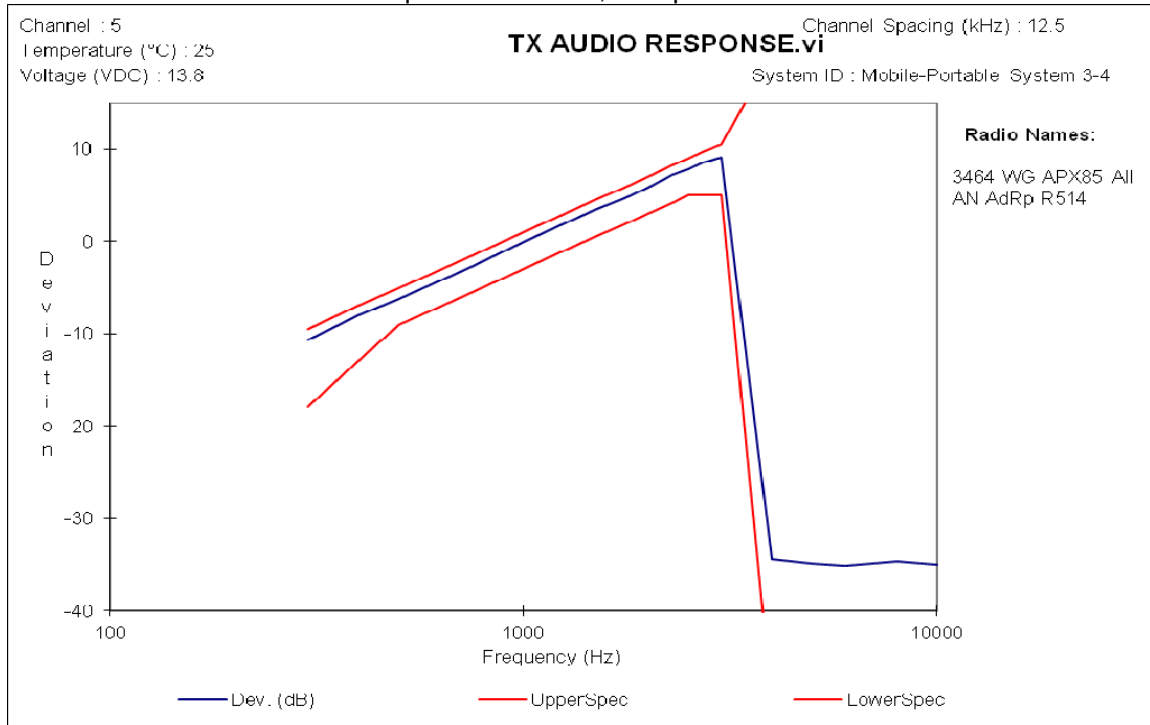


Exhibit 6B- 5: Audio Response - Frequency 769.0875 MHz, Ch Sp: 12.5 kHz

Freq: 769.0875 MHz, Ch Sp: 25 kHz

**Exhibit 6B- 6: Audio Response - Frequency 769.0875 MHz, Ch Sp: 25 kHz**

Freq: 823.9875 MHz, Ch Sp: 12.5 kHz

**Exhibit 6B- 7: Audio Response - Frequency 823.9875 MHz, Ch Sp: 12.5 kHz**

Freq: 823.9875 MHz, Ch Sp: 25 kHz

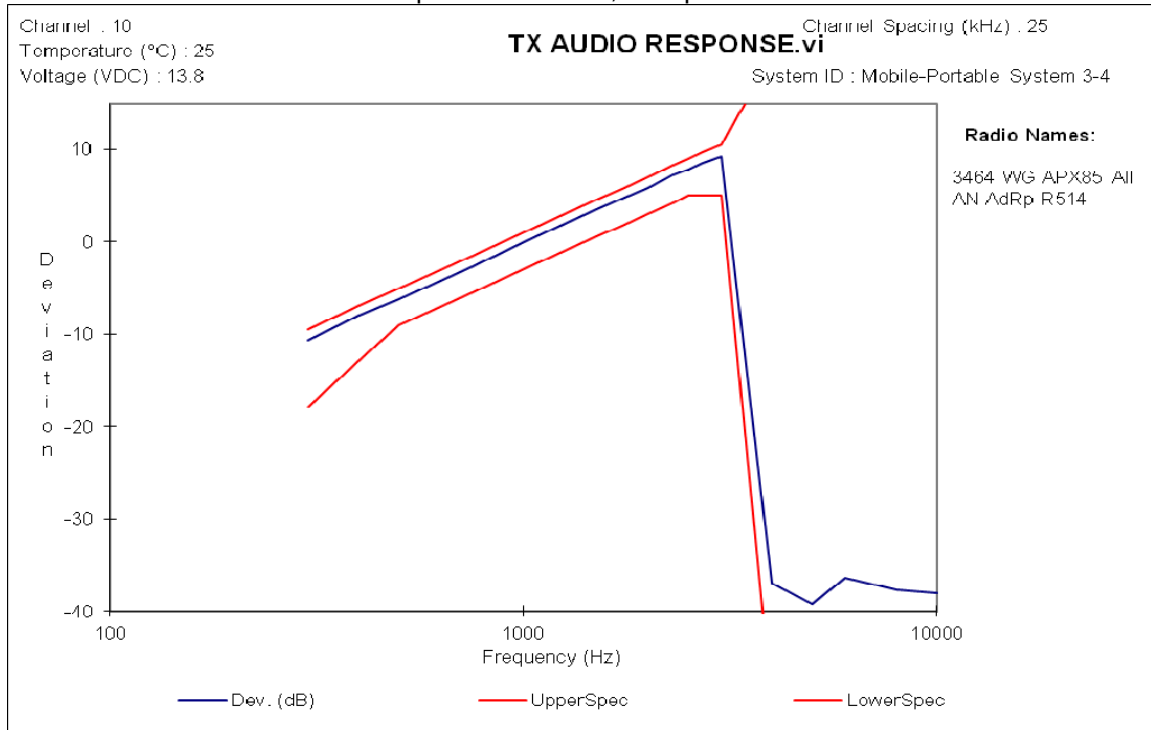
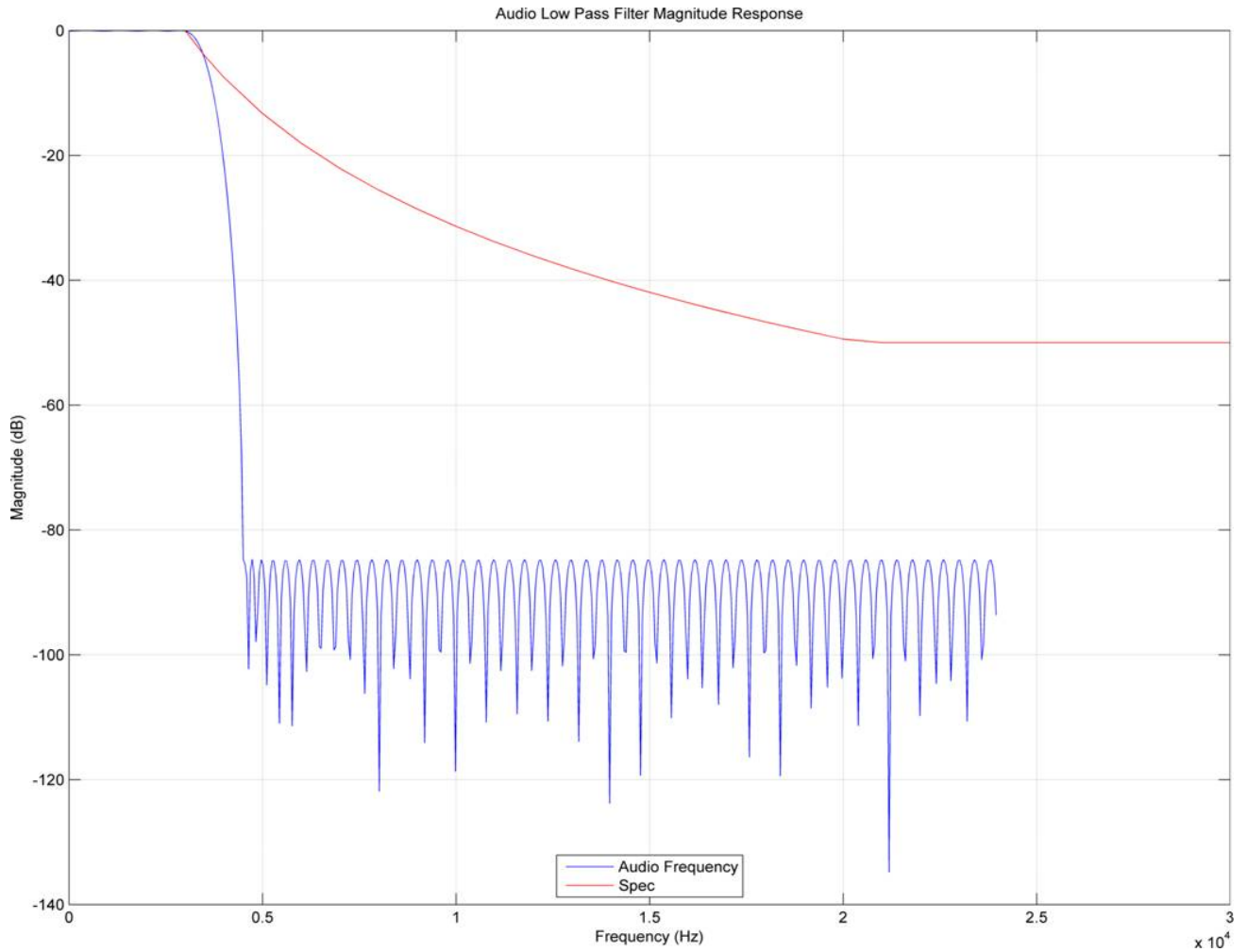


Exhibit 6B- 8: Audio Response - Frequency 823.9875 MHz, Ch Sp: 25 kHz

Exhibit 6C: Low Pass Filter Response**Exhibit 6C- 1: Audio Low Pass Filter Response**

Note: Audio Low Pass Filter response doesn't vary with RF frequency, and hence a single plot is given with the limit lines drawn to most stringent spec of all three bands - VHF, UHF and 7/800 MHz.

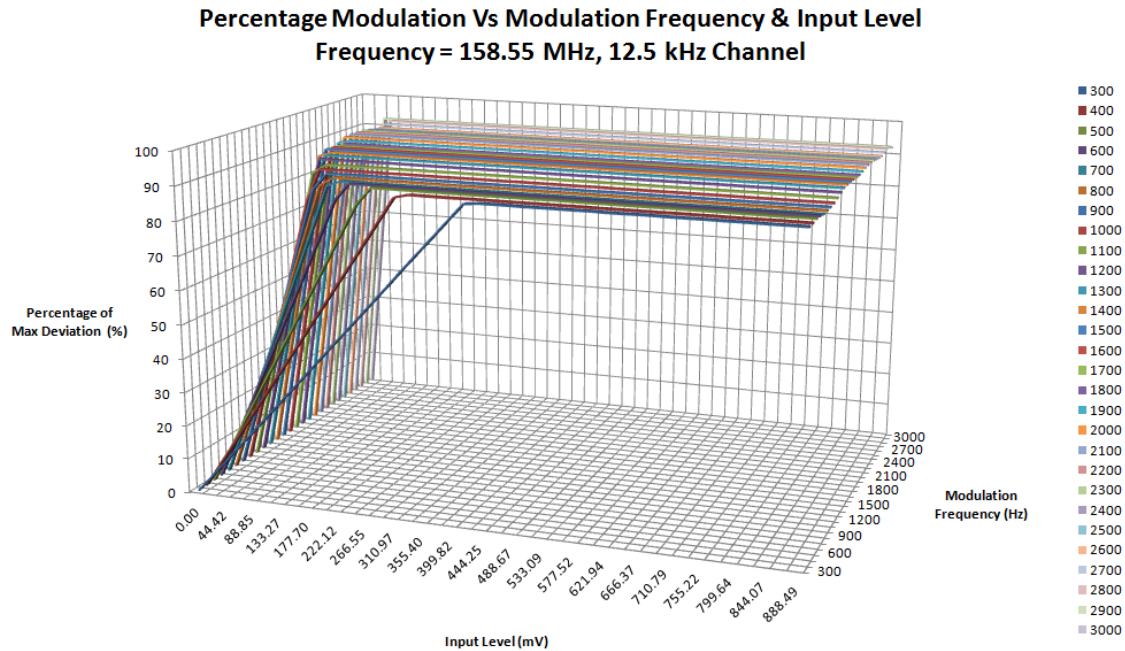
Exhibit 6D: Modulation Limiting

Exhibit 6D- 1: Percentage Mod –vs- Mod Freq and Input Level – Freq 158.55 MHz, Ch Sp: 12.5 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 2.5 kHz for 12.5 kHz bandwidth

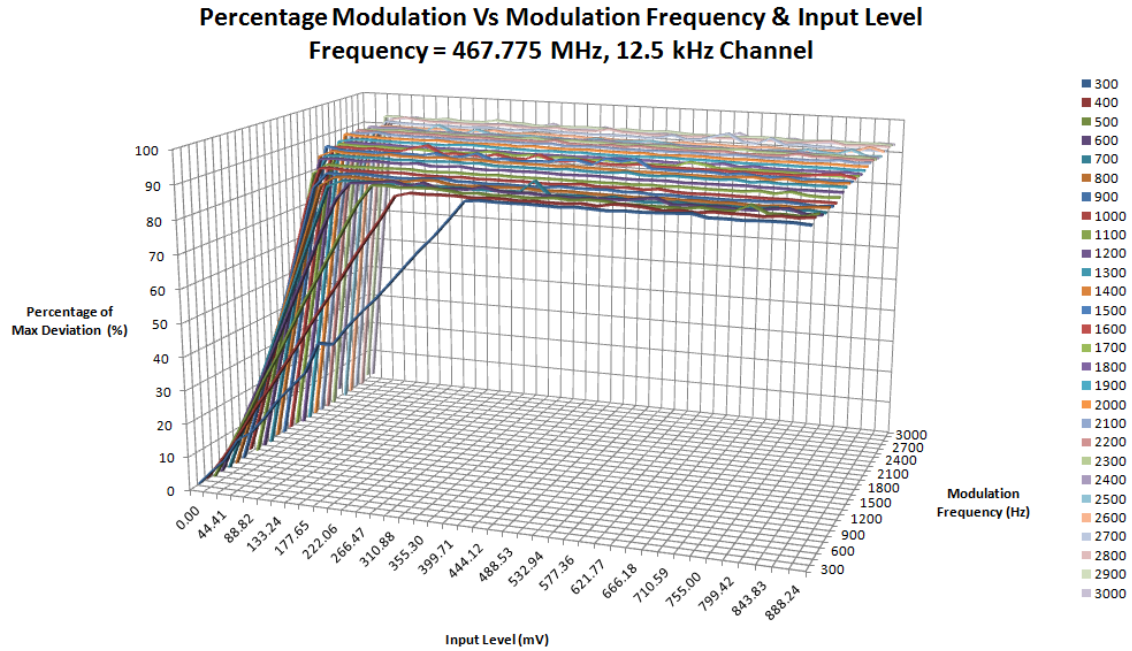


Exhibit 6D- 2 Percentage Mod -vs- Mod Freq and Input Level – Freq 467.775 MHz, Ch Sp: 12.5 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 2.5 kHz for 12.5 kHz bandwidth

Percentage Modulation Vs Modulation Frequency & Input Level
Frequency = 769.0875 MHz, 12.5 kHz Channel

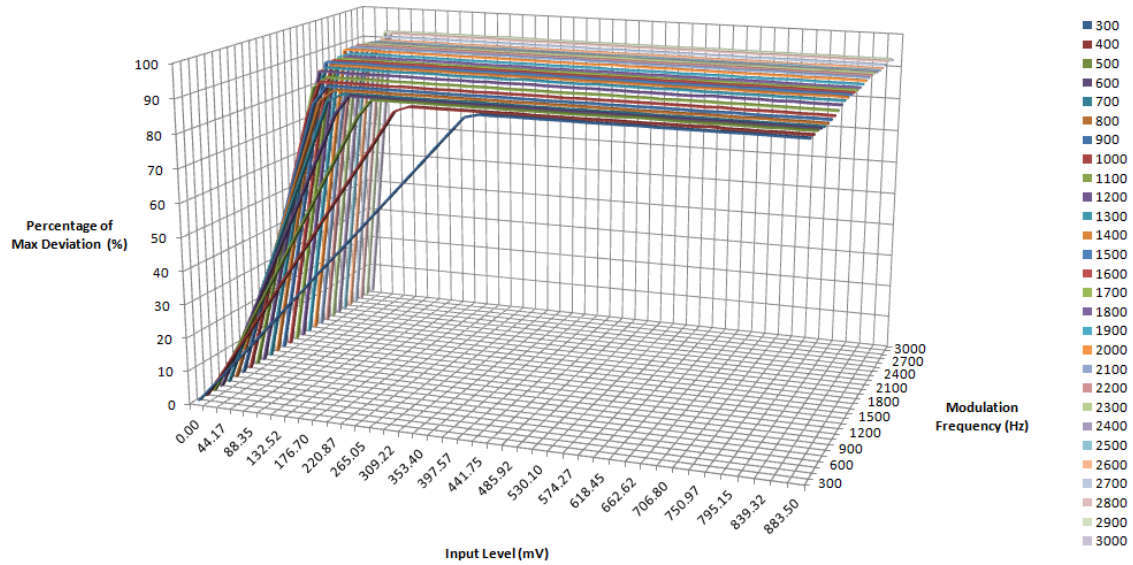


Exhibit 6D- 3: Percentage Mod –vs- Mod Freq and Input Level – Freq 769.0875 MHz, Ch Sp: 12.5 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 2.5 kHz for 12.5 kHz bandwidth

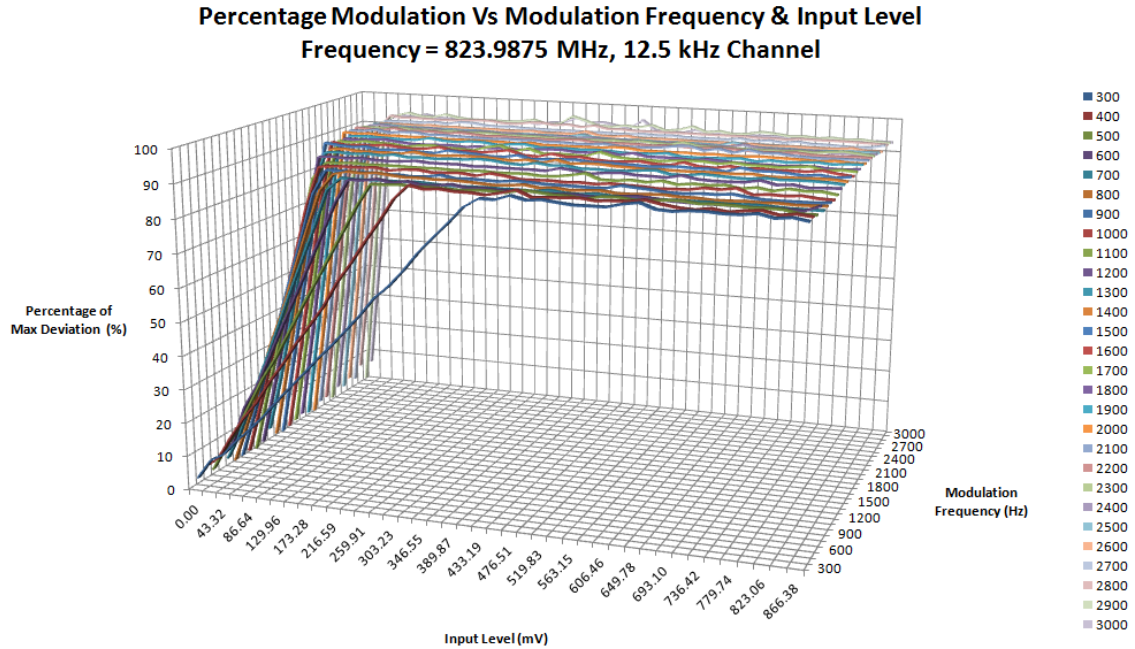


Exhibit 6D- 4: Percentage Mod –vs- Mod Freq and Input Level – Freq 823.9875 MHz, Ch Sp: 12.5 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 2.5 kHz for 12.5 kHz bandwidth

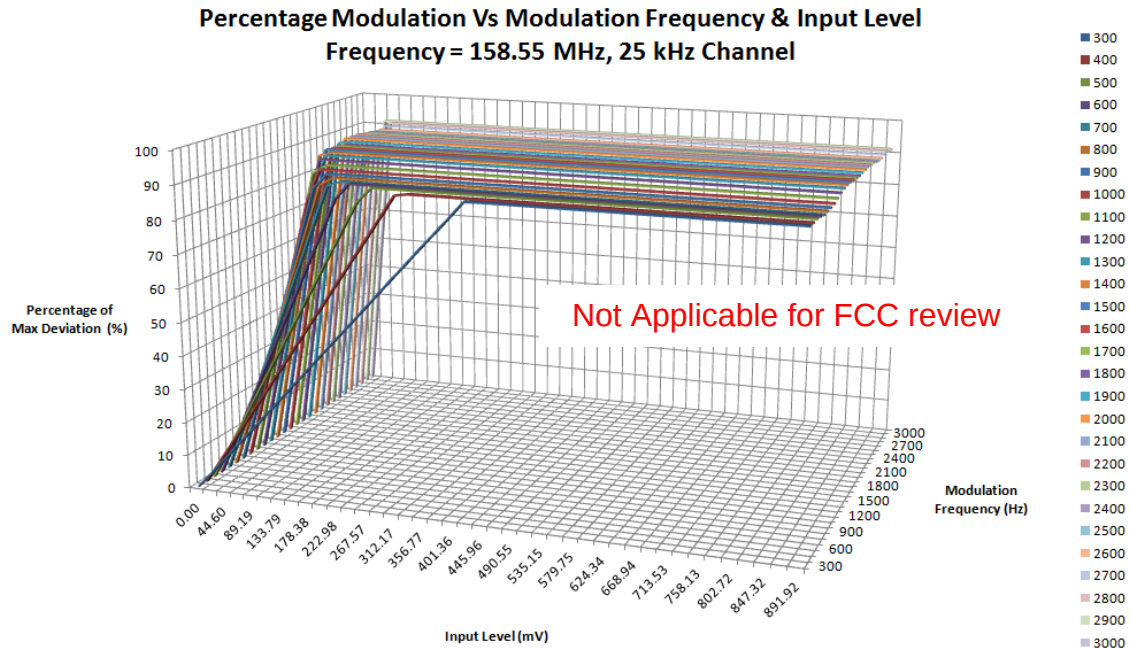


Exhibit 6D- 5: Percentage Mod –vs- Mod Freq and Input Level – Freq 158.55 MHz, Ch Sp: 25 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 5.0 kHz for 25 kHz bandwidth

Percentage Modulation Vs Modulation Frequency & Input Level
Frequency = 511.9875 MHz, 25 kHz Channel

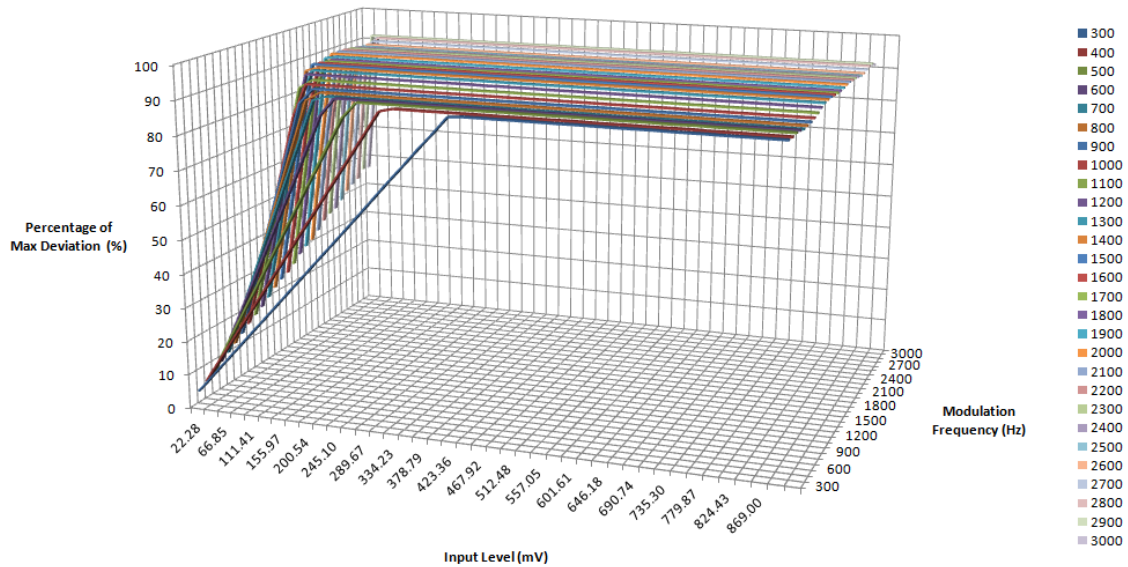


Exhibit 6D- 6: Percentage Mod –vs- Mod Freq and Input Level – Freq 511.9875 MHz, Ch Sp: 25 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 5.0 kHz for 25 kHz bandwidth

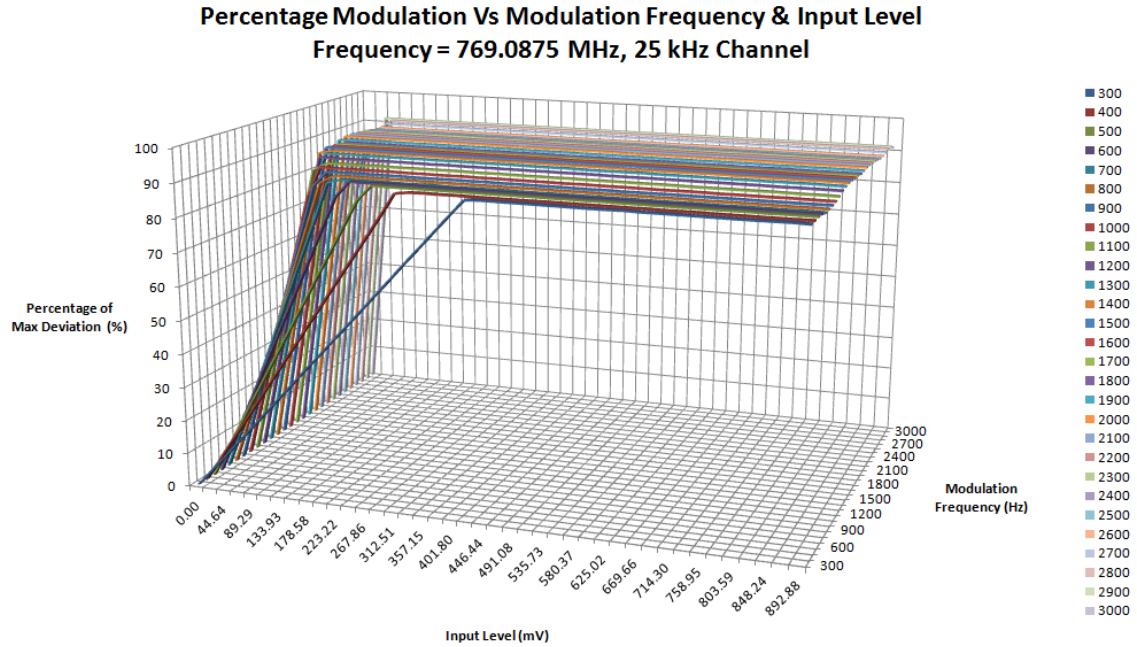


Exhibit 6D- 7: : Percentage Mod –vs- Mod Freq and Input Level – Freq 769.0875 MHz, Ch Sp: 25 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 5.0 kHz for 25 kHz bandwidth

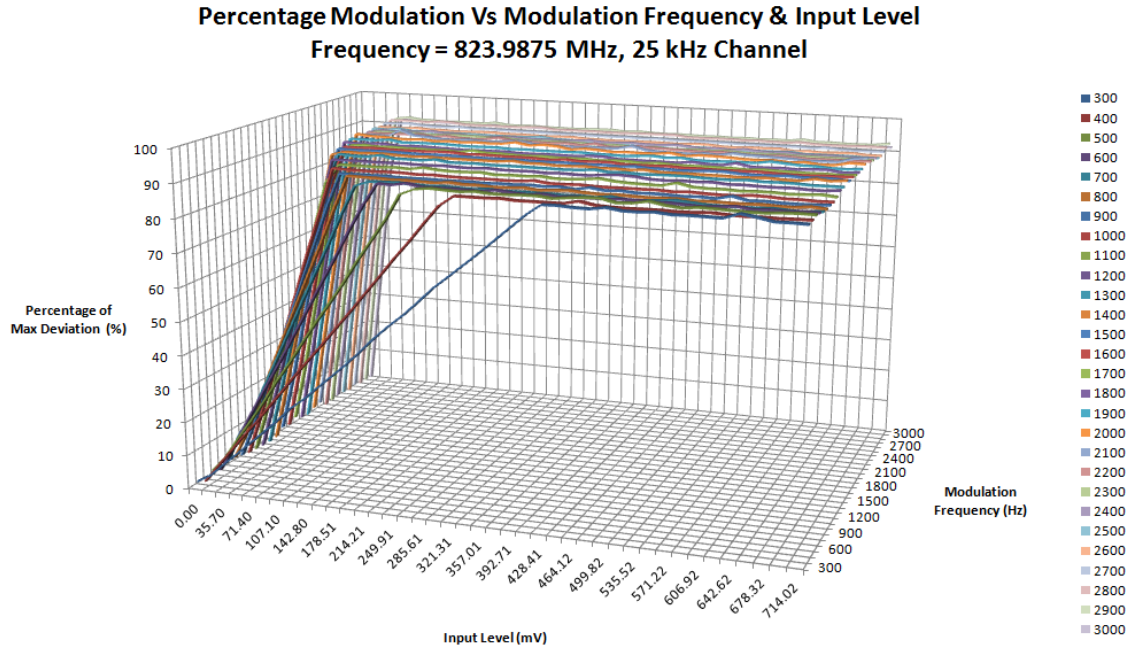


Exhibit 6D- 8: Percentage Mod –vs- Mod Freq and Input Level – Freq 823.9875 MHz, Ch Sp: 25 kHz

The Percentage of Maximum Deviation on the “Z” axis is referenced to 5.0 kHz for 25 kHz bandwidth

Exhibit 6E: Occupied Bandwidth

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: AZ492FT7089.

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.

*Note: Transmit frequency range 809-824 MHz and 854-869 MHz require mask 90.691. Mask 90.691 is same as mask G.

Exhibit 6E- 1: Occupied Bandwidth Analog Voice 11K0F3E - Freq 138.0125 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

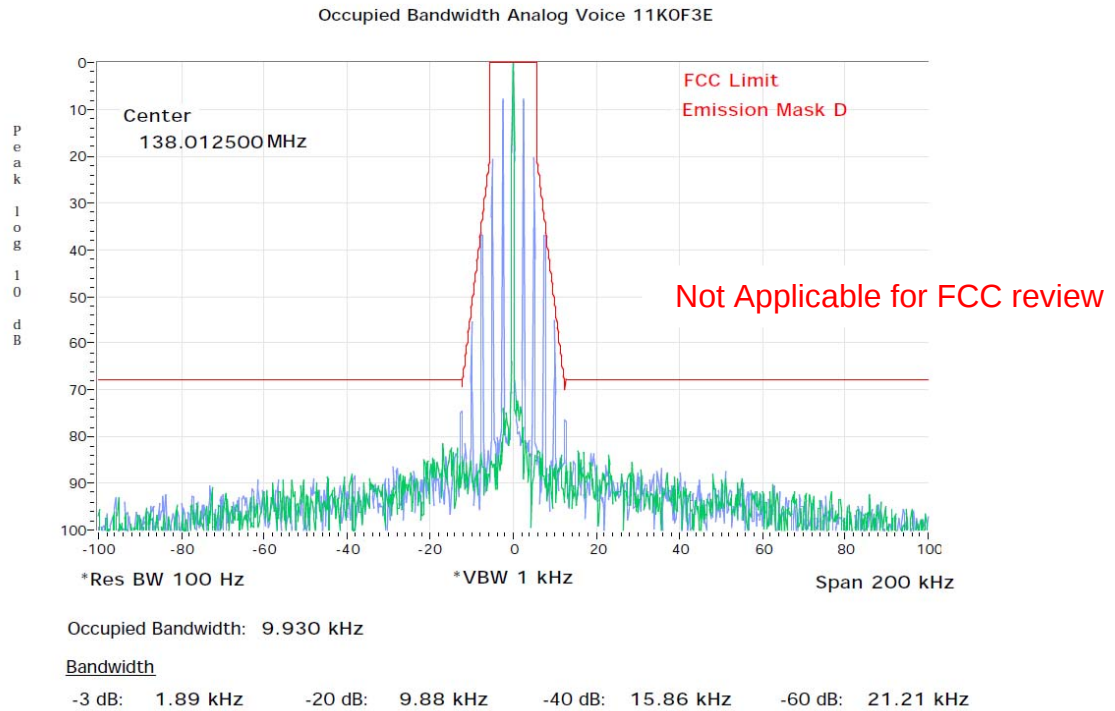


Exhibit 6E- 2: Occupied Bandwidth Analog Voice 11K0F3E - Freq 158.55 MHz, Ch Sp 12.5 kHz

Date: Mon, Oct 10, 2016

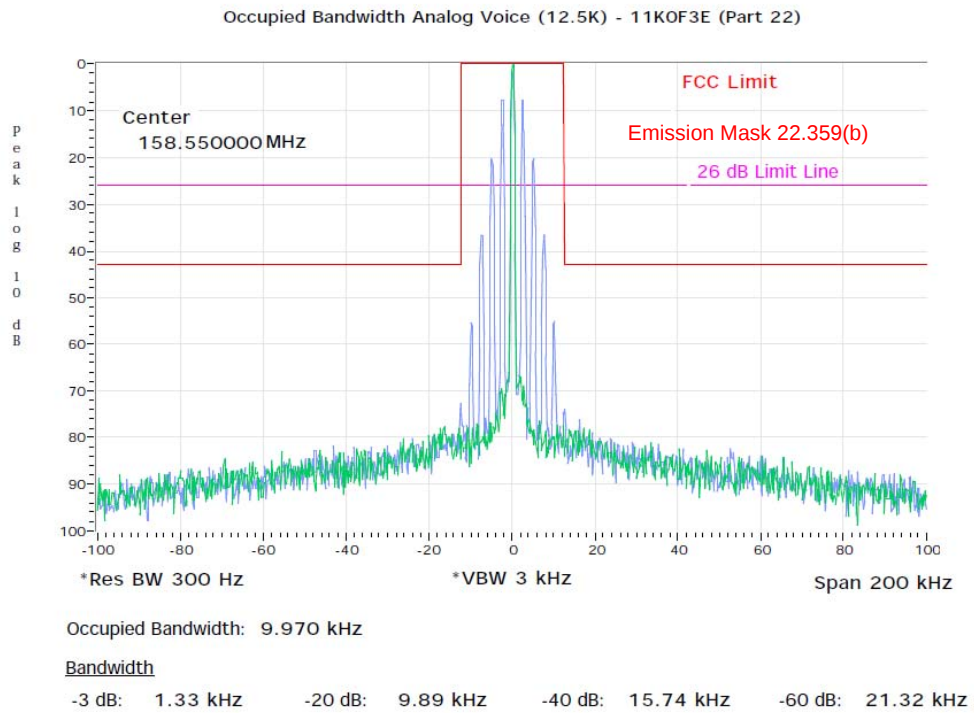


Exhibit 6E- 3: Occupied Bandwidth Analog Voice 11K0F3E - Freq 161.7 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

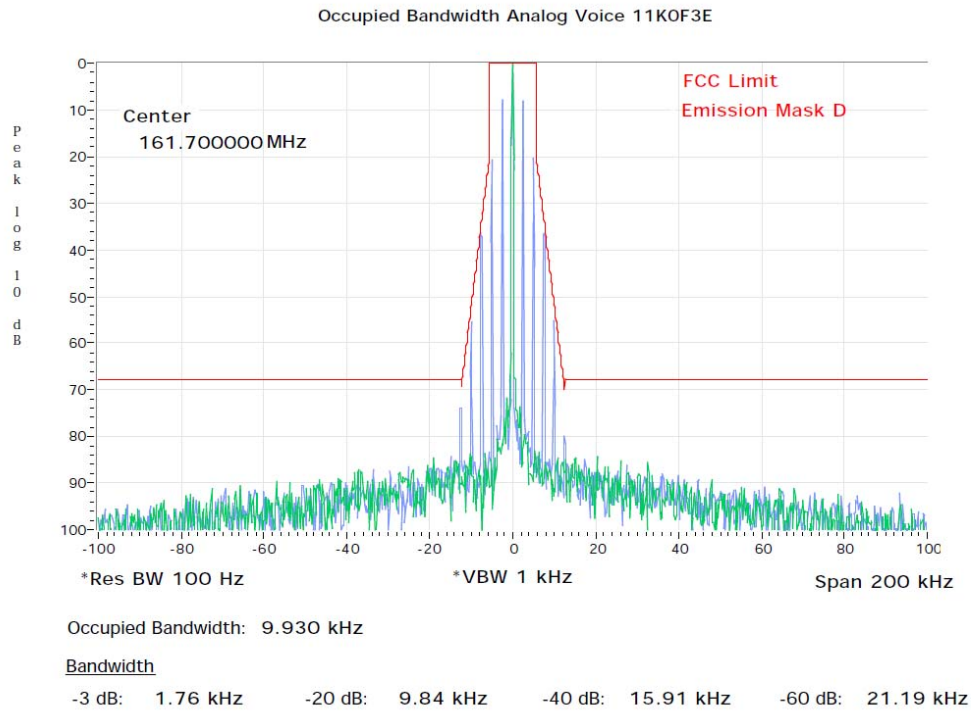


Exhibit 6E- 4: Occupied Bandwidth Analog Voice 11K0F3E - Freq 173.3875 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

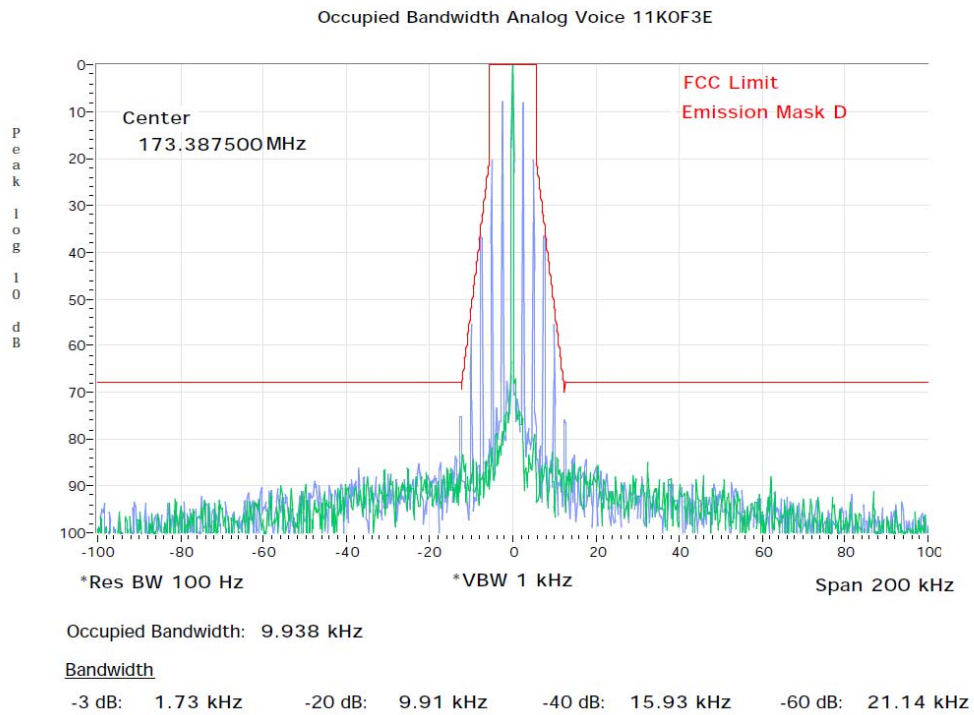


Exhibit 6E- 5: Occupied Bandwidth Analog Voice 11K0F3E - Freq 406.2 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

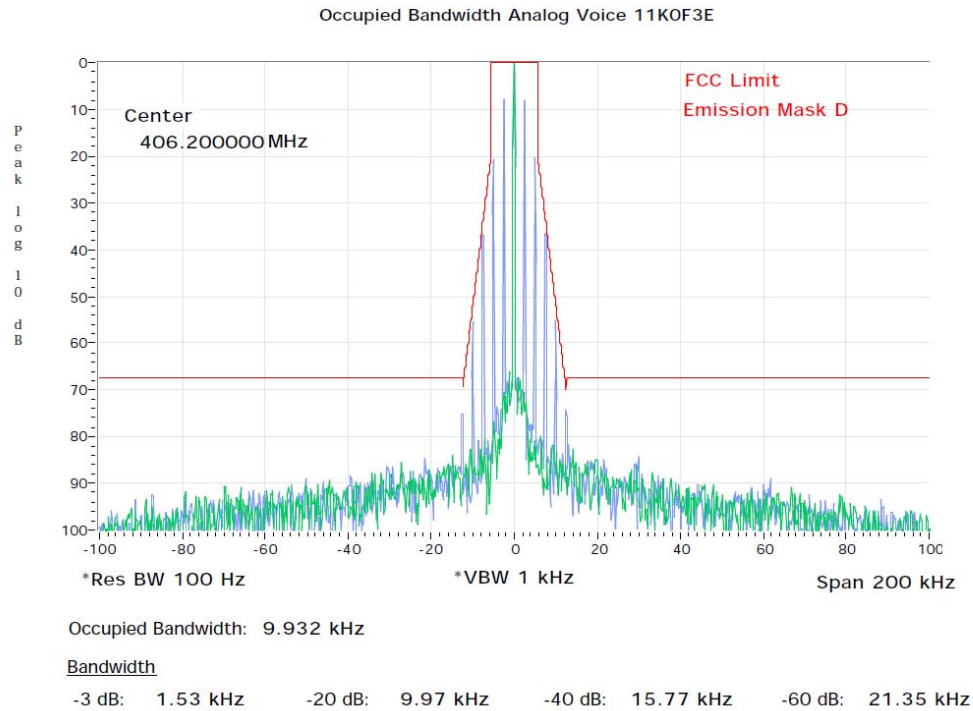


Exhibit 6E- 6: Occupied Bandwidth Analog Voice 11K0F3E - Freq 450.65 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

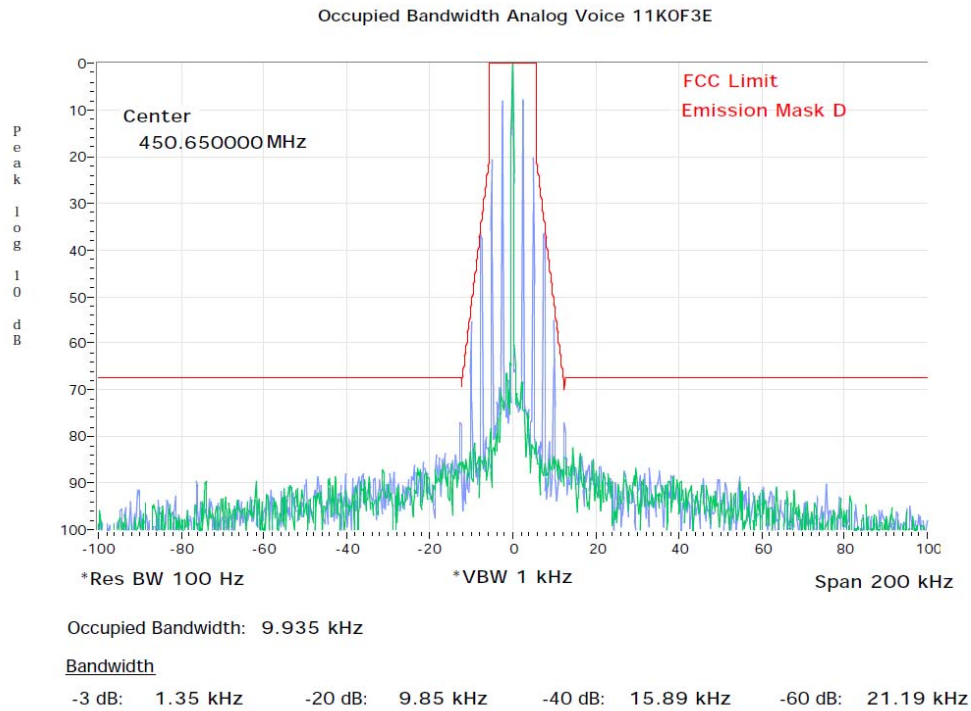


Exhibit 6E- 7: Occupied Bandwidth Analog Voice 11K0F3E - Freq 467.775 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

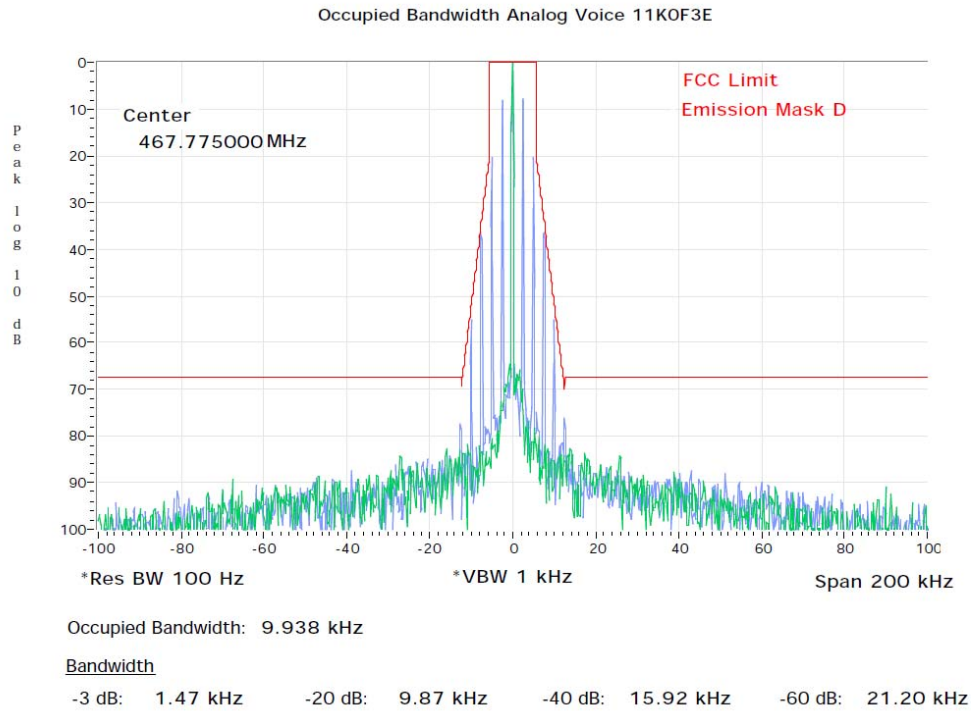


Exhibit 6E- 8: Occupied Bandwidth Analog Voice 11K0F3E - Freq 806.0125 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016

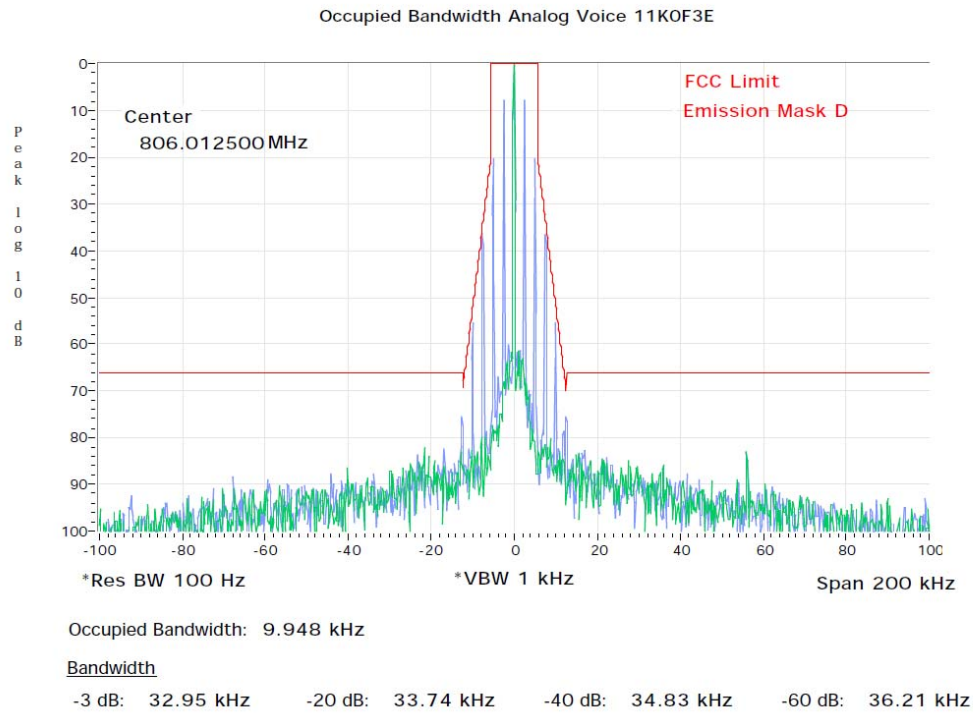


Exhibit 6E- 9: Occupied Bandwidth Analog Voice 11K0F3E - Freq 806.0125 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016

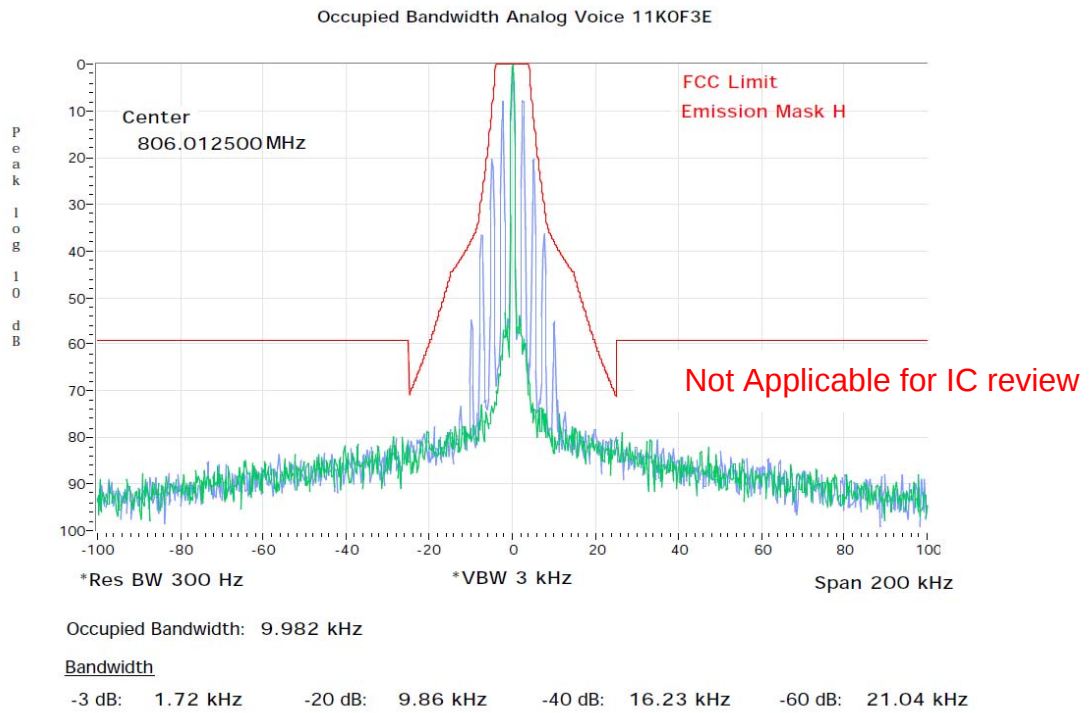


Exhibit 6E- 10: Occupied Bandwidth Analog Voice 11K0F3E - Freq 814.9875 MHz, Ch Sp 12.5 kHz

Date: Wed, Nov 9, 2016

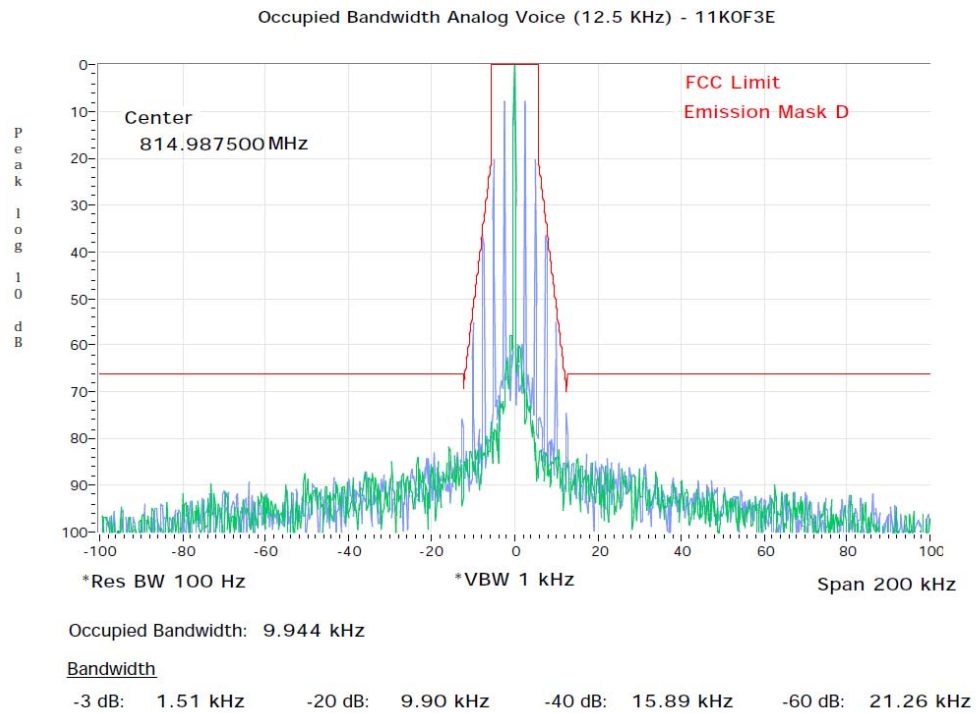
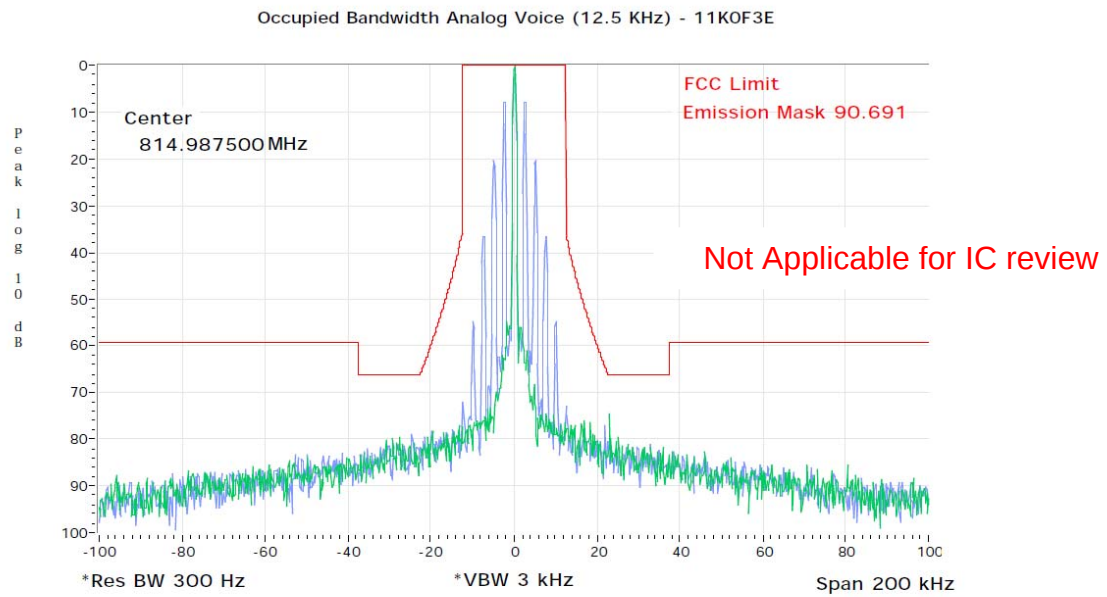


Exhibit 6E- 11: Occupied Bandwidth Analog Voice 11K0F3E - Freq 814.9875MHz, Ch Sp 12.5 kHz

Date: Wed, Nov 16, 2016



Occupied Bandwidth: 9.972 kHz

Bandwidth

-3 dB: 1.62 kHz -20 dB: 9.84 kHz -40 dB: 15.83 kHz -60 dB: 21.36 kHz

Exhibit 6E- 12: Occupied Bandwidth Analog Voice 11K0F3E - Freq 823.9875 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016

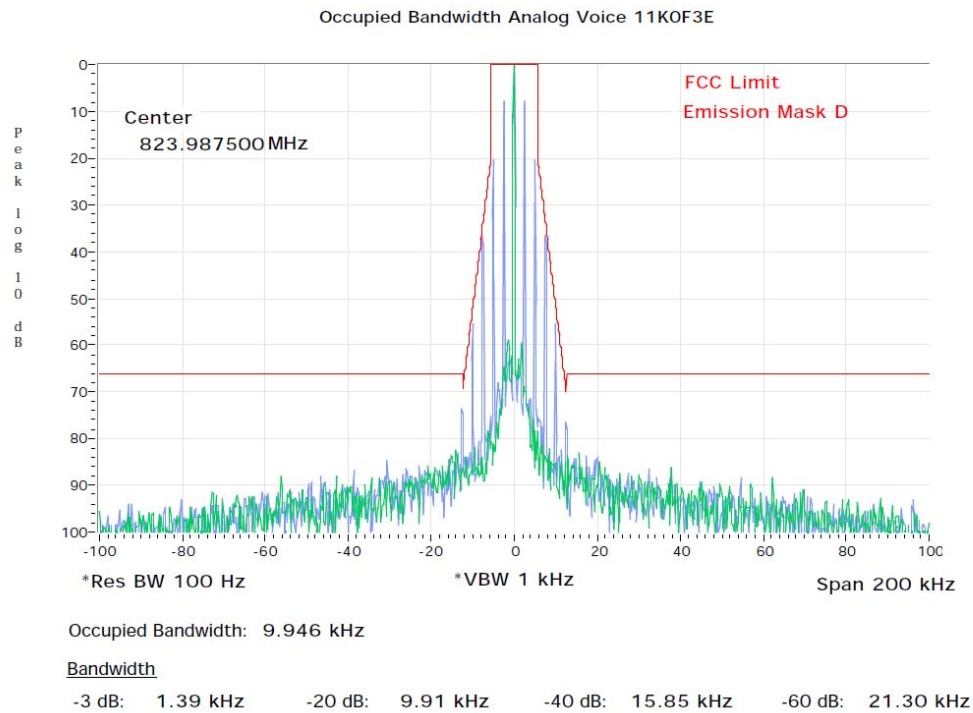


Exhibit 6E- 13: Occupied Bandwidth Analog Voice 11K0F3E - Freq 851.0125 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016

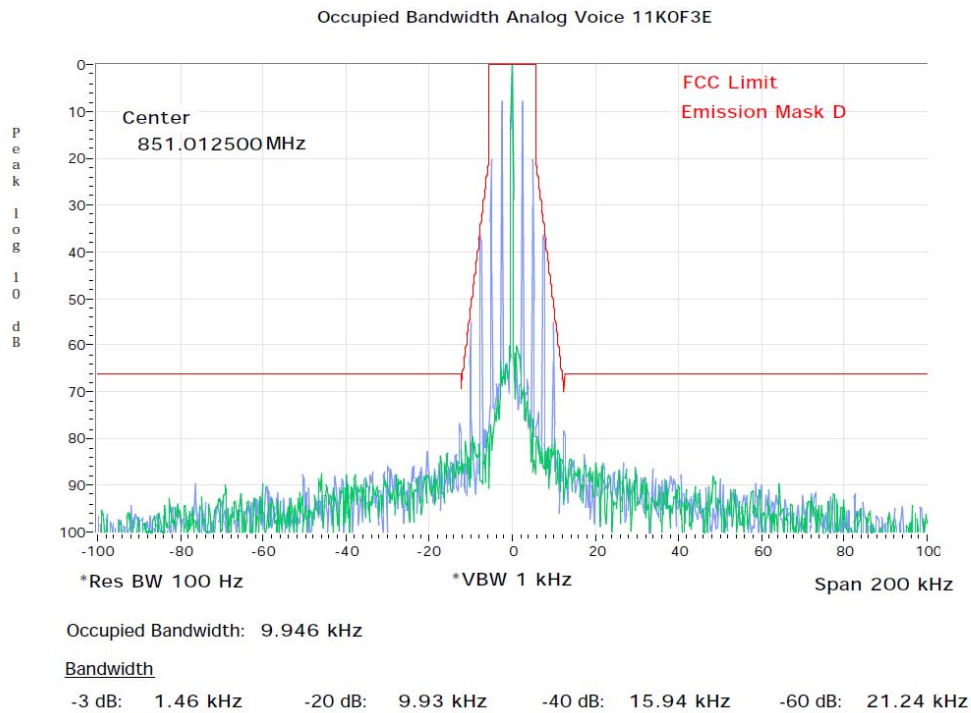
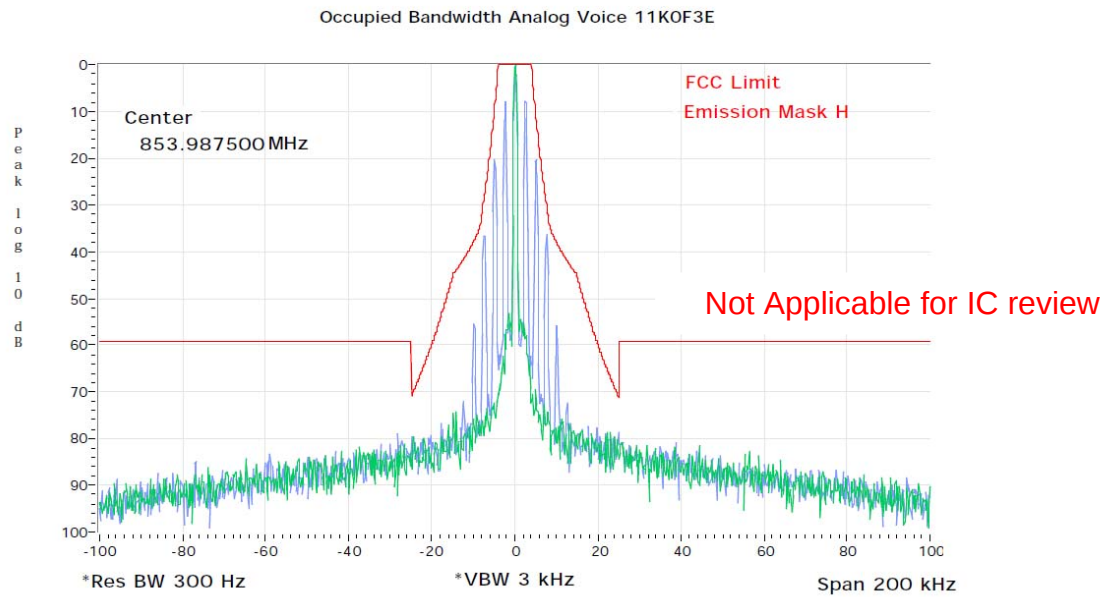


Exhibit 6E- 14: Occupied Bandwidth Analog Voice 11K0F3E - Freq 853.9875 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016



Occupied Bandwidth: 9.983 kHz

Bandwidth

-3 dB: 1.67 kHz -20 dB: 9.88 kHz -40 dB: 16.00 kHz -60 dB: 20.79 kHz

Exhibit 6E- 15: Occupied Bandwidth Analog Voice 11K0F3E - Freq 860.0125 MHz, Ch Sp 12.5 kHz

Date: Wed, Nov 9, 2016

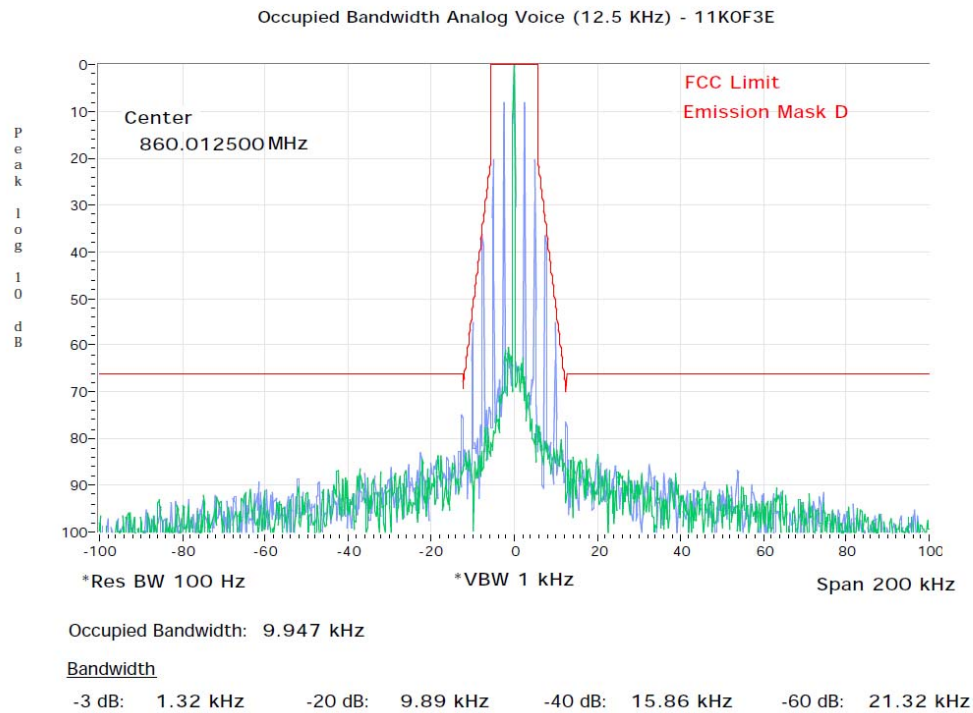
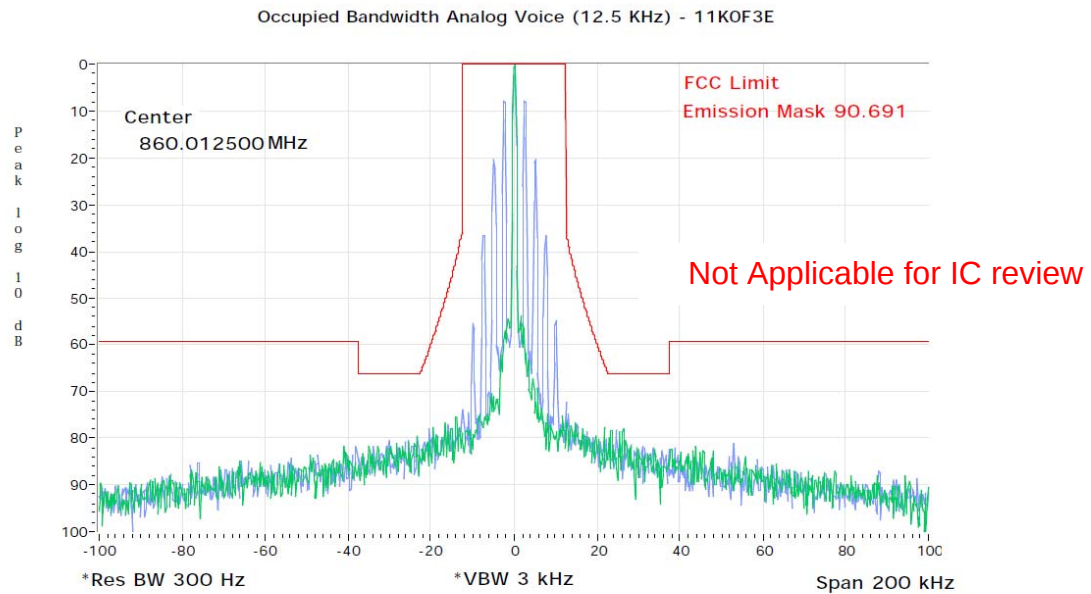


Exhibit 6E- 16: Occupied Bandwidth Analog Voice 11K0F3E - Freq 860.0125 MHz, Ch Sp 12.5 kHz

Date: Wed, Nov 16, 2016



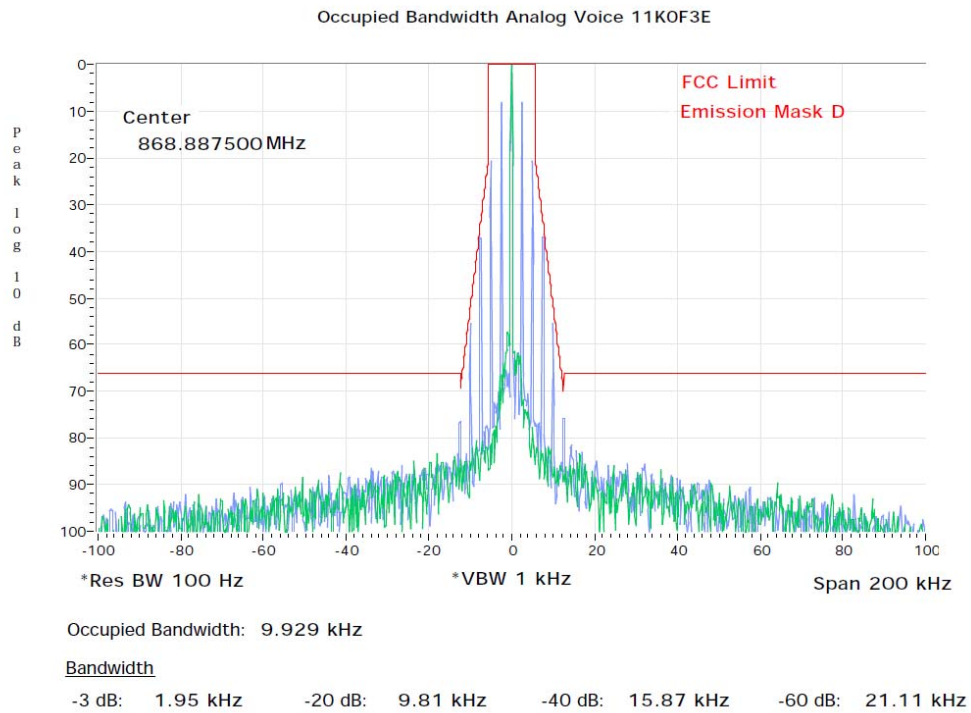
Occupied Bandwidth: 9.975 kHz

Bandwidth

-3 dB: 1.66 kHz -20 dB: 9.85 kHz -40 dB: 16.02 kHz -60 dB: 21.24 kHz

Exhibit 6E- 17: Occupied Bandwidth Analog Voice 11K0F3E - Freq 868.8875 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016



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

In this case, the maximum modulating frequency is 3.0 kHz with a 5.0 kHz deviation.

$$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 5.0 \text{ kHz}) = 16 \text{ kHz} \Rightarrow 16K0$$

F3E portion of the designator indicates voice.

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

Exhibit 6E- 18: Occupied Bandwidth Analog Voice 16K0F3E - Freq 138.0125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

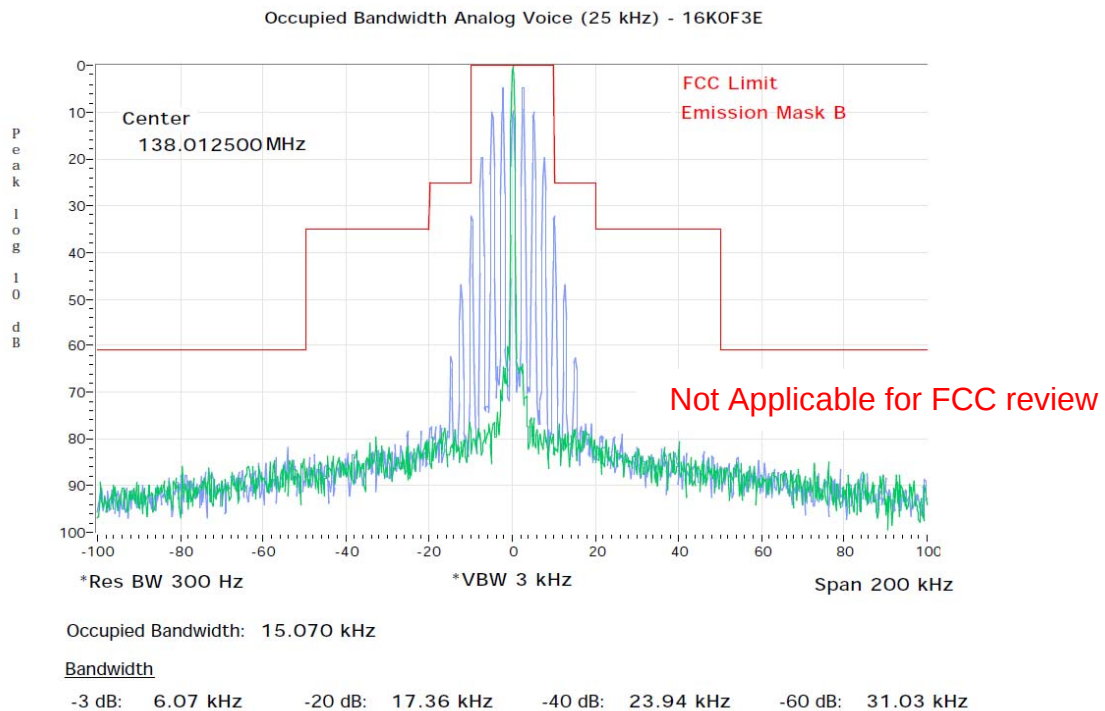


Exhibit 6E- 19: Occupied Bandwidth Analog Voice 16K0F3E - Freq 161.7 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

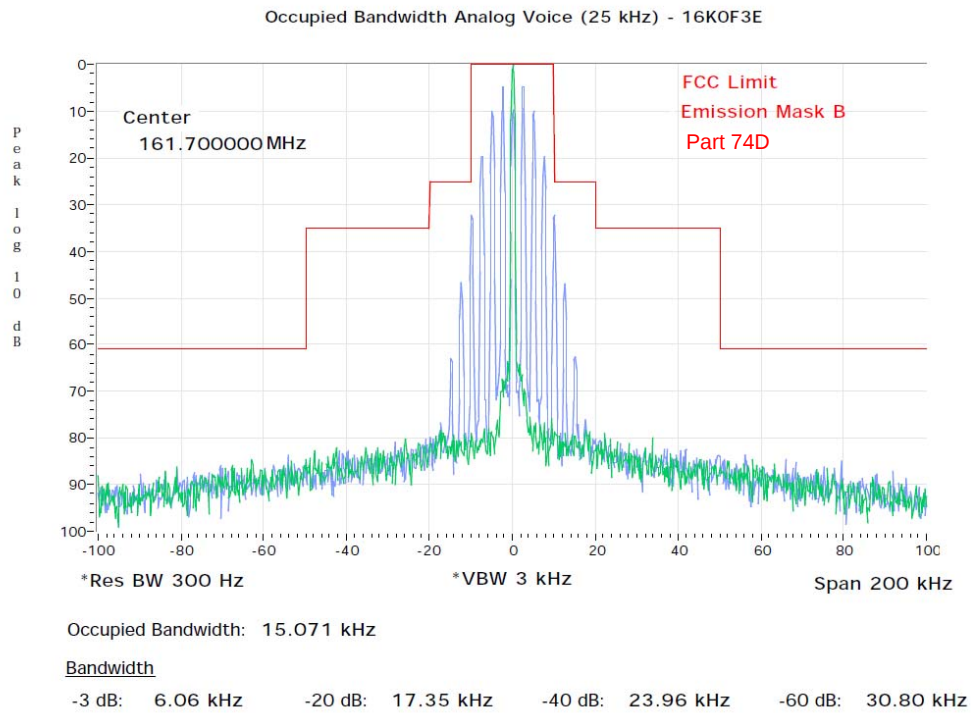


Exhibit 6E- 20: Occupied Bandwidth Analog Voice 16K0F3E - Freq 173.3875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

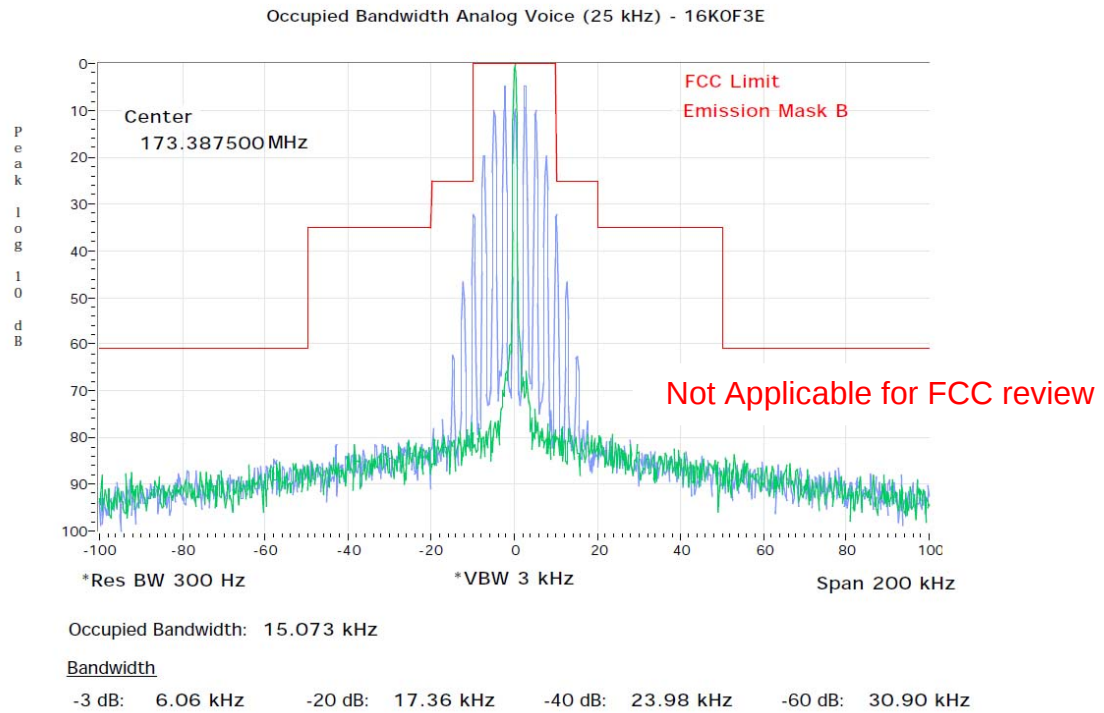


Exhibit 6E- 21: Occupied Bandwidth Analog Voice 16K0F3E - Freq 450.65 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

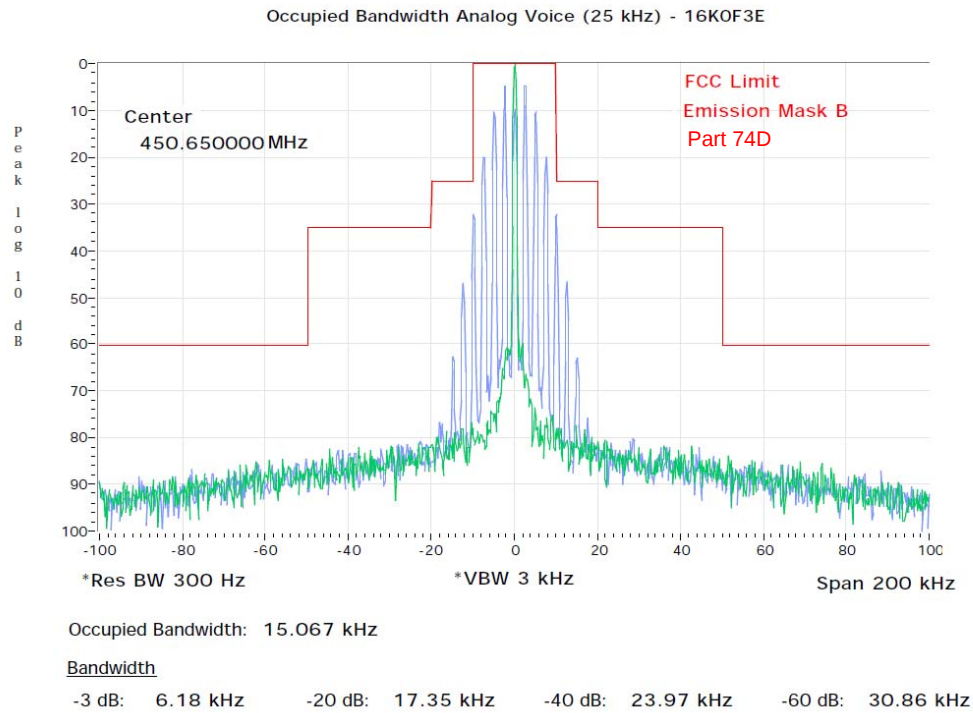


Exhibit 6E- 22: Occupied Bandwidth Analog Voice 16K0F3E - Freq 459.125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

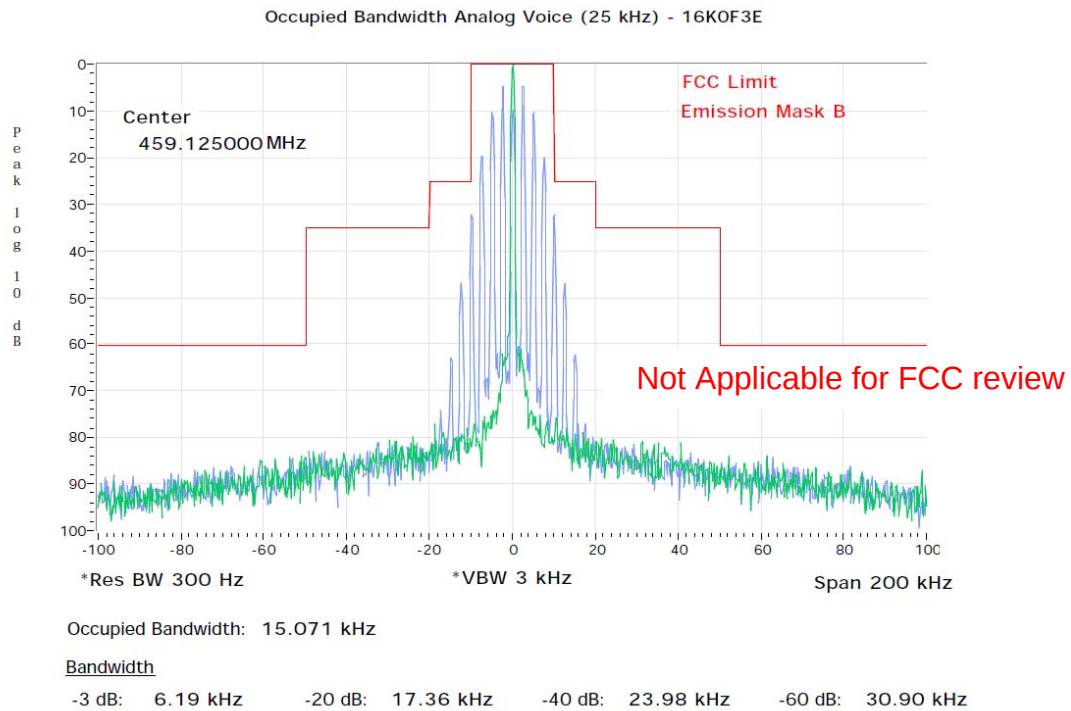
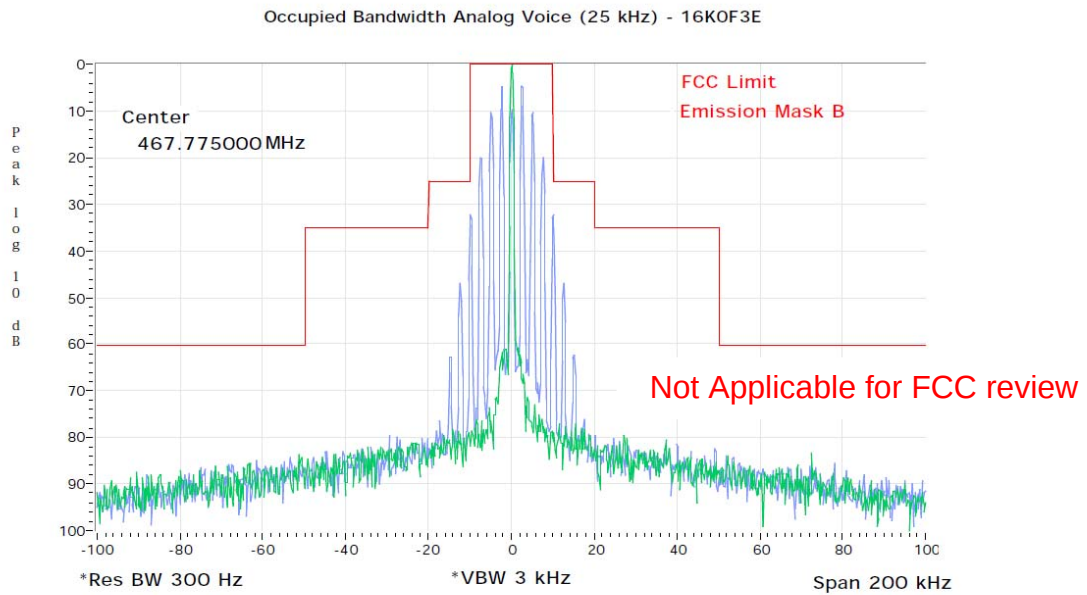


Exhibit 6E- 23: Occupied Bandwidth Analog Voice 16K0F3E - Freq 467.775 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016



Occupied Bandwidth: 15.069 kHz

Bandwidth

-3 dB: 6.18 kHz -20 dB: 17.34 kHz -40 dB: 23.96 kHz -60 dB: 30.99 kHz

Exhibit 6E- 24: Occupied Bandwidth Analog Voice 16K0F3E - Freq 511.9875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

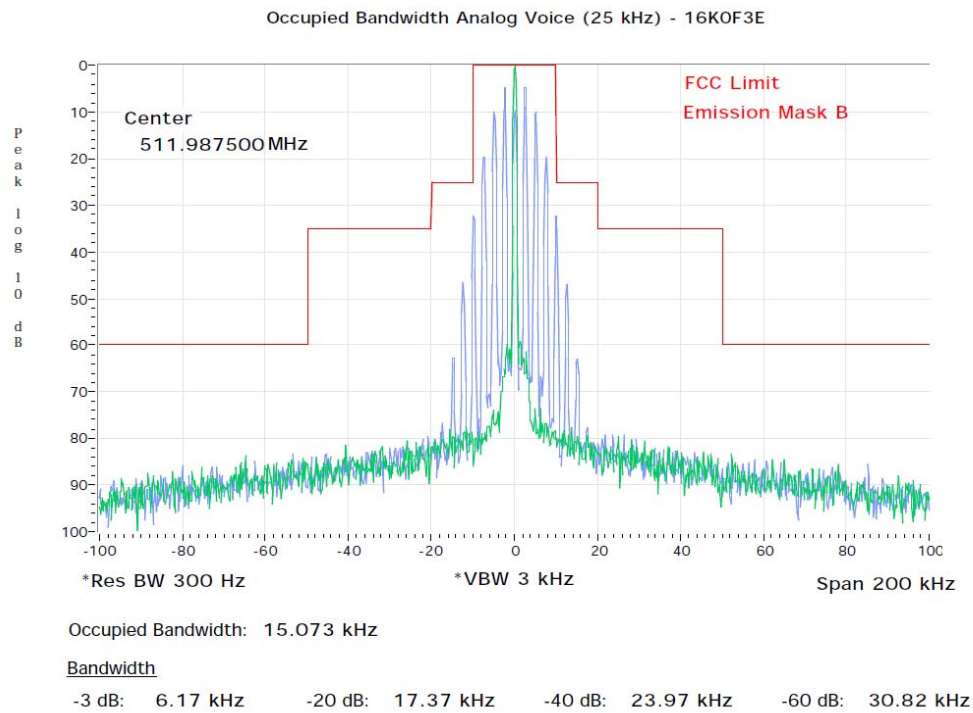


Exhibit 6E- 25: Occupied Bandwidth Analog Voice 16K0F3E - Freq 806.0125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

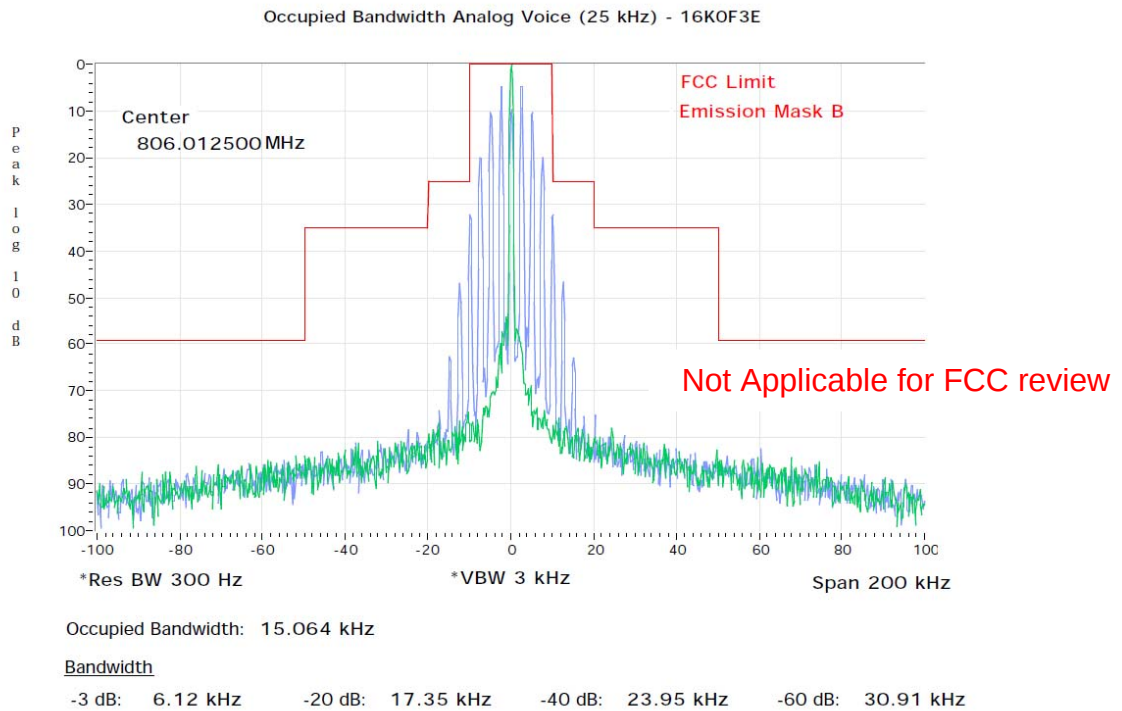


Exhibit 6E- 26: Occupied Bandwidth Analog Voice 16K0F3E - Freq 806.0125 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016

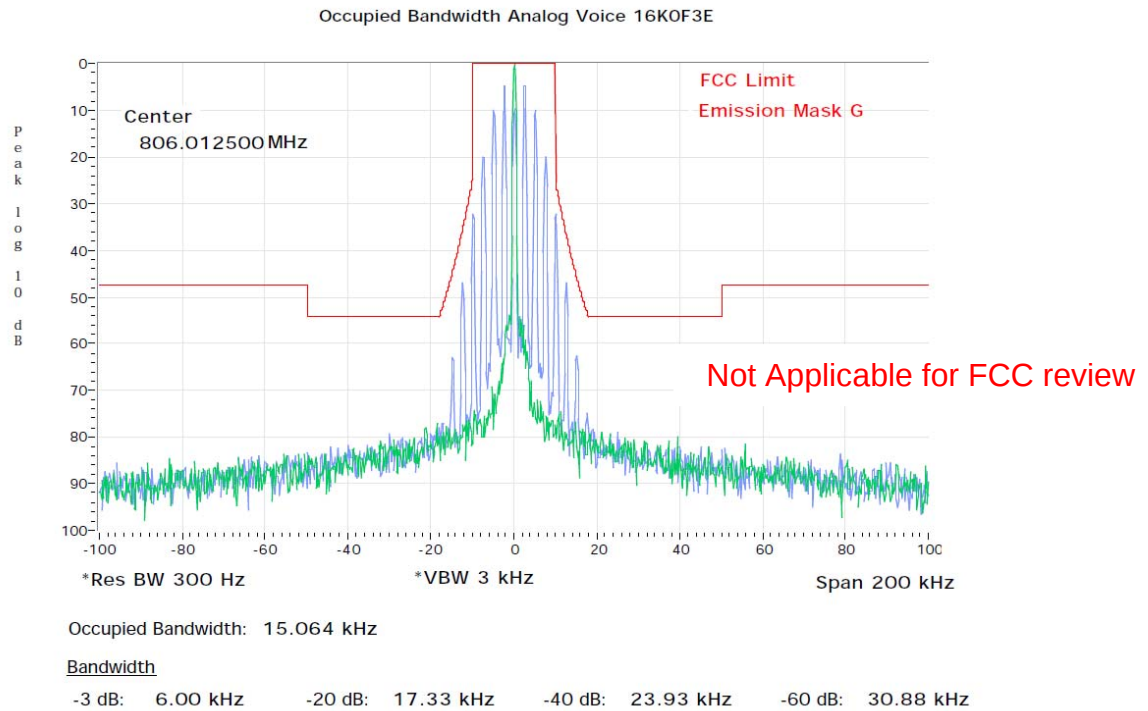


Exhibit 6E- 27: Occupied Bandwidth Analog Voice 16K0F3E - Freq 814.9875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

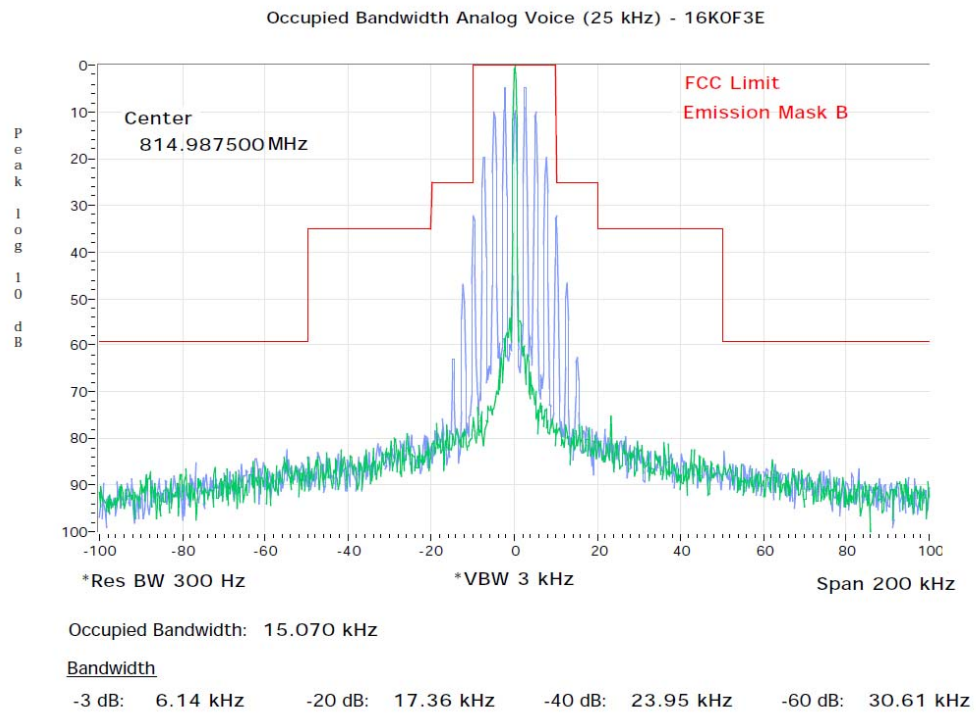


Exhibit 6E- 28: Occupied Bandwidth Analog Voice 16K0F3E - Freq 814.9875 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016

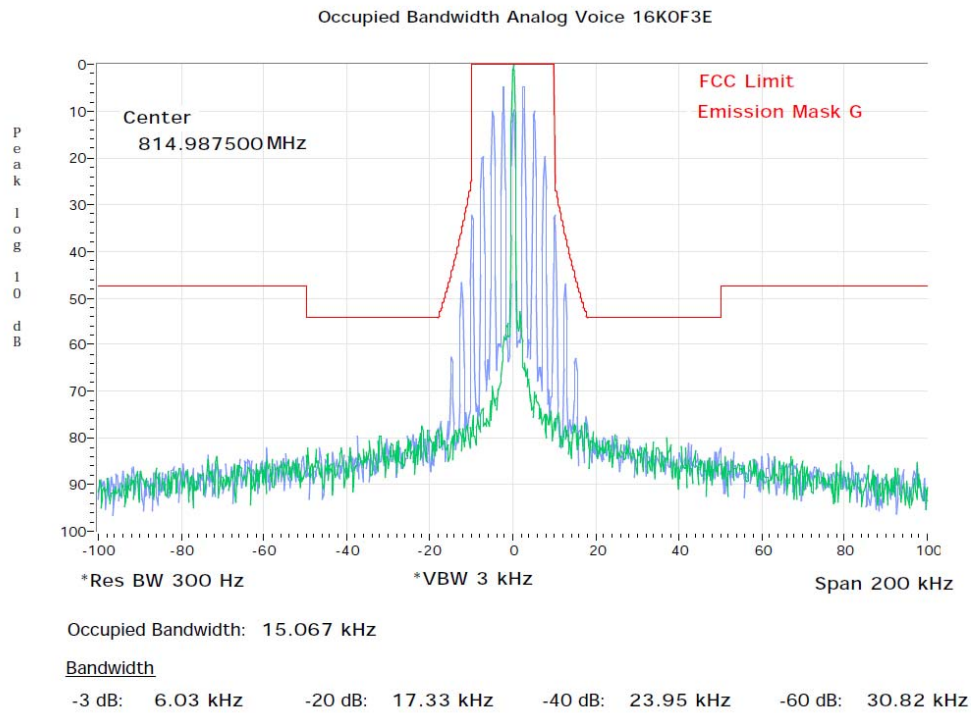


Exhibit 6E- 29: Occupied Bandwidth Analog Voice 16K0F3E - Freq 814.9875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

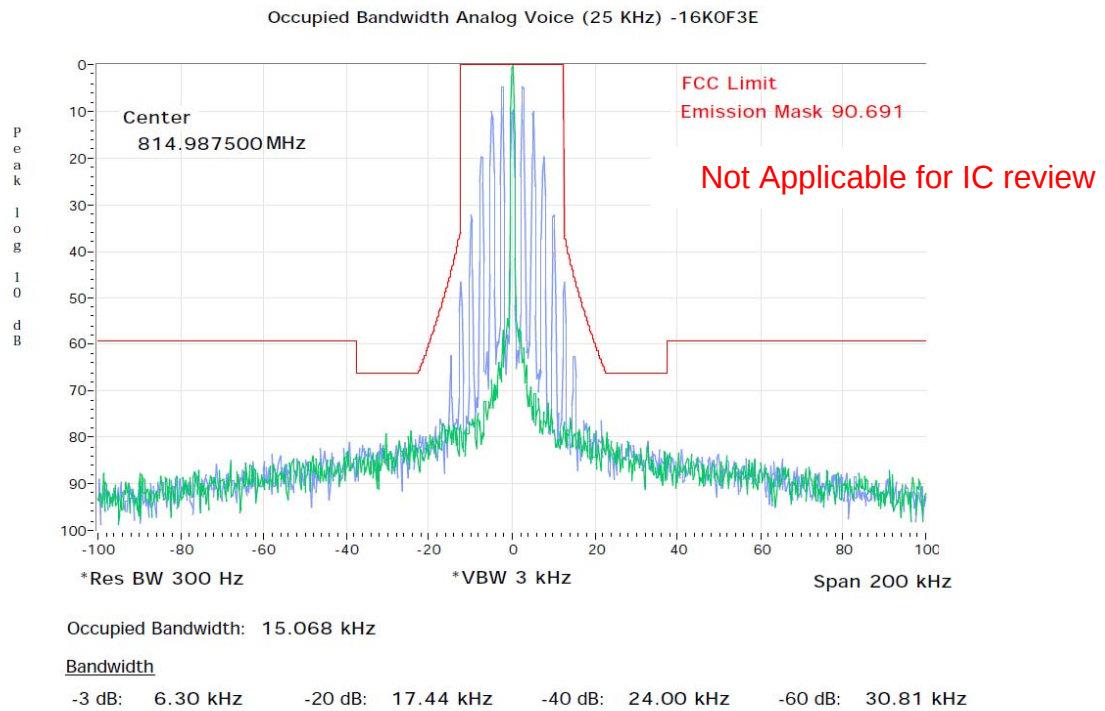


Exhibit 6E- 30: Occupied Bandwidth Analog Voice 16K0F3E - Freq 823.9875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

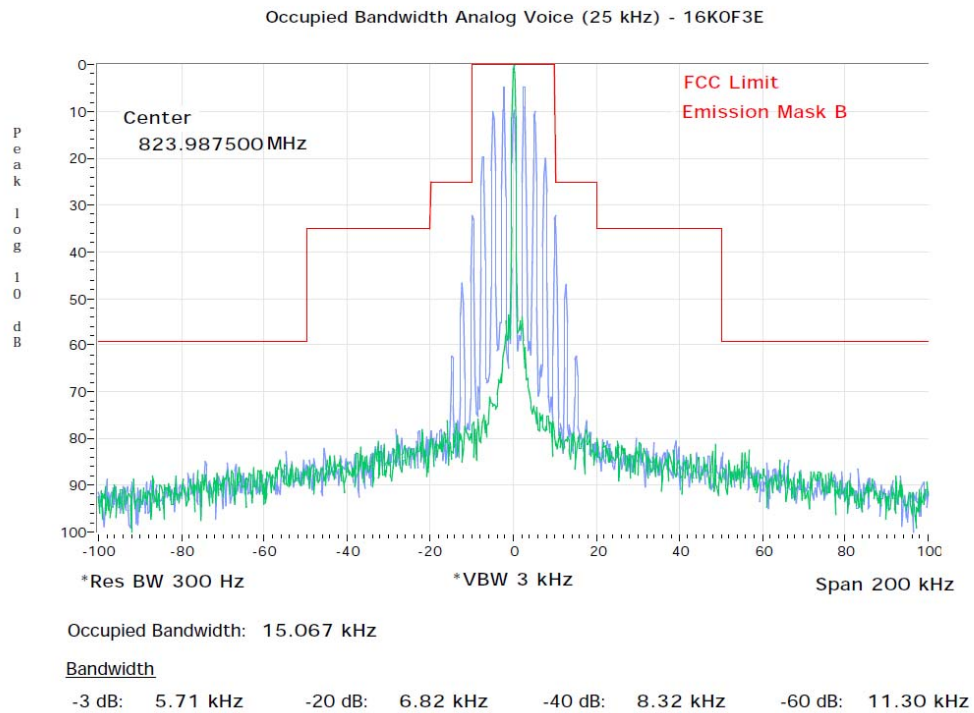


Exhibit 6E- 31: Occupied Bandwidth Analog Voice 16K0F3E - Freq 823.9875 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016

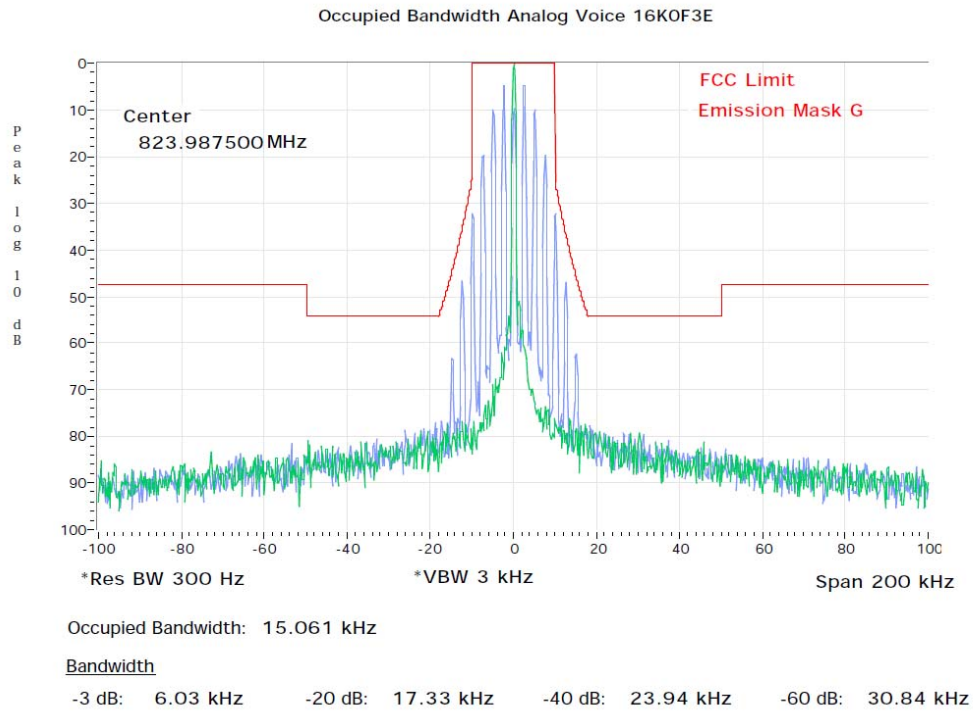


Exhibit 6E- 32: Occupied Bandwidth Analog Voice 16K0F3E - Freq 851.0125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

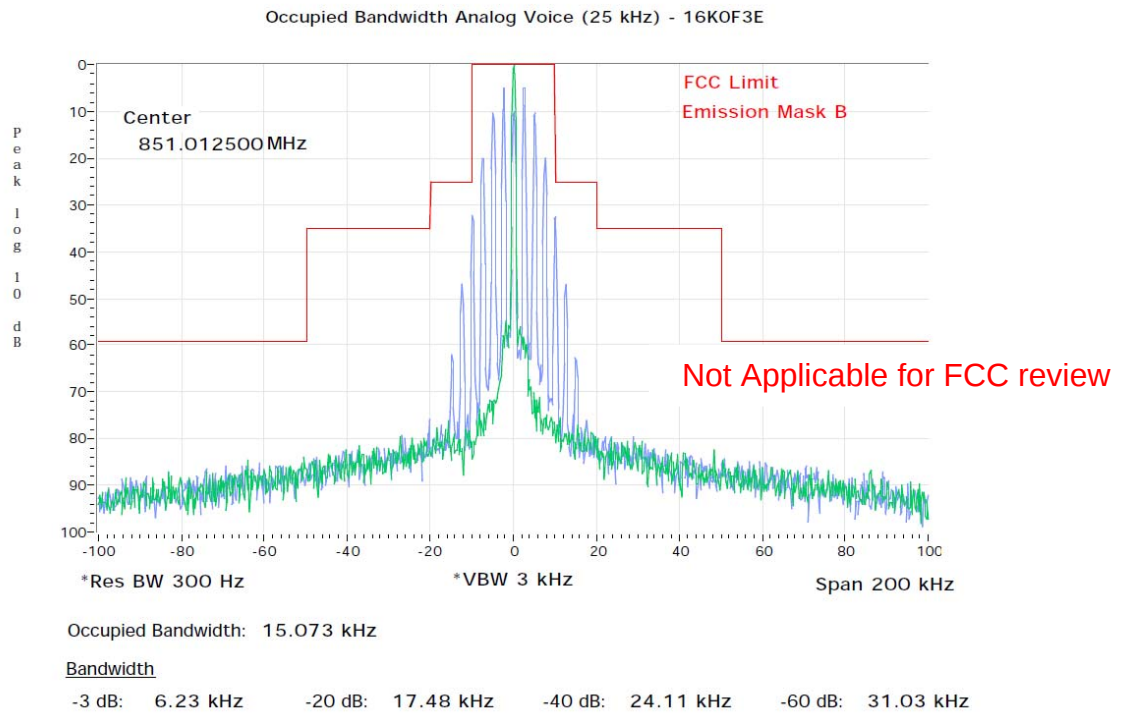


Exhibit 6E- 33: Occupied Bandwidth Analog Voice 16K0F3E - Freq 851.0125 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016

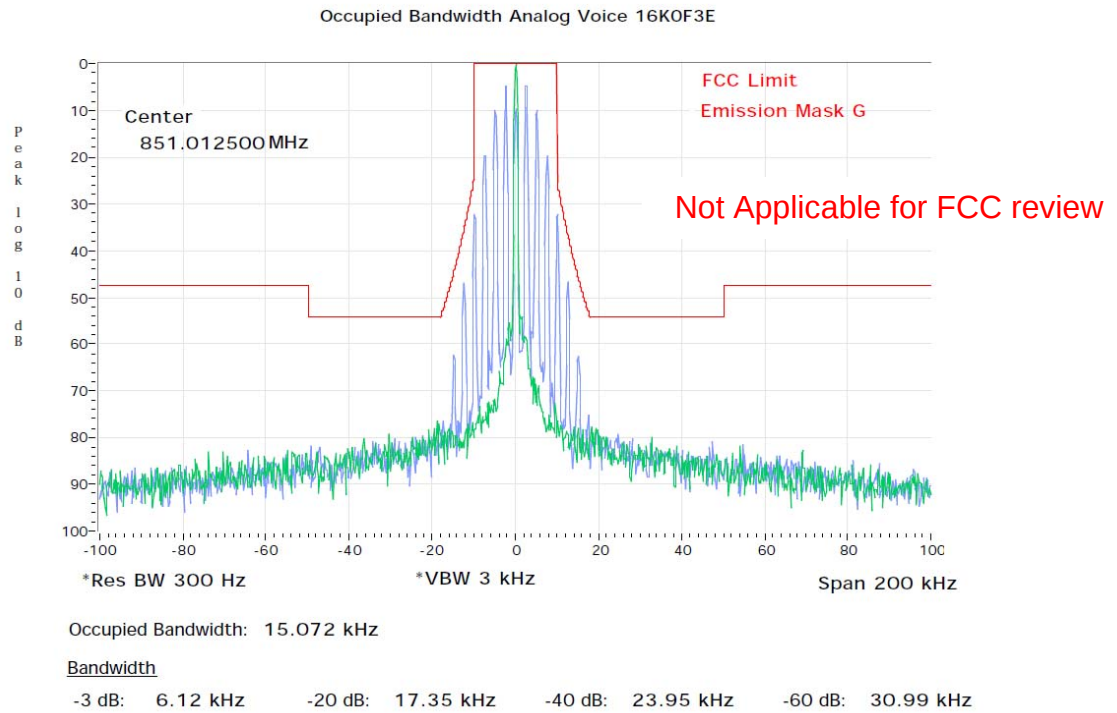


Exhibit 6E- 34: Occupied Bandwidth Analog Voice 16K0F3E - Freq 860.0125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

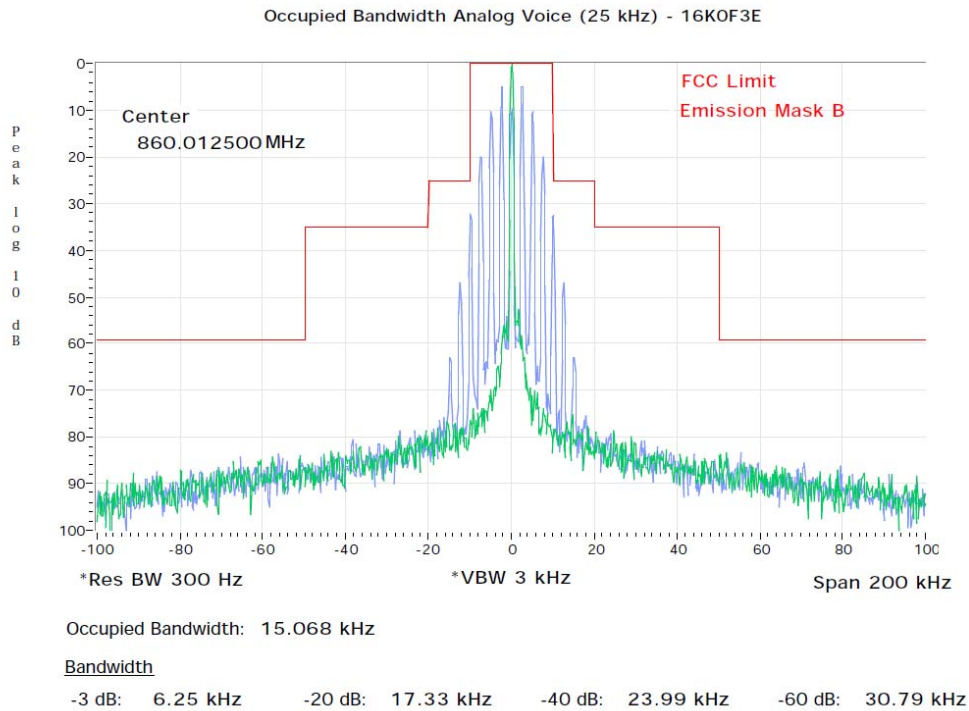


Exhibit 6E- 35: Occupied Bandwidth Analog Voice 16K0F3E - Freq 860.0125 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016

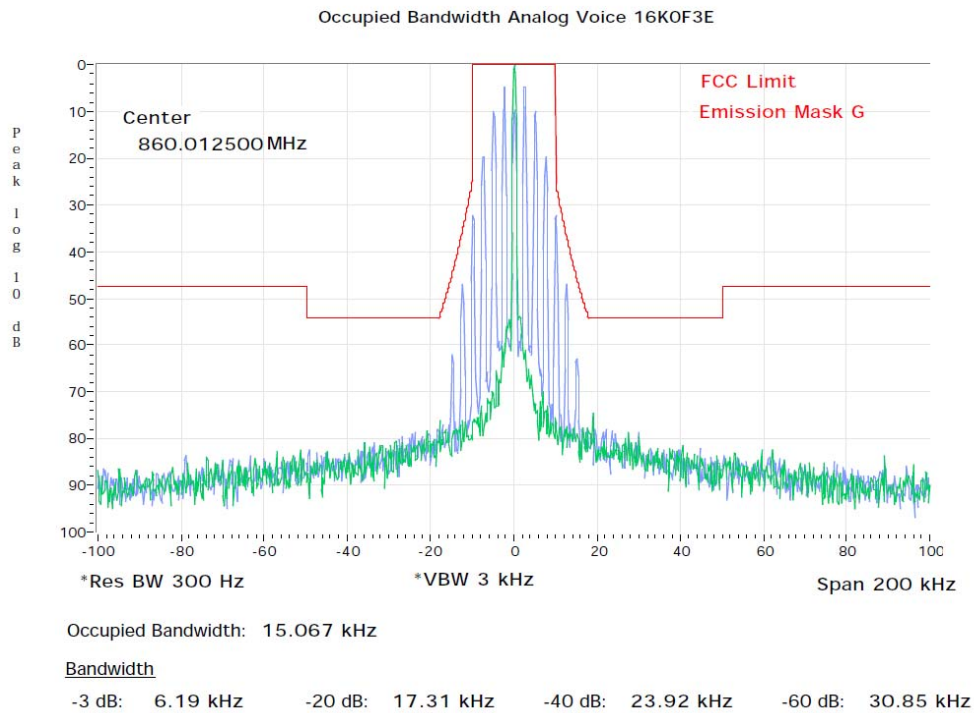


Exhibit 6E-36: Occupied Bandwidth Analog Voice 16K0F3E - Freq 860.0125 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

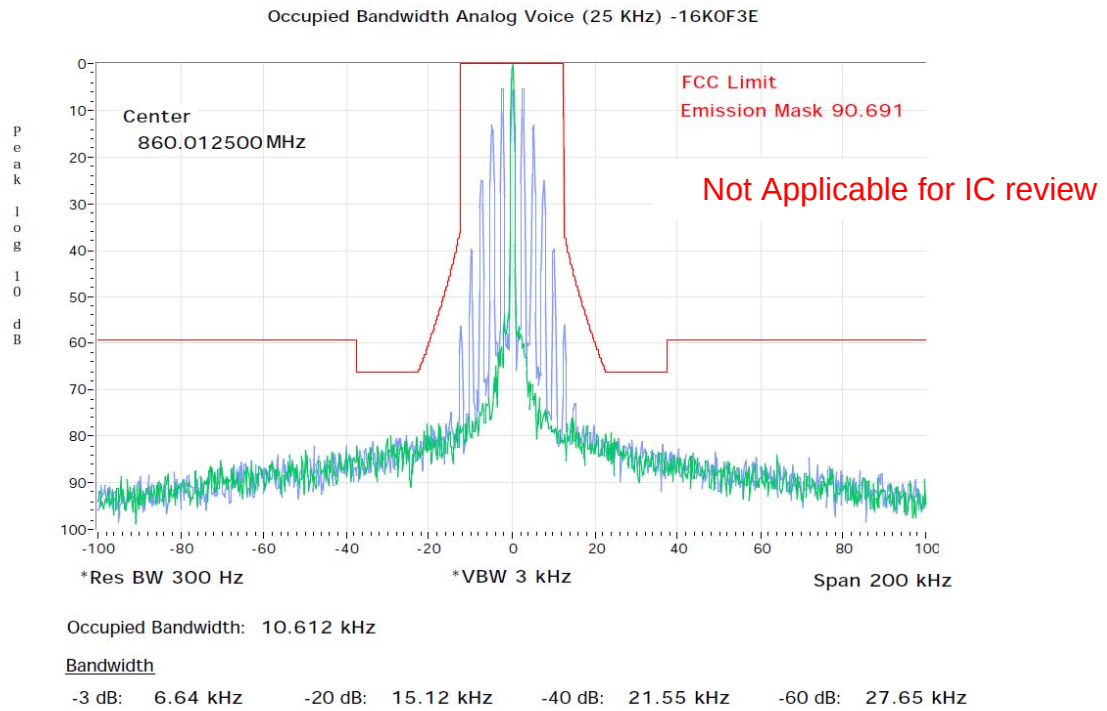


Exhibit 6E- 37: Occupied Bandwidth Analog Voice 16K0F3E - Freq 868.8875 MHz, Ch Sp 25 kHz

Date: Wed, Nov 16, 2016

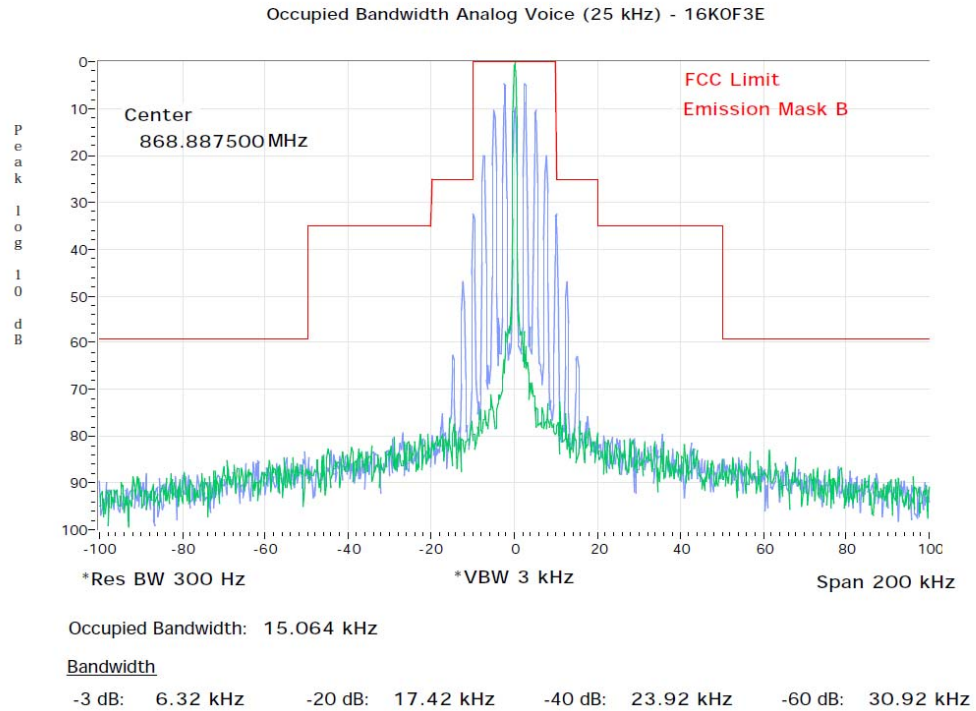
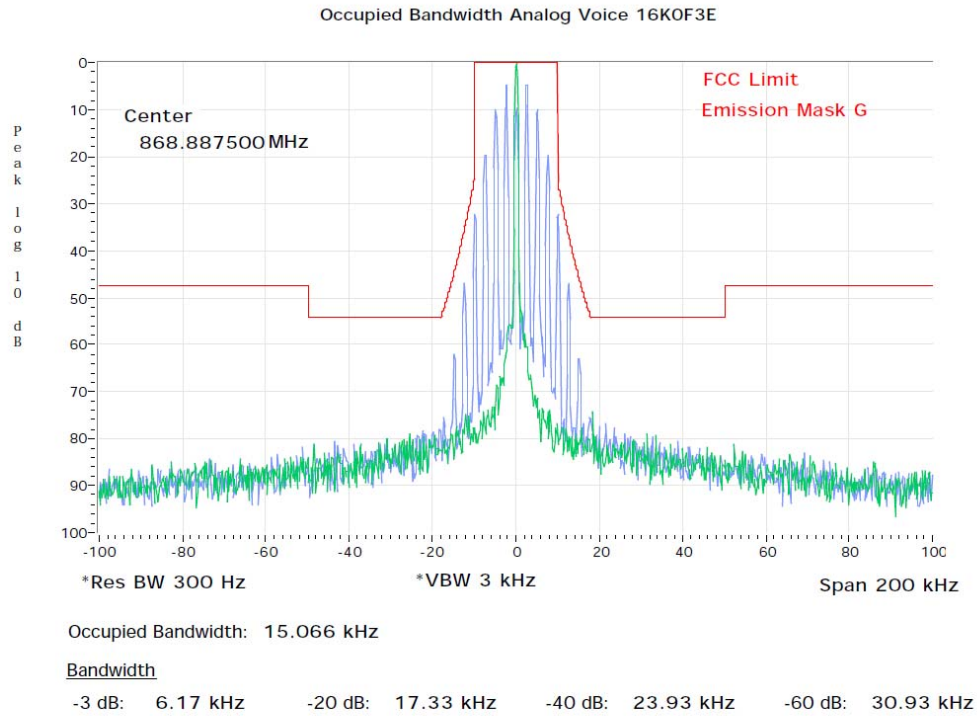


Exhibit 6E- 38: Occupied Bandwidth Analog Voice 16K0F3E - Freq 868.8875 MHz, Ch Sp 25 kHz

Date: Fri, Sep 9, 2016



Digital (12.5 kHz Channelization, Digital Voice):

Emission Designator 8K10F1E

The 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X kHz, in this case, 8.10 kHz. Measurements were performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2.

F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 12.5 kHz channelization digital voice is 8K10F1E.

Exhibit 6E- 39: Occupied Bandwidth Digital Voice 8K10F1E - Freq 138.0125 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

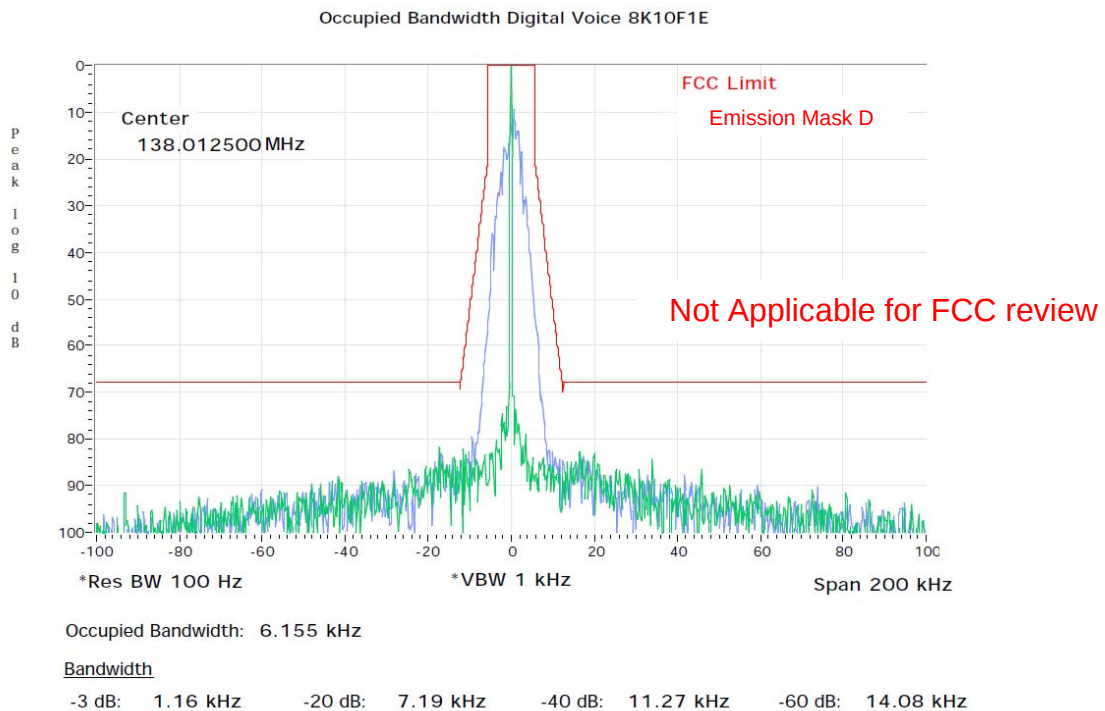


Exhibit 6E- 40: Occupied Bandwidth Digital Voice 8K10F1E - Freq 158.55 MHz, Ch Sp 12.5 kHz

Date: Fri, Sep 9, 2016

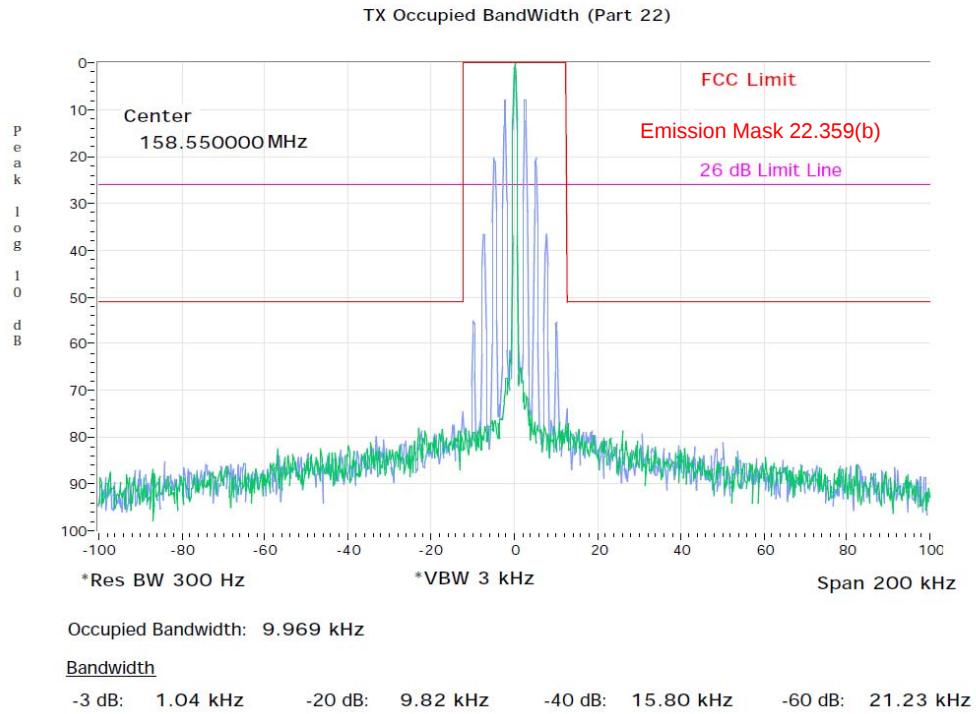
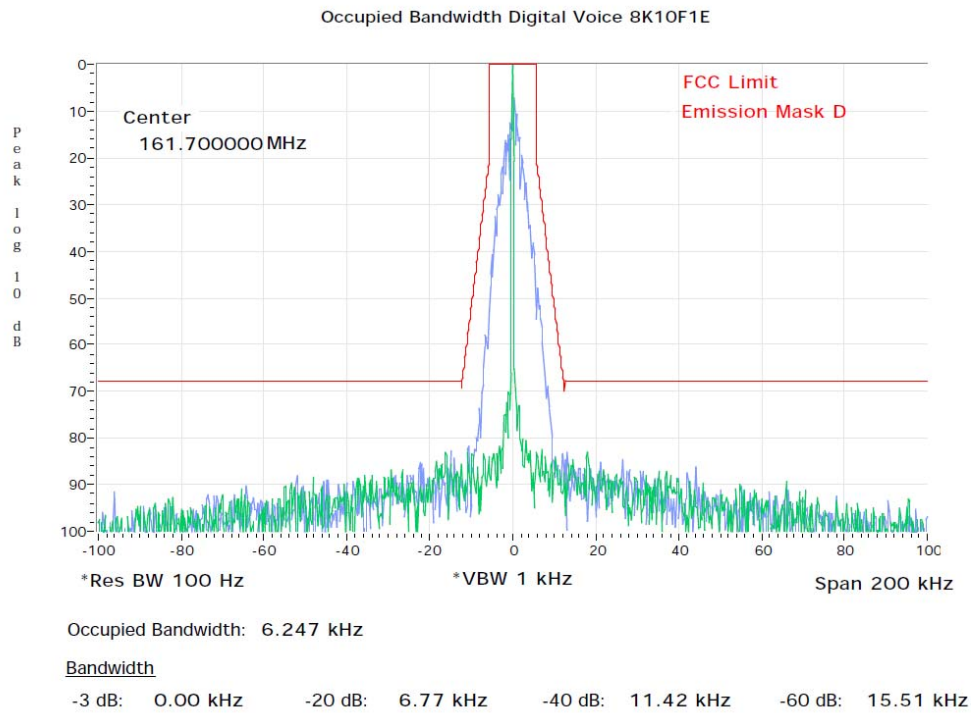


Exhibit 6E- 41: Occupied Bandwidth Digital Voice 8K10F1E - Freq 161.7 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016



**Exhibit 6E- 42: Occupied Bandwidth Digital Voice 8K10F1E - Freq 173.3875 MHz, Ch Sp
12.5 kHz**

Date: Mon, Nov 7, 2016

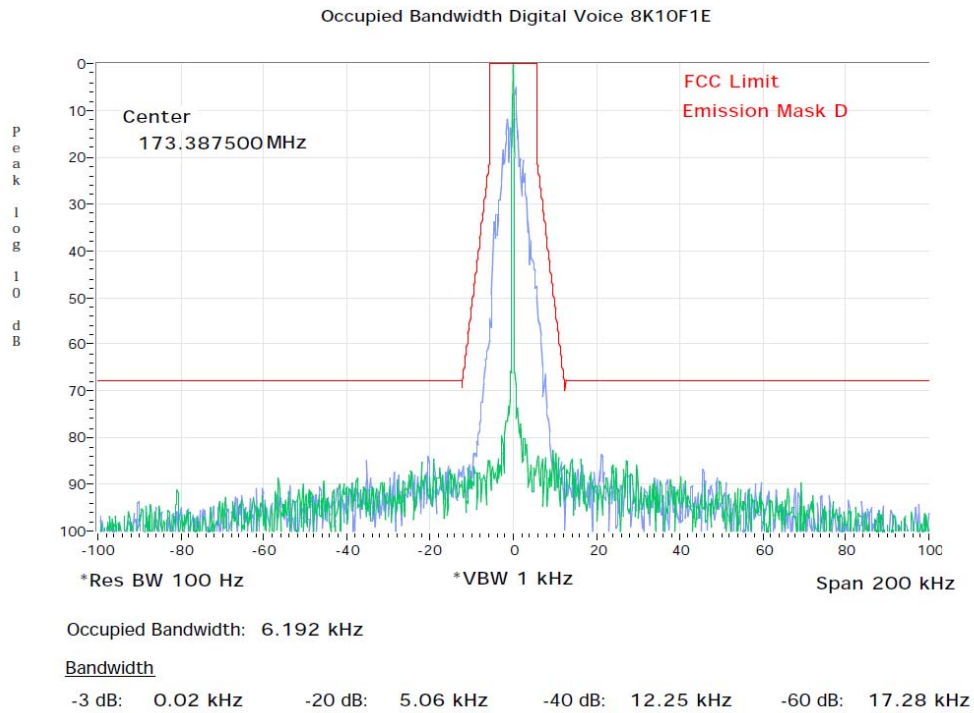


Exhibit 6E- 43: Occupied Bandwidth Digital Voice 8K10F1E - Freq 406.2 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

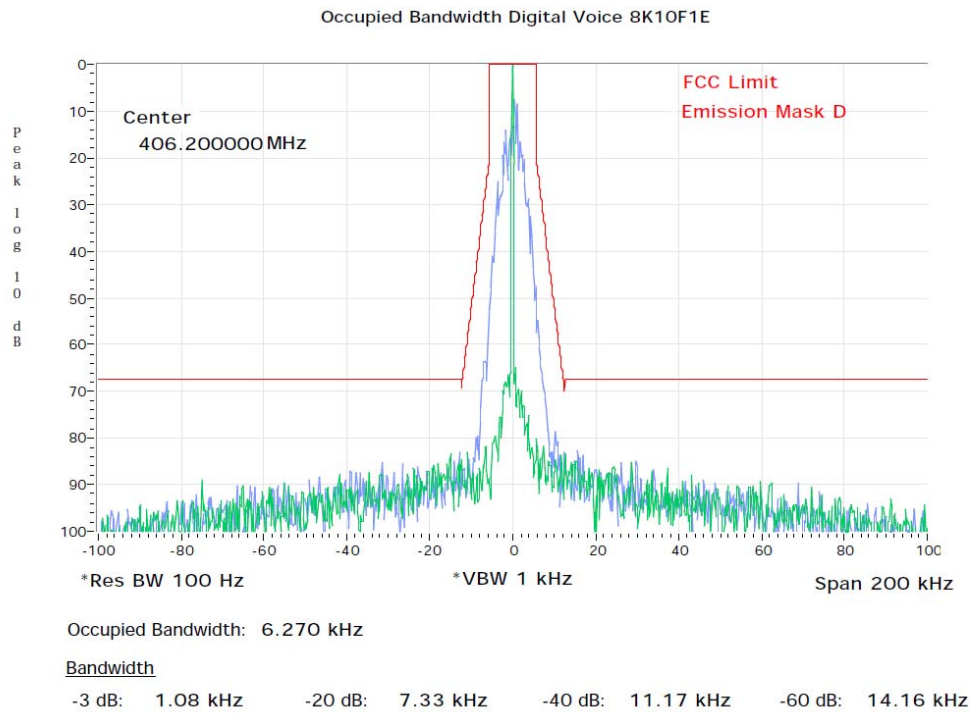


Exhibit 6E- 44: Occupied Bandwidth Digital Voice 8K10F1E - Freq 450.65 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

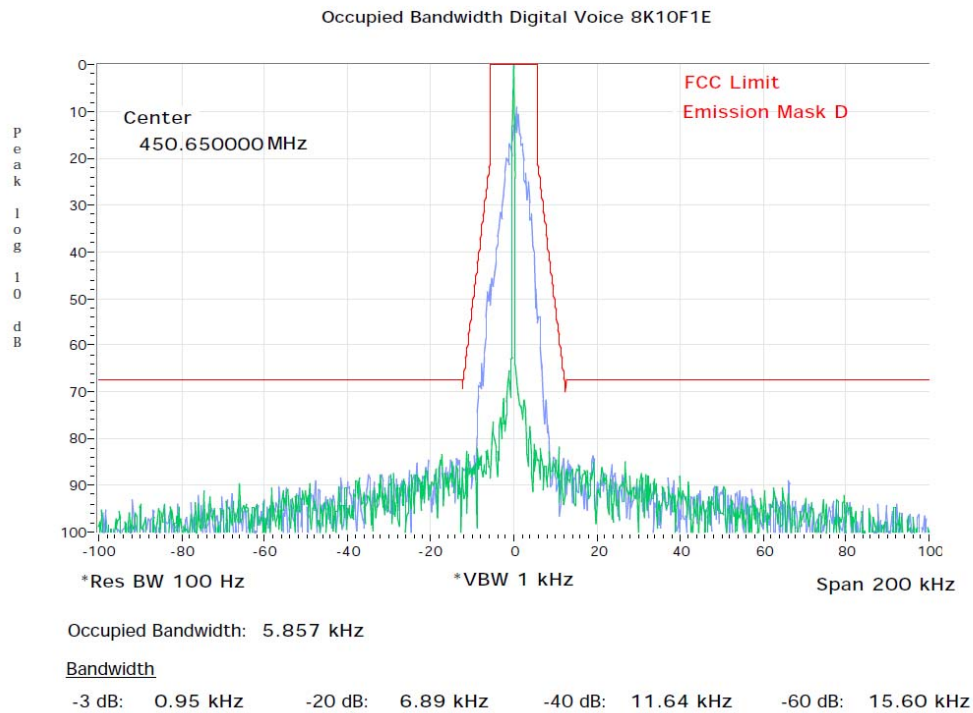
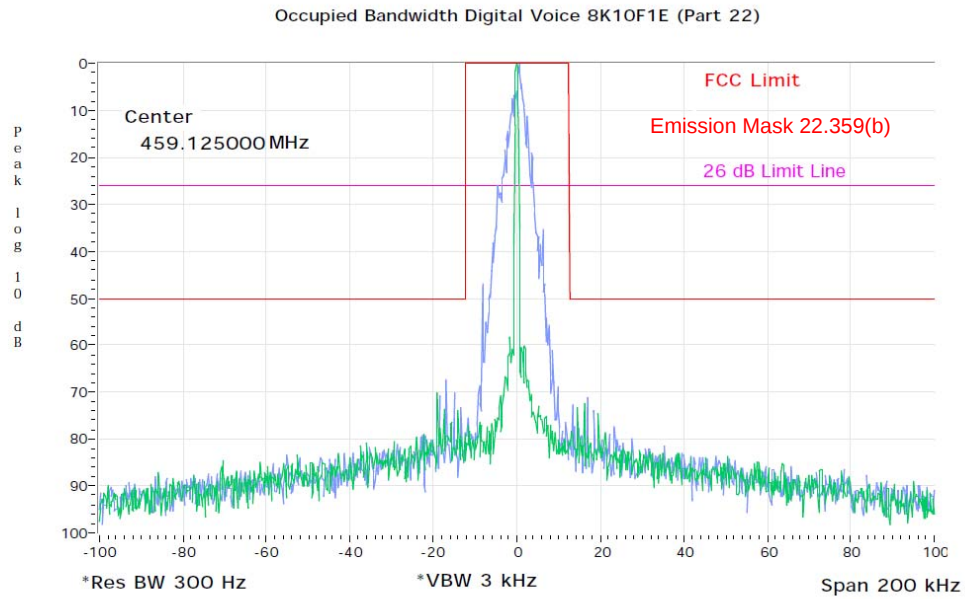


Exhibit 6E- 45: Occupied Bandwidth Digital Voice 8K10F1E - Freq 459.125 MHz, Ch Sp 12.5 kHz

Date: Fri, Sep 16, 2016



Occupied Bandwidth: 6.331 kHz

Bandwidth

-3 dB: 0.01 kHz -20 dB: 7.15 kHz -40 dB: 12.38 kHz -60 dB: 22.76 kHz

Exhibit 6E- 46: Occupied Bandwidth Digital Voice 8K10F1E - Freq 467.775 MHz, Ch Sp 12.5 kHz

Date: Mon, Nov 7, 2016

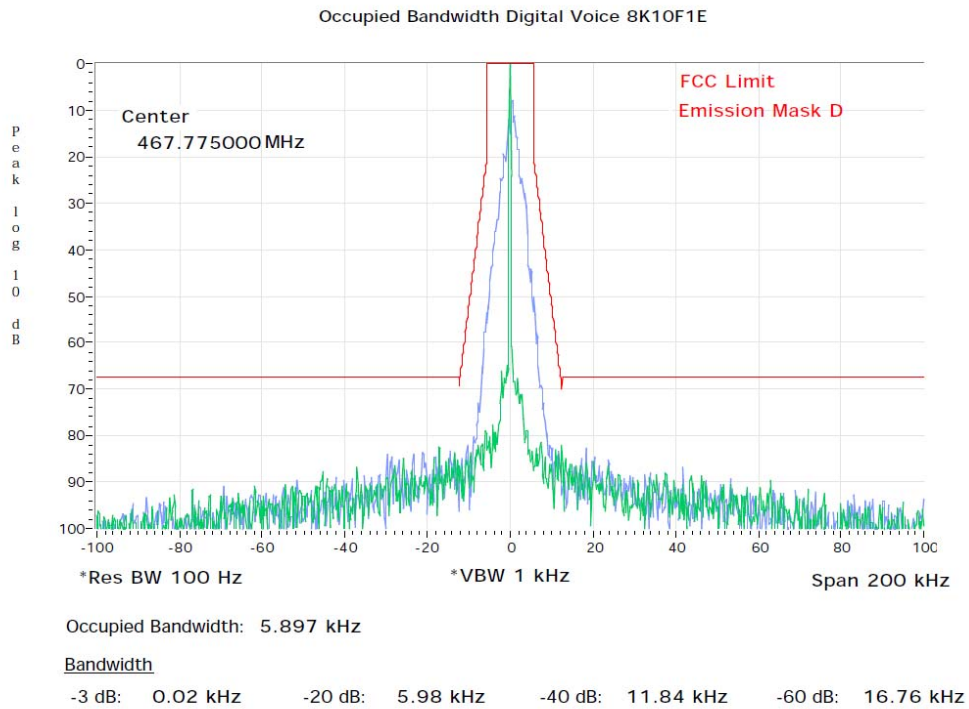


Exhibit 6E- 47: Occupied Bandwidth Digital Voice 8K10F1E - Freq 806.0125 MHz, Ch Sp 12.5 kHz

Date: Tue, Nov 8, 2016

