Applicant: Motorola Solutions Inc. FCC ID: AZ489FT7061 IC: 109U-89FT7061

## EXHIBIT #6

**Test Report** 

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

## **Submitted Measured Data**

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4.	Modulation Limiting	6D	13
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8.	Transmitter Conducted Spurious Emissions	6H	222
9.	Frequency Stability	61	279
10.	Transient Frequency Behavior	6J	283
11.	Adjacent Channel Coupled Power Ratio	6K	297

Note: Data was tested to show compliance to RSS-102, RSS-119, RSS-182, and RSS-210.

Applicant: Motorola Solutions Inc. FCC ID: AZ489FT7061 IC: 109U-89FT7061

#### **Exhibit 6A**

## **RF Output Power (conducted)**

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

APX8000 V/U/7-800 MHz

TIA-603, TX Output Power and TX DC Current

(Nominal DC Voltage 7.5V, Primary Supply Voltage 7.5V, Temp 25°C)

(11011)	Low Power Readings		Max Power Readings	
Frequency MHz	Output Power (W)	Current (A)	Output Power (W)	Current (A)
136.025	1.0	1.123	6.6	2.283
138.0125	1.0	1.110	6.6	2.267
158.55	1.0	1.063	6.6	2.129
161.7	1.0	1.061	6.6	2.139
173.3875	1.0	1.074	6.6	2.184
380.0125	1.0	1.058	5.7	2.134
406.2	1.0	1.037	5.7	2.090
450.025	1.0	1.042	5.7	2.145
459.125	1.0	1.034	5.7	2.155
467.775	1.0	1.029	5.7	2.166
469.9875	1.0	1.032	5.7	2.176
511.9875	1.0	1.006	5.7	2.422
519.9875	1.0	1.202	5.7	2.422
764.0125	1.0	1.225	2.99	1.910
768.0125	1.0	1.223	2.99	1.894
769.0125	1.0	1.217	2.0	1.896
775.9875	1.0	1.204	2.99	1.865
798.0125	1.0	1.142	2.99	1.758
804.9125	1.0	1.128	2.99	1.721
805.9875	1.0	1.115	2.99	1.721
806.0125	1.0	1.152	3.6	1.923
823.9875	1.0	1.110	3.6	1.868
868.8875	1.0	0.974	3.6	1.763

#### **Exhibit 6B**

#### **Audio Frequency Response**

**Equipment under test:** H91TGD9PW7AN S/N: KT000006A01MK4KA12K7

Measurement Criteria Compliance Testing

Audio Frequency Response

Measurement Lab ATE P25 Compliance Lab

8000 West Sunrise Blvd Fort Lauderdale FL, 33322

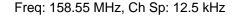
**Results Summary:** EUT meets the test requirements

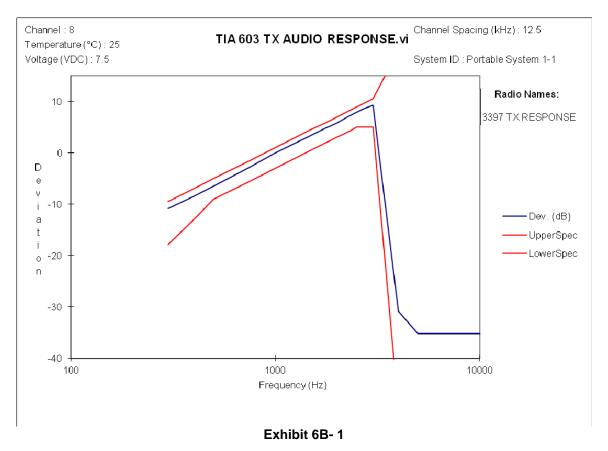
Test Configurations: Audio Frequency Response @ 12.5 kHz channel spacing

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.





Freq: 158.55 MHz, Ch Sp: 25 kHz

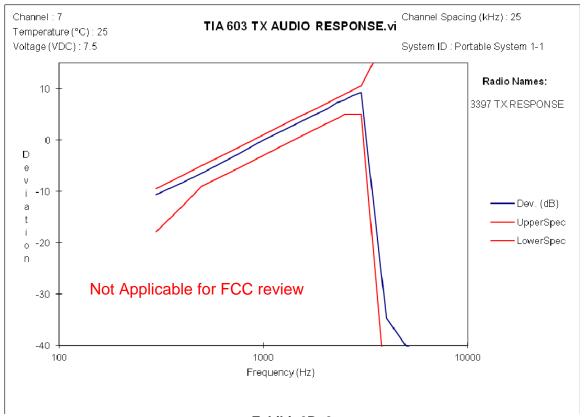


Exhibit 6B-2

Freq: 467.775 MHz, Ch Sp: 12.5 kHz

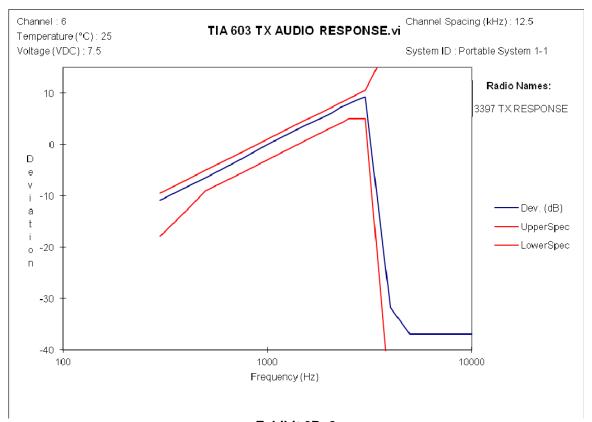
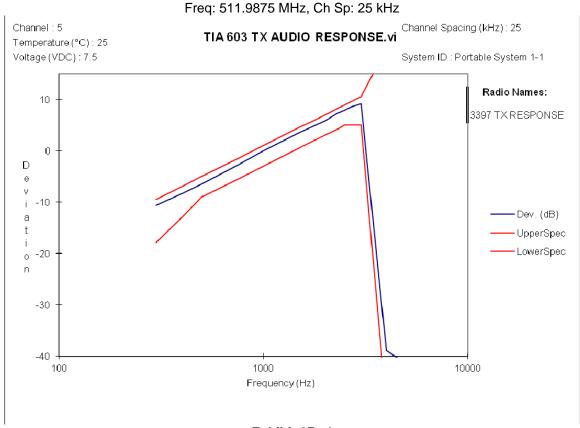
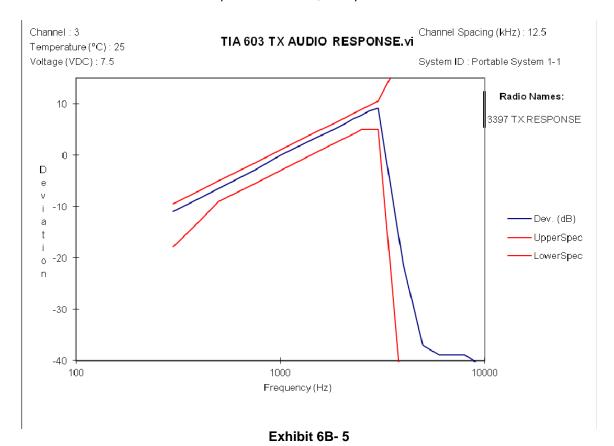


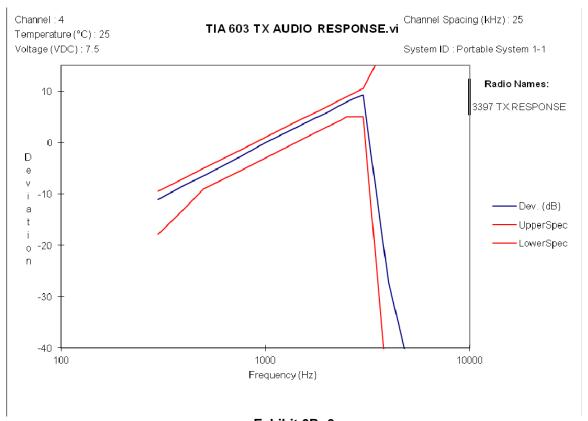
Exhibit 6B-3



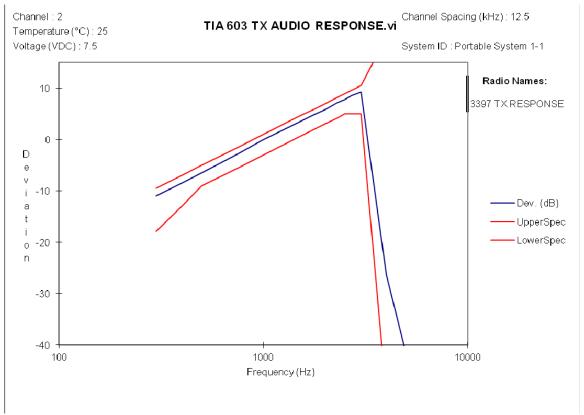
Freq: 769.0875 MHz, Ch Sp: 12.5 kHz



Freq: 769.0875 MHz, Ch Sp: 25 kHz



Freq: 823.9875 MHz, Ch Sp: 12.5 kHz



Freq: 823.9875 MHz, Ch Sp: 25 kHz

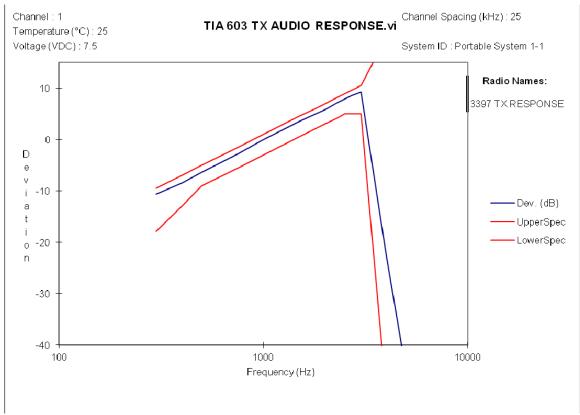
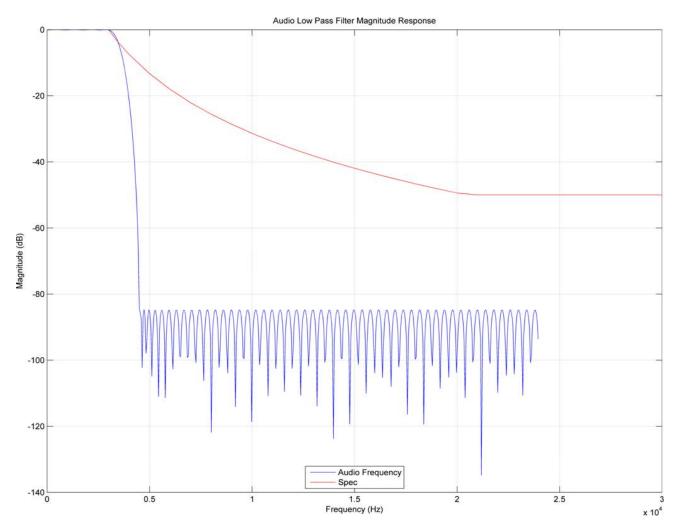


Exhibit 6B-8

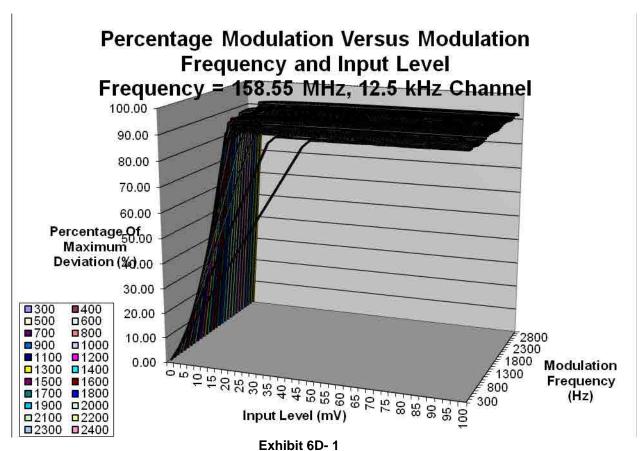
Exhibit 6C

Low Pass Filter Response

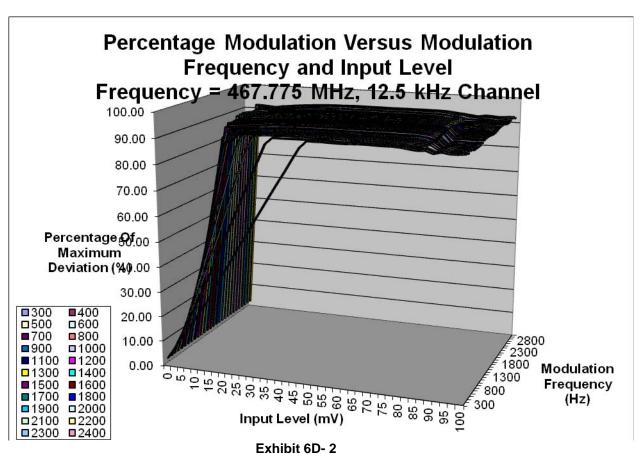


**Exhibit 6D** 

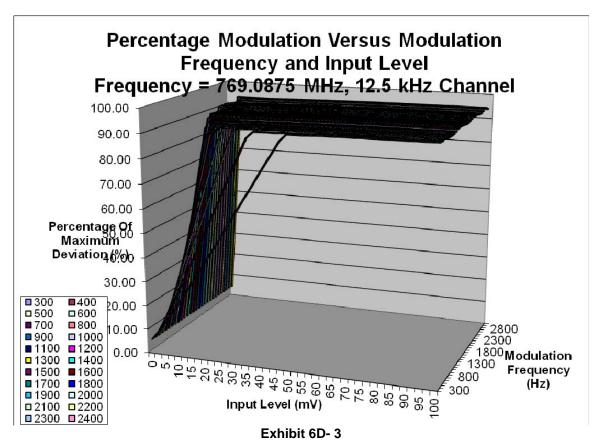
#### Modulation Limiting



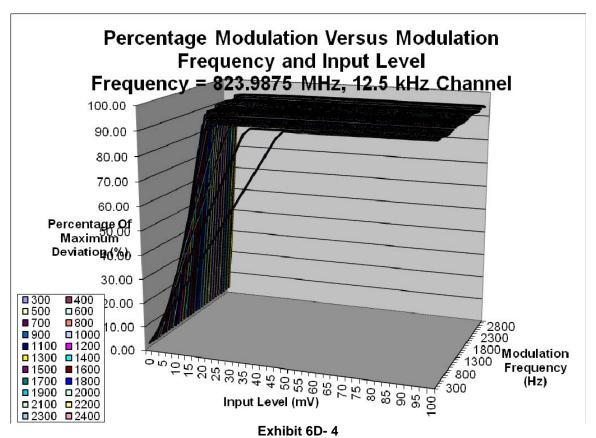
The Percentage of Maximum Deviation on the "Z" axis is referenced to 2.5 kHz for 12.5 kHz bandwidth



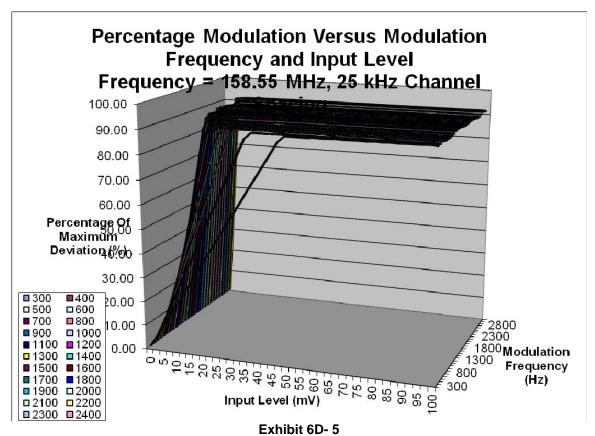
The Percentage of Maximum Deviation on the "Z" axis is referenced to 2.5 kHz for 12.5 kHz bandwidth



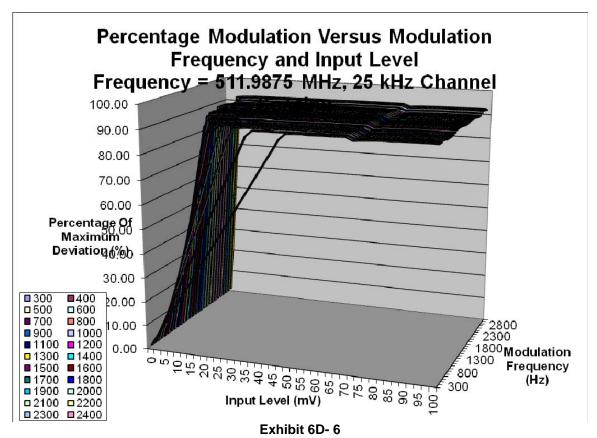
The Percentage of Maximum Deviation on the "Z" axis is referenced to 2.5 kHz for 12.5 kHz bandwidth



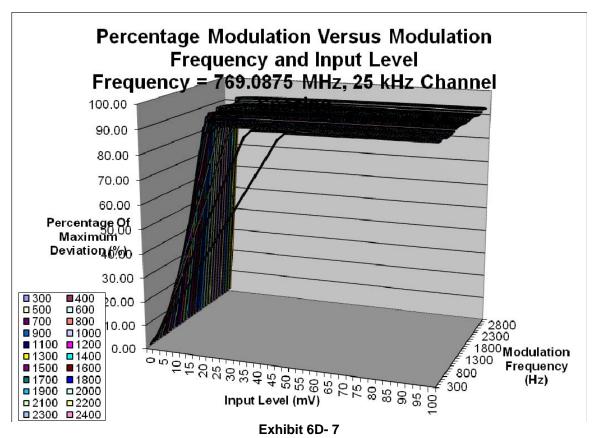
The Percentage of Maximum Deviation on the "Z" axis is referenced to 2.5 kHz for 12.5 kHz bandwidth



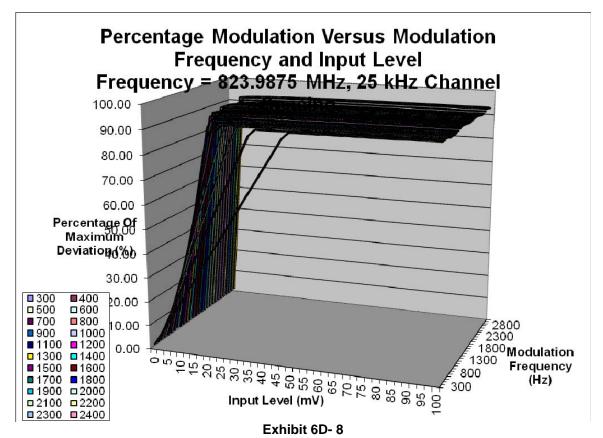
The Percentage of Maximum Deviation on the "Z" axis is referenced to 5.0 kHz for 25 kHz bandwidth



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



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



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

Applicant: Motorola Solutions Inc. FCC ID: AZ489FT7061 IC: 109U-89FT7061

### **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 <math>D = Deviation

Shown below are the calculations required for FCC ID: AZ489FT7061.

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 kHz + 2.5 kHz) = 11 kHz = 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 Frequency = 138.0125 MHz

Date: Mon, Apr 6, 2015

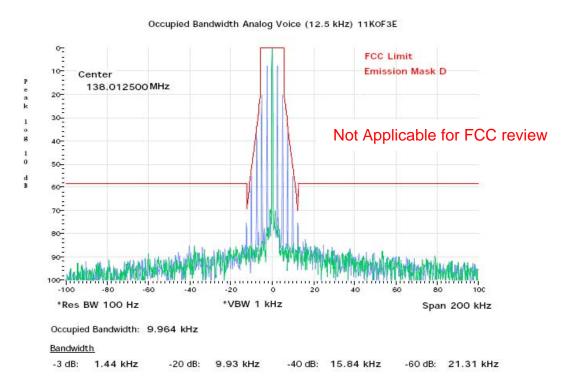


Exhibit 6E- 2 Frequency = 158.55 MHz

Date: Mon, Apr 6, 2015

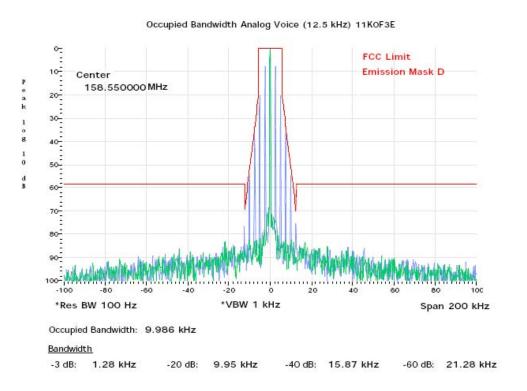


Exhibit 6E-3 Frequency = 173.3875 MHz

Date: Tue, Mar 31, 2015

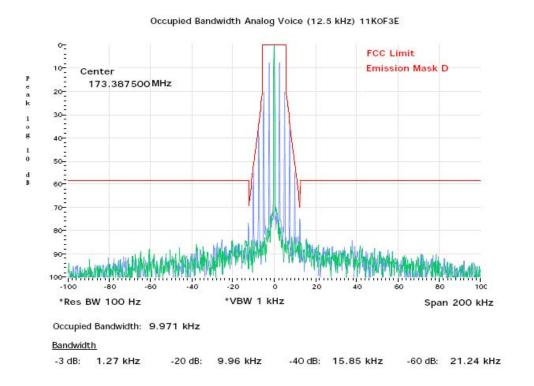


Exhibit 6E- 4 Frequency = 406.2 MHz

Date: Tue, Apr 7, 2015

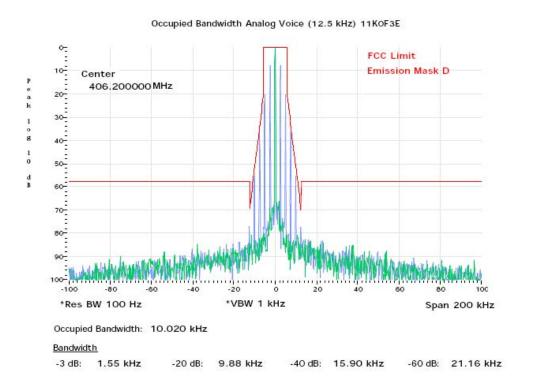


Exhibit 6E- 5 Frequency = 450.025 MHz

Date: Tue, Mar 10, 2015

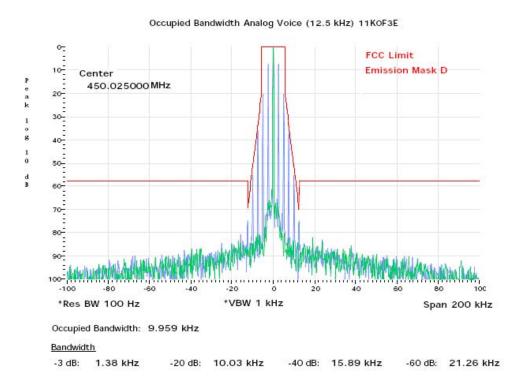


Exhibit 6E- 6 Frequency = 469.9875 MHz

Date: Tue, Mar 10, 2015

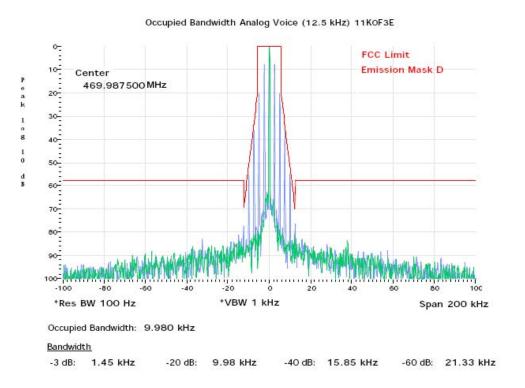


Exhibit 6E- 7 Frequency = 806.0125 MHz

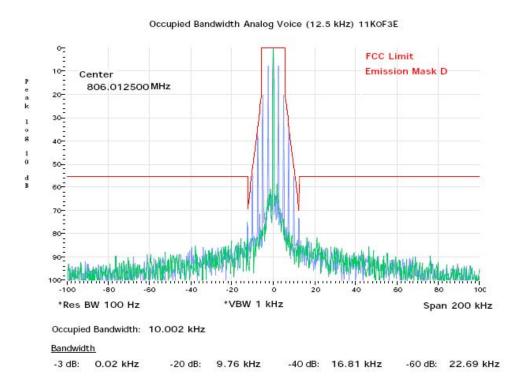


Exhibit 6E-8 Frequency = 806.0125 MHz

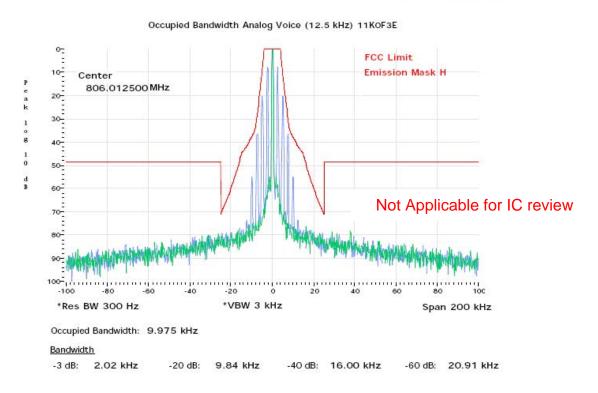


Exhibit 6E- 9 Frequency = 823.9875 MHz

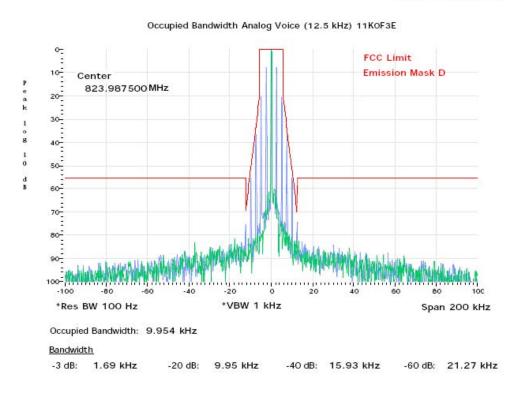


Exhibit 6E- 10 Frequency = 853.9875 MHz

Date: Mon, Apr 6, 2015

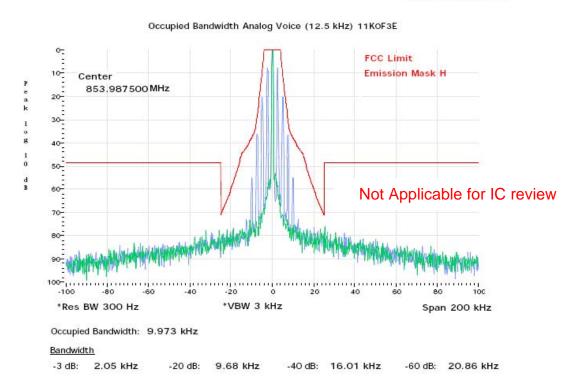
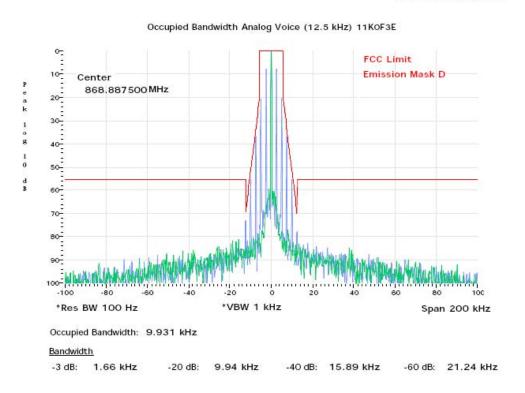


Exhibit 6E- 11 Frequency = 868.8875 MHz



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

# 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 =  $2(M+D) = 2*(3.0 \text{ kHz} + 5.0 \text{ kHz}) = 16 \text{ kHz} = \rightarrow 16\text{KO}$ 

F3E portion of the designator indicates voice.

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

Exhibit 6E- 12 Frequency = 138.0125 MHz

Date: Mon, Mar 9, 2015

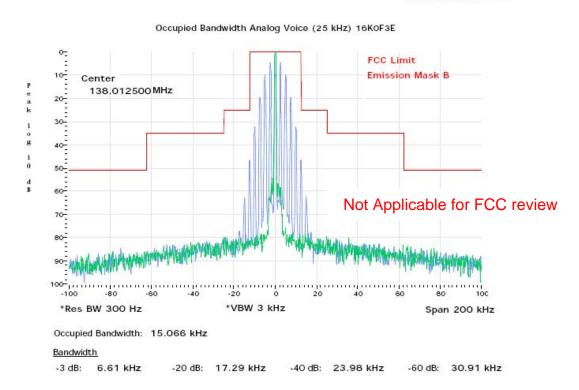


Exhibit 6E- 13 Frequency = 158.55 MHz

Date: Mon, Mar 9, 2015

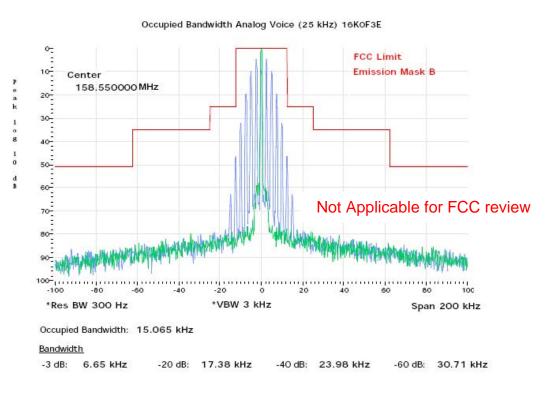
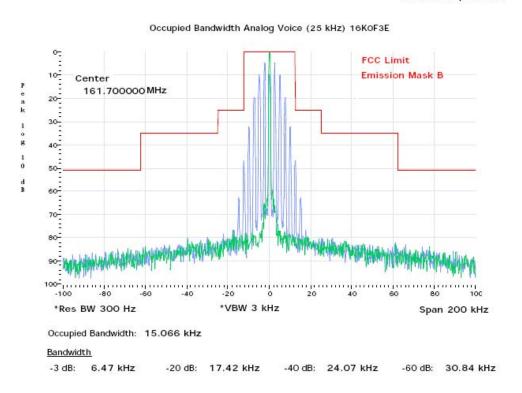


Exhibit 6E- 14 Frequency = 161.7 MHz

Date: Wed, Apr 1, 2015



The data above is presented for rule part 47CFR 74.462(c).

Exhibit 6E- 15 Frequency = 173.3875 MHz

Date: Mon, Mar 9, 2015

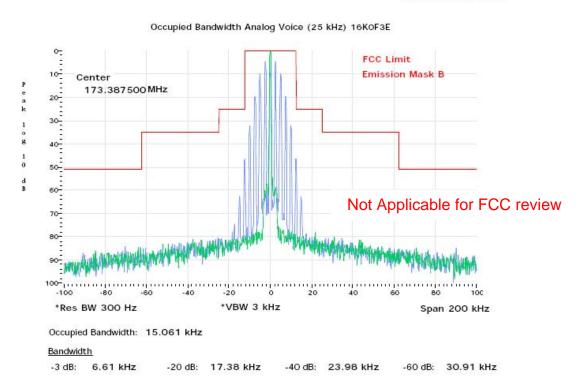


Exhibit 6E- 16 Frequency = 406.2 MHz

Date: Tue, Mar 10, 2015

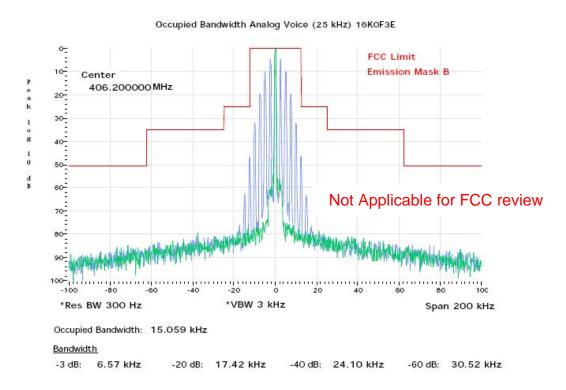
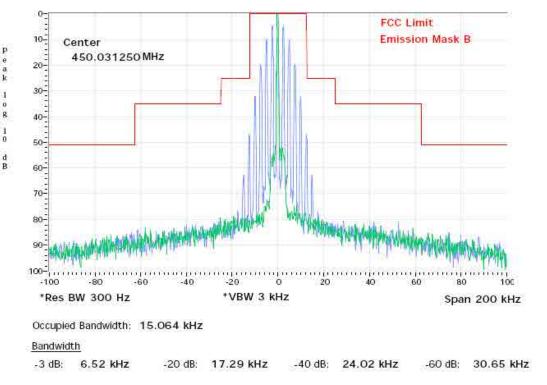


Exhibit 6E- 17 Frequency = 450.03125 MHz

Date: Wed, Jun 3, 2015





The data above is presented for rule part 47CFR 74.462(c).

Exhibit 6E- 18 Frequency = 469.9875 MHz

Date: Tue, Mar 10, 2015

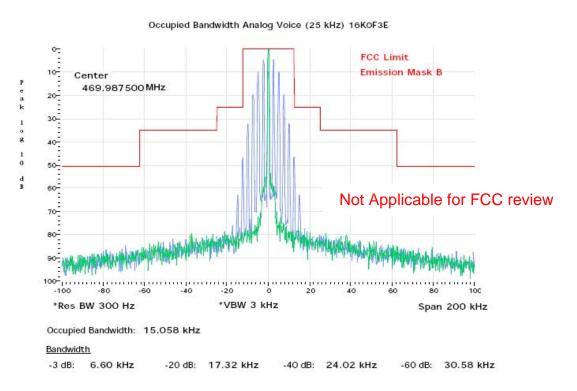


Exhibit 6E- 19 Frequency = 806.0125 MHz

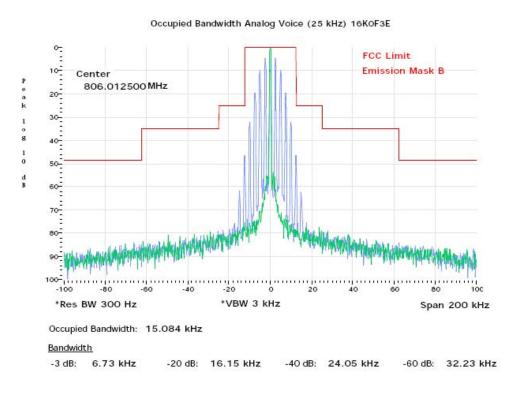
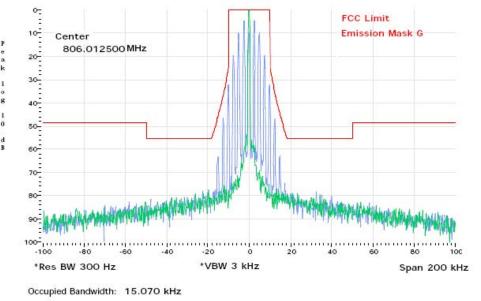


Exhibit 6E- 20 Frequency = 806.0125 MHz

Date: Wed, Mar 18, 2015





Bandwidth

-3 dB: 6.38 kHz -20 dB: 17.36 kHz -40 dB: 23.99 kHz -60 dB: 30.63 kHz

Exhibit 6E- 21 Frequency = 823.9875 MHz

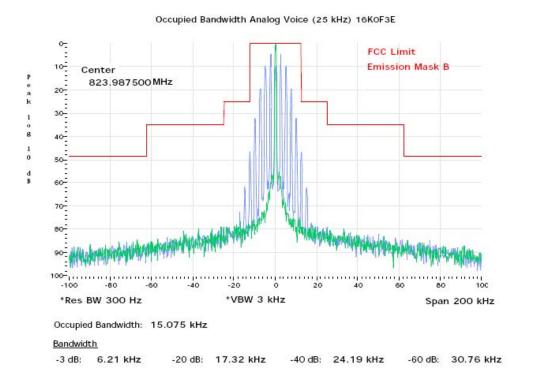


Exhibit 6E- 22 Frequency = 823.9875 MHz

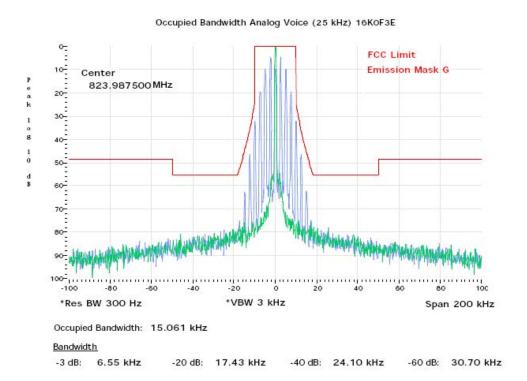


Exhibit 6E- 23 Frequency = 868.8875 MHz

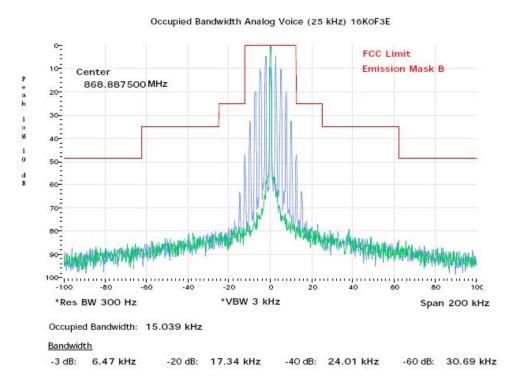
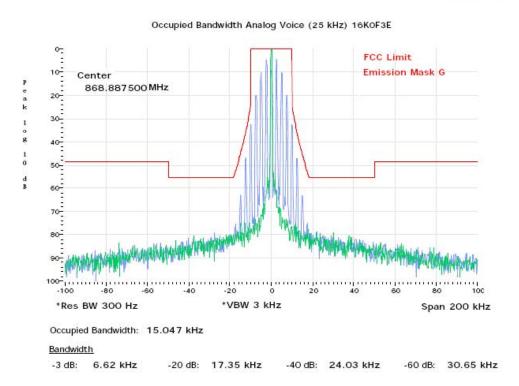


Exhibit 6E- 24 Frequency = 868.8875 MHz



## 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- 25 Frequency = 138.0125 MHz

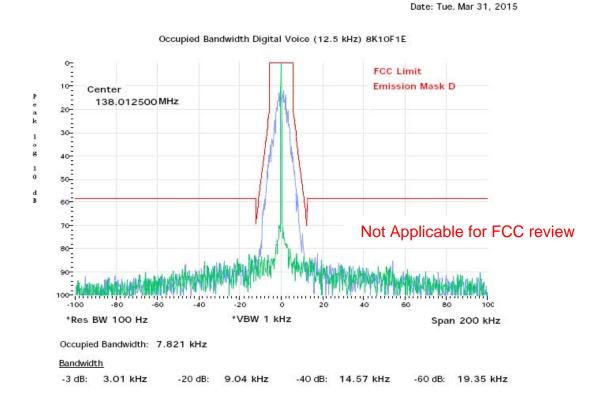


Exhibit 6E- 26 Frequency = 158.55 MHz

Date: Thu, Mar 12, 2015

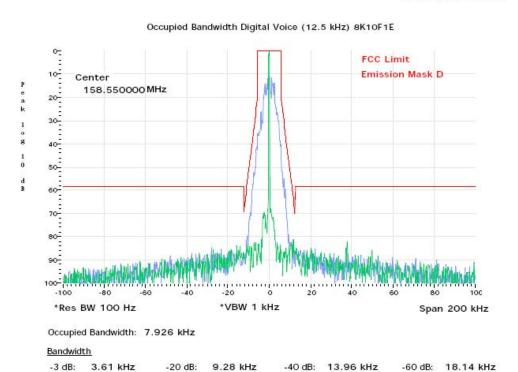


Exhibit 6E- 27 Frequency = 173.3875 MHz

Date: Thu, Mar 12, 2015

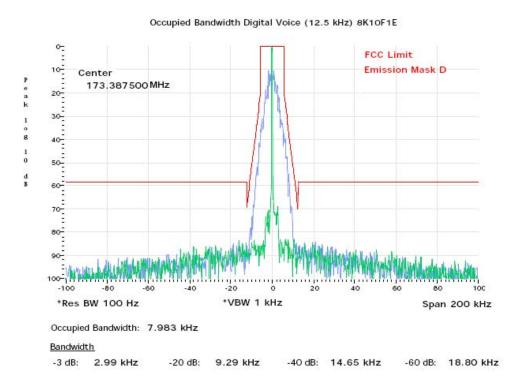


Exhibit 6E- 28 Frequency = 406.2 MHz

Date: Tue, Apr 7, 2015

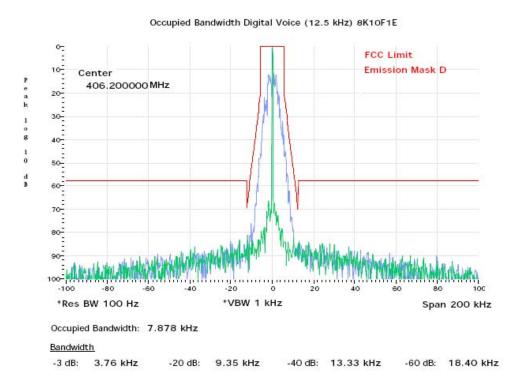


Exhibit 6E- 29 Frequency = 450.025 MHz

Date: Tue, Mar 10, 2015

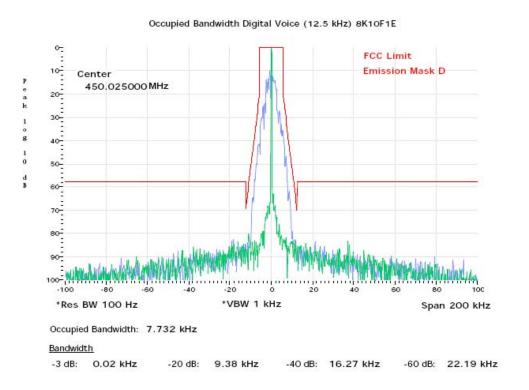
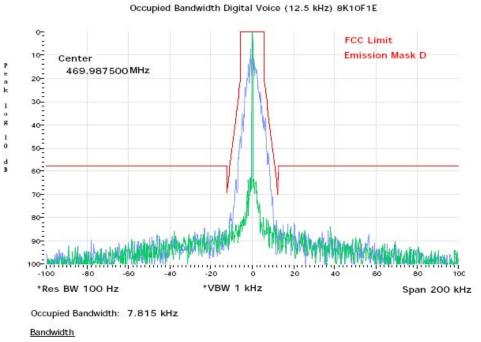


Exhibit 6E- 30 Frequency = 469.9875 MHz

Date: Tue, Mar 10, 2015



-3 dB: 0.63 kHz -20 dB: 7.94 kHz -40 dB: 13.31 kHz -60 dB: 17.59 kHz

Exhibit 6E- 31 Frequency = 806.0125 MHz

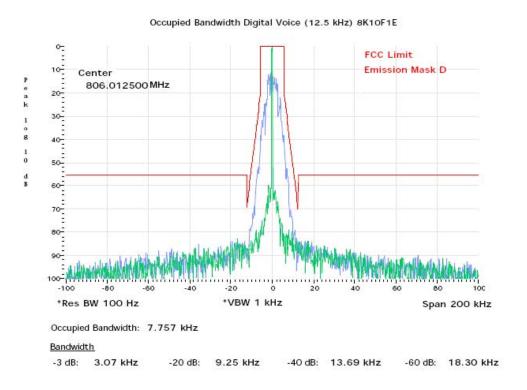


Exhibit 6E- 32 Frequency = 806.0125 MHz

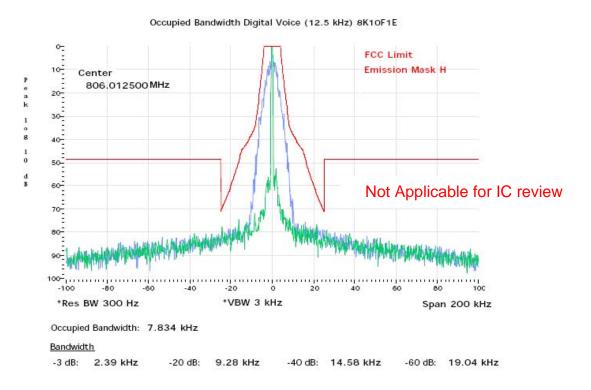


Exhibit 6E- 33 Frequency = 823.9875 MHz

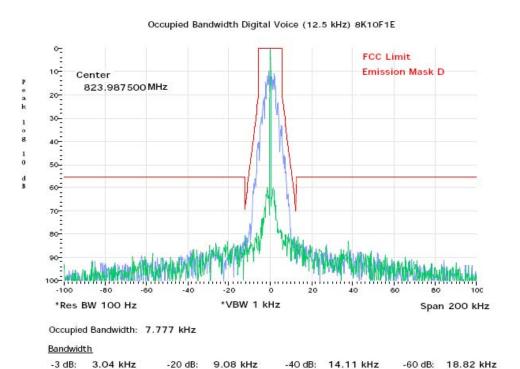


Exhibit 6E- 34 Frequency = 853.9875 MHz

Date: Wed, Mar 18, 2015

Occupied Bandwidth Digital Voice (12.5 kHz) 8K10F1E

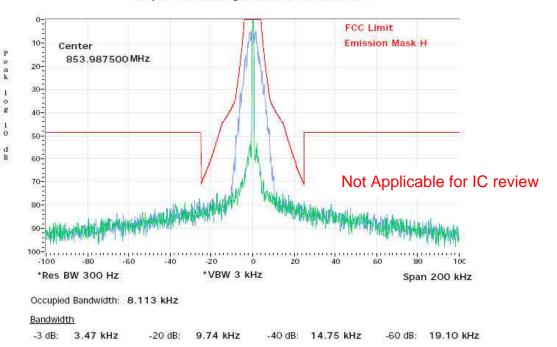
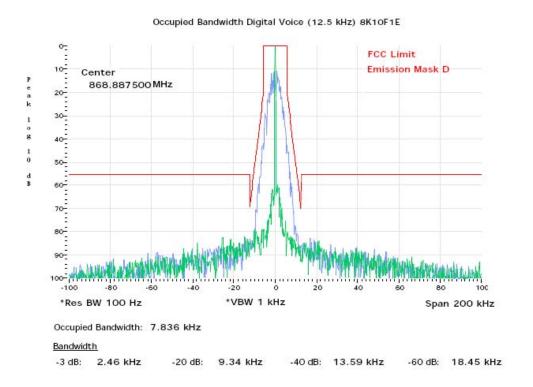


Exhibit 6E- 35 Frequency = 868.8875 MHz



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

## Digital (12.5 kHz Channelization, Digital Voice with encryption):

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- 36 Frequency = 138.0125 MHz

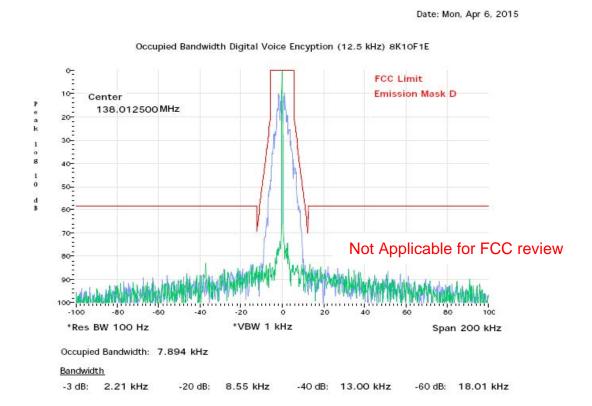


Exhibit 6E- 37 Frequency = 158.55 MHz

Date: Mon, Apr 6, 2015

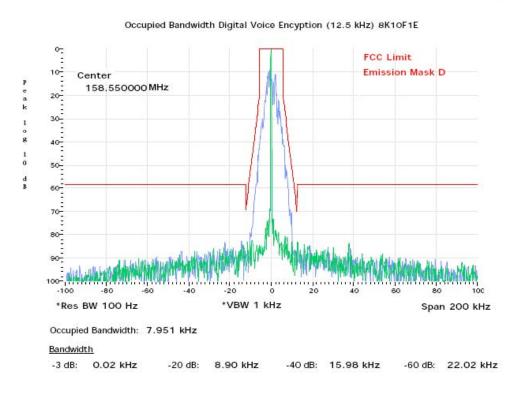


Exhibit 6E- 38 Frequency = 173.3875 MHz

Date: Tue, Mar 31, 2015

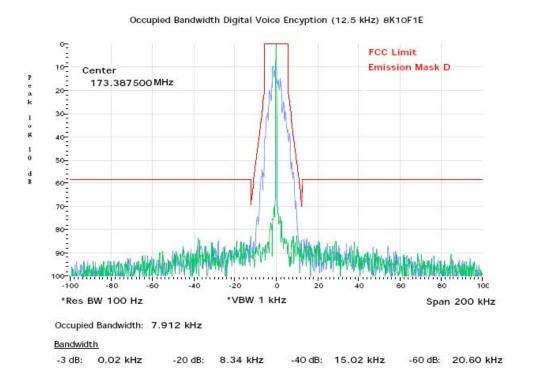


Exhibit 6E- 39 Frequency = 406.2 MHz

Date: Tue, Apr 7, 2015

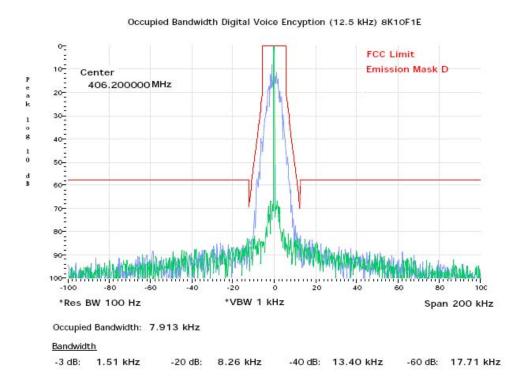


Exhibit 6E- 40 Frequency = 450.025 MHz

Date: Thu, Mar 12, 2015

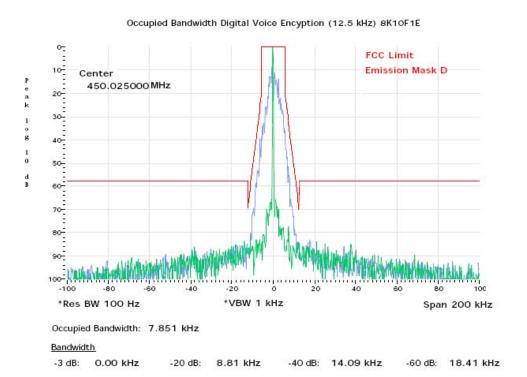


Exhibit 6E- 41 Frequency = 469.9875 MHz

Date: Thu, Mar 12, 2015

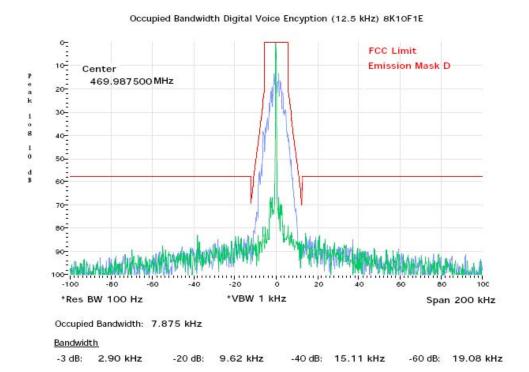


Exhibit 6E- 42 Frequency = 806.0125 MHz

Date: Thu, Mar 19, 2015

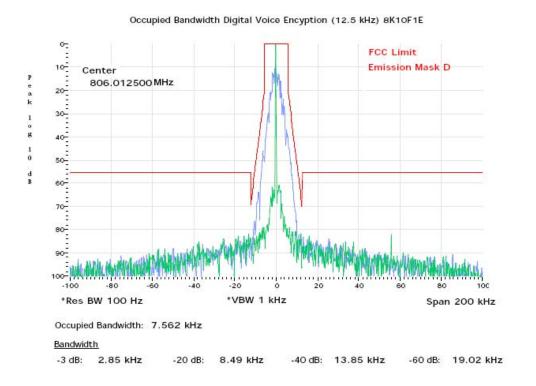


Exhibit 6E- 43 Frequency = 806.0125 MHz

Date: Fri, Mar 20, 2015

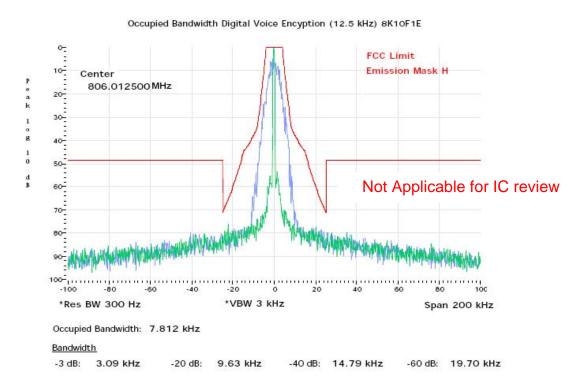


Exhibit 6E- 44 Frequency = 823.9875 MHz

Date: Thu, Mar 19, 2015

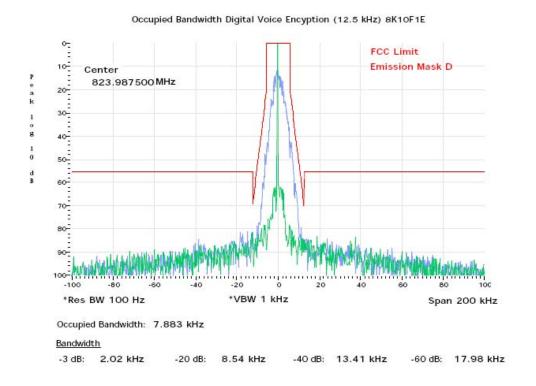


Exhibit 6E- 45 Frequency = 853.9875 MHz

Date: Fri, Mar 20, 2015

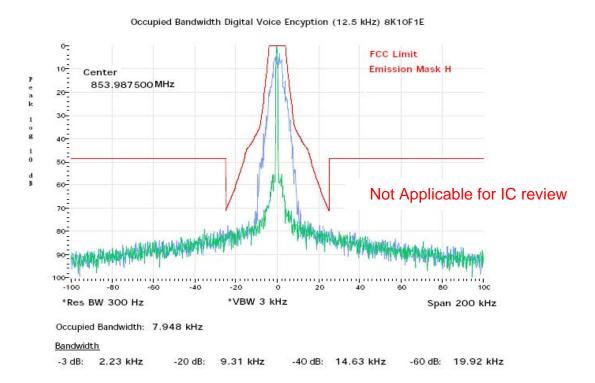
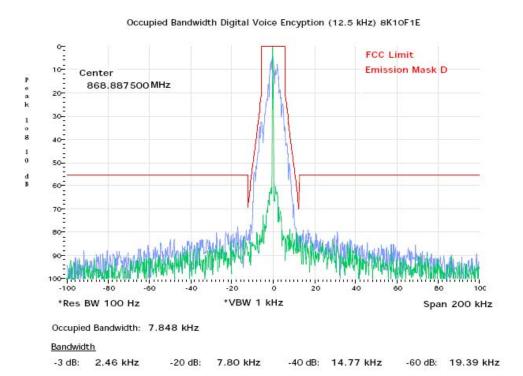


Exhibit 6E- 46 Frequency = 868.8875 MHz

Date: Fri, Mar 20, 2015



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

## Digital (12.5 kHz Channelization, Digital Data):

Emission Designator 8K10F1D

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.

F1D portion of the designator indicates digital data.

Therefore, the entire designator for 12.5 kHz channelization digital data is 8K10F1D.

Exhibit 6E- 47 Frequency = 138.0125 MHz

Date: Tue, Mar 31, 2015

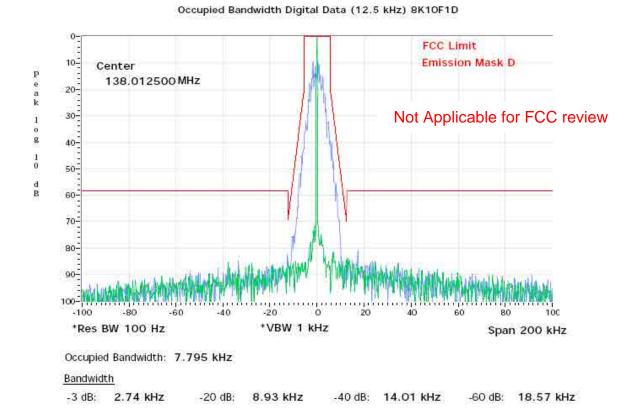


Exhibit 6E- 48 Frequency = 158.55 MHz

Date: Thu, Mar 12, 2015

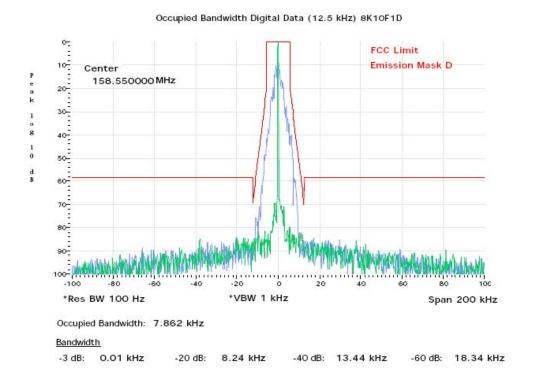


Exhibit 6E- 49 Frequency = 173.3875 MHz

Date: Thu, Mar 12, 2015

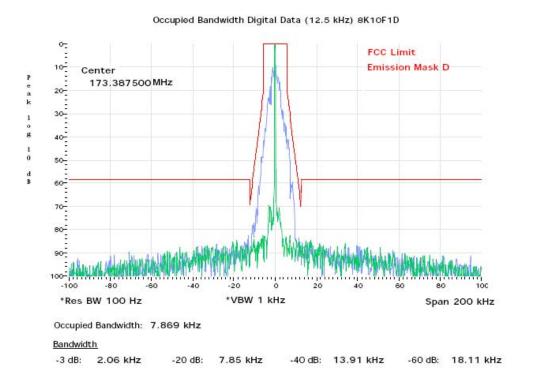


Exhibit 6E- 50 Frequency = 406.2 MHz

Date: Tue, Apr 7, 2015

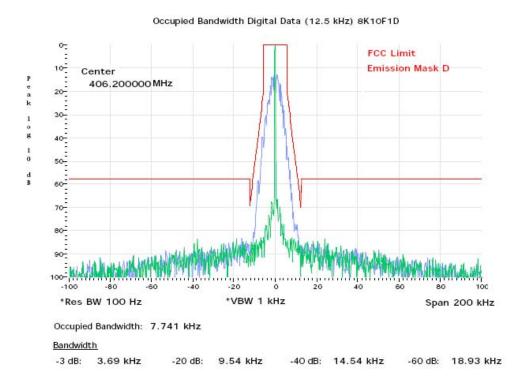


Exhibit 6E- 51 Frequency = 450.025 MHz

Date: Tue, Mar 10, 2015

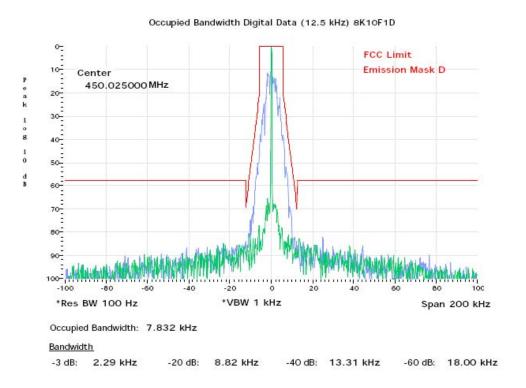


Exhibit 6E- 52 Frequency = 469.9875 MHz

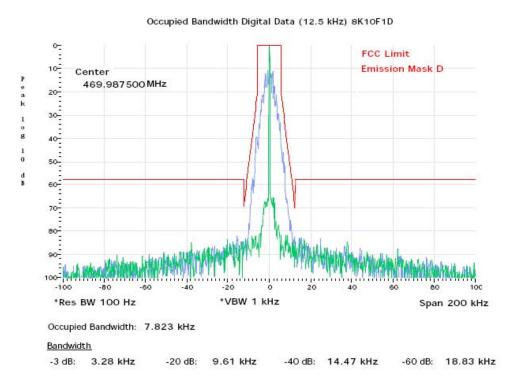


Exhibit 6E- 53 Frequency = 806.0125 MHz

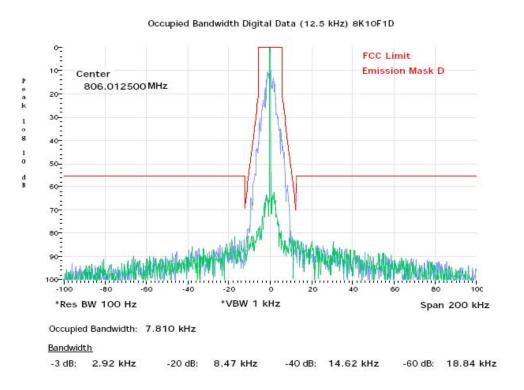


Exhibit 6E- 54 Frequency = 806.0125 MHz

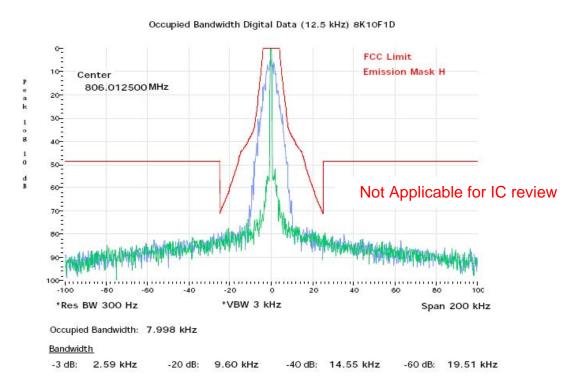


Exhibit 6E- 55 Frequency = 823.9875 MHz

Date: Tue, Mar 31, 2015

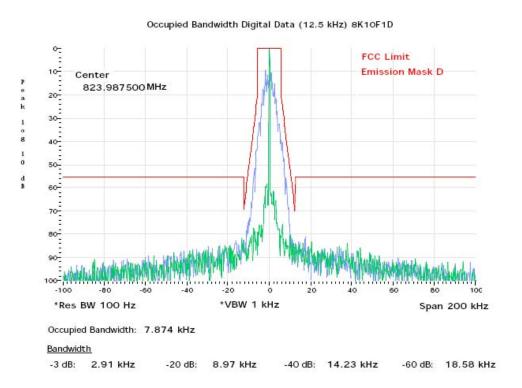


Exhibit 6E- 56 Frequency = 853.9875 MHz

Date: Mon, Apr 6, 2015

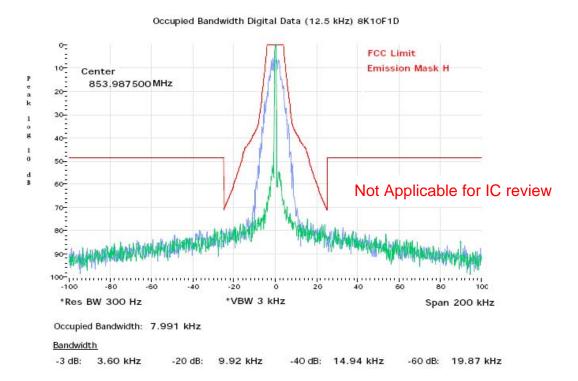
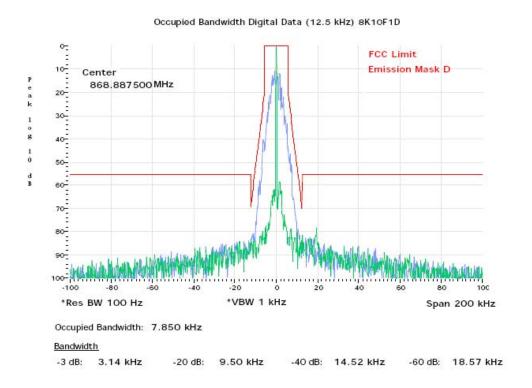


Exhibit 6E- 57 Frequency = 868.8875 MHz



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

#### Digital (12.5 kHz Channelization, Digital TDMA):

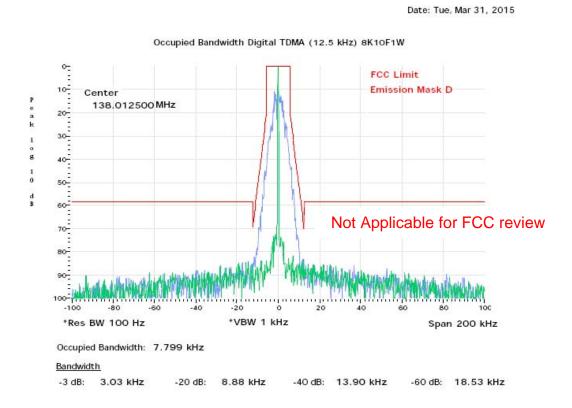
Emission Designator 8K10F1W

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.

F1W portion of the designator indicates digital TDMA.

Therefore, the entire designator for 12.5 kHz channelization digital TDMA is 8K10F1W.

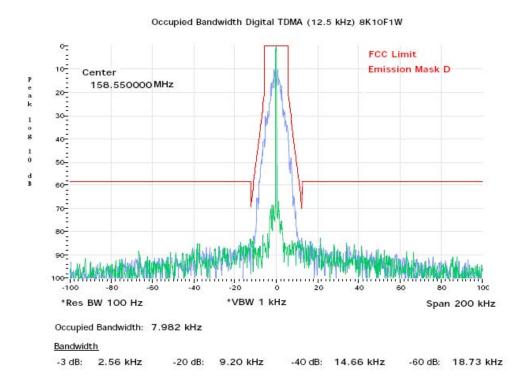
Exhibit 6E- 58 Frequency = 138.0125 MHz



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

Exhibit 6E- 59 Frequency = 158.55 MHz



#### Exhibit 6E- 60 Frequency = 173.3875 MHz

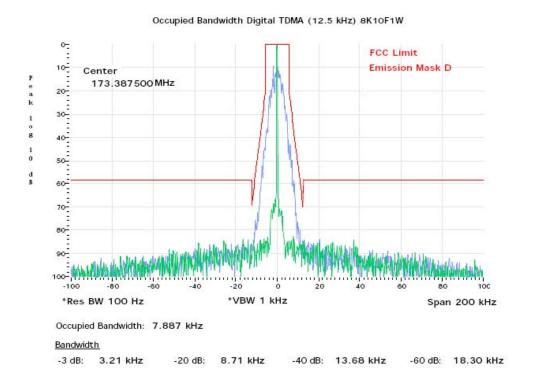
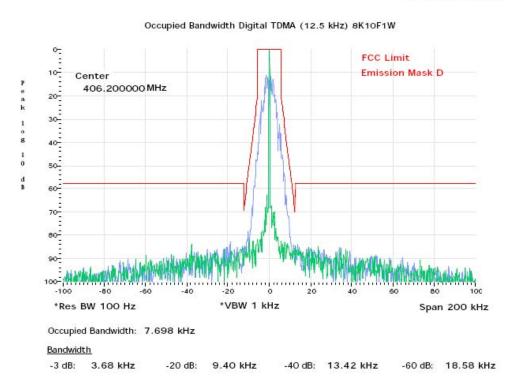


Exhibit 6E- 61 Frequency = 406.2 MHz

Date: Tue, Apr 7, 2015



Applicant: Motorola Solutions Inc.

FCC ID: AZ489FT7061 IC: 109U-89FT7061

#### Exhibit 6E- 62 Frequency = 450.025 MHz

Date: Tue, Mar 10, 2015

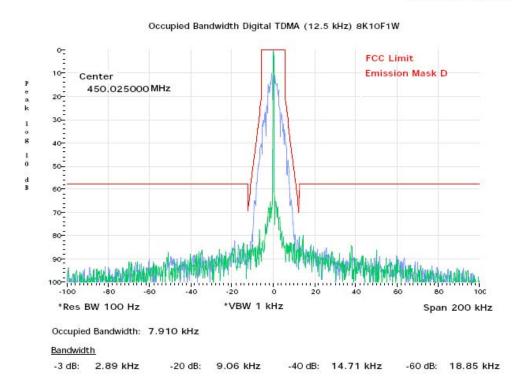


Exhibit 6E- 63 Frequency = 469.9875 MHz

Date: Tue, Mar 10, 2015

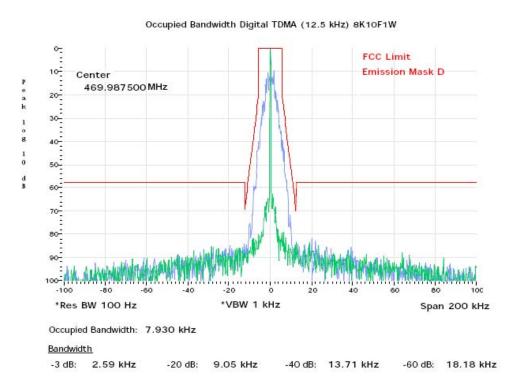


Exhibit 6E- 64 Frequency = 806.0125 MHz

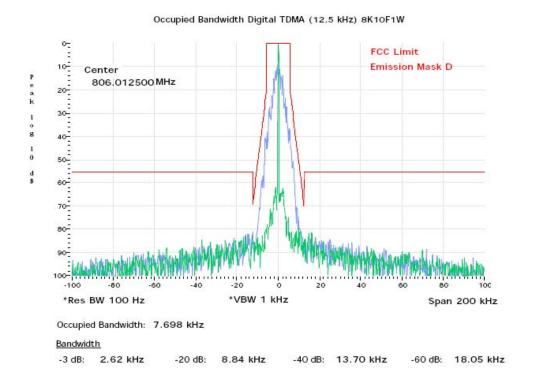
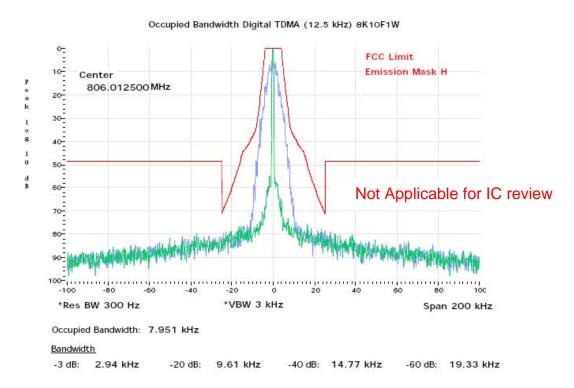


Exhibit 6E- 65 Frequency = 806.0125 MHz



#### Exhibit 6E- 66 Frequency = 823.9875 MHz

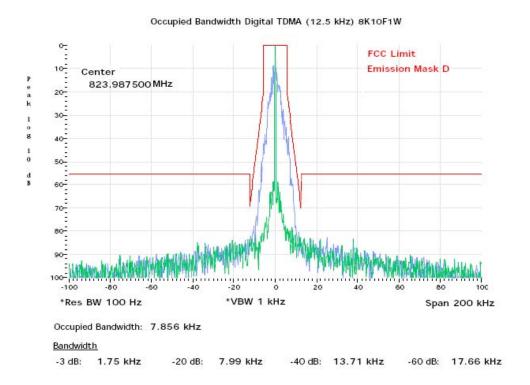
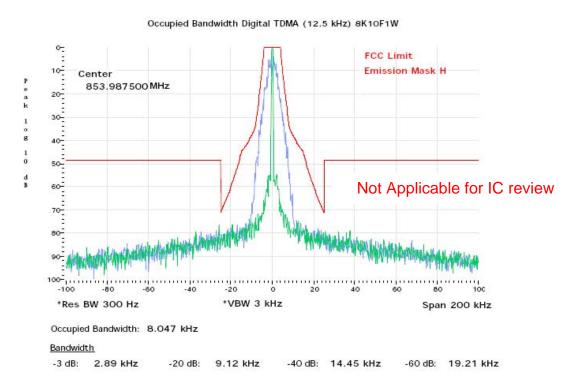
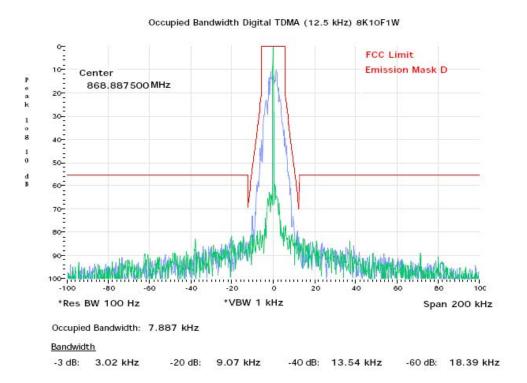


Exhibit 6E- 67 Frequency = 853.9875 MHz

Date: Mon, Apr 6, 2015



#### Exhibit 6E- 68 Frequency = 868.8875 MHz



## Digital Modulation (20 kHz Channelization, Analog Voice with encryption): Emission Designator 20K0F1E

In this case, the maximum modulating frequency is 6 kHz with a 4 kHz deviation.

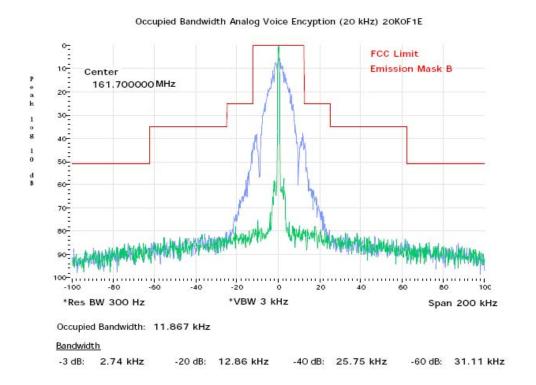
BW =  $2(M+D) = 2*(6 \text{ kHz} + 4 \text{ kHz}) = 20 \text{ kHz} = 3 \times 20 \text{ kHz}$ 

F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 20 kHz channelization analog voice is 20K0F1E.

Exhibit 6E-69 Frequency = 161.7 MHz

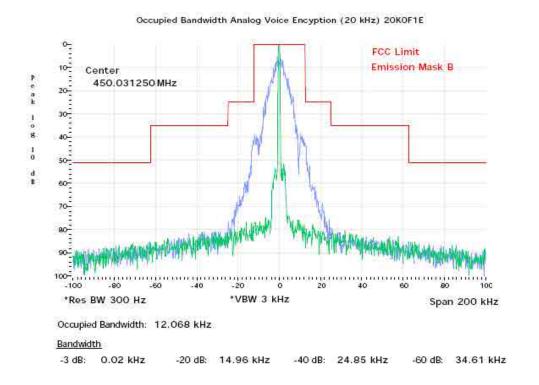
Date: Tue, Mar 10, 2015



The data above is presented for rule part 47CFR 74.462(c).

Exhibit 6E- 70 Frequency = 450.03125 MHz

Date: Wed, Jun 3, 2015



The data above is presented for rule part 47CFR 74.462(c).

Exhibit 6E- 71 Frequency = 806.0125 MHz

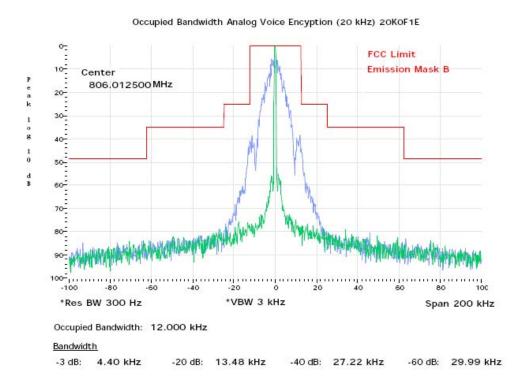


Exhibit 6E- 72 Frequency = 806.0125 MHz

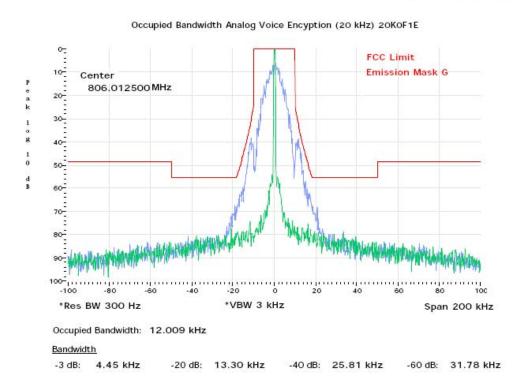


Exhibit 6E- 73 Frequency = 823.9875 MHz

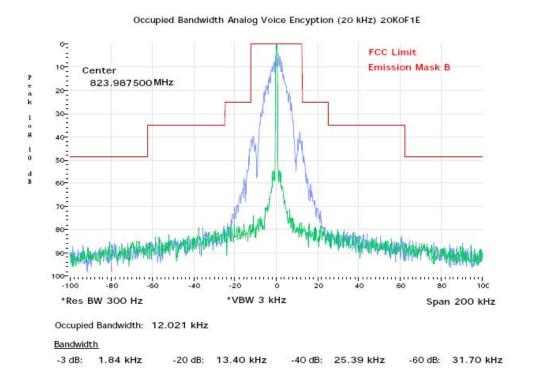
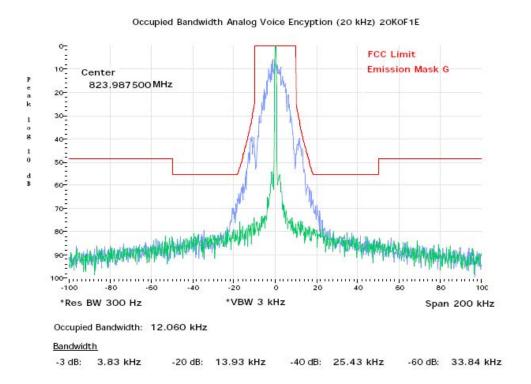


Exhibit 6E- 74 Frequency = 823.9875 MHz



**Exhibit 6E-75 Frequency = 868.8875 MHz** 

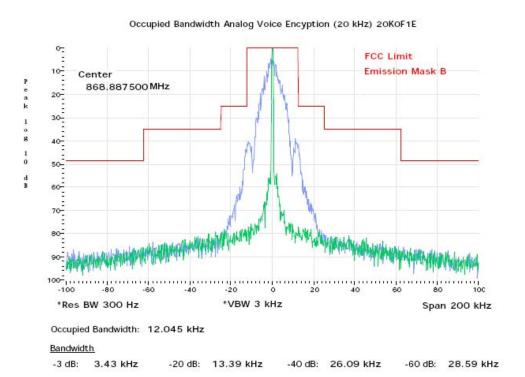
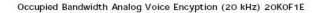
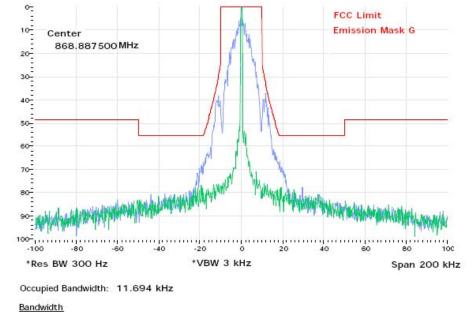


Exhibit 6E- 76 Frequency = 868.8875 MHz

Date: Thu, Mar 19, 2015



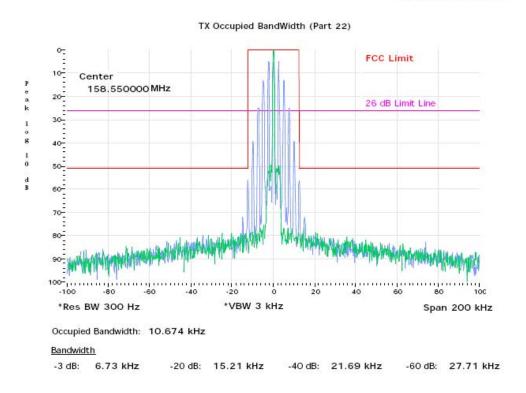


-3 dB: 2.80 kHz -20 dB: 12.43 kHz -40 dB: 25.35 kHz -60 dB: 29.59 kHz

## Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 22)

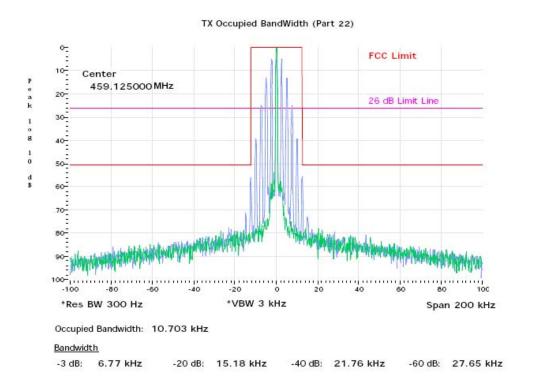
#### Exhibit 6E- 77 Frequency = 158.55 MHz

Date: Mon, Apr 27, 2015



## Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 22)

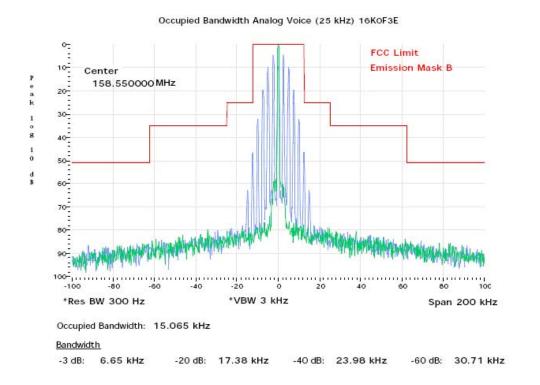
#### Exhibit 6E- 78 Frequency = 459.125 MHz



## Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 80.211(f))

#### Exhibit 6E- 79 Frequency = 158.55 MHz

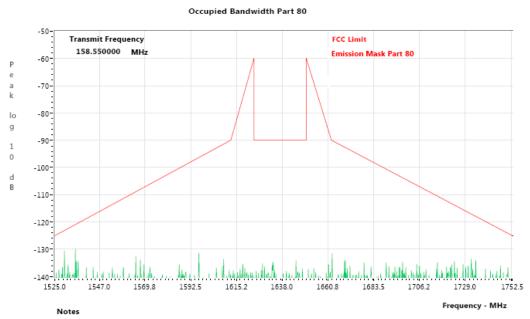
Date: Mon, Mar 9, 2015



## Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 80.211(c))

#### Exhibit 6E- 80 Frequency = 158.55 MHz

Date: Mon, May 11, 2015

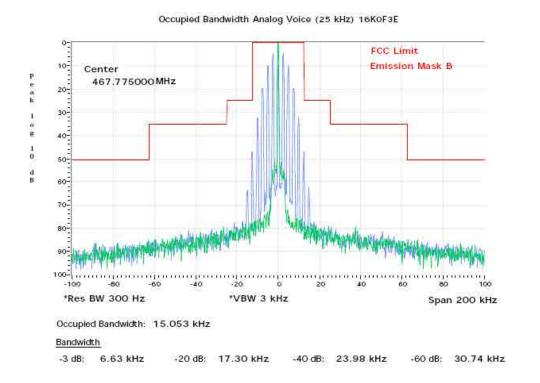


Measurements taken with a 40 Hz resolution bandwidth and the data shown has been corrected by 20 dB to correlate with 4 kHz resolution bandwidth. Scale as been normalized to transmit power at 0 dB.

## Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 80.211(f))

Exhibit 6E- 81 Frequency = 467.775 MHz

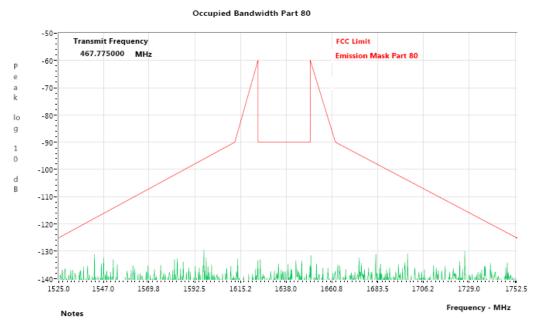
Date: Wed, May 13, 2015



### Occupied Bandwidth Data Analog Voice 20Khz: 16K0F3E (Part 80.211(c))

#### Exhibit 6E- 82 Frequency = 467.775 MHz

Date: Mon, May 11, 2015



Measurements taken with a 40 Hz resolution bandwidth and the data shown has been corrected by 20 dB to correlate with 4 kHz resolution bandwidth. Scale as been normalized to transmit power at 0 dB.

Applicant: Motorola Solutions Inc. FCC ID: AZ489FT7061 IC: 109U-89FT7061

#### Exhibit 6F

#### **Transmit Radiated Spurious Emissions**

Equipment under test: H91TGD9PW7AN S/N: KT000006A01MK410M8

H91TGD9PW7AN S/N: KT000006A01MK4KA12JT

Measurement Criteria: Compliance Testing

**Radiated Emissions** 

EMC Measurement Lab: Motorola Solutions, Inc. Malaysia Sdn Bhd (455657-H)

Plot 2, Bayan Lepas Technoplex Industrial Park,

Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia

Results Summary: EUT meets the test requirements

Test Configurations: Radiated Spurious Emissions Transmit Frequencies:

136.0125 MHz, 138.0125 MHz, 158.55 MHz, 161.7 MHz, 173.3875 MHz, 380.0125 MHz, 406.2

MHz, 450.025 MHz, 459.125 MHz, 467.775 MHz, 469.9875 MHz, 482.0125 MHz,

511.9875 MHz, 519.9875 MHz, 764.0125 MHz, 768.0125 MHz, 769.0875 MHz, 804.9125 MHz, 805.9875 MHz, 806.0125 MHz, 814.9875 MHz, 823.9875 MHz, 851.0125 MHz, 860.0125 MHz, and 868.8875 MHz at 12.5 kHz high power Digital APCO P25 Phase 1 FDMA and Phase 2 TDMA.

Radiated Spurious Emissions Transmit Frequencies:

138.0125 MHz, 158.55 MHz, 161.7 MHz, 173.3875 MHz, 406.2 MHz, 450.025 MHz, 467.775 MHz, 469.9875 MHz, and 511.9875 MHz at 12.5 kHz low power Digital APCO P25 Phase 1 FDMA and Phase 2 TDMA.

Radiated Spurious Emissions Transmit Frequencies:

136.0125 MHz, 138.0125 MHz, 158.55 MHz, 161.7 MHz, 173.3875 MHz, 380.0125 MHz, 406.2 MHz, 450.025 MHz, 459.125 MHz, 469.9875 MHz, 511.9875 MHz, 519.9875 MHz, 806.0125 MHz, 814.9875 MHz, 823.9875 MHz, 851.0125 MHz, 860.0125 MHz, and 868.8875 MHz at 25 kHz high power analog FM.

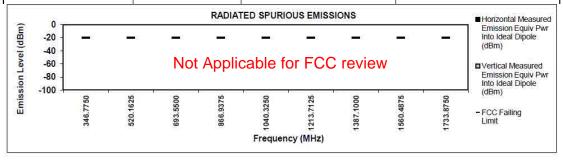
Radiated Spurious Emissions Transmit Frequencies:

158.55 MHz, 161.7 MHz, 459.125 MHz, 467.775 MHz, 482.0125 MHz, and 511.9875 MHz at 20 kHz high power analog FM.

# TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE MODEL #: APX8000 Digital C4FM Battery: NNTN7034B

02257-FCCIC-00020 136.0125 MHz 12.5 kHz 6.6 Watt(s)/Max Power S/N: KT000006A01MK410M8

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Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
272.0250	-20	**	5.5
408.0375	-20	**	**
544.0500	-20	**	**
680.0625	-20	**	368
816.0750	-20	**	:NR
952.0875	-20	**	**
1088.1000	-20	**	**
1224.1125	-20	**	**
1360.1250	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

FCC Registration: 772092 Indust

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0

Remarks: Passed Results Marginal Results Failed Results

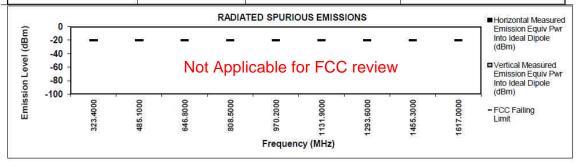
Exhibit 6F-1

December 21, 2014

## TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000 Digital C4FM Battery: NNTN7034B 02257-FCCIC-00020

138.0125 MHz	12.5 kHz	6.6 Watt(s)/Max Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
276.0250	-20	**	**
414.0375	-20	**	<b>**</b>
552.0500	-20	**	<b>3.9</b>
690.0625	-20	**	**
828.0750	-20	**	- Ark -
966.0875	-20	**	**
1104.1000	-20	**	***
1242 1125	-20	**	**
1380.1250	-20	**	88



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

December 21, 2014

FCC Registration: 772092

Industry Canada: 109AK

Temp(Deg): 22.4 Hum(%RH): 69.0

Remarks:

Marginal Results Failed Results Passed Results

Exhibit 6F-2

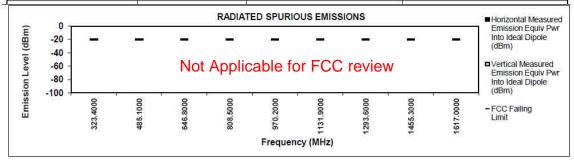
Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

<sup>\*</sup>Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000	Digital C4FM	Battery: NNTN7034B
02257-ECCIC-00020		Battery, WWTW/0346

138.0125 MHz	12.5 kHz	1 Watt(s)/Low Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
276.0250	-20	88	**
414.0375	-20	**	**
552.0500	-20	**	**
690.0625	-20	**	**
828.0750	-20	**	**
966.0875	-20	**	**
1104.1000	-20	**	**
1242.1125	-20	**	**
1380.1250	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

FCC Registration: 772092

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0

December 21, 2014

Passed Results Marginal Results Failed Results Remarks:

Exhibit 6F-3

Remarks:

FCC ID: AZ489FT7061 IC: 109U-89FT7061

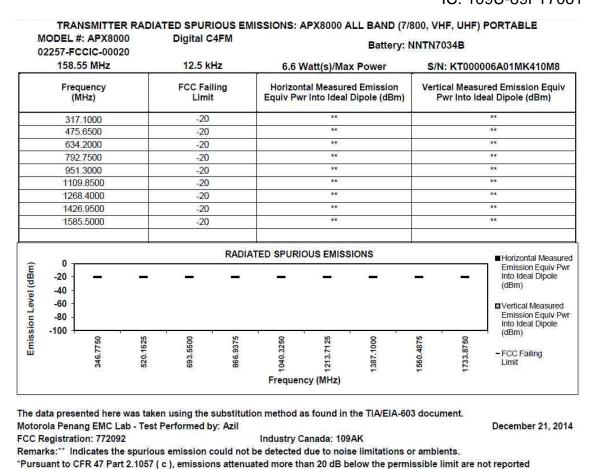


Exhibit 6F-4

Passed Results

Marginal Results

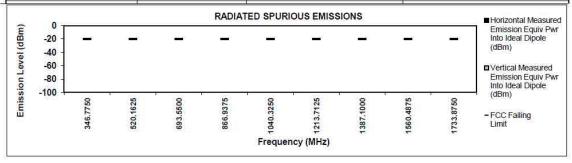
Temp(Deg): 22.4 Hum(%RH): 69.0

Failed Results

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000	Digital C4FM	Pottonu NNTN7024P
02257-ECCIC-00020		Battery: NNTN7034B

158.55 MHz	12.5 kHz	1 Watt(s)/Low Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
317.1000	-20	**	**
475.6500	-20	**	余常
634.2000	-20	**	**
792.7500	-20	**	有實
951.3000	-20	**	**
1109.8500	-20	**	**
1268.4000	-20	**	**
1426.9500	-20	**	**
1585.5000	-20	**	宋宋



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

December 21, 2014

FCC Registration: 772092 Industry Canada: 109AK
Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0

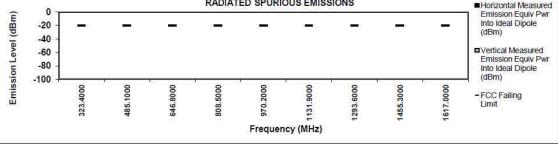
Remarks: Passed Results Marginal Results Failed Results

Exhibit 6F-5

## TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000 Digital C4FM Battery: NNTN7034B

161.7 MHz	12.5 kHz	6.6 Watt(s)/Max Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
323.4000	-20	**	演賞
485.1000	-20	**:	88
646.8000	-20	**	)**
808.5000	-20	**	**
970.2000	-20	**	**
1131.9000	-20	**	**
1293.6000	-20	**	**
1455.3000	-20	**	: жж
1617.0000	-20	**	**
0 -20 -40	RADI	ATED SPURIOUS EMISSIONS	■ Horizontal Measuri Emission Equiv Pv Into Ideal Dipole (dBm)



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil FCC Registration: 772092 Industry Cana

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0

Remarks: Passed Results Marginal Results Failed Results

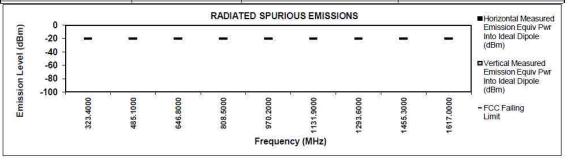
Exhibit 6F-6

December 21, 2014

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000	Digital C4FM	Dattamii NNTN7024D
02257-ECCIC-00020		Battery: NNTN7034B

161.7 MHz	12.5 kHz	1 Watt(s)/Low Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
323.4000	-20	**	**
485.1000	-20	**	**
646.8000	-20	**	**
808.5000	-20	**	**
970.2000	-20	**	**
1131.9000	-20	**	**
1293.6000	-20	**	**
1455.3000	-20	**	**
1617.0000	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil FCC Registration: 772092

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results Marginal Results Remarks: Passed Results

Exhibit 6F-7

December 21, 2014

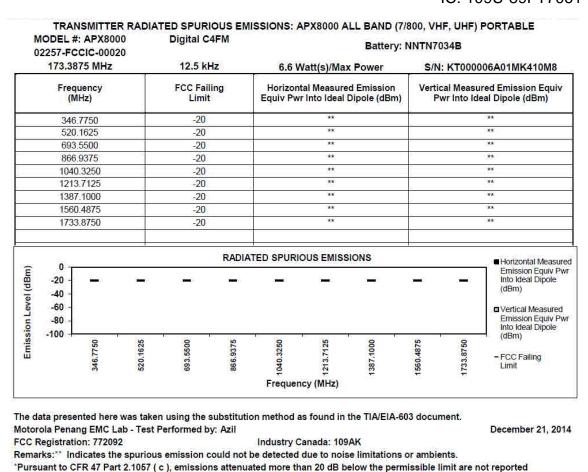


Exhibit 6F-8

Marginal Results

Passed Results

Remarks:

Temp(Deg): 22.4 Hum(%RH): 69.0

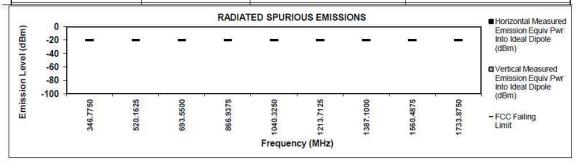
Failed Results

FCC ID: AZ489FT7061 IC: 109U-89FT7061

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000	Digital C4FM	Battery: NNTN7034B
02257-FCCIC-00020		Ballery, WINTERTOSAB

173.3875 MHz	12.5 kHz	1 Watt(s)/Low Power	S/N: KT000006A01MK410M8
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
346.7750	-20	**	**
520.1625	-20		**
693.5500	-20	24	**
866.9375	-20	(300)	**
1040.3250	-20	(8.8)	**
1213.7125	-20	.**:	**
1387.1000	-20	**	**
1560.4875	-20	NA .	**
1733.8750	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil FCC Registration: 772092

Industry Canada: 109AK

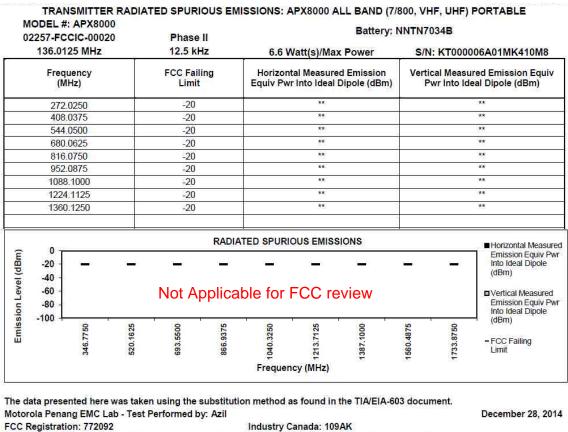
Remarks;\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Marginal Results Remarks: Passed Results **Failed Results** 

Exhibit 6F-9

December 21, 2014



Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results

Remarks:

Exhibit 6F-10

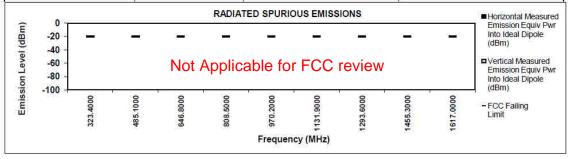
Passed Results

Marginal Results

## TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE MODEL #: APX8000

Battery: NNTN7034B 02257-FCCIC-00020 Phase II 138.0125 MHz 12.5 kHz S/N: KT000006A01MK410M8 6.6 Watt(s)/Max Power

	Limit	Equiv Pwr Into Ideal Dipole (dBm)	Pwr Into Ideal Dipole (dBm)
6.0250	-20	**	**
4.0375	-20	**	: **
2.0500	-20	**	**
0.0625	-20	**	3 <b>**</b>
8.0750	-20	**	**
6.0875	-20	**	**
4.1000	-20	**	**
2.1125	-20	**	**
0.1250	-20	**	CHAN
1	6.0250 4.0375 2.0500 0.0625 8.0750 6.0875 04.1000 12.1125 30.1250	4.0375     -20       2.0500     -20       0.0625     -20       8.0750     -20       6.0875     -20       4.1000     -20       12.1125     -20	6.0250     -20       4.0375     -20       2.0500     -20       0.0625     -20       8.0750     -20       6.0875     -20       4.1000     -20       **       42.1125     -20       **



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

December 28, 2014

FCC Registration: 772092

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Passed Results

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results

Remarks:

Marginal Results

Exhibit 6F-11

138.0125 MHz

FCC ID: AZ489FT7061 IC: 109U-89FT7061

S/N: KT000006A01MK410M8

January 13, 2015

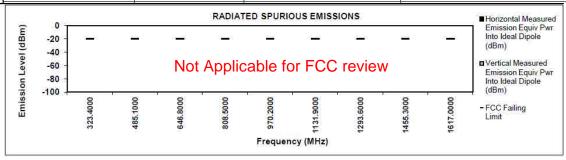
TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

1.0 Watt(s)/Low Power

MODEL #: APX8000		Dattamir NNTN7024D
02257-FCCIC-00020	Phase II	Battery: NNTN7034B

12.5 kHz

Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
276.0250	-20	***	**
414.0375	-20	**	**
552.0500	-20	**	**
690.0625	-20	Disk.	**
828.0750	-20	388	**
966.0875	-20	) 兼章	**
1104.1000	-20	**	**
1242.1125	-20	**	**
1380.1250	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

Industry Canada: 109AK

FCC Registration: 772092 Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

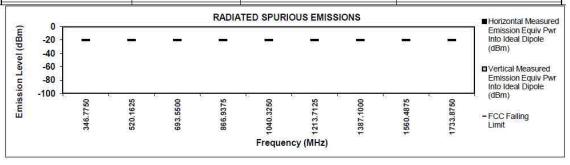
Temp(Deg): 22.4 Hum(%RH): 69.0 Marginal Results Failed Results Remarks: Passed Results

Exhibit 6F-12

## TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000 Battery: NNTN7034B 02257-FCCIC-00020 Phase II 158.55 MHz 12.5 kHz S/N: KT000006A01MK410M8 6.6 Watt(s)/Max Power

NEW ROLL AND ADMINISTRATION TO SERVICE	299 77 TO 31 SPECIAL 1		
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
317.1000	-20	**	**
475.6500	-20	**	**
634.2000	-20	**	**
792.7500	-20	**	**
951.3000	-20	**	**
1109.8500	-20	**	**
1268.4000	-20	**	**
1426.9500	-20	**	( <b>18</b> )
1585.5000	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

December 28, 2014

FCC Registration: 772092

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 (c), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results

Remarks:

Marginal Results Passed Results

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

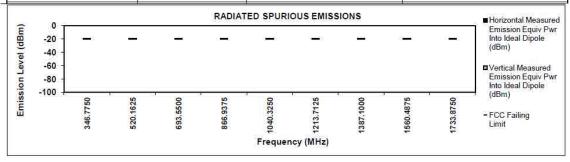
MODEL #: APX8000 02257-FCCIC-00020

Phase II

Battery: NNTN7034B

158.55 MHz	12.5 kHz	1.0 Watt(s)/Low Power	S/N: KT000006A01MK410M8

Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
317.1000	-20	**	** ******
475.6500	-20	**	**
634.2000	-20	**	**
792.7500	-20	**	**
951.3000	-20	**	**
1109.8500	-20	**	** (***)
1268.4000	-20	**	**
1426.9500	-20	**	**
1585.5000	-20	**	<b>⊘★★</b>



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil

January 13, 2015

FCC Registration: 772092 Industry

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0

Remarks:

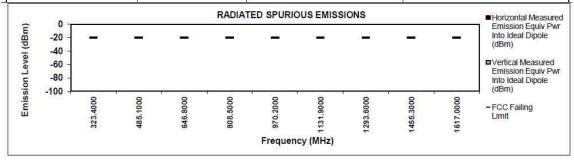
Passed Results Marginal Results Failed Results

Exhibit 6F-14

## TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE

MODEL #: APX8000 02257-FCCIC-00020 Phase II 161.7 MHz 12.5 kHz 6.6 Watt(s)/Max Power S/N: KT000006A01MK410M8

		TOTAL CONTRACTOR OF THE PARTY O	A STREET OF THE
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emission Equiv Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
323.4000	-20	9.8	**
485.1000	-20	**	**
646.8000	-20	**	**
808.5000	-20	**	**
970.2000	-20	**	**
1131.9000	-20	**	**
1293.6000	-20	**	<b>**</b>
1455.3000	-20	**	**
1617.0000	-20	**	**



The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Penang EMC Lab - Test Performed by: Azil FCC Registration: 772092

Industry Canada: 109AK

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results

December 28, 2014

Remarks:

Passed Results Marginal Results

Exhibit 6F- 15

TRANSMITTER RADIATED SPURIOUS EMISSIONS: APX8000 ALL BAND (7/800, VHF, UHF) PORTABLE MODEL #: APX8000

MODEL #: APX8000 02257-FCCIC-00020	Phase II	Battery: NNTN7034B		
161.7 MHz	12.5 kHz	1.0 Watt(s)/Low Powe	er S/N: KT000006A01MK410M8	
Frequency (MHz)	FCC Failing Limit	Horizontal Measured Emis Equiv Pwr Into Ideal Dipole		
323.4000	-20	**	( <b>8</b> )	
485.1000	-20	**	**	
646.8000	-20	**	State	
808.5000	-20	**	**	
970.2000	-20	**	**	
1131.9000	-20	**		
1293.6000	-20	**	31	
1455.3000	-20	**	∵hr#	
1617.0000	-20	**	***	
(Eg -20	R.F.	DIATED SPURIOUS EMISSIONS	Horizontal Measure Emission Equiv Pwr Into Ideal Dipole (dBm)	
-60 - -80 -	55.1000 46.8000	70,2000 31,9000 33,6000	□Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)  00	
3. E	6.8	3.6 1.9	E Limit	

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

808.5000

646,8000

Motorola Penang EMC Lab - Test Performed by: Azil

485.1000

January 13, 2015

FCC Registration: 772092

Industry Canada: 109AK

Frequency (MHz)

1131.9000

1293.6000

1455.3000

1617.0000

Remarks:\*\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

\*Pursuant to CFR 47 Part 2.1057 ( c ), emissions attenuated more than 20 dB below the permissible limit are not reported

970.2000

Temp(Deg): 22.4 Hum(%RH): 69.0 Failed Results Marginal Results Remarks: Passed Results

Exhibit 6F-16