#### **EXHIBIT 6**

#### INDEX OF SUBMITTED MEASURED DATA

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

```
EXHIBIT 6A – RF Power Output (Table)
```

#### **EXHIBIT 6B** – Audio Frequency Response

6B-1 –425.075 MHz, 12.5 kHz Channel Spacing 6B-2 –485.075 MHz, 12.5 kHz Channel Spacing

## **EXHIBIT 6C** – Audio Low Pass Filter Response

6C-1 –425.025 MHz, 12.5 kHz Channel Spacing 6C-2 –485.025 MHz, 12.5 kHz Channel Spacing

#### **EXHIBIT 6D** – Modulation Limiting

6D-1 –425.025 MHz, 12.5 kHz Channel Spacing 6D-2 –485.025 MHz, 12.5 kHz Channel Spacing

#### **EXHIBIT 6E** – Occupied Bandwidth

6E-1 –425.025 MHz, 12.5 kHz Channel Spacing (Analog Voice) 6E-2 –485.025 MHz, 12.5 kHz Channel Spacing (Analog Voice) 6E-3 –425.025 MHz, 12.5 kHz Channel Spacing (Digital Data) 6E-4 –485.025 MHz, 12.5 kHz Channel Spacing (Digital Data) 6E-5 –425.025 MHz, 12.5 kHz Channel Spacing (Digital Voice) 6E-6 –485.025 MHz, 12.5 kHz Channel Spacing (Digital Voice) 6E-7 –425.025 MHz, 12.5 kHz Channel Spacing (Digital TDMA) 6E-8 –485.025 MHz, 12.5 kHz Channel Spacing (Digital TDMA)

#### **EXHIBIT 6F** – Radiated Spurious Emissions

6F-1 - Max Power 469.975 MHz, 12.5 kHz Channel Spacing 6F-2 - Max Power 471.075, 485.075 MHz, 12.5 kHz Channel Spacing

## **EXHIBIT 6G** – Frequency Stability

6G-1 – 425.075 MHz vs. Supply Voltage 6G-2 – 485.075 MHz vs. Supply Voltage 6G-3 – 425.075 MHz vs. Temperature 6G-4 – 485.075 MHz vs. Temperature

#### **EXHIBIT 6H** – Conducted Spurious Emissions

6H-1 - Max Power 425.025 MHz, 12.5 kHz Channel Spacing 6H-2 - Max Power 469.925 MHz, 12.5 kHz Channel Spacing 6H-3 - Max Power 471.025 MHz, 12.5 kHz Channel Spacing 6H-4 - Max Power 485.025 MHz, 12.5 kHz Channel Spacing

#### **EXHIBIT 6I** – Transient Frequency Behavior

6I-1 – 425.025 MHz, 12.5 kHz Channel Spacing – Transmitter On 6I-2 – 425.025 MHz, 12.5 kHz Channel Spacing – Transmitter Off 6I-3 – 485.025 MHz, 12.5 kHz Channel Spacing – Transmitter On 6I-4 – 485.025 MHz, 12.5 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 = 425.025 MHz:

Output RF power DC Voltage DC Current	1.0 Watts 7.50 Volts 1.45 Amps
Output RF power DC Voltage DC Current	3.00 Watts 7.50 Volts 1.75 Amps
Output RF power	5.7 Watts

Output RF power 5.7 Watts DC Voltage 7.50 Volts DC Current 2.08 Amps

## Frequency = 485.025 MHz:

Output RF power	1.0 Watts
DC Voltage	7.50 Volts
DC Current	1.45 Amps
Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.75 Amps
Output RF power	5.7 Watts
DC Voltage	7.50 Volts
DC Current	2.08 Amps

**EXHIBIT 6B** 

Transmit Audio Response - Pursuant 47 CFR 2.1047 and 2.1033(c) (13)

## **Audio Frequency Response**

(Freq: 425.075MHz, ChSp: 12.5kHz)

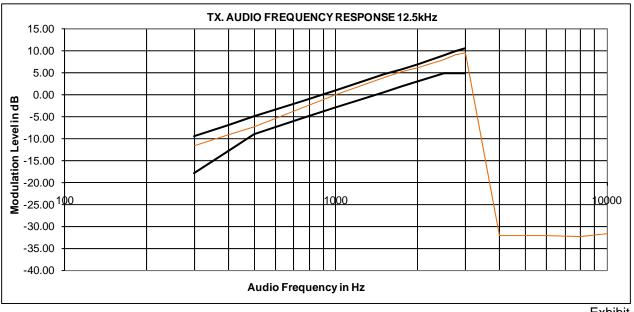


Exhibit 6B-1

## **Audio Frequency Response**

(Freq: 485.075MHz, ChSp: 12.5kHz)

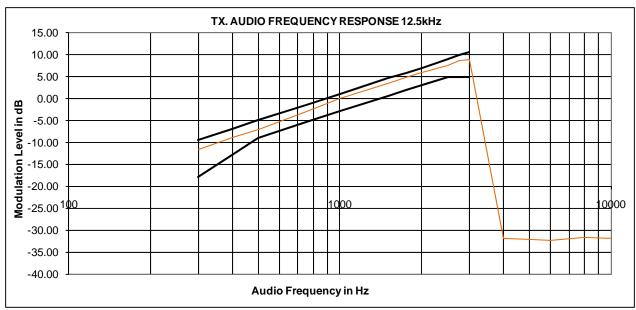


Exhibit 6B-2

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

## **Transmit Low Pass Filter Frequency Response**

(Freq: 425.075MHz, ChSp: 12.5kHz)

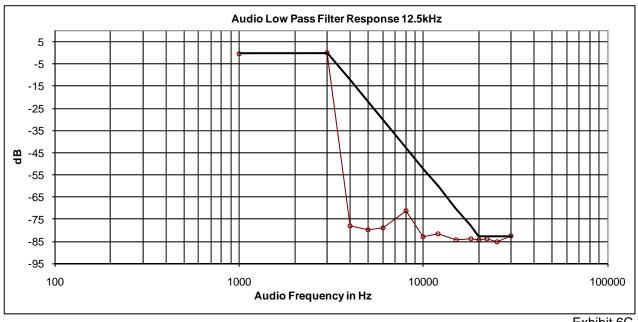


Exhibit 6C-1

## **Transmit Low Pass Filter Frequency Response**

(Freq: 485.075MHz, ChSp: 12.5kHz)

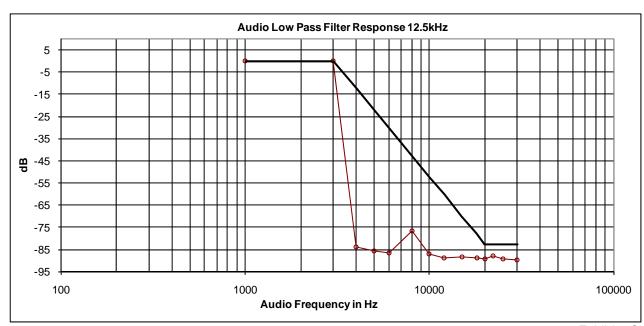


Exhibit 6C-2

**EXHIBIT 6D Modulation Limiting -** Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

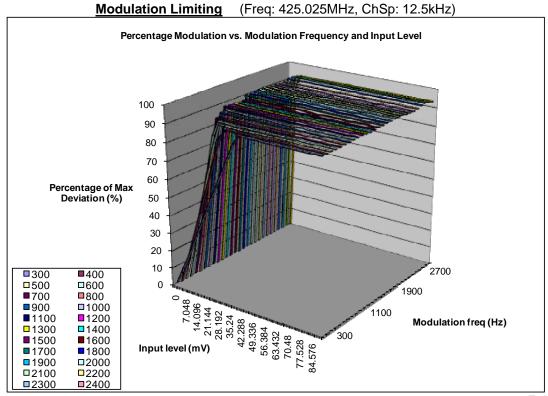


Exhibit 6D-1

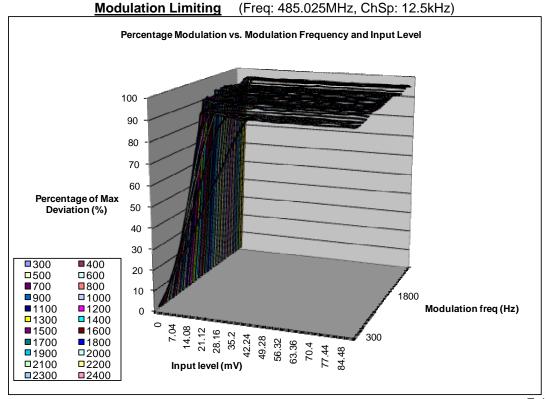


Exhibit 6D-2

Applicant: Motorola Solutions Inc. FCC ID: AZ489FT4906

#### **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: AZ489FT7036.

#### **EXHIBIT 6E-1**

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 =  $2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} = 3 \times 11 \times 10^{-2}$ 

F3E portion of the designator indicates voice.

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

#### **EXHIBIT 6E-3**

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. The emission mask was obtained from 47CFR 90.210(d).

F1D portion of the designator indicates digital data.

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

#### **EXHIBIT 6E-5**

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. The emission mask was obtained from 47CFR 90.210(d).

F1E portion of the designator indicates digital voice.

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

#### **EXHIBIT 6E-7**

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

## **Applicant: Motorola Solutions Inc.**

performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2. The emission mask was obtained from 47CFR 90.210(d).

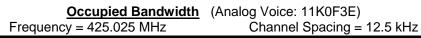
F1W portion of the designator indicates digital TDMA.

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

FCC ID: AZ489FT4906

**EXHIBIT 6E** 

Occupied Bandwidth Data -- Pursuant 47 CFR 2.1049, 90.210(d) and 90.691



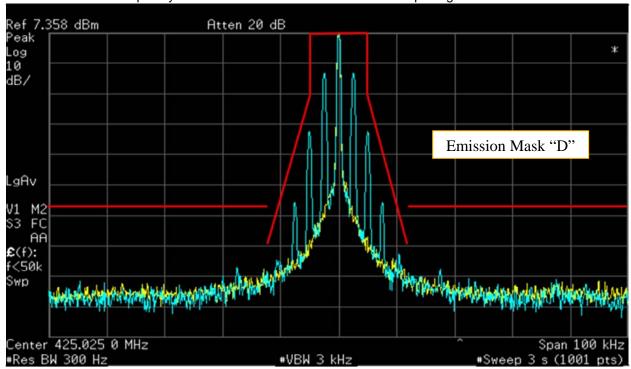


Exhibit 6E-1

<u>Occupied Bandwidth</u> (Analog Voice: 11K0F3E) Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

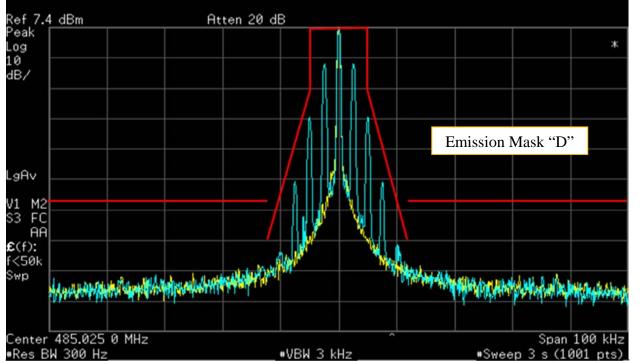
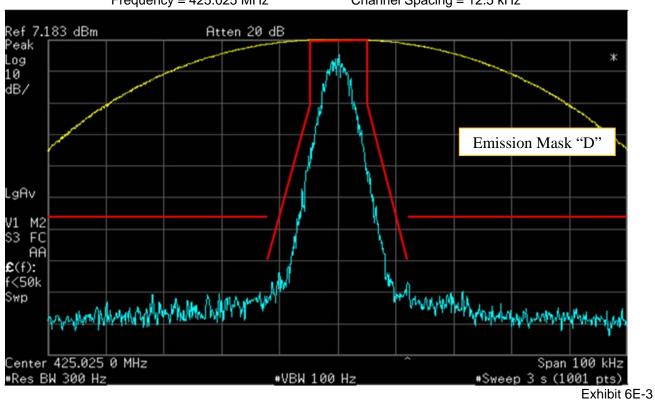


Exhibit 6E-2 EXHIBIT 6 SHEET 8 OF 20

<u>Occupied Bandwidth</u> (Digital Data: 8K10F1D)
Frequency = 425.025 MHz Channel Spacing = 12.5 kHz



<u>Occupied Bandwidth</u> (Digital Data: 8K10F1D) Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

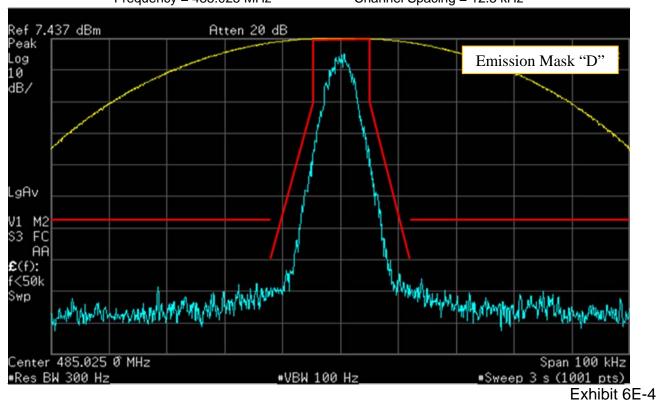


EXHIBIT 6 SHEET 9 OF 20

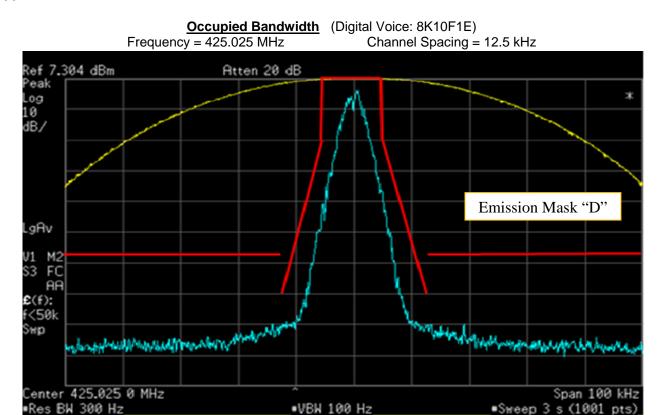


Exhibit 6E-5

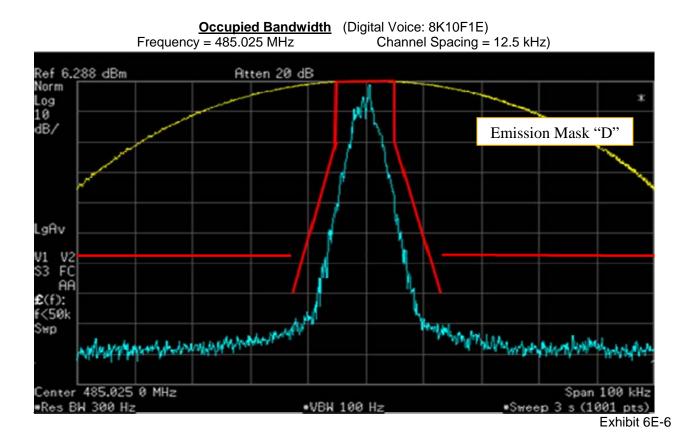
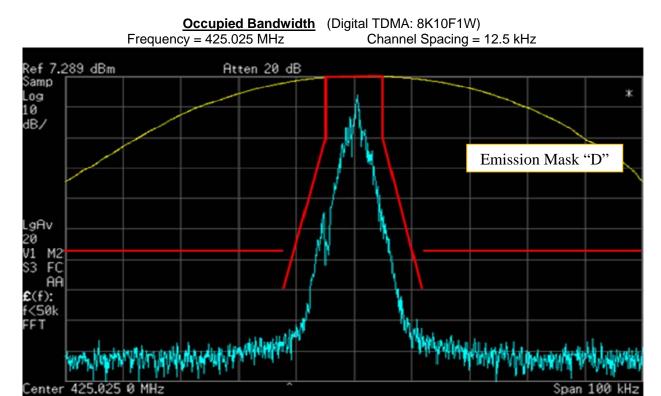


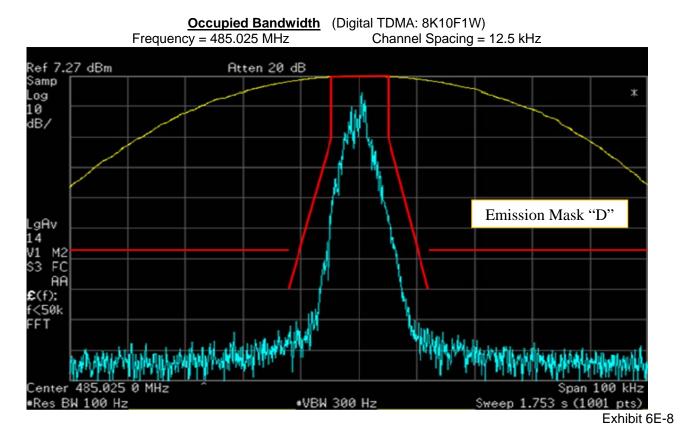
EXHIBIT 6 SHEET 10 OF 20 Res BW 100 Hz



●VBW 300 Hz

Exhibit 6E-7

Sweep 1.753 s (1001



**Applicant: Motorola Solutions Inc.** 

## \*\*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

FCC ID: AZ489FT4906

**EXHIBIT 6F** 

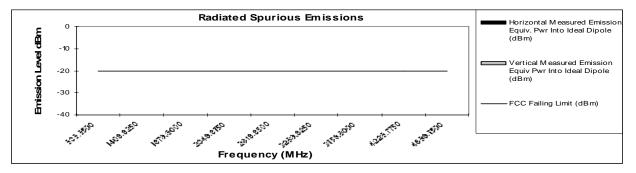
Transmitter Radiated Spurious Emissions - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

Motorola Solutions FCC ID:AZ489FT4906

Transmit Radiated Spurious Emissions: APX7000 ANALOG Tx Power: 5.7 Watts

469.975 MHz Channel Spacing 12.5kHz | S/N Q0SOS06B

1001070 111112		onamor opaom;	9 12101412   0/11 4000000
Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
939.9500	-20	*	*
1409.9250	-20	*	*
1879.9000	-20	*	*
2349.8750	-20	*	*
2819.8500	-20	*	*
3289.8250	-20	*	*
3759.8000	-20	*	*
4229.7750	-20	*	*
4699.7500	-20	*	*



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

Motorola Plantation EMC Lab – Test Performed by: Alberto Cordero

June 10, 2011
FCC Registration: 91932 / Industry Canada: IC109U-1

<sup>\*</sup> Indicates the spurious emission could not be detected due to noise limitations or ambients.

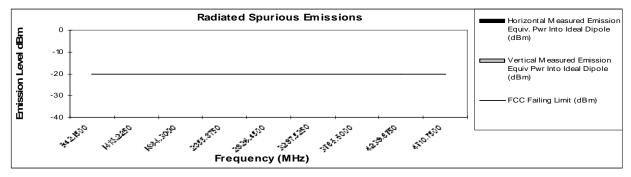
Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

Motorola Solutions FCC ID:AZ489FT4906

# Transmit Radiated Spurious Emissions: APX7000 Analog Tx Power: 5.6 Watts

471.075 MHz Channel Spacing 12.5kHz | S/N Q0SOS06F

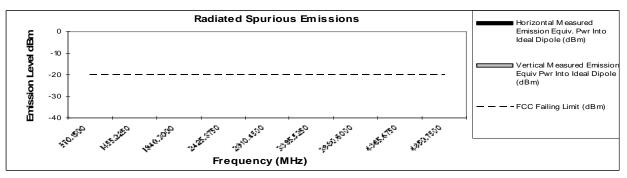
Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
942.1500	-20	*	*
1413.2250	-20	*	*
1884.3000	-20	*	*
2355.3750	-20	*	*
2826.4500	-20	*	*
3297.5250	-20	*	*
3768.6000	-20	*	*
4239.6750	-20	*	*
4710.7500	-20	*	*



Transmit Radiated Spurious Emissions: APX7000 Analog
Tx Power: 5.6 Watts

485.075 MHz Channel Spacing 12.5kHz | S/N Q0SOS06F

-100.070 WITTE		Onamici opaom	9 12:0Ki 12   0/11 Q0000001
Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
970.1500	-20	*	*
1455.2250	-20	*	*
1940.3000	-20	*	*
2425.3750	-20	*	*
2910.4500	-20	*	*
3395.5250	-20	*	*
3880.6000	-20	*	*
4365.6750	-20	*	*
4850.7500	-20	*	*



<sup>\*</sup> 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.

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

Motorola Plantation EMC Lab – Test Performed by: Alberto Cordero FCC Registration: 91932 / Industry Canada: IC109U-1

June 7, 2011

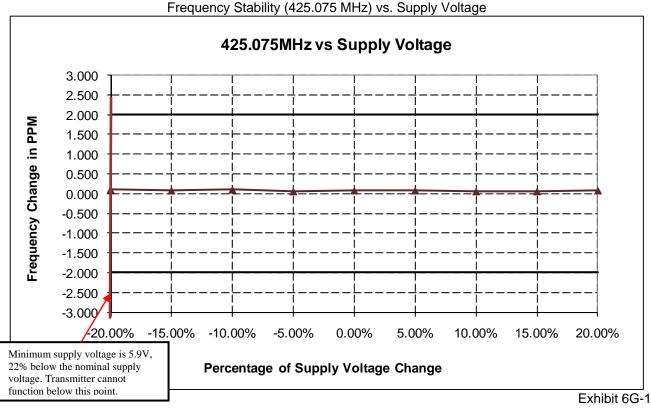
Exhibit 6F-2

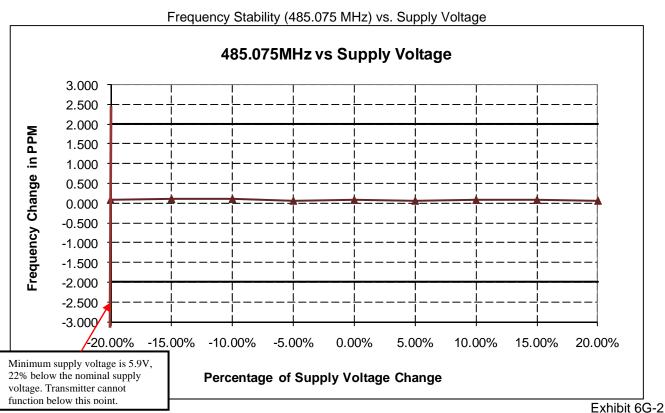
FCC ID: AZ489FT4906

**Applicant: Motorola Solutions Inc.** 

FCC ID: AZ489FT4906

**EXHIBIT 6G** Frequency Stability - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)





Frequency Stability (425.075 MHz) vs. Temperature

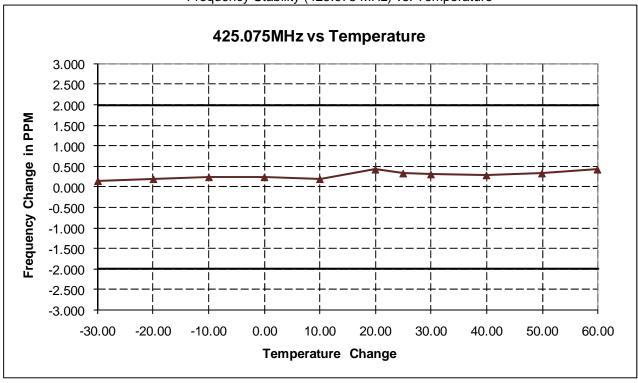


Exhibit 6G-3

Frequency Stability (485.075 MHz) vs. Temperature

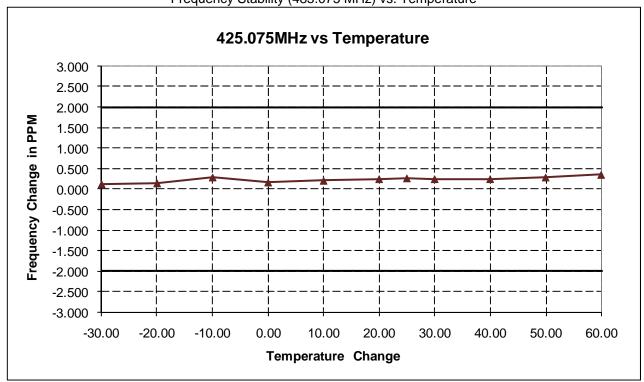


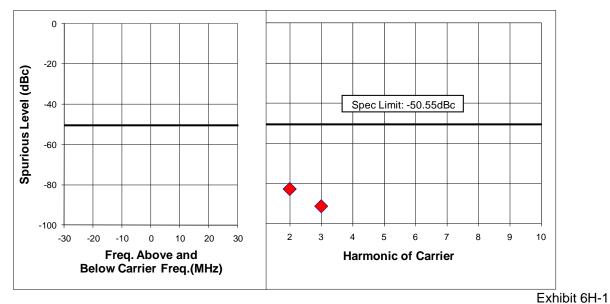
Exhibit 6G-4

Transmitter Conducted Spurious Emissions - Pursuant 47 CFR 2.1047 and 2.1033(c) (13)

Note: Lines on graphs correspond to the FCC limit of -13dBm.

Spurs which are not shown is less than 100dB

425.025 MHz, 12.5 kHz Channel Spacing, 5.7Watts



469.925 MHz, 12.5 kHz Channel Spacing, 5.7Watts

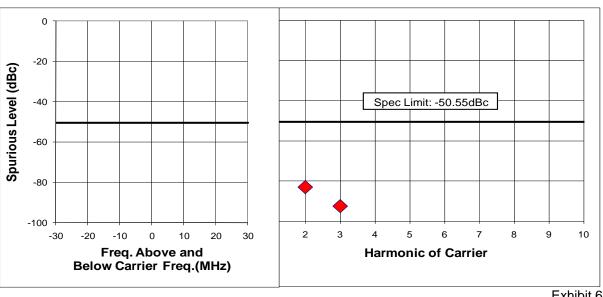
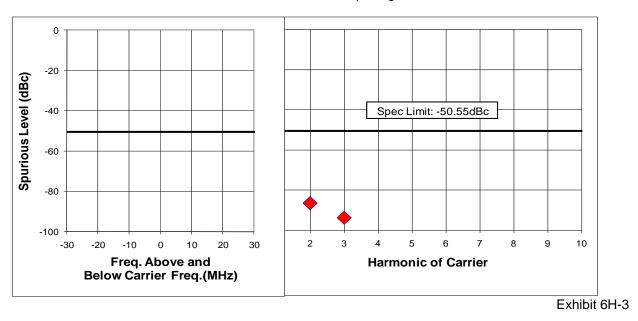
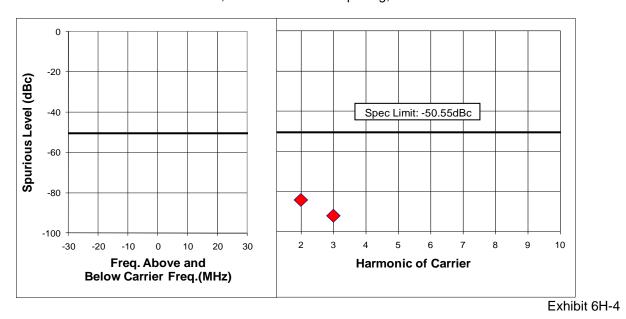


Exhibit 6H-2

471.025 MHz, 12.5 kHz Channel Spacing, 5.6 Watts



485.025 MHz, 12.5 kHz Channel Spacing, 5.6 Watts



## EXHIBIT 6I Transient Frequency Behavior

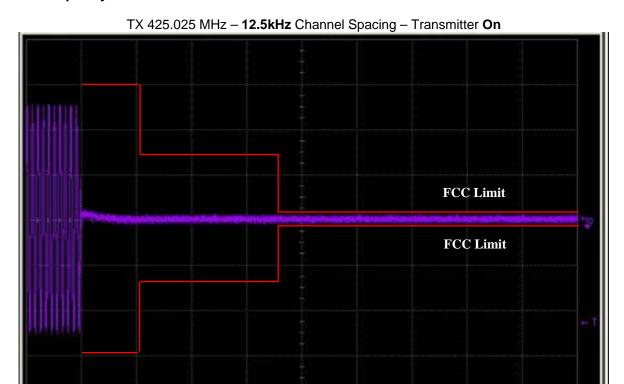


Exhibit 6I-1

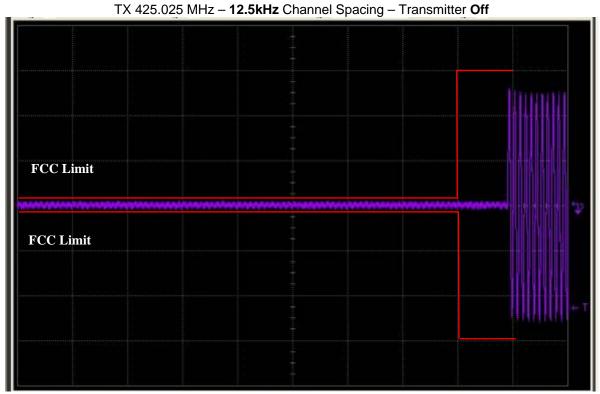
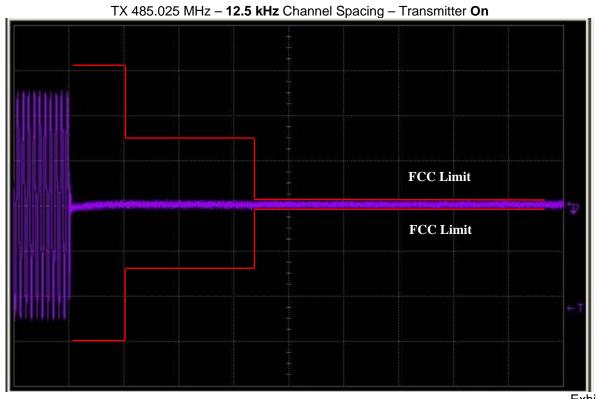


Exhibit 6I-2

EXHIBIT 6 SHEET 19 OF 20





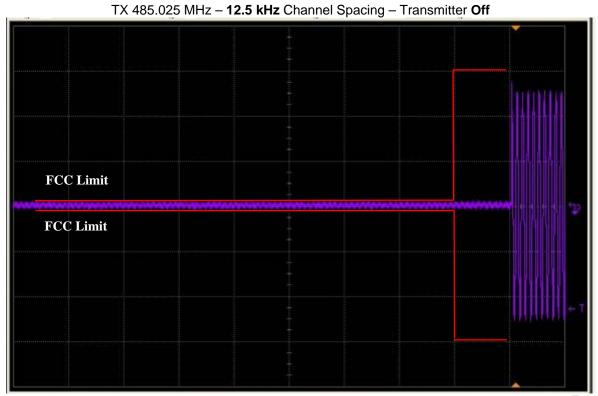


Exhibit 6I-4