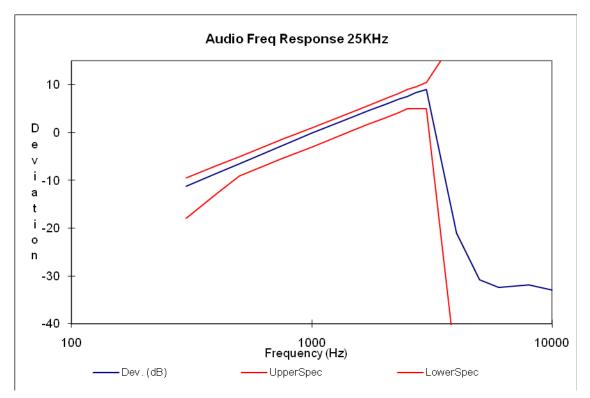
# **Submitted Measured Data**

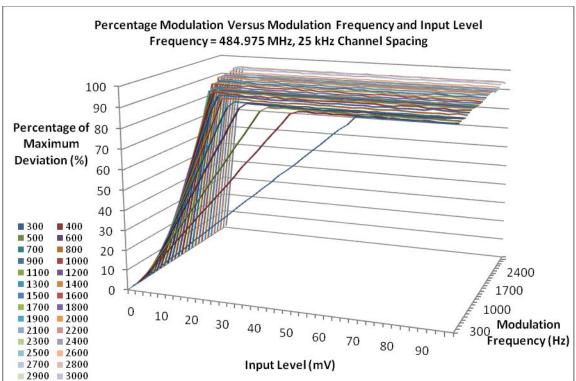
MEASUREMENT		<u>EXHIBIT</u>	NUMBER OF PAGES
1.	Audio Frequency Response	6B-1	1
2.	Modulation Limiting	6D-1	1
3.	Occupied Bandwidth	6E-1	2
4.	Transient Frequency Behavior	6J-1	1

Note: Data was tested to show compliance to RSS102, RSS119, and RSS210.

Audio Frequency Response (Freq: 484.975MHz, ChSp: 25 kHz)



## **Modulation Limiting**



The Percentage of Max. Deviation on the "Z" axis is referenced to 2.5kHz for 25kHz bandwidth

Applicant: Motorola Solutions FCC ID: AZ489FT4858

### **Occupied Bandwidth Data**

#### **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: AZ489FT4858.

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

Standard Audio Modulation (25 kHz Channelization, Analog Voice):

Emission Designator 16K0F3E

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

BW =  $2(M+D) = 2*(3 \text{ kHz} + 5 \text{ kHz}) = 16 \text{ kHz} = \rightarrow 16\text{K0}$ 

F3E portion of the designator indicates voice.

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

#### **EXHIBIT 6E-2**

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.

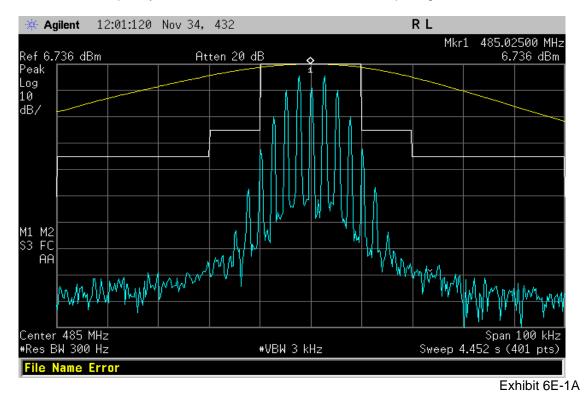
BW = 2(M+D) = 2\*(6 kHz + 4 kHz) = 20 kHz = 3 20KO

F1E portion of the designator indicates digital voice.

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

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<u>Occupied Bandwidth</u> (Analog Voice: 16K0F3E) Frequency = 485.025 MHz Channel Spacing = 25 kHz



<u>Occupied Bandwidth</u> (Analog Voice Encryption: 20K0F1E) Frequency = 485.025 MHz Channel Spacing = 20 kHz



## **Transient Frequency Behavior**

Transmit at 485.025MHz - 25 kHz Channel Spacing - Transmitter On

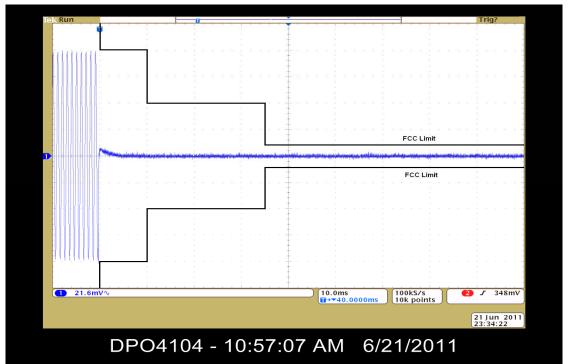


Exhibit 6J-1A

Transmit at 485.025 MHz - 25 kHz Channel Spacing - Transmitter Off

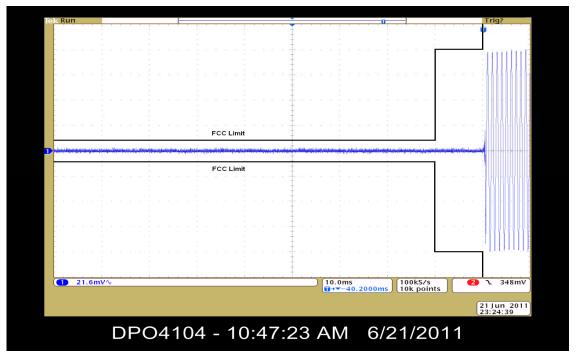


Exhibit 6J-1B