

# **Exhibit E**

## **Frequency Stability Data:**

### **Variation of Primary Power Supply Voltage**

## **E.1 Introduction**

The frequency stability of the LCM was measured with variation of the primary power supply voltage. The following data supports FCC requirements outlined in Section 2.995.

## **E.2 Equipment**

- Sorensen LT 75V DC Power Supply
- HP Spectrum Analyzer 8563 E
- Maintenance Monitor with special test mode software

## **E.3 Overview**

Testing for power supply stability took place at GE Harris under the supervision of Michael Lipsky.

In compliance with FCC code 2.995,(d),1, the voltage supply was varied from 85 to 115 percent of the nominal value (12 V).

In compliance with FCC code 2.995,(d),3, measurements were made at the input to the cable normally provided with the equipment.

For this test, the radio was placed in a test mode that causes it to generate two non-spread tones at  $f_c \pm 5.5$  MHz. The actual center frequency is derived by calculating the centerpoint between the frequencies of these tones. This center frequency was determined for ambient temperatures from -40°C to +70°C, the operating temperature range of the device. The test data and a plot of frequency deviation vs. ITCU temperature is provided below.

## E.4 Test Data

### Varied Power Supply Stability Test (Center Frequency - 2438 MHz)

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| Varied Power | Equivalent Voltage | Lower    | Upper       | Center<br>(Calculated - kHz) | Variation from<br>Center Freq (kHz) |
|--------------|--------------------|----------|-------------|------------------------------|-------------------------------------|
| 85%          | 62.9 V             | 2.432504 | 2.443504001 | <b>2438004.001</b>           | 4.000500001                         |
| 100%         | 74.0 V             | 2.432504 | 2.443504    | <b>2438004.009</b>           | 4.0085                              |
| 115%         | 85.1 V             | 2.432504 | 2.443504001 | <b>2438004.009</b>           | 4.009                               |

Table E.4 Varied Power Stability Test Data

## E.5 Test Results

The test data presented in Section E.4 proves the LCM is frequency stable under various power supply voltages. The largest frequency deviation was 4.525 kHz, which occurred at 85% power.