

**EXHIBIT 6****INDEX OF SUBMITTED MEASURED DATA**

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

**EXHIBIT 6A - RF Power Output****EXHIBIT 6B – Audio Frequency Response**

6B-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6B-2 – 161.7 MHz, 25 kHz Channel Spacing (Part 74)

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

6C-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6C-2 – 161.7 MHz, 25 kHz Channel Spacing (Part 74)

**EXHIBIT 6D – Modulation Limiting**

6D-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6D-2 – 161.7 MHz, 25 kHz Channel Spacing (Part 74)

**EXHIBIT 6E – Occupied Bandwidth**

6E-1 – 157.77 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, 16K0F3E (Part 22 & 80)

6E-2 – 161.7 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, 16K0F3E, Mask B (Part 74)

**EXHIBIT 6F - Conducted Spurious Emissions**

6F-1 – 54 Watts, 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6F-2 – 25 Watts, 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6F-3 – 54 Watts, 161.7 MHz, 25 kHz Channel Spacing (Part 74)

6F-4 – 25 Watts, 161.7 MHz, 25 kHz Channel Spacing (Part 74)

**EXHIBIT 6G - Radiated Spurious Emissions**

6G-1 – 54 Watts, 157.77 MHz, 25 kHz Channel Spacing (Part 22 & 80)

6G-2 – 54 Watts, 161.7 MHz, 25 kHz Channel Spacing (Part 74)

**EXHIBIT 6H – Frequency Stability**

6H-1 – 157.77 MHz, Frequency Stability vs Supply Voltage (Part 22 & 80)

6H-2 – 157.77 MHz, Frequency Stability vs Temperature (Part 22 & 80)

6H-3 – 161.7 MHz, Frequency Stability vs Supply Voltage (Part 74)

6H-4 – 161.7 MHz, Frequency Stability vs Temperature (Part 74)

\*\* Please note that the above data were taken following the procedures and limits outlined in TIA 603-D during the month of March 2015. See Table 2 in Ex07\_test procedures

Radio model tested: AAM28JQN9KA1AN

Important Note: The data in this test report meets or exceeds the technical requirements of FCC Rule Parts 22.

**EMC Lab details:**

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IC Registration Number 109AK**

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**EXHIBIT 6A – RF POWER OUTPUT****HIGH POWER SETTING, FREQUENCY 157.77 MHz (Part 22 & 80)**

|                            |              |
|----------------------------|--------------|
| Measured RF Output Power:  | 54.0 Watts   |
| Measured DC Voltage:       | 13.2 Volts   |
| Measured DC Input Current: | 8.32 Amperes |

**LOW POWER SETTING, FREQUENCY 157.77 MHz (Part 22 & 80)**

|                            |              |
|----------------------------|--------------|
| Measured RF Output Power:  | 25.0 Watts   |
| Measured DC Voltage:       | 13.2 Volts   |
| Measured DC Input Current: | 5.75 Amperes |

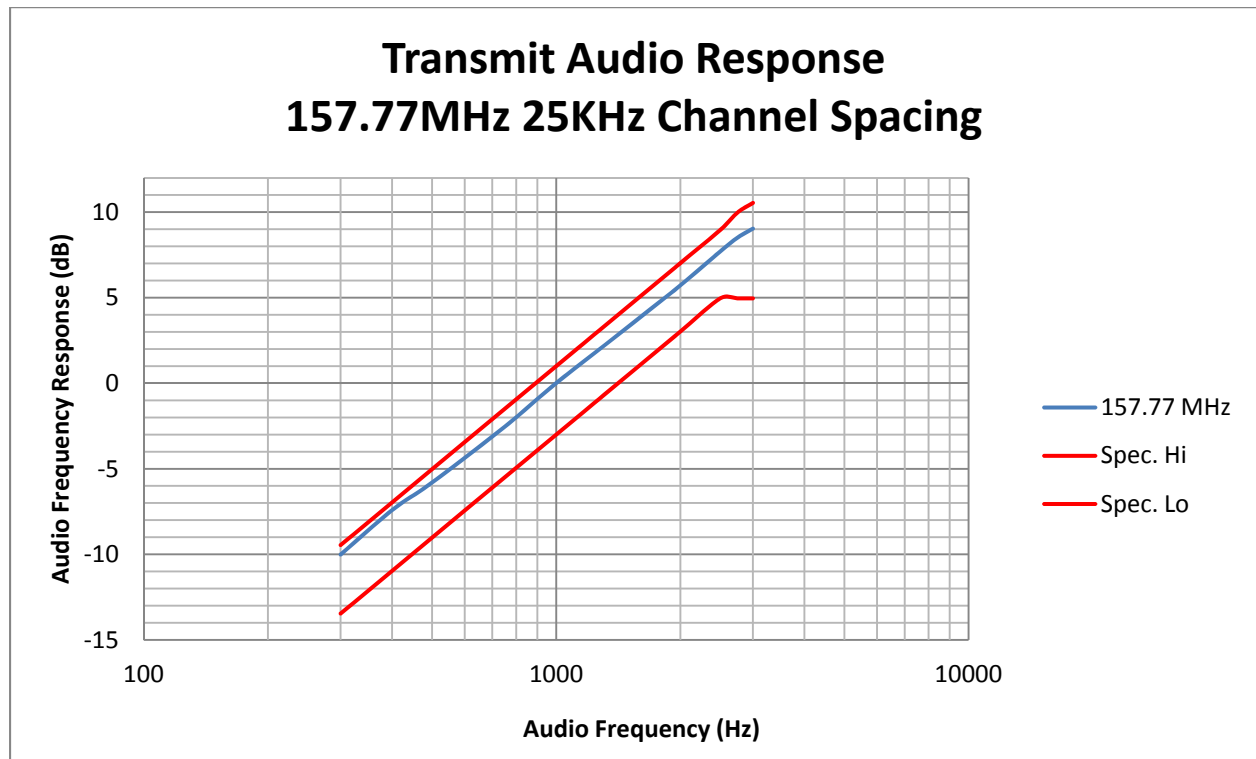
**HIGH POWER SETTING, FREQUENCY 161.7 MHz (Part 74)**

|                            |              |
|----------------------------|--------------|
| Measured RF Output Power:  | 54.0 Watts   |
| Measured DC Voltage:       | 13.2 Volts   |
| Measured DC Input Current: | 8.15 Amperes |

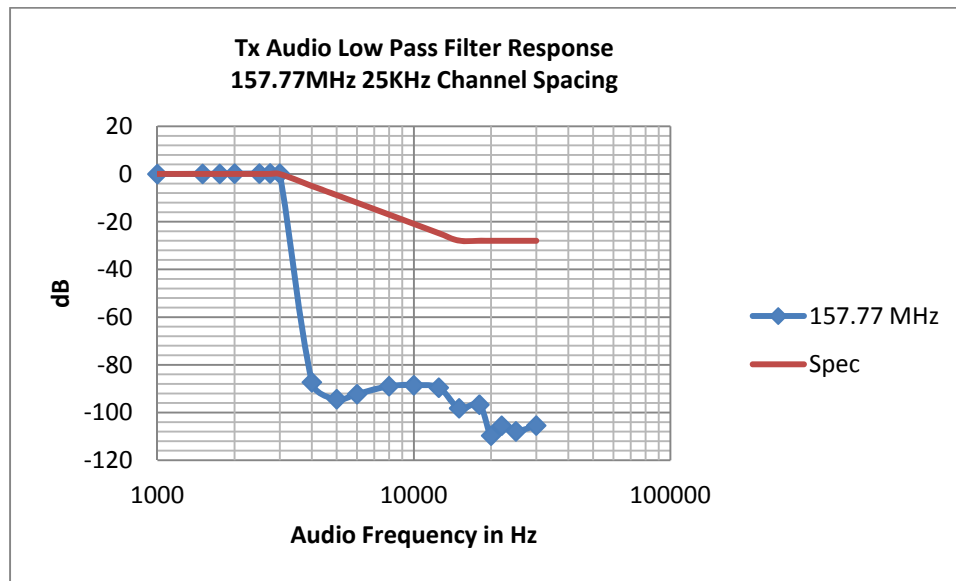
**LOW POWER SETTING, FREQUENCY 161.7 MHz (Part 74)**

|                            |              |
|----------------------------|--------------|
| Measured RF Output Power:  | 25.0 Watts   |
| Measured DC Voltage:       | 13.2 Volts   |
| Measured DC Input Current: | 5.63 Amperes |

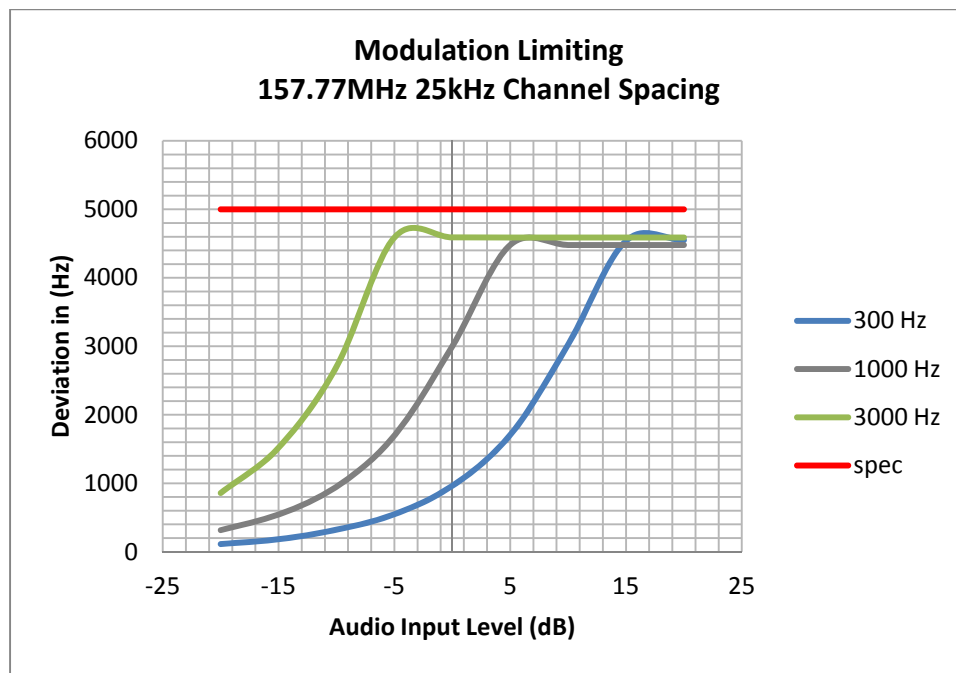
## EXHIBIT 6B - Audio Frequency Response



6B-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22 &amp; 80)

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

6C-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22)

**EXHIBIT 6D – Modulation Limiting**

6D-1 – 157.77 MHz, 25 kHz Channel Spacing (Part 22)

**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:

$$BW = 2 * (M + D) \text{ where: } BW = \text{Bandwidth}$$

M= Maximum modulating frequency

D = Deviation

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

Per CFR Title 47, Part 2, Section 2.201, the Carson's Rule calculation for necessary bandwidth,  $BW = 2M + 2DK$ , where M = maximum modulating frequency in Hz, D = peak deviation in Hz, and K=1, is as follows:

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

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

Per CFR Title 47, Part 2, Section 2.201:

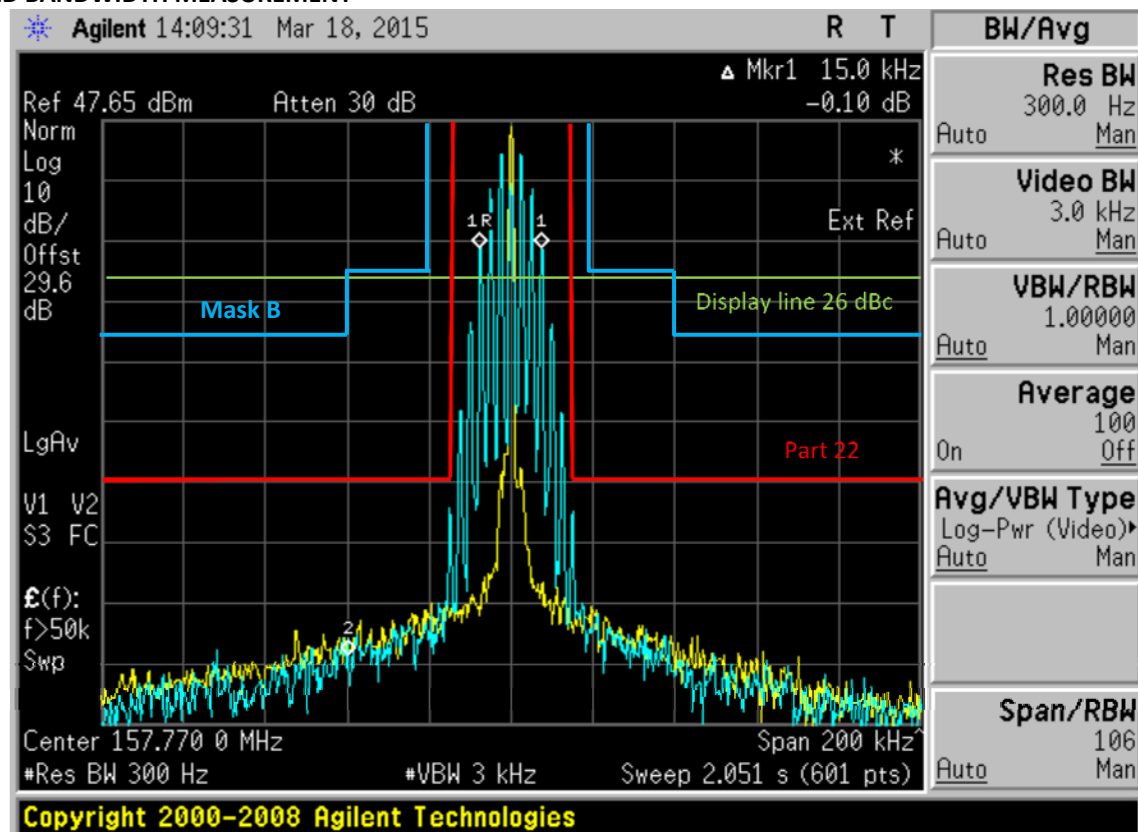
Frequency Modulation ..... **F**

A single channel containing analogue information .....**3**

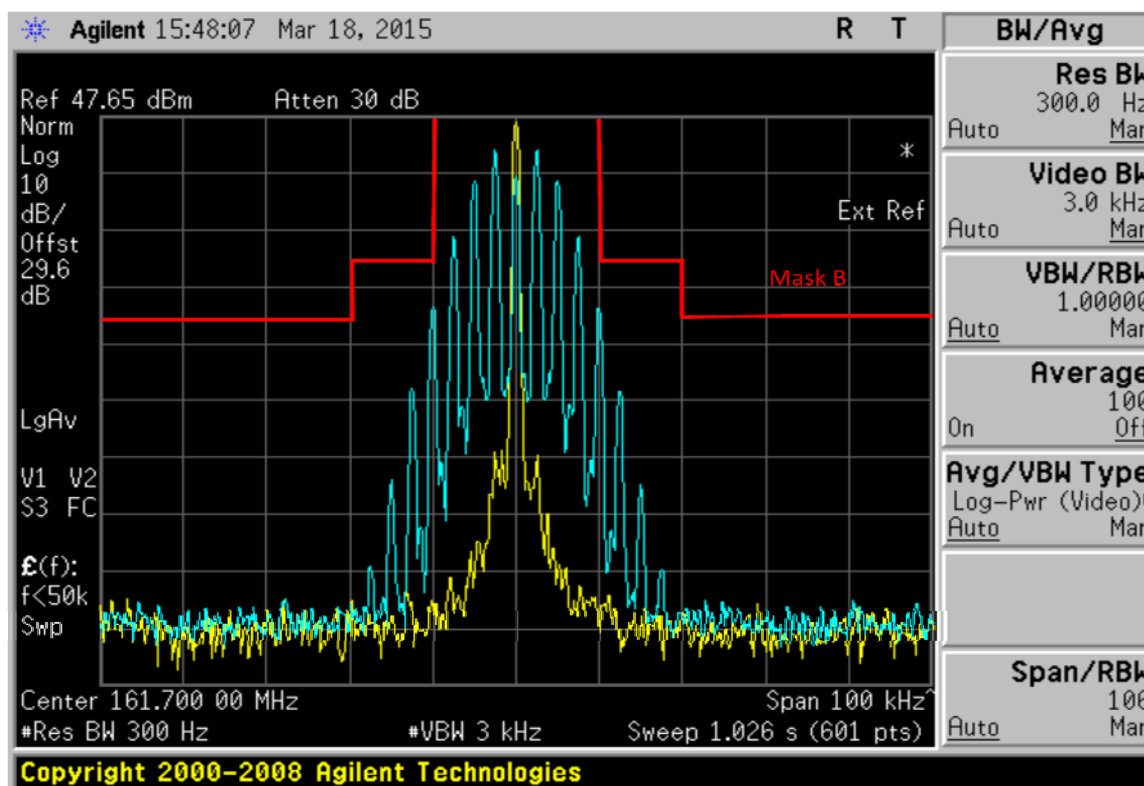
Telephony (including sound broadcasting) ..... **E**

The complete emissions designator for this transmitter is **16K0F3E**.

## OCCUPIED BANDWIDTH MEASUREMENT



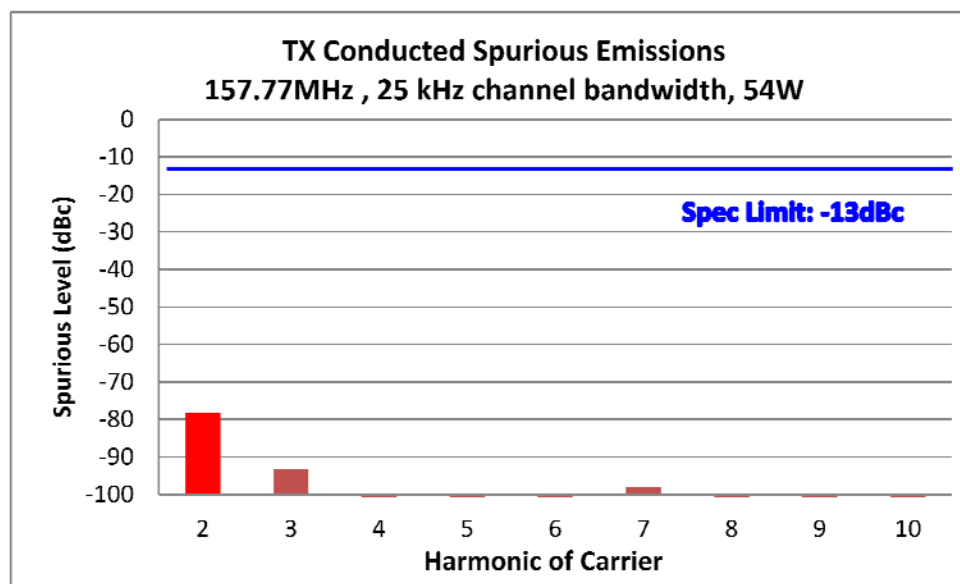
6E-1 – 157.77 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, 16K0F3E (Part 22 &amp; 80)



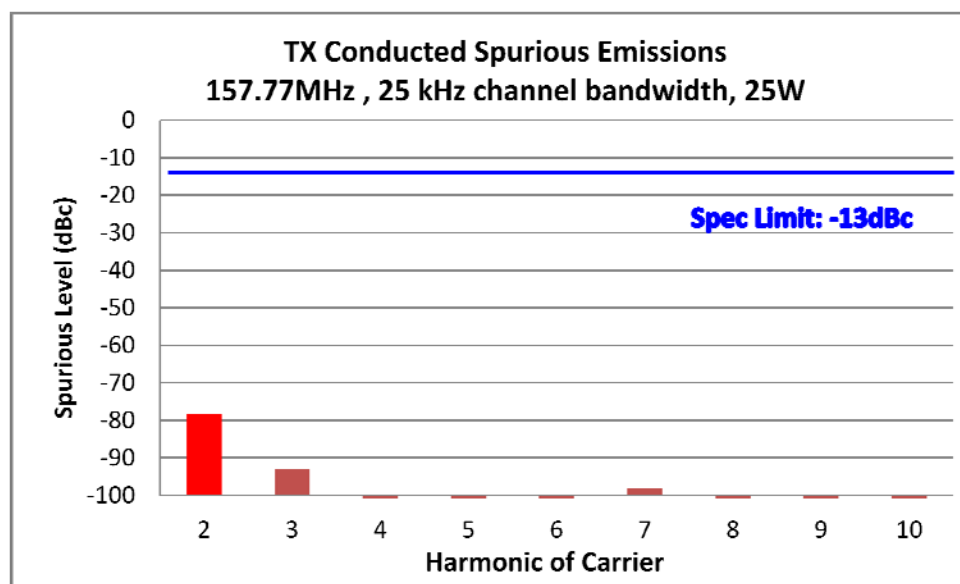
6E-2 – 161.7 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, 16K0F3E, Mask B (Part 74)



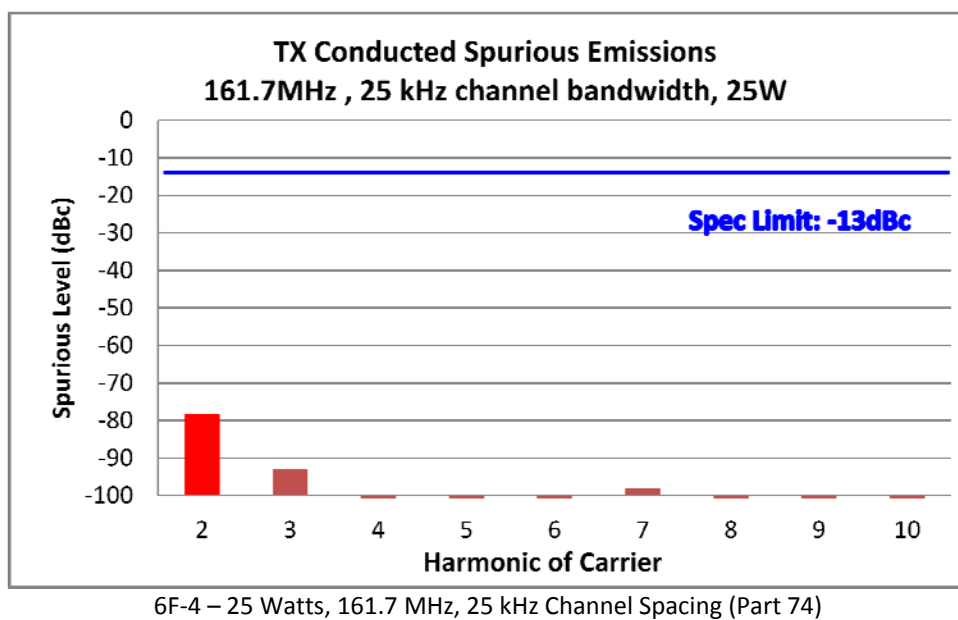
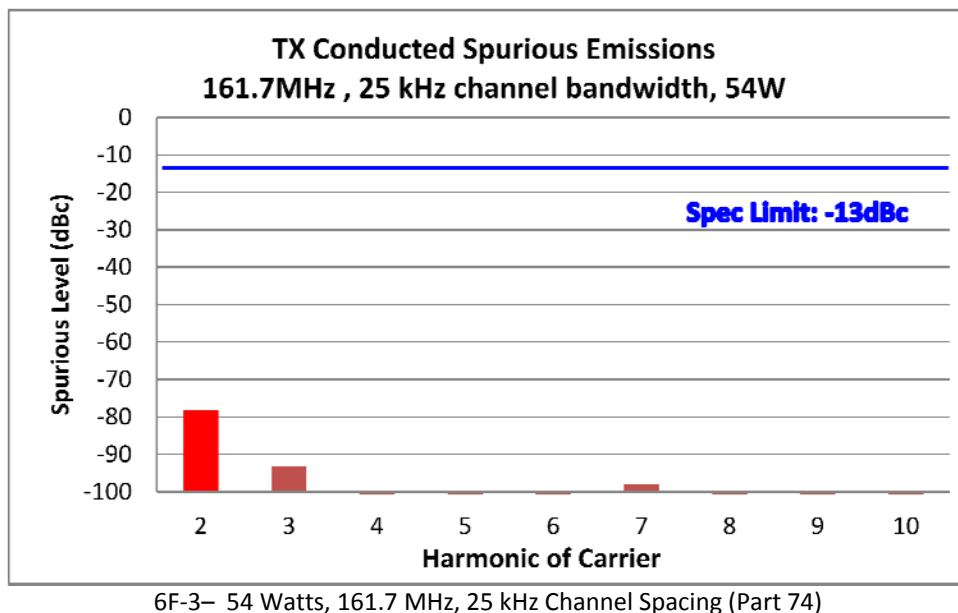
## EXHIBIT 6F – Conducted Spurious Emissions



6F-1 – 54 Watts, 157.77 MHz, 25 kHz Channel Spacing (Part 22 &amp; 80)



6F-2 – 25 Watts, 157.77 MHz, 25 kHz Channel Spacing (Part 22 &amp; 80)



FCC ID: ABZ99FT3087

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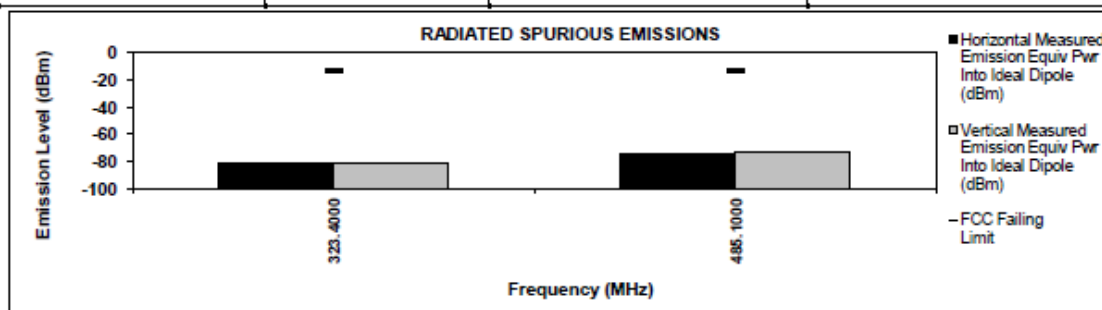
ACCY:682-RMN5053A

161.7 MHz

25 kHz

54 Watt(s)/Max Power

S/N: 511TRDD175

[illegible]

3/26/2015

Industry Canada: 109AK

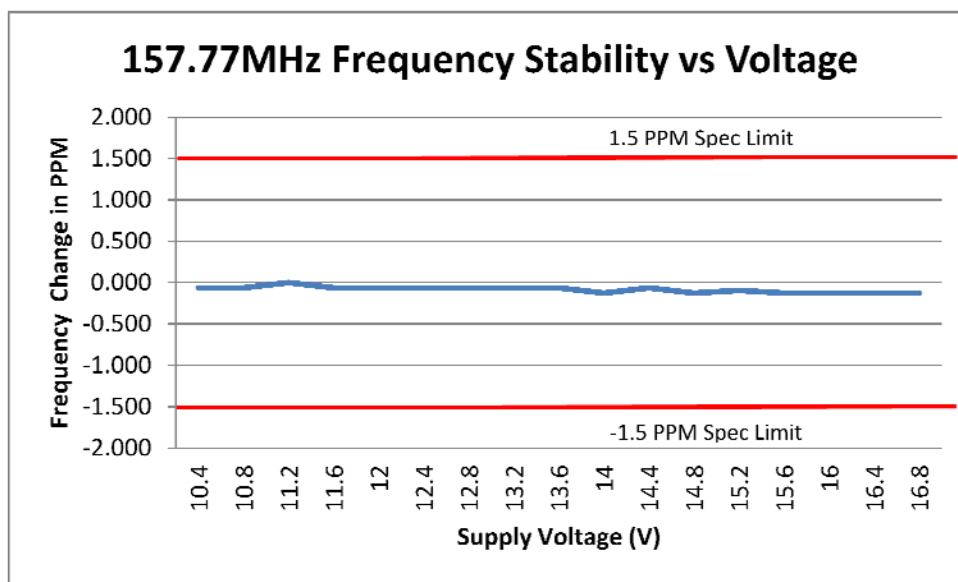
Temp(Deg): 23.3 Hum(%RH): 71.5

### Passed Results

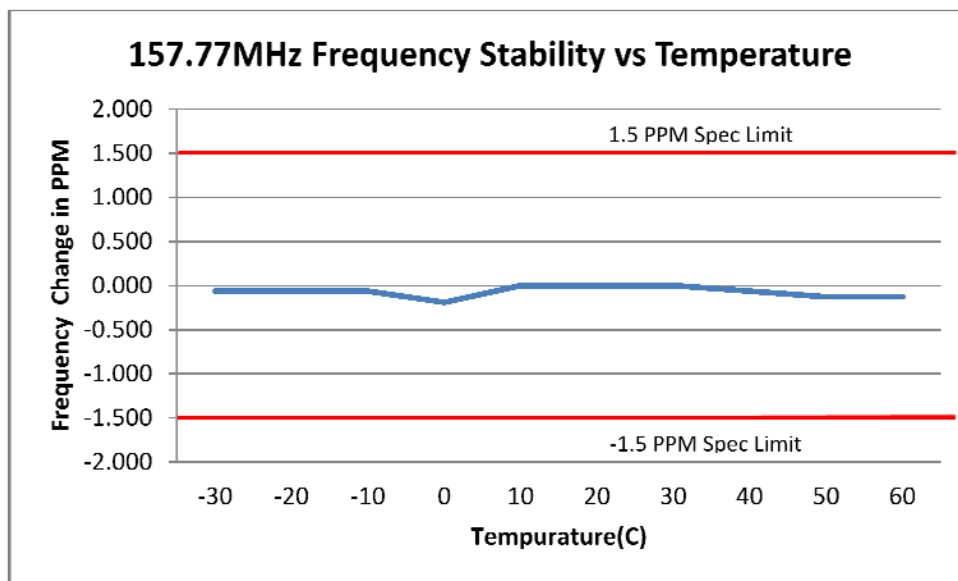
### Marginal Results

Failed Results

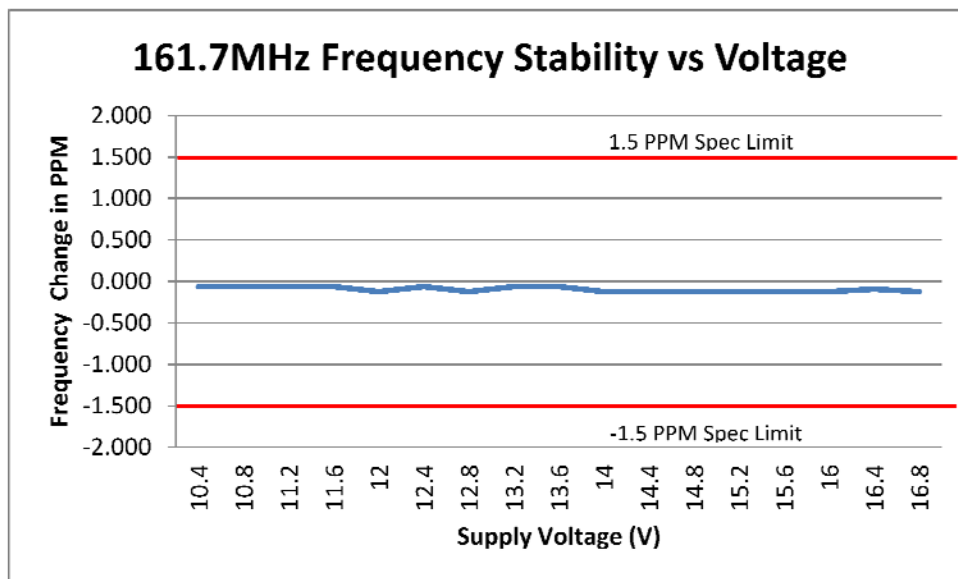
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**EXHIBIT 6H – Frequency Stability**

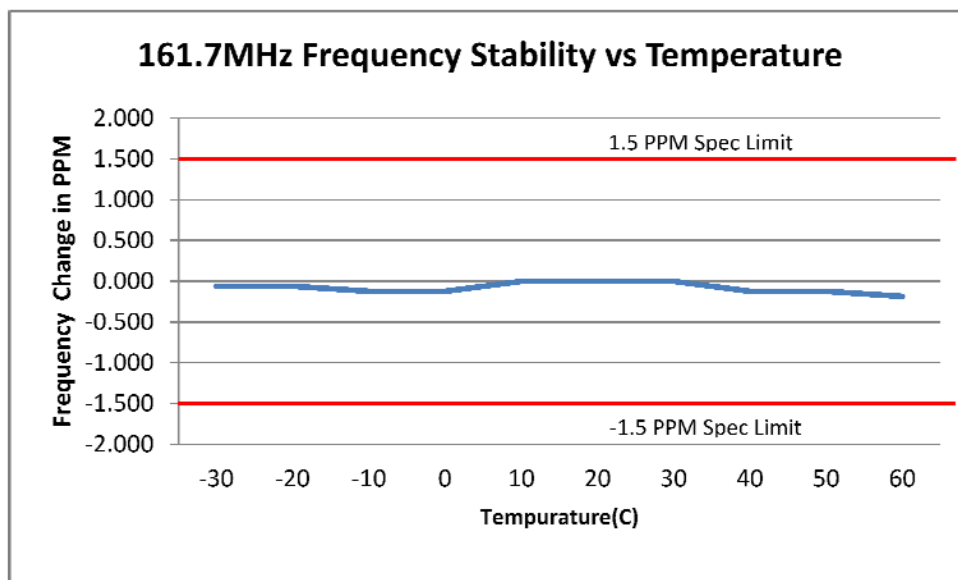
6H-1– 157.77 MHz, Frequency Stability vs Supply Voltage (Part 22 &amp; 80)



6H-2 – 157.77 MHz, Frequency Stability vs Temperature (Part 22 &amp; 80)



6G-3 – 161.7 MHz, Frequency Stability vs TSupply Voltage (Part 74)



6G-4 – 161.7 MHz, Frequency Stability vs Temperature (Part 74)