

## **EXHIBIT VI.**

# Supplemental Test Report For New Certification Of Two Previously Certified OEM Modules

**FCC ID: AZ489FT7001**

**EMERALD Terminal**

Certification Under Part 15.247

Prepared On Behalf Of

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Exhibit VI

## Supplemental Test Report

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**Note:** Please refer to the original Certification exhibits uploaded with this new application for all of the original test report data for the following two Symbol Technologies, Inc. Intentional Radiators:

- 1.) **FCC ID: H9PLA4137**, IEEE 802.11(b), WLAN Compact Flash Card, Model: LA4137 and
- 2.) **FCC ID: H9PCRS1**, Bluetooth, Model: CRS1-10000-00

**EXHIBIT 6A            TEST: CONDUCTED RF POWER OUTPUT**

Applicant: Motorola, Inc.  
 FCC ID:  
 Applicant:  
 Model:

AZ489FT7001  
 Motorola, Inc.  
 F5071A

FCC ID: AZ489FT7001

Minimum Standard Specified: Part 15.247 is 1 Watt

Test Results: The measured output power level on two samples shows compliance with the granted levels of: 0.1 Watt for WLAN and 0.001 Watt for the Bluetooth

Authorization Procedure: Part 2.1046

Nominal Rated Output Power: WLAN 18 dBm conducted DSSS  
 Bluetooth -2 dBm conducted FHSS

**Method of Measurement:**

1. The two output power levels referenced above, had been preset during production for each model.
2. The peak output power was measured with HP438A Power Meter & HP8482H Power Sensor.
3. The measured channels cover the bottom, middle and top of the operational frequency range previously approved for each intentional radiator.

**Tabular Results of Conducted RF Output Power and EIRP**

WLAN S/N 184SCG0205		
Sample 1		
Frequency (GHz)	Power (mW)	Power (dBm)
2.420	36.43	15.61
2.442	41.54	16.18
2.460	35.33	15.48

WLAN S/N 184SBW0578		
Sample 2		
Frequency (GHz)	Power (mW)	Power (dBm)
2.420	39.74	15.99
2.442	42.92	<b>16.33 *</b>
2.460	33.67	15.27

\* max.

The maximum WLAN EIRP (with antenna gain -2 dBi) is 14.44 dBm.

Bluetooth S/N 184SCG0205		
Sample 1		
Frequency (GHz)	Power (mW)	Power (dBm)
2.407	0.57440	-2.41
2.442	0.59340	<b>-2.27*</b>
2.475	0.56702	-2.46

Bluetooth S/N 184SBW0578		
Sample 2		
Frequency (GHz)	Power (mW)	Power (dBm)
2.407	0.44510	-3.52
2.442	0.49717	-3.03
2.475	0.46146	-3.36

\* max.

The maximum Bluetooth EIRP (with antenna gain -2 dBi) is -5.36 dBm.

**EXHIBIT 6G TEST: RADIATED HARMONICS AND SPURIOUS EMISSIONS**

FCC ID: AZ489FT7001  
 Applicant: Motorola, Inc.  
 Model: F5071A

Minimum Standard Specified: Part 15.247

Test Results: Equipment complies with standard

Authorization Procedure: Part 2.1053

Test Equipment Set Up: See Block Diagram in Exhibit 7

Frequency Range Observed: 0 to 24 GHz

Operating Frequencies **WLAN**: 2.420, 2.442, & 2.460 GHz (2412 – 2462 GHz band)

Rated Power Output **WLAN**: 0.1 Watt 18 dBm conducted

<b>WLAN</b>		Ant. Vert/ Horz	Spectrum Analyzer Reading dBuV	+ Ant Factor	- Amp Gain	+ Cable Loss	= dBuV/m	uV/m
FREQUENCY GHz								
Ch. Low	2.420	V	82.83	28.37	22.3	2.6	91.50	37583
Ch. Mid	2.442	V	80.83	28.37	22.3	2.6	89.50	29853
Ch. High	2.460	V	74.17	28.37	22.3	2.6	82.84	13867

<b>WLAN</b>	Frequency in GHz	Harmonics observed	Limit 74 dBuV/m Peak & 54 dBuV/m Average
Ch. Low Fo	2.420		
<b>2Fo - 10Fo</b>	<b>4.840 – 24.200</b>	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m
Ch. Mid Fo	2.442		
<b>2Fo - 10Fo</b>	<b>4.884 – 24.420</b>	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m
Ch. High Fo	2.460		
<b>2Fo - 10Fo</b>	<b>4.920 – 24.600</b>	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m

All harmonic and spurious emissions were below the limit. A few of the lower harmonics were measurable at .5 m but, not a 3 m. An HP preamplifier was used during the measurements of the harmonics. A high pass filter was used to reduce the fundamental signal and avoid the possibility of overloading the front end of the analyzer.

**Test Notes:**

- 1.) All harmonics in the restricted bands listed in Part 15.205 are below the Part 15.209 limit.
- 2.) No peak emissions above 1 GHz are more than 20 dB above the average limit.
- 3.) Peak measurements made with 1 MHz RBW & VBW, Average made with 1MHz RBW & 10 Hz VBW.
- 4.) During preliminary measurements at .5 meter the EUT was measured in 3 mutually orthogonal planes. The worst case found with the EUT on it's right side so this position was used during final test made at 3 meters
- 5.) The EUT was powered with a fresh battery during the testing

**EXHIBIT 6G TEST: RADIATED HARMONICS AND SPURIOUS EMISSIONS**

Applicant: Motorola, Inc.  
 FCC ID:  
 Applicant:  
 Model:

AZ489FT7001  
 Motorola, Inc.  
 F5071A

FCC ID: AZ489FT7001

Minimum Standard Specified: Part 15.247

Test Results: Equipment complies with standard

Authorization Procedure: Part 2.1053

Test Equipment Set Up: See Block Diagram in Exhibit 7

Frequency Range Observed: 0 to 24 GHz

Operating Frequencies **Bluetooth**: 2.407, 2.442, & 2.475 GHz (2402 – 2480 GHz band)

Rated Power Output **Bluetooth**: 0.001 Watt -2 dBm conducted

<b>Bluetooth FREQUENCY GHz</b>	<b>Ant. Vert/ Horz</b>	<b>Analyzer Reading dBuV</b>	<b>+ Ant Factor</b>	<b>- Amp Gain</b>	<b>+ Cable Loss</b>	<b>= dBuV/m</b>	<b>uV/m</b>
Ch. Low 2.407	V	77.67	28.37	22.3	2.6	86.34	20749
Ch. Mid 2.442	V	74.33	28.37	22.3	2.6	81.0	14125
Ch. High 2.475	V	77.33	28.37	22.3	2.6	86.0	19952

<b>Bluetooth</b>	<b>Frequency in GHz</b>	<b>Harmonics observed</b>	<b>Limit 74 dBuV/m Peak &amp; 54 dBuV/m Average</b>
<b>Ch. Low Fo</b>	2.407		
<b>2Fo - 10Fo</b>	4.814 – 24.070	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m
<b>Ch. Mid Fo</b>	2.442		
<b>2Fo - 10Fo</b>	4.884 – 24.420	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m
<b>Ch. High Fo</b>	2.475		
<b>2Fo - 10Fo</b>	4.950 – 24.750	At or < noise floor @3m	All emissions < 54 dBuV/m or 500 uV/m

**All harmonic and spurious emissions were below the noise floor of -115 dBm.** A few of the lower harmonics were visible at .5 m but, not a 3 m. An HP preamplifier was used during the measurements of the harmonics. A high pass filter was used to reduce the fundamental signal and avoid any possibility of overloading the front end of the analyzer.

**Test Notes:**

- 1.) All harmonics in the restricted bands listed in Part 15.205 are below the Part 15.209 limit.
- 2.) No peak emissions above 1 GHz are more than 20 dB above the average limit.
- 3.) Peak measurements made with 1 MHz RBW & VBW, Average made with 1MHz RBW & 10 Hz VBW.
- 4.) During preliminary measurements at .5 m, the EUT was measured in 3 mutually orthogonal planes with the worst case found with the EUT on it's right side. So this position was used during final measurements at 3 meters.
- 5.) The EUT was powered with a fresh battery during the testing.