

EXHIBIT 7

Measurement Procedure & Test Equipment Used

Except where otherwise stated, all measurements are made following the Electronic Industries Association (EIA) Minimum Standard for Portable/Personal Land Mobile Communications FM or PM Equipment 25-1000 MHz-(EIA/TIA-603).

This exhibit presents a brief summary of how the measurements were made, the required limits, and the test equipment used.

The following procedures are presented with this application.

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| 1. | Test Equipment List | <u> x </u> |
| 2. | RF Power Output Data | <u> x </u> |
| 3. | Audio Frequency Response | <u> </u> |
| 4. | Audio Low Pass Filter Response | <u> </u> |
| 5. | Modulation Limiting | <u> </u> |
| 6. | Occupied Bandwidth | <u> </u> |
| 7. | Adjacent Channel Coupled Power Ratio | <u> </u> |
| 8. | Radiated Spurious Emissions | <u> x </u> |
| 9. | 1559-1605MHz Radiated Emissions (GNSS) | <u> </u> |
| 10. | Conducted Spurious Emissions | <u> x </u> |
| 11. | Frequency Stability (Supply Voltage/Temp) | <u> </u> |

Test Equipment List

Measurement Equipment List- Pursuant To FCC Rules 2.947 (d)

No	Equipment	Calibration Date (next due)
1	Computer: DELL Latitude D600 Notebook, Window 2000.	*calibration not required*
2	Spectrum Analyzer: Agilent E4445A, 3 Hz – 13.2 GHz	7 th July 2015
3	Spectrum Analyzer: HP 8560E, 30 Hz - 2.9 GHz	27 th Dec 2014
4	Dynamic Signal Analyzer: HP35665A	13 th February 2015
5	RF Signal Generator: E4420BB, 250 kHz – 2 GHz RF Signal Generator	14 th May 2015
6	Modulation Analyzer. HP 8901B	15 th January 2015
7	Audio Analyzer .HP 8903B	11 th May 2015
8	Power Meter. HP437B. Sensor 80401A	26 nd May 2015
9	Oscilloscope. Phillips PM3382	4 th January 2015
10	Multimeter: Hewlett Packard 34401A	15 th November 2014
11	DC Power Supply: Hewlett Packard 6623A	7 th June 2015
12	Directional Coupler: Hewlett Packard 778D, Dual Directional Coupler	*calibration not required*
13	Temperature Chamber: VOTSCH, VT4010	21 st January 2015
14	30 dB attenuator: MCE/Weinschel, model 33-30-34	*calibration not required*
15	High Pass Filter, Mini-Circuit NHP 300 & 25W	*calibration not required*
16	MCE/Weinschel 1429-4, 50 ohms terminating load	*calibration not required*
17	Microwave Generator, SMP04	23-Mar-15
18	Spectrum Analyzer/ESI Test Receiver, ESIB 40	30-Mar-15
19	Bilog Antenna [30MHz-2GHz], CBL6112B	30-May-15
20	Bilog Antenna [30MHz-2GHz], CBL6112D	28-Dec-14
21	DRG Horn Freq. 700MHz-18GHz, SAS-571	18-Oct-15
22	DRG Horn Freq. 700MHz-18GHz, SAS-571	17-Apr-15
23	Temp/Humidity Monitor, TM 320	12-Jun-15
24	SAC (5m Semi-anechoic Chamber), S800-HX	Dec-14
25	Antenna Positioning Tower (Boresight), TLT2	*calibration not required*
26	System controller, SC104V	*calibration not required*
27	Turntable. Flush Mount 2M, FM2011	*calibration not required*
28	Pre-amplifier, PAM-0118	*calibration not required*

Table 1: List of equipment used

Test Name	FCC Rules Part (47 CFR)	IC Rules
RF Power Output Data	2.1046(a), 2.1033(c)(6), 2.1033(c)(7) and 2.1033(c)(8) 90.545(b)(4) (700MHz) * 22.565(f) (VHF & UHF), * 24.132 (900MHz)	RSS-Gen Sec 4.8, RSS-119 Sec 5.4.1, * RSS 134 (900MHz)
* Audio Frequency Response	2.1047 and 2.1033(c)(13)	-
* Audio Low Pass Filter Response	2.1047	-
* Modulation Limiting	2.1047	-
* Occupied Bandwidth	2.1049, 90.210, 90.691 (800MHz), * 22.359 (b) (VHF & UHF), * 24.133 (900MHz)	RSS GEN Sec 4.6, RSS 119 Sec 5.5, * RSS 134 (900MHz)
* Adjacent Channel Coupled Power Ratio	90.543	RSS 119 Sec 4.3, 5.8.9
Radiated Spurious Emissions	2.1053, 90.210, * 22.359 (a) (VHF & UHF)	RSS GEN Sec 4.9, RSS 119 Sec 4.2, 5.8
* 1559-1610 MHz Radiated Emissions	2.1053, 90.543 (e)	-
Conducted Spurious Emissions	2.1051, 90.210, * 22.359 (a) (VHF & UHF), * 80.211 (c) (VHF)	RSS GEN Sec 6.2, RSS 119, * RSS 182 (VHF)
* Frequency Stability (Supply Voltage/ Temp)	2.1055, 90.213, 90.539 (700MHz)	RSS GEN Sec 4.7, RSS 119 Sec 5.3

Table 2: List of FCC and IC reference

* Note: Not Applicable for this filing

EXHIBIT 7A - RF Output Power

The RF power output is measured with the transmitter adjusted in accordance with the tune-up procedure outlined in Exhibit 10 to give the value of voltage and current as specified in Exhibit 12 as required by 2.1033(c) (8). A 50-ohm RF attenuator of proper power rating was used as a load for making these measurements.

The power measurements are made using an RF power meter and 30dB attenuator.

EXHIBIT 7G - Radiated Spurious Emissions

The site, located at Plantation EMC laboratory is in a region which is reasonably free from RF interference and has been approved by the Commission for Spurious Measurements.

The equipment is placed on the turntable, connected to a dummy RF load and then placed in normal operation using the intended power source. A broadband receiving antenna, located 3 meters from the transmitter-under-test (TUT), picks up any signals radiated from the transmitter and its operation accessories. The antenna is adjustable in height and can be horizontally and vertically polarized. A spectrum analyzer covering the necessary frequency range is used to detect and measure any radiation picked up by the above mentioned receiving antenna.

Method of Measurement:

The equipment is adjusted to obtain peak reading of received signals wherever they occur in the spectrum by:

1. Rotating the transmitter under test.
2. Adjusting the antenna height.

The testing procedure is repeated for both horizontal and vertical polarization of the receiving antenna. Relative signal strength is indicated on the spectrum analyzer connected to the receiving antenna. To obtain actual radiated signal strength for each spurious and harmonic frequency observed, a standard signal generator with calibrated output is connected to a dipole antenna adjusted to that particular frequency. This dipole antenna is substituted for the transmitter under test. The signal generator is adjusted in output level until a reading identical to that obtained with the actual transmitter is observed on the spectrum analyzer. Signal strength is then read directly from the generator. Actual measurements are recorded on the attached graphs.

Note:

RBW setting is adjusted to 100 kHz for spurious emissions below 1 GHz and 1 MHz for spurious emissions above 1 GHz.

EXHIBIT 7I – Conducted Spurious Emissions

The transmitter is terminated into a 50 ohm load and interfaced with a spectrum analyzer which allows the spurious emission level relative to the carrier level to be measured directly. Modulate the transmitter with a 2500 Hz sine wave at an input level 16 dB greater than that required to produce 50% of rated system deviation at 1000 Hz. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier or as high as the state of the art permits except for that region close to the carrier equal to $\pm 250\%$ of the authorized bandwidth.

Note:

RBW setting is adjusted to 100 kHz for spurious emissions below 1 GHz and 1 MHz for spurious emissions above 1 GHz.