Exhibit 7. Measurement Procedures -- *47 CFR. 2.947*

7.1 RF Power -- *Pursuant to 47 CFR 2.947(c)*

7.1.1 Method of Conducted Output Power Measurement Adaptation of TIA/EIA-603 clause 2.2.1 for Pulsed Measurements

The RF output power is controlled by the radio in response to the received signal strength or by or special radio service software. To obtain RF output power data the radio was manually programmed to utilize the maximum RF and minimum RF output power setting. For the power measurement, the antenna was detached from the radio RF connector. This connector was then connected through a 30 dB attenuator to an RF power sensor and power meter.

Due to the TDM pulsing, an average reading power meter will not correctly display the pulse average power, as it must be corrected for the duty cycle of the pulse train. We used the Giga-tronics 8541C Power Meter with 80401A sensor. This power meter has a special mode of operation for this purpose termed "Burst Average Power" (BAP). In this mode, the power meter triggers the measurement on the rising edge of the pulse, samples the RF power during the pulse and displays the pulse average power. When "Pulse Mode" is used at this power meter, a proper duty cycle is entered to the power meter: for 1:6 multiplexing (dispatch mode) a duty cycle of 16.67% is entered, for 1:3 multiplexing duty (interconnect mode) a cycle of 33.34% is entered, for 2:3 multiplexing (packet data mode) a duty cycle of 66.67% is entered.

7.1.2 Method of Measurement for Effective Radiated Power (Proprietary)

Test Site: Hermon Labs, located in Binyamina Israel. Hermon Labs is listed with FCC and Industry Canada as follows:

1. FCC OATS registration number is: 90623
2. FCC Anechoic chamber registration number is: 13040/SIT 1300F2
3. Industry Canada OATS registration number is: IC 2186-1
4. Industry Canada anechoic chamber registration number is: IC 2186-2
5. Accredited by A2LA.

Site address: Rakevet Ind. Zone, PO Box 23, Binyamina 30550, Israel.

The ERP characteristic was measured while a radio was vertically mounted on a non-conducting platform/turntable in a RF Anechoic Chamber. The radio was configured to transmit Quad-16QAM signal at the maximum pulse average power (1.2Watt). The power was received at an antenna distanced 3 meter from the radio. The peak power levels were recorded on a spectrum analyzer for every spatial point by increments of 10 degree for a complete 360-degree rotation of the radio.

The same procedure was repeated for a 900 MHz reference dipole calibrated antenna. The reference dipole was vertically mounted on a non-conducting platform/turntable, at the exact location that the radio was located. The tested radio was configured again to transmit Quad-16QAM signal at the maximum pulse average power (1.2Watt). This time, the radio was connected to the reference dipole instead of the standard antenna. The peak power levels were recorded for every spatial point by increments of 10 degree for a complete 360-degree rotation of the reference antenna. The recorded power levels were compensated for interface, cable, and antenna losses.

Using this "substitution method" the measured peak power levels were compared at every spatial point to scale the maximum RF conducted output power and determine the maximum herein reported ERP.

7.2 Occupied Bandwidth -- *Pursuant to 47 CFR 2.947(b)*

Method of Measurement: Per TIA/EIA-603-1 clause 2.2.11

1) Set the radio for measurement of RF output power using the power test procedure in the service manual, which employs a pseudo random data sequence per part 2.1049(h), and attach it to a spectrum analyzer through a 30 dB attenuator. The analyzer is to be set for peak detection, a span of 100 kHz and a sweep period of 100 seconds.

2) Using a 30 kHz resolution bandwidth to assure that essentially all of the transmitted energy is measured, obtain a "rainbow" curve and adjust the analyzer setting so that the crest of the curve lies at the 0 dB reference location. This is portrayed as trace 1 on the analyzer display.

3) Reduce the resolution bandwidth to 300 Hz to characterize the transmitter emission on-channel and adjacent channels spectral performance characteristic.

4) Overlay the applicable emission mask on the analyzer display as trace 3.

5) Compare traces 3 and 4 to ensure that trace 2 never exceeds trace 4.

6) Repeat step 1 through 5 for maximum and minimum output power settings

7.3 Radiated Spurious Emissions -- *Pursuant to 47 CFR 2.947(b)*

Test Site:

The test site is: Hermon Labs, located in Binyamina Israel. Hermon Labs is listed with FCC and Industry Canada as follows:

1. FCC OATS registration number is: 90623
2. FCC Anechoic chamber registration number is: 13040/SIT 1300F2
3. Industry Canada OATS registration number is: IC 2186-1
4. Industry Canada anechoic chamber registration number is: IC 2186-2
5. Accredited by A2LA.

Site address: Rakevet Ind. Zone, PO Box 23, Binyamina 30550, Israel.
This region is reasonably free from RF interference. The radiated emission testing was performed for minimum and maximum powers in transmit mode.

Method of Measurement: EIA/TIA-603-1 clauses 2.2.12 and 5.2.12

The equipment is placed on the turntable, connected to a dummy RF load (50-Ohm) and placed in normal operation using the intended power source. A broadband-receiving antenna (2–10 GHz), and dipole antennas (for the lower frequencies), located 3 meters from the transmitter picks up any signal radiated from the transmitter and its operation accessories (Charger). The antennas are adjustable in height and can be rotated for horizontal or vertical polarization. A broad band RF amplifier (1–10 GHz) was used to amplify the frequency band above the fundamental frequency. A spectrum analyzer covering the necessary frequency range is used to detect and measure any radiation picked up by the antenna.

The transmitter's modulated pseudo random digital signal is monitored and 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. The highest emission between the vertical and horizontal polarization is reported. Relative signal strength is indicated on the spectrum analyzer connected to this antenna. The spectrum analyzer resolution bandwidth was set to 10kHz for emissions below 1GHz, and 1MHz for higher frequency emissions. To obtain actual radiated signal strength for each spurious and harmonic frequency observed a standard signal generator with calibrated output is connected to an antenna, adjusted to that particular frequency. The signal generator output level is adjusted until a reading identical to that obtained with the actual transmitter is observed on the spectrum analyzer. Signal strength is then derived from the generator and appropriate cable losses due to set up. Spurious mission measurements for maximum and minimum output power settings are recorded in tables in exhibit 6.

7.4 Conducted Spurious Emissions -- *Pursuant to FCC Rule 2.1051*

Method of Measurement: ANSI/TIA/EIA-603-1992 clauses 2.2.13

To obtain conducted spurious emissions data the equipment is connected to a notch filter, which suppress the fundamental frequency. The radio is interfaced with a spectrum analyzer with sufficient dynamic range to permit the spurious emission level relative to the carrier level to be measured directly. Measurements at maximum output power settings are 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 within 50 kHz of the carrier. The spectrum analyzer is set to use a resolution bandwidth of 10 kHz for spurious emissions below 1 GHz, and 1 MHz for higher frequency spurious emissions. The video bandwidth is set to three times the resolution bandwidth for both cases.

7.5 Frequency Stability -- *Pursuant to 47 CFR 2.947(c), 90.213*

Measuring the frequency accuracy of the iDEN time division multiplexed (TDM) transmitter needs special procedures for 3 reasons. First is the short (15 ms.) nature of its TDM pulses, which preclude the use of an ordinary CW type digital frequency counter. Second, software in the radio prevents the radio from transmitting its TDM pulses unless it is receiving a signal on the trunking system control channel. Third, to maintain the very high stability (greater than that required by part 90 rules) needed for system operation, the radio transmitter frequency is controlled by an automatic frequency control loop in the radio's receiver which locks onto the system forward control channel produced by a compatible FCC certified part 90 base station. This process results in electronically adjusting the initial frequency of the reference oscillator in the synthesizer section of the radio, which is used for both transmission and reception.

As a result, unlike traditional transceivers which do not frequency lock to a remote base station reference frequency, the transmitter frequency accuracy is essentially independent of the voltage and temperature induced variations of the subject transceiver’s frequency reference oscillator. Rather, the transceiver frequency stability is that of the remote base station, but degraded by any inaccuracy in the transceiver frequency locking process. This inaccuracy is primarily attributed to reference oscillator AFC resolution.

By locking onto a base station meeting the requirements of *47 CFR 90.213*, which is necessary for the transceiver to function, the transceiver transmitter inherits the inherent 0.1 PPM or better stability of the compatible base station. To assure attainment of the frequency accuracy requirement of 1.5PPM of part 90.213 for this transceiver, the frequency error is measured when locked to a base station simulator.

7.5.1 Frequency error versus temperature

The unit was configured to receive and transmit in the frequencies of 938.48125/899.48125 MHz. A Power Supply was controlled to provide a continuous 5.4VDC to the unit tested. The sense leads from the power supply were attached to the input of the battery eliminator of the unit tested. A Temperature Chamber was used to control a temperature range of –20 degree Celsius to +60 degree Celsius.
At each set point, a soak time of 10 minutes was used to ensure thermal penetration of the unit tested before each measurement of frequency error was taken. A soak time 45 minutes was used at –30 degree Celsius to ensure thermal penetration of the unit tested because of the variance from the starting temperature of +25 degree Celsius. Soak cycles of 10 minutes each thereafter were used because of the fact that the set points were incremented at only 10 degree Celsius.

The measurement was taken by putting the unit tested into a phone call to the Motorola R2660C. The iDEN 3:1 Call Test on the Motorola R2660C was controlled to facilitate the call. Once the call had been established, a Hewlett Packard vector signal analyzer Model 89410A took measurement of the frequency error. After having taken measurement at a specific set point in the temperature range previously specified, the iDEN 3:1 Call test on the Motorola R2660C was terminated. The Temperature Chamber would proceed to its next increment and repeat the test execution process at the end of that particular soak cycle. The process was continued until measurements were made at each of the specified temperatures in the temperature range previously mentioned.

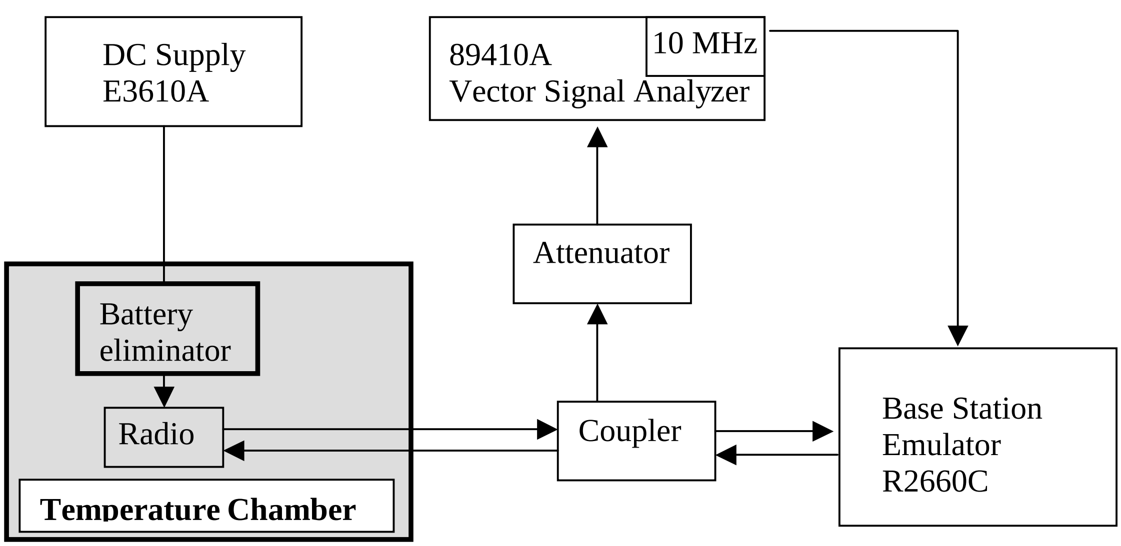
7.5.2 Frequency error versus supply voltage

The unit was configured to receive and transmit in the frequencies of 935.06875 /896.06875 MHz. A Power Supply was controlled to provide a voltage range of 4.6VDC to 6.8VDC to the unit tested. The sense leads from the power supply were attached to the input of the battery eliminator of the unit tested.
The measurements were taken by putting the unit tested into a phone call to the Motorola R2660C. The iDEN 3:1 Call Test on the Motorola R2660C was controlled to facilitate the call.
Once the call had been established, a Hewlett Packard vector signal analyzer Model 89410A took measurement of the frequency error. After having taken a frequency error measurement at 6.8VDC, the Power Supply's output Voltage was reduced by increments of 0.1VDC in the supply Voltage range previously mentioned. The temperature Chamber was neither needed nor used for this test.

Method of Measurement: (Proprietary)

Since the transmitter frequency is locked to the frequency of the compatible base station via the receiver in this transceiver, frequency accuracy data was measured with the transceiver locked onto a base station transmitter emulated by a Motorola R2660C Service Monitor as shown in Figure 7-1. This was done using the QUAD-16QAM time division duplex (TDD) characteristic of the transceiver wherein it was placed into a TDD mode of transmission as normally used to make a call to a landline phone.

Figure 7-1: Transmit Frequency Measurement Setup



During the test the transceiver was receiving a very high accuracy forward control channel frequency signal from the compatible base station emulator R2660C and transmitting a TDD signal on the reverse control channel at a frequency 39 MHz lower corresponding to the normally assigned frequency separation. A Hewlett Packard vector signal analyzer model 89410A was used to measure the center frequency of the emission. The frequency of the transceiver was measured as operating voltage was varied, and compared to the frequency of the assigned channel.

7.6 Power Line Conducted Spurious Emissions -- *Pursuant 47 CFR 15.107*

Test Site:

The test site is: Hermon Labs, located in Binyamina Israel. Hermon Labs is listed with FCC and Industry Canada as follows:

6. FCC OATS registration number is: 90623
7. FCC Anechoic chamber registration number is: 13040/SIT 1300F2
8. Industry Canada OATS registration number is: IC 2186-1
9. Industry Canada anechoic chamber registration number is: IC 2186-2
10. Accredited by A2LA.

Site address: Rakevet Ind. Zone, PO Box 23, Binyamina 30550, Israel.
This region is reasonably free from RF interference. The radiated emission testing was performed for minimum and maximum powers in transmit mode.

Method of Measurement: EIA/TIA-603-1 clauses 2.1.3 and 5.1.3.3

Connect the transceiver to the power line through a line stabilization network LISN. Connect a spectrum analyzer of nominal impedance of 50 Ω to one terminal (“neutral”) of the line stabilization network. The spectrum analyzer is then tuned to search for spurious outputs from 450kHz to 30MHz pursuant *47 CFR 15.107*. Record all spurious outputs found. The spectrum analyzer is then connected to the other terminal (“phase”) of the line stabilization network and record all spurious outputs found. The power line conducted spurious emissions is the largest reading obtained.

7.7 Measurement Equipment List ---- *47 CFR 2.947(d)*

1) Computer: IBM Pentium PC, Window 2000.
2) Spectrum Analyzer: H.P 8563E, 9 kHz-26.5 GHz Spectrum Analyzer.
3) Communications System Analyzer: Motorola R2660C
4) RF Signal Generator: HP 8657B, 0.1 - 2060 MHz RF Signal Generator.
5) Vector Signal Analyzer: Hewlett Packard 89410A
6) Power Meter: Giga-tronics 8541C. Sensor 80401A
7) Multimeter: Hewlett Packard 34401A.
8) DC Power Supply: Hewlett Packard E610A
9) Directional Coupler: Hewlett Packard 778D, Dual Directional Coupler.
10) Temperature Chamber: Themotron, model 2800.
11) R750 radio Battery eliminator: Motorola FEN5951A
12) RS232 data cable, Motorola NKN6522A
13) 30 dB attenuator: narda, model 768-30

Additional equipment used by Hermon Labs. Test Laboratory

14) Double ridged guide antenna, 1 - 18 GHz Electro-Metrics, model: RGA 50/60, Serial No: 28
15) Active Loop Antenna, 10 kHz-30 MHz Electro-Metrics, model: 6502, Serial No: 2857
16) LISN, 16/2, 300 V RMS, Hermon Labs, LISN 16-1, Serial No: 447
17) Anechoic Chamber: 9 (L) x 6.5 (W) x 5.5 (H) m, Hermon Labs, Model AC-1 Serial No: 023
18) Shielded Room: 3 (L) x 3 (W) x 2.4 (H) m, Hermon Labs, Model SR-1, Serial No: 024
19) Spectrum Analyzer with RF filter section (EMI Receiver 9 kHz - 6.5 GHz), Hewlett Packard, 8546A
20) Antenna Biconilog Log-Periodic/T Bow-Tie, 26 - 2000 MHz, EMCO 3141, Serial No: 9611-1011
21) Transient limiter, Hewlett Packard, 11947A-8ZE, Serial No: 3107A01877
22) N-type connectors, inside anechoic chamber Hermon Labs, Model C214-7 Serial No: 151
23) N-type connectors, outside anechoic chamber, Hermon Labs, Model C214-8, Serial No: 152
24) Cable coaxial, RG-58, 8, Hermon Labs Model C58-8, Serial No: 153
25) EMI receiver, 9 kHz – 2.9 GHz, Agilent Technologies, Model 8542E
26) Standard dipole: Electro-metrics, Serial No: 334, model No: TDS-30-2 Gain@900MHz 1.68 dB.