EXHIBIT 10

GENERAL MEASUREMENT INFORMATION

This exhibit describes the test equipment used to perform the measurements required to obtain a Certification grant of equipment authorization, presents a general measurement set-up, and discusses the amplitude calibration performed to ensure accurate results, for measurements of RF output power, occupied bandwidth, conducted spurious emissions, and frequency stability. A description of the measurement of field strength of radiated emissions and equipment used is detailed in Exhibit 14.

The primary test equipment used for all but measurements of field strength of radiated emissions is described in the following list. Details, including serial numbers and calibration dates, are presented in Table E10.1:

- HP437B Average Power Meter with HP8481A Power Sensor (for calibrations)
- HP83752A Signal Generator (for calibrations)
- HP8563E Spectrum Analyzer, with High Stability Time Base and Frequency Counter Options
- Racal 6103E Digital Radio Test Set
- Personal Computer (Dell) to acquire (using HP VEE), process and present results

Table E10.1. Test equipment used to perform required measurements.

Make	Model	Serial Number	Asset	Last Cal	Cal Due
HP	437B	3125U23747	A01585	24MAR00	24MAR01
HP	8481A	3318A98542	A01591	29MAR00	29MAR01
HP	8563E	3626A05388	A01569	22MAR00	22MAR01
HP	83752A	3610A00851	A00679	11APR00	11APR01
FLUKE	79	61200710	A00160	24MAR00	24MAR01
EXTECH TEMP SENSE	40132K	93104162	A01597	30MAR00	30MAR01
RACAL	6103E	2601	A07791	10DEC99	10DEC00
TENNY JR	TEMP OVEN	10358-98R	A00369	NA	NA
INMET	18S100W-20	20 dB ATTEN	NA	NA	NA
LAMBDA	LLS7040	DC SUPPLY	A00167	NA	NA

General Measurement Set-up

A composite diagram representing the equipment set-up used during measurements of RF output power, occupied bandwidth, conducted spurious emissions (including emissions bandwidth), and frequency stability is presented as Figure E10.1. The RF port of the Eagle II is connected to both an HP8563E Spectrum Analyzer and a Racal 6103E Digital Radio Test Set. The 20 dB pad prevents the Eagle II RF output from overloading the front-end of either the HP8563E Spectrum Analyzer or Racal 6103E.

Measurements of RF output power, occupied and emissions bandwidth, and conducted emissions were performed using the HP8563E. A second PC was used to configure and control the Eagle II for all measurements (to select transmit channel, RF output power level, operating modes, and so forth). Also during frequency stability measurements a Lambda DC supply was used to vary the DC input level to the Eagle II during measurements of frequency stability.

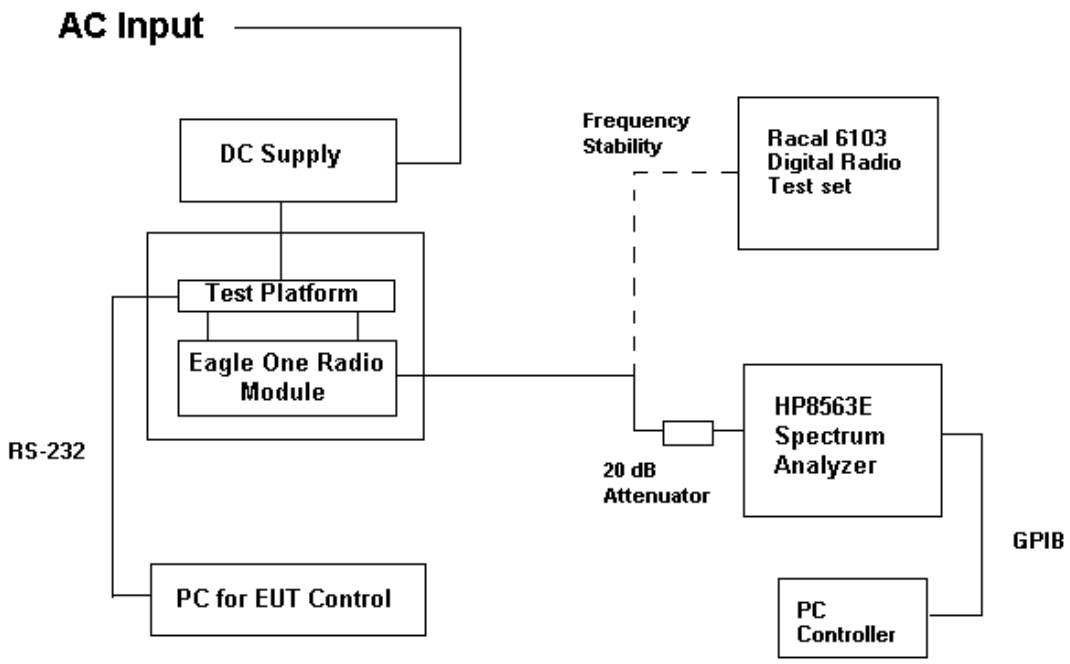

Figure E10.1. General Measurement Set-up (for all but radiated spurious emissions).

Amplitude Calibration of the Measurement System

Because measurements of peak output power (§ 2.1046) and conducted spurious emissions (§ 2.1051) are made absolutely, characterization of diagnostic system signal path (RF cables, splitter, attenuator) loss between the RF output connector of the Eagle II and the input port of the HP8563E Spectrum Analyzer is necessary prior to making these measurements. For output power measurements, this loss was characterized at the center frequency of each channel at which these measurements were made. In the case of conducted spurious emissions, losses were measured at the center of each span throughout the frequency ranges given in Table E10.2. Separate calibrations were performed for correcting measurements made beyond the lower and upper edge of each of the six PCS license blocks (A – F). Measured path loss data was stored and used to correct all subsequent output power and conducted spurious emissions measurements.

Table E10.2. Diagnostic system loss measurements—frequency ranges and spans.

Frequency Range	Span
10 MHz – 1810 MHz	300 MHz
1810 MHz – 5 MHz below license lower edge	35 to 95 MHz (block dependent)
5 MHz below to 5 MHz beyond license edge	1 MHz
5 MHz beyond license edge – 2000 MHz	130 – 85 MHz (block dependent)
2000 MHz – 20 GHz	300 MHz