

Exhibit 14**SECTION 2.989****MEASUREMENT OF OCCUPIED BANDWIDTH**

The occupied bandwidth of the **FCC ID: AS5CMP-27** ICLA was measured using a Rohde & Schwarz ESMI EMI Test Receiver and a HP Model 7470A Plotter. The RF power level was measured and adjusted via the test setup in Figure 14A. The RF output from the transmitter was reduced (to an amplitude usable by the spectrum analyzer) by using a calibrated attenuator. This attenuation was offset on the display and the signal adjusted to the -16.1 dBc level corresponding to the corrected RF power level for a 30 kHz resolution bandwidth. The power calibration was verified for a 1.25 MHz resolution bandwidth which corresponds to the top of the display.

The frequencies and channels used are tabulated on the bottom of each plot. Input and output signals are plotted at each frequency/ channel. Plots are provided for Left Edge, Center and Right Edge of each PCS Block. These frequencies were chosen to show the occupied bandwidth in the channels in each of the PCS Blocks in which this radio can be operated, in compliance with Section 24.229 and 24.238 (c) of the Commission code. There are no SAT or Wide band data signals associated with CDMA. The signal used to show the occupied bandwidth is defined in table 14.1. This is the signal recommended in ANSI-J-STD-008 Section 3.1.4. The power output level was adjusted to provide the documented power levels at the bottom of each chart.

Type	Number of Channels	Fraction of Power (Linear)	Fraction of Power (dB)	Comments
Pilot	1	0.2000	-7.0	Walsh 0
Sync	1	0.0471	-13.3	Walsh 32, always 1/8 rate
Paging	1	0.1882	-7.3	Walsh 1, full rate only
Traffic	6	0.09412 each	-10.3 each	Variable Walsh Assignments, full rate only

TABLE 14.1 Base Station Test Model, Nominal

Exhibit 14 continued

The minimum standard presented in ANSI-J-STD-008 Section 4.5.1.3.1 was followed.

“Suppression Inside the Licensee’s Frequency Block(s)”

For all frequencies within the base station transmit band of 1930.000 to 1990.000 MHz that are within the specific block(s) allocated to the operator's system, the total conducted spurious emissions in any 30kHz band greater than 885 kHz for the CDMA channel center frequency shall not exceed a level of -45 dBc....

Measurement at a Resolution Bandwidth of 30 kHz is based on our experience with Section 24.238 of The Code and lacking other guidance.

The spectrum analysis output plot shows the peak of the CDMA channel signal 16.1 dB below the zero line of the spectrum analyzer for the following reason: For the CDMA system there is no carrier without modulation. The following relationship was used to provide the correct level for an unmodulated carrier vs. the modulated signal.

$$10 \cdot \log (\text{Resolution Bandwidth} / \text{Transmit Bandwidth}) = \text{Signal Offset} \quad (1)$$

For the peak of the CDMA signal measured with a resolution bandwidth of 30 kHz the signal offset is:

$$\text{Signal Offset} = 10 \cdot \log (30 \text{ kHz} / 1.25 \text{ MHz}) = -16.1 \text{ dB}$$

“Suppression outside the Licensee’s Frequency Block(s)”

In order to depict the tolerance lines that are required by Sec 24.238 of the FCC Rules and ANSI J-STD-008, all measurements were made with a resolution bandwidth of 30 kHz and the limits were adjusted using equation (1). An average detector was employed using minimum of 10 sweeps per trace.

All of the tolerance lines are referenced to the top line of the spectrum analyzer reticle, which is defined as zero dBc. For all measurements of the ICLA's Occupied Bandwidth the output power was measured / adjusted to the 12 W level and is the 40.8 dBm value at the 0 dBc reference line.

Figure 14-B shows the plot of PCS channel 1175 which is the block edge for Block C and the band edge for the PCS band. The top of the CDMA signal is shown at -16.1 dBc. Based on equation 1, and the ratio of the 1.25 MHz bandwidth and the 30 kHz resolution bandwidth of the spectrum analyzer. The vertical line from a to b (i.e. a-b) is at 885 kHz from the center of channel 1175, per ANSI J-STD-008. The horizontal line b-c is 45 dB below the 0 dBc reference level. The vertical line c-d is at 1.25 MHz from the center of the channel. The placement of line d-e is derived from evaluation of the signal and 12.5 kHz resolution bandwidth, using the suggested value in section 24.238 of the rules. The ratio of 30 kHz to 12.5 kHz in equation (1) gives 3.8 dB. Adjusting the tolerance line to reflect this difference puts the -13 dBm limit line at -9.2 dBm or -50 dBc below the reference line. The vertical line, e-f is at 2.25 MHz from the center of channel 1175. The horizontal line f-g is drawn at 69 dB below the 0db reference because the rules require a 1MHz resolution bandwidth for measurements 1 MHz or greater outside the PCS band. Again, equation (1) and the ratio of 1 MHz to 1.25 MHz provides this value. The same logic was used in determining the other block and band edge tolerances.

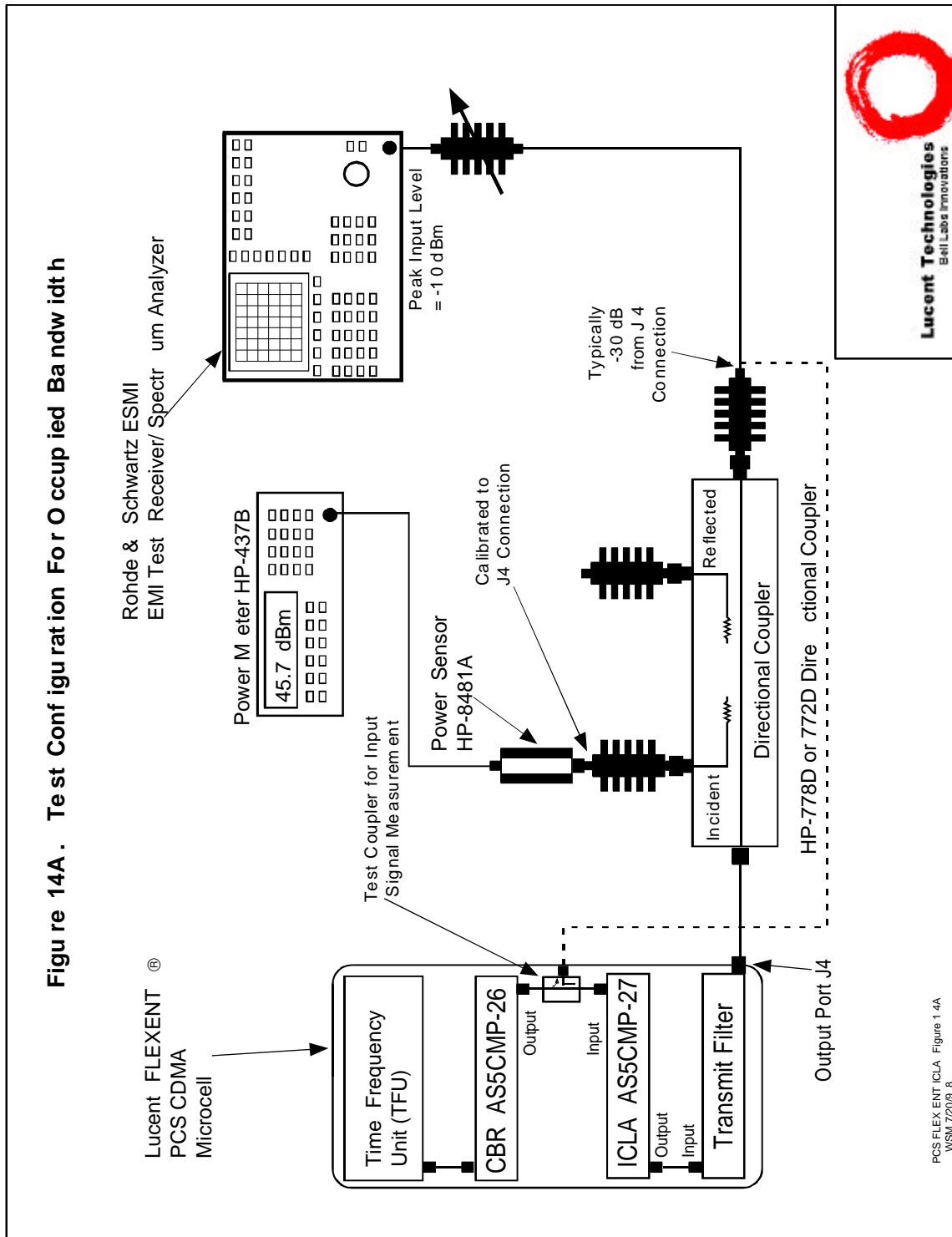


Exhibit 14**Measurement Equipment used in Figure 14A For Measurement of Occupied Bandwidth**

OM : Oscillator Module, 15 MHz
CBR: CDMA Baseband Radio (FCC ID: AS5CMP-26)
ICLA: Individual Channel Linear Amplifier (FCC ID: AS5CMP-27)
Transmit Filter: PCS Block Transmit Filter appropriate for the investigated Block
Directional Coupler: HP 778D Dual Directional Coupler
Power Meter: HP 437B with HP 8481A Power Head
Plotter: HP Model 7470A Plotter
Spectrum Analyzer: Rohde & Schwarz ESMI EMI Test Receiver

RESULTS: The following exhibits illustrate the spectrums investigated and document compliance.

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Exhibit 14 continued

Figure 14B Occupied Bandwidth Mask

