EXHIBIT 15

Section 2.1047 Measurements Required: Modulation Characteristics

The TDMA modulation utilized by the PCS-TDMA Dual Radio Module (PDRM), 44WR53, is the standard $\pi/4$ differentially encoded quadrature phase shift keying ($\pi/4$ DQPSK). The modulation accuracy measurements were performed with all 3 TDMA time slots modulated with a pseudo-random bit stream. Measurements were made at the PDRM output terminal on the backplane, with PDRM tuned to 1) the lowest settable PCS channel: A-Block Ch 2 1930.08 MHz, 2) mid PCS Band: B-Block Ch 917 1957.53 MHz, and 3) the highest settable PCS channel: C-Block Ch 1998 1989.96 MHz. The required modulation accuracy is specified in TIA/EIA/IS-138-A, July 1996, Section 3.3.2 Digital and in ANSI J-STD-010-1996, Section 3.3 Modulation Requirements. The "minimum standard", or limitation, is stated that the RMS error vector magnitude shall be less than 12.5%.

Measurements were made with a Rohde & Schwarz Spectrum Analyzer 20 Hz to 26.5 GHz FSEM, Model 1079.8500.30, calibrated as required for ISO-9001 compliance. The measurement results and test set-up block diagram are included.

RESULTS:

The measurement data below demonstrates that the PCS-TDMA Dual Radio Module (PDRM), 44WR53, is in full compliance with the modulation accuracy requirements specified in TIA/EIA/IS-138-A and in ANSI J-STD-010-1996. The error vector magnitude is less than 12.5% across the PCS Frequency Band 1930.08 – 1989.96 MHz.

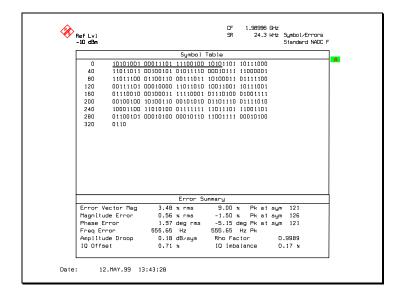
RefLvi -10 dBm				DF SR			Symbol∕Errors Standard NADC F	
			Symbo l	Table				1
0	10101001	00011101	11100100	10101101	1001000	10		A
40	11111100	01100001	00010001	10011101	1001100	10		
80	11101100	11100100	01010010	01000011	110100	1		
120	10000100	10000000	11000010	11011000	1010010	0		
160	00001111	00100011	11110001	11110100	011101	1		
200				10001001				
240				11010001				
280		11001100	11001111	01101110	0001010	10		
320	0110							
			Error Su					1
	Vector Mag		% rms	8.84		ıt syr		
	tude Error			1.30		it syn		
	Error		deg rms		deg Pk a	it syn	n 58	
	Error		Hz			_		
	tude Droop			Rho Fa			.9987	
IQ Of	fset	0.50	×	IQ Imb	alance).15 ×	
	12.MAY.99 1		*	I W I III U	a rance		,,,,,, ,,	

Modulation Accuracy: PCS-TDMA Dual Radio Module (PDRM), 44WR53, output tuned to A-Block Channel 2, 1930.08 MHz Error Vector Magnitude = 3.37% rms

EXHIBIT 15

Ref Lv1 -10 dBr				SR	24.3		Symbol∕Errors Standard NADC f
			Symbol	Table			
0	10101001	00011101	11100100	10101001	01100101		
40	01100001	00101011	00110110	11110110	00000101		
80	10011100	10100001	00101010	10000100	00011101		
120	10100100	10001100	01011101	10001100	00001000		
160		00100011					
200		00101110					
240		00011011					
280 320	00110101	11011001	11001111	01111101	00010100		
			Error Si	ummary			
Error	Vector Mag	3.46	% rms	9.02 :	x Pkat	sym	127
	tude Error	0.49	% rms	1.09			
Phase	Error	1.97	deg rms		deg Pkat	sym	127
Freq	Freq Error		Hz	546.37	Hz Pk		
Amp I	Amplitude Droop		dB∕sym	Rho Fac	ctor	0.	.9989
IQ Of	fset	0.70	*	IO Imba	alance	0.	.05 %

Modulation Accuracy: PCS-TDMA Dual Radio Module (PDRM), 44WR53, output tuned to B-Block Channel 917, 1957.53 MHz Error Vector Magnitude = 3.46% rms



Modulation Accuracy: PCS-TDMA Dual Radio Module (PDRM), 44WR53, output tuned to C-Block Channel 2, 1989.96 MHz Error Vector Magnitude = 3.48% rms

EXHIBIT 15

Test set-up for measuring the modulation accuracy of the PCS-TDMA Dual Radio Module transceiver.

FLEXENT™ PCS-TDMA Microcell J41698A-1

