

EXHIBIT 18

TEST INSTRUMENTATION LIST

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Manufacturer	Model Number	Serial Number	Description	Last Calibrated mm/dd/yy	Cal Cycle Month
Rohde & Schwarz	FSEK	826939/013	Spectrum Analyzer	8/27/98	12
HP	437B	3125U24227	Power Meter	5/19/98	12
HP	778D	N/A	Dual Directional Coupler	8/18/98	12
Pasternack	PE7019-20	N/A	50 W Attenuator	N/A	N/A
Pasternack	PE7019-30	N/A	50 W Attenuator	N/A	N/A
Eaton	96002	2436	Biconical Antenna	08/31/98	12
Electro-Metrics	EM-2135/EMC-60	44174	Test Receiver	5/13/98	12
EMCO	3146	9509-4165	Log-Periodic Antenna	7/16/98	12
Rohde & Schwarz	ESVP	879807/049	Test Receiver	8/10/98	12
Rohde & Schwarz	EPM	883613/014	Panorama Monitor	N/A	N/A
EMCO	3115	9006-3460	Double Ridged Horn 1-18 Ghz	5/26/98	12
Advantest	R3465	J002413	Spectrum Analyzer	5/16/98	12
Rohde & Schwarz	ADS-B1	DE12118	Arbitrary Waveform Generator	11/10/98	12
HP	HP66000A w/HP66103A	3409A-00950	Power Supplies	8/29/98	12
Rohde & Schwarz	SMHU58	846421/023	Signal Generator	10/22/98	12
Rohde & Schwarz	NRVD	DE14969	Power Meter	4/28/98	12
Rohde & Schwarz	NRVZ5	841892/023	Power Sensor	6/23/98	12
Ball Efratom	WP-92066L5	5542	Rubidium Oscillator	N/A*	N/A
Advantest	R3465	J003392	Spectrum Analyzer	1/1/99	12
HP	58503	3710A01153	GPS Frequency Reference	N/A	N/A

			Receiver		
HP	437	3125U24743	Power Meter	4/24/98	12
HP	8482A	US37291097	Power Sensor	6/3/98	12
HP	53132A	3705A3344	Frequency Counter	5/20/98	12

* Calibrated before use.