

**EXHIBIT 6**

**Report of Measurements**

**Para. 2.1033(b)(6)**



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

APPLICANT	MANUFACTURER
Mitsuboshi Boeki 649 Gotham Parkway Carlstadt, NJ 07072	Fomotech International Corporation 2F-1, 286-3, Hsin Ya Road Chein Chen District, Kaohsing, Taiwan

TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C, Para. 15.231

TEST PROCEDURE: ANSI C63.4:1992

**TEST SAMPLE DESCRIPTION**

BRANDNAME: Mitsuboshi Boeki MODEL: Alpha 560

TYPE: 301.4 MHz Low Power Remote Control Transmitter

POWER REQUIREMENTS: 4.5 VDC derived from (3) 1.5 VDC "AA" Batteries

FREQUENCY OF OPERATION: 301.4 MHz

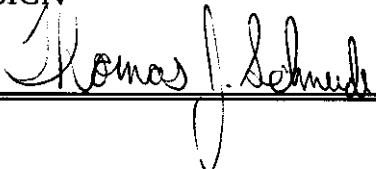
**TESTS PERFORMED**

Para. 15.231(b), Radiated Emissions, Fundamental and Harmonics

Para. 15.231(c), Occupied Bandwidth

I HEREBY CERTIFY THAT: The measurements shown here were in accordance with the procedure indicated and that the energy emitted by this equipment was found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements and vouch for the qualifications of all persons taking them.

I FURTHER CERTIFY THAT: On the basis of the measurements made, the device tested is capable of operation in compliance with the requirements of Part 15 of the FCC Rules under normal use and maintenance.

SIGN	PRINT	TITLE
	Thomas J. Schneider	EMC Test Engineer



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

## REPORT OF MEASUREMENTS

Applicant: Mitsubishi Boeki  
Device: 301.4 MHz Low Power Remote Control Transmitter  
FCC ID: OFS506SERIES  
Power Requirements: 4.5 VDC derived from (3) 1.5 VDC "AA" Batteries  
Applicable Rule Section: Part 15, Subpart C, Section 15.231

### TEST RESULTS

15.231 (a) - The device is used for industrial remote control/security applications (ie: remote control of cranes, hoists, trolleys, etc.)

15.231 (a)(1) & -  
15.231(2) The transmitter is manually operated and ceases transmission within 5 seconds after deactivation.

15.231 (a)(3) - The transmitter does not perform periodic transmissions.

15.231 (a)(4)- The device is employed for RC purposes involving security as described in Paragraph 15.231(a) above.

15.231 (b) - The fundamental field strength did not exceed  $5546 \mu\text{V/M}$  (Average) at a test distance of 3 meters. In addition, the requirements of section 15.35 for averaging pulsed emissions and for limiting peak emissions were met. The field strength of harmonic and spurious emissions did not exceed  $546 \mu\text{V/M}$  (AVERAGE).

15.231 (c) - The device operates at 301.4 MHz. The bandwidth of emissions did not exceed 0.25% of the operating frequency (752.7Hz).



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

## REPORT OF MEASUREMENTS (continued)

### DETERMINATION OF FIELD STRENGTH LIMITS

The field strength limits shown below are found in Section 15.231.

Frequency	Limit
F1 = 260	3750 = L1
Fo = 301.4	Lo
F2 = 470	12500 = L2

The formula below was utilized to determine the limits:

$$\text{Limit} = L1 + [(Fo-F1)(L2-L1)/(F2-F1)]$$

Solving yields:

Fundamental Limit = 5,460  $\mu$ V/M (AVERAGE) @ 3 Meters

Harmonic Limit = 546  $\mu$ V/M (AVERAGE) @ 3 Meters

### DETERMINATION OF DUTY CYCLE

The unit's RF output was directly coupled to the input of the spectrum analyzer. The analyzer was set for a frequency span of 0Hz. The sweep time was then adjusted in order to display one full pulse train. The transmitter on time was then summed and compared to the time for one full cycle in order to obtain the duty cycle.

Transmitter On Time	=	>100.0 milliseconds (maximum- worst case in 100 ms)
Transmitter Cycle Time	=	>100 milliseconds
Transmitter Duty Cycle	=	100 %

### SPECTRUM ANALYZER DESENSITIZATION CONSIDERATIONS

NOT APPLICABLE - The device transmits a Continuous Wave (CW) signal.



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

## GENERAL NOTES

1. All readings were taken utilizing a peak detector function at a test distance of 3 meters.
2. The duty cycle was applied to the peak readings in order to determine the average value of the emissions.
3. All measurements were made with (3) new 1.5 VDC "AA" batteries installed in the unit.
4. The frequency range was scanned from 30 MHz to 3.1 GHz . All emissions not reported were more than 20 dB below the specified limit.



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

Exhibit 6  
Report of Measurements  
Radiated Emissions Data, Para. 15.231(a)



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

<b>Test Method:</b>		FCC Part 15 Subpart C Radiated Emissions Paragraph 15.231(b)							
<b>Customer:</b>		Mitsuboshi Boeki, Inc			<b>Job No.</b>	R-8027			
<b>Test Sample:</b>		Remote Control Transmitter			<b>FCC ID:</b>				
<b>Model No.:</b>		Alpha 560			<b>Serial No.</b>	00500056			
<b>Operating Mode:</b>		Continuously Transmitter 301.4 Mhz Signal							
<b>Technician:</b>		Dennis Cortes		<b>Date:</b>	March 31, 1999				
<b>Notes:</b>		Test Distance: 3 Meters		Temp: 20C Humidity: 18%					
		Detector: Peak		Duty Cycle: 100%					
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit		
Mhz	(V/H) / Degrees	X / Y / Z	dBuv	dB	dBuV/m	uV/m	uV/m		
301.4	H / 1.0	X	61.8	-4.3	57.5	749.9	5460		
301.4	H / 1.0	Y	73.0	-4.3	68.7	2722.7	5460		
301.4	H / 1.0	Z	73.7	-4.3	69.4	2951.2	5460		
301.4	V / 1.4	X	72.3	-4.3	68.0	2511.9	5460		
301.4	V / 1.0	Y	62.1	-4.3	57.8	776.2	5460		
301.4	V / 1.0	Z	63.0	-4.3	58.7	861.0	5460		
602.9	H / 1.0	X	31.0	2.5	33.5	47.3	546		
602.9	H / 1.0	Y	37.9	2.5	40.4	104.7	546		
602.9	H / 1.3	Z	37.1	2.5	39.6	95.5	546		
602.9	V / 1.5	X	37.5	2.5	40.0	100.0	546		
602.9	V / 1.5	Y	32.8	2.5	35.3	58.2	546		
602.9	V / 1.2	Z	32.7	2.5	35.2	57.5	546		
904.4	H / 1.0	X	26.3	7.2	33.5	*47.3	546		
904.4	H / 1.0	Y	26.3	7.2	33.5	*47.3	546		
904.4	H / 1.0	Z	26.3	7.2	33.5	*47.3	546		
904.4	V / 1.0	X	26.3	7.2	33.5	*47.3	546		
904.4	V / 1.0	Y	26.3	7.2	33.5	*47.3	546		
904.4	V / 1.0	Z	26.3	7.2	33.5	*47.3	546		
1205.9	H / 1.0	X	45.0	-3.9	41.1	113.5	500		
1205.9	H / 1.1	Y	44.8	-3.9	40.9	110.9	500		
1205.9	H / 1.0	Z	45.1	-3.9	41.2	114.8	500		
1205.9	V / 1.0	X	46.1	-3.9	42.2	128.8	500		
1205.9	V / 1.0	Y	46.8	-3.9	42.9	139.6	500		
1205.9	V / 1.5	Z	45.6	-3.9	41.7	121.6	500		
1507.3	H / 1.0	X	42.4	-1.3	41.1	*113.5	500		
1507.3	H / 1.0	Y	42.4	-1.3	41.1	*113.5	500		
1507.3	H / 1.0	Z	42.4	-1.3	41.1	*113.5	500		
1507.3	V / 1.0	X	42.4	-1.3	41.1	*113.5	500		
1507.3	V / 1.0	Y	42.4	-1.3	41.1	*113.5	500		
1507.3	V / 1.0	Z	42.4	-1.3	41.1	*113.5	500		
The frequency range was scanned from 30 Mhz to 3.1 Ghz. All emissions not recorded were more than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.									
*=Noise Floor Measurements ( Minimum system sensitivity)									

<b>Test Method:</b>		FCC Part 15 Subpart C Radiated Emissions Paragraph 15.231(b)					
<b>Customer:</b>		Mitsuboshi Boeki, Inc			<b>Job No.</b>	R-8027	
<b>Test Sample:</b>		Remote Control Transmitter			<b>FCC ID:</b>		
<b>Model No.:</b>		Alpha 560			<b>Serial No.</b>	00500056	
<b>Operating Mode:</b>		Continuously Transmitter 301.4 Mhz Signal					
<b>Technician:</b>		Dennis Cortes			<b>Date:</b>	March 31,1999	
<b>Notes:</b>		Test Distance: 3 Meters      Temp: 20C    Humidity: 18% Detector: Peak      Duty Cycle: 100%					
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
Mhz	(V/H) / Degrees	X / Y / Z	dBuv	dB	dBuV/m	UV/m	uV/m
1808.8	H / 1.0	X	42.8	1.5	44.3	*164.1	546
1808.8	H / 1.0	Y	42.8	1.5	44.3	*164.1	546
1808.8	H / 1.0	Z	42.8	1.5	44.3	*164.1	546
1808.8	V / 1.0	X	42.8	1.5	44.3	*164.1	546
1808.8	V / 1.0	Y	42.8	1.5	44.3	*164.1	546
1808.8	V / 1.0	Z	42.8	1.5	44.3	*164.1	546
2110.3	H / 1.0	X	42.7	-1.4	41.3	*116.1	546
2110.3	H / 1.0	Y	42.7	-1.4	41.3	*116.1	546
2110.3	H / 1.0	Z	42.7	-1.4	41.3	*116.1	546
2110.3	V / 1.0	X	42.7	-1.4	41.3	*116.1	546
2110.3	V / 1.0	Y	42.7	-1.4	41.3	*116.1	546
2110.3	V / 1.0	Z	42.7	-1.4	41.3	*116.1	546
2411.8	H / 1.0	X	42.6	-0.3	42.3	*130.3	546
2411.8	H / 1.0	Y	42.6	-0.3	42.3	*130.3	546
2411.8	H / 1.0	Z	42.6	-0.3	42.3	*130.3	546
2411.8	V / 1.0	X	42.6	-0.3	42.3	*130.3	546
2411.8	V / 1.0	Y	42.6	-0.3	42.3	*130.3	546
2411.8	V / 1.0	Z	42.6	-0.3	42.3	*130.3	546
2713.2	H / 1.0	X	42.8	0.9	43.7	*153.1	500
2713.2	H / 1.0	Y	42.8	0.9	43.7	*153.1	500
2713.2	H / 1.0	Z	42.8	0.9	43.7	*153.1	500
2713.2	V / 1.0	X	42.8	0.9	43.7	*153.1	500
2713.2	V / 1.0	Y	42.8	0.9	43.7	*153.1	500
2713.2	V / 1.0	Z	42.8	0.9	43.7	*153.1	500
3014.7	H / 1.0	X	42.9	3.1	46.0	*199.5	546
3014.7	H / 1.0	Y	42.9	3.1	46.0	*199.5	546
3014.7	H / 1.0	Z	42.9	3.1	46.0	*199.5	546
3014.7	V / 1.0	X	42.9	3.1	46.0	*199.5	546
3014.7	V / 1.0	Y	42.9	3.1	46.0	*199.5	546
3014.7	V / 1.0	Z	42.9	3.1	46.0	*199.5	546
The frequency range was scanned from 30 Mhz to 3.1 Ghz. All emissions not recorded were more than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.							
* = Noise Floor Measurements ( Minimum system sensitivity)							

**Exhibit 6**

**Report of Measurements**

**Occupied Bandwidth, Para. 15.231(c)**

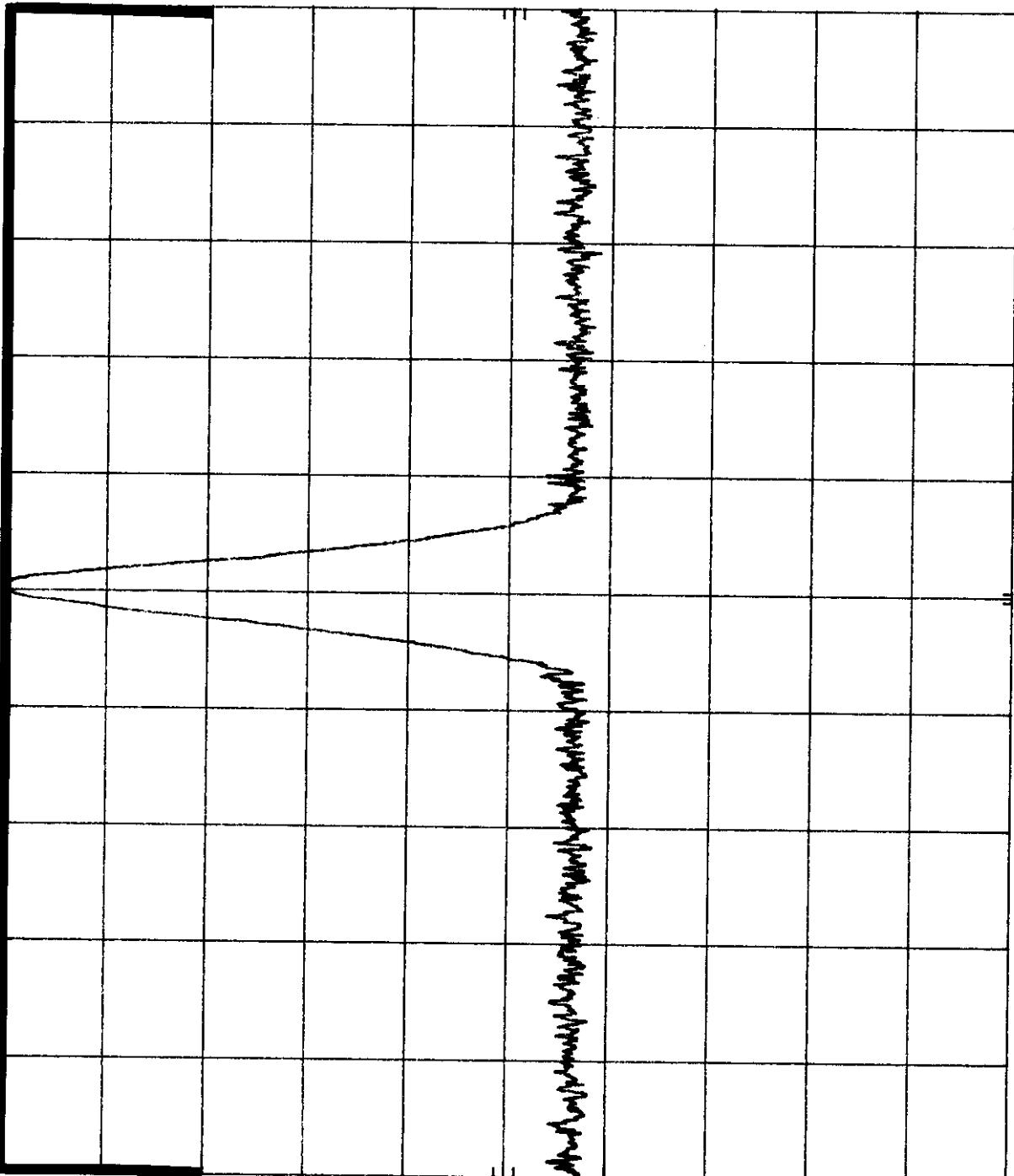


**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

R-8027 OCC BW 3/31/99 DC  
REF 72.8 dBµV ATTEN 10 dB

10 dB/  
hp



CENTER 301.480 MHz  
RES BW 10 kHz  
VBW 30 kHz  
SPAN 754 kHz  
SWP 30.0 msec

Customer:  
Test Sample:  
Model No.:  
Test Method:  
Notes:

Mitsubishi Boeki  
Pulsed RF Transmitter  
Alpha 560 FCC ID: OFS506SERIES  
FCC 15.231(c) Occupied Bandwidth  
The Bandwidth of the emission is not greater than .25% of the center frequency 20dB down from the modulated carrier

Date: 3/31/99

Tech: Dennis Cortes

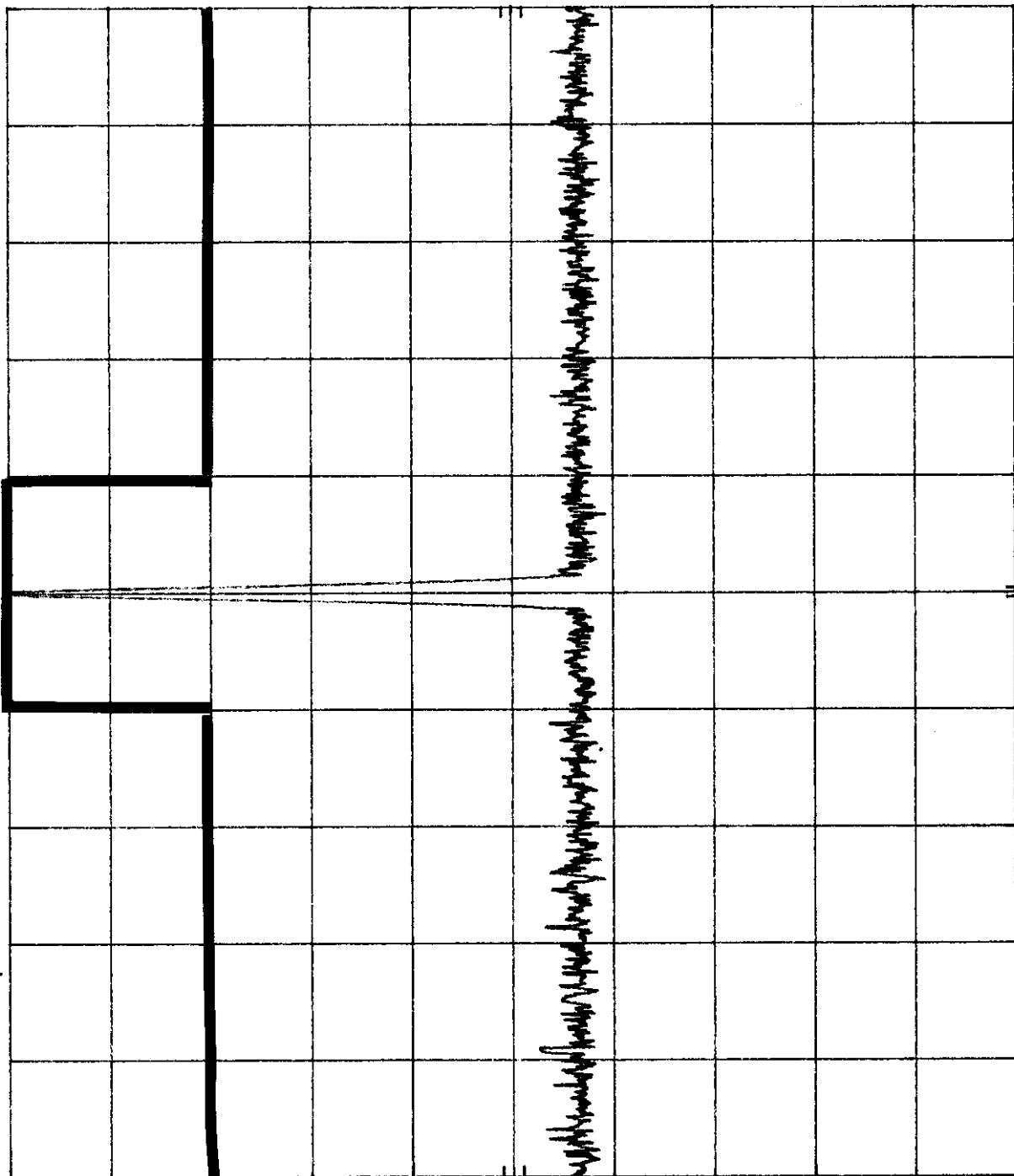
Sheet 2 of 2



**Retlif Testing Laboratories**

Report No. R-8027

R-8027 OCC BW 3/31/99 DC  
REF 72.8 dB $\mu$ V ATTEN 10 dB  
10 dB/  
hp



Customer:	Mitsubishi Boeki		
Test Sample:	Pulsed RF Transmitter		
Model No.:	Alpha 560 FCC ID: OFS506SERIES		
Test Method:	FCC 15.231(c) Occupied Bandwidth		
Notes:	The Bandwidth of the emission is not greater than .25% of the center frequency 20dB down from the modulated carrier		
Date:	3/31/99	Tech:	Dennis Cortes
	Sheet	1	at 2



Retlif Testing Laboratories

Report No. R-8027

**Exhibit 6**

**Report of Measurements**

**TEST EQUIPMENT LIST**



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES

## EQUIPMENT LIST

FCC Paragraph 15.231(b) Radiated Emissions. 30 MHz to 3.1 GHz

EN	Type	Manufacturer	Frequency Range	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	8/30/97	8/30/99
128C	Double Ridge Guide	Eaton Corporation	1 GHz - 18 GHz	96001	10/6/98	10/6/99
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/22/98	6/22/99
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	3/16/99	9/16/99
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	3/5/99	3/5/00
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	3/16/99	9/16/99
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/22/98	6/22/99
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	10/22/98	4/22/00
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	9/3/98	9/3/99



**Retlif Testing Laboratories**

Test Report No. R-8027  
FCC ID: OFS506SERIES