July 2, 2001

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Dear Sir/Madam:

Enclosed you will find an application for Certification of PocketWizard Plus Intentional Radiator, FCC ID: KDS-PW2-002. Certification is requested to the requirements of Part 15, Subpart C of the Commission's rules. This application is being filed by Retlif Testing Laboratories on behalf of LPA Design.

I trust that you will find the enclosed application to be complete; however, should you have any questions or require any additional information, please feel free to contact us.

Very truly yours,

RETLIF TESTING LABORATORIES

Scott Wentworth
Manager

Enc. (as stated)

APPLICANT LPA Design 1350 Shelburne Road South Burlington, VT 05403	MANUFACTURER SAME

TEST SAMPLE DESCRIPTION

POWER REQUIREMENTS: 3VDC (Internal Battery or External Power Supply)

FREQUENCY OF OPERATION: 344MHz

TESTS PERFORMED

REPORT OF MEASUREMENTS

Test Report No. R-3378N1
FCC ID: KDS-PW2-002

Power Requirements: 3VDC (Internal Battery or External Power Supply)

REPORT OF MEASUREMENTS (continued)

TEST RESULTS

15.231 (a) - The device is a transmitter for remote flash control of photographic strobes.

15.231 (a)(1) &- The transmitter is manually operated and ceases transmission less than 5

15.231 (2) seconds after deactivation.

15.231 (a)(3) - The transmitter does not perform periodic transmissions at regularly predetermined

intervals.

15.231 (a)(4)- The device is not employed for RC purposes involving security.

15.231 (b) - The fundamental field strength did not exceed 7,244 µV/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 724

µV/M (AVERAGE).

15.231 (c) - The device operates at a frequency range of 344MHz. The bandwidth of

emissions did not exceed 0.25% of the operating frequency (860kHz).

DETERMINATION OF FIELD STRENGTH LIMITS

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

Frequency Limit

F1 = 260 3750 = L1

Fo = 344 Lo

F2 = 470 12500 = L2

The formula below was utilized to determine the limits:

Limit = L1 + [(Fo-F1)(L2-L1)/(F2-F1)]

Solving yields:

Fundamental Limit = 7,244 µV/M (AVERAGE) @ 3 Meters

Harmonic Limit = 724 µV/M (AVERAGE) @ 3 Meters

REPORT OF MEASUREMENTS (continued)

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 = 0.450 milliseconds (maximum)

Transmitter Cycle Time = 5.350 milliseconds

Transmitter Duty Cycle = 0.0841

*See Attached Duty Cycle Timing Diagram

SPECTRUM ANALYZER DESENSITIZATION CONSIDERATIONS

Due to the nature of the emissions being measured, care was taken to ensure that the resolution

bandwidth of the spectrum analyzer was adequate to provide accurate measurements.

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. The frequency range for radiated emissions was scanned from 30

MHz to 3.4 GHz. The frequency range for conducted emissions

was scanned from 450 kHz to 30 MHz.

EQUIPMENT LIST

Radiated Emissions

EN	Type	Manufacturer	Frequency Range	Model No.	Cal Date	Due Date

3116	Pre-Amplifier	Miteq	0.1 GHz - 18 GHz	AFS42-35	12/3/98	12/3/99

3118	Broadband Pre-Amplifier	Electro-Metrics	10 KHz - 1 GHz	BPA-1000	6/24/98	6/24/99

3258	Double Ridge Guide	EMCO	1 - 18 GHz	3115	4/3/98	4/3/99

4029	Open Area Test Site	Retlif	3 / 10 Meters	RNH	6/15/98	6/15/99

4202	Biconilog	EMCO	26 MHz - 2 GHz	3142	6/10/98	6/10/99

4895	Spectrum Analyzer	Hewlett Packard	9kHz - 22GHz	8593EM	9/18/98	9/18/99

4896	Graphics Plotter	Hewlett Packard	N/A	7470A	8/23/98	8/23/99

EQUIPMENT LIST

Conducted Emissions

EN	Type	Manufacturer	Frequency Range	Model No.	Cal Date	Due Date

3107	Spectrum Analyzer	Advantest	10 KHz - 3 GHz	4131B	2/9/98	2/9/99

4027	LISN	Solar Electronics	10 KHz - 30 MHz	9252-50-R-24BNC	6/24/98	6/24/99

4028	Isolation Transformer	Acme	N/A	120x240	1/24/98	1/24/99

4050	Transient Limiter	Hewlett Packard	9 KHz - 200 MHz	11970K		12/9/98	12/9/99

4896	Graphics Plotter	Hewlett Packard	N/A	7470A	8/23/98	8/23/99