



**SOUTHWEST MICROWAVE, INC.**

9055 South McKemy Street  
Tempe, Arizona 85284-2946  
Telephone (480) 783-0201  
Fax (480) 783-0401

March 10, 2003

FEDERAL COMMUNICATIONS COMMISSION  
Laboratory Division  
Equipment Authorization Branch

Dear Sirs

Southwest Microwave hereby makes application for certification of a field disturbance sensor in accordance with Part 15 of the Federal Communications Commission Regulations. Certification is requested for Southwest Microwave Model 380 Intrusion Sensor. The sensor has been designed for use as an outdoor security device and is intended for use in high-end industrial and military applications.

The Model 380 is a short - range version of the Model 385 Microwave Sensor certified under file number 31010/EQU 4-3-3 dated August 13, 1991. All of the electronics remains the same except for the following changes to the schematic submitted with the Model 385 application:

Component	From	To	Purpose
R62	2.15 K	1.2K	Reduce Range Cutoff
R31	33 K	54.9 K	Reduce Sensitivity Adjust Range
R33	33 K	54.9 K	"
C21	470 pF	390 pF	"
R39	15 K	24 K	"
C27	.01 uF	4300 pF	"

The antenna gain has been reduced from 30 dB to 22.5 dB resulting in a class II permissive change. The transmitter power remains the same as in the Model 385 resulting in a reduction of the field strength on the Model 380. The transmitter utilized in the Model 380 is the same as that used in the previously approved Model 385 and the modulation scheme is identical.

The lower antenna gain is accomplished by changing the size of the parabolic reflector diameter from a 9-inch diameter to a 4.2-inch diameter. A spacing hub has been incorporated in order to provide the proper focal length for the smaller antenna (details are shown in exhibit A and B).

Exterior details and the interior view of the shielded electronics are identical to those photographs submitted with the Model 385 application.

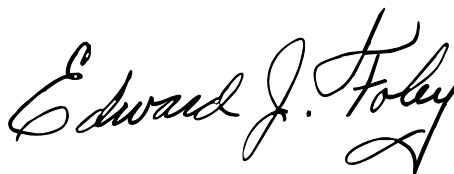
A check for \$1040.00 and FCC Form 159 was submitted to FCC Equipment Approval Services, Post Office Box 358315, Pittsburgh, PA 15251-5315.

The following items are included in this application:

1. Representative Photographs
  - a. Exhibit A: Interior view showing low gain antenna, user range and sensitivity controls.
  - b. Exhibit B: Interior view showing user accessible terminal strip.
2. Exhibit C: E Plane Antenna Profile.
3. Exhibit D: H plane Antenna Profiles.
4. Exhibit E: Sample label and location on unit.

We trust this information will meet with your approval and that a grant of certification will be issued

Respectfully Submitted,

A handwritten signature in black ink, reading "Edward J. Foley". The signature is written in a cursive, flowing style with a large, stylized "E" and "F".

Edward J. Foley.  
Vice President, Engineering