October 25, 2002

Mr. Mike Churchman
Rocky Mountain Radar
6469 Doniphan Drive
El Paso, TX 79932

Dear Mr. Churchman:

Enclosed is the test report for the **Rocky Mountain Radar** Radar Detector RMR C410 tested at our facility, 556 Route 222 in Groton, New York. This facility is on file with the FCC per CFR 47 2.948 (Site File Number 31040/SIT) and is NVLAP accredited.

As narrated in the report, the product configuration meets the requirements of the FCC per CFR 47 Part 15 Class B for Unintentional Radiators.

Thank you for selecting Diversified T.E.S.T. Technologies, Inc. for your testing needs. We look forward to working with you on future projects. Should you have any questions, or concerns regarding this report please contact me at (800) 724-6452 or (607) 898-4218.

Sincerely,

Shaun Hotaling
Technical Associate

TEST REPORT

FCC per CFR 47
Part 15 Class B

September 25, 2002

Prepared for: **Rocky Mountain Radar**
by: Diversified TEST Technologies, Inc.

Table of Contents

Sections omitted from your report were not required as per the agreed test plan

Standard Information & Product Description

STANDARD: FCC Part 15 Class B

CLIENT: **Rocky Mountain Radar**
6469 Doniphan Drive
El Paso, TX 79932

PRODUCT: Radar Detector
Model #: RMR C410
Condition: New

PRODUCT RECEIVED: September 23, 2002

TEST DATES: September 23, 2002

PREPARED BY: Diversified TEST Technologies, Inc.
556 Route 222 • PO Box 8
Groton, New York 13073
(607) 898-4218
(607) 898-4830/fax

COMPILED BY:
Shaun Hotaling
Technical Associate

REVIEWED BY:
Thomas P. Sims
President

Test Site Information

Location and Registration:

- Open field test site, Diversified T.E.S.T. Technologies, Inc., 556 Rte 222 in Groton NY

Radiated Emissions:

- 30-meter open field
- The equipment under test (EUT) was placed at a 10-meter range in an RF transparent shelter.

Calibration:

- Calibrated to ANSI Procedure C 63.4-1992
- Copy of calibration on file with FCC per Title CFR 47 Section 2.948.

Equipment Calibration:

- The test equipment used is calibrated by the manufacturer or independent calibration laboratory.
- These test results are traceable to NIST, because all calibrations are traceable to NIST standards.

Test Performance:

- Federal Communication Commissions (FCC) regulations as outlined in Title CFR 47, Part 15, for Class A Unintentional Radiators.
- Test procedures used were to CFR 47 15.31, ANSI C 63.4-1992.
- Radiated Emissions per limits 15.109
- Conducted Emissions per limits 15.107

Radiated Emissions Calculations

Diversified T.E.S.T. Technologies, Inc. uses automated data reductions to determine product compliance to radiated emissions regulations. The program is fully automated and plots the signal amplitude against the frequency grid to which it was tested. The plotted charts will print out, in tabular form, the maximized frequencies that were near or over the specification limit. The automatic computation takes into account the programmed parameters required by the FCC specifications; i.e., bandwidth, scan speed and the antenna/cable loss and amplifier gain factors.

The product's signal data is compared to a current ambient scan. The frequencies that are of significant amplitude are automatically sorted out by the computer and are brought out to be further analyzed and maximized. These same frequencies are also profiled by rotating the product 360 degrees on the EMCO 12-foot turntable.

Test Instruments Used

1. ✓ Ridge Horn ANT: Electro-Metrics, Model #: RGA 60, Serial # 2981
2. ✓ HP Spectrum Analyzer, Model # 8593EM
3. ✓ COAX: PIN Style R/G 142-B/V
4. ✓ Power Supply: SORENSEN & Co., Inc., Model #: T50-1.5
5. ✓ Printer: EPSON LX-810

Radiated Emissions Test Procedure

The product was tested on our open field range, according to Title CFR 47 15.31, ANSI C 63.4-1992 procedures. The test sample was placed on a non-conductive, wooden table 0.8 meter off the ground grid. The table stands on a 12-foot diameter, non-conductive turntable. With the equipment under test (EUT) operating, the turntable was rotated 360 degrees in increments to show the worse case to the antenna.

The antenna was placed on a mast and raised to a search height of 1-4 meters. The distance from the product and the antennas was 10 meters. The spectrum receiving equipment operates the test remotely from inside a nearby building.

The product/s were found, as submitted or with any modifications as noted in the report, to meet the minimum requirement of the Federal Communications Commission (FCC) Title CFR 47 Part 15, Subpart B for Class B Unintentional Radiators.

DEVIATIONS FROM TEST METHOD

There were no deviations from, additions to or exclusions from the test method, and any other information relevant to the test.

This report stands on the basis of only one sample. Any changes made to the system documented in this report, (i.e. engineering design, manufacturing or process variables) may change the emissions profile, thereby voiding these conclusions.

The findings are for Radiated Emissions per limits 15.109 and Conducted Emissions per limits 15.107 as enforced at the time the testing was performed.

It is the responsibility of the manufacturer to ensure that product identification and labeling are in compliance with the requirements of CFR 47, 15.19 and CFR 47 15.21 information to the user.

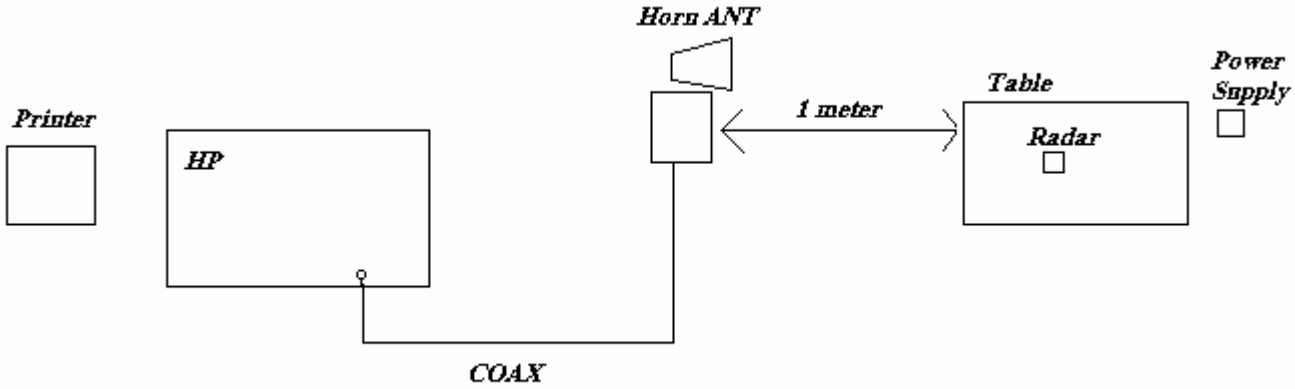
Worse Case Cable Placement for Radiated Emissions Testing

The procedure used to determine the worse case analysis of cable placement is accomplished by reviewing the shielding, grounding, and bonding of ALL I/O cables. Using the manufacturer's installation instructions the initial set-up is pre-scanned.

Upon completion, the high level (low margin) areas are reviewed and cables are moved to obtain maximum radiation patterns.

Diagrams for Radiated Emissions

1 Diagram to Follow



Photographs for Radiated Emissions

Photograph #1: Radiated Emissions

Photograph #2: Radiated Emissions

Data Charts for Radiated Emissions

[2] Pages of Data Charts to Follow