Compliance Labs
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TEST RESULTS REPORT
FOR
R&K IGHTING
P.O. BOX 6098
TOLEDO, OHIO 43614
U.S.A.

Device Tested: RF Remote Control Receiver, AutoMicro Model RX-3302
Report 1142
Report date: January 31, 2000
Test date: January 18, 2000

The following test was performed according to the document ANSI C63.4-1992 as required by the Federal Communications Commission, Part 15 of the CFR, subpart B for non-intentional radiators, Class A (digital):

Radiated emission in accordance with ANSI C63.4-1992, Class A.

The R&K remote control receiver was tested for the requirements of FCC Part 15, subpart B: The unit passed the requirements for a Class A digital.

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Sheldon Gruber, Executive Vice-president

1. INTRODUCTION

Compliance Labs, Inc. (CLI) has facilities which conform to the requirements of EN 45001: 1989, General criteria for the operation of testing laboratories. This laboratory is certified by the United Kingdom Company TRL EMC, LTD, a competent body, to comply with the EMC/EMI testing procedures established by the European Union. CLI's facilities include a three-meter semi-anechoic chamber, an open area test site (OATS) with both a three and ten-meter capability. The OATS normalized site attenuation satisfies CISPR 16 requirements and is listed with Industry Canada for emissions testing as File IC 3007 and has been filed with the Federal Communications Commission's laboratory in Columbia, Maryland. The equipment is in compliance with EN 61000-4-4 for fast transient immunity testing, EN 61000-4-2 for electrostatic discharge testing and EN 61000-4-3 for radiated, radio-frequency, electromagnetic immunity testing to 10 V/m E-fields and surge immunity according to EN 61000-4-5. The receiver used for emission testing is in conformance with CISPR 16. Calibration for all equipment is current. Supporting data for the equipment used for these tests is provided.

1.1 DEVICE DESCRIPTION

The device tested for R&K Lighting is a small battery-operated receiver used to activate relays. The intended use is on large transportation vehicles such as semi-trailers.

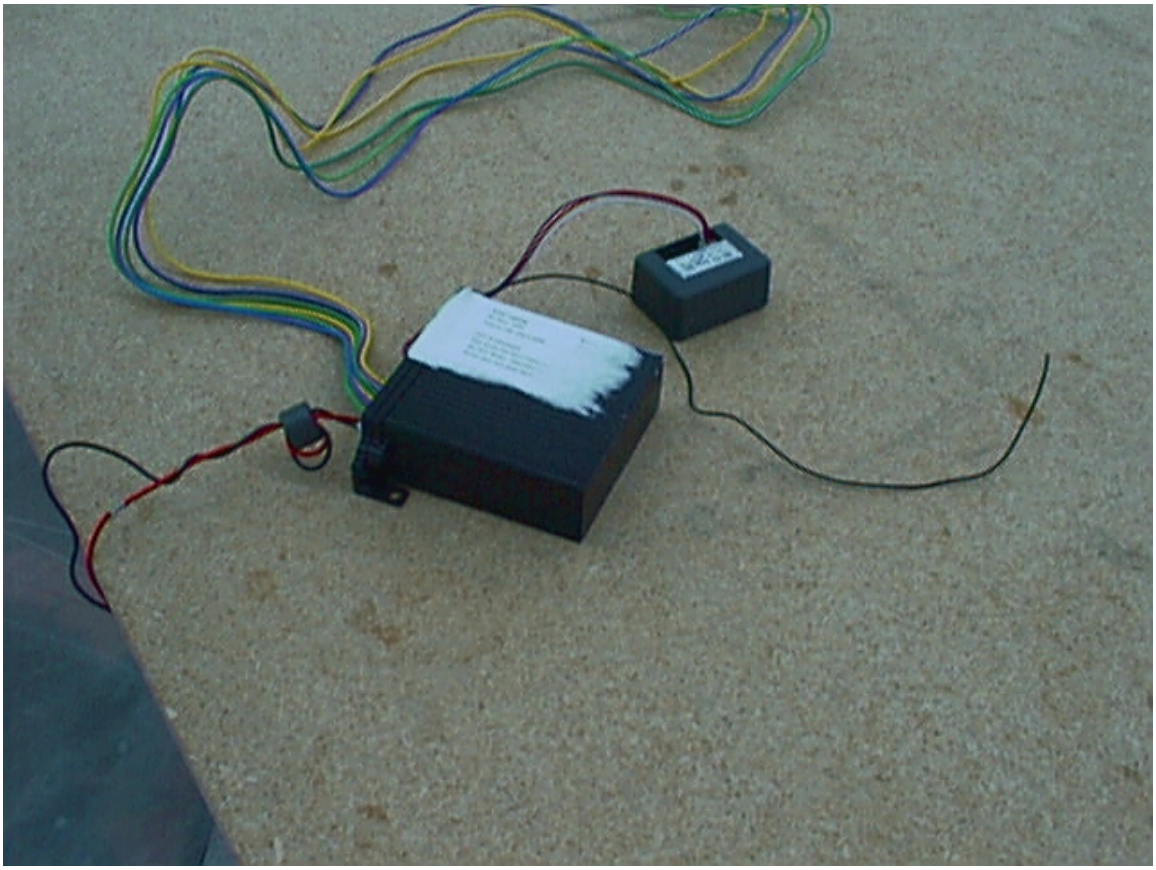

Fig.1. Photo of the EUT.

2.2 Radiated Emission

The EUT was tested for radiated emission with the EMCO 3143 antenna placed at the three-meter position.

Fig.2 Device emission maximized. The antenna is vertically polarized 3-meters from the receiver. EUT on is in blue, ambient red. Limits for class A and class B devices are shown. The sweep is obtained using peak-detection.

Emission was examined in the monitor mode of the DSI 2020 receiver. Changing antenna polarization and height and rotating the EUT by means of the turntable maximized the received signal from the EUT. The tables below shows the results of this investigation.

Frequency(MHz)	EUT on	EUT off	EUT alone	Comments	CLASS A LIMIT
31.95	42.2	40.0	38.2	High Background-passes	50
33.746	40.6	32.3	39.9	OK	50
34.954	42.5	37.3	40.9	Maxed, OK	50
50.006	28.3	28.1	<28.3	All ambient here	50

Table 1. Detailed quasi-peak measurements of the EUT emission showing that it is acceptable as a class A device.