

# Section 12: Test Setup Information

## Overview

This section contains the test locations and photographs of each test setup for testing of the Honeywell Transceiver, TR-1 Part Number 930-2001-001 and 930-2000-001.

## Contents

12.1 Test Facility . . . . .	193
12.2 Test Setup Photos in Temperature Chamber . . . . .	193
12.3 Test Setup Photos in Anechoic EMI Chamber . . . . .	197

## 12. Test Setup Photographs

### 12.1 Test Facility

During the months of February and March, 2005, a series of radio frequency interference measurements were performed on the Honeywell Transceiver (TR-1), part number 930-2001-001 and 930-2000-001. Testing was performed to the regulatory standards of the FCC CFR 46, Parts 2 and 87 at two locations while being witnessed and/or performed by a TCB.

Locations of testing:

1. Honeywell Inc., located in Redmond Washington
2. CKC laboratories, located in Redmond Washington

TCB witnessing and/or performing measurements:

1. CKC Laboratories, Inc.

For digital devices/intentional radiator, the tests were performed according to the procedures of the FCC as stated in the "Methods of Measurement of Radio-Noise Emissions from Low – Voltage Electrical and Electronic Equipment in the range of 9kHz to 40 GHz" found in the American National Standards Institute, ANSI C63.4-1992 (Revision of the ANSI C63.4-1988). These tests were performed by personnel of Honeywell, Inc. and CKC Laboratories, Inc. Equipment utilized during testing is listed in Section 11 of this report.

### 12.2 Test Setup Photos within Temperature Chamber

12.2.1 The following photos cover the setup used for Occupied Bandwidth, RF Out Power, and all Frequency Stability testing.



Figure 12-1 Temperature Chamber and Equipment Setup



Figure 12-2 Transmitter Output Connection



Figure 12-3 Peak Power Meter for Output Power Measurement



Figure 12-4 DataTrac RS Communication



Figure 12-5 Attenuation Connection

## 12.3 Test Setup Photos within the Anechoic EMI Chamber

12.3.1 The following photos cover the setup used for all Spurious Emissions testing



Figure 12-6 Transmitter Connection for Spurious at Antenna



Figure 12-7 Setup for Spurious Emissions at Antenna



Figure 12-8 Calibrated Pads for Spurious Measurements



Figure 12-9 Overview Setup and Data Capture of Spurious Emissions at Antenna

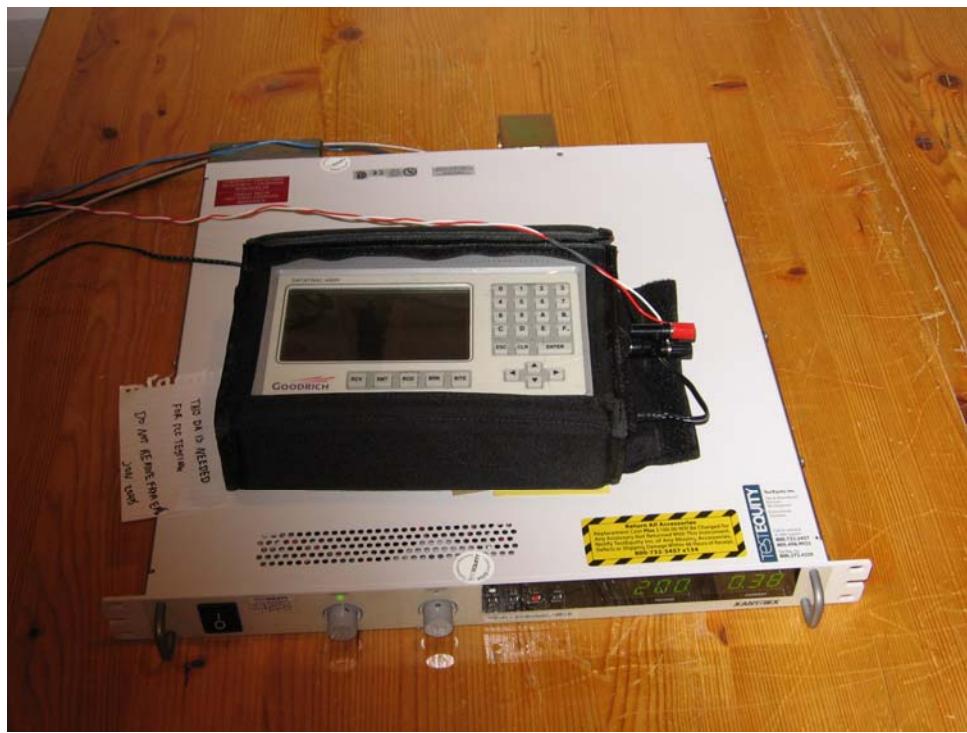


Figure 12-10 DataTrac and DC Power Supply (Support Equipment)



Figure 12-11 Antenna Load for Spurious Emissions – Field Strength



Figure 12-12 Field Strength Measurement 30 MHz – 18 GHz (two antennas)



Figure 12-13 Field Strength Measurement 18 – 26 GHz



Figure 12-14 Field Strength Measurement 26 – 40 GHz

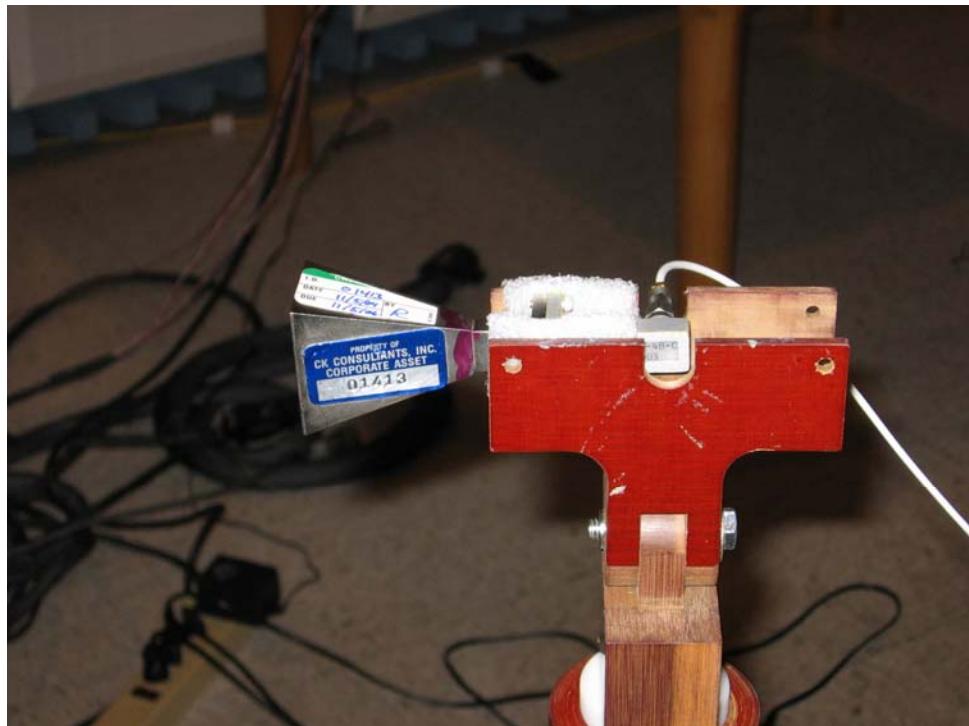


Figure 12-15 High Frequency Antenna Mounting Configuration