



Engineering Solutions & Electromagnetic Compatibility Services

FCC 15.231 Radiated Test Data

for

Model: RE210P

345 MHz PIR

(RTL barcode: 020059)

for

Resolution Engineering

RTL Project Number 2011043

Test Engineer: Jon Wilson

This report may not be reproduced, except in full, without the full written approval of Rhein Tech Laboratories, Inc. and Resolution Engineering. Test results relate only to the item tested.

These tests are accredited and meet the requirements of ISO/IEC 17025 as verified by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1445.

Radiated Emissions Test Data – FCC Limits / 3m Distance

Emission Frequency (MHz)	Test Detector	Antenna Polarity (H/V)	Analyzer Reading (dBuV)	Site Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pass/Fail
345.027	Pk	V	69.4	27.4	96.8	97.3	-0.5	Pass
690.027	Pk	H	64.3	-7.9	56.4	77.3	-20.9	Pass
1035.027	Pk	V	67.7	-2.1	65.6	74.0	-8.4	Pass
1380.042	Pk	V	62.1	3.2	65.3	74.0	-8.7	Pass
1725.042	Pk	H	64.3	6.1	70.4	77.3	-6.9	Pass
2070.162	Pk	H	77.7	-7.4	70.3	77.3	-7.0	Pass
2415.189	Pk	H	70.7	-6.7	64.0	77.3	-13.3	Pass
2760.216	Pk	V	70.6	-6.7	63.9	74.0	-10.1	Pass
3105.243	Pk	H	59.1	-6.4	52.7	77.3	-24.6	Pass
3450.270	Pk	V	66.4	-4.8	61.6	77.3	-15.7	Pass

Test Procedure

Radiated emissions of the harmonics were tested at three meters. The EUT was tested in the three orthogonal planes with the receive antenna in both polarities. The emissions were maximized per ANSI C63.4:2003 8.3.1.2; that is, the measurement antenna height was varied between 1 and 4 m, and the EUT was rotated through 360° on a rotating turntable until the maximum emissions were found. Both horizontal and vertical measurement antenna polarizations were used. A resolution bandwidth of 100 kHz was used for frequencies less than 1000 MHz, and a resolution bandwidth of 1 MHz was used for frequencies greater than or equal to 1000 MHz. The video bandwidth was set to a value at least three times greater than the resolution bandwidth.

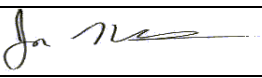
EUT Disposition

The EUT was adapted to continuously transmit for testing purposes.

Radiated Emissions Test Equipment

Part	Manufacturer	Model	Serial Number	RTL Bar Code	Calibration Due Date
Amplifier (20 MHz-2 GHz)	Rhein Tech Laboratories, Inc.	PR-1040	900905	900905	4/10/2012
Bilog Periodic Antenna (25 MHz-2 GHz)	Antenna Research Associates, Inc	LPB-2520	1037	900724	7/12/2011
EMI Receiver RF Section (9 KHz-6.5 GHz)	Hewlett Packard	85462A	3325A00159	900913	6/8/2011
RF Filter Section (100 KHz-6.5 GHz)	Hewlett Packard	85460A	3330A00107	900914	6/8/2011
Spectrum Analyzer	Hewlett Packard	8596EM	3826A00144	901215	1/13/2012
Amplifier	RTL	1003	N/A	901364	2/22/2012
Horn Antenna 2-4 GHz	EMCO	3161-02	9804-1044	900772	6/13/2012
Horn Antenna 4-8.2 GHz	EMCO	3161-03	9508-1020	900321	6/13/2012
Emissions Testing Software	Rhein Tech Laboratories, Inc.	Automated Emission Tester	Rev. 14.0.2	N/A	N/A

Test Personnel:

Jon Wilson		April 22, 2011
Test Engineer	Signature	Date of Test

Test Configuration Photographs

X-axis



Y-axis



Z-axis



Rhein Tech Laboratories, Inc.
360 Herndon Parkway
Suite 1400
Herndon, VA 20170
<http://www.rheintech.com>

Client: Resolution Engineering
Model: RE210P
FCC ID: N/A
Standards: FCC Part 2, 15
Report #: 2011043

EUT Photograph

