



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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FCC CFR47 Part 1.1310 Test Report

Prepared for: Blackboard, Inc

Model: VR4101

Description: Vending Card Reader

To

Federal Communications Commission

Rule Part 1.1310

Radiofrequency Radiation Exposure Limits

Date of Issue: June 23, 2011

On the behalf of the applicant:

Blackboard, Inc.
22601 N 19th Ave
Suite 113
Phoenix, AZ 85027

Attention of:

Tim Mattson, Sr. Engineer
Ph: (623)476-1141
E-Mail: Tim.Mattson@blackboard.com

Prepared by

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Project No: p1160003

John Erhard

Project Test Engineer



Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	June 23, 2011	John Erhard	Original Document



ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless noted in the table below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC OATS Reg, #933597

IC Reg. #2044A-1

Non-accredited tests contained in this report:
N/A



13.56 MHz RFID Transmitter

Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)	0.3-1.234 MHz:	Limit [mW/cm ²] = 100
	1.34-30 MHz:	Limit [mW/cm ²] = (180/f ²)
	30-300 MHz:	Limit [mW/cm ²] = 0.2
	300-1500 MHz:	Limit [mW/cm ²] = f/1500
	1500-100,000 MHz:	Limit [mW/cm ²] = 1.0

Test Frequencies, MHz	13.56
Power, Conducted, W (P)	0.000000013
Antenna Gain Isotropic	-20.6 dBi
Antenna Gain Numeric (G)	0.1
Antenna Type	Loop
Distance (R)	20 cm

Power Density Calculations	Formula =	$S = PG / 4R^2$
	Power Density (S) =	0.0000000041
	Limit =	0.978

2.4 GHz 802.11 b/g Transmitter

Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)	0.3-1.234 MHz:	Limit [mW/cm ²] = 100
	1.34-30 MHz:	Limit [mW/cm ²] = (180/f ²)
	30-300 MHz:	Limit [mW/cm ²] = 0.2
	300-1500 MHz:	Limit [mW/cm ²] = f/1500
	1500-100,000 MHz:	Limit [mW/cm ²] = 1.0

Test Frequencies, MHz	2437
Power, Conducted, W (P)	0.003
Antenna Gain Isotropic	2 dBi
Antenna Gain Numeric (G)	1.58
Antenna Type	Chip Antenna
Distance (R)	20 cm

Power Density Calculations	Formula =	$S = PG / 4R^2$
	Power Density (S) =	0.0000150883
	Limit =	1.0