

**KTL Test Report:** 0R02703.2

**Applicant:** Casi-Rusco  
1155 Broken Sound Parkway  
Boca Raton, Florida  
33487  
USA

**Equipment Under Test:  
(E.U.T.)** 1000/1010 Access Control Reader

**FCC ID:** JTQ1000-1010

**In Accordance With:** **FCC Part 15, Subpart C, Paragraph 15.209**  
General Limits For Low Power Transmitters

**Tested By:** KTL Ottawa Inc.  
3325 River Road, R.R. 5  
Ottawa, Ontario K1V 1H2

**Authorized By:**  
  
R. Grant, Wireless Group Manager

**Date:**

**Total Number of Pages:** 14

*EQUIPMENT: 1000/1010 Access Control Reader*  
*FCC ID: JTG1000-1010*

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EQUIPMENT: 1000/1010 Access Control Reader  
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## Section 1. Summary Of Test Results

### General

**All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15, Subpart C for low power devices. All tests were conducted using measurement procedure ANSI C63.4-1992. Radiated Emissions were made on an open area test site.



New Submission



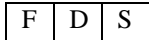
Production Unit



Class II Permissive Change



Pre-Production Unit



Equipment Code

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE  
TEST SPECIFICATIONS HAVE BEEN MADE.

See “ Summary of Test Data”.



**NVLAP LAB CODE: 100351-0**

TESTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
Glen Westwell, Technologist

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This report applies only to the items tested.

*EQUIPMENT: 1000/1010 Access Control Reader**FCC ID: JTQ1000-1010*

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**Summary Of Test Data**

<b>Name Of Test</b>	<b>Para. No.</b>	<b>Result</b>
Powerline Conducted Emissions	15.207	Not Applicable
Radiated Emissions	15.209	Complies
Occupied Bandwidth	Not Specified	Complies

**Footnotes For N/A's:****Test Conditions:****Indoor**

Temperature: 22 °C

Humidity: 42 %

**Outdoor**

Temperature: 24 °C

Humidity: 45 %

FCC ID: JTQ1000-1010

<b>Manufacturer:</b>	Casi-Rusco
<b>Model No.:</b>	1000/1010
<b>Serial No.:</b>	None
<b>Date Received In Laboratory:</b>	July 10, 2000
<b>KTL Identification No.:</b>	Item #1
<b>Frequency Range:</b>	119 - 133 kHz
<b>Operating Frequency(ies) of Sample:</b>	125 kHz
<b>Modulation:</b>	CW
<b>Emission Designator:</b>	N0N
<b>Integral Antenna</b>	<b>Yes</b>

**Yes** ☒ **No** ☐

*unique connector:*

*EQUIPMENT: 1000/1010 Access Control Reader*  
*FCC ID: JTG1000-1010***Section 3. Radiated Emissions****Para. No.: 15.209**

<b>Test Performed By:</b> Glen Westwell	<b>Date of Test:</b> July 10, 2000
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**Minimum Standard:** The field strength of emissions from the device shall not exceed the following limits.

<b>Fundamental (MHz)</b>	<b>Field Strength (<math>\mu</math>V/m)</b>	<b>Field Strength (dB<math>\mu</math>V)</b>
0.009 - 0.490	2400/F(kHz) @ 300m	—
0.490 - 1.705	24000/F(kHz) @ 30m	—
1.705 - 30	30 @ 30m	—
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

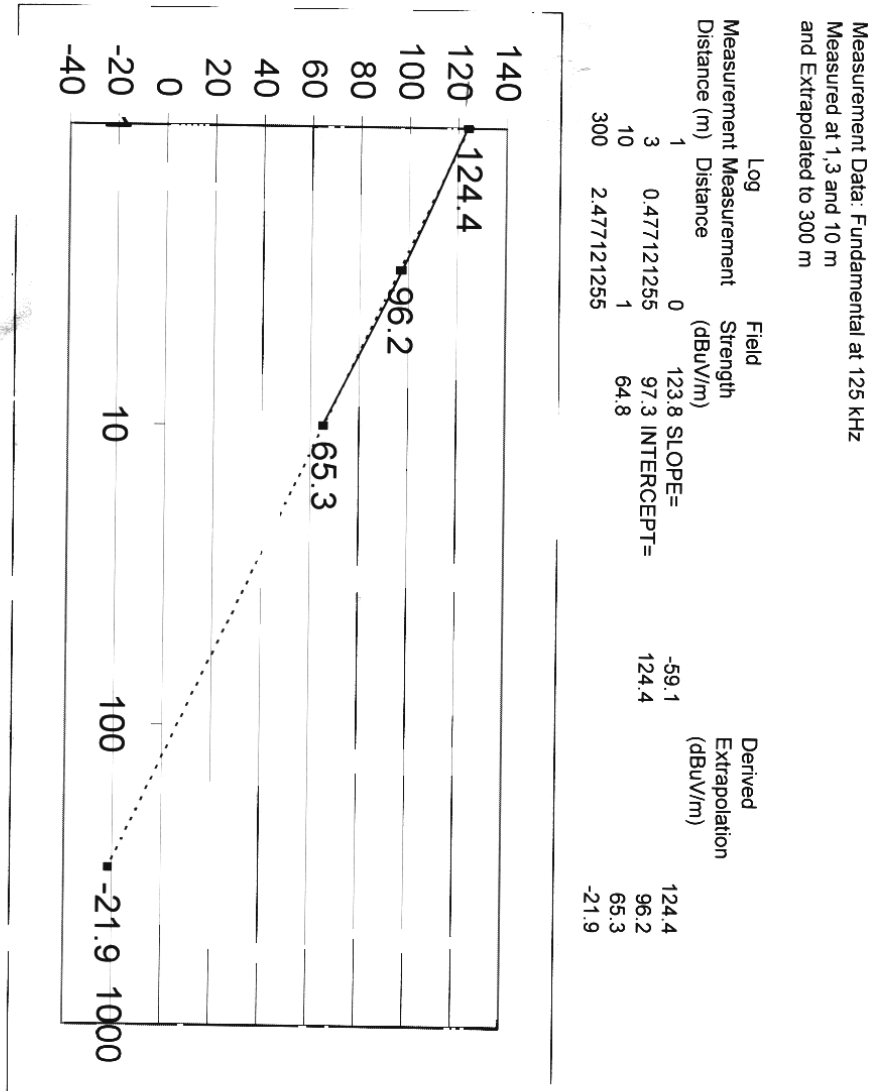
**Test Results:** Complies. The worst-case emission level is 16.6 dB $\mu$ V/m @ 30m at 0.630 MHz. This is 15.1 dB below the specification limit.

**Measurement Data:** (Procedure ANSI C63.4-1992)

See fundamental extrapolation graph attached.

<b>Fund. Emission</b>	<b>Field Strength @ 3m</b>	<b>Extrapolated Field Strength @ 300m</b>	<b>Limit @ 300 m</b>	<b>Margin</b>
<b>(kHz)</b>	<b>(dB<math>\mu</math>V/m)</b>	<b>(dB<math>\mu</math>V/m)</b>	<b>(dB<math>\mu</math>V/m)</b>	<b>(dB)</b>
125 kHz	97.3	-21.9	25.7	47.6

EQUIPMENT: 1000/1010 Access Control Reader  
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*EQUIPMENT: 1000/1010 Access Control Reader**FCC ID: JTQ1000-1010***Test Data - Radiated Emissions****(9kHz to 490 kHz Extrapolated to 300m)****40dB/Decade Extrapolation Factor 1m-300m**

Test Distance (meters) :		Range:		Receiver: ESVP		RBW(kHz): 10 Extrapolation		Detector: Peak	
Freq. (MHz)	Ant. *	Pol. (V/H)	RCVD Signal (dBµV/m)	Ant. Factor (dB)**	Amp. Gain (dB)***	Corr. (dBµV/m)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
			<b>1m</b>			<b>300m</b>			
0.250	A/LR		76.2			-22.9		19.6	42.5
0.375	A/LR		65.5			-33.6		16.1	49.7
<b>Notes:</b> B/C = Biconical, B/L = Biconilog, L/P = Log-Periodic, H = Horn, D/P = Dipole * Re-measured using dipole antenna. ** Includes cable loss when amplifier is not used. *** Includes cable loss. ( ) Denotes failing emission level. N.D. = Not Detected									

**Test Data - Radiated Emissions****(490 kHz to 1.7 MHz Extrapolated to 30m)****40dB/Decade Extrapolation Factor 1m-30m**

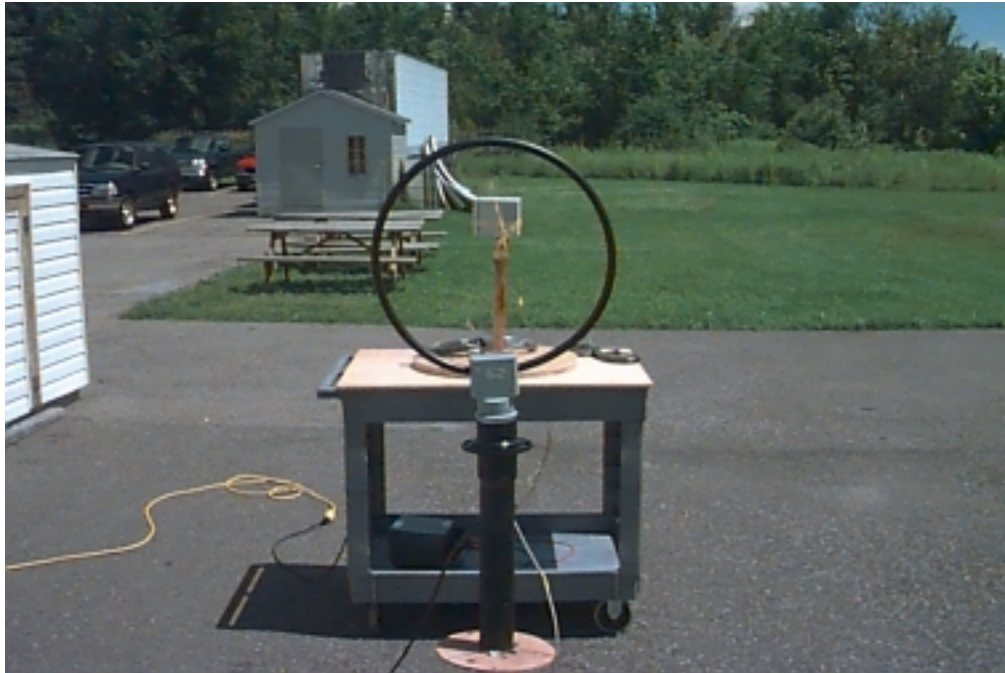
Test Distance (meters) :		Range:		Receiver: ESVP		RBW(kHz): 10 Extrapolation		Detector: Peak	
Freq. (MHz)	Ant. *	Pol. (V/H)	RCVD Signal (dBµV/m)	Ant. Factor (dB)**	Amp. Gain (dB)***	Corr. (dBµV/m)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
			<b>1m</b>			<b>30m</b>			
0.500	A/LR		53.9			-5.2		33.6	38.8
0.630	A/LR		75.7			16.6		31.7	15.1
0.750	A/LR		45.5			-13.5		30.1	43.6
0.875	A/LR		43.8			-15.3		28.8	44.1
1.00	A/LR		33.7			-25.4		27.6	53.0
<b>Notes:</b> B/C = Biconical, B/L = Biconilog, L/P = Log-Periodic, H = Horn, D/P = Dipole * Re-measured using dipole antenna. ** Includes cable loss when amplifier is not used. *** Includes cable loss. ( ) Denotes failing emission level. N.D. = Not Detected									



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**Radiated Photographs (Worst Case Configuration)**



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## **Section 4.        Occupied Bandwidth**

**Para. No.: Not Applicable**

<b>Test Performed By:</b> Glen Westwell	<b>Date of Test:</b> July 13, 2000
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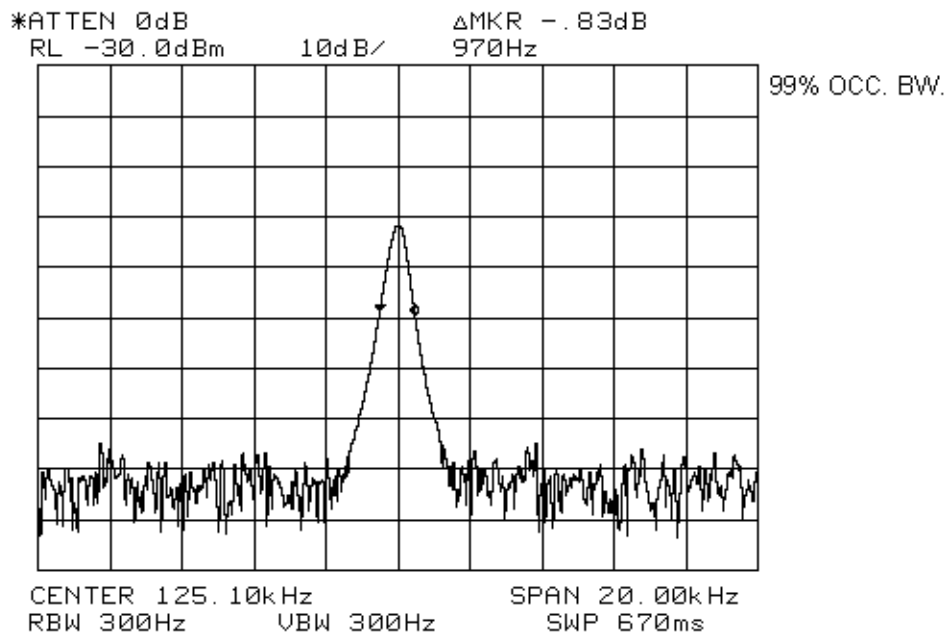
**Minimum Standard:**        Not specified.

**Test Results:**                The 99% power occupied bandwidth is 970 Hz.

**Measurement Data:**        See attached graph(s).

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**Section 5.        Test Equipment List**

<b>CAL CYCLE</b>	<b>EQUIPMENT</b>	<b>MANUFACTURER</b>	<b>MODEL</b>	<b>SERIAL</b>	<b>LAST CAL.</b>	<b>NEXT CAL.</b>
1 Year	Spectrum Analyzer	Hewlett Packard	8564E	3846A01407	May 31/99	Nov. 30/00
1 Year	Climate Chamber	Thermotron	SM-16C	15649-S	COU	COU
1 Year	Receiver	Rohde & Schwarz	ESH3	892473/002	Nov. 23/99	Nov. 23/00
1 Year	Loop Antenna	Rohde & Schwarz	HFH2-Z2	FA000631	Feb. 09/00	Feb. 09/01

NA: Not Applicable

NCR: No Cal Required

COU: CAL On Use

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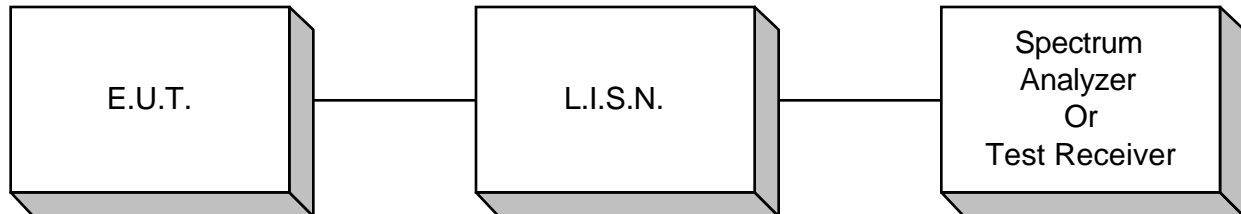
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**Annex A**  
**Test Diagrams**

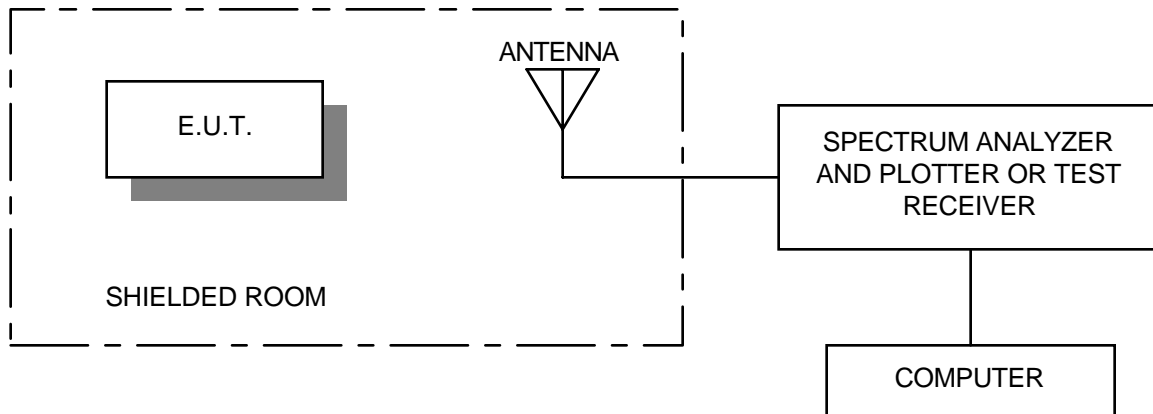
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## Conducted Emissions



## Radiated Prescan



## Test Site For Radiated Emissions

