KTL Test Report:	9R02056
Applicant:	WaveCom Electronics Inc. 222 Cardinal Crescent Saskatoon, Saskatchewan S7L 6H8
Equipment Under Test: (E.U.T.)	TR2126
FCC ID:	0PPTR2126
n Accordance With:	FCC PART 21, Subpart K Multipoint Distribution Service
Гested By:	KTL Ottawa Inc. 3325 River Road, R.R. 5 Ottawa, Ontario K1V 1H2
Authorized By:	G. Westwell, Technologist
Date:	
Total Number of Pages:	21

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Section 1. Summary of Test Results

General

All measurements are traceable to national standards.

	tests were conducted on a sample of t iance with FCC Part 21, Subpart K.	he equipment for	the purpose of demonstrating
	New Submission		Production Unit
	Class II Permissive Change		Pre-Production Unit
	THIS TEST REPORT RELATES	ONLY TO THE ITE	EM(S) TESTED.
THE	E FOLLOWING DEVIATIONS FROM, ADD SPECIFICATIONS See "Summar	· · · · · · · · · · · · · · · · · · ·	
	NVLAP LAB (CODE: 100351-0	
TEST	ED BY:	DA	ATE:
	Russell Grant, Wireless Group Manage	r	

employees only.

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This report applies only to the items tested.

Summary Of Test Data

Name Of Test	Para. No.	Result
RF Power Output	2.1046	Complies
Occupied Bandwidth	2.1049	Complies
Spurious Emissions @ Antenna Terminals	2.1051	Complies
Field Strength of Spurious Radiation	2.1053	Complies
Frequency Stability	2.1055	Complies

Footnotes For N/A's:

Section 2. General Equipment Specification

Manufacturer: WaveCom Electronics Inc.

Model No.: TR2126

Serial No.: 183006 #1022

Date Received In Laboratory: October 3, 2000

KTL Identification No.: Item #13

Power Input: 120 VAC Wall Plug Power Supply

Frequency Range: 2150 – 2162 MHz

Type(s) of Modulation: QPSK 1.28 Msps

Emission Designator: 1M63F1D

Output Impedance: 50 ohms

RF Power Output Rated: 1 W

Channel Spacing: 6 MHz

FCC PART 21, SUBPART K MULTIPOINT DISTRIBUTION SERVICE PROJECT NO.: 9R02056

EQUIPMENT: TR2126 FCC ID: 0PPTR2126

Section 3. RF Power Output

Para. No.: 2.1046

Test Performed By: Russell Grant Date of Test: October 10, 2000

Minimum Standard: Para. No.21.107

Test Results: Complies. The RF power output power is within 1 dB of the

manufacturer's rating.

Measurement Data: 1W

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FCC PART 21, SUBPART K MULTIPOINT DISTRIBUTION SERVICE PROJECT NO.: 9R02056

EQUIPMENT: TR2126 FCC ID: 0PPTR2126

Section 4. Occupied Bandwidth

Para. No.: 2.1049

Test Performed By: Russell Grant **Date of Test:** October 18, 2000

Minimum Standard: Para. No. 21.908 (a).

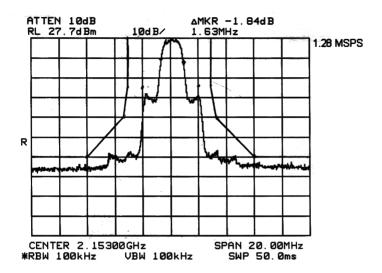
Test Results: Complies.

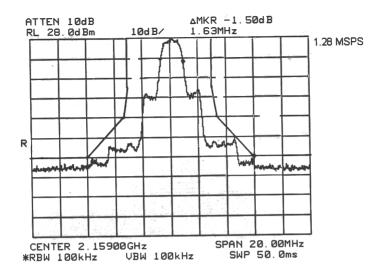
Test Data: See attached graph(s).

Note: Measured in accordance with 21.908(d) for relative power

measurements. RBW1 = RBW2 = 100 kHz

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Section 5. Spurious Emissions at Antenna Terminals

Para. No.: 2.1051

Test Performed By: Russell Grant **Date of Test:** October 18, 2000

Minimum Standard: Para. No. 21.908(a) 60 dB.

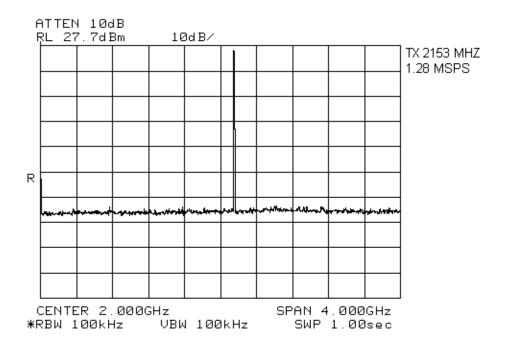
Test Results: Complies. The strongest emission is –39.5 dBm at 4318 MHz.

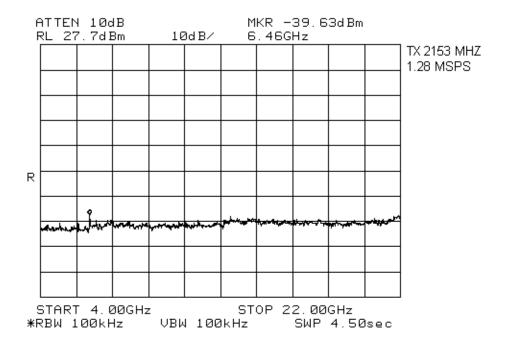
This is 67.5 dB below the carrier level.

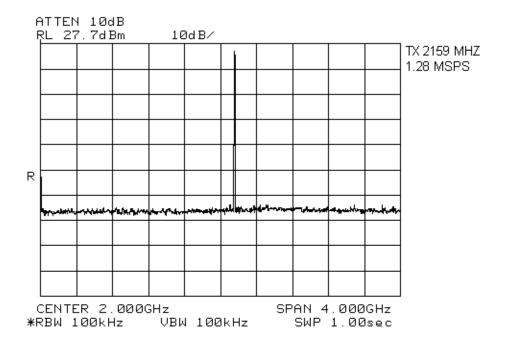
Test Data: See attached graph(s).

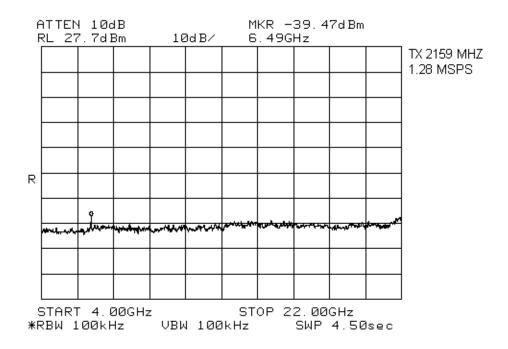
Note: Measured in accordance with 21.908 (d) for relative power

measurements. RBW 1 = RBW2 = 100 kHz.









FCC PART 21, SUBPART K MULTIPOINT DISTRIBUTION SERVICE PROJECT NO.: 9R02056

EQUIPMENT: TR2126 FCC ID: 0PPTR2126

Section 6. Field Strength of Spurious

Para. No.: 2.1053

Test Performed By: Russell Grant **Date of Test:** October 10, 2000

Minimum Standard: Para. No. 21.908(a)

Test Results: Complies.

Test Data: No emissions were detected within 20dB of the specification limit.

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Section 7. Frequency Stability

Para. No.: 2.1055

Test Performed By: Russell Grant **Date of Test:** October 6, 2000

Minimum Standard: Para. No. 21.101(a), 0.001%

Test Results: Complies.

The maximum frequency drift is 1051 Hz.

This is 0.0000488%.

Measurement Data: Standard Test Frequency: 2153MHz

Standard Test Voltage: 120 VAC

Test Condition	Frequency Drift (kHz)
20°C STV	13
20°C 115%STV	22
20°C 85% STV	5
-30°C STV	671
-20°C STV	319
-10°C STV	373
0°C STV	129
+10°C STV	54
+30°C STV	573
+40°C STV	803
+50°C STV	1051

Section 8. Test Equipment List

CAL	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
CYCLE						
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	June 16/00	June 16/01
1 Year	Climate Chamber	Thermotron	SM-16C	15649-S	COU	COU
1 Year	Attenuator	Narda	768-10	9707	Aug. 23/99	Aug. 23/00
1 Year	Attenuator	Narda	768-10	9709	Oct. 8/99	Oct. 8/00
1 Year	Attenuator	Narda	769-20	4153	Oct. 1/99	Oct. 1/00
2 Year	RF Millivoltmeter	Rohde & Schwarz	URV5	FA000420	Oct. 6/99	Oct. 6/01
2 Year	Power Sensor	Rohde & Schwarz	URV5-Z5	FA000419	Oct. 6/99	Oct. 6/01
1 Year	Horn Antenna	EMCO #2	3115	4336	Nov. 11/99	Nov. 11/00
1 Year	RF AMP	JCA	2-4 GHz	FA001496	May 31/00	May 31/01
1 Year	RF AMP	JCA	1-2 GHz	FA001498	May 31/00	May 31/01
1 Year	RF AMP	JCA	4-8 GHz	FA001497	May 31/00	May 31/01
1Year	Frequency Counter	Hewlett Packard	HP5350A	2444A00135	May 7/00	Nov. 7/00

NA: Not Applicable NCR: No Cal Required COU: CAL On Use **KTL Ottawa**

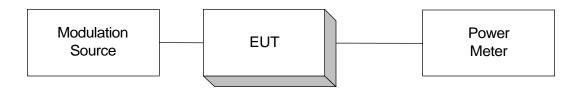
FCC PART 21, SUBPART K MULTIPOINT DISTRIBUTION SERVICE PROJECT NO.: 9R02056 ANNEX A

EQUIPMENT: TR2126 FCC ID: 0PPTR2126

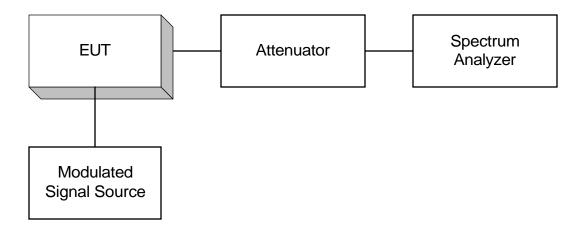
Annex A

Test Diagrams

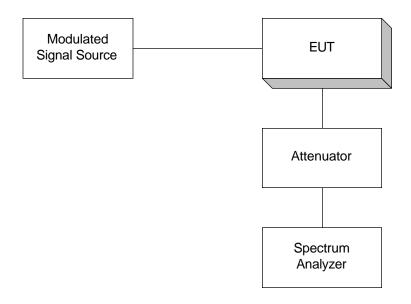
Para. No. 2.1046 - R.F. Power Output



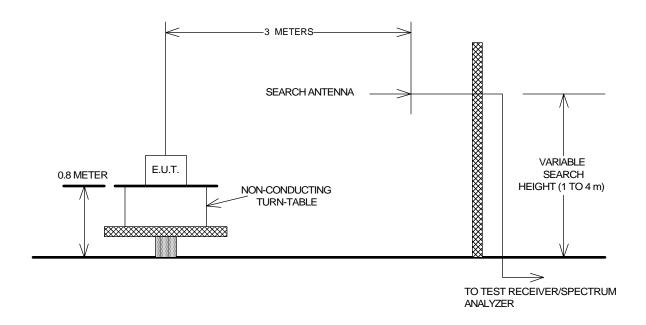
Para. No. 2.1049 - Occupied Bandwidth



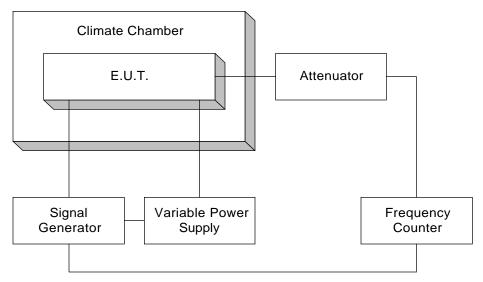
Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



Para. No. 2.1053 - Field Strength of Radiation



Para. No. 2.1055 - Frequency Stability



10 MHz Reference