



# M. Flom Associates, Inc.

## International Compliance Testing Laboratory

3356 N. San Marcos Place, Suite 107  
Chandler, AZ 85225

toll-free: (866) 311-3268  
fax: (480) 926-3598

<http://www.mflom.com>  
[info@mflom.com](mailto:info@mflom.com)

Date: March 21, 2005

Applicant: Unigen Corporation  
45388 Warm Springs Blvd.  
Fremont, CA 94539

Attention of: Mark Morrissey, Director of Business Development  
(800) 826-0808; (510) 668-2088 ext 2087  
Email: [mmorrissey@unigen.com](mailto:mmorrissey@unigen.com)

Equipment: UGWW2US  
Serial Port Communication Device

P.O. Number: 27955

Specification: RSS-210, Issue 5 (2001)

Gentlemen:

Enclosed please find your copies of the Application Form, covering letter to the department and Engineering Test Report, the whole for certification of the reference equipment as indicated.

As you know, after the TCB issues the Certificate, you must wait until Industry Canada has posted the submission to the REL List on their website before you can sell this product in Canada.

Our invoice for services has been directed to your Accounts Payable Department.

Should you need any clarification, just fax or phone. Thank you again for this order - it has been a pleasure to be of service.

Sincerely yours,

David E. Lee, Compliance Test Manager

enclosure(s)  
DEL/ca



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Date: March 21, 2005

### Industry Canada

Certification & Engineering Bureau  
3701 Carling Avenue, Bldg. 94  
P.O. Box 11490, Station "H"  
Ottawa, Ontario, Canada K2H 8S2

Attention: Certification Section

Applicant: Unigen Corporation  
Equipment: UGWW2US  
Serial Port Communication Device  
Specification: RSS-210, Issue 5 (2001)

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form, Engineering Test Report and all pertinent documentation, the whole for certification of the referenced equipment as shown.

The Canadian Maintenance Facility is listed. Filing fees are attached.

After the Department's evaluation and acceptance of the attached, it would be appreciated if a copy of the certificate and/or letter of notification to the Applicant were forwarded to the undersigned.

Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

David E. Lee, Compliance Test Manager

enclosure(s)  
cc: Applicant  
DEL/ca

**Appendix I**  
Application and Agreement for Certification Services

<b>Applicant &amp; Address:</b> Unigen Corporation 45388 Warm Springs Blvd. Fremont, CA 94539	<b>Contact Name:</b> Mark Morrissey, Director of Business Development <b>Email Address:</b> mmorrissey@unigen.com	<b>Telephone No:</b> (800) 826-0808 <b>Facsimile No:</b>
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<b>Canadian Representative &amp; Address:</b> Component Distributor Incorporated 1938 Fairbanks Avenue Ottawa, ON K1H 5Y3	<b>Contact Name:</b> Bordy Semchyshyn (GM) <b>Email Address:</b> bordy@cdiweb.com	<b>Telephone No:</b> (800) 884-9042 <b>Facsimile No:</b> (613) 523-1313
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<b>Company Number And UPN:</b>	5125A- UGWW2US
<b>Model Number:</b>	Serial Port Communication Device
<b>Specification Standard:</b>	RSS-210
<b>Type Of Service:</b>	Single

**Agreement:**

The Applicant Agrees To:

- (i) Accept responsibility for all Departmental changes arising from this application.
- (ii) Meet all requirements in accordance with Radio Standards Procedure 100 and other applicable procedures.
- (iii) Warrant that the test results submitted are a true and representation of the characteristics of the radio equipment type for which certification is requested.
- (iv) Inform the Bureau of any changes to the information submitted.

Name And Title Of Applicant (Please Print Or Type):

David Lee, Compliance Test Manager, Agent for Applicant

Signature Of Applicant:



Date:

March 21, 2005

**Appendix II**  
Test Report Cover Sheet

**Company Number:** 5125A  
**Model Number:** Serial Port Communication Device  
**Manufacturer:** Unigen Corporation  
**Specification Tested To:** RSS-210  
**IC O.A.T.S. Number:** IC 2044  
**Frequency Range:** 2402 to 2479  
**R.F. Power In Watts:** 0.00096  
**Field Strength Distance:** 3m  
**Occupied Bandwidth (99%):** 1500kHz  
**Type Of Modulation:** DSSS  
**Emission Designator:** 1M50F1D  
**Transmitter Spurious:** 284.45uV/m @ 9915.975000MHz

**Attestation:** I attest that the testing was performed or supervised by me, that the test measurements were made in accordance with the above-mentioned departmental standards and all the requirements of the standards have been met.

Signature:



Date:

March 21, 2005

**Name And Title (Please Print Or Type):**

David Lee, Compliance Test Manager, Agent For Applicant

**Checklist - RSP 100, Issue 7, APP. VI**

- BUSINESS LETTER .....\_/\_
- TECHNICAL ASSESSMENT FEE .....\_/\_
- CERTIFICATION FEE(S) .....\_/\_
- TESTING FEE ..... N/A
- APPLICATION FORM .....\_/\_
- POINT OF CONTACT IN CANADA.....\_/\_
- ADVERTISING LITERATURE PROVIDED .....\_/\_
- PHOTOGRAPHS .....\_/\_
- SCHEMATIC DIAGRAMS .....\_/\_
- USER/MAINTENANCE MANUAL .....\_/\_
- PHOTOCOPY/FAX QUALITY .....\_/\_
- TEST SAMPLE(S) ..... N/A
- MODEL IDENTIFICATION .....\_/\_
- STANDARDS REQUIREMENTS .....\_/\_
- MEASUREMENTS .....\_/\_
- SCALES CLEARLY VISIBLE ON GRAPHS/FIGURES .....\_/\_
- OCCUPIED BANDWIDTH LIMITS SHOWN .....\_/\_
- DESIGNATION OF EMISSIONS.....\_/\_
- TEST REPORT SAME AS ANOTHER COUNTRY ..... Yes:\_\_\_ No: \_/\_
- TELECOMMUNICATIONS NETWORK CONNECTION ..... Yes:\_\_\_ No: \_/\_
- ENGINEER'S DECLARATION OF COMPLIANCE.....\_/\_
- RF SAFETY EVALUATION.....\_/\_



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## Engineering Test Report

for

Model: Serial Port Communication Device

Transceiver

to

**Industry Canada**

**Guide: RSS-210, Issue 5 (2001)**

Date Of Report: March 21, 2005

**On The Behalf Of The Applicant:**

Unigen Corporation

**At The Request Of:**

P.O. 27955

Unigen Corporation  
45388 Warm Springs Blvd.  
Fremont, CA 94539


**Attention Of:**

Mark Morrissey, Director of Business Development  
(800) 826-0808; (510) 668-2088 ext 2087  
Email: [mmorrissey@unigen.com](mailto:mmorrissey@unigen.com)

Supervised By:

David E. Lee, Compliance Test Manager

Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

- a) **Test Report**
- b) Laboratory: M. Flom Associates, Inc.  
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
(Canada: IC 2044) Chandler, AZ 85225
- c) Report Number: d0530033
- d) Client: Unigen Corporation  
45388 Warm Springs Blvd.  
Fremont, CA 94539
- e) Identification: Serial Port Communication Device  
Description: Transceiver
- f) EUT Condition: Not required unless specified in individual tests.
- g) Report Date: March 21, 2005  
EUT Received: February 14, 2005
- h, j, k): As indicated in individual tests.
- i) Sampling method: No sampling procedure used.
- l) Uncertainty: In accordance with MFA internal quality manual.
- m) Supervised by:   
David E. Lee, Compliance Test Manager
- n) Results: The results presented in this report relate only to the item tested.
- o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

In accordance with ANSI C63.4-1992/2001, section 6.1.9, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

**Page Number** 2 of 22.  
**Type Of Equipment:** Transceiver  
**Manufacturer:** Unigen Corporation  
**Model Number:** Serial Port Communication Device  
R8KUGWW2USHN33A  
**Serial Number:** Prototype  
**Associated Equipment** N/A  
**Specification:** Procedure 100, Issue 7  
**Guide:** RSS-210, Issue 5 (2001)  
**Test Performed By:** Staff at M. Flom Associates, Inc.  
**Approved By:** David E. Lee, Compliance Test Manager  
**Documentation:** As Per List Attached at End of Report

**Notes:**

- |     |                                      |               |                       |
|-----|--------------------------------------|---------------|-----------------------|
| 1.  | Number Of Channels                   | =             | 70                    |
| 2.  | Frequency Range, MHz                 | =             | 2402 to 2479          |
| 3.  | Test Frequencies, MHz                | =             | 2440, 2402, 2479      |
| 4.  | I.F., MHz                            | =             | 0.0                   |
| 5.  | Power Output, Watts, $\mu$ V/m @3m   | =             | 0.00096               |
|     | ____ Switchable                      | ____ Variable | <u> X </u> N/A        |
| 6.  | Voltage Input, Vdc                   | =             | 4.5                   |
| 7.  | Emission Designator                  | =             | 1M50F1D               |
| 8.  | 99% (20 dB) Bandwidth, kHz           | =             | 1500                  |
| 9.  | Standard Input & Output Terminations | =             | 50 $\Omega$ Resistive |
| 10. | Date Of Tests                        | =             | February 2005         |
| 11. | Identification Label Drawing         | =             | Attached              |
| 12. | Worst Case Data Presented            |               |                       |

Page Number 3 of 22.

Name Of Test: Transmitter Characteristics and Tests  
Specification: IC: RSS-210, Section 6 & 8

**Applicable Sections:**

**Category I Equipment**

___	6.1.1	Types of Momentary Signals
___	6.1.2	26.99-27.20 MHz (Remote Control)
___	6.1.3	72-73 MHz (Model Aircraft)
___	6.1.4	75.4-76 MHz (Remote Control)
___	6.2.2(a)	160-190 kHz
___	6.2.2(b)	510-1,705 kHz
___	6.2.2(c)	1.705-10 MHz
___	6.2.2(c1)	1.705-37 MHz Swept Frequency
___	6.2.2(d)	6.765-6.795 MHz
___	6.2.2(e)	13.553-13.567 MHz
___	6.2.2(g)	40.66-40.70 MHz
___	6.2.2(g1)	44-49 MHz (Cordless Telephones)
___	6.2.2(h)	72-73 MHz, 74.6-74.8 MHz and 75.2-76.0 MHz (Auditory Assistance and Wireless Microphone)
___	6.2.2(k)	88-108 MHz
___	6.2.2(l1)	174-216 MHz (Medical Telemetry)
___	6.2.2(l2)	216-217 MHz (Auditory Assistance, Medical Telemetry, Goods Tracking and Law Enforcement)
___	6.2.2(l2.1)	462 and 467 Family Radio Service (FRS) Telephones
___	6.2.2(l3)	608-614 MHz (Medical Telemetry)
___	6.2.2(m1)	902-902.1/927.9-928 MHz (Rural Radiophones)
___	6.2.2(m2)	902-928, 2400-2483.5 and 5725-5875 MHz
___	6.2.2(n)	902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10.5-10.55 GHz and 24.075-24.175 GHz (Field Disturbance Sensors)
<u>x</u>	6.2.2(o)	902-928, 2400-2483.5 MHz and 5725-5850 MHz (Spread Spectrum)
___	6.2.2(q)	2900-3260 MHz, 3267-3332 MHz, 3339-3345.8 MHz and 3358-3600 MHz (Vehicle Identification)
___	6.2.2(q1)	5150-5350 MHz and 5725-2825 MHz (Local Area Network Devices)
___	6.2.2(r)	8.5-10.55 GHz Swept Frequency
___	6.2.2(r1)	Other Devices Totally Enclosed in Metal Containers (for non-restricted Frequencies)
___	6.2.2(s)	17.15 GHz and 94 GHz
___	6.2.2(t1)	Vehicular-Mounted Field Disturbance Sensors
___	6.2.2(t2)	Devices in the 59-64 GHz band
___	6.2.3	Other License-exempt Bands

**Category II Equipment**

___	8.1	Underground and Tunnel Radios
___	8.2	Cable Locating Equipment (9-490 kHz)
___	8.3.1	AC Wire Carrier Current Devices (0-535 kHz, 535kHz-30 MHz)
___	8.3.2	Power Line Carrier Systems (9-490 kHz)
___	8.4	Transmitter or input power 6 nanowatts or less
___	8.5	0-9 kHz, and infra-red frequencies
___	8.6.1	26.96-27.28 MHz
___	8.6.2	49.82-49.90 MHz
___	8.6.3	24.0-24.25 GHz

Page Number 4 of 22.

Name Of Test: 902-928 MHz and 5725-5850  
(Spread Spectrum), Direct Sequence Systems

Specification: IC: RSS-210, Section 6.2.2(o)(b)

### Summary Of Requirements

1. **Transmitter Power Density**

Limits:  $\leq 8$  dBm in any 3kHz bandwidth

Frequency	Measured dBm @ 1Hz	Calculated dBm @ 3kHz	Margin dBm
2402.000	-40.90	-6.1	-14.10
2440.000	-49.10	-14.3	-22.30
2479.000	-40.40	-5.6	-13.60

Power Spectral Density per 3-kHz bandwidth = Power Spectral Density per 1-Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor =  $10 \cdot \log(3 \text{ kHz} / 1 \text{ Hz}) = 34.8 \text{ dB}$

2. **Processing Gain**

Limits:  $\geq 10$  dB

Please see applicant statement regarding calculation.

3. **Measured Peak Power**

Limits:  $\leq 1$  Watt

Measured, Watts = 0.00096

Antenna Gain, (in excess of 6 dBi) = No

Calculated, Power + Gain, Watts = 0.00096

4. **Transmitter Spurious Emissions**

Shall meet the less stringent of -20 dBc or Table 3.

Please see measurement results for the test "Transmitter Spurious Emissions".

5. **Other Requirements**

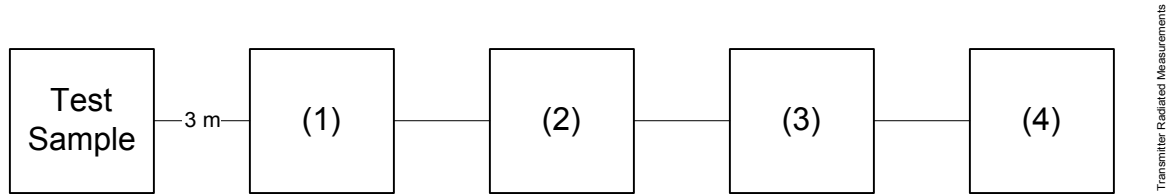
Sections 2 to 5, 6.3 to 6.6, 7.0 to 7.5 and 9 to 14 may apply.

Page Number 5 of 22.  
**Name Of Test:** Transmitter Fundamental Emissions  
**Specification:** IC: RSS-210, Section 10, 11, 12, & 13  
**Test Equipment:** As per following page

#### Measurement Details

Site Reference Number = IC2044  
Frequency Of Carrier, MHz = As per Page 2.  
Measurement Results = Attached

**Transmitter Radiated Measurements**



Asset (as applicable)	Description	s/n	Cycle	Last Cal <small>Per ANSI C63.4-1992, 10.1.4</small>
<b>(1) Transducer</b>				
i00088	EMCO 3109-B 25MHz-300MHz	2336	24 mo.	Sep-03
i00089	Apral 2001 200MHz-1GHz	001500	24 mo.	Sep-03
X i00103	EMCO 3115 1GHz-18GHz	9208-3925	24 mo.	Sep-03
<b>(2) Coaxial Attenuator</b>				
i00122	NARDA 766-10	7802	NCR	
i00123	NARDA 766-10	7802A	NCR	
<b>(3) Preamp</b>				
X i00028	HP 8449A (+30 dB)	2749A00121	12 mo.	Mar-04
<b>(4) Spectrum Analyzer</b>				
i00029	HP 8563E	3213A00104	12 mo.	Mar-04
X i00033	HP 85462A	3625A00357	12 mo.	Sep-04
i00048	HP 8566B	2511AD1467	12 mo.	Aug-04

**Name Of Test:** Field Strength of Fundamental Radiation

g0520128: 2005-Feb-21 Mon 12:48:00

State: 2:High Power

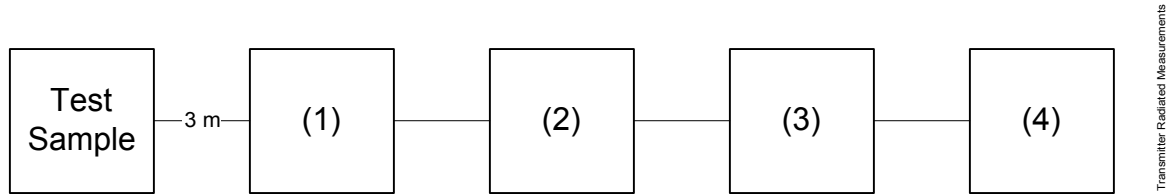
Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV	CF, dB	uV/m @ 3m	EIRP, dBm	EIRP, W
2402.000000	2401.775000	60.64	32.59	45866.96	-2.0	0.00063
2440.000000	2440.338000	62.34	32.70	56493.70	-0.2	0.00096
2479.000000	2479.363000	61.7	32.79	53027.36	-0.7	0.00085

Page Number 8 of 22.  
**Name Of Test:** Transmitter Spurious Emissions  
**Specification:** IC: RSS-210, Section 10, 11, 12, & 13  
**Test Equipment:** As per following page

#### Measurement Details

Site Reference Number = IC2044  
Frequency Of Carrier, MHz = As per Page 2.  
Measurement Results = Attached

**Transmitter Radiated Measurements**



Asset (as applicable)	Description	s/n	Cycle	Last Cal <small>Per ANSI C63.4-1992, 10.1.4</small>
<b>(1) Transducer</b>				
	i00088	EMCO 3109-B 25MHz-300MHz	2336	24 mo. Sep-03
	i00089	Apral 2001 200MHz-1GHz	001500	24 mo. Sep-03
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	24 mo. Sep-03
<b>(2) Coaxial Attenuator</b>				
	i00122	NARDA 766-10	7802	NCR
	i00123	NARDA 766-10	7802A	NCR
<b>(3) Preamp</b>				
X	i00028	HP 8449A (+30 dB)	2749A00121	12 mo. Mar-04
<b>(4) Spectrum Analyzer</b>				
	i00029	HP 8563E	3213A00104	12 mo. Mar-04
X	i00033	HP 85462A	3625A00357	12 mo. Sep-04
	i00048	HP 8566B	2511AD1467	12 mo. Aug-04

**Name Of Test:** Field Strength of Spurious Radiation

g0520129: 2005-Feb-21 Mon 14:16:00

State: 2:High Power

Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV	CF, dB	uV/m @ 3m	Peak / Ave.	Margin, dB
2402.000000	4804.166667	24.17	13.15	73.45	P	-16.7
2440.000000	4881.608333	31.33	13.14	167.30	P	-9.5
2479.000000	4957.975000	35.33	13.14	265.16	P	-5.5
2402.000000	7206.166667	23.83	15.29	90.36	P	-14.9
2440.000000	7320.083333	26.83	15.81	135.52	P	-11.4
2479.000000	7436.975000	30.50	16.34	219.79	P	-7.2
2402.000000	9608.166667	20.33	21.03	116.95	P	-12.6
2440.000000	9760.083333	22.33	20.96	146.05	P	-10.7
2479.000000	9915.975000	28.17	20.91	284.45	P	-4.9
2402.000000	12010.166667	22.50	17.80	103.51	P	-13.7
2440.000000	12200.083333	25.00	15.98	111.94	P	-13.0
2479.000000	12394.975000	24.00	14.15	80.82	P	-15.9
2402.000000	14412.166667	27.67	12.87	106.41	P	-13.5
2440.000000	14640.083333	25.67	13.93	95.50	P	-14.4
2479.000000	14873.975000	28.00	16.67	171.20	P	-9.3
2402.000000	16814.166667	29.00	9.78	86.90	P	-15.2
2440.000000	17080.083333	22.83	8.36	36.27	P	-22.8
2479.000000	17352.975000	26.50	11.15	76.30	P	-16.4

Page Number 11 of 22.  
Name Of Test: Emission Masks (Occupied Bandwidth)  
Specification: IC: RSS-210 5.9  
Test Equipment: As per following page

### Measurement Details

#### 5.9.1 Emission Bandwidth

Where indicated, the 6 dB (or 20 dB) bandwidth is measured at the points when the spectral density of the signal is 6 dB (or 20 dB) down from the inband spectral density of the modulated signal, with the transmitter modulated by a representative signal. Spectral density (power per unit bandwidth) is to be measured with a meter of 300 Hz resolution bandwidth or alternatively equal to approximately 1.0% of the emission bandwidth. An alternative to the 20 dB bandwidth is the 99% emission bandwidth. This bandwidth is determined such that below the lower and above the upper frequency limits, the mean powers emitted are each equal to 0.5 % of the total mean power of the emission.

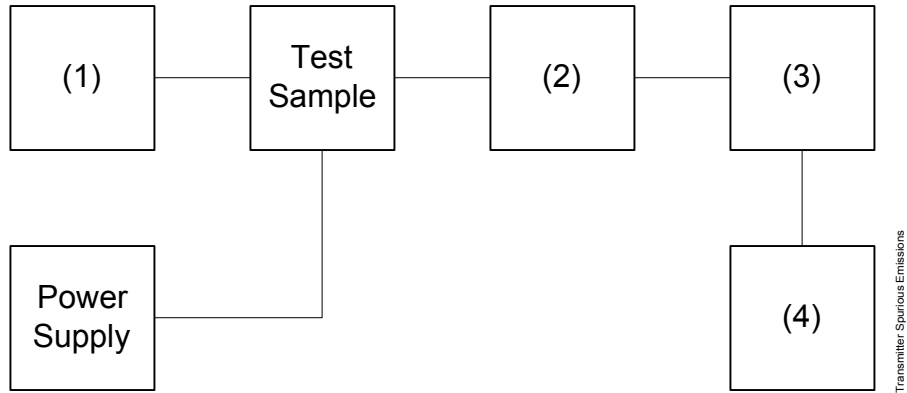
The bandwidth of the transmitted signal and the type of meter (CISPR quasi-peak or averaging) used in the measurement shall always be stated when submitting information or test report to Industry Canada for equipment certification. However, where a bandwidth value is not specified in this Standard, the transmitted signal bandwidth to be reported is to be its 20 dB or 99% emission bandwidth, as calculated or measured. This is also known as the emission bandwidth, or the occupied bandwidth (for the purpose of Annex A), or the necessary bandwidth ( for the purpose of designation of emissions in section 5.9.2 and in Annex A) or the fundamental emission bandwidth.

#### 5.9.2 Designation Of Emissions = 1M50F1D

**Transmitter Spurious Emission**

Test A. Occupied Bandwidth (In-Band Spurious)

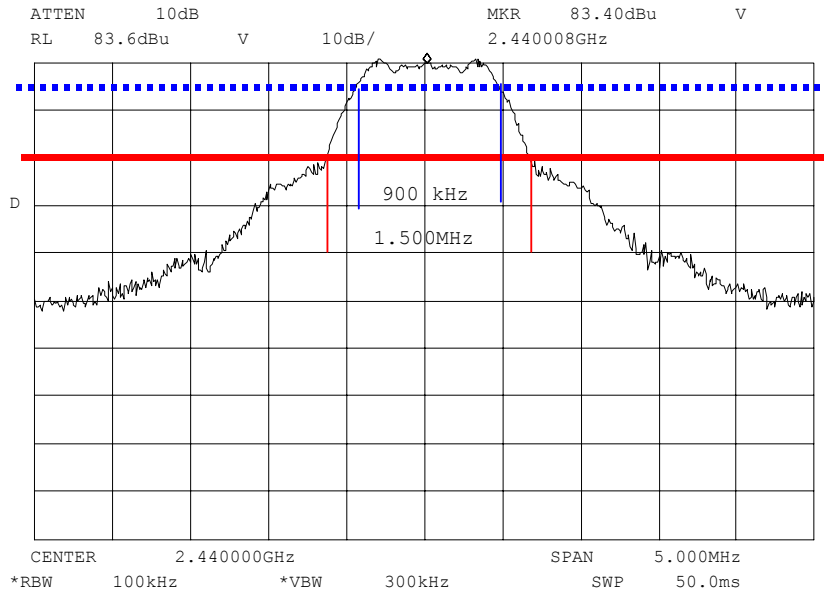
Test B. Out-Of-Band Spurious



Asset (as applicable)	Description	s/n	Cycle	Last Cal
(1)	Audio Oscillator/Generator i00017 HP 8903A	2216A01753	12 mo.	Apr-04
(2)	Coaxial Attenuator i00223 Pasternak 30dB	223	NCR	
(3)	Filters; Notch, HP, LP, BP (if applicable)			
(4)	Spectrum Analyzer i00029 HP 8563E	3213A00104	12 mo.	Mar-04
X	i00033 HP 85462A	3625A00357	12 mo.	Sep-04

Name of Test: Emission Masks (Occupied Bandwidth)  
Indicating 6/20 dB Bandwidth

g0530008: 2005-Mar-09 Wed 11:25:00  
State: 2: High Power (in line attenuation 23dB)



Power:  
Modulation:

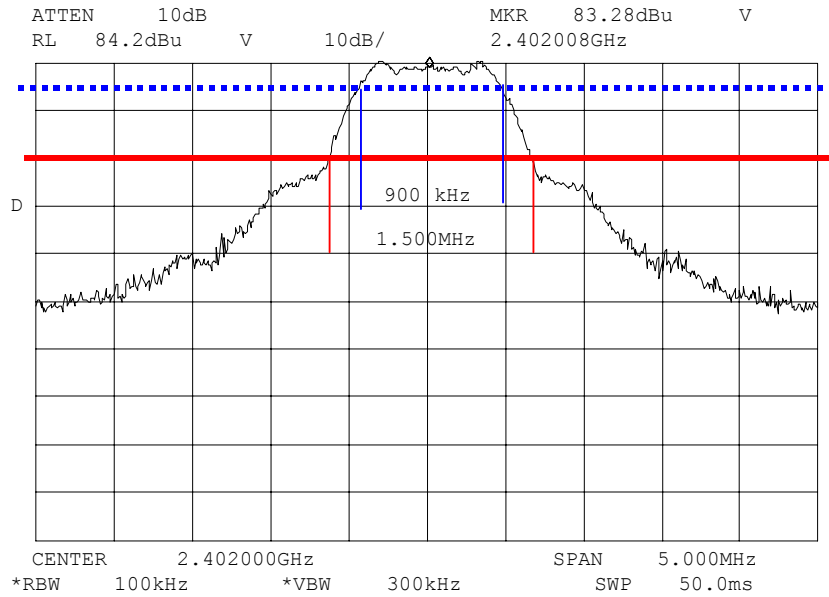
HIGH  
DSSS - Mid Channel  
6dB Bandwidth = 900kHz  
20db Bandwidth = 1.5MHz

Supervised By:

David E. Lee, Compliance Test Manager

Name of Test: Emission Masks (Occupied Bandwidth)  
Indicating 6/20 dB Bandwidth

g0530009: 2005-Mar-09 Wed 11:26:00  
State: 2: High Power (in line attenuation 23dB)



Power:  
Modulation:

HIGH  
DSSS - Low Channel  
6dB Bandwidth = 900kHz  
20db Bandwidth = 1.5MHz

Supervised By:

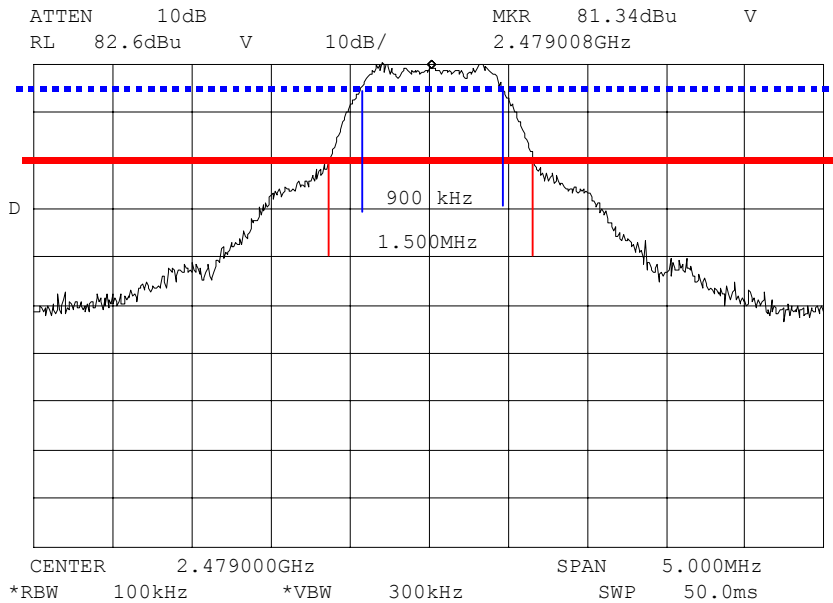
David E. Lee, Compliance Test Manager

Name of Test:

Emission Masks (Occupied Bandwidth)  
Indicating 6/20 dB Bandwidth

g0530010: 2005-Mar-09 Wed 11:27:00

State: 2: High Power (in line attenuation 23dB)



Power:  
Modulation:

HIGH  
DSSS - High Channel  
6dB Bandwidth = 900kHz  
20db Bandwidth = 1.5MHz

Supervised By:

David E. Lee, Compliance Test Manager

Page Number 16 of 22.

Name Of Test: Restricted Bands and Unwanted Emission Frequencies

Specification: IC: RSS-210, Section 6.3

### Summary Of Requirements

- (a) Fundamental components of modulation of this equipment do not fail in the restricted bands of Table 2 (See tables at end of report).
- (b) Unwanted emissions in this report include out-of-band products or modulation, carrier harmonics and spurious emissions.
- (c) Except as provided in 6.2.2(o) (if applicable), unwanted emissions falling into restricted bands meet Tables 3 and 7 limits. The measurement instrumentation employed a CISPR quasi-peak detector for frequencies 490 kHz to 1000 MHz. Above 1000 MHz, compliance is based on the average value or measured emissions. Below 490 kHz, either a CISPR quasi-peak or an average meter was used.

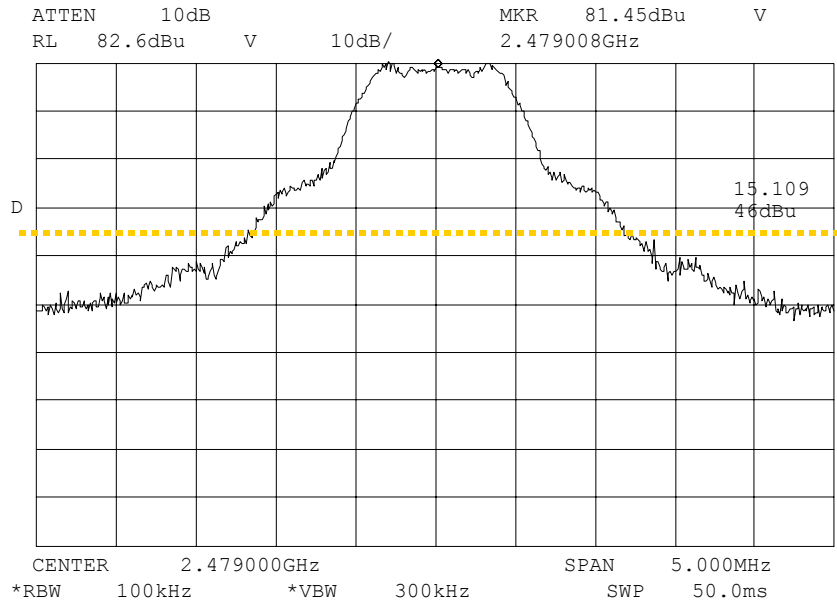
For Category II equipment, either a CISPR quasi-peak or an averaging meter was used, as per section 8.

- (d) Unwanted emissions not falling within restricted frequencies may have used the limits specified in section 6.1 to 6.2.2(f).
- (e) The search for unwanted emissions (from the transmitter) was from the lowest frequency internally generated or used in the device (local oscillator, intermediate or carrier frequency), used, without exceeding 23 GHz. Section 5.8 was referenced for the resolution bandwidth to be used.
- (f) If the device contained digital circuitry, section 5.16 was complied with.

Page Number 17 of 22.

Name of Test: Emission at Band Edges (Conducted)

State:  
g0530007: 2005-Mar-09 Wed 11:25:00  
State: 2: High Power (in line attenuation 23dB)



Power:  
Modulation:

HIGH  
DSSS - High Channel  
Below 46dBuV above 2.480500GHz  
(Band Edge 2.483500GHz)

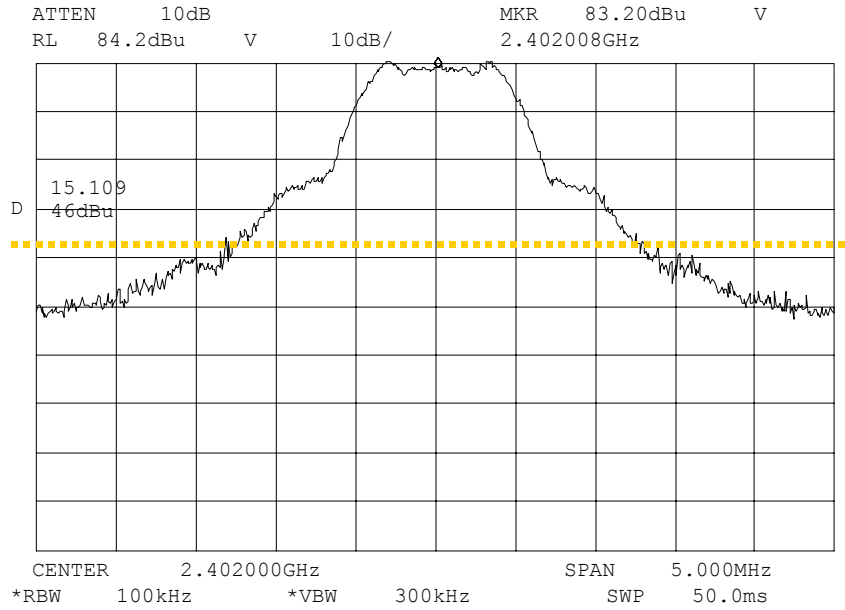
Supervised By:

David E. Lee, Compliance Test Manager

Page Number 18 of 22.

Name of Test: Emission at Band Edges (Conducted)

g0530007: 2005-Mar-09 Wed 11:25:00  
State: 2: High Power (in line attenuation 23dB)



Power:  
Modulation:

HIGH  
DSSS - Low Channel  
Below 46dBuV below 2.400500GHz  
(Band Edge 2.400000GHz)

Supervised By:

David E. Lee,  
Compliance Test Manager

Page Number 19 of 22.  
Name Of Test: Frequency Stability  
Specification: IC: RSS-210, Section 6.4

**Test Conditions**

**Not Applicable**

Frequency Stability is not required by the manufacturer.

**And**

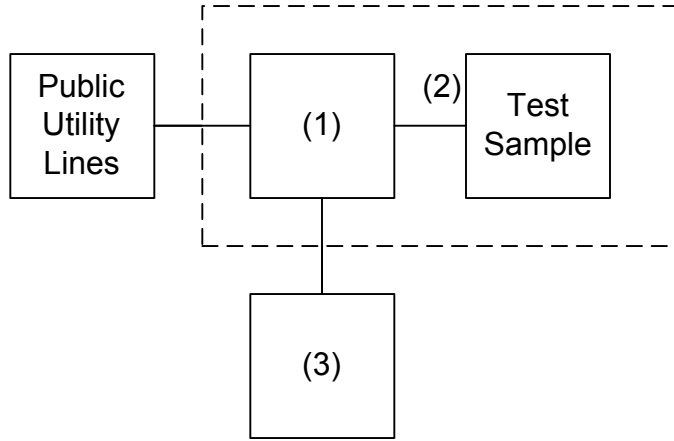
The equipment does not operate in the restricted bands.

Page Number 20 of 22.  
Name Of Test: A/C Wireline Conducted Emissions  
Specification: RSS-210, Sections 6.6, 7.4, 9.0  
Minimum Standard:  $\leq 250 \mu\text{V}$  across  $50 \Omega$  ( $5 \mu\text{A}$ )  
Test Equipment: As per attached page

### Measurement Procedure

Measurement Method = To Pare. 9.0  
Spectrum Searched, MHz = 0.15 to 30  
Measurement Results = Attached

**AC Powerline Conducted Measurements**



Asset	Description	s/n	Cycle	Last Cal
<b>(1) Line Impedance Stabilization Network</b>				
i00244	Fischer 50-20-2-01	2047	NCR	
<b>(2) Screen Room</b>				
X i00170	Lindgren LG170	4999	NCR	
<b>(3) Spectrum Analyzer</b>				
X i00033	HP 85462A	3625A00357	12 mo.	Sep-04
i00048	HP 8566B	2511AD1467	12 mo.	Aug-04

Per ANSI C63.4-1992/2000 Draft, 10.1.4

Page Number 22 of 22.

Name Of Test: A/C Wireline Conducted Emissions

State:

g0490042: 2004-Sep-13 Mon 15:59:00

State: 0:Neutral

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	$\mu$ V/m
2440.000000	1.041833	38.83	0.58	93.43
2440.000000	1.725500	38.83	0.59	93.54
2440.000000	2.360333	39.67	0.59	103.04
2440.000000	2.946333	33.83	0.61	52.72
2440.000000	25.751500	34.83	1.60	66.3
2440.000000	28.486167	37.33	1.66	89.02

g0490043: 2004-Sep-13 Mon 16:03:00

State: 0:Line

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	$\mu$ V/m
2440.000000	0.944167	46.00	0.53	212.08
2440.000000	1.286000	43.17	0.51	152.76
2440.000000	2.653333	38.67	0.56	91.52
2440.000000	3.678833	34.83	0.63	59.29
2440.000000	25.946833	33.17	1.82	56.17
2440.000000	28.974500	35.17	1.95	71.78

**Annex A**  
**Summary of test results**

Equipment model:

Test report page or  
reference

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Transmitter tested to RSS-210 section

Field strength 56493.70  $\mu\text{V}/\text{m}$  at 3 meters  
X Radiated (sections 11 & 13)  
         At antenna (section 10)  
         DC input power (sections 12)

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Nominal Transmitter Frequency	<u>2400MHz</u>	Page 2
Bandwidth	<u>2402 - 2479</u>	Page 2
Frequency stability	N/A	N/A

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Transmitter spurious (worst case)

Field strength 284.45  $\mu\text{V}/\text{m}$  at 3 meters  
Frequency 9915.975 MHz

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Transmitter/receiver AC Wireline conducted emissions (worst case)

Transmitter/Receiver: As indicated

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Attestation:

The radio device identified in this application has been subject to all the applicable test conditions specified in RSS-210 and all of the requirements of the Standard have been met.



March 21, 2005

David E. Lee, Compliance Test Manager

**Testimonial  
And  
Statement Of Certification**

**This Is To Certify That:**

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

**Certifying Engineer:**



David E. Lee, Compliance Test Manager

## List Of Attached Documentation

(Industry Canada - Revised 3/24/97)

Applicant: Unigen Corporation

Equipment: Serial Port Communication Device

### By Applicant:

1. Letter Of Authorization
2. Identification Drawings
  - Label
  - Location Of Label
  - Compliance Statement
  - Location Of Compliance Statement
3. Photographs
4. Advertising Literature/Specification Sheet
5. Attestation ( Applicable)
6. Documentation:
  - (A) Block Diagram
  - (B) List Of Active Devices
  - (C) Schematic Diagram
  - (D) Manual
  - (E) Tune-Up/Alignment Procedure
  - (F) Circuit Description
  - (G) Parts List

By M.F.A. Inc.

Testimonial & Statement Of Certification