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**FCC ID: NUW008EKO19**

Prepared for:

**CI WIRELESS INC.**  
1211 Ira E. Woods Avenue  
Grapevine, Texas 76051

By:

Professional Testing (EMI), Inc.  
1601 FM 1460, Suite B  
Round Rock, Texas 78664

Submitted to:

**Federal Communications Commission**  
**Equipment Approval Services**  
P.O. Box 358315  
Pittsburgh, Pennsylvania 15251-3315

February 1999

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**FCC Application for Type Acceptance  
of an Intentional Radiator**

**CI WIRELESS INC.**  
**EkoCell**  
**1900 MHz PCS Band 8 Watt Repeater**  
**(Transmitter Portion)**

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## Certificate of Compliance

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Applicant: CI Wireless Inc.

Applicant's Address: 1211 Ira E. Woods Avenue  
Grapevine, Texas 76051

Model: 1900 MHz PCS Band 8 Watt Repeater

Serial Number: 80000/80003

Project Number: 99-219

Test Dates: January 19 through 20, 1999

I, Jeffrey A. Lenk, for Professional Testing (EMI), Inc., being familiar with the FCC rules and test procedures have reviewed the test setup, measurement data and this report. I believe them to be true and accurate. The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was tested and found to be in compliance with FCC Part 24 for Intentional Radiators.

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Jeffrey A. Lenk  
President

NVLAQ®

## 1.0 Equipment Under Test (EUT) Description

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is an 8 watt 1900 MHz PCS Band Repeater System. This system enhances the coverage of a PCS system by adding base station capability to traditional poor cellular coverage areas (i.e. subways, shopping malls, convention centers). The system has a set of automatic setup features, enabling the repeater to be installed & configured by one person. Automatic system monitoring is present to monitor system health & report/record any EUT problems. **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** supports CDMA, TDMA and GSM communications in the U.S. PCS band.

The EkoCell system is comprised of two components: a Hub unit and a Remote unit. The Hub is installed at a cellular base station while the remote unit is installed at the desired transmit/receive location and attached to an antenna assembly. The two pieces are connected by two fiber optic links (one for transmit, one for receive). Due to the low loss of the fiber link, the Remote is usually not installed at the same location as the Hub unit.

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is intended for professional installation only in the type of environments described above. This device is intended for operation under the requirements of Part 24 (Subpart E). Specific test requirements include the following:

47 CFR 2.989	Occupied Bandwidth
47 CFR 24.232	Effective Radiated Power (ERP)
47 CFR 24.238	Out of Band Emissions - Radiated
47 CFR CFR 24.238	Out of Band Emissions - Conducted
47 CFR 1.1310	Radiofrequency Radiation Exposure Limits

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was tested in the transmit mode of operation for GSM, TDMA and CDMA modes of operation. This unit does not possess frequency shifting components and does not re-modulate or re-key the signal. Based on the lack of frequency shifting or re-keying/re-modulation circuitry, the following tests were not performed:

47 CFR 2.995(a) & 47 CFR 24.235	Frequency Stability vs. Temperature
47 CFR 2.995(d)(1) & 47 CFR 24.235	Frequency Stability vs. AC Power
47 CFR 24.236	Field Strength Limits*

\* Data to aid in compliance with this specification is included with the data regarding RF Radiation Exposure limits.

**The system tested consisted of the following:**

<b><u>Manufacturer &amp; Model</u></b>	<b><u>Serial #</u></b>	<b><u>FCC ID #</u></b>	<b><u>Description</u></b>
CI Wireless, Inc., Eko-1.9HOB0-OA0000	80000	NUW008EK029	800M/1900M MHz Hub Unit
CI Wireless, Inc., Eko-1.9ROB0-OA0000	80003	NUW008EK019	1900 MHz PCS Band Remote Unit

Multimode Fiber Optic Cables (10 Ft.) (2 ea.)	N/A	N/A	Hub/Remote Interconnect cables
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**System Peripherals:**

Bird Model 8073-1	542	N/A	50 ohm Load
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Cellwave Model AOB1903	M227657012	N/A	Vertical Rod Antenna
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**Cables and Cords:**

Unshielded Power Cord (6 Ft.) (2 ea.)

RG-223 Coaxial Cable (1 M) (2 ea.)

The two models for the system components tested are:

Hub Unit: Eko-1.9HOB0-OA0000

Remote Unit: Eko-1.9ROB0-OA0000

The test covered under this report address all subseries of these models. The base model designators for the components of this system are Model Eko-1.9HXB0-XXXXXX for the Hub unit and Model Eko-1.9RXB0-XXXXXX for the Remote Unit. An index of the sub-model designations for the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is shown in Appendix A. The two particular models used for this test were loaded with all active circuit options available, providing a worst case configuration for emissions testing. The options sub-model options available for this product have no impact of the strength, bandwidth or spurious output of the intended transmission signal.

To cover the 1930 to 1965 MHz frequency range, the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** may be configured (via the selection/specification of the internal filter) to operate in one of three PCS Bands (Bands A, B and D). Each EkoCell can only be configured to operate in one band at a time; changing the EkoCell to a different band requires a change in the filter portion/duplexer of the Remote Unit (no changes to active circuits are required). To verify compliance with the Rules for all three bands, full testing was performed (three points per band for each modulation type) for each band.

The equipment within this report was tested to verify its compliance with FCC Rule Parts 2, and 24, for Intentional Radiators. A separate verification report pursuant to Part 15, Subpart B has been prepared for the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** as a Digital Device and as a receiver.

**2.0 Occupied Bandwidth Measurements**

Measurements were made on the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** to determine the occupied bandwidth in accordance with Part 2.989.

## 2.1 Test Procedure

All measurements were performed in a controlled laboratory environment. The occupied bandwidth of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was measured using a Hewlett Packard HP 8566 Spectrum Analyzer with a test signal provided to the EUT from a Rhode-Schwartz signal generator. Occupied bandwidth plots were made for the test generator by itself to use as a comparison for possible spectral regrowth.

Occupied bandwidth was plotted for each of the data types (GSM, CDMA and TDMA). The shape of the occupied bandwidth was checked for each of the three channels for each modulation type. No change was detected versus channel for each modulation type. The occupied bandwidth was measured based on the emission width 26 dB below the peak emission level.

## 2.2 Test Criteria

Section 2.989 requires that the occupied bandwidth for Type Accepted units be measured and reported as part of the device filing.

## 2.3 Test Results

Data for occupied bandwidth testing is located in Appendix B of this report. Data for the occupied bandwidth of the generator by itself is also contained in this appendix. The widest bandwidths for each of the modulation types used by the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** are listed below.

Service Type	Reference Frequency	Occupied Bandwidth
GSM	Band B, 1957.5 MHz	317 kHz
TDMA	Band D, 1949.5 MHz	1.44 MHz
CDMA	Band D, 1946.25 MHz	36.7 kHz

No significant variation was seen between the emission bandwidth of the EUT and the generator. In addition, no difference was seen in the occupied bandwidths between the bands. The data shown in Appendix B represents the worst case occupied bandwidths seen for each emission type.

## 3.0 Effective Radiated Power (ERP) Measurements

Measurements were made on the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** to verify compliance with the maximum effective radiated power (ERP) requirements of §24.232.

ERP measurements were made at the Professional Testing's Round Rock, Texas Laboratory. All measurements were made in a semi-anechoic shielded room. Prior to each measurement, the room was sealed to prevent ambient emissions from affecting the measurements.

## 3.1 Test Procedure

The EUT was placed on a non-conductive table 0.8 meters above the ground plane. The table was centered on a turntable which allows 360 degree rotation. A measurement antenna was positioned at a distance of 3 meters as measured from the closest point of the EUT. The radiated emissions were

maximized by configuring the EUT, by rotating the EUT, and by raising and lowering the antenna from 1 to 4 meters.

A Spectrum Analyzer with peak detection was used to find the maximums of the radiated emissions during the variability testing. All final measurements were made in peak mode with the bandwidth set to 3 MHz/3 MHz.

ERP testing of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was performed at 3 channel settings for each band for all of the transmission modes.

### 3.2 Test Criteria

Section 24.232 requires that the effective radiated power of repeaters shall be no greater than 100 watts. Since the EUT does not include an antenna, a typical antenna (a vertical rod type antenna) was attached to the EUT and used for the ERP measurements. This process was also used for the spurious emission measurements. ERP testing was performed by measuring the maximum electric field from the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** and translating this level to ERP using the following formula:

$$ERP = \{(E \cdot r)^2\} / (30)$$

Where:

**E = Electric Field in v/m**

**r = distance from the measurement antenna to the EUT in meters**

This formula was obtained from the Industry Canada document, 'Guidelines for Measurement of Radio Frequency Fields at Frequencies from 10 kHz to 300 GHz, Document Reference NIR-E, dated January 1994'.

### 3.3 Test Results

Measurements were performed utilizing a spectrum analyzer IF/video bandwidth of 3 kHz/10 kHz. For final measurements, the frequency span was set for 3 MHz and was centered on the peak of the output signal.

Data for ERP testing is located in Appendix C of this report **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** met the §24.232 ERP requirements.

### 4.0 Out of Band Emissions - Radiated

Radiated emissions measurements were made to determine out of band radiated noise produced by the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** in accordance with Section 24.238.

ERP measurements were made at the Professional Testing's Round Rock, Texas Laboratory. All measurements were made in a semi-anechoic shielded room. Prior to each measurement, the room was sealed to prevent ambient emissions from affecting the measurements.

## 4.1 Test Procedure

The EUT was placed on a non-conductive table 0.8 meters above the ground plane. The table was centered on a turntable which allows 360 degree rotation. A measurement antenna was positioned at a distance of 3 meters as measured from the closest point of the EUT. For measurements above 1 GHz, the antenna distance was decreased to 1 meter. The radiated emissions were maximized by configuring the EUT, by rotating the EUT, and by raising and lowering the antenna from 1 to 4 meters.

The Spectrum Analyzer was used to find the maximums of the conducted emissions during the testing. All final measurements were made using a peak measurement method. The final measurements provided were determined by using the following formula:

$$\text{Corrected Level} = \text{Recorded Level} - \text{Pre-Amp Gain} + \text{Antenna Factor} + \text{Cable Loss}$$

Measurement of the fundamental signal was performed with a sample antenna attached to the EUT. Measurement of spurious radiated emissions was performed with a shielded load attached to the device (no antenna). The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** does not include an antenna as part of the EUT, so the interest regarding spurious for this device is case radiation. A test signal was provided to the EUT from a Rhode-Schwartz signal generator.

## 4.2 Test Criteria

For this EUT, the data obtained for the occupied bandwidth tests indicated that the out of band emissions from the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** were due to the generator, not the EUT (no spectral regrowth observed). Section 24.238 states that the out of band emissions shall be reduced by the following amount (relative to the power of the fundamental) for emissions outside the licensee's frequency block:

$$43 + 10 \log(P)$$

Based on the figures obtained from the occupied bandwidth tests, the peak power of this unit is 8 watts, which translates the  $43 + 10 \log(P)$  term to a minimum attenuation of -52 dB.

## 4.3 Test Results

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was tested for radiated spurious emissions at three channel settings for GSM, CDMA & TDMA transmission modes for each of the three bands. The test frequencies used for each modulation type are listed below. The primary difference between upper and lower frequencies for the modulation types involves the guard bands typically used for each type of traffic.



Service Type	Band	Test Channel	Test Frequency (MHz)
GSM	A	Lower	1930.5
GSM	A	Middle	1937.5
GSM	A	Upper	1944.5
GSM	D	Lower	1945.5
GSM	D	Middle	1947.5
GSM	D	Upper	1949.5
GSM	B	Lower	1950.5
GSM	B	Middle	1957.5
GSM	B	Upper	1964.5
CDMA	A	Lower	1932.25
CDMA	A	Middle	1937.5
CDMA	A	Upper	1943.75
CDMA	D	Lower	1946.25
CDMA	D	Middle	1947.5
CDMA	D	Upper	1948.75
CDMA	B	Lower	1951.25
CDMA	B	Middle	1957.5
CDMA	B	Upper	1963.75
TDMA	A	Lower	1930.5
TDMA	A	Middle	1937.5
TDMA	A	Upper	1944.5
TDMA	D	Lower	1945.5
TDMA	D	Middle	1947.5
TDMA	D	Upper	1949.5
TDMA	B	Lower	1950.5
TDMA	B	Middle	1957.5
TDMA	B	Upper	1964.5

Radiated emission data sheets are contained in Appendix D of this report. The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** met the §24.238 radiated emission requirements.

## 5.0 Out of Band Emissions - Conducted

Conducted emissions measurements were made to determine out of band conducted antenna noise produced by the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** transmitter in accordance with Section 24.238).

Conducted emissions measurements were made at the Professional Testing's Round Rock, Texas laboratory. All measurements were made in an environmentally controlled setting.

### 5.1 Test Procedure

The conducted spurious emissions of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was measured using a Hewlett Packard HP 8566 Spectrum Analyzer with a test signal provided to the EUT from a Rhode-Schwartz signal generator.

The Spectrum Analyzer was used to find the maximums of the conducted emissions during the testing. All final measurements were made using a peak measurement method. The final measurements provided were determined by using the following formula:

$$\text{Corrected Level} = \text{Recorded Level} - \text{Pre-Amp Gain} + \text{Antenna Factor} + \text{Cable Loss}$$

## 5.2 Test Criteria

For this EUT, the data obtained for the occupied bandwidth tests indicated that the out of band emissions from the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** were due to the generator, not the EUT (no spectral regrowth observed). Section 24.238 states that the out of band emissions shall be reduced by the following amount (relative to the power of the fundamental) for emissions outside the licensee's frequency block:

$$43 + 10 \log(P)$$

Based on the figures obtained from the occupied bandwidth tests, the peak power of this unit is 8 watts, which translates the  $43 + 10 \log(P)$  term to a minimum attenuation of -52 dB.

## 5.3 Test Results

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** was tested for conducted spurious emissions at three channel settings for GSM, CDMA & TDMA transmission modes for each of the three bands. The test frequencies used for each modulation type are the same as those used for the radiated spurious emission tests. The primary difference between upper and lower frequencies for the modulation types involves the guard bands typically used for each type of traffic.

Conducted emission data sheets are contained in Appendix E of this report. The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** met the §24.238 conducted emission requirements.

## 6.0 Radiofrequency Radiation Exposure Evaluation

An evaluation was performed to provide data regarding the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** with respect to the Radiofrequency Radiation Exposure requirements of 47 CFR 1.1310.

### 6.1 Evaluation Procedure

The primary method of controlling radiofrequency radiation exposure from the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** will be the responsibility of the installer of the equipment. The device is to be professionally installed by personnel trained and familiar with installation and configuration of wireless systems. The installer is responsible for antenna selection, site selection and final site configuration. Final compliance with Commission RF exposure regulations for this type of site is the responsibility of the installer and is addressed under separate OET documents.

This device is not marketed outside the wireless communications community. In order to install this system properly, the maximum output power versus the frequency range should be reported in the User's Manual for the device such that this issue can be addressed when the installation site of this device is designed.

## 6.2 Evaluation Results

The output power level for the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is reported in the User's Manual as being 8 watts. In addition, the frequency range for this device is reported as being 1930.0 to 1965.0 MHz. Based on this information, the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** meets the necessary requirements regarding RF exposure.

This data may also be used by the installation designer to design compliance with the Field Strength Requirements of §24.236. This Section of the Rules states that the median field strength of the signals from the EUT shall be no greater than 47 dBμV/m at the perimeter of the service area (unless an agreement on a higher level is set in advance).

## 7.0 Form 731 Information

The following information is provided for inclusion in the FCC Form 731 for the **CI Wireless Inc., 800 MHz Cellular Band 4 Watt Repeater**.

### 7.1 Emission Designator

#### *Bandwidth:*

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** does not possess any circuitry which remodulates or changes the bandwidth of the signal that it receives and repeats. The only potential issue that can arise in this type of product regarding bandwidth is spectral regrowth immediately around the primary emission. This is due to the design and power handling capability of the amplifier.

The data contained in the occupied bandwidth test data does not indicate any spectral regrowth. Based on this information, the bandwidth of emissions from the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** would be that of the signal received by the repeater. Since the EUT does not contribute or modify the emission bandwidth, a bandwidth designator will not be included in the overall emission designators for the product. This procedure follows that used during Type Acceptance of the initial CI Wireless Repeater (FCC ID: NUW003EKO19).

#### *Emission Designator::*

As with the emission bandwidth, the emission type emitted by the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** are depended on the service that it operates with. Due to the intended installation of the system, the RF output signals of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** are complaint with the GSM, TDMA and CDMA protocol requirements. This output emission designators (based on Part 2.201) for these services are:

<b>Service Type</b>	<b>Emission Description</b>	<b>Emission Designator</b>
CDMA	(1) Modulation Type: Frequency Modulation (2) Nature of Modulating Signal: Composite Signal with one or more channels containing digital data & one or more channels containing analog data (3) Type of data being transmitted can be a combination of digital, voice, telegraphy, television, or facsimile	F9W
GSM	(1) Modulation Type: Phase Modulation (2) Nature of Modulating Signal: Case not covered (combination may not match that addressed in the available selections) (3) Type of data being transmitted can be a combination of digital, voice, telegraphy, television, or facsimile	GXW
TDMA	(1) Modulation Type: Main carrier is angle modulated in a simultaneous or preset sequence. (2) Nature of Modulating Signal: Case not covered (combination may not match that addressed in the available selections) (3) Type of data being transmitted can be a combination of digital, voice, telegraphy, television, or facsimile	DXW

Based on the bandwidth and emission type discussions, the emission designators used for the FCC Form 731 are:

### **GSM Mode**

GXW - All data modes and types

### **CDMA Mode**

F9W - All data modes and types

### **TDMA Mode**

DXW - All data modes and types

## **7.2 Output Power**

In the conducted power tests, the highest power attained for each of the power settings was 38.99 dBm (8 watts). This level was achieved at each of the 3 test frequencies for each of the 3 modulation types. Since the system automatically controls the maximum output power, this level should be constant for all single carrier operations.

Due to the operating features of the EUT, this is the maximum composite power available from the device. Therefore, the power rating requested for the grant for the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is:

**8 watts**

### 7.3 Frequency Band of Operation

The **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is rated to be used through Bands A, B and D of the 1900 MHz PCS (base station) communication band. Based on this requirement, the transmission range of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** is:

**1930.0 to 1960.0 MHz**

### 7.4 Grant Notes

The only exceptions or notes that would normally be listed for this device are:

- (1) The center frequency of the emissions for the CDMA should not be less than 1.25 MHz from the band edge (standard guard band).
- (2) The power listed in the grant is the composite power for the device for all carriers.

### 8.0 Modifications

A power line filter (CORCOM Model 3VQ1) was added to the Remote unit of the **CI Wireless Inc., 1900 MHz PCS Band 8 Watt Repeater** to meet the unintended conducted emission requirement.

### 9.0 List of Test Equipment

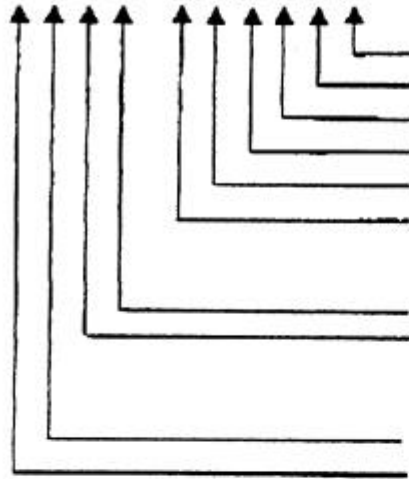
A list of the test equipment utilized to perform the conducted and radiated emission measurements is given below. The date of calibration is given for each.

<u>Device</u>	<u>Description</u>	<u>Date Last Calibrated</u>	<u>Calibration Due</u>
HP 8566B	Spectrum Analyzer	10/30/98	10/30/99
HP 85650A	Quasi Peak Adapter	10/30/98	10/30/99
MITEQ AFS4-00101800-40-10P-N	Preamplifier	05/22/98	05/22/99
EMCO 3108	Biconical Antenna	07/22/98	07/22/99
EMCO 3146	Log Periodic Antenna	07/22/98	07/22/99
EMCO 3115	Double Ridged Horn Antenna	05/22/98	05/22/99

## Appendix A

## Sub-Model Index Data

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**800 Hub****Example:** Eko-8HEB0-0AC000**Eko-8H X X X - X X X X X X****Option Designators** (Include only equipped options)

Combiner 0 2 4

Wave Division Multiplex Option

Heater Option (N/A for Hub)

Crossband Coupler Option(1.9 and 800)

AC Power Option (DC Standard)

Duplexer Option

**Standard Nomenclature**

Reserved

B-Both

C- Cellular

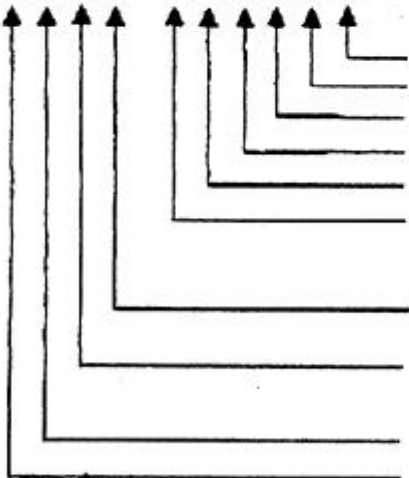
S - Trunking/Cellular

Expansion Configured Hub Unit

H - Hub Unit Only 1.9 GHz, Non-Expandable

**Microcell (Remots)****Examples:** Eko-8M0C0-DAC000

Eko-8M0S0-DAC000

**Eko-8M X X X - X X X X X X****Option Designators** (Include only equipped options)

Combiner 0 2 4 (N/A)

Wave Division Multiplex

Heater Option

Crossband Coupler Option

AC Power - Standard

Duplexer - Standard

**Standard Nomenclature**

Reserved

C - Cellular

S - Trunking/ESMR

Expansion or Slave Unit\*

M - Standard Power Microcell Unit

R - Microcell Unit, 1900 MHz, 8 watt

\* Slave Unit is equipped to interconnect with Eko-1.9M which includes the Eko-M-X option

For the 1900 MHz unit, the 8 shown in these descriptions is replaced by 1.9

## Appendix B

## Occupied Bandwidth Test Data

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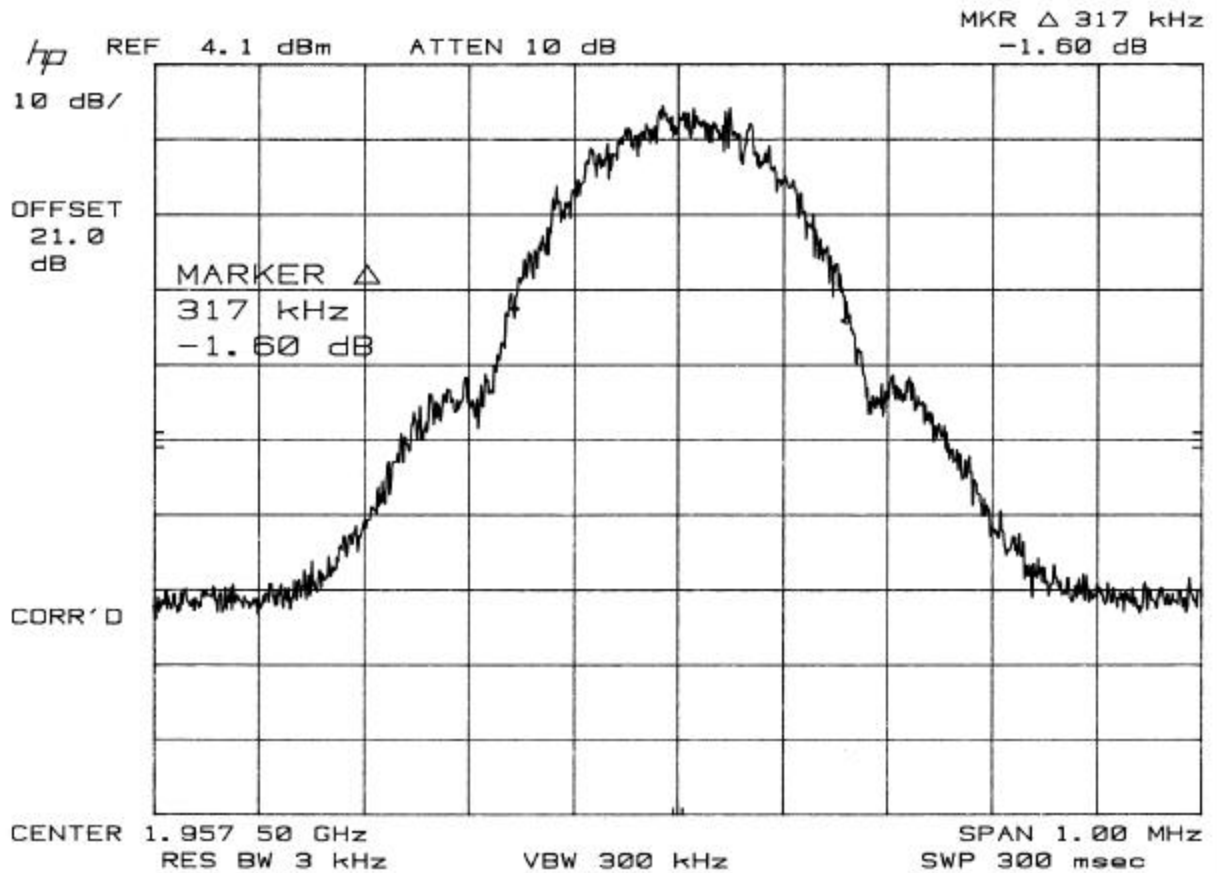


## Occupied Bandwidth Data Sheet

### CI Wireless Inc. 1900 MHz PCS Band 8 Watt Repeater

SERIAL #: 80000/80003  
DATE: January 20, 1999  
CONFIGURATION: EUT

PROJECT #: 99-219  
MODE: GSM



COMMENT #1: Channel Setting = Band B, Middle

COMMENT #2: 26 dB Bandwidth = 317 kHz

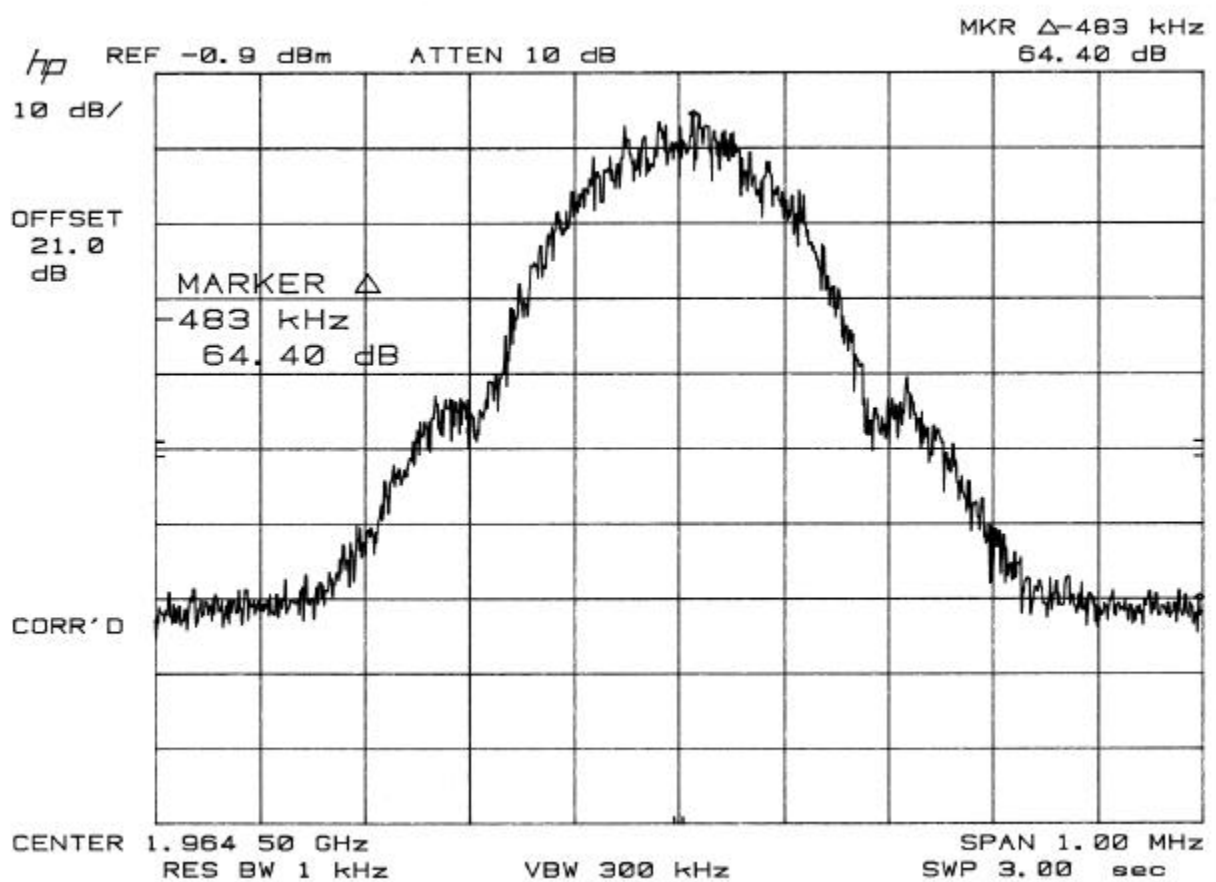
TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Occupied Bandwidth Data Sheet

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 CONFIGURATION: Generator Only

PROJECT #: 99-219  
 MODE: GSM



COMMENT #1: Channel Setting = Band B, High Channel

COMMENT #2: 26 dB Bandwidth = 316 kHz

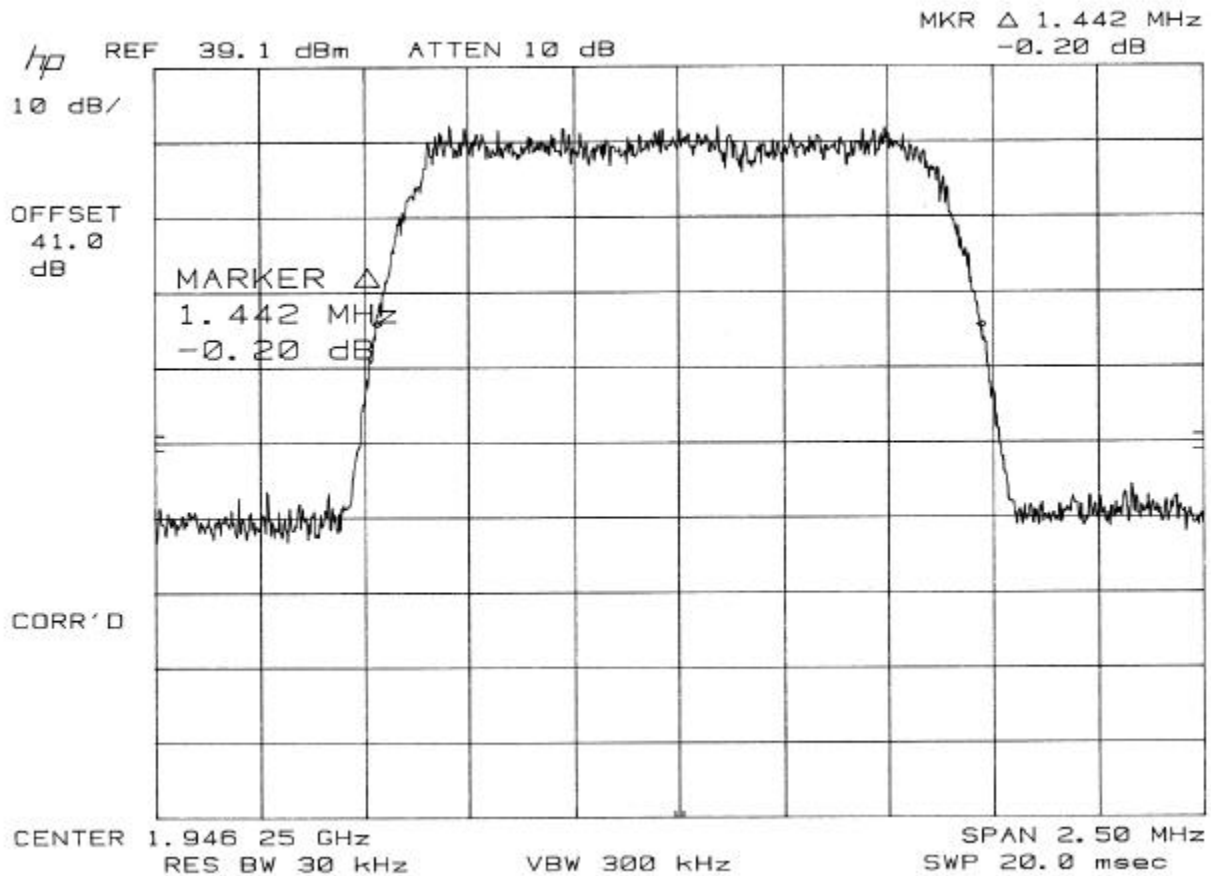
TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

## Occupied Bandwidth Data Sheet

### CI Wireless Inc. 1900 MHz PCS Band 8 Watt Repeater

SERIAL #: 80000/80003  
DATE: January 19, 1999  
CONFIGURATION: EUT

PROJECT #: 99-219  
MODE: CDMA



COMMENT #1: Channel Setting = Band D, Low Channel

COMMENT #2: 26 dB Bandwidth = 1.440 MHz

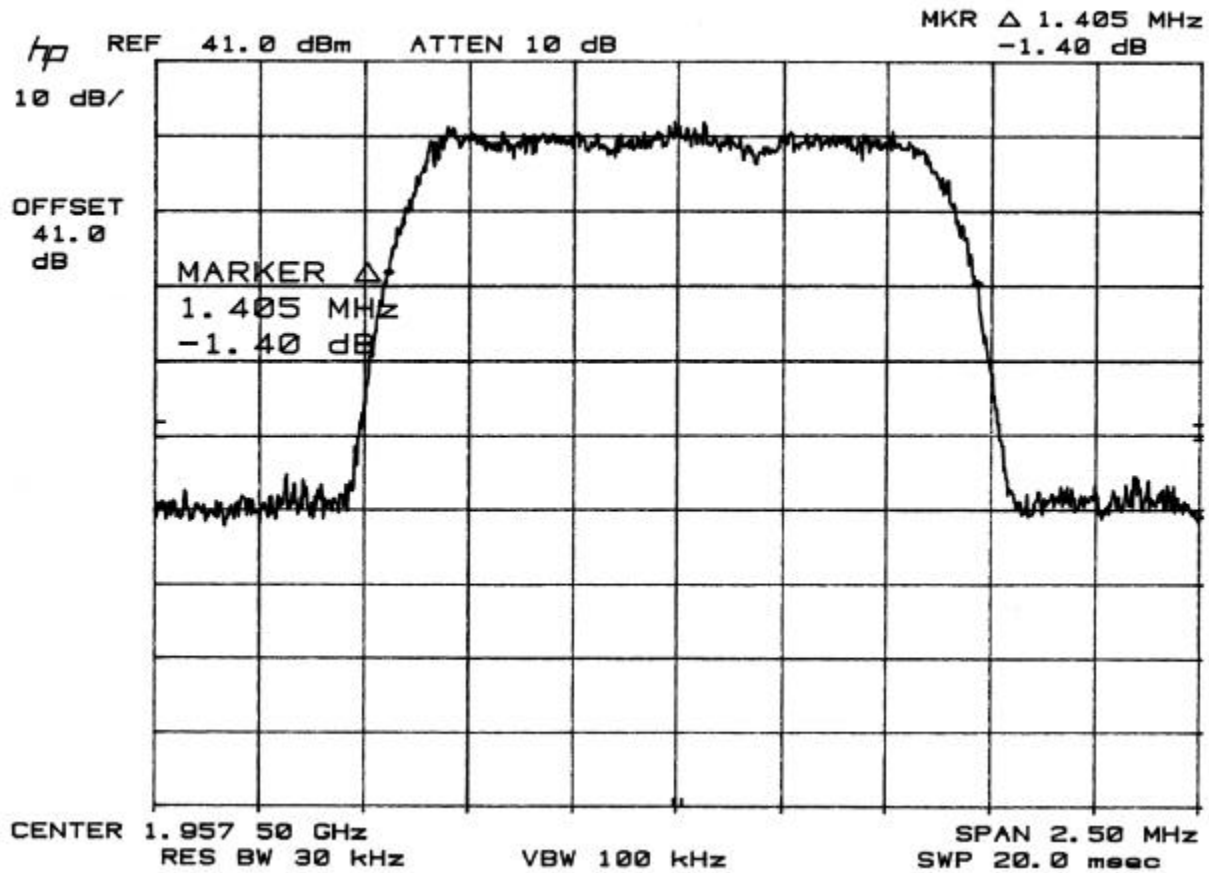
TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Occupied Bandwidth Data Sheet

### CI Wireless Inc. 1900 MHz PCS Band 8 Watt Repeater

SERIAL #: 80000/80003  
DATE: January 19, 1999  
CONFIGURATION: Generator Only

PROJECT #: 99-219  
MODE: CDMA



COMMENT #1: Channel Setting = Band B, Middle

COMMENT #2: 26 dB Bandwidth = 1.405 MHz

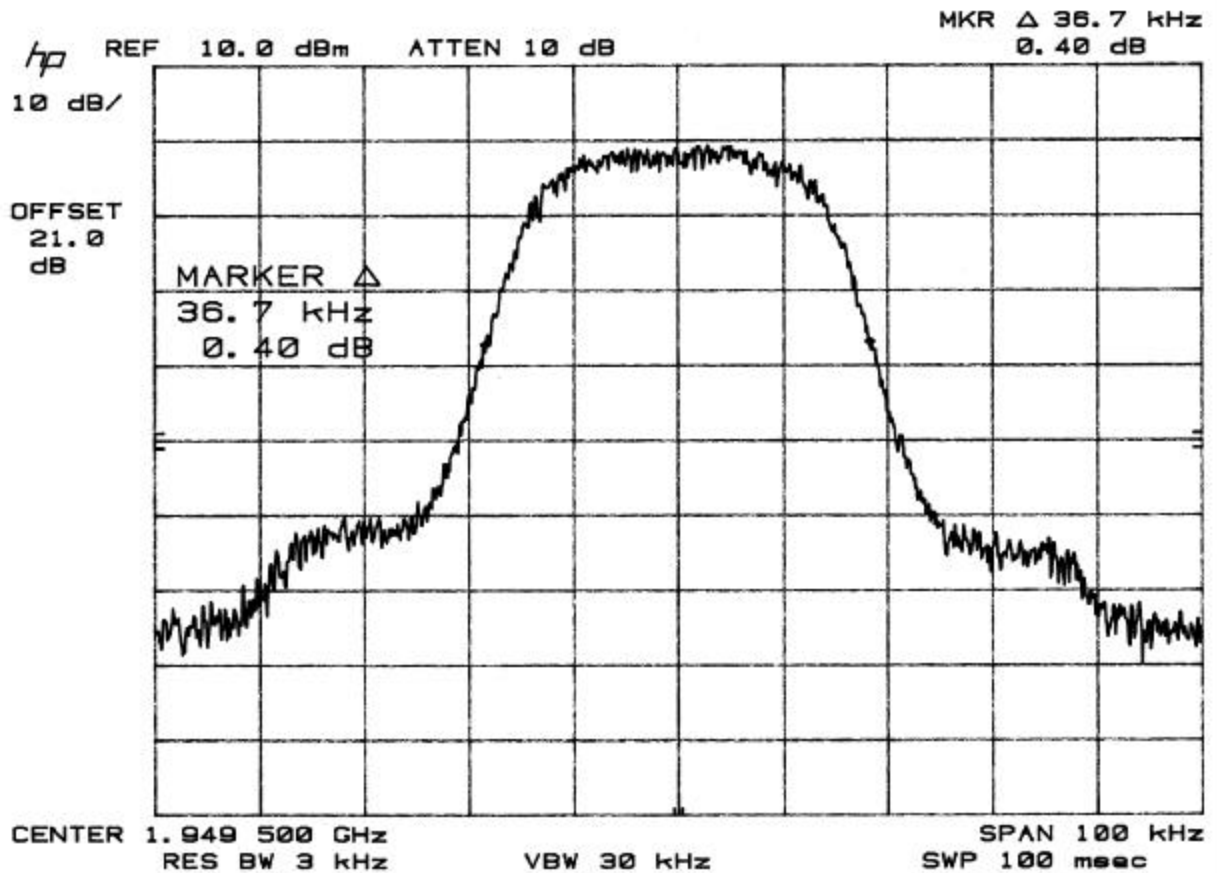
TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

# Occupied Bandwidth Data Sheet

CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater

SERIAL #: 80000/80003  
DATE: January 19, 1999  
CONFIGURATION: EUT

PROJECT #: 99-219  
MODE: TDMA



COMMENT #1: Channel Setting = Band D, High

COMMENT #2: 26 dB Bandwidth = 36.7 kHz

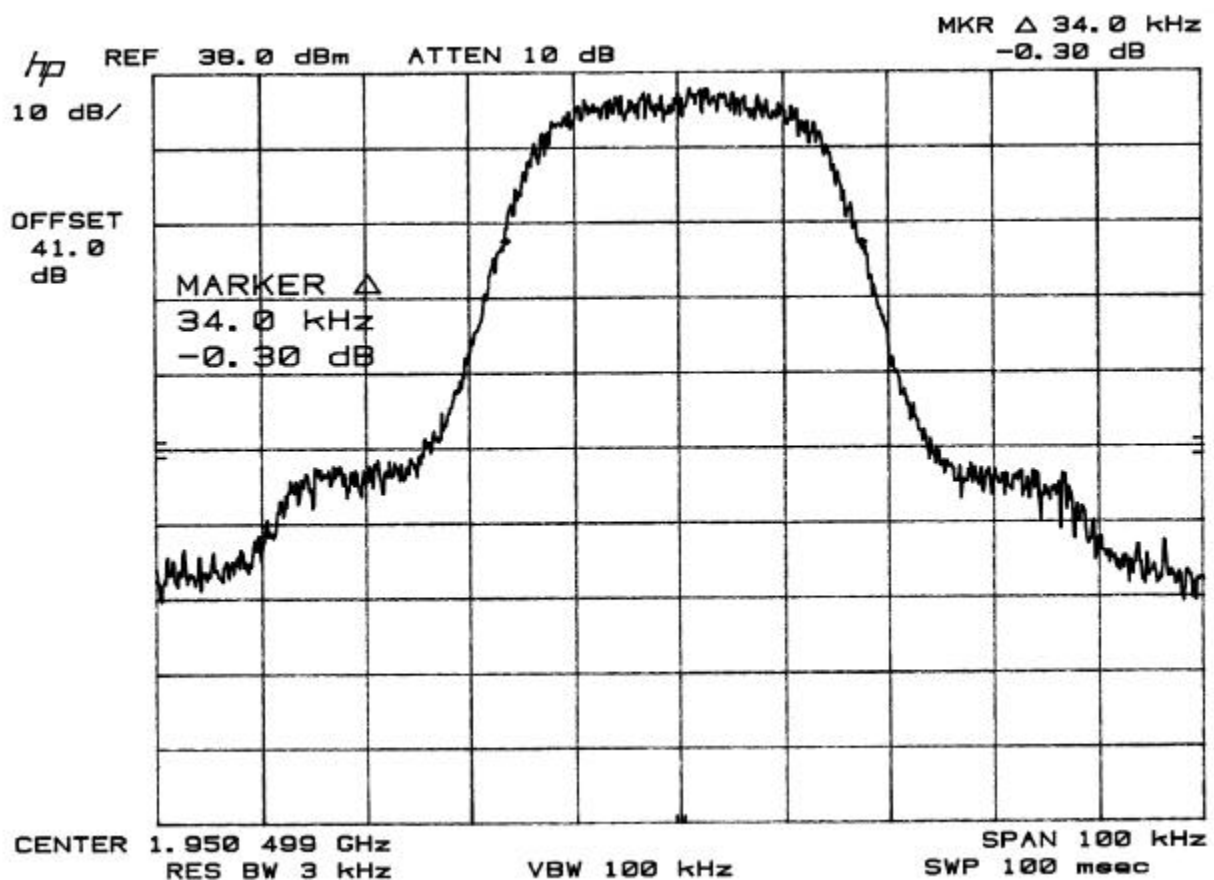
TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Occupied Bandwidth Data Sheet

CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater

SERIAL #: 80000/80003  
DATE: January 19, 1999  
CONFIGURATION: Generator Only

PROJECT #: 99-219  
MODE: TDMA



COMMENT #1: Channel Setting = Band B, Low Channel

COMMENT #2: 26 dB Bandwidth = 34.0 kHz

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Appendix C

## Effective Radiated Power Test Data

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**Effective Radiated Power Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999

PROJECT #: 99-219

**GSM Mode: Band A**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1930.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1937.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1944.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29

**GSM Mode: Band D**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1945.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1947.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1949.50	105.00	26.20	2.80	134.00	7.536	100.00	-92.46

**GSM Mode: Band B**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1950.50	105.00	26.20	2.80	134.00	7.536	100.00	-92.46
1957.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1955.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11

COMMENT #1: Worst Case Height (All modulations): 1.0 meter

COMMENT #2: Worst case emission direction for all measurements was 180 degrees.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Effective Radiated Power Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999

PROJECT #: 99-219

**TDMA Mode: Band A**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1930.50	105.00	26.20	2.80	134.00	7.536	100.00	-92.46
1937.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1944.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11

**TDMA Mode: Band D**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1945.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1947.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1949.50	105.00	26.20	2.80	134.00	7.536	100.00	-92.46

**TDMA Mode: Band B**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1950.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1957.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1955.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11

COMMENT #1: Worst Case Height (All modulations): 1.0 meter

COMMENT #2: Worst case emission direction for all measurements was 180 degrees.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Effective Radiated Power Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999

PROJECT #: 99-219

**CDMA Mode: Band A**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1931.25	105.00	26.20	2.80	134.00	7.536	100.00	-92.46
1937.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1943.75	105.10	26.20	2.80	134.10	7.711	100.00	-92.29

**CDMA Mode: Band D**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1948.75	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1947.50	105.20	26.20	2.80	134.20	7.891	100.00	-92.11
1948.75	105.10	26.20	2.80	134.10	7.711	100.00	-92.29

**CDMA Mode: Band B**

Freq. (MHz)	Recorded Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Corrected Level (dBuV/m)	Level ERP (watts)	Limit (watts)	Margin (watts)
1951.25	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1957.50	105.10	26.20	2.80	134.10	7.711	100.00	-92.29
1963.75	105.20	26.20	2.80	134.20	7.891	100.00	-92.11

COMMENT #1: Worst Case Height (All modulations): 1.0 meter

COMMENT #2: Worst case emission direction for all measurements was 180 degrees.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Appendix D

## Out of Band Emissions (Radiated) Test Data

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**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1930.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1930.000	180.0	39.50	2.8	26.2	68.5	82.2	-13.7
3861.000	180.0	6.06	4.2	32.4	42.7	91.7	-49.0
5791.50	180.0	8.10	7.2	34.9	50.2	91.7	-41.5
7722.00	180.0	10.30	6.8	36.9	54.0	91.7	-37.7
9652.50	180.0	13.20	6.2	38.1	57.5	91.7	-34.2
11583.00	180.0	14.10	7.6	38.4	60.1	91.7	-31.6
13513.50	180.0	16.90	9.3	41.6	67.8	91.7	-23.9
15444.00	180.0	14.60	9.6	39.5	63.7	91.7	-28.0
17374.50	180.0	15.30	11.0	44.7	71.0	91.7	-20.7

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1930.500	180.0	87.90	2.8	26.2	116.9	Ref	Ref
1930.000	180.0	37.80	2.8	26.2	66.8	82.2	-15.4
3861.000	180.0	8.10	4.2	32.4	44.7	91.7	-47.0
5791.50	180.0	7.30	7.2	34.9	49.4	91.7	-42.3
7722.00	180.0	9.50	6.8	36.9	53.2	91.7	-38.5
9652.50	180.0	12.70	6.2	38.1	57.0	91.7	-34.7
11583.00	180.0	13.20	7.6	38.4	59.2	91.7	-32.5
13513.50	180.0	15.60	9.3	41.6	66.5	91.7	-25.2
15444.00	180.0	13.60	9.6	39.5	62.7	91.7	-29.0
17374.50	180.0	16.60	11.0	44.7	72.3	91.7	-19.4

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
3875.000	180.0	7.80	4.2	32.4	44.4	91.7	-47.3
5812.50	180.0	6.50	7.2	34.9	48.6	91.7	-43.1
7750.00	180.0	13.80	6.8	36.9	57.5	91.7	-34.2
9687.50	180.0	10.60	6.2	38.1	54.9	91.7	-36.8
11625.00	180.0	11.70	7.6	38.4	57.7	91.7	-34.0
13562.50	180.0	15.70	9.3	41.6	66.6	91.7	-25.1
15500.00	180.0	15.70	9.6	39.5	64.8	91.7	-26.9
17437.50	180.0	11.80	11.0	44.7	67.5	91.7	-24.2

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	82.80	2.8	26.2	111.8	Ref	Ref
3875.000	180.0	7.90	4.2	32.4	44.5	91.7	-47.2
5812.50	180.0	10.70	7.2	34.9	52.8	91.7	-38.9
7750.00	180.0	15.30	6.8	36.9	59.0	91.7	-32.7
9687.50	180.0	12.90	6.2	38.1	57.2	91.7	-34.5
11625.00	180.0	11.40	7.6	38.4	57.4	91.7	-34.3
13562.50	180.0	14.80	9.3	41.6	65.7	91.7	-26.0
15500.00	180.0	18.20	9.6	39.5	67.3	91.7	-24.4
17437.50	180.0	13.30	11.0	44.7	69.0	91.7	-22.7

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

**John O'Brien**

**Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1944.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
1945.000	180.0	39.80	2.8	26.2	68.8	82.4	-13.6
3889.000	180.0	7.50	4.2	32.4	44.1	91.9	-47.8
5833.50	180.0	15.10	7.2	34.9	57.2	91.9	-34.7
7778.00	180.0	11.30	6.8	36.9	55.0	91.9	-36.9
9722.50	180.0	11.10	6.2	38.1	55.4	91.9	-36.5
11667.00	180.0	12.80	7.6	38.4	58.8	91.9	-33.1
13611.50	180.0	12.60	9.3	41.6	63.5	91.9	-28.4
15556.00	180.0	17.20	9.6	39.5	66.3	91.9	-25.6
17500.50	180.0	15.70	11.0	44.7	71.4	91.9	-20.5

COMMENT #1: Channel = High Setting, 1944..5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1944.500	180.0	81.80	2.8	26.2	110.8	Ref	Ref
1945.000	180.0	38.20	2.8	26.2	67.2	82.6	-15.4
3889.000	180.0	12.50	4.2	32.4	49.1	82.6	-33.5
5833.50	180.0	14.60	7.2	34.9	56.7	82.6	-25.9
7778.00	180.0	14.90	6.8	36.9	58.6	82.6	-24.0
9722.50	180.0	10.80	6.2	38.1	55.1	82.6	-27.5
11667.00	180.0	13.10	7.6	38.4	59.1	82.6	-23.5
13611.50	180.0	15.90	9.3	41.6	66.8	82.6	-15.8
15556.00	180.0	14.20	9.6	39.5	63.3	82.6	-19.3
17500.50	180.0	15.10	11.0	44.7	70.8	82.6	-11.8

COMMENT #1: Channel = Channel = High Setting, 1944.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1930.500	180.0	105.00	2.8	26.2	134.0	Ref	Ref
1930.000	180.0	38.70	2.8	26.2	67.7	82.0	-14.3
3861.000	180.0	17.10	4.2	32.4	53.7	91.5	-37.8
5791.50	180.0	17.20	7.2	34.9	59.3	91.5	-32.2
7722.00	180.0	19.90	6.8	36.9	63.6	91.5	-27.9
9652.50	180.0	16.30	6.2	38.1	60.6	91.5	-30.9
11583.00	180.0	11.30	7.6	38.4	57.3	91.5	-34.2
13513.50	180.0	17.20	9.3	41.6	68.1	91.5	-23.4
15444.00	180.0	14.50	9.6	39.5	63.6	91.5	-27.9
17374.50	180.0	16.80	11.0	44.7	72.5	91.5	-19.0

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Horizontal  
 MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1930.500	180.0	73.10	2.8	26.2	102.1	Ref	Ref
1930.000	180.0	38.10	2.8	26.2	67.1	82.0	-14.9
3861.000	180.0	17.50	4.2	32.4	54.1	91.5	-37.4
5791.50	180.0	14.20	7.2	34.9	56.3	91.5	-35.2
7722.00	180.0	18.90	6.8	36.9	62.6	91.5	-28.9
9652.50	180.0	10.50	6.2	38.1	54.8	91.5	-36.7
11583.00	180.0	15.50	7.6	38.4	61.5	91.5	-30.0
13513.50	180.0	14.40	9.3	41.6	65.3	91.5	-26.2
15444.00	180.0	20.70	9.6	39.5	69.8	91.5	-21.7
17374.50	180.0	16.30	11.0	44.7	72.0	91.5	-19.5

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3875.000	180.0	16.80	4.2	32.4	53.4	91.6	-38.2
5812.50	180.0	17.40	7.2	34.9	59.5	91.6	-32.1
7750.00	180.0	14.70	6.8	36.9	58.4	91.6	-33.2
9687.50	180.0	11.60	6.2	38.1	55.9	91.6	-35.7
11625.00	180.0	12.30	7.6	38.4	58.3	91.6	-33.3
13562.50	180.0	19.00	9.3	41.6	69.9	91.6	-21.7
15500.00	180.0	19.00	9.6	39.5	68.1	91.6	-23.5
17437.50	180.0	18.20	11.0	44.7	73.9	91.6	-17.7

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Horizontal  
 MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	79.70	2.8	26.2	108.7	Ref	Ref
3875.000	180.0	17.90	4.2	32.4	54.5	91.6	-37.1
5812.50	180.0	11.90	7.2	34.9	54.0	91.6	-37.6
7750.00	180.0	15.10	6.8	36.9	58.8	91.6	-32.8
9687.50	180.0	13.10	6.2	38.1	57.4	91.6	-34.2
11625.00	180.0	17.10	7.6	38.4	63.1	91.6	-28.5
13562.50	180.0	18.50	9.3	41.6	69.4	91.6	-22.2
15500.00	180.0	16.50	9.6	39.5	65.6	91.6	-26.0
17437.50	180.0	20.80	11.0	44.7	76.5	91.6	-15.1

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

**John O'Brien**

**Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1944.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1945.000	180.0	37.80	2.8	26.2	66.8	82.2	-15.4
3889.000	180.0	19.50	4.2	32.4	56.1	91.7	-35.6
5833.50	180.0	16.30	7.2	34.9	58.4	91.7	-33.3
7778.00	180.0	14.70	6.8	36.9	58.4	91.7	-33.3
9722.50	180.0	16.80	6.2	38.1	61.1	91.7	-30.6
11667.00	180.0	12.90	7.6	38.4	58.9	91.7	-32.8
13611.50	180.0	19.70	9.3	41.6	70.6	91.7	-21.1
15556.00	180.0	21.10	9.6	39.5	70.2	91.7	-21.5
17500.50	180.0	19.50	11.0	44.7	75.2	91.7	-16.5

COMMENT #1: Channel = High Setting, 1944..5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Horizontal  
 MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1944.500	180.0	84.90	2.8	26.2	113.9	Ref	Ref
1945.000	180.0	37.40	2.8	26.2	66.4	82.2	-15.8
3889.000	180.0	19.60	4.2	32.4	56.2	91.7	-35.5
5833.50	180.0	16.80	7.2	34.9	58.9	91.7	-32.8
7778.00	180.0	17.80	6.8	36.9	61.5	91.7	-30.2
9722.50	180.0	11.50	6.2	38.1	55.8	91.7	-35.9
11667.00	180.0	11.60	7.6	38.4	57.6	91.7	-34.1
13611.50	180.0	15.20	9.3	41.6	66.1	91.7	-25.6
15556.00	180.0	22.30	9.6	39.5	71.4	91.7	-20.3
17500.50	180.0	16.90	11.0	44.7	72.6	91.7	-19.1

COMMENT #1: Channel = Channel = High Setting, 1944.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1931.250	180.0	105.00	2.8	26.2	134.0	Ref	Ref
1930.000	180.0	42.50	2.8	26.2	71.5	82.0	-10.5
3862.500	180.0	14.40	4.2	32.4	51.0	91.5	-40.5
5793.75	180.0	16.80	7.2	34.9	58.9	91.5	-32.6
7725.00	180.0	13.20	6.8	36.9	56.9	91.5	-34.6
9656.25	180.0	10.20	6.2	38.1	54.5	91.5	-37.0
11587.50	180.0	10.80	7.6	38.4	56.8	91.5	-34.7
13518.75	180.0	19.90	9.3	41.6	70.8	91.5	-20.7
15450.00	180.0	19.20	9.6	39.5	68.3	91.5	-23.2
17381.25	180.0	20.10	11.0	44.7	75.8	91.5	-15.7

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1931.250	180.0	64.30	2.8	26.2	93.3	Ref	Ref
1930.000	180.0	42.30	2.8	26.2	71.3	82.0	-10.7
3862.500	180.0	15.50	4.2	32.4	52.1	91.5	-39.4
5793.75	180.0	16.40	7.2	34.9	58.5	91.5	-33.0
7725.00	180.0	18.20	6.8	36.9	61.9	91.5	-29.6
9656.25	180.0	13.10	6.2	38.1	57.4	91.5	-34.1
11587.50	180.0	13.80	7.6	38.4	59.8	91.5	-31.7
13518.75	180.0	10.90	9.3	41.6	61.8	91.5	-29.7
15450.00	180.0	16.70	9.6	39.5	65.8	91.5	-25.7
17381.25	180.0	19.80	11.0	44.7	75.5	91.5	-16.0

COMMENT #1: Channel = Low Setting, 1931.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3875.000	180.0	12.70	4.2	32.4	49.3	91.6	-42.3
5812.50	180.0	26.10	7.2	34.9	68.2	91.6	-23.4
7750.00	180.0	16.70	6.8	36.9	60.4	91.6	-31.2
9687.50	180.0	16.70	6.2	38.1	61.0	91.6	-30.6
11625.00	180.0	16.70	7.6	38.4	62.7	91.6	-28.9
13562.50	180.0	17.90	9.3	41.6	68.8	91.6	-22.8
15500.00	180.0	29.60	9.6	39.5	78.7	91.6	-12.9
17437.50	180.0	22.70	11.0	44.7	78.4	91.6	-13.2

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Horizontal  
 MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1937.500	180.0	66.20	2.8	26.2	95.2	Ref	Ref
3875.000	180.0	19.70	4.2	32.4	56.3	91.6	-35.3
5812.50	180.0	17.30	7.2	34.9	59.4	91.6	-32.2
7750.00	180.0	17.30	6.8	36.9	61.0	91.6	-30.6
9687.50	180.0	20.90	6.2	38.1	65.2	91.6	-26.4
11625.00	180.0	20.40	7.6	38.4	66.4	91.6	-25.2
13562.50	180.0	22.80	9.3	41.6	73.7	91.6	-17.9
15500.00	180.0	25.40	9.6	39.5	74.5	91.6	-17.1
17437.50	180.0	23.80	11.0	44.7	79.5	91.6	-12.1

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

**John O'Brien**

**Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: A

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1943.750	180.0	105.10	2.8	26.2	134.1	Ref	Ref
1945.000	180.0	43.40	2.8	26.2	72.4	82.1	-9.7
3887.500	180.0	12.10	4.2	32.4	48.7	91.6	-42.9
5831.25	180.0	17.80	7.2	34.9	59.9	91.6	-31.7
7775.00	180.0	19.00	6.8	36.9	62.7	91.6	-28.9
9718.75	180.0	15.70	6.2	38.1	60.0	91.6	-31.6
11662.50	180.0	14.50	7.6	38.4	60.5	91.6	-31.1
13606.25	180.0	21.50	9.3	41.6	72.4	91.6	-19.2
15550.00	180.0	23.10	9.6	39.5	72.2	91.6	-19.4
17493.75	180.0	23.50	11.0	44.7	79.2	91.6	-12.4

COMMENT #1: Channel = High Setting, 1943.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: A

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1943.750	180.0	78.80	2.8	26.2	107.8	Ref	Ref
1945.000	180.0	44.80	2.8	26.2	73.8	82.1	-8.3
3887.500	180.0	11.20	4.2	32.4	47.8	91.6	-43.8
5831.25	180.0	19.70	7.2	34.9	61.8	91.6	-29.8
7775.00	180.0	20.20	6.8	36.9	63.9	91.6	-27.7
9718.75	180.0	18.00	6.2	38.1	62.3	91.6	-29.3
11662.50	180.0	15.00	7.6	38.4	61.0	91.6	-30.6
13606.25	180.0	23.40	9.3	41.6	74.3	91.6	-17.3
15550.00	180.0	24.20	9.6	39.5	73.3	91.6	-18.3
17493.75	180.0	22.80	11.0	44.7	78.5	91.6	-13.1

COMMENT #1: Channel = Channel = High Setting, 1943.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: D

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1945.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1945.000	180.0	43.20	2.8	26.2	72.2	82.2	-10.0
3891.000	180.0	17.60	4.2	32.4	54.2	91.7	-37.5
5836.50	180.0	17.40	7.2	34.9	59.5	91.7	-32.2
7782.00	180.0	16.80	6.8	36.9	60.5	91.7	-31.2
9727.50	180.0	12.30	6.2	38.1	56.6	91.7	-35.1
11673.00	180.0	14.20	7.6	38.4	60.2	91.7	-31.5
13618.50	180.0	15.60	9.3	41.6	66.5	91.7	-25.2
15564.00	180.0	19.00	9.6	39.5	68.1	91.7	-23.6
17509.50	180.0	20.50	11.0	44.7	76.2	91.7	-15.5

COMMENT #1: Channel = Low Setting, 1945.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1945.500	180.0	81.80	2.8	26.2	110.8	Ref	Ref
1945.000	180.0	43.50	2.8	26.2	72.5	82.2	-9.7
3891.000	180.0	19.90	4.2	32.4	56.5	91.7	-35.2
5836.50	180.0	12.70	7.2	34.9	54.8	91.7	-36.9
7782.00	180.0	10.50	6.8	36.9	54.2	91.7	-37.5
9727.50	180.0	15.70	6.2	38.1	60.0	91.7	-31.7
11673.00	180.0	15.30	7.6	38.4	61.3	91.7	-30.4
13618.50	180.0	20.40	9.3	41.6	71.3	91.7	-20.4
15564.00	180.0	19.60	9.6	39.5	68.7	91.7	-23.0
17509.50	180.0	18.40	11.0	44.7	74.1	91.7	-17.6

COMMENT #1: Channel = Low Setting, 1945.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3895.000	180.0	16.20	4.2	32.4	52.8	91.6	-38.8
5842.50	180.0	13.40	7.2	34.9	55.5	91.6	-36.1
7790.00	180.0	12.20	6.8	36.9	55.9	91.6	-35.7
9737.50	180.0	11.80	6.2	38.1	56.1	91.6	-35.5
11685.00	180.0	13.40	7.6	38.4	59.4	91.6	-32.2
13632.50	180.0	12.40	9.3	41.6	63.3	91.6	-28.3
15580.00	180.0	13.20	9.6	39.5	62.3	91.6	-29.3
17527.50	180.0	11.50	11.0	44.7	67.2	91.6	-24.4

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	52.40	2.8	26.2	81.4	Ref	Ref
3895.000	180.0	16.40	4.2	32.4	53.0	91.6	-38.6
5842.50	180.0	13.40	7.2	34.9	55.5	91.6	-36.1
7790.00	180.0	12.60	6.8	36.9	56.3	91.6	-35.3
9737.50	180.0	11.80	6.2	38.1	56.1	91.6	-35.5
11685.00	180.0	13.20	7.6	38.4	59.2	91.6	-32.4
13632.50	180.0	13.60	9.3	41.6	64.5	91.6	-27.1
15580.00	180.0	14.40	9.6	39.5	63.5	91.6	-28.1
17527.50	180.0	15.20	11.0	44.7	70.9	91.6	-20.7

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_

**John O'Brien**

**Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: D

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1949.500	180.0	105.00	2.8	26.2	134.0	Ref	Ref
1950.000	180.0	42.50	2.8	26.2	71.5	82.0	-10.5
3899.000	180.0	14.90	4.2	32.4	51.5	91.5	-40.0
5848.50	180.0	15.10	7.2	34.9	57.2	91.5	-34.3
7798.00	180.0	17.40	6.8	36.9	61.1	91.5	-30.4
9747.50	180.0	5.00	6.2	38.1	49.3	91.5	-42.2
11697.00	180.0	13.80	7.6	38.4	59.8	91.5	-31.7
13646.50	180.0	20.50	9.3	41.6	71.4	91.5	-20.1
15596.00	180.0	14.40	9.6	39.5	63.5	91.5	-28.0
17545.50	180.0	19.70	11.0	44.7	75.4	91.5	-16.1

COMMENT #1: Channel = High Setting, 1949.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1949.500	180.0	63.40	2.8	26.2	92.4	Ref	Ref
1950.000	180.0	40.60	2.8	26.2	69.6	82.1	-12.5
3899.000	180.0	11.40	4.2	32.4	48.0	91.6	-43.6
5848.50	180.0	11.50	7.2	34.9	53.6	91.6	-38.0
7798.00	180.0	12.90	6.8	36.9	56.6	91.6	-35.0
9747.50	180.0	18.70	6.2	38.1	63.0	91.6	-28.6
11697.00	180.0	12.90	7.6	38.4	58.9	91.6	-32.7
13646.50	180.0	15.80	9.3	41.6	66.7	91.6	-24.9
15596.00	180.0	20.50	9.6	39.5	69.6	91.6	-22.0
17545.50	180.0	17.40	11.0	44.7	73.1	91.6	-18.5

COMMENT #1: Channel = Channel = High Setting, 1949.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1945.500	180.0	105.00	2.8	26.2	134.0	Ref	Ref
1945.000	180.0	42.00	2.8	26.2	71.0	82.0	-11.0
3891.000	180.0	17.40	4.2	32.4	54.0	91.5	-37.5
5836.50	180.0	16.20	7.2	34.9	58.3	91.5	-33.2
7782.00	180.0	17.60	6.8	36.9	61.3	91.5	-30.2
9727.50	180.0	12.30	6.2	38.1	56.6	91.5	-34.9
11673.00	180.0	17.30	7.6	38.4	63.3	91.5	-28.2
13618.50	180.0	19.80	9.3	41.6	70.7	91.5	-20.8
15564.00	180.0	19.20	9.6	39.5	68.3	91.5	-23.2
17509.50	180.0	13.90	11.0	44.7	69.6	91.5	-21.9

COMMENT #1: Channel = Low Setting, 1945.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1945.500	180.0	71.40	2.8	26.2	100.4	Ref	Ref
1945.000	180.0	41.50	2.8	26.2	70.5	82.0	-11.5
3891.000	180.0	11.90	4.2	32.4	48.5	91.5	-43.0
5836.50	180.0	12.10	7.2	34.9	54.2	91.5	-37.3
7782.00	180.0	10.40	6.8	36.9	54.1	91.5	-37.4
9727.50	180.0	14.90	6.2	38.1	59.2	91.5	-32.3
11673.00	180.0	15.90	7.6	38.4	61.9	91.5	-29.6
13618.50	180.0	12.20	9.3	41.6	63.1	91.5	-28.4
15564.00	180.0	21.90	9.6	39.5	71.0	91.5	-20.5
17509.50	180.0	16.80	11.0	44.7	72.5	91.5	-19.0

COMMENT #1: Channel = Low Setting, 1945.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3895.000	180.0	11.30	4.2	32.4	47.9	91.6	-43.7
5842.50	180.0	18.50	7.2	34.9	60.6	91.6	-31.0
7790.00	180.0	18.00	6.8	36.9	61.7	91.6	-29.9
9737.50	180.0	13.60	6.2	38.1	57.9	91.6	-33.7
11685.00	180.0	12.30	7.6	38.4	58.3	91.6	-33.3
13632.50	180.0	16.90	9.3	41.6	67.8	91.6	-23.8
15580.00	180.0	17.90	9.6	39.5	67.0	91.6	-24.6
17527.50	180.0	20.80	11.0	44.7	76.5	91.6	-15.1

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	66.30	2.8	26.2	95.3	Ref	Ref
3895.000	180.0	13.20	4.2	32.4	49.8	91.6	-41.8
5842.50	180.0	16.20	7.2	34.9	58.3	91.6	-33.3
7790.00	180.0	17.40	6.8	36.9	61.1	91.6	-30.5
9737.50	180.0	16.30	6.2	38.1	60.6	91.6	-31.0
11685.00	180.0	12.30	7.6	38.4	58.3	91.6	-33.3
13632.50	180.0	18.90	9.3	41.6	69.8	91.6	-21.8
15580.00	180.0	18.90	9.6	39.5	68.0	91.6	-23.6
17527.50	180.0	22.20	11.0	44.7	77.9	91.6	-13.7

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1949.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1950.000	180.0	42.00	2.8	26.2	71.0	82.2	-11.2
3899.000	180.0	15.60	4.2	32.4	52.2	91.7	-39.5
5848.50	180.0	14.10	7.2	34.9	56.2	91.7	-35.5
7798.00	180.0	17.30	6.8	36.9	61.0	91.7	-30.7
9747.50	180.0	14.40	6.2	38.1	58.7	91.7	-33.0
11697.00	180.0	16.80	7.6	38.4	62.8	91.7	-28.9
13646.50	180.0	12.90	9.3	41.6	63.8	91.7	-27.9
15596.00	180.0	20.40	9.6	39.5	69.5	91.7	-22.2
17545.50	180.0	20.50	11.0	44.7	76.2	91.7	-15.5

COMMENT #1: Channel = High Setting, 1949.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1949.500	180.0	84.30	2.8	26.2	113.3	Ref	Ref
1950.000	180.0	39.80	2.8	26.2	68.8	82.2	-13.4
3899.000	180.0	19.80	4.2	32.4	56.4	91.7	-35.3
5848.50	180.0	13.70	7.2	34.9	55.8	91.7	-35.9
7798.00	180.0	15.50	6.8	36.9	59.2	91.7	-32.5
9747.50	180.0	14.90	6.2	38.1	59.2	91.7	-32.5
11697.00	180.0	17.10	7.6	38.4	63.1	91.7	-28.6
13646.50	180.0	22.00	9.3	41.6	72.9	91.7	-18.8
15596.00	180.0	21.30	9.6	39.5	70.4	91.7	-21.3
17545.50	180.0	19.70	11.0	44.7	75.4	91.7	-16.3

COMMENT #1: Channel = Channel = High Setting, 1944.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1946.250	180.0	105.10	2.8	26.2	134.1	Ref	Ref
1945.000	180.0	44.50	2.8	26.2	73.5	82.1	-8.6
3892.500	180.0	10.60	4.2	32.4	47.2	91.6	-44.4
5838.75	180.0	18.60	7.2	34.9	60.7	91.6	-30.9
7785.00	180.0	18.40	6.8	36.9	62.1	91.6	-29.5
9731.25	180.0	14.70	6.2	38.1	59.0	91.6	-32.6
11677.50	180.0	11.80	7.6	38.4	57.8	91.6	-33.8
13623.75	180.0	19.80	9.3	41.6	70.7	91.6	-20.9
15570.00	180.0	22.00	9.6	39.5	71.1	91.6	-20.5
17516.25	180.0	21.90	11.0	44.7	77.6	91.6	-14.0

COMMENT #1: Channel = Low Setting, 1946.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1946.250	180.0	65.00	2.8	26.2	94.0	Ref	Ref
1945.000	180.0	42.80	2.8	26.2	71.8	82.1	-10.3
3892.500	180.0	17.50	4.2	32.4	54.1	91.6	-37.5
5838.75	180.0	16.50	7.2	34.9	58.6	91.6	-33.0
7785.00	180.0	13.90	6.8	36.9	57.6	91.6	-34.0
9731.25	180.0	16.10	6.2	38.1	60.4	91.6	-31.2
11677.50	180.0	13.30	7.6	38.4	59.3	91.6	-32.3
13623.75	180.0	18.60	9.3	41.6	69.5	91.6	-22.1
15570.00	180.0	20.80	9.6	39.5	69.9	91.6	-21.7
17516.25	180.0	21.10	11.0	44.7	76.8	91.6	-14.8

COMMENT #1: Channel = Low Setting, 1946.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
3895.000	180.0	17.90	4.2	32.4	54.5	91.7	-37.2
5842.50	180.0	18.50	7.2	34.9	60.6	91.7	-31.1
7790.00	180.0	17.40	6.8	36.9	61.1	91.7	-30.6
9737.50	180.0	17.60	6.2	38.1	61.9	91.7	-29.8
11685.00	180.0	16.80	7.6	38.4	62.8	91.7	-28.9
13632.50	180.0	20.80	9.3	41.6	71.7	91.7	-20.0
15580.00	180.0	16.90	9.6	39.5	66.0	91.7	-25.7
17527.50	180.0	19.90	11.0	44.7	75.6	91.7	-16.1

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1947.500	180.0	70.60	2.8	26.2	99.6	Ref	Ref
3895.000	180.0	11.50	4.2	32.4	48.1	91.7	-43.6
5842.50	180.0	17.90	7.2	34.9	60.0	91.7	-31.7
7790.00	180.0	15.80	6.8	36.9	59.5	91.7	-32.2
9737.50	180.0	16.80	6.2	38.1	61.1	91.7	-30.6
11685.00	180.0	17.10	7.6	38.4	63.1	91.7	-28.6
13632.50	180.0	22.50	9.3	41.6	73.4	91.7	-18.3
15580.00	180.0	19.80	9.6	39.5	68.9	91.7	-22.8
17527.50	180.0	20.40	11.0	44.7	76.1	91.7	-15.6

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1948.750	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1950.000	180.0	45.20	2.8	26.2	74.2	82.2	-8.0
3897.500	180.0	18.90	4.2	32.4	55.5	91.7	-36.2
5846.25	180.0	23.10	7.2	34.9	65.2	91.7	-26.5
7795.00	180.0	19.30	6.8	36.9	63.0	91.7	-28.7
9743.75	180.0	20.70	6.2	38.1	65.0	91.7	-26.7
11692.50	180.0	16.30	7.6	38.4	62.3	91.7	-29.4
13641.25	180.0	21.40	9.3	41.6	72.3	91.7	-19.4
15590.00	180.0	21.20	9.6	39.5	70.3	91.7	-21.4
17538.75	180.0	23.10	11.0	44.7	78.8	91.7	-12.9

COMMENT #1: Channel = High Setting, 1948.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1949.500	180.0	73.00	2.8	26.2	102.0	Ref	Ref
1950.000	180.0	42.80	2.8	26.2	71.8	82.2	-10.4
3899.000	180.0	18.80	4.2	32.4	55.4	91.7	-36.3
5848.50	180.0	20.80	7.2	34.9	62.9	91.7	-28.8
7798.00	180.0	22.10	6.8	36.9	65.8	91.7	-25.9
9747.50	180.0	21.70	6.2	38.1	66.0	91.7	-25.7
11697.00	180.0	14.20	7.6	38.4	60.2	91.7	-31.5
13646.50	180.0	19.10	9.3	41.6	70.0	91.7	-21.7
15596.00	180.0	23.40	9.6	39.5	72.5	91.7	-19.2
17545.50	180.0	25.60	11.0	44.7	81.3	91.7	-10.4

COMMENT #1: Channel = Channel = High Setting, 1948.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1950.500	180.0	105.00	2.8	26.2	134.0	Ref	Ref
1950.000	180.0	38.90	2.8	26.2	67.9	82.0	-14.1
3901.000	180.0	12.80	4.2	32.4	49.4	91.5	-42.1
5851.50	180.0	10.10	7.2	34.9	52.2	91.5	-39.3
7802.00	180.0	11.40	6.8	36.9	55.1	91.5	-36.4
9752.50	180.0	19.10	6.2	38.1	63.4	91.5	-28.1
11703.00	180.0	17.10	7.6	38.4	63.1	91.5	-28.4
13653.50	180.0	13.60	9.3	41.6	64.5	91.5	-27.0
15604.00	180.0	12.40	9.6	39.5	61.5	91.5	-30.0
17554.50	180.0	14.20	11.0	44.7	69.9	91.5	-21.6

COMMENT #1: Channel = Low Setting, 1950.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1950.500	180.0	76.70	2.8	26.2	105.7	Ref	Ref
1950.000	180.0	37.60	2.8	26.2	66.6	82.0	-15.4
3901.000	180.0	13.60	4.2	32.4	50.2	91.5	-41.3
5851.50	180.0	13.90	7.2	34.9	56.0	91.5	-35.5
7802.00	180.0	18.00	6.8	36.9	61.7	91.5	-29.8
9752.50	180.0	17.40	6.2	38.1	61.7	91.5	-29.8
11703.00	180.0	18.20	7.6	38.4	64.2	91.5	-27.3
13653.50	180.0	17.50	9.3	41.6	68.4	91.5	-23.1
15604.00	180.0	12.20	9.6	39.5	61.3	91.5	-30.2
17554.50	180.0	16.80	11.0	44.7	72.5	91.5	-19.0

COMMENT #1: Channel = Low Setting, 1950.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3915.000	180.0	13.50	4.2	32.4	50.1	91.6	-41.5
5872.50	180.0	11.70	7.2	34.9	53.8	91.6	-37.8
7830.00	180.0	12.30	6.8	36.9	56.0	91.6	-35.6
9787.50	180.0	19.00	6.2	38.1	63.3	91.6	-28.3
11745.00	180.0	19.70	7.6	38.4	65.7	91.6	-25.9
13702.50	180.0	12.70	9.3	41.6	63.6	91.6	-28.0
15660.00	180.0	16.60	9.6	39.5	65.7	91.6	-25.9
17617.50	180.0	14.40	11.0	44.7	70.1	91.6	-21.5

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	76.50	2.8	26.2	105.5	Ref	Ref
3915.000	180.0	14.90	4.2	32.4	51.5	91.6	-40.1
5872.50	180.0	12.40	7.2	34.9	54.5	91.6	-37.1
7830.00	180.0	13.40	6.8	36.9	57.1	91.6	-34.5
9787.50	180.0	13.20	6.2	38.1	57.5	91.6	-34.1
11745.00	180.0	11.30	7.6	38.4	57.3	91.6	-34.3
13702.50	180.0	14.10	9.3	41.6	65.0	91.6	-26.6
15660.00	180.0	13.70	9.6	39.5	62.8	91.6	-28.8
17617.50	180.0	15.50	11.0	44.7	71.2	91.6	-20.4

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1964.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1965.000	180.0	38.60	2.8	26.2	67.6	82.2	-14.6
3929.000	180.0	14.40	4.2	32.4	51.0	91.7	-40.7
5893.50	180.0	11.30	7.2	34.9	53.4	91.7	-38.3
7858.00	180.0	19.70	6.8	36.9	63.4	91.7	-28.3
9822.50	180.0	18.60	6.2	38.1	62.9	91.7	-28.8
11787.00	180.0	13.20	7.6	38.4	59.2	91.7	-32.5
13751.50	180.0	15.60	9.3	41.6	66.5	91.7	-25.2
15716.00	180.0	13.60	9.6	39.5	62.7	91.7	-29.0
17680.50	180.0	15.50	11.0	44.7	71.2	91.7	-20.5

COMMENT #1: Channel = High Setting, 1964.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: GSM

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1964.500	180.0	65.10	2.8	26.2	94.1	Ref	Ref
1965.000	180.0	38.60	2.8	26.2	67.6	82.2	-14.6
3929.000	180.0	15.30	4.2	32.4	51.9	91.7	-39.8
5893.50	180.0	12.80	7.2	34.9	54.9	91.7	-36.8
7858.00	180.0	11.90	6.8	36.9	55.6	91.7	-36.1
9822.50	180.0	17.20	6.2	38.1	61.5	91.7	-30.2
11787.00	180.0	10.00	7.6	38.4	56.0	91.7	-35.7
13751.50	180.0	13.00	9.3	41.6	63.9	91.7	-27.8
15716.00	180.0	14.70	9.6	39.5	63.8	91.7	-27.9
17680.50	180.0	18.70	11.0	44.7	74.4	91.7	-17.3

COMMENT #1: Channel = Channel = High Setting, 1964.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1950.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
1950.000	180.0	37.80	2.8	26.2	66.8	82.1	-15.3
3901.000	180.0	17.40	4.2	32.4	54.0	91.6	-37.6
5851.50	180.0	15.20	7.2	34.9	57.3	91.6	-34.3
7802.00	180.0	14.00	6.8	36.9	57.7	91.6	-33.9
9752.50	180.0	12.70	6.2	38.1	57.0	91.6	-34.6
11703.00	180.0	12.80	7.6	38.4	58.8	91.6	-32.8
13653.50	180.0	18.10	9.3	41.6	69.0	91.6	-22.6
15604.00	180.0	18.00	9.6	39.5	67.1	91.6	-24.5
17554.50	180.0	18.60	11.0	44.7	74.3	91.6	-17.3

COMMENT #1: Channel = Low Setting, 1950.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1950.500	180.0	77.10	2.8	26.2	106.1	Ref	Ref
1950.000	180.0	36.40	2.8	26.2	65.4	82.1	-16.7
3901.000	180.0	17.90	4.2	32.4	54.5	91.6	-37.1
5851.50	180.0	13.50	7.2	34.9	55.6	91.6	-36.0
7802.00	180.0	14.40	6.8	36.9	58.1	91.6	-33.5
9752.50	180.0	12.70	6.2	38.1	57.0	91.6	-34.6
11703.00	180.0	12.90	7.6	38.4	58.9	91.6	-32.7
13653.50	180.0	17.70	9.3	41.6	68.6	91.6	-23.0
15604.00	180.0	17.70	9.6	39.5	66.8	91.6	-24.8
17554.50	180.0	19.10	11.0	44.7	74.8	91.6	-16.8

COMMENT #1: Channel = Low Setting, 1950.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
3915.000	180.0	14.90	4.2	32.4	51.5	91.7	-40.2
5872.50	180.0	10.80	7.2	34.9	52.9	91.7	-38.8
7830.00	180.0	19.70	6.8	36.9	63.4	91.7	-28.3
9787.50	180.0	19.30	6.2	38.1	63.6	91.7	-28.1
11745.00	180.0	19.80	7.6	38.4	65.8	91.7	-25.9
13702.50	180.0	12.90	9.3	41.6	63.8	91.7	-27.9
15660.00	180.0	15.20	9.6	39.5	64.3	91.7	-27.4
17617.50	180.0	12.70	11.0	44.7	68.4	91.7	-23.3

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	73.10	2.8	26.2	102.1	Ref	Ref
3915.000	180.0	12.00	4.2	32.4	48.6	91.7	-43.1
5872.50	180.0	10.30	7.2	34.9	52.4	91.7	-39.3
7830.00	180.0	19.70	6.8	36.9	63.4	91.7	-28.3
9787.50	180.0	19.30	6.2	38.1	63.6	91.7	-28.1
11745.00	180.0	19.00	7.6	38.4	65.0	91.7	-26.7
13702.50	180.0	12.30	9.3	41.6	63.2	91.7	-28.5
15660.00	180.0	13.10	9.6	39.5	62.2	91.7	-29.5
17617.50	180.0	14.80	11.0	44.7	70.5	91.7	-21.2

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1964.500	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1965.000	180.0	37.80	2.8	26.2	66.8	82.2	-15.4
3929.000	180.0	16.80	4.2	32.4	53.4	91.7	-38.3
5893.50	180.0	18.40	7.2	34.9	60.5	91.7	-31.2
7858.00	180.0	19.20	6.8	36.9	62.9	91.7	-28.8
9822.50	180.0	10.20	6.2	38.1	54.5	91.7	-37.2
11787.00	180.0	19.30	7.6	38.4	65.3	91.7	-26.4
13751.50	180.0	14.10	9.3	41.6	65.0	91.7	-26.7
15716.00	180.0	13.90	9.6	39.5	63.0	91.7	-28.7
17680.50	180.0	20.10	11.0	44.7	75.8	91.7	-15.9

COMMENT #1: Channel = High Setting, 1964.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: TDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1964.500	180.0	77.10	2.8	26.2	106.1	Ref	Ref
1965.000	180.0	40.30	2.8	26.2	69.3	82.2	-12.9
3929.000	180.0	12.50	4.2	32.4	49.1	91.7	-42.6
5893.50	180.0	13.10	7.2	34.9	55.2	91.7	-36.5
7858.00	180.0	18.90	6.8	36.9	62.6	91.7	-29.1
9822.50	180.0	17.90	6.2	38.1	62.2	91.7	-29.5
11787.00	180.0	19.50	7.6	38.4	65.5	91.7	-26.2
13751.50	180.0	13.70	9.3	41.6	64.6	91.7	-27.1
15716.00	180.0	12.50	9.6	39.5	61.6	91.7	-30.1
17680.50	180.0	19.10	11.0	44.7	74.8	91.7	-16.9

COMMENT #1: Channel = Channel = High Setting, 1964.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1951.250	180.0	105.10	2.8	26.2	134.1	Ref	Ref
1950.000	180.0	44.30	2.8	26.2	73.3	82.1	-8.8
3902.500	180.0	10.80	4.2	32.4	47.4	91.6	-44.2
5853.75	180.0	17.40	7.2	34.9	59.5	91.6	-32.1
7805.00	180.0	13.70	6.8	36.9	57.4	91.6	-34.2
9756.25	180.0	16.60	6.2	38.1	60.9	91.6	-30.7
11707.50	180.0	13.30	7.6	38.4	59.3	91.6	-32.3
13658.75	180.0	14.50	9.3	41.6	65.4	91.6	-26.2
15610.00	180.0	13.40	9.6	39.5	62.5	91.6	-29.1
17561.25	180.0	21.20	11.0	44.7	76.9	91.6	-14.7

COMMENT #1: Channel = Low Setting, 1951.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1951.250	180.0	771.00	2.8	26.2	800.0	Ref	Ref
1950.000	180.0	43.80	2.8	26.2	72.8	82.1	-9.3
3902.500	180.0	15.60	4.2	32.4	52.2	91.6	-39.4
5853.75	180.0	16.10	7.2	34.9	58.2	91.6	-33.4
7805.00	180.0	17.10	6.8	36.9	60.8	91.6	-30.8
9756.25	180.0	16.40	6.2	38.1	60.7	91.6	-30.9
11707.50	180.0	12.80	7.6	38.4	58.8	91.6	-32.8
13658.75	180.0	20.10	9.3	41.6	71.0	91.6	-20.6
15610.00	180.0	18.00	9.6	39.5	67.1	91.6	-24.5
17561.25	180.0	18.40	11.0	44.7	74.1	91.6	-17.5

COMMENT #1: Channel = Low Setting, 1951.25 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Vertical  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	105.10	2.8	26.2	134.1	Ref	Ref
3915.000	180.0	10.70	4.2	32.4	47.3	91.6	-44.3
5872.50	180.0	18.80	7.2	34.9	60.9	91.6	-30.7
7830.00	180.0	20.80	6.8	36.9	64.5	91.6	-27.1
9787.50	180.0	18.10	6.2	38.1	62.4	91.6	-29.2
11745.00	180.0	17.80	7.6	38.4	63.8	91.6	-27.8
13702.50	180.0	21.70	9.3	41.6	72.6	91.6	-19.0
15660.00	180.0	20.70	9.6	39.5	69.8	91.6	-21.8
17617.50	180.0	23.20	11.0	44.7	78.9	91.6	-12.7

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1957.500	180.0	79.30	2.8	26.2	108.3	Ref	Ref
3915.000	180.0	16.10	4.2	32.4	52.7	91.6	-38.9
5872.50	180.0	17.10	7.2	34.9	59.2	91.6	-32.4
7830.00	180.0	21.40	6.8	36.9	65.1	91.6	-26.5
9787.50	180.0	18.50	6.2	38.1	62.8	91.6	-28.8
11745.00	180.0	20.50	7.6	38.4	66.5	91.6	-25.1
13702.50	180.0	21.80	9.3	41.6	72.7	91.6	-18.9
15660.00	180.0	20.70	9.6	39.5	69.8	91.6	-21.8
17617.50	180.0	21.90	11.0	44.7	77.6	91.6	-14.0

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: B

PROJECT #: 99-219  
 POLARIZATION: Vertical  
 MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1963.750	180.0	105.20	2.8	26.2	134.2	Ref	Ref
1965.000	180.0	43.80	2.8	26.2	72.8	82.2	-9.4
3927.500	180.0	15.00	4.2	32.4	51.6	91.7	-40.1
5891.25	180.0	20.00	7.2	34.9	62.1	91.7	-29.6
7855.00	180.0	18.90	6.8	36.9	62.6	91.7	-29.1
9818.75	180.0	17.90	6.2	38.1	62.2	91.7	-29.5
11782.50	180.0	16.40	7.6	38.4	62.4	91.7	-29.3
13746.25	180.0	21.40	9.3	41.6	72.3	91.7	-19.4
15710.00	180.0	2.00	9.6	39.5	51.1	91.7	-40.6
17673.75	180.0	22.30	11.0	44.7	78.0	91.7	-13.7

COMMENT #1: Channel = High Setting, 1963.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk



**Out of Band Emission - Radiated Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: B

PROJECT #: 99-219  
POLARIZATION: Horizontal  
MODE: CDMA

Freq. (MHz)	EUT Direction (Deg)	Recorded Level (dBuV)	Cable Loss (dB)	Antenna Factor (dBuV/m)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1963.750	180.0	73.90	2.8	26.2	102.9	Ref	Ref
1965.000	180.0	41.30	2.8	26.2	70.3	82.2	-11.9
3927.500	180.0	17.80	4.2	32.4	54.4	91.7	-37.3
5891.25	180.0	19.80	7.2	34.9	61.9	91.7	-29.8
7855.00	180.0	19.20	6.8	36.9	62.9	91.7	-28.8
9818.75	180.0	6.00	6.2	38.1	50.3	91.7	-41.4
11782.50	180.0	19.30	7.6	38.4	65.3	91.7	-26.4
13746.25	180.0	21.70	9.3	41.6	72.6	91.7	-19.1
15710.00	180.0	20.00	9.6	39.5	69.1	91.7	-22.6
17673.75	180.0	23.00	11.0	44.7	78.7	91.7	-13.0

COMMENT #1: Channel = Channel = High Setting, 1963.75 MHz

COMMENT #2: Measurements at or within 2 MHz of the fundamental made at 3 meters. Measurements made > 2 MHz away from the fundamental made at 1 meter. No EUT emissions detected from > 1 MHz from the fundamental.

COMMENT #3 BW decreased to 300 Hz for measurements within 100 kHz of the fundamental. Measurements close to the fundamental were made based on attenuation from the peak signal level measured using a delta marker function on a single plot (not a separate measurement procedure).

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

## Appendix E

## Out of Band Emissions (Conducted) Test Data

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**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1930.500	36.00	2.8	38.8	Ref	Ref
1930.000	-38.60	2.8	-35.8	-13.2	-22.6
3861.000	-43.50	1.3	-42.2	-13.2	-29.0
5791.50	-50.70	1.7	-49.0	-13.2	-35.8
7722.00	-46.70	1.9	-44.8	-13.2	-31.6
9652.50	-42.60	2.4	-40.2	-13.2	-27.0
11583.00	-46.70	2.8	-43.9	-13.2	-30.7
13513.50	-45.50	2.8	-42.7	-13.2	-29.5
15444.00	-40.40	3.4	-37.0	-13.2	-23.8
17374.50	-48.50	3.9	-44.6	-13.2	-31.4
19305.00	-35.60	4.2	-31.4	-13.2	-18.2

COMMENT #1: Channel = Lowest Setting, 1930.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**



**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: GSM

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1944.500	36.10	2.8	38.9	Ref	Ref
1945.000	-44.60	2.8	-41.8	-13.2	-28.6
3889.000	-44.50	1.3	-43.2	-13.2	-30.0
5833.50	-42.10	1.7	-40.4	-13.2	-27.2
7778.00	-45.30	1.9	-43.4	-13.2	-30.2
9722.50	-47.00	2.4	-44.6	-13.2	-31.4
11667.00	-47.10	2.8	-44.3	-13.2	-31.1
13611.50	-42.50	2.8	-39.7	-13.2	-26.5
15556.00	-42.60	3.4	-39.2	-13.2	-26.0
17500.50	-46.20	3.9	-42.3	-13.2	-29.1
19445.00	-40.00	4.2	-35.8	-13.2	-22.6

COMMENT #1: Channel = Highest Setting, 1944.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: A

PROJECT #: 99-219  
 MODE: TDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1930.500	36.10	2.8	38.9	Ref	Ref
1930.000	-42.40	2.8	-39.6	-13.1	-26.5
3861.000	-48.70	1.3	-47.4	-13.1	-34.3
5791.50	-45.80	1.7	-44.1	-13.1	-31.0
7722.00	-44.30	1.9	-42.4	-13.1	-29.3
9652.50	-42.20	2.4	-39.8	-13.1	-26.7
11583.00	-47.20	2.8	-44.4	-13.1	-31.3
13513.50	-48.00	2.8	-45.2	-13.1	-32.1
15444.00	-44.10	3.4	-40.7	-13.1	-27.6
17374.50	-45.90	3.9	-42.0	-13.1	-28.9
19305.00	-46.00	4.2	-41.8	-13.1	-28.7

COMMENT #1: Channel = Lowest Setting, 1930.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: TDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1937.500	35.90	2.8	38.7	Ref	Ref
3875.000	-41.20	1.3	-39.9	-13.3	-26.6
5812.50	-44.00	1.7	-42.3	-13.3	-29.0
7750.00	-43.20	1.9	-41.3	-13.3	-28.0
9687.50	-42.90	2.4	-40.5	-13.3	-27.2
11625.00	-43.10	2.8	-40.3	-13.3	-27.0
13562.50	-36.50	2.8	-33.7	-13.3	-20.4
15500.00	-40.00	3.4	-36.6	-13.3	-23.3
17437.50	-33.78	3.9	-29.9	-13.3	-16.6
19375.00	-36.80	4.2	-32.6	-13.3	-19.3

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: TDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1944.500	36.00	2.8	38.8	Ref	Ref
1945.000	-46.20	2.8	-43.4	-13.3	-30.1
3889.000	-45.80	1.3	-44.5	-13.3	-31.2
5833.50	-45.30	1.7	-43.6	-13.3	-30.3
7778.00	-47.50	1.9	-45.6	-13.3	-32.3
9722.50	-47.20	2.4	-44.8	-13.3	-31.5
11667.00	-46.60	2.8	-43.8	-13.3	-30.5
13611.50	-44.20	2.8	-41.4	-13.3	-28.1
15556.00	-43.40	3.4	-40.0	-13.3	-26.7
17500.50	-40.90	3.9	-37.0	-13.3	-23.7
19445.00	-36.90	4.2	-32.7	-13.3	-19.4

COMMENT #1: Channel = Highest Setting, 1944.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**



**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: CDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1931.250	36.10	2.8	38.9	Ref	Ref
1930.000	-37.20	2.8	-34.4	-13.1	-21.3
3862.500	-41.60	1.3	-40.3	-13.1	-27.2
5793.75	-41.30	1.7	-39.6	-13.1	-26.5
7725.00	-42.10	1.9	-40.2	-13.1	-27.1
9656.25	-44.00	2.4	-41.6	-13.1	-28.5
11587.50	-43.10	2.8	-40.3	-13.1	-27.2
13518.75	-38.70	2.8	-35.9	-13.1	-22.8
15450.00	-38.70	3.4	-35.3	-13.1	-22.2
17381.25	-43.30	3.9	-39.4	-13.1	-26.3
19312.50	-33.60	4.2	-29.4	-13.1	-16.3

COMMENT #1: Channel = Lowest Setting, 1931.25 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: CDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1937.500	36.00	2.8	38.8	Ref	Ref
3875.000	-40.30	1.3	-39.0	-13.3	-25.7
5812.50	-39.20	1.7	-37.5	-13.3	-24.2
7750.00	-40.60	1.9	-38.7	-13.3	-25.4
9687.50	-43.10	2.4	-40.7	-13.3	-27.4
11625.00	-42.90	2.8	-40.1	-13.3	-26.8
13562.50	-37.00	2.8	-34.2	-13.3	-20.9
15500.00	-43.70	3.4	-40.3	-13.3	-27.0
17437.50	-38.30	3.9	-34.4	-13.3	-21.1
19375.00	-33.60	4.2	-29.4	-13.3	-16.1

COMMENT #1: Channel = Middle Setting, 1937.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: A

PROJECT #: 99-219  
MODE: CDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1943.750	36.10	2.8	38.9	Ref	Ref
1945.000	-38.90	2.8	-36.1	-13.2	-22.9
3887.500	-42.60	1.3	-41.3	-13.2	-28.1
5831.25	-41.80	1.7	-40.1	-13.2	-26.9
7775.00	-39.50	1.9	-37.6	-13.2	-24.4
9718.75	-46.30	2.4	-43.9	-13.2	-30.7
11662.50	-38.60	2.8	-35.8	-13.2	-22.6
13606.25	-37.10	2.8	-34.3	-13.2	-21.1
15550.00	-36.60	3.4	-33.2	-13.2	-20.0
17493.75	-36.90	3.9	-33.0	-13.2	-19.8
19437.50	-31.80	4.2	-27.6	-13.2	-14.4

COMMENT #1: Channel = Highest Setting, 1943.75 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: GSM

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1945.500	36.10	2.8	38.9	Ref	Ref
1945.000	-46.40	2.8	-43.6	-13.1	-30.5
3891.000	-57.70	1.3	-56.4	-13.1	-43.3
5836.50	-52.50	1.7	-50.8	-13.1	-37.7
7782.00	-54.90	1.9	-53.0	-13.1	-39.9
9727.50	-52.20	2.4	-49.8	-13.1	-36.7
11673.00	-52.40	2.8	-49.6	-13.1	-36.5
13618.50	-48.20	2.8	-45.4	-13.1	-32.3
15564.00	-48.80	3.4	-45.4	-13.1	-32.3
17509.50	-50.20	3.9	-46.3	-13.1	-33.2
19455.00	-42.80	4.2	-38.6	-13.1	-25.5

COMMENT #1: Channel = Lowest Setting, 1945.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1947.500	36.00	2.8	38.8	Ref	Ref
3895.000	-53.30	1.3	-52.0	-13.2	-38.8
5842.50	-41.80	1.7	-40.1	-13.2	-26.9
7790.00	-44.20	1.9	-42.3	-13.2	-29.1
9737.50	-47.40	2.4	-45.0	-13.2	-31.8
11685.00	-44.60	2.8	-41.8	-13.2	-28.6
13632.50	-36.50	2.8	-33.7	-13.2	-20.5
15580.00	-39.20	3.4	-35.8	-13.2	-22.6
17527.50	-47.90	3.9	-44.0	-13.2	-30.8
19475.00	-35.90	4.2	-31.7	-13.2	-18.5

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1949.500	35.90	2.8	38.7	Ref	Ref
1950.000	-45.70	2.8	-42.9	-13.3	-29.6
3899.000	-59.40	1.3	-58.1	-13.3	-44.8
5848.50	-50.70	1.7	-49.0	-13.3	-35.7
7798.00	-55.20	1.9	-53.3	-13.3	-40.0
9747.50	-50.40	2.4	-48.0	-13.3	-34.7
11697.00	-56.80	2.8	-54.0	-13.3	-40.7
13646.50	-45.30	2.8	-42.5	-13.3	-29.2
15596.00	-45.80	3.4	-42.4	-13.3	-29.1
17545.50	-48.60	3.9	-44.7	-13.3	-31.4
19495.00	-42.10	4.2	-37.9	-13.3	-24.6

COMMENT #1: Channel = Highest Setting, 1949.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.**  
**1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: D

PROJECT #: 99-219  
 MODE: TDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1945.500	36.10	2.8	38.9	Ref	Ref
1945.000	-46.70	2.8	-43.9	-13.1	-30.8
3891.000	-50.50	1.3	-49.2	-13.1	-36.1
5836.50	-43.50	1.7	-41.8	-13.1	-28.7
7782.00	-52.60	1.9	-50.7	-13.1	-37.6
9727.50	-50.70	2.4	-48.3	-13.1	-35.2
11673.00	-50.10	2.8	-47.3	-13.1	-34.2
13618.50	-39.40	2.8	-36.6	-13.1	-23.5
15564.00	-40.10	3.4	-36.7	-13.1	-23.6
17509.50	-40.20	3.9	-36.3	-13.1	-23.2
19455.00	-40.70	4.2	-36.5	-13.1	-23.4

COMMENT #1: Channel = Lowest Setting, 1945.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: TDMA

Freq. (M Hz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Lim it (dBm)	M argin (dB)
1947.500	35.90	2.8	38.7	Ref	Ref
3895.000	-57.50	1.3	-56.2	-13.3	-42.9
5842.50	-52.20	1.7	-50.5	-13.3	-37.2
7790.00	-47.00	1.9	-45.1	-13.3	-31.8
9737.50	-51.80	2.4	-49.4	-13.3	-36.1
11685.00	-48.30	2.8	-45.5	-13.3	-32.2
13632.50	-52.40	2.8	-49.6	-13.3	-36.3
15580.00	-46.20	3.4	-42.8	-13.3	-29.5
17527.50	-47.70	3.9	-43.8	-13.3	-30.5
19475.00	-41.30	4.2	-37.1	-13.3	-23.8

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk



**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: D

PROJECT #: 99-219  
MODE: TDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1949.500	36.10	2.8	38.9	Ref	Ref
1950.000	-44.70	2.8	-41.9	-13.1	-28.8
3899.000	-57.60	1.3	-56.3	-13.1	-43.2
5848.50	-54.60	1.7	-52.9	-13.1	-39.8
7798.00	-55.00	1.9	-53.1	-13.1	-40.0
9747.50	-59.30	2.4	-56.9	-13.1	-43.8
11697.00	-56.20	2.8	-53.4	-13.1	-40.3
13646.50	-54.20	2.8	-51.4	-13.1	-38.3
15596.00	-55.80	3.4	-52.4	-13.1	-39.3
17545.50	-59.40	3.9	-55.5	-13.1	-42.4
19495.00	-47.80	4.2	-43.6	-13.1	-30.5

COMMENT #1: Channel = Highest Setting, 1949.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: CDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1946.250	36.00	2.8	38.8	Ref	Ref
1945.000	-42.80	2.8	-40.0	-13.2	-26.8
3892.500	-40.30	1.3	-39.0	-13.2	-25.8
5838.75	-33.40	1.7	-31.7	-13.2	-18.5
7785.00	-37.20	1.9	-35.3	-13.2	-22.1
9731.25	-44.40	2.4	-42.0	-13.2	-28.8
11677.50	-43.00	2.8	-40.2	-13.2	-27.0
13623.75	-41.60	2.8	-38.8	-13.2	-25.6
15570.00	-36.80	3.4	-33.4	-13.2	-20.2
17516.25	-34.60	3.9	-30.7	-13.2	-17.5
19462.50	-29.40	4.2	-25.2	-13.2	-12.0

COMMENT #1: Channel = Lowest Setting, 1946.25 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 20, 1999  
 BAND: D

PROJECT #: 99-219  
 MODE: CDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1947.500	36.10	2.8	38.9	Ref	Ref
3895.000	-46.80	1.3	-45.5	-13.1	-32.4
5842.50	-52.20	1.7	-50.5	-13.1	-37.4
7790.00	-42.30	1.9	-40.4	-13.1	-27.3
9737.50	-41.30	2.4	-38.9	-13.1	-25.8
11685.00	-44.30	2.8	-41.5	-13.1	-28.4
13632.50	-37.30	2.8	-34.5	-13.1	-21.4
15580.00	-35.40	3.4	-32.0	-13.1	-18.9
17527.50	-35.90	3.9	-32.0	-13.1	-18.9
19475.00	-29.30	4.2	-25.1	-13.1	-12.0

COMMENT #1: Channel = Middle Setting, 1947.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 20, 1999  
BAND: D

PROJECT #: 99-219  
MODE: CDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1948.750	35.80	2.8	38.6	Ref	Ref
1950.000	-50.40	2.8	-47.6	-13.4	-34.2
3897.500	-47.50	1.3	-46.2	-13.4	-32.8
5846.25	-37.40	1.7	-35.7	-13.4	-22.3
7795.00	-40.40	1.9	-38.5	-13.4	-25.1
9743.75	-38.40	2.4	-36.0	-13.4	-22.6
11692.50	-46.50	2.8	-43.7	-13.4	-30.3
13641.25	-38.50	2.8	-35.7	-13.4	-22.3
15590.00	-35.20	3.4	-31.8	-13.4	-18.4
17538.75	-36.80	3.9	-32.9	-13.4	-19.5
19487.50	-33.60	4.2	-29.4	-13.4	-16.0

COMMENT #1: Channel = Highest Setting, 1948.75 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: B

PROJECT #: 99-219  
 MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1950.500	36.10	2.8	38.9	Ref	Ref
1950.000	-50.20	2.8	-47.4	-13.1	-34.3
3901.000	-45.60	1.3	-44.3	-13.1	-31.2
5851.50	-42.60	1.7	-40.9	-13.1	-27.8
7802.00	-46.60	1.9	-44.7	-13.1	-31.6
9752.50	-40.70	2.4	-38.3	-13.1	-25.2
11703.00	-42.40	2.8	-39.6	-13.1	-26.5
13653.50	-44.80	2.8	-42.0	-13.1	-28.9
15604.00	-35.30	3.4	-31.9	-13.1	-18.8
17554.50	-38.70	3.9	-34.8	-13.1	-21.7
19505.00	-37.80	4.2	-33.6	-13.1	-20.5

COMMENT #1: Channel = Lowest Setting, 1950.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
 John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1957.500	36.00	2.8	38.8	Ref	Ref
3915.000	-41.20	1.3	-39.9	-13.2	-26.7
5872.50	-37.20	1.7	-35.5	-13.2	-22.3
7830.00	-43.50	1.9	-41.6	-13.2	-28.4
9787.50	-47.30	2.4	-44.9	-13.2	-31.7
11745.00	-40.50	2.8	-37.7	-13.2	-24.5
13702.50	-38.40	2.8	-35.6	-13.2	-22.4
15660.00	-35.50	3.4	-32.1	-13.2	-18.9
17617.50	-37.80	3.9	-33.9	-13.2	-20.7
19575.00	-32.30	4.2	-28.1	-13.2	-14.9

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: GSM

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1964.500	36.10	2.8	38.9	Ref	Ref
1965.000	-46.40	2.8	-43.6	-13.1	-30.5
3929.000	-51.70	1.3	-50.4	-13.1	-37.3
5893.50	-48.00	1.7	-46.3	-13.1	-33.2
7858.00	-31.80	1.9	-29.9	-13.1	-16.8
9822.50	-46.40	2.4	-44.0	-13.1	-30.9
11787.00	-48.70	2.8	-45.9	-13.1	-32.8
13751.50	-38.90	2.8	-36.1	-13.1	-23.0
15716.00	-41.20	3.4	-37.8	-13.1	-24.7
17680.50	-41.70	3.9	-37.8	-13.1	-24.7
19645.00	-36.80	4.2	-32.6	-13.1	-19.5

COMMENT #1: Channel = Highest Setting, 1964.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet****CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
 DATE: January 19, 1999  
 BAND: B

PROJECT #: 99-219  
 MODE: TDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1950.500	36.10	2.8	38.9	Ref	Ref
1950.000	-44.60	2.8	-41.8	-13.1	-28.7
3901.000	-43.80	1.3	-42.5	-13.1	-29.4
5851.50	-36.50	1.7	-34.8	-13.1	-21.7
7802.00	-41.80	1.9	-39.9	-13.1	-26.8
9752.50	-45.50	2.4	-43.1	-13.1	-30.0
11703.00	-45.20	2.8	-42.4	-13.1	-29.3
13653.50	-36.10	2.8	-33.3	-13.1	-20.2
15604.00	-38.10	3.4	-34.7	-13.1	-21.6
17554.50	-38.90	3.9	-35.0	-13.1	-21.9
19505.00	-39.70	4.2	-35.5	-13.1	-22.4

COMMENT #1: Channel = Lowest Setting, 1950.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**



**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: TDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1957.500	36.00	2.8	38.8	Ref	Ref
3915.000	-50.00	1.3	-48.7	-13.2	-35.5
5872.50	-38.60	1.7	-36.9	-13.2	-23.7
7830.00	-41.50	1.9	-39.6	-13.2	-26.4
9787.50	-44.40	2.4	-42.0	-13.2	-28.8
11745.00	-39.10	2.8	-36.3	-13.2	-23.1
13702.50	-35.60	2.8	-32.8	-13.2	-19.6
15660.00	-40.30	3.4	-36.9	-13.2	-23.7
17617.50	-38.40	3.9	-34.5	-13.2	-21.3
19575.00	-30.10	4.2	-25.9	-13.2	-12.7

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: TDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1964.500	36.00	2.8	38.8	Ref	Ref
1965.000	-47.40	2.8	-44.6	-13.2	-31.4
3929.000	-44.30	1.3	-43.0	-13.2	-29.8
5893.50	-39.00	1.7	-37.3	-13.2	-24.1
7858.00	-41.90	1.9	-40.0	-13.2	-26.8
9822.50	-41.20	2.4	-38.8	-13.2	-25.6
11787.00	-43.10	2.8	-40.3	-13.2	-27.1
13751.50	-38.70	2.8	-35.9	-13.2	-22.7
15716.00	-35.10	3.4	-31.7	-13.2	-18.5
17680.50	-35.60	3.9	-31.7	-13.2	-18.5
19645.00	-35.90	4.2	-31.7	-13.2	-18.5

COMMENT #1: Channel = Highest Setting, 1964.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: CDMA

<b>Freq. (MHz)</b>	<b>Recorded Level (dBm)</b>	<b>Cable Loss (dB)</b>	<b>Corrected Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dB)</b>
1951.250	36.00	2.8	38.8	Ref	Ref
1950.000	-46.60	2.8	-43.8	-13.2	-30.6
3902.500	-43.70	1.3	-42.4	-13.2	-29.2
5853.75	-42.70	1.7	-41.0	-13.2	-27.8
7805.00	-36.70	1.9	-34.8	-13.2	-21.6
9756.25	-39.50	2.4	-37.1	-13.2	-23.9
11707.50	-46.20	2.8	-43.4	-13.2	-30.2
13658.75	-32.90	2.8	-30.1	-13.2	-16.9
15610.00	-38.50	3.4	-35.1	-13.2	-21.9
17561.25	-34.00	3.9	-30.1	-13.2	-16.9
19512.50	-33.20	4.2	-29.0	-13.2	-15.8

COMMENT #1: Channel = Lowest Setting, 1951.25 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: CDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1957.500	36.10	2.8	38.9	Ref	Ref
3915.000	-44.80	1.3	-43.5	-13.1	-30.4
5872.50	-41.00	1.7	-39.3	-13.1	-26.2
7830.00	-40.50	1.9	-38.6	-13.1	-25.5
9787.50	-41.10	2.4	-38.7	-13.1	-25.6
11745.00	-42.30	2.8	-39.5	-13.1	-26.4
13702.50	-31.90	2.8	-29.1	-13.1	-16.0
15660.00	-43.00	3.4	-39.6	-13.1	-26.5
17617.50	-41.50	3.9	-37.6	-13.1	-24.5
19575.00	-37.50	4.2	-33.3	-13.1	-20.2

COMMENT #1: Channel = Middle Setting, 1957.5 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

TEST ENGINEER: \_\_\_\_\_ APPROVED BY: \_\_\_\_\_  
John O'Brien Jeff Lenk

**Out of Band Emission - Conducted Data Sheet**

**CI Wireless Inc.  
1900 MHz PCS Band 8 Watt Repeater**

SERIAL #: 80000/80003  
DATE: January 19, 1999  
BAND: B

PROJECT #: 99-219  
MODE: CDMA

Freq. (MHz)	Recorded Level (dBm)	Cable Loss (dB)	Corrected Level (dBm)	Limit (dBm)	Margin (dB)
1964.500	35.90	2.8	38.7	Ref	Ref
1965.000	-46.70	2.8	-43.9	-13.1	-30.8
3929.000	-41.30	1.3	-40.0	-13.1	-26.9
5893.50	-37.10	1.7	-35.4	-13.1	-22.3
7858.00	-41.10	1.9	-39.2	-13.1	-26.1
9822.50	-47.10	2.4	-44.7	-13.1	-31.6
11787.00	-37.20	2.8	-34.4	-13.1	-21.3
13751.50	-38.90	2.8	-36.1	-13.1	-23.0
15716.00	-36.00	3.4	-32.6	-13.1	-19.5
17680.50	-34.00	3.9	-30.1	-13.1	-17.0
19645.00	-42.90	4.2	-38.7	-13.1	-25.6

COMMENT #1: Channel = Highest Setting, 1963.75 MHz

COMMENT #2: Recorded Level adjusted to compensate for 50 dB attenuator installed in signal path prior to taking reading.

**TEST ENGINEER:** \_\_\_\_\_ **APPROVED BY:** \_\_\_\_\_  
**John O'Brien** **Jeff Lenk**