# Test Report

# FCC Part 15 Subpart B
# Industry Canada ICES-003

## Class II Permissive Change

# ACS Report: 06-0357-15PC2
**Revision A**

## Manufacturer: Arris Group, Inc.
## Model: SD300
## FCC ID: PG4SD300

## Test Start Date: September 26, 2006
## Test Completion Date: November 8, 2006

## Test Result: Pass

## Report Issue Date: December 18, 2006

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**Reviewed by:**

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FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 200612-0



**This report contains 23 pages**

| REVISION HISTORY | | | | | |
|---|---|---|---|---|---|
| **DATE** | **OLD REVISION** | **NEW REVISION** | **REASON** | **PAGES AFFECTED** | **APPROVED BY** |
| 12/18/06 | N/A | A | Initial Release | All | S. O'Steen |
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# Table of Contents

## 1.0 General

### 1.1 Purpose
The purpose of this report is to document continued conformance with FCC Part 15 Subpart B after changes to the unit have been made. Conformance will be verified via a Class II Permissive change filing with the FCC.

### 1.2 Relevant Standards and References
One or more of the following standards were used to evaluate the EUT:

1 – ANSI C63.4-2003: Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the 9KHz to 40GHz

2 – US Code of Federal Regulations (CFR): Title 47, Part 15, Radio Frequency Devices, Subpart B, Unintentional Radiators (October 2005).

3 – Industry Canada ICES-003 Issue 3: Digital Apparatus (November 1997).

### 1.3 Performance Requirement
The EUT is considered Class B equipment and must comply with the Class B limits.

## 2.0 Equipment Under Test

### 2.1 Manufacturer
Arris Group, Inc.
3871 Lakefield Drive Suite 300
Suwanee, GA 30024
Contact: Stephane Chapeau
Phone: (678) 473-8859
Stephane.chapeau@arrisi.com

### 2.2 Product Description

#### 2.2.1 General Descriptions
The SD300 Access Appliance is a modem allowing high-speed Internet connectivity over existing in building coaxial distribution networks. It consists of a full duplex QPSK cable transceiver, some control logic circuitry and a digital interface to the user's computer. The user's computer is connected to the Access Appliance through its Ethernet port. After processing by the digital section, the data from the user's computer is BPSK or QPSK modulated on a 915MHz carrier. The resulting upstream signal is amplified, filtered and then transmitted over the coaxial cable. The upstream symbol rate is 12MS/s. Simultaneously the access appliance receives and demodulates the downstream signal from Arris cXm's broadband gateway. The 22.5MS/s QPSK downstream signal is centered at 976MHz. The demodulated data is decoded by the Access appliance digital section and sent to the user's computer via the Ethernet interface.

#### 2.2.2 Power Requirements
The unit was tested in the 100V/60Hz configuration.

#### 2.2.3 I/O Port Descriptions
The EUT is equipped with 1 Ethernet connection, and 1 RF connector.

### 2.3 List of Changes

Relative to the original filing, the following changes were made to the unit:

**Table 2.3.1: Description of Changes**

| Affected Area | SD300 as originally certified | SD300 as modified |
|---|---|---|
| Power supply (External Wall Adapter) | Group West 5V 1A Model 48DR-5-1000S UL listed 5J62 E113827 | Adapter Tech 5V 3.5A Model STD-05035U LPS UL listed 60JJ E225703 |
| Ethernet PHY | Altima AC101 | Realtek RTL8201CP |
| RF Tuner | Philips TDA8060 | TDA8262HN |
| RF channel decoder | Philips TDA100085HT | Philips TDA100086HT |
| TX LO PLL | Fujitsu MB15U36 | National LMX2312U |

### 2.4 Modifications

No modifications were made to the unit to bring it into compliance:

## 3.0 Test Facilities

### 3.1 Location

The radiated and conducted emissions test sites are located at the following address:

Advanced Compliance Solutions
5015 B.U. Bowman Drive
Buford, GA 30518
Phone: (770) 831-8048
Fax: (770) 831-8598

### 3.2 Laboratory Accreditations/Recognitions/Certifications

The Semi-Anechoic Chamber Test Site, Open Area Test Site (OATS) and Conducted Emissions Site have been fully described, submitted to, and accepted by the FCC, Industry Canada and the Japanese Voluntary Control Council for Interference by information technology equipment. In addition, ACS is compliant to ISO 17025 as certified by the National Institute of Standards and Technology under their National Voluntary Laboratory Accreditation Program. The following certification numbers have been issued in recognition of these accreditations and certifications:

FCC Registration Number: 89450
Industry Canada Lab Code: IC 4175
VCCI Member Number: 1831

- VCCI OATS Registration Number R-1526
- VCCI Conducted Emissions Site Registration Number: C-1608

NVLAP Lab Code: 200612-0*

***Note:** Unless otherwise specified, the test methods used to evaluate the EUT for compliance to the defined standards are covered under the NVLAP scope of acceditation. However, the report is not to be used to claim compliance, certification or endorsement by NVLAP, NIST or any other government agency unless specifically submitted to such agency for such purpose.

### 3.3 Radiated Emissions Test Site Description

#### 3.3.1 Open Area Tests Site (OATS)

The open area test site consists of a 40’ x 66’ concrete pad covered with a perforated electro-plated galvanized sheet metal. The perforations in the sheet metal are 1/8” holes that are staggered every 3/16”. The individual sheets are placed to overlap each other by 1/4” and are riveted together to provide a continuous seam. Rivets are spaced every 3” in a 3 x 20 meter perimeter around the antenna mast and EUT area. Rivets in the remaining area are spaced as necessary to properly secure the ground plane and maintain the electrical continuity.

The entire ground plane extends 12’ beyond the turntable edge and 16’ beyond the antenna mast when set to a 10 meter measurement distance. The ground plane is grounded via 4 - 8’ copper ground rods, each installed at a corner of the ground plane and bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is an all aluminum 10’ flush mounted table installed in an all aluminum frame. The table is remotely operated from inside the control room located 40’ from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Adjacent to the turntable is a 7’ x 7’ square and 4’ deep concrete pit used for support equipment if necessary. The pit is equipped with 5 - 4” PVC chases from the pit to the control room that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit. The pit is covered with 2 sheets of 1/4" diamond style re-enforced steel sheets. The sheets are painted to match the perforated steel ground plane; however the

underside edges have been masked off to maintain the electrical continuity of the ground plane. All reflecting objects are located outside of the ellipse defined in ANSI C63.4.

A diagram of the Open Area Test Site is shown in Figure 3.3.1-1 below:

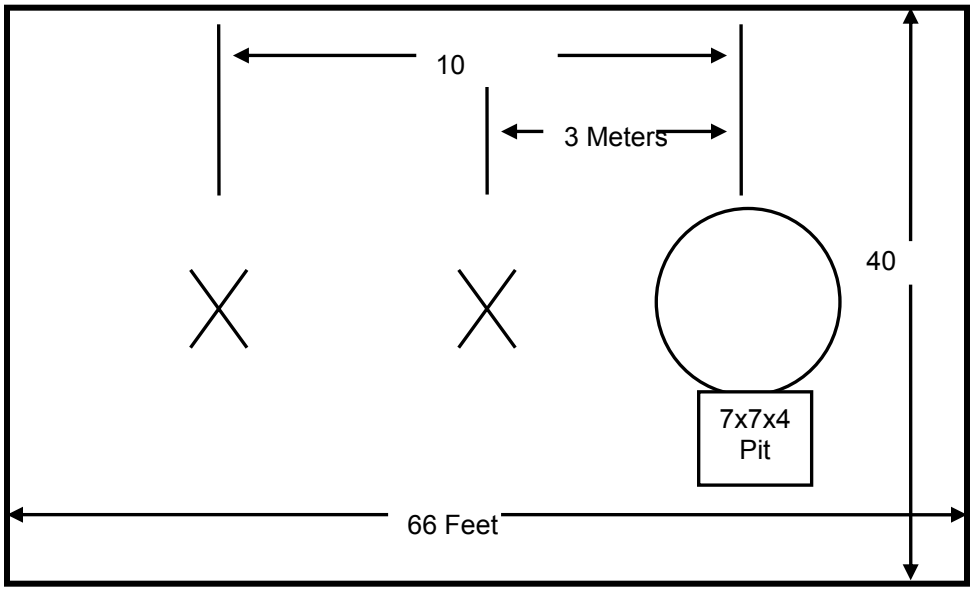



**Figure 3.3.1-1: Open Area Test Site**

**3.3.2 Semi-Anechoic Chamber**

The Semi-Anechoic Chamber Test Site consists of a 20' x 30' x 18' shielded enclosure. The chamber is lined with Toyo Ferrite Grid Absorber, model number FFG-1000. The ferrite tile grid is 101 x 101 x 19mm thick and weighs approximately 550 grams. These tiles are mounted on steel panels and installed directly on the inner walls of the chamber.

The turntable is 150cm in diameter and is located 160cm from the back wall of the chamber. The chamber is grounded via 1 - 8' copper ground rod, installed at the center of the back wall, it is bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is all steel, flush mounted table installed in an all steel frame. The table is remotely operated from inside the control room located 25' from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Behind the turntable is a 3' x 6' x 4' deep shielded pit used for support equipment if necessary. The pit is equipped with 1 - 4" PVC chases from the turntable to the pit that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit.

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 3.3.2-1 below:

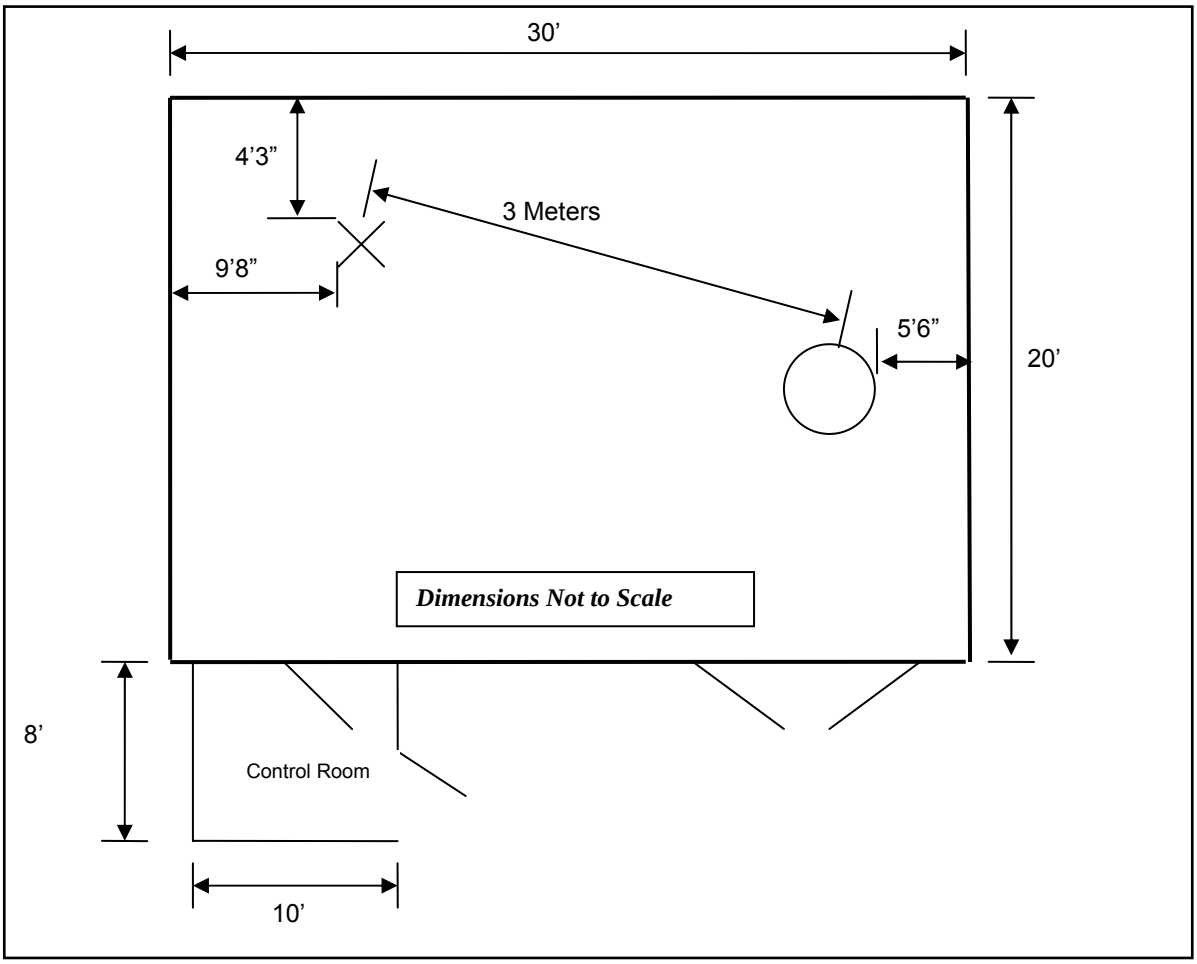



**Figure 3.3.2-1: Semi-Anechoic Chamber Test Site**

### 3.3.3 Fully Anechoic Chamber

The 3m fully anechoic chamber is used for pre-screening the EUT only. Final screening is performed on the OATS or in case of Class B EUT's, in the 3m semi-anechoic chamber.

The Fully-Anechoic Chamber Test Site consists of a 24'L x 16'W x 12'H shielded enclosure. The chamber is fully lined with RF absorbing foam. The foam ranges in type from 8-24" conventional pyramidal cones, 8-12" conventional wedges and 6" and 16" Hybrid Foam over ferrite tile. The Hybrid material is placed in the 5 specular regions of the chamber for better low-frequency performance. The specular regions are on the floor between the receiving antenna and the EUT table, the wall directly behind the EUT, the side walls between the receiving antenna and the EUT table and the ceiling between the receiving antenna and the EUT. Except for the back wall, the specular regions are 6' x 4' in size. The back wall specular region is 6' x 6'.

The chamber is grounded via 1 - 8' copper ground rod, installed at the center of the back wall, it is bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is a remotely controlled EMCO Model 1060 and is 150cm in diameter and is located 1m from the absorber on the back wall of the chamber.

A diagram of the Fully Anechoic Chamber Test Site is shown in Figure 3.3.3-1 below:

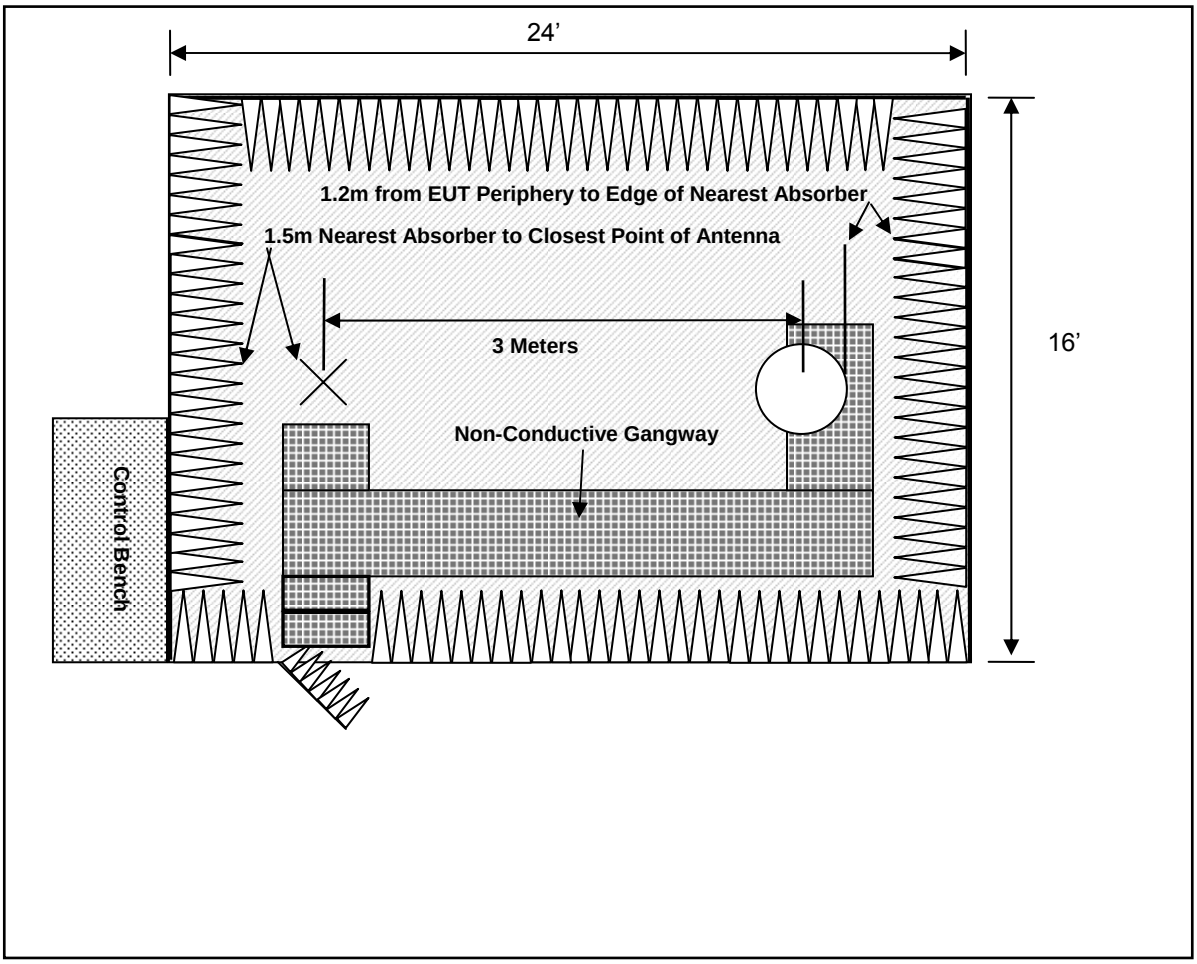



**Figure 3.3.3-1: Fully Anechoic Chamber Test Site**

### 3.4 Conducted Emissions Test Site Description

The AC mains conducted EMI site is located in the main EMC lab. It consists of an 8' x 8' solid aluminum horizontal group reference plane (GRP) bonded every 3" to an 8' X 8' vertical ground plane.

The site is of sufficient size to test table top and floor standing equipment in accordance with section 6.1.4 of ANSI C63.4.

A diagram of the test site is shown below in figure 3.4-1:

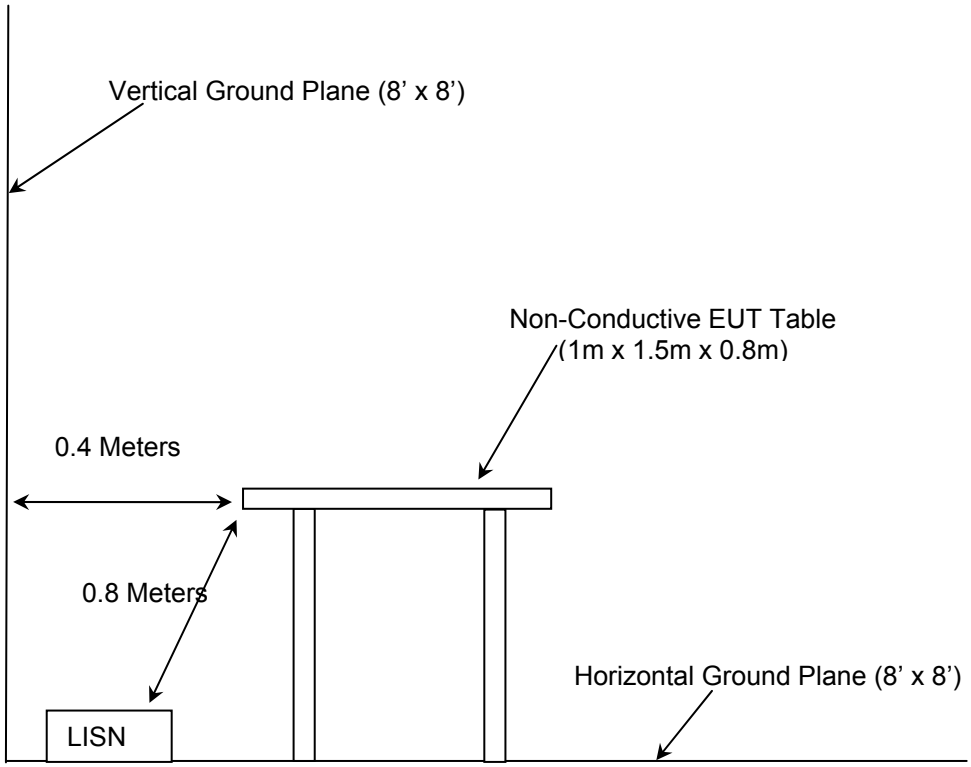



**Figure 3.4-1: AC Mains Conducted EMI Site**

## 4.0 Test Equipment

### 4.1 Test Equipment

Table 4.1-1 lists all test equipment

**Table 4.1-1: Test Equipment**

| Equipment Calibration Information | | | | | |
|---|---|---|---|---|---|
| **ACS#** | **Mfg.** | **Eq. type** | **Model** | **S/N** | **Cal. Due** |
| ☒ 25 | Chase | Bi-Log Antenna | CBL6111 | 1043 | 5/30/07 |
| ☒ 041 | ElectroMetrics | Bi-Con Antenna | BIA-25 | 2925 | 5/25/07 |
| ☒ 090 | ElectroMetrics | LPA Antenna | LPA-25 | 1476 | 5/25/07 |
| ☒ 78 | EMCO | Loop Antenna | 6502 | 9104-2608 | 1/13/07 |
| ☒ 152 | EMCO | LISN | 3825/2 | 9111-1905 | 2/8/07 |
| ☒ 153 | EMCO | LISN | 3825/2 | 9411-2268 | 12/5/06 |
| ☒ 225 | Andrew | OATS RF cable | Heliax | 225 | 1/07/07 |
| ☒ 165 | ACS | Conducted EMI Cable Set | RG8 | 165 | 3/07/07 |
| ☒ 22 | Agilent | Pre-Amplifier | 8449B | 3008A00526 | 5/06/07 |
| ☒ 73 | Agilent | Pre-Amplifier | 8447D | 272A05624 | 5/18/07 |
| ☒ 30 | Spectrum Technologies | Horn Antenna | DRH-0118 | 970102 | 5/12/07 |
| ☒ 1 | Rohde & Schwarz | Receiver Display | 804.8932.52 | 833771/007 | 3/01/07 |
| ☒ 2 | Rohde & Schwarz | ESMI Receiver | 1032.5640.53 | 839587/003 | 3/01/07 |
| ☒ 3 | Rohde & Schwarz | Receiver Display | 804.8932.52 | 839379/011 | 10/24/07 |
| ☒ 4 | Rohde & Schwarz | ESMI Receiver | 1032.5640.53 | 833827/003 | 10/24/07 |
| ☒ 283 | Rohde & Schwarz | Spectrum Analyzer | FSP-40 | 1000033 | 3/24/07 |
| ☒ 213 | Test Equipment Corp. | Pre-Amplifier | PA-102 | 44927 | 12/5/06 |
| ☒ 211 | Eagle | Band Reject Filter | C7RFM3NFNM | n/a | 1/07/07 |
| ☒ 168 | Hewlett Packard | Pulse Limiter | 11947A | 3107A02268 | 3/7/07 |
| ☒ 93 | Chase | EM Clamp | CIC 8101 | 65 | 1/09/07 |
| ☒ 6 | Harbour Industries | HF RF Cable | LL-335 | 00006 | 3/10/07 |
| ☒ 7 | Harbour Industries | HF RF Cable | LL-335 | 00007 | 3/13/07 |
| ☒ 208 | Harbour Industries | HF RF Cable | LL142 | 00208 | 3/13/07 |
| ☒ 5 | Chase RF Current Probe | Current Probe | CSP-8441 | 19 | 1/17/07 |
| ☒ 167 | ACS | Chamber EMI Cable Set | RG6 | 167 | 1/7/07 |
| ☒ 237 | Gigatronics | Signal Generator | 900 | 282706 | 1/10/07 |
| ☒ 267 | Agilent | Power Meter | N1911A | MY45100129 | 10/26/07 |
| ☒ 16 | ACS | Conducted Emission Cable | Cable | 16 | 5/10/07 |

## 5.0 Test Setup Description

### 5.1 System Block Diagram and Support Equipment

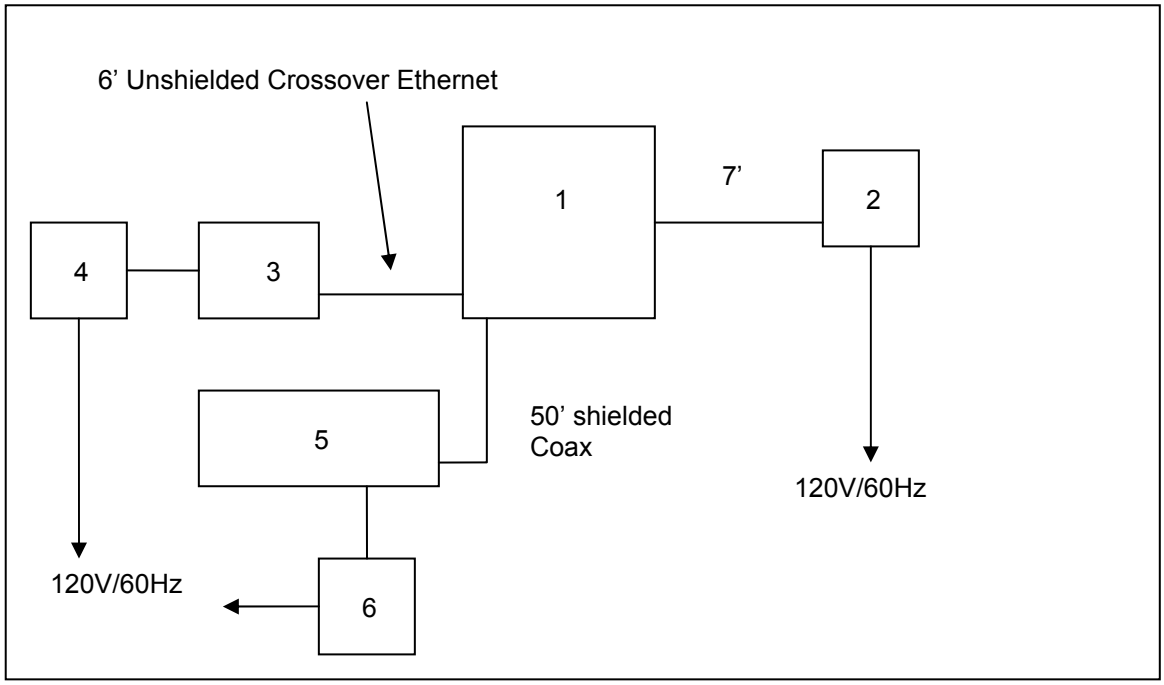



**Figure 5.1-1: System Block Diagram**

**Table 5.1-1: Support Equipment Description**

| Item # | Type Device | Manufacturer | Model/Part # | Serial # |
|---|---|---|---|---|
| **1** | EUT | Arris | SD300 | 10636000100014 |
| **2** | Power Supply | Group West | 48DR-5-1000S | N/A |
| **2** | Power Supply | Adapter Tech | STD-05030 | N/A |
| **3** | Laptop | Dell | D610 | N/A |
| **4** | Laptop Power Supply | Dell | PA-1650-05D2 | N/A |
| **5** | CO Switch | Arris | BG200 | N/A |
| **6** | CO Switch Power Supply | Fairway PS | VE20-070 | 12033100199-OA |

## 5.2 Test Setup Photographs

**Figure 5.2-1: Radiated Emissions Test Setup - Front View**

**Figure 5.2-2: Radiated Emissions Test Setup - Rear View**

**Figure 5.2-3: Conducted Emissions Test Setup**

## 6.0 Test Methodology

### 6.1 Conducted Emissions

Conducted emissions were performed from 150kHz to 30MHz with the spectrum analyzer's resolution bandwidth set to 9kHz and the video bandwidth set to 30kHz. The calculation for the conducted emissions is as follows:

**Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss**
**Margin = Corrected Reading – Applicable Limit**

### 6.2 Radiated Emission

#### 6.2.1 Pre-Scans

Radiated pre-scans are performed on all EUT's in either the 3m Semi-Anechoic or the 3m Fully-Anechoic Chamber. Final emission testing for Class A equipment is performed on the 3/10m Open Area Test Site (OATS) as described in section 4.1.1. Final emission testing on Class B equipment can be performed either in the 3m Semi-Anechoic chamber described in section 4.1.2 or on the OATS.

Pre-scans are a method by which the 10 highest emissions can be identified for final evaluation. This is achieved by taking automated emission snapshots of the EUT at various azimuths and antenna heights. The software is programmed to perform a peak sweep of the band using the maxhold function. This sweep is performed every 90º in both horizontal and vertical polarities and at antenna heights of 100cm and 300cm. Although not a fully maximized scan, the pre-scan gives a good indication of pass or fail.

#### 6.2.2 Final Scans

Radiated emissions measurements were made over the frequency range of 30MHz to 1000MHz. Quasi-Peak measurements are taken with the Spectrum Analyzer's Resolution Bandwidth set to 120kHz and Video Bandwidth set to 300kHz for measurements below 1000MHz. Average measurements are taken with the Resolution Bandwidth set to 1MHz and the Video Bandwidth set to 10Hz for measurements above 1000MHz. The calculation for the radiated emissions field strength is as follows:

**Corrected Reading = Analyzer Reading + Cable Loss + Antenna Factor**
**Margin (dB) = Corrected Reading - Applicable Limit**

### 6.3 Test Criteria

Class B equipment must meet the radiated and conducted limits as given in table 6.3-1 below:

**Table 6.3-1: Emission Limits**

| Emission Type | Frequency Range (MHz) | Voltage limits (dBuV) |
|---|---|---|
| Conducted Class B | 0.15 to 0.5 | *66 to 56 QP<br>*56 to 46 Ave |
| | 0.5 to 5 | 56 QP<br>46 Ave |
| | 5 to 30 | 60 QP<br>50 Ave |
| Radiated Class B @ 3 meters | 30.0 to 88.0 | 40.0 |
| | 88.0 to 216.0 | 43.5 |
| | 216.0 to 960.0 | 46.0 |
| | Above 960.0 | 54.0 |

* Decreases linearly with the logarithm of the frequency

### 6.4 EUT Operation during Emission Testing

The EUT was Communicating with an Arris BG200 Board outside the test area.

### 6.5 Test Justification

No justification required. The EUT was tested per the appropriate test methods.

### 7.3 Ambient Atmospheric Conditions

| | | |
|---|---|---|
| **AMBIENT TEMPERATURE:** | **23°** | **(15°C to 35°C)** |
| **RELATIVE HUMIDITY:** | **30%** | **(30% to 60%)** |
| **ATMOSPHERIC PRESSURE:** | **1018 mbar** | **(860 mbar to 1060 mbar)** |

### 7.4 Conducted Emissions

**TEST DATE:** October 24, 2006

**MODEL:** SD300 Group West Power Supply

**TECHNICIAN:** Hernando Orozco

**EUT VOLTAGE:**

**230VAC/50HZ:** ____ **120VAC/60HZ:** X **12VDC:** ____ **OTHER:** ____

**HIGHEST CLOCK SPEED:**

**<108MHz** X **108-500MHz:** ____ **500-1000MHz:** ____ **>1000MHz** ____

**Table 7.4-1: Conducted Emissions Line 1 - Quasi-Peak**

| Frequency (MHz) | Level (dBµV) | Transducer (dB) | Limit (dBµV) | Margin (dB) | Line | PE |
|---|---|---|---|---|---|---|
| 0.15 | 39.2 | 9.80 | 66.00 | 17.0 | L1 | GND |
| 0.25 | 36.1 | 9.80 | 61.76 | 15.9 | L1 | GND |
| 0.20 | 37.3 | 9.80 | 63.61 | 16.5 | L1 | GND |
| 0.30 | 34.5 | 9.80 | 60.24 | 15.9 | L1 | GND |
| 0.40 | 34.8 | 9.80 | 57.85 | 13.3 | L1 | GND |
| 0.50 | 28.3 | 9.80 | 56.00 | 17.9 | L1 | GND |
| 1.55 | 30 | 9.80 | 56.00 | 16.2 | L1 | GND |

**Table 7.4-2: Conducted Emissions Line 1 - Average**

| Frequency (MHz) | Level (dBµV) | Transducer (dB) | Limit (dBµV) | Margin (dB) | Line | PE |
|---|---|---|---|---|---|---|
| 0.15 | 9.9 | 9.80 | 56.00 | 36.3 | L1 | GND |
| 0.25 | 0 | 9.80 | 51.76 | 42.0 | L1 | GND |
| 0.20 | 0.5 | 9.80 | 53.61 | 43.3 | L1 | GND |
| 0.30 | 0 | 9.80 | 50.24 | 40.4 | L1 | GND |
| 0.40 | 0 | 9.80 | 47.85 | 38.1 | L1 | GND |
| 0.50 | -1 | 9.80 | 46.00 | 37.2 | L1 | GND |
| 1.55 | 11 | 9.80 | 46.00 | 25.2 | L1 | GND |

* Measurement Uncertainty = ±3.7dB

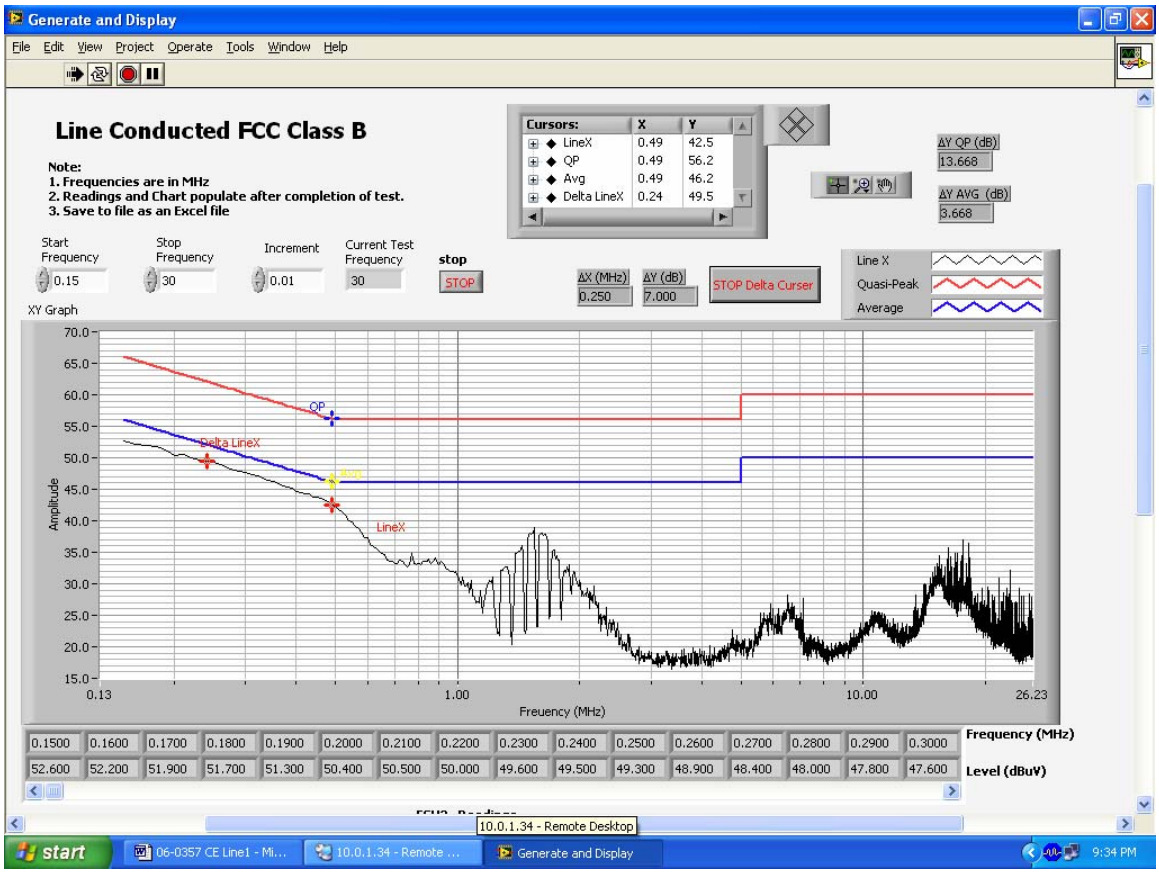



**Figure 7.4-1 Conducted Emissions Line 1**

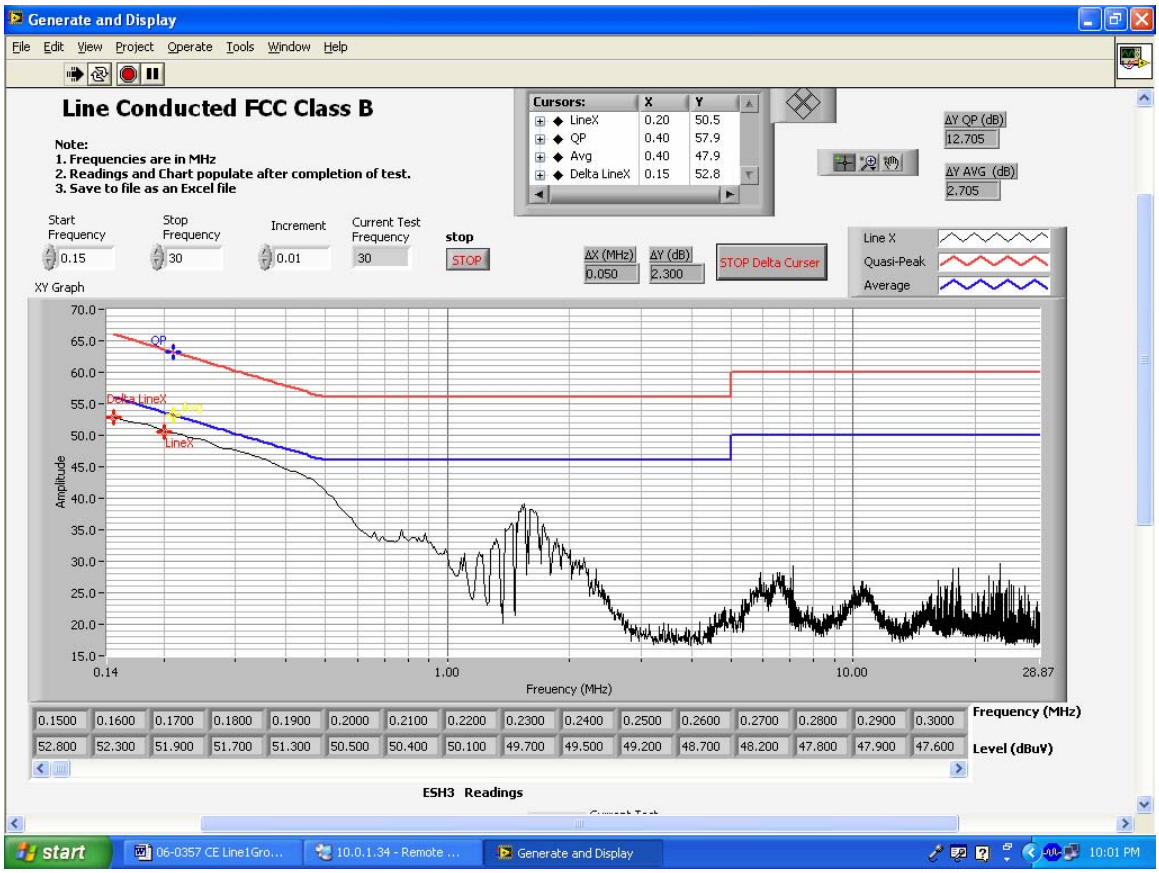
**Table 7.4-3: Conducted Emissions Line 2 - Quasi-Peak**

| Frequency (MHz) | Level (dBµV) | Transducer (dB) | Limit (dBµV) | Margin (dB) | Line | PE |
|---|---|---|---|---|---|---|
| 0.15 | 39.1 | 9.80 | 66.00 | 17.1 | L2 | GND |
| 0.20 | 37.1 | 9.80 | 63.61 | 16.7 | L2 | GND |
| 0.25 | 36 | 9.80 | 61.76 | 16.0 | L2 | GND |
| 0.30 | 34.4 | 9.80 | 60.24 | 16.0 | L2 | GND |
| 0.40 | 31.5 | 9.80 | 57.85 | 16.6 | L2 | GND |
| 0.50 | 27.9 | 9.80 | 56.00 | 18.3 | L2 | GND |
| 1.55 | 27.3 | 9.80 | 56.00 | 18.9 | L2 | GND |

**Table 7.4-4: Conducted Emissions Line 2 - Average**

| Frequency (MHz) | Level (dBµV) | Transducer (dB) | Limit (dBµV) | Margin (dB) | Line | PE |
|---|---|---|---|---|---|---|
| 0.15 | 9.1 | 9.80 | 56.00 | 37.1 | L2 | GND |
| 0.20 | 0.5 | 9.80 | 53.61 | 43.3 | L2 | GND |
| 0.25 | 0 | 9.80 | 51.76 | 42.0 | L2 | GND |
| 0.30 | 0 | 9.80 | 50.24 | 40.4 | L2 | GND |
| 0.40 | 0 | 9.80 | 47.85 | 38.1 | L2 | GND |
| 0.50 | -1 | 9.80 | 46.00 | 37.2 | L2 | GND |
| 1.55 | 11.1 | 9.80 | 46.00 | 25.1 | L2 | GND |

* Measurement Uncertainty = ±3.7dB




**Graphic 7.4-2 Conducted Emissions Line 2**

___√___ Based on the above results, the EUT meets the conducted emission limits of FCC Part 15B and Industry Canada ICES-003 when tested as described in section 5.0.

### 7.5 Radiated Emissions

Several pre-scans may have been performed in an effort to mitigate any non-compliance and ultimately to identify the 10 highest offending emissions. The final pre-scan graph is shown below in figure 7.5-1 and any modifications necessary to pass are detailed in section 2.3.

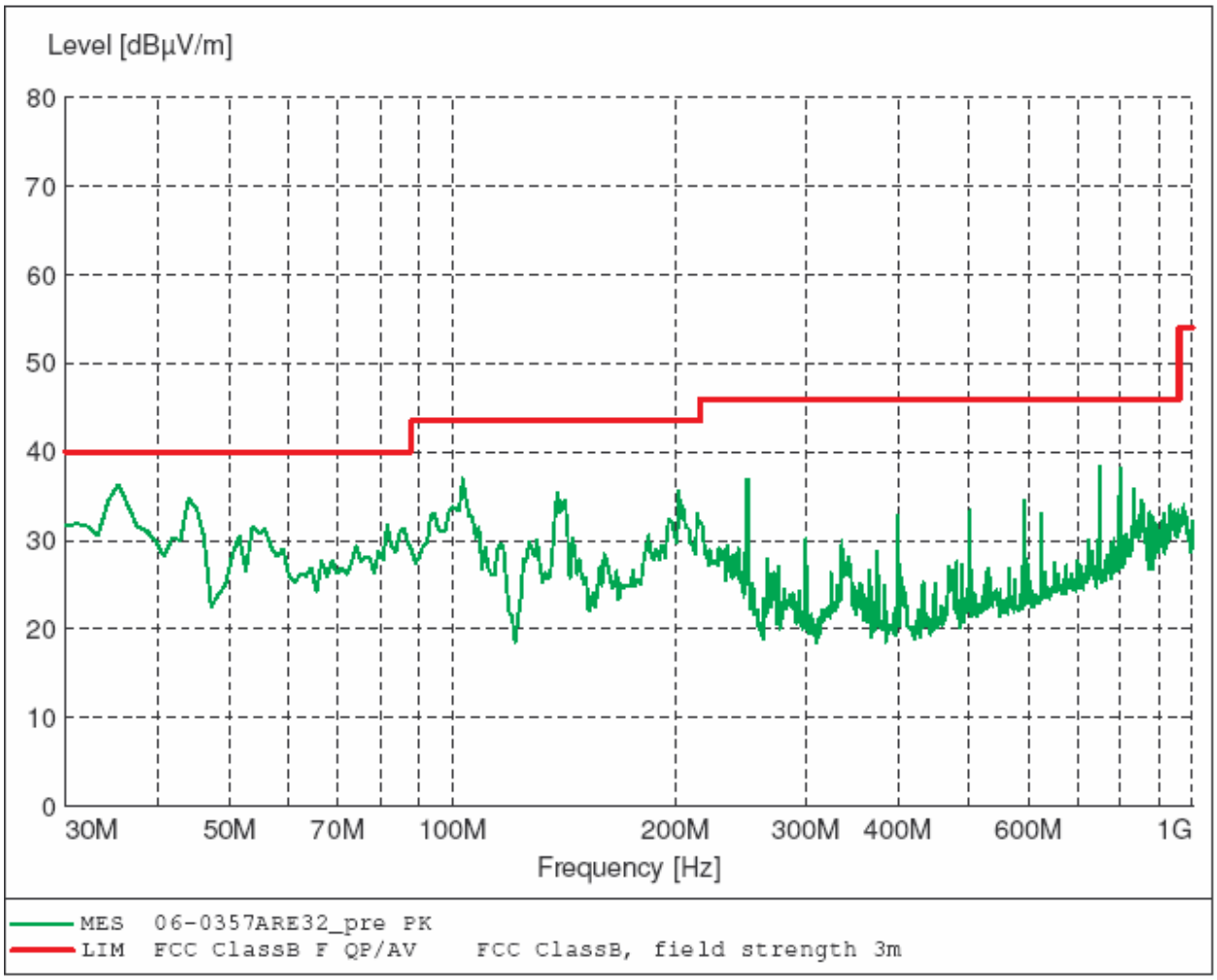



**Figure 7.5-1: Radiated Emissions Pre-Scans**

Final tabulated radiated emissions data based on the pre-scan are reported in table 7.5-1 and 7.5-2 below:

**TEST DATE:** **November 7, 2006**

**MODEL:** **SD300 Group West Power Supply**

**TECHNICIAN:** **Ray Verar**

**EUT VOLTAGE:**
**230VAC/50HZ:** ____ **120VAC/60HZ:** **X** **12VDC:** ____ **OTHER:** ____

**PERFORMED PRESCAN:** **Y:** **X** **N:** ____

**HIGHEST CLOCK SPEED:**
**<108MHz** **X** **108-500MHz:** ____ **500-1000MHz:** ____ **>1000MHz** ____

**Table 7.5-2: Radiated Emissions Data**

| Frequency (MHz) | Measured Reading (dBµV/m) | Antenna Polarity (H/V) | Antenna Height (cm) | Total Correction Factor (dB) | Corrected Reading (dBµV/m) | Limit (dBµV/m) | Margin (dB) |
|---|---|---|---|---|---|---|---|
| 35.14 | 44.50 | V | 100 | -11.47 | 33.03 | 40.0 | 6.97 |
| 45.71 | 44.40 | V | 100 | -16.37 | 28.03 | 40.0 | 11.97 |
| 55.85 | 46.61 | V | 147 | -18.84 | 27.77 | 40.0 | 12.23 |
| 82.85 | 45.36 | V | 100 | -18.19 | 27.17 | 40.0 | 12.83 |
| 103.12 | 44.02 | V | 100 | -13.95 | 30.07 | 43.5 | 13.43 |
| 106.00 | 46.13 | V | 100 | -13.80 | 32.33 | 43.5 | 11.17 |
| 138.38 | 47.29 | V | 100 | -12.97 | 34.32 | 43.5 | 9.18 |
| 202.00 | 40.50 | V | 100 | -14.10 | 26.40 | 43.5 | 17.10 |
| 249.00 | 40.50 | H | 100 | -11.59 | 28.91 | 46.0 | 17.09 |
| 751.00 | 24.85 | V | 100 | -1.28 | 23.57 | 46.0 | 22.43 |
| 797.68 | 31.50 | V | 100 | -0.59 | 30.91 | 46.0 | 15.09 |

* Measurement Uncertainty = ±4dB

**Total Correction Factor = Cable Loss + Antenna - Amplifier Gain**
**Corrected Reading = Measured Reading – Total Correction Factor**
**Margin = Limit – Corrected Reading**

## 8.0 Measurement Uncertainty

The measurement uncertainty for the Open Area Test Site (OATS) is ± 4dB and ± 3.7dB for the conducted emissions test site with a confidence level of 95% (k=2).

Measurement Uncertainty is based the following publications:

- The Guide to the Expression of Uncertainty in Measurement(GUM): 1993
- UKAS Document – Lab 34: The Expression of Measurement Uncertainty in EMC Testing (Edition 1: August 2002)

## 9.0 Conclusion

When tested as described in section 5.0 and passing with margin ≥ to the measurement uncertainty values specified in section 8.0, the EUT is determined to meets the requirements of Class B equipment as defined by the FCC Part15 Subpart B and Industry Canada ICES-003 with a confidence level of 95% (k=2).