



**Test Report**

**Standard(s):** FCC Part 15, EN55022: 1998, VCCI, AS/NZS 3548

**Class A**

**Model(s):** AP9207

**Prepared for:** American Power Conversion  
17998 Chesterfield Airport road  
Chesterfield, MO 63005

**Date(s) of test:** August 12, 2000 and January 11, 2001

**Prepared by:**

A handwritten signature in black ink, appearing to read "Keith Henderson".

Date 2-23-01

**Keith Henderson, Compliance Engineer**

**Reviewed by:**

A handwritten signature in black ink, appearing to read "Michael Koffink".

Date 2/28/01

**Michael Koffink, EMI Section Manager**



**Integrity**

Design & Test  
Services

An Entela, Inc. Company

## Certificate of Compliance

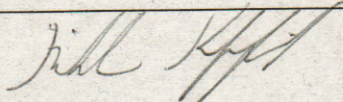
The following product was found to comply with the requirement stated below when tested in accordance with the test procedures described in the accompanying test/measurement report. Reference report number 66347.e1

Manufacturer: American Power Conversion  
17998 Chesterfield Airport Road  
Chesterfield, MO 63005

Model: AP9207

Requirement: FCC Part 15, EN55022: 1998, VCCI, AS/NZS 3548  
Class A

Approved By:

Michael Koffink NVLAP Signatory	
Date	3/24/01

Remarks: *Testing is performed using calibrated equipment traceable to the National Institute of Standards and Technology (NIST).*

*This certificate is valid for products tested as described in the accompanying test report. Specific modifications necessary to meet the above requirement, recommended by Integrity Design & Test Services, Inc. are described therein.*

*Integrity Design & Test Services, Inc. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for Electromagnetic Emissions Testing*





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## 1. Executive Summary

### 1.1 Scope

This document describes electromagnetic emissions testing performed on the Share UPS (referred to as the [AP9207 throughout this report](#)) on [August 12, 2000 and January 11, 2001](#), pursuant to FCC CFR 47 Part 15, EN55022, AS/NZS 3548 and VCCI requirements. It may be used to demonstrate compliance with the FCC and Industry Canada emissions requirements, European Union emissions requirements pursuant to the EMC Directive, VCCI requirements in Japan, as well as Australian and New Zealand requirements.

### 1.2 Content

Contained herein are the technical descriptions of the equipment under test (EUT) as well as the test methods and results used to verify compliance with the emissions requirements for Information Technology Equipment (ITE), to the above named standards.

### 1.3 Conclusions

The [AP9207](#) met the FCC and EN55022 Class A requirements when tested as described herein. (Refer to Test Descriptions & Results in section 3 for a detailed description).

*Note: The EN55022 Class A emissions requirements are identical to those defined by the VCCI and in AS/NZS 3548. Accordingly, references made in this document to EN55022 with respect to limits and margins of compliance will apply equally to VCCI and AS/NZS requirements.*

## **2. Test Environment**

### **2.1 EUT Description**

Model: AP9207

S/N: WA98310134494

Description: The Share-UPS is designed to connect up to eight independent computer servers to one APC UPS. The Share-UPS connects to the UPS through the UPS's interface port and expands the available number of interface ports from one to eight.

Share-UPS monitors the UPS and reports on-battery and low-battery status to all connected devices.

The Share-UPS is powered directly from the UPS's Computer Interface or by the optional AC power adapter. Adaptor # AP9505i International Power Supply.

The 940-0103 Cable connects the management port to a computer for initialization.

The 940-0024C Cable connects port 1 to a computer for full monitoring.

The 940-0020B Cable connects ports 2 – 8 to a computer for limited monitoring.

#### **2.1.1 System Operation**

The system was configured in a typical operation. During testing, the EUT was connected to a APC Smart UPS 1000 and to a PC. The UPS was loaded down with a resistive load bank to simulate real load conditions. The EUT was initialized through it's management port by the PC and after initialization the PC was connected to the port 1 for full monitoring. The Client stated that pre-screening testing had showed the worst-case condition to be when the AP9207 had un-terminated cables hanging from all but port 1. Our testing found the worst case in this configuration to be when the optional external power supply was connected and powering the AP9207.

**2.1.2 Support Equipment:**

Description	Manufacturer	Model Number	Serial Number	FCC ID
Smart UPS 1000	APC	Smart UPS 1000	WS9931011026	N/A
Load Bank				N/A
PC	Compac	Presario	A527HPW2D210	N/A
Monitor	Glodstar	Studioworks 55	704KG07826	BEJCS546
Keyboard	NMB	N/A	119565-002A-228A-118	N/A
Mouse	Compac	M-S28	141649-001	N/A

Cables

Qty	Description	Cable (Loopback/Open Ended/Connected?)	Unshielded/Shielded Type (Braided/Foil)	Shield Termination (360°/Drain)	Length (Meters)
1	Management Cable	Open-ended	Foil Shielded	Drain Wire	2
1	Control Cable	Connected	Foil Shielded	Drain Wire	2
1	Monitoring Cable	Open-ended	Foil Shielded	Drain Wire	2
6	9-Pin	Open –ended	Foil shielded	Drain wire	2
4	Power cords	Connected	Unshielded	N/A	2



## **2.2 Test Facility Description**

The test facility is located on the premises of Integrity Design & Test Services, Inc. at 37-7 Ayer Road, Littleton, MA 01460. All testing is performed in an Open Area Test Site conforming to the site attenuation characteristics defined by ANSI C63.4 1992 and CISPR 16. Test methods and facilities have been audited and accredited by the National Voluntary Lab Accreditation Program (NVLAP).

## **2.3 Test Equipment**

All equipment used in the testing process have up to date calibrations traceable to the National Institute of Standards and Technology (NIST). Refer to Table 2.3-1 for a complete list of equipment used during the testing.

## **2.4 Product Disposition**

All items received for testing undergo an inspection to ensure proper working condition upon reception and before return shipment. The unit under test passed the incoming inspection when received for testing on [August 12, 2000](#) and [January 11, 2001](#). The unit was returned to the client's facility at the completion of testing after passing the final inspection.

**Table 2.3-1: Test Equipment**

<b>Description</b>	<b>Model Number</b>	<b>Serial Number</b>	<b>Last Calibration</b>	<b>Due Calibration</b>	<b>EMI #</b>
Spectrum Analyzer (9 KHz to 22 GHz)	HP8593E	3543A01976	7/31/00	7/31/01	145-1
LISN: 50Ω/50μH	91221-1	0386	2/16/00	2/16/01	145-2
Preamplifier (150 KHz to 1.3 GHz)	HP 8447D	2443A04077	4/20/00	4/20/01	145-3
LISN: 50Ω/50μH	Solar 9252-50-R-24- BNC	941725	5/16/00	5/16/01	145-5
BiLog Antenna (30 MHz to 2 GHz)	Chase CBL6112A	2284	7/12/00	7/12/01	145-6
BiLog Antenna (30 MHz to 2 GHz)	Chase CBL6112A	2173	8/10/00	8/10/01	145-7
LISN: 50Ω/50μH	Solar 9252-50-R-24- BNC	971601	6/8/00	6/8/01	145-8
LISN: 50Ω/50μH	Solar 9252-50-R-24- BNC	941724	8/31/00	8/31/01	145-9
Guided Ridged Horn (1 GHz to 18 GHz)	A.H. Systems SAS-200/571	163	9/24/99	9/24/00	145-10
Preamplifier (150 KHz to 1.3 GHz)	HP 8447D	2944A07027	4/18/00	4/18/01	145-13
Preamplifier (1 GHz to 26.5 GHz)	HP 8449B	3008A00232	8/8/00	8/8/01	145-14
LISN: 50Ω/50μH	Solar 9252-50-R-24- BNC	971617	6/21/00	6/21/01	145-15
LISN: 50Ω/50μH	91221-1	0335-04304	2/16/00	2/16/01	145-16
LISN: 50Ω/50μH	91221-1	0385	2/16/00	2/16/01	145-18
Preamplifier (1 GHz to 26.5 GHz)	HP 8449B	3008A00948	8/24/00	8/24/01	145-20
Spectrum Analyzer (9 KHz to 26 GHz)	HP 8593EM	3412A00102	2/10/00	2/10/01	145-21
Guided Ridged Horn (1 GHz to 18 GHz)	EMCO 3115	9807-5520	12/10/99	12/10/00	145-29
LISN: 50Ω/50μH	Solar 9233-50-TS-50-N	981960	10/12/99	10/12/00	145-31
Monopole Antenna	AM-541	11008	1/18/00	1/18/01	145-32
Preamplifier (150 KHz to 1.3 GHz)	HP 8447D	2944A08408	1/24/00	1/24/01	145-33

<b>Description</b>	<b>Model Number</b>	<b>Serial Number</b>	<b>Last Calibration</b>	<b>Due Calibration</b>	<b>EMI #</b>
BiLog Antenna (30 MHz to 1GHz)	Chase CBL6111C	2564	5/30/00	5/30/01	145-34
Digital Multi Meter	75 Series II	55400267	6/2/00	6/2/01	145-42
LISN: 50Ω/50μH	9857-50-BP-24- BNC	001139	6/19/00	6/19/01	145-58

*All equipment used for testing has been calibrated according to methods and procedures defined by the National Institute of Standards and Technology (NIST).*

### **3. Test Description/Results**

#### **3.1 Radiated Emissions**

##### **3.1.1 Object**

The purpose of this test is to measure the radiated electromagnetic emissions generated by the equipment under test (EUT), pursuant to FCC part 15 and EN55022 Class A requirements. (See Table 3.1.1-1 for the Class A radiated limits).

##### **3.1.2 Procedure**

Testing is performed in an Open Area Test Site. The EUT is placed on a wooden turntable 80 cm in height. The EUT is centered laterally on the turntable and flush with the rear of the table. Peripheral equipment is placed on either side of the EUT with a minimum of 10 cm spacing. (When testing a personal computer system, monitors shall be placed on top of the PC, and the keyboard and mouse shall be placed in front of the PC towards the front edge of the turntable.) Excess interface cables are draped over the back edge of the table no closer than 40 cm to the ground plane.

The EUT shall be set into operation such that all parts of the system are exercised. This may require the use of test software designed to exercise the various parts of the system. With the EUT set into operation, the turntable is rotated over 360 degrees and interface cables are manipulated to maximize the emissions. The peripherals are not moved during the test. The receiving antenna is placed at a test distance of 3 or 10 meters from the closest point on the EUT. The antenna height is varied from 1 to 4 meters, and the polarity of the antenna is switched between vertical and horizontal such that the received signal is maximized.

##### **3.1.3 Deviations from Test Method**

None

##### **3.1.4 Measurement Uncertainty**

A minimum of a 2 dB margin of compliance is recommended for radiated emissions data to verify passing results. This is recommended to compensate for the measurement uncertainties involved.



**3.1.5 Results**

The AP9207 met the FCC and EN55022 Class A radiated emissions requirements when tested as described below. (See Appendix A for a complete listing of data points).

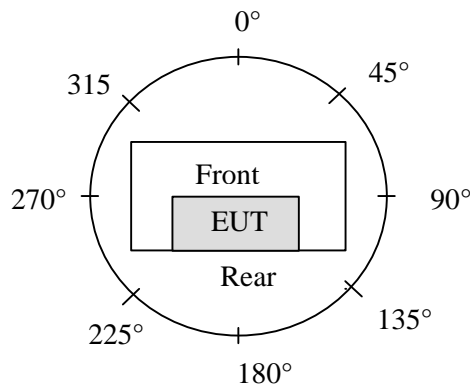
*Worst case emissions measured:*

<b>Modifications</b>	<b>FCC Class A Radiated Emissions</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Radiated Emissions</b>
See Note (1)	Passed: - 8.5 dB at 213.9 MHz Line Voltage: 120 VAC 60 Hz See Table: A1 Azimuth Angle (see diagram below): 190° Antenna Height: 1 meter Polarity: Vertical	Passed: - 4 dB at 221.2 MHz Line Voltage: 120 VAC 60 Hz See Table: A1 Azimuth Angle (see diagram below): 190° Antenna Height: 1 meter Polarity: Vertical

Notes

- (1) Final scan. No modifications installed.

Azimuth Angle Diagram



*The above results pertain only to the specific item submitted for testing, identified by the product's model and serial numbers.*

### 3.1.6 Radiated Emissions Terms and Calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

**Reading:** This is the reading obtained on the spectrum analyzer in dB $\mu$ V. Any external preamplifiers used are taken into account through internal analyzer settings.

**A.F.:** This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB)} = \text{Net field strength (dB}\mu\text{V/m)}$$

**Net:** This is the net field strength measurement (as shown above).

**Limit:** This is the FCC Class A radiated emission limit (in units of dB $\mu$ V/m).

**Margin:** This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example for an emission measuring 20.5 dB $\mu$ V on the spectrum analyzer at 592 MHz:  
(Note: This shows a passing result (i.e. a negative margin))

**Example only:**

<u>Reading</u>	<u>A.F.</u>	<u>Net Reading</u>	<u>Net Reading</u>	<u>FCC limit</u>	<u>Margin</u>
20.5dB $\mu$ V	+ 25 dB	= 45.5 dB $\mu$ V/m	: 45.5 dB $\mu$ V/m	- 57 dB $\mu$ V/m	= -11.5 dB

## **3.2 Conducted Emissions**

### **3.2.1 Object**

The purpose of this test is to measure the conducted electromagnetic emissions on the AC power lines, pursuant to FCC part 15 and EN55022 Class A requirements. (See Table 3.2.1-1 for the Class A conducted limits).

### **3.2.2 Procedure**

Testing is performed in an Open Area Test Site. Equipment is arranged on the table as described in section 3.1.2. Each individual current-carrying power lead shall be individually connected through a 50 $\Omega$ /50 $\mu$ H Line Impedance Stabilization Network (LISN). A 2-meter x 2-meter vertical coupling plane is placed 40 cm to the rear of the EUT. The EUT is set into operation such that all parts of the system are exercised, while the RF voltages across the 50  $\Omega$  measuring port of the LISN are recorded. The test is repeated for each current-carrying power line of the EUT.

### **3.2.3 Deviations from Test Method**

None

### **3.2.4 Measurement Uncertainty**

A minimum of a 1 dB margin of compliance is recommended for conducted emissions data to verify passing results. This is recommended to compensate for the measurement uncertainties involved.

### 3.2.5 Results

The AP9207 met the FCC and EN55022 Class A conducted emissions requirements when tested as described below. (See Appendix A for a complete listing of data points).

*Worst case emissions measured:*

<b>Modifications</b>	<b>FCC Class A Conducted Emissions</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Conducted Emissions</b>
See Note (1)	Passed: - 27 dB at 0.607 MHz Line Voltage: 120 VAC 60 Hz See Table: A2	Passed: - 31 dB at 1.48 & 10.1 MHz Line Voltage: 230 VAC 50 Hz See Table: A3

#### Notes

- (1) Final scan. No modifications installed.

*The above results pertain only to the specific item submitted for testing, identified by the product's model and serial numbers.*



### 3.2.6 Conducted Emissions Terms and Calculation

The following is a description of terms and a sample calculation, as appears in the conducted emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

**Reading:** This is the reading obtained on the spectrum analyzer in dB $\mu$ V. Any external attenuators used are taken into account through internal analyzer settings.

**Limit:** This is the FCC Class A conducted emission limit (in units of dB $\mu$ V).

**Margin:** This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example for an emission measuring 55 dB $\mu$ V on the spectrum analyzer at 5.4 MHz.  
(Note: This shows a passing result (i.e. a negative margin))

**Example only:**

$$\begin{array}{rcccl} \text{Reading} & & \text{FCC limit} & & \text{Margin} \\ 55 \text{ dB}\mu\text{V} & - & 60 \text{ dB}\mu\text{V} & = & -5 \text{ dB} \end{array}$$

**Table 3.1.1-1: FCC & EN55022 Class A Radiated Emissions Limit**

Frequency (MHz)	FCC Class A Quasi-Peak (dBmV/m)		EN55022, VCCI AS/NZS 3548 Class A Quasi-Peak (dBmV/m)	
	3m	10m	3m	10m
30 to 88	50	39	50	40
88 to 216	54	44	50	40
216 to 230	57	46	50	40
230 to 960	57	46	57	47
960 to 1000	60	50	57	47
Above 1000	*60	*50	N/A	N/A

\* Average detector used.

**Table 3.2.1-1: FCC Class A Conducted Emissions Limit**

Frequency (MHz)	FCC Class A Quasi-Peak Limit (dBmV)
.450 to 1.7	60
1.7 to 30	69.5

**Table 3.2.1-2: EN55022 Class A Conducted Emissions Limit**

Frequency (MHz)	EN55022, VCCI AS/NZS 3548 Class A Quasi-Peak (dBmV)	EN55022, VCCI AS/NZS 3548 Class A Average (dBmV)
.150 to .500	79	66
.500 to 5	73	60
5 to 30	73	60

(Note: For each table shown above, the stricter limit applies at the frequency transition points.)

### **3.3 Labeling Requirements**

#### **3.3.1 FCC Labeling (taken from FCC CFR 47 section 15.19)**

A compliance label similar to the following must be affixed to the product pursuant to FCC part 15 Class A requirements:

*This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

#### **Information to user (taken from FCC CFR 47 section 15.105)**

For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

*Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful Interference in which case the user will be required to correct the interference at his own expense.*

In addition to the above statement, the users manual shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. (Taken from FCC CFR 47 section 15.21).

### 3.3.2 EN55022 Labeling Requirements (pursuant to EN55022: 1998)

A specific product label indicating compliance with EN55022 is not required. Conformance with EN55022 does however support the “CE Mark” labeling when used in conjunction with the appropriate immunity standard under the EMC Directive, as well as any additional Directive(s) that applies.

#### Information to User

The following warning must be include in the instructions for use for Class A Information Technology Equipment (ITE):

#### Warning

*This is a Class A product. In a domestic environment this product may cause radio interference In which case the user may be required to take adequate measures.*

### 3.3.3 Industry Canada Labeling (pursuant to ICES-003 Issue 2, Revision 1)

The following is the suggested text for the Canadian product label for ITE equipment. Although the wording may be combined with the FCC label, it must clearly state the equipment meets the Canadian Interference-Causing Equipment Regulations. (Ref. EMCAB-3 Issue 2)

*This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.*

OR

*Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.*

Please note that Industry Canada requirements state that the label must be in French or English, (the two official languages of Canada).



### 3.3.4 AS/NZS 3548 Labeling Requirements

A product, which is being offered for sale after January 1, 1997, must comply with AS/NZS 3548 and be labeled with the C-Tick mark. Before labeling a product with the C-Tick mark, an application must be submitted to the SMA.

#### **Information to User**

The following warning must be include in the instructions for use for Class A Information Technology Equipment (ITE):

#### **Warning**

*This is a Class A product. In a domestic environment this product may cause radio interference. In which case the user may be required to take adequate measures.*

## Appendix A – Test Data

**Table A1: FCC, EN55022, AS/NZS VCCI Class A Radiated Emissions**

Company: APC  
 Model: AP9207  
 Test Engineer: Keith Henderson/Kevin Squires  
 Test Date: 1-11-01  
 OATS: 2  
 Test Configuration: Final Scan (120 VAC, 60 Hz)

Pol. (V or H)	Freq. (MHz)	Q.P. 10 m Reading (dBuV)	A.F. (dB)	Net (dBuV/m)	FCC Class A Limit at 10m (dBuV/m)	FCC Margin (dB)	EN55022, VCCI AS/NZS 3548 Class A Limit at 10m (dBuV/m)	EN55022, VCCI AS/NZS 3548 Margin (dB)
V	62	13	8	21	39	-18	40	-19
V	73.7	15	8	23	39	-16	40	-17
V	114.3	13.5	14	27.5	44	-16.5	40	-12.5
V	132.7	7	13	20	44	-24	40	-20
V	151.1	16	12.5	28.5	44	-15.5	40	-11.5
V	164.1	8.5	12	20.5	44	-23.5	40	-19.5
V	165.9	20	12	32	44	-12	40	-8
V	202.7	20	12	32	44	-12	40	-8
V	210.2	19	12	31	44	-13	40	-9
V	213.9	23.5	12	35.5	44	-8.5	40	-4.5
V	221.2	24	12	36	46	-10	40	-4
V	228.5	19	13	32	46	-14	40	-8
V	250.7	13	14	27	46	-19	47	-20
V	261.7	7.3	16	23.3	46	-22.7	47	-23.7
V	298.6	10.1	16.5	26.6	46	-19.4	47	-20.4
V	339.1	5.7	16.5	22.2	46	-23.8	47	-24.8
V	364.9	10	18	28	46	-18	47	-19
H	400	6	19.5	25.5	46	-20.5	47	-21.5
H	593.9	7.7	23	30.7	46	-15.3	47	-16.3

Ended scan at 1 GHz

**Table A2: FCC Class A Conducted Emissions**

Company: American Power Conversion  
 Model: AP9207 Share UPS  
 Test Engineer: Doug Bulman  
 Test Date: 9-12-00  
 OATS: 2  
 Test Configuration: Final Scan (120 VAC, 60 Hz)

Frequency (MHz)	Phase Reading (dBuV)	FCC Class A Quasi-Peak Limit (dBuV)	Margin (dB)
0.607	33	60.0	-27.0
0.908	26.5	60.0	-33.5
1.48	31	60.0	-29.0
5.46	28.5	69.5	-41.0
9.98	29	69.5	-40.5
27.4	22.5	69.5	-47.0
Frequency (MHz)	Neutral Reading (dBuV)	FCC Class A Quasi-Peak Limit (dBuV)	Margin (dB)
0.602	30	60.0	-30.0
0.904	26.5	60.0	-33.5
1.48	31	60.0	-29.0
5.43	30	69.5	-39.5
9.96	34	69.5	-35.5
27.4	26.5	69.5	-43.0

**Table A3: EN55022, AS/NZS, VCCI Class A Conducted Emissions**

Company: American Power Conversion  
 Model: AP9207 Share UPS  
 Test Engineer: Doug Bulman  
 Test Date: 9-12-00  
 OATS: 2  
 Test Configuration: Final Scan (230 VAC, 50 Hz)

<b>Freq. (MHz)</b>	<b>Phase Quasi-Peak Reading (dBuV)</b>	<b>Phase Average Reading (dBuV)</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Limit Q.P. (dBuV)</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Limit Average (dBuV)</b>	<b>Margin (dB)</b>
0.31	37.5	31	79.0	66.0	-35.0
0.622	35.5	25.5	73.0	60.0	-34.5
0.928	31	24.5	73.0	60.0	-35.5
1.48	33	29	73.0	60.0	-31.0
5.58	26	22.5	73.0	60.0	-37.5
10.1	28	25	73.0	60.0	-35.0
28.6	26	23	73.0	60.0	-37.0
<b>Freq. (MHz)</b>	<b>Neutral Quasi-Peak Reading (dBuV)</b>	<b>Neutral Average Reading (dBuV)</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Limit Q.P. (dBuV)</b>	<b>EN55022, VCCI AS/NZS 3548 Class A Limit Average (dBuV)</b>	<b>Margin (dB)</b>
0.307	38	32	79.0	66.0	-34.0
0.613	34	23	73.0	60.0	-37.0
0.921	27.5	22	73.0	60.0	-38.0
1.48	33.5	29	73.0	60.0	-31.0
6.46	28	26	73.0	60.0	-34.0
10.1	33	29	73.0	60.0	-31.0
28.6	26	20	73.0	60.0	-40.0

## Configuration Photographs

Configuration Photograph

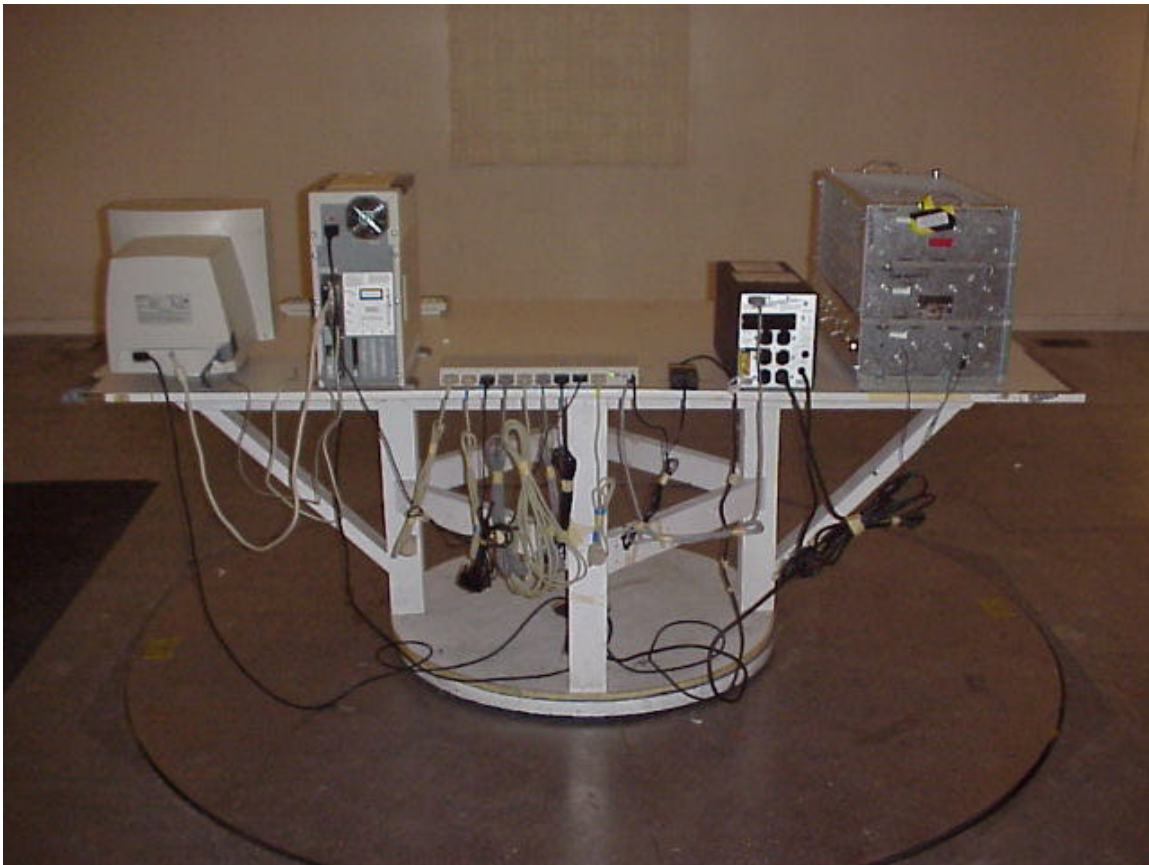
American Power Conversion  
AP9207



Worst Case Radiated Emissions Test Configuration

Configuration Photograph

# American Power Conversion AP9207



**Worst Case Radiated Emissions Test Configuration**



Configuration Photograph

# American Power Conversion AP9207



Worst Case Conducted Emissions Test Configuration

Configuration Photograph

# American Power Conversion AP9207



Worst Case Conducted Emissions Test Configuration