

APPLICATION FOR CERTIFICATION
On Behalf of

Amplus Industrial Ltd.

RS232 RF Module

Model Number: PB041670300

Prepared for : Amplus Industrial Ltd.
Room.B.20/F Leahander Centre, 28 Wang Wo Tsai
Street, Tsuen Wan, N.T., H.K.

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F05079
Date of Test : Feb.23~Mar.16, 2005
Date of Report : Mar.18, 2005

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APPENDIX I (17 pages)

TEST REPORT DECLARATION

Applicant : Amplus Industrial Ltd.
 Manufacturer : Amplus Industrial Ltd.
 EUT Description : RS232 RF Module
 (A) MODEL NO. : PB041670300
 (B) SERIAL NO. : F2005031801
 (C) POWER SUPPLY : DC 5V with PC AC 120V/60Hz

Test Procedure Used:
 FCC Rules and Regulations Part 15 Subpart C Apr, 2004.

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.

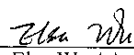
The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

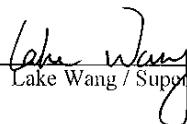
This report must not be used by the applicant to claim product endorsement by NVLAP or any agency of the U.S. Government.

Date of Test : Feb.23~Mar.16, 2005

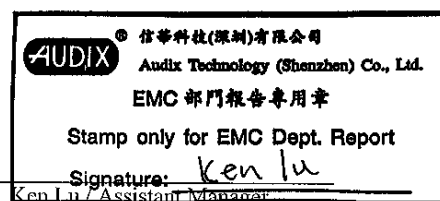
Prepared by :


 Elsa Wu / Assistant

Reviewer :


 Lake Wang / Supervisor

Approved & Authorized Signer :



Name of the Representative of the Responsible Party : _____

Signature : _____

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	RS232 RF Module
Model Number	:	PB041670300
Applicant	:	Amplus Industrial Ltd. Room.B.20/F Leahander Centre, 28 Wang Wo Tsai Street, Tsuen Wan, N.T., H.K.
Manufacturer	:	Amplus Industrial Ltd. No.8 Ming Leung Road, Zhuliao Town, Baiyun Guangzhou, China
Date of Test	:	Feb.23~Mar.16, 2005

1.2. Tested Supporting System Details

1.2.1. PERSONAL COMPUTER

M/N : DIMENSION 2400
Manufacturer : DELL

1.2.2. MONITOR

M/N : E772f
Manufacturer : DELL

1.2.3. PRINTER

M/N : 2225C+
S/N : 22937S56660
FCC ID : DSI6XU225
Manufacturer : Hewlett Packard
Power Adapter : Hewlett Packard, Model 8241A
Data Cable : Shielded, Detachable, 1.5m

1.2.4. MODEM

M/N : MODEM 1414
S/N : 980013578
FCC ID : IFAXDM1414
Manufacturer : ACEEX
Power Adapter : Datatronics, Model: SCP41-91000A
Data Cable : Shielded, Detachable, 1.5m

1.2.5. KEYBOARD (PS/2)

M/N : SK8110
Manufacturer : DELL

1.2.6. MOUSE (PS/2)

M/N : M-S34
Manufacturer : Logitech

1.3.Test Facility

Site Description

- 3m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 90454
Aug. 15, 2003
- 3m & 10m Anechoic Chamber : Certificated by FCC, USA
Registration Number: 794232
Mar. 15, 2004
- EMC Lab. : Certificated by DATech, German
Registration Number: DAT-P-091/99-01
Feb. 02, 2004
- Certificated by NVLAP, USA
NVLAP Code: 200372-0
Mar. 31, 2004
- Certificated by Nemko, Norway
Aut. No.: ELA135
April. 22, 2004
- Certificated by Industry Canada
Registration Number: IC 5183
Jul. 28, 2004
- Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
- Site Location : No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

1.4.Measurement Uncertainty

No.	Item	Uncertainty	Remark
1.	Uncertainty for Conducted Emission Test	1.22dB	
2.	Uncertainty for Radiated Emission Test	3.14dB	3m Chamber
3.	Uncertainty for Radiated Emission Test	3.18dB	10m Chamber
4.	Uncertainty for Power Clamp Test	1.38dB	

2. POWER LINE CONDUCTED EMISSION TEST

According to Paragraph (f) of FCC Part 15 section 15.107, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

3. RADIATED EMISSION TEST

3.1.Test Equipment

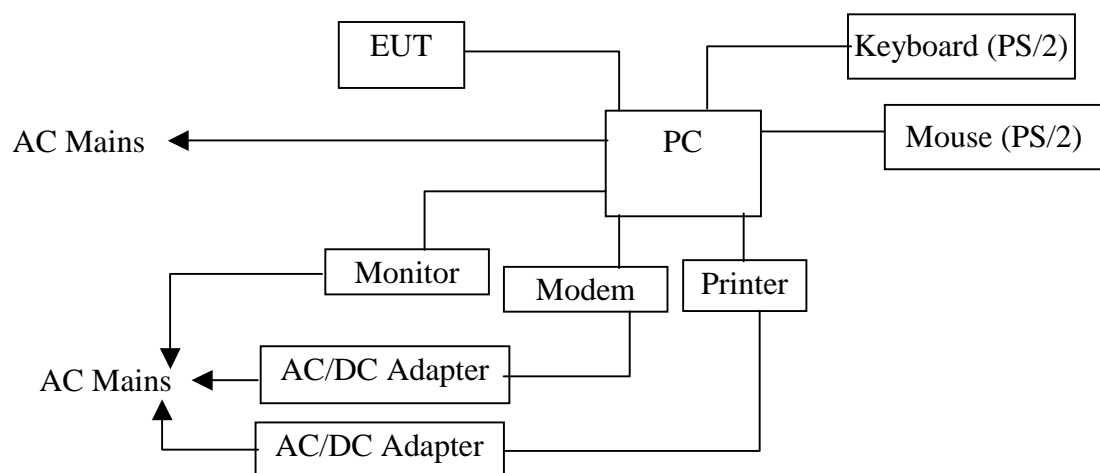
The following test equipments are used during the radiated emission test:

3.1.1.For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Spectrum	HP	85422E	3625A00181	May 24, 04	1 Year
2.	Test Receiver	Rohde & Schwarz	ESVS20	830350/005	May 24,04	1 Year
3.	Amplifier	HP	8447D	2944A07794	Mar.15, 05	1/2 Year
4.	Bilog Antenna	Schaffner	CBL6111C	2598	Jan. 13, 04	1 Year
5.	PC	N/A	586ATX3	N/A	N/A	N/A
6.	Printer	HP	Laserjet6P	SGCF019673	N/A	N/A
7.	RF Cable	MIYAZAKI	5D-2W	10# Chamber No.1	Jan.30, 05	1/2 Year
8.	RF Cable	MIYAZAKI	5D-2W	10# Chamber No.2	Jan.30, 05	1/2 Year
9.	RF Cable	FUJIKURA	RG-55/U	10# Chamber No.3	Jan.30, 05	1/2 Year
10.	RF Cable	FUJIKURA	RG-55/U	10# Chamber No.4	Jan.30, 05	1/2 Year
11.	Coaxial Switch	Anritsu	MP59B	M73989	Nov.26, 04	1/2 Year
12.	Spectrum	Agilent	E4407B	MY41440292	May 24, 04	1 Year
13.	Amp	HP	8449B	3008A00863	May 24. 04	1 Year
14.	Antenna	EMCO	3115	9607-4877	Jun. 15, 04	1.5 Year

3.2.Block Diagram of Test Setup

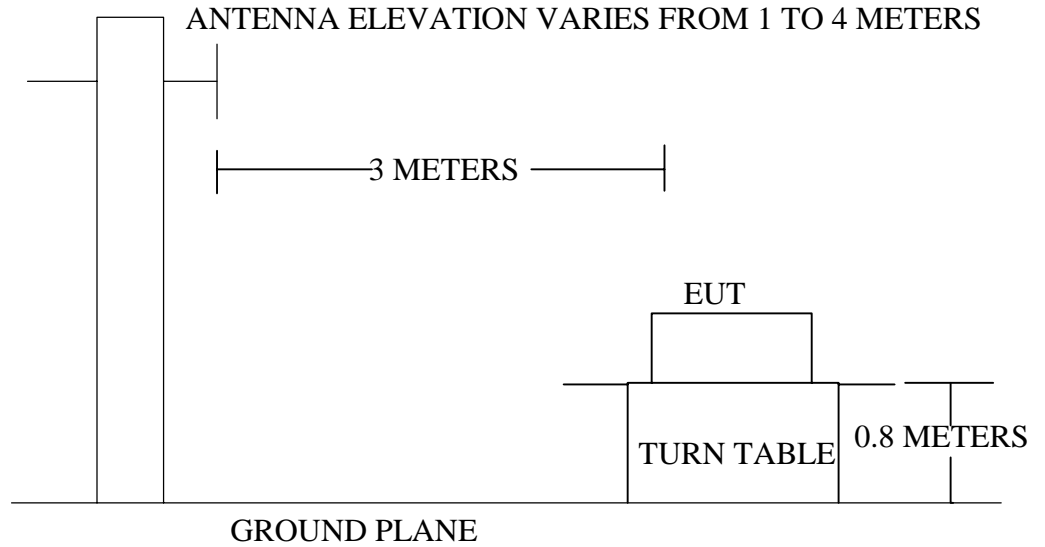
3.2.1.Block diagram of connection between the EUT and simulators



(EUT: RS232 RF Module)

3.2.2.In Anechoic Chamber

ANTENNA TOWER



3.3.Radiated Emission Limit: FCC 15.249

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Local Oscillator:	3	114.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 94.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average) Other: 74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	
Harmonic			

- Remark :
- (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.4.1.RS232 RF Module (EUT)

Model Number : PB041670300
Serial Number : F2005031801
Manufacturer : Amplus Industrial Ltd.

3.4.2.Support Equipment : As Tested Supporting System Detail, in Section 1.2.

3.5.Operating Condition of EUT

1. Setup the EUT as shown in Section 3.2..
2. Let the EUT work in test mode (CH1 913MHz/CH2 915MHz/CH3 917MHz/CH4 919MHz) and test it.

3.6.Test Procedure

According to paragraph of FCC Part15 Section 15.109.

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120KHz.

The frequency range from 30MHz to 1000MHz and above 1000MHz are checked.

The test mode (CH1 913MHz/CH2 915MHz/CH3 917MHz/CH4 919MHz) is tested in Anechoic Chamber, and all the scanning waveforms are attached in Appendix I.

3.7.Radiated Emission Test Result

PASS.

The frequency range from 30MHz to 1000MHz is investigated.

Please see the following pages.

Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH1 913MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Horizontal	Horizontal	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
913.00	22.51	5.35	62.02	89.89	-24.11	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 913.00MHz with corrected signal level of 89.89dBμV/m (Limit is 114.00dBμV/m) when the antenna was at horizontal polarization and at 2.0m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :

Labe Wang

Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH1 913MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Vertical	Vertical	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
913.00	22.88	5.35	49.32	77.56	-36.44	114.00

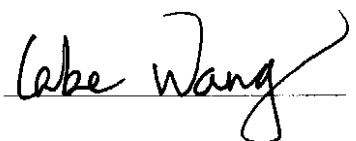
Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 913.00MHz with corrected signal level of 77.56dBμV/m (Limit is 114.00dBμV/m) when the antenna was at vertical polarization and at 1.2m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH2 915MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Horizontal	Horizontal	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
915.00	22.51	5.35	55.63	83.49	-30.51	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 915.00MHz with corrected signal level of 83.49dBμV/m (Limit is 114.00dBμV/m) when the antenna was at horizontal polarization and at 1.9m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :

lake Wang

Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH2 915MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Vertical	Vertical	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
915.00	22.95	5.35	46.85	75.15	-38.85	114.00

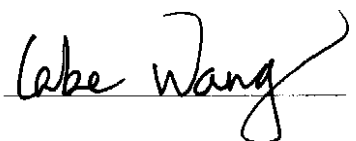
Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 915.00MHz with corrected signal level of 75.15dBμV/m (Limit is 114.00dBμV/m) when the antenna was at vertical polarization and at 1.1m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH3 917MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Horizontal	Horizontal	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
917.00	22.57	5.38	63.77	91.73	-22.27	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 917.00MHz with corrected signal level of 91.73dBμV/m (Limit is 114.00dBμV/m) when the antenna was at horizontal polarization and at 2.0m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer : Wabe Wang

Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH3 917MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Vertical	Vertical	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
917.00	23.12	5.38	59.23	87.73	-26.27	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 917.00MHz with corrected signal level of 87.73dBμV/m (Limit is 114.00dBμV/m) when the antenna was at vertical polarization and at 1.0m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :

lake Wang

Date of Test :	<u>Feb.23, 2005</u>	Temperature :	<u>25°C</u>
EUT :	<u>RS232 RF Module</u>	Humidity :	<u>50%</u>
Model No. :	<u>PB041670300</u>	Test Mode :	<u>CH4 919MHz</u>
Test Engineer:	<u>Seco</u>	Test Standard :	<u>FCC Part15B 15.249</u>

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Horizontal	Horizontal	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
919.00	22.70	5.38	63.25	91.33	-22.67	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 919.00MHz with corrected signal level of 91.33dBμV/m (Limit is 114.00dBμV/m) when the antenna was at horizontal polarization and at 2.2m high and the turn table was at 0° .

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer:

Cake Wang

Date of Test :	Feb.23, 2005	Temperature :	25°C
EUT :	RS232 RF Module	Humidity :	50%
Model No. :	PB041670300	Test Mode :	CH4 919MHz
Test Engineer:	Seco	Test Standard :	FCC Part15B 15.249

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
	Factor	Loss	Vertical	Vertical	Limits	
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
919.00	23.18	5.38	51.66	80.22	-33.78	114.00

Remark: 1. All readings are Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 919.00MHz with corrected signal level of 80.22dBμV/m (Limit is 114.00dBμV/m) when the antenna was at vertical polarization and at 1.0m high and the turn table was at 0° .

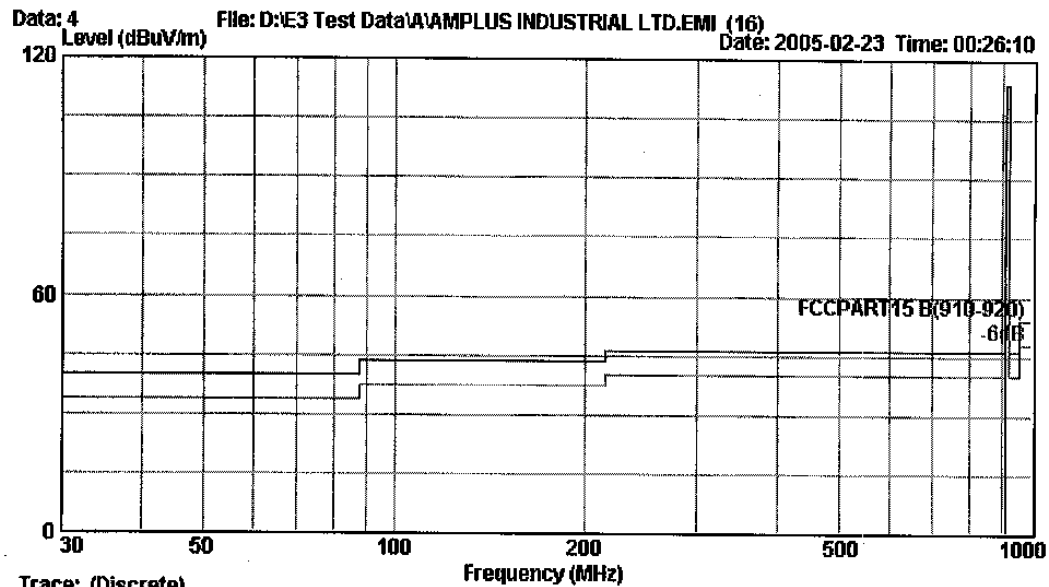
4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :

lake Wang



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Postcode: 518057



Trace: (Discrete)

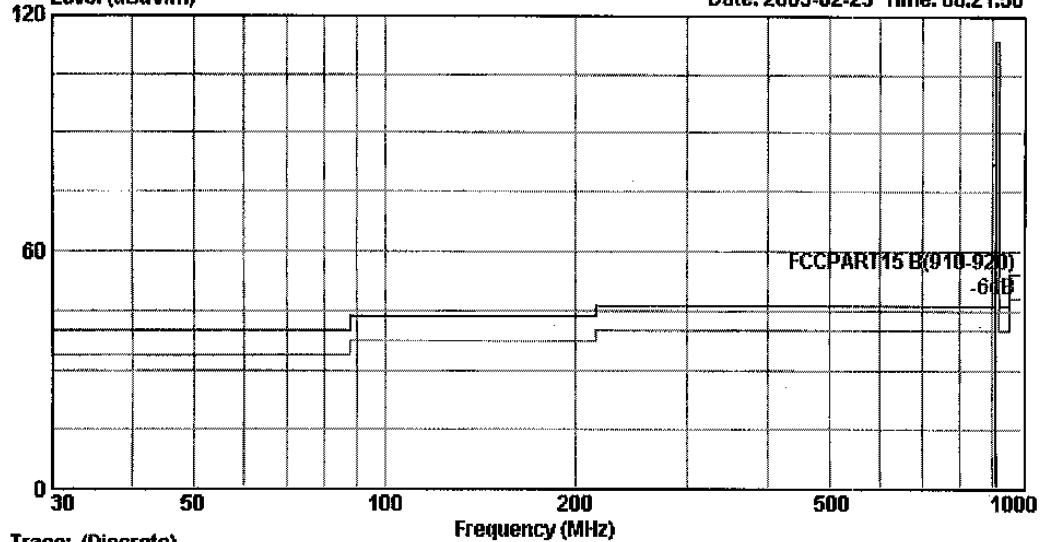
Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Ext : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humid: 50%
Test Engineer: Seco
memo : CH1 913MHz
AntPos: 2.0m TablePos: 0'

	Freq	Limit Line	Level	Read Level	Over Limit	CableAntenna Loss Factor	Remark
	MHz	dBuV/m	dBuV/m	dBuV	dB	dB	dB/m
1 @	913.00	114.00	89.89	62.02	-24.11	5.35	22.51



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Postcode:518057

Data: 2 File: D:\E3 Test Data\A\AMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:21:56
Level (dBuV/m)



Trace: (Discrete)

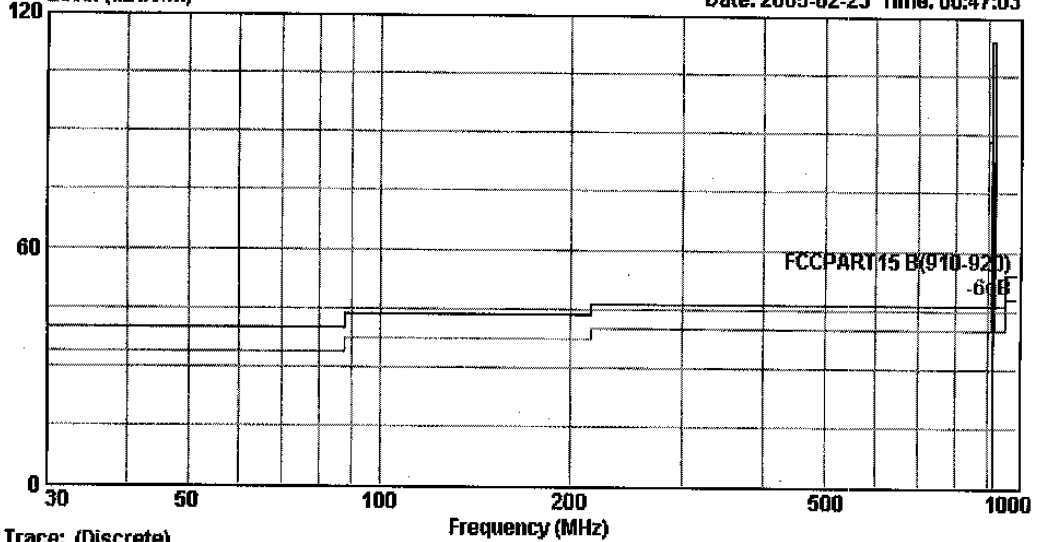
Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humid: 50%
Test Engineer: Seco
memo : CH1 913MHz
: AntPos: 1.2m TablePos: 0'

Freq	Limit		Read		Over		CableAntenna	
	Line	Level	Level	Limit	Limit	Loss	Factor	Remark
MHz	dBuV/m	dBuV/m	dBuV	dB	dB	dB	dB/m	
1 @ 913.00	114.00	77.56	49.32	-36.44	5.35	22.88		



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Postcode:518057

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Level (dBuV/m)



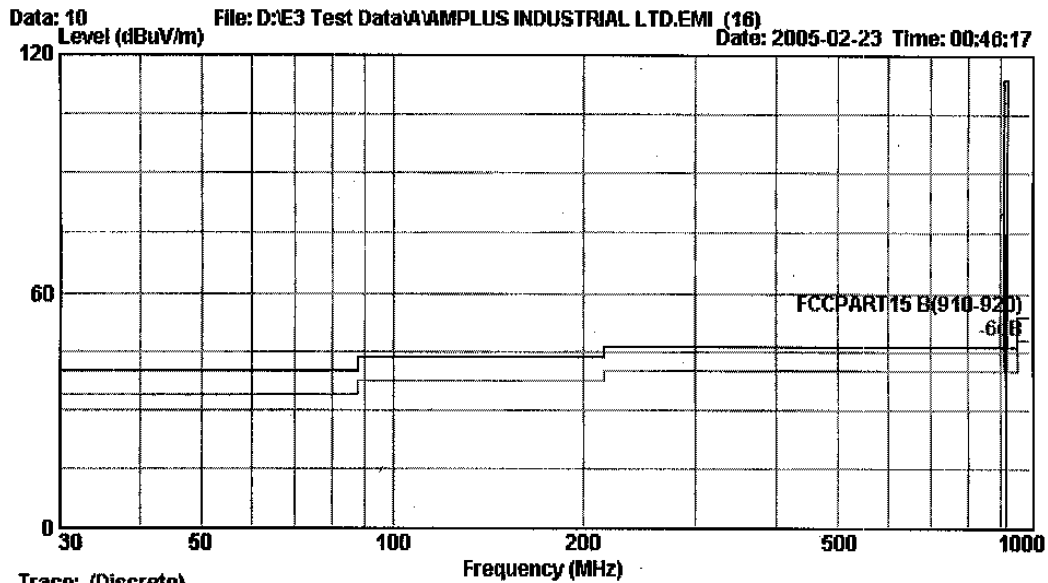
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Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Ext : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humid: 50%
Test Engineer: Seco
memo : CH2 915MHz
: AntPos: 1.9m TablePos: 0'

		Limit		Read	Over	Cable	Antenna	
	Freq	Line	Level	Level	Limit	Loss	Factor	Remark
	MHz		dBuV/m	dBuV/m	dBuV	dB	dB	dB/m
1 @	915.00		114.00	83.49	55.63	-30.51	5.35	22.51



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Trace: (Discrete)

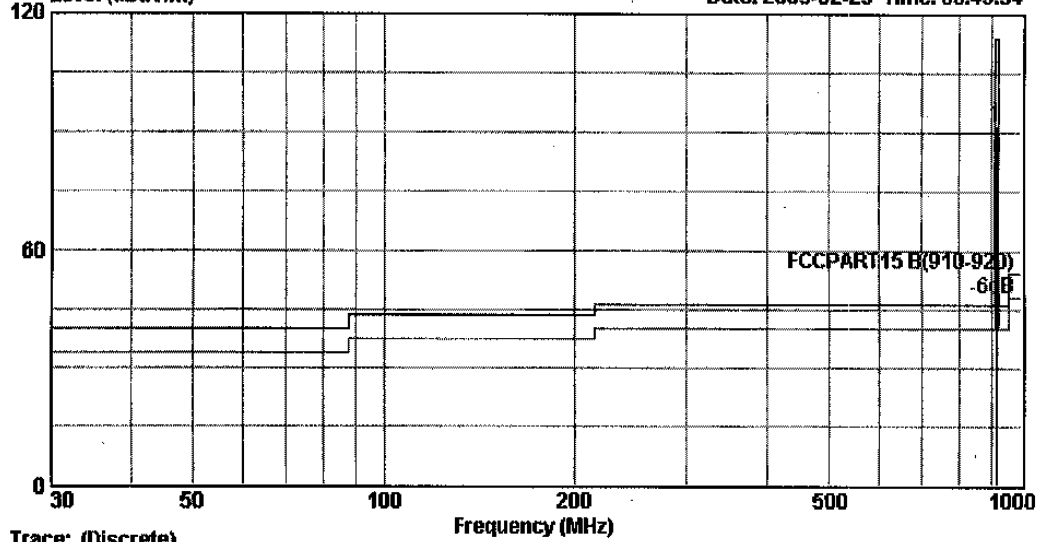
Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humi: 50%
Test Engineer: Seco
memo : CH2 915MHz
: AntPos: 1.1m TablePos: 0'

		Limit		Read	Over	CableAntenna	
Freq	Line	Level	Level	Limit	Loss	Factor	Remark
MHz		dBuV/m	dBuV/m	dBuV	dB	dB	dB/m
1	915.00	114.00	75.15	46.85	-38.85	5.35	22.95



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Postcode: 518057

Data: 14 File: D:\E3 Test Data\WAMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:49:34
Level (dBuV/m)



Trace: (Discrete)

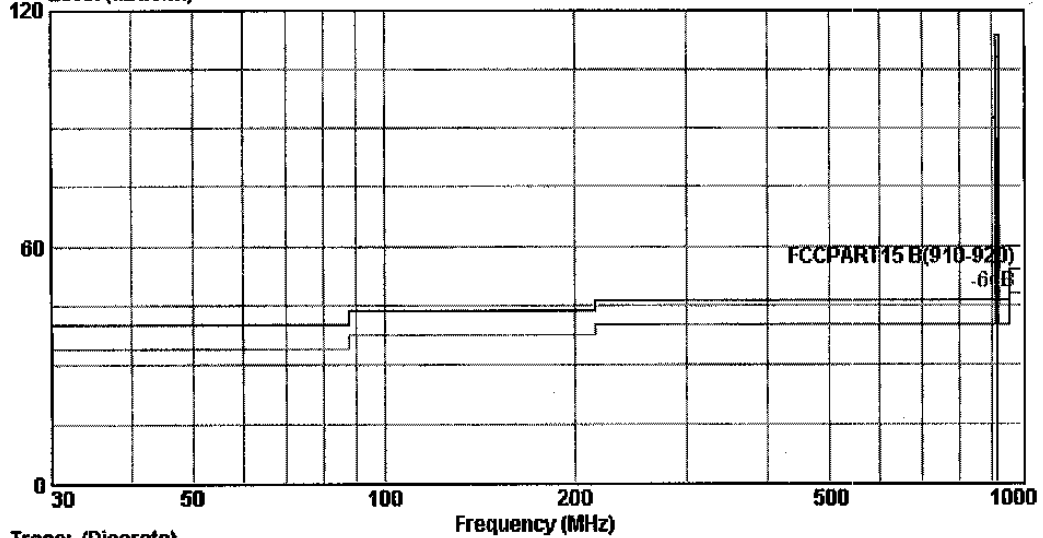
Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humi: 50%
Test Engineer: Seco
memo : CH3 917MHz
: AntPos: 2.0m TablePos: 0'

	Freq	Limit	Level	Read	Over	Cable	Antenna	Remark
		Line		Level	Limit	Loss	Factor	
		MHz		dBuV/m	dBuV/m	dBuV	dB	
1 @	917.00	114.00	91.73	63.77	-22.27	5.38	22.57	



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Data: 16 File: D:\E3 Test Data\A\AMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:50:33
Level (dBuV/m)



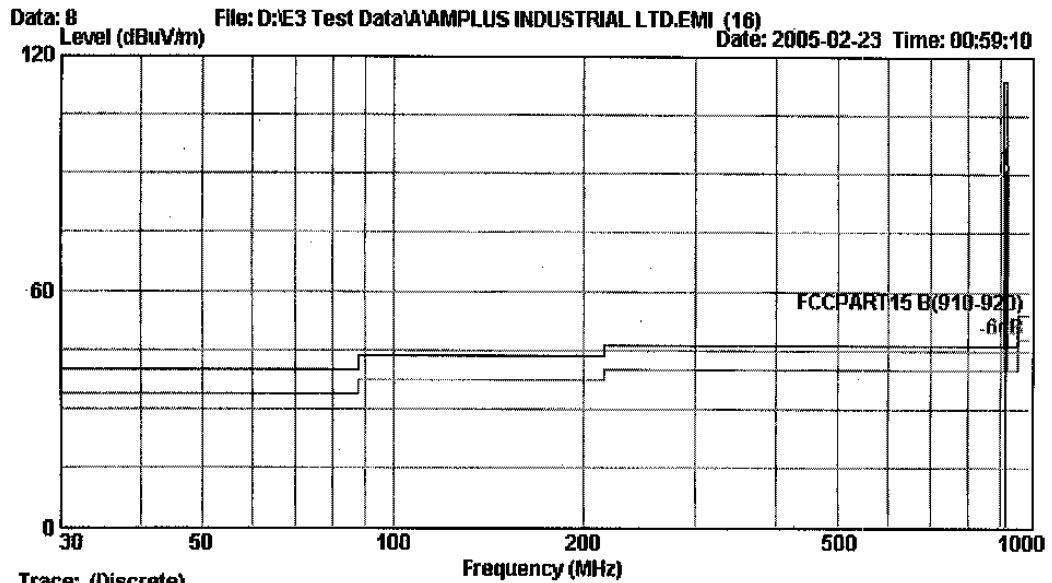
Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(9M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humid: 50%
Test Engineer: Seco
memo : CH3 917MHz
: AntPos: 1.0m TablePos: 0'

	Freq	Limit		Read	Over	CableAntenna		Remark
		Line	Level	Level	Limit	Loss	Factor	
		MHz	dBuV/m	dBuV/m	dBuV	dB	dB	
1 0	917.00	114.00	87.73	59.23	-26.27	5.38	23.12	



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Trace: (Discrete)

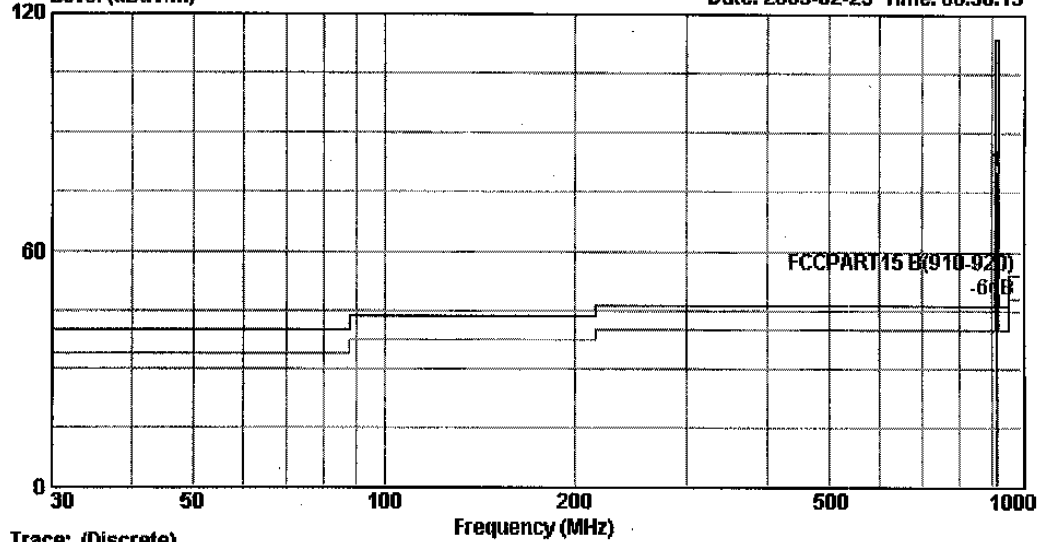
Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humi: 50%
Test Engineer: Seco
memo : CH4 919MHz
: AntPos: 2.2m TablePos: 0'

	Freq	Limit		Read Level	Over Limit	CableAntenna		Remark
		Line	Level			Loss	Factor	
		MHz	dBuV/m			dBuV/m	dBuV	
1 B	919.00	114.00	91.33	63.25	-22.67	5.38	22.70	



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Data: 6 File: D:\E3 Test Data\A\AMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:58:15
Level (dBuV/m)



Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2760 FACTOR(3M) VERTICAL
Ext : RS232 RE Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humi: 50%
Test Engineer: Seco
memo : CH4 919MHz
: AntPos: 1.0m TablePos: 0'

	Freq	Limit	Level	Read	Over	CableAntenna		Remark
		Line		Level	Limit	Loss	Factor	
		MHz		dBuV/m	dBuV	dB	dB	
1 @	919.00	114.00	80.22	51.66	-33.78	5.38	23.18	

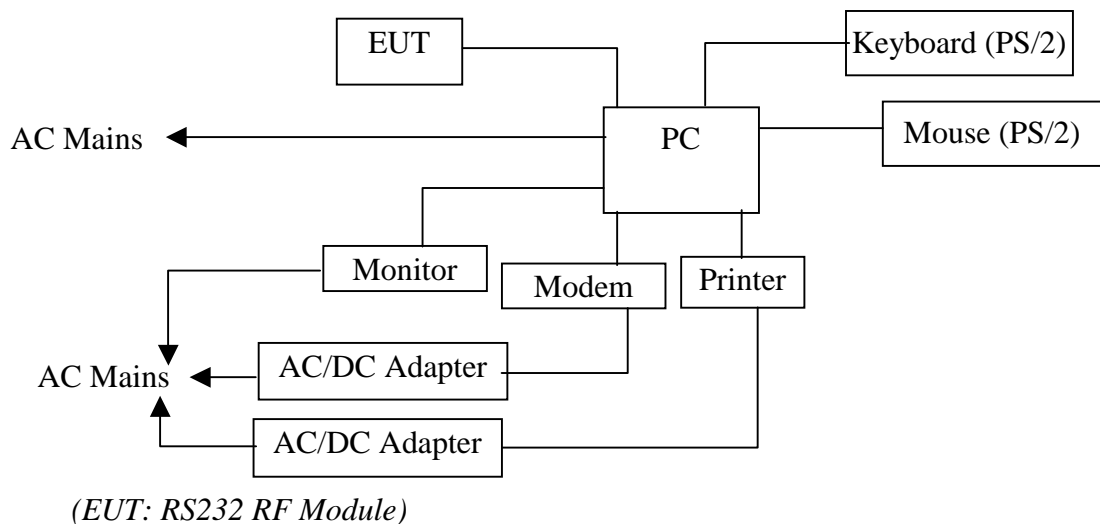
4. BAND EDGES MEASUREMENT

4.1. Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	May 24, 04	1 Year
2.	Amp	HP	8449B	3008A00863	May 24, 04	1 Year
3.	Antenna	EMCO	3115	9607-4877	Jun. 15, 04	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May 24, 04	1 Year

4.2. Block Diagram of Test Setup



4.3. Test Standard

The test completeness FCC 15C (249).

4.4. Bandwidth Limit

200KHz wide centered on the operation frequency.

4.5. Test Procedure

PASS.

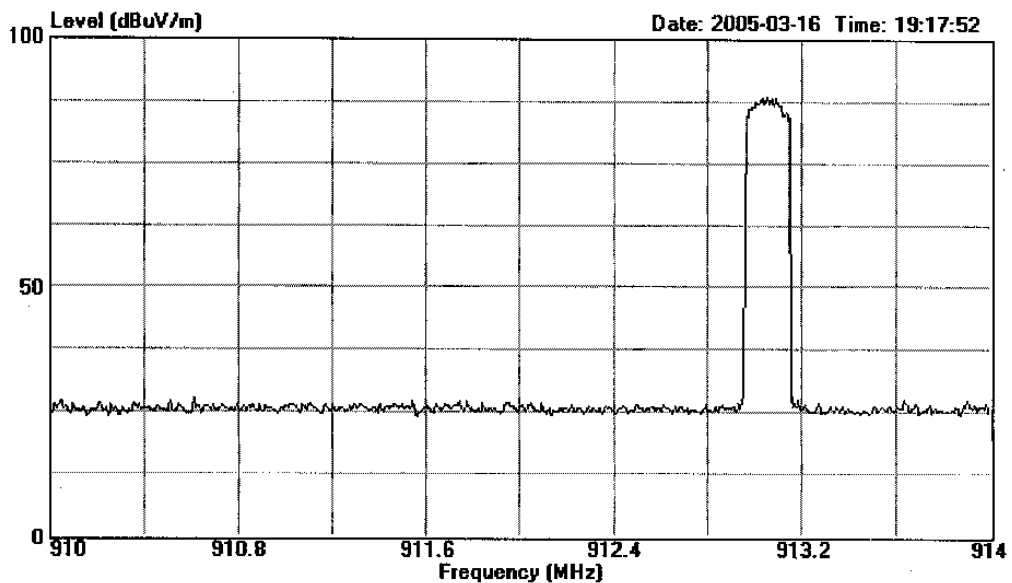
The testing data was attached in the next pages.

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Data#: 9 File#: C:\EMI TEST DATA\A\Amplus.emi



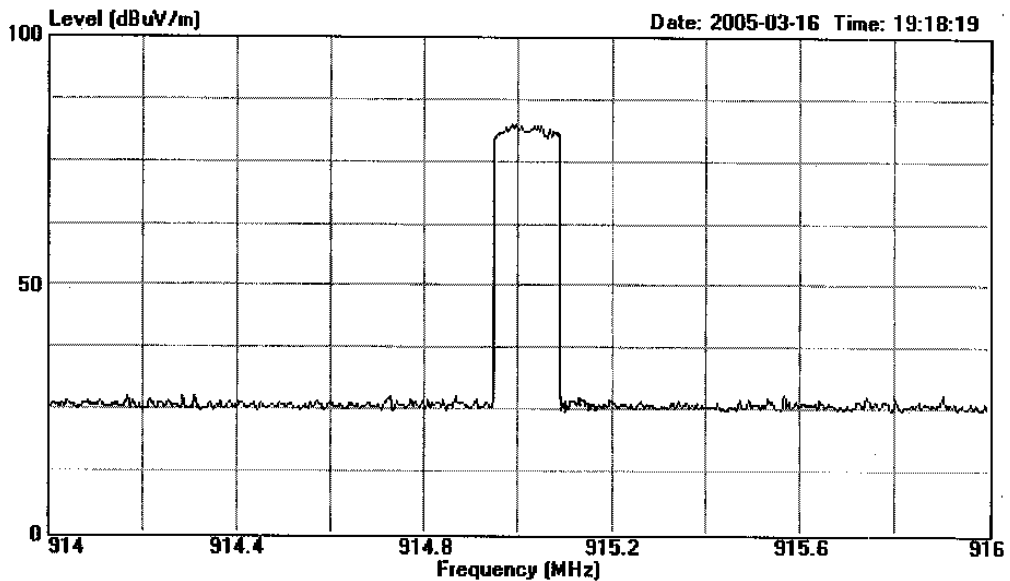
Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 2597 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
.: CH1 913MHz

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Data#: 10 File#: C:\EMI TEST DATA\A\Amplus.emi



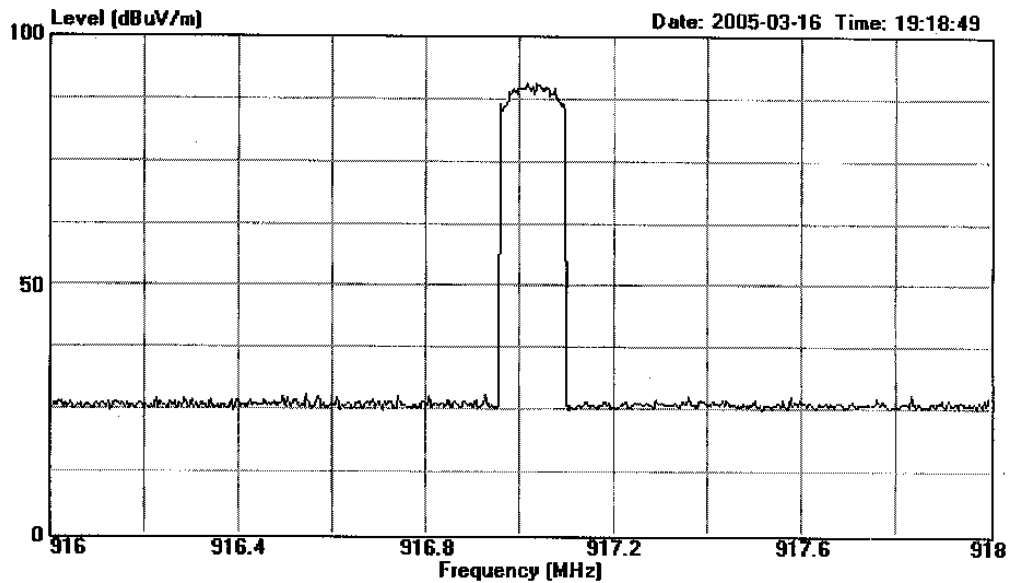
Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 2597 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
. : CH2 915MHz

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Data#: 11 File#: C:\EMI TEST DATA\A\Amplus.emi



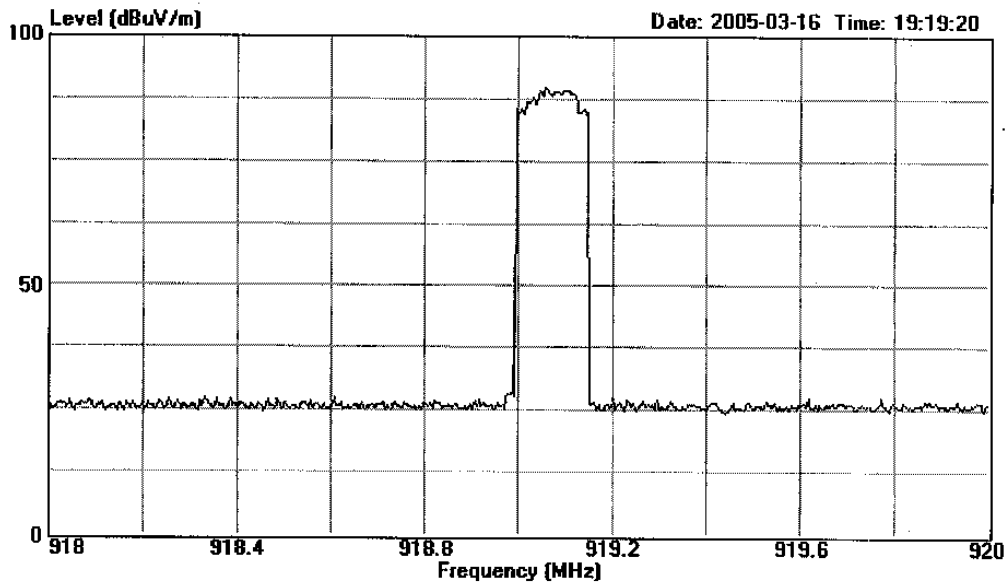
Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 2597 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH3 917MHz

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Data#: 12 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 2597 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH4 919MHz

5. DEVIATION TO TEST SPECIFICATIONS

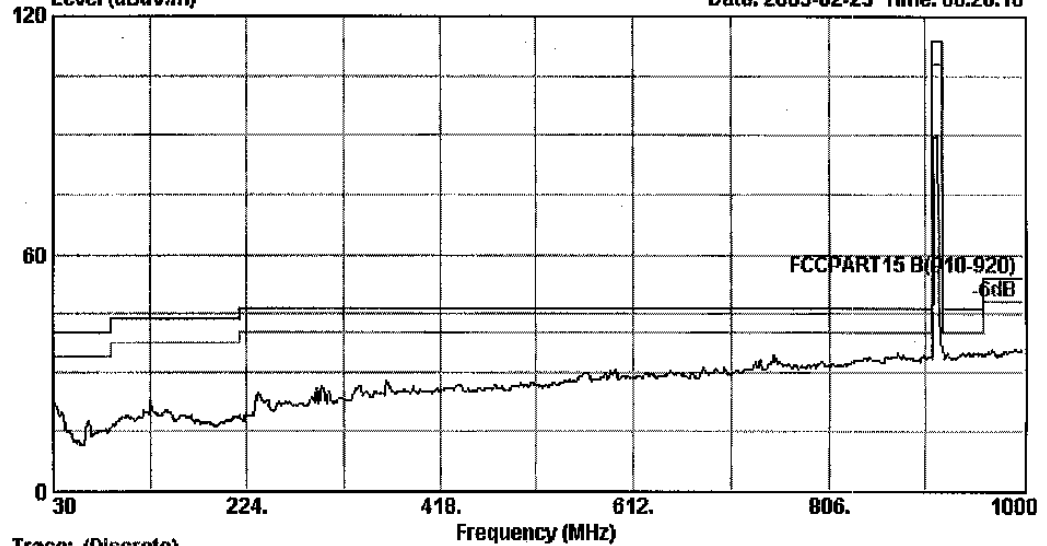
[None.]

APPENDIX I



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Data: 3 File: D:\E3 Test Data\AMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:26:10
Level (dBuV/m)



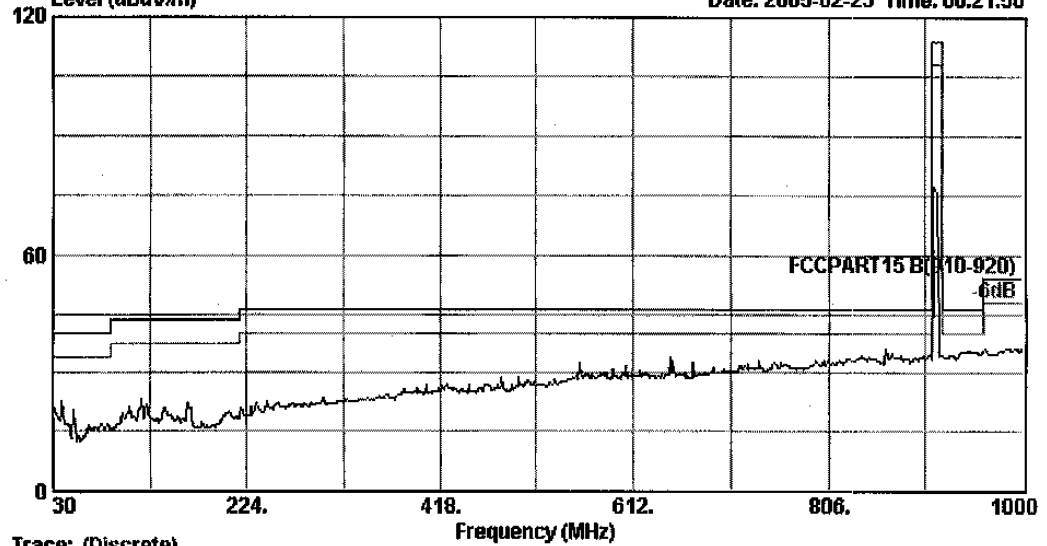
Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humd: 50%
Test Engineer: Seco
memo : CH1 913MHz
:



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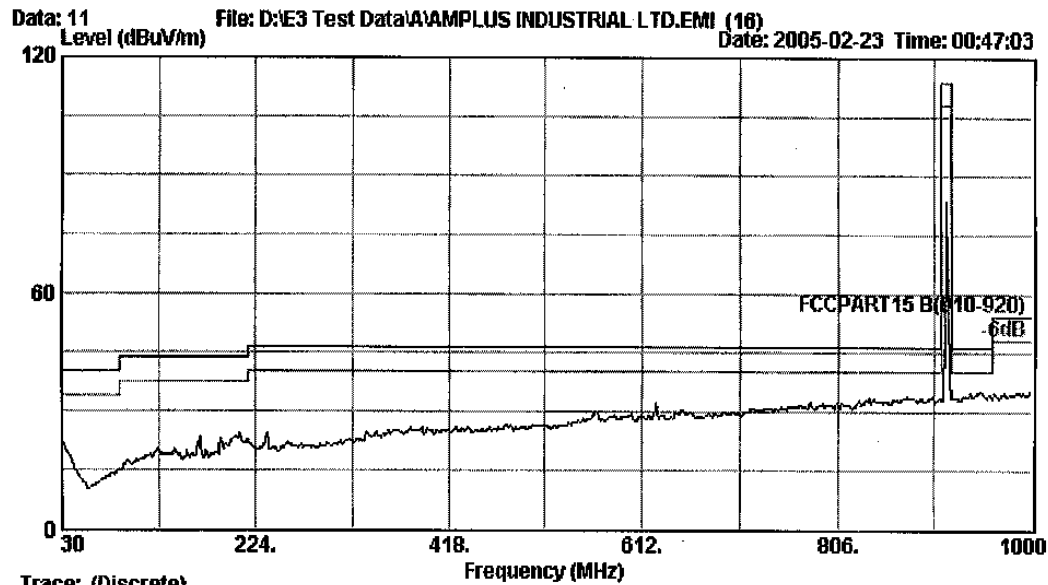


Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humi: 50%
Test Engineer: Seco
memo : CH1 913MHz
:



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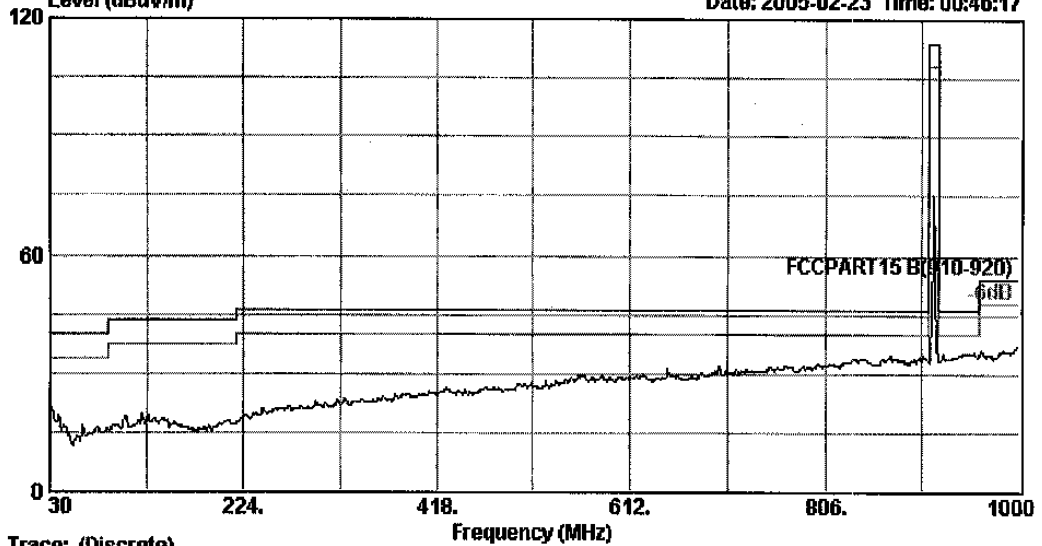
Trace: (Discrete)

Site :10m Chamber
Condition :FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Eut :ES232 RF Module
M/N :PB041670300
Power :DC5V With PC AC 120V/60Hz
Comment :Temp:25'C Humd:50%
Test Engineer:Seco
memo :CH2 915MHz
:



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Level (dBuV/m)



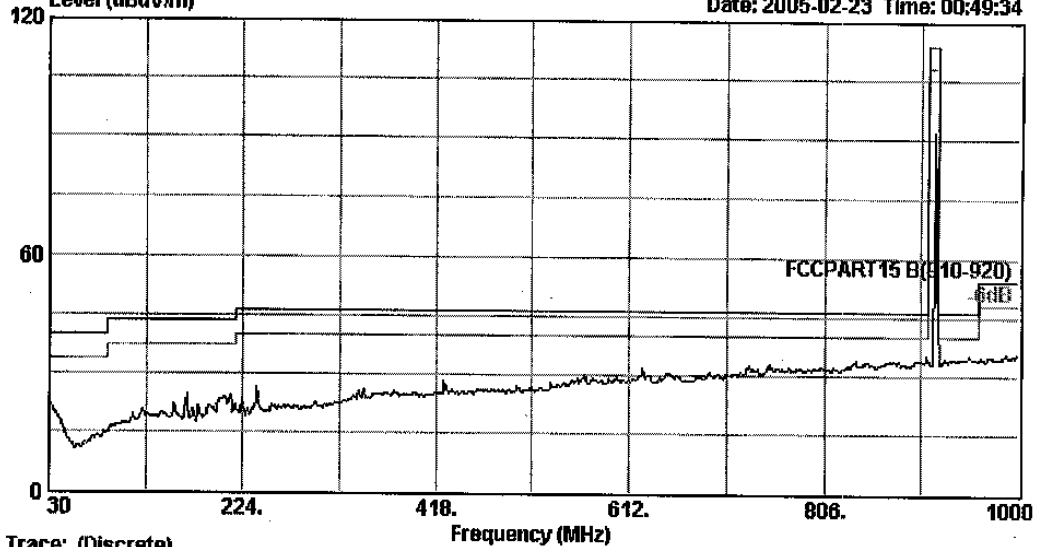
Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B (910-920) 3m 2768 FACTOR(3M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humid: 50%
Test Engineer: Seco
memo : CH2 915MHz
:



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Data: 13 File: D:\E3 Test Data\AVAMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:49:34
Level (dBuV/m)

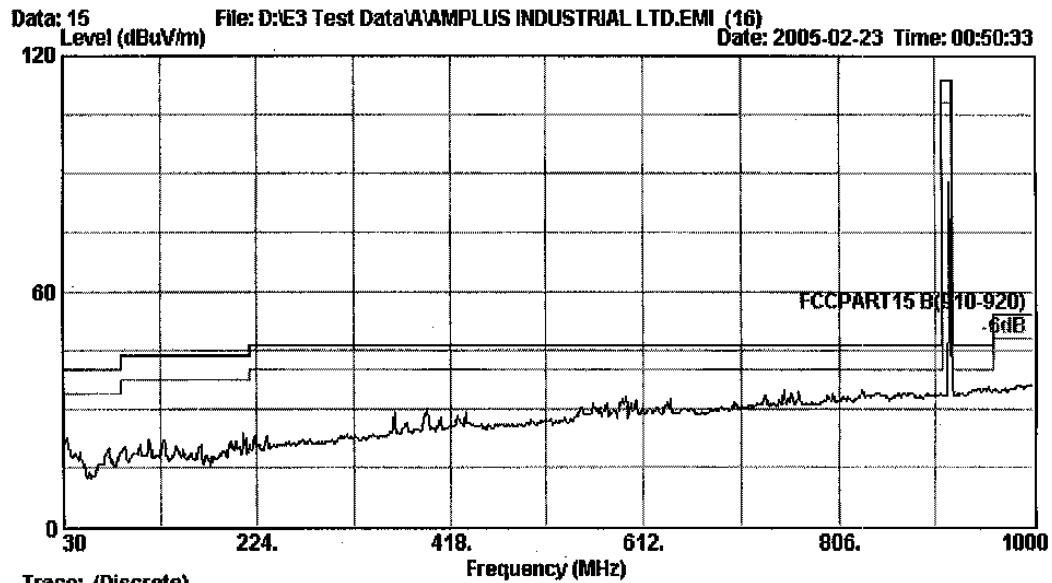


Trace: (Discrete)

Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humi: 50%
Test Engineer: Seco
memo : CH3 917MHz
:



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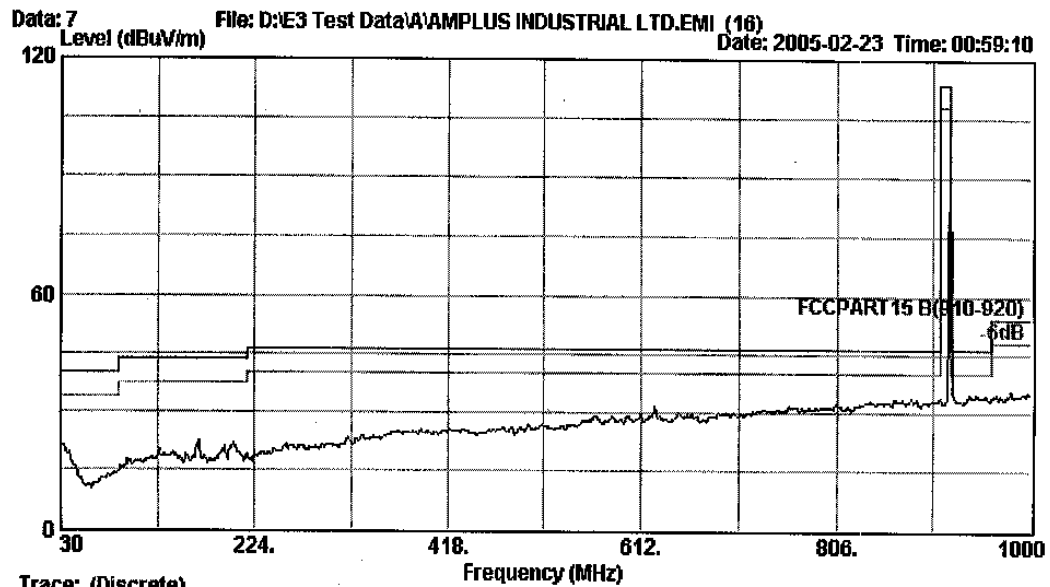


Trace: (Discrete)

Site :10m Chamber
Condition :FCCPART15 B(910-920) 3m 2768 FACTOR(3M) VERTICAL
Ext :ES232 RF Module
M/N :PB041670300
Power :DC5V With PC AC 120V/60Hz
Comment :Temp:25'C Humi:50%
Test Engineer:Seco
memo :CH3 917MHz



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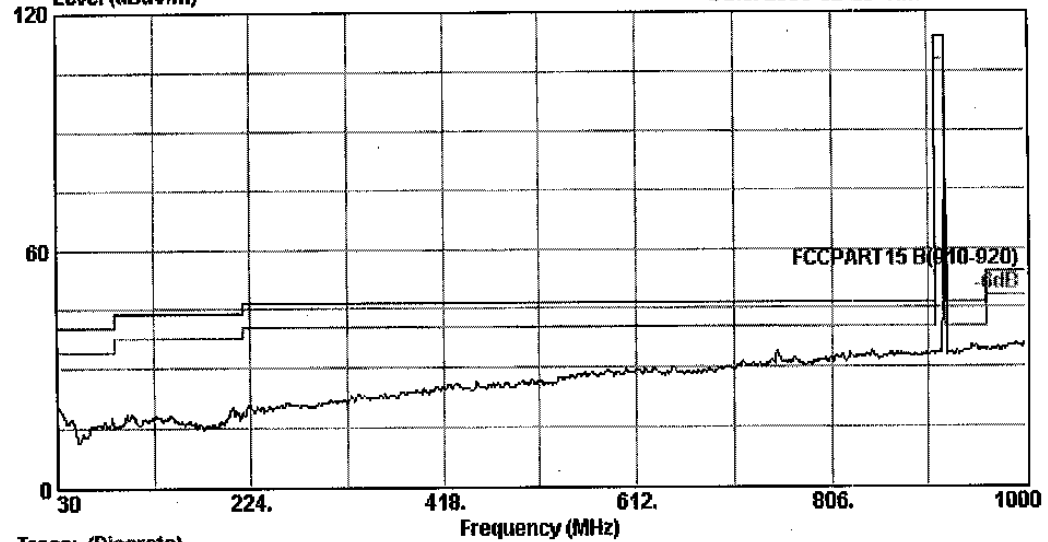


Site : 10m Chamber
Condition : FCCPART15 B(910-920) 3m 2768 FACTOR(3M) HORIZONTAL
Rut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25'C Humid: 50%
Test Engineer: Seco
memo : CH4 919MHz



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Data: 5 File: D:\E3 Test Data\A\AMPLUS INDUSTRIAL LTD.EMI (16) Date: 2005-02-23 Time: 00:58:15
Level (dBuV/m)



Trace: (Discrete)

Site : 10m Chamber
Condition : FCC PART 15 B (910-920) 3m 2768 FACTOR (3M) VERTICAL
Eut : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Comment : Temp: 25°C Humid: 50%
Test Engineer: Seco
memo : CH4 919MHz
:

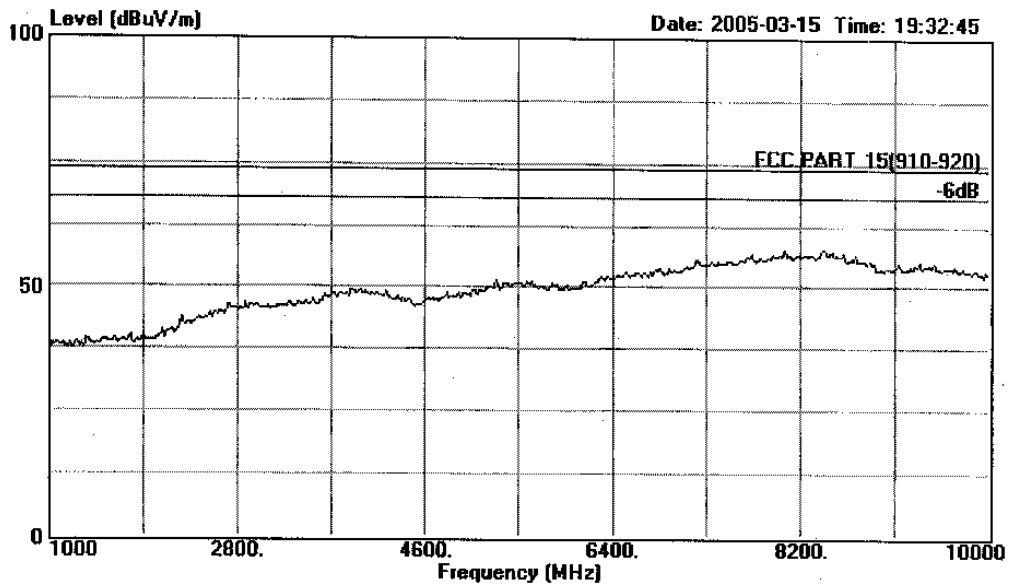


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Data#: 2 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC120/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
 : CH1 913MHz

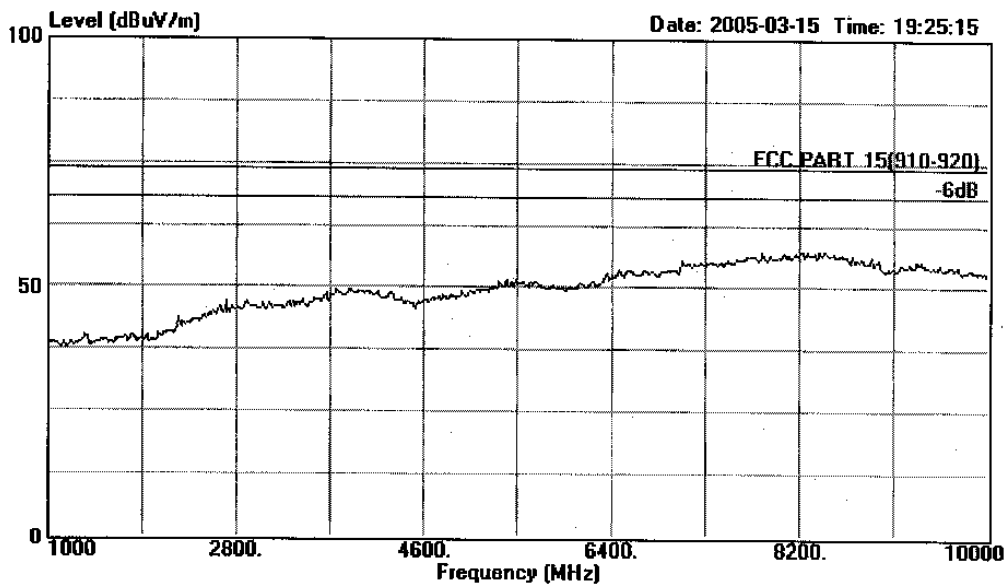


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Data#: 1 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR VERTICAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH1 913MHz

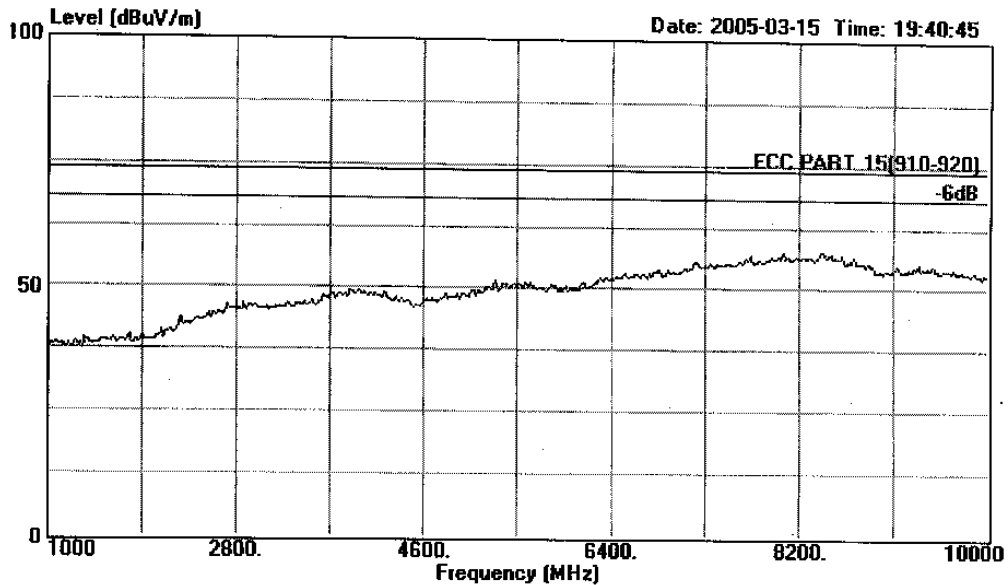


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Data#: 3 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC120/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH2 915MHz

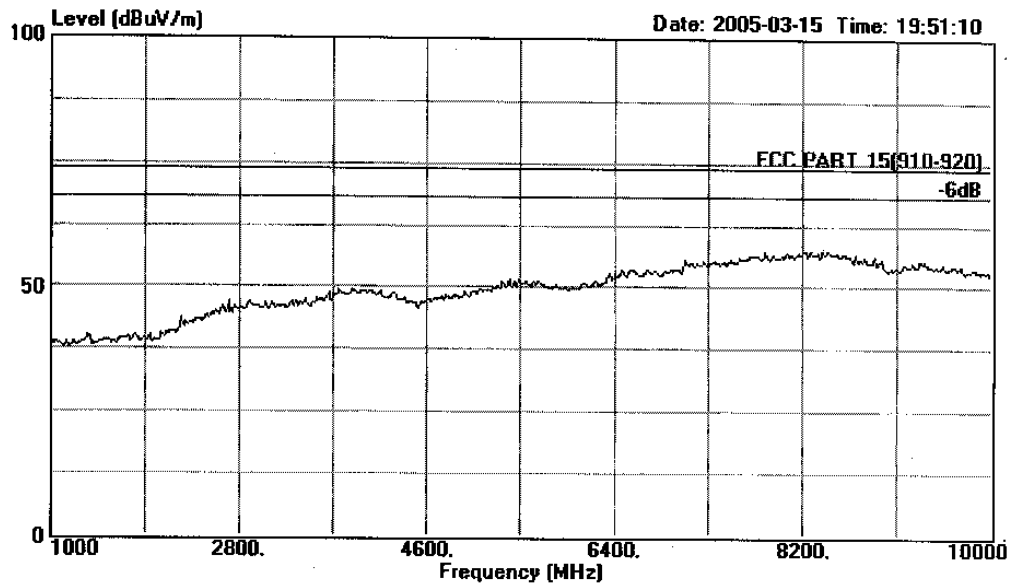


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Data#: 4 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR VERTICAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH2 915MHz

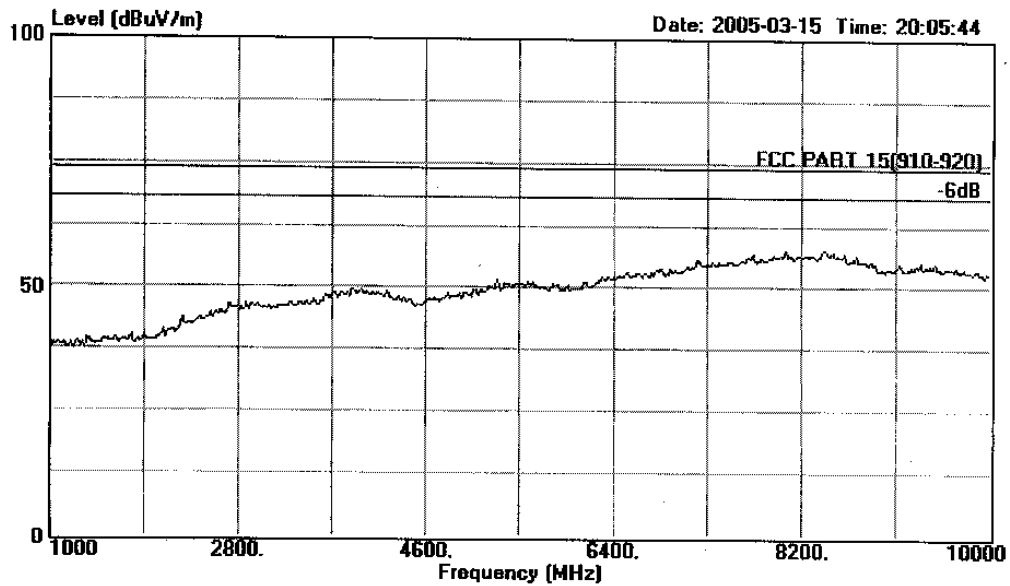


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Data#: 6 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : PBO41670300
Power : DC5V With PC AC120/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
 : CH3 917MHz

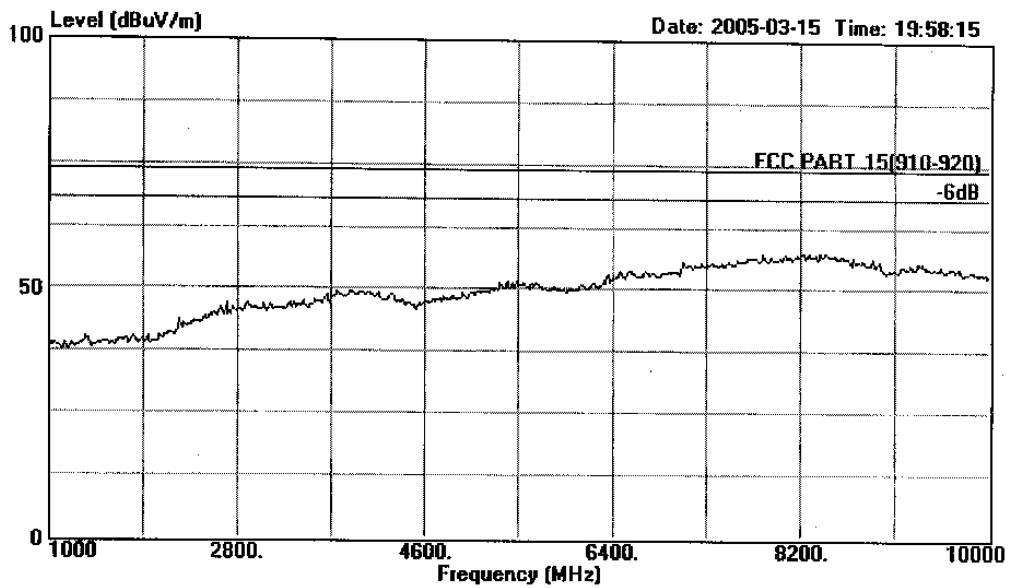


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Data#: 5 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR VERTICAL
EUT : RS232 RF Module
M/N : PBD41670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
.: CH3 917MHz

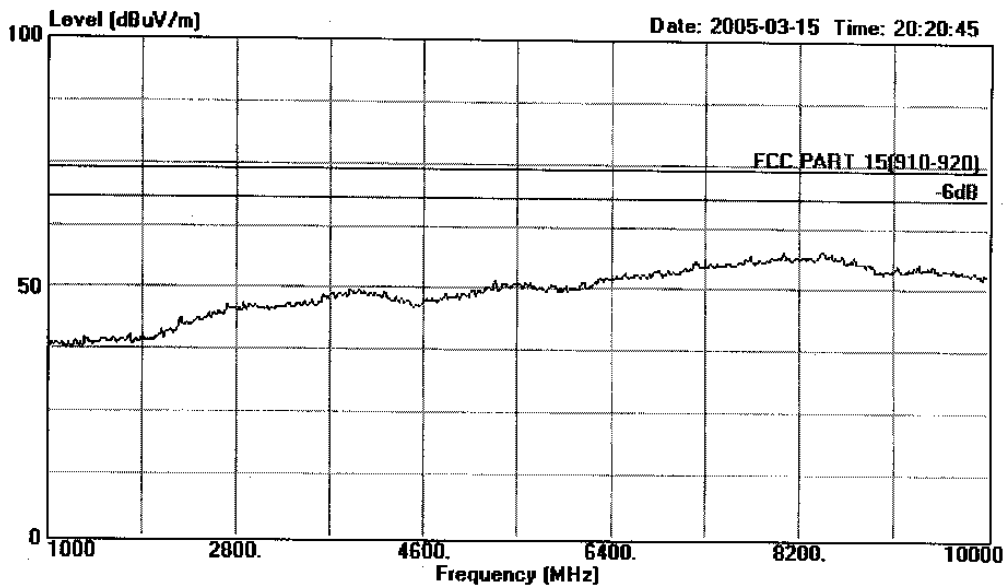


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Data#: 7 File#: C:\EMI TEST DATA\A\Amplus.emi



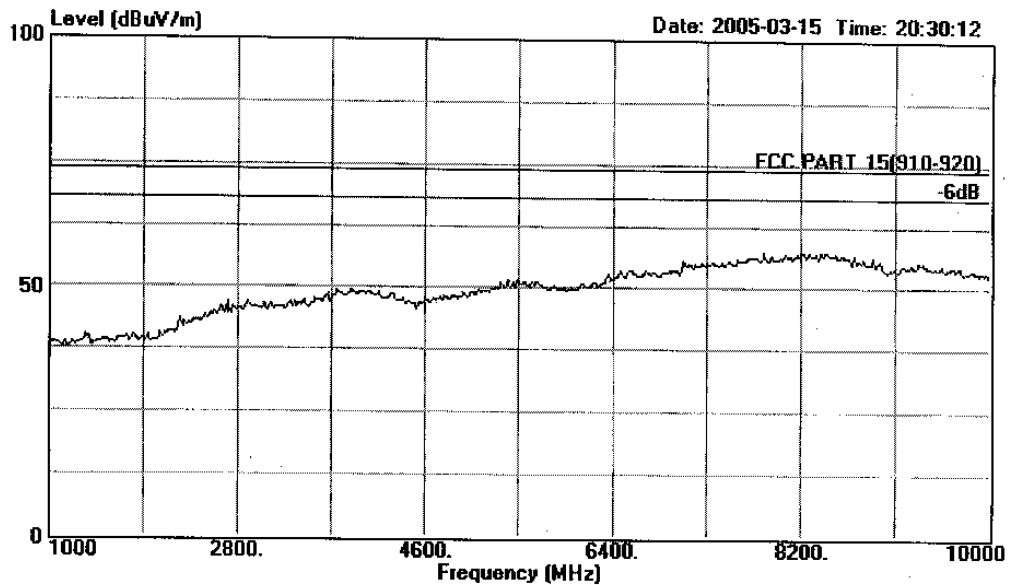
Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR HORIZONTAL
EUT : RS232 RF Module
M/N : P8041670300
Power : DC5V With PC AC120/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH4 919MHz



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Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 8 File#: C:\EMI TEST DATA\A\Amplus.emi



Site : 1# Chamber
Condition : FCC PART 15(910-920) 3m 3115 FACTOR VERTICAL
EUT : RS232 RF Module
M/N : PB041670300
Power : DC5V With PC AC 120V/60Hz
Test Engineer : Seco
Memo : Temp:24'C Humi:54%
: CH4 919MHz