

Prüfbericht-Nr.: <i>Test Report No.:</i>	17046944 001	Auftrags-Nr.: <i>Order No.:</i>	164030368	Seite 1 von 32 <i>Page 1 of 32</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	09.03.2015	
Auftraggeber: <i>Client:</i>	Jiangmen Dascom Computer Peripherals Co., Ltd., No. 399, Jin Xing Road, Jiang Hai District, Jiangmen City, Guangdong Province 529040, P.R. China			
Prüfgegenstand: <i>Test item:</i>	Dot Matrix Printer			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	1140 (Tally/DASCOM)			
Auftrags-Inhalt: <i>Order content:</i>	FCC Certification			
Prüfgrundlage: <i>Test specification:</i>	FCC CFR47 Part 15: Subpart B Section 15.107 FCC CFR47 Part 15: Subpart B Section 15.109			
Wareneingangsdatum: <i>Date of receipt:</i>	27.01.2015			
Prüfmuster-Nr.: <i>Test sample No.:</i>	KAD150126120E			
Prüfzeitraum: <i>Testing period:</i>	29.01.2015 - 10.02.2015			
Ort der Prüfung: <i>Place of testing:</i>	Dongguan EMTEK Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
20.03.2015	 Winnie Hou/Project Manager	20.03.2015	 Owen Tian/Technical Certifier	
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other:	FCC ID: Z7OTD11400			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

TEST SUMMARY

5.1.1 CONDUCTED EMISSION

RESULT: Pass

5.2.1 RADIATED EMISSIONS

RESULT: Pass

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1. General Remarks

1.1 Complementary Materials

None.

2. Test Sites

2.1 Test Facilities

Dongguan EMTEK Co., Ltd.

(FCC Registration No.: 247565)

No. 281, Guantai Road, Nancheng District, Dongguan,
Guangdong, 523077, P.R. China

The tests at the test site have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Conducted Emission				
Test Receiver	Rohde&Schwarz	ESCS30	100018	2015-05-16
L.I.S.N.	Rohde&Schwarz	ENV216	100017	2015-05-16
RF Switching Unit	CDS	RSU-M2	38401	2015-05-16
Radiated Emission				
Test Receiver	Rohde & Schwarz	ESCI	1166.5950.03	2015-05-16
Bilog Antenna	Schwarzbeck	VULB9163	000141	2015-05-16
Power Amplifier	CDS	RSU-M352	818	2015-05-16
Power Amplifier	HP	8447F	OPT H64	2015-05-16
Color Monitor	SUNSCO	SP-140A	N/A	2015-05-16
Single Line Filter	JIANLI	XL-3	N/A	2015-05-16
Single Phase Power Line Filter	JIANLI	DL-2X100B	N/A	2015-05-16
3 Phase Power Line Filter	JIANLI	DL-4X100B	N/A	2015-05-16
DC Power Filter	JIANLI	DL-2X50B	N/A	2015-05-16
Cable	Schwarzbeck	PLF-100	549489	2015-05-16
Cable	Rosenberger	CIL02	A0783566	2015-05-16
Cable	Rosenberger	RG 233/U	525178	2015-05-16

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Conducted Emission	< ± 2.40 dB
Radiated Emission (30 – 1000MHz)	< ± 3.43 dB
Radiated Emission (1 – 2GHz)	< ± 4.46 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

Dongguan EMTEK Co., Ltd. test facility located at No. 281, Guantai Road, Nancheng District, Dongguan, Guangdong, 523077, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a dot matrix printer.
For more information refer to the manufacturer's Circuit diagram & Instruction Manual.

3.2 Ratings and System Details

Rated voltage: AC 100-120V, 50/60Hz
Input current: 0.5 – 0.8A
Protection class: I

3.3 Independent Operation Modes

The basic operation modes are:

- A. On
 - 1. USB port input
 - 2. Serial port input
 - 3. Parallel port input
- B. Stand by
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.4: 2003.

4.3 Special Accessories and Auxiliary Equipment

The EUTs were tested with following cables:

Interface(s)/Port(s):	Max. cable length, shielding	Cable classification
AC Input port	2 cores, non-shielded port	AC Input Power Port
USB port	4 cores, 3m, non-shielded port	Signal Port
Parallel port	25 cores, 3m, non-shielded port	Signal Port
Serial port	9 cores, 3m, non-shielded port	Signal Port

The EUTs were tested with following accessories:

Accessory	Manufacturer	M/N	Serial No.
PC	Lenovo	ThinkCentre M8400t	EA08228210
LCD Monitor	DELL	E1909WF	N/A
Mouse	DELL	M-UAR DEL7	XN966
Keyboard	DELL	L30U	ON277F

4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

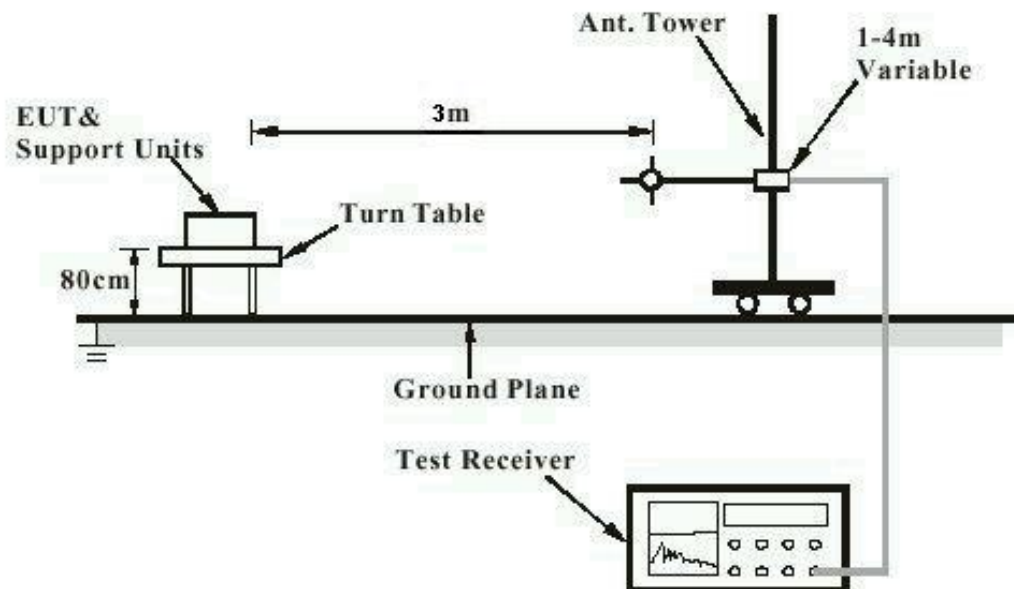
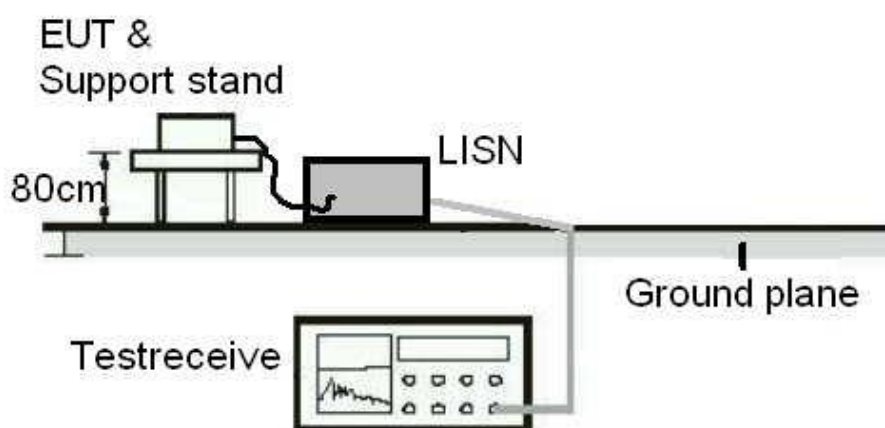


Diagram of Measurement Equipment Configuration for Conduction Measurement



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5. Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Conducted Emission

RESULT:**Pass**

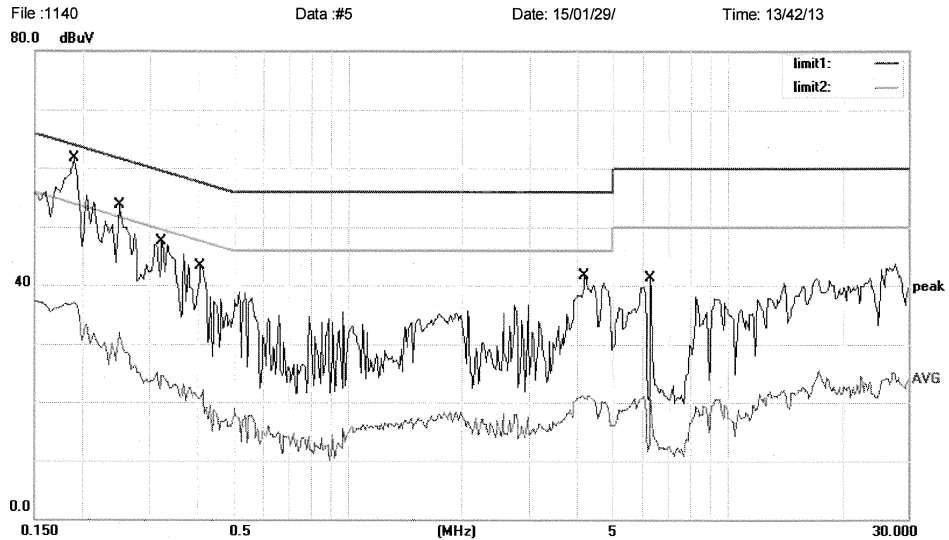
Date of testing	:	2015-01-29
Test standard	:	FCC Part15 Subpart B Section 15.107(a)
Basic standard	:	ANSI C63.4: 2003
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part15 Subpart B Section 15.107(a)
Kind of test site	:	Shield room

Test setup

Input voltage	:	AC 120V, 60Hz
Operation mode	:	A
Earthing	:	Not connected
Ambient temperature	:	24°C
Relative humidity	:	55%
Atmospheric pressure	:	101kPa

For details refer to following test plot.

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Conducted Emission Measurement


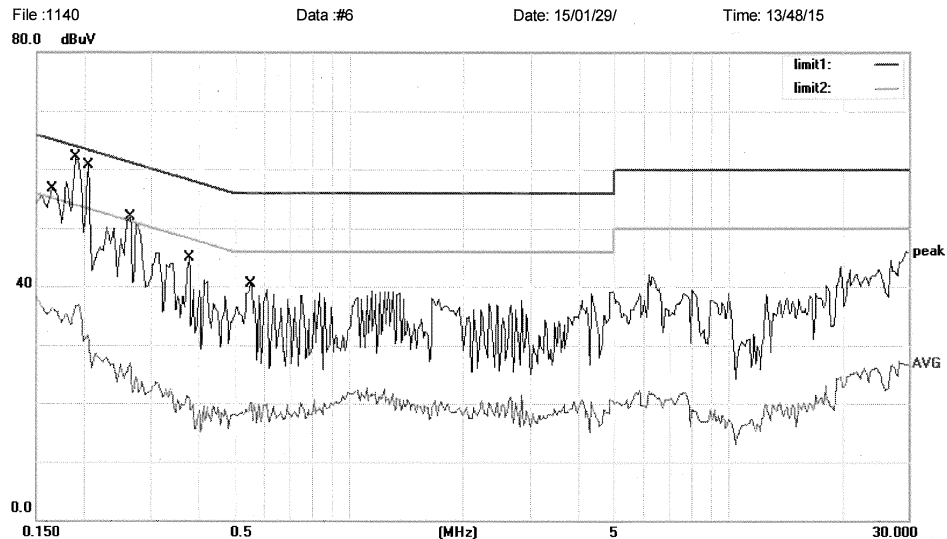
Site site #1 Phase: **L1** Temperature: 24
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: Serial interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	*	0.1900	55.61	0.00	55.61	64.04	-8.43	QP	
2		0.1900	37.11	0.00	37.11	54.04	-16.93	AVG	
3		0.2500	50.74	0.00	50.74	61.76	-11.02	QP	
4		0.2500	31.99	0.00	31.99	51.76	-19.77	AVG	
5		0.3250	47.46	0.00	47.46	59.58	-12.12	QP	
6		0.3250	25.07	0.00	25.07	49.58	-24.51	AVG	
7		0.4100	43.24	0.00	43.24	57.65	-14.41	QP	
8		0.4100	22.52	0.00	22.52	47.65	-25.13	AVG	
9		4.1574	38.95	0.00	38.95	56.00	-17.05	QP	
10		4.1574	21.17	0.00	21.17	46.00	-24.83	AVG	
11		6.3100	41.26	0.00	41.26	60.00	-18.74	QP	
12		6.3100	21.07	0.00	21.07	50.00	-28.93	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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Conducted Emission Measurement


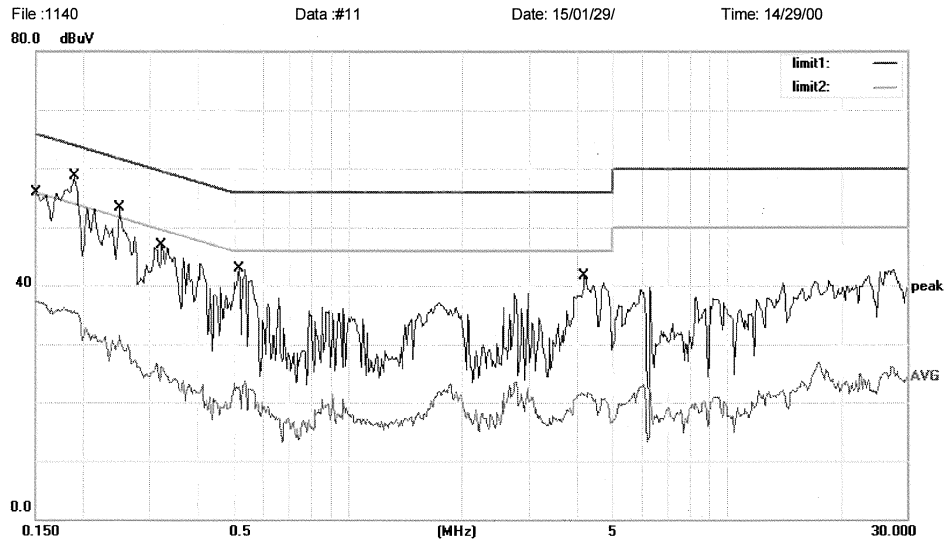
Site site #1	Phase: N	Temperature: 24
Limit: (CE)FCC PART 15 class B_QP	Power: AC 120V/60Hz	Humidity: 55 %
EUT: Dot Matrix Printer		
M/N: 1140		
Mode: Printing		
Note: Serial interface connection		

No.	Mk.	Freq.	Reading		Measure- ment	Limit		Over	Detector	Comment
			Level	Correct Factor		dBuV	dB			
1		0.1650	52.68	0.00	52.68	65.21	-12.53		QP	
2		0.1650	38.28	0.00	38.28	55.21	-16.93		AVG	
3		0.1900	55.20	0.00	55.20	64.04	-8.84		QP	
4		0.1900	36.85	0.00	36.85	54.04	-17.19		AVG	
5	*	0.2050	54.69	0.00	54.69	63.41	-8.72		QP	
6		0.2050	31.74	0.00	31.74	53.41	-21.67		AVG	
7		0.2650	48.00	0.00	48.00	61.27	-13.27		QP	
8		0.2650	26.88	0.00	26.88	51.27	-24.39		AVG	
9		0.3800	44.93	0.00	44.93	58.28	-13.35		QP	
10		0.3800	20.97	0.00	20.97	48.28	-27.31		AVG	
11		0.5550	40.54	0.00	40.54	56.00	-15.46		QP	
12		0.5550	20.20	0.00	20.20	46.00	-25.80		AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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Conducted Emission Measurement


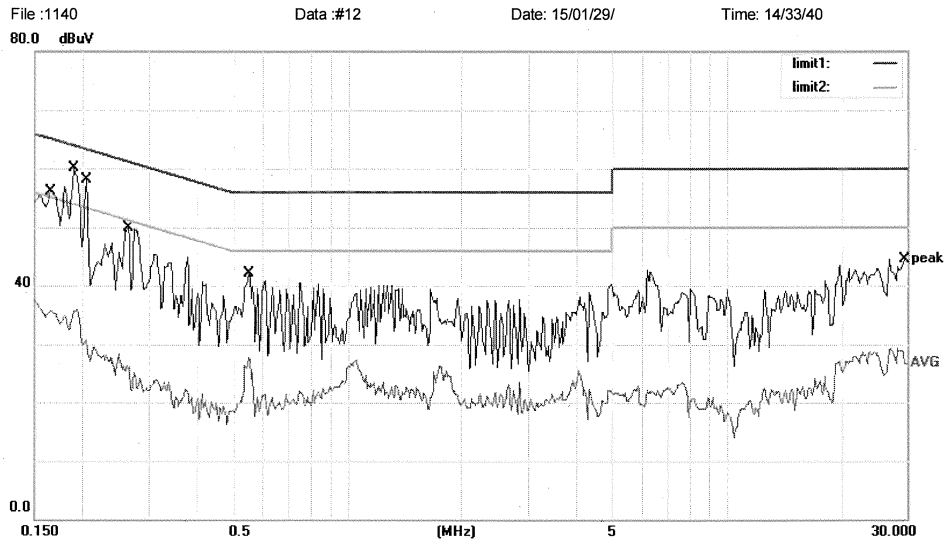
Site site #1 Phase: **L1** Temperature: 24
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: Parallel interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	52.00	0.00	52.00	66.00	-14.00	QP	
2		0.1500	37.29	0.00	37.29	56.00	-18.71	AVG	
3	*	0.1900	53.80	0.00	53.80	64.04	-10.24	QP	
4		0.1900	35.61	0.00	35.61	54.04	-18.43	AVG	
5		0.2500	48.90	0.00	48.90	61.76	-12.86	QP	
6		0.2500	31.49	0.00	31.49	51.76	-20.27	AVG	
7		0.3250	46.96	0.00	46.96	59.58	-12.62	QP	
8		0.3250	26.04	0.00	26.04	49.58	-23.54	AVG	
9		0.5200	42.85	0.00	42.85	56.00	-13.15	QP	
10		0.5200	23.33	0.00	23.33	46.00	-22.67	AVG	
11		4.2200	41.76	0.00	41.76	56.00	-14.24	QP	
12		4.2200	21.67	0.00	21.67	46.00	-24.33	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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Conducted Emission Measurement


Site site #1 Phase: **N** Temperature: 24
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: Parallel interface connection

No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1650	52.30	0.00	52.30	65.21	-12.91	QP	
2	0.1650	37.26	0.00	37.26	55.21	-17.95	AVG	
3 *	0.1900	55.80	0.00	55.80	64.04	-8.24	QP	
4	0.1900	35.85	0.00	35.85	54.04	-18.19	AVG	
5	0.2050	52.70	0.00	52.70	63.41	-10.71	QP	
6	0.2050	29.47	0.00	29.47	53.41	-23.94	AVG	
7	0.2650	46.00	0.00	46.00	61.27	-15.27	QP	
8	0.2650	26.47	0.00	26.47	51.27	-24.80	AVG	
9	0.5550	38.00	0.00	38.00	56.00	-18.00	QP	
10	0.5550	27.70	0.00	27.70	46.00	-18.30	AVG	
11	29.4250	44.51	0.00	44.51	60.00	-15.49	QP	
12	29.4250	29.00	0.00	29.00	50.00	-21.00	AVG	

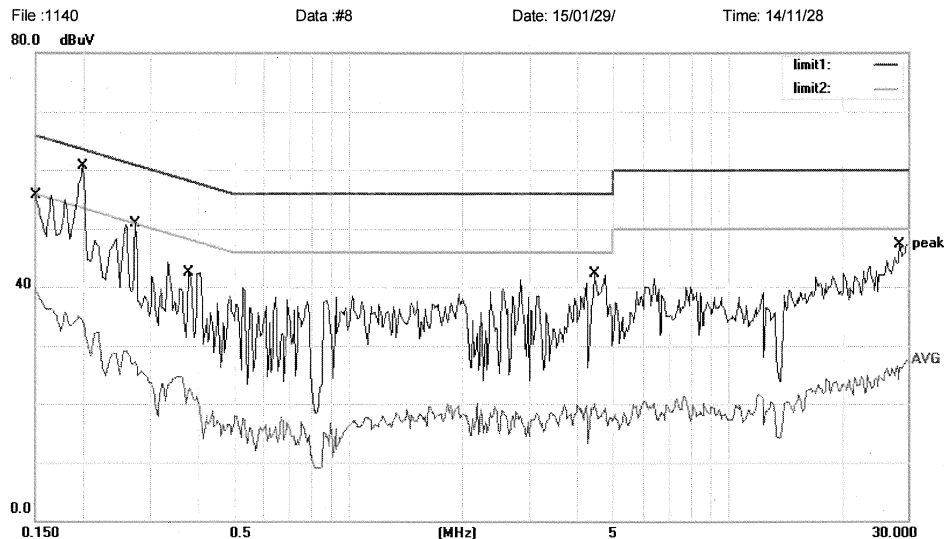
*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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Conducted Emission Measurement


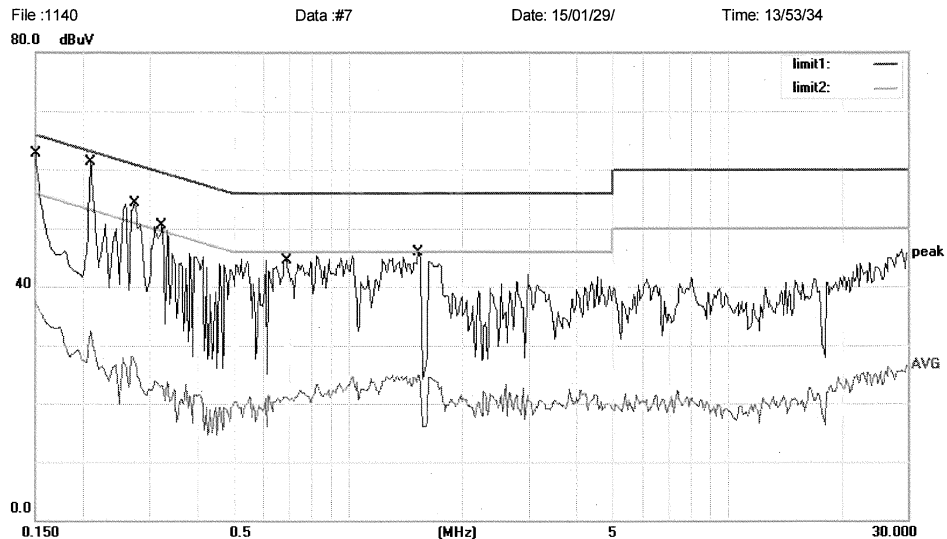
Site site #1 Phase: **L1** Temperature: 24
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: USB interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	50.76	0.00	50.76	66.00	-15.24	QP	
2		0.1500	39.83	0.00	39.83	56.00	-16.17	AVG	
3	*	0.2000	55.71	0.00	55.71	63.61	-7.90	QP	
4		0.2000	35.02	0.00	35.02	53.61	-18.59	AVG	
5		0.2750	47.98	0.00	47.98	60.97	-12.99	QP	
6		0.2750	27.29	0.00	27.29	50.97	-23.68	AVG	
7		0.3800	42.49	0.00	42.49	58.28	-15.79	QP	
8		0.3800	22.67	0.00	22.67	48.28	-25.61	AVG	
9		4.4600	42.37	0.00	42.37	56.00	-13.63	QP	
10		4.4600	20.16	0.00	20.16	46.00	-25.84	AVG	
11		28.5250	47.28	0.00	47.28	60.00	-12.72	QP	
12		28.5250	26.55	0.00	26.55	50.00	-23.45	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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Conducted Emission Measurement


Site site #1 Phase: **N** Temperature: 24
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: USB interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	57.66	0.00	57.66	66.00	-8.34	QP	
2		0.1500	37.59	0.00	37.59	56.00	-18.41	AVG	
3	*	0.2100	55.40	0.00	55.40	63.21	-7.81	QP	
4		0.2100	32.47	0.00	32.47	53.21	-20.74	AVG	
5		0.2750	50.33	0.00	50.33	60.97	-10.64	QP	
6		0.2750	28.08	0.00	28.08	50.97	-22.89	AVG	
7		0.3250	47.45	0.00	47.45	59.58	-12.13	QP	
8		0.3250	23.77	0.00	23.77	49.58	-25.81	AVG	
9		0.6900	44.53	0.00	44.53	56.00	-11.47	QP	
10		0.6900	21.44	0.00	21.44	46.00	-24.56	AVG	
11		1.5350	45.89	0.00	45.89	56.00	-10.11	QP	
12		1.5350	24.86	0.00	24.86	46.00	-21.14	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver.

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5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated emissions

RESULT:**Pass**

Date of testing	:	2015-02-10
Test standard	:	FCC Part15 Subpart B Section 15.109(a)
Basic standard	:	ANSI C63.4: 2003
Frequency range	:	30 – 2000MHz *
Limits	:	FCC Part15 Subpart B Section 15.109(a)
Kind of test site	:	3m Semi-Anechoic Chamber

Test Setup

Input voltage	:	AC 120V, 60Hz
Operation mode	:	A
Earthing	:	Not Connected
Ambient temperature	:	24°C
Relative humidity	:	55%
Atmospheric pressure	:	101kPa

*- The EUT's highest frequency generated and used is 480MHz, hence the highest scan frequency is up to 2GHz only.

For details refer to following test plot.

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Radiated Emission Measurement

File :1140 Data :#56 Date: 2015-2-10 Time: 11:00:22



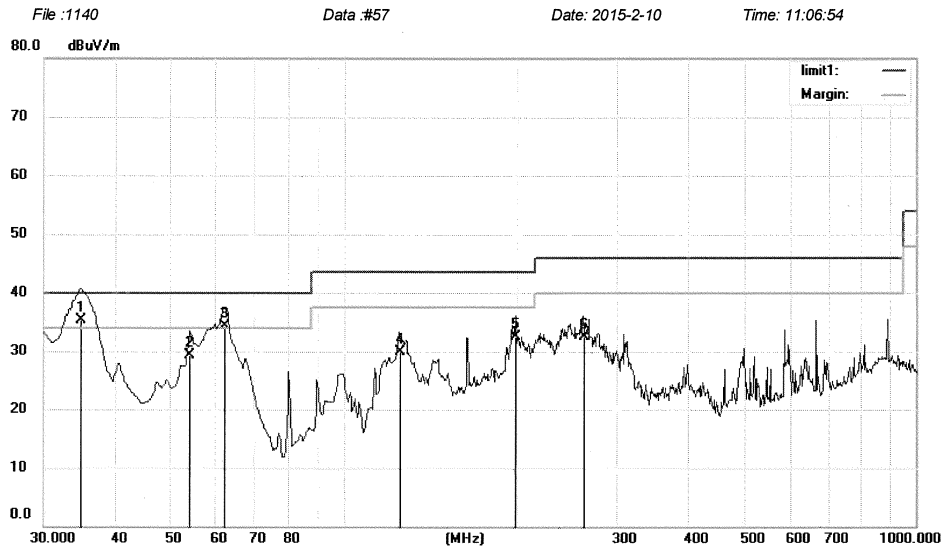
Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: Serial interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	34.8821	45.72	-14.18	31.54	40.00	-8.46	QP		
2		62.0100	45.29	-19.98	25.31	40.00	-14.69	QP		
3		117.3000	46.65	-17.14	29.51	43.50	-13.99	QP		
4		144.4600	50.01	-17.36	32.65	43.50	-10.85	QP		
5		198.7800	50.41	-17.75	32.66	43.50	-10.84	QP		
6		263.7700	49.11	-15.34	33.77	46.00	-12.23	QP		

*:Maximum data x:Over limit !:over margin

Operator: Snake

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Radiated Emission Measurement


Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: Serial interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector cm	degree	
1	*	34.8500	49.56	-14.19	35.37	40.00	-4.63	QP		
2		54.2500	46.37	-17.08	29.29	40.00	-10.71	QP		
3	!	62.0100	54.20	-19.98	34.22	40.00	-5.78	QP		
4		125.0600	46.31	-16.40	29.91	43.50	-13.59	QP		
5		199.7500	50.27	-17.73	32.54	43.50	-10.96	QP		
6		262.8000	47.91	-15.36	32.55	46.00	-13.45	QP		

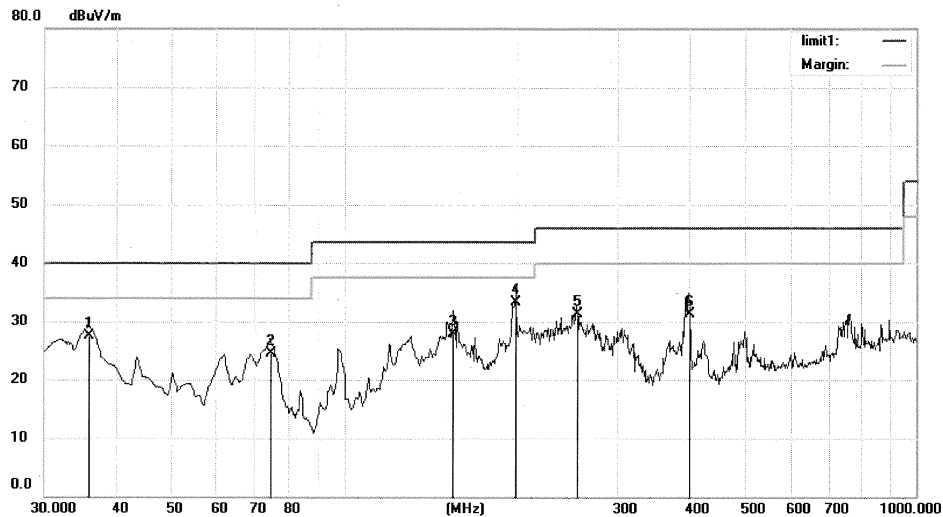
*:Maximum data x:Over limit !:over margin

Operator: Snake

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Radiated Emission Measurement

File :1140 Data :#59 Date: 2015-2-10 Time: 11:19:09



Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 MN: 1140
 Mode:Printing
 Note: Parallel interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		35.8200	41.60	-14.08	27.52	40.00	-12.48	QP		
2		74.6200	47.21	-22.69	24.52	40.00	-15.48	QP		
3		155.1300	46.16	-18.20	27.96	43.50	-15.54	QP		
4	*	199.7500	50.98	-17.73	33.25	43.50	-10.25	QP		
5		255.0400	46.99	-15.62	31.37	46.00	-14.63	QP		
6		399.5700	42.61	-11.29	31.32	46.00	-14.68	QP		

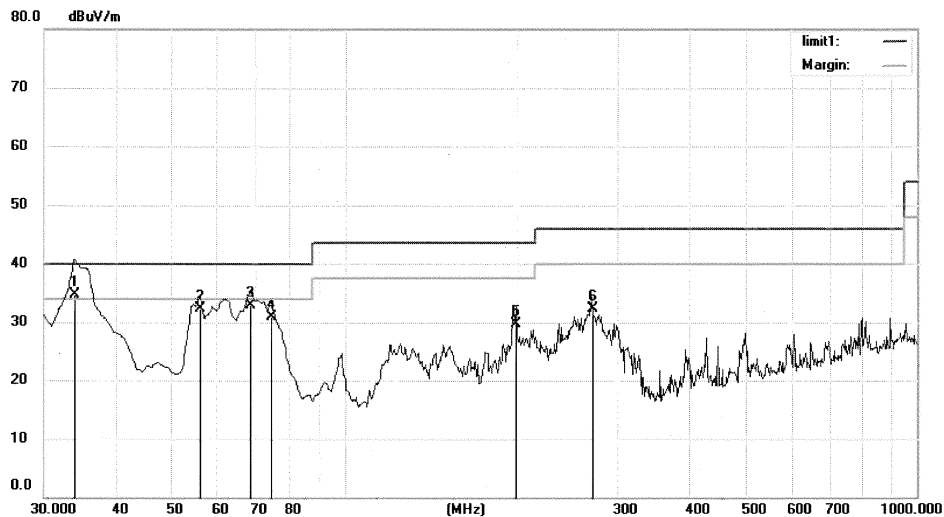
*:Maximum data x:Over limit !:over margin

Operator: Snake

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Radiated Emission Measurement

File :1140 Data :#58 Date: 2015-2-10 Time: 11:13:44



Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 MN: 1140
 Mode: Printing
 Note: Parallel interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	33.8800	49.00	-14.31	34.69	40.00	-5.31	QP		
2		56.1900	50.17	-17.84	32.33	40.00	-7.67	QP		
3		68.8000	54.71	-21.80	32.91	40.00	-7.09	QP		
4		74.6200	53.67	-22.69	30.98	40.00	-9.02	QP		
5		199.7500	47.47	-17.73	29.74	43.50	-13.76	QP		
6		270.5600	47.55	-15.18	32.37	46.00	-13.63	QP		

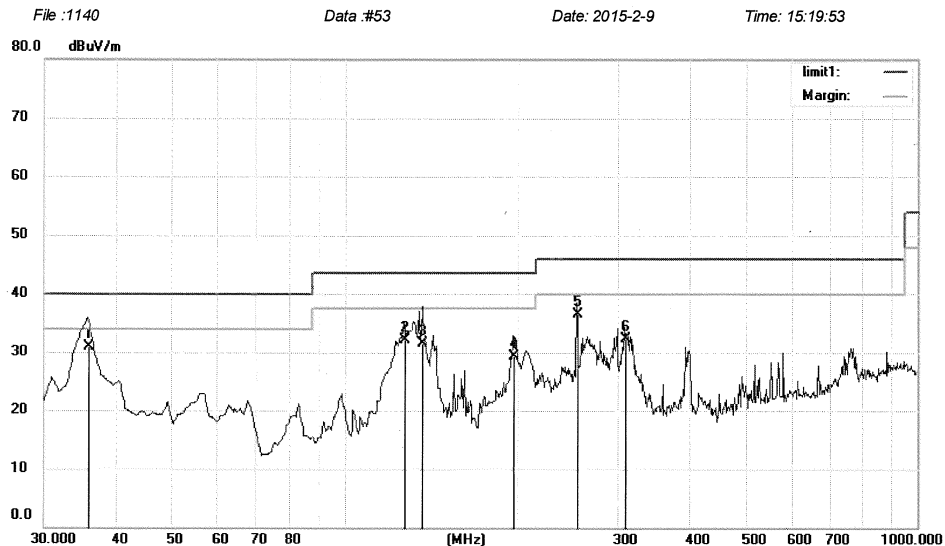
*:Maximum data x:Over limit !:over margin

Operator: Snake

File :1140\Data :#58

Page: 1

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Radiated Emission Measurement


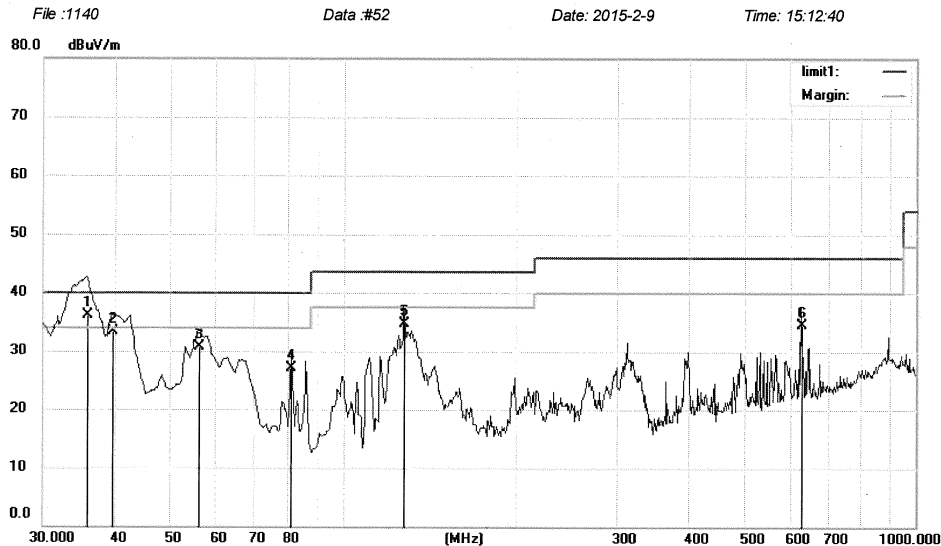
Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: USB interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	35.8200	45.01	-14.08	30.93	40.00	-9.07	QP		
2		127.0000	48.53	-16.34	32.19	43.50	-11.31	QP		
3		136.7000	48.12	-16.68	31.44	43.50	-12.06	QP		
4		197.8100	47.12	-17.78	29.34	43.50	-14.16	QP		
5		255.0400	52.15	-15.62	36.53	46.00	-9.47	QP		
6		309.3600	45.98	-13.73	32.25	46.00	-13.75	QP		

*:Maximum data x:Over limit !:over margin

Operator: Snake

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Radiated Emission Measurement


Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 class B 3m Power: AC 120V/60Hz Humidity: 55 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: USB interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	35.8200	50.25	-14.08	36.17	40.00	-3.83	QP		
2		39.7146	46.96	-13.70	33.26	40.00	-6.74	QP		
3		56.1900	48.57	-17.84	30.73	40.00	-9.27	QP		
4		81.4100	49.38	-22.29	27.09	40.00	-12.91	QP		
5		127.9700	51.02	-16.37	34.65	43.50	-8.85	QP		
6		629.4600	42.64	-8.19	34.45	46.00	-11.55	QP		

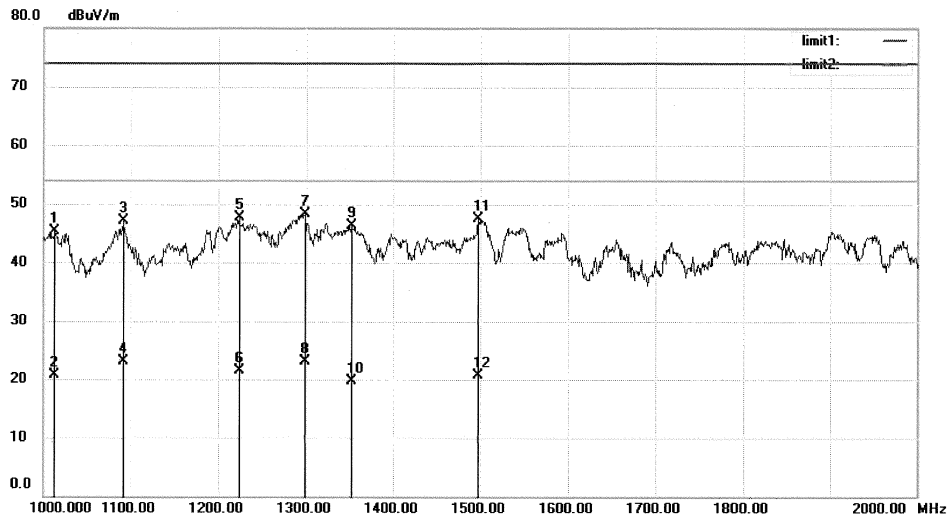
*:Maximum data x:Over limit !:over margin

Operator: Snake

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Radiated Emission Measurement

File :1140 Data :#83 Date: 2015-2-10 Time: 16:35:04

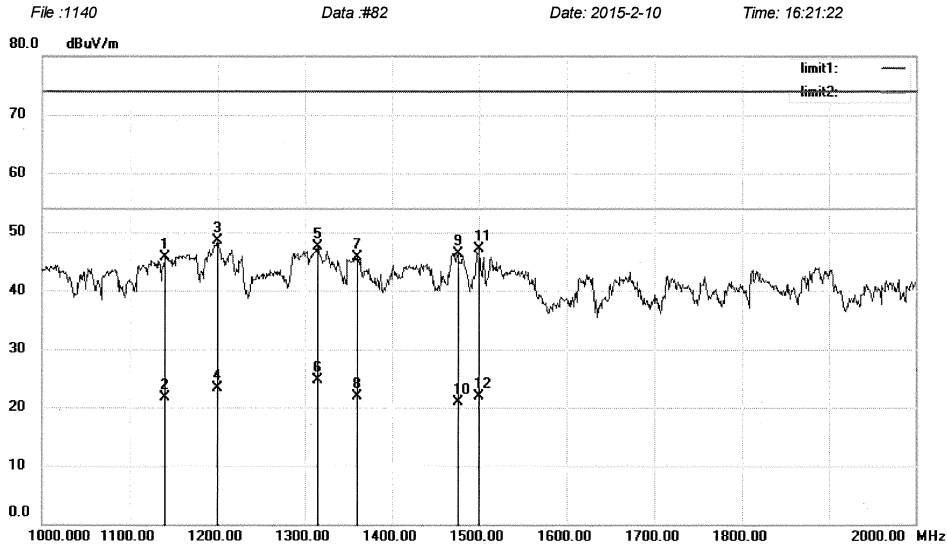

 Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 MN: 1140
 Mode: Printing
 Note: Serial interface connection

No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Detector	Comment
1	1013.000	68.24	-22.88	45.36	74.00	-28.64			peak	
2	1013.000	43.50	-22.88	20.62	54.00	-33.38			AVG	
3	1093.000	70.31	-23.16	47.15	74.00	-26.85			peak	
4	1093.000	46.20	-23.16	23.04	54.00	-30.96			AVG	
5	1224.000	71.21	-23.54	47.67	74.00	-26.33			peak	
6	1224.000	45.10	-23.54	21.56	54.00	-32.44			AVG	
7 *	1299.000	71.84	-23.56	48.28	74.00	-25.72			peak	
8	1299.000	46.70	-23.56	23.14	54.00	-30.86			AVG	
9	1352.000	69.86	-23.58	46.28	74.00	-27.72			peak	
10	1352.000	43.30	-23.58	19.72	54.00	-34.28			AVG	
11	1498.000	71.55	-24.08	47.47	74.00	-26.53			peak	
12	1498.000	44.80	-24.08	20.72	54.00	-33.28			AVG	

*:Maximum data x:Over limit !:over margin

Operator: Bruce

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Radiated Emission Measurement


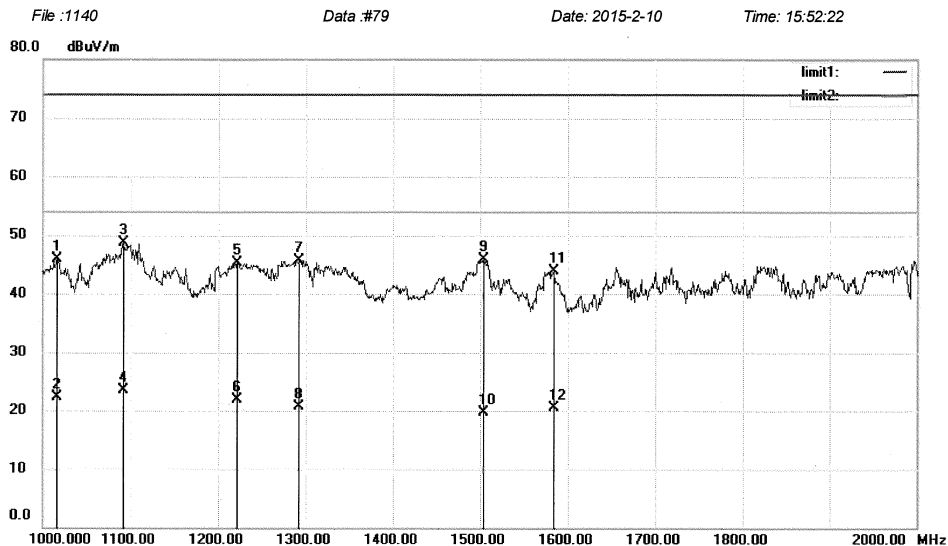
Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: Serial interface connection

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		1141.000	69.07	-23.32	45.75	74.00	-28.25	peak		
2		1141.000	45.10	-23.32	21.78	54.00	-32.22	AVG		
3	*	1201.000	72.09	-23.52	48.57	74.00	-25.43	peak		
4		1201.000	46.90	-23.52	23.38	54.00	-30.62	AVG		
5		1315.000	71.16	-23.56	47.60	74.00	-26.40	peak		
6		1315.000	48.30	-23.56	24.74	54.00	-29.26	AVG		
7		1361.000	69.24	-23.58	45.66	74.00	-28.34	peak		
8		1361.000	45.50	-23.58	21.92	54.00	-32.08	AVG		
9		1476.000	70.37	-23.97	46.40	74.00	-27.60	peak		
10		1476.000	44.80	-23.97	20.83	54.00	-33.17	AVG		
11		1501.000	71.09	-24.08	47.01	74.00	-26.99	peak		
12		1501.000	45.90	-24.08	21.82	54.00	-32.18	AVG		

*:Maximum data x:Over limit !:over margin

Operator: Bruce

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Radiated Emission Measurement


Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: Parallel interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	
1		1017.000	68.89	-22.89	46.00	74.00	-28.00	peak		
2		1017.000	45.10	-22.89	22.21	54.00	-31.79	AVG		
3	*	1093.000	71.81	-23.16	48.65	74.00	-25.35	peak		
4		1093.000	46.60	-23.16	23.44	54.00	-30.56	AVG		
5		1222.000	68.80	-23.53	45.27	74.00	-28.73	peak		
6		1222.000	45.50	-23.53	21.97	54.00	-32.03	AVG		
7		1293.000	69.35	-23.55	45.80	74.00	-28.20	peak		
8		1293.000	44.30	-23.55	20.75	54.00	-33.25	AVG		
9		1504.000	69.98	-24.10	45.88	74.00	-28.12	peak		
10		1504.000	43.80	-24.10	19.70	54.00	-34.30	AVG		
11		1584.000	68.49	-24.49	44.00	74.00	-30.00	peak		
12		1584.000	45.00	-24.49	20.51	54.00	-33.49	AVG		

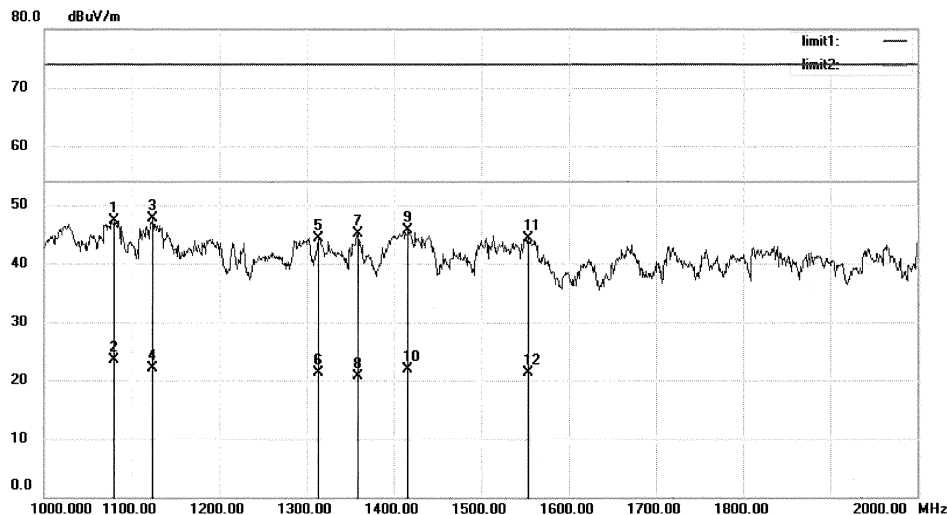
*:Maximum data x:Over limit !:over margin

Operator: Bruce

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Radiated Emission Measurement

File :1140 Data :#78 Date: 2015-2-10 Time: 15:40:01


 Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode: Printing
 Note: Parallel interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	
1		1081.000	70.41	-23.12	47.29	74.00	-26.71	peak		
2		1081.000	46.60	-23.12	23.48	54.00	-30.52	AVG		
3	*	1125.000	70.94	-23.27	47.67	74.00	-26.33	peak		
4		1125.000	45.30	-23.27	22.03	54.00	-31.97	AVG		
5		1314.000	67.85	-23.56	44.29	74.00	-29.71	peak		
6		1314.000	44.80	-23.56	21.24	54.00	-32.76	AVG		
7		1359.000	68.62	-23.57	45.05	74.00	-28.95	peak		
8		1359.000	44.20	-23.57	20.63	54.00	-33.37	AVG		
9		1417.000	69.36	-23.68	45.68	74.00	-28.32	peak		
10		1417.000	45.50	-23.68	21.82	54.00	-32.18	AVG		
11		1554.000	68.70	-24.35	44.35	74.00	-29.65	peak		
12		1554.000	45.70	-24.35	21.35	54.00	-32.65	AVG		

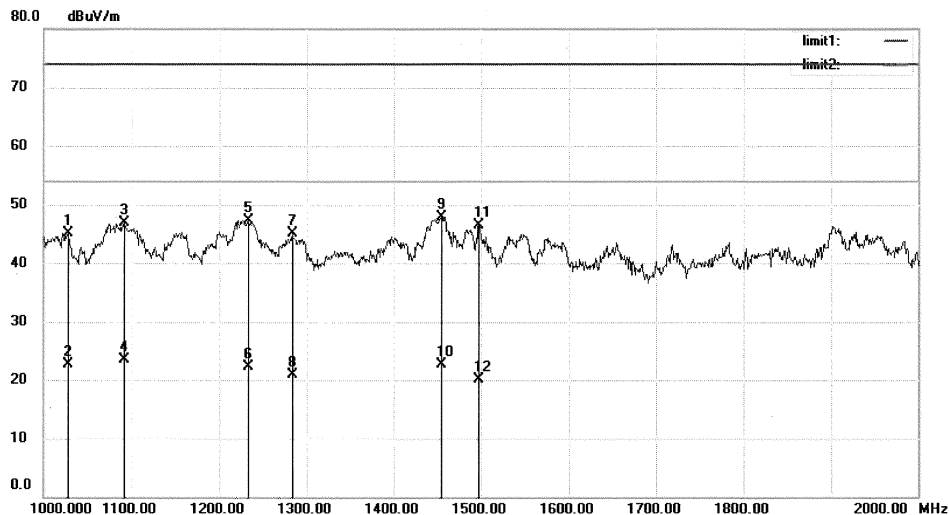
*:Maximum data x:Over limit !:over margin

Operator: Bruce

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Radiated Emission Measurement

File :1140 Data :#81 Date: 2015-2-10 Time: 16:13:17



Site Chamber #1 Polarization: **Horizontal** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: USB interface connection

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1028.000	68.00	-22.93	45.07	74.00	-28.93			peak
2		1028.000	45.70	-22.93	22.77	54.00	-31.23			AVG
3		1092.000	70.00	-23.15	46.85	74.00	-27.15			peak
4		1092.000	46.60	-23.15	23.45	54.00	-30.55			AVG
5		1234.000	70.90	-23.53	47.37	74.00	-26.63			peak
6		1234.000	45.80	-23.53	22.27	54.00	-31.73			AVG
7		1284.000	68.62	-23.55	45.07	74.00	-28.93			peak
8		1284.000	44.50	-23.55	20.95	54.00	-33.05			AVG
9	*	1455.000	71.85	-23.86	47.99	74.00	-26.01			peak
10		1455.000	46.60	-23.86	22.74	54.00	-31.26			AVG
11		1498.000	70.55	-24.08	46.47	74.00	-27.53			peak
12		1498.000	44.10	-24.08	20.02	54.00	-33.98			AVG

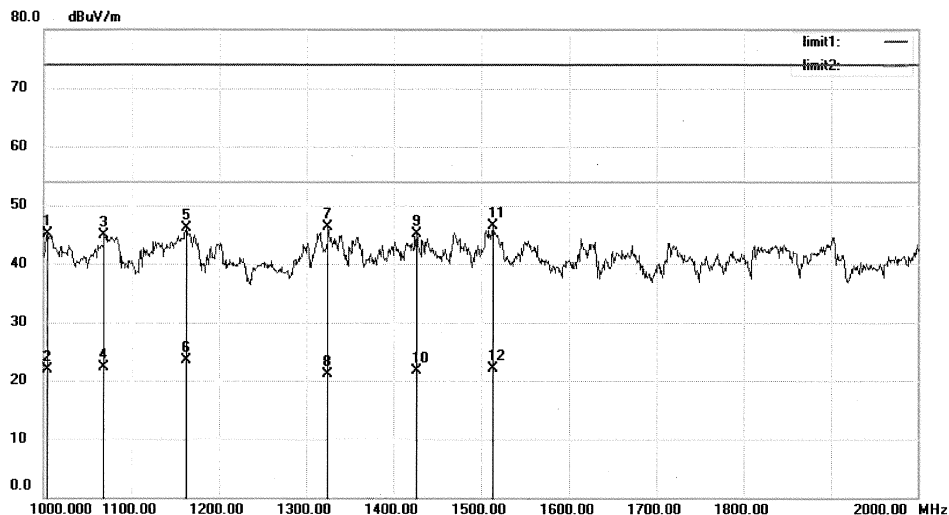
*:Maximum data x:Over limit !:over margin

Operator: Bruce

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Radiated Emission Measurement

File :1140 Data :#80 Date: 2015-2-10 Time: 16:05:32


 Site Chamber #1 Polarization: **Vertical** Temperature: 24
 Limit: (RE)FCC PART 15 CLASS B Peak Power: AC 120V/60Hz Humidity: 53 %
 EUT: Dot Matrix Printer
 M/N: 1140
 Mode:Printing
 Note: USB interface connection

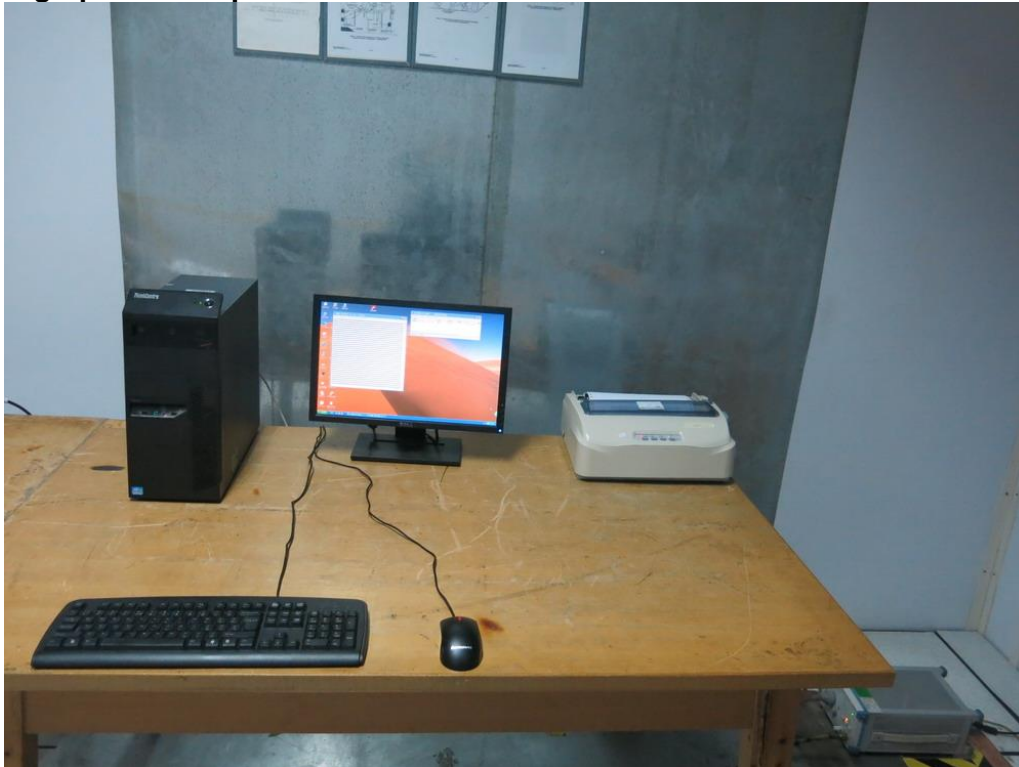
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree		
1		1004.000	68.03	-22.86	45.17	74.00	-28.83			peak	
2		1004.000	44.80	-22.86	21.94	54.00	-32.06			AVG	
3		1069.000	68.06	-23.08	44.98	74.00	-29.02			peak	
4		1069.000	45.30	-23.08	22.22	54.00	-31.78			AVG	
5		1163.000	69.56	-23.39	46.17	74.00	-27.83			peak	
6		1163.000	46.90	-23.39	23.51	54.00	-30.49			AVG	
7		1325.000	69.83	-23.56	46.27	74.00	-27.73			peak	
8		1325.000	44.70	-23.56	21.14	54.00	-32.86			AVG	
9		1427.000	68.86	-23.73	45.13	74.00	-28.87			peak	
10		1427.000	45.50	-23.73	21.77	54.00	-32.23			AVG	
11	*	1514.000	70.75	-24.15	46.60	74.00	-27.40			peak	
12		1514.000	46.20	-24.15	22.05	54.00	-31.95			AVG	

*:Maximum data x:Over limit !:over margin

Operator: Bruce

6. Photographs of the Test Set-Up

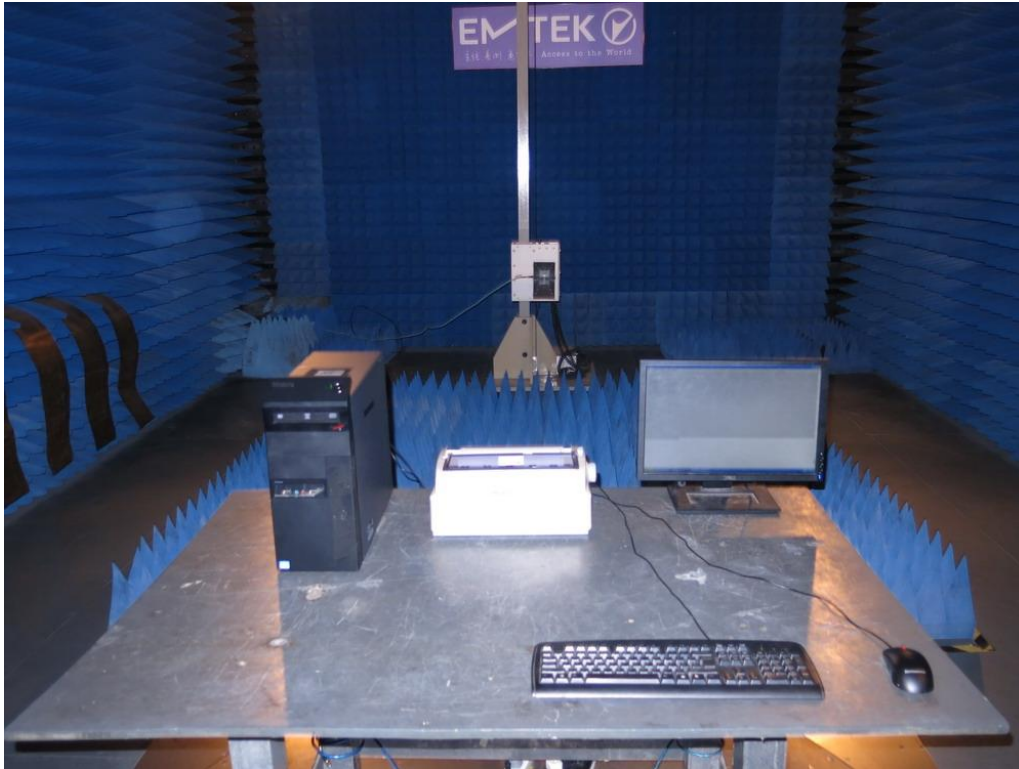
Photograph 1: Set-up for Conducted Emissions



Photograph 2: Set-up for Radiated Emissions of below 1GHz



Photograph 3: Set-up for Radiated Emissions of 1 - 2GHz



7. List of Tables

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