

Report No: DDT-RE120161

Issued Date: 2012/12/07

FCC CERTIFICATION TEST REPORT

FOR

Applicant	:	Jiangmen Dascom Computer Peripherals Co.,Ltd.
Address	:	No.399, Jin Xing Road, Jiang Hai District, Jiangmen City, Guang Dong Province, P.R.China
Equipment under Test	:	Dot Matrix Printer
Model No UNG D	:	72610 TESTING
Trade Mark	:	Tally/DASCOM
FCC ID	:	Z7OTD26100
Manufacturer	:	Jiangmen Dascom Computer Peripherals Co.,Ltd.
Address	4	No.399, Jin Xing Road, Jiang Hai District, Jiangmen City, Guang Dong Province, P.R.China

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel: +86-0769-22891499 <u>Http://www.dgddt.com</u>



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TEST REPORT DECLARE

Report No: DDT-RE120161

Applicant	:	Jiangmen Dascom Computer Peripherals Co.,Ltd.
Address		No.399, Jin Xing Road, Jiang Hai District, Jiangmen City, Guang Dong Province, P.R.China
Equipment under Test	:	Dot Matrix Printer
Model No	:	2610
Trade mark		Tally/DASCOM
FCC ID	: Z7OTD26100	
Manufacturer	:	Jiangmen Dascom Computer Peripherals Co.,Ltd.
Address •		No.399, Jin Xing Road, Jiang Hai District, Jiangmen City, Guang Dong Province, P.R.China

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart B Class B 2012; ANSI C63.4:2009.

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above (class B). The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	DDT-RE120161					
Date of Test:	2012/12/03~2012/11/04	Date of Report:	2012/12/07			

Prepared By:

Leo Liu/Engineer

Jany Yu/EMC Monager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

1. Summary of test results

Description of Test Item	Standard	Limits	Results	
Power Line Conducted Emission Test	FCC Part 15: 2012 ANSI C63.4: 2009	Class B	PASS	
Radiated Emission Test	FCC Part 15: 2012 ANSI C63.4: 2009	Class B	PASS	

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2. General test information

2.1. Description of EUT

EUT* Name	:	Dot Matrix Printer
Model Number	:	2610
EUT function description	:	Please reference user manual of this device
Power supply	:	AC 100~240V, 50/60Hz, 1.5A
Trade mark	:	Tally/DASCOM
EUT Class	••	Class B, intended primarily for use in the domestic environment
Maximum work frequency	:	25MHz
Date of Receipt	:	2012/12/03
Sample Type	:	Series production

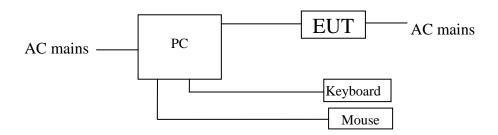
Note: EUT is the ab. of equipment under test.

2.2. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	Other
HP Pro 3330 Small From Factor (PC)	НР	A6T13PA#AB2	1.5m long, unshielded
LCD COLOR DISPLAY	НР	GV537A	AC Line: 1.5m long, unshielded VGA line: 1.5m long, unshielded
Keyboard	HP	KB-0316	Signal line: 1.5m long, unshielded
Mouse	HP	M-SBF96	Signal line: 1.5m long, unshielded

2.3. Block diagram EUT configuration for test

For Printing mode:



EUT print "H" character during test. The EUT selected two display (LED or LCD) panel. EUT have Parallel interface, USB 2.0, Ethernet, Serial Interface connect to the computer receiving data printing.

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2.4. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

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2.5. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong

Province, China, 523808 Tel: +86-0769-22891499 http://www.dgddt.com

FCC Registration Number: 270092

2.6. Measurement uncertainty

Test Item	Uncertainty		
Uncertainty for Conduction emission test	2.44dB		
Handricks for Dediction Emission to t	3.14 dB (Polarize: V)		
Uncertainty for Radiation Emission test	3.16 dB (Polarize: H)		

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

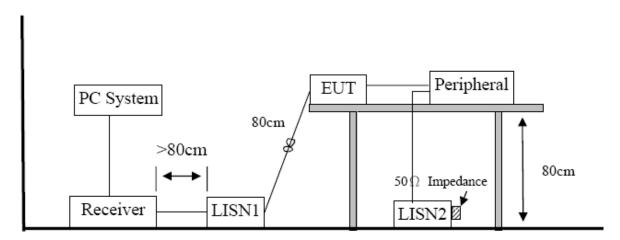
3. Power Line Conducted Emission Test

3.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	R&S	ESU8	100316	2012/11/26	1 Year
2	LISN	R&S	ENV216	101109	2012/11/26	1 Year
3	Pulse Limiter	R&S	ESH3-Z2	101242	2012/11/26	1 Year
4	RF Cable	R&S	R01	10403	2012/11/26	1Year

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3.2. Block diagram of test setup



3.3. Power Line Conducted Emission Limits(Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

3.4. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 3.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.3 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

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EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

3.5. Test Result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: "----" means Peak detection; "----" mans Average detection

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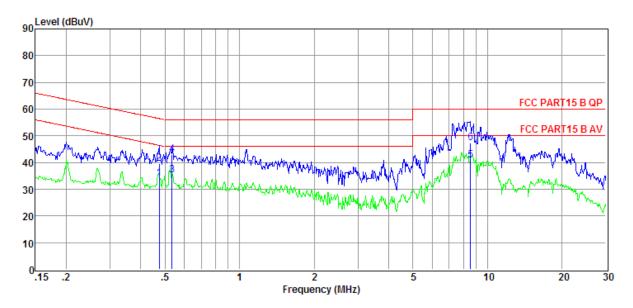
Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100 LISN : 2012 ENV216/LINE

Memo : LCD Panel

Data: 38



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.47	14.37	9.65	0.04	9.89	33.95	46.45	-12.50	Average	LINE
2	0.47	20.15	9.65	0.04	9.89	39.73	56.45	-16.72	QP	LINE
3	0.53	15.70	9.66	0.05	9.89	35.30	46.00	-10.70	Average	LINE
4	0.53	23.26	9.66	0.05	9.89	42.86	56.00	-13.14	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	27.36	9.82	0.15	9.93	47.26	60.00	-12.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

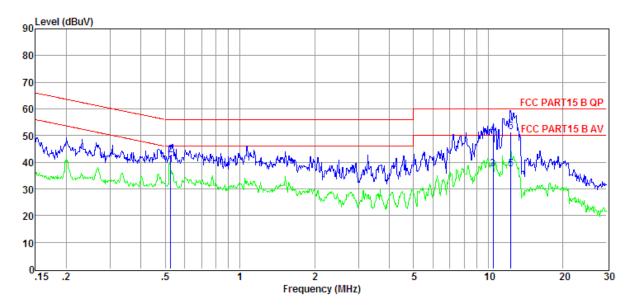
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100

Report No: DDT-RE120161

Memo : LCD Panel

Data: 40



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.53	19.24	9.68	0.05	9.89	38.86	46.00	-7.14	Average	NEUTRAL
2	0.53	23.03	9.68	0.05	9.89	42.65	56.00	-13.35	QP	NEUTRAL
3	10.45	17.54	9.77	0.16	9.93	37.40	50.00	-12.60	Average	NEUTRAL
4	10.45	30.54	9.77	0.16	9.93	50.40	60.00	-9.60	QP	NEUTRAL
5	12.32	17.59	9.78	0.17	9.93	37.47	50.00	-12.53	Average	NEUTRAL
6	12.32	31.55	9.78	0.17	9.93	51.43	60.00	-8.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

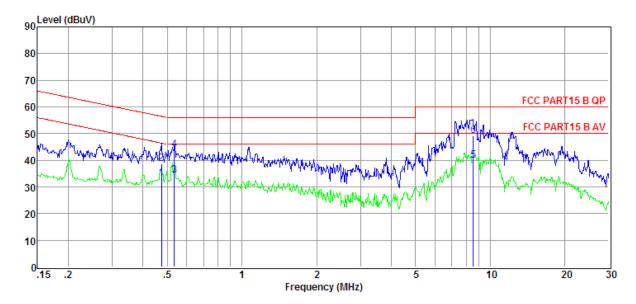
Condition : Temp:24.5'C,Humi:55%,Press:100

LISN : 2012 ENV216/LINE

Report No: DDT-RE120161

Memo : LCD Panel

Data: 42



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)		
1	0.47	13.37	9.65	0.04	9.89	32.95	46.45	-13.50	Average	LINE
2	0.47	19.15	9.65	0.04	9.89	38.73	56.45	-17.72	QP	LINE
3	0.53	14.70	9.66	0.05	9.89	34.30	46.00	-11.70	Average	LINE
4	0.53	24.26	9.66	0.05	9.89	43.86	56.00	-12.14	QP	LINE
5	8.55	20.04	9.82	0.15	9.93	39.94	50.00	-10.06	Average	LINE
6	8.55	29.36	9.82	0.15	9.93	49.26	60.00	-10.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

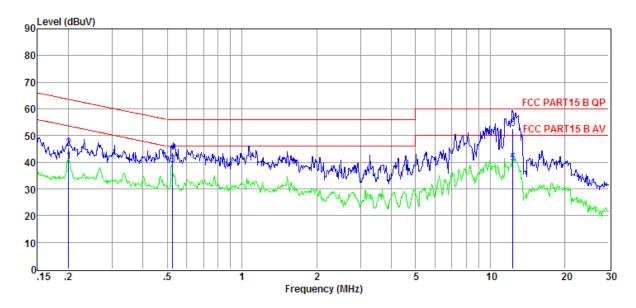
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100

Report No: DDT-RE120161

Memo : LCD Panel

Data: 44



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.20	20.53	9.63	0.04	9.90	40.10	53.58	-13.48	Average	NEUTRAL
2	0.20	25.53	9.63	0.04	9.90	45.10	63.58	-18.48	QP	NEUTRAL
3	0.53	19.24	9.68	0.05	9.89	38.86	46.00	-7.14	Average	NEUTRAL
4	0.53	24.03	9.68	0.05	9.89	43.65	56.00	-12.35	QP	NEUTRAL
5	12.32	19.59	9.78	0.17	9.93	39.47	50.00	-10.53	Average	NEUTRAL
6	12.32	32.55	9.78	0.17	9.93	52.43	60.00	-7.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Report No: DDT-RE120161

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

Test Date : 2012-12-03 **Tested By** : Leo

EUT : Dot Matrix Printer **Model Number** : 2610

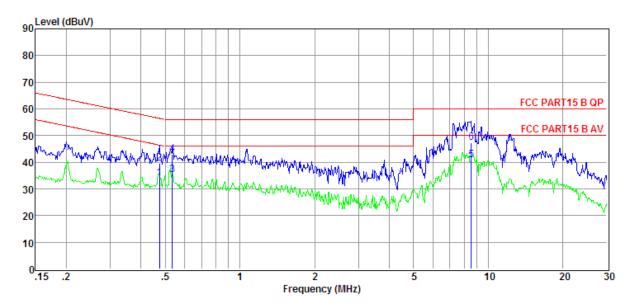
Power Supply : AC 120V/60Hz **Test Mode** : Printing (Parallel interface)

Temp:24.5'C,Humi:55%,Press:100 LISN **Condition**

: 2012 ENV216/LINE

Memo : LCD Panel

Data: 46



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.47	14.37	9.65	0.04	9.89	33.95	46.45	-12.50	Average	LINE
2	0.47	20.15	9.65	0.04	9.89	39.73	56.45	-16.72	QP	LINE
3	0.53	15.70	9.66	0.05	9.89	35.30	46.00	-10.70	Average	LINE
4	0.53	23.26	9.66	0.05	9.89	42.86	56.00	-13.14	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	27.36	9.82	0.15	9.93	47.26	60.00	-12.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

Power Supply: AC 120V/60Hz **Test Mode**: Printing (Parallel interface)

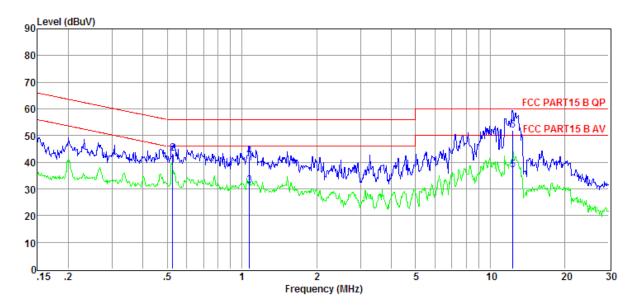
Condition : Temp:24.5'C,Humi:55%,Press:100 L

: 2012 ENV216/NEUTRAL

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Memo : LCD Panel

Data: 48



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.53	19.50	9.68	0.05	9.89	39.12	46.00	-6.88	Average	NEUTRAL
2	0.53	23.65	9.68	0.05	9.89	43.27	56.00	-12.73	QP	NEUTRAL
3	1.07	11.56	9.67	0.05	9.89	31.17	46.00	-14.83	Average	NEUTRAL
4	1.07	22.56	9.67	0.05	9.89	42.17	56.00	-13.83	QP	NEUTRAL
5	12.32	17.36	9.78	0.17	9.93	37.24	50.00	-12.76	Average	NEUTRAL
6	12.32	32.00	9.78	0.17	9.93	51.88	60.00	-8.12	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

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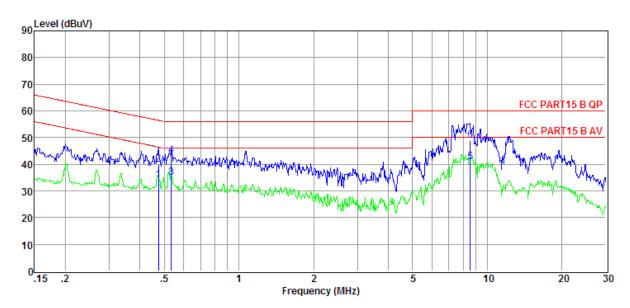
Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100 LISN : 2012 ENV216/LINE

Memo : LCD Panel

Data: 50



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.47	14.30	9.65	0.04	9.89	33.88	46.45	-12.57	Average	LINE
2	0.47	20.30	9.65	0.04	9.89	39.88	56.45	-16.57	QP	LINE
3	0.53	15.29	9.66	0.05	9.89	34.89	46.00	-11.11	Average	LINE
4	0.53	23.59	9.66	0.05	9.89	43.19	56.00	-12.81	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	28.99	9.82	0.15	9.93	48.89	60.00	-11.11	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

Power Supply: AC 120V/60Hz **Test Mode**: Printing(Ethernet Connect)

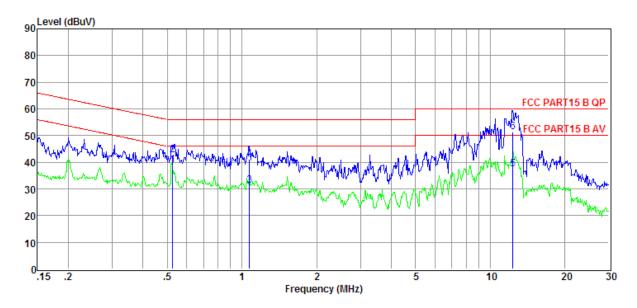
Condition : Temp:24.5°C,Humi:55%,Press:100

m:55%,Press:100 LISN : 2012 ENV216/NEUTRAL

Report No: DDT-RE120161

Memo : LCD Panel

Data: 52



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.53	19.24	9.68	0.05	9.89	38.86	46.00	-7.14	Average	NEUTRAL
2	0.53	23.03	9.68	0.05	9.89	42.65	56.00	-13.35	QP	NEUTRAL
3	1.07	11.56	9.67	0.05	9.89	31.17	46.00	-14.83	Average	NEUTRAL
4	1.07	21.56	9.67	0.05	9.89	41.17	56.00	-14.83	QP	NEUTRAL
5	12.32	17.59	9.78	0.17	9.93	37.47	50.00	-12.53	Average	NEUTRAL
6	12.32	31.55	9.78	0.17	9.93	51.43	60.00	-8.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

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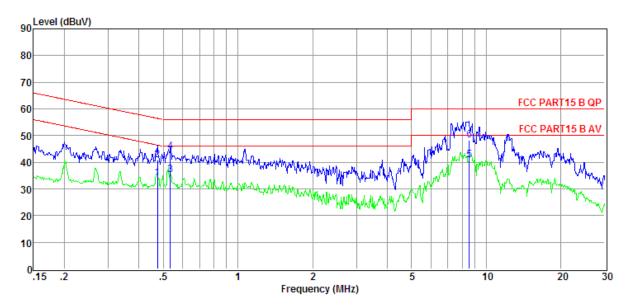
Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100 LISN : 2012 ENV216/LINE

Memo : LED Panel

Data : 54



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	Factor (dB)	(dBµV)	(dBµV)	(dB)		
1	0.47	14.37	9.65	0.04	9.89	33.95	46.45	-12.50	Average	LINE
2	0.47	21.15	9.65	0.04	9.89	40.73	56.45	-15.72	QP	LINE
3	0.53	15.70	9.66	0.05	9.89	35.30	46.00	-10.70	Average	LINE
4	0.53	24.26	9.66	0.05	9.89	43.86	56.00	-12.14	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	28.36	9.82	0.15	9.93	48.26	60.00	-11.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

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Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

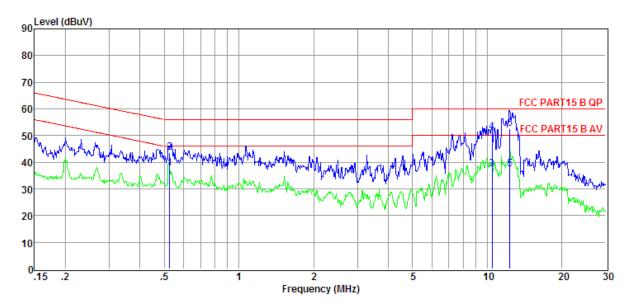
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100

Temp:24.5 C,Humi:55%,Press:100 LISN : 2012 ENV216/NEUTRAL

Memo : LED Panel

Data: 56



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.53	18.24	9.68	0.05	9.89	37.86	46.00	-8.14	Average	NEUTRAL
2	0.53	24.03	9.68	0.05	9.89	43.65	56.00	-12.35	QP	NEUTRAL
3	10.45	17.54	9.77	0.16	9.93	37.40	50.00	-12.60	Average	NEUTRAL
4	10.45	31.54	9.77	0.16	9.93	51.40	60.00	-8.60	QP	NEUTRAL
5	12.32	17.59	9.78	0.17	9.93	37.47	50.00	-12.53	Average	NEUTRAL
6	12.32	32.55	9.78	0.17	9.93	52.43	60.00	-7.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Report No: DDT-RE120161

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

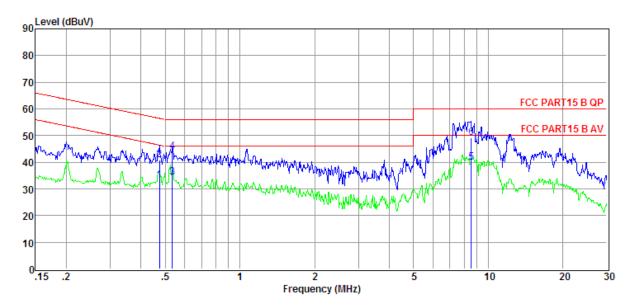
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100 LISN

LISN : 2012 ENV216/LINE

Memo : LED Panel

Data : 58



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.47	13.37	9.65	0.04	9.89	32.95	46.45	-13.50	Average	LINE
2	0.47	21.15	9.65	0.04	9.89	40.73	56.45	-15.72	QP	LINE
3	0.53	14.70	9.66	0.05	9.89	34.30	46.00	-11.70	Average	LINE
4	0.53	24.26	9.66	0.05	9.89	43.86	56.00	-12.14	QP	LINE
5	8.55	20.04	9.82	0.15	9.93	39.94	50.00	-10.06	Average	LINE
6	8.55	29.36	9.82	0.15	9.93	49.26	60.00	-10.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

EUT : Dot Matrix Printer Model Number : 2610

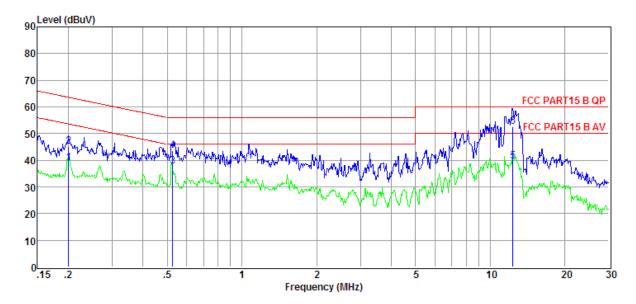
Condition : Temp:24.5'C,Humi:55%,Press:100

mp:24.5 °C, Humi:55%, Press:100 LISN : 2012 ENV216/NEUTRAL

Report No: DDT-RE120161

Memo : LED Panel

Data: 60



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.20	19.53	9.63	0.04	9.90	39.10	53.58	-14.48	Average	NEUTRAL
2	0.20	25.53	9.63	0.04	9.90	45.10	63.58	-18.48	QP	NEUTRAL
3	0.53	18.24	9.68	0.05	9.89	37.86	46.00	-8.14	Average	NEUTRAL
4	0.53	24.03	9.68	0.05	9.89	43.65	56.00	-12.35	QP	NEUTRAL
5	12.32	19.59	9.78	0.17	9.93	39.47	50.00	-10.53	Average	NEUTRAL
6	12.32	32.55	9.78	0.17	9.93	52.43	60.00	-7.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Report No: DDT-RE120161

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

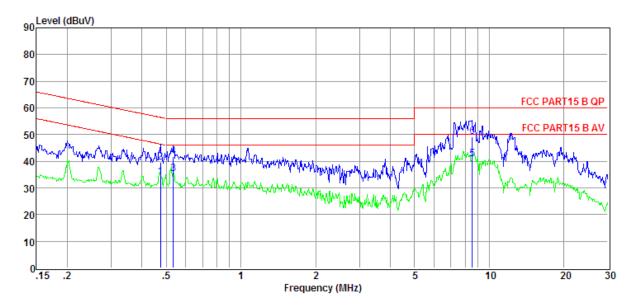
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100 LISN : 2012 ENV216/LINE

.1KI a

Memo : LED Panel

Data: 62



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.47	14.37	9.65	0.04	9.89	33.95	46.45	-12.50	Average	LINE
2	0.47	20.15	9.65	0.04	9.89	39.73	56.45	-16.72	QP	LINE
3	0.53	15.70	9.66	0.05	9.89	35.30	46.00	-10.70	Average	LINE
4	0.53	22.26	9.66	0.05	9.89	41.86	56.00	-14.14	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	29.36	9.82	0.15	9.93	49.26	60.00	-10.74	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Report No: DDT-RE120161

: 2012 ENV216/NEUTRAL

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

Test Date : 2012-12-03 **Tested By** : Leo

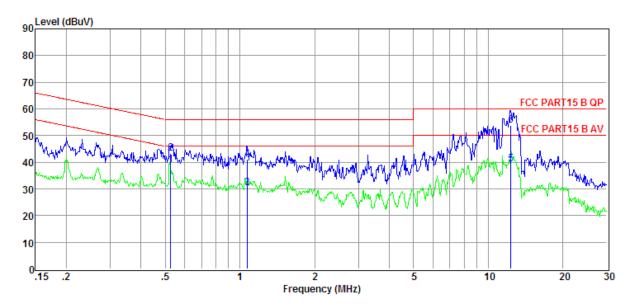
EUT : Dot Matrix Printer **Model Number** : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing (Parallel interface)

Temp:24.5'C,Humi:55%,Press:100 LISN **Condition**

Memo : LED Panel

Data: 64



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	$(dB\mu V)$	(dB)		
1	0.53	19.50	9.68	0.05	9.89	39.12	46.00	-6.88	Average	NEUTRAL
2	0.53	23.65	9.68	0.05	9.89	43.27	56.00	-12.73	QP	NEUTRAL
3	1.07	10.56	9.67	0.05	9.89	30.17	46.00	-15.83	Average	NEUTRAL
4	1.07	21.56	9.67	0.05	9.89	41.17	56.00	-14.83	QP	NEUTRAL
5	12.32	19.36	9.78	0.17	9.93	39.24	50.00	-10.76	Average	NEUTRAL
6	12.32	34.00	9.78	0.17	9.93	53.88	60.00	-6.12	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Report No: DDT-RE120161

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

Test Date : 2012-12-03 **Tested By** : Leo

EUT : Dot Matrix Printer **Model Number** : 2610

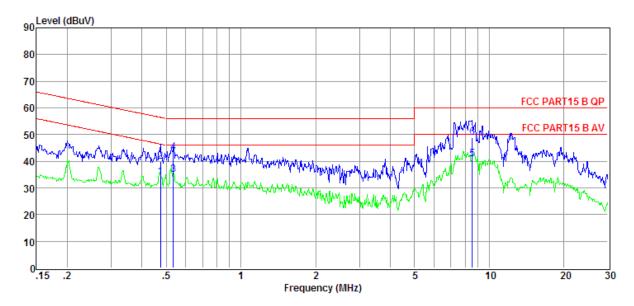
Power Supply : AC 120V/60Hz **Test Mode** : Printing(Ethernet Connect)

Temp:24.5'C,Humi:55%,Press:100 LISN **Condition**

: 2012 ENV216/LINE

Memo : LED Panel

Data: 66



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	$(dB\mu V)$	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.47	14.30	9.65	0.04	9.89	33.88	46.45	-12.57	Average	LINE
2	0.47	20.30	9.65	0.04	9.89	39.88	56.45	-16.57	QP	LINE
3	0.53	15.29	9.66	0.05	9.89	34.89	46.00	-11.11	Average	LINE
4	0.53	23.59	9.66	0.05	9.89	43.19	56.00	-12.81	QP	LINE
5	8.55	21.04	9.82	0.15	9.93	40.94	50.00	-9.06	Average	LINE
6	8.55	28.99	9.82	0.15	9.93	48.89	60.00	-11.11	QP	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

Test Site : DDT 1# Shield Room E:\2012 report data\12QS0123\CE2.EM6

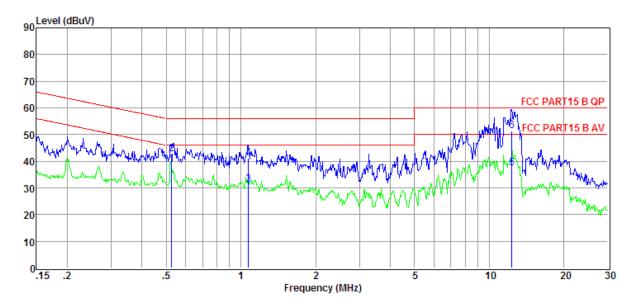
EUT : Dot Matrix Printer Model Number : 2610

Condition : Temp:24.5'C,Humi:55%,Press:100

Report No: DDT-RE120161

Memo : LED Panel

Data: 68



Item	Freq	Read	LISN	Cable	Pluse	Result	Limit	Over	Detector	Phase
		Level	Factor	Loss	Limiter	Level	Line	Limit		
					Factor					
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dB)	$(dB\mu V)$	(dBµV)	(dB)		
1	0.53	19.24	9.68	0.05	9.89	38.86	46.00	-7.14	Average	NEUTRAL
2	0.53	23.03	9.68	0.05	9.89	42.65	56.00	-13.35	QP	NEUTRAL
3	1.07	11.56	9.67	0.05	9.89	31.17	46.00	-14.83	Average	NEUTRAL
4	1.07	21.56	9.67	0.05	9.89	41.17	56.00	-14.83	QP	NEUTRAL
5	12.32	17.59	9.78	0.17	9.93	37.47	50.00	-12.53	Average	NEUTRAL
6	12.32	31.55	9.78	0.17	9.93	51.43	60.00	-8.57	QP	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pluse Limiter Factor + Cable loss

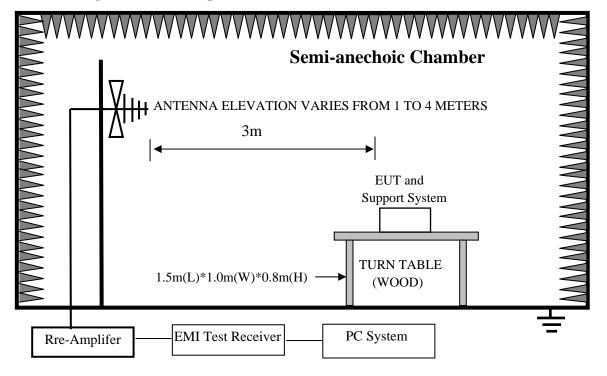
4. Radiated emission test

4.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESU8	100316	2012/11/26	1Year
2	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2012/11/23	2 Year
3	Pre-Amplifer	R&S	SCU-01	10049	2012/11/26	1Year
4	RF Cable	R&S	R01	10403	2012/11/26	1Year

Report No: DDT-RE120161

4.2. Block diagram of test setup



4.3. Radiated emission limit(Class B)

Frequency	Distance	Field Strengths Limits
(MHz)	(Meters)	dB(μV)/m
3088	3	40.0
88216	3	43.5
216960	3	46.0
9601000	3	54.0

Note: (1) The smaller limit shall apply at the cross point between two frequency bands.

(2)Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.4. Test Procedure

Procedure of Preliminary Test

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.3 and test equipment as described in clause 4.2 of this report.

Report No: DDT-RE120161

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

Mains cables, telephone lines or other connections to auxiliary equipment located outside the test are shall drape to the floor, be fitted with ferrite clamps or ferrite tubes placed on the floor at the point where the cable reaches the floor and then routed to the place where they leave the turntable. No extension cords shall be used to mains receptacle.

The antenna was placed at 3 meter away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.

The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

The test mode(s) described in clause 2.3 were scanned during the preliminary test:

After the preliminary scan, we found the test mode producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

Procedure of Final Test

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.

The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.

The test data of the worst-case condition(s) was recorded.

The bandwidth setting of the test receiver is 120 kHz.

4.5. Test result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

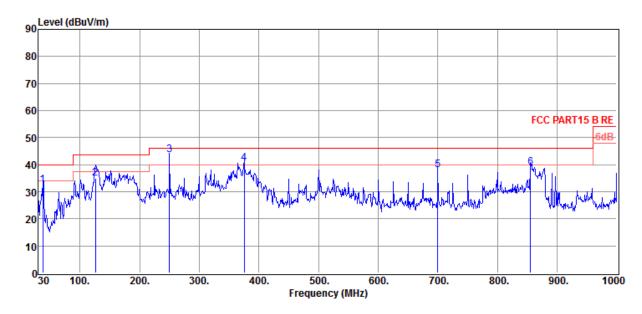
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Parallel interface connect)

: Temp:24.5°C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/HORIZONTAL **Condition**

Memo : LCD Panel

Data: 17



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	$(dB\mu V/m)$	$(dB\mu V/m)$	(dB)		
1	37.76	54.39	12.30	35.00	0.71	32.40	40.00	-7.60	QP	HORIZONTAL
2	126.03	65.00	9.70	40.91	1.28	35.07	43.50	-8.43	QP	HORIZONTAL
3	250.19	71.69	12.07	42.23	1.98	43.51	46.00	-2.49	QP	HORIZONTAL
4	375.32	66.11	14.56	42.73	2.53	40.47	46.00	-5.53	QP	HORIZONTAL
5	700.27	58.89	18.81	43.12	3.59	38.17	46.00	-7.83	QP	HORIZONTAL
6	855.47	57.27	20.64	43.14	4.06	38.83	46.00	-7.17	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

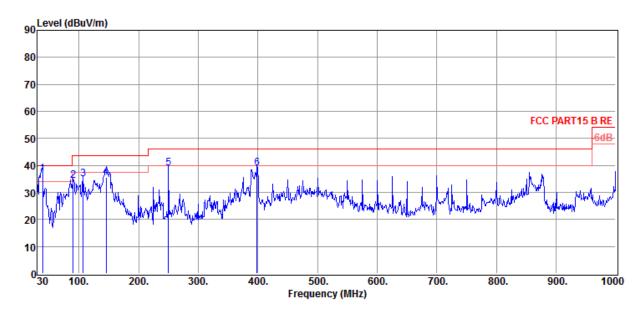
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Parallel interface connect)

Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL : .3kPa **Condition**

Memo : LCD Panel

Data: 18



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	38.73	58.65	12.30	35.00	0.72	36.67	40.00	-3.33	QP	VERTICAL
2	90.14	61.64	11.90	40.33	1.13	34.34	43.50	-9.16	QP	VERTICAL
3	106.63	61.76	12.25	40.33	1.21	34.89	43.50	-8.61	QP	VERTICAL
4	145.43	66.71	8.23	40.91	1.41	35.44	43.50	-8.06	QP	VERTICAL
5	250.19	67.04	12.07	42.23	1.98	38.86	46.00	-7.14	QP	VERTICAL
6	398.60	64.18	15.06	42.73	2.59	39.10	46.00	-6.90	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

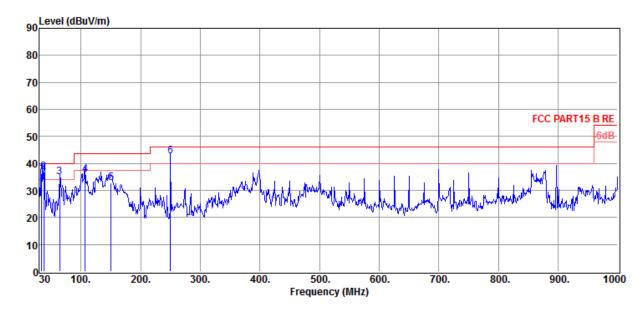
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Ethernet connect)

Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL : .3kPa **Condition**

Memo : LCD Panel

Data: 19



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	33.88	58.32	12.32	35.00	0.67	36.31	40.00	-3.69	QP	VERTICAL
2	37.76	58.80	12.30	35.00	0.71	36.81	40.00	-3.19	QP	VERTICAL
3	63.95	61.43	10.71	38.03	0.93	35.04	40.00	-4.96	QP	VERTICAL
4	106.63	62.77	12.25	40.33	1.21	35.90	43.50	-7.60	QP	VERTICAL
5	150.28	63.79	8.40	40.91	1.47	32.75	43.50	-10.75	QP	VERTICAL
6	250.19	70.92	12.07	42.23	1.98	42.74	46.00	-3.26	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

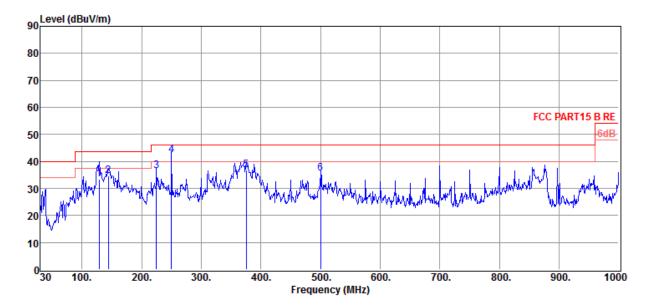
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Ethernet connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/HORIZONTAL **Condition**

Memo : LCD Panel

Data: 20



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	$(dB\mu V/m)$	$(dB\mu V/m)$	(dB)		
1	128.94	64.20	8.93	40.91	1.29	33.51	43.50	-9.99	QP	HORIZONTAL
2	144.46	65.79	8.23	40.91	1.40	34.51	43.50	-8.99	QP	HORIZONTAL
3	224.97	65.36	11.38	42.07	1.82	36.49	46.00	-9.51	QP	HORIZONTAL
4	250.19	70.68	12.07	42.23	1.98	42.50	46.00	-3.50	QP	HORIZONTAL
5	375.32	62.50	14.56	42.73	2.53	36.86	46.00	-9.14	QP	HORIZONTAL
6	500.45	59.11	16.65	43.10	2.96	35.62	46.00	-10.38	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

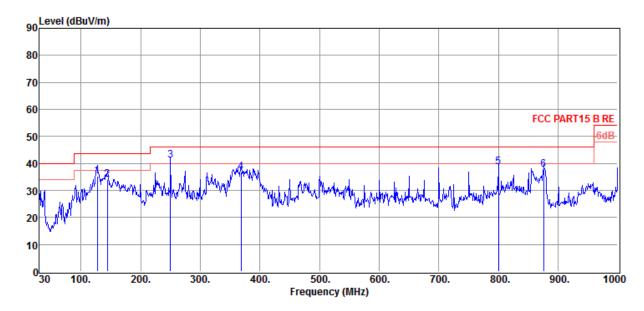
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(USB connect)

: Temp:24.5'C,Humi:55%,Press:100 $\begin{array}{ll} \textbf{Antenna/Distance} &: VULB \ 9163/3 \text{m/HORIZONTAL} \end{array}$ **Condition**

Memo : LCD Panel

Data: 21



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	127.00	66.00	8.93	40.91	1.28	35.30	43.50	-8.20	QP	HORIZONTAL
2	144.46	65.40	8.23	40.91	1.40	34.12	43.50	-9.38	QP	HORIZONTAL
3	250.19	69.33	12.07	42.23	1.98	41.15	46.00	-4.85	QP	HORIZONTAL
4	368.53	62.62	14.49	42.73	2.51	36.89	46.00	-9.11	QP	HORIZONTAL
5	800.18	57.82	20.06	43.14	3.88	38.62	46.00	-7.38	QP	HORIZONTAL
6	875.84	55.76	20.84	43.14	4.13	37.59	46.00	-8.41	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

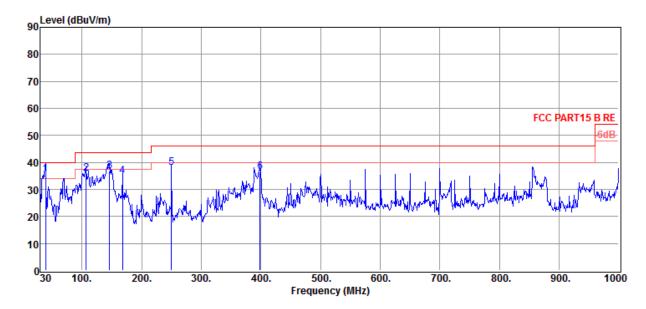
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(USB connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL **Condition**

Memo : LCD Panel

Data: 22



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	38.73	57.50	12.30	35.00	0.72	35.52	40.00	-4.48	QP	VERTICAL
2	106.63	62.65	12.25	40.33	1.21	35.78	43.50	-7.72	QP	VERTICAL
3	146.40	67.96	8.26	40.91	1.42	36.73	43.50	-6.77	QP	VERTICAL
4	167.74	65.70	8.97	41.49	1.63	34.81	43.50	-8.69	QP	VERTICAL
5	250.19	66.18	12.07	42.23	1.98	38.00	46.00	-8.00	QP	VERTICAL
6	398.60	61.71	15.06	42.73	2.59	36.63	46.00	-9.37	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

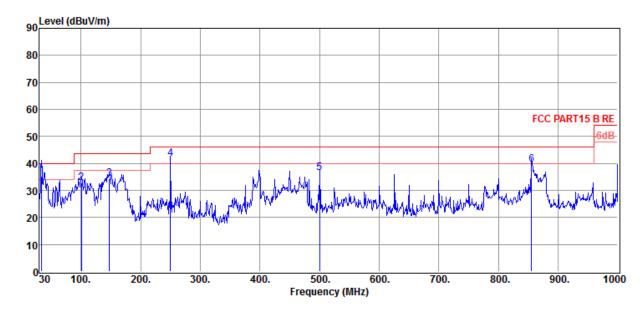
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Serial Interface connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL **Condition**

Memo : LCD Panel

Data: 23



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	33.88	57.19	12.32	35.00	0.67	35.18	40.00	-4.82	QP	VERTICAL
2	100.81	58.83	13.16	40.33	1.19	32.85	43.50	-10.65	QP	VERTICAL
3	147.37	65.67	8.26	40.91	1.43	34.45	43.50	-9.05	QP	VERTICAL
4	250.19	70.00	12.07	42.23	1.98	41.82	46.00	-4.18	QP	VERTICAL
5	500.45	59.98	16.65	43.10	2.96	36.49	46.00	-9.51	QP	VERTICAL
6	855.47	58.04	20.64	43.14	4.06	39.60	46.00	-6.40	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

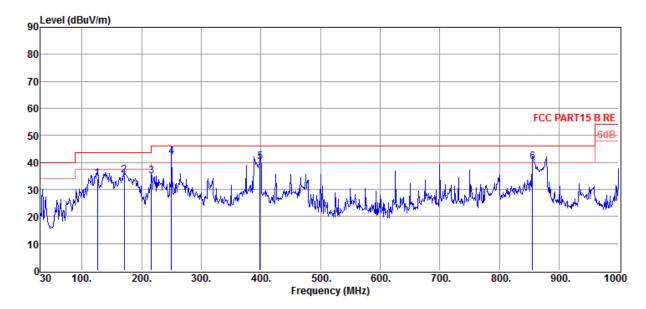
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Serial Interface connect)

: Temp:24.5°C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/HORIZONTAL **Condition**

Memo : LCD Panel

Data: 24



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	126.03	63.90	9.70	40.91	1.28	33.97	43.50	-9.53	QP	HORIZONTAL
2	170.65	65.86	9.21	41.49	1.65	35.23	43.50	-8.27	QP	HORIZONTAL
3	216.24	64.22	11.07	42.07	1.79	35.01	46.00	-10.99	QP	HORIZONTAL
4	250.19	70.29	12.07	42.23	1.98	42.11	46.00	-3.89	QP	HORIZONTAL
5	398.60	65.39	15.06	42.73	2.59	40.31	46.00	-5.69	QP	HORIZONTAL
6	855.47	58.71	20.64	43.14	4.06	40.27	46.00	-5.73	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

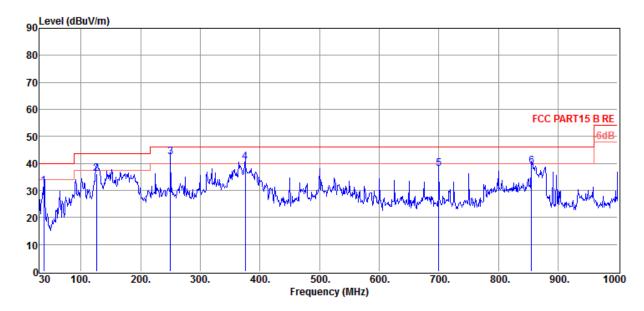
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Parallel interface connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/HORIZONTAL **Condition**

Memo : LED Panel

Data: 25



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	37.76	53.39	12.30	35.00	0.71	31.40	40.00	-8.60	QP	HORIZONTAL
2	126.03	66.00	9.70	40.91	1.28	36.07	43.50	-7.43	QP	HORIZONTAL
3	250.19	70.69	12.07	42.23	1.98	42.51	46.00	-3.49	QP	HORIZONTAL
4	375.32	66.11	14.56	42.73	2.53	40.47	46.00	-5.53	QP	HORIZONTAL
5	700.27	58.89	18.81	43.12	3.59	38.17	46.00	-7.83	QP	HORIZONTAL
6	855.47	57.27	20.64	43.14	4.06	38.83	46.00	-7.17	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

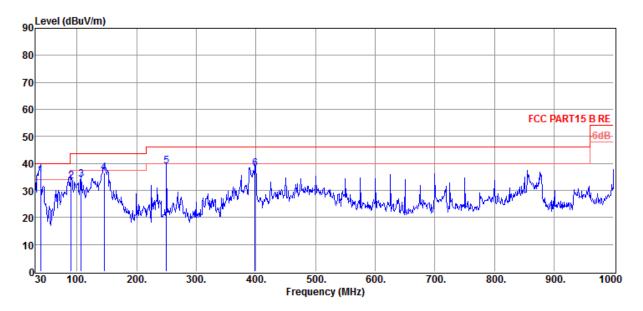
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Parallel interface connect)

Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL : .3kPa **Condition**

Memo : LED Panel

Data: 26



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	38.73	57.65	12.30	35.00	0.72	35.67	40.00	-4.33	QP	VERTICAL
2	90.14	60.64	11.90	40.33	1.13	33.34	43.50	-10.16	QP	VERTICAL
3	106.63	60.76	12.25	40.33	1.21	33.89	43.50	-9.61	QP	VERTICAL
4	145.43	67.71	8.23	40.91	1.41	36.44	43.50	-7.06	QP	VERTICAL
5	250.19	67.04	12.07	42.23	1.98	38.86	46.00	-7.14	QP	VERTICAL
6	398.60	63.18	15.06	42.73	2.59	38.10	46.00	-7.90	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

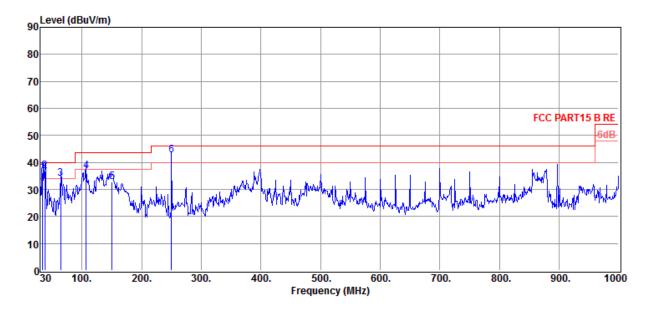
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Ethernet connect)

Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL : .3kPa **Condition**

Memo : LED Panel

Data: 27



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	$(dB\mu V/m)$	$(dB\mu V/m)$	(dB)		
1	33.88	58.32	12.32	35.00	0.67	36.31	40.00	-3.69	QP	VERTICAL
2	37.76	58.80	12.30	35.00	0.71	36.81	40.00	-3.19	QP	VERTICAL
3	63.95	60.43	10.71	38.03	0.93	34.04	40.00	-5.96	QP	VERTICAL
4	106.63	63.77	12.25	40.33	1.21	36.90	43.50	-6.60	QP	VERTICAL
5	150.28	63.79	8.40	40.91	1.47	32.75	43.50	-10.75	QP	VERTICAL
6	250.19	70.92	12.07	42.23	1.98	42.74	46.00	-3.26	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

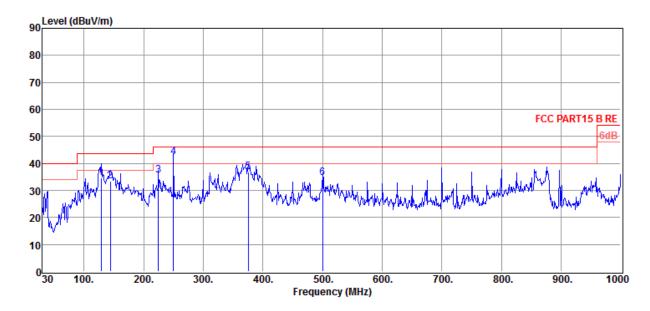
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Ethernet connect)

: Temp:24.5'C,Humi:55%,Press:100 $\begin{array}{ll} \textbf{Antenna/Distance} &: VULB \ 9163/3 \text{m/HORIZONTAL} \end{array}$ **Condition**

Memo : LED Panel

Data: 28



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	$(dB\mu V/m)$	$(dB\mu V/m)$	(dB)		
1	128.94	65.20	8.93	40.91	1.29	34.51	43.50	-8.99	QP	HORIZONTAL
2	144.46	64.79	8.23	40.91	1.40	33.51	43.50	-9.99	QP	HORIZONTAL
3	224.97	64.36	11.38	42.07	1.82	35.49	46.00	-10.51	QP	HORIZONTAL
4	250.19	70.68	12.07	42.23	1.98	42.50	46.00	-3.50	QP	HORIZONTAL
5	375.32	62.50	14.56	42.73	2.53	36.86	46.00	-9.14	QP	HORIZONTAL
6	500.45	58.11	16.65	43.10	2.96	34.62	46.00	-11.38	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

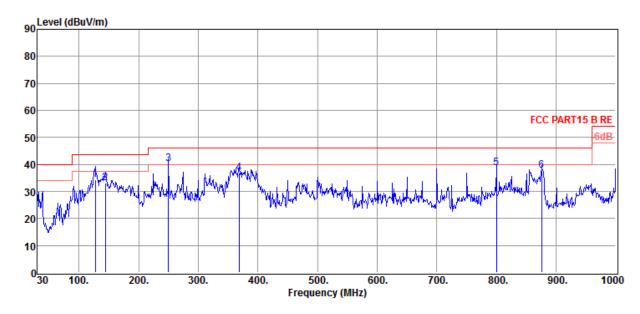
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(USB connect)

: Temp:24.5'C,Humi:55%,Press:100 $\begin{array}{ll} \textbf{Antenna/Distance} &: VULB \ 9163/3 \text{m/HORIZONTAL} \end{array}$ **Condition**

Memo : LED Panel

Data: 29



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	127.00	65.00	8.93	40.91	1.28	34.30	43.50	-9.20	QP	HORIZONTAL
2	144.46	64.40	8.23	40.91	1.40	33.12	43.50	-10.38	QP	HORIZONTAL
3	250.19	68.33	12.07	42.23	1.98	40.15	46.00	-5.85	QP	HORIZONTAL
4	368.53	62.62	14.49	42.73	2.51	36.89	46.00	-9.11	QP	HORIZONTAL
5	800.18	57.82	20.06	43.14	3.88	38.62	46.00	-7.38	QP	HORIZONTAL
6	875.84	55.76	20.84	43.14	4.13	37.59	46.00	-8.41	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

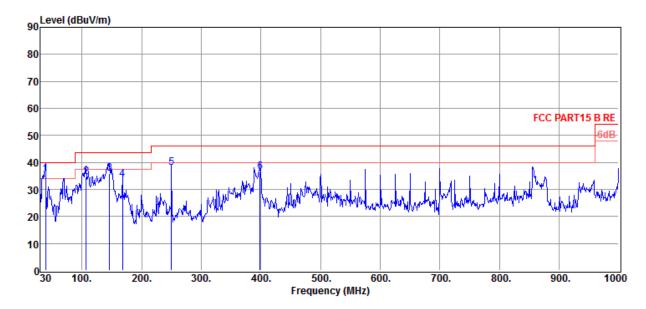
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(USB connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL **Condition**

Memo : LED Panel

Data: 30



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	$(dB\mu V/m)$	(dBµV/m)	(dB)		
1	38.73	57.50	12.30	35.00	0.72	35.52	40.00	-4.48	QP	VERTICAL
2	106.63	61.65	12.25	40.33	1.21	34.78	43.50	-8.72	QP	VERTICAL
3	146.40	66.96	8.26	40.91	1.42	35.73	43.50	-7.77	QP	VERTICAL
4	167.74	64.70	8.97	41.49	1.63	33.81	43.50	-9.69	QP	VERTICAL
5	250.19	66.18	12.07	42.23	1.98	38.00	46.00	-8.00	QP	VERTICAL
6	398.60	61.71	15.06	42.73	2.59	36.63	46.00	-9.37	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

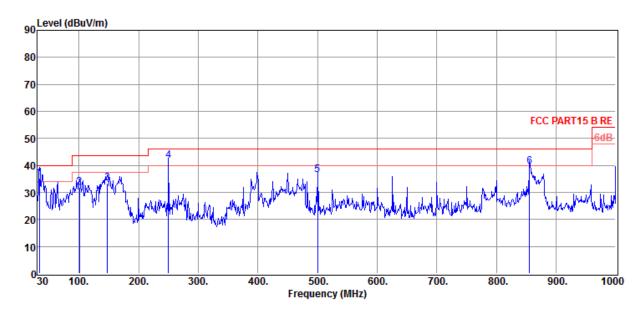
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Serial Interface connect)

: Temp:24.5'C,Humi:55%,Press:100 Antenna/Distance : VULB 9163/3m/VERTICAL **Condition**

Memo : LED Panel

Data: 31



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	$(dB\mu V/m)$	(dB)		
1	33.88	57.19	12.32	35.00	0.67	35.18	40.00	-4.82	QP	VERTICAL
2	100.81	57.83	13.16	40.33	1.19	31.85	43.50	-11.65	QP	VERTICAL
3	147.37	64.67	8.26	40.91	1.43	33.45	43.50	-10.05	QP	VERTICAL
4	250.19	70.00	12.07	42.23	1.98	41.82	46.00	-4.18	QP	VERTICAL
5	500.45	59.98	16.65	43.10	2.96	36.49	46.00	-9.51	QP	VERTICAL
6	855.47	58.04	20.64	43.14	4.06	39.60	46.00	-6.40	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

Report No: DDT-RE120161

Test Site : DDT 3m Chamber E:\2012 Report Data\12QS0123\RE2.EM6

Test Date : 12-04-2012 **Tested By** : Leo

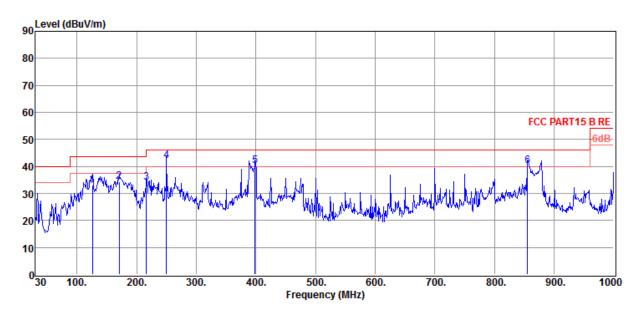
Model Number EUT : Dot Matrix Printer : 2610

Power Supply : AC 120V/60Hz **Test Mode** : Printing(Serial Interface connect)

Condition

Memo : LED Panel

Data: 32



Item	Freq	Read	Antenna	PRM	Cable	Result	Limit	Over	Detector	Polarization
		Level	Factor	Factor	Loss	Level	Line	Limit		
(Mark)	(MHz)	(dBµV)	(dB/m)	dB	dB	(dBµV/m)	(dBµV/m)	(dB)		
1	126.03	62.90	9.70	40.91	1.28	32.97	43.50	-10.53	QP	HORIZONTAL
2	170.65	64.86	9.21	41.49	1.65	34.23	43.50	-9.27	QP	HORIZONTAL
3	216.24	63.22	11.07	42.07	1.79	34.01	46.00	-11.99	QP	HORIZONTAL
4	250.19	70.29	12.07	42.23	1.98	42.11	46.00	-3.89	QP	HORIZONTAL
5	398.60	65.39	15.06	42.73	2.59	40.31	46.00	-5.69	QP	HORIZONTAL
6	855.47	58.71	20.64	43.14	4.06	40.27	46.00	-5.73	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

END OF REPORT