ECMG Worldwide Certification Solutions
ECMG Worldwide Certification Solution, Inc.
684 West Maude Avenue Sunnyvale, CA 94085
Tel. (650) 988-0900 Fax (650) 988-6647
www.emclab2000.com

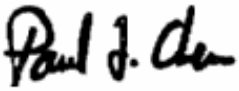
EMI Test Report

On Model Name: Unique Printer
Model Numbers: UN-P / UN-FL-M / UN-NA-M / UN-SO-M / UN-3D-M / UN-MU-M / UN-MO-M / UN-FR-M / UN-FT-M / UN-TA-M / UN-TS-M / UN-OT-M / Excellent-UN-F / Excellent-UN-N / Excellent-UN-S
Broad Name: UNIQUE
Trade Mark: UNIQUE
FCC ID: V9LUNIQUE-P08

Prepared for Qingdao Unique Products Develop Co., Ltd.

According to FCC Part 15, Class B

Test Report #:	*QIN-0804-6886-FCC*
Prepared by:	*Cloud Feng*
Reviewed by:	*Harry Zhao*
QC Manager:	*Paul Chen*

Test Report Released by:  *2008, May 5*

Paul Chen *Date*

Test Location

Tests performed in a Certified ANSI Semi-Anechoic Chamber and Shielded Room performed testing.

Test Site Location: *ECMG Worldwide Certification Solution, Inc. (China)*
Building 2, 1298 Lian Xi Road,
Pu Dong New Area, Shanghai,
P.R. China 201204

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Fax: *86-21-51909333*

FCC Registration Number: *172634*

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Administrative Data

Test Sample : Unique Printer

Model Numbers : UN-P / UN-FL-M / UN-NA-M / UN-SO-M / UN-3D-M / UN-MU-M / UN-MO-M / UN-FR-M / UN-FT-M / UN-TA-M / UN-TS-M / UN-OT-M / Excellent-UN-F / Excellent-UN-N / Excellent-UN-S

Model Tested : UN-P

Trade Mark : UNIQUE

Serial Number : Engineering Sample

Date Tested : 2008, April 21st

Applicant : Qingdao Unique Products Develop Co., Ltd.
No. 1009 Middle Chongqing Road, Licang District, Qingdao City, China

Telephone : 86-532-81680192

Fax : 86-532-84815298

Manufacturer : Qingdao Unique Products Develop Co., Ltd.
No. 1009 Middle Chongqing Road, Licang District, Qingdao City, China

EUT Description

Qingdao Unique Products Develop Co., Ltd., models UN-P (referred to as the EUT in this report) is a Printer that prints the picture on the flower.

The highest frequency generated by the EUT is 32 MHz, so the frequency range tested is from 30MHz – 1000MHz.

Type of Deriver

All the other models are identical to the original model UN-P except for the color, the logo and the location of the bracket's structures.

Test Summary

The Electromagnetic Compatibility requirements on model UN-P for this test are stated below. All results listed in this report relate exclusively to this above-mentioned model as the Equipment under Test. This report confers no approval or endorsement upon any other component, host or subsystem used in the test set-up.

Emission Tests				
Specifications	***Description***	***Test Results***	***Test Point***	***Remark***
FCC Part 15.107 (150kHz – 30MHz)	*Conducted Emission*	***For UN-P:*** *Passed by 6.47 dB of QP* *Passed by 9.9 dB of AVE*	*AC Input Port*	*Attachment 1*
FCC Part 15.109 (30MHz – 1000MHz)	*Radiated Emission*	***For UN-P:*** *Passed by 2.1 dB of QP*	*Enclosure*	*Attachment 2*

Test Mode Justification

This device complies with Part 15 Class B of the FCC rules. The system was tested in the activating mode.

EUT Exercise Software

The software Z600 runs on windowsXP, which was used to exercise the EUT during testing. No other data was transmitted to the EUT during testing.

Equipment Modification

Any modifications installed previous to testing by Qingdao Unique Products Develop Co., Ltd. will be incorporated in each production model sold or leased in United States.

There were no modifications installed by ECMG Worldwide Certification Solution, Inc (China) test personnel.

Test System Details

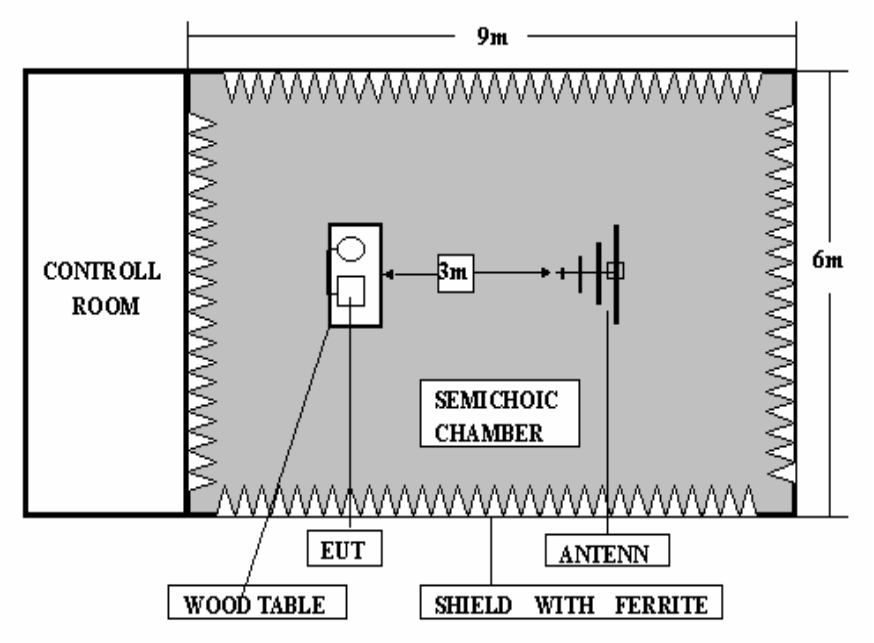
EUT	
Model tested:	UN-P
Model Numbers:	UN-P / UN-FL-M / UN-NA-M / UN-SO-M / UN-3D-M / UN-MU-M / UN-MO-M / UN-FR-M / UN-FT-M / UN-TA-M / UN-TS-M / UN-OT-M / Excellent-UN-F / Excellent-UN-N / Excellent-UN-S
Trade Mark:	UNIQUE
Input Voltage:	AC 120V/60Hz
Serial Number:	Engineering Sample
Description:	Unique Printer
Manufacturer:	Qingdao Unique Products Develop Co., Ltd.
EUT Power Supply	
Model Name:	AC Adapter
Model Number:	DAG-3004
Serial Number:	41081831
Input:	100-120V, 50/60Hz,
Output:	30V DC, 0.4A

Continue on to next page...

Support Equipment				
Description	**Model Number**	**Serial Number**	**Manufacturer**	**Power Cable Description**
PC	OPTIPLEX 330	HBSF92X	DELL	1.8m unshielded
Monitor	E178FPC	CN0WR979641 807CA7L4C	DELL	1.8m unshielded
Keyboard	L100	CN0RH656658 907C401F9	DELL	N/A
Mouse	MOC5UO	G1D02BPQ	DELL	N/A
Remote control box	IT-251B	N/A	N/A	N/A
Printer converter	45CV	961217	INTEL LIGENT	N/A

Cable Description					
Description	**From**	**To**	**Length (Meters)**	**Shielded (Y/N)**	**Ferrite (Y/N)**
Connect Cable	EUT	PC	1.8m	N	Y
Power Cable	Adapter	EUT	1.2m	N	N
Serial Cable	Remote box	PC	1.5m	N	N
Parallel Cable	Converter	PC	0.5m	N	N

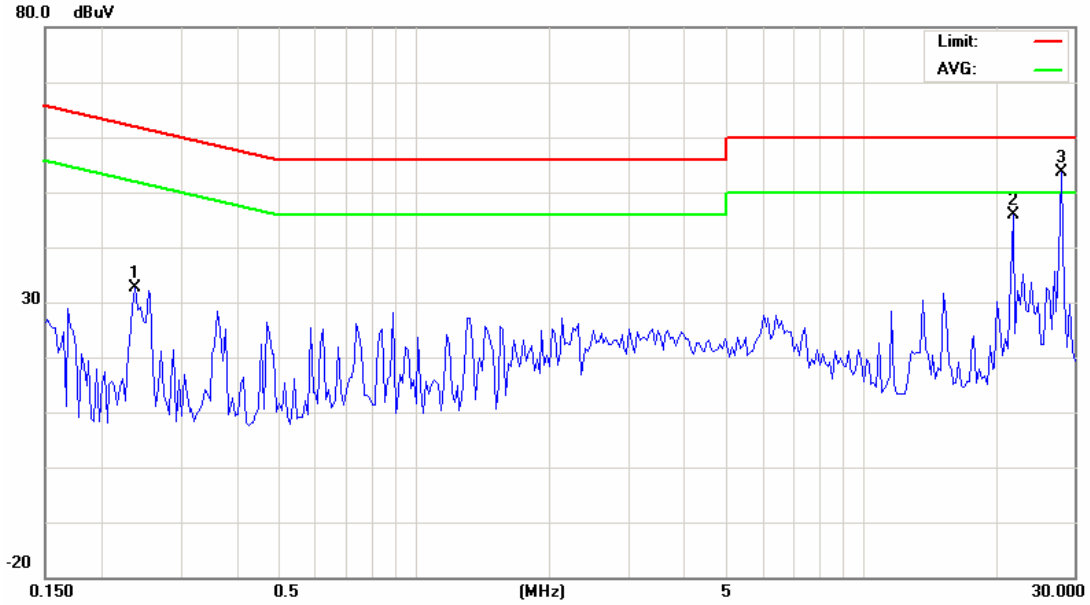
Configuration of Tested System



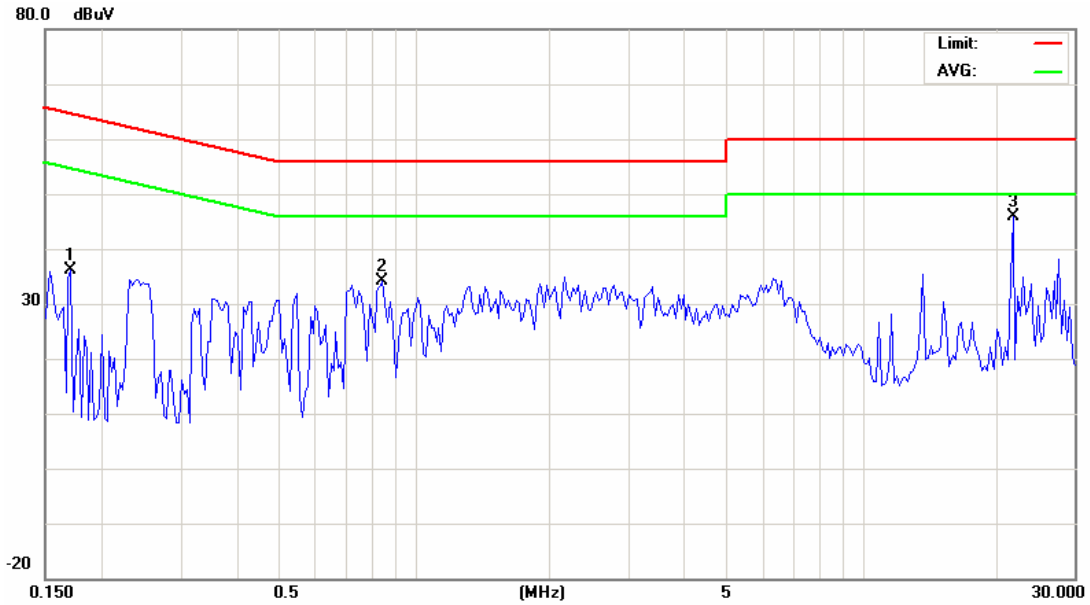
ATTACHMENT 1 - CONDUCTED EMISSION TEST RESULTS

CLIENT:	Qingdao Unique Products Develop Co., Ltd.	**TEST REFERENCE:**	FCC Part 15 subpart B Class B
MODEL TESTED:	UN-P	**PRODUCT:**	Unique Printer
MODEL NUMBERS:	UN-P / UN-FL-M / UN-NA-M / UN-SO-M / UN-3D-M / UN-MU-M / UN-MO-M / UN-FR-M / UN-FT-M / UN-TA-M / UN-TS-M / UN-OT-M / Excellent-UN-F / Excellent-UN-N / Excellent-UN-S		
SERIAL NO.:	Engineering Sample	**EUT DESIGNATION:**	ITE equipment
TEMPERATURE:	23°C	**HUMIDITY:**	60%
ATM PRESSURE:	102.1Pa	**GROUNDING:**	None
TESTED BY:	Cloud Feng	**DATE OF TEST:**	2008, April 21
SETUP METHOD:	ANSI C63.4-2003		
TEST PROCEDURE:	a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface. b. Connect EUT to the power mains through a line impedance stabilization network(LISN) c. The LISN provides 50ohm coupling impedance for the measuring instrument d. Both sides of AC line were checked for maximum conduced interference. e. The frequency range from 150KHz to 30MHz was searched.. f. Set the test-receiver system to Peak Detect Function and Specified bandwidth. g. If the emission level of the EUT in peak mode was 20 dB lower than the specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be tested using the quasi-peak method in about six maximal points and the results will be reported.		
TESTED RANGE:	150kHz to 30MHz		
TEST VOLTAGE:	120VAC/60Hz		
RESULTS:	**For UN-P:** The EUT meets the requirements of test reference for Conducted Emissions on line L by 6.47 dB of Quasi-Peak detector and by 9.90 dB of Average detector. The test results relate only to the equipment under test provided by client.		
CHANGES OR MODIFICATIONS:	There were no modifications installed by ECMG Worldwide Certification Solution, Inc (China) test personnel.		
M. UNCERTAINTY:	Freq. $\pm$ 2x10^{-7} x Center Freq., Amp $\pm$ 2.6 dB		

For UN-P:



Line L Conducted Emission Graph



Line N Conducted Emission Graph

Line L (Hot Lead)								
Signal	**Frequency (MHz)**	**Corrected QP Level (dBuV)**	**Limits QP (dBuV)**	**Margin QP (dB)**	**Frequency (MHz)**	**Corrected AVE Level (dBuV)**	**Limits AVE (dBuV)**	**Margin AVE (dB)**
1	0.2384	32.65	62.20	-29.50	0.2384	23.80	52.20	-28.40
2	21.8303	45.77	60.00	-14.23	21.8303	37.80	50.00	-12.20
3	28.0775	53.53	60.00	-6.47	28.0775	40.10	50.00	-9.90
Line N (Neutral Lead)								
Signal	**Frequency (MHz)**	**Corrected QP Level (dBuV)**	**Limits QP (dBuV)**	**Margin QP (dB)**	**Frequency (MHz)**	**Corrected AVE Level (dBuV)**	**Limits AVE (dBuV)**	**Margin AVE (dB)**
1	0.1711	36.17	64.90	-28.73	0.1711	25.40	54.90	-29.50
2	0.8505	34.13	56.00	-21.87	0.8505	25.80	46.00	-20.20
3	21.8303	45.95	60.00	-14.05	21.8303	30.20	50.00	-19.80
Note: All readings are using a bandwidth of 9 kHz, with a 30 ms sweep time. A video filter was not used.								

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
EMI Receiver	HP	85462A	3650A00363	11/29/07	11/28/08
LISN	R&S	ESH3-Z5	844249/018	12/04/07	12/03/08
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

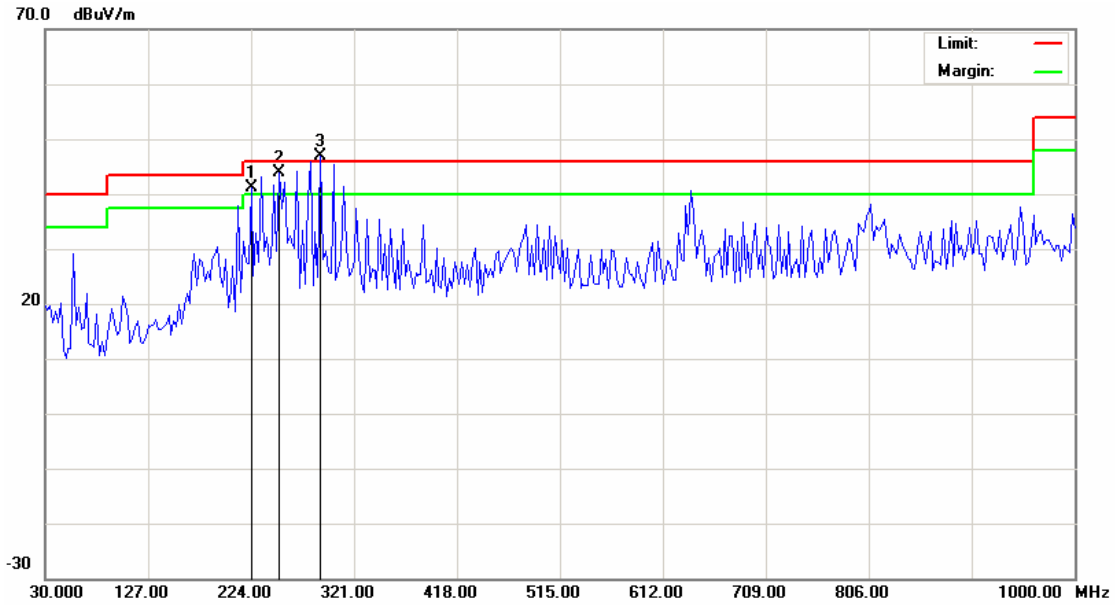
SIGNED BY: Cloud Feng _____ **REVIEWED BY:** Hang Zhao _____

ENGINEER **SENIOR ENGINEER**

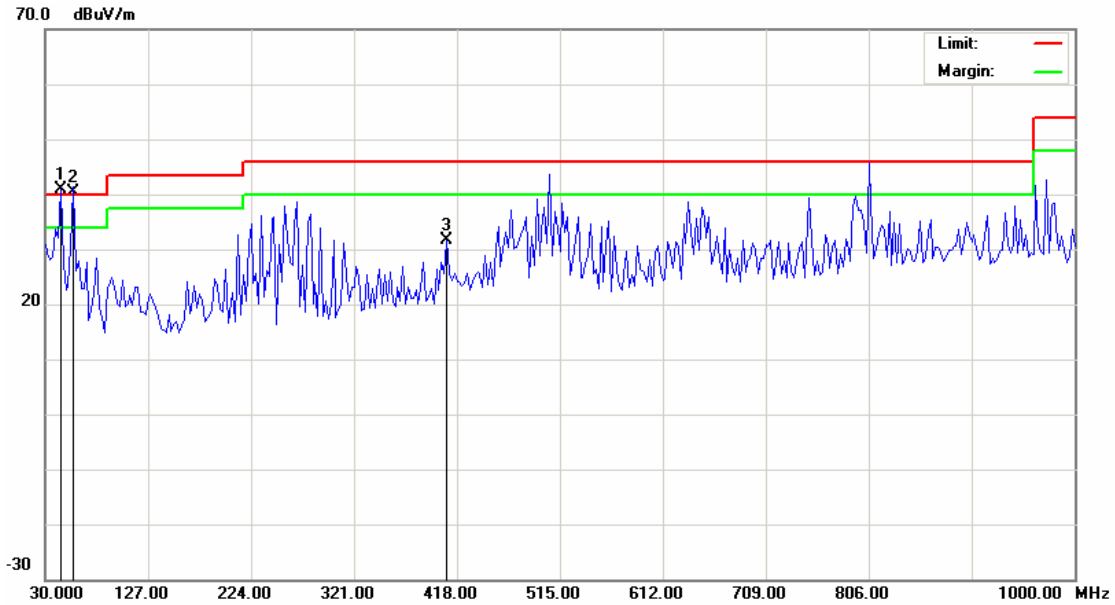
ATTACHMENT 2 - RADIATED EMISSION TEST RESULTS

CLIENT:	Qingdao Unique Products Develop Co., Ltd.	**TEST REFERENCE:**	FCC Part 15, Class B
MODEL TESTED:	UN-P	**PRODUCT:**	Unique Printer
MODEL NUMBERS:	UN-P / UN-FL-M / UN-NA-M / UN-SO-M / UN-3D-M / UN-MU-M / UN-MO-M / UN-FR-M / UN-FT-M / UN-TA-M / UN-TS-M / UN-OT-M / Excellent-UN-F / Excellent-UN-N / Excellent-UN-S		
SERIAL NO.:	Engineering Sample	**EUT DESIGNATION:**	ITE equipment
TEMPERATURE:	21°C	**HUMIDITY:**	60%
ATM PRESSURE:	102.1Pa	**GROUNDING:**	None
TESTED BY:	Cloud Feng	**DATE OF TEST:**	2008, April 21
SETUP METHOD:	ANSI C63.4-2003		
TEST PROCEDURE:	a. The EUT was placed on a rotatable table with 0.8 meters above ground. b. The EUT was set 3 meters from the interference-receiving antenna, which was mounted on the top of a variable height antenna tower. c. For each suspected emission the EUT was arranged to its worst case and turn table (from 0 degree to 360 degree) to find the maximum reading. d. If the emission level of the EUT in peak mode was 20 dB lower than the specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be tested using the quasi-peak method in about six maximal points and the results will be reported. Explanation of the Correction Factor are given as follows: FS= RA + AF + CF - AG Where: FS = Field Strength RA = Receiver Amplitude AF = Antenna Factor CF = Cable Attenuation Factor AG = Amplifier Gain		
TESTED RANGE:	30MHz to 1000MHz		
TEST VOLTAGE:	120VAC / 60Hz		
RESULTS:	**For UN-P:** The EUT meets the requirements of test reference for Radiated Emissions by 2.1 dB at 250.675 MHz.		
CHANGES OR MODIFICATIONS:	There were no modifications installed by ECMG Worldwide Certification Solution, Inc (China) test personnel.		
M. UNCERTAINTY:	Freq. $\pm$ 2x10^{-7} x Center Freq., Amp $\pm$ 2.6 dB		

For UN-P:



Field strength Emission Plot (Peak, Max Hold Mode Horizontal)



Field strength Emission Plot (Peak, Max Hold Mode Vertical)

For UN-P							
Horizontal							
Signal	**Frequency (MHz)**	**Factor (dB)**	**Corrected QP Level dB(uV/m)**	**3 Meter Limits dB(uV/m)**	**Margin (dB)**	**Angle of Turner (degree)**	**Height of Tower (cm)**
1	224.000	14.08	41.2	46.0	-4.8	172	141
2	250.675	14.61	43.9	46.0	-2.1	215	136
3	289.475	15.31	43.5	46.0	-2.5	167	137
Vertical							
Signal	**Frequency (MHz)**	**Factor (dB)**	**Corrected QP Level dB(uV/m)**	**3 Meter Limits dB(uV/m)**	**Margin (dB)**	**Angle of Turner (degree)**	**Height of Tower (cm)**
1	44.550	11.72	36.7	40.0	-3.3	186	100
2	55.300	8.85	37.1	40.0	-2.9	174	107
3	408.300	17.9	31.5	46.0	-14.5	226	149
Set-up/Configuration: ANSI C63.4-2003							
Comments: None							
Note: All readings are quasi-peak unless stated otherwise, using a QPA bandwidth of 120kHz, with a 30 ms sweep time. A video filter was not used.							

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due Date
EMI Receiver	HP	85462A	3650A00363	11/29/07	11/28/08
Broadband Antenna	Sunol	JB5	A110503	11/29/07	11/28/08
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

SIGNED BY: Cloud Feng _____ **REVIEWED BY:** Hang Zhao _____

ENGINEER **SENIOR ENGINNER**