Certificate of Conformity

The products

EUT : Card Printer
Trade Name : HiTi
Model No. : CS-200e
Serial Model : CTC-940 ;CS-2XXX (X=0-9, A-Z or Blank)
New Serial Model : CS-220e

This certificate that the above product complies with the essential protection requirements of R&TTE Directive 1999/5/EC
Assessment of compliance of the product with the requirements relating to the following specifications

EN 300 330-2 V1.5.1 (2010-02)
EN 301 489-1 V1.9.2 (2011-09)
EN 301 489-3 V1.4.1 (2002-08)

This declaration is the responsibility or the manufacturer/importer

Hiti Digital, Inc.
9F., No.225, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 23143, Taiwan(R.O.C.)

THIS DOC IS ONLY VAILD IN CONNECTION WITH TEST REPORT NUMBER: 13-06-RBF-022-01, 13-06-RBF-022-02

MANUFACTURER/IMPORTER

(Date)

(Surname, forename, title)
(Company stamp)

TEST LABORATORY

1. The result of the testing report relate only to the item tested.
2. The testing report shall not be reproduced in full, without the written approval of ETC.

2013, 07, 23
(Date)

S. S. Liou

Signature
S. S. Liou
Section Manager of EMC Testing Department II
Electronics Testing Center, Taiwan

ELECTRONICS TESTING CENTER, TAIWAN
NO. 34. LIN 5. DINGFU, LINKOU DIST.,
NEW TAIPEI CITY, TAIWAN, 24442,
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Revision of
EMC TEST REPORT

Responsible Party : ***Hiti Digital, Inc.***

Manufacturer : ***HiTi Digital, Inc. Taichung Branch***

Description of Product : ***Card Printer***

Trade Name : ***HiTi***

Model No. **: *CS-200e***

Serial Model **: *CTC-940 ;CS-2XXX (X=0-9, A-Z or Blank)***

New Serial Model **: *CS-220e***

Test Report File No. : ***13-06-RBF-022-02***

Date Test Item Received : ***Jun. 14, 2013***

Date Test Campaign Completed : ***Jun. 14, 2013***

Date of Issue : ***Jul. 23, 2012***

Test Performed by

ELECTRONICS TESTING CENTER (ETC) , TAIWAN
NO. 34. LIN 5. DINGFU, LINKOU DIST.,
NEW TAIPEI CITY, TAIWAN, 24442, R.O.C.
TEL : (02)26023052 FAX : (02)26010910
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Note : 1. The results of the Test Report relate only to the items tested.
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Declaration of Revision of Test Report

Date: Jul. 23, 2013

Applicant:	Hiti Digital, Inc.
EUT:	Card Printer
Trade Name:	HiTi
Model No.:	CS-200e
Serial Model No.:	CTC-940 ;CS-2XXX (X=0-9, A-Z or Blank)
New Serial Model	CS-220e

The following revisions have been made to ETC report No. 12-09-RBF-017-02

Date	Report No.	Description
Oct. 30, 2012	12-09-RBF-017-02	Original test report. CS-200e Serial Model No.: CTC-940 ;CS-2XXX (X=0-9, A-Z or Blank)
Jul. 23, 2013	13-06-RBF-022-02	1. Add new serial model: CS-220e 2. Change the printing function and adding the second source of some parts on the PCB. The RF module is the same.

Test Engineer : _____
(Vincent Chang, Engineer)

Approve & Authorized : _____
S. S. Liou
EMC Dept. II of ELECTRONICS TESTING CENTER, TAIWAN

Equipment Modification Descriptions

Jul. 23, 2013

1. Add new serial model: CS-220e

2. Change the printing function and adding the second source of some parts on the PCB. The RF module is the same.

By engineering judgments, retests are necessary due to the PCB and module were changed.

1 TEST REPORT CERTIFICATION

Client	:	Hiti Digital, Inc.
Address	:	9F., No.225, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 23143, Taiwan(R.O.C.)
Manufacturer	:	HiTi Digital, Inc. Taichung Branch
Address	:	No.11, Jing 2nd Rd., Wuqi Dist., Taichung City 43541, Taiwan (R.O.C.)
EUT	:	Card Printer
Trade name	:	HiTi
Model No.	:	CS-200e
Serial Model	:	CTC-940 ;CS-2XXX (X=0-9, A-Z or Blank)
New Serial Model	:	CS-220e
Test specifications	:	
Emissions	:	EN 55022:2010 (Class B) EN 61000-3-2:2006/A1:2009/A2:2009 EN 61000-3-3:2008
Immunity	:	EN 61000-4-2:2009 EN 61000-4-3:2006/A1:2008 EN 61000-4-4:2004 EN 61000-4-5:2006 EN 61000-4-6:2009 EN 61000-4-11:2004
Regulations applied	:	EN 301 489-1:V1.9.2(2011-09) EN 301 489-3:V1.4.1(2002-08)

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

2 GENERAL INFORMATIONS

2.1 Description of EUT:

Card Printer
CS-200e is a high-quality color printer that uses dye-sub technology.
The main component is the 300x300 high resolution thermal print head. This printer has optional devices such as the Magnetic stripe encoding Module & Single/Dual side print Flipper Module & Smartcard Module & Ethernet Module to satisfy multiple purposes.

2.2 Related Information of EUT:

Power Supply	:	I/P:100-240V,2.5A,50-60Hz O/P:24V,4.16A

Cables dedicated for EUT:

Power Line	:	[X]	Nonshielded	[ ]	Shielded [ ]	None,	Length:	1.8 m
USB Cable	:	[X]	Nonshielded	[ ]	Shielded [ ]	None,	Length:	1.5 m

Cables for interconnecting:

Frequency band	:	13.56MHz
RFID MODE antenna source	:	Integrated PCB antenna

2.3 Equipment Type:

Equipment type I. Transfer of messages (digital or analogue signals).

2.4 Class of Equipment:

Class 2, Product identification.

* For more detailed features, please refer to *User's Manual*.

2.5 Tested Configuration:

The EUT connected with the following peripheral devices.

Product	Manufacturer	Model No.	I/O Cable
Card Printer*	HiTi Digital, Inc.	CS-220e	1.8m Unshielded AC Adapter 1.5m Unshielded USB Cable
MONITOR	SAMPO	ALPHASCAN718	1.8m Unshielded AC Power Cord 1.6m Shielded D-SUB data line
PC	Lenovo	7298 RN1	1.8mUnshielded AC Power Cord
Mouse	Lenovo	M028UOL	1.5m Unshielded Cable
Keyboard	Lenovo	SK-8115	1.5m Unshielded Cable
PRINTER	EPSON	Stylus photo 700	1.3m Unshielded Single Cable 1.8m Unshielded AC Power line
USB Device	SanDisk	SDCZ2-512	1.5m Unshielded Line
Smart Card	---	---	0.3m Unshielded Line

Remark “*” means equipment under test.

2.6 Deviations Record:

No deviations were required.

2.7 Modification Record:

No modifications were required. (That is the EUT complied with the requirement as tested.)

3 SUMMARY OF TEST RESULTS

3.1 Emissions:

3.1.1 Conducted Emissions

[X] – PASS (RFID PRINT MODE -Neutral)

[X] – PASS (RFID PRINT MODE -Line)

3.1.2 Radiated Emissions

[X] – PASS (RFID PRINT MODE -HOR)

[X] – PASS (RFID PRINT MODE -VER)

3.1.3 Harmonics Current Emissions

[X]-PASS

The harmonics current values were under the limits of the class A equipment of the EN 61000-3-2.

3.1.4 Voltage Fluctuations and Flicker

[X]-PASS

The voltage fluctuations and flicker values were under the limits of the EN 61000-3-3 requirements.

3.2 Immunity:

3.2.1 Immunity Criteria:

The results of all of the immunity tests performed on the EUT were evaluated according to the following criteria, and according to the manufacturer's specifications for the EUT:

Performance criterion CT : If the equipment is of type I or II including ancillary equipment tested on a stand lone basis, the performance criteria A of the applicable class as given in subclause 6.3 shall apply. For equipment of type II or type III that requires a communication link that is maintained during the test, it shall be verified by appropriate means supplied by the manufacturer that the communication link is maintained during each individual exposure in the test sequence. Where the EUT is a RFID MODE, tests shall be repeated with the EUT in standby mode to ensure that unintentional transmission does not occur.

Performance criterion TT : If the equipment is of the type I or II, including ancillary equipment tested on a stand alone basis, the performance criteria B of the applicable class as given in subclause 6.3 shall apply, except for power interruptions exceeding a certain time the performance criteria deviations are specified in subcluase 7.2.2. For equipment of the type II or type III that requires a communication link that is maintained during the test, this shall be verified by appropriate means supplied by the manufacturer during each individual exposure in the test sequence. Where the EUT is a RFID MODE, tests shall be repeated with the EUT in standby mode to ensure that unintentional transmission does not occur.

Performance criterion CR: If the equipment is of the type I or II, including ancillary equipment tested on a stand alone basis, the performance criteria A of the applicable class as given in subclause 6.3 shall apply. For equipment of the type II of III that requires a communication link that is maintained during the test, shall be verified by appropriate means supplied by the means supplied by the manufacturer that the communication link maintained during each individual exposure in the test sequence. Where the EUT is a transceiver, under no circumstances shall the RFID MODE operate unintentionally during the test.

Performance criterion TR: If the equipment is of the type I of II, including ancillary equipment tested on a stand alone basis, the performance criteria B of the applicable class as given in subclause 6.3 shall apply, except for power interruptions exceeding a certain time the performance criteria deviations are specified in subclause 7.2.2. For equipment of the type II or type III that requires communication link that is maintained during the test, this shall be verified by appropriate means supplied by the manufacturer during each individual exposure in the test sequence. Where the EUT is a transceiver, under no circumstances shall the RFID MODE operate intentionally during the test.

Performance table

Class 1 equipment		
Criteria	**During test**	**After test**
A	Operate as intended No loss of function For equipment type Ⅱ the minimum performance shall be 12 dB SINAD No unintentional responses	Operate as intended For equipment type Ⅱ the communication link shall be maintained No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May be loss of function (one or more) No unintentional responses	Operate as intended Lost function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions
Class 2 equipment		
Criteria	**During test**	**After test**
A	Operate as intended No loss of function For equipment type Ⅱ the minimum performance shall be 6 dB SINAD No unintentional responses	Operate as intended For equipment type Ⅱ the communication link shall be maintained No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May be loss of function (one or more) No unintentional responses	Operate as intended Lost function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions
Class 3 equipment		
Criteria	**During test**	**After test**
A,B	May be loss of function (one or more) No unintentional responses	Operate as intended, for equipment type Ⅱ the communication link may be lost, but shall be recoverable by user No degradation of performance Lost functions shall be self-recoverable

Performance criterion C: Temporary loss of function was allowed, provided the function was self recoverable or could be restored by the operation of the controls.

3.2.2 Electrostatic Discharge Immunity:

Requirement :Criterion B (or better)

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] TT**	**[X] TR**
-Satisfies criterion	**[X] A**	**[ ] B**

3.2.3 RF Radiated Fields Immunity:

Requirement :Criterion A

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] CT**	**[X] CR**
-Satisfies criterion	**[X] A**	**[ ] B**

3.2.4 EFT/Burst Immunity:

Requirement :Criterion B (or better)

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] TT**	**[X] TR**
-Satisfies criterion	**[X] A**	**[ ] B**

3.2.5 Surge Immunity:

Requirement :Criterion B (or better)

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] TT**	**[X] TR**
-Satisfies criterion	**[X] A**	**[ ] B**

3.2.6 RF Common Mode Immunity:

Requirement :Criterion A

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] CT**	**[X] CR**
-Satisfies criterion	**[X] A**	**[ ] B**

3.2.7 Voltage Interruptions and Voltage Dips Immunity:

Requirement :Criterion C (or better)

[X] applicable	**[ ] not applicable**	
Requirement :Criteria	**[X] TT**	**[X] TR**
-Satisfies criterion	**[X] A**	**[ ] B**

4 TEST DATA & RELATED INFORMATIONS

4.1 Emissions:

4.1.1 Conducted Emissions Test:

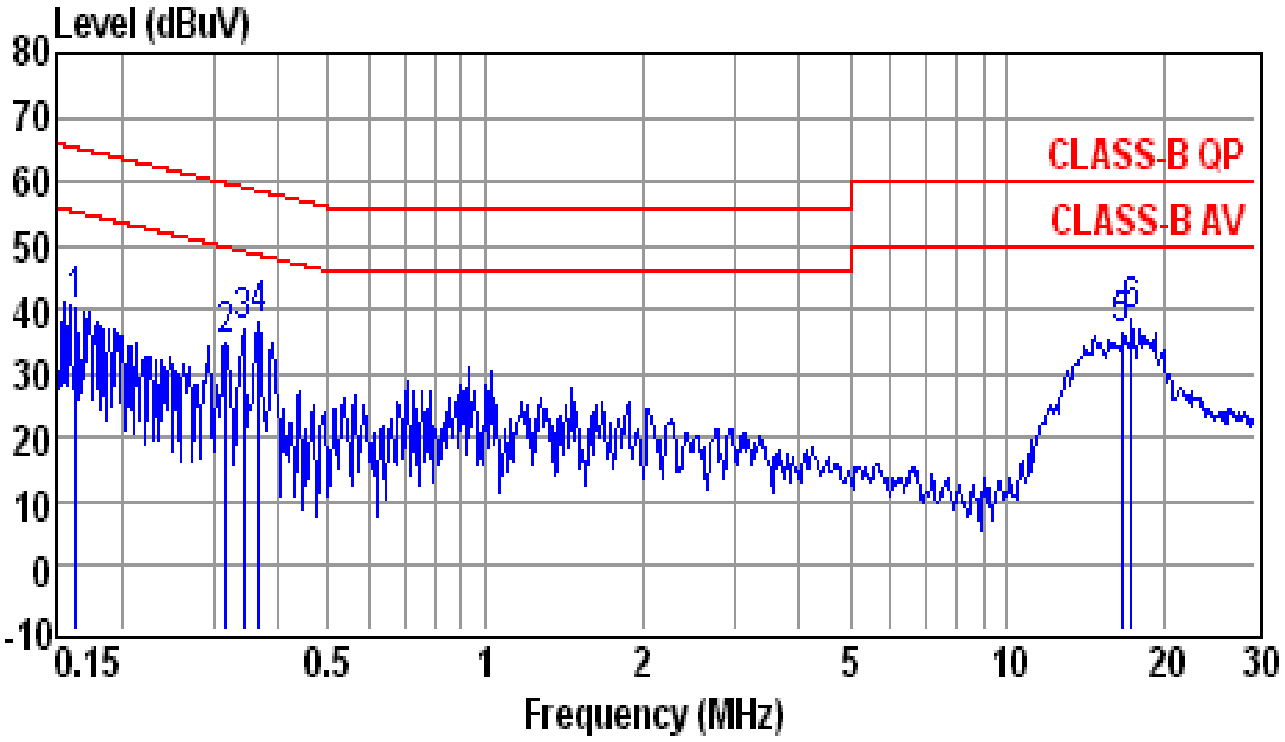
4.1.1.1 Conducted Emissions Test Data:

1.Operating Conditions of The EUT: RFID PRINT MODE

Test Date : Jun. 14, 2013

Test Specification	EN 55022:2010 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2012/07/16	2013/07/16
LISN	EMCO	3625/2	2013/05/07	2014/05/06
LISN	Rohde & Schwarz	ESH2-Z5	2013/04/12	2014/04/11
Climatic Condition	Ambient Temperature: 25 °C		Relative Humidity: 65 %RH	
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

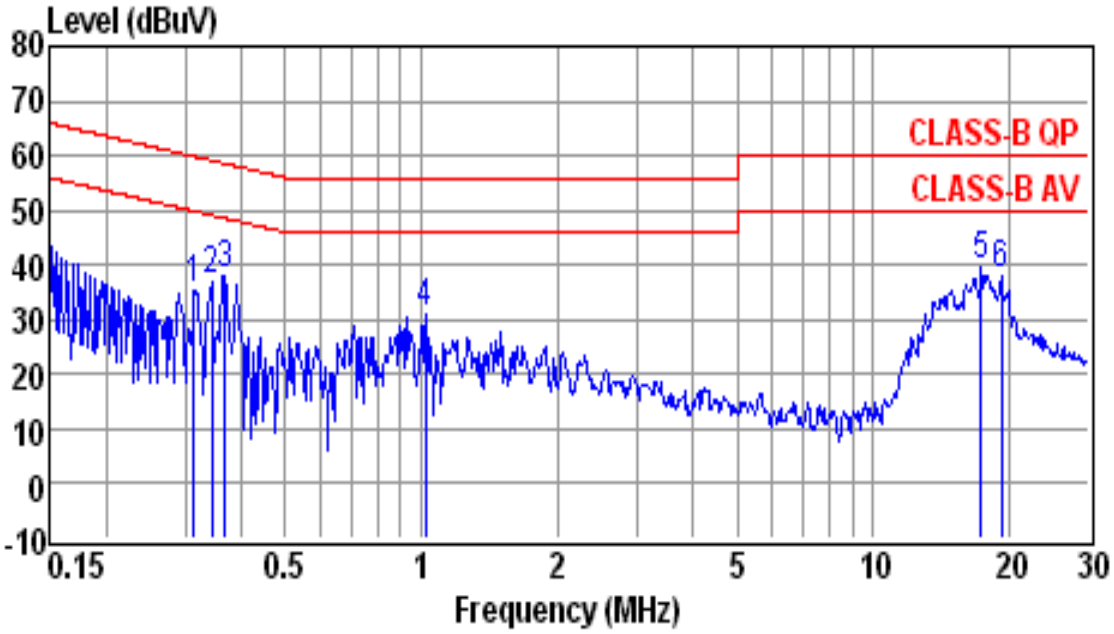


Site	: conducted #1	Date	: 06-14-2013
Condition	: CLASS-B QP	LISN	: NEUTRAL
Tem / Hum	: 25 ℃ / 65%		
Test Mode	: RFID PRINT MODE		
EUT	: PRINT		
Power Rating	: 100-240V (POWER FROM ADAPTER)		

Freq (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark
0.1641	29.6	10.3	39.9	65.3	-25.4	QP
0.3166	24.7	10.3	35.0	59.8	-24.8	QP
0.3428	26.5	10.3	36.8	59.1	-22.3	QP
0.3673	27.4	10.3	37.7	58.6	-20.9	QP
16.6610	25.4	10.7	36.1	60.0	-23.9	QP
17.3830	27.6	10.8	38.4	60.0	-21.6	QP

Note :

1. Result = Reading + Factor
2. Factor = LISN Factor + Cable Loss



Site : conducted #1 Date : 06-14-2013
Condition : CLASS-B QP LISN : LINE
Tem / Hum : 25 ℃ / 65%
Test Mode : RFID PRINT MODE
EUT : PRINT
Power Rating : 100-240V (POWER FROM ADAPTER)

Freq (MHz)	Reading (dBuV)	Factor (dB)	Emission Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark
0.3133	25.0	10.3	35.3	59.9	-24.6	QP
0.3428	26.5	10.3	36.8	59.1	-22.3	QP
0.3673	27.6	10.3	37.9	58.6	-20.7	QP
1.0210	20.6	10.4	31.0	56.0	-25.0	QP
17.3830	28.6	11.0	39.6	60.0	-20.4	QP
19.2240	26.9	11.0	37.9	60.0	-22.1	QP

Note :
1. Result = Reading + Factor
2. Factor = LISN Factor + Cable Loss

4.1.1.2 Conducted Emissions Test Setup Photos:

4.1.2 Radiated Emissions Test:

4.1.2.1 Radiated Emissions Test Data:

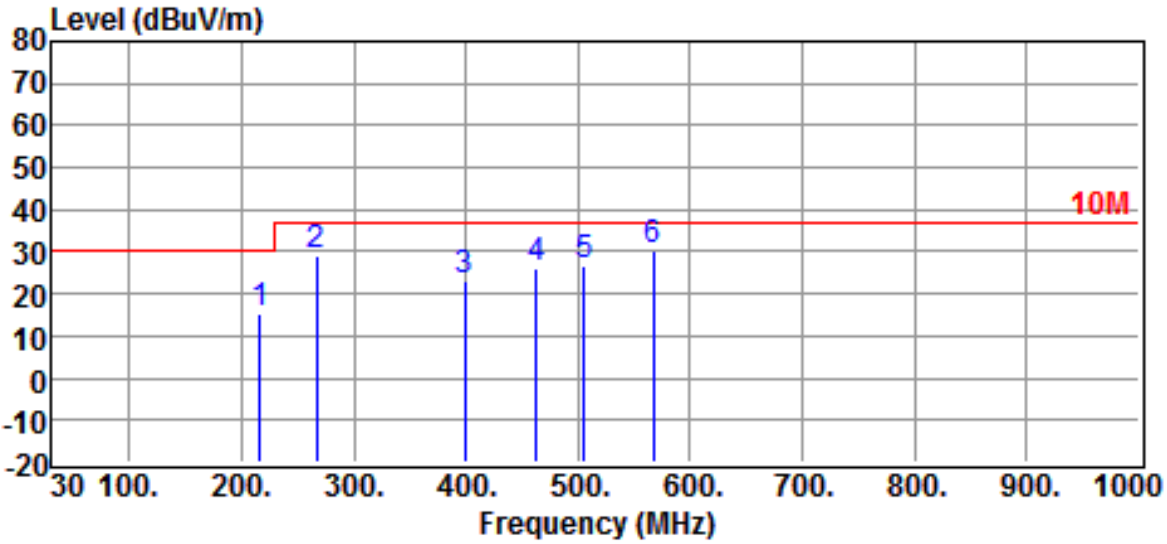
1.Operating Conditions of The EUT: RFID PRINT MODE

Test Date : Jun. 14, 2013

Test Specification	EN 55022:2010 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Test Receiver	Rohde & Schwarz	ESVS30	2013/05/06	2014/05/05
Amplifier	HP	8447D	2013/05/03	2014/05/02
EMI Test Receiver	Rohde & Schwarz	ESL	2012/07/30	2013/07/29
Bi-Log Antenna	ETC	MCTD 2756	2013/01/17	2014/01/16
Climatic Condition	Ambient Temperature: 25 °C		Relative Humidity: 65 %RH	
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

A. 30MHz to 1GHz

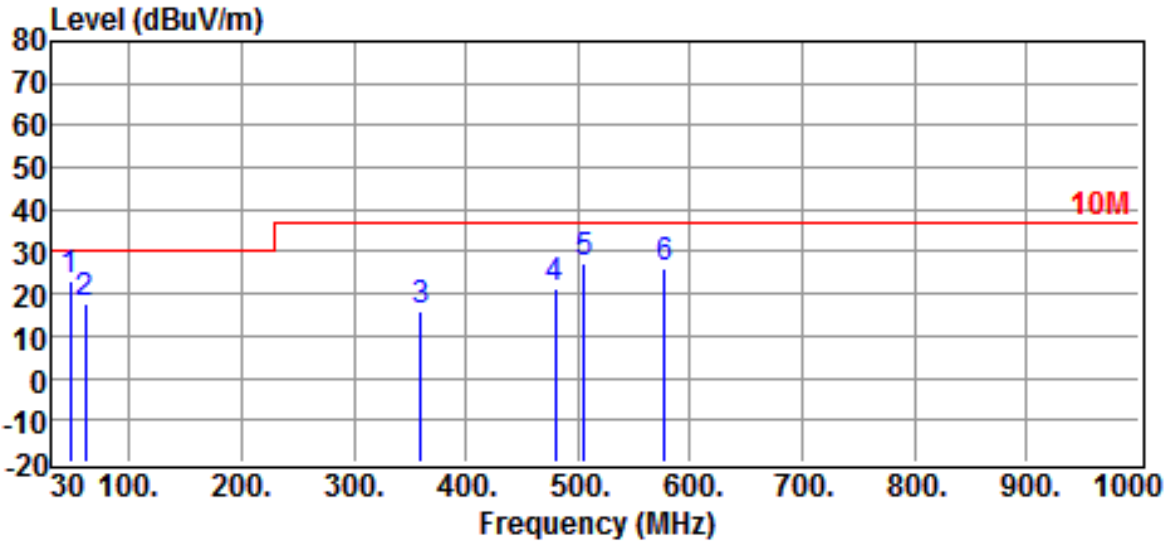


Site	:OPEN SITE	Date	:2013-06-14
Limit	:10M	Ant. Pol.	:HORIZONTAL
EUT	:PRINT	Temp.	:25℃
Power Rating	:100-240V (POWER FROM ADAPTER)		Humi. :65%
Model	:	Engineer.	:VC
Test Mode	:RFID PRINT MODE		

Freq MHz	Reading dBuV	Correction Factor dB	Result dBuV/m	Limits dBuV/m	Over limit dB	Detector
216.2400	1.3	14.0	15.3	30.0	-14.7	QP
266.6800	12.3	16.9	29.2	37.0	-7.8	QP
398.6000	3.0	20.3	23.3	37.0	-13.7	QP
462.6200	2.8	23.1	25.9	37.0	-11.1	QP
505.3000	1.5	25.1	26.6	37.0	-10.4	QP
567.3800	5.1	25.0	30.1	37.0	-6.9	QP

Note :

1. Result = Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss
3. The margin value=Limit - Result



Site	:OPEN SITE	Date	:2013-06-14
Limit	:10M	Ant. Pol.	:VERTICAL
EUT	:PRINT	Temp.	:25℃
Power Rating	:100-240V (POWER FROM ADAPTER)		Humi. :65%
Model	:	Engineer.	:VC
Test Mode	:RFID PRINT MODE		

Freq MHz	Reading dBuV	Correction Factor dB	Result dBuV/m	Limits dBuV/m	Over limit dB	Detector
47.4600	11.9	11.2	23.1	30.0	-6.9	QP
61.0400	8.4	9.1	17.5	30.0	-12.5	QP
359.8000	-3.1	19.1	16.0	37.0	-21.0	QP
480.0800	-3.0	24.0	21.0	37.0	-16.0	QP
505.3000	1.9	25.1	27.0	37.0	-10.0	QP
577.0800	1.2	25.1	26.3	37.0	-10.7	QP

Note :

1. Result = Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss
3. The margin value=Limit - Result

B. Above 1GHz

Not Applicable.

The working frequency is 13.56MHz.

4.1.2.2 Radiated Emissions Test Setup Photos:

4.1.3 Harmonics Current Emissions Test :

4.1.3.1 Harmonics Current Emissions Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

Test Specification	EN 61000-3-2:2006/A1:2009/A2:2009			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Hormonics tester	EMC-Partner	Harmonics-1000	2012/10/23	2013/10/22
Climatic Condition	Ambient Temperature: 25 °C		Relative Humidity: 50 %RH	
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Urms =	230.3V	Freq =	59.963	Range:	2A
Irms =	0.090A	Ipk =	0.462A	cf =	5.141
P =	7.608W	S =	20.69VA	pf =	0.368
THDi =	84.30%	THDu =	0.10%	Class A	
Test - Tim	3min	-100%			

Test completed, Result: PASSED

Order	Freq. [Hz]	Iavg [A]	Iavg% [%]	Iavg%L [%]	Irms [A]	Irms% [%]	Irms%L [%]	Imax [A]	Imax% [%]	Imax%L [%]	Limit [A]
1	60	0.0593	65.95		0.0499	55.571		0.14	155.84		
2	120	0.0079	8.7859	0.7309	0.007	7.7446	0.6443	0.0164	18.207	1.5146	1.08
3	180	0.0416	46.256	1.8069	0.0308	34.239	1.3375	0.1296	144.29	5.6365	2.3
4	240	0.0077	8.599	1.7967	0.0068	7.6087	1.5898	0.0157	17.527	3.6621	0.43
5	300	0.0402	44.717	3.5242	0.0299	33.288	2.6234	0.1232	137.09	10.804	1.14
6	360	0.0073	8.1181	2.4312	0.0065	7.2011	2.1566	0.0146	16.304	4.8828	0.3
7	420	0.0379	42.201	4.924	0.0287	31.929	3.7255	0.1132	125.95	14.696	0.77
8	480	0.0067	7.4978	2.9288	0.0061	6.7935	2.6537	0.0132	14.674	5.732	0.23
9	540	0.035	38.91	8.7395	0.0269	29.891	6.7139	0.1006	111.96	25.146	0.4
10	600	0.0061	6.7386	3.2903	0.0055	6.1141	2.9854	0.0115	12.772	6.2362	0.184
11	660	0.0315	35.072	9.5485	0.0248	27.582	7.5092	0.0864	96.196	26.19	0.33
12	720	0.0018	1.9604	1.1487	0.0048	5.2989	3.1048	0.0095	10.598	6.2097	0.1533
13	780	0.0277	30.88	13.211	0.0223	24.864	10.638	0.0714	79.484	34.005	0.21
14	840	0.0009	0.9936	0.6792	0.004	4.4837	3.065	0.0076	8.4239	5.7585	0.1314
15	900	0.0239	26.574	15.917	0.0198	22.011	13.184	0.0566	63.043	37.76	0.15
16	960	0.0003	0.3236	0.2528	0.0033	3.6685	2.866	0.0057	6.3859	4.989	0.115
17	1020	0.0201	22.369	15.185	0.0172	19.158	13.005	0.043	47.826	32.465	0.1324
18	1080	0	0	0	0.0027	2.9891	2.6272	0.004	4.4837	3.9407	0.1022
19	1140	0.0166	18.515	14.047	0.0148	16.44	12.473	0.0311	34.647	26.286	0.1184
20	1200	0	0	0	0.002	2.1739	2.123	0.0027	2.9891	2.9191	0.092
21	1260	0.0134	14.911	12.504	0.0123	13.723	11.507	0.0215	23.913	20.052	0.1071
22	1320	0	0	0	0.0015	1.6304	1.7514	0.0016	1.7663	1.8974	0.0836
23	1380	0.0107	11.884	10.914	0.0103	11.413	10.482	0.0145	16.168	14.849	0.0978
24	1440	0	0	0	0.0009	0.9511	1.1146	0.001	1.087	1.2738	0.0767
25	1500	0.0084	9.3572	9.341	0.0082	9.1033	9.0875	0.0105	11.685	11.664	0.09
26	1560	0	0	0	0.0006	0.6793	0.8625	0.0009	0.9511	1.2074	0.0708
27	1620	0.0067	7.414	7.9933	0.0065	7.2011	7.7637	0.0087	9.6467	10.4	0.0833
28	1680	0	0	0	0.0005	0.5435	0.743	0.0009	0.9511	1.3003	0.0657
29	1740	0.0053	5.8535	6.7782	0.005	5.5707	6.4507	0.0078	8.6957	10.069	0.0776
30	1800	0	0	0	0.0006	0.6793	0.9951	0.001	1.087	1.5922	0.0613
31	1860	0.0007	0.7335	0.9079	0.0038	4.212	5.2138	0.0068	7.6087	9.4184	0.0726
32	1920	0	0	0	0.0007	0.8152	1.2738	0.0009	0.9511	1.4861	0.0575
33	1980	0.0002	0.2416	0.3183	0.0029	3.2609	4.2969	0.0056	6.25	8.2357	0.0682
34	2040	0	0	0	0.0009	0.9511	1.579	0.0009	0.9511	1.579	0.0541
35	2100	0	0	0	0.0023	2.5815	3.6079	0.0042	4.6196	6.4562	0.0643
36	2160	0	0	0	0.0009	0.9511	1.6718	0.0009	0.9511	1.6718	0.0511
37	2220	0	0	0	0.002	2.1739	3.2118	0.0029	3.2609	4.8177	0.0608
38	2280	0	0	0	0.0007	0.8152	1.5126	0.0009	0.9511	1.7647	0.0484
39	2340	0	0	0	0.002	2.1739	3.3854	0.0023	2.5815	4.0202	0.0577
40	2400	0	0	0	0.0007	0.8152	1.5922	0.0007	0.8152	1.5922	0.046

4.1.3.2 Harmonics Current Emissions Test Setup Photos :

4.1.4 Voltage Fluctuations and Flicker Test:

4.1.4.1 Voltage Fluctuations and Flicker Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

Test Specification	EN 61000-3-3:2008			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Hormonics tester	EMC-Partner	Harmonics-1000	2012/10/23	2013/10/22
Climatic Condition	Ambient Temperature: 25 °C		Relative Humidity: 50 %RH	
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

	Test Data	Limit	Pass or Fail
Plt	0.07	0.65	Pass
Pst	0.07	1.00	Pass
dt	0.00ms	500 ms	Pass
dmax	0.000%	4.0 %	Pass
dc	0.00%	3.3 %	Pass

4.1.4.2 Voltage Fluctuations and Flicker Test Setup Photos:

4.2 Immunity:

4.2.1 Electrostatic Discharge Immunity Test :

4.2.1.1 Electrostatic Discharge Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

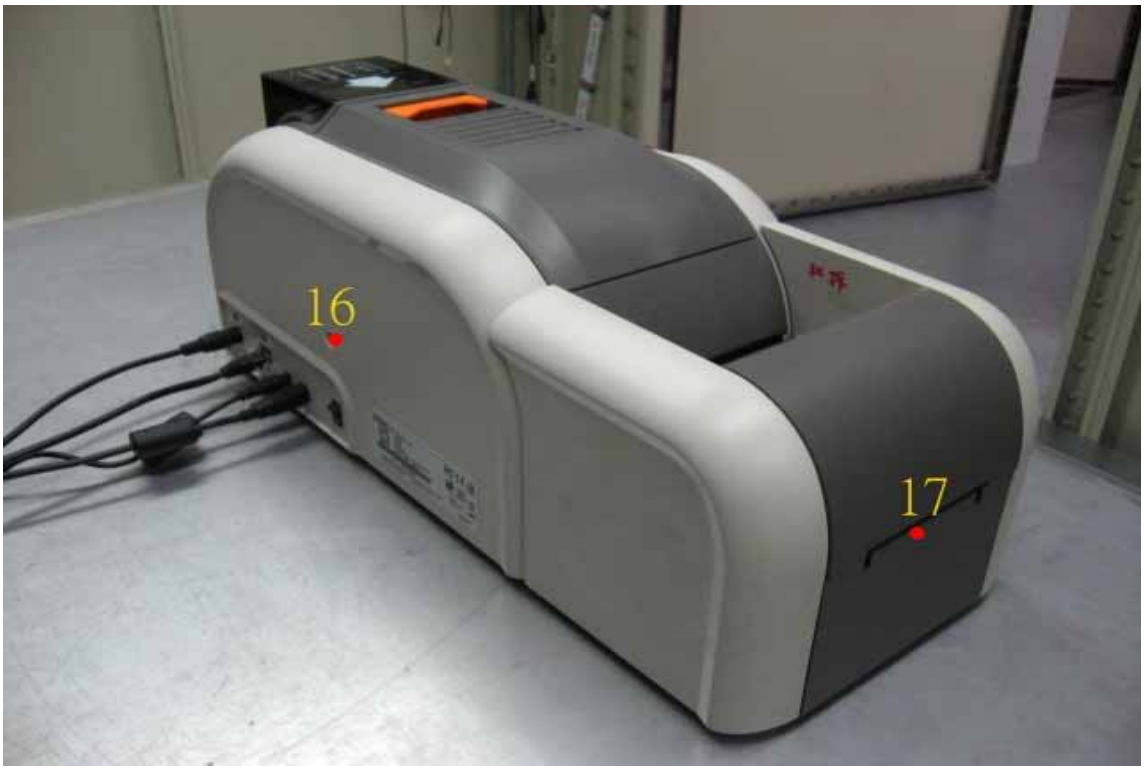
Test Specification	EN 61000-4-2:2009			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Electrostatic Discharge Simulator	Noiseken	ESS-2002	2012/08/07	2013/08/06
Climatic Condition	Ambient Temperature: 25 °C Relative Humidity: 50 %RH			
	Atmospheric Pressure : 990 mbar			
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

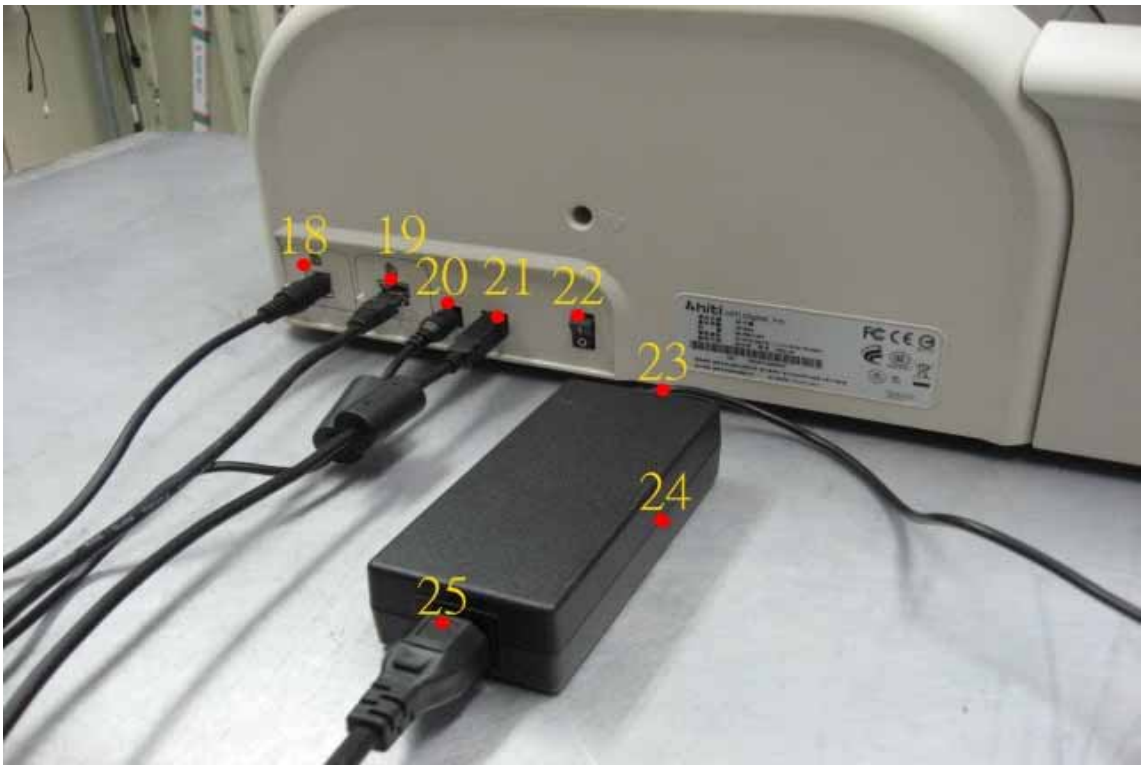
Energy-Storage Capacitor : 150 pF									Contact Discharge Times : 10 times/each condition							
Discharge Resistor : 330 Ω									Air Discharge Times : 10 times/each condition							
\ Discharge Mode	**Contact Discharge**								**Air Discharge**							
\ESD Voltage	**2 kV**		**4 kV**		**___ kV**		**___ kV**		**2 kV**		**4 kV**		**8 kV**		**___ kV**	
\Points\Result\Polarity	+	−	+	−	+	−	+	−	+	−	+	−	+	−	+	−
VCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
HCP	A	A	A	A	---	---	---	---	---	---	---	---	---	---	---	---
P1-P25	---	---	---	---	---	---	---	---	A	A	A	A	A	A	---	---

Note : " A " means the EUT's function was correct QP performance during the test.

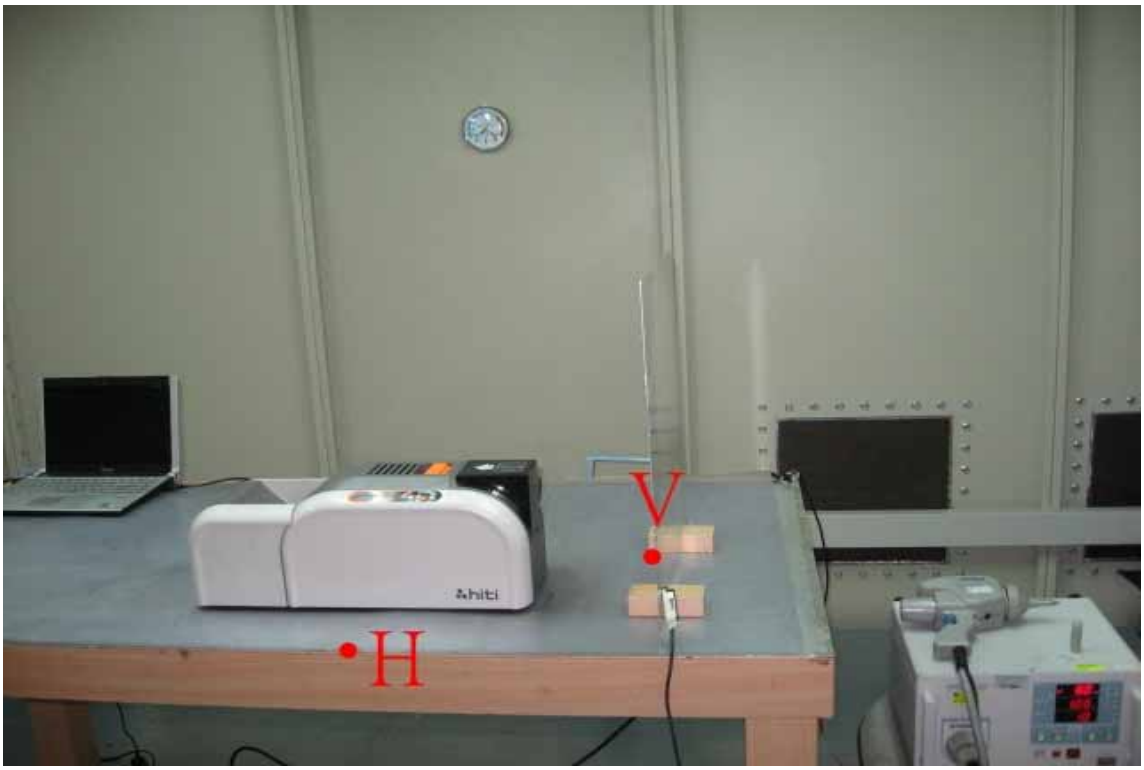
TEST POINTS

TEST POINTS





4.2.1.2 Electrostatic Discharge Immunity Test Setup Photos :



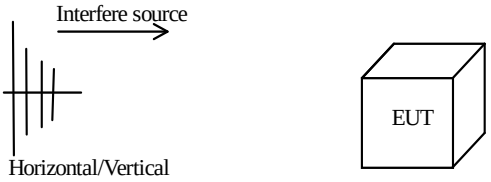
4.2.2 RF Radiated Fields Immunity Test :

4.2.2.1 RF Radiated Fields Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

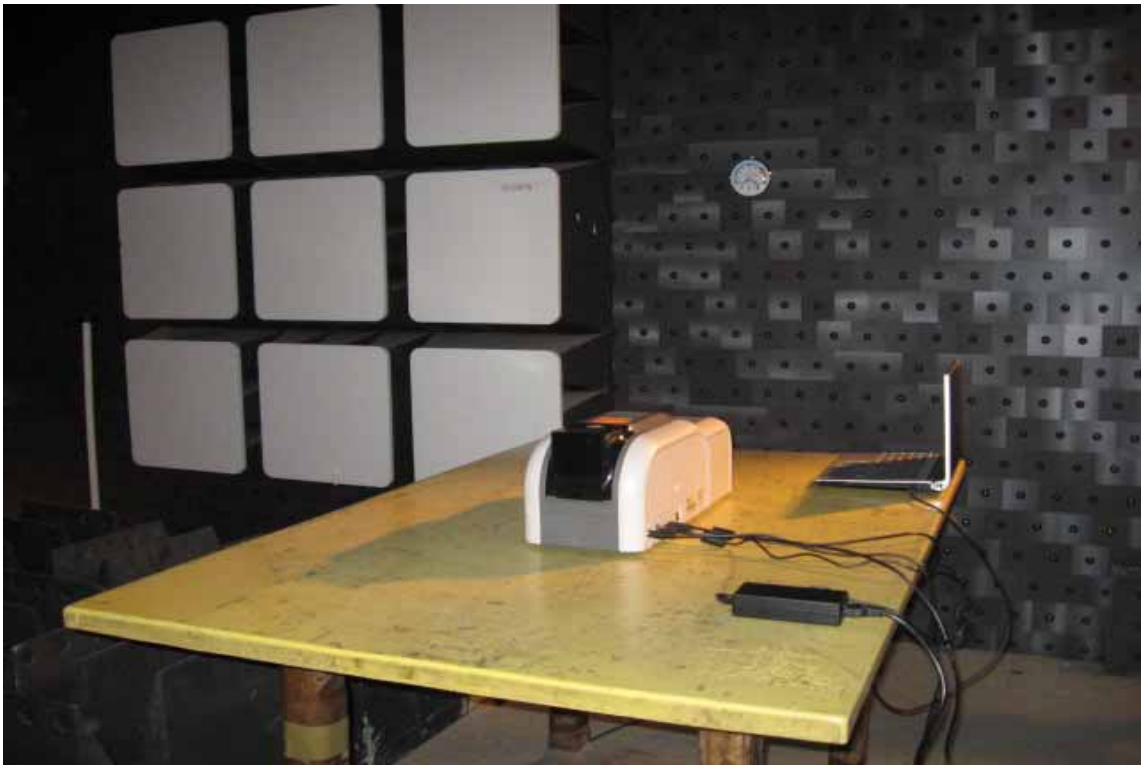
Test Specification	EN 61000-4-3:2006/A1:2008			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Antenna	AR	AT5080	N/A	N/A
signal Generator	Aglient	E4421B	2012/09/06	2013/09/05
Amplifier	Ophir	5172	N/A	N/A
Amplifier	Ophir	5127	N/A	N/A
POWER METER	Booton	4232A	2012/09/11	2013/09/10
Climatic Condition	Ambient Temperature: 25 °C		Relative Humidity: 52 %RH	
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			



Frequency Range: 80 MHz ~ 2700 MHz			Field Strength: 3 V/m		Modulation (AM 1kHz 80%)
Sweep Rate : ≤ 1.5×10-3 decades/s			Step Size : ≤ 1 % of preceding frequency value		Dwell time : 2.9 s
Frequency Range (MHz)		Antenna-Polarization		Direction of Device	Test Result
80~1000	1400~2700	Horizontal		front	A
				rear	A
				left	A
				right	A
80~1000	1400~2700	Vertical		front	A
				rear	A
				left	A
				right	A

Note : " A " means the EUT's function was correct QP performance during the test.

4.2.2.2 RF Radiated Fields Immunity Test Setup Photos :



4.2.3 EFT/Burst Immunity Test :

4.2.3.1 EFT/Burst Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

Test Specification	EN 61000-4-4:2004			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMC Immunity tester	EMC-PARTNER	TRANSIENT-2000	2012/10/01	2013/09/30
Climatic Condition	Ambient Temperature: 24 °C Relative Humidity: 50 %RH			
	Atmospheric Pressure : 990 mbar			
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Pulse : 5 /50ns Burst : 15ms /300ms		Repetition Rate : 5kHz	Test time : 1 min/each condition
\Voltage\Polarity\		1.0 kV	
\Test Point\Mode\Result\		+	-
Power Line	L	A	A
	N	A	A
	L-N	A	A
	PE	A	A
	L-PE	A	A
	N-PE	A	A
	L-N-PE	A	A

Note : " A " means the EUT's function was correct QP performance during the test.

4.2.3.2 EFT/Burst Immunity Test Setup Photos:

4.2.4 Surge Immunity Test :

4.2.4.1 Surge Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

Test Specification	EN 61000-4-5:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMC Immunity tester	EMC-PARTNER	TRANSIENT-2000	2012/10/01	2013/09/30
Climatic Condition	Ambient Temperature: 24 °C Relative Humidity: 50 %RH			
	Atmospheric Pressure : 990 mbar			
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Waveform : 1.2/50μs(8/20μs)		Repetition rate : 60 sec		Times : 5 time/each condition		
\Voltage \Mode \Polarity \Result		\Phase	**0°**	**90°**	**180°**	**270°**
0.5kV	L – N	+	A	A	A	A
		–	A	A	A	A
1.0kV	L – N	+	A	A	A	A
		–	A	A	A	A
0.5kV	L – PE	+	A	A	A	A
		–	A	A	A	A
	N – PE	+	A	A	A	A
		–	A	A	A	A
1.0kV	L – PE	+	A	A	A	A
		–	A	A	A	A
	N – PE	+	A	A	A	A
		–	A	A	A	A
2.0kV	L – PE	+	A	A	A	A
		–	A	A	A	A
	N – PE	+	A	A	A	A
		–	A	A	A	A

Note : " A " means the EUT's function was correct QP performance during the test.

4.2.4.2 Surge Immunity Test Setup Photos :

4.2.5 RF Common Mode Immunity Test :

4.2.5.1 RF Common Mode Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

Test Date : Jun. 14, 2013

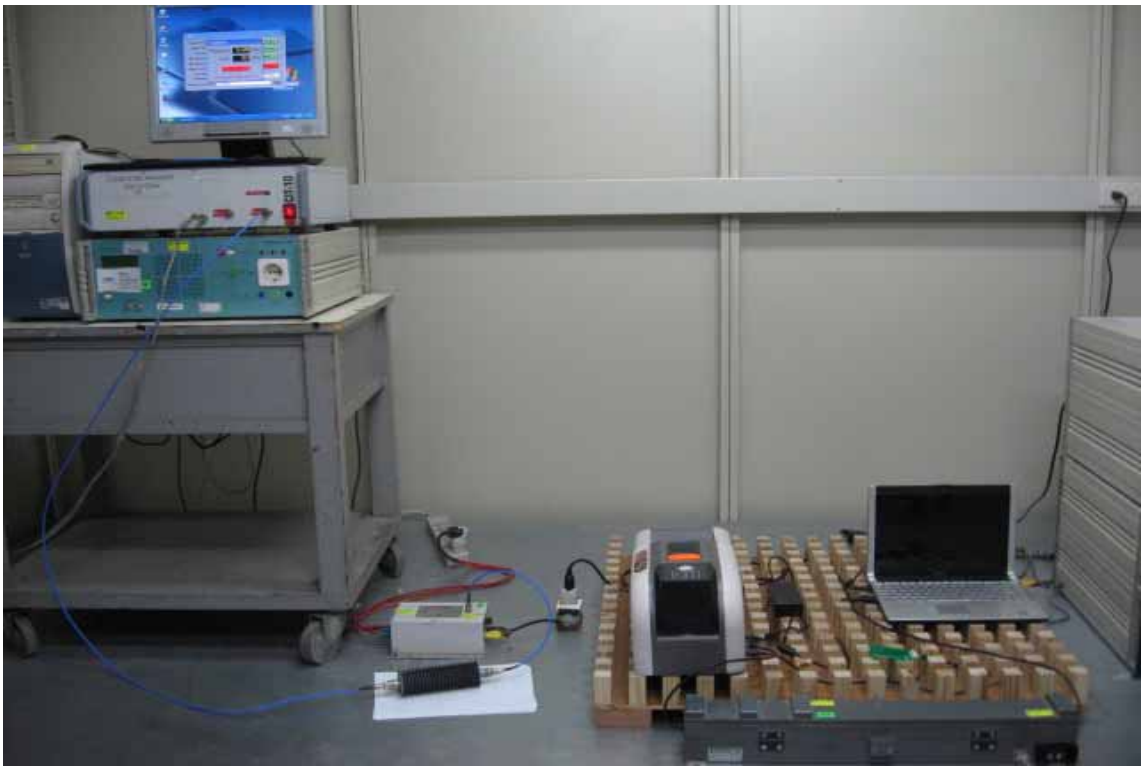
Test Specification	EN 61000-4-6:2007			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
CS TESTER M2+3 CDN-KIT SCHAFFUER	FRANKONIA FRANKONIA CS-CLAMP	CIT-10 M2+3 KEMZ 801	2013/05/06 2013/05/10 2013/05/11	2014/05/05 2014/05/09 2014/05/10
Climatic Condition	Ambient Temperature: 24 °C Relative Humidity: 50 %RH			
	Atmospheric Pressure : 990 mbar			
Power Supply System	AC Power : 230 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Frequency Range : 0.15 MHz ~ 80 MHz	Test Level : 3 Vrms	Modulation (AM 1kHz 80%)
Sweep Rate : ≤ 1.5×10^{-3} decades/s	Step Size : ≤ 1 % of preceding frequency value	Dwell Time : 2.9 s

Frequency Range (MHz)	Tested Line	Test Result
0.15~80	Power Line (M3)	A

Note : " A " means the EUT's function was correct QP performance during the test.

4.2.5.2 RF Common Mode Immunity Test Setup Photos :



Signal Cable

4.2.6 Voltage Interruptions and Voltage Dips Immunity Test :

4.2.6.1 Voltage Interruptions and Voltage Dips Immunity Test Data:

1. Operating Conditions of The EUT: Operation Mode

(Mode: RFID MODE) Test Date : Jun. 14, 2013

Test Specification	EN 61000-4-11:2004			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMC Immunity tester	EMC-PARTNER	TRANSIENT-2000	2012/10/01	2013/09/30
Climatic Condition	Ambient Temperature: 25 °C Relative Humidity: 60 %RH			
	Atmospheric Pressure : 990 mbar			
Power Supply System	AC Power : 100 Vac 60 Hz; 240 Vac 50 Hz			
Test Set-up	Table-top Equipment			

Test mode	Voltage dips	Durations (periods)	Interval(s)	Times	Phase	Result
Voltage interruptions	100%	250	10	12	0°/180°	A
	100%	300	10	12	0°/180°	A
Voltage dips in $\%U_T$	100%	1.0	10	12	0°/180°	A
	100%	0.5	10	12	0°/180°	A
	30%	10	10	12	0°/180°	A
	30%	12	10	12	0°/180°	A

Note : " A " means the EUT's function was correct normal performance during the test.

4.2.6.2 Voltage Interruptions and Voltage Dips Immunity Test Setup Photos :

CONSTRUCTED PHOTOS of EUT

(A)EUT

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CONSTRUCTED PHOTOS of EUT

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CONSTRUCTED PHOTOS of EUT

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CONSTRUCTED PHOTOS of EUT

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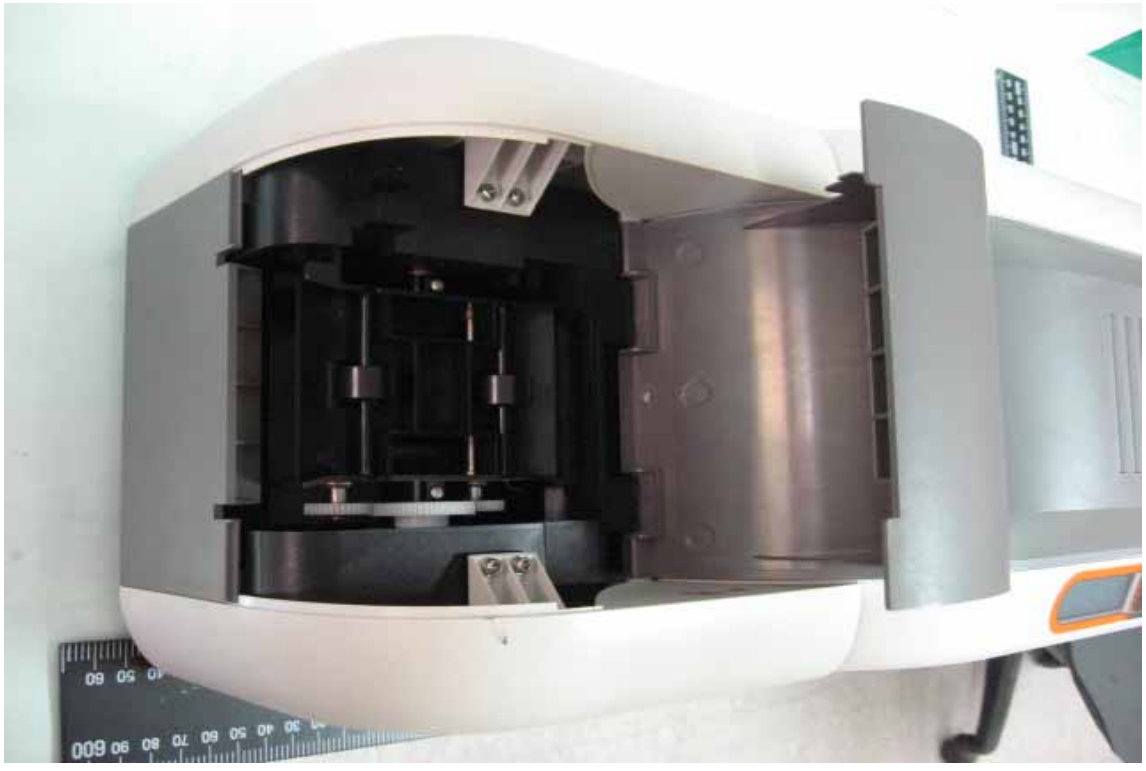

CONSTRUCTED PHOTOS of EUT

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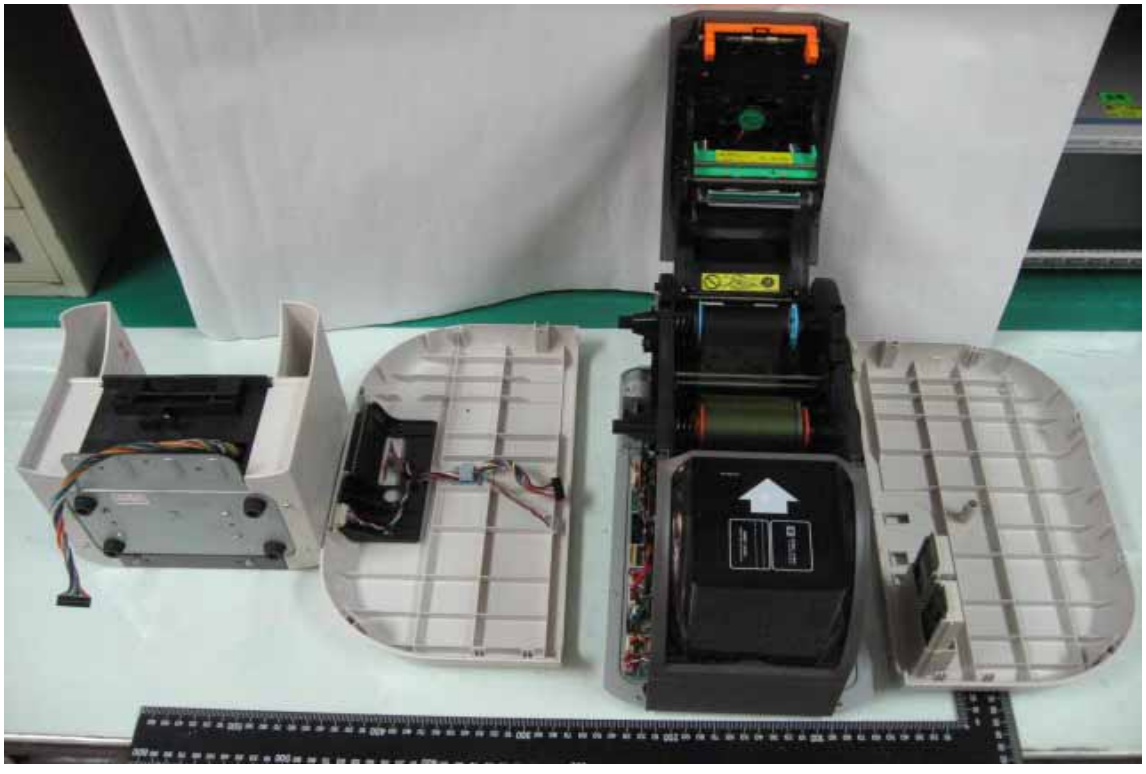

CONSTRUCTED PHOTOS of EUT

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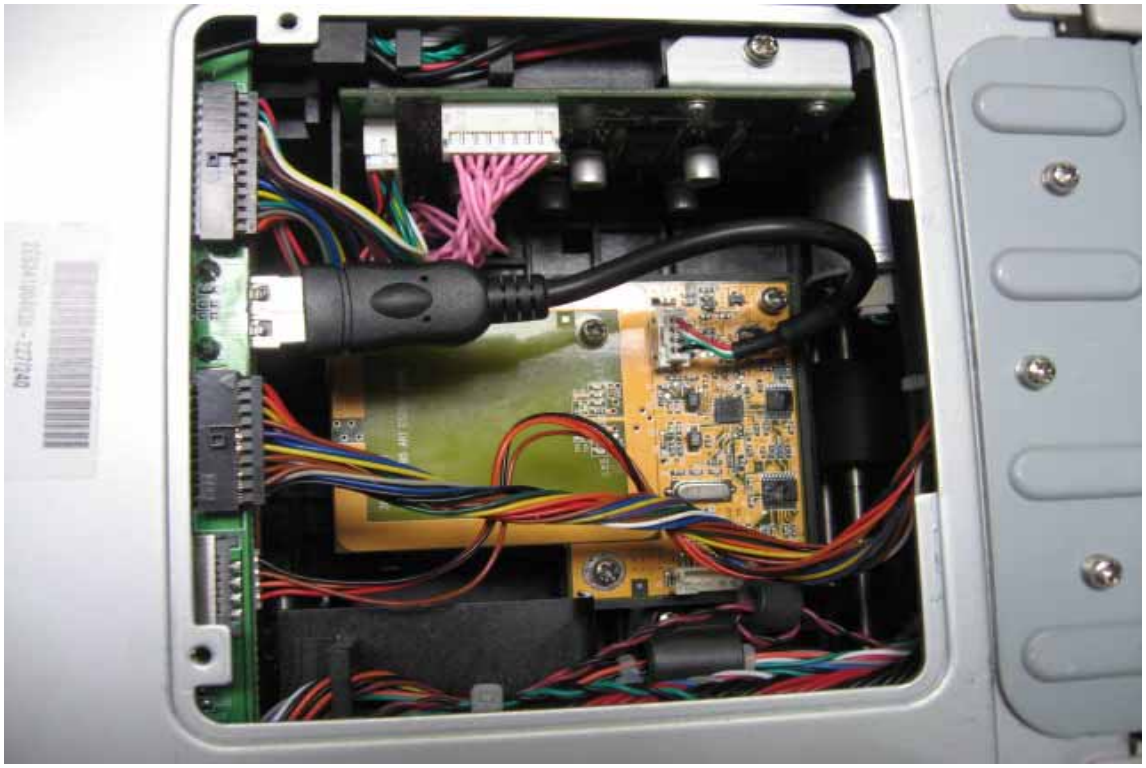

CONSTRUCTED PHOTOS of EUT

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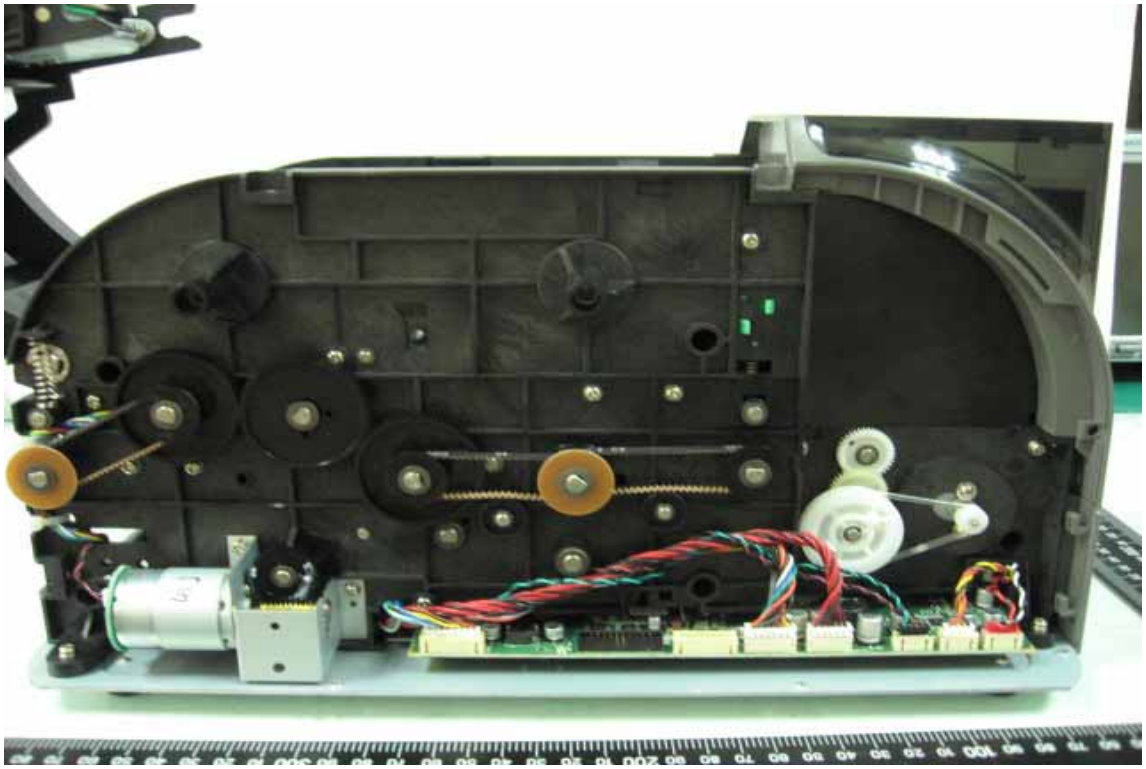

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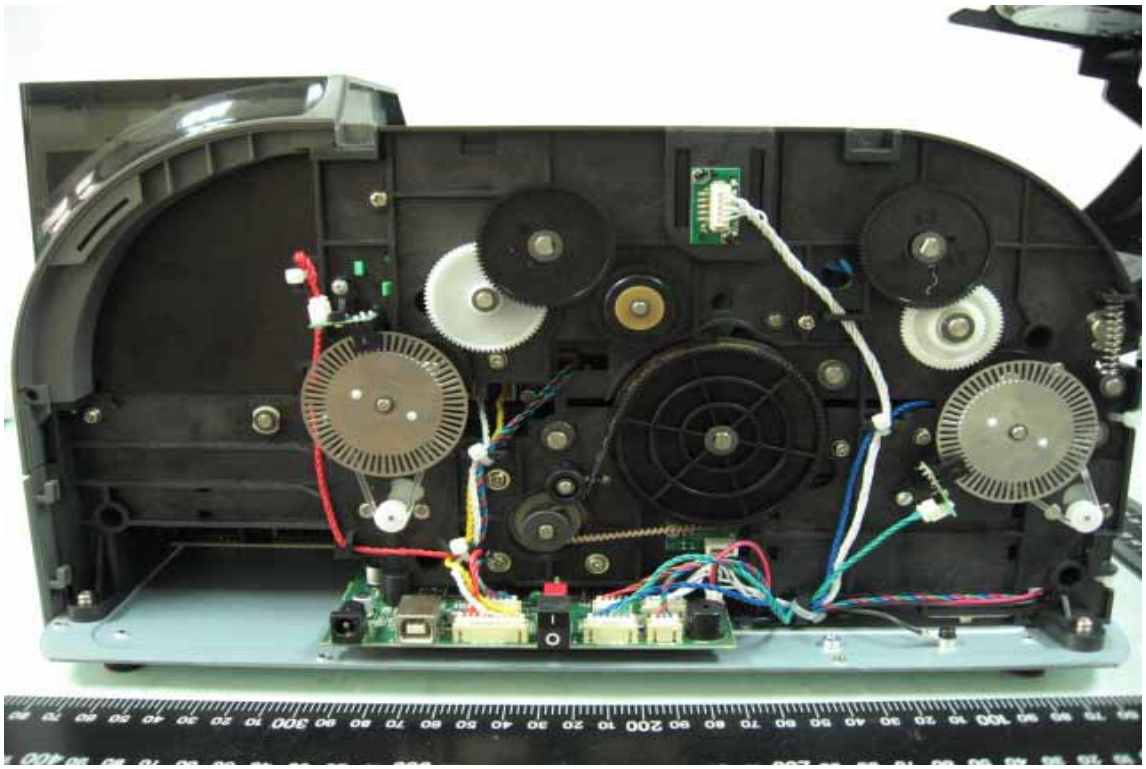

CONSTRUCTED PHOTOS of EUT

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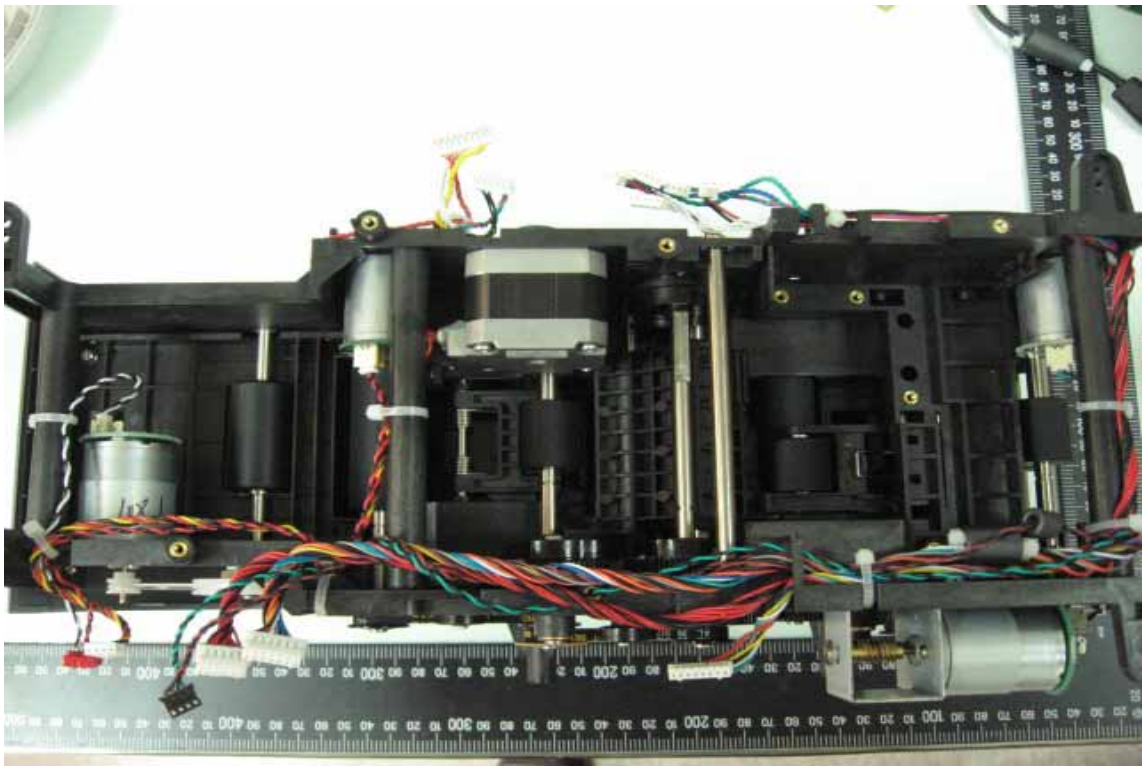

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CONSTRUCTED PHOTOS of EUT

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CONSTRUCTED PHOTOS of EUT

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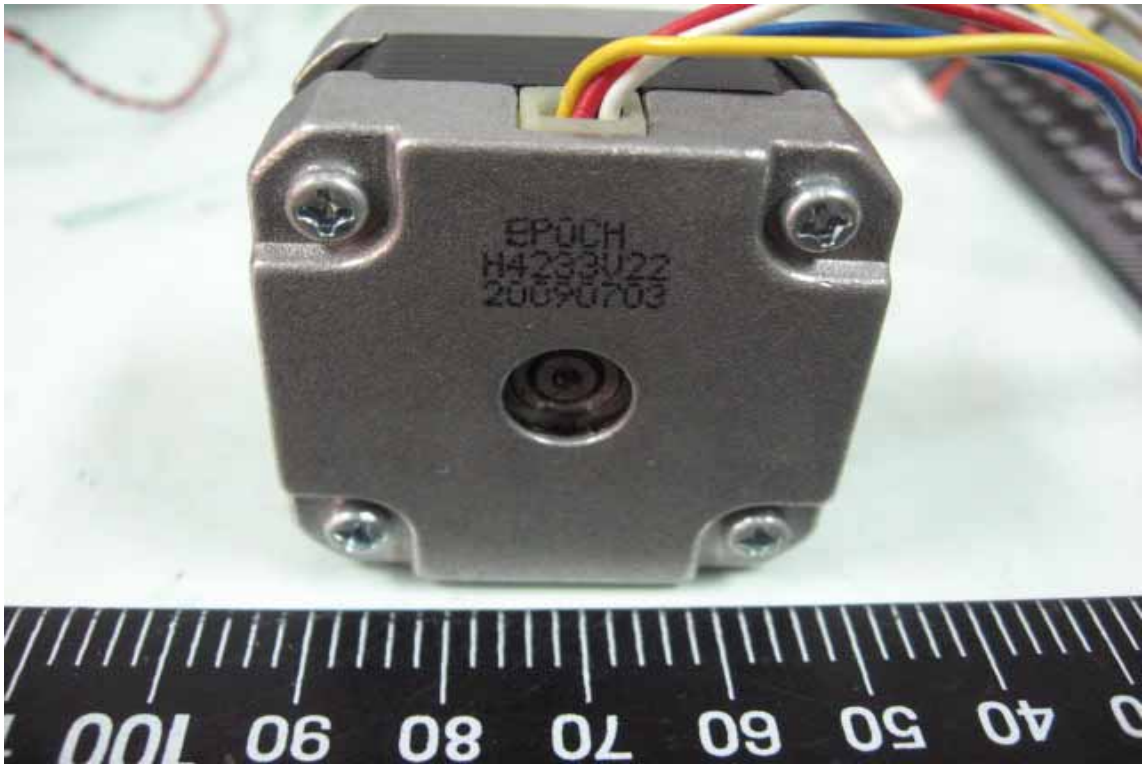

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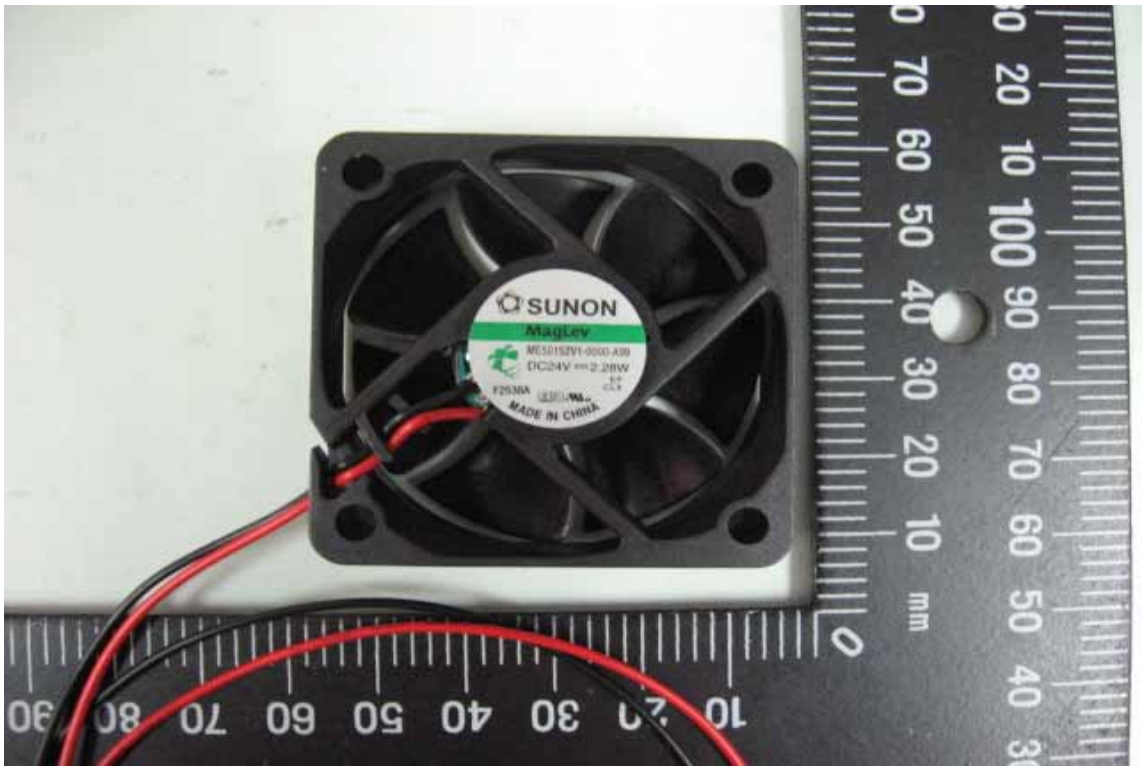

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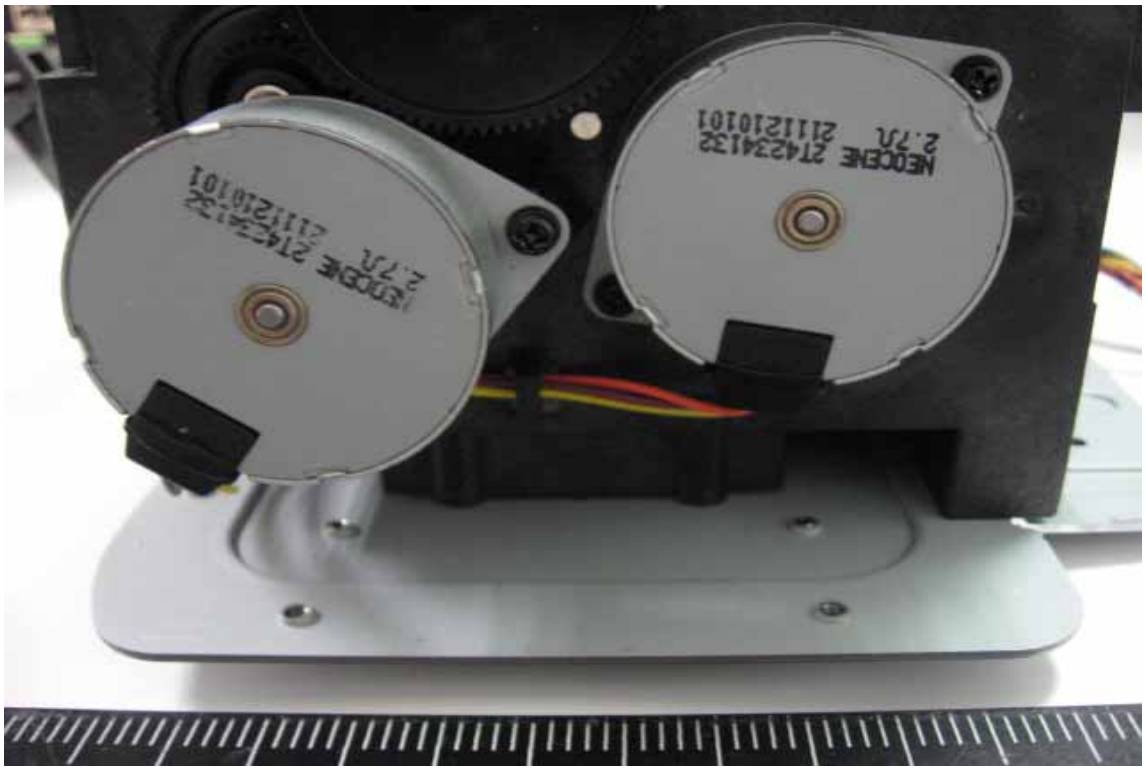

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CONSTRUCTED PHOTOS of EUT

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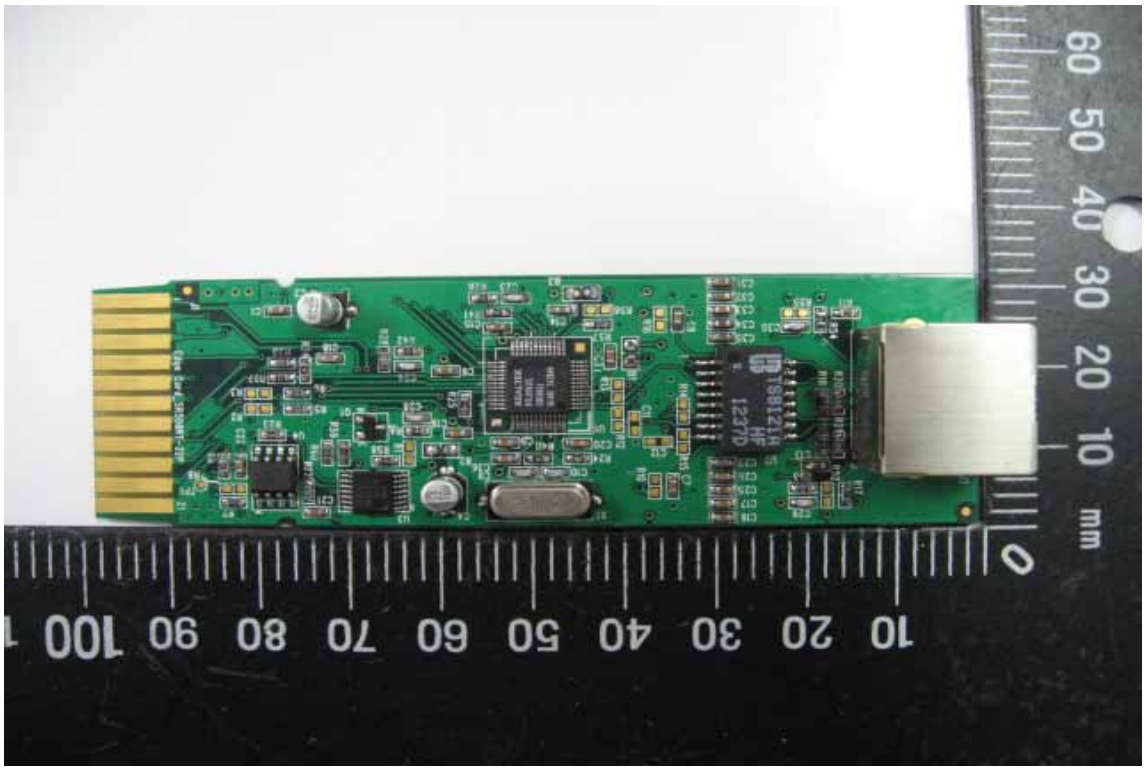

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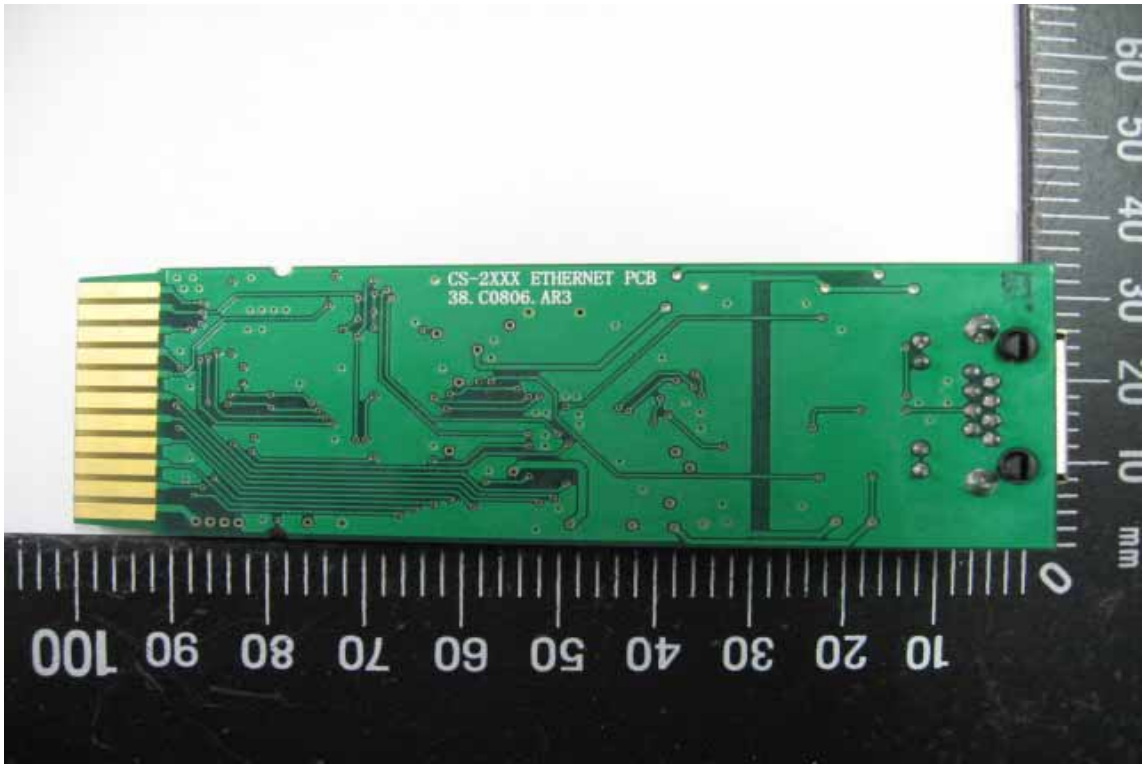

CONSTRUCTED PHOTOS of EUT

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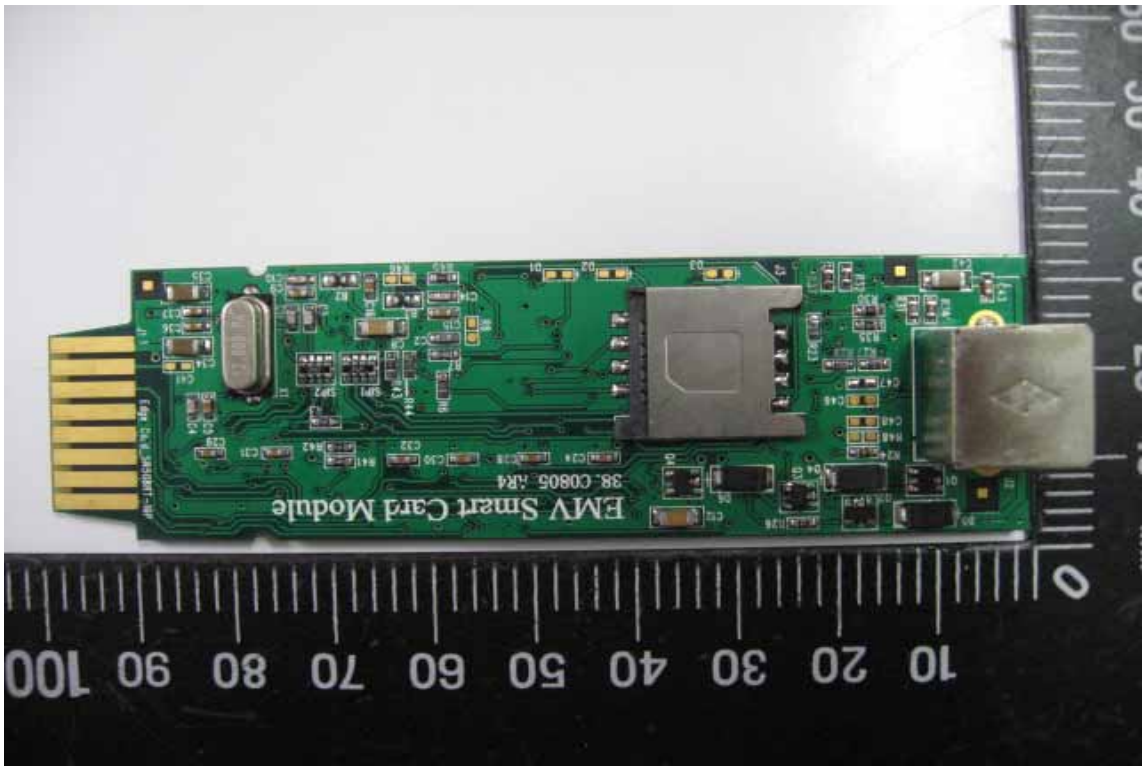

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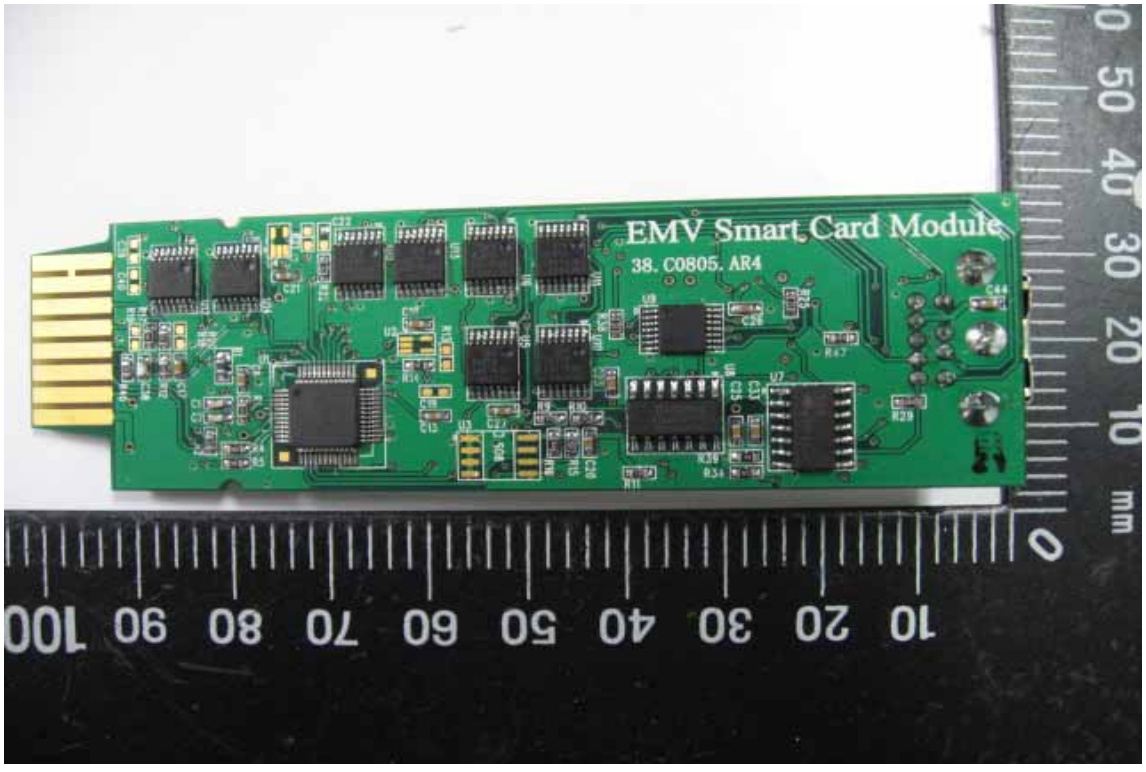

CONSTRUCTED PHOTOS of EUT

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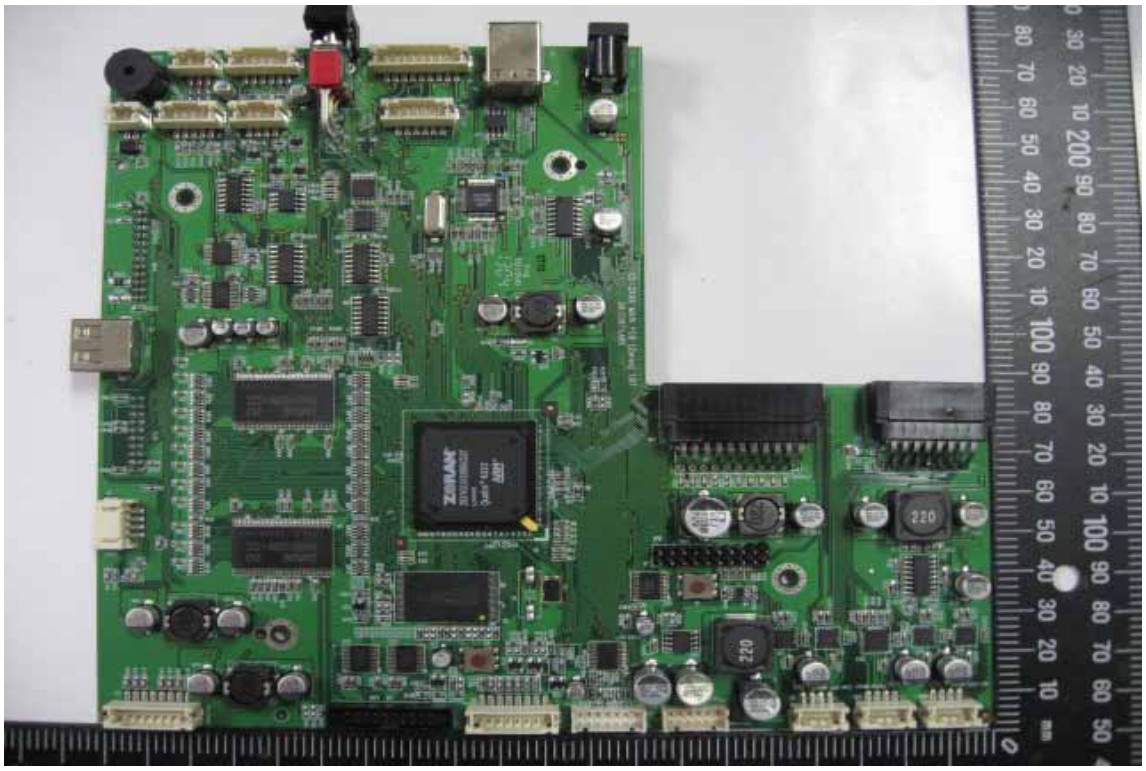

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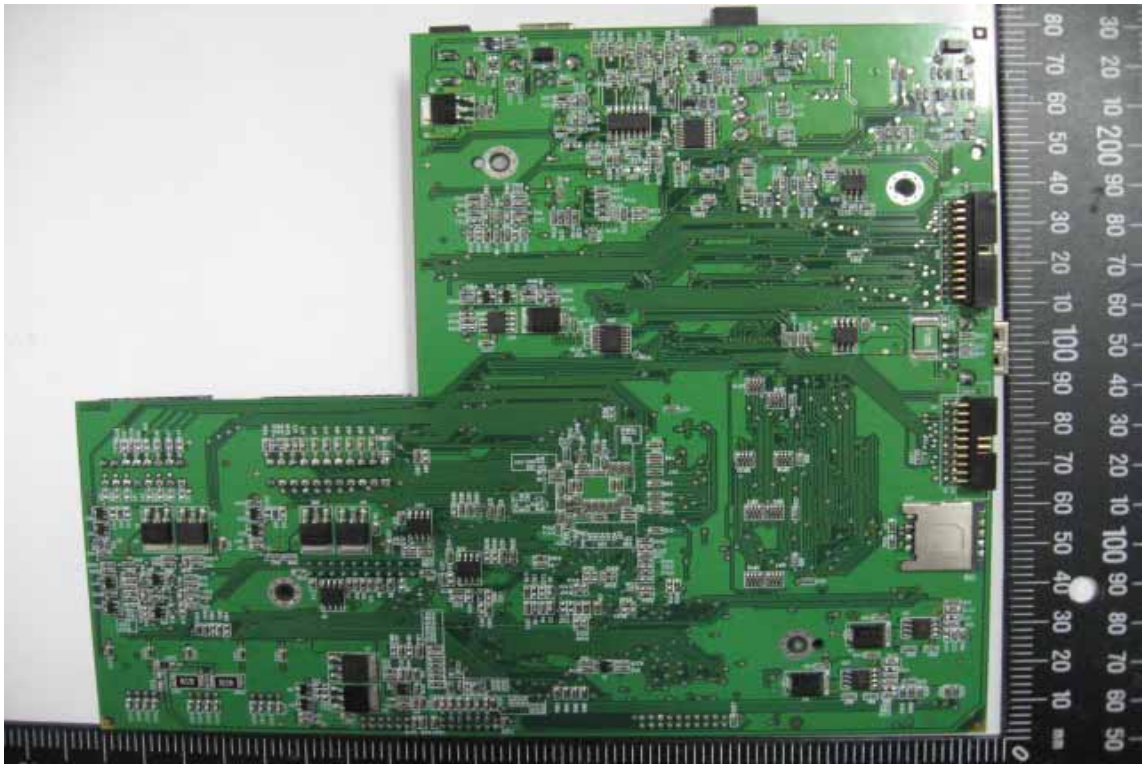

CONSTRUCTED PHOTOS of EUT

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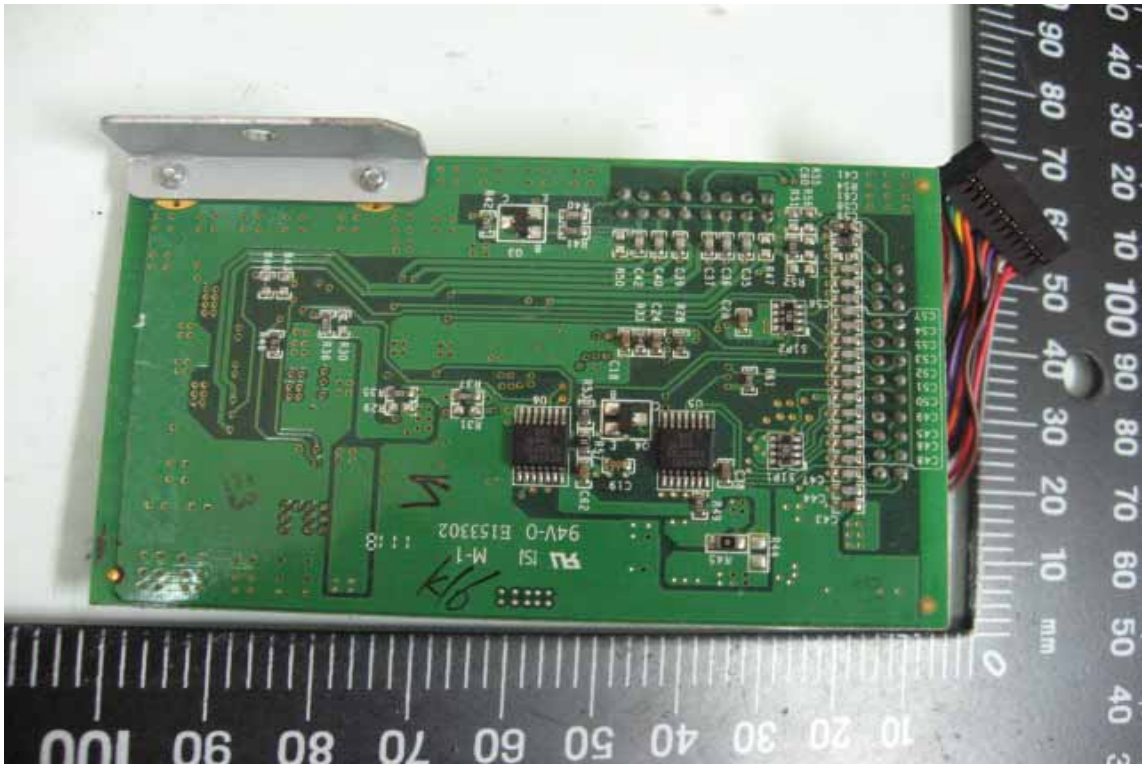

CONSTRUCTED PHOTOS of EUT

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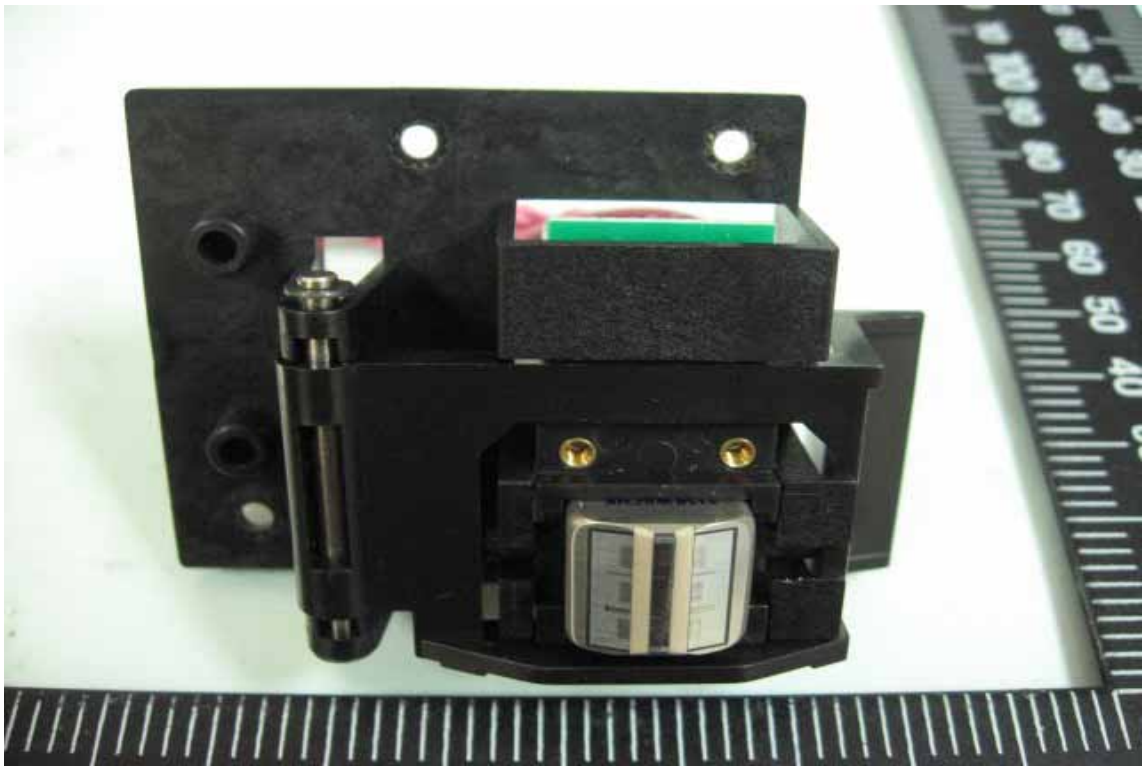

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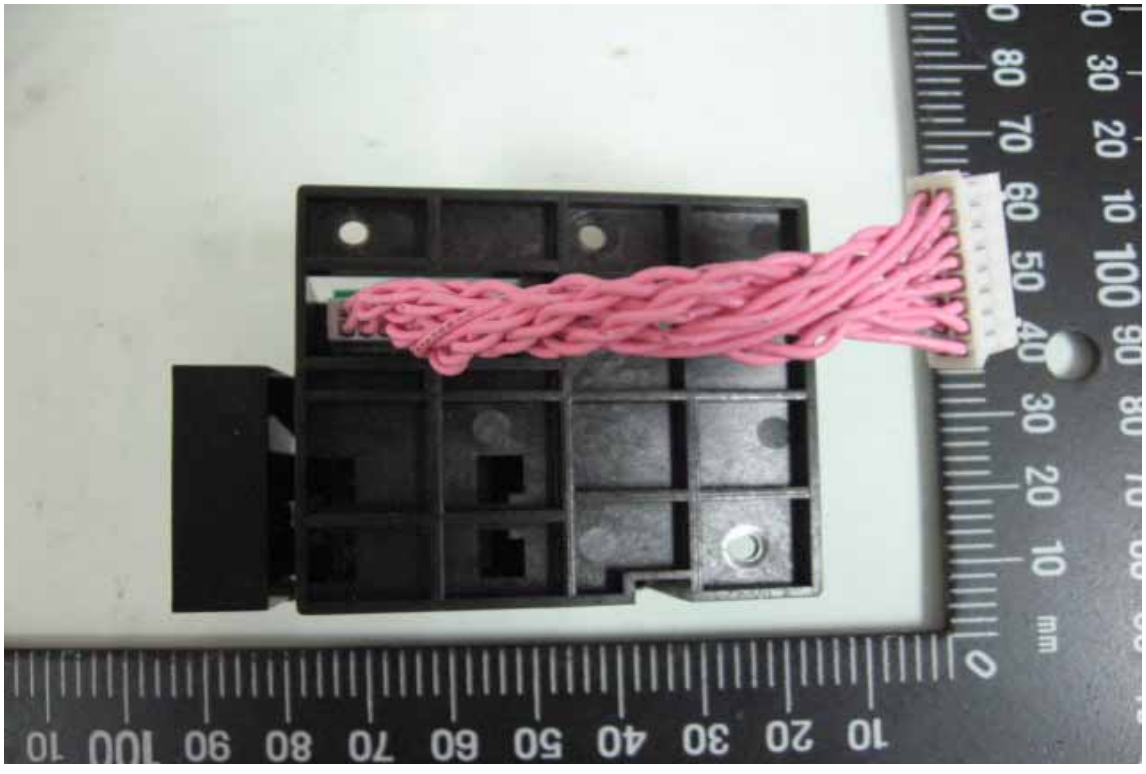
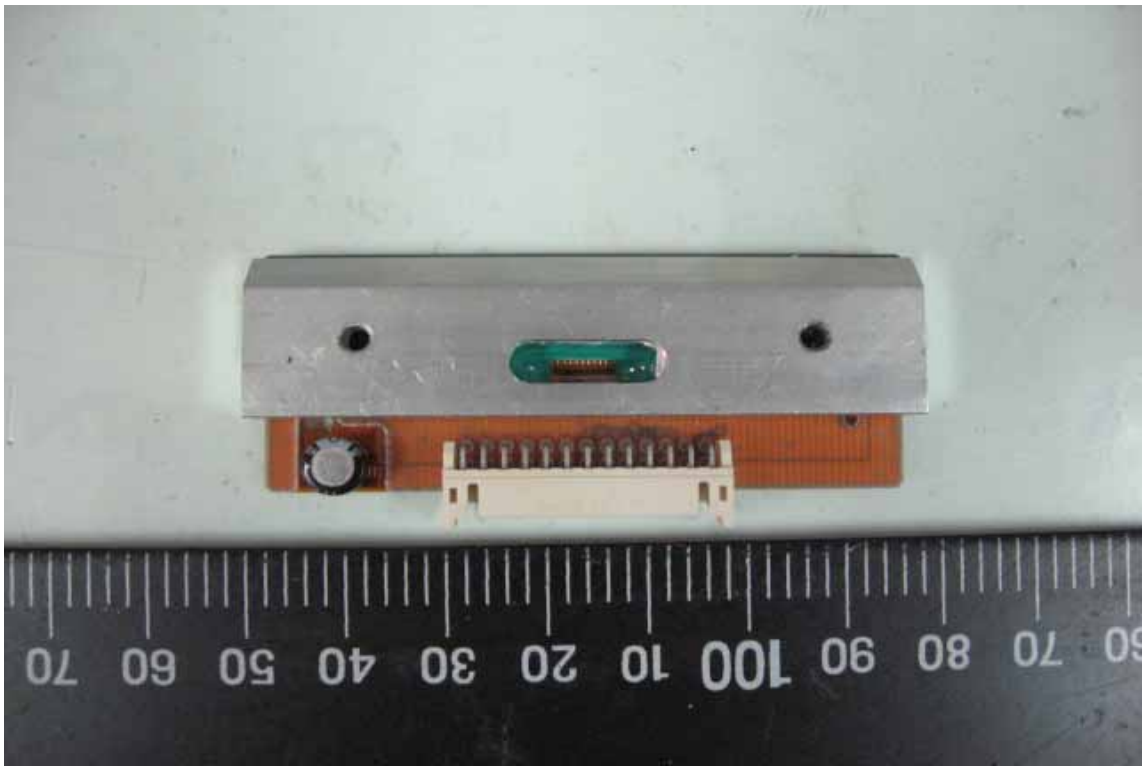


CONSTRUCTED PHOTOS of EUT

41.



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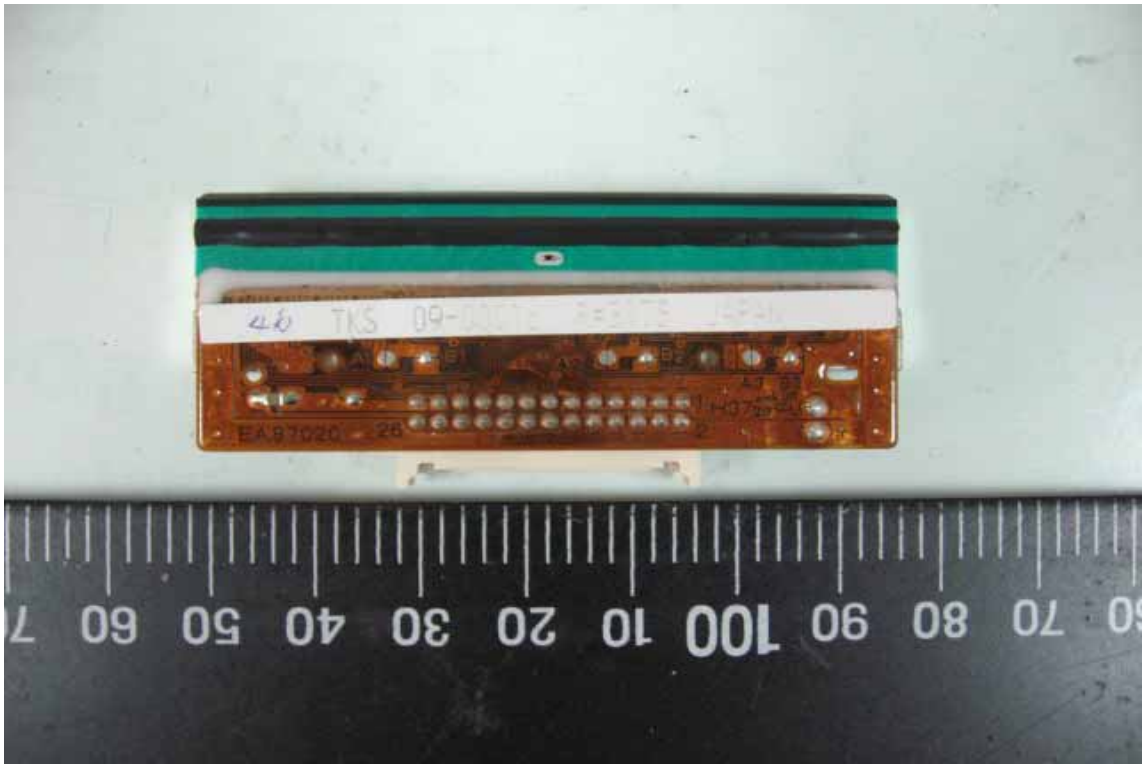

CONSTRUCTED PHOTOS of EUT

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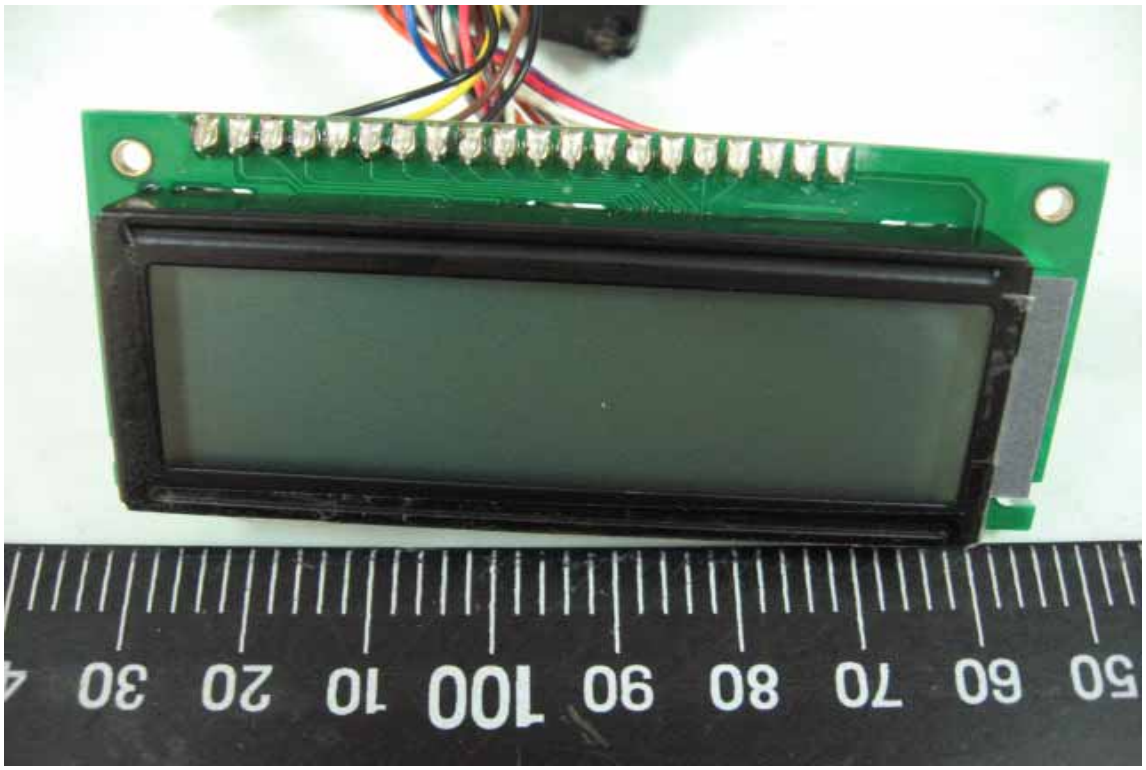

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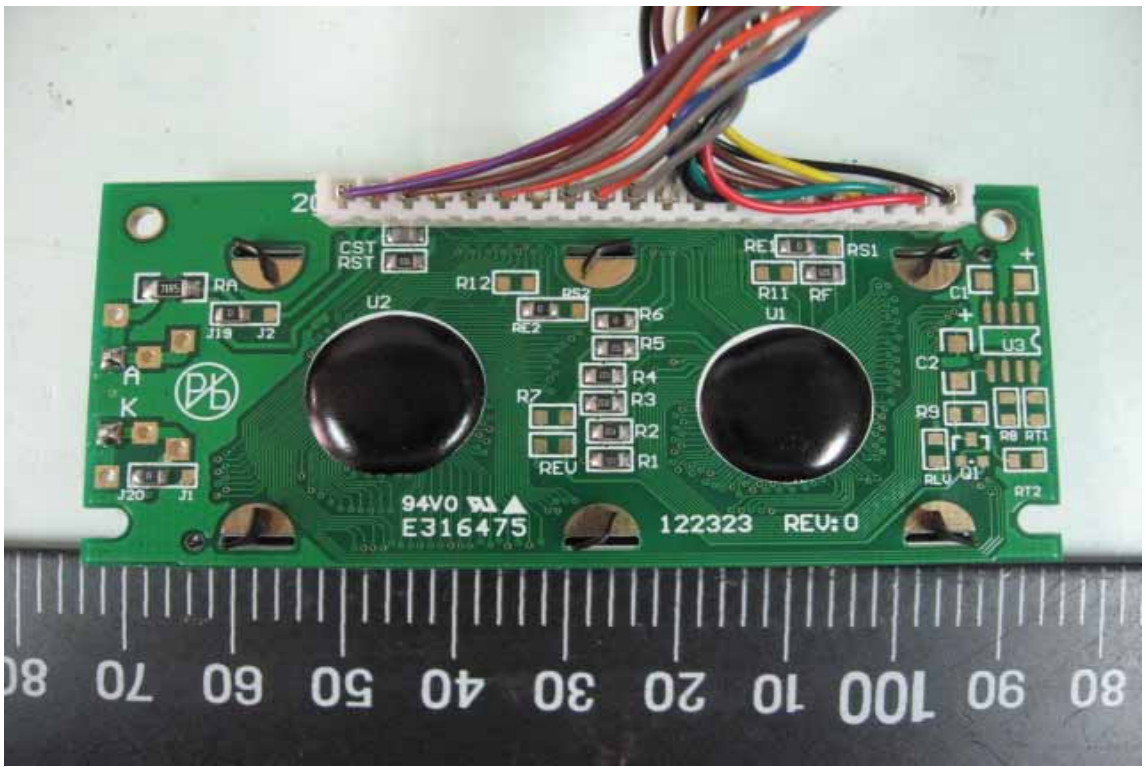

CONSTRUCTED PHOTOS of EUT

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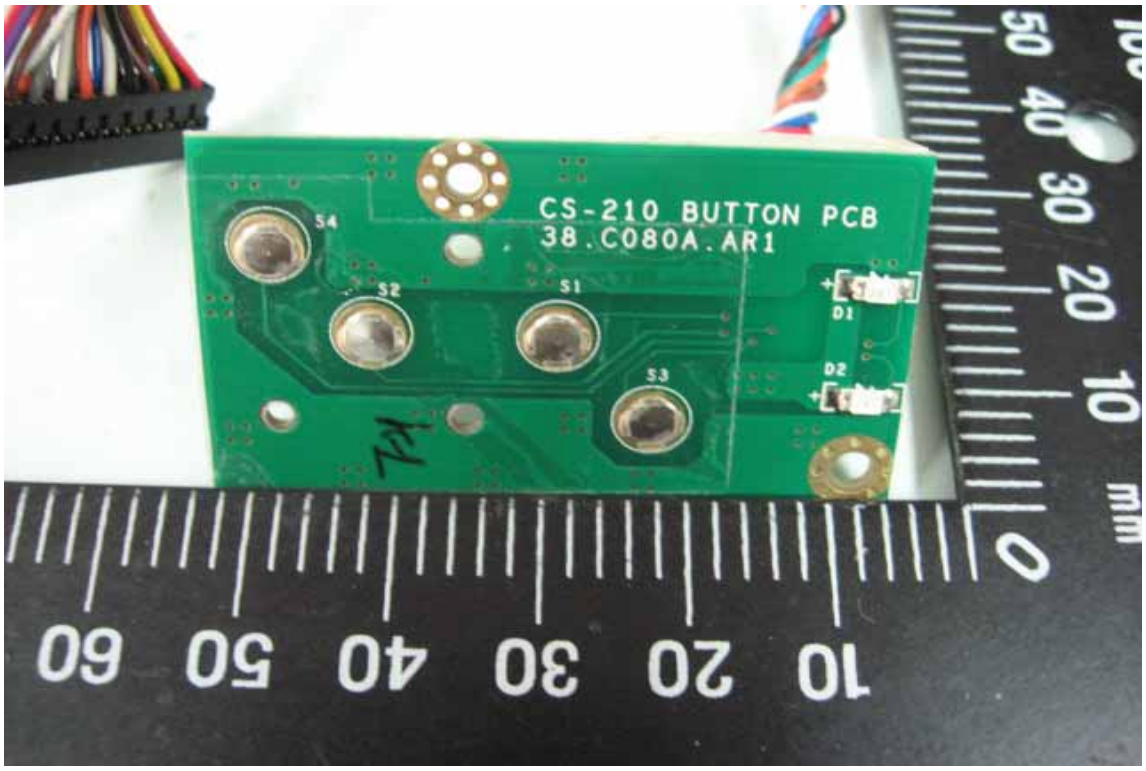

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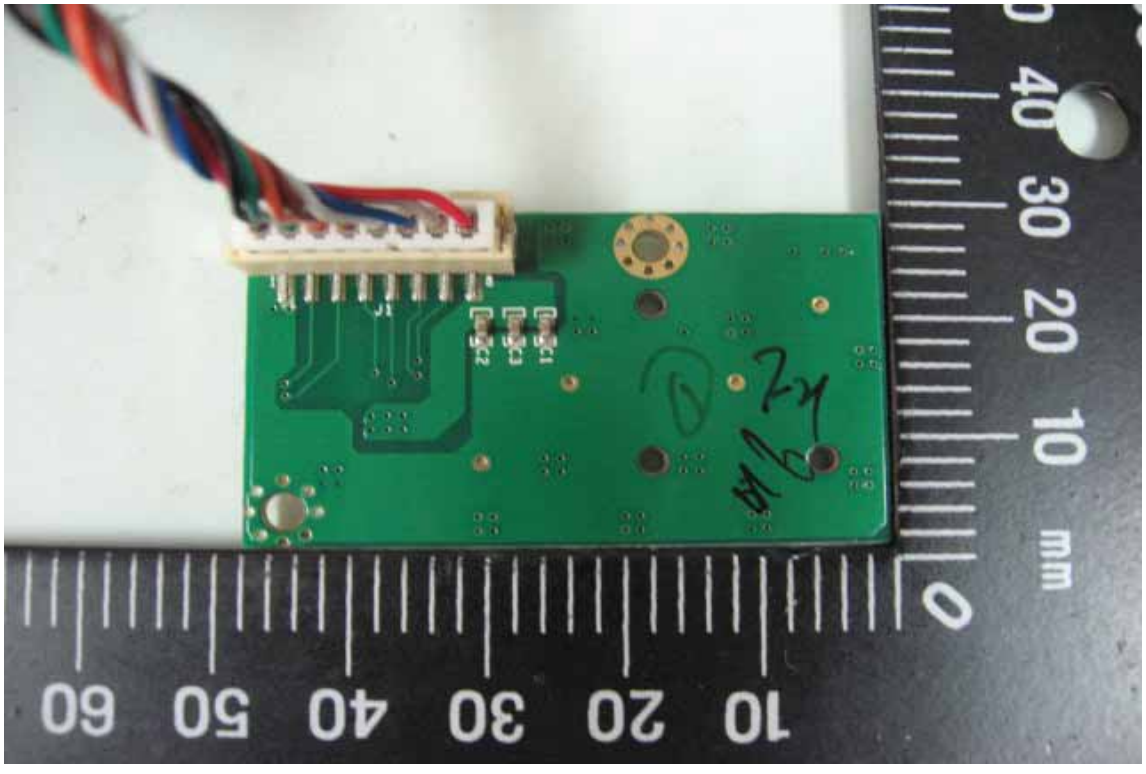

CONSTRUCTED PHOTOS of EUT

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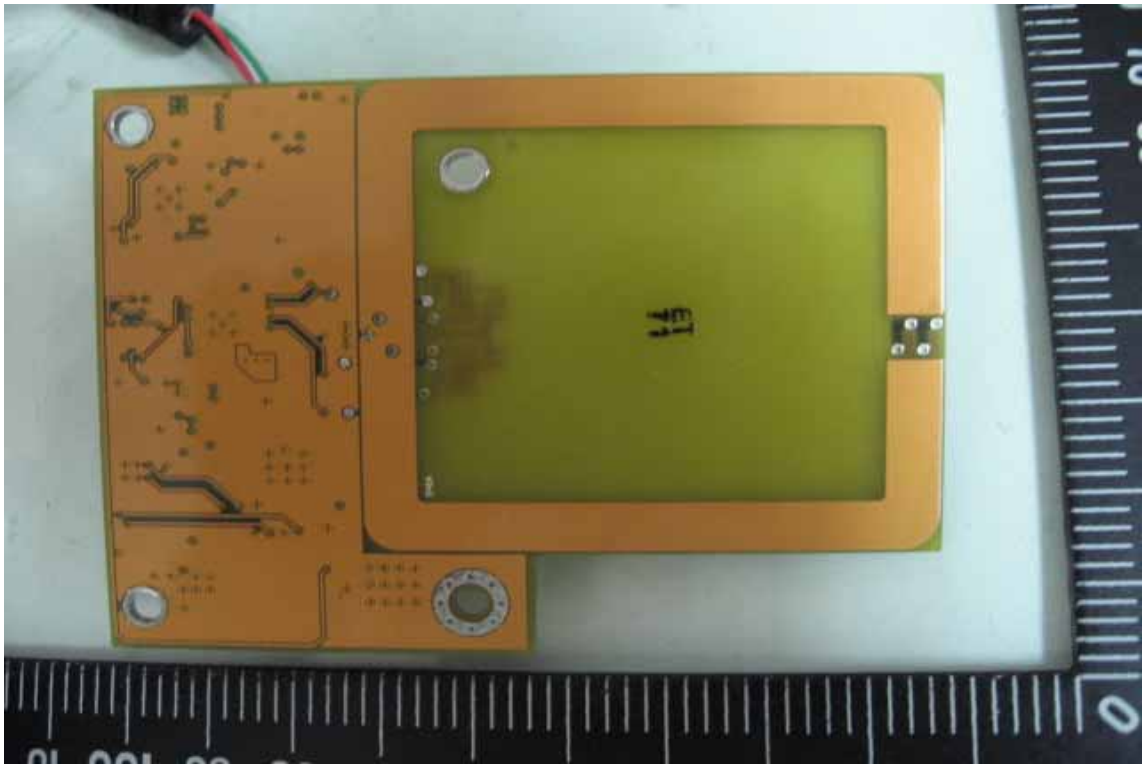

CONSTRUCTED PHOTOS of EUT

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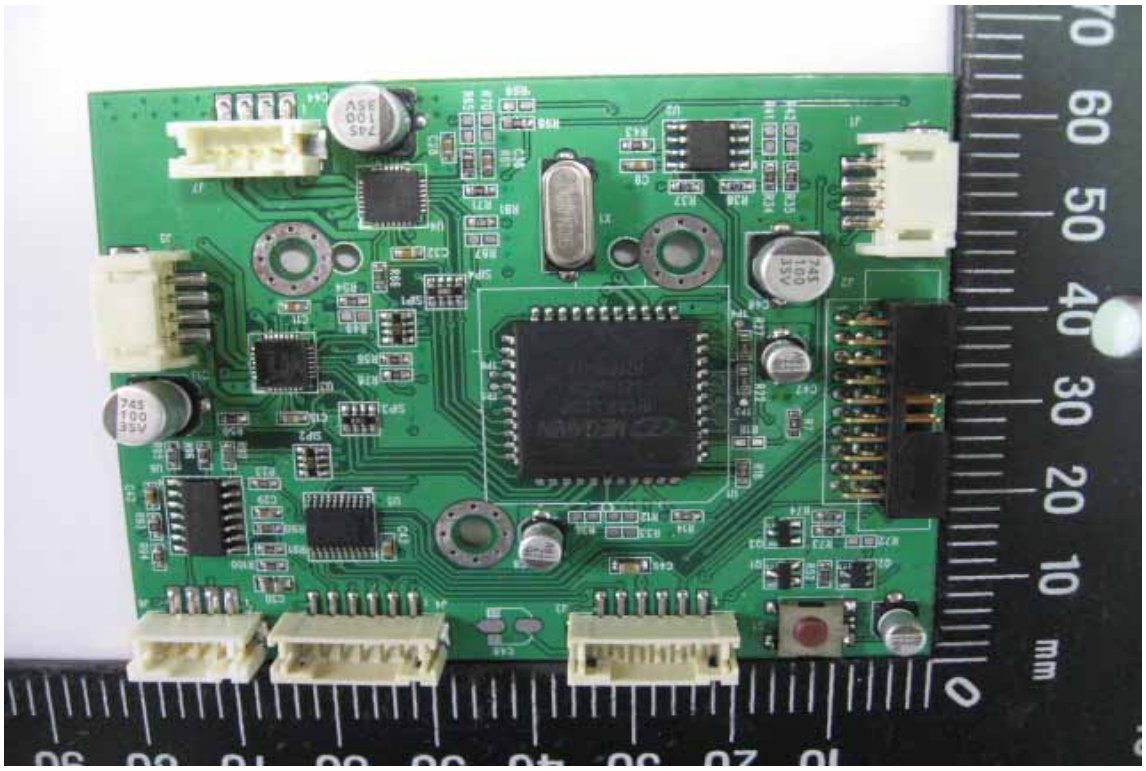

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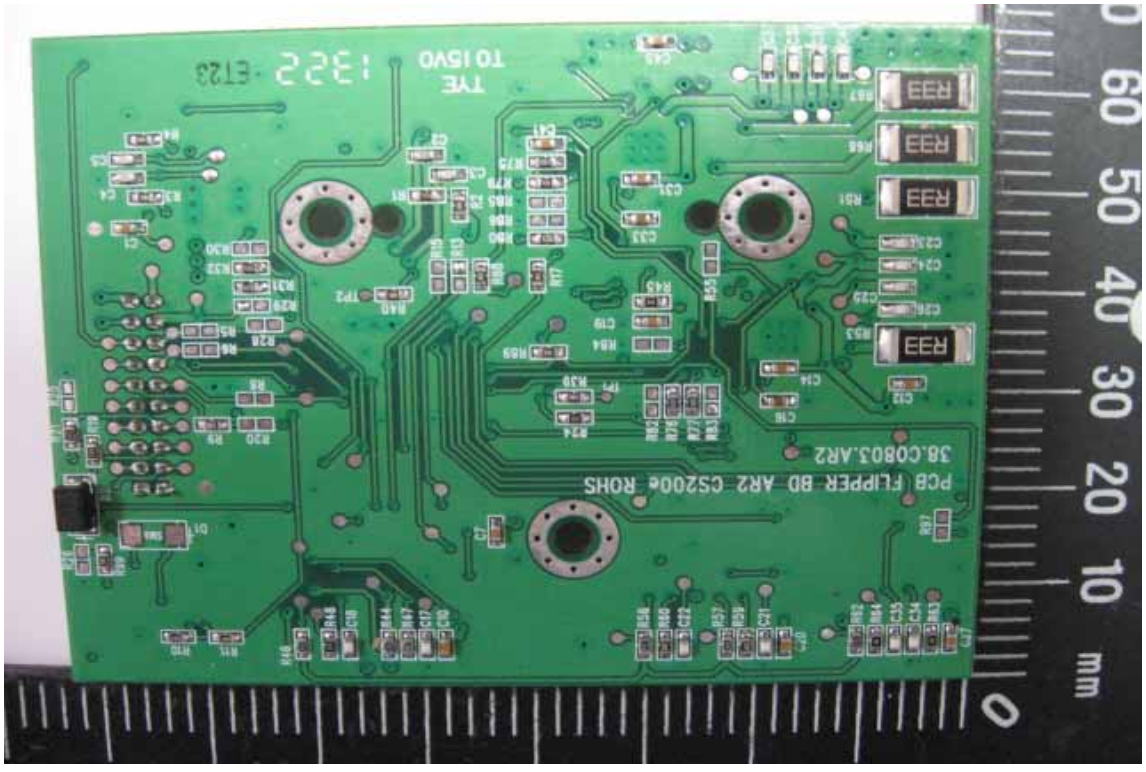
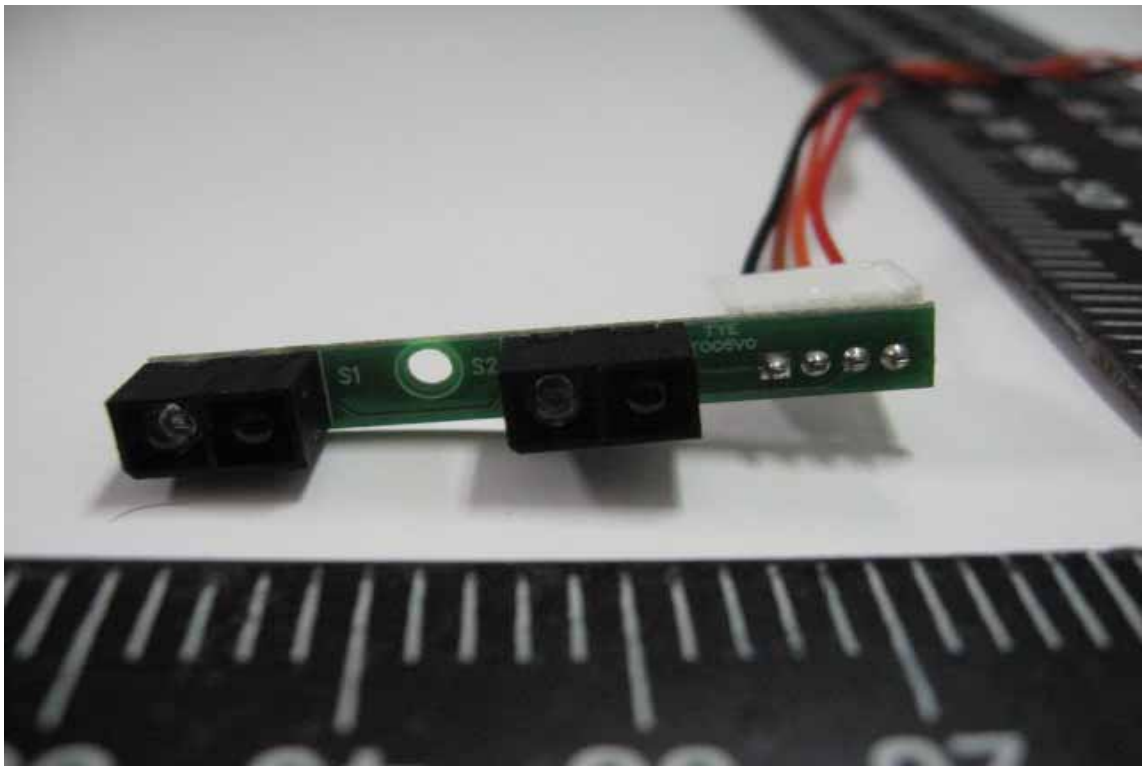
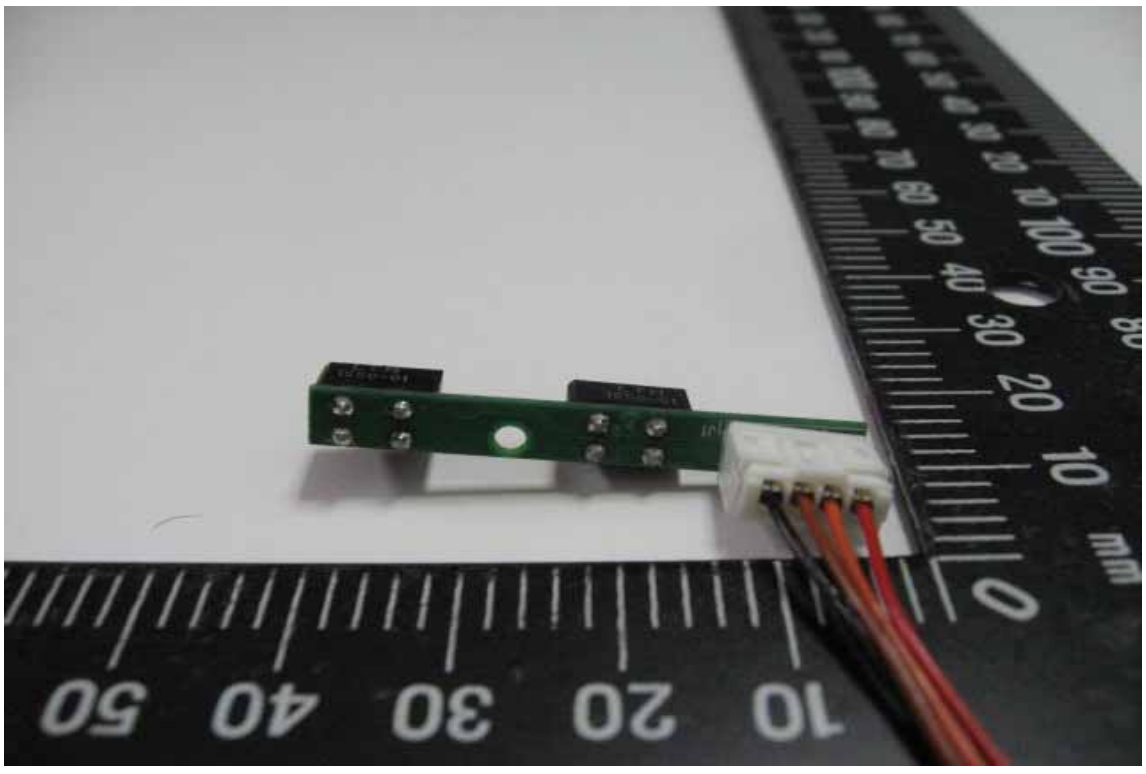


CONSTRUCTED PHOTOS of EUT

51.



52.



CONSTRUCTED PHOTOS of EUT

(B)Adapter

1.

2.

CONSTRUCTED PHOTOS of EUT

3.

4.