Shenzhen Huatongwei International Inspection Co., Ltd.
Keji S,12th , Road, Hi-tech Industrial Park, Shenzhen, Guangdong, China
Phone:86-755-26748099 Fax:86-755-26748089 http://www.szhtw.com.cn

CNASL1225

TEST REPORT

47 CFR FCC Part 15 Subpart B (Class B)
Radio Frequency Devices – Unintentional Radiators – Limits and methods of measurement
ANSI C63.4: 2009
American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Report Reference No.....:	**TRE12020111**
FCC ID.....:	**BBP-MFMP301SPF1**
Compiled by (position+printed name+signature)..:	File administrators Tim Zhang
Supervised by (position+printed name+signature)..:	Test Engineer Eric Zhang
Approved by (position+printed name+signature)..:	Manager Wenliang Li
Date of issue.....:	Mar 09, 2012
Testing Laboratory Name .....:	**Shenzhen Huatongwei International Inspection Co., Ltd**
Address.....:	Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Testing location/ procedure .....:	Full application of Harmonised standards ☒ Partial application of Harmonised standards ☐ Other standard testing methods ☐
Applicant's name.....:	**Ricoh Company Ltd**
Address.....:	810, Shimoimaizum, Ebina-Shi, Kanagawa-ken, 243-0460 Japan
Test specification:	
Standard .....:	**47 CFR FCC Part 15 Subpart B (Class B) ANSI C63.4: 2009**
Non-standard test method……..:	/
Test Report Form No.....:	HTWEMCFCC_1A
TRF Originator.....:	Shenzhen Huatongwei International Inspection Co., Ltd
Master TRF.....:	Dated 2006-06

Test item description .....:	Multifunction Digital Product(Copier/Printer/Scanner/Fax)
Trade Mark .....:	/
Manufacturer .....:	Shanghai Ricoh Digital Equipment Co., Ltd.
Model/Type reference.....:	MP 301SP/Aficio MP 301SP, MP 301SPF/Aficio MP 301SPF
Listed Model….. .....:	/
Ratings.....:	120V 60Hz 9A 1100W
Result.....:	**Positive**

EMC -- T E S T R E P O R T

Test Report No. :	**TRE12020111**	Mar 09, 2012 Date of issue

Equipment under Test	:	Multifunction Digital Product(Copier/Printer/Scanner/Fax)
Model / Type	:	MP 301SP/Aficio MP 301SP, MP 301SPF/Aficio MP 301SPF
Listed Model	:	/
Applicant	:	Ricoh Company Ltd
Address	:	810, Shimoimaizum, Ebina-Shi, Kanagawa-ken, 243-0460 Japan
Manufacturer	:	Shanghai Ricoh Digital Equipment Co., Ltd.
Address	:	No. 887 Jingang Road, Pudong New Area, 201206 Shanghai, PEOPLE'S REPUBLIC OF CHINA

Test Result according to the standards on page 4:	**Positive**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1. TEST STANDARDS 4

2. SUMMARY 4

2.1. General Remarks: 4
2.2. Equipment under Test 4
2.3. Short description of the Equipment under Test (EUT) 4
2.4. EUT operation mode 5
2.5. EUT configuration 5

3. TEST ENVIRONMENT 11

3.1. Address of the test laboratory 11
3.2. Test Facility 11
3.3. Environmental conditions 12
3.4. Test Description 12
3.5. Statement of the measurement uncertainty 12
3.6. Equipments Used during the Test 13

4. TEST CONDITIONS AND RESULTS 14

4.1. Radiated Emission 14
4.2. Conducted Disturbance 45

5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT 63

5.1. External photos of the EUT 63
5.2. Internal photos of the EUT 66

1. TEST STANDARDS

The tests were performed according to following standards:

47 CFR FCC Part 15 Subpart B (Class B) Radio Frequency Devices – Unintentional Radiators – Limits and methods of measurement.
ANSI C63.4: 2009 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

2. SUMMARY

2.1. General Remarks:

Date of receipt of test sample : Feb 24, 2012

Testing commenced on : Feb 24, 2012

Testing concluded on : Mar 09, 2012

Note: The test report adds all items test data based on original test report No.: TRE11110005.

2.2. Equipment under Test

Power supply system utilised

Power supply voltage : o 230V / 50 Hz o 115V / 60Hz
o 12 V DC o 24 V DC
■ Other (specified in blank below)

AC 120V/60Hz

2.3. Short description of the Equipment under Test (EUT)

The EUT is a Multifunction Digital Product (Copier/Printer/Scanner/Fax)

Model Difference: Unless otherwise indicated, all tests were conducted on Model TypeA. Tests performed on

Model TypeA were considered to be representative of Model TypeB.

The differences between the models are as follows.

RICOH's Models	Note
TypeB: MP 301SP/Aficio MP 301SP	Copy + Print , Scan
TypeA: MP 301SPF/Aficio MP 301SPF	Copy + Print , Scan +Fax

The change under this application is adding a Panel (Alternate).

The main differences between original Panel and alternate Panel are size and ports:

1.Size: 4.3 inch is changed to 8.5 inch.

2.Ports: Remove SD card reader and USB reader.

2.4. EUT operation mode

The equipment under test was operated during the measurement under the following conditions:
Test program (customer specific)

Emissions tests……..: 47 CFR FCC Part 15 Subpart B (Class B) and ANSI C63.4 2009, searching for the highest disturbance.

2.5. EUT configuration

1) Equipment under test

Kind of equipment	Manufacturer	Model name	Serial number	Remarks
(1)Copy Machine	RICOH	MP 301SPF /Aficio MP 301SPF	D1691700022	
(2)ARDF	RICOH	ARDF DF1030	AGD1110900132	
(3)-1 BANK	RICOH	Paper Feed Unit PB 1040	D661-171087	
(3)-2 BANK	RICOH	Paper Feed Unit PB 1040	D661-171071	
(4)MKB	RICOH	Optional Counter Interface Unit Type A	B870510210500256	
(5) Bluetooth(USB)	RICOH	Bluetooth Interface Unit Type D	002673F214A	FCC ID: BBP-BT21A01
(6)HDD	RICOH	Hard Disk Drive Option Type 301	WXC1A71J2297	
(7)IEEE 1284	RICOH	IEEE 1284 Interface Board Type A	B5955870001200173	
(8)GigaEther &USB	RICOH	Gigabit Ethernet Board Type A	G8745000C1030011 3	
(9) ICIB	RICOH	Copy Data Security Unit Type F	B8295106D1020002 9	
(10) MLB	RICOH	File Format Converter Type E	D3775603A1030001 9	
(11)Fax Unit	RICOH	FAX Option Type 301	FC1108415068	
(12)Handset	RICOH	Hand Set Type C5502	1CETE17BAF33R01 1	

2）Highest Frequency Generated or Used in The Device or on Which the Device Operates Or Tunes (MHz)

Kind of equipment	Model name	Operates Frequency	Remarks
Copy Machine	MP 301SPF/Aficio MP 301SPF	1.5GHz	HDD

3) Supporting equipment

Kind of equipment	Manufacturer	Model name	Serial number	Remarks
(1)PC1	Lenovo	ThinkPad X201i	R8-7DYTX10/11	
(2)PC2	Dell	D610	CN-0D4571-48643-51S-0236	
(3)G3 Exchanger	Tengda	PABX	-	
(4)FAX Machine	Ricoh	Aficio SP 3410SF	S6918900047	
(5)PC Bluetooth(USB)	Kingfox	KW-001	kw00115216	
(6)Keyboard	Dell	SK-8115	CN0DJ3317161678POITD	
(7)Micro SD Reader	Buffalo	BSCRMSDCWH	A10801	

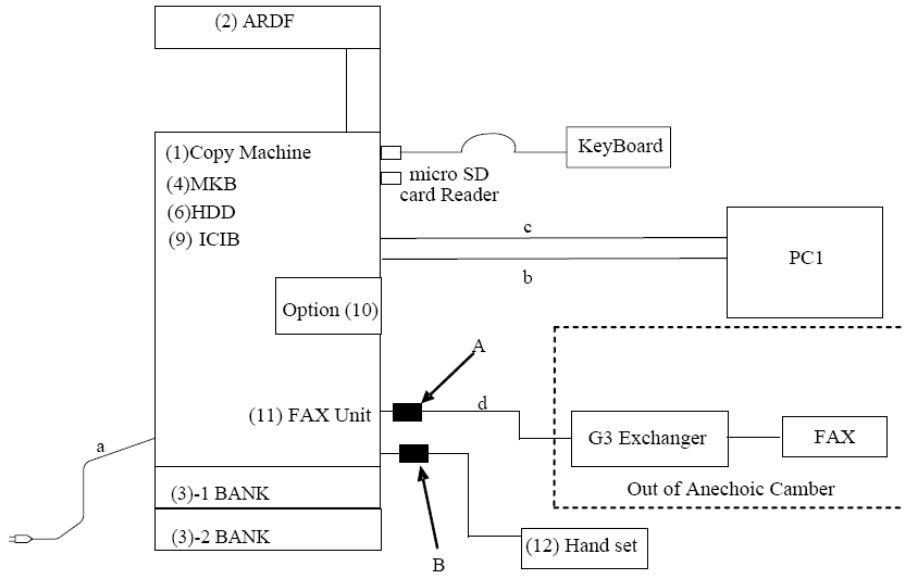
4)Operating modes：

No.	Operating modes	Remarks
1	Standby	(RE)
2	Copy + NIC Ping	(RE)
3	Bluetooth Print	(RE)
4	USB2.0 Print + IEEE1284 Print	(RE)
5	Giga Ping & Scan + USB(Giga) print	(RE)
6	G3-Tx	(RE)
7	G3-Rx	(RE)
8	Standby	(CE)
9	Copy	(CE)
10	Bluetooth Print	(CE)
11	USB2.0 Print + IEEE1284 Print	(CE)
12	Giga Print & scan + USB(Giga)Print	(CE)
13	G3-Tx	(CE)
14	G3-Rx	(CE)
15	NIC Print & Scan	(CE)

5）Configuration of EUT

Item	Cable Name	Manufacturer	Length	Shielding	Back Shell	Remark
a	AC Power Cable	TA HSING	2m	No	Plastic	
b	USB Cable	RICOH	2.5m	Yes	Metal	
c	NIC Cable	Black Box	3m	No	Plastic	
d	Modular Cable	RICOH	2m	No	Plastic	
e	Centro I/F Cable	Black Box	3m	Yes	Metal	
f	NIC Cable(STP Cable)	TOTAL	3m	Yes	Metal	

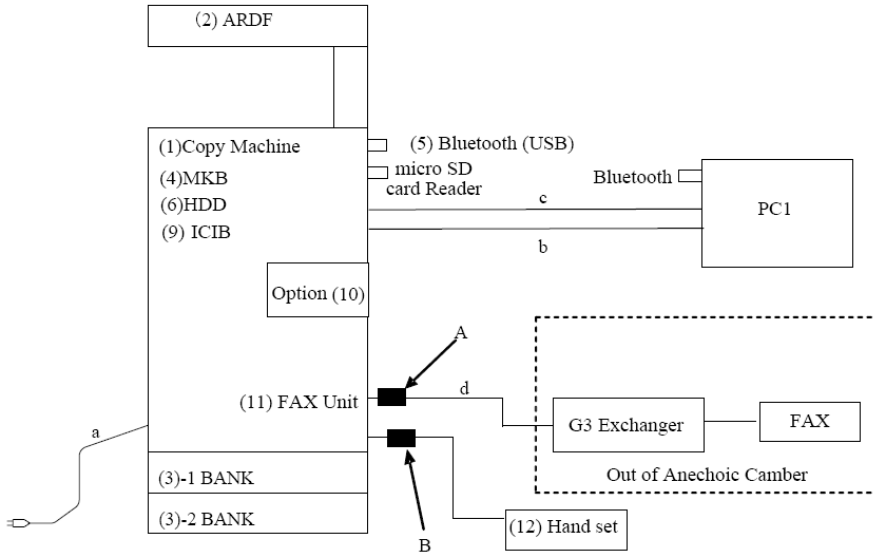
Mode 1 Stanby
Mode 2 Copy + NIC(ping)
Mode 6 G3-Tx
Mode 7 G3-Rx



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
c : NIC Cable
d : Modular Cable

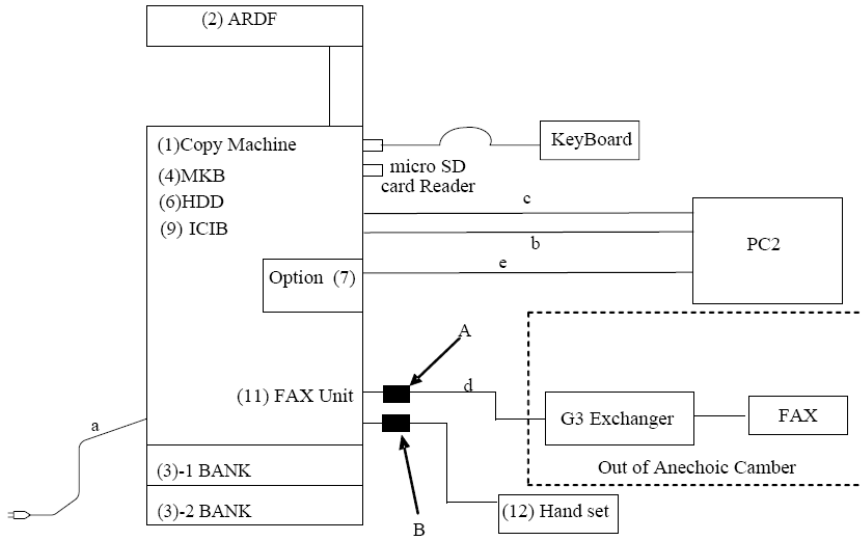
Mode 3 Bluetooth Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
c : NIC Cable
d : Modular Cable

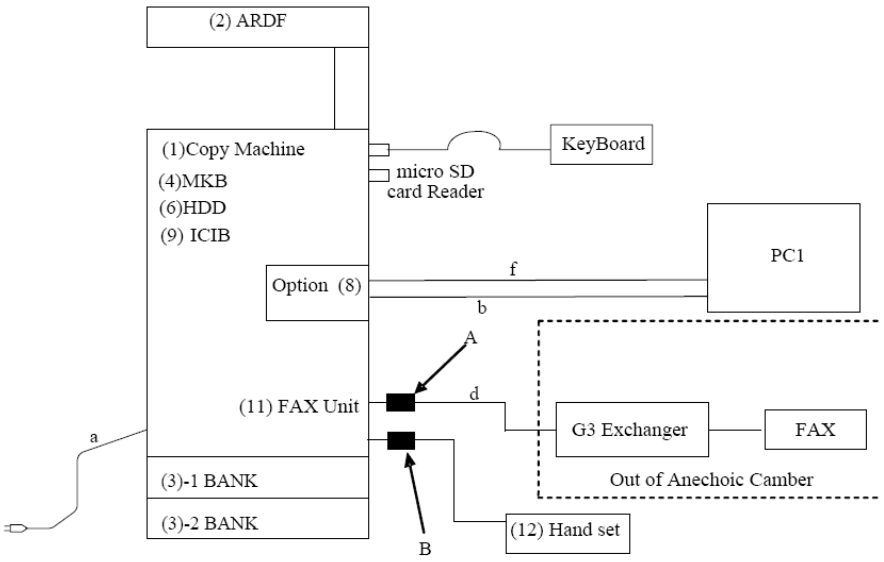
Mode 4 USB2.0 Print +IEEE1284 Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
d : Modular Cable
e: Centro I/F Cable

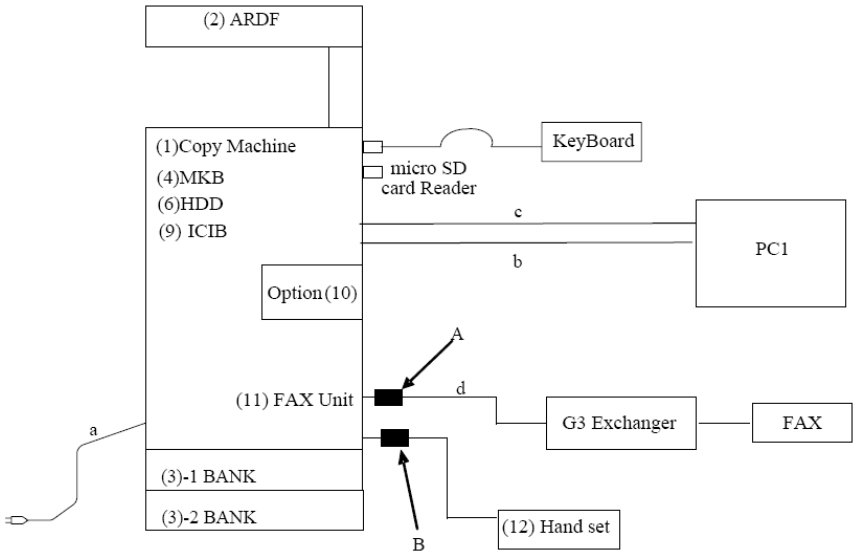
Mode 5 Giga ping & Scan + USB（Giga） Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
d : Modular Cable
f : NIC Cable (STP Cable)

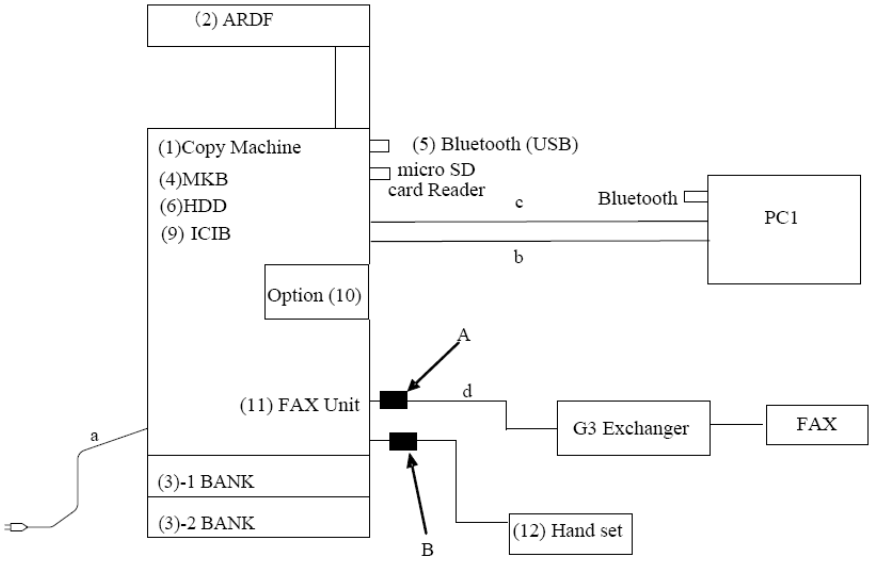
Mode 8 Stanby
Mode 9 Copy
Mode 13 G3-Tx
Mode 14 G3-Rx
Mode 15 NIC Print&Scan



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
c : NIC Cable
d : Modular Cable

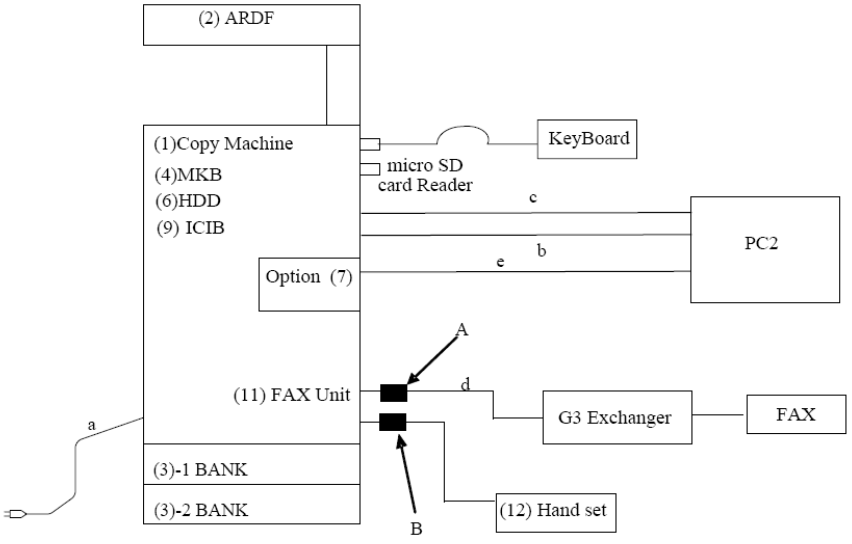
Mode 10 Bluetooth Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
c : NIC Cable
d : Modular Cable

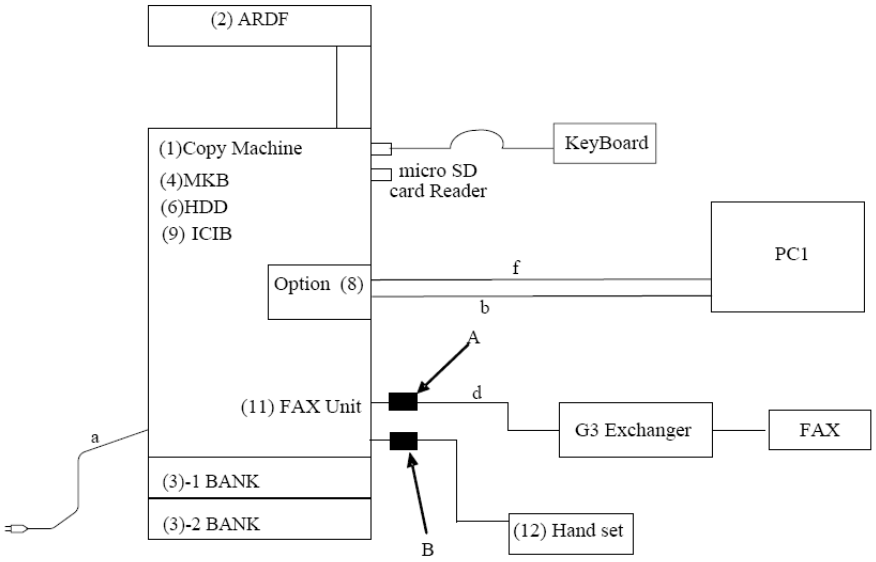
Mode 11 USB2.0 Print +IEEE1284 Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
d : Modular Cable
e : Centro I/F Cable

Mode 12 Giga ping & Scan + USB（Giga） Print



A:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)
B:Ferrite Core ...Ferrico K3 NF-75(N) BK0 (2turn)

a : AC Power Cable
b : USB Cable
d : Modular Cable
f : NIC Cable (STP Cable)

6)The combination of apparatus, and the mode of operation

Model name	Operating Mode														
Mode No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
EUT	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
ARDF DF1030	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
BANK PB1040	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
BANK PB1040	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MKB Optional Counter Interface Unit Type A	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hard Disk Drive Option Type 301	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
ICIB Copy Data Security Unit Type F	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
IEEE1284 Interface Board Type A				○							○				
Gigabit Ethernet Board Type A					○							○			
Bluetooth Interface Unit Type D			○							○					
MLB File Format Converter Type E	○	○	○			○	○	○	○	○			○	○	○
FAX Option Type 301	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hand Set Type C5502	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Key Board	○	○		○	○	○	○	○	○		○	○	○	○	○

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Huatongwei International Inspection Co., Ltd
Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Phone: 86-755-26715686 Fax: 86-755-26748089

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: Mar. 30, 2009. Valid time is until Feb 28, 2015.

A2LA-Lab Cert. No. 2243.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until Sept. 30, 2013.

FCC-Registration No.: 662850

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 662850, Renewal date Jul. 01, 2009, valid time is until Jun. 30, 2012.

IC-Registration No.: 5377A

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Jan. 25, 2011, valid time is until Jan. 24, 2014.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

NEMKO-Aut. No.: ELA125

Shenzhen Huatongwei International Inspection Co., Ltd has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10, the authorization is valid through July 07, 2013

VCCI

The 3m Semi-anechoic chamber (12.2m×7.95m×6.7m) and Shielded Room (8m×4m×3m) of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-292. Date of Registration: Dec. 24, 2010. Valid time is until Dec. 23, 2013.

Main Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-2726. Date of Registration: Dec. 20, 2009. Valid time is until Dec. 19, 2012.

Telecommunication Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-1837. Date of Registration: May 07, 2010. Valid time is until May 06, 2013.

DNV

Shenzhen Huatongwei International Inspection Co., Ltd. has been found to comply with the requirements of DNV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Directives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025 (2005), in accordance with the requirements of the DNV Laboratory Quality Manual towards subcontractors. Valid time is until Aug. 24, 2013.

3.3. Environmental conditions

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

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4. Test Description

Emission Measurement		
Radiated Emission	47 CFR FCC Part 15 Subpart B Class B ANSI C63.4 2009	PASS
Conducted Disturbance	47 CFR FCC Part 15 Subpart B Class B ANSI C63.4 2009	PASS

Remark: The measurement uncertainty is not included in the test result.

3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.24dB	(1)
Radiated Emission	1G~7.5G	5.16dB	(1)
Conducted Disturbance	0.15~30 MHz	3.39dB	(1)

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

3.6. Equipments Used during the Test

Radiated Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ULTRA-BROADBAND ANTENNA	Rohde & Schwarz	HL562	100015	2011/05/30
2	EMI TEST RECEIVER	Rohde & Schwarz	ESI 26	100009	2011/10/24
3	RF TEST PANEL	Rohde & Schwarz	TS / RSP	335015/ 0017	2011/10/24
4	TURNTABLE	ETS	2088	2149	2011/10/24
5	ANTENNA MAST	ETS	2075	2346	2011/10/24
6	EMI TEST SOFTWARE	Rohde & Schwarz	ESK1	N/A	2011/10/24
7	Double-Ridged-Waveguide Horn Antenna	Rohde & Schwarz	HF906	100039	2011/10/24
8	Semi-anechoic chamber	ETS-LINDGREN	AJ 593 HTW	N/A	2011/10/24

Conducted Disturbance					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	Rohde & Schwarz	ESCS30	100038	2011/10/24
2	Artificial Mains	Rohde & Schwarz	ESH2-Z5	100028	2011/10/24
3	Artificial Mains	Rohde & Schwarz	ESH3-Z5	100040	2011/10/24
4	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100044	2011/10/24
5	EMI Test Software	Rohde & Schwarz	ESK1	N/A	2011/10/24
6	3# shielded room	ETS-LINDGREN	RFD-100	2406	N/A

4. TEST CONDITIONS AND RESULTS

4.1. Radiated Emission

For test instruments and accessories used see section 3.6.

4.1.1. Description of the test location

Test location: Shielded room No. 4

4.1.2. Limits of disturbance

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBμV/m)	
30 ~ 88	3	40	
88~216	3	43.5	
216 ~ 960	3	46	
960-1000	3	54	
1000-7500	3	74(PK)	54(AV)

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

(3)The highest frequency of the internal sources of the EUT is 1500MHz, so the measurement was made up to 7.5 GHz.

4.1.3. Description of the test set-up

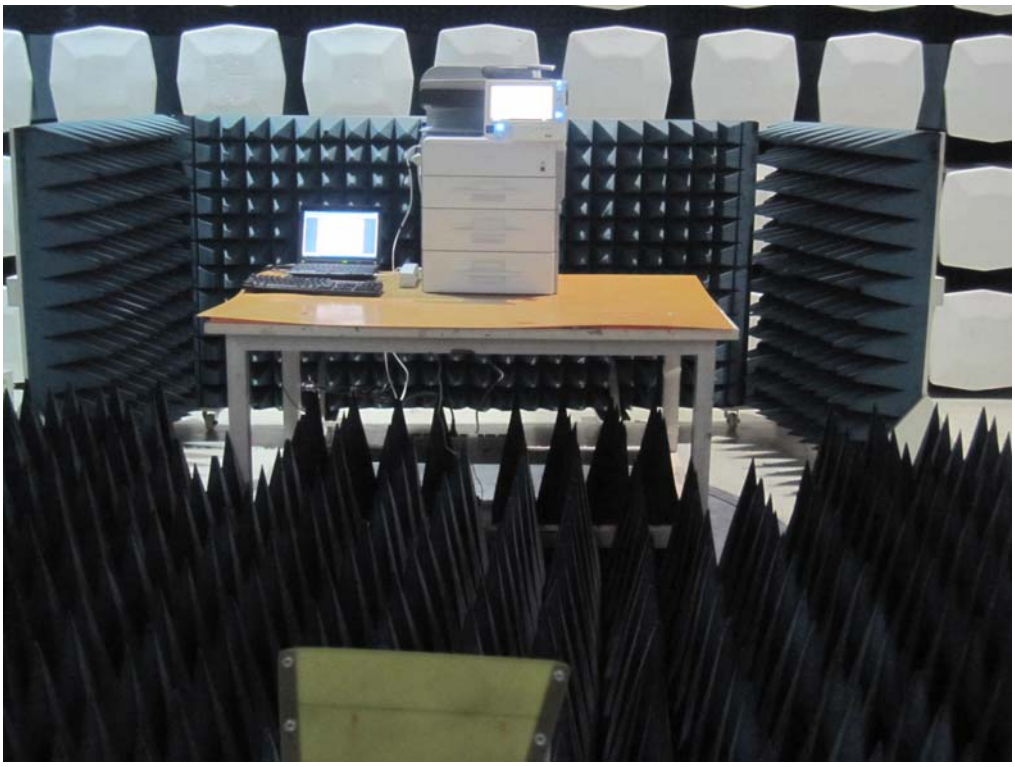
4.1.3.1. Operating Condition

The EUT is set to work that shall be carried out respectively standby, Copy + NIC Ping, Bluetooth Print, USB2.0 Print + IEEE1284 Print, Giga Ping & Scan + USB(Giga) print, G3 Tx, G3 Rx modes during the test and the results of the maximum emanation are recorded.

4.1.3.2. Test Configuration and Procedure

Test is carried out in Semi-Anechoic Chamber. EUT is placed on a nonmetal table which is 0.8 meter above a grounded turntable. EUT is set 3 meters away from the center of receiving antenna. The turntable can rotate 360 degrees to determine the azimuth of the maximum emission level and then the antenna can move up and down from 1 to 4 meter to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna are set on the test.

4.1.3.3. Photos of the test set-up



4.1.4. Test result

The requirements are **Fulfilled**

Band Width: 120 KHz

Frequency Range: 30MHz to 1000MHz

Band Width: 1MHz

Frequency Range: 1G-7.5G

Remarks: The limits are kept. For detailed results, please see the following page(s).

Margin=limit-level

Level=read valus+transducer

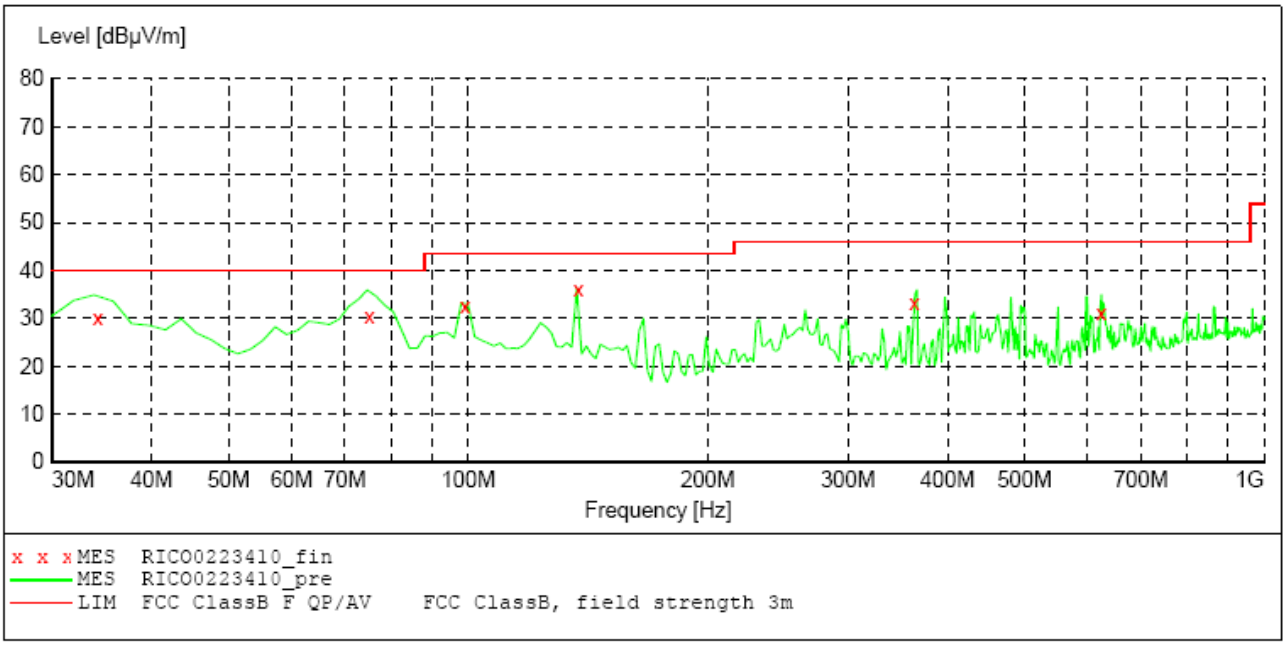
Transducer=antenna factor+pre-amplifier factor+cable loss (with 6db attenuator)

For 30MHz-1000MHz

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Standby	137.64	35.9	Vertical	43.50	7.6	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step       Detector  Meas.    IF       Transducer
Frequency  Frequency  Width                Time     Bandw.
30.0 MHz   1.0 GHz    60.0 kHz   QuasiPeak 1.0 s    120 kHz HL562 2011
```



MEASUREMENT RESULT: "RIC00223410_fin"

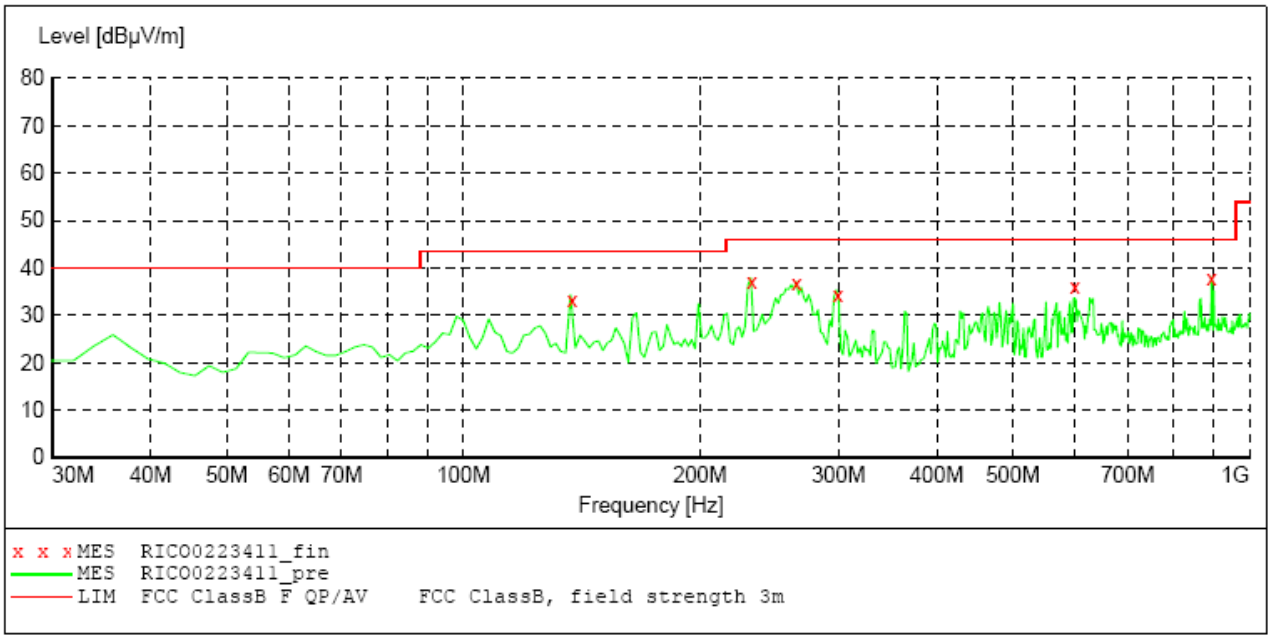
2/24/2012 8:27AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
34.260000	30.20	-13.5	40.0	9.8	QP	100.0	125.00	VERTICAL
75.180000	30.50	-22.3	40.0	9.5	QP	150.0	259.00	VERTICAL
99.060000	32.60	-19.9	43.5	10.9	QP	100.0	85.00	VERTICAL
137.640000	35.90	-21.2	43.5	7.6	QP	100.0	2.00	VERTICAL
363.840000	33.20	-16.8	46.0	12.8	QP	100.0	12.00	VERTICAL
624.120000	31.20	-11.1	46.0	14.8	QP	100.0	156.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Standby	894.60	37.80	Horizontal	46.00	8.2	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF      Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223411_fin"

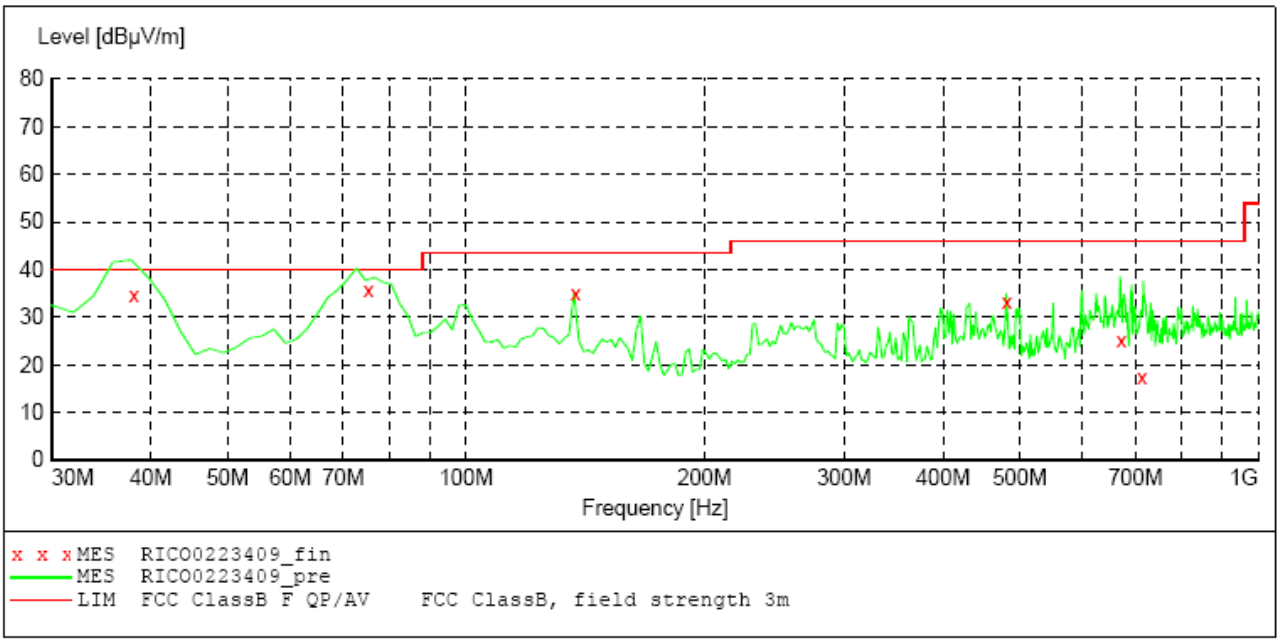
2/24/2012 8:36AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
137.700000	33.20	-21.2	43.5	10.3	QP	251.0	127.00	HORIZONTAL
232.980000	37.10	-19.3	46.0	8.9	QP	100.0	255.00	HORIZONTAL
265.500000	36.90	-18.0	46.0	9.1	QP	100.0	150.00	HORIZONTAL
299.580000	34.30	-17.0	46.0	11.7	QP	100.0	64.00	HORIZONTAL
600.000000	36.00	-12.5	46.0	10.0	QP	100.0	149.00	HORIZONTAL
894.600000	37.80	-6.9	46.0	8.2	QP	100.0	147.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Copy+NIC PING	75.36	35.70	Vertical	40.00	4.3	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.    IF      Transducer
Frequency  Frequency  Width               Time     Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s    120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223409_fin"

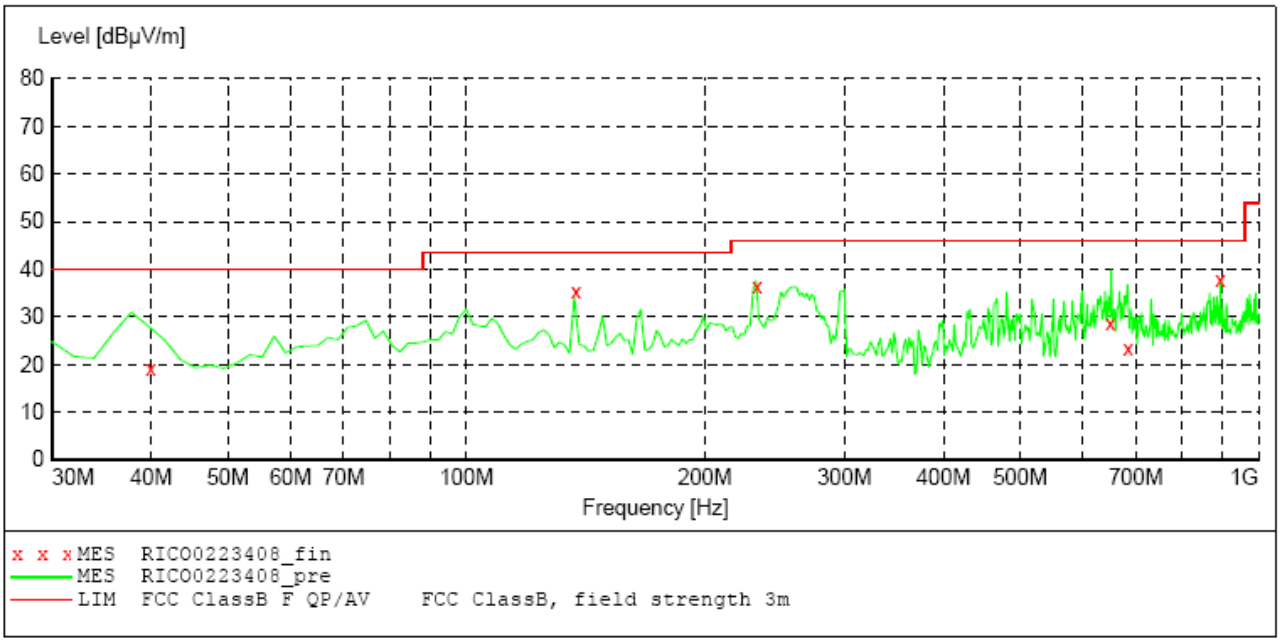
2/24/2012 8:14AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
38.100000	34.80	-15.5	40.0	5.2	QP	125.0	49.00	VERTICAL
75.360000	35.70	-22.3	40.0	4.3	QP	100.0	171.00	VERTICAL
137.580000	34.90	-21.2	43.5	8.6	QP	100.0	0.00	VERTICAL
481.680000	33.40	-13.6	46.0	12.6	QP	100.0	10.00	VERTICAL
672.360000	25.10	-9.5	46.0	20.9	QP	100.0	187.00	VERTICAL
713.940000	17.30	-9.5	46.0	28.7	QP	150.0	177.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Copy+NIC PING	894.54	37.9	Horizontal	46.00	8.1	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz   QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223408_fin"

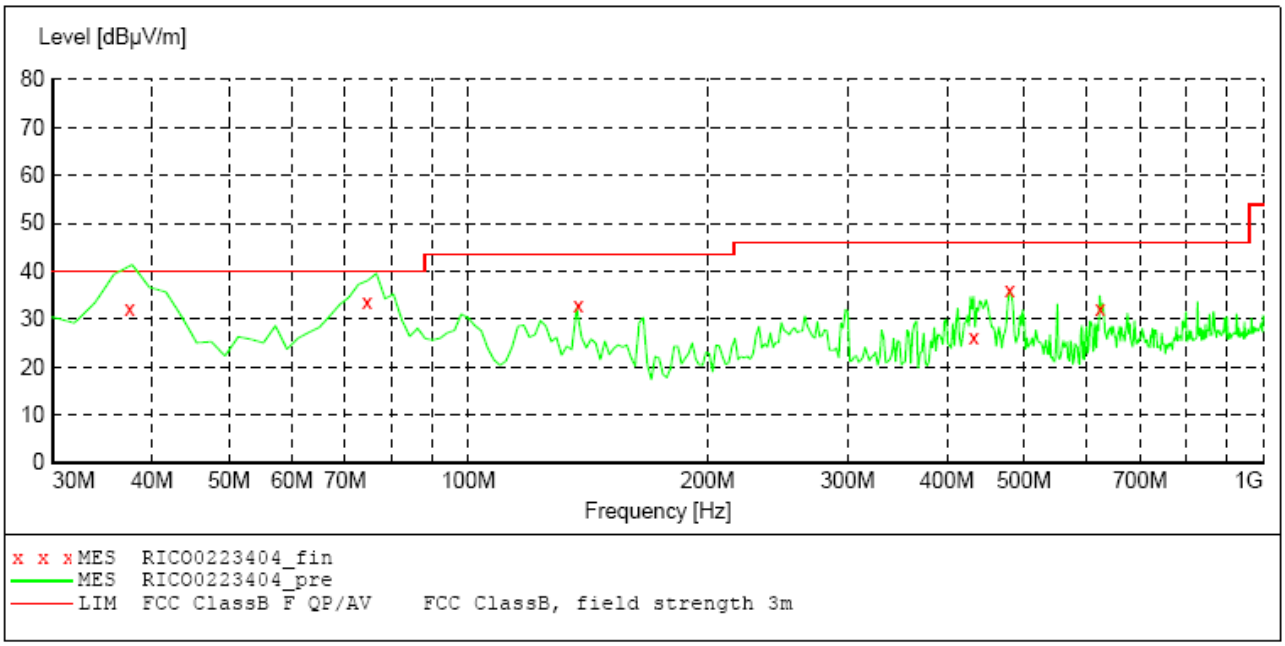
2/24/2012 8:04AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
39.960000	19.30	-16.8	40.0	20.7	QP	273.0	192.00	HORIZONTAL
137.640000	35.30	-21.2	43.5	8.2	QP	250.0	122.00	HORIZONTAL
232.980000	36.40	-19.3	46.0	9.6	QP	100.0	262.00	HORIZONTAL
650.940000	28.50	-10.2	46.0	17.5	QP	150.0	298.00	HORIZONTAL
684.180000	23.30	-9.7	46.0	22.7	QP	302.0	279.00	HORIZONTAL
894.540000	37.90	-6.9	46.0	8.1	QP	100.0	145.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Bluetooth Print	74.64	33.70	Vertical	40.00	6.3	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF       Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz  HL562 2011
```



MEASUREMENT RESULT: "RICO0223404_fin"

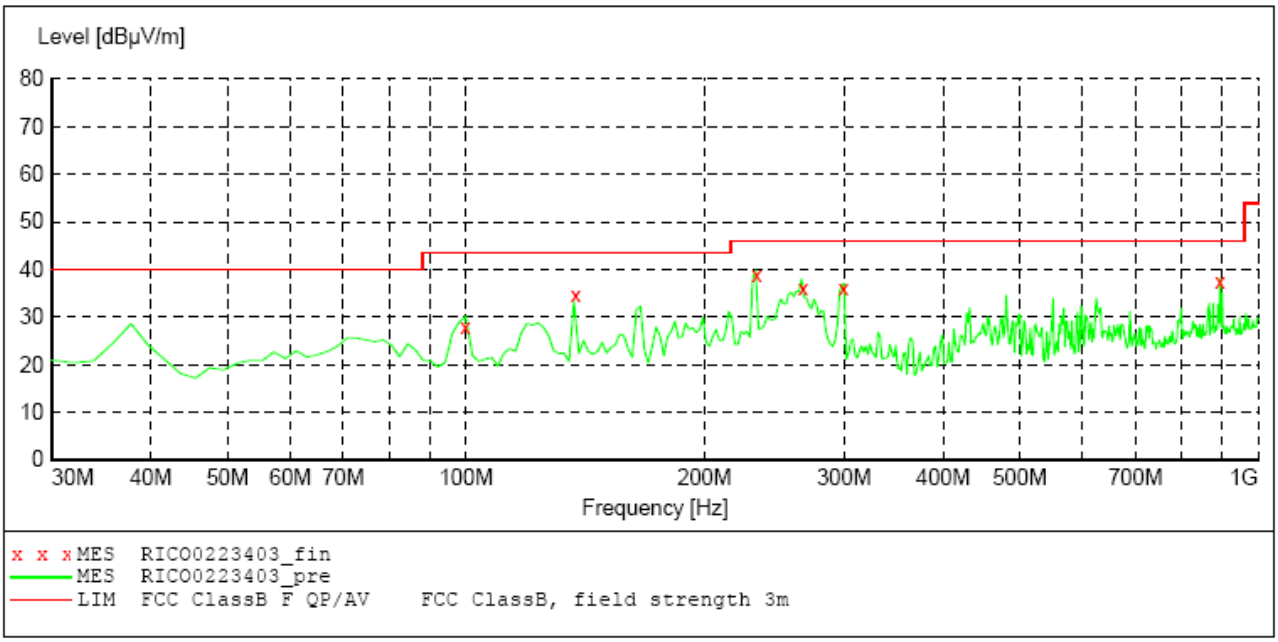
2/24/2012 7:09AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
37.500000	32.30	-15.1	40.0	7.7	QP	100.0	101.00	VERTICAL
74.640000	33.70	-22.4	40.0	6.3	QP	100.0	248.00	VERTICAL
137.640000	33.00	-21.2	43.5	10.5	QP	100.0	0.00	VERTICAL
432.780000	26.00	-15.5	46.0	20.0	QP	100.0	308.00	VERTICAL
480.000000	36.20	-13.6	46.0	9.8	QP	100.0	201.00	VERTICAL
624.120000	32.10	-11.1	46.0	13.9	QP	100.0	150.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Bluetooth Print	232.98	38.70	Horizontal	46.00	7.3	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF      Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RIC00223403_fin"

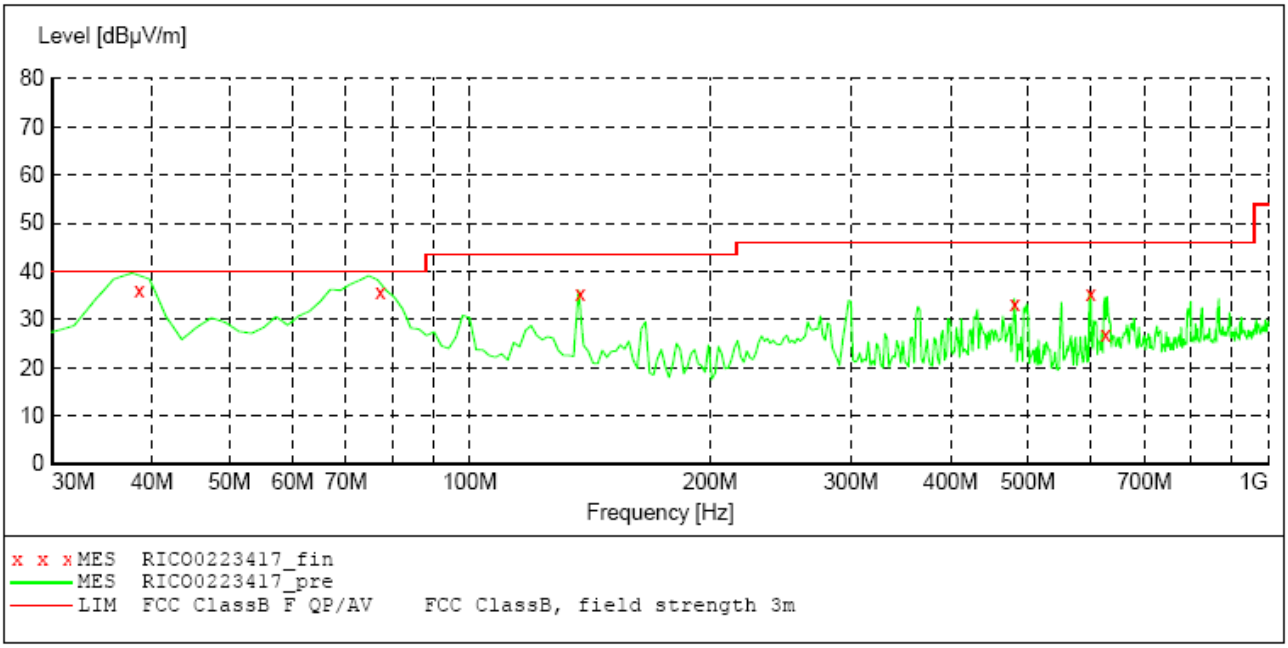
2/24/2012 6:57AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
99.840000	28.00	-19.9	43.5	15.5	QP	350.0	240.00	HORIZONTAL
137.640000	34.50	-21.2	43.5	9.0	QP	150.0	140.00	HORIZONTAL
232.980000	38.70	-19.3	46.0	7.3	QP	100.0	243.00	HORIZONTAL
266.340000	36.00	-18.0	46.0	10.0	QP	249.0	181.00	HORIZONTAL
299.580000	36.00	-17.0	46.0	10.0	QP	100.0	44.00	HORIZONTAL
894.600000	37.60	-6.9	46.0	8.4	QP	100.0	147.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
USB2.0 Print + IEEE1284 Print	38.58	36.00	Vertical	40.00	4.0	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.    IF       Transducer
Frequency  Frequency  Width               Time     Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s    120 kHz  HL562 2011
```



MEASUREMENT RESULT: "RIC00223417_fin"

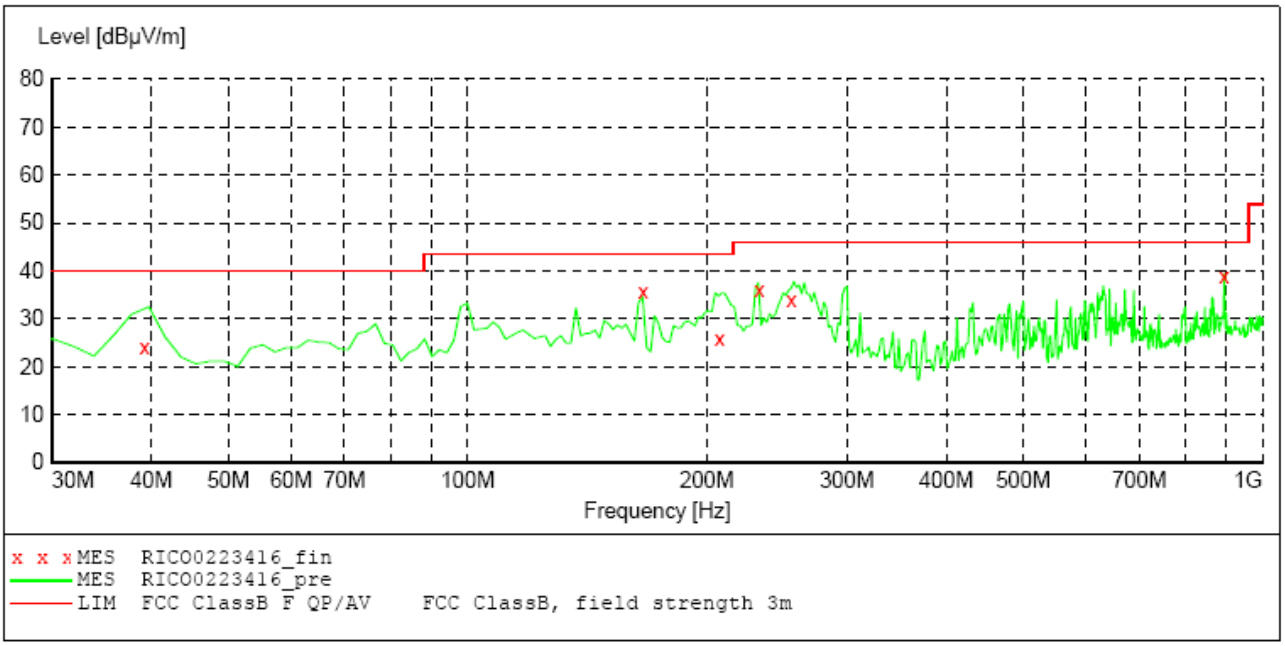
2/24/2012 10:06AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
38.580000	36.00	-15.8	40.0	4.0	QP	100.0	71.00	VERTICAL
77.280000	35.70	-22.3	40.0	4.3	QP	100.0	197.00	VERTICAL
137.640000	35.40	-21.2	43.5	8.1	QP	100.0	0.00	VERTICAL
481.740000	33.30	-13.6	46.0	12.7	QP	100.0	4.00	VERTICAL
599.760000	35.20	-12.5	46.0	10.8	QP	100.0	173.00	VERTICAL
626.460000	26.90	-11.0	46.0	19.1	QP	100.0	157.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
USB2.0 Print + IEEE1284 Print	894.60	38.70	Horizontal	46.00	7.3	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.    IF       Transducer
Frequency  Frequency  Width               Time     Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s    120 kHz  HL562 2011
```



MEASUREMENT RESULT: "RIC00223416_fin"

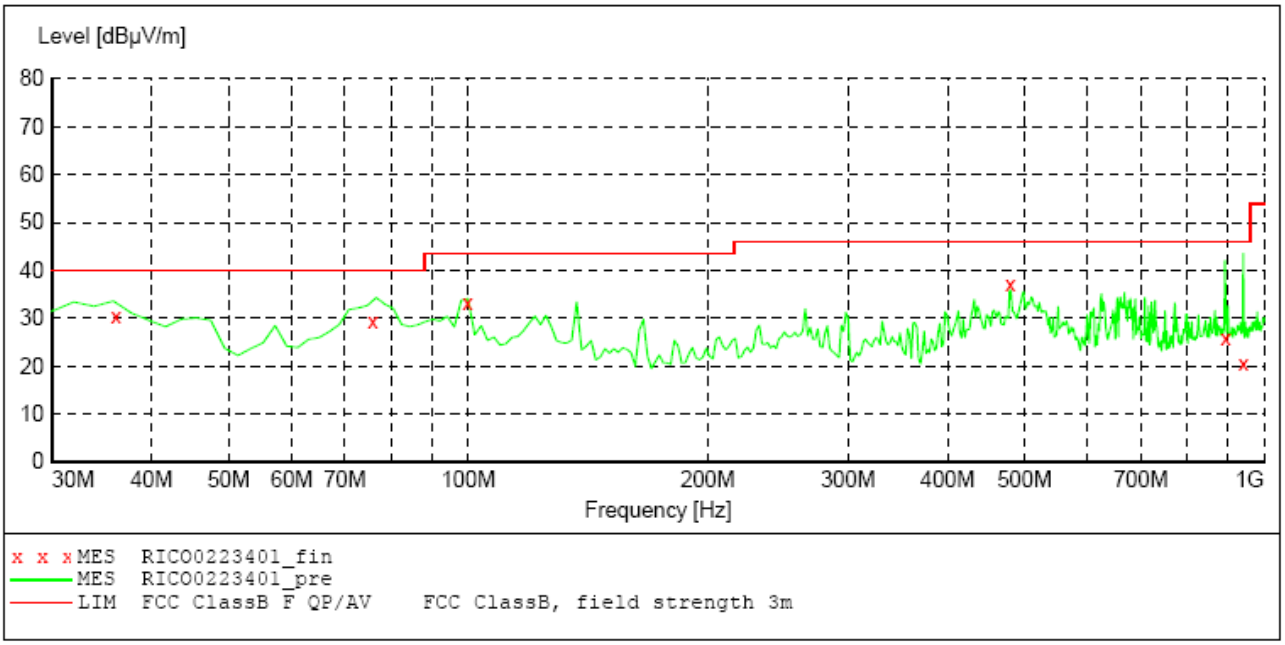
2/24/2012 9:57AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
39.240000	24.20	-16.3	40.0	15.8	QP	350.0	217.00	HORIZONTAL
166.380000	35.60	-23.3	43.5	7.9	QP	138.0	160.00	HORIZONTAL
207.480000	25.70	-21.0	43.5	17.8	QP	100.0	295.00	HORIZONTAL
232.980000	36.20	-19.3	46.0	9.8	QP	100.0	268.00	HORIZONTAL
255.600000	34.10	-18.3	46.0	11.9	QP	100.0	154.00	HORIZONTAL
894.600000	38.70	-6.9	46.0	7.3	QP	100.0	154.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Giga Ping & Scan + USB(Giga) print	480.00	37.00	Vertical	46.00	9.0	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz   QuasiPeak 1.0 s     120 kHz  HL562 2011
```



MEASUREMENT RESULT: "RIC00223401_fin"

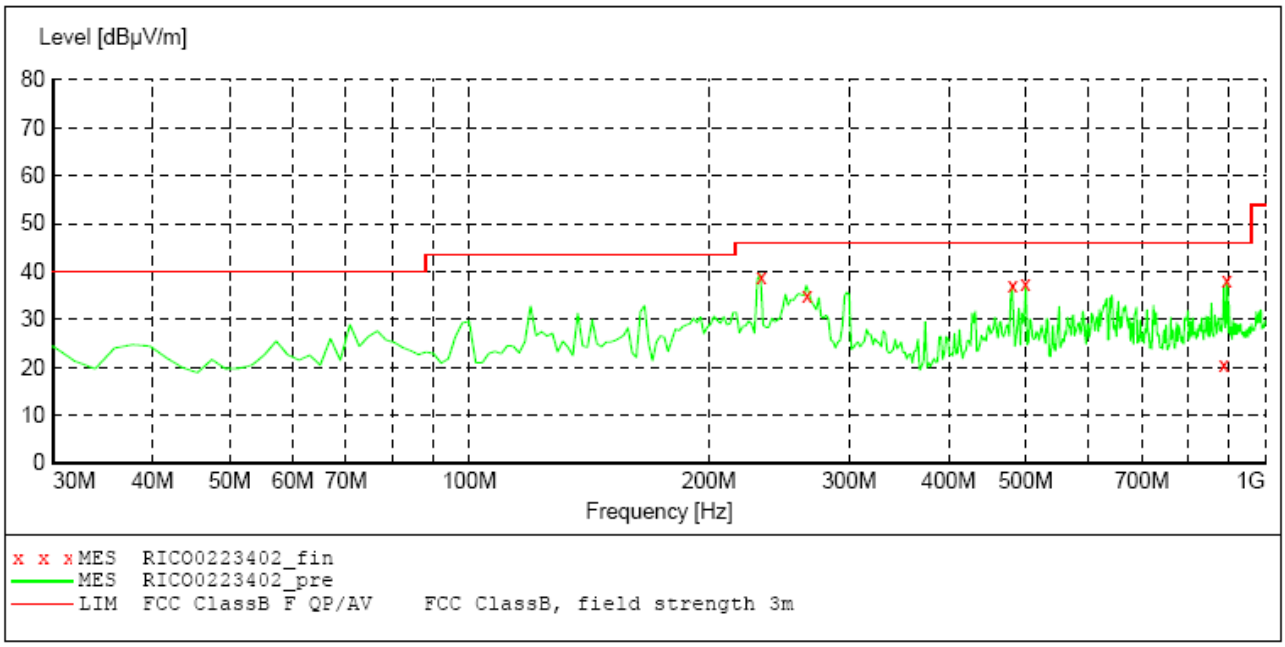
2/24/2012 6:27AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
36.120000	30.30	-14.4	40.0	9.7	QP	100.0	168.00	VERTICAL
75.900000	29.40	-22.3	40.0	10.6	QP	100.0	256.00	VERTICAL
99.840000	33.30	-19.9	43.5	10.2	QP	100.0	191.00	VERTICAL
480.000000	37.00	-13.6	46.0	9.0	QP	100.0	260.00	VERTICAL
894.360000	25.90	-6.9	46.0	20.1	QP	100.0	352.00	VERTICAL
942.060000	20.70	-7.3	46.0	25.3	QP	100.0	1.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Giga Ping & Scan + USB(Giga) print	232.98	39.00	Horizontal	46.00	7.0	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF      Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223402_fin"

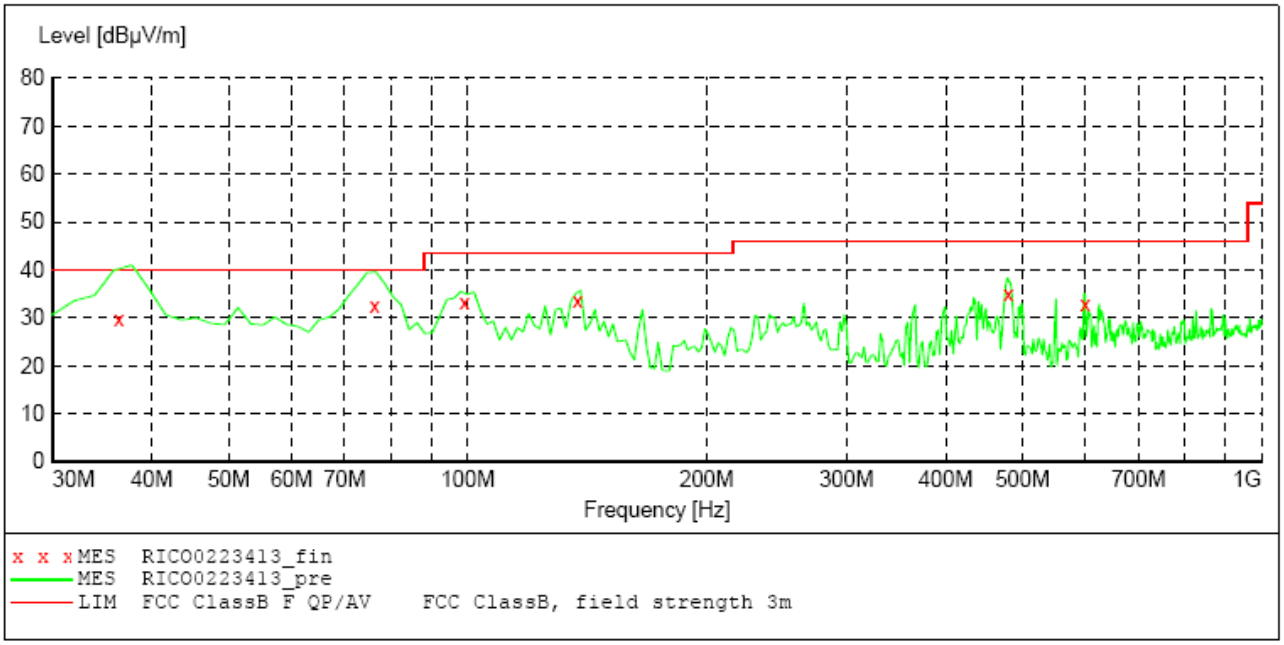
2/24/2012 6:37AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
232.980000	39.00	-19.3	46.0	7.0	QP	100.0	253.00	HORIZONTAL
265.800000	35.10	-18.0	46.0	10.9	QP	100.0	175.00	HORIZONTAL
481.680000	37.00	-13.6	46.0	9.0	QP	100.0	205.00	HORIZONTAL
499.980000	37.30	-13.6	46.0	8.7	QP	100.0	175.00	HORIZONTAL
887.340000	20.40	-6.7	46.0	25.6	QP	134.0	145.00	HORIZONTAL
894.600000	38.30	-6.9	46.0	7.7	QP	147.0	207.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-TX	76.38	32.60	Vertical	40.00	7.4	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF      Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223413_fin"

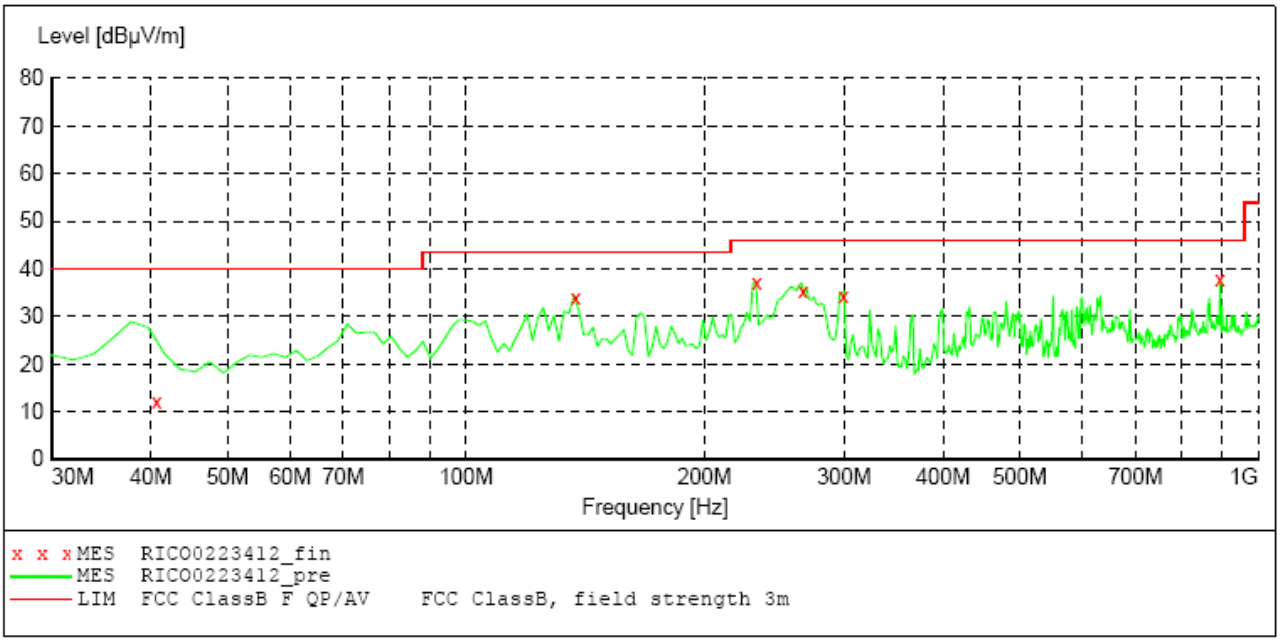
2/24/2012 9:01AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
36.360000	29.70	-14.5	40.0	10.3	QP	142.0	65.00	VERTICAL
76.380000	32.60	-22.3	40.0	7.4	QP	100.0	26.00	VERTICAL
99.060000	33.40	-19.9	43.5	10.1	QP	100.0	76.00	VERTICAL
137.640000	33.70	-21.2	43.5	9.8	QP	134.0	13.00	VERTICAL
480.000000	34.90	-13.6	46.0	11.1	QP	100.0	6.00	VERTICAL
599.700000	33.00	-12.5	46.0	13.0	QP	100.0	189.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-TX	894.54	37.70.	Horizontal	46.00	8.3	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz   QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RICO0223412_fin"

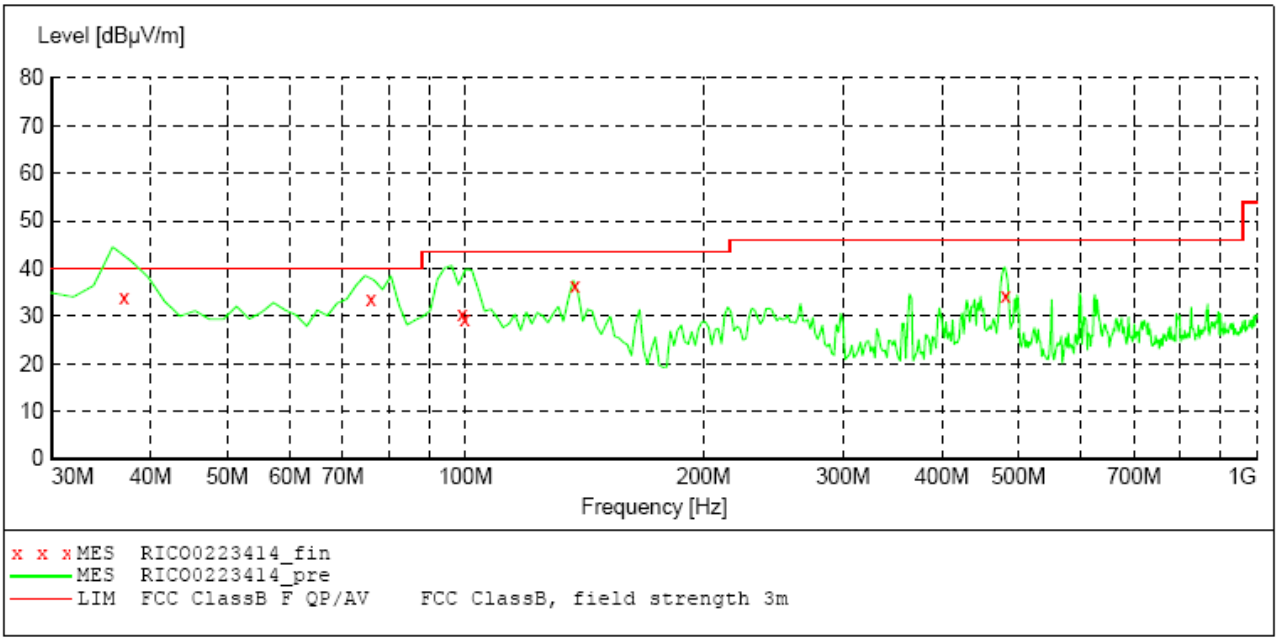
2/24/2012 8:52AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
40.740000	12.10	-17.2	40.0	27.9	QP	301.0	201.00	HORIZONTAL
137.640000	34.00	-21.2	43.5	9.5	QP	250.0	125.00	HORIZONTAL
232.980000	37.00	-19.3	46.0	9.0	QP	100.0	259.00	HORIZONTAL
266.520000	35.50	-18.0	46.0	10.5	QP	100.0	159.00	HORIZONTAL
299.580000	34.30	-17.0	46.0	11.7	QP	100.0	45.00	HORIZONTAL
894.540000	37.70	-6.9	46.0	8.3	QP	100.0	155.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-RX	37.08	34.00	Vertical	40.00	6.0	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step       Detector  Meas.     IF       Transducer
Frequency  Frequency  Width                Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz   QuasiPeak 1.0 s     120 kHz HL562 2011
```



MEASUREMENT RESULT: "RIC00223414_fin"

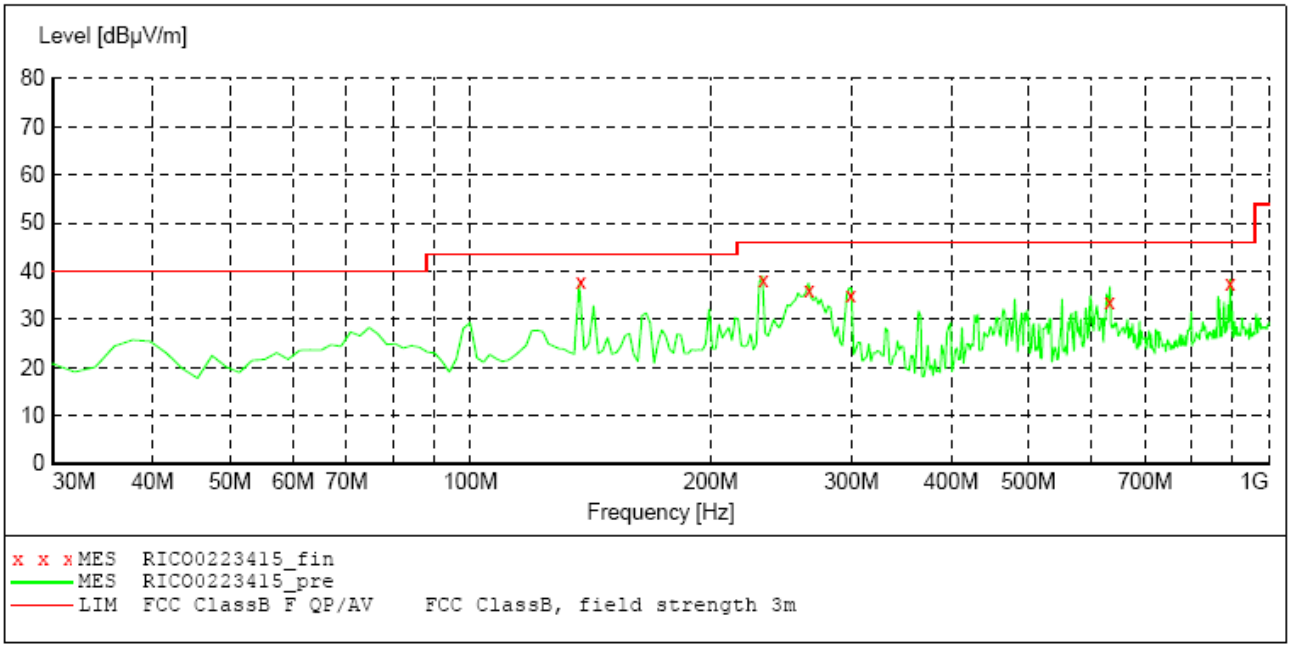
2/24/2012 9:26AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
37.080000	34.00	-14.9	40.0	6.0	QP	100.0	106.00	VERTICAL
76.020000	33.60	-22.3	40.0	6.4	QP	123.0	288.00	VERTICAL
99.060000	30.30	-19.9	43.5	13.2	QP	100.0	188.00	VERTICAL
99.840000	29.30	-19.9	43.5	14.2	QP	100.0	198.00	VERTICAL
137.640000	36.50	-21.2	43.5	7.0	QP	100.0	0.00	VERTICAL
481.740000	34.30	-13.6	46.0	11.7	QP	100.0	9.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-RX	137.58	37.80	Horizontal	43.50	5.7	QP
Test Results				Pass		

SCAN TABLE: "test Field (30M-1G) QP"

```
Short Description:              Field Strength (30M-1G)
Start      Stop       Step      Detector  Meas.     IF       Transducer
Frequency  Frequency  Width               Time      Bandw.
30.0 MHz   1.0 GHz    60.0 kHz  QuasiPeak 1.0 s     120 kHz  HL562 2011
```



MEASUREMENT RESULT: "RICO0223415_fin"

2/24/2012 9:34AM

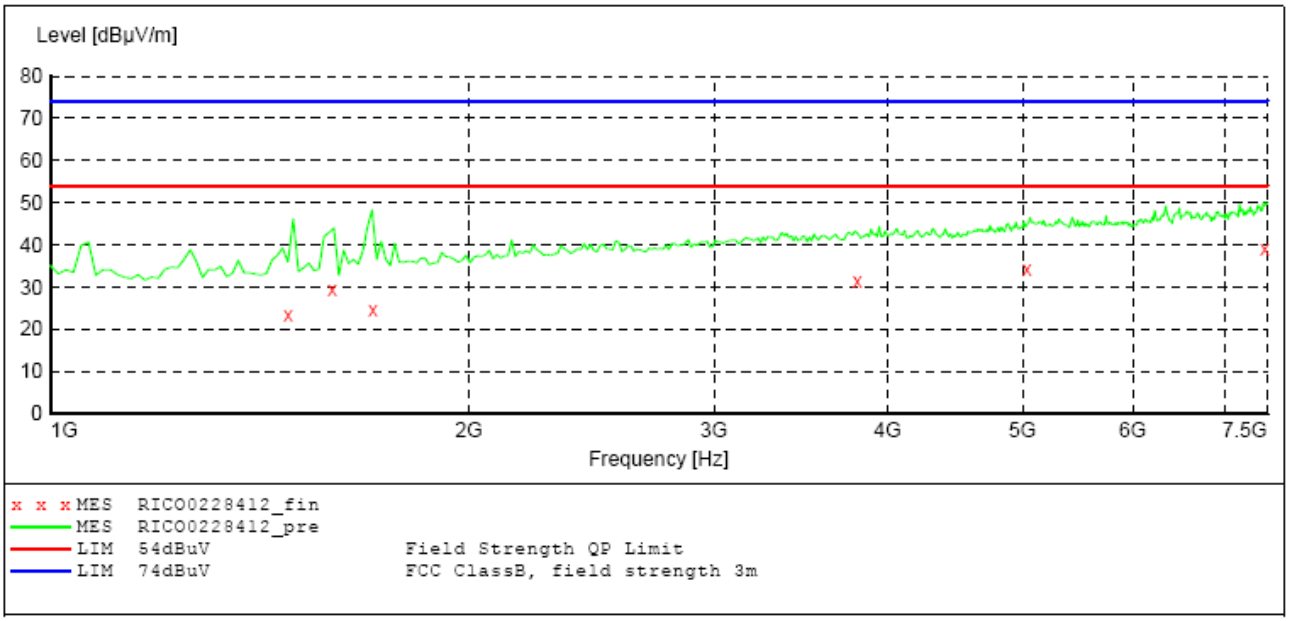
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
137.580000	37.80	-21.2	43.5	5.7	QP	150.0	138.00	HORIZONTAL
232.980000	38.20	-19.3	46.0	7.8	QP	100.0	244.00	HORIZONTAL
265.920000	35.90	-18.0	46.0	10.1	QP	100.0	149.00	HORIZONTAL
299.640000	35.10	-17.0	46.0	10.9	QP	100.0	49.00	HORIZONTAL
632.520000	33.70	-10.8	46.0	12.3	QP	100.0	191.00	HORIZONTAL
894.600000	37.60	-6.9	46.0	8.4	QP	100.0	149.00	HORIZONTAL

For 1000MHz-7500MHz

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Standby	7471.50	39.20	Vertical	54.00	14.80	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF          Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz       HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228412_fin"

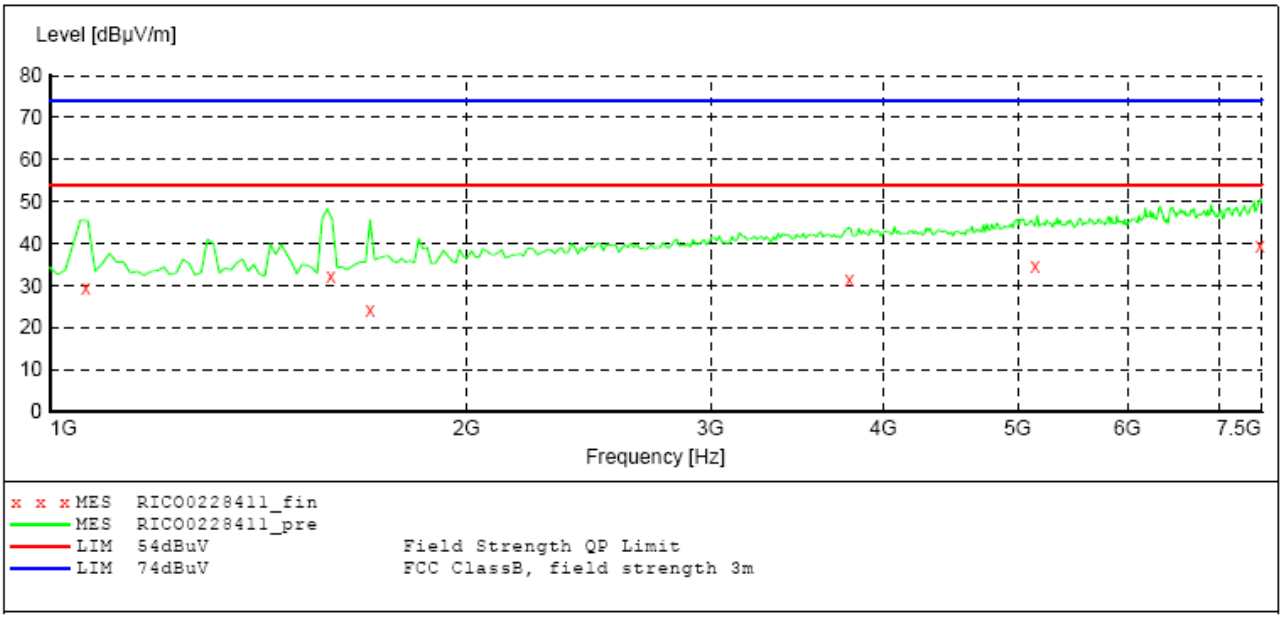
2/28/2012 10:38AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1483.000000	23.40	-23.8	54.0	30.6	AV	100.0	248.00	VERTICAL
1595.500000	29.30	-22.9	54.0	24.7	AV	100.0	161.00	VERTICAL
1705.500000	24.80	-22.0	54.0	29.2	AV	100.0	196.00	VERTICAL
3806.000000	31.30	-13.8	54.0	22.7	AV	100.0	343.00	VERTICAL
5039.500000	34.20	-12.2	54.0	19.8	AV	100.0	279.00	VERTICAL
7471.500000	39.20	-7.9	54.0	14.8	AV	100.0	3.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Standby	7487.00	39.50	Horizontal	54.00	14.5	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:                FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228411_fin"

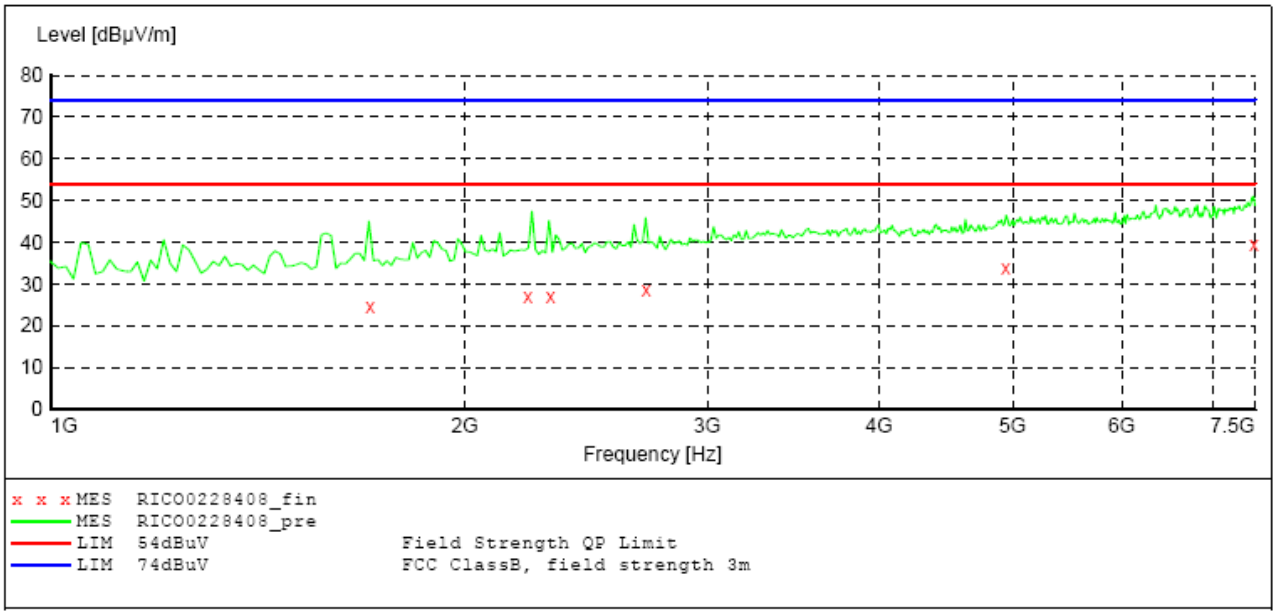
2/28/2012 10:23AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1062.000000	29.50	-26.3	54.0	24.5	AV	100.0	190.00	HORIZONTAL
1596.000000	32.10	-22.9	54.0	21.9	AV	100.0	193.00	HORIZONTAL
1704.500000	24.20	-22.0	54.0	29.8	AV	100.0	296.00	HORIZONTAL
3780.500000	31.60	-13.8	54.0	22.4	AV	100.0	32.00	HORIZONTAL
5151.500000	34.50	-12.2	54.0	19.5	AV	100.0	166.00	HORIZONTAL
7487.000000	39.50	-7.9	54.0	14.5	AV	100.0	83.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Copy + NIC PING	7489.5	39.60	Vertical	54.00	14.4	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:              FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228408_fin"

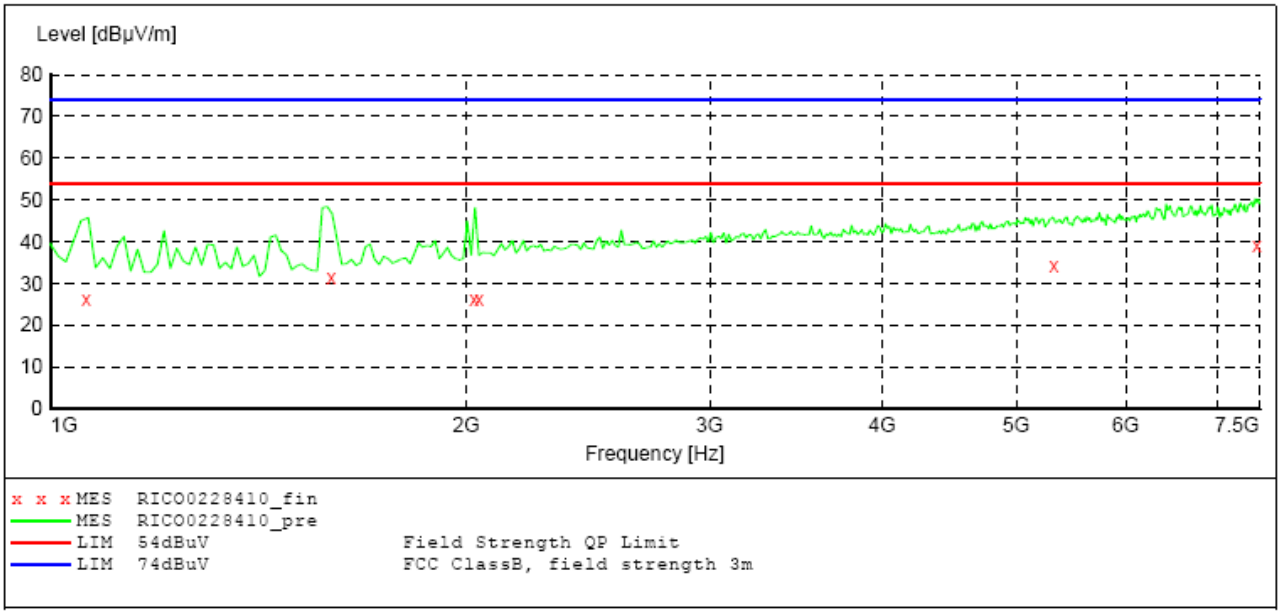
2/28/2012 9:56AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1707.000000	24.60	-21.9	54.0	29.4	AV	100.0	157.00	VERTICAL
2223.500000	26.90	-18.5	54.0	27.1	AV	100.0	5.00	VERTICAL
2309.500000	27.10	-18.1	54.0	26.9	AV	100.0	73.00	VERTICAL
2709.500000	28.50	-16.4	54.0	25.5	AV	100.0	359.00	VERTICAL
4942.500000	33.70	-12.4	54.0	20.3	AV	100.0	18.00	VERTICAL
7489.500000	39.60	-7.9	54.0	14.4	AV	100.0	279.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Copy + NIC PING	7471.5	39.20	Horizontal	54.00	14.80	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector   Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak    Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228410_fin"

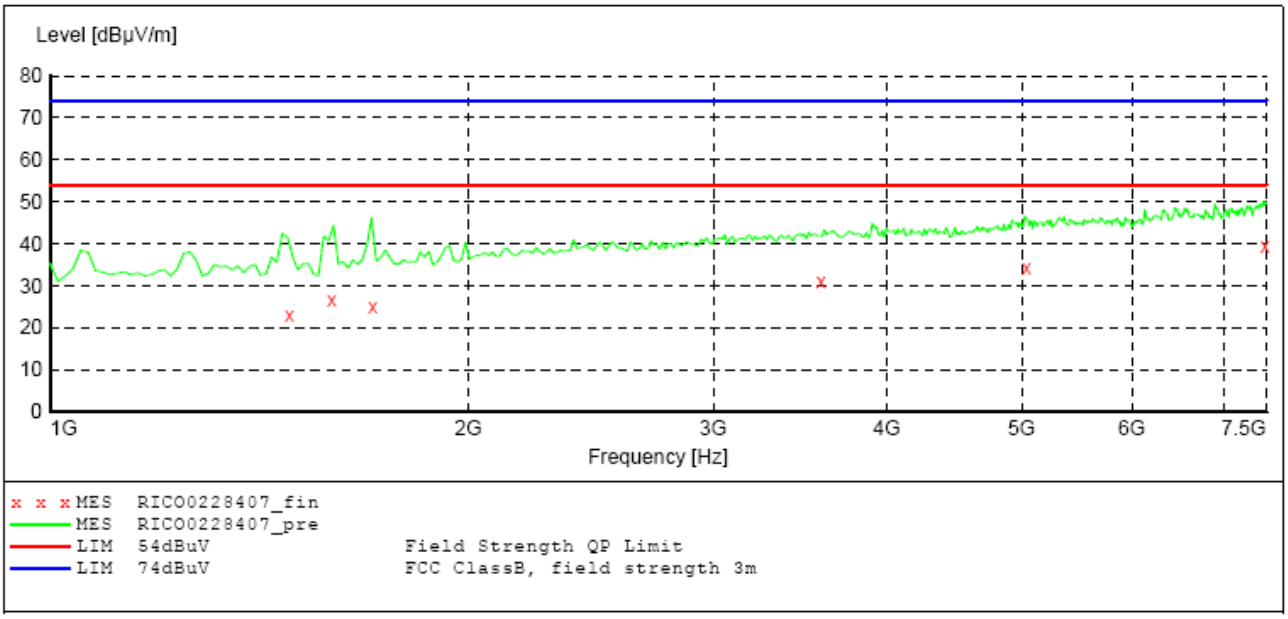
2/28/2012 10:14AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1062.000000	26.40	-26.3	54.0	27.6	AV	100.0	208.00	HORIZONTAL
1598.000000	31.50	-22.9	54.0	22.5	AV	100.0	193.00	HORIZONTAL
2026.500000	26.10	-19.6	54.0	27.9	AV	100.0	0.00	HORIZONTAL
2044.000000	26.30	-19.5	54.0	27.7	AV	100.0	154.00	HORIZONTAL
5326.000000	34.30	-12.1	54.0	19.7	AV	100.0	308.00	HORIZONTAL
7471.500000	39.20	-7.9	54.0	14.8	AV	100.0	258.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Bluetooth Print	7483.50	39.50	Vertical	54.00	14.5	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector   Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak    Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228407_fin"

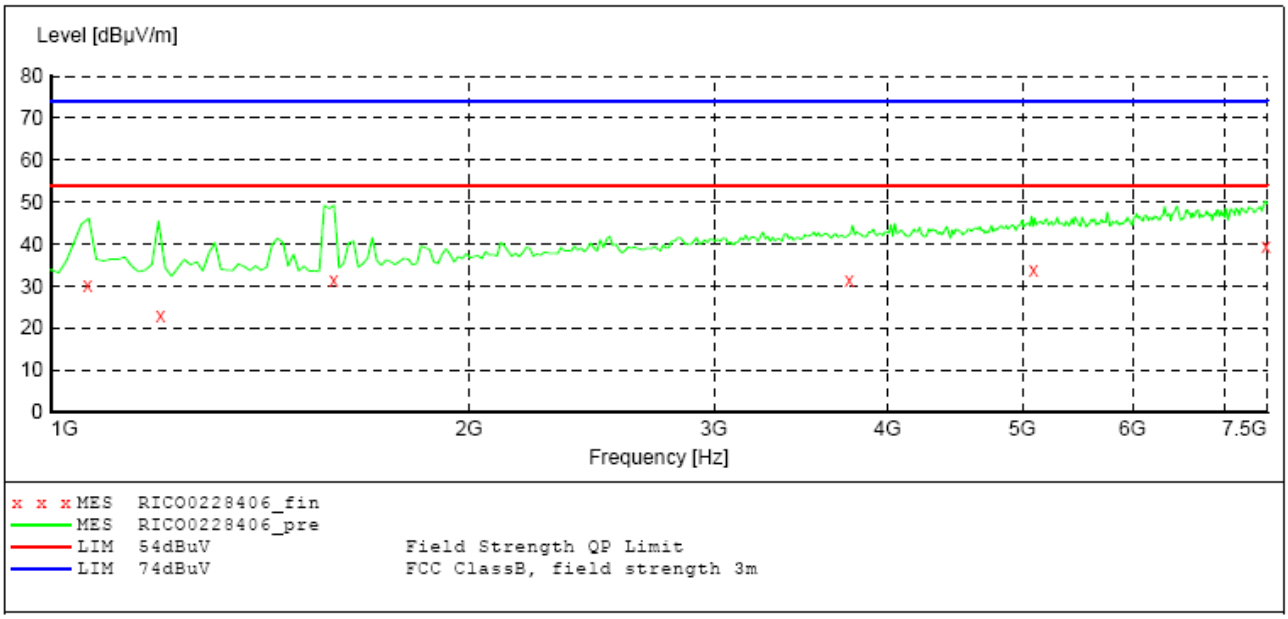
2/28/2012 9:46AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1487.500000	23.20	-23.8	54.0	30.8	AV	100.0	248.00	VERTICAL
1595.000000	26.80	-22.9	54.0	27.2	AV	100.0	185.00	VERTICAL
1707.500000	24.90	-21.9	54.0	29.1	AV	100.0	195.00	VERTICAL
3588.000000	30.90	-14.3	54.0	23.1	AV	100.0	273.00	VERTICAL
5041.000000	34.30	-12.2	54.0	19.7	AV	100.0	147.00	VERTICAL
7483.500000	39.50	-7.9	54.0	14.5	AV	100.0	256.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Bluetooth Print	7489.5	39.60	Horizontal	54.00	14.4	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:              FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency             Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228406_fin"

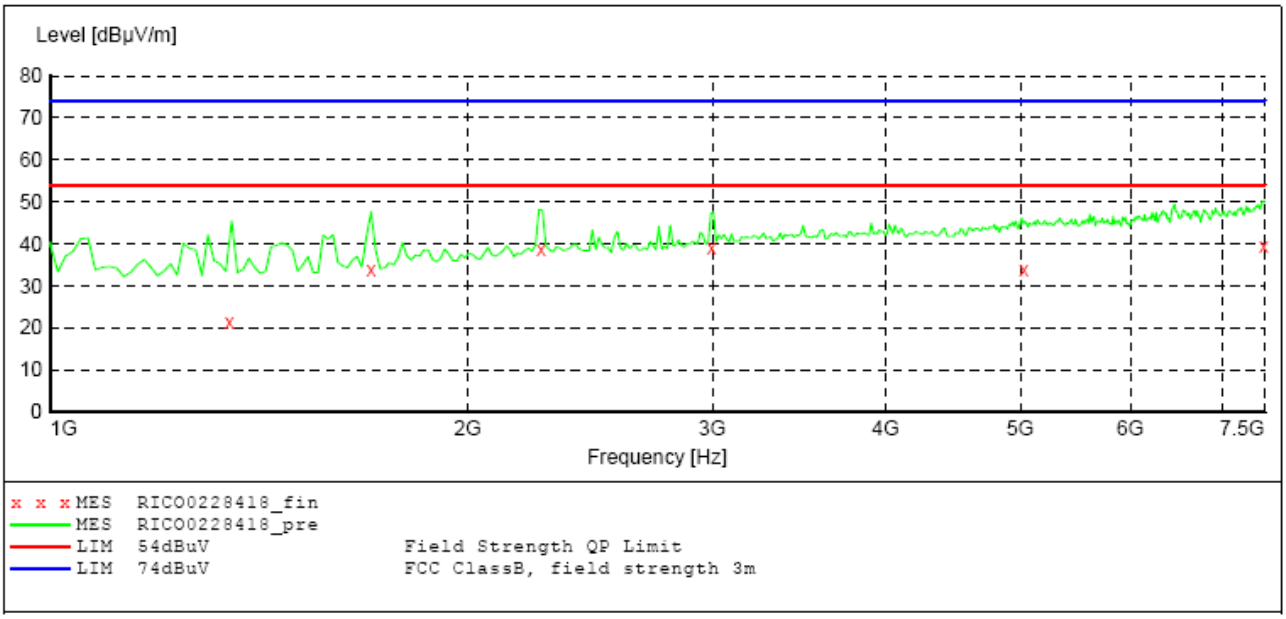
2/28/2012 9:31AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1063.000000	30.20	-26.3	54.0	23.8	AV	100.0	189.00	HORIZONTAL
1199.500000	22.90	-25.4	54.0	31.1	AV	100.0	330.00	HORIZONTAL
1598.500000	31.40	-22.9	54.0	22.6	AV	100.0	196.00	HORIZONTAL
3756.000000	31.30	-13.9	54.0	22.7	AV	100.0	119.00	HORIZONTAL
5094.000000	33.80	-12.2	54.0	20.2	AV	100.0	56.00	HORIZONTAL
7489.500000	39.60	-7.9	54.0	14.4	AV	100.0	131.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza -tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
USB2.0 Print + IEEE1284 Print	7491.50	39.60	Vertical	54.00	14.4	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:              FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.     IF          Transducer
Frequency   Frequency              Time      Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled   1 MHz       HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228418_fin"

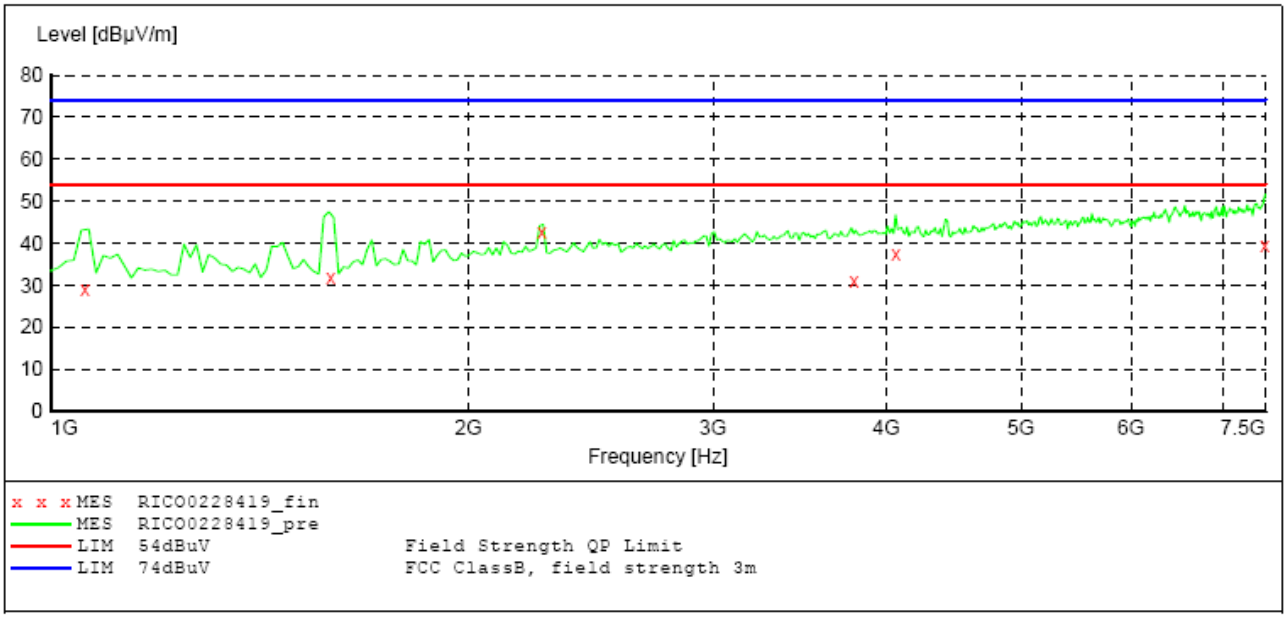
2/28/2012 11:48AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1347.000000	21.60	-24.5	54.0	32.4	AV	100.0	297.00	VERTICAL
1703.500000	33.70	-22.0	54.0	20.3	AV	100.0	264.00	VERTICAL
2259.000000	38.80	-18.3	54.0	15.2	AV	100.0	359.00	VERTICAL
2997.500000	39.20	-15.6	54.0	14.8	AV	100.0	12.00	VERTICAL
5031.500000	34.00	-12.2	54.0	20.0	AV	100.0	341.00	VERTICAL
7491.500000	39.60	-7.9	54.0	14.4	AV	100.0	29.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
USB2.0 Print + IEEE1284 Print	7496.00	39.70	Horizontal	54.00	14.3	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency             Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228419_fin"

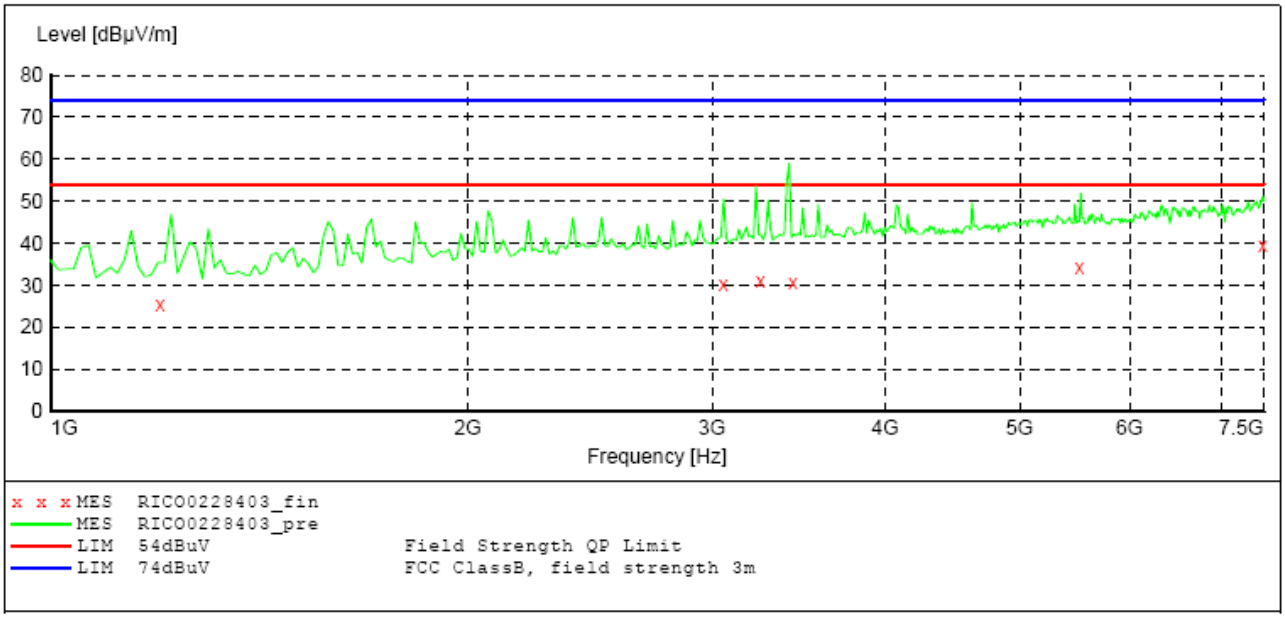
2/28/2012 11:58AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1059.000000	29.10	-26.4	54.0	24.9	AV	100.0	187.00	HORIZONTAL
1592.000000	31.90	-23.0	54.0	22.1	AV	100.0	205.00	HORIZONTAL
2259.000000	42.80	-18.3	54.0	11.2	AV	100.0	296.00	HORIZONTAL
3793.000000	31.20	-13.8	54.0	22.8	AV	100.0	0.00	HORIZONTAL
4065.500000	37.70	-13.5	54.0	16.3	AV	100.0	0.00	HORIZONTAL
7496.000000	39.70	-7.8	54.0	14.3	AV	100.0	138.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Giga Ping & Scan + USB(Giga) print	7492.50	39.60	Vertical	54.00	14.4	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:                FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228403_fin"

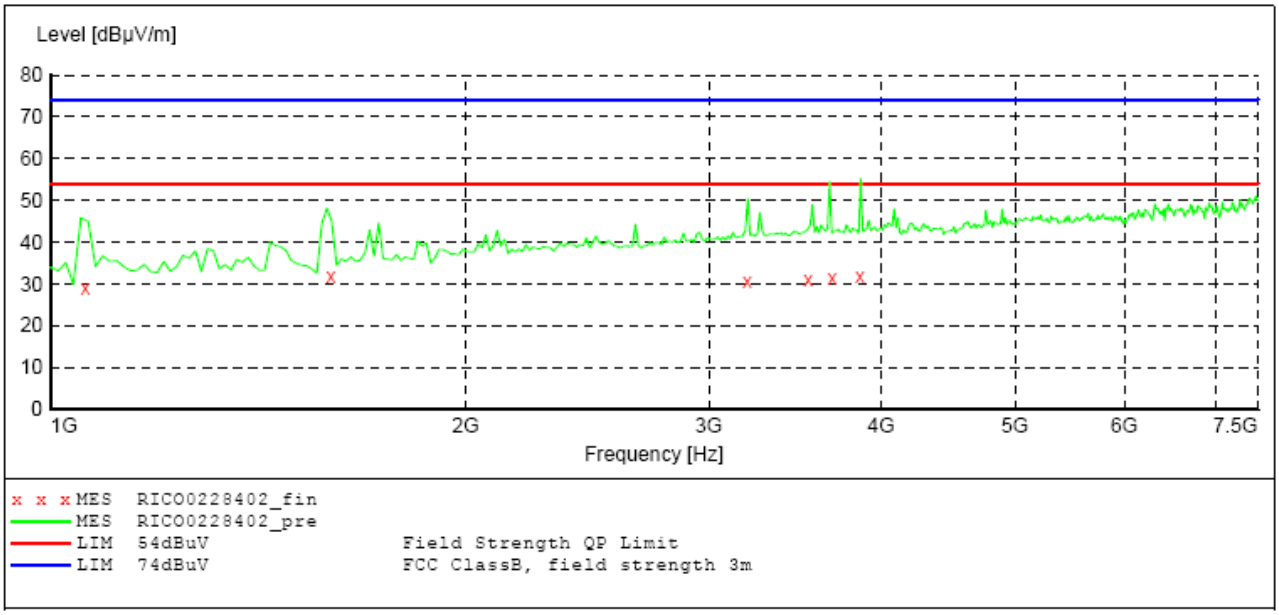
2/28/2012 8:57AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1200.000000	25.50	-25.4	54.0	28.5	AV	100.0	41.00	VERTICAL
3058.500000	30.20	-15.4	54.0	23.8	AV	100.0	111.00	VERTICAL
3250.500000	30.90	-14.8	54.0	23.1	AV	100.0	72.00	VERTICAL
3433.000000	30.80	-14.6	54.0	23.2	AV	100.0	94.00	VERTICAL
5524.500000	34.20	-12.1	54.0	19.8	AV	100.0	207.00	VERTICAL
7492.500000	39.60	-7.8	54.0	14.4	AV	100.0	254.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
Giga Ping & Scan + USB(Giga) print	1598.00	31.80	Horizontal	54.00	22.2	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228402_fin"

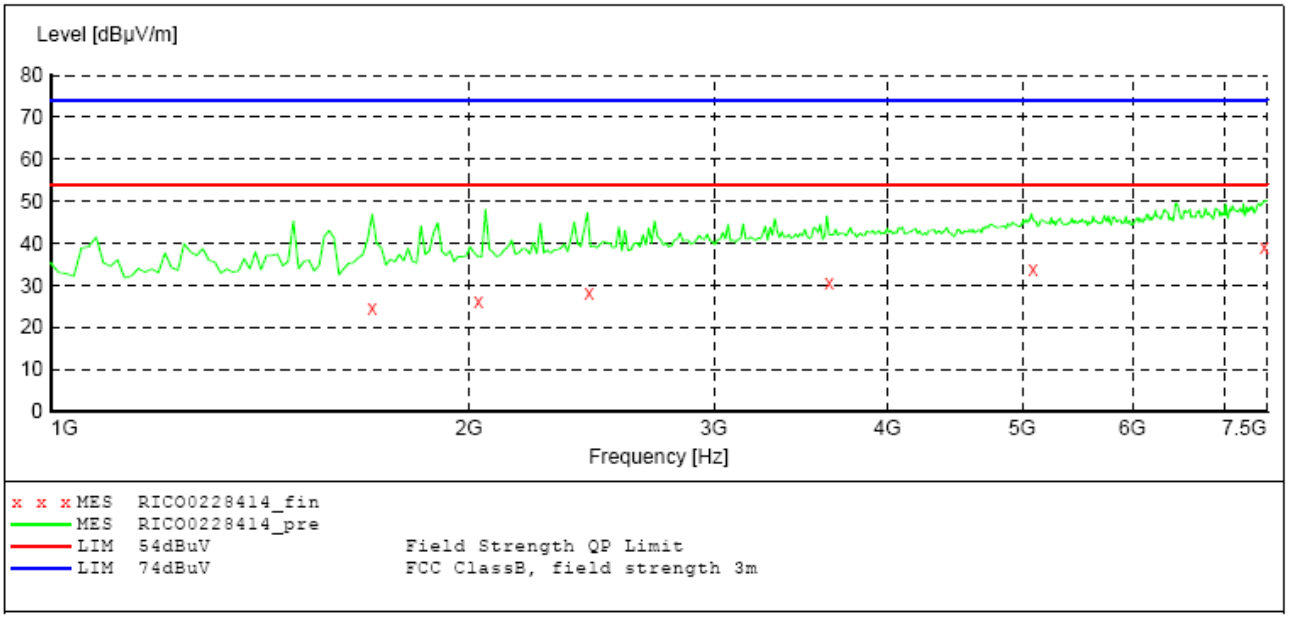
2/28/2012 8:31AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1060.500000	29.00	-26.4	54.0	25.0	AV	100.0	171.00	HORIZONTAL
1598.000000	31.80	-22.9	54.0	22.2	AV	100.0	201.00	HORIZONTAL
3198.500000	30.80	-14.9	54.0	23.2	AV	100.0	140.00	HORIZONTAL
3543.500000	31.10	-14.4	54.0	22.9	AV	100.0	309.00	HORIZONTAL
3688.000000	31.30	-14.0	54.0	22.7	AV	100.0	165.00	HORIZONTAL
3862.000000	31.80	-13.7	54.0	22.2	AV	100.0	316.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-TX	7469.50	39.20	Vertical	54.00	14.8	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228414_fin"

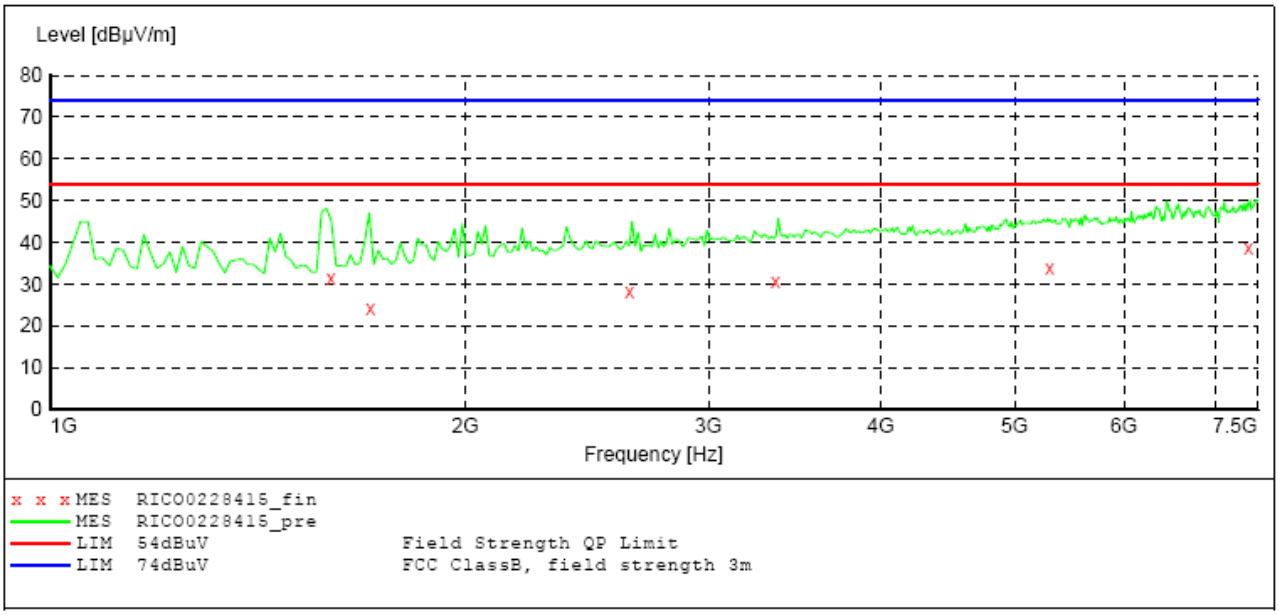
2/28/2012 10:51AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1704.000000	24.60	-22.0	54.0	29.4	AV	100.0	157.00	VERTICAL
2033.000000	26.10	-19.6	54.0	27.9	AV	100.0	152.00	VERTICAL
2441.000000	28.40	-17.4	54.0	25.6	AV	100.0	291.00	VERTICAL
3633.500000	30.80	-14.2	54.0	23.2	AV	100.0	42.00	VERTICAL
5093.000000	33.70	-12.2	54.0	20.3	AV	100.0	23.00	VERTICAL
7469.500000	39.20	-8.0	54.0	14.8	AV	100.0	85.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-TX	7393.50	38.50	Horizontal	54.00	15.5	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:              FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228415_fin"

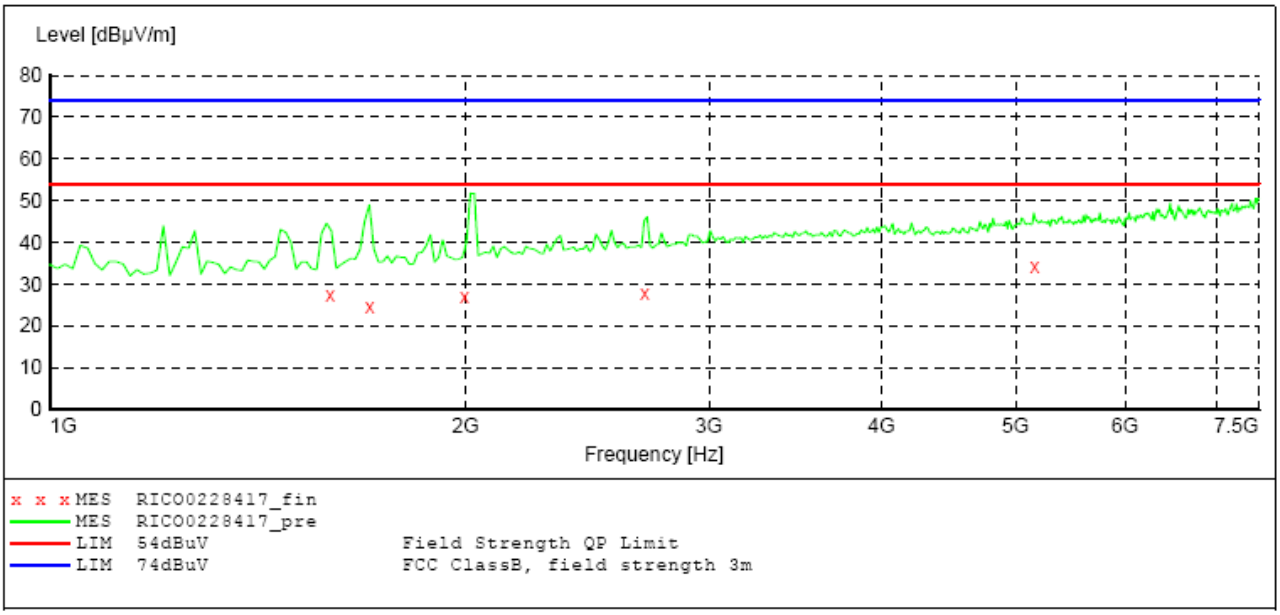
2/28/2012 11:08AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1598.500000	31.40	-22.9	54.0	22.6	AV	100.0	195.00	HORIZONTAL
1707.500000	24.40	-21.9	54.0	29.6	AV	100.0	295.00	HORIZONTAL
2631.500000	28.30	-16.7	54.0	25.7	AV	100.0	76.00	HORIZONTAL
3356.000000	30.80	-14.6	54.0	23.2	AV	100.0	273.00	HORIZONTAL
5303.500000	34.00	-12.1	54.0	20.0	AV	100.0	170.00	HORIZONTAL
7393.500000	38.50	-8.3	54.0	15.5	AV	100.0	295.00	HORIZONTAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-RX	7506.5	39.60	Vertical	54.00	14.4	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:                FCC PART 15 Class B Field Strength
Start       Stop        Detector  Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak   Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228417_fin"

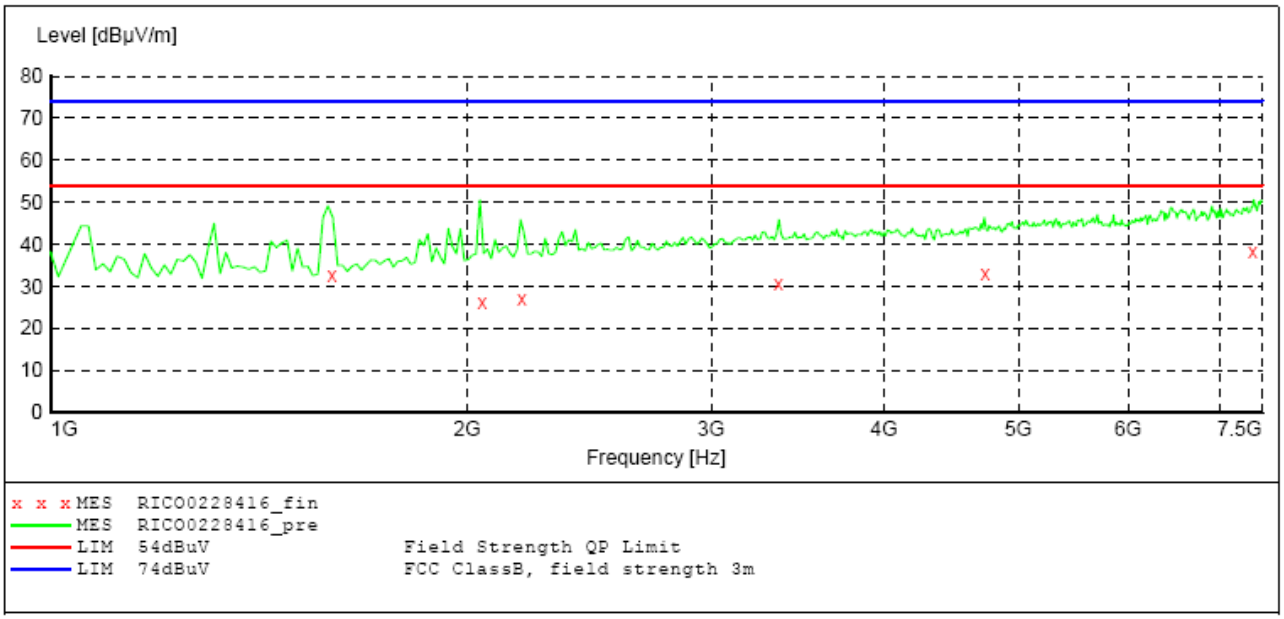
2/28/2012 11:27AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1596.000000	27.50	-22.9	54.0	26.5	AV	100.0	242.00	VERTICAL
1705.000000	24.80	-22.0	54.0	29.2	AV	100.0	200.00	VERTICAL
1997.500000	26.90	-19.8	54.0	27.1	AV	100.0	155.00	VERTICAL
2696.000000	28.00	-16.5	54.0	26.0	AV	100.0	132.00	VERTICAL
5163.500000	34.10	-12.2	54.0	19.9	AV	100.0	84.00	VERTICAL
7506.500000	39.60	-7.8	54.0	14.4	AV	100.0	273.00	VERTICAL

Test Condition	Maximum Radiated Emissions		Polariza-tion	Limit (dBuV/m)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV/m)				
G3-RX	7386.00	38.20	Horizontal	54.00	15.8	AV
Test Results				Pass		

SWEEP TABLE: "test (1G-18G) P"

```
Short Description:          FCC PART 15 Class B Field Strength
Start       Stop        Detector   Meas.      IF         Transducer
Frequency   Frequency              Time       Bandw.
1.0 GHz     18.0 GHz    MaxPeak    Coupled    1 MHz      HF906 2011
                        Average
```



MEASUREMENT RESULT: "RICO0228416_fin"

2/28/2012 11:20AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1597.000000	32.50	-22.9	54.0	21.5	AV	100.0	194.00	HORIZONTAL
2051.000000	26.30	-19.5	54.0	27.7	AV	100.0	119.00	HORIZONTAL
2191.000000	26.90	-18.7	54.0	27.1	AV	100.0	0.00	HORIZONTAL
3357.500000	30.70	-14.6	54.0	23.3	AV	100.0	251.00	HORIZONTAL
4733.500000	33.00	-13.2	54.0	21.0	AV	100.0	317.00	HORIZONTAL
7386.000000	38.20	-8.4	54.0	15.8	AV	100.0	195.00	HORIZONTAL

4.2. Conducted Disturbance

For test instruments and accessories used see section 3.6.

4.2.1. Description of the test location

Test location: Shielded room No. 3

4.2.2. Limits of disturbance

Limit of Conducted Disturbance at Mains Ports (Class B)

Frequency Range (MHz)	Limits (dBuV)	
	Quasi-Peak	Average
0.150～0.500	66~56	56~46
0.500～5.000	56	46
5.000~30.000	60	50

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

4.2.3. Description of the test set-up

4.2.3.1. Operating Condition

The EUT is set to work that shall be carried out respectively standby, Copy, Bluetooth Print,USB2.0 Print + IEEE1284 Print, Giga Print & scan + USB(Giga)Print , G3 Tx , G3 Rx, NIC Print&Scan modes during the test and the results of the maximum emanation are recorded.

4.2.3.2. Test Procedure

EUT is placed on a nonmetal table 0.8 meter above the grounded reference plane. The power line of the EUT is connected to the LISN which is connected to receiver by coaxial line, and then disturbance signals of the neutral line and live line can be detected by the receiver.

4.2.3.3. Photos of the test set-up

4.2.4. Test result

The requirements are **Fulfilled**

Band Width: 9 KHz

Frequency Range: 150 KHz to 30MHz

Remarks: The limits are kept. For detailed results, please see the following page(s).

Margin=limit-level

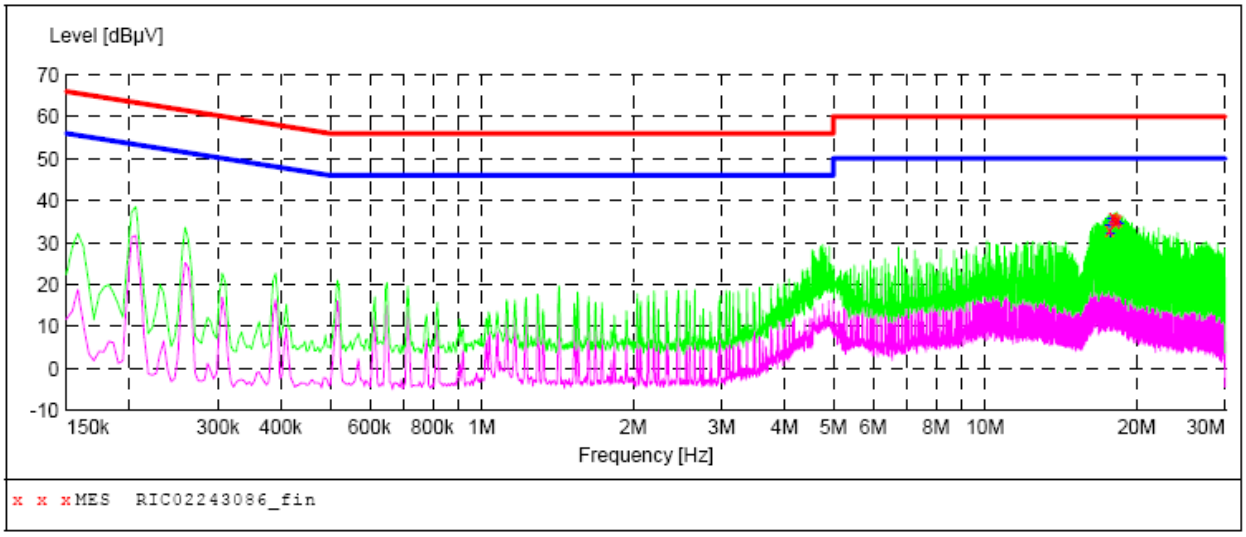
Level=read valus+transducer

Transducer=insertion loss of LISN+cable loss+insertion loss of pulse limiter

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Standby	17.966	36.1	L	60.00	10.40	23.90	QP
	17.866	35.6	L	50.00	10.40	14.40	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243086_fin"

2/24/2012 12:10PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.666000	33.10	10.5	60	26.9	QP	L1	GND
17.966000	36.10	10.5	60	23.9	QP	L1	GND
18.070000	35.70	10.5	60	24.3	QP	L1	GND
18.174000	34.80	10.5	60	25.2	QP	L1	GND
18.274000	35.70	10.5	60	24.3	QP	L1	GND
18.378000	35.40	10.5	60	24.6	QP	L1	GND

MEASUREMENT RESULT: "RIC02243086_fin2"

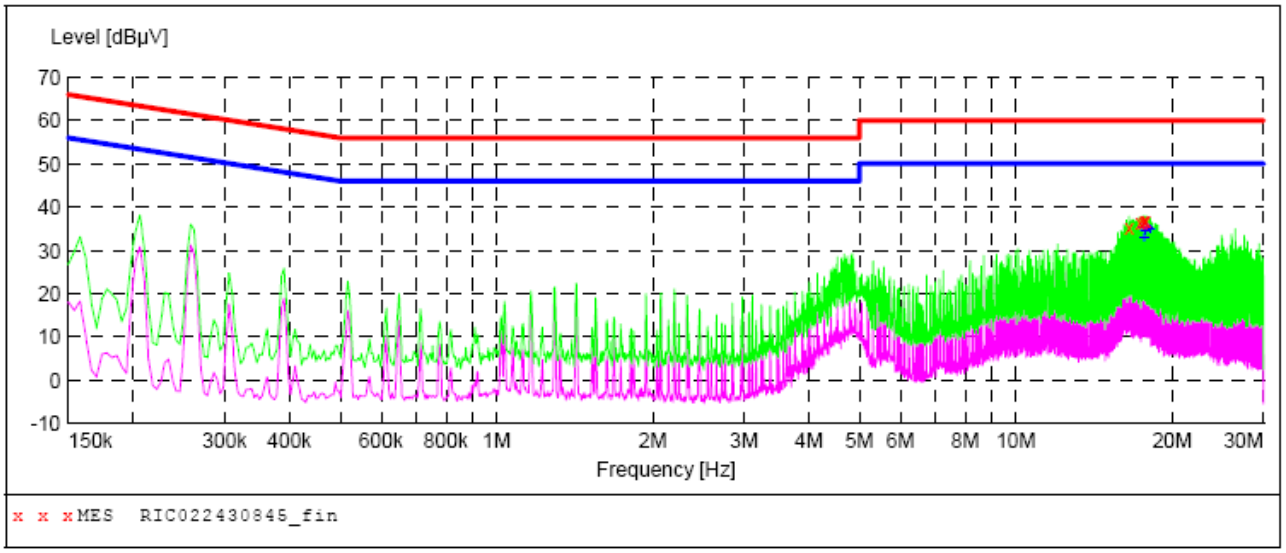
2/24/2012 12:10PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.662000	34.20	10.5	50	15.8	AV	L1	GND
17.766000	32.30	10.5	50	17.7	AV	L1	GND
17.866000	35.60	10.5	50	14.4	AV	L1	GND
18.070000	35.10	10.5	50	14.9	AV	L1	GND
18.274000	34.90	10.5	50	15.1	AV	L1	GND
18.478000	34.70	10.5	50	15.3	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Standby	17.866	37.00	N	60.00	10.40	23.00	QP
	17.666	17.562	N	50.00	10.40	14.50	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC022430845_fin"

2/24/2012 12:05PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
16.542000	35.30	10.5	60	24.7	QP	N	GND
17.354000	36.30	10.5	60	23.7	QP	N	GND
17.558000	36.50	10.5	60	23.5	QP	N	GND
17.662000	36.70	10.5	60	23.3	QP	N	GND
17.766000	36.90	10.5	60	23.1	QP	N	GND
17.866000	37.00	10.5	60	23.0	QP	N	GND

MEASUREMENT RESULT: "RIC022430845_fin2"

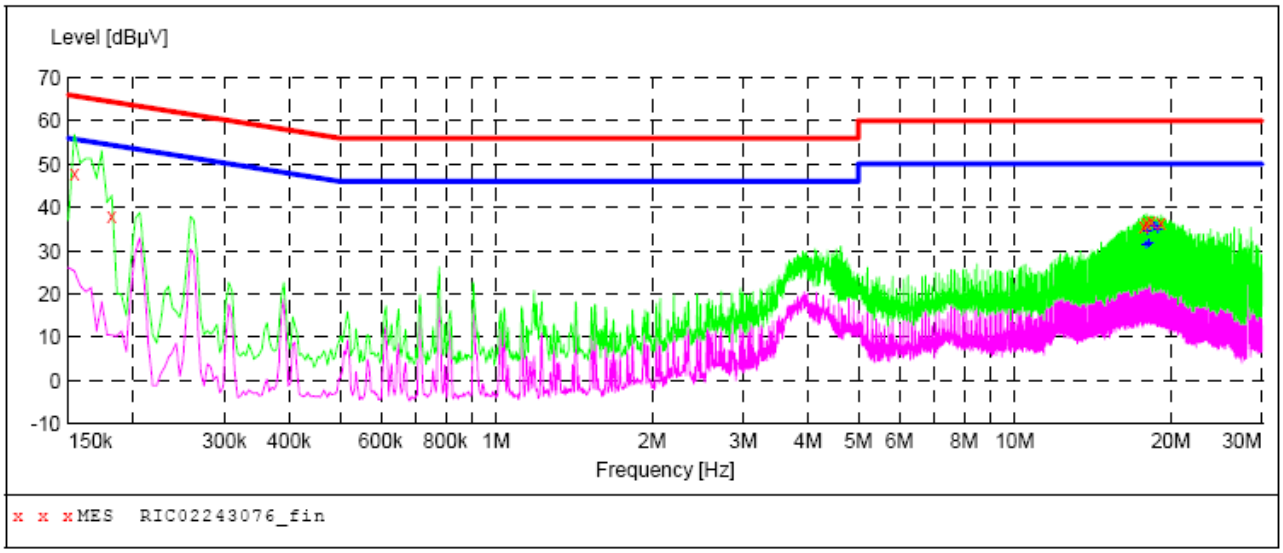
2/24/2012 12:05PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.562000	35.50	10.5	50	14.5	AV	N	GND
17.666000	33.10	10.5	50	16.9	AV	N	GND
17.766000	34.70	10.5	50	15.3	AV	N	GND
17.866000	35.40	10.5	50	14.6	AV	N	GND
17.970000	35.30	10.5	50	14.7	AV	N	GND
18.174000	35.10	10.5	50	14.9	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Copy	0.154	47.80	L	66.00	10.10	18.00	QP
	18.574	35.70	L	50.00	10.50	14.30	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243076_fin"

2/24/2012 11:21AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000	47.80	10.1	66	18.0	QP	L1	GND
0.182000	38.20	10.1	64	26.2	QP	L1	GND
17.762000	35.60	10.5	60	24.4	QP	L1	GND
17.962000	36.50	10.5	60	23.5	QP	L1	GND
18.370000	36.70	10.5	60	23.3	QP	L1	GND
19.186000	36.40	10.5	60	23.6	QP	L1	GND

MEASUREMENT RESULT: "RIC02243076_fin2"

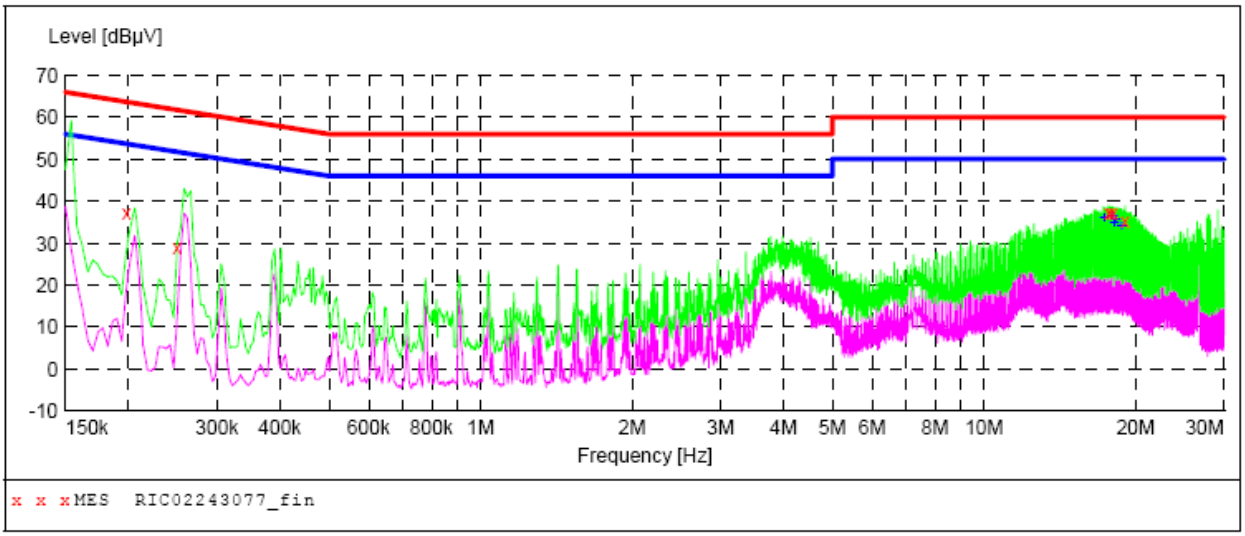
2/24/2012 11:21AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.966000	31.50	10.5	50	18.5	AV	L1	GND
18.066000	34.50	10.5	50	15.5	AV	L1	GND
18.170000	31.90	10.5	50	18.1	AV	L1	GND
18.574000	35.70	10.5	50	14.3	AV	L1	GND
18.778000	35.70	10.5	50	14.3	AV	L1	GND
18.882000	35.00	10.5	50	15.0	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Copy	18.062	37.30	N	60.00	10.50	22.70	QP
	18.062	36.40	N	50.00	10.50	13.60	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243077_fin"

2/24/2012 11:24AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.198000	37.30	10.1	64	26.4	QP	N	GND
0.250000	29.00	10.1	62	32.8	QP	N	GND
17.654000	37.10	10.5	60	22.9	QP	N	GND
17.858000	37.10	10.5	60	22.9	QP	N	GND
18.062000	37.30	10.5	60	22.7	QP	N	GND
19.078000	35.20	10.5	60	24.8	QP	N	GND

MEASUREMENT RESULT: "RIC02243077_fin2"

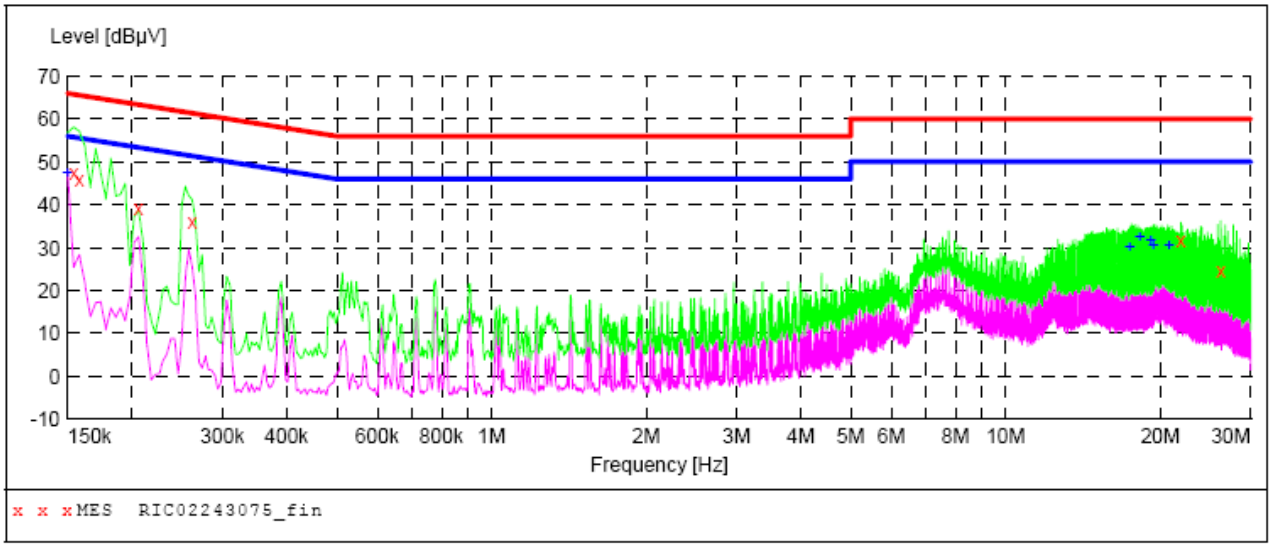
2/24/2012 11:24AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.346000	36.00	10.5	50	14.0	AV	N	GND
17.958000	36.30	10.5	50	13.7	AV	N	GND
18.062000	36.40	10.5	50	13.6	AV	N	GND
18.166000	35.10	10.5	50	14.9	AV	N	GND
18.266000	35.60	10.5	50	14.4	AV	N	GND
18.778000	34.00	10.5	50	16.0	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Bluetooth Print	0.150	47.60	L	66.00	10.10	18.20	QP
	0.150	47.60	L	56.00	10.10	8.40	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243075_fin"

2/24/2012 11:15AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000	47.60	10.1	66	18.2	QP	L1	GND
0.158000	45.80	10.1	66	19.8	QP	L1	GND
0.206000	39.10	10.1	63	24.3	QP	L1	GND
0.262000	36.00	10.1	61	25.4	QP	L1	GND
21.942000	31.70	10.6	60	28.3	QP	L1	GND
26.226000	24.60	10.8	60	35.4	QP	L1	GND

MEASUREMENT RESULT: "RIC02243075_fin2"

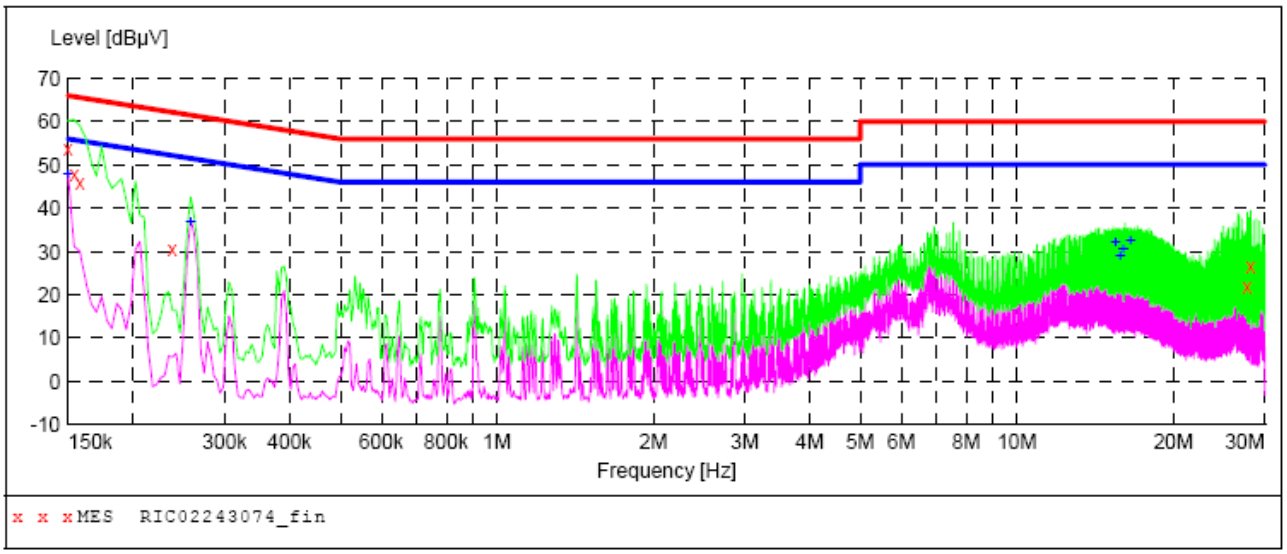
2/24/2012 11:15AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	47.60	10.1	56	8.4	AV	L1	GND
17.450000	30.10	10.5	50	19.9	AV	L1	GND
18.270000	32.60	10.5	50	17.4	AV	L1	GND
19.186000	31.90	10.5	50	18.1	AV	L1	GND
19.394000	30.70	10.5	50	19.3	AV	L1	GND
20.822000	30.50	10.6	50	19.5	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Bluetooth Print	0.150	53.60	N	66.00	10.10	12.40	QP
	0.150	47.90	N	56.00	10.10	8.1	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243074_fin"

2/24/2012 11:12AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	53.60	10.1	66	12.4	QP	N	GND
0.154000	47.70	10.1	66	18.1	QP	N	GND
0.158000	45.90	10.1	66	19.7	QP	N	GND
0.238000	30.70	10.1	62	31.5	QP	N	GND
27.778000	22.10	10.9	60	37.9	QP	N	GND
28.170000	26.70	10.9	60	33.3	QP	N	GND

MEASUREMENT RESULT: "RIC02243074_fin2"

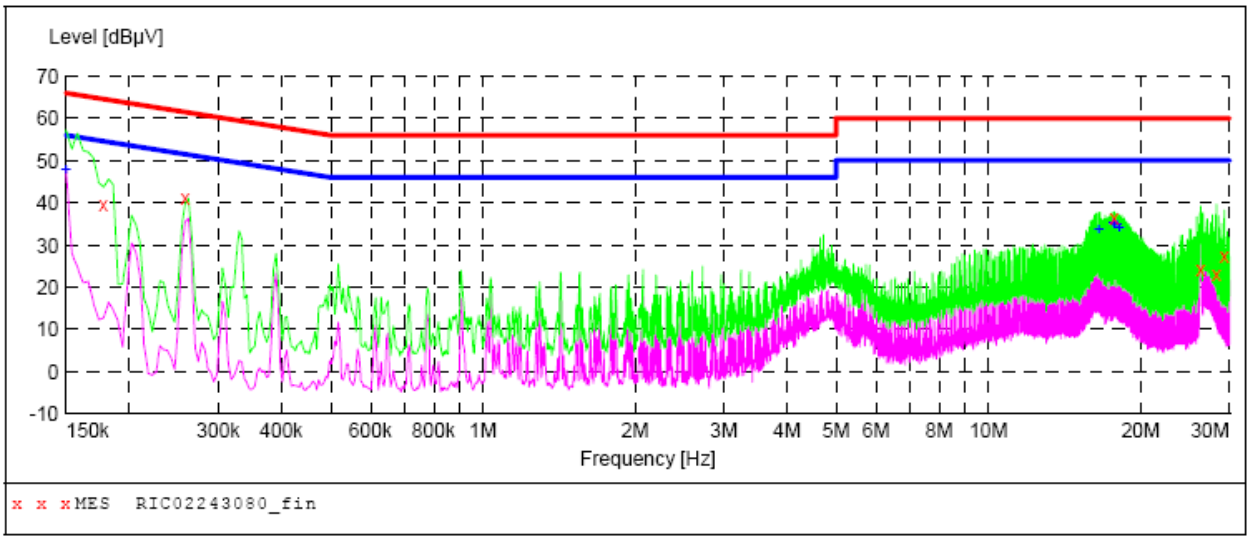
2/24/2012 11:12AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	47.90	10.1	56	8.1	AV	N	GND
0.258000	36.80	10.1	52	14.7	AV	N	GND
15.518000	32.00	10.5	50	18.0	AV	N	GND
15.826000	29.10	10.5	50	20.9	AV	N	GND
16.030000	30.50	10.5	50	19.5	AV	N	GND
16.538000	32.40	10.5	50	17.6	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
USB2.0 Print + IEEE1284 Print	0.258	41.10	L	62.00	10.10	20.40	QP
	0.150	47.80	L	56.00	10.10	8.20	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243080_fin"

2/24/2012 11:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.178000	39.70	10.1	65	24.9	QP	L1	GND
0.258000	41.10	10.1	62	20.4	QP	L1	GND
17.758000	36.40	10.5	60	23.6	QP	L1	GND
26.322000	24.20	10.8	60	35.8	QP	L1	GND
28.258000	23.20	10.9	60	36.8	QP	L1	GND
29.290000	27.40	10.9	60	32.6	QP	L1	GND

MEASUREMENT RESULT: "RIC02243080_fin2"

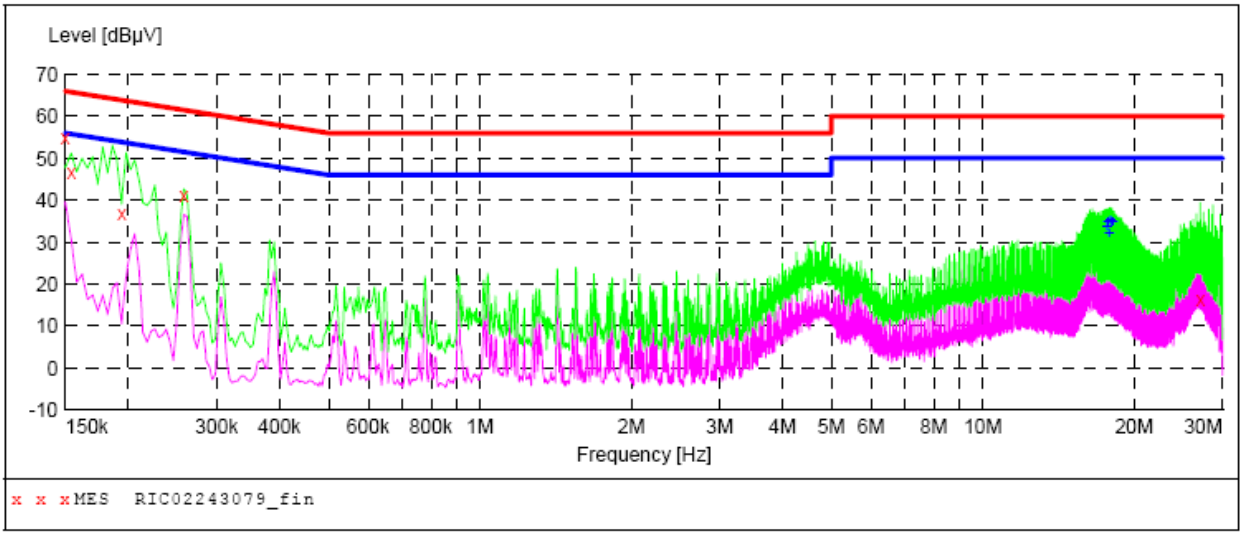
2/24/2012 11:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	47.80	10.1	56	8.2	AV	L1	GND
16.534000	33.60	10.5	50	16.4	AV	L1	GND
17.654000	35.40	10.5	50	14.6	AV	L1	GND
17.758000	34.80	10.5	50	15.2	AV	L1	GND
17.962000	34.80	10.5	50	15.2	AV	L1	GND
18.166000	34.20	10.5	50	15.8	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
USB2.0 Print + IEEE1284 Print	0.15	55.00	N	66.00	10.10	11.00	QP
	17.966	35.30	N	50.00	10.50	14.70	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243079_fin"

2/24/2012 11:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	55.00	10.1	66	11.0	QP	N	GND
0.154000	46.80	10.1	66	19.0	QP	N	GND
0.194000	37.00	10.1	64	26.9	QP	N	GND
0.258000	41.20	10.1	62	20.3	QP	N	GND
27.098000	16.30	10.9	60	43.7	QP	N	GND

MEASUREMENT RESULT: "RIC02243079_fin2"

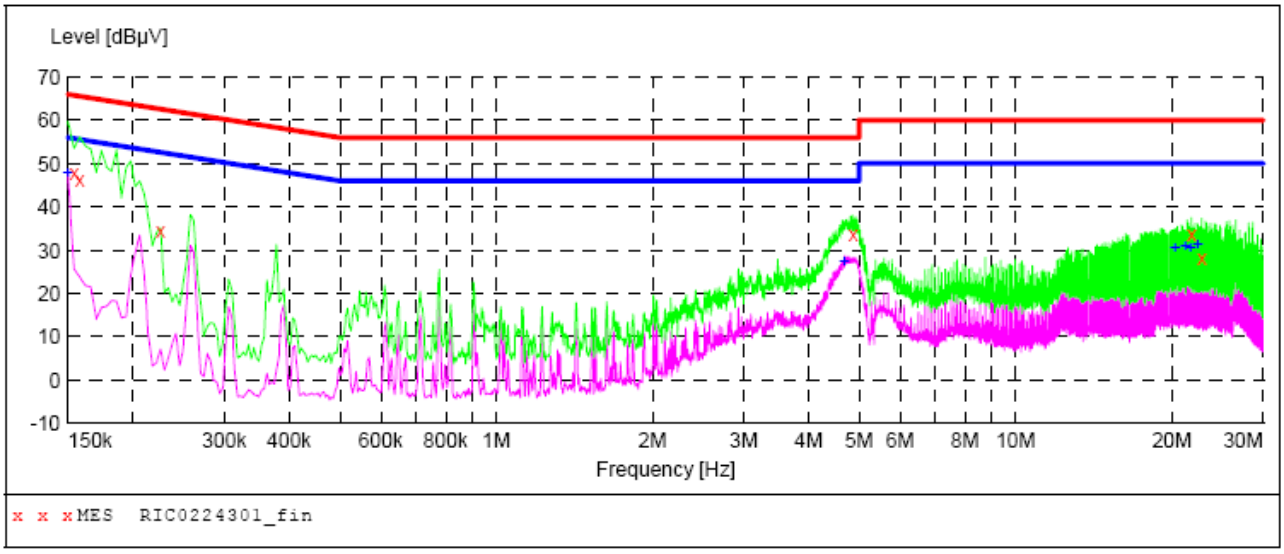
2/24/2012 11:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.662000	33.60	10.5	50	16.4	AV	N	GND
17.762000	35.00	10.5	50	15.0	AV	N	GND
17.866000	32.20	10.5	50	17.8	AV	N	GND
17.966000	35.30	10.5	50	14.7	AV	N	GND
18.066000	34.80	10.5	50	15.2	AV	N	GND
18.170000	35.00	10.5	50	15.0	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Giga Print & scan + USB (Giga)Print	0.154	47.90	L	66.00	10.10	17.90	QP
	0.150	47.70	L	56.00	10.10	8.30	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC0224301_fin"

2/24/2012 10:00AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000	47.90	10.1	66	17.9	QP	L1	GND
0.158000	46.20	10.1	66	19.4	QP	L1	GND
0.226000	34.50	10.1	63	28.1	QP	L1	GND
4.874000	33.50	10.2	56	22.5	QP	L1	GND
21.846000	33.60	10.6	60	26.4	QP	L1	GND
22.874000	28.10	10.7	60	31.9	QP	L1	GND

MEASUREMENT RESULT: "RIC0224301_fin2"

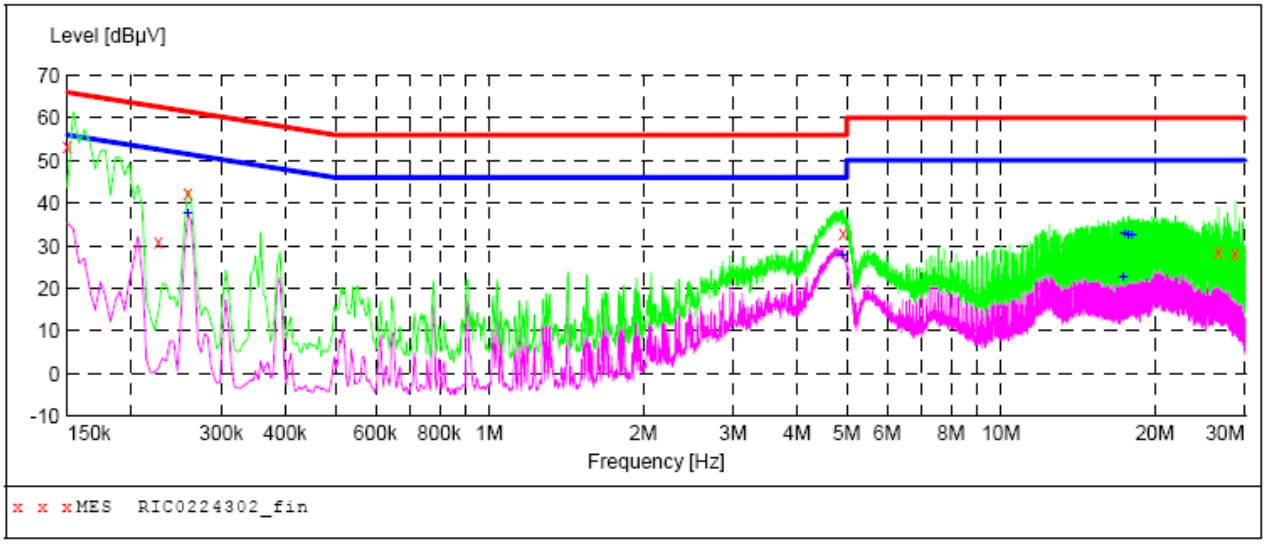
2/24/2012 10:00AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	47.70	10.1	56	8.3	AV	L1	GND
4.682000	27.60	10.2	46	18.4	AV	L1	GND
20.314000	30.70	10.5	50	19.3	AV	L1	GND
21.234000	31.00	10.6	50	19.0	AV	L1	GND
21.742000	30.60	10.6	50	19.4	AV	L1	GND
22.458000	31.20	10.7	50	18.8	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
Giga Print & scan + USB (Giga)Print	0.150	53.40	N	66.00	10.10	12.60	QP
	0.258	37.60	N	52.00	10.10	13.90	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC0224302_fin"

2/24/2012 10:04AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	53.40	10.1	66	12.6	QP	N	GND
0.226000	30.80	10.1	63	31.8	QP	N	GND
0.258000	42.30	10.1	62	19.2	QP	N	GND
4.918000	33.10	10.2	56	22.9	QP	N	GND
26.638000	28.70	10.8	60	31.3	QP	N	GND
28.674000	28.30	10.9	60	31.7	QP	N	GND

MEASUREMENT RESULT: "RIC0224302_fin2"

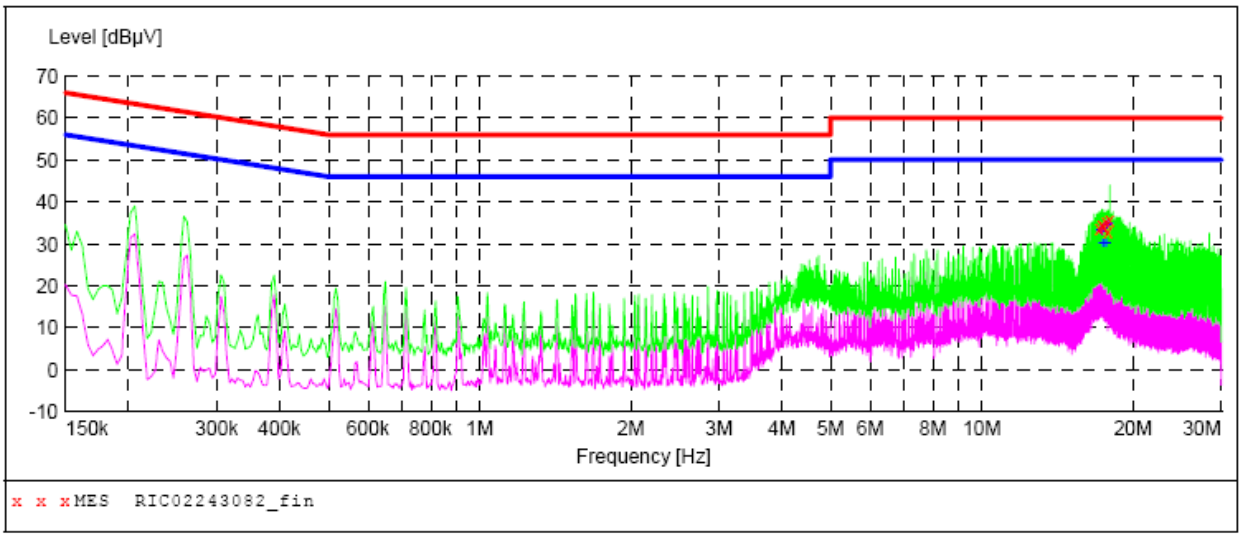
2/24/2012 10:04AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.258000	37.60	10.1	52	13.9	AV	N	GND
4.894000	27.80	10.2	46	18.2	AV	N	GND
17.354000	22.80	10.5	50	27.2	AV	N	GND
17.450000	33.10	10.5	50	16.9	AV	N	GND
17.758000	32.60	10.5	50	17.4	AV	N	GND
18.062000	32.70	10.5	50	17.3	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
G3-TX	17.966	35.90	L	60.00	10.50	24.10	QP
	17.866	35.10	L	50.00	10.50	14.90	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243082_fin"

2/24/2012 11:52AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.150000	33.80	10.5	60	26.2	QP	L1	GND
17.354000	34.40	10.5	60	25.6	QP	L1	GND
17.458000	34.30	10.5	60	25.7	QP	L1	GND
17.662000	35.40	10.5	60	24.6	QP	L1	GND
17.870000	32.90	10.5	60	27.1	QP	L1	GND
17.966000	35.90	10.5	60	24.1	QP	L1	GND

MEASUREMENT RESULT: "RIC02243082_fin2"

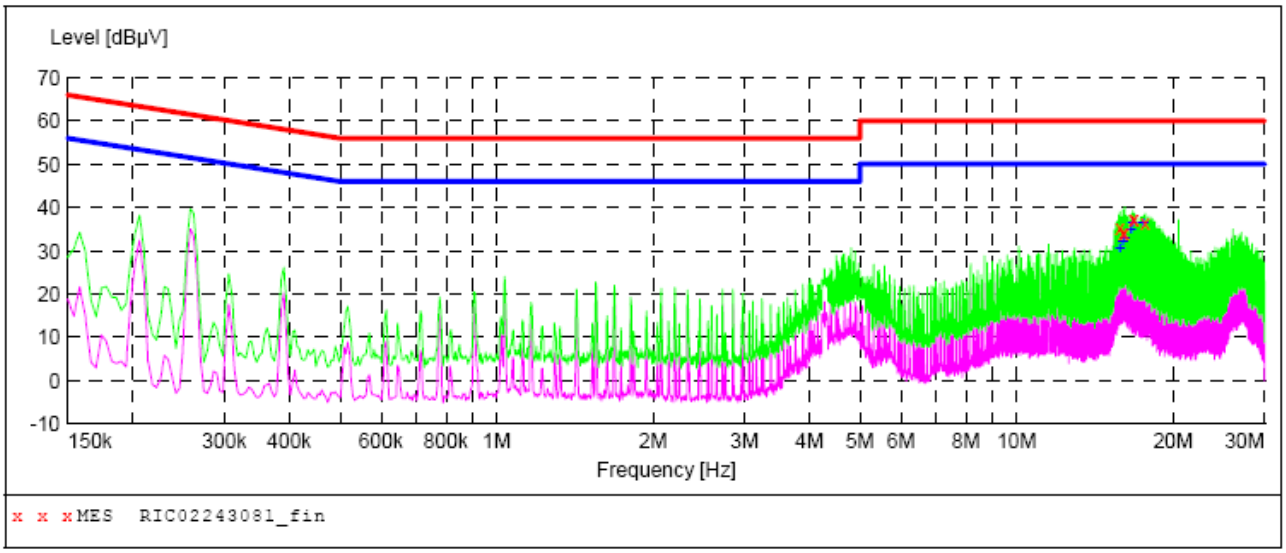
2/24/2012 11:52AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.254000	33.20	10.5	50	16.8	AV	L1	GND
17.354000	33.10	10.5	50	16.9	AV	L1	GND
17.454000	30.30	10.5	50	19.7	AV	L1	GND
17.658000	30.30	10.5	50	19.7	AV	L1	GND
17.762000	34.70	10.5	50	15.3	AV	L1	GND
17.866000	35.10	10.5	50	14.9	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
G3-TX	16.742	37.30	N	60.00	10.50	22.70	QP
	16.742	36.50	N	50.00	10.50	13.50	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243081_fin"

2/24/2012 11:48AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
15.822000	35.50	10.5	60	24.5	QP	N	GND
16.026000	33.90	10.5	60	26.1	QP	N	GND
16.126000	34.20	10.5	60	25.8	QP	N	GND
16.742000	37.30	10.5	60	22.7	QP	N	GND
16.846000	37.20	10.5	60	22.8	QP	N	GND
17.658000	36.50	10.5	60	23.5	QP	N	GND

MEASUREMENT RESULT: "RIC02243081_fin2"

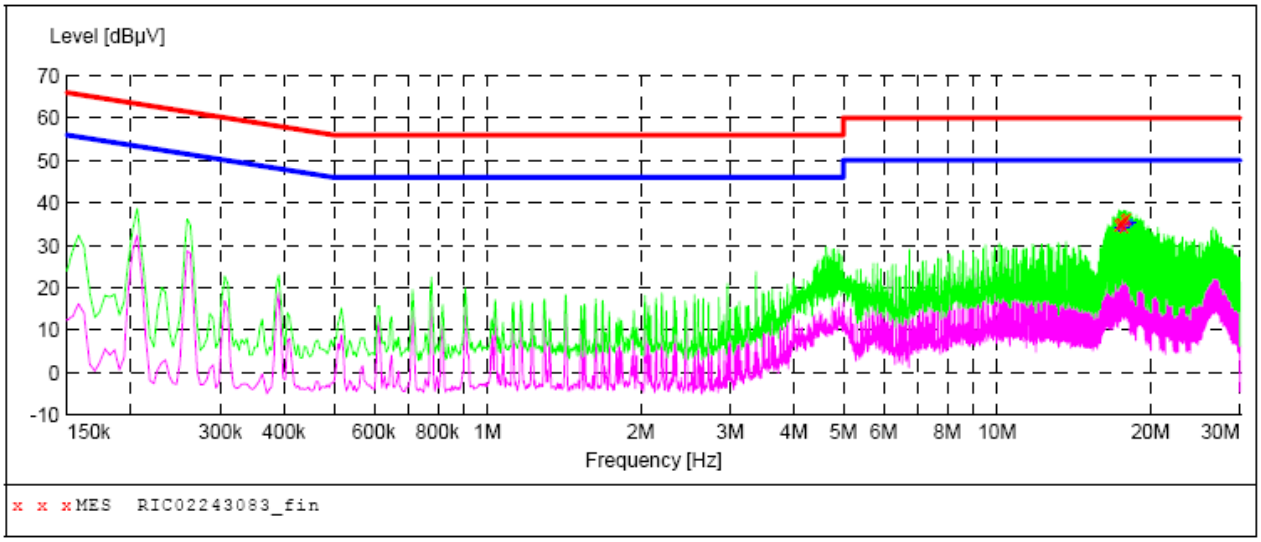
2/24/2012 11:48AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
15.822000	30.60	10.5	50	19.4	AV	N	GND
16.026000	32.10	10.5	50	17.9	AV	N	GND
16.130000	33.10	10.5	50	16.9	AV	N	GND
16.642000	35.10	10.5	50	14.9	AV	N	GND
16.742000	36.50	10.5	50	13.5	AV	N	GND
17.558000	36.30	10.5	50	13.7	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
G3-RX	17.97	36.50	L	60.00	10.50	23.50	QP
	18.375	35.30	L	50.00	10.50	14.70	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243083_fin"

2/24/2012 11:58AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.358000	34.90	10.5	60	25.1	QP	L1	GND
17.458000	35.40	10.5	60	24.6	QP	L1	GND
17.562000	35.50	10.5	60	24.5	QP	L1	GND
17.762000	34.70	10.5	60	25.3	QP	L1	GND
17.866000	36.10	10.5	60	23.9	QP	L1	GND
17.970000	36.50	10.5	60	23.5	QP	L1	GND

MEASUREMENT RESULT: "RIC02243083_fin2"

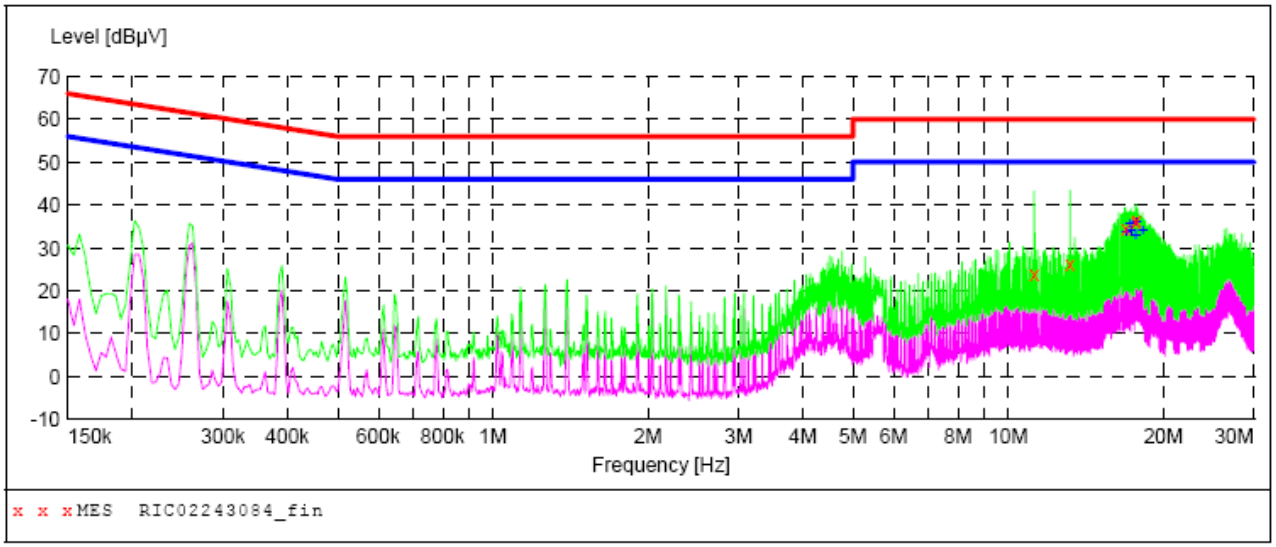
2/24/2012 11:58AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
17.358000	34.10	10.5	50	15.9	AV	L1	GND
17.458000	33.90	10.5	50	16.1	AV	L1	GND
17.662000	34.30	10.5	50	15.7	AV	L1	GND
17.870000	34.30	10.5	50	15.7	AV	L1	GND
18.174000	34.90	10.5	50	15.1	AV	L1	GND
18.378000	35.30	10.5	50	14.7	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
G3-RX	17.766	36.50	N	60.00	10.50	23.50	QP
	17.766	36.10	N	50.00	10.50	13.90	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC02243084_fin"

2/24/2012 12:02PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
11.234000	23.90	10.4	60	36.1	QP	N	GND
13.170000	26.20	10.4	60	33.8	QP	N	GND
16.946000	34.70	10.5	60	25.3	QP	N	GND
17.666000	36.10	10.5	60	23.9	QP	N	GND
17.766000	36.50	10.5	60	23.5	QP	N	GND

MEASUREMENT RESULT: "RIC02243084_fin2"

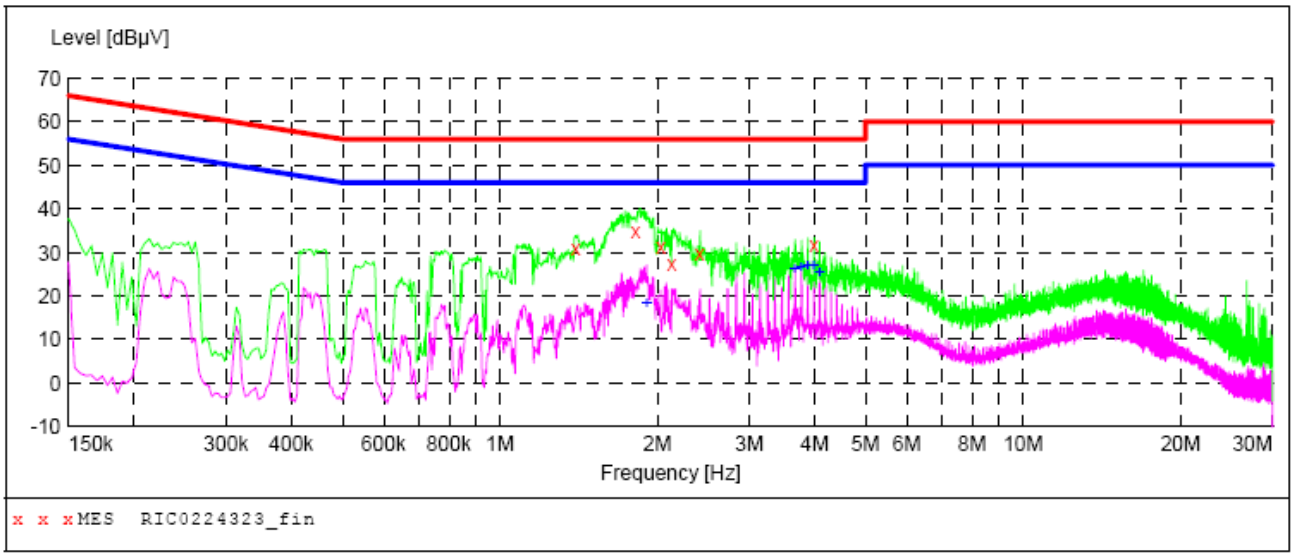
2/24/2012 12:02PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
16.950000	33.80	10.5	50	16.2	AV	N	GND
17.254000	35.70	10.5	50	14.3	AV	N	GND
17.358000	34.10	10.5	50	15.9	AV	N	GND
17.666000	33.10	10.5	50	16.9	AV	N	GND
17.766000	36.10	10.5	50	13.9	AV	N	GND
18.278000	34.30	10.5	50	15.7	AV	N	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
NIC Print&Scan	1.818	34.90	L	56.00	10.20	21.10	QP
	3.982	27.20	L	46.00	10.20	18.80	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC0224323_fin"

2/24/2012 5:14PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.398000	31.10	10.2	56	24.9	QP	L1	GND
1.818000	34.90	10.2	56	21.1	QP	L1	GND
2.034000	31.40	10.2	56	24.6	QP	L1	GND
2.134000	27.60	10.2	56	28.4	QP	L1	GND
2.410000	30.00	10.2	56	26.0	QP	L1	GND
3.982000	31.80	10.2	56	24.2	QP	L1	GND

MEASUREMENT RESULT: "RIC0224323_fin2"

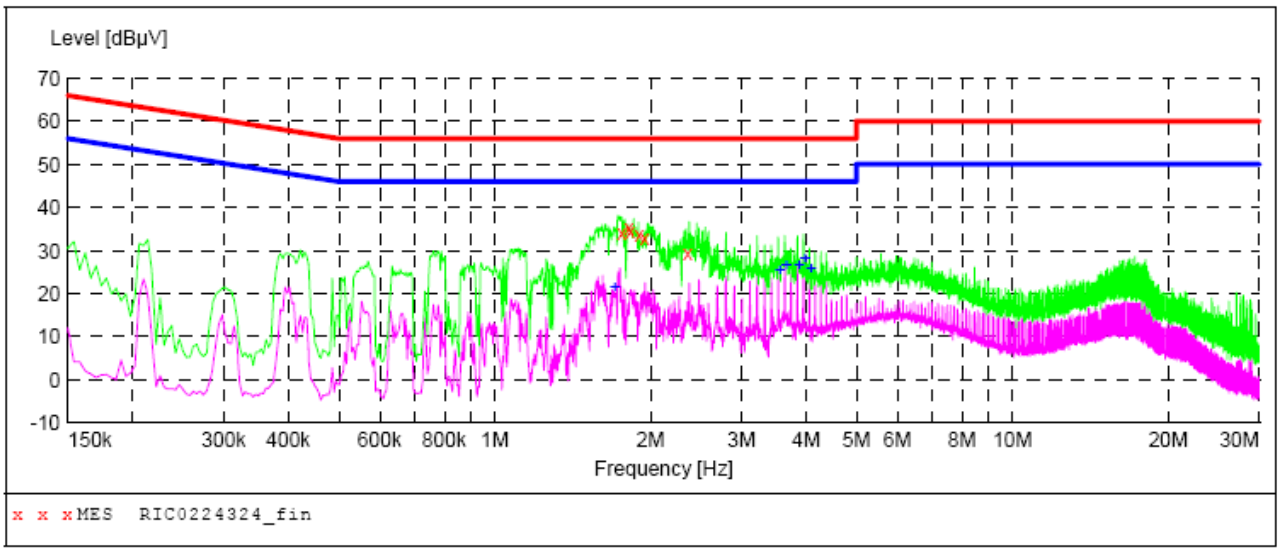
2/24/2012 5:14PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.910000	18.50	10.2	46	27.5	AV	L1	GND
3.670000	26.10	10.2	46	19.9	AV	L1	GND
3.774000	26.80	10.2	46	19.2	AV	L1	GND
3.878000	26.90	10.2	46	19.1	AV	L1	GND
3.982000	27.20	10.2	46	18.8	AV	L1	GND
4.086000	25.50	10.2	46	20.5	AV	L1	GND

Test Condition	Maximum Conducted Emissions		Line	Limit (dBuV)	Transd (dB)	Margin (dB)	Detector
	Frequency (MHz)	Datum (dBuV)					
NIC Print&Scan	1.818	35.50	N	56.00	10.20	20.50	QP
	3.982	28.30	N	50.00	10.20	17.70	AV
Test Results			Pass				

SCAN TABLE: "Voltage (150K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "RIC0224324_fin"

2/24/2012 5:20PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.762000	34.00	10.2	56	22.0	QP	N	GND
1.818000	35.50	10.2	56	20.5	QP	N	GND
1.830000	34.50	10.2	56	21.5	QP	N	GND
1.902000	33.50	10.2	56	22.5	QP	N	GND
1.950000	32.90	10.2	56	23.1	QP	N	GND
2.358000	29.40	10.2	56	26.6	QP	N	GND

MEASUREMENT RESULT: "RIC0224324_fin2"

2/24/2012 5:20PM

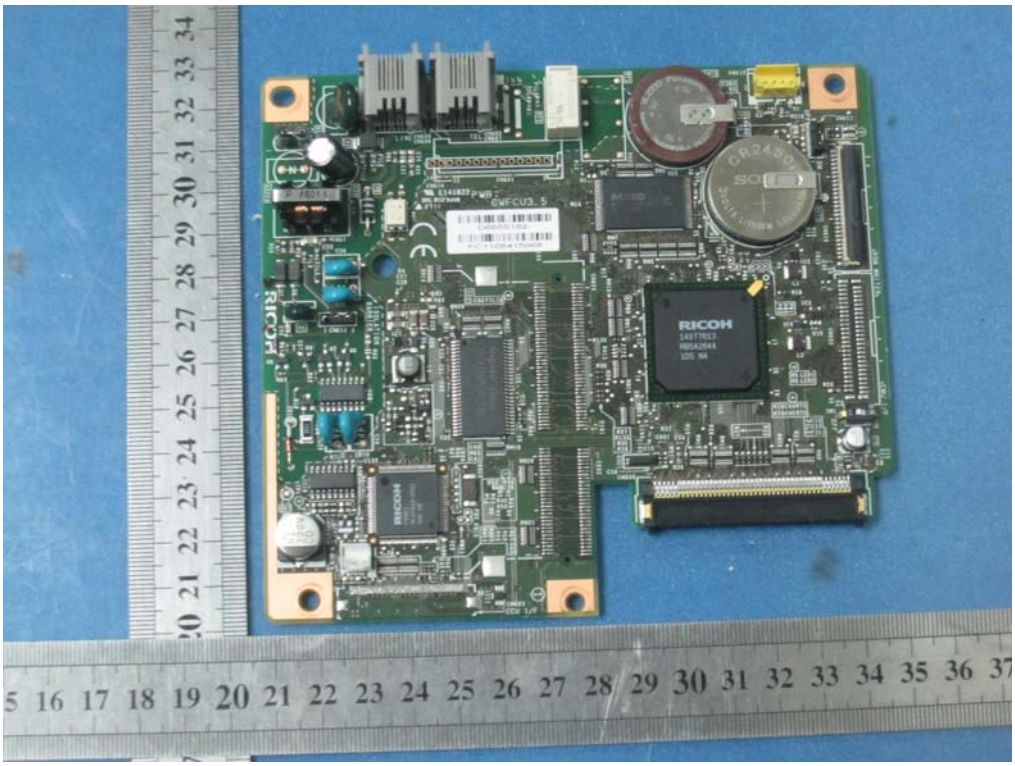
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.710000	21.40	10.2	46	24.6	AV	N	GND
3.562000	25.40	10.2	46	20.6	AV	N	GND
3.666000	26.60	10.2	46	19.4	AV	N	GND
3.878000	26.60	10.2	46	19.4	AV	N	GND
3.982000	28.30	10.2	46	17.7	AV	N	GND
4.086000	25.70	10.2	46	20.3	AV	N	GND

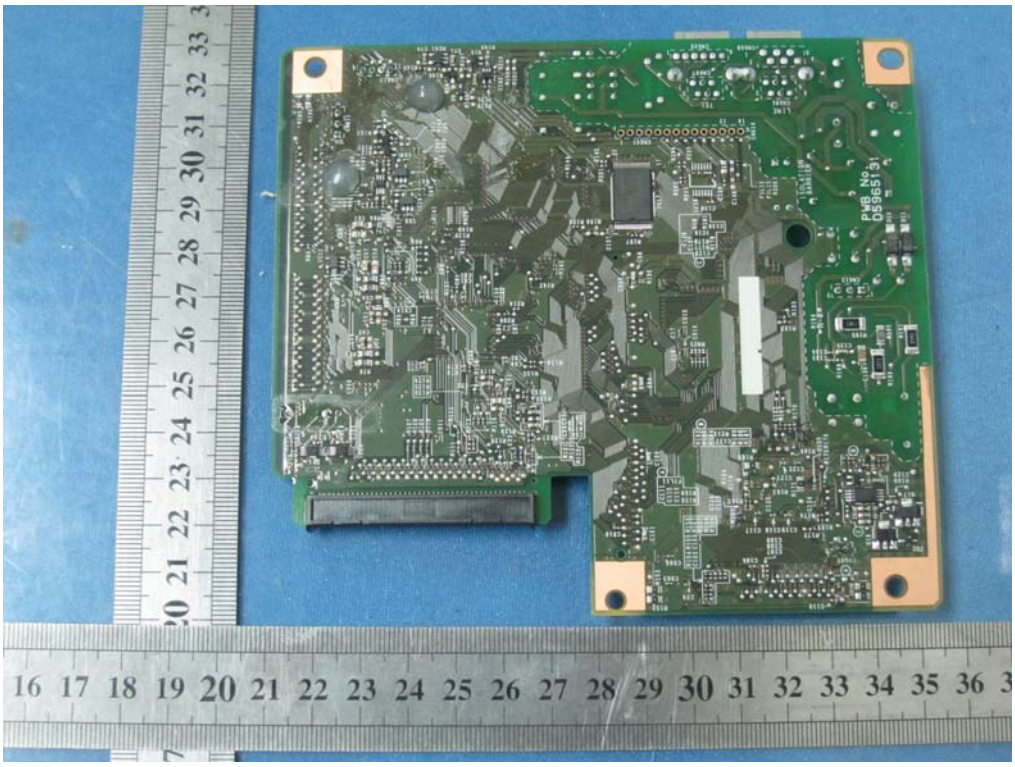
5. External and Internal Photos of the EUT

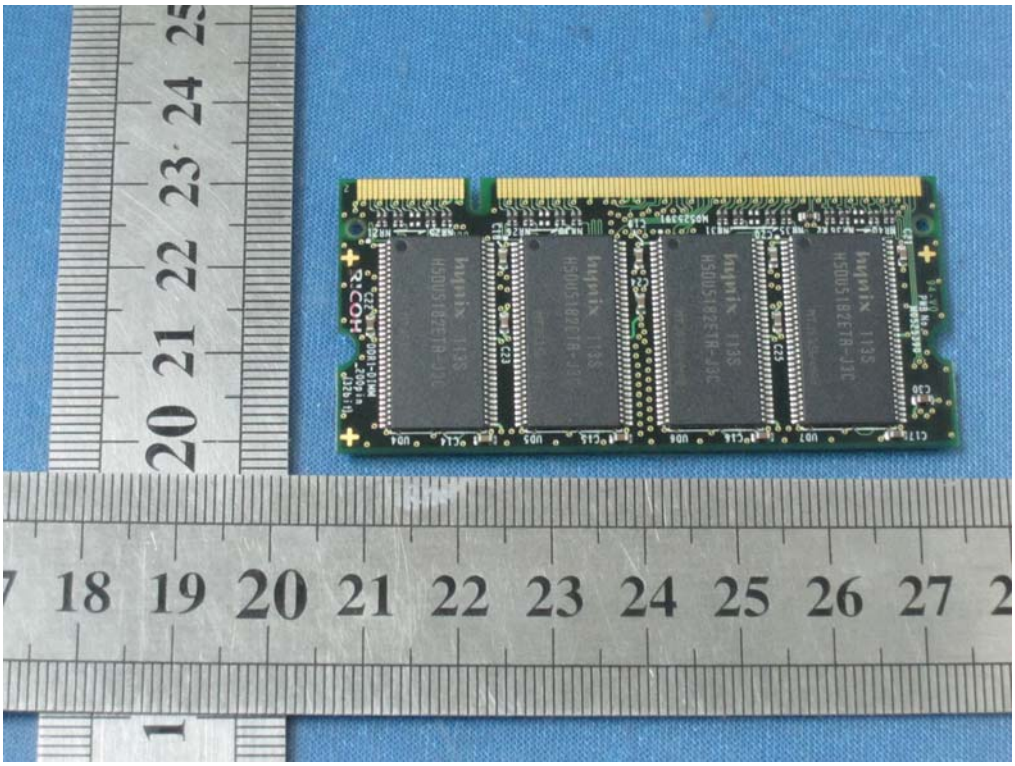
5.1. External photos of the EUT

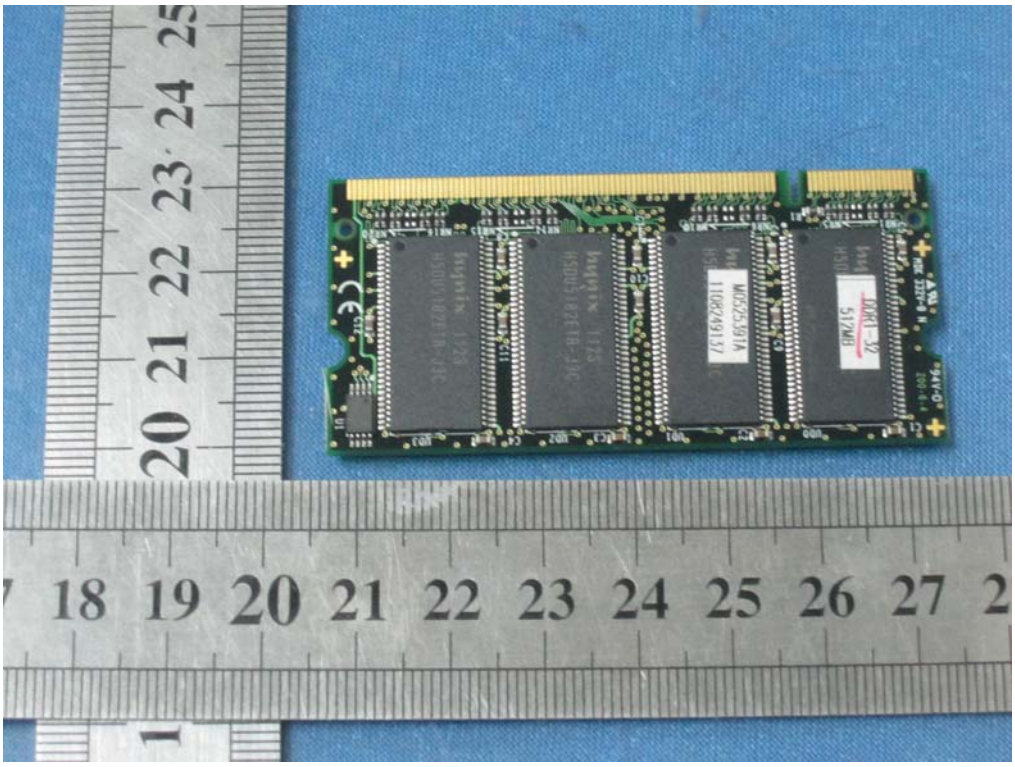
5.2. Internal photos of the EUT


RICOH

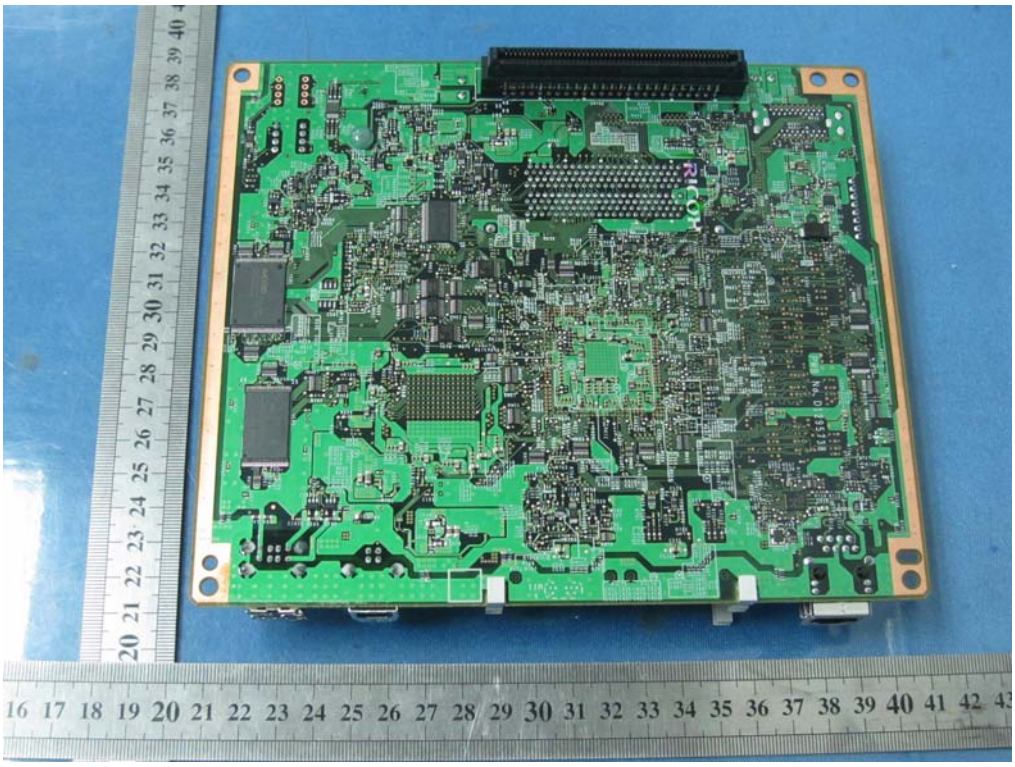

RICOH
RICOH



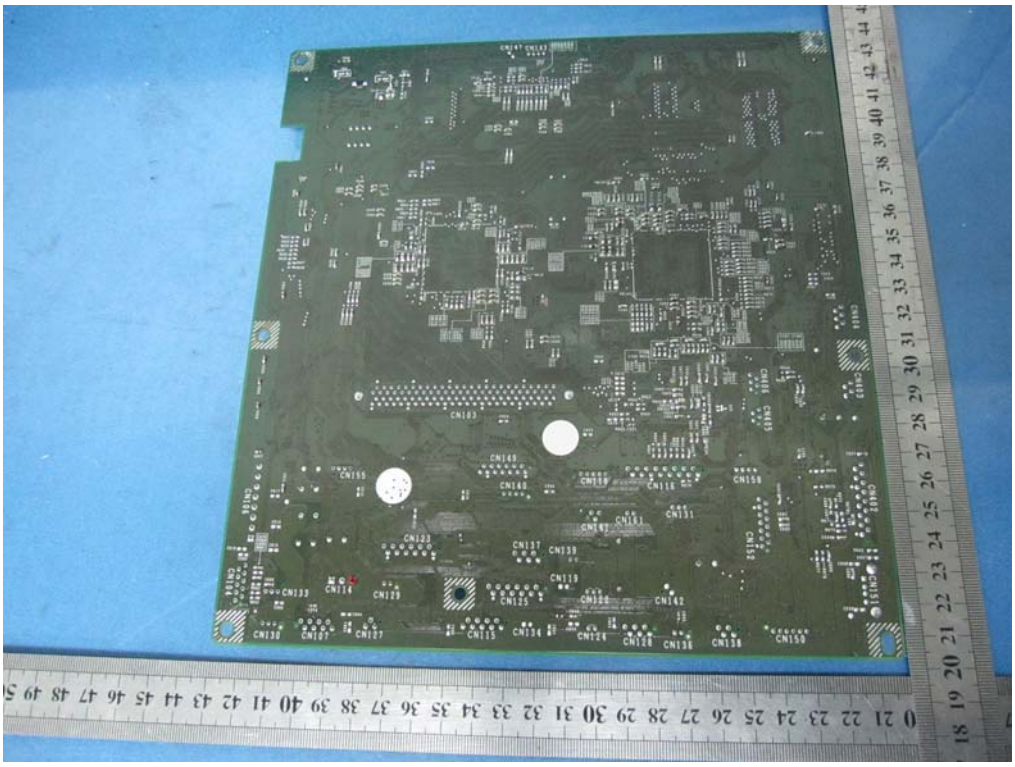


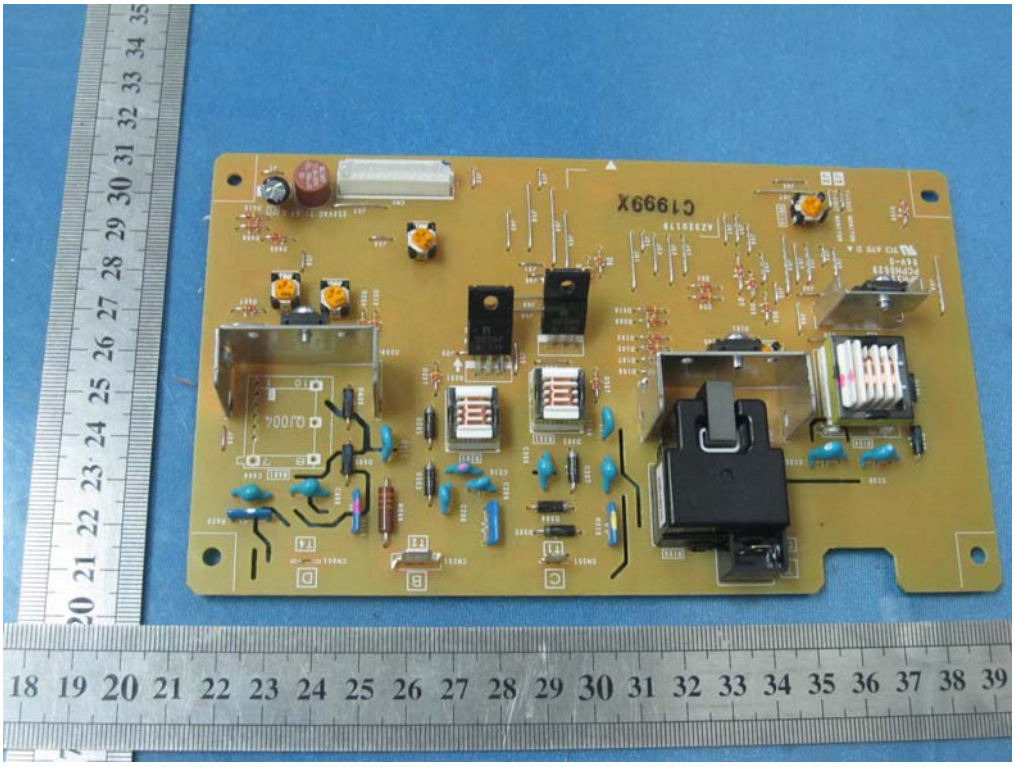


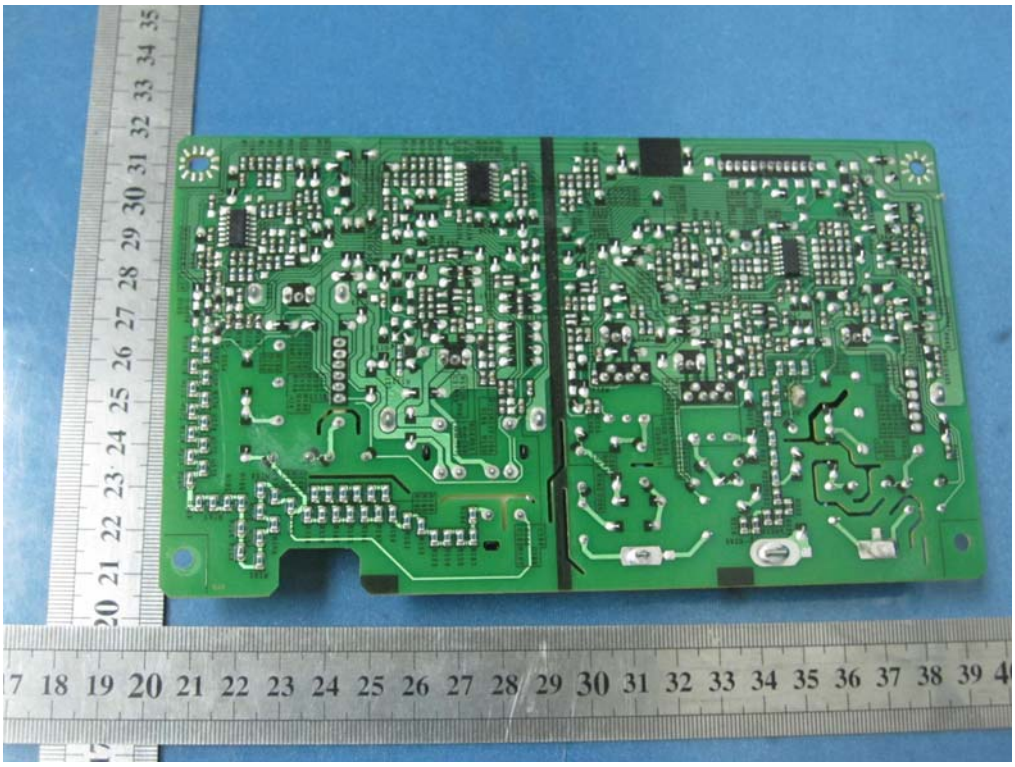

RICOH
TAIWAN
14077576
1123 T030
PMC

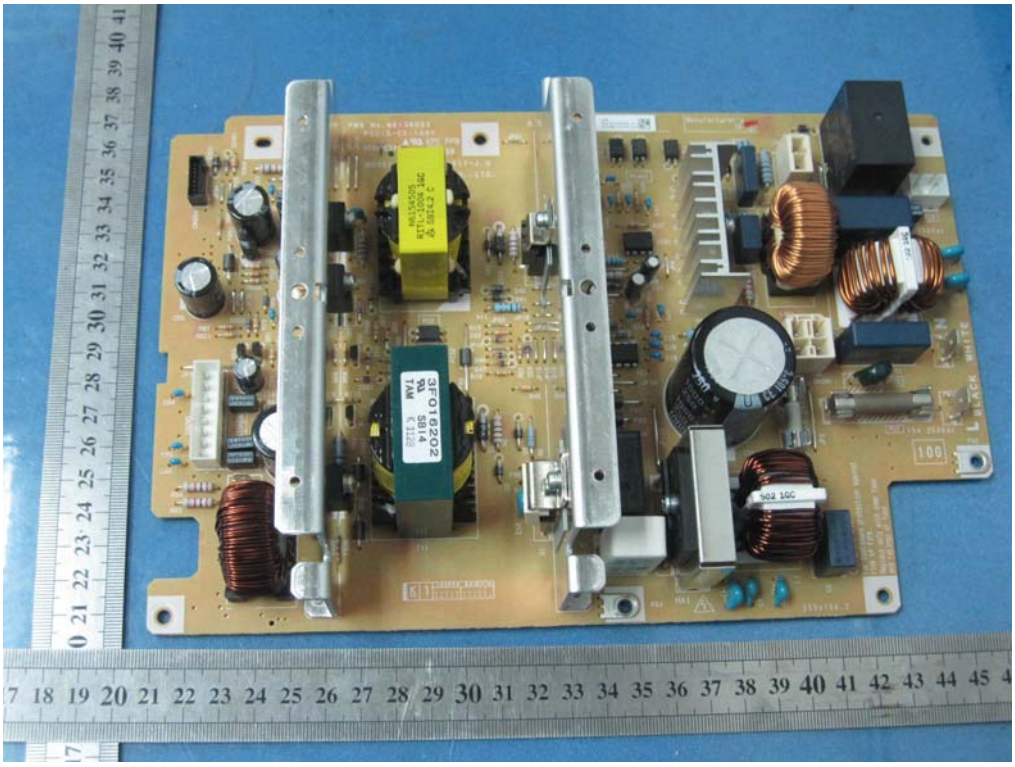


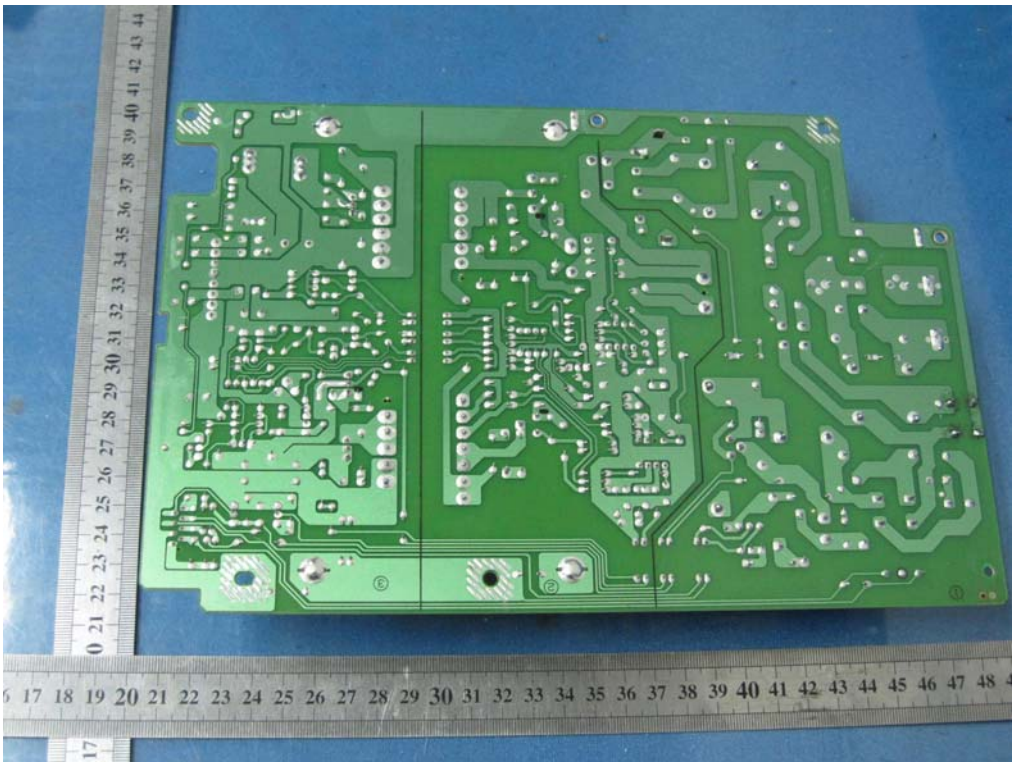

RICOH

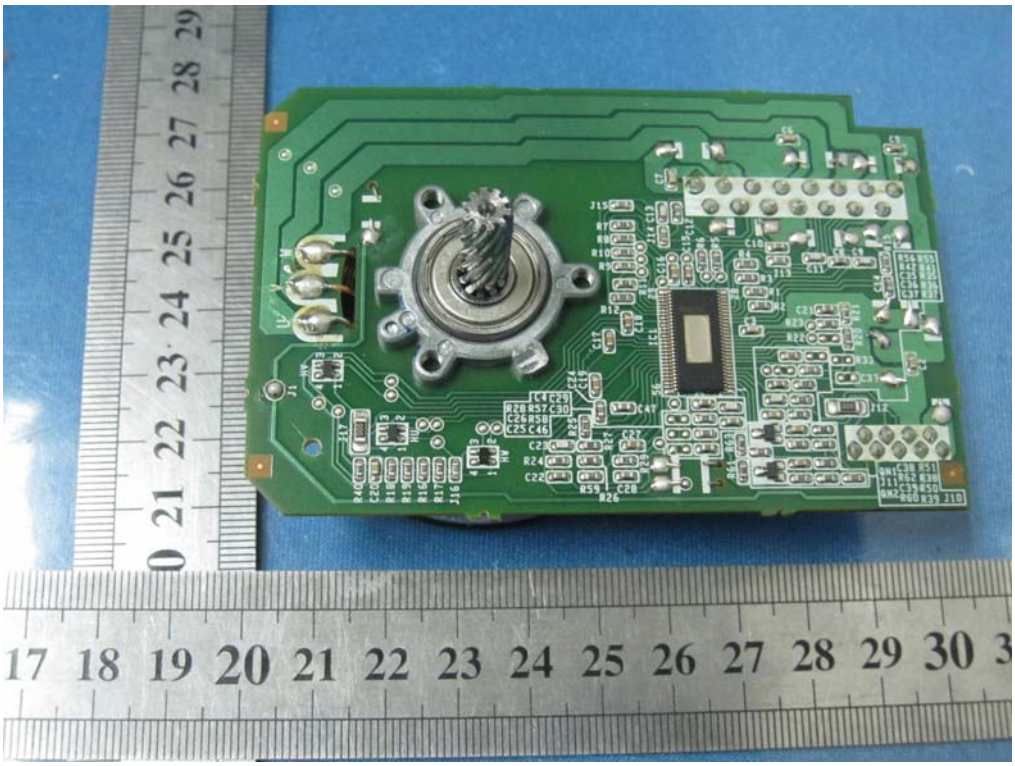


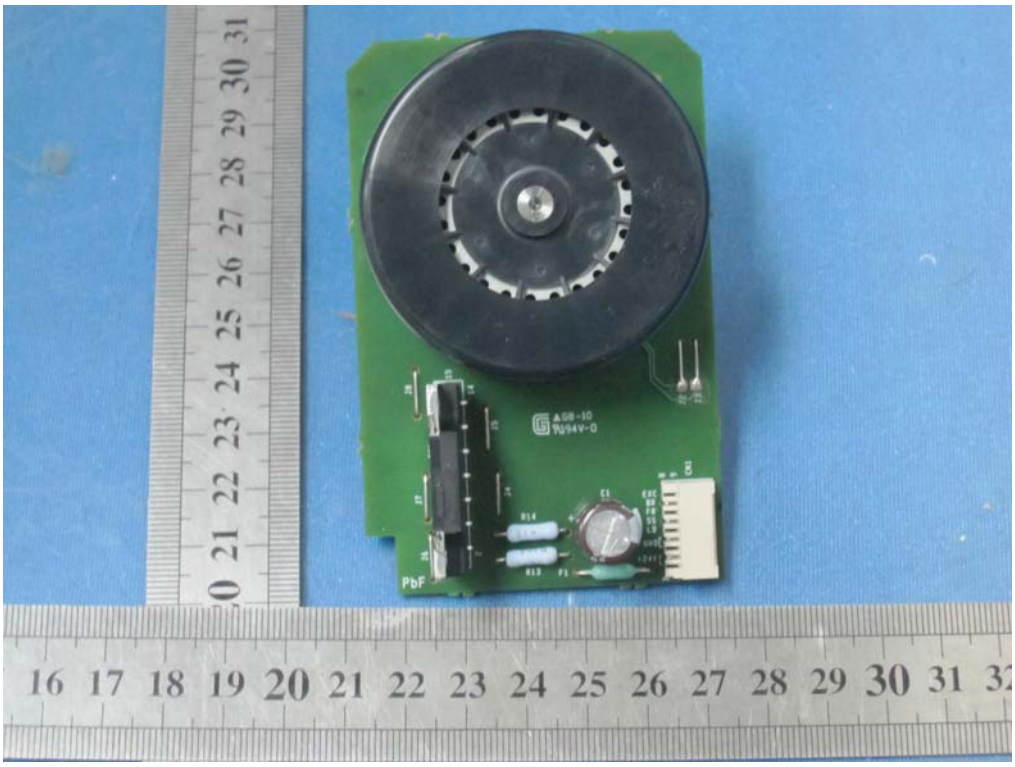


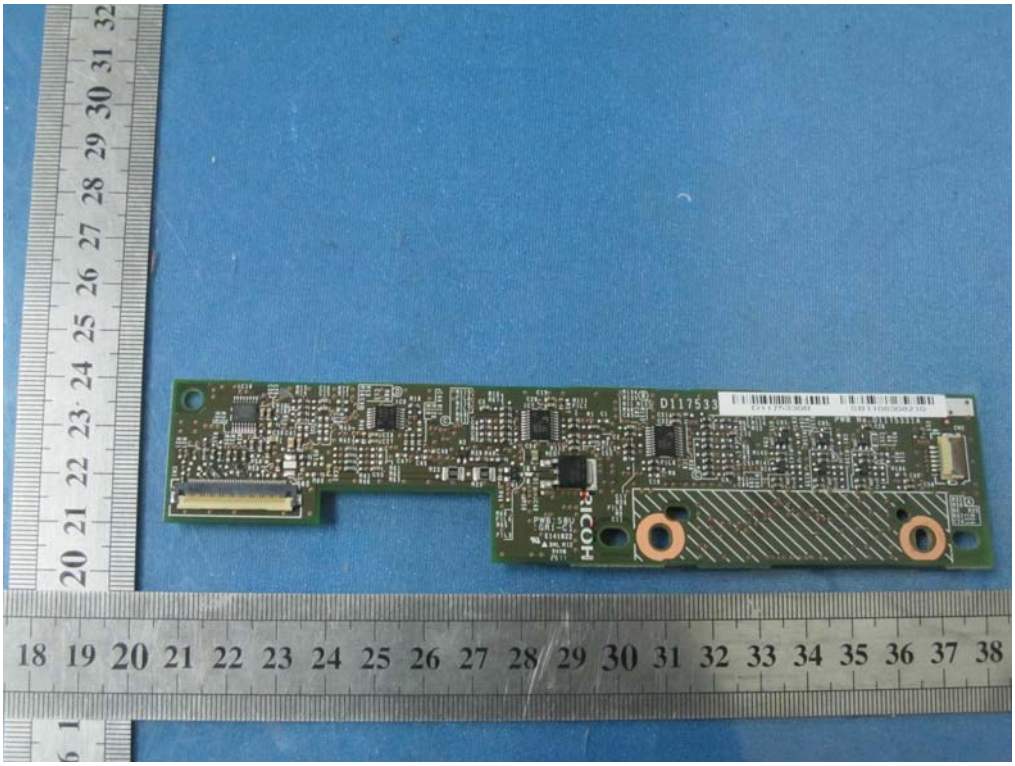


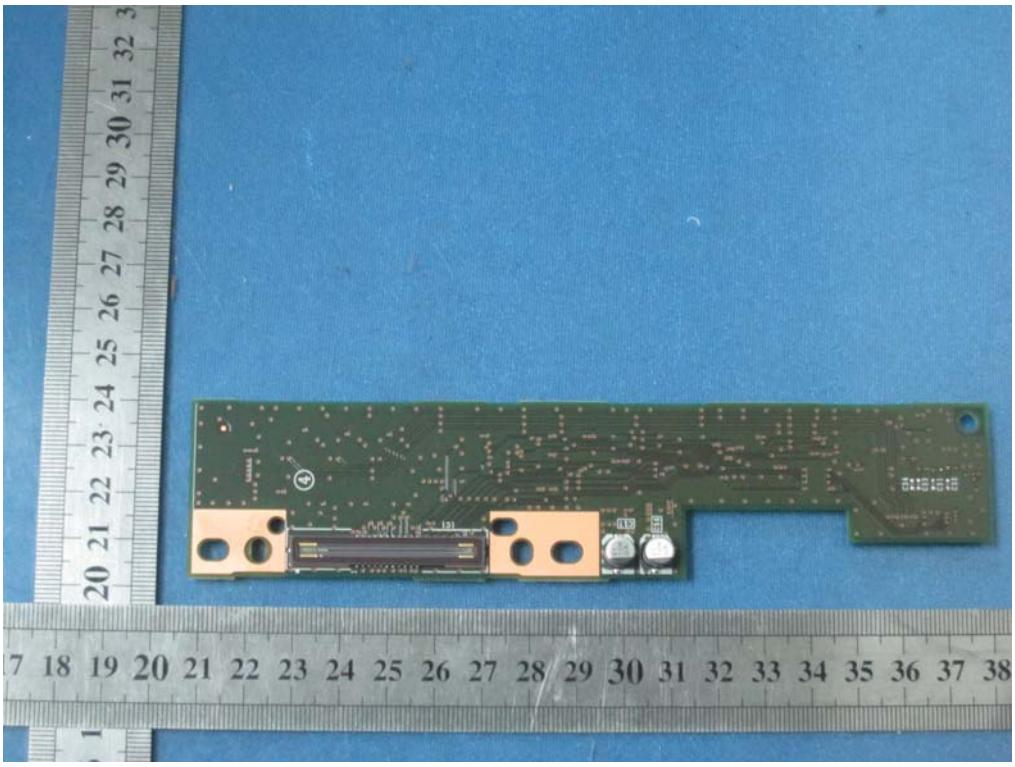


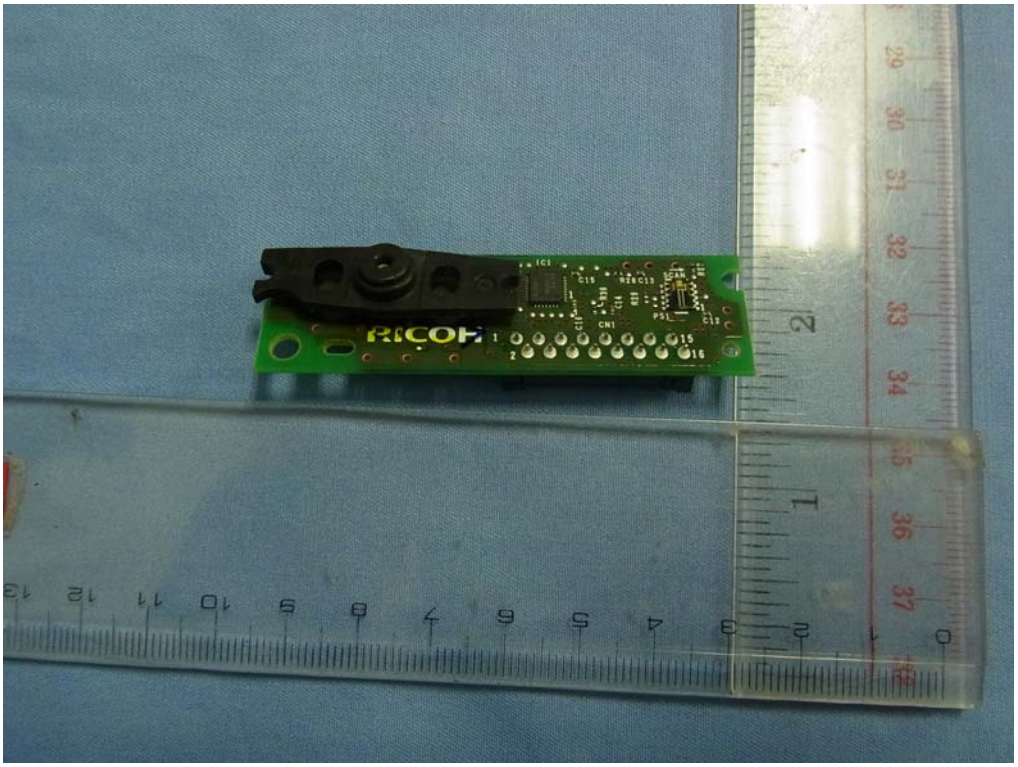


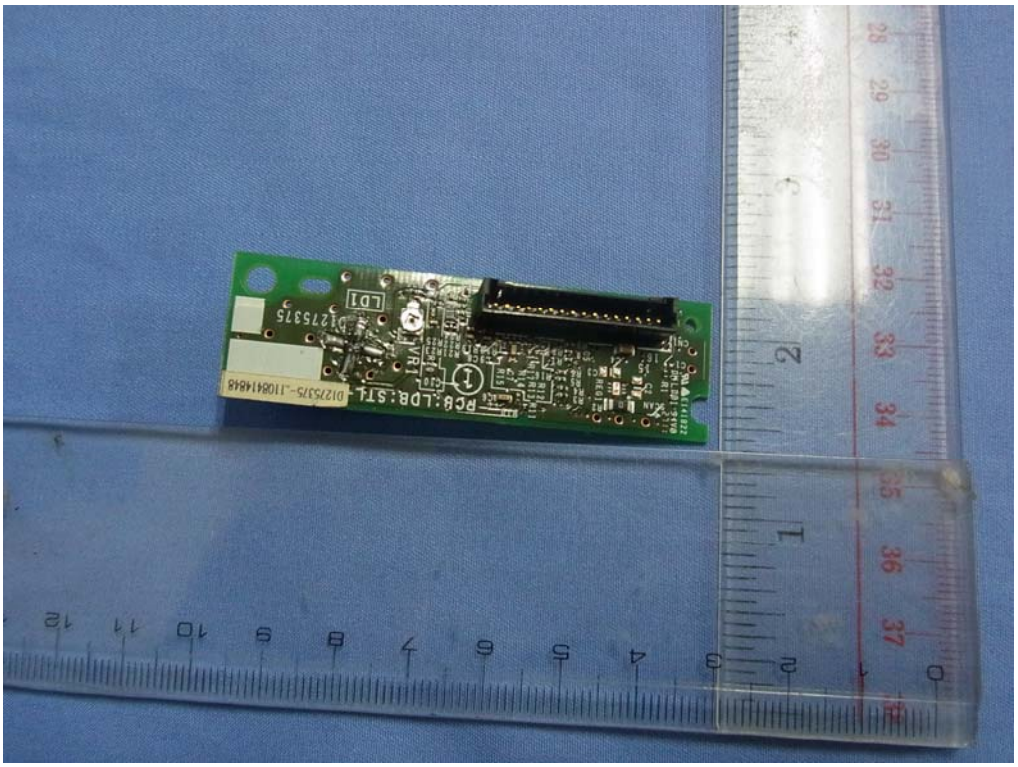


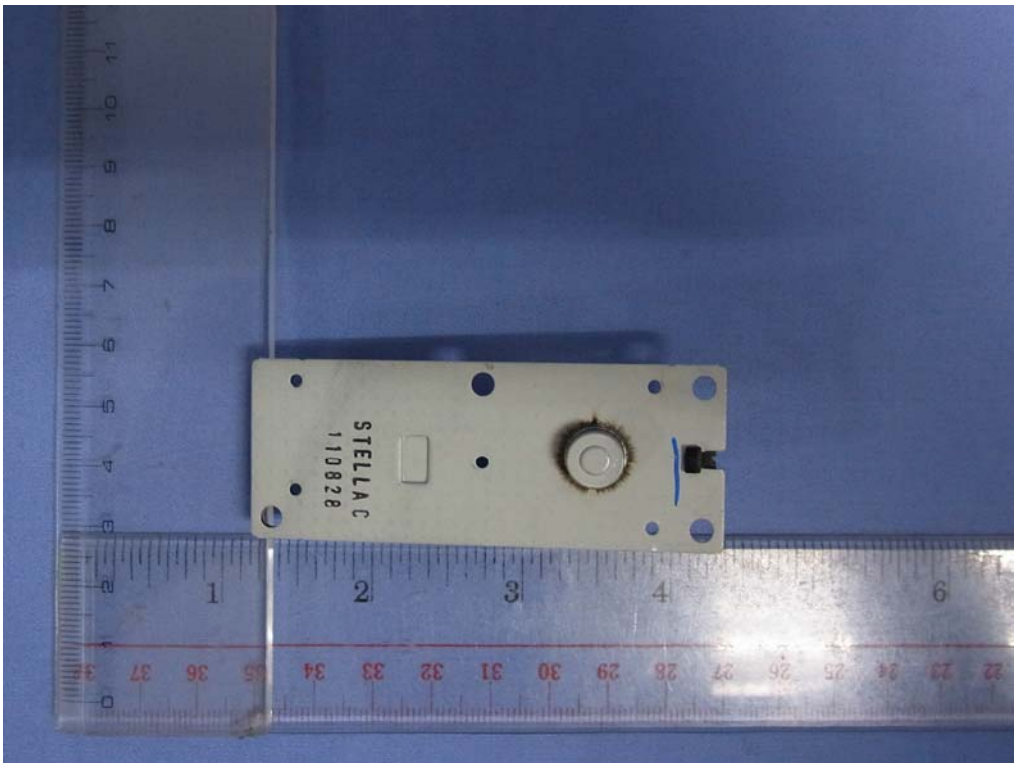


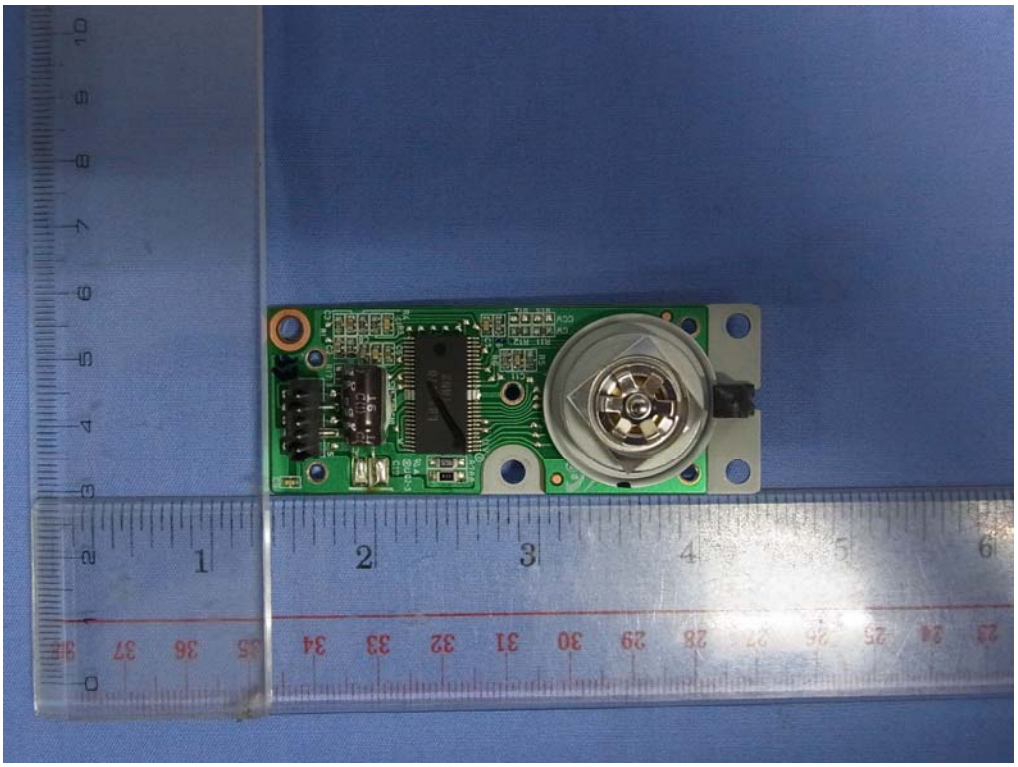





RICOH

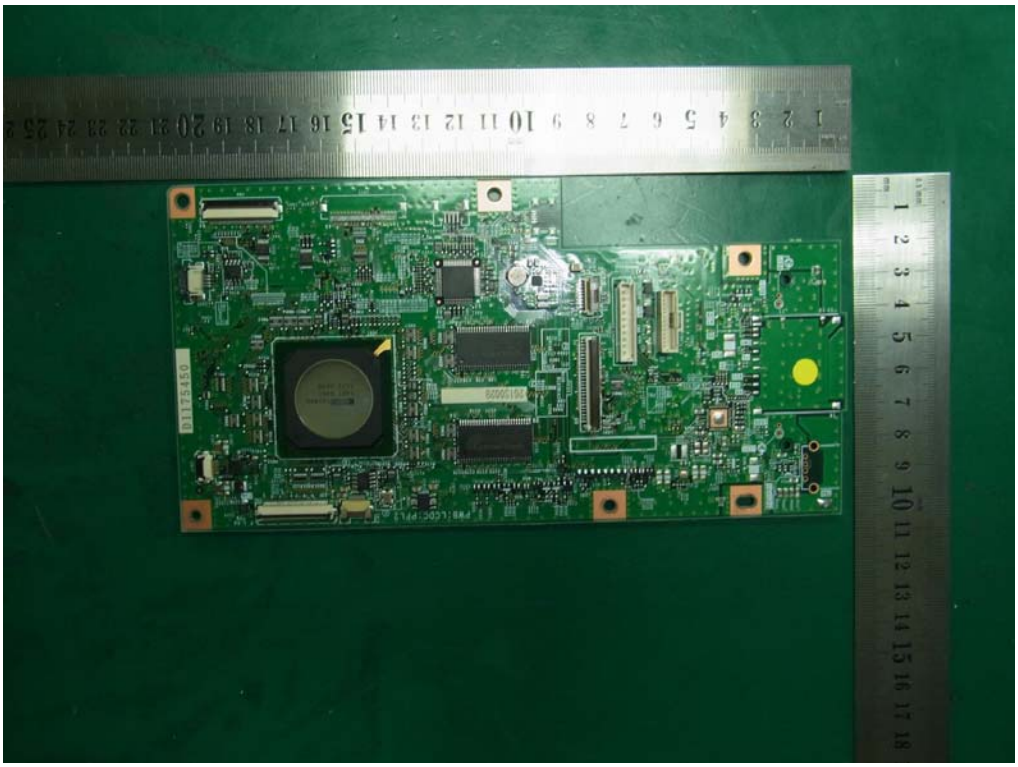



STELLA C
110828

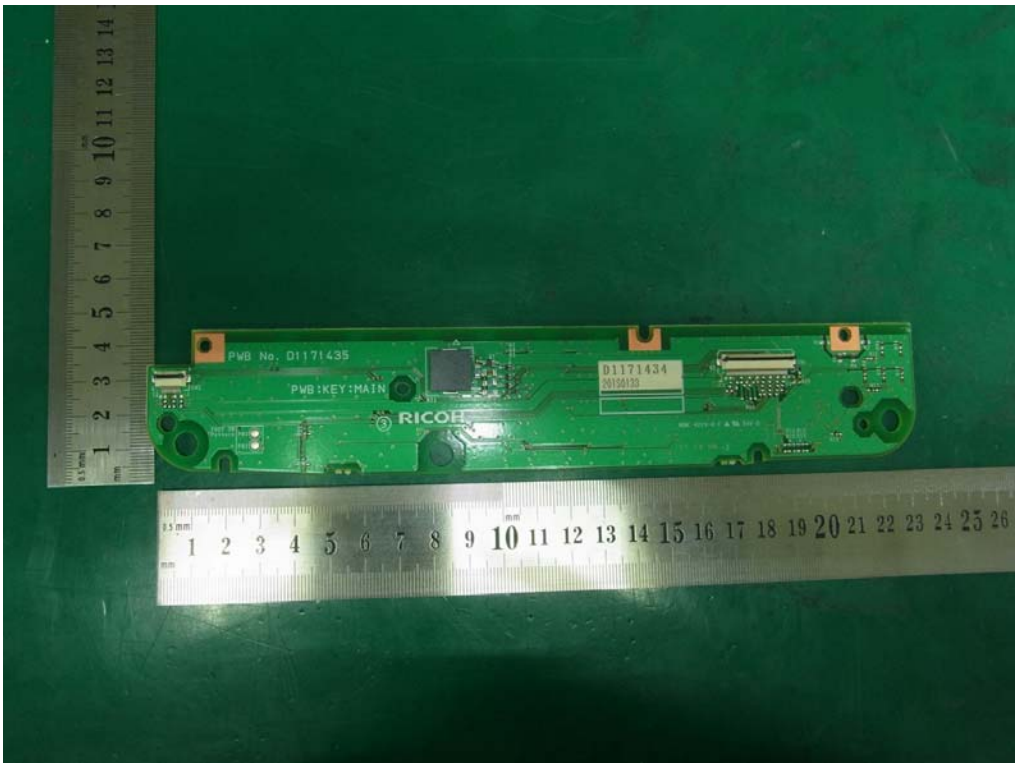


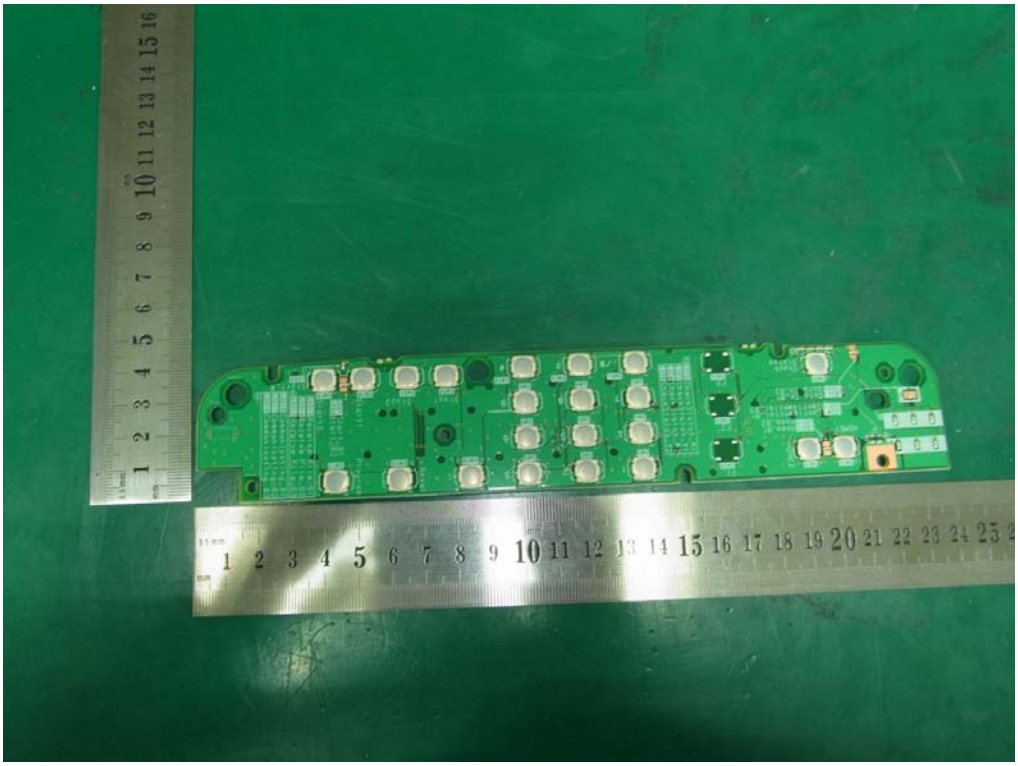

MP 301SPF/Aficio MP 301SPF
CODE D169-17 120-127V ∿ 60Hz 9A 1100W
SERIAL NO. D1691700022
Complies with FDA radiation performance standards,21 CFR Subchapter J.
RICOH COMPANY, LTD.
3-6, Naka-magome 1-Chome Ohta-ku,
Tokyo 143-8555 Japan
c UL us LISTED
I.T.E.
5K30
E139782
SRD
Made in China

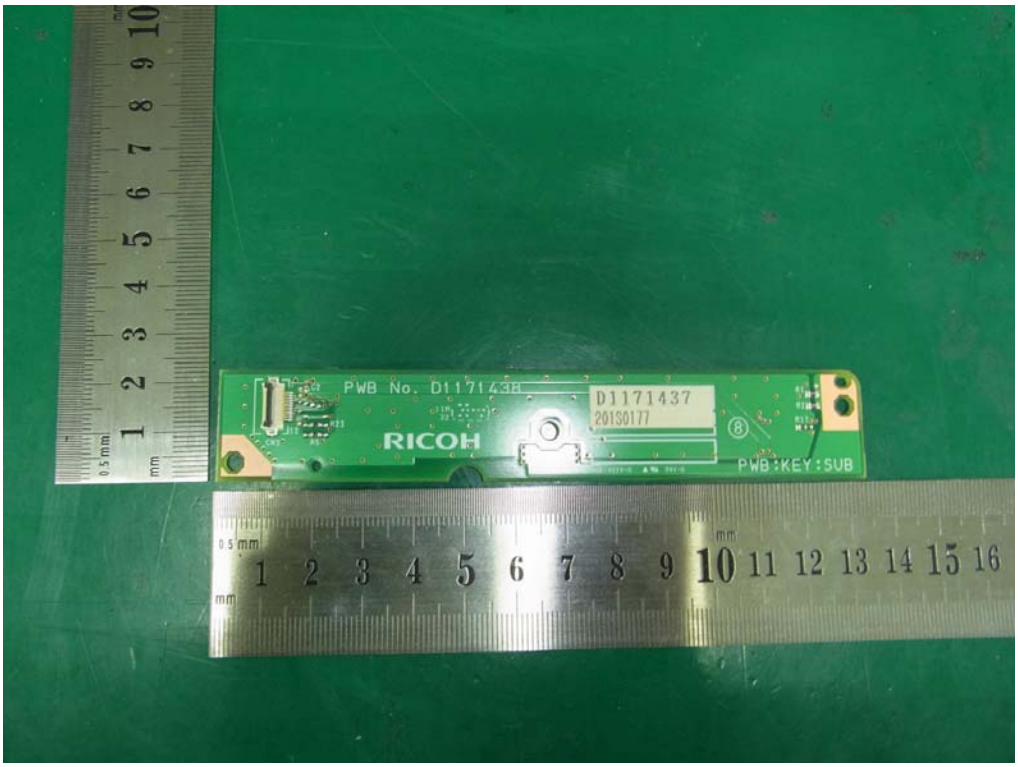

RICOH

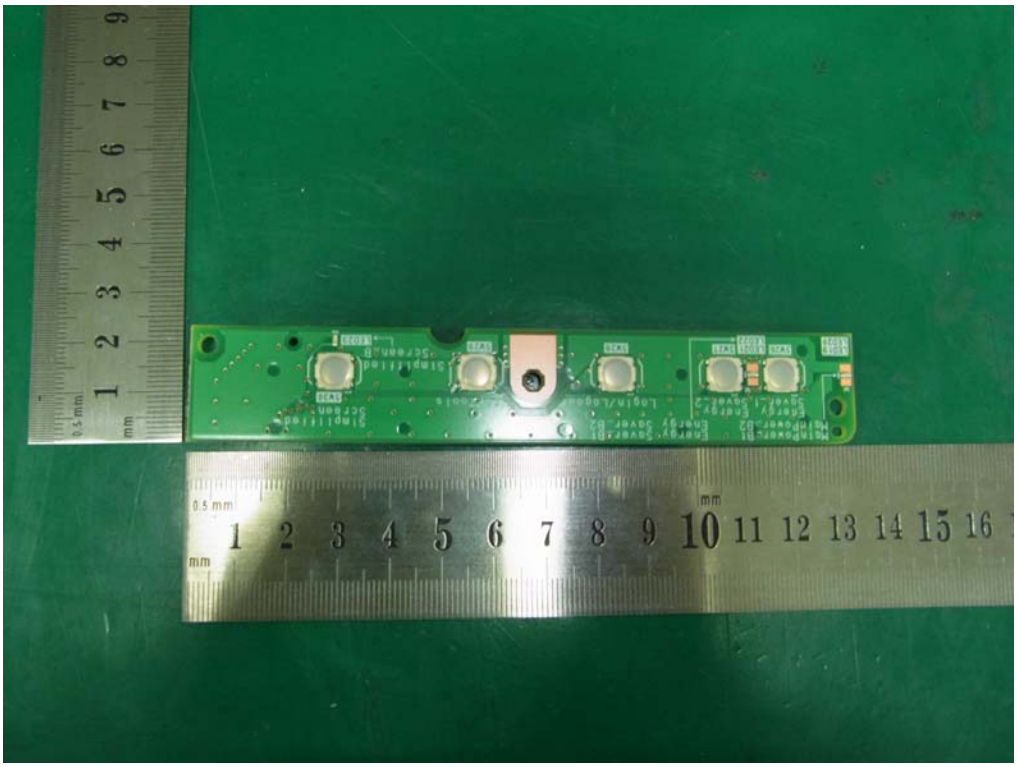


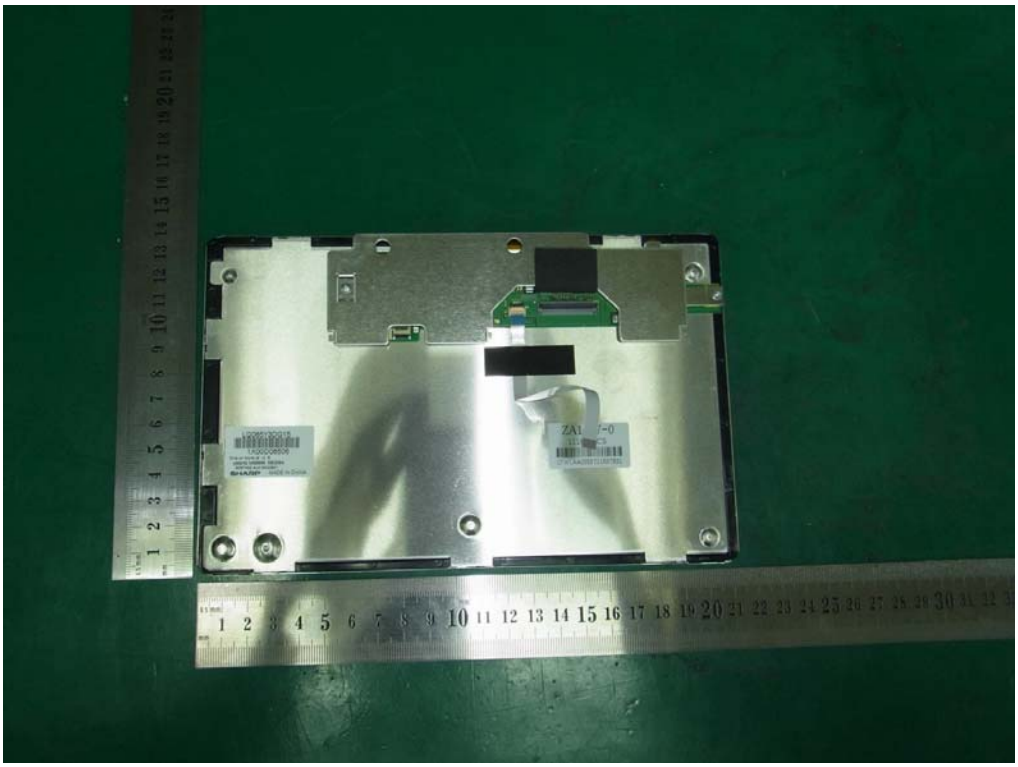

RICOH

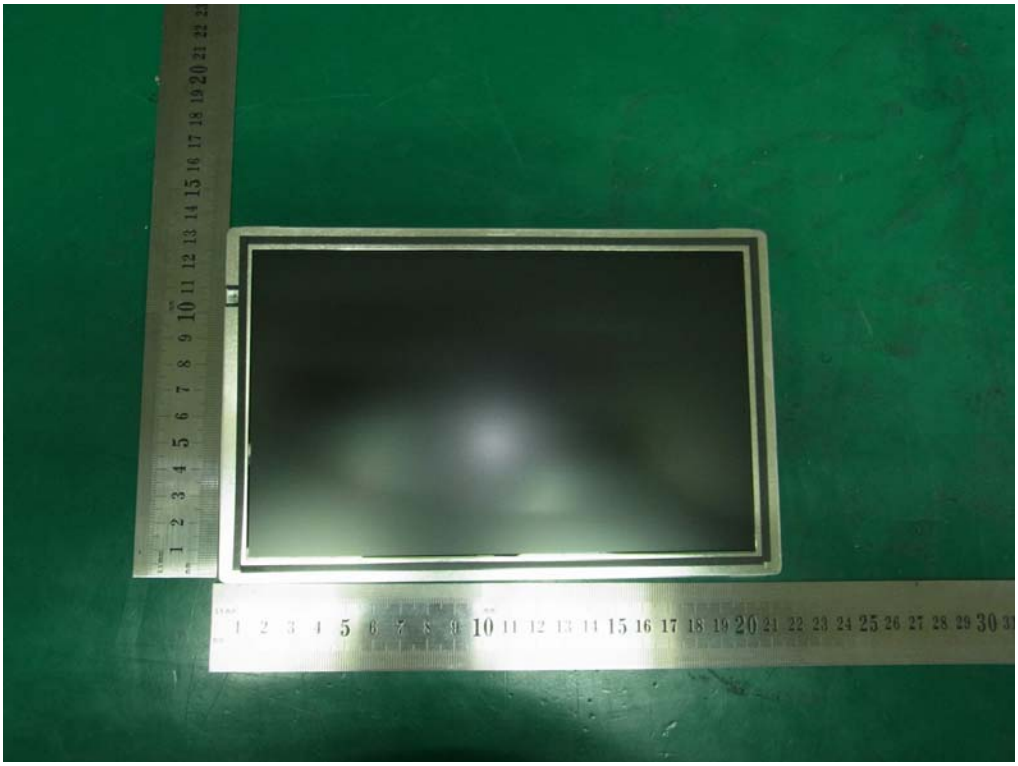

PWB No. D1171435
PWB:KEY:MAIN
D1171434
RICOH




PWB No. D1171143H
D1171437
20130177
RICOH
PWB:KEY:SUB







.....End of Report.....