



Product Service

## FCC - TEST REPORT

Report Number : **68.760.12.076.01** Date of Issue: 25 July 2012

Model : **KT700VCI**

Product Type : Vehicle Diagnosis

Applicant : Bosch Automotive Diagnostics Equipment (Shenzhen) Limited

Address : 5/F,A, Gardon City Cyber Port, Nanhai Road No.1079,  
Nanshan District, Shenzhen 518067 P.R. China

Production Facility : Bosch Automotive Diagnostics Equipment (Shenzhen) Limited

Address : 5/F,A, Gardon City Cyber Port, Nanhai Road No.1079,  
Nanshan District, Shenzhen 518067 P.R. China

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including  
Appendices : 34

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Test site1:

Company name: Jiangsu TÜV Product Service Ltd. – Shenzhen Branch  
6th Floor, H Hall,  
Century Craftwork Culture Square,  
No. 4001, Fuqiang Road,  
Futian District 518048,  
Shenzhen,P.R.C.

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

Test site2:

Company name: Shenzhen Academy of Metrology & Quality Inspection  
Longzhu road,  
Nan Shan,  
Shenzhen 518055, Guangdong, China

Telephone: 86 755 2694 1723

Fax: 86 755 2694 1545



### 3 Description of the Equipment Under Test

#### Description of the Equipment Under Test

Product: Vehicle Diagnosis

Model no.: KT700VCI

Brand Name: BOSCH

Options and accessories: NIL

Rating: 7-32VDC  
Charged by external adapter FJ-SW1402800T:  
Adaptor Input: 100-240VAC, 50/60Hz, 1.5A Max  
Adaptor Output: 14VDC, 2800mA  
or charged by Lead-acid battery power sources used on vehicles

Description of the EUT: NIL

#### Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Notebook	Lenovo	T61	-
Engine	IMSEOER	ME797	-

#### 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B, 10-1-2011 Edition	Unintentional Radiators

## 5 Summary of Test Results

Emission Tests					
FCC Part 15 Subpart B					
Test Condition	Pages	Test Result			Test Site
		Pass	Fail	N/A	
Radiated Emission 30MHz to 6000MHz	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site 2
Conducted Emission on AC 150kHz to 30MHz	25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site 2

## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for FCC ID: WSO-KT700VCI complies with Section 15.107, 15.109 of the FCC Part 15, Subpart B Rules.

All the configurations of the product were tested and only the worst test results are listed in the report.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: 18 July 2012

Testing Start Date: 20 July 2012

Testing End Date: 27 July 2012

- Jiangsu TÜV Product Service Ltd. – Shenzhen Branch -

Reviewed by:

Prepared by:

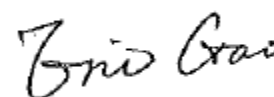
Tested by:



Ken Li  
EMC Project Manager



Cookies Bu  
EMC Project Engineer

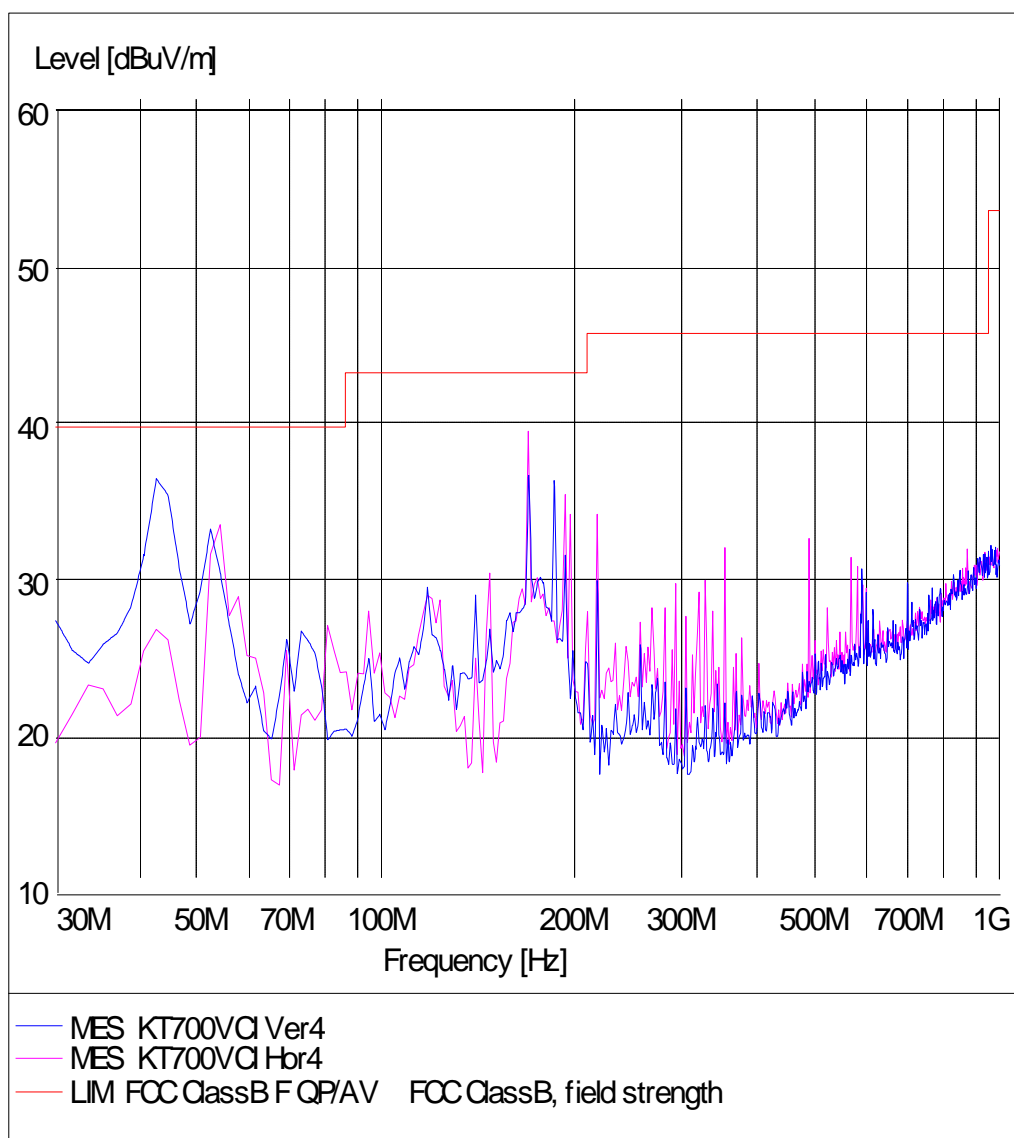


Eric Gao  
EMC Test Engineer

## 7 Emission Test Results

### 7.1 Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
 Op Cond: Data transmitting via USB port  
 Test Spec: Vertical and horizontal, 30MHz-1GHz  
 Comment: AC 120V/60Hz





## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011  
 Test requirement : FCC Part 15 Subpart B  
 Test method : FCC Part 15 Subpart B  
 Operating mode : Data transmitting via USB port  
 Test Specification : Horizontal and Vertical, 30MHz-1GHz  
 Model No : KT700VCI

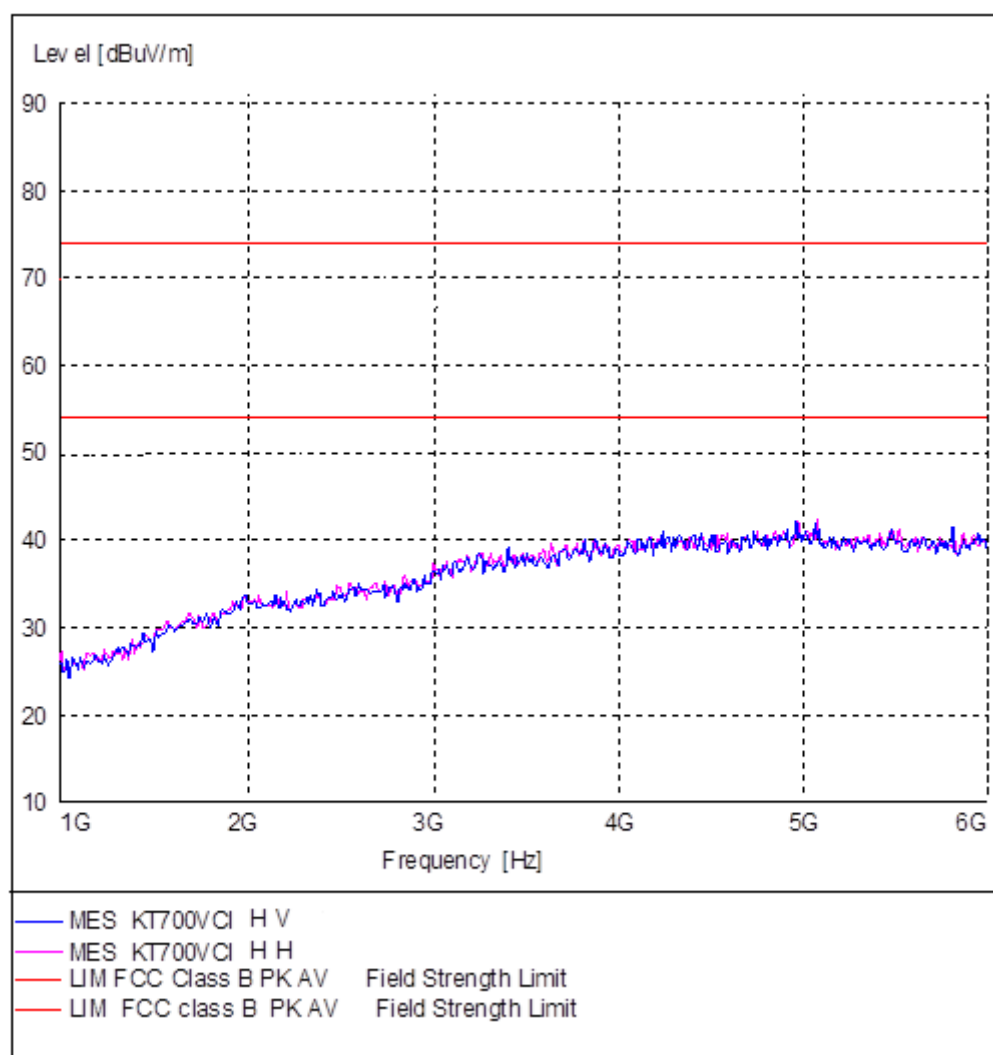
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
55.27	33.7	40.0	6.4
173.847	39.6	43.5	3.9

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
43.607	36.4	40.0	3.6
53.326	33.2	40.0	6.8
173.847	36.5	43.5	7.0
191.342	36.3	43.5	7.2

## Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via USB port  
Test Spec: Vertical and horizontal, above 1GHz  
Comment: AC 120V/60Hz





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## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : Data transmitting via USB port

Test Specification : Horizontal and Vertical, above 1GHz

Model No : KT700VCI

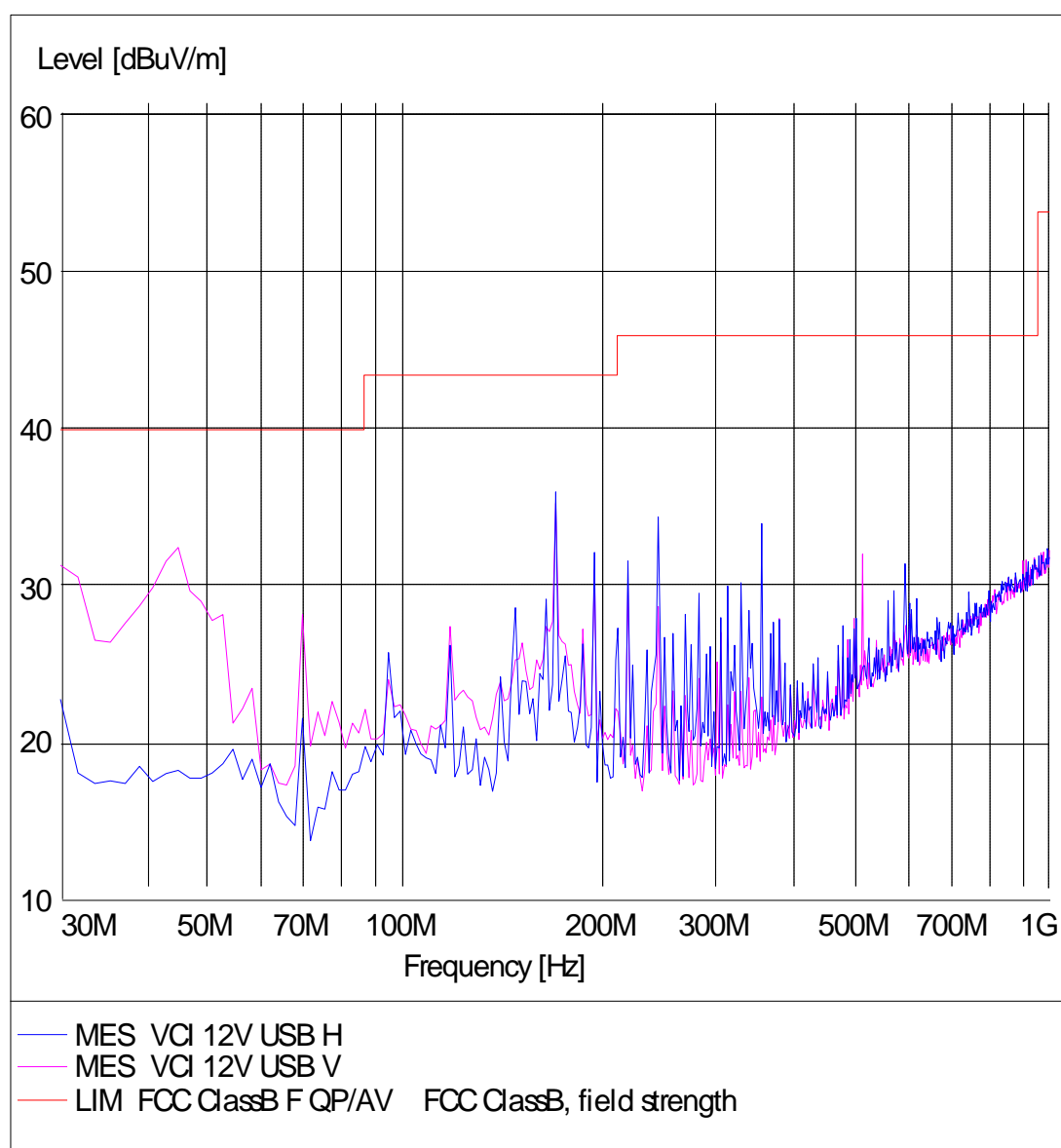
Test Result
<input checked="checked" type="checkbox"/> Passed
<input type="checkbox"/> Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

# Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via USB port  
Test Spec: Vertical and horizontal, 30MHz-1GHz  
Comment: DC 12V



## Radiated Emission Test 30MHz – 6000MHz

Date of test : 1 June 2011  
 Test requirement : FCC Part 15 Subpart B  
 Test method : FCC Part 15 Subpart B  
 Operating mode : Data transmitting via USB port  
 Test Specification : Horizontal and Vertical, 30MHz-1GHz  
 Model No : KT700VCI

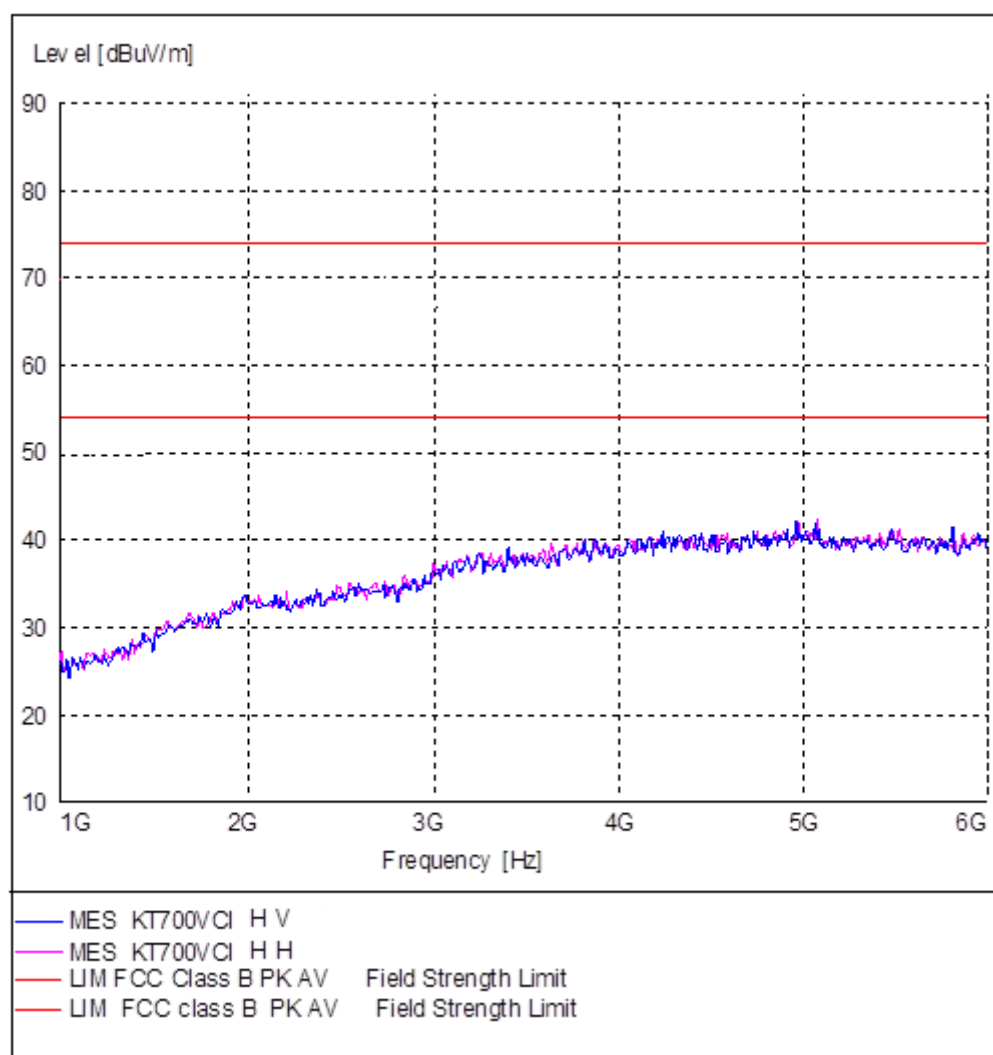
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Horizontal dBμV/m	Limit dBμV/m	Margin dB
174.987	36.1	43.5	7.4
200.015	31.6	43.5	11.9

Frequency MHz	Vertical dBμV/m	Limit dBμV/m	Margin dB
45.11	32.5	40.0	7.5
175.014	35.7	43.5	7.8
200.012	31.2	43.5	12.3

## Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via USB port  
Test Spec: Vertical and horizontal, above 1GHz  
Comment: DC12V





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## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : Data transmitting via USB port

Test Specification : Horizontal and Vertical, above 1GHz

Model No : KT700VCI

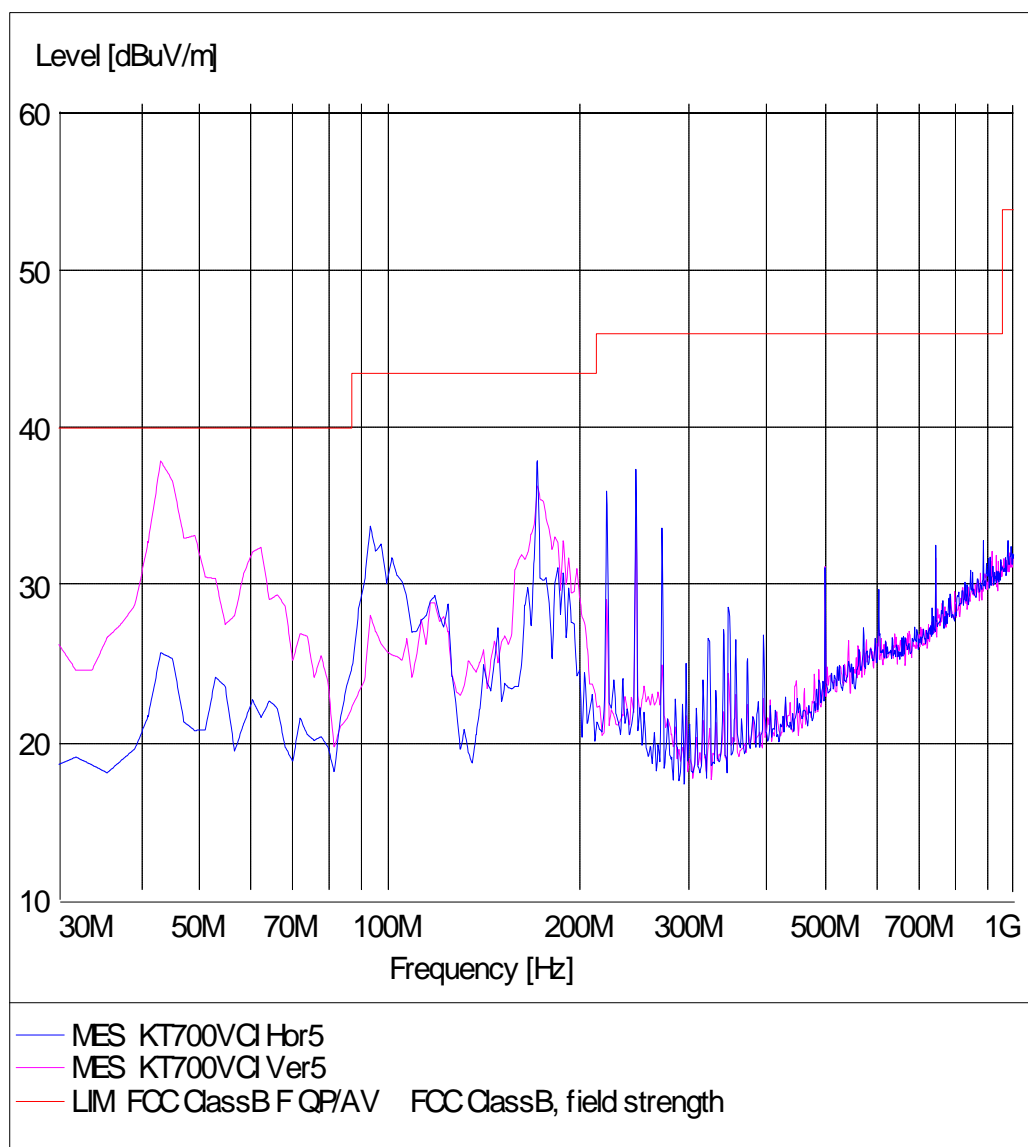
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

# Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via RJ45 port  
Test Spec: Vertical and horizontal  
Comment: AC 120V/60Hz





## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011  
 Test requirement : FCC Part 15 Subpart B  
 Test method : FCC Part 15 Subpart B  
 Operating mode : Data transmitting via RJ45 port  
 Test Specification : Horizontal and Vertical, 30MHz-1GHz  
 Model No : KT700VCI

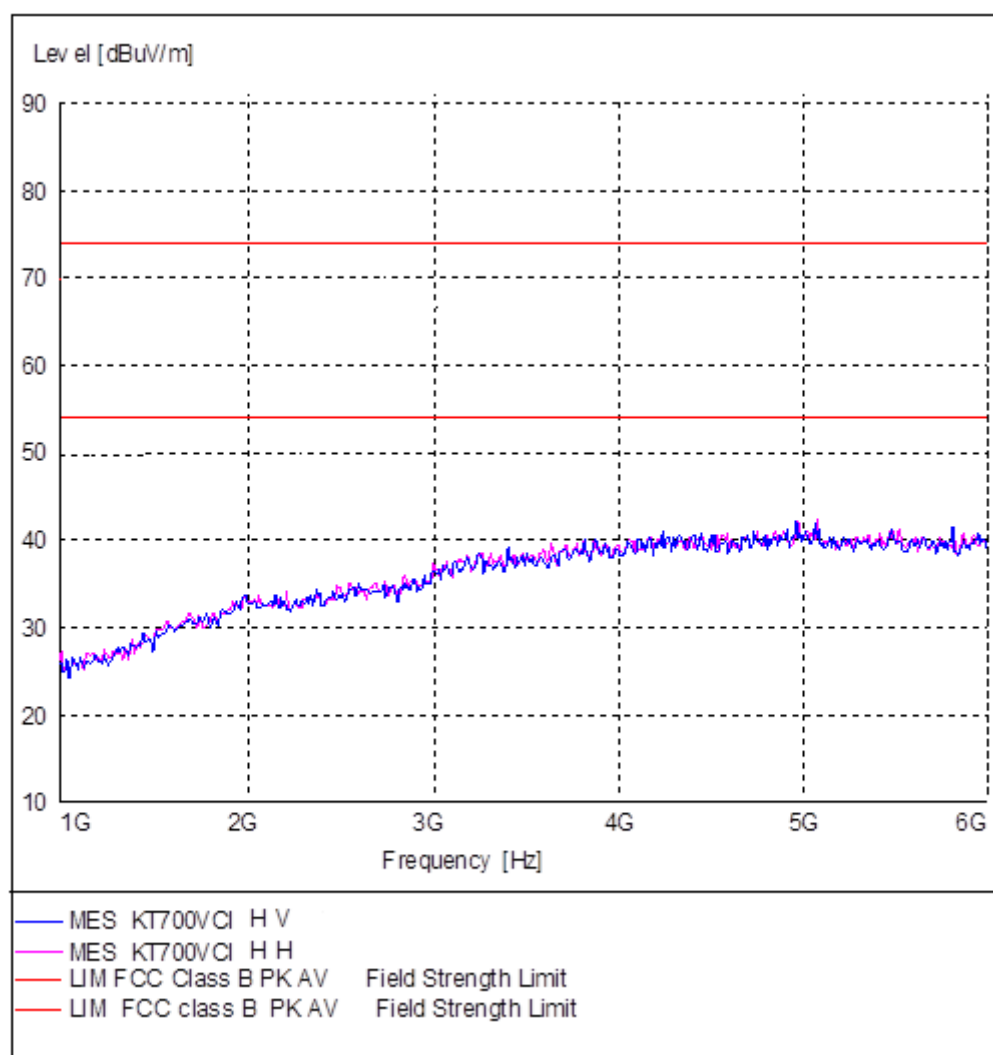
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
44.813	34.8	40.0	5.2
175.011	36.4	43.5	7.1

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
175.014	37.8	43.5	5.7
94.148	33.8	43.5	9.7
224.388	36.1	46.0	9.9
249.659	37.8	46.0	8.2

## Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via RJ45 port  
Test Spec: Vertical and horizontal, above 1GHz  
Comment: AC120/60Hz





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## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : Data transmitting via RJ45 port

Test Specification : Horizontal and Vertical, above 1GHz

Model No : KT700VCI

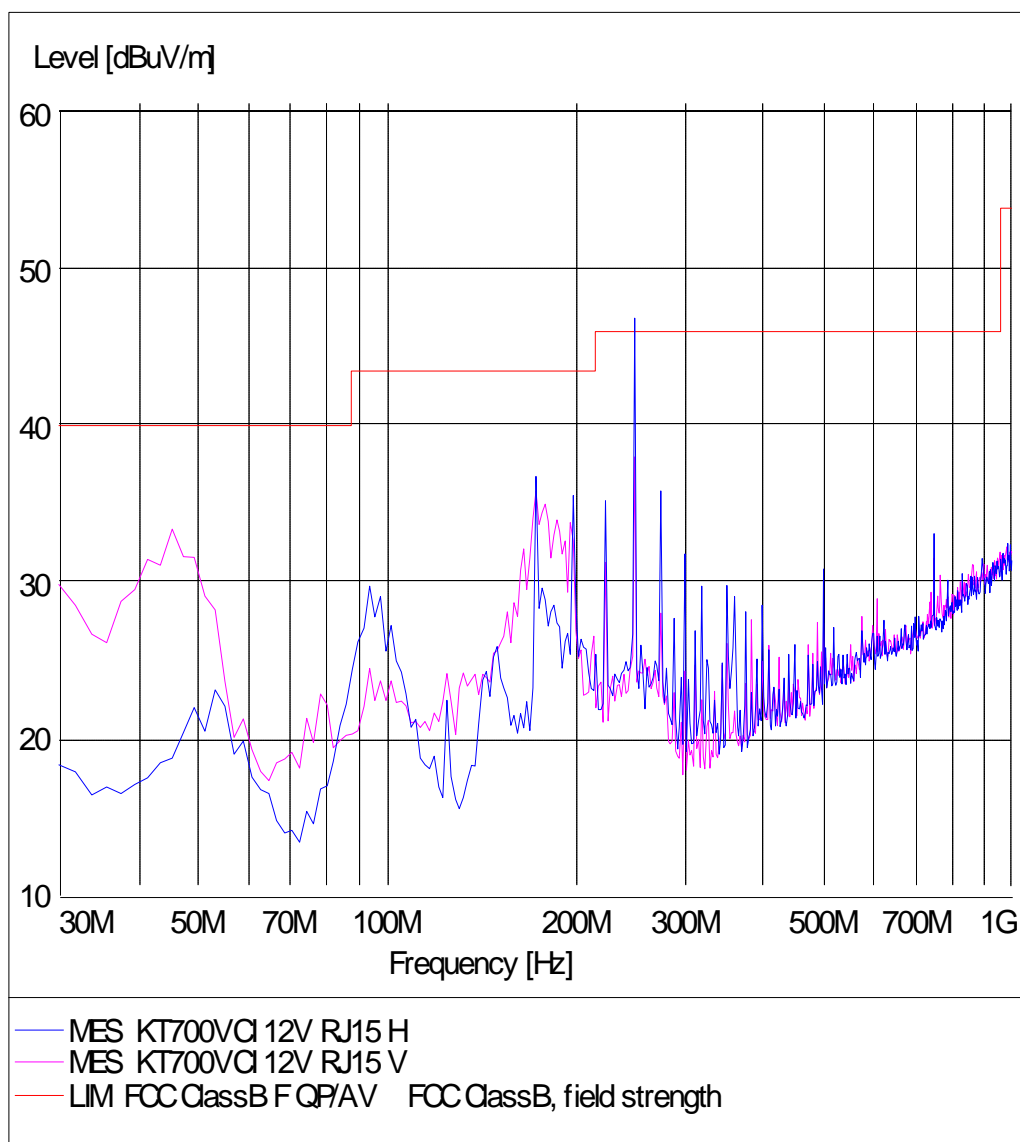
Test Result
<input checked="checked" type="checkbox"/> Passed
<input type="checkbox"/> Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

# Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via RJ45 port  
Test Spec: Vertical and horizontal  
Comment: DC12V



**Radiated Emission Test 30MHz – 6000MHz**

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : Data transmitting via RJ45 port

Test Specification : Horizontal and Vertical

Model No : KT700VCI

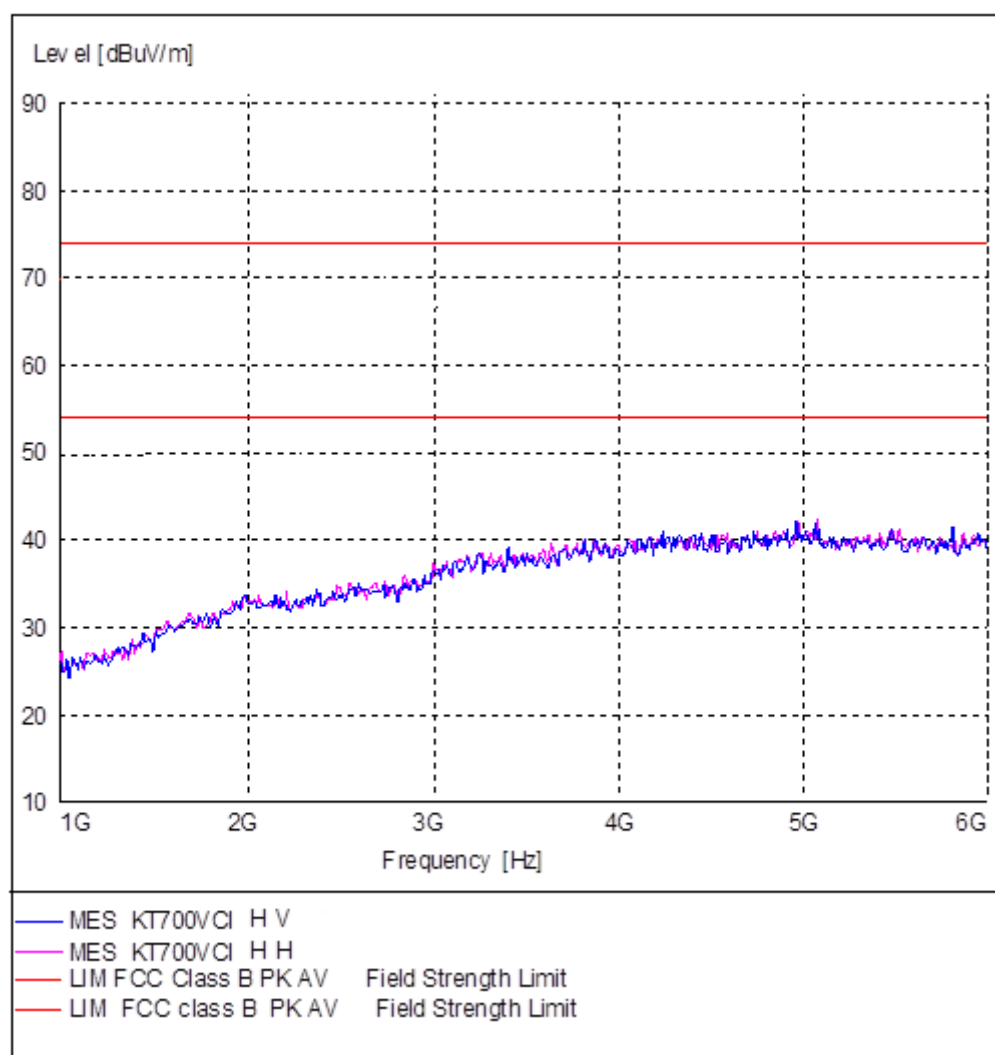
Test Result
<input checked="checked" type="checkbox"/> Passed
<input type="checkbox"/> Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
175.014	37.7	43.5	5.8

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
175.01	36.4	43.5	7.1
225.01	36.2	43.5	7.3
250.01	45.9	46.0	0.1

## Radiated Emission Test 30MHz – 6000MHz

EUT: KT700VCI  
Op Cond: Data transmitting via RJ45 port  
Test Spec: Vertical and horizontal, above 1GHz  
Comment: DC12V





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## Radiated Emission Test 30MHz – 6000MHz

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : Data transmitting via RJ45 port

Test Specification : Horizontal and Vertical, above 1GHz

Model No : KT700VCI

Test Result
<input checked="checked" type="checkbox"/> Passed
<input type="checkbox"/> Not Passed

Frequency MHz	Horizontal dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/

Frequency MHz	Vertical dB $\mu$ V/m	Limit dB $\mu$ V/m	Margin dB
/	/	/	/



Product Service

## Test Equipment List

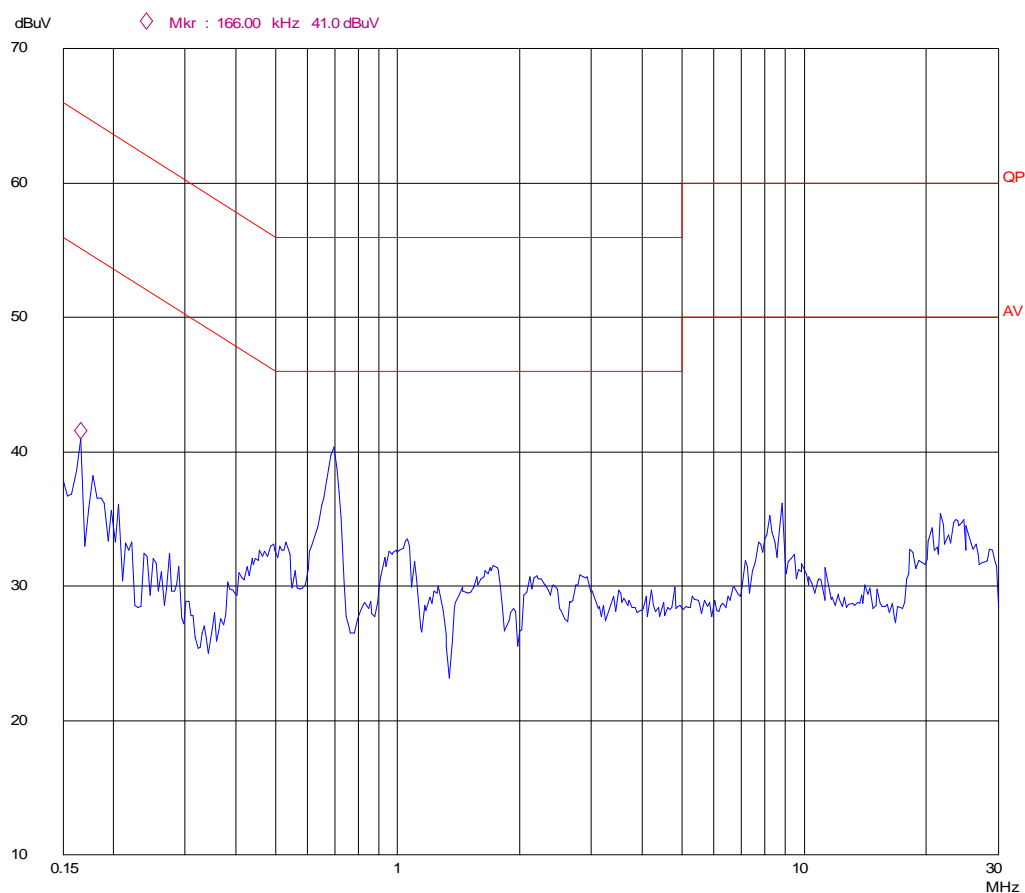
### Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESI26	838786/013	2013-01-20
Bilog Antenna	Chase	CBL6112B	2591	2013-01-20
Horn Antenna	Rohde & Schwarz	HF906	100014	2013-01-20
3m Semi-anechoic chamber	Albatross Project	9X6X6	----	2012-10-09



## 7.2 Conducted Emission Test 150kHz – 30MHz

EUT: KT700VCI  
Op Cond: USB  
Test Spec: Power line, Live  
Comment: AC 120V/60Hz



# Conducted Emission Test 150kHz – 30MHz

Date of test : 29 May 2011  
 Test requirement : FCC Part 15 Subpart B  
 Test method : FCC Part 15 Subpart B  
 Operating mode : USB  
 Tested on : Power Line, Live  
 Model No : KT700VCI

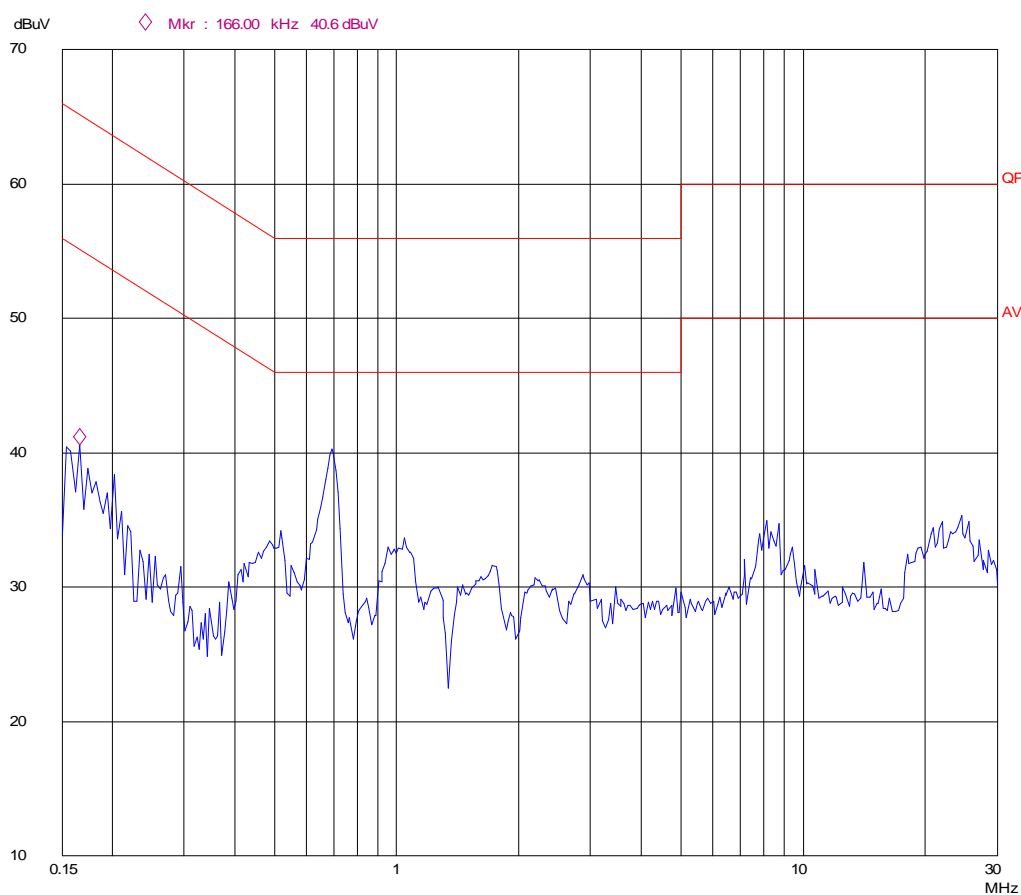
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	QP Test result dBμV	QP Limit dBμV	Margin dB
/	/	/	/

Frequency MHz	AV Test result dBμV	AV Limit dBμV	Margin dB
/	/	/	/

# Conducted Emission Test 150kHz – 30MHz

EUT: KT700VCI  
Op Cond: USB  
Test Spec: Power line, Neutral  
Comment: AC 120V/60Hz





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## Conducted Emission Test 150kHz – 30MHz

Date of test : 29 May 2011  
Test requirement : FCC Part 15 Subpart B  
Test method : FCC Part 15 Subpart B  
Operating mode : USB  
Tested on : Power Line, Neutral  
Model No : KT700VCI

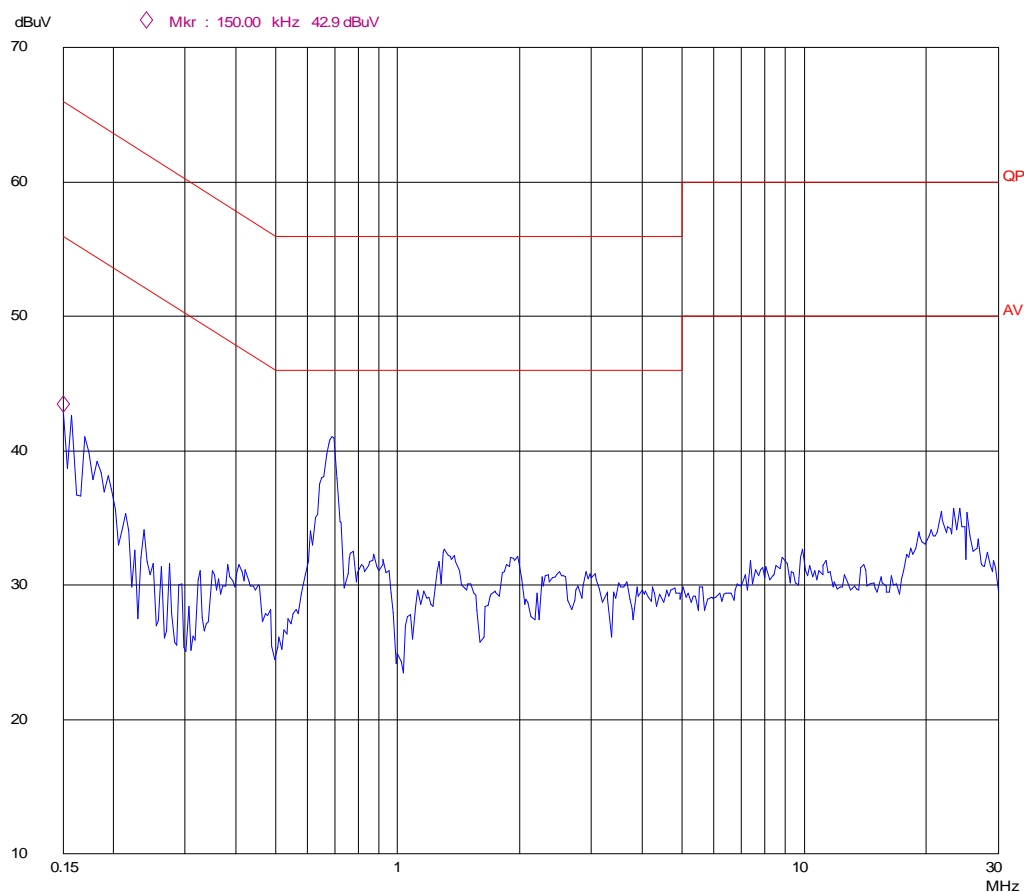
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	QP Test result dB $\mu$ V	QP Limit dB $\mu$ V	Margin dB
/	/	/	/

Frequency MHz	AV Test result dB $\mu$ V	AV Limit dB $\mu$ V	Margin dB
/	/	/	/

# Conducted Emission Test 150kHz – 30MHz

EUT: KT700VCI  
Op Cond: RJ45 data transmitting  
Test Spec: Power line, Live  
Comment: AC 120V/60Hz





Product Service

## Conducted Emission Test 150kHz – 30MHz

Date of test : 29 May 2011  
Test requirement : FCC Part 15 Subpart B  
Test method : FCC Part 15 Subpart B  
Operating mode : RJ45 data transmitting  
Tested on : Power Line, Live  
Model No : KT700VCI

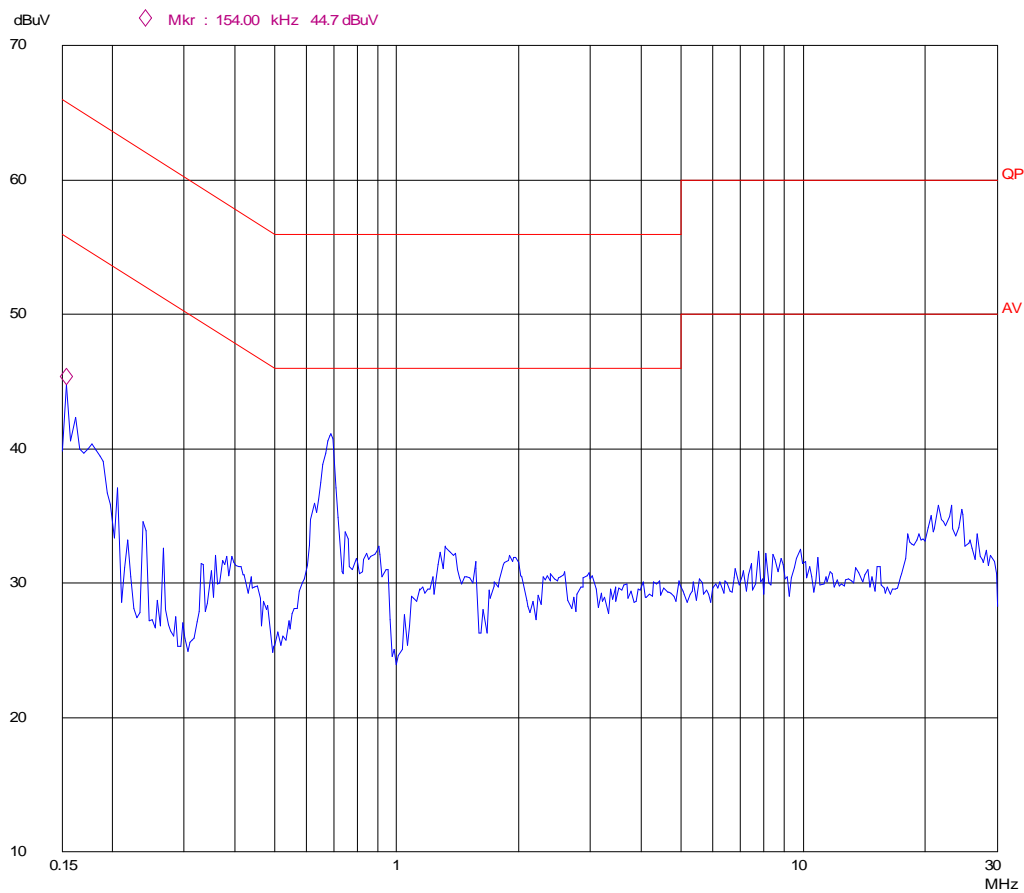
Test Result	
<input checked="" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	QP Test result dB $\mu$ V	QP Limit dB $\mu$ V	Margin dB
/	/	/	/

Frequency MHz	AV Test result dB $\mu$ V	AV Limit dB $\mu$ V	Margin dB
/	/	/	/

## Conducted Emission Test 150kHz – 30MHz

EUT: KT700VCI  
Op Cond: RJ45 data transmitting  
Test Spec: Power line, Neutral  
Comment: AC 120V/60Hz



**Conducted Emission Test 150kHz – 30MHz**

Date of test : 29 May 2011

Test requirement : FCC Part 15 Subpart B

Test method : FCC Part 15 Subpart B

Operating mode : RJ45 data transmitting

Tested on : Power Line, Neutral

Model No : KT700VCI

Test Result	
<input checked="checked" type="checkbox"/>	Passed
<input type="checkbox"/>	Not Passed

Frequency MHz	QP Test result dB $\mu$ V	QP Limit dB $\mu$ V	Margin dB
/	/	/	/

Frequency MHz	AV Test result dB $\mu$ V	AV Limit dB $\mu$ V	Margin dB
/	/	/	/



## Test Equipment List

### Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	2013-01-20
AMN	Rohde & Schwarz	ESH3-Z5	100229	2013-01-20
AMN	Rohde & Schwarz	ENV216	100042	2013-01-20

## 8 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

**System Measurement Uncertainty**

Items		Extended Uncertainty
RE	Field strength (dB $\mu$ V/m)	U=4.60dB (30MHz-25GHz)
CE	Disturbance Voltage (dB $\mu$ V)	U=3.50dB(150KHz-30MHz)