

# FCC Test Report

**FCC Rule(s):** FCC Part 15 Subpart B

**Applicant:** KOGA TOUCH CO., LTD

**Product Name:** Interactive Whiteboard

**Model:** W86

**Report No.:** ZKS190800584-1

**Tested Date:** 2019-09-04

**Issued Date:** 2019-09-05

**Tested By :** Lieber Ouyang (Engineer)

**Approved By:** Lahm Peng (Manager)

**Prepared By:**



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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen ZRLK Testing Technology Co., Ltd.

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## 1. General Information

### 1.1 Product Information

Applicant and Manufacturer	
Applicant:	KOGA TOUCH CO., LTD
Address of Applicant:	5F, No.21 Sansheng Building, No.10 Xibeiwang East Road, Haidian District, Beijing, China
Manufacturer:	KOGA TOUCH CO., LTD
Address of Manufacturer:	5F, No.21 Sansheng Building, No.10 Xibeiwang East Road, Haidian District, Beijing, China

General Description of EUT	
Product Name:	Interactive Whiteboard
Model No.:	W86
Trade Name:	KOGA
Adding Model(s):	W77, W83, W86, W90, W100, W120
Class of Equipment:	Class B
Rated Voltage:	Input: DC 5V/0.5A, Output: DC 5V/0.5A
Note 1: The test data is gathered from a production sample, provided by the manufacturer.	
Note 2: The appearance of others models listed in the report is different from main-test model W86, but the circuit and the electronic construction do not change, declared by the manufacturer.	

## 1.2 Compliance Standards

<b>Compliance Standards or Rules</b>	
FCC Part 15 Subpart B	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Unintentional Radiators
The objective of the manufacturer or applicant is to demonstrate compliance with the above standards.	
<b>According to standards for test methodology</b>	
ANSI C63.4-2014	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.
All measurements contained in this report were conducted with all above standards	
Maintenance of compliance is the responsibility of the manufacturer or applicant. Any modification of the product, which result is lowering the emission, should be checked to ensure compliance has been maintained.	

## 1.3 Test Facilities

<b>Global United Technology Services Co., Ltd.</b>
All measurement facilities used to collect the measurement data are located at No.301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

## 1.4 Test Setup Information

List of Test Modes			
Test Mode	Description	Remark	
TM1	Operating	--	
TM2	--	--	
List and Details of Auxiliary Cable			
Description	Length (M)	Shielded/Unshielded	With/Without Ferrite
--	--	--	--
--	--	--	--
--	--	--	--
List and Details of Auxiliary Equipment			
Description	Manufacturer	Model	Serial Number
--	--	--	--
--	--	--	--
--	--	--	--
The equipment under test (EUT) was configured to measure its highest possible emission and immunity level. The test modes were adapted according to the operation manual for use.			

## 1.5 Measurement Uncertainty

Parameter	Conditions	Uncertainty
Conducted Disturbance	9kHz ~30MHz	$\pm 2.75$ dB
Radiated Disturbance	30MHz ~ 1GHz	$\pm 4.89$ dB
Radiated Disturbance	1Hz ~ 6GHz	$\pm 4.93$ dB

## 1.6 List of Test and Measurement Instruments

Description	Manufacturer	Model	Serial Number	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESCS30	830245/009	2020-04-22
AMN	Rohde & Schwarz	ESH2-Z5	100002	2020-04-22
EMI Test Receiver	Rohde & Schwarz	ESI26	838786/013	2020-04-22
Pre-amplifier	CD	PAP-0118	24004	2020-04-22
Bilog Antenna	Chase	CBL6112B	2591	2020-04-22
Horn Antenna	Rohde & Schwarz	HF906	100014	2020-04-22

## 2. Summary of Test Results

FCC Rules	Description of Test Items	Result
FCC Part 15.107	Conducted Emissions	N/A
FCC Part 15.109	Radiated Emissions	Passed
<p>Passed: The EUT complies with the essential requirements in the standard</p> <p>Failed: The EUT does not comply with the essential requirements in the standard</p> <p>N/A: Not applicable</p>		

### 3. Radiated Disturbance

#### 3.1 Standard and Limit

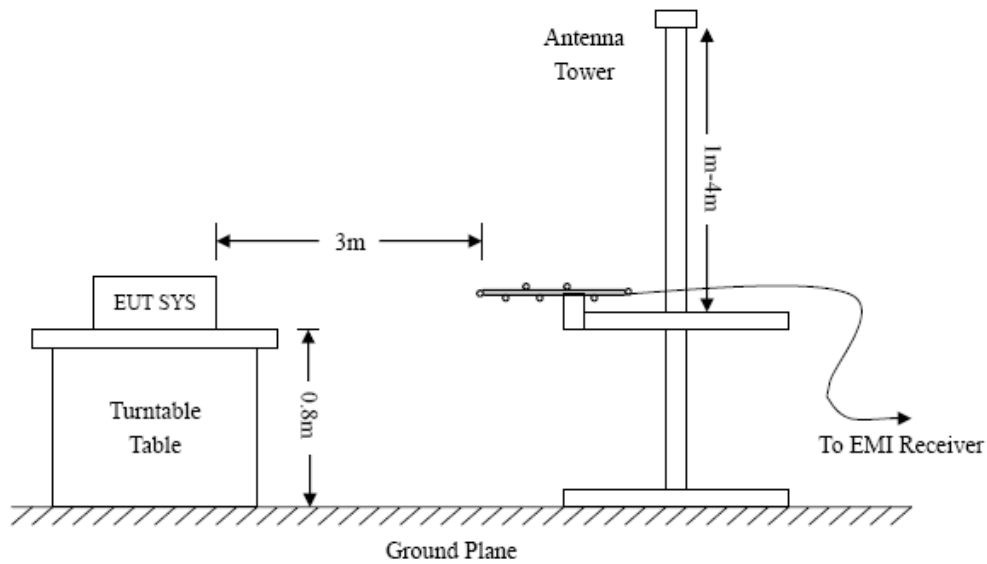
According to the rule FCC Part 15.109, Radiated emission limit, the limit for a class B device as below:

Frequency of Emission (MHz)	Field Strength (uV/m)		Field Strength (dBuV/m)	
	QP	AV	QP	AV
30-88	100	40	40	--
88-216	150	43.5	43.5	--
216-960	200	46	46	--
Above 960	500	54	54	74

Limits at a measurement distance of 3 m

#### 3.2 Test Procedure

Test is conducting under the description of ANSI C63.4-2003 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.

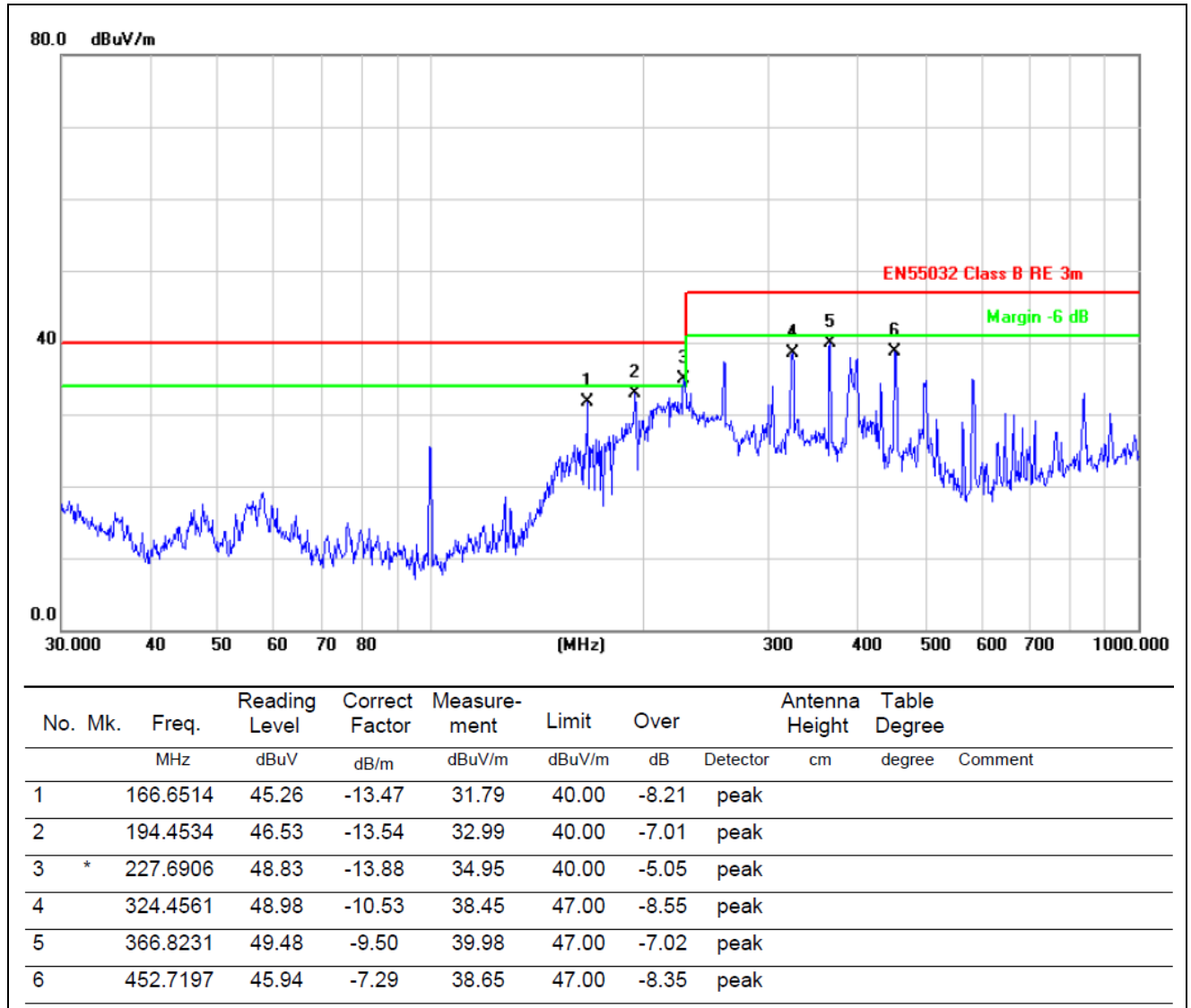


Test Setup Block Diagram

#### 3.3 Test Data and Results

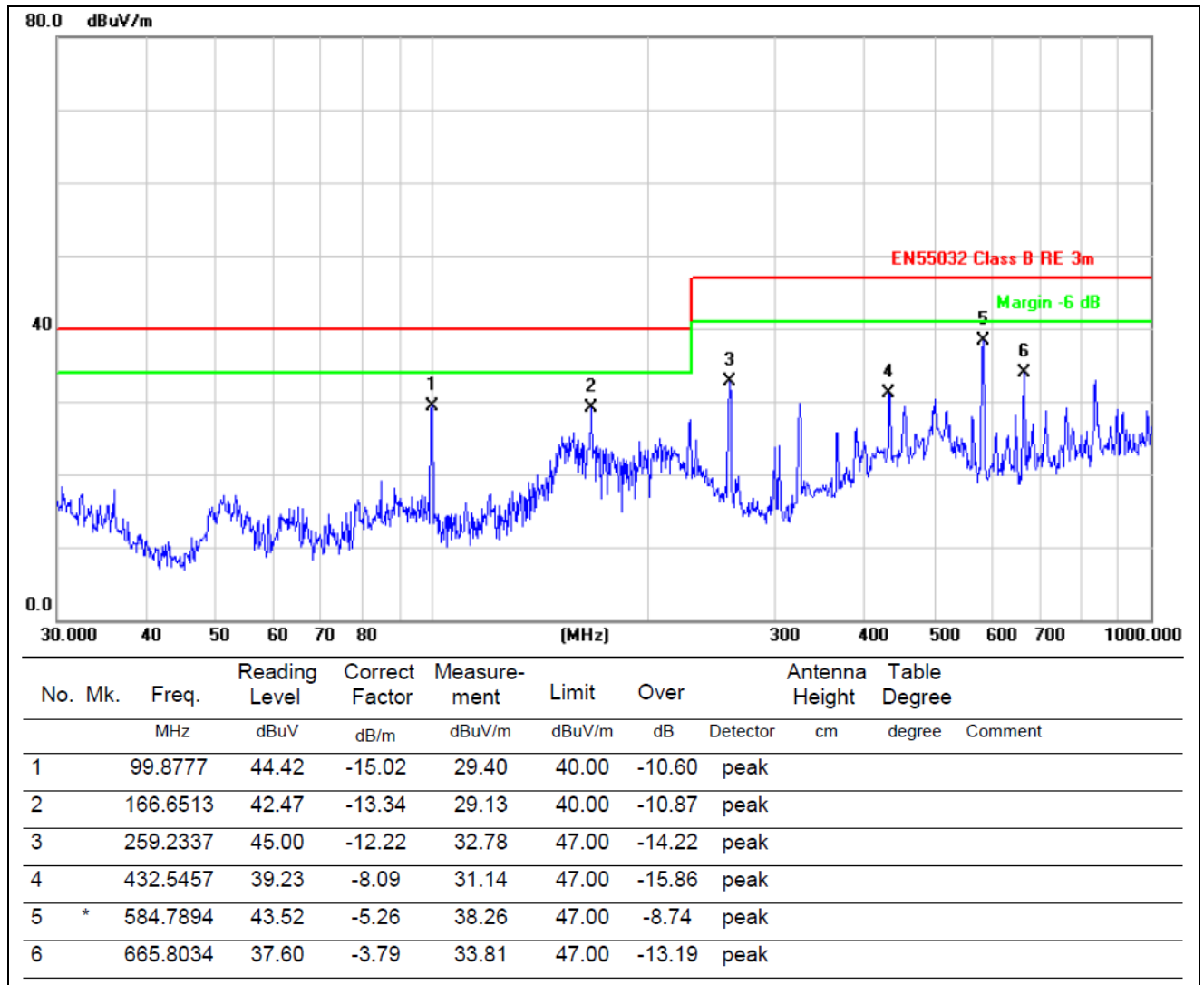
Based on all tested data, the EUT complied with the FCC Part 15.109 standard limit for a Class B device, and with the worst case as below:

Test Plots and Data of Radiated Emissions	
Tested Model:	W86
Tested Mode:	TM1
Test Power Specification:	DC 5V
Test Antenna Polarization:	Horizontal
Remark:	





Test Plots and Data of Radiated Emissions	
Tested Model:	W86
Tested Mode:	TM1
Test Power Specification:	DC 5V
Test Antenna Polarization:	Vertical
Remark:	

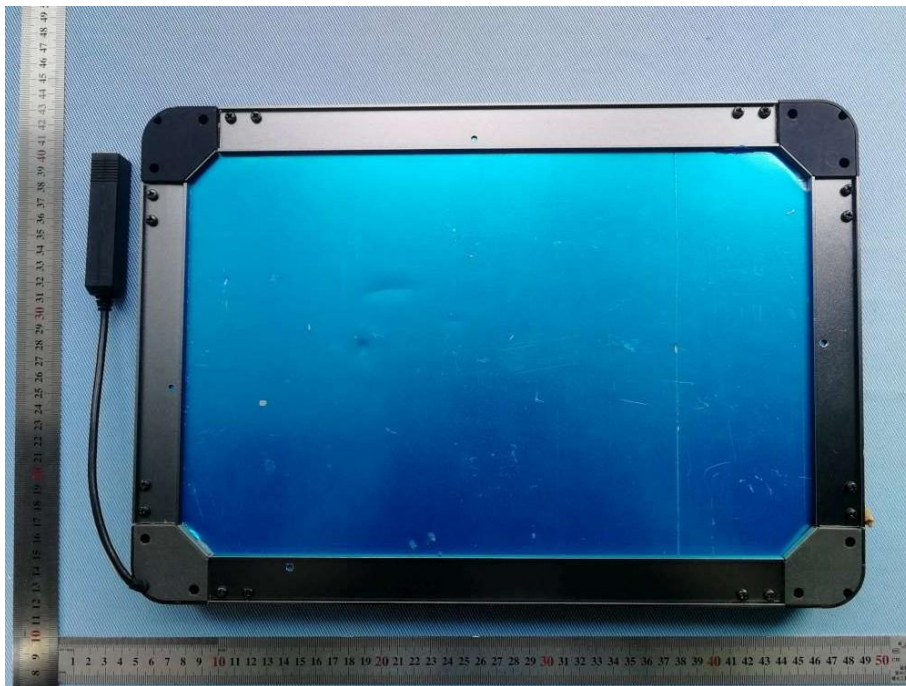


## Annex A. EUT Photos

### EUT View 1



### EUT View 2



## Annex B. Test Setup Photos

### Radiated Emission Test View



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## Annex C. Label and Information

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### FCC Label Sample

<p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p>
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### FCC Label Specifications

Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. Where the EUT is constructed in two or more sections connected by wires and marketed together, the above statement is required to be affixed only to the main control unit. When the EUT is so small or for such use that it is not practicable to place the statement on it, the above information shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed.

### Information to User

#### FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

\*\*\*\*\* END OF REPORT \*\*\*\*\*