

# Hong Kong MK Co., Limited

Application For Certification

FCC ID: 2AC75WES-600GT

MIMIMOTO PHONE TV

Model: WES-600GT

2.4GHz transmitter

Report No.: 140926038SZN-001

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-14]

| Prepared and Checked by:      | Approved by:                     |
|-------------------------------|----------------------------------|
|                               |                                  |
| Sign on file                  |                                  |
| Robert Li<br>Project Engineer | Andy Yan Senior Project Engineer |
|                               | Date: September 22, 2015         |

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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- The evaluation data of the report will be kept for 3 years from the date of issuance.

TRF no.: FCC 15C\_Tx\_b

# **LIST OF EXHIBITS**

### INTRODUCTION

EXHIBIT 1: Summary of Tests

EXHIBIT 2: General Description

EXHIBIT 3: System Test Configuration

EXHIBIT 4: Measurement Results

EXHIBIT 5: Equipment Photographs

EXHIBIT 6: Product Labeling

EXHIBIT 7: Technical Specifications

EXHIBIT 8: Instruction Manual

EXHIBIT 9: Confidentiality Request

EXHIBIT 10: Miscellaneous Information

EXHIBIT 11: Test Equipment List

# MEASUREMENT/TECHNICAL REPORT

### MIMIMOTO PHONE TV

Model: WES-600GT

FCC ID: 2AC75WES-600GT

| This report concerns (check one)  | Original Grant _   | Χ      | _Class I  | I Chan | ge     |
|---|--------------------|--------|-----------|--------|--------|
| Equipment Type: <u>DTS - Part 15 Digit</u>  | tal Transmission S | System | <u>S</u>  |        |        |
| Deferred grant requested per 47 CF  | R 0.457(d)(1)(ii)? | Υe     | es        | _ No   | X      |
| Company Name agrees to notify the   | Commission by:     |        | , defer u |        | date   |
| of the intended date of announcemissued on that date.   | nent of the produ  | uct so | that the  | grant  | can be |
|   |                    |        |           |        |        |
| Transition Rules Request per 15.37?   | ?                  | Yes    |           | No _   | X      |
| Transition Rules Request per 15.37?  If no, assumed Part 15, Subpart ( [10-01-14] Edition] provision. |                    |        |           | _      | _      |
| If no, assumed Part 15, Subpart (   |                    |        |           | _      | _      |

# **Table of Contents**

| 1.0        | Summary of Test results                                | 2  |
|------------|--|----|
| 2.0        | General Description                                    | ,  |
| 2.0        | Product Description                                    |    |
| 2.1        | Related Submittal(s) Grants                            |    |
| 2.3        | Test Methodology                                       |    |
| 2.4        | Test Facility  |    |
| 2.4        | Test Facility  |    |
| 3.0        | System Test Configuration                              |    |
| 3.1        | Justification  |    |
| 3.2        | EUT Exercising Software                                |    |
| 3.3        | Special Accessories                                    |    |
| 3.4        | Measurement Uncertainty                                |    |
| 3.5        | Equipment Modification                                 |    |
| 3.6        | Support Equipment List and Description                 | 8  |
|            |  |    |
| 4.0        | Measurement Results                                    |    |
| 4.1        | Maximum Conducted Output Power at Antenna Terminals    |    |
| 4.2        | Minimum 6 dB RF Bandwidth                              | 11 |
| 4.3        | Maximum Power Density Reading                          | 14 |
| 4.4        | Out of Band Conducted Emissions                        | 17 |
| 4.5        | Out of Band Radiated Emissions                         |    |
| 4.6        | Transmitter Radiated Emissions in Restricted Bands     | 24 |
| 4.7        | Field Strength Calculation                             | 25 |
| 4.8        | Radiated Spurious Emission                             | 26 |
| 4.9        | Conducted Emission                                     | 31 |
| 4.10       | Radiated Emissions from Digital Section of Transceiver | 34 |
| 4.11       | Transmitter Duty Cycle Calculation and Measurements    | 35 |
| <b>-</b> 0 | Environment Photographs                                | 25 |
| 5.0        | Equipment Photographs                                  |    |
| 6.0        | Product Labelling                                      | 30 |
| 0.0        | 1 TOURIST EUDENING                                     |    |
| 7.0        | Technical Specifications                               | 41 |
|            |  |    |
| 8.0        | Instruction Manual                                     | 43 |
| 9.0        | Confidentiality Request                                | 45 |
| 10.0       | Discussion of Pulse Desensitization                    | 45 |
| 10.0       | DISCUSSION OF LAISE DESCRISINZANON                     | 4  |
| 11 0       | Test Equipment List                                    | 10 |

# List of attached file

| Exhibit type          | File Description           | Filename             |
|-----------------------|----------------------------|----------------------|
| Test Report           | Test Report                | report.pdf           |
| Test Setup Photo      | Radiated Emission          | radiated photos.pdf  |
| Test Setup Photo      | Conducted Emission         | conducted photos.pdf |
| External Photo        | External Photo             | external photos.pdf  |
| Internal Photo        | Internal Photo             | internal photos.pdf  |
| Block Diagram         | Block Diagram              | block.pdf            |
| Schematics            | Circuit Diagram            | circuit.pdf          |
| Operation Description | Technical Description      | descri.pdf           |
| ID Label/Location     | Label Artwork and Location | label.pdf            |
| User Manual           | User Manual                | manual.pdf           |
| Cover Letter          | Confidentiality Letter     | request.pdf          |
| Cover Letter          | Letter of Agency           | agency.pdf           |
| Agreement             | Certification Agreement    | agreement.pdf        |

# EXHIBIT 1

# **SUMMARY OF TEST RESULTS**

# 1.0 Summary of Test results

# **MIMIMOTO PHONE TV**

Model: WES-600GT

FCC ID: 2AC75WES-600GT

| TEST                                   | REFERENCE    | RESULTS          |
|--|--------------|------------------|
| Max. Output power                      | 15.247(b)(3) | Pass             |
| 6 dB Bandwidth                         | 15.247(a)(2) | Pass             |
| Max. Power Density                     | 15.247(e)    | Pass             |
| Out of Band Antenna Conducted Emission | 15.247(d)    | Pass             |
| Radiated Emission in Restricted Bands  | 15.247(d)    | Pass             |
| AC Conducted Emission                  | 15.207       | Pass             |
| Antenna Requirement                    | 15.203       | Pass (See Notes) |

Notes: The EUT uses an Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

# EXHIBIT 2

# **GENERAL DESCRIPTION**

# 2.0 **General Description**

# 2.1 Product Description

The equipment under test (EUT) is a MIMIMOTO PHONE TV. The EUT was powered through AC/DC adaptor with Adapter model: YN6W-0500030JZ. For more detail information pls. refer to the user manual.

Type of Modulation: GFSK

Antenna Type: Integral Antenna.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

### 2.2 Related Submittal(s) Grants

This is an application for certification of:

DTS- Part 15 Digital Transmission Systems, and there is no corresponding unit for certification.

#### 2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2009) and KDB 558074. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

### 2.4 Test Facility

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 242492).

# **EXHIBIT 3**

# **SYSTEM TEST CONFIGURATION**

### 3.0 System Test Configuration

### 3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. The EUT was powered by AC/DC adaptor with input of AC 120V, 60Hz during the testing. Only the worst case data was reported.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

The rear of unit shall be flushed with the rear of the table.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

### 3.2 EUT Exercising Software

N/A

#### 3.3 Special Accessories

N/A.

#### 3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance – Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

#### 3.5 Equipment Modification

Any modifications installed previous to testing by Hong Kong MK Co., Limited will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

# 3.6 Support Equipment List and Description

This product was tested in the following configuration:

# Refer List:

| Description   | Manufacturer                 | Model No.   |  |  |
|---------------|------------------------------|---|--|--|
| iPod          | Apple                        | A1367   |  |  |
| AC/DC adaptor | Hong Kong MK<br>Co., Limited | YN6W-0500030JZ (Input: AC<br>100-240V, 50/60Hz, 0.3A<br>Output: DC 5.0V, 300mA) |  |  |

# **EXHIBIT 4**

# **MEASUREMENT RESULTS**

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

#### 4.0 **Measurement Results**

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

The antenna power of the EUT was connected to the input of a broadband peak RF power meter. The power meter have a video bandwidth that is greater than DTS bandwidth and utilize a fast-responding diode detector. Power was read directly at the EUT antenna terminals with cable loss added.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

| GFSK (Antenna Gain = 2dBi) |               |                 |  |  |  |  |  |
|----------------------------|---------------|-----------------|--|--|--|--|--|
| Frequency (MHz)            | Output in dBm | Output in mWatt |  |  |  |  |  |
| Low Channel: 2403          | 5.57          | 3.61            |  |  |  |  |  |
| Middle Channel: 2442       | 6.38          | 4.35            |  |  |  |  |  |
| High Channel: 2478         | 5.57          | 3.61            |  |  |  |  |  |

Cable loss: <u>0.5</u> dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT max. output level = 6.38dBm

For RF Exposure, the information is saved with filename: analysis report.pdf.

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

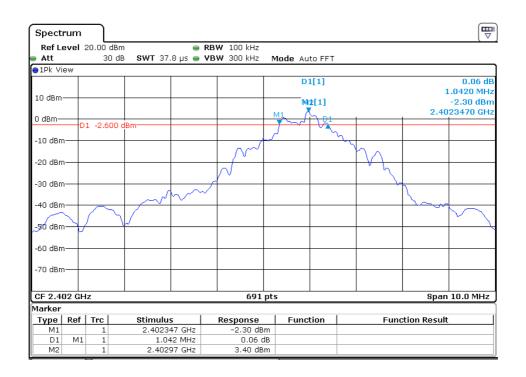
# 4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

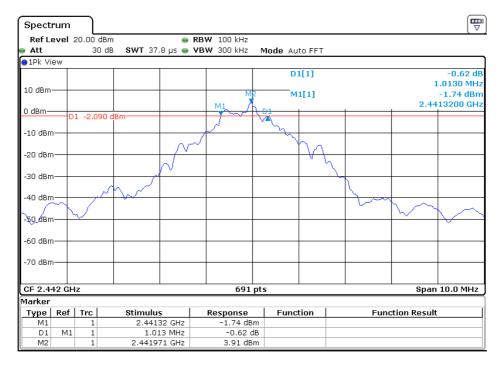
The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 KHz according to FCC KDB 558074. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

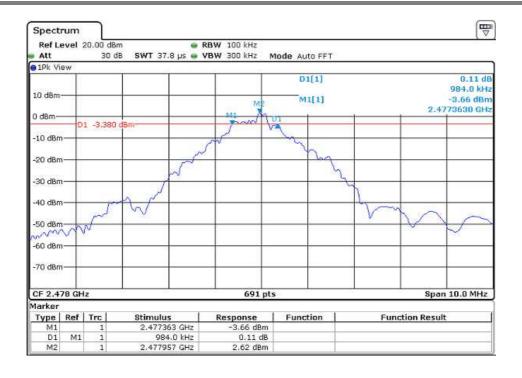
Limit: The 6 dB Bandwidth is at least 500 kHz.

| GF              | SK                   |
|-----------------|----------------------|
| Frequency (MHz) | 6 dB Bandwidth (MHz) |
| 2403            | 1.042                |
| 2442            | 1.013                |
| 2478            | 0.984                |

The test plots are attached as below.







Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

### 4.3 Maximum Power Density Reading, FCC Rule 15.247(e):

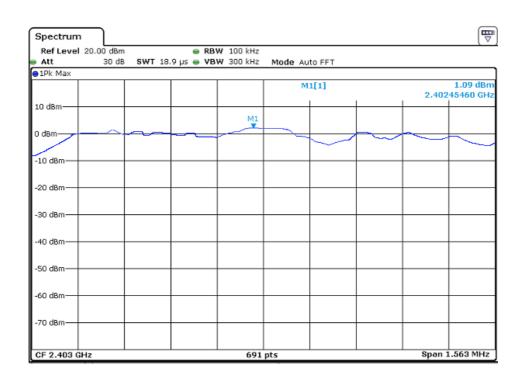
The Measurement Procedure PKPSD was set according to the FCC KDB 558074.

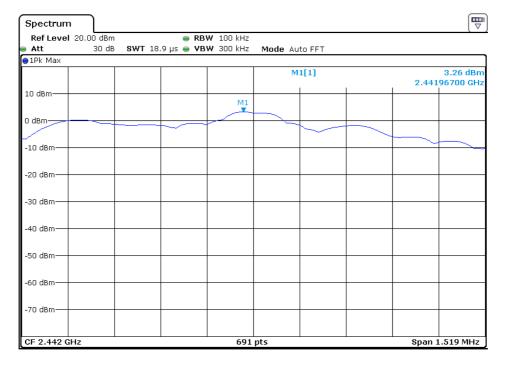
Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

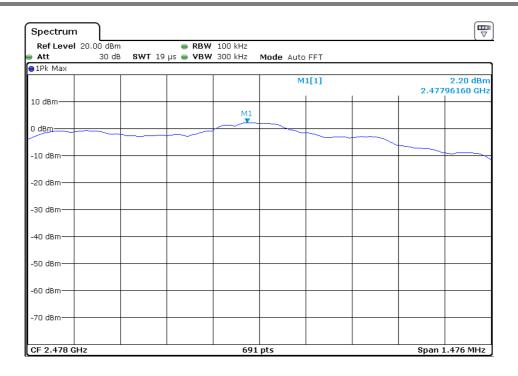
Limit: The Power Density does not exceed 8dBm/3 kHz.

| GFSK            |                               |  |  |  |  |  |
|-----------------|-------------------------------|--|--|--|--|--|
| Frequency (MHz) | Power Density with RBW 100KHz |  |  |  |  |  |
| 2403            | 1.09                          |  |  |  |  |  |
| 2442            | 3.26                          |  |  |  |  |  |
| 2478            | 2.20                          |  |  |  |  |  |

The test plots are attached as below.







Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

### 4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

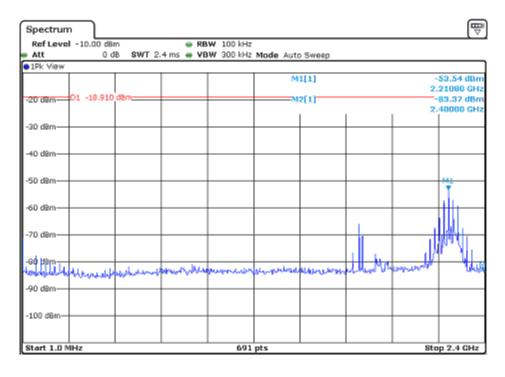
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. The Measurement Procedure was set according to the FCC KDB 558074.

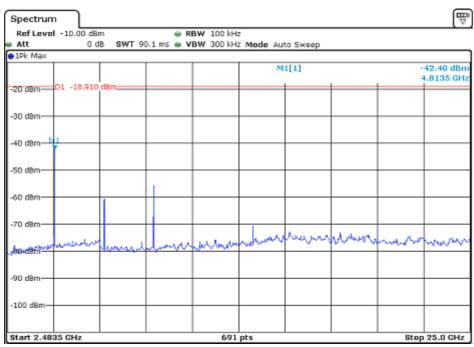
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

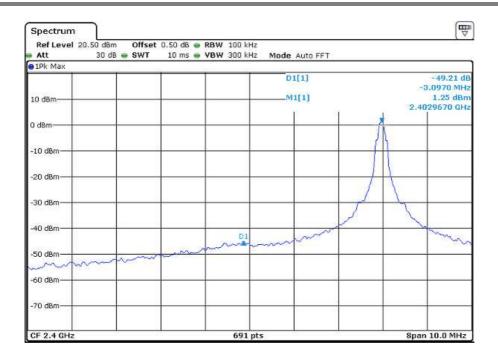
The test plots showed all spurious emission up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

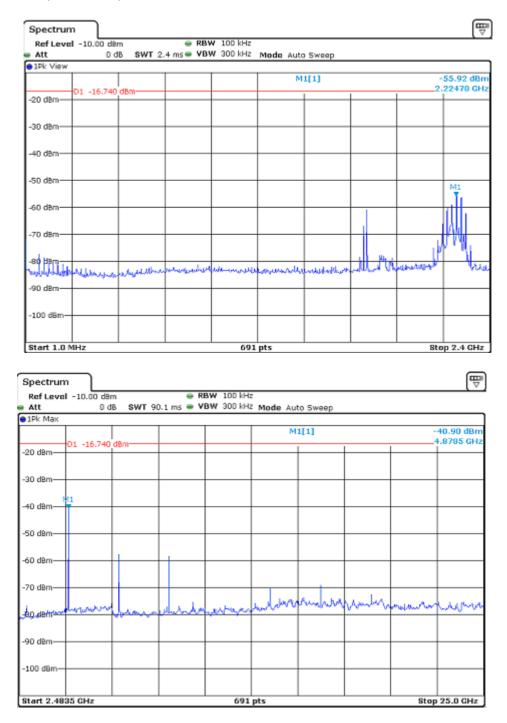
Channel 01 (2403MHz) Reference Level: 1.09dBm



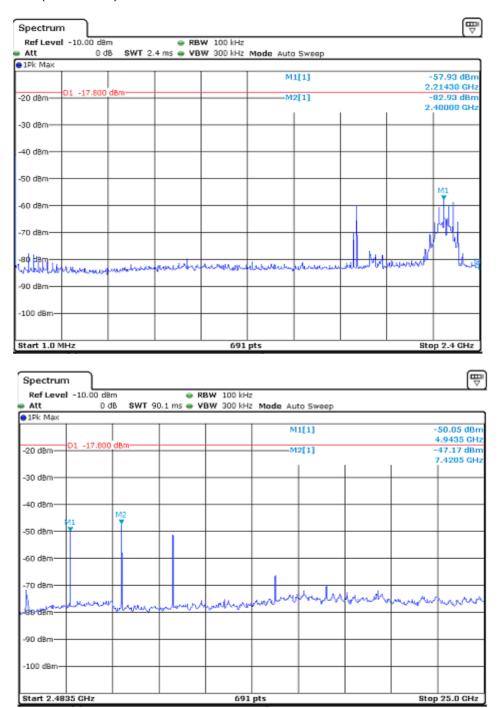


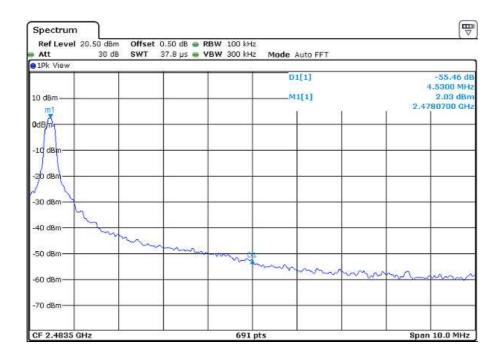


# Channel 14(2442MHz) Reference Level: 3.26dBm



# Channel 26 (2478MHz) Reference Level: 2.20dBm





Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

[×] Not required, since all emissions are more than 20dB below fundamental [ ] See attached data sheet

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

#### 4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD$$

Where  $FS = Field Strength in dB\mu V/m$ 

RA = Receiver Amplitude (including preamplifier) in  $dB\mu V$ 

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

#### Example

Assume a receiver reading of 62.0 dB $\mu$ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB. The net field strength for comparison to the appropriate emission limit is 42 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

 $RA = 62.0 dB\mu V$ AF = 7.4 dB

CF = 1.6 dB

AG = 29.0 dB

PD = 0 dB

 $FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 \, dB\mu V/m$ 

Level in mV/m = Common Antilogarithm [(42 dB $\mu$ V/m)/20] = 125.9  $\mu$ V/m

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

### 4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission at 2389.978MHz is passed by 1.0dB margin.

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.pdf.

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: Transmitting

#### **Radiated Emissions**

| Polarization | Frequency | Reading | Pre- | Antenna | Net      | Limit    | Margin |
|--------------|-----------|---------|------|---------|----------|----------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | at 3m    | at 3m    | (dB)   |
|              |           |         | Gain | (dB)    | (dBµV/m) | (dBµV/m) |        |
|              |           |         | (dB) |         |          |          |        |
| Horizontal   | 233.220   | 48.4    | 20.0 | 13.4    | 41.8     | 46.0     | -4.2   |
| Horizontal   | 240.005   | 44.7    | 20.0 | 13.8    | 38.5     | 46.0     | -7.5   |
| Horizontal   | 676.020   | 43.6    | 20.0 | 11.2    | 34.8     | 46.0     | -11.2  |
| Vertical     | 30.485    | 30.4    | 20.0 | 17.2    | 27.6     | 40.0     | -12.4  |
| Vertical     | 215.760   | 38.3    | 20.0 | 12.6    | 30.9     | 43.5     | -12.6  |
| Vertical     | 479.110   | 33.8    | 20.0 | 20.4    | 34.2     | 46.0     | -11.8  |

NOTES: 1. Quasi-Peak detector is used except for others stated.

- 2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. All emissions are below the QP limit.

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: TX-Channel 01

#### **Radiated Emissions**

| Polarization | Frequency | Reading | Pre- | Antenna | Net      | Peak Limit | Margin |
|--------------|-----------|---------|------|---------|----------|------------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | at 3m    | at 3m      | (dB)   |
|              | , ,       | ` . ,   | Gain | (dB)    | (dBµV/m) | (dBµV/m)   | , ,    |
|              |           |         | (dB) | , ,     |          |            |        |
| Horizontal   | 4806.000  | 58.3    | 36.7 | 35.5    | 57.1     | 74.0       | -16.9  |
| Horizontal   | 2389.978  | 71.0    | 36.1 | 28.2    | 63.1     | 74.0       | -10.9  |

| Polarization | Frequency | Reading | Pre- | Antenna | Average | Net      | Average Limit | Margin |
|--------------|-----------|---------|------|---------|---------|----------|---------------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | Factor  | at 3m    | at 3m         | (dB)   |
|              |           |         | Gain | (dB)    | (-dB)   | (dBµV/m) | (dBµV/m)      |        |
|              |           |         | (dB) |         |         |          |               |        |
| Horizontal   | 4806.000  | 58.3    | 36.7 | 35.5    | 10.1    | 47.0     | 54.0          | -7.0   |
| Horizontal   | 2389.978  | 71.0    | 36.1 | 28.2    | 10.1    | 53.0     | 54.0          | -1.0   |

Notes: 1. Peak Detector Data unless otherwise stated.

- 2. All measurements were made at 3 meter. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.

TRF no.: FCC 15C\_TX\_b FCC ID: 2AC75WES-600GT Report No.: 140926038SZN-001

28

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: TX-Channel 14

# **Radiated Emissions**

(2442MHz)

| Polarization | Frequency<br>(MHz) | Reading<br>(dBµV) | Pre-<br>Amp  | Antenna<br>Factor | Net<br>at 3m | Peak Limit<br>at 3m | Margin<br>(dB) |
|--------------|--------------------|-------------------|--------------|-------------------|--------------|---------------------|----------------|
|              |                    |                   | Gain<br>(dB) | (dB)              | (dBµV/m)     | (dBµV/m)            |                |
| Horizontal   | 4844.000           | 58.7              | 36.7         | 34.5              | 56.5         | 74.0                | -17.5          |
| Horizontal   | 7326.000           | 61.0              | 36.7         | 35.5              | 59.8         | 74.0                | -14.2          |

| Polarization | Frequency | Reading | Pre- | Antenna | Average | Net      | Average Limit | Margin |
|--------------|-----------|---------|------|---------|---------|----------|---------------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | Factor  | at 3m    | at 3m         | (dB)   |
|              |           |         | Gain | (dB)    | (-dB)   | (dBµV/m) | (dBµV/m)      |        |
|              |           |         | (dB) |         |         |          |               |        |
| Horizontal   | 4844.000  | 58.7    | 36.7 | 34.5    | 10.1    | 46.4     | 54.0          | -7.6   |
| Horizontal   | 7326.000  | 61.0    | 36.7 | 35.5    | 10.1    | 49.7     | 54.0          | -4.3   |

Notes: 1. Peak Detector Data unless otherwise stated.

- 2. All measurements were made at 3 meter. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.

TRF no.: FCC 15C\_TX\_b FCC ID: 2AC75WES-600GT Report No.: 140926038SZN-001

29

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: TX-Channel 26

# **Radiated Emissions**

(2478MHz)

| Polarization | Frequency | Reading | Pre- | Antenna | Net      | Peak Limit | Margin |
|--------------|-----------|---------|------|---------|----------|------------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | at 3m    | at 3m      | (dB)   |
|              | , ,       | , , ,   | Gain | (dB)    | (dBµV/m) | (dBµV/m)   | , ,    |
|              |           |         | (dB) |         |          |            |        |
| Horizontal   | 4956.000  | 57.3    | 36.7 | 35.5    | 56.1     | 74.0       | -17.9  |
| Horizontal   | 7434.000  | 61.1    | 36.7 | 36.5    | 60.9     | 74.0       | -13.1  |
| Horizontal   | 2483.723  | 70.8    | 36.1 | 28.2    | 62.9     | 74.0       | -11.1  |

| Polarization | Frequency | Reading | Pre- | Antenna | Average | Net      | Average Limit | Margin |
|--------------|-----------|---------|------|---------|---------|----------|---------------|--------|
|              | (MHz)     | (dBµV)  | Amp  | Factor  | Factor  | at 3m    | at 3m         | (dB)   |
|              |           |         | Gain | (dB)    | (-dB)   | (dBµV/m) | (dBµV/m)      |        |
|              |           |         | (dB) |         |         |          |               |        |
| Horizontal   | 4956.000  | 57.3    | 36.7 | 35.5    | 10.1    | 46.0     | 54.0          | -8.0   |
| Horizontal   | 7434.000  | 61.1    | 36.7 | 36.5    | 10.1    | 50.8     | 54.0          | -3.2   |
| Horizontal   | 2483.723  | 70.8    | 36.1 | 28.2    | 10.1    | 52.8     | 54.0          | -1.2   |

Notes: 1. Peak Detector Data unless otherwise stated.

- 2. All measurements were made at 3 meter. Harmonic emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.

TRF no.: FCC 15C\_TX\_b FCC ID: 2AC75WES-600GT Report No.: 140926038SZN-001

30

### 4.9 Conducted Emission

Worst Case Conducted emission at 0.178MHz is Passed by 16.2dB margin

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

Applicant: Hong Kong MK Co., Limited

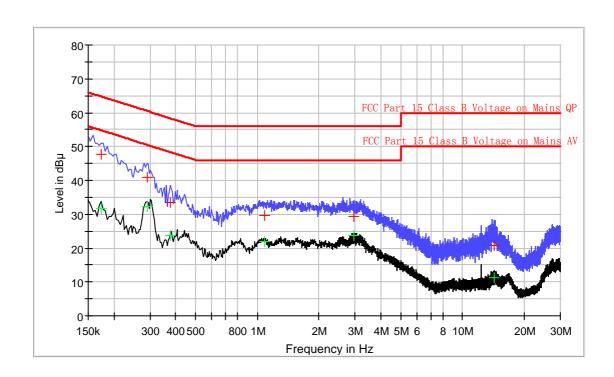
Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: TX Transmitting

Line: Live

**Conducted Emission Test - FCC** 



#### **Result Table QP**

| Frequency<br>(MHz) | QuasiPeak<br>(dB µ V) | Line | Corr.<br>(dB) | Margin<br>(dB) | Limit<br>(dB µ V) |
|--------------------|-----------------------|------|---------------|----------------|-------------------|
| 0.174000           | 47.7                  | L1   | 9.8           | 17.1           | 64.8              |
| 0.290000           | 40.8                  | L1   | 9.8           | 19.7           | 60.5              |
| 0.378000           | 33.6                  | L1   | 9.8           | 24.7           | 58.3              |
| 1.082000           | 29.5                  | L1   | 9.9           | 26.5           | 56.0              |
| 2.970000           | 29.5                  | L1   | 9.9           | 26.5           | 56.0              |
| 14.286000          | 20.8                  | L1   | 10.2          | 39.2           | 60.0              |

#### **Result Table AV**

| Frequency | Average  | Line | Corr. | Margin | Limit    |
|-----------|----------|------|-------|--------|----------|
| (MHz)     | (dB µ V) |      | (dB)  | (dB)   | (dB µ V) |
| 0.174000  | 31.7     | L1   | 9.8   | 23.1   | 54.8     |
| 0.290000  | 32.4     | L1   | 9.8   | 18.1   | 50.5     |
| 0.378000  | 23.8     | L1   | 9.8   | 24.5   | 48.3     |
| 1.082000  | 21.8     | L1   | 9.9   | 24.2   | 46.0     |
| 2.970000  | 23.8     | L1   | 9.9   | 22.2   | 46.0     |
| 14.286000 | 11.4     | L1   | 10.2  | 38.6   | 50.0     |

Applicant: Hong Kong MK Co., Limited

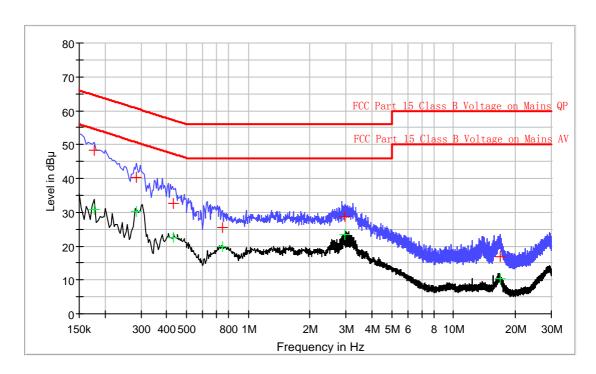
Date of Test: May 22, 2015

Model: WES-600GT

Operating Mode: TX Transmitting

Line: Neutral

**Conducted Emission Test - FCC** 



#### **Result Table QP**

| Frequency | QuasiPeak | Line | Corr. | Margin | Limit    |
|-----------|-----------|------|-------|--------|----------|
| (MHz)     | (dB µ V)  |      | (dB)  | (dB)   | (dB µ V) |
| 0.178000  | 48.4      | N    | 10.0  | 16.2   | 64.6     |
| 0.286000  | 40.3      | N    | 10.1  | 20.3   | 60.6     |
| 0.434000  | 32.5      | N    | 10.1  | 24.7   | 57.2     |
| 0.750000  | 25.4      | N    | 10.2  | 30.6   | 56.0     |
| 2.970000  | 28.8      | N    | 10.3  | 27.2   | 56.0     |
| 16.810000 | 16.8      | N    | 10.5  | 43.2   | 60.0     |

# **Result Table AV**

| Frequency | Average  | Line | Corr. | Margin | Limit    |
|-----------|----------|------|-------|--------|----------|
| (MHz)     | (dB µ V) |      | (dB)  | (dB)   | (dB µ V) |
| 0.178000  | 30.9     | N    | 10.0  | 23.7   | 54.6     |
| 0.286000  | 30.3     | N    | 10.1  | 20.3   | 50.6     |
| 0.434000  | 22.6     | N    | 10.1  | 24.6   | 47.2     |
| 0.750000  | 19.8     | N    | 10.2  | 26.2   | 46.0     |
| 2.970000  | 23.4     | N    | 10.3  | 22.6   | 46.0     |
| 16.810000 | 10.3     | N    | 10.5  | 39.7   | 50.0     |

| Date of T | t: Hong Kong MK Co., Limited<br>Fest: May 22, 2015<br>VES-600GT       |
|-----------|---|
| 4.10 Rad  | diated Emissions from Digital Section of Transceiver, FCC Ref: 15.109 |
| [x] Not   | required - No digital part  |
| [ ] Tes   | t results are attached  |
| [] Inclu  | uded in the separated report.   |

Applicant: Hong Kong MK Co., Limited

Date of Test: May 22, 2015

Model: WES-600GT

4.11 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

ON Time=0.5507\*2ms

Time to cycle=3.5362ms

Duty cycle connection factor= 20lg (0.5507\*2/3.5362)

= -10.1 dB

# EXHIBIT 5 EQUIPMENT PHOTOGRAPHS

#### 5.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.pdf & internal photos.pdf.

#### **EXHIBIT 6**

#### **PRODUCT LABELLING**

#### 6.0 **Product Labeling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

# EXHIBIT 7 TECHNICAL SPECIFICATIONS

# 7.0 <u>Technical Specifications</u>

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

TRF no.: FCC 15C\_TX\_b FCC ID: 2AC75WES-600GT Report No.: 140926038SZN-001

41

#### **EXHIBIT 8**

# **INSTRUCTION MANUAL**

#### 8.0 **Instruction Manual**

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

TRF no.: FCC 15C\_TX\_b FCC ID: 2AC75WES-600GT Report No.: 140926038SZN-001

43

#### **EXHIBIT 9**

# **CONFIDENTIALITY REQUEST**

#### 9.0 **Confidentiality Request**

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

#### **EXHIBIT 10**

#### **MISCELLANEOUS INFORMATION**

#### 10.0 <u>Discussion of Pulse Desensitization</u>

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF.* 

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

#### **EXHIBIT 11**

#### **TEST EQUIPMENT LIST**

# 11.0 <u>Test Equipment List</u>

| Equipment No. | Equipment                    | Manufacturer        | Model No.        | Serial No.     | Cal. Date   | Due Date    |
|---------------|------------------------------|---------------------|------------------|----------------|-------------|-------------|
| SZ182-02      | RF Power<br>Meter            | Anritsu             | ML2496A          | 1302005        | 20-May-2015 | 20-May-2016 |
| SZ182-02-01   | Power<br>Sensor              | Anritsu             | MA2411B          | 1207429        | 20-May-2015 | 20-May-2016 |
| SZ061-03      | BiConiLog<br>Antenna         | ETS                 | 3142C            | 00066460       | 28-Jun-2014 | 28-Jun-2015 |
| SZ185-01      | EMI<br>Receiver              | R&S                 | ESCI             | 100547         | 07-Feb-2015 | 07-Feb-2016 |
| SZ061-09      | Horn<br>Antenna              | ETS                 | 3115             | 00092346       | 01-Nov-2014 | 01-Nov-2015 |
| SZ061-07      | Pyramidal<br>Horn<br>Antenna | ETS                 | 3160-09          | 00083067       | 03-Sep-2014 | 03-Sep-2015 |
| SZ061-06      | Active Loop<br>Antenna       | Electro-<br>Metrics | EM-6876          | 217            | 29-Apr-2015 | 29-Apr-2016 |
| EM031-03      | EXA<br>Spectrum<br>Analyzer  | R&S                 | FSV40            | 101506         | 09-Jun-2014 | 09-Jun-2015 |
| SZ181-04      | Preamplifier                 | Agilent             | 8449B            | 3008A024<br>74 | 07-Feb-2015 | 07-Feb-2016 |
| SZ188-01      | Anechoic<br>Chamber          | ETS                 | RFD-F/A-<br>100  | 4102           | 19-Apr-2014 | 19-Apr-2016 |
| SZ062-02      | RF Cable                     | RADIALL             | RG 213U          |                | 31-Dec-2014 | 30-Jun-2015 |
| SZ062-05      | RF Cable                     | RADIALL             | 0.04-<br>26.5GHz |                | 07-Apr-2015 | 07-Oct-2015 |
| SZ062-12      | RF Cable                     | RADIALL             | 0.04-<br>26.5GHz |                | 07-Apr-2015 | 07-Oct-2015 |
| SZ067-04      | Notch Filter                 | Micro-Tronics       | BRM5070<br>2-02  | 1              | 20-May-2015 | 20-May-2016 |
| SZ185-02      | EMI Test<br>Receiver         | R&S                 | ESCI             | 100692         | 01-Nov-2014 | 01-Nov-2015 |
| SZ187-01      | Two-Line V-<br>Network       | R&S                 | ENV216           | 100072         | 01-Nov-2014 | 01-Nov-2015 |
| SZ187-02      | Two-Line V-<br>Network       | R&S                 | ENV216           | 100073         | 16-Jun-2014 | 16-Jun-2015 |
| SZ188-03      | Shielding<br>Room            | ETS                 | RFD-100          | 4100           | 23-Aug-2014 | 23-Aug-2015 |