Intertek

Valued Quality. Delivered.

Issuing Laboratory:
Intertek Testing Services Hong Kong Limited

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.

HOKLAS 005 TEST

TEST REPORT

Report No.: 14041841HKG-002

JAKKS Pacific (HK) Limited

Application
For
Certification
(Original Grant)
(FCC ID: OTA78429)
(IC: 7783A-78429)

Transmitter

Prepared and Checked by:

Wong Kwok Yeung, Kenneth
Lead Engineer

Approved by:

Chan Chi Hung, Terry
Supervisor
Date: June 26, 2014

Issuing Laboratory:
Intertek Testing Services Hong Kong Limited

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.

GENERAL INFORMATION

Grantee:	JAKKS Pacific (HK) Limited
Grantee Address:	12/F., Wharf T&T Centre, 7 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.
Contact Person:	Dick Au
Tel:	2269 7631
Fax:	2366 8247
e-mail:	dicka@jakks.com.hk
Manufacturer:	Root land Plastic Factory
Manufacturer Address:	Bai Yun Keng Industrial, Danshui Town, Huiyang Zone, Huizhou City, Guangdong, Province China.
Vendor:	Rootland Plastic Factory
Brand Name:	N/A
FCC & IC Model:	Refer to report P.ii
Additional Model No.:	Refer to report P.ii
Asst. No.:	Refer to report P.ii
GL Class No.:	3500.8020.105
Type of EUT:	Transceiver
Description of EUT:	Refer to report P.ii
Serial Number:	N/A
FCC ID / IC:	OTA78429 / 7783A-78429
Date of Sample Submitted:	April 30, 2014
Date of Test:	April 30, 2014 to May 19, 2014
Report No.:	14041841HKG-002
Report Date:	June 26, 2014
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

GENERAL INFORMATION

(Cont'd)

FCC Model:	78429
FCC Additional Model No.:	78430, 82306, 78429, 82331, 78429, 82640, 78430, 82306, 84898, 82306, 78430
IC Model:	78429
Asst. No.:	82305, 82305-CAN, 82305-EU, 82305-SP, 78429-SP, 82331, 82331-CAN, 82331-EU, 78429-QVC, 78429-UK, 82640, 82640-CAN, 82640-EU, 84898, 84898-CAN, 84898-EU, 84907, 84907-CAN, 84907-EU, 82712, 82712-CAN, 82712-EU
Description of EUT:	HERO PORTAL ASST., HERO PORTAL ASST. – 4 characters: HERO PORTAL – TMNT (78429) HERO PORTAL – TMNT (Spanish Pkg): HERO PORTAL – TMNT (78429) HERO PORTAL - TMNT Booster Pack Asst, HERO PORTAL – TMNT Booster Pack Asst (Spanish Pkg): HERO PORTAL - TMNT Booster Pack (Mike + Don) (78430) HERO PORTAL TMNT Booster Pack (Splinter + Casey Jones) (82306) HERO PORTAL - Kmart TMNT Hero Portal + 4 Figures: HERO PORTAL - Kmart TMNT Hero Portal + 4 Figures (82331) HERO PORTAL WITH BONUS FIGURES – TMNT: HERO PORTAL WITH BONUS FIGURES – TMNT (78429) HERO PORTAL WITH TWO FIGURES – TMNT: HERO PORTAL WITH TWO FIGURES – TMNT (82640) TMNT HERO PORTAL BOOSTER PACK ASST.: HERO PORTAL - TMNT Booster Pack (Mike + Don) (78430) HERO PORTAL TMNT Booster Pack (Splinter + Casey Jones) (82306) HERO PORTAL BOOSTER PACK ASST.: TMNT HERO PORTAL PDQ (84898) HERO PORTAL BOOSTER PACK ASST.: HERO PORTAL TMNT Booster Pack (Splinter + Casey Jones) (82306) HERO PORTAL - TMNT Booster Pack (Mike + Don) (78430)

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

Valued Quality. Delivered.

Issuing Laboratory:
Intertek Testing Services Hong Kong Limited

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.

HOKLAS 005 TEST

SUMMARY OF TEST RESULT

TEST SPECIFICATION	REFERENCE	RESULTS
Transmitter Field Strength Frequecy Stability	15.225 / RSS-210 A2.6	Pass
Radiated Emission in Restricted bands	15.205/ RSS-210 2.2	Pass

The equipment under test is found to be complying with the following standards:
FCC Part 15, October 1, 2012 Edition
RSS-210 Issue 8, December 2010

Note: 1. The EUT uses a permanently attached antenna which, in accordance to section 15.203, is considered sufficient to comply with the pervisions of this section.
2. Pursuant to FCC part 15 Section 15.215(c), the 20 dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over excepted variations in temperature and supply voltage were considered.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

Table of Contents

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

1.0 General Description

1.1 Product Description

The equipment under test (EUT) is a 13MHz RFID for a Portal (RFID toy reader) operating at 13.560MHz which is controlled by a crystal. The EUT is powered by 4 x AA size batteries. This product consists of a controller, a Portal (RFID tag reader) and six Teenage Mutant Ninja Turtles Figures (passive type powered tags). The EUT has an ON/OFF switch and a RFID tag sensor on the Portal. It can also connect to the monitor for game playing. After switched on the EUT, the TV monitor can show the game mode while the Hero Figure (passive tags) was placed on the Portal.

The Model: 78430, 82306, 78429, 82331, 78429, 82640, 78430, 82306, 84898, 82306 and 78430 are the same as the Model: 78429 in hardware aspect. The difference in model number serves as marketing strategy. The models are different in packaging and figure combination only.

Antenna Type: Internal, Integral

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

1.2 Related Submittal(s) Grants

This is a single application for certification of a transmitter.

1.3 Test Methodology

Radiated emission measurements was performed according to the procedures in ANSI C63.4 (2009). All radiated measurements were performed in an Open Area Test Site. Preliminary scans were performed in the Open Area Test Site only to determine 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.

1.4 Test Facility

The open area test site used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been placed on file with the FCC and IC.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

2.0 System Test Configuration

2.1 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it), and in the confines as outlined in ANSI C63.4 (2009).

The device was powered by new 4 x 1.5V AA Batteries.

For maximizing emissions below 30 MHz, the EUT was rotated through 360°, the centre of the loop antenna was placed 1 meter above the ground, and the antenna polarization was changed. For maximizing emissions at and above 30 MHz, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. This step by step procedure for maximizing emissions led to the data reported in Exhibit 3.0.

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

The equipment under test (EUT) was configured for testing in a typical fashion (as a customer would normally use it). The EUT was mounted to a plastic stand if necessary and placed on the wooden turntable, which enabled the engineer to maximize emissions through its placement in the three orthogonal axes.

All relevant operation modes have been tested, and the worst case data is included in this report.

2.2 EUT Exercising Software

There was no special software to exercise the device. Once the unit is powered up, it transmits the RF signal continuously.

2.3 Special Accessories

There are no special accessories necessary for compliance of this product.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

2.4 Measurement Uncertainty

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

2.5 Support Equipment List and Description

LCD TV monitor. (Model: Samsung LS15E33C) EW-2122 (Provided By Intertek)

2 x Figures (Provided By Client)

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

3.0 Emission Results

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.

3.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any), Average Factor (optional) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG - AV

where FS = Field Strength in dBµV/m
RA = Receiver Amplitude (including preamplifier) in dBµV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
AV = Average Factor in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

FS = RR + LF

where FS = Field Strength in dBµV/m
RR = RA - AG - AV in dBµV
LF = CF + AF in dB

Assume a receiver reading of 52.0 dBµV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB are added. The amplifier gain of 29 dB and average factor of 5 dB are subtracted, giving a field strength of 27 dBµV/m. This value in dBµV/m was converted to its corresponding level in µV/m.

RA = 52.0 dBµV/m
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
AV = 5.0 dB
RR = 18.0 dBµV
LF = 9.0 dB
FS = RR + LF
FS = 18 + 9 = 27 dBµV/m

Level in µV/m = Common Antilogarithm [(27 dBµV/m)/20] = 22.4 µV/m

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

3.2 Radiated Emission Configuration Photograph

The worst case in radiated emission was found at 187.65 MHz

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

3.3 Radiated Emission Data

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Judgment: Passed by 6.7 dB

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

Applicant: JAKKS Pacific (HK) Limited
Model: 78429
Worst-Case Operating Mode: Transmitting

Date of Test: May 19, 2014

Table 1
Radiated Emissions
Pursuant to FCC Part15.225/ RSS-210 Section A2.6 Requirement

Polari-zation	Frequency (MHz)	Reading (dBµV)	Pre-Amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Distance Factor (-dB)	Calculated at 30m (dBµV/m)	Limit at 30m (dBµV/m)	Margin (dB)
V	13.560	58.0	0	10.8	68.8	40.0	28.8	84.0	-55.2
V	27.120	19.4	0	9.5	28.9	40.0	-11.1	29.5	-40.6

Polari-zation	Frequenc y (MHz)	Reading (dBµV)	Pre-Amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	40.680	35.7	16	10.0	29.7	40.0	-10.3
V	54.240	32.9	16	11.0	27.9	40.0	-12.1
V	67.800	33.7	16	8.0	25.7	40.0	-14.3
V	81.360	33.9	16	7.0	24.9	40.0	-15.1
V	94.920	31.9	16	11.0	26.9	43.5	-16.6
V	***108.480***	***29.5***	***16***	***14.0***	***27.5***	***43.5***	***-16.0***
V	122.040	28.9	16	14.0	26.9	43.5	-16.6
V	***135.600***	***28.6***	***16***	***14.0***	***26.6***	***43.5***	***-16.9***

NOTES: 1. Peak Detector Data unless otherwise 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 sign in the column shows value below limit.

4. Loop antenna is used for the emissions below 30MHz.

5. Emission (the row indicated by ***bold italic***) within the restricted band meets the requirement of FCC Part 15 Section 15.205/ RSS-210 Section 2.2

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

Applicant: JAKKS Pacific (HK) Limited
Model: 78429
Worst-Case Operating Mode: TV Game Playing

Date of Test: May 19, 2014

Table 2
Radiated Emissions
Pursuant to FCC Part 15.209/ RSS-210 Section A2.6 Requirement

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	33.549	35.8	16	10.0	29.8	40.0	-10.2
V	84.657	38.5	16	8.0	30.5	40.0	-9.5
V	***131.325***	***35.7***	***16***	***14.0***	***33.7***	***43.5***	***-9.8***
V	187.650	36.8	16	16.0	36.8	43.5	-6.7
H	***277.560***	***25.5***	***16***	***22.0***	***31.5***	***46.0***	***-14.5***
H	***334.444***	***22.7***	***16***	***24.0***	***30.7***	***46.0***	***-15.3***

NOTES: 1. Quasi-Peak Detector Data unless otherwise 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 sign in the column shows value below limit.

4. Emission (the row indicated by ***bold italic***) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

3.4 Frequency Tolerance

Data Table
Frequency tolerance of Transmitter
(Temperature Variation: -20°C to +50°C)

Operating frequency		Model: 13.563627MHz		
Test Voltage (V)	Temperature (°C)	Measured frequency (MHz)	Frequency error (%)	Limit (%)
6.0	+ 50	13.563621	-0.00004	±0.01
	+ 40	13.563619	-0.00006	±0.01
	+ 30	13.563625	-0.00001	±0.01
	+ 20	13.563627	0	±0.01
	+ 10	13.563643	+0.00012	±0.01
	0	13.563638	+0.00008	±0.01
	- 10	13.563594	-0.00024	±0.01
	- 20	13.563573	-0.00040	±0.01

We found that the EUT met the requirement of FCC Part 15 Section 15.225(e).

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

3.5 Supplementary Data for IC RSS-210 Section A2.6

RSS-210 Section A2.6

Data Table
Frequency Deviation with Voltage Variation

Operating frequency		13.563627MHz		
Test Voltage (V)	Temperature (°C)	Measured frequency (MHz)	Frequency error (%)	Limit (%)
6.0	+20	13.563627	0	±0.01
5.44	+20	13.563629	+0.00001	±0.01
4.87	+20	13.563635	+0.00006	±0.01
4.30	+20	13.563693	+0.00049	±0.01

Note:

The battery operating end point is 4.30V, which is declared by the manufacturer.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

4.0 Equipment Photographs

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

5.0 Product Labelling

For electronics filing, the FCC ID/IC ID label artwork and the label location are saved with filename: label.pdf.

6.0 Technical Specifications

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

7.0 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 and Canada.

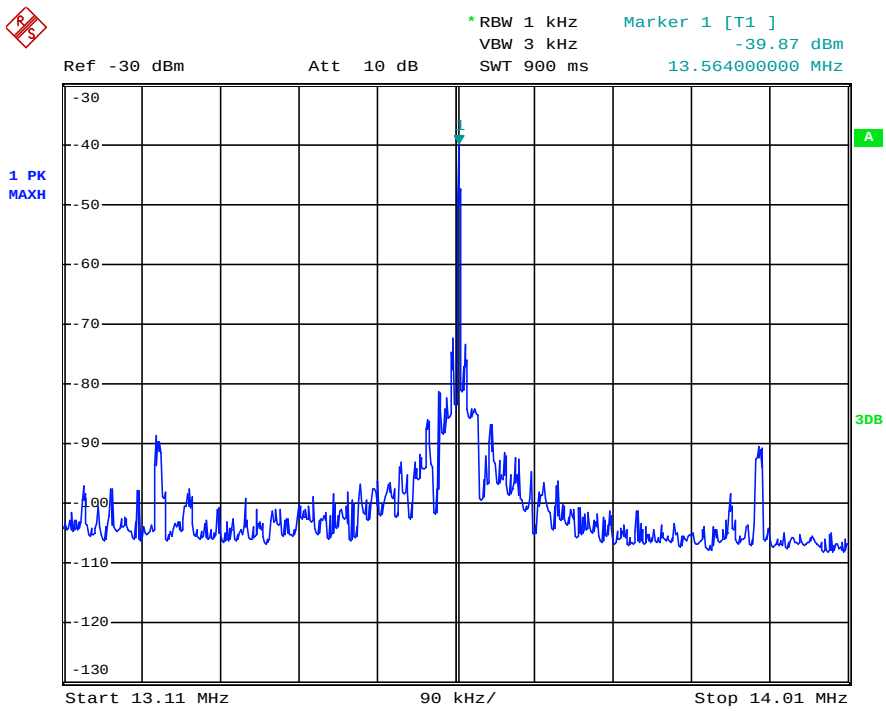
Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

8.0 Miscellaneous Information

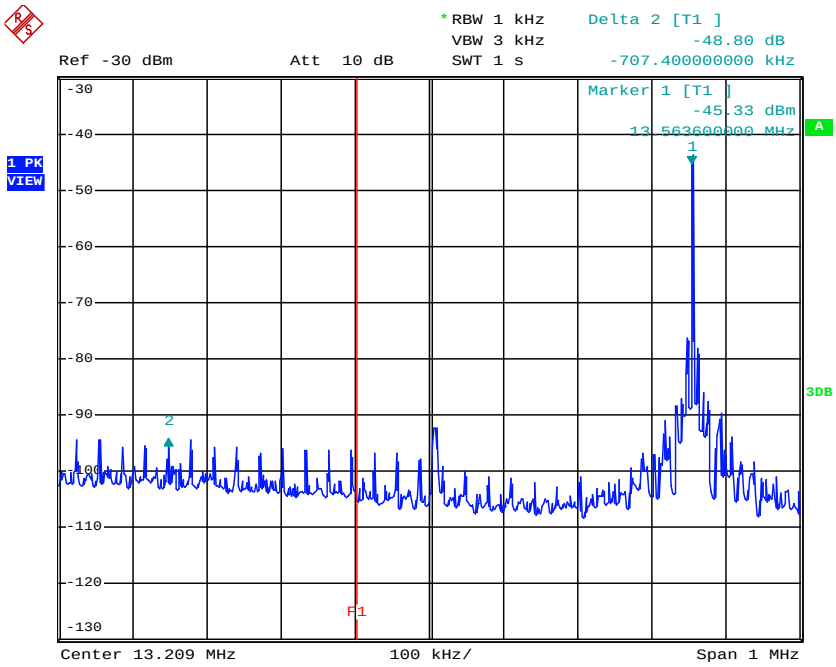
The miscellaneous information includes details of the test procedure and measured bandwidth

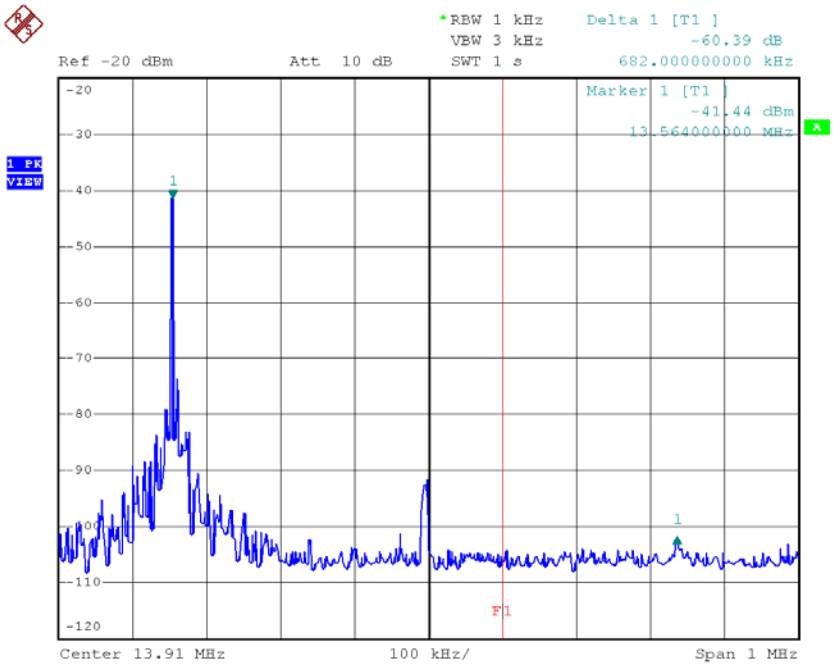
8.1 Measured Emission of Bandedge

The below plot shows the fundamental emission is confined in the specified band. The emission of the fundamental is 28.8 dBµV/m and it is below the limit of 50.5 dBµV/m in the range of (13.410-13.553MHz) and (13.567-13.710MHz) and the limit of 40.5 dBµV/m in the frequency range of (13.110-14.410MHz) and (13.710-14.010MHz). In the frequency range from 13.110-14.010MHz, we can not find any emission higher than the fundamental emission. Therefore they meet the requirement of Section 15.225(a), (b), (c), & (d).



Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com





Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

8.2 Discussion of Pulse Desensitization

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

8.3 Calculation of Average Factor

The average factor is not applicable for this device as the transmitted signal is a continuously signal.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

8.4 Emissions Test Procedures

The following is a description of the test procedure used by Intertek Testing Services Hong Kong Ltd. in the measurements of transmitter operating under the Part 15, Subpart C rules.

The transmitting equipment under test (EUT) is placed on a wooden turntable which is four feet in diameter and approximately one meter in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The EUT is adjusted through all three orthogonal axis to obtain maximum emission levels. The antenna height and polarization are also varied during the testing to search for maximum signal levels. The height of the antenna is varied from one to four meters.

Detector function for radiated emissions is in peak mode. Average readings, when required, are taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in Exhibit 8.3.

The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to 1GHz.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

8.4 Emissions Test Procedures (cont'd)

The EUT is warmed up for 15 minutes prior to the test.

The IF bandwidth used for measurement of radiated signal strength was 100 kHz or greater when frequency is below 1000 MHz. Where pulsed transmissions of short enough pulse duration warrant, a greater bandwidth is selected according to the recommendations of Hewlett Packard Application Note 150-2. A discussion of whether pulse desensitivity is applicable to this unit is included in this report (See Exhibit 8.1). Above 1000 MHz, a resolution bandwidth of 1 MHz is used.

Transmitter measurements are normally conducted at a measurement distance of three meters. However, to assure low enough noise floor in the forbidden bands and above 1 GHz, signals are acquired at a distance of one meter or less. All measurements are extrapolated to three meters using inverse scaling, unless otherwise reported. Measurements taken at a closer distance are so marked.

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com

9.0 **Equipment List**

1) Radiated Emissions Test

Equipment	EMI Test Receiver	Log Periodic Antenna
Registration No.	EW-2666	EW-0446
Manufacturer	R&S	EMCO
Model No.	ESCI7	3146
Calibration Date	Jun. 20, 2013	Apr. 30, 2013
Calibration Due Date	Jun. 20, 2014	Oct. 30, 2014

Equipment	Spectrum Analyzer	Active Loop H-field Antenna
Registration No.	EW-2188	EW-0191
Manufacturer	AGILENTTECH	EMCO
Model No.	E4407B	6502
Calibration Date	Apr. 16, 2014	Jan. 30, 2013
Calibration Due Date	Apr. 16, 2015	Jul. 30, 2014

2) Bandedge Measurement

Equipment	Spectrum Analyzer
Registration No.	EW-3016
Manufacturer	ROHDESCHWARZ
Model No.	FSV40
Calibration Date	Feb. 13, 2014
Calibration Due Date	Feb. 13, 2015

3) Frequency Tolerance

Equipment	Temperature & Humidity Chamber	Spectrum Analyzer
Registration No.	EW-2395	EW-2249
Manufacturer	GIANT FORCE	R&S
Model No.	GTH-210-40-SP-AR	FSP30
Calibration Date	Feb. 24, 2014	Oct. 28, 2013
Calibration Due Date	Feb. 28, 2015	Oct. 28, 2014

END OF TEST REPORT

Intertek Testing Services Hong Kong Ltd.
2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etlsemko.com