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No. : MH191939

Applicant: Heng Yu Electronic Manufacturing Co., Ltd.

Room 3-5, 15/F., Nan Fung Commercial Center 19 Lam Lok Street,

Kowloon Bay

Manufacturer : Zhuhai Heng Yu New Technology Company Limited

Heng Ke Campus, Jin Hai Avenue, San Zao, Zhuhai, Guangdong

R.R.C., 8109040

Description of Samples: Submitted sample(s) said to be

Product: Wireless Keyboard Dongle

Brand Name: Heng Yu
Model No.: GD-001
FCC ID: XENGD001

Date Samples Received: 2015-09-18

Date Tested : 2015-10-17 to 2015-10-21

Investigation Requested: Perform ElectroMagnetic Interference measurement in accordance

with FCC 47CFR [Codes of Federal Regulations] Part 15: 2014 and

ANSI C63.10: 2013 for FCC Certification.

Conclusion(s): The submitted product COMPLIED with the requirements of Federal

Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described

above and on Section 2.2 in this Test Report.

Remarks : ---

CHEUNG Chi, Kenneth

Authorized Signatory

ElectroMagnetic Compatibility Department

For and on behalf of

The Hong Kong Standards and Testing Centre Ltd.



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For Conditions of Issuance of this test report, please refer to "Conditions of Issuance of Test Reports" section or Website.



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1.0 General Details

1.1 Equipment Under Test [EUT] Description of Sample(s)

Product: Wireless Keyboard Dongle

Manufacturer: Zhuhai Heng Yu New Technology Company Limited

Heng Ke Campus, Jin Hai Avenue, San Zao, Zhu Hai, Guang Dong

R.R.C. 8109040

Brand Name: Heng Yu Model Number: GD-001

Rating: 120Va.c./ 5Vd.c. (draw power from USB port)

1.2 Description of EUT Operation

The Equipment Under Test (EUT) is a USB dongle of a wireless keyboard. The EUT operating in the 2.4GHz ISM frequency band. The RF signal is modulated by IC, the type of modulation used is FSK.

1.3 Date of Order

2015-09-18

1.4 Submitted Sample(s):

1 Sample

1.5 Test Duration

2015-10-17 to 2015-10-21

1.6 Country of Origin

China



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<u>2.0</u> Technical Details

2.1 Investigations Requested

Perform Electromagnetic Interference measurements in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2014 Regulations and ANSI C63.10: 2013 for FCC Certification. The device was realized by test software.

2.2 Test Standards and Results Summary Tables

	EMISSION Results Summary									
Test Condition	Test Requirement	Test Method	Class /		est Resu					
			Severity	Pass	Fail	N/A				
Field Strength of Fundamental & Harmonics Emissions	FCC 47CFR 15.249	ANSI C63.10: 2013	N/A							
Radiated Emissions	FCC 47CFR 15.209	ANSI C63.10: 2013	N/A	\boxtimes						
AC Mains Conducted Emissions	FCC 47CFR 15.207	ANSI C63.10: 2013	N/A							

Note: N/A - Not Applicable



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3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions

Test Requirement: FCC 47CFR 15.249 & FCC 47CFR 15.209

Test Method: ANSI C63.10: 2013

Test Date: 2015-10-21 Mode of Operation: TX mode

Test Method:

For emission measurements at or below 1 GHz, the sample was placed 0.8m above the ground plane of semi-anechoic Chamber*. For emission measurements above 1 GHz, the sample was placed 1.5m above the ground plane of semi-anechoic Chamber*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

*: Semi-Anechoic chamber located on the G/F of The Hong Kong Standards and Testing Centre Ltd. with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 607756.



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Spectrum Analyzer Setting:

9KHz – 30MHz (Pk & Av) RBW: 10kHz

VBW: 30kHz Sweep: Auto

Span: Fully capture the emissions being measured

Trace: Max. hold

30MHz – 1GHz (QP) RBW: 120kHz

VBW: 120kHz Sweep: Auto

Span: Fully capture the emissions being measured

Trace: Max. hold

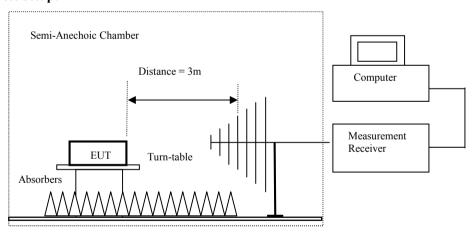
Above 1GHz (Pk & Av) RBW: 1MHz

VBW: 1MHz Sweep: Auto

Span: Fully capture the emissions being measured

Trace: Max. hold

Test Setup:



Ground Plane

- Absorbers placed on top of the ground plane are for measurements above 1000MHz only.
- Measurements between 30 MHz to 1000 MHz made with Bi-log antennas, above 1000 MHz horn antennas are used, 9 kHz to 30 MHz loop antennas are used.



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Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental	Field Strength of Fundamental Emission	Field Strength of Harmonics Emission		
[MHz]	[microvolts/meter]	[microvolts/meter]		
902-928	50,000 [Quasi-Peak]	500 [Average]		
2400-2483.5	50,000 [Average]	500 [Average]		

Results of Tx mode (Lowest Frequency Channel-2404MHz) (Above 1GHz): Pass

	Field Strength of Fundamental Emissions							
			Peak Value					
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dBμV/m	dBμV/m	dΒμV/m	μV/m	μV/m			
2404.00	48.5	36.4	84.9	17,579.2	500,000	Horizontal		
2404.00	48.9	36.8	85.7	19,275.2	500,000	Vertical		

	Field Strength of Fundamental Emissions							
		A	Average Valu	e				
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dBμV/m	dΒμV/m	dBμV/m	μV/m	μV/m			
2404.00	38.2	36.4	74.6	5,370.3	50,000	Horizontal		
2404.00	38.4	36.8	75.2	5,754.4	50,000	Vertical		

	Field Strength of Harmonics Emission								
	Peak Value								
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field			
	Level @3m	Factor	Strength	Strength		Polarity			
MHz	dBμV/m	dBμV/m	dΒμV/m	μV/m	μV/m				
4808.0	6.4	42.4	48.8	275.4	5,000	Horizontal			
4808.0	8.3	41.5	49.8	309.0	5,000	Vertical			
7212.0	2.9	46.2	49.1	285.1	5,000	Horizontal			
7212.0	3.8	45.1	48.9	278.6	5,000	Vertical			
9616.0	1.5	48.8	50.3	327.3	5,000	Horizontal			
9616.0	3.7	48.0	51.7	384.6	5,000	Vertical			
12020.0	2.9	52.4	55.3	582.1	5,000	Horizontal			
12020.0	3.1	51.5	54.6	537.0	5,000	Vertical			



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	Field Strength of Harmonics Emission							
		A	Average Valu	e				
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dΒμV/m	dΒμV/m	dΒμV/m	$\mu V/m$	μV/m			
4808.0	-5.5	42.4	36.9	70.0	500	Horizontal		
4808.0	-4.0	41.5	37.5	75.0	500	Vertical		
7212.0	-8.3	46.2	37.9	78.5	500	Horizontal		
7212.0	-7.6	45.1	37.5	75.0	500	Vertical		
9616.0	-10.5	48.8	38.3	82.2	500	Horizontal		
9616.0	-9.2	48.0	38.8	87.1	500	Vertical		
12020.0	-12.2	52.4	40.2	102.3	500	Horizontal		
12020.0	-11.6	51.5	39.9	98.9	500	Vertical		

Results of Tx mode (Middle Frequency Channel- 2442MHz) (Above 1GHz): Pass

	Field Strength of Fundamental Emissions							
			Peak Value					
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dΒμV/m	dΒμV/m	dΒμV/m	μV/m	μV/m			
2442.00	48.6	36.4	85.0	17,782.8	500,000	Horizontal		
2442.00	49.0	36.8	85.8	19,498.4	500,000	Vertical		

Field Strength of Fundamental Emissions							
		A	Average Valu	e			
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dBμV/m	dΒμV/m	dΒμV/m	μV/m	μV/m		
2442.00	38.7	36.4	75.1	5,688.5	50,000	Horizontal	
2442.00	38.4	36.8	75.2	5,754.4	50,000	Vertical	



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	Field Strength of Harmonics Emission							
			Peak Value					
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dBμV/m	dBμV/m	dΒμV/m	μV/m	μV/m			
4884.0	7.2	42.5	49.7	305.5	5,000	Horizontal		
4884.0	7.2	41.6	48.8	275.4	5,000	Vertical		
7326.0	2.6	46.3	48.9	278.6	5,000	Horizontal		
7326.0	4.3	45.2	49.5	298.5	5,000	Vertical		
9768.0	0.5	48.9	49.4	295.1	5,000	Horizontal		
9768.0	2.5	48.1	50.6	338.8	5,000	Vertical		
12210.0	2.7	52.5	55.2	575.4	5,000	Horizontal		
12210.0	3.2	51.6	54.8	549.5	5,000	Vertical		

	Field Strength of Harmonics Emission							
		A	Average Valu	e				
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dBμV/m	dΒμV/m	dΒμV/m	μV/m	μV/m			
4884.0	-4.1	42.5	38.4	83.2	500	Horizontal		
4884.0	-4.3	41.6	37.3	73.3	500	Vertical		
7326.0	-8.6	46.3	37.7	76.7	500	Horizontal		
7326.0	-7.4	45.2	37.8	77.6	500	Vertical		
9768.0	-10.4	48.9	38.5	84.1	500	Horizontal		
9768.0	-9.3	48.1	38.8	87.1	500	Vertical		
12210.0	-11.7	52.5	40.8	109.6	500	Horizontal		
12210.0	-12.0	51.6	39.6	95.5	500	Vertical		

Results of Tx mode (Highest Frequency Channel – 2480MHz) (Above 1GHz): Pass

Field Strength of Fundamental Emissions							
			Peak Value				
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dBμV/m	dBμV/m	dΒμV/m	μV/m	μV/m		
2480.00	48.4	36.4	84.8	17,378.0	500,000	Horizontal	
2480.00	49.1	36.8	85.9	19,724.2	500,000	Vertical	



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	Field Strength of Fundamental Emissions							
		A	Average Valu	e				
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dBμV/m	dΒμV/m	dΒμV/m	μV/m	μV/m			
2480.00	37.9	36.4	74.3	5,188.0	50,000	Horizontal		
2480.00	38.6	36.8	75.4	5,888.4	50,000	Vertical		

	Field Strength of Harmonics Emission						
Frequency	Measured	Correction	Peak Value Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dΒμϔ/m	dΒμV/m	dΒμV/m	$\mu m V/m$	μV/m		
4960.0	6.6	42.7	49.3	291.7	5,000	Horizontal	
4960.0	7.2	41.4	48.6	269.2	5,000	Vertical	
7440.0	3.2	46.5	49.7	305.5	5,000	Horizontal	
7440.0	2.5	45.6	48.1	254.1	5,000	Vertical	
9920.0	1.5	49.7	51.2	363.1	5,000	Horizontal	
9920.0	3.3	48.6	51.9	393.6	5,000	Vertical	
12400.0	2.7	52.7	55.4	588.8	5,000	Horizontal	
12400.0	2.9	51.7	54.6	537.0	5,000	Vertical	

	Field Strength of Harmonics Emission							
	Avarage Value							
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field		
	Level @3m	Factor	Strength	Strength		Polarity		
MHz	dΒμV/m	dΒμV/m	dΒμV/m	$\mu m V/m$	$\mu m V/m$			
4960.0	-4.1	42.7	38.6	85.1	500	Horizontal		
4960.0	-3.2	41.4	38.2	81.3	500	Vertical		
7440.0	-8.6	46.5	37.9	78.5	500	Horizontal		
7440.0	-7.7	45.6	37.9	78.5	500	Vertical		
9920.0	-10.4	49.7	39.3	92.3	500	Horizontal		
9920.0	-10.0	48.6	38.6	85.1	500	Vertical		
12400.0	-11.9	52.7	40.8	109.6	500	Horizontal		
12400.0	-10.9	51.7	40.8	109.6	500	Vertical		

Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

Calculated measurement uncertainty (9kHz - 30MHz): 2.0dB

(30MHz – 1GHz): 4.9dB (1GHz - 26GHz): 4.0dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.



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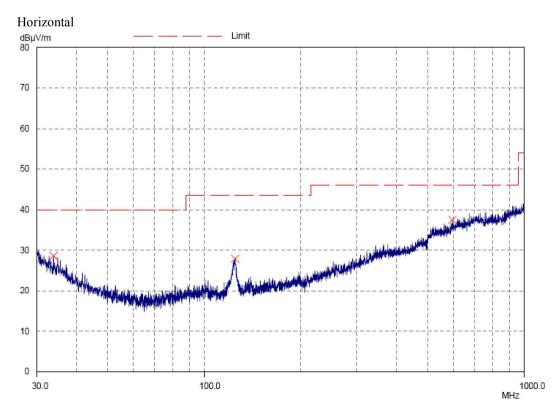
Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
0.009-0.490	2400/F (kHz)
0.490-1.705	24000/F (kHz)
1.705-30	30
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of TX mode (Highest Frequency Channel – 2480MHz) (9kHz – 30MHz): PASS Emissions detected are more than 20 dB below the FCC Limits

Results of TX mode (Highest Frequency Channel – 2480MHz) (30MHz – 1GHz): PASS Please refer to the following table for result details





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Results of TX mode (Highest Frequency Channel – 2480MHz) (30MHz – 1GHz): PASS

Radiated Emissions					
		Quasi	-Peak		
Emission	E-Field	Level	Limit	Level	Limit
Frequency	Polarity	@3m	@3m	@3m	@3m
MHz		dΒμV/m	dΒμV/m_	μV/m	μV/m
33.9	Horizontal	28.6	40.0	26.9	100
125.2	Horizontal	27.9	43.5	24.8	150
596.4	Horizontal	37.4	46.0	74.1	200



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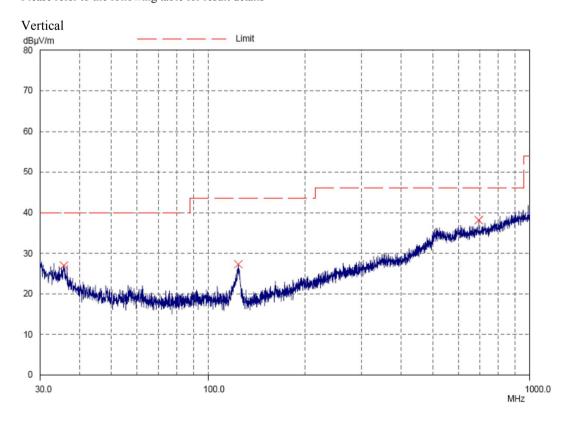
Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
0.009-0.490	2400/F (kHz)
0.490-1.705	24000/F (kHz)
1.705-30	30
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of TX mode (Highest Frequency Channel – 2480MHz) (9kHz – 30MHz): PASS Emissions detected are more than 20 dB below the FCC Limits

Results of TX mode (Highest Frequency Channel – 2480MHz) (30MHz – 1GHz): PASS Please refer to the following table for result details



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Results of TX mode (Highest Frequency Channel - 2480MHz) (30MHz - 1GHz): PASS

Radiated Emissions Quasi-Peak					
Emission	E-Field	Level	Limit	Level	Limit
Frequency	Polarity	@3m	@3m	@3m	@3m
MHz		dΒμV/m	dΒμV/m	μV/m	μV/m
35.6	Vertical	27.0	40.0	22.4	100
124.1	Vertical	27.3	43.5	23.2	150
694.8	Vertical	38.4	46.0	83.2	200

Remarks:

Calculated measurement uncertainty (9kHz - 30MHz): 2.0dB

(30MHz – 1GHz): 4.9dB (1GHz - 26GHz): 4.0dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.



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3.1.2 AC Mains Conducted Emissions (0.15MHz to 30MHz)

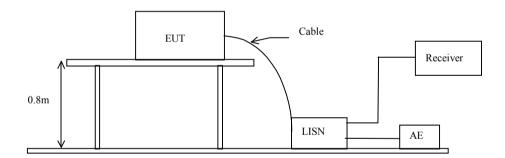
FCC 47CFR 15.207 Test Requirement: Test Method: ANSI C63.10:2013

2015-10-19 Test Date: Mode of Operation: TX mode Test Voltage: 120Va.c. 60Hz

Test Method:

The test was performed in accordance with ANSI C63.4: 2009, with the following: an initial measurement was performed in peak and average detection mode on the live line, any emissions recorded within 30dB of the relevant limit line were re-measured using quasi-peak and average detection on the live and neutral lines with the worst case recorded in the table of results.

Test Setup:





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Limit for Conducted Emissions (FCC 47 CFR 15.207):

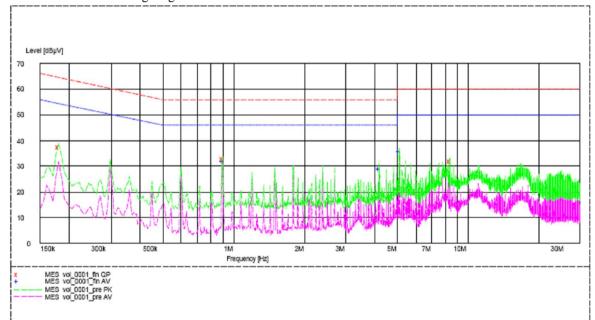
Frequency Range	Quasi-Peak Limits	Average
[MHz]	[dBµV]	[dBµV]
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

^{*} Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Result of TX mode(USB connected to PC, PC mains) (L): PASS

Please refer to the following diagram for individual results.



		Quasi-peak		Ave	rage
Conductor	Frequency	Level	Limit	Level	Limit
Live or Neutral	MHz	dΒμV	dΒμV	dΒμV	dΒμV
Live	0.900	32.0	46.0	_*_	_*_
Live	4.195	28.8	46.0	_*_	_*_
Live	5.095	35.9	50.0	_*_	_*_
Live	0.180	_*_	_*_	37.3	65.0
Live	0.900	_*_	_*_	33.0	56.0
Live	8.395	-*-	_*_	32.2	60.0



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Limit for Conducted Emissions (FCC 47 CFR 15.207):

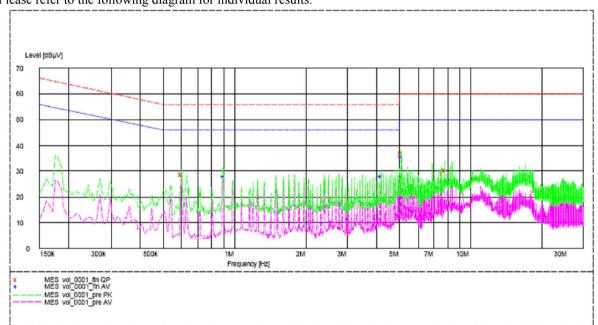
Frequency Range	Quasi-Peak Limits	Average
[MHz]	[dBµV]	[dBµV]
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

^{*} Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Result of TX mode(USB connected to PC, PC mains) (N): PASS

Please refer to the following diagram for individual results.



		Quasi-peak		Ave	rage
Conductor	Frequency	Level	Limit	Level	Limit
Live or Neutral	MHz	dΒμV	dΒμV	dΒμV	dΒμV
Neutral	0.900	28.3	46.0	_*_	_*_
Neutral	4.195	28.4	46.0	_*_	_*_
Neutral	5.095	35.6	50.0	_*_	_*_
Neutral	0.600	_*_	_*_	28.5	56.0
Neutral	5.095	_*_	_*_	36.8	60.0
Neutral	7.790	_*_	_*_	30.5	60.0

Remarks:

Calculated measurement uncertainty (0.15MHz - 30MHz): 3.2dB

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^{-*-} Emission(s) that is far below the corresponding limit line.



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3.2 20dB Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.249 Test Method: ANSI C63.10: 2013

Test Date: 2015-10-17 Mode of Operation: Tx mode

Test Method:

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

Test Setup:

As Test Setup of clause 3.1.1 in this test report.



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Limits for 20dB Bandwidth of Fundamental Emission (Low Frequency Channel):

Frequency Range	20dB Bandwidth
[MHz]	[MHz]
2404	2.19

20dB Bandwidth of Fundamental Emission *RBW 100 kHz Marker 1 [T1] * VBW 300 kHz 55.36 dBµV *Att 10 dB SWT 2.5 ms 2.402940000 GHz Ref 87 dBµV Delta [T1] 2 1900000000 MHz A 1 PK Maxh 3DB 500 kHz/ Span 5 MHz Center 2.404 GHz

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Limits for 20dB Bandwidth of Fundamental Emission (Middle Frequency Channel):

Frequency Range	20dB Bandwidth
[MHz]	[MHz]
2442	2.18

20dB Bandwidth of Fundamental Emission *RBW 100 kHz Marker 1 [T1] * VBW 300 kHz 54.42 dBµV SWT 2.5 ms 2.440950000 GHz Ref 87 dBµV *Att 10 dB Delta [T1 2.1800000000 MHz 1 PK MAXH PS 3DB AC 500 kHz/ Span 5 MHz Center 2.442 GHz

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Limits for 20dB Bandwidth of Fundamental Emission (High Frequency Channel):

Frequency Range	20dB Bandwidth
[MHz]	[MHz]
2480	2.18

20dB Bandwidth of Fundamental Emission *RBW 100 kHz Marker 1 [T1] * VBW 300 kHz 54.13 dBµV SWT 2.5 ms 2.478940000 GHz Ref 87 dBµV *Att 10 dB Delta [T1] 2.1800000000 MHz 1 PK MAXH PS 3DB AC 500 kHz/ Span 5 MHz Center 2.48 GHz

BMP

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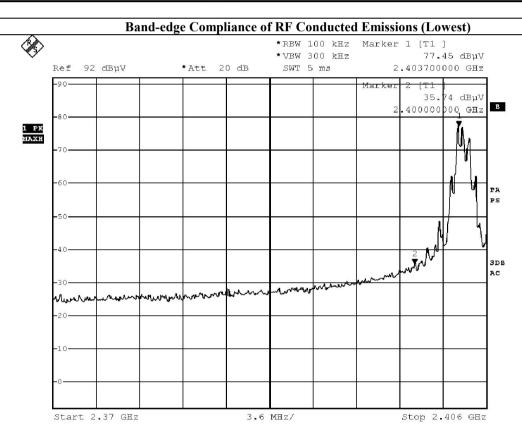
No. : MH191939

Band-edge Compliance of RF Conducted Emissions Measurement:

Limit:

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Frequency Range	Radiated Emission Attenuated below the Fundamental
[MHz]	[dB]
2400 – Lowest Fundamental (2404)	41.71



 BMP

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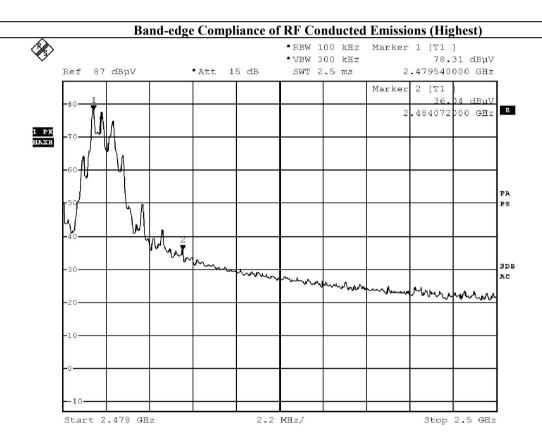


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Band-edge Compliance of RF Conducted Emissions Measurement:

Frequency Range [MHz]	Radiated Emission Attenuated below the Fundamental [dB]		
Highest Fundamental (2474) - 2480	42.27		



 ${\rm BMP}$

Date: 17.0CT.2015 09:36:28



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Band-edge Compliance of RF Radiated Emissions Measurement:

Limit:

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Result: Band-edge Compliance of RF Radiated Emissions (Lowest)

Field Strength of Band-edge Compliance						
	Peak Value					
Frequency	Measured	Correction	Field	Limit	Margin	E-Field
	Level @3m Factor Strength @3m Polarity					
MHz	dΒμV	dB/m	$dB\mu V/m$	$dB\mu V/m$	dBμV/m	
2390.0	8.3	36.8	45.1	74.0	28.9	Vertical

Field Strength of Band-edge Compliance						
	Average Value					
Frequency	Measured	Correction	Field	Limit	Margin	E-Field
	Level @3m Factor Strength @3m Polarity					Polarity
MHz	dΒμV	dB/m	$dB\mu V/m$	$dB\mu V/m$	$dB\mu V/m$	
2390.0	0.1	36.8	36.9	54.0	17.1	Vertical

Result: Band-edge Compliance of RF Radiated Emissions (Highest)

Field Strength of Band-edge Compliance						
	Peak Value					
Frequency	Measured	Correction	Field	Limit	Margin	E-Field
	Level @3m Factor Strength @3m Polarity					
MHz	dΒμV	dB/m	$dB\mu V/m$	$dB\mu V/m$	dBμV/m	
2483.5	9.8	36.4	46.2	74.0	27.8	Horizontal

Field Strength of Band-edge Compliance						
	Average Value					
Frequency	Measured	Correction	Field	Limit	Margin	E-Field
	Level @3m Factor Strength @3m Polari				Polarity	
MHz	dΒμV	dB/m	$dB\mu V/m$	$dB\mu V/m$	$dB\mu V/m$	
2483.5	1.4	36.4	37.8	54.0	16.2	Horizontal



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Appendix A

List of Measurement Equipment

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM299	DOUBLE-RIDGED WAVEGUIDE HORN ANTENNA	ETS-LINDGREN	3115	00114120	2014/01/15	2016/01/25
EM300	PYRAMIDAL STANDARD GAIN HORN ANTENNA	ETS-LINDGREN	3160-09	00130130	2014/01/23	2016/01/23
EM215	MULTIDEVICE CONTROLLER	EMCO	2090	00024676	N/A	N/A
EM216	MINI MAST SYSTEM	EMCO	2075	00026842	N/A	N/A
EM217	ELECTRIC POWERED TURNTABLE	EMCO	2088	00029144	N/A	N/A
EM218	ANECHOIC CHAMBER	ETS-LINDGREN	FACT-3		2014/09/29	2016/09/29
EM320	BICONILOG ANTENNA	ETS-LINDGREN	3142D	00094856	2014/08/06	2016/08/06
EM022	LOOP ANTENNA	EMCO	6502	1189-2424	2014/01/15	2016/01/15
EM229	EMI TEST RECEIVER	R&S	ESIB40	100248	2015/06/01	2016/06/01
EM527	MICROWAVE FREQUENCY CABLE	SUHNER	SUCOFLEX 102	24514	2014/08/26	2016/08/26
EM528	MICROWAVE FREQUENCY CABLE	SUHNER	SUCOFLEX 102	24515	2014/08/26	2016/08/26

Remarks:-

N/A Not Applicable or Not Available



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Appendix B

Ancillary Equipment

ITEM NO.	DESCRIPTION	MODEL NO.	FCC ID	REMARK
1	DELL COMPUTER	DMC	N/A	N/A
2	DELL MONITOR	E177FPB	ARSCM356N	RESOLUTION 1024*768 (DURING TESTING) 1.0M UNSHIEDED POWER VORD CONNECTED TO THE COMPUTER 1.5M SHIELDED CABLE CONNECTED TO THE COMPUTER
3	KEYBOARD	CK82B-RF	N/A	N/A
4	LENOVO MOUSE	M-U0025-O		1.8M UNSHIEDED CABLE CONNECTED TO THE COMPUTER S/N: LZ150AL1L7T
5	LASER PRINTER	HP LASERJET 1020 PLUS	N/A	1.8M UNSHIELDED POWER CORD 2.8M SHIELDED CABLE (BUNDLED TO 1M) CONNECTED TO THE COMPUTER



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Appendix C

Photographs of EUT

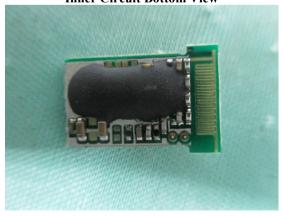
Front View of the product



Inside View of the product



Inner Circuit Bottom View



Rear View of the product



Inner Circuit Top View

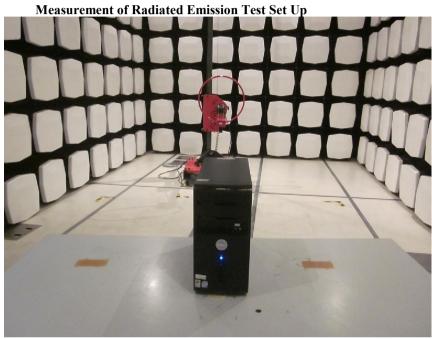


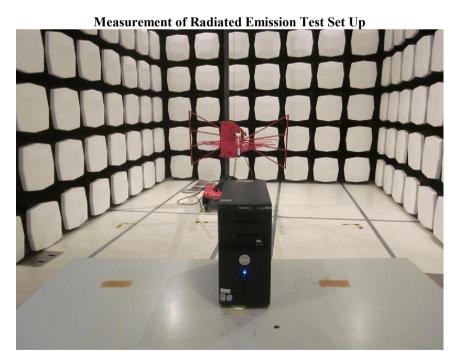


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Photographs of EUT







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Photographs of EUT



Measurement of Conducted Emission Test Set Up



***** End of Test Report *****

The Hong Kong Standards and Testing Centre Limited
10 Dai Wang Street, Taipo Industrial Estate, Tai Po, N.T., Hong Kong



Conditions of Issuance of Test Reports

- 1. All samples and goods are accepted by The Hong Kong Standards & Testing Centre Limited (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The Company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the "Clients").
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- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. The Report refers only to the sample tested and does not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
- 5. In the event of the improper use the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 6. Sample submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 7. The Company will not be liable for or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 8. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 9. Subject to the variable length of retention time for test data and report stored hereinto as to otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of this test report for a period of three years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after the retention period. Under no circumstances shall we be liable for damages of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.
- 10. Issuance records of the Report are available on the internet at www.stc-group.org. Further enquiry of validity or verification of the Reports should be addressed to the Company.