

FCC - TEST REPORT

Report Number : **60.790.17.033.01E01** Date of Issue : September 8, 2017

Model : **THIM0290**

Product Type : **USB Bluetooth Monitoring Device**

Applicant : Dayton Industrial Co., Ltd.

Address : 2-12 Kwai Fat Road, 11-A Kwai Chung, New Territories, Hong Kong

Production Facility : KENDY ENTERPRISE LTD

Address : 2-12 Kwai Fat Road, 11-A Kwai Chung, New Territories, Hong Kong

Test Result : **Positive** **Negative**

Total pages including Appendices : 18

TÜV SÜD HONG KONG LTD. is a subcontractor to TÜV SÜD Product Service GmbH according to the principles outlined in ISO 17025. TÜV SÜD HONG KONG LTD. reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations TÜV SÜD HONG KONG LTD. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD HONG KONG LTD. issued reports. This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.

1 Table of Contents

1 Table of Contents.....	2
2 Description of Equipment Under Test	3
3 Summary of Test Standards	4
4 Details about the Test Laboratory	5
4.1 Test Equipment Site List	6
4.2 Measurement System Uncertainty	7
5 Summary of Test Results.....	8
6 General Remarks.....	9
7 Emission Test Results	10
7.1 Radiated Emission.....	10
7.2 Conducted Emission.....	12
8 Appendix A - Photographs of EUT.....	14
9 Appendix B - Setup Photographs of EUT.....	18

2 Description of Equipment Under Test

Description of the Equipment Under Test

Product: USB Bluetooth Monitoring Device

Model no.: THIM0290

Rating:

1. 3.7VDC (1 x 3.7VDC rechargeable battery)
2. 5.0VDC (USB port)



3 Summary of Test Standards

Test Standards

FCC Part 15 Subpart B 10-1-16 Edition Federal Communications Commission, PART 15 — Radio Frequency Devices, Subpart B — Unintentional Radiators

4 Details about the Test Laboratory

Site 1

Company name: TÜV SÜD Hong Kong Ltd.
3/F, West Wing, Lakeside 2,
10 Science Park West Avenue,
Science Park, Shatin, Hong Kong

Site 2

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13 Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2,
Shenzhen 518052, P.R.China
FCC Registration Number: 502708

Emission Tests	
Test Item	Test Site
FCC Part 15 Subpart B	
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	Site 2
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	NIL

4.1 Test Equipment Site List

Radiated emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2018-7-14
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2018-7-14
Horn Antenna	Rohde & Schwarz	HF907	102294	2018-7-14
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2018-7-14
Signal Generator	Rohde & Schwarz	SMY01	839369/005	2018-7-7
Attenuator	Agilent	8491A	MY39264334	2018-7-7
3m Semi-anechoic chamber	TDK	9X6X6	----	2020-7-7
Test software	Rohde & Schwarz	EMC32	Version 9.15.00	N/A

Conducted Emission Test – Site 2

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	2018-7-14
LISN	Rohde & Schwarz	ENV4200	100249	2018-7-14
LISN	Rohde & Schwarz	ENV432	101318	2018-7-14
LISN	Rohde & Schwarz	ENV216	100326	2018-7-14
ISN	Rohde & Schwarz	ENY81	100177	2018-7-14
ISN	Rohde & Schwarz	ENY81-CA6	101664	2018-7-14
High Voltage Probe	Rohde & Schwarz	TK9420(VT9420)	9420-584	2018-7-14
RF Current Probe	Rohde & Schwarz	EZ-17	100816	2018-7-14
Attenuator	Shanghai Huaxiang	TS2-26-3	080928189	2018-7-7
Test software	Rohde & Schwarz	EMC32	Version9.15.00	N/A

4.2 Measurement System Uncertainty

Measurement System Uncertainty Emissions

System Measurement Uncertainty	
Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Conducted Emission 150kHz-30MHz	3.50dB

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
FCC Title 47 Part 15.109 Radiated Emission 30MHz-1000MHz	10-11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FCC Title 47 Part 15.107 Conduct Emission 150kHz-30MHz	12-13	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 General Remarks

Remarks

NIL

SUMMARY:

- All tests according to the regulations cited on page 5 were

- Performed

- **Not** Performed

- The Equipment Under Test

- **Fulfills** the general approval requirements.

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

Sample Received Date: July 18, 2017

Testing Start Date: July 19, 2017

Testing End Date: August 31, 2017

- TÜV SÜD HONG KONG LTD. -

Reviewed by:



CHAN Kwong Ngai
EMC Test Engineer



Prepared by:



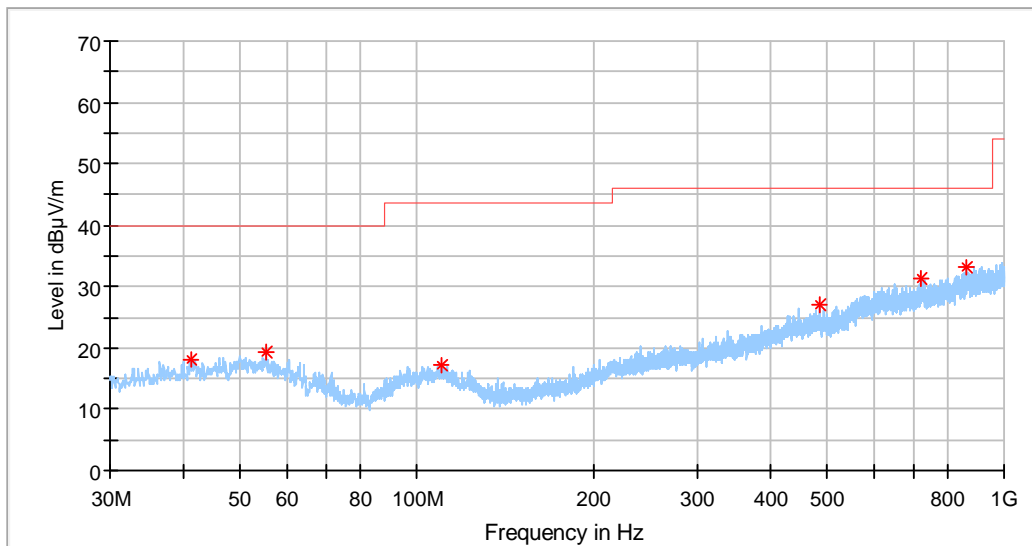
Alex CHAN
EMC Project Engineer

7 Emission Test Results

7.1 Radiated Emission

EUT: THIM0290
 Op Condition: Charging
 Test Specification: Antenna: Horizontal
 Comment: 120VAC, 60Hz (For external adaptor)

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

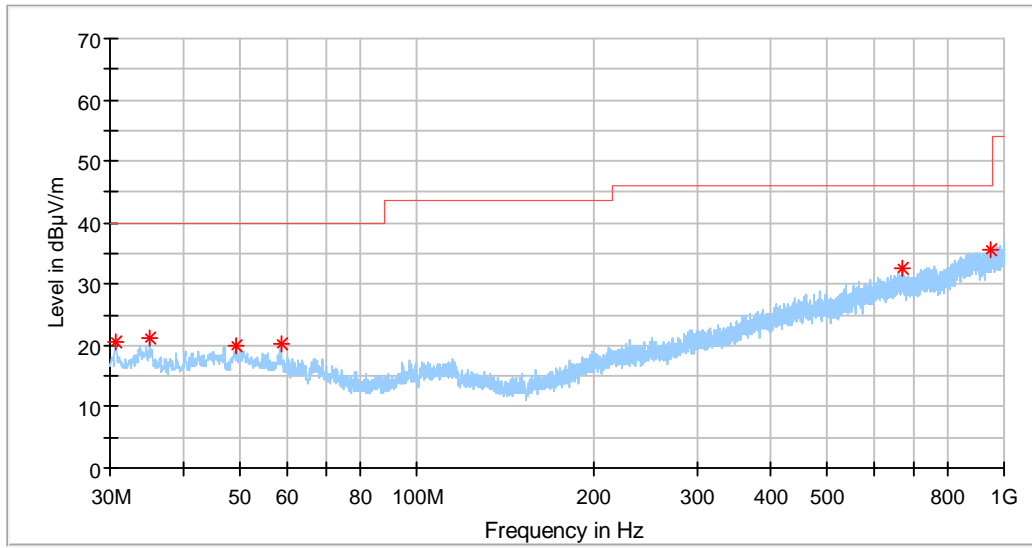


Frequency MHz	QP dBµV/m	Limit dBµV/m	Margin dB
41.094	18.13	40.00	-21.87
55.341	19.20	40.00	-20.80
109.721	17.19	43.50	-26.31
486.081	26.90	46.00	-19.10
722.337	31.34	46.00	-14.66
865.351	33.22	46.00	-12.78

Radiated Emission

EUT: THIM0290
 Op Condition: Normal Link
 Test Specification: Antenna: Vertical
 Comment: 120VAC, 60Hz (For external adaptor)

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

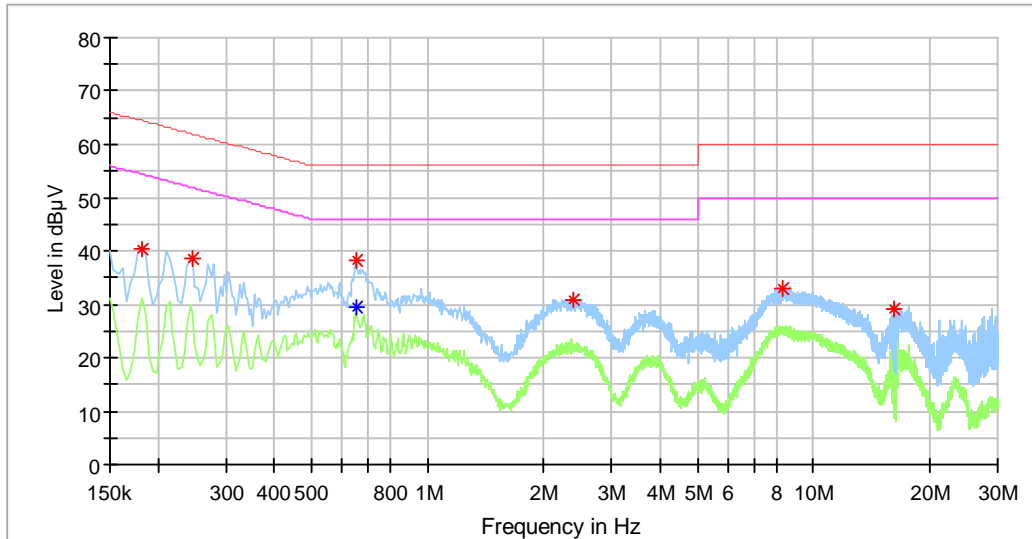


Frequency MHz	QP dBµV/m	Limit dBµV/m	Margin dB
30.528	20.50	40.00	-19.50
35.123	21.32	40.00	-18.68
49.430	19.86	40.00	-20.14
58.692	20.32	40.00	-19.68
671.508	32.47	46.00	-13.53
948.885	35.63	46.00	-10.37

7.2 Conducted Emission

EUT: THIM0290
 Op Condition: Charging
 Test Specification: AC Mains, N Line
 Comment: 120VAC, 60Hz (For external adaptor)

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

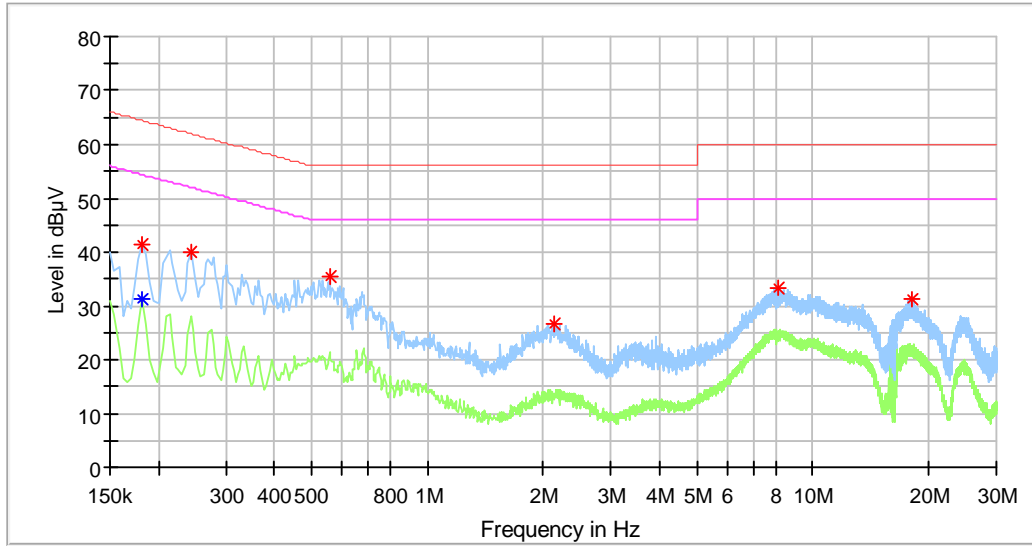


Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.182000	40.21	---	64.39	-24.18
0.246000	38.74	---	61.89	-23.15
0.654000	---	29.30	46.00	-16.70
0.654000	38.23	---	56.00	-17.77
2.394000	30.80	---	56.00	-25.20
8.286000	32.82	---	60.00	-27.18
16.210000	29.18	---	60.00	-30.82

Conducted Emission

EUT: THIM0290
 Op Condition: Charging
 Test Specification: AC Mains, L Line
 Comment: 120VAC, 60Hz (For external adaptor)

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



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)
0.182000	41.30	---	64.39	-23.10
0.182000	---	31.10	54.39	-23.29
0.242000	40.13	---	62.03	-21.90
0.558000	35.54	---	56.00	-20.46
2.122000	26.77	---	56.00	-29.23
8.138000	33.44	---	60.00	-26.56
18.002000	31.09	---	60.00	28.91

8 Appendix A - Photographs of EUT



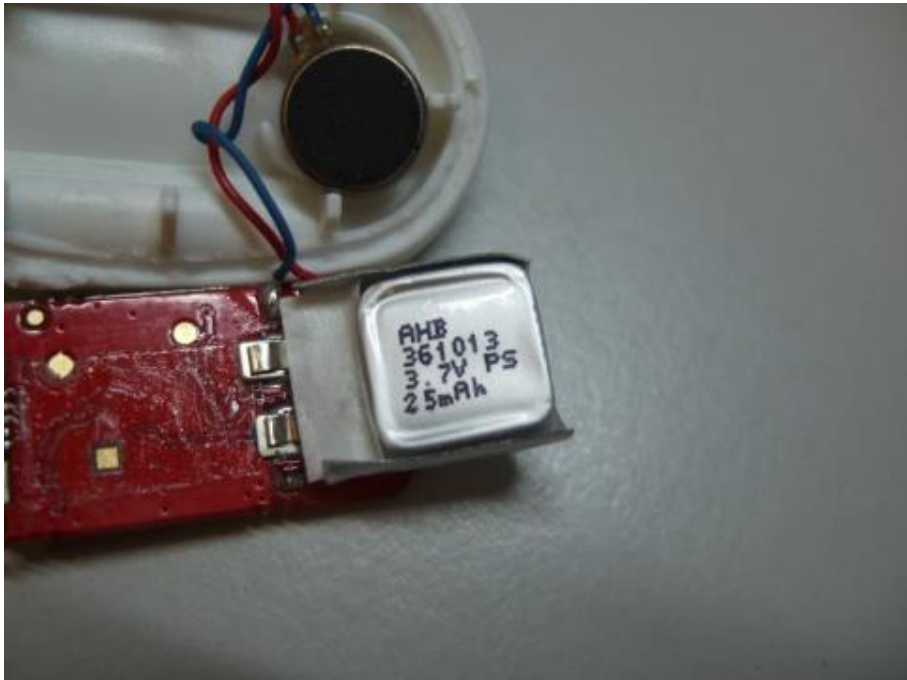
Appendix A



Appendix A



Appendix A



9 Appendix B - Setup Photographs of EUT

Radiated Emission



Conducted Emission

