

Test report No. : 12734012Y-B-R2
Page : 1 of 20
FCC ID : ZQDPCKCA110
Issued date : March 20, 2019

EMI TEST REPORT

Test Report No.: 12734012Y-B-R2

Applicant: Hitachi, Ltd. Service Platform Business Division Group

Type of Equipment: USB Finger Vein Biometric Scanner

Model No.: PC-KCA110

FCC ID: ZQDPCKCA110

Test regulation: FCC Part 15 Subpart B:2018 Class B

ICES-003 Issue 6 + Amendment 1 Class B (SMSE-015-16)

For permissive change

Test result: Complied (Refer to Section 3.2)

- 1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
- 2. The results in this report apply only to the sample tested.
- 3. This sample tested is in compliance with the limits of the above regulation.
- 4. The test results in this test report are traceable to the national or international standards.
- 5. This test report covers EMC technical requirements. It does not cover administrative issues such as Manual or non-EMC test related Requirements. (if applicable)
- 6. The all test items in this test report are conducted by UL Japan, Inc. Yokowa EMC Lab.
- 7. This test report must not be used by the customer to claim product certification, approval, or endorsement by any agency of the Federal Government.
- 8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
- 9. The information provided from the customer for this report is identified in Section 1.
- 10. This report is a revised version of 12734012Y-B-R1. 12734012Y-B-R1 is replaced with this report.

Representative test engineer:

Seigo Kakehi
Engineer
Consumer Technology Division

Makoto Toyoda
Leader
Consumer Technology Division

lac-MRA



L		The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan.
\triangleright	\langle	There is no testing item of "Non-accreditation".

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Test report No. : 12734012Y-B-R2
Page : 2 of 20
ECC ID

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

REVISION HISTORY

Original Test Report No.: 12734012Y-B

Revision	Test report No.	Date	Page revised	Contents
-	12734012Y-B	February 27,	- age revised	-
(Original)	12/010121 19	2019		
1	12734012Y-B-R1	March 19, 2019	P.16, 17	Correction of calculation; CALCULATION:RESULT = READING+ANT FACTOR+ LOSS(CABLE+ATTEN.(ATTEN: Below 1GHz only)) - GAIN(AMP)+ANSI C63.5 ΔAF
				CALCULATION:RESULT = READING+ANT.Fac.+ LOSS(CABLE+ATTEN(Below 1GHz only)) - GAIN(AMP)+S.Fac(ANSI C63.5_\Delta AF)
1	12734012Y-B-R1	March 19, 2019	P.19, 20	Deletion of radiated emission data (above 1 GHz)
2	12734012Y-B-R2	March 20, 2019	P.8	Addition of standard ferrite core in the configuration

108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Page : 3 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

CONTENTS

		PAGE
Section 1: Custon	ner information	4
Section 2: Equipm	nent under test (E.U.T.)	4
Section 3: Test sp	ecification, procedures and results	5
Section 4: Operat	ion of E.U.T. during testing	8
Section 5: Conduc	eted emission	9
Section 6: Radiate	ed emission	10
Appendix 1: Phot	ographs of test setup	11
	n of EMI test nducted emission diated emission	13
Appendix 3: Tes	t Instruments	18

108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Test report No. : 12734012Y-B-R2 Page : 4 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

Section 1: Customer information

Company Name : Hitachi, Ltd. Service Platform Business Division Group

Address : Hitachi Omori 2nd Bldg., 27-18, Minami-Oi 6-Chome,

Shinagawa-ku, Tokyo, 140-8572 Japan

Telephone Number : +81-3-5471-2265

Facsimile Number : +81-3-5471-2582

Contact Person : Keiji Kitane

The information provided from the customer is as follows;

- Applicant, Type of Equipment, Model No. on the cover and other relevant pages
- Section 1: Customer information
- Section 2: Equipment under test (E.U.T.)
- Section 4: Operation of E.U.T. during testing

Section 2: Equipment under test (E.U.T.)

2. 1 Identification of E.U.T.

Type of equipment : USB Finger Vein Biometric Scanner

Model No. : PC-KCA110

Serial No. : Refer to Clause 4.2

Rating : DC 5.0 V / 0.5 A

Country of Mass-production : Japan

Condition of EUT : Engineering prototype

(Not for Sale: This sample is equivalent to mass-produced items.)

Size : 52 x 64 x 17 (Width x Depth x Height (mm))

February 12, 2019

Receipt Date of Sample

(Information from test lab.)

of Date of Sample

2. 2 Product description

Model: PC-KCA110 (referred to as the EUT in this report) is an USB Finger Vein Biometric Scanner.

The clock frequencies used in the EUT: 24 MHz (Xtal), 96 MHz

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108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

^{*} The laboratory is exempted from liability of any test results affected from the above information in Section 2 and 4.

Page : 5 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

Section 3: Test specification, procedures and results

3. 1 Test Specification

Test Specification : FCC Part 15 Subpart B

FCC Part 15 final revised on March 12, 2018 and effective April 11, 2018

Title : FCC 47CFR Part15 Radio Frequency Device

Subpart B Unintentional Radiators

Test Specification : ICES-003 Issue 6 + Amendment 1 (SMSE-015-16)
Title : Spectrum Management and Telecommunications

Interference-Causing Equipment Standard

Information Technology Equipment (Including Digital Apparatus) –

Limits and Methods of Measurement

3. 2 Procedures & results

Item	Test Procedure	Limits	Deviation	Worst margin	Result	Remarks
Conducted emission	ANSI C63.4: 2014	Class B	N/A	19.53 dB	Complied	-
	7. AC powerline			(0.15000 MHz, QP,	a)	
	conducted emission			L)		
	measurements					
Radiated emission	ANSI C63.4: 2014	Class B	N/A	10.49 dB	Complied	*1)
	8. Radiated			(479.997 MHz,	b)	
	emission measurements			Horizontal)		

^{*1)} Measurements were limited up to 1GHz since the highest frequency of internal source of the EUT is less than 108 MHz.

Note: UL Japan's EMI Work Procedures No. 13-EM-W0420

- a) Refer to Appendix 2 (data of Conducted disturbance)
- b) Refer to Appendix 2 (data of Radiated disturbance)

Symbols:

Complied The data of this test item has enough margin, more than the measurement uncertainty.

Complied# The data of this test item meets the limits unless the measurement uncertainty is taken into consideration.

3.3 Addition to standard

No addition, exclusion nor deviation has been made from the standard.

3.4 Confirmation

UL Japan, Inc. hereby confirms that E.U.T., in the configuration tested, complies with the specifications FCC Part 15 Subpart B:2018 Class B and ICES-003 Issue 6 + Amendment 1 Class B (SMSE-015-16).

UL Japan, Inc. Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Page : 6 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

3.5 Uncertainty

EMI

There is no applicable rule of uncertainty in this applied standard. Therefore, the following results are derived depending on whether or not laboratory uncertainty is applied.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor k = 2.

		Open area test site Shielded room						Ucispr (±)	
	No.1	Į.	No.2	No.3	No.1	No.2	No.3	No.7	
	(±)		(±)	(±)	(±)	(±)	(±)	(±)	
Conducted disturbance			•	•	•	•	-	-	
LISN (AMN) 9 kHz - 15			3	3.8 dB					3.8 dB
150 kHz - 3 MF	60		3	3.4 dB					3.4 dB
ISN (LCL= 55 dB - 40 dB) 150 kHz - 3	60		4	1.2 dB					5.0 dB
ISN (LCL= 65 dB - 50 dB) 150 kHz - 3	60	4.6 dB							5.0 dB
ISN (LCL= 75 dB - 60 dB) 150 kHz - 3	60		5	5.0 dB					5.0 dB
ISN (Screened) 150 kHz - 3	60		3	3.4 dB					5.0 dB
ISN (75 ohm) 150 kHz - 3	60		3	3.4 dB					5.0 dB
Current probe 150 kHz - 3	60		2	2.9 dB					2.9 dB
Capacitive Voltage Probe 150 kHz - 3	60		3	3.8 dB					3.9 dB
Voltage probe 150 kHz - 3	60		2	2.9 dB					2.9 dB
Radiated disturbance									
3 m 9 kHz - 30 MF	Iz 3.3 d	В	3.4 dB	3.4 dB	-	-	-	-	Not Defined
30 MHz - 200 MF (Horizonta	460	В	4.5 dB	4.7 dB	-	-	-	-	6.3 dB
30 MHz - 200 MF (Vertica	47d	В	4.7 dB	4.9 dB	-	-	-	-	6.3 dB
200 MHz - 1000 MF	Iz 40.4	В	5.2 dB	5.2 dB	_	_	_	_	6.3 dB
(Horizonta 200 MHz - 1000 MF	[2	_							
(Vertica	6.1 d	В	6.2 dB	6.2 dB	-	-	-	-	6.3 dB
1 GHz - 6 GF	Iz	4.9 d	В		-	-	-	-	5.2 dB
6 GHz - 18 GF	Iz	5.2 d	В		-	-	-	-	5.5 dB
10 m 9 kHz - 30 MF		3.3	dB	3.2 dB	-	-	-	-	Not Defined
30 MHz - 200 MF (Horizonta	4.6 dB	4.5	dB	4.7 dB	-	-	-	-	6.3 dB
30 MHz - 200 MF (Vertica	Iz 45dB	4.5	dB	4.8 dB	-	-	-	-	6.3 dB
200 MHz - 1000 MF	Íz 47 dB	4 9	dB	4.9 dB	_	_	_	_	6.3 dB
(Horizonta 200 MHz - 1000 MH	Iz 47dB		dB	5.0 dB		_	_	_	6.3 dB
(Vertica 1 GHz - 18 GH	1)	5.1 d		J.0 u.b	-	-	-	-	Not Defined
Antenna terminal voltage		2.1 4	_						1 St Delinou
30 MHz - 1000 MHz			3	3.8 dB					Not Defined
1 GHz - 2.15 GHz				3.9 dB					Not Defined
1 GHZ - 2.17 GHZ			-	,, uD					140t Defined

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108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Page : 7 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

3. 6 Test Location

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Telephone : +81 596 24 8750 Facsimile : +81 596 39 0232

FCC Test Firm Registration Number: 788329

	IC Registration	Width x Depth x	Size of	Other
	Number	Height (m)	reference ground plane (m) /	rooms
			horizontal conducting plane	
No.1 open area test site	2973A-1	-	40 x 20	-
No.2 open area test site	2973A-2	-	20 x 18	-
No.3 open area test site	2973A-3	-	20 x 18	-
No.1 shielded room	-	5.5 x 6.4 x 2.7	5.5 x 6.4	-
No.2 shielded room	-	4.5 x 3.6 x 2.7	4.5 x 3.6	-
No.3 shielded room	-	3.6 x 7.2 x 2.4	3.6 x 7.2	-
No.4 shielded room	-	5.5 x 5.0 x 2.4	4.35 x 3.35	-
No.5 shielded room	-	5.5 x 4.3 x 2.5	5.54 x 3.0	-
No.6 shielded room	-	5.2 x 3.2 x 2.9	5.2 x 3.2	-
No.7 shielded room	-	9.3 x 3.4 x 2.7	9.3 x 3.4	-
No.1 EMS lab.	-	5.0 x 8.0 x 3.5	-	-
(Full-anechoic chamber)				
No.2 EMS lab.	-	4.0 x 7.0 x 3.5	-	-
(Full-anechoic chamber)				

3. 7 Test setup, Data of EMI & Test instruments

Refer to Appendix 1 to 3.

108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Test report No. : 12734012Y-B-R2 Page : 8 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

Section 4: Operation of E.U.T. during testing

4. 1 Operating modes

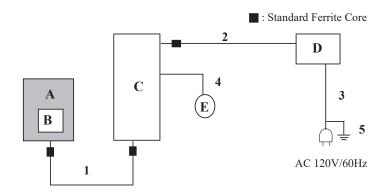
The EUT exercise program used during testing was designed to exercise the various system components in a manner similar to typical use.

Test sequence is used: 1. USB Communication

2. Standby (Conducted emission test only)

Justification: The system was configured in typical fashion (as a customer would normally use it) for testing.

4. 2 Configuration and peripherals



^{*}Cabling and setup were taken into consideration and test data was taken under worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID	Remark
A	USB Finger Vein	PC-KCA110	9999014	Hitachi, Ltd.	ZQDPCKCA110	EUT
	Biometric Scanner			Service Platform		
				Business Division		
				Group		
В	Scan Jig	-	-	Hitachi, Ltd.	N/A	-
				Service Platform		
				Business Division		
				Group		
C	Note PC	80KU	P200GP2L	Lenovo	DoC	-
D	AC Adapter	ADLX45NCC3A	8S5A10H03912	Lenovo	DoC	-
			C1SG5BT0EEL			
E	Mouse	MSU1175	3C193C4415B	Lenovo	DoC	-

List of cables used

No.	Name	Length (m)	Cable Shield	Connector Shield	Remark
1	USB Cable	1.8	Shielded	Shielded	-
2	DC Power Cable	1.5	Unshielded	Unshielded	-
3	AC Power Cable	0.9	Unshielded	Unshielded	3 wires
4	USB Cable	1.8	Shielded	Shielded	-
5	Earth Cable	0.1	Unshielded	Unshielded	-

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108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Page : 9 of 20

FCC ID : ZQDPCKCA110 Issued date : March 20, 2019

Section 5: Conducted emission

5. 1 Operating environment

The test was carried out in shielded room.

Temperature : See data

Humidity : See data

5. 2 Test configuration

EUT was placed on a wooden platform of nominal size, 1 m by 1.8 m raised 80 cm above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT and its peripherals was aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80 cm from any other grounded conducting surface.

EUT was located 80 cm from the LISN and excess AC cable was bundled in center. I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle and were hanged at a 40 cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN to the input power source. All unused 50 ohm connectors of the LISN were resistively terminated in 50 ohm when not connected to the measuring equipment.

Photographs of the set up are shown in Appendix 1.

5. 3 Test conditions

Frequency range : 0.15 MHz - 30 MHz

EUT position : Table top

5. 4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage had been measured with the EUT in shielded room.

The EUT was connected to a Line Impedance Stabilization Network (LISN).

An overview sweep with peak detection has been performed.

The measurements had been performed with a quasi-peak detector and if required, with an average detector.

The conducted emission measurements were made with the following detector function of the test receiver.

Detector Type : QP / CAV IF Band width : 9 kHz / 9 kHz

5. 5 Results

Summary of the test results: Pass

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108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

Test report No. : 12734012Y-B-R2
Page : 10 of 20
FCC ID : ZQDPCKCA110
Issued date : March 20, 2019

Section 6: Radiated emission

6. 1 Operating environment

This test was carried out in open area test site.

Temperature : See data Humidity : See data

6. 2 Test configuration

EUT was placed on a table which was consisted by polystyrene foam, polypropylene foam and polycarbonate of nominal size, 1 m by 1.5 m, raised 0.8 m above the conducting ground plane.

The rear of EUT and its peripherals was aligned and flushed with rear of tabletop.

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle and were hanged 40 cm height to the ground plane. The measurements were performed for vertical or horizontal antenna polarization or both as necessary. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

Photographs of the set up are shown in Appendix 1.

6. 3 Test conditions

Frequency range : 30 MHz - 1000 MHz

Test distance : 3 m EUT position : Table top

6. 4 Test procedure

The Radiated Electric Field Strength intensity has been measured on an open test site with a ground plane at a distance of 3 m*. (30 MHz – 1000 MHz)

* Measuring distance

The boundary of the EUT is defined by an imaginary circular periphery.

Pre check measurements were performed in shielded room with a search coil / horn antenna at 30 MHz - 1000 MHz to distinguish disturbances of EUT from the ambient noise.

Measurements were performed with quasi-peak detector, average detector and peak detector.

The measuring antenna height was varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for vertical or horizontal antenna polarization or both as necessary.

The radiated emission measurements were made with the following detector function of the test receiver and spectrum analyzer.

Frequency : 30 MHz-1000 MHz Instrument used : Test Receiver

Detector Type : QP IF Band width : 120 kHz

6.5 Results

Summary of the test results: Pass

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108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN

DATA OF CONDUCTED DISTURBANCE TEST

UL Japan, Inc. Yokowa EMC Lab. No. 2 Shielded Room

Date: 02/16/2019

Mode : 1. USB Communication

Report No. : 12734012Y-B

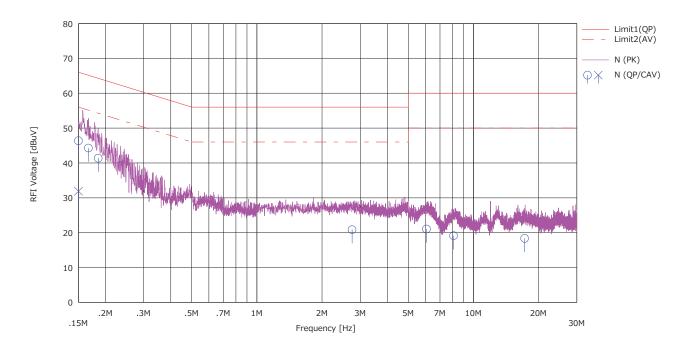
Power : DC 5 V /Adapter In (AC 120 V/ 60 Hz)

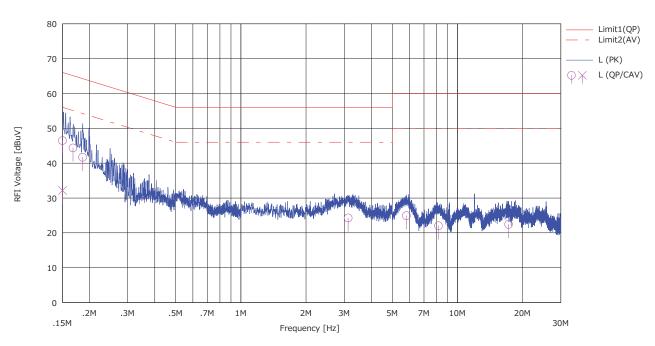
Temp. / Humi. : 15 deg. C / 41 % RH

Remarks : LS-12 LISN N Phase with Adapter_HP OFF(2018-10-17)

Limit: FCC Part 15 B CLASS B

Engineer : Seigo Kakehi





Test report No. 12734012Y-B-R2 Page 14 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

DATA OF CONDUCTED DISTURBANCE TEST

UL Japan, Inc. Yokowa EMC Lab. No. 2 Shielded Room

Date: 02/16/2019

Mode : 1. USB Communication

Report No. : 12734012Y-B

Power : DC 5 V /Adapter In (AC 120 V/ 60 Hz)

Temp. / Humi. : 15 deg. C / 41 % RH

Remarks : LS-12 LISN N Phase with Adapter_HP OFF(2018-10-17)

Limit: FCC Part 15 B CLASS B

Engineer : Seigo Kakehi

<< QP/CAV DATA >>

	- -		ıding			Res	sults	Lir	nit	Mai	rgin		
No.	Freq.	(QP)	(CAV)	LISN	LOSS	(QP)	(CAV)	(QP)	(AV)	(QP)	(AV)	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.15000		22.10	9.61	0.16	46.37		66.00	56.00	19.63	24.13	N	
2	0.16680	1		9.60	0.16	44.26	1	65.10	55.10	20.84		N	
3	0.18500	1 .	İ	9.60	0.16		1	64.30	54.30	22.94		Ν	
4	2.75350		1	9.62	0.32	20.84	1	56.00	46.00	35.16		N	
5	6.06712	1		9.67	0.45	21.02	1	60.00	50.00	38.98		N	
6	8.09750	1	l	9.71	0.50	19.11	1	60.00	50.00	40.89		N	
7	17.24000	1 1	1	9.85	0.68	18.33	1	60.00	50.00	41.67		N	
8	0.15000			9.61	0.16			66.00	56.00	19.53	23.83	L	
9	0.16768			9.60	0.16	44.36		65.10	55.10	20.74		L	
10	0.18588	1	l	9.60	0.16		1	64.20	54.20	22.54		L	
11	3.12943	1 .	1	9.62	0.34		1	56.00	46.00	31.74		L	
12	5.81700	1 .	1	9.67	0.44		1	60.00	50.00	35.09		L	
13	8.17650	1	i	9.71	0.50		1	60.00	50.00	37.99		L	
14	1	1 .	1	9.85	0.68		1	60.00	50.00	37.57		L	
14	17.23300	11.90		9.00	0.00	22.43		00.00	50.00	37.37		L	
										l			
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Test report No. 12734012Y-B-R2 Page 15 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

DATA OF CONDUCTED DISTURBANCE TEST

UL Japan, Inc. Yokowa EMC Lab. No. 2 Shielded Room

Date: 02/16/2019

Mode : 2. Standby Report No. : 12734012Y-B

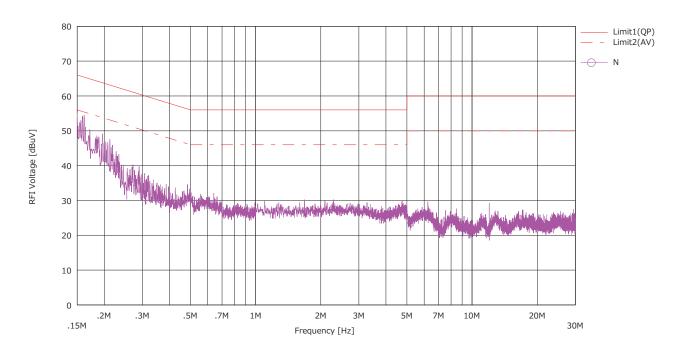
Power : DC 5 V /Adapter In (AC 120 V/ 60 Hz)

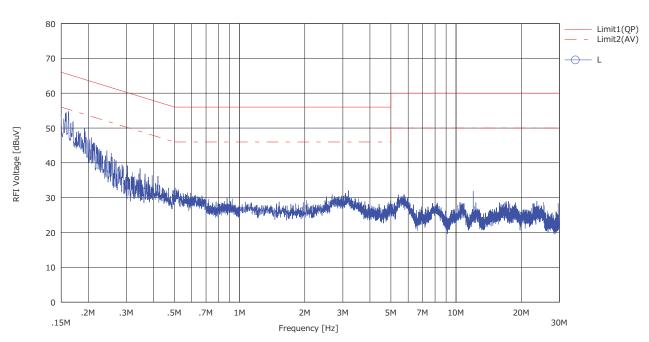
Temp. / Humi. : 15 deg. C / 41 % RH

Remarks : LS-12 LISN N Phase with Adapter_HP OFF(2018-10-17)

Limit: FCC Part 15 B CLASS B

Engineer : Seigo Kakehi





Test report No. 12734012Y-B-R2 Page 16 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

DATA OF RADIATED DISTURBANCE TEST

UL Japan, Inc. Yokowa EMC Lab. No. 2 Open area test site

Date: 02/16/2019

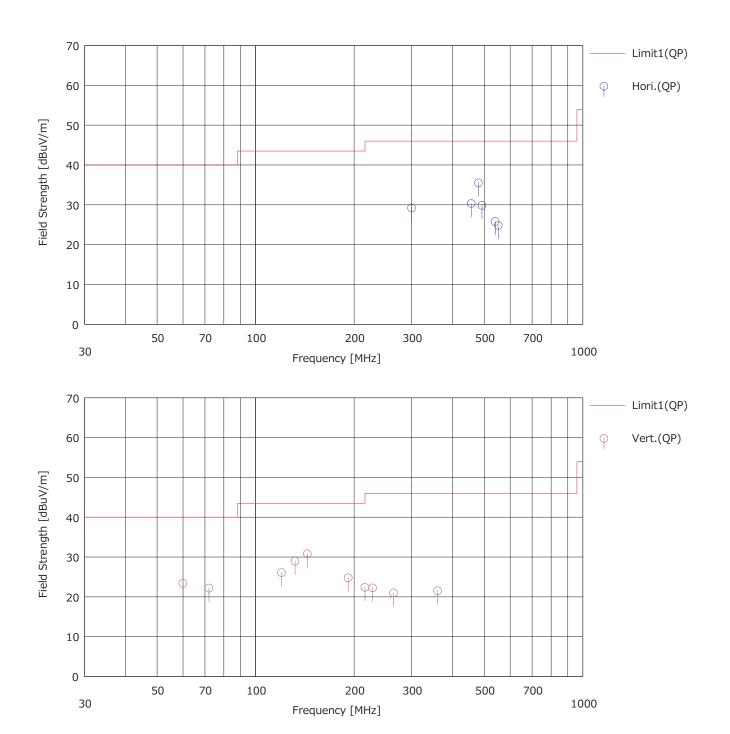
Mode : 1. USB Communication

Report No. : 12734012Y-B Power : DC 5 V

Temp. / Humi. : 17 deg. C / 40 % RH

Limit: FCC Part 15B CLASS B (3m)

Engineer : Seigo Kakehi



Test report No. 12734012Y-B-R2 Page 17 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

DATA OF RADIATED DISTURBANCE TEST

UL Japan, Inc. Yokowa EMC Lab. No. 2 Open area test site

Date: 02/16/2019

Mode : 1. USB Communication

Report No. : 12734012Y-B Power : DC 5 V

Temp. / Humi. : 17 deg. C / 40 % RH

Limit: FCC Part 15B CLASS B (3m)

Engineer : Seigo Kakehi

<< QP DATA >>

<	<< QP DATA >>												
Г	П	Freq.	Reading	Ant.Fac	Loop	Cain	S.Fac	Result	Limit	Margin	Pola		
N	lo.	Freq.	(QP)		Loss	Gain	S.Fac	(QP)	(QP)	(QP)		Ant. Type	Comment
		[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[H/V]	1,400	
	1	60.000	37.60	8.37	7.60	29.84	-0.37	23.36	40.00	16.64	Vert.	BA	
	2	72.000	37.80	6.55	7.76	29.82	-0.09	22.20	40.00	17.80	Vert.	BA	
	3	120.000	34.50	13.23	8.34	29.77	-0.20	26.10	43.50	17.40	Vert.	BA	
	4	131.999	36.00	14.36	8.47	29.76	-0.11	28.96	43.50	14.54	Vert.	BA	
	5	144.000	37.10	14.84	8.59	29.76	0.05	30.82	43.50	12.68	Vert.	BA	
	6	192.000	28.80	16.77	9.11	29.75	-0.13	24.80	43.50	18.70	Vert.	BA	
	7	216.000	34.70	11.08	6.36	29.77	0.00	22.37	43.50	21.13	Vert.	LA	
	8	228.000	34.20	11.35	6.48	29.78	0.00	22.25	46.00			LA	
	9	264.000	31.70	12.30	6.83	29.83	0.00	21.00	46.00	25.00	Vert.	LA	
	10	300.000	38.20	13.69	7.19	29.87	0.00	29.21	46.00	16.79	Hori.	LA	
	11	360.000	28.80	15.08	7.58	29.93	0.00	21.53	46.00		Vert.	LA	
	12	456.000	35.50	16.65	8.21	30.03	0.00	30.33	46.00	15.67	Hori.	LA	
	13	479.997	40.20	16.99	8.38	30.06	0.00	35.51	46.00		Hori.	LA	
	14	492.000	34.10	17.38	8.46	30.07	0.00	29.87	46.00	16.13	Hori.	LA	
	15	540.000	29.70	17.40	8.80	30.10	0.00	25.80	46.00			LA	
	16	552.000	28.20	17.86	8.88	30.11	0.00	24.83	46.00	21.17	Hori.	LA	
												1	
												1	
	- 1										1	1	

Test report No. 12734012Y-B-R2 Page 18 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

Test report No.: 12734012Y-B

APPENDIX 3

Test Instruments

*Hyphens for Last Calibration Date, Calibration Due Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test item

CE: Conducted disturbance RE: Radiated disturbance

Test Item	Local ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Due Date	Cal Int
CE RE	TR-12	EMI Test Receiver	Rohde & Schwarz	ESU 26	100413	2018/7/27	2019/7/31	12
CE RE	COTS- YW- EMI-TSJ	EMI measurement program	TSJ	TEPTO-DV	-	-	-	-
CE RE	DM-02	Tester	SANWA	PC500	7019227	2018/6/19	2019/6/30	12
CE RE	YJM-12	Measure	Rubber KOMBE	GW-3H99W	-	-	-	-
CE	CC-2S	Yokowa No.2 shield coaxial(0.01MHz- 1000MHz)	UL Japan	CC-25,CC-27,CC- 28,CC-29,SW- 21,SW-22	YS0201	2018/6/14	2019/6/30	12
CE	OS-15	Digital Humidity Indicator	SATO	PC-5000TRH	B-15	2018/4/17	2019/4/30	12
RE	SC-02	Search Coil	UL Japan	-	-	-	-	-
RE	OS-10	Digital Humidity Indicator	SATO	PC-5000TRH	B-10	2018/4/17	2019/4/30	12
CE(EUT)	LS-12	LISN (AMN)	Rohde & Schwarz	ENV216	101055	2018/10/17	2019/10/31	12
RE	AF-03	Pre Amplifier	ANRITSU	MH648A	M97457	2018/7/12	2019/7/31	12
RE	AT-02	Attenuator	ANRITSU	MP721A	6200239014	2018/7/26	2019/7/31	12
RE	AT-40	Attenuator	ANRITSU	MP721B	6201150481	2018/10/19	2019/10/31	12
RE	BA-12	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032273	2018/6/4	2019/6/30	12
RE	LA-15	Logperiodic Antenna	Schwarzbeck	VUSLP9111B	185	2018/5/31	2019/5/31	12
RE	CC- 2ORC	Yokowa No.2 open coaxial(0.01- 1000MHz)	UL Japan	CC-21,CC-22,CC- 23,CC-24,CC- 25,CC-27,SW- 21,SW	YO0201	2018/10/19	2019/10/31	12

Test report No. 12734012Y-B-R2 Page 20 of 20 FCC ID: ZQDPCKCA110 Issued date March 20, 2019

Test report No.: 12734012Y-B

Test Item	Local ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Due Date	Cal Int
RE	YOATS- 02(NSA)	Open area test site	JSE	3m、10m	2	2018/6/14	2019/6/30	12