FCC Test Report

FCC ID: QLEGUH326

Project No.	:	1402075B
Equipment	:	IOGEAR 6-Port Super Speed USB 3.0 Hub
Model Name	:	GUH326
Applicant	:	ATEN Technology, Inc., DBA IOGEAR
Address	:	19641 Da Vinci, Foothill Ranch, CA 92610

Date of Receipt	:	Apr. 12, 2016
Date of Test	:	Apr. 12, 2016 ~ Jun. 06, 2016
Issued Date	:	Sep. 14, 2016
Tested by	:	BTL Inc.

Testing Engineer : (Pike Lee)

Technical Manager : (Jeff Yang)

Authorized Signatory : (Andy Chiu)

BTL INC.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCE-1-1402075	Original report.	Feb. 25, 2014
BTL-FCCE-1-1402075A	Compared with the previous report (NEI-FCCE-1-1402075), 1. The standards are updated to the latest. 2. Added a Level 6 adapter (Powertron / PA1030-050IB500). In this test report only records the test results of the new adapter, the original adapters' test results please refer to original report.	Jun. 07, 2016
BTL-FCCE-1-1402075B	Added FCC ID: QLEGUH326	Sep. 14, 2016

1. CERTIFICATION

Equipment	:	IOGEAR 6-Port Super Speed USB 3.0 Hub
Brand Name	:	IOGEAR
Model Name	:	GUH326
Applicant	:	ATEN Technology, Inc., DBA IOGEAR
Manufacturer	:	ACTION STAR ENTERPRISE CO., LTD.
Address	:	10F., No. 159, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City, Taiwan 221, R.O.C.
Date of Test	:	Apr. 12, 2016 ~ Jun. 06, 2016
Test Sample	:	Engineering Sample
Standard(s)	:	FCC Part 15, Subpart B Class B ICES-003 Issue 6: 2016 Class B CAN/CSA-CISPR 22-10 Class B CISPR 22: 2008 Class B ANSI C63.4-2014

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCE-1-1402075B) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

Emission				
Standard(s)	Test Item	Limit	Judgment	Remark
FCC Part 15, Subpart B ICES-003 Issue 6: 2016 CAN/CSA-CISPR 22-10 CISPR 22: 2008	Conducted emission	Class B	PASS	
	Radiated emission Below 1 GHz	Class B	PASS	
	Radiated emission Above 1 GHz	Class B	PASS	NOTE (2)

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report.

(2) The EUT's max operating frequency is 5 GHz which exceeds 108MHz, so the test will be performed.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

Conducted emission Test:

C05: (VCCI RN: C-4742; FCC RN:965108; FCC DN:TW1082)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

Radiated emission Test (Below 1 GHz):

CB08: (VCCI RN: R-4259; FCC RN:965108; FCC DN:TW1082; IC Assigned Code:20088)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

Radiated emission Test (Above 1 GHz):

CB08: (VCCI RN: G-867; FCC RN:965108; FCC DN:TW1082; IC Assigned Code:20088)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty is not specified by FCC/ Industry Canada rules and for reference only.

The reported uncertainty of measurement **y** ± **U**, where expanded uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95**%.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

A. Conducted emission test:

Test Site	Method	Measurement Frequency Range	U,(dB)
C05	CISPR	150 kHz ~ 30 MHz	2.04

B. Radiated emission test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
CB08 (10m)	CISPR	30MHz ~ 200MHz	V	4.04
		30MHz ~ 200MHz	H	4.04
		200MHz ~ 1,000MHz	V	4.08
		200MHz ~ 1,000MHz	H	4.02

Test Site	Method	Measurement Frequency Range	U,(dB)
CB08 (3m)	CISPR	1 ~ 6 GHz	4.62
		6 ~18 GHz	4.88

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above.

These are our U_{lab} values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR}, as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz: 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz: 5.2 dB

It can be seen that our U_{lab} values are smaller than U_{CISPR}.

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	IOGEAR 6-Port Super Speed USB 3.0 Hub
Brand Name	IOGEAR
Model Name	GUH326
OEM Brand/Model Name	N/A
Model Difference	N/A
Power Source	DC Voltage supplied from External Power Supply. #1 Brand /Model name:Ktec / KSAH0500500W1US #2 Brand /Model name: Powertron / PA1030-050IB500(Level 6)
Power Rating	#1 I/P AC 100-240V 50/60Hz 1.2A O/P DC 5V 5.0A #2 I/P AC 100-240V 50/60Hz 0.8A O/P DC 5V 5.0A 25W Max

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

3.2 DESCRIPTION OF TEST MODES

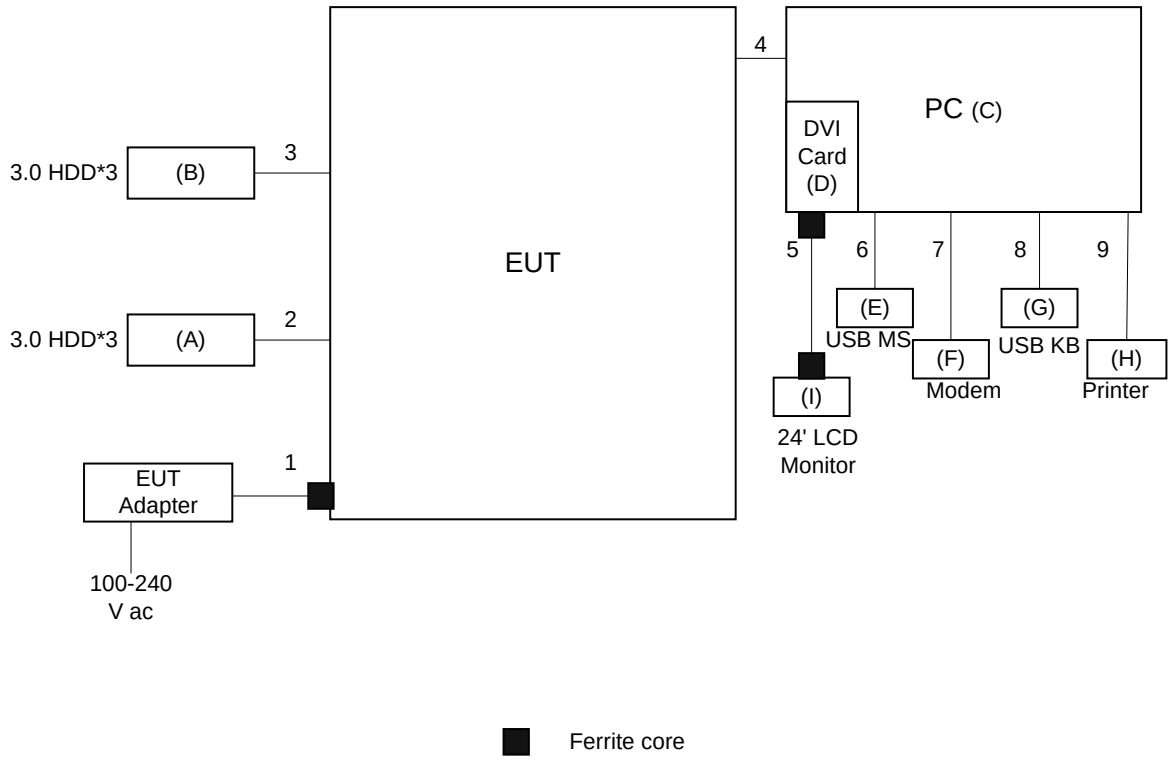
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	USB 3.0 READ/WRITE

Conducted emission test	
Final Test Mode	Description
Mode 1	USB 3.0 READ/WRITE

Radiated emission test	
Final Test Mode	Description
Mode 1	USB 3.0 READ/WRITE

3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	2.5" USB 3.0 HDD	LACIE	1TB Rugged Mini USB3	DOC	NL33NGNK
B	3.5" External Hard Drive	WD	WDBACW0010HBK-SESN	DOC	WCAV5J749731
C	PC	DELL	OptiPlex 790 MT	DOC	64NJVBX
D	DVI Card	ASUS	STRIX-GTX750TI-OC-2GD5TI	DOC	F3C0YZ138369
E	USB Mouse	DELL	MS111-L	DOC	CN-09RRC7-44751-17J-OH1F
F	Modem	ACEEX	DM-1414V	DOC	8041708
G	USB K/B	DELL	L50U	DOC	CN-0H9F99-65890-17P-06WP-A01
H	Printer	HP	SNPRB-1202-01	DOC	CNS3Q194T6
I	24" LCD Monitor	DELL	U2410f	DOC	CN-OJ257M-72872-09J-067L

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	YES	1m	Power cable
2	YES	NO	1.2m	USB cable*3
3	YES	NO	1.2m	USB cable*3
4	YES	NO	1m	USB cable
5	YES	YES	1.7m	DVI cable
6	YES	NO	1.7m	USB cable
7	YES	NO	1.7m	RS-232 cable
8	YES	NO	1.7m	USB cable
9	YES	NO	1.7m	USB cable

Note:

(1) The support equipment was authorized by Declaration of Conformity (DOC).

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION TEST

4.1.1 LIMITS (FREQUENCY RANGE 150 KHZ-30MHZ)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 - 5.0	73.00	60.00	56.00	46.00
5.0 - 30.0	73.00	60.00	60.00	50.00

NOTE:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
Margin Level = Measurement Value – Limit Value

4.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Jan. 25, 2017
2	Test Cable	TIMES	CFD300-NL	C05	Jun. 14, 2016
3	EMI Test Receiver	R&S	ESR7	101433	Dec. 09, 2016
4	Measurement Software	EZ	EZ_EMC (Version NB-03A)	N/A	N/A

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

4.1.3 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

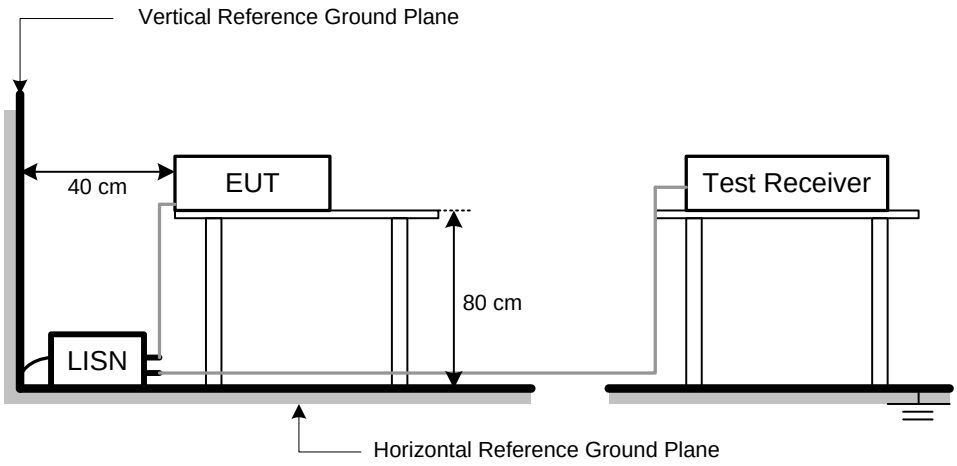
NOTE:

a. Reading in which marked as Peak, QP or AVG means measurements by using are Quasi-Peak or Average Mode with Detector BW=9 kHz (6 dB Bandwidth).
b. All readings are Peak Mode value unless otherwise stated QP or AVG in column of Note. If the Peak or QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only Peak or QP Mode was measured, but AVG Mode didn't perform.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



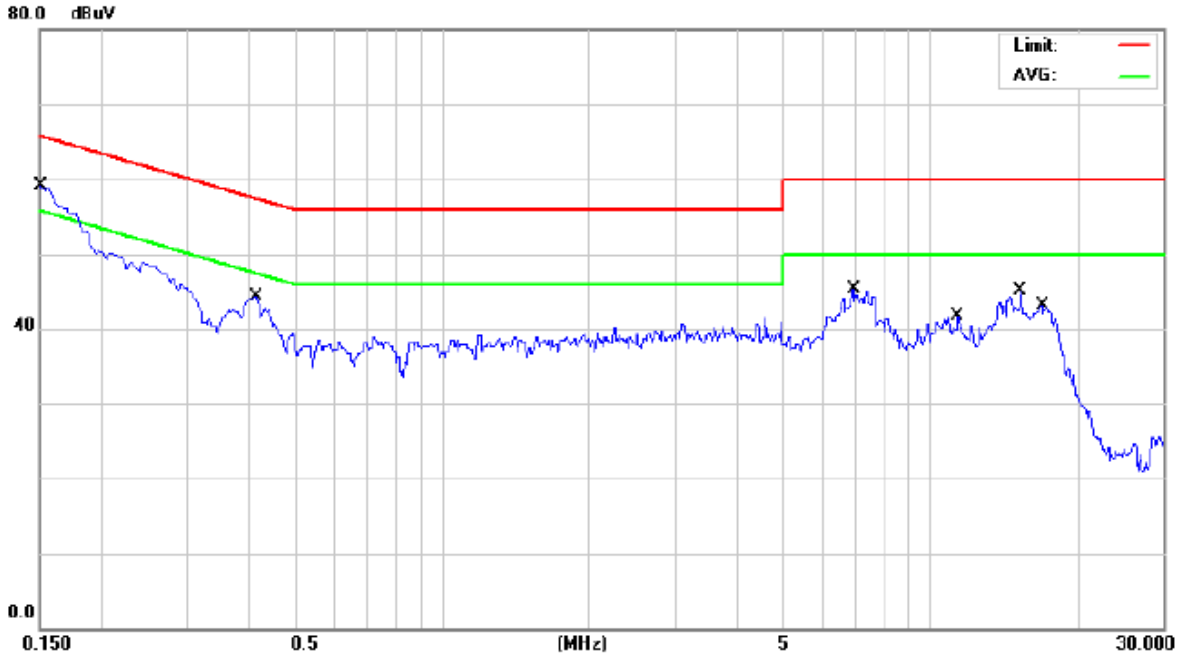
4.1.6 EUT OPERATING CONDITIONS

The PC exercise program (BurninTEST V6.0) used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

4.1.7 TEST RESULTS

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	25°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

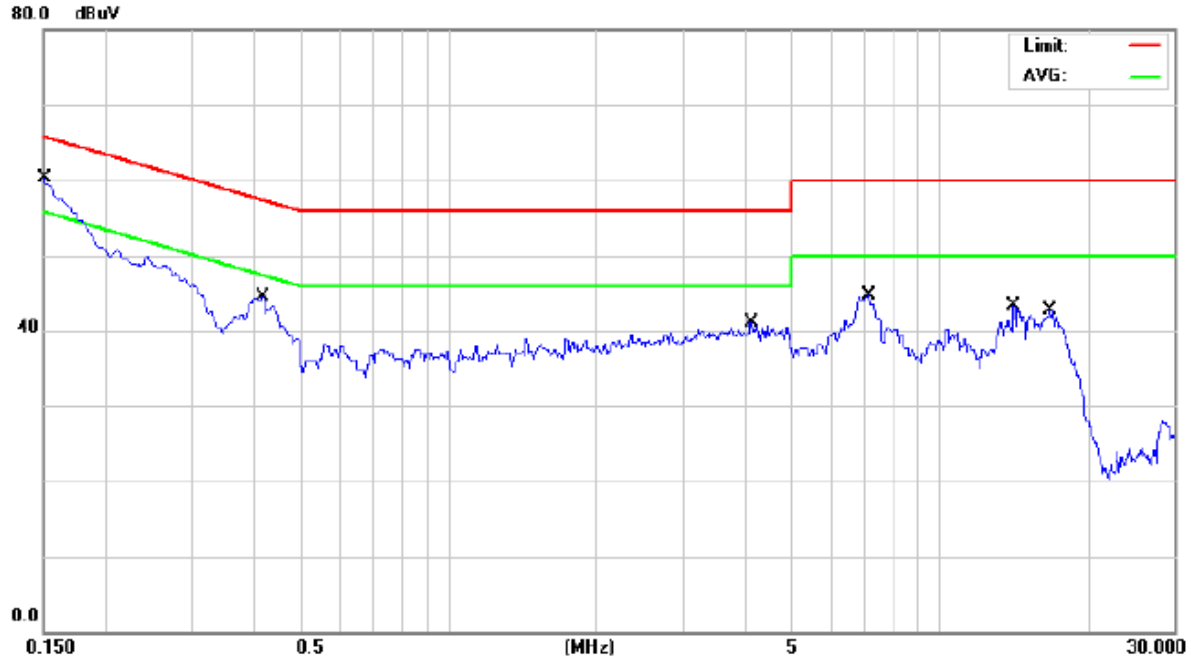
Phase: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	43.00	9.68	52.68	65.99	-13.31	QP	
2		0.1500	25.80	9.68	35.48	55.99	-20.51	AVG	
3		0.4132	30.70	9.68	40.38	57.58	-17.20	QP	
4	*	0.4132	24.60	9.68	34.28	47.58	-13.30	AVG	
5		6.9500	29.40	9.92	39.32	60.00	-20.68	QP	
6		6.9500	23.30	9.92	33.22	50.00	-16.78	AVG	
7		11.4000	24.90	9.94	34.84	60.00	-25.16	QP	
8		11.4000	19.60	9.94	29.54	50.00	-20.46	AVG	
9		15.3000	27.90	9.87	37.77	60.00	-22.23	QP	
10		15.3000	22.50	9.87	32.37	50.00	-17.63	AVG	
11		16.8500	28.90	9.89	38.79	60.00	-21.21	QP	
12		16.8500	23.60	9.89	33.49	50.00	-16.51	AVG	

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	25°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

Phase: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	43.60	9.69	53.29	65.99	-12.70	QP	
2		0.1500	27.50	9.69	37.19	55.99	-18.80	AVG	
3		0.4181	31.10	9.68	40.78	57.48	-16.70	QP	
4	*	0.4181	25.80	9.68	35.48	47.48	-12.00	AVG	
5		4.1180	24.90	9.86	34.76	56.00	-21.24	QP	
6		4.1180	18.40	9.86	28.26	46.00	-17.74	AVG	
7		7.1500	29.20	9.93	39.13	60.00	-20.87	QP	
8		7.1500	22.90	9.93	32.83	50.00	-17.17	AVG	
9		14.1000	27.40	9.89	37.29	60.00	-22.71	QP	
10		14.1000	22.10	9.89	31.99	50.00	-18.01	AVG	
11		16.7000	28.40	9.89	38.29	60.00	-21.71	QP	
12		16.7000	23.20	9.89	33.09	50.00	-16.91	AVG	

4.2 RADIATED EMISSION TEST

4.2.1 LIMITS

Below 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)	Class A (at 10m)		Class B (at 3m)	
	(uV/m) Field strength	(dBuV/m) Field strength	(uV/m) Field strength	(dBuV/m) Field strength
30 - 88	90	39	100	40
88 - 216	150	43.5	150	43.5
216 - 960	210	46.4	200	46
Above 960	300	49.5	500	54

CISPR 22 or CAN/CSA-CISPR 22-10:

Frequency (MHz)	Class A (at 10m)	Class B (at 10m)
	dBuV/m	dBuV/m
30 - 230	40	30
230 - 1000	47	37

Above 1 GHz

Frequency (MHz)	Class A				Class B	
	(dBuV/m) (at 3m)		(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

FREQUENCY RANGE OF RADIATED MEASUREMENT (FOR UNINTENTIONAL RADIATORS)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5^{th} harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

(1) The limit for radiated test was performed according to as following:
FCC Part 15, Subpart B; ICES-003 Issue 6: 2016.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m) = 20log Emission level (uV/m).
3m Emission level = 10m Emission level + 20log(10m/3m).

(4) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	Schwarzbeck	VULB 9168	9168-642	Sep. 10, 2016
2	Attenuator	Inmet	AT-N0507	01	Sep. 10, 2016
3	Pre-Amplifier	EMCI	EMC 9135	980281	Oct. 05, 2016
4	Test Cable	EMCI	EMC8D-NM-NM-5000	150105	Jan. 23, 2017
5	Test Cable	EMCI	EMC8D-NM-NM-10000	150107	Jan. 23, 2017
6	Test Cable	EMCI	EMC104-SM-SM-600	150333	Jan. 23, 2017
7	EMI Receiver	Keysight	N9038A	MY54130009	Nov. 23, 2016
8	Log-Bicon Antenna	Schwarzbeck	VULB 9168	9168-673	Sep. 10, 2016
9	Attenuator	Inmet	AT-N0507	02	Sep. 10, 2016
10	Pre-Amplifier	EMCI	EMC 9135	980282	Oct. 05, 2016
11	Test Cable	EMCI	EMC8D-NM-NM-5000	150106	Jan. 23, 2017
12	Test Cable	EMCI	EMC8D-NM-NM-20000	150116	Jan. 23, 2017
13	Test Cable	EMCI	EMC104-SM-SM-1000	150331	Jan. 23, 2017
14	EXA Spectrum Analyzer	Keysight	N9010A	MY54200483	Sep. 23, 2016
15	Test Cable	EMCI	EMC104-SM-SM-800	150332	Jan. 23, 2017
16	Measurement Software	Farad	EZ_EMC (Version NB-03A)	N/A	N/A
17	Horn Antenna	Schwarzbeck	BBHA-9120D	9120D-1297	Oct. 03, 2016
18	Pre-Amplifier	EMCI	EMC012645B	980222	Jan. 23, 2017
19	Test Cable	EMCI	EMC104-SM-SM-800	150110	Jan. 23, 2017
20	Test Cable	EMCI	EMC104-SM-SM-15000	150111	Jan. 23, 2017

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.
All calibration period of equipment list is one year.

4.2.3 TEST PROCEDURE

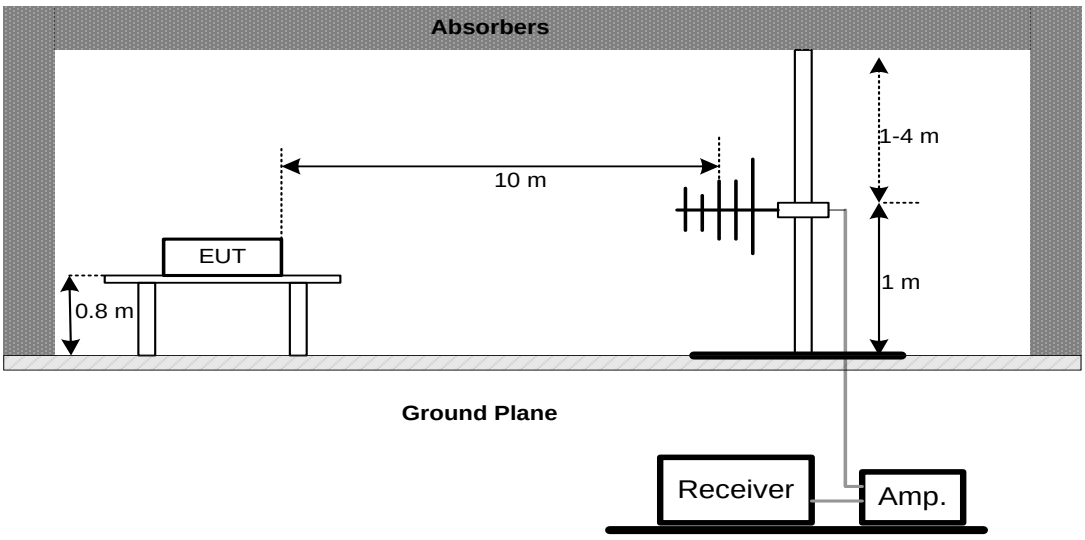
a. The measuring distance of 10 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

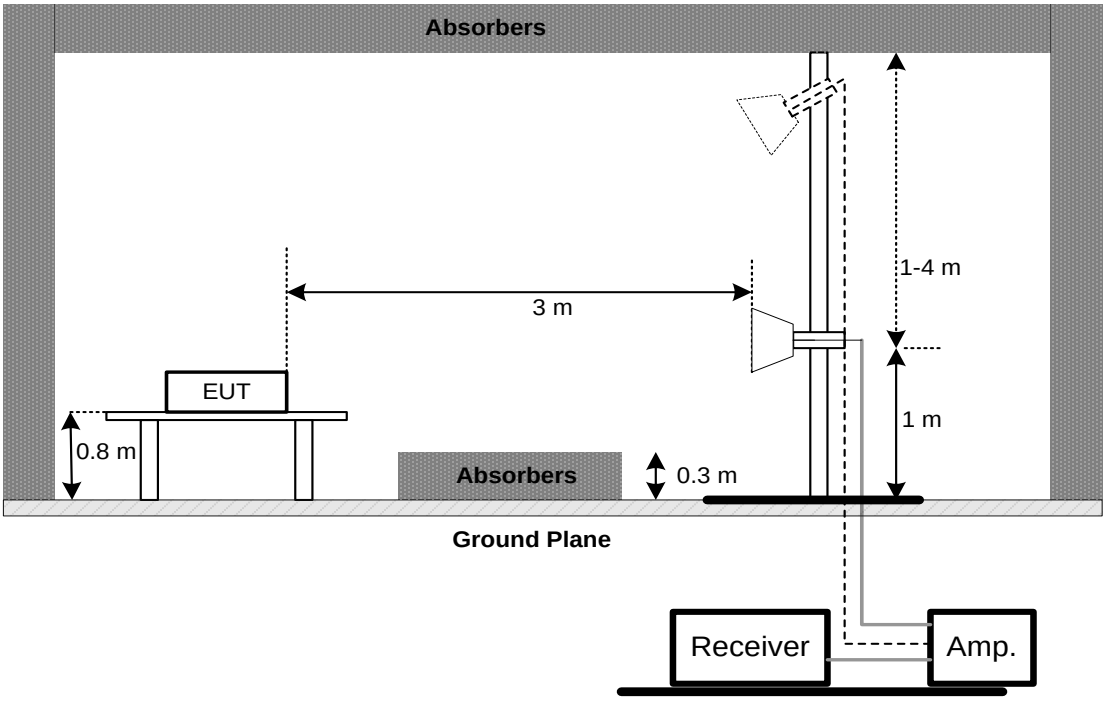
No deviation

4.2.5 TEST SETUP

Below 1 GHz



Above 1 GHz



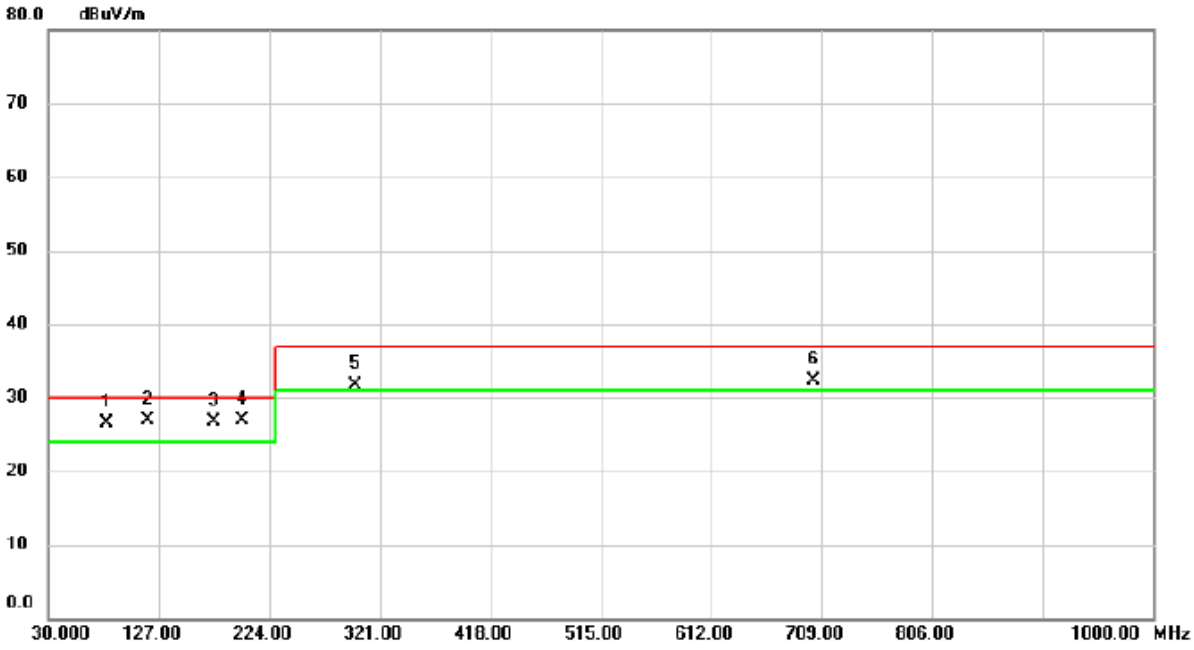
4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** unless otherwise a special operating condition is specified in the follows during the testing.

4.2.7 TEST RESULTS-BELOW 1 GHZ

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

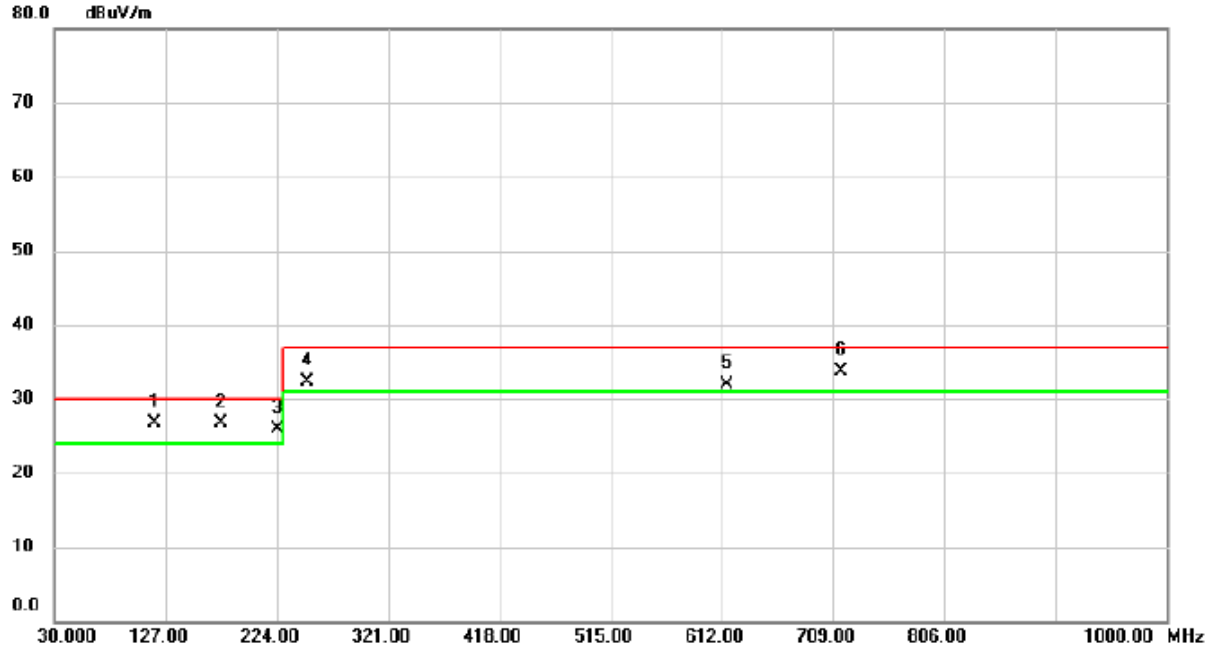
Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	80.9250	47.36	-20.83	26.53	30.00	-3.47	QP	299	332	
2	*	117.3000	45.32	-18.46	26.86	30.00	-3.14	QP	199	87	
3	!	175.5000	43.25	-16.61	26.64	30.00	-3.36	QP	100	218	
4	!	199.7500	46.12	-19.30	26.82	30.00	-3.18	QP	100	203	
5	!	299.1750	46.78	-15.03	31.75	37.00	-5.25	QP	100	172	
6	!	701.7250	39.07	-6.76	32.31	37.00	-4.69	QP	199	177	

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

Polarization: Horizontal

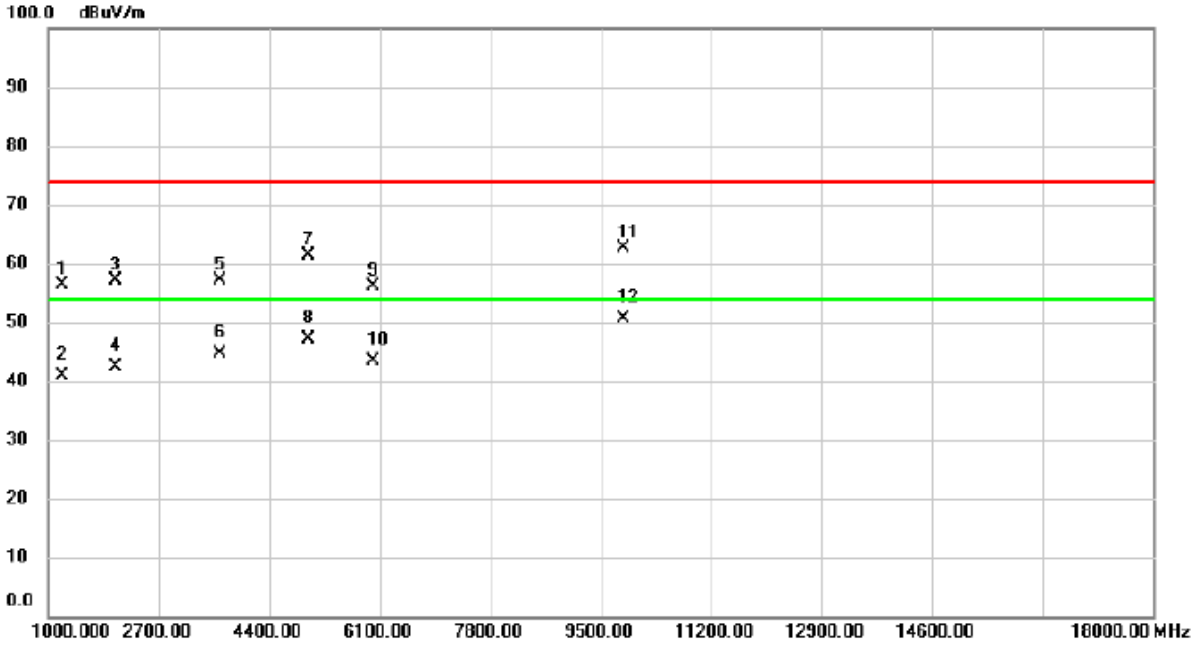


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	117.3000	46.25	-19.45	26.80	30.00	-3.20	QP	400	269	
2	!	175.5000	44.64	-17.87	26.77	30.00	-3.23	QP	400	325	
3	!	224.0000	45.61	-19.75	25.86	30.00	-4.14	QP	300	331	
4	!	250.6750	50.43	-18.19	32.24	37.00	-4.76	QP	300	247	
5	!	616.8500	41.42	-9.51	31.91	37.00	-5.09	QP	100	221	
6	!	716.2750	42.05	-8.26	33.79	37.00	-3.21	QP	179	0	

4.2.8 TEST RESULTS-ABOVE 1 GHZ

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

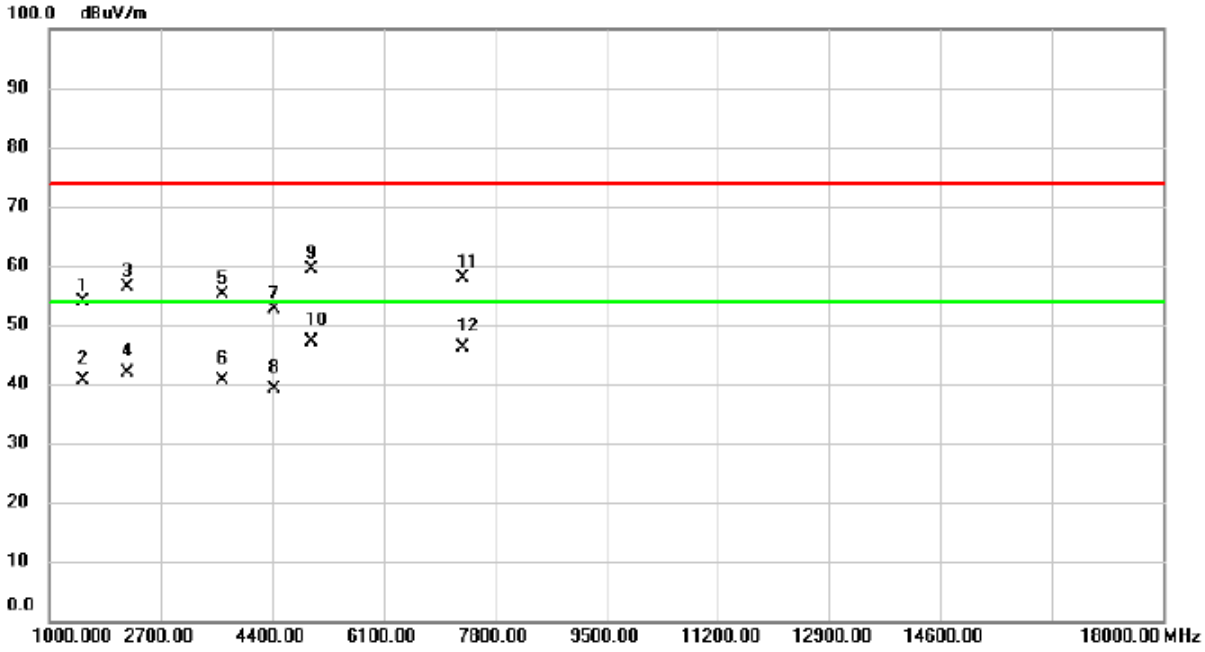
Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		1221.000	60.85	-4.40	56.45	74.00	-17.55	peak	181	321	
2		1221.000	45.26	-4.40	40.86	54.00	-13.14	AVG	181	321	
3		2020.000	58.06	-0.89	57.17	74.00	-16.83	peak	100	0	
4		2020.000	43.25	-0.89	42.36	54.00	-11.64	AVG	100	0	
5		3635.000	52.76	4.49	57.25	74.00	-16.75	peak	300	0	
6		3635.000	40.26	4.49	44.75	54.00	-9.25	AVG	300	0	
7		4995.000	52.43	8.94	61.37	74.00	-12.63	peak	100	176	
8		4995.000	38.14	8.94	47.08	54.00	-6.92	AVG	100	176	
9		5998.000	45.14	11.11	56.25	74.00	-17.75	peak	100	160	
10		5998.000	32.25	11.11	43.36	54.00	-10.64	AVG	100	160	
11		9840.000	42.26	20.43	62.69	74.00	-11.31	peak	200	272	
12	*	9840.000	30.29	20.43	50.72	54.00	-3.28	AVG	200	272	

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

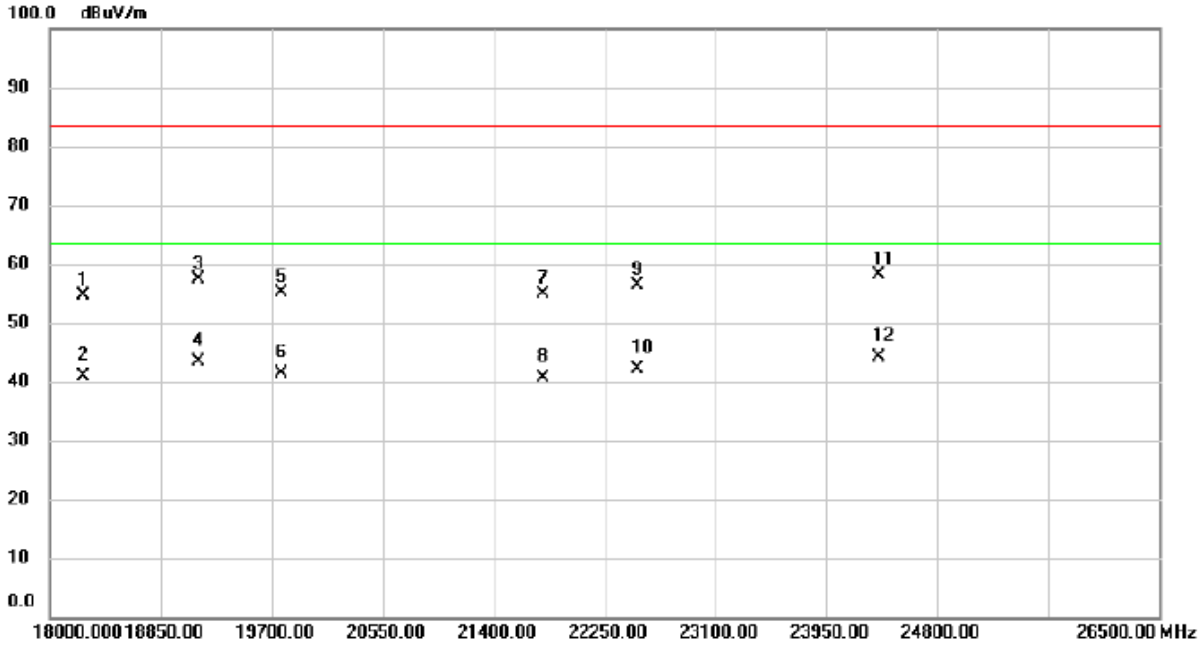
Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		1510.000	56.51	-2.74	53.77	74.00	-20.23	peak	100	156	
2		1510.000	43.26	-2.74	40.52	54.00	-13.48	AVG	100	156	
3		2190.000	56.67	-0.19	56.48	74.00	-17.52	peak	100	190	
4		2190.000	42.10	-0.19	41.91	54.00	-12.09	AVG	100	190	
5		3635.000	50.57	4.49	55.06	74.00	-18.94	peak	216	146	
6		3635.000	36.14	4.49	40.63	54.00	-13.37	AVG	216	146	
7		4434.000	45.73	6.92	52.65	74.00	-21.35	peak	300	354	
8		4434.000	32.26	6.92	39.18	54.00	-14.82	AVG	300	354	
9		4995.000	50.53	8.94	59.47	74.00	-14.53	peak	100	165	
10	*	4995.000	38.14	8.94	47.08	54.00	-6.92	AVG	100	165	
11		7307.000	41.97	15.86	57.83	74.00	-16.17	peak	184	360	
12		7307.000	30.27	15.86	46.13	54.00	-7.87	AVG	184	360	

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

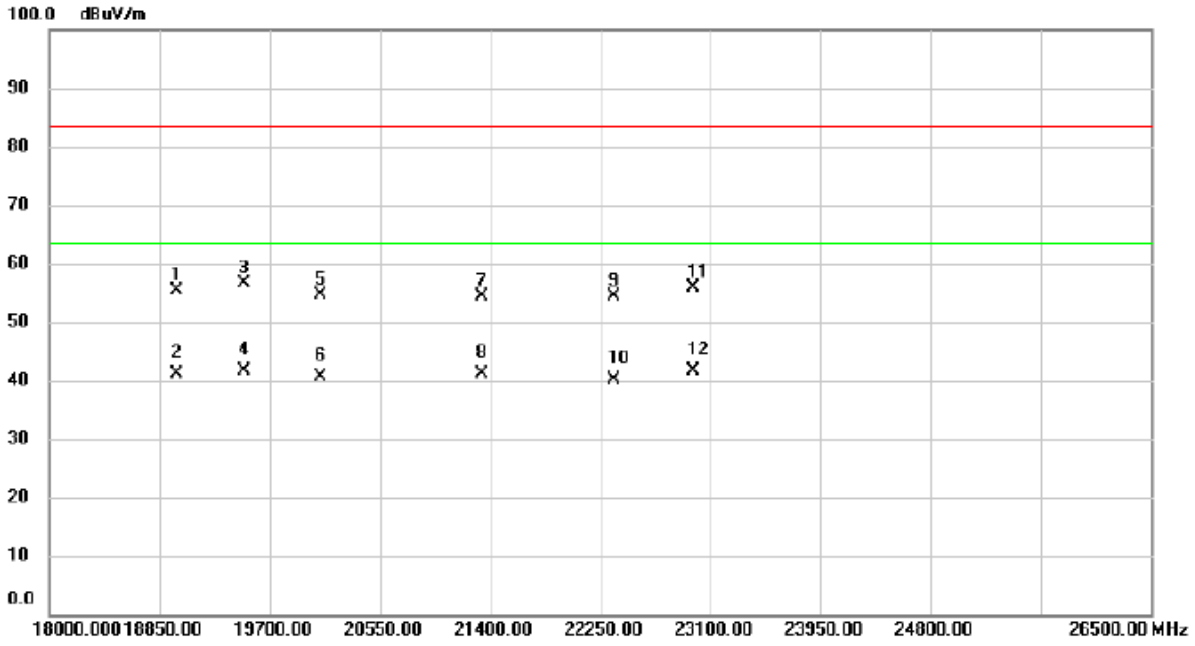
Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		18255.00	40.00	14.59	54.59	83.50	-28.91	peak	100	326	
2		18255.00	26.21	14.59	40.80	63.50	-22.70	AVG	100	326	
3		19139.00	41.49	15.93	57.42	83.50	-26.08	peak	123	287	
4		19139.00	27.48	15.93	43.41	63.50	-20.09	AVG	123	287	
5		19768.00	41.04	14.15	55.19	83.50	-28.31	peak	268	0	
6		19768.00	27.16	14.15	41.31	63.50	-22.19	AVG	268	0	
7		21774.00	41.75	13.10	54.85	83.50	-28.65	peak	100	12	
8		21774.00	27.63	13.10	40.73	63.50	-22.77	AVG	100	12	
9		22505.00	42.38	13.89	56.27	83.50	-27.23	peak	121	39	
10		22505.00	28.12	13.89	42.01	63.50	-21.49	AVG	121	39	
11		24349.50	43.39	14.80	58.19	83.50	-25.31	peak	100	198	
12	*	24349.50	29.43	14.80	44.23	63.50	-19.27	AVG	100	198	

E.U.T	IOGEAR 6-Port Super Speed USB 3.0 Hub	Model Name	GUH326
Temperature	22°C	Relative Humidity	55%
Test Voltage	AC 120V/60Hz		
Test Mode	USB 3.0 READ/WRITE		

Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		18977.50	39.36	16.08	55.44	83.50	-28.06	peak	100	269	
2		18977.50	25.13	16.08	41.21	63.50	-22.29	AVG	100	269	
3		19496.00	41.33	15.36	56.69	83.50	-26.81	peak	132	325	
4		19496.00	26.23	15.36	41.59	63.50	-21.91	AVG	132	325	
5		20091.00	41.35	13.16	54.51	83.50	-28.99	peak	100	0	
6		20091.00	27.46	13.16	40.62	63.50	-22.88	AVG	100	0	
7		21332.00	41.14	13.23	54.37	83.50	-29.13	peak	187	124	
8		21332.00	27.79	13.23	41.02	63.50	-22.48	AVG	187	124	
9		22352.00	40.74	13.64	54.38	83.50	-29.12	peak	100	32	
10		22352.00	26.54	13.64	40.18	63.50	-23.32	AVG	100	32	
11		22972.50	41.44	14.55	55.99	83.50	-27.51	peak	200	360	
12	*	22972.50	27.17	14.55	41.72	63.50	-21.78	AVG	200	360	