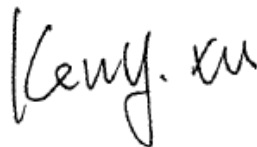


TEST REPORT

Application No.: SZEM2111009541AT
Applicant: Flashbay Electronics
Address of Applicant: Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R.China
Manufacturer: Flashbay Electronics
Address of Manufacturer: Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R.China
Factory: Flashbay Electronics
Address of Factory: Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R.China
Equipment Under Test (EUT):
EUT Name: USB Flash Drive
Model No.: Twister Wood(WTW) ♣
 ♣ Please refer to section 2 of this report which indicates which sample was actually tested and which were electrically identical.
Standard(s) : VCCI-CISPR 32: 2016
Date of Receipt: 2021-11-03
Date of Test: 2021-11-04
Date of Issue: 2021-11-08

Test Result:	Pass*
---------------------	--------------

* In the configuration tested, the EUT complied with the standards specified above.


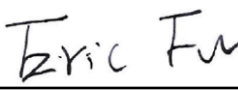


Keny Xu
 EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2021-11-08		Original

Authorized for issue by:			
			
		Foray Chen/Project Engineer	
			
		Eric Fu/Reviewer	



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2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Power Port (150kHz-30MHz)	VCCI-CISPR 32: 2016	VCCI-CISPR 32:2016	Class B	Pass
Radiated Emissions (30MHz-1GHz)		VCCI-CISPR 32:2016	Class B	Pass

Declaration of EUT Family Grouping:

Model No.: Twister Wood(WTW)

Only the sample in maple was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used, internal wiring and functions were identical for the above models, with only difference being of shell material.



3 Contents

	Page
1 COVER PAGE	1
2 TEST SUMMARY	3
3 CONTENTS	4
4 GENERAL INFORMATION	5
4.1 DETAILS OF E.U.T.	5
4.2 DESCRIPTION OF SUPPORT UNITS	5
4.3 MEASUREMENT UNCERTAINTY	5
4.4 TEST LOCATION	6
4.5 TEST FACILITY	6
4.6 DEVIATION FROM STANDARDS	6
4.7 ABNORMALITIES FROM STANDARD CONDITIONS	6
5 EQUIPMENT LIST	7
6 EMISSION TEST RESULTS.....	8
6.1 CONDUCTED EMISSIONS AT MAINS POWER PORT (150KHZ-30MHZ).....	8
6.1.1 <i>E.U.T. Operation</i>	8
6.1.2 <i>Test Mode Description</i>	8
6.1.3 <i>Test Setup Diagram</i>	8
6.1.4 <i>Measurement Procedure and Data</i>	8
6.2 RADIATED EMISSIONS (30MHZ-1GHZ)	11
6.2.1 <i>E.U.T. Operation</i>	11
6.2.2 <i>Test Mode Description</i>	11
6.2.3 <i>Test Setup Diagram</i>	11
6.2.4 <i>Measurement Procedure and Data</i>	12
7 TEST SETUP PHOTO	15
8 EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS).....	16



4 General Information

4.1 Details of E.U.T.

Power supply:	Supply by PC
Internal source:	Less than 108MHz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	L480	REF. No.SEA18C00E
Mouse	Lenovo	M-U0025-O	REF. No.:SEA24A00
Router	NETGEAR	DGN2200	REF. No.SEA22A00

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at Mains Power Port (150kHz-30MHz)	± 2.9dB
Radiated Emissions (30MHz-1GHz)	± 4.8dB

Remark:

The U_{lab} (lab Uncertainty) is less than $U_{CISPR/ETSI}$ (CISPR/ETSI Uncertainty), so the test results
 – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
 – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.



4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• **VCCI (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



5 Equipment List

Conducted Emissions at Mains Power Port (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2021-03-24	2022-03-23
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2021-07-09	2022-07-08
LISN	Rohde&Schwarz	ENV216	SEM007-01	2021-09-23	2022-09-22
LISN	ETS-LINDGREN	3816/2	SEM007-02	2021-03-24	2022-03-25

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2021-03-27	2024-03-26
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2021-10-21	2022-10-20
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2019-08-08	2022-08-07
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2021-04-08	2022-04-07
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2020-08-14	2022-08-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2021-07-09	2022-07-08

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2021-09-14	2022-09-13
Humidity/ Temperature Indicator	Anymetre	TH101B	SEM002-09	2021-09-14	2022-09-13
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2021-03-30	2022-03-29



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6 Emission Test Results

6.1 Conducted Emissions at Mains Power Port (150kHz-30MHz)

Test Requirement: VCCI-CISPR 32: 2016
 Test Method: VCCI-CISPR 32:2016

Limit:

0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

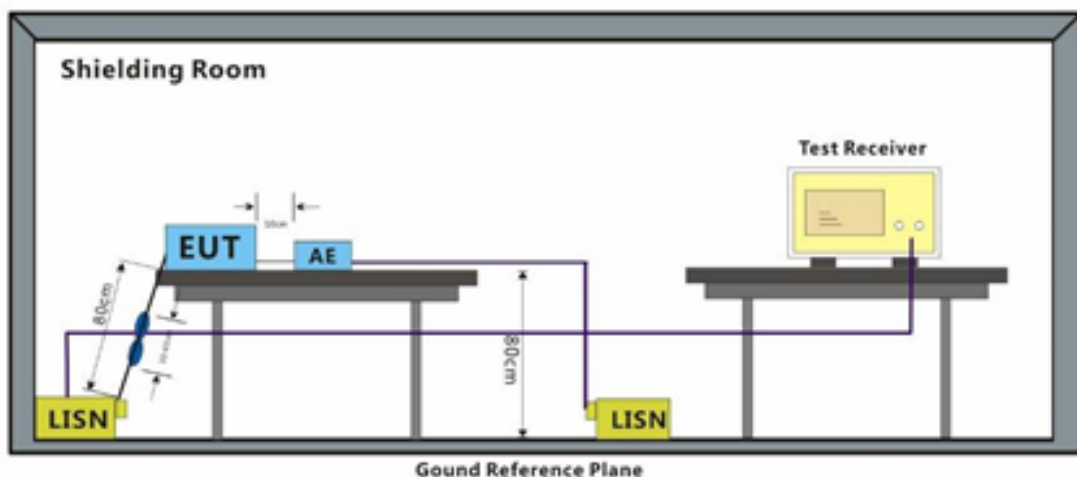
6.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 24.2 °C Humidity: 48.5 % RH Atmospheric Pressure: 1015 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	PC mode, build the connection between PC and EUT, keep data exchanging.
Pre-scan	01	Idle mode.

6.1.3 Test Setup Diagram



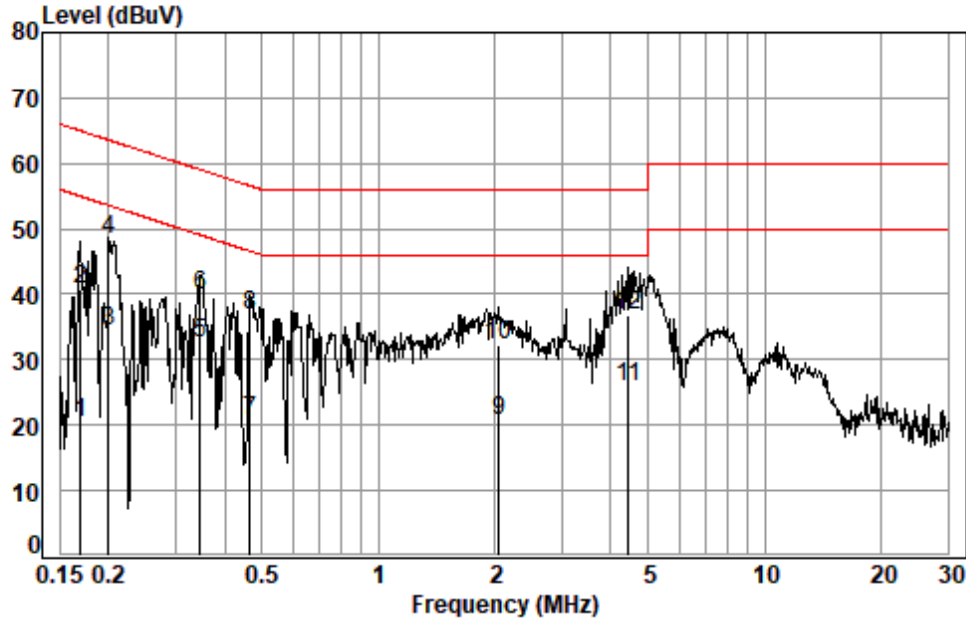
6.1.4 Measurement Procedure and Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

Remark: Level= Read Level+ Cable Loss+ LISN Factor



Test Mode: 00; Line: Live line



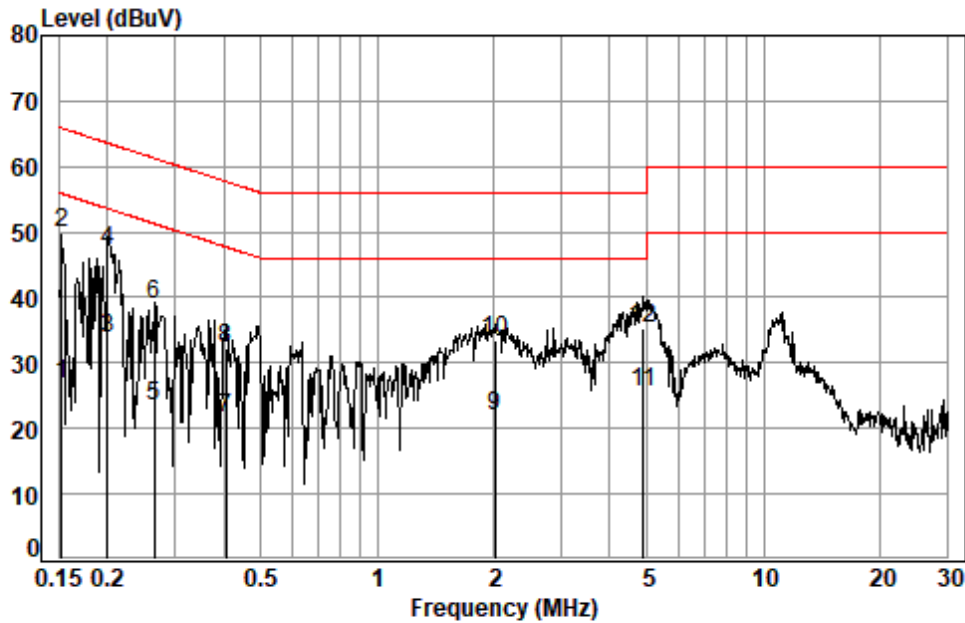
Site : Shielding Room
Condition: Line
Job No. : 09541AT
Test mode: 00

	Freq	Cable Loss	LISN Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1694	0.12	9.65	10.66	20.43	54.99	-34.56	Average
2	0.1694	0.12	9.65	31.14	40.91	64.99	-24.08	QP
3	0.2007	0.13	9.65	24.64	34.42	53.58	-19.16	Average
4	0.2007	0.13	9.65	38.56	48.34	63.58	-15.24	QP
5	0.3465	0.15	9.62	22.65	32.42	49.05	-16.63	Average
6	0.3465	0.15	9.62	30.15	39.92	59.05	-19.13	QP
7	0.4661	0.17	9.64	10.83	20.64	46.58	-25.94	Average
8	0.4661	0.17	9.64	27.09	36.90	56.58	-19.68	QP
9	2.0549	0.20	9.66	10.78	20.64	46.00	-25.36	Average
10	2.0549	0.20	9.66	22.41	32.27	56.00	-23.73	QP
11	4.4540	0.20	9.71	16.07	25.98	46.00	-20.02	Average
12	4.4540	0.20	9.71	27.01	36.92	56.00	-19.08	QP



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Test Mode: 00; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 09541AT
Test mode: 00

	Freq	Cable Loss	LISN Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1524	0.12	9.70	16.87	26.69	55.87	-29.18	Average
2	0.1524	0.12	9.70	40.06	49.88	65.87	-15.99	QP
3	0.2007	0.13	9.71	23.86	33.70	53.58	-19.88	Average
4	0.2007	0.13	9.71	37.41	47.25	63.58	-16.33	QP
5	0.2644	0.14	9.69	13.73	23.56	51.29	-27.73	Average
6	0.2644	0.14	9.69	29.25	39.08	61.29	-22.21	QP
7	0.4061	0.16	9.70	11.59	21.45	47.73	-26.28	Average
8	0.4061	0.16	9.70	22.36	32.22	57.73	-25.51	QP
9	2.0225	0.20	9.70	11.86	21.76	46.00	-24.24	Average
10	2.0225	0.20	9.70	23.48	33.38	56.00	-22.62	QP
11	4.8997	0.20	9.77	15.47	25.44	46.00	-20.56	Average
12	4.8997	0.20	9.77	25.32	35.29	56.00	-20.71	QP



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6.2 Radiated Emissions (30MHz-1GHz)

Test Requirement: VCCI-CISPR 32: 2016
 Test Method: VCCI-CISPR 32:2016
 Measurement Distance: 10m

Limit:

FREQUENCY (MHz)	dBuV/m (At 10m)	dBuV/m (At 3m)
	Class B	Class B
30 ~ 230	30	40
230 ~ 1000	37	47
Detector: Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz		

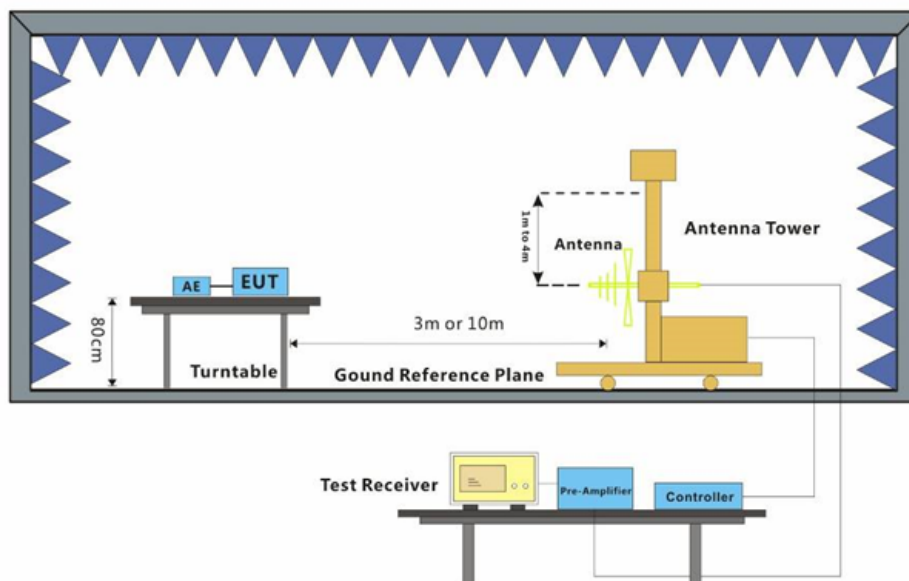
6.2.1 E.U.T. Operation

Operating Environment:
 Temperature: 23.6 °C Humidity: 49.6 % RH Atmospheric Pressure: 1015 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	PC mode, build the connection between PC and EUT, keep data exchanging.
Pre-scan	01	Idle mode.

6.2.3 Test Setup Diagram



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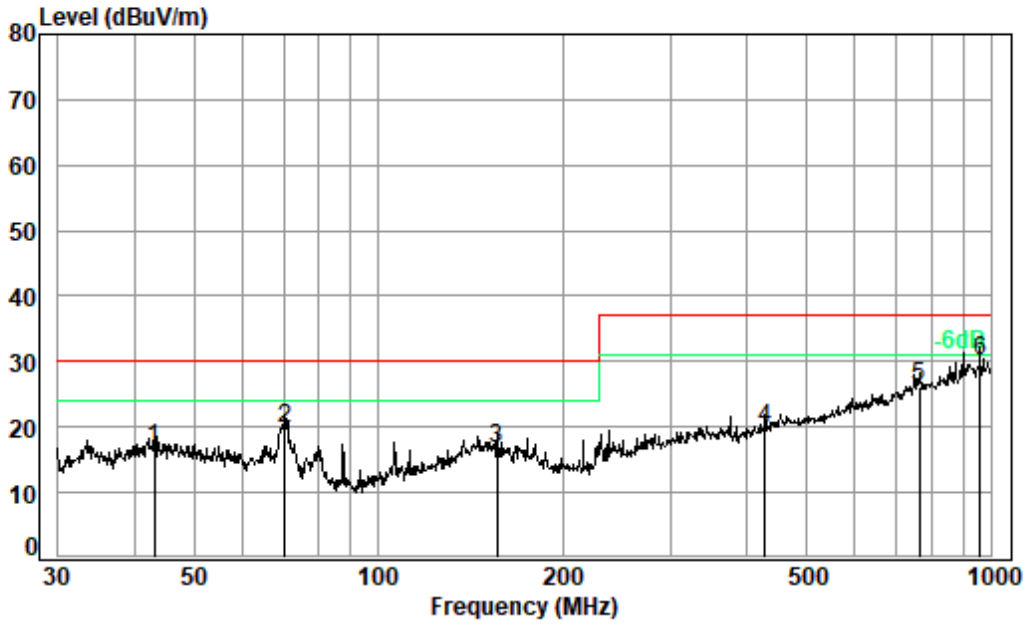
6.2.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor



Test Mode: 00; Polarity: Horizontal

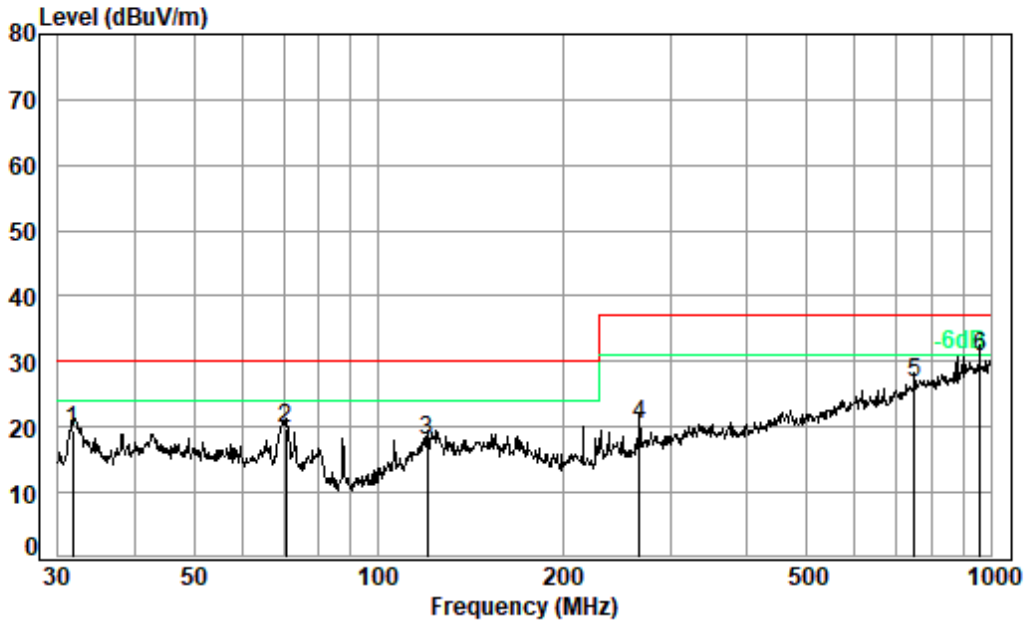


Condition: 10m HORIZONTAL
Job No. : 09541AT
Test Mode: 00

	Read Freq	Ant Level	Cable Factor	Preamp Loss	Level	Limit	Over	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	43.050	27.30	20.35	1.38	32.42	16.61	30.00	-13.39 QP
2	70.337	33.17	17.48	1.50	32.40	19.75	30.00	-10.25 QP
3	156.458	27.39	19.94	1.77	32.40	16.70	30.00	-13.30 QP
4	428.019	28.15	22.62	1.48	32.43	19.82	37.00	-17.18 QP
5	763.376	28.22	28.32	1.95	32.37	26.12	37.00	-10.88 QP
6 pp	958.794	29.13	29.89	2.20	31.16	30.06	37.00	-6.94 QP



Test Mode: 00; Polarity: Vertical



Condition: 10m VERTICAL
Job No. : 09541AT
Test Mode: 00

	Read Freq	Ant	Cable	Preamp	Level	Limit	Over	Remark
	MHz	Factor	Loss	Factor	dBuV/m	dBuV/m	dB	
1	31.731	18.69	1.44	32.45	19.55	30.00	-10.45	QP
2	70.584	17.39	1.50	32.40	19.70	30.00	-10.30	QP
3	120.277	17.13	1.57	32.40	17.95	30.00	-12.05	QP
4	266.609	18.63	2.18	32.40	20.49	37.00	-16.51	QP
5	750.108	28.30	1.93	32.40	26.78	37.00	-10.22	QP
6 pp	958.794	29.89	2.20	31.16	30.81	37.00	-6.19	QP



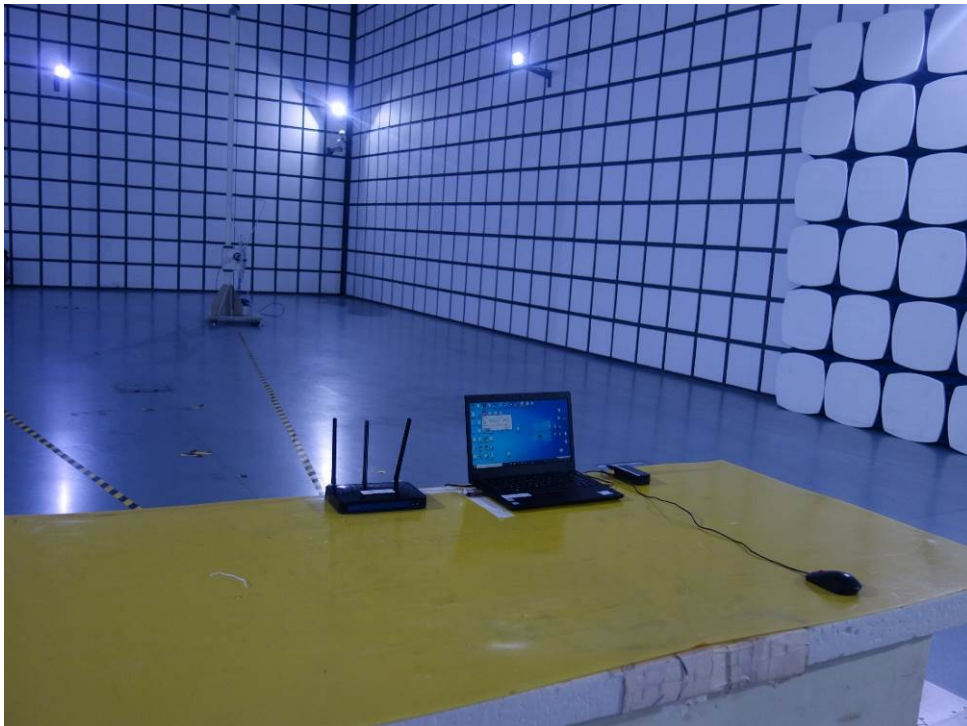
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7 Test Setup Photo

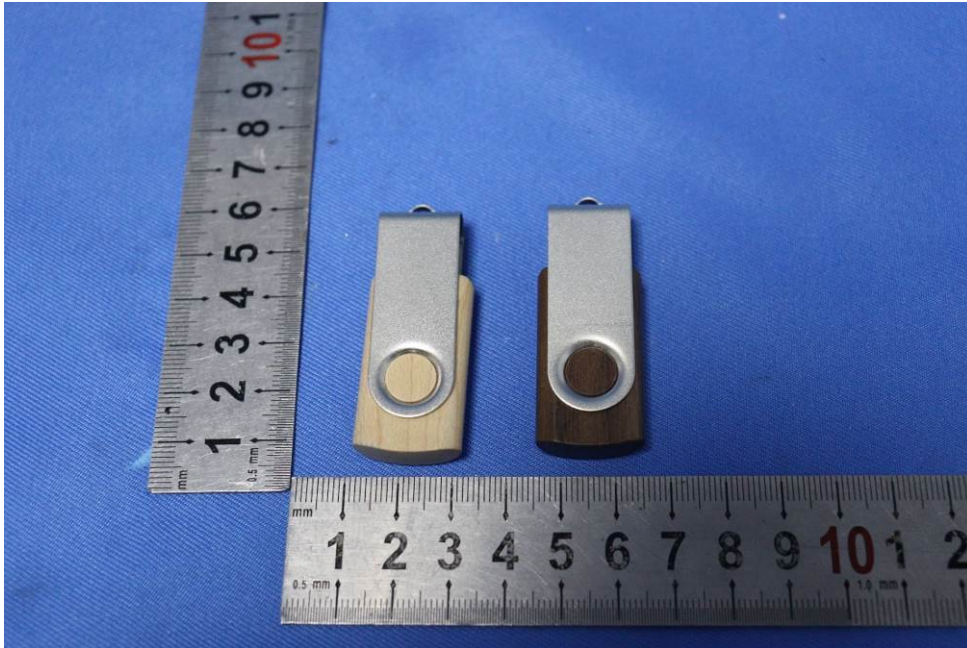
Conducted Emissions at Mains Power Port (150kHz-30MHz)

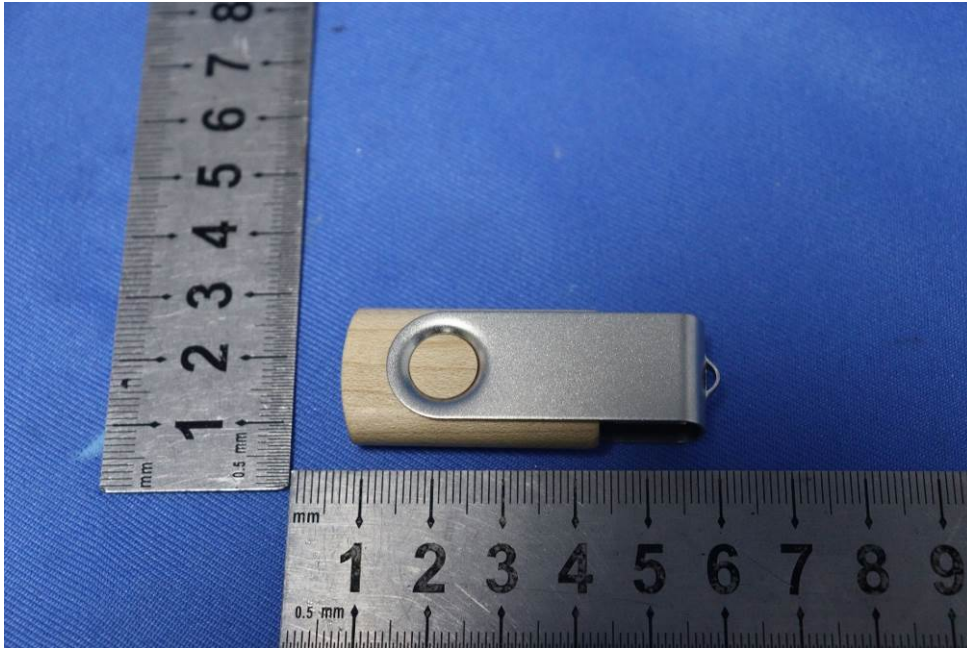


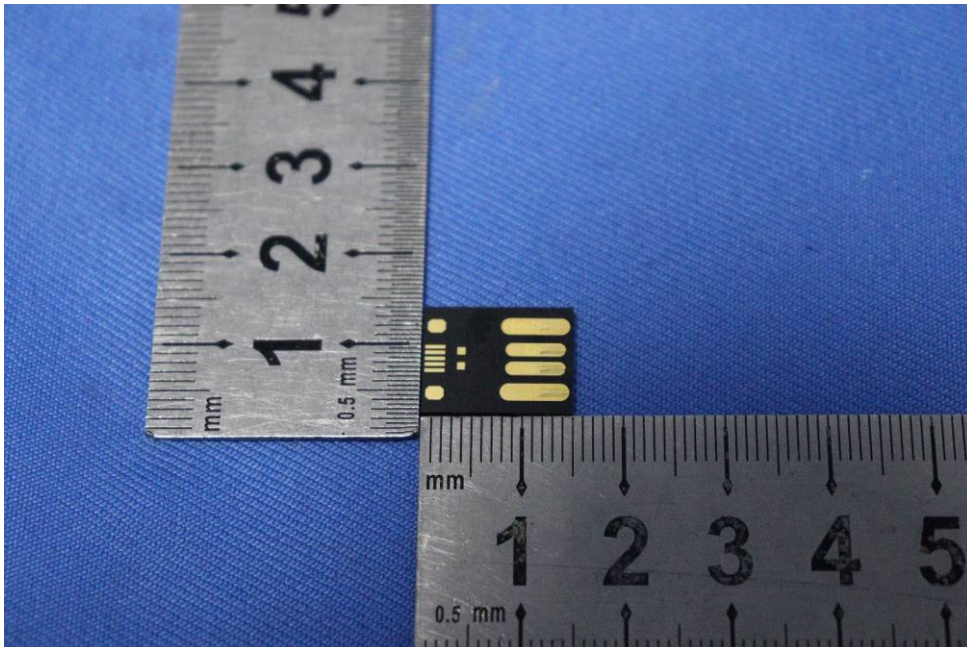
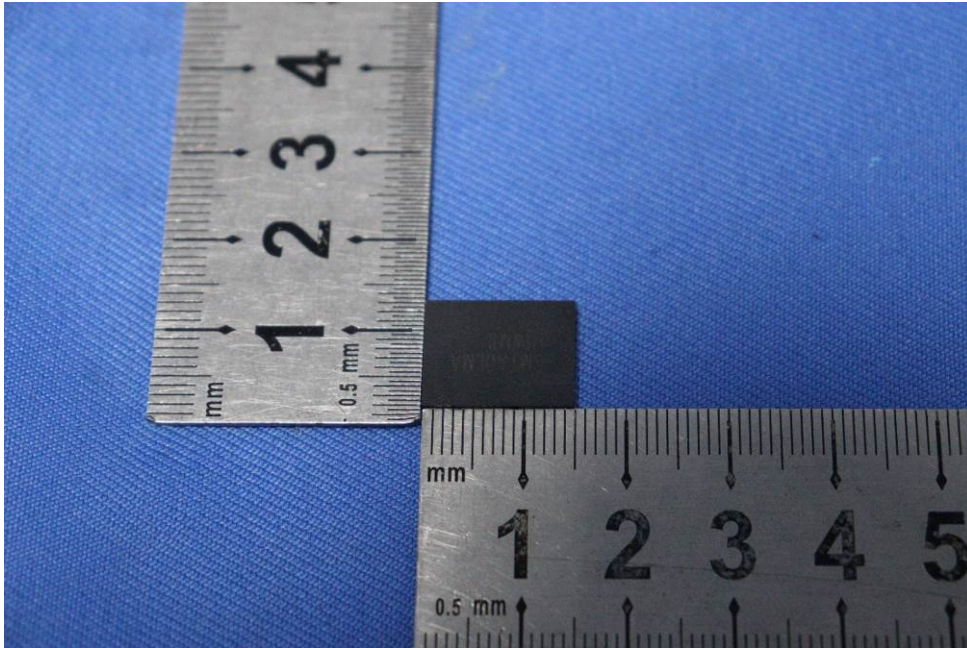
Radiated Emissions (30MHz-1GHz)



8 EUT Constructional Details (EUT Photos)







- End of the Report -

