

FCC PART 15 SUBPART B TEST REPORT
for
2 Bay 2.5-3.5" SSD / HDD External RAID Storage
Model No.: GR3680-SB3

of

Applicant: **RAIDON TECHNOLOGY INC.**
Address: **7F-9, No.16, Lane. 609, Sec.5, Chung-Hsin Rd.,**
San-Chung Dist., New Taipei City, Taiwan (R.O.C.)

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1, IC 5107A-1

A2LA Accredited No.: 2732.01



Report No.: W6M21508-15204-P-15B

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

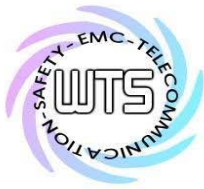
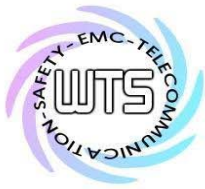


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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The tests were carried out and passed in accordance to the standards:

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The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

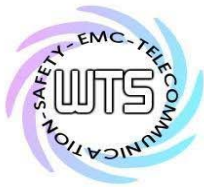
Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification (only telecommunication products).

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.6.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.



Important Notes:

Proper labelling is required for each device. Devices shall be labelled in accordance with labelling requirements pursuant to section 15.19 and section 2.1074 of the FCC rules.

Devices subject to a Declaration of Conformity shall be uniquely identified by the responsible party.

This identification shall not be of a format which could be confused with the FCC Identifier required on certified, notified type accepted or type approved equipment.

The responsible party shall maintain adequate identification records to facilitate positive identification for each device.

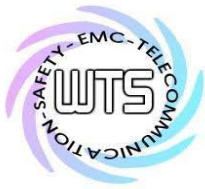
The user manual or instruction manual shall include also a warning statement that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Reference Section 15.21

Furthermore information to the user regarding to the interference potential of the device and about simple measures that can be taken to correct interference is required.

Reference Section 15.105

The responsible party must warrant that each unit of equipment marketed under a Declaration of Conformity is identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under the Declaration of Conformity within the variation that can be expected due to quantity production and testing on a statistical basis.



Registration number: W6M21508-15204-P-15B

1.2 Tester

August 28, 2015

Sora Kuo

Sora

Date

WTS-Lab.

Test Engineer

Signature

Technical responsibility for area of testing:

August 28, 2015

Kevin Wang

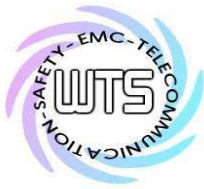
Kevin Wang

Date

WTS

Name

Signature



Registration number: W6M21508-15204-P-15B

1.3 Testing laboratory

1.3.1 Location

10m OATS

No.5-1, Lishui, Shuang Sing Village,
Wanli Dist., New Taipei City 207,
Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

TEL:886-2-6613-0228

FAX:886-2-2791-5046

Company

Worldwide Testing Services(Taiwan) Co., Ltd.

6F, NO. 58, LANE 188, RUEY-KUANG RD.

NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877

Fax : 886-2-66068875

1.3.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2732.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1, IC 5107A-1

1.3.3 Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.

Name: ./.

Accredited number: ./.

Street: ./.

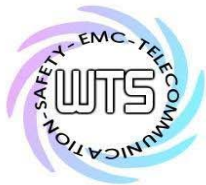
Town: ./.

Country: ./.

Telephone: ./.

Fax: ./.

Teletex: ./.



Registration number: W6M21508-15204-P-15B

1.4 Details of applicant

Name: RAIDON TECHNOLOGY INC.
Street: 7F-9, No.16, Lane. 609, Sec.5, Chung-Hsin Rd.,
San-Chung Dist.,
City: New Taipei City,
Country: Taiwan (R.O.C.)
Telephone: +886-2-2278-9697
Fax: +886-2-2278-9659

1.5 Application details

Date of receipt of test item: August 11, 2015
Date of test: from August 12, 2015 to August 28, 2015

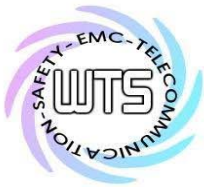
1.6 Test item

1.6.1 Description of test item

Type of product: 2 Bay 2.5-3.5" SSD / HDD External RAID Storage
Type identification: GR3680-SB3
Multi-listing model number: SR2-SB3+ 、DataBox 270
Brand Name: ./.
Photos: Please find in Appendix.

1.6.2 Manufacturer (if different from applicant in point 1.4)

Name: ./.
Street: ./.
Town: ./.
Country: ./.
Contact: ./.
Phone: ./.



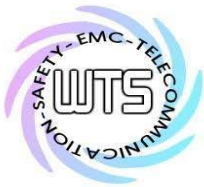
Registration number: W6M21508-15204-P-15B

1.6.3 Frequency behavior

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

1.7 Test standards

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2 Technical test

2.1 Summary of test results

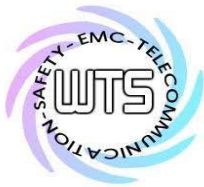
No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

Or

The deviations as specified in 2.4 were ascertained in the course of the tests performed. ☐

2.2 Test environment

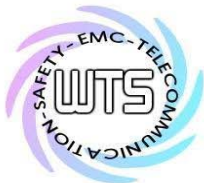
Temperature:	18 ... 25 °C
Relative humidity content:	20 ... 75 %
Air pressure:	860 ... 1030 hPa
Details of power supply:	AC 100 ~ 240 VAC, 1.5A, 50/60 Hz
Other parameters:	without



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2.3 Test equipment utilized

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2015/8/25	2016/8/24
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 008	HF-EICHLITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2015/7/13	2016/7/12
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2014/10/13	2015/10/12
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2015/8/25	2016/8/24
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2015/8/14	2016/8/13
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2015/6/22	2016/6/21
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2015/6/16	2016/6/15
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2015/3/17	2016/3/16
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2015/3/19	2016/3/18
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2015/3/2	2016/3/1
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2015/3/2	2016/3/1
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2015/3/2	2016/3/1
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2015/6/8	2016/6/7
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2015/3/2	2016/3/1
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2014/11/26	2015/11/25
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2014/10/9	2015/10/8
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2014/9/22	2015/9/21
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2015/3/2	2016/3/1
ETSTW-RE 106	Humidity Temperature Meter	TES-1366	091011113	TES	2015/8/14	2016/8/13
ETSTW-RE 111	TRILOG Super Broadband test Antenna	VULB 9160	9160-3309	Schwarz beck	2014/12/5	2015/12/4
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2015/1/7	2016/1/6
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2015/6/8	2016/6/7
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2015/8/12	2016/8/11



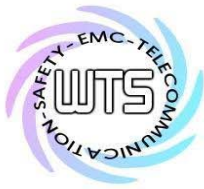
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ETSTW-RE 126	5GHz Notch filter	5NSL11-5800/E221.3-O/O	1	K&L Microwave	2015/8/12	2016/8/11
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2015/3/2	2016/3/1
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circits	2015/8/12	2016/8/11
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circits	2015/8/12	2016/8/11
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2015/8/14	2016/8/13
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2015/3/5	2016/3/4
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2015/1/7	2016/1/6
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2015/1/7	2016/1/6
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2015/1/7	2016/1/6
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2015/1/7	2016/1/6
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2014/9/17	2015/9/16
ETSTW-Cable 010	BNC Cable	5 M BNC Cable	None	JYE BAO CO.,LTD.	2014/10/15	2015/10/14
ETSTW-Cable 011	BNC Cable	BNC Cable 1	None	JYE BAO CO.,LTD.	Pre-test Use NCR	
ETSTW-Cable 012	N TYPE To SMA Cable	Cable 012	None	JYE BAO CO.,LTD.	2014/10/15	2015/10/14
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2015/2/25	2016/2/24
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2015/2/25	2016/2/24
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2015/2/25	2016/2/24
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2015/2/25	2016/2/24
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2015/4/23	2016/4/22
ETSTW-Cable 022	N TYPE Cable	5006	0002	JYE BAO CO.,LTD.	2015/3/19	2016/3/18
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2015/3/2	2016/3/1
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2015/5/14	2016/5/13
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2015/1/16	2016/1/15
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2014/9/22	2015/9/21
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S Cable 9)	279067	HUBER+SUHNER	2015/3/2	2016/3/1
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 (S Cable 10)	238092	HUBER+SUHNER	2014/11/26	2015/11/25
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2014/11/26	2015/11/25
ETSTW-Cable 048	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2014/11/26	2015/11/25
ETSTW-Cable 053	N TYPE To SMA Cable	RG142	None	JYE BAO CO.,LTD.	2015/3/19	2016/3/18
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2015/3/19	2016/3/18
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1	

Test location

OATS (10m)	No.5-1, Lishui, Shuang Sing Village, Wanli Dist., New Taipei City 207, Taiwan (R.O.C.)	☐
semi-anechoic chamber (3m)	No.35, Aly. 21, Ln. 228, Ankang Rd., Neihsu Dist., Taipei City 114, Taiwan (R.O.C.)	☒



Registration number: W6M21508-15204-P-15B

2.4 Test results

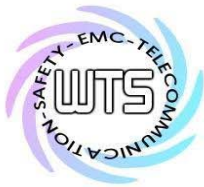
☒ 1st test

☐ test after modification

☐ production test

Test Emission / Immunity			Done	Test passed	Test failed
Emission	Radiated Emission	FCC part 15.109 Class B	☒	☒	☐
Emission	Conducted Emission	FCC part 15.107 Class B	☒	☒	☐

(The following is intentionally left blank.)



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2.4.1 Radiated Emission

2.4.1.1 Test Equipment

a) EMI TEST RECEIVER (ESVS10)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 005

b) EMI TEST RECEIVER (ESI 40)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 004

c) Amplifier(CHC 2)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 062

d) TRILOG Super Broadband test Antenna(VULB 9160)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 111

e) MICROWAVE HORN ANTENNA(AT4560)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 018

f) Double-Ridged Waveguide Horn Antenna (3117)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 030

g) TRILOG Super Broadband test Antenna(VULB 9160)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-RE 049

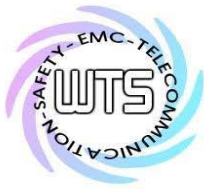
2.4.1.2 Test Procedures

- Test configuration

The test configuration corresponds to the standard ANSI C63.4. The equipment under test is placed on a non metallic table with 0.8m height. The power supply and the RF connection points are close to the equipment under test at the floor inside a connection box. The cables to this connection box are shielded and below the double floor. The receiving antenna is placed in a height at 1.0 to 4.0m, in a distance of 3m. The measurement receiver is placed in a special room. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

- Test parameters and marginal conditions

The test is carried out with horizontal and vertical polarization of the antenna in a frequency range of 30 MHz to 12750 MHz. Further information please find in the test protocol.



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2.4.2 Conducted Emission

2.4.2.1 Test Equipment

a) TWO-LINE V-NETWORK (ENV216)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-CE 016

b) IMPULS-BEGRENZER PULSE LIMITER (ESH3-Z2)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-CE 006

c) EMI TEST RECEIVER (ESHS10)

For your reference please find it in our test equipment list at page 9 to 10 as number : ETSTW-CE 001

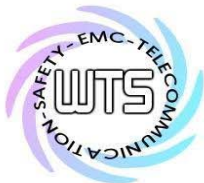
2.4.2.2 Test Procedures

- Test configuration

The test configuration is contained inside of a shielded chamber and corresponds to the standard ANSI C63.4. The equipment under test is placed in the facility on a wooden table 0.8m height. The equipment under test is connected with the artificial mains network (AMN) in a distance of 0.8m and also 0.8m from other subassembly and metallic area. The measurement receiver is placed in a special room adjacent to the chamber. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

- Test parameters and marginal conditions

The tests are carried out with nominal impedance by 50Ω / $50\mu\text{H}$ of the AMN in a frequency range 150 kHz to 30 MHz. This measurement was transacted first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector, further information please find in test report.



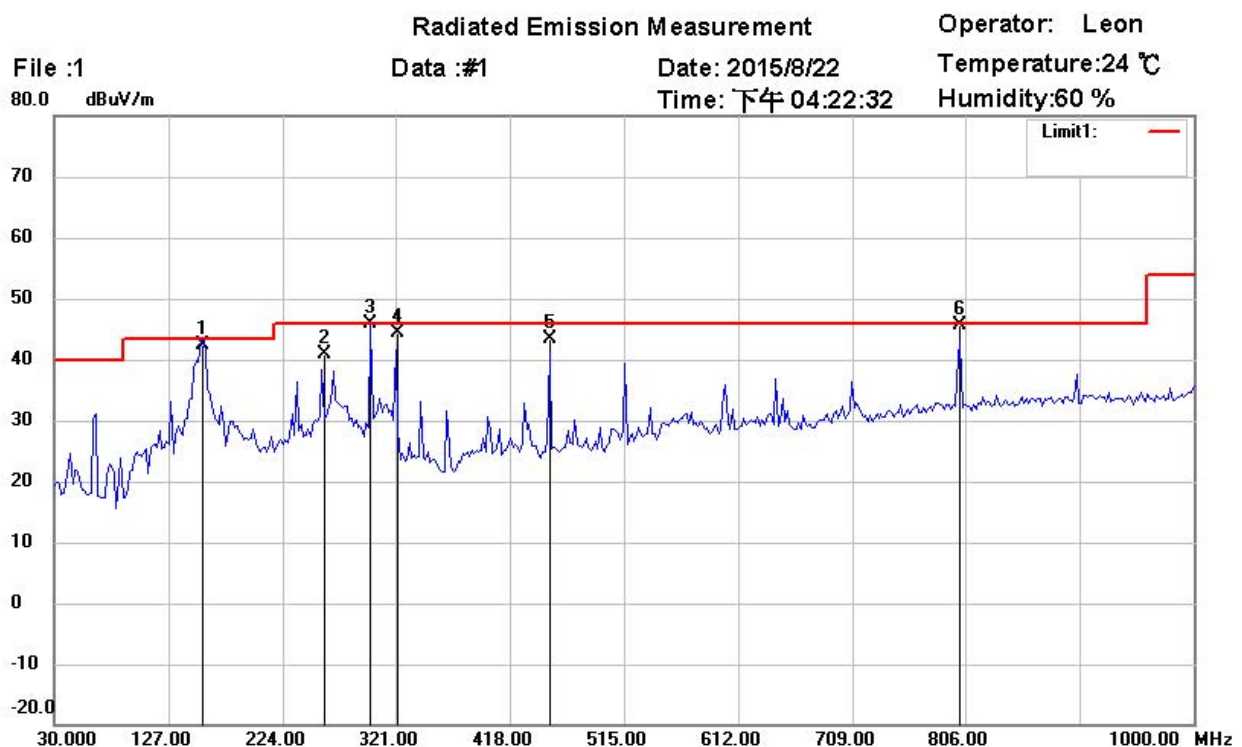
Registration number: W6M21508-15204-P-15B

2.5 Test protocols

2.5.1 Radiated Emission

Radio Noise Field Strength

Emission



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

EUT : W6M21508-15204

M/N:

Test Mode : USB 3.0

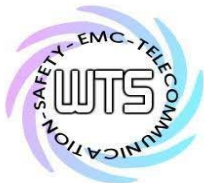
Note :

Polarization: *Horizontal*

Power : 120 V.a.c.

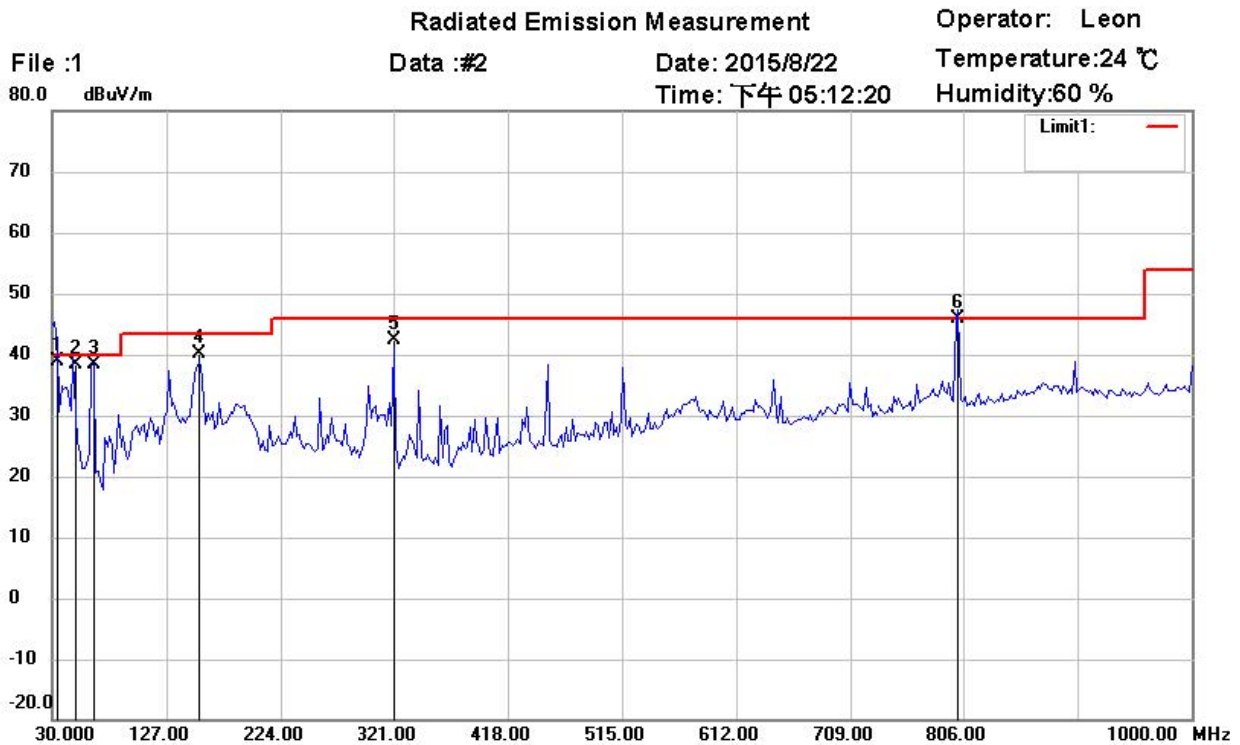
Distance : 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	156.0922	26.98	QP	15.49	42.47	43.50	190	10	-1.03	
	257.4350	26.33	QP	14.56	40.89	46.00	120	175	-5.11	
*	300.2004	29.72	QP	16.04	45.76	46.00	100	265	-0.24	
	322.0576	27.79	QP	16.64	44.43	46.00	100	275	-1.57	
	450.9003	23.38	QP	20.04	43.42	46.00	100	290	-2.58	
	799.9974	19.03	QP	26.60	45.63	46.00	100	145	-0.37	



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Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

EUT : W6M21508-15204

M/N:

Test Mode : USB 3.0

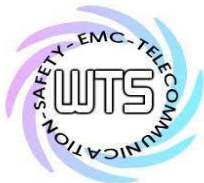
Note :

Polarization: *Vertical*

Power : 120 V.a.c.

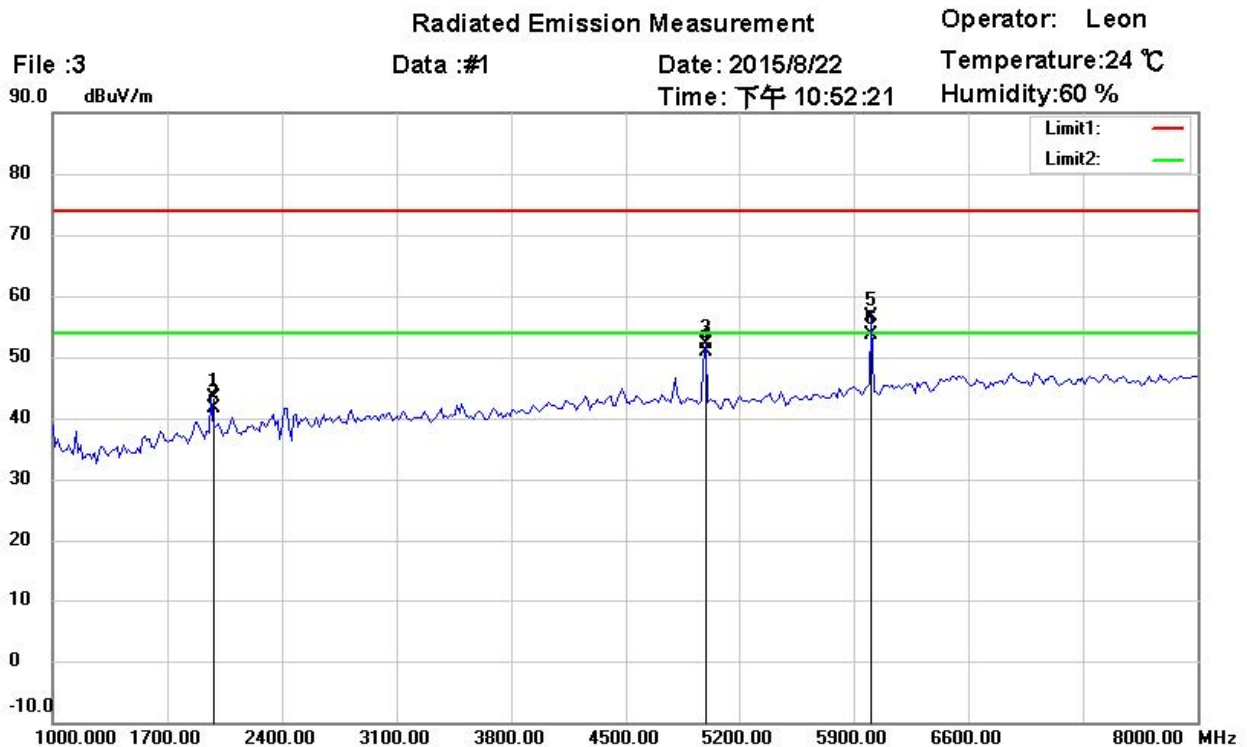
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	32.2645	24.93	QP	13.86	38.79	40.00	100	110	-1.21	
	48.1127	23.56	QP	14.73	38.29	40.00	100	249	-1.71	
	64.4213	25.69	QP	12.58	38.27	40.00	100	210	-1.73	
	154.4088	24.63	QP	15.50	40.13	43.50	100	15	-3.37	
	321.5832	25.76	QP	16.62	42.38	46.00	100	35	-3.62	
*	800.0175	19.36	QP	26.60	45.96	46.00	100	20	-0.04	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : USB3.0

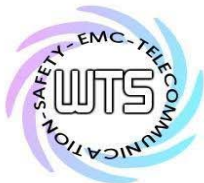
Note :

Polarization: *Horizontal*

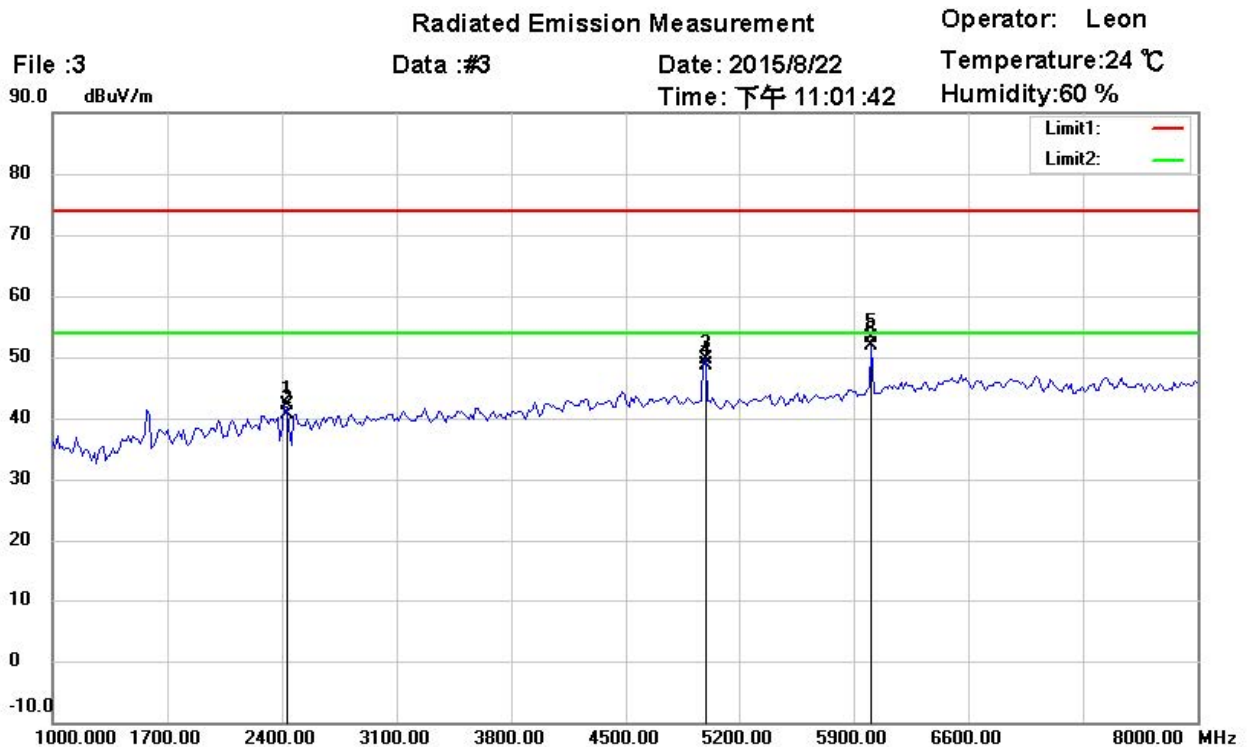
Power : 120 V.a.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	1967.936	49.08	peak	-5.62	43.46	74.00	100	80	-30.54	
	1967.936	47.35	AVG	-5.62	41.73	54.00	100	80	-12.27	
	4997.996	50.84	peak	1.36	52.20	74.00	100	175	-21.80	
	4997.996	49.52	AVG	1.36	50.88	54.00	100	175	-3.12	
	6000.206	52.76	peak	3.82	56.58	74.00	100	160	-17.42	
*	6000.206	49.83	AVG	3.82	53.65	54.00	100	160	-0.35	



Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : USB3.0

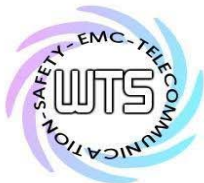
Note :

Polarization: *Vertical*

Power : 120 V.a.c.

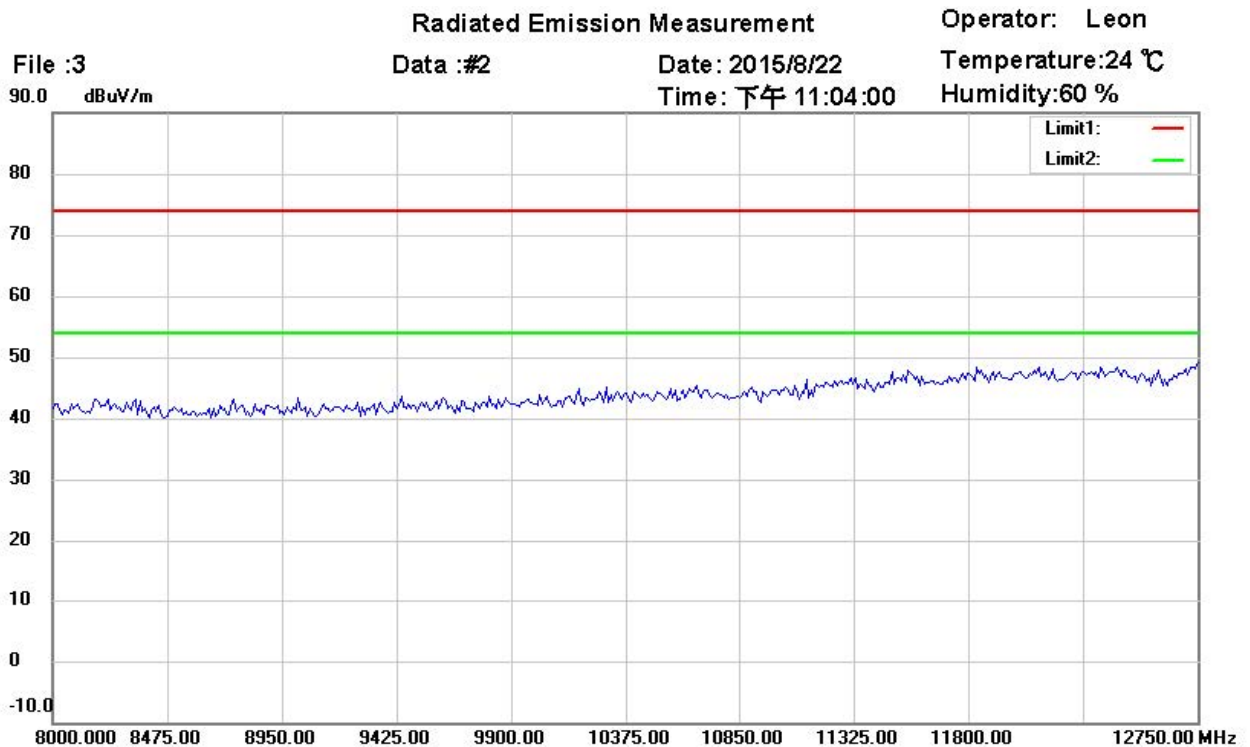
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	2416.834	46.27	peak	-4.04	42.23	74.00	100	75	-31.77	
	2416.834	44.73	AVG	-4.04	40.69	54.00	100	75	-13.31	
	4997.996	48.38	peak	1.36	49.74	74.00	100	210	-24.26	
	4997.996	47.26	AVG	1.36	48.62	54.00	100	210	-5.38	
	6008.016	49.36	peak	3.86	53.22	74.00	100	255	-20.78	
*	6008.016	47.98	AVG	3.86	51.84	54.00	100	255	-2.16	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : USB3.0

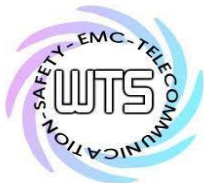
Note :

Polarization: *Horizontal*

Power : 120 V.a.c.

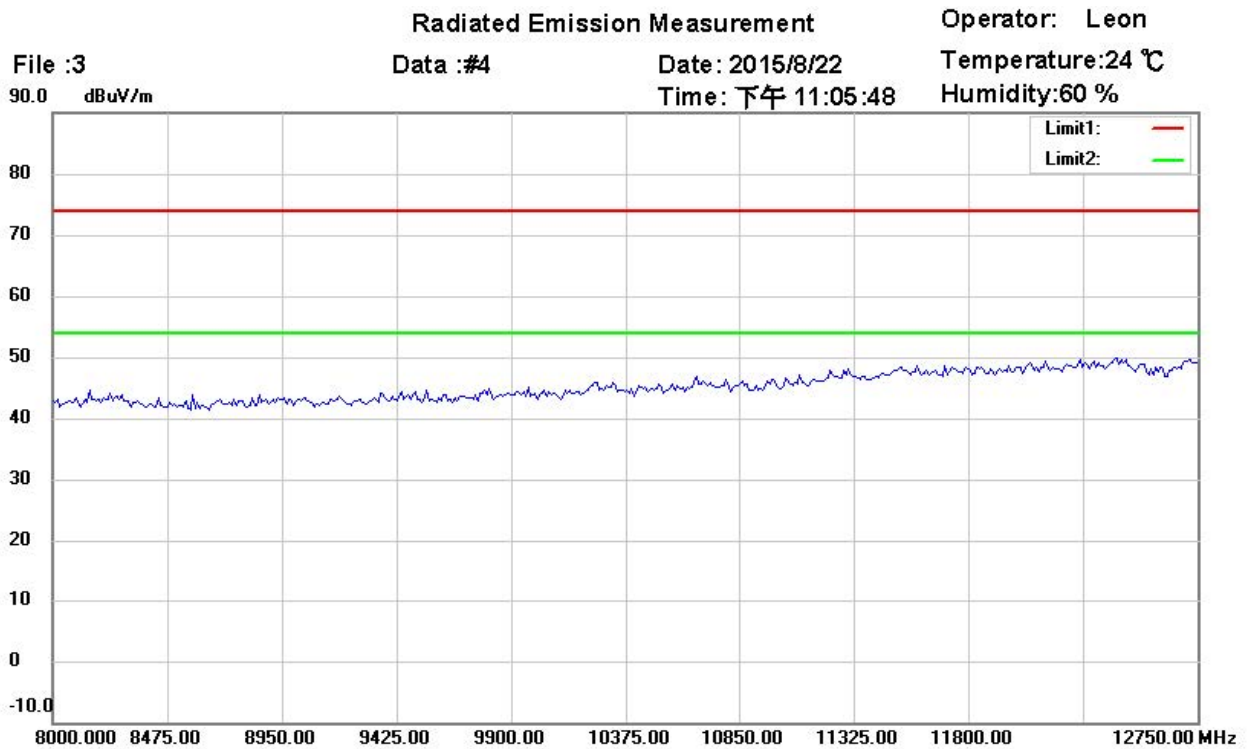
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : USB3.0

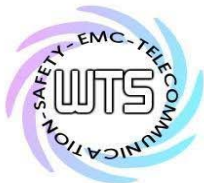
Note :

Polarization: *Vertical*

Power : 120 V.a.c.

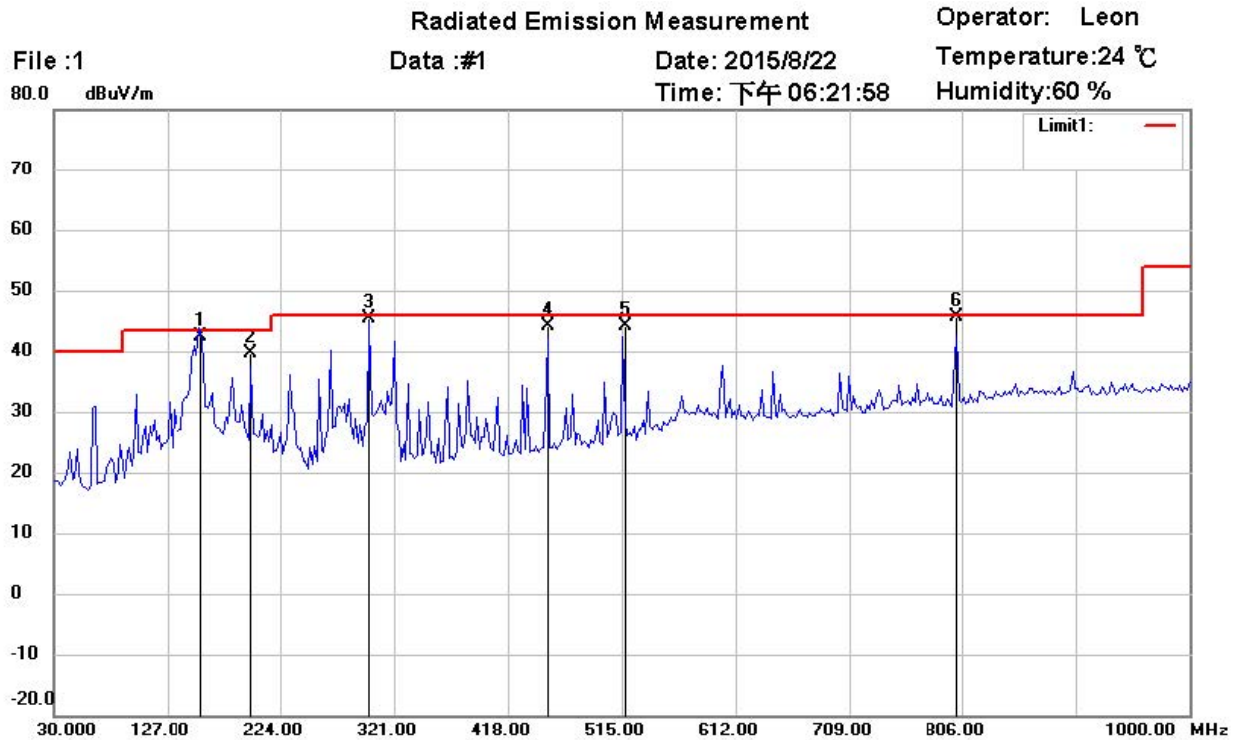
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

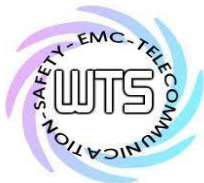
Note :

Polarization: *Horizontal*

Power : 120 Vac.

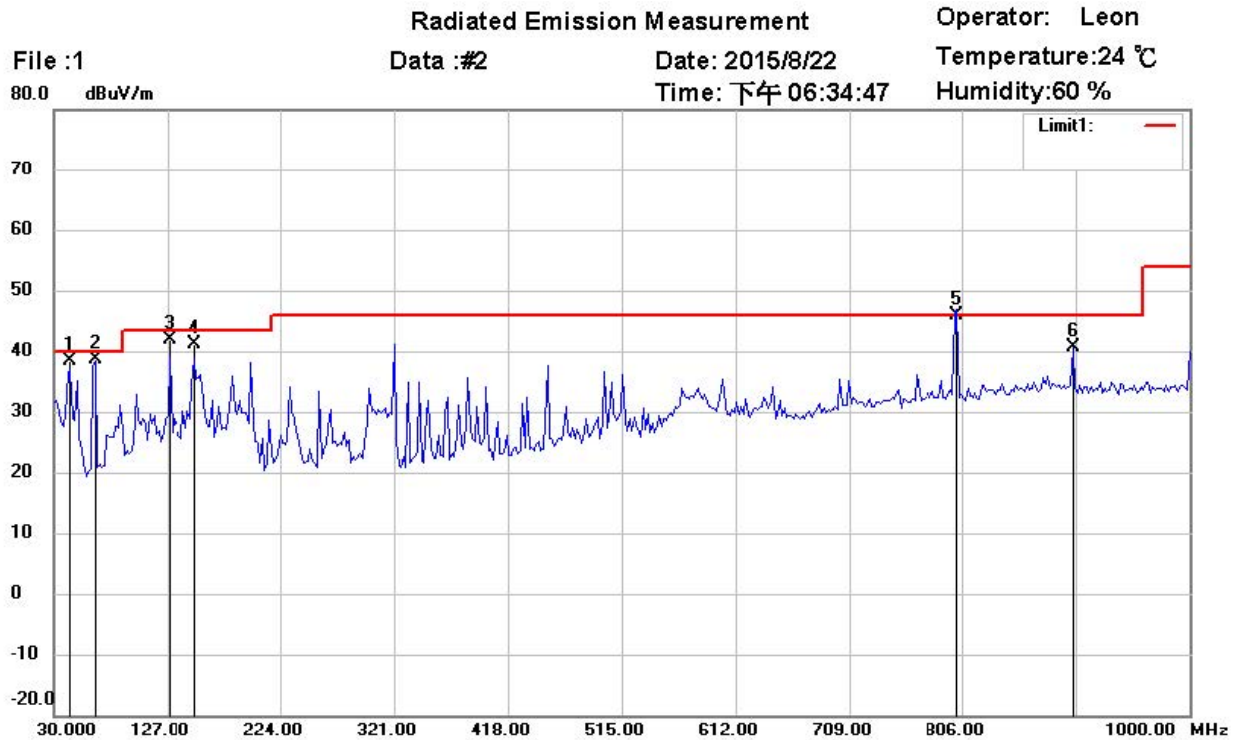
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	155.7916	26.79	QP	15.49	42.28	43.50	170	280	-1.22	
	199.1182	27.59	QP	12.15	39.74	43.50	120	235	-3.76	
	300.0065	29.35	QP	16.03	45.38	46.00	100	255	-0.62	
	451.8236	24.10	QP	20.05	44.15	46.00	100	85	-1.85	
	515.9720	22.98	QP	21.24	44.22	46.00	100	175	-1.78	
*	799.9974	19.15	QP	26.60	45.75	46.00	100	134	-0.25	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

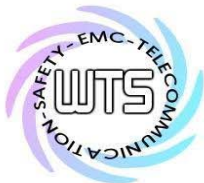
Note :

Polarization: **Vertical**

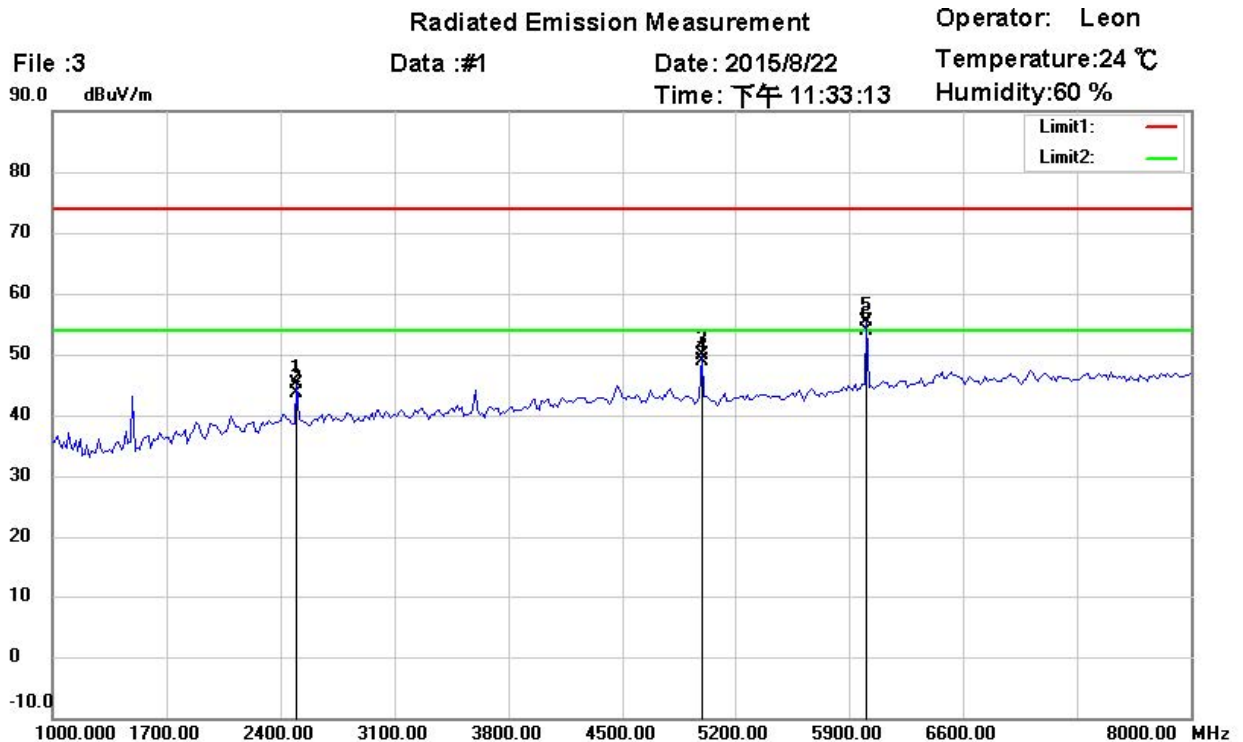
Power : 120 Vac.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	43.6072	23.55	QP	14.82	38.37	40.00	100	35	-1.63	
	64.9900	26.17	QP	12.51	38.68	40.00	100	175	-1.32	
	129.1383	27.12	QP	14.72	41.84	43.50	100	220	-1.66	
	150.5210	25.63	QP	15.50	41.13	43.50	100	185	-2.37	
*	799.9974	19.29	QP	26.60	45.89	46.00	100	20	-0.11	
	900.8617	12.13	QP	28.38	40.51	46.00	100	230	-5.49	



Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

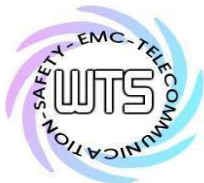
Note :

Polarization: *Horizontal*

Power : 120 V.a.c.

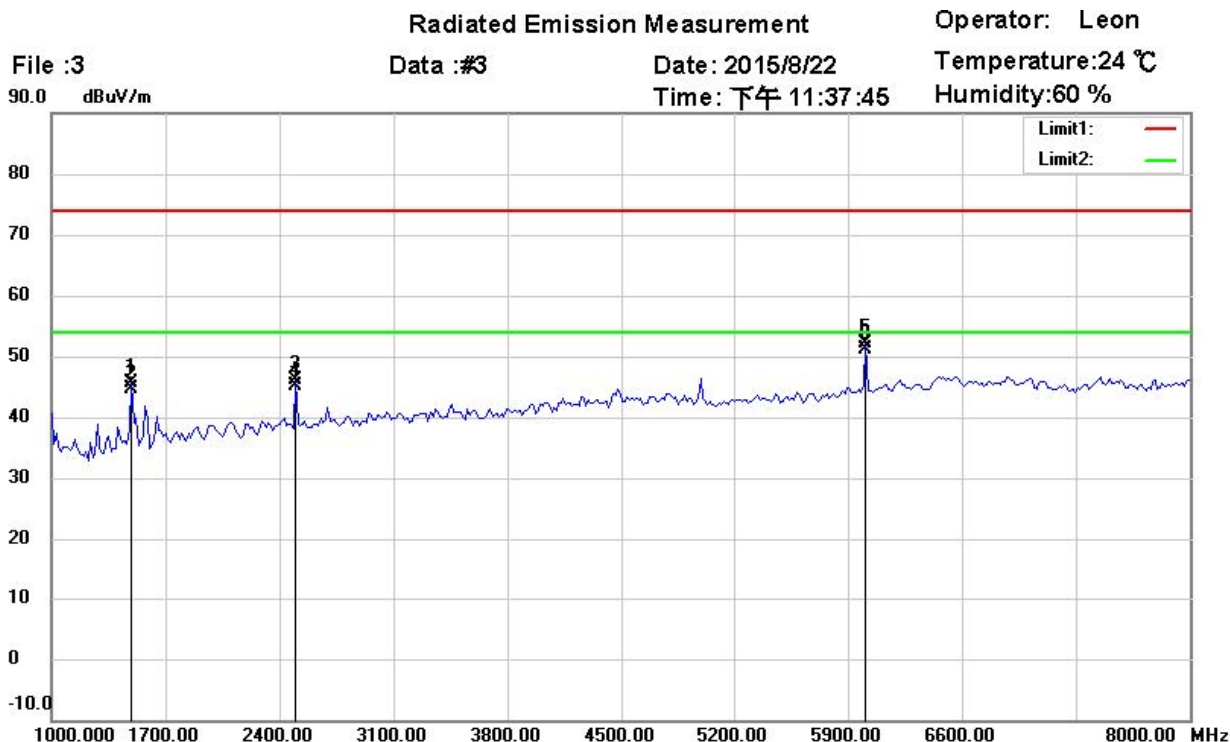
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	2501.002	48.96	peak	-3.88	45.08	74.00	100	150	-28.92	
	2501.002	47.55	AVG	-3.88	43.67	54.00	100	150	-10.33	
	4997.996	48.41	peak	1.36	49.77	74.00	100	230	-24.23	
	4997.996	47.61	AVG	1.36	48.97	54.00	100	230	-5.03	
	6000.122	51.61	peak	3.82	55.43	74.00	100	119	-18.57	
*	6000.122	50.09	AVG	3.82	53.91	54.00	100	119	-0.09	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

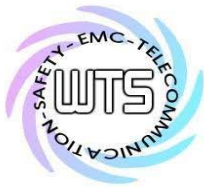
Note :

Polarization: *Vertical*

Power : 120 V.a.c.

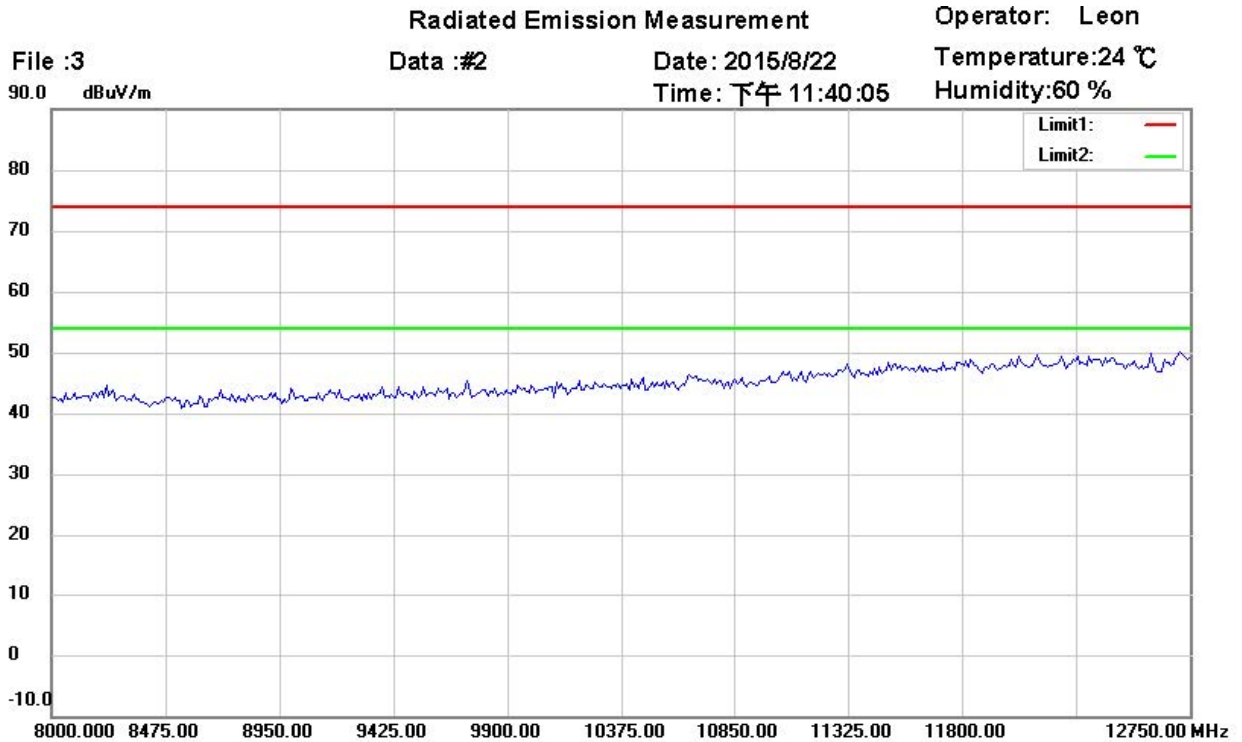
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	1490.982	54.43	peak	-8.92	45.51	74.00	100	75	-28.49	
	1490.982	53.67	AVG	-8.92	44.75	54.00	100	75	-9.25	
	2501.002	50.03	peak	-3.88	46.15	74.00	100	165	-27.85	
	2501.002	49.02	AVG	-3.88	45.14	54.00	100	165	-8.86	
	6008.016	48.19	peak	3.86	52.05	74.00	100	155	-21.95	
*	6008.016	47.33	AVG	3.86	51.19	54.00	100	155	-2.81	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

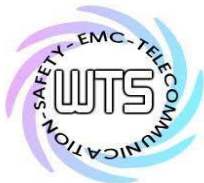
Note :

Polarization: *Horizontal*

Power : 120 V.a.c.

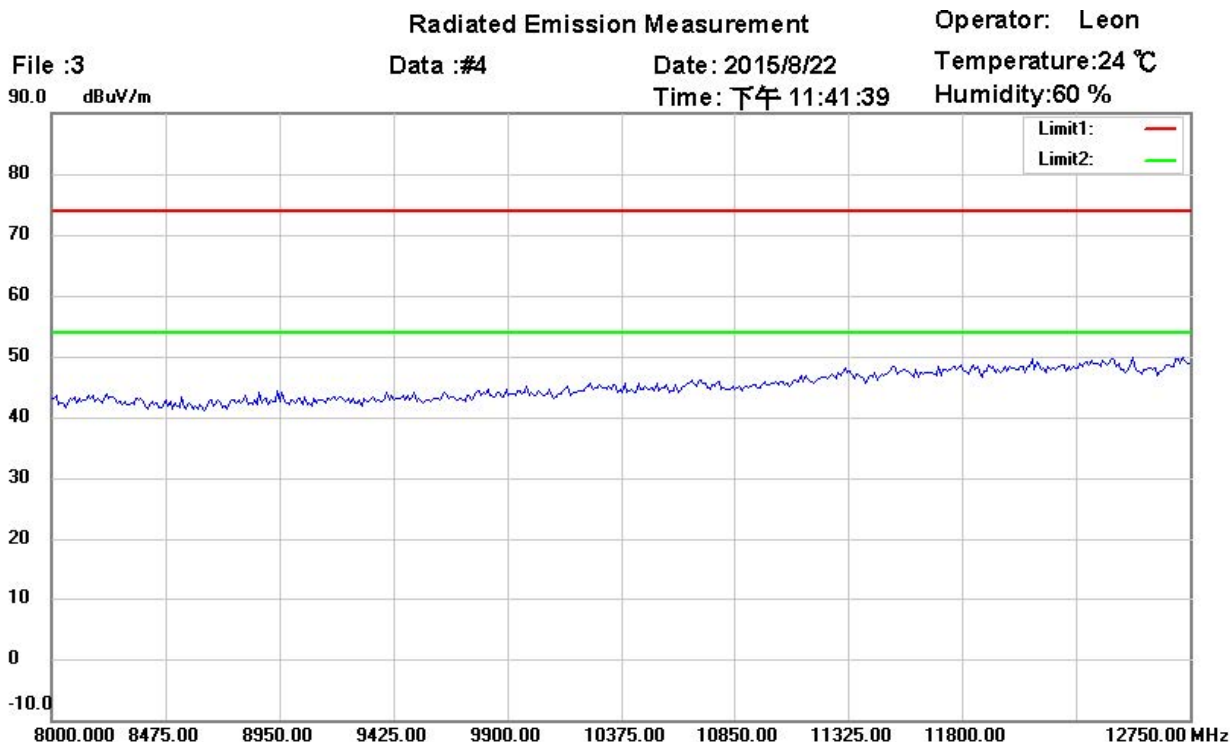
Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
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Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : 966 Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21508-15204

M/N:

Test Mode : eSATA

Note :

Polarization: *Vertical*

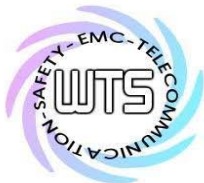
Power : 120 V.a.c.

Distance: 3m

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
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Note:

1. Correction Factor = Antenna factor + Cable loss - Preamplifier
2. The formula of measured value as: Test Result = Reading + Correction Factor
3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
4. All not in the table noted test results are more than 20 dB below the relevant limits.
Measurement uncertainty for 3m measurement: 30-1000 MHz = ± 4.32 dB, 1-18 GHz = ± 4.95 dB, 18-40 GHz = ± 2.94 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
5. Up Line: PK Limit Line, Down Line: Ave Limit Line.

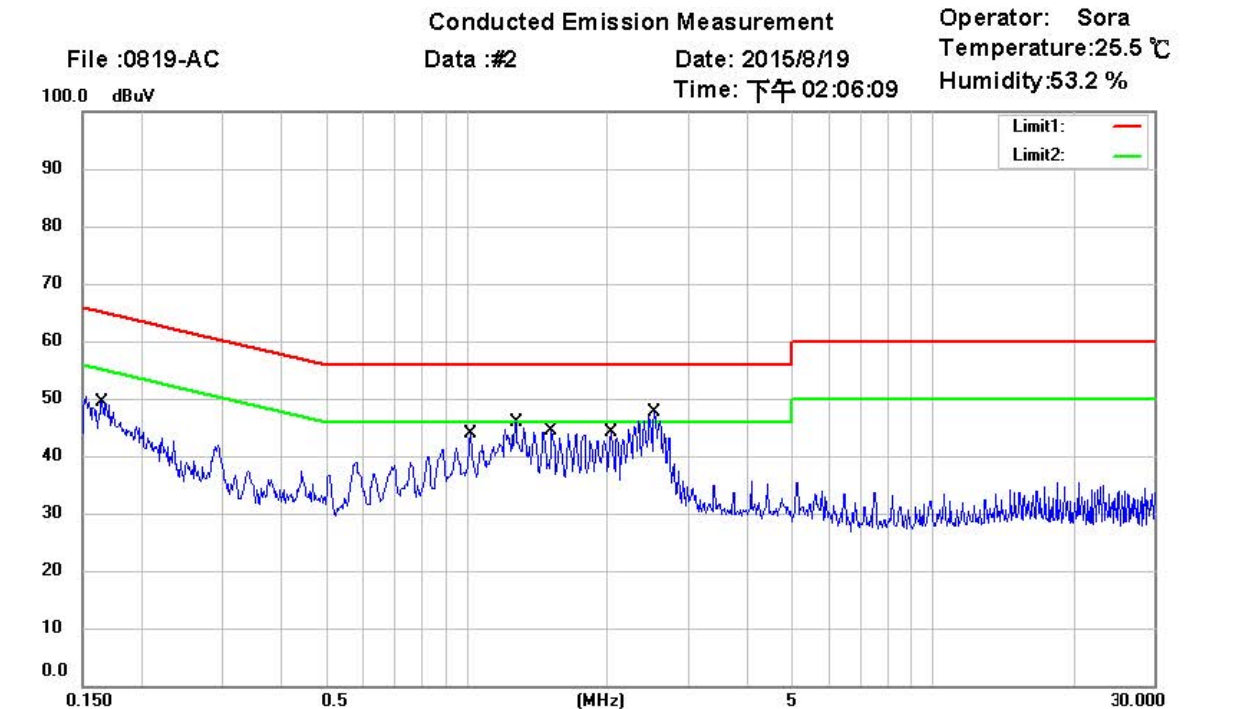


Registration number: W6M21508-15204-P-15B

2.5.2 Conducted Emission

Conducted Emission

Emission



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: N

EUT : W6M21508-15204

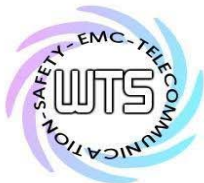
Power : 120 V.a.c.

M/N:

Test Mode : USB 3.0

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1642	32.78	QP	9.76	42.54	65.25	-22.71	
	0.1642	14.35	AVG	9.76	24.11	55.25	-31.14	
	1.0196	27.74	QP	9.80	37.54	56.00	-18.46	
	1.0196	22.13	AVG	9.80	31.93	46.00	-14.07	
	1.2695	27.64	QP	9.81	37.45	56.00	-18.55	
	1.2695	20.42	AVG	9.81	30.23	46.00	-15.77	
	1.5193	31.14	QP	9.81	40.95	56.00	-15.05	
	1.5193	22.32	AVG	9.81	32.13	46.00	-13.87	
	2.0300	29.80	QP	9.82	39.62	56.00	-16.38	
	2.0300	20.47	AVG	9.82	30.29	46.00	-15.71	
*	2.5338	35.81	QP	9.84	45.65	56.00	-10.35	
	2.5338	24.65	AVG	9.84	34.49	46.00	-11.51	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B

Conducted Emission Measurement

Operator: Sora

File :0819-AC

Data :#1

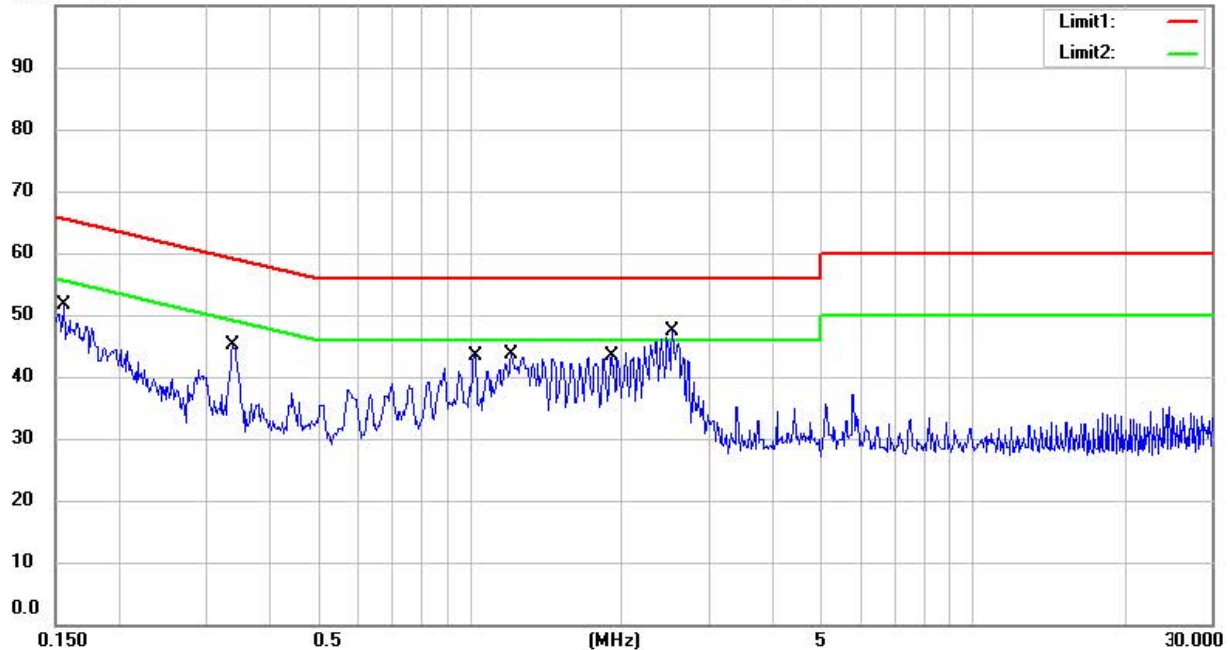
Date: 2015/8/19

Temperature:25.5 ℃

Time: 下午 02:03:57

Humidity:53.2 %

100.0 dBuV



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M21508-15204

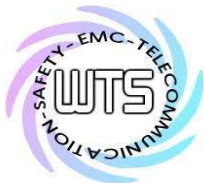
Power : 120 V.a.c.

M/N:

Test Mode : USB 3.0

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1556	33.82	QP	9.70	43.52	65.70	-22.18	
	0.1556	9.34	AVG	9.70	19.04	55.70	-36.66	
	0.3376	30.44	QP	9.70	40.14	59.26	-19.12	
	0.3376	28.37	AVG	9.70	38.07	49.26	-11.19	
	1.0220	26.97	QP	9.72	36.69	56.00	-19.31	
	1.0220	21.95	AVG	9.72	31.67	46.00	-14.33	
	1.2065	29.36	QP	9.73	39.09	56.00	-16.91	
	1.2065	23.61	AVG	9.73	33.34	46.00	-12.66	
	1.9018	30.47	QP	9.75	40.22	56.00	-15.78	
	1.9018	20.98	AVG	9.75	30.73	46.00	-15.27	
*	2.5341	35.57	QP	9.77	45.34	56.00	-10.66	
	2.5341	24.52	AVG	9.77	34.29	46.00	-11.71	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B

Conducted Emission Measurement

Operator: Sora

File :0819-AC

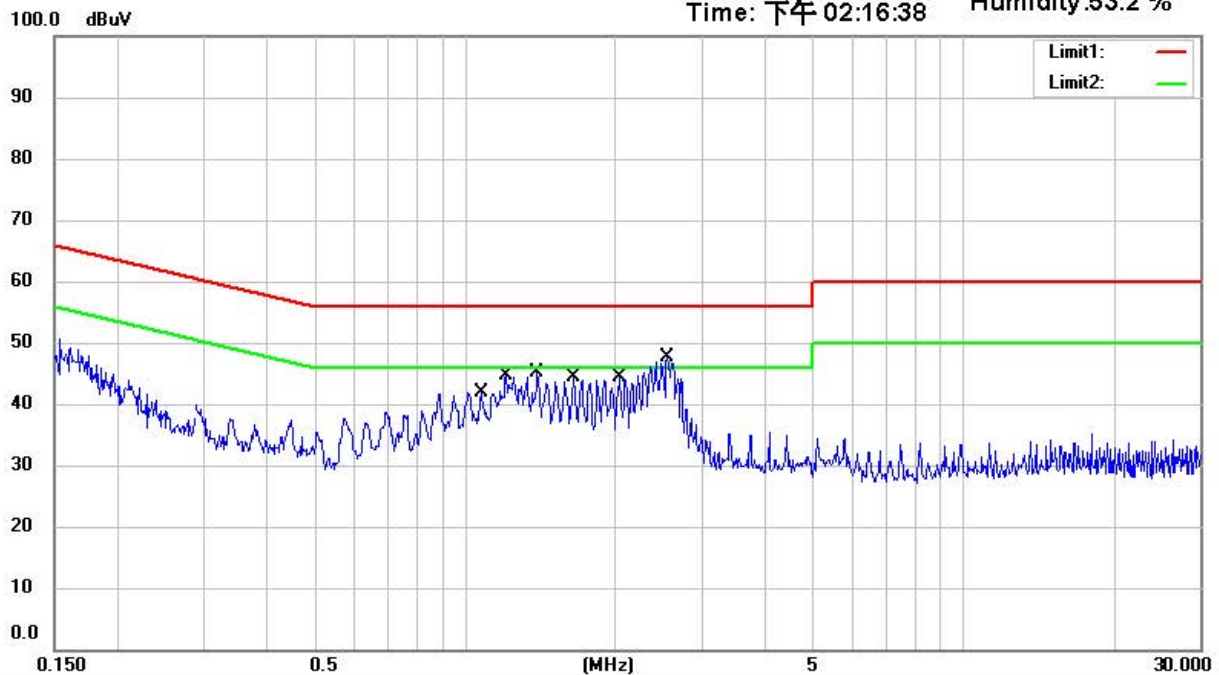
Data :#3

Date: 2015/8/19

Temperature:25.5 °C

Time: 下午 02:16:38

Humidity:53.2 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: N

EUT : W6M21508-15204

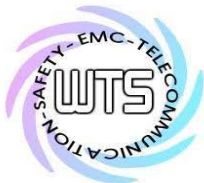
Power : 120 V.a.c.

M/N:

Test Mode : eSATA

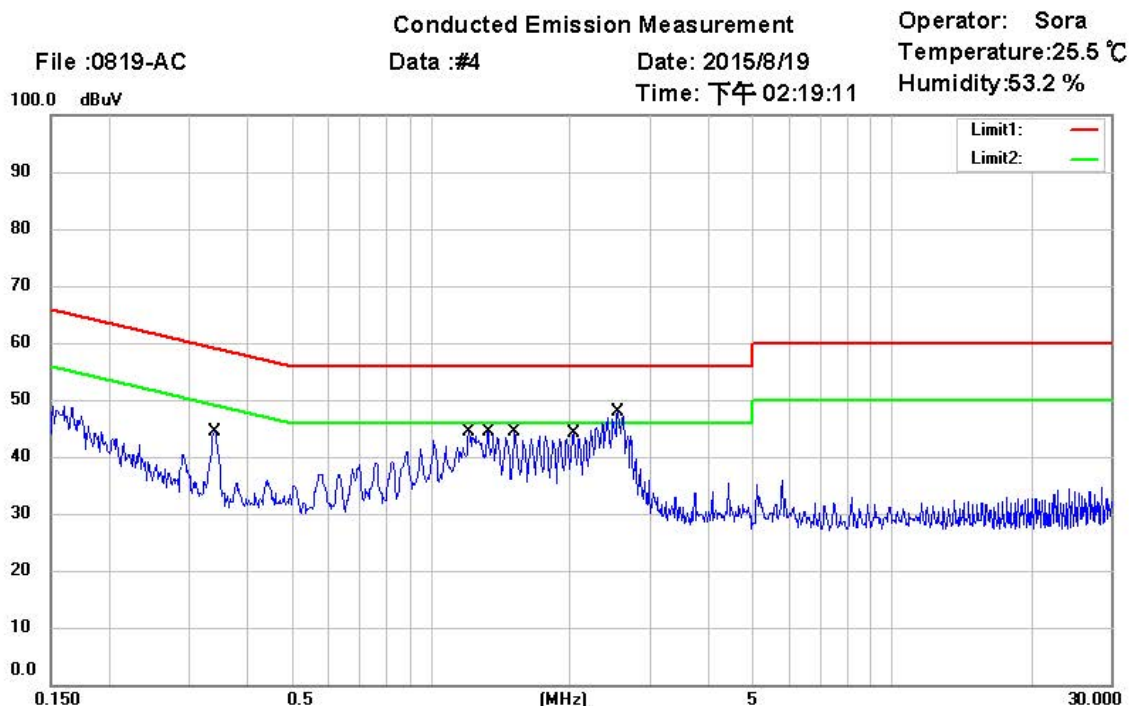
Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	1.0760	28.83	QP	9.80	38.63	56.00	-17.37	
	1.0760	20.86	AVG	9.80	30.66	46.00	-15.34	
	1.2065	29.72	QP	9.80	39.52	56.00	-16.48	
	1.2065	23.92	AVG	9.80	33.72	46.00	-12.28	
	1.3910	31.32	QP	9.81	41.13	56.00	-14.87	
	1.3910	22.44	AVG	9.81	32.25	46.00	-13.75	
	1.6453	31.26	QP	9.81	41.07	56.00	-14.93	
	1.6453	22.11	AVG	9.81	31.92	46.00	-14.08	
	2.0368	27.82	QP	9.82	37.64	56.00	-18.36	
	2.0368	22.51	AVG	9.82	32.33	46.00	-13.67	
*	2.5295	36.21	QP	9.84	46.05	56.00	-9.95	
	2.5295	24.79	AVG	9.84	34.63	46.00	-11.37	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21508-15204-P-15B



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M21508-15204

Power : 120 V.a.c.

M/N:

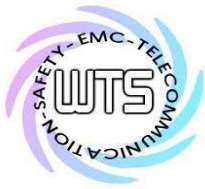
Test Mode : eSATA

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.3410	31.74	QP	9.70	41.44	59.18	-17.74	
*	0.3410	29.80	AVG	9.70	39.50	49.18	-9.68	
	1.2063	29.38	QP	9.73	39.11	56.00	-16.89	
	1.2063	23.53	AVG	9.73	33.26	46.00	-12.74	
	1.3273	29.99	QP	9.73	39.72	56.00	-16.28	
	1.3273	21.16	AVG	9.73	30.89	46.00	-15.11	
	1.5192	31.43	QP	9.74	41.17	56.00	-14.83	
	1.5192	22.10	AVG	9.74	31.84	46.00	-14.16	
	2.0235	30.81	QP	9.75	40.56	56.00	-15.44	
	2.0235	21.88	AVG	9.75	31.63	46.00	-14.37	
	2.5297	36.13	QP	9.77	45.90	56.00	-10.10	
	2.5297	25.25	AVG	9.77	35.02	46.00	-10.98	

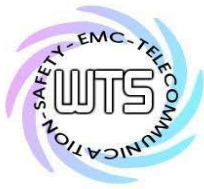
Note

1. The formula of measured value as: Test Result = Reading + Correction Factor
2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss
3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
4. All not in the table noted test results are more than 20 dB below the relevant limits.
5. Measurement uncertainty = ± 1.67 dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.
6. Up Line: QP Limit Line, Down Line: Ave Limit Line.



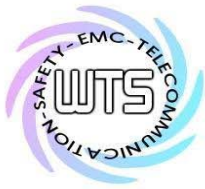
2.6 Equipment Modification

No modification was made to pass all tests.



3 Normative references

- /1/ FCC part 15
Radio Frequency Devices
- /2/ ANSI STANDARD C63.4-2009
American National Standard for Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz



Appendix

Photos

1. External Photos
2. Internal Photos
3. Set Up Photo of Radiated Emission
4. Set Up Photo of Conducted Emission

Registration number: W6M21508-15204-P-15B

External Photos



Registration number: W6M21508-15204-P-15B



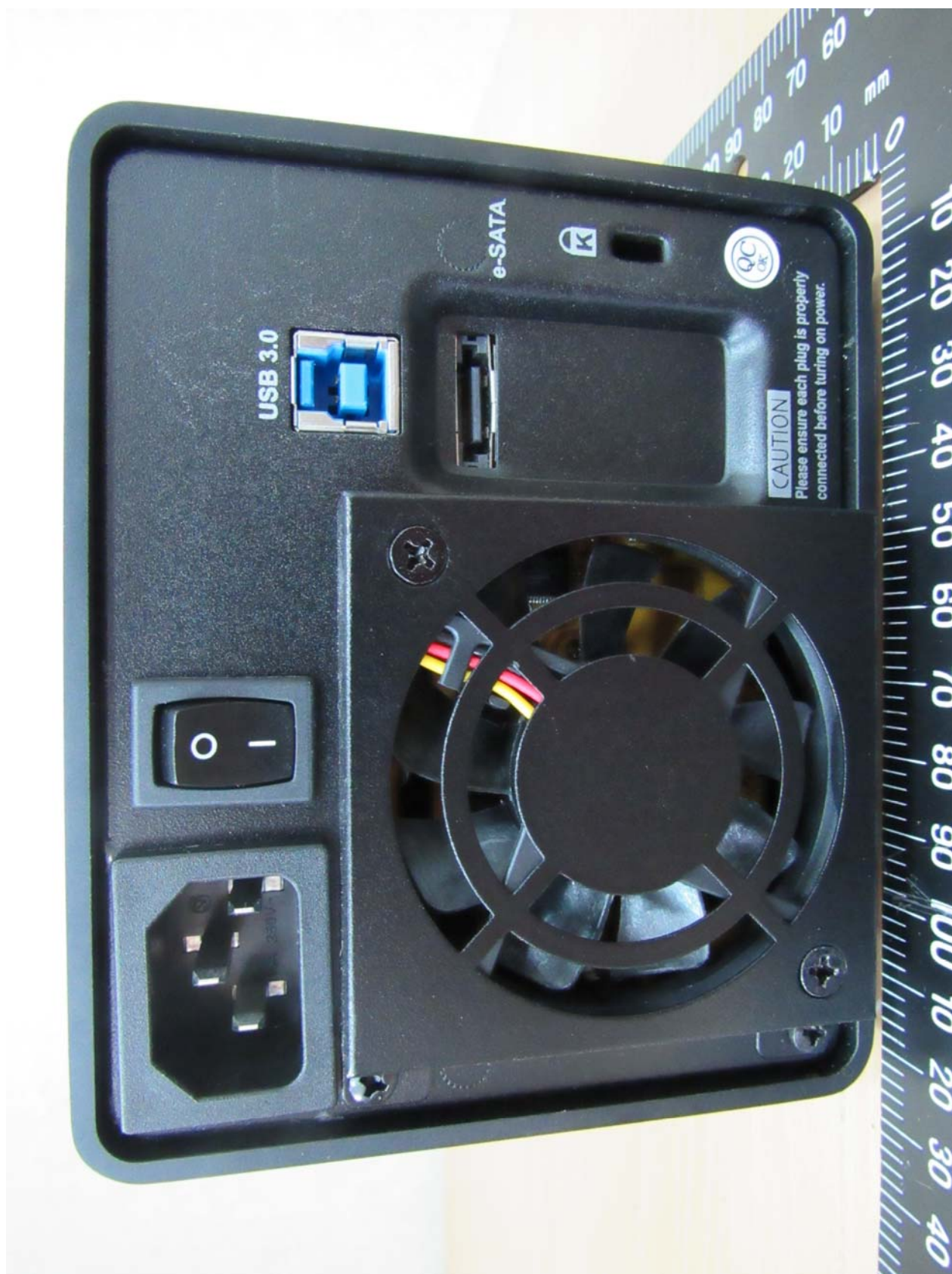
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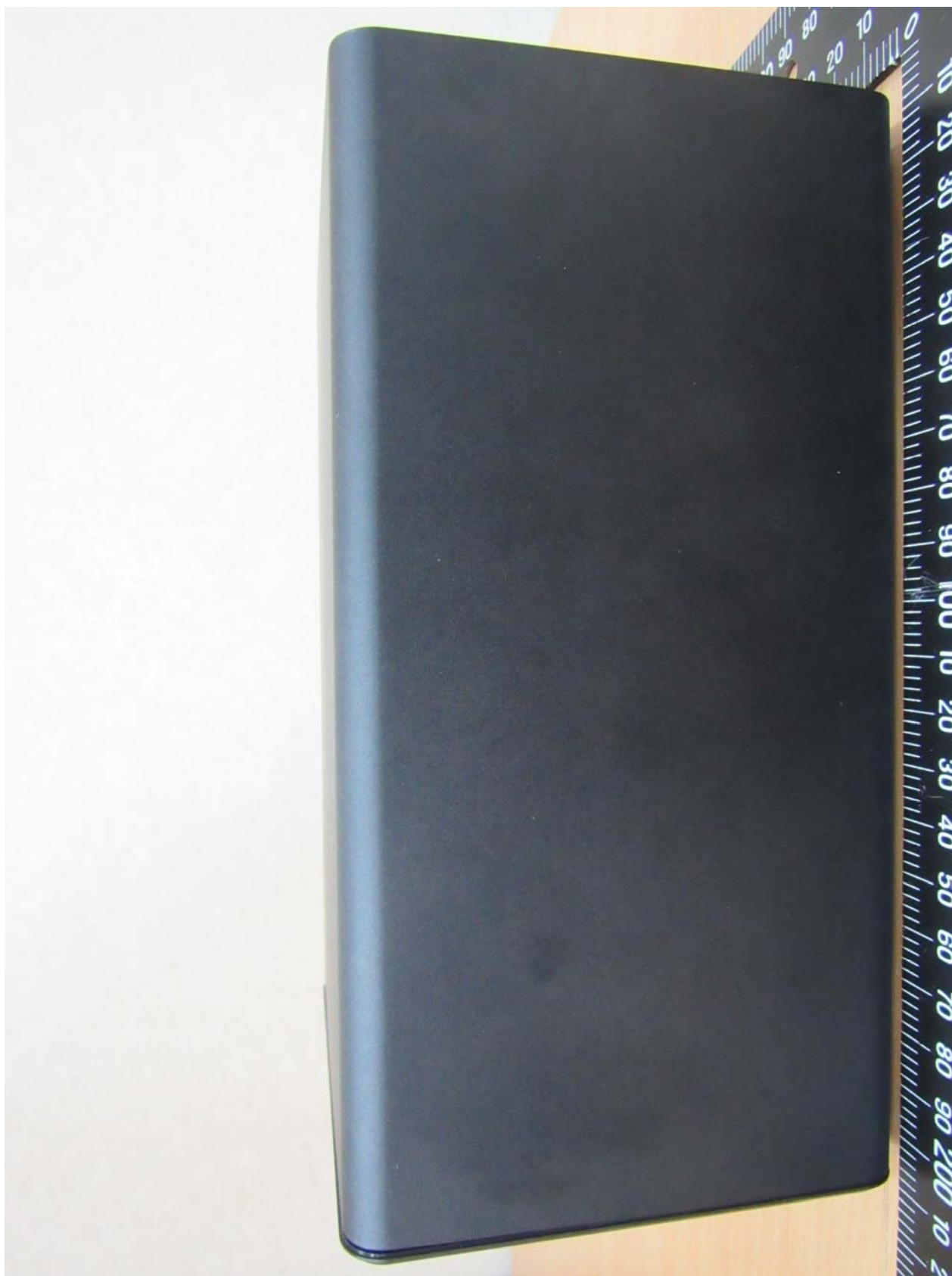
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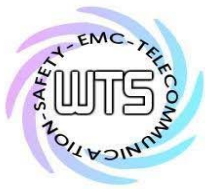


Registration number: W6M21508-15204-P-15B

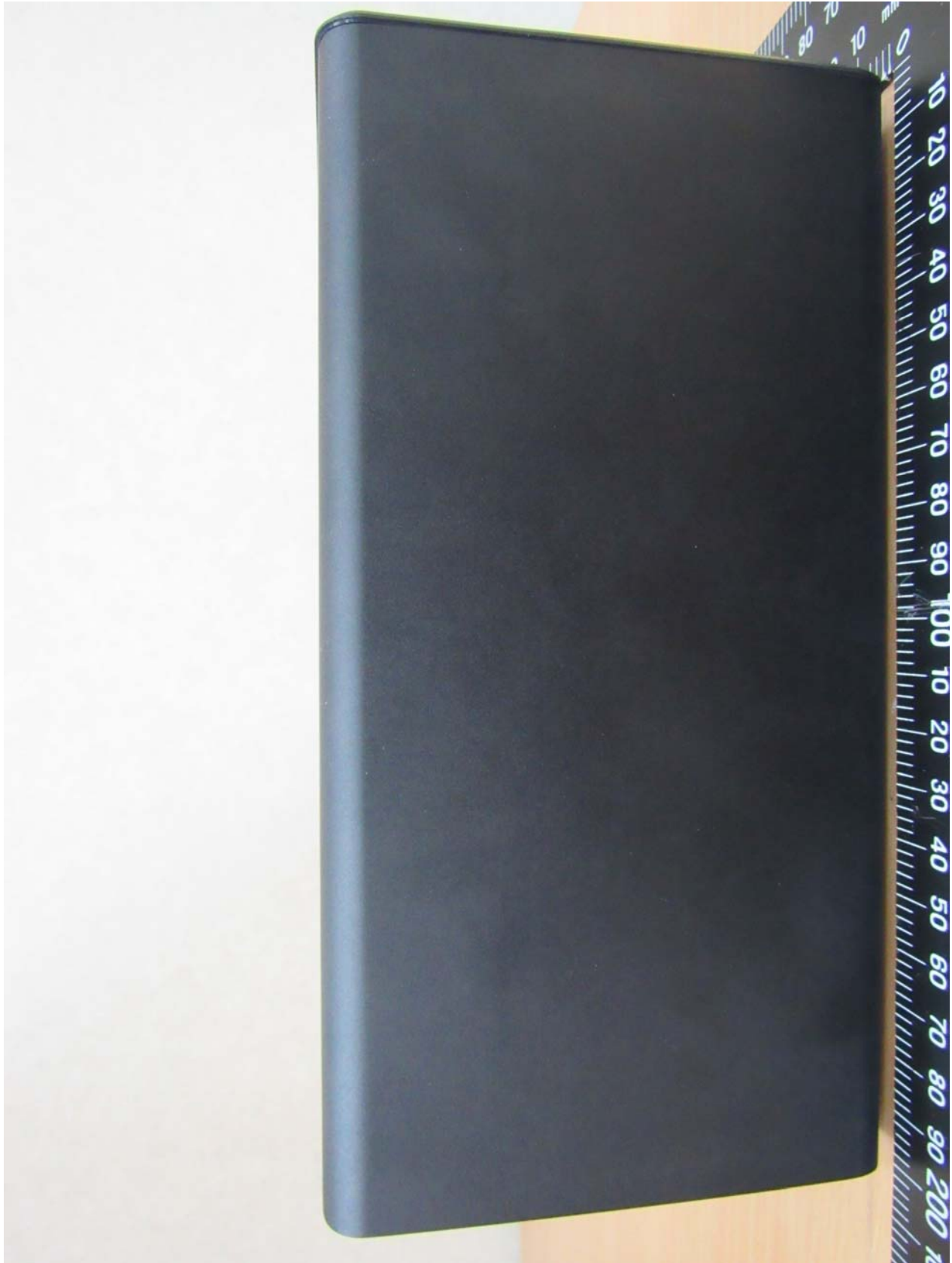


Registration number: W6M21508-15204-P-15B





Registration number: W6M21508-15204-P-15B



Registration number: W6M21508-15204-P-15B

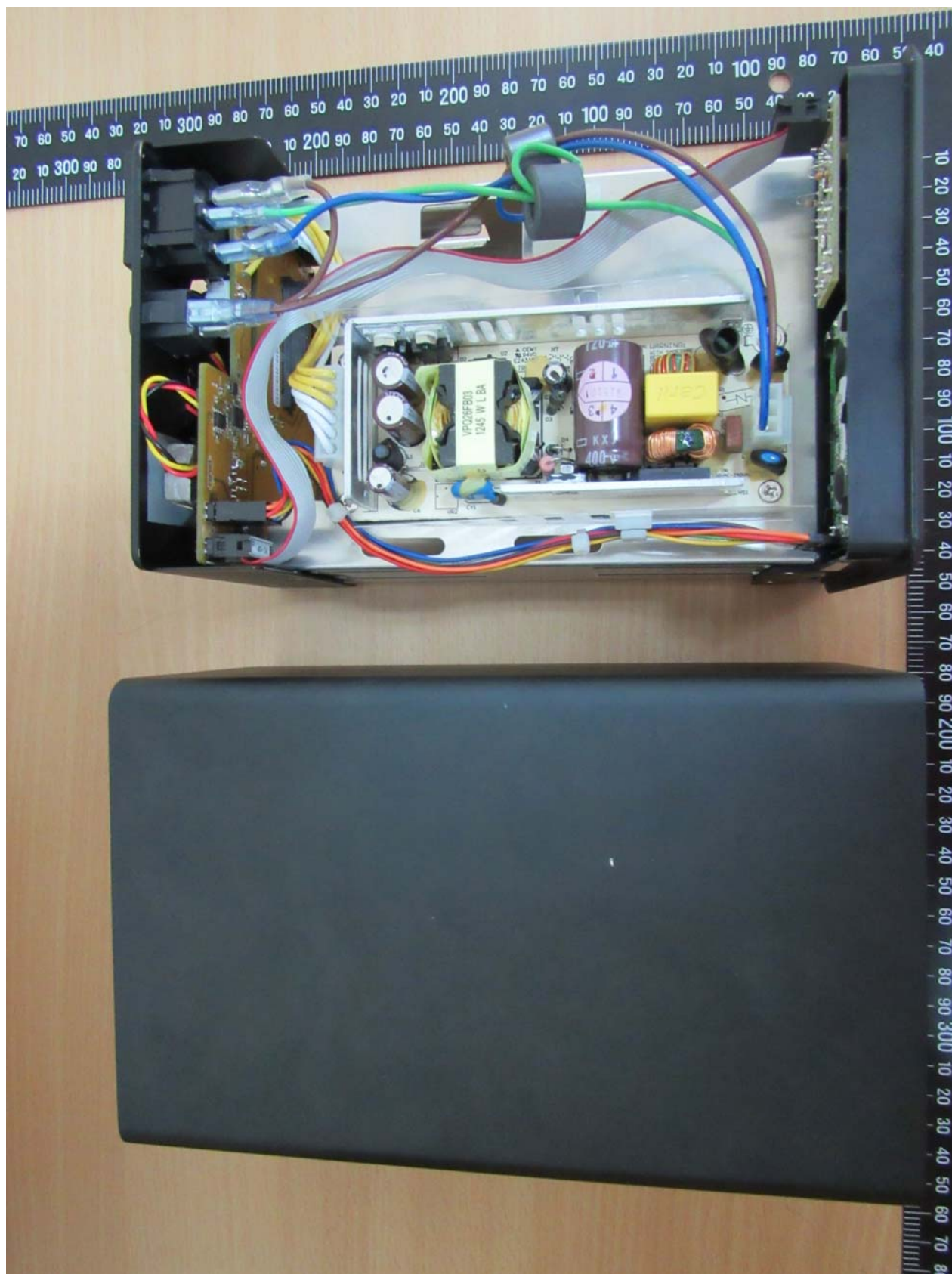
Internal Photos



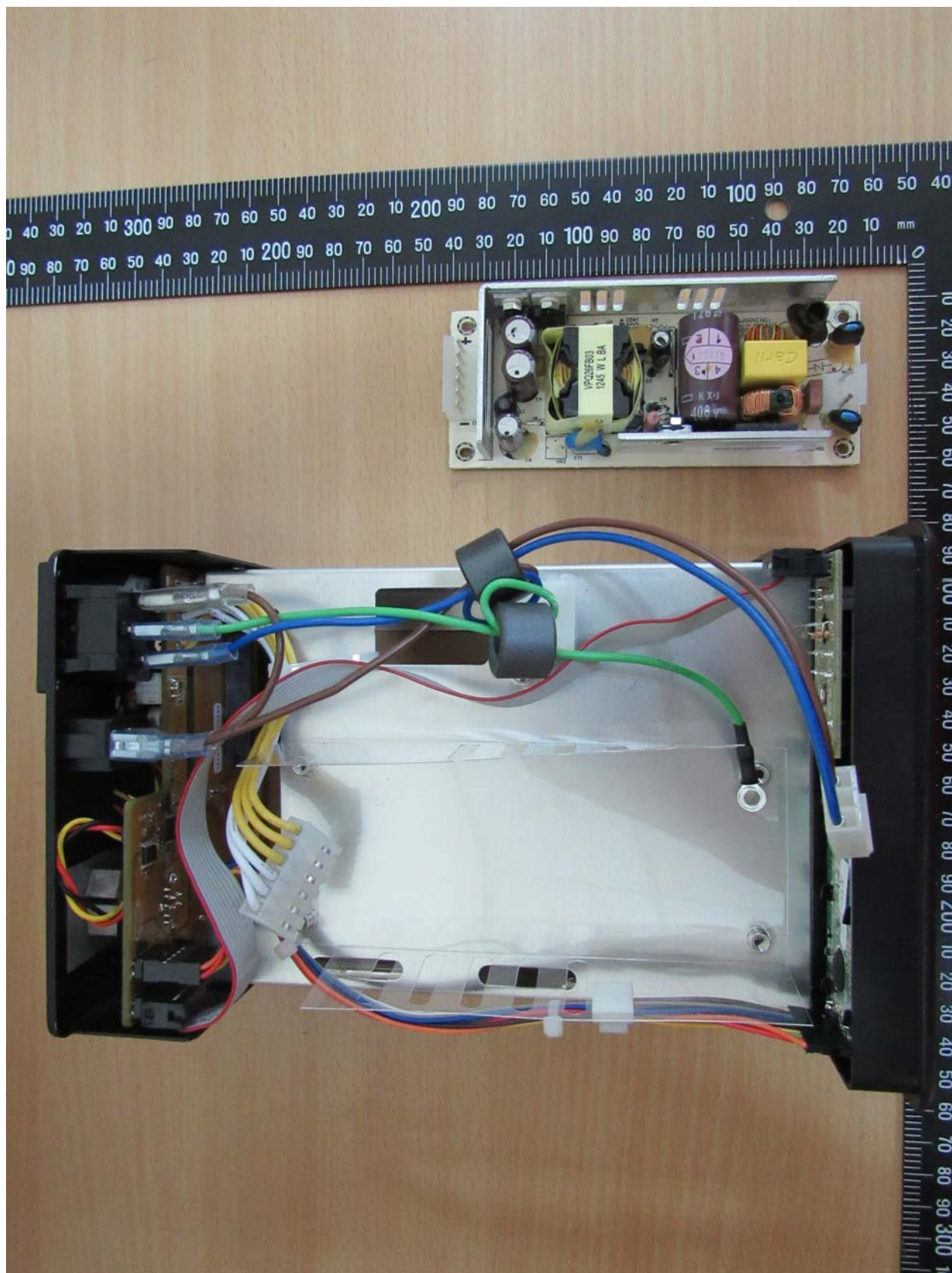
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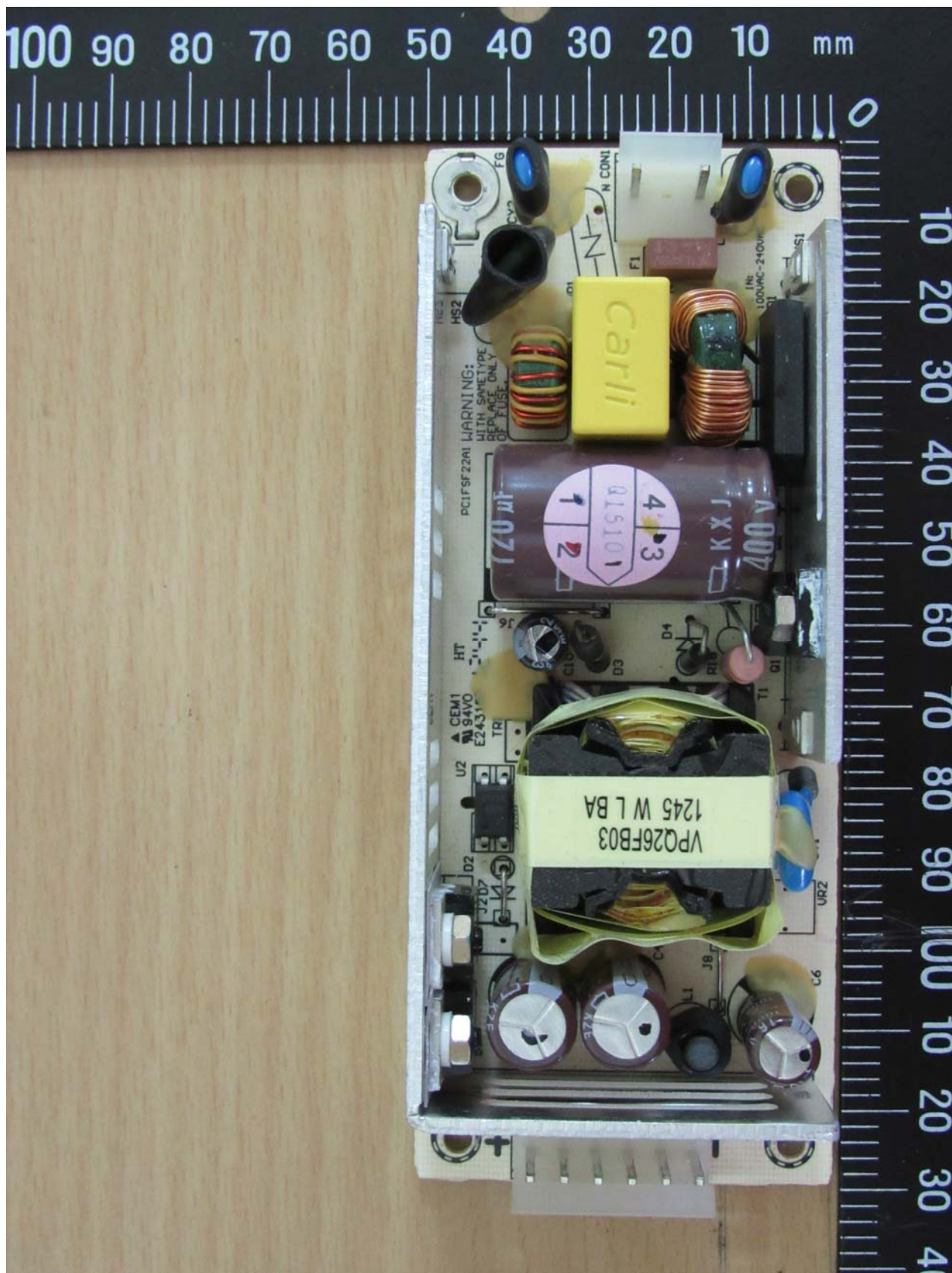
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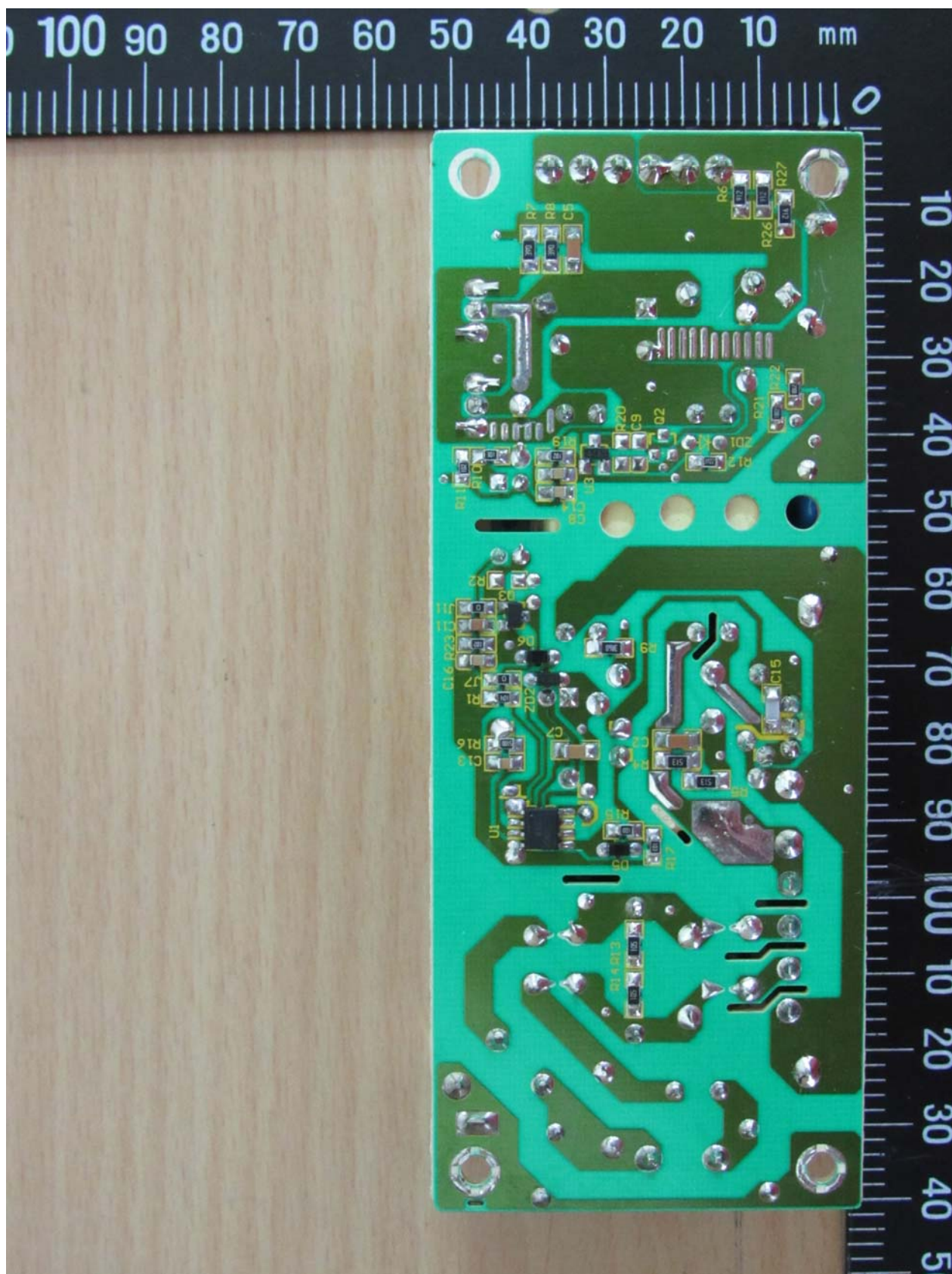
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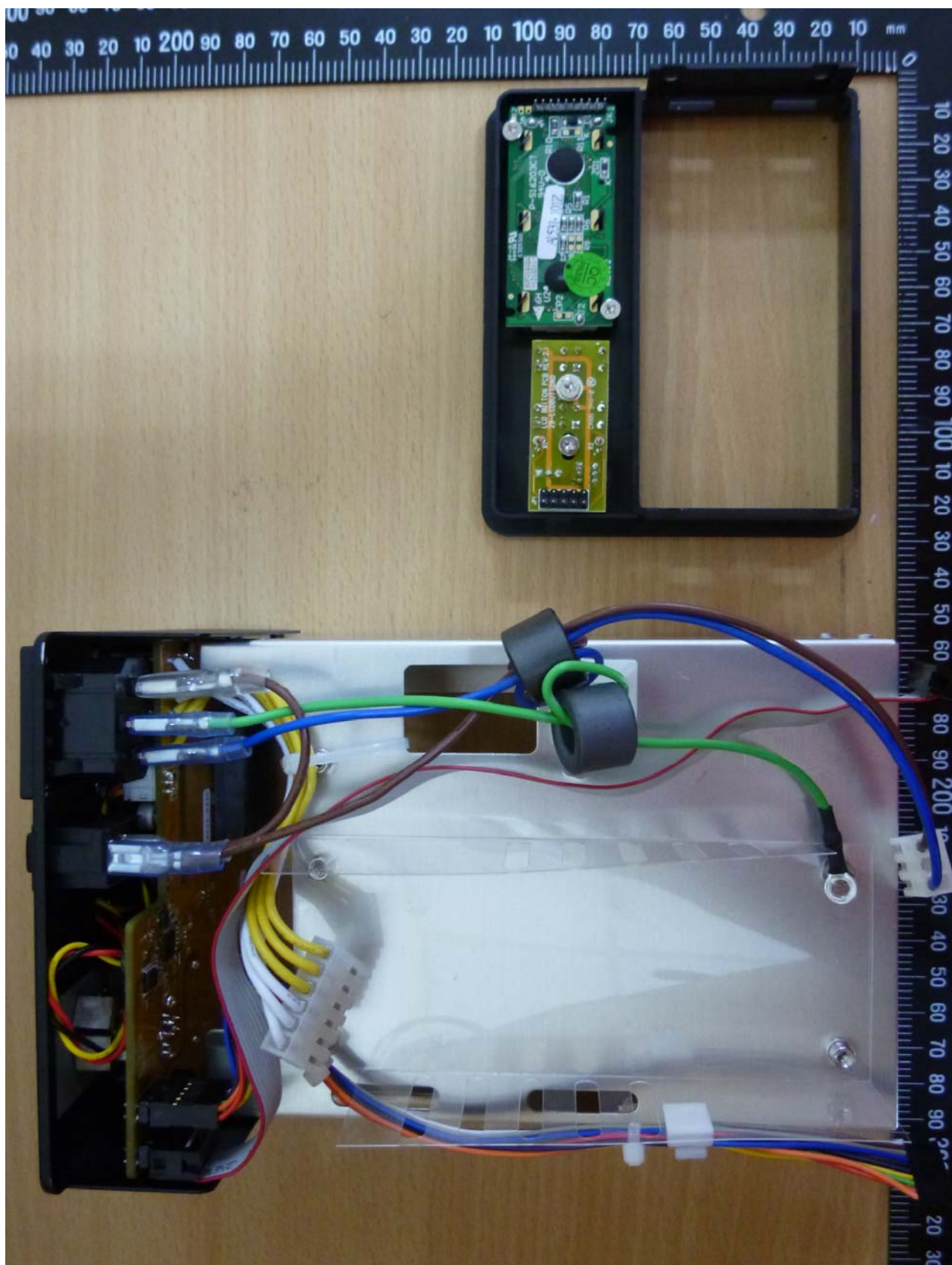
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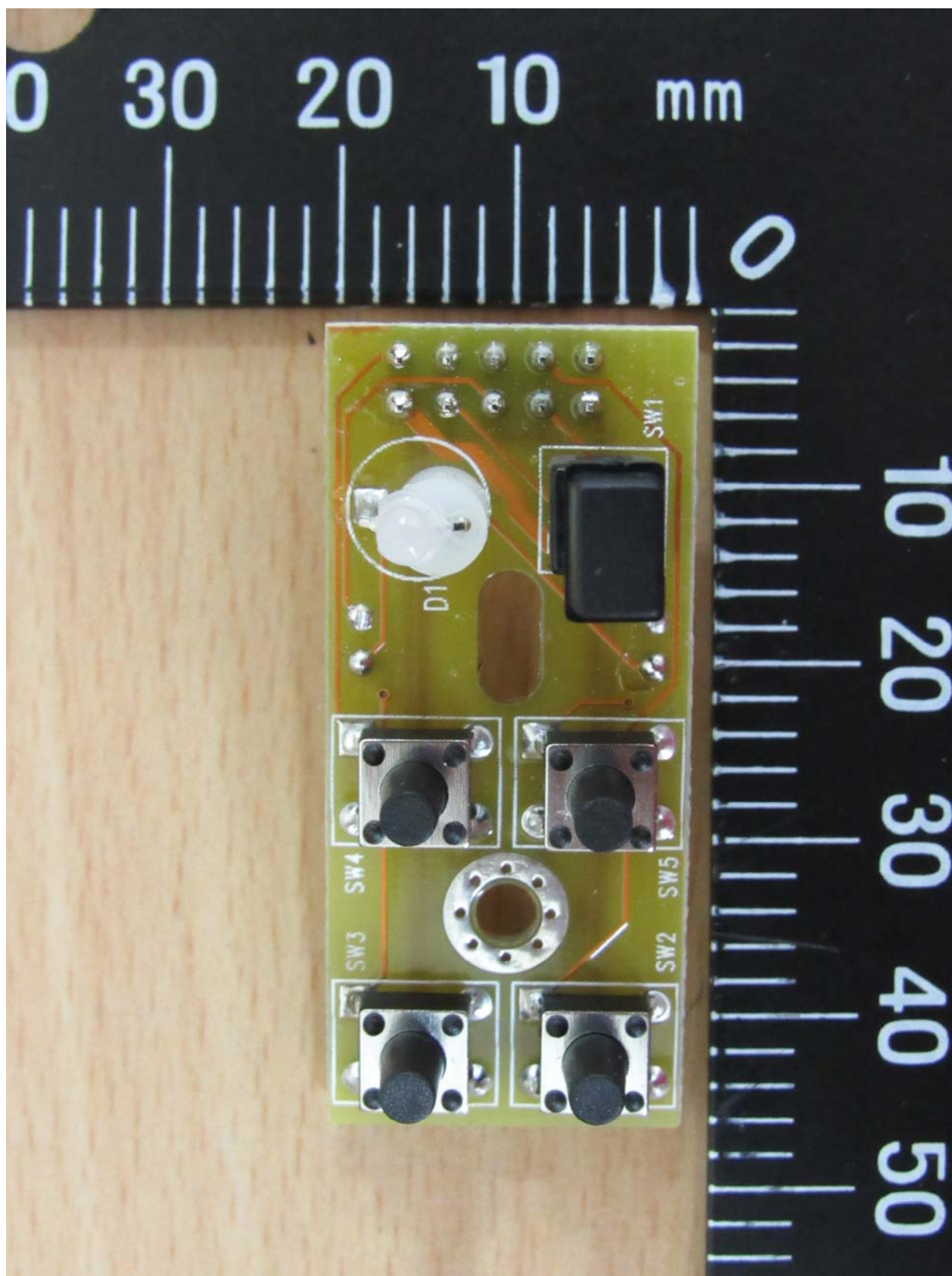
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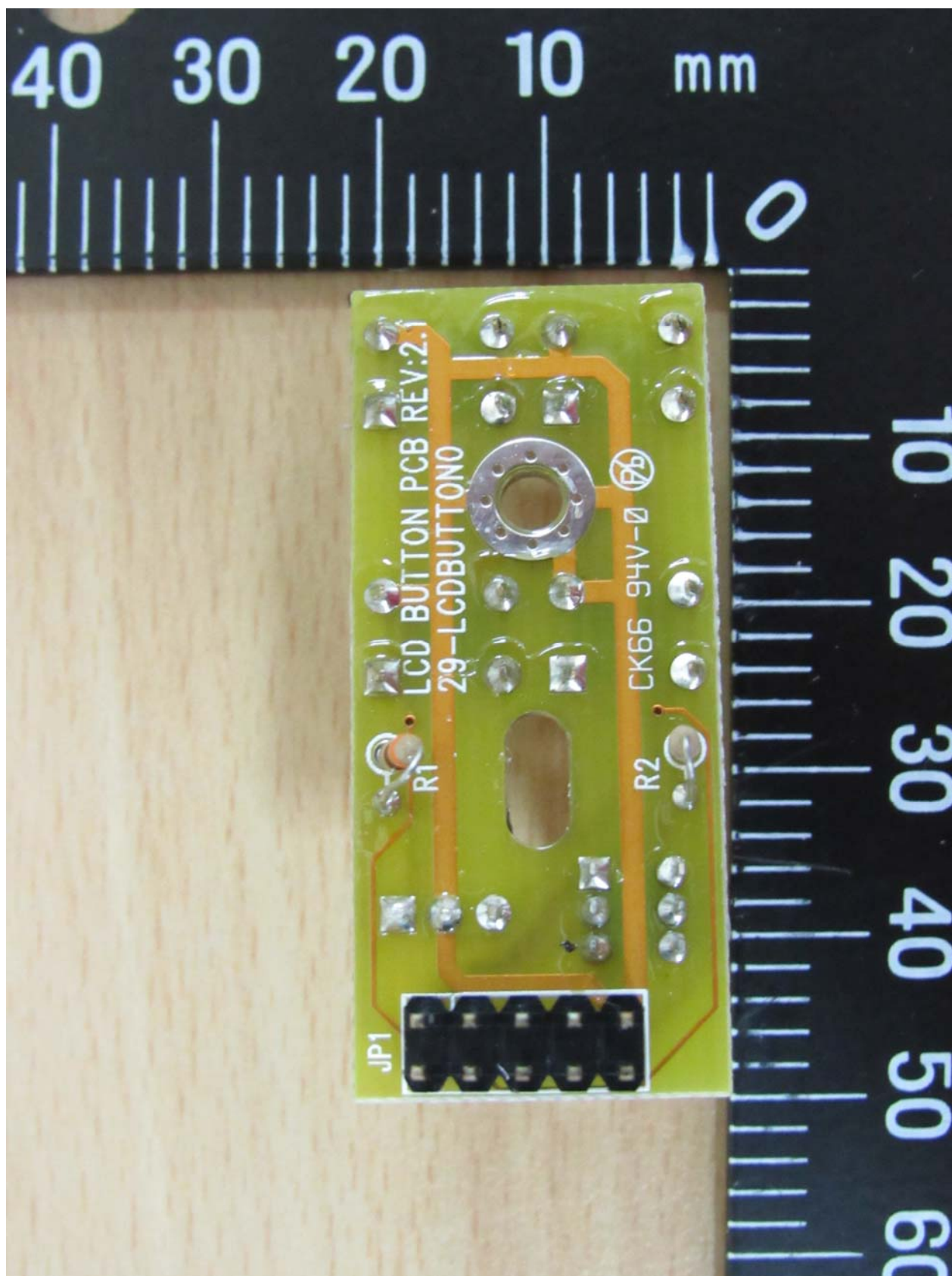
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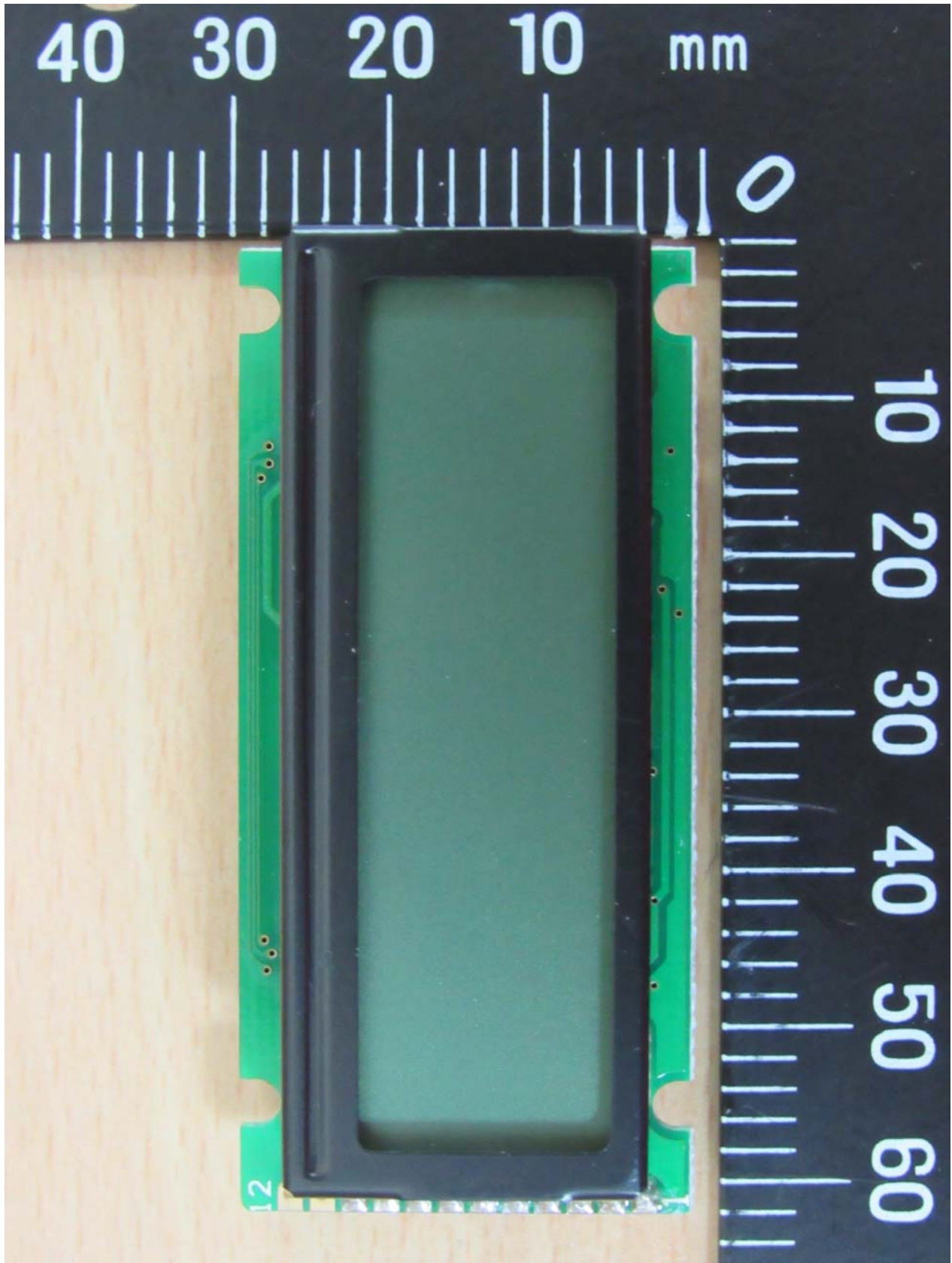
Registration number: W6M21508-15204-P-15B



Registration number: W6M21508-15204-P-15B



Registration number: W6M21508-15204-P-15B



0 40 30 20 10 mm

0 10 20 30 40 50 60 70

JF-D 94V0A E309386

P-S16203CT 94U-0

REV:2

U1

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10

D1

ZD1

Cp2

U2

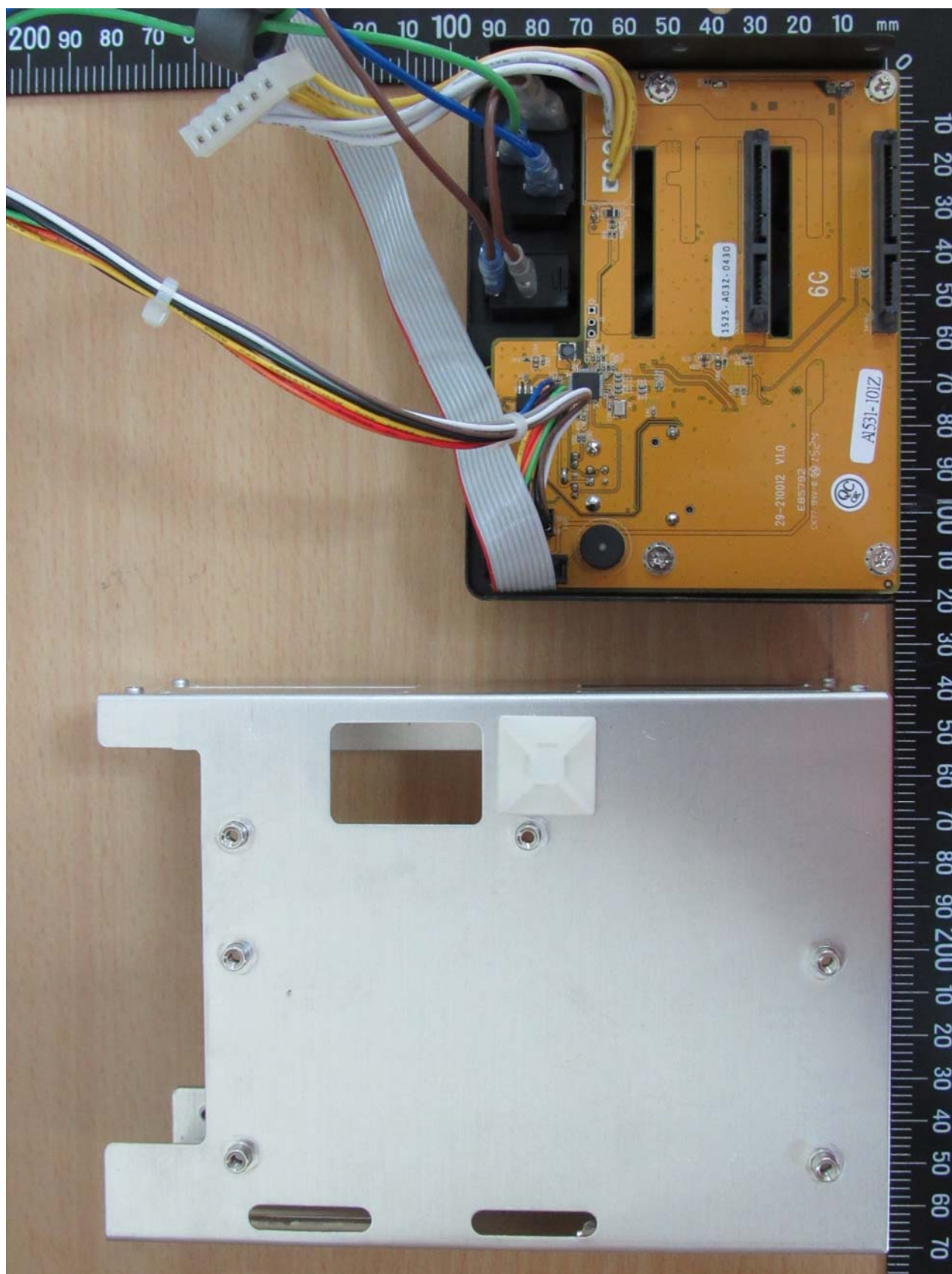
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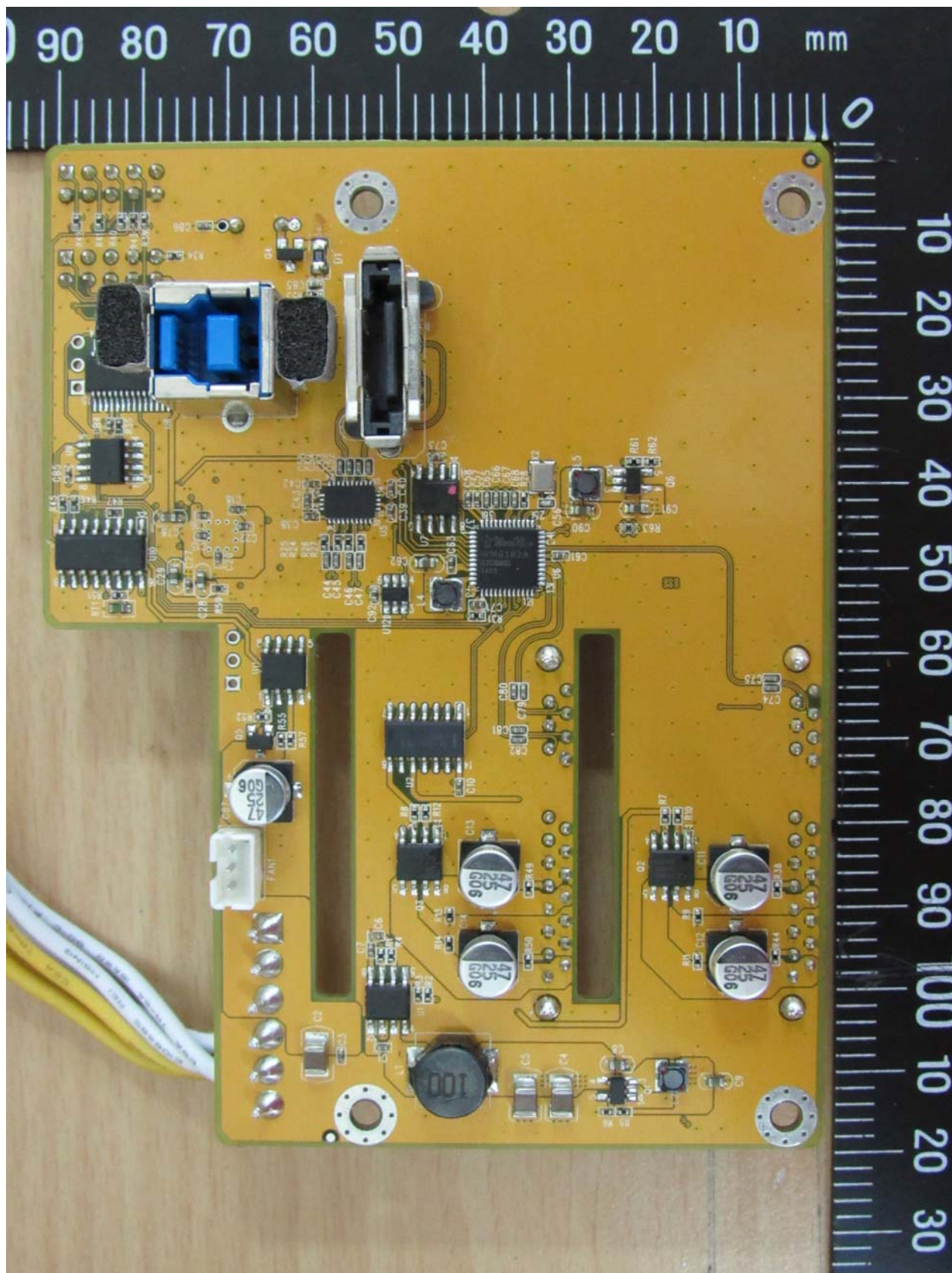
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01516041-142

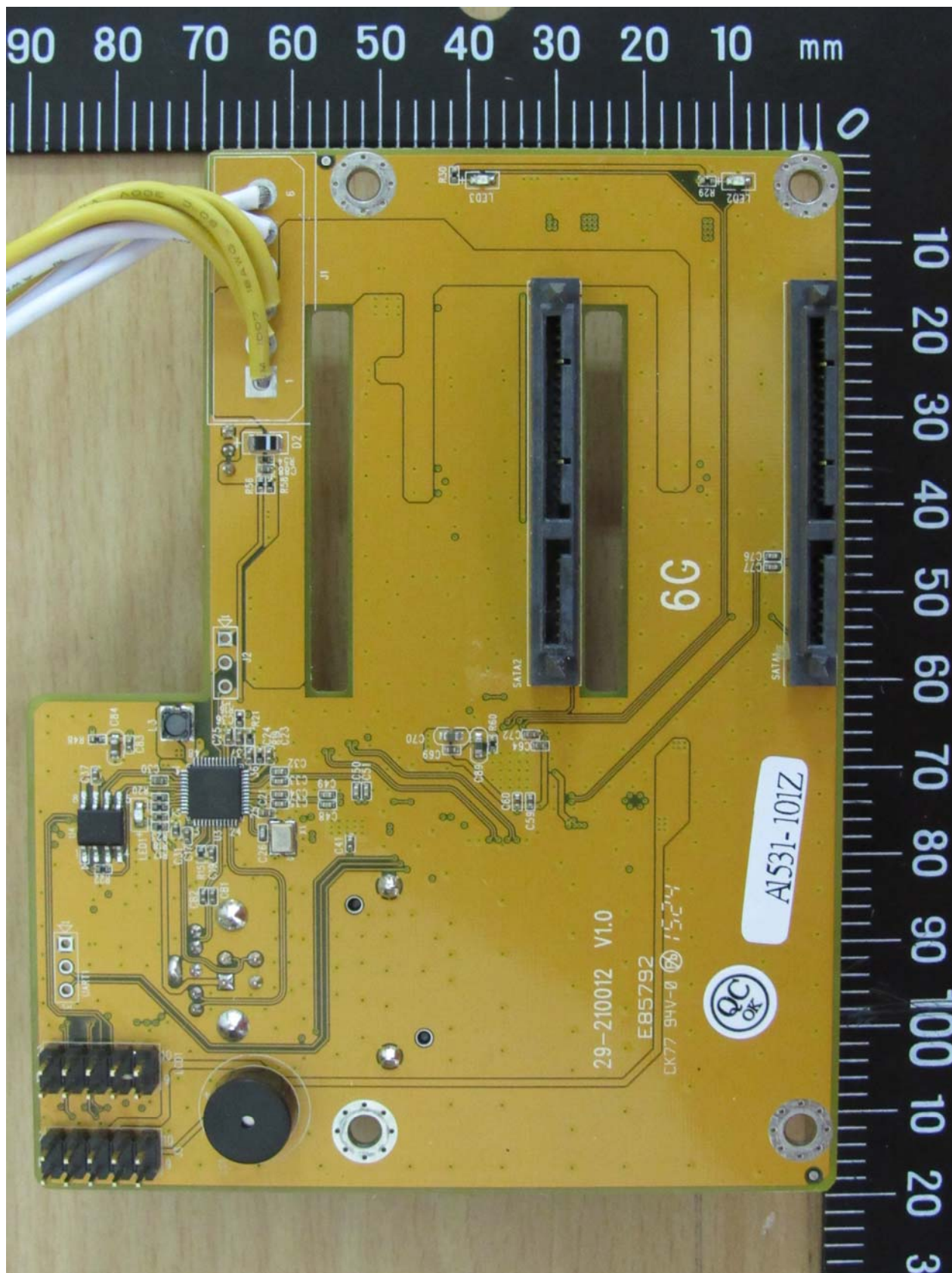
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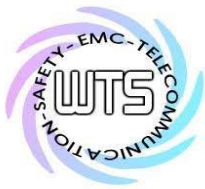


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Registration number: W6M21508-15204-P-15B





Registration number: W6M21508-15204-P-15B

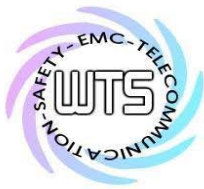
Set Up Photo of Radiated Emission
USB 3.0
Below 1GHz



Registration number: W6M21508-15204-P-15B

Above 1GHz

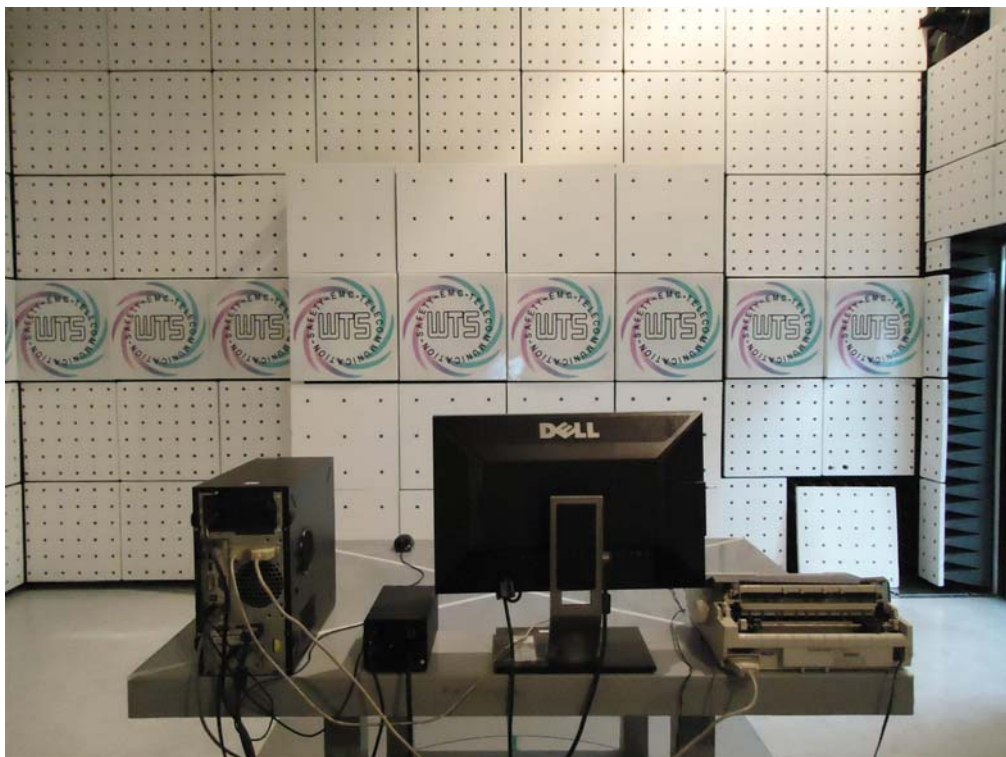




Registration number: W6M21508-15204-P-15B

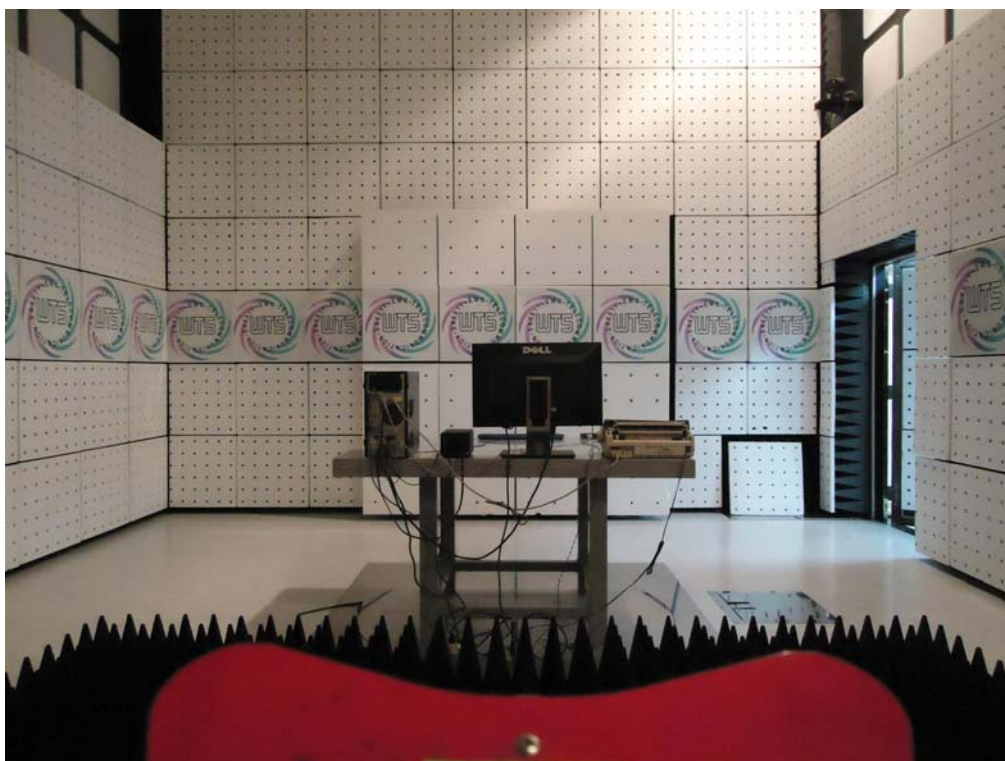
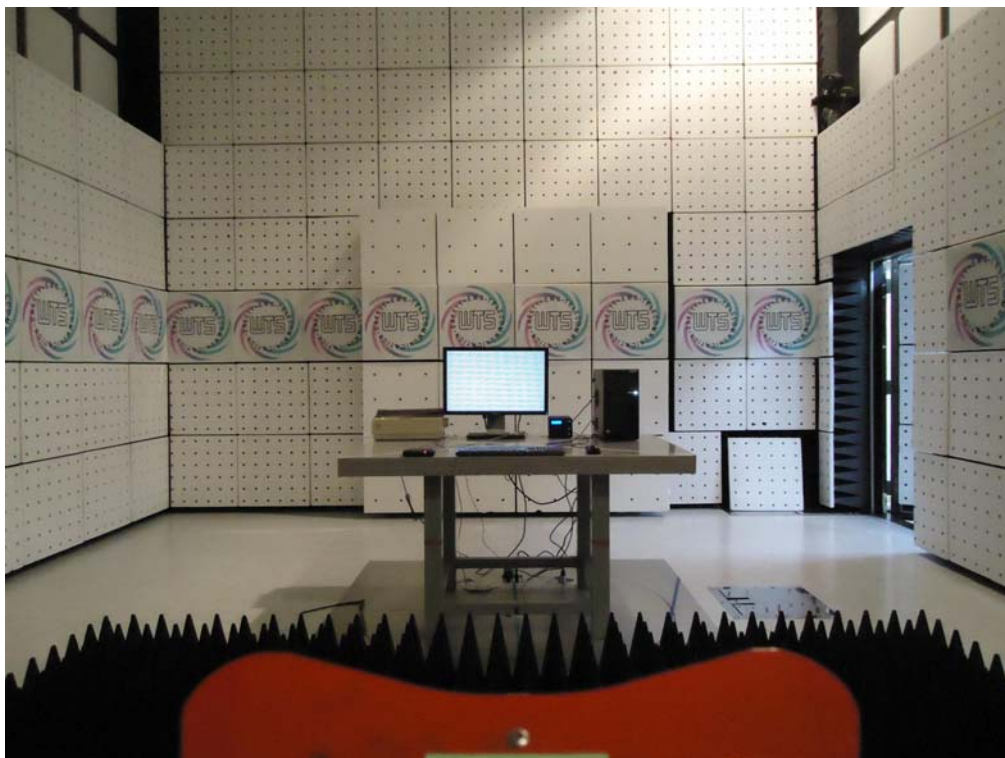
eSATA

Below 1GHz



Registration number: W6M21508-15204-P-15B

Above 1GHz



Registration number: W6M21508-15204-P-15B

Set Up Photo of Conducted Emission USB 3.0



Registration number: W6M21508-15204-P-15B

eSATA

