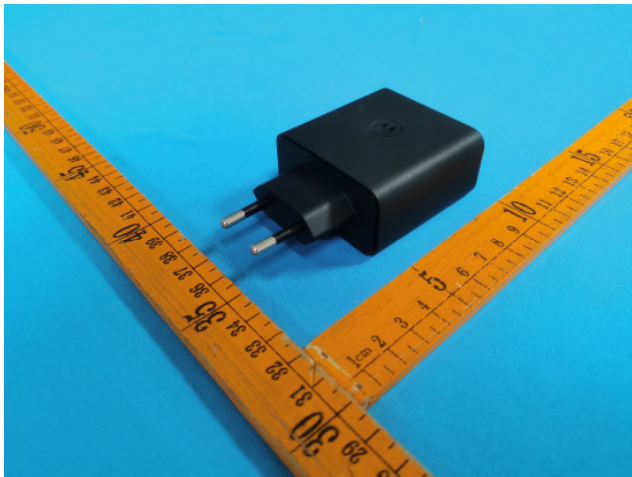




<b>Prüfbericht-Nr.:</b> <i>Test report no.:</i>	<b>CN228TTG 001</b>	<b>Auftrags-Nr.:</b> <i>Order no.:</i>	170315346	Seite 1 von 38 Page 1 of 38
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	2157421	<b>Auftragsdatum:</b> <i>Order date.:</i>	2022.08.10	
<b>Auftraggeber:</b> <i>Client:</i>	Jiangsu Chenyang Electron Co., Ltd. No.58 Chenyang Road, Hexi Industrial Park, Huangtang Town, Danyang City, 212364 Jiangsu, P.R.China			
<b>Prüfgegenstand:</b> <i>Test item:</i>	AC POWER SUPPLY			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	MC-1252, MC-1255			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	TÜV Rheinland EMC service			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	EN 55032:2015+A11+A1 EN 55035:2017+A11 EN IEC 61000-3-2:2019+A1 EN 61000-3-3:2013+A1+A2			
<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2022.08.12			
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	170315346-001			
<b>Prüfzeitraum:</b> <i>Testing period:</i>	Refer to test report			
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Refer to section 2.1			
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.			
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass			
<b>geprüft von:</b> <i>tested by:</i>	<b>genehmigt von:</b> <i>authorized by:</i>			
<b>Datum:</b> <i>Date:</i> 2022.09.01				
<b>Stellung/Position:</b>	Paul Pang/Project Manager	<b>Stellung/Position:</b>	Jeffery Xie/TC	
<b>Sonstiges / Other:</b>				
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
<p>* Legende: 1 = sehr gut    2 = gut    3 = befriedigend    4 = ausreichend    5 = mangelhaft  P(ass) = entspricht o.g. Prüfgrundlage(n)    F(ail) = entspricht nicht o.g. Prüfgrundlage(n)    N/A = nicht anwendbar    N/T = nicht getestet</p> <p>* Legend: 1 = very good    2 = good    3 = satisfactory    4 = sufficient    5 = poor  P(ass) = passed a.m. test specifications(s)    F(ail) = failed a.m. test specifications(s)    N/A = not applicable    N/T = not tested</p>				
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b>  <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

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## TEST SUMMARY

**5.1.1 HARMONICS CURRENT EMISSION ON AC MAINS**

RESULT: *Pass*

**5.1.2 VOLTAGE CHANGES, VOLTAGE FLUCTUATIONS AND FLICKER**

RESULT: *Pass*

**5.1.3 DISTURBANCE VOLTAGE AT THE MAINS TERMINALS**

RESULT: *Pass*

**5.1.4 CONDUCTED EMISSIONS ON WIRED NETWORK PORTS**

RESULT: *N/A*

**5.1.5 CONDUCTED EMISSIONS ON OPTICAL FIBER PORTS**

RESULT: *N/A*

**5.1.6 CONDUCTED EMISSIONS ON BROADCAST RECEIVER TUNER PORTS**

RESULT: *N/A*

**5.1.7 CONDUCTED EMISSIONS ON ANTENNA PORTS**

RESULT: *N/A*

**5.2.1 CONDUCTED EMISSIONS ON TV BROADCAST RECEIVER TUNER PORTS**

RESULT: *N/A*

**5.2.2 CONDUCTED EMISSIONS ON RF MODULATOR OUTPUT PORTS**

RESULT: *N/A*

**5.2.3 CONDUCTED EMISSIONS ON FM BROADCAST RECEIVER TUNER PORTS**

RESULT: *N/A*

**5.2.4 RADIATED DISTURBANCES**

RESULT: *Pass*

**5.2.5 RADIATED EMISSIONS FROM FM RECEIVERS**

RESULT: *N/A*

**5.2.6 RADIATED EMISSIONS FROM OUTDOOR UNITS OF HOME SATELLITE RECEIVERS**

RESULT: *N/A*

**6.2.1 RADIO-FREQUENCY COMMON MODE / CONDUCTED SUSCEPTIBILITY (CS)**

RESULT: *Pass*

**6.2.2 RADIO-FREQUENCY ELECTROMAGNETIC FIELDS (RS)**

RESULT: *Pass*

**6.2.3 POWER-FREQUENCY MAGNETIC FIELDS**

RESULT: *N/A*

**6.3.1 BROADBAND IMPULSE NOISE DISTURBANCES, REPETITIVE**

RESULT: *N/A*

**6.3.2 BROADBAND IMPULSE NOISE DISTURBANCES, ISOLATED**

RESULT: *N/A*

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**6.3.3 TRANSIENT DISTURBANCES(EFT)**

RESULT: Pass

**6.3.4 SURGE**

RESULT: Pass

**6.3.5 ELECTROSTATIC DISCHARGES (ESD)**

RESULT: Pass

**6.4.1 VOLTAGE DIPS AND INTERRUPTIONS**

RESULT: Pass

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## 1. General Remarks

When applying the basic standards in this test report, please refer to the applied generic or product family standards for edition information:

For dated basic standards, only the edition cited applies. For undated basic standards, the latest edition (including any amendments) applies.

For all EMI tests (When included in this report), as measurement uncertainties are less than the values UCISPR given in CISPR 16-4-2, compliance with the limits is determined by comparing measurement results directly with corresponding limits without taking into consideration of measurement uncertainties. For all EMS tests (When included in this report), measurement uncertainties are not considered as well according to corresponding test standards.

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test Result

Appendix 2: List of Test and measurement Instruments

## 2. Test Sites

### 2.1 Test Facilities

#### **Waltek Testing Group Co., Ltd. Dongguan Branch**

No. 77, Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China

The tests at these test sites have been conducted under the supervision of a TÜV Rheinland engineer.

### 2.2 List of Test and Measurement Instruments

#### **Table 1: List of Test and measurement Instruments**

Refer to attached Appendix 2.

### 3. General Product Information

The submitted samples are AC POWER SUPPLY used for class B multimedia equipment.

All models are identical to each other except for the model name and plug portion.

Based on the above information, all EMC tests were performed on model **MC-1252**.

#### 3.1 Product Function and Intended Use

Refer to the Technical Documentation and user manual.

#### 3.2 Ratings and System Details

Model	Rated input	Rated Output	Protection class	Plug type
MC-1252	100-240V~, 50/60Hz, 1.7A	5.0V=== 3.0A 15.0W or 9.0V=== 3.0A 27.0W or 15.0V=== 3.0A 45.0W or	II	EU plug
MC-1255		20.0V=== 6.25A 125.0W or 5.0V-20.0V=== 6.25A 125.0W MAX	II	AU plug

Explanation of plug type: EU plug =European plug, AU plug= Australia plug.

Refer to Technical Documentation for further details.

### **3.3 Independent Operation Modes**

The basic operation modes are:

A. On, Full Load

The EUT was terminated with an appropriate load in order to make the output current of the EUTs reach the rated values.

B. On, Half load

The EUT was terminated with an appropriate load in order to make the output current of the EUTs reach half of the rated values.

C. On, no Load

Refer to User Manual for further details.

### **3.4 Noise Generating and Noise Suppressing Parts**

Refer to Technical Documentation.

### **3.5 Submitted Documents**

Model difference

Circuit diagram

PCB layouts

Label

User manual



## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

**Immunity:** The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Refer to test set-up in chapter 5 and chapter 6.

### 4.3 Special Accessories and Auxiliary Equipment

None.

### 4.4 Countermeasures to achieve EMC Compliance

No additional countermeasures to the submitted test sample(s) were employed to achieve compliance.

## 5. Test Results of EMISSION

### 5.1 Emission in the Frequency Range up to 30 MHz

#### 5.1.1 Harmonics Current Emission on AC Mains

**RESULT:** **Pass**

##### Test Specification

Basic standard	:	EN IEC 61000-3-2:2019+A1
Measurement equipment requirement	:	IEC 61000-4-7
Measured harmonics	:	1 – 40
Equipment class	:	A and D
Limits	:	EN IEC 61000-3-2:2019 +A1, Clause 7.2, Table 1; Clause 7.5, Table 3

##### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 230V/50Hz
Operation mode	:	A
Artificial hand	:	N/A
Test configuration	:	Table-top
Temperature	:	23.5°C
Humidity	:	52.6%
Air pressure	:	101kPa

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**Photograph 1: Set-up for Harmonic Current Emission on AC Mains**



For test results, please refer to the attached appendix 1.

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### 5.1.2 Voltage Changes, Voltage Fluctuations and Flicker

**RESULT:**

**Pass**

#### Test Specification

Basic standard	:	EN 61000-3-3:2013+A1+A2
Measurement equipment requirement	:	IEC 61000-4-15
Limits	:	EN 61000-3-3:2013+A1+A2, Clause 5

The EUT does not contain any automatic switching component and the power consumption is low.

According to the electrical construction, the EUT does not produce inrush current, which may exceed 20A. The supply current will not fluctuate more than 1.5A either.

According to EN 61000-3-3:2013+A1+A2, clause 6.1\*, the EUT deems to fulfil the requirement without further testing.

\*) EN 61000-3-3:2013+A1+A2, clause 6.1: "For voltage changes caused by manual switching, equipment is deemed to comply without further testing if the maximum r.m.s. input current evaluated over each 10ms half-period between zero-crossings does not exceed 20A, and the supply current after inrush is within a variation band of 1,5A."

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### 5.1.3 Disturbance Voltage at the mains terminals

**RESULT:**

**Pass**

#### Test Specification

Test procedure : EN 55032:2015+A11+A1, Class B  
Ports : AC Mains  
Frequency range : 150kHz-30MHz  
Test site : Shielded Room  
Limits : EN 55032:2015+A11+A1, table A.10

#### Test Setup

Date of testing : 2022.08.25  
Input voltage : AC 120V/60Hz; AC 230V/50Hz  
Operation mode : Refer to remark below  
Test configuration : Table top  
Temperature : 26.2°C  
Humidity : 54.8%  
Air pressure : 101kPa

#### Remark:

The worst cases are full load mode for 15V3A at 120Vac, 60Hz and half load at 230Vac, 50Hz.

The worst cases are full load mode for 20V6.25A at 120Vac, 60Hz and 230Vac, 50Hz.

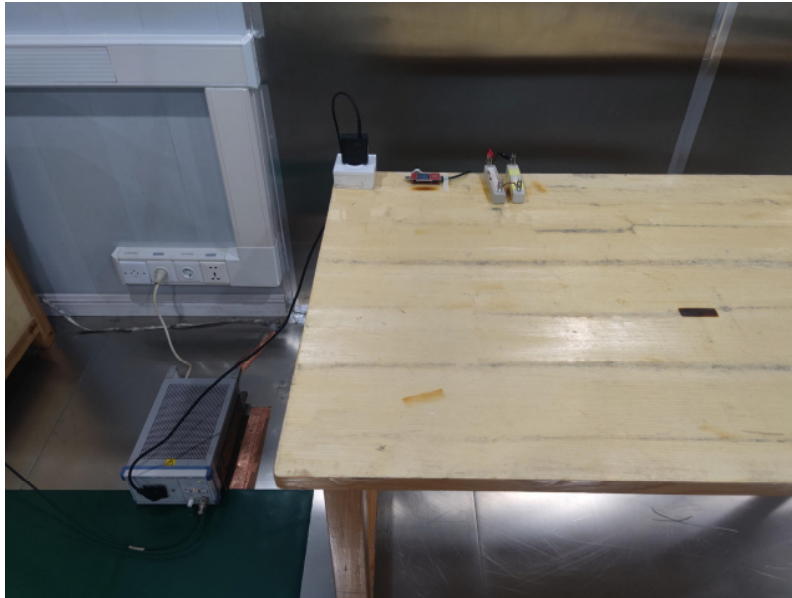
The worst cases are full load mode for 5V6.25A at 120Vac, 60Hz and 230Vac, 50Hz.

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**Photograph 2: Set-up for Disturbance Voltage at the mains terminals**



**Test Result**

Measurement uncertainty: 3.64 dB ( $k=2$ ,  $\sigma =95\%$ )

If the result of the measurement with the Quasi Peak detector is below the Average limit, the measurement with Average Detector will be omitted.

Disturbances other than those mentioned are small or not detectable.

For test results, please refer to the attached Appendix 1. Worst result of full load, half load and empty load.

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#### 5.1.4 Conducted Emissions on Wired Network Ports

**RESULT:** **N/A**

##### Test Specification

Family Standard(s)	:	EN 55032:2015+A11+A1
Equipment Class	:	Class B
Ports	:	Tele. and network ports
Frequency range	:	150kHz-30MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.12

According to electrical character and usage of EUT, there is no Wired Network Ports with the EUT. Therefore this test is not applicable for this EUT.

#### 5.1.5 Conducted Emissions on Optical Fiber ports

**RESULT:** **N/A**

##### Test Specification

Family Standard(s)	:	EN 55032:2015+A11+A1
Equipment Class	:	Class B
Ports	:	Optical Fibre Ports
Frequency range	:	150kHz-30MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.12

According to electrical character and usage of EUT, there is no Optical Fibre ports with metallic shield or tension members incorporated. Therefore this test is not applicable for this EUT.

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### 5.1.6 Conducted Emissions on Broadcast Receiver Tuner Ports

**RESULT:** **N/A**

#### Test Specification

Family Standard(s)	:	EN 55032:2015+A11+A1
Equipment Class	:	Class B
Ports	:	Broadcast Receiver Tuner Ports
Frequency range	:	150kHz-30MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.12

According to electrical character and usage of EUT, there is no Broadcast Receiver Tuner Ports incorporated. Therefore this test is not applicable for this EUT.

### 5.1.7 Conducted Emissions on Antenna Ports

**RESULT:** **N/A**

#### Test Specification

Family Standard(s)	:	EN 55032:2015+A11+A1
Equipment Class	:	Class B
Ports	:	Antenna port
Frequency range	:	150kHz-30MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1, table A.12

According to electrical character and usage of EUT, there is no antenna ports incorporated. Therefore this test is not applicable for this EUT.



## 5.2 Emission in the Frequency Range above 30 MHz

### 5.2.1 Conducted Emissions on TV Broadcast Receiver Tuner Ports

**RESULT:** **N/A**

#### Test Specification

Test procedure	:	EN 55032:2015+A11+A1
Ports	:	TV Broadcast Receiver Tuner Ports
Frequency range	:	30MHz-2,150MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.13
Equipment Class	:	Class B

According to electrical character and usage of EUT, there is no TV Broadcast Receiver Tuner Port with an accessible connector incorporated. Therefore this test is not applicable for this EUT.

### 5.2.2 Conducted Emissions on RF Modulator Output Ports

**RESULT:** **N/A**

#### Test Specification

Test procedure	:	EN 55032:2015+A11+A1
Ports	:	RF modulator output ports
Frequency range	:	30 MHz-2,150 MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.13
Equipment Class	:	Class B

According to electrical character and usage of EUT, there is no RF modulator output ports incorporated. Therefore this test is not applicable for this EUT.

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### 5.2.3 Conducted Emissions on FM Broadcast Receiver Tuner Ports

**RESULT:** **N/A**

#### Test Specification

Family Standard(s)	:	EN 55032:2015+A11+A1
Equipment Class	:	Class B
Ports	:	FM Broadcast Receiver Tuner Ports
Frequency range	:	30MHz-2150MHz
Test site	:	Shielded Room
Limits	:	EN 55032:2015+A11+A1 table A.13

According to electrical character and usage of EUT, there is no FM Broadcast Receiver Tuner Port with an accessible connector incorporated. Therefore this test is not applicable for this EUT.

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## 5.2.4 Radiated Disturbances

**RESULT:** **Pass**

### Test Specification

Test procedure	:	EN 55032:2015+A11+A1, Class B
Ports	:	Enclosure
Frequency range	:	30MHz-1GHz
Test site	:	SAC
Limits	:	EN 55032:2015+A11+A1, Table A.4+A.5

### Test Setup

Date of testing	:	2022.08.25
Input voltage	:	AC 120V/60Hz; AC 230V/50Hz
Operation mode	:	Refer to remark below
Test configuration	:	Table top
Temperature	:	25.7°C
Humidity	:	56.2%
Air pressure	:	101kPa

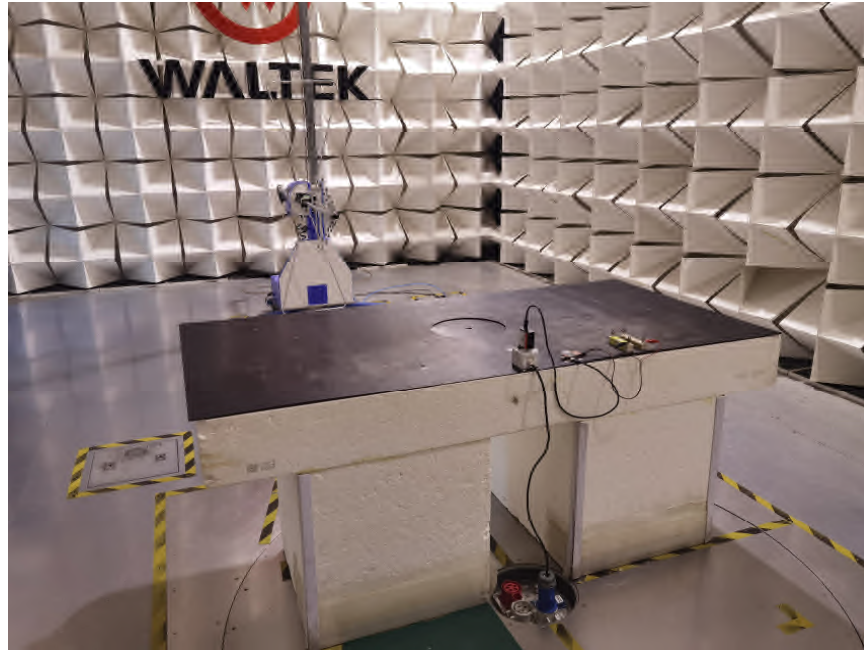
### Remark:

The worst cases are full load mode for 15V3A at 120Vac, 60Hz and half load at 230Vac, 50Hz.

The worst cases are half load mode for 20V6.25A at 120Vac, 60Hz and full load at 230Vac, 50Hz.

The worst cases are half load mode for 5V6.25A at 120Vac, 60Hz and full load at 230Vac, 50Hz.

**Photograph 3: Set-up for Radiated Disturbance**



**Test Result**

Measurement uncertainty: 5.03dB ( $k=2$ ,  $\sigma=95\%$ ) for 30 MHz – 1000 MHz.

Measurements are made at closer distance, down to 3 m. An inverse proportionality factor of 20dB per decade is used to normalize the limits to the specified distance for determining compliance.

Disturbances other than those mentioned are small or not detectable.

For test results, please refer to the attached Appendix 1. Worst result of full load, half load and empty load.

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### 5.2.5 Radiated emissions from FM receivers

**RESULT:** N/A

#### Test Specification

Test procedure	:	EN 55032:2015+A11+A1, Annex C
Applicable Standard	:	EN 55032:2015+A11+A1
Frequency range	:	30MHz-1000MHz
Test port	:	Enclosure
Limits	:	EN 55032:2015+A11+A1, table A.6

According to electrical character and usage of EUT, there is no FM receivers incorporated. Therefore this test is not applicable for this EUT.

### 5.2.6 Radiated Emissions from Outdoor units of home Satellite Receivers

**RESULT:** N/A

#### Test Specification

Test procedure	:	EN 55032:2015+A11+A1, Annex H
Applicable Standard	:	EN 55032:2015+A11+A1
Frequency range	:	30MHz-18000MHz
Test port	:	Enclosure
Limits	:	EN 55032:2015+A11+A1, table A.7

According to electrical character and usage of EUT, there is no Outdoor units of home Satellite Receivers incorporated. Therefore this test is not applicable for this EUT.

## 6 Test Results IMMUNITY

### 6.1 Classification of Apparatus

According to EN 55035:2017+A11, the appliance shall fulfill the requirements of:

#### Continuous Disturbances

Power-frequency Magnetic Field	Criterion A
Radio-frequency Electromagnetic Fields (RS)	Criterion A
Radio-Frequency Common Mode / Conducted Susceptibility(CS)	Criterion A

#### Transient Disturbances

Broadband Impulse Noise Disturbances, Repetitive	Criterion A
Broadband Impulse Noise Disturbances, Isolated	Criterion B
Electrical Fast Transients (EFT)	Criterion B
Surge	Criterion B
Electrostatic Discharges (ESD)	Criterion B
Power Supply Alterations	
Voltage Dips and Interruptions	Criterion B + C

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## 6.2 Continuous Disturbances

### 6.2.1 Radio-frequency Common Mode / Conducted Susceptibility (CS)

**RESULT:** **Pass**

#### Test Specification

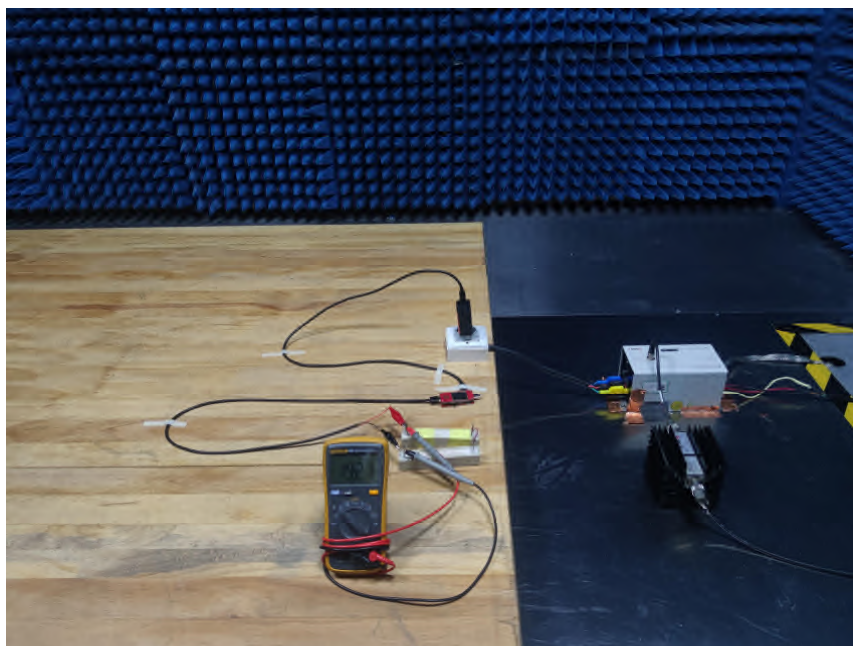
Family standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-6
Characteristics of the test generator:		
Output impedance	:	50 $\Omega$
Harmonics and distortion	:	Any spurious spectral line at least 15 dB below the carrier level
Amplitude modulation	:	80 % $\pm$ 5 % in depth, 1 kHz $\pm$ 10 % sine wave
Frequency bandwidth	:	150 kHz to 80MHz
Frequency step	:	1% with 1 s dwell time
Performance criterion	:	A

#### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 230V/50Hz
Operation mode	:	On mode
Artificial hand	:	N/A
Signal lines and control lines	:	N/A
Input and output dc power ports	:	N/A*
Input and output ac power ports	:	3V (rms)
Temperature	:	24.6°C
Humidity	:	52.4%
Air pressure	:	101kPa

\*) The DC output cable is less than 3m, so the test on this terminal is not applicable.

**Photograph 4: Set-up for Radio-frequency Common Mode / Conducted Susceptibility (CS)**



**Test Result**

**Table 2: Immunity against Radio-frequency Common Mode / Conducted Susceptibility (CS)**

Coupling point	Application	Level (V(r.m.s))	Frequency(MHz)	Remark
<b>Power ports</b>				
AC power port	CDN-M2	3	0.15-10	Applied, *)
		3-1	10-30	Applied, *)
		1	30-80	Applied, *)
DC power port	N/A	3		N/A
		3		N/A
<b>Signal lines</b>				
Ethernet Lines	CDN-T8	3		N/A
USB Lines	Current Clamp	3		N/A
Parallel Lines	Current Clamp	3		N/A
Serial Lines	Current Clamp	3		N/A
<b>Other Signal/Control lines (&gt;3m)</b>				
	Current Clamp	3		N/A
	EM clamp	3		N/A

\*) Remark: No degradation was observed during and after the tests.



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## 6.2.2 Radio-frequency Electromagnetic Fields (RS)

**RESULT:**

**Pass**

### Test Specification

Family standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-3
Test site	:	FAC
Uniform field area (UFA)	:	1.5 m x 1.5 m, 16 points with a minimum UFA size 0.5 m x 0.5 m, 75 % of calibration points within specifications if UFA is larger than 0.5 m x 0.5 m . 100 % (all 4 points) in the specifications for 0.5 x 0.5 m UFA
Amplitude modulation	:	80 % ± 5 % in depth, 1 kHz ± 10 % sine wave
Frequency bandwidth	:	80MHz to 1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz
Level	:	3 V/m(un-modulated)
Frequency step	:	1% with 1 s dwell time
Performance criterion	:	A

### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 230V/50Hz
Operation mode	:	On mode
Temperature	:	25.6°C
Humidity	:	53.1%
Air pressure	:	101kPa

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**Photograph 5: Set-up for Radio-frequency Electromagnetic Fields (RS)**



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**Test Result**

**Table 3: Immunity against Radio-frequency Electromagnetic Fields (RS)**

Side of the equipment under test	Frequency (MHz)	Antenna polarization (Vertical/Horizontal)	Remark
Front	80-1000	V and H	Applied, *)
Rear	80-1000	V and H	Applied, *)
Right	80-1000	V and H	Applied, *)
Left	80-1000	V and H	Applied, *)
Front	1800	V and H	Applied, *)
Rear	1800	V and H	Applied, *)
Right	1800	V and H	Applied, *)
Left	1800	V and H	Applied, *)
Front	2600	V and H	Applied, *)
Rear	2600	V and H	Applied, *)
Right	2600	V and H	Applied, *)
Left	2600	V and H	Applied, *)
Front	3500	V and H	Applied, *)
Rear	3500	V and H	Applied, *)
Right	3500	V and H	Applied, *)
Left	3500	V and H	Applied, *)
Front	5000	V and H	Applied, *)
Rear	5000	V and H	Applied, *)
Right	5000	V and H	Applied, *)
Left	5000	V and H	Applied, *)

\*) Remark: No degradation was observed during and after the tests.

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### 6.2.3 Power-frequency Magnetic Fields

**RESULT:**

**N/A**

#### Test Specification

Family Standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-8
Test Level (A/m)	:	1A/m
Frequency	:	50 or 60Hz
Performance criterion	:	A

The EUT does not contain devices susceptible to magnetic fields, such as CRT monitors, Hall elements, electrodynamic microphones, magnetic field sensors, etc. Therefore, this test is not applicable and skipped.

## 6.3 Transient Disturbances

### 6.3.1 Broadband Impulse Noise Disturbances, Repetitive

**RESULT:** N/A

#### Test Specification

Family standard	: EN 55035:2017+A11
Basic standard	: Clause 4.2.7
Impulse frequency	: 0.15-0.5MHz; 0.5-10MHz; 10-30MHz
Test level	: 107dB $\mu$ V; 107-36dB $\mu$ V; 36-30dB $\mu$ V
Burst duration	: 0.70 ms
Burst period	: 8.3 ms (60Hz), 10 ms (50Hz)
Performance criterion	: A

According to electrical character and usage of EUT, there is no CPE xDSL ports incorporated. Therefore this test is not applicable for this EUT.

### 6.3.2 Broadband Impulse Noise Disturbances, Isolated

**RESULT:** N/A

#### Test Specification

Family standard	: EN 55035:2017+A11
Basic standard	: Clause 4.2.7
Impulse frequency	: 0.15-30MHz
Test level	: 110dB $\mu$ V
Burst duration	: 0.24 ms, 10ms, 300ms
Performance criterion	: B

According to electrical character and usage of EUT, there is no CPE xDSL ports incorporated. Therefore this test is not applicable for this EUT.

### 6.3.3 Transient Disturbances(EFT)

**RESULT:** **Pass**

#### Test Specification

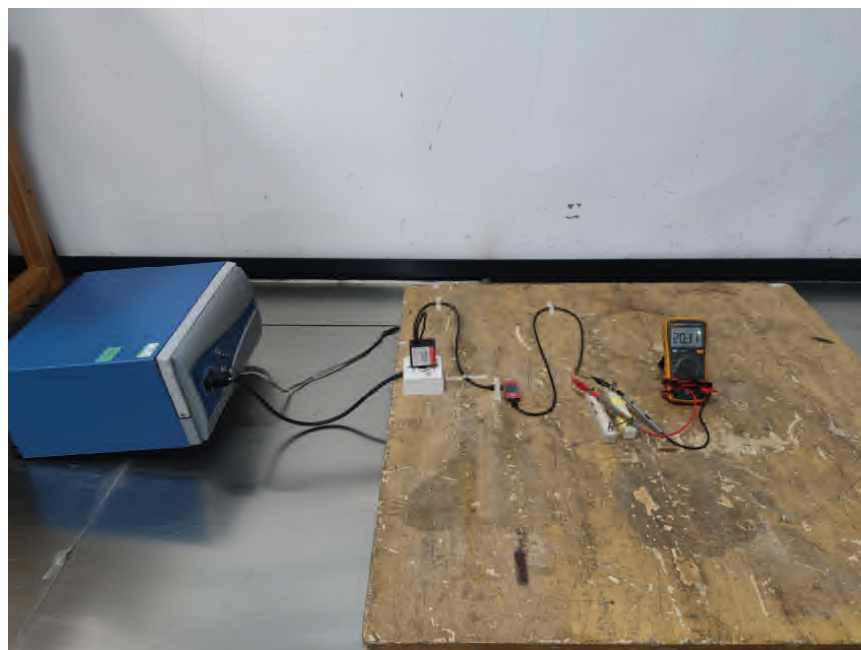
Family standard	: EN 55035:2017+A11
Basic standard	: IEC 61000-4-4
Wave shape of the pulse in 50 $\Omega$ load	:
Rise time	: 5 ns $\pm$ 30 %
Duration	: 50 ns $\pm$ 30 %
Wave shape into 1 k $\Omega$ load	:
Rise time:	: 5 ns $\pm$ 30 %
Duration	: 50 ns with a tolerance of -15 ns to + 100 ns
Burst duration	: 15 ms $\pm$ 20 % at 5 kHz
Burst period	: 300 ms $\pm$ 20 %
Repetition frequency:	: 5 kHz
Polarity	: Positive and negative
Time of application	: 2 minutes
Performance criterion	: B

#### Test Setup

Date of testing	: 2022.08.26
Input voltage	: AC 230V/50Hz
Operation mode	: On mode
Artificial hand	: N/A
Input ac power ports	: 1KV
Input and output dc power ports	: N/A*
Temperature	: 23.4°C
Humidity	: 54.2%
Air pressure	: 101kPa

\*) The DC output cable is less than 3m, so the test on DC output terminal is not applicable.

**Photograph 6: Set-up for Electrical Fast Transient (EFT)**



**Test Result**

**Table 4: Immunity against Electrical Fast Transients (EFT)**

Coupling point	Application	Level (kV)	Polarity	Remark
<b>Power ports</b>				
AC power port	Coupling network	1	+	Applied, *)
		1	-	Applied, *)
DC power port	Coupling network	1, 2	+	N/A
		1, 2	-	N/A
<b>Signal lines</b>				
Ethernet Lines	Coupling clamp	0.5	+	N/A
		0.5	-	N/A
USB Lines	Coupling clamp	0.5	+	N/A
		0.5	-	N/A
Parallel Lines	Coupling clamp	0.5	+	N/A
		0.5	-	N/A
Serial Lines	Coupling clamp	0.5	+	N/A
		0.5	-	N/A
<b>Control lines</b>				
	Coupling clamp	0.5	+/-	N/A

\*) Remark: No degradation was observed during and after the tests.

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### 6.3.4 Surge

**RESULT:**

**Pass**

#### Test Specification

Family standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-5
Definitions of the waveform parameters	:	
Front time		1.2 $\mu$ s $\pm$ 30 % for mains 10 $\mu$ s $\pm$ 30 % for telecommunication ports
Time to half value		50 $\mu$ s $\pm$ 20 % for mains 700 $\mu$ s $\pm$ 20 % for telecommunication ports
Source impedance		
Power line symmetrical	:	2 $\Omega$ + 18 $\mu$ F
Power line unsymmetrical	:	12 $\Omega$ + 9 $\mu$ F
interconnection lines symmetrical	:	160 $\Omega$
interconnection lines unsymmetrical	:	40 $\Omega$
Polarity	:	Positive and negative
Number of surges / polarity /phase angle:		5
Phase angles	:	$\pi/2, 3\pi/2$
Repetition rate	:	60 s
Performance criterion	:	B

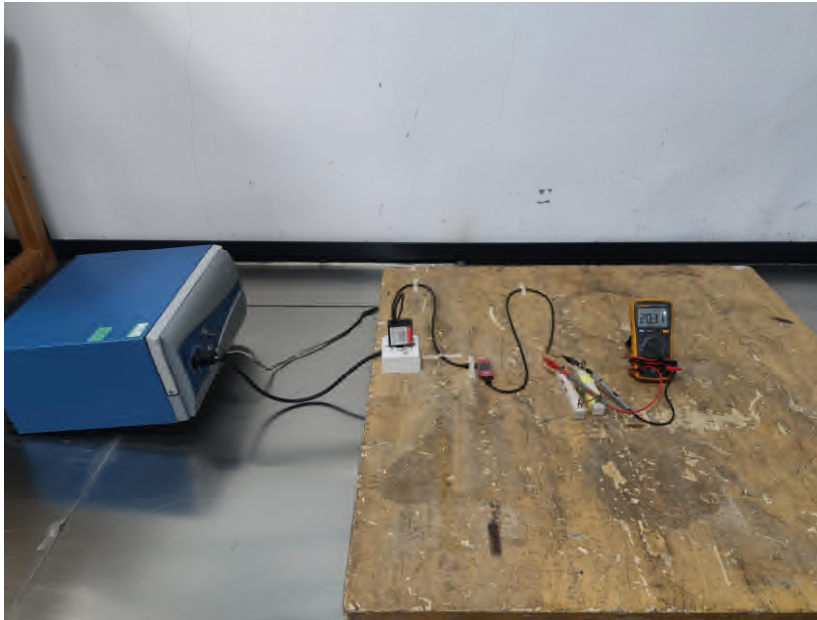
#### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 230V/50Hz
Operation mode	:	On mode
Temperature	:	25.4°C
Humidity	:	54.2%
Air pressure	:	101kPa

\*) The DC output cable do not intend to connect directly to outdoor cables, so the test on DC output terminal is not applicable.



**Photograph 7: Set-up for Surge**



**Test Result**

**Table 5: Surge Immunity Tests**

Coupling point	Application	Level (kV)	Polarity	Remark
AC power port	Between phase and neutral	0.5/1	+	Applied, *)
		0.5/1	-	Applied, *)
AC power port	Between phase and protective earth	0.5/1/2	+	N/A
		0.5/1/2	-	N/A
AC power port	Between neutral and protective earth	0.5/1/2	+	N/A
		0.5/1/2	-	N/A
Ethernet port	Signal in	0.5/1	+	N/A
		0.5/1	-	N/A

\*) Remark: No degradation was observed during and after the tests.

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### 6.3.5 Electrostatic Discharges (ESD)

**RESULT:**

**Pass**

#### Test Specification

Family standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-2
Discharge impedance	:	330 $\Omega$ / 150 pF
No. of discharges	:	Contact discharge: $\geq 10$ Air discharge: $\geq 10$
Type of discharge	:	
Direct discharge	:	Air discharge, $\pm 2, 4, 8$ kV Contact discharge, $\pm 4$ kV
Indirect discharge	:	Contact discharge, $\pm 4$ kV
Polarity	:	Positive and negative
Discharge location	:	See photo documentation of the test set-up All external locations accessible by hand Horizontal coupling plate (HCP) Vertical coupling plate (VCP)
Performance criterion	:	B

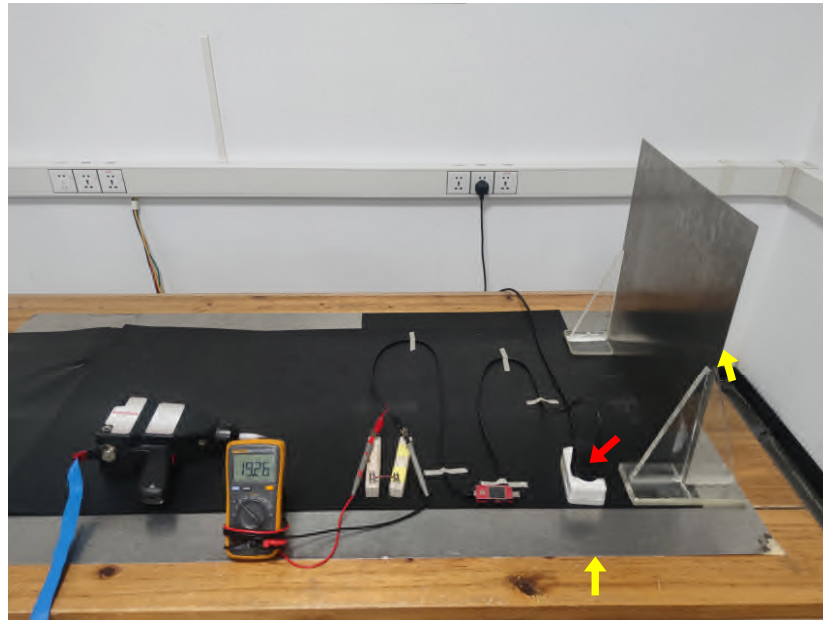
#### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 230V/50Hz
Operation mode	:	On mode
Temperature	:	25°C
Humidity	:	50.7%
Air pressure	:	101kPa

**Photograph 8: Set-up for Electrostatic Discharge**

⚡ Contact Discharge ±4kV

⚡ Air Discharge ±2, 4, 8kV



**Test Result**

**Table 6: Electrostatic Discharge**

<b>Direct discharges</b>			
Air discharges	Air discharge voltage (kV)	Polarity	Remark
Discharge location			
Refer to Photograph of ESD	2, 4, 8	±	Applied, *)
Non-conducted parts	2, 4, 8	±	Applied, *)
Contact discharges	Contact discharge voltage (kV)	Polarity	Remark
Discharge location			
Refer to Photograph of ESD	4	±	N/A
Conducted parts	4	±	Applied, *)
<b>Indirect discharges</b>			
Contact discharges	Contact discharge voltage (kV)	Polarity	Remark
Discharge location			
VCP	4	±	Applied, *)
HCP	4	±	Applied, *)

\*) Remark: No degradation was observed during and after the tests.

## 6.4 Power Supply Alterations

### 6.4.1 Voltage Dips and Interruptions

**RESULT:** **Pass**

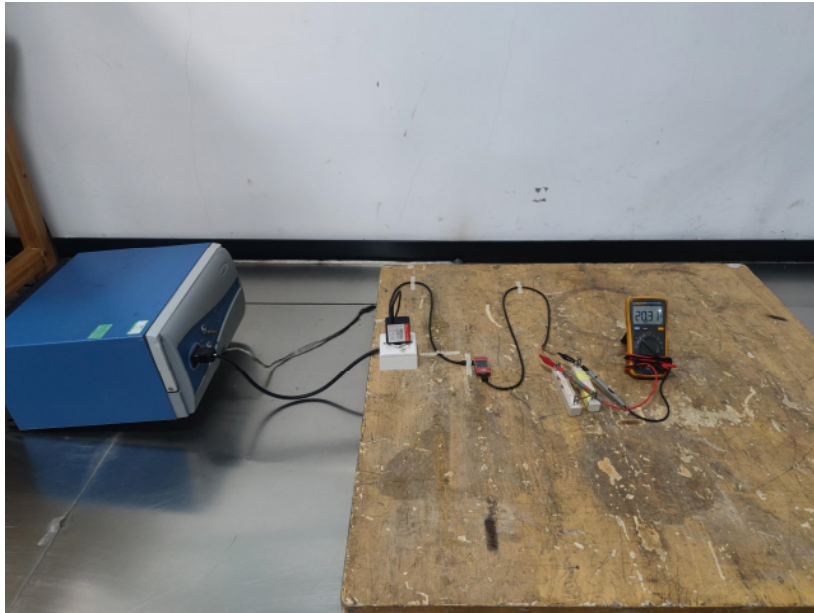
#### Test Specification

Family standard	:	EN 55035:2017+A11
Basic standard	:	IEC 61000-4-11
Test voltage generator characteristics for interruptions	:	
Rise time		Between 1 $\mu$ s and 5 $\mu$ s
Fall time		Between 1 $\mu$ s and 5 $\mu$ s
Output impedance of the test voltage generator	:	<(0.4 + j 0.25 $\Omega$ )
Phase angle	:	0°
Nominal mains voltage (Ut)	:	AC 100-240V
Rated frequency	:	50Hz/60Hz
Test level:		
Test level in % Ut		Duration (cycle)
0		0.5, 250/300
70		25/30
No. of interruptions	:	3
No. of voltage dips	:	3
Interval	:	>10s
Performance criterion	:	B +C

#### Test Setup

Date of testing	:	2022.08.26
Input voltage	:	AC 120V/60Hz, AC 230V/50Hz
Operation mode	:	On mode
Temperature	:	25.0°C
Humidity	:	53.6%
Air pressure	:	101kPa

**Photograph 9: Set-up for Voltage Dips and Interruptions**



**Test Result**

**Table 7: Voltage Dip and Interruptions Immunity**

Interruptions			
Test level (% Ut)	Duration (in periods)	Number of interruptions	Result
0	250(50Hz)/300(60Hz)	3	Applied, **)
Voltage dips			
Test level (% Ut)	Duration (in periods)	Number of voltage dips	Result
0	0.5	3	Applied, *)
70	25(50Hz)/30(60Hz)	3	Applied, *)

\*) Remark: No degradation was observed during and after the tests.

\*\*) Remark: The EUT shut down during the tests of 0%UT, 250 cycles and 300 cycles, and self-recovered after tests.

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**Harmonics – Class-A per IEC 61000-3-2:2018/AMD1:2020(Run time)**

EUT: AC POWER SUPPLY

Tested by: Frank Liu

Test category: Class-A (European limits)

Test Margin: 100

Test date: 2022-8-26

Start time: 14:35:48

End time: 14:38:29

Test duration (min): 2.5

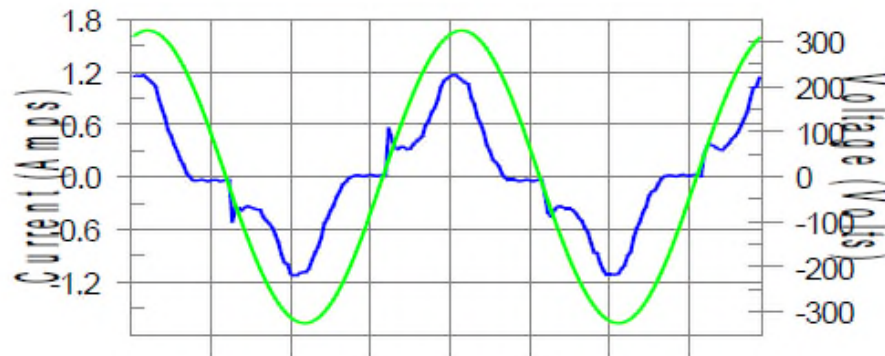
Data file name: H-000765.cts\_data

Comment: Full load mode

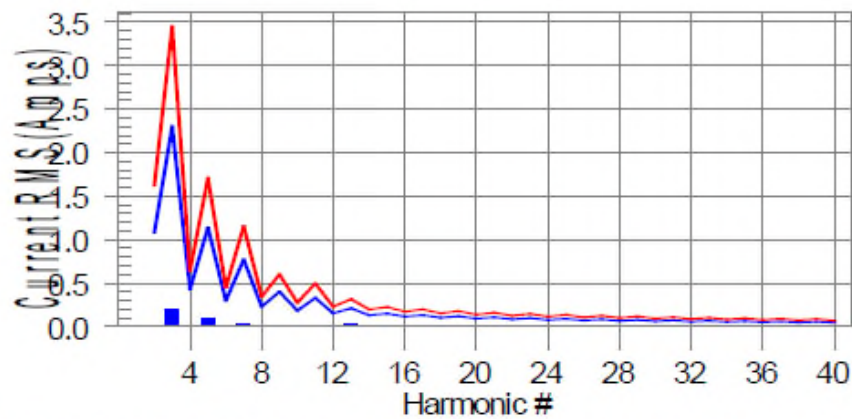
Customer: MC-1252

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line      European Limits



Test result: Pass Worst harmonics H33-6.8% of 150% limit, H33-10% of 100% limit

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**Current Test Result Summary (Run time)**

EUT: AC POWER SUPPLY  
 Test category: Class-A (European limits)  
 Test date: 2022-8-26  
 Test duration (min): 2.5  
 Comment: Full load mode  
 Customer: MC-1252

Tested by:  
 Test Margin: 100  
 End time: 14:38:29  
 Data file name: H-000765.cts\_data

Test Result: Pass Source qualification: Normal  
 THC(A): 0.215 I-THD(%): 37.8 POHC(A): 0.021 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 230.01	Frequency(Hz): 50.00
I_Peak (Amps): 1.186	I_RMS (Amps): 0.610
I_Fund (Amps): 0.569	Crest Factor: 1.958
Power (Watts): 125.5	Power Factor: 0.895

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.012	1.080	1.1	0.014	1.620	0.9	Pass
3	0.192	2.300	8.3	0.195	3.450	5.7	Pass
4	0.004	0.430	N/A	0.005	0.645	N/A	Pass
5	0.084	1.140	7.4	0.084	1.710	4.9	Pass
6	0.002	0.300	N/A	0.002	0.450	N/A	Pass
7	0.027	0.770	3.5	0.028	1.155	2.4	Pass
8	0.002	0.230	N/A	0.002	0.345	N/A	Pass
9	0.017	0.400	4.2	0.017	0.600	2.9	Pass
10	0.001	0.184	N/A	0.002	0.276	N/A	Pass
11	0.014	0.330	4.3	0.014	0.495	2.9	Pass
12	0.002	0.153	N/A	0.002	0.230	N/A	Pass
13	0.019	0.210	8.9	0.019	0.315	6.1	Pass
14	0.001	0.131	N/A	0.001	0.197	N/A	Pass
15	0.009	0.150	6.3	0.010	0.225	4.2	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.011	0.132	8.4	0.011	0.198	5.7	Pass
18	0.000	0.102	N/A	0.001	0.153	N/A	Pass
19	0.007	0.118	6.0	0.008	0.178	4.3	Pass
20	0.000	0.092	N/A	0.001	0.138	N/A	Pass
21	0.009	0.107	8.8	0.010	0.161	6.0	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.009	0.098	9.0	0.009	0.147	6.2	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.007	0.090	8.1	0.007	0.135	5.5	Pass
26	0.000	0.071	N/A	0.001	0.107	N/A	Pass
27	0.006	0.083	7.5	0.006	0.125	5.1	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.007	0.078	9.1	0.007	0.116	6.3	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.006	0.073	7.6	0.006	0.109	5.2	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.007	0.068	10.0	0.007	0.102	6.8	Pass
34	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.005	0.064	8.4	0.006	0.096	5.8	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.006	0.061	9.4	0.006	0.091	6.6	Pass
38	0.001	0.048	N/A	0.001	0.073	N/A	Pass
39	0.003	0.058	N/A	0.004	0.087	N/A	Pass
40	0.000	0.046	N/A	0.001	0.069	N/A	Pass



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**Voltage Source Verification Data (Run time)**

EUT: AC POWER SUPPLY  
Test category: Class-A (European limits)  
Test date: 2022-8-26  
Test duration (min): 2.5  
Comment: Full load mode  
Customer: MC-1252

Tested by:  
Test Margin: 100  
Start time: 14:35:48  
End time: 14:38:29  
Data file name: H-000765.cts\_data

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.01	Frequency(Hz): 50.00
I_Peak (Amps): 1.186	I_RMS (Amps): 0.610
I_Fund (Amps): 0.569	Crest Factor: 1.958
Power (Watts): 125.5	Power Factor: 0.895

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.064	0.460	13.81	OK
3	0.405	2.070	19.55	OK
4	0.039	0.460	8.57	OK
5	0.034	0.920	3.67	OK
6	0.029	0.460	6.39	OK
7	0.044	0.690	6.34	OK
8	0.013	0.460	2.80	OK
9	0.048	0.460	10.34	OK
10	0.011	0.460	2.31	OK
11	0.008	0.230	3.65	OK
12	0.012	0.230	5.41	OK
13	0.014	0.230	6.05	OK
14	0.007	0.230	2.89	OK
15	0.008	0.230	3.49	OK
16	0.010	0.230	4.52	OK
17	0.007	0.230	3.05	OK
18	0.016	0.230	6.92	OK
19	0.012	0.230	5.07	OK
20	0.024	0.230	10.43	OK
21	0.012	0.230	5.06	OK
22	0.006	0.230	2.40	OK
23	0.009	0.230	3.91	OK
24	0.005	0.230	2.21	OK
25	0.008	0.230	3.26	OK
26	0.004	0.230	1.64	OK
27	0.007	0.230	3.16	OK
28	0.003	0.230	1.48	OK
29	0.008	0.230	3.67	OK
30	0.003	0.230	1.43	OK
31	0.007	0.230	3.14	OK
32	0.003	0.230	1.18	OK
33	0.009	0.230	3.88	OK
34	0.003	0.230	1.09	OK
35	0.007	0.230	2.83	OK
36	0.003	0.230	1.12	OK
37	0.010	0.230	4.17	OK
38	0.003	0.230	1.14	OK
39	0.006	0.230	2.63	OK
40	0.011	0.230	4.66	OK

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Waltek Testing Group Co., Ltd.

8/31/2022  
4:10 PM

**Harmonics – Class-D per IEC 61000-3-2:2018/AMD1:2020(Run time)**

EUT: AC POWER SUPPLY

Tested by: Parker Liu

Test category: Class-D (European limits)

Test Margin: 100

Test date: 2022-8-26

Start time: 14:43:39

End time: 14:46:20

Test duration (min): 2.5

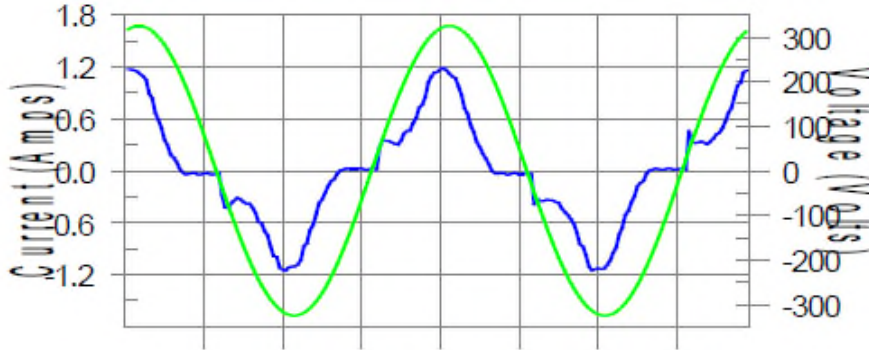
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Comment: Full load mode

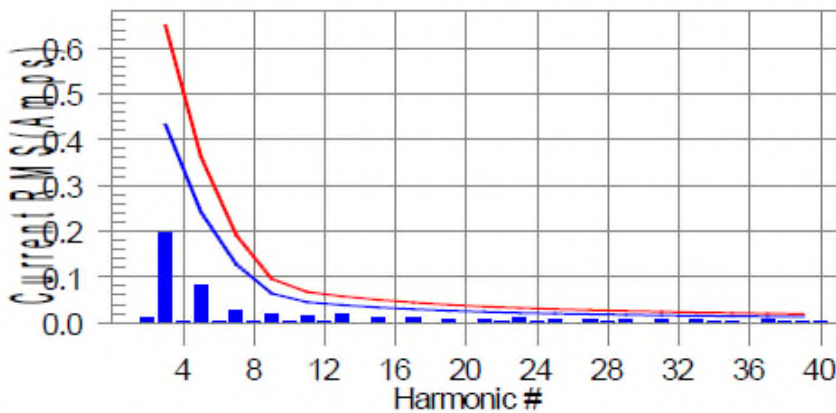
Customer: MC-1252

Test Result: Pass      Source qualification: Normal

Current & voltage waveforms



Harmonics and Class D limit line      European Limits



**Test result: Pass**      Worst harmonics H37-36.4% of 150% limit, H37-52.9% of 100% limit

**Prüfbericht - Nr.:**  
Test Report No.

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Waltek Testing Group Co., Ltd.

8/31/2022  
4:10 PM

**Current Test Result Summary (Run time)**

EUT: AC POWER SUPPLY  
Test category: Class-D (European limits)  
Test date: 2022-8-26  
Test duration (min): 2.5  
Comment: Full load mode  
Customer: MC-1252

Tested by:  
Test Margin: 100  
Start time: 14:43:39  
End time: 14:46:20  
Data file name: H-000767.cts\_data

Test Result: Pass Source qualification: Normal  
THC(A): 0.218 I-THD(%): 37.9 POHC(A): 0.021 POHC Limit(A): 0.055

Highest parameter values during test:

V\_RMS (Volts): 230.03  
I\_Peak (Amps): 1.194  
I\_Fund (Amps): 0.576  
Power (Watts): 127.4

Frequency(Hz): 50.00  
I\_RMS (Amps): 0.617  
Crest Factor: 1.946  
Power Factor: 0.898

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.009	0.000	N/A	0.010	0.000	N/A	Pass
3	0.197	0.433	45.5	0.199	0.650	30.6	Pass
4	0.003	0.000	N/A	0.004	0.000	N/A	Pass
5	0.080	0.242	33.2	0.081	0.363	22.2	Pass
6	0.002	0.000	N/A	0.002	0.000	N/A	Pass
7	0.026	0.127	20.7	0.027	0.191	14.3	Pass
8	0.001	0.000	N/A	0.002	0.000	N/A	Pass
9	0.017	0.064	26.2	0.017	0.096	17.8	Pass
10	0.001	0.000	N/A	0.001	0.000	N/A	Pass
11	0.013	0.045	29.2	0.013	0.067	20.2	Pass
12	0.001	0.000	N/A	0.001	0.000	N/A	Pass
13	0.019	0.038	49.7	0.019	0.057	33.6	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.009	0.033	26.6	0.009	0.050	18.2	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.011	0.029	38.0	0.011	0.044	25.8	Pass
18	0.000	0.000	N/A	0.001	0.000	N/A	Pass
19	0.006	0.026	22.9	0.006	0.039	16.0	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.008	0.023	35.4	0.008	0.035	24.0	Pass
22	0.001	0.000	N/A	0.001	0.000	N/A	Pass
23	0.009	0.021	40.6	0.009	0.032	28.2	Pass
24	0.001	0.000	N/A	0.001	0.000	N/A	Pass
25	0.008	0.020	39.5	0.008	0.029	26.8	Pass
26	0.000	0.000	N/A	0.001	0.000	N/A	Pass
27	0.006	0.018	30.8	0.006	0.027	21.0	Pass
28	0.001	0.000	N/A	0.001	0.000	N/A	Pass
29	0.007	0.017	44.0	0.008	0.025	29.7	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.005	0.016	N/A	0.005	0.024	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.006	0.015	42.3	0.006	0.022	28.6	Pass
34	0.001	0.000	N/A	0.001	0.000	N/A	Pass
35	0.004	0.014	N/A	0.005	0.021	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.007	0.013	52.9	0.007	0.020	36.4	Pass
38	0.001	0.000	N/A	0.001	0.000	N/A	Pass
39	0.004	0.013	N/A	0.004	0.019	N/A	Pass
40	0.001	0.000	N/A	0.001	0.000	N/A	Pass

Note: Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

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Waltek Testing Group Co., Ltd.

8/31/2022  
4:10 PM

**Voltage Source Verification Data (Run time)**

EUT: AC POWER SUPPLY  
Test category: Class-D (European limits)  
Test date: 2022-8-26  
Test duration (min): 2.5  
Comment: Full load mode  
Customer: MC-1252

Tested by:  
Test Margin: 100  
Start time: 14:43:39  
End time: 14:46:20  
Data file name: H-000767.cts\_data

Test Result: Pass      Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.03	Frequency(Hz): 50.00
I_Peak (Amps): 1.194	I_RMS (Amps): 0.617
I_Fund (Amps): 0.576	Crest Factor: 1.946
Power (Watts): 127.4	Power Factor: 0.898

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.058	0.460	12.70	OK
3	0.402	2.070	19.42	OK
4	0.034	0.460	7.31	OK
5	0.035	0.920	3.78	OK
6	0.023	0.460	4.92	OK
7	0.045	0.690	6.49	OK
8	0.010	0.460	2.23	OK
9	0.049	0.460	10.62	OK
10	0.011	0.460	2.48	OK
11	0.008	0.230	3.50	OK
12	0.015	0.230	6.40	OK
13	0.015	0.230	6.38	OK
14	0.008	0.230	3.30	OK
15	0.009	0.230	3.81	OK
16	0.010	0.230	4.38	OK
17	0.008	0.230	3.40	OK
18	0.016	0.230	7.15	OK
19	0.011	0.230	4.63	OK
20	0.025	0.230	10.80	OK
21	0.011	0.230	4.69	OK
22	0.005	0.230	2.24	OK
23	0.009	0.230	3.78	OK
24	0.005	0.230	2.00	OK
25	0.008	0.230	3.50	OK
26	0.004	0.230	1.53	OK
27	0.008	0.230	3.26	OK
28	0.003	0.230	1.26	OK
29	0.010	0.230	4.38	OK
30	0.003	0.230	1.35	OK
31	0.006	0.230	2.57	OK
32	0.002	0.230	0.87	OK
33	0.009	0.230	3.72	OK
34	0.002	0.230	1.01	OK
35	0.005	0.230	2.03	OK
36	0.002	0.230	0.92	OK
37	0.012	0.230	5.13	OK
38	0.003	0.230	1.11	OK
39	0.006	0.230	2.66	OK
40	0.011	0.230	4.77	OK

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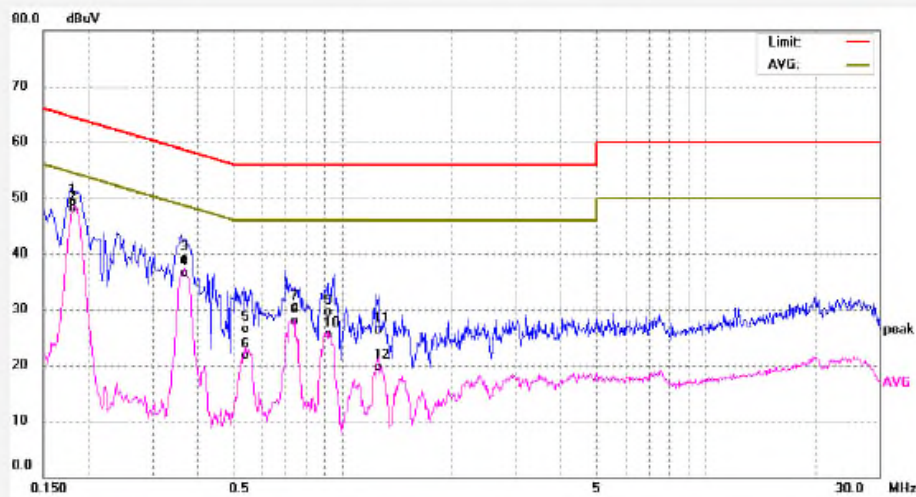
**WALTEK TESTING GROUP CO., LTD.**

No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998

FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 15/32/45
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1819	39.01	10.31	49.32	64.39	-15.07	QP	
2	0.1819	37.80	10.31	48.11	54.39	-6.28	AVG	
3	0.3660	28.93	10.25	39.18	58.59	-19.41	QP	
4	0.3660	26.21	10.25	36.46	48.59	-12.13	AVG	
5	0.5420	16.16	10.28	26.44	56.00	-29.56	QP	
6	0.5420	11.48	10.28	21.76	46.00	-24.24	AVG	
7	0.7380	20.03	10.35	30.38	56.00	-25.62	QP	
8	0.7380	17.46	10.35	27.81	46.00	-18.19	AVG	
9	0.9180	19.13	10.35	29.48	56.00	-26.52	QP	
10	0.9180	15.24	10.35	25.59	46.00	-20.41	AVG	
11	1.2579	15.97	10.36	26.33	56.00	-29.67	QP	
12	1.2579	9.38	10.36	19.74	46.00	-26.26	AVG	

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Test Report No.

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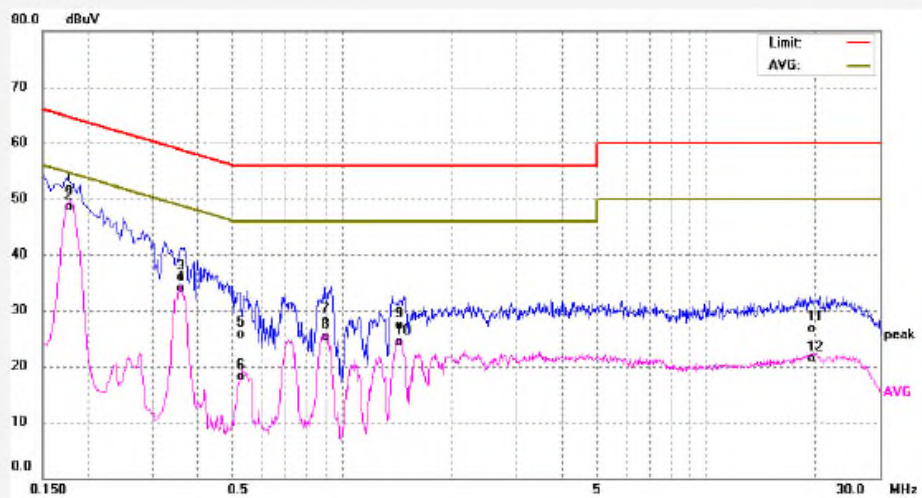
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No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 15/30/04
EUT: AC POWER SUPPLY	Engineer Signature: Parker Liu
Mode: Full load mode	
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1780	41.41	10.33	51.74	64.57	-12.83	QP	
2	0.1780	38.19	10.33	48.52	54.57	-6.05	AVG	
3	0.3580	25.59	10.26	35.85	58.77	-22.92	QP	
4	0.3580	23.68	10.26	33.94	48.77	-14.83	AVG	
5	0.5299	15.37	10.28	25.65	56.00	-30.35	QP	
6	0.5299	7.74	10.28	18.02	46.00	-27.98	AVG	
7	0.9020	17.79	10.36	28.15	56.00	-27.85	QP	
8	0.9020	15.04	10.36	25.40	46.00	-20.60	AVG	
9	1.4380	17.02	10.37	27.39	56.00	-28.61	QP	
10	1.4380	13.85	10.37	24.22	46.00	-21.78	AVG	
11	19.6180	16.30	10.44	26.74	60.00	-33.26	QP	
12	19.6180	10.86	10.44	21.30	50.00	-28.70	AVG	

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Test Report No.

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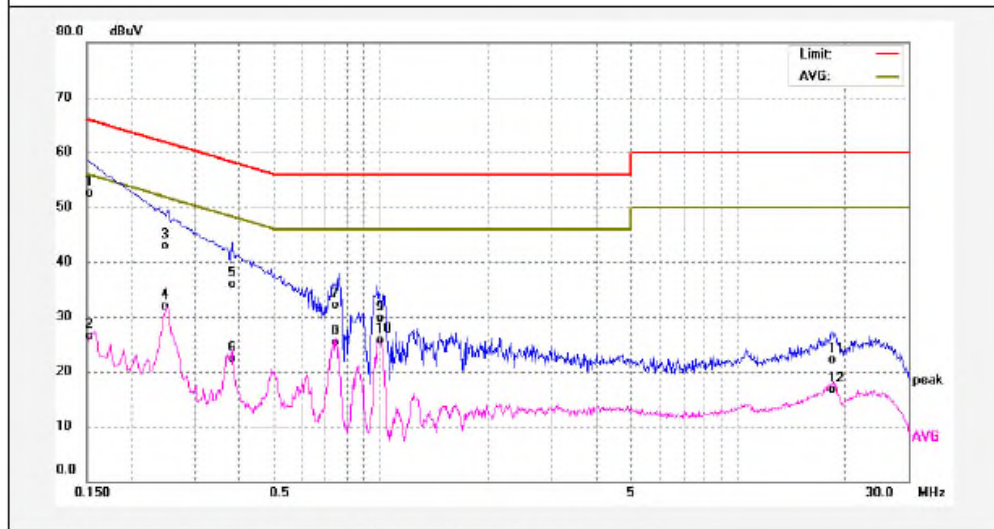
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No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/10/00
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 15V3A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	42.18	10.33	52.51	65.99	-13.48	QP	
2	0.1500	16.27	10.33	26.60	55.99	-29.39	AVG	
3	0.2500	32.72	10.26	42.98	61.75	-18.77	QP	
4	0.2500	21.67	10.26	31.93	51.75	-19.82	AVG	
5	0.3820	25.65	10.25	35.90	58.23	-22.33	QP	
6	0.3820	12.06	10.25	22.31	48.23	-25.92	AVG	
7	0.7460	21.77	10.35	32.12	56.00	-23.88	QP	
8	0.7460	15.01	10.35	25.36	46.00	-20.64	AVG	
9	0.9900	19.43	10.35	29.78	56.00	-26.22	QP	
10	0.9900	15.31	10.35	25.66	46.00	-20.34	AVG	
11	18.4580	11.63	10.45	22.08	60.00	-37.92	QP	
12	18.4580	6.34	10.45	16.79	50.00	-33.21	AVG	

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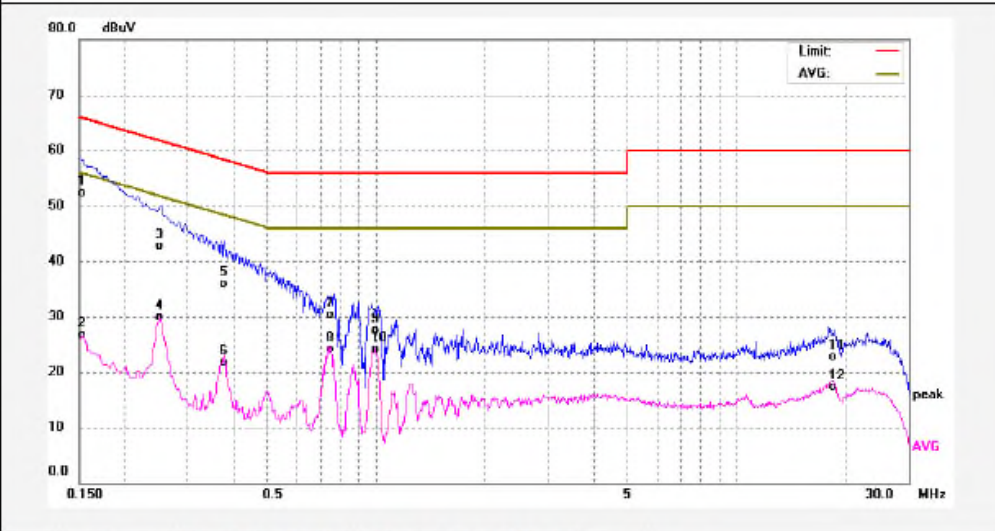


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Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/12/35
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 15V3A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1516	41.90	10.36	52.26	65.91	-13.65	QP	
2	0.1516	16.36	10.36	26.72	55.91	-29.19	AVG	
3	0.2500	32.45	10.28	42.73	61.75	-19.02	QP	
4	0.2500	19.67	10.28	29.95	51.75	-21.80	AVG	
5	0.3780	25.68	10.26	35.94	58.32	-22.38	QP	
6	0.3780	11.52	10.26	21.78	48.32	-26.54	AVG	
7	0.7460	19.98	10.36	30.34	56.00	-25.66	QP	
8	0.7460	13.81	10.36	24.17	46.00	-21.83	AVG	
9	0.9900	17.14	10.36	27.50	56.00	-28.50	QP	
10	0.9900	13.75	10.36	24.11	46.00	-21.89	AVG	
11	18.4340	12.15	10.47	22.62	60.00	-37.38	QP	
12	18.4340	6.90	10.47	17.37	50.00	-32.63	AVG	



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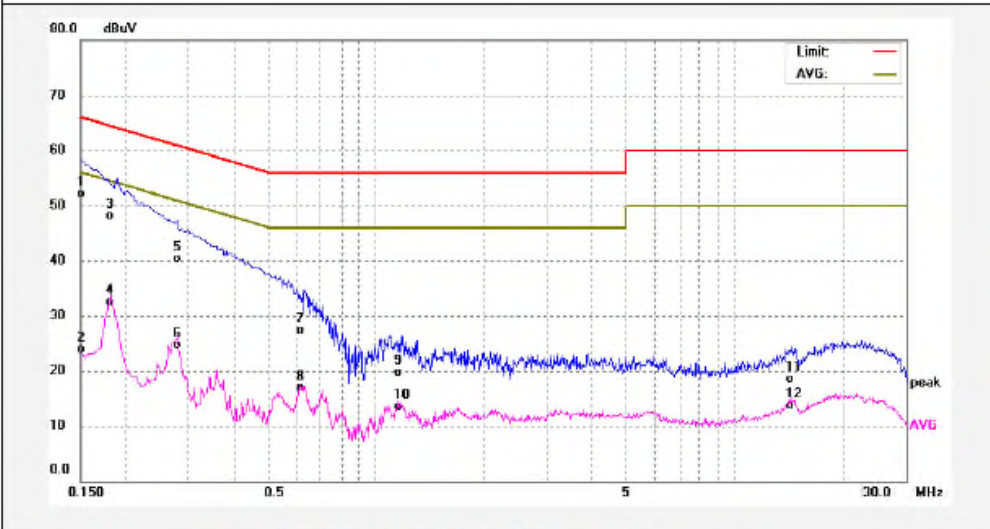


**WALTEK TESTING GROUP CO., LTD.**

No.77, Houjie Section,Guantai Rd.,Houjie Town,  
Dongguan City,Guangdong,China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/39/53
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 5V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	41.71	10.33	52.04	65.99	-13.95	QP	
2	0.1500	13.52	10.33	23.85	55.99	-32.14	AVG	
3	0.1819	37.88	10.31	48.19	64.39	-16.20	QP	
4	0.1819	22.12	10.31	32.43	54.39	-21.96	AVG	
5	0.2779	29.98	10.26	40.24	60.88	-20.64	QP	
6	0.2779	14.39	10.26	24.65	50.88	-26.23	AVG	
7	0.6140	17.01	10.32	27.33	56.00	-28.67	QP	
8	0.6140	6.59	10.32	16.91	46.00	-29.09	AVG	
9	1.1539	9.34	10.35	19.69	56.00	-36.31	QP	
10	1.1539	3.19	10.35	13.54	46.00	-32.46	AVG	
11	14.3619	7.97	10.54	18.51	60.00	-41.49	QP	
12	14.3619	3.10	10.54	13.64	50.00	-36.36	AVG	

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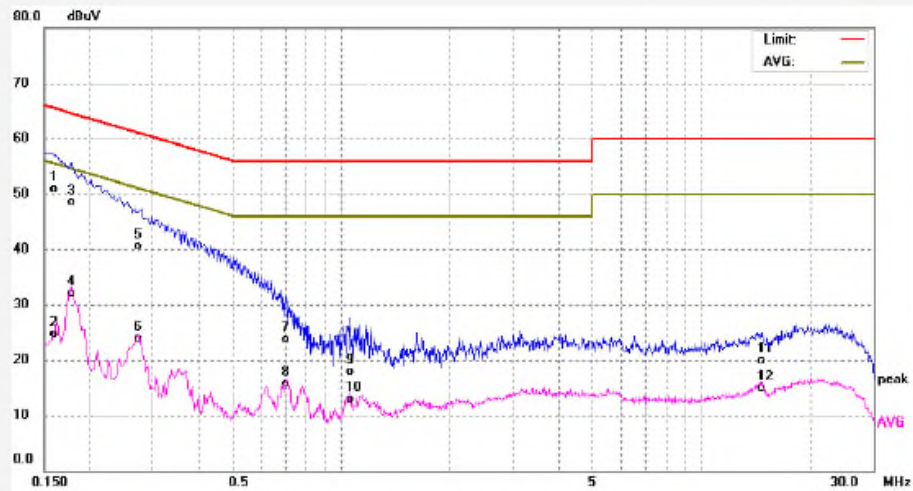
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 120V/60Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/37/18
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 5V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1580	40.57	10.35	50.92	65.56	-14.64	QP	
2	0.1580	14.39	10.35	24.74	55.56	-30.82	AVG	
3	0.1780	38.23	10.33	48.56	64.57	-16.01	QP	
4	0.1780	21.70	10.33	32.03	54.57	-22.54	AVG	
5	0.2740	30.16	10.27	40.43	60.99	-20.56	QP	
6	0.2740	13.59	10.27	23.86	50.99	-27.13	AVG	
7	0.7019	13.33	10.36	23.69	56.00	-32.31	QP	
8	0.7019	5.38	10.36	15.74	46.00	-30.26	AVG	
9	1.0580	7.61	10.36	17.97	56.00	-38.03	QP	
10	1.0580	2.51	10.36	12.87	46.00	-33.13	AVG	
11	14.6100	9.35	10.57	19.92	60.00	-40.08	QP	
12	14.6100	4.33	10.57	14.90	50.00	-35.10	AVG	

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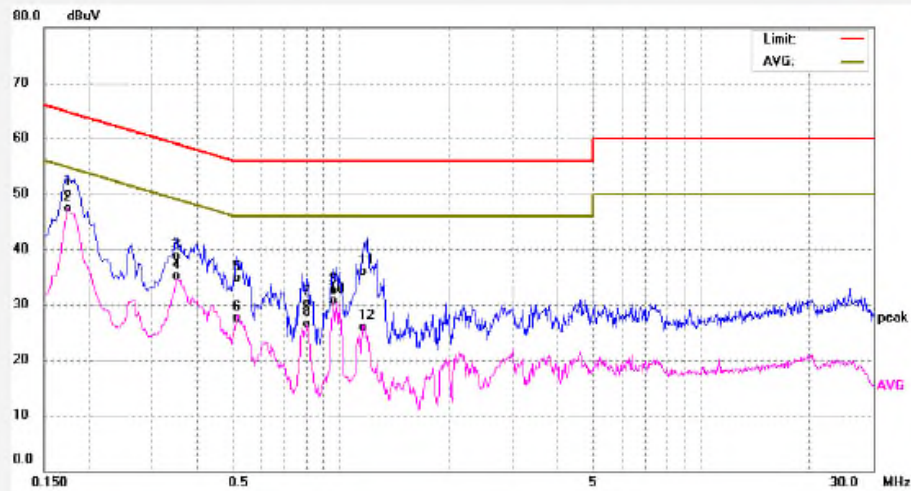
**WALTEK TESTING GROUP CO., LTD.**

No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998

FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 15/35/18
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1740	39.74	10.31	50.05	64.76	-14.71	QP	
2	0.1740	36.92	10.31	47.23	54.76	-7.53	AVG	
3	0.3500	28.40	10.25	38.65	58.96	-20.31	QP	
4	0.3500	24.83	10.25	35.08	48.96	-13.88	AVG	
5	0.5180	24.39	10.27	34.66	56.00	-21.34	QP	
6	0.5180	17.29	10.27	27.56	46.00	-18.44	AVG	
7	0.8059	20.02	10.35	30.37	56.00	-25.63	QP	
8	0.8059	16.19	10.35	26.54	46.00	-19.46	AVG	
9	0.9540	22.21	10.35	32.56	56.00	-23.44	QP	
10	0.9540	20.41	10.35	30.76	46.00	-15.24	AVG	
11	1.1580	25.57	10.35	35.92	56.00	-20.08	QP	
12	1.1580	15.59	10.35	25.94	46.00	-20.06	AVG	

**Prüfbericht - Nr.:**  
Test Report No.

**CN228TTG 001**

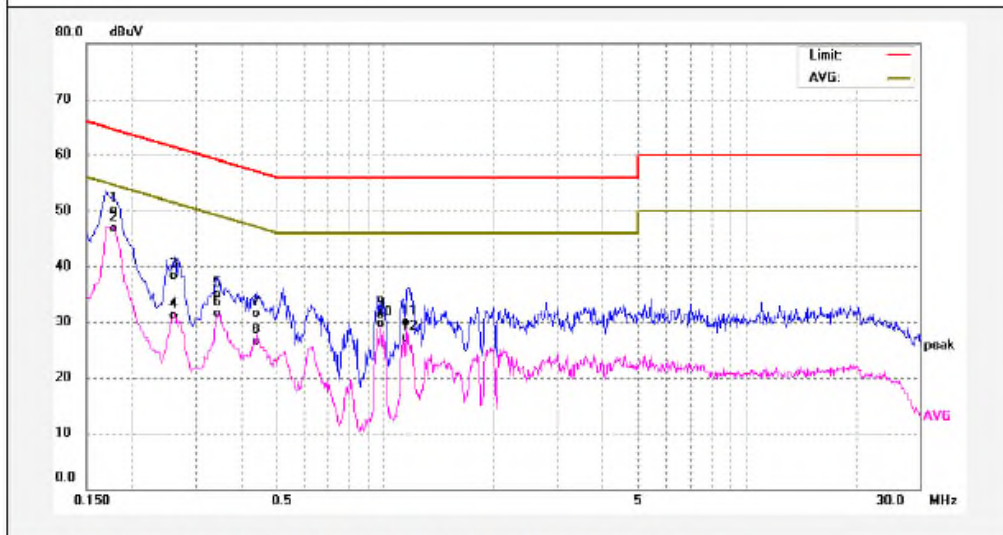
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 15/37/27
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1780	39.73	10.33	50.06	64.57	-14.51	QP	
2	0.1780	36.35	10.33	46.68	54.57	-7.89	AVG	
3	0.2620	27.98	10.28	38.26	61.36	-23.10	QP	
4	0.2620	20.89	10.28	31.17	51.36	-20.19	AVG	
5	0.3460	24.59	10.26	34.85	59.06	-24.21	QP	
6	0.3460	21.16	10.26	31.42	49.06	-17.64	AVG	
7	0.4420	21.16	10.27	31.43	57.02	-25.59	QP	
8	0.4420	16.32	10.27	26.59	47.02	-20.43	AVG	
9	0.9740	20.88	10.36	31.24	56.00	-24.76	QP	
10	0.9740	19.32	10.36	29.68	46.00	-16.32	AVG	
11	1.1460	19.51	10.36	29.87	56.00	-26.13	QP	
12	1.1460	16.74	10.36	27.10	46.00	-18.90	AVG	

**Prüfbericht - Nr.:**  
Test Report No.

**CN228TTG 001**

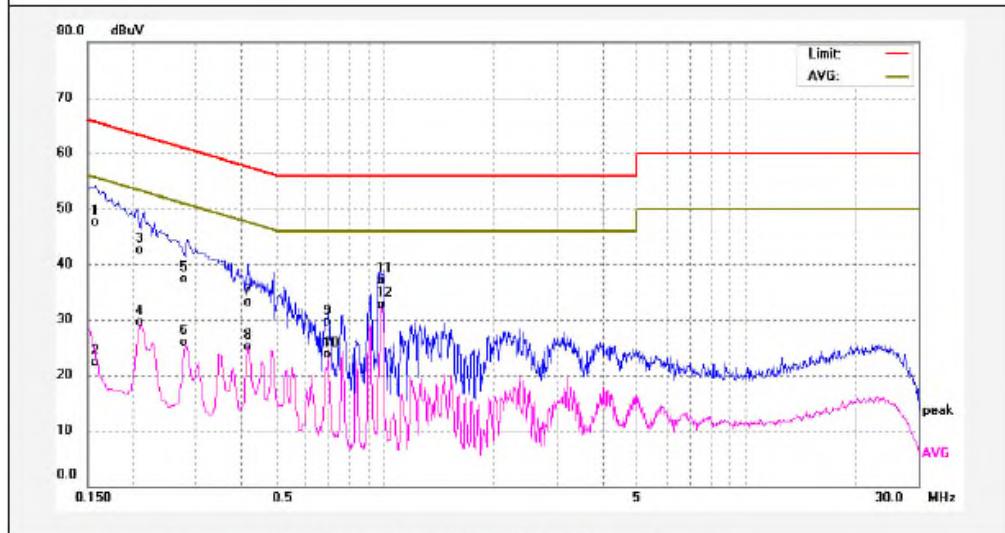
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/21/29
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	
Model: MC-1252	
Note: 15V1.5A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1580	37.13	10.32	47.45	65.56	-18.11	QP	
2	0.1580	12.02	10.32	22.34	55.56	-33.22	AVG	
3	0.2100	32.25	10.28	42.53	63.20	-20.67	QP	
4	0.2100	19.17	10.28	29.45	53.20	-23.75	AVG	
5	0.2779	27.07	10.26	37.33	60.88	-23.55	QP	
6	0.2779	15.57	10.26	25.83	50.88	-25.05	AVG	
7	0.4180	22.85	10.26	33.11	57.49	-24.38	QP	
8	0.4180	14.82	10.26	25.08	47.49	-22.41	AVG	
9	0.6940	19.10	10.35	29.45	56.00	-26.55	QP	
10	0.6940	13.35	10.35	23.70	46.00	-22.30	AVG	
11	0.9740	26.78	10.35	37.13	56.00	-18.87	QP	
12	0.9740	22.33	10.35	32.68	46.00	-13.32	AVG	

**Prüfbericht - Nr.:**  
Test Report No.

**CN228TTG 001**

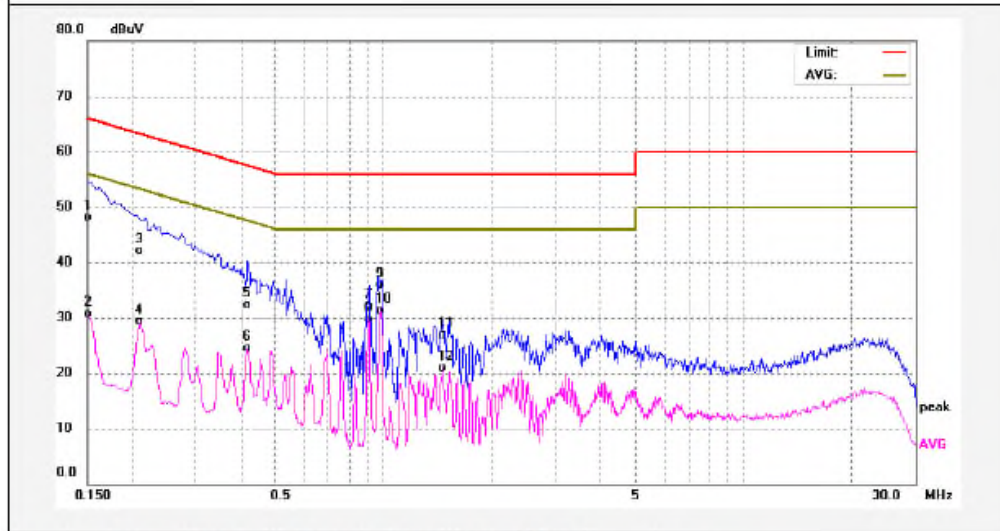
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Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 16/23/40
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	
Model: MC-1252	
Note: 15V1.5A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	37.80	10.36	48.16	65.99	-17.83	QP	
2	0.1500	20.26	10.36	30.62	55.99	-25.37	AVG	
3	0.2100	31.75	10.30	42.05	63.20	-21.15	QP	
4	0.2100	19.06	10.30	29.36	53.20	-23.84	AVG	
5	0.4180	21.96	10.27	32.23	57.49	-25.26	QP	
6	0.4180	14.33	10.27	24.60	47.49	-22.89	AVG	
7	0.9060	21.83	10.36	32.19	56.00	-23.81	QP	
8	0.9060	19.27	10.36	29.63	46.00	-16.37	AVG	
9	0.9740	25.50	10.36	35.86	56.00	-20.14	QP	
10	0.9740	20.92	10.36	31.28	46.00	-14.72	AVG	
11	1.4580	16.54	10.37	26.91	56.00	-29.09	QP	
12	1.4580	10.44	10.37	20.81	46.00	-25.19	AVG	

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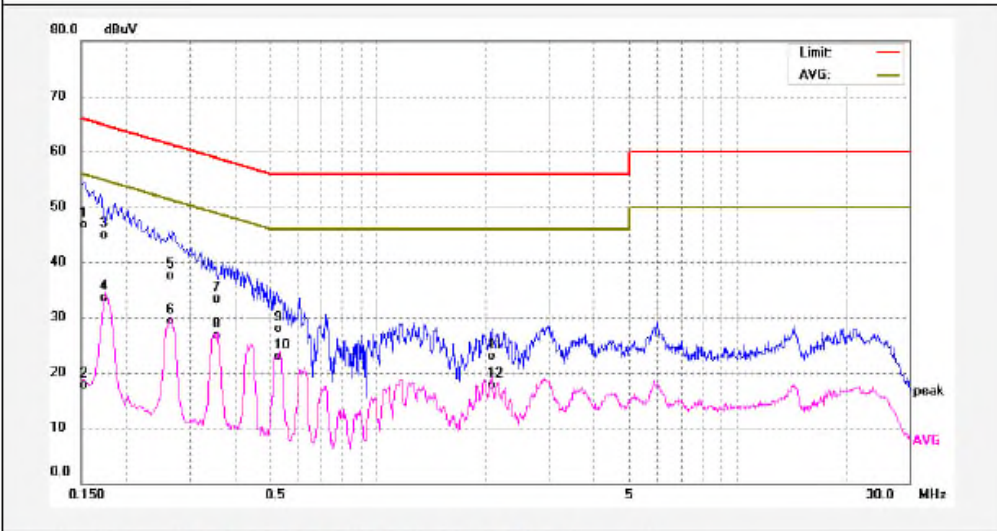
**WALTEK TESTING GROUP CO., LTD.**

No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: L1
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 17/11/43
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	

Note: 5V6.25A



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1539	36.30	10.33	46.63	65.78	-19.15	QP	
2	0.1539	7.46	10.33	17.79	55.78	-37.99	AVG	
3	0.1740	34.56	10.31	44.87	64.76	-19.89	QP	
4	0.1740	23.27	10.31	33.58	54.76	-21.18	AVG	
5	0.2660	27.27	10.27	37.54	61.24	-23.70	QP	
6	0.2660	18.94	10.27	29.21	51.24	-22.03	AVG	
7	0.3580	23.08	10.25	33.33	58.77	-25.44	QP	
8	0.3580	16.50	10.25	26.75	48.77	-22.02	AVG	
9	0.5340	17.71	10.27	27.98	56.00	-28.02	QP	
10	0.5340	12.65	10.27	22.92	46.00	-23.08	AVG	
11	2.0660	12.57	10.38	22.95	56.00	-33.05	QP	
12	2.0660	7.37	10.38	17.75	46.00	-28.25	AVG	

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Test Report No.

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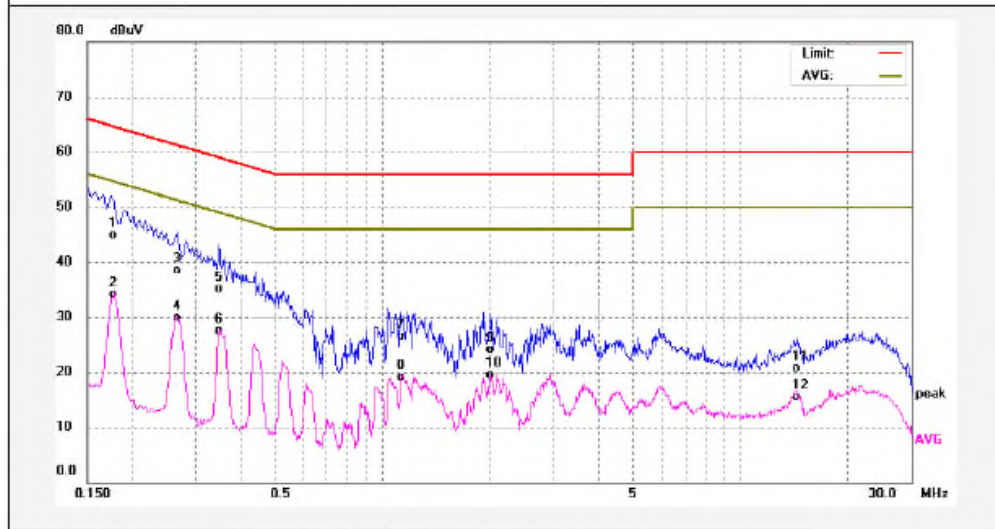
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Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Phase: N
Standard: EN55032 CE-Class B_QP	Power Source: AC 230V/50Hz
Test item: Conduction Test	Date: 22/08/25/
Temp.(C)/Hum.(%): 26.2 (c) / 54.8 %	Time: 17/14/08
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	
Model: MC-1252	
Note: 5V6.25A	



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1780	34.57	10.33	44.90	64.57	-19.67	QP	
2	0.1780	23.80	10.33	34.13	54.57	-20.44	AVG	
3	0.2660	28.13	10.28	38.41	61.24	-22.83	QP	
4	0.2660	19.63	10.28	29.91	51.24	-21.33	AVG	
5	0.3500	24.86	10.26	35.12	58.96	-23.84	QP	
6	0.3500	17.19	10.26	27.45	48.96	-21.51	AVG	
7	1.1340	16.19	10.36	26.55	56.00	-29.45	QP	
8	1.1340	8.67	10.36	19.03	46.00	-26.97	AVG	
9	2.0020	13.67	10.38	24.05	56.00	-31.95	QP	
10	2.0020	9.19	10.38	19.57	46.00	-26.43	AVG	
11	14.2900	10.11	10.56	20.67	60.00	-39.33	QP	
12	14.2900	4.94	10.56	15.50	50.00	-34.50	AVG	



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**WALTEK TESTING GROUP CO., LTD.**  
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Dongguan City,Guangdong,China.

TEL: +86-769-22676998  
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Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 18/47/54
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 20V3.125A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	94.0979	49.29	-22.42	26.87	40.00	-13.13	QP	
2	141.3298	50.54	-17.65	32.89	40.00	-7.11	QP	
3	155.9101	46.96	-17.22	29.74	40.00	-10.26	QP	
4	180.0165	50.43	-18.55	31.88	40.00	-8.12	QP	
5	336.0352	45.94	-15.94	30.00	47.00	-17.00	QP	
6	383.9318	45.86	-14.79	31.07	47.00	-15.93	QP	

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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section,Guantai Rd.,Houjie Town,  
Dongguan City,Guangdong,China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 18/45/53
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 20V3.125A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	31.0706	52.43	-19.93	32.50	40.00	-7.50	QP	
2	43.5057	44.49	-19.29	25.20	40.00	-14.80	QP	
3	62.2128	46.16	-19.43	26.73	40.00	-13.27	QP	
4	94.0979	51.07	-22.42	28.65	40.00	-11.35	QP	
5	180.0165	41.71	-18.55	23.16	40.00	-16.84	QP	
6	407.5145	43.57	-14.30	29.27	47.00	-17.73	QP	

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Test Report No.

**CN228TTG 001**

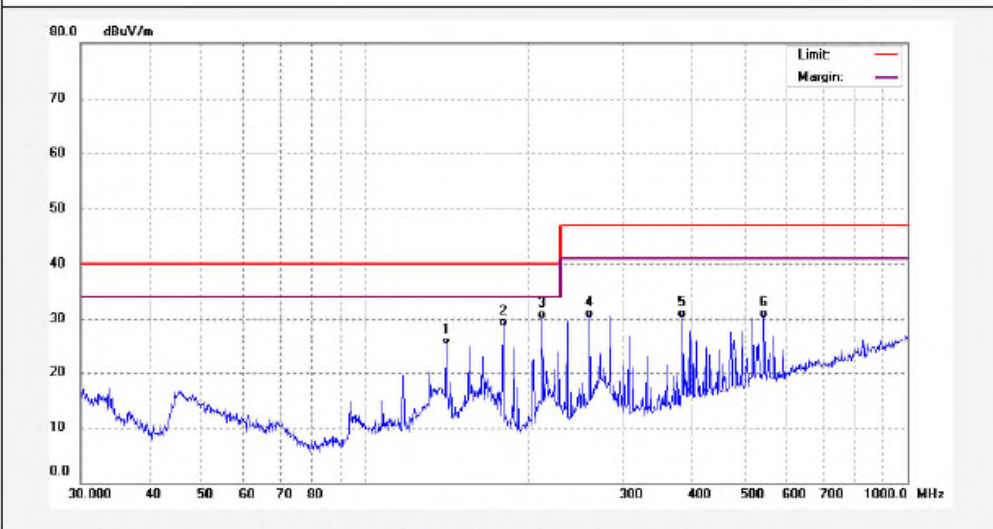
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/14/42
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 5V3.125A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	141.3298	43.50	-17.65	25.85	40.00	-14.15	QP	
2	180.0165	47.77	-18.55	29.22	40.00	-10.78	QP	
3	212.2695	50.70	-20.08	30.62	40.00	-9.38	QP	
4	259.2338	49.18	-18.21	30.97	47.00	-16.03	QP	
5	383.9318	45.79	-14.79	31.00	47.00	-16.00	QP	
6	543.2742	41.54	-10.61	30.93	47.00	-16.07	QP	

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Test Report No.

**CN228TTG 001**

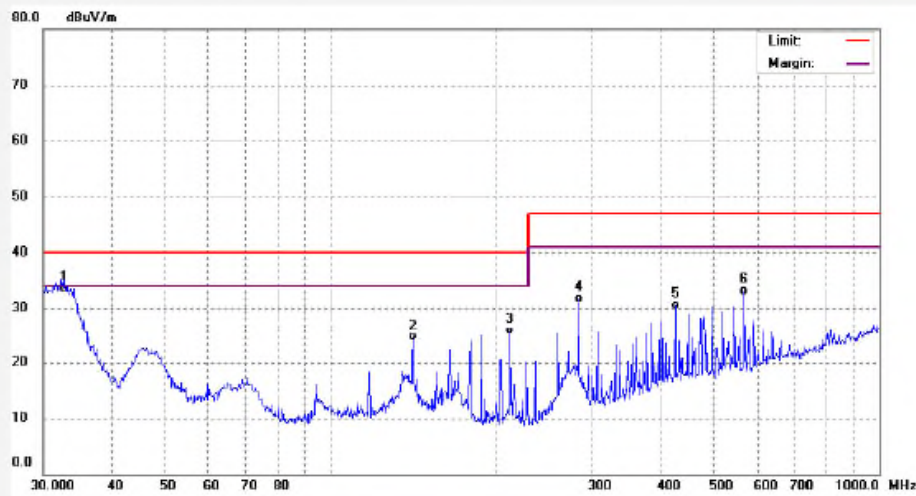
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
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Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/16/17
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 5V3.125A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	32.6340	53.46	-19.86	33.60	40.00	-6.40	QP	
2	141.3298	42.39	-17.65	24.74	40.00	-15.26	QP	
3	212.2695	46.06	-20.08	25.98	40.00	-14.02	QP	
4	282.9852	49.08	-17.32	31.76	47.00	-15.24	QP	
5	425.0280	44.50	-14.09	30.41	47.00	-16.59	QP	
6	566.6223	43.78	-10.62	33.16	47.00	-13.84	QP	

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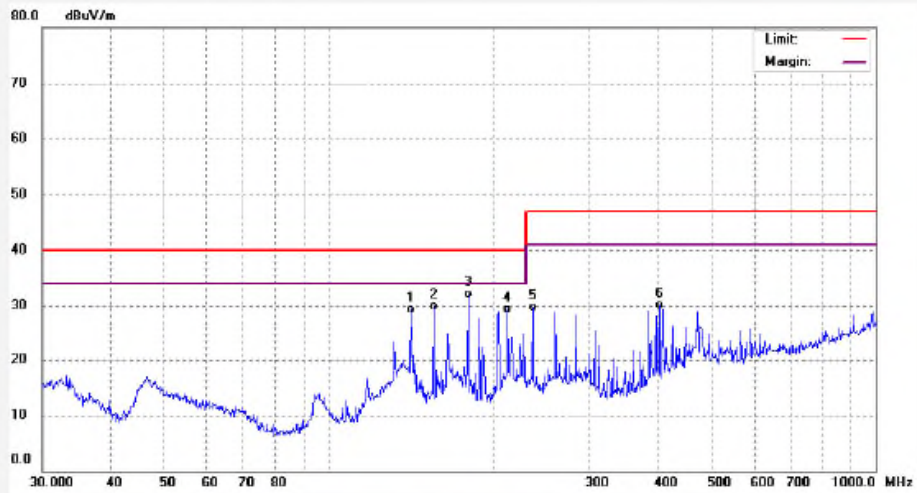
**WALTEK TESTING GROUP CO., LTD.**

No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998

FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/33/01
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 15V3A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	141.3298	46.99	-17.65	29.34	40.00	-10.66	QP	
2	155.9101	47.07	-17.22	29.85	40.00	-10.15	QP	
3	180.0165	50.67	-18.55	32.12	40.00	-7.88	QP	
4	212.2695	49.47	-20.08	29.39	40.00	-10.61	QP	
5	235.8164	49.10	-19.36	29.74	47.00	-17.26	QP	
6	401.8385	44.49	-14.37	30.12	47.00	-16.88	QP	

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Test Report No.

**CN228TTG 001**

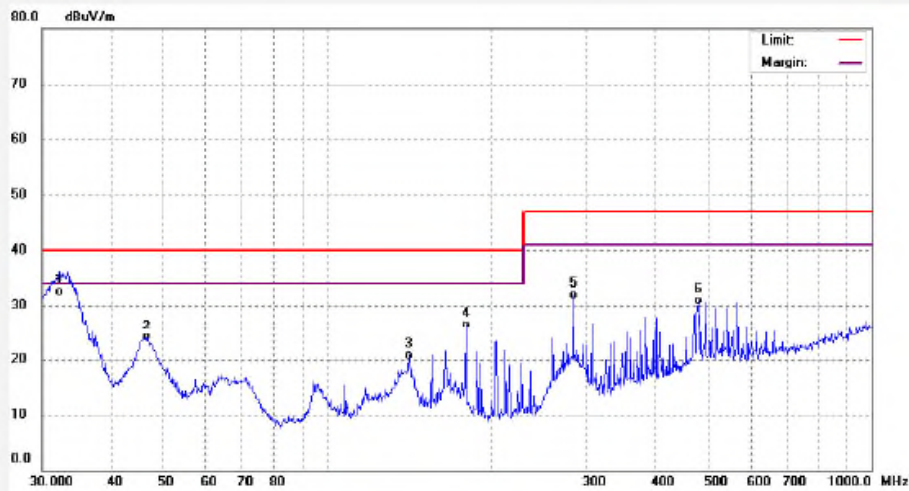
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Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/35/03
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 15V3A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	32.2925	52.48	-19.88	32.60	40.00	-7.40	QP	
2	46.6664	43.13	-19.00	24.13	40.00	-15.87	QP	
3	141.3298	38.30	-17.65	20.65	40.00	-19.35	QP	
4	180.0165	45.08	-18.55	26.53	40.00	-13.47	QP	
5	282.9852	49.22	-17.32	31.90	47.00	-15.10	QP	
6	480.5276	43.20	-12.37	30.83	47.00	-16.17	QP	

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Test Report No.

**CN228TTG 001**

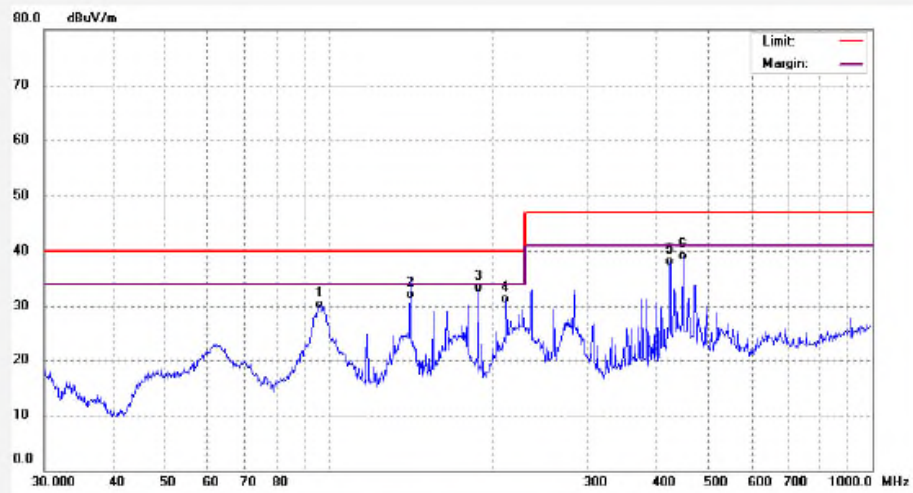
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No.77, Houjie Section, Guantai Rd., Houjie Town,  
Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 18/36/32
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	96.4362	52.31	-21.95	30.36	40.00	-9.64	QP	
2	141.3298	49.85	-17.65	32.20	40.00	-7.80	QP	
3	188.4125	53.00	-19.60	33.40	40.00	-6.60	QP	
4	211.5265	51.32	-20.08	31.24	40.00	-8.76	QP	
5	423.5403	52.28	-14.11	38.17	47.00	-8.83	QP	
6	447.9822	52.28	-13.26	39.02	47.00	-7.98	QP	

**Prüfbericht - Nr.:**  
Test Report No.

**CN228TTG 001**

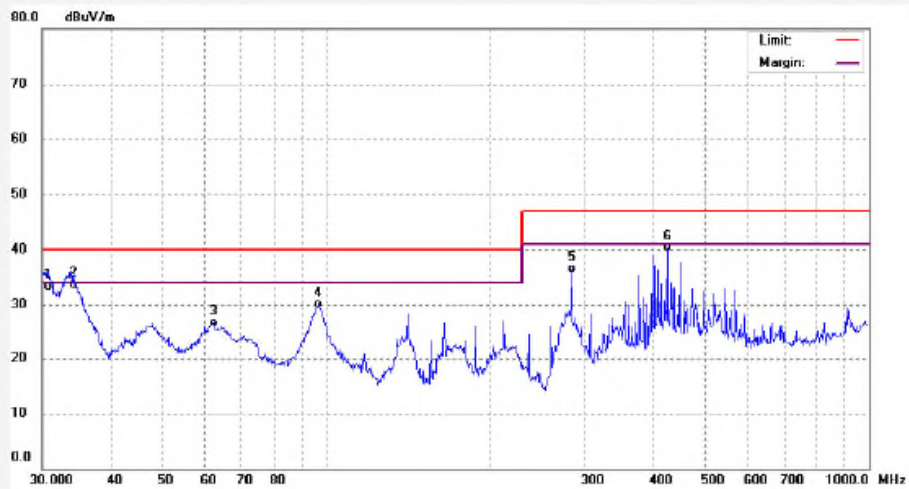
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**WALTEK TESTING GROUP CO., LTD.**  
No.77, Houjie Section,Guantai Rd.,Houjie Town,  
Dongguan City,Guangdong,China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-9-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 18/34/18
EUT: AC POWER SUPPLY	Engineer Signature: Parker Liu
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 20V6.25A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	30.7455	53.34	-19.94	33.40	40.00	-6.60	QP	
2	34.2760	53.50	-19.80	33.70	40.00	-6.30	QP	
3	61.9951	46.18	-19.40	26.78	40.00	-13.22	QP	
4	96.7749	51.96	-21.87	30.09	40.00	-9.91	QP	
5	282.9852	53.83	-17.32	36.51	47.00	-10.49	QP	
6	425.0280	54.33	-14.09	40.24	47.00	-6.76	QP	



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Test Report No.

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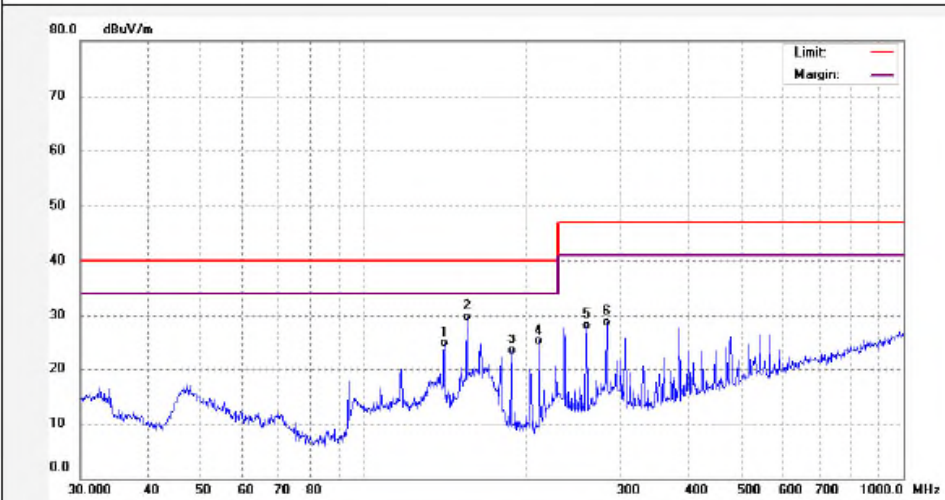
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Dongguan City, Guangdong, China.

TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/04/46
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 5V6.25A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	141.3296	42.31	-17.65	24.66	40.00	-15.34	QP	
2	155.9101	46.92	-17.22	29.70	40.00	-10.30	QP	
3	188.4125	42.87	-19.60	23.27	40.00	-16.73	QP	
4	211.5264	45.14	-20.08	25.06	40.00	-14.94	QP	
5	259.2338	46.23	-18.21	28.02	47.00	-18.98	QP	
6	281.9945	46.17	-17.37	28.80	47.00	-18.20	QP	

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Test Report No.

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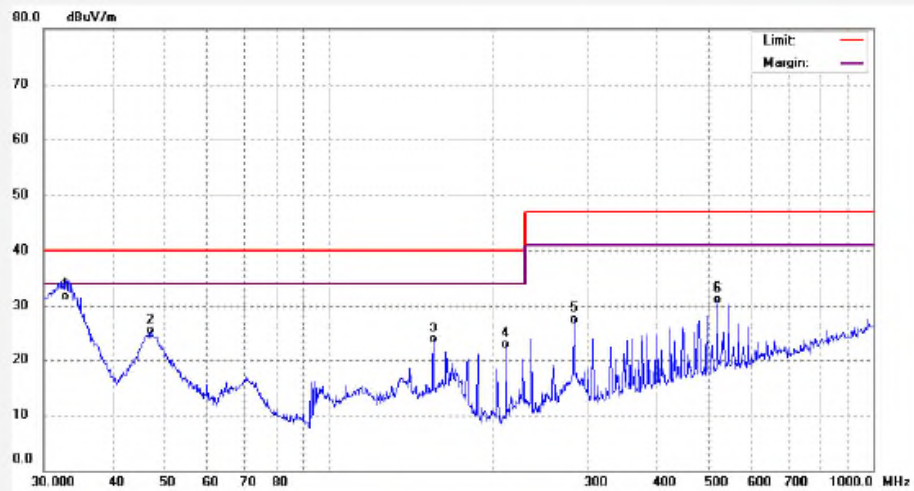
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Dongguan City,Guangdong,China.

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FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/06/31
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Full load mode	Distance: 3m
Model: MC-1252	
Note: 5V6.25A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	32.8637	51.56	-19.86	31.70	40.00	-8.30	QP	
2	46.9948	44.29	-18.97	25.32	40.00	-14.68	QP	
3	155.9101	40.87	-17.22	23.65	40.00	-16.35	QP	
4	211.5265	42.80	-20.08	22.72	40.00	-17.28	QP	
5	281.9946	44.86	-17.37	27.49	47.00	-19.51	QP	
6	517.2480	41.77	-10.74	31.03	47.00	-15.97	QP	

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Test Report No.

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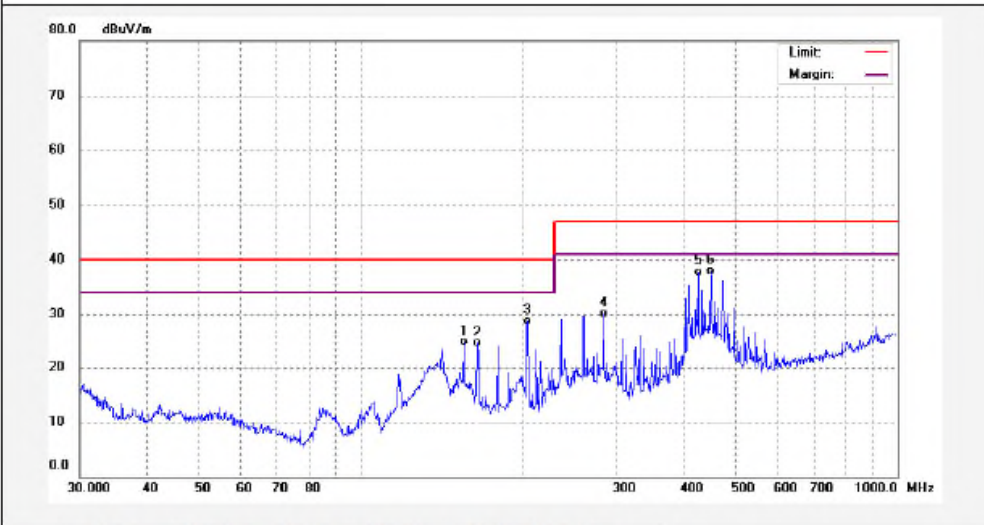
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TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Horizontal
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/47/33
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 15V1.5A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	155.9101	41.86	-17.22	24.64	40.00	-15.36	QP	
2	164.9075	41.92	-17.50	24.42	40.00	-15.58	QP	
3	204.2377	48.84	-20.13	28.71	40.00	-11.29	QP	
4	282.9852	47.37	-17.32	30.05	47.00	-16.95	QP	
5	425.0280	51.76	-14.09	37.67	47.00	-9.33	QP	
6	447.9822	51.12	-13.26	37.86	47.00	-9.14	QP	

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Test Report No.

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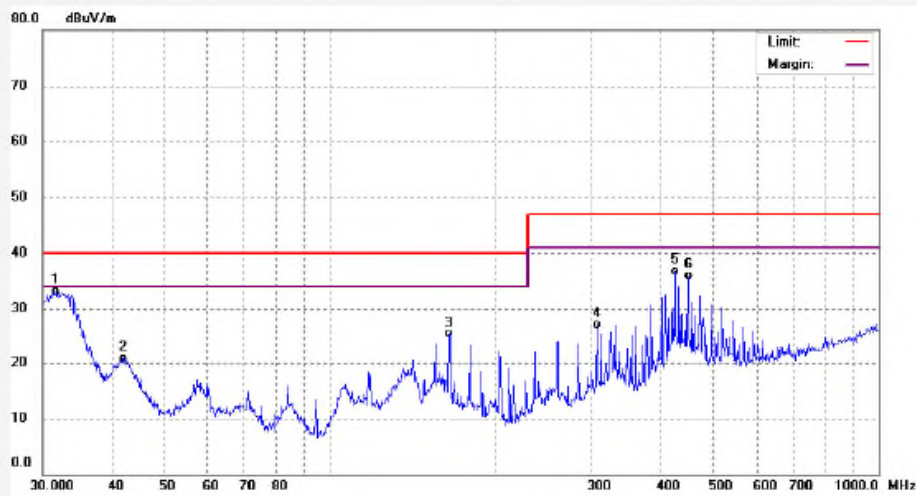
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TEL: +86-769-22676998  
FAX: +86-769-22676828

Job No.: WTD22D08163225E	Polarization: Vertical
Standard: EN55032 RE-Class B 3M	Power Source: AC 230V/50Hz
Test item: Radiation Test	Date: 2022-8-25
Temp.(C)/Hum.(%): 25.7 (c) / 56.2 %	Time: 19/49/45
EUT: AC POWER SUPPLY	Engineer Signature:
Mode: Half load mode	Distance: 3m
Model: MC-1252	
Note: 15V1.5A	



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	31.6202	53.08	-19.91	33.17	40.00	-6.83	QP	
2	42.1542	40.09	-19.41	20.68	40.00	-19.32	QP	
3	164.9075	42.87	-17.50	25.37	40.00	-14.63	QP	
4	306.7537	43.59	-16.49	27.10	47.00	-19.90	QP	
5	425.0280	50.86	-14.09	36.77	47.00	-10.23	QP	
6	449.5558	49.03	-13.21	35.82	47.00	-11.18	QP	

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**Table 1: List of Test and Measurement Equipment**

**Waltek Testing Group Co., Ltd. Dongguan Branch**

**Conducted emissions from the AC mains power ports**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	EMI Test Receiver	R&S	ESCI	100947	2022-08-01	2023-07-31
2	LISN	R&S	ENV216	100115	2022-08-01	2023-07-31
3	Cable	Top	TYPE16(3.5M)	-	2022-08-01	2023-07-31

**3m Semi-anechoic Chamber for Radiation (Below 1GHz) TDK**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Test Receiver	R&S	ESCI	101296	2022-04-28	2023-04-27
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2021-10-31	2022-10-30
3	Amplifier	ANRITSU	MH648A	M43381	2022-04-28	2023-04-27
4	Cable	HUBER+SUHNER	CBL2	525178	2022-04-28	2023-04-27

**Harmonic and Flicker Measuring System**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Digital Power Analyzer	SCHAFFNER	CCN 1000-1	72625	2022-04-28	2023-04-27
2	Power Source	SCHAFFNER	NSG 1007	58477	2022-04-28	2023-04-27

**Electrostatic Discharge**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Electrostatic Discharge Simulator	SCHLODER	SESD 216	606144	2022-04-28	2023-04-27

**Radio-frequency electromagnetic fields**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Signal Generator	R&S	SMB100A	105942	2022-08-01	2023-07-31
2	RF Power Amplifier	BONN Elektronik	BLWA0830-160/100/40D	128740	2022-08-01	2023-07-31
3	GestockteBreitband (S tacked ) Log.-per.Antenna	SCHWARZBECK	STLP9128D	043	2022-08-01	2023-07-31

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4	Power Meter	R&S	NRP2	102031	2021-12-28	2022-12-27
5	Amplifier	NJNT	NTWPAS-2560025	2560025	2022-08-01	2023-07-31
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	2022-04-30	2023-04-29

**Surge, EFT, Voltage dips and Interruption**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	All Modules Generator	SCHAFFNER	6150	34579	2022-08-01	2023-07-31
2	AC Power Supply	HENGYUAN	DTDGC-4	-	2022-08-01	2023-07-31

**Conducted Immunity**

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	RF Generator	TESEQ	NSG4070	25781	2022-08-01	2023-07-31
2	CDN M-Type	TESEQ	CDN M016	25112	2021-12-27	2022-12-26
3	Attenuator 6dB	TESEQ	ATN6050	25376	2022-08-01	2023-07-31

: **Not Used**

: **Used**