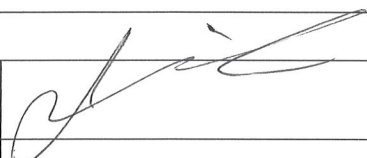




Test Report issued under the responsibility of:



TEST REPORT IEC 62368-1 Audio/video, information and communication technology equipment Part 1: Safety requirements	
Report Number	ATTCB106020-01
Date of issue	June 27, 2017
Total number of pages	32
Applicant's name	Top Victory Electronics (Taiwan) Co., Ltd.
Address	10F., No. 230, Liancheng Rd., Zhonghe Dist., New Taipei City, 23553 Taiwan
Test specification:	
Standard.....	IEC 62368-1:2014 (Second Edition)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC62368_1B
Test Report Form(s) Originator.....	UL(US)
Master TRF	2014-03
Copyright © 2014 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved.	
This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.	
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
General disclaimer:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

Test Item description	LCD Monitor	
Trade Mark	NEC	
Manufacturer	NEC Display Solutions, Ltd. 4-28, Mita 1-chome, Minato-ku, Tokyo, Japan	
Model/Type reference	a) C501, b) C431, c) C551	
Ratings	100-240V~, 50/60Hz, a) 1.5-0.6A, b) 1.35-0.55A, c) 1.55-0.65A	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	AUDIX TECHNOLOGY CORPORATION	
Testing location/ address	8TH FL., NO. 8, LANE 120, SEC. 1, NEI-HU ROAD, TAIPEI, CHINESE TAIPEI	
☐ Associated CB Testing Laboratory:		
Testing location/ address.....		
Tested by (name + signature).....	Jim Lee/ Handler	
Approved by (name + signature)	Allen Kao/ reviewer	
☐ Testing procedure: TMP/CTF Stage 1		
Testing location/ address.....		
Tested by (name + signature).....		
Approved by (name + signature)		
☐ Testing procedure: WMT/CTF Stage 2		
Testing location/ address.....		
Tested by (name + signature).....		
Witnessed by (name + signature).....		
Approved by (name + signature)		
☐ Testing procedure: SMT/CTF Stage 3 or 4		
Testing location/ address.....		
Tested by (name + signature).....		
Approved by (name + signature)		
Supervised by (name + signature).....		

List of Attachments (including a total number of pages in each attachment):	
Enclosures (18 pages)	
Summary of testing:	
Tests performed (name of test and test clause): Insulation materials and requirements (5.4) Stability of equipment (8.6) Equipment mounted to a wall or ceiling (8.7) Thermal burn injury (9) Normal operating condition tests, abnormal operating condition tests and single fault condition tests (Annex B) Mechanical strength tests (Annex T)	Testing location: All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.
Summary of compliance with National Differences: List of countries addressed EU group differences, Canada and United States. CENELEC member countries (EU group differences): Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.	
☒ The product fulfils the requirements of EN 62368-1: 2014. The product fulfils the requirements of UL 62368-1, Second Edition. The product fulfils the requirements of CAN/CSA C22.2 No. 62368-1-14.	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

NEC MultiSync C501 LCD MONITOR
ЖК-МОНИТОР
(MODEL / Модель : C501)

VOLTS Вольт :100-240V~, AMPERES Ампер :1.5-0.6A (1.5-0.6A)
FREQUENCY Частота :50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN. ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCION: PARA PREVENIR DESCARGA ELECTRICA, NO QUITAR EL RECINTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

ADVARSEL: APPARATETS STIKPROP SKAL TILSLUTES EN STIKKONTAKT MED JORD, SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

CAN ICES-3(B) / NMB-3(B)

For Japan only

警告

高圧注意
サービスマン以外の方には触れないでください。内部には高電圧部があり、万一さわると危険です。

電圧注意
電源コードのプラグは必ず接地端子と確実に接続する必要があります。

定格電圧 : 100V~
定格電流 : 1.5A
定格周波数 : 50/60Hz

PS E

IP20

CE EAC FC

SAFETY MARK

TOVW&L

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造
Сделано в Китае

NEC MultiSync C501 LCD MONITOR
ЖК-МОНИТОР
液晶显示器
(MODEL / Модель / 型号 : C501)

VOLTS Вольт 输入电压 :100-240V~, AMPERES Ампер 电流 :1.5-0.6A (1.5-0.6A)
FREQUENCY Частота 工作频率 :50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN. ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCION: PARA PREVENIR DESCARGA ELECTRICA, NO QUITAR EL RECINTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

ADVARSEL: APPARATETS STIKPROP SKAL TILSLUTES EN STIKKONTAKT MED JORD, SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

△注意: 请勿打开机箱, 小心高压电击, 机内并无用户配件。

CAN ICES-3(B) / NMB-3(B)

For Japan only

警告

高圧注意
サービスマン以外の方には触れないでください。内部には高電圧部があり、万一さわると危険です。

電圧注意
電源コードのプラグは必ず接地端子と確実に接続する必要があります。

定格電圧 : 100V~
定格電流 : 1.5A
定格周波数 : 50/60Hz

PS E

IP20

CE EAC FC

SAFETY MARK

TOVW&L

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造
Сделано в Китае

TPV Electronics(Fujian)Co., Ltd.
生产厂: 福建捷联电子有限公司
生产地址: 福建省福州市经济技术开发区

NEC MultiSync C501 LCD MONITOR
ЖК-МОНИТОР
液晶显示器 彩色显示器
모니터 (50인치 LCD 모니터)
(MODEL / Модель / 型号 : C501)

VOLTS Вольт 输入电压 :100-240V~, AMPERES Ампер 电流 :1.5-0.6A (1.5-0.6A)
FREQUENCY Частота 工作频率 :50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN. ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCION: PARA PREVENIR DESCARGA ELECTRICA, NO QUITAR EL RECINTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

ADVARSEL: APPARATETS STIKPROP SKAL TILSLUTES EN STIKKONTAKT MED JORD, SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

△注意: 请勿打开机箱, 小心高压电击, 机内并无用户配件。

△警告: 使用温度勿超额定值。

CAN ICES-3(B) / NMB-3(B)

사용상 주의사항: 장전의 위험 및 제품의 손상이 발생할 수 있으므로 제품의 커버를 열지 마십시오.
인증 서비스 센터 전화 번호: 080-022-1155 (호성ITX주식회사)
*본 라벨과 전화번호는 국내 규정 내에서 해결할 목적으로만 사용되어야 합니다.

CE EAC FC

SAFETY MARK

TOVW&L

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造 中國製造
Сделано в Китае

TPV Electronics(Fujian)Co., Ltd.
生产厂: 福建捷联电子有限公司
生产地址: 福建省福州市经济技术开发区

NEC MultiSync C431

LCD MONITOR
ЖК-монитор
(MODEL / Модель / 型号: C431)

VOLTS Вольт 输入电压: 100-240V~, AMPERES Ампер 电流: 1.35-0.55A (1.35-0.55A)
FREQUENCY Частота 工作频率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN. ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO quite el RECINTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

ADVARSEL: APPARATETS STIKKPROP SKAL TILSLUTTES EN STIKKONTAKT MED JORD, SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

CAN ICES-3(B) / NMB-3(B)

警告

高压注意
サービスマンが内部を開けず
てくれません。内部には高圧部分
があり、万一さわると危険です。

触电注意
電源コードのプラグを壁にさす
際、強く握らない。故障時に感電の
原因になります。

定格電圧: 100V~
定格電流: 1.35A
定格周波数: 50/60Hz

PS E

IP20

UL LISTED E135689 US L.T.E. 1K81

CE ENEC FC

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA
Сделано в Китае

UL LISTED E135689 US L.T.E. 1K81

CE ENEC FC

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造
Сделано в Китае
TPV Electronics(Fujian)Co., Ltd.
生产厂: 福建德源电子有限公司
生产地址: 福建省福州市经济技术开发区

NEC MultiSync C431

LCD MONITOR
ЖК-монитор
液晶显示器 彩色显示器
모니터 (43인치 LCD 모니터)
(MODEL / Модель / 型号/型號: C431)

VOLTS Вольт 输入电压 輸入電壓: 100-240V~, AMPERES Ампер 电流 電流: 1.35-0.55A (1.35-0.55A)
FREQUENCY Частота 工作频率 工作頻率: 50/60Hz

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE ENCLOSURE.
NO USER-SERVICEABLE PARTS INSIDE.

ATTENTION: AFIN DE PREVENIR DE TOUT CHOC ELECTRIQUES, NE PAS OUVRIR CE BOITIER. AUCUNE PIECE INTERNE NE PEUT-ETRE CHANGEE PAR L'UTILISATEUR.

ACHTUNG: ZUR TRENNUNG VOM NETZ IST DER NETZSTECKER AUS DER STECKDOSE ZU ZIEHEN. GERÄT NICHT ÖFFNEN. ES SIND KEINE DURCH DEN BENUTZER AUSWECHSELBAREN TEILE IM GERÄT VORHANDEN.

PRECAUCIÓN: PARA PREVENIR DESCARGA ELÉCTRICA, NO quite el RECINTO. NINGUNAS PIEZAS DEL USUARIO SERVICABLE ADENTRO.

VAROITUS: LAITE ON LITETTÄVÄ SUOJAMAADOITUSKOSKETTIMILLA VARUSTETTUUN PISTORASIAAN.

VARNING: APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG.

ADVARSEL: APPARATET MÅ TILKOPLES JORDET STIKKONTAKT.

ADVARSEL: APPARATETS STIKKPROP SKAL TILSLUTTES EN STIKKONTAKT MED JORD, SOM GIVER FORBINDELSE TIL STIKPROPPENS JORD.

△注意: 请勿打开后盖, 小心高压电击, 机内并无用户配件。

△注意: 請勿打開後蓋, 小心高壓電擊, 機內並無用戶配件。

△簡語: 使用過度恐傷害視力。

CAN ICES-3(B) / NMB-3(B)

사용상 주의사항: 감전의 위험 및 제품의 손상이 발생할 수 있으므로 제품의 커버를 열지 마십시오.
인용 서비스 센터 전화번호: 080-022-1166 (호성ITX주식회사)
*본 라벨과 전함번호는 국내 규정 내에서 적절한 목적으로만 사용되어야 합니다.

警告

高压注意
サービスマンが内部を開けず
てくれません。内部には高圧部分
があり、万一さわると危険です。

触电注意
電源コードのプラグを壁にさす
際、強く握らない。故障時に感電の
原因になります。

定格電圧: 100V~
定格電流: 1.35A
定格周波数: 50/60Hz

PS E

IP20

UL LISTED E135689 US L.T.E. 1K81

CE ENEC FC

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造 中國製造
Сделано в Китае
TPV Electronics(Fujian)Co., Ltd.
生产厂: 福建德源电子有限公司
生产地址: 福建省福州市经济技术开发区

UL LISTED E135689 US L.T.E. 1K81

CE ENEC FC

HDMI

NECディスプレイソリューションズ株式会社
NEC Display Solutions, Ltd.
日本国東京都港区三田一丁目4番28号
4-28, Mita 1-chome, Minato-ku, Tokyo, Japan

MADE IN CHINA 中国制造 中國製造
Сделано в Китае
TPV Electronics(Fujian)Co., Ltd.
生产厂: 福建德源电子有限公司
生产地址: 福建省福州市经济技术开发区



Notes:

The above labels are draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

TEST ITEM PARTICULARS:	
Classification of use by	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection	☒ AC Mains ☐ DC Mains ☐ External Circuit - not Mains connected - ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance	☒ +10%/-10% ☐ +20%/-15% ☐ + ____ %/ - ____ % ☐ None
Supply Connection – Type	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☐ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other:
Considered current rating of protective device as part of building or equipment installation	16A or 20A for building; 8.0A (for equipment) Installation location: ☒ building; ☒ equipment
Equipment mobility	☒ movable ☐ hand-held ☐ transportable ☒ stationary ☒ for building-in ☐ direct plug-in ☐ rack-mounting ☒ wall-mounted
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Class of equipment	☒ Class I ☐ Class II ☐ Class III
Access location	☐ restricted access location ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient:	40 °C
IP protection class	☐ IPX0 ☒ IP_20_
Power Systems	☒ TN ☐ TT ☐ IT - ____ V _{L-L}
Altitude during operation (m)	☐ 2000 m or less ☒ Up to 5000 m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ 200 m
Mass of equipment (kg)	☒ approx. a) 15.75 kg, b) 12.55 kg, c) 18.86 kg (Without stand base), Stand base : approx. 1.86 kg

POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
TESTING:	
Date of receipt of test item	2017-04-26
Date (s) of performance of tests	2017-04-26 to 2017-05-15
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60060-2:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	

Name and address of factory (ies) :	1) TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road Fuqing City, Fujian Province P.R. China. 2) Hefei Huntkey Display Technology Co.,Ltd. South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, Hefei, Anhui 230601, P. R. China. 3) TPV Display Technology (Wuhan) Co., Ltd Unique No. 11, Zhuankou Development, District of Economic Technological Development Zone Wuhan City 430056 P.R. China. 4) Trend Smart CE Mexico S de RL de CV Avenida Sor Juana Ines de la Cruz No. 19602 Parque Industrial la Frontera Fracc., CP. 22500NUEVA TIJUANA (OTAY) TIJUANA B.C., MEXICO 5) Envision Industry of Electronic Products Ltd. Rodovia Anhanguera S/N-KM 49, Tijuco Preto-Jundiaí-SP- 13.205-700 Brazil 6) Envision Industry of Electronic Products Ltd Av Torquato Tapajós 7503, Galpão : II Bloco: B- Condomínio de Galpões-Tarumã-Manaus AM Brazil 7) L&T Display Technology (Fujian) Ltd Optoelectronic Park, Rongqiao Economic and Technological, Development Zone Fuqing, Fujian 350301 P.R. China. 8) TPV Display Technology (Beihai) Co.,Ltd. China Electronic Beihai Industry Park, Northeast of the Crossing, Between Taiwan Road and Jilin Road, Beihai City, Guangxi P.R. China 9) TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial, Development Zone Qingdao City, Shandong Province P.R. China 10) TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176 P.R. China 11) TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China. 12) Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM - Brasil
--	---

GENERAL PRODUCT INFORMATION:**Product Description –**

The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 °C

The heating test were performed all ventilation openings blocked to simulate the worst condition.

The LCD Monitor can be adjustment monitor's height and operated in landscape (0 °) to portrait mode (90 °) when main board downside and with panel face downward and upward.

Test samples are pre-production samples without serial numbers.

History of amendments and modifications :

Ref. No. ATTCB106020, dated 2017-06-06 (original test report), CB certificate No. (DK-64328-UL), dated 2017-06-19.

This test report should be rated in conjunction with original and modification report (ATTCB106020).

The original model name: C501 (Type A).

Description of change(s):

1. Add new model as C431 (Type B), C551 (Type C).
2. Add LCD Panel, Type B and Type C (refer to bold texts in table 4.1.2 for detail).
3. Add enclosure shape Type B, Type C (size different).
4. Add Rating for new model.
5. Change photo for C501 (without X cap. C9913).

Model different :

Model Name	C501	C431	C551
Rating	100-240V~, 50/60Hz, 1.5-0.6A	100-240V~, 50/60Hz, 1.35-0.55A	100-240V~, 50/60Hz, 1.55-0.65A
Panel	Type A	Type B	Type C
Enclosure	Type A	Type B	Type C

Additional application considerations – (Considerations used to test a component or sub-assembly) –

Some components are pre-certified, which have been evaluated according to the relevant requirements of IEC 62368-1, are employed in this product. Their suitability of use has been checked according to clauses 4.1.1 and 4.1.

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:

(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)

(Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.

Electrically-caused injury (Clause 5):

(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)

Example: +5 V dc input

ES1

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
Source of electrical energy	Corresponding classification (ES)
External accessible part	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	Corresponding classification (PS)
All circuit within fire enclosure	PS3
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	Corresponding chemical
N/A	N/A
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	Corresponding classification (MS)
Equipment Mass	MS2
Sharp edge and corners	MS1
Wall mount	MS3
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	Corresponding classification (TS)
All accessible parts	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	Corresponding classification (RS)
LCD panel	RS1

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below
☐ ES ☐ PS ☐ MS ☐ TS ☐ RS

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Metal enclosure	PS3	See 6.3	See 6.4.8	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS2: Mass	--	--	See 8.6
Ordinary	MS3: Wall mount	--	--	See 8.7
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information:				
(1) See attached energy source diagram for additional details.				
(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	See appended Table 4.1.2.	P
4.1.2	Use of components	Safeguard components are certified to IEC and/or national standards and are used correctly within their ratings.	P
4.1.3	Equipment design and construction		P
4.1.15	Markings and instructions..... :	See Annex F.	P
4.4.4	Safeguard robustness		P
4.4.4.2	Steady force tests..... :	(See Annex T.2, T.5)	P
4.4.4.3	Drop tests :		N/A
4.4.4.4	Impact tests :	(See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests..... :		N/A
4.4.4.6	Glass Impact tests :	No such material	N/A
4.4.4.7	Thermoplastic material tests..... :	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard..... :	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness	All safeguards remain effective.	P
4.5	Explosion	No explosion observed during normal/ abnormal/ single fault conditions.	P
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard		P
4.6.2	10 N force test applied to :	10N pull test performed for all relevant conductors.	P
4.9	Likelihood of fire or shock due to entry of conductive object..... :	(See Annex P)	P

5	ELECTRICALLY-CAUSED INJURY		P
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material		P
5.4.1.3	Humidity conditioning :	See 5.4.8.	P
5.4.1.4	Maximum operating temperature for insulating materials :	See appended Table 5.4.1.4, 6.3.2, 9.0, B.2.6.	P
5.4.1.5	Pollution degree :	PD2.	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.8	Determination of working voltage		P
5.4.1.9	Insulating surfaces		N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		P
5.4.1.10.2	Vicat softening temperature..... :		N/A
5.4.1.10.3	Ball pressure :	See table 5.4.1.10.3	P
5.4.2	Clearances	Procedure 2 is higher. Hence the determination of clearance is by procedure 2. (See table 5.4.2.3.)	P
5.4.2.2	Determining clearance using peak working voltage	Procedure 1: - Higher than 30kHz: Working voltage: 550Vp, CI: 0.14 mm for Reinforced - Up to 30kHz: a) Steady state voltage: 550Vp b) 1.1 times mains voltage: 373.3Vp c) Temporary overvoltage: 2000V CI: 2.54mm for Reinforced	P
5.4.2.3	Determining clearance using required withstand voltage :	Procedure 2: - Required withstand voltage: 2500V, CI: 3.0mm for Reinforced	P
	a) a.c. mains transient voltage :	2500 V _{peak} .	—
	b) d.c. mains transient voltage :	N/A	—
	c) external circuit transient voltage :	N/A	—
	d) transient voltage determined by measurement :	N/A	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages :	Specified the equipment op be operated up to 5000m above sea level the required clearance is multiplied by the altitude correction factor 1.48 according to table 17. (See table 5.4.4.2, 5.4.2.4 and 5.4.3)	P
5.4.3	Creepage distances :	See table 5.4.3	P
5.4.3.1	General		P
5.4.3.3	Material Group :	CTI rating for all material of min. 100.	—
5.4.4	Solid insulation		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.2	Minimum distance through insulation :	See table 5.4.4.2, 5.4.4.5 c), 5.4.4.9	P
5.4.4.3	Insulation compound forming solid insulation	Certified source of photo couplers used. (See table 4.1.2)	P
5.4.4.4	Solid insulation in semiconductor devices	See 5.4.4.3	P
5.4.4.5	Cemented joints	Certified source of photo couplers used. (See table 4.1.2)	P
5.4.4.6	Thin sheet material		P
5.4.4.6.1	General requirements		P
5.4.4.6.2	Separable thin sheet material	Reinforced insulation consisting of two layers of tape, however each layer pass the electric strength test. (See table 5.4.9)	P
	Number of layers (pcs) :	2	P
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material :		N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components	See clause G.5 and G.6.	P
5.4.4.9	Solid insulation at frequencies >30 kHz :	See appended Table 5.4.4.9.	P
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)..... :		—
5.4.6	Insulation of internal wire as part of supplementary safeguard :		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning	Humidity treatment performed to 120hrs in condition: 93% humidity, 40 °C. Electric strength test conducted after humidity treatment.	P
	Relative humidity (%)..... :	93	—
	Temperature (°C) :	40	—
	Duration (h) :	120	—
5.4.9	Electric strength test :	See table 5.4.9	P
5.4.9.1	Test procedure for a solid insulation type test	Method 1 is used.	P
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test		N/A
5.4.10.2.3	Steady-state test.....		N/A
5.4.11	Insulation between external circuits and earthed circuitry		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V).....		—
	Nominal voltage U_{peak} (V).....		—
	Max increase due to variation U_{sp}		—
	Max increase due to ageing ΔU_{sa}		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$		—

6	ELECTRICALLY- CAUSED FIRE		P
6.4	Safeguards against fire under single fault conditions		P
6.4.8	Fire enclosures and fire barriers		N/A
6.4.8.1	Fire enclosure and fire barrier material properties	Equipment enclosure was evaluated as a fire enclosure.	P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	Material for fire enclosure was made of metal. Material for components that fill an opening in a fire enclosure is made of V-1 class material. (See table 4.1.2)	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	Openings didn't exceed 5 mm in any dimension.	P
	Needle Flame test	See above.	N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	Openings didn't exceed 3 mm in any dimension.	P
	Flammability tests for the bottom of a fire enclosure		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	Equipment fire enclosure was made of metal. (See table 4.1.2)	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.5	Internal and external wiring		P
6.5.1	Requirements	VW-1 wire used.	P
6.5.2	Cross-sectional area (mm ²)		—
6.5.3	Requirements for interconnection to building wiring		N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General		P
8.6	Stability		P
8.6.1	Product classification	Equipment mass 14.41 kg (for C431), 20.72 kg (for C551) classified as MS2.	P
	Instructional Safeguard		—
8.6.2	Static stability		P
8.6.2.2	Static stability test		P
	Applied Force	The equipment is tipped at any angle up to and including 10° from the vertical.	—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....		—
8.6.4	Glass slide test		P
8.6.5	Horizontal force test (Applied Force)	18.4N (for C431), 26.4N (for C551) (13% of EUT mass with stand) applied horizontally to the EUT. During the test, the EUT did not tip over.	P
	Position of feet or movable parts.....		—
8.7	Equipment mounted to wall or ceiling		P
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)	Length 12mm of screws, Wall or ceiling.	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.7.2	Direction and applied force	Test 1 : applied 369.0N (for C431), 554.5N (for C551), (3 times the weight of equipment without base) (A force in addition to the weight of the equipment is applied downwards through the centre of gravity of the equipment, for 1 min.) In addition, for wall mounted equipment, a horizontal force of 50N is applied laterally for 60s. Test 2 : applied 492.0N (for C431), 740.0N (for C551), (4 times the weight of equipment without base) (Each point in the mounting system shall be subjected to a shear force perpendicular to its centre axis for 1 min. The force shall be applied in four directions, one direction at a time, separated by 90°. Each point in the mounting system, one at a time, shall be subjected to an inward directed push force parallel to its centre axis for 1 min. Each point in the mounting system, one at a time, shall be subjected to an outward directed pull force parallel to its centre axis for 1 min.) Test 3: Metal screw (Ø5.8mm) for attachment of the mounting means. Each threaded part subjected to 2.5 N.m. The each threaded part not become dislodged and remain mechanically intact and secure during the test.	P

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications		P
9.3	Safeguard against thermal energy sources		P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard		P
9.4.2	Instructional safeguard		N/A
B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions	See below	P
B.2.1	General requirements.....	See Test Item Particulars and appended test tables.	P
	Audio Amplifiers and equipment with audio amplifiers		N/A
B.2.3	Supply voltage and tolerances	+10% and -10% for a.c. mains.	P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
B.2.5	Input test	See Table B.2.5.	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements		N/A
B.3.2	Covering of ventilation openings	Refer table 5.4.1.4.	P
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector		N/A
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions		N/A
B.4	Simulated single fault conditions		N/A
B.4.2	Temperature controlling device open or short-circuited		N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation		N/A
B.4.4.1	Short circuit of clearances for functional insulation		N/A
B.4.4.2	Short circuit of creepage distances for functional insulation		N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		N/A
B.4.6	Short circuit or disconnect of passive components		N/A
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		N/A
B.4.9	Battery charging under single fault conditions ...		N/A

P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements		P
P.2.2	Safeguards against entry of foreign object		P
	Location and Dimensions (mm)	For rear enclosure opening, the dimensions are less than 5.0 mm	—
P.2.3	Safeguard against the consequences of entry of foreign object		P
P.2.3.1	Safeguards against the entry of a foreign object		P

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts..... :		N/A
P.2.3.2	Openings in transportable equipment in relation to metalized parts of a barrier or enclosure (identification of supplementary safeguard) :		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C) :		—
	Tr (°C)..... :		—
	Ta (°C)..... :		—
P.4.2 b)	Abrasion testing :		N/A
P.4.2 c)	Mechanical strength testing :		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N :	See table T.2.	P
T.3	Steady force test, 30 N :		N/A
T.4	Steady force test, 100 N :		N/A
T.5	Steady force test, 250 N :	See table T.5.	P
T.6	Enclosure impact test		P
	Fall test	See table T.6.	P
	Swing test		N/A
T.7	Drop test :		N/A
T.8	Stress relief test..... :	See table T.8.	P
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) :		—
	Height (m) :		—
T.10	Glass fragmentation test..... :		N/A
T.11	Test for telescoping or rod antennas		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Torque value (Nm) :		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: List of critical components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹	
Metal enclosure	--	--	Metal ,thickness: 0.81mm min (for bottom and side cover), Metal, thickness: 0.45mm min. (for Rear cover)	--	--	
Front frame	Interchangeable	Interchangeable	Plastic, min. HB, min. 2.0 mm	UL94	UL	
LCD Panel	AUO	P430HVF**** (*=A~Z, a~z, 0~9, -, .)	43.0" TFT type, with LED backlight.	--	--	
	AUO	P550HVF**** (*=A~Z, a~z, 0~9, -, .)	55.0" TFT type, with LED backlight.	--	--	

Supplementary information:

- 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.
- 2) Description line content is optional. Main line description needs to clearly detail the component used for testing.

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements			P
	Supply voltage (V) :	90Vac, 60Hz	264Vac, 60Hz	—
	Ambient T _{min} (°C) :	--	--	—
	Ambient T _{max} (°C) :	--	--	—
	Tma (°C) :	--	--	—
Maximum measured temperature T of part/at:		T (°C)		Allowed T _{max} (°C)
Test results shift to Tma				
For C431				
CN901 body(Power board)		50.0	48.5	85
RV9902 body(Power board)		55.3	50.9	85
L9901 coil(Power board)		62.9	52.8	105
C9902 body(Power board)		59.6	52.2	85
L9902 coil(Power board)		58.8	52.8	105
PCB near BD9901(Power board)		72.5	60.1	105

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
L9801 coil(Power board)	73.9	61.7	105
PCB near D9801,Q9801(Power board)	67.8	65.5	105
C9802 body(Power board)	52.3	50.8	105
PCB near Q9101,Q9102(Power board)	63.8	62.7	105
PCB near U9301(Power board)	66.5	65.6	105
T9301 coil(Power board)	57.9	57.7	110
T9301 core(Power board)	58.6	57.6	110
U9102 body(Power board)	57.8	57.1	100
T9101 coil(Power board)	74.6	73.2	110
T9101 core(Power board)	72.6	71.5	110
C9907 body(Power board)	62.6	60.1	85
C9906 body(Power board)	55.0	51.3	85
PCB near D9107,D9108(Power board)	68.0	66.6	105
PCB near D9109,D9110(Power board)	68.3	67.4	105
PCB near D9305(Power board)	59.9	59.3	105
L9304 coil(Power board)	55.0	54.4	105
L9101 coil(Power board)	60.9	60.1	105
L9102 coil(Power board)	60.9	60.1	105
L9103 coil(Power board)	62.7	61.4	105
PCB near HS401(Main board)	64.1	63.8	105
PCB near U402(Main board)	61.1	60.7	105
Mylar body	54.3	51.3	80
L1 coil(LED Driver board)	71.8	71.1	105
PCB near D212(LED Driver board)	78.0	77.4	105
Mylar body (metal enclosure, internal near T9101)	51.5	50.4	80
Ambient (actual temp.)	40.0 (25.0)	40.0 (24.9)	--
AC inlet near L pin	34.3	33.3	48
Switch body	33.6	32.9	48
Metal enclosure outside near T9101	33.6	32.4	48
Button body	31.0	30.8	48
Panel interface	31.6	31.6	48
Ambient (actual temp.)	25.0 (25.0)	25.0 (24.9)	--
For C551			
CN901 body(Power board)	47.2	46.7	85
RV9902 body(Power board)	54.2	50.0	85
L9901 coil(Power board)	64.6	52.8	105

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
C9902 body(Power board)	60.2	51.6	85
L9902 coil(Power board)	61.0	51.8	105
PCB near BD9901(Power board)	74.4	59.8	105
L9801 coil(Power board)	77.0	62.4	105
PCB near D9801,Q9801(Power board)	68.4	64.8	105
C9802 body(Power board)	50.4	49.6	105
PCB near Q9101,Q9102(Power board)	62.0	61.6	105
PCB near U9301(Power board)	63.9	63.7	105
T9301 coil(Power board)	54.9	55.4	110
T9301 core(Power board)	55.6	55.6	110
U9102 body(Power board)	55.9	55.7	100
T9101 coil(Power board)	80.7	79.9	110
T9101 core(Power board)	75.6	75.3	110
C9907 body(Power board)	62.6	59.9	85
C9906 body(Power board)	56.7	49.8	85
PCB near D9107,D9108(Power board)	71.1	70.2	105
PCB near D9109,D9110(Power board)	70.4	69.9	105
PCB near D9305(Power board)	57.0	57.1	105
L9304 coil(Power board)	53.6	53.4	105
L9101 coil(Power board)	59.7	59.8	105
L9102 coil(Power board)	60.7	60.6	105
L9103 coil(Power board)	64.1	63.8	105
PCB near HS401(Main board)	61.1	61.3	105
PCB near U402(Main board)	59.5	59.8	105
Mylar body	52.3	48.8	80
L1 coil(LED Driver board)	80.3	80.1	105
PCB near D212(LED Driver board)	88.7	88.6	105
Mylar body (metal enclosure, internal near T9101)	51.3	50.9	80
Ambient (actual temp.)	40.0 (24.3)	40.0 (24.8)	--
AC inlet near L pin	31.8	31.2	48
Switch body	30.4	30.3	48
Metal enclosure outside near T9101	32.5	32.2	48
Button body	29.7	30.2	48
Panel interface	29.0	29.3	48
Ambient (actual temp.)	25.0 (24.3)	25.0 (24.8)	--

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

Note 1: Tma should be considered as directed by applicable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

Note 3: The temperatures were measured under the worse case normal mode defined in the table B.2.5.

Note 4: The heating test were performed all ventilation openings blocked to simulate the worst condition.

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ³ cr (mm)	cr (mm)
Basic/supplementary							
Primary component to user accessible metal part	420	250	--	2.3 (1.5x1.48)	More than 10	2.5	More than 10
Reinforced:							
Primary conductor of power switch to user accessible area (evaluated for all sources of power switch)	420	250	--	4.5 (3.0x1.48)	More than 10	4.5	More than 10
Supplementary information:							
Note 1: Only for frequency above 30 kHz							
Note 2: See table 5.4.2.4 if this is based on electric strength test							
Note 3: Provide Material Group							
1. The required clearances multiplied by 1.48 considering that EUT operates up to 5000 m.							
2. For clearance and creepage did not describe above are far larger than limit above.							
3. All internal wires are located by mechanical fixings to keep distance.							
4. One Insulation sheet used between SPS trace layout side and panel metal part and fixed by adhesives.							
5. One insulation sheet used between SPS component side and metal chassis and fixed by adhesives.							
6. The working voltage were measured under both Input = 100V and 240V, the Vp and Vrms value being recoded above were the highest among the two.							
7. The measurement were conducted on both component side and trace layout side, only smaller value being recorded above.							
8. All internal wires are located by mechanical fixings to keep distance.							

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
For C431							
HDMI Mode							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90/50	1.13	--	101.5	--	F901	1.13	Max. normal load
90/60	1.14	--	101.6	--	F901	1.14	Max. normal load
100/50	1.02	1.35	100.6	--	F901	1.02	Max. normal load
100/60	1.02	1.35	100.9	--	F901	1.02	Max. normal load
240/50	0.47	0.55	98.0	--	F901	0.47	Max. normal load
240/60	0.48	0.55	98.0	--	F901	0.48	Max. normal load
264/50	0.44	--	97.7	--	F901	0.44	Max. normal load
264/60	0.45	--	97.7	--	F901	0.45	Max. normal load
VGA Mode							
90/50	1.13	--	101.1	--	F901	1.13	Max. normal load
90/60	1.14	--	101.3	--	F901	1.14	Max. normal load
100/50	1.01	1.35	100.5	--	F901	1.01	Max. normal load
100/60	1.01	1.35	100.5	--	F901	1.01	Max. normal load
240/50	0.47	0.55	97.8	--	F901	0.47	Max. normal load
240/60	0.48	0.55	97.8	--	F901	0.48	Max. normal load
264/50	0.44	--	97.5	--	F901	0.44	Max. normal load
264/60	0.45	--	97.6	--	F901	0.45	Max. normal load
AV Mode							
90/50	1.11	--	99.3	--	F901	1.11	Max. normal load
90/60	1.11	--	99.5	--	F901	1.11	Max. normal load
100/50	0.99	1.35	98.3	--	F901	0.99	Max. normal load
100/60	1.00	1.35	98.6	--	F901	1.00	Max. normal load
240/50	0.46	0.55	95.8	--	F901	0.46	Max. normal load
240/60	0.47	0.55	95.9	--	F901	0.47	Max. normal load
264/50	0.44	--	95.5	--	F901	0.44	Max. normal load
264/60	0.44	--	95.6	--	F901	0.44	Max. normal load
Display Mode							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90/50	1.13	--	100.5	--	F901	1.13	Max. normal load
90/60	1.13	--	100.6	--	F901	1.13	Max. normal load
100/50	1.00	1.35	99.7	--	F901	1.00	Max. normal load
100/60	1.00	1.35	100.0	--	F901	1.00	Max. normal load
240/50	0.47	0.55	97.2	--	F901	0.47	Max. normal load
240/60	0.47	0.55	97.3	--	F901	0.47	Max. normal load
264/50	0.43	--	97.0	--	F901	0.43	Max. normal load
264/60	0.45	--	97.0	--	F901	0.45	Max. normal load
Media Play mode (USB and micro SD)							
90/50	0.77	--	68.3	--	F901	0.77	Max. normal load
90/60	0.77	--	68.3	--	F901	0.77	Max. normal load
100/50	0.69	1.35	67.8	--	F901	0.69	Max. normal load
100/60	0.69	1.35	67.9	--	F901	0.69	Max. normal load
240/50	0.35	0.55	66.8	--	F901	0.35	Max. normal load
240/60	0.35	0.55	66.8	--	F901	0.35	Max. normal load
264/50	0.34	--	66.3	--	F901	0.34	Max. normal load
264/60	0.34	--	66.5	--	F901	0.34	Max. normal load
For C551							
HDMI Mode							
90/50	1.44	--	129.6	--	F901	1.44	Max. normal load
90/60	1.45	--	129.7	--	F901	1.45	Max. normal load
100/50	1.29	1.55	128.4	--	F901	1.29	Max. normal load
100/60	1.29	1.55	128.9	--	F901	1.29	Max. normal load
240/50	0.58	0.65	124.4	--	F901	0.58	Max. normal load
240/60	0.59	0.65	124.4	--	F901	0.59	Max. normal load
264/50	0.55	--	124.0	--	F901	0.55	Max. normal load
264/60	0.55	--	124.0	--	F901	0.55	Max. normal load
VGA Mode							

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90/50	1.44	--	129.0	--	F901	1.44	Max. normal load
90/60	1.44	--	129.1	--	F901	1.44	Max. normal load
100/50	1.28	1.55	127.7	--	F901	1.28	Max. normal load
100/60	1.29	1.55	128.2	--	F901	1.29	Max. normal load
240/50	0.58	0.65	123.7	--	F901	0.58	Max. normal load
240/60	0.59	0.65	123.8	--	F901	0.59	Max. normal load
264/50	0.54	--	123.3	--	F901	0.54	Max. normal load
264/60	0.55	--	123.4	--	F901	0.55	Max. normal load
AV Mode							
90/50	1.42	--	126.4	--	F901	1.42	Max. normal load
90/60	1.42	--	126.4	--	F901	1.42	Max. normal load
100/50	1.26	1.55	125.2	--	F901	1.26	Max. normal load
100/60	1.26	1.55	125.7	--	F901	1.26	Max. normal load
240/50	0.57	0.65	121.4	--	F901	0.57	Max. normal load
240/60	0.57	0.65	121.5	--	F901	0.57	Max. normal load
264/50	0.54	--	121.0	--	F901	0.54	Max. normal load
264/60	0.54	--	121.1	--	F901	0.54	Max. normal load
Display Mode							
90/50	1.41	--	126.6	--	F901	1.41	Max. normal load
90/60	1.42	--	126.6	--	F901	1.42	Max. normal load
100/50	1.26	1.55	125.3	--	F901	1.26	Max. normal load
100/60	1.26	1.55	125.7	--	F901	1.26	Max. normal load
240/50	0.57	0.65	121.4	--	F901	0.57	Max. normal load
240/60	0.57	0.65	121.5	--	F901	0.57	Max. normal load
264/50	0.54	--	121.0	--	F901	0.54	Max. normal load
264/60	0.54	--	121.1	--	F901	0.54	Max. normal load
Media Play mode (USB and micro SD)							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90/50	1.06	--	94.6	--	F901	1.06	Max. normal load
90/60	1.06	--	95.0	--	F901	1.06	Max. normal load
100/50	0.94	1.55	93.9	--	F901	0.94	Max. normal load
100/60	0.95	1.55	94.5	--	F901	0.95	Max. normal load
240/50	0.45	0.65	91.8	--	F901	0.45	Max. normal load
240/60	0.46	0.65	91.9	--	F901	0.46	Max. normal load
264/50	0.42	--	91.5	--	F901	0.42	Max. normal load
264/60	0.43	--	91.5	--	F901	0.43	Max. normal load

Supplementary information:

Maximum Normal load condition for this equipment is to operate at maximum backlight, brightness and contrast of LED backlight, and adjust to max. volume of speakers with 1KHz sine waveform, 5V/2.0A for USB port, 3.3V/0.5A for Display port and SD card reader port.

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Enclosure / Top	See appended table 4.1.2	See appended table 4.1.2	250N	5	No cracking. All safeguards remain effective.	
Enclosure / Side	See appended table 4.1.2	See appended table 4.1.2	250N	5	No cracking. All safeguards remain effective.	
Enclosure / Bottom	See appended table 4.1.2	See appended table 4.1.2	250N	5	No cracking. All safeguards remain effective.	

Supplementary information:

T.6, T.9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
Enclosure / Rear	See appended table 4.1.2	See appended table 4.1.2	1300	No cracking, NB. All safeguards remain effective.	

Supplementary information:

NB = No indication of dielectric breakdown.

T.8	TABLE: Stress relief test				P
-----	---------------------------	--	--	--	---

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
unit	See appended table 4.1.2	See appended table 4.1.2	70	7	No indication of shrinkage or distortion on enclosures due to the stress relief test.
Supplementary information:					

List of test equipment used:

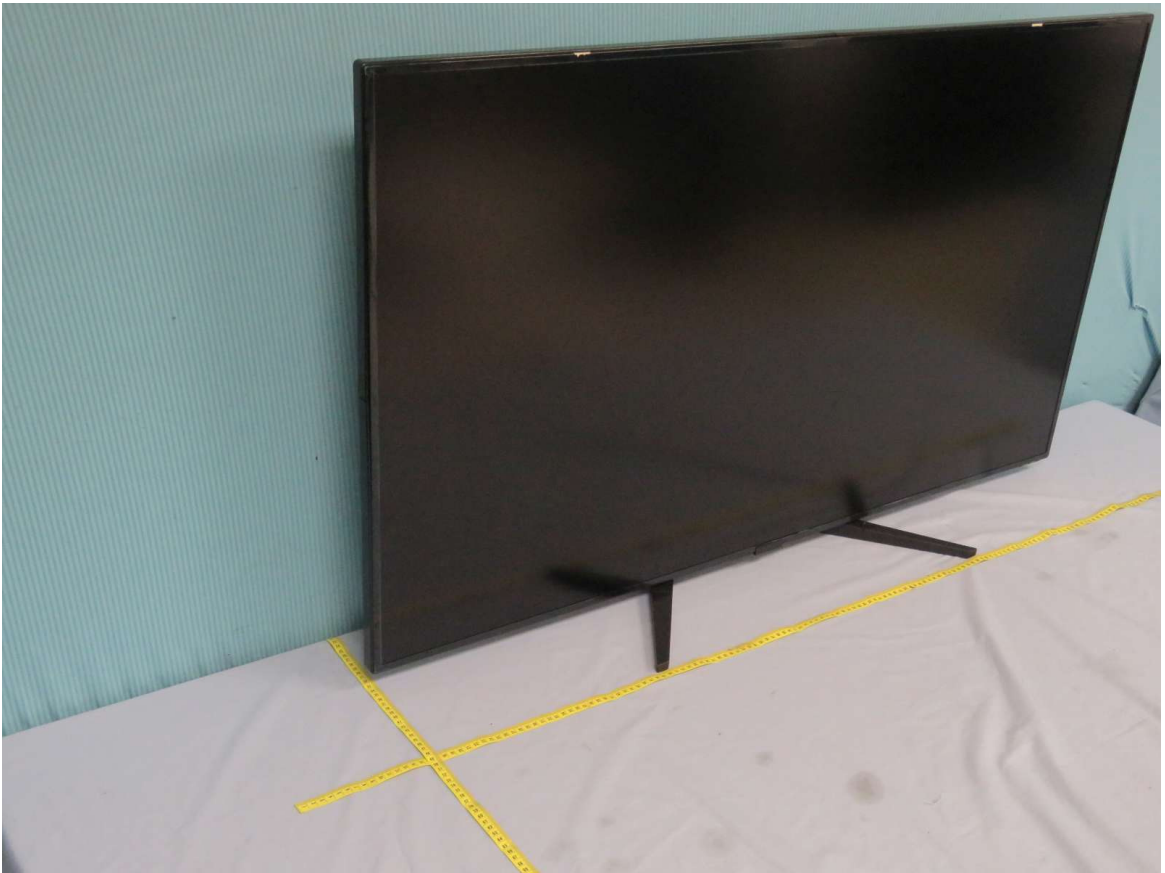
A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to TMP/CTF stage 1 or WMT/CTF stage 2 procedure has been used.

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date

No listing of test equipment used necessary for chosen test procedure.

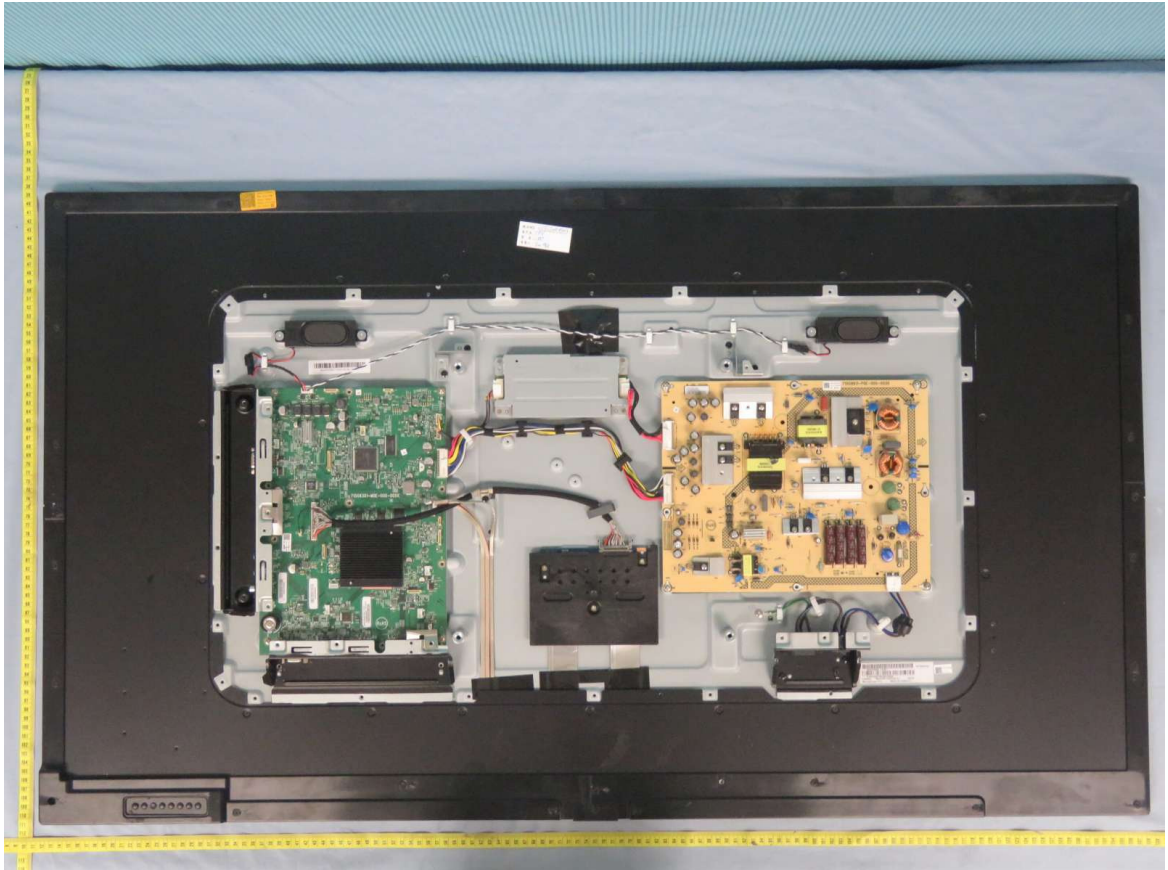
Enclosure

Type	Supplement ID	Description
Photographs	3-01	Overall front view (for C551) (Type C Panel, enclosure)
Photographs	3-02	Overall rear view (for C551) (Type C Panel, enclosure)
Photographs	3-03	Internal view (for C551)
Photographs	3-04	Overall front view (for C431) (Type B Panel, enclosure)
Photographs	3-05	Overall rear view (for C431) (Type B Panel, enclosure)
Photographs	3-06	Internal view (for C431)
Photographs	3-07	Top view of power board (Without C9913)
Photographs	3-08	Bottom view of power board (Without C9913)
Diagrams	4-01	Front bezel dimension (for C551)
Diagrams	4-02	Rear cover dimension (for C551)
Diagrams	4-03	Side cover dimension (Right) (for C551)
Diagrams	4-04	Side cover dimension (Left) (for C551)
Diagrams	4-05	Top cover dimension (for C551)
Diagrams	4-06	Bottom cover dimension (for C551)
Diagrams	4-07	Front bezel dimension (for C431)
Diagrams	4-08	Rear cover dimension (for C431)
Diagrams	4-09	Side cover dimension (Right) (for C431)
Diagrams	4-10	Side cover dimension (Left) (for C431)
Diagrams	4-11	Top cover dimension (for C431)
Diagrams	4-12	Bottom cover dimension (for C431)
Miscellaneous	5-01	Additional Table



Photographs 3-02



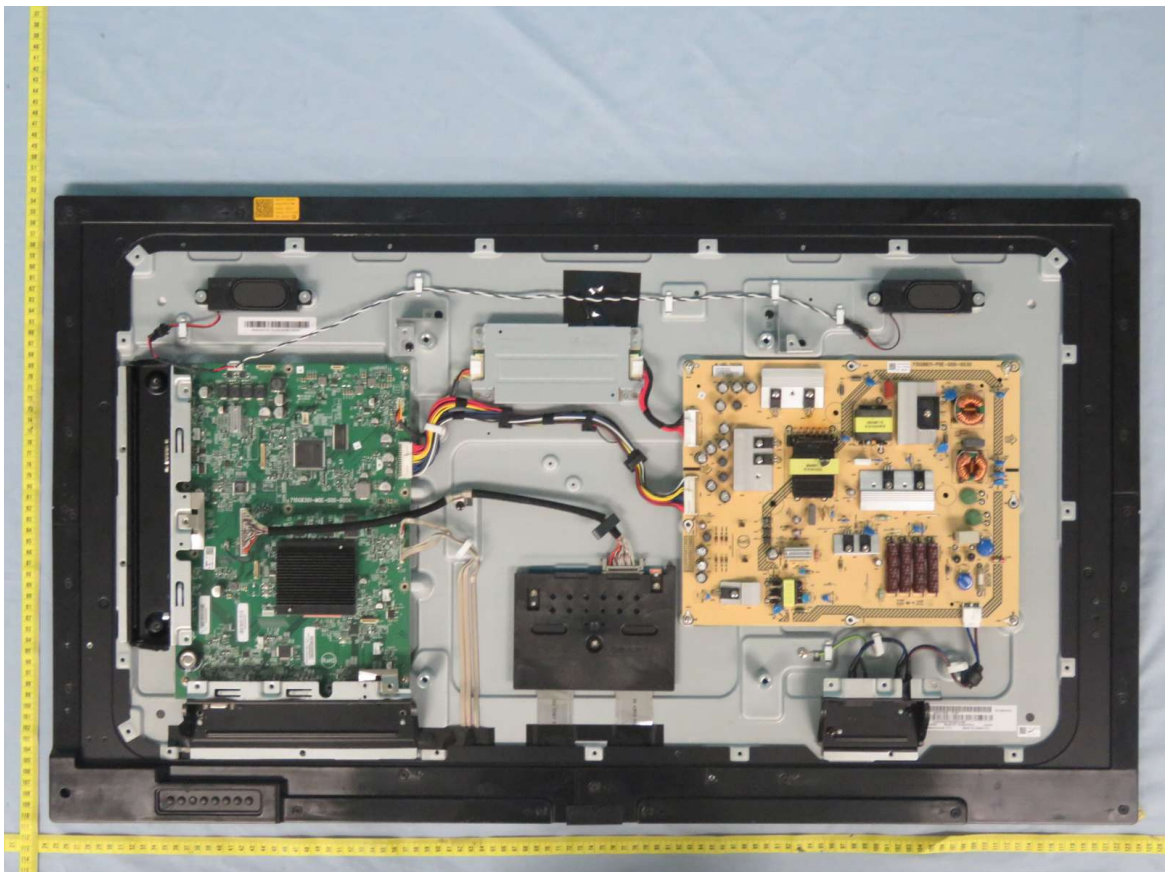


Photographs 3-04

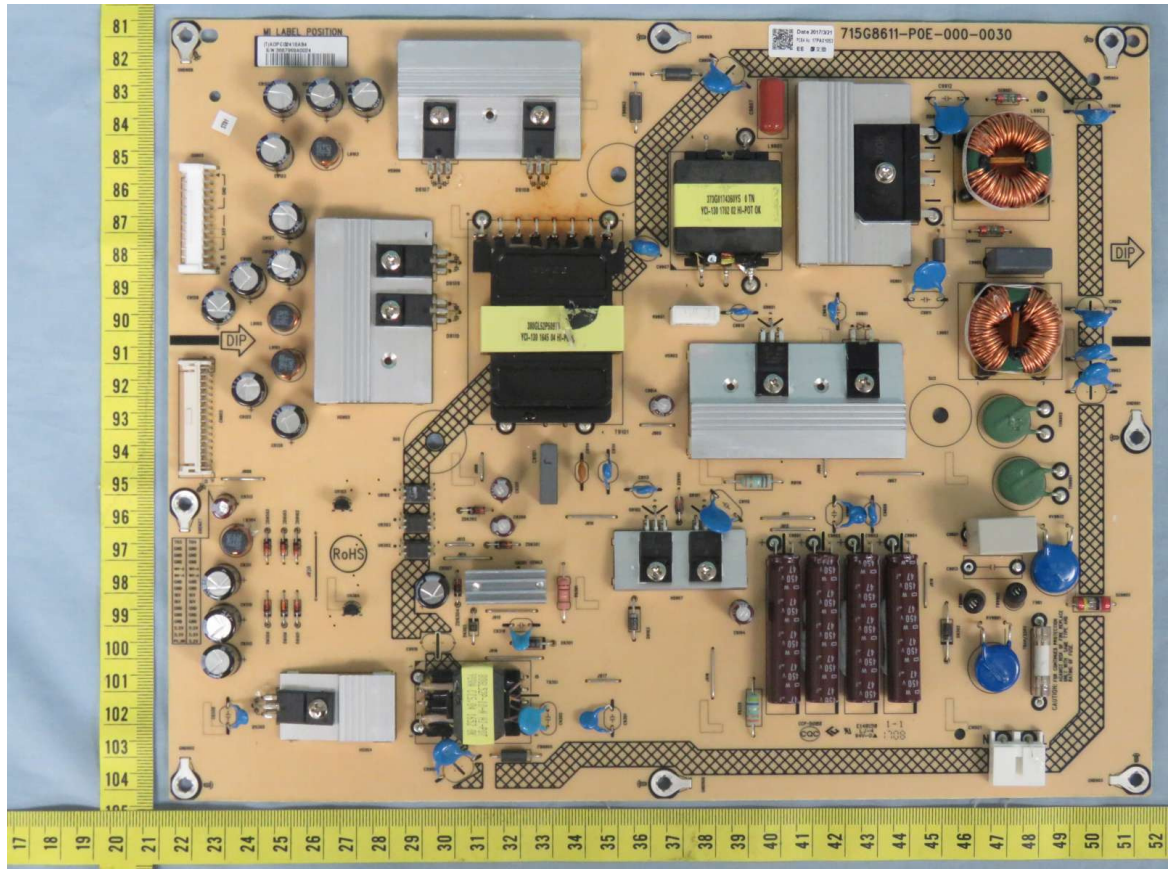




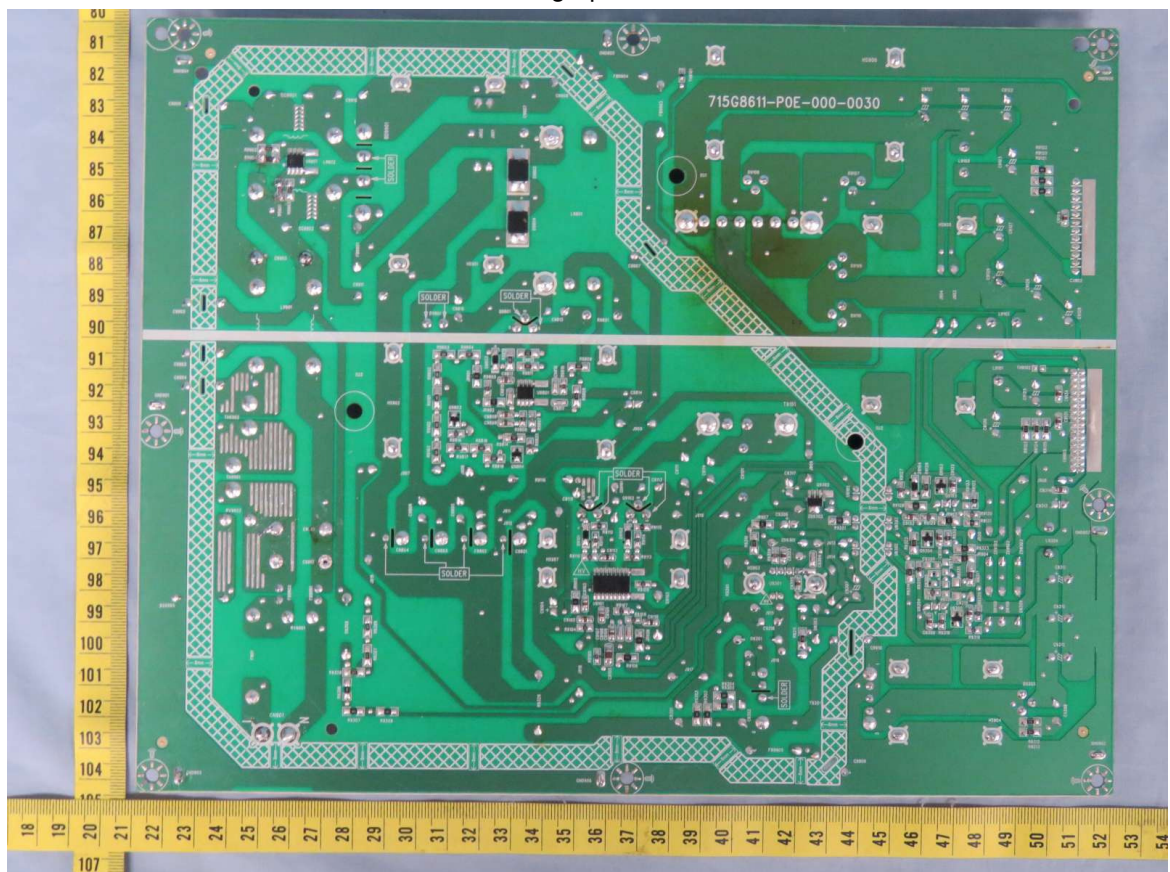
Photographs 3-06

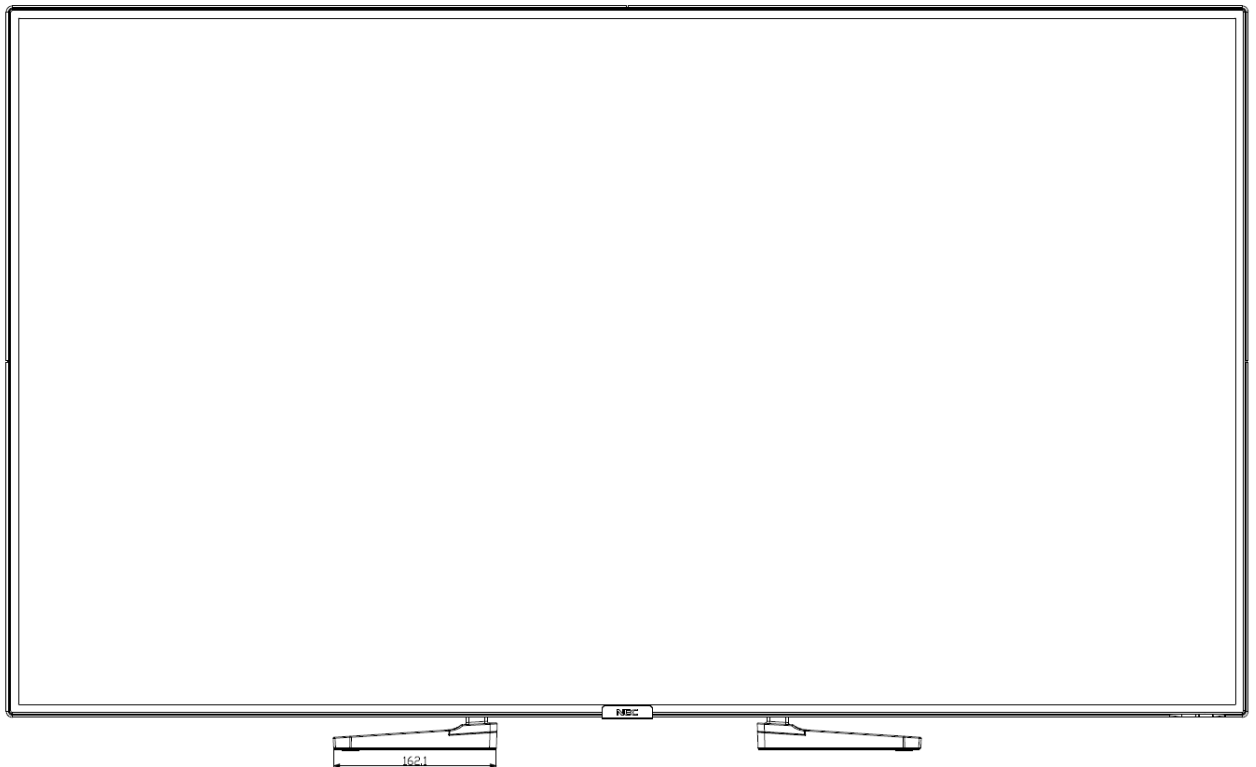


Photographs 3-07

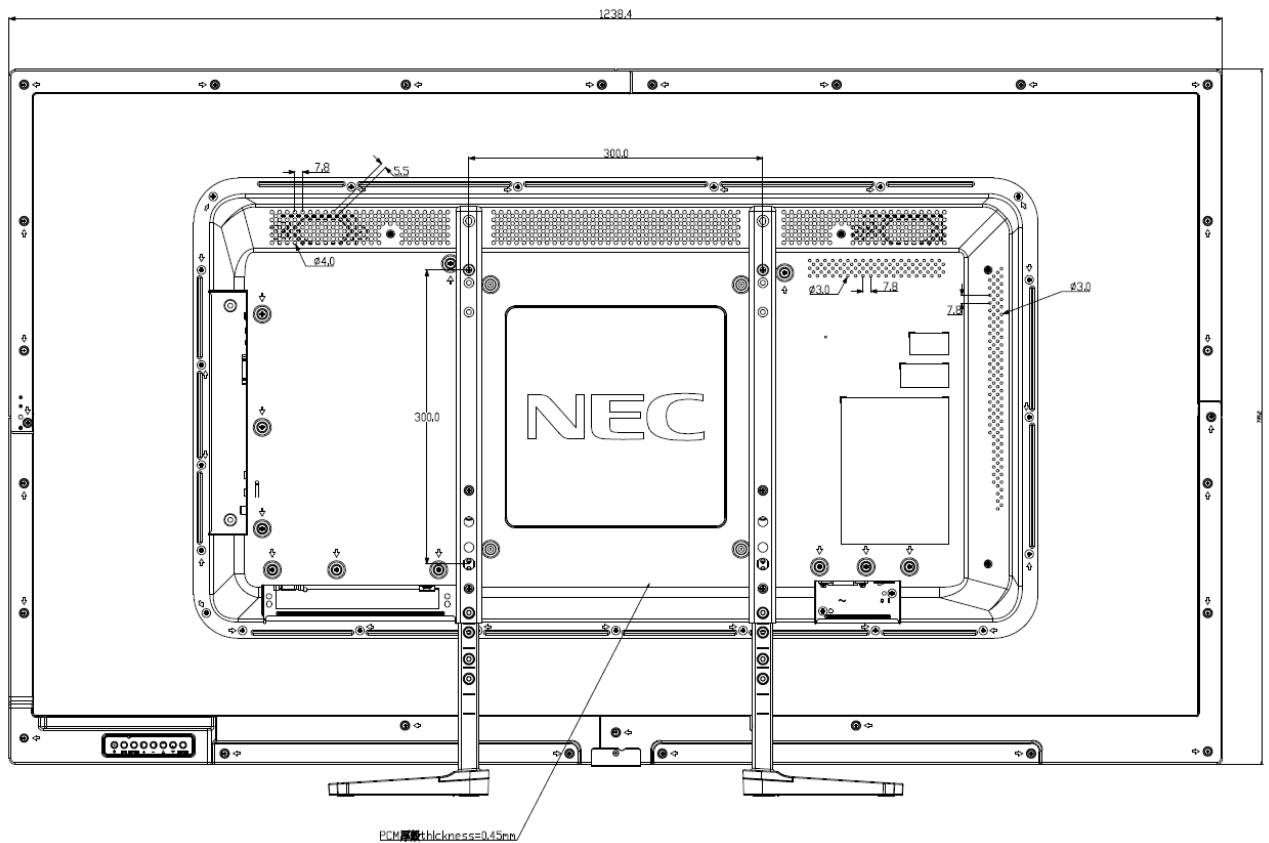


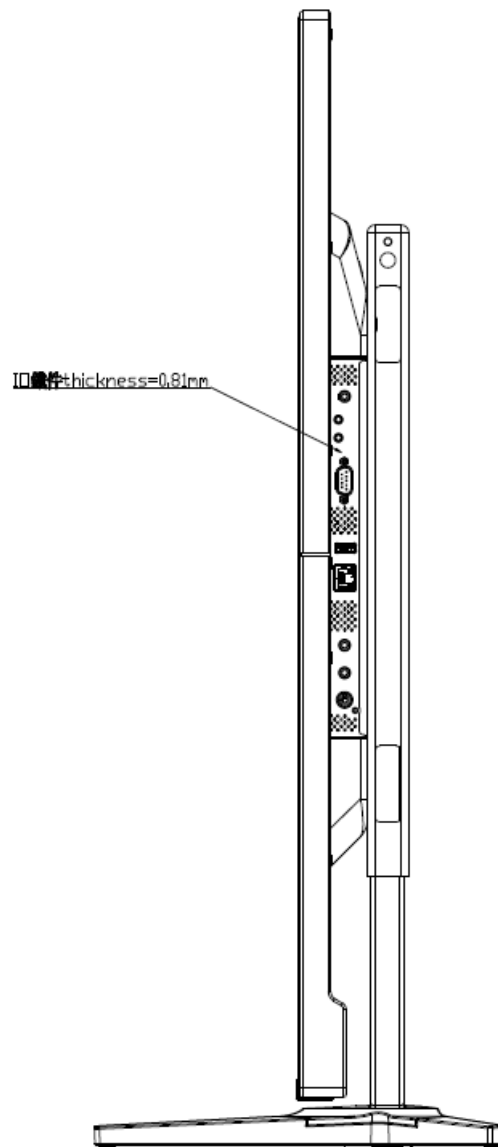
Photographs 3-08

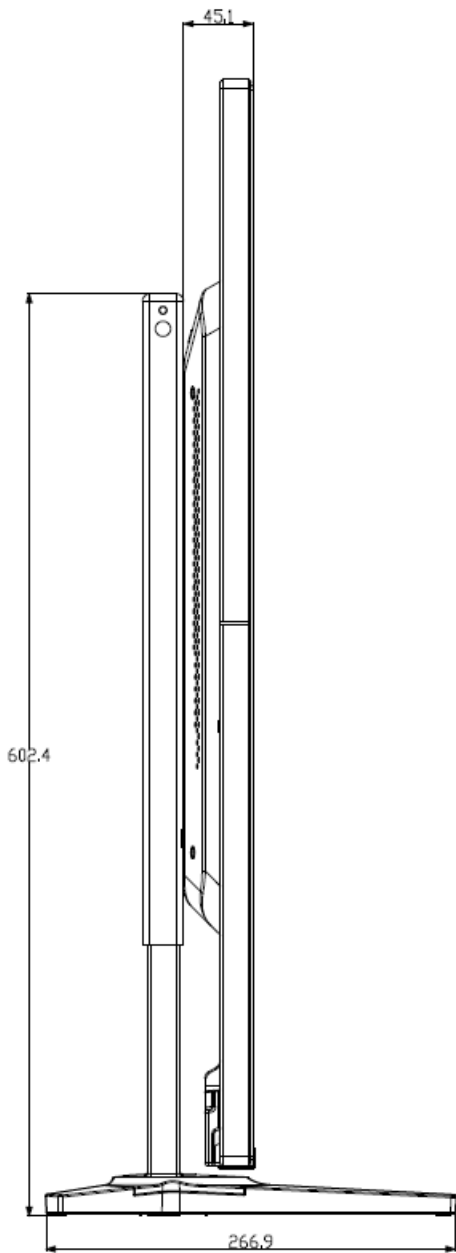


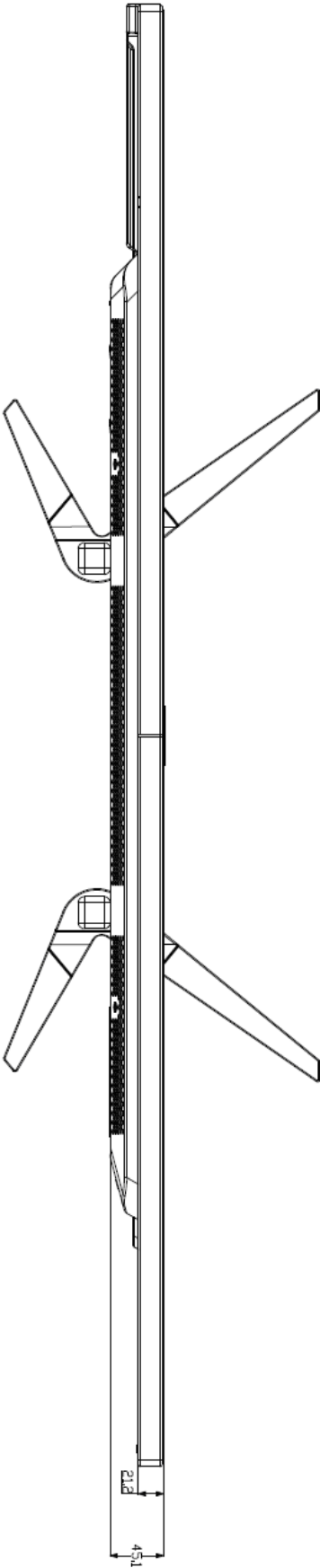


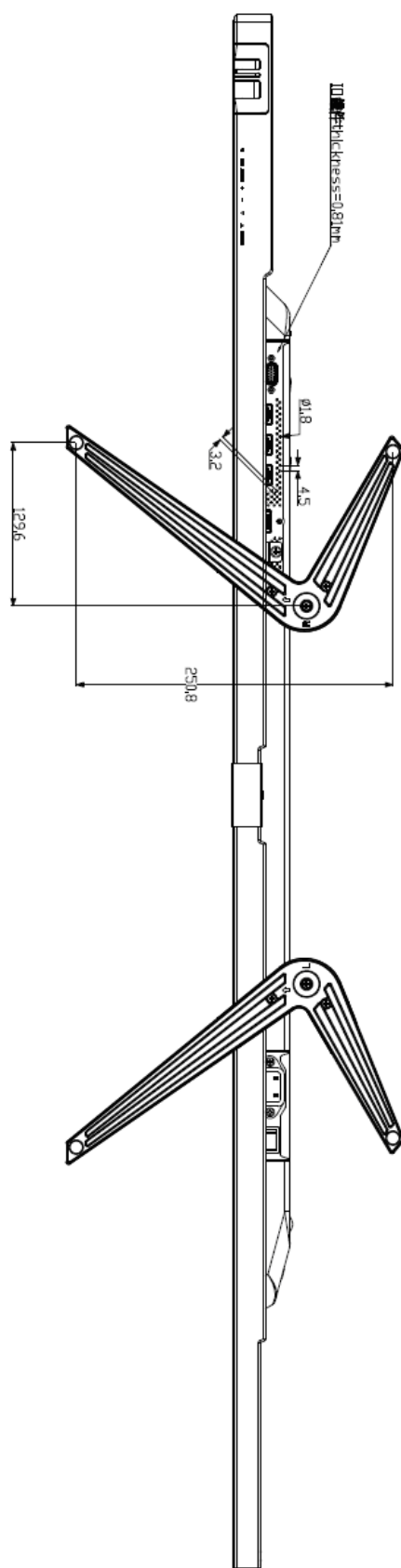
Diagrams 4-02

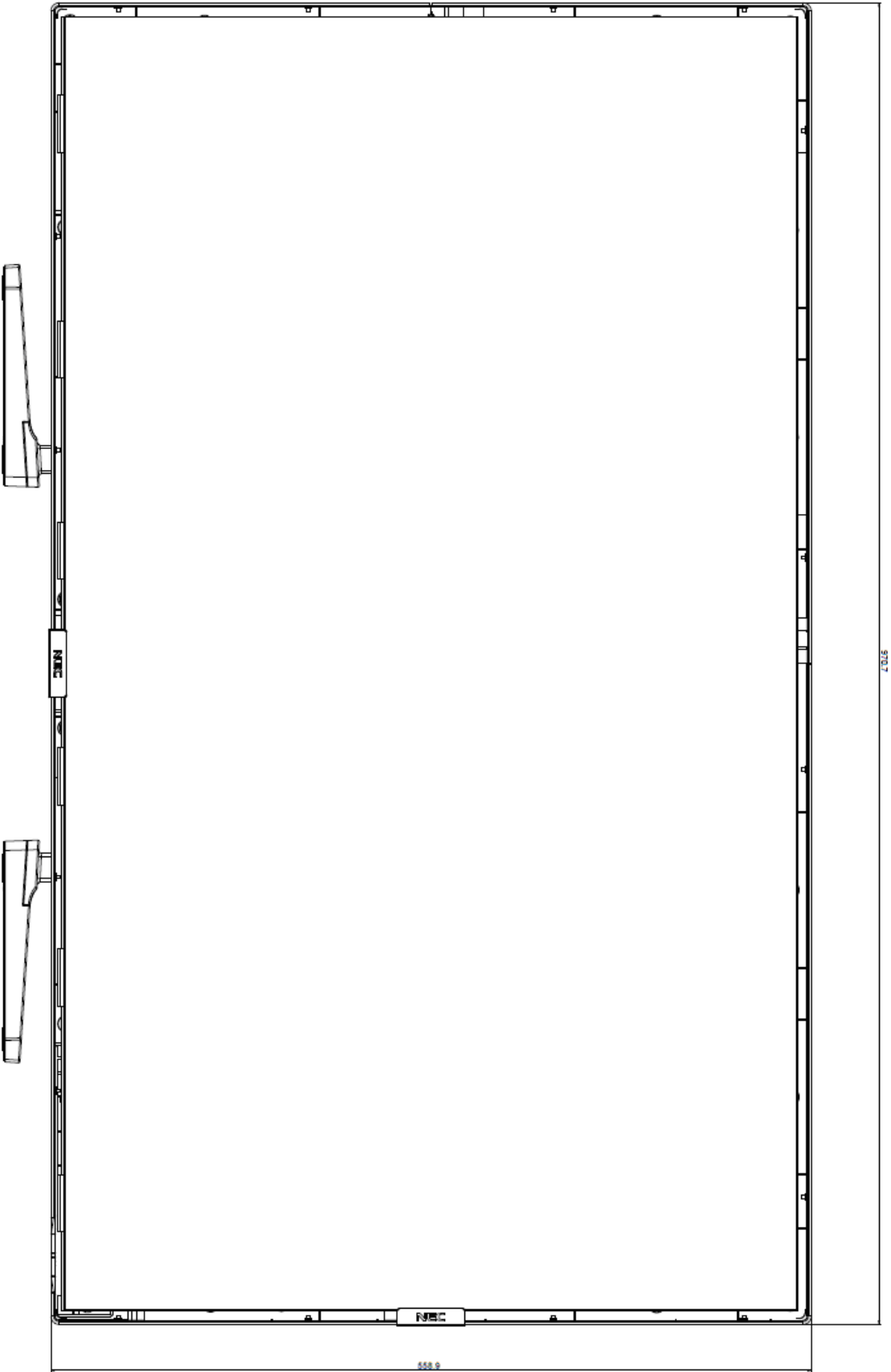


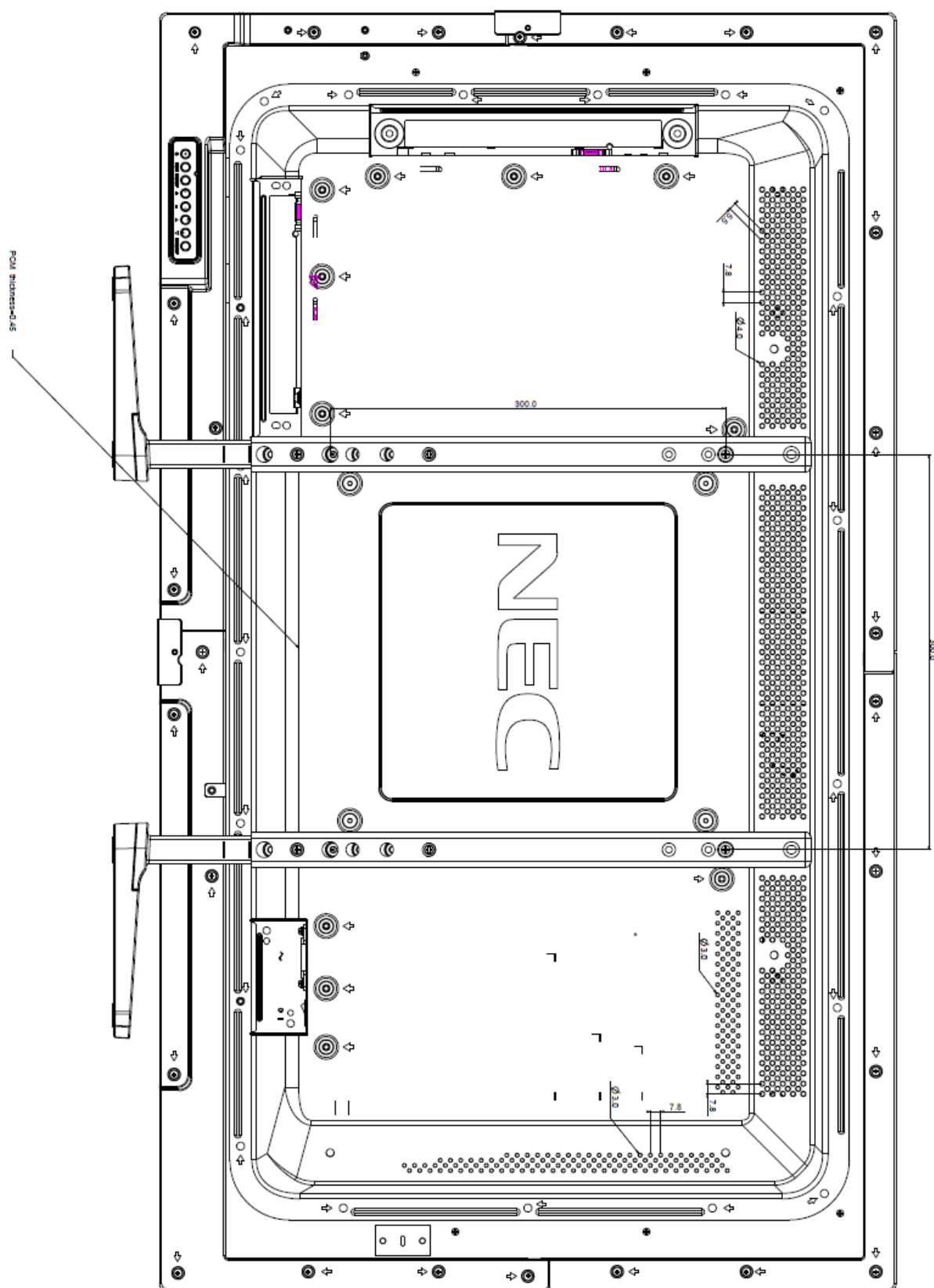


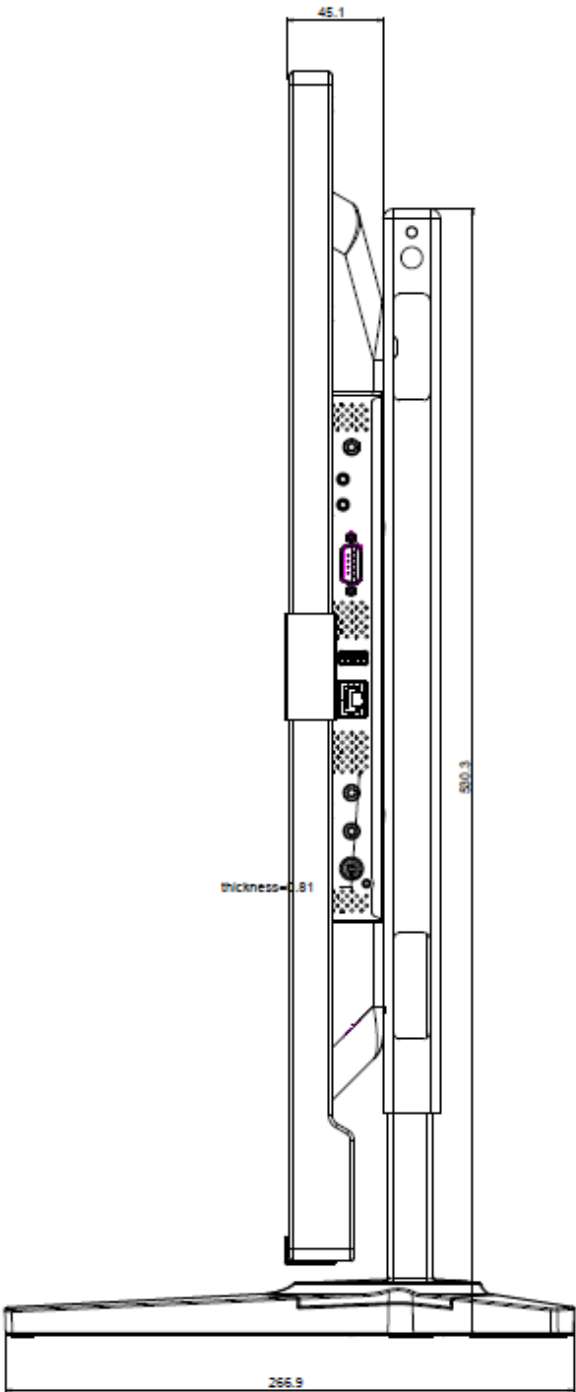


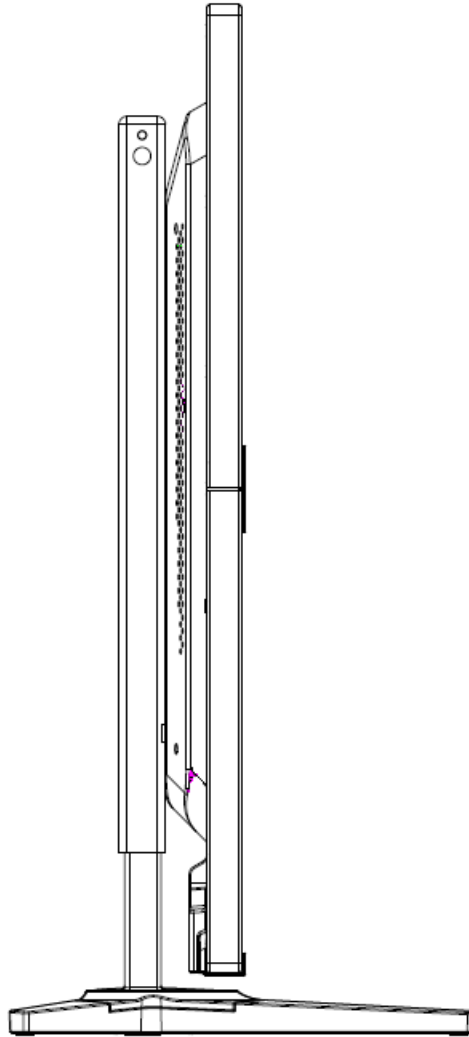


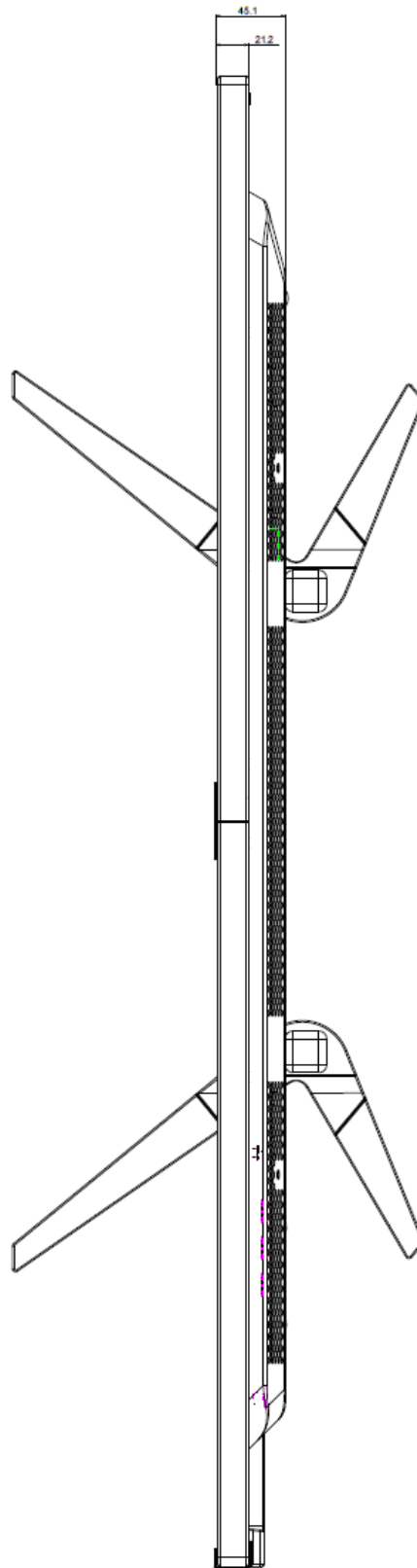


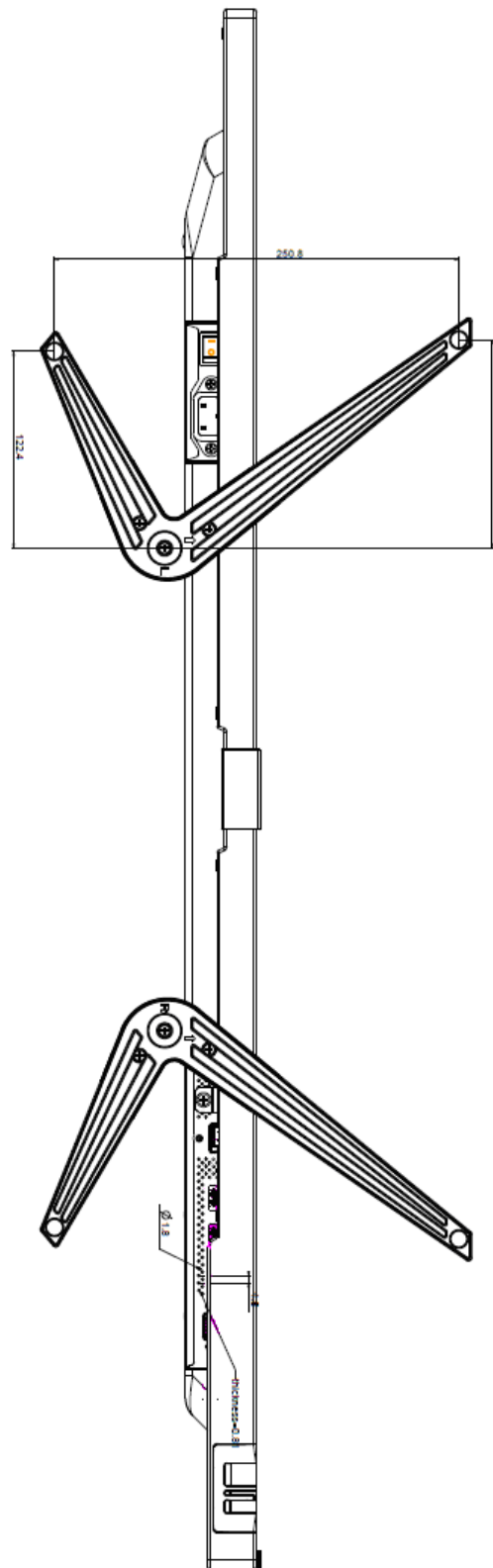












5.4.1.8	TABLE: Determination of working voltage			P
Test voltage / Frequency.....:		240Vac / 60Hz		
Location	Measured voltage/frequency			Comments
	RMS voltage (V)	Peak Voltage (V)	Hz	
T9101 Pin1 -5,6	157	265	--	
T9101 Pin1-7,8	156	264	--	
T9101 Pin1-9,10	161	288	--	
T9101 Pin1-11	157	282	--	
T9101 Pin1 -12	163	296	--	
T9101 Pin4-5,6	247	496	--	
T9101 Pin4-7,8	261	473	--	
T9101 Pin4-9,10	233	444	--	
T9101 Pin4-11	269	510	123K	Maximum voltage for T9101
T9101 Pin4-12	228	421	--	
T9301 Pin6-1,2	311	419	--	
T9301 Pin6-4,5	311	446	--	
T9301 Pin8-1,2	341	550	122K	Maximum voltage for T9301
T9301 Pin8-4,5	337	548	--	
T9301 Pin9-1,2	172	445	--	
T9301 Pin9-4,5	172	406	--	
T9301 Pin10-1,2	174	343	--	
T9301 Pin10-4,5	174	365	--	
Supplementary information:				

5.4.1.8	TABLE: Determination of working voltage			P
Test voltage / Frequency.....:		100Vac / 60Hz		
Location	Measured voltage/frequency			Comments
	RMS voltage (V)	Peak Voltage (V)	Hz	
T9101 Pin1 -5,6	168	274	--	
T9101 Pin1-7,8	165	255	--	
T9101 Pin1-9,10	171	289	--	
T9101 Pin1-11	169	274	--	
T9101 Pin1 -12	174	303	--	
T9101 Pin4-5,6	252	406	--	
T9101 Pin4-7,8	262	441	--	

T9101 Pin4-9,10	246	429	--	
T9101 Pin4-11	269	502	123K	Maximum voltage for T9101
T9101 Pin4-12	233	422	--	
T9301 Pin6-1,2	350	419	--	
T9301 Pin6-4,5	353	443	--	
T9301 Pin8-1,2	381	542	122K	Maximum voltage for T9301
T9301 Pin8-4,5	375	532	--	
T9301 Pin9-1,2	72.0	221	--	
T9301 Pin9-4,5	71.0	208	--	
T9301 Pin10-1,2	69.3	157	--	
T9301 Pin10-4,5	69.1	153	--	
Supplementary information:				