

COVER PAGE FOR TEST REPORT

Product Category:	Information Technology Equipment Including Electrical Business Equipment
Product Category CCN:	NWGQ, NWGQ7
Test Procedure:	Listing
Product:	Industrial Computer
Model/Type Reference:	TPC-12XXXXXXXXXXXX and TPC-15XXXXXXXXXXXX where X may be any alphanumeric character or blank.
Rating(s):	18-32 Vdc, 3.15-1.8 A
Standards:	UL 60950-1:2003, First Edition CSA C22.2 No. 60950-1-03 1st Ed. April 1, 2003
Applicant Name and Address:	ADVANTECH CO LTD 1 ALLEY 20 LANE 26 RUEIGUANG RD NEIHU DISTRICT TAIPEI 114 TAIWAN
This Report includes the following parts, in addition to this cover page: <ol style="list-style-type: none">1. Specific Inspection Criteria2. Specific Technical Criteria3. Clause Verdicts4. Critical Components5. Test Results6. National Differences7. Enclosures	

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of Underwriters Laboratories Inc. ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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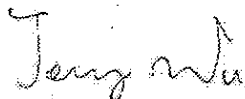
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Test Report By:



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SPECIFIC INSPECTION CRITERIA

BA1.0	Special Instructions to UL Representative
BA1.1	N/A

BB1.0	Supporting Documentation
BB1.1	<p>The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:</p> <p>A. Authorization - The Authorization page may include additional Factory Identification Code markings.</p> <p>B. Generic Inspection Instructions -</p> <ol style="list-style-type: none"> i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report. ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report. iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

BC1.0	Markings and instructions	
BC1.1	The following markings and instructions are provided as indicated.	
BC1.2	All clause references are from UL 60950-1:2003, First Edition.	
Standard Clause	Clause Title	Marking or Instruction Details
1.7.1	Power rating - Ratings	Ratings (voltage, frequency/dc, current)
	Power rating - Model	Model Number
	Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number

BD1.0	Production-Line Testing Requirements					
BD1.1	Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.					
	Model	Component	Removable Parts	Test probe location	Test Potential V rms V dc	Test Time, s
	N/A					
BD1.2	Earthing Continuity Test Exemptions - This test is not required for the following models:					
BD1.3	Electric Strength Test Exemptions - This test is not required for the following models:					
BD1.4	Electric Strength Test Component Exemptions - The following solid-state components may disconnected from the remainder of the circuitry during the performance of this test:					

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL					
BE1.1	Model	Component	Material	Test	Sample(s)	Test Specifics
	N/A					

SPECIFIC TECHNICAL CRITERIA

UL 60950-1, First Edition	
Information technology equipment - Safety-	
Part 1: General Requirements	
Report Reference No	E180881-A120-UL-1
Compiled by	Winnie Su
Reviewed by	Jerry Wu
Date of issue	2006-07-21
Standards	UL 60950-1:2003, First Edition CSA C22.2 No. 60950-1-03 1st Ed. April 1, 2003
Test procedure	Listing
Non-standard test method	N/A
Test item description	Industrial Computer
Trademark	None
Model and/or type reference	TPC-12XXXXXXXXXXXXX and TPC-15XXXXXXXXXXXXX where X may be any alphanumeric character or blank.
Rating(s)	18-32 Vdc, 3.15-1.8 A

Particulars: test item vs. test requirements	
Equipment mobility	movable
Operating condition	continuous
Mains supply tolerance (%)	No direct connection to mains supply - no tolerances applied
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class III (supplied by SELV)
Mass of equipment (kg)	2.44 Kg for TPC-12XXXXXXXXXXXXX; 5.1 Kg for TPC-15XXXXXXXXXXXXX
Protection against ingress of water	IP 20

Possible test case verdicts:	
- test case does not apply to the test object	N / A
- test object does meet the requirement	Pass
- test object does not meet the requirement	Fail (acceptable only if a corresponding, less stringent national requirement is "Pass")

General remarks:

- "(see Enclosure #)" refers to additional information appended to the Test Report
- "(see appended table)" refers to a table appended to the Test Report
- Throughout the Test Report a point is used as the decimal separator

GENERAL PRODUCT INFORMATION:	
CA1.0	Report Summary
CA1.1	N/A
CB1.0	Product Description
CB1.1	- Electronic components are mounted on PWB, configured with LCD panel and housed with a plastic fire enclosure.
CC1.0	Model Differences
CC1.1	- ModlesTPC-12XXXXXXXXXX and TPC-15XXXXXXXXXX are identical except for LCD, inverter boards, enclosures and model designation.
CD1.0	Additional Information
CD1.1	N/A
CE1.0	Technical Considerations
CE1.2	The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50°C
CE1.8	The following accessible locations (with circuit/schematic designation) are within a limited current circuit: Inverter ouput connectors
CE1.9	The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): USB, PS/2 Ports
CE1.15	The power supply in this equipment was: Investigated to an earlier edition/amendment of IEC 60950. As part of the investigation of this product, the power supply and its test report were reviewed and found to comply with IEC 60950-1.

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	<p>Components certified to IEC harmonized standard and checked for correct application.</p> <p>Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard.</p> <p>Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.</p>	Pass
1.5.3	Thermal controls	There are no thermal controller used.	N/A
1.5.4	Transformers	Evaluated as an element of power supply certification.	Pass
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.6	Capacitors in primary circuits.....:	Evaluated during separate certification of power supply.	Pass
1.5.7	Double insulation or reinforced insulation bridged by components		Pass
1.5.7.1	General		Pass
1.5.7.2	Bridging capacitors	Evaluated as part of the power supply.	Pass
1.5.7.3	Bridging resistors	Evaluated as part of the power supply.	Pass
1.5.7.4	Accessible parts	Evaluated as part of the power supply.	Pass
1.5.8	Components in equipment for IT power systems	Evaluated during separate	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

		certification of power supply.	
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1.6	Power interface		Pass
1.6.1	AC power distribution systems	Class III unit intended to be supplied by an external non-energy hazardous SELV power supply.	N/A
1.6.2	Input current	(see appended table 1.6.2) The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD.	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral insulation is provided in the power supply.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	Marking and instructions		Pass
1.7.1	Power rating	Unit not provided with means for connection to mains.	N/A
	Rated voltage(s) or voltage range(s) (V).....:	Optional, 18-32 Vdc	Pass
	Symbol for nature of supply, for d.c. only.....:	optional	Pass
	Rated frequency or rated frequency range (Hz)	dc	N/A
	Rated current (mA or A)	Optional, 2.2 A	Pass
	Manufacturer's name or trademark or identification mark	ADVANTECH	Pass
	Type/model or type reference	TPC-15XXXXXXXXXXXX and TPC-12XXXXXXXXXXXX where X may be any alphanumeric character or blank.	Pass
	Symbol for Class II equipment only		N/A
	Other symbols	Additional symbols may be provided when submitted for National Approval.	Pass
	Certification marks	UL, C-UL.	Pass
1.7.2	Safety instructions	Safety instructions in English. Other languages will be provided when submitted for national approval.	Pass
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment.....:	Evaluated as an element of power supply certification.	N/A
1.7.5	Power outlets on the equipment	No standard power outlets are provided.	N/A
1.7.6	Fuse identification	Evaluated as an element of power supply certification.	N/A
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals.....:		N/A
1.7.7.2	Terminal for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking.....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.2	Colours	A green LED is illuminated when the unit is operating and Only functional indicators use color.	Pass
1.7.8.3	Symbols according to IEC 60417	There are no switches in the equipment.	N/A
1.7.8.4	Markings using figures	Figures are not used for indicating different positions of controls.	N/A
1.7.9	Isolation of multiple power sources	Class III unit intended to be supplied by an external non-energy hazardous SELV power supply.	N/A
1.7.10	IT power distribution systems	Evaluated during separate certification of power supply.	N/A
1.7.11	Thermostats and other regulating devices	No thermostats or similar regulating devices.	N/A
1.7.12	Language		-
1.7.13	Durability	The marking(s) withstood the required test.	Pass
1.7.14	Removable parts	No marking is located on (a) removable part(s).	Pass
1.7.15	Replaceable batteries	The required warning is in both the operation and service manuals.	Pass
	Language	Reviewed only English markings/instructions. May be provided in other languages when the equipment will be applied for other national certificated.	-
1.7.16	Operator access with a tool	No operator access areas require the use of a tool.	Pass
1.7.17	Equipment for restricted access locations	Equipment not intended for installation in a RESTRICTED ACCESS LOCATION.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts	The operator has access to bare parts of SELV CIRCUITS.	Pass
	Test by inspection	Operator can not contact with any parts with only basic insulation to ELV or hazardous voltage.	Pass
	Test with test finger	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	Pass
	Test with test pin	The test pin was unable to contact bare hazardous parts.	Pass
	Test with test probe	No TNV present.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	Internal wiring in an ELV circuit is not user accessible.	N/A
	Working voltage (V); minimum distance (mm) through insulation		-
2.1.1.4	Access to hazardous voltage circuit wiring	No internal wiring accessible to the user.	N/A
2.1.1.5	Energy hazards	Class III unit intended to be supplied by an external non-energy hazardous SELV power supply.	N/A
2.1.1.6	Manual controls	The equipment does not contain any knobs, handles, levers, or the like.	N/A
2.1.1.7	Discharge of capacitors in equipment	Evaluated as an element of power supply certification.	N/A
	Time-constant (s); measured voltage (V)		-
2.1.2	Protection in service access areas	No bare parts operating at HAZARDOUS VOLTAGES in a service access area.	N/A
2.1.3	Protection in restricted access locations		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.2	SELV circuits		Pass
2.2.1	General requirements	SELV levels are maintained after single fault condition.	Pass
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V)	All critical SELV reliability are considered in separate power supply evaluation.	Pass
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	The critical separation between SELV and Primary considered in power supply investigation.	Pass
2.2.3.2	Separation by earthed screen (method 2)		N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N/A
2.2.4	Connection of SELV circuits to other circuits	SELV connected to limited current circuit.	Pass

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuit.	N/A
	Type of TNV circuits		-
2.3.2	Separation from other circuits and from accessible parts		N/A
	Insulation employed		-
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed		-
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed		-
2.3.5	Test for operating voltages generated externally		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.4	Limited current circuits		Pass
2.4.1	General requirements		Pass
2.4.2	Limit values	Frequencies above 1 kHz, the limited is 0,7 mA multiplied by the value of the frequency in kilohertz	Pass
	Frequency (Hz)	<p>For Model TPC-12XXXXXXXXXXXXX Inverter Model TBD291L: CN2 pin 2 to earth/ CN2 pin 1 to pin 2 1) normal: 55.1 kHz/ 49.5 kHz 2) C3 short: 69.3 kHz/ 98.1 kHz 3) R13 short: 55.1 kHz/ 49.5 kHz 4) R26 short: 55.4 kHz/ 52.3 kHz 5) Q2 pin(D-S): fues open/ fuse open</p> <p>Inverter Model TBD406LR: CN2 pin 2 to earth/ CN2 pin1 to pin 2 1) normal: 50.5 kHz/ 49.5 kHz 2) C3 short: 62.2 kHz/ 87.7 kHz 3) R13 short: 50.5 kHz/ 50.4 kHz 4) R26 short: 55.5 kHz/ 47.6 kHz 5) Q2 pin(D-S): fues open/ fuse open</p> <p>For Model TPC-15XXXXXXXXXXXXX Inverter Model TBD291L: CN2 pin 2 to earth/ CN2 pin 1 to pin 2 1) normal: 55.1 kHz/ 49.5 kHz 2) C3 short: 69.3 kHz/ 98.1 kHz 3) R13 short: 55.1 kHz/ 49.5 kHz 4) R26 short: 55.4 kHz/ 52.3 kHz 5) Q2 pin(D-S): fues open/ fuse open</p>	
	Measured current (mA)	For Model TPC-	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		<p>12XXXXXXXXXXXXX</p> <p>Inverter Model TBD291L: CN2 pin 2 to earth/ CN2 pin 1 to pin 2 1) normal: 2.1 mA/ 12.6 mA 2) C3 short: 27 mA/ 14.4 mA 3) R13 short: 2.1 mA/ 15.2 mA 4) R26 short: 2.1 mA/ 11.0 mA 5) Q2 pin(D-S): fues open/ fuse open</p> <p>Inverter Model TBD406LR: CN2 pin 2 to earth/ CN2 pin1 to pin 2 1) normal: 2.0 mA/ 13.0 mA 2) C3 short: 2.4 mA/ 12.6 mA 3) R13 short: 2.0 mA/ 13.2 mA 4) R26 short: 1.9 mA/ 11.6 mA 5) Q2 pin(D-S): fues open/ fuse open</p> <p>For Model TPC- 15XXXXXXXXXXXXX</p> <p>Inverter Model TBD291L: CN2 pin 2 to earth/ CN2 pin 1 to pin 2 1) normal: 2.1 mA/ 12.6 mA 2) C3 short: 27 mA/ 14.4 mA 3) R13 short: 2.1 mA/ 15.2 mA 4) R26 short: 2.1 mA/ 11.0 mA 5) Q2 pin(D-S): fues open/ fuse open</p>	
	Measured voltage (V)	Max. 2.04 KV	-
	Measured capacitance (mF)	Circuit capacitance is 32 pF for Inverter TBD291L and 28 pF for Inverter TBD406LR	-
2.4.3	Connection of limited current circuits to other circuits	The LIMITED CURRENT CIRCUIT connected to other circuits complies with the requirements of Sub-clause 2.4.1.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
2.5	Limited power sources		Pass
	Inherently limited output		N/A
	Impedance limited output	PTC device used. See table 1.5.1.	Pass
	Overcurrent protective device limited output		N/A
	Regulating network limited output under normal operating and single fault condition		N/A
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N/A
	Output voltage (V), output current (A), apparent power (VA):	<p>For Model TPC-12XXXXXXXXXXXX</p> <p>- USB1 Connector max. Normal : Uoc=5.21, Isc=0.90, VA=4.45, Limited VA=26.05</p> <p>- USB2 connector max. Normal: Uoc=5.21, Isc=0.88 VA=4.35, Limited VA=26.05</p> <p>- PS/2 (keyboard) Connector max. Normal: Uoc=5.21, Isc=1.85 VA=8.12, Limited VA=26.05</p> <p>- PS/2 (mouse) Connector max. Normal: Uoc=5.21, Isc=1.90 VA=8.38, Limited VA=26.05</p> <p>For Model TPC-15XXXXXXXXXXXX</p> <p>- USB1 Connector max. Normal : Uoc=5.00, Isc=0.80, VA=3.73, Limited VA=25</p> <p>- USB2 connector max. Normal: Uoc=5.00, Isc=0.80 VA=3.72, Limited VA=25</p> <p>- PS/2 Connector max. Normal: Uoc=5.00, Isc=1.90 VA=8.17, Limited VA=25</p>	-
	Current rating of overcurrent protective device (A) :		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III equipment.	N/A
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG.....:		
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG.....:		
2.6.3.4	Resistance (Ohm) of earthing conductors and their terminations, test current (A).....:		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type and nominal thread diameter (mm)		
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements		N/A
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3		N/A
2.7.3	Short-circuit backup protection		N/A
2.7.4	Number and location of protective devices		N/A
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel.....		N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlock used.	N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches and relays		N/A
2.8.7.1	Contact gaps (mm).....		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test	(see appended table 5.2)	N/A
2.8.8	Mechanical actuators		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	All critical insulation property are covered in power supply investigation.	Pass
2.9.2	Humidity conditioning		N/A
	Humidity (%).....:		-
	Temperature (°C)		-
2.9.3	Grade of insulation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.2	Determination of working voltage		Pass
2.10.3	Clearances	All critical clearance distances are covered in power supply evaluation.	Pass
2.10.3.1	General		Pass
2.10.3.2	Clearances in primary circuit	Evaluated as an element of power supply certification.	N/A
2.10.3.3	Clearances in secondary circuits	(see appended table 2.10.3 and 2.10.4)	Pass
2.10.3.4	Measurement of transient voltage levels		N/A
2.10.4	Creepage distances	Creepages in primary circuits covered in power supply evaluation. (see appended table 2.10.3 and 2.10.4)	Pass
	CTI tests.....:	Material group IIIb; $100 \leq \text{CTI} < 175$.	-
2.10.5	Solid insulation	Evaluated during separate certification of power supply.	N/A
2.10.5.1	Minimum distance through insulation		N/A
2.10.5.2	Thin sheet material	All critical distances through insulation are covered in power supply evaluation.	Pass
	Number of layers (pcs).....:		-
	Electric strength test.....:		-
2.10.5.3	Printed boards	PWB is not used as reinforced or supplementary insulation.	N/A
	Distance through insulation		N/A
	Electric strength test for thin sheet insulating material.....:		-
	Number of layers (pcs).....:		N/A
2.10.5.4	Wound components	All critical distances through insulation are covered in power supply evaluation.	Pass
	Number of layers (pcs).....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Two wires in contact inside wound component; angle between 45° and 90°		N/A
2.10.6	Coated printed boards	No special coating used.	N/A
2.10.6.1	General		N/A
2.10.6.2	Sample preparation and preliminary inspection		N/A
2.10.6.3	Thermal cycling		N/A
2.10.6.4	Thermal ageing (°C)		N/A
2.10.6.5	Electric strength test.....		-
2.10.6.6	Abrasion resistance test		N/A
	Electric strength test.....		-
2.10.7	Enclosed and sealed parts.....	No hermetically sealed or enclosed components used.	N/A
	Temperature T1=T2 = Tma - Tamb +10K (°C)		N/A
2.10.8	Spacings filled by insulating compound		N/A
	Electric strength test.....		-
2.10.9	Component external terminations		N/A
2.10.10	Insulation with varying dimensions		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection	All internal wiring used in the distribution of primary power protected against overcurrent were evaluated as an element of power supply certification.	Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation.	Pass
3.1.4	Insulation of conductors	Uninsulated conductors have been adequately fixed to prevent, in normal use, any reduction of creepage or clearance distances below those prescribed by in 2.9.	Pass
3.1.5	Beads and ceramic insulators	The equipment does not have any beads or similar insulators.	N/A
3.1.6	Screws for electrical contact pressure	The equipment does not have any screw-type connections.	N/A
3.1.7	Insulating materials in electrical connections	No contact pressure through insulating material.	Pass
3.1.8	Self-tapping and spaced thread screws	Thread-cutting or space thread screws are not used for electrical connections. Machine screws only.	Pass
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring	No sleeving used as supplementary insulation.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2	Connection to an a.c. mains supply or a d.c. mains supply		N/A
3.2.1	Means of connection	Investigated as an element of power supply certification.	N/A
3.2.1.1	Connection to an a.c. mains supply		N/A
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter (mm) of cable and conduits.....:		-
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type		-
	Rated current (A), cross-sectional area (mm ²), AWG.....:		-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N)		-
	Longitudinal displacement (mm)		-
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	D (mm); test mass (g)		-
	Radius of curvature of cord (mm)		-
3.2.9	Supply wiring space		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²).....:		-
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm).....:		-
3.3.6	Wiring terminals design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A

3.4	Disconnection from the mains supply		N/A
3.4.1	General requirement	Evaluated as an element of power supply certification.	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Single-phase equipment and d.c. equipment		N/A
3.4.7	Three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits.....:	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A

4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		N/A
	Angle of 10°	Based on construction, the test was deemed not necessary.	N/A
	Test: force (N)		N/A

4.2	Mechanical strength		Pass
4.2.1	General		Pass
4.2.2	Steady force test, 10 N		Pass
4.2.3	Steady force test, 30 N	The equipment does not have any internal enclosures.	N/A
4.2.4	Steady force test, 250 N	No hazards as a result of the 250 N test.	Pass
4.2.5	Impact test		Pass
	Fall test		Pass
	Swing test		N/A
4.2.6	Drop test		N/A
4.2.7	Stress relief test	No indication of shrinkage or distortion on enclosures due to the stress relief test (79°C/7 h).	Pass
4.2.8	Cathode ray tubes	The equipment does not have any CRT's	N/A
	Picture tube separately certified.....:		N/A
4.2.9	High pressure lamps	The equipment does not have any high pressure lamps.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N).....:		N/A

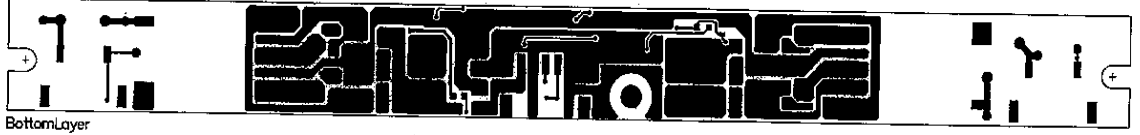
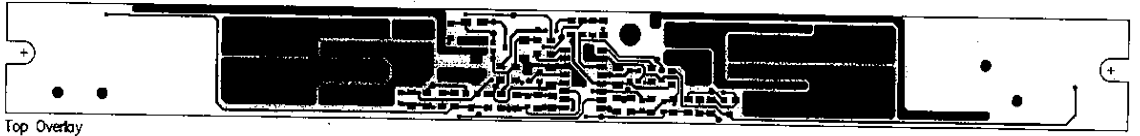
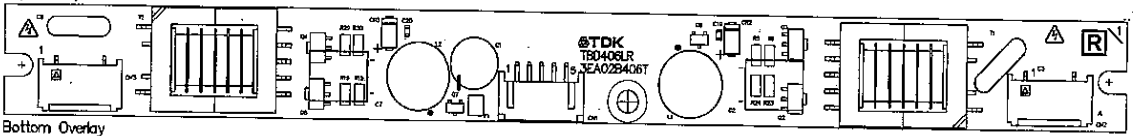
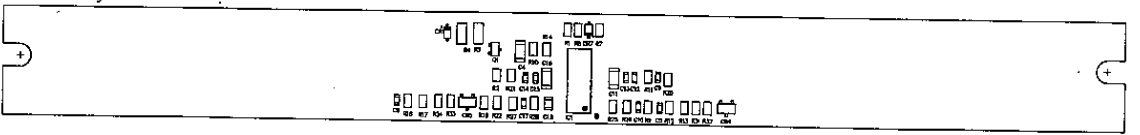

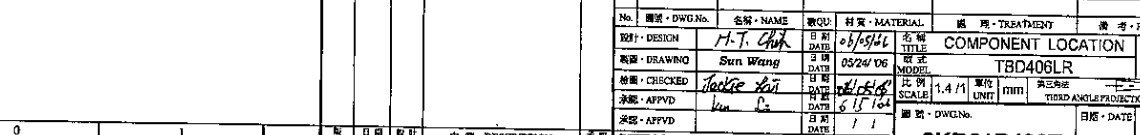
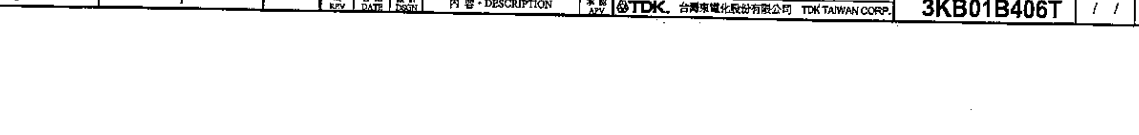







IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N)		N/A
4.3.3	Adjustable controls	The equipment does not have a voltage selector	N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress.	N/A
4.3.5	Connection of plugs and sockets	The equipment does not have any interchangeable plugs/sockets.	N/A
4.3.6	Direct plug-in equipment	Not direct plug-in equipment.	N/A
	Dimensions (mm) of mains plug for direct plug-in...	Not direct plug-in unit.	N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)		N/A
4.3.7	Heating elements in earthed equipment	The equipment does not have any heating elements.	N/A
4.3.8	Batteries	See appended table 5.3	Pass
4.3.9	Oil and grease	The insulation of the internal wiring is not exposed to oil, grease, etc.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not produce dust or employ powders, liquids or gases.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquids.	N/A
4.3.12	Flammable liquids	The equipment does not use any flammable liquids.	N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation; type of radiation	The equipment does not generate ionizing radiation or contain flammable liquids or gases.	N/A
4.3.13.1	General		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg).....:		-
	Measured high-voltage (kV)		-
	Measured focus voltage (kV)		-
	CRT markings		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Laser (including LEDs)		N/A
	Laser class		-
4.3.13.6	Other types.....:		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A

4.5	Thermal requirements		Pass
4.5.1	Maximum temperatures	(see appended table) The equipment and its component parts did not attain excessive temperatures during normal operation.	Pass
	Normal load condition per Annex L.....:		N/A
4.5.2	Resistance to abnormal heat	No parts at hazardous voltage are directly mounted on thermoplastic parts.	N/A

Schematics ID 5-04

3KB01B406T	
	
	
	
	
	
	
	
	
	
	
	
	
	
	

Enclosure**Test Record**

Description
Test Record 1
Datasheet
CRD

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings	Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5 degree projection).	Pass
	Dimensions (mm)		-
4.6.2	Bottoms of fire enclosures	Openings in the bottom, each not larger than 40 mm ² , under components and parts meeting the requirements for FLAMMABILITY CLASS V-1	Pass
	Construction of the bottom		-
4.6.3	Doors or covers in fire enclosures	The equipment does not have any doors or covers.	N/A
4.6.4	Openings in transportable equipment	Unit not transportable.	N/A
4.6.5	Adhesives for constructional purposes	Adhesives not used for securement of internal barriers or screens.	N/A
	Conditioning temperature (°C)/time (weeks)		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	Pass
	Method 1, selection and application of components wiring and materials		N/A
	Method 2, application of all of simulated fault condition tests		Pass
4.7.2	Conditions for a fire enclosure	Suitable fire enclosure is provided.	Pass
4.7.2.1	Parts requiring a fire enclosure		N/A
4.7.2.2	Parts not requiring a fire enclosure		Pass
4.7.3	Materials		N/A
4.7.3.1	General		N/A
4.7.3.2	Materials for fire enclosures		Pass
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Suitable fire enclosure suit be provided in end product. (All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better and Internal wiring is UL Recognized, marked VW-1 or FT-1 and strapped by individual cable ties (where needed).)	N/A
4.7.3.5	Materials for air filter assemblies	The equipment does not have any air filters.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
5.1	Touch current and protective conductor current		N/A
5.1.1	General	Secured by approved power adapter.	N/A
5.1.2	Equipment under test (EUT)		N/A
5.1.3	Test circuit		N/A
5.1.4	Application of measuring instrument		N/A
5.1.5	Test procedure		N/A
5.1.6	Test measurements		N/A
	Test voltage (V)		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)		-
	Measured protective conductor current (mA).....		-
	Max. allowed protective conductor current (mA).....		-
5.1.7	Equipment with touch current exceeding 3.5 mA ...		N/A
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		N/A
	Test voltage (V)		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)		-
5.1.8.2	Summation of touch currents from telecommunication networks.....		N/A

5.2	Electric strength		N/A
5.2.1	General		N/A
5.2.2	Test procedure		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation		N/A
5.3.2	Motors		N/A
5.3.3	Transformers	Evaluated as part of power supply.	Pass
5.3.4	Functional insulation	Functional insulation complies with the requirements (a), (b), or (c).	Pass
5.3.5	Electromechanical components	The equipment does not have any electromechanical components in the secondary.	N/A
5.3.6	Simulation of faults	(See appended table 5.3)	Pass
5.3.7	Unattended equipment	Equipment is not intended for unattended use.	N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire, emission of molten metal or deformation was noted during the tests.	Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Test voltage (V)		-
	Current in the test circuit (mA)		-
6.1.2.2	Exclusions		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A)		-
	Current limiting method		-

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.2	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.3	Insulation between primary circuits and cable distribution systems		N/A
7.3.1	General		N/A
7.3.2	Voltage surge test		N/A
7.3.3	Impulse test		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples		-
	Wall thickness (mm)		-
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame		N/A
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-

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Clause	Requirement + Test	Result - Remark	Verdict

A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material		-
	Wall thickness (mm)		-
A.2.2	Conditioning of samples		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame		N/A
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-

A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS(see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position.....:		-
	Manufacturer		-
	Type		-
	Rated values		-
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		-
	Electric strength test: test voltage (V)		-
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	Test procedure		N/A
B.7.2	Alternative test procedure; test time (h)		N/A
B.7.3	Electric strength test		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
	Position.....:		-
	Manufacturer		-
	Type		-
	Rated values		-
	Method of protection		-
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings		N/A

D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS		Pass
D.1	Measuring instrument		Pass
D.2	Alternative measuring instrument		N/A

E	Annex E, TEMPERATURE RISE OF A WINDING		N/A
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F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		N/A
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply		N/A
G.2.2	DC mains supply		N/A
G.3	Determination of telecommunication network transient voltage (V) :		N/A
G.4	Determination of required withstand voltage (V).....:		N/A
G.5	Measurement of transient levels (V)		N/A
G.6	Determination of minimum clearances.....:		N/A

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
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J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal used.....:		-

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)		N/A
K.3	Thermostat endurance test; operating voltage (V) :		N/A
K.4	Temperature limiter endurance; operating voltage (V).....:		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		N/A
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		N/A

M	Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz)		-
M.3.1.2	Voltage (V)		-
M.3.1.3	Cadence; time (s), voltage (V)		-
M.3.1.4	Single fault current (mA)		-
M.3.2	Tripping device and monitoring voltage		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)		N/A

N	Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

P	Annex P, NORMATIVE REFERENCES		N/A
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Q	Annex Q, BIBLIOGRAPHY		N/A
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R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A

S	Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A

T	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
:		-

U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
:		-

IEC 60950-1		
Clause	Requirement + Test	Verdict

TABLE: list of critical components							Pass	
1.5.1	Object/part No.	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID	
	01. Power Adapter (Optional)	American Skynet Electronic Co	SNP-PA59	I/P: 115/230 Vac, 50/60 Hz, 1.5/0.8A; O/P: 24Vdc, minimum 2.3A, Marked with "LPS"	QQGQ	UL	3-01	
	01a. Alternate Power Adapter (Optional)	Linearity Electronics Co. Ltd.	LAD6019AE2	I/P: 115/230 Vac, 50/60 Hz, 1.5/0.8A; O/P: 24Vdc, minimum 2.3A, Marked with "LPS"	QQGQ	UL		
	02. Enclosure material	GE Plastics Americas	C2800	V-1 minimum. 1.5 mm thick minimum. 75 degree C minimum. (Overall 383 by 308 by 55 mm for Model TPC- 15XXXXXXXXXXXXX), (310 by 237 by 50 mm for Model TPC- 12XXXXXXXXXXXXX)	QMFZ2	UL	3-01	
	02a. Alternate Enclosure material	Grand Pacific Petrochemical Corp	D-1700	V-1 minimum. 1.5 mm thick minimum. 75 degree C minimum. (Overall 383 by 308 by 55 mm. (Overall 383 by 308 by 55 mm for Model TPC- 15XXXXXXXXXXXXX), (310 by 237 by 50 mm for Model TPC- 12XXXXXXXXXXXXX)	QMFZ2	UL	3-01	
	03. LCD Panel for TPC- 12XXXXXXXXXXXXX	--	--	12.1 inch	--	--	3-02	
	04. LCD Panel for TPC- 15XXXXXXXXXXXXX,	--	--	15 inch	--	--	3-01	
	05. Rechargeable RTC Battery	Rayovac Corp.	BR2032	Maximum Abnormal Charging Current 4 mA	BBCV2	UL		
	05a. Alternate Rechargeable RTC	Spectrum Brands Inc	BR2032	Maximum. abnormal charging current 5 mA	BBCV2	UL		

IEC 60950-1				
Clause	Requirement + Test	Result - Remark	Verdict	
Battery (BH1)				
06. Polyswitch for Keyboard / Mouse (PS3) for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	Tyco Electronics Corp. Raychem Circuit Protection Div	miniSMDC150	1.5 A, 6V	XGPU2
06a. Alternate Polyswitch for Keyboard / Mouse (PS3) for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	Polytronics Technology Corp.	SMD1812P150TS	1.5 A, 6 V	XGPU2
07. Polyswitch for USB (PS1, PS2) for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	Tyco Electronics Corp. Raychem Circuit Protection Div	miniSMDC110	6Vdc, 1.1A	XGPU2
07a. Alternate Polyswitch for USB (PS1, PS2) for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	Polytronics Technology Corp.	SMD1812P110T G/S	6Vdc, 1.1A	XGPU2
08. Polyswitch for Keyboard port (FS2) for TPC-12XXXXXXXXXXXX	Polytronics Technology Corp.	SMD1812P110TS	6Vdc, 1.1A	XGPU2
08a. Polyswitch for Keyboard port (FS2) for TPC-15XXXXXXXXXXXX	Polytronics Technology Corp.	SMD1812P110TS	6Vdc, 1.1A	XGPU2
09. Polyswitch for USB1 port (FS4) for TPC-	Polytronics Technology Corp.	SMD1812P110TS	6Vdc, 1.1A	XGPU2

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Clause	Requirement + Test	Result - Remark		Verdict
15XXXXXXXXXX				
10. Polyswitch for USB2 port (FS5) for TPC-	Polytronics Technology Corp.	SMD1812P110TS	6Vdc, 1.1A	XGPU2
15XXXXXXXXXX				
11. DC/AC Inverter for TPC-	Lecerf Technology Co., Ltd.	LV-1401-K	I/P: 13.2 Vdc max., 1450 mA max. O/P: 1300 Vrms max., 6.5 mA max.	--
12XXXXXXXXXXXX, TPC-				
15XXXXXXXXXXXX				
11-1. Fuse (F1)	--	--	Rated 125V, 2A	JDYX2
11-2. Transformer in DC/AC Inverter (T1, T2)	--	--	Open type, 105 degree C minimum.	--
11-3. Transformer (T1, T2), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	UL
11-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2
11-5. Core	--	--	Ferrite core, Overall 19.7 by 19.7 by 4.9 mm.	--
11-6. Capacitor (C6, C8)	--	--	minimum 3KV, 22pF	--
11-7. Printed Wiring Board	--	--	Minimum V-1, 105 degree C.	ZPMV2
11a. DC/AC Inverter for TPC-	Lecerf Technology Co., Ltd.	LV-1201-C-1	I/P: 13.2 Vdc max., 1450 mA max. O/P: 1300 Vrms max., 6.5 mA max.	--
12XXXXXXXXXXXX, TPC-				
15XXXXXXXXXXXX				
11a-1. Fuse (F1)	--	--	Rated 125V, 2A	JDYX2
11a-2. Transformer in DC/AC Inverter (T1, T2)	--	--	Open type, 105 degree C minimum.	--
11a-3. Transformer (T1, T2), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	UL

Clause	Requirer
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Clause	Requirement + Test	Result - Remark	Verdict

11c-3. Transformer (T1) Bobbin	
11c-4. Winding Wire	
11c-5. Core	
11c-6. Capacitor (C4, C5)	
11c-7. Printed Wiring Board	
11d. DC/AC Inverter (T1)	
TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	
11d-1. Fuse (F1)	
11d-2. Transformer in DC/AC Inverter (T1)	
T2), Bobbin	
11d-4. Winding Wire	
11d-5. Core	
11d-6. Capacitor (C3, C6)	
11d-7 Printed Wiring Board	
11e. Alternate DC/AC Inverter for TPC-12XXXXXXXXXXXX	
11e-1. Fuse (F1)	

11a-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2	UL
11a-5. Core	--	--	Ferrite core, Overall 19.7 by 19.7 by 4.9 mm.	--	--
11a-6. Capacitor (C6, C8)	--	--	minimum 3KV, 27pF	--	--
11a-7. Printed Wiring Board	--	--	Minimum V-1, 105 degree C.	ZPMV2	UL
11b. Alternate DC/AC Inverter for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	Glowision Innovation Co., Ltd.	HY1006	I/P: 13.2Vdc maximum., 0.34A maximum. O/P: 525Vrms, 5.46mA maximum.	--	--
11b-1. Fuse (F1)	--	--	Rated 125V, 2A	JDYX2	UL
11b-2. Transformer in DC/AC Inverter (T1)	--	--	Open type, 105 degree C minimum.	--	--
11b-3. Transformer (T1), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	QMFZ2	UL
11b-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2	UL
11b-5. Core	--	--	Ferrite core, 19 by 15.9 by 4.1 mm.	--	--
11b-6. Capacitor (C12)	--	--	minimum 3KV, 15pF	--	--
11b-7. Printed Wiring Board	--	--	Minimum V-1, 105 degree C.	ZPMV2	UL
11c. Alternate DC/AC Inverter for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	TDK Taiwan Corp	TBD290L	I/P: 13.2 V, 0.75 A maximum. O/P: 12V, 6.0 mA maximum.	--	--
11c-1. Fuse (F1)	--	--	Rated 125V, 2A	JDYX2	UL
11c-2. Transformer in DC/AC Inverter (T1)	--	--	Open type, 105 degree C minimum.	--	--

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Clause	Requirement + Test	Result - Remark	Verdict	
11c-3. Transformer (T1), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	QMFZ2 UL
11c-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2 UL
11c-5. Core	--	--	Ferrite core, overall 19.7 by 19.7 by 4.9 mm.	--
11c-6. Capacitor (C4, C5)	--	--	minimum 3kV, 27pF	--
11c-7. Printed Wiring Board	--	--	Minimum V-1, 105 degree C.	ZPMV2 UL
11d. DC/AC Inverter for TPC-12XXXXXXXXXXXX, TPC-15XXXXXXXXXXXX	TDK Taiwan Corp	TBD291L	I/P: 13.2 Vdc, 1.19 A maximum. O/P: 1400 Vrms, 7.2 mA maximum.	-- 4-02
11d-1. Fuse (F1)	KOA Corp	CCP2E100	72V, 4A maximum	JDYX2 UL
11d-2. Transformer in DC/AC Inverter (T1, T2)	--	--	Open type, 105 degree C minimum.	--
11d-3. Transformer (T1, T2), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	QMFZ2 UL
11d-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2 UL
11d-5. Core	--	--	Ferrite core, overall 20 by 15.4 by 5 mm	--
11d-6. Capacitor (C3, C6)	--	--	27pF maximum, 6kV	--
11d-7 Printed Wiring Board	--	--	Minimum V-1, 105 degree C.	ZPMV2 UL
11e. Alternate DC/AC Inverter for TPC-12XXXXXXXXXXXX	TDK Taiwan Corp	TBD406LR	I/P: 13.2 Vdc, 0.94 A maximum. O/P: 1800 Vrms, 8.0 mA maximum.	-- 4-01
11e -1. Fuse (F1)	KOA Corp	CCP2E63	72V, 2.5A maximum	JDYX2 UL

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Clause	Requirement + Test	Result - Remark		Verdict
11e-2. Transformer in DC/AC Inverter (T1, T2)	--	--	Open type, 105 degree C minimum.	--
11e-3. Transformer (T1, T2), Bobbin	--	--	LCP, rated V-2 minimum, 0.3 mm thickness minimum.	QMFZ2
11e-4. Winding Wire	--	--	Enameled copper wire, 105 degree C	OBMW2
11e-5. Core	--	--	Ferrite core, overall 20 by 15.4 by 5 mm	--
G1. Secondary internal wiring	--	--	FEP, PTFE, PVC, TFE, neoprene or surface marked VW-1 or FT-1, rated min. 60 degree C, 30 V.	AVLV2
G2. Interconnecting cable (optional)	--	--	Minimum 30 V, 60 degree C, Maximum 3.05 m, jacketed, VW-1 or FT-1	AVLV2
G3. Label	--	--	Min. 60 degree C, dimension, refer to Diagram	PGDQ2 or PGJ122
G4. Internal Plastic Part Materials	--	--	Rated V-2 min,	QMFZ2
G5. PWB	--	--	V-1 minimum, 105 degree C	ZPMV2
				UL

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Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	TABLE: electrical data (in normal conditions)					Pass
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status
--	--	--	--	--	--	TPC-12XXXXXXXXXXXXX, Inverter Model: TBD291L
--	3.15	18 Vdc	24.66	1370	--	Maximum normal load
--	1.8	32 Vdc	25.1	785	--	Maximum normal load
--	--	--	--	--	--	TPC-12XXXXXXXXXXXXX, Inverter, Model: TBD406LR
--	3.15	18 Vdc	22.5	1250	--	Maximum normal load
--	1.8	32 Vdc	23.04	720	--	Maximum normal load
--	--	--	--	--	--	TPC-15XXXXXXXXXXXXX, Inverter Model Model: TBD291L
--	3.15	18 Vdc	37.08	2060	--	Maximum normal load
--	1.8	32 Vdc	40.0	1250	--	Maximum normal load
supplementary information:						
"Maximum normal load" was defined as follows: The continuously working and each USB loaded 2.5W.						

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					Pass
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
--	--	--	--	--	--	--
supplementary information:						
All critical clearance and creepage distances in primary circuit are considered in separate power supply evaluation. Only functional insulation is required.						

2.10.5	TABLE: distance through insulation measurements				N/A
distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)	
supplementary information:					

4.5	TABLE: temperature rise measurements					Pass
	test voltage (V)	see below	see below	see below	see below	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

t1 (°C)	--	--	--	--	--	--
t2 (°C)	--	--	--	--	--	--
maximum temperature T of part/at:	T (°C)					allowed Tmax (°C)
TPC-12XXXXXXXXXXXXX, Inverter, Model: TBD291L	Maximum Normal Load at 18 Vdc,	Maximum Normal Load at 18 Vdc	Maximum Normal Load at 32 Vdc	Maximum Normal Load at 32 Vdc	--	--
Ambient	23.8	Tmra 50 degree C	23.9	Tmra 50 degree C	--	--
DC Jack	39.4	65.6	38.8	64.9	--	--
EC12 body	45.0	71.2	47.0	73.1	--	85
L32 coil	48.7	74.9	51.5	77.6	--	105
PWB under U1	54.0	82.0	54.5	80.6	--	105
PWB under U9	47.9	74.1	48.3	74.4	--	105
PWB under U33	50.2	76.4	50.2	76.3	--	105
RTC body	46.5	72.7	46.5	72.6	--	100
HDD body	49.9	76.1	49.6	75.7	--	--
Inverter	--	--	--	--	--	--
T1 core	65.2	91.4	64.8	90.9	--	105
T1 coil	70.3	96.5	71.4	97.5	--	105
L1 coil	61.7	87.9	61.3	87.4	--	105
Panel body	44.2	70.4	44.0	70.1	--	95
Enclosure inside near Top	42.0	68.2	41.5	67.6	--	95
Enclosure outside near Top	32.8	59.0	31.1	57.2	--	95
Metal enclosure outside near Top	32.2	58.5	31.6	57.7	--	70
Test Duration	2.9 hrs	2.9 hrs	3.3 hrs	3.3 hrs	--	--
TPC-12XXXXXXXXXXXXX, Inverter, Model: TBD406LR	Maximum Normal Load at 18 Vdc,	Maximum Normal Load at 18 Vdc	Maximum Normal Load at 32 Vdc	Maximum Normal Load at 32 Vdc	--	--
Ambient	23.5	Tmra 50 degree C	23.1	Tmra 50 degree C	--	--
Inverter	--	--	--	--	--	--
T1 core	66.3	92.8	66.9	93.8	--	105
T1 coil	68.9	95.4	70.2	97.1	--	105
Test Duration	3.1	3.1 hrs	1.95 hrs	1.95 hrs	--	--

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Clause	Requirement + Test			Result - Remark		Verdict
TPC-15XXXXXXXXXXXXX, Inverter, Model: TBD291L	hrs					
	Maximum Normal Load at 18 Vdc,	Maximum Normal Load at 18 Vdc	Maximum Normal Load at 32 Vdc	Maximum Normal Load at 32 Vdc	--	--
Ambient	49.9	Tmra 50 degree C	49.9	Tmra 50 degree C	--	--
DC Jack	78.4	78.5	87.7	87.8	--	--
PWB under U14	75.8	75.9	83.0	83.1	--	105
PWB under U15	69.6	69.7	73.3	73.4	--	105
PWB under U41	65.0	65.1	68.2	68.3	--	105
RTC body	62.8	62.9	65.7	65.8	--	100
C405 body	74.0	74.1	80.7	80.8	--	85
HDD body	57.6	57.7	58.4	58.5	--	--
L52 coil	77.6	77.7	88.5	88.6	--	105
PWB under U61	62.1	62.2	64.2	64.3	--	105
Panel body	61.0	61.1	62.6	62.7	--	95
Inverter	--	--	--	--	--	--
T1 coil	81.2	81.3	81.9	82.0	--	105
T1 core	80.8	80.1	80.7	80.8	--	105
L1 coil	82.1	82.2	82.8	82.9	--	105
Enclosure inside near Top	52.2	52.3	52.6	52.7	--	105
Enclosure outside near Top	50.4	50.5	50.6	50.7	--	95
Metal enclosure outside near Top	51.5	51.6	51.6	51.7	--	70
Test Duration	2.5 hrs	2.5 hrs	1.91 hrs	1.91 hrs	--	--
temperature T of winding:		$R_1 (\Omega)$	$R_2 (\Omega)$	$T (^\circ\text{C})$	allowed Tmax ($^\circ\text{C}$)	insulation class
--	--	--	--	--	--	--
supplementary information:						
<p>The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.1 at voltages as described in 1.6.5.</p> <p>With a specified ambient temperature of 50 degree C, the maximum. temperature is calculated as follows:</p> <p>Winding components:</p> <p>- class A Tmax(degree C) = 100 degree C - 10 degree C = 90 degree C</p> <p>Components with:</p> <p>- maximum. absolute temp. of 105 degree C (Line choke) Tmax(degree C) = 105 degree C</p> <p>- maximum. absolute temp. of 85 degree C (Capacitor) Tmax(degree C) = 85 degree C</p> <p>- maximum. absolute temp. of 105 degree C (PCB) Tmax(degree C) = 105 degree C</p> <p>- when no class of insulation is given, minimum. insulation 105 degree C assumed.</p>						
User accessible area:						

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Clause	Requirement + Test	Result - Remark	Verdict

- material is metal (70 degree C)	Tmax(degree C)= 70 degree C
- material is plastic (95 degree C)	Tmax(degree C)= 95 degree C

4.5.2	TABLE: ball pressure test of thermoplastics			N/A
	allowed impression diameter (mm)..... :			—
part		test temperature (°C)	impression diameter (mm)	
supplementary information:				

4.7	TABLE: resistance to fire				Pass
part	manufacturer of material	type of material	thickness(mm)	flammability class	
--	--	--	--	--	
supplementary information:					
See table 1.5.1 for details.					

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			N/A
test voltage applied between:		test voltage (V) a.c./d.c.	breakdown Yes / No	
supplementary information:				

5.3	TABLE: fault condition tests						Pass
	ambient temperature (°C)..... :						—
	model/type of power supply :						—
	manufacturer of power supply..... :						—
	rated markings of power supply :						—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result	
Abnormal	--	--	--	--	--	--	

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Clause	Requirement + Test				Result - Remark	Verdict
operation test						
Model: TPC- 12XXXXXX XXXXXX	--	--	--	--	--	--
Ventilation openings	Blocked	32 Vdc	3.8 hrs	F1	--	NB, NC, CT, Ambient: 22.8 degree C, Inverter T1 coil: 76.0 degree C
Model: TPC- 15XXXXXX XXXXXX	--	--	--	--	--	--
Ventilation openings	Blocked	32 Vdc	4.4 hrs	F1	--	NB, NC, CT, Ambient: 24.0 degree C, Inverter T1 coil: 90.2 degree C
Model: TPC- 15XXXXXX XXXXXX	--	--	--	--	--	--
PS/II (Mouse/Keyboard)	V+ ~ V-	32 Vdc	--	--	--	Uoc=5.00, Isc= 1.60, VA= 6.94
USB1	V+ ~ V	32 Vdc	--	--	--	Uoc=5.00, Isc= 0.80, VA= 3.73
USB2	V+ ~ V	32 Vdc	--	--	--	Uoc=5.00, Isc= 0.80, VA= 3.72
Lithium Battery Reverse Current Measurement test	--	--	--	--	--	--
Model: TPC- 12XXXXXX XXXXXX	--	--	--	--	--	--
RTC Battery (BR2032)	Normal	32 Vdc	--	--	--	Reverse Charging Current: 0 mA
RTC Battery (BR2032)	DD1 Pin 2-3 short	32 Vdc	--	--	--	Reverse Charging Current: 3.01 mA
Model: TPC- 15XXXXXX	--	--	--	--	--	--

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict

XXXXXX						
RTC Battery (BR2032)	Normal	32 Vdc	--	--	--	Reverse Charging Current: 0 mA
RTC Battery (BR2032)	Q19 Pin 2-3 short	32 Vdc	--	--	--	Reverse Charging Current: 3.12 mA
Overload of operator accessible connector test	--	--	--	--	--	--
Model: TPC-12XXXXXX XXXXXX	--	--	--	--	--	--
PS/II (Mouse) pin 1, 4, 6	Overload	32 Vdc	--	--	--	Open Voltage: 0V, C
PS/II (Mouse) pin 5	Overload	32 Vdc	1hr	--	--	Open Voltage: 5.21V; Maximum Current: 1850mA, NC, NT
PS/II (Keyboard) pin 1, 4, 6	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
PS/II (Keyboard) pin 5	Overload	32 Vdc	1hr	--	--	Open Voltage: 5.21V; Maximum Current: 1800mA, NC, NT
USB 1 pin 1	Overload	32 Vdc	1hr	--	--	Open Voltage: 5.21V; Maximum Current: 880mA, NC, NT
USB 1 pin 2, 3, 4	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
USB 2 pin 1	Overload	32 Vdc	1hr	--	--	Open Voltage: 5.21V; Maximum Current: 850mA, NC, NT
USB 2 pin 2, 3, 4	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
RS232 All pins	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
RJ45x2 All pin	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
Printer pin 1, 10-16	Overload	32 Vdc	1sec	--	--	Open Voltage: 4.52V; Maximum Current: 10mA, B
Printer pin 2-9	Overload	32 Vdc	1hr	--	--	Open Voltage: 3.94V; Maximum Current: 30mA, NB, NC

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Clause	Requirement + Test			Result - Remark		Verdict

Printer pin 17-25	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
Model: TPC- 15XXXXXX XXXXXX	--	--	--	--	--	--
Overload of operator accessible connector test	--	--	--	--	--	--
PS/II (Mouse/Keyboard) pin 1, 2, 6	Overload	32 Vdc	--	--	--	Open Voltage: 0V, C
PS/II (Mouse/Keyboard) pin 3, 4	Overload	32 Vdc	1sec	--	--	Open Voltage: 4.16V; Maximum Current: 10mA, B
PS/II (Mouse/Keyboard) pin 5	Overload	32 Vdc	1hr	--	--	Open Voltage: 4.99V; Maximum Current: 1550mA, NC, NT
USB 1 pin 1	Overload	32 Vdc	1hr	--	--	Open Voltage: 4.99V; Maximum Current: 780mA, NC, NT
USB 1 pin 2, 3, 4	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
USB 2 pin 1	Overload	32 Vdc	1hr	--	--	Open Voltage: 4.99V; Maximum Current: 780mA, NC, NT
USB 2 pin 2, 3, 4	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
RJ45x2 All pins	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
VGA pin 1-8, 10, 11, 13, 14	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
VGA pin 9	Overload	32 Vdc	1hr	--	--	Open Voltage: 4.99V; Maximum Current: 25mA, NC, NT
VGA pin 12, 15	Overload	32 Vdc	1sec	--	--	Open Voltage: 4.51V; Maximum Current: 10mA, B
Printer pin 1, 10-16	Overload	32 Vdc	1sec	--	--	Open Voltage: 3.85V; Maximum Current: 10mA, NC, NT
Printer pin 2-9	Overload	32 Vdc	1hr	--	--	Open Voltage: 3.99V; Maximum Current: 30mA,

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

						NC, NT
Printer pin 17-25	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C
Audiox3 All pins	Overload	32 Vdc	--	--	--	Open Voltage : 0V, C

supplementary information:

Results Key: IP = Internal protection operated (component indicated) CT = Constant temperatures were obtained TW = Transformer winding opened CD = Components damaged (damaged components indicated) NB = No indication of dielectric breakdown YB = Dielectric breakdown (time and location indicated) NC = Cheesecloth remained intact YC = Cheesecloth charred or flamed NT = Tissue paper remained intact YT = Tissue paper charred or flamed

Enclosure
National Differences

(Total 10 Pages including this Cover Page)

USA / Canada

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict

USA / Canada - Differences to IEC 60950-1:2001, First Edition			
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		N/A
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		N/A
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.		N/A
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.	There are no any Telephone line and extension cords.	N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	circuit classification requirements (e.g., TNV-2)		
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.		N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.	Class III unit.	N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1	Screw shell of Edison-base lampholder tied to the neutral conductor.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.	No TNV present.	N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
2.3.2	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.3.3	For Pluggable Equipment Type A, if neither a) or b) are applicable, the current rating of the circuit is taken as 20 A.		N/A
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		N/A
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.4	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.4 and Annex U.		N/A
3.1.1	Permissible combinations of internal wiring/external		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	cable sizes for overcurrent and short circuit protection.		
3.1.1	All interconnecting cables protected against overcurrent and short circuit.	Interconnecting cables comply with the relevant requirements of this standard.	Pass
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.		N/A
3.2.1	Permitted use for flexible cords and plugs.		N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		N/A
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.		N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	(i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) and not less than 152 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Length of power supply cord limited to between 1.5 and 4.5 m unless shorter length used when intended for a special installation.		N/A
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		N/A
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A
3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.		N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.		N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm ²) or smaller		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	conductor if provided with upturned lugs, cupped washer or equivalent retention.		
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.	The equipment does not have any CRT's.	N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.	The equipment does not have any high pressure lamps.	N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).	The equipment does not use any flammable liquids.	N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	readily visible.		
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m ³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m ² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		N/A
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.6	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.	Considered. See appended table 5.3.1 in IEC 60950 test report.	Pass
5.3.6	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.8.1	Test interrupted by opening of wire or trace subject to certain conditions.		N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.	No TNV present	N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A

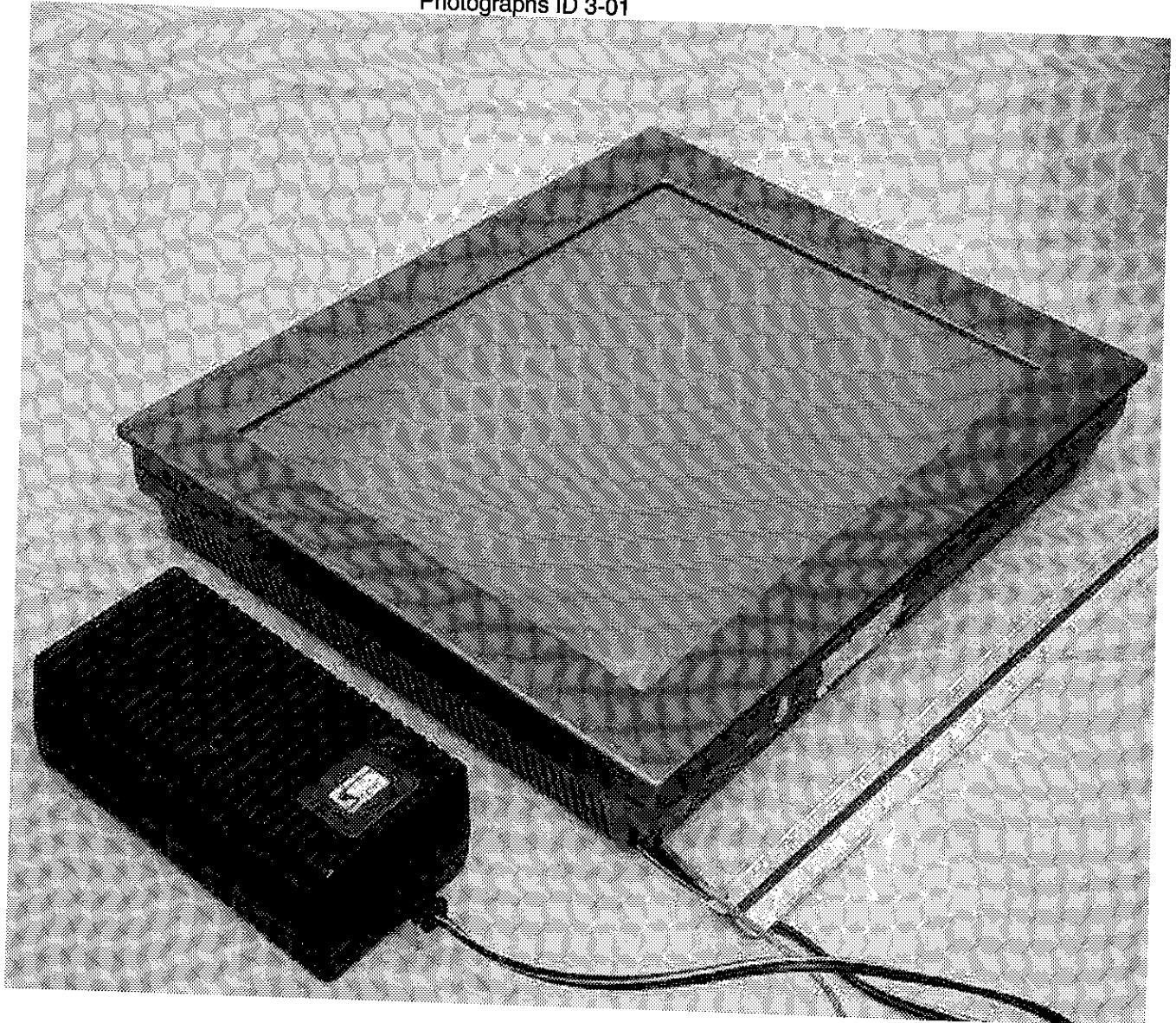
IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
6.2.1	Special requirements for enameled wiring used as electrical separation provided between parts connected to telecommunication network and telecommunication circuitry intentionally isolated from network.		N/A
6.2.1	Digital line termination equipment (e.g., NCTE) subject to separation requirements.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
6.5	Acoustic pressure from an ear piece less than 136 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets, and 121 dBA for insert earphones, for long duration disturbances.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.	No TNV present	N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	instructions.		

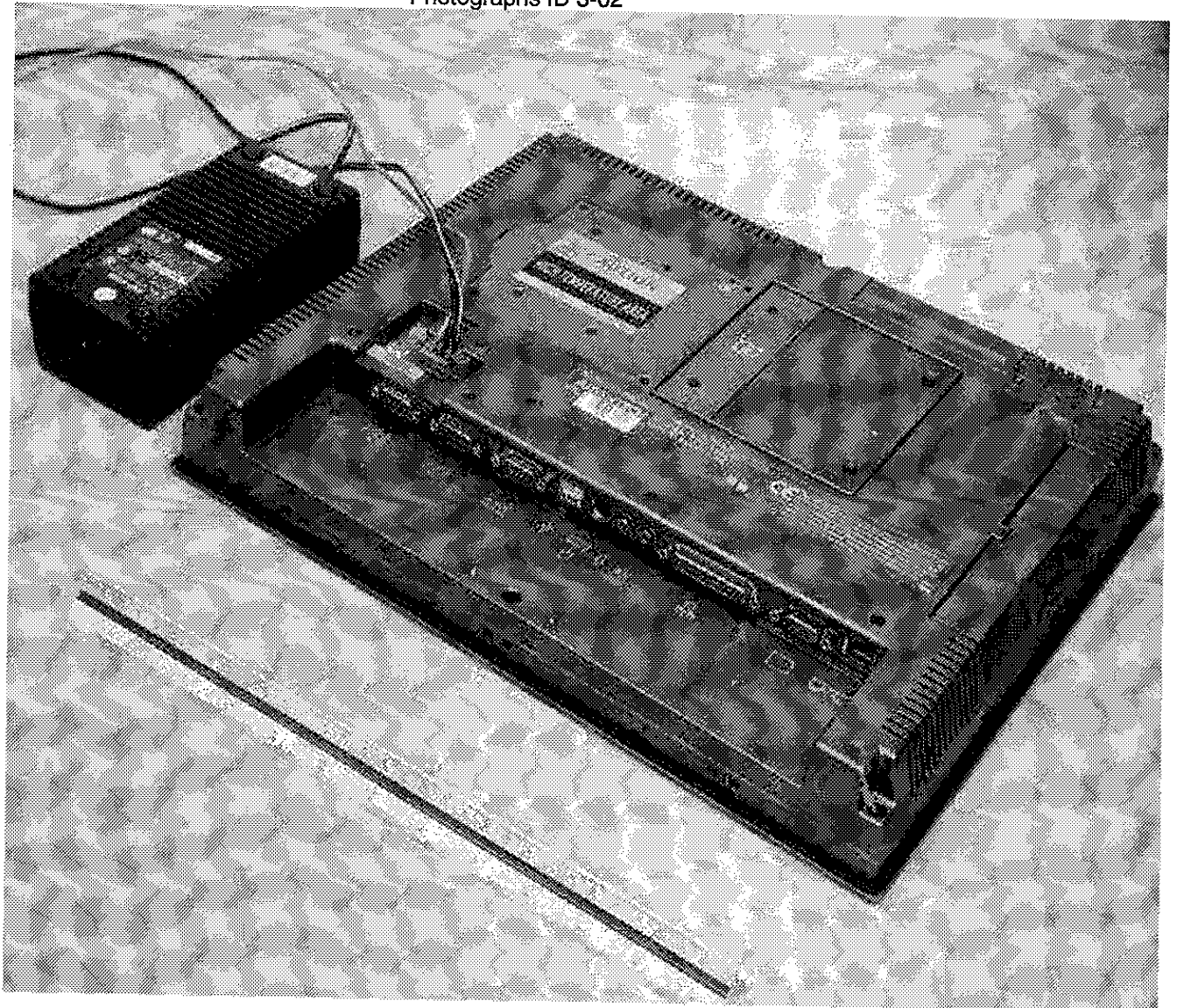
Enclosure**Photographs**

Supplement Id	Description
3-01	Overall View-1 -TPC-15XXXXXXXXXXXXX
3-02	Overall View-2 -TPC-15XXXXXXXXXXXXX
3-03	Interior View- 1- TPC-15XXXXXXXXXXXXX
3-04	Interior View- 2- TPC-15XXXXXXXXXXXXX D/A inverter
3-05	Overall View- 1- TPC-12XXXXXXXXXXXXX
3-06	Overall View- 2- TPC-12XXXXXXXXXXXXX
3-07	Interior View- 1- TPC-12XXXXXXXXXXXXX
3-08	Interior View- 2- TPC-12XXXXXXXXXXXXX - D/A Inverter
3-09	Alternate-Mainboard-1 for Model TPC-12XXXXXXXXXXXXX
3-10	Alternate-Mainboard-2 for Model TPC-12XXXXXXXXXXXXX
3-11	Alternate-Mainboard-1 for Model TPC-15XXXXXXXXXXXXX
3-12	Alternate-Mainboard-2 for Model TPC-15XXXXXXXXXXXXX

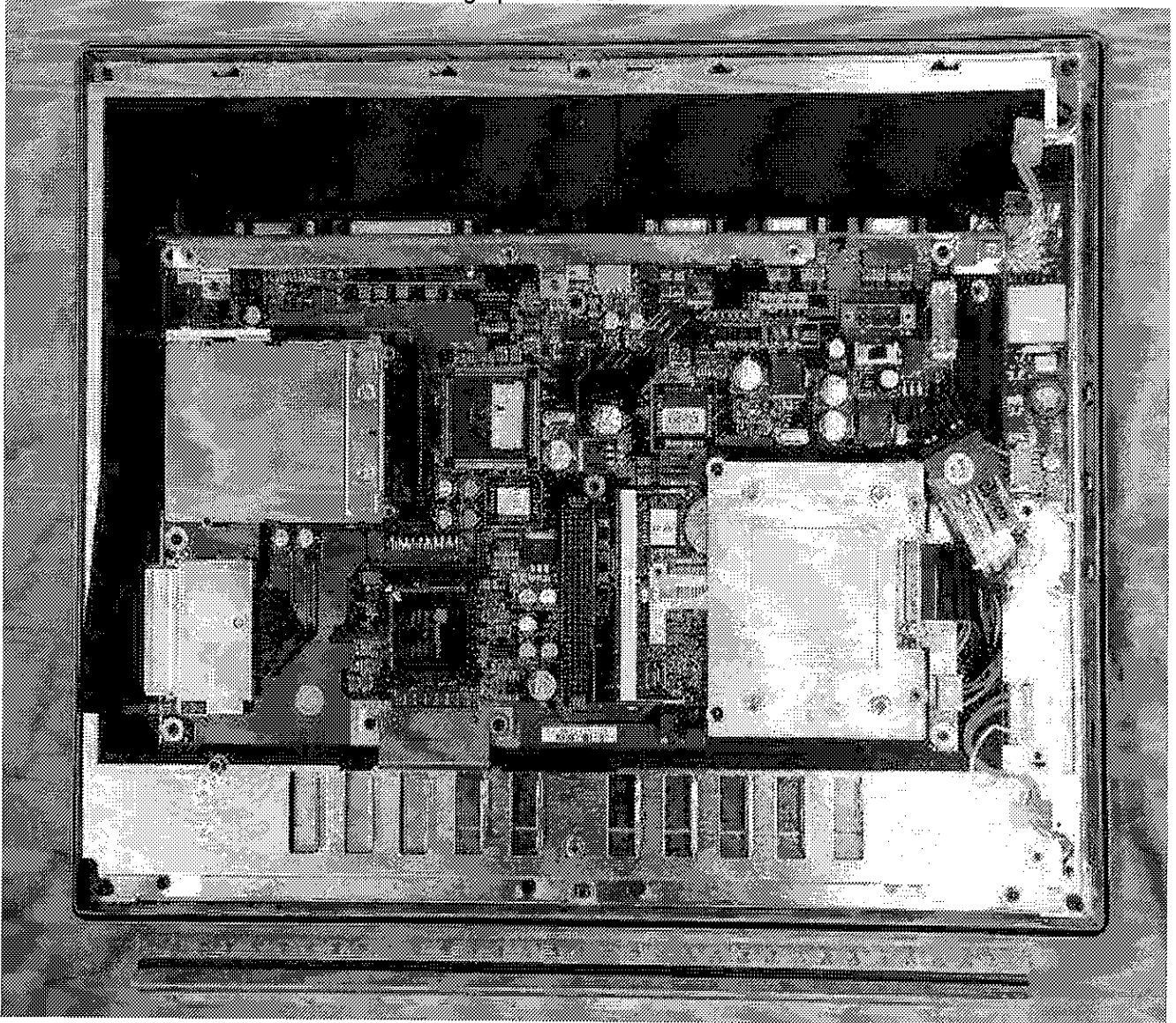
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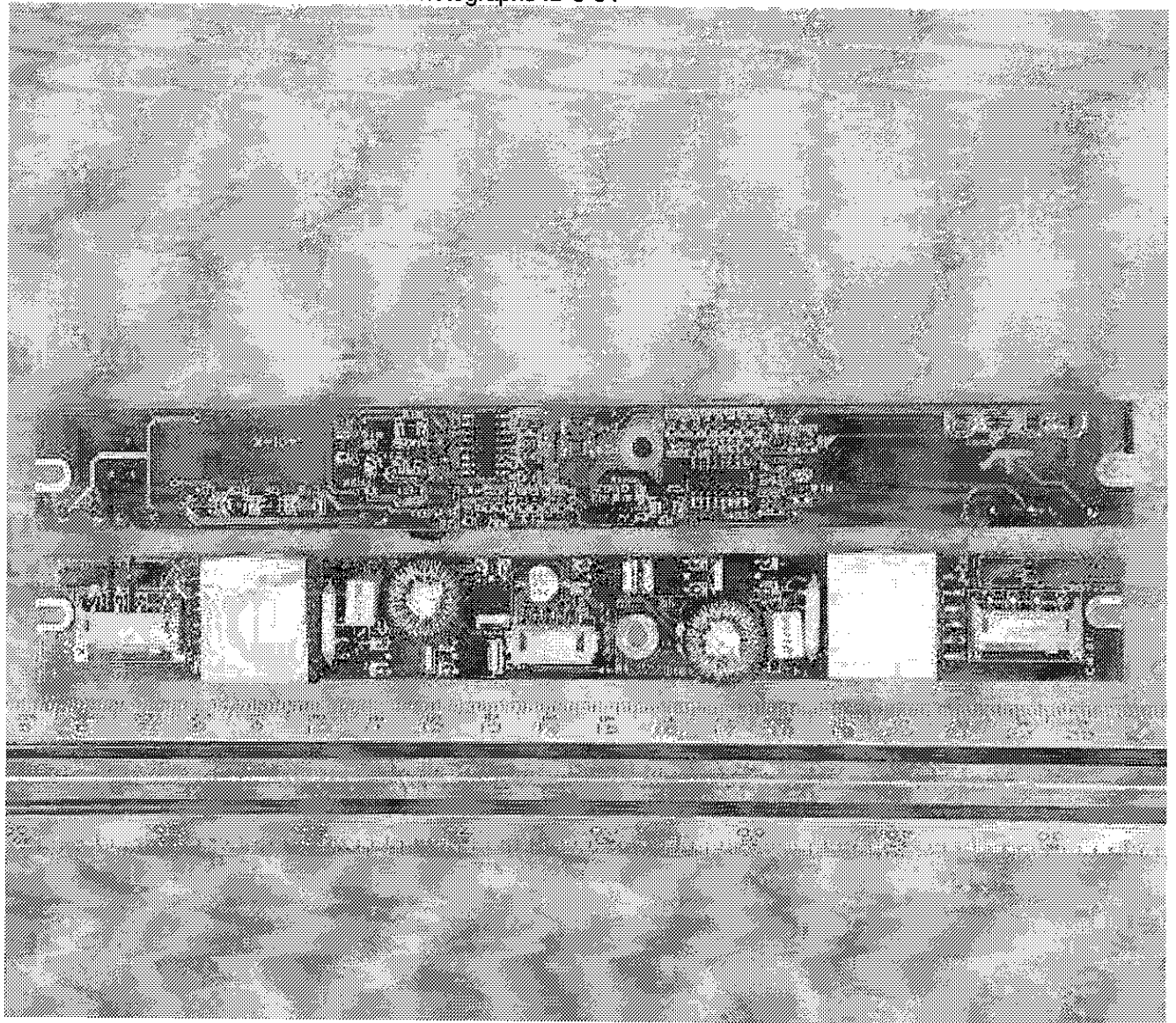
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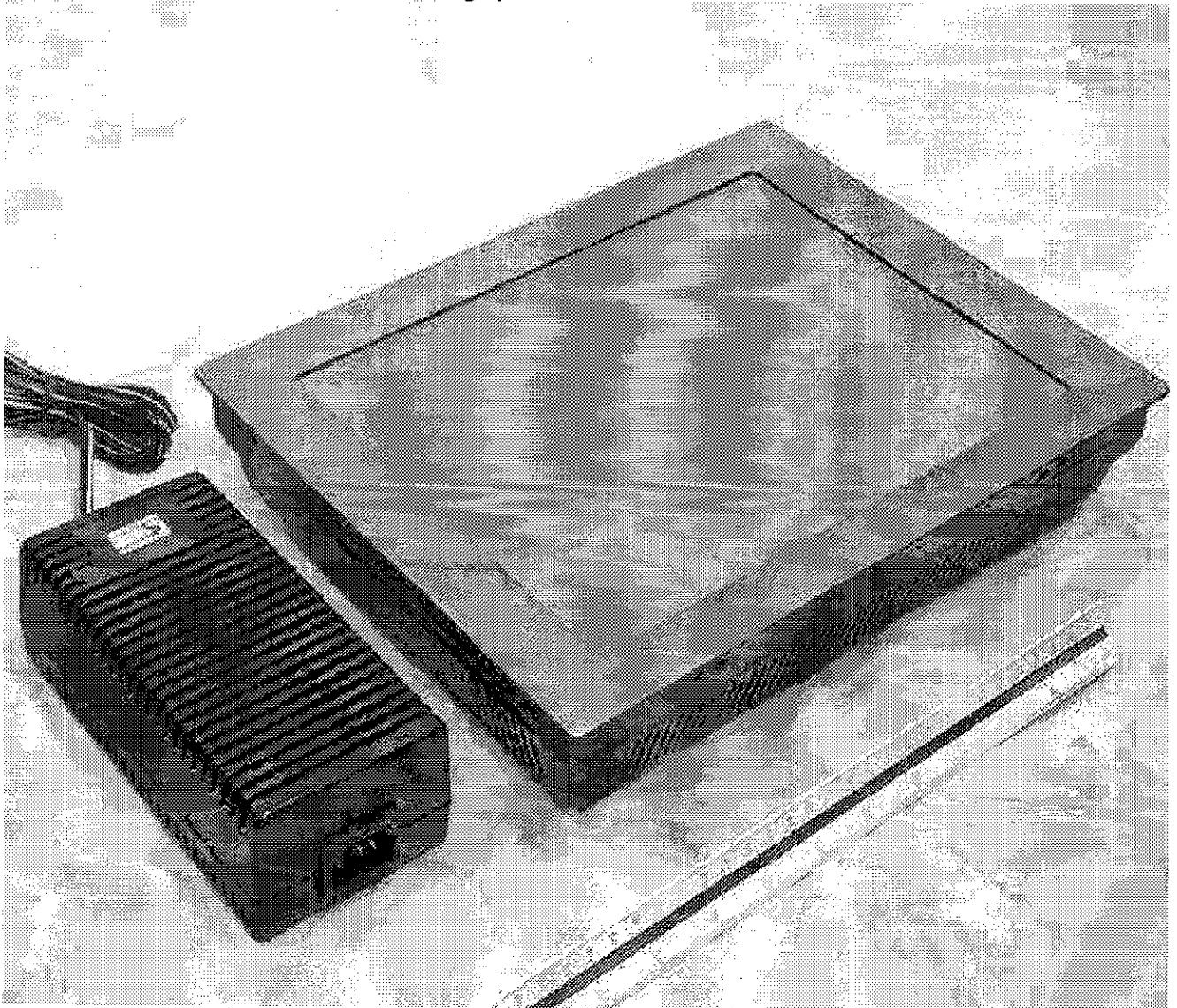
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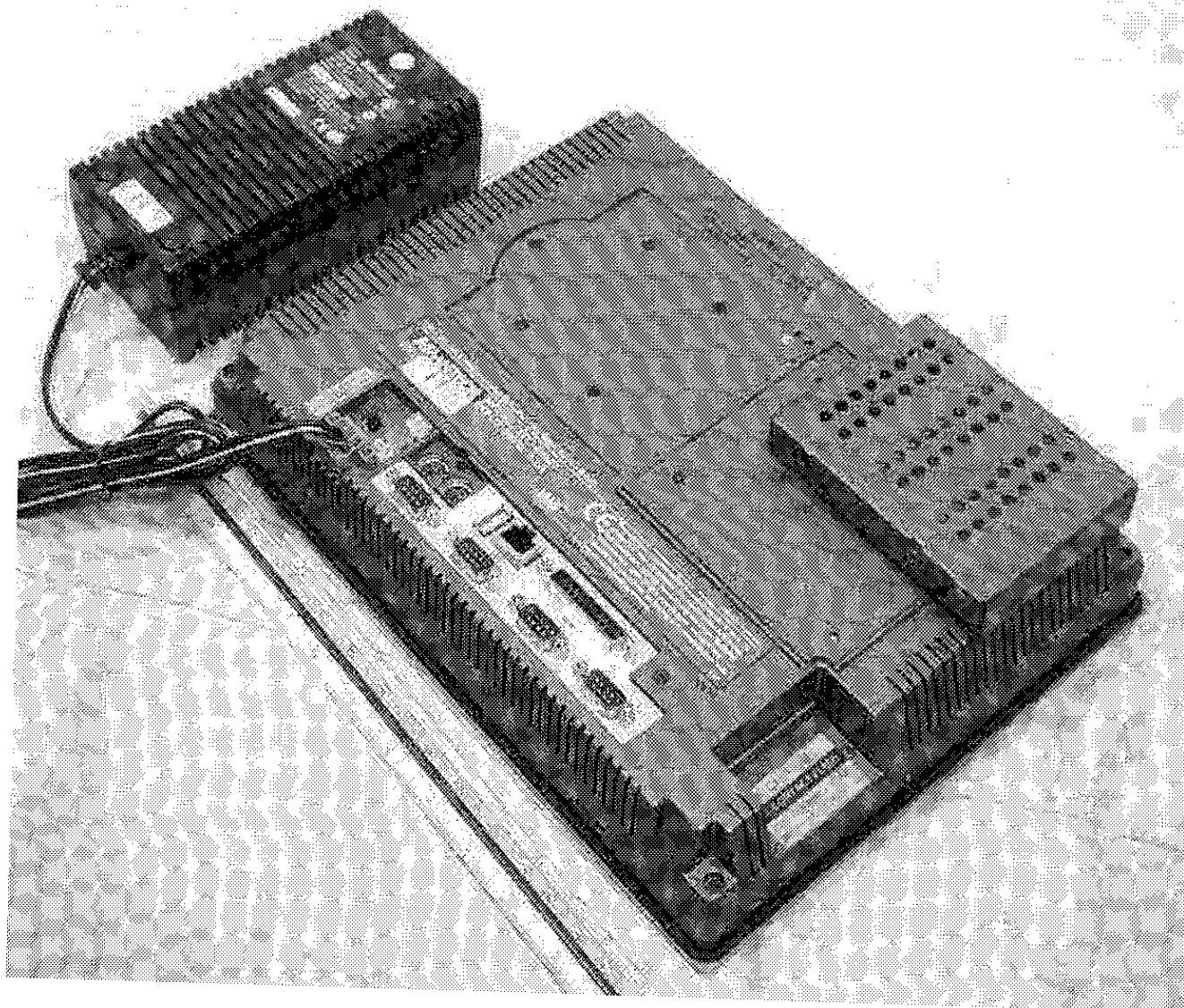
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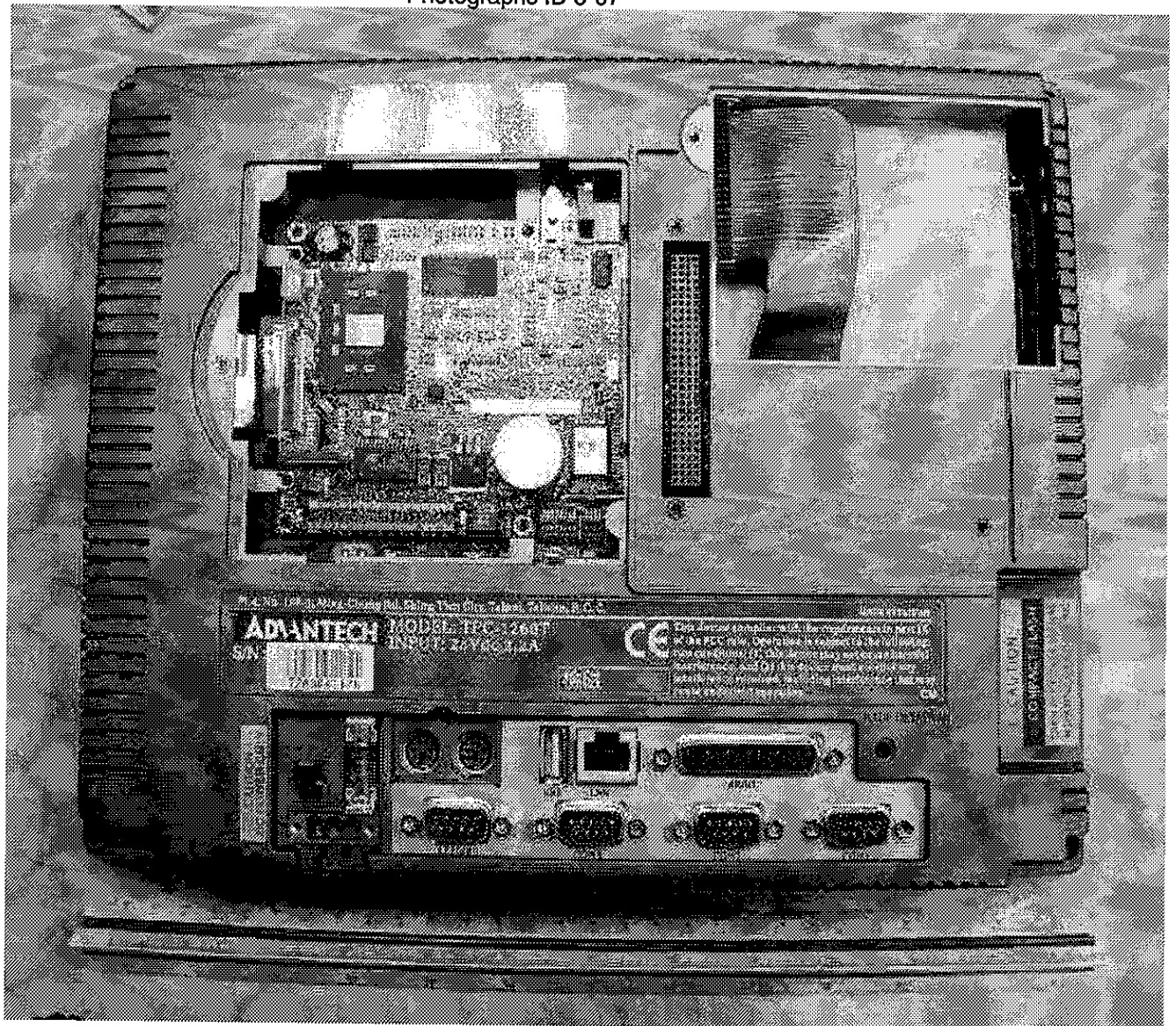
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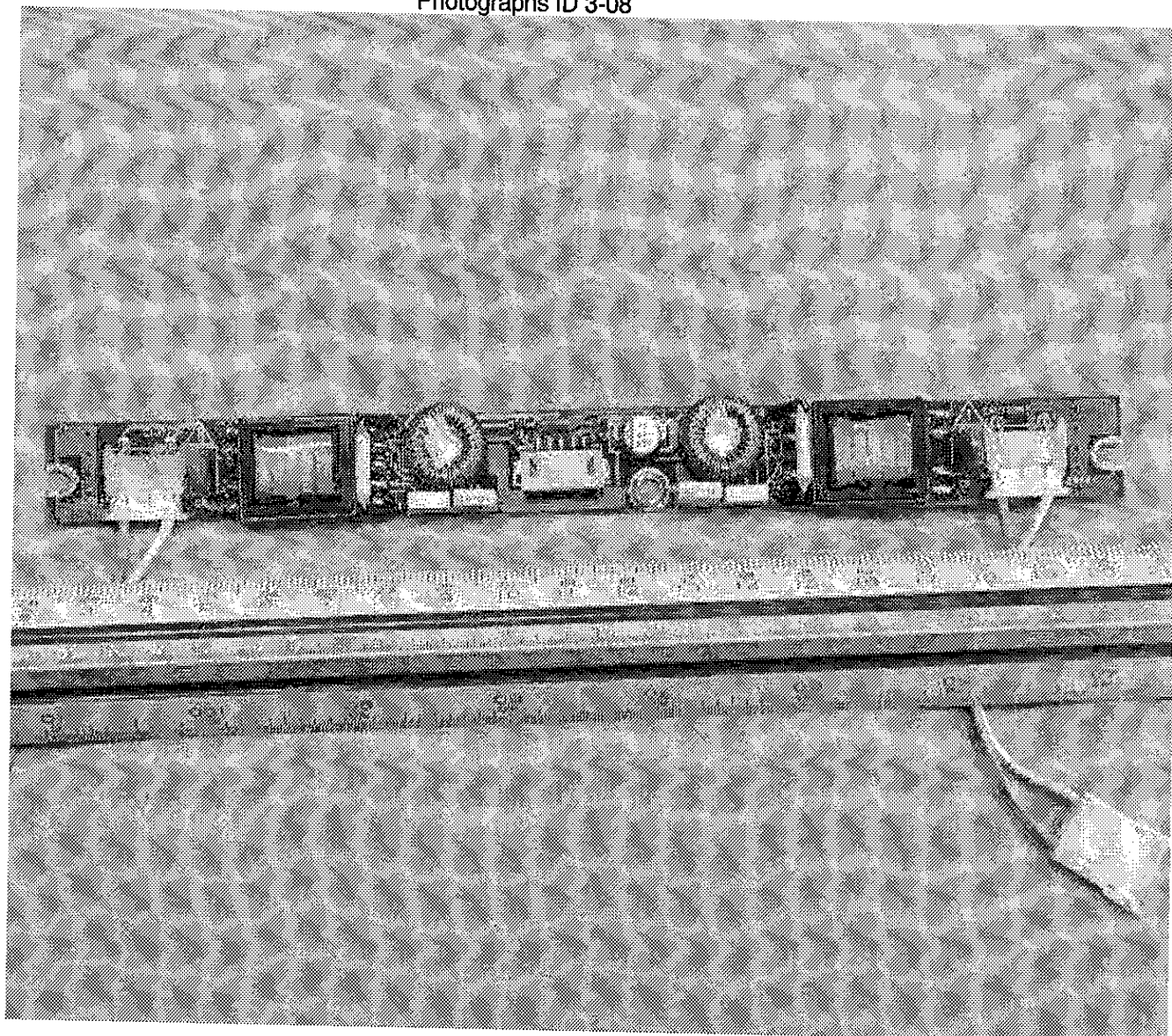
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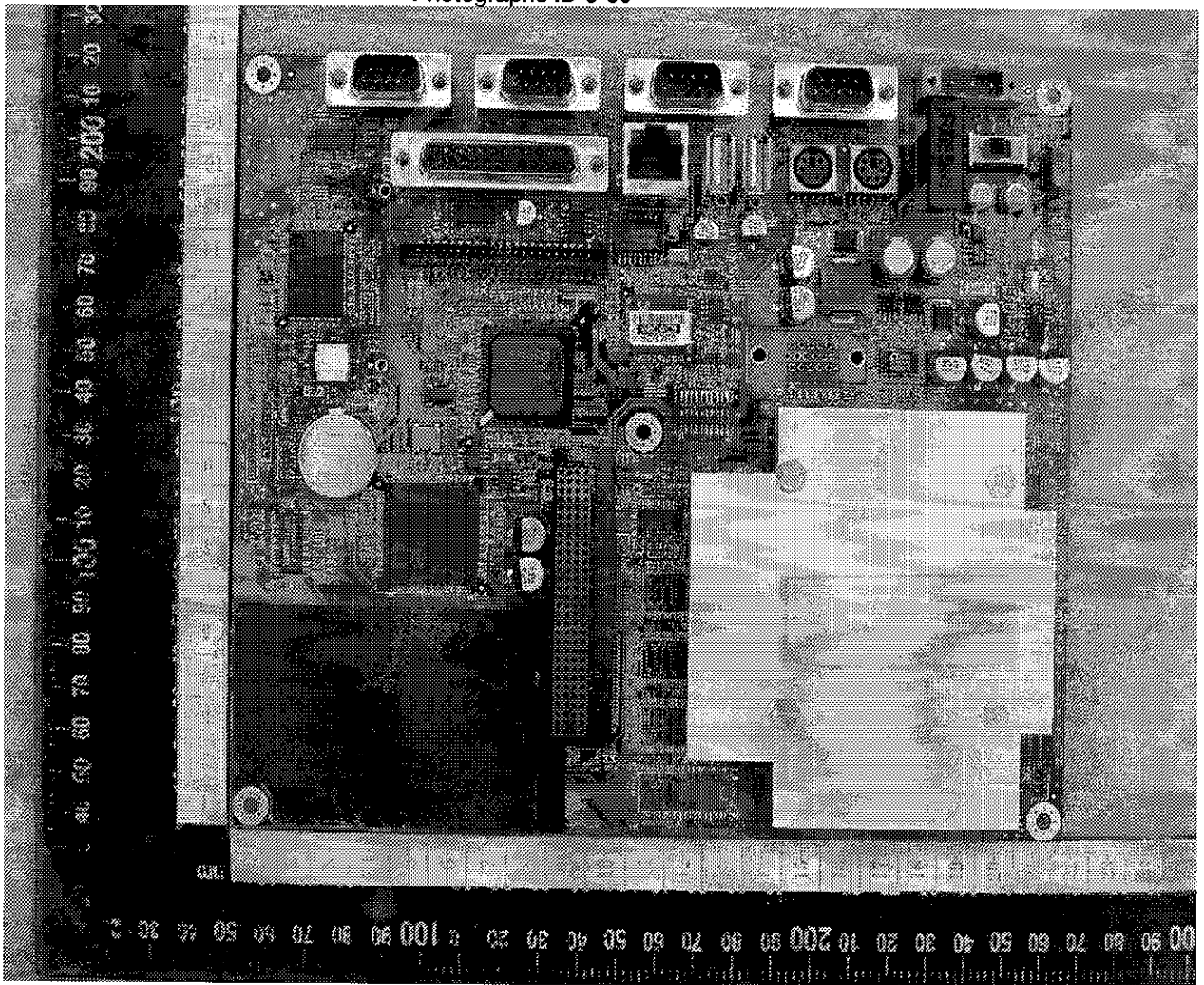
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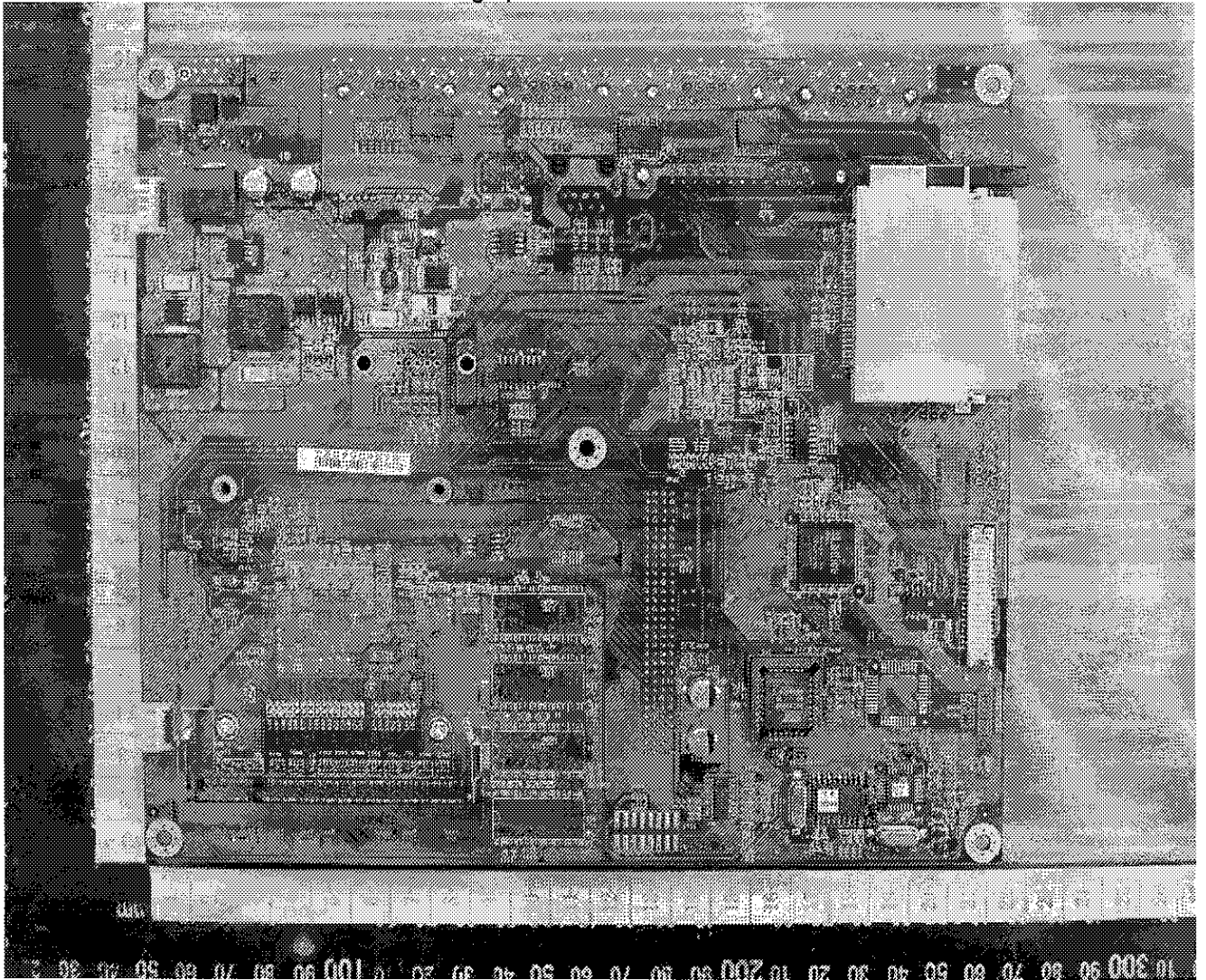
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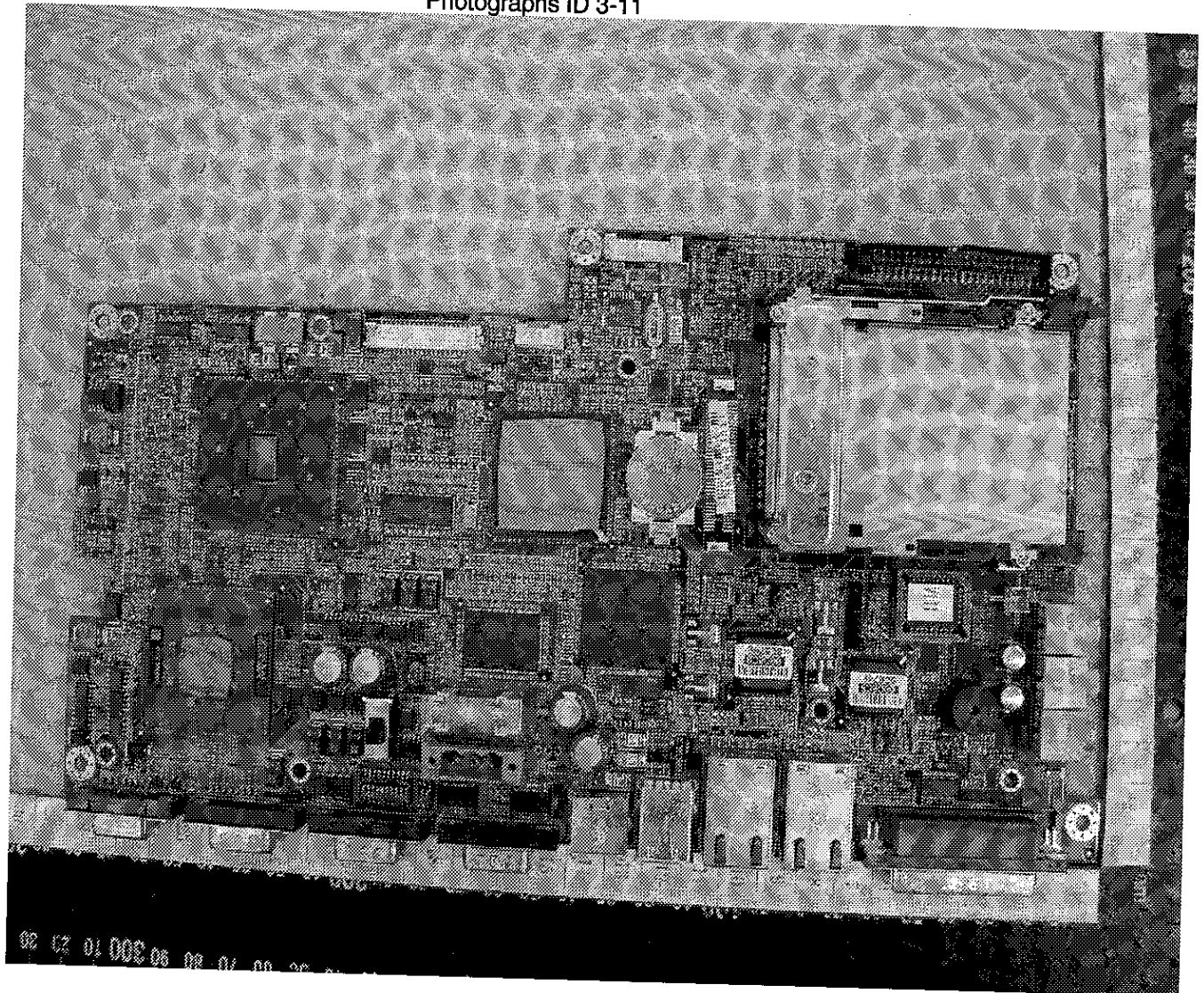
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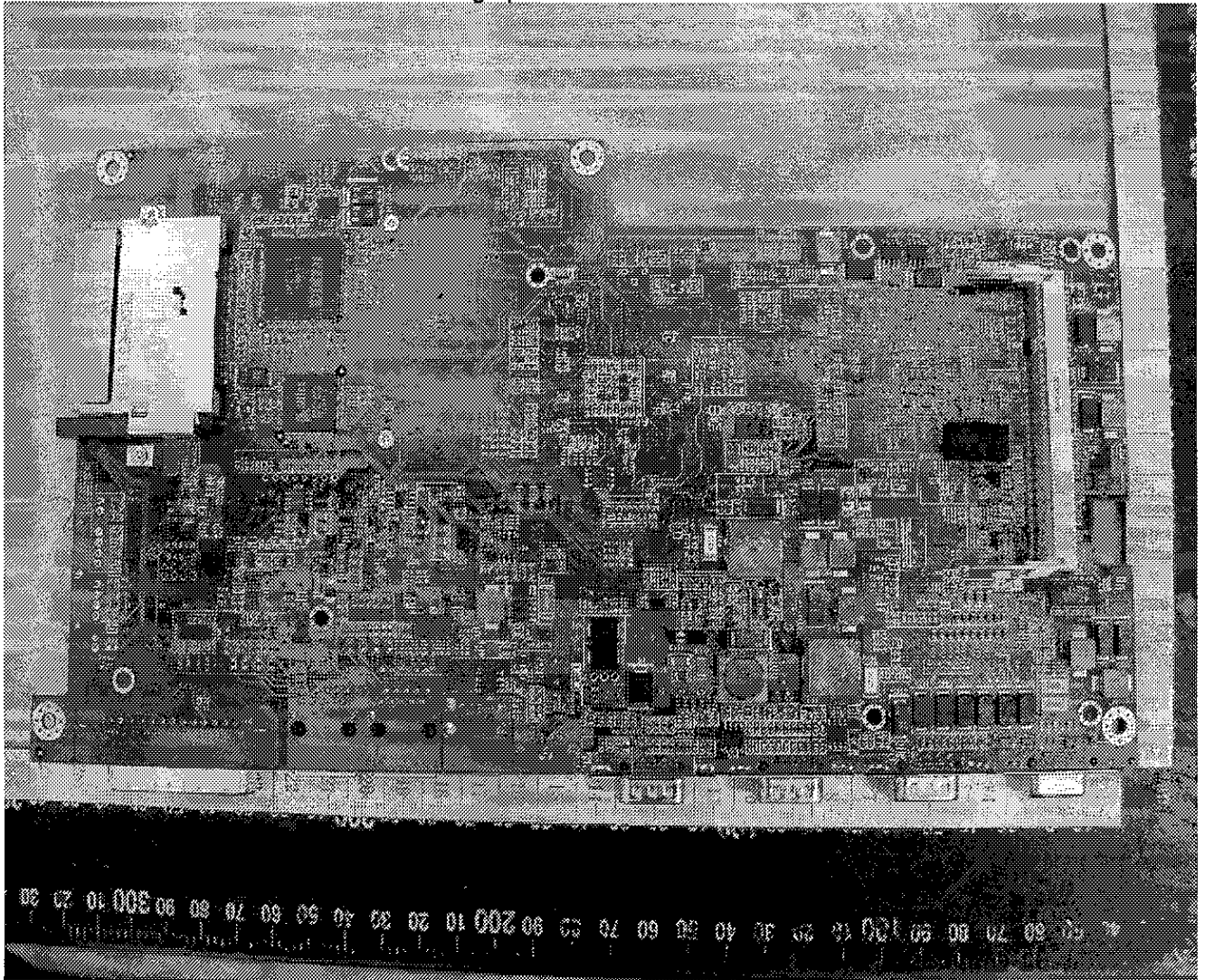
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Photographs ID 3-11



Photographs ID 3-12



Enclosure**Diagrams**

Supplement Id	Description
4-01	Inverter TBD406LR Specification
4-02	Inverter TBD291L Specification

Diagrams ID 4-01

SPECIFICATIONS**1. GENERAL**

These specifications are applied to **TBD406LR** as a low noise driver for SANYO 12.1" (TM121SV-A01) CCFL.

2. INPUT CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	NOM.	MAX.	UNIT	REMARKS
INPUT VOLTAGE	Vin	10.8	12.0	13.2	V	
INPUT CURRENT	Iin	—	0.85	0.94	A	Vin=12V, Vbri=0.0V, ON state
INPUT POWER	Pin	—	10.2	11.28	W	Vin=12V, Vbri=0.0V, ON state
INPUT VOLTAGE BRIGHTNESS CONTROL	Vbri	0	—	4.5	V	0.0V: Max. Brightness 4.5V: Min. Brightness
INPUT VOLTAGE ON/OFF CONTROL	Von/off	2.4 0.1	2.8 —	5 0.8	V	ON STATE OFF STATE

3. OUTPUT CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	NOM.	MAX.	UNIT	REMARKS
OUTPUT CURRENT	Io	7.0	7.5	8.0	mA	Vin=12V, Vbri=0.0V Max. brightness
OUTPUT CURRENT	Io	3.0	3.5	4.0	mA	Vin=12V, Vbri=4.5V Min. brightness
FREQUENCY	FL	40	50	60	KHz	Vin=12V, Vbri=0.0V Max. brightness
OUTPUT OPEN VOLTAGE	Vs	1300	—	1800	Vrms	Vin=10.8V, Von/off=2.4V RL1=RL2=∞

NOTE : 1. All conditions are at 25°C ambient unless otherwise specified.
2. PANEL : SANYO 12.1" (TM121SV-A01).

				TITLE	SPECIFICATIONS		
				MODEL	TBD406LR		
				DESIGNED	H. T. CHIH	06/05/06	IDX CD B406T
				DRAWN	H. T. CHIH	06/05/06	
				CHECKED	<i>Jackie Koi</i>	<i>06/05/06</i>	
				APPVD	<i>Ken Li</i>	<i>6/5/06</i>	
				APPVD		/ /	
REV.	DATE	DESCRIPTION	DSGN.	APV.	DWG. NO.	DATE	PAGE
		TDK TAIWAN CORP.			4BA01B406T	/ /	1/3

Diagrams ID 4-01

2/3

PRODUCT SPECIFICATION				CUSTOMER: MESSRS.	
TDK PT/NO:		SPEC. NO.		CUSTOMER PT/NO:	
NIA15/20EM-T65H004		D-391261		N	
(3) WINDING SPECIFICATION					
NO.	COIL	TERMINAL	WIRE	TURNS	WINDING DIRECTION
1	NP1	7 --- 6	1-UEW ϕ 0.26	10	CLOCK WINDING
2	NP2	6 --- 5	1-UEW ϕ 0.26	10	CLOCK WINDING
3	NP3	8 --- 9	1-UEW ϕ 0.26	3	COUNTER CLOCK WINDING
4	NS	1 --- 4	Pd155 ϕ 0.05 G2	1850	CLOCK WINDING
(4) ELECTRICAL CHARACTERISTICS					
NO.	PARAMETER	TERMINAL	SPECIFICATION	TEST INSTRUMENTS	
1	INDUCTANCE	7 --- 5	30.0 μ H \pm 10%	HP 4284A DIGITAL LCR-METER @1 kHz @1 Vrms. or EQUIVALENT	
2	DC RESISTANCE	7 --- 6	77 m Ω \pm 30%	NATIONAL VP-2941A	
		6 --- 5	87 m Ω \pm 30%	DIGITAL MILLIOHM METER	
		8 --- 9	31 m Ω \pm 30%	or EQUIVALENT	
		1 --- 4	371 Ω \pm 15%		

 TDK TAIWAN CORP.

Diagrams ID 4-01

PRODUCT SPECIFICATION		1/3			
		CUSTOMER: MESSRS.			
		N			
TDK PT/NO: N1A15/20EM-T65H004	SPEC. NO. D-391261	CUSTOMER PT/NO:			
(1) CONFIGURATION & DIMENSIONS					
		<p>A : 18.0 MAX mm</p> <p>B : 2.5 ± 0.2 mm</p> <p>C : (28.0) mm</p> <p>D : 8.2 MAX mm</p> <p>E : 20.5 MAX mm</p> <p>F : 10.0 ± 0.2 mm</p>			
(2) SCHEMATIC					
		<p>[REMARKS]</p> <p>1. MANUFACTURING SITE: X: XIAMEN TDK (Jimei Factory) V: XIAMEN TDK (Lian Hua Factory)</p> <p>2. LOT NO: <input type="checkbox"/> <input type="checkbox"/> a b</p> <p>a: YEAR: LAST PART OF FIGURE. b: MONTH: 10:X, 11:Y, 12:Z.</p> <p>3. FIXING TAPE: 25u x 3 mm 2 Ts MIN.</p> <p>4. IMPREGNATION: EPOXY RESIN.</p>			
● WINDING START		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">MADE BY <i>Her</i> Nov. 23, 2004</td> <td style="width: 33%;">CHECKED BY <i>Chen</i> Nov. 24, 2004</td> <td style="width: 33%;">APPROVED BY <i>Tsai</i> Nov. 24, 2004</td> </tr> </table>	MADE BY <i>Her</i> Nov. 23, 2004	CHECKED BY <i>Chen</i> Nov. 24, 2004	APPROVED BY <i>Tsai</i> Nov. 24, 2004
MADE BY <i>Her</i> Nov. 23, 2004	CHECKED BY <i>Chen</i> Nov. 24, 2004	APPROVED BY <i>Tsai</i> Nov. 24, 2004			

TDK TDK TAIWAN CORP.

Diagrams ID 4-01


TDK PT/NO: N1A15/20EM-T65H004

PEC. NO. D-391261

(5) MATERIAL LIST

3/3

NO.	ITEM	MATERIAL	UL FILE NO.	MANUFACTURER
1	CORE	FERRITE PC40		TDK CORPORATION
2	BOBBIN	PHENOLIC RESIN PM9820	E41429	SUMITOMO BAKELITE CO., LTD.
		PHENOLIC RESIN T378J, T375J	E59481	CHANG CHUN PLASTICS CO., LTD.
		LCP E4008	E54705	SUMITOMO BAKELITE CO., LTD.
		HM-402	E91944	NIPPON PETROCHEMICALS CO LTD
3	FIXING TAPE FOR CORE	POLYESTER TAPE NO.1350F -1(b), 1318-1(a) or NO.35660*6 or NO. PZ	E17385 E50292 E165111	3M. SYMBIO INC JINGJIANG YAHUA PRESSURE GULE CO., LTD
4	ADHESIVE	EPOXY ADHESIVE NO. A-1880CL		RESINOUS KASKI CO. LTD.
5	SPACER	PPS TOARY # 5000		KWEI GUAN ENTERPRISE CO. LTD.
6	WIRE (NS)	POLYURETHANE ENAMELLED COPPER WIRE Pp155 ϕ 0.05 G2 or Pp155 ϕ 0.05 G2	E143312	ELEKTRISOLA (MALASIA) SDN BHD
7	WIRE (NP1, NP2, NP3)	POLYURETHANE ENAMELLED COPPER WIRE 1-UEW ϕ 0.23	E196072 E189722 E169536 E174837 E218438 E2298/1	PROSPERITY ELECTRIC WIRE & CABLE CO. (UEW) SALOM ELECTRIC (XIAMEN) CO., LTD. (UEW) HUI HONG WIRE (HUI ZHOU) CO., LTD. (UEW) JUNG SHIN WIRE CO., LTD. (UEW-4) XIAMEN ZHI CHENG ELECTRON CO LTD HANGZHOU WEIFENG ELECTRONIC CO LTD
8	VARNISH	EPOXY VARNISH NO. TVB-2024	E83702	KYOCERA CHEMICAL CORPORATION

 TDK TAIWAN CORP.

Diagrams ID 4-02

SPECIFICATIONS**1. GENERAL**

These specifications are applied to TBD291L as a low noise driver for AU 15" CCFL

2. INPUT CHARACTERISTICS

2-1.	PARAMETER	SYMBOL	MIN.	NOM.	MAX.	UNIT	REMARKS
	INPUT VOLTAGE	V _{in}	10.8	12	13.2	V	
	INPUT CURRENT	I _{in}	—	1.08	1.19	A	V _{in} =12V, V _{con} =0V, ON state
	INPUT POWER	P _{in}	—	12.96	14.26	W	V _{in} =12V, V _{con} =0V, ON state
	INPUT VOLTAGE BRIGHTNESS CONTROL	V _{con}	0	—	3.3	V	0.0V: Max. Brightness 3.3V: Min. Brightness
	INPUT CURRENT BRIGHTNESS CONTROL	I _{con}		37.91	45	uA	
	INPUT VOLTAGE ON/OFF CONTROL	V _{on/off}	2.4 0.1	2.8 —	5 0.8	V	ON STATE OFF STATE
	INPUT CURRENT ON/OFF CONTROL	I _{on/off}	—	10.09 0.01	15	mA	ON STATE OFF STATE

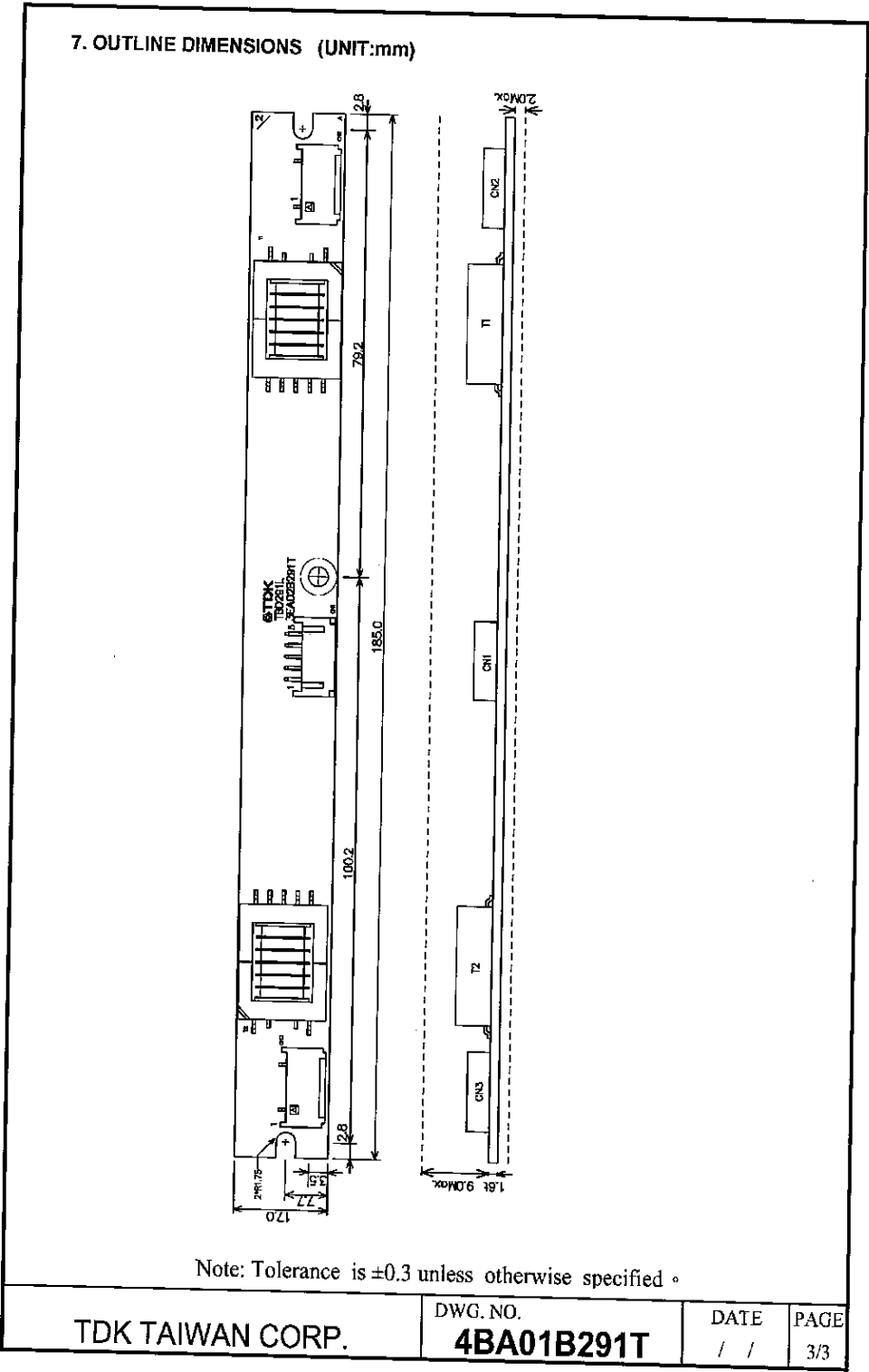
3. OUTPUT CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	NOM.	MAX.	UNIT	REMARKS
OUTPUT CURRENT	I _o	6.4	—	7.2	mA	V _{in} =12V, V _{con} =0.0V Max. Brightness
OUTPUT CURRENT	I _o	2.5	—	3.5	mA	V _{in} =12V, V _{con} =3.3V Min. Brightness
FREQUENCY	FL	40	—	60	KHz	V _{in} =12V, V _{con} =0.0V Max. Brightness
OUTPUT OPEN VOLTAGE	V _s	1400	—	—	V _{rms}	V _{in} =10.8V, V _{on/off} =5V RL1=RL2=∞

NOTE : 1. All conditions are at 25°C ambient unless otherwise specified.
2.PANEL : AU 15" (G150XG01 V.0)

				TITLE	SPECIFICATIONS		
				MODEL	TBD291L		
				DESIGNED	Dragon Wu	11/16/04	IDXC D B291T
				DRAWN	Dragon Wu	11/16/04	
				CHECKED			
				APPVD			
REV.	DATE	DESCRIPTION	DSGN.	APV.	APPVD		
TDK TAIWAN CORP.				DWG. NO.	4BA01B291T		PAGE 1/3

Diagrams ID 4-02



Enclosure**Schematics + PWB**

Supplement Id	Description
5-01	D/A Inverter Layout 1
5-02	D/A Inverter Layout 2
5-03	D/A Inverter Layout 3
5-04	D/A Inverter Layout 4

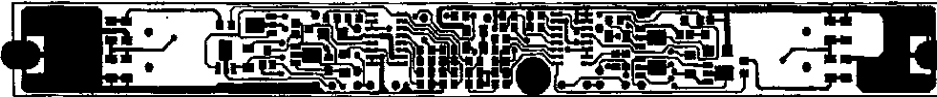
Schematics ID 5-01

for model: TPC-1260XXXX Inverter.
Lecert Technology Co., Ltd. Type LV-1201-01
LAYOUT TEL: (02)925-2895



COMPONENT SIDE

LAYOUT TEL: (02)925-2895



SOLDER SIDE

LAYOUT TEL: (02)925-2895



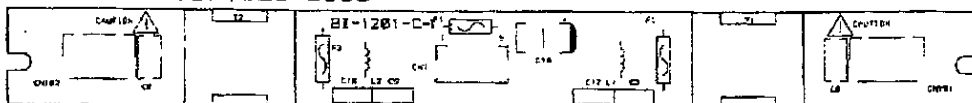
COMPONENT MASKS

LAYOUT TEL: (02)925-2895



SOLDER MASKS

LAYOUT TEL: (02)925-2895



COMPONENT MARKING ARTWORK

LAYOUT TEL: (02)925-2895



SOLDER MARKING ARTWORK

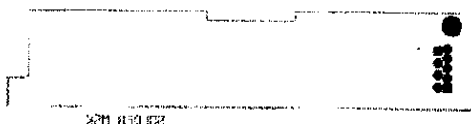
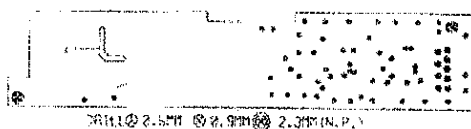
Schematics ID 5-02

ECAM II V 4.01 : Wed May 7 18:34:38 2003 - (Untitled)

Inverter

King Core Electronics
Inc.


Type: HY1006




Schematics ID 5-03

3EA02B291T


Top Layer




Bottom Layer




Top Overlay




Bottom Overlay




Top Solder Mask



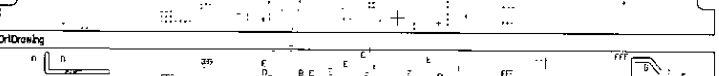
Bottom Solder Mask



Drill Guide



Dr Drawing



9	13.78mm	0.35mm	PTH
21	15.74mm	0.4mm	PTH
64	18.68mm	0.5mm	PTH
4	31.48mm	0.8mm	PTH
6	35.43mm	0.9mm	PTH
1	35.37mm	1mm	PTH
1	137.79mm	3.5mm	NPTH
106	Total		

3EA02B291T

No.	圖號 - DRAWING No.	名稱 - NAME	圖形 - MATERIAL	處理 - TREATMENT	備註 - REMARK
設計 - DESIGN	DATE	1/1	材料	基板	備註
繪圖 - DRAWING	DATE	1/1	1/1	TBD291	B291T
檢閱 - CHECKED	DATE	1/1	1.3	1.3	1.3
承認 - APPROVED	DATE	1/1	1.3	1.3	1.3
承認 - APPROVED	DATE	1/1	1.3	1.3	1.3

圖形 - MATERIAL	處理 - TREATMENT	備註 - REMARK
FR-4	CEM-3	ITEM
FR-2	CEM-3	
XPC-FR		

3EA02B291T