

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:	MIC-3042xxxxxxx where "x" may be alphanumeric character or blank.
Rating(s):	100 - 240 V ac, 50/60 Hz, 7A
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
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SHING-TIEN CITY
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This Report includes the following parts, in addition to this cover page:

1. Specific Inspection Criteria
2. Specific Technical Criteria
3. Clause Verdicts
4. Critical Components
5. Test Results
6. National Differences
7. Enclosures

This is to certify that representative samples of the products covered by this Test Report have been investigated by Underwriters Laboratories Inc. ('UL') 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 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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Pursuant to the Corporate Services Agreement between UL International Services Limited and UL, UL hereby accepts and issues this Test Report.

Test Report By:

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Associate Project Engineer

Reviewed By:

Yasli Tsai
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UL International Services Limited

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> <ul 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 - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
	Power rating - Model	Model Number
1.7.9	Multiple power sources	"Disconnect ___ power supply cords before servicing"
1.7.15	Replaceable batteries	"CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."

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	V rms	Test 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 be 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-A46-UL-1
Compiled by	Saurah Nag
Reviewed by	Yasli Tsai
Date of issue	2004-10-21
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	Advantech
Model and/or type reference	MIC-3042xxxxxxx where "x" may be alphanumeric character or blank.
Rating(s)	100 - 240 V ac, 50/60 Hz, 7A

Particulars: test item vs. test requirements	
Equipment mobility	movable
Operating condition	continuous
Mains supply tolerance (%)	+10%, -10% (Manufacturer declared)
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed)
Mass of equipment (kg)	13.28
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	

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Report Reference #

E180881-A46-UL-1

GENERAL PRODUCT INFORMATION:	
CA1.0	Report Summary
CA1.1	N/A
CB1.0	Product Description
CB1.1	This computer unit is provided with an internal, 2+1 redundant AC/DC, hot-swap capable power supply and hot swappable fan module. Each power supply module is provided with an appliance inlet for separate connection to Mains. The unit is provided with power supply,HDD,CPU and motherboard .The motherboard contains a lithium coin-cell battery and protection. Also provided are optional CD-ROM, FDD. All components are housed in a metal enclosure.
CC1.0	Model Differences
CC1.1	N/A
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 (T _{ma}) permitted by the manufacturer's specification of: 50°C
CE1.3	The means of connection to the mains supply is: Pluggable A , Detachable power cord
CE1.4	The product is intended for use on the following power systems: TN
CE1.5	The equipment disconnect device is considered to be: Appliance inlet
CE1.9	The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): USB and PSII
CE1.12	The following were investigated as part of the protective earthing/bonding: Quick connect terminal
CE1.14	The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
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		Pass
1.5.3	Thermal controls	No thermal control.	N/A
1.5.4	Transformers		N/A
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of IEC 60950.	Pass
1.5.6	Capacitors in primary circuits	Line-to-line capacitors are subclass X1 or X2. Primary-to-earth capacitors are subclass Y1 or Y2.	Pass
1.5.7	Double insulation or reinforced insulation bridged by components	Investigated as an element of power supply certification.	N/A
1.5.7.1	General		N/A
1.5.7.2	Bridging capacitors		N/A
1.5.7.3	Bridging resistors		N/A
1.5.7.4	Accessible parts		N/A
1.5.8	Components in equipment for IT power systems		N/A

1.6	Power interface		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classify as TN	Pass
1.6.2	Input current	The steady state input current of the equipment does not exceed the RATED CURRENT by more than 10% under NORMAL LOAD.(see appended table 1.6.2)	Pass
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N/A
1.6.4	Neutral conductor		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	Marking and instructions		Pass
1.7.1	Power rating	Rating marking readily visible to operator see below for details.	Pass
	Rated voltage(s) or voltage range(s) (V).....:	100-240 Vac	Pass
	Symbol for nature of supply, for d.c. only.....:	AC Source	N/A
	Rated frequency or rated frequency range (Hz)	50/60	Pass
	Rated current (mA or A)	7 A	Pass
	Manufacturer's name or trademark or identification mark	Advantech Co., Ltd. / Advantech	Pass
	Type/model or type reference	MIC-3042xxxxxxx where "x" may be alphanumeric character or blank.	Pass
	Symbol for Class II equipment only.....:	Class I equipment.	N/A
	Other symbols	Additional symbol maybe provided in national approval.	Pass
	Certification marks.....:	UL, CUL.	Pass
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	Pass
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment.....:		N/A
1.7.5	Power outlets on the equipment.....:	No outlet.	N/A
1.7.6	Fuse identification	Investigated as an element of power supply certification.	Pass
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals.....:	The earth terminal is marked with the standard earth symbol (60417-2-IEC-5019) near the terminal.	Pass
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	See below.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.1	Identification, location and marking.....:	The marking and indication of the power switch is located to show that the indication of function is clear. The function of controls affecting safety is obvious regardless of language.	Pass
1.7.8.2	Colours	The green LED is illuminated when the unit is in operation	Pass
1.7.8.3	Symbols according to IEC 60417.....:	The stand-by switch provided in the unit and marked with the correct symbol (60417-1-IEC-5010).	Pass
1.7.8.4	Markings using figures	Figures are not used for indicating different positions of controls.	Pass
1.7.9	Isolation of multiple power sources.....:	Marking indicates which disconnect device fully isolates the equipment.	Pass
1.7.10	IT power distribution systems	Investigated for TN system.	N/A
1.7.11	Thermostats and other regulating devices		N/A
1.7.12	Language	Reviewed only English markings/instructions. May be provided in other languages upon request from the manufacturer.	
1.7.13	Durability		Pass
1.7.14	Removable parts	No removable part.	N/A
1.7.15	Replaceable batteries	The equipment is provided with a replaceable lithium battery. The statement is marking close to the battery or in the service manual.	Pass
	Language	Reviewed only English markings/instructions. May be provided in other languages upon request from the manufacturer.	
1.7.16	Operator access with a tool.....:	There is no hazard parts can be touched for operator access with a tool.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.17	Equipment for restricted access locations	Not for 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	As the installation guide specifies directions for the operator how to add additional memory cards or add-on cards inside the enclosure, the inside of this INDUSTRIAL COMPUTER is considered as operator accessible area. Even the INDUSTRIAL COMPUTER enclosure is disassembled, the accessible SPS is covered by earthed metal enclosure. The construction of this metal enclosure prevents the access, using test finger, test pin or test probe to any parts having only basic insulation to ELV or hazardous voltage.	Pass
2.1.1.1	Access to energized parts	See below	Pass
	Test by inspection	Operator cannot contact with any parts with only basic insulation to ELV or hazardous voltage.	Pass
	Test with test finger	No access with test finger to any parts with only basic insulation to ELV or hazardous voltage.	Pass
	Test with test pin	The test pin cannot touch hazardous voltage through any openings or seams of the whole enclosure.	Pass
	Test with test probe	No TNV Circuit	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V); minimum distance (mm) through insulation		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		Pass
	Time-constant (s); measured voltage (V).....:	max. 8 Vpk measured at 1 Sec.	-
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N/A
2.1.3	Protection in restricted access locations	It is not intended to be used in restricted locations.	N/A

2.2	SELV circuits		Pass
2.2.1	General requirements	42.4 V peak or 60 V DC are not exceeded in SELV circuit under normal operation or single fault condition.	Pass
2.2.2	Voltages under normal conditions (V).....:	Between any SELV circuits 42.4 V peak or 60 V DC are not exceeded.	Pass
2.2.3	Voltages under fault conditions (V).....:	Critical fault condition in SELV reliability is investigation in separate power supply evaluation.	Pass
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Investigated during separate certification of power supply.	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 circuits are only connected to other secondary circuits. SELV circuit and all interconnected circuits separated from primary by reinforce insulation. The SELV circuit does not exceed the SELV limits under normal and fault conditions.	Pass

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

2.3	TNV circuits		N/A
2.3.1	Limits		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

2.4	Limited current circuits		N/A
2.4.1	General requirements		N/A
2.4.2	Limit values		N/A
	Frequency (Hz).....:		-
	Measured current (mA).....:		-
	Measured voltage (V).....:		-
	Measured capacitance (mF).....:		-
2.4.3	Connection of limited current circuits to other circuits		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.5	Limited power sources		Pass
	Inherently limited output		N/A
	Impedance limited output	Approved PTC 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):	See appended table	-
	Current rating of overcurrent protective device (A):	See appended table 1.5.1.	-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing	Secondary functional earthing is connected to protectively earthed conductive part that is separated from primary by basic insulation.	Pass
2.6.3	Protective earthing and protective bonding conductors	See below.	Pass
2.6.3.1	General		Pass
2.6.3.2	Size of protective earthing conductors		Pass
	Rated current (A), cross-sectional area (mm ²), AWG.....:	10 A, min. 1.00 mm ² / 16 AWG required.	-
2.6.3.3	Size of protective bonding conductors	See 2.6.3.3	Pass
	Rated current (A), cross-sectional area (mm ²), AWG.....:		-
2.6.3.4	Resistance (W) of earthing conductors and their terminations, test current (A).....:	Test current = 40 A, Voltage drop 0.25 V	Pass
2.6.3.5	Colour of insulation.....:	Protective bonding conductors are green with yellow stripe.	Pass
2.6.4	Terminals		Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals	Appliance inlet used and the unit meet the test requirement of 2.6.3.3.	Pass
	Rated current (A), type and nominal thread diameter (mm).....:		-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Appliance inlet used.	Pass
2.6.5	Integrity of protective earthing	See below.	Pass
2.6.5.1	Interconnection of equipment	No interconnection of hazardous voltages.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or fuses in earthing conductors.	Pass
2.6.5.3	Disconnection of protective earth	Appliance inlet provided.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.4	Parts that can be removed by an operator	It is not possible to disconnect earth without disconnecting mains and protective earth makes earlier and breaks later than the supply connectors. No other operator removable parts with safety critical earth connection.	Pass
2.6.5.5	Parts removed during servicing	Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously.	Pass
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		Pass
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV	N/A

2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements	Approved Power Supply used	Pass
	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	The equipment is pluggable type A	N/A
2.7.4	Number and location of protective devices	Investigated as an element of power supply certification.	Pass
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel.....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

2.8	Safety interlocks		N/A
2.8.1	General principles		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		N/A
2.8.8	Mechanical actuators		N/A

2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Critical insulation investigation is investigated as an element of power supply certification.	Pass
2.9.2	Humidity conditioning		N/A
	Humidity (%).....:		-
	Temperature (°C)		-
2.9.3	Grade of insulation		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General		Pass
2.10.2	Determination of working voltage		N/A
2.10.3	Clearances		Pass
2.10.3.1	General		Pass
2.10.3.2	Clearances in primary circuit	All critical clearance in primary circuits are considered in separate power supply evaluation.	Pass
2.10.3.3	Clearances in secondary circuits		Pass
2.10.3.4	Measurement of transient voltage levels		Pass
2.10.4	Creepage distances	All critical creepage distances in primary circuits are considered in separate power supply evaluation.	Pass
	CTI tests	Material group IIIb; $100 \leq CTI < 175$.	-
2.10.5	Solid insulation	Investigated during separate certification of power supply.	Pass
2.10.5.1	Minimum distance through insulation	Investigated during separate certification of power supply.	Pass
2.10.5.2	Thin sheet material		N/A
	Number of layers (pcs)		-
	Electric strength test.....		-
2.10.5.3	Printed boards	Main Board eight layers, each layer min. 0.4 mm for reinforce insulation.	Pass
	Distance through insulation	Minimum 0.4 mm.	Pass
	Electric strength test for thin sheet insulating material.....		-
	Number of layers (pcs)		N/A
2.10.5.4	Wound components	Investigated during separate certification of power supply.	N/A
	Number of layers (pcs)		N/A
	Two wires in contact inside wound component; angle between 45° and 90°		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.6	Coated printed boards		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.....:		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 wires/conductors possess adequate cross-sectional areas for their intended application and Internal wiring are adequately insulated.	Pass
3.1.2	Protection against mechanical damage	The wires are well routed away from sharp edges, etc. and are adequately fixed to prevent excessive strain on wire and terminals.	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		N/A
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2	Connection to an a.c. mains supply or a d.c. mains supply		Pass
3.2.1	Means of connection	Appliance inlet used.	Pass
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet is used	Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections	Each of the three power supplies have their own Appliance Inlet for connection to Mains.	Pass
3.2.3	Permanently connected equipment	The equipment is not permanently connected.	N/A
	Number of conductors, diameter (mm) of cable and conduits		-
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320. The power cord can be inserted without difficulties and does not support the unit.	Pass
3.2.5	Power supply cords	Power supply cords suitable for application and subject to country's national code and regulations provided by the manufacturer or suitable instruction provided in user manual for power cord selection.	Pass
3.2.5.1	AC power supply cords	Power supply cords suitable for application and subject to country's national code and regulations provided by the manufacturer or suitable instruction provided in user manual for power cord selection.	Pass
	Type	SVT, SJT or SPT-2 (for US/CN)	-
	Rated current (A), cross-sectional area (mm ²), AWG	Rated 10 A Maximum, 1.00 mm square/16 AWG required.	-
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)		-

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

3.2.7	Protection against mechanical damage	No parts under this unit likely to damage the power supply cord. No sharp edges.	N/A
3.2.8	Cord guards	The equipment does not use a non-detachable power supply cord.	N/A
	D (mm); test mass (g)		-
	Radius of curvature of cord (mm).....		-
3.2.9	Supply wiring space		N/A

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.4	Disconnection from the mains supply		Pass
3.4.1	General requirement	The appliance inlet is considered to be the disconnect device.	Pass
3.4.2	Disconnect devices	Ref. to 3.4.1	Pass
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	Disconnect device disconnects both poles simultaneously.	Pass
3.4.7	Three-phase equipment		N/A
3.4.8	Switches as disconnect devices	A switch is not considered the disconnect device.	N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		Pass

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits.....:	The power supply is considered for connection to SELV only.	Pass
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection circuits.	N/A

4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		Pass
	Angle of 10°	This unit is of a stable mechanical construction and does not overbalance when tilted to an angle of 10 degrees from its normal upright position.	Pass
	Test: force (N)	Equipment is not a floor standing unit.	N/A

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

4.2	Mechanical strength		Pass
4.2.1	General	See below.	Pass
4.2.2	Steady force test, 10 N	10N applied to components. No energy or other hazards.	Pass
4.2.3	Steady force test, 30 N	No hazards as result of the 30N test.	Pass
4.2.4	Steady force test, 250 N	250N applied to all outer enclosure. No energy or other hazards.	Pass
4.2.5	Impact test	No hazard as result from impact test.	Pass
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test		N/A
4.2.7	Stress relief test	metal enclosure used.	N/A
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified.....:		N/A
4.2.9	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 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		N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress. For the protection, solder pins, cable ties and heat shrink tubing are used.	Pass
4.3.5	Connection of plugs and sockets	No 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...	The equipment is not direct plug-in type.	N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N).....	The equipment is not direct plug-in type.	N/A
4.3.7	Heating elements in earthed equipment	No heating element.	N/A
4.3.8	Batteries	The equipment is provided with a replaceable lithium battery protected	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		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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.1	General		N/A
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		Pass
4.4.1	General		Pass
4.4.2	Protection in operator access areas		Pass
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)	Pass
	Normal load condition per Annex L	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	Pass
4.5.2	Resistance to abnormal heat	Investigated as an element of power supply certification.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings	Foreign object entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projectio)	Pass
	Dimensions (mm)	Right Side: Provided numerous openings covering an area of 155 by 148 mm, and each one measured 3.4 mm diameter. Left Side: Provided numerous openings covering an area of 148 by 144 mm, and 148 by 60 mm and each one measured 3.4 mm diameter. Rear Side: Provided numerous openings covering an area of 81 by 81 mm, and each one measured 2.9 mm diameter.	
4.6.2	Bottoms of fire enclosures	No bottom opening provided.	N/A
	Construction of the bottom		
4.6.3	Doors or covers in fire enclosures	Enclosure inside are not intend for operator access.	N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.5	Adhesives for constructional purposes		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		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	For the following components : -components with winding wiring. -semiconductor devices,transistors,diodes,integrated circuits. -resistors,capacitors,incuctors. The fire enclosure is required	Pass
4.7.2.1	Parts requiring a fire enclosure	Fire enclosure covers all parts requiring a fire enclosure.	Pass
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General		Pass
4.7.3.2	Materials for fire enclosures	The fire enclosure is metal	N/A
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	All internal materials are rated V-2 or better, or are mounted on a PWB rated V-1 or better. Internal wiring is UL recognised, rated VW-1 or FT-1. See table 1.5.1 for material information	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in 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		Pass
5.1.1	General		Pass
5.1.2	Equipment under test (EUT)		Pass
5.1.3	Test circuit		Pass
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	Pass
5.1.5	Test procedure	The touch current was measured from primary to metal enclosure.	Pass
5.1.6	Test measurements	See below	Pass
	Test voltage (V)	264 V / 60 Hz	-
	Measured touch current (mA)	Max, 2.43 mA	-
	Max. allowed touch current (mA)	3.5mA	-
	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		Pass
5.2.1	General	(see appended table 5.2)	Pass
5.2.2	Test procedure	No insulation breakdown (See appended table)	Pass

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		Pass
5.3.2	Motors	Approve dc fan used	Pass
5.3.3	Transformers	Investigated during separate certification of power supply.	Pass
5.3.4	Functional insulation	Functional insulation complies with the requirements (a), (b), or (c). Functional insulation between the phases before the fuse complies with method (a). Other operation insulation complies with method C	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Simulation of faults	- Blocked ventilation openings test. - Fan stalled test. - Connector overload test. See appended table for details.	Pass
5.3.7	Unattended equipment		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

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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

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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

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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.....:	Evaluated as part of power supply.	-
	Manufacturer		-
	Type		-
	Rated values		-
	Method of protection		-
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings	Evaluated as part of power supply.	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)		Pass
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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

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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	Ringling 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		Pass
Q	Annex Q, BIBLIOGRAPHY		Pass
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
:		

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Clause	Requirement + Test	Result - Remark
		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 Supply	Hitron Electronics Corp.	HAC250P	I/P: 100-254 Vac, 50/60 Hz, 3.7-1.4A. O/P: +5V/25A, +12V/5A, -12V/0.5A, +3.3V/18A	--	CSA	
02	Hard Disk Drive (Optional)	--	--	Generic, 5Vdc, 1.5A max.	NWGGQ2	UL	
03	RTC Battery	Rayovac Corp.	BR2032	Max. abnormal charging current 5mA, protected by D9.	BBCV2	UL	
04	Polyswitch for USB and PS2 Port	Polytronics Technology Corp.	SMD1812P110TS	6Vdc, 1.1A	XGPU2	UL	
05	AC Inlet with EMI Filter (two provided)	Delta Electronics Inc.	10GEEG3E-R	250 V, 6 A (X: 0.1µF, Y: 2200pF *2, R: 1MO)	FOKY2	UL	
06	System Fan near Power Supply	Delta Electronics Inc.	AFB1512H	12Vdc, 2.13A max., 204.61 CFM	GPWV2	UL	
07	Rear System Fan	Adda Corp.	AD0812UX- A76GL	12Vdc, 0.3A max., 43.8 CFM	GPWV2	UL	
08	AC Connector	Weli Sheng Terminal Industrial Co., Ltd.	P24-142002, M24- I42002	250Vac, 7A	ECBT2	UL	
09	Enclosure	--	--	Metal, 1.6 mm thick min., overall 438 by 320 by 176 mm	--	--	3-01
10	PWB	--	--	V-1 min., 105?	ZPMV2	UL	3-09

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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	
--	--	90V, 50 Hz	545	6052	--	Maximum Normal Load	
--	--	90V, 60 Hz	545	6067	--	Maximum Normal Load	
--	7	100V, 50 Hz	540	5391	--	Maximum Normal Load	
--	7	100V, 60 Hz	539	5402	--	Maximum Normal Load	
--	7	240V, 50 Hz	536	2232	--	Maximum Normal Load	
--	7	240V, 60 Hz	542	2256	--	Maximum Normal Load	
--	--	254V, 50 Hz	536	2111	--	Maximum Normal Load	
--	--	254V, 60 Hz	543	2140	--	Maximum Normal Load	
--	--	264V, 50 Hz	538	2036	--	Maximum Normal Load	
--	--	264V, 60 Hz	546	2067	--	Maximum Normal Load	

supplementary information:

"Maximum normal load" was defined as follows: Unit crossed reading and writing data with HDD and working continuously, USB load to 0.5 A, and all solts inserted in dummy load.

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)	
Main Board Pri to Sec. and Earth trace	420	240	4.0	5.0	5.2	5.2	

supplementary information:

- All critical clearance/creepage in primary circuit are considered in power supply evaluation. - All other circuits are SELV except main board, only functional insulation required, passes per 5.3.4 - Method C

2.10.5	TABLE: distance through insulation measurements				Pass
distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)	
Main board	240	420	each layer 0.4	0.4	

supplementary information:

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Clause	Requirement + Test	Result - Remark	Verdict

Optical isolators Investigated during separate power supply certification.

4.5	TABLE: temperature rise measurements						Pass
	test voltage (V)	(see below)	--	--	--	--	---
	t1 (°C)	--	--	--	--	--	---
	t2 (°C)	--	---	--	--	--	---
	maximum temperature T of part/at:	T (°C)					allowed Tmax (°C)
	--	Condition A Maximum Normal Load at 90 V ac,60 Hz, Duration 2.4 hrs.	Condition B Maximum Normal Load at 264Vac,60 Hz, Duration 1.6 hrs.	--	--	--	--
	01 Ambient	50 (25.2)	50 (25.2)	--	--	--	--
	Mainboard	--	--	--	--	--	--
	02 PWB under CPU	92.1	94.8	--	--	--	105
	03 PWB under U1	89.4	91.3	--	--	--	105
	04 PWB under U4	88.9	90.8	--	--	--	105
	05 PWB under U5	62.7	62.5	--	--	--	105
	06 PWB under U93	70.0	70.4	--	--	--	105
	07 PWB under U90	71.1	70.6	--	--	--	105
	Power Supply (Bottom)	--	--	--	--	--	--
	08 T1 coil	79.6	78.2	--	--	--	90
	09 T1 core	78.1	76.9	--	--	--	90
	10 C14 body	73.0	71.8	--	--	--	85
	11 L5 coil	73.1	69.5	--	--	--	95
	12 L6 coil	84.0	81.7	--	--	--	95
	13 PWB under M-2155	72.8	69.2	--	--	--	105
	Power Supply (Middle)	--	--	--	--	--	--
	14 T1 coil	72.7	70.7	--	--	--	90
	15 T1 core	72.7	70.8	--	--	--	90
	16 C14 body	70.3	67.9	--	--	--	85
	17 L5 coil	67.1	63.9	--	--	--	95
	18 L6 coil	81.3	79.1	--	--	--	95
	19 PWB under M-2155	66.3	65.1	--	--	--	105
	Power Supply (Top)	--	--	--	--	--	--
	20 T1 coil	71.6	69.9	--	--	--	90
	21 T1 core	73.4	71.7	--	--	--	90
	22 C14 body	68.6	66.6	--	--	--	85
	23 L5 coil	70.7	67.0	--	--	--	95

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Clause	Requirement + Test			Result - Remark		Verdict
24 L6 coil	84.4	82.4	--	--	--	95
25 PWB under M-2155	67.1	64.6	--	--	--	105
26 BT1 body	66.4	66.6	--	--	--	--
27 AC Inlet body (Top)	57.9	56.7	--	--	--	60
28 AC Inlet body (Bottom)	57.2	57.1	--	--	--	60
29 HDD body	82.4	83.9	--	--	--	--
30 Enclosure outside near Power Supply	61.3	60.8	--	--	--	70
temperature T of winding:		$R_1 (\Omega)$	$R_2 (\Omega)$	T (°C)	allowed Tmax (°C)	insulation class
--	--	--	--	--	--	--
supplementary information:						
<p>Comments:</p> <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°C, the max. temperature is calculated as follows:</p> <p>Winding components:</p> <ul style="list-style-type: none"> - class A Tmax(°C) = 100°C - 10°C = 90°C <p>Components with:</p> <ul style="list-style-type: none"> - max. absolute temp. of 105°C (Line choke) Tmax(°C) = 105°C - 10°C = 95°C - max. absolute temp. of 85°C (Capacitor) Tmax(°C) = 85°C - max. absolute temp. of 105°C (PWB) Tmax(°C) = 105°C - when no class of insulation is given, min. insulation 105°C assumed. <p>User accessible area:</p> <ul style="list-style-type: none"> - material is metal (70°C) Tmax(°C)= 70°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	
Refer to Table 1.5.1	--	--	--	--	

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

supplementary information:
Main Board contains eight layers. Enclosure is metal.

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests	Pass
test voltage applied between:		test voltage (V) a.c./d.c.
- Entire equipment		--
Primary to SELV		4242 V dc
Primary to Earth		3000 V dc
breakdown Yes / No		
- Entire equipment		--
Primary to SELV		No
Primary to Earth		No
supplementary information:		
- The test was conducted immediately after the Humidity Test, Impact Test and each Abnormal Operation Test.		

5.3	TABLE: fault condition tests						Pass
	ambient temperature (°C)..... :					25°C unless other indicated	—
	model/type of power supply					See appended table 1.5.1	—
	manufacturer of power supply..... :					See appended table 1.5.1	—
	rated markings of power supply..... :					See appended table 1.5.1	—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result	
-							
ABNORMAL OPERATION TESTS							
Ventilation Openings	Blocked	240	3.7hrs	--	2.23	NB,NC,NT,CT	
System Fan near Power Supply	Stalled	240	5.9hrs	--	2.23	NB,NC,NT, unit shutdown	
System Fan	Stalled	240	4.0hrs	--	2.24	NB,NC,NT,CT	
Redundant Power Supply	Removed	240	2.5hrs	--	2.14	NB,NC,NT,CT	
supplementary information:							

Enclosure
National Differences

(Total 10 Pages including this Cover Page)

USA / Canada

- * No National Differences Declared
- ** Only Group Differences

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.		Pass
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.		Pass
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.		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.		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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A
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.		Pass
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.		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

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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
2.10.5.4	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.4 and Annex U.	Investigated during separate certification of power supply.	Pass
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		Pass
3.1.1	All interconnecting cables protected against overcurrent and short circuit.		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.		Pass
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		Pass
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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
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 (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
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.		Pass
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		Pass
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		Pass
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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
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 conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
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.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		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).		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
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 readily visible.		N/A
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 mm 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.		Pass
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.		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

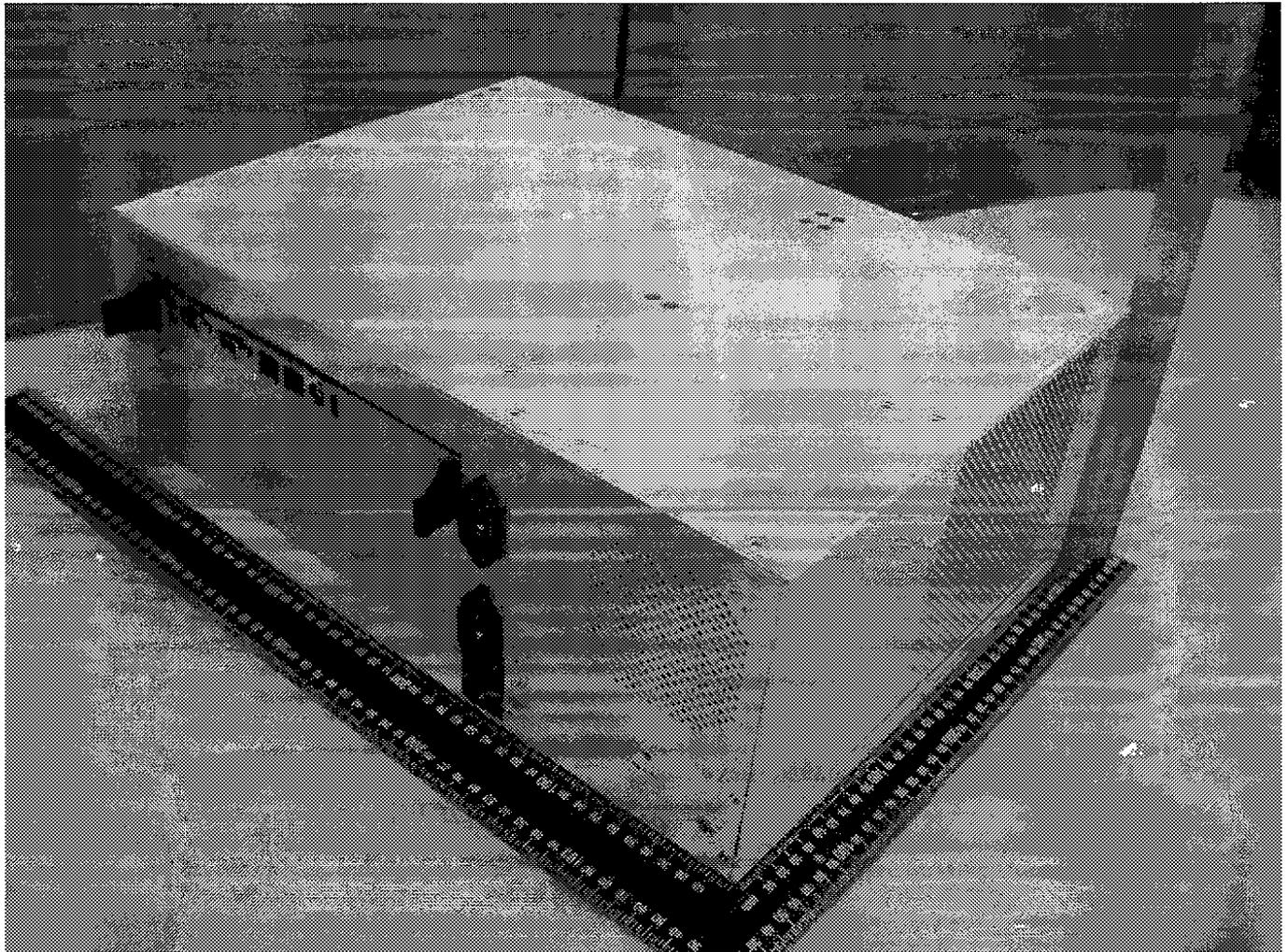
IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
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

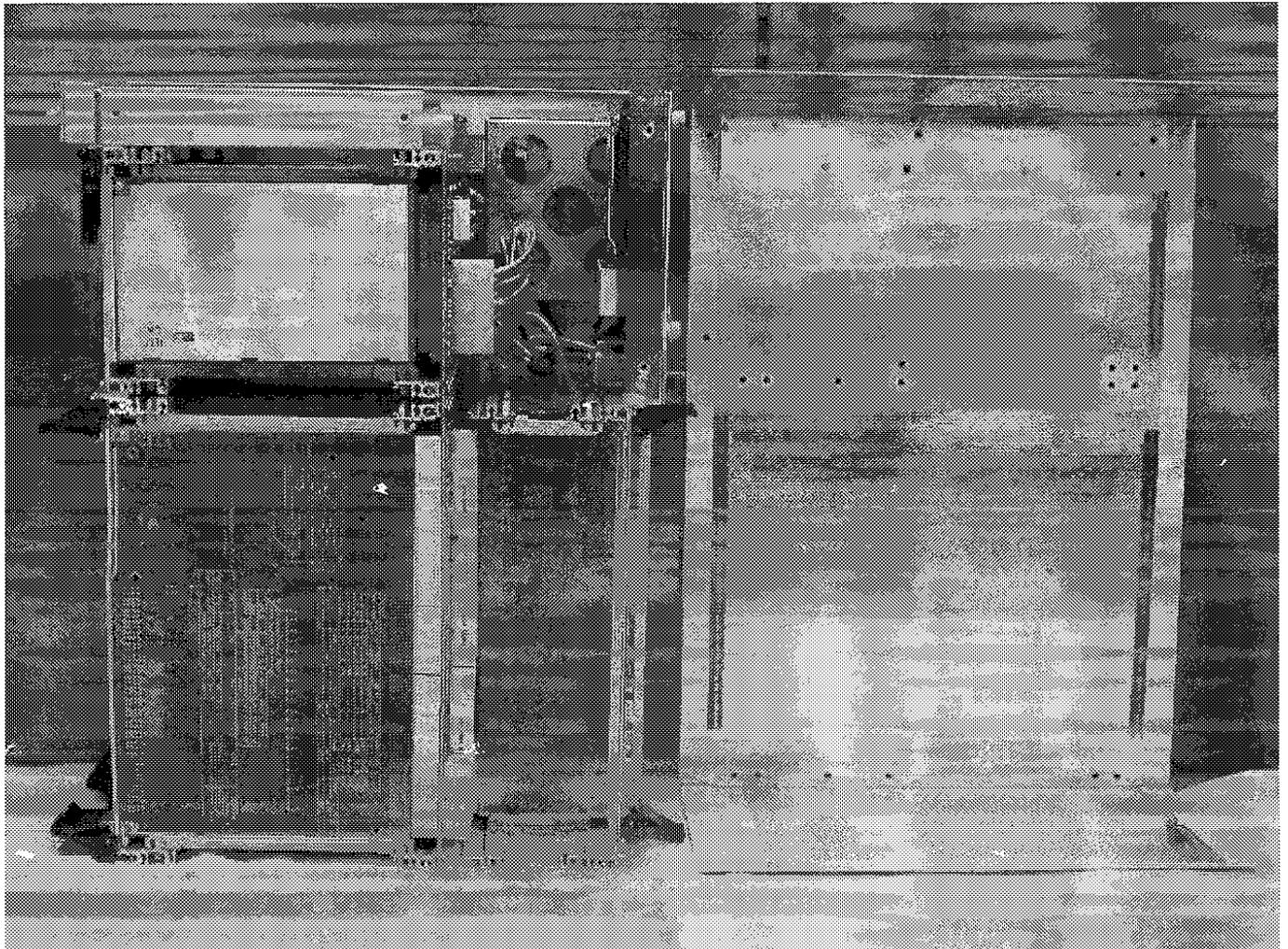
IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.		N/A

Enclosure**Photographs**

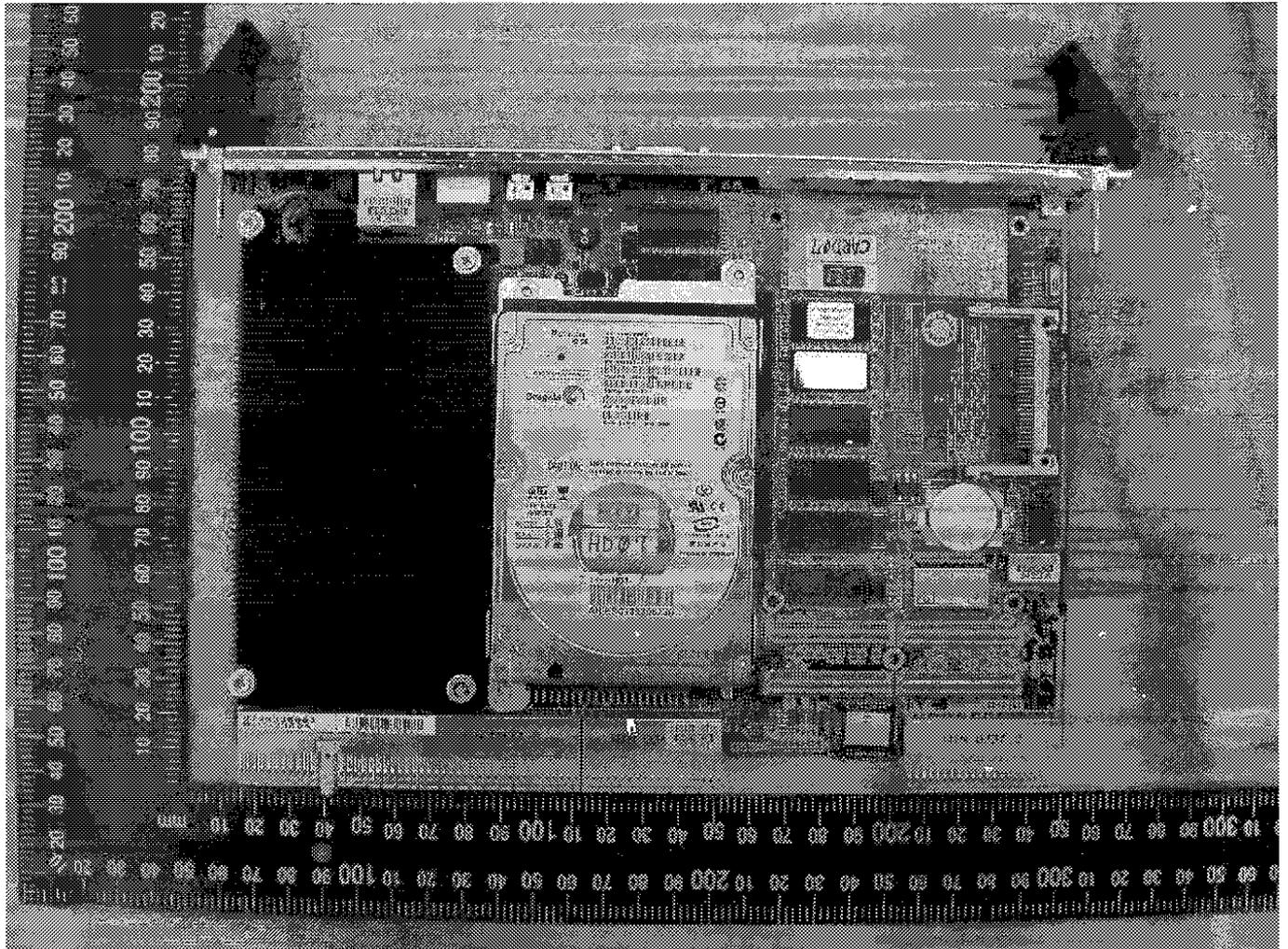
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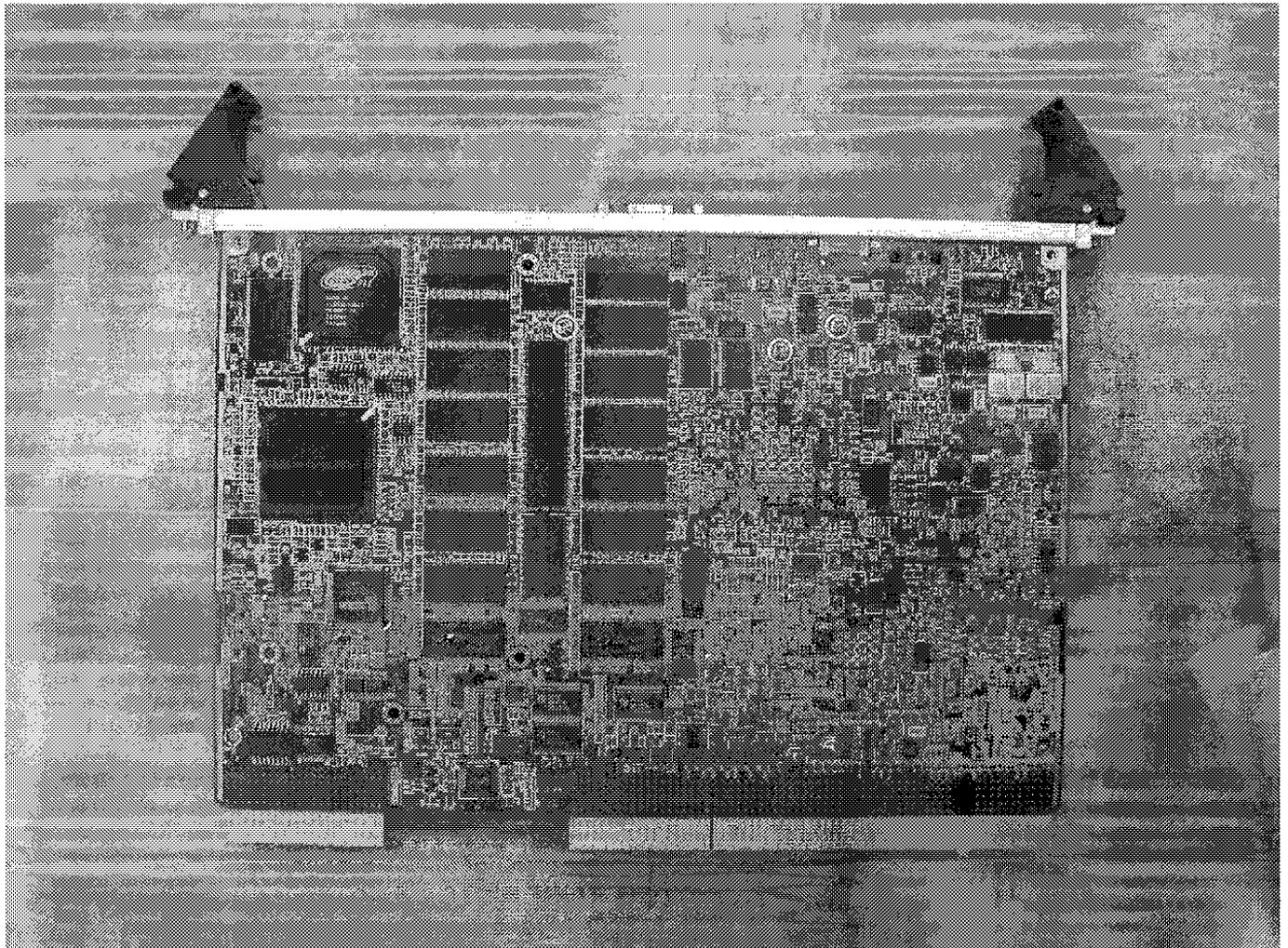
Supplement Id	Description
3-01	Overall View
3-02	Opened View
3-03	Open Enclosure
3-04	Motherboard Top
3-05	Motherboard Bottom
3-06	Addon Card Top
3-07	Addon Card Bottom
3-08	PWB Slots
3-09	SPS View
3-10	SPS inside view

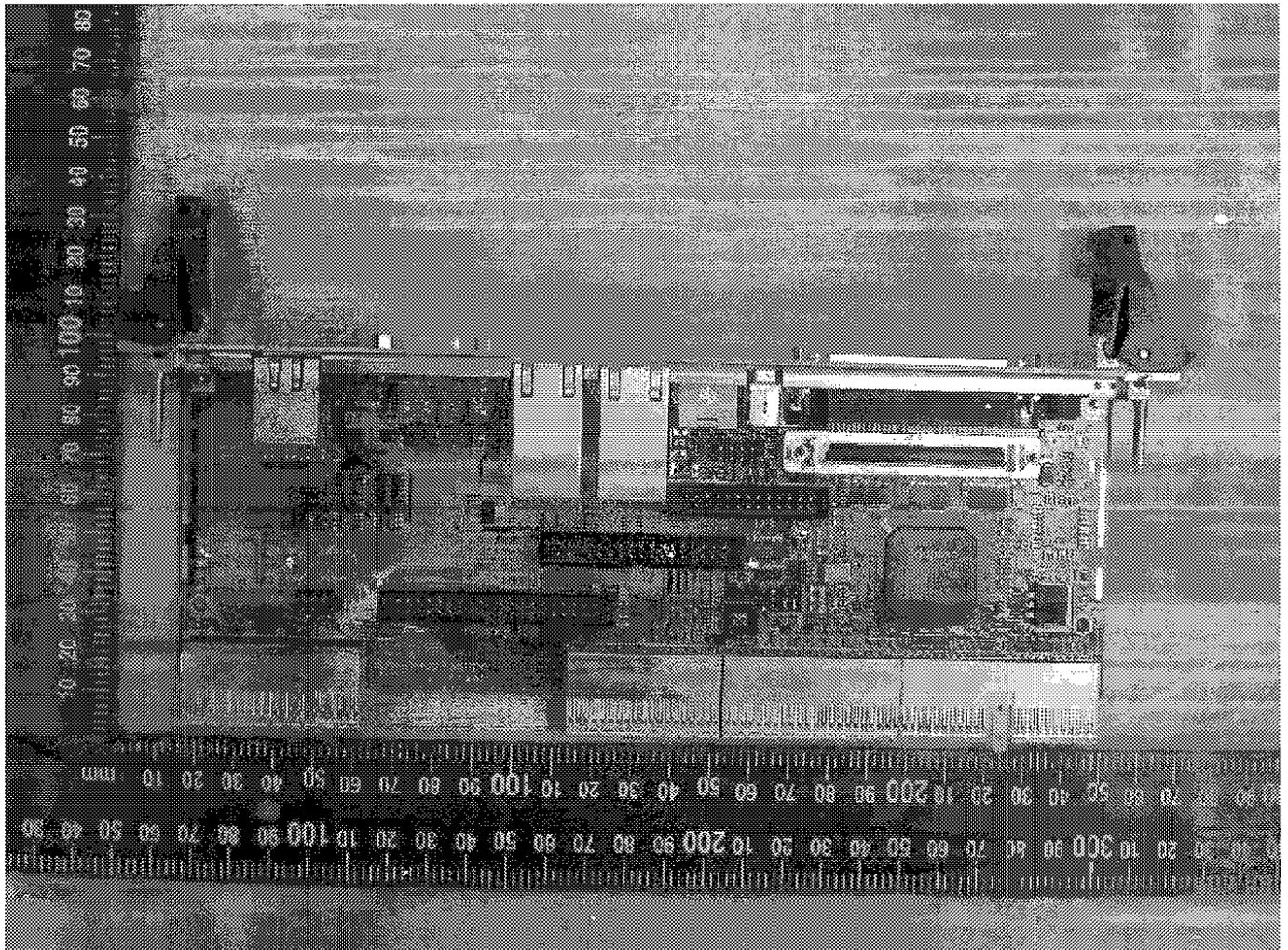


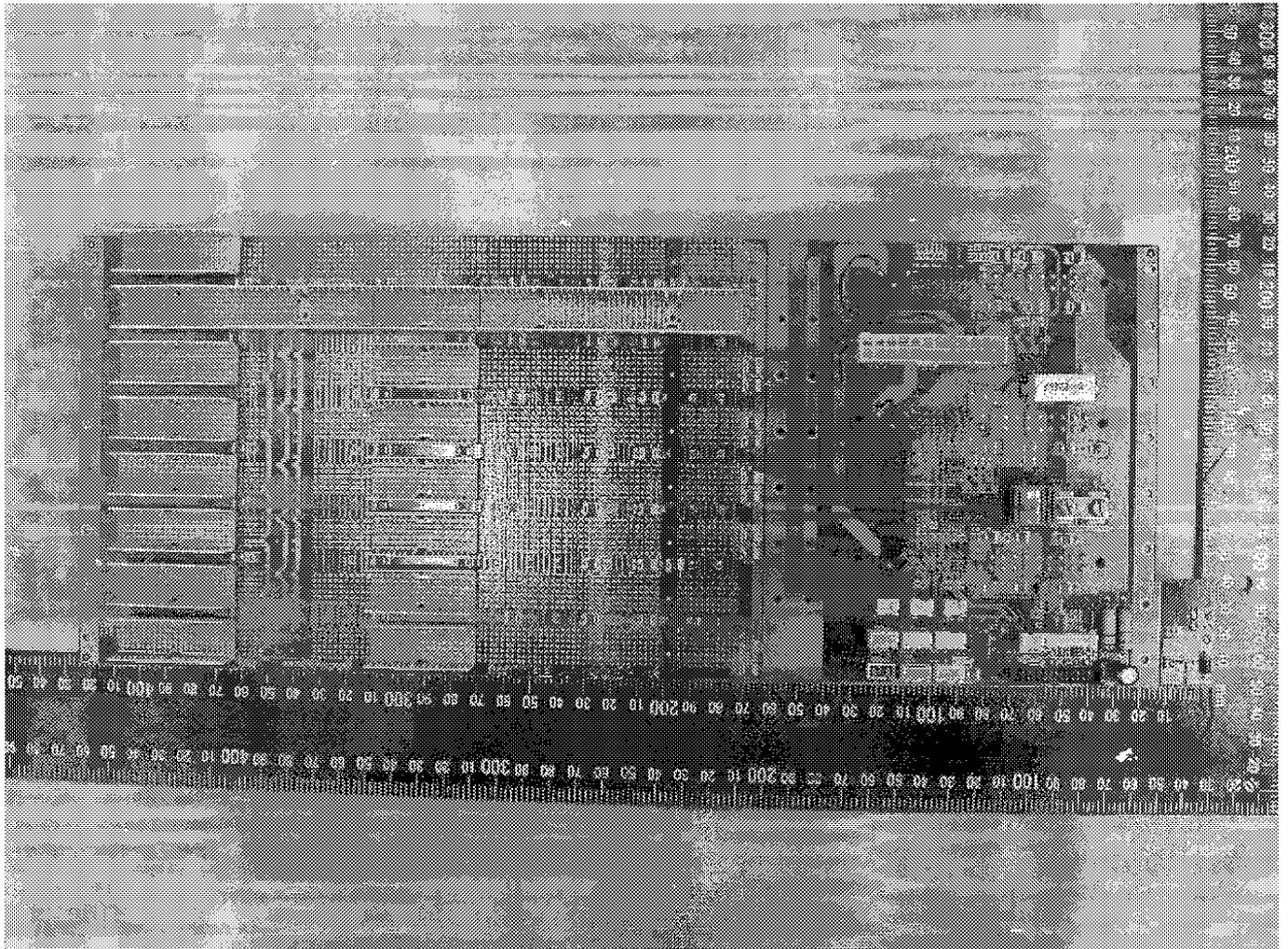


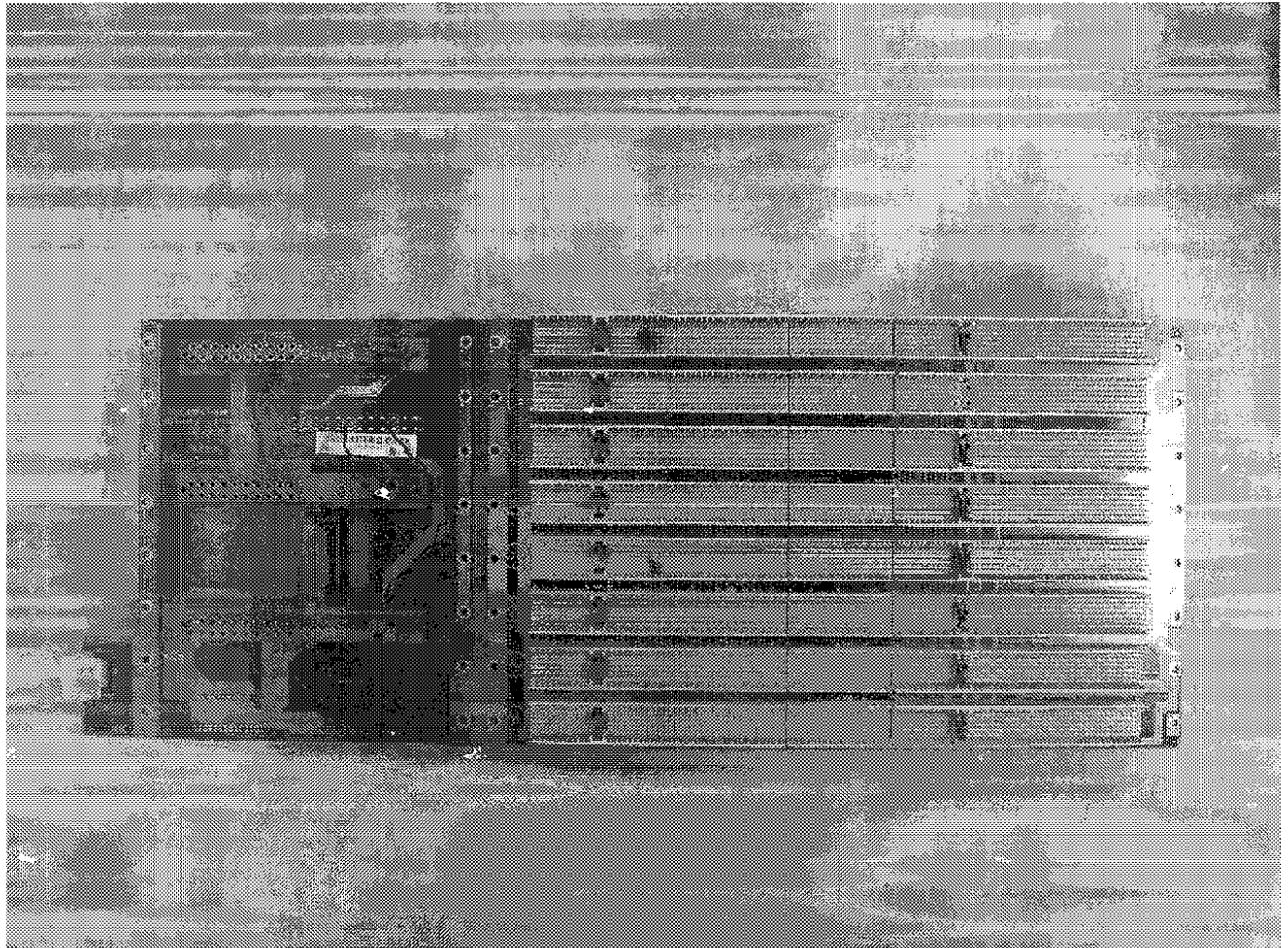


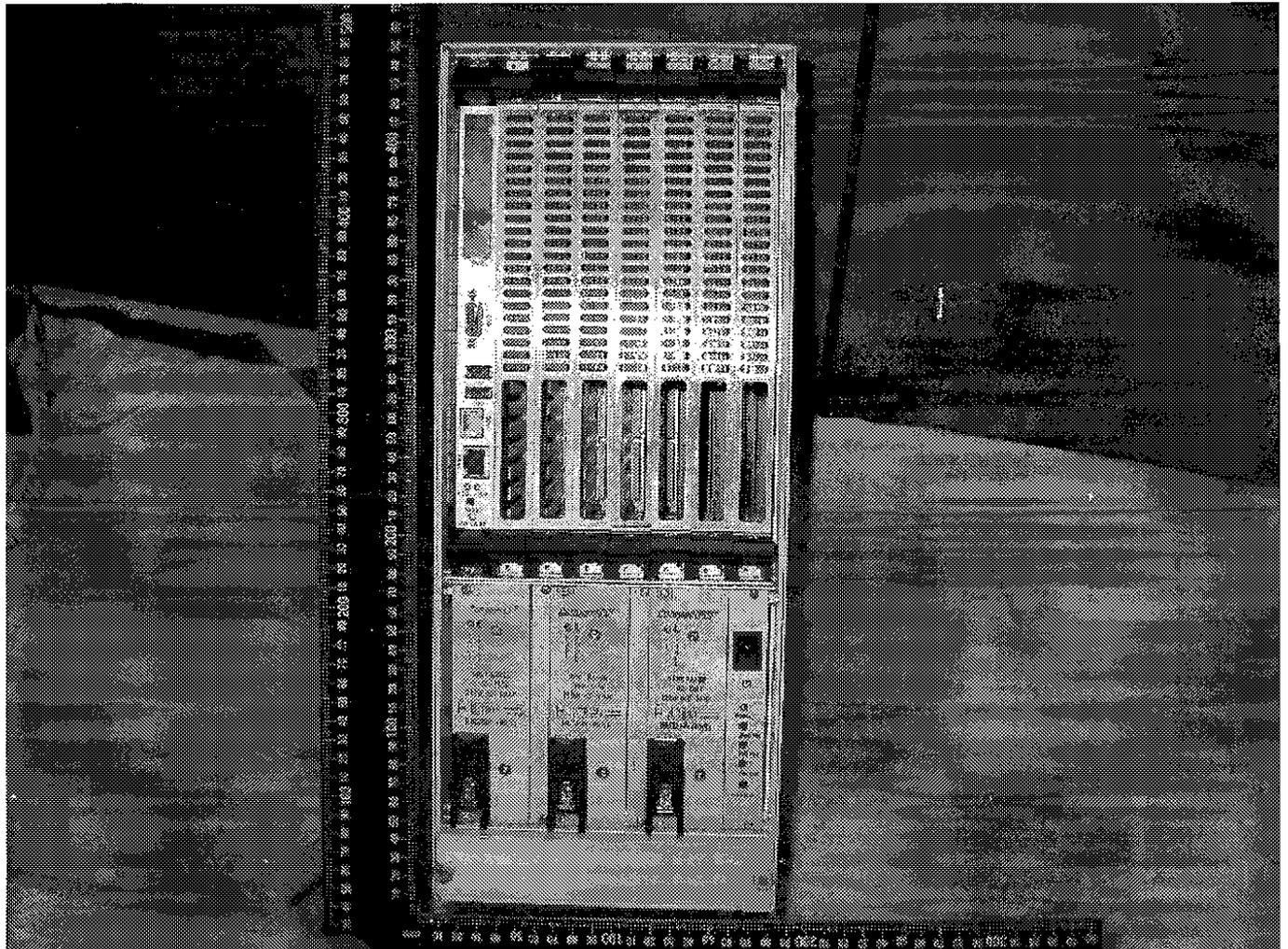


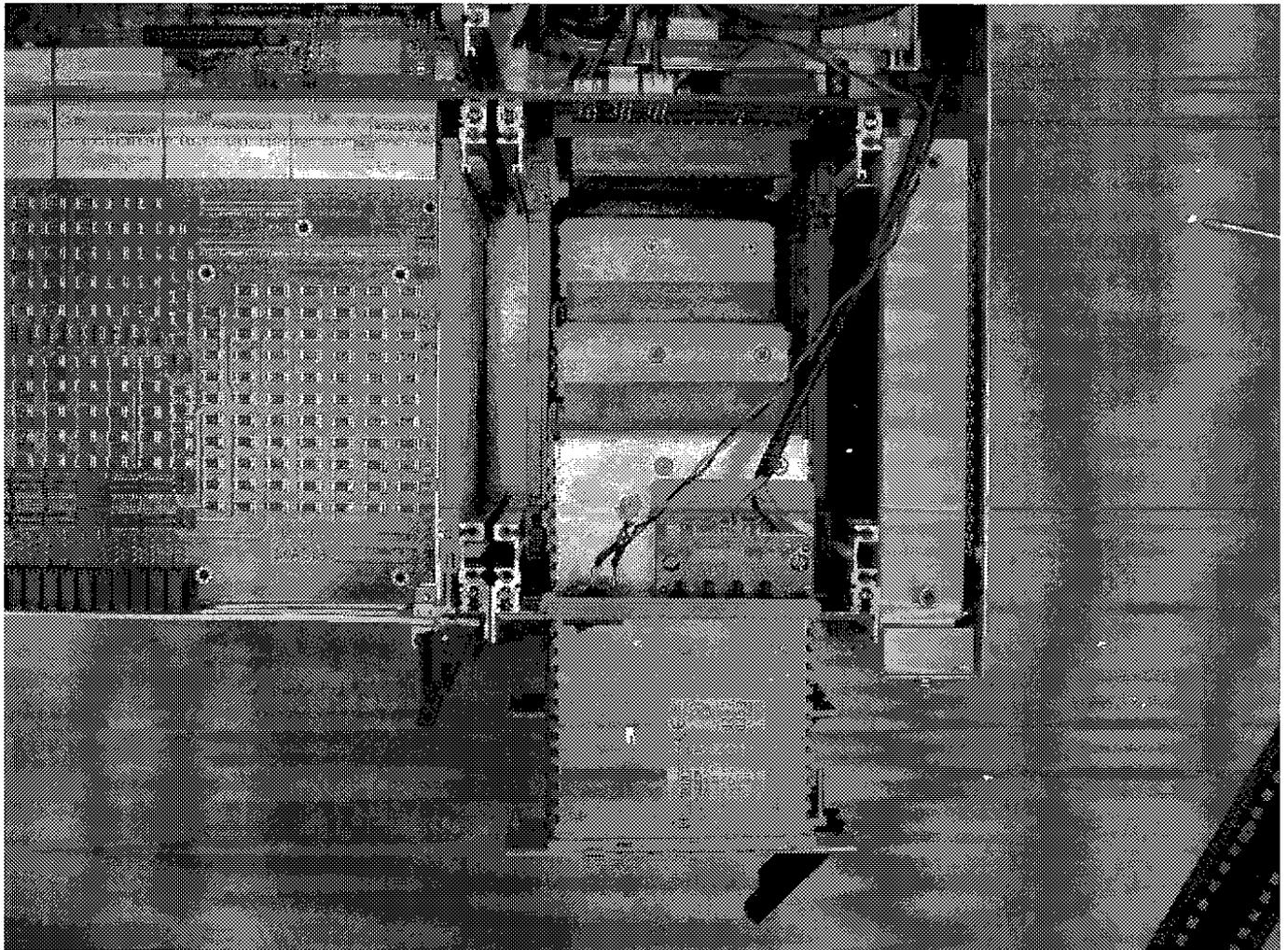








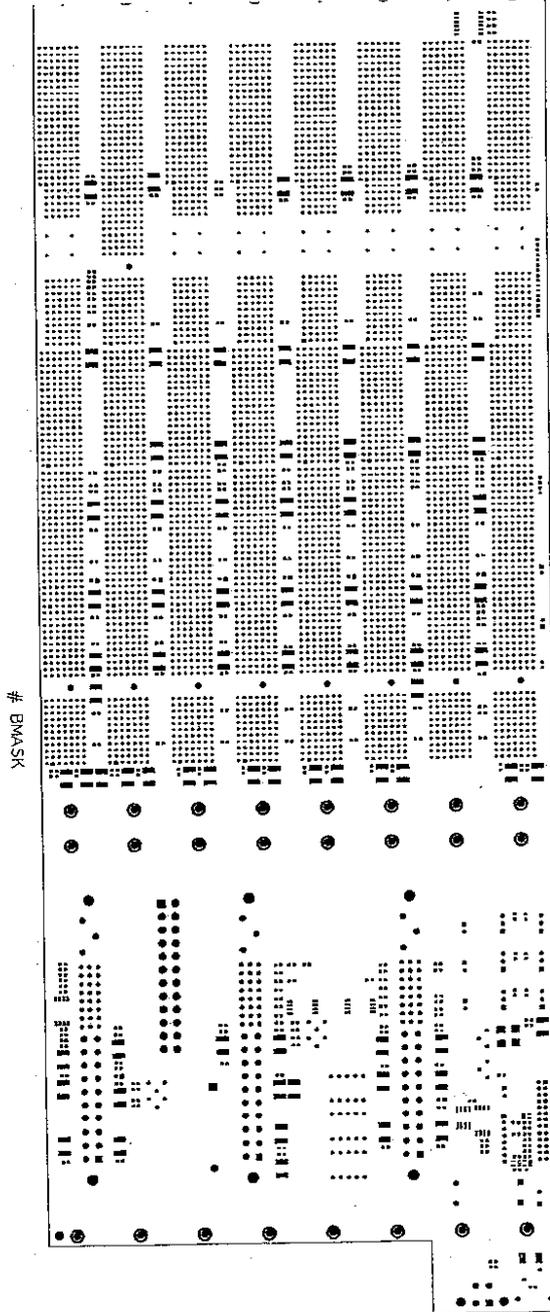


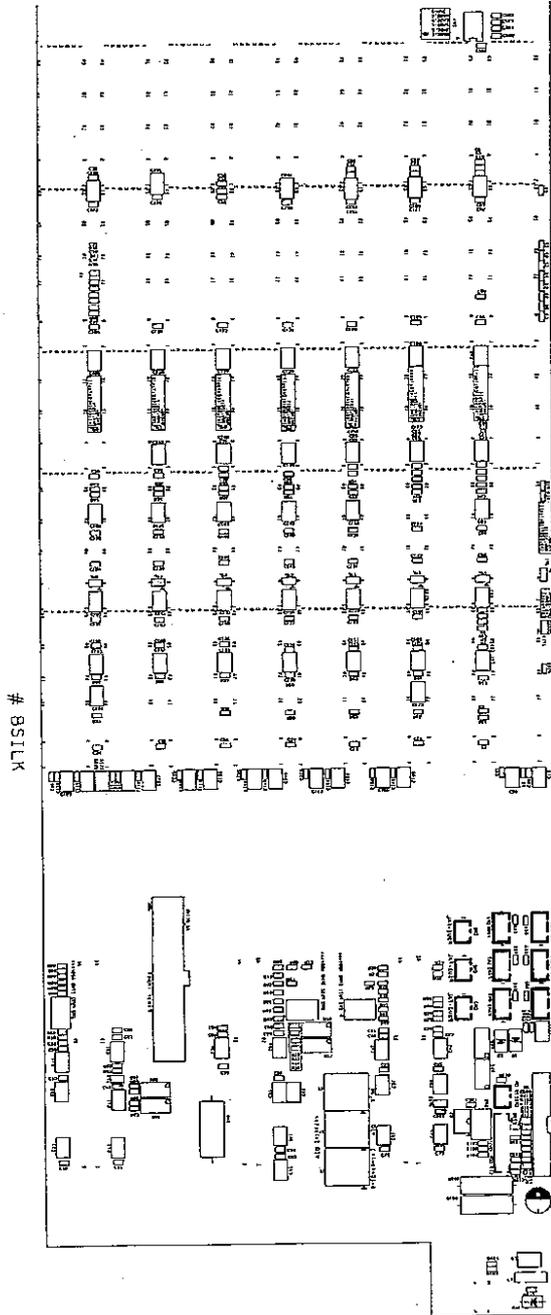


Enclosure
Schematics + PWB

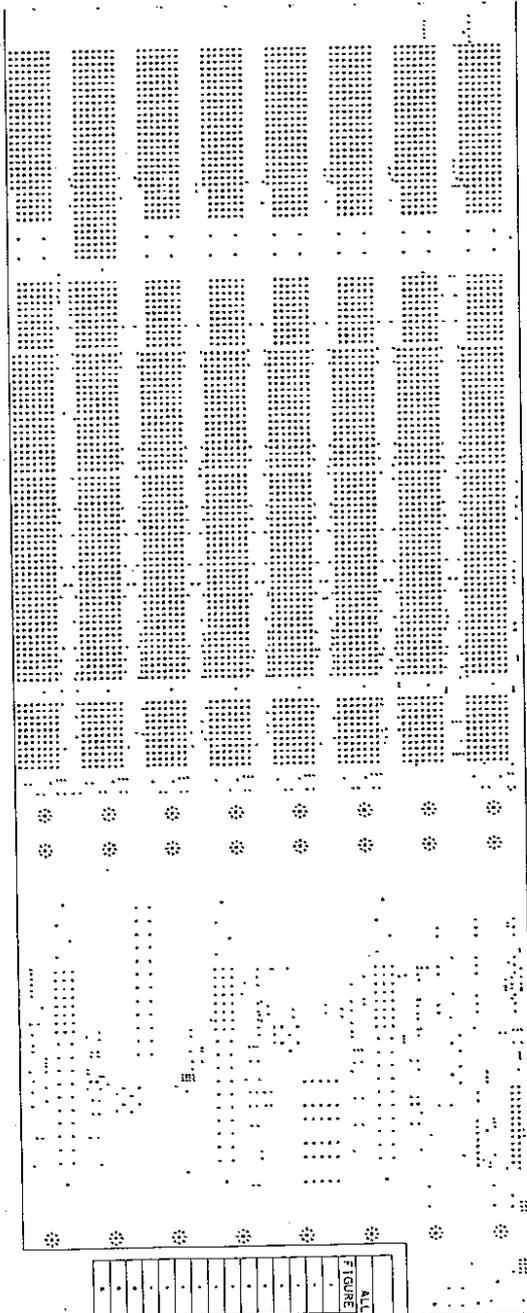
(Total 15 Pages including this Cover Page)

Supplement Id	Description
5-01	Schematic, and PWB trace layout



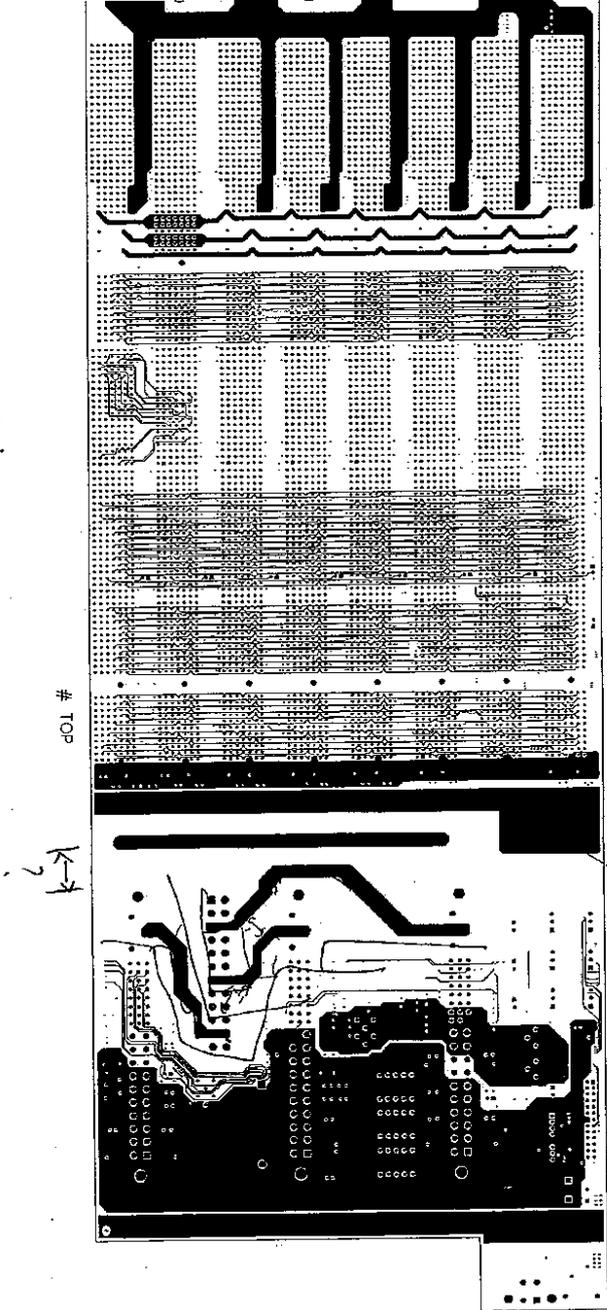


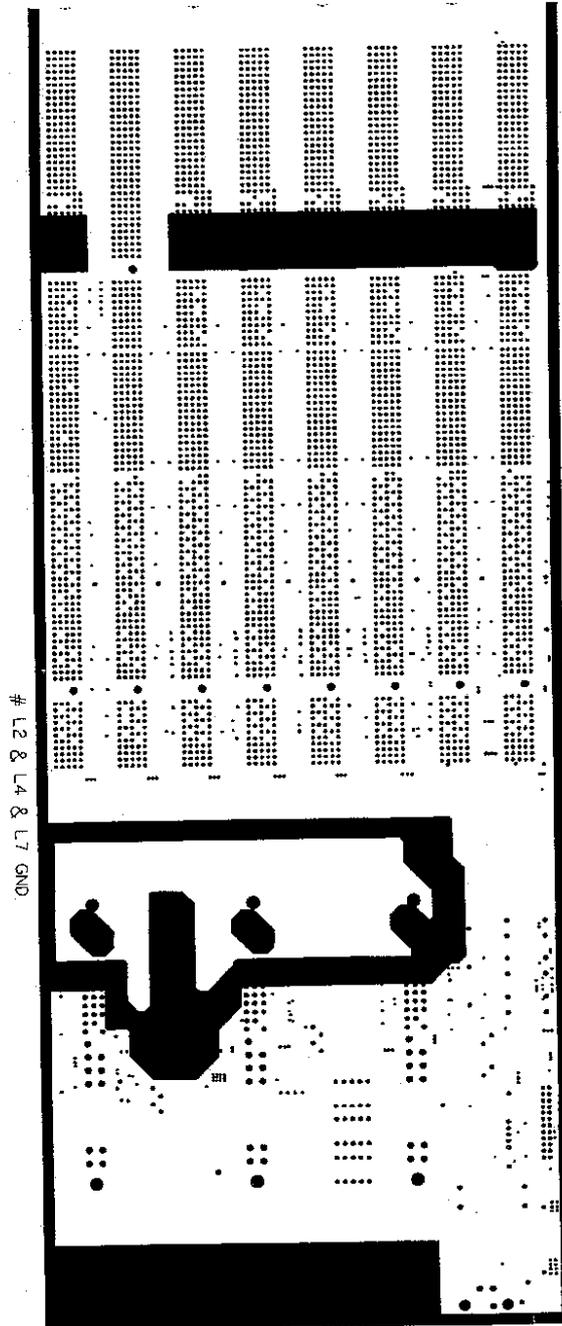
DRILL MAP

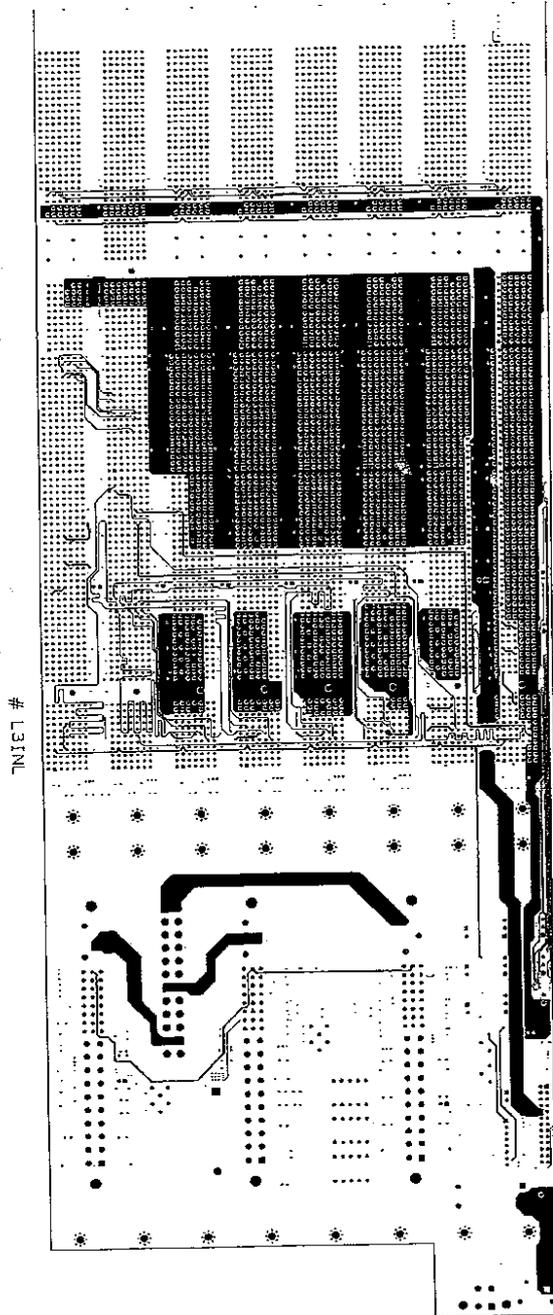


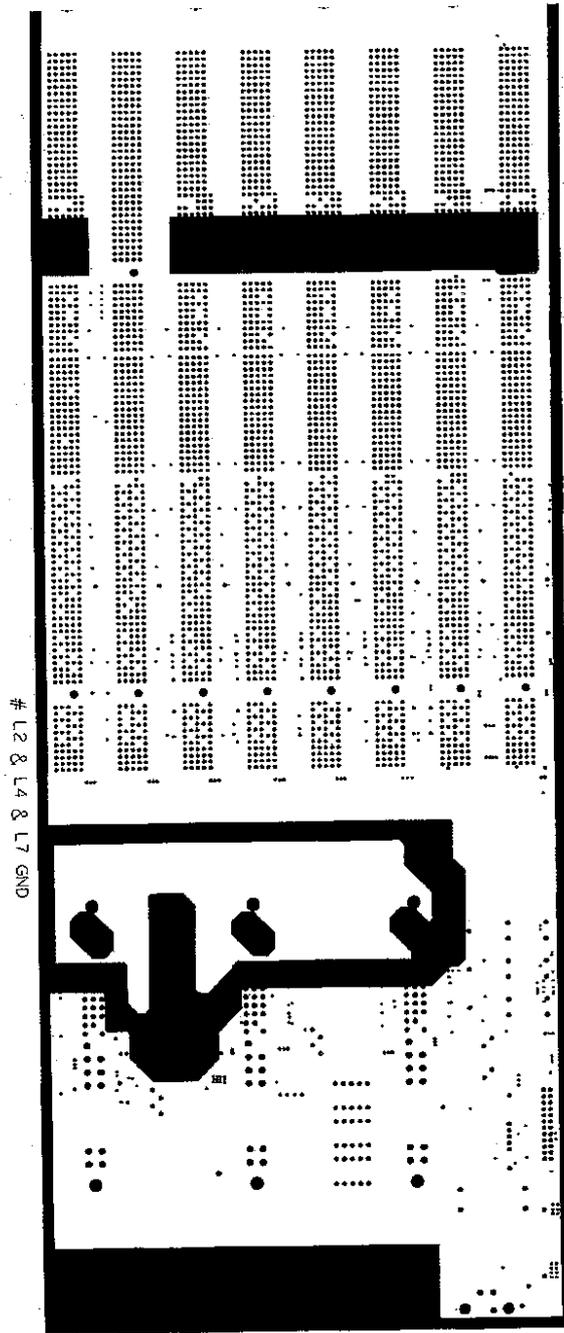
DRILL CHART	
ALL UNITS ARE IN MIL	
FIGURE	SIZE
10.0	PLATED
16.0	PLATED
20.0	PLATED
28.0	PLATED
32.0	PLATED
35.0	PLATED
40.0	PLATED
43.0	PLATED
55.0	PLATED
63.0	PLATED
71.0	PLATED
79.0	NON-PLATED
102.0	NON-PLATED
118.0	NON-PLATED
142.0	NON-PLATED

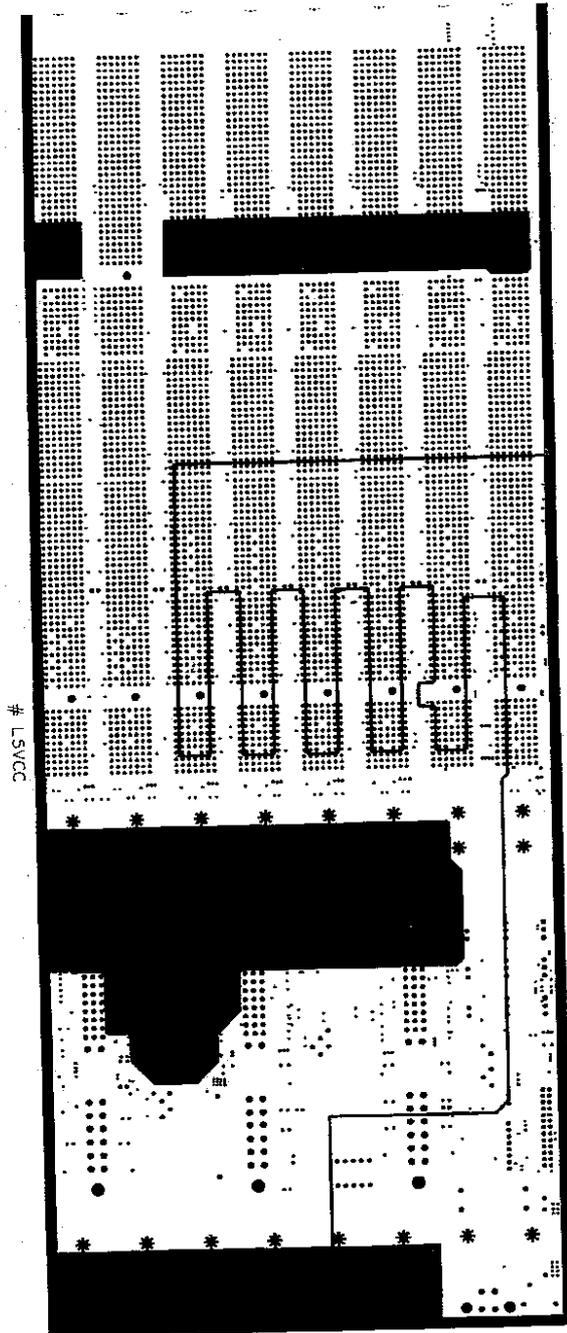
INLET 1.3R
INLET 2.1R
SEC. 3

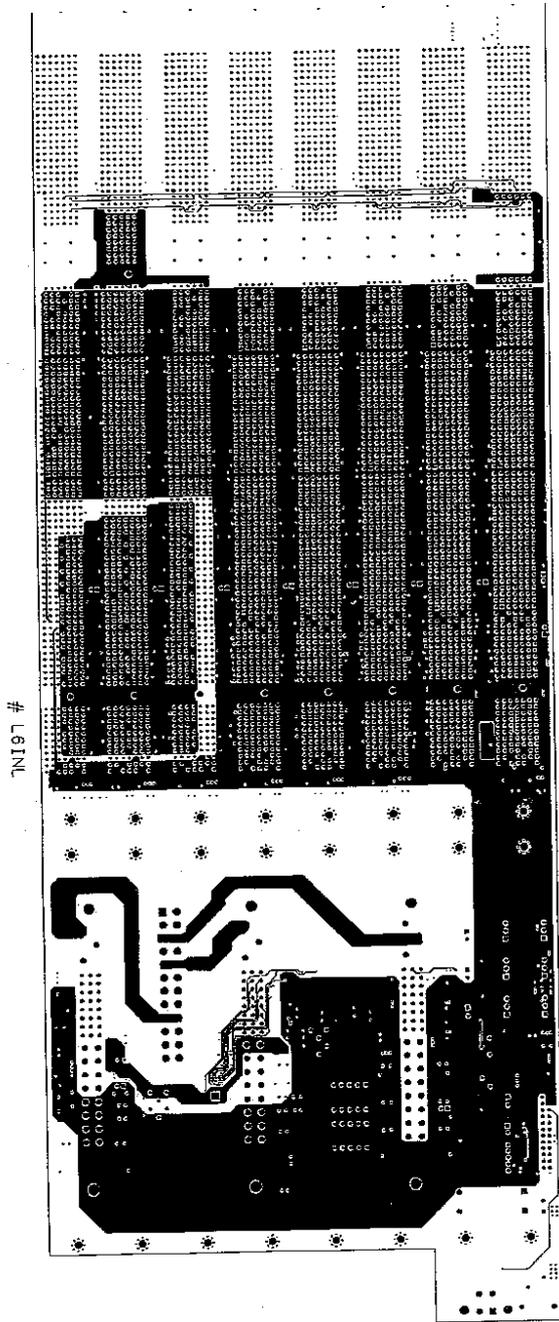


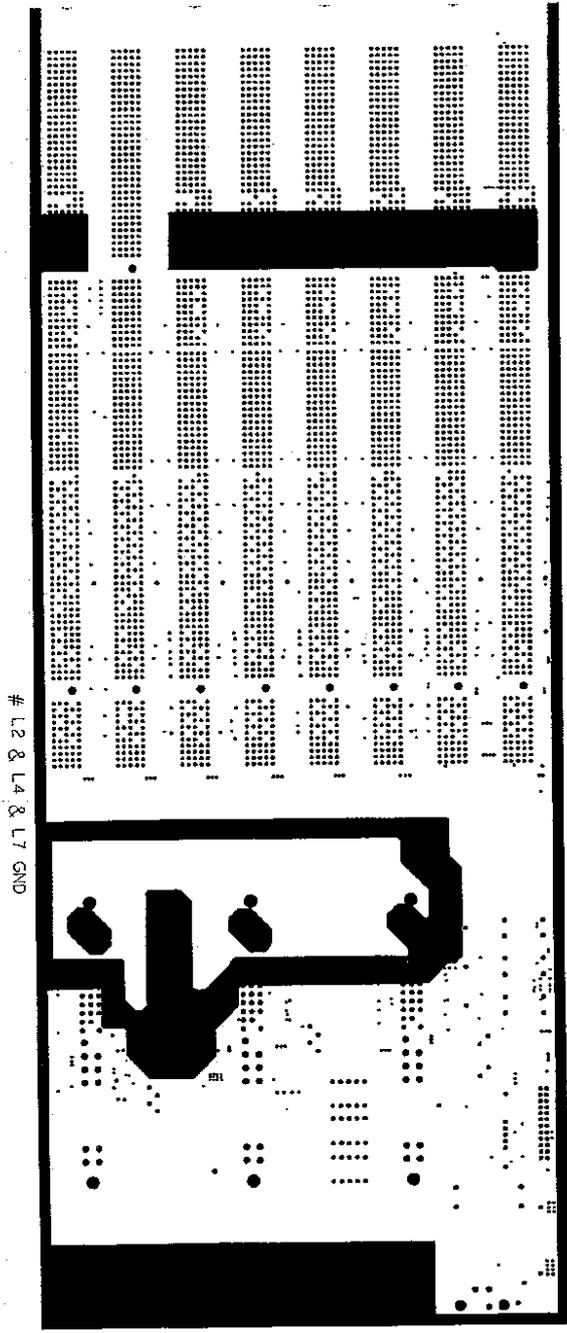


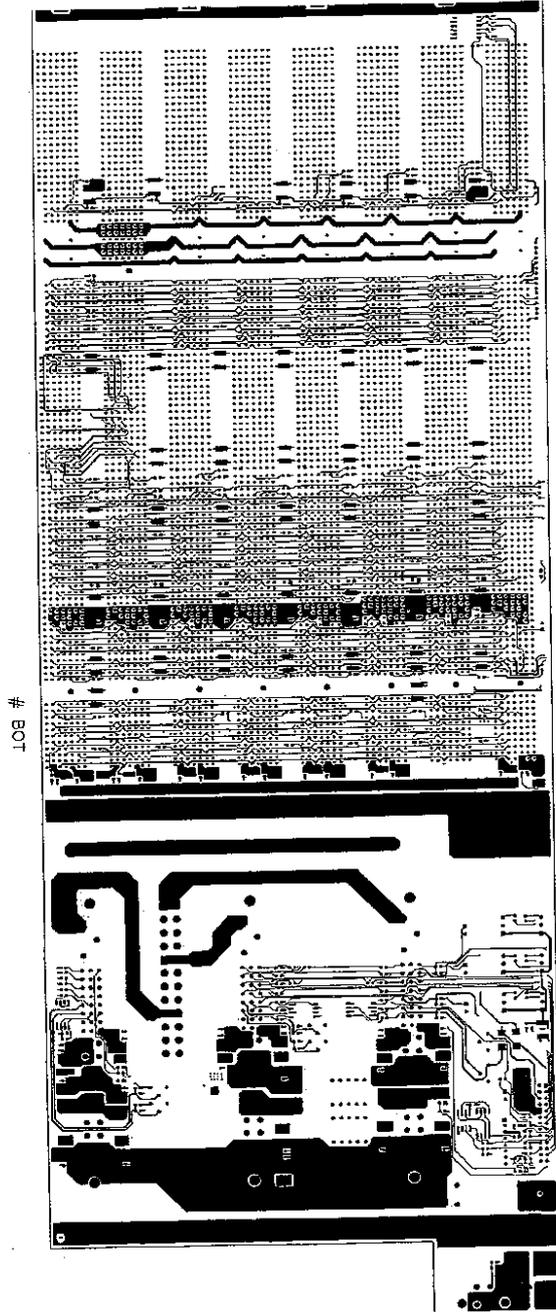


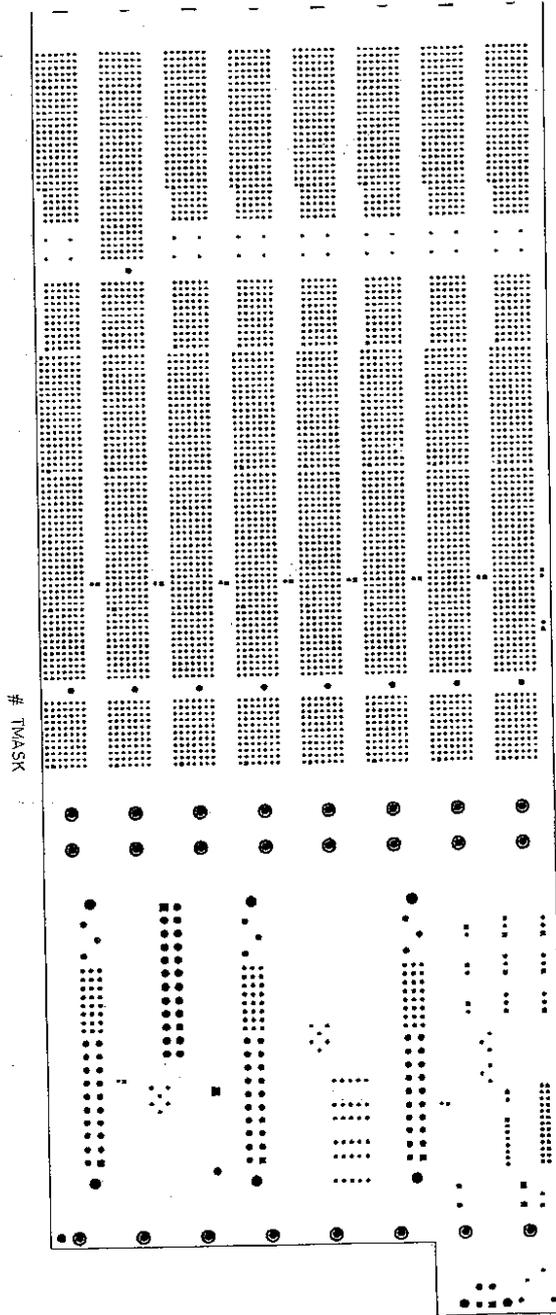


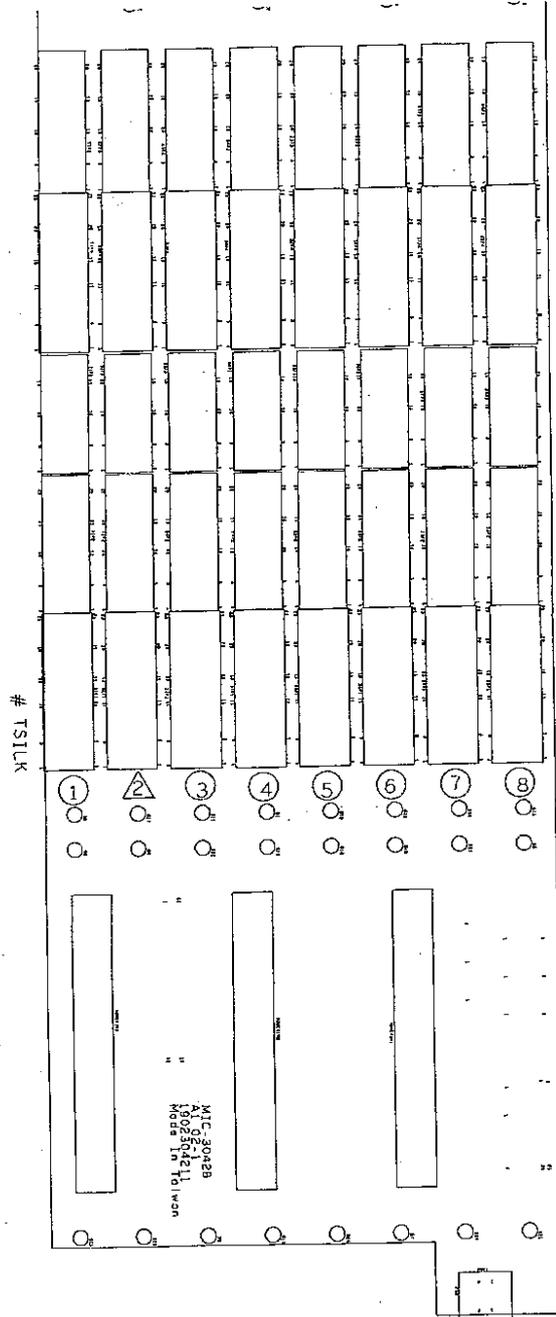












Enclosure

Manuals

(Total 5 Pages including this Cover Page)

Supplement Id	Description
6-01	User Manual

Data subject to change



1.1 Introduction

The MIC-3042 series are a 4U-high enclosure designed for standard CPCI power supplies which means an extremely low mean-time-to-repair (MTTR) since each power supply can be hot-swapped. It equips with a 6U 8-slot CompactPCI H.110 CT bus backplane and a 500W 2+1 redundant AC/DC power supply. It is suitable for telecommunication, computer telephony integration, and industrial automation. The built-in high quality backplane with 64 bit / 66MHz bus speed offers best impedance control, meets open architecture standards and is compatible with all Advantech CompactPCI boards.

The MIC-3042 series support IEEE 1101.11 rear I/O transition board. Users can route I/O signals to the rear transition board to simplify system cabling. Front boards pop in and out without any hardwiring. Efficient hot swappable fan module gives easy self-maintenance capability. The system slots can support CPU boards featuring desktop Intel® Pentium® IV processors up to 2.2GHz with MIC-3358 series and Intel® Pentium® M processors up to 1.8GHz with MIC-3369 series. With the chassis management module (MIC-3924L-A), the chassis temperature and fan speed can be detected.

The MIC-3042A supports PICMG 2.16 and can be used as blade servers. Moreover, the MIC-3042B supports slim CD-ROM or FDD using MIC-3960 media carrier board. With redundant industry standard CompactPCI power supply plus Advantech's renowned reliability, the MIC-3042 4U enclosure is a rock solid choice for communications and telephony applications.

There are four models of MIC-3042 series :

- MIC-3042A-A: MIC-3042A enclosure, w/ 8-slot CompactPCI™ 6U backplane (MIC-3042A) supporting CT bus application and PICMG 2.16, and 500W 2+1 redundant AC CPCI power supplies.
- MIC-3042A-D: MIC-3042A enclosure, w/ 8-slot CompactPCI™ 6U backplane (MIC-3042A) supporting CT bus application and PICMG 2.16, and 500W 2+1 redundant DC CPCI power supplies.
- MIC-3042B-A: MIC-3042B enclosure, w/ 8-slot CompactPCI™ 6U backplane (MIC-3042B) supporting CT bus application and 500W 2+1 redundant AC CPCI power supplies.
- MIC-3042B-D: MIC-3042B enclosure, w/ 8-slot CompactPCI™ 6U backplane

Data Sheet Series Features



(MIC-3042B) supporting CT bus application and 500W 2+1 redundant DC CPCI power supplies.

1.2 Features

- Eight 6U card slots
- Supports front and rear I/O
- Supports H.110 CT application
- 500W 2+1 redundant AC/DC power supply
- Hot-swap compliant backplane
- A hot-swap fan module
- Integrated intelligent management module, MIC-3924L, which can detect the chassis temperature and fan speed.

1.3 Specifications

1.3.1 General

- Construction: Aluminum frame and galvanized sheet steel
- 8-slot space (32 TE), including one system slot and seven peripheral slots
- "Hot swappable" platform complies with PICMG 2.1 R 2.0 Hot Swap

Specification

- Dimensions (W x H x D, mounting flanges not included):
4U: 440 x 177 x 320 mm (17.3" x 7" x 12.6")
- Weight: 18 kg (39.7 lb)
- Operating temperature: 0 ~ 45° C
- Storage temperature: -20° C ~ 60° C
- Relative humidity: 10 ~ 95% @ 40° C, non-condensing
- Operating altitude: 0 ~ 3,048 meters (0 ~ 10,000 feet)
- Storage/ transit altitude: 0 ~ 12,190 meters (40,000 feet)
- Shock: 10 G (operating); 30 G (storage/transit)
- Random vibration: 1.0 Grms (operating); 2.0 Grms (operating)

1.3.2 Hot-swap Fans

- Air flow: One 193-CFM front fan and one 61.3-CFM rear fan
- Rated fan speed: 3,000 rpm (front fan); 3,400 rpm (rear fan)
- Life expectancy: 80,000 hours @ 40° C (front fan); 50,000 hours @ 25° C (rear fan)

Blue with blue frame



fan)

1.3.3 Power Supply

- Input:
 - AC: 100~240 V @ 47~63 Hz, full range (for MIC-3042X-A models)
 - DC: -48V (TYP), -36~-72V range (for MIC-3042X-D models)
- Output: 500W+250W 2+1 hot swappable and redundant AC or DC w/PFC
- Maximum load: +3.3V @ 36A, +5V @ 50A, +12V @ 10A, -12V @ 1A
- Minimum load: +3.3 V @ 0A, +5V @ 2A, +12 V @ 0A, -12V @ 0A
- MTBF: 100,000 hours @ 25° C
- Safety: UL/CE/TUV

1.4 Dimensions

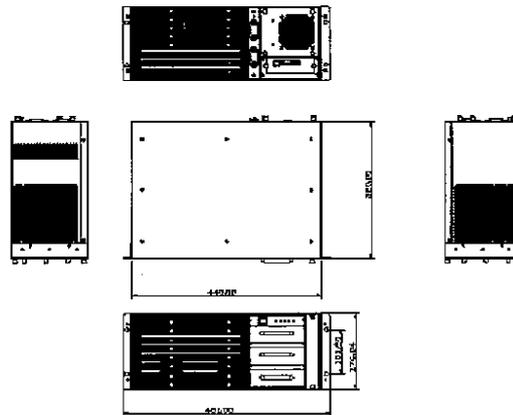


Figure 1-1: MIC-3042 dimensions.

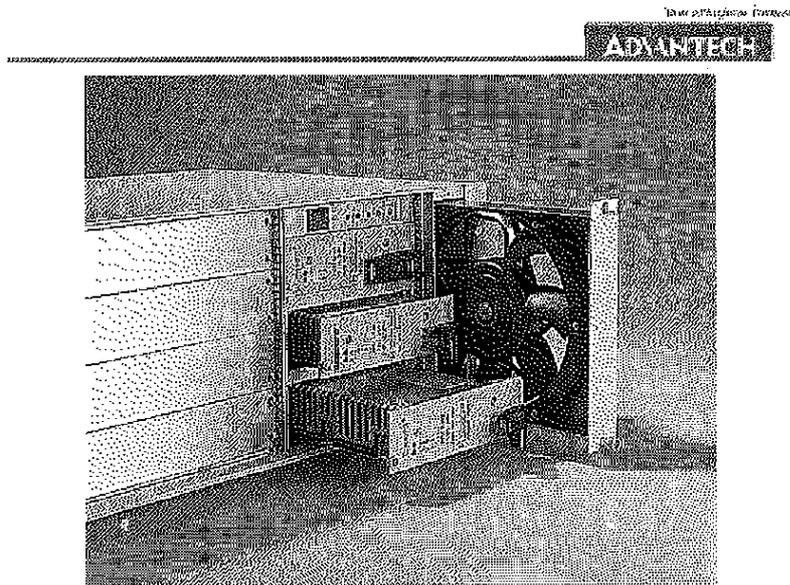


Figure 2-2: Removable parts of MI C-3042

2.3 Installation Procedures

2.3.1 Card Installation and Removal

The CompactPCI™ connectors are firm and rigid, and require careful handling while plugging and unplugging. Improper installation of a card can easily damage the backplane of the chassis.

The system card can be installed only in the system slot. Do not insert the system card into any other slot, or insert a peripheral card into the system slot. The system slot is marked by a triangle enclosing the slot number 5. Please refer to the backplane user's manual.

The insert/eject handles on CompactPCI™ cards help users to install and remove the cards easily and safely. Follow the procedures below to install a card into a chassis:

To install a card:

1. Hold the card horizontally. Be sure that the card is oriented correctly. The components of the card should be pointing to the up side.
2. Be sure that the handles of the card are not latched. Release the handles if they are latched. Handles from different vendors may have different latch designs. **Caution!!!** Keep your fingers away from the latch hinges to prevent your fingers from getting pinched.
3. Insert the card into the chassis by sliding the left and right edges of the card into