

File E170507
Project 00ME03466

April 6, 2000

REPORT

ON

POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIPMENT,
INCLUDING ELECTRICAL BUSINESS EQUIPMENT

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Northvale, NJ

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DESCRIPTION

PRODUCT COVERED:

USL, CNL, Power Supply Adapter, Models GT-21100-7515, GT-22030-60-1, GT-21100-7224 and GT-22030-80-2.

ELECTRICAL RATING:

Input: 100-240 V ac, 47-63 Hz, 2.0 A (maximum)

Output:

<u>Model</u>	<u>V dc</u>	<u>A</u>	<u>Watt (maximum)</u>
GT-21100-7224	+24	3	72
GT-21100-7515	+15	5	75
GT-22030-60-1	+5 +12	6.5 1.8	55
GT-22030-80-2	+5 +24	1.5 3	80

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USL, CNL indicates the equipment has been investigated to the U.S. and Canadian (Bi-National) Standard for Information Technology Equipment including Electrical Business Equipment CSA C22.2 No. 60950/UL60950, Third Edition.

The equipment is: Movable, Class I (earthed), pluggable Type B, uses detachable power cord, intended for use on an TN power system.

Disconnect Device - The following part is considered the equipment disconnect device: AC Input Attachment Plug.

Alternate - (For Model GT-22030-80-2), disconnect device is Appliance Inlet.

CONSTRUCTION DETAILS:

See Section General for additional details.

Printed Wiring Board - See Section General for details.

Nameplate Marking - Listee's name or File No. E170507, model number, and input and output electrical ratings provided on each unit. Adhesive-backed labels that are Recognized Component Marking and Labeling Systems (PGDQ2), suitable for the surface applied, see Section General.

* Power Supply Cord - (For Model GT-22030-80-2) Detachable, maximum 4.5 m (14.76 ft) long, Listed, rated 125 V, minimum 7 A, incorporating No. 18/3 AWG, Type SVT or SJT flexible cord. One end terminated with a parallel-blade, grounding, molded-on attachment plug cap with a 7 A, 125 V (NEMA 5-15P) configuration, the other end terminated into a molded-on connector body.

Warning and Cautionary Markings - The words "DANGER," "CAUTION," or "WARNING" are in letters not less than 2.4 mm high.

CN Product Marking - Month and Year of manufacture marked and output classification "LEVEL 3."

Marking - The following marking is provided on the outside of the enclosure. It states "CAUTION - For Indoor Use Only."

* Model Difference - Models GT-21100-7224 and GT-22030-80-2 are identical *to GT-21100-7515, except for output rating and as described in the Report.

*MODEL GT-21100-7515

FIG. 1 (S98-00477)

General - Shows overall view of unit.

1. Enclosure - (QMFZ2) Chi Mei, Type PA-769, rated 94V-0. Overall measures 150 by 84 by 67 mm. 2.4 mm thick minimum. Constructed of two parts secured together by screws. Provided with ventilation openings as follows:

Top - Numerous louvered openings. Each measures 20.6 by 1 mm, covering an area of 140 by 62 mm.

Bottom - Numerous louvered openings. Each measures 20.6 by 1 mm., covering an area of 140 by 60 mm.

2. Power Supply Cord - Non-detachable, rated 125 V ac, minimum 7 A. Minimum No. 18 AWG, Type SJT or SVT, three-conductor cord, a maximum of 4.5 m in length. One end terminates in a parallel-blade (NEMA 5-15P), ground-type attachment plug, other end terminates in internal connections. Strain relief, bushing secured in D-shaped opening which measures 10 by 7.7 mm in bottom enclosure. (Same as Vol. 2, Sec. 1.)
3. Output Cable - (AVLV2) Style SPT-1, No. 18 AWG, rated VW-1. The cord pass through strain relief, opening is same as Item 2 and soldered to the printed wiring board. The other end terminates in output connector.

Alternate - Same as above, except Type 2464, AWM, VW-1, 80°C, 300 V.

4. Strain Relief - R/C (QMFZ2), molded with power cable.

*MODEL - GT-21100-7515
GT-22030-80-2

FIG. 2 (S98-00478)
FIG. 3 (S99-09532)

General - Shows internal view of unit with enclosure removed.

1. Printed Wiring Board - See Section General, PWB Revisions Level A1.

2. Fuse (F1) - Listed (JDYX), rated 3.15 A, 250 V. Fuse rating, voltage and current are permanently marked adjacent to fuse, secured in clips with integral end stops, clipper-alley fuseholder on printed wiring board.

Alternate - Same as above, except R/C (JDYX2), Cooper, Type S506, rated 3.15 A, 250 V.

Alternate - Same as above, except Bel, Type 5ST Series.

Alternate - Same as above, except Wickmann-Werke, Type 19195.

Alternate - Same as above, except Littelfuse, Type 218.

3. Line Choke (LF1) - Open type, enameled copper wire-wound on a three-flanged phenolic bobbin, core is a ferrite of size 19 by 26 by 6.3 mm thick, primary-to-primary insulation is phenolic, bobbin flange, 0.71 mm thick, rated minimum 105°.

4. X-Capacitors (CX1, CX2) - Optional. (Line-to-Line) R/C (FOWX2) and marked X1 to indicate compliance to IEC384-14, X1 Capacitors. CX1 rated maximum 0.68 μ F, minimum 250 V, CX2 rated maximum 0.1 μ F, minimum 250 V.

5. -Capacitors (CY1, CY2, CY3) - Optional. (Line-to-Line) (FOKY2) or (FOWX2), rated 1000 to 4700 pF, 250 V minimum.

6. Thermistor (NTC1) - Rated 5 ohm, 3 A, at 25°C (not relied upon safety).

*MODEL GT-2-2030-80-2

FIG. 4 (S99-10542)

General - Similar to Fig. 1, except the following description.

1. Enclosure - Same, except enclosure material, Type PA-765a. The ventilation openings as follows:

Top - Not provided.

Sides - 24 louvered openings, each measures 24.2 by 1.8 m at both sides.

Bottom - Same as Fig. 1, Item 1.

2. Power Supply Cord - Detachable same as Fig. 1, Item 2, except detachable and provided with Appliance Inlet, Fig. 4, Item 5.

5. Appliance Inlet - R/C (AXUT2 or RTRT2), Supercom, Type SC-9 rated 10 A, 250 V minimum. Secured and soldered to PWB.

Alternate - Same as above, except Inalways, Type-0708-1.

8. Bulk Capacitors (C1) - Rated minimum 220 μ F, 400 V, 85 °C. (Provides with integral pressure relief)
9. Bleeder Resistor (R1) - Rated 1 megohm, 1/2 W.
10. Bridge Diode (BD1) - Rated 600 V, 4 A minimum.
11. Varistor (VAR1) - Optional, R/C (FOWX2) or (XUHT2), rated 470 V, 14 J minimum (not relied upon safety).
12. Transformer (T1) - Open-type construction. Core: ferrite core. Overall 41.3 by 35 by 11.3 mm thick. Coil: Copper magnet wire-wound concentrically on two-flanged bobbin. Bobbin: phenolic, minimum 0.71 mm thick. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin.

<u>Location</u>	<u>#Layer / Total Thickness (mm) / Material</u>
Outer Wrap	3 layers / minimum 0.075 mm thick/polyester tape.
Pri./Sec.	3 layers / minimum 0.075 mm thick/polyester tape.
Pri./Core	Bobbin, 0.71 mm thick.
Sec./Core	Bobbin, 0.71 mm thick.
Margin Tape	3.0 mm minimum wide, lead outs are sleeved with tubing.

Alternate - Same as above except, R/C (OBJY2) Xepex, Type XB-1 Class B insulation system.

Alternate - Same as above except, R/C (OBJY2), Syn, Type ST-2804, Class B insulation system.

13. Transistor (Q1) - Rated minimum 600 V, 12 A. A silicon rubber, minimum 0.2 mm thick, sleeved with the transistor body, and secured heat sink by metal clamp. Heat sink is aluminum, overall 86.6 by 60 by 39 by 2.8 mm thick. (Heat sink is considered as grounded.)
 - * Alternate - For Models GT-22030-80-2. Same as above, except heat sink, L-shaped overall 43 by 40 by 28 mm, 5.2 mm minimum thick.
 - * Alternate - For Models GT-22030-80-2. Same as above, except heat sink, overall 59 by 61 by 33.3 mm, 2.9 mm minimum thick.
14. Optical Isolator (U7) - R/C (FPQU2), VDE Sharp, Type PC817, rated 3000 V ac dielectric withstand. Creepage distance internally is 4.0 mm minimum and distance through insulation of 0.4 mm minimum.
 - Alternate - Same as above, except Liteon, Type LTV817.
 - Alternate - Same as above, except Toshiba, Type TLP621.

15. Grounding - (AVLV2). A yellow/green wire, No.18 AWG of power cord, is soldered to ground trace of printed wiring board.
16. EMI Plate - R/C (ZPMV2), Printed Wiring Board, overall measures 125 by 70 by 1.6 mm thick, secured to PWB by soldering.
- *17. Fan - For Models GT-22030-80-2 only. R/C (GPWV2). Fan is of type listed below.

<u>Manufacturer</u>	<u>Part No.</u>	<u>Rating</u>
Tsuyama	TYM4010AM	12 V dc, 0.11 A, 3.2 cfm
A-Power	FS0405MS	12 V dc, 0.11 A, 4.6 cfm

*MODEL - GT-22030-80-2

FIG. 5 (S99-10543)

General - Similar to Fig. 3, except the following description

1. Printed Wiring Board - See Section General, PWB Revisions Level A1.
5. Y-Capacitor - (CY1, CY2, CY3) - Similar to Fig. 3, Item 5, except location designation.
15. Grounding - The ground pin of appliance inlet is directly secured to PWB by soldering.

CONCLUSION

Samples of the products covered by this Report have been found to comply with the requirements covering the class and the products are judged to be eligible for Listing and Follow-Up Service. The manufacturer is authorized to use the Laboratories' Mark on such products which comply with the Follow-Up Service Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those products which properly bear the Laboratories' Mark are considered as Listed by Underwriters Laboratories Inc.

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