
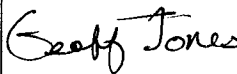
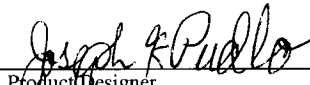
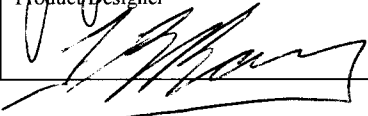


DESCRIPTION UL ECD Safety Report	PART NUMBER 81-40236	REV 1A
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**UL Safety Agency Report Covering
Approvals to UL 1950 and CSA 22.2 950-95
on the ECD Series DC/DC Converter**

Rev	ECO #	Description of Change	Originator	Date
1A	5968	Initial Release	Geoffrey Jones	12/05/03

 27715 Diehl Rd Warrenville, IL 60555 CONFIDENTIAL	© This document and the information contained herein is confidential and proprietary to Texas Instruments, Inc., and may not be reproduced for any purpose without the expressed written consent of Texas Instruments, Inc.	Originator	Date
		 Reliability Manager	12-11-03
		 Product Designer	12/9/03
		 Date	12/11/03



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Vol 1

Issued 07/21/1999
Revised 09/20/2002

FOLLOW-UP SERVICE PROCEDURE
(TYPE R)

COMPONENT - POWER SUPPLIES, INFORMATION TECHNOLOGY EQUIP.
INCLUDING ELEC. BUSINESS EQUIP.
(QQGQ2,QQGQ8)

Manufacturer: SEE ADDENDUM FOR MANUFACTURING LOCATIONS

Applicant: TEXAS INSTRUMENTS TUCSON CORP
(109363-001) M S 314
6730 S TUSCON BLVD
TUCSON AZ 85706

Recognized Company: SAME AS APPLICANT
(109363-001)

This Procedure authorizes the above Manufacturer to use the marking specified by Underwriters Laboratories Inc. only on products covered by this Procedure, in accordance with the applicable Follow-Up Service Agreement.

The prescribed Mark or Marking shall be used only at the above manufacturing location on such products which comply with this Procedure and any other applicable requirements.

The Procedure contains information for the use of the above named Manufacturer and representatives of Underwriters Laboratories Inc. and is not to be used for any other purpose. It is lent to the Manufacturer with the understanding that it is not to be copied, either wholly or in part, and that it will be returned to Underwriters Laboratories Inc. upon request.

This PROCEDURE, and any subsequent revisions, is the property of UNDERWRITERS LABORATORIES INC. and is not transferable.

UNDERWRITERS LABORATORIES INC.

A handwritten signature in cursive script, appearing to read 'A.W. Schaefer'.

A.W. Schaefer
Vice President and General Manager
Laboratory Management and Operations

R

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Vol. 1

Sec. 1
and Report

Page 1

Issued:1999-07-21
Revised:2004-07-28DESCRIPTIONPRODUCT COVERED:

USR/CNR - DC-to-DC converter, Model DCP01, DCP02, DCV01, DCV02, DCR01 and DCR02 Series. DCP01 Model numbers may be suffixed with the letter "B". **DCP01 & DCV01 models may have the letter B immediately in front of the package code e.g. BP or BP-U.**

ELECTRICAL RATING:

Model	Input, dc		Output, dc	
	V		V	A
DCP010505P/DP	5		5	0.2
DCP010512P/DP	5		12	0.083
DCP010515P/DP	5		15	0.066
DCP011205P	12		5	0.2
DCP011512DP	15		12	0.083
DCP011515DP	15		15	0.066
DCP012405P	24		5	0.2
DCP012415DP	24		15	0.066
DCP020505P	5		5	0.4
DCP020515DP	5		15	0.133
DCP022405P	24		5	0.4
DCP022415DP	24		15	0.133
DCP021205P	12		5	0.4
DCP021212DP	12		12	0.166
DCP020503P	5		3.3	0.606
DCP020507P	5		7	0.286
DCP020509P	5		9	0.222
DCP021212P	12		12	0.166
DCP021515P	15		15	0.133
DCP022405DP	24		5	0.4
DCP020503U	5		3.3	0.606
DCP020507U	5		7	0.286
DCP020509U	5		9	0.222
DCP020505U	5		5	0.4
DCP020515DU	5		15	0.133
DCP021205U	12		5	0.4

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Issued: 7-21-99
Revised: 5-22-01

Model	Input, dc		Output, dc	
	V		V	A
DCV010505P	5		5	0.2
DCV010512P	5		12	0.083
DCV010515P	5		15	0.066
DCV010505DP	5		5	0.2
DCV010512DP	5		12	0.083
DCV010515DP	5		15	0.066
DCV011512DP	15		12	0.083
DCV011515DP	15		15	0.066
DCV012405P	24		5	0.2
DCV012415DP	24		15	0.066
DCV020505P	5		5	0.4
DCV020515DP	5		15	0.133
DCV022415DP	24		15	0.133
DCR010505P	5		5	0.2
DCR011205P	12		5	0.2
DCR010503P	5		3.3	0.303
DCR011203P	12		3.3	0.303
DCR012403P	24		3.3	0.303
DCR012405P	24		5	0.2
DCR020505P	5		5	0.4
DCR020503P	5		3.3	0.606
DCV021207P	12		7	0.286
DCV021207P-U	12		7	0.286
DCP021207P-U-7	12		7	0.286
DCR010505U	5		5	0.2
DCR011205U	12		5	0.2
DCR010503U	5		3.3	0.303
DCR011203U	12		3.3	0.303
DCR012403U	24		3.3	0.303
DCR012405U	24		5	0.2
DCR021205P-U	12		5	0.4
DCR021203P-U	12		3.3	0.606
DCR022403P-U	24		3.3	0.606
DCR022405P-U	24		5	0.4
DCR021205P	12		5	0.4
DCR021203P	12		3.3	0.606
DCR022403P	24		3.3	0.606
DCR022405P	24		5	0.4
DCP010512P-U-7	5		12	0.083
DCP010505P-U	5		5	0.2
DCP010505P-U	5		5	0.2
DCP010512P-U	5		12	0.083
DCP010512DP-U	5		12	0.083
DCP010515P-U	5		15	0.066
DCP010515DP-U	5		15	0.066
DCP011205P-U	12		5	0.2
DCP011512DP-U	15		12	0.083
DCP011515DP-U	15		15	0.066
DCP012405P-U	24		5	0.02
DCP012415DP-U	24		15	0.066

INDEX

<u>Model Number(s)</u>	<u>Section</u>	<u>Report Date</u>	<u>Requirements Evaluated to (US and/or CN)</u>
DCP01: 0505P/DP, 0512P/DP, 0515P/DP, 1205P, 1512DP, 1515DP, 2405P, 2415DP 0505P-U, 0505DP-U, 0512P-U, 0512DP-U 0515P-U, 0515DP-U, 1205P-U, 1512DP-U, 1515DP-U, 2405P-U, 2415DP-U, 0512P-U-7	1	7-21-99	US and CN
DCP02: 0505P, 0515DP, 2405P, 2415DP, 1205P, 1212DP 0503P, 0507P, 0509P, 1212P, 1515P, 2405DP, 0503U, 0507U, 0509U, 0505U, 0515DU, 1205U 1207P-U-7			
DCV01: 0505P, 0512P, 0515P, 0505DP, 0512DP, 0515DP, 1512DP, 1515DP, 2405P, 2415DP			
DCV02: 0505P, 0515DP, 2415DP 1207P, 1207P-U			
DCR01: 0505P, 1205P, 0503P, 1203P, 2403P, 2405P 0505U, 1205U, 0503U, 1203U, 2403U, 2405U			
DCR02: 0505P, 0503P 1205P-U, 1203P-U, 2403P-U, 2405P-U, 1205P 1203P, 2403P, 2405P			

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

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, CAN/CSA C22.2 No. 950-95 * UL 1950, Third Edition, including revisions through revision date March 1, 1998, which are based on the Fourth Amendment to IEC 950, Second Edition.

The component was submitted and tested for a maximum manufacturer's recommended ambient (T_{mra}) of 85°C.

The equipment is: Class III (supplied by SELV).

All components have been evaluated for Operational insulation, with Dielectric Voltage Withstand tests conducted at 1000 V ac.

* Component Type DCV01 and DCV02 have been evaluated for operational insulation with Dielectric Voltage Withstand Tests conducted at 1500 V ac.

Conditions of Acceptability - When installed in the end product, consideration shall be given to the following:

1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, CAN/CSA C22.2 No. 950-95 * UL 1950, Third Edition, including revisions through revision date March 1, 1998, which are based on the Fourth Amendment to IEC 950, Second Edition.
2. Production-Line Dielectric Voltage Withstand (Electric Strength) tests are being conducted on these power supply devices.
3. The equipment has been evaluated for use in a Pollution Degree 2 Environment.
4. All secondary output circuits are SELV.

SELV - Safety Extra Low Voltage - Indicates a secondary circuit which is so designated and protected that under normal and single fault conditions the voltage between any two accessible parts, or between one accessible part and the equipment protective earthing terminal for Class I equipment, does not exceed a 42 V peak or 60 V dc, steady state.