

# CERTIFICATE OF COMPLIANCE

**Certificate Number** E181974  
**Report Reference** E181974-20110505  
**Issue Date** 2020-MARCH-09

**Issued to:** Texas Instruments Incorporated  
12500 TI BLVD  
DALLAS TX 75243

**This certificate confirms that  
representative samples of**

COMPONENT - NONOPTICAL ISOLATING DEVICES  
See Addendum Page

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

**Standard(s) for Safety:**  
**Additional Information:**

UL 1577 - Optical Isolators.  
See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program  
UL LLC

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USR - Single Protection Non-Optical Isolators, Model ISO1050DUB and ISO1050DW, may be followed by additional letters and/or numbers.

USR, CNR - Single Protection Non-Optical Isolators, Models ISO5500, ISO5501, ISO5510, ISO5511, ISO5512, ISO5513, ISO7631FC, ISO7631FM, ISO7640FC, ISO7640FM, ISO7641FC, ISO7641FM, ISO1050DW, may be followed by additional letters and/or numbers.



Bruce Mahrenholz, Director North American Certification Program  
UL LLC

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File E181974  
Project 10sc04488

May 05, 2011

REPORT

On

COMPONENT - NON-OPTICAL ISOLATING DEVICES

Texas Instruments, Tucson Corp.  
Tucson, Arizona 85706

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## DESCRIPTION

## PRODUCT COVERED:

USR - Single Protection Non-Optical Isolators, Model ISO1050DUB and ISO1050DW, may be followed by additional letters and/or numbers.

USR, CNR - Single Protection Non-Optical Isolators, Models ISO5500, ISO5501, ISO5510, ISO5511, ISO5512, ISO5513, ISO7631FC, ISO7631FM, ISO7640FC, ISO7640FM, ISO7641FC, ISO7641FM, ISO1050DW, may be followed by additional letters and/or numbers.

## MAXIMUM PER CHANNEL RATINGS (at 25°C) (\$):

Model	Current (mA)		Power (mW)		Isolation Voltage dc/ac	T <sub>moa</sub> (°C)	Max T <sub>j</sub> (°C)	Max T <sub>s</sub> (°C)	Data Transmission Speed (Mbps)
	Encoder (Emitter)	Decoder (Sensor)	Encoder (Emitter)	Decoder (Sensor)					
ISO1050DW (single protection)	3	73	25	175	5000 dc 3500 ac	105	150	150	1
ISO1050DW (single protection)	3	73	25	175	4243 ac	105	150	150	1
ISO1050DUB	3	73	25	175	2500 ac	105	150	150	1
*ISO5500	10	16	55	480	<b>2500</b> ac	125	170	150	1.04
ISO5501	10	16	55	480	4243 ac	125	170	150	1.04
ISO5510	10	16	55	480	4243 ac	125	170	150	1.04
ISO5511	10	16	55	480	4243 ac	125	170	150	1.04
ISO5512	10	16	55	480	4243 ac	125	170	150	1.04
ISO5513	10	16	55	480	4243 ac	125	170	150	1.04
ISO7631FC	6	8	33	44	2500 ac	125	150	150	25
ISO7631FM	21	30	115.6	165	2500 ac	125	150	150	150
ISO7640FC	4	11	22	60.5	2500 ac	125	150	150	25
ISO7640FM	16	46	88	253	4243 ac	125	150	150	150
ISO7641FC	6	10	33	55	2500 ac	125	150	150	25
ISO7641FM	24	39	132	215	4243 ac	125	150	150	150

(\$) - For ambient temperatures higher than 25°C and up to T<sub>moa</sub>, refer to manufacturer's specifications and/or thermal derating curve data for complete electrical ratings.

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

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

USR - Indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fifth Edition, **revised June 11, 2019**.

CNR indicates this product was investigated under the Canadian Certification Notice, CSA Component Acceptance Service No. 5A, **dated January 23, 1998**.

## Conditions of Acceptability -

1. The capability of the device to control a load has not been investigated.
2. These devices should be installed in a suitable end product enclosure.
3. If the maximum operating (ambient) temperature exceeds the rating noted in the ratings table, additional means should be used to determine if the maximum junction temperature of the device is exceeded.
4. For single protection devices, the insulation to the case has not been evaluated. For double protection devices, the insulation to the case has been evaluated to the isolation voltage specified in the ratings table.
5. In addition to meeting single protection requirements, double protection optical isolators have also been investigated for use in up to 250 V, 50/60 Hz circuits in audio, video, and similar equipment in applications in which breakdown of the optical isolator may result in a risk of fire, electrical shock, or injury to persons.

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