

Certificate of Compliance

Certificate Number:

UL-US-L214100-11-
90804102-1

Report Reference:

E214100-20140809

Issue Date:

2023-12-29

Issued to:

ANALOG DEVICES INC
804 WOBURN ST WILMINGTON, MA 01887-3494
United States

This certificate confirms that representative samples of:
FPPT2 - Nonoptical Isolating Devices - Component

See Addendum Page for Product Designation(s).

Have been evaluated 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.

UL 1577, Edition 5, Issue Date 2014-04-25, Revision Date 2023-07-06

Additional Information:

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

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance 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.



David Piecuch
UL Mark Certification Program Manager



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CERTIFICATE OF COMPLIANCE

Certificate number UL-US-L214100-11-90804102-1
Report reference E214100-20140809
Date 2023-12-29

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

Model	Product Description
AD71168*	Non-optical isolators, isolation voltage 2500 vac, single protection type
AD71217ARSZ, May have additional suffixes.	Single protection non-optical isolators at 3750 Vac isolation voltage
ADuM124xyRSZ#	Non-optical isolators, isolation voltage 3750 vac, single protection type
ADuM124xyRZ#	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM144xyRQZ#	Non-optical isolators, isolation voltage 2500 vac, single protection type
ADuM144xyRSZ#	Non-optical isolators, isolation voltage 3750 vac, single protection type
ADuM148xyRWZ#	Non-optical isolators, isolation voltage 3750 vac, single protection type
ADuM3070yRQZ#	Non-optical isolators, isolation voltage 2500 vac, single protection type
ADuM315xyRSZ#	Non-optical isolators, isolation voltage 3750 vac, single protection type
ADuM3190yRQZ#	Non-optical isolators, isolation voltage 2500 vac, single protection type
ADuM3224WyRZ#	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM415xyRIZ#	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4190yRIZ#	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4224WyRWZ#	Non-optical isolators, isolation voltage 5000 vac, single protection type



David Piecuch
UL Mark Certification Program Manager

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File E214100
Project 4786360191

August 9, 2014

REPORT

On

COMPONENT - NON-OPTICAL ISOLATING DEVICES

ANALOG DEVICES INC
Wilmington, MA 01887

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The Report should be reproduced in its entirety; however to protect confidential product information, the Construction Details Descriptive pages may be excluded.

DESCRIPTION

PRODUCT COVERED:

USR - Single Protection Non-Optical Isolator, Models AD71168, **AD71217ARSZ**, ADuM124xyRZ, ADuM124xyRSZ, ADuM144xyRSZ, ADuM144xyRQZ, ADuM148xyRWZ, ADuM315xyRSZ, ADuM415xyRIZ, ADuM3070yRQZ, ADuM3190yRQZ, ADuM3224WyRZ, ADuM4190yRIZ, and ADuM4224WyRWZ, where "x" may be 0, 1, 2, 3, 4, 5, 6, or 7 and "y" may be A, B, C, S, or T. All models may have additional suffixes.

ELECTRICAL RATINGS (at 25°C ambient) (\$):

Model	Current (mA)		Power (mW)		Isolation Voltage (AC)	Max Operating Temp (T _{moa}) (°C)	Max Junction Temp (T _j) (°C)	Max Storage Temp (T _s) (°C)	Max Data Rate
	Encoder	Decoder	Encoder	Decoder					
AD71168	2.0	5.0	40.0	100	2500	125	150	150	10 Mbps
AD71217ARSZ	1.2	0.9	6.0	4.5	3750	125	150	150	2 Mbps
ADuM124xyRZ	0.6	0.45	3.0	2.25	3000	125	150	150	2 Mbps
ADuM124xyRSZ	0.6	0.45	3.0	2.25	3750	125	150	150	2 Mbps
ADuM144xyRQZ	1.2	0.9	6.0	4.5	2500	125	150	150	2 Mbps
ADuM144xyRSZ	1.2	0.9	6.0	4.5	3750	125	150	150	2 Mbps
ADuM148xyRWZ	50.0	38.0	250	190	3750	125	150	150	100 Mbps
ADuM315xyRSZ	22.0	18.0	110	90	3750	125	150	150	34 Mbps
ADuM415xyRIZ	22.0	18.0	110	90	5000	125	150	150	34 Mbps
*ADuM3070yRQZ	2.0	5.0	40.0	100	2500	125	150	150	10 Mbps
ADuM3190yRQZ	2.0	5.0	40.0	100	2500	125	150	150	10 Mbps
ADuM3224WyRZ	2.5	8.0	12.5	288	3000	125	125	150	1 Mbps
ADuM4190yRIZ	2.0	5.0	40.0	100	5000	125	150	150	10 Mbps
ADuM4224WyRWZ	2.5	8.0	12.5	288	5000	125	125	150	1 Mbps

(\$) - For ambient temperatures higher than 25°C and up to T_{moa}, refer to manufacturer's specifications and/or thermal derating curve data for complete electrical ratings.

Table Of Applicable Part
Numbers:

Part number	x = Channel Config	y = Grade
ADuM148xyRWZ	0,1,2,5,6,7	A,B
ADuM315xyRSZ	0,1,2,3,4	A,B
ADuM415xyRIZ	0,1,2,3,4	A,B
AD71168, ADuM3070yRQZ, ADuM3190yRQZ		A,B,S,T
ADuM4190yRIZ		A,B,S,T
ADuM3224WyRZ		A,B,C
*ADuM4224WyRWZ		A,B,C
ADuM124xyRZ	0,1,5,6	A,B
ADuM124xyRSZ	0,1,5,6	A,B
ADuM144xyRSZ	0,1,2,5,6,7	A,B
ADuM144xyRQZ	0,1,2,5,6,7	A,B

GENERAL:

These devices are non-optical isolators consisting of an encoder and decoder. The encoder and decoder are separated by a transformer. Internal "chips" are connected to lead frames that are molded into the enclosure.

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

Use - For use only in products where the acceptability of the combination is determined by UL LLC.

USR indicates this product was investigated under the UL Standard for Safety for Optical Isolators, UL 1577, Fifth **Edition, revised July 6, 2023.**

CONDITIONS OF ACCEPTABILITY - Each device shall be reviewed with respect to the following 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.

CONSTRUCTION DETAILS:

General - The product shall be constructed in accordance with the following description. All dimensions are approximate, unless specified as "max" or "min".