

Certificate of Compliance

Certificate Number:

UL-US-L214100-11-
22114102-1

Report Reference:

E214100-20141122

Issue Date:

2024-09-05

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 UL Product iQ® 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



Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact UL Solutions Customer Service at <https://www.ul.com/contact-us>.

CERTIFICATE OF COMPLIANCE

Certificate number UL-US-L214100-11-22114102-1
Report reference E214100-20141122
Date 2024-09-05

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
ADE7912*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7913*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7932*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7933*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE9112ARNZ, may have additional suffixes.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADE9113ARNZ, may have additional suffixes.	Single protection non-optical isolators at 5000 Vac isolation voltage



David Picuch
UL Mark Certification Program Manager

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Certificate of Compliance

Certificate Number:

UL-CA-L214100-21-
22114102-1

Report Reference:

E214100-20141122

Issue Date:

2024-09-05

Issued to:

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

This certificate confirms that representative samples of:

**FPPT8 - Nonoptical Isolating Devices Certified for Canada -
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.

**CSA Component Acceptance Service Notice No. 5A, Issue Date:
1998-01-23**

Additional Information:

See UL Product iQ® 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.

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CERTIFICATE OF COMPLIANCE

Certificate number UL-CA-L214100-21-22114102-1
Report reference E214100-20141122
Date 2024-09-05

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
ADE7912*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7913*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7932*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE7933*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADE9112ARNZ, may have additional suffixes.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADE9113ARNZ, may have additional suffixes.	Single protection non-optical isolators at 5000 Vac isolation voltage



David Piecuch
UL Mark Certification Program Manager

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File E214100
Project 4786537198

November 22, 2014

REPORT

on

COMPONENT - Nonoptical Isolating Devices

Analog Device Inc.
Wilmington, MA

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DESCRIPTION

PRODUCT COVERED:

*USR, CNR - Single Protection Non-Optical Isolator, Models AD71163, ADE7912, ADE7913, ADE7932, **ADE7933, ADE9112ARNZ, and ADE9113ARNZ**. All models may have additional suffixes.

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

*Model	Current (mA)		Power (mW)		Isolation Voltage at 60 sec (Vrms)	Max Operating Ambient Temp (°C)	Max Junction Temp (°C)	Max Storage Temp (°C)	Max Data Rate
	Encoder (Side 1)	Decoder (Side 2)	Encoder (Side 1)	Decoder (Side 2)					
AD71163	0.8	12.5	2	45.375	5000	85	150	150	4.21 MHz
ADE7912	0.8	12.5	2	45.375	5000	85	150	150	4.21 MHz
ADE7913	0.8	12.5	2	45.375	5000	85	150	150	4.21 MHz
ADE7932	0.8	12.5	2	45.375	5000	85	150	150	4.21 MHz
ADE7933	0.8	12.5	2	45.375	5000	85	150	150	4.21 MHz
ADE9112A RNZ	13	2	48	4	5000	125	150	150	20 Mbps
ADE9113A RNZ	13	2	48	4	5000	125	150	150	20 Mbps

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

GENERAL:

These non-optical isolator devices consist of a transmitter coupled to a receiver. The transmitter and receiver are separated by an insulating barrier. 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**.

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

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. The maximum junction temperature shall not be 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.

CONSTRUCTION DETAILS:

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

Markings - As specified in the Section General.