Certificate of Compliance

Certificate Number:

UL-US-L214100-11-40606102-5

Report Reference:

E214100-20160604

Issue Date:

2025-02-17

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 Owner

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

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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.

Model	Product Description
AD71255*	Non-optical isolators, isolation voltage 5000 vac, single protection type
AD71256*	Non-optical isolators, isolation voltage 5000 vac, single protection type
AD71257*	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADN4622BCPZ, May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 1500 Vac isolation voltage
ADN4622BRNZ, May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5700 Vac isolation voltage
ADN4624-1BRNZ, May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5700 Vac isolation voltage
ADN4624BCPZ, May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 1500 Vac isolation voltage
ADN4624BRNZ, May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5700 Vac isolation voltage
ADN465xBRSZ, where x represents any alphanumeric character. May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 3750 Vac isolation voltage
ADN465xBRWZ, where x represents any alphanumeric character. May have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADNuM4650BRSZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADNuM465xBRWZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM110NzRZ$(%)	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM12xNzBRZ$(%)	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM13xyzBRWZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to	Non-optical isolators, isolation voltage 3750 vac, single protection type

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-55°C with a NiPdAu lead finish and are an accepted variant.	
ADuM13xyzBRZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM14xyzBRQZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM14xyzBRWZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 3750 vac, single protection type
ADuM14xyzBRZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM15xNzBRZ$(%)	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM16xNzBRZ$(%)	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM210NzBRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM220NzBRWZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM221NzBRWZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM225NzBRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part	Non-optical isolators, isolation voltage 3000 vac, single protection type

number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	
ADuM226*(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM226NzBRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 3000 vac, single protection type
ADuM23xyzBRIZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM23xyzBRWZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADUM24xyz$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM24xyzBRIZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADUM24xyzBRWZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM25xNyBRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM26xNyBRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4120-1ARIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage

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ADuM4120-1BRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4120-1CRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4120ARIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4120BRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4120CRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4121-1xRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4121xRIZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4122ARIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4122BRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4122CRIZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4135BRWZ, Where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A “W” before the package type indicates an automotive flow and “EP” at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish and are an accepted variant.	Non-optical isolators, isolation voltage 5000 vac, single protection type
ADuM4136BRWZ$(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type

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ADuM4137WBRNZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
ADuM4138WBRNZ, may have additional suffixes. A “W” before the package type indicates an automotive flow and is an accepted variant.	Single protection non-optical isolators at 5000 Vac isolation voltage
BRWZ*(%)	Non-optical isolators, isolation voltage 5000 vac, single protection type

File E214100
Project 4787281617

June 4, 2016

REPORT

on

COMPONENT - Nonoptical Isolating Devices

ANALOG DEVICES INC.
WILMINGTON, MA

DESCRIPTION

PRODUCT COVERED:

*USR – Single Protection Non-Optical Isolator, Models AD71255, AD71256, AD71257, ADN4622BRNZ, ADN4622BCPZ, ADN4624BRNZ, ADN4624-1BRNZ, ADN4624BCPZ, ADN465xBRSZ, ADN465xBRWZ, ADuM110NzRZ, ADuM12xNzBRZ, **ADuM13xyzBRWZ**, **ADuM13xyzBRZ**, **ADuM14xyzBRQZ**, **ADuM14xyzBRWZ**, **ADuM14xyzBRZ**, ADuM15xNzBRZ, ADuM16xNzBRZ, ADuM23xyzBRIZ, ADuM24xyzBRIZ, **ADuM210NzBRIZ**, **ADuM23xyzBRWZ**, ADuM220NzBRWZ, ADuM221NzBRWZ, **ADuM24xyzBRWZ**, **ADuM25xNyBRIZ**, **ADuM26xNyBRIZ**, **ADuM225NzBRIZ**, **ADuM226NzBRIZ**, ADuM4120ARIZ, ADuM4120BRIZ, ADuM4120CRIZ, ADuM4120-1ARIZ, ADuM4120-1BRIZ, ADuM4120-1CRIZ, **ADuM4121xRIZ**, **ADuM4121-1xRIZ**, ADuM4122ARIZ, ADuM4122BRIZ, ADuM4122CRIZ, **ADuM4135BRWZ**, ADuM4136BRWZ, ADuM4137WBRNZ, and ADuM4138WBRNZ, where x, y, and z represent any alphanumeric character. All models may have additional suffixes. A "W" before the package type indicates an automotive flow **and "EP" at the end of the base part number indicates lower extended temperature capability to -55°C with a NiPdAu lead finish** and **are** an accepted variant.

MAXIMUM RATINGS PER SIDE (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, Mbps
	Encoder (Side 1)	Decoder (Side 2)	Encoder (Side 1)	Decoder (Side 2)					
AD71255	11.8	10.3	59	51.5	5000	125	150	150	150
AD71256	11.8	10.3	59	51.5	5000	125	150	150	150
AD71257	11.8	10.3	59	51.5	5000	125	150	150	150
ADN465xBRSZ	80	80	264	264	3750	125	150	150	600
ADN465xBRWZ	80	80	264	264	5000	125	150	150	600
ADN4622BRNZ	149	147	306.5	303.1	5700	125	150	150	2500
ADN4622BCPZ	149	147	306.5	303.1	1500	125	150	150	2500
ADN4624BRNZ	175	140	332.5	266	5700	125	150	150	2500
ADN4624BCPZ	175	140	332.5	266	1500	125	150	150	2500
ADN4624-1BRNZ	175	140	332.5	266	5700	125	150	150	2500
ADuM110NzRZ	3.6	4.9	18	24.5	3000	125	150	150	150
ADuM12xNzBRZ	6.2	6.0	31	30	3000	125	150	150	150
***ADuM13xyzBRZ**	9.4	8	47	40	3000	125	150	150	150
ADuM13xyzBRWZ	**9.4**	**8**	**47**	**40**	**3750**	**125**	**150**	**150**	**150**
ADuM14xyzBRQZ	**11.8**	**10.3**	**59**	**51.5**	**3000**	**125**	**150**	**150**	**150**
ADuM14xyzBRWZ	**11.8**	**10.3**	**59**	**51.5**	**3750**	**125**	**150**	**150**	**150**
ADuM14xyzBRZ	11.8	10.3	59	51.5	3000	125	150	150	150
ADuM15xNzBRZ	16	13.4	80	67	3000	125	150	150	150
ADuM16xNzBRZ	18.3	17	91.5	85	3000	125	150	150	150
***ADuM23xyzBRWZ**	9.4	8	47	40	5000	125	150	150	150

MAXIMUM RATINGS PER SIDE (at 25°C ambient) ($) (CONT):

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, Mbps
	Encoder (Side 1)	Decoder (Side 2)	Encoder (Side 1)	Decoder (Side 2)					
ADuM23xyz BRIZ	9.4	8	47	40	5000	125	150	150	150
***ADuM24xyzBRWZ**	11.8	10.3	59	51.5	5000	125	150	150	150
ADuM24xyz BRIZ	11.8	10.3	59	51.5	5000	125	150	150	150
ADuM25xNy BRIZ	16	13.7	80	68.5	5000	125	150	150	150
ADuM26xNy BRIZ	18.3	17	91.5	85	5000	125	150	150	150
***ADuM210NzBRIZ**	3.6	4.9	18	24.5	5000	125	150	150	150
ADuM220Nz BRWZ	6.2	4.8	31	24	5000	125	150	150	150
ADuM221Nz BRWZ	5.4	5.9	27	29.5	5000	125	150	150	150
ADuM225Nz BRIZ	6.2	4.8	31	24	5000	125	150	150	150
ADuM226Nz BRIZ	5.4	5.9	27	29	5000	125	150	150	150
ADuM4120A RIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
ADuM4120B RIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
ADuM4120C RIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
ADuM4120-1ARIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
ADuM4120-1BRIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
ADuM4120-1CRIZ	5.00	2.60	32.50	91.00	5000	125	150	150	--
***ADuM4121xRIZ**	3.6	6.8	18	240	5000	125	150	150	20
***ADuM4121-1xRIZ**	3.6	6.8	18	240	5000	125	150	150	20
ADuM4122A RIZ	17.00	4.00	110.50	140.00	5000	125	150	150	--
ADuM4122B RIZ	17.00	4.00	110.50	140.00	5000	125	150	150	--
ADuM4122C RIZ	17.00	4.00	110.50	140.00	5000	125	150	150	--
***ADuM4135BRWZ**	4.78	4.82	28.7	144	5000	125	150	150	150
ADuM4136B RWZ	4.78	4.82	28.7	144	5000	125	150	150	150
ADuM4137W BRNZ	5.00	18.00	125.00	450.00	5000	125	150	150	--
ADuM4138W BRNZ	8.50	20.00	212.50	500.00	5000	125	150	150	--

($) - 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**

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.