



Certificate of Compliance

Certificate: 2162711

Master Contract: 205078

Project: 80046957

Date Issued: 2020-06-19

Issued To: Analog Devices Inc.
804 Woburn St
Wilmington, Massachusetts, 01887-3462
United States

Attention: Mark Cantrell

The products listed below are eligible to bear the CSA Mark shown with adjacent indicator▲



Issued by: *Martin Buchanan*
Martin Buchanan, P. Eng.

PRODUCTS

CLASS - C907330 - ELECTRONIC COMPONENTS Optoisolators and non-optical isolating devices

Component Acceptance of Optoisolator Like Devices:

Device	Rating		Standard/Notice and Clauses	Internal		External
	kV	°C		Creepage (mm)	Dist Thru (mm)	Creep/Clear (mm)
(SOIC 16W RW package) ADuM3160BRWZ ADuM3160WBRWZab	2.5	105	14-18 tb35, 6.21.4.1, 6.2.1/6.2.12, 6.8.1 60950-1-07+A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1-14 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 IEC 60950-1 2nd Ed., +A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2	-	-	7.8



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Device	Rating		Standard/Notice and Clauses	Internal		External
	kV	°C		Creepage (mm)	Dist Thru (mm)	Creep/Clear (mm)
			62368-1:2014 Ed. 2 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 EN 60950-1:2006+A1+A12+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1:2014/A11:2017 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3			
(SOIC 16W RW package) ADuM4160BRWZ ADuM4160WBRWZab	5.0	105	14-18 tb35, 6.21.4.1, 6.2.1/6.2.12, 6.8.1 60950-1-07+A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1-14 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 61010-1-12+A1 6.7.1.3, 6.7.2.1 or tbK.1 to K.4, 6.7.2.2.1, 6.7.2.2.2 or tbK.9, A.17, tbK.5x1.6, K.6x1.6, K.7x1.6, 10 60601-1:14 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7 IEC 60950-1 2nd Ed., +A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1:2014 Ed. 2 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 61010-1 3 rd Ed+A1 6.7.1.3, 6.7.2.1 or tbK.1 to K.4, 6.7.2.2.1, 6.7.2.2.2 or tbK.9, A.17, tbK.5x1.6, K.6x1.6, K.7x1.6, 10 60601-1 Ed.3+A1 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7 EN 60950-1:2006+A1+A12+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1:2014/A11:2017 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3	-	-	7.8
(SOIC 16W RI package) ADuM4160BRIZ ADuM4160WBRIZab	5.0	105	14-18 tb35, 6.21.4.1, 6.2.1/6.2.12, 6.8.1 60950-1-07+A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1-14 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 61010-1-12+A1 6.7.1.3, 6.7.2.1 or tbK.1 to K.4, 6.7.2.2.1, 6.7.2.2.2 or tbK.9, A.17, tbK.5x1.6, K.6x1.6, K.7x1.6, 10	-	-	8.7



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	kV	°C		Creepage (mm)	Dist Thru (mm)	Creep/Clear (mm)
			60601-1:14 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7 IEC 60950-1 2nd Ed., +A1+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1:2014 Ed. 2 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3 61010-1 3 rd Ed+A1 6.7.1.3, 6.7.2.1 or tbK.1 to K.4, 6.7.2.2.1, 6.7.2.2.2 or tbK.9, A.17, tbK.5x1.6, K.6x1.6, K.7x1.6, 10 60601-1 Ed.3+A1 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7 EN 60950-1:2006+A1+A12+A2 2.10.3.3, 2.10.4.2, 2.10.4.3, 2.10.5.4a, 2.10.11, 4.5.2, 5.2 62368-1:2014/A11:2017 5.4.3, 5.4.2, 5.4.4.4, 5.4.7, 5.4.1.5.3, 5.4.9.1, 5.4.8, 5.4.1.4, 5.4.3.3			

where. Z, if used, indicates the lead-free version. Suffix ab is a 2 digit number denoting specific supply voltage combinations. Suffix EP at the end of the base part number indicates lower extended temperature capability to -55C with a NiPdAu lead finish. Further suffix letters or digits differentiate shipping package formats.

Notes:

1. Devices with RW suffix meet basic insulation for 600Vrms for CSA 62368-1-14, IEC 62368-1:2014 and EN62368-1:2014/A11:2017. (pollution degree 2, material group III)
2. ADuM4160BRWZ and ADuM4160WBRWZab meet reinforced insulation for 300Vrms for CSA 60950-1-07+A1+A2, IEC 60950-1 2nd Ed.+A1+A2 and EN 60950-1+A1+A12+A2 (pollution degree 2, material group III)
3. Devices with RW suffix meet basic insulation for 780Vrms for CSA 60950-1-07+A1+A2, IEC 60950-1 2nd Ed.+A1+A2 and EN 60950-1+A1+A12+A2 (pollution degree 2, material group III)
4. ADuM4160BRWZ and ADuM4160WBRWZab meet reinforced insulation for 390Vrms for CSA 60950-1-07+A1+A2, IEC 60950-1 2nd Ed.+A1+A2 and EN 60950-1+A1+A12+A2 (pollution degree 2, material group III)
5. For CSA 61010-1-12+A1 and IEC 61010-1 3rd Ed. the RW devices meet 600Vrms for basic insulation and 300V for reinforced insulation based on 61010-1 Cl 14.1 a) for use in 61010-1 end products because they meet the requirements of the 62368-1 evaluation. The risk management process is not applicable to these clauses. (pollution degree 2, material group III)
6. For CSA 60601-1:14 and IEC60601-1 Ed.3+A1 for 2 MOPP for 237Vrms, ADuM4160BRWZ and ADuM4160WBRWZab meet clauses 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7. The risk management process is not applicable to these clauses. (pollution degree 2, material group III)



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7. ADuM4160BRIZ and ADuM4160WBRIZab meet reinforced requirements for 300Vrms and basic insulation for 600Vrms for CSA 62368-1-14, IEC 62368-1:2014 and EN62368-1:2014/A11:2017. (pollution degree 2, material group III)
7. ADuM4160BRIZ and ADuM4160WBRIZab meet reinforced requirements for 435Vrms and basic insulation for 870Vrms for CSA 60950-1-07+A1+A2, IEC 60950-1 2nd Ed.+A1+A2 and EN 60950-1+A1+A12+A2 (pollution degree 2, material group III)
8. For CSA 61010-1-12+A1 and IEC 61010-1 3rd Ed. for 600Vrms, overvoltage category IV for basic and 300Vrms, overvoltage category III for reinforced insulation, ADuM4160BRIZ and ADuM4160WBRIZab meet clauses K.3, K.4, 6.7.1.3, 6.7.2.2.2 A.17, K.6x1.6, K.7x1.6, 10. The risk management process is not applicable to these clauses. (pollution degree 2, material group III)
9. For CSA 60601-1:14 and IEC60601-1 Ed.3+A1 for 2 MOPP for 276Vrms, ADuM4160BRIZ and ADuM4160WBRIZab meet clauses 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7. The risk management process is not applicable to these clauses.
10. Case Material: Multiple mold compounds have been evaluated. All meet at least material group II.
11. Evaluated by thermal cycling and other tests for a temperature rating of 125C.
12. The creepage and clearance has been evaluated for altitudes $\leq 2000\text{m}$, in pollution degree 2 and overvoltage category II except where specified above. (pollution degree 2, material group III).

These devices are Component Accepted as components for use in other Certified equipment where the suitability of the combination shall be determined by investigation of the final application.

APPLICABLE REQUIREMENTS

- CAN/CSA-C22.2 No 14-18 - Industrial Control Equipment
- CAN/CSA-C22.2 No 60950-1-07+A1+A2 - Information Technology Equipment - Safety - Part 1: General Requirements (Bi-national Standard, with UL 60950-1)
- CAN/CSA-C22.2 No. 62368-1-14 - Audio/video, information and communication technology equipment- Part 1: Safety requirements
- IEC 60950-1 2nd Ed.+A1+A2 - Information Technology Equipment - Safety - Part 1: General Requirements
- IEC 62368-1:2014 Ed. 2 - Audio/video, information and communication technology equipment- Part 1: Safety requirements
- EN 60950-1:2006+A1+A12+A2 - Information Technology Equipment - Safety - Part 1: General Requirements
- EN 62368-1:2014/A11:2017 - Audio/video, information and communication technology equipment - Part 1: Safety requirements (IEC 62368-1:2014, modified)

Clauses 6.7.1.3, 6.7.2.1 or K.1 to K.4, 6.7.2.2.1, 6.7.2.2.2 or tbK.9, A.17, tbK.5x1.6, K.6x1.6, K.7x1.6, 10 of

CAN/CSA C22.2 No. 61010-1-12, UPD1: 2015, UPD2: 2016, AMD1: 2018 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements (Tri-national standard, with UL 61010-1 Ed. 3 (2012), AMD1: 2018 and ANSI/ISA-61010-1 (82.02.01))



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IEC 61010-1:2010 Ed. 3.1:2017 01 - Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements

Clauses 8.5.5.1, 8.8.2, 8.8.3x1.6, 8.9.3.2, 8.9.3.4, 8.9.1.15, 8.9.1.7
of

CAN/CSA C22.2 60601-1:14 - Medical Electrical Equipment Part 1: General requirements for basic safety and general performance (Adopted IEC60601-1:2005 Edition 3.0 +Amendment 1, 2012-07, MOD)

and

IEC60601-1:2005 Ed 3.0+A1 - Medical Electrical Equipment Part 1: General requirements for basic safety and general performance



Supplement to Certificate of Compliance

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***The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.***

Product Certification History

Project	Date	Description
80046957	2020-06-19	addition of 62368-1 and correction for insulation cat. no. from I-8124EB to I-8124ER
000070046639	2016-10-26	Update to 2162711 for alternative mould compound and leadframe based on results for similar devices from other report(s)
0002431959	2011-06-14	Repeat of thermal cycling tests of extended length package device for 6400V dielectric test
0002367759	2010-11-15	Addition of long creepage package and clauses of 60601 3rd Ed.
0002162711	2009-06-17	Original Component Acceptance