



Product Service

CERTIFICATE

No. B 056232 0029 Rev. 03

Holder of Certificate: Analog Devices, Inc.

One Analog Way
Wilmington MA 01887
USA

Certification Mark:



Product:

**Magnetic Isolating Components
(Semiconductive isolating coupler)**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the Testing, Certification, Validation and Verification Regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 705102409601-03

Valid until: 2030-12-21

Date, 2025-12-29

(Boris Ouyang)

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Model(s):

ADuM340E series, ADuM341E series, ADuM342E series, ADuM320N series, ADuM321N series, ADuM360N series, ADuM361N series, ADuM362N series, ADuM363N series, ADuM4221 series, ADuM4146 series

Description for models' designation:

ADuM34xEyzRWZ – quad-channel standard data isolator using Analog Devices' iCoupler® technology

x – Identifies the number of reverse channel (0, 1 or 2)

y – Identifies the default output state:

0 = Outputs default LOW, 1 = Outputs default HIGH

z – Indicates the grade: B = Industrial, WB = Automotive

RW – Indicates SOIC_W wide body package

Z – Indicates ROHS compliance

ADuM34xEyzRQZ – quad-channel standard data isolator using Analog Devices' iCoupler® technology.

x – Identifies the number of reverse channel (0, 1 or 2)

y – Identifies the default output state:

0 = Outputs default LOW, 1 = Outputs default HIGH

z – Indicates the grade: B = Industrial, WB = Automotive

RQ – Indicates QSOP package

Z – Indicates ROHS compliance

ADuM32xNyzRZ – dual-channel standard data isolator using Analog Devices' iCoupler® technology

x – Identifies the number of reverse channel (0, or 1)

y – Identifies the default output state:

0 = Outputs default LOW, 1 = Outputs default HIGH

z – Indicates the grade: B = Industrial, WB = Automotive

R – Indicates SOIC_N narrow body package

Z – Indicates ROHS compliance

ADuM32xNyzRIZ – dual-channel standard data isolator using Analog Devices' iCoupler® technology

x – Identifies the number of reverse channel (0, or 1)

y – Identifies the default output state:

0 = Outputs default LOW, 1 = Outputs default HIGH

z – Indicates the grade: B = Industrial, WB = Automotive

RI – Indicates SOIC_IC wide body enhanced creepage package

Z – Indicates ROHS compliance

ADuM36xNyzRQZ – 6-channel standard data isolator using Analog Devices' iCoupler® technology

x – Identifies the number of reverse channel (0, 1, 2 or 3)

y – Identifies the default:

0 = Outputs default LOW, 1 = Outputs default HIGH

z – Indicates the grade: B = Industrial, WB = Automotive

RQ – Indicates 16L-QSOP package.

Z – Indicates ROHS compliance

ADuM4221xRIZ

x – Identifies the data rate or functional variant (A;B;C)

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RI – Indicates SOIC_IC wide body enhanced creepage package

Z – Indicates ROHS compliance

ADuM4221-1xRIZ

x – Identifies the data rate or functional variant (A;B;C)

RI – Indicates SOIC_IC wide body enhanced creepage package

Z – Indicates ROHS compliance

ADuM4221-2xRIZ

x – Identifies the data rate or functional variant (A;B;C)

RI – Indicates SOIC_IC wide body enhanced creepage package

Z – Indicates ROHS compliance

ADuM4146xRWZ- single-channel gate driver

x – Identifies the data rate or functional variant (A;B;C)

RW – Indicates SOIC_W package

Z – Indicates ROHS compliance

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Parameters:

Parameter concerns	Specification for components
Maximum working isolation voltage (V_{IOWM}) RMS:	See table 1 for details
Apparent charge method a & b (q_{pd}):	Max. 5 pC
Isolation resistance under T_{amb} (R_{IO}):	Min. $10^{11} \Omega$
Ambient temperature(T_{amb}):	-40°C to 125°C
Storage temperature (T_{stg}):	See table 1 for details
Isolation resistance of $T_s(R_{IO_S})$:	Min. $10^9 \Omega$
Maximum ambient safety temperature ($T_{s,Max}$), without carry current:	150°C
External Clearance (CLR):	See table 1 for details
External Creepage(CRP):	See table 1 for details
Comparative tracking index(CTI):	Min.600V
Maximum rated transient isolation voltage (V_{IOTM}):	See table 1 for details
Maximum rated repetitive peak isolation voltage (V_{IORM}):	See table 1 for details
Maximum withstanding isolation voltage, V_{ISO} , AC RMS for one minute	See table 1 for details
Impulse voltage(V_{IMP}):	See table 1 for details
Maximum surge isolation voltage for reinforced insulation (V_{IOSM}):	See table 1 for details
Pollution Degree:	2
Type of insulation:	Reinforced insulation
Remark: Testing of required V_{IOSM} levels conducted in oil to exclude arcing across the surface or in air.	

Tested according to:

IEC 60747-17:2020/COR1:2021
EN IEC 60747-17:2020/AC:2021
DIN EN IEC 60747-17(VDE 0884-17):2021-10

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Table 1: Detail Characteristic information										
Series	ADuM340E		ADuM341E		ADuM342E		ADuM320N		ADuM321N	
Packages	16L-SOIC_W (RW-16)	16L-QSOP (RQ-16)	16L-SOIC_W (RW-16)	16L-QSOP (RQ-16)	16L-QSOP (RQ-16)	16L-SOIC_W (RW-16)	8L-SOIC_N (R-8)	8L-SOIC_IC (RI-8-1)	8L-SOIC_IC (RI-8-1)	8L-SOIC_N (R-8)
Isolation resistance under T_{amb} (R_{IO}), Min.	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$
Ambient temperature (T_{amb})	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C
Storage temperature (T_{stg})	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C
Isolation resistance of T_s (R_{IO_S}), Min.	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$
Maximum ambient safety temperature ($T_{s,Max}$), without carry current.	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C
External Clearance (CLR), Min.	7.8mm	3.2mm	7.8mm	3.2mm	3.2mm	7.8mm	3.5mm	8.3mm	8.3mm	3.5mm
External Creepage (CRP), Min.	7.8mm	3.2mm	7.8mm	3.2mm	3.2mm	7.8mm	3.5mm	8.3mm	8.3mm	3.5mm
Maximum working isolation voltage (V_{IOWM}) (V) RMS	829V	400V	829V	400V	400V	829V	450V	829V	829V	450V
Comparative tracking index (CTI), Min.	600V	600V	600V	600V	600V	600V	600V	600V	600V	600V
Maximum rated transient isolation voltage (V_{IOTM})	8000V	4242V	8000V	4242V	4242V	8000V	4242V	8000V	8000V	4242V
Maximum rated repetitive peak isolation voltage (V_{IORM})	1173V	566V	1173V	566V	566V	1173V	636V	1173V	1173V	636V
Maximum withstanding isolation voltage, V_{ISO} AC RMS for one minute	5700V	3000V	5700V	3000V	3000V	5700V	3000V	5700V	5700V	3000V
Impulse voltage (V_{IMP}), Max.	8000V	4000V	8000V	4000V	4000V	8000V	4000V	8000V	8000V	4000V
Maximum surge isolation voltage (V_{IOSM})	16kV	10kV	16kV	10kV	10kV	16kV	10kV	16kV	16kV	10kV
Type of insulation	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced	Reinforced

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Table 1: Detail Characteristic information (to be continue)

Series	ADuM360N series, ADuM361N series, ADuM362N series, ADuM363N series	ADuM4221 series	ADuM4146 series
Packages	16L-QSOP(RQ-16)	16L- SOIC_IC(RI-16-2)	16L- SOIC_W(RW-16)
Isolation resistance under T_{amb} (R_{IO}), Min.	$10^{11} \Omega$	$10^{11} \Omega$	$10^{11} \Omega$
Ambient temperature (T_{amb})	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C
Storage temperature (T_{stg})	-40°C to 125°C	-55°C to 150°C	-55°C to 150°C
Isolation resistance of T_s (R_{IO_s}), Min.	$10^9 \Omega$	$10^9 \Omega$	$10^9 \Omega$
Maximum ambient safety temperature ($T_{s,Max}$), without carry current.	150°C	150°C	150°C
External Clearance (CLR), Min.	3.5mm	8.3mm	8.3mm
External Creepage (CRP), Min.	3.5mm	8.3mm	8.3mm
Maximum working isolation voltage (V_{IOWM}) (V) RMS	450V	600V	1520V
Comparative tracking index (CTI), Min.	600V	600V	600V
Maximum rated transient isolation voltage (V_{IOTM})	4242V	8000V	8000V
Maximum rated repetitive peak isolation voltage (V_{IORM})	636V	849V	2150V
Maximum withstanding isolation voltage, V_{ISO} AC RMS for one minute	3000V	5700V	5700V
Impulse voltage (V_{IMP}), Max.	4000V	8000V	8000V
Maximum surge isolation voltage (V_{IOSM})	10kV	12.8kV	15kV
Type of insulation	Reinforced	Reinforced	Reinforced