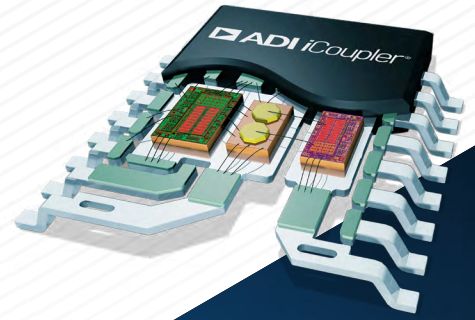


# Digital Isolation and Interface Technology

*Selection Guide 2021*



VISIT [ANALOG.COM/ICOUPLER](https://www.analog.com/icoupler)



AHEAD OF WHAT'S POSSIBLE™

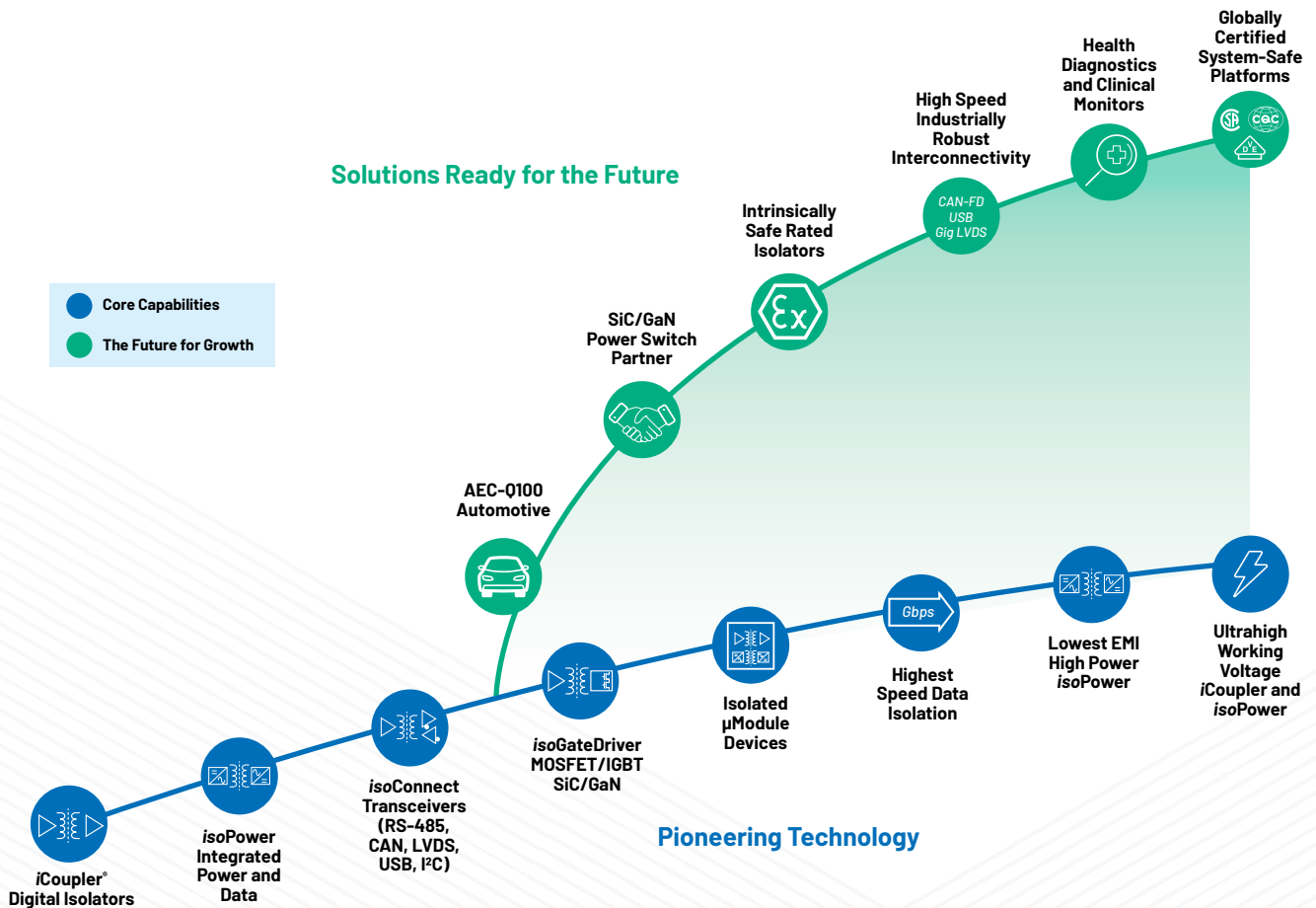
**ADI** iCoupler®



# Contents

Digital Isolators	4	USB 2.0 Isolators	15
Smart Industry	5	I <sup>2</sup> C Isolators	15
Digital Isolators with Isolated Power— <i>isoPower</i> <sup>®</sup> or <i>μModule</i> <sup>®</sup> Isolated Power	5	I <sup>2</sup> C Multiplexers and Address Translators	16
Isolated RS-485 Transceivers	7	Serial Buffers and Accelerators	16
Connectivity	8	Serial Bus Extenders	17
Fault Protected RS-485 Transceivers	8	SPI Digital Isolators—SPISolator <sup>®</sup> or <i>μModule</i> Isolated SPI	17
3.3 V RS-485 Transceivers	9	Isolated RS-232 Transceivers	17
5.0 V RS-485 Transceivers	10	RS-232 Transceivers	18
Dual and Quad RS-485 Drivers and Receivers	11	Isolated Gate Drivers	20
Multiprotocol Transceivers	12	e-Mobility and Electrification	21
Sustainability and Renewable Energy	13	Isolated Amplifiers	21
Isolated CAN Transceivers	13	Isolated Switching Regulators with Integrated Power Transformers	21
Controller Area Network (CAN) Transceivers	13	Isolated Switching Regulators	21
Digital Health	14	Anyside™ Isolated Switch Controller and Energy Monitor	21
Low Voltage Differential Signaling (LVDS) Isolators	14	Isolated Flyback and Forward Controllers	22
LVDS Drivers and Receivers	14	IO-Link <sup>®</sup> Transceivers	22
Multipoint Low Voltage Differential Signaling (M-LVDS) Transceivers	15	Isolated Analog-to-Digital Converters, Isolated Sigma-Delta	22
		Recommended Auxiliary Power for Isolation Applications	23

## For Trusted Safety and Data Integrity, Partner with Analog Devices' Digital Isolation and Interface Solutions



# Welcome!

---

Our world is evolving at lightning speed. Key trends shaping this future include digital healthcare, e-mobility, 5G comms, and smart manufacturing. This electrified and automated digital future—more than ever—demands higher levels of safety and data integrity to protect the increasingly sophisticated and sensitive electronics at its heart.

Analog Devices' iCoupler digital isolation protects your people and assets from high voltages and shields critical data from disruptive electric interference.

When you design your next breakthrough, look to ADI—inventor and undisputed leader in digital isolators—for the most innovative solution. Analog Devices puts safety and data integrity first, last, and always. We concentrate on isolation, so you can focus on creating a sustainable future.

Flip through our brochure to learn more about ADI iCoupler digital isolation.



Thanks!

A handwritten signature in black ink, appearing to read 'Todd Sherman'. The signature is fluid and cursive.

General Manager  
Isolation Technology Group  
Todd M. Sherman

## Digital Isolators

Part Number	Number of Channels	Isolation Rating (kV rms)	Reverse Direction Options				Typical Quiescent Power Dissipation per Channel (mW)	Max Data Rate (Mbps)	Output			Max Temp (°C)	Packages
			0	1	2	3			Default		EN		
									H	L	Z		
ADuM1100	1	2.5	•				0.35	25, 100	•			105, 125	8-lead SOIC_N
ADuM110N	1	3	•				4.9	150	•	•		125	8-lead SOIC_N
ADuM12x <sup>1</sup>	2	3	•	•			2.6	150	•	•		125	8-lead SOIC_N
ADuM120x <sup>1,2</sup>	2	2.5	•	•			1.11	1, 10, 25	•			105, 125	8-lead SOIC_N
ADuM1210	2	2.5	•				1.11	10		•		105	8-lead SOIC_N
ADuM124x	2	3.75	•	•			0.0003	2	•	•		125	20-lead SSOP, 8-lead SOIC_N
ADuM13x	3	3 to 3.75	•	•			2.9	150	•	•	•	125	16-lead SOIC_N, 16-lead SOIC_W
ADuM130x <sup>1</sup>	3	2.5	•	•			1.11	1, 10, 90	•		•	105, 125	16-lead SOIC_W
ADuM131x	3	2.5	•	•			1.32	1, 10	•	•		105	16-lead SOIC_W
ADuM14x <sup>1</sup>	4	3 to 3.75	•	•	•		2.1	150	•	•	•	125	16-lead SOIC_N, 16-lead SOIC_W, 16-lead QSOP
ADuM140x <sup>1</sup>	4	2.5	•	•	•		1.11	1, 10, 90	•			105, 125	16-lead SOIC_W
ADuM141x	4	2.5	•	•	•		1.32	1, 10	•	•		105	16-lead SOIC_W
ADuM144x <sup>3</sup>	4	3.75	•	•	•		0.0003	2	•	•		125	16-lead QSOP, 20-lead SSOP
ADuM15x	5	3	•	•	•		2.2	150	•	•		125	16-lead SOIC_N
ADuM16x	6	3	•	•	•	•	2.3	150	•	•		125	16-lead SOIC_N
ADuM210N	1	5	•				4.1	150	•	•		125	8-lead SOIC_IC
ADuM22x <sup>1</sup>	2	5	•	•			2.6	150	•	•		125	16-lead SOIC_W, 8-lead SOIC_IC
ADuM220x <sup>1</sup>	2	5	•	•			1.8	1, 10	•			105, 125	16-lead SOIC_W, 16-lead SOIC_IC
ADuM221x <sup>1</sup>	2	5	•	•			1.8	1, 10		•		125	16-lead SOIC_W, 16-lead SOIC_IC
ADuM23x	3	5	•	•			2.9	150	•	•	•	125	16-lead SOIC_W, 16-lead SOIC_IC
ADuM24x <sup>1</sup>	4	5	•	•	•		2.1	150	•	•	•	125	16-lead SOIC_W, 16-lead SOIC_IC
ADuM240x	4	5	•	•	•		1.11	1, 10, 90	•			105	16-lead SOIC_W, 16-lead SOIC_IC
ADuM25x	5	5	•	•	•		2.2	150	•	•		125	16-lead SOIC_IC
ADuM26x	6	5	•	•	•	•	2.3	150	•	•		125	16-lead SOIC_IC
ADuM3100	1	2.5	•				2.64	25, 50, 100	•			105	8-lead SOIC_N
ADuM320x <sup>1,2</sup>	2	2.5	•	•			1.8	1, 10, 25	•			105, 125	8-lead SOIC_N
ADuM321x <sup>1,2</sup>	2	2.5	•	•			1.8	1, 10, 25		•		105, 125	8-lead SOIC_N
ADuM330x <sup>1</sup>	3	2.5	•	•			1.86	1, 10, 90	•		•	105, 125	16-lead SOIC_W
ADuM340x <sup>1,2</sup>	4	2.5	•	•	•		1.5	1, 10, 90	•		•	105, 125	16-lead SOIC_W
ADuM348x	4	3.75	•	•	•		4.72	1, 25	•	•		125	20-lead SSOP
ADuM440x <sup>1</sup>	4	5	•	•	•		1.5	1, 10, 90	•		•	105, 125	16-lead SOIC_W, 16-lead SOIC_IC
ADuM724x	2	1	•	•			4.29	1, 25	•			105	8-lead SOIC_N
ADuM744x	4	1	•	•	•		3	1, 25	•		•	105	16-lead QSOP
ADuM764x	6	1	•	•	•	•	4.06	1, 25	•			105	20-lead QSOP



### Digital Isolation

Analog Devices' digital isolators enable designers to implement robust solutions with our magnetically isolated iCoupler products with the flexibility of up to six channels. Products meet stringent safety standards, including the ability to isolate IS-IS with our intrinsic safety certified digital isolators that enable designs in hazardous areas. Automotive certified versions are also available.

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>3</sup> Intrinsic safety certified.



# Smart Industry

## INNOVATIVE FEATURES ...

- ▶ Machine Health
- ▶ Robust Connectivity
- ▶ Robotic Integration

## BREAKTHROUGH BENEFITS

- ▶ Efficient and Flexible Factories
- ▶ Real-Time Monitoring
- ▶ Reduced Downtime

[analog.com/iot](http://analog.com/iot)

## Digital Isolators with Isolated Power—isoPower or $\mu$ Module Isolated Power

Part Number	Number of Channels	Isolation Rating (kV rms)	Power Supply (V)	Reverse Direction Options					Max Data Rate (Mbps)	Isolated Power Output	Max Temp (°C)	Packages
				0	1	2	3	4				
ADuM5000 <sup>1</sup>	0	2.5	3.0 to 5.5						—	500 mW at 5 V	105	16-lead SOIC_W
ADuM5010	0	2.5	3.3 to 5.5						—	150 mW at 5 V	105	20-lead SSOP
ADuM5020	0	3	4.5 to 5.5 or 3.0 to 3.6						—	500 mW	125	16-lead SOIC_W
ADuM520x <sup>1</sup>	2	2.5	3.0 to 5.5	•	•	•			1, 25	500 mW at 5 V	105	16-lead SOIC_W
ADuM5028	0	3	4.5 to 5.5 or 3.0 to 3.6						—	300 mW	125	8-lead SOIC_IC
ADuM521x	2	2.5	3.0 to 5.5	•	•	•			1, 25, 100	150 mW at 5 V	105	20-lead SSOP
ADuM524x	2	2.5		•	•	•			1	50 mW at 5 V	105	8-lead SOIC_N
ADuM540x <sup>1</sup>	4	2.5	3.0 to 5.5	•	•	•	•	•	1, 25	500 mW at 5 V	105	16-lead SOIC_W
ADuM541x	4	2.5	3.0 to 5.5	•	•	•			150	150 mW	105	24-lead SSOP
ADuM6000	0	5	3.0 to 5.5						—	400 mW at 5 V	105	16-lead SOIC_W, 16-lead SOIC_IC
ADuM6010	0	3.75	3.0 to 5.5						—	150 mW at 5 V	105	20-lead SSOP
ADuM6020 <sup>1</sup>	0	5	4.5 to 5.5 or 3.0 to 3.6						—	500 mW	125	16-lead SOIC_IC
ADuM6028 <sup>1</sup>	0	5	4.5 to 5.5 or 3.0 to 3.6						—	300 mW	125	8-lead SOIC_IC
ADuM620x	2	5	3.0 to 5.5	•	•	•			1, 25	400 mW at 5 V	105	16-lead SOIC_W, 16-lead SOIC_IC
ADuM621x	2	3.75	3.0 to 5.5	•	•	•			1, 25, 100	150 mW at 5 V	105	20-lead SSOP
ADuM640x	4	5	3.0 to 5.5	•	•	•	•	•	1, 25	400 mW at 5 V	105	16-lead SOIC_W, 16-lead SOIC_IC
ADuM641x	4	3.75	3.0 to 5.5	•	•	•			150	150 mW	105	24-lead SSOP
ADuM6421A <sup>2</sup>	4	5	4.5 to 5.5 or 3.0 to 3.6		•				100	500 mW	125	28-lead SOIC_FP
ADuM6422A <sup>2</sup>	4	5	4.5 to 5.5 or 3.0 to 3.6			•			100	500 mW	125	28-lead SOIC_FP
ADuM6423A <sup>2</sup> <b>NEW</b>	4	5	4.5 to 5.5 or 3.0 to 3.6, V <sub>DD1</sub> 1.7 to 5.5				•		150	500 mW	125	28-lead SOIC_FP
ADuM6424A <sup>2</sup> <b>NEW</b>	4	5	4.5 to 5.5 or 3.0 to 3.6, V <sub>DD1</sub> 1.7 to 5.5					•	150	500 mW	125	28-lead SOIC_FP
ADP1031	7	2.5	2.3 to 5.5 or 1.8 to 5.5			•			16.6	1.5 W	125	41-lead LFCSPP
ADP1032 <b>NEW</b>	7	2.5	2.3 to 5.5 or 1.8 to 5.5			•			16.6	2.5 W	125	41-lead LFCSPP
LTM2810	6	7.5	1.62 to 5.5				•		20	1 W (adj 3 V to 5 V)	125	36-ball BGA

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Logic supply voltage range (V<sub>L</sub> or V<sub>DD</sub>) 1.6 V/1.7 V to 5.5 V.

## Digital Isolators with Isolated Power—*isoPower* or $\mu$ Module Isolated Power (Continued)

Part Number	Number of Channels	Isolation Rating (kV rms)	Power Supply (V)	Reverse Direction Options					Max Data Rate (Mbps)	Isolated Power Output	Max Temp (°C)	Package
				0	1	2	3	4				
LTM2883-3S <sup>1</sup> / LTM2883-5S <sup>1</sup>	6	2.5	3.0 to 3.6 or 4.5 to 5.5				•		20	0.6 W (adj 3 V to 5 V, adj +12 V, adj -12 V)	105	32-ball BGA
LTM2886-3S <sup>1</sup> / LTM2886-5S <sup>1</sup>	6	2.5	3.0 to 3.6 or 4.5 to 5.5				•		20	1 W (adj 3 V to 5 V, +5 V, -5 V)	125	32-ball BGA
LTM2887-3S <sup>1</sup> / LTM2887-5S <sup>1</sup>	6	2.5	3.0 to 3.6 or 4.5 to 5.5				•		20	1 W (adj 1.8 V to 5 V, adj 0.6 V to 5 V)	125	32-ball BGA



### Isolated Power

Integrated isolated power pioneered by Analog Devices' *isoPower* chip-scale transformer technology changed isolation system design. This technology removed the complexity of building and certifying separate isolated supplies, reduced board size, and eliminated the need to use multiple discrete components for optimized designs. Complementing the advantages of *isoPower* technology, Analog Devices'  $\mu$ Module devices integrate additional discrete components, creating solutions that require no additional components and provide additional auxiliary isolated power.

<sup>1</sup> Logic supply voltage range ( $V_L$  or  $V_{DD}$ ) 1.6 V/1.7 V to 5.5 V.

## Isolated RS-485 Transceivers

Part Number	Insulation Rating (kV rms)	Full Duplex	Half Duplex	Max Data Rate	Integrated Isolated Power	Isolated Power Output	Integrated Transformer Driver	Power Supply (V)		Max Temp (°C)	Packages
								Logic Side	Bus Side		
ADM2461E	5.7		•	500 kbps				1.7 to 5.5	3.0 to 5.5	125	16-lead SOIC_W
ADM2463E	5.7	•		500 kbps				1.7 to 5.5	3.0 to 5.5	125	16-lead SOIC_W
ADM2481	2.5		•	500 kbps				3.0 to 5.5	4.75 to 5.25	85	16-lead SOIC_W
ADM2482E	2.5	•	•	16 Mbps			•	3.0 to 5.5	3.0 to 3.6	85	16-lead SOIC_W
ADM2483	2.5		•	500 kbps				2.7 to 5.5	4.75 to 5.25	85	16-lead SOIC_W
ADM2484E	5	•	•	500 kbps				3.0 to 5.5	3.0 to 3.6	85	16-lead SOIC_W
ADM2485	2.5		•	16 Mbps			•	2.7 to 5.5	4.75 to 5.25	85	16-lead SOIC_W
ADM2486	2.5		•	20 Mbps				2.7 to 5.5	4.75 to 5.25	85	16-lead SOIC_W
ADM2487E	2.5	•	•	500 kbps			•	3.0 to 5.5	3.0 to 3.6	85	16-lead SOIC_W
ADM2490E	5	•		16 Mbps				2.7 to 5.5	4.75 to 5.25	105	16-lead SOIC_W
ADM2491E <sup>1</sup>	5	•	•	16 Mbps				3.0 to 5.5	4.5 to 5.5	85	16-lead SOIC_W
ADM2561E <sup>1</sup> <b>NEW</b>	3		•	500 kbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2563E <sup>1</sup>	3	•		500 kbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2565E <sup>1</sup> <b>NEW</b>	3		•	25 Mbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2567E <sup>1</sup>	3	•		25 Mbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2582E	2.5	•	•	16 Mbps	•			3.0 to 5.5		85	20-lead SOIC_W
ADM2587E	2.5	•	•	500 kbps	•			3.0 to 5.5		85	20-lead SOIC_W
ADM2682E	5	•	•	16 Mbps	•			3.0 to 5.5		85	16-lead SOIC_IC
ADM2687E	5	•	•	500 kbps	•			3.0 to 5.5		85	16-lead SOIC_IC
ADM2761E <sup>4</sup> <b>NEW</b>	5.7		•	500 kbps				1.7 to 5.5	3.0 to 5.5	125	16-lead SOIC_W
ADM2763E <sup>4</sup> <b>NEW</b>	5.7	•		500 kbps				1.7 to 5.5	3.0 to 5.5	125	16-lead SOIC_W
ADM2795E <sup>1</sup>	5		•	2.5 Mbps				1.7 to 5.5	3.0 to 5.5	125	16-lead SOIC_W
ADM2861E <sup>1</sup> <b>NEW</b>	5.7		•	500 kbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2863E <sup>1</sup>	5.7	•		500 kbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2865E <sup>1</sup> <b>NEW</b>	5.7		•	25 Mbps	•			1.7 to 5.5		105	28-lead SOIC_FP
ADM2867E <sup>1</sup>	5.7	•		25 Mbps	•			1.7 to 5.5		105	28-lead SOIC_FP
LTC1535	2.5	•	•	250 kbps			•	4.5 to 5.5	4.5 to 7.5	85	28-lead SOIC
LTM2881-3 <sup>1,3</sup>	2.5	•	•	20 Mbps	•	1 W (5 V)		3.0 to 3.6		105	32-ball BGA, 32-pad LGA
LTM2881-5 <sup>1,3</sup>	2.5	•	•	20 Mbps	•	1 W (5 V)		4.5 to 5.5		105	32-ball BGA, 32-pad LGA
LTM2885 <sup>2,3</sup>	6.5	•	•	20 Mbps	•	1 W (5 V)		4.5 to 5.5		105	42-ball BGA



### Isolated Transceiver

With over 3 billion channels shipped, ADI's digital isolation technology offers compact, robust, and reliable solutions that solve our customers' data transmission challenges while meeting strict safety standards. *iCoupler* digital isolators meet a wide range of creepage/clearance requirements, while the isolated  $\mu$ Module platform reliably integrates galvanic isolation, discrete components, ICs, and power onto a single substrate PCB. The broad portfolio offers solutions spanning isolated field bus (RS-485, CAN, and LVDS) as well as peripheral communications (I<sup>2</sup>C, USB, SPI, and RS-232). Analog Devices has your isolated protocols covered!

<sup>1</sup> Logic supply voltage range (V<sub>L</sub> or V<sub>DD</sub>), 1.6 V/1.7 V to 5.5 V.

<sup>2</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>3</sup> Integrated switchable termination.

<sup>4</sup> 1500 V peak and DC working voltage to DIN V VDE 0884-11.



## INNOVATIVE FEATURES ...

- ▶ GigSpeed 5G Backhaul
- ▶ Harsh Environment Protection
- ▶ Data Integrity

## BREAKTHROUGH BENEFITS

- ▶ Ubiquitous Connectivity
- ▶ Increased Capacity
- ▶ Low Latency

[analog.com/5G](http://analog.com/5G)

## Fault Protected RS-485 Transceivers

Part Number	Fault Protection (V)	Max Data Rate	Duplex	Number of Nodes	Driver/ Receiver Enable	ESD		Fail-Safe	Supply (V)	Max Temp (°C)	Packages
						HBM (kV)	IEC				
ADM3095E <sup>2</sup>	±42	2.5 Mbps	Half	256	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	16-lead SOIC
LT1785A <sup>1</sup>	±60	250 kbps	Half	128	•	±15	Level 4	Idle, open, short	4.75 to 5.25	125	8-lead SOIC, 8-lead PDIP
LT1791A	±60	250 kbps	Full	128	•	±15	Level 4	Idle, open, short	4.75 to 5.25	125	14-lead SOIC, 14-lead PDIP
LTC2862-1 <sup>2</sup> / LTC2862-2 <sup>2</sup>	±60	20 Mbps/250 kbps	Half	256	•	±15		Idle, open, short	3.0 to 5.5	125	8-lead SOIC, 8-lead DFN
LTC2862A-1 <sup>2</sup> / LTC2862A-2 <sup>2</sup>	±60	20 Mbps/250 kbps	Half	256	•	±40	Level 4	Idle, open, short	3.0 to 5.5	125	8-lead SOIC, 8-lead DFN
LTC2863-1 <sup>2</sup> / LTC2863-2 <sup>2</sup>	±60	20 Mbps/250 kbps	Full	256	•	±15		Idle, open, short	3.0 to 5.5	125	8-lead SOIC, 8-lead DFN
LTC2864-1 <sup>2</sup> / LTC2864-2 <sup>2</sup>	±60	20 Mbps/250 kbps	Full	256	•	±15		Idle, open, short	3.0 to 5.5	125	14-lead SOIC, 10-lead DFN
LTC2865	±60	20 Mbps/250 kbps	Full	256	•	±15		Idle, open, short	3.0 to 5.5, V <sub>I</sub> 1.65 to V <sub>CC</sub>	125	12-lead MSOP, 12-lead DFN
LTC2876	±60	20 Mbps	Half	200	•	±52		Idle, open, short	3.0 to 5.5	125	8-lead MSOP, 8-lead DFN
LTC2877	±60	20 Mbps	Half	200	•	±52		Idle, open, short	3.0 to 5.5, V <sub>I</sub> 1.65 to V <sub>CC</sub>	125	10-lead MSOP, 10-lead DFN
LTC2879X	±60	20 Mbps	Half	96	•	±52		Idle, open, short	3.0 to 5.5	175	8-lead MSOP_EP

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.



### 3.3 V RS-485 Transceivers

Part Number	Max Data Rate	Duplex	Number of Nodes	Driver/Receiver Enable	ESD		Fail-Safe	Supply (V)	Max Temp (°C)	Packages
					HBM (kV)	IEC				
ADM3061E	500 kbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	8-lead MSOP, 8-lead SOIC
ADM3062E	500 kbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	10-lead LFCSP, 10-lead MSOP
ADM3063E	500 kbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	14-lead SOIC
ADM3064E	500 kbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	14-lead SOIC
ADM3065E <sup>1</sup>	50 Mbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	8-lead MSOP, 8-lead SOIC
ADM3066E <sup>1</sup>	50 Mbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	10-lead LFCSP, 10-lead MSOP
ADM3067E <sup>1</sup>	50 Mbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	14-lead SOIC
ADM3068E	50 Mbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	14-lead SOIC
ADM3070E	250 kbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	14-lead SOIC
ADM3071E	250 kbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3072E	250 kbps	Half	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3073E	500 kbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	14-lead SOIC
ADM3074E	500 kbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3075E <sup>2</sup>	500 kbps	Half	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3076E	16 Mbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	14-lead SOIC
ADM3077E	16 Mbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3078E	16 Mbps	Half	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC
ADM3483	250 kbps	Half	32	•	–		Open	3.0 to 3.6	85	8-lead SOIC
ADM3483E	250 kbps	Half	32	•	±15		Open	3.0 to 3.6	85	8-lead SOIC
ADM3485	10 Mbps	Half	32	•	–		Open	3.0 to 3.6	85	8-lead SOIC
ADM3485E	12 Mbps	Half	32	•	±15		Open	3.0 to 3.6	85	8-lead SOIC
ADM3486E	2.5 Mbps	Half	32	•	±15		Open	3.0 to 3.6	85	8-lead SOIC
ADM3488	250 kbps	Full	32	•	–		Open	3.0 to 3.6	85	8-lead SOIC
ADM3488E	250 kbps	Full	32	•	±15		Open	3.0 to 3.6	85	8-lead SOIC
ADM3490	10 Mbps	Full	32	•	–		Open	3.0 to 3.6	85	8-lead SOIC
ADM3490E	12 Mbps	Full	32	•	±15		Open	3.0 to 3.6	85	8-lead SOIC
ADM3491	10 Mbps	Full	32	•	–		Open	3.0 to 3.6	85	14-lead SOIC
ADM3491E	12 Mbps	Full	32	•	±15		Open	3.0 to 3.6	85	14-lead SOIC
ADM3493	250 kbps	Half	256	•	–		Open	3.0 to 3.6	85	8-lead SOIC
LTC1480	2.5 Mbps	Half	32	•	±3.5		Open	3.0 to 3.6	85	8-lead SOIC, 8-lead PDIP
LTC2850 <sup>1</sup>	20 Mbps	Half	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC, 8-lead MSOP, 8-lead DFN
LTC2851 <sup>1</sup>	20 Mbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	8-lead SOIC, 8-lead MSOP, 8-lead DFN
LTC2852 <sup>1</sup>	20 Mbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	14-lead SOIC, 10-lead MSOP, 10-lead DFN
LTC2854 <sup>3</sup>	20 Mbps	Half	256	•	±25		Idle, open, short	3.0 to 3.6	125	10-lead DFN
LTC2855 <sup>3</sup>	20 Mbps	Full	256	•	±15		Idle, open, short	3.0 to 3.6	125	12-lead DFN, 16-lead SSOP_N

<sup>1</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>2</sup> Automotive qualified models available. Please visit product page for more information.

<sup>3</sup> Integrated switchable termination.

## 5.0 V RS-485 Transceivers

Part Number	Max Data Rate	Duplex	Number of Nodes	Driver/Receiver Enable	ESD		Fail-Safe	Supply (V)	Max Temp (°C)	Packages
					HBM (kV)	IEC				
ADM1485	30 Mbps	Half	32	•	—		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead MSOP, 8-lead PDIP
ADM1486	30 Mbps	Half	50	•	—		Open	4.75 to 5.25	85	8-lead SOIC
ADM1487E	2.5 Mbps	Half	128	•	±15		Open	4.75 to 5.25	85	8-lead SOIC
ADM1490E	16 Mbps	Full	32	•	±8		Open	4.75 to 5.25	85	8-lead MSOP, 8-lead SOIC
ADM1491E	16 Mbps	Full	32	•	±8		Open	4.75 to 5.25	85	14-lead SOIC, 10-lead MSOP
ADM3061E	500 kbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	8-lead MSOP, 8-lead SOIC
ADM3062E	500 kbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	10-lead LFCSP, 10-lead MSOP
ADM3063E	500 kbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	14-lead SOIC
ADM3064E	500 kbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	14-lead SOIC
ADM3065E <sup>1</sup>	50 Mbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	8-lead MSOP, 8-lead SOIC
ADM3066E <sup>1</sup>	50 Mbps	Half	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	10-lead LFCSP, 10-lead MSOP
ADM3067E <sup>1</sup>	50 Mbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5	125	14-lead SOIC
ADM3068E	50 Mbps	Full	128	•	±30	Level 4	Idle, open, short	3.0 to 5.5, V <sub>IO</sub> 1.62 to 5.5	125	14-lead SOIC
ADM483	250 kbps	Half	32	•	—		Open	4.75 to 5.25	85	8-lead SOIC
ADM483E	250 kbps	Half	32	•	±15		Open	4.5 to 5.5	85	8-lead SOIC
ADM485	5 Mbps	Half	32	•	—		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead MSOP, 8-lead PDIP
ADM4850	115 kbps	Half	256	•	—		Open, short	4.75 to 5.25	85	8-lead LFCSP, 8-lead SOIC, 8-lead MSOP
ADM4851	500 kbps	Half	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC
ADM4852	2.5 Mbps	Half	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC, 8-pad LFCSP
ADM4853 <sup>2</sup>	10 Mbps	Half	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC, 8-pad LFCSP
ADM4854	115 kbps	Full	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC
ADM4855	500 kbps	Full	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC
ADM4856	2.5 Mbps	Full	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC
ADM4857	10 Mbps	Full	256	•	—		Open, short	4.75 to 5.25	85	8-lead SOIC
ADM485E	2.5 Mbps	Half	32	•	±15		Open	4.75 to 5.25	85	8-lead SOIC
ADM487E <sup>2</sup>	250 kbps	Half	128	•	±15		Open	4.75 to 5.25	85	8-lead SOIC
ADM488A	250 kbps	Full	32	•	—		Open	4.5 to 5.5	85	8-lead SOIC, 8-lead MSOP
ADM489A	250 kbps	Full	32	•	—		Open	4.5 to 5.5	85	14-lead SOIC, 10-lead MSOP
LTC1481	2.5 Mbps	Half	32	•	±10		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead PDIP
LTC1482	4 Mbps	Half	32	•	±15	Level 4	Idle, open, short	4.75 to 5.25	85	8-lead MSOP, 8-lead PDIP, 8-lead SOIC
LTC1483	150 kbps	Half	32	•	±10		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead DIP

<sup>1</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>2</sup> Automotive qualified models available. Please visit product page for more information.

## 5.0 V RS-485 Transceivers (Continued)

Part Number	Max Data Rate	Duplex	Number of Nodes	Driver/Receiver Enable	ESD		Fail-Safe	Supply (V)	Max Temp (°C)	Packages
					HBM (kV)	IEC				
LTC1484	4 Mbps	Half	32	•	±15	Level 4	Idle, open, short	4.75 to 5.25	85	8-lead MSOP, 8-lead PDIP, 8-lead SOIC
LTC1485	10 Mbps	Half	32	•	±10		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead PDIP
LTC1487	250 kbps	Half	256	•	±10		Open	4.75 to 5.25	70	8-lead SOIC, 8-lead PDIP
LTC1685	52 Mbps	Half	50	•	±4		Idle, open, short	4.75 to 5.25	85	8-lead SOIC
LTC1686	52 Mbps	Full	50	•	±4		Idle, open, short	4.75 to 5.25	85	8-lead SOIC
LTC1687	52 Mbps	Full	50	•	±4		Idle, open, short	4.75 to 5.25	85	14-lead SOIC
LTC1690	5 Mbps	Full	32	•	±15	Level 4	Idle, open, short	4.75 to 5.25	85	8-lead MSOP, 8-lead SOIC, 8-lead PDIP
LTC2856-1/ LTC2856-2	20 Mbps/ 250 kbps	Half	256	•	±15		Idle, open, short	4.5 to 5.5	125	8-lead MSOP, 8-lead DFN
LTC2857-1/ LTC2857-2	20 Mbps/ 250 kbps	Full	256	•	±15		Idle, open, short	4.5 to 5.5	125	8-lead MSOP, 8-lead DFN
LTC2858-1/ LTC2858-2	20 Mbps/ 250 kbps	Full	256	•	±15		Idle, open, short	4.5 to 5.5	125	10-lead MSOP, 10-lead DFN
LTC2859 <sup>1,2</sup>	20 Mbps/ 250 kbps	Half	256	•	±15		Idle, open, short	4.5 to 5.5	105	10-lead DFN
LTC2861 <sup>1,2</sup>	20 Mbps/ 250 kbps	Full	256	•	±15		Idle, open, short	4.5 to 5.5	105	12-lead DFN, 16-lead SSOP_N
LTC490	2.5 Mbps	Full	32	•	±2		Open	4.75 to 5.25	85	8-lead SOIC, 8-lead PDIP
LTC491	2.5 Mbps	Full	32	•	±2		Open	4.75 to 5.25	85	14-lead SOIC, 14-lead PDIP

## Dual and Quad RS-485 Drivers and Receivers

Part Number	Drivers	Receivers	Max Data Rate	Driver/Receiver Enable	ESD (kV)	Fail-Safe	Supply (V)	Max Temp (°C)	Packages
ADM4168	2	2	30 Mbps	•	±15	Open	4.5 to 5.5	85	16-lead TSSOP
LTC1518	0	4	52 Mbps	•	±4	Idle, open, short	4.75 to 5.25	85	16-lead SOIC
LTC1519	0	4	52 Mbps	•	±4	Idle, open, short	4.75 to 5.25	85	16-lead SOIC
LTC1520	0	4	50 Mbps	•	±4	—	4.75 to 5.25	70	16-lead SOIC
LTC1688	4	0	100 Mbps	•	±4	—	3.0 to 5.25	85	16-lead SOIC
LTC1689	4	0	100 Mbps	•	±4	—	3.0 to 5.25	85	16-lead SOIC
LTC486	4	0	10 Mbps	•	±2	—	4.75 to 5.25	85	16-lead SOIC_W, 16-lead PDIP
LTC487	4	0	10 Mbps	•	±2	—	4.75 to 5.25	85	16-lead SOIC_W, 16-lead PDIP
LTC488	0	4	10 Mbps	•	±2	Open	4.75 to 5.25	85	16-lead SOIC_W, 16-lead PDIP
LTC489	0	4	10 Mbps	•	±4	Open	4.75 to 5.25	85	16-lead SOIC_W, 16-lead PDIP

<sup>1</sup>Automotive qualified models available. Please visit product page for more information.

<sup>2</sup>Integrated switchable termination.



## Multiprotocol Transceivers

Part Number	Drivers/Receivers	Supported Data Rate				ESD (kV)	Termination	DCE or DTE	Signals	Additional Signals	Supply (V)	Max Temp (°C)	Packages
		RS-232/RS-562	RS-422/RS-485	V.35 (Async) (Mbps)	V.35 (Sync) (Mbps)								
LTC1321	2/2	120 kbps	10 Mbps			±10				4.75 to 5.25	85	24-lead SOL, 24-lead PDIP	
LTC1322	4/4	120 kbps	10 Mbps			±10				4.75 to 5.25	85	24-lead SOL, 24-lead PDIP	
LTC1323	2/3	120 kbps	2 Mbps			±10		Data, control		4.5 to 5.5	70	28-lead SSOP, 24-lead SO_W, 16-lead SO_N	
LTC1334	4/4	120 kbps	5 Mbps			±10				4.75 to 5.25	85	28-lead SSOP, 28-lead PDIP_W, 28-lead SO_W	
LTC1335	4/4	120 kbps	10 Mbps			±10				4.75 to 5.25	85	24-lead SOL, 24-lead PDIP	
LTC1343	4/4			8	4	±2		DTE or DCE	Data, clock, or control	LL, RL, TM	85	44-lead SSOP_W	
LTC1344						±2	•	DTE or DCE			85	24-lead SSOP	
LTC1344A						±2	•	DTE or DCE			85	24-lead SSOP	
LTC1345	3/3			10	5	±10		DTE or DCE	Data, clock		85	28-lead PDIP_W, 28-lead SO_W	
LTC1346A	3/3			10	5	±10		DTE or DCE	Data, clock		70	24-lead SO_W	
LTC1387	2/2	120 kbps	150 kbps/5 Mbps			±6				4.75 to 5.25	85	20-lead SSOP, 20-lead SO_W	
LTC1543	3/3	100 kbps	10 Mbps	10	5	±2		DTE or DCE	Data, clock		85	28-lead SSOP	
LTC1544	4/4	100 kbps	10 Mbps	10	5	±2		DTE or DCE	Control	LL	85	28-lead SSOP	
LTC1545	5/5	100 kbps	10 Mbps	10	5	±2		DTE or DCE	Control	LL, RL, TM	85	36-lead SSOP	
LTC1546	3/3	100 kbps	10 Mbps	10	5	±2	•	DTE or DCE	Data, clock		85	28-lead SSOP	
LTC2844	4/4	100 kbps	10 Mbps	10	5	±1		DTE or DCE	Control	LL	85	28-lead SSOP	
LTC2845	5/5	100 kbps	10 Mbps	10	5	±1		DTE or DCE	Control	LL, RL, TM	85	36-lead SSOP, 38-lead QFN	
LTC2846	3/3	100 kbps	10 Mbps	10	5	±2	•	DTE or DCE	Data, clock		85	36-lead SSOP	
LTC2847	3/3	100 kbps	10 Mbps	10	5	±1	•	DTE or DCE	Data, clock		85	38-lead QFN	
LTC2870 <sup>1</sup>	2/2	500 kbps	20 Mbps			±26	•	DTE or DCE	Control		125	28-lead QFN, 28-lead TSSOP	
LTC2871 <sup>1</sup>	2/2	500 kbps	20 Mbps			±16	•	DTE or DCE	Control		85	38-lead QFN, 38-lead TSSOP	
LTC2872 <sup>1</sup>	4/4	500 kbps	20 Mbps			±16	•	DTE or DCE	Control		85	38-lead QFN	
LTC2873 <sup>1</sup>	1/1	1 Mbps/250 kbps	20 Mbps			±26	•	DTE or DCE	Control		125	24-lead QFN	

<sup>1</sup> Integrated switchable termination.



# Sustainability and Renewable Energy

## INNOVATIVE FEATURES ...

- ▶ Precision Control
- ▶ Smart Sensing
- ▶ Environmental Monitoring

## BREAKTHROUGH BENEFITS

- ▶ Improved Power Density
- ▶ Higher Power Efficiency
- ▶ Reduced CO<sub>2</sub> Emissions

[analog.com/energy](http://analog.com/energy)

## Isolated CAN Transceivers

Part Number	Fault Protection (V)	Insulation Rating (kV rms)	High Voltage Bus Side Regulator	Max Data Rate (Mbps)	Integrated Isolated Power	Isolated Power Output	Power Supply (V)		Max Temp (°C)	Packages
							Logic Side	Bus Side		
ADM3050E <sup>1</sup>	±40	5.7		12			1.7 to 5.5	5	125	8-lead SOIC_IC, 16-lead SOIC_W
ADM3052	±36	5	•	1			3.0 to 5.5	11 to 25	85	16-lead SOIC_W
ADM3053	±36	2.5		1	•		4.5 to 5.5		85	20-lead SOIC_W
ADM3054 <sup>2</sup>	±36	5		1			3.0 to 5.5	5	125	16-lead SOIC_W
ADM3055E <sup>3</sup>	±40	5		12	•		4.5 to 5.5, V <sub>in</sub> 1.7 to 5.5		105	20-lead SOIC_IC
ADM3056E	±40	5.7		12			1.7 to 5.5	5	125	16-lead SOIC_IC
ADM3057E <sup>1</sup>	±40	3		12	•		4.5 to 5.5, V <sub>in</sub> 1.7 to 5.5	5	105	20-lead SOIC_W
ADM3058E <sup>4</sup> <b>NEW</b>	±40	5.7		12			1.7 to 5.5	5	125	8-lead SOIC_IC
LTM2889-3 <sup>3</sup> / LTM2889-5 <sup>3</sup>	±60	2.5		4	•	0.75 W (adj 3 V to 5 V)	3.0 to 3.6 or 4.5 to 5.5		125	32-ball BGA

## Controller Area Network (CAN) Transceivers

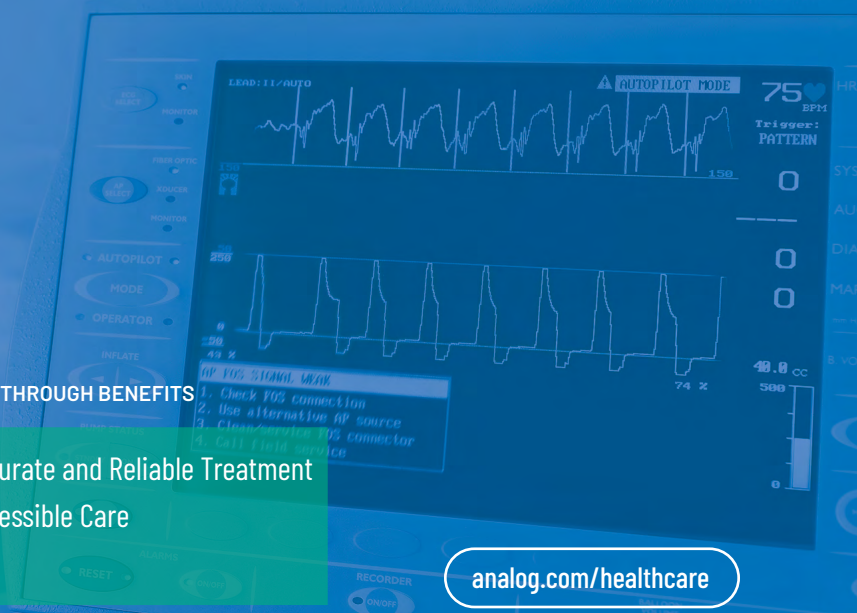
Part Number	Max Data Rate	Number of Nodes	Fault Protection (V)	ESD (kV)	Common-Mode Voltage (V)	Voltage Supply (V)	Max Temp (°C)	Packages
ADM3051	1 Mbps	110	±24	4	-7.0 to +12.0	4.5 to 5.5	125	8-lead SOIC
LT1796	0.125 Mbps	256	±60	15 Level 4	-7.0 to +12.0	4.75 to 5.25	85	8-lead SOIC, 8-lead PDIP
LTC2875 <sup>1</sup>	4 Mbps	166	±60	25	-36.0 to +36.0	3.0 to 3.6 or 4.5 to 5.5	125	8-lead SOIC, 8-lead DFN

<sup>1</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>2</sup> Automotive qualified models available. Please visit product page for more information.

<sup>3</sup> Logic supply voltage range (V<sub>L</sub> or V<sub>in</sub>) 1.6 V to 5.5 V.

<sup>4</sup> 1500 V peak and DC working voltage to DIN V VDE 0884-11.



INNOVATIVE FEATURES ...

BREAKTHROUGH BENEFITS

- ▶ Vital Signs Monitoring
- ▶ Safety at Point of Care
- ▶ Consumer Healthcare

- ▶ Accurate and Reliable Treatment
- ▶ Accessible Care

[analog.com/healthcare](http://analog.com/healthcare)

### Low Voltage Differential Signaling (LVDS) Isolators

Part Number	Max Data Rate (Mbps)	Max Prop Delay (ns)	Number of Channels	Inputs		Insulation Rating (kV rms)	Working Voltage (V rms/V <sub>PEAK</sub> )	Special Features	Max Temp (°C)	Packages
				Side 1	Side 2					
ADN4624 <b>NEW</b>	2500	4.5	4	4	0	5.7	600/848	—	125	28-lead SOIC-FP, 32-lead LFCSP-RT
ADN4650	600	4.5	2	2	0	5	300/424	—	125	20-lead SOIC_W, 20-lead SSOP
ADN4651	600	4.5	2	1	1	5	300/424	Fail-safe	125	20-lead SOIC_W, 20-lead SSOP
ADN4652	600	4.5	2	1	1	5	300/424	Fail-safe	125	20-lead SOIC_W, 20-lead SSOP
ADN4654	1100	4.5	2	2	0	5	300/424	—	125	20-lead SSOP, 20-lead SOIC_W
ADN4655	1100	4.5	2	1	1	5	300/424	Fail-safe	125	20-lead SSOP, 20-lead SOIC_W
ADN4656	1100	4.5	2	1	1	5	300/424	Fail-safe	125	20-lead SSOP, 20-lead SOIC_W

### LVDS Drivers and Receivers

Part Number	Max Data Rate (Mbps)	Drivers/Receivers	Fail-Safe	ESD (kV)	Voltage Supply (V)	Max Temp (°C)	Packages
ADN4661	600	1/0	Open, short	±15	3.0 to 3.6	85	8-lead SOIC
ADN4662	400	0/1	Open, short	±15	3.0 to 3.6	85	8-lead SOIC
ADN4663	600	2/0	Open, short	±15	3.0 to 3.6	85	8-lead SOIC
ADN4664	400	0/2	Open, short	±15	3.0 to 3.6	85	8-lead SOIC
ADN4665	400	4/0	Open, short	±15	3.0 to 3.6	85	16-lead TSSOP, 16-lead SOIC
ADN4666	400	0/4	Open, short	±8	3.0 to 3.6	85	16-lead SOIC, 16-lead TSSOP
ADN4667 <sup>1</sup>	400	4/0	Open, short	±15	3.0 to 3.6	85	16-lead TSSOP, 16-lead SOIC
ADN4668	400	0/4	Open, short	±15	3.0 to 3.6	85	16-lead SOIC, 16-lead TSSOP

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.



## Multipoint Low Voltage Differential Signaling (M-LVDS) Transceivers

Part Number	Max Data Rate (Mbps)	Duplex	Number of Nodes	ESD (kV)	Interface Features	Shutdown	Voltage Supply (V)	Max Temp (°C)	Package
ADN4680E <b>NEW</b>	250	Quad, half	32	15	M-LVDS Rx Type 1 or Type 2	•	3.0 to 3.6	105	48-lead LFCSP
ADN4690E	100	Half	32	±15	M-LVDS Rx Type 1	•	3.0 to 3.6	85	8-lead SOIC
ADN4691E	200	Half	32	±15	M-LVDS Rx Type 1	•	3.0 to 3.6	85	8-lead SOIC
ADN4692E	100	Full	32	±15	M-LVDS Rx Type 1	•	3.0 to 3.6	85	14-lead SOIC
ADN4693E	200	Full	32	±15	M-LVDS Rx Type 1	•	3.0 to 3.6	85	14-lead SOIC
ADN4694E	100	Half	32	±15	M-LVDS Rx Type 2	•	3.0 to 3.6	85	8-lead SOIC
ADN4695E	100	Full	32	±15	M-LVDS Rx Type 2	•	3.0 to 3.6	85	14-lead SOIC
ADN4696E	200	Half	32	±15	M-LVDS Rx Type 2	•	3.0 to 3.6	85	8-lead SOIC
ADN4697E	200	Full	32	±15	M-LVDS Rx Type 2	•	3.0 to 3.6	85	14-lead SOIC

## USB 2.0 Isolators

Part Number	Insulation Rating (kV rms)	Data Rate (Mbps)		Integrated Isolated Power	Isolated Power Output	ESD Protection (kV)	Max Temp (°C)	Packages
		Low Speed	Full Speed					
ADuM3160 <sup>1</sup>	2.5	1.5	12				105	16-lead SOIC_W
ADuM4160	5	1.5	12			10	105	16-lead SOIC_W, 16-lead SOIC_IC
LTM2884	2.5	1.5	12	•	2.5 W at 5 V ( $V_{cc} = 8.6$ V to 16.5 V) or 1 W at 5 V ( $V_{cc} = 4.4$ V to 8.6 V)	15	105	44-ball BGA
LTM2894	7.5	1.5	12			20	125	24-ball BGA

## I<sup>2</sup>C Isolators

Part Number	Insulation Rating (kV rms)	Power Supply (V)	Serial Data	Serial Clock	Max Frequency (kHz)	Integrated, Isolated Power	Isolated Power Output	Max Temp (°C)	Packages
ADM3260	2.5	3.0 to 5.5	Bidirectional	Bidirectional	1000	•		105	20-lead SSOP
ADuM1250 <sup>1</sup>	2.5	3.0 to 5.5	Bidirectional	Bidirectional	1000			125	8-lead SOIC
ADuM1251 <sup>1</sup>	2.5	3.0 to 5.5	Bidirectional	Unidirectional	1000			125	8-lead SOIC
ADuM2250 <sup>1</sup>	5	3.0 to 5.5	Bidirectional	Bidirectional	1000			105	16-lead SOIC_W, 16-lead SOIC_IC
ADuM2251 <sup>1</sup>	5	3.0 to 5.5	Bidirectional	Unidirectional	1000			105	16-lead SOIC_W, 16-lead SOIC_IC
LTM2810	7.5	1.62 to 5.5	Bidirectional	Unidirectional	400	•	1 W (adj 3 V to 5 V)	125	36-ball BGA
LTM2883-3I <sup>2</sup> / LTM2883-5I <sup>2</sup>	2.5	3.0 to 3.6 or 4.5 to 5.5	Bidirectional	Unidirectional	400	•	0.6 W (adj 3 V to 5 V, adj 12 V, adj -12 V)	105	32-ball BGA
LTM2886-3I <sup>2</sup> / LTM2886-5I <sup>2</sup>	2.5	3.0 to 3.6 or 4.5 to 5.5	Bidirectional	Unidirectional	400	•	0.6 W (adj 3 V to 5 V, +5 V, -5 V)	125	32-ball BGA
LTM2887-3I <sup>2</sup> / LTM2887-5I <sup>2</sup>	2.5	3.0 to 3.6 or 4.5 to 5.5	Bidirectional	Unidirectional	400	•	0.6 W (adj 1.8 V to 5 V, adj 0.6 V to 5 V)	125	32-ball BGA
LTM2892-I <sup>2</sup>	3.5	3.0 to 5.5	Bidirectional	Unidirectional	400			125	24-ball BGA

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Logic supply voltage range ( $V_L$  or  $V_{cc}$ ) 3 V to 5.5 V. LTM2883, LTM2887, and LTM2892 include aux channels.

## I<sup>2</sup>C Multiplexers and Address Translators

Part Number	Mux	Data Rate (kHz)	Supply Voltage (V)	Bus Voltage (V)	Channel Select	Bus Buffer	Rise Time Accelerator Options	GPIO	Stuck Bus Circuitry	HBM ESD (kV)	Address Translation	Max Temp (°C)	Packages
LTC4305	1:2	400	2.7 to 5.5	2.2 to 5.5	I <sup>2</sup> C bus	•	Strong/off		Disconnect	±10		85	16-lead DFN, 16-lead SSOP_N
LTC4306	1:4	400	2.7 to 5.5	2.2 to 5.5	I <sup>2</sup> C bus	•	Strong/off	×2	Disconnect	±10		85	24-lead QFN, 24-lead SSOP
LTC4312 <sup>1</sup>	1:2	400	2.9 to 5.5	1.5 to 5.5	Enable pin	•	Strong/ 2 mA/off		Disconnect and recovery	±4		85	14-lead DFN, 16-lead MSOP
LTC4314 <sup>1</sup>	1:4	400	2.9 to 5.5	1.5 to 5.5	Enable pin	•	Strong/ 2 mA/off		Disconnect and recovery	±4		85	20-lead QFN, 20-lead SSOP_N
LTC4316	1:1	400	2.25 to 5.5	2.5 to 5.5	Enable pin				Timeout	±4	•	85	10-lead DFN, 10-lead MSOP
LTC4317	1:2	400	2.25 to 5.5	2.5 to 5.5	Enable pin				Timeout	±4	•	85	16-lead DFN
LTC4318	2× 1:1	400	2.25 to 5.5	2.5 to 5.5	Enable pin				Timeout	±4	•	85	20-lead QFN

## Serial Buffers and Accelerators

Part Number	Hot Swappable	Rise Time Accelerator	Bidirectional Level Translation (V)	Stuck Bus Disconnect/ Recovery	Enable	Ready	V <sub>CC2</sub>	GPIO or Fault	HBM ESD (kV)	Bus Frequency (kHz)	Max Temp (°C)	Packages
LTC4300A-1 <sup>1</sup>	•	•	2.7 to 5.5		•	•			±2	400	85	8-lead MSOP
LTC4300A-2 <sup>1</sup>	•	• <sup>2</sup>	2.7 to 5.5				•		±2	400	85	8-lead MSOP
LTC4300A-3 <sup>1</sup>	•	•	2.7 to 5.5		•		•		±2	400	85	8-lead MSOP, 8-lead DFN
LTC4301 <sup>1</sup>	•		2.7 to 5.5		•	•			±10	400	85	8-lead MSOP, 8-lead DFN
LTC4301L <sup>1</sup>	•		1 to 2.7/5.5 <sup>3</sup>		•	•			±10	400	85	8-lead MSOP, 8-lead DFN
LTC4302-1 <sup>1</sup>	•	• <sup>2</sup>	2.7 to 5.5		•			•	±2	400	85	10-lead MSOP
LTC4302-2 <sup>1</sup>	•	• <sup>2</sup>	2.7 to 5		•		•	•	±2	400	85	10-lead MSOP
LTC4303 <sup>1</sup>	•	•	2.7 to 5.5	•	•	•			±15	400	85	8-lead MSOP, 8-lead DFN
LTC4304 <sup>1</sup>	•	• <sup>2</sup>	2.7 to 5.5	•	•	•		•	±15	400	85	10-lead MSOP, 10-lead DFN
LTC4307 <sup>1</sup>	•	•	2.7 to 5.5	•	•	•			±5	400	85	8-lead MSOP, 8-lead DFN
LTC4307-1 <sup>1</sup>	•		2.7 to 5.5		•	•			±5	400	85	8-lead MSOP, 8-lead DFN
LTC4308	•	•	1.8 to 2.3/ 5.5 <sup>4</sup>	•	•	•			±6	400	85	8-lead MSOP, 8-lead DFN
LTC4309	•	• <sup>2</sup>	1 to 2.3/5.5 <sup>5</sup>	•	•	•	•	•	±6	400	85	16-lead SSOP_N, 12-lead DFN
LTC4310-1 <sup>1</sup>	•	•	3 to 5.5	•	•	•			±5	100	85	10-lead MSOP, 10-lead DFN
LTC4310-2 <sup>1</sup>	•	•	3 to 5.5	•	•	•			±5	400	85	10-lead MSOP, 10-lead DFN
LTC4311 <sup>1</sup>		•			•				±8	400	85	6-lead DFN, 6-lead SC70
LTC4313-1/ LTC4313-2	•	•	3.3 to 5.0	•	•	•			±4	400	85	8-lead MSOP, 8-lead DFN
LTC4313-3	•		1.5 to 5.5	•	•	•			±4	400	85	8-lead MSOP, 8-lead DFN
LTC4315 <sup>1</sup>	•	• <sup>2</sup>	1.5 to 5.5	•	•	•	•	•	±4	400	85	12-lead MSOP, 12-lead DFN

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Rise time accelerator circuitry can be disabled.

<sup>3</sup> SCL<sub>IN</sub> and SDA<sub>IN</sub> down to 1 V, SDA<sub>OUT</sub> from 2.7 V to 5.5 V.

<sup>4</sup> SCL<sub>IN</sub> and SDA<sub>IN</sub> down to 1.8 V, SDA<sub>OUT</sub> and SCL<sub>OUT</sub> from 2.3 V to 5.5 V.

<sup>5</sup> SCL<sub>IN</sub> and SDA<sub>IN</sub> down to 1 V, SDA<sub>OUT</sub> and SCL<sub>OUT</sub> from 2.3 V to 5.5 V.

## Serial Bus Extenders

Part Number	Protocol	Product Feature	Power Supply (V)	Max CLK Rate (kHz)	ESD HBM (kV)	IEC Level 4 ESD (kV)	Max Temp (°C)	Package
LTC4331	I <sup>2</sup> C	Control and alert channel support	1.62 to 5.5	1000	±40	Level 4	125	20-lead QFN
LTC4332	SPI	Remote device support	1.62 to 5.5	2000	±40	Level 4	125	20-lead QFN
LT3960 <sup>1</sup> <b>NEW</b>	I <sup>2</sup> C	Multidrop bus support	3.3 or 5	400	±8		150	10-lead MSOP, 10-lead DFN

## SPI Digital Isolators—SPI Isolator or µModule Isolated SPI

Part Number	Product Feature	Power Supply (V)	Insulation Rating (kV rms)	No. Auxiliary Inputs		Slave Ports	Max SPI CLK Rate (MHz)	Integrated Isolated Power	Isolated Power Output	Max Temp (°C)	Package
				Side 1	Side 2						
ADuM3150	High speed	3.0 to 5.5	3.75	1	1	1	40			125	20-lead SSOP
ADuM3151	Aux channels	3.0 to 5.5	3.75	2	1	1	17			125	20-lead SSOP
ADuM3152	Aux channels	3.0 to 5.5	3.75	1	2	1	17			125	20-lead SSOP
ADuM3153	Aux channels	3.0 to 5.5	3.75	0	3	1	17			125	20-lead SSOP
ADuM3154	Multiple slave support	3.0 to 5.5	3.75	0	0	4	17			125	20-lead SSOP
ADuM4150	High speed	3.0 to 5.5	5	1	1	1	40			125	20-lead SOIC_IC
ADuM4151	Aux channels	3.0 to 5.5	5	2	1	1	17			125	20-lead SOIC_IC
ADuM4152	Aux channels	3.0 to 5.5	5	1	2	1	17			125	20-lead SOIC_IC
ADuM4153	Aux channels	3.0 to 5.5	5	0	3	1	17			125	20-lead SOIC_IC
ADuM4154	Multiple slave support	3.0 to 5.5	5	0	0	4	17			125	20-lead SOIC_IC
ADuM6421A	Class B EMI	4.5 to 5.5 or 3.0 to 3.6, V <sub>DD1</sub> 1.7 to 5.5	5	3	1		16.6	•		125	28-lead SOIC_FP
LTM2810	Aux channels	1.62 to 5.5	7.5	3	3	1	8	Integrated transformer driver	1 W (adj 3 V to 5 V)	125	36-ball BGA
LTM2883-3S <sup>1</sup> / LTM2883-5S <sup>1</sup>	Aux channels	3.0 to 3.6 or 4.5 to 5.5	2.5	0	2	1	8	•	0.6 W (adj 3 V to 5 V, adj +12 V, adj -12 V)	105	32-ball BGA
LTM2886-3S <sup>1</sup> / LTM2886-5S <sup>2</sup>	Aux channels	3.0 to 3.6 or 4.5 to 5.5	2.5	0	2	1	8	•	0.6 W (adj 3 V to 5 V, +5 V, -5 V)	125	32-ball BGA
LTM2887-3S <sup>1</sup> / LTM2887-5S <sup>1</sup>	Aux channels	3.0 to 3.6 or 4.5 to 5.5	2.5	0	2	1	8	•	0.6 W (adj 1.8 V to 5 V, adj 0.6 V to 5 V)	125	32-ball BGA
LTM2892-S <sup>1</sup>	Aux channels	3.0 to 5.5	3.5	0	2	1	8			125	24-ball BGA
LTM2893 <sup>2</sup>	ADC	3.0 to 5.5	6	3	3	2	100			125	36-ball BGA
LTM2895 <sup>2</sup>	DAC	3.0 to 5.5	6	3	3	2	100			125	36-ball BGA

## Isolated RS-232 Transceivers

Part Number	Insulation Rating (kV rms)	ESD Protection (kV)	Max Data Rate (kbps)	Number Tx	Number Rx	Integrated Isolated Power	Isolated Power Output	Supply Voltage (V)	Aux Channel (Mbps)	Max Temp (°C)	Packages
ADM3251E	2.5	15	460	1	1	•		3.0 to 3.7 or 4.5 to 5.5		85	20-lead SOIC_W
ADM3252E	2.5	15	460	2	2	•		3.0 to 5.5		85	44-ball BGA
LTM2882-3/ LTM2882-5	2.5	10	1000	2	2	•	0.6 W	3.0 to 3.6 or 4.5 to 5.5	20	105	32-ball BGA, 32-lead LGA

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Rise time accelerator circuitry can be disabled.



## RS-232 Transceivers

Part Number	Drivers/Receivers	Data Rate	ESD (kV)	Driver Disable	Rx Active in Shutdown	Shutdown Mode	Supply (V)	Max Temp (°C)	Packages
AD7306	3/2	100 kbps					4.75 to 5.25	85	24-lead PDIP, 24-lead SOIC_W
ADM101E <sup>3</sup>	1/1	460 kbps	±15		1	•	4.5 to 5.5	85	10-lead MSOP
ADM1181A	2/2	230 kbps	±15				4.5 to 5.5	85	16-lead PDIP, 16-lead SOIC_W
ADM1385	2/2	460 kbps			2	•	3.0 to 3.6	85	20-lead SSOP
ADM202	2/2	120 kbps					4.5 to 5.5	70	16-lead PDIP, 16-lead SOIC_W, 16-lead SOIC
ADM202E	2/2	230 kbps	±15				4.5 to 5.5	85	16-lead SOIC, 16-lead PDIP, 16-lead TSSOP, 16-lead SOIC_W
ADM206	4/3	120 kbps			0	•	4.5 to 5.5	85	24-lead PDIP, 24-lead SSOP, 24-lead SOIC_W
ADM206E	4/3	230 kbps	±15		0	•	4.5 to 5.5	85	24-lead SOIC_W
ADM207	5/3	120 kbps					4.5 to 5.5	85	24-lead PDIP, 24-lead SOIC_W, 24-lead SSOP
ADM207E	5/3	230 kbps	±15				4.5 to 5.5	85	24-lead PDIP, 24-lead SSOP, 24-lead SOIC_W, 24-lead TSSOP
ADM208	4/4	120 kbps					4.5 to 5.5	85	24-lead PDIP, 24-lead SOIC_W, 24-lead SSOP
ADM208E	4/4	230 kbps	±15				4.5 to 5.5	85	24-lead PDIP, 24-lead SSOP, 24-lead TSSOP, 24-lead SOIC_W
ADM211	4/5	120 kbps			0	•	4.5 to 5.5	85	28-lead SOIC_W, 28-lead SSOP
ADM211E	4/5	230 kbps	±15		0	•	4.5 to 5.5	85	28-lead TSSOP, 28-lead SOIC_W, 28-lead SSOP
ADM213	4/5	120 kbps			2	•	4.5 to 5.5	85	28-lead SOIC_W, 28-lead SSOP
ADM213E	4/5	230 kbps	±15		2	•	4.5 to 5.5	85	28-lead SOIC_W, 28-lead SSOP, 28-lead TSSOP
ADM2209E	6/10	920 kbps	±15		2	•	3.15 to 13.2	85	38-lead TSSOP
ADM222	2/2	200 kbps			0	•	4.5 to 5.5	85	18-lead PDIP, 18-lead SOIC_W
ADM232A	2/2	200 kbps					4.5 to 5.5	85	16-lead SOIC, 16-lead SOIC_W, 16-lead PDIP
ADM232L	2/2	120 kbps					4.5 to 5.5	85	16-lead SOIC_W, 16-lead PDIP
ADM233L	2/2	120 kbps					4.75 to 5.25	85	20-lead PDIP
ADM237L	5/3	120 kbps					4.75 to 5.25	85	24-lead PDIP, 24-lead SOIC_W
ADM238L	4/4	120 kbps					4.5 to 5.5	85	24-lead PDIP, 24-lead SOIC_W
ADM241L	4/5	120 kbps			0	•	4.5 to 5.5	85	28-lead SSOP, 28-lead SOIC_W
ADM242	2/2	200 kbps			2	•	4.5 to 5.5	85	18-lead PDIP, 18-lead SOIC_W
ADM3101E	1/1	460 kbps	±15				3.0 to 5.5	85	12-lead LFCSP_WQ, 16-lead QSOP
ADM3202	2/2	460 kbps	±15				3.0 to 5.5	85	16-lead SOIC_W, 16-lead SOIC, 16-lead TSSOP, 16-lead PDIP
ADM3222	2/2	460 kbps			2	•	3.0 to 3.6	85	18-lead PDIP, 20-lead SSOP, 20-lead TSSOP, 18-lead SOIC_W
ADM3232E	2/2	460 kbps	±15				3.0 to 5.5	85	16-lead SOIC, 16-lead SOIC_W, 16-lead TSSOP
ADM3307E	5/3	1 Mbps	±15		1	•	2.7 to 3.6	85	32-lead LFCSP, 28-lead TSSOP
ADM3310E	3/5	460 kbps	±15		2	•	2.7 to 3.6	85	32-lead LFCSP, 28-lead TSSOP
ADM3311E	3/5	460 kbps	±15		1	•	2.7 to 3.6	85	32-lead LFCSP, 28-lead SSOP, 28-lead TSSOP
ADM3312E	3/3	460 kbps	±15		1	•	2.7 to 3.6	85	32-lead LFCSP, 24-lead TSSOP
ADM3315E	3/3	460 kbps	±15		1	•	2.7 to 3.6	85	32-lead LFCSP, 24-lead TSSOP
ADM5170	8/0	116 kbps			0	•	9.0 to 15.0	85	28-lead PLCC
ADM560	4/5	116 kbps			2	•	3.0 to 3.6	70	28-lead SOIC_W, 28-lead SSOP
ADM561	4/5	116 kbps			0	•	3.0 to 3.6	70	28-lead SSOP, 28-lead SOIC_W
LT1032	4/0	250 kbps	±2				4.75 to 5.25	85	16-lead SOIC_W, 14-lead PDIP
LT1039A	3/3	250 kbps	±15		1	•	4.75 to 5.25	85	18-lead SOIC_W, 18-lead PDIP
LT1039A-16	3/3	250 kbps	±15				4.75 to 5.25	85	16-lead SOIC, 16-lead PDIP
LT1080	2/2	120 kbps	±2			•	4.5 to 5.5	85	18-lead SOIC_W, 18-lead PDIP
LT1081	2/2	120 kbps	±2				4.5 to 5.5	85	16-lead SOIC_W, 16-lead PDIP
LT1130A	5/5	250 kbps	±10				4.75 to 5.25	85	28-lead SOIC_W, 28-lead PDIP
LT1131A	5/4	250 kbps	±10	•		•	4.75 to 5.25	70	28-lead SOIC_W, 28-lead PDIP
LT1132A	5/3	250 kbps	±10				4.75 to 5.25	85	24-lead SOIC_W, 24-lead PDIP

## RS-232 Transceivers (Continued)

Part Number	Drivers/Receivers	Data Rate	ESD (kV)	Driver Disable	Rx Active in Shutdown	Shutdown Mode	Supply (V)	Max Temp (°C)	Packages
LT1133A	3/5	250 kbps	±15				4.75 to 5.25	85	24-lead SOIC_W, 24-lead PDIP
LT1134A	4/4	250 kbps	±10				4.75 to 5.25	85	24-lead SOIC_W, 24-lead PDIP
LT1135A	5/3	250 kbps	±10				4.75 to 5.25	70	20-lead SOIC_W, 20-lead PDIP
LT1136A	4/5	250 kbps	±10	•		•	4.75 to 5.25	70	28-lead SOIC_W, 28-lead PDIP
LT1137A	3/5	250 kbps	±15	•		•	4.75 to 5.25	85	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP
LT1138A	5/3	250 kbps	±10	•		•	4.75 to 5.25	85	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LT1139A	4/4	250 kbps	±10			•	4.75 to 5.25	70	24-lead SOIC_W, 24-lead PDIP
LT1140A	5/3	250 kbps	±10	•		•	4.75 to 5.25	70	24-lead SOIC_W, 24-lead PDIP
LT1141A	3/5	250 kbps	±15	•		•	4.75 to 5.25	70	24-lead SOIC_W, 24-lead PDIP
LT1180A	2/2	250 kbps	±10			•	4.5 to 5.5	85	18-lead SOIC_W, 18-lead PDIP
LT1181A	2/2	250 kbps	±10				4.5 to 5.5	85	16-lead SOIC_W, 16-lead PDIP
LT1237	3/5	250 kbps	±15	•	1	•	4.75 to 5.25	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LT1280A	2/2	250 kbps	±10			•	4.5 to 5.5	85	18-lead SOIC_W, 18-lead PDIP
LT1281A	2/2	250 kbps	±10				4.5 to 5.5	85	16-lead SOIC_W, 16-lead PDIP
LT1330	3/5	250 kbps	±10	•	1	•	V <sub>CC</sub> 4.75 to 5.25, V <sub>I</sub> 3.0 to 5.0	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LT1331	3/5	250 kbps	±10	•	1	•	3.0 to 6.0	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LT1342	3/5	250 kbps	±10	•		•	V <sub>CC</sub> 4.5 to 5.5, V <sub>I</sub> 3.0 to 5.0	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LT1381	2/2	250 kbps	±10				4.5 to 5.5	85	16-lead SOIC, 16-lead PDIP
LT1537	3/5	250 kbps	±5	•		•	4.75 to 5.25	70	28-lead SSOP, 28-lead SOIC_W
LT1780	2/2	250 kbps	±15			•	4.5 to 5.5	85	18-lead SOIC_W, 18-lead PDIP
LT1781	2/2	250 kbps	±15				4.5 to 5.5	85	16-lead SOIC, 16-lead SOIC_W, 16-lead PDIP
LTC1327	3/5	120 kbps	±10			•	3.0 to 3.6	70	28-lead SSOP, 28-lead SOL, 28-lead PDIP
LTC1337	3/5	120 kbps	±10			•	4.75 to 5.25	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LTC1338	5/3	120 kbps	±10	•		•	4.75 to 5.25	85	28-lead SSOP, 28-lead SOL, 28-lead PDIP
LTC1347	3/5	120 kbps	±10		5	•	4.75 to 5.25	70	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LTC1348	3/5	120 kbps	±10	•	5	•	3.0 to 5.5	85	28-lead SSOP, 28-lead SOIC_W
LTC1349	3/5	120 kbps	±10		2	•	4.75 to 5.25	85	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LTC1350	3/5	120 kbps	±10		2	•	3.0 to 3.6	85	28-lead SSOP, 28-lead SOIC_W, 28-lead PDIP_W
LTC1382	2/2	120 kbps	±10			•	4.5 to 5.5	85	18-lead SOIC_W, 18-lead PDIP
LTC1383	2/2	120 kbps	±10				4.5 to 5.5	85	16-lead SOIC, 16-lead PDIP
LTC1384	2/2	120 kbps	±10		2	•	4.5 to 5.5	85	20-lead SSOP, 18-lead PDIP, 18-lead SOIC_W
LTC1385	2/2	120 kbps	±10	•		•	3.0 to 3.6	85	20-lead SSOP, 18-lead SOIC_W, 18-lead PDIP
LTC1386	2/2	120 kbps	±10				3.0 to 3.6	85	16-lead SOIC
LTC2801	1/1	250 kbps	±10	•	1	•	1.8 to 5.5	85	12-lead DFN
LTC2802	1/1	1 Mbps	±10	•	1	•	1.8 to 5.5	85	12-lead DFN
LTC2803	2/2	250 kbps	±10	•	2	•	1.8 to 5.5	85	16-lead DFN
LTC2803-1	2/2	250 kbps	±10			•	1.8 to 5.5	85	16-lead SSOP_N
LTC2804	2/2	1 Mbps	±10	•	2	•	1.8 to 5.5	85	16-lead DFN
LTC2804-1	2/2	1 Mbps	±10			•	1.8 to 5.5	85	16-lead SSOP_N

## Isolated Gate Drivers

Part Number	Output Drivers	Insulation Rating (kV rms)	Min Pulse Width (ns)	Prop Delay (max) (ns)	Output Voltage Range (V)	Output Current (A <sub>PEAK</sub> )	Power Level (mW)	Input Logic Levels	Max Temp (°C)	Package
ADuM1233	2	2.5	80	160	12 to 18	0.1		TTL	105	16-lead SOIC_W
ADuM1234	2	2.5	100	160	12 to 18	0.1		CMOS	105	16-lead SOIC_W
ADuM3123	1	3	50	62	4.5 to 18	4		CMOS	125	8-lead SOIC_N
ADuM3220 <sup>1</sup>	2	2.5	50	60	4.5 to 18	4		CMOS	125	8-lead SOIC_N
ADuM3221 <sup>1,2</sup>	2	2.5	50	60	4.5 to 18	4		CMOS	125	8-lead SOIC_N
ADuM3223 <sup>1</sup>	2	3	50	54	4.5 to 18	4		CMOS	125	16-lead SOIC_N
ADuM3224 <sup>1,3</sup>	2	3	50	54	4.5 to 18	4		CMOS	125	16-lead SOIC_N
ADuM4120	1	5	50	79	4.5 to 35	2		CMOS	125	6-lead SOIC_IC
ADuM4120-1	1	5	50	58	4.5 to 35	2		CMOS	125	6-lead SOIC_IC
ADuM4121	1	5	50	53	4.5 to 35	2		CMOS	125	8-lead SOIC_IC
ADuM4121-1	1	5	50	53	4.5 to 35	2		CMOS	125	8-lead SOIC_IC
ADuM4122	2	5	50	48	4.5 to 35	3		CMOS	125	8-lead SOIC_IC
ADuM4135	1	5	50	66	12 to 35	4		CMOS	125	16-lead SOIC_W
ADuM4136	1	5	50	68	12 to 35	4		CMOS	125	16-lead SOIC_W
ADuM4137 <sup>1</sup>	1	5	70	137	12 to 25	6		CMOS	150	28-lead SOIC_W_FP
ADuM4138 <sup>1</sup>	1	5	50	130	12 to 25	6		CMOS	150	28-lead SOIC_W_FP
ADuM4146 <b>NEW</b>	1	5.7	50	75	12 to 35	4		CMOS	125	16-lead SOIC_W
ADuM4177 <b>NEW</b>	1	5.7	60	140	12 to 24	30		CMOS	150	28-lead SOIC_W_FP
ADuM4221 <b>NEW</b>	2	5.7	50	44	4.5 to 35	4		CMOS	125	16-lead SOIC_IC
ADuM4221-1 <b>NEW</b>	1	5.7	50	44	4.5 to 35	4		CMOS	125	16-lead SOIC_IC
ADuM4221-2 <b>NEW</b>	2	5.7	50	44	4.5 to 35	4		CMOS	125	16-lead SOIC_IC
ADuM4223 <sup>1</sup>	2	5	50	54	4.5 to 18	4		CMOS	125	16-lead SOIC_W
ADuM4224 <sup>1,3</sup>	2	5	50	54	4.5 to 18	4		CMOS	125	16-lead SOIC_W
ADuM5230 <sup>1</sup>	2	2.5	100	100	12 to 18	0.1	150	CMOS	105	16-lead SOIC_W
ADuM6132	1	3.7	50	100	12.5 to 17	0.2	275	CMOS	85	16-lead SOIC_W
ADuM7223	2	2.5	50	62	4.5 to 18	4		CMOS	125	14-pad LGA
ADuM7234	2	1	100	200	12 to 18	4		CMOS	105	16-lead SOIC_N



### Isolated Gate Driver

Analog Devices' small form factor isolated gate drivers are designed for the higher switching speeds and system size constraints required by power switch technologies such as SiC (silicon carbide) and GaN (gallium nitride), while still providing reliable control over switching characteristics for IGBT (insulated gate bipolar transistor) and MOSFET (metal oxide semiconductor field effect transistor) configurations. These isolated gate drivers leverage ADI's proven iCoupler isolation technology combined with high speed CMOS and monolithic transformer technology to enable ultralow propagation delay without sacrificing common-mode transient immunity (CMTI) performance. High pulse fidelity architecture enables motor power efficiency to meet new required efficiency levels, and superior timing performance stability reduces voltage distortion, as well as harmonic and output power content on solar inverters.

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.

<sup>3</sup> The ADuM3224 and ADuM4224 are versions of the ADuM3223 and ADuM4223. Unlike the ADuM3223 and ADuM4223, they do not offer thermal shutdown.



# e-Mobility and Electrification

## INNOVATIVE FEATURES ...

- ▶ Powerful Traction Inverters
- ▶ Battery Health
- ▶ EV Charging Control

## BREAKTHROUGH BENEFITS

- ▶ Longer Range
- ▶ Faster Charge
- ▶ Higher Efficiency

[analog.com/ev](http://analog.com/ev)

## Isolated Amplifiers

Part Number	Insulation Rating (kV rms)	-3 dB Bandwidth (kHz)	Isolated Feedback Accuracy	V <sub>IN</sub> Min (mV)	V <sub>IN</sub> Max (V)	V <sub>OUT</sub> Min (mV)	V <sub>OUT</sub> Max (V)	Max Temp (°C)	Package
ADuM3190 <sup>1</sup>	2.5	400	1	400	1.5	400	5	125	16-lead QSOP
ADuM4190 <sup>2</sup>	5	400	1	400	1.5	400	5	125	16-lead SOIC-IC

## Isolated Switching Regulators with Integrated Power Transformers

Part Number	Number of Power Outputs	Isolation Rating (kV rms)	Input Voltage (V)		Output Voltage (V)		Output Ripple	Output Power (24 V <sub>IN</sub> to 5 V <sub>OUT</sub> ) (W)	LDO Output	Max Temp (°C)	Package
			Min	Max	Min	Max					
LTM8046	1	2	3.1	31	1.8	12	20 mV rms	2.75		125	51-ball BGA
LTM8047	1	0.5	3.1	32	2.5	12	20 mV rms	1.5		125	45-ball BGA
LTM8048	2	0.5	3.1	32	1.2	12	20 μV rms	1.5 combined	•	125	45-ball BGA
LTM8057	1	2	3.1	31	2.5	12	20 mV rms	1.5		125	38-ball BGA
LTM8058	2	2	3.1	31	1.2	12	20 μV rms	1.5 combined	•	125	38-ball BGA
LTM8067	1	2	2.8	40	2.5	24	30 mV rms	2.25		125	38-ball BGA
LTM8068	2	2	2.8	40	1.2	18	20 μV rms	2.25 combined	•	125	38-ball BGA

## Isolated Switching Regulators

Part Number	Number of Channels	Isolation Rating (kV rms)	Reverse Direction Options					Max Data Rate (Mbps)	Isolated Supply Output		Input Voltage (V)		Integrated Transformer Driver	Max Temp (°C)	Package
			0	1	2	3	4		Current (mA)	Range (V)	Min	Max			
ADuM3070	0	2.5						500	3.3 to 24	3	5.5	•	105	16-lead QSOP	
ADuM347x <sup>1</sup>	4	2.5	•	•	•	•	•	1, 25	400	3.3 to 24	3	5.5	•	105	20-lead SSOP
ADuM4070	0	5						500	3.3 to 24	3	5.5	•	105	16-lead SOIC-IC	
ADuM447x	4	5	•	•	•	•	•	1, 25	500	3.3 to 24	3	5.5	•	105	20-lead SOIC-IC

## Anyside Isolated Switch Controller and Energy Monitor

Part Number	Insulation Rating (kV rms)	ESD Protection (kV)	Configuration/ Programming Interface	Isolated Power Output	ADC Monitoring	Max Temp (°C)	Package
LTM9100	5	±20	I <sup>2</sup> C/SMBus	0.35 W (10.4 V), 75 mW (5 V)	(1) Current (2) voltage	105	42-ball BGA

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

<sup>2</sup> Enhanced products (EP) qualified models available. Please visit product page for more information.



## Isolated Flyback and Forward Controllers

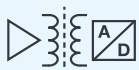
Part Number	Insulation Rating (kV rms)	Topology	Frequency (typ) (kHz)	Integrated Primary and Secondary MOSFET Driver (A)	V <sub>in</sub> (max) (V)	Max Temp (°C)	Packages
ADP1031	2.5	Flyback, buck, inverting	250	0.3, 0.3, 0.3	4.5 to 60	125	41-lead LFCSP
ADP1032 <b>NEW</b>	2.5	Flyback, buck	250	0.44, 0.3	4.5 to 60	125	41-lead LFCSP
ADP1071-1	5	Flyback	600	1	36	125	16-lead SOIC_W
ADP1071-2	5	Flyback	600	1	60	125	16-lead SOIC_W
ADP1074	5	Flyback, forward	600	1	60	125	24-pad LGA, 24-lead SOIC_W

## IO-Link Transceivers

Part Number	IO-Link Type	Drivers/Receivers	Max Data Rate (Mbps)	Supply Voltage (V)	Overvoltage Protection (V)	Load Current (mA)	LDO Regulator (mA)	Adj Slew	Wake-Up Pulse	L+ Hot Swap	Max Temp (°C)	Package
LT3669	Device	1/1	0.23	7.5 to 40	±60	100	150				150	28-lead QFN
LT3669-2	Device	1/1	0.23	7.5 to 40	±60	300	150				150	28-lead QFN
LTC2874	Master	4/4	0.23	8.0 to 34.0, V <sub>L</sub> 2.9 to 5.5	±50			•	•	•	85	38-lead TSSOP

## Isolated Analog-to-Digital Converters, Isolated Sigma-Delta

Part Number	Insulation Rating (kV rms)	Resolution (Bits)	Clock Rate (MHz)	Clock Source	ADC SNR (typ) (dB)	SINAD (typ) (dB)	Config/Programming Interface	Power Supply Bus (V)	Max Temp (°C)	Package
AD7400	5	16	10	Internal	71	70	CMOS, serial	3.0 to 5.5	105	16-lead SOIC_W
AD7400A	5	16	10	Internal	80	78	CMOS, serial	3.0 to 5.5	125	16-lead SOIC_W
AD7401	5	16	20	External	82	81	CMOS, serial	3.0 to 5.5	105	16-lead SOIC_W
AD7401A	5	16	20	External	83	82	CMOS, serial	3.0 to 5.5	125	16-lead SOIC_W
AD7402-8	5	16	10	Internal	87	82	CMOS, serial	3.0 to 5.5	105	8-lead SOIC_W
AD7403 <sup>1</sup>	5	16	20	External	88	87	CMOS, serial	3.0 to 5.5	125	16-lead SOIC_IC
AD7403-8	5	16	20	External	88	87	CMOS, serial	3.0 to 5.5	105	8-lead SOIC_IC
AD7405	5	16	20	External	88	87	LVDS, serial	3.0 to 5.5	105	16-lead SOIC_IC
ADE1201 <b>NEW</b>	3.75	8	10	Internal	48		SPI	2.97 to 3.63	125	20-lead LSA
ADE1202 <b>NEW</b>	3.75	8	10	Internal	48		SPI	2.97 to 3.63	125	20-lead LSA
ADE7912	5	24	4	External	74	73	Serial	3.3	85	20-lead SOIC_IC
ADE7913	5	24	4	External	74	73	Serial	3.3	85	20-lead SOIC_IC
ADuM7701 <b>NEW</b>	5.7	16	21	External	86	86	CMOS, serial	4.5 to 20	125	8-lead SOIC_IC
ADuM7702 <b>NEW</b>	5.7	16	21	External	86	86	CMOS, serial	4.5 to 20	125	8-lead SOIC_IC
ADuM7703 <b>NEW</b>	5.7	16	21	External	86	86	CMOS, serial	4.5 to 20	125	8-lead SOIC_IC
ADuM7704 <b>NEW</b>	5.7	16	21	External	86	86	CMOS, serial	4.5 to 20	125	8-lead SOIC_IC



### Isolated Analog-to-Digital Converter

As the world's leading supplier of data converters, Analog Devices is constantly introducing new analog-to-digital converters (ADCs) that drive system architectures. In the motor control arena, ADI's converters solve the challenges associated with current and voltage monitoring, optical encoder feedback, and resolver-to-digital conversion. The introduction of the isolated ADC, with its 3.75 kV standoff voltage, is one example of ADI's breakthroughs in performance and integration to ease the burden of design.

<sup>1</sup> Automotive qualified models available. Please visit product page for more information.

## Recommended Auxiliary Power for Isolation Applications

Product Type	Part Number	Design Consideration
Isolated power modules	ADuM6020, ADuM6028, ADuM5020, ADuM5028	Isolated power modules
	LTM8067, LTM8068, LTM8057, LTM8058	Isolated power modules
Push-pull	LT1683	Low noise, push-pull power supply controller
	LT1533, LT1534	Low noise, push-pull power supply regulation
	LT3439, LT3999	Low noise, push-pull DC-to-DC driver
	LT1738	Offline power supply controller
	ADuM4070, ADuM3070	Isolated power supply regulation
Flyback regulator, no-opto	LT8300, LT8303, LT8301, LT3001	Low power in small SOT-23 package
	LT8302, LT8304, LT8304-1, LT3002, LT8302-3	Medium power
	LT8315	High voltage input range, offline power supply
Flyback controller, no-opto	LT3748, LT8316	Up to 100 W isolated power
	LT8309	Flyback synchronous rectifier for higher efficiency supplies
	LT3798	Up to 100 W, offline controller with PFC

### Power Management Tools

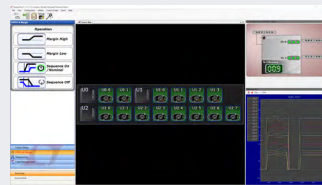
#### LTspice®

High performance SPICE simulation software, schematic capture, and waveform viewer with enhancements and models for improving the simulation of analog circuits.

# LTspice®

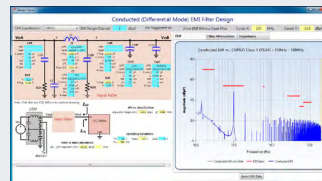
#### LTpowerPlay®

A powerful software development environment supporting power system management (PSM) products including PMBus power system managers and DC-to-DC power converters with PSM.



#### LTpowerCAD®

A complete power supply design tool that speeds up the task of power supply design with recommendations for component values and performance estimates that reduce both design effort and time.



Visit [analog.com/power-management](http://analog.com/power-management)



## To Learn More About iCoupler Digital Isolation



Scan the QR code or  
visit [analog.com/iCoupler](http://analog.com/iCoupler)

Engage with the ADI technology experts in our online support community.  
Ask your tough design questions, browse FAQs, or join a conversation.



SUPPORT COMMUNITY

Visit [ez.analog.com](http://ez.analog.com)

Circuits from the Lab<sup>®</sup> reference designs are built and tested  
by ADI engineers with comprehensive documentation and  
factory-tested evaluation hardware.



Visit [analog.com/cftl](http://analog.com/cftl)

## Safety Certifications

The iCoupler family of digital isolation products has been tested and approved  
by various regulatory agencies, including UL, CSA, VDE, TÜV, CQC, and now, for  
intrinsic safety, ATEX and IECEX. For a full listing and downloadable PDF, visit  
[analog.com/iCouplerSafety](http://analog.com/iCouplerSafety). Analog Devices' isolator  $\mu$ Module platforms are  
certified by safety houses including UL, CSA, and IEC.

