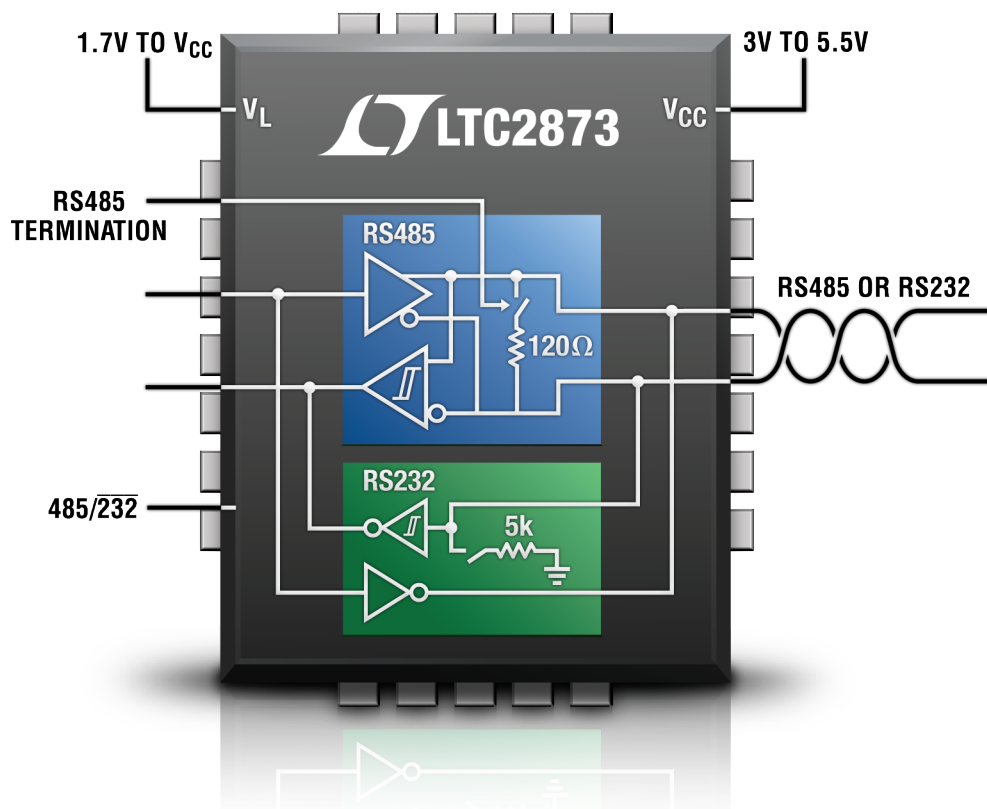


Multiprotocol Transceivers



The LTC[®]2870/71/72/73 are a family of multiprotocol transceivers with switchable integrated termination for 3.3V and 5V systems. These devices integrate pin-controlled termination resistors that automatically switch in or out to match the transceiver's protocol selection of RS232 or RS485, allowing for easy interface reconfiguration and elimination of external resistors and control relays. The LTC2870 and LTC2871 can be configured as two RS232 single-ended transceivers or one RS485 differential transceiver on shared (LTC2870) or dedicated (LTC2871) I/O lines; the LTC2872 can be configured as four RS232 transceivers or two RS485 transceivers, or combinations of both, on shared I/O lines; the LTC2873 can be configured as one RS232 transceiver or one RS485 transceiver on shared I/O lines.

Features

- 3V to 5.5V Supply Voltage Range
- Up to Two RS485 and Four RS232 Transceivers
- 20Mbps RS485 and 500kbps RS232
- Automatic Selection of Integrated RS485 (120 Ω) and RS232 (5k Ω) Termination Resistors
- Pin-Selectable Half- or Full-Duplex Mode RS485
- Logic Loopback Mode
- High ESD: Up to ± 26 kV on Bus I/O; ± 4 kV On All Other Pins
- 1.7V to 5.5V Logic Interface
- Supports Up to 256 RS485 Nodes
- Full Failsafe RS485 Receiver Eliminates UART Lockup

Dual Protocol (RS485/RS232) Transceivers	LTC2870	LTC2871	LTC2872	LTC2873
Possible Configurations (RS485 Transceivers + RS232 Transceivers)	0+0, 0+2, 1+0	0+0, 0+1, 0+2, 1+0, 1+1, 1+2	0+0, 0+2, 0+4, 1+0, 2+0, 1+2	0+0, 0+1, 1+0
RS232 and RS485 I/O Pin Sharing per Port	Shared	Dedicated	Shared	Shared
HBM ESD Rating	± 26 kV	± 16 kV	± 16 kV	± 26 kV
Packages	4mm \times 5mm QFN-28, TSSOP-28	5mm \times 7mm QFN-38, TSSOP-38	5mm \times 7mm QFN-38	4mm \times 5mm QFN-24



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Multiprotocol Transceivers Family															
Part Number	# of Drivers	# of Receivers	Supply (V)	Protocols Supported	Supported Data Rate				Termination	DCE or DTE	Signals	Additional Signals	ESD (kV)	Temp. Grade	Packages
					RS232/RS562	RS422/RS485	V.35 (Async)	V.35 (Sync)							
LTC1321	2	2	±5	RS232, RS562, RS422, RS485	120kbps	10Mbps						10	C, I	SW-24, N-24	
LTC1322	4	4	±5	RS232, RS562, RS422, RS485	120kbps	10Mbps						10	C, I	SW-24, N-24	
LTC1323	2	3	±5	LocalTalk, RS232, RS422	120kbps	2Mbps			DTE	Data, Control		10		SW-24, SO-24	
LTC1334	4	4	5	RS232, RS562, RS422, RS485	120kbps	5Mbps						10	C, I	SSOP-28, SW-28, N-28	
LTC1335	4	4	5	RS562, RS422, RS485	120kbps	10Mbps						10	C, I	SW-24, N-24	
LTC1343	4	4	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21			8Mbps	4Mbps	DTE or DCE	Data, Clock or Control	LL, RL, TM	2	C, I	SSOP-44	
LTC1344			5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21					•			2	C, I	SSOP-24	
LTC1344A			5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21					•			2	C, I	SSOP-24	
LTC1345	3	3	5	V.35			10Mbps	5Mbps	DTE or DCE	Data, Clock		10	C, I	SW-28, N-28	
LTC1346A	3	3	±5	V.35			10Mbps	5Mbps	DTE or DCE	Data, Clock		10	C, I	SSOP-24	
LTC1387	2	2	5	RS232, RS562, RS422, RS485	128kbps	150kbps or 5Mbps						6	C, I	SSOP-20, SW-20	
LTC1543	3	3	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	DTE or DCE	Data, Clock		2	C, I	SSOP-28	
LTC1544	4	4	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	DTE or DCE	Control	LL	2	C, I	SSOP-28	
LTC1545	5	5	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	DTE or DCE	Control	LL, RL, TM	2	C, I	SSOP-28	
LTC1546	3	3	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	• DTE or DCE	Data, Clock		2	C, I	SSOP-28	
LTC2844	4	4	3.3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	DTE or DCE	Control	LL	1	C, I	SSOP-28	
LTC2845	5	5	3.3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	DTE or DCE	Control	LL, RL, TM	1	C, I	SSOP-36	
LTC2846	3	3	3.3	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	• DTE or DCE	Data, Clock		2	C, I	SSOP-36	
LTC2847	3	3	5	EIA530, EIA530-A, RS232, RS449, V.35, V.36, X.21	128kbps	10Mbps	10Mbps	5Mbps	• DTE or DCE	Data, Clock		1	C, I	QFN-36	
LTC2870	2	2	3 to 5	RS232, RS485, RS422	500kbps	20Mbps			• DTE or DCE			26	C, I, H	QFN-28, TSSOP-28	
LTC2871	3	3	3 to 5	RS232, RS485, RS422	500kbps	20Mbps			• DTE or DCE			16	C, I	QFN-28, TSSOP-28	
LTC2872	4	4	3 to 5	RS232, RS485, RS422	500kbps	20Mbps			• DTE or DCE			16	C, I	QFN-38	
LTC2873	1	1	3 to 5	RS232, RS485, RS422	500kbps	20Mbps			• DTE or DCE			26	C, I, H	QFN-24	

3500V_{RMS} Isolated RS485/RS232 Transceiver

