Texas Instruments

Industrial Interface IC Solutions

RS-485 PROFIBUS, CAN, Ethernet

Overview:
Texas Instruments provides Interface IC solutions ranging from CAN, LVDS, RS-485, RS-232 industry standards to 1394 (Firewire), USB, PCI Cardbus and more. Our Interface Selection Tool is available to help you understand what Interface IC best suits your connectivity needs.

For more information including selection guides, datasheets application notes and samples visit:
www.ti.com/interface

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RS-485 solutions

SN65HVD178x – ±70V fault protected RS485, 5V, half & full duplex transceiver

Features	Benefits
• ±70V fault protection	• Equipment is protected if it shorts to power rails
• Wide common mode -20V to +25V	• Allows operation over wide differences in GND

SN65HVD30-35 – 3.3-V RS-485 single full-duplex transceiver

Features	Benefits
• 1/8 unit-load option available	• Allows up to 256 nodes
• Low-current standby mode < 1 µA	• Low power consumption

ISO1176 – 4kV Isolated – PROFIBUS RS485 transceiver

Features	Benefits
• Meets-EN-50170 (Profibus), RS-422, RS-485	• Fully compliant to Profibus and RS-485
• Failsafe receiver for bus open, short, idle	• High reliability in harsh environments
• 4KV max isolation, 560V working	• Life span > 25 years @ 125°C

ISO1177 – Isolated RS-485 transceiver with transformer driver – preview

Features	Benefits
• Meets or exceeds TIA/EIA RS-485	• Fully compliant to RS-485 standard
• 1Mbps / 20Mbps /40Mbps	• Optimized for long cables or high speed
• Silicon integrated SiO_2 insulation - 4kVmax / 2.5kVrms isolation	• Life span > 25 years @ 125°C

CAN solutions

ISO1050 – 4kV isolated – 5V CAN transceiver

Features	Benefits
• Industry‘s first isolated CAN transceiver	• Reduce components and board space - 30%
• Isolated CAN with ultra low loop time	• High speed isolation allows longer buses – 34%
• Silicon integrated SiO_2 insulation - 4kVmax / 2.5kVrms isolation	• Life span > 25 years @ 105°C

SN65HVD23x – 3.3-V CAN transceiver

Features	Benefits
• Operates with a 3.3V supply	• Eliminates 5V supply requirement
• High input impedance allows for 120 nodes on a bus	• Supports large industrial networks

Ethernet solutions

TLK100 – Industrial Ethernet 10/100 PHY

Features	Benefits
• Predictable and precise for time-critical apps	• Supports time stamping/slotting protocols
• Flexible supply options: 3.3V or 3.3V & 1.8V & 1.1V	• 3.3V only for simple power solution or separate power for low power consumption
• Cable diagnostics (breaks/damage/length)	• Finds cable faults / length within ±1m
	• Operates offline or with live traffic

Voltage to current converter solutions

XTR111 – Precision voltage-to-current converter/transmitter

Features	Benefits
• Input/Output: 0mA-20mA, 4mA-20mA, 5mA-25mA	• Highly flexible and easy to design with