Interface and Isolation Update

Winter, 2012

New Products

Introducing Four New Families to the *iso*Power® Portfolio

The new families feature:

- Integrated, isolated DC/DC converter
- Regulated 3.15 V or 5.25 V output
- Up to 150 mW output power
- 2.5 kV rms or 3.75 kV rms isolation rating
- Integrated isolated data channels available
- 20-lead SSOP package with 5mm creepage
- High temperature operation: 105°C

» Learn more about these new parts and *iso*Power technology. This is *iso*Power.

Dual RS-422 Transceiver with IEC ESD

ADM4168E Features:

- ESD protection on bus input/output pins
  - ±15 kV human body model (HBM)
  - ±8 kV IEC 61000-4-2, contact discharge
  - +8kV IEC 61000-4-2, air discharge
- Low driver output skew
- Power-up/power-down without glitches
- 16-pin TSSOP package
- Operating temperature range: -40°C to +85°C

» Sample and learn more about ADM4168E

5 kV rms Dual-Channel Digital Isolators

ADuM228x Features:

- Up to 100 Mbps data rate
- Low propagation delay: 24 ns
- High common-mode transient immunity: > 25 kV/µs
- 3V to 5V level translation
- Multiple channel configurations available
- Default high and default low options
- 16-lead SOIC wide body enhanced creepage package
- High temperature operation: 125°C

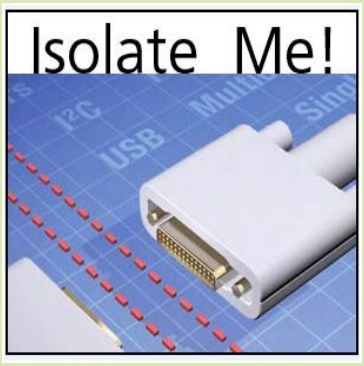
» Sample and learn more about the ADuM228x

1kV rms Six-Channel Digital Isolators

ADuM764x Features:

- Low power operation
- Bidirectional communication
- Up to 25 Mbps data rate (NRZ)

Register now for this FREE webcast **"Isolated Interface Solutions for Industrial Sensor and Monitoring Applications"** Premieres Wednesday, January 23, 2013 at Noon, EST.
Learn more here.



Check out the newest blog on EDN dedicated to *i*Coupler digital isolator technology.

Inside *i*Coupler® Technology:

IEC 61010-1 Edition 3

International standard IEC 61010-1 specifies safety requirements for a variety of electrical systems, including test and measurement, industrial process-control and laboratory equipment. The purpose of the standard is to minimize hazards to operators and the surrounding environment and equipment. The first edition was published in 1990, with the most recent third edition having been released in 2010. Many new elements were added in the third edition, including a complete rewrite of the section governing insulation requirements. This note discusses new requirements for thin film insulation and the impact on digital isolators utilizing this material as the isolation barrier.
Learn more here.

*N**App**kin **Notes** - written expressly for the*

- 3V/5V level translation
- High common-mode transient immunity: > 15 kV/µs
- Multiple channel configurations
- 20-lead QSOP package
- High temperature operation: 105°C

» Sample and learn more about the ADuM764x

Featured Video

Watch this video to learn how *i*Coupler® Digital Isolators Meet Strict HEV/EV Requirements

Need isolation for your automotive design? Contact your local ADI sales representative to learn about the largest automotive digital isolator portfolio in the industry.

Check out What Else is New from the Interface and Isolation Teams

Elektronik Praxis: Digital Isolators Provide a Reliable Alternative to Optocouplers

New MLVDS Design Support Tools Available:

- Wiki: MLVDS Design Guide
- IBIS Models

Interface and Isolation Update *- are ideas, hints, and tips for building with interface and iCoupler digital isolator technologies. This issue we present:* **"Optimizing Power Conversion for Isolated Sensor Interfaces"**.
Read whole note here.

Circuits from the Lab™ Reference Circuits

Low Cost, 16-Bit, 250 kSPS, 8-Channel, Isolated Data Acquisition System

Analog Devices, Inc.
Corporate Headquarters
3 Technology Way
Norwood, MA 02062
U.S.A.