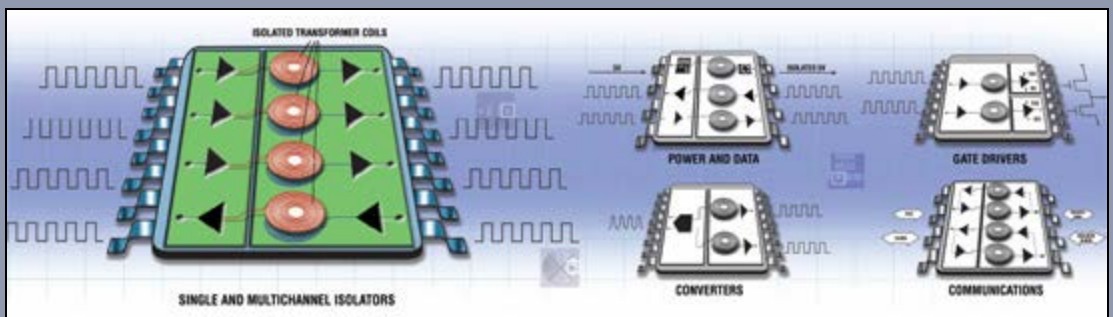

Analog Devices' Digital Isolation Update *i*Coupler® News

New Products

ADuM540xW – Automotive products that isolate data and power in a single package, cutting costs in half and reducing board space by 70%

Qualified for an AEC-Q100 –40°C to +105°C automotive temperature rating, the ADuM540xW devices are designed for hybrid electric vehicle (HEV) motor drives and battery management systems. The new AEC-Q100 *iso*Power® isolators provide multiple data isolation channels in a variety of channel configurations and support data rates up to 25 Mbps.

Learn more about the ADuM5401W here.
Learn more about the ADuM5402W here.
Learn more about the ADuM5403W here.

ADuM7234 – Half-bridge driver that offers 4A drive together with galvanic isolation

In comparison to gate drivers employing high voltage level translation methodologies, the ADuM7234 offers the benefit of galvanic isolation not only between the input and outputs but also between each output. Outputs may be operated up to ±350 V peak relative to the input, thereby supporting low-side switching to negative voltages.

Learn more about the ADuM7234 here.

ADuM7510 – Reduced cost, five-channel, 1 kV rms unidirectional digital isolator

The ADuM7510 isolator provides five independent isolation channels supporting data rates up to 10 Mbps. Unlike optocoupler alternatives, the ADuM7510 isolator has a patented refresh feature that ensures dc correctness in the absence of input logic transitions and during power-up/power-down conditions.

Learn more about the ADuM7510 here.

Inside *i*Coupler Technology

Testing Digital Isolators

*i*Coupler digital isolators are tested in production to guarantee that both the isolation and data transmission conform to the data sheet specifications. This is done with a two-pass test performed on 100% of our products: a High Voltage test followed by a parametric test. This differs from most non-isolated ICs which are subjected only to parametric testing and this paper, which you can read here, explains the testing process. (pdf, 28,672 bytes)

*N**App**kin **Notes** – written expressly for the* Digital Isolation Update *– are ideas, hints, and tips for building with iCoupler technology. This issue we present:*

Segmenting Power with iCoupler Digital Isolators, a special note that describes how an isolation barrier can segment power control without affecting other functions of the design. Read the whole note here. (pdf, 102,400 bytes)

Circuits from the Lab

This circuit provides a **half-duplex, isolated RS-485 interface** using the ADM2485 high speed, isolated RS-485 transceiver and the ADP3330 high accuracy linear regulator. This circuit achieves signal and power isolation and at the same time decreases board space and power consumption. See the Circuit here.

Please visit www.analog.com/icoupler for more information.

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