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- [Isolator Datasheets](#)
(revised with more high-voltage information)

New Year Holiday

NVE will be closed for business Monday, December 31, 2012 and Tuesday, January 1, 2013.



2012 Year in Review

We wish our readers a successful and prosperous 2013. It was a good year for NVE with new products, expansion, and added distributors:



New Products

- [IL41050TA Low-Power Isolated CAN Transceivers](#)
Next-generation [wide](#) and [narrow](#)-body single chip solutions with integrated isolation and transceiver functions.
- [Analog Sensor Evaluation Kit](#) including a reference design buffer, a split-pole magnet, and magnet fixturing.
- [Round horseshoe magnets](#) for wide airgap angle sensors.
- [Isolator Evaluation Boards](#), including [IL700](#), [IL600](#), [RS-485](#), and [CAN](#) evaluation boards.

New Design Resources

- New [on-line technical videos](#), and a new application [DVD](#).
- A new collection of popular [Isolator reference designs](#).

New Distributors

- [Jingshi Technologies](#) was appointed an authorized sales representative in China for IsoLoop Isolators.
- [IS-LINE](#) was named an NVE Sensor distributor for Germany, Austria, and Switzerland.

Expansion

- NVE expanded production to meet increasing demand, including a new cleanroom bay.

Featured Products

MSOP Isolators

The world's smallest isolators, IsoLoop MSOP Isolators can reduce board area by up to a factor of ten compared to single-channel PDIP isolators.



Like all IsoLoop Isolators, MSOP isolators feature minimal signal distortion, wide temperature range, and unlimited life. A "-1" suffix designates an MSOP. IsoLoop MSOP Isolators are available in various input, output, and channel configurations. And, of course, NVE also offers the industry's broadest line of best-in-class SOIC, PDIP, narrow-body, and wide-body isolators.

Key MSOP isolator features include:

- 3 mm by 3 mm MSOP-8
- Passive or digital inputs
- One or two Channels
- CMOS or open-drain outputs
- 150 Mbps (S-Series)
- 125°C (T-Series)
- IEC 61010-1 approved

More than a dozen MSOP isolator part types are currently [in stock](#) and available for immediate delivery with no minimum order.

Part Number	Mbps Data Rate	Tx/Rx Ch	Input	Output	Features	Max. Temp.
IL510-1	2	1/0	Digital	CMOS	DC Correct	85°C
IL511-1	2	2/0	Digital	CMOS	DC Correct	85°C
IL610-1	100	1/0	Passive	CMOS	DC Correct; Output Enable	85°C
IL610A-1	10	1/0	Passive	Open-drain	Failsafe; DC Correct; Output Enable	85°C
IL611-1	100	2/0	Passive	CMOS	Failsafe; DC Correct	85°C
IL611A-1	10	2/0	Passive	Open-drain	Failsafe; DC Correct	85°C
IL710-1	110	1/0	Digital	CMOS	Output Enable	100°C
IL711-1	110	2/0	Digital	CMOS		100°C
IL712-1	110	1/1	Digital	CMOS		100°C
IL710S-1	150	1/0	Digital	CMOS	Ultrahigh Speed; Output Enable	100°C
IL711S-1	150	2/0	Digital	CMOS	Ultrahigh Speed	100°C
IL712S-1	150	1/1	Digital	CMOS	Ultrahigh Speed	100°C
IL710T-1	110	1/0	Digital	CMOS	High Temp.; Output Enable	125°C
IL711T-1	110	2/0	Digital	CMOS	High Temp.	125°C
IL712T-1	110	1/1	Digital	CMOS	High Temp.	125°C

[Buy Online](#)
\$9.95 shipping

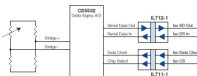
New Year's Application Corner

Minimizing SPI Board Area With MSOP Isolators

If your New Year's resolution is to redesign minimizing your SPI board area (a common resolution), consider NVE's unique MSOP isolators.

Isolating Serial Peripheral Interface Bus (SPI) eliminates ground loops between analog and digital sections and improves resolution by reducing noise. NVE's unique MSOP isolators minimize board area with the smallest possible footprint.

Here's an illustration of single-channel isolated delta-sigma ADC using MSOP isolators:



Isolated Delta-Sigma ADC With MSOP Isolators

An IL712-1 isolates the data and an IL711-1 isolates the control lines.

The remarkable inter-device delay matching of IsoLoop Isolators allows the use of two chips without sacrificing channel-to-channel skew.

Of course, all four channels could be isolated with a four-channel IL717 wide-body or narrow-body isolator. The wide-body package provides a full 8 mm creepage distance, but the MSOPs are smaller and still IEC 61010-1 approved.

Four-channel isolators minimize chip count, while MSOPs minimize board area:

4-ch wide-body isolator (0.4" x 0.4" footprint)	4-ch narrow-body isolator (0.24" x 0.39" footprint)	Two 2-ch MSOP isolators (0.19" x 0.24" footprint)

For more practical SPI circuits and tips, visit the [ADC/DAC Application Center](#) or watch this [technical video](#):

[Video: Isolating SPI Interfaces](#)