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**Ultraminiature DC-DC Converter With 5 kV Isolation**

NVE has introduced the world's highest isolation ultraminiature DC-DC converter, the **ILDC11VE**. The new part is based on the revolutionary IsoLoop<sup>®</sup> DC-DC converter technology first introduced last year in the **ILDC11-15E**, which is still the world's smallest isolated DC-DC converter.



ILDC11 Functional diagram.

**5 kV Isolation**

The ILDC11VE is rated at a best-in-class 5 kVrms isolation under UL1577.

**Standard IC Package**

The new part is packaged in a JEDEC-standard 16-pin wide-body SOIC package, with true 8 mm creepage in accordance with IEC60601.

**3.3 to 3.3 Volts**

The ILDC11VE provides one-quarter watt of regulated, fully-isolated power with a 3.3 volt input. Five and six-volt versions will be available soon. The devices can be used with their internal regulators or combined with commodity regulators on the input or output for different voltages.

**Low Ripple**

Less than 1 mV peak-to-peak ripple means low noise and reliable systems.

**Rugged**

A 175 °C maximum junction temperature allows full power up to 125 °C ambient temperature with no derating. Integrated short-circuit protection prevents excessive power dissipation.

**Minimal Parts Count**

Three inexpensive bypass capacitors are the only external parts required. No additional regulation is needed and there is no minimum load. Frequency hopping and shielding quash EMI and make ferrite beads unnecessary.

**Two Versions**

There are currently two package versions of ILDC-Series DC-to-DC converters. The wide-body ILDC11VE provides best-in-class isolation, and the DFN6 ILDC11-15E is the world's smallest isolated DC-to-DC converter.

Part Number (click for more information)	Isolation	Package	Creepage
<a href="#">ILDC11VE</a>	5 kVrms	SOIC16W	8 mm
<a href="#">ILDC11-15E</a>	2.5 kVrms	3 x 5.5 mm DFN6	3.5 mm

**Immediate Delivery**

ILDC-Series parts and demonstration boards are [in stock](#) for immediate delivery.

[ILDC11 datasheet download »](#)

[Demonstration video »](#)

**Buy Online**  
\$9.95 shipping



**Isolators with DC-DC Convertors**

NVE has launched the new IL76xxVE line of isolated data couplers with integrated DC-to-DC converters.

The new parts are based on the revolutionary IsoLoop<sup>®</sup> DC-to-DC converter technology first introduced the **ILDC11** stand-alone DC-to-DC converters.

Key IL76xxVE features include:

- 250 mW 3.3-to-3.3 volt DC-to-DC converter
- 110 Mbps data rate
- 1 mVp-p DC-to-DC output ripple
- -40 to 125 °C operating range
- 5 kVrms isolation
- Wide-body SOIC with true 8 mm creepage

**Highest Speed**

The couplers are rated at a full 110 Mbps for high speed and signal fidelity.

**Low Ripple**

Less than 1 mV peak-to-peak ripple means low noise and reliable systems.

**High Temperature**

A high-temperature process and high thermal-conductivity package allow operation over the full -40 to 125 °C range. Overcurrent and thermal shutdown protection ensure safe operation.

**Best-in-Class Isolation**

The new parts are rated at a best-in-class 5 kVrms isolation under the rigorous new IEC60747-17 version of VDE V 0884-11. The parts are packaged in JEDEC-standard 16-pin wide-body packages with true 8 mm creepage in accordance with IEC60601.

**Lowest EMI**

Frequency hopping and integrated shielding provide the lowest EMI in the industry.

**Low Parts Count**

The integrated isolated DC-to-DC converters require no additional regulation and ferrite beads are not necessary for EMI mitigation.

**Popular Channel Configurations**

The new product line has two-, three-, and four-channel versions for a variety of applications including various SPI protocols.

**Immediate Delivery**

Most IL76xxVE models are [in stock](#) for immediate delivery. The IL7616VE and IL7617VE configurations will be available by the end of the second quarter.

[IL76xx datasheet download »](#)

[Demonstration video »](#)

**Buy Online**  
\$9.95 shipping



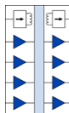
IL7611VE



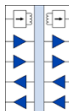
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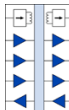
IL7614VE



IL7615VE



IL7616VE



IL7617VE

**Datasheet Updates**

[V-Series datasheets](#) updated for VDE V 0884-11 certifications.



NVE will be closed May 31 for Memorial Day.

**Upcoming Exhibitions**

**SENSOR+TEST** and **Power Conversion and Intelligent Motion** exhibitions will both be digital this year and both will be held May 3 to May 7.



NVE will co-exhibit in both virtual exhibitions in cooperation with our European distributor Angst+Pfister.



**Sensors Expo and Conference** is still scheduled to be in-person, June 23 to 24, in San Jose, Calif. We'll be in Booth 162B.