Product Brief

# 2EDN MOSFET EiceDRIVER™ family

## Rugged, cool and fast, 2-channel low-side 5 A driver ICs

**2EDN family overview**

2-channel MOSFET driver ICs are the crucial link between control ICs and powerful MOSFET and GaN switching devices. MOSFET driver ICs enable high system level efficiencies, excellent power density and consistent system robustness.

**2EDN family: Fast, precise, strong and compatible**

- Highly efficient SMPS enabled by 5 ns short slew rates and 10 ns propagation delay precision for fast MOSFET and GaN switching
- Numerous deployment options due to two 5 A channels. 1 ns channel-to-channel accuracy to use two channels in parallel
- Industry standard packages and pinout ease system design upgrades

**2EDN family: The new reference in ruggedness and low power dissipation**

- 4 V and 8 V UVLO (Under Voltage Lock Out) options for instant MOSFET protection under abnormal conditions
- -10 V robustness of control and enable inputs provides crucial safety margin when driving pulse transformers or driving MOSFETs in TO-220 and TO-247 packages
- 5 A reverse output current robustness eliminates the need for Schottky switching Diodes and reduces bill-of-material
- Cool driver ICs from true rail-to-rail low impedance output stages

### Applications

- Server
- Telecom
- DC-DC converters
- Bricks
- Power tools
- Industrial SMPS
- Motor control
- Solar


| Product features | Product benefits | System benefits |
|---|---|---|
| › 5 A souce/sink current<br>› 5 ns rise/fall times<br>› <10 ns propagation delay precision | › Fast Miller plateau transition<br>› Precise timing | › High power efficiency<br>– in hard switching PFC with SiC Diode<br>– in half-bridges and synchronous rectifications |
| › True rail-to-rail low impedance output stages | › Low power dissipation in Driver IC | › Cooler driver IC operation<br>› Higher MOSFET drive capability |
| › 4 V and 8 V UVLO options<br>› 19 ns propagation delay for both control and enable inputs | › Fast and reliable MOSFET turn-off, independent of control IC | › Instant MOSFET protection under abnormal operation |
| › -10 V robustness of control and enable inputs | › Increased GND-bounce robustness | › Crucial safety margin to drive pulse transformer |
| › 5 A reverse output current robustness | › Saves switching diodes | › Increases power density<br>› BOM savings |
| › 2 independent channels<br>› Excellent 1 ns channel-to-channel accuracy | › Option to increase drive current by truly concurrent switching of 2 channels | › One IC covering many applications |
| › Industry standard pinout and packages | › Straight forward design upgrades | › Short time to market |


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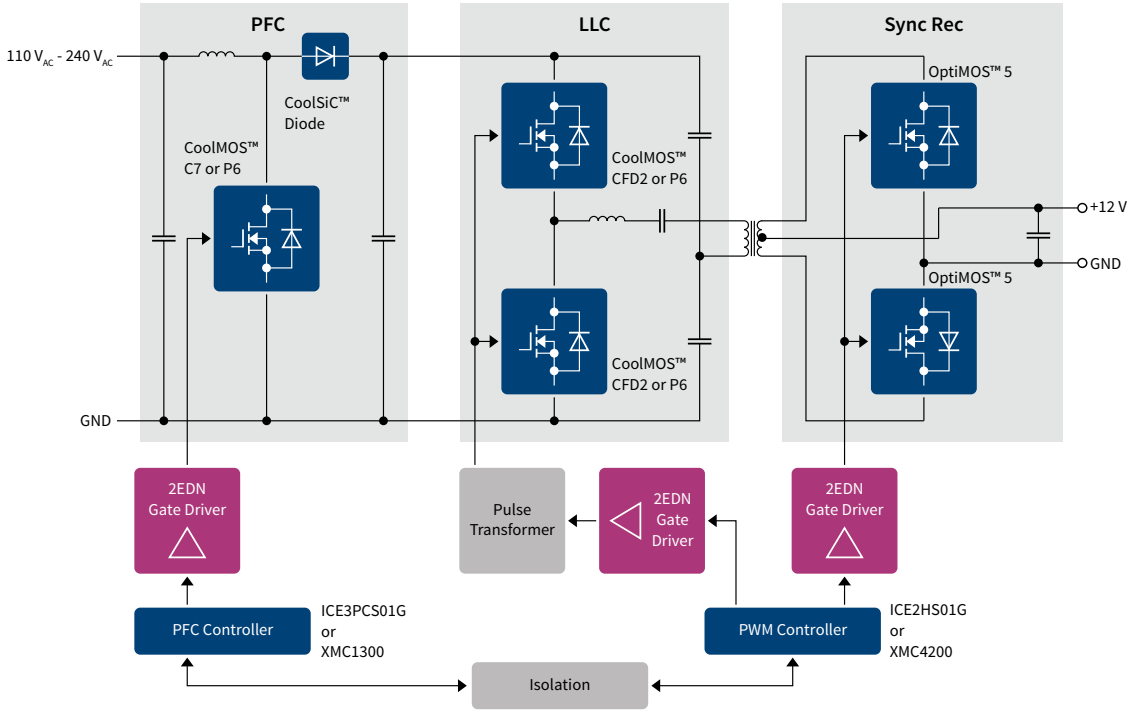
## Rugged, cool and fast, 2-channel low-side 5 A driver ICs

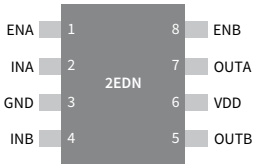
### Application overview 800 W 130 kHz switched mode power supply




### Product portfolio

| Package | | UVLO | Inputs | Product name | Orderable part number |
|---|---|---|---|---|---|
|  | DSO 8pin | 4 V | Direct | 2EDN7524F | 2EDN7524FXTMA1 |
| | | | Inverted | 2EDN7523F | 2EDN7523FXTMA1 |
| | | 8 V | Direct | 2EDN8524F | 2EDN8524FXTMA1 |
| | | | Inverted | 2EDN8523F | 2EDN8523FXTMA1 |
|  | TSSOP 8pin | 4 V | Direct | 2EDN7524R | 2EDN7524RXUMA1 |
| | | | Inverted | 2EDN7523R | 2EDN7523RXUMA1 |
| | | 8 V | Direct | 2EDN8524R | 2EDN8524RXUMA1 |
| | | | Inverted | 2EDN8523R | - |
|  | WSON 8pin | 4 V | Direct | 2EDN7524G | 2EDN7524GXTMA1 |
| | | | Inverted | 2EDN7523G | 2EDN7523GXTMA1 |

### Industry standard pinout configuration

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