

## Product Brief

# EiceDRIVER™ sense

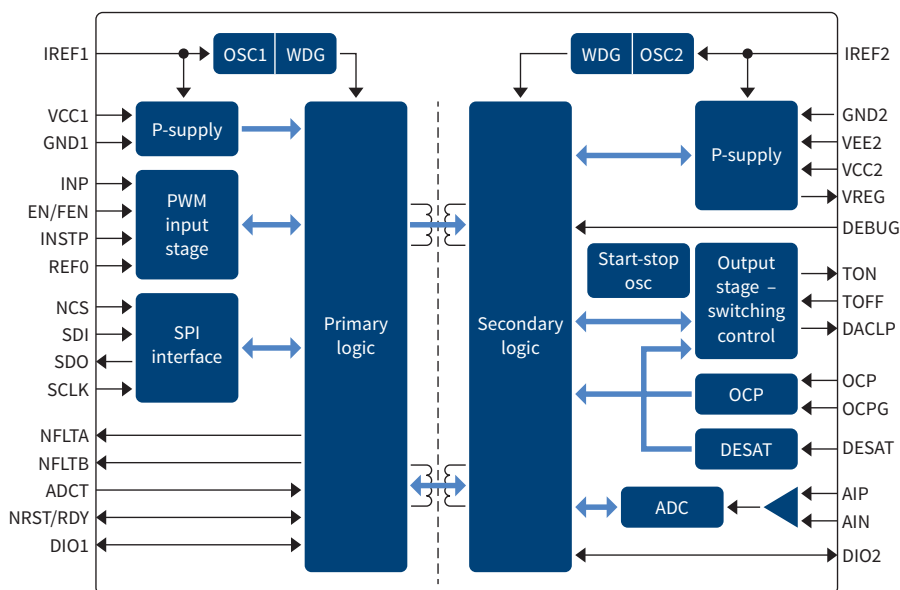
## 1EDI2010AS

The 1EDI2010AS is a high-voltage IGBT gate driver designed for motor drives above 5 kW. The 1EDI2010AS is based on Infineon's Coreless Transformer (CLT) technology, providing galvanic insulation between low voltage and high voltage domains. The device has been designed to support IGBT technologies up to 1200 V.

The internal 8-bit ADC, with programmable gain and offset, enables the sensing of either the DC-link voltage, the phase voltage or of the temperature sensor located on the power module. The digitalized value can be read via the SPI interface. Moreover, the 1EDI2010AS supports advanced functions (such as two level turn-on and off, overcurrent monitoring, etc.), that can be controlled via the SPI interface.

The 1EDI2010AS can be used optimally with Infineon's integrated booster stage family EiceDRIVER™ boost 1EBN100XAE.

### Circuit diagram



### Key features

- > On-chip galvanic isolation
- > Standard SPI interface
- > Embedded 8-bit ADC
- > Gate signal shaping
- > Overcurrent monitoring
- > AEC-Q100 qualified

### Key benefits

- > Embedded ADC reduces significantly system costs
- > The combined use with the EiceDRIVER™ boost saves significant PCB area
- > Two-level turn-on increases the system's efficiency

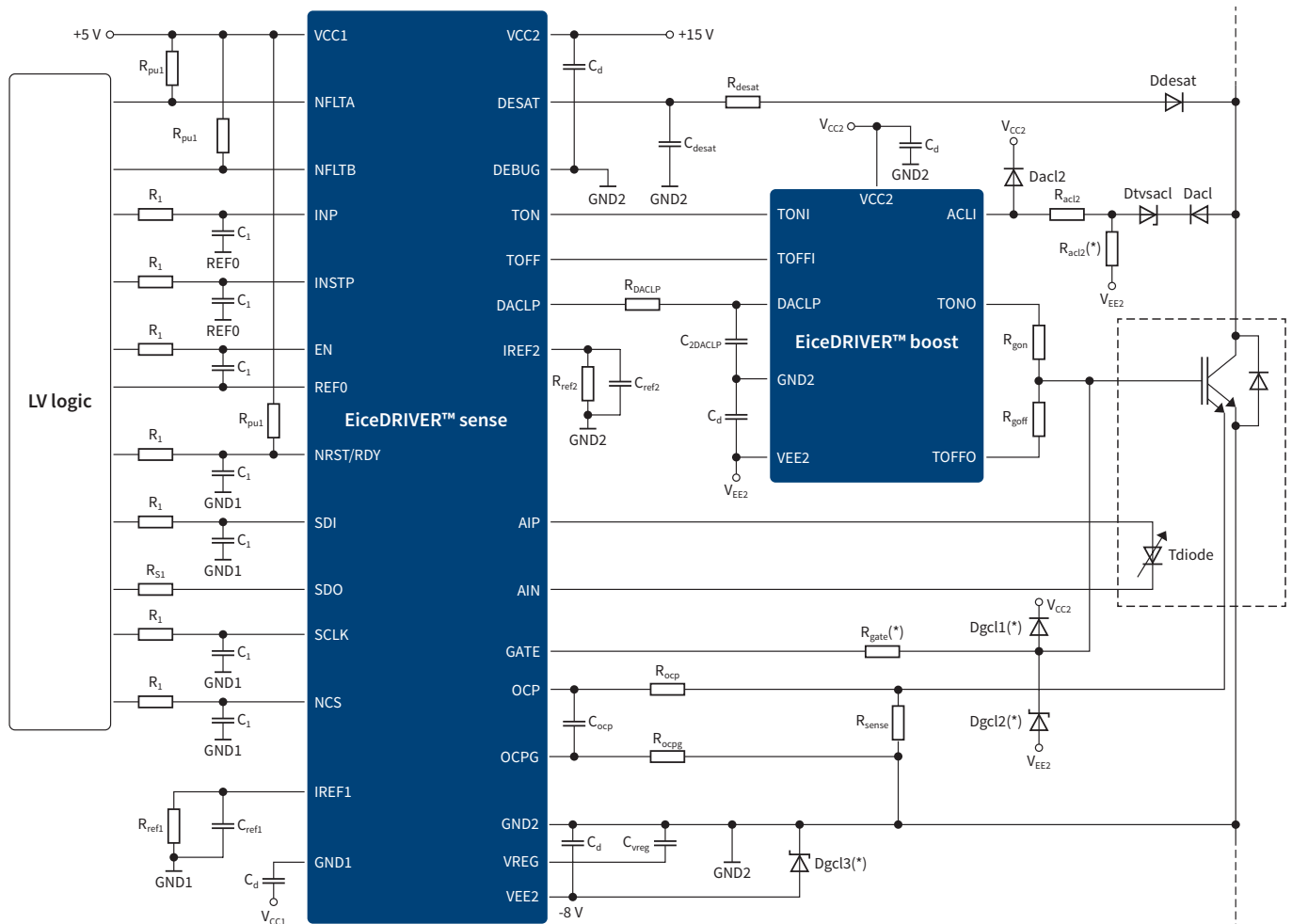
### Applications

- > Inverters for automotive Hybrid and Electric Vehicles (HEV)
- > High-voltage DC-DC converter
- > Industrial drive

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1EDI2010AS

## Application block diagram



## Application example for a main inverter application

## Product summary

Type	Description	Ordering code
1EDI2010AS	EiceDRIVER™ sense	SP001299836

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