

# Transformer Coupled Driver Logic Interface (IX6610)

The IX6610 is a primary side logic device that implements a dual-channel bidirectional transformer interface to drive a secondary side gate driver. It is a TTL (Transistor-Transistor Logic) level microcontroller (MCU) interface that can transmit, through the isolation barrier, the primary side input commands, secondary side output faults, and power supply faults. Asynchronous data transmission is through high-frequency narrow pulses to avoid duty cycle restrictions, achieve shorter delays, and prevent any transformer core saturation issues. With a built-in interlock and dead time control, the IX6610 can be utilized with an MCU to condition input signals and monitor system errors. The IX6610 is designed to operate over a temperature range of -40°C and +85°C and available in a 28-pin TSSOP with an exposed thermal pad.

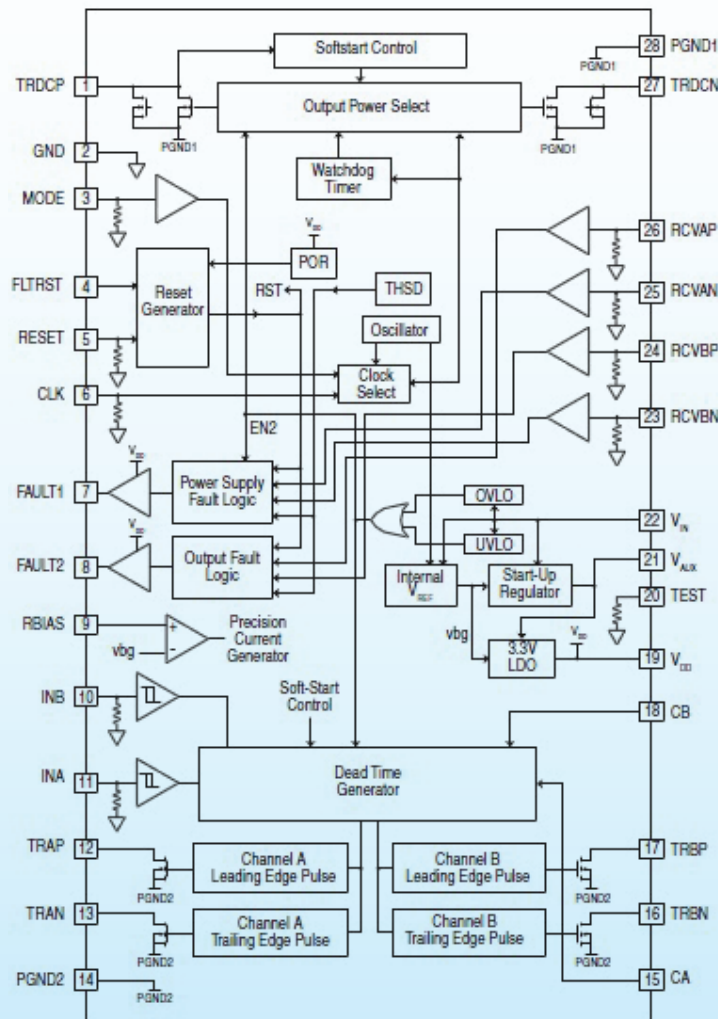


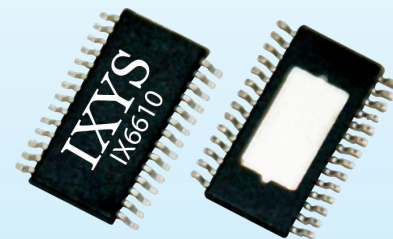
Figure 2: IX6610 Functional Block Diagram

## FEATURES

- TTL Logic level micro-controller Interface
- Pulse transformer bidirectional data interface
- Short input pulse suppression
- Interlock and dead time control
- Four 1A pulse transformer drivers
- Two 1A drivers for push-pull power converter for the secondary side power supply
- Non-overlap operation of high side and low side drivers
- Internal startup oscillator
- Primary side fault monitoring
- Secondary side fault monitoring
- Two fault status outputs
- 2mA quiescent current (non- switching)

## APPLICATIONS

- Pulse transformer coupled IGBT/MOSFET gate driver interface



## Ordering Information

Part	Description
IX6610T	28-Pin TSSOP, Exposed Pad, Tube (50/Tube)
IX6610TR	28-Pin TSSOP, Exposed Pad, Tape & Reel (1000/Reel)
IX6610	Tested Die