

# 2SIL1200T2A0-33 SCALE-iFlex LT Family

Isolated Master Control (IMC) for 3300 V Half-Bridge Power Modules Electrical Interface

**PRELIMINARY**

## Product Highlights

### Highly Integrated, Compact Footprint

- Ready-to-use gate driver solution optimized for power modules up to 3300 V blocking voltage
- Dual channel gate driver
- Electrical interface
- Secondary side power supply with reinforced insulation for an altitude up to 2000 m
- Optimized for paralleling of up to 6 power modules operated with 2SML0220D2xxC-17
- Primary supply voltage of +15 V
- TBD W output power per channel at maximum ambient temperature
- -40 °C to 85 °C operating ambient temperature

### Protection / Safety Features

- Reinforced insulation between primary and secondary-side
- Undervoltage lock-out (UVLO) protection for primary side (low-voltage) and secondary-side (high-voltage side)
- Applied double sided conformal coating

### Full Safety and Regulatory Compliance

- 100% production partial discharge and HIPOT test of transformer
- Clearance and creepage distances between primary and secondary sides meet requirements for reinforced isolation according to IEC 61800-5-1
- RoHS compliant

## Applications

- Wind and photovoltaic power
- Industrial drives
- Traction inverter

## Description

The SCALE-iFlex™ LT gate driver family consists of a central Isolated Master Control (IMC) and Module Adapted Gate Driver (MAG) together with a cable set. The IMC is designed for operation of power modules with a blocking voltage of up to 3300 V, whereas the MAGs are optimized for different power modules of different suppliers and chip technologies in the voltage classes of up to 3300 V.

SCALE-iFlex LT enables easy paralleling of up to six power modules providing high flexibility and system scalability with minimum development effort.

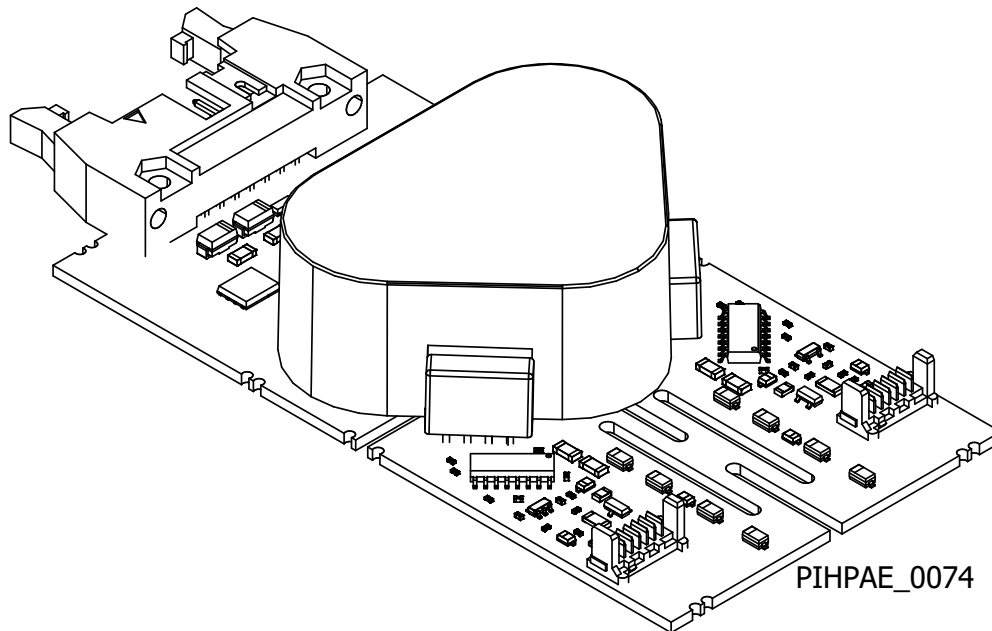


Figure 1. 3D Picture.

## Pin Functional Description

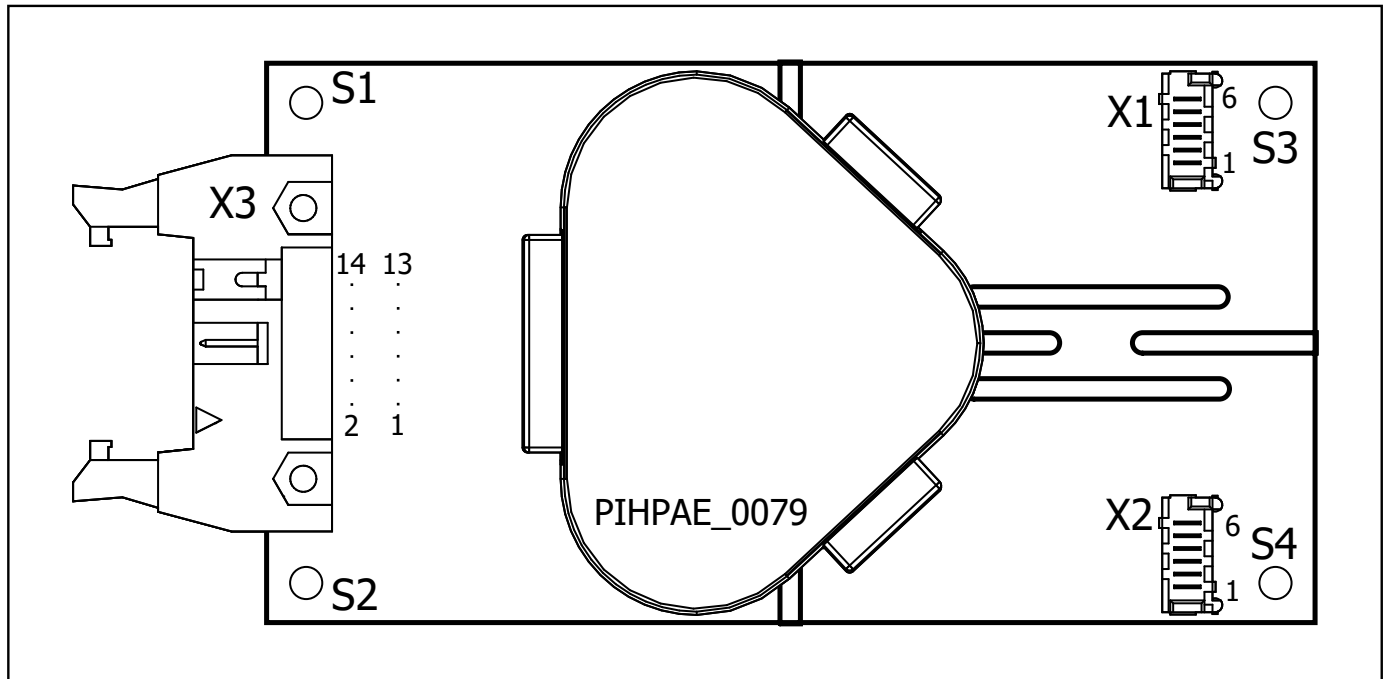


Figure 2. Pin Configuration.

**Connector X3**

Connection from IMC to superior controller.

**VDC (Pins 1, 3)**

This pin is the primary-side 15 V supply voltage connection the integrated DC/DC converter which supplies the secondary sides.

**VCC (Pin 5)**

This pin is the primary-side 15 V supply voltage connection for the primary-side electronic.

**IN1 (Pin 13)**

This pin is the command input for channel 1 (low-side switch).

**SO1 (Pin 11)**

This pin is the status output for channel 1 (low-side switch).

**IN2 (Pin 9)**

This pin is the command input for channel 2 (high-side switch).

**SO2 (Pin 7)**

This pin is the status output for channel 2 (high-side switch).

**GND (Pins 2, 4, 6, 8, 10, 12, 14)**

These pins are the connection for the primary-side ground potential. All primary-side signals refer to these pins

**Connector X1**

Connection from IMC to MAG for gate driver channel 1.

**Connector X2**

Connection from IMC to MAG for gate driver channel 2.

**Product Dimensions**

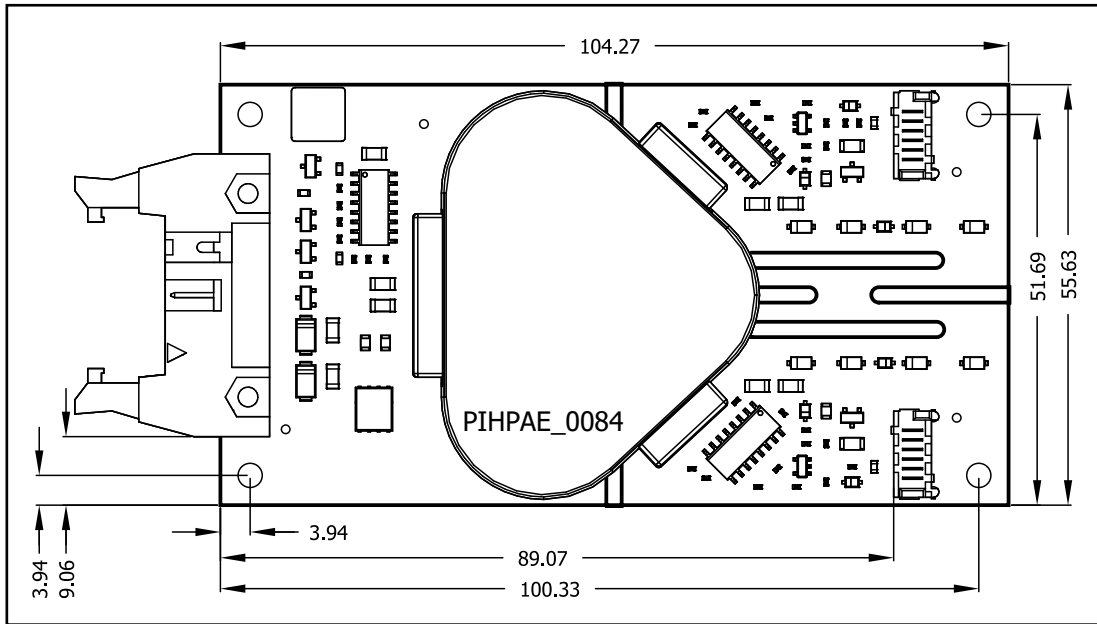


Figure 3. Top View

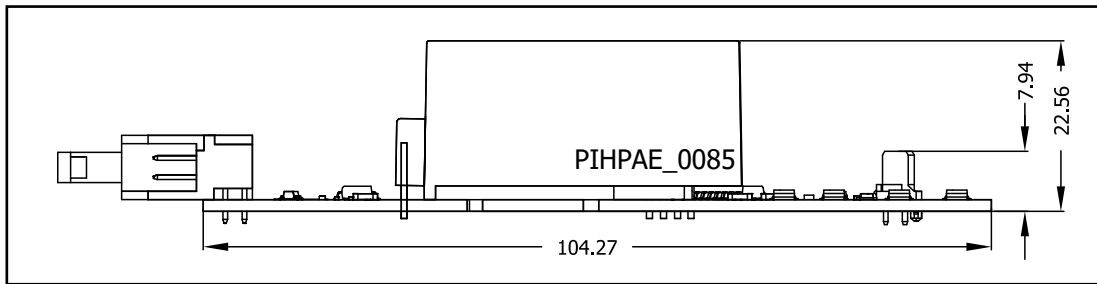


Figure 4. Side View.

**Product Details**

Part Number	Power Module	Voltage Class	Current Class	Package	Power Device Supplier
2SIL1200T2A0-33	N.N.	3300 V	N.N.	N.N.	N.N.

**Transportation and Storage Conditions**

For transportation and storage conditions refer to Power Integrations' Application Note AN-1501.

**RoHS Statement**

We hereby confirm that the product supplied does not contain any of the restricted substances according Article 4 of the RoHS Directive

2011/65/EU in excess of the maximum concentration values tolerated by weight in any of their homogeneous materials.

Additionally, the product complies with RoHS Directive 2015/863/EU (known as RoHS 3) from 31 March 2015, which amends Annex II of Directive 2011/65/EU.

Revision	Notes	Date
A	Preliminary.	09/21

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