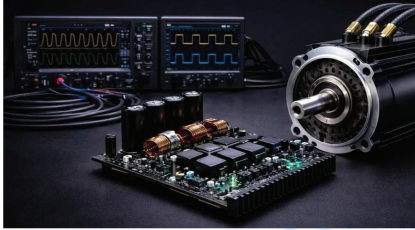


Ideate  
Collaborate  
Create

### Galvanic Isolation



### ISOLATED GATE DRIVERS

- 0.18um Galvanic Isolation Process for medium voltage SiC Power Inverters
- 15A Intelligent Isolated Gate Driver
- Suitable for driving 1200V SiC with DeSat Fault Protection, UVLO and Fault Feedback Diagnostics
- Diagnostics and isolated analog feedback sensing in a single chip configuration



### BATTERY MANAGEMENT AFE

- 18 Cell BMS AFE has been silicon proven for precision cell measurements
- Integrated Cell Balancing discharge up to 300mA
- Robust over voltage and over current stress during BCI (Bulk Current Injection) and Surge (IEC-64100-4-5) Tests
- ASIL-D compliant to ISO26262

### Isolated Solid State Relays



### ISOLATED SOLID-STATE RELAYS AND HIGH SIDE SWITCHES

- Intelligent High Side Switch to drive various types of load including inductive and capacitive loads
- Configured with isolated power transfer, analog and diagnostic feedback for a true managed AC/DC solid state contactor

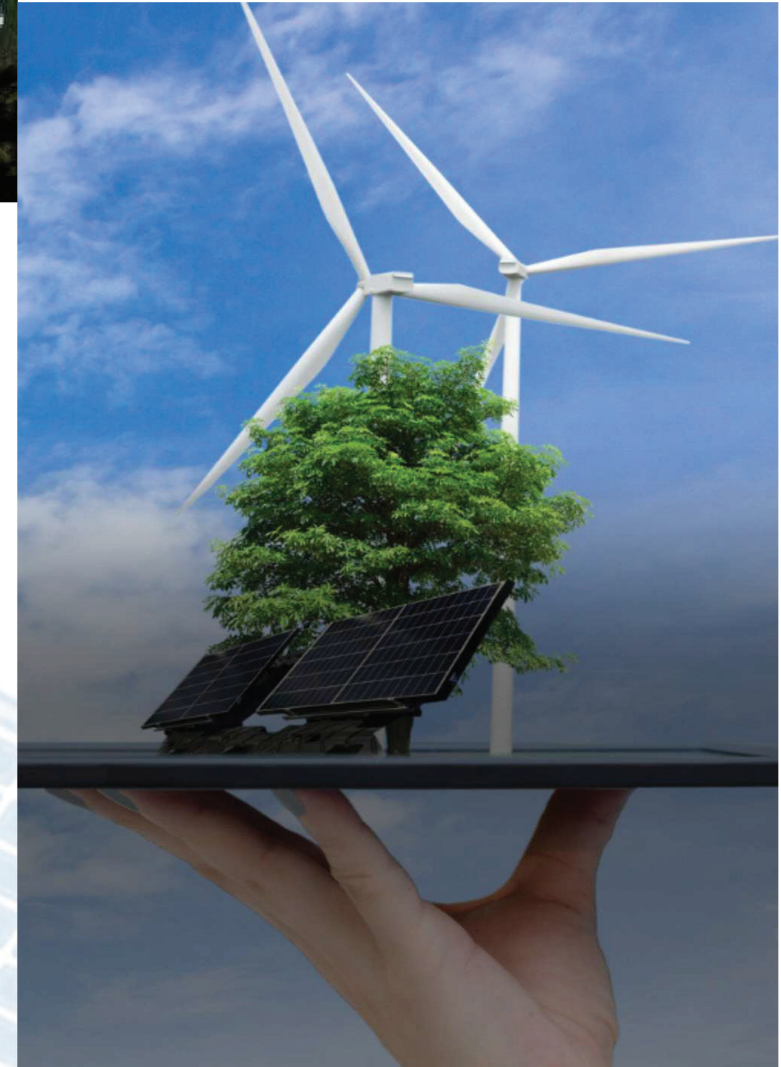
### Power Conversion



### HVDC DISTRIBUTION / POINT OF LOAD

- Point of Load Solutions including 800V to 48V DPS based custom isolated gate driver/ GaNFET for HVDC Bus distribution and 48V to 0.xxV Hybrid Switched Capacitor Buck Regulator \*

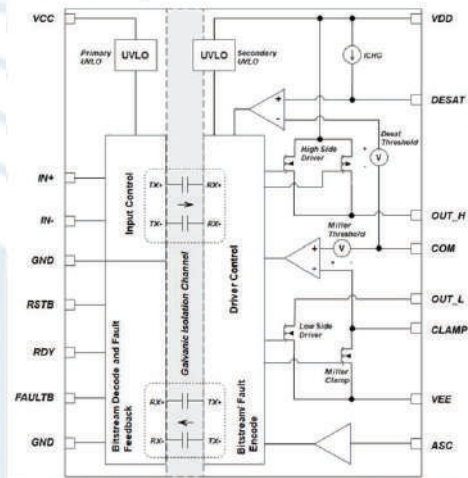
*\*Under development, contact us for more information.*



**SPECIALTY**  
**ANALOG DESIGN**

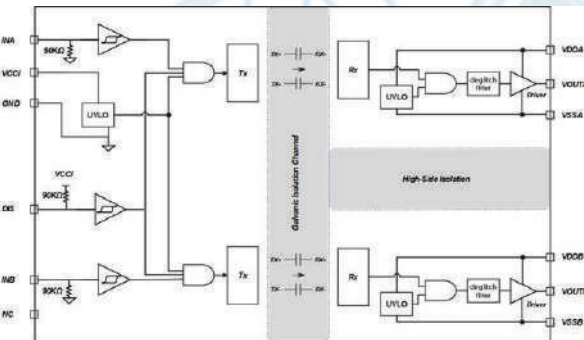
## MP71100 15A ISOLATED GATE DRIVER

Functional Block Diagram



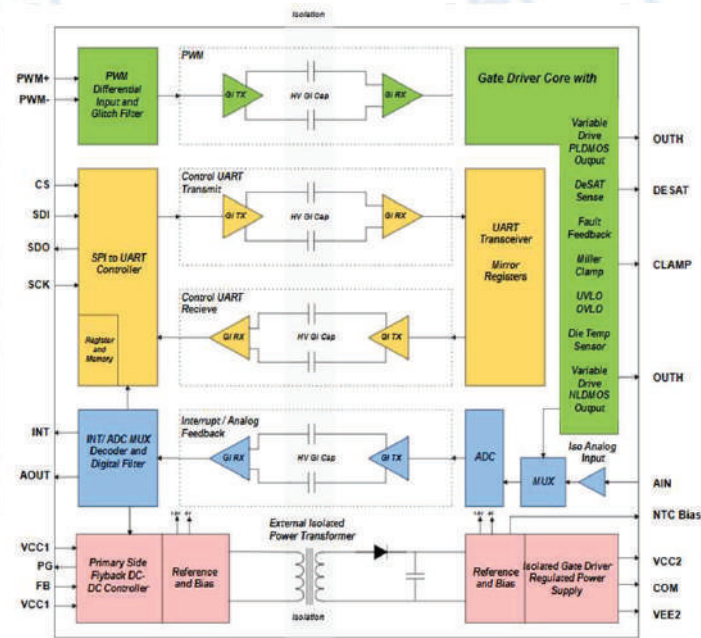
- 5.7 kVrms channel isolation
- Drives SiC and IGBTs with +/- 15A with split output
- 4A internal active miller clamp
- DeSat detection, fault feedback, UVLO
- 150ns (max) propagation delay

## MP70200 6A/4A DUAL CHANNEL GATE DRIVER



- 5.7 kVrms channel isolation
- Drives SiC and IGBTs with +/-6A output
- Dual Channel for half bridge configurations
- 35ns (max) propagation delay

## CUSTOMIZED ISOLATION IP BLOCKS



- Galvanic Isolated Cap Transceiver, meeting 5.7 kVrms isolation
- Scalable Isolated Gate Driver Core
- Isolated SPI Controller
- Analog/High Speed Feedback Channel
- Isolated DC/DC / Common Reference and Bias IP
- 100V/ns CMTI IPs

## ABOUT US

MPICS INNOVATIONS PTE. LTD. is an Integrated Circuit Design company, with our core mission on specialty analog semiconductor product design and development. Having a combined core expertise of more than 80 years covering all aspects of integrated circuit design and manufacturing, we can complement your resources, focus on the areas we do best and bring solutions to your marketplace, creating opportunities for long term collaboration.

## OUR SERVICES

<h3>IP Licensing</h3> <p>Once silicon verified, our IP license operates on flexible terms depending on usage, pure NRE or NRE with royalties.</p> <p>For customers who take a little risk with us in developing non silicon verified IP, very favorable terms will be offered.</p>	<h3>R&amp;D Outsourcing</h3> <p>You can have us participate in your ideas leveraging our experience and knowledge.</p> <p>We can be part of your team complementing each other in areas we deliver the best outcome. IP generated here will belong to the customer but allow us a right to use in markets that we don't compete directly.</p>	<h3>Consultancy</h3> <p>We will serve a pure advisory and consultancy role where your team gains access to decades of experience while executing the design and development wholly by themselves.</p> <p>We will help in critical milestones, design reviews and pave a path to mass production with our preferred front and backend partners.</p>
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