

# ISOLATED PRODUCTS CROSS-REFERENCE GUIDE

Designed for Applications in:

» CHARGING STATIONS



» ENERGY STORAGE



» AC/DC CONVERSION



» SOLAR OPTIMIZATION



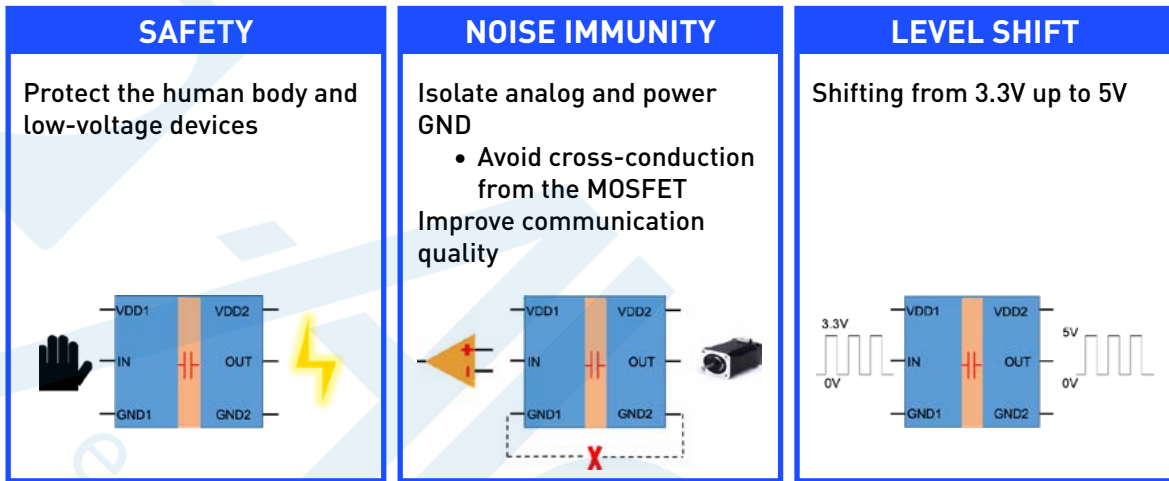
**MPS**  
MonolithicPower.com

## Introduction

MPS has a whole family of isolated solutions that are pin-to-pin compatible with existing solutions on the market. These products are designed to be compliant to both UL1577 and VDE-0884 standards.

Visit [monolithicpower.com/isolation](https://www.monolithicpower.com/isolation) for more information.

## Why Do We Need Isolation?



## Product Offerings

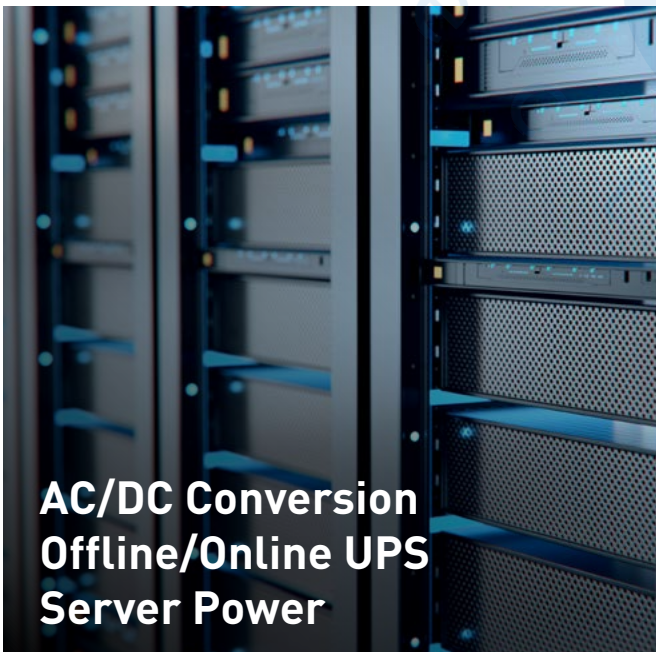
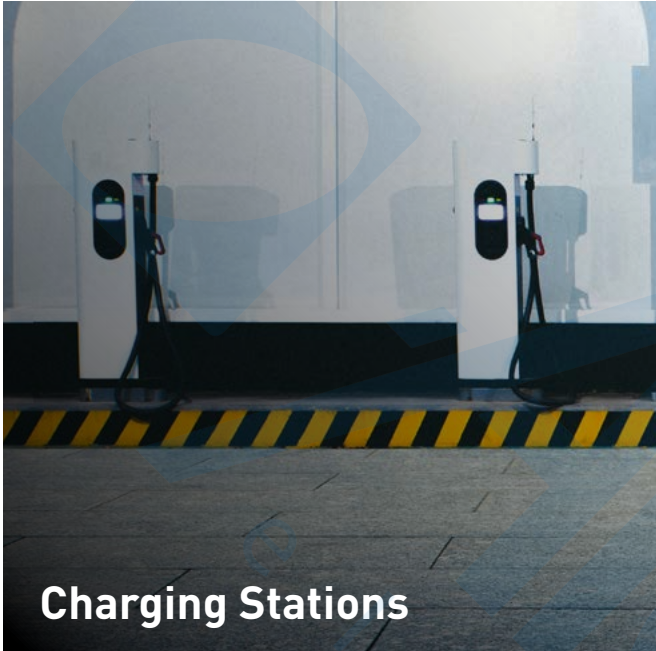
- » Isolated Gate Drivers
- » Digital Isolators
- » Digital Isolators with Power
- » Isolated Power Modules

## Advantages

- » Pin-to-pin compatible with existing solutions to alleviate supply shortage
- » Wide driver bias range enables more flexibility with FET selection (SiC, GaN, IGBT)
- » Higher source and sink peak currents enable higher efficiency

# Applications

- » Supports various isolation requirements to maximize system safety level
- » Industry-leading performance
- » Supports UL1577 certification



**DUAL-CHANNEL ISOLATED GATE DRIVERS**

Family	Part Number	P2P Replacement	Applications
<b>MP18831/51/71</b>	MP18831-4CGY	<b>Si823x</b> <b>UCC20520</b> <b>UCC21520</b> <b>UCC21521</b>	Server PSUs Telecom PSUs Solar Inverters Energy Storage DCFC Charging Stations AC/DC Conversion Motor Drives
	MP18851-A4CGY		
	MP18851-A4CGSE		
	MP18831-A4BGLU		
	MP18851-A4BGLU		
	MP18871-A4BGLU		

**DIGITAL ISOLATORS WITH INTEGRATED POWER**

Family	Part Number	P2P Replacement	Applications
<b>MPQ278xx</b>	MPQ27831-HP-MGY-3	<b>ISOW784x</b> <b>ISOW7821</b>	Industrial Automation 5G RRU, Industrial CPE RS-485/422/CAN Interfaces Power Meters
	MPQ27821-LP-MGY-3		
	MPQ27811-HP-MGY-3		
	MPQ27811-HP-MGY-3		

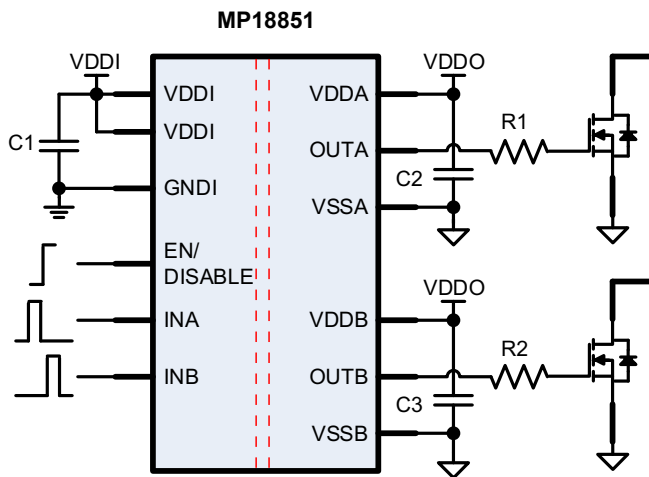
**DIGITAL ISOLATORS - NO INTEGRATED POWER**

Family	Part Number	P2P Replacement	Applications
<b>MP276xx</b>	MP27622GY-Z (2 in/2 out)	<b>IS07741/IS07641</b> <b>Si8641</b> <b>MAX14931</b>	Industrial Automation/PLC RS-485/422/CAN Interfaces Power Meters EV/BMS
	MP27631GY-Z (3 in/1 out)		
	MP27633GY-Z (3 in/3 out)		
	MP27633GY-Z (3 in/3 out)		

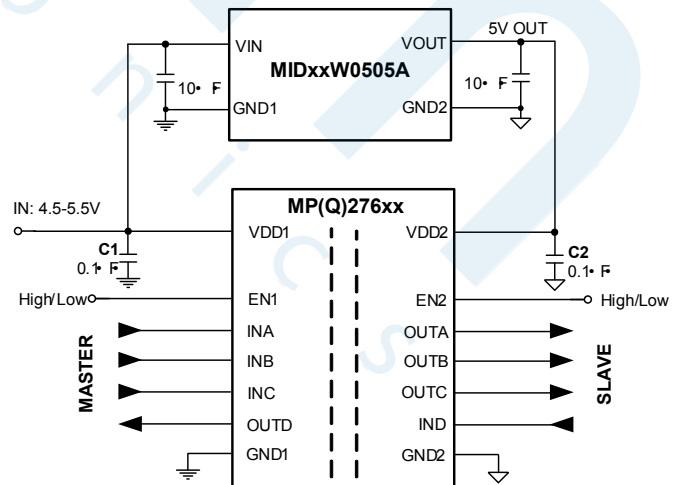
**ISOLATED POWER MODULES**

Family	Part Number	Description	Applications
<b>MID1W0505A</b>	MID1W0505AGY-3S	5V to 5V isolated module, 0.6W/1W options available	Isolated Digital Isolator Bias RS-485/422/CAN Interfaces Isolated Sensor Power Supplies Telecom/Networking
<b>MID06W0505A</b>	MID06W0505AGY-3R	5V to 5V isolated module, 0.6W/1W options available	Isolated Digital Isolator Bias RS-485/422/CAN Interfaces Isolated Sensor Power Supplies Telecom/Networking

**Dual-Channel Isolated Gate Driver**



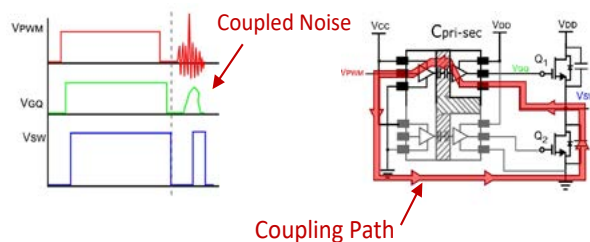
**Digital Isolator + Isolated Power Module**



# CMTI for Isolated Products

## Why Is CMTI Important?

- » Common-mode transient immunity (CMTI)
- » High slew rate transients can corrupt data transmission across the isolation barrier
- » CMTI measures in  $\text{kV}/\mu\text{s}$  or  $\text{V}/\text{ns}$
- » Especially important in:
  - High-voltage applications
  - Fast transient devices (SiC, GaN)



## MP18831/51/71

### Isolated Dual-Channel Gate Driver



- Up to  $5\text{kV}_{\text{RMS}}$  Isolation
- $\text{CMTI} > 100\text{V}/\text{ns}$
- 4A Source/4A Sink Peak Current
- SOIC-16NB/WB and LGA-13 Package
- P2P with the SI823x, UCC2x520 Families

## MP27622/31/33

### 4-Channel to 6-Channel Digital Isolator



- Last 2 Digits Denote Number of I/O Channels
- Input Range: 2.5V to 5.5V
- Up to 150Mbps Data Rate
- $\text{CMTI} > 100\text{V}/\text{ns}$
- 13ns Propagation Delay
- Available in an SOICW-16 Package
- P2P with the ISO7741, Si8641, and MAX14931

## MPQ27811/21/31

### 2-Channel to 4-Channel Digital Isolator with Power



- Input Range: 4.5V to 5.5V
- Integrated 1W Isolated Power
- Up to 50Mbps Data Rate
- $3\text{kV}_{\text{RMS}}$  Isolation,  $\text{CMTI} > 100\text{V}/\text{ns}$
- Available in an SOICW-16 Package
- P2P with the ISOW784x, ISOW7821, and MAX14931

## MID1W0505A/MID06W0505A

### Isolated Power Module



- Input Range: 4.5V to 5.5V
- 5V Output Voltage
- 0.6W/1W Output Options
- 0.4% Load/1.5% Line Regulation
- $3\text{kV}_{\text{RMS}}$  Isolation
- Available in an SOICW-16 Package