

MP27631

 5kV_{RMS}, Quad-Channel Digital Isolator

Pre-Release

[Datasheet](#)[Overview](#) [Resources](#) [Design Resources](#) [Technical Forum](#) [Quality](#)

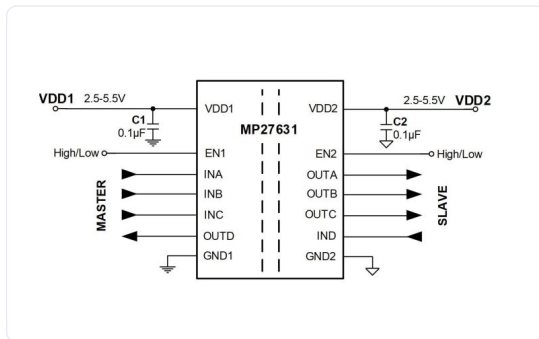
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Description

The MP27631 is a quad-channel digital isolator that replaces a traditional optocoupler isolator in applications. It can support up to 150Mbps of data rate signal isolation.

It employs capacitive isolation technology to provide up to 5kV_{RMS} of insulation voltage. The MP27631 offers a compact solution, with low power consumption and improved reliability compared to traditional optocoupler isolators.

The device has a Schmitt trigger input as well as isolated encoding and decoding to reduce noise. The default high failsafe output can support a fixed output, even if the input signal power fails. The MP27631 is available in a wide SOICW-16 package.

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Features & Benefits

- Up to 5kV_{RMS} Isolation Voltage
- Supports DC to 150Mbps Data Rate
- 2.5V to 5.5V Input Voltage (V_{IN}) Range
- Up to 7.5V Absolute V_{DD} Rating
- $\geq \pm 100\text{kV}/\mu\text{s}$ Common-Mode Transient Immunity (CMTI)
- High System-Level Electrostatic Discharge (ESD), Electrical Fast Transience (EFT), and Surge Immunity
- Low Emissions
- 13ns Propagation Delay for 5V Operation
- Ultra-Low Power Supply Current
- Tri-State Outputs with Enable (EN) Control
- Voltage High Failsafe Output
- 1.2kV Peak V_{IDRM} Working Insulation
- Wide -40°C to $+125^\circ\text{C}$ Temperature Range
- Available in a SOICW-16 Package


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Active Part Numbers:

MP27631GY-P MP27631GY-Z

Meaning of P & Z


Overview Resources Design Resources Technical Forum **Quality**



HOW TO APPLY AN ISOLATED POWER MODUL...

ARTICLE


Signal transmissions are everywhere. In industrial applications, such as electric...



POWER MANAGEMENT USE CASE: E-BIKES

USE CASE

This use case examines the application of the MP4581, MP27631, MIE1W0505BGLVH...



POWER MANAGEMENT USE CASE: POWER METERS


USE CASE

This use case examines the application of the MP5493, MP5042, and...

HIGH-VOLTAGE ENERGY STORAGE

APPLICATION

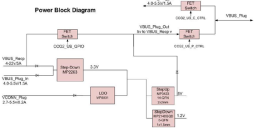
A high-voltage energy storage system (ESS) offers a short-term alternative to grid powe...



MPS POWER M SOLUTIONS FC

ARTICLE

Modern devices increasingly pow over Ethernet (f



USB-C CHARGE-THRU DONGLE WITH HDMI (LOW...

REFERENCE DESIGN

Charge-Through Dongle solution enables connectivity between a USB Type-C...


Design Resources


Reference Materials


Type	Title
Video	Gate Driving for High-Voltage Converters: Gate Driver Protections – Common Mode Transient Immunity (CMTI)
Article	DC Fast Charging System: Maximizing Power Density with an LLC Transformer Driver
Article	MPS Power Management Solutions for Power over Ethernet (PoE) Switches

Symbol, Footprint & 3D Model

30+ more formats ^

 Symbols (36)

 Footprint (34)

 3D Models (15)

EDA model is not yet available for this part.
Please enter your email address and we will notify you when it is released.

Email

Submit Request