

Digital Isolator CMOS 2-CH 1Mbps 13-Pin LGA Tray

Manufacturers	Analog Devices, Inc
Package/Case	LGA-13
Product Type	Power Supplies
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADUM7223ACCZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

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General Description

The ADuM7223 is a 4A isolated, half-bridge gate driver that employ Analog Devices, Inc.'s iCoupler® technology to provide independent and isolated high-side and low-side outputs. Combining high speed CMOS and monolithic transformer technology, these isolation components provide outstanding performance characteristics superior to alternatives such as the combination of pulse transformers and non-isolated gate drivers. By integrating the isolator and driver in a single package, propagation delay is a maximum of only 60 ns and the propagation skew from channel to channel is a maximum of only 7ns. The ADuM7223 provides two independent isolation channels.

The ADuM7223 operates with an input supply ranging from 3.0 V to 5.5 V, providing compatibility with lower voltage systems. The outputs operate in a wide range from 4.5V to 18V with three output voltage versions available. The 5 x 5 mm, LGA package provides 2500 VDC PEAK operating voltage from input to output and from output to output.

In comparison to gate drivers employing high voltage level translation methodologies, these gate drivers offer the benefit of true, galvanic isolation between the input and each output. As a result, these gate drivers provide reliable control over the switching characteristics of IGBT/MOSFET configurations over a wide range of positive or negative switching voltages.

Features

4 A peak output current

Working voltage High-side or low-side relative to input: 565 VDC PEAK High-side to low-side differential: 700 VDC PEAK

High frequency operation: 1 MHz maximum

Precise timing characteristics 60 ns maximum isolator and driver Propagation Delay 7 ns maximum channel-to-channel matching

3.3 V to 5 V input Logic

4.5V to 18 V output drive

UVLO at 2.5 V VDD1 A Version UVLO at 4.1 V VDD2

CMOS input logic levels

High common-mode transient immunity: >25 kV/μs

High junction temperature operation: 125°C

Default low output 5 x 5 mm, 14-lead LGA

Application

Switching power supplies

Isolated IGBT/MOSFET gate drives

Industrial inverters



PIN CONFIGURATION AND FUNCTION DESCRIPTIONS

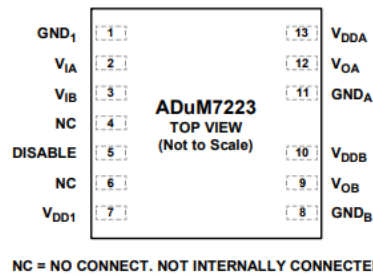


Figure 3. Pin Configuration

Table 9. Pin Function Descriptions

Pin No.	Mnemonic	Description
1	GND ₁	Ground Reference for Input Logic Signals.
2	V _{1A}	Logic Input A.
3	V _{1B}	Logic Input B.
4, 6	NC	No Connect. Not internally connected.
5	DISABLE	Input Disable. Disables the isolator inputs and refresh circuits. Outputs take on default low state.
7	V _{DD1}	Input Supply Voltage.
8	GND _B	Ground Reference for Output B.
9	V _{OB}	Output B.
10	V _{DDB}	Output B Supply Voltage.
11	GND _A	Ground Reference for Output A.
12	V _{OA}	Output A.
13	V _{DDA}	Output A Supply Voltage.

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