

# OP5369 Specifications

GENERAL	
Product Name	32 Channels High-Range DIO
Part numbers	OP5369
Board type	Digital input/output conditioning
Form factor	Mezzanine Type B
Dimensions	6.60 cm x 12.50 cm (2.6" x 4.92")
Hot-Plug support	No
Characteristic	
Number of channels	32 IO in 4 Banks configurable as inputs or outputs Bank1 : D0-7 Bank2 : D8-15 Bank3 : D16-23 Bank4 : D24-31 VUser1 for Bank 1 and 2 VUser2 for Bank 3 and 4
INPUT DIRECTION	
Input impedance	> 100 kOhm
Reverse voltage protection	Diode
Maximum voltage protection	+/- 50 Volts
Detection threshold	4 programmable Schmitt trigger level step 0.118V from 0.470V to 29.4V threshold high and threshold low for each bank
Recommended levels threshold	The default thresholds are LOW = 1.5V, HIGH = 3.5V. To improve noise immunity, a LOW level threshold of 1/3 VUser and a HIGH level threshold of 2/3 VUser are recommended.
Voltage range	0 to 30 Vdc
Delay Low-to-High	10 ns (implementation-dependent)
Delay High-to-Low	15 ns (implementation-dependent)
OUTPUT DIRECTION	
Output protection	50 mA resettable fuse
Output impedance	2 to 15 Ohm
Protection thresholds	Maximum VUser + 0.5V Minimum -0.5V
Output voltage range	4.5 to 25Vdc Max (default internal 4.5 volts)
Logic high levels (typical)	No load: VUser -0.2V 50mA : VUser -0.9V (in OP5XXX system)
Logic low levels (typical)	No load: 0.1V 50 mA: 0.9V (in OP5XXX system)
Output configuration	Push-pull
Delay Low-to-High (typical value, implementation-dependent)	< 100ns @25°C for 25V < 90ns @25°C for 5 V

<b>Delay High-to-Low (typical value, implementation-dependent)</b>	< 100ns @25°C for 25V < 90ns @25°C for 5 V
<b>Rise / Fall time</b>	< 40ns, < 50ns
<b>Minimum pulse detection (resolution)</b>	90 ns 5V 130 ns 30V
<b>Output frequency</b>	DC to 4MHz (see table below)

## Environmental



The OP5369 is designed for indoor use only.

<b>Module operating temperature</b>	0 °C to 40 °C
<b>Storage temperature</b>	-40 °C to 85 °C
<b>Operating humidity</b>	10% to 90% non-condensing
<b>Storage humidity</b>	5% to 95% non-condensing
<b>Pollution degree</b>	2
<b>Maximum altitude</b>	2,000 m
<b>Power requirement</b>	15W

## Maximum PWM Output Frequency for Given Number of Repetitive Signals

Vuser / Channel	OP5650/OP5x07/OP5705/OP4610			OP4510		
	<=25V	<=12V	<=5V	<=25V	<=12V	<=5V
1	1 MHz	2 MHz	4 MHz	16 kHz **	2 MHz	4 MHz
5	1 MHz	2 MHz	4 MHz	16 kHz **	1 MHz	4 MHz
15	0.3 MHz **	2 MHz	4 MHz	16 kHz **	0.5 MHz	2 MHz
32	0.3 MHz **	1 MHz	4 MHz	16 kHz **	0.5 MHz	1 MHz
**	0.5 MHz if T amb <= 25°C					