

PRODUCT DATASHEET

DAC 6-Bit 1-Channel MCP47A1 Breakout

333052

The DAC 6-Bit MCP47A1 breakout provides precise analog output with 64 steps, ideal for compact projects requiring efficient control.

Full product documentation, files and tutorials: **solde.red/333052**

CORE ATTRIBUTES

SKU **333052**

WEIGHT **7 g**

BARCODE **732388671809**

DESCRIPTION

The DAC 6-bit 1-channel MCP47A1 breakout is a compact solution for adding precise analog output to microcontrollers and embedded systems. Featuring the Microchip MCP47A1, this single-channel DAC provides 6-bit resolution (64 steps) for accurate voltage generation, ideal for LED dimming, motor control, sensor calibration, and waveform generation.

Operating from 1.8V to 5.5V, it supports both 3.3V and 5V logic, and communicates via a simple I²C interface for easy two-wire control. Its small footprint and minimal external components make it perfect for space-constrained or battery-powered projects.

With a Qwiic (formerly Qwiic) connector, setup is quick and solder-free, ensuring reliable, tool-less integration. This breakout is ideal for hobbyists and engineers looking for precise, efficient analog control in compact designs.

TECHNICAL DETAILS

- **Resolution:** 6-bit
- **Voltage:** 1.8V - 5.5V
- **Dimensions:** 38 × 22 mm / 1.5 × 0.9 inch

SPECIFICATIONS

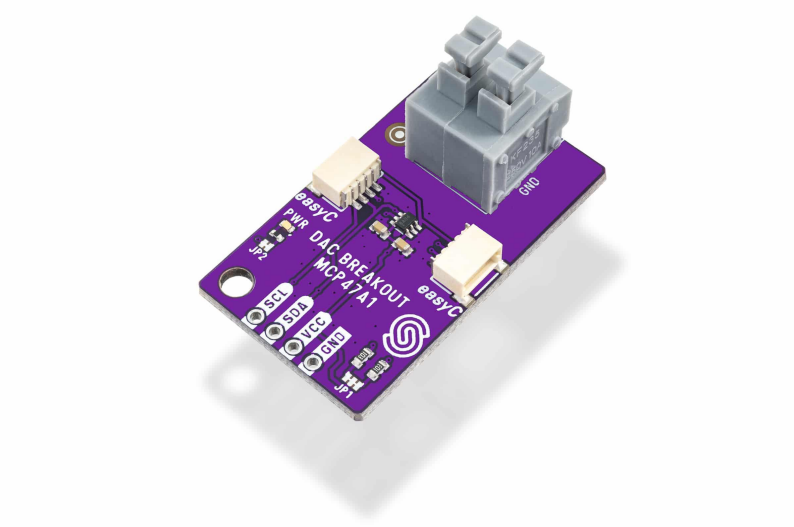
INTERFACE	I2C
QWIIC COMPATIBLE	Yes
I2C ADDRESS DEFAULT	0x2E
I2C ADDRESS CHANGEABLE	No

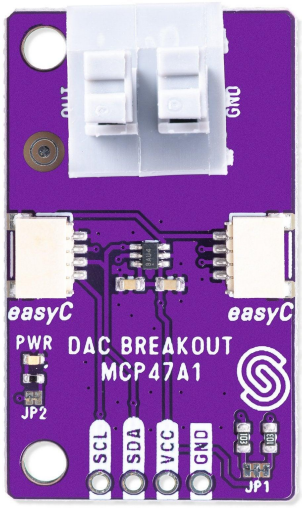
BREADBOARD COMPATIBLE	Yes
IC PART NUMBER	MCP47A1
SUPPLY VOLTAGE MIN V	3.3
SUPPLY VOLTAGE MAX V	5
LOGIC LEVEL	3V3 Only

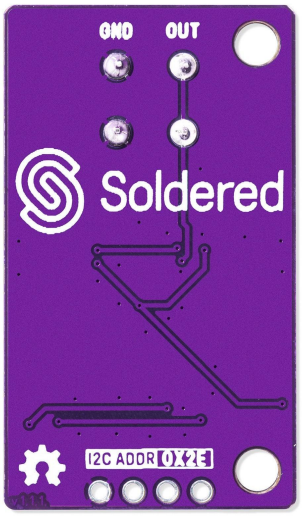
LINKS

Arduino Library	https://github.com/SolderedElectronics/Soldered-DAC-Breakout_MCP47A1-Arduino-Library
Open Source Hardware Files	https://github.com/SolderedElectronics/DAC-6-bit-1-channel-MCP47A1-breakout-hardware-design
Arduino: Get Started	https://docs.soldered.com/mcp47a1/arduino/geting-started/
Hardware Details	https://docs.soldered.com/mcp47a1/hardware/
Arduino Library Documentation	https://docs.soldered.com/mcp47a1/arduino/examples/
Full Documentation	https://docs.soldered.com/mcp47a1/overview/
MicroPython Module	https://github.com/SolderedElectronics/Soldered-MCP47A1-MicroPython-Library
mim_package	https://checkmim.com/packages/solderedelectronics+Soldered-MCP47A1-MicroPython-Library
Pinout	https://cms.soldered.com/products/333052/media/333052_pinout-png_4f199e.jpg

GALLERY


easyC
PWR
JP2
DAC BREAKOUT
MCP47A1
easyC
GND
SCL
SDA
VCC
GND
JP1


GND
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easyC
PWR
DAC BREAKOUT
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SCL
SDA
VCC
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JP1


GND
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