Barrett™
DRIVE SYSTEMS

Puck® P4 Dev Board

Designed to simplify the integration process for P4 Motor Controllers.

MAKE PROTOTYPING QUICK & EASY

The P4 Dev Board is designed to seamlessly integrate Puck® Motor Controllers into any design. With on-board power regulation, breakout connectors, and over-voltage drain, the P4 Dev Board has everything needed to take designs through development, to final product.

The P4 Dev Board can be used directly on motors, or as a quick and easy power supply, utilizing daisy chain connectors and on-board protection circuitry.

With easy to use spring latch connectors, there is no hardware necessary.

LIGHT WEIGHT, HEAVY FEATURES

ON-BOARD REGULATOR

The built in 12V regulator handles all power distribution required. With 1.5A output, the P4 Dev Board can power up to 45 Pucks®.
To use a custom supply, simply input 12V and the on-board regulator shuts down.

OVERVOLTAGE DRAIN

On-board Overvoltage Drain circuitry protects P4 Motor Controllers in the event of bus rise, maintaining backdrivability. The circuit is designed for 24V Bus but can easily be changed to match various power requirements.

EASY TO DAISY CHAIN

With 2mm Pico-Lock and FPC daisy chain connectors, the P4 Dev Board allows prototype designs to grow with demand. Minimize wires, and increase performance.

FEATURES

FEATURES

- On-Board 12V Regulator
- Overvoltage Drain Circuit
- P4-16 Connectors
- P4-37 Connectors
- 2 Daisy Chain Connectors
- 3 CAN Connectors
- DC Barrell Jack Input Connector
- Power Input Connector
- Spring Latch Power Input Terminal
- 2 Spring Latch Puck Terminals
- 2 Phase Lead Connectors
- 47uF VBUS Capacitance
- Power + GPIO LEDs
- GPIO Breakout for all P4-16 signals
- GPIO Breakout for all P4-37 signals
- Up to 31 Pucks per CAN bus

SPECIFICATIONS

Input Voltage: 12V-60V DC*, 15A Max
On-Board 12V: 1.5A (18W)
Dimensions: 110mm x 100mm (1.6mm Thick)
Mass: Total 80g

*Contact Barrett for use at higher voltages.

Contact Us

(617) 252-9000 www.barrett.com

B7367 Rev AA 2025 JUNE 4

Barrett™
DRIVE SYSTEMS

Barrett Puck® P4 Dev Board Layout

This page contains P4 Dev Board connector pinouts and information regarding usage.

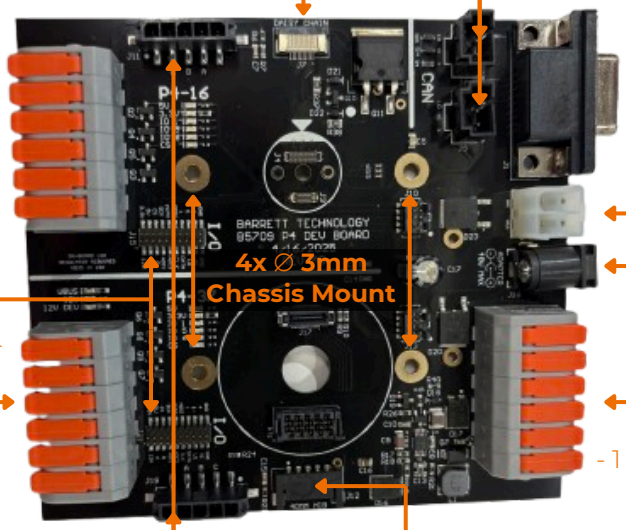
P4-16 Terminal	
Pin No.	**Signal**
1	3.3V
2	5V
3	Phase C
4	Phase B
5	Phase A
6	GND

P4-37 Terminal	
Pin No.	**Signal**
1	3.3V
2	5V
3	Phase C
4	Phase B
5	Phase A
6	GND

I/O Connector (x2)	
GND	GND
GPIO 6	CAN HI
GPIO 5	CAN LO
GPIO 1	DATA
MOSI	CLK
MISO	ADC2
SCK	ADC1
CS	B
5V	A
3.3V	12V

Daisy Chain Connector	
Pin No.	**Signal**
1	12V
2	CAN HI
3	CAN LO
4,5,6,7	GND
8,9,10	VBus

CAN Connector (x2)	
Pin No.	**Signal**
1	CAN LO
2	CAN HI
3	x



Motor Connector (x2)	
Pin No.	**Signal**
1	THERM
2	PHASE C
3	PHASE B
4	PHASE A
5	GND

Daisy Chain Connector	
Pin No.	**Signal**
1	VBus
2	12V
3	CAN HI
4	CAN LO
5	GND

Part	Manufacturer PN	Mating PN
J1	NorComp 182-009-213R161	NorComp 171-009-103L001
J2	Molex 0039281043	Molex 0039012040
J6, J9	Molex 0705430037	Molex 0050579403
J7	Samtec ZF5S-10-01-T-WT	Samtec FJH-10-R-6.00-4
J11, J19	Molex 0436500524	Molex 0436450508
J12	Molex 2053380005	Molex 2053410205
J16	Tensility 54-00130	SDI65-24-UDC-k

CAN Connector	
Pin No.	**Signal**
2	CAN LO
7	CAN HI

Power Input Connector	
Pin No.	**Signal**
1	VBus
2	GND
3	12V IN
4	GND

DC Input Barrell Jack	
Parameter	**Value**
OD	5.5 mm
ID	2.5 mm
Pinout	Center +

Power Terminal	
Pin No.	**Signal**
1	VBus
2	VBus
3	12V
4	12V
5	GND
6	GND

Note: Output only.

Note: J1 is designed for use with PCAN Adapter.

Note: J16 can function with any input 12V-60V.

Note: P4-16 and P4-37 signals are fully separate connections and may be used simulatenously.

Contact Us

(617) 252-9000 www.barrett.com

US Patents: 11,290,043; 10,148,155; 7,893,644; 7, 854,631; 7,511,443