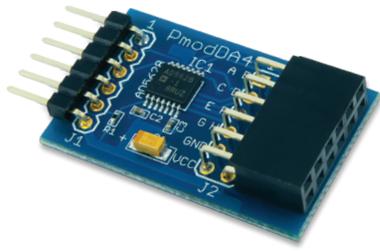


# Flexible peripheral modules for all your designs.



Pmods™ are small I/O interface boards that offer an ideal way to extend the capabilities of programmable logic and embedded control boards. They allow sensitive signal conditioning circuits and high-power drive circuits to be placed where they are most effective - near sensors and actuators.

Pmods communicate with system boards using 6 or 12-pin connectors that can carry up to 4 or 8 digital control signals, including SPI and other serial protocols. Pmods allow more effective design partitions by routing analog signals and power supplies only where they are needed, and away from digital controller boards.

<b>Pmod8LD</b>	Eight high bright LEDs driven by logic level inputs.	<b>PmodHB5</b>	2A H-bridge module ideal for driving small to medium-sized DC motors using 6-pin JST connector.
<b>PmodACL</b>	3-axis digital accelerometer with SPI and I <sup>2</sup> C interfaces. Includes single/double tap & free-fall detection.	<b>PmodI<sup>2</sup>S</b>	Stereo audio output w/ stereo D/A converter and supporting 16 to 24-bit audio at multiple sample rates.
<b>PmodACL2</b>	3-axis MEMS accelerometer with 12-bit resolution & an SPI interface. Includes single/double tap & free-fall detection.	<b>PmodIOXP</b>	I/O port expander w/ an I <sup>2</sup> C interface, 16-element FIFO, 19 I/Os, keypad decoding, PWM generator, & more.
<b>PmodAD1</b>	Converts 2 analog signals to 12-bit digital at a maximum sampling rate of one MSa/second.	<b>PmodJSTK</b>	Two-axis resistive joystick with an integrated center button and two additional push buttons.
<b>PmodAD2</b>	Converts up to 4 analog signals to 12-bit digital. Features an I <sup>2</sup> C interface.	<b>PmodKYPD</b>	16-button keypad, numbered hexadecimally (0-9, A-F).
<b>PmodAD5</b>	Converts 4 differential (or 8 pseudo-differential) inputs to 24-bit digital. Features an SPI interface.	<b>PmodLED</b>	Four high bright LEDs driven by logic level inputs.
<b>PmodALS</b>	Ambient light sensor with 8-bit resolution and an SPI interface.	<b>PmodLS1</b>	Line sensor interface for connecting up to four optical sensors.
<b>PmodAMP2</b>	Amplifies low power audio signals to drive a monophonic output.	<b>PmodMIC</b>	Small form-factor electret microphone with preamp, dynamic range compressor, and 12bit A/D converter.
<b>PmodAMP3</b>	2W stereo power amplifier w/ digital input. Works with I <sup>2</sup> C audio protocol or TDM. Can also operate stand-alone.	<b>PmodNIC100</b>	IEEE 802.3 Ethernet controller with an SPI interface. Offers MAC support and 10/100 Mbs operation.
<b>PmodBB</b>	Easy prototyping with a 266 tie point wire wrap area. Ships with a 170 tie point bread board.	<b>PmodOC1</b>	Provides four open collector outputs at up to 200 mA sent to a 6-pin header connector.
<b>PmodBT2</b>	Bluetooth module using a simple UART interface. Works in a wide range of modes.	<b>PmodOD1</b>	Provides four open drain outputs at up to 3A sent to screw terminal connectors.
<b>PmodBTN</b>	Four debounced momentary pushbuttons.	<b>PmodOLED</b>	128 X 32 pixel OLED display w/ internal display buffer and a standard SPI interface.
<b>PmodCDC1</b>	Demonstrates capacitance-to-digital proximity sensing through two capacitive "buttons". Uses I <sup>2</sup> C interface.	<b>PmodOLED2</b>	256x64 pixel 4-bit grayscale OLED display w/ internal display buffer and a parallel interface.
<b>PmodCLP</b>	16x2 character LCD with optional backlight and 3.3V or 5V operation.	<b>PmodPMON1</b>	Digital power monitor capable of monitoring from 3.16V to 26V. Includes configurable alert and an I <sup>2</sup> C interface.
<b>PmodCLS</b>	16x2 character LCD display, controlled via UART, SPI or TWI and a simple terminal-like interface.	<b>PmodPS2</b>	Provides a PS/2 port for the connection of a mouse or keyboard.
<b>PmodCMP5</b>	3-axis digital compass with ±8 gauss field detection and an I <sup>2</sup> C interface.	<b>PmodR2R</b>	Resistor ladder D/A converter supporting 8-bit conversion at up to 25 MHz.
<b>PmodCON1</b>	Six screw terminal inputs. (four for I/O, two for VCC & GND)	<b>PmodREG1</b>	Voltage regulator able to provide up to 250ma of current at 3.3V.
<b>PmodCON3</b>	Route 4 digital signals to four three-pin servo motor connectors.	<b>PmodRF2</b>	IEEE 802.15 wireless radio transceiver that supports ZigBee®, MiWi™, MiWi P2P and other protocols.
<b>PmodCON4</b>	Route two of four jumper-selectable digital signals to two RCA connectors.	<b>PmodRJ45</b>	Extends the 6-pin connection used by Pmods over greater distances via RJ45 cable (ships as a pair)
<b>PmodDA1</b>	Converts 4 8-bit channels of output from digital to analog at up to one MSa/second.	<b>PmodRS232</b>	DB9 connector driven by logic level inputs translated to RS232 voltage.
<b>PmodDA2</b>	Converts 2 12-bit channels of output from digital to analog at up to one MSa/second.	<b>PmodRTCC</b>	Real-time clock/calendar w/ battery backup, 128bytes EEPROM, 64 bytes SRAM, 2 alarms, & I <sup>2</sup> C interface.
<b>PmodDA3</b>	Single 16-bit, serial input, unbuffered voltage output digital-to-analog converter.	<b>PmodSD</b>	Provides a convenient SD card interface for use with Digilent system and microcontroller boards.
<b>PmodDA4</b>	Converts 8 12-bit channels of output from digital to analog.	<b>PmodSF</b>	Provides 16Mbit (2Mbyte) of flash ROM memory, accessible via an SPI interface.
<b>PmodDHB1</b>	Dual H-Bridge motor driver - can drive 2 DC motors or 1 stepper motor	<b>PmodSF2</b>	Provides 128Mbit (16Mbyte) of serial PCM memory, accessible via an SPI interface.
<b>PmodDIN1</b>	Provides four debounced digital input channels.	<b>PmodSSD</b>	Two-digit high bright seven-segment display.
<b>PmodDIP</b>	DIP-to-Pmod adapter, allowing you to add a 2x6-pin Pmod interface to your solderless breadboard project.	<b>PmodSTEP</b>	Stepper motor driver w/ a push-pull 4-channel driver, driving up to 600 mA per channel. Host or external power.
<b>PmodDPOT</b>	Digital potentiometer w/ 256 resistance levels, screw terminal & MTE connections, and 13-wire SPI interface.	<b>PmodSWT</b>	Four slide switches.
<b>PmodENC</b>	Rotary Encoder Module with integral push-button. Also includes a slide switch.	<b>PmodTMP2</b>	Temperature & thermostat control module with up to 16-bit resolution and an I <sup>2</sup> C interface.
<b>PmodGPS</b>	GPS module featuring a GlobalTop Gms-u1LP antenna module w/ low power consumption & UART interface.	<b>PmodTMP3</b>	Temperature sensor module w/ programmable 9 to 12-bit resolution, ±1°C accuracy & an I <sup>2</sup> C interface.
<b>PmodGYRO</b>	3-axis digital gyroscope with SPI & I <sup>2</sup> C interfaces. Includes selectable resolutions and a built-in temperature sensor.	<b>PmodTPH</b>	Six test points for in-line debugging between a system board and a Pmod.
<b>PmodGYRO2</b>	1-axis high-performance digital gyroscope with ±300°/sec angular rate sensing and a simple SPI interface.	<b>PmodTPH2</b>	Twelve test points for in-line debugging between a system board and a Pmod.
<b>PmodHB3</b>	2A H-bridge module ideal for driving small to medium-sized DC motors using screw terminal connectors.	<b>PmodUSBUART</b>	USB to serial UART interface with a micro USB connector.
		<b>PmodWiFi</b>	WiFi module providing 802.11b/g/n compliant wireless communication at data rates of 1 & 2 Mbps.

**Key:** Input/Output Sensors/Actuators Data Conversion Connectors Misc.

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