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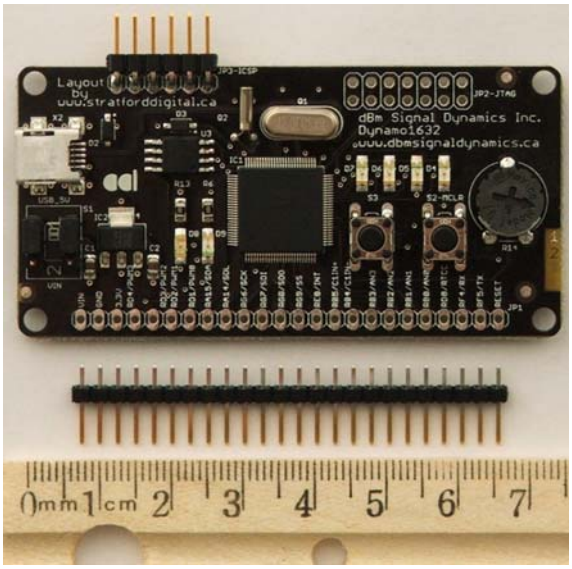
Dynamo1632-P24 Data Sheet (Rev. D)



Overview:

Dynamo1632-P24 is a small, cost-effective and versatile prototyping platform for USB-based embedded applications. This breadboard-friendly **16-bit processor module** incorporates Microchip Technology's feature-rich **PIC24FJ256GB110** USB microcontroller, and provides 20 user-accessible I/O pins, as well as 2 Mbytes of non-volatile serial flash memory. A USB bootloader application is provided for convenient loading/execution of .hex files.

Applications:

USB Protocol Conversion Applications (USB ←→ UART, I^2C, SPI, PWM, Custom)
Custom USB Peripheral Development
Solderless Breadboard Prototyping
Robotics
Sensor development
16-Bit MCU (PIC24F) Learning Platform

Specifications:

Board:	RoHS Compliant, 4-Layer.
Microcontroller:	16-Bit: PIC24FJ256GB110 (**256kB Flash / 16kB SRAM / 16 MIPS**)
Operating Temperature:	-40°C to +85°C
Input Voltage:	5-16V (USB or User Supplied Power)
Operating Voltage:	3.3 V (5 V I/O Possible Using Open Drain Port Configuration)
Operating Current (default):	45mA
DC Current/Pin:	18mA (max.)
A/D Converter:	0-3.3V, 10-bit, 500ksps
Dimensions (LxW: in/mm):	(3" x 1.5") / (76mm x 38mm)

Peripheral I/O Functions Available (Programmed Default):

1-Full-Speed USB 2.0 port, 4-A/D Inputs, 1-Real-Time Clock & Calendar Chime Output, 1-Comparator (Vin+, Vin-), 1-Processor Reset Input, 1-External Interrupt Input, 1-I^2C, 1-SPI, 1-UART, 4-PWM Outputs

Optional I/O Functions Available Via The PIC24F Peripheral Pin Select Feature:

Up to 4 UARTS, 3 SPI, 6 A/D, 2 Comparators, 4 Ext. Interrupts, 9 Input Captures, 9 PWMs, 5 Timer Inputs.

Dynamo1632 Schematic (07-00001 Rev 1)