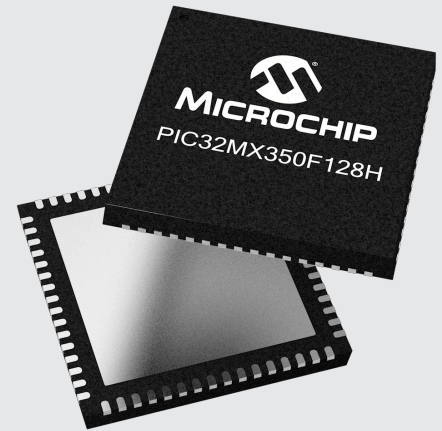


The Low-Cost and High-Performance PIC32MX3/MX4 Series

Provides Leading Edge Solutions in Connectivity, Graphics, Touch Sensing, Bluetooth® Enabled Digital Audio and General Purpose Embedded Control

Summary

The PIC32MX3/MX4 microcontrollers offer the perfect combination of 32-bit performance, memory and integrated peripherals at a low cost. These devices run up to 120 MHz/150 DMIPS and provide 64/16K, 128/32K, 256/64K, and 512/128K Flash/RAM options. The PIC32MX3/MX4 family boasts a rich set of integrated peripherals including two SPI/I²S™ interfaces for audio codecs, capacitive touch-sensing, an 8-bit Parallel Master Port (PMP) for graphics or external memory, an on-board 28 channel, 1 Msps Analog-to-Digital Converter (ADC), as well as full-speed USB 2.0 Device/Host/OTG. These devices are coupled with software and tools support to launch products in connectivity, graphics, Bluetooth-enabled digital audio and general purpose embedded control.



Key Features

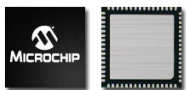
- MIPS32® M4K™ Core at 120 MHz/150 DMIPS
- Two SPI/I²S interfaces for audio processing and playback
- Analog comparators, UARTs, PMP and I²C
- Support for capacitive touch
- USB device/host/OTG
- 10-bit, 1 Msps, 28-channel Analog-to-Digital Converter (ADC)
- Peripheral Pin Select (PPS) for digital pin remapping
- Temperature range: -40°C to 105°C

Complete Solution Support

Microchip provides complete solution support for graphics, touch, connectivity and Bluetooth digital audio which helps you lower your development costs and expedite your design process. The total software and hardware support suite includes software libraries, communications software stacks, application examples, plug-in modules (PIMS), starter kits and development boards.

The PIC32MX3/MX4 devices are compatible with Microchip's 16-bit PIC24F product line for easy migration and are supported by MPLAB® X IDE—the single development environment for all of Microchip's 8-, 16- and 32-bit MCUs.

Package Options



64-lead QFN (MR)
9 × 9 × 0.9 mm



64-lead TQFP (PT)
10 × 10 × 1 mm



100-lead TQFP (PT)
12 × 12 × 1 mm



100-lead TQFP (PF)
14 × 14 × 1 mm



124-lead VTLA (TL)
9 × 9 × 0.9 mm

Development Tools

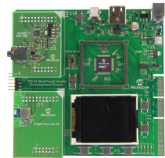
Get started easily with PIC32MX3/MX4 development tools.

PIC32 USB Starter Kit III (DM320003-3)



The PIC32 USB Starter Kit III provides the easiest and lowest-cost method to experience the USB and SPI/I²S functionality of the PIC32MX3/MX4 MCUs.

PIC32 Bluetooth Audio Development Kit (DV320032)



The PIC32 Bluetooth Audio Development Kit provides a complete turnkey solution to develop streaming digital audio solutions. The board is coupled with two daughter cards: the Bluetooth HCI Radio Daughter Card that demonstrates a low-cost Bluetooth implementation and the Audio DAC Daughter Card that demonstrates a high-quality 24-bit, 192 kHz audio conversion/amplification for line or headphones. The kit ships with demo code that enables wireless streaming digital audio from any Bluetooth-enabled smartphone or portable music player or over USB.

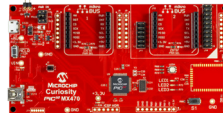
improvement and the Audio DAC Daughter Card that demonstrates a high-quality 24-bit, 192 kHz audio conversion/amplification for line or headphones. The kit ships with demo code that enables wireless streaming digital audio from any Bluetooth-enabled smartphone or portable music player or over USB.

PIC32MX450/470 100-pin USB Plug-In Module (MA320002-2)



The PIC32MX4 PIM is designed to demonstrate the capabilities of the PIC32MX3/MX4 family of devices using an Explorer 16 Development Board. It enables USB development with the PIC32MX4XX series.

Curiosity PIC32MX Board (DM320103)



The Curiosity PIC32MX470 Development Board features PIC32MX Series (PIC32MX470512H) with a 120 MHz CPU, 512 KB Flash, 128 KB RAM,

Full-Speed USB and multiple expansion options including mikroBUS™ expansion sockets. It is an excellent development board for audio, USB, Bluetooth® and general-purpose embedded control applications.

PIC32MX3/MX4 Devices

Device	Flash KB + Boot Flash	SRAM KB	Pin Count	Max. Speed (MHz)	SPI/I ² S™	I ² C™	UARTs	DMA Channels General/Dedicated	PPS	USB	IC/OC/PWM	10-bit, 1 Msps ADC (Channels)	Analog Comparator	Timers 16-bit/32-bit	RTCC	Parallel Master Port	JTAG Program, Bebug, Boundary Scan	Max. Temp. Range (°C)
PIC32MX330F064H	64 + 12	16	64	100	2/2	2	4	4/0	✓	-	5/5/5	28	2	5/2	✓	✓	✓	-40 to +105
PIC32MX330F064L	64 + 12	16	100				5											
PIC32MX350F128H	128 + 12	32	64				4											
PIC32MX350F128L	128 + 12	32	100				5											
PIC32MX350F256H	256 + 12	64	64				4											
PIC32MX350F256L	256 + 12	64	100				5											
PIC32MX370F512H	512 + 12	128	64				4											
PIC32MX370F512L	512 + 12	128	100				5											
PIC32MX430F064H	64 + 12	16	64	100	2/2	2	4	4/2	✓	FS Host/OTG	5/5/5	28	2	5/2	✓	✓	✓	-40 to +105
PIC32MX430F064L	64 + 12	16	100				5											
PIC32MX450F128H	128 + 12	32	64				4											
PIC32MX450F128L	128 + 12	32	100				5											
PIC32MX450F256H	256 + 12	64	64				4											
PIC32MX450F256L	256 + 12	64	100				5											
PIC32MX470F512H	512 + 12	128	64				4											
PIC32MX470F512L	512 + 12	128	100				5											

For more information on the low cost PIC32MX3/MX4 devices please visit www.microchip.com/pic32.

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