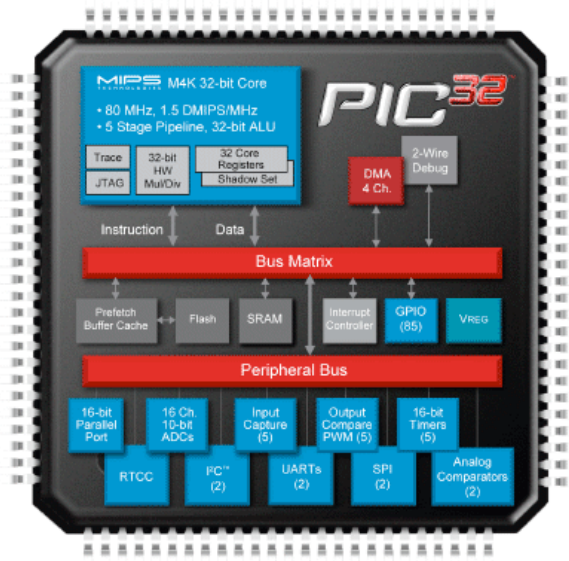


**PIC32MX320F128H**    **Status: In Production**

Parameter Name	Value
Family	PIC32MX3XX
Max Speed MHz	80
Program Memory Size (KB)	128
RAM (KB)	16
DMA Channels	0
SPI™	2
I <sup>2</sup> C™ Compatible	2
A/D channels	16
Max A/D Sample Rate	500
Input Capture	5
Output Compare/Std. PWM	5
16-bit Digital Timers	5
Parallel Port	PMP
Comparators	2
Internal Oscillator	8 MHz, 32 kHz
RTCC	Yes
I/O Pins	53
Pin Count	64

**Features**

**MCU Core**

- 80MHz, 1.56 DMIPS/MHz, 32-bit MIPS M4K Core
- 5 Stage pipeline, Harvard architecture
- MIPS16e mode for up to 40% smaller code size
- Single cycle multiply and hardware divide unit
- 32 x 32-bit Core Registers
- 32 x 32-bit Shadow Registers
- Fast context switch and interrupt response

**MCU System Features**

- 128K Flash (plus 12K boot Flash)
- 16K RAM (can execute from RAM)
- Flash prefetch module with 256 Byte cache
- Lock instructions or data in cache for fast access
- Programmable vector interrupt controller

**Analog Features**

- Fast and Accurate 16 channel 10-bit ADC,
- Max 500k samples per second at +/- 1LSB, conversion available during SLEEP & IDLE

**Power Management Modes**

- RUN, IDLE, and SLEEP modes
- Multiple switchable clock modes for each power mode, enables optimum power settings

**Debug Features**

- 8 hardware breakpoints (6 Instruction and 2 Data)

- 2 wire programming and debugging interface
- JTAG interface supporting Programming, Debugging and Boundary scan

#### Other MCU Features

- Fail-Safe Clock Monitor – allows safe shutdown if clock fails
- 2 Internal oscillators (8MHz & 31KHz)
- Hardware RTCC (Real-Time Clock and Calendar with Alarms)
- Watchdog Timer with separate RC oscillator
- Pin compatible with 16-bit PIC® MCUs

[Back To Top](#)  
[Hide]

#### Documentation

Data Sheets		
<a href="#">PIC32MX3XX/4XX Family Data Sheet</a>	Last Updated: 7/25/2008	
Errata		
<a href="#">PIC32MX Family Rev. B2 Silicon Errata</a>	Last Updated: 2/13/2008	
<a href="#">PIC32MX Family Rev. B3 Silicon Errata</a>	Last Updated: 4/14/2008	
Programming Specifications		
<a href="#">PIC32MX Flash Programming Spec</a>	Last Updated: 6/9/2008	
Application Notes		
<a href="#">AN1107 - HTTP Server using BSD Socket API for PIC32MX</a>	Last Updated: 4/18/2008	
<a href="#">AN1108 - Microchip TCP/IP Stack with BSD Socket API for PIC32MX</a>	Last Updated: 11/2/2007	
<a href="#">AN1109 - SNMP Agent using BSD Socket API for PIC32MX</a>	Last Updated: 4/18/2008	
<a href="#">AN1111 - FTP Server using BSD Socket API for the PIC32MX</a>	Last Updated: 4/18/2008	
<a href="#">AN833, The Microchip TCP/IP Stack - Microchip TCP/IP Stack Application Note</a>	Last Updated: 6/3/2008	
Boundary Scan BSDL		
<a href="#">PIC32MX320F128H BSDL File</a>	Last Updated: 7/15/2008	
Brochures		
<a href="#">PIC32 Overview Brochure</a>	Last Updated: 7/11/2008	
PIC32 Code Examples		
<a href="#">All PIC32 Example Source Code Files</a>	Last Updated: 7/21/2008	
Reference Manual		
<a href="#">PIC32 Family Reference Manual Book - All Sections</a>	Last Updated: 7/25/2008	
Software		
<a href="#">Audio Library for PIC32MX v1.1.01 (SPEEX, ADPCM,WAV)</a>	Last Updated: 7/21/2008	
<a href="#">Data EEPROM Emulation Library for PIC32</a>	Last Updated: 5/8/2008	
<a href="#">Microchip TCP/IP Stack v4.50 for PIC18, PIC24, dsPIC, and PIC32 MCUs</a>	Last Updated: 7/29/2008	
User Guides		
<a href="#">Getting Started with PIC32 User's Guide</a>	Last Updated: 3/24/2008	
<a href="#">How to Configure PIC32 for 80 MHz</a>	Last Updated: 2/22/2008	
<a href="#">Using PIC32 with Explorer 16-User Guide Addendum</a>	Last Updated: 5/19/2008	

[Back To Top](#)

#### Pricing & Samples Information

[Hide]

= **Sample a part** = **Buy a part** Click on any of the underlined column headers to sort by that column. All pricing shown in USD only.

Sample	Buy	Part Number	Leads	Package Type	Temp Range	Packing	1-25	26-99	100+	1000-4999	5000+
		<a href="#">PIC32MX320F128H-80I/PT</a>	64	TQFP	-40C to +85C	TRAY	5.70	5.23	4.74	4.36 *	4.14 *

\* **microchipDIRECT "business" account and approved quote required. Open a microchipDIRECT account today!**  
\*\* **Device not available to purchase online. Please contact a sales office for pricing information.**

[Back To Top](#)

#### Development Tools

[Hide]

##### Explorer 16 Development Board

The Explorer 16 Development Board is a low-cost modular development system for Microchips new 16-bit microcontrollers. It supports devices from the PIC24F, PIC24H, and dsPIC33 families. It is capable of interfacing with 5V peripherals and also provides basic generic functionality with the added ability to expand to vertical markets via modular expansion.

##### Tools For Design

Product Name	Part Number
Explorer 16 Development Board	DM240001
Explorer 16 Plug-In Modules (PIMs)	
MPLAB C Compiler for PIC32 MCUs	SW006015
MPLAB REAL ICE In-Circuit Emulator	DV244005
PIC32 I/O Expansion Board	
PIC32 Starter Kit	DM320001

Place the mouse over the parts to view the description

Select PKG:

EMULATORS/IN-CIRCUIT DEBUGGERS				
Emulator/Debugger	Processor Module	Device Adapter/Header	Transition Socket	Accessories
<a href="#">DV244005</a>				AC244006

<b>DV244005</b>	AC244002
<b>DV164005</b>	

<b>SOFTWARE</b>	
<b>Software</b>	<b>Accessories</b>
<b>SW006015</b>	

<b>DEMO/EVAL BOARDS</b>	
<b>Demoboard</b>	<b>Accessories</b>
<b>MA320001</b>	
<b>DV164033</b>	
<b>DM320001</b>	
<b>DM240002</b>	

\* - Future Support: Contact Microchip web site at [www.microchip.com](http://www.microchip.com) for availability.  
 \*\* - New/Future Product: Contact Microchip web site at [www.microchip.com](http://www.microchip.com) for availability.

[Back To Top](#)

[\[Show\]](#)

[Back To Top](#)

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