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Home ▶ Products ▶ Analog & Interface Products ▶ Ethernet



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ENC28J60 Stand-Alone Ethernet Controller with SPI Interface (2/13/2008)

Microchip's ENC28J60 is a 28-pin, 10BASE-T stand alone Ethernet Controller with on board MAC & PHY, 8 Kbytes of Buffer RAM and an SPI serial interface. With a small foot print package size the ENC28J60 minimizes complexity, board space and cost. Target applications include VoIP, Industrial Automation, Building Automation, Home Control, Security and Instrumentation. [Ethernet Application Design Center](#)



Parameter Name	Value
MAC	Yes
PHY	Yes
TX/RX RAM Buffer(bytes)	8192
Interrupt Pin	1
LEDs	2
Op. Voltage (V)	3.3
Temp. Range Min. (°C)	-40
Temp. Range Max. (°C)	85
Max. Speed (MHz)	25
Interface	SPI
Pre-Programmed MAC Address	No
Security Engines	No

Features
General: - IEEE 802.3 compatible Ethernet Controller - Integrated MAC and 10BASE-T PHY - 8 Kbyte Transmit/Receive Packet Dual Port Buffer SRAM - Programmable Automatic Retransmit on Collision - Programmable Padding and CRC Generation - Programmable Automatic Rejection of Erroneous Packets Buffer: - Configurable transmit/receive buffer size - Hardware managed circular receive FIFO - Byte-wide random and sequential access - Internal DMA for fast memory copying - Hardware assisted IP checksum calculation PHY: - Wave shaping output filter - Loopback mode MAC: - Support for Unicast, Multicast and Broadcast packets - Programmable pattern matching of up to 64 bytes within packet at user defined offset - Programmable wake-up on multiple packet formats, including Magic Packet®, Unicast, Multicast, Broadcast, specific packet match or any packet Packaging: - SOIC - SPDIP - SSOP - QFN (6x6 mm)

[Back To Top](#)

Documentation

[\[Hide\]](#)

Data Sheets		
ENC28J60 Stand-Alone Ethernet Controller with SPI Interface	Last Updated: 2/13/2008	
ENC28J60 Stand-Alone Ethernet Controller with SPI Interface (Chinese)	Last Updated: 3/23/2006	
Errata		
ENC28J60 Rev. B1 Silicon Errata	Last Updated: 10/2/2006	
ENC28J60 Rev. B4 Silicon Errata	Last Updated: 10/2/2006	
ENC28J60 Rev. B5 Silicon Errata	Last Updated: 10/2/2006	
ENC28J60 Rev. B7 Silicon Errata	Last Updated: 7/24/2008	
Application Notes		
AN1120 - Ethernet Theory of Operation	Last Updated: 1/24/2008	
AN1229 - Class B Safety Software Library for PIC MCUs and dsPIC DSCs	Last Updated: 9/22/2008	
AN1229 (Chinese) - Class B Safety Software Library for PIC MCUs and dsPIC DSCs (Chinese)	Last Updated: 1/5/2009	
AN833 - Microchip TCP/IP Stack Application Note	Last Updated: 8/21/2008	
AN870 - An SNMP Agent for the Microchip TCP/IP Stack	Last Updated: 8/6/2003	
Brochures		
16-bit Tools & Solutions Brochure (Japanese)	Last Updated: 8/29/2008	
Connectivity Brochure (Japanese)	Last Updated: 12/1/2008	
Low Cost Development Tools Guide	Last Updated: 8/27/2009	
aspxPCNDocument		
Test list	Last Updated: 7/13/2009	
Press Release		
Microchip Announces World's Smallest Ethernet Controller	Last Updated: 4/25/2005	
aspxProductLineCard		
8-bit Microcontroller Product Selector Guide	Last Updated: 8/5/2009	
Sell Sheets		
Choose PIC MCUs	Last Updated: 4/27/2009	
HI-TECH C Compilers by Microchip Technology	Last Updated: 4/8/2009	
Software		
TCP/IP Stack for PIC18, PIC24, dsPIC, and PIC32 MCUs	Last Updated: 8/4/2009	
TCP/IP Documents		
AC164121 Ethernet PiCtail Board	Last Updated: 8/25/2006	
User Guides		
PICDEM.net 2 Internet/Ethernet Development Board User's Guide	Last Updated: 7/3/2007	

[Back To Top](#)

[Hide]

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[Back To Top](#)

[\[Hide\]](#)

[Back To Top](#)

[Hide]

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[Back To Top](#)