

Office-in-a-Box

Based on MPC8349E-mITX

Overview

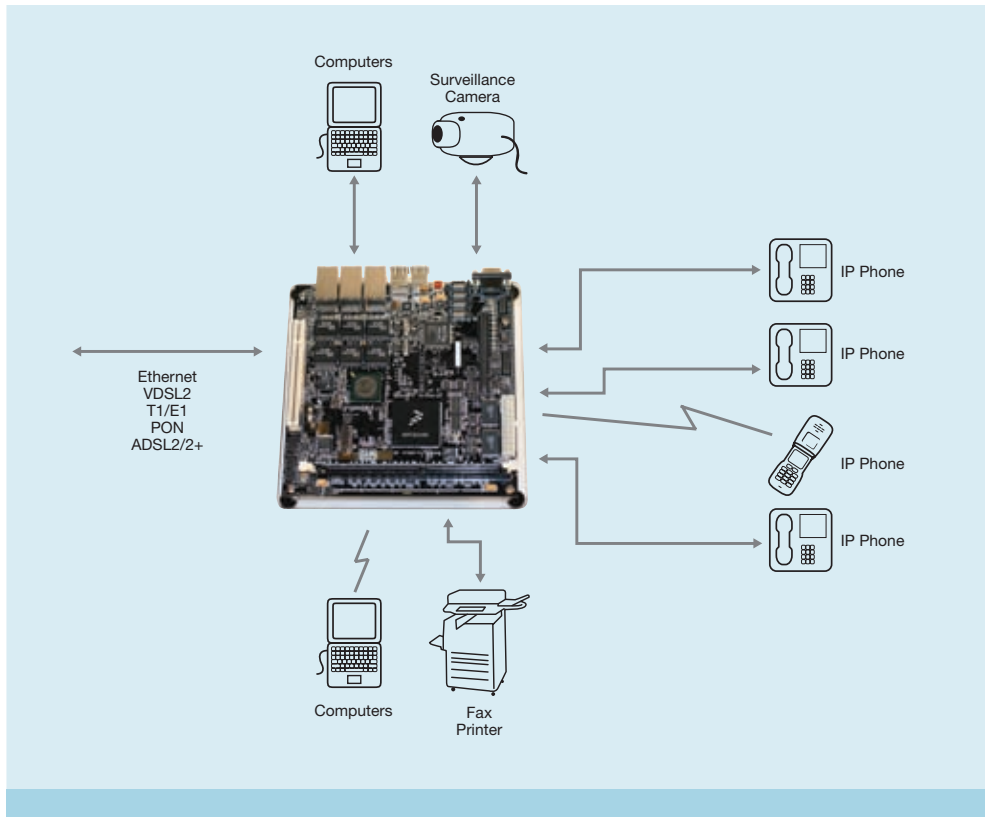
Today, there are few integrated platforms that can provide all the services needed by the small-to-medium business (SMB) market. Typically, small businesses have had to use equipment targeted for either consumer applications or enterprise applications, neither of which are ideal. The MPC8349E-mITX platform has been designed to serve the needs of the SMB market.

SMBs need a flexible and integrated converged platform to provide all the telecom services needed by the business. These include:

- Ethernet switch for the in-office network
- Ethernet for WAN interface
- MiniPCI socket for WLAN access point
- CompactFlash™ interface for storage
- SATA controller for network attached storage
- USB hub for connection to additional peripherals
- IP PBX
- Stateful firewall
- Network Address Translation (NAT)
- Intrusion detection/prevention

The MPC8349E-mITX Office-in-a-Box reference platform is based on the MPC8349E PowerQUICC™ II Pro integrated communications processor. The MPC8349E integrates the enhanced e300 core, built on Power Architecture™ technology, with advanced features such as DDR memory, dual PCI, Gigabit Ethernet and high-speed USB controllers.

MPC8349E-mITX



The MPC8349E provides a cost-effective, highly integrated processing solution that is ideally suited for emerging networking applications such as the converged Office-in-a-Box platform. The MPC8349E supports dual 10/100/1000 Mbps Ethernet controllers, dual 32-bit/single 64-bit PCI controllers, integrated security engines, USB 2.0 host and device controllers, 4-channel DMA, DUART, serial peripherals, general purpose I/O and system timers. The high level of integration in the MPC8349E lowers system cost, improves performance and simplifies board design.

The dual Gigabit Ethernet controllers support eight receive and transmit queues for eight

levels of IEEE® 802.1p-based Quality of Service (QoS) flexible packet classification, based on layer 2, layer 3 and layer 4 information to determine required QoS on a per-packet basis. The Ethernet MAC also supports transmit scheduling based on strict priority or weighted round robin to maintain QoS.

The MPC8349E also integrates a hardware encryption block that supports different encryption algorithms for high-performance data encryption authentication as required for secure communications in the MPC8349E-mITX platform for the SMB market. It supports DES, 3DES, MD-5, SHA-1, AES, PKEU, RNG and RC-4 encryption algorithms in hardware.

