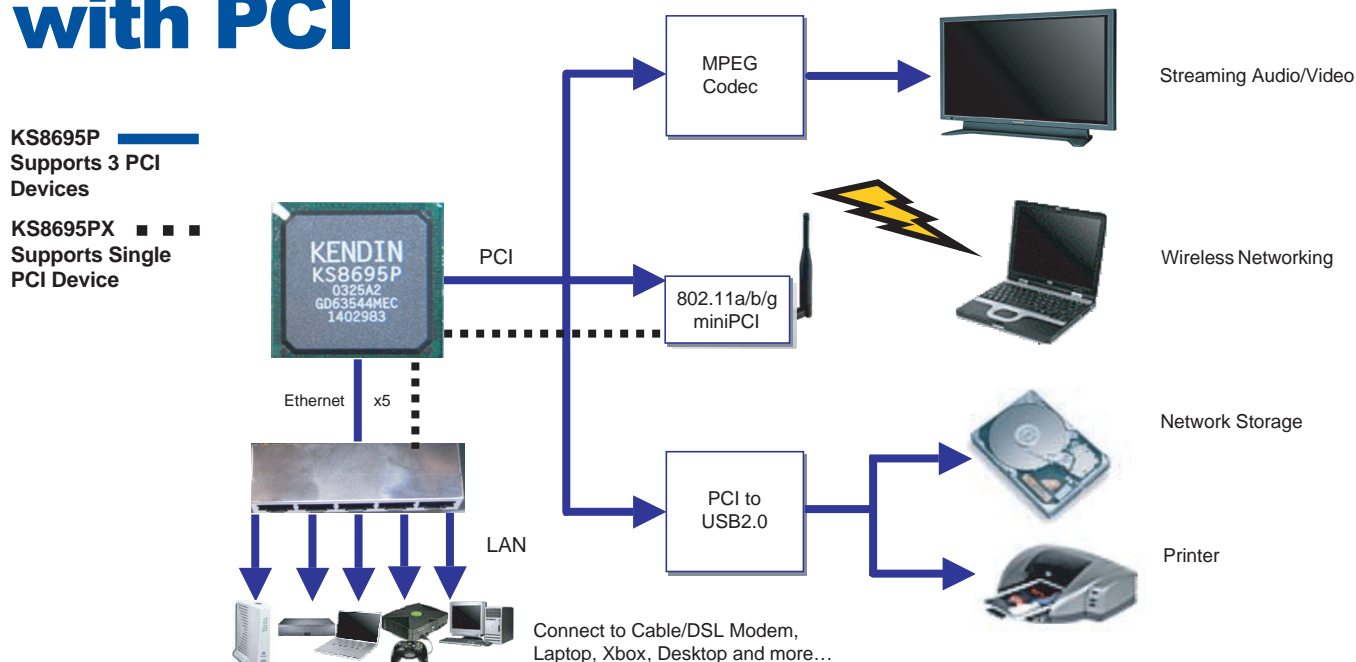


# Multi-Port System-on-a-Chip with PCI



## Advantages

### Power

- ◆ 166MHz ARM9 Processor w/8kB I-Cache, 8kB D-Cache
- ◆ XceleRouter™ Hardware Acceleration Technology
- ◆ MMU for Linux and WinCE™ Support

### Speed

- ◆ KS8695, the Industry's First 90Mbps + Integrated Gateway Solution
- ◆ 33MHz, PCI/MiniPCI/Cardbus Interface Supports 3 External PCI Masters
- ◆ Advanced Memory Interface Supports 8/16/32 bit Flash/ROM/SDRAM/ External I/O
- ◆ Wirespeed Switch Fabric

### Intelligence

- ◆ 3rd Generation, 5-Port, Field-Proven Managed Switch Offers:
  - Tag-Based VLAN
  - Quality of Service
  - SNMP, RMON Support
  - Bandwidth Limiting: Industry's Highest Granularity at 32Kbps Increments
- ◆ Integrated, Patented PHY Technology with Auto-Crossover Function
- ◆ Low Power
- ◆ Sleek, PBGA-289 Package
- ◆ Linux Turn-Key
- ◆ VxWorks BSP
- ◆ Complete Hardware and Software Reference Designs Available

XceleRouter is a trademark of Micrel, Inc.  
WinCE is a trademark of Microsoft Corporation.  
Xbox is a registered trademark of Microsoft Corporation.



**Note:** The Evaluation Board layout is identical for the KS8695P and the KS8695PX.

## Evaluation Kit Contents

Evaluation Board  
 Installed Residential Gateway  
 – Demonstration Software  
 Power Supply and Power Cable  
 Evaluation Kit CD-ROM

## CD-ROM Contents

Application Notes  
 Diagnostic Program  
 Evaluation Board User Guide  
 Extensive Collateral  
 Schematics  
 Board Support Package (BSP):  
 – Source Code and Release Notes

## Available Collateral for Easy Design-In

### Hardware Design Resources

Application Notes  
 Board User Guide  
 Data Sheet  
 Evaluation Board Schematics  
 Gerber Files  
 OrCAD Schematics  
 Switch Description

### Software Design Resources

ARM Flash Utilities  
 Board Support Pkg. — Source Code  
 Detailed Register Description  
 Diagnostic Program  
 Diagnostic Program User Manual  
 KS8695 to KS8695P Software  
 – Migration Guide  
 Linux Driver Debug Tool  
 Programming Guide

Product Number	KS8695P	KS8695PX
<b>ARM922T™ @ 166MHz 8kB I/D Cache MMU for Linux/WinCE™</b>	Yes	Yes
<b>XceleRouter™ Technology</b>	Yes	Yes
<b>PCI 2.1 / MiniPCI / Cardbus</b>	3 / Yes	1 / Yes
<b>SDRAM/ROM/SRAM/Fla- sh Memory Interface</b>	Yes	Yes
<b>Communications Protocol</b>	Ethernet 10BaseT, 100BaseTX, 100BaseFX	Ethernet 10BaseT, 100BaseTX, 100BaseFX
10/100 Mbps Ports / Auto MDI/MDIX	4 LAN, 1 WAN	4 LAN, 1 WAN
Wire Speed, Non-Blocking Switch	Yes	Yes
VLAN (802.1Q Tag-Based, Full Range VID)	16	16
Port-Based VLAN	Yes	Yes
QoS/CoS Prioritization, 802.1P and DiffServ-Based	Yes	Yes
802.1D/P/Q Full Support	Yes	Yes
<b>Power Management</b> CPU & System Clock Speed Step-Down Options	Yes	Yes
Per Port Power Down and Ethernet Transmit Disable	Yes	Yes
<b>Core Operating/ I/O Voltage (V)</b>	1.8 / 3.3	1.8 / 3.3

## Contact Micrel Semiconductor

Location	Address	Telephone	Fax	
Corporate HQ	2180 Fortune Drive	San Jose, CA 95131 USA	+1 (408) 944-0800	+1-408-944-1000
Eastern USA	93 Branch Street	Medford, NJ 08055 USA	+1 (609) 654-0078	+1 (609) 546-0989
Central USA	722 S. Denton Tap Suite 130	Coppell, TX 75019 USA	+1 (972) 393-2533	+1 (972) 393-2540
Western USA	2180 Fortune Drive	San Jose, CA 95131 USA	+1 (408) 944-0800	+1-408-944-1000
China	Rm 712, Block B, Intl. Chamber of Commerce, Fuhua Rd, 1 Futian District	Shenzhen, PR China 518026	+86 (755) 2693-4601	+86 (755) 8302-7637
Korea	4F, KTB Building, 826-14, Yeoksam-dong, Kangnam-ku	Seoul 135-080 Korea	+82 (2) 3466-3000	+82 (2) 3466-2999
Taiwan	4F, No. 18, Lane 321, Yang-Guang Street, Nei-Chu	Taipei, 11475 Taiwan, R.O.C.	+886 (2) 2705-4976	+886 (2) 2705-4977
Japan	1-16-15 Dogenzaka, Shibuyaku	Tokyo 150-0043 Japan	+81 (3) 5428-0871	+81 (3) 5428-0872
Europe	1st Floor, 3 Lockside Place, Mill Lane	Newbury, Berks RG14 5QS UK	+44 1635 524455	+44 1635 524466
Western Europe	10, avenue du Quebec, Villebon BP116	Courtaboeuf Cedex 91944 France	+33 (0) 1 6092 4189	+33 (0) 6 0868 4489

