

# Ethernet Selection Guide<sup>(1,3)</sup>

## Micrel Advantange

- Best-in-class patented mixed signal technology resulting in the lowest power dissipation in the industry for FE products
- Best-in-class feature sets for targeted applications (e.g. VoIP, ATA, IP-STB)
- Largest family of cost effective Embedded Controllers in the industry

## Physical Layer Products

Part Number	Description	Package	Comments
KS8001L	Single 3.3V Supply, LinkMD <sup>®</sup> Cable Diagnostics, 10/100BASE-T/TX/FX MII and SMII, Digital Interface Physical Layer Transceiver with HP Auto-MDIX	LQFP-48	
KSZ8001L	Same as KS8001L (lead free version)	LQFP-48	
KSZ8001LI <sup>(2)</sup>	Same as KSZ8001L (lead free version, Industrial)	LQFP-48	
KS8001S	1.8V/3.3V Tolerant I/O, 10/100BASE-TX/FX MII Physical Layer Transceiver with Auto Crossover	SSOP-48	
KSZ8001S	Same as KS8001S (lead free version)	SSOP-48	
KSZ8001SI <sup>(2)</sup>	Same as KSZ8001S (lead free version, Industrial)	SSOP-48	
KSZ8041NL	<b>New!</b> 10BASE-T/100BASE-TX Physical Layer Transceiver	MLF-32	
KSZ8041NLI <sup>(2)</sup>	<b>New!</b> Same as KSZ8041NL (lead free version, industrial)	MLF-32	
KSZ8041TL	<b>New!</b> 10BASE-T/100BASE-TX Physical Layer Transceiver (lead free version)	MLF-32	
KSZ8041FTL	<b>New!</b> 10BASE-T/100BASE-TX Physical Layer Transceiver (lead free version)	MLF-32	
KS8721B	2.5V/3.3V Tolerant I/O, 10/100BASE-TX/FX MII Physical Layer Transceiver with Auto Crossover	SSOP-48 and TQFP-48	
KSZ8721B	Same as KS8721 (lead free version)	SSOP-48 and TQFP-48	
KSZ8721BI <sup>(2)</sup>	Same as KS8721 (lead free version, Industrial)	SSOP-48 and TQFP-48	
KS8721BL	3.3V 10/100BASE TX/FX MII Physical Layer Transceiver	LQFP-48	
KSZ8721BL	Same as KS8721BL (lead free version)	LQFP-48	
KS8721BLI <sup>(2)</sup>	3.3V 10/100BASE TX/FX MII Physical Layer Transceiver (Industrial version)	LQFP-48	
KSZ8721BLI <sup>(2)</sup>	Same as KS8721BLI (lead free version, Industrial)	LQFP-48	
KS8721BT	2.5V 10/100BASE-TX/FX MII Physical Layer Transceiver with Auto Crossover	SSOP-48 and TQFP-48	
KSZ8721BT	Same as KS8721BT (lead free version)	SSOP-48 and TQFP-48	
KS8721CL	Single 3.3V Supply, 10/100BASE-TX/FX MII Physical Layer Transceiver with Auto Crossover	LQFP-48	
KSZ8721CL	Same as KS8721CL (lead free version)	LQFP-48	
KS8721SL	3.3V 10/100BASE TX/FX MII Physical Layer Transceiver	SSOP-48	
KSZ8721SL	Same as KS8721SL (lead free version)	SSOP-48	
KSZ8721SLI <sup>(2)</sup>	Same as KS8721SL (lead free version, Industrial)	SSOP-48	

## Layer 2 Switch Products - Unmanaged

Part Number	Description	Package	Comments
KS8993	3-Port 10/100 Integrated Switch	PQFP-128	
KS8993I <sup>(2)</sup>	Industrial Temperature grade, 3-Port 10/100 Integrated Switch	PQFP-128	
KSZ8993	Same as KS8993 (lead free version)	PQFP-128	
KS8995XA	5-Port 10/100 Integrated Switch (Unmanaged)	PQFP-128	
KSZ8995XA	Same as KS8995XA (lead free version)	PQFP-128	
KS8995X	5-Port 10/100 Integrated Switch (Unmanaged)	PQFP-128	
KSZ8995X	Same as KS8995X (lead free version)	PQFP-128	
KS8997	8-Port 10/100 Integrated Switch	PQFP-128	
KSZ8997	Same as KS8997 (lead free version)	PQFP-128	
KS8999	9-Port 10/100 Integrated Switch	PQFP-208	
KSZ8999	Same as KS8999 (lead free version)	PQFP-208	
KS8999I <sup>(2)</sup>	9-Port 10/100 Integrated Switch (Industrial version)	PQFP-208	
KSZ8999I <sup>(2)</sup>	Same as KS8999I (lead free verion, Industrial)	PQFP-208	

## Embedded Controllers

Part Number	Description	Package	Comments
KSZ8841-16MQL	Single Port Ethernet MAC Controller with 8 or 16-Bit Generic Bus interface (lead free version)	PQFP-128	
KSZ8841-16MVL	Single Port Ethernet MAC Controller with 8 or 16-Bit Generic Bus interface (lead free version)	LQFP-128	
KSZ8841-16MVL <sup>(2)</sup>	Single Port Ethernet MAC Controller with 8 or 16-Bit Generic Bus interface (Industrial version)	LQFP-128	
KSZ8841-32MQL	Single Port Ethernet MAC Controller with 32b Generic Bus interface (lead free version)	PQFP-128	
KSZ8841-32MVL	Single Port Ethernet MAC Controller with 32b Generic Bus interface (lead free version)	LQFP-128	
KSZ8841-PMQL	Single Port Ethernet MAC Controller with 32b/33MHz PCI Interface (lead free version)	PQFP-128	

## Embedded Controllers (continued)

Part Number	Description	Package	Comments
KSZ8841-PMQLI <sup>(2)</sup>	Single Port Ethernet MAC Controller with 32b/33MHz PCI Interface (Industrial version)	PQFP-128	
KSZ8842-16MQL	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (lead free version)	PQFP-128	
KSZ8842-16MVL	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (lead free version)	LQFP-128	
KSZ8842-16MVL <sup>(2)</sup>	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (Industrial version)	LQFP-128	
KSZ8842-32MQL	2-Port Ethernet Switch Plus 32-Bit Generic Bus Interface (lead free version)	128-Pin PQFP	
KSZ8842-32MVL	2-Port Ethernet Switch Plus 32-Bit Generic Bus Interface (lead free version)	128-Pin LQFP	
KSZ8842-PMQL	2-Port Ethernet Switch Plus 32b/33MHz PCI Interface (lead free version)	128-Pin PQFP	
KSZ8842-PMQLI <sup>(2)</sup>	2-Port Ethernet Switch Plus 32b/33MHz PCI Interface (Industrial version)	128-Pin PQFP	

## Layer 2 Switch Products - Managed

Part Number	Description	Package	Comments
KSZ8842-16MQL	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (lead free version)	PQFP-128	
KSZ8842-16MVL	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (lead free version)	LQFP-128	
KSZ8842-16MVL <sup>(2)</sup>	2-Port Ethernet Switch Plus 8-, 16-Bit Generic Bus Interface (Industrial version)	LQFP-128	
KSZ8842-32MQL	2-Port Ethernet Switch Plus 32-Bit Generic Bus Interface (lead free version)	PQFP-128	
KSZ8842-32MVL	2-Port Ethernet Switch Plus 32-Bit Generic Bus Interface (lead free version)	LQFP-128	
KSZ8842-PMQL	2-Port Ethernet Switch Plus 32b/33MHz PCI Interface (lead free version)	PQFP-128	
KSZ8842-PMQLI <sup>(2)</sup>	2-Port Ethernet Switch Plus 32b/33MHz PCI Interface (Industrial version)	PQFP-128	
KSZ8893MQL	3-Port Ethernet Switch (lead free version)	PQFP-128	
KSZ8893MQLI <sup>(2)</sup>	3-Port Ethernet Switch (Industrial version)	PQFP-128	
KS8993M	3-Port 10/100 Integrated Switch	PQFP-128	
KSZ8993M	Same as KS8993M (lead free version)	PQFP-128	
KS8993MI <sup>(2)</sup>	3-Port 10/100 Integrated Switch (Industrial version)	PQFP-128	
KSZ8993MI <sup>(2)</sup>	Same as KS8993MI (lead free version)	PQFP-128	
KS8993ML	Single 3.3V, 3-Port 10/100 Integrated Switch	PQFP-128	
KSZ8993ML	Same as KS8993ML (lead free version)	PQFP-128	
KS8995M	5-Port 10/100 Integrated Managed Switch	PQFP-128	
KSZ8995M	Same as KS8995M (lead free version)	PQFP-128	
KS8995MI <sup>(2)</sup>	5-Port 10/100 Integrated Managed Switch, (Industrial version)	PQFP-128	
KSZ8995MI <sup>(2)</sup>	Same as KS8995MI (lead free version, Industrial)	PQFP-128	
KS8995MA	5-Port 10/100 Integrated Managed Switch	PQFP-128	
KSZ8995MA	Same as KS8995MA (lead free version)	PQFP-128	
KS8995MAI <sup>(2)</sup>	5-Port 10/100 Integrated Managed Switch (Industrial version)	PQFP-128	
KSZ8995MAI <sup>(2)</sup>	Same as KS8995MAI (lead free version, Industrial)	PQFP-128	

## System-On-a-Chip

Part Number	Description	Package	Comments
KS8695X	Integrated Multi-Port Gateway Solution	PQFP-208	
KSZ8695X	Same as KS8695X (lead free version)	PQFP-208	
KS8695P	ARM9 with MMU + 5-Port 10/100 Integrated Managed Switch and PHY with 3 PCI Master Support	PBGA-289	
KSZ8695P	Same as KS8695P (lead free version)	PBGA-289	
KS8695PI <sup>(2)</sup>	ARM9 with MMU + 5-Port 10/100 Integrated Managed Switch (Industrial version)	PBGA-289	
KSZ8695PI <sup>(2)</sup>	Same as KS8695PI (lead free version, Industrial)	PBGA-289	
KS8695PX	ARM9 with MMU + 5-Port 10/100 Integrated Managed Switch and PHY with Single PCI Master Support	PBGA-289	
KSZ8695PX	Same as KS8695PX (lead free version)	PBGA-289	

## Media Converters

Part Number	Description	Package	Comments
KSZ8862-16MQL	2-Port Ethernet Switch with integrated 10B-FL/100B-SX LED Driver and Post Amplifier plus 8 or 16 bit generic bus interface	PQFP-128	
KSZ8862-32MQL	2-Port Ethernet Switch with integrated 10B-FL/100B-SX LED Driver and Post Amplifier plus 32 bit generic bus interface	PQFP-128	
KSZ8893FQL	3-Port Ethernet Switch with integrated 10B-FL/100B-SX LED Driver and Post Amplifier	PQFP-128	
KS8993F	Single Chip Fast Ethernet Media Converter with TTC TS-1000 Compliant OAM Sublayer	PQFP-128	
KSZ8993F	Same as KS8993F (lead free version)	PQFP-128	
KS8993FL	Single Chip Fast Ethernet Media Converter with TTC TS-1000 Compliant OAM Sublayer	PQFP-128	
KSZ8993FL	Same as KS8993FL (lead free version)	PQFP-128	

1. "KSZ" is the lead-free RoHS-compliant version of the KS part.

2. If the part number has an "I" at the end of it (e.g.: KSZ8721BI), this indicates it is industrial temperature tested.

3. With the exception of the KS8997, all of Micrel Ethernet Products may be used in Media Converter applications.