



# KSZ8873MML/KSZ8873MML KSZ8873RLL/KSZ8873FLL Product Brief

## Integrated 10/100BASE-T/TX/FX 3-Port Switch

### Description

The KSZ8873MML, KSZ8873RLL, KSZ8873FLL, and KSZ8873MML are highly integrated 3-port switch on a chip ICs in industry's smallest footprint. They are designed to enable a new generation of low port count, cost-sensitive and power efficient 10/100Mbps switch systems. Low power consumption, advanced power management and sophisticated QoS features (e.g., IPv6 priority classification support) make these devices ideal for IPTV, IP-STB, VoIP, automotive and industrial applications.

The KSZ8873 family is designed to support the GREEN requirement in today's switch systems. Advanced power management schemes include hardware power down, software power down, and the energy detect mode that shuts down the transceiver when a port is idle.

KSZ8873MML, KSZ8873RLL, and KSZ8873FLL also offer the by-pass mode, which enables system-level power savings. In this mode, the processor connected to the switch through the MII interface can be shut down without impacting the normal switch operation.

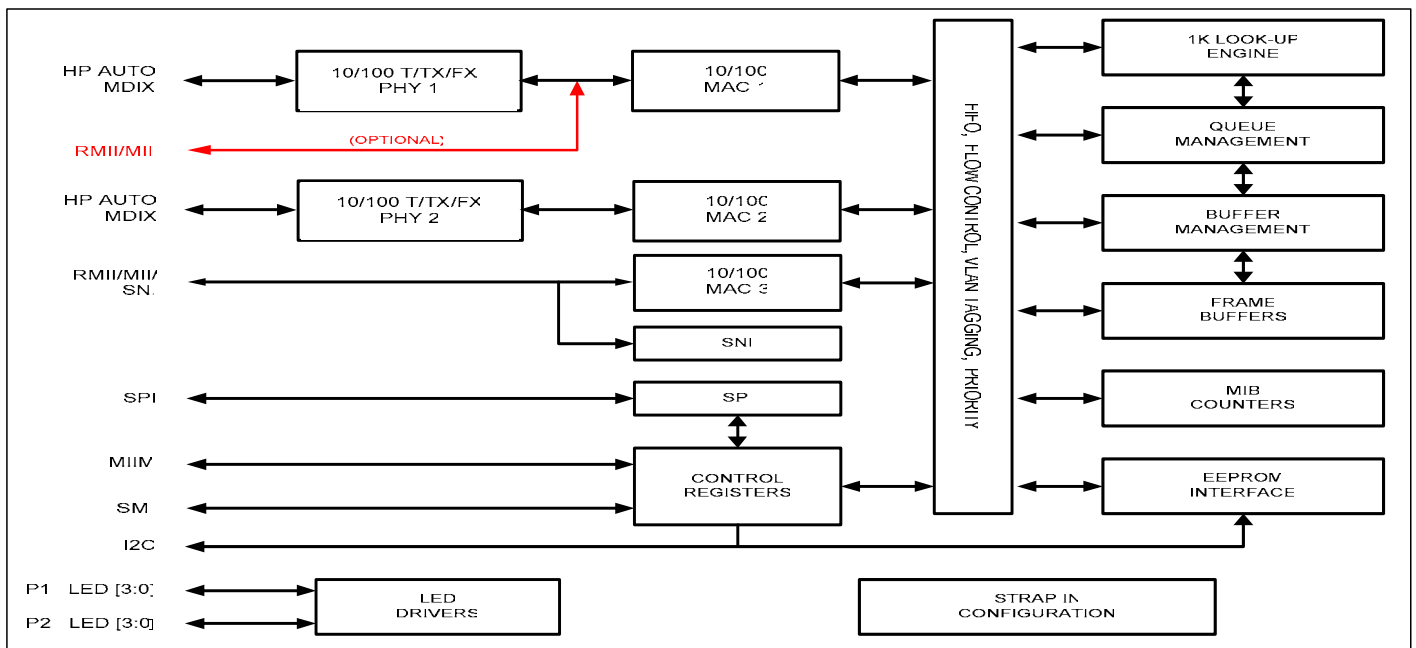
The configurations provided by the KSZ8873 family enable the flexibility to meet requirements of different applications:

- KSZ8873MML: Two 10/100BASE-T/TX transceivers and one MII interface.
- KSZ8873MML: One 10/100BASE-T/TX transceiver and two MII interfaces.
- KSZ8873RLL: Two 10/100BASE-T/TX transceivers and one RMII interface.
- KSZ8873FLL: Two 10/100BASE-FX transceivers and one MII interface.

The devices are available in RoHS-compliant 64-pin LQFP package. Industrial grade is also available.

The datasheets and supporting documents can be found at Micrel's web site at: [www.micrel.com](http://www.micrel.com).

### Block Diagram



Features	Benefits
2KByte packet size support	Facilitates large package size requirement in new Ethernet applications.
Port 1 & Port 2 by-pass mode	Ethernet traffic between Port 1 and Port 2 are sustained while the MII interface (Port 3) is shut down. This allows the device connected to the MII interface to enter a power saving mode.
4-queue (per port) traffic prioritization, based on port, 802.1p, 802.1Q VLAN tags, or Differential Services (both Ipv4 and Ipv6 priority classification)	Enables the implementation of advanced QoS policies.
Source address filtering	Enables the implementation of Ethernet ring network for industrial control and automotive applications.
Internal generated RMII 50MHz clock (KSZ8873RLL)	Eliminates expensive external 50MHz oscillator for the RMII mode.
LinkMD <sup>®</sup> TDR-based cable diagnostics	Allows identification of common cabling problems, including those not addressed by IEEE. Simplifies network deployment and reduces network downtime.

## Applications

- IP Set-Top Box
- IP Television/IP Television POF
- IP phone/Video phone
- Analog Telephone Adapter (ATA)
- Automotive Infotainment
- Industrial control
- FTTx CPE

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