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# VSC6825SDK

## Ocelot 8051 Software Application

Microsemi's VSC6825SDK Ocelot software development kit provides a turnkey unmanaged L2 switch application designed to support Ocelot 8051-based unmanaged enterprise switches including the VSC7511 and VSC7512 switches.

The unmanaged package consists of only the source code. A Keil PK51 compiler and tools are needed to customize the software to support various configurations. The software uses a simple software architecture for optimal performance and cost-effective implementation. Tools are available for loading code to the embedded 8051 CPU.

The integrated software package includes compile options for basic switch features such as port types/speeds, L2 switching, and IEEE 1588 (for PTP-aware networks).

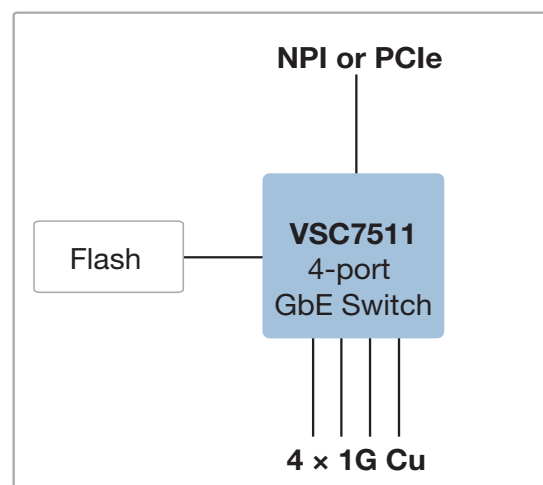
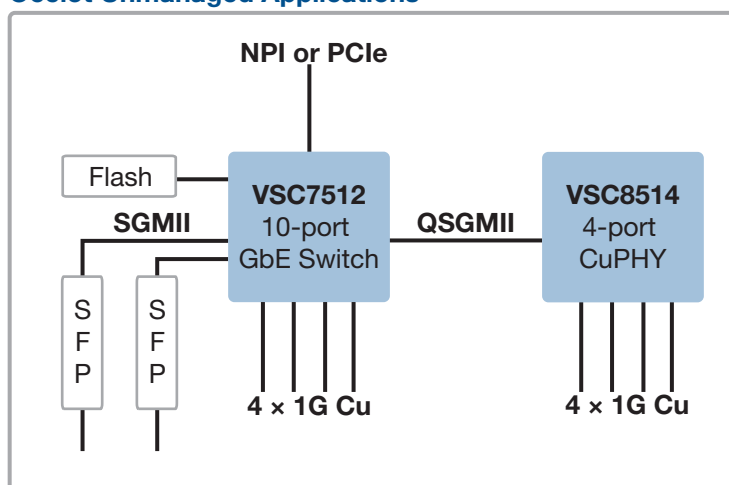
### Highlights

- L2 switching
- IEEE 1588

### Applications

- Cost sensitive, minimal software image for L2 fixed configuration or imbedded IoT applications

### Typical Ocelot Unmanaged Applications



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## Ocelot 8051 Software Application

### Compile Options

#### Port Control

- Port control/duplex mode/flow control—auto negotiation or forced mode, SFP
- Port frame size (jumbo frames)—maximum ingress frame size: 1518–9600 bytes
- Port status—link monitoring

#### QoS

- Number of active classes—1, 2, 4, or 8

#### Link Aggregation

- Static

#### L2 Switching

- Auto MAC address learning and ageing
- Loop guard

#### IEEE 1588 End-to-End Transparent Clock

- One-step updates to add residence time to correction field
- No peer delay measurements
- Match PTP on Ethernet or static IP/UDP encapsulation

#### Power Saving

- EEE power management—power savings depending upon traffic utilization
- ActiPHY—power savings as port is link-down (unused)
- LED—Serial GPIO (1G- green, 10M/100M- yellow) and activity

#### Firmware Upgrade

- Firmware load from external CPU

### Management Support

- RS-232 debug I/F (switch and PHY register read/write)
- MDIO/MIIM

### NPI/PCIe Configuration

- Enable as either NPI or PCIe

Part Order Number	Description
VSC6825SDK	Unmanaged package for 8051-based unmanaged L2 Enterprise Ocelot switches



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