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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

VSC6803API

Open Application Programming Interface (Open API) for Microsemi Ethernet Switches and PHYs

The VSC6803API Open Application Programming Interface (Open API) provides a comprehensive, user-friendly, and robust function library that supports all Microsemi Ethernet switch, MAC, PHY, and Optical Transport Network (OTN) Mapper products. The VSC6803API, available as an MIT-licensed (https://opensource.org/licenses/MIT) software package, is portable to any Operating System (OS) and was developed with 32-bit CPUs as intended targets. The driver software was developed in standard C, and supports multi-instance device targets.

The architecture of the API includes five different layers:

- Application interface layer (function groups)
- Chip interface layer (register mappings)
- I/O layer (register access)
- OS layer (Linux, VxWorks, eCos)
- Trace layer

The VSC6803API package includes:

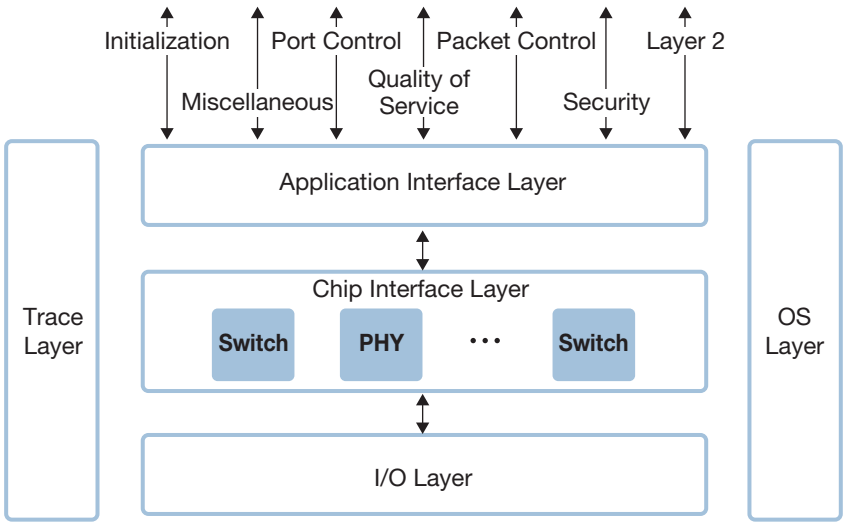
- Driver software in standard C
- Application example and documentation

Highlights

- Robust, user friendly, and widely deployed
- Operating system independent
- Supports all Microsemi Ethernet switches and PHYs

Applications

- Enterprise, Small-Medium Enterprise (SME) switches
- Carrier Ethernet switches and routers
- Industrial Ethernet switches



VSC6803API

Open Application Programming Interface (Open API) for Microsemi Ethernet Switches and PHYs

Basic Functions

- Device initialization
- Port map setup
- Port reset and configuration
- Port status polling and configuration based on auto-negotiation
- Statistics
- Trace system integration
- Board-specific register access and port mapping

Advanced Functions

- Quality of Service (QoS) configurations
- CPU interface functions for packet control
- Port filters and access control lists
- Layer 2 configurations
- Stacking configurations
- MEF EVC setup
- Synchronization
- 1588v2 time stamping API
- MPLS-TP

Key Specifications

- Source code in standard C
- Portable to any operating system (eCos, Linux, VxWorks)
- Portable to 32-bit CPUs (such as MIPS and ARM)
- Supports all Microsemi Ethernet switches and PHYs

Related Products

Visit www.microsemi.com for information about these related products:

- Microsemi Carrier Ethernet switch engines
- Microsemi Enterprise Ethernet switches
- Microsemi Gigabit Ethernet and 10 Gigabit Ethernet PHYs

Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Fax: +1 (949) 215-4996
Email: sales.support@microsemi.com
www.microsemi.com

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