

## SH8366 Gigabit Ethernet Hub

### Chipset

- Realtek® RTL8366S

### Single-chip 4-port Gigabit Non-blocking Switch Architecture

### Each port supports 2 parallel LED outputs

### Full Duplex 10/100/1000M Connectivity (half duplex only supported in 10/100M mode)

### Auto-Negotiation for UTP

### Crossover Detection and Auto Correction

### IEEE 802.3x flow control

### 832Kbits SRAM for packet buffer

### Packet Length

- Supports maximum packet length 16Kbyte jumbo frame packet forwarding and maximum packet length 9216 bytes at wire speed

### VLAN

- 802.1Q VLAN supports 4096 entries
- Supports Port-based, Tag-based, and Protocol-based VLAN
- Up to 4 Protocol-based VLAN entries
- Supports per-port and per-VLAN egress VLAN tagging and un-tagging

### IVL/SVL

- Supports 1K-entry MAC address table with 4-way hash algorithm
- Supports 8-entry CAM to avoid learning hash collisions
- Up to 8 Filtering Databases

### Spanning Tree Port Behavior Configuration

- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1s Multiple Spanning Tree with up to 8 Spanning Tree instances

### Quality of Service (QoS)

- Input bandwidth control from 64Kbps to 1Gbps (in 64Kbps steps)
- Four priority queues per port
- Per-port and per-queue Average and Peak Packet Rate control
- Scheduling supports Strict Priority (SP) and Weighted Fair Queueing (WFQ)
- IEEE 802.1p/Q and IPv4 DSCP Remarking
- Priority decision based on Port, 802.1Q VLAN tag PRI, IPv4/IPv6 DSCP, and ACL rules

### Security Filtering

- Disable learning for each port
- Disable learning-table aging for each port
- Drop unknown DA for each port

### 32-entry ACL Rules

- Search keys support Source Port, MAC, TCP, UDP, IPv6, ICMP, and IGMP format
- Actions support mirror, redirect, dropping, priority adjustment, and traffic rate policing
- Optional per-port enable/disable of ACL function
- Optional setting of per-port action to take when ACL mismatch

