Supermicro SSE-X3348TR Layer 3 10G-BaseT Switch Review

Supermicro's SSE-X33TR switch brings 48 10GBASE-T ports to the top of the rack with four 40GbE expansion ports. Come check out Chris' full review.
(NASDAQ:SMCI)

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Introduction

You may have noticed the Supermicro SSE-X3348TR in our SMB and SME NAS reviews. Supermicro was kind enough to help us scale our network so we could test a wider range of network storage products. We're reviewing the Quanta MESOS CB220 Cluster-in-a-Box NAS currently, and without the SSE-X3348TR, that review won't happen.

Specifications, Pricing and Availability
Specifications

- **Port Attributes:**
  - 48 10GbE Base-T Ten-Gigabit Ethernet ports - RJ45 Connectors
  - Energy Efficient Ethernet (IEEE 802.3az)
  - 4 Forty-Gigabit Ethernet ports – QSFP Connectors
  - 2 One-Gigabit Ethernet ports – RJ45 Connectors
  - Out-of-band RS-232 Management port

- **Performance:**
  - Switching capacity: 1284 Gbps

- **Availability:**
  - Spanning Tree (802.1D)
  - Rapid Spanning Tree (802.1w)
  - Multiple Spanning Trees (802.1s)
  - Virtual Redundant Routing Protocol (VRRP)

- **VLAN:**
  - 802.1Q tagging, port and protocol based
  - 4K VLANs
  - Dynamic VLAN Support (GVRP)

- **Quality of Service and DiffServ:**
  - 8 priority queues per port
  - Adjusted WRR and Strict Priority Scheduling
  - Layer 2 / 3 / 4 Prioritization
  - Narking
  - Netting / Rate limiting

- **Multicast:**
  - IGMP Snooping v1 / v2 / v3
  - IGMP v1 / v2 / v3
  - PIM SM, PIM DM
  - PIM SMv6

- **Security:**
  - 802.1x Port Based Authentication
  - Switch access password protection
  - Layer 2 / 3 / 4 Access control Lists
  - RADIUS and TACACS+ Authentication
  - SSH / SSL Encryption

- **Management:**
  - Web-based management interface
  - HTTP, HTTPS
  - Telnet (4 sessions)
  - Industry standard CLI with telnet, SSH or local management port
  - Scripting capability
  - Command completion
  - Context sensitive "Help"
  - Multiple levels of user privileges (CLI and Web UI)
  - SNMP v1/v2/v3
  - Four RMON Groups - (1, 2, 3 and 9)
  - Logging - syslog
  - Dual firmware images
  - Configuration file - upload / download

- **Dimensions:**
  - 17.3" W x 18.6" D x 1.7" H
  - (440mm W x 473mm D x 43mm H)

- **Weight:**
  - 20.3 lbs / 9.22 kg

- **Power:**
  - Dual 400W Hot-swap Redundant Power Supplies
  - Power Consumption of 375W

- **Operating Temperature:**
  - 0° to 45°
The SSE-X3348TR leaves us with a lot to go over today. Armed with 48 energy efficient 10GBase-T ports for rack down connectivity and four 40GbE QSFP ports for uplink connectivity, the switch tops off a custom Supermicro rack nicely and prepares the rack for easy integration.

**Specifications - Features**

*Switching Features:*
- Link Aggregation - 24 groups w/ 8 members per group
- LACP Support
- Link Layer Discovery Protocol (802.1AB)
- Jumbo Frame Support
- Port Mirroring - N to 1 Tx & Rx Configurable

*Routing Features:*
- Static Routing, RIP v1/v2, RIPng, OSPF v1/v2/v3 & BGP
- IPv4 and IPv6 Routing
- VRRP (Virtual Router Redundancy Protocol)
- DVMRP (Distance Vector Multicast Routing Protocol)

Just in case the specifications sheet didn't cover all of the bells and whistles, the SSE-X3348TR also lists a section of features.

**Download**

**Manuals**
- CLI Manual [Download]
- Switch User's Manual [Download]
- 40G-to-10G Port Split Guide [Download]
- Switch Installation Guide [Download]

**Config. Guides**
- IPv6 Config. Guide [Download]
- ACL Guide [Download]
- System Config. Guide [Download]
- PIM Config. Guide [Download]
- IGMP Snooping Config. Guide [Download]
- SNMP Config. Guide [Download]
- Link Aggregation Config. Guide [Download]
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- Switches IP Config. Guide [Download]
- IGMP Config. Guide [Download]
- QoS Config. Guide [Download]
- RMON Config. Guide [Download]

**SNMP MIB Files**
- SNMP MIB Files [Download]

**Firmware**
- Firmware [Download]

Supermicro doesn't just offer manuals that cover what each feature does, but the company also offers configuration guides that walk users through setting up and configuring advanced features. Over the last two decades, I've been involved in computers and owned several enterprise network products from 3Com, Extreme Networks, HP, Dell and Mellanox to name a
few. None of those products included this level of detail in the printable materials.

Shopping online with Google, we managed to find the SSE-X3348TR for just over $12,000. We wanted to compare the SSD-X3348TR price to one of the few similarly configured switches on the market and came up with the Dell S4820T, a new switch from the Force 10 team that Dell acquired. The S4820T uses the same 48 10GBaseT with 4 QSFP 40GbE ports. The S4820T costs $35,372 at the time of writing.

We'll look at the accessory package in detail later in the review. The optional accessories are the rackmount rail kits.

**PRICING:** You can find the Supermicro SSE-X3348TR for sale below. The prices listed are valid at the time of writing but can change at any time. Click the link to see the very latest pricing for the best deal.