MSF9648 48-Port Optical Switch Solution
48x SFP + 6x SFP+ Optical Switch Solution

The traditional copper wiring network to be replaced by optical fiber network is inevitable and inevitable, and some newly developed communities and industrial and commercial buildings have fully used the fiber optic layout. Keeping pace with the times, optical switch are already imperative.

European and American switching chips used to focus on the combination of electric ports or optical ports, so a pure optical switching device with high density and large exchange volume is often their weakness, or it requires multiple sets of switching chips to achieve.

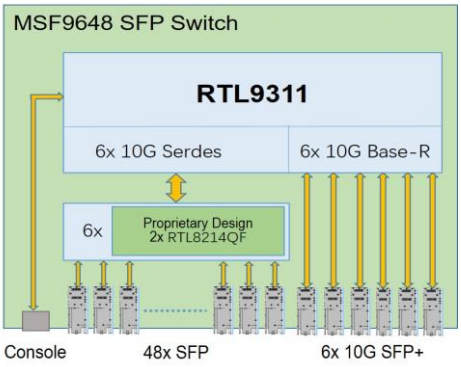

Figure 1. Block Diagram of the MSF9648 SFP Switch

Features Hihglight

Port Capacity

MSF9648 optical switch is designed to use the non-European and American chip company Realtek RTL9311 switching chip, with a proprietary design and designated transceiver, so that it can provide 48 gigabit optical ports, and the upstream provides 6 10 gigabit optical ports.

Cost Effective Solution

MSF9648 optical switch design, its switching chip using memory conversion mechanism, integrated high-capacity memory, with high-transfer bandwidth, can provide 216Gbps switching capacity, to achieve high-speed conversion performance. It has low power consumption, small packaging, with a variety of interfaces, covering a variety of application needs, MSF9648 optical exchange provides multi-port pure optical exchange platform efficient performance suitable for a fully paved optical fiber working environment, providing a cost-effective solution, is the best choice for optical switches.

Software and Management

In addition to the common L3 layer management, MSF9648 optical switch also supports stack management, DHCP Server, upstream chain convergence, cloud management, network clock synchronization, etc. We can also provide customized services for specific industries or application scenes, and design unique specifications and needs of our own products.

Customization Service

Our company has the technical ability to develop products, in order to meet the needs of the market, the design of different optical ports combined switching machine solutions, will be able to meet the needs of different users for multi-port high-speed switching machines.

Open Design Solution

Design Principles

The design of the MSF9648 optical switch adopts the RTL9311 switching chip of the non-European and American chip company Realtek, which provides 6 sets of 10G Serdes for 48 GMAC interfaces, we use the exclusive design of each group of two RTL8214QF transceivers so that it can be converted into 48 Gigabit optical interfaces; RTL9311 also provides 6 sets of 10G Base-R interfaces, we use as uplink channels and directly provide 6 10 Gigabit optical ports.

Interested in using our optical exchange solutions, we can provide paid optical exchange prototypes, prototype preset standard optical exchanger software and web management for customers to test the functionality and performance of the product, while strengthening customer confidence in our company's development capabilities and products.

We can provide schematics of optical switches, allow customers to design their own circuit boards and production, or directly entrust us to develop win-win solutions that fall under the specific requirements of customers' software and hardware.

Figure 2. The MSF9648 Optical Switch

Hardware Specifications

Item (MSQ9624)	Details
Optical Port	48x 1G SFP with 6x 10G SFP+
Control Port	1x RJ45-R232 Serial Interface (115200,8,N,1)
Power	1x AC 100~240V 50/60Hz
Power Consumption	60W
Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3Z, IEEE802.3X, IEEE802.1Q, IEEE802.1p, IEEE802.3ab, IEEE802.1D, IEEE802.1X
Switching Capacity	240Gbps / non-blocking
Switching Mode	Store-and-Forward
Packet Buffer	16Mbit
MAC Address Table	32K-entry
Jumbo Frame	12KB

Software Specifications

Item	Feature Lists
☑	IP, MAC, Port, VLAN Binding Combinations
☑	802.1p priority
☑	VLAN
☑	IGMP Snooping
☑	MLD Snooping
☑	Multicast VLAN Registration (MVR)
☑	QoS
☑	ACL
☑	IPV4 Static Route Setup
☑	IPV4 Static Route Setup
☑	DHCL Server, Client, Relay, DHCP Snooping