

# LS2048-JB5P Multi-Gigabit Ethernet Switch



## L2/L3 Multi-Gigabit Ethernet PoE Switch with 40G Stacking and Expansion Module

### Product Overview

The LS2048-JB5P is a Multi-Gigabit Ethernet Switch with 36-port 1G and 12-port 2.5G as well as 4-port 10G/25G uplink and stacking ports. With incoming new multispeed devices, LS2048-JB5P provides the exact speed required, with no downgrade. For higher extension, LS2048-JB5P offers expansion slot and modules with different media type and speed, provide MAC Security and re-driver availabilities to satisfy requirement of deployment. The switch is ideal for SMB, enterprise, and campus networks to connect power devices such as VoIP phones, wireless access points, surveillance cameras etc.

### Simplified Management

The LS2048-JB5P support industry-standard command-line interface (CLI) which reduces the training and operation costs, a user friendly Web GUI and SNMP to management the switch.

### Comprehensive QoS

Traffic is prioritized according to 802.1p, DSCP, IP Precedence and TCP/UDP port number, and gives the optimal performance for real-time applications like voice and video. Weighted Round Robin (WRR) and strict priority ensure differential prioritization of customer traffic and avoid congestion of switch queues.

### IPv6 Support

The switch supports IPv6 features (both Layer 2 and Layer 3) and management via SSH, Web.

### High Availability

Designed for high availability from both hardware and software perspectives. The key features include :

- 1 + 1 Hot-swappable power supplies (920W)
- 2 + 1 Hot-swappable fan modules



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## Product Specification

Description	Specification
<b>Physical</b>	<ul style="list-style-type: none"> <li>• 36 10/100/1000Base-T Ports</li> <li>• 12 2.5Gbps Ports</li> <li>• 2 40G QSFP+ Stacking Ports</li> <li>• 1 RJ45 Console Port</li> <li>• 1 RJ45 OOB (Out Of Band) Management Port</li> <li>• 2 USB Type A Ports</li> <li>• Expansion Module Type :                             <ul style="list-style-type: none"> <li>4x10G (SFP+) with LRM/MACSEC</li> <li>4x10G (SFP+) with Re-driver</li> <li>4x25G (SFP28) with Re-driver</li> <li>4x25G (SFP28) with MACSEC</li> </ul> </li> </ul>
<b>Layer 2 Features</b>	<ul style="list-style-type: none"> <li>• Flow Control : IEEE 802.3x</li> <li>• Switching Mode : Store-and-Forward</li> <li>• Spanning Tree Protocol (802.1D, 802.1W, &amp; 802.1S), Fast Forwarding, Auto Edge, BPDU Guard, Loop Guard, Root Guard</li> <li>• VLANs (802.1Q tagged based and port-based), Private VLAN, Voice VLAN, Protocol VLAN</li> <li>• Storm Control (Broadcast, Unknown Multicast, Unknown Unicast )</li> <li>• IGMP Snooping v1/v2/v3, IGMP Immediate Leave</li> <li>• Link Aggregation : LACP and Cisco EtherChannel Liked (Load balance support)</li> <li>• MLD Snooping v1/v2</li> <li>• Jumbo Frame : 12K bytes</li> <li>• QinQ</li> </ul>
<b>QoS (Quality of Service)</b>	<ul style="list-style-type: none"> <li>• Priority Queues : 8 queues</li> <li>• Scheduling for Priority Queue : WRR, Strict and Hybrid (WRR+Strict)</li> <li>• COS : IP Precedence &amp; IP DSCP</li> <li>• DiffServ</li> <li>• AutoVoIP</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• Static and dynamic Port Security (MAC-Locking)</li> <li>• 802.1x : Port-Based, Mac-Based, VLAN Assignment, Guest VLAN, Unauthenticated VLAN, QoS Assignment</li> <li>• ACL : L2/L3/L4</li> <li>• IPv6 ACL : L3/L4</li> <li>• RADIUS &amp; TACACS+</li> <li>• SSH v1.5/v2.0</li> <li>• Local and Remote Authentication, Remote Authentication via RADIUS &amp; TACACS+</li> <li>• DHCP Snooping</li> <li>• MAC Filter</li> <li>• Dynamic ARP Inspection (DAI)</li> </ul>

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<b>Management</b>	<ul style="list-style-type: none"> <li>• CLI/SNMP v1/v2c/v3</li> <li>• Telnet/SSH</li> <li>• Software and configuration file download/upload: TFTP/FTP</li> <li>• Dual image supported</li> <li>• DHCP: Client / Relay / Server / L2 Option 82 Relay</li> <li>• Event/Error Log: Local flash and remote server (RFC3164)</li> <li>• Remote PING</li> <li>• DNS Client / Relay</li> <li>• SNTPv4</li> <li>• LLDP (802.1ab, Link Layer Discovery Protocol)</li> <li>• Port Mirroring: SPAN/RSPAN</li> <li>• IPv6 Management</li> <li>• sFlow v5</li> <li>• IEEE 1588v2 PTP*1</li> </ul>
<b>Layer 3 Features IPv4</b>	<ul style="list-style-type: none"> <li>• ARP</li> <li>• Static Route</li> <li>• RIP v1/v2</li> <li>• OSPF</li> <li>• BPG4</li> <li>• IGMP v1/v2/v3</li> <li>• DVMRP</li> <li>• PIM-SM</li> <li>• VRRP</li> <li>• PBR (Policy-Based Routing)</li> <li>• BFD (Bidirectional Forwarding Detection)</li> </ul>
<b>Layer 3 Features IPv6</b>	<ul style="list-style-type: none"> <li>• Static Route</li> <li>• OSPFv3</li> <li>• MLD v1/v2</li> <li>• PIM-SMv6</li> <li>• Loopbacks</li> </ul>
<b>PoE (Power over Ethernet)</b>	<ul style="list-style-type: none"> <li>• Support up to 36 ports PoE 15W/30W for IEEE 802.3 af/at.</li> <li>• Support up to 12 ports UPoE 60W for IEEE 802.3 bt.</li> </ul>
<b>PoE Power Budget</b>	<ul style="list-style-type: none"> <li>• 1 x PSU : 720 Watts</li> <li>• 2 x PSU : 1440 Watts</li> </ul>
<b>Air Flow</b>	<ul style="list-style-type: none"> <li>• Front to Back</li> </ul>

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<b>Stacking</b>	<ul style="list-style-type: none"> <li>• Max. Units : 4*2</li> <li>• Max. Port / Slot : 28*2</li> <li>• Max. Total Ports : 112*2</li> </ul>
<b>Hardware</b>	<ul style="list-style-type: none"> <li>• 64-bit ARM Cortex-A72 Processor</li> <li>• DDR4 SDRAM : 2GB</li> <li>• Storage : 128MB NAND Flash</li> <li>• Boot code : 32MB QSPI Flash</li> <li>• Temperature monitoring (TMP75) and OTP (Over Temperature Protection)</li> <li>• Software readable thermal monitor</li> </ul>
<b>Mechanical</b>	<ul style="list-style-type: none"> <li>• Dimension (WxLxH) : 441.5 x 441.5 x 44mm (17.38 in. x 17.38 in. x 1.73 in.)</li> <li>• 1RU</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>• Operating Temperature : 0~50°C</li> <li>• Operating Humidity : 95% maximum relative humidity</li> </ul>
<b>Electrical</b>	<ul style="list-style-type: none"> <li>• Power Supply : 920W AC/DC PSU Input Voltage: (a) 90-264Vac ; (b) 190-310HVdc Output Voltage: +54.5Vdc/16.88A</li> <li>• Power Consumption with Traffic Load : 175.18 Watts (Estimated)</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• Safety : UL, CB</li> <li>• EMC : CE, FCC</li> </ul>

\*1 IEEE 1588v2 will be supported in 2019 Q2.

\*2 Stacking Features will be supported in 2019 Q1.

## About LITE-ON Networking

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