

## Key Features

- ➡ First open switch for open networks leveraging hardware-agnostic operating system
- ➡ High-performance Layer 2 / Layer 3 switches with industry-leading OpenFlow\* integration
- ➡ Fully non-blocking fabric with ultra-low latency



## Overview

Pica8's purpose-built open switches are ideal for cloud or virtualized data centers that require flexibility and adaptability. Pica8™ open switches seamlessly integrate with today's data center applications on traditional network architectures, while allowing the exploration of new software-defined networking (SDN) technologies, such as OpenFlow.

Pica8 white box switches run PicOS™, an open network operating system (OS) that runs standards-based Layer 2/Layer 3 protocols with industry-leading OpenFlow 1.4 and Open vSwitch (OVS) v2.0 integration. OVS runs as a process within PicOS, and provides the OpenFlow interface for external programmability. PicOS utilizes proven high-performance hardware with a maximum switching fabric capacity of 176 Gbps for 1 GbE and 1.28 Tbps for 10 GbE platforms.

## Leverage Pica8's operating system – PicOS – for two powerful modes of operation

	Layer 2 / Layer 3 Mode	Open vSwitch (OVS) Mode
<b>OPEN</b>	<ul style="list-style-type: none"> <li>● Switching platform with Debian Linux on board and accessible</li> <li>● Programmable and customize by leveraging vast high-quality Linux tools</li> </ul>	<ul style="list-style-type: none"> <li>● Industry-leading OpenFlow 1.4 support through Open vSwitch (OVS) 2.0 integration</li> <li>● Leverage production-ready OVS switches for your CloudStack and OpenStack projects</li> </ul>
<b>FLEXIBLE</b>	<ul style="list-style-type: none"> <li>● High-performance Layer 2 / Layer 3 switching platform for both IPv4 and IPv6 networks, seamlessly integrating into existing architectures</li> <li>● Tune the fabric to meet your application needs, selectable store-and-forward or cut-through switching modes for ultra-low latency</li> </ul>	<ul style="list-style-type: none"> <li>● Interoperable with multiple Open Source OpenFlow controllers such as Ryu, Floodlight, NOX, and Trema</li> <li>● Leverage different controllers and reference architectures</li> </ul>
<b>ADAPTIVE</b>	<ul style="list-style-type: none"> <li>● PicOS a multiprocess OS, ensures each process has independent memory space, thread control, and interrupt handling for improved feature scaling</li> </ul>	<ul style="list-style-type: none"> <li>● Seamlessly add new protocols to PicOS, a multiprocess OS</li> <li>● Investment protection as your application needs change</li> </ul>

# PRODUCT REFERENCE GUIDE



	P-3290	P-3295
<b>Performance</b>		
Switch Fabric Capacity (Gbps)	176	176
Forwarding Capacity (Mpps)	132	132
Forwarding Options	Store-and-Forward / Cut-Through	Store-and-Forward / Cut-Through
Packet Buffer Memory (MB)	4	4
Latency	1 µs (64 Byte Frames)	1 µs (64 Byte Frames)
System Memory (MB)	512	512
SD/CF Memory (GB)	2	2
CPU / ASIC	MPC8541 / Firebolt-3	MPC8541 / Firebolt-3
<b>Ports</b>		
48-Port Base Unit	10/100/1000BASE-T	10/100/1000BASE-T
Uplink Options	4 x 1 GbE (SFP) or 4 x 10 GbE (SFP+)	4 x 1 GbE (SFP) or 4 x 10 GbE (SFP+)
SFP+ / QSFP+ Options	SR, LR, LRM, CR4	SR, LR, LRM, CR4
Console Port	1 x RJ45 Serial	1 x RJ45 Serial
Management Port	2 x 10/100/1000BASE-T	1 x 10/100/1000BASE-T
<b>Layer 2 / Layer 3 Features</b>		
Maximum MAC Addresses	32K	32K
Maximum VLANs	4,094	4,094
Link Aggregation (Groups/Ports)	24/8	24/8
Jumbo Frames (Bytes)	9,216	9,216
Maximum Routes	12,000	12,000
Spanning Tree	STP/RSTP/MSTP	STP/RSTP/MSTP
IPv4 Routing	RIP, OSPFv2/ECMP, BGP-4/ECMP, Static	RIP, OSPFv2/ECMP, BGP-4/ECMP, Static
IPv6 Routing	RIPng, OSPFv3, Static	RIPng, OSPFv3, Static
Multicast Routing	PIM-SM, IGMP, IGMP-Snooping	PIM-SM, IGMP, IGMP-Snooping
<b>OpenFlow Support</b>		
Open vSwitch	v2.0	v2.0
GRE Tunneling	Yes	Yes
<b>Physical &amp; Environmental Specifications</b>		
Size (Inches)	1.67 (H) x 17.33 (L) x 11.17 (D)	1.69 (H) x 17.13 (L) x 15.5 (D)
Weight (lbs)	8.58	15.73
MTBF (Hours)	175,699	200,384
Air Flow	Front to Back	Front to Back
Hot-Swappable Redundant Power	—	Yes
Power Draw (Watts)	101	95
Input Voltage / Frequency	100 - 240 VAC / 50 - 60 Hz	
Operating Temperature	50 - 122 °F (10 - 50 °C)	
Operating Humidity	80% Maximum Relative Humidity	
LEDs	Link, Transmit, Receive, Port Status	
<b>Regulatory Compliance</b>		
Emissions	FCC, CE, VCCI-A, CCC, KCC, BSMI	FCC, CE, VCCI-A, CCC, KCC, BSMI
Safety	UL, CE	
RoHS	Yes	

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