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 P-3922 (top)

- Up to 64 10 GbE SFP+ ports leveraging the 48 port 10 GbE SFP+ base unit, with four 40 GbE QSFP+ or 16 10 GbE QSFP+ uplinks
- High density aggregation or line-rate connectivity to the core

Pica8 "white box" switches run PicOS™, an open network operating system (OS) that runs standard-based Layer 2/Layer 3 protocols with Industry-leading OpenFlow / Open vSwitch (OVS) integration. 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 to suite your needs

	Layer-2 / Layer-3 Mode	Open vSwitch (OVS) Mode
OPEN	• Switching platform with Linux on board and accessible • Programmable and customize by leveraging vast high-quality Linux tools	• Industry-leading OpenFlow 1.2 support through Open vSwitch (OvS) 1.9 integration • Leverage production ready OVS switches for your CloudStack / OpenStack projects
FLEXIBLE	• High-performance Layer 2 / Layer 3 switching platform for both IPv4 and IPv6 networks, seamlessly integrating into existing architectures • Tune the fabric to meet your application needs, selectable store-forward or cut-through switching modes for ultra-low latency	• Interoperable with multiple open-source OpenFlow controllers (Ryu, Floodlight, NOX, Trema) • Leverage different controllers and reference architectures
ADAPTIVE	• PicOS a multiprocess OS, ensures each process has independent memory space, thread control, and interrupt handling for improved feature scaling	• Seamlessly add new protocols to PicOS, a multiprocess OS • Investment protection as your application needs change

PRODUCT REFERENCE GUIDE

PICA8
OPEN NETWORKING

	P-3922
Performance	
Switch Fabric Capacity	1.28 Tbps
Forwarding Speed	960 Mpps
Forwarding Options	Store and Forward/Cut-Through
Packet Buffer Memory	9MB
Latency	900 ns (64 byte)
System Memory	2 GB DDR
SD/CF Memory	2 GB
CPU	P2020
Ports	
48-port Base Unit	Dual speed: 1GbE or 10GbE (SFP+)
Uplink Options	16x10GbE or 4x40GbE (QSFP+)
SFP+ / QSFP+ Options	SR, LR, LRM, CR4 / SR4, LR4, CR4
Console Port	1 RJ45 Serial
Management Port	1 (10/100/1000Base-T)
Layer-2 / Layer-3 Features	
Max MAC address	128K
Max VLANs	4,094
Link Aggregation (Groups/ports)	24/8
Jumbo Frames (Bytes)	9,216
Maximum Routes	12,000
Spanning Tree	STP/RSTP/MSTP
IPv4 Routing	RIP, OSPFv2/ECMP, Static
IPv6 Routing	RIPng, OSPFv3, Static
Multicast Routing	PIM-SM, IGMP, IGMP-Snooping
OpenFlow Support	
Open vSwitch	Ver. 1.9
MPLS over OVS	Yes
GRE tunneling	Yes
Physical & Environmental Specifications	
Size (inches)	1.70 (H) x 17.25 (L) x 18.6 (D)
Weight (lbs.)	21.25
MTBF (hours)	226,555
Air Flow	Front to back
Hot-swappable Redundant Power	Yes
Power Draw (Watts)	230
Input Voltage / Frequency	100-240V AC / 50-60 Hz
Operating Temperature	50 to 122°F (10 to 50°C)
Operating Humidity	80% max. relative humidity
LEDs	Port Status (green) & Activity Status (blinking)
Regulatory Compliance	
Emissions	FCC, CE, VCCI-A, CCC, KCC, BSMI
Safety	UL, CE
RoHS	Yes