NEC ProgrammableFlow

UNIVERGE PF5820

Product Benefits

• Deployed together with the NEC ProgrammableFlow Controller, the PF5240 delivers extensive network virtualization, multipath, security, and programmability capabilities.

• 1.2 Terabits per Second (1280Gbps) non-blocking bidirectional throughput in a 1U form factor.

• 48x SFP+ ports that operate at 10GbE or Gigabit speeds.

• 4x QSFP+ ports that operate at 40GbE or as 16 additional 10GbE ports

• QSFP/SFP+ Direct Attach (twinax) Cables provide the flexibility needed for 10GbE or 40GbE networking at a very affordable price.

• All ports non-blocking 40GbE or 10GbE with low deterministic latency.

• Two airflow options (front-to-rear or rear-to-front) allow for flexible mounting of the switch in a server rack or datacom rack.

• Variable speed fans automatically reduce power consumption.

• The switch also has a special mounting kit, allowing it to be mounted vertically or horizontally in a rack.

Business Benefits

• Reduced TCO - OpenFlow Dramatically reduces network operation costs by eliminating the need for traditional distributed protocols such as Spanning Tree and OSPF

• Investment Protection - By decoupling network services from the hardware operating system, ProgrammableFlow protects customer investment in internal business process and know how.

• Programmability – the PF5820 enables the quick development and deployment of OpenFlow based service, at a fraction of the cost of 10G network appliances

• High performance - This 10G/40G low latency switch provides the best combination of low latency, non-blocking line-rate switching and ease of management.

• Higher Availability – ProgrammableFlow provides 8-way multipath for higher availability and improved cross sectional network bandwidth

• Lower Power and Better Cooling –Unlike side-cooled switches which can cause heat recirculation and reliability concerns, the PF5820's cooling design reduces data center air conditioning costs.

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At a Glance

Performance
• 100% Line rate performance
• 1280 Gbps non-blocking switching throughput (full duplex)
• 960Mpps

Hardware Features
Models
• NEC Univerge PF5820F (for front-to-rear cooling)
• NEC Univerge PF5820R (for rear-to-front cooling)

Interface Options
• 48 SFP+ Ports
• 4 QSFP+ Ports
• 1x10/100/1000 Ethernet RJ45 port for out of band management
• 1 USB port for mass storage device connection
• 1 mini-USB Console port for serial access
• Server-like port orientations enables short and simple cabling

Dimensions
• 17.3" wide, 19.0" deep, 1 RU high

Weight:
• 9.98kg (22 lb)

Rack Installation Kit
• Versatile 4-post mounting options for 19" server rack or datacom rack
• Can be mounted vertically or horizontally

LEDs
• System LEDs to indicate status
• LEDs to indicate Master/Member

Airflow
• Front-to-rear or rear-to-front cooling
• Redundant variable speed fans for reduced power draw

Power
• Dual load-sharing hot swap internal power modules, 50-60Hz, 100-240 VAC auto-switching per module.
• Typical Power consumption of 330 Watts

Environmental Specifications
Temperature
• Ambient operating: 0ºC to +40ºC

Relative humidity
• Non-condensing, operating 10 to 90%

Altitude
• Operating 3,050 m (10,000 feet)

Heat dissipation
• 1127 BTU/hour (typical)

Mean Time Between Failures (MTBF)
• 165,990 hours @ 40°C ᵢ

OpenFlow Support
• OpenFlow Protocol 1.0
• 80K+ Layer 2 Flows
• 750 12 tuple table

Monitoring
• Port Mirroring
• ACL-based mirroring
• SFlow version 5

Clients
• isCLI (Cisco-like)
• Scriptable CLI
• Browser-based client or telnet

Upgrades
• Upgrade firmware via serial or TFTP
• Dual software images

Interfaces
• B02036-00N11 - 1000BASE-T SFP Copper Transceiver
• B02036-00N12 - 1000BASE-SX SFP module
• B02036-00N13 - 1000BASE-LX SFP module
• B02036-00N15 - 10GBASE-SR SFP+ module
• B02036-00N16 - 10GBASE-LR SFP+ module
• B02036-00N17 - 10GBASE-ER SFP+ module
• B02036-00N21 - 40GBASE-SR4 QSFP+ module
• B02036-00Y11 - SFP+/SFP+ DAC Cable(1m)
• B02036-00Y12 - SFP+/SFP+ DAC Cable(3m)
• B02036-00Y13 - SFP+/SFP+ DAC Cable(5m)
• B02036-00Y14 - SFP+/SFP+ DAC Cable(8.5m)
• B02036-00Y21 - QSFP+/QSFP+ DAC Cable(1m)
• B02036-00Y22 - QSFP+/QSFP+ DAC Cable(3m)
• B02036-00Y31 - QSFP+/SFP+x4 Breakout DAC Cable(1m)
• B02036-00Y32 - QSFP+/SFP+x4 Breakout DAC Cable(3m)
• B02036-00Y33 - QSFP+/SFP+x4 Breakout DAC Cable(5m)

Repair Parts
• B02036-00F11 - PF5820F AC PSU repair part for PF5820F-64XW-BDL
• B02036-00F21 - PF5820F Fan repair part for PF5820F-64XW-BDL
• B02036-00R11 - PF5820R AC PSU repair part for PF5820R-64XW-BDL
• B02036-00R21 - PF5820R Fan repair part for PF5820R-64XW-BDL
• B02036-00Z11 - 19" EIA 4-Post Rail Kit
• B02036-00Z21 - Console connection kit
• B02036-00Z32 - AC power cable (for US)