DASR-800 Switch Router Appliance

DASR-800 is designed for high-capacity advance packet processing applications for data center and carrier.

- Completely programmable, high speed data path
- L2-L7 classification capabilities
- Ultimate scalability for stateful flow processing up to 10s millions of flows
- 400Gbps encryption/decryption

Deep packet processing

QoS for differential service, metering for billing, SLA to meet latency and jitter, firewall, load balancing, encryption, tunneling, VPN gateway.

Forwarding engine

Openflow 1.4 support with external Software Defined Networking (SDN) controller.

Broadband aggregation to deliver "any-play" services

Designed to manage millions of individual flows or hundreds of thousands of flow modification per seconds.

RAN backhaul

Can be deployed as mobile backhaul transport for Radio Access Network (RAN). Hardware supports synchronized Ethernet and IEEE1588 packet timing protocols.

Scale out edge/PE router

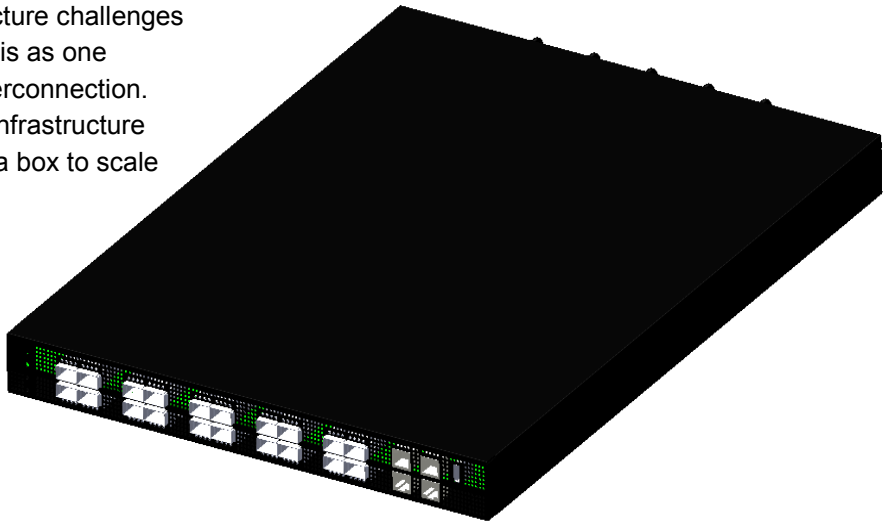
Designed to meet the bandwidth and architecture challenges of the future. It can be scaled out to 32 chassis as one logical router with inexpensive DAC/AOC interconnection. There is no need to invest the large chassis infrastructure hardware up front. Just adding an extra pizza box to scale out.

Data center Intelligent switch/ router

When integrated into SDN data center switching fabrics it can be used as a TOR switch, spine switch, and/or as a WAN gateway connecting to service providers.

Key Features

- Up to 2.0 Tbps I/O and switching bandwidth
- Up to 1.2 Tbps line-rate non-blocking deep packet processing bandwidth
- 20 multi-rate ports, 40/100G QSFP28 port (each port can be breakout into 4 10/25G ports or 2 50G ports)
- Up to 2 NPU modules each with EZchip NPS-400 Network Processor and optional external TCAM.
- Industrial standard CPU module
- Rack space optimized 1RU form factor for data center application
- Full NEBS L3 compliant 2RU form factor for carrier application



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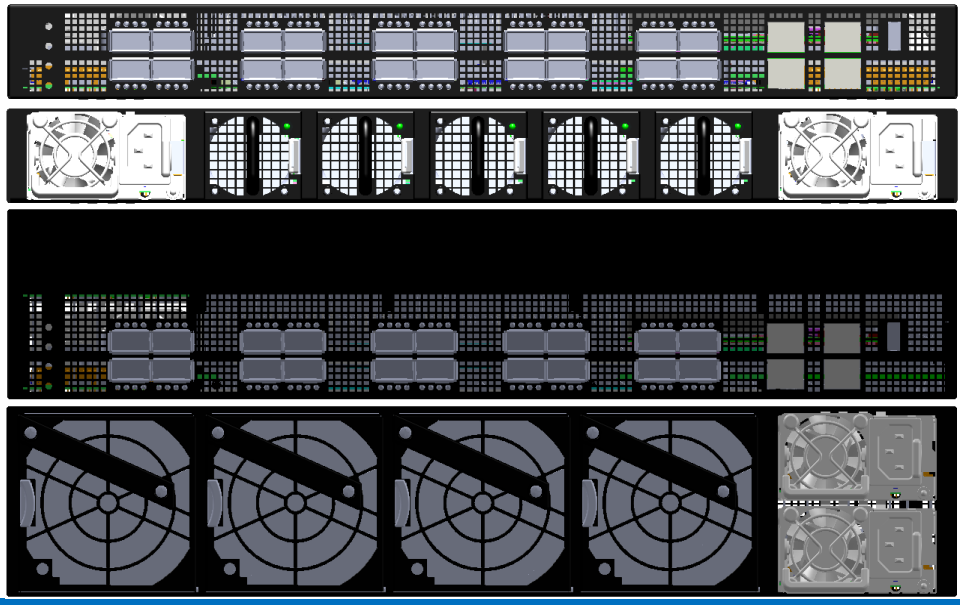

Technical Specification

Ordering Information

Base System

20 ports 100G QSFP28 supporting 40/100Gps or 80 ports 10/25Gbps with breakout cables

Up to 2 NPU modules with EZchip technology

COM express type 6 CPU module basic form factor - Intel Gen 6 i7 2.7GHz, 8 cores, 32GB DDR4 SODIMM 1600MHz with ECC

Broadcom Tomahawk switch ASIC

BMC AST 2520

Dual RJ45 Ethernet management port

Console RJ45 port

Ethernet RJ45 BMC port,

USB 3.0 Type A port

Synchronization Option

Hardware support for phase and frequency reference from any physical port via SyncE and IEEE1588 (slave, boundary and transparent clock mode)

Field upgradeable Units

NPU module, CPU module

Hot Swappable Units

1+1 hot swappable 1200W AC/DC redundant power modules

5 hot swappable 40mm fan trays (1RU)

4 hot swappable 80mm fan trays (2RU)

Physical

1RU 19" standard Rack mount system with optional rack kit (131mm height x 482mm width x 600 depth)

2RU 19" standard Rack mount system with optional rack kit (260mm height x 482mm width x 600 depth)

Weight 30kg without NPU module

Environmental

Operating 5 to 40°C (1RU)/0 to 50° C (2RU), 10 to 85% non-condensing

Storage temperature 0 to 70°C, 5 to 95% non-condensing

Max. power consumption: 1200W

Acoustic 78dB at 27°C

S/V Operating (half sine) 0.53 m/sec 0.35 Grms from 3 to 500 Hz

S/V Non-operating (trapezoidal pulse) 20 G, 1.32 m/sec 1.0 Grms from 3 to 500 Hz

Regulatory

Safety

EN 60950-1, UL/CSA 60950-1, IEC 60950-1

Emissions

AS/NZS CISPR 22: Class A, ICES-003, Issue Class A, EN 55022: Class A, VCCI Class A, FCC CFR 47 Part 15, Subpart B Class A, CCC

Immunity

EN 300 386, EN55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-5, EN 61000-4-6, EN61000-4-8, EN61000-4-11

Compliance

Hazard Material

EU RoHS 6 compliant

China RoHS compliant

Certification

Japan: VCCI V3/2009 Class A

USA: FCC CFR 47 Part 15, Subpart B:2009, Class A

US Trade Agreements Act (TAA) compliance

VPAT compliant

FIPS 140-2 and USGv6 L2 certifications

USGv6 L3 certification

NAL certification for China regulatory compliance

NEBS Level 3 compliance (for 2RU option)

Firmware/Software

All firmware are field upgradeable.

BIOS AMI Aptio UEFI

BMC AMI codebase with DNI's customization, IPMI2.0, Hardware event log

Grub2.0 bootloader

ONIE

Linux CenOS/Unbuntu with necessary device drivers

vSwitch, KVM

Offline diagnostic, Call home feature

SDN Application Software

Operates as an OpenFlow switch via bundled or 3rd party provided OpenFlow switch software.

Industry's most extensive OpenFlow 1.3/1.4 implementation including all required and optional match fields, instructions and actions required for an OpenFlow-Only switch

Supports up to 1 million TCAM-based flow entries with wild card and priority matching in up to 28 tables, e.g. IP prefix matching

Supports up to 3 million exact match flow entries in up to 28 tables, e.g. L2 forwarding

User configurable (width and offset) IP or UDP payload match fields and set fields via OpenFlow Experimenter extensions

Fully programmable OpenFlow packet processing pipeline where any match field(s), instructions and actions may be used in any table

Up to 12,000 flow-mods/sec

Supports all OpenFlow 1.4 group table types: all, select, indirect and fast failover

Up to 4096 OpenFlow meters with drop or DSCP remark of metered packets

Supports OpenFlow 1.4 PBB, VLAN, MPLS push/pop and MPLS L2 VPN, L2 GRE and VxLAN encapsulation/ decapsulation through OpenFlow experimenter extensions

Supports BFD Link Monitoring as liveness mechanism for OpenFlow group table type fast failover

Extensive set of O&M features, including a powerful CLI, OF-Config 1.2, TACACS+, RADIUS and SNMP alarms