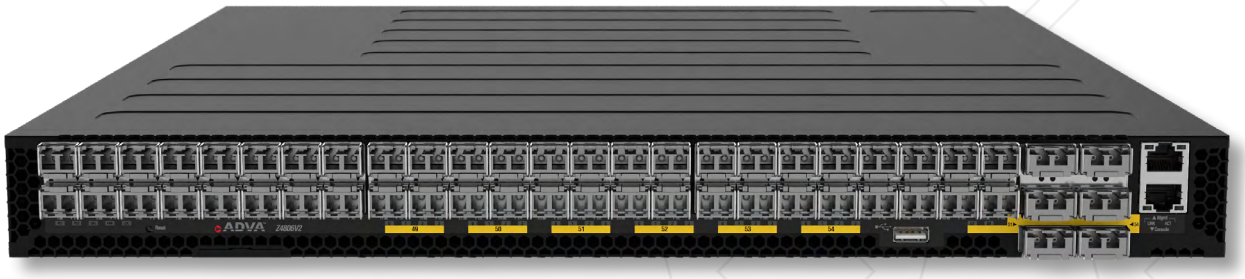
FSP 150-Z4806V2

100G multi-technology platform for aggregation of edge data center services

The number of small data centers at the network edge is continuously growing. New applications and technologies, such as over-the-top video and the proliferation of IoT, require content and data computing to be as close as possible to end users. Server-based virtual network functions are also replacing traditional equipment at central offices. Our FSP 150-Z4806V2 is an innovative edge aggregation solution designed to work in this new environment empowered by the ADVA Ensemble Activator network operating system.

Our FSP 150-Z4806V2 is a 100GbE aggregation solution that provides high-capacity aggregation for flexible delivery of advanced end-to-end SLA-based MEF 3.0 CE services, as well as aggregating advanced data center services. Its outstanding flexibility, capacity and hierarchical QoS capabilities make it ideal to aggregate high-bandwidth data center traffic. It can scale and accommodate many 10Gbit/s and 100Gbit/s Carrier Ethernet services and tunnel the traffic to the data center, while keeping cost, space and power consumption at a minimum. The FSP 150-Z4806V2 connects major business sites with private and public clouds, managing data traffic into and out of the edge of cloud networks. It also provides high-capacity connectivity services to multi-tenant locations where space and power are at a premium.



Your benefits

- **High-capacity business services**
  Meeting bandwidth demand of cloud-centric networks with EVPL and VPLS L2 VPN connectivity
- **Comprehensive data center feature set**
  Termination of L2 Carrier Ethernet traffic and tunnels
- **Industry-leading design**
  Achieving high-capacity edge demarcation and aggregation with smallest footprint and lowest power consumption
- **Automated provisioning**
  Standard, open interfaces for central control and resource abstraction in line with MEF LSO architecture
- **Versatile solution**
  Hierarchical QoS and multi-layer OAM for a wide range of applications
- **Highly resilient architecture**
  Protecting services against network or device failures as well as fiber breaks with multiple resilience mechanisms

High-level specifications

Switching capacity

- 1.6Tbit/s (800Gbit/s full duplex) switching capacity
- Front panel ports: 48x 10GbE ports plus 6x 40G/100G ports (any combination up to 800Gbit/s total capacity)

Ethernet Layer 2 services

- Highly scalable and resilient Layer 2 solution
- MEF E-LINE, E-TREE, E-LAN, E-ACESS services
- VSI support
- E-LINE/VPWS, E-LAN/VPLS services, statics labels

Data center services

- IP forwarding with IS-IS and OSPF and BGP routing
- Equal cost multi-path (ECMP)
- Virtual router redundancy protocol (VRRP)
- VxLAN tunneling and termination

Advanced service capabilities

- HQoS with advanced policing and scheduling mechanisms
- NETCONF/YANG open control
- Egress hierarchical shaping and scheduling; ingress hierarchical policing MEF per 10.3
- Counters per shaper

Advanced Ethernet OAM

- Automated service activation and testing (RFC-2544)
- Link trace for fault analysis
- IEEE 802.3ah/ITU-T G.8021 PHY level monitoring
- Y.1731 delay measurements
- Multi-CoS monitoring on EVCs

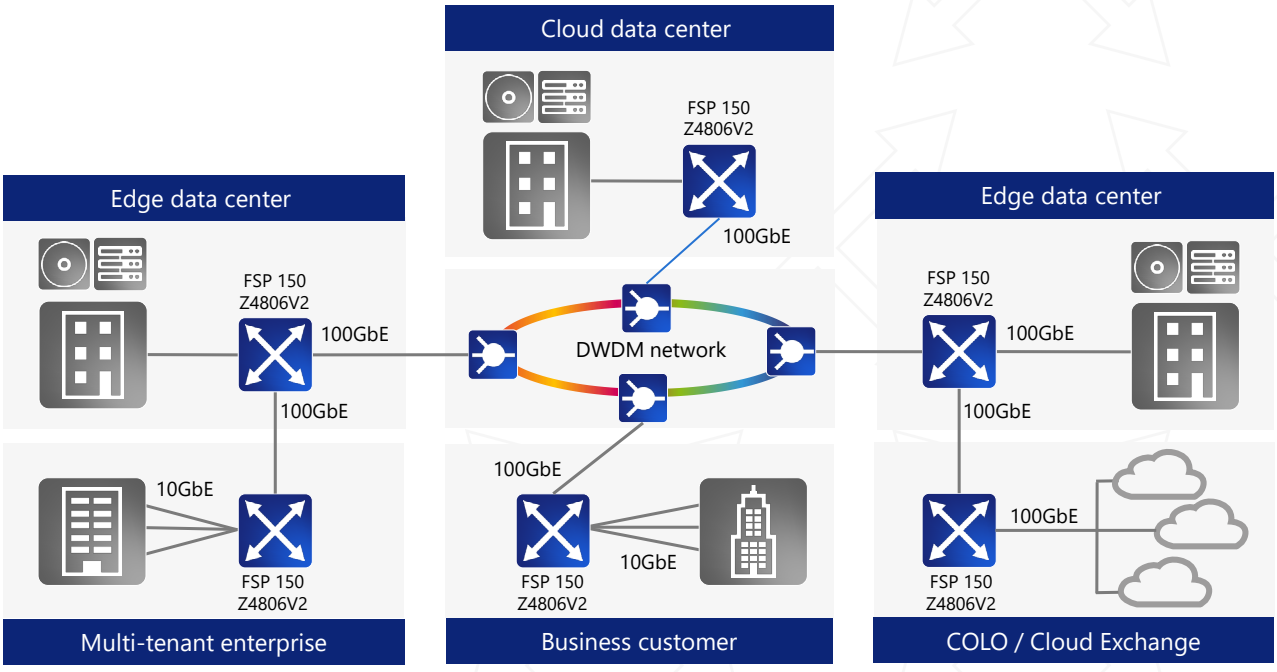
Environmental specifications

- 1RU chassis
- Operating temp.: 0°C to 40°C
- Storage temp.: -40°C to 70°C
- Redundant dual hot-swappable AC and/or DC power supplies

Applications in your network

Connectivity at edge data centers and overlay connectivity among data centers

- Aggregation of high bandwidth, SLA-based MEF 3.0 CE and IP services at edge data centers
- High-capacity, multi-cloud interconnect at cloud exchange peering points
- Interconnect data centers using tunneling technologies such as VxLAN



For more information please visit us at www.adva.com

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Product specifications are subject to change without notice or obligation.

Switching capacity and ports
- 1.6Tbit/s (800Gbit/s full duplex) switching capacity
- Front panel ports:
  - 48 x 10Gbit/s SFP+ ports and
  - 6x 40G/100G QSFP28

Chassis features
- Serial Console
- Out of Band Ethernet Management port with LEDs
- 5+1 replaceable 12V FANs
- 1+1 Hot swap AC or DC Power supplies with power consumption and temperature indications
- One LED per traffic port
- 4 System LEDs
- USB 2.0
- 19“ Rack mount

Services
- E-LAN services
- E-LINE services
- Multiplexing
- Bundling
- All-to-one Bundling
- VxLAN termination and tunneling
- L2 VPN
- IP routing

Layer 1
- SFP digital diagnostics
- Jambo frames per port up to 9216 bytes
- Port mirroring

Layer 2 bridging
- Layer 2 transparent bridging
- Layer 2 MAC learning and switching by hardware
- Layer 2 aging
- Up to 250,000 MAC addresses per bridge domain
- Learning table limit per bridge domain
- Up to 700,000 MAC addresses per device
- Link aggregation
- Hash function according to type of packet for link aggregation: L2 header, L3 header, MPLS header
- Link aggregation control protocol (LACP) with minimum Links
- VLAN tag manipulation
- VLAN ranges
- All-to-one bundling
- G.8032 / Y.1344 ITU-T Ethernet ring protection switching (ERPS V2)
- Ethernet in the first mile (EFM)
- L2 control protocols (drop, forwarding or Cisco tunneling)
- L2 service loopback
- Jumbo frame support
- Port link reflection

Routing
- Wire-speed L3 forwarding
- Static routes
- OSPFv2/v3
- IS-IS
- BGP
- ECMP IPv4/IPv6
- VRRP
- Up to 700,000 IPv4 and 100,000 IPv6 per addresses device

EVPN
- EVPN over VxLAN
- EVPN over MPLS
- EVPN for BUM traffic, support over VxLAN and MPLS
- EVPN multi-homing
- EVPN MPLS multi-homing
- EVPN MPLS multicast routes

L3VPN
- L3VPN over MPLS
- VRF to VRF IPv4 communication across L3VPN
- OSPF PE-CE over L3VPN

Segment Routing
- MPLS with OSPF for IPv4
- MPLS with IS-IS for IPv4

Tunneling
- MPLS layer 2 VPNs, E-LAN,
  - LDP, RSVP, RSVP-TE
  - Static labels
  - BFD (for OSPF, ISIS, LDP, RSVP)
  - PING and traceroute
  - MPLS LSP PING and traceroute
  - MPLS PW VCCV PING
- VxLAN

Ethernet OAM
- Continuity Check Messages (CCMs)
- Delay Measurement Tests
- Loopback Tests
- Link Trace
- RFC-2544 Tests
- Y.1731 delay measurements

Management features
- Out-of-band management
- Inband management
- Management VLAN
- Command line interface (CLI) – through Serial, TELNET, or SSH connection (protocol versions 1 and 2)
- SNMP versions 2, and 3
- Openconfig YANG Data Modeling over NETCONF
- TACACS+ authentication, authorization and accounting
- RADIUS authentication and accounting
- Upload/download of configuration files using SCP server
- Copy-paste of configuration
- Time of day + time zone
- Internal syslog + remote syslog
- DHCP client, server and relay
- IPFIX
- Telemetry streaming

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HQoS

- Egress shaping per port / AC
- Ingress policer per port / AC
- Strict priority (SP) and weighted Round Robin scheduling mechanisms
- Statistics per port
- Statistics per AC interface
- Congestion-avoidance mechanism WRED

Additional protocols and features

- Linux Shell
- Domain name server (DNS) client
- Network time protocol (NTP)
- Link layer discovery protocol (LLDP)
- Multi chassis LAG MC-LAG

Environmental

- Dimensions (W x D x H): 435 x 515 x 43.84 mm (17.12 x 20.27 x 1.72 inch)
- Weight: 9.72 kg (21.42 lb), with two installed PSUs
- Operating temperature: 0°C to 40°C / 32°F to 104°F
- Storage temperature: -40°C to +70°C / -40°F to 158°F
- Humidity: 5% to 95%, non-condensing
- Power supply: 850WAC, 850WDC
- Typical power consumption: 450W

System Input Power Rating

- AC input 100 to 240 VAC, 50 to 60 Hz, 6 A maximum
- DC input –36 to –72 VDC, 28 to 14 A

Ordering Information Bundles

- F150/Z4806V2/BASE/2AC

Includes : Z4806V2 with dual AC PSU, power cords, 6 x Fan Tray modules, 19'' brackets, grounding kit and Serial console cable.

- F150/Z4806V2/BASE/2DC

Includes: Z4806V2 with dual DC PSU,6 x Fan Tray modules, 19'' brackets, grounding kit, Serial console cable and ring lugs.

Spare parts

- F150/Z4806V2/PSU/AC
- F150/Z4806V2/PSU/DC
- F150/Z4806V2/FAN

Compliance

- Safety: UL (CSA 22.2 No 60950-1 & UL60950-1)

CB (IEC/EN60950-1)
BSMI Class A, CNS 14336-1

- Immunity: EN 55024:2010+A1:2015

IEC 61000-4-2/3/4/5/6/8/11

- Emissions: EN 55032:2015+AC:2016, Class A

EN 61000-3-2:2014, Class A
EN 61000-3-3:2013
FCC Class A
VCCI Class A
CE Mark
BSMI Class A, CNS 13438

- Taiwan RoHS: CNS 15663

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