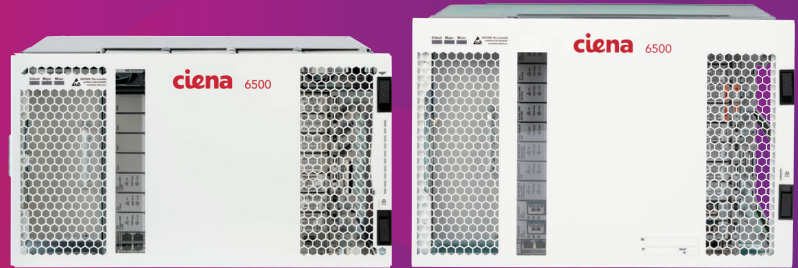


**DATA SHEET**

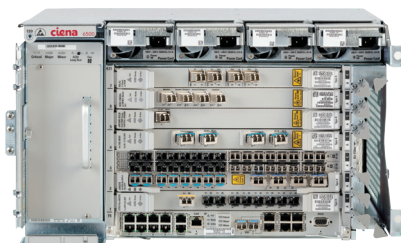
**6500-D7/S8**  
6500 Packet-Optical Platform



Designed for modernized network applications, the 6500-D7/S8 configurations converge comprehensive Ethernet, TDM, and WDM capabilities with packet/OTN switching and an intelligent control plane for cost-effective delivery of services.

The 6500-D7/S8 configurations are compact shelves that support a wide range of service modules, enabling customized configurations for various business applications. To offer flexible, cost-efficient deployment options, the 6500-D7 is tailored for photonic/transponder applications combined with muxponder card-based packet/OTN switching, while the 6500-S8 is optimized for packet/OTN centralized switching deployments with the ability to tune for packet and/or OTN in any ratio.

**Cost-effective WDM configuration with ROADM**



6500-D7 Optical Type 2 with AC power

**Compact 600G Packet/OTN Switch**



6500-S8 Packet-Optical with DC power

Figure 1. Service diversity and flexibility with the 6500-D7/S8

**6500-D7 Optical Type 2**

The 6500-D7 Optical Type 2 is a 6RU chassis offering integrated AC and DC powering options. When equipped with AC powering, it fits perfectly in enterprise applications, such as data centers, where only AC power is available. By using a Shelf Processor (SP) equipped with integrated Optical Service Channel (OSC) capabilities, customers can optimize shelf capacity for cost-effective service transport over a full range of photonic

**Features and Benefits**

- Provides cost-optimized configuration options for efficient transport of flexible services over 2.5G to 200G wavelengths via a wide range of interchangeable circuit packs
- Enables simplified operations and reduced sparring costs through seamless networking flexibility with the entire 6500 Family, with one software load, one management system, and reusable cards across the various shelves
- Leverages AC and DC powering options for a perfect fit into various customer environments
- Supports both muxponder- and central fabric-based Optical Transport Network (OTN)/packet switching solutions, enabling cost-optimized configurations for specific service connectivity requirements
- Offers industry-leading 10G, 40G, and 100G coherent and intelligent control plane capabilities for scale and service differentiation
- Utilizes field-replaceable common equipment units, ensuring no service impact during failures for improved network availability and customer satisfaction

and transponder applications from 2.5G to 200G. Additional flexibility is enabled via modules that offer fully integrated packet switching within transport, and card-based packet/OTN switching hardware is available for solutions that require simple point-to-point connectivity.

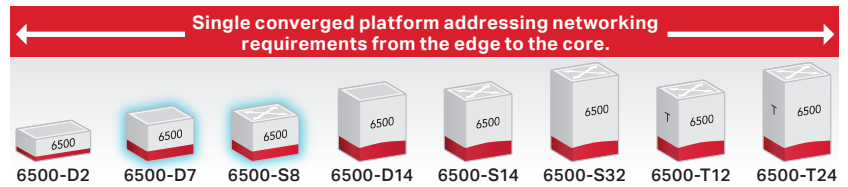


Figure 2. 6500 Family

## 6500-S8 Packet-Optical

The 6500-S8 Packet-Optical chassis is optimized for switching at low-density sites, enabling customers to extend their meshed networks closer to the edge. This chassis provides 600G of integrated packet/OTN switching capacity, via 100G per slot density, for the most efficient use of network resources. Additionally, SP redundancy is available ensuring node/service availability. Ciena's OTN OneConnect intelligent control plane can be leveraged to increase network availability and guarantee strict customer Service Level Agreements (SLAs). This chassis can also be used for photonic and broadband applications, enabling customers to standardize on a single platform that meets all of their networking needs.

The 6500-D7 and 6500-S8 are part of the 6500 Family, which offers multiple chassis form factors to provide flexible, cost-optimized configurations to best match site-specific requirements. The 6500 Family uses one software load, one management system, and reusable cards with pluggable optics for reduced standardization cycles, reduced sparing expenses, and simplified network operations. The 6500-D7/S8 configurations adapt to a wide variety of requirements, enabling cost-effective delivery of TDM, Ethernet, and flexible services across the network over 2.5 to 200G wavelengths for the most efficient use of network bandwidth.

## Technical Information

Shelf Variants	6500-D7 Optical Type 2	6500-S8 Packet-Optical
Power Options	DC breakered/fused Max 50A 110/240V AC	DC breakered/fused Max 50A DC breakered/breakerless/fused Max 60A DC breakered/fused Max 40A (Broadband/Photonic)
Central Fabric Switching Capacity	N/A	600G Packet/OTN switching
Number of service card slots	7	6 for Packet/OTN switching or Broadband applications 8 for Photonic applications
Supported service interface cards Packet/OTN switched modules	N/A	10x10G PKT/OTN 1x100G + 2x40G PKT/OTN 100G DWDM PKT/OTN 40G DWDM PKT/OTN 16x2.7G OTN 48xGbE
Photonic Modules Transponders/Muxponders	Full suite of amplifiers, passive filters, 50GHz, 100GHz, flexible grid ROADMs, Colorless, Directionless, Contentionless Coherent 100GE/OTU4 transponder Coherent 100G muxponder (10x10G) Coherent 100G/150G/200G line cards: metro, regional, long haul, ultra long haul, enhanced PMD, submarine FIPS-certified AES-256 wire-speed coherent 100G/200G encryption solution Coherent 200G client card: 2x100GE or 5x40GE/10GE Coherent 100G client cards: 10x10GE, 10x10G multi-rate, 2x40G+2x10G, 100GbE/OTU4 client Coherent 40G line cards: metro, regional, long haul, ultra long haul, enhanced PMD, submarine, colorless Coherent 40G client cards: 4x10G multi-rate, 40G multi-rate 4x10G multi-rate OTR with FIPS-certified AES-256 wire-speed encryption SONET/SDH 10G ADM-on-a-blade: SuperMux Ethernet: 152G eMOTR, 68G eMOTR Edge, 30G L2MOTR OTN modules: 8-port OTN Flex MOTR (2.7G), 1+8 port OTN Flex MOTR (10G)	
Environmental Characteristics	Operating Temperature +41° F to +104° F (+5° C to +40° C) +23° F to +131° F (-5° C to +55° C) short term Relative Humidity 5% to 85% (non-condensing) Earthquake/seismic Zone 4	
Physical Dimensions	10.5 in (H) x 17.3 in (W) x 11.1 in (D) 267 mm (H) x 441 mm (W) x 281 mm (D)	12.2 in (H) x 17.3 in (W) x 11.1 in (D) 310 mm (H) x 441 mm (W) x 281 mm (D)