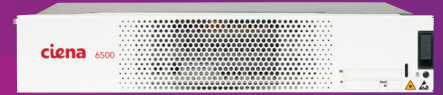**DATA SHEET**

6500-D2
6500 Packet-Optical Platform

Tailored to address enterprise business requirements at the edge, the 6500-D2 Packet-Optical Platform is a compact 2RU chassis that cost-effectively extends the flexibility and resiliency of the 6500 platform from the core to the access.

The 6500-D2 is a 2RU chassis composed of two service card-carrying slots enabling customized configurations for the strictest connectivity requirements at the access edge. The 6500-D2 offers AC and DC powering options, providing flexibility to meet customer premises power requirements, as well as backplane connectivity between the service card slots offering increased scalability and service resiliency options. Additionally, its small footprint and light weight enable field installation by a single person at locations with limited real estate.
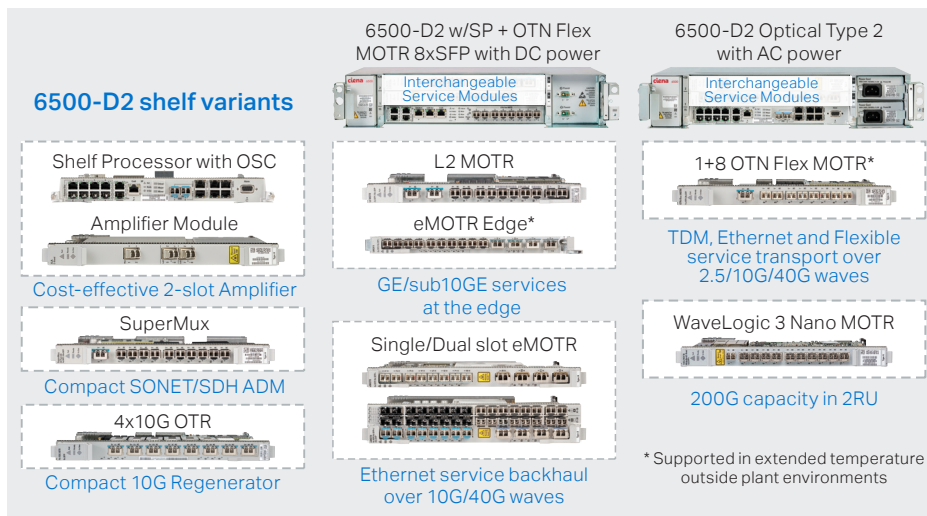
Features and Benefits

- Provides cost-optimized configuration options for efficient transport of flexible services over 2.5G, 10G, 40G and 100G wavelengths via interchangeable circuit packs or integrated in-skin service ports

- Supports a wide range of service modules, enabling efficient multiprotocol service transport for various business applications, including Ethernet business services, transparent wavelength services, and wireless backhaul

- Offers a cost-efficient optical line amplifier solution designed for photonic infrastructures with small footprint requirements

- Enables simplified operations and reduced sparing 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 in a compact 2RU footprint for a perfect fit into customer premises locations

- Offers field-replaceable common equipment units, ensuring no service impact during failures for improved network availability and customer satisfaction

- Expands the reach of the access network with a compact Outside Plant GR-3108-CORE compliant solution

Figure 1. 6500-D2 Flexible configurations for various small office applications

To offer flexible, cost-optimized deployment options, the 6500-D2 chassis comes in two variants.

6500-D2 with Integrated Shelf Processor (SP) and OTN Flex MOTR 8xSFP

The 6500-D2 with SP + OTN Flex MOTR 8xSFP is equipped with built-in SP, access panel, and 8 integrated SFP ports offering functionality equivalent to that of the OTN Flex MOTR 8xSFP circuit pack. The chassis comes with fixed AC or DC powering options, and provides the lowest first-in cost offering for sub 2.5G client services, including GE, OC-3/12/48, FC100/200, for transport over a 2.7G OTU1 line rate.

6500-D2 Optical Type 2

The 6500-D2 Optical Type 2 chassis supports field-replaceable fans, SP, and AC/DC power input cards for improved network availability, as common equipment card failures can be replaced without impacting existing services. By using a SP equipped with integrated Optical Service Channel (OSC) capabilities in conjunction with an amplifier module, customers can leverage a cost-effective, two-slot Optical Line Amplifier (OLA) configuration. Additionally, this version of the chassis is cost-optimized for applications that require line rates of
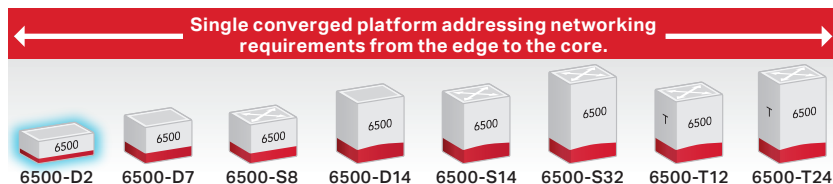

Single converged platform addressing networking requirements from the edge to the core.

6500-D2 6500-D7 6500-S8 6500-D14 6500-S14 6500-S32 6500-T12 6500-T24

Figure 2. 6500 Family

10G or higher, supporting 200G of capacity when deploying a 100G muxponder card. Outside Plant deployments are also supported in this chassis variant enabling TDM, Ethernet and flexible service transport over 2.5/10G/40G wavelengths.

The 6500-D2 is 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 across the various shelves for reduced standardization cycles, reduced sparing expenses, and simplified network operations. Designed for the network edge, the 6500-D2 adapts to a wide variety of requirements, enabling cost-effective delivery of TDM, Ethernet, and flexible services across the network over 2.5G, 10G, 40G and 100G wavelengths.

Technical Information

Shelf Variants		6500-D2 w/SP + OTN Flex MOTR 8XSFP	6500-D2 Optical Type 2
Power Options		110/240V AC, -48V/60V DC	110/240V AC, -48V/60V DC and +24V DC
Shelf Processor (SP) Variants		N/A	SP w/access panel (SPAP) SP w/access panel (SPAP-2) w/2xOSC 2xSFP
Inter-slot Backplane Bandwidth		20 Gb/s	40 Gb/s
Supported service interface cards	Photonic Modules Transponders/ Muxponders	Full range of amplifier modules Coherent 100GE/OTU4 transponder Coherent 100G muxponder (10x10G) 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 ADM: Supermux Ethernet: 152G eMOTR, 68G eMOTR Edge (extended temperature), 30G L2MOTR OTN modules: 8-port OTN Flex MOTR (2.7G), 1+8 port OTN Flex MOTR (10G) - includes uncontrolled OSP Class 2 GR-3108-CORE variant	
Environmental Characteristics	Operating Temperature Relative Humidity Altitude Earthquake/seismic	+41° F to +104° F (+5° C to +40° C) +23° F to +131° F (-5° C to +55° C) short term -40° F to +149° F (-40° C to +65° C) uncontrolled OSP Class 2 GR-3108-CORE 5% to 85% (non-condensing) 13,000 ft; 4000 m Zone 4	
Physical Characteristics	Physical Dimensions	3.5 in (H) x 17.5 in (W) x 11.1 in (D) 89 mm (H) x 443.2 mm (W) x 281 mm (D)	