7100 Pico™ Packet Optical Transport Platform
Compact, Flexible, and Service-Enabling Solution for Metro Networks

EXTENDING THE POWER OF PACKET OPTICAL TO THE METRO EDGE
As customer requirements evolve and new applications drive the need for increased flexibility and scalability, service providers must maximize service capabilities and network efficiencies at the edge of the network without incurring the costs and complexity of overlay networks or point-to-point solutions. With thousands of systems installed worldwide, the Coriant® 7100 Series, including the Coriant® 7100 Optical Transport System (OTS), the Coriant® 7100 Nano™ Packet Optical Transport Platform, and the Coriant® 7100 Pico™ Packet Optical Transport Platform, offers proven solutions for packet optical network challenges. The 7100 OTS and 7100 Nano lead the metro packet optical transport market in flexibility, scalability, and manageability. The Coriant® Pluggable Optical Layer extends the multi-service traffic capabilities and robust feature set of the 7100 platforms. As an integral part of the 7100 solutions portfolio, the 7100 Pico enables service providers to cost effectively extend powerful packet optical flexibility to the network edge – expanding service capabilities and reducing total cost of ownership.

DELIVERING INDUSTRY-LEADING SERVICE FLEXIBILITY IN A SMALL FORM FACTOR
In a highly compact 2RU footprint, the 7100 Pico supports all of the latest 7100 services modules. These modules include 10G and 100G transponders and muxponders, the OMM-X OTN ADM on-a-blade, and the high-density, feature-rich packet switching module – the PSM-1S. Leveraging an innovative system design with no centralized shelf processor, the 7100 Pico harnesses the processor of each intelligent services module for a truly distributed processing architecture. This approach ensures the lowest initial cost and greatest resiliency while maximizing flexibility and enhancing system scalability. Along with the Pico shelf and the Pluggable Optical Layer, the 7100 Series provides a complete world-class metro transport solution from the core of the metro transport network all the way to the very edge.

OPTIMIZING NETWORK APPLICATION OPPORTUNITIES
With integrated OTN encapsulation and Enhanced Forward Error Correction (EFEC) on every line side interface, the 7100 Pico supports advanced multi-channel DWDM solutions and simple grey light point-to-point and ring configurations. This formidable combination of features enables cost-effective deployment of the 7100 Pico as a stand-alone network solution or as a seamless extension to any existing Coriant 7100 OTS, Coriant® mTera® Universal Transport Platform, or Coriant® hiT 7300 Multi-Haul Transport Platform network. The 7100 Pico can also serve as an aggregation device for the Coriant® 7090 Packet Transport Platform and Coriant® 8600 Smart Router Series.

BENEFITS OF THE CORIANT® 7100 PICO™ PLATFORM
- Delivers powerful packet optical flexibility to the metro edge
- Supports easy upgrade of existing SONET/SDH rings to OTN rings
- Enables high-speed data center connectivity
- Facilitates efficient, scalable mobile backhaul
- Optimizes metro networks with the Coriant® Pluggable Optical Layer
- Provides enhanced transport and delivery for business and enterprise services
In addition to enabling a range of new services at the edge of the packet optical network, the 7100 Pico offering is further enhanced by Coriant’s innovative approach to Software Defined Networking (SDN) and Network Functions Virtualization (NFV). The Coriant Dynamic Optical Cloud™ Solution, which encompasses the 7100 Pico, combines a flexible transport infrastructure, dynamic network control based on the Coriant Transcend™ SDN Solution, and integrated network planning to create a powerful toolkit for multi-layer network efficiencies and next-generation service innovation in the new networked world.

Building upon the industry-leading flexibility and scalability of the 7100 Pico, the Pluggable Optical Layer offers a revolutionary extension of the 7100 Series by leveraging the advantages of compact pluggable modules to customize metro optical network deployments for metro edge, metro transport, and data center interconnect transport applications. The Pluggable Optical Layer supports a broad range of metro network topologies and configurations (e.g., point-to-point, ring, ROADM spur), and helps service providers protect their investment by enabling seamless and non-disruptive upgrade to full ROADM capabilities without sacrificing footprint, power consumption, or cost effectiveness. By providing the ability to mix and match different components, service providers can customize metro optical network deployments and pay only for required functionality. The Pluggable Optical Layer is supported on the 7100 Pico and the 7100 Nano. Key benefits include:

- **Enable flexibility** to address any metro network design requirement
- **Leverage pay-as-you-grow scalability** for cost-efficient growth with easy introduction of in-service wavelengths
- **Simplify network evolution** with seamless transformation from fixed DWDM to ROADM configurations
- **Reduce costs by up to 30 percent** compared to traditional approaches
- **Extend packet optical innovation** further to the edge of the metro network

![Figure 1: Coriant Pluggable Optical Layer Solution Set](image-url)
KEY APPLICATIONS FOR THE 7100 PICO
The 7100 Pico is the ideal solution for a wide variety of metro edge applications including:

- Improving overall network efficiency with packet optical capabilities
- Offering a highly compact and high-speed solution for efficient data center connectivity
- Enabling support for massive growth in residential and mobile bandwidth
- Upgrading existing SONET/SDH rings to OTN rings
- Providing enhanced high-speed enterprise services with integrated, cost-efficient CPE

**SONET/SDH RING UPGRADE**

**HIGH-SPEED DATA CENTER INTERCONNECT**

Seamless Transparent Upgrade to 10G OTN Rings

10G, 40G, 100G Grey or DWDM up to 88 Channels

Figure 2: 7100 Pico Enables Multiple Network Solutions
### TECHNICAL SPECIFICATIONS

#### Modules Supported
- OMM-X: OTN ADM on-a-blade
- HDTG2: High-density SFP+ 10G transponder module
- HGTM-S: Single slot CFP 100G transponder module
- HGTM-MS: Single slot CFP 100G muxponder module
- PSM-1S: High-density, feature-rich packet switch module

#### Interfaces and Redundancy
- OTU1, OTU2, OTU2e, OTU4
- 1GbE, 10GbE, 100GbE
- OC-3, OC-12, OC-48, OC-192
- STM-1, STM-4, STM-16, STM-64
- 1G/2G/4G/8G FICON, FICON Express
- 1G/2G/4G/8G/10G FC
- ESCON/SBCON
- InfiniBand
- 1G/2G ISC
- SD-SDI, HD-SDI, 3G-SDI, DVB-ASI
- Any generic rate 125 Mbps to 5 Gbps
- 1+1 redundancy on protected interfaces

#### Network
- 100% pluggable interfaces (SFP, SFP+, CFP)
- Grey light or DWDM line side interfaces
- Support for passive DWDM filters
- Up to 88 wavelengths at 10 Gbps and 100 Gbps
- Point-to-point or ring configurations
- Multiple protection and restoration options

#### Synchronization
- Transparent via OTN
- Synchronous Ethernet
- 1588v2

#### Management and Planning
- Direct and remote in-band via the OTN Generic Communications Channel (GCC)
- SDN support as part of the Coriant Dynamic Optical Cloud™ solution
- Coriant 7191 Craft Station
- Coriant 7196 Optical Planning Tool

- Coriant 8000 Intelligent Network Manager (INM)
- Coriant Transport Network Management System (TNMS)
- Coriant Transcend™ SDN Solution

#### Physical, Installation, and Power Options
- 436.9 x 87.9 x 285 mm or 17.2 x 3.46 x 11.2 in (W x H x D)
- 19-inch, 23-inch, and ETSI support
- AC and DC power options

#### Environmental
- GR-3160 compliant
- ETSI Class 3.1 compliant
- UL and CE compliant
- NEBS compliant
- VCCI certified
- Option for extended temperature range