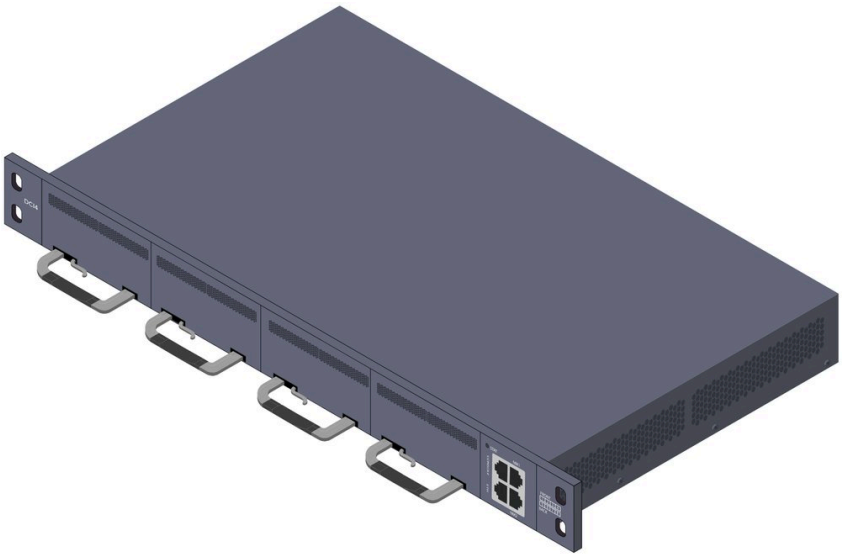
nex·gen

OTN SYSTEMS DCI PLATFORMS

OTN DCI Platform, 1U, 4 service slots

This 1U optoelectronic-integrated OTN DCI platform provides four service-card slots and one dedicated management slot, targeting high-density data center interconnection in space-constrained racks. It carries up to 800G per wavelength and 6.4 Tbit/s per subrack, with highly integrated optical-layer functions and configurable power/fan redundancy.



HIGHLIGHTS

Compact 1U interconnect

Four service-card slots deliver up to 6.4 Tbit/s per subrack and up to 32 Tbit/s per fibre pair on the C-band (400G × 80λ or 800G × 40λ), in a space-efficient 1U footprint for growing DCI links.

800G-ready, evolving further

Supports coherent line rates up to 800G per wavelength today (PDM-16QAM), on a platform designed to evolve toward 1.2T and 1.6T per wavelength.

Highly integrated optical layer

Consolidates OA, WSS, VOA, OSC, OTDR, OCM and OLP functions on the optical layer board, simplifying internal fibre connections and easing deployment.

Any-service, transparent access

Transparently transports Ethernet up to 400GbE, SDH/SONET, Fibre Channel up to 3200 and OTU1/2/2e/4, with hot-swappable, pluggable modular cards.

Efficient device-level resilience

Optical line, multiplex-section and channel protection combine with 1+1 CRPS power (AC/HVDC/DC) and 1+1 rear fan backup around a single, hot-swappable main control board.

FORMAT

DCI CHASSIS 4 SLOTS, 1U

SPECIFICATIONS

<table>
<tr><td>Rack Units</td><td>1U</td></tr>
<tr><td>Dimensions (H×W×D)</td><td>44 × 444 × 490 mm</td></tr>
<tr><td>Service Slots</td><td>4</td></tr>
<tr><td>Management Slots</td><td>1, dedicated to the NMC card, separate from the service slots</td></tr>
<tr><td>Maximum Power Consumption</td><td>< 550 W (typical)</td></tr>
<tr><td>Mounting</td><td>19-inch rack, 800 mm+ depth</td></tr>
<tr><td>Cooling</td><td>Front-to-back airflow, 1+1 hot-swappable fan backup</td></tr>
<tr><td>Power Input</td><td>AC 90–264V (100–130V / 200–240V rated) or DC -40 to -72V, AC and DC units combinable</td></tr>
<tr><td>Power Feed</td><td>Rear, standard CRPS power supply 1+1 backup</td></tr>
<tr><td>Maximum Capacity</td><td>6.4 Tbit/s per subrack · 32 Tbit/s per fibre pair (C-band, 400G × 80λ or 800G × 40λ)</td></tr>
<tr><td>Maximum Single-Channel Rate</td><td>800 Gbit/s (PDM-16QAM)</td></tr>
<tr><td>Line Rates</td><td>
<table>
<tr><th>RATE</th><th>MODULATION</th></tr>
<tr><td>10G</td><td>NRZ</td></tr>
<tr><td>100G</td><td>PDM-QPSK</td></tr>
<tr><td rowspan="3">200G</td><td>PDM-QPSK</td></tr>
<tr><td>PDM-8QAM</td></tr>
<tr><td>PDM-16QAM</td></tr>
<tr><td>300G</td><td>PDM-8QAM</td></tr>
<tr><td rowspan="2">400G</td><td>PDM-16QAM</td></tr>
<tr><td>PDM-QPSK</td></tr>
<tr><td>800G</td><td>PDM-16QAM</td></tr>
</table>
</td></tr>
<tr><td>Supported Services</td><td>Ethernet FE/GbE/10/25/40/100/400GbE (100GbE FlexE-unaware) · SDH STM-1/4/16/64 · Fibre Channel 100/200/800/1200/1600/3200 · OTU1/2/2e/4</td></tr>
<tr><td>Maximum Number of Wavelengths</td><td>120 waves, fixed 50 GHz grid</td></tr>
<tr><td>Channel Spacing</td><td>Fixed grid, 50/75/100/150 GHz</td></tr>
<tr><td>Frequency / Wavelength Range</td><td>190.7–196.65 THz / 1524.5–1572.06 nm</td></tr>
<tr><td>Network-Level Protection</td><td>Optical line protection (OLP) · optical multiplex-section protection (OMSP) · optical channel protection (OChP)</td></tr>
<tr><td>Device-Level Protection</td><td>Single hot-swappable NMC card · power supply redundancy per selected configuration · fan 1+1 · board-level 1+1 (select cards)</td></tr>
</table>

Network Management	CLI · Web LCT · SNMP · NETCONF/YANG · GUI (B/S architecture) · DCN over OSC
Operating Temperature	-5°C to +45°C (short term) · 0°C to +40°C (long term)
Operating Humidity	5–95%, non-condensing
Storage Temperature	-40°C to +70°C

ORDERING INFORMATION

NAME	OTN DCI Platform, 1U, 4 service slots
DESCRIPTION	OTN DCI platform, 1U 19-inch, 4 service slots and 1 dedicated management slot, rear power feed. High-density data center interconnection transport up to 800G per wavelength (6.4 Tbit/s per subrack, 32 Tbit/s per fibre pair) with 1+1 optical protection and CLI / Web LCT / SNMP / NETCONF / NMS management.
PART NUMBER	DCI-OTN[- **{NMC}**]-4S[- **{PSU}**]-1U

{NMC} M (single NMC card only - no 1+1 NMC redundancy on this 1U chassis). No control card is included by default if this segment is omitted.

{PSU}

CODE	MEANING
DC	One DC power supply unit
AC	One AC power supply unit
AD	One DC + one AC unit, mixed
2D	Two DC units, 1+1 redundant
2A	Two AC units, 1+1 redundant

Omit this segment entirely to order with no power supply fitted.

© Nexgen A/S, OTN DCI platform

nexgen.eu · customer.service@nexgen.eu