

Nokia 1830 PSS-24x 1T Uplink Card 4UC1T

The 1 Terabit programmable, high-performance Nokia 4UC1T uplink card provides an ideal solution for high-capacity applications over metro, regional, and long-haul networks. Based on Nokia's latest generation PSE coherent DSP, the 4UC1T utilizes Nokia's new CFP2-DCO pluggable line optics for enhanced reach, density and power consumption.

The 4-carrier uplink 4UC1T card is a member of Nokia's 1830 PSS-x family that is part of the Nokia 1830 Photonic Service Switch (PSS) portfolio. The 1830 PSS-x family of packet/OTN switches mate switching and photonic scale, delivering multi-terabit scale by leveraging the Nokia Transport Switching Engine (TSE) and the Photonic Service Engine (PSE). The 1830 PSS-24x platform is optimized for core and large metro packet/optical transport network (OTN) switching applications, placing industry-leading electrical switching scale at international/ national, regional and metro core network locations.



Benefits

- Flexible, programmable 100G to 400G coherent WDM lines
- Modular, compact CFP2-DCO line optics based on Nokia latest generation PSE-Vc technology
- Compact single slot size, 1 Tb/s capacity per slot
- Single or dual carrier operation
- Superior resiliency with line and channel protection

Applications

- High-capacity metro, regional, and long-haul applications
- Business services, wholesale services, and multiservice transport applications
- Beyond 100G applications with N x OTU4 and OTUCn line structure
- Large-scale grooming of sub-100G and 100G services on to efficient WDM
- Transport wavelength of 400GE client services

Product description

The 4UC1T is a programmable, 4-port uplink card for the PSS-24x platform with 1 Tb/s per slot switching capacity. The WDM line interface is based on the latest generation Nokia PSE-Vc coherent digital signal processor (DSP).

The 4UC1T is a single slot uplink card, with up to 24 cards supported per PSS-24x shelf. The card supports four flexible 100G-400G coherent WDM lines, configurable using modulation and baud rate profile. The WDM line ports are fully tunable across C-Band, Flexgrid-capable, and support N x OTU4 and OTUCn line structures.

The high-speed uplink card supports modular pay-as-you-grow line options using CFP2-DCO programmable coherent lines. The CFP2-DCO optics offer a high-performance multi-haul optical interface, with the simplicity and low cost of a pluggable module.

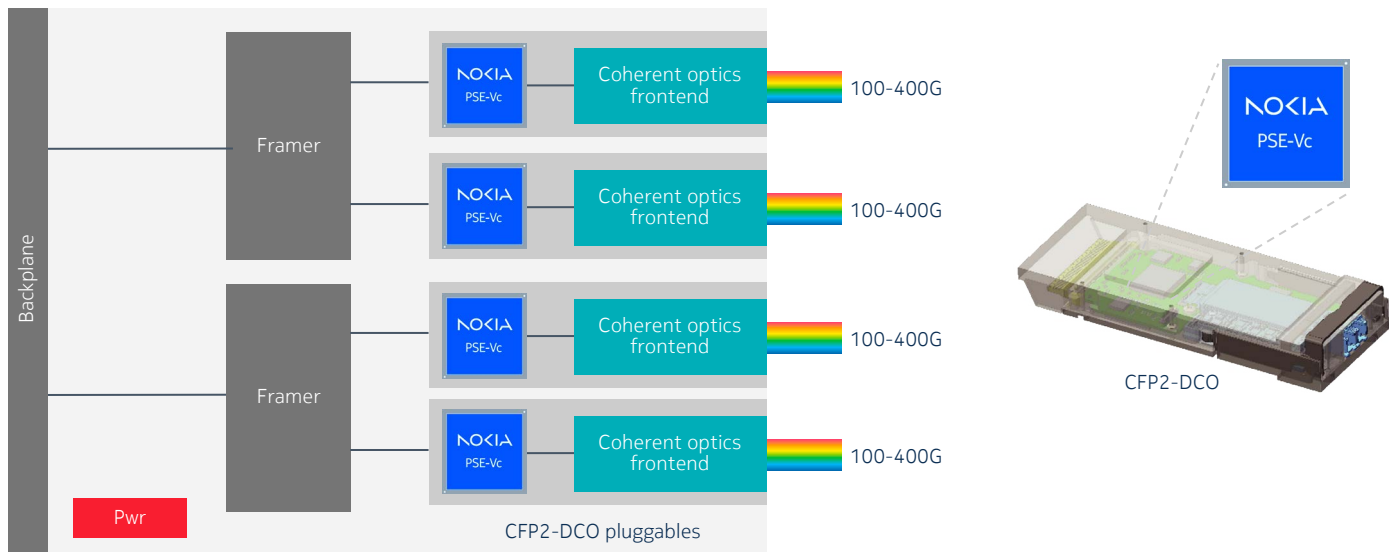
The 4UC1T supports efficient and reliable multi-layer networking with ODUk switching and protection, including ODUFlex. It delivers high-performance, scalable multiservice transport for metro, regional, or long-haul transport distances. The card supports both single carrier and dual carrier modes, depending on network application needed.

In addition, the 4UC1T supports Beyond 100G (B100G) applications including 400GE transport and OTUCn line structure. OTUCn is automatically configured where needed to transport 400GE clients resulting in operational continuity and seamless integration.

Nokia supported products

The 4UC1T uplink card is supported on Nokia 1830 PSS-24x platform

Figure 1. 1830 PSS-24x 4UC1T



Unit name	Part #	Description
4UC1T	3KC61074AA	1 Terabit programmable high-speed uplink card



Technical specifications

Specifications	4UC1T
Applications	Metro, regional, LH, DCI
Interfaces	4 x CFP2-DCO WDM line port 100G – 400G provisioned (QPSK/8QAM/16QAM) 28 – 67 Gbaud Nokia PSE-Vc DSP
Line rates	100G, 200G, 250G, 300G, 400G
Transmission capacity	1 Tb/s
Power consumption	198 W (typ)
Features	100G to 400G Metro to LH transport for high-density applications Modular pay-as-you-grow CFP2-DCO pluggables Trail (TCM) based latency measurement Enhanced OCH PM monitoring Beyond 100G (B100G) applications GMPLS control plane
Protection	OLP/OMSP 1+1 optical line side protection OCH protection via OPSUM
Operating environment	Normal 5°C to 40°C (41°F to 104°F) Short-term -5°C to 50°C (23°F to 122°F) Humidity 5% to 85%
Physical	1-slot, full height
1830 PSS shelves	24x
Compliance	UL/CSA 62368-1 IEC/EN 62368-1 AS/NZS 62368.1 IEC/EN 60825-1, 60825-2 GR-63 NEBS, GR-1089 ROHS6 CE Mark

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Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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Nokia OYJ
Karakaari 7
02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000

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