

Nokia 1830 PSS-8x/12x 500G Programmable Uplink Card 2UX500

The Nokia 2UX500 uplink card is a 2-port 500G programmable, high-performance unit for the 1830 PSS-8x/12x platforms that 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 2UX500 utilizes Nokia's new CFP2-DCO pluggable line optics for enhanced reach, density, and power consumption.

The 2-carrier uplink card 2UX500 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 packet/OTN scale by leveraging the Nokia Transport Switching Engine (TSE) and the Photonic Service Engine (PSE). The 1830 PSS-8x and 1830 PSS-12x are OTN switching solutions, optimized for both metro aggregation and metro core applications. The platforms share common cards and provide the flexibility and efficiency that operators need to support an evolution to higher-capacity services, while minimizing space and power requirements.



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, 500 Gb/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
- Large-scale grooming of sub-100G and 100G services on to efficient WDM
- Beyond 100G applications with N x OTU4 and OTUCn line structure
- Transport wavelength of 400GE client services

Product description

The 2UX500 is a programmable, 2-port uplink card for the PSS-8x and PSS-12x platforms with 500 Gb/s per slot switching capacity. The WDM line interface is based on the latest generation Nokia PSE-Vc coherent digital signal processor (DSP).

The 2UX500 is a single slot uplink card, with up to 8 cards supported per PSS-8x shelf and 24 cards supported per PSS-12x shelf. The card includes two 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.

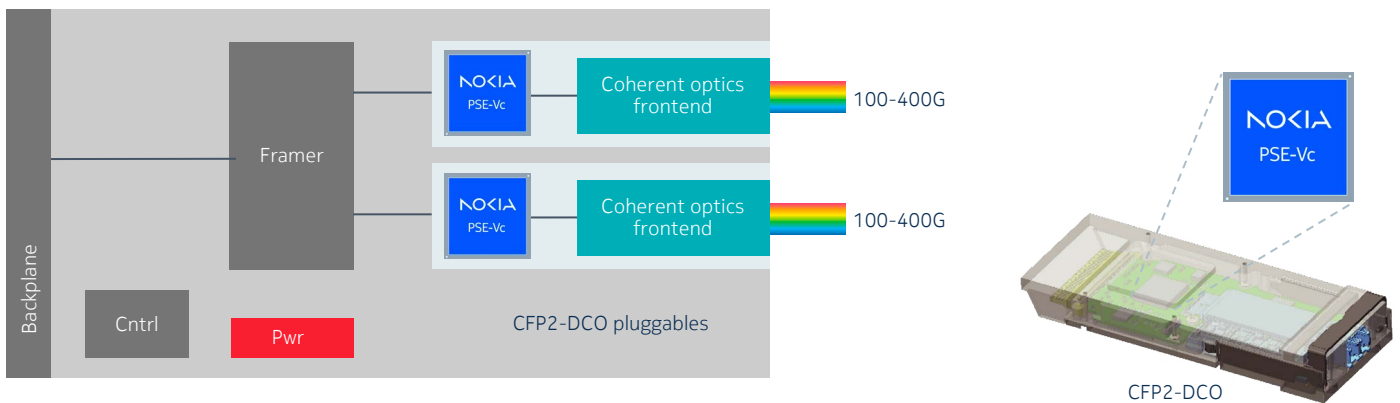
The 2UX500 provides efficient and reliable multi-layer networking with ODUk switching and protection, including ODUFlex. It delivers high-performance, scalable multiservice transport for metro, regional, or long-haul transport distances. The card supports both single carrier and dual carrier modes, depending on network application needed.

In addition, the 2UX500 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 2UX500 uplink card is supported on Nokia 1830 PSS-8x and PSS-12x platforms.

Figure 1. 1830 PSS-8x/12x 2UX500



Unit name	Part #	Description
2UX500	3TD00836AA	2-Port 500G programmable high-speed uplink card



Technical specifications

Specifications	2UX500
Applications	Metro, regional, LH, DCI
Interfaces	2 x CFP2-DCO WDM line ports 100G - 400G provisioned (QPSK/8QAM/16QAM) 28 – 67 Gbaud Nokia PSE-Vc DSP
Line rates	100G, 200G, 250G, 300G, 400G
Transmission capacity	500 Gb/s
Power consumption	116 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
Line protection	OLP/OMSP (OPSA) 1+1 OCHP (OPSUM) 1+1
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	8x, 12x
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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Document code: (August) CID211030