Multi-reach DWDM platform
Higher bandwidth clients such as Gigabit Ethernet are becoming one of general demands. Service providers have to flexibly and rapidly deliver high quality and high bandwidth services anywhere and anytime.
The SpectralWave DW4200 series provides remotely controllable optical add, drop or pass-through functions at any nodes and any wavelengths on a 80 channel DWDM platform, also provides adjustable passive optical add, drop or pass-through functions. The SpectralWave DW4200 series offers high bandwidth, flexible and economical optical network.

Multi-Service
Optical networks should flexibly support various interface capability without surplus facilities for rapid and diverse service demands.
The SpectralWave DW4200 series provides a Bit-rate Free transponder (3R) for wide range of optical clients from 100Mbit/s to 2.7Gbit/s including Gigabit Ethernet and Fiber Channel.
In addition, a Multi-rate SDH/SONET transponder is provided for STM-1/OC-3, STM-4/OC-12 and STM-16/OC-48 with B1 performance monitoring of SDH/SONET frame.
For data centric demands, 10Gig-E LAN-PHY and 9-channel Gigabit Ethernet transponders are provided.

Scalable and Easy System Design
Different optical path may have different loss budget. When new paths/nodes are added, the system design is very complicated due to uneven spectral power level.
The SpectralWave DW4200 series supports predominant automatic optical power control and gain flatness control functions. These functions enable easy λ expansion and network configuration upgrade without manual gain adjustment and complicated system re-design work.

Full Band Tunable Transponders
80 channel full band tunable in C-band or L-band for spare cost saving and rapid service establishment

In-service Upgrade
Optical networks are growing according to broadband demands. Terminal nodes or in-line amplifier nodes may be upgraded to intermediate add/drop nodes for new demands.
The SpectralWave DW4200 series enables economical in-service upgrade from DWDM terminals or in-line amplifiers to ROADM configurations with minimum investment.

Optical Path Protection
Optical Layer Protection on a λ basis within 50ms of switching time

Human Safety
ITU-T G.664 Auto Power Reduction for human safety during installation work

Efficient Footprint
ETSI rack or 19 inch open rack support with high density and compact design, 10G x 6ch add/drop in a single shelf, 40ch in a single rack

Integrated Management
SNMP, Web-based management or NMS with other NEC products such as U-Node, V-Node, C-Node, MW1000 etc.
Technical Summary

- **Client Interfaces**
  - Gig-E, 10Gig-E, 9ch Gig-E MUX
  - Dual Rate (10Gig-E and STM-64)
  - 3R Bit Rate Free (100M to 2.7G)
  - Multi-rate STM-16/4/1
  - STM-256, STM-64,
  - 4ch STM-16 MUX with AFEC

- **Digital User Interface**
  - 10base-T
  - 4 ports

- **Housekeeping Interface**
  - HKA input
  - 1 port
  - HKC output
  - 1 port

- **Station Alarm Interface**
  - PM, DM, MAINT, AB, AL

- **Environment**
  - Operating Temperature Range
    - Short term: 0°C to 45°C
    - Long term: 0°C to 40°C
  - Relative Humidity: 5 to 85% without condensation
  - Altitude: −61 to 1,829 m

- **Power Requirements**
  - Voltage: −38.4 to −60V DC

- **Physical Dimensions**
  - ROADM Shelf: 450 (H) x 450 (W) x 350mm (D)

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⚠️ Safety Precautions

* Before installing, connection or using this product, be sure to carefully read and observe the cautionary and prohibited matters provided in the instruction manual.

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- The configuration or specifications are subject to change without prior notice due to continual improvements.

**For inquiries, contact:**

NEC

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