

NEC SpectralWave® WX Series for Driving Openness and Value

NEC is driving expansion of All Optical Networks with the introduction of its "SpectralWave WX Series," a lineup of open specifications-compliant, open optical transport products. The lineup is built based on standards defined by Open ROADM and Telecom Infra Project's (TIP) Phoenix initiative.

NEC SpectralWave® WX Series – part of our NEC Open Networks solution suite – is designed to meet CSPs' evolving needs and leverage an open ecosystem of industry leading network and software suppliers.

The compliance with open specifications such as Open ROADM and TIP's Phoenix enable these devices to support configurations that connect to the function blocks of APN-T, APN-G and APN-I as defined by Open APN of the IOWN Global Forum.

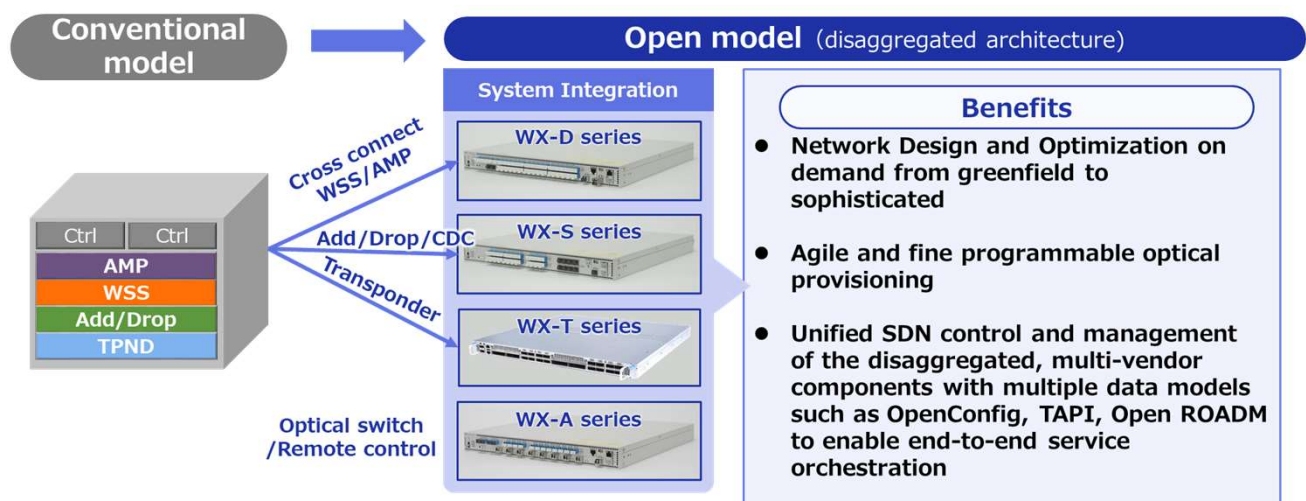
SpectralWave® WX Series will help deploy All Optical Networks with large capacity, low latency and multiple connections, as well as advanced security, robustness and power-saving.

Deploying an NEC SpectralWave® WX Series will give you the ability to:

- Scale your communications on demand to meet your changing network needs
- Accelerate innovation with intelligence
- Uncover new revenue opportunities



Transformation by SpectralWave WX Series



Features & Benefits

◆ Greater Capacity & Extreme Reach

67.2 Tbps over a single optical fiber and extreme reach with Raman amplification. This also helps the reduction of TCO and lower power consumption.

◆ Network Design and Optimization on demand

Supporting CDC-ROADM to offer additional flexibility and operational simplicity with improving line redundancy and shortening recovery times.

◆ Simplified and Sophisticated Operation

- Control and management of the disaggregated, multi-vendor components with multiple data models such as OpenConfig, TAPI, Open ROADM
- AI-Based fault detection and predictive maintenance
- Automatic restoration and provisioning

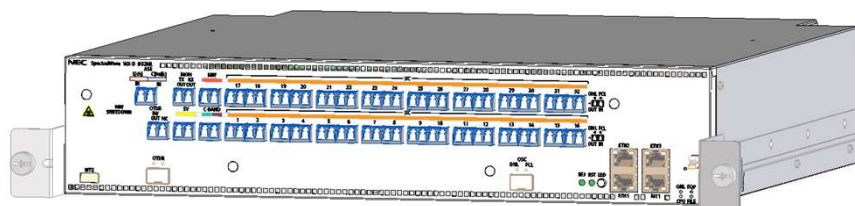
◆ Flex-Grid technology

Facilitating dynamic and bandwidth intense traffic demands and enabling capacity gains by a flexible spectrum, allocating minimum bandwidth, for a given channel configuration.

WX-D Degree L-band

Open ROADM compliant, L-Band multi-degree switch

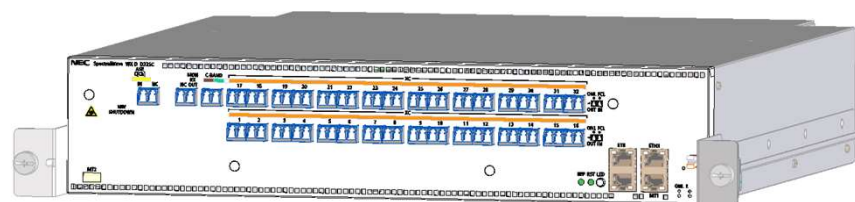
- 1x32 WSS (Wavelength Selective Switch)
- Variable-gain Amplifier (up to 27dB)
- Optical Supervisory Channel (OSC)
- Optical Channel Monitor and pluggable OTDR (Optical Time Domain Reflectometer)



WX-D Degree C-band

Open ROADM compliant, C-Band multi-degree switch

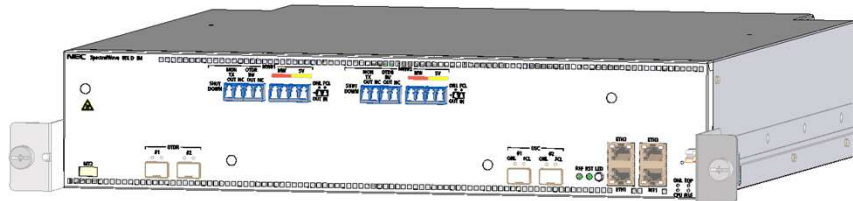
- 1x32 WSS
- Variable-gain Amplifier (up to 27dB)
- Optical Channel Monitor
- Add-on L-Band system for C+L-Band transmission



WX-D ILA

Open ROADM compliant, C+L-Band Inline Amplifier

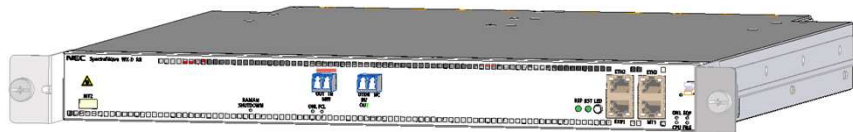
- Consolidated C-Band and L-Band
- Variable-gain Amplifier (up to 27dB)
- Optical Supervisory Channel
- Optical Channel Monitor and pluggable OTDR



WX-D RAMAN

Open ROADM compliant, C+L-Band Raman Amplifier

- Consolidated C-Band and L-Band
- Expand transmission distance



WX-D ASE

Open ROADM compliant, ASE transmitter

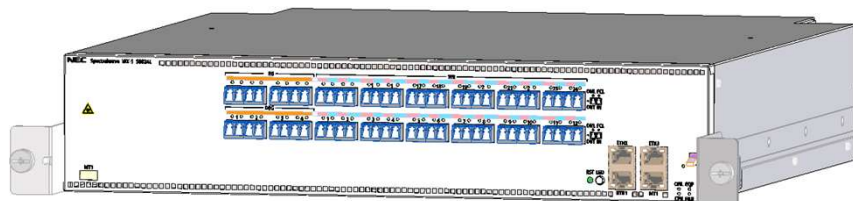
- Stabilization of C+L-Band transmission
- Robustness of transmission characteristic



WX-S SRG L-band / C-band

Open ROADM compliant, C-Band/L-Band CDC function

- Supporting CDC-ROADM
- 8 Degree × 24 Transponder Multi-cast switch



WX-A GW Center/ Remote

Wavelength access gateway remote at user site

- Accommodation of user wavelength traffic at user site
- Small size, fan-less
- Remote control using Optical Supervisory Channel (OSC)



Center



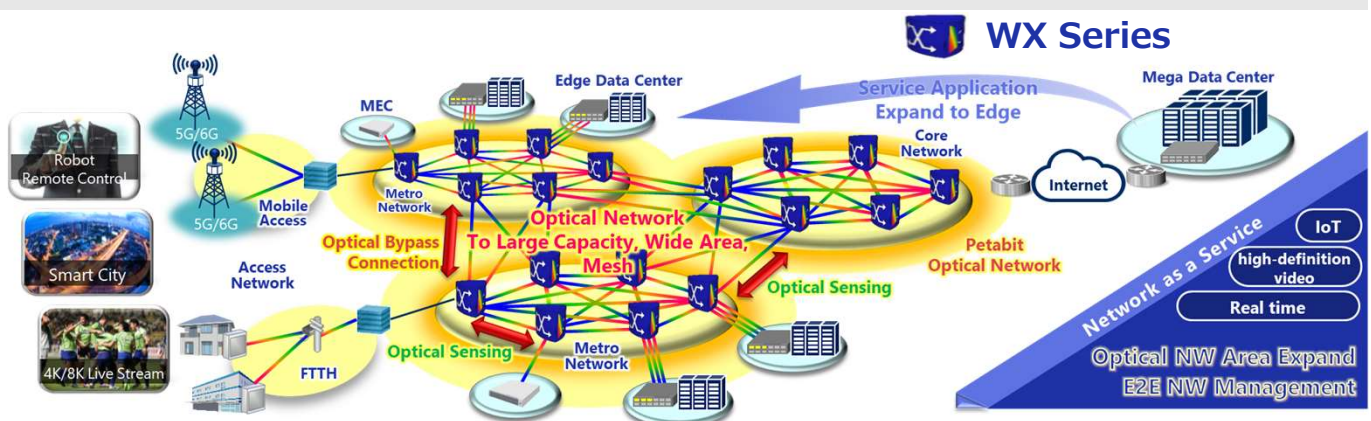
Remote



WX-T 400G/1.2T -TPND

Model		Overview		
WX-T 400G	Open disaggregated Transponder 	Size	Pizza Box	1RU 430x437.5x43.5mm(DxWxH)
		Interface	Line	4 x 400G CFP2-DCO pluggable (C-Band) - 100/200G QPSK - 200/300G 8QAM - 200/400G 16QAM
		Client		16 x 100G QSFP28 pluggable
		Software	Type	NEC NOS based on OSS (Goldstone led by TIP)
WX-T 1.2T	Open disaggregated Transponder 	Management		CLI/Syslog/SNMP/NETCONF/gNMI/OpenConfig/Open ROADM
		Size	Pizza Box	1RU 490x425x43.7mm(DxWxH)
		Interface	Line	800G Blade (Three blades per box) - 1 x 800G Blade (C-band, L-band) - 400G 9QAM, 400/600/800G 16QAM, 800G 32QAM 1.2T Blade (Three blades per box) - 1 x 1.2T Blade (C-band, L-band) - 400G 9QAM, 400/800G 16QAM, 800G 32QAM, 1.2T 64QAM
		Client		800G Blade (Three blades per box) - 8 x 100G QSFP28 pluggable 1.2T Blade (Three blades per box) - 3 x 400G QSFP-DD pluggable
		Software	Type	NEC NOS based on OSS
		Management		CLI/Syslog/SNMP/NETCONF/gNMI/OpenConfig/Open ROADM

Application



NEC Transport Network Department

Learn more at www.nec.com/en/global/solutions/open-opt/

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