

**METRO / REGIONAL ROADM**

**FEATURES**

- ◆ **MULTI-REACH SYSTEM**
- ◆ **40 OR 80-LAMBDA CAPACITY**
- ◆ **FULL ADD/DROP ANY WAVELENGTH ROADM**
- ◆ **FULL-BAND TUNABLE TRANSPONDERS**
- ◆ **40G CAPABILITY ON ANY WAVELENGTH**
- ◆ **UNIVERSAL ROADM SHELF SUPPORTS ALL CONFIGURATIONS:**
  - **ROADM**
  - **TERMINAL**
  - **IN-LINE AMPLIFIER**
- ◆ **UNIVERSAL FIRMWARE SUPPORTS MULTIPLE NETWORK TOPOLOGIES:**
  - **RING**
  - **POINT-TO-POINT**
  - **LINEAR CHAIN**
  - **MESH**
- ◆ **IN-SERVICE UPGRADES**
- ◆ **INTEGRATED SONET MULTIPLEXING (SONET-ON-A-BLADE)**
- ◆ **C-BAND OR L-BAND OPERATION**
- ◆ **UP TO 1000 KM RINGS WITH NO REGENERATION**
- ◆ **FULLY AUTOMATIC DYNAMIC OPTICAL GAIN AND SLOPE ADJUSTMENT**
- ◆ **ENHANCED TRANSPONDERS WITH HIGH PMD TOLERANCE**

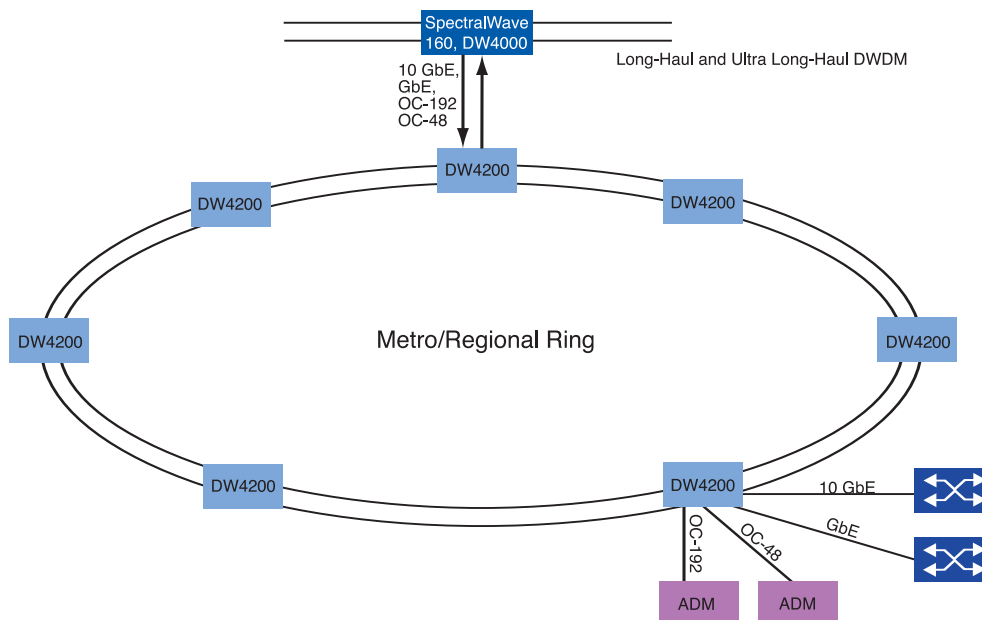


**SPECTRALWAVE DW4200**

**S**PECTRALWAVE™ DW4200 METRO/REGIONAL ROADM is the latest addition to NEC's SpectralWave Optical Networking product line. The DW4200 is a compact, next generation system that offers full ROADM capability for flexible multiplexing and transport of up to 80 C-Band or L-Band optical wavelengths. The DW4200's feature set includes full add-drop capability at any node, full-band tunable transponders, and wavelength cross-connect. Transmission architectures supported by the DW4200 include: optical rings, point-to-point, and mesh.

The SpectralWave DW4200 uses a single universal shelf type to support ROADM, 1/2 ROADM, Terminal, and In-Line Amplifier configurations. Both the 1/2 ROADM and In-Line Amplifier configurations can be upgraded in-service to full ROADM configuration.

The SpectralWave DW4200 is based on NEC's industry proven DWDM and optical amplifier technologies. Fast, flexible wavelength provisioning and NEC's innovative dynamic optical amplifier control assure problem-free operation from initial deployment through full capacity.



### METRO CORE/EDGE OPTICAL TRANSPORT

Number of wavelengths:	40 or 80
Bit rate:	4x OC-48/STM-16, OC-192/STM-64, OC-768/STM-256, GbE, 10 GbE, Bit rate Free Interface to 2.7 Gb/s, SONET ADM on a Blade
Operating wavelengths:	C-band (around 1550nm), L-band (around 1580nm)

### ROADM FLEXIBILITY AND PERFORMANCE

Add/drop 100% of the total wavelengths  
Remote control of add/drop

### EASY IN-SERVICE UPGRADE

½ ROADM-to-ROADM  
Amplifier-to-ROADM  
2-degree ROADM to multi-degree ROADM/Wavelength Cross Connect

### FLEXIBLE, RELIABLE NETWORK DESIGN

Any combination of interfaces  
Available system configurations: Ring  
Point-to-Point  
Linear Chain  
Mesh  
Integrates with SpectralWave family of products  
Supports GMPLS/ASON Concepts (Generalized Multi-Protocol Label Switching/Automatic Switched Optical Network)

### ECONOMICAL FROM FIRST WAVELENGTH

Compact Footprint  
Low Power Consumption  
EMS (Element Management System) and standard OS support

Empowered by Innovation

**NEC**

NEC Corporation of America  
Optical Network Systems Division  
14040 Park Center Road  
Herndon, VA 20171  
(703) 834-4000  
www.necam.com/onsd