

### Overview

Plexstar DWDM140-40G is a 40-channel duplex DWDM multiplexing device. It combines and transmits 40 signals in different colors simultaneously on the same fiber. In effect, one fiber is transformed into 40 virtual fibers. Each virtual fiber can transmit different protocols with different bit-rate traffic without interfering with other channels.

### Plexstar DWDM product functions:

- Receive data in different formats: Receive client data in the form of 10G/40G Ethernet, STM64, STM256, 10G Fiber Channel, etc. Note: Plexstar SFP+ and XFP transponders generate stable and specific laser those carry modulated digital data.
- Combine/separate different colors: Plexstar DWDM116P-40G combines 16 colors and transmits those through a common fiber. At the receiving end it separates 16 colors.
- Optical amplification: Plexstar EDFA40 optically amplifies all colors together without optical-electrical-optical conversion. These are used in repeating stations.
- Deliver data: Plexstar TP10G can be used as repeater or can be placed at the client side functioning as transponder instead of SFP+ and XFP transponders.

### Model:

- DWDM140 - 40 lambdas



## Specifications

### Product Highlights:

- Special DWDM transponder SFPs.
- Transmission up to 80km in a single hop.
- Low insertion loss and high isolation.
- Any data rate up to 40G.
- Any protocol (full protocol transparency).
- SDH STM-1, STM-4, STM-16, STM-64, STM-256.
- Mux/Demux over single pair of fiber.
- High reliability.
- RoHS compliant.

### Physical Dimension:

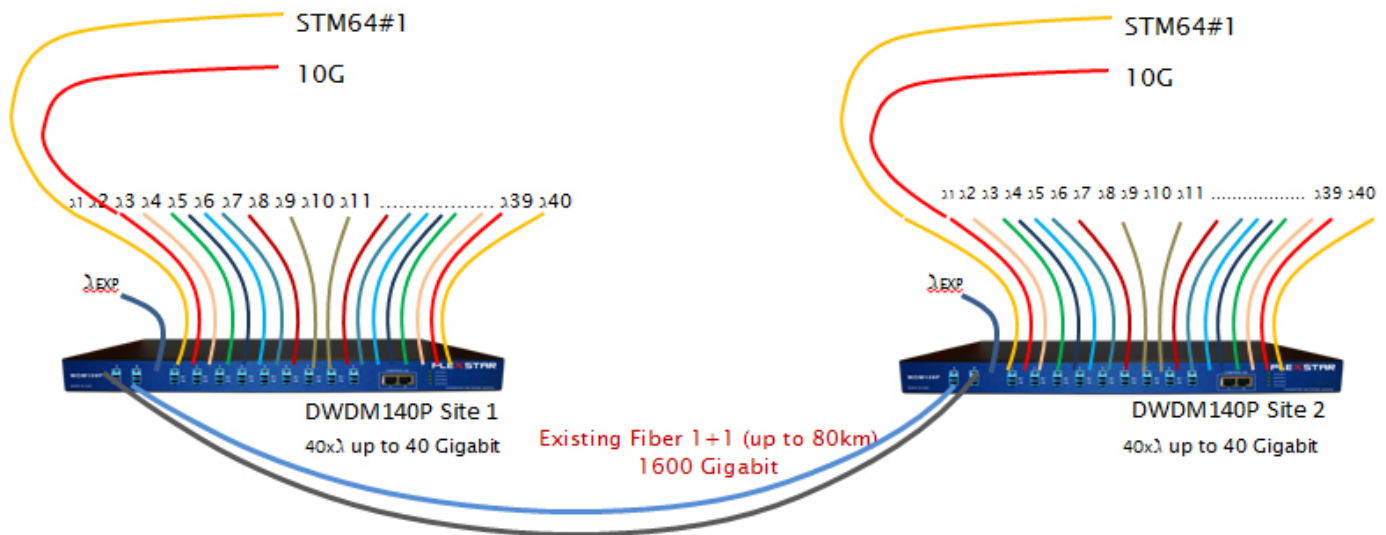
- Size: 19" X 11" X 1.75" (1U).
- Weight: 7.5 pounds.

### Benefits

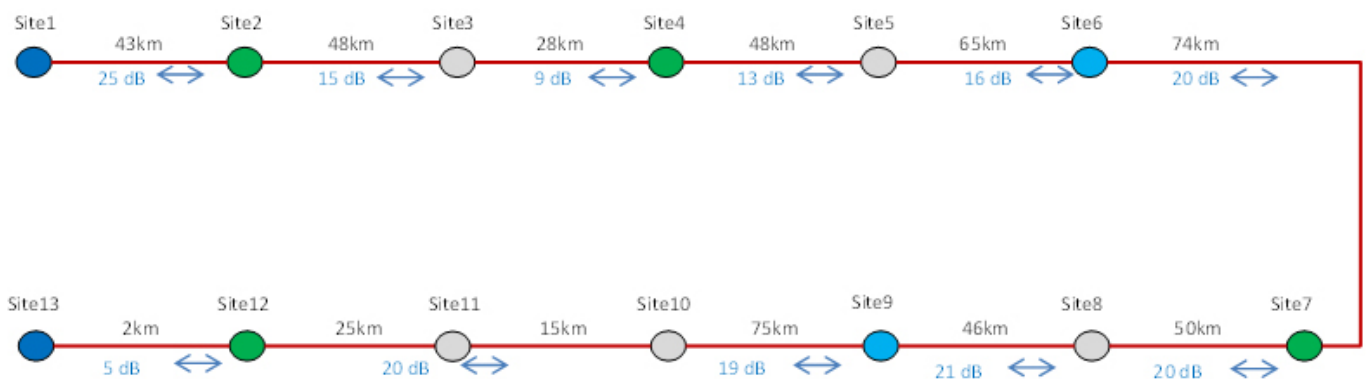
- Compact box size.
- Operating temperature 0°C to 70°C.
- No extra cooling required.
- Increases capacity of a fiber-pair by using multiple DWDM wavelengths.
- Low capex bandwidth upgrade.

### Applications

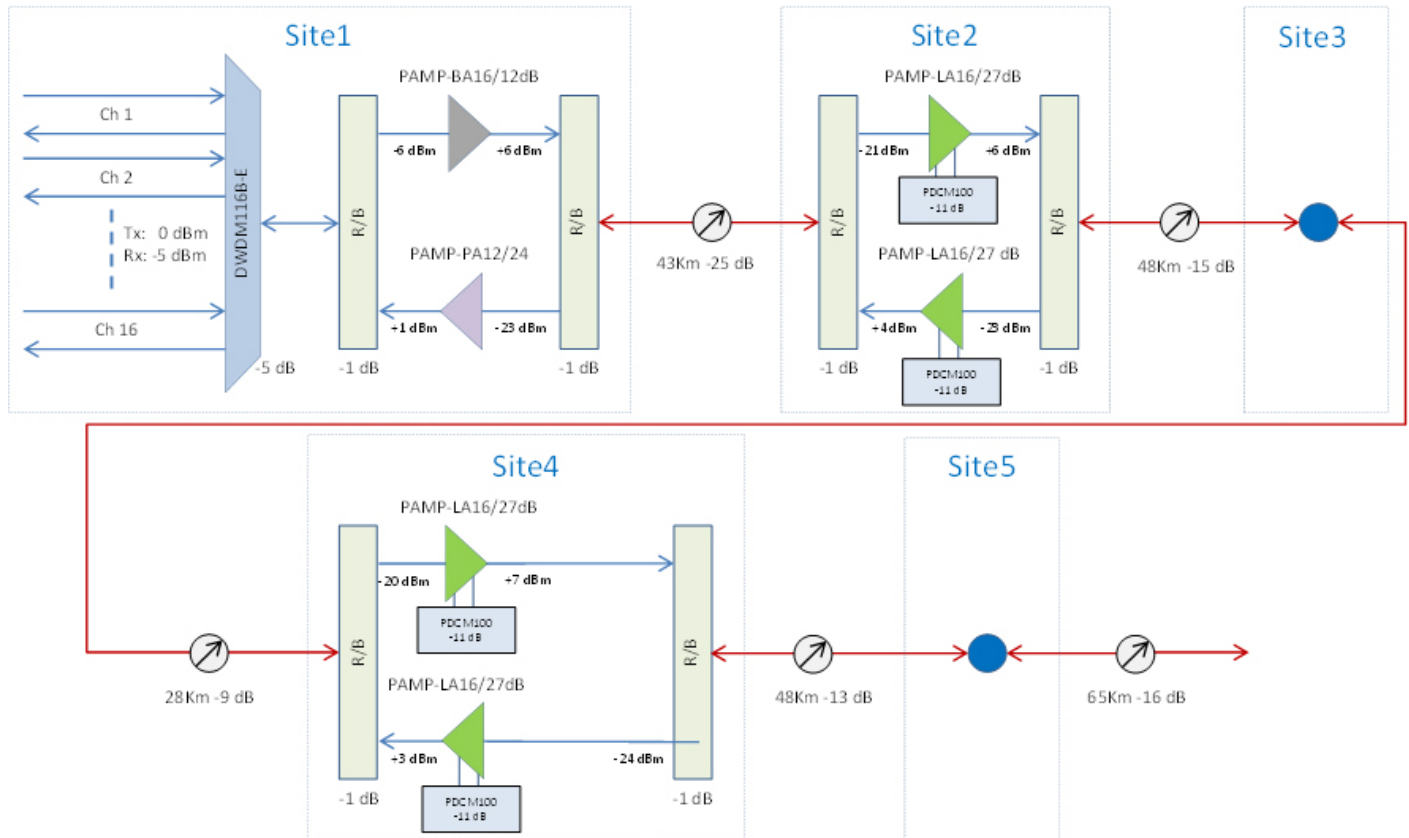
#### DWDM140 Point to Point Implementation



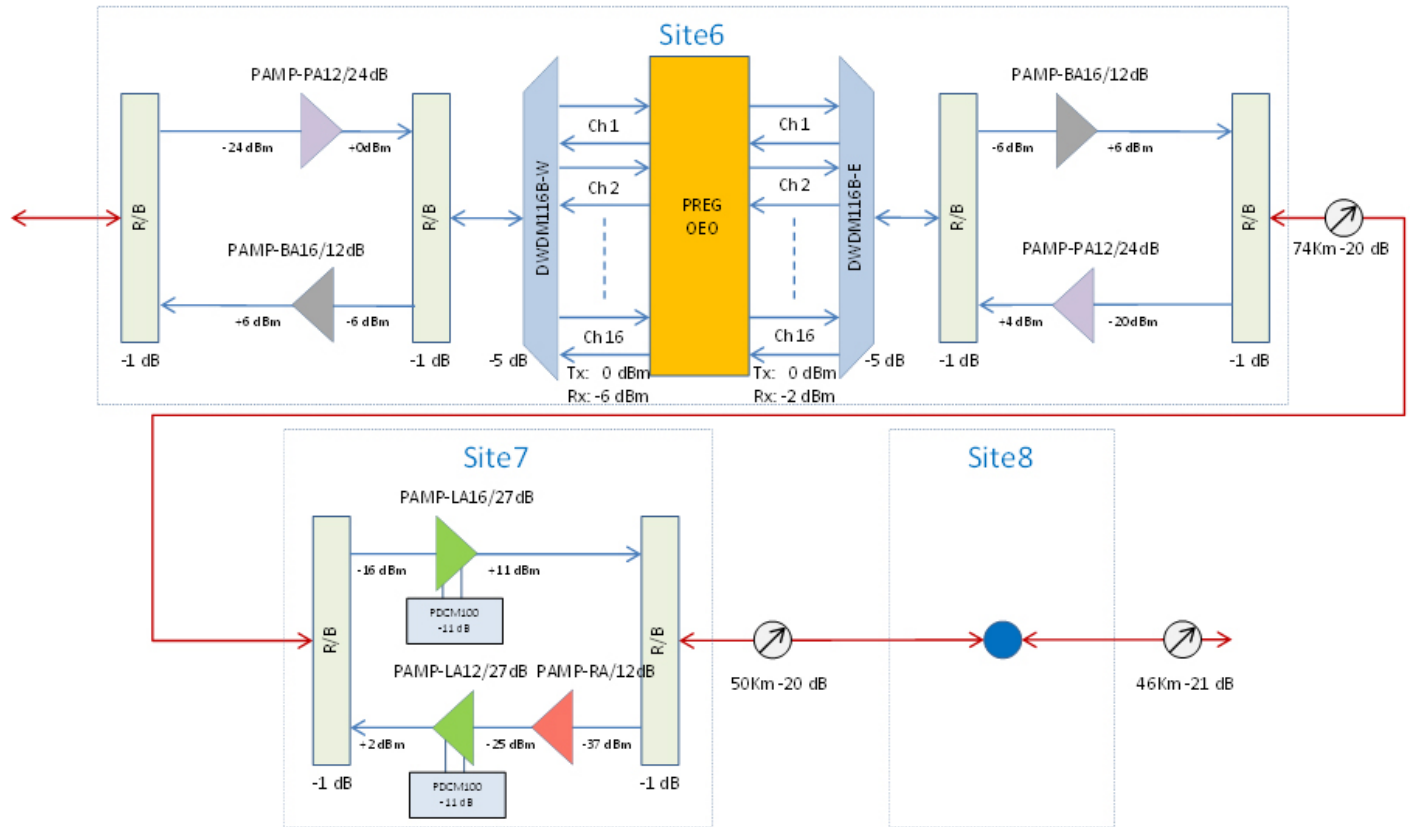
#### DWDM Transmission Example 1/4 16 x 10G Long Haul Bi-directional Transmission on a Single Fiber



### DWDM Transmission Example 2/4 16 x 10G Long Haul Bi-directional Transmission on a Single Fiber



### DWDM Transmission Example 3/4 16 x 10G Long Haul Bi-directional Transmission on a Single Fiber



### DWDM Transmission Example 4/4 16 x 10G Long Haul Bi-directional Transmission on a Single Fiber

