

## WaveShifter® 300



### Key Features

- Double the fiber capacity of metro and access links
- No 1550 nm transmitter to purchase
- <3 dB insertion loss (end to end)
- Save time and money over new fiber
- Utilize fiber more efficiently
- Recover fiber for new services

### Applications

- Use with WaveShifter WDM modules to install a two-fiber system on one fiber or a four-fiber system on two fibers

### Compliance

- SONET OC-1, OC-3, OC-12, and OC-48
- CSA - C22.2 and UL 1950
- FCC Class B, part 15
- IEC 825 Parts 1 and 2
- FDA CFR Title 21, Parts 1040.10 and 1040.11
- NEBS 3 compliant

The JDSU WaveShifter 300 module conserves fiber by using 1310/1550 nm wavelength division multiplexing (WDM) to combine two signals onto one fiber. Any 1310 nm fiber transmission system can be used with the WaveShifter 300 products.

The WaveShifter 300 works with a passive WDM coupler and the WaveShifter WDM to "shift" the transmission 1310 nm signal to the 1550 nm fiber window, using WDM to combine the 1550 nm signal with the receive 1310 nm signal. The WaveShifter 300/622 works from 6 Mb/s (OC-3) to 622 Mb/s (OC-12) data rates.

The WaveShifter 300 can be installed in any 19-inch/23-inch telecommunication rack using the JDSU FiberShelf. The WaveShifter 300 module is widely accepted for use in metropolitan or access network links.

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**Configuration**

(Bidirectional configuration shown; also works in a unidirectional configuration)



**Specifications**

**Parameter**

**WaveShifter 300/622**

**Optical**

|                                     |   |
|-------------------------------------|---|
| Wavelength (Tx port)                | 1260 to 1580 nm                         |
| Range (Tx port)                     | -25 to -3 dBm                           |
| Fiber type (Tx port)                | Single mode or 50 µm multimode          |
| Wavelength (Rx port)                | 1290 to 1330 nm                         |
| Extinction ratio                    | 8.2 dB                                  |
| Fiber type (Rx port)                | Single mode, 50 µm or 62.5 µm multimode |
| COM (port) output wavelength        | 1530 to 1565 nm                         |
| COM (port) output power level       | -3 to 0 dBm                             |
| COM (port) output fiber type        | Single mode                             |
| Insertion loss from COM to Rx port  | <1.5 dB                                 |
| Isolation from COM to Rx at 1550 nm | >40 dB                                  |
| Spectral width                      | 1.0 nm (-20 dB)                         |
| Connectors                          | SC/PC                                   |

**Transmission**

|        |               |
|--------|---------------|
| Rate   | 6 to 622 Mb/s |
| Format | NRZ           |

**Management**

|                 |                                 |
|-----------------|---------------------------------|
| Craft interface | TL-1 and menu mode              |
| Craft port      | DB-9 female connector, RS232    |
| Alarms          | One Form B relay, active closed |
| Displays        | LED display                     |

**Physical**

|                        |   |
|------------------------|---|
| Mounting               | Shelf, dual, or single configurations           |
| Power                  | 6 W maximum, -48 V DC nominal (-40 to -60 V DC) |
| Dimensions (W x H x D) | 2.54 x 15.24 x 24.77 cm (1 x 6 x 9.75 inches)   |

**Environmental**

|                                    |                                   |
|------------------------------------|-----------------------------------|
| Operating temperature <sup>1</sup> | -40 to 65 °C (note <sup>1</sup> ) |
| Storage temperature                | -40 to 85 °C                      |
| Humidity                           | 95% RH non-condensing             |

Note: This product should be deployed in accordance with your company's deployment directives.

1. In accordance with Telecordia GR-418-CORE.

**Ordering Information**

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at [customer.service@jdsu.com](mailto:customer.service@jdsu.com).

**Sample: 525.726.006 and 519.530.007 (WaveShifter 300/622, SC with FiberShelf®)**

| Product Code | Description                  |
|--------------|------------------------------|
| 525.726.006  | WaveShifter 300/622, SC      |
| 525.730.006  | WaveShifter WDM, SC          |
| 525.725.006  | 1310/1550 ruggedized coupler |

| Accessories Code | Description            |
|------------------|------------------------|
| 519.530.007      | FiberShelf             |
| 520.209.315      | 48/110 V power adapter |



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