



*Champion's DWDM passives are protocol independent optical add/drop multiplexers that enable plug and play capacity growth on a dual fiber run.*

### Highlights

- Standard ITU C Band wavelengths
- Very low optical insertion loss
- Terminates 1, 4, or 8 wavelengths in dual mount 1RU swappable module
- Terminates 16, 20, or 32 wavelengths in single chassis
- Dual LC connector compact design
- Industry Standard passive device – works with all major OEM transport equipment
- 19" or 23" rack mount options

### Applications

- Direct links, Point-to-Point
- Metro Rings with optical protection
- Multiple gigabit Ethernet links
- Remote Storage Area Networks
- SONET switched networks
- Hybrid CWDM and DWDM networks
- Ethernet, Fiber Channel, or SONET data links

### Specifications

| ITU Channel Cross Reference |            |         |            |            |         | Physical                     |                        |
|-----------------------------|------------|---------|------------|------------|---------|------------------------------|------------------------|
| Freq (THz)                  | ITU Chnl # | nm      | Freq (THz) | ITU Chnl # | nm      | Operating Temp. °F (°C)      | 23 to 149 (-5 to 65)   |
| 192.0                       | 20         | 1561.42 | 194.1      | 41         | 1544.53 | Storage Temp. °F (°C)        | -40 to 185 (-40 to 85) |
| 192.1                       | 21         | 1560.61 | 194.2      | 42         | 1543.73 | Power Handling (mW)          | 300                    |
| 192.2                       | 22         | 1559.79 | 194.3      | 43         | 1542.94 | Fiber Type                   | SMF 28 or 28e          |
| 192.3                       | 23         | 1558.98 | 194.4      | 44         | 1542.14 | Connector Type               | LC or SC               |
| 192.4                       | 24         | 1558.17 | 194.5      | 45         | 1541.35 | 1, 4, 8 Chnl Module (LxWxH)  | 10.57"x 7.13" x 1.34"  |
| 192.5                       | 25         | 1557.36 | 194.6      | 46         | 1540.56 | 2 Module 1RU Chassis (LxWxH) | 17.5"x1.75"x7"         |
| 192.6                       | 26         | 1556.55 | 194.7      | 47         | 1539.77 | 1RU Chassis (LxWxH)          | 17.5"x1.75"x7"         |
| 192.7                       | 27         | 1555.75 | 194.8      | 48         | 1538.98 |                              |                        |
| 192.8                       | 28         | 1554.94 | 194.9      | 49         | 1538.19 |                              |                        |
| 192.9                       | 29         | 1554.13 | 195.0      | 50         | 1537.40 |                              |                        |
| 123.0                       | 30         | 1553.33 | 195.1      | 51         | 1536.61 |                              |                        |
| 193.1                       | 31         | 1552.52 | 195.2      | 52         | 1535.82 |                              |                        |
| 193.2                       | 32         | 1551.72 | 195.3      | 53         | 1535.04 |                              |                        |
| 193.3                       | 33         | 1550.92 | 195.4      | 54         | 1534.25 |                              |                        |
| 193.4                       | 34         | 1550.12 | 195.5      | 55         | 1533.47 |                              |                        |
| 193.5                       | 35         | 1549.32 | 195.6      | 56         | 1532.68 |                              |                        |
| 193.6                       | 36         | 1548.51 | 195.7      | 57         | 1531.90 |                              |                        |
| 193.7                       | 37         | 1547.72 | 195.8      | 58         | 1531.12 |                              |                        |
| 193.8                       | 38         | 1546.92 | 195.9      | 59         | 1530.33 |                              |                        |
| 193.9                       | 39         | 1546.12 | 196.0      | 60         | 1529.55 |                              |                        |
| 194.0                       | 40         | 1545.32 | 196.1      | 61         | 1528.77 |                              |                        |

*Champion offers 2 channel plans, 4 skip 1 and 8 skip 1. Please contact your account manager for ordering information.*

| Default Part #             | Description   |
|----------------------------|---|
| DWDM-OADM-EW-XX            | DWDM East/West Optical Add Drop XX=Channel #                                    |
| DWDM-MUXDEMUX-100-XX-MON-Y | DWDM MuxDemux, 100GHz spacing, Monitor port, XX=Channel count, Y=connector type |
| WDM-Chassis                | 2 module 1RU chassis for 1, 4, 8 ch. Modules                                    |
| Fiber-32ch-chassis         | 32 channel rack mount chassis   |

### Optical Parameters

|  | 1-Channel E/W | 4-Channel <sup>A</sup> | 8-Channel <sup>A</sup> | 16-Channel <sup>A</sup> | 20-Channel <sup>A</sup> | 32-Channel <sup>A</sup> |
|--|---------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|
| Channel Spacing (nm)                             | 0.8           | 0.8                    | 0.8                    | 0.8                     | 0.8                     | 0.8                     |
| Channel Bandwidth (nm) Minimum (Typ.)            | ±0.12 (0.15)  | ±0.12                  | ±0.25                  | ±0.25                   | ±0.25                   | ±0.25                   |
| Add Insertion Loss (dB) Typical (Max.)           | 0.9 (1.2)     | 1.6 (2.0)              | 2.5 (3.5)              | 3.5 (4.5)               | 3.8 (5.0)               | 3.6                     |
| Drop Insertion Loss (dB) Typical (Max.)          | 0.9 (1.2)     | 1.6 (2.0)              | 2.5 (3.5)              | 3.5 (4.5)               | 3.8 (5.0)               | 3.6                     |
| Thru Insertion Loss (dB) Typical (Max.)          | 0.7 (1.0)     | 1.6 (2.0)              | 2.5 (3.5)              | 2.5 (3.5)               | 2.5 (3.5)               | 4.85                    |
| Channel Uniformity (dB) <sup>C</sup>             | 1.5           | 1.0                    | 1.5                    | 1.5                     | 1.6                     |                         |
| Adjacent Channel Isolation (dB) <sup>B</sup>     | 30            | 30                     | 30                     | 30                      | 30                      | 25                      |
| Non-Adjacent Channel Isolation (dB) <sup>C</sup> | 45            | 45                     | 45                     | 45                      | 45                      | 40                      |
| Return Loss (dB)                                 | >45           | >45                    | >45                    | >45                     | >45                     | >45                     |
| Directivity (dB)                                 | >50           | >50                    | >50                    | >50                     | >50                     | >50                     |
| PDL (dB) <sup>2</sup>                            | 0.1           | 0.1                    | 0.1                    | 0.1                     | 0.1                     | 0.2                     |
| PMD (ps MAX) <sup>2</sup>                        | 0.1           | 0.1                    | 0.1                    | 0.1                     | 0.1                     | 0.2                     |
| Wavelength Temp. Sens. (nm/°C)                   | ≤0.0025       | ≤0.003                 | ≤0.003                 | ≤0.003                  | ≤0.003                  |                         |
| Thermal Stability (dB/°C)                        | ≤0.005        | ≤0.008                 | ≤0.008                 | ≤0.008                  | ≤0.008                  |                         |

**NOTES:** A: 4, 8, 16, 20 and 32 Channel are all OADM's with a pass port    B: Typical    C: Maximum