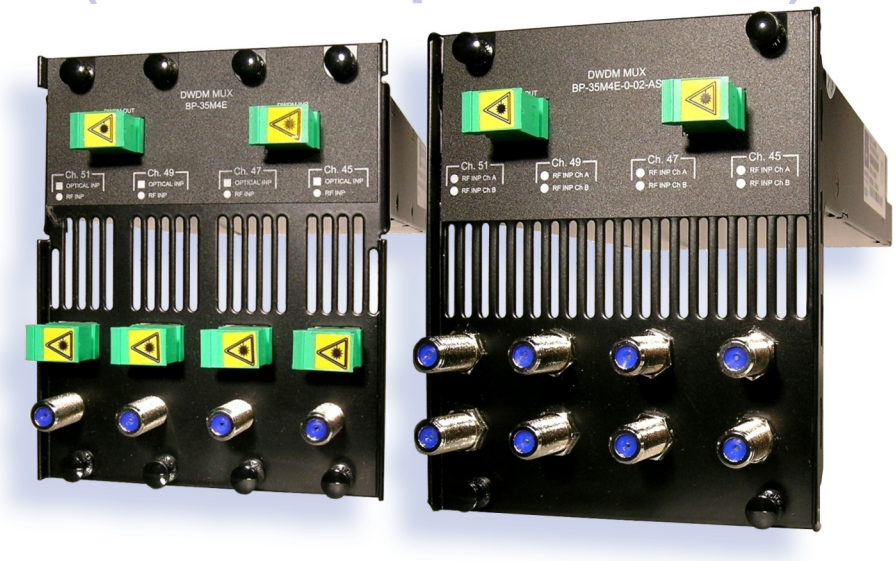
Optical Mux Back Plates (on 100GHz-spaced ITU Grid)

Features

- Unique 4-module-wide back plate design provides multiplexing function without need for internal chassis slot
- Eliminates four patch cords
- 4 channels spaced on standard 100 GHz DWDM ITU Grid (10 channel plans available)
- Mux optimized for minimum combined insertion loss across all channels
- Flat-top passband
- High optical isolation
- SC/APC connectors ensure performance repeatability, compatibility and easy installation and maintenance
- Series models BP-35M4*x*-1-00-AS can be used with both AT3510G series DWDM Narrowcast Transmitters and DX3515 series Digital Transponders
- Series models BP-35M4*x*-1-02-AS available for use with DT3515 series Return Path Digital Transmitters



Two representative models of BP-35M4x series Optical Mux Back Plates: BP-35M4x-1-00-AS (used with AT3510 Analog Narrowcast Transmitters or DX3515 Digital Transponders) and BP-35M4x-1-02-AS (used with DT3515 Return Path Digital Transmitters)

Aurora Networks' BP-35M4x series Optical Mux Back Plates facilitate implementation of Dense Wave Division Multiplexing (DWDM) architectures. DWDM technology can dramatically increase network capacity without requiring that additional fiber be deployed for super-trunking or narrowcasting applications.

Aurora's unique packaging of these 4-channel multipexers as back plates that can be easily attached to the rear of the CH3000 chassis eliminates the need to allocate internal chassis slots for dedicated multiplexer modules.

Further increasing the flexibility and efficiency of the BP-35M4x packaging concept is the fact that the same series models BP-35M4*x*-1-00-AS back plates can be used to provide multiplexing capabilities for mid-plane connection versions of both Aurora's AT3510G series DWDM Narrowcast Transmitters and DX3515 series Digital Transponders, while the series models BP-35M4*x*-1-02-AS provide the same multiplexing functionality for Aurora's DT3515 series Return Path Digital Transmitters.

The passthrough DWDM input and output ports permit the cascading of all the BP-35M4x series multiplexers, and facilitate the sequential muxing of multiple (greater than four) individual ITU channels off of a single optical fiber.

BP-35M4*x* Product Specifications

Physical:

- Dimensions: 7.5" D x 5.2" H x 4.25" W (3RU) (19 cm x 13 cm x 11 cm) (no chassis slot required)
- Weight: 1.4 lbs (0.7 kg)

Environmental:

- Operating temperature range: –20º to +65ºC (23º to 149ºF)
- Storage temperature range: –40º to +85ºC (–40º to 185ºF)
- Humidity: 5% to 95% non-condensing

Optical:

- Channel spacing: 100 GHz
- Channel plan: *See ITU Channel Plans description at right.*
- Insertion losses, including connectors:

	typ	max
Ch. *xx* OPT INP to DWDM OUT:	1.4 dB	1.6 dB
Paired[1]:	2.2 dB	2.5 dB
DWDM INP to DWDM OUT:	1.0 dB	1.2 dB

[1]Paired insertion loss when combined with 4-channel OP35D4x Demux Module (from Ch. xx OPT INP on BP-35M4x to Ch. xx output port of OP35D4x)

- Uniformity, including connectors:

	typ	max
Module uniformity:	0.6 dB	0.8 dB
Paired uniformity:	0.4 dB	0.6 dB

- Directivity, min:
  - Input ports: 55 dB
  - Pass-through port: 55 dB
- Passband @ 0.5 dB: ±0.12 nm
- Ripple within passband: 0.5 dB
- Return loss, min: 50 dB
- Polarization dependent loss, max: 0.2 dB (<0.1 dB typ)
- Power handling, max (any input port): 24.8 dBm

Optical Interface:

- Optical connectors: SC/APC
- DWDM INP (input from previous mux backplate)
- Ch *yy* (4 inputs at virtual mid-plane for Channel Group *x*)
- DWDM OUT (output to network or next mux backplate)

Feed-through Interface:

- Model BP-35M4*x*-1-00-AS: 4 optical inputs and 4 RF inputs
- Model BP-35M4*x*-1-02-AS: 8 RF inputs

ITU Channel Plans:

Aurora Networks supports DWDM network architectures with a variety of products having 100 GHz center frequency spacing on the standard DWDM ITU Grid (ITU-T G.694.1) for 40 channels from Ch. 20 (1561.42 nm) to Ch. 59 (1530.33 nm).

BP-35M4*x*-1-*xx*-AS 4-channel Optical Mux Back Plates (for which outputs can be cascaded from one back plate to another) are available for the following channel groups:

BP-35M4J for ITU Ch 20-23	BP-35M4P for ITU Ch 40-43
BP-35M4K for ITU Ch 24-27	BP-35M4R for ITU Ch 44-47
BP-35M4L for ITU Ch 28-31	BP-35M4S for ITU Ch 48-51
BP-35M4M for ITU Ch 32-35	BP-35M4T for ITU Ch 52-55
BP35-M4N for ITU Ch 36-39	BP-35M4U for ITU Ch 56-59

For more complete description of available DWDM ITU Grid channels and Aurora's partitioning into convenient logical groups of 4, 8 and 16 channels in products for DWDM mux and demux applications, please refer to the Aurora Networks DWDM ITU Grid Channel Plan data sheet.

Ordering Information

BP-35M4*-1--AS**

- **4-channel Optical Mux Back Plate**
- *** = DWDM ITU Grid Channel Plan (J, K, L, M, N, P, R, S, T, or U)**
- **1 = 100GHz Channel Spacing on DWDM ITU Grid**
- **** = Module Application**
  (00 = use with AT3510 series Analog Narrowcast Transmitters or DX3515 series Digital Transponders,
  02 = use with DT3515 series Return Path Digital Transmitters)
- **AS = SC/APC Connector**

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