

Purpose:

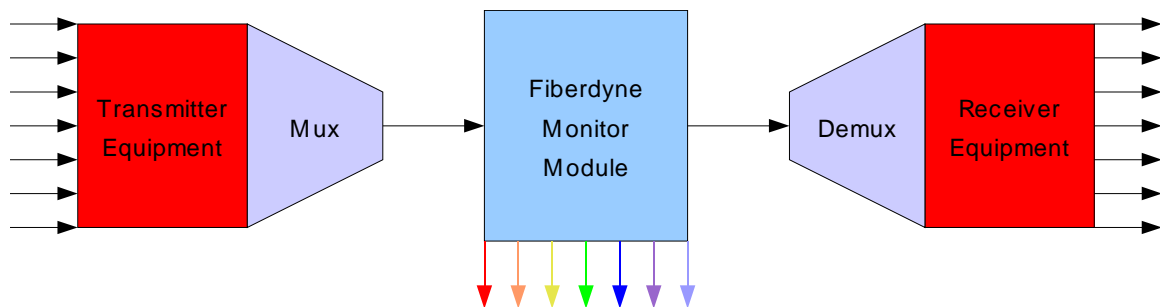
To describe Fiberdyne's new rack-mount module, which separates and outputs a sample of each CWDM (Coarse Wavelength Division Multiplexing) signal, on a link. The sample is a small percentage of the original signal. The output is filtered, providing only the selected CWDM channel. The result is a monitoring capability, which does not interfere with the link.



(8-channel module with SC connectors)

Conceptual Usage:

Add the Monitor Module to an existing, multiplexed link. A small sample, of each signal, is “leaked” to the outputs. Connect measurement/monitoring equipment, such as power meters or network analyzers, to the module outputs. When finished monitoring, disconnect the instruments. The network is left undisturbed.



Output low-power samples of each multiplexed signal from the link.
(Unintrusive monitoring of each and every signal.)

Note: Fiberdyne Monitor Modules can be used with all ITU-compliant, mux/demux modules, including Fiberdyne's mux/demux modules.

Features:

- Center wavelengths and spacing comply with ITU-T G.694.2
- Integrated fiber-optic splitter and CWDM demultiplexer
- Ports clearly labeled with CWDM wavelength
- 1U module with reversible brackets, for 19-inch and 23-inch rack frames

Standard Configurations:

- One standard configuration:
 - 8-wavelength module
 - 1470-1610 nm, 20-nm spacing
- Standard CWDM wavelengths, according to the ITU-T G.694.2
- Rack-mount module, 1U high, 19/23-inch rack frames (reversible brackets)

Options:

- Alternate channel configurations are possible
Note: insertion losses may vary slightly among outputs.
- Standard fiber-optic connectors: FC, LC, SC, ST (UPC or APC)
- Pigtail modules also available
- Tap percentage: 10%, 5%, and 1%

Specifications:

<i>Item Description</i>	<i>Unit</i>	<i>Value</i>
Wavelength, Input/Output	nm	per ITU-T G.694.2
Center Wavelength Spacing	nm	20
Pass Band, Demux Signal	nm	> 13
Optical Power, Input	mW	< 300
Return Loss	dB	>50
Polarization Dependent Loss (PDL)	dB	< 0.1
Adjacent Channel Isolation	dB	> 30
Non-adjacent Channel Isolation	dB	> 50
Temperature – Operating	°C	-10 to +65
Temperature – Storage	°C	-40 to +85
Package dimensions (W x D x H) - not including rack-mount brackets	inch cm	17 x 6 x 1.72 43.2 x 15.3 x 4.4

Maximum Insertion Loss* (dB) vs. Tap Percentage (for 8-channel module)

<i>Tap (%)</i>	10	5	1
“Common In” to “Common Out”	0.7	0.5	0.3
“Common In” to “Monitor” outputs	12.2	15.7	24.7

* Note: Insertion loss values do not include connector loss.

Part Number Build Matrix

F	C	M	O	N	-	X	X	X	-	X	X	-	X	X	X
1	2	3	4	5	-	6	7	8	-	9	10	-	11	12	13
F	C	M	O	N	-				-			-			

FCMON = Fiberdyne Labs “Coarse-WDM Monitor-Module”

Digit #	Description	Options **
6 th	Wavelength Spacing	1 = 20 nm
7 th & 8 th	Number of wavelengths	08 = 8-channel (standard: 1470-1610 nm) (Note: for other configurations, enter channel count, then list CWDM Channels in “Special Instructions.” **)
9 th & 10 th	Tap Percentage	01 = 1% (99/01 split) 05 = 5% (95/05 split) 10 = 10% (90/10 split)
11 th	Package	1 = Rack-mount, 1U, 19/23-inch
12 th	Connection Type	1 = Adapter, Bulkhead 2 = Pigtail, heavy-duty (e.g. 3-mm/2-mm) ***
13 th	Connector Style	1 = FC 2 = FC/APC 3 = SC 4 = SC/APC 5 = ST 6 = LC X = other; must list in “Special Instructions” **

Note: ** add “Special Instructions” for custom configurations. Use “X” in the part number; then list details of unique configuration. For example: if the 7th and 8th digits are “04”, then list the following.

“Special Instructions (7th/8th digit): 4-wavelengths – 1550-1610 nm.”

*** Pigtailed jacket-types are 3-mm for FC/SC/ST and 2-mm for LC.