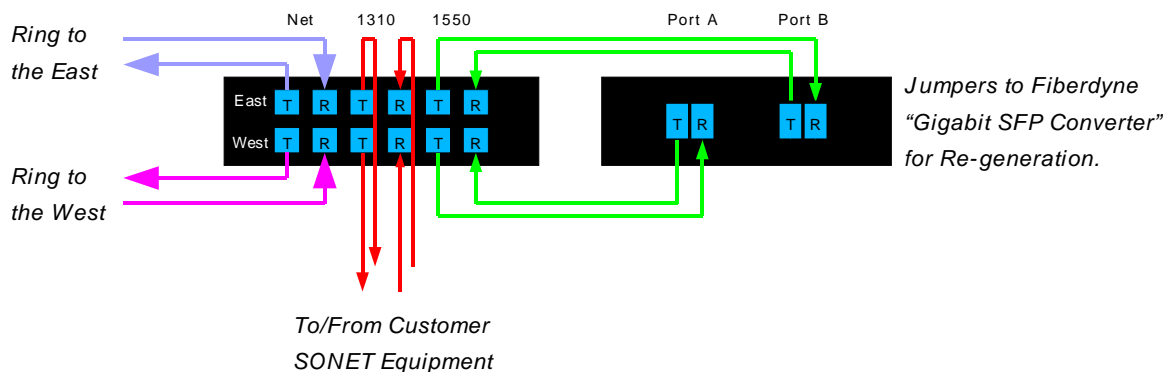


**Introduction:**

Fiberdyne presents a system of Add/Drop/Regenerator (ADR), rack-mountable modules, which include passive and active components. The passive modules multiplex and de-multiplex 1310 and 1550 “Band” signals to/from a fiber link. The 1550-nm “Band” can include a variety of signals: SONET or Ethernet, CWDM or DWDM. The active modules can regenerate Gigabit Ethernet signals.

**Conceptual Usage:**

Add ADR Modules to existing, dual-fiber links, which have a single wavelength on each fiber. Adding the 1310/1550 ADR system, effectively doubles the bandwidth on your existing fiber. Add the optional CWDM or DWDM wavelengths, and the bandwidth is further multiplied.



*Add/Drop Multiplexer Module and Regenerator Module: 1310-nm is connected to premise equipment, while 1550 is regenerated and passed to the next node.*

**Features:**

- Wavelength Division Multiplexing of Fiber-optic signals for greater bandwidth
- Wavelength Add/Drop for deployment flexibility
- Signal regeneration for long-haul networks

Standard Configurations:

- Two modular configurations for nodes:
  - All-in-One modules for easy provisioning (i.e. one version for all nodes)
  - Individual Passive and Active modules for deployment flexibility.
- Head-end multiplexer/de-multiplexer for multi-service deployment
- Standard (i.e. telecom) single-mode fiber

Options:

- Single-fiber or Dual-fiber applications (e.g. point-to-point or ring topologies)
- Rack-mount module, 1U high, for 19/23-inch rack (i.e. reversible brackets)
- Chassis-mount modules, which fit standard rack-mount termination boxes and rack-mount panels (e.g. FCH/CCH or LGX compatible).
- Fiber-optic connections: FC, LC, SC, ST
- Multiple wavelengths: 1310, 1550, CWDM, DWDM

Specifications:

<b>Item Description</b>	<b>Unit</b>	<b>Value</b>
Wavelengths – Multiplexers: -1310/1550 - CWDM (spacing = 20 nm) - DWDM (spacing = 0.8/1.6 nm)	nm	1260-1360/1460-1620 per ITU-T G.694.2 per ITU-T G.694.1
Optical Power, Input, maximum	mW	300
Return Loss	dB	> 50
Polarization Dependent Loss (PDL)	dB	< 0.2
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) - 1U module (excl. rack-mount brackets) - other (CCH or LGX compatible)	inch cm	17 x 6 x 1.72 43.2 x 15.3 x 4.4 *
Power consumption: regenerator (5 VDC, 1.5 A power pack included)	Watt	4

Note: \* other module dimensions available online at:  
[www.fiberdyne.com/products/pdf/modulereference.pdf](http://www.fiberdyne.com/products/pdf/modulereference.pdf)

Part Number Build Matrix

<b>F</b>	<b>A</b>	<b>D</b>	<b>R</b>	<b>S</b>	-	<b>X</b>	<b>X</b>	-	<b>X</b>	<b>X</b>	-	<b>X</b>	<b>X</b>	<b>X</b>
1	2	3	4	5	-	6	7	-	8	9	-	10	11	12
<b>F</b>	<b>A</b>	<b>D</b>	<b>R</b>	<b>S</b>	-			-			-			

FADRS = Fiberdyne Labs “Add/Drop/Regen System”

<b>Digit #</b>	<b>Description</b>	<b>Options **</b>
6 <sup>th</sup>	Fiber Solution	1 = Single-fiber Solution 2 = Dual-fiber Solution
7 <sup>th</sup>	Module Type	1 = All-in-One (Add/Drop/Regen) Rackmount 2 = Add/Drop (multiplexing) 3 = Regenerator, Ethernet, 1000Base 4 = Head-end Mux/Demux
8 <sup>th</sup>	Package	1 = Rack-mount, 1U high, 19/23-inch 2 = FCH/CCH-compatible *** 3 = LGX-compatible ***
9 <sup>th</sup>	Connector Style	1 = FC/UPC 2 = FC/APC 3 = SC/UPC 4 = SC/APC 5 = ST/UPC 6 = LC/UPC  X = other (if available); must be listed in “Special Instructions” **
10 <sup>th</sup>	Number of Multiplexed Wavelengths	0 = n/a (i.e. regenerator module) 2 = two (2) wavelengths  (Note: for CWDM/DWDM configurations, enter wavelength/channel count, as required **)

<i>Digit #</i>	<i>Description</i>	<i>Options **</i>
11 <sup>th</sup>	Add/Drop Wavelengths	0 = n/a (i.e. regenerator module) 1 = 1310/1550 nm 2 = 1310/CWDM ** 3 = CWDM ** 4 = 1310/DWDM ** 3 = DWDM **
12 <sup>th</sup>	Regenerator Wavelength	0 = none (i.e. passive module only) 1 = 1310-nm (1000Base-LX) 2 = 1550-nm (1000Base-"ZX") 3 = CWDM (must specify wavelength **) 4 = DWDM (must specify channel number **)

*Notes:* \*\* for unlisted options or for custom configurations, the Product Description must include a list of "Special Instructions."

- for CWDM/DWDM configurations, select the correct option from the above table. Then, list wavelength/channel-number, as appropriate, in a Special Instruction.
- for custom configurations. Use "X" in the part number; then list details of unique configuration.
- *Example:* if the multiplexer module will add/drop 1590-nm and 1610-nm signals, then list the following.

"Special Instruction: CWDM Add/Drop, 1590/1610 nm"

\*\*\* to rack-mount the FCH or LGX modules, use Fiberdyne Rack-mount Panels or Termination Boxes, which are sold separately.

Sample Configurations:

- Fiberdyne ADR System, Dual-fiber Solution, **All-in-One**, Rack-mount 1U module, LC connectors, 2-wavelength, 1310/1550-nm Add/Drop, 1550-nm Regenerator: P/N *FADRS-21-16-212*
- Fiberdyne ADR System, Dual-fiber Solution, **Add/Drop**, FCH module, LC connectors, 2-wavelength, 1310/1550-nm: P/N *FADRS-22-26-210*
- Fiberdyne ADR System, Dual-fiber Solution, **Regenerator**, FCH module, LC connectors, 1550-nm: P/N *FADRS-22-26-002*