# **WaveSmart®**

## Circulators



### **Application**

Provides fiber relief for applications that currently utilize a unidirectional dual fiber transmit/ receive configuration, using either 1310nm or 1550nm wide band optics or Sonet/Ethernet optics (discrete, SFP, XFP). Note: SFP or XFP systems may be better served using a WDM solution.

### **Description**

The WaveSmart Circulator allows the user to reroute the traffic that traditionally required two fibers (one for each direction of travel) onto a single fiber with bidirectional traffic. This in turn allows the user to reduce the number of required fibers from two to one (four to two for working/protect systems).

#### **Features and Benefits**

#### Integrity

- Compliant to Telcordia GR-1221 and GR-1209
- Supports Industry standard SC/APC and LC/APC connectors and adapters in standard and custom platforms

#### **Protection**

- Offered in the wide variety of Clearview<sup>®</sup> Cassettes and discrete packages
- Ruggedized fiber up-jacket and packages available
- · Angled Polished connectors recommended throughout the network to minimize errors due to back reflection
- Not recommended for Multi-longitudinal Mode (MLM) Laser based systems

#### Access

- · Compact tube style discrete component offered for direct splice in options
- · Available in either wideband 1310nm or 1550nm
- · Clearview Cassettes hold four Circulators when using SC/APC and eight when using LC/APC

#### Investment

- WaveSmart Optical Components offer an economical, dense and user-friendly solution for deploying Circulators in a fiber network
- Environmentally stable, high-isolation, low-insertion loss
- "Grow-as-you-go" only buy circulators as customer take rates increase

### **Technical Specifications**

WaveSmart Circulators		
Insertion Loss	< 1.0 dB (2.0 for matched pair)	
Return Loss	> 50 dB	
Maximum Power	500 mW	
Minimum Isolation	> 40 dB	
Channel Peak Isolation	> 50 dB	
Fiber Type	SMF - 28e	
Operating/Storage Temperature	-40°C ~ 85°C	
PDL	< 0.15 dB	
PMD	< 0.05 ps	
Industry Standards	ROHS Compliant	

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# Circulators -



# **Packaging Options**

Clearview<sup>®</sup> Cassette

• Discrete (unpackaged solution)

Clearview xPAK

• LGX

# **Pre-Configured Part Numbers**

Clearview Blue Cassettes - Terminated with SC/APC Connectors

Part Number	Description
LYG-CA01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 1 x 1310nm optical circulators, component is terminated with SC/APC connectors
LYG-CA01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 1 x 1550nm optical circulators, component is terminated with SC/APC connectors
LYG-CB01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1310nm optical circulators, component is terminated with SC/APC connectors
LYG-CB01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1550nm optical circulators, component is terminated with SC/APC connectors
LYG-CD01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 4 x 1310nm optical circulators, component is terminated with SC/APC connectors
LYG-CD01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 4 x 1550nm optical circulators, component is terminated with SC/APC connectors
LYG-CD01-ZZZ-31-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1310nm and 2 x 1550nm optical circulators, component is terminated with SC/APC connectors

### Clearview Blue Cassettes - Terminated with LC/APC Connectors

Part Number	Description
LYG-GA01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 1 x 1310nm optical circulators, component is terminated with LC/APC connectors
LYG-GA01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 1 x 1550nm optical circulators, component is terminated with LC/APC connectors
LYG-GB01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1310nm optical circulators, component is terminated with LC/APC connectors
LYG-GB01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1550nm optical circulators, component is terminated with LC/APC connectors
LYG-GD01-ZZZ-31	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 4 x 1310nm optical circulators, component is terminated with LC/APC connectors
LYG-GD01-ZZZ-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 4 x 1550nm optical circulators, component is terminated with LC/APC connectors
LYG-GD01-ZZZ-31-55	Circulator, loaded into Clearview Blue Cassette, one high cassette, contains 2 x 1310nm and 2 x 1550nm optical circulators, component is terminated with LC/APC connectors

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