**Allied Telesis®**

# AT-WG100 Series
## Diplexers

AT-WG102 &
AT-WG103

AT-WG101

**AT-WG101-13**
Diplexer with 1310TX/1550RX

**AT-WG101-15**
Diplexer with 1550TX/1310RX
(AT-WG101-13 and AT-WG101-15 must be ordered together)

**AT-WG102-13**
Diplexer with 1310TX/1310RX
(Product must be ordered in pairs)

**AT-WG102-15**
Diplexer with 1550TX/1550RX
(Product must be ordered in pairs)

**AT-WG103-13**
Diplexer with 1310TX/1310RX
(Product must be ordered in pairs)

**AT-WG103-15**
Diplexer with 1550TX/1550RX
(Product must be ordered in pairs)

### Double the Fiber Capacity
As stand-alone passive optical components, the AT-WG100 Series diplexers enable the doubling of fiber capacity by combining dual fiber strands onto a single fiber strand.

AT-WG100 Series diplexers are used for multiplexing and de-multiplexing broadband and narrowband wavelengths across a single fiber strand. By consolidating transmission and receiving paths, existing fiber pairs have the potential to double the usable capacity.

### Applicaiton
The AT-WG100 diplexer plugs directly into existing single-mode fiber SC ports using 1310nm or 1550nm wavelengths. Most commonly used in back-to-back scenarios, the AT-WG100 Series can be used with a variety of network equipment. A typical back-to-back set up is depicted to the right.

### Connectors
Single-mode SC

### Performance

| AT-WG101-13 & AT-WG101-15 | Typical | Maximum |
|---|---|---|
| Insertion Loss | 0.8dB | 1.4dB |
| Crosstalk from TX to RX | -60dB | -50dB |
| Crosstalk from common to TX | -40dB | -35dB |

| AT-WG102-13 & AT-WG102-15 | Typical | Maximum |
|---|---|---|
| Insertion Loss | 3.5dB | 4.0dB |
| Crosstalk from TX to RX | -60dB | -48dB |

| AT-WG103-13 & AT-WG103-15 | Typical | Maximum |
|---|---|---|
| Insertion Loss | 3.5dB | 4.0dB |
| Crosstalk from TX to RX | -60dB | -55dB |

### Environmental Specifications
Operating Temperature:

| | |
|---|---|
| AT-WG101-13 & AT-WG101-15 | -25°C to 75°C |
| AT-WG102-13 & AT-WG102-15 | -40°C to 85°C |
| AT-WG103-13 & AT-WG103-15 | -40°C to 85°C |
| Relative Humidity | 5% to 95% non-condensing |
| Operating Altitude | 0 to 10,000 feet |

### Physical Characteristics

| | |
|---|---|
| AT-WG101-13 & AT-WG101-15 | 10mm x 24mm x 64mm |
| AT-WG102-13 & AT-WG102-15 | 19mm x 36mm x 92mm |
| AT-WG103-13 & AT-WG103-15 | 19mm x 36mm x 92mm |

Weight:

| | |
|---|---|
| AT-WG101-13 & AT-WG101-15 | 26 grams |
| AT-WG102-13 & AT-WG102-15 | 32 grams |
| AT-WG103-13 & AT-WG103-15 | 32 grams |

### Key Features
- Reduce fiber requirements up to 50%
- Protocol & rate independent
- Passive with low insertion loss
- Multiplex & de-multiplex
- Broadband or narrowband wavelengths
- Lightweight
- Simple to install

### Ordering Information

**AT-WG101-13**
Diplexer with 1310TX/1550RX

**AT-WG101-15**
Diplexer with 1550TX/1310RX
(AT-WG101-13 and AT-WG101-15 must be ordered together)

**AT-WG102-13**
Diplexer with 1310TX/1310RX
(Product must be ordered in pairs)

**AT-WG102-15**
Diplexer with 1550TX/1550RX
(Product must be ordered in pairs)

**AT-WG103-13**
Diplexer with 1310TX/1310RX
(Product must be ordered in pairs)

**AT-WG103-15**
Diplexer with 1550TX/1550RX
(Product must be ordered in pairs)

Connecting The (IP) World

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