

## Optical Multiplexers

### DL4000 VIDEO TRANSPORT SYSTEM

### CWDM and WDM Optical Multiplexing



#### Single Slot Modules

#### CWDM and WDM Optical Multiplexing

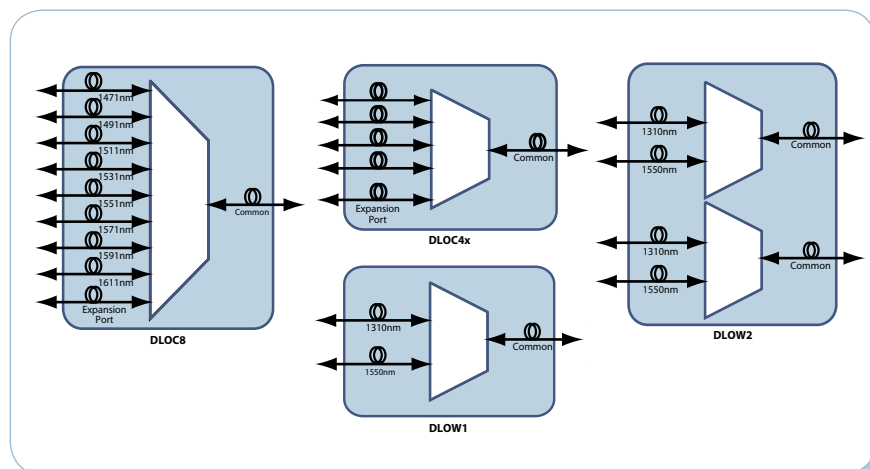
- Optically multiplex 9 wavelengths over a single fiber
- Bi-directional combine/split
  - 1310nm
  - 1550nm
  - CWDM 1471nm-1611nm
- Industry standard ITU G.694.2 wavelengths

#### Flexible

- Single or dual WDM
- Multiple 4 Channel options
  - Low (1471nm, 1491nm, 1511nm, 1531nm)
  - High (1551nm, 1571nm, 1591nm, 1611nm)
  - Mid (1511nm, 1531nm, 1571nm, 1591nm)
  - Outer (1471nm, 1491nm, 1591nm, 1611nm)
- 8 CWDM Wavelengths
- CWDM versions include expansion port (passes all other wavelengths)

Artel's CWDM and WDM modules create a comprehensive set of optical multiplexing solutions for the DL4000 Video Transport System. These modules, in conjunction with other DL4000 modules or third party equipment allow the creation of flexible, space and fiber efficient optical networks.

Artel designed its optical multiplexing products to address Video Service Providers critical issue of space and fiber constraint. For space efficiency each module takes only one bay in the DL4000 leaving three other for additional function modules. Utilizing industry standard CWDM optical filter plus an additional expansion port complex optical networks can be created. Completely passive and designed with latest optical filters Artel's CWDM and WDM modules are extremely reliable, cost effective, and with low insertion losses.



## Optical Multiplexing CWDM and WDM Specifications



### Physical, Environmental

Dimensions	0.8" x 5" x 10.8"
1 slot in DL4000 chassis	
Ambient Operating Temperature of DL4000 Chassis	0 to 50°
Ambient Storage Temperature	-40 to 80°C
Relative Humidity	10 to 95% (non-condensing)

### Regulatory Conformance

Compliance: NEBS Level 3, CSA 60950, EN60950, EN55022, FCC Part 15 (Class A), CISPR 22

#### DLOC4x

# of I/O Channels	4
Connector	LC/PC Female
Channel Isolation	≥30dB
Back Reflection (Optical Return Loss)	≥40dB
Insertion Loss	≤2.1dB
Fiber Type	Single Mode
Transmission Direction	Bidirectional

#### DLOC4L

Defined Optical Wavelengths 1471, 1491, 1511, 1531

#### DLOC4M

Defined Optical Wavelengths 1511, 1531, 1551, 1571

#### DLOC4H

Defined Optical Wavelengths 1551, 1571, 1591, 1611

#### DLOC4O

Defined Optical Wavelengths 1471, 1491, 1591, 1611



#### DLOC8

# of I/O Channels	8
Defined Optical Wavelengths	1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611
Connector	LC/PC Female
Channel Isolation	≥30dB
Back Reflection (Optical Return Loss)	≥40dB
Insertion Loss	≤3.2dB
Fiber Type	Single Mode
Transmission Direction	Bidirectional

#### DLOW1

# of I/O Channels	2
Defined Optical Wavelengths	1310 and 1550
Connector	LC/PC Female
Channel Isolation	≥30dB
Back Reflection (Optical Return Loss)	≥40dB
Insertion Loss	≤1.3dB
Fiber Type	Single Mode
Transmission Direction	Bidirectional

#### DLOW2

# of I/O Channels	4
Defined Optical Wavelengths	Dual 1310 and 1550
Connector	LC/PC Female
Channel Isolation	≥30dB
Back Reflection (Optical Return Loss)	≥40dB
Insertion Loss	≤1.3dB
Fiber Type	Single Mode
Transmission Direction	Bidirectional

Module	Part Number	Description
DLOC4L	390-008752-00	4 Channel CWDM Optical Mux/De-Mux, Channels 1471, 1491, 1511, 1531
DLOC4M	390-008752-01	4 Channel CWDM Optical Mux/De-Mux, Channels 1511, 1531, 1551, 1571
DLOC4H	390-008752-02	4 Channel CWDM Optical Mux/De-Mux, Channels 1551, 1571, 1591, 1611
DLOC4O	390-008752-03	4 Channel CWDM Optical Mux/De-Mux, Channels 1471, 1491, 1591, 1611
DLOC8	390-008752-04	8 Channel CWDM Optical Mux/De-Mux, Channels 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611
DLOW1	390-008754-01	1310nm, 1550nm WDM Optical Mux/De-mux
DLOW2	390-008754-02	Dual 1310nm, 1550nm WDM Optical Mux/De-mux

