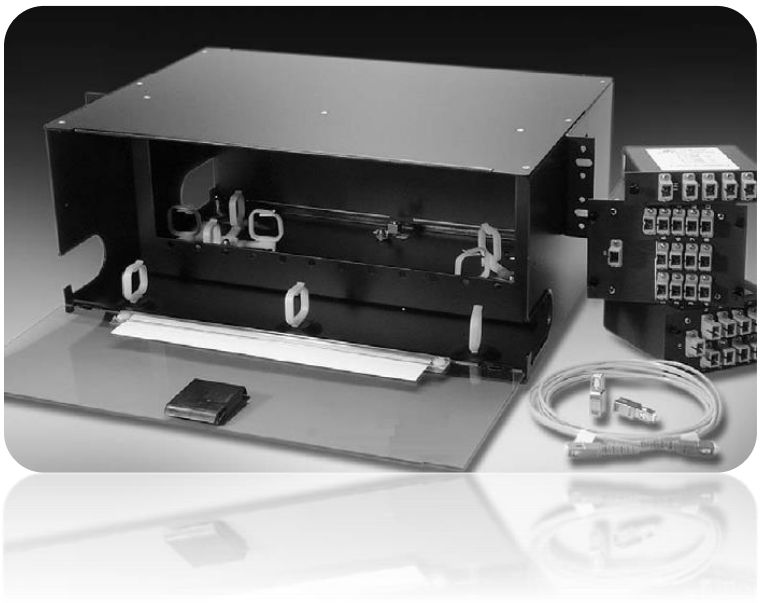
Optical Passives for HFC, FTTx & RFoG Solutions



- Low insertion loss
- Low PDL
- High channel isolation
- Excellent environmental reliability
- ITU G.694 standard compliant
- Excellent wavelength stability

ACT offers a complete line of DWDMs, CWDMs, WDMs, OADMs, Couplers, DCM, Optical Shelf and Accessories. The Wavelength Division Multiplexers (WDMs) feature low insertion loss, high isolation and excellent wavelength stability.

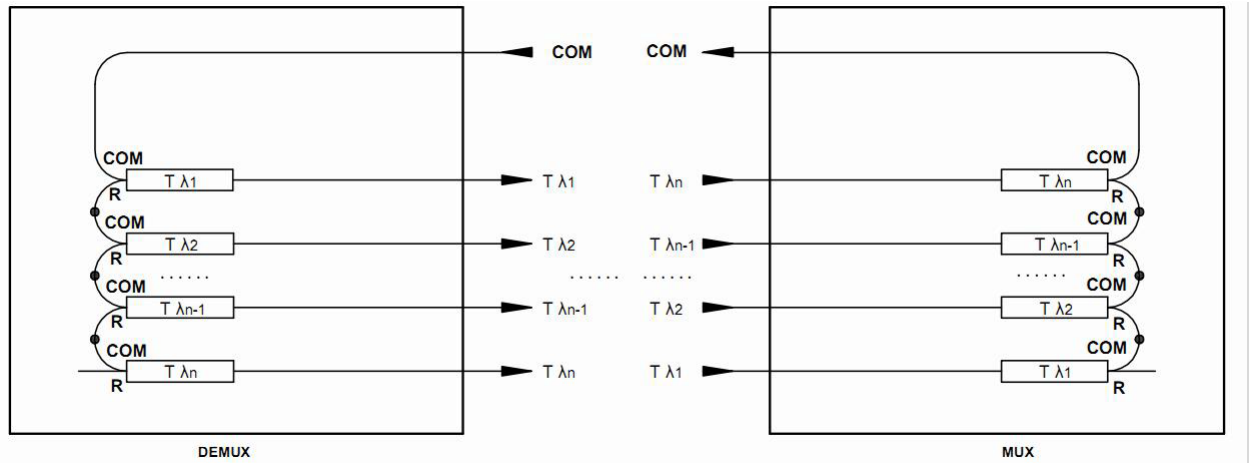
The CWDM/DWDMs are designed to multiplex (mux) or de-multiplex (demux) optical signals in full optical spectrum with CWDM/DWDM multiple channels at an ITU standards ITU-T defined spacing. It comes as different form factor packages, 1RU 19" rack-mount chassis, standard LGX modules or flat box assemblies.

ACT also developed special range of WDM units which are suitable for HFC, FTTx (P2P, P2MP), RFOG (Radio Frequency over Glass) applications, permitting DOCSIS and HFC to operate over a EPON/GPON compliant Passive Optical Network (PON) as commonly deployed for Fibre to the Home (FTTH) developments solution in high density FTTX networks to bring the video services to business and home premises.

Key Features

- Cost-effective Full Line of Optical Passives and Accessories
- WDM/CWDM/DWDM/OADM, Optical Coupler, Attenuator etc.
- ITU G.694 standard compliant
- Excellent wavelength stability
- High port isolation, low insertion loss
- Customization option available
- Options for assembly into 19” sub-racks, LGX chassis, or flat boxes
- Applicable for WDM systems, CATV broadcasting, and MANs
- Options for assembly into 19” sub-racks, LGX chassis, or flat box, ready for deployment.

Sample DWDM Block Diagram (DWDM)



DWDM Specifications

ACT Optical Passive DWDM, (AOPD)

Parameters	Unit	DWDM Module				
Wavelength Range	nm	ITU channels 186.6 to 196.1 THz				
Channel Center Wavelength	Ghz	ITU channels				
Channel Spacing	nm	100		200		
Channel Passband (@-0.5 dB)	λ	0.22		0.5		
Channel Number	dB	2	4	8	16	32
Insertion Loss	dB	≤ 1.4	≤ 2.0	≤ 2.8	≤ 4.5	≤ 5.5
Adjacent Channel Isolation	nm/ °C	≥ 30				
Non-Adjacent Channel Isolation	dB	≥ 45				
Wavelength Thermal Stability	ps	≥ 0.003				
Insertion Loss Thermal Stability	dB	≤ 0.005			≤ 0.007	≤ 0.008
PDL	dB	≤ 0.1	≤ 0.15	≤ 0.15	≤ 0.20	≤ 0.25
Polarization Mode Dispersion	Ps	≤ 0.1			≤ .015	
Directivity	dB	≥ 50				
Return Loss	dB	≥ 45				
Optical Power	mW	≤ 500				
Operating Temperature	°C	-10 ~ +70				
Storage Temperature	°C	-40 ~ +85				
Relative Humidity	%	5~95				
Dimensions	mm	ABS Box or LGX Box or 1U (2U) rack-mount				
Note: 1. Customization is available. **2. Specified without connector, and can add an additional 0.2 dB loss per connector**						

Note: Contact ACT for different packaging options. Weight will vary depending on model.Losses excluding connector loss (a pair of connector loss max: 0.5dB)

Ordering Information

Contact ACT for complete DWDM offerings and other accessories.

Sample Configuration:

AOPD-32D-L-3-DD-0-T-1-P

Optical MUX; Technology: DWDM; Number of Wavelengths: 32; Rack Mount; Channel: ITU

Insertion Loss: Tilt;

Conn: SC/APC, Premier Grade

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