


40 Channel Mux/Demux with 100GHz Channels

Bookham offers a high performance 40 channel multiplexer or demultiplexer solution for 100 GHz channels. This product uses Bookham proprietary Advanced Energetic Deposition (AED) thin film technology for superior performance.

The Bookham 40 channel solutions offer an ideal combination of fully passive operation, low loss, compact size, and wide channel pass bands. The Bookham thin film technology provides a completely passive, flat-topped pass band design that allows for less stringent control of the laser wavelength over the system lifetime as well as a wider pass band than AWG technology for better filter shape through cascading architectures. Typical loss of 4dB is achieved in the uniform loss version of the product. Matched mux-demux pairs are offered with typical back-to-back insertion loss of 5dB. The 135x81x22mm size allows this part to be used in compact assemblies. Ribbon connector options are available for easy interconnection to the rest of the system.

Features:

- Passive operation
- Flat pass band design
- 27.5 GHz clear pass band
- Low loss (<4.8dB)
- High adjacent channel isolation
- -5 to 70°C operating temperature
- Compact Size (135x81x22mm)
- Telcordia GR-1221 qualified
- RoHS compliant 

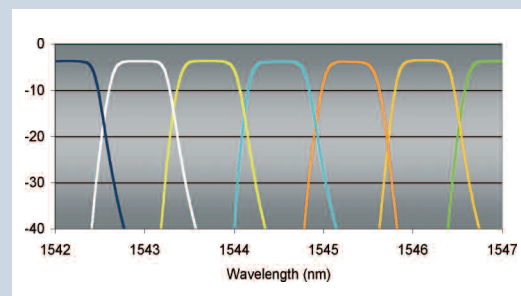
Options:

- Ribbon connectors
- Uniform loss or matched mux/demux loss
- Optical monitor ports
- 192.0 or 192.1THz start frequency
- Rack mount or LGX enclosure

Applications:

- Metro and long-haul mux/demux
- OADM nodes
- Subsystem building block

Example Performance:



40 Channel Mux/Demux; 100GHz Channels

Specifications (valid over operating temperature)

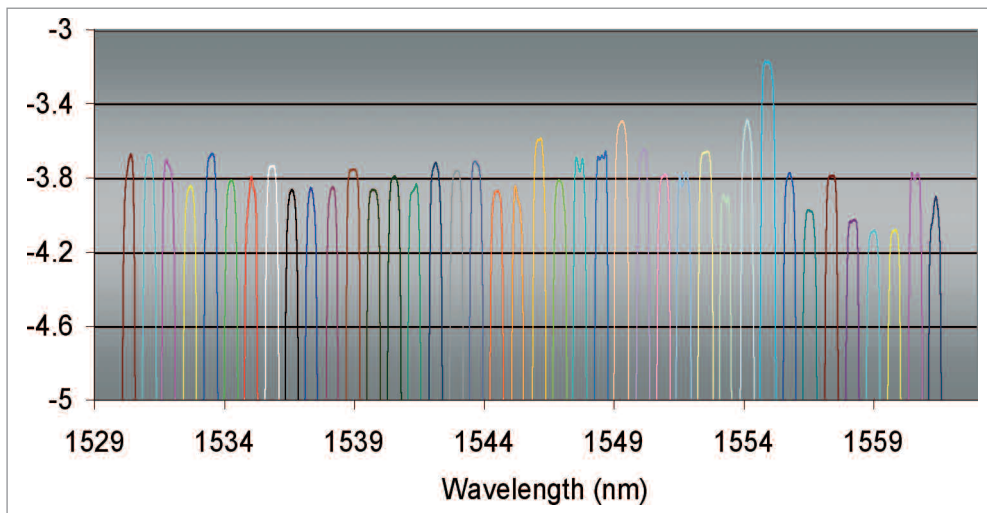
Parameter	Region	Measure from => to	Specification	Unit	
Channel Number			40		
Channel Spacing			100		GHz
Channel Frequencies	option 20 option 21		192.0 to 195.9 192.1 to 196.0		THz
Passband Region			ITU \pm 13.75		GHz
Insertion Loss ^a	Passband	Common => Ports 1-40	4.8	Max	dB
IL Variation	Passbands	Common => Ports 1-40	0.5	Max	dB
Channel to Channel Variation ^b	Passband	Common => Ports 1-40	1.5	Max	dB
Isolation	Adj Ch	Common => Ports 1-40	25	Min	dB
	Non-Adj Ch	Common => Ports 1-40	40	Min	dB
5% Tap Insertion Loss		Common => Tap	13	Max	dB
Return Loss		Common => Ports 1-40	45	Min	dB
Polarization Dependant Loss		Common => Ports 1-40	0.25	Max	dB
Polarization Mode Dispersion		Common => Ports 1-40	0.15	Max	dB
Power Handling		All Ports	300	Min	mW
Operating Temperature			-5 to 70		$^{\circ}$ C
Storage Temperature			-40 to 85		$^{\circ}$ C
Fiber Length			1.0 \pm 0.1		m
Dimensions			135x81x22		mm
Fiber Type			900 μ m TB/ribbon		
Connector Type			options available		

^a Losses include connectors.

^b Uniform loss version.

Example Performance

Typical channel-to-channel loss uniformity



RoHS Compliance

Bookham is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products.

The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

Ordering Information:

40ch Multiplexer part numbers:

MM1C40200291 (192.0 TO 195.9THz)

MM1C40210291 (192.1 TO 196.0THz)

40ch Demultiplexer part numbers:

MD1C40200291 (192.0 TO 195.9THz)

MD1C40210291 (192.1 TO 196.0THz)

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