

# **CWDM Filter Chips**

Bookham coarse WDM filters leverage the proprietary Advanced Energetic Deposition (AED) process to produce the industry's best filter solutions. The AED process features stateof-the-art layer thickness control to produce thin-film interference filters for optical add/drop multiplexing (OADM) WDM applications and Mux/Demux.

Bookham offers a range of filtering solutions for CWDM channel spacing. Filter designs can be optimized for transmission and reflection loss for mux/demux applications or for wider wavelength coverage.

### Features:

- O-band to L-band center wavelengths
- Accurate wavelength centering
- Deep reflection isolation
- High adjacent channel transmission isolation
- Flat transmission passband for cascading
- Excellent temperature stability

### **Options:**

- Extended reflection
- Custom specifications

#### **Applications:**

• Mux/Demux

#### **Compliance:**

- GR-1221 qualified
- RoHS compliant





# **CWDM Filters:**

Typical design specifications (valid over operating temperature)

Parameter	Standard Spec 0240/0241	Extended Reflection Spec 0599/0600	Unit
Center Wavelength ( $\lambda_c$ )	1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 (for other wavelengths, contact us)		nm
$\lambda_{C}$ Tolerance	N/A	$\lambda_{\rm C}$ ±0.4	nm
Transmission Bandwidth -0.2dB	$\lambda_{C} \pm 8$		min nm
Transmission Bandwidth -0.3dB		$\lambda_{C} \pm 7.5$	
Transmission Bandwidth -30dB	$\lambda_{C} \pm 11.5$	$\lambda_{C} \pm 12.5$	max nm
Passband Loss Variation	0.2	0.3	max dB
Passband Loss Maximum	0.4	0.35	dB
Reflection Isolation	15	15.5	dB
PDL, Passband & Adj. Channel	0.08	0.08	max dB
Center Wavelength Temp Coefficient	1.5	1.5	max pm/C
Dimensions (L x W x T)	1.4 x 1.4 x 1.0		mm
Backside Wedge Angle $(\Phi)$	0.25		deg
Operating Temperature	-5 to 70		°C
Storage Temperature	-40 to 85		°C
Price for small quantities (in stock)	\$10 with a minimum of \$500 per order	\$15 with a minimum of \$500 per order	

All parameters tested at 0° angle of incidence. Edge chips <0.1mm  $\,$ 

# **Example Performance**

Standard CWDM spec 0241



Wavelength (nm)

# **Data Sheet**



# 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:

CWDM Chip numbering convention



\$500 USD Minimum order Specifications and wavelengths subjects to stock on hand

\$5,000 USD Minimum for orders requiring a coating run

## **Contact Information**

#### North America

Bookham Santa Rosa 3640 Westwind Blvd Santa Rosa CA 95403 USA

- Tel: +1 707 636 1100
- Fax: +1 707 636 1199

• Email: sales@bookham.com

### Europe

Bookham Paignton Brixham Road Paignton Devon TQ4 7BE United Kingdom

- Tel: +44 (0) 1803 66 2000
- Fax: +44 (0) 1803 66 2801

• Email:

sales@bookham.com

#### Asia – Sales Representatives Astra

Tokyo, Japan

- Tel: +81 3 3490 3801
- Fax: +81 3 5434 9658
- Email:
- iwaki@astrainc.co.jp
- james.zhang@LuY-tech.com

• Tel: +86 10 6848 2508/2504

• Fax: +86 10 6848 5151

Hana Enterprise Suwon, S. Korea

Luy Broadband

Bejing, China

• Email:

- Tel: +82 31 204 3505
- Fax: +82 31 204 3506
- Email:
- Email.
- sein33@netian.com

#### **Important Notice**

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Bookham before they become applicable to any particular order or contract. In accordance with the Bookham policy of continuous improvement specifications may change without notice. The publication of information in this data sheet does not imply freedom from patent or other protective rights of Bookham or others. Further details are available from any Bookham sales representative.