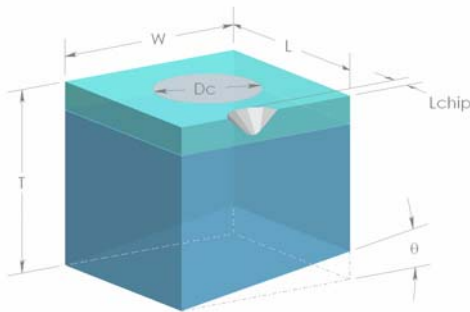


FTTx Filter Chips

Bookham narrowband filters leverage the proprietary Advanced Energetic Deposition (AED) process to produce the industry's best filter solutions. The AED process features state-of-the-art layer thickness control to produce thin-film interference filters for FTTx PON applications. A range of specification options are available.

Fiber to the X (home, curb, business, etc) is an emerging market destined to bring high bandwidth to users. The most common architectures employ either two-wavelength or three-wavelength designs to transport data, voice and video. Bookham makes solutions for the wide number of arrangements of laser, filters and detectors that are unique to each manufacturer.

Bookham FTTx filters provide the high isolation required between the 1310nm laser and the detectors, which is especially important for rejection at the analog video detectors at 1550nm. Bookham filters also give superior performance at high angle of incidence and with imperfectly collimated optical beams.



Features

- Flat passband design
- High adjacent channel isolation
- Deep reflection notch
- Superior performance incident angles and with poorly collimated beams
- Excellent temperature stability

Options

- Custom specifications
- High angle of incidence

Applications

- Metro/Access WDM systems
- B-PON / G-PON / GE-PON
- FTTH / FTTP / FTTC

Compliance

- GR-1221 qualified
- RoHS compliant

FTTx Filters

Typical design specifications (valid over operating temperature). Contact Bookham with your requirements.

Transmission Parameters	1550LPF	1310SPF	1490BPF	1310/1490SPF	Unit
Passband	1538-1566	1260-1360	1450-1500	1260-1490	nm
Insertion Loss	0.15	0.3	0.3	0.3	dB
PDL	0.1	0.1	0.1	0.1	dB
Reflect Band Isolation	25	25	25	25	dB
Angle of Incidence	custom	custom	custom	custom	deg.
Temperature Coefficient	3	3	3	3	pm/C
Reflection Parameters					
Reflect Band	1260-1500	1525-1570	1260-1360 & 1540-1560	1540-1560	nm
Insertion Loss	0.1	0.1	0.1	0.1	dB
PDL	0.1	0.1	0.1	0.1	dB
Reflection Isolation	20	15	15	15	dB
Chip Parameters					
Operating Temperature	-40 to 85				°C
Backside Wedge Angle	0.25				deg
Dimensions (L x W x T)	1.4 x 1.4 x 1.0				mm

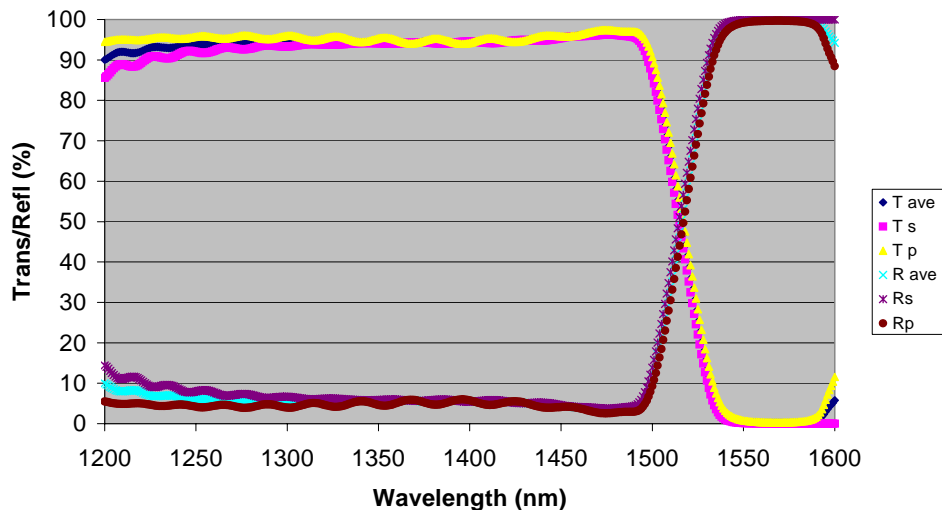
LPF = Long Pass Filter

SPF = Short Pass Filter

BPF = Band Pass Filter

Example Performance

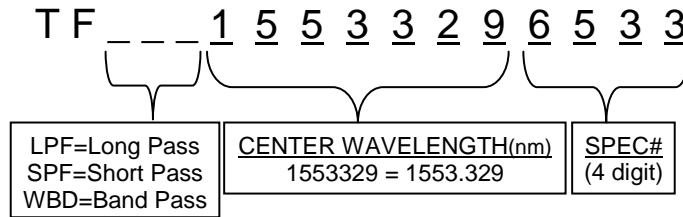
Long pass filter at high angle of incidence with divergent beam collimation in 3 wavelength system





Ordering Information

FTTx Chip numbering convention



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 2875
- Fax: +44 (0) 1803 66 2801
- Email: sales@bookham.com

Asia – Sales Representatives

Luy Broadband
Beijing, China

- Tel: +86 10 6848 2508/2504
- Fax: +86 10 6848 5151
- Email: james.zhang@LuY-tech.com

Hana Enterprise
Suwon, S. Korea

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

Astra

Tokyo, Japan

- Tel: +81 3 3490 3801
- Fax: +81 3 5434 658
- Email: iwaki@astrainc.co.jp

Emerald International Ltd.
Hsin Chu, Taiwan

- Tel: +866 3 520 5920
- Fax: +866 3 520 5697
- Email: michao_1999@yahoo.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.

CFTTx_060509