

# *Finisar*<sup>®</sup>

Advanced Optical Components Division

## Product Guide

Lasers, Detectors and Passives  
for Datacom Applications

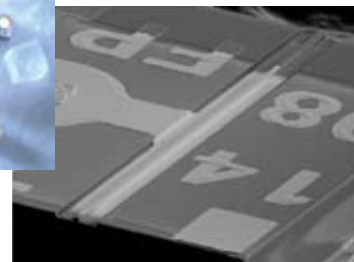


# Finisar®

## Advanced Optical Components Division

With more than 100 Million optical components operating in the world today, Finisar Advanced Optical Components is the leading supplier of active and passive components for data and telecommunications systems.

- Field Proven Reliability
- Excellent On Time Delivery
- Custom and Standard Products
- Vertically Integrated Operations
- Global Sales Team
- High Volume Manufacturing
- ROHs Compliance for all Products
- Extensive Patent Protection



### 1310nm ACTIVE COMPONENTS

Finisar offers Fabry-Perot (FP) and Distributed Feedback (DFB) lasers in the 1310nm window. The state-of-the-art lasers are based on proprietary ridge waveguide structures formed in InGaAlAs/InP. The superior material system provides optimal performance for both high speed and high temperature operation. The design, wafer growth and fabrication of the FP and DFB lasers, high-speed PIN detectors and monitor photodiodes takes place in our world-class facility located in Fremont, California. The component assembly operations of these products take place in Ipoh, Malaysia.

### 850nm ACTIVE COMPONENTS

Long held as the gold standard to which all other VCSELs (Vertical Cavity Surface Emitting Lasers) are measured, Finisar has been producing AlGaAs/GaAs devices since 1996. Finisar has recorded a number of VCSEL "firsts", including commercialization, reliability understanding, and high volume manufacturing. The design, wafer growth, and fabrication of both VCSELs and high speed PIN photodiodes takes place in our world-class facility in Allen, Texas. Assembly operations are in Ipoh, Malaysia.

### PASSIVE COMPONENTS

Finisar is a premier supplier of passive optical components used in the production of optical circuits and modules. Product offerings range from optical isolators for the module manufacturer to complex interleavers, circulators and MUX/DEMUX products for WDM (Wavelength Division Multiplexing). The design, manufacturing, and assembly operations of all passive optical components takes place in Finisar's first class manufacturing site in Shanghai, PRC.

### APPLICATION SELECTION MATRIX

| Parameter           | 850nm VCSELs and Detectors | 1310nm FP Lasers and Detectors | 1310nm DFB Lasers and Detectors |
|---------------------|----------------------------|--------------------------------|---------------------------------|
| <b>Speed</b>        | 0.1 to 10Gbps*             | 0.1 to 10Gbps*                 | 0.1 to 10Gbps*                  |
| <b>Distance</b>     | 0 to 300m                  | 0 to 10km                      | 0 to 80km                       |
| <b>Fiber Type</b>   | MMF, Ribbon                | SMF, MMF                       | SMF                             |
| <b>Package</b>      | TO-46                      | TO-56                          | TO-56                           |
|                     | SC/LC TOSA/ROSA            | SC/LC TOSA/ROSA                | SC/LC TOSA/ROSA                 |
|                     | Arrays                     |                                |                                 |
| <b>Applications</b> | IEEE 802.3                 | IEEE 802.3                     | IEEE 802.3                      |
|                     | Fibre Channel              | Fibre Channel                  | Fibre Channel                   |
|                     | Infiniband                 | ATM/SONET                      | ATM/SONET                       |
|                     | HDMI/DVI                   | Analog Video                   | Analog Video                    |

\* 17Gbps and 25Gbps components in development.

## PRODUCT SELECTION MATRIX

| Active Components                   |             |               |            |            |                |                   |
|-------------------------------------|-------------|---------------|------------|------------|----------------|-------------------|
| Part Number                         | Type        | Speed         | Distance   | Fiber Type | Package        | Application       |
| DFB-1310-10LR-xx                    | DFB         | 10Gbps        | 10km       | SMF        | SC/LC TOSA     | IEEE 802.3ae      |
| PIN-1310-10LR-xx                    | PIN+TIA     | 10Gbps        | 10km       | SMF        | SC/LC ROSA     | IEEE 802.3ae      |
| HFE6x9x-x61                         | VCSEL       | 10Gbps        | 300m       | MMF        | SC/LC TOSA     | IEEE 802.3ae      |
| HFD6x8x-4xx                         | PIN+TIA     | 10Gbps        | 300m       | MMF        | SC/LC ROSA     | IEEE 802.3ae      |
| HFE80xx-xxx                         | VCSEL Array | 10Gbps        | 300m       | MMF        | DIE            | OIF, Infiniband   |
| HFD80xx-xxx                         | PIN Array   | 10Gbps        | 300m       | MMF        | DIE            | OIF, Infiniband   |
| FP-1310-10LRM-xx                    | FP          | 10Gbps        | 220m       | SMF        | SC/LC TOSA     | IEEE 802.3aq      |
| PIN-1310-10LRM-xx                   | PIN+TIA     | 10Gbps        | 220m       | SMF        | SC/LC ROSA     | IEEE 802.3aq      |
| FP-1310-8GFC-xx                     | FP          | 8Gbps         | 2km        | SMF        | LC TOSA        | Fibre Channel     |
| PIN-1310-8GFC-xx                    | PIN+TIA     | 8Gbps         | 2km        | SMF        | LC ROSA        | Fibre Channel     |
| HFE7192-xxx                         | VCSEL       | 8Gbps         | 300m       | MMF        | LC TOSA        | Fibre Channel     |
| HFD718x-xxx                         | PIN+TIA     | 8Gbps         | 300m       | MMF        | LC ROSA        | Fibre Channel     |
| HFE80xx-xxx                         | VCSEL Array | 5Gbps         | 300m       | MMF        | DIE            | OIF, Infiniband   |
| HFD80xx-xxx                         | PIN Array   | 5Gbps         | 300m       | MMF        | DIE            | OIF, Infiniband   |
| HFE4192-58x                         | VCSEL       | 4Gbps         | 300m       | MMF        | LC TOSA        | Fibre Channel     |
| HFD3180-20x                         | PIN+TIA     | 4Gbps         | 300m       | MMF        | LC ROSA        | Fibre Channel     |
| FP-1310-4I-xx                       | FP          | 4Gbps         | 1.4km      | SMF        | LC TOSA        | Fibre Channel     |
| PIN-1310-4I-xx                      | PIN+TIA     | 4Gbps         | 1.4km      | SMF        | LC ROSA        | Fibre Channel     |
| HFE419x-441                         | VCSEL       | 2Gbps         | 300m       | MMF        | LC TOSA        | Fibre Channel     |
| HFE409x-xxx                         | VCSEL       | 2Gbps         | 300m       | MMF        | TO-46          | Fibre Channel     |
| HFD3180-10x                         | PIN+TIA     | 2Gbps         | 300m       | MMF        | LC ROSA        | Fibre Channel     |
| HFE418x-421                         | VCSEL       | 1.25Gbps      | 550m       | MMF        | LC TOSA        | IEEE 802.3z       |
| HFE408x-xxx                         | VCSEL       | 1.25Gbps      | 550m       | MMF        | TO-46          | IEEE 802.3z       |
| HFD3x8x-10x                         | PIN+TIA     | 1.25Gbps      | 550m       | MMF        | LC ROSA        | IEEE 802.3z       |
| FP-1310-4I-xx                       | FP          | Analog        | 2km        | SMF        | Pigtail        | CATV              |
| PIN-1310-4I-xx                      | PIN         | Analog        | 2km        | SMF        | Pigtail        | CATV              |
| Passive Components - Isolators      |             |               |            |            |                |                   |
| Part Number                         | Type        | Isolation     | Wavelength | Fiber Type | Package        | Application       |
| Custom                              | Free Space  | Single/Double | 1200-1600  | SMF        | Round, Square  | Optical Isolation |
| Custom                              | Receptacle  | Single/Double | 1200-1600  | SMF        | LC, SC         | Optical Isolation |
| Custom                              | Pigtail     | Single/Double | 1200-1600  | SMF        | LC, SC, FC, MU | Optical Isolation |
| Passive Components - CWDM MUX/DEMUX |             |               |            |            |                |                   |
| Part Number                         | Type        | Channels      | Wavelength | Fiber Type | Package        | Application       |
| FWSF-M/D-1310/CWDM-4-x              | Passive     | 4             | 1200-1600  | SMF        | LC, SC, FC, MU | CWDM Management   |
| FWSF-M/D-1310/CWDM-8-x              | Passive     | 8             | 1200-1600  | SMF        | LC, SC, FC, MU | CWDM Management   |
| Passive Components - Interleaver    |             |               |            |            |                |                   |
| Part Number                         | Type        | Spacing       | Wavelength | Fiber Type | Package        | Application       |
| Contact                             | Passive     | 50GHz         | 1200-1600  | SMF        | LC, SC, FC, MU | DWDM              |
| Contact                             | Passive     | 100GHz        | 1200-1600  | SMF        | LC, SC, FC, MU | DWDM              |

"x" denotes several options are available. Most parts are also available in SC or custom packages. Please see [www.finisar.com/aoc.php](http://www.finisar.com/aoc.php) for full part number list and data sheets.

**PRODUCT RELIABILITY  
EVERYTIME  
OUTSTANDING VALUE  
ALL THE TIME**

## ABOUT FINISAR

Finisar Corporation is a technology leader for the fiber optic subsystems and network performance test systems. These products enable high speed triple play communications for networking and storage applications over Ethernet Local Area Networks (LANs), Fibre Channel Storage Area Networks (SANs) and Metropolitan Area Networks (MANs)

Finisar has been at the forefront of delivering breakthrough products for the storage and networking industries to meet the global explosion in the world's need for information and bandwidth. These industry leading products include optical components and modules for network equipment vendors, instrument and software for communications designers, products and services for large enterprise storage networks. Finisar has established a vertically integrated business model that includes internal off-shore manufacturing capabilities that allow the company to deliver a broad portfolio of high volume products within critical market windows, with world class quality and reliability. Additionally, Finisar offers a wide range of products, services, and complete solutions for specific markets.

With more than 4,000 employees, Finisar has sales, channel, and support offices worldwide. The Company is headquartered in Sunnyvale, California (USA) with product development and manufacturing facilities located in California, Massachusetts, Texas, Malaysia, China, and Singapore. Finisar is traded on NASDAQ under the symbol FNSR.

***Finisar®***

**Advanced Optical Components Division**

For further product information or sales inquiries,  
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## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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