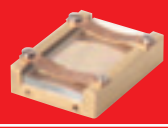


CWDM Bragg Grating Wavelength Locker – Stratophase

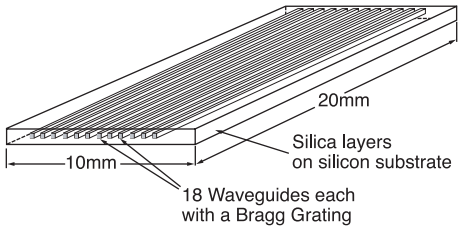
Coarse Wavelength Division Multiplexing (CWDM) Reference Chip

Stratophase patented technology – Direct Grating Writing – allows planar Bragg gratings covering the entire ITU wavelength grid (1271 to 1611nm) to be defined in a single process. This technique uses a rapid, single-step fabrication process directly resulting in low cost, high-density planar Bragg grating devices. The silica based planar devices feature arrays of channel devices suitable for multiple applications and compatible with bulk optics and fiber technology.

Each 10mm wide chip consists of an array of channel waveguides fabricated silica on a silicon substrate. The silicon substrate provides a thermally conductive and mechanically flat base for device stability. The channel waveguide is buried, with over and underclad layers isolating the waveguides from the environment. Each waveguide has a specific Bragg grating, that can be utilized in both transmission and reflection modes of operation, and corresponds to a channel within the CWDM grid. Each sample is end polished allowing straightforward fiber launch into the waveguides.

Specifications

- Buried channel waveguides – silica-on-silicon
- Spacing between waveguides 250µm
- 18 channels per chip, each containing a single Bragg grating
- Each Bragg grating corresponds to the center wavelength of each ITU CWDM channel ±0.4nm
- Temperature tunable over ±0.4nm
- Optionally devices mounted in a clip compatible with oven PV20 and controller TC200



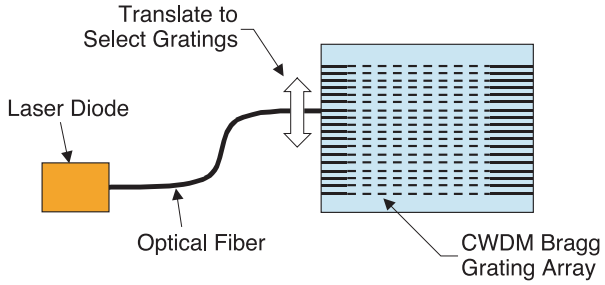
Example Applications

- Accurate transmission notch filters
- Reflection filters
- Tunable filters
- Diode laser stabilization
- Laboratory stock Bragg gratings

Features

- Single chip spans the ITU-G.694.2 grid (1271nm to 1611nm)
- 18 channels with Bragg grating, each corresponds to the a specific CWDM channel
- Suitable for both transmission and reflection
- Channels and gratings buried for low loss stable operation
- Option of mounting clip compatible with oven PV20 and temperature controller TC200 for short range thermal tuning

Example Application – Stabilization of Laser Diode



CHANNEL	CENTER WAVELENGTH (nm)
1	1270
2	1290
3	1310
4	1330
5	1350
6	1370
7	1390
8	1410
9	1430
10	1450
11	1470
12	1490
13	1510
14	1530
15	1550
16	1570
17	1590
18	1610

Contact us to discuss your applications of the Stratophase planar Bragg gratings for CWDM

ITEM#	$	£	€	¥	DESCRIPTION
DGW3	$ 3,000.00	£ 2,250.00	€ 3.150,00	¥ 510,000	CWDM Bragg Grating Array
DGW4	$ 3,000.00	£ 2,250.00	€ 3.150,00	¥ 510,000	Clip Mounted CWDM Bragg Grating Array