



PurePath TG-CPS (RSS Series)

Description

The PurePath TG-CPS combines the functions of an Output Coupler FBG (OC-FBG), a Raman Scattering Suppressor FBG (RSS-FBG), and a Cladding Power Stripper (CPS). This device can handle 3 kW of signal power with low insertion loss. The CPS is designed for efficiently stripping off residual cladding power, ASE and escaped core modes of double cladding fiber while preserving minimal degradation to signal power and beam quality.

Features

- High Power Handling
- Low Temperature Slope
- Exceptional Reliability

Application

- Fiber Laser

Specifications

| Parameter | Unit | Value |
|---|------|----------------|
| Passband Center Wavelength | nm | 1080.55 ± 0.10 |
| Max. Insertion Loss (Passband Wavelength) | dB | 0.3 |
| Max. Core Signal Power Handling ¹ | W | 3000 |
| Max. Slope of Temperature Rise in the Grating Area ¹ | °C/W | 0.1 |
| Operating Temperature | °C | 0 to + 65 |
| Storage Temperature | °C | - 40 to + 85 |

Parameter for RSS

| | | |
|-----------------------------------|----|----------------|
| Passband Wavelength | nm | 1060 ~ 1100 |
| RSS Center Wavelength @ 13 dB | nm | 1132 ± 3 |
| Loss Bandwidth at 13 dB @ RSS | nm | ≥ 20 |
| Loss Bandwidth at 20 dB @ RSS | nm | ≥ 13 |
| Min. Attenuation (RSS Wavelength) | dB | 20 |
| Min. Return loss (RSS Wavelength) | dB | 25 |
| Max. Core RSS Power Handling | W | 30 |
| Fiber Type | | 20/400 NA0.065 |

Parameters for FBG (OC)

| | | |
|---|----|--------|
| Peak Reflectivity | % | 8 ~ 12 |
| Reflection Bandwidth at 50% | nm | 2.0 |
| Tolerance on Reflection Bandwidth | nm | 0.2 |
| Min. Side Mode Suppression Ratio | dB | 10 |
| Max. Wavelength Mismatch (OC Relative HR) | nm | 0.3 |

Parameters for CPS

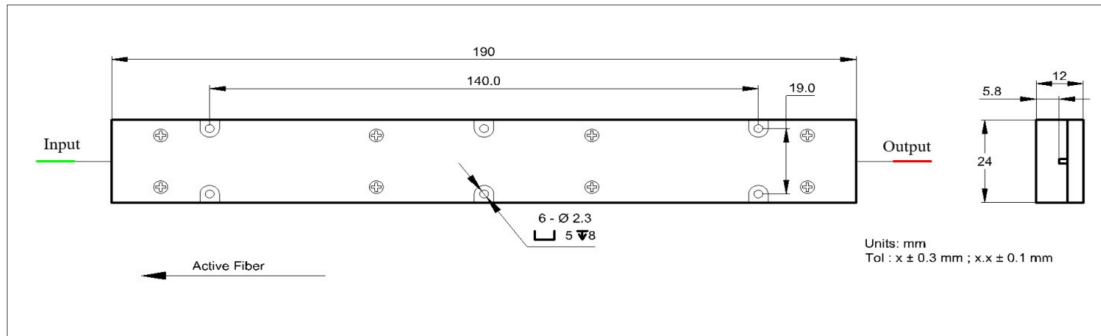
| | | |
|---|----|------------|
| Operating Wavelength Range ² | nm | 800 - 2000 |
| Min. Stripping Efficiency ³ | % | 97 |
| Max. Stripping Power | W | 300 |

¹Temperature rise test under 1 kW signal output power.

²Represents the wavelength of the main light in the cladding which is requested to be stripped by the device.

³Fully filled condition.

Package Dimensions



Ordering Information

RSS-①①①①-②②②②.②②-③.③-④④-⑤⑤⑤⑤-⑥-⑦

①①①①: RSS Wavelength

1132 - 1132 nm

SSSS - Specify

②②②②.②②: Passband Center Wavelength

1080.55 - 1080.55 nm

SSSS.SS - Specify

③.③: Reflectivity Bandwidth OC

2.0 - 2.0 nm OC

S.S/S.S - Specify

④④: Peak Reflectivity of OC

10 - 10%

SS - Specify

⑤⑤⑤⑤: Signal Power Handling

3000 - 3000 W

SSSS - Specify

⑥: Length of Input Fiber

A - 1 m B - 1.2 m C - 1.3 m

S - Specify (≤ 1.7 m)

⑦: Length of Output Fiber

A - 1 m B - 1.2 m C - 1.3 m

S - Specify (≤ 1.7 m)