

## 840±50nm Broadband 3-port PM Optical Circulator

840±50nm Broadband 3-port PM Optical Circulator is a fiber passive component built with TGG crystal, which can change signal light transmission path, the signal can be delivered from Port 1 to Port 2, the other signal light from Port 2 to Port 3, the high isolation can block the back reflection light. It's widely used in OCT System, Fiber Optic Sensor and Coherent Detecting System field. High Power type is also available upon request.

### Application:

OCT  
Fiber Optic Sensor  
Coherent Detecting  
Lab & Research

### Features:

Wide Band  
High Isolation  
Low Insertion Loss  
High Reliability



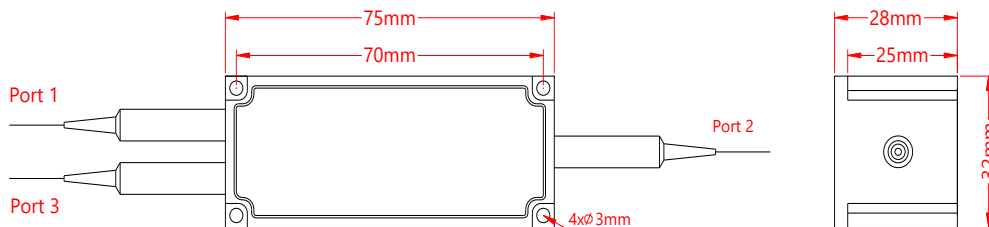
### Specification:

| Parameter                                                             | Symbol    | Value             | Unit |
|-----------------------------------------------------------------------|-----------|-------------------|------|
| Center Wavelength                                                     | $\lambda$ | 840               | nm   |
| Bandwidth                                                             | BW        | ±50               | nm   |
| Max. Insertion Loss (Port 1 to 2, 2 to 3) @ $\lambda$                 | IL        | 1.0               | dB   |
| Max. Insertion Loss (Port 1 to 2, 2 to 3) @ $\lambda \pm 50\text{nm}$ | IL        | 1.8               | dB   |
| Typ. Isolation for Port 2→1, 3→2 @ $\lambda \pm 50\text{nm}$          | Iso       | 42                | dB   |
| Min. Isolation for Port 2→1, 3→2 @ $\lambda \pm 50\text{nm}$          | Iso       | 35                | dB   |
| Min. Extinction Ratio                                                 | ER        | 20                | dB   |
| Max. Wavelength Dependent Loss                                        | WDL       | 0.4               | dB   |
| Min. Return Loss                                                      | RL        | 50                | dB   |
| Max. Optical Power (CW)                                               | P         | 500 or customized | mW   |
| Max. Tensile Load                                                     |           | 5                 | N    |
| Fiber Type                                                            |           | PM780-HP fiber    | -    |
| Operating Temperature                                                 | T         | 10~50             | °C   |
| Storage Temperature                                                   | T         | 0-60              | °C   |
| Package Dimension                                                     |           |                   | mm   |

Notice: Above specifications are tested without connector in room temperature @23 °C.

For devices with connectors, IL will be 0.3dB higher, ER will be 2 dB lower, RL will be 5dB lower.

### Drawing:



### Ordering Information (Part Number):

PM CIR-**WW**-**BB**-**P**-**A**-**J**-**LL**-**CC**

| <b>WW</b>     | <b>BB</b>    | <b>P</b>    | <b>A</b>              | <b>J</b>             | <b>LL</b>    | <b>CC</b>    |
|---------------|--------------|-------------|-----------------------|----------------------|--------------|--------------|
| Wavelength    | Bandwidth    | Port        | Working Axis          | Jacket               | Fiber Length | Connector    |
| 830 - 830nm   | 1H- 100nm    | 3 - 3 Ports | F - Fast Axis Blocked | B - Bare Fiber       | 05 - 0.5m    | NE - None    |
| 840 - 840nm   | SS - Specify |             | B - Both Axes Working | 9 - 900um Loose Tube | 10 - 1.0m    | FA - FC/APC  |
| 850 - 850nm   |              |             |                       |                      | 15 - 1.5m    | FU - FC/UPC  |
| SSS - Specify |              |             |                       |                      | 20 - 2.0m    | SS - Specify |
|               |              |             |                       |                      | SS - Specify |              |