

## 680nm Low Loss Polarization Beam Combiner/Splitter

680nm Low Loss Polarization Beam Combiner/Splitter is a fiber passive component which can combine the two orthogonal polarization light into one output fiber or split the orthogonal polarization light to two output fiber, it's widely used in Quantum Communication System and Fiber Optic Diffraction field, the high power type is available upon request.

### Application:

Quantum Communication  
Fiber Optic Sensor  
Laser System  
Fiber Optic Diffraction

### Features:

High Extinction Ratio  
Low Insertion Loss  
Optical Path Reversibility  
High Reliability



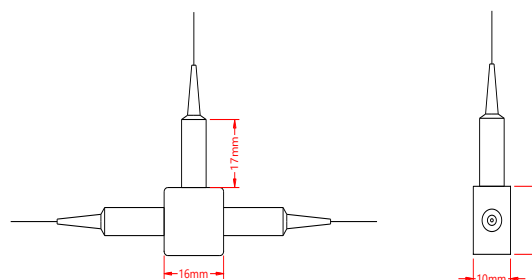
### Specification:

| Parameter                       | Symbol                | Value                                    | Unit |
|---------------------------------|-----------------------|------------------------------------------|------|
| Center Wavelength               | $\lambda$             | 680                                      | nm   |
| Bandwidth                       | BW                    | $\pm 10$                                 | nm   |
| Typ. Insertion Loss             | IL                    | 0.6                                      | dB   |
| Max. Insertion Loss             | IL                    | 0.8                                      | dB   |
| Min. Extinction Ratio (For PBS) | ER                    | 20                                       | dB   |
| Min. Directivity                |                       | 50                                       | dB   |
| Min. Return Loss                | RL                    | 50                                       | dB   |
| Max. Optical Power (CW)         | P                     | 500                                      | mW   |
| Max. Tensile Load               |                       | 5                                        | N    |
| Fiber Type                      | For Port 1 and Port 2 | PM 630-HP Panda fiber                    | -    |
|                                 | For Port 3            | PM 630-HP Panda fiber or SM 630-HP fiber | -    |
| Operating Temperature           | T                     | -5~70                                    | °C   |
| Storage Temperature             | T                     | -40~85                                   | °C   |
| Package Dimension               |                       |                                          | mm   |

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

For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower, ER will be 2dB lower, slow axis is default aligned to the connector key.

### Drawing:



### Ordering Information (Part Number):

| LPBCS- <b>WWW</b> - <b>FF</b> - <b>J</b> - <b>LL</b> - <b>CC</b> |                                 |                      |              |              |
|------------------------------------------------------------------|---------------------------------|----------------------|--------------|--------------|
| <b>WWW</b>                                                       | <b>FF</b>                       | <b>J</b>             | <b>LL</b>    | <b>CC</b>    |
| Wavelength                                                       | Fiber Type on Port 3            | Fiber Jacket         | Fiber Length | Connector    |
| 633 - 633nm                                                      | 6H - 630-HP Fiber               | B - 250um Bare Fiber | 05 - 0.5m    | NE - None    |
| 635 - 635nm                                                      | PM - PM Panda Fiber,            | 9 - 900um Loose Tube | 10 - 1.0m    | FA - FC/APC  |
| 637 - 637nm                                                      | Slow Axis Aligned to Port 1     | 2 - 2.0mm Loose Tube | 15 - 1.5m    | FU - FC/UPC  |
| 640 - 640nm                                                      | P4 - PM Panda Fiber,            |                      | 20 - 2.0m    | SA - SC/APC  |
| 650 - 650nm                                                      | Slow Axis 45° Aligned to Port 1 |                      | SS - Specify | SU - SU/APC  |
| 670 - 670nm                                                      |                                 |                      |              | LA - LC/APC  |
| 680 - 680nm                                                      |                                 |                      |              | LU - LC/UPC  |
| SSS - Specify                                                    |                                 |                      |              | SS - Specify |