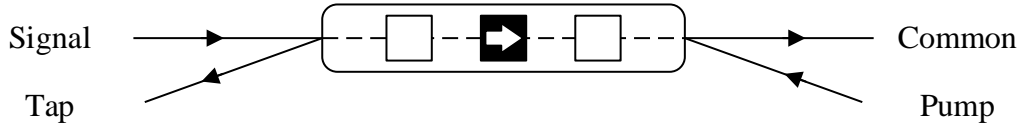


**Product: Tap + Isolator + WDM Hybrid**

| Part Number      | Spec Number | Version | Date       |
|------------------|-------------|---------|------------|
| TAIWXXXXXXXXXXXX | S003        | Rev 02  | 11/30/2021 |

**1 Function Diagram**

This is a tap coupler + isolator + 1550/980nm WDM hybrid.



**2 Specifications**

**2.1 Environment Conditions**

| Item | Parameters                  | Symbol | Min | Typ | Max | Units | Note |
|------|-----------------------------|--------|-----|-----|-----|-------|------|
| 1.   | Operating Temperature       | Top    | 0   |     | 70  | °C    |      |
| 2.   | Storage Temperature         | Tstor  | -40 |     | 85  | °C    |      |
| 3.   | Operating Relative Humidity | RHop   | 5   |     | 95  | %     | [1]  |
| 4.   | Storage Relative Humidity   | RHstor | 5   |     | 95  | %     | [1]  |

**Note:**

[1] Not to exceed industrial standard of 0.024 kg water per kg of dry air under non-condensing conditions.

**2.2 Optical Specifications**

| Item | Parameters   | Symbol          | Min         | Typ | Max  | Units | Note |
|------|--|-----------------|-------------|-----|------|-------|------|
| 5.   | Signal Wavelength                                  | $\lambda_s$     | 1528 ~ 1568 |     |      | nm    |      |
| 6.   | Pump Wavelength                                    | $\lambda_p$     | 965 ~ 995   |     |      | nm    |      |
| 7.   | Signal Insertion Loss (Signal → Com) @ $\lambda_s$ | IL <sub>S</sub> |             |     | 1.5  | dB    |      |
| 8.   | Pump Insertion Loss (Pump → Com) @ $\lambda_p$     | IL <sub>P</sub> |             |     | 0.6  | dB    |      |
| 9.   | Tap Insertion Loss (Signal → Tap)                  | IL <sub>T</sub> | 17          |     | 24   | dB    | 1%   |
| 10.  | Isolator Isolation (Com → Signal) @ $\lambda_s$    | Single Stage    | Iso         | 20  |      | dB    |      |
|      |  | Dual Stage      | Iso         | 36  |      | dB    |      |
| 11.  | Pass Isolation (Signal → Com) @ $\lambda_p$        | Iso             | 25          |     |      | dB    | G    |
| 12.  | Reflect Isolation (Pump → Com) @ $\lambda_s$       | Iso             | 15          |     |      | dB    | G    |
| 13.  | Wavelength Dependent Loss @23°C                    | WDL             |             |     | 0.5  | dB    |      |
| 14.  | Polarization Dependent Loss                        | PDL             |             |     | 0.2  | dB    |      |
| 15.  | Return Loss @23°C                                  | RL              | 50          |     |      | dB    |      |
| 16.  | Directivity (Com → Signal) @23°C                   | Dir             | 50          |     |      | dB    |      |
| 17.  | Polarization Mode Dispersion                       | Single Stage    | PMD         |     | 0.25 | ps    | G    |
|      |  | Dual Stage      | PMD         |     | 0.05 | ps    | G    |
| 18.  | Optical Power                                      | Pop             |             |     | 500  | mW    | G    |

**Note:**

\*Above specifications are for device without connector. IL is 0.3 dB higher, RL is 5 dB lower after connector added.

G: Guaranteed by design.

## 2.3 Mechanical Specifications

### 2.3.1 Specifications

| Item | Parameters        | Symbol        | Min | Typ                   | Max | Units | Note |
|------|-------------------|---------------|-----|-----------------------|-----|-------|------|
| 19.  | Fiber Type        | Signal & Tap  |     | G.657 A1              |     |       |      |
|      |                   | Common & Pump |     | OFS CL 980-20         |     |       |      |
| 20.  | Fiber Length      |               |     | By PN                 |     | m     |      |
| 21.  | Fiber Jacket      |               |     | By PN                 |     |       | [2]  |
| 22.  | Connector Type    |               |     | By PN                 |     |       |      |
| 23.  | Package Dimension |               |     | See below for details |     | mm    |      |
| 24.  | Fiber Color       | Signal        |     | Black                 |     |       | [3]  |
|      |                   | Tap & Common  |     | Natural               |     |       |      |
|      |                   | Pump          |     | Red                   |     |       | [3]  |

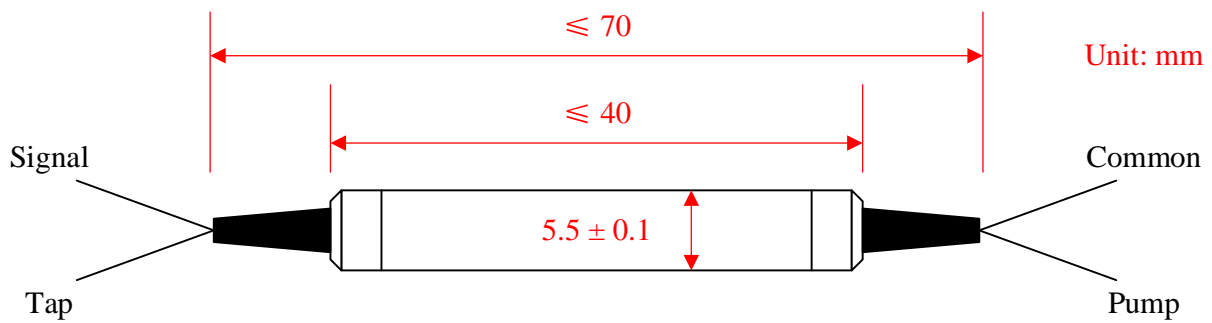
**Note:**

[2] Available in bare fiber or loose tube. Loose tube is only for steel tube packaging.

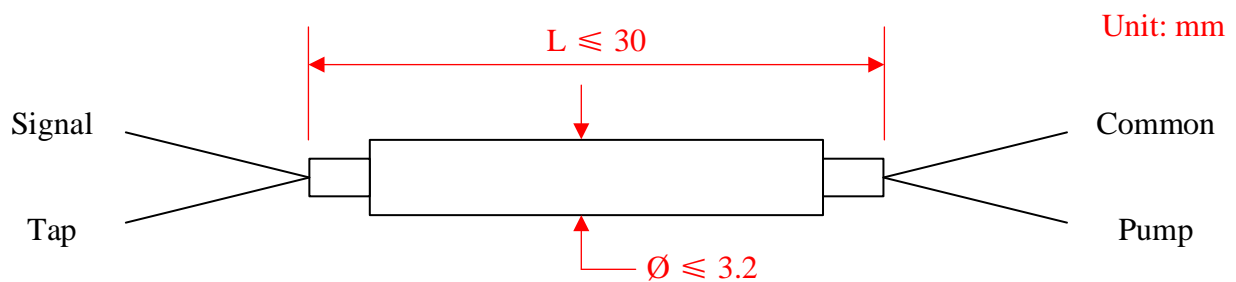
[3] Mark the bare fiber starting at 10~30cm away from the device body to fiber end.

### 2.3.2 Drawing

#### Steel Tube Packaging:



#### Glass Tube Packaging:



## 3 Device Label, Delivery Data

Triple-Stone standard format.

## 4 RoHS

RoHS compliant.

## 5 Ordering Information

