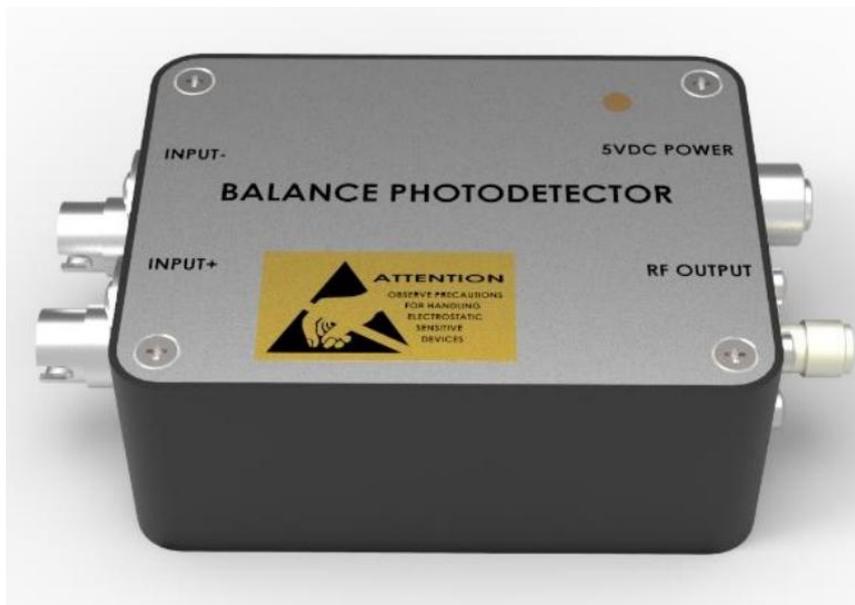


## Si Balanced Photodetector 500MHz, 400-1100nm, FCAPC



- **Product Description**

The Si balanced detector module integrates two matched low-noise analog PIN detectors, a low-noise broadband transimpedance amplifier and an ultra-low noise power supply. It has the characteristics of high gain, high sensitivity, high bandwidth, low noise, high common mode rejection ratio,



etc. It can effectively reduce the common mode noise of the signal and improve the signal-to-noise ratio of the system.

- **Product features**

Low Noise、 High Gain、 High Bandwidth、 Compact Design、 Built-in Low Noise Isolated Power Supply

- **Part Number**

MP-BPD-M-S-500-F-D/A

- **Application area**

Fiber Optic Sensing 、 Fiber Optic Communications 、 Laser Distance Measurement、 Spectral measurement、 Ns-Level Optical Pulse Detection

- **Core parameters**

| Wavelength | Bandwidth | Responsivity  |
|------------|-----------|---------------|
| 400-1100nm | 500MHz    | 0.55A/W@850nm |

## ● General Parameters

The main technical parameters of the AUT-MP laser:

|                             |  |          |          |          |          |          |          |                        |
|-----------------------------|--|----------|----------|----------|----------|----------|----------|------------------------|
| Material                    | Si   |          |          |          |          |          |          |                        |
| Wavelength                  | 400~1100                                   |          |          |          |          |          |          | nm                     |
| Bandwidth                   | 100M                                       | 200M     | 300M     | 400M     | 500M     | 1G       | 2G       | Hz                     |
| Detector Responsivity       | 0.55                                       | 0.55     | 0.55     | 0.55     | 0.55     | 0.55     | 0.55     | A/W@850nm              |
| Transimpedance Gain         | 30K  | 30K      | 30K      | 10K      | 5K       | 30K      | 15K      | V/W                    |
| Maximum Input Optical Power | 240  | 240      | 240      | 725      | 1450     | 240      | 480      | Ω                      |
| NEP                         | 11   | 11       | 11       | 14       | 18       | 20       | 20       | uW                     |
| Output Impedance            | 50   | 50       | 50       | 50       | 50       | 50       | 50       | pW/ $\sqrt{\text{Hz}}$ |
| Output Coupling             | DC/AC                                      | DC/AC    | DC/AC    | DC/AC    | DC       | AC       | AC       |                        |
| Supply Voltage              | 5  | 5        | 5        | 5        | 5        | 12       | 12       | V                      |
| Supply Current              | 0.3(max)                                   | 0.3(max) | 0.3(max) | 0.3(max) | 0.3(max) | 0.3(max) | 0.3(max) | A                      |
| Optical Input               | FC/APC (Free-space optical input optional) |          |          |          |          |          |          |                        |
| RF Output                   | SMA  |          |          |          |          |          |          |                        |
| Dimensions                  | 62*47*25                                   |          |          |          |          |          |          | mm                     |