

Programmable polarization controller



PPC programmable polarization controller is an instrument which integrate polarization control function and polarization disturbance function . And it is an important test instrument of optical passive test system.

Polarization disturbance function: Based on the high-speed photoelectric material as the phase controller, the three plates are guided by different angles to convert any polarization input state into random polarization state, cover the Poincare sphere at high speed and finally output a stable circularly polarized light. It has excellent performance of low insertion loss and high disturbance frequency. Its frequency can reach up to 5MHz.

Polarization control function: Realize the light output of different polarization states through the control signal, and carry out polarization scanning through software control. With the synchronous sampling of high-speed optical power meter of dimension technology, it can carry out high-speed automatic test on the polarization correlation of optical devices, and its maximum scanning speed supports 10kHz.

Main Features

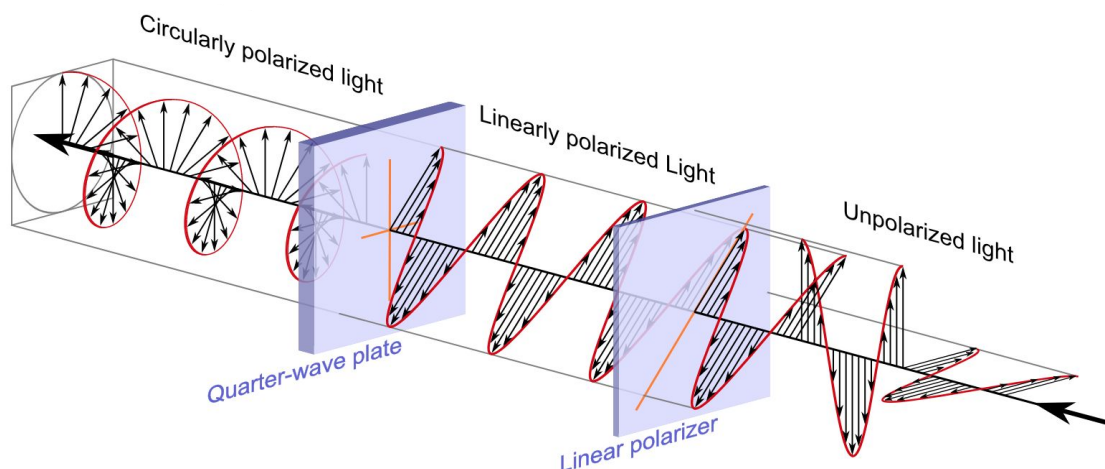
- Dual functions of disturbance and polarization control
- High speed disturbance function (max = 5MHz)
- Channel polarization control range: 0-4 π
- High speed polarization scanning (10kHz)
- Serial port command control

Applications

- Test of polarization correlation of optical passive components
- Test of laser polarization characteristic scanning
- Test of photodetector polarization correlation
- Test of coherent optical communication systems
- High speed automated testing of polarization correlation

◀ Dual functions of disturbance and polarization control

The device integrates polarization control function and polarization disturbance function. The two modes can be switched through the panel keys, and the high-speed disturbance function can reach 5MHz.

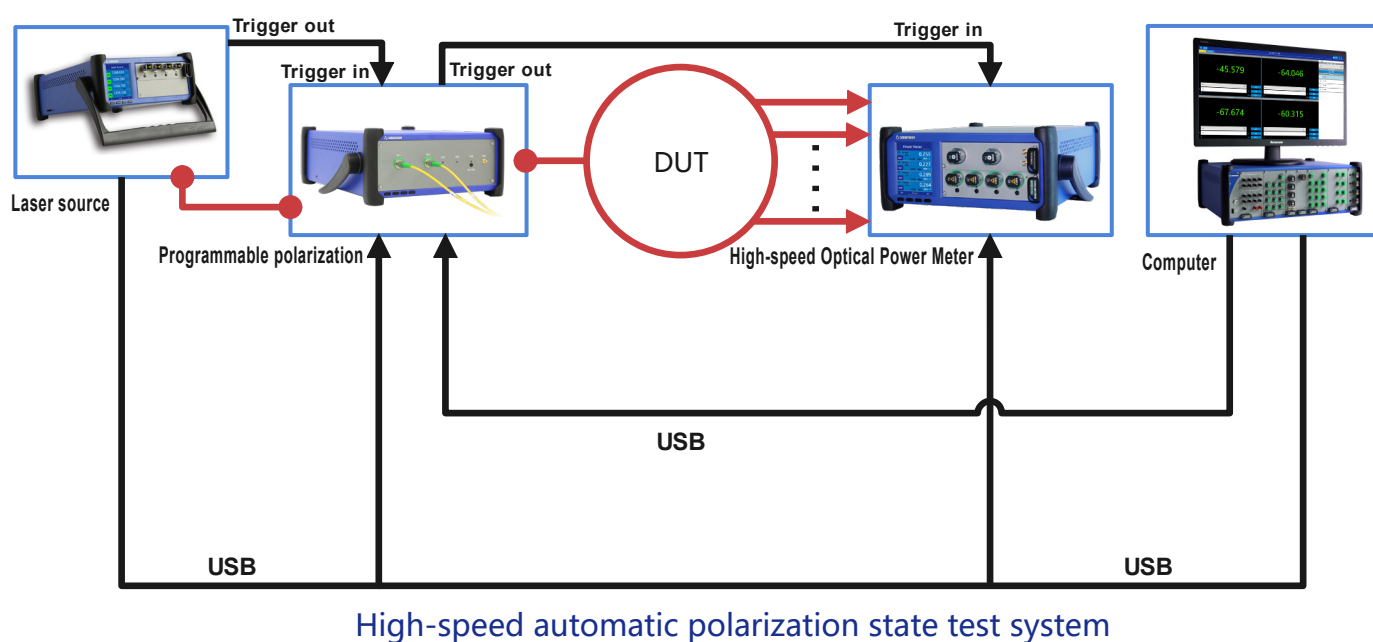


◀ Channel polarization control range: 0-4 π

Different from the ordinary design, the polarization controller can only control 0 ~ 2 π . The polarization control range of dimension technology can reach 0 ~ 4 π per channel. The ultra-high range polarization control can realize more polarization states and improve the accuracy of testing.

◀ Construction of ultra high speed automatic polarization state test system

Due to the advantages of program control, the device can directly set and adjust the relevant polarization state, and the change frequency is consistent with the frequency read by the power meter. With the high-speed optical power meter, the ultra-high-speed automatic polarization state test of 10kHz can be achieved.



◀ Support serial communication programming

The device supports USB serial communication, and the internal program is open-source. It can be easily connected with PC to complete program control.

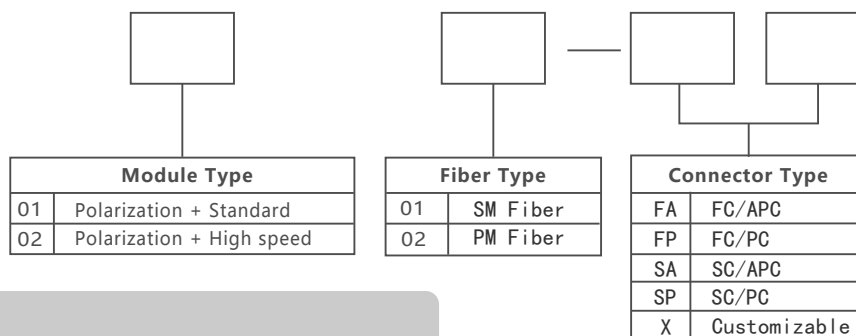
◀ Specifications

Polarization control function	
Operating Wavelength	1260-1650nm
Insertion Loss	<2dB
Activation Loss	<0.05dB

PMD	0.05ps	
PDL	0.05dB	
Input Power	1000mw	
Polarization control range	0-4π	
Polarization control channels	3	
Polarization disturbance function		
Type	Standard	High speed
Adjustable Operating Wavelength	1260~1650nm	800~1800nm
Operating Wavelength Range	100nm	
Insertion Loss	<2dB	<3dB
Disturbance frequency	1kHz	5000kHz
Input Power	500mw	
Size	359mm×274mm×115mm	
Weight	3kg	
Supply voltage	24V	

Ordering Information

PPC



Example:

Type: PPC0101-FA Polarization + Standard SM 9/125 FC/APC

Related Products



Laser source Module



High-speed Optical Power Meter Module



Universal Optical Test Platform

Dimension Technology Co.,Ltd

Tel: +86 755-26480850

Email: sales@dimension-tech.com

Web: www.dimension-tech.com