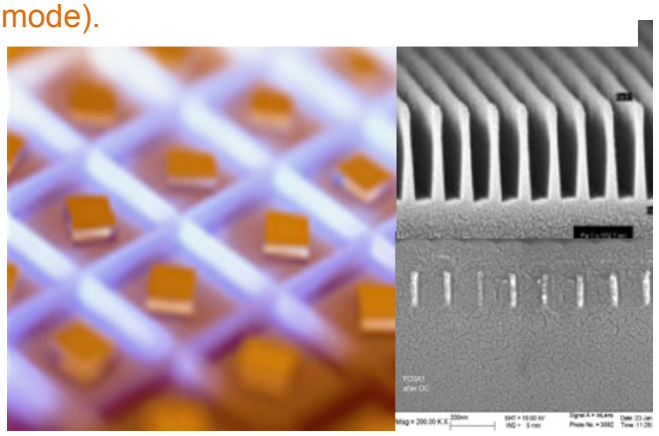
POLARIZING BEAM SPLITTER / COMBINER PRODUCT BRIEF

API Nanotronics Introduces High Performance PBS/C from its NanoOpto Division based on advanced nanooptics and proprietary processing techniques. Useful for a variety of wavelengths, the devices are particularly ideal from 1200-1600 nm.

These high performance polarizing beam splitter/combiners are used to combine light from two input beams into a single output beam (PBC mode) or to separate the orthogonal polarization components of an input signal into two output beams (PBS mode).



KEY FEATURES AND BENEFITS

Optical Performance

- Transmission channel –
  - Insertion loss ≤0.2dB
  - Extinction ratio over 1000:1 (>30dB)
- Reflection channel
  - Insertion loss ≤0.3dB
  - Extinction ratio over 320:1 (>25dB)
- Optimized versions at 1310 nm, 1490 nm, and 1550 nm
- 45° AOI Version
  - T Channel IL ≤0.4dB, ER>30dB
  - R Channel IL≤0.35dB, ER>20dB

Substrate Capability

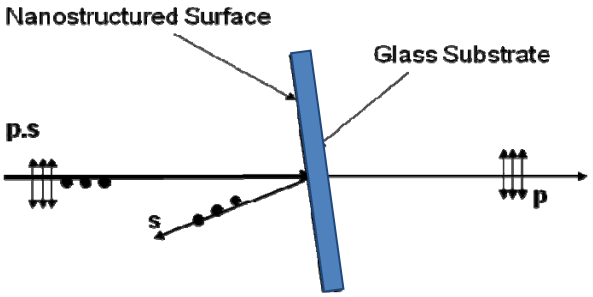
- Very large substrate sizes available
- Full wafer sizes to custom diced parts
- Thicknesses down to 0.1 mm

Operating temperature range

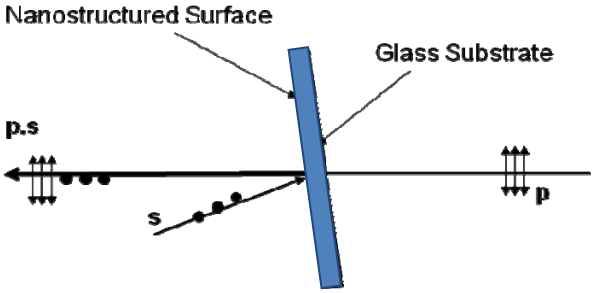
- -40° to 80°C
- Wider range capable

Applications

- Telecom
- Mux/DeMux
- VOAs
- Fiber Networks
- Scientific Equipment
- Polarization Switches



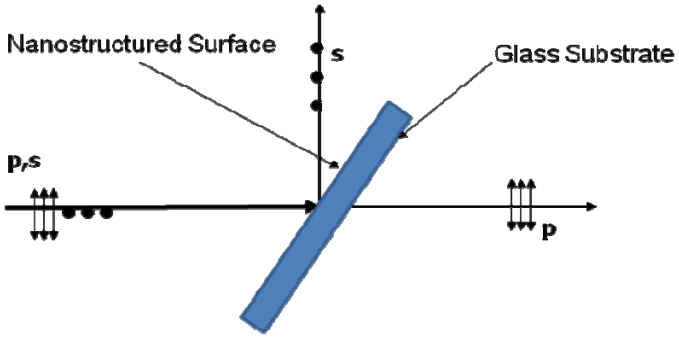
PBS Mode



PBC Mode

PBS/C Product Specifications				
Performance		**PBS/C**	**PBS/C 45° AOI**	**Comment**
Wavelength Range		1310,1550,± 20 nm	1310,1550,± 20 nm	Custom wavelengths available
Transmission	**IL**	<0.2 dB	<0.4 dB	
	Extinction Ratio	>30 dB	>30 dB	
Reflection	**IL**	<0.3 dB	<0.35 dB	
	Extinction Ratio	>20 dB Version A >25 dB Version B	>20 dB	
Angle of Incidence		0°±7.5°	0°±7.5°	
Input Polarization		0°/45°±1°	0°/45°±1°	
Size		1-25 mm ±0.03 mm	1-25 mm ±0.03 mm	Different sizes available
Thickness		0.1-0.5 mm	0.1-0.5 mm	Custom thicknesses available
Edge Chipping		<50 µm	<50 µm	
Substrate Material		BK7, S-BSL7	BK7, S-BSL7	Custom substrates available
Operating Temperature		-40°~85° C	-40°~85° C	
Reliability		Pass GR1221	Pass GR1221	

Early 2009 Release:
45° Angle of incidence
Wire-grid PBS Operation



Find out more about NanoOpto at:
www.nanoopto.com

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