

# BEAMSPLITTER CATALOG

Ver.210408



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- 9 Caf2 Wedge Beamsplitter

# 10 DAYS LENS SAMPLING

Z-OPTICS LIMITED

**Canada**  
Montreal, Canada  
☎ +1-2892370810

**China**  
Zhejiang Province,  
China  
☎ linjiali  
☎ 13706776900  
☎ +86-13706776900

**India**  
Noida, U.P.  
India  
☎ vaibhav.mohale1  
☎ +91-9028420101

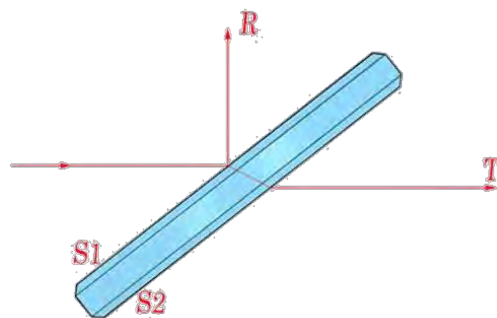
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# Economic Plate Beamsplitter

## Specifications

- **Material:** B270
- **Surface Figure:**  $4\sim 8 \lambda$ (per inch)@633
- **Parallelism:**  $<3'$
- **Surface Quality:** 120-80 Scratch and dig
- **Size tolerance:**  $+0.0/-0.25$ mm
- **Thickness tolerance:**  $+/-0.2$ mm
- **Incident Angle:** 45 degree
- **Clear Aperture:** 90%



### S1 Coating

- **VIS** - Split Ratio (R/T)  $\pm 10\%$  average @400~700nm
- **NIR** - Split Ratio (R/T)  $\pm 10\%$  average @600~1100nm
- **SWIR** - Split Ratio (R/T)  $\pm 10$  average @900~1700nm

### S2 Coating

- **VIS** -  $R_{avg} < 1\%$  @400~700nm
- **NIR** -  $R_{avg} < 1\%$  @600~1100nm
- **SWIR** -  $R_{avg} < 1\%$  @900~1700nm

## VIS

Size (mm)	Split Ratio (R/T) - 30R/70T	Split Ratio (R/T) - 50R/50T	Split Ratio (R/T) - 70R/30T
	Part No	Part No	Part No
$\phi 12.5 \times 1.1$	BSP1-0-125-30VIS	BSP1-0-125-50VIS	BSP1-0-125-70VIS
12.5X12.5X1.1	BSP1-125-125-30VIS	BSP1-125-125-50VIS	BSP1-125-125-70VIS
12.3X17.5X1.1	BSP1-125-175-30VIS	BSP1-125-175-50VIS	BSP1-125-175-70VIS
20.0X30.0x1.1	BSP1-200-300-30VIS	BSP1-200-300-50VIS	BSP1-200-300-70VIS
$\phi 25.0 \times 1.1$	BSP1-0-250-30VIS	BSP1-0-250-50VIS	BSP1-0-250-70VIS
23.0X36.0X1.1	BSP1-250-360-30VIS	BSP1-250-360-50VIS	BSP1-250-360-70VIS
30.0X30.0x1.1	BSP1-300-300-30VIS	BSP1-300-300-50VIS	BSP1-300-300-70VIS
30.0X45.0X1.1	BSP1-300-450-30VIS	BSP1-300-450-50VIS	BSP1-300-450-70VIS
35.0X35.0X1.1	BSP1-350-350-30VIS	BSP1-350-350-50VIS	BSP1-350-350-70VIS
35.0X50.0X1.1	BSP1-350-500-30VIS	BSP1-350-500-50VIS	BSP1-350-500-70VIS
$\phi 50.0 \times 1.1$	BSP1-0-500-30VIS	BSP1-0-500-50VIS	BSP1-0-500-70VIS
50.0X50.0X1.1	BSP1-500-500-30VIS	BSP1-500-500-50VIS	BSP1-500-500-70VIS
50.0X72.0X1.1	BSP1-500-720-30VIS	BSP1-500-720-50VIS	BSP1-500-720-70VIS
75.0X75.0X1.1	BSP1-750-750-30VIS	BSP1-750-750-50VIS	BSP1-750-750-70VIS

### Remarks:

1. Beam is split by energy, not polarization.
2. *more size or thickness out of the table, Please contact us.*

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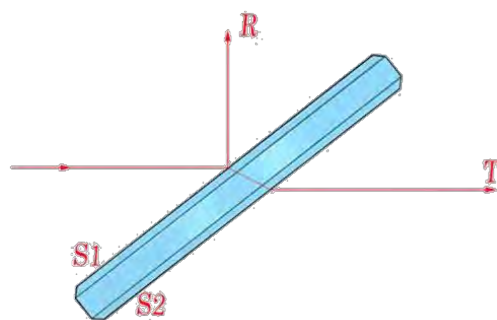
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# Economic Plate Beamsplitter

## Specifications

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- **Surface Figure:**  $4\sim 8 \lambda$ (per inch)@633
- **Parallelism:**  $<3'$
- **Surface Quality:** 120-80 Scratch and dig
- **Size tolerance:**  $+0.0/-0.25$ mm
- **Thickness tolerance:**  $\pm 0.2$ mm
- **Incident Angle:** 45 degree
- **Clear Aperture:** 90%



### S1 Coating

- **VIS** - Split Ratio (R/T)  $\pm 10\%$  average @400~700nm
- **NIR** - Split Ratio (R/T)  $\pm 10\%$  average @600~1100nm
- **SWIR** - Split Ratio (R/T)  $\pm 10$  average @900~1700nm

### S2 Coating

- **VIS** -  $R_{avg} < 1\%$  @400~700nm
- **NIR** -  $R_{avg} < 1\%$  @600~1100nm
- **SWIR** -  $R_{avg} < 1\%$  @900~1700nm

## NIR

Size (mm)	Split Ratio (R/T) - 30R/70T	Split Ratio (R/T) - 50R/50T	Split Ratio (R/T) - 70R/30T
	Part No	Part No	Part No
$\phi 12.5 \times 1.1$	BSP1-0-125-30NIR	BSP1-0-125-50NIR	BSP1-0-125-70NIR
12.5X12.5X1.1	BSP1-125-125-30NIR	BSP1-125-125-50NIR	BSP1-125-125-70NIR
12.3X17.5X1.1	BSP1-125-175-30NIR	BSP1-125-175-50NIR	BSP1-125-175-70NIR
20.0X30.0x1.1	BSP1-200-300-30NIR	BSP1-200-300-50NIR	BSP1-200-300-70NIR
$\phi 25.0 \times 1.1$	BSP1-0-250-30NIR	BSP1-0-250-50NIR	BSP1-0-250-70NIR
23.0X36.0X1.1	BSP1-250-360-30NIR	BSP1-250-360-50NIR	BSP1-250-360-70NIR
30.0X30.0x1.1	BSP1-300-300-30NIR	BSP1-300-300-50NIR	BSP1-300-300-70NIR
30.0X45.0X1.1	BSP1-300-450-30NIR	BSP1-300-450-50NIR	BSP1-300-450-70NIR
35.0X35.0X1.1	BSP1-350-350-30NIR	BSP1-350-350-50NIR	BSP1-350-350-70NIR
35.0X50.0X1.1	BSP1-350-500-30NIR	BSP1-350-500-50NIR	BSP1-350-500-70NIR
$\phi 50.0 \times 1.1$	BSP1-0-500-30NIR	BSP1-0-500-50NIR	BSP1-0-500-70NIR
50.0X50.0X1.1	BSP1-500-500-30NIR	BSP1-500-500-50NIR	BSP1-500-500-70NIR
50.0X72.0X1.1	BSP1-500-720-30NIR	BSP1-500-720-50NIR	BSP1-500-720-70NIR
75.0X75.0X1.1	BSP1-750-750-30NIR	BSP1-750-750-50NIR	BSP1-750-750-70NIR

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1. Beam is split by energy, not polarization.
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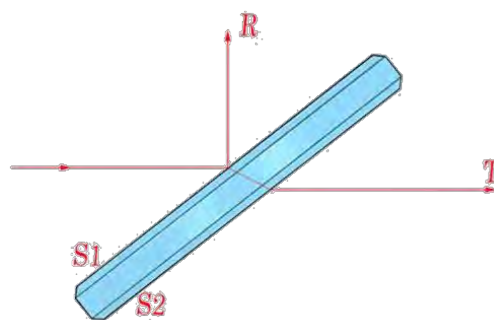
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# Economic Plate Beamsplitter

## Specifications

- **Material:** B270
- **Surface Figure:**  $4\sim 8 \lambda$ (per inch)@633
- **Parallelism:**  $<3'$
- **Surface Quality:** 120-80 Scratch and dig
- **Size tolerance:**  $+0.0/-0.25$ mm
- **Thickness tolerance:**  $\pm 0.2$ mm
- **Incident Angle:** 45 degree
- **Clear Aperture:** 90%



### S1 Coating

- **VIS** - Split Ratio (R/T)  $\pm 10\%$  average @400~700nm
- **NIR** - Split Ratio (R/T)  $\pm 10\%$  average @600~1100nm
- **SWIR** - Split Ratio (R/T)  $\pm 10$  average @900~1700nm

### S2 Coating

- **VIS** -  $R_{avg} < 1\%$  @400~700nm
- **NIR** -  $R_{avg} < 1\%$  @600~1100nm
- **SWIR** -  $R_{avg} < 1\%$  @900~1700nm

## SWIR

Size (mm)	Split Ratio (R/T) - 30R/70T	Split Ratio (R/T) - 50R/50T	Split Ratio (R/T) - 70R/30T
	Part No	Part No	Part No
$\phi 12.5 \times 1.1$	BSP1-0-125-30SWIR	BSP1-0-125-50SWIR	BSP1-0-125-70SWIR
12.5X12.5X1.1	BSP1-125-125-30SWIR	BSP1-125-125-50SWIR	BSP1-125-125-70SWIR
12.3X17.5X1.1	BSP1-125-175-30SWIR	BSP1-125-175-50SWIR	BSP1-125-175-70SWIR
20.0X30.0x1.1	BSP1-200-300-30SWIR	BSP1-200-300-50SWIR	BSP1-200-300-70SWIR
$\phi 25.0 \times 1.1$	BSP1-0-250-30SWIR	BSP1-0-250-50SWIR	BSP1-0-250-70SWIR
23.0X36.0X1.1	BSP1-250-360-30SWIR	BSP1-250-360-50SWIR	BSP1-250-360-70SWIR
30.0X30.0x1.1	BSP1-300-300-30SWIR	BSP1-300-300-50SWIR	BSP1-300-300-70SWIR
30.0X45.0X1.1	BSP1-300-450-30SWIR	BSP1-300-450-50SWIR	BSP1-300-450-70SWIR
35.0X35.0X1.1	BSP1-350-350-30SWIR	BSP1-350-350-50SWIR	BSP1-350-350-70SWIR
35.0X50.0X1.1	BSP1-350-500-30SWIR	BSP1-350-500-50SWIR	BSP1-350-500-70SWIR
$\phi 50.0 \times 1.1$	BSP1-0-500-30SWIR	BSP1-0-500-50SWIR	BSP1-0-500-70SWIR
50.0X50.0X1.1	BSP1-500-500-30SWIR	BSP1-500-500-50SWIR	BSP1-500-500-70SWIR
50.0X72.0X1.1	BSP1-500-720-30SWIR	BSP1-500-720-50SWIR	BSP1-500-720-70SWIR
75.0X75.0X1.1	BSP1-750-750-30SWIR	BSP1-750-750-50SWIR	BSP1-750-750-70SWIR

### Remarks:

1. Beam is split by energy, not polarization.
2. *more size or thickness out of the table, Please contact us.*

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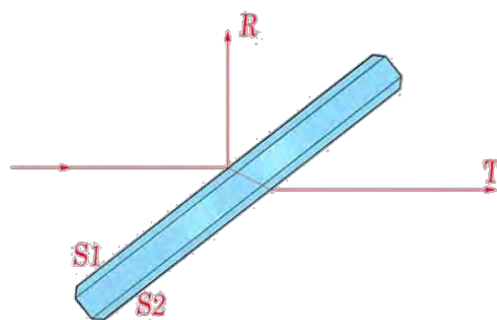
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# K9 Broadband Plate Beamsplitter

## Specifications

- **Material:** H-K9L
- **Surface Figure:**  $\lambda/2$  (per inch) @633nm
- **Parallelism:**  $<1'$
- **Surface Quality:** 60-40 Scratch and dig
- **Clear Aperture:** 90%
- **Size Tolerance:**  $+0.0/-0.25$ mm
- **Thickness Tolerance:** 3mm  $\pm 0.2$ mm
- **Chamfer:** Protective Chamfer 0.2~0.5mmX45°
- **Incident Angle:** 45°
- **Coating**
  - **S1:** Average Split ratio (R/T)  $\pm 10\%$
  - **S2:** Ravg  $< 1\%$



Size (mm)	Split Ratio (R/T)	250-400nm	400-700nm	700-1100nm
		Part No	Part No	Part No
$\phi 12.5$	20R/80T	BSP2-0-125-20VIS	BSP2-0-125-20NIR	BSP2-0-125-20SWIR
$\phi 12.5$	30R/70T	BSP2-0-125-30VIS	BSP2-0-125-30NIR	BSP2-0-125-30SWIR
$\phi 12.5$	40R/60T	BSP2-0-125-40VIS	BSP2-0-125-40NIR	BSP2-0-125-40SWIR
$\phi 12.5$	50R/50T	BSP2-0-125-50VIS	BSP2-0-125-50NIR	BSP2-0-125-50SWIR
$\phi 12.5$	60R/40T	BSP2-0-125-60VIS	BSP2-0-125-60NIR	BSP2-0-125-60SWIR
$\phi 12.5$	70R/30T	BSP2-0-125-70VIS	BSP2-0-125-70NIR	BSP2-0-125-70SWIR
$\phi 12.5$	80R/20T	BSP2-0-125-80VIS	BSP2-0-125-80NIR	BSP2-0-125-80SWIR
12.5x17.5	20R/80T	BSP2-125-175-20VIS	BSP2-125-175-20NIR	BSP2-125-175-20SWIR
12.5x17.5	30R/70T	BSP2-125-175-30VIS	BSP2-125-175-30NIR	BSP2-125-175-30SWIR
12.5x17.5	40R/60T	BSP2-125-175-40VIS	BSP2-125-175-40NIR	BSP2-125-175-40SWIR
12.5x17.5	50R/50T	BSP2-125-175-50VIS	BSP2-125-175-50NIR	BSP2-125-175-50SWIR
12.5x17.5	60R/40T	BSP2-125-175-60VIS	BSP2-125-175-60NIR	BSP2-125-175-60SWIR
12.5x17.5	70R/30T	BSP2-125-175-70VIS	BSP2-125-175-70NIR	BSP2-125-175-70SWIR
12.5x17.5	80R/20T	BSP2-125-175-80VIS	BSP2-125-175-80NIR	BSP2-125-175-80SWIR
$\phi 25.0$	20R/80T	BSP2-0-250-20VIS	BSP2-0-250-20NIR	BSP2-0-250-20SWIR
$\phi 25.0$	30R/70T	BSP2-0-250-30VIS	BSP2-0-250-30NIR	BSP2-0-250-30SWIR
$\phi 25.0$	40R/60T	BSP2-0-250-40VIS	BSP2-0-250-40NIR	BSP2-0-250-40SWIR
$\phi 25.0$	50R/50T	BSP2-0-250-50VIS	BSP2-0-250-50NIR	BSP2-0-250-50SWIR
$\phi 25.0$	60R/40T	BSP2-0-250-60VIS	BSP2-0-250-60NIR	BSP2-0-250-60SWIR
$\phi 25.0$	70R/30T	BSP2-0-250-70VIS	BSP2-0-250-70NIR	BSP2-0-250-70SWIR
$\phi 25.0$	80R/20T	BSP2-0-250-80VIS	BSP2-0-250-80NIR	BSP2-0-250-80SWIR

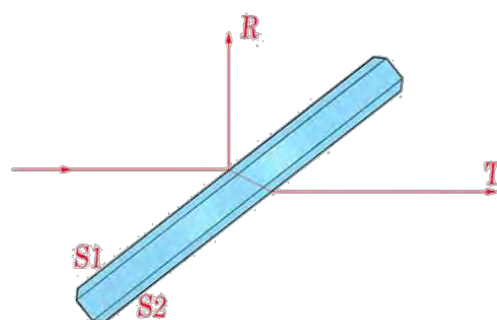
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# K9 Broadband Plate Beamsplitter



Size (mm)	Split Ratio (R/T)	250-400nm	400-700nm	700-1100nm
		Part No	Part No	Part No
25.0x36.0	20R/80T	BSP2-250-360-20VIS	BSP2-250-360-20NIR	BSP2-250-360-20SWIR
25.0x36.0	30R/70T	BSP2-250-360-30VIS	BSP2-250-360-30NIR	BSP2-250-360-30SWIR
25.0x36.0	40R/60T	BSP2-250-360-40VIS	BSP2-250-360-40NIR	BSP2-250-360-40SWIR
25.0x36.0	50R/50T	BSP2-250-360-50VIS	BSP2-250-360-50NIR	BSP2-250-360-50SWIR
25.0x36.0	60R/40T	BSP2-250-360-60VIS	BSP2-250-360-60NIR	BSP2-250-360-60SWIR
25.0x36.0	70R/30T	BSP2-250-360-70VIS	BSP2-250-360-70NIR	BSP2-250-360-70SWIR
25.0x36.0	80R/20T	BSP2-250-360-80VIS	BSP2-250-360-80NIR	BSP2-250-360-80SWIR
φ50.0	20R/80T	BSP2-0-500-20VIS	BSP2-0-500-20NIR	BSP2-0-500-20SWIR
φ50.0	30R/70T	BSP2-0-500-30VIS	BSP2-0-500-30NIR	BSP2-0-500-30SWIR
φ50.0	40R/60T	BSP2-0-500-40VIS	BSP2-0-500-40NIR	BSP2-0-500-40SWIR
φ50.0	50R/50T	BSP2-0-500-50VIS	BSP2-0-500-50NIR	BSP2-0-500-50SWIR
φ50.0	60R/40T	BSP2-0-500-60VIS	BSP2-0-500-60NIR	BSP2-0-500-60SWIR
φ50.0	70R/30T	BSP2-0-500-70VIS	BSP2-0-500-70NIR	BSP2-0-500-70SWIR
φ50.0	80R/20T	BSP2-0-500-80VIS	BSP2-0-500-80NIR	BSP2-0-500-80SWIR
50.0x72.0	20R/80T	BSP2-500-720-20VIS	BSP2-500-720-20NIR	BSP2-500-720-20SWIR
50.0x72.0	30R/70T	BSP2-500-720-30VIS	BSP2-500-720-30NIR	BSP2-500-720-30SWIR
50.0x72.0	40R/60T	BSP2-500-720-40VIS	BSP2-500-720-40NIR	BSP2-500-720-40SWIR
50.0x72.0	50R/50T	BSP2-500-720-50VIS	BSP2-500-720-50NIR	BSP2-500-720-50SWIR
50.0x72.0	60R/40T	BSP2-500-720-60VIS	BSP2-500-720-60NIR	BSP2-500-720-60SWIR
50.0x72.0	70R/30T	BSP2-500-720-70VIS	BSP2-500-720-70NIR	BSP2-500-720-70SWIR
50.0x72.0	80R/20T	BSP2-500-720-80VIS	BSP2-500-720-80NIR	BSP2-500-720-80SWIR

## Remarks:

1. Beam is split by energy, not polarization.
2. *more size or thickness out of the table, Please contact us.*



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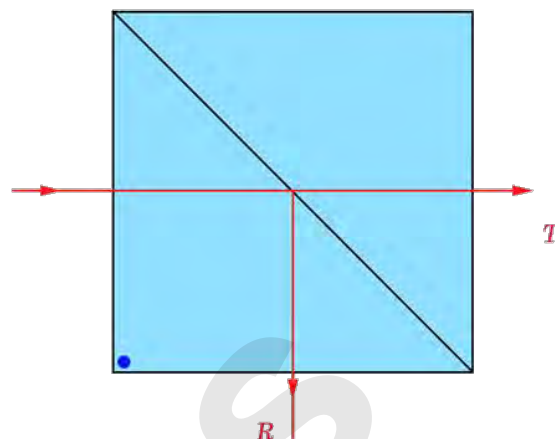
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# Broadband Cube Beamsplitter

## Specifications

- **Material:** H-K9L
- **Surface Figure:**  $\lambda/10@633\text{nm}$
- **Surface Quality:** 60-40 scratch and dig
- **Transmitted Beam Deviation:**  $\pm 5'$
- **Reflected Beam Angle:**  $90^\circ \pm 5'$
- **Size Tolerance:**  $\pm 0.2\text{mm}$
- **Coating:** Dielectric coating on hypotenuse to split beam and broadband AR coating on other surfaces beam passes
- **Split ratio:** R/T  $\pm 10\%$
- **Damage Threshold:**  $>500\text{mJ/cm}^2$ , 20ns, 20Hz, @1064nm



Absorption loss to the interference coating is minimal by applying dielectric coating, but partially polarizing is induced. If polarization sensitive is critical, please use our broadband non-polarizing cube Beamsplitter or polarizing cube Beamsplitter.

Size (mm)	Split ratio (R/T)	400-700nm	700-1100nm	1100 -1600nm
		Part No	Part No	Part No
5.0	30R/70T	BSP6-50-30VIS	BSP6-50-30NIR	BSP6-50-30SWIR
5.0	50R/50T	BSP6-50-50VIS	BSP6-50-50NIR	BSP6-50-50SWIR
5.0	70R/30T	BSP6-50-70VIS	BSP6-50-70NIR	BSP6-50-70SWIR
10.0	30R/70T	BSP6-100-30VIS	BSP6-100-30NIR	BSP6-100-30SWIR
10.0	50R/50T	BSP6-100-50VIS	BSP6-100-50NIR	BSP6-100-50SWIR
10.0	70R/30T	BSP6-100-70VIS	BSP6-100-70NIR	BSP6-100-70SWIR
12.5	30R/70T	BSP6-125-30VIS	BSP6-125-30NIR	BSP6-125-30SWIR
12.5	30R/50T	BSP6-125-50VIS	BSP6-125-50NIR	BSP6-125-50SWIR
12.5	70R/30T	BSP6-125-70VIS	BSP6-125-70NIR	BSP6-125-70SWIR
15.0	30R/70T	BSP6-150-30VIS	BSP6-150-30NIR	BSP6-150-30SWIR
15.0	50R/50T	BSP6-150-50VIS	BSP6-150-50NIR	BSP6-150-50SWIR
15.0	70R/30T	BSP6-150-70VIS	BSP6-150-70NIR	BSP6-150-70SWIR
20.0	30R/70T	BSP6-200-30VIS	BSP6-200-30NIR	BSP6-200-30SWIR
20.0	50R/50T	BSP6-200-50VIS	BSP6-200-50NIR	BSP6-200-50SWIR
20.0	70R/30T	BSP6-200-70VIS	BSP6-200-70NIR	BSP6-200-70SWIR
25.0	30R/70T	BSP6-250-30VIS	BSP6-250-30NIR	BSP6-250-30SWIR
25.0	50R/50T	BSP6-250-50VIS	BSP6-250-50NIR	BSP6-250-50SWIR
25.0	70R/30T	BSP6-250-70VIS	BSP6-250-70NIR	BSP6-250-70SWIR
50.0	30R/70T	BSP6-500-30VIS	BSP6-500-30NIR	BSP6-500-30SWIR
50.0	50R/50T	BSP6-500-50VIS	BSP6-500-50NIR	BSP6-500-50SWIR
50.0	70R/30T	BSP6-500-70VIS	BSP6-500-70NIR	BSP6-500-70SWIR

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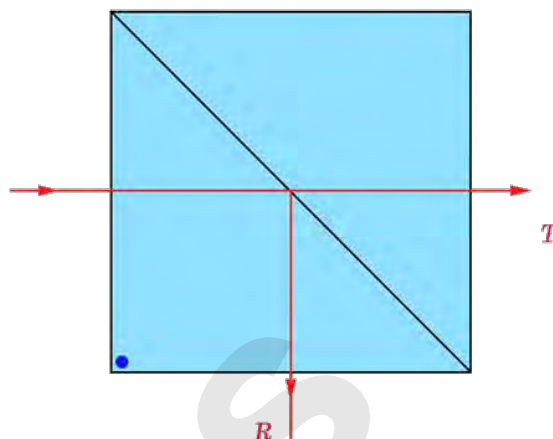
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# Broadband Non-Polarizing Cube Beamsplitter

## Specifications

- **Material:** H-K9L
- **Surface Figure:**  $\lambda/10@633\text{nm}$
- **Surface Quality:** 60-40 scratch and dig
- **Thickness Tolerance:**  $\pm 0.2\text{mm}$
- **Transmitted Beam Deviation:**  $\pm 5'$
- **Reflected Beam Angle:**  $90^\circ \pm 5'$
- **Split ratio:** R/T  $\pm 10\%$
- **Low Polarization Dependence:**  $|T_s - T_p| < 10\%$ ;  $|R_s - R_p| < 10\%$
- **Protective beveling**



Broadband Non-Polarizing Cube Beamsplitters are made up of a pair of high precision right angle prisms cemented together by a metallic dielectric coating on one of the prisms' hypotenuse. Because of the metallic dielectric hybrid coating's low polarization dependence, the transmission and reflection of S- and P-polarization states can be within 10% of each other.

These beamsplitters are spectrally flat across their specified wavelength ranges, which reduces the effects of changes in angle of incidence or converging/diverging beams. Metallic dielectric hybrid coating has  $<10\%$  absorption, so don't use it in high power laser.

size (mm)	Split Ratio (R/T)	400-700nm	700-1100nm	1100 -1600nm
		Part No	Part No	Part No
5	50R/50T	BSP5-50-50VIS	BSP5-50-50NIR	BSP5-50-50SWIR
10	50R/50T	BSP5-100-50VIS	BSP5-100-50NIR	BSP5-100-50SWIR
12.5	50R/50T	BSP5-125-50VIS	BSP5-125-50NIR	BSP5-125-50SWIR
15	50R/50T	BSP5-150-50VIS	BSP5-150-50NIR	BSP5-150-50SWIR
20	50R/50T	BSP5-200-50VIS	BSP5-200-50NIR	BSP5-200-50SWIR
25.4	10R/90T	BSP5-254-10VIS	BSP5-254-10NIR	BSP5-254-10SWIR
25.4	30R/70T	BSP5-254-30VIS	BSP5-254-30NIR	BSP5-254-30SWIR
25.4	50R/50T	BSP5-254-50VIS	BSP5-254-50NIR	BSP5-254-50SWIR
25.4	70R/30T	BSP5-254-70VIS	BSP5-254-70NIR	BSP5-254-70SWIR
25.4	90R/10T	BSP5-254-90VIS	BSP5-254-90NIR	BSP5-254-90SWIR
50	50R/50T	BSP5-500-50VIS	BSP5-500-50NIR	BSP5-500-50SWIR

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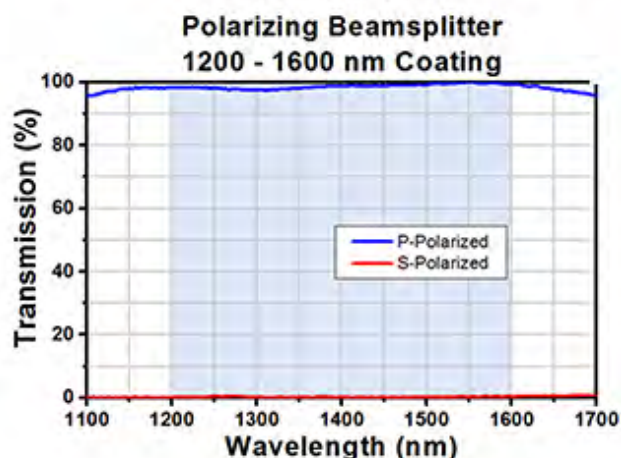
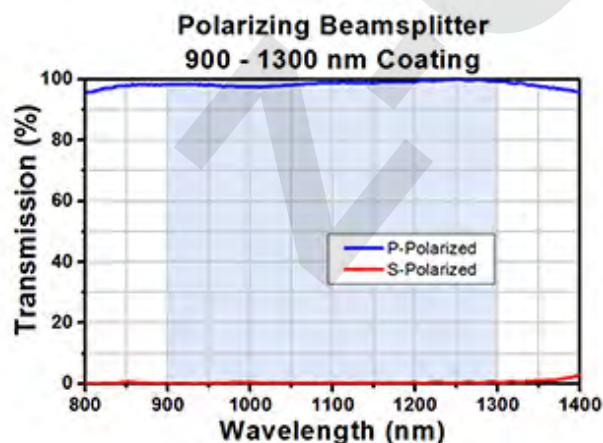
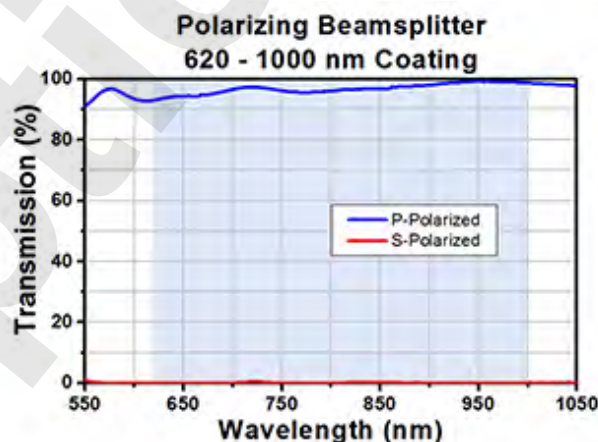
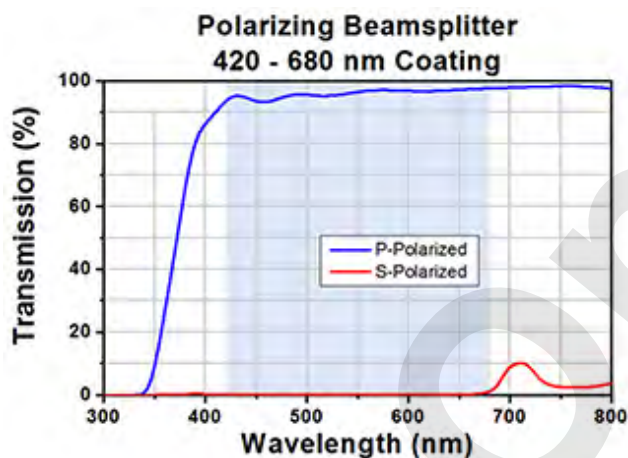
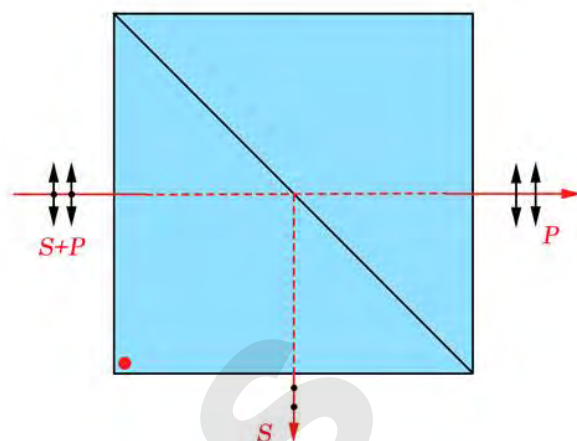




# Broadband Polarizing cube Beamsplitter

## Specifications

- **Material:** H-ZF3
- **Surface Figure:**  $\lambda/10@633\text{nm}$
- **Surface Quality:** 60-40 Scratch and dig
- **Transmitted Beam Deviation:**  $\pm 5'$
- **Reflected Beam Angle:**  $90^\circ \pm 5'$
- **Transmittance:**  $T_p > 90\%$
- **Reflectance:**  $R_s > 99.5\%$
- **Extinction Ratio:**  $T_p/T_s > 1000:1$
- **Chamfer:** Protective chamfer
- **Coating:** Dielectric coating on hypotenuse to split beam and broadband AR coating on other surfaces beam passes
- **Damage Threshold:**  $>500\text{mJ}/\text{cm}^2$ , 20ns, 20Hz, @1064nm



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# Broadband Polarizing cube Beamsplitter

Size (mm)	420-680nm	620-1000nm	900-1300nm	1200-1600nm
	Part No	Part No	Part No	Part No
5.0	BSP7-050-VIS	BSP7-050-NIR	BSP7-050-SWIR1	BSP7-050-SWIR2
10.0	BSP7-100-VIS	BSP7-100-NIR	BSP7-100-SWIR1	BSP7-100-SWIR2
12.5	BSP7-125-VIS	BSP7-125-NIR	BSP7-125-SWIR1	BSP7-125-SWIR2
15.0	BSP7-150-VIS	BSP7-150-NIR	BSP7-150-SWIR1	BSP7-150-SWIR2
20.0	BSP7-200-VIS	BSP7-200-NIR	BSP7-200-SWIR1	BSP7-200-SWIR2
25.0	BSP7-250-VIS	BSP7-250-NIR	BSP7-250-SWIR1	BSP7-250-SWIR2
50.0	BSP7-500-VIS	BSP7-500-NIR	BSP7-500-SWIR	BSP7-500-SWIR2

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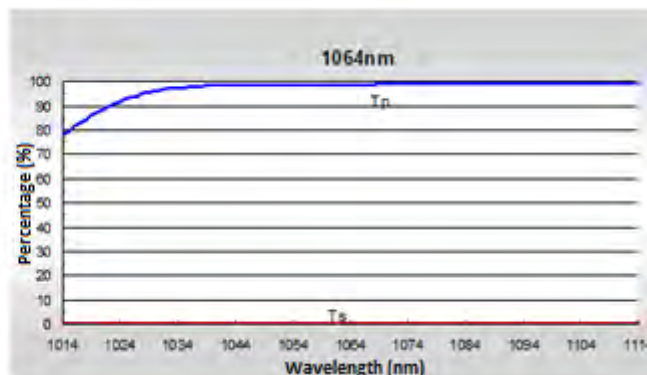
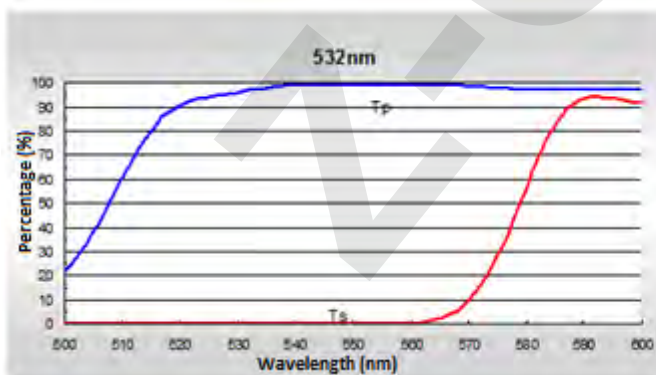
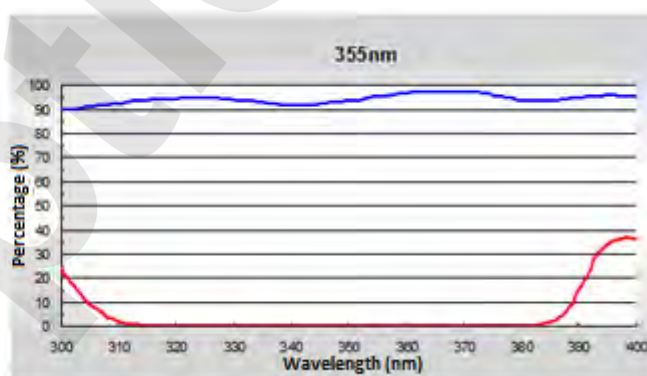
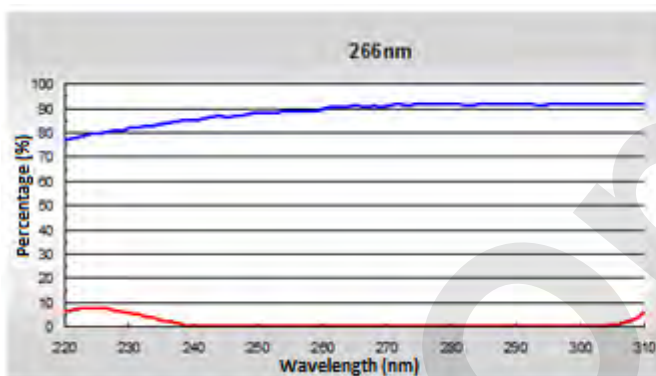
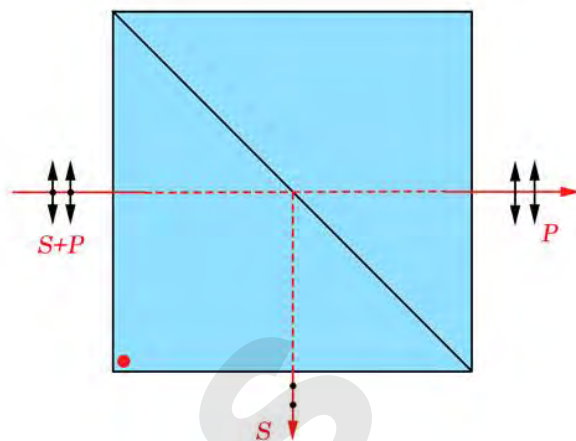
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# Laser Line High Energy Polarizing Specifications Cube Beamsplitter

- **Material:** H-K9L or UV Fused Silica
- **Surface Figure:**  $<\lambda/8@632.8\text{nm}$
- **Surface Quality:** 40-20 Scratch and Dig
- **Dimension tolerance:**  $\pm 0.2\text{mm}$
- **Clear Aperture:**  $>90\%$
- **Beam deviation:**  $<3'$
- **Extinction ratio:**  $T_p/T_s > 1000:1$
- **Transmittance:**  $T_p > 95\%$ ,  $T_s < 0.1\%$
- **Reflectance:**  $R_s > 99.9\%$ ,  $R_p < 5\%$
- **Coating:** Dielectric coating on hypotenuse to split beam and broadband AR coating on other surfaces beam passes
- **Damage Threshold**  $>5\text{J}/\text{cm}^2$ , 20ns, 20Hz, @1064nm



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# Laser Line High Energy Polarizing Cube Beamsplitter

Material	Size (mm)	Tp/Ts	Wavelength (nm)	Part No
UV Fused Silica	12.7x12.7x12.7	>1000:1	266	BSP8-127-266FS
UV Fused Silica	20x20x20	>1000:1	266	BSP8-200-266FS
UV Fused Silica	12.7x12.7x12.7	>1000:1	355	BSP8-127-355FS
UV Fused Silica	20x20x20	>1000:1	355	BSP8-200-355FS
K9	12.7x12.7x12.7	>1000:1	532	BSP8-127-532
K9	20x20x20	>1000:1	532	BSP8-200-532
K9	12.7x12.7x12.7	>1000:1	1064	BSP8-127-1064
K9	20x20x20	>1000:1	1064	BSP8-200-1064

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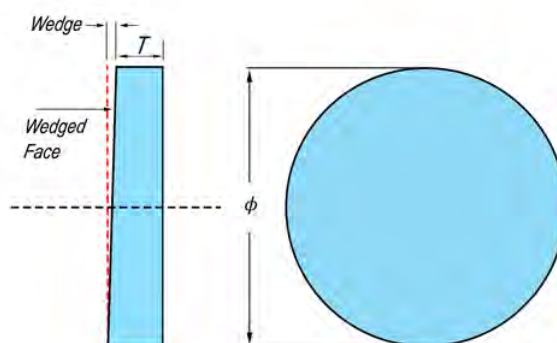
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# Fused Silica Wedge Beamsplitter

## Specifications

- **Material:** UV Fused Silica
- **Surface Figure:**  $\lambda/10@633\text{nm}$
- **Wedge Angle:**  $30' \pm 10'$
- **Surface Quality:** 40-20 Scratch and Dig
- **Diameter Tolerance:**  $+0/-0.25\text{mm}$
- **Thickness Tolerance:**  $\pm 0.25\text{mm}$
- **Incident Angle:**  $45^\circ$
- **Chamfer:** Protective Chamfer  $0.2 \sim 0.5\text{mm} \times 45^\circ$
- **Coating**
  - **S1:** Average Split ratio (R/T)  $\pm 10\%$
  - **S2:**  $R_{\text{avg}} < 1\%$



Size (mm)	T (mm)	Split Ratio (R/T)	250-400nm Part No	400-700nm Part No	700-1100nm Part No
φ12.5	3.0	30R/70T	BSP3-0-125-30UV-FS	BSP3-0-125-30VIS-FS	BSP3-0-125-30NIR-FS
φ12.5	3.0	50R/50T	BSP3-0-125-50UV-FS	BSP3-0-125-50VIS-FS	BSP3-0-125-50NIR-FS
φ12.5	3.0	70R/30T	BSP3-0-125-70UV-FS	BSP3-0-125-70VIS-FS	BSP3-0-125-70NIR-FS
12.5x12.5	3.0	30R/70T	BSP3-125-125-30UV-FS	BSP3-125-125-30VIS-FS	BSP3-125-125-30NIR-FS
12.5x12.5	3.0	50R/50T	BSP3-125-125-50UV-FS	BSP3-125-125-50VIS-FS	BSP3-125-125-50NIR-FS
12.5x12.5	3.0	70R/30T	BSP3-125-125-70UV-FS	BSP3-125-125-70VIS-FS	BSP3-125-125-70NIR-FS
φ25.5	5.0	30R/70T	BSP3-0-250-30UV-FS	BSP3-0-250-30VIS-FS	BSP3-0-250-30NIR-FS
φ25.5	5.0	50R/50T	BSP3-0-250-50UV-FS	BSP3-0-250-50VIS-FS	BSP3-0-250-50NIR-FS
φ25.5	5.0	70R/30T	BSP3-0-250-70UV-FS	BSP3-0-250-70VIS-FS	BSP3-0-250-70NIR-FS
25.0x25.0	5.0	30R/70T	BSP3-250-250-30UV-FS	BSP3-250-250-30VIS-FS	BSP3-250-250-30NIR-FS
25.0x25.0	5.0	50R/50T	BSP3-250-250-50UV-FS	BSP3-250-250-50VIS-FS	BSP3-250-250-50NIR-FS
25.0x25.0	5.0	70R/30T	BSP3-250-250-70UV-FS	BSP3-250-250-70VIS-FS	BSP3-250-250-70NIR-FS
φ50.0	8.0	30R/70T	BSP3-0-500-30UV-FS	BSP3-0-500-30VIS-FS	BSP3-0-500-30NIR-FS
φ50.0	8.0	50R/50T	BSP3-0-500-50UV-FS	BSP3-0-500-50VIS-FS	BSP3-0-500-50NIR-FS
φ50.0	8.0	70R/30T	BSP3-0-500-70UV-FS	BSP3-0-500-70VIS-FS	BSP3-0-500-70NIR-FS
50.0x50.0	8.0	30R/70T	BSP3-500-500-30UV-FS	BSP3-500-500-30VIS-FS	BSP3-500-500-30NIR-FS
50.0x50.0	8.0	50R/50T	BSP3-500-500-50UV-FS	BSP3-500-500-50VIS-FS	BSP3-500-500-50NIR-FS
50.0x50.0	8.0	70R/30T	BSP3-500-500-70UV-FS	BSP3-500-500-70VIS-FS	BSP3-500-500-70NIR-FS

### Remarks

1. The high-precision substrate ensures the accuracy of the wavefront of reflected and transmitted light. AR coating and wedge angle reduce the ghost beam reflected on back surface.
2. The products listed in the catalogue is to split light by energy, not polarization.

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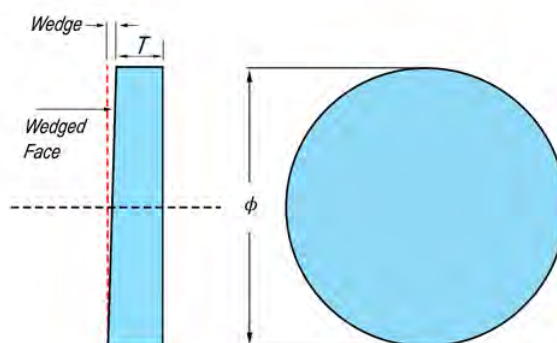
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# ZnSe Wedge Beamsplitter

## Specifications

- **Material:** ZnSe
- **Surface Figure:**  $\lambda/4$ @633nm
- **Surface Quality:** 60-40 Scratch and dig
- **Clear Aperture:** 90%
- **Diameter Tolerance:**  $+0/-0.25$ mm
- **Thickness Tolerance:**  $\pm 0.25$ mm
- **Chamfer:** Protective Chamfer  $0.2\sim 0.5$ mmX $45^\circ$
- **Wedge Angle:**  $30'\pm 10'$
- **S1:** Average Split ratio (R/T)  $\pm 10\%$  @  $45^\circ$  @  $7\sim 14\mu\text{m}$
- **S2:**  $R_{\text{avg}} < 2.5\%$



Size (mm)	T (mm)	Split Ratio (R/T)	
		Part No	
$\phi 12.7$	3.0	BSP3-0-127-30-50-IR-ZS	
$\phi 25.4$	5.0	BSP3-0-254-50-50-IR-ZS	
$\phi 50.8$	8.0	BSP3-0-508-80-50-IR-ZS	

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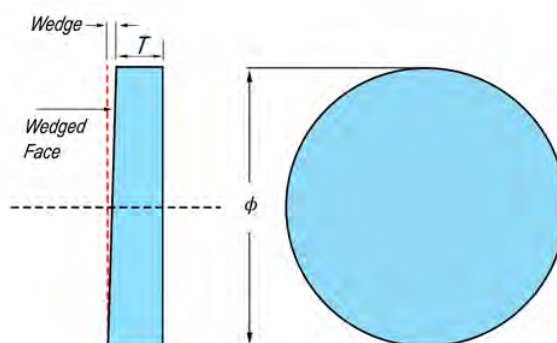
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# CaF<sub>2</sub> Wedge Beamsplitter

## Specifications

- **Material:** CaF<sub>2</sub>
- **Surface Figure:**  $\lambda/4@633\text{nm}$
- **Parallelism:**  $<10''$
- **Surface Quality:** 60-40 Scratch and dig
- **Clear Aperture:** 90%
- **Diameter Tolerance:**  $+0/-0.25\text{mm}$
- **Thickness Tolerance:**  $\pm 0.25\text{mm}$
- **Chamfer:** Protective Chamfer  $0.2\sim 0.5\text{mm}\times 45^\circ$
- **Wedge Angle:**  $30' \pm 10'$
- **S1:** Average Split ratio (R/T)  $\pm 10\%$  @  $45^\circ$  @  $2\sim 8\mu\text{m}$
- **S2:** none



Size (mm)	T (mm)	Split Ratio (R/T)	
		Part No	
$\phi 12.7$	3.0	BSP3-0-127-30-50-IR-CF	
$\phi 25.4$	5.0	BSP3-0-254-50-50-IR-CF	
$\phi 50.8$	8.0	BSP3-0-508-80-50-IR-CF	

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