

Stackable Beam Splitters

The stackable beam splitters are designed for maximum modularity and shortest beam path. They are compatible with almost all of our cameras having the standard C mount thread and can mount either to other attenuators or to the camera itself. Each beam splitter reflects $\leq 6\%$ of the incoming beam and allows approximately $\geq 94\%$ of the beam to pass directly through. By stacking 2 splitters $\leq 6\%$ of $\leq 6\%$ or 0.36% of the original beam intensity is directed into the camera. The beam splitters are mounted at 45 degree over the fixed or variable attenuators with a simple fastening ring and can be oriented in any direction with the beam coming from right, left, up, down, or front. The Beam Splitters will operate for wavelengths from 193nm - 2500nm. Damage threshold is $>5\text{J}/\text{cm}^2$ for 10ns pulses.

An optional $\varnothing 30\text{mm}$ clear aperture splitter allows for larger diameter incoming beams. Caution: Beam convergence and power density must be known at the imager so you don't overflow the imager size and maximum power density at the imager.

A different set of stackable beam splitters are specifically coated for optimization at 1064nm. Each beam splitter reduces the intensity to 1% of the input Beam. 2 stacked splitters will produce a sampling Beam with 0.01% intensity of the original beam.

The wedge angle of 10 degrees insures that only the reflection from the front surface will appear on the camera with no double images. The user must insure that there are beam stops for the transmitted and reflected beams.

Note that if possible, the user should use an even number of beam splitters so as to cancel any possible polarization effects.

For converging beams, a larger aperture splitter can be used either by itself or stacked (as shown)



SPZ17015 + SPZ17025



SPZ17015 + SPZ17026
(used either singularly or stacked)

Specifications

Model	1st Wedge Splitter (BB)	2nd Wedge Splitter (BB)	2nd Wedge Splitter, large aperture (BB)	1st Wedge Splitter (NIR)	2nd Wedge Splitter (NIR)
Wavelengths	193 - 2500nm	193 - 2500nm	193 - 2500nm	1064nm	1064nm
Material	UVFS	UVFS	UVFS	UVFS Coated 1064nm	UVFS Coated 1064nm
Clear Aperture	$\varnothing 15\text{mm}$	$\varnothing 15\text{mm}$	$\varnothing 30\text{mm}$	$\varnothing 15\text{mm}$	$\varnothing 15\text{mm}$
Reflection	$\leq 6\%$	$\leq 6\%$	$\leq 6\%$	$\leq 1\%$	$\leq 1\%$
Path length to CCD with 3 screw-on ND filters	60mm	93mm	60mm	60mm	93mm
Part number	SPZ17015	SPZ17026	SPZ17025	SPZ17031	SPZ170132

