

Cheat sheet for pst-optexp (v4.3a)

General component parameters

labeloffset= $\langle num \rangle$
labelstyle= $\langle macros \rangle$
labelalign= $\langle refpoint \rangle$
labelangle= $\langle num \rangle$
labelref=relative, relgrav, global, absolute
label= $\langle offset \rangle$ [$\langle angle \rangle$] [$\langle refpoint \rangle$] [$\langle labelref \rangle$]
innerlabel=true
position= $\langle num \rangle$, start, end
abspos= $\langle num \rangle$, start, end
endbox=true, false
angle= $\langle num \rangle$
rotateref= $\langle refpoint \rangle$
compshift= $\langle num \rangle$
compoffset= $\langle num \rangle$
innercompalign=rel, relative, abs, absolute
OptComp $\langle psstyle \rangle$
OptionalStyle $\langle psstyle \rangle$
VariableStyle $\langle psstyle \rangle$
addtoOptComp= $\langle list \rangle$
newOptComp= $\langle list \rangle$
optional=true, false

Free-ray components

$\backslash lens$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

lensheight= $\langle num \rangle$
lensradiusleft= $\langle num \rangle$
lensradiusright= $\langle num \rangle$
lensradius= $\langle left \rangle$ [$\langle right \rangle$]
lenswidth= $\langle num \rangle$
lens= $\langle radiusleft \rangle$ [$\langle radiusright \rangle$] [$\langle height \rangle$] [$\langle width \rangle$]
thicklens=true, false

$\backslash optplate$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

plateheight= $\langle num \rangle$
platelinewidth= $\langle num \rangle$ or $\langle dimen \rangle$

$\backslash optretplate$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

platewidth= $\langle num \rangle$
platesize= $\langle width \rangle$ $\langle height \rangle$

$\backslash pinhole$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

outerheight= $\langle num \rangle$
innerheight= $\langle num \rangle$
phlinewidth= $\langle num \rangle$ or $\langle dimen \rangle$
phwidth= $\langle num \rangle$

$\backslash optbox$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

optboxwidth= $\langle num \rangle$
optboxheight= $\langle num \rangle$
optboxsize= $\langle width \rangle$ $\langle height \rangle$

$\backslash optarrowcomp$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

arrowcompwidth= $\langle num \rangle$
arrowcompheight= $\langle num \rangle$
arrowcompsize= $\langle size \rangle$ or $\langle width \rangle$ $\langle height \rangle$
arrowcompangle= $\langle num \rangle$
arrowcompshape=rectangle, circle
ArrowCompStyle $\langle psstyle \rangle$

$\backslash optbarcomp$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

barcompwidth= $\langle num \rangle$
barcompheight= $\langle num \rangle$
barcompsize= $\langle size \rangle$ or $\langle width \rangle$ $\langle height \rangle$
barcompangle= $\langle num \rangle$
barcompshape=rectangle, circle
BarCompStyle $\langle psstyle \rangle$

$\backslash crystal$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

crystalwidth= $\langle num \rangle$
crystalheight= $\langle num \rangle$
crystalsize= $\langle width \rangle$ $\langle height \rangle$
caxislength= $\langle num \rangle$
caxisinv=true, false
voltage=true, false
lamp=true, false
CrystalCaxis $\langle psstyle \rangle$
CrystalLamp $\langle psstyle \rangle$

$\backslash optdiode$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

optdiodesize= $\langle num \rangle$

$\backslash doveprism$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

doveprismsize= $\langle num \rangle$ or $\langle width \rangle$ $\langle height \rangle$

$\backslash glanthompson$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

glanthompsonwidth= $\langle num \rangle$
glanthompsonheight= $\langle num \rangle$
glanthompsonsize= $\langle width \rangle$ $\langle height \rangle$
glanthompsongap= $\langle num \rangle$

$\backslash polarization$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

polsize= $\langle num \rangle$
poltype=parallel, perp, misc, lcirc, rcirc
Polarization $\langle psstyle \rangle$

$\backslash mirror$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle center \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

mirrorwidth= $\langle num \rangle$
mirrorlinewidth= $\langle num \rangle$ or $\langle dimen \rangle$
mirrorradius= $\langle radius \rangle$ [0]
mirrortype=plain, piezo, extended, semitrans
variable=true, false
mirrordepth= $\langle num \rangle$
ExtendedMirror $\langle psstyle \rangle$
PiezoMirror $\langle psstyle \rangle$
SemitransMirror $\langle psstyle \rangle$

$\backslash beamsplitter$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle center \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

bssize= $\langle num \rangle$
bsstyle=cube, plate

$\backslash optgrating$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle center \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

gratingwidth= $\langle num \rangle$
gratingheight= $\langle num \rangle$
gratingdepth= $\langle num \rangle$
gratingcount= $\langle int \rangle$
gratingtype=blazed, binary
gratingalign=t, top, c, center
reverse=true, false
gratinglinewidth= $\langle num \rangle$ or $\langle dimen \rangle$

$\backslash optprism$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle center \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

prismsize= $\langle num \rangle$
prismangle= $\langle num \rangle$
prismtype=transmittive, reflective
prismalign=auto, center

$\backslash rightangleprism$ [$\langle opt \rangle$] ($\langle in \rangle$) ($\langle center \rangle$) ($\langle out \rangle$) { $\langle label \rangle$ }

raprismsize= $\langle num \rangle$
raprismalign=auto, center

\pentaprism[*<opt>*](*<in>*)(*<center>*)(*<out>*){*<label>*}
 pentaprismsize=*<num>*

Fiber components

usefiberstyle=true, false

\optfiber[*<opt>*](*<in>*)(*<out>*){*<label>*}
 fiberloops=*<int>*
 fiberloopradius=*<num>*
 fiberloopsep=*<num>*

\optamp[*<opt>*](*<in>*)(*<out>*){*<label>*}
 optampsize=*<num>* or *<width>* *<height>*

\optmzm[*<opt>*](*<in>*)(*<out>*){*<label>*}
 optmzmsize=*<num>* or *<width>* *<height>*

\polcontrol[*<opt>*](*<in>*)(*<out>*){*<label>*}
 polcontrolsize=*<num>*
 polcontroltype=linear, triangle

\optisolator[*<opt>*](*<in>*)(*<out>*){*<label>*}
 isolatorsize=*<num>* or *<width>* *<height>*
 IsolatorArrow*<psstyle>*

\optswitch[*<opt>*](*<in>*)(*<out>*){*<label>*}
 switchsize=*<num>* or *<width>* *<height>*
 switchstyle=opened, closed

\fiberdelayline[*<opt>*](*<in>*)(*<out>*){*<label>*}
 fdlsiz=*<num>* or *<width>* *<height>*
 FdlArrow*<psstyle>*

\optfiberpolarizer[*<opt>*](*<in>*)(*<out>*){*<label>*}
 fiberpolsiz=*<num>* or *<width>* *<height>*

\optcirculator(*<left>*)(*<right>*)(*<bottom>*){*<label>*}
 optcircsize=*<num>*
 optcircangleA=*<num>*
 optcircangleB=*<num>*
 optcircangle=*<num>* *<num>*
 OptCircArrow*<psstyle>*

\optcoupler(*<tl>*)(*<bl>*)(*<tr>*)(*
){<label>*}
\wdmcoupler(*<tl>*)(*<bl>*)(*<r>*){*<label>*}
\wdmsplitter(*<l>*)(*<tr>*)(*
){<label>*}

couplersize=*<num>* or *<width>* *<height>*
 couplersep=*<num>*
 couplertype=none, ellipse, rectangle, cross
 coupleralign=t, top, b, bottom, c, center
 VariableCoupler*<psstyle>*

\fiberbox(*<in>*)(*<out>*){*<label>*}
 fiberboxwidth=*<num>*
 fiberboxheight=*<num>*
 fiberboxsize=*<width>* *<height>*
 fiberboxsep=*<num>*
 fiberboxsepout=*<num>*
 fiberboxcount=*<N>*x*<M>*

Electrical components

\eleccoupler(*<tl>*)(*<bl>*)(*<tr>*)(*
){<label>*}
 eleccouplersize=*<size>* or *<width>* *<height>*
 eleccouplersep=*<num>*
 eleccouplertype=standard, directional
 eleccouplerinput=left, right

\elecsynthesizer(*<in>*)(*<out>*){*<label>*}
 synthsize=*<size>* or *<width>* *<height>*
 synthtype=sine, pulse, sawtooth, rectangle,
 triangle, custom
 synthshape=circle, rectangle
 SynthStyle*<psstyle>*

\elecmixer(*<left>*)(*<right>*)(*<bottom>*){*<label>*}
 elecmixersize=*<num>*

Hybrid components

\optfilter[*<opt>*](*<in>*)(*<out>*){*<label>*}
 filtersize=*<num>*
 filtertype=bandpass, bandstop, lowpass,
 highpass
 filterangle=*<num>*
 FilterStyle*<psstyle>*

\fibercollimator(*<in>*)(*<A>*)(**)(*<out>*){*<label>*}
 fibercolsize=*<num>* or *<width>* *<height>*

\optdetector[*<opt>*](*<in>*)(*<out>*){*<label>*}
 detsize=*<num>* or *<width>* *<height>*
 dettype=round, diode
 DetectorStyle*<psstyle>*

Special nodes

\oenode{*<node>*}{*<comp>*}
 namingscheme=old, new
 showoptdots=true, false
 compname=*<string>*

\oenodeRefA{*<comp>*}
\oenodeRefB{*<comp>*}
\oenodeTrefA{*<comp>*}
\oenodeTrefB{*<comp>*}
\oenodeCenter{*<comp>*}
\oenodeLabel{*<comp>*}
\oenodeExt{*<comp>*}
 extnode=*<refpoint>*
 extnodealign=rel, relative, abs, absolute

\oenodeIfc{*<num>*}{*<comp>*}
\oenodeIn{*<comp>*}
\oenodeOut{*<comp>*}
\oenodeRotref{*<comp>*}
\oenodeBeam{*<num>*}
\oenodeBeamUp{*<num>*}
\oenodeBeamLow{*<num>*}
\oeBeamCenter{*<num>*}
\oeBeamVec{*<num>*}
\oeBeamVecUp{*<num>*}
\oeBeamVecLow{*<num>*}
\oeBeamVecMedian{*<num>*}

Connecting components

\drawbeam[*<options>*]{*<obj₁>*}{*<obj₂>*}...
 raytrace=true, false
 useNA=true, false
 n=*<code>*
 beampos=[*<x>*]*<y>*

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beamangle= $\langle pscode \rangle$ 
beamalign=rel, relative, abs, absolute
beampathskip= $\langle num \rangle$ 
beampathcount= $\langle num \rangle$ 
beaminside=true, false
beaminsidefirst=true, false
beaminsidelast=true, false
allowbeaminside=true, false
forcebeaminside=true, false
startinsidecount= $\langle num \rangle$ 
stopinsidecount= $\langle num \rangle$ 
beamnodealign=vec, conn, vector, connection

```

```

\optplane( $\langle center \rangle$ )
  beam=true, false
  Beam $\langle psstyle \rangle$ 
  addtoBeam= $\langle list \rangle$ 
  newBeam= $\langle list \rangle$ 
  ArrowInsideMinLength= $\langle pscode \rangle$ 
  ArrowInsideMaxLength= $\langle pscode \rangle$ 

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\drawwidebeam[ $\langle options \rangle$ ]{ $\langle obj_1 \rangle$ }{ $\langle obj_2 \rangle$ }...
  beamwidth= $\langle pscode \rangle$ 
  beamdiv= $\langle pscode \rangle$ 
  pswarning=true, false
  savebeampoints=true, false,  $\langle int \rangle$ 
  loadbeampoints=true, false,  $\langle int \rangle$ 
  savebeam=true, false,  $\langle int \rangle$ 
  loadbeam=true, false,  $\langle int \rangle$ 
  startinside=true, false
  stopinside=true, false

```

```

\drawfiber[ $\langle options \rangle$ ]{ $\langle obj_1 \rangle$ }{ $\langle obj_2 \rangle$ }...
  fiberalign=rel, relative, center, abs,
    absolute
  fiberangleA= $\langle num \rangle$ 
  fiberangleB= $\langle num \rangle$ 
  startnode=auto, N, 1, 2, ...
  stopnode=auto, N, 1, 2, ...
  Fiber $\langle psstyle \rangle$ 
  addtoFiber= $\langle list \rangle$ 
  newFiber= $\langle list \rangle$ 
  fiberstyle= $\langle string \rangle$ 

```

```

\drawwire[ $\langle options \rangle$ ]{ $\langle obj_1 \rangle$ }{ $\langle obj_2 \rangle$ }...
  wirealign=rel, relative, center, abs,
    absolute
  wireangleA= $\langle num \rangle$ 
  wireangleB= $\langle num \rangle$ 
  wirestyle= $\langle string \rangle$ 
  addtoWire= $\langle list \rangle$ 
  newWire= $\langle list \rangle$ 
  Wire $\langle psstyle \rangle$ 
  fiber=[*+]none, all, i, o,  $\langle refpoint \rangle$ 
  wire=[*+]none, all, i, o,  $\langle refpoint \rangle$ 

```

```

\begin{optexp}...\end{optexp}
\backlayer{ $\langle code \rangle$ }
\frontlayer{ $\langle code \rangle$ }

```

Custom components

```

\optdipole[ $\langle opt \rangle$ ]( $\langle in \rangle$ )( $\langle out \rangle$ ){ $\langle label \rangle$ }
\opttripole[ $\langle opt \rangle$ ]( $\langle in \rangle$ )( $\langle center \rangle$ )( $\langle out \rangle$ ){ $\langle label \rangle$ }

  optdipolesize= $\langle width \rangle$ [  $\langle height \rangle$ ]

\newOptexpDipole[ $\langle fixopt \rangle$ ]{ $\langle name \rangle$ }{ $\langle dftopt \rangle$ }
\newOptexpTripole[ $\langle fixopt \rangle$ ]{ $\langle name \rangle$ }{ $\langle dftopt \rangle$ }
\newOptexpFiberDipole[ $\langle fixopt \rangle$ ]{ $\langle name \rangle$ }{ $\langle dftopt \rangle$ }
\newOptexpElecDipole[ $\langle fixopt \rangle$ ]{ $\langle name \rangle$ }{ $\langle dftopt \rangle$ }

```

Additional information

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showifcnodes=true, false
IfcNodeStyle $\langle psstyle \rangle$ 

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