

Cheat sheet for pst-optexp (v3.6)

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= $\langle width \rangle$ $\langle height \rangle$

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

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
lampscale= $\langle num \rangle$
CrystalCaxis $\langle psstyle \rangle$
Crystallamp $\langle psstyle \rangle$

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

detsize= $\langle num \rangle$ or $\langle width \rangle$ $\langle height \rangle$
dettpe=round, diode
DetectorStyle $\langle psstyle \rangle$

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

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= $\langle num \rangle$
pollinewidth= $\langle num \rangle$ or $\langle dimen \rangle$

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= $\langle num \rangle$
prismalign=auto, center

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

raprismsize= $\langle num \rangle$

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

pentaprismsize= $\langle num \rangle$

Fiber components

usefiberstyle=true, false

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

fiberloops= $\langle int \rangle$
fiberloopradius= $\langle num \rangle$

```

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>}
    fdsize=<num> or <width> <height>
    FdlArrow<psstyle>

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

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

\optcoupler(<tl>)(<bl>)(<tr>)(<br>){<label>}
\wdmcoupler(<tl>)(<bl>)(<r>){<label>}
\wdmsplitter(<l>)(<tr>)(<br>){<label>}
    couplersize=<num> or <width> <height>
    couplersep=<num>
    couplertype=none, ellipse, rectangle, cross
    coupleralign=t, top, b, bottom, c, center
    align=top, bottom, center
    VariableCoupler<psstyle>

\fiberbox(<in>)(<out>){<label>}
    fiberboxwidth=<num>
    fiberboxheight=<num>

```

```

fiberboxsize=<width> <height>
fiberboxsepin=<num>
fiberboxsepout=<num>
fiberboxcount=<N>x<M>

```

Hybrid components

```

\optfilter[<opt>](<in>)(<out>){<label>}

    filtersize=<num>
    filtertype=bandpass, bandstop, lowpass,
    highpass
    filterangle=<num>
    FilterStyle<psstyle>

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

```

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>}
\oeBeamVec{<num>}
\oeBeamVecUp{<num>}

```

```
\oeBeamVecLow{<num>}
```

Connecting components

```

\drawbeam[<options>]{<obj1>}{<obj2>}...

    raytrace=true, false
    useNA=true, false
    n=<code>
    refractiveindex=<code>
    beampos=[<x>] <y>
    beamangle=<pscode>
    beamalign=rel, relative, abs, absolute
    beampathskip=<num>
    beaminside=true, false
    beaminsidefirst=true, false
    beaminsidelast=true, false
    allowbeaminside=true, false
    forcebeaminside=true, false

\optplane(<center>)
    beam=true, false
    conn=<string>
    Beam<psstyle>
    addtoBeam=<list>
    newBeam=<list>
    ArrowInsideMinLength=<pscode>
    ArrowInsideMaxLength=<pscode>

\drawwidebeam[<options>]{<obj1>}{<obj2>}...
    beamwidth=<pscode>
    beamdiv=<pscode>
    pswarning=true, false
    savebeampoints=true, false, <int>
    loadbeampoints=true, false, <int>
    savebeam=true, false
    loadbeam=true, false
    startinside=true, false
    stopinside=true, false

\drawfiber[<options>]{<obj1>}{<obj2>}...
    fiberalign=rel, relative, center, abs,
    absolute
    fiberangleA=<num>

```

```

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= $\langle string \rangle$ 
fiber=[*+]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[ $\langle fixopt \rangle$ ]{ $\langle name \rangle$ }{ $\langle dftopt \rangle$ }

```

Additional information

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

```