Simulation Parameter

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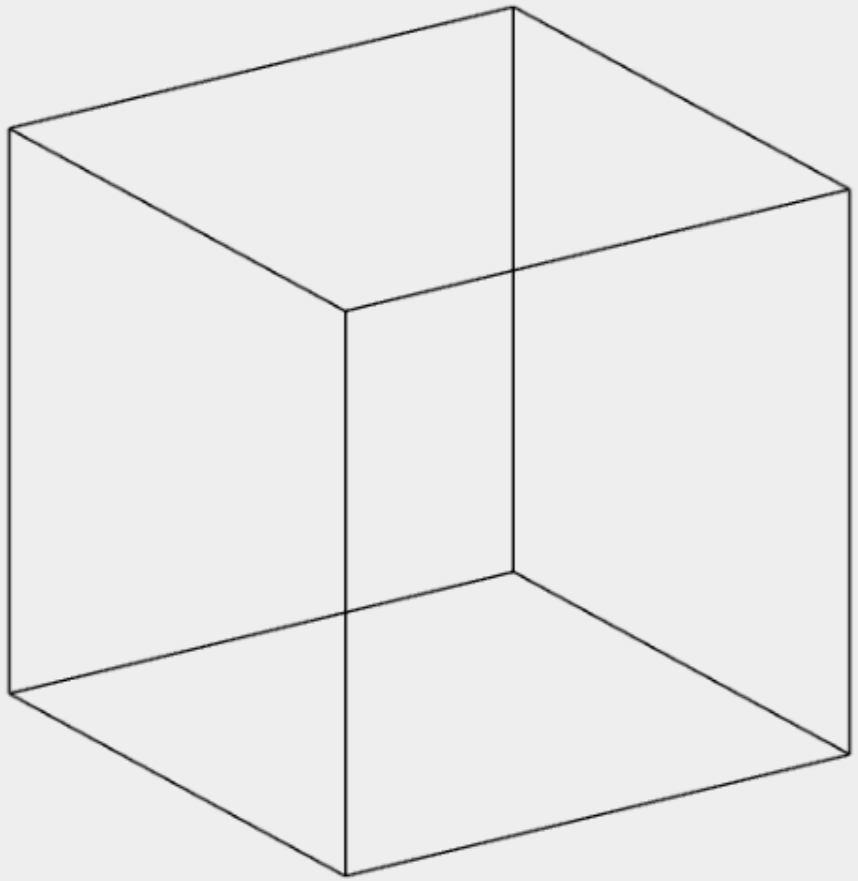
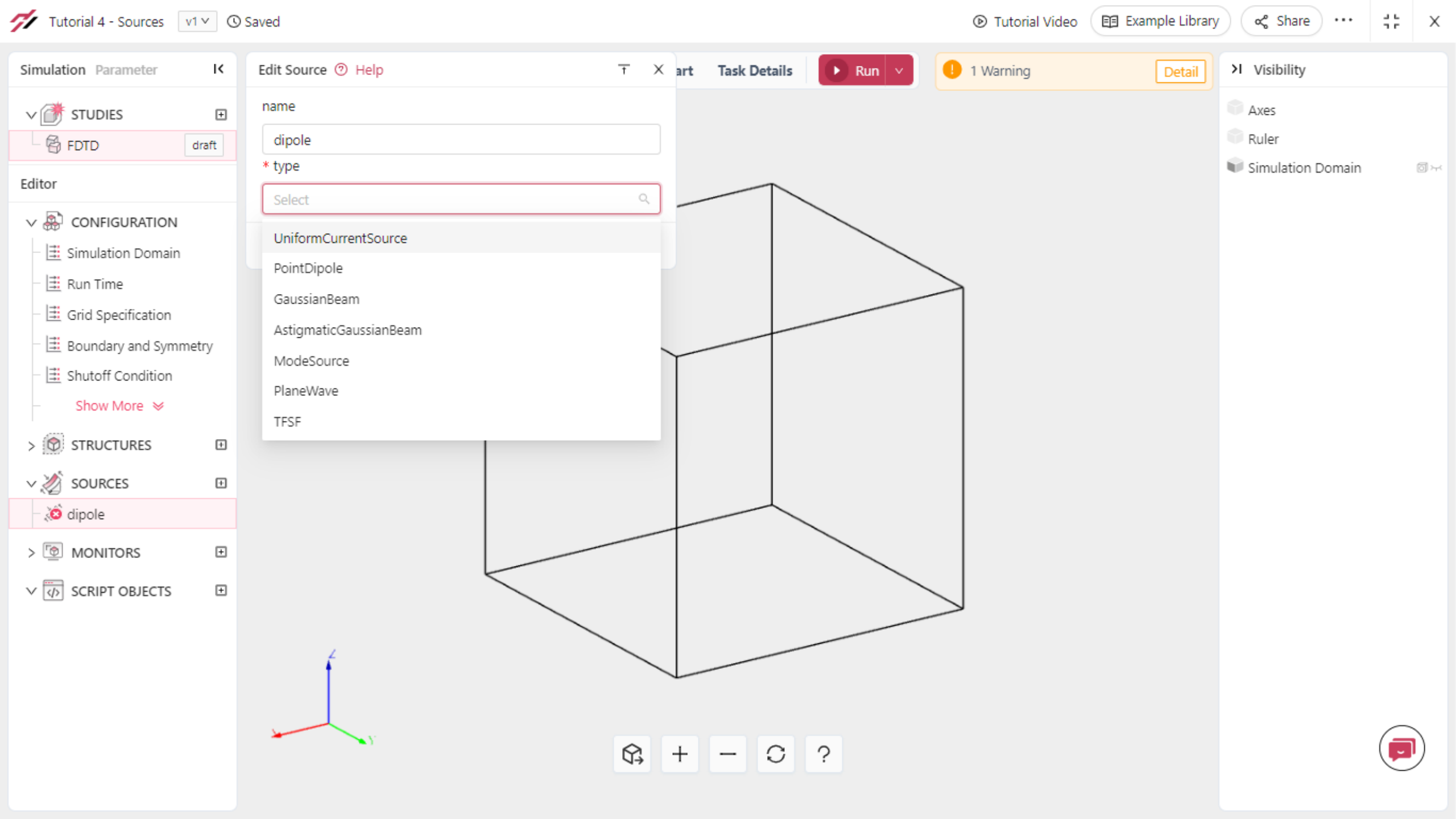
3D Chart 2D Chart Task Details Run

1 Error Detail



Visibility
Axes
Ruler
Simulation Domain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Edit Source
Help
name
dipole
* type
Select
UniformCurrentSource
PointDipole
GaussianBeam
AstigmaticGaussianBeam
ModeSource
PlaneWave
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Edit Source Help

name

dipole

* type

PointDipole

center

X 0 μm

Y 0 μm

Z 0 μm

* polarization

Select

* source_time Plot

GaussianPulse

wavelength frequency

λmin μm

Apply

art Task Details Run

1 Warning Detail

Visibility

Axes

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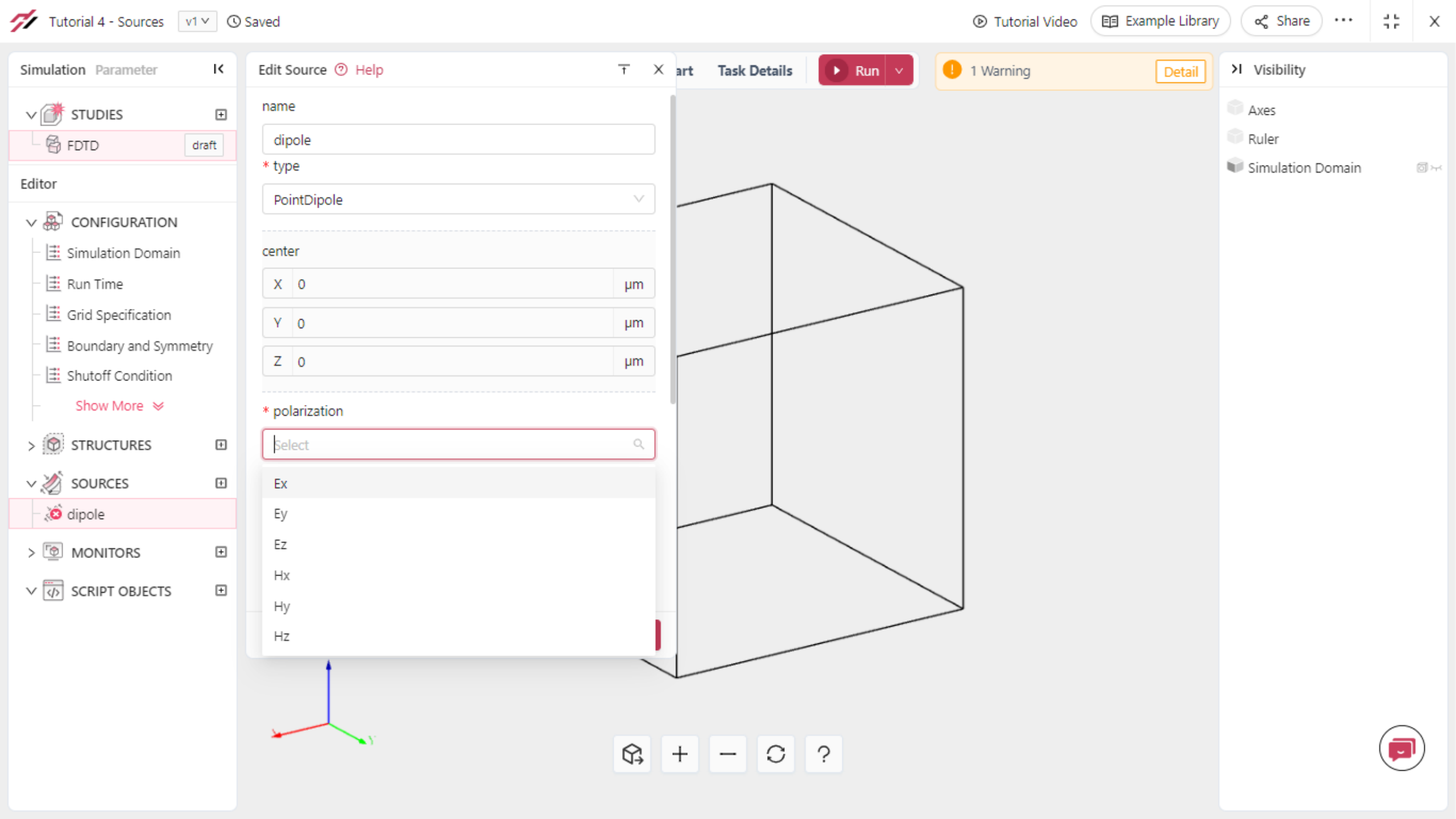
Simulation Domain


Tutorial 4 - Sources
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dipole
* type
PointDipole
center
X 0 μm
Y 0 μm
Z 0 μm
* polarization
Select
Ex
Ey
Ez
Hx
Hy
Hz

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Edit Source Help

center

X 0 μm

Y 0 μm

Z 0 μm

* polarization

Ey

* source_time Plot

GaussianPulse

wavelength frequency

λmin μm

λmax μm

Customize source bandwidth 0.5

freq0:

fwidth:

Apply

art Task Details Run

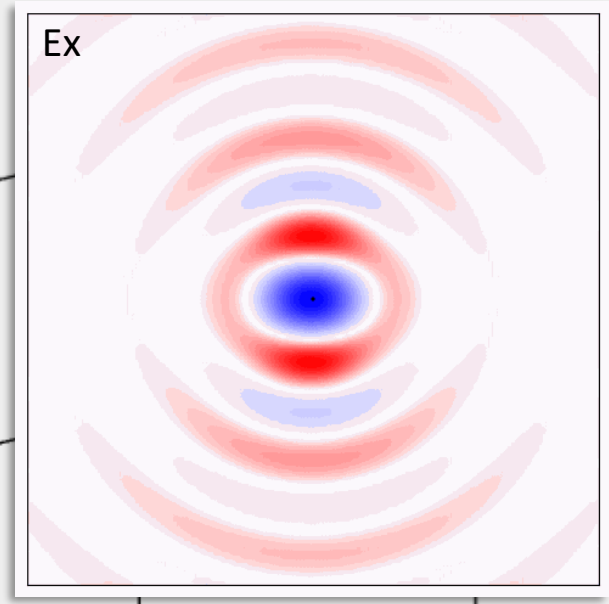
1 Warning Detail

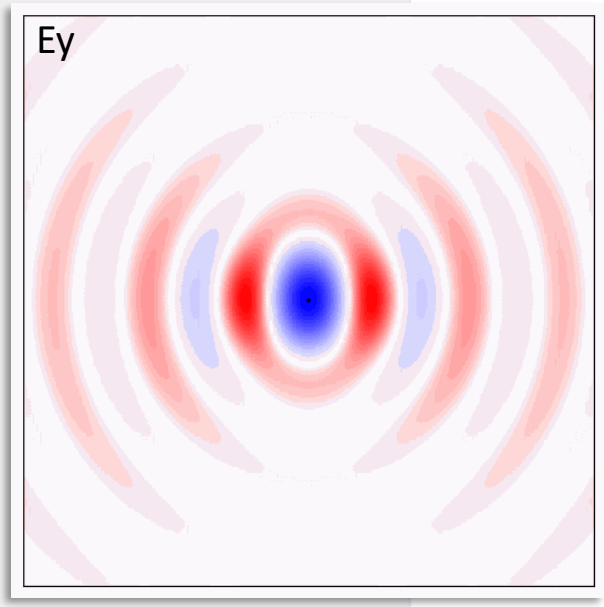
Visibility

Axes

Ruler

Simulation Domain



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Edit Source Help

Y 0 μm

Z 0 μm

* polarization

Ey

* source_time Plot

GaussianPulse

wavelength frequency

λmin 1.5 μm

λmax 1.6 μm

Customize source bandwidth 0.5

freq0: 1.93414e+14 Hz

fwidth: 6.24567e+12 Hz

**Advanced**

Apply

art Task Details Run

1 Warning Detail

Visibility

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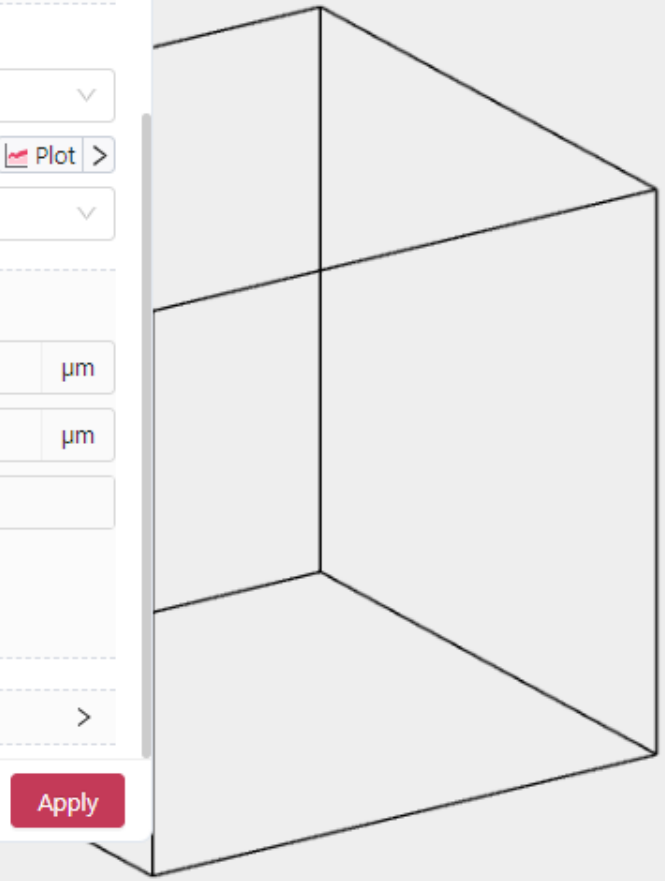

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dipole

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Edit Source Help

Y 0 μm

Z 0 μm

* polarization

Ey

* source_time Plot

GaussianPulse

wavelength frequency

λmin 1.5 μm

λmax 1.6 μm

Customize source bandwidth 0.5

freq0: 1.93414e+14 Hz

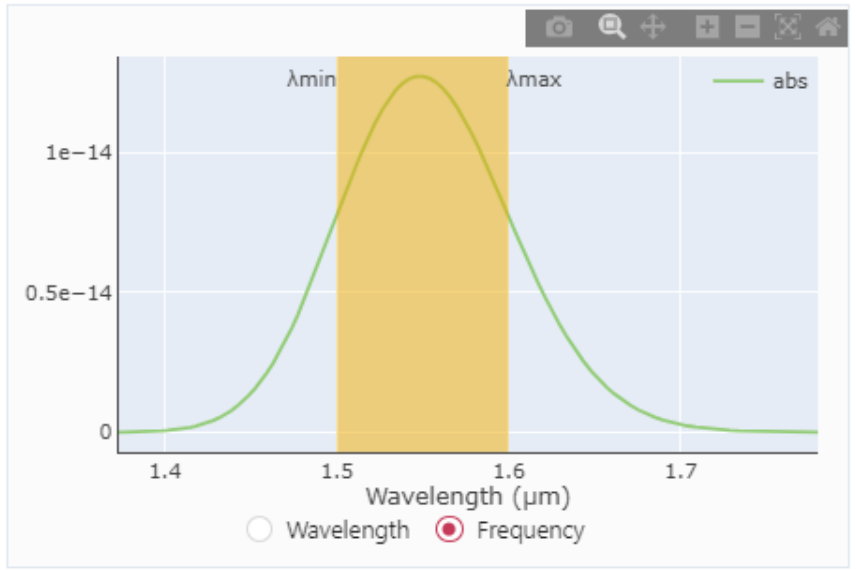
fwidth: 6.24567e+12 Hz

**Advanced**

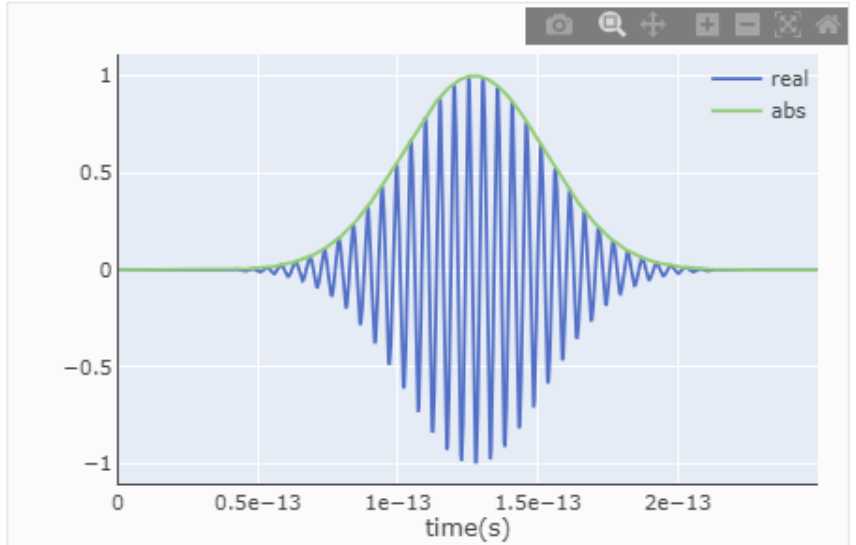
Apply

Plot Source

Source Spectrum




Source Signal Wavelength Frequency




Visibility

Axes

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Edit Source Help

Ey

* source_time Plot

GaussianPulse

wavelength frequency

λmin 1.5 μm

λmax 1.6 μm

Customize source bandwidth 0.5

freq0: 1.93414e+14 Hz

fwidth: 6.24567e+12 Hz

**Advanced**

amplitude phase

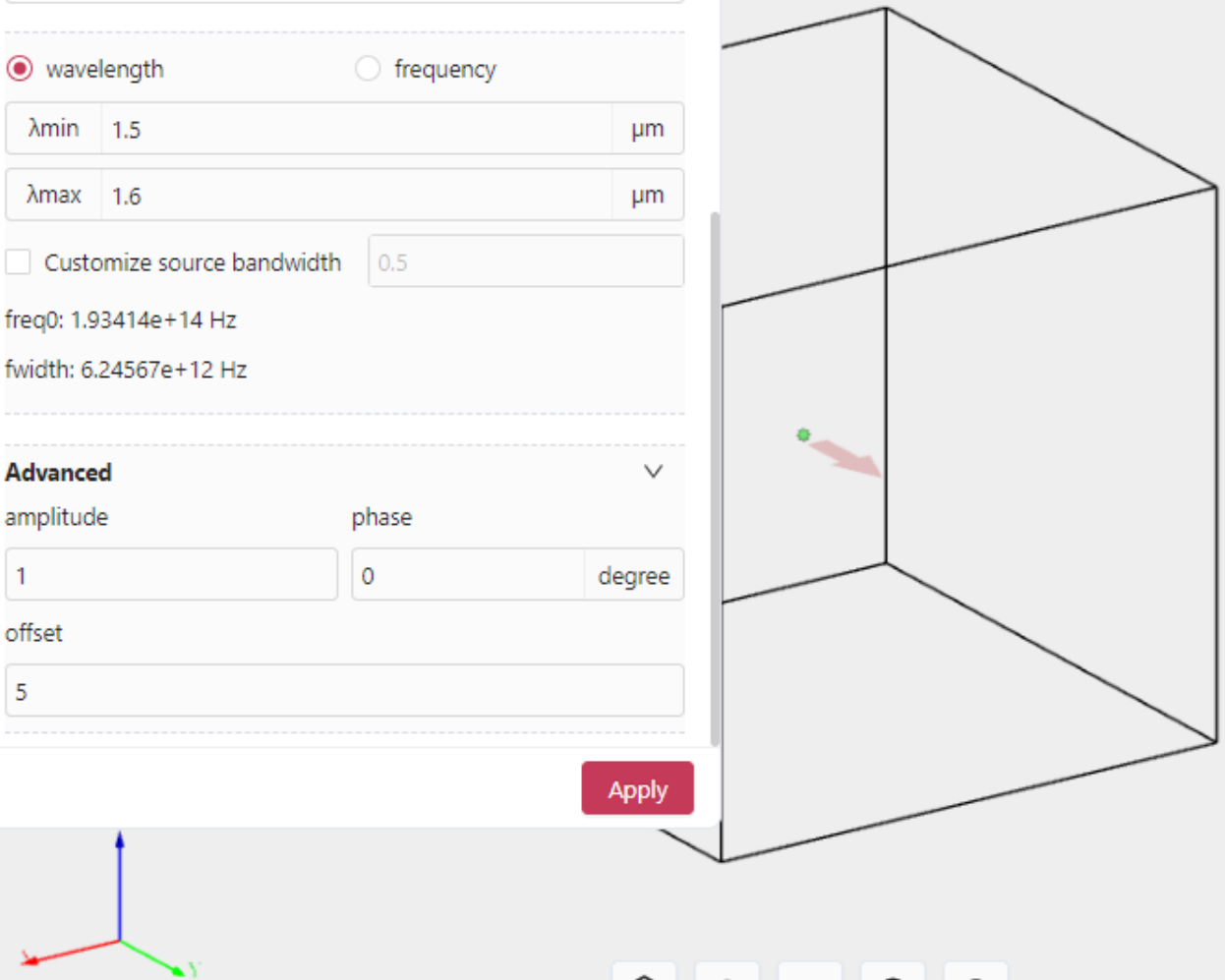
1 0 degree

offset

5

Apply

art Task Details Run Validation pass



Visibility

Axes
Ruler
Simulation Domain
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Simulation Parameter

STUDIES
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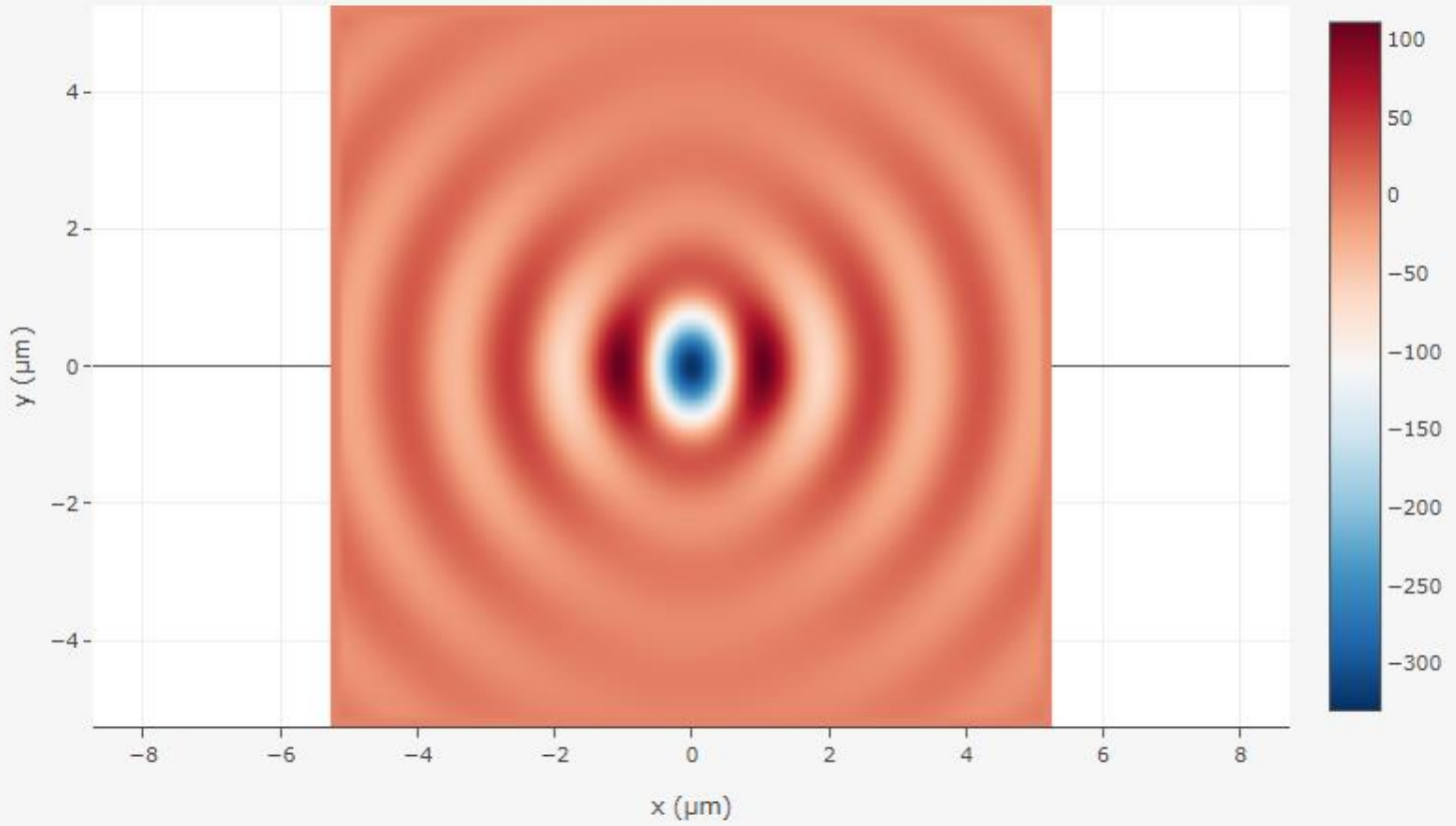
STRUCTURES

SOURCES
dipole

MONITORS
source_monitor_xy

SCRIPT OBJECTS

3D Chart 2D Chart Post-Run Result Beta Task Details Edit




Download Data

Result Advanced Beta

Monitor Name
source_monitor_xy

Type: FieldMonitor

Field Component
Ey

Value to Plot
Real

Z Position (μm)
0

Frequency Wavelength THz
193.41449373420255

Use equal axis aspect ratio
Overlay with structure
Color Scale

Simulation Parameter

STUDIES
FDTD draft

Editor

CONFIGURATION
Simulation Domain
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Shutoff Condition
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STRUCTURES

SOURCES
dipole
uniform_source

MONITORS
source_monitor_xy

SCRIPT OBJECTS

Edit Source Help

name
uniform_source

* type
UniformCurrentSource

center + size | bounds

center
X 0 μm
Y 0 μm
Z 0 μm

* size
X μm
Y μm
Z μm

* polarization
Select

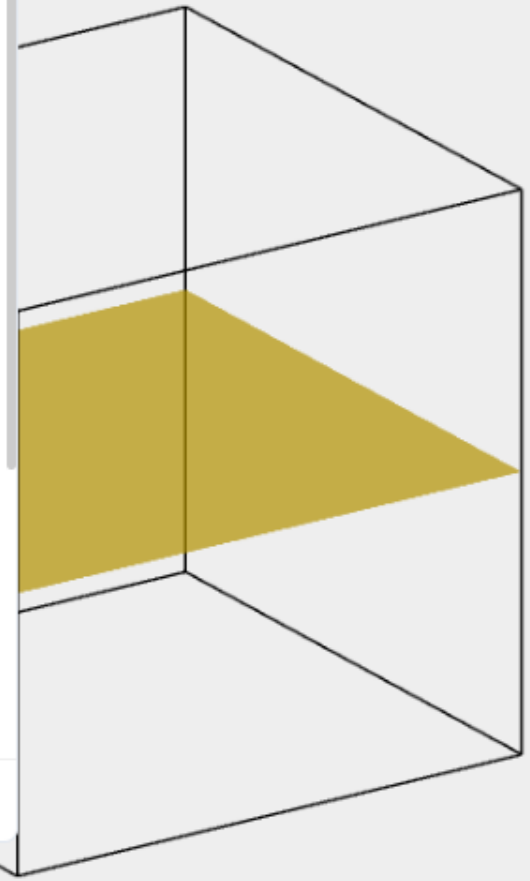
* source_time Plot
GaussianPulse

wavelength | frequency

Apply

art Task Details Run

1 Warning Detail



Visibility
Axes
Ruler
Simulation Domain
Monitors(1/1)

Simulation Parameter

STUDIES
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STRUCTURES

SOURCES
dipole
uniform_source

MONITORS
source_monitor_xy

SCRIPT OBJECTS

Edit Source Help

name
uniform_source

* type
UniformCurrentSource

center + size | bounds

center
X 0 μm
Y 0 μm
Z 0 μm

* size
X 9 μm
Y 0 μm
Z 0 μm

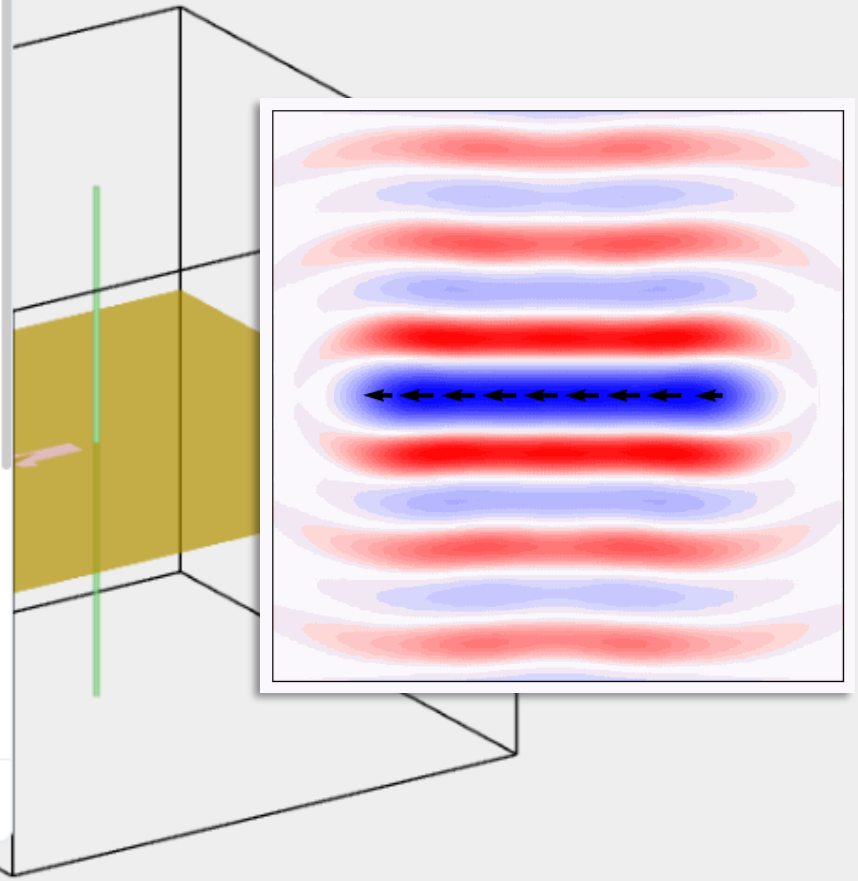
* polarization
Ex

* source_time Plot
GaussianPulse

wavelength | frequency

Apply

art Task Details Run Validation pass



Visibility
Axes
Ruler
Simulation Domain
Sources(1/1)
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Simulation Parameter

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STRUCTURES

SOURCES
dipole
uniform_source
plane_wave

MONITORS
source_monitor_xz

SCRIPT OBJECTS

Edit Source Help

name
plane_wave

* type
PlaneWave

center + size  bounds

center
X 0 μm
Y 0 μm
Z 4 μm

* size
X Infinity μm
Y Infinity μm
Z 0 μm

* direction
-

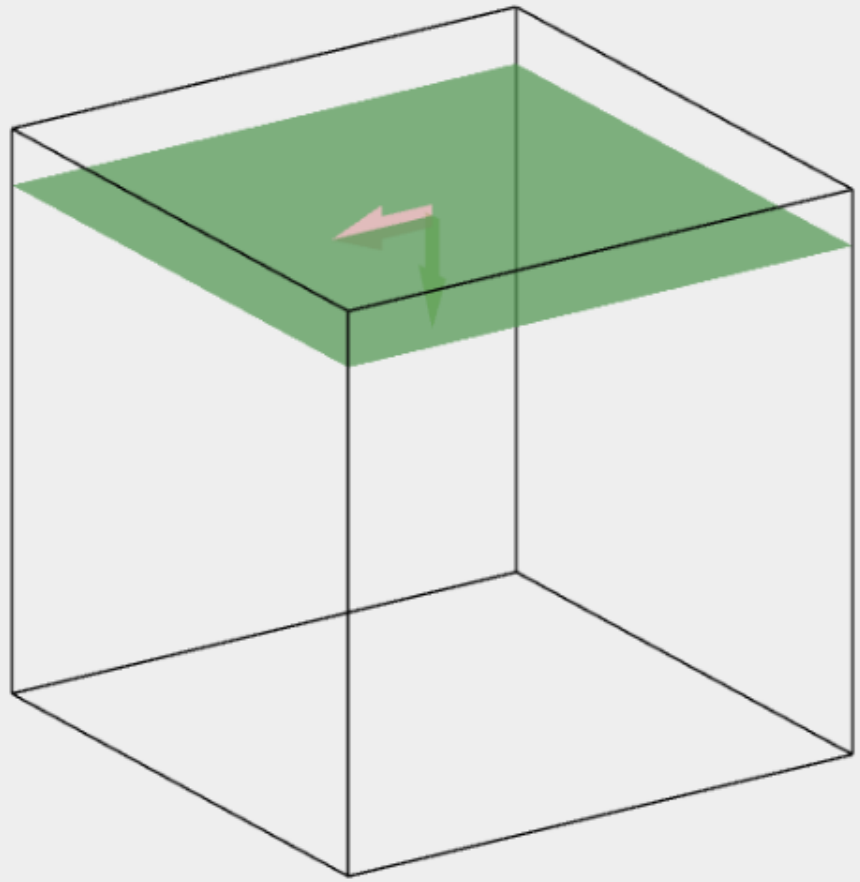
angle_theta
0 degree

angle_phi
0 degree

pol_angle

Apply

art Task Details Run Validation pass



Visibility
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STRUCTURES

SOURCES

dipole

uniform_source

plane_wave

MONITORS

source_monitor_xz

SCRIPT OBJECTS

Edit Source Help

X 0 μm

Y 0 μm

Z 4 μm

X Infinity μm

Y Infinity μm

Z 0 μm

* direction

-

angle_theta

30 degree

angle_phi

0 degree

pol_angle

0 degree

* source_time

Plot

GaussianPulse

wavelength

frequency

λmin 1.5 μm

λmax 1.6 μm

Apply

art Task Details

Run

Validation pass

Visibility

Axes

Ruler

Simulation Domain

Sources(1/1)

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Simulation Parameter

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STRUCTURES

SOURCES

dipole

uniform_source

plane_wave

tfsf

MONITORS

source_monitor_xz

SCRIPT OBJECTS

Edit Source Help

name

tfsf

* type

TFSF

center + size | bounds

center

* size

X 0 µm | X Infinity µm

Y 0 µm | Y Infinity µm

Z 0 µm | Z 6 µm

* injection_axis

z

* direction

-

angle_theta | angle_phi

Apply

art Task Details Run

10 Warnings Detail

Visibility

Axes

Ruler

Simulation Domain

Sources(1/1)

TFSF

PlaneWave

Simulation Parameter

STUDIES
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STRUCTURES

SOURCES
dipole
uniform_source
plane_wave
tfsf

MONITORS
source_monitor_xz

SCRIPT OBJECTS

Edit Source Help

center + size bounds

center
X 0 μm
Y 0 μm
Z 0 μm

* size
X Infinity μm
Y Infinity μm
Z 6 μm

* injection_axis
z

* direction
-

angle_theta
0 degree

angle_phi
0 degree

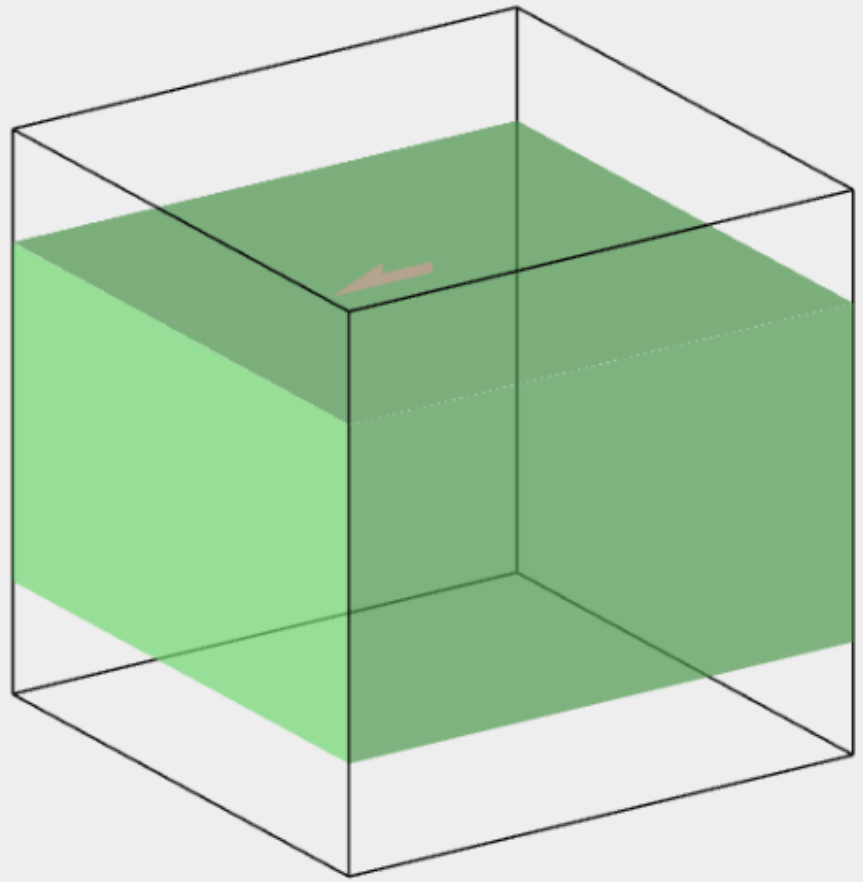
pol_angle
0 degree

* source_time Plot

Apply

art Task Details Run

10 Warnings Detail



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dipole
uniform_source
plane_wave
tfsf
gaussian_source

MONITORS
source_monitor_xz

SCRIPT OBJECTS

Edit Source Help

name
gaussian_source

* type
GaussianBeam

center + size | bounds

center
X 0 μm
Y 0 μm
Z 4.5 μm

* size
X 10 μm
Y 10 μm
Z 0 μm

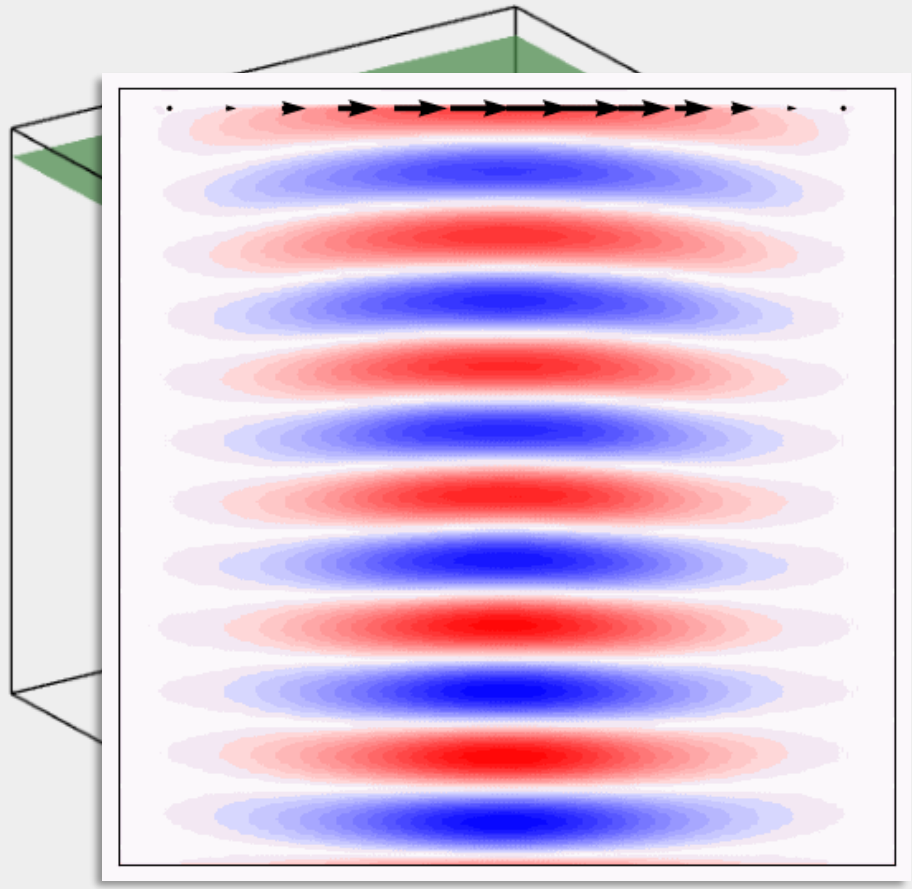
* direction
-

waist_radius
5 μm

waist_distance

Apply

art Task Details Run Validation pass



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MONITORS
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SCRIPT OBJECTS

Edit Source Help

center + size bounds

center
X 0 μm
Y 0 μm
Z 4.5 μm

* size
X 10 μm
Y 10 μm
Z 0 μm

* direction
-

waist_radius
5 μm

waist_distance
-9 μm

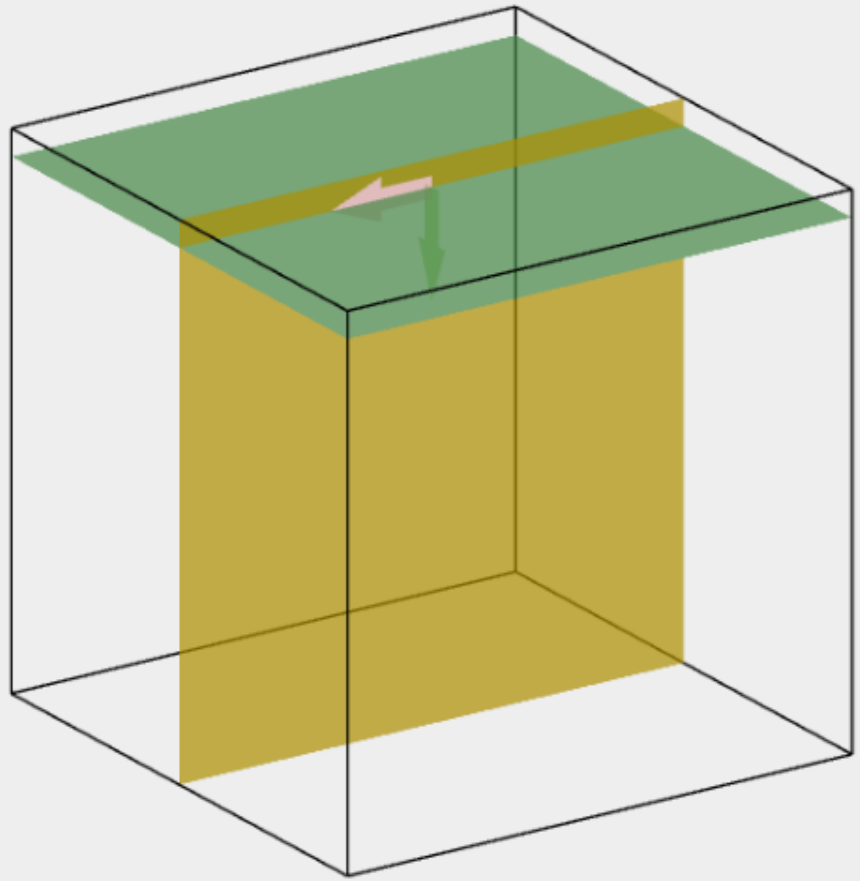
angle_theta
0 degree

angle_phi
0 degree

pol_angle

Apply

art Task Details Run Validation pass



Visibility
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wave_guide

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dipole

uniform_source

plane_wave

tfsf

gaussian_source

mode_source

MONITORS

source_monitor_xy

SCRIPT OBJECTS

Edit Source Help

name

mode_source

* type

ModeSource

center + size bounds

center

* size

X -9 μm

Y 0 μm

Z 0 μm

X 0 μm

Y 5 μm

Z 5 μm

* direction

+

num_freqs

1

* source_time Plot

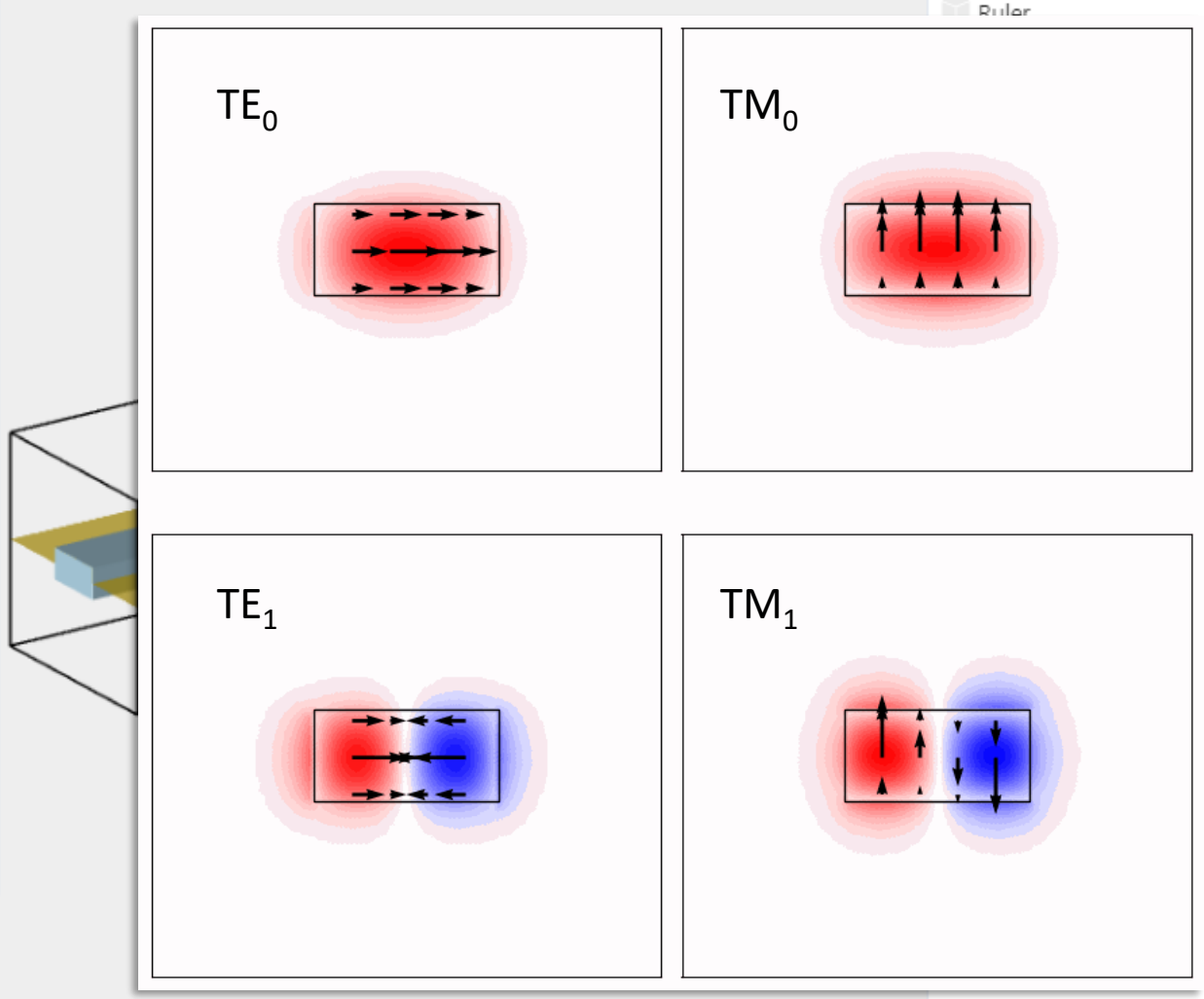
Apply

art Task Details Run Validation pass

Visibility

Axes

Ruler



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plane_wave
tfsf
gaussian_source
mode_source

MONITORS
source_monitor_xy

SCRIPT OBJECTS

Edit Source Help

fwidth: 6.24567e+12 Hz

**Advanced**

mode_index

3

mode_spec

Add ModeSolver Beta

num_modes

4

target_neff

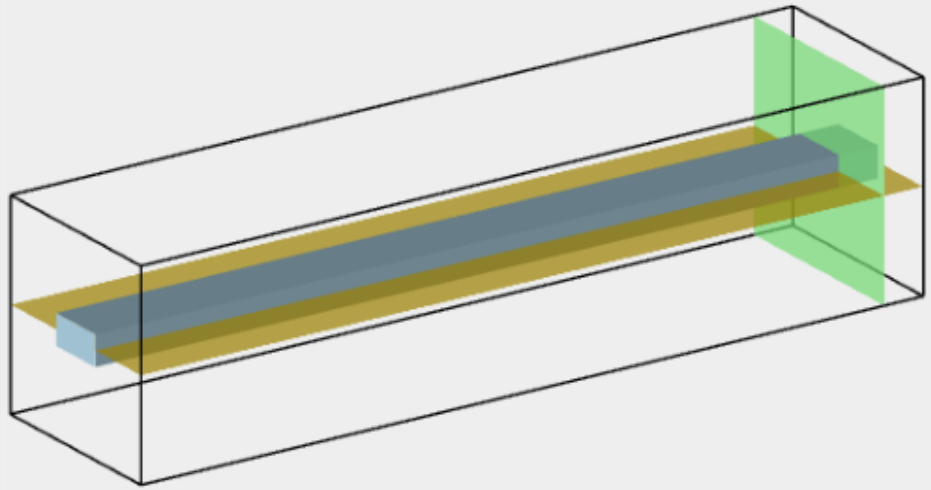
2

filter_pol

None

Apply

art Task Details Run Validation pass



Visibility

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**Monitors**(1/1)
**Structures**(1/1)
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Simulation Parameter

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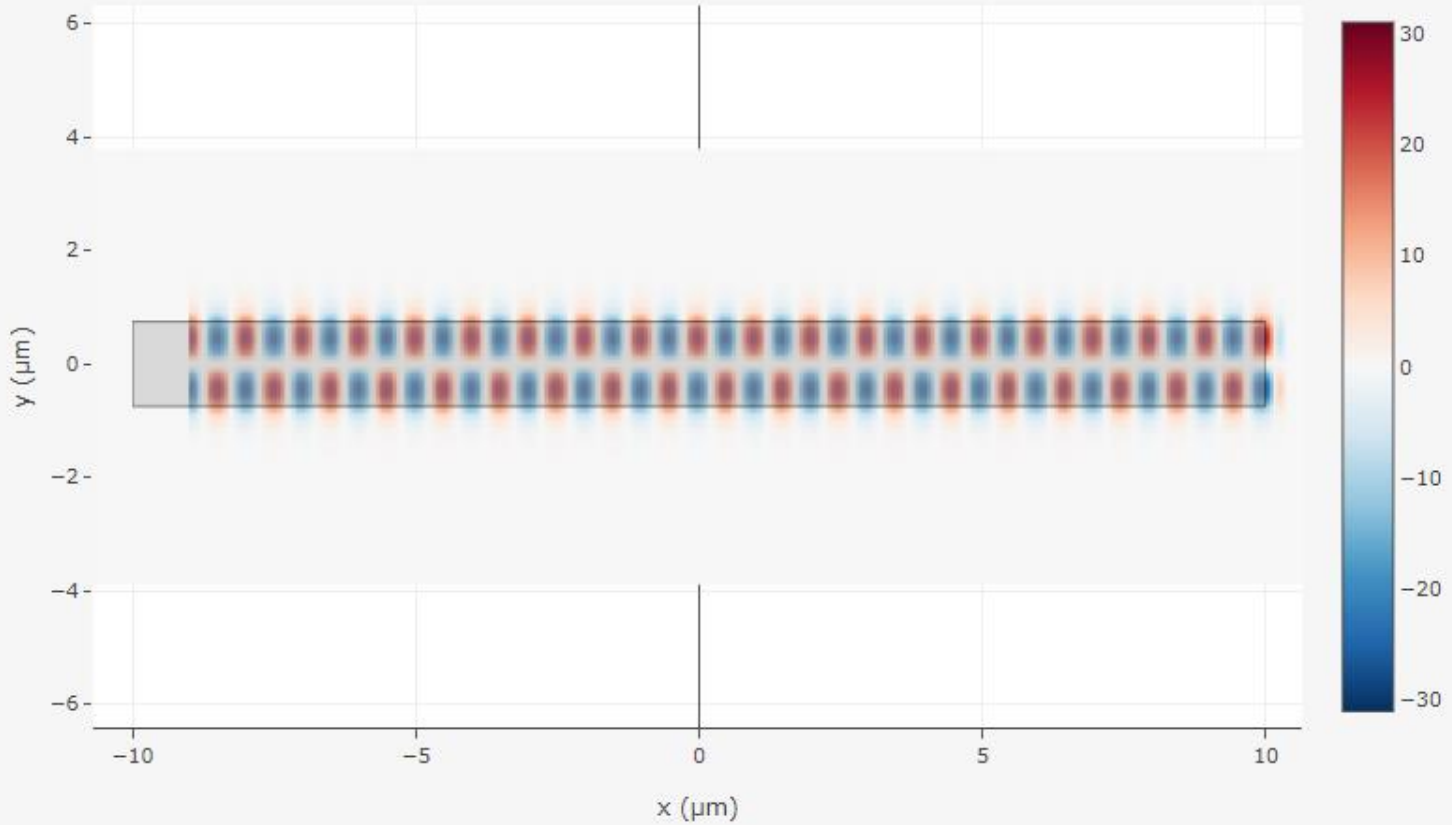
uniform_source
plane_wave
tfsf
gaussian_source
mode_source

MONITORS
source_monitor_xy

SCRIPT OBJECTS

3D Chart 2D Chart Post-Run Result Beta Task Details Edit




Download Data

Result Advanced Beta

Monitor Name
source_monitor_xy

Type: FieldMonitor

Field Component
Ez

Value to Plot
Real

Z Position (μm)
0

Frequency Wavelength THz
193.41449373420255

Use equal axis aspect ratio
Overlay with structure
Color Scale