# Problem info

Problem type: AC Magnetics , frequency: 1000000 Hz,
Geometry model class: Plane-Parallel
Problem database file names:

- Problem: *Proximity_PCB.pbm*
- Geometry: *Proximity_pcb.mod*
- Material Data: *Proximity_pcb.dhe*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

# Geometry model

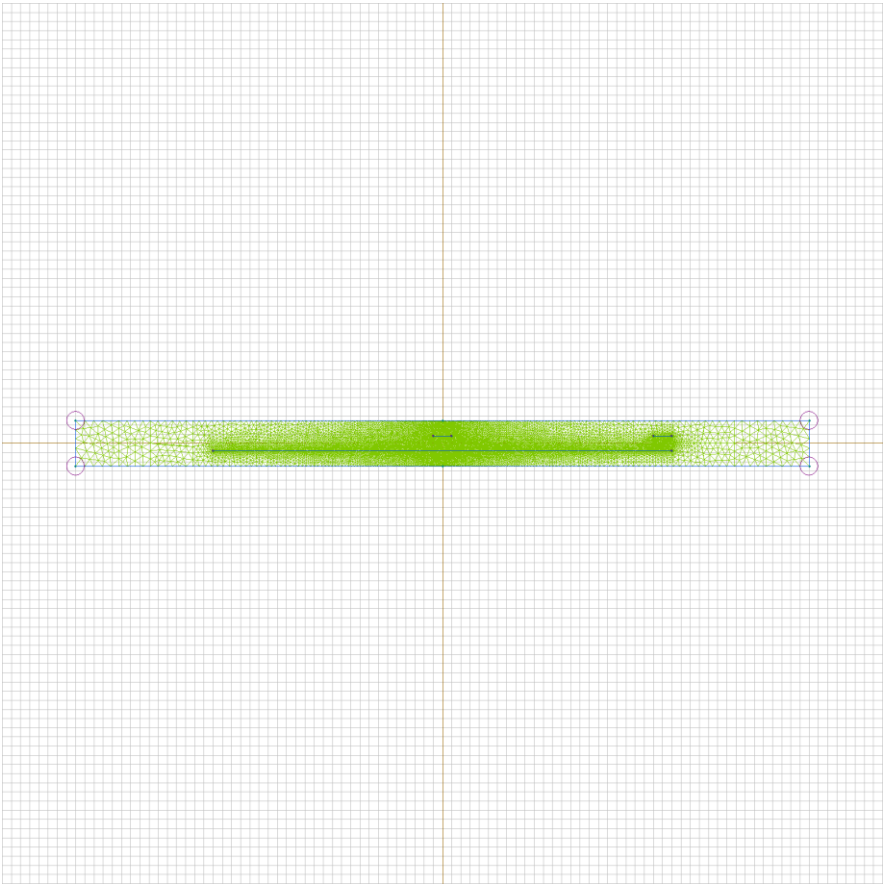


Table 1. Geometry model statistics

| | With Label | Total |
|---|---|---|
| Blocks | 3 | 4 |
| Edges | 1 | 18 |
| Vertices | 0 | 18 |

Number of nodes: 12005.

# Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

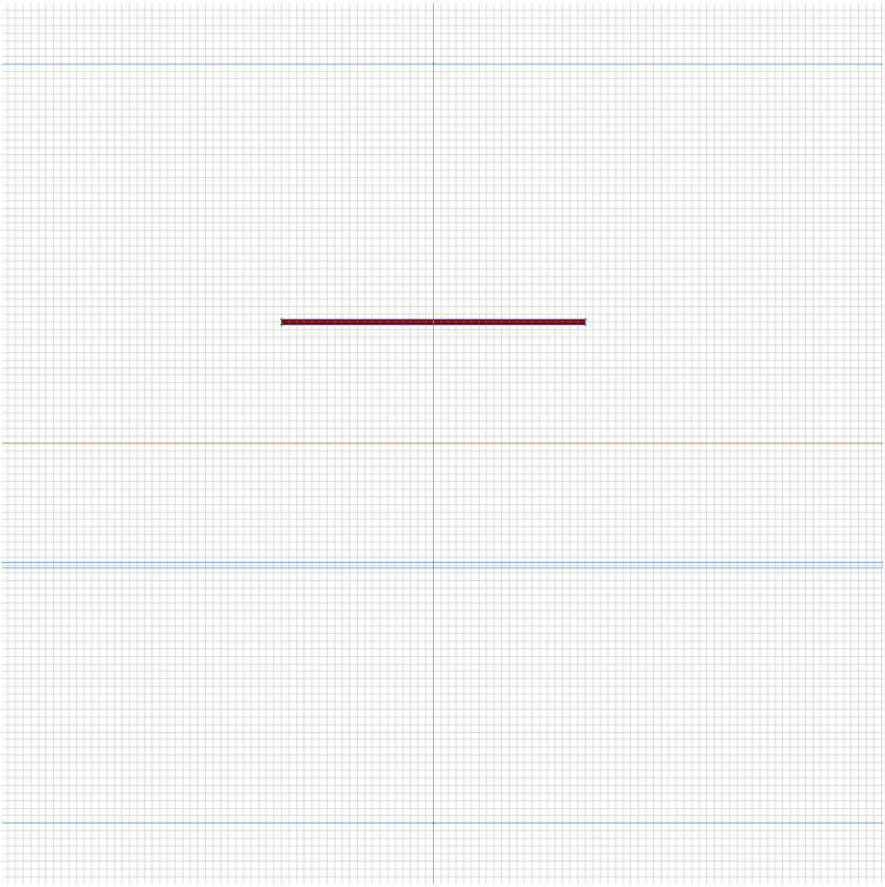
| Blocks: | Edges: | Vertices: |
|---|---|---|
| • Cu_Track<br>• Cu_Plane<br>• Air<br>• | • Border<br>• | |

Detailed information about each label is listed below.

# Labelled objects: block "Cu_Track"

There are (1) objects with this label

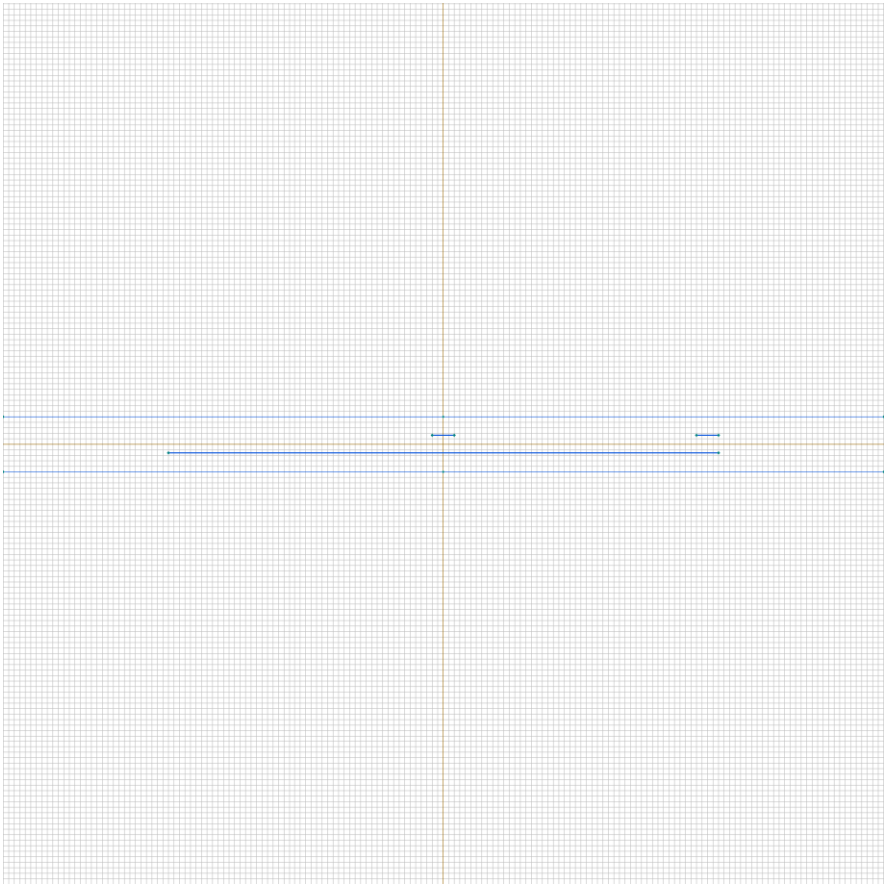
Relative magnetic permeability: mu_x=1, mu_y=1
Electric conductivity: sigma=59000000 [S/m]
Total current: I=1 [A], phase 0 [deg]
Conductor's connection: in parallel



# Labelled objects: block "Cu_Plane"

There are (2) objects with this label

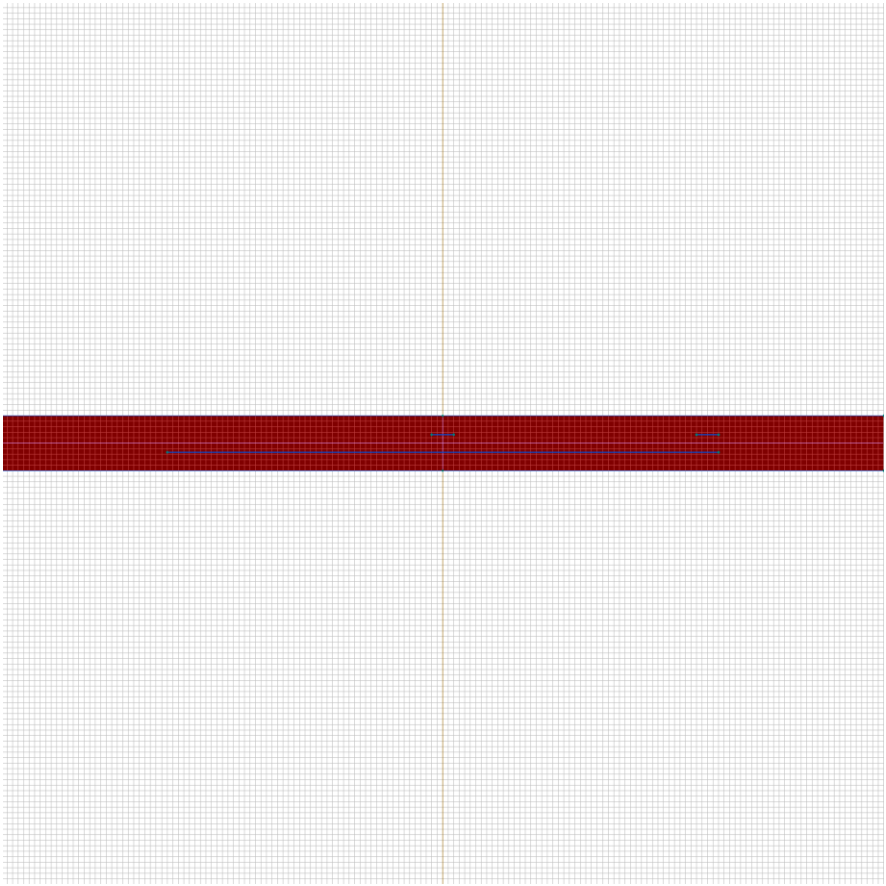
Relative magnetic permeability: mu_x=1, mu_y=1
Electric conductivity: sigma=59000000 [S/m]
Total current: I=-1 [A], phase 0 [deg]
Conductor's connection: in parallel



# Labelled objects: block "Air"

There are (1) objects with this label

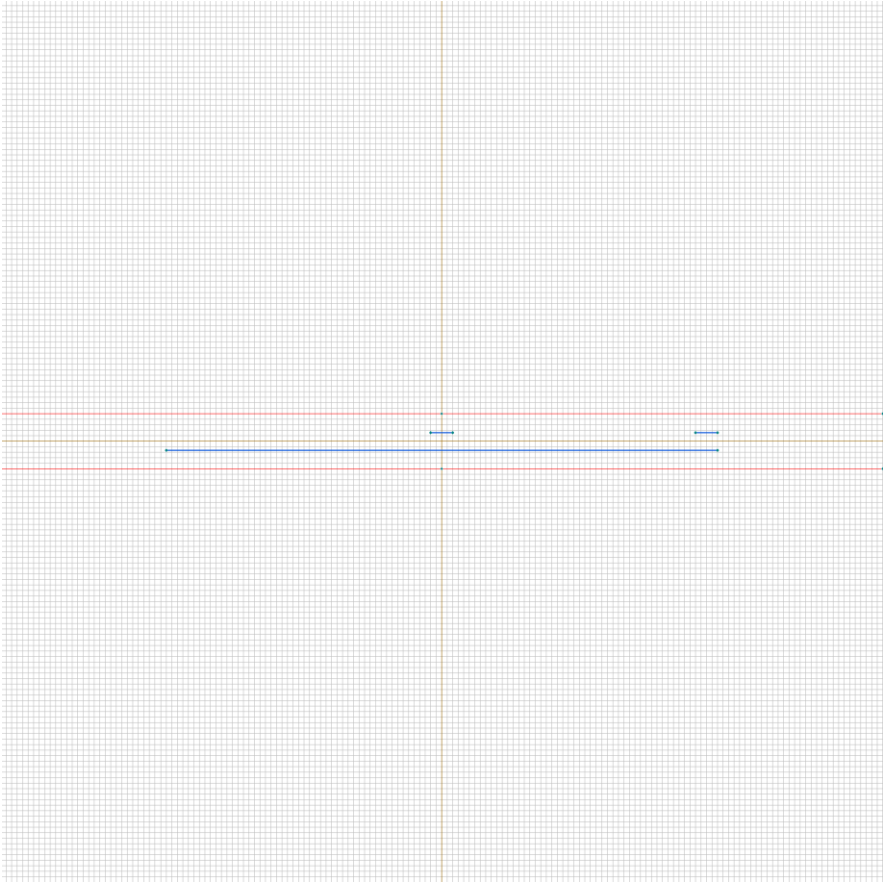
Relative magnetic permeability: mu_x=1, mu_y=1
Electric conductivity: sigma=0 [S/m]
Current density: j=0 [A/m2], phase 0 [deg]
Conductor's connection: in parallel



# Labelled objects: edge "Border"

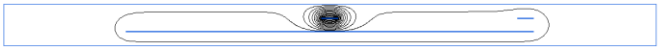
There are (6) objects with this label

Magnetic potential: A=0 [Wb/m], phase 0 [deg]



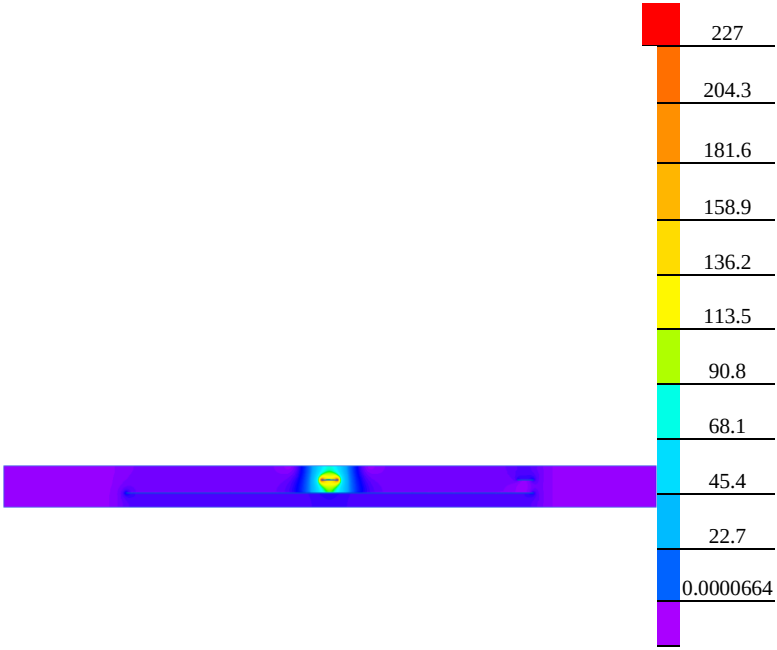
# Results

Field lines



# Results

Color map of Strength |H| [A/m]



# Nonlinear dependencies

No non-linear dependencies are used in this problem data