

Problem info

Problem type: AC Conduction , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *Avvolgimento con anello equipotenziale e con cilindri e barriere di pressboard .pbm*
- Geometry: *Avvolgimento con anello equipotenziale e con cilindri e barriere di pressboard .mod*
- Material Data: *Avvolgimento con anello equipotenziale e con cilindri e barriere di pressboard .dec*
- Material Data 2 (library): *Avvolgimento con anello equipotenziale.dec*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

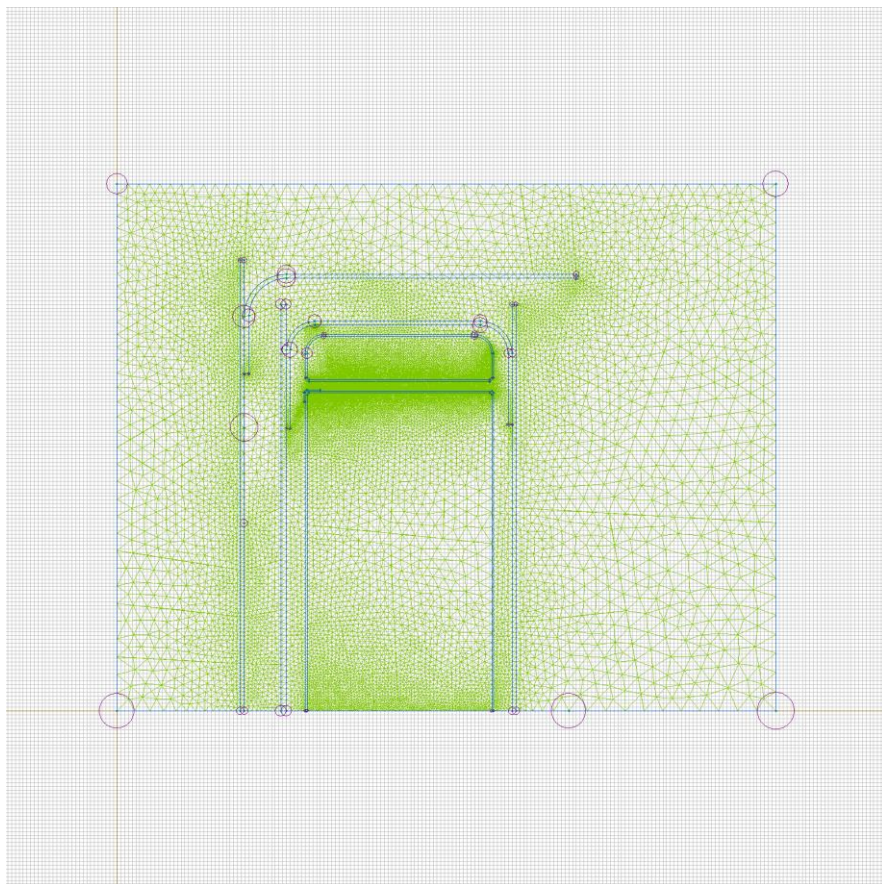


Table 1. Geometry model statistics

	With Label	Total
Blocks	5	12
Edges	3	85
Vertices	0	76

Number of nodes: 29164.

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:

- [pressboard](#)
- [carta](#)
- [avvolgimento](#)
- [legno](#)
- [olio](#)
-

Edges:

- [Dischi avvolg](#)
- [anello equip](#)
- [massa](#)
-

Vertices:

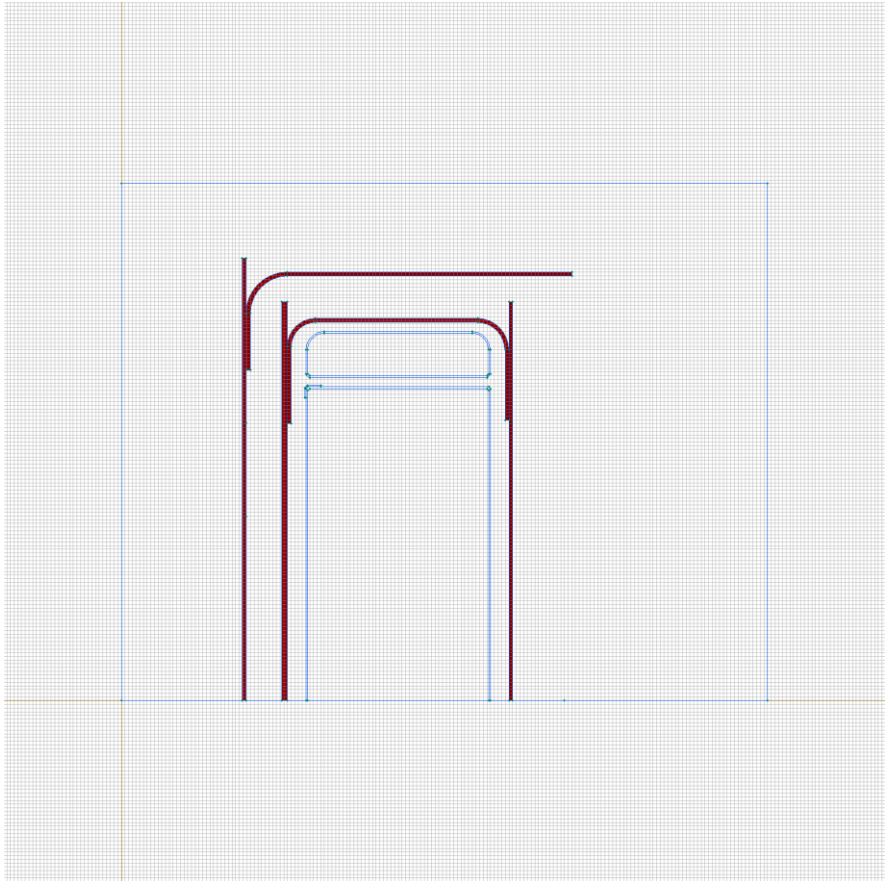
Detailed information about each label is listed below.

Labelled objects: block "pressboard"

There are (5) objects with this label

Relative electric permittivity $\epsilon_{sx}=4.5$, $\epsilon_{sy}=4.5$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

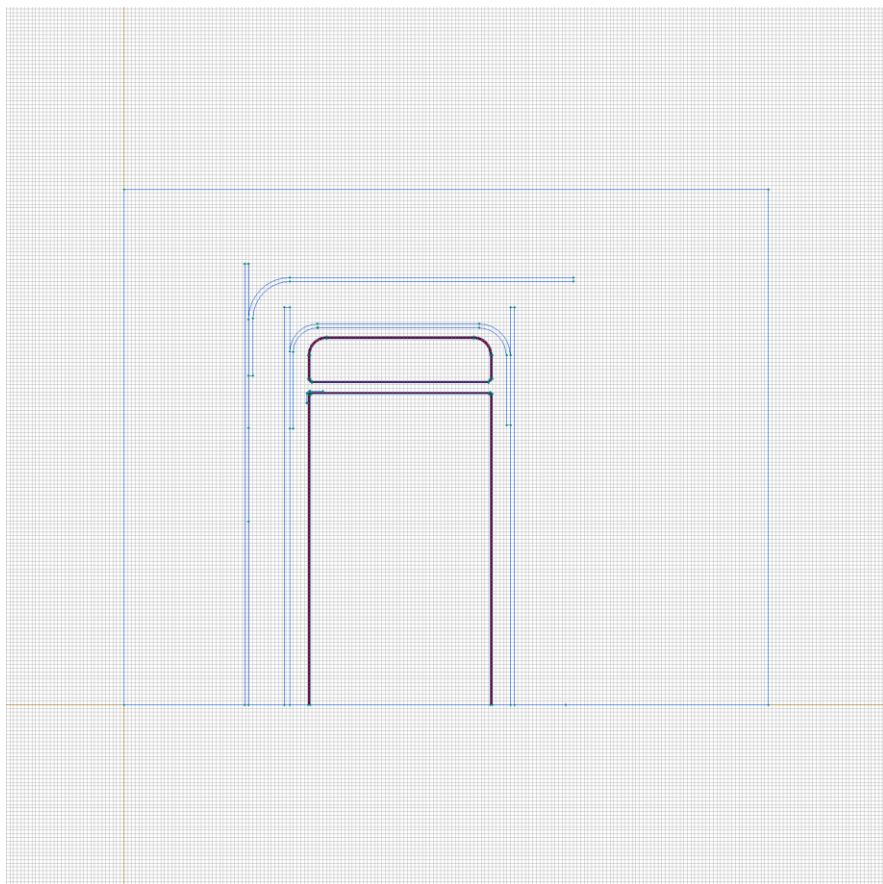


Labelled objects: block "carta"

There are (2) objects with this label

Relative electric permittivity $\epsilon_{sx}=3.5$, $\epsilon_{sy}=3.5$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

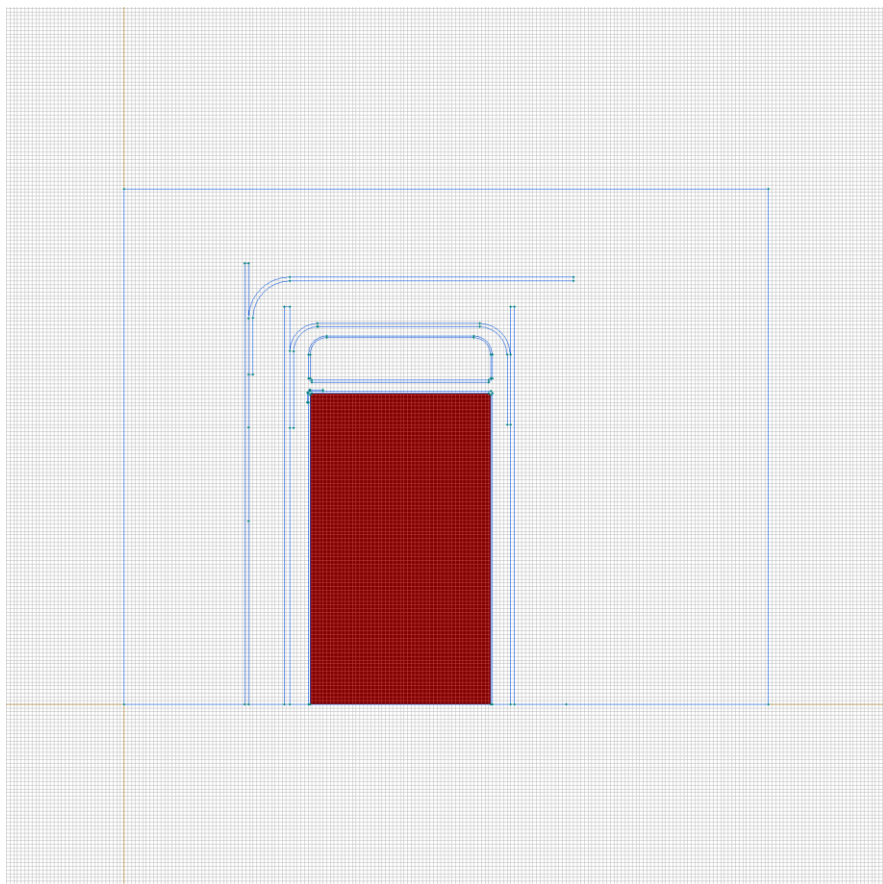


Labelled objects: block "avvolgimento"

There are (1) objects with this label

Relative electric permittivity $\epsilon_{sx}=1$, $\epsilon_{sy}=1$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

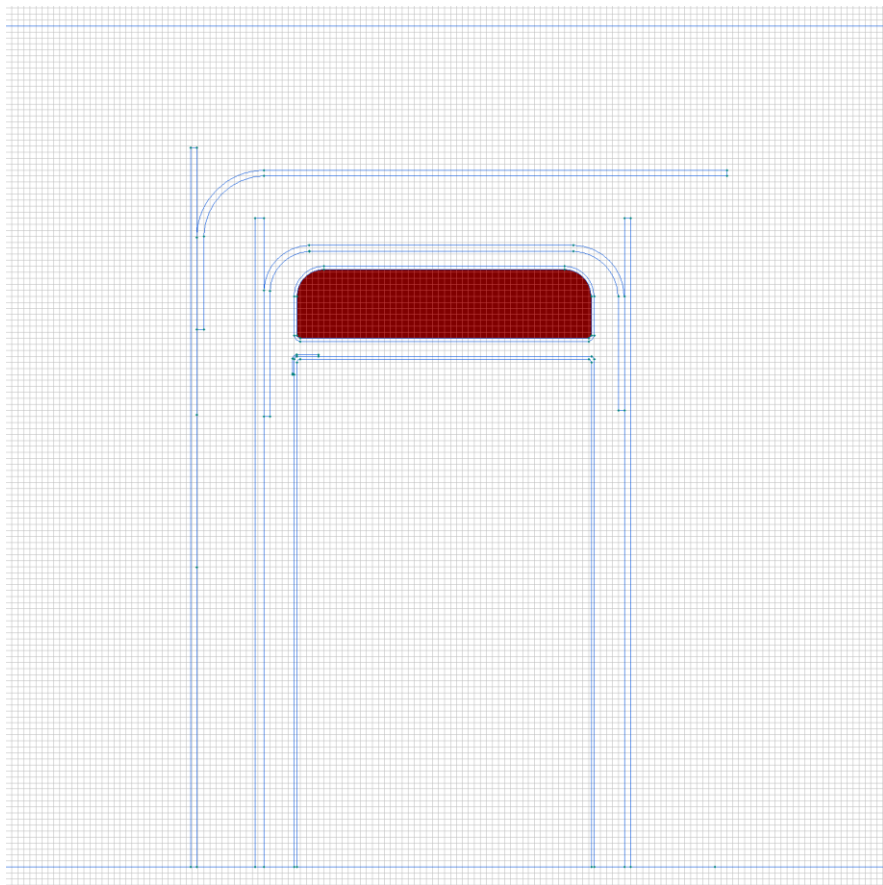


Labelled objects: block "legno"

There are (1) objects with this label

Relative electric permittivity $\epsilon_{sx}=1$, $\epsilon_{sy}=1$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

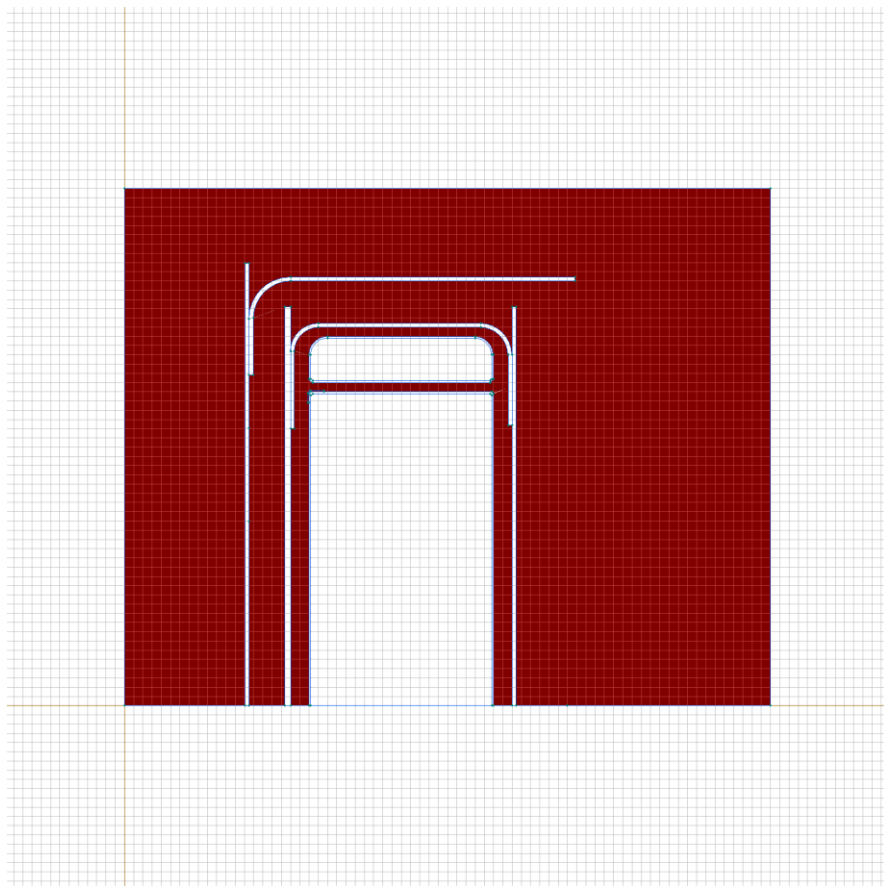


Labelled objects: block "olio"

There are (3) objects with this label

Relative electric permittivity $\epsilon_x=2.2$, $\epsilon_y=2.2$

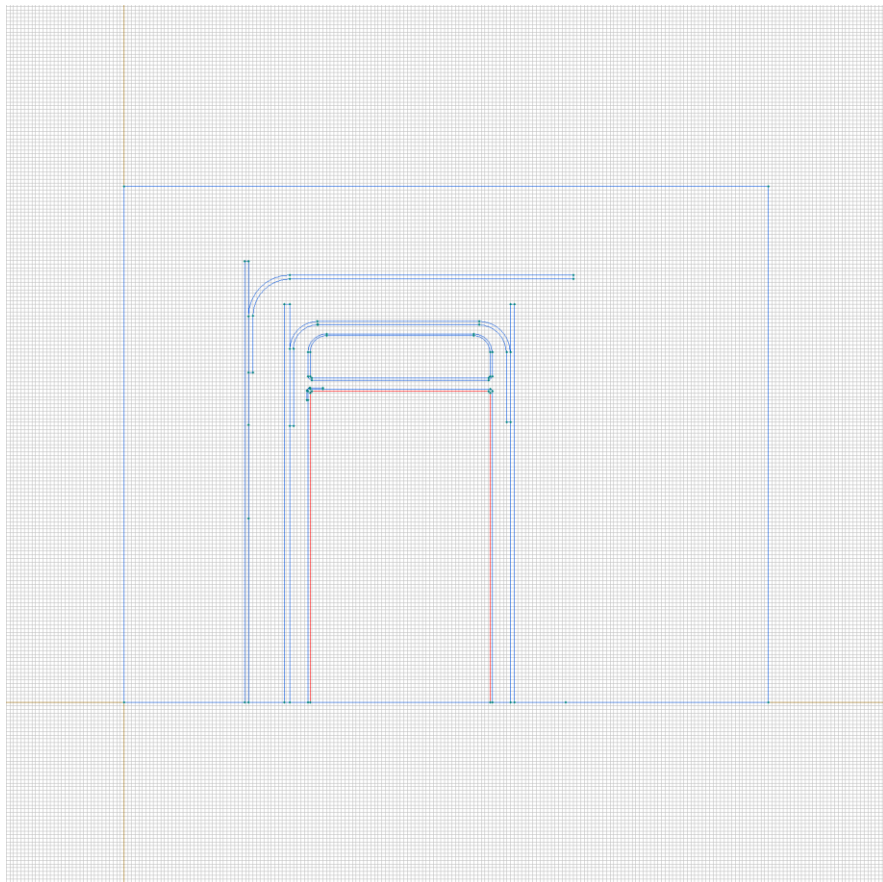
Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]



Labelled objects: edge "Dischi avvolg"

There are (5) objects with this label

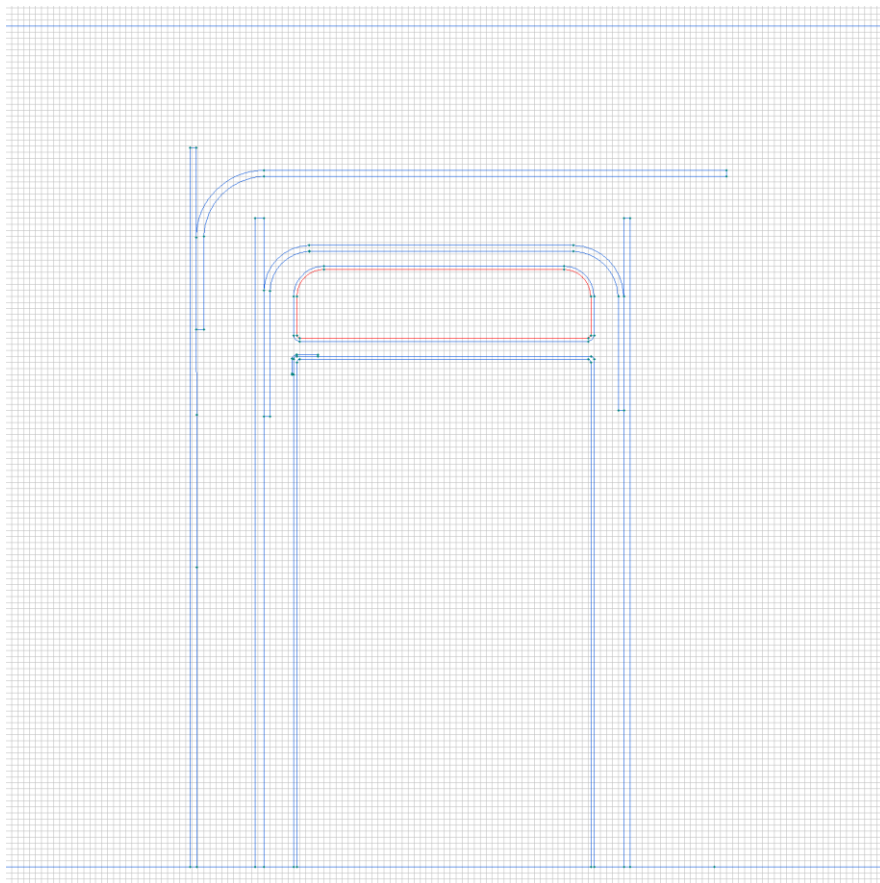
Voltage: $U=190000$ [V], phase 0 [deg]



Labelled objects: edge "anello equip"

There are (8) objects with this label

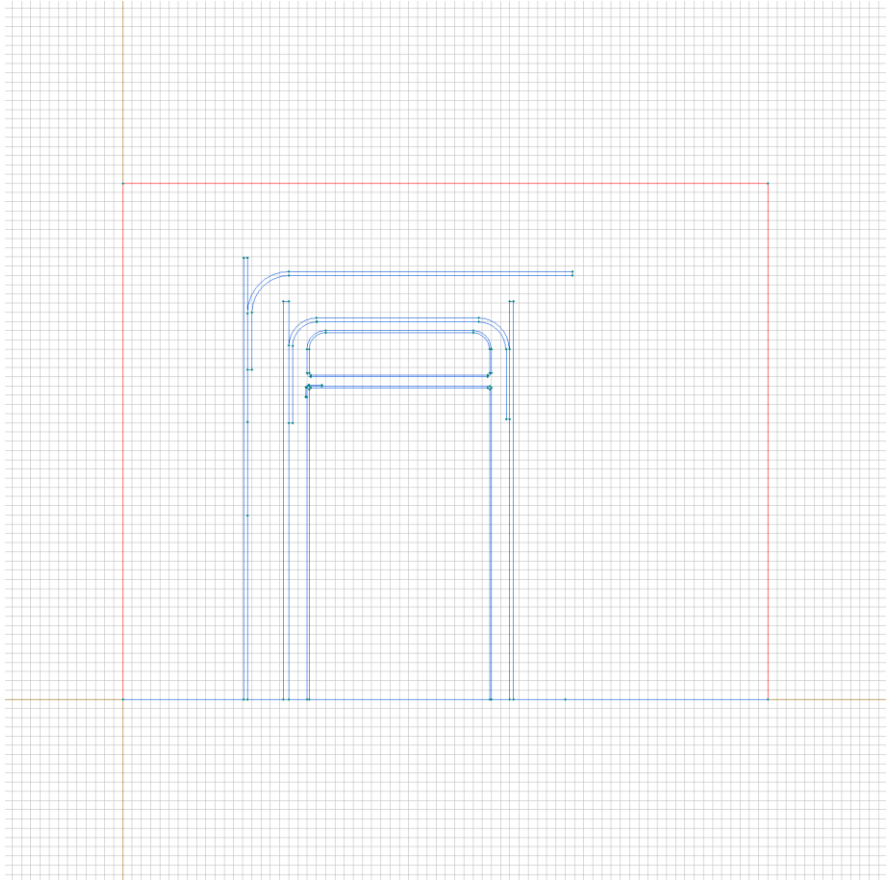
Voltage: $U=200000$ [V], phase 0 [deg]



Labelled objects: edge "massa"

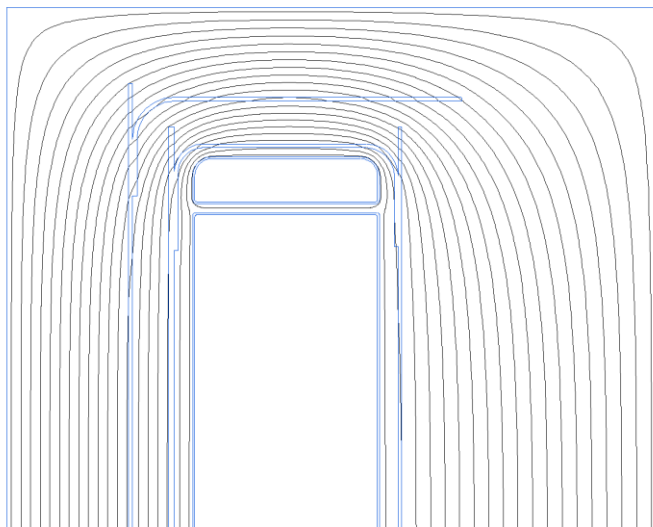
There are (3) objects with this label

Voltage: $U=0$ [V], phase 0 [deg]



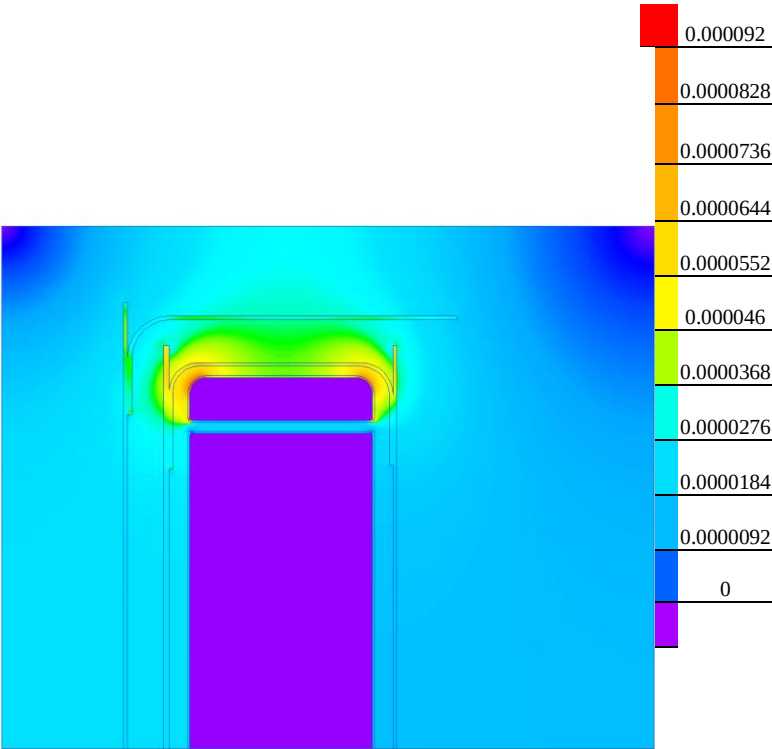
Results

Field lines



Results

Color map of Electric induction $|D|$ [C/m2]



Nonlinear dependencies

No non-linear dependencies are used in this problem data