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(***) dobject 0 (***)
r0s = {x0s, y0s, z0s} = {0, 0, 0} (* air *)
r0e = {x0e, y0e, z0e} = {29.2, 10.8, 50} (* air *)
{0, 0, 0}
{29.2, 10.8, 50}

(***) object 1 (***)
r1s = {x1s, y1s, z1s} = {2.9, 2.8 + 0.035, 0} (* substrate *)
r1e = {x1e, y1e, z1e} = {2.9 + 23.4, 2.8 + 0.035 + 1.6, 50} (* substrate *)
{2.9, 2.835, 0}
{26.3, 4.435, 50}

(***) object 2 (***)
r2s = {x2s, y2s, z2s} = {2.9, 2.8, 0} (* ground *)
r2e = {x2e, y2e, z2e} = {2.9 + 23.4, 2.8 + 0.035, 50} (* ground *)
{2.9, 2.8, 0}
{26.3, 2.835, 50}

(***) dobject 3 (***)
r3s = {x3s, y3s, z3s} = {29.2 / 2 - 1.1, 2.8 + 0.035 + 1.6, 0} (* signal line *)
r3e = {x3e, y3e, z3e} = {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50} (* signal line *)
{13.5, 4.435, 0}
{15.7, 4.435, 50}

(***) dobject 4 (***)
r4s = {x4s, y4s, z4s} = {29.2 / 2 - 1.1, 2.8 + 0.035, 50 / 2 - 1.3} (* dielectric rod A *)
r4e =
  {x4e, y4e, z4e} = {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50 / 2 + 1.3} (* dielectric rod A *)
{13.5, 2.835, 23.7}
{15.7, 4.435, 26.3}

(***) dobject 5 (***)
r5s = {x5s, y5s, z5s} = {29.2 / 2 - 1.1, 2.8 + 0.035, 50 / 2 - 1.3 - 8.4}
(* dielectric rod B *)
r5e = {x5e, y5e, z5e} =
  {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50 / 2 + 1.3 - 8.4} (* dielectric rod B *)
{13.5, 2.835, 15.3}
{15.7, 4.435, 17.9}

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(***) dobject 6 (***)
r6s = {x6s, y6s, z6s} = {29.2 / 2 - 1.1, 2.8 + 0.035, 50 / 2 - 1.3 - 2 * 8.4}
(* dielectric rod C *)
      |C
r6e = {x6e, y6e, z6e} =
      {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50 / 2 + 1.3 - 2 * 8.4} (* dielectric rod C *)
      |C
{13.5, 2.835, 6.9}
{15.7, 4.435, 9.5}

(***) dobject 7 (***)
r7s = {x7s, y7s, z7s} = {29.2 / 2 - 1.1, 2.8 + 0.035, 50 / 2 - 1.3 + 8.4}
(* dielectric rod D *)
      |微分係数
r7e = {x7e, y7e, z7e} =
      {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50 / 2 + 1.3 + 8.4} (* dielectric rod D *)
      |微分係
{13.5, 2.835, 32.1}
{15.7, 4.435, 34.7}

(***) dobject 8 (***)
r8s = {x8s, y8s, z8s} = {29.2 / 2 - 1.1, 2.8 + 0.035, 50 / 2 - 1.3 + 2 * 8.4}
(* dielectric rod E *)
      |自然対数の底
r8e = {x8e, y8e, z8e} =
      {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 50 / 2 + 1.3 + 2 * 8.4} (* dielectric rod E *)
      |自然対
{13.5, 2.835, 40.5}
{15.7, 4.435, 43.1}

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(***) ABC (***)
p1 = {xp1, yp1, zp1} = {0, 0, 0}
p2 = {xp2, yp2, zp2} = {29.2, 0, 0}
p3 = {xp3, yp3, zp3} = {29.2, 10.8 + 0.035, 0}
p4 = {xp4, yp4, zp4} = {0, 10.8 + 0.035, 0}
p5 = {xp1, yp1, zp1} = {0, 0, 50}
p6 = {xp2, yp2, zp2} = {29.2, 0, 50}
p7 = {xp3, yp3, zp3} = {29.2, 10.8 + 0.035, 50}
p8 = {xp4, yp4, zp4} = {0, 10.8 + 0.035, 50}

{0, 0, 0}

{29.2, 0, 0}

{29.2, 10.835, 0}

{0, 10.835, 0}

{0, 0, 50}

{29.2, 0, 50}

{29.2, 10.835, 50}

{0, 10.835, 50}

(***) Source (***)
s1 = {xs1, ys1, zs1} = {29.2 / 2 - 1.1, 2.8 + 0.035, 10 * 0.2}
s2 = {xs2, ys2, zs2} = {29.2 / 2 + 1.1, 2.8 + 0.035 + 1.6, 10 * 0.2}
s3 = {xs3, ys3, zs3} = {29.2 / 2, 2.8 + 0.035, 10 * 0.2}
s4 = {xs4, ys4, zs4} = {29.2 / 2, 2.8 + 0.035 + 1.6, 10 * 0.2}

{13.5, 2.835, 2.}

{15.7, 4.435, 2.}

{14.6, 2.835, 2.}

{14.6, 4.435, 2.}

(***) Observation (***)
o1 = {xo1, yo1, zo1} = {29.2 / 2, 2.8 + 0.035 + 1.6 / 2, 20 * 0.2}
o2 = {xo2, yo2, zo2} = {29.2 / 2, 2.8 + 0.035 + 1.6 / 2, 50 - 20 * 0.2}

{14.6, 3.635, 4.}

{14.6, 3.635, 46.}

(***) Mesh data (***)
メッシュ
m[i_, j_, k_] := {0.2 * (i - 1), 0.2 * (j - 1), 0.2 * (k - 1)}

mesh = 147 * 55 * 250
2 021 250

Graphics3D[
3Dグラフィックス
{
(***) draw axial arrows (***)

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Red, Cone[{{2, 0, 0}, {4, 0, 0}}, 1/2], Text[x, {3, 0, -1}],
|赤 |円錐 |テキスト
Green, Cone[{{0, 2, 0}, {0, 4, 0}}, 1/2], Text[y, {-1, 3, -1}],
|円錐 |テキスト
Blue, Cone[{{0, 0, 2}, {0, 0, 4}}, 1/2], Text[z, {-1, 0, 3}],
|青 |円錐 |テキスト
Red, Cylinder[{{0, 0, 0}, {2, 0, 0}}, 1/5], (* arrow x *)
|円柱
Green, Cylinder[{{0, 0, 0}, {0, 2, 0}}, 1/5], (* arrow y *)
|円柱
Blue, Cylinder[{{0, 0, 0}, {0, 0, 2}}, 1/5], (* arrow z *)
|円柱

(***) draw objects (***)
Green, Opacity[0.5], Cuboid[r1s, r1e], (* substrate *)
|緑 |不透明度 |直方体
Yellow, Opacity[0.5], Cuboid[r2s, r2e], (* ground *)
|黄色 |不透明度 |直方体
Yellow, Opacity[0.5], Cuboid[r3s, r3e], (* signal line *)
|黄色 |不透明度 |直方体
RGBColor[0, 1, 1, 0.1], Cuboid[r0s, r0e], (* air *)
|RGBカラー |直方体
Blue, Opacity[0.5], Cuboid[r4s, r4e], (* dielectric rod B *)
|青 |不透明度 |直方体
Blue, Opacity[0.5], Cuboid[r5s, r5e], (* dielectric rod B *)
|青 |不透明度 |直方体
Blue, Opacity[0.5], Cuboid[r6s, r6e], (* dielectric rod C *)
|青 |不透明度 |直方体 |C
Blue, Opacity[0.5], Cuboid[r7s, r7e], (* dielectric rod D *)
|不透明度 |直方体 |微分係数
Blue, Opacity[0.5], Cuboid[r8s, r8e], (* dielectric rod D *)
|不透明度 |直方体 |微分係数

(***) draw boundary condition (***)
Purple, Opacity[0.5], Cuboid[p1, p3], Text[ABC xy1, (p1+p3)/2],
|不透明度 |直方体 |テキスト
Purple, Opacity[0.5], Cuboid[p5, p7], Text[ABC xy2, (p5+p7)/2], (*)
|不透明度 |直方体 |テキスト

(***) source condition (***)
Red, Opacity[1], Cuboid[s1, s2], Text[Source, s2 * 1.1],
|不透明度 |直方体 |テキスト
Red, Arrowheads[Small], Arrow[{s3, s4}],
|鏃 |小さい |矢印

(***) observation condition (***)
Red, Sphere[o1, 0.3], Text[P1, o1 + 1],
|球 |テキスト
Red, Sphere[o2, 0.3], Text[P2, o2 + 1],
|球 |テキスト

(***) x,y,z mesh (***)
Red, Point[Table[m[x, 1, 1], {x, 1, 147}]], Text[147, p2 * 1.05],
|点 |117点を作成 |テキスト

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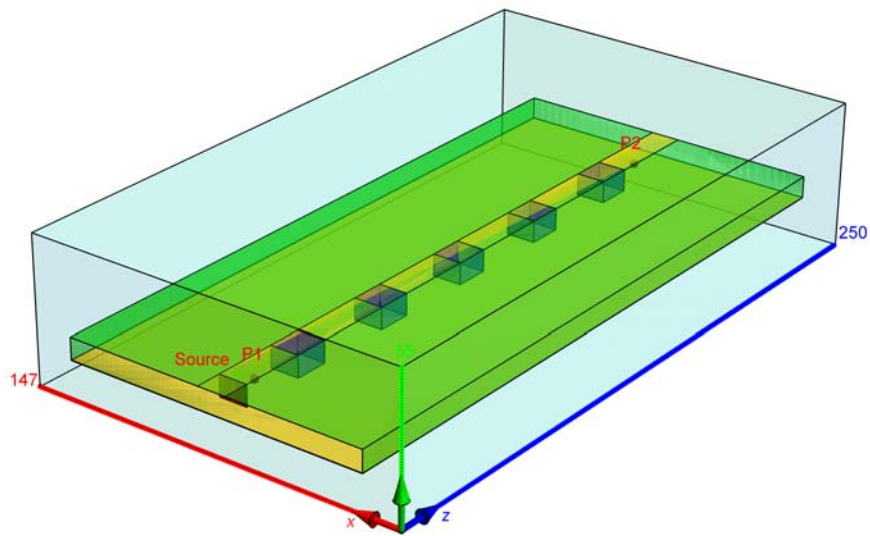
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Point[Table[m[1, y, 1], {y, 1, 55}]], Text[55, p4 * 1.25 - 1],
Point[Table[m[1, 1, z], {z, 1, 250}]], Text[250, p5 * 1.05],

(***) RAM (***)
Black, Text[mesh, p1 - 4],

Boxed → False
]

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