DESIGN
90° OPTICAL HYBRID

SEMANA 1

Analise da referencia

Design dos componentes

Esse modelo de hibrida possui 3 componentes basicos

- 3 - MMI 2X2 (Modelo apresentadono trabalho base)
- 1 - Y-Branch (Modelo apresentado em:
  A compact and low loss Y-junction for submicron silicon waveguide)
- 4 - 90º Bend (Guia padrao de 4 um de raio)

Design dos componentes

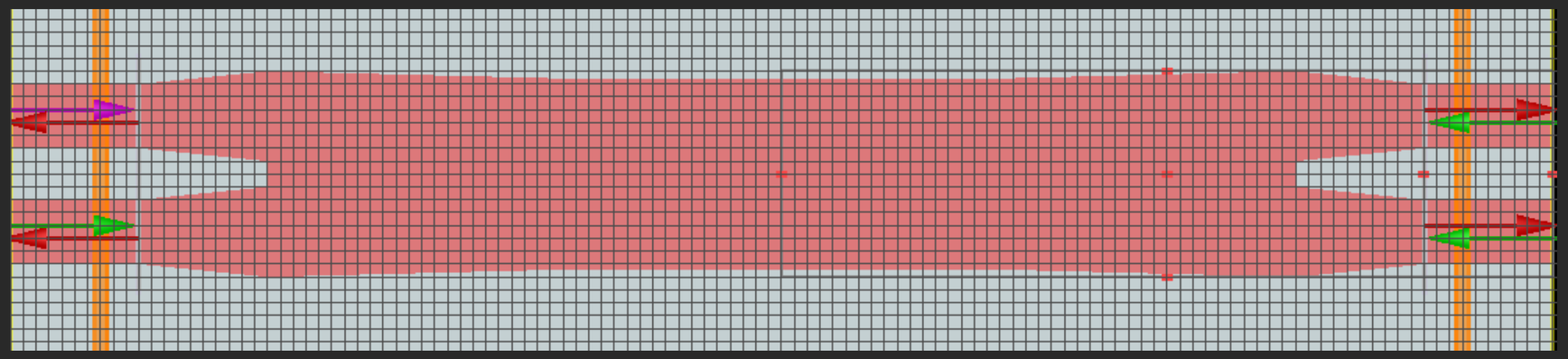
Estudo de convergencia

Como nessa etapa não temos como objetivo otimizar o dispositivo, o tempo de simulação não era um fator tão importante, logo, não foi feita analise de convergencia de precisão, todos os dispositivos foram simulados com a maior precisão possível (non-variant mesh 8)

Design dos componentes

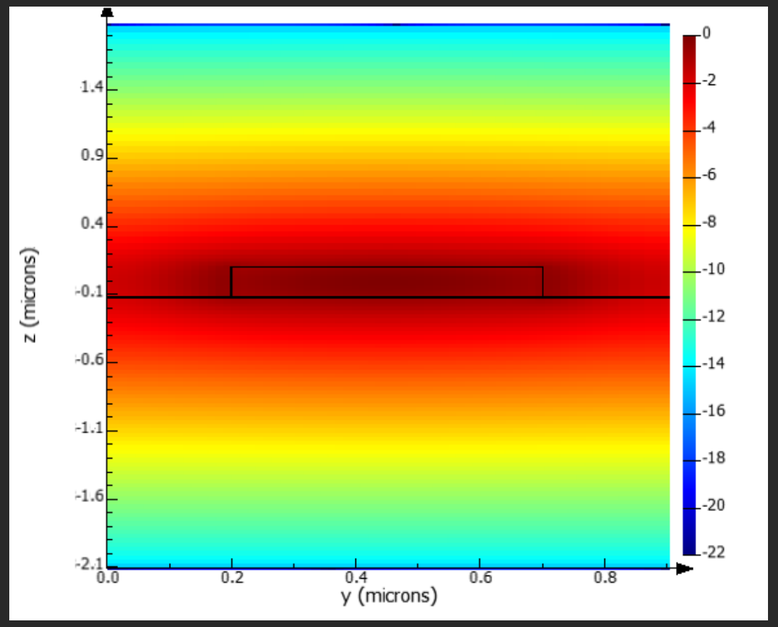
Design do MMI

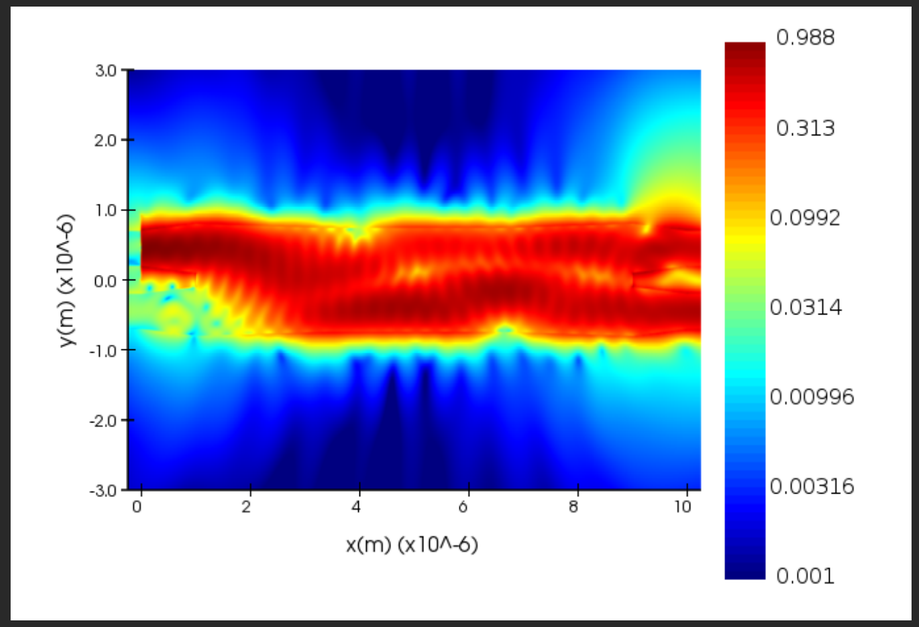
O design tem como base guias de 450 X 220 nm, em chips do tipo SOI, as dimensoes do MMI foram extraidas do trabalho



Design dos componentes

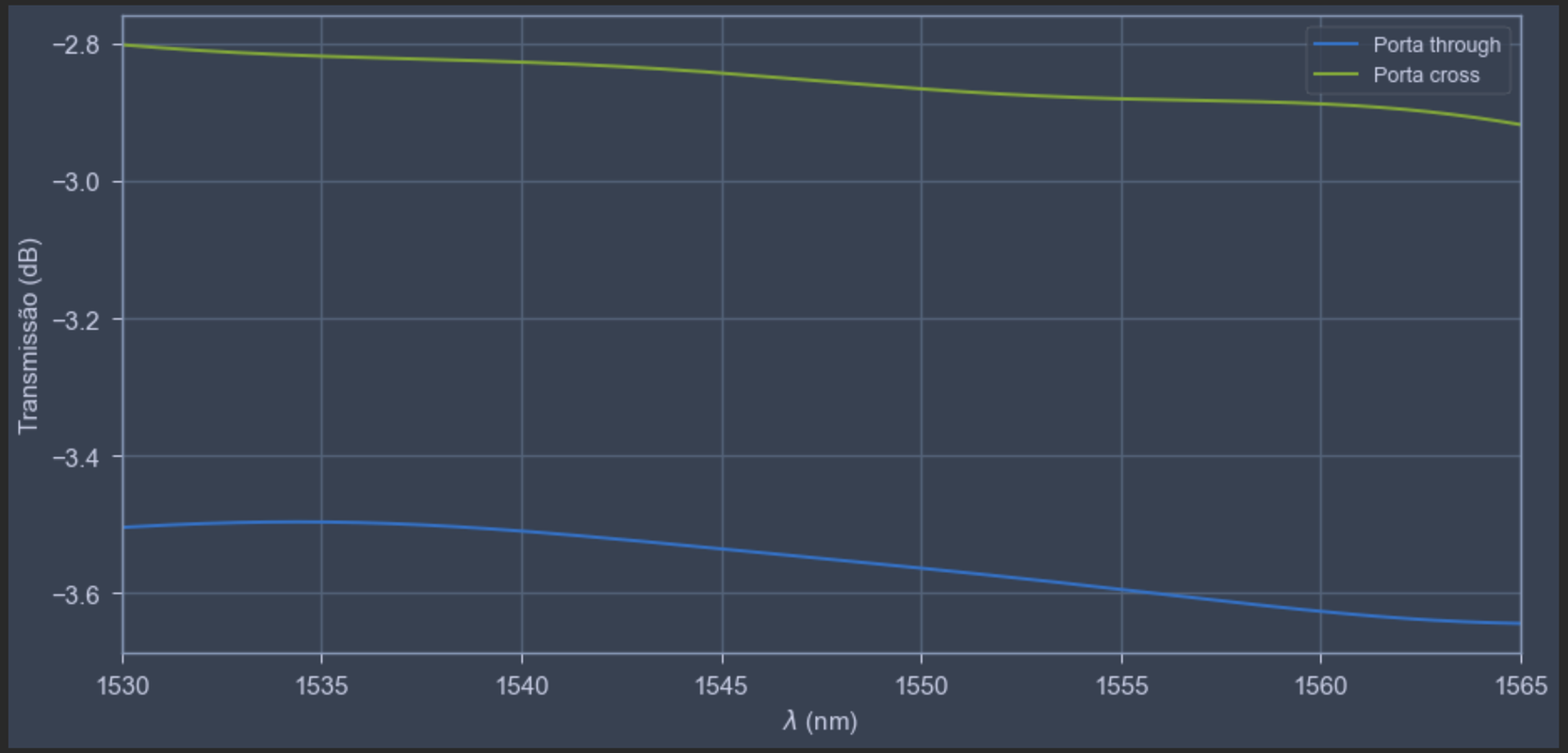
Analise do campo na simulação





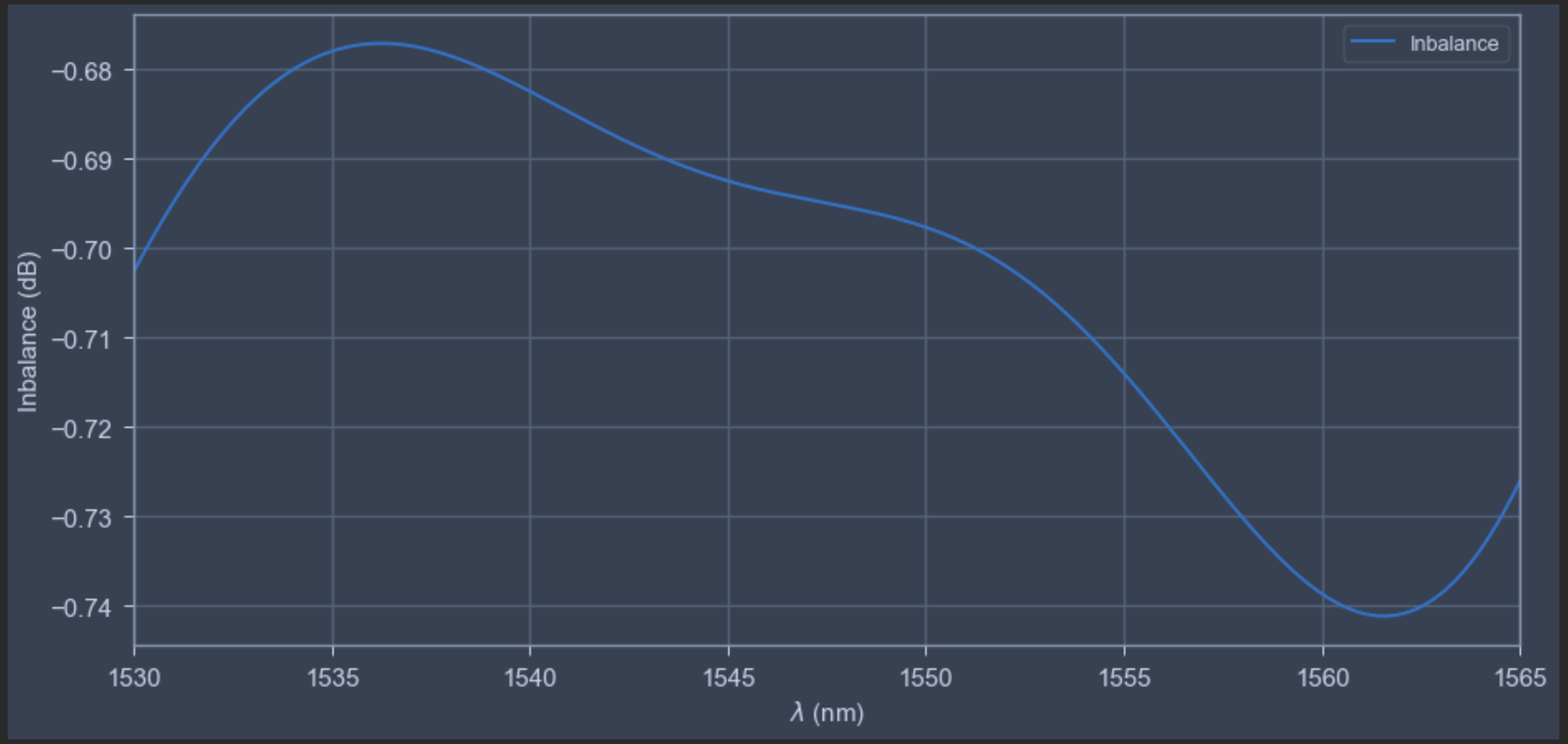
Design dos componentes

Resultados



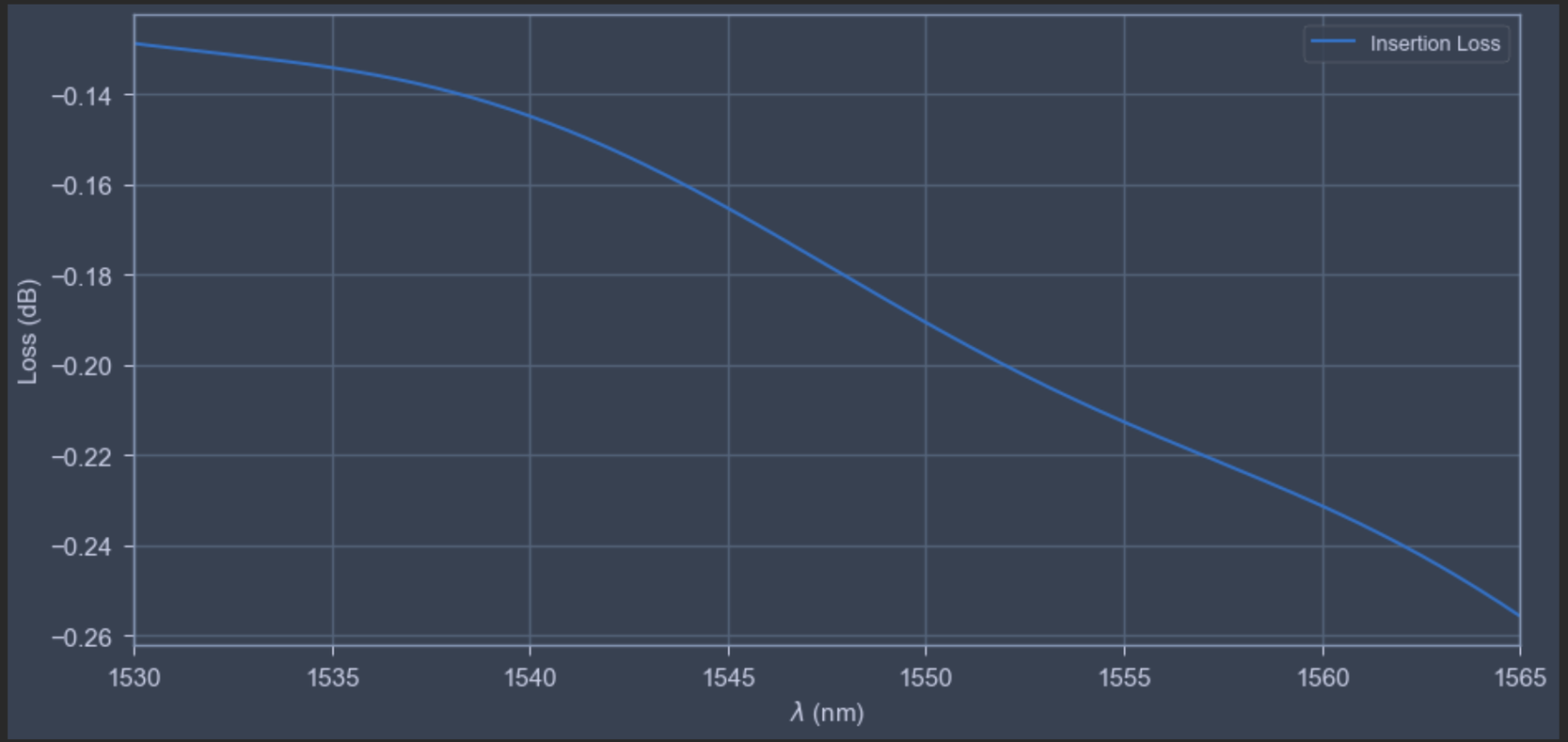
Design dos componentes

Resultados



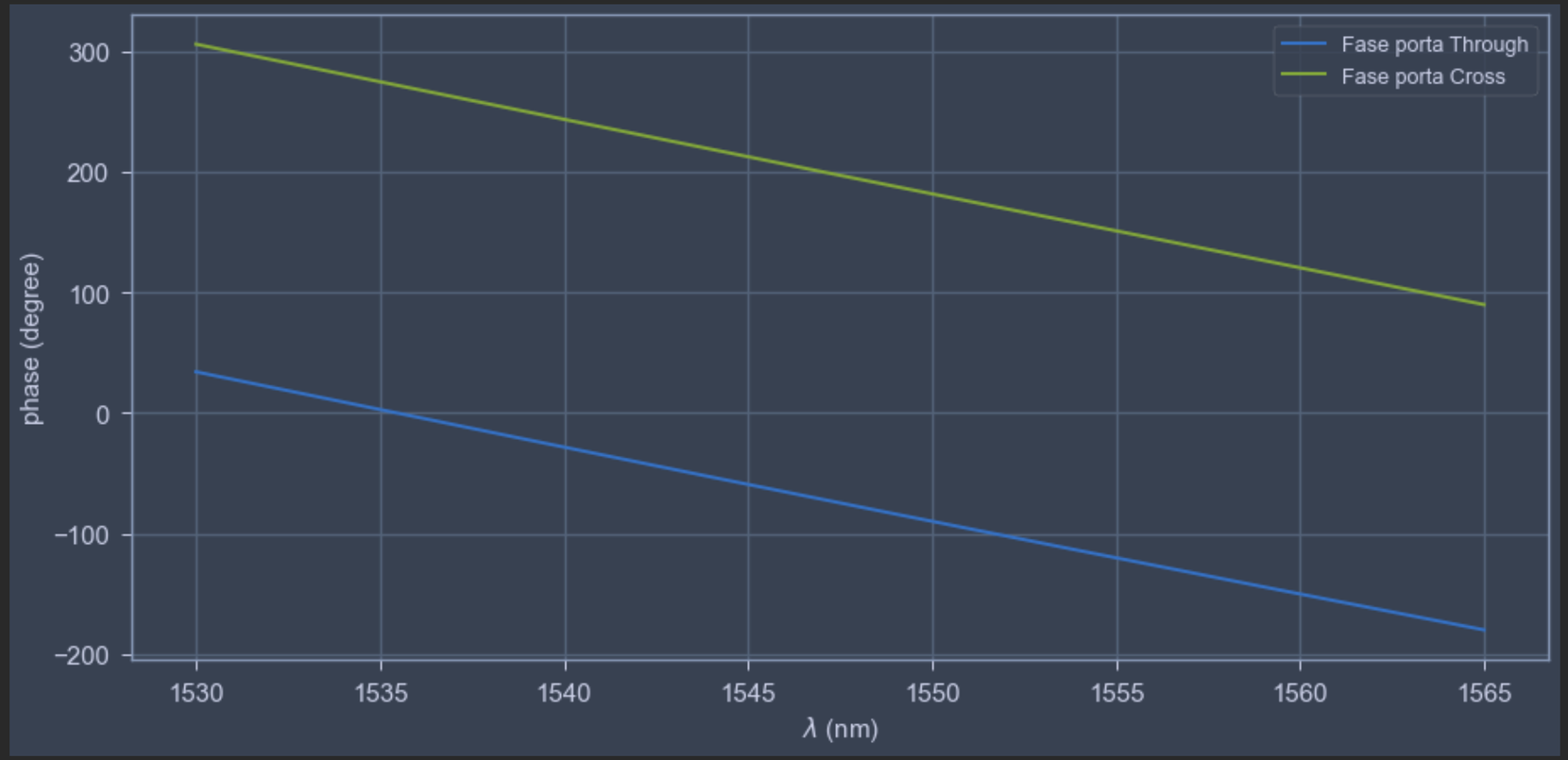
Design dos componentes

Resultados



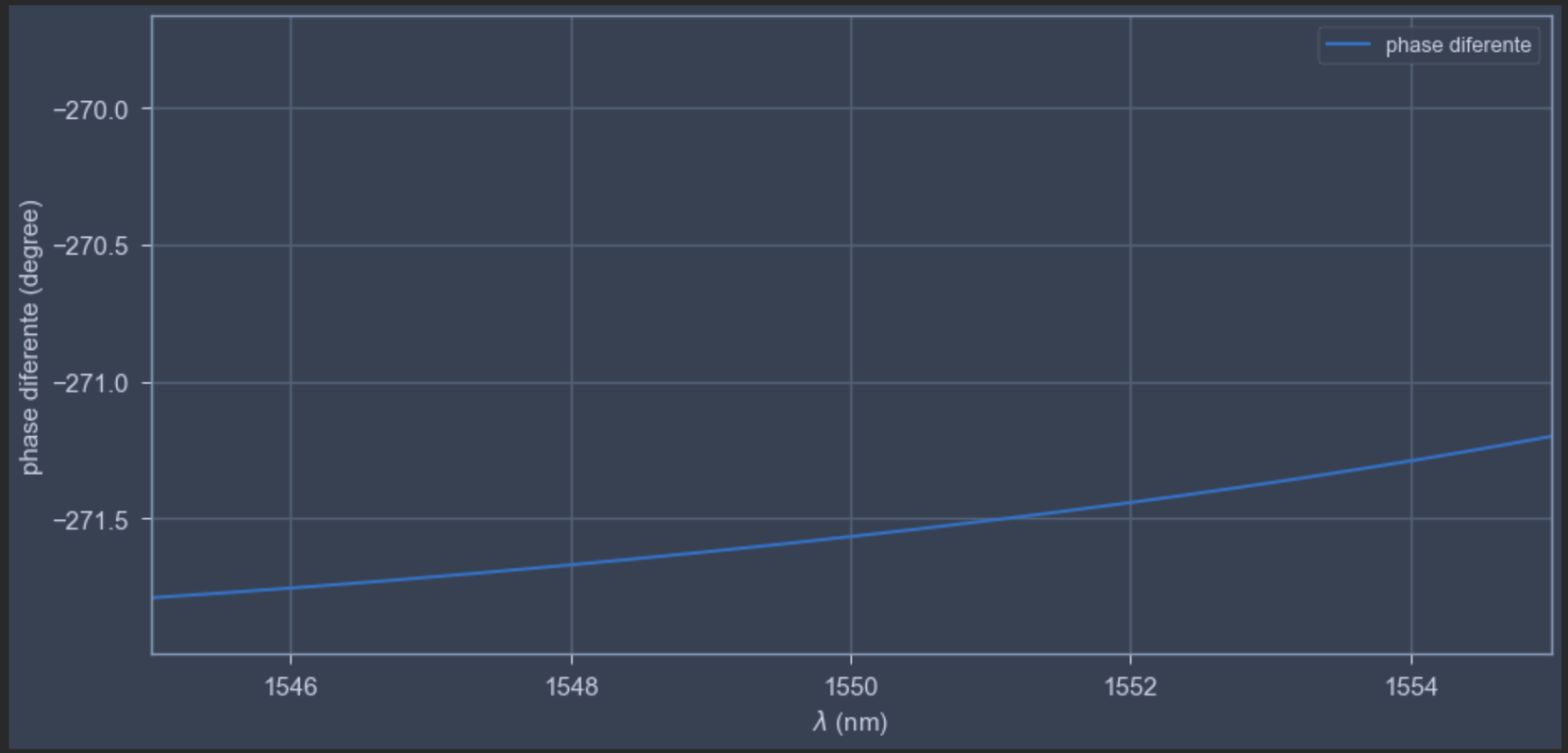
Design dos componentes

Resultados



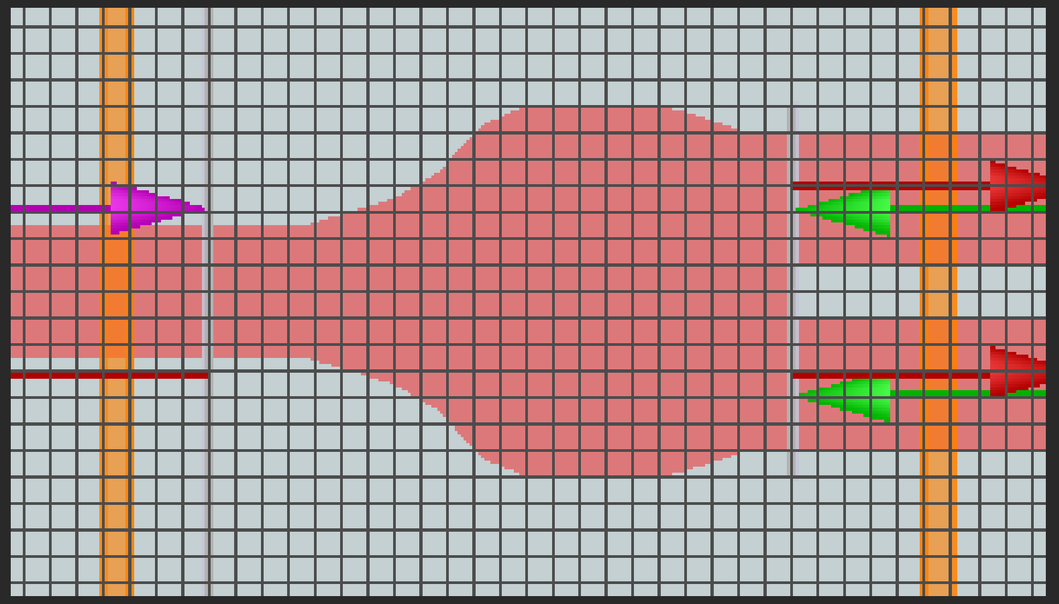
Design dos componentes

Resultados



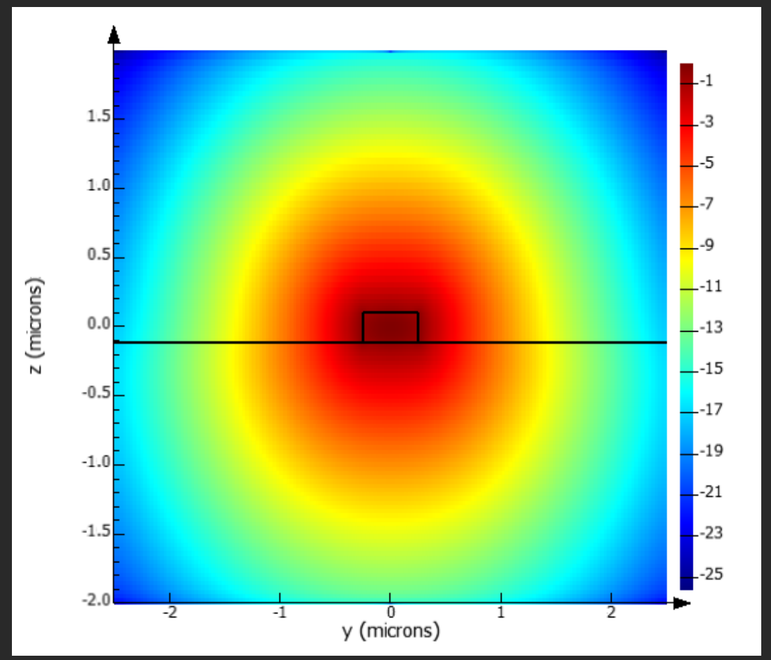
Design dos componentes

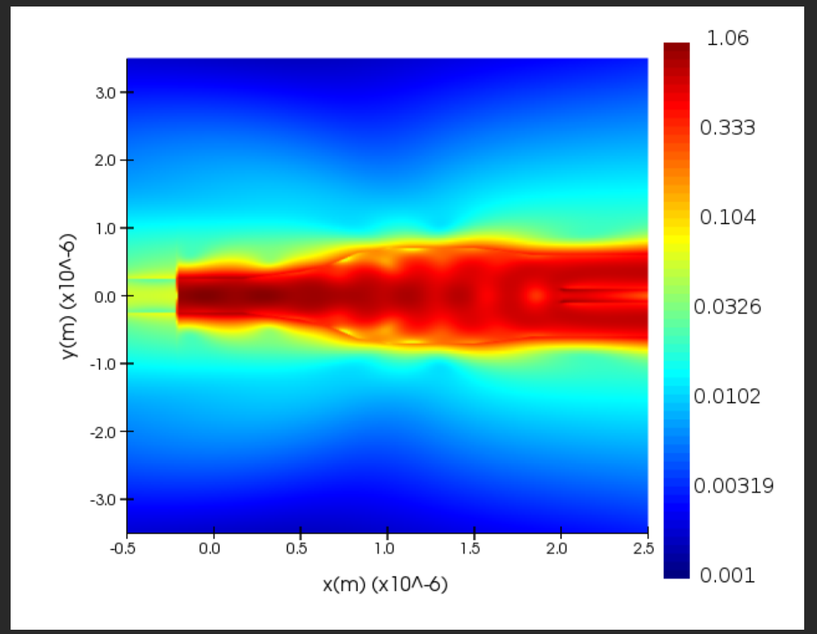
Design do Ybranch



Design dos componentes

Design do Ybranch





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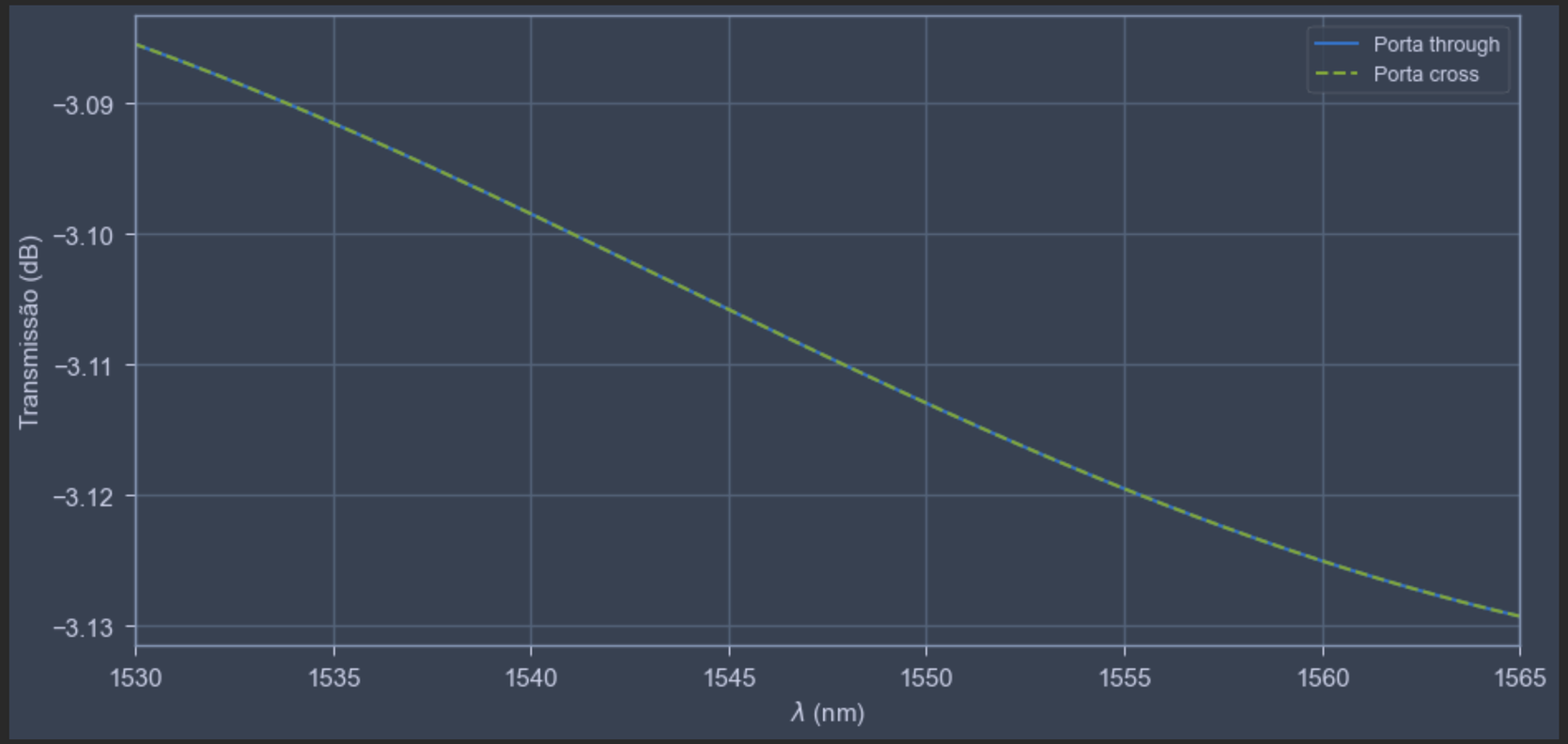
Resultados



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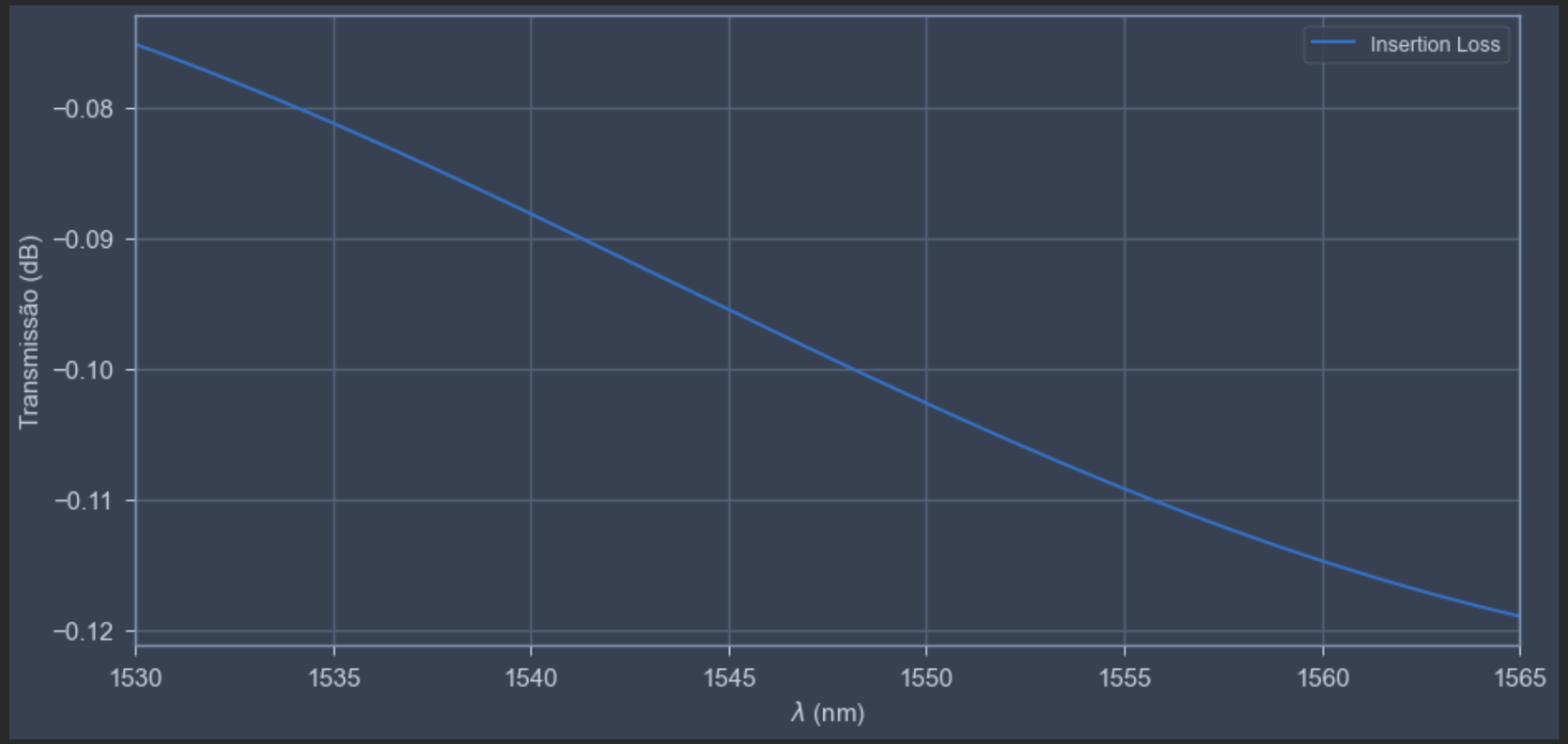
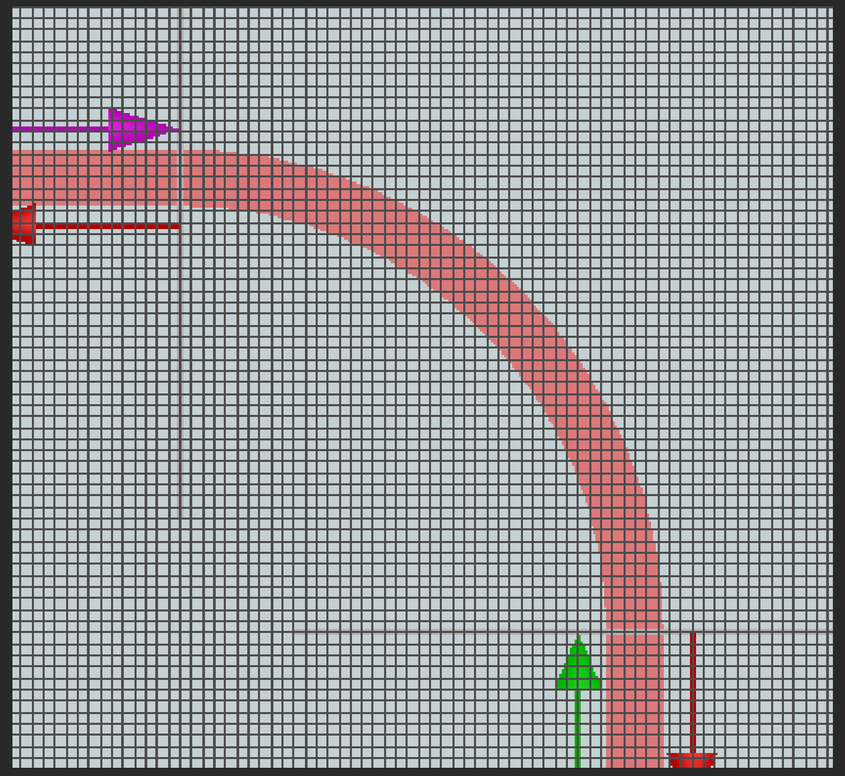


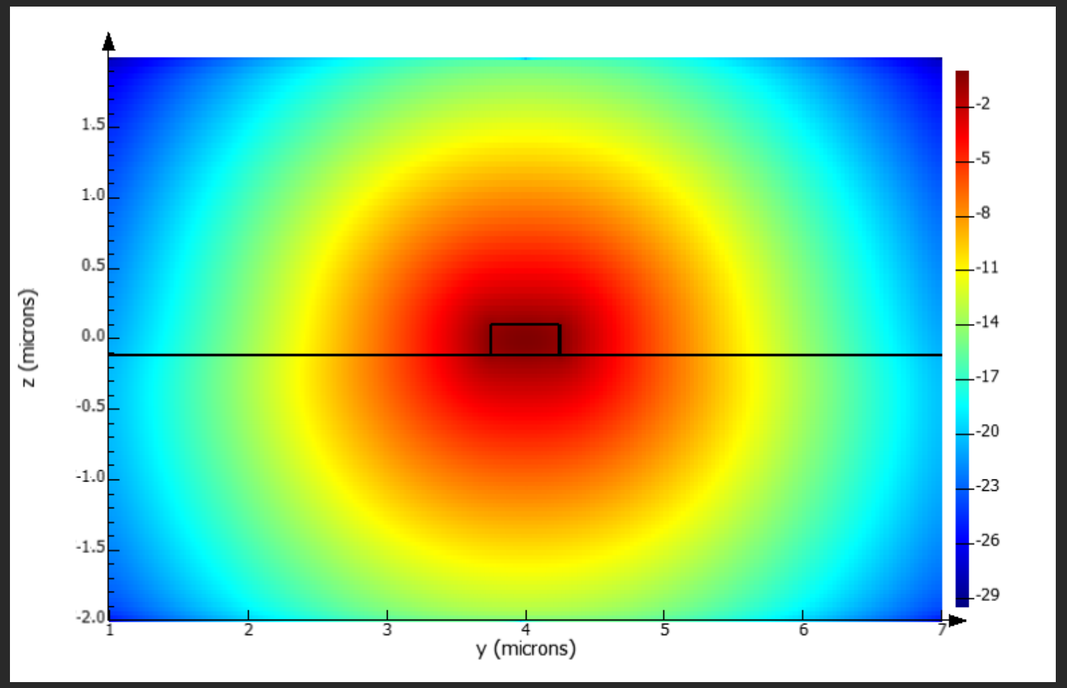
Design dos componentes

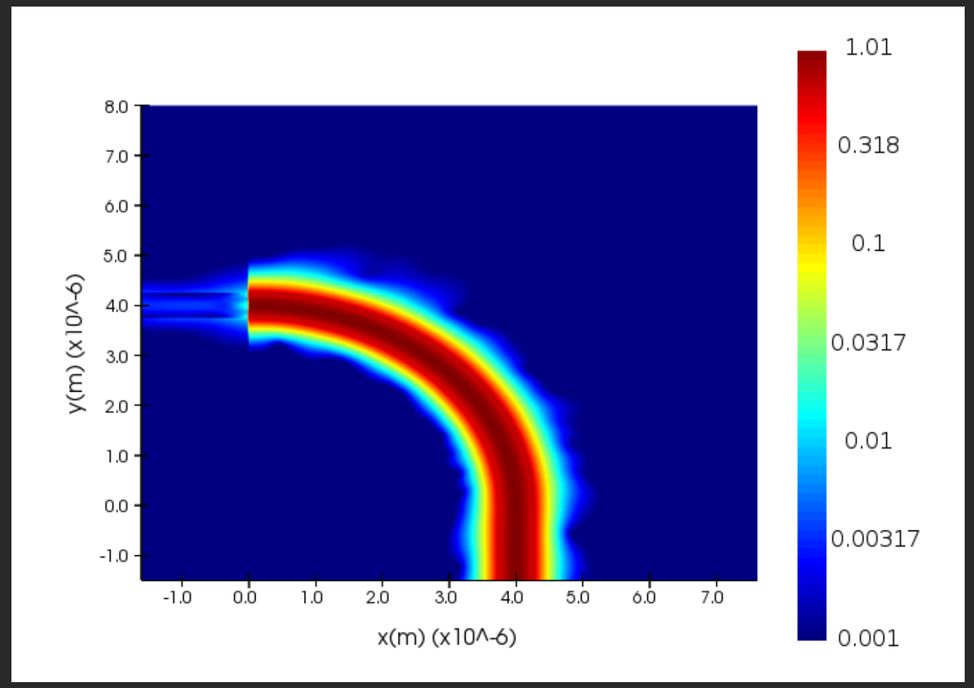
Design do Bend



Design dos componentes

Analise do campo na simulação





Design dos componentes

Resultados