

Capacitação em Circuitos Fotônicos em Silício.

Ring Resonator

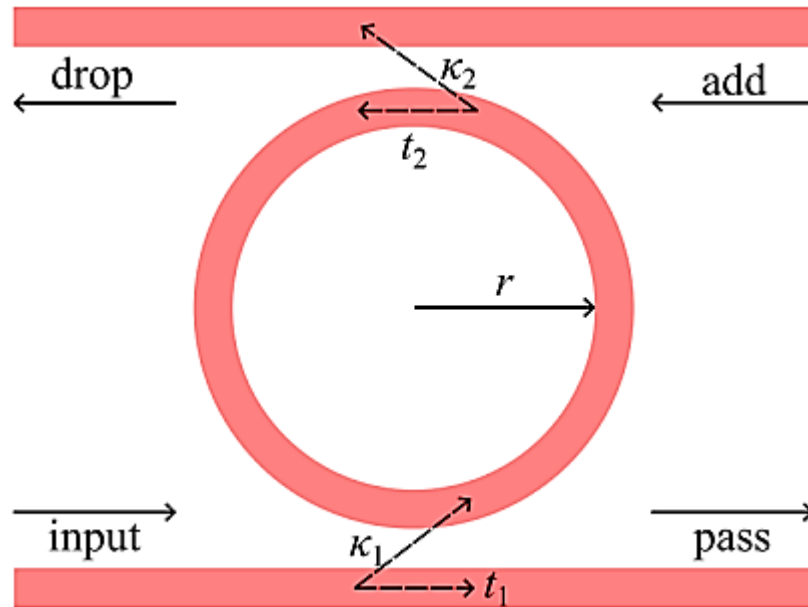


Centro de Competência Embrapii em
Hardware Inteligente para a Indústria

CURSOS, CAPACITAÇÃO E TREINAMENTOS



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Dimensão Importantes:

Altura = $0.22\mu\text{m}$

Largura = $0.5\mu\text{m}$

Raio de abertura = $5\mu\text{m}$

Comprimento do Acoplador = $14\mu\text{m}$

FSR = 1nm:

$L_r = 552.82\mu\text{m}$

$L_c = 662.82\mu\text{m}$

$L_{c_wg} = 110.00\mu\text{m}$

FSR = 10nm:

$L_r = 552.82\mu\text{m}$

$L_c = 662.82\mu\text{m}$

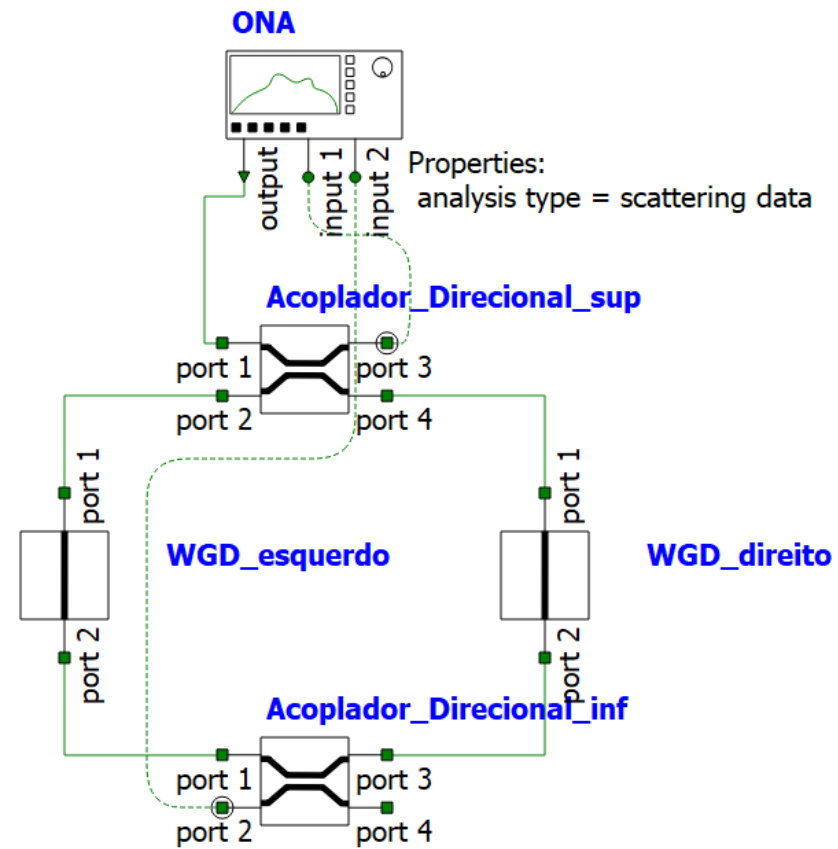
$L_{c_wg} = 110.00\mu\text{m}$

FSR = 20nm:

$L_r = 552.82\mu\text{m}$

$L_c = 662.82\mu\text{m}$

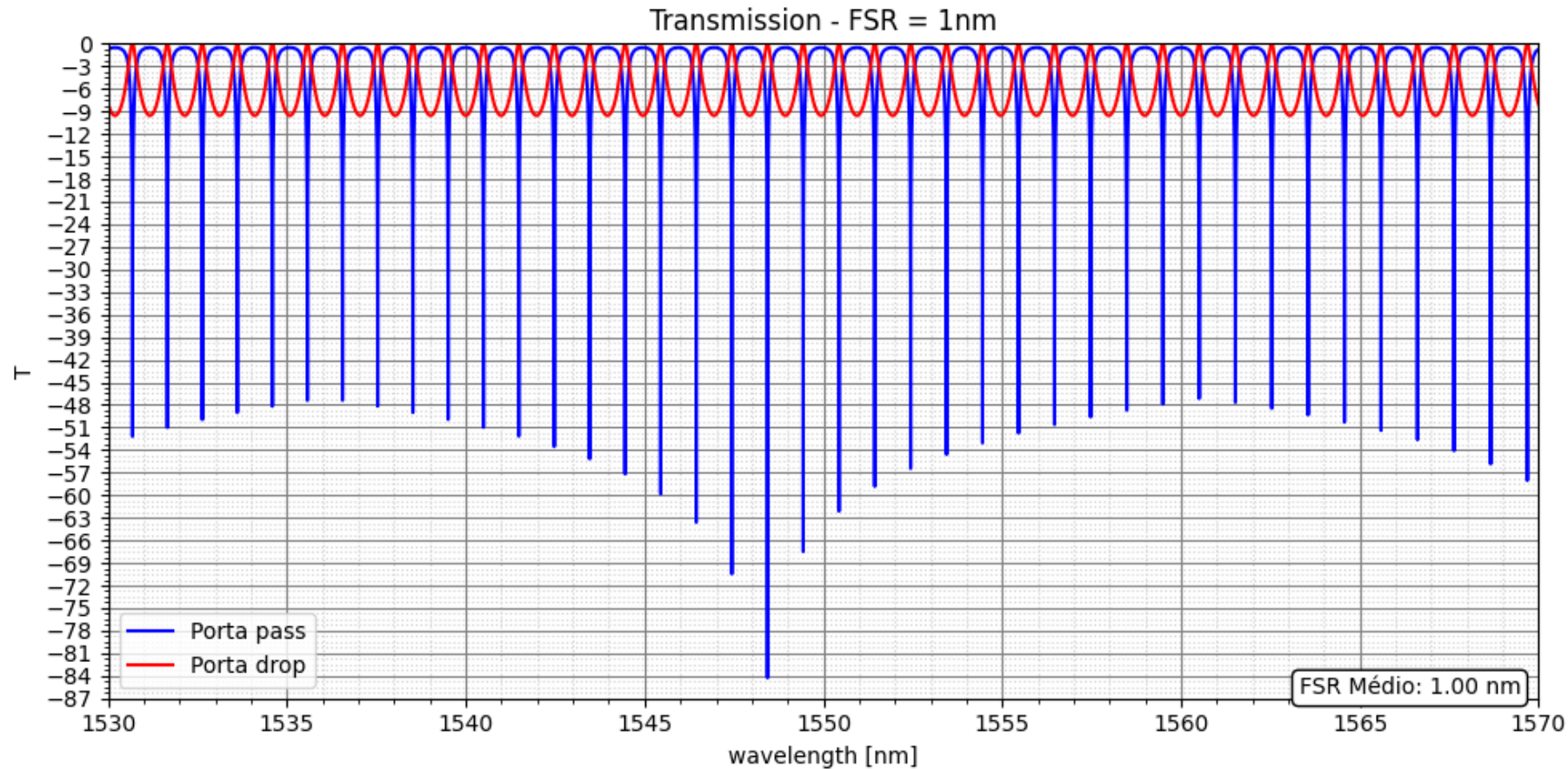
$L_{c_wg} = 110.00\mu\text{m}$



1. Transmissão

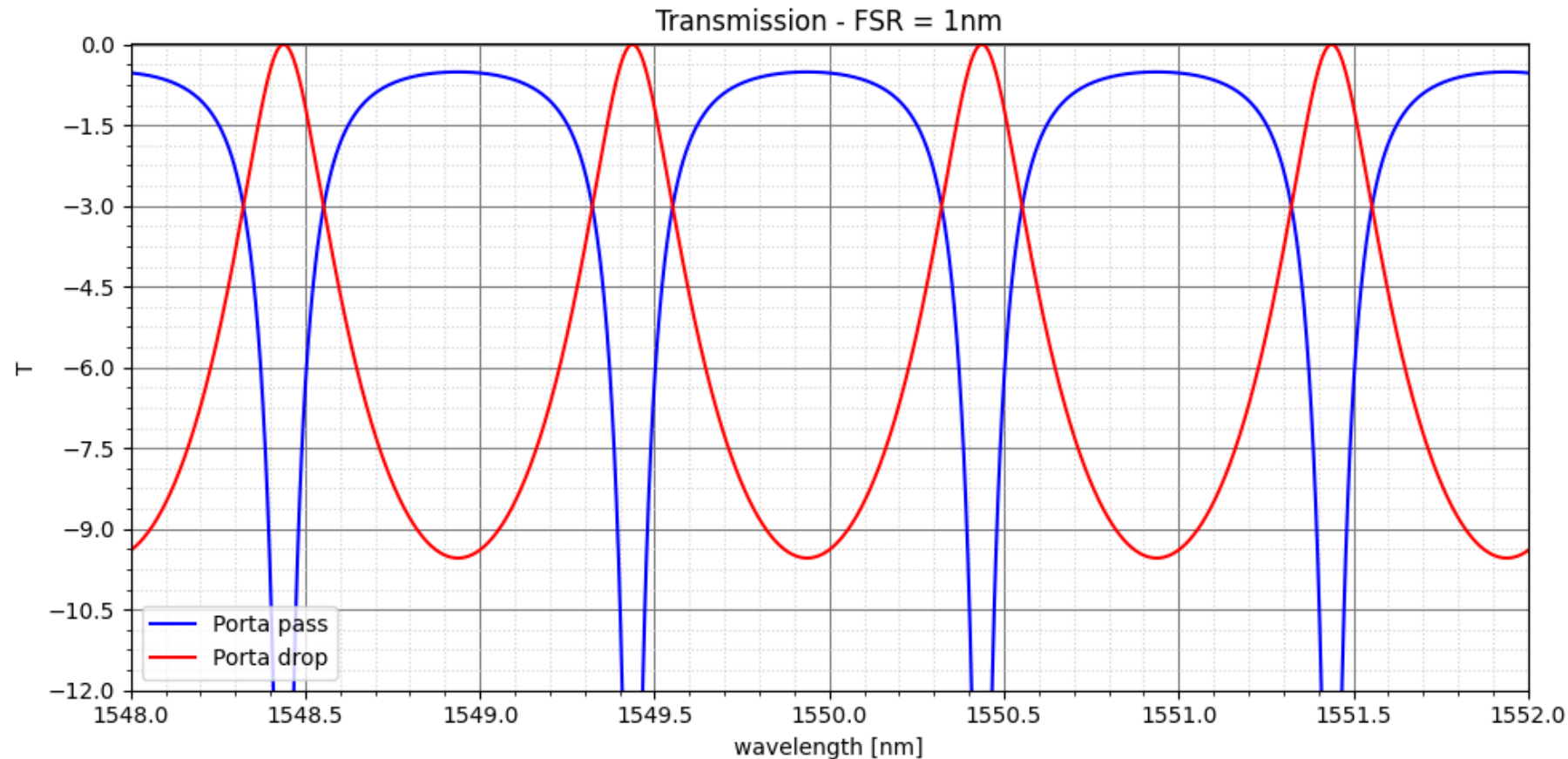


2.1 Transmissão x Comprimento de onda



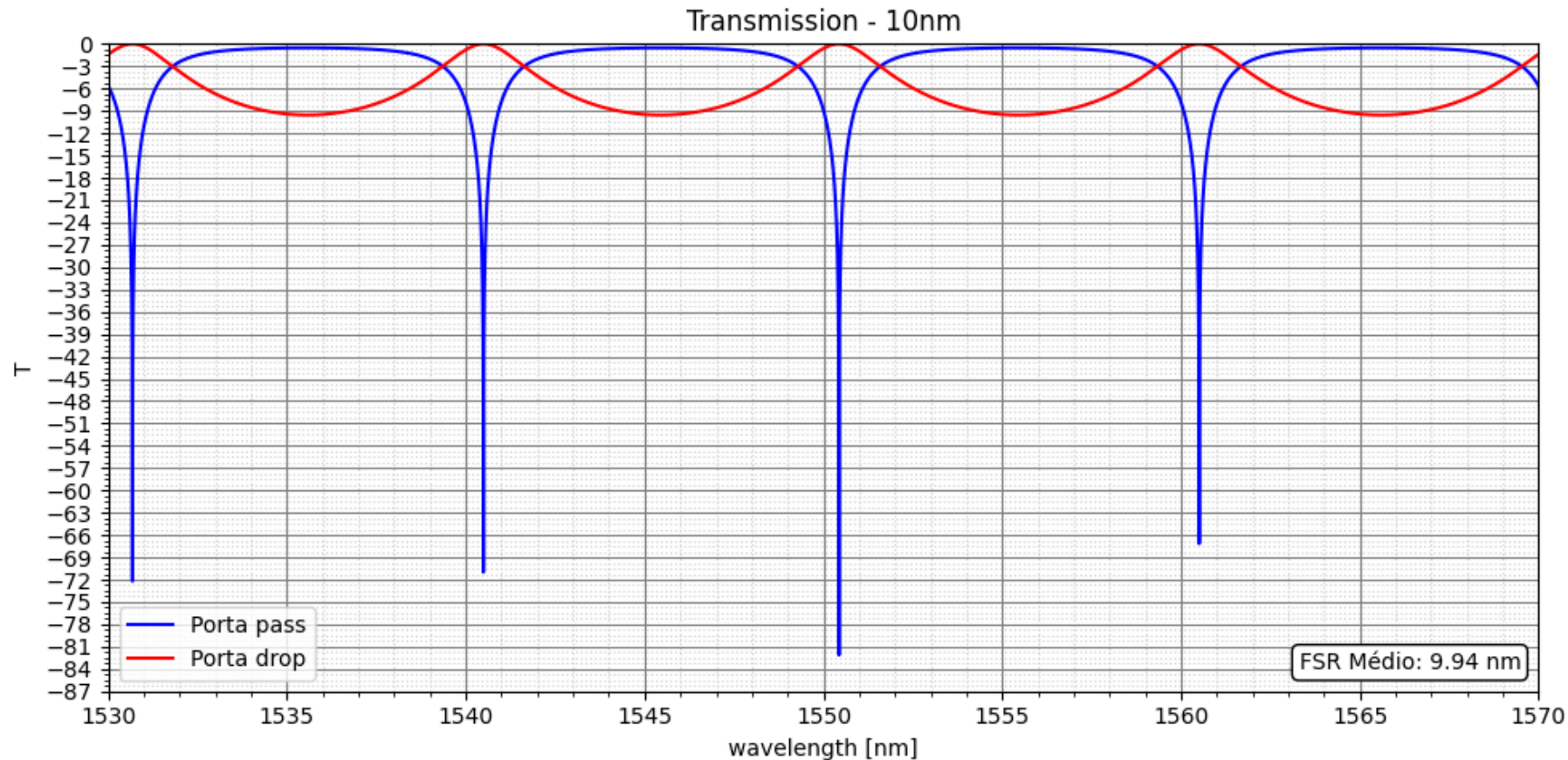
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



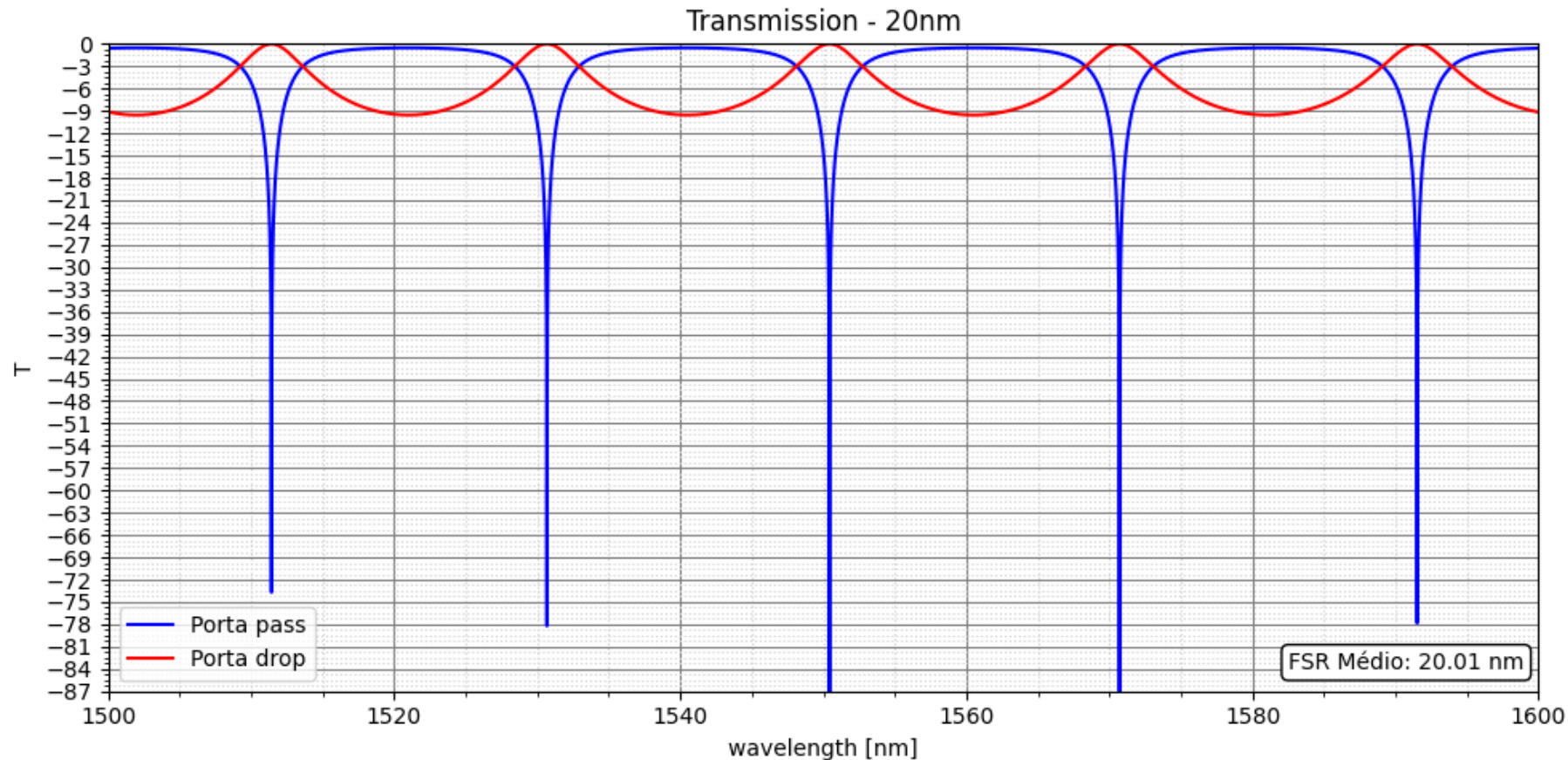
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



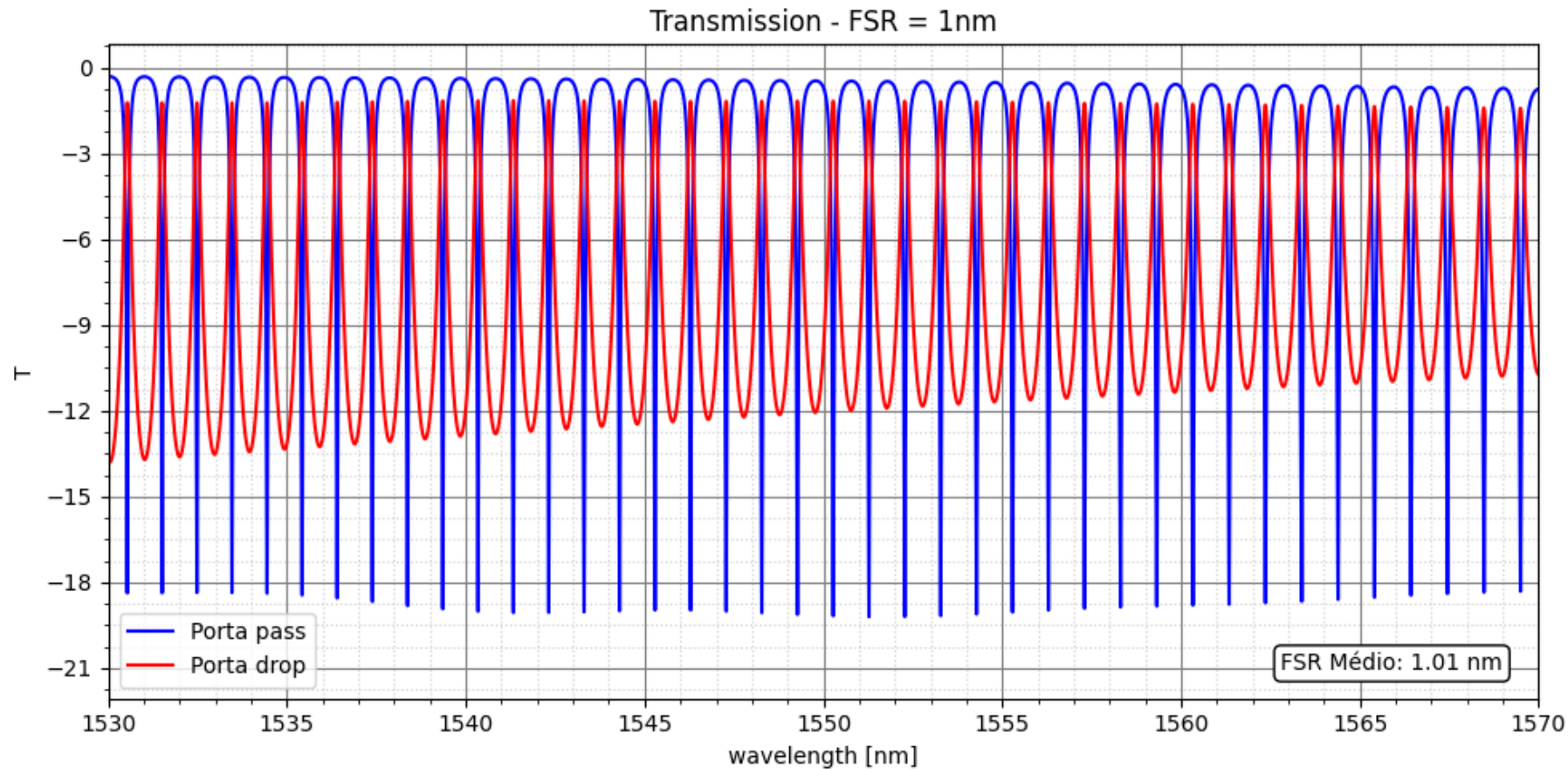
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



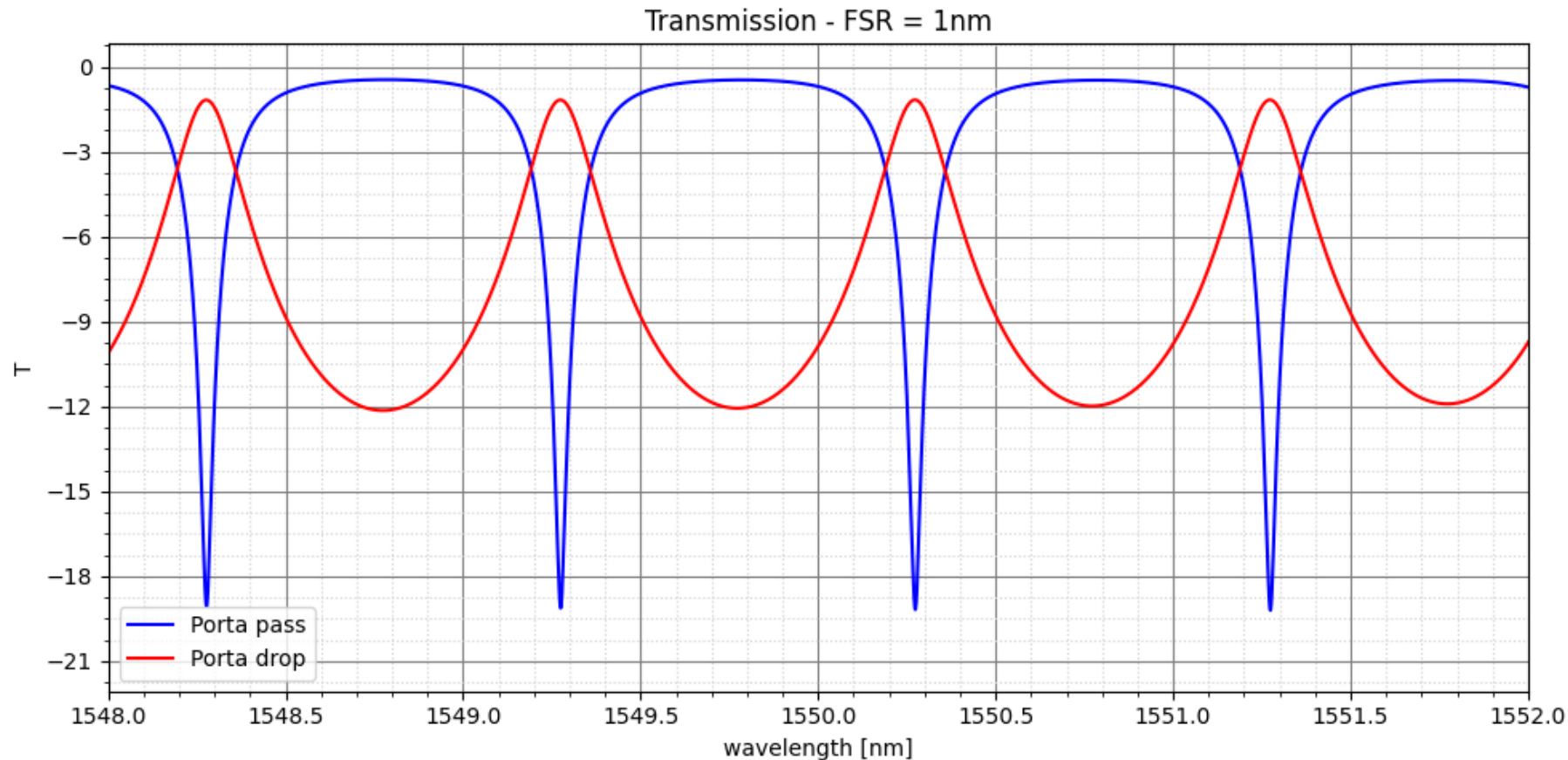
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



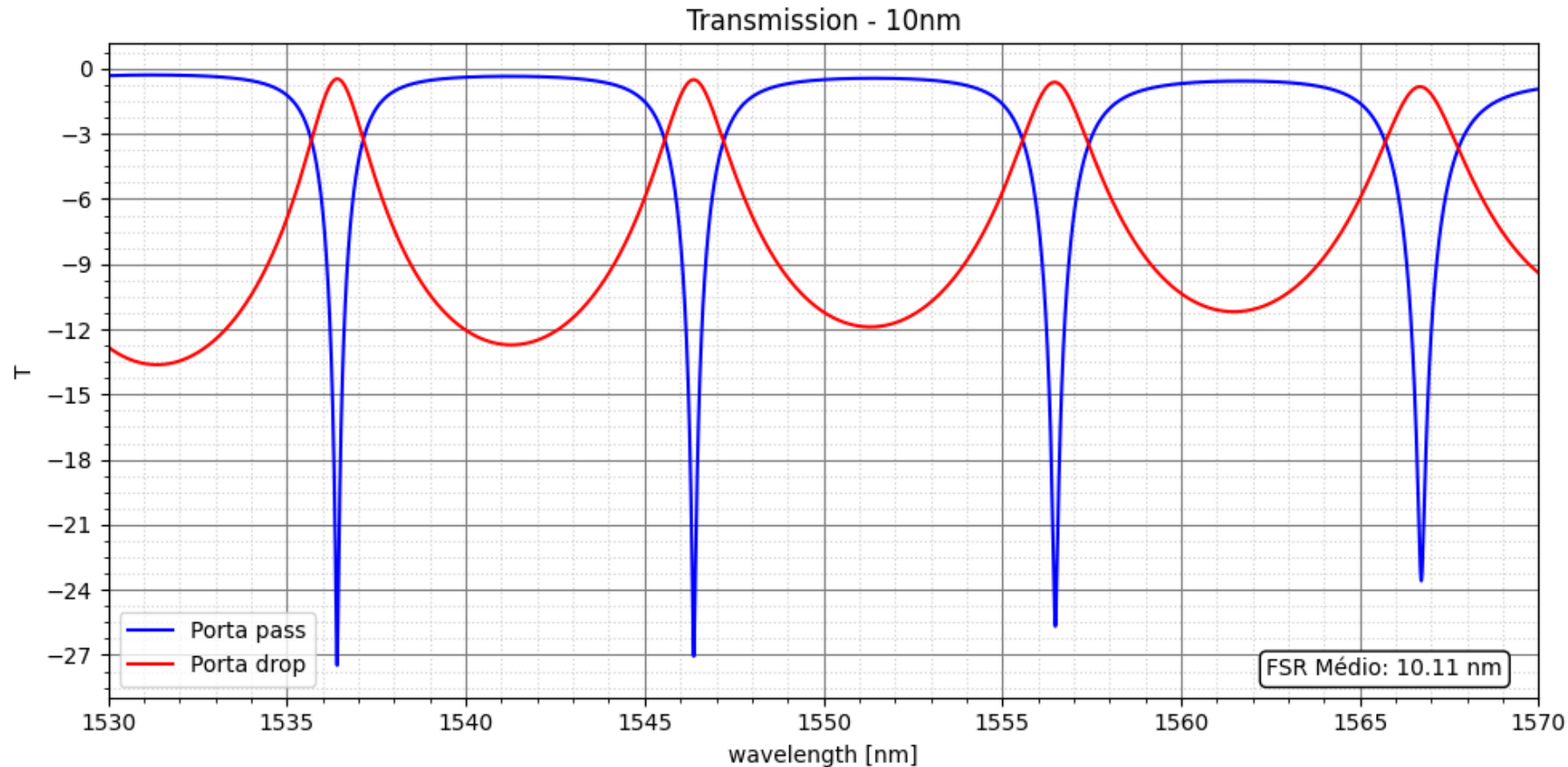
Dispositivos
PDK SiePic

2.1 Transmissão x Comprimento de onda

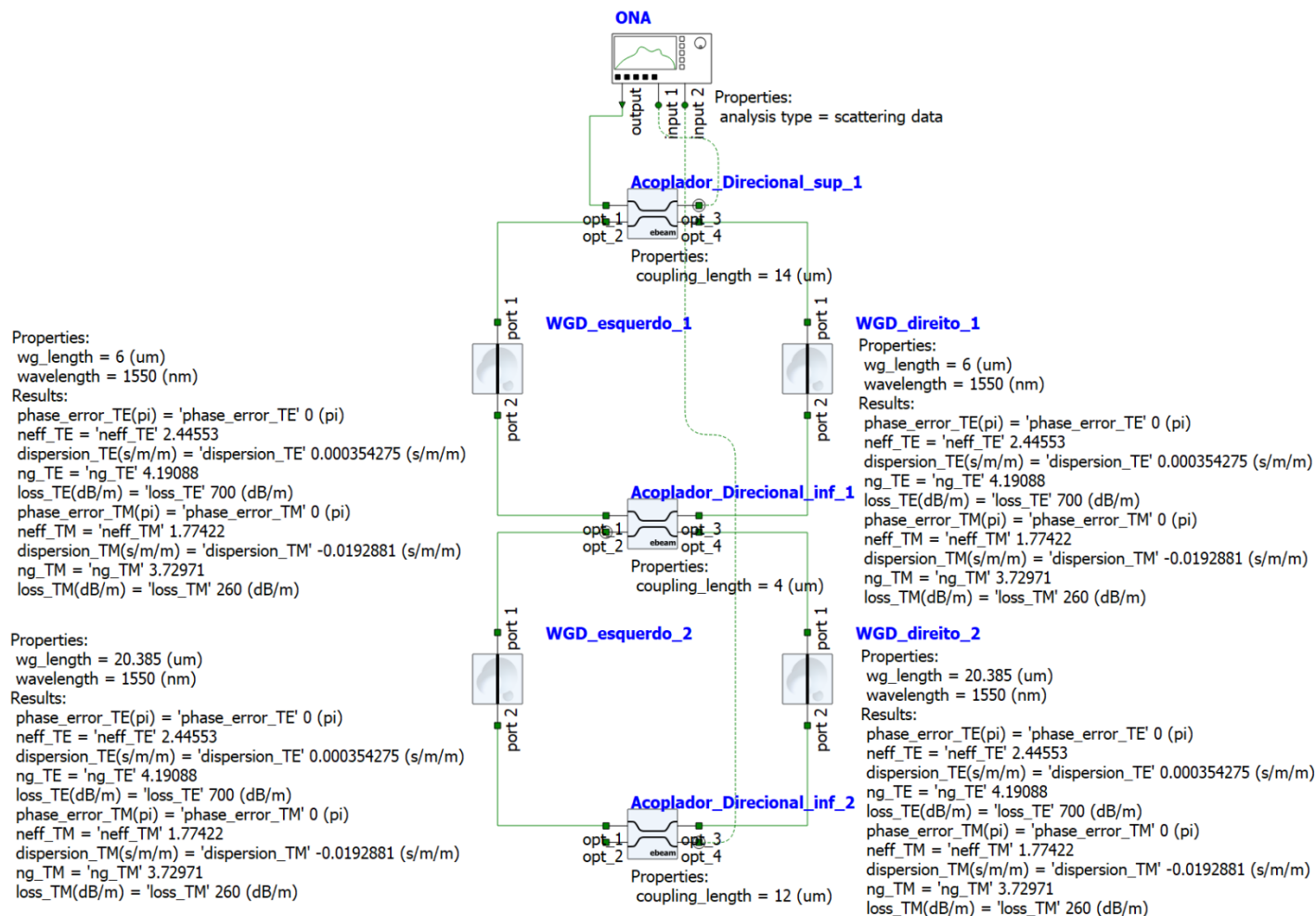


Dispositivos
PDK SiePic

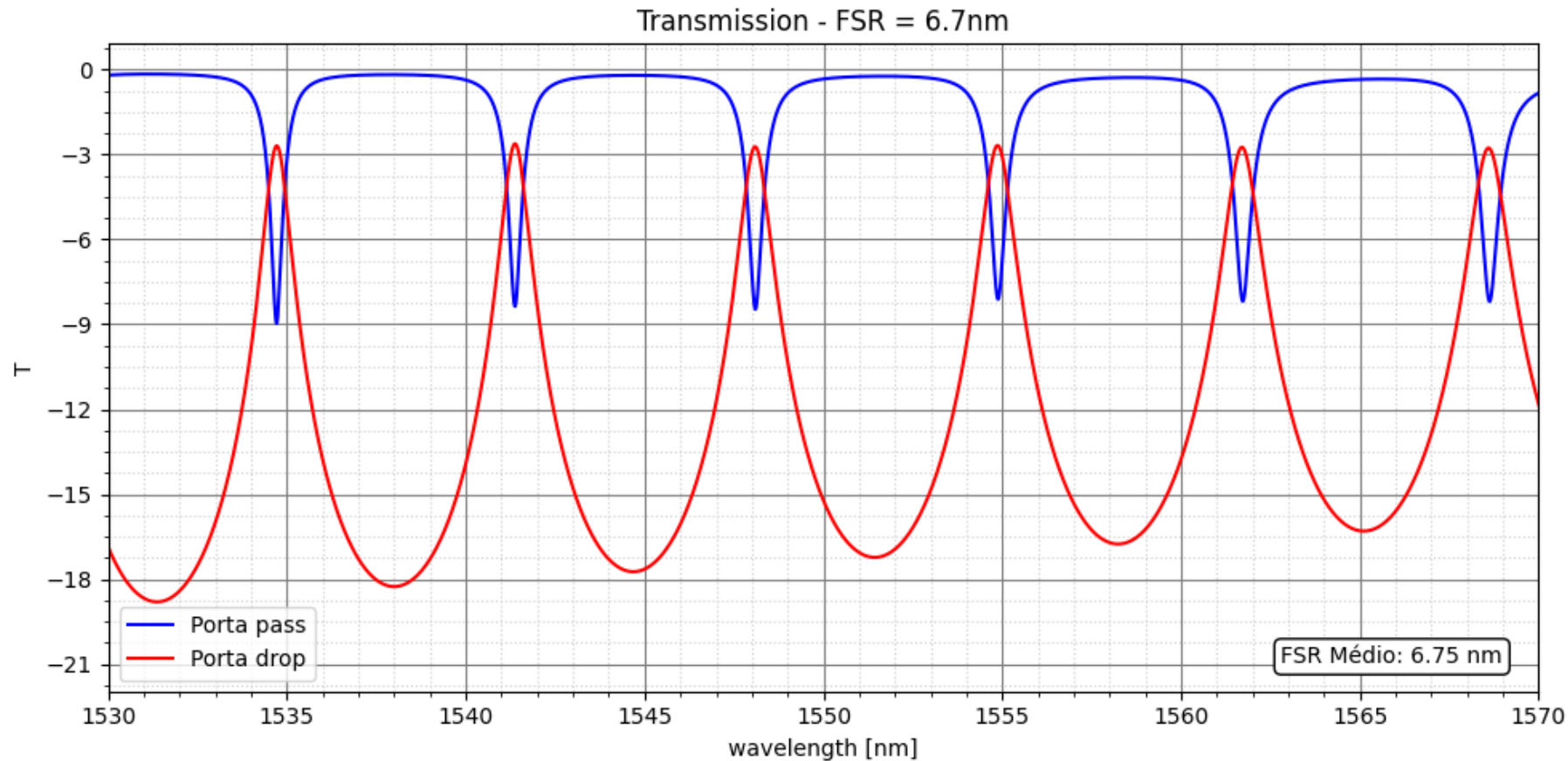
2.1 Transmissão x Comprimento de onda



Dispositivos
PDK SiePic

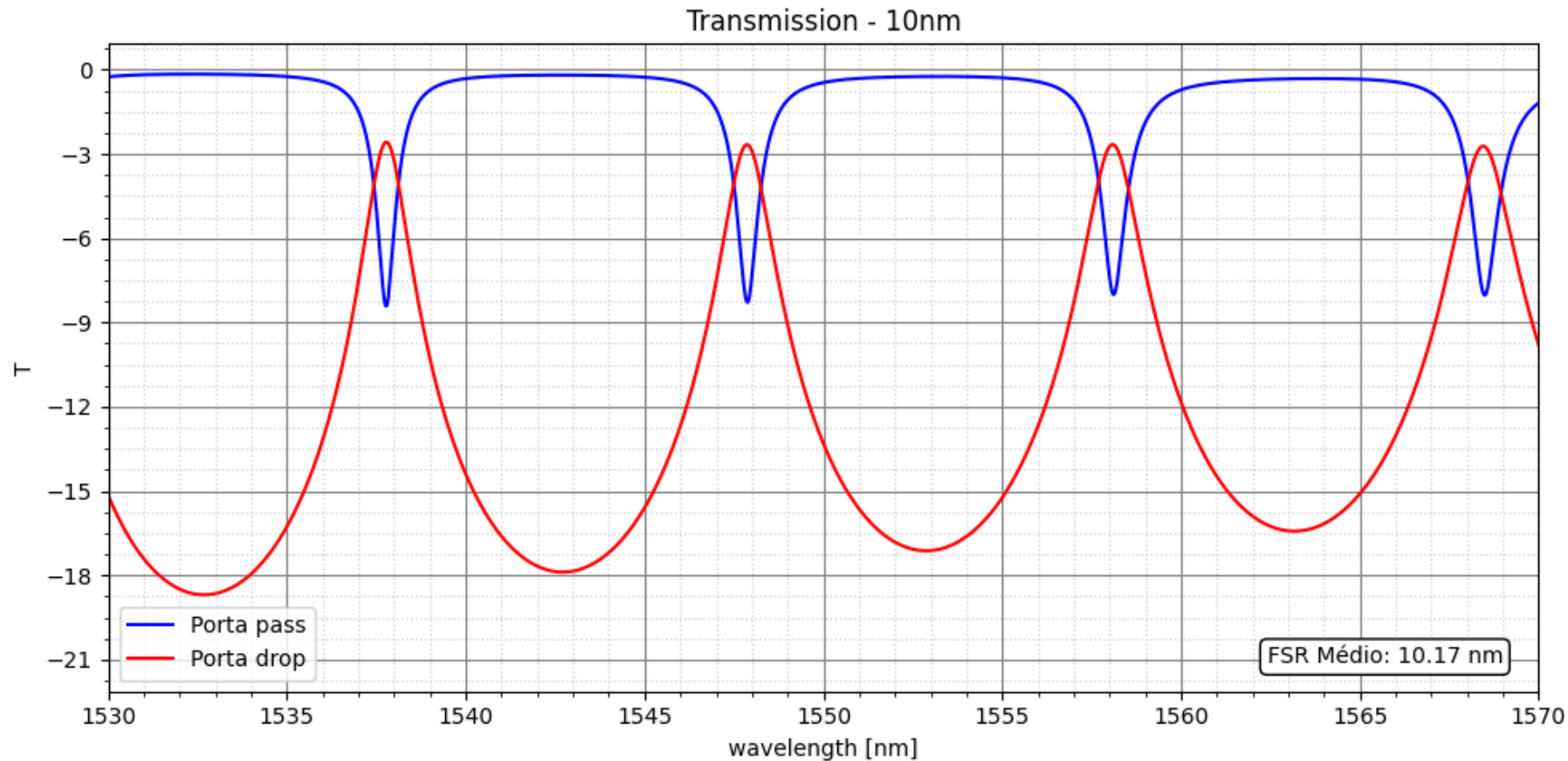


2.1 Transmissão x Comprimento de onda



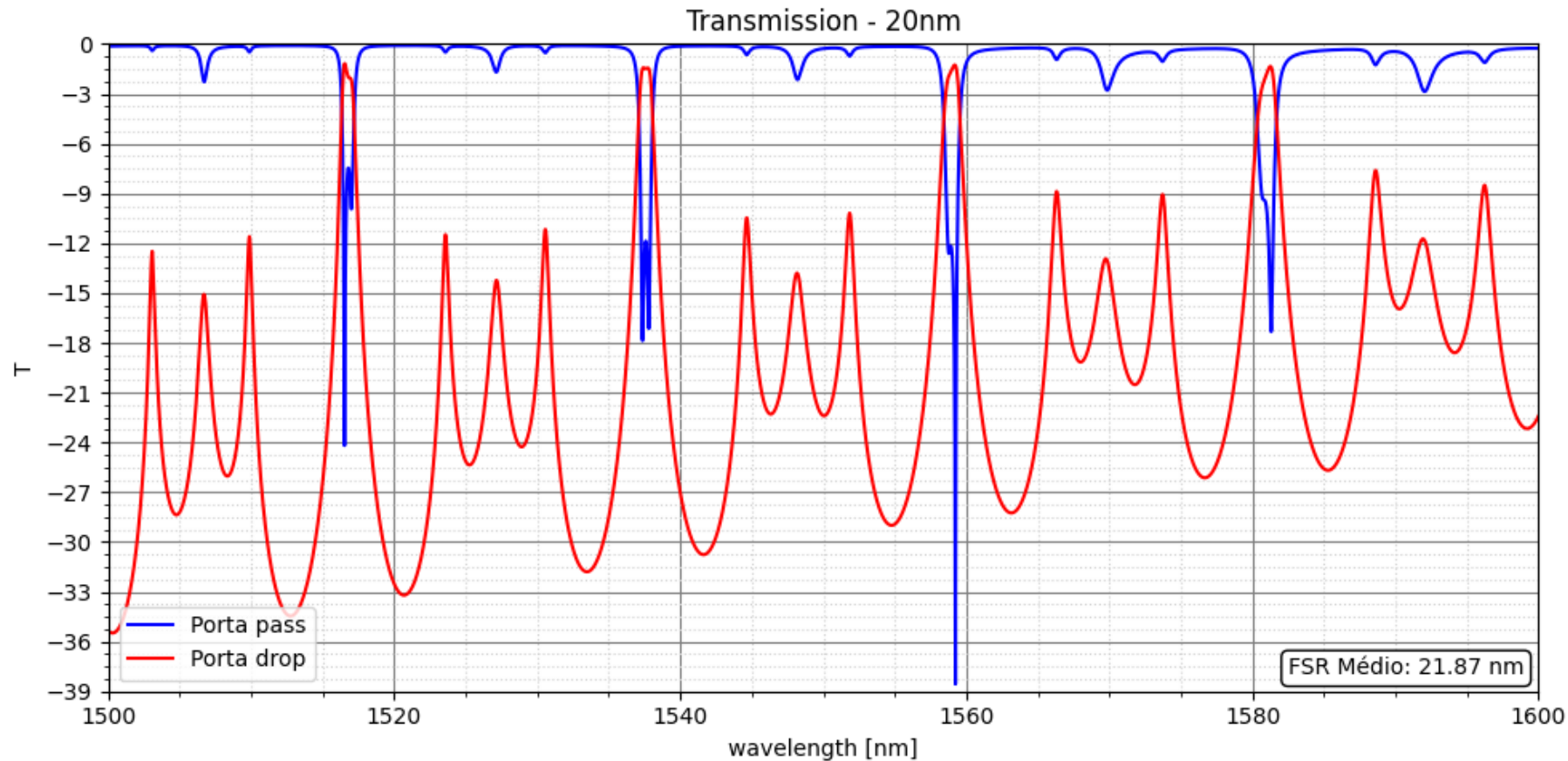
Dispositivos
PDK SiePic

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Dispositivos
PDK SiePic

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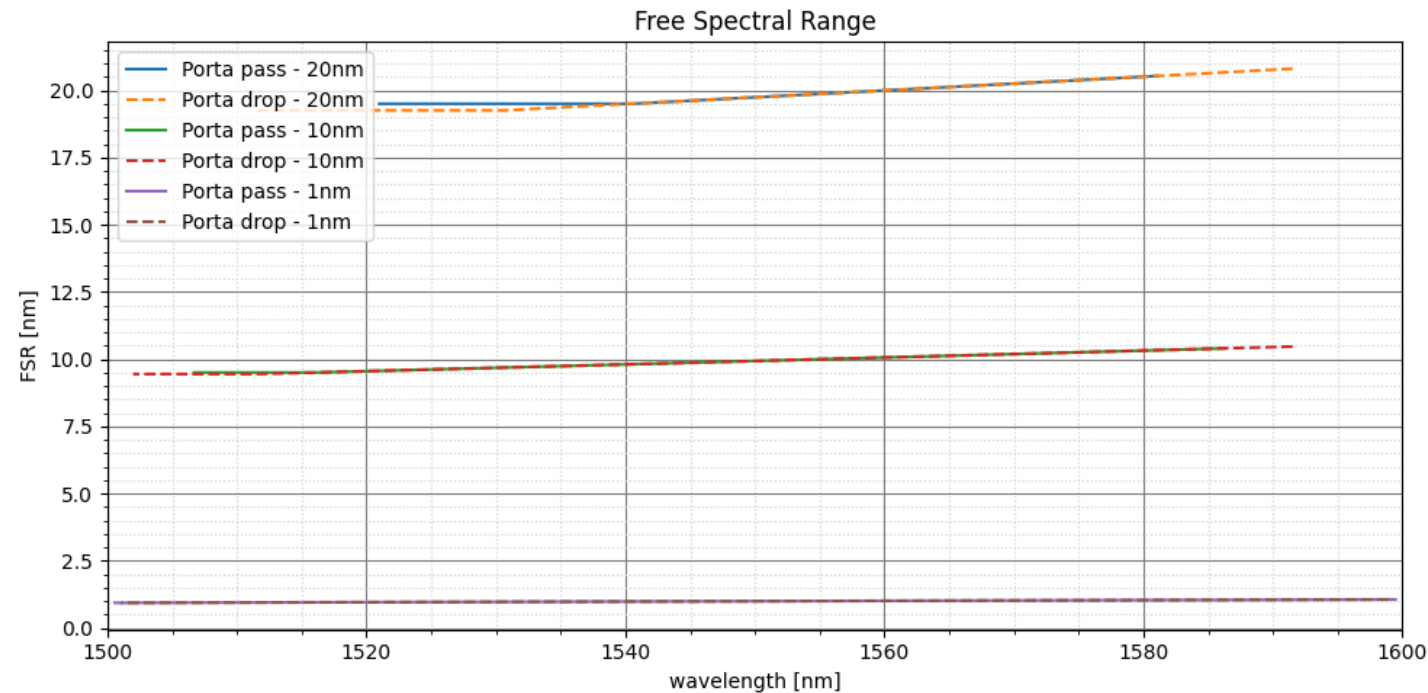


Dispositivos
PDK SiePic

2. Free Spectral Range

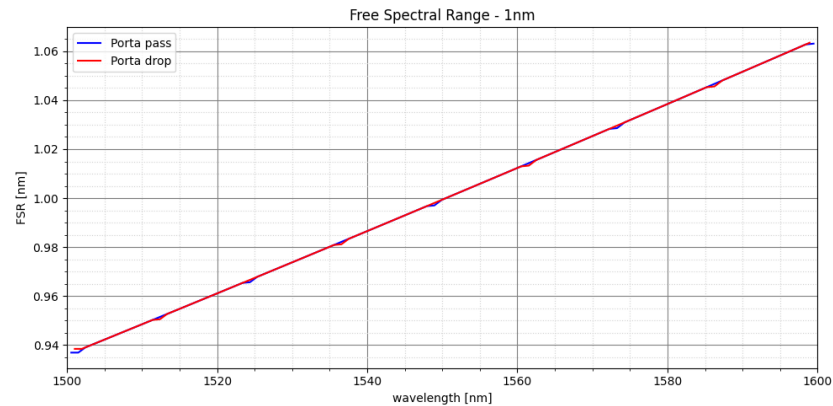


2.1 FSR x Comprimento de onda

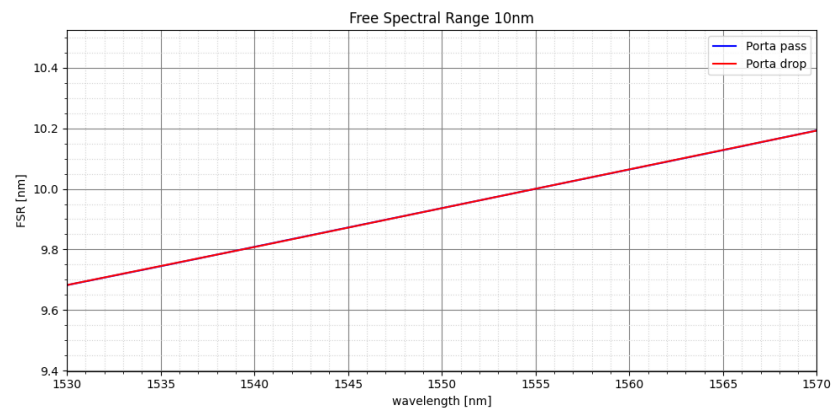


Dispositivos
Ideais

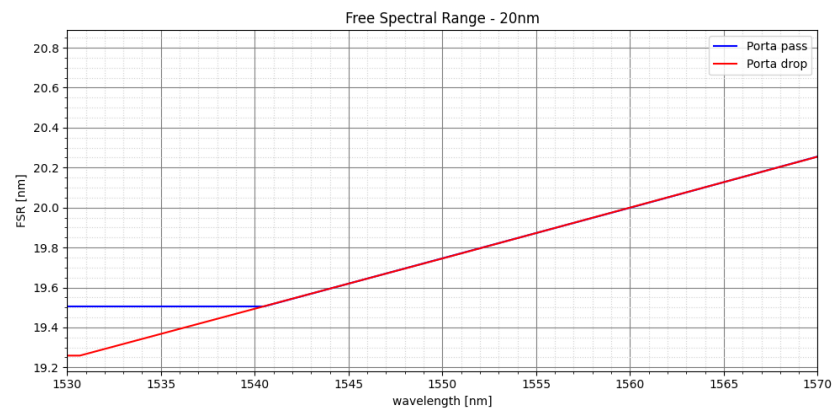
2.1 FSR x Comprimento de onda



$$\text{FSR} = 1\text{nm}$$



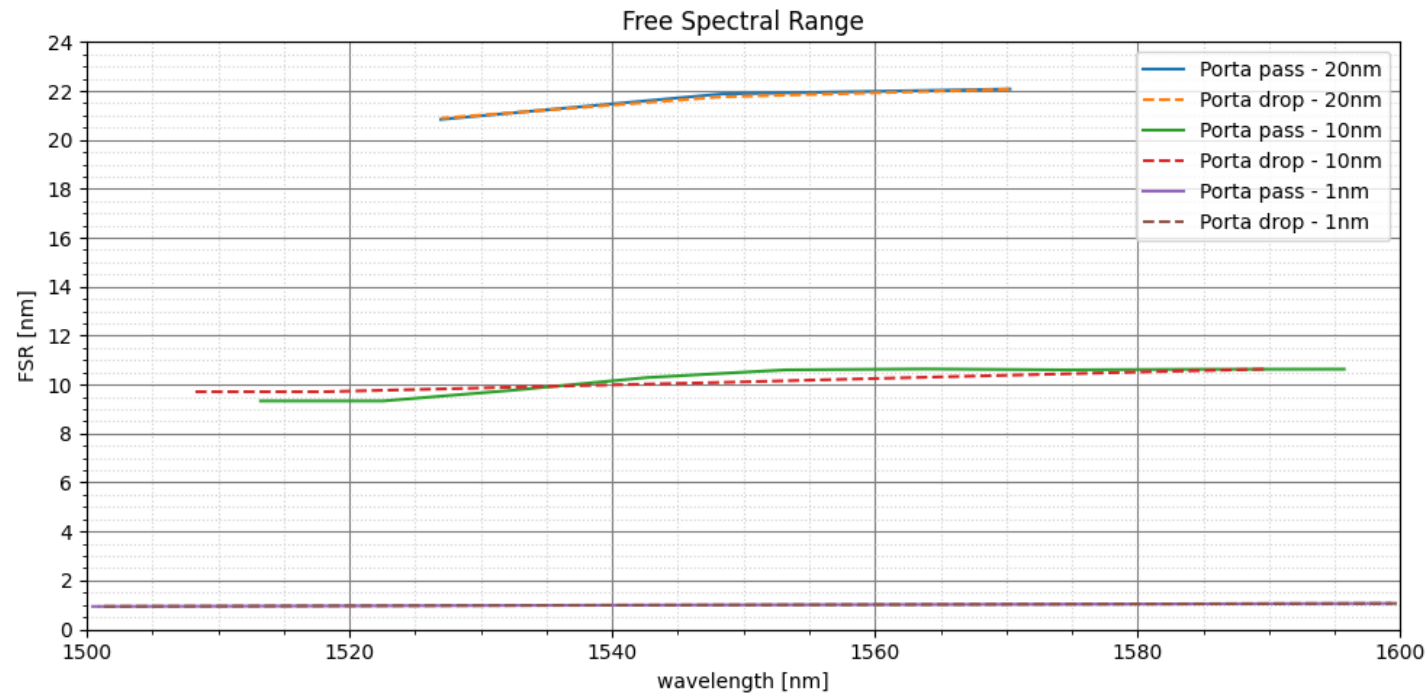
$$\text{FSR} = 10\text{nm}$$



$$\text{FSR} = 20\text{nm}$$

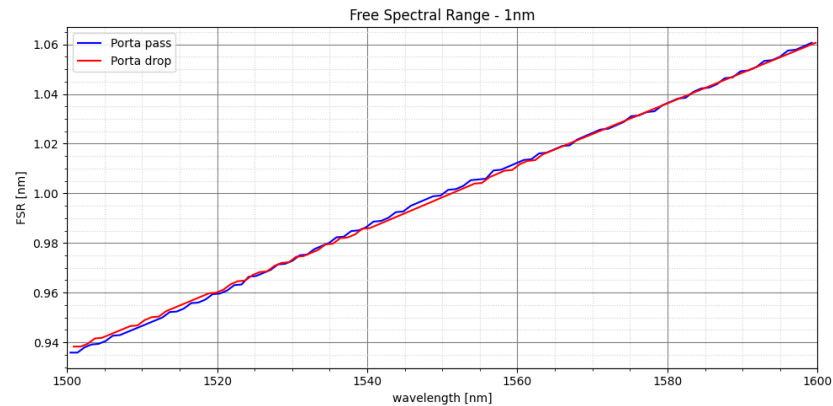
Dispositivos
Ideais

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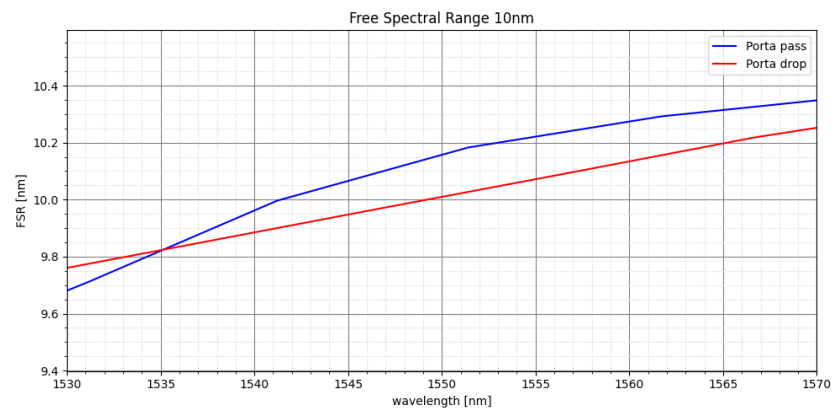


Dispositivos
PDK SiePic

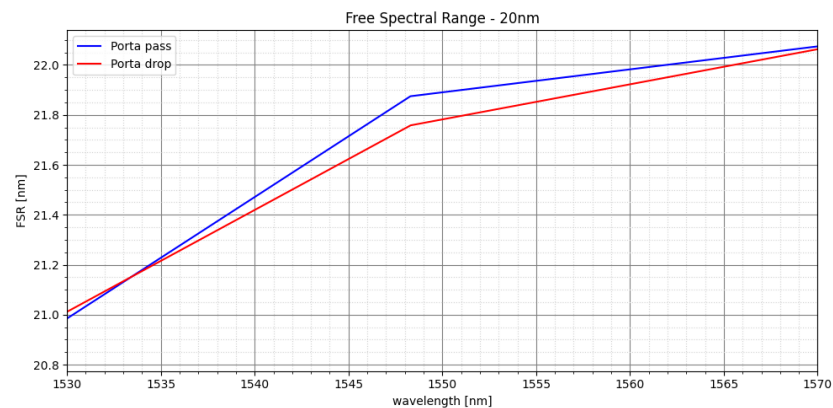
2.1 FSR x Comprimento de onda



FSR = 1nm



FSR = 10nm



FSR = 20nm

Dispositivos
PDK SiePic