

Capacitação em Circuitos Fotônicos em Silício.

Ring Resonator

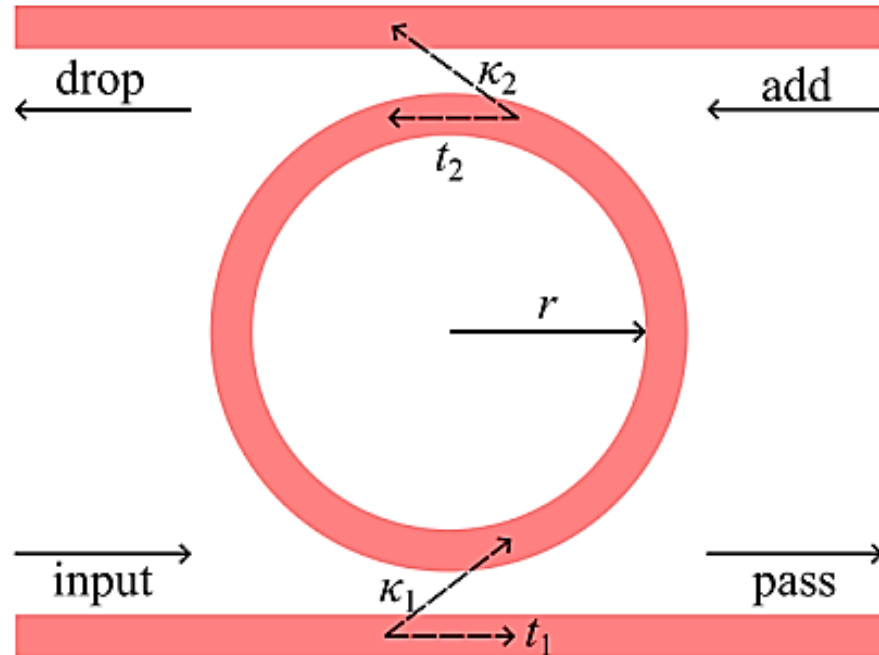


Centro de Competência Embrapii em
Hardware Inteligente para a Indústria

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 = $5\mu\text{m}$

FSR = 1nm - Ideal:

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

FSR = 10nm - Ideal :

$L_r = 55.28\mu\text{m}$

FSR = 20nm - Ideal :

$L_r = 27.64\mu\text{m}$

PDK

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

FSR = 1nm - PDK

$L_r = 581.37\mu\text{m}$

$L_{c_wg} = 260.98\mu\text{m}$

FSR = 10nm - PDK

$L_r = 19\mu\text{m}$

$L_{c_wg} = 2.5\mu\text{m}$

FSR = 20nm- PDK

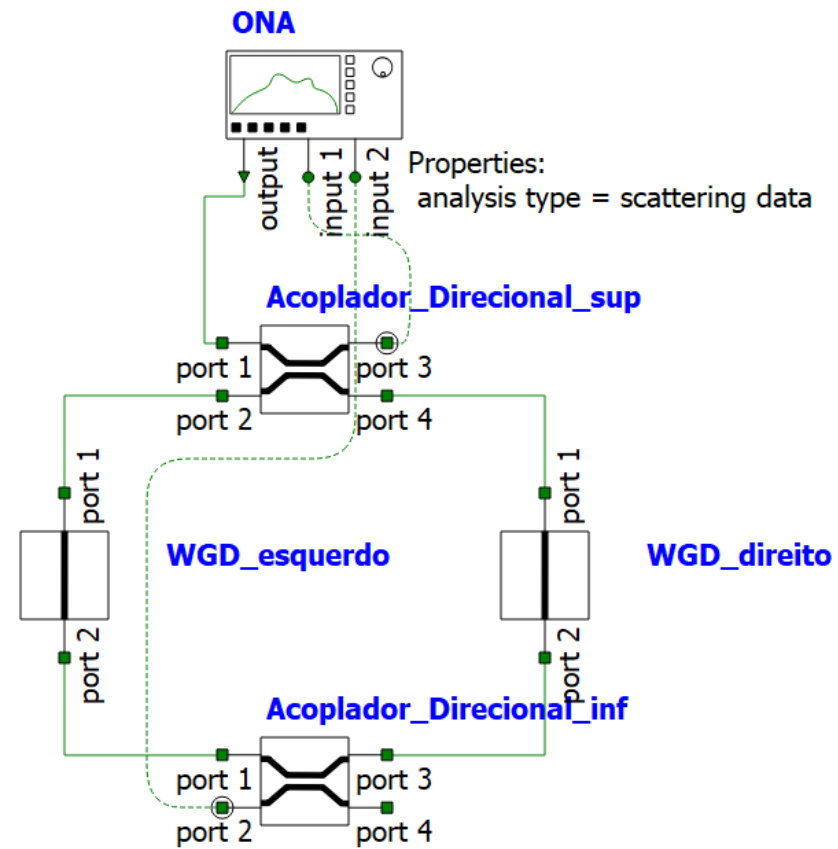
$L_{c_dc1} = 14\mu\text{m}$

$L_{c_dc2} = 4\mu\text{m}$

$L_{c_dc3} = 2\mu\text{m}$

$L_{c1} = 6\mu\text{m}$

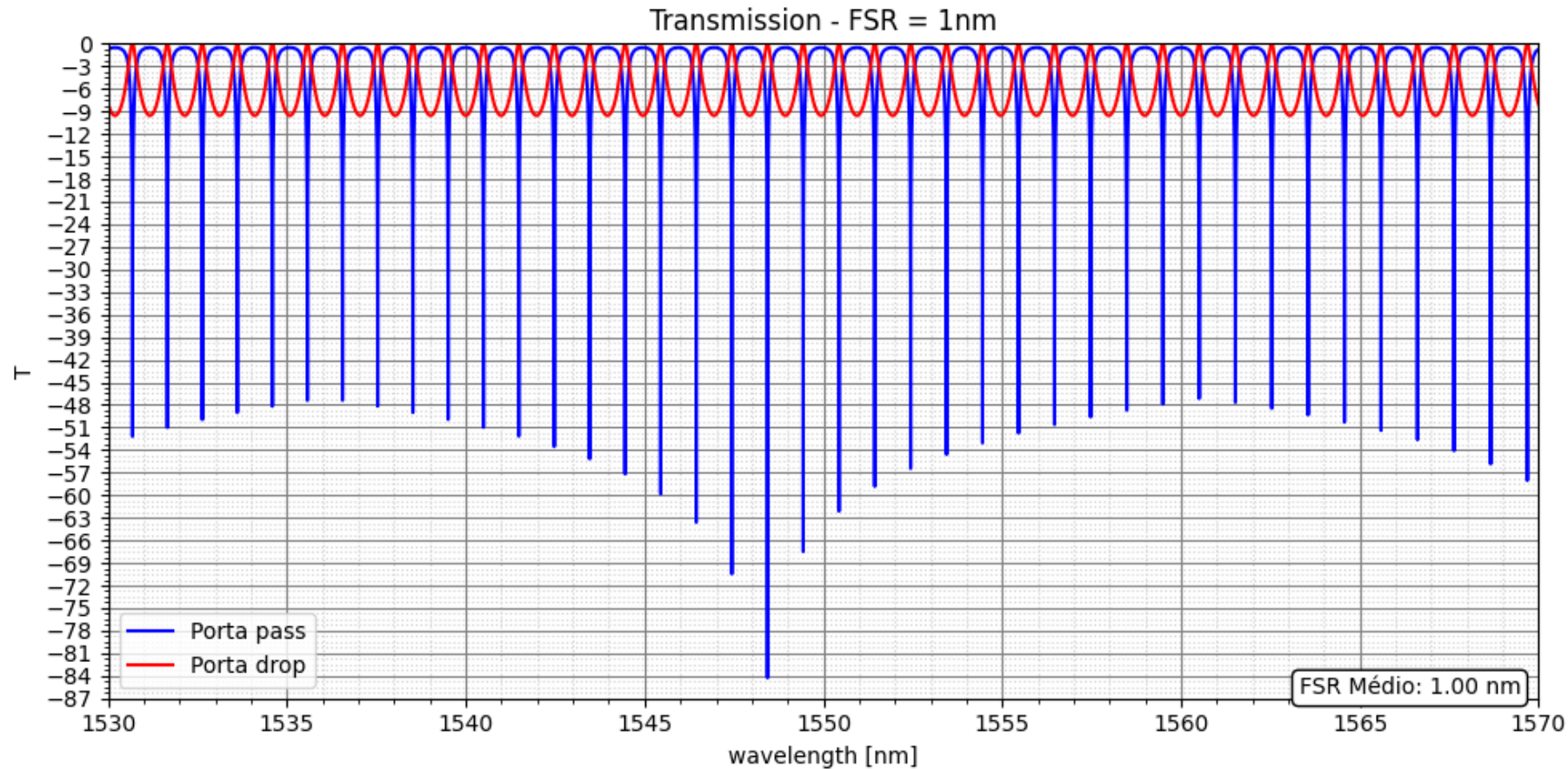
$L_{c2} = 20.385\mu\text{m}$



1. Transmissão

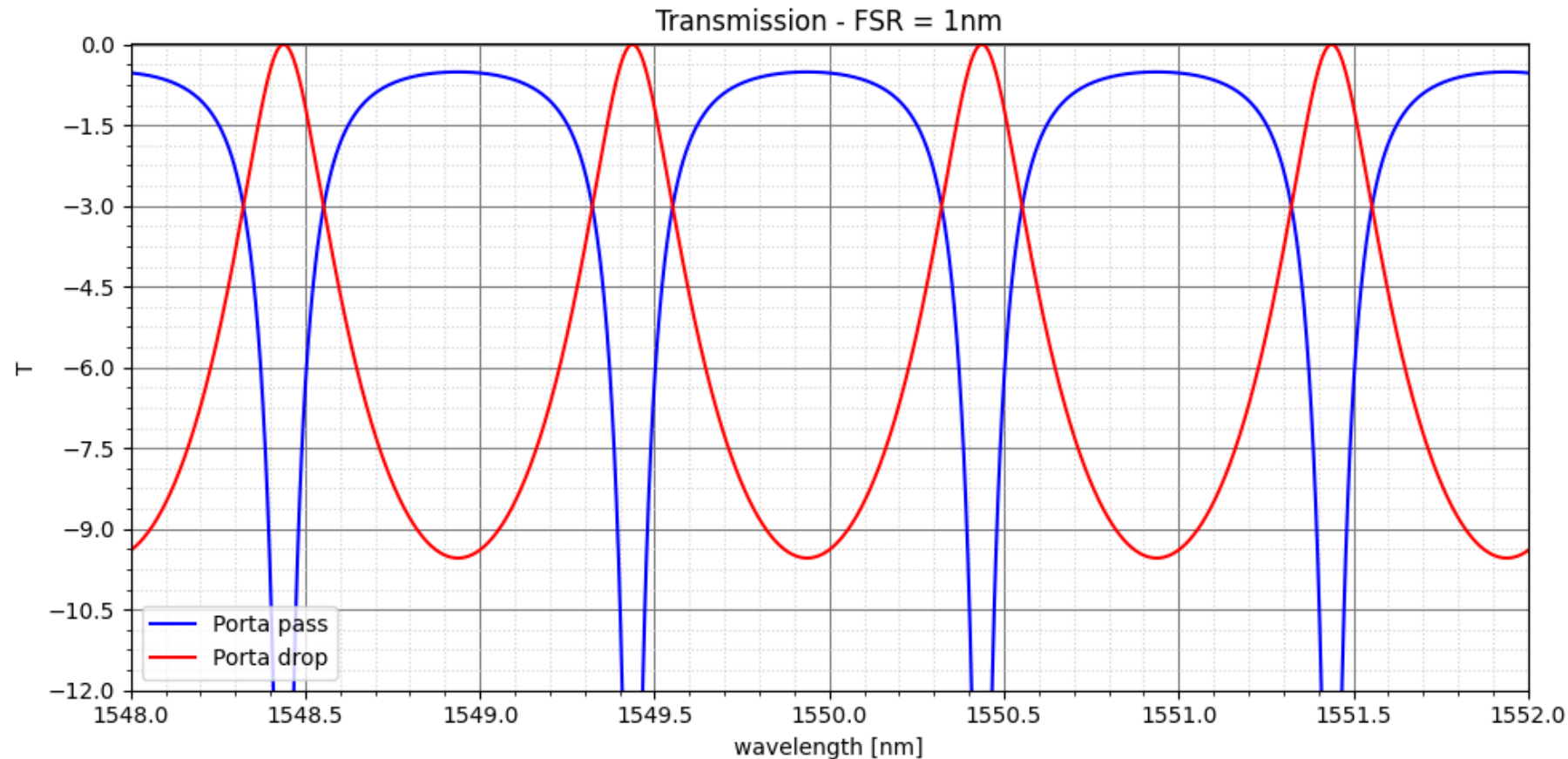


2.1 Transmissão x Comprimento de onda



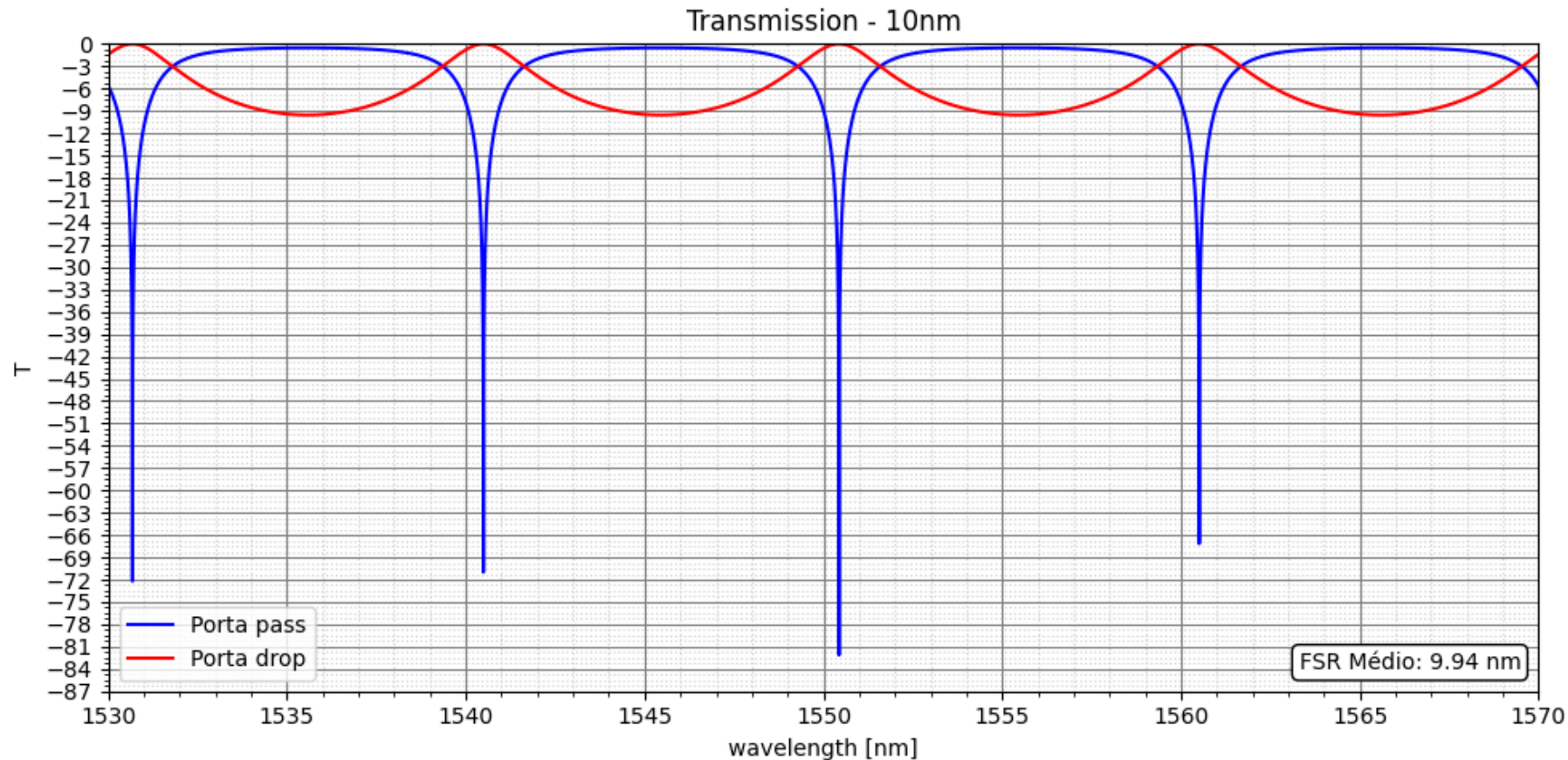
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



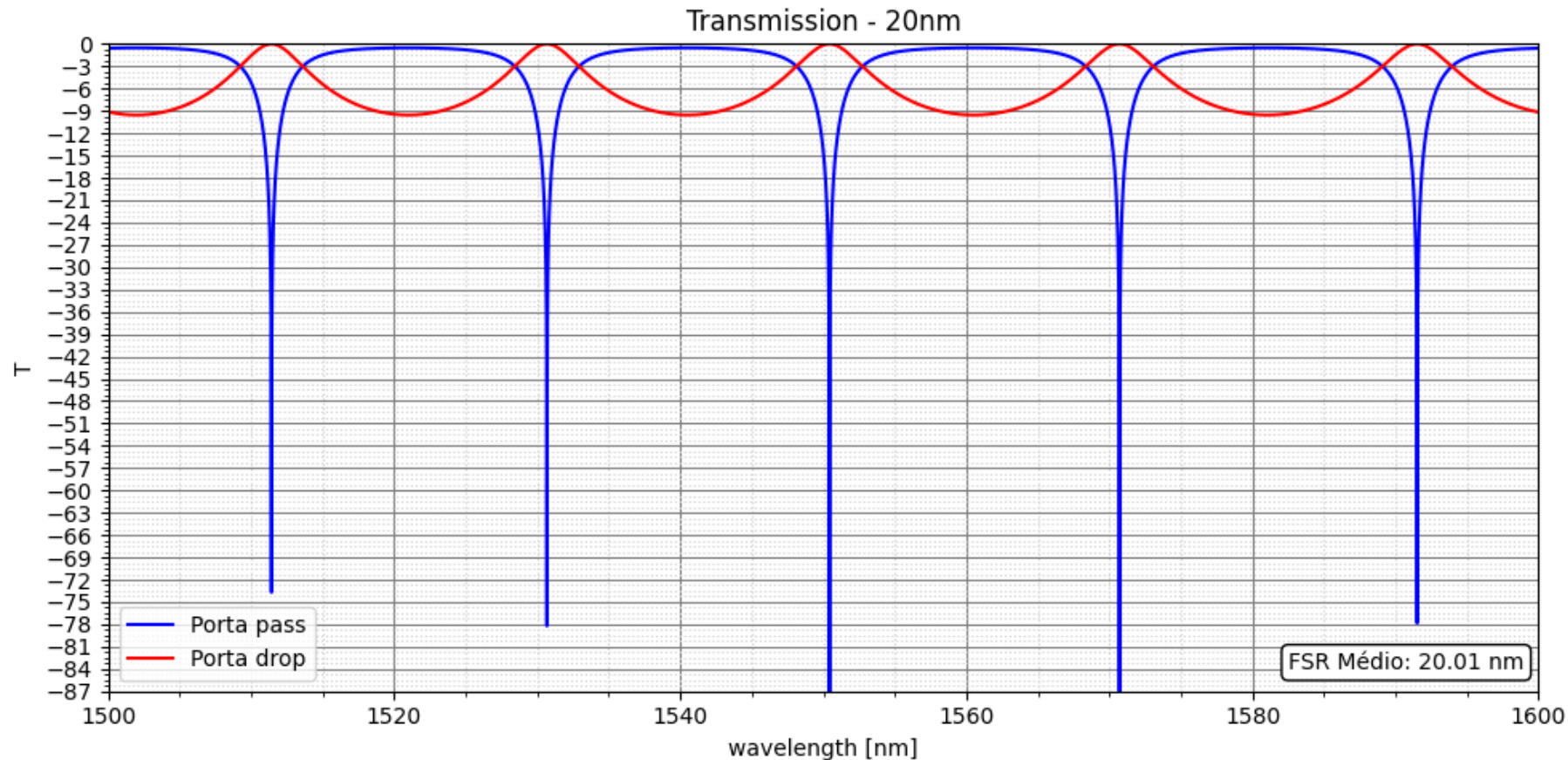
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



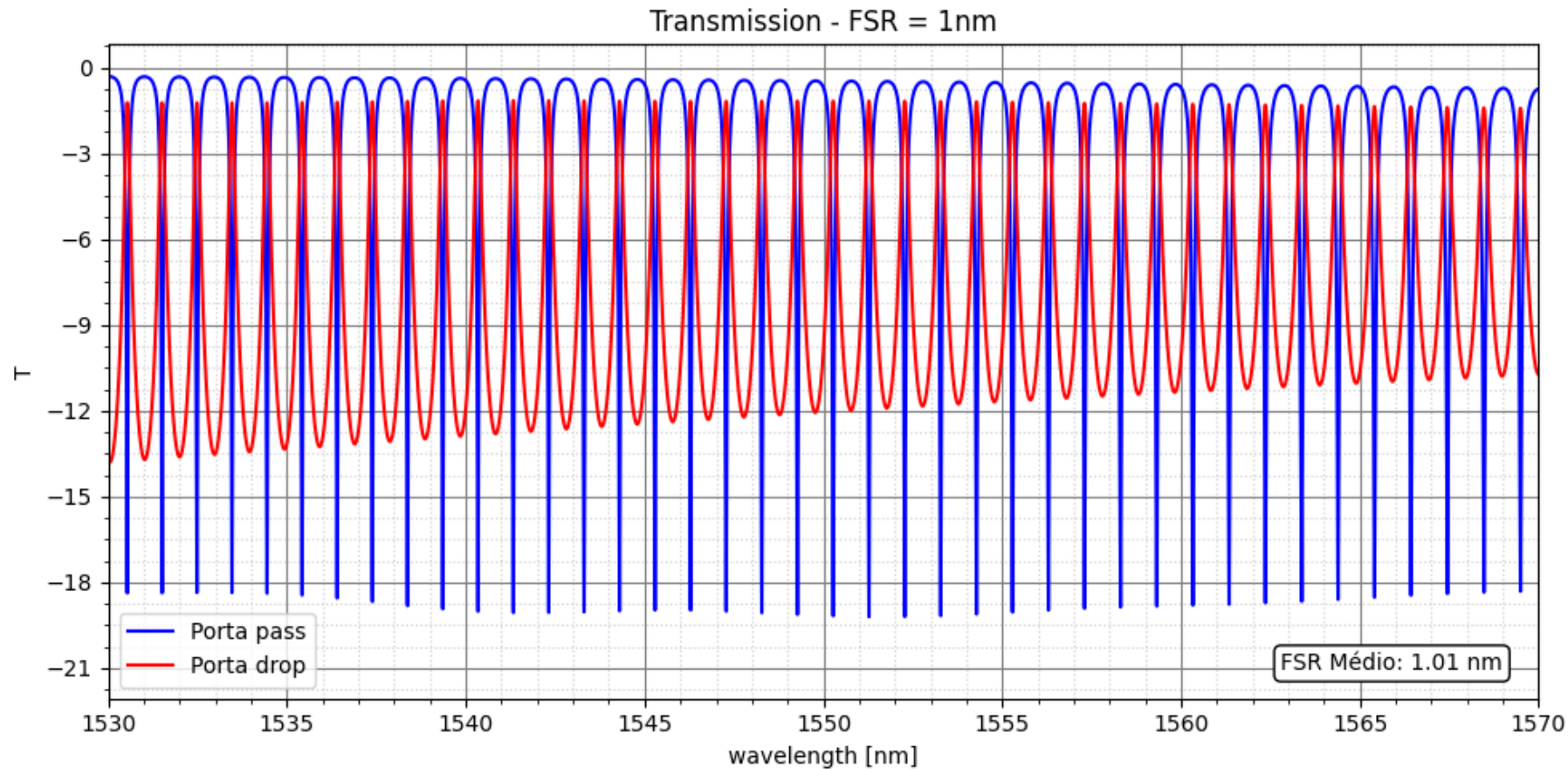
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



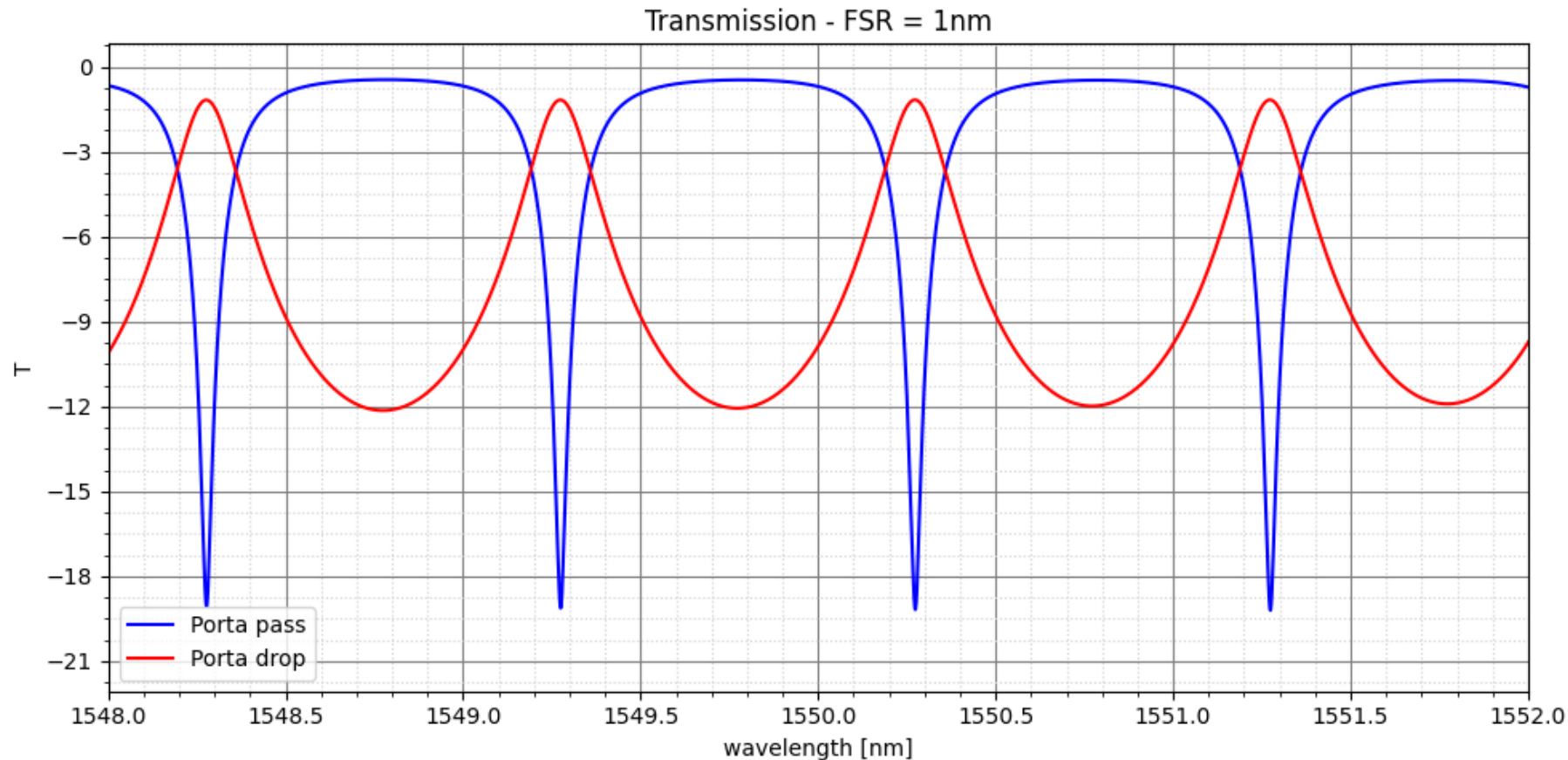
Dispositivos
Ideais

2.1 Transmissão x Comprimento de onda



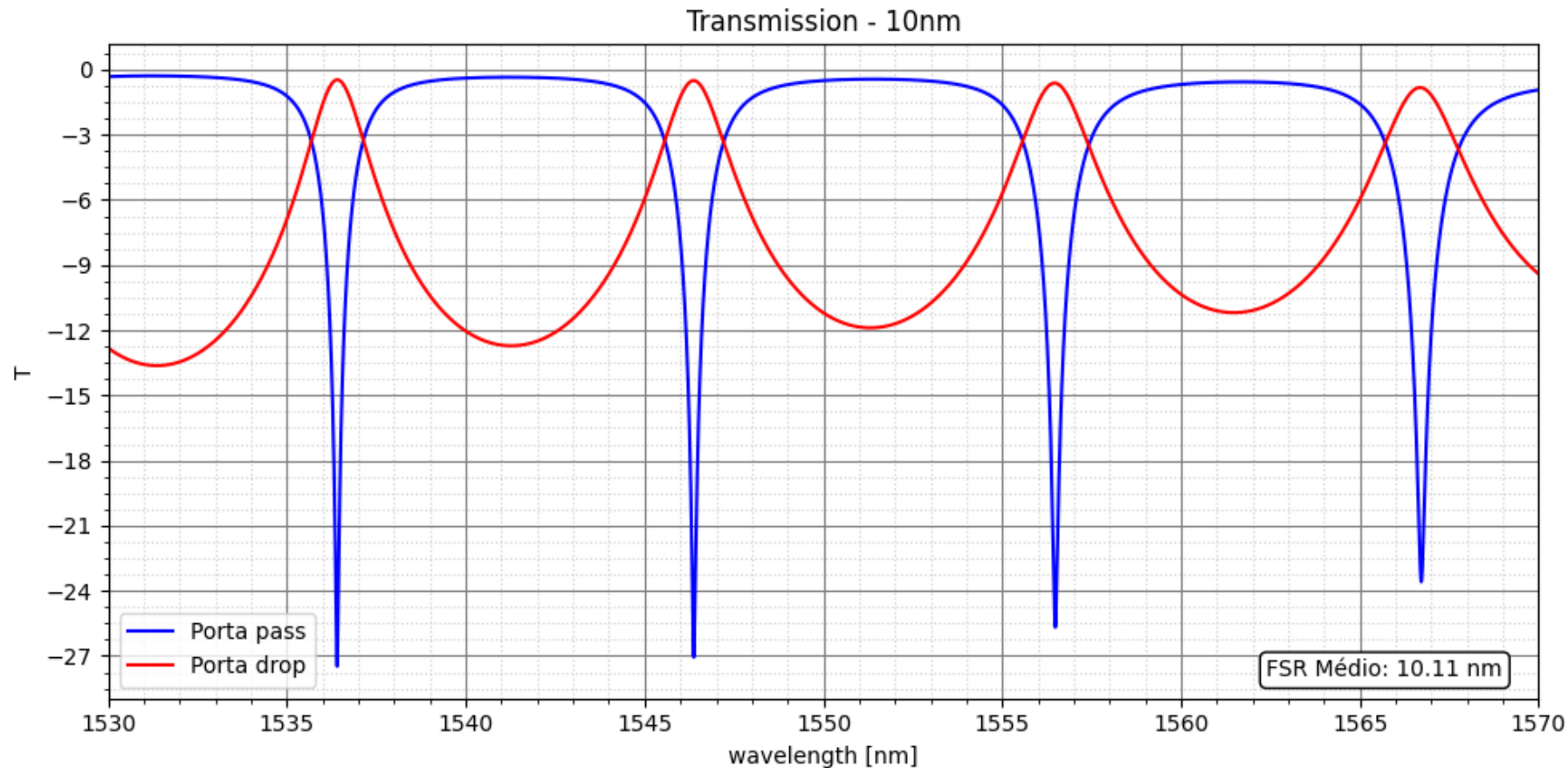
Dispositivos
PDK SiePic

2.1 Transmissão x Comprimento de onda

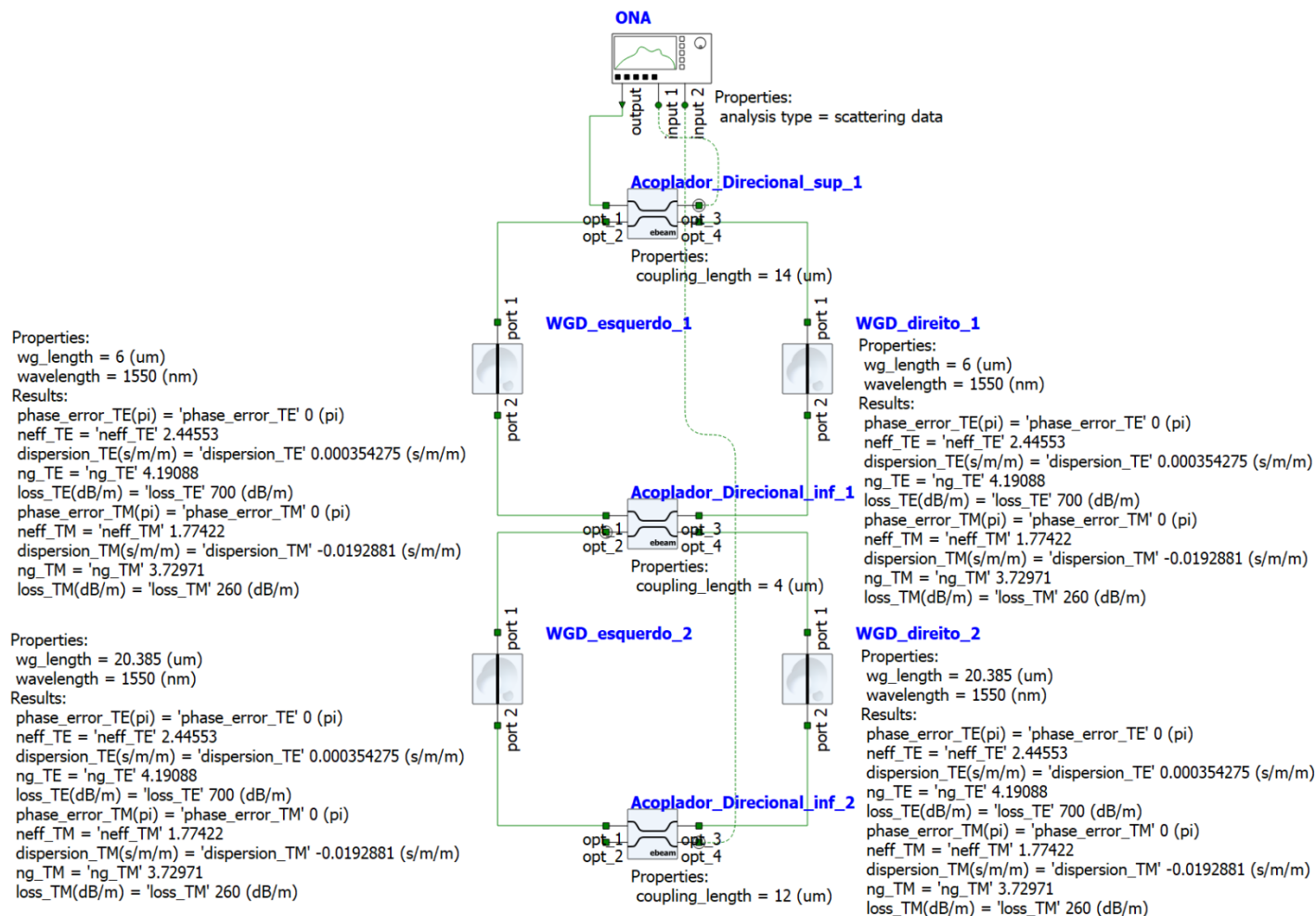


Dispositivos
PDK SiePic

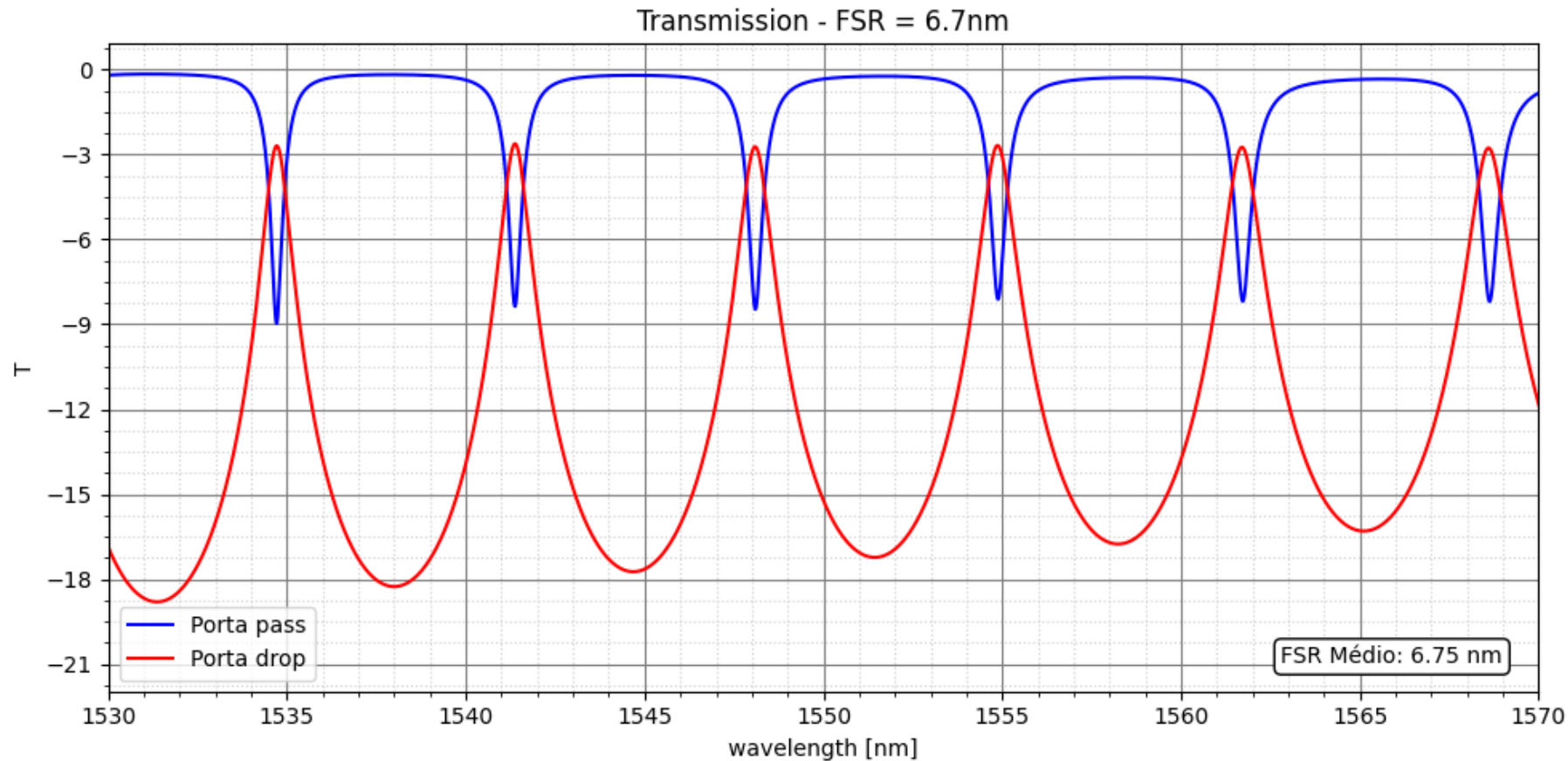
2.1 Transmissão x Comprimento de onda



Dispositivos
PDK SiePic

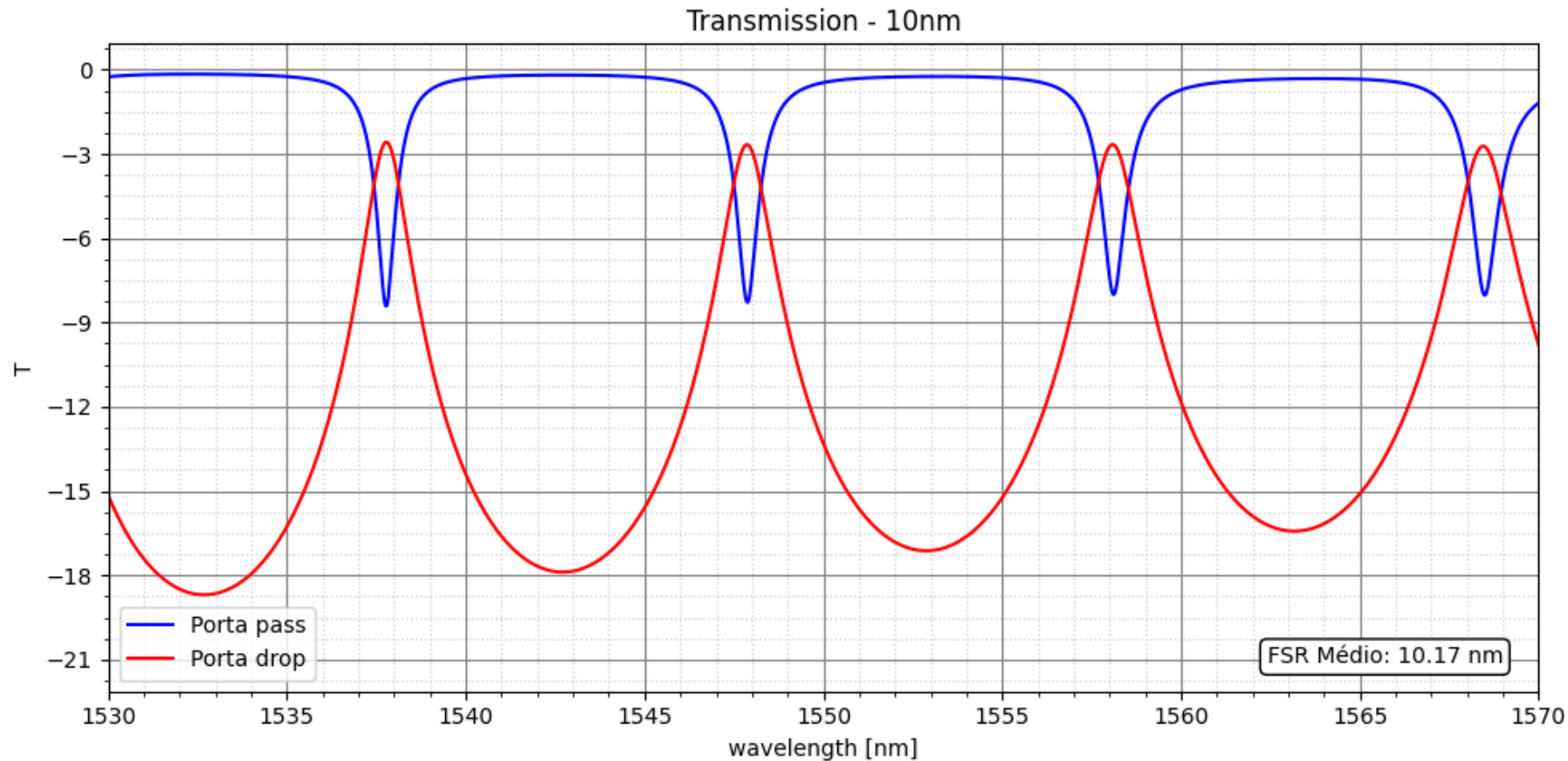


2.1 Transmissão x Comprimento de onda



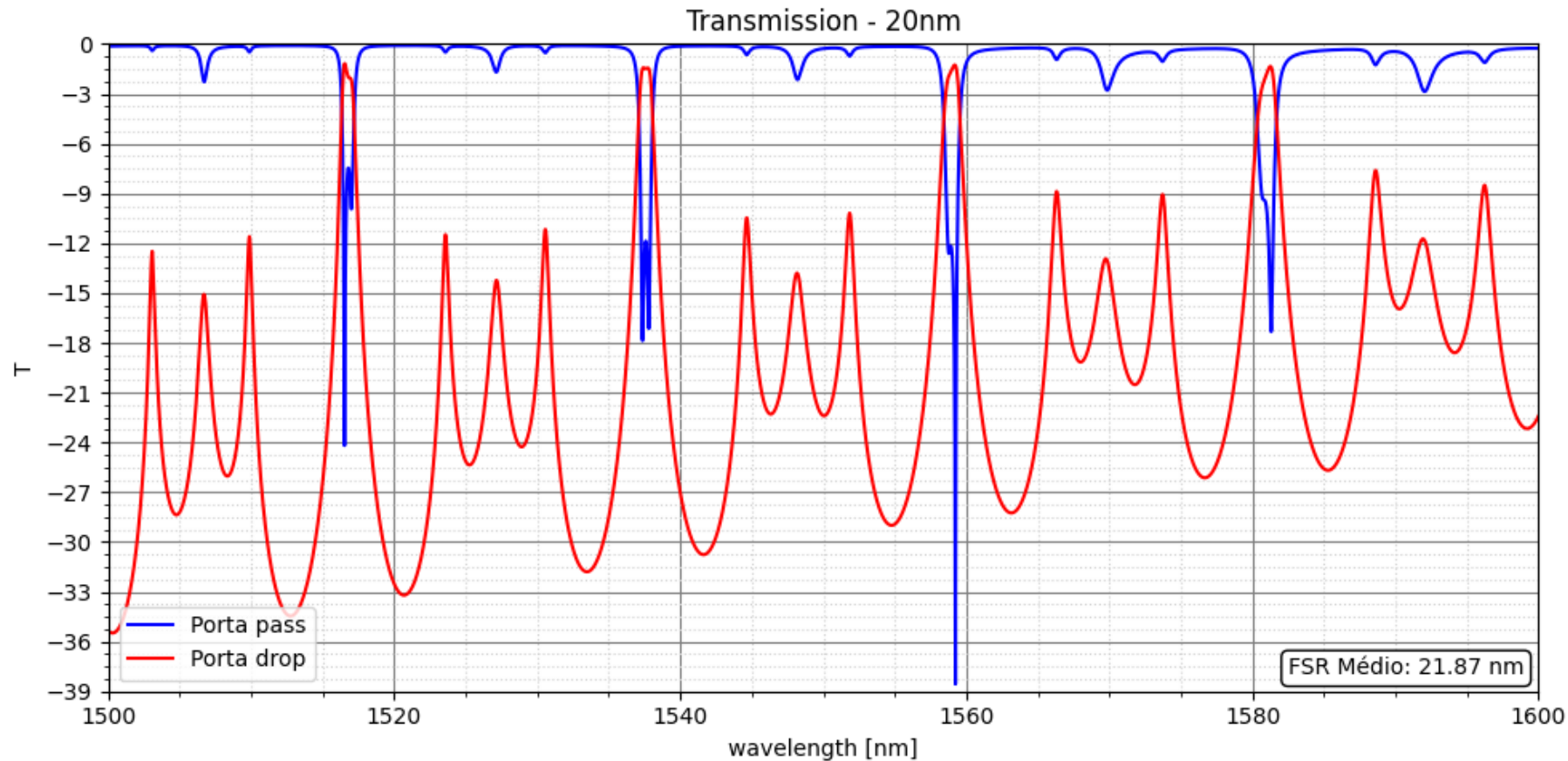
Dispositivos
PDK SiePic

2.1 Transmissão x Comprimento de onda



Dispositivos
PDK SiePic

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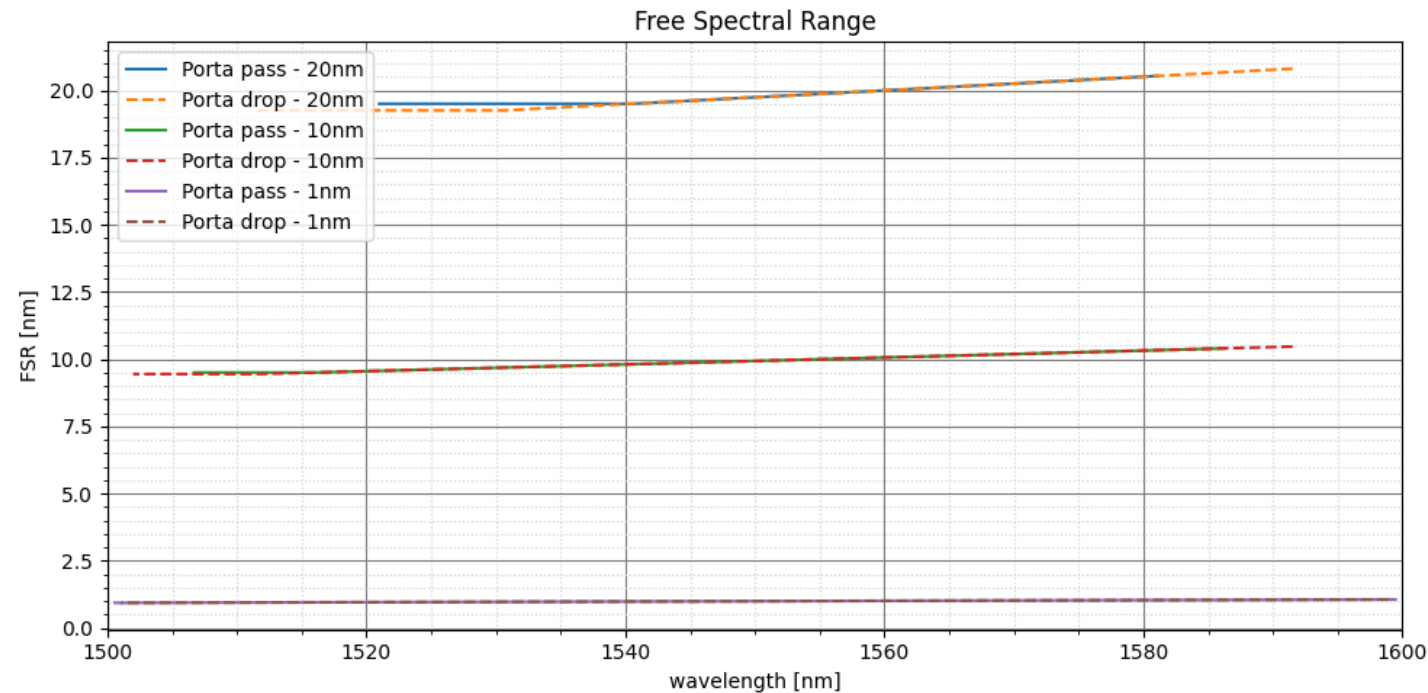


Dispositivos
PDK SiePic

2. Free Spectral Range

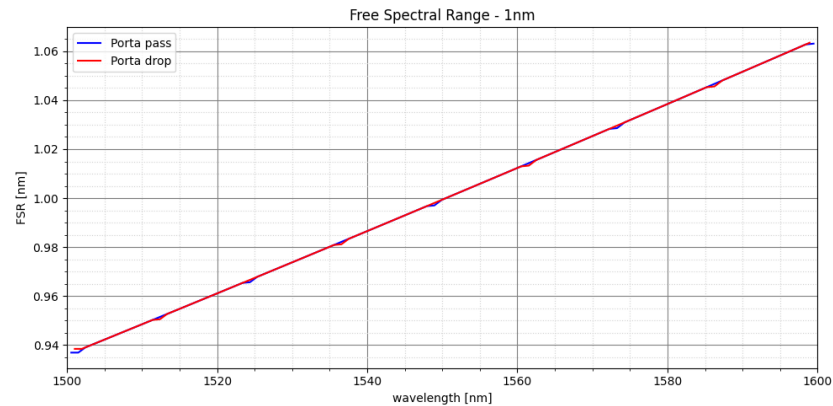


2.1 FSR x Comprimento de onda

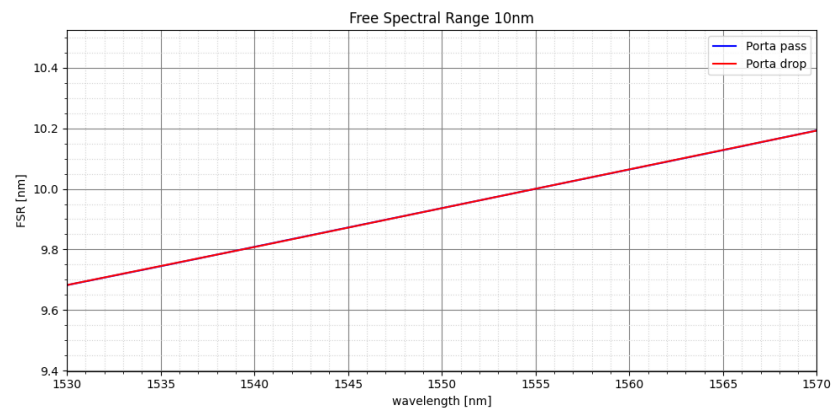


Dispositivos
Ideais

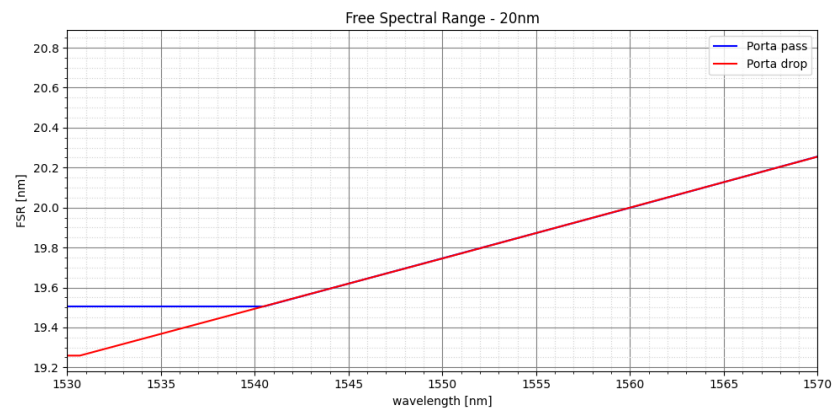
2.1 FSR x Comprimento de onda



FSR = 1nm



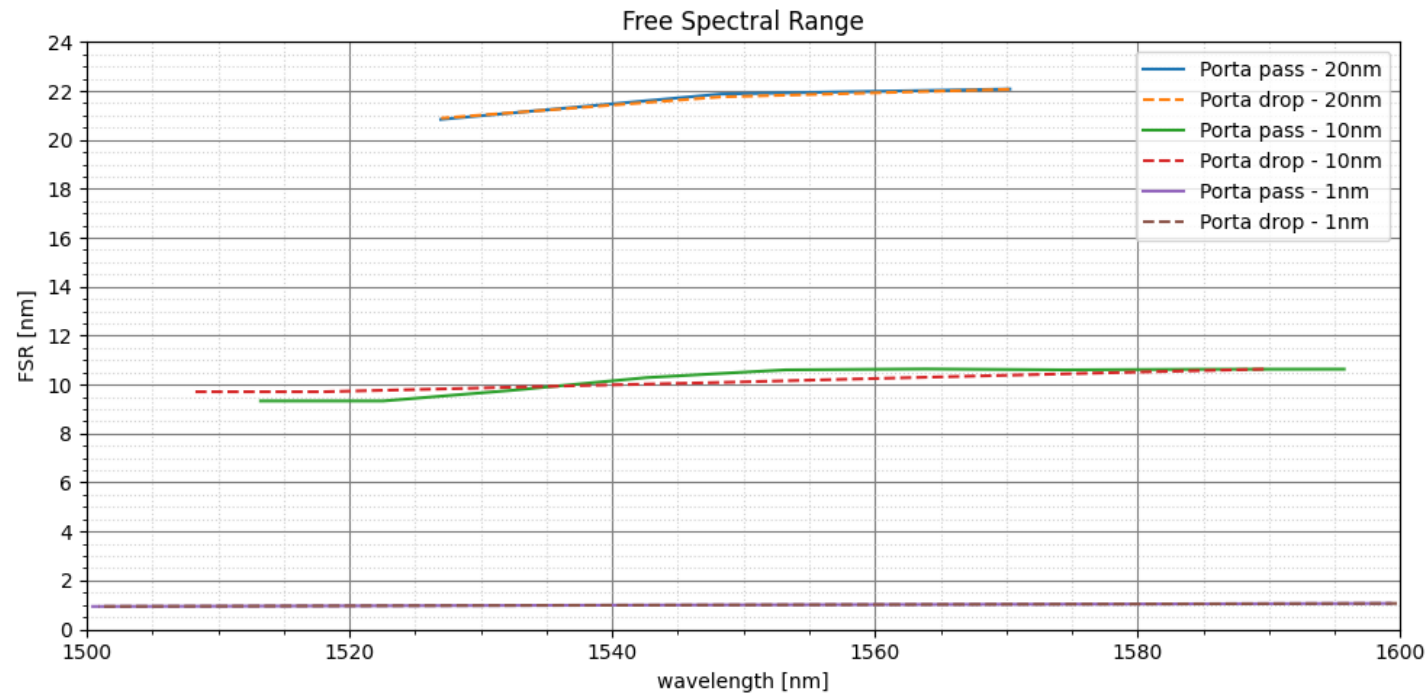
FSR = 10nm



FSR = 20nm

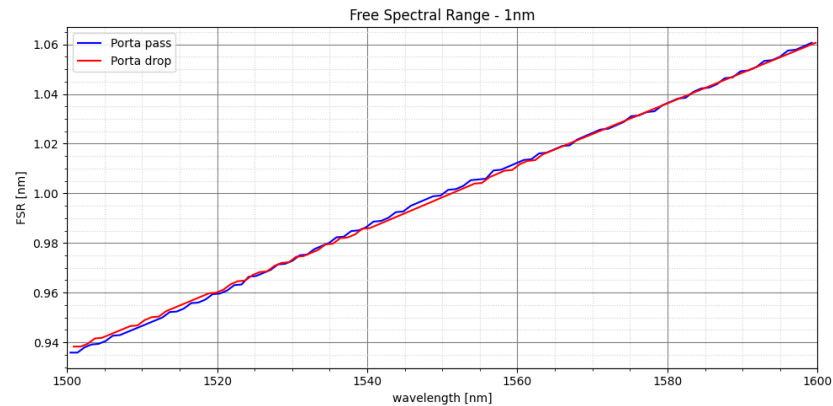
Dispositivos
Ideais

2.1 FSR x Comprimento de onda

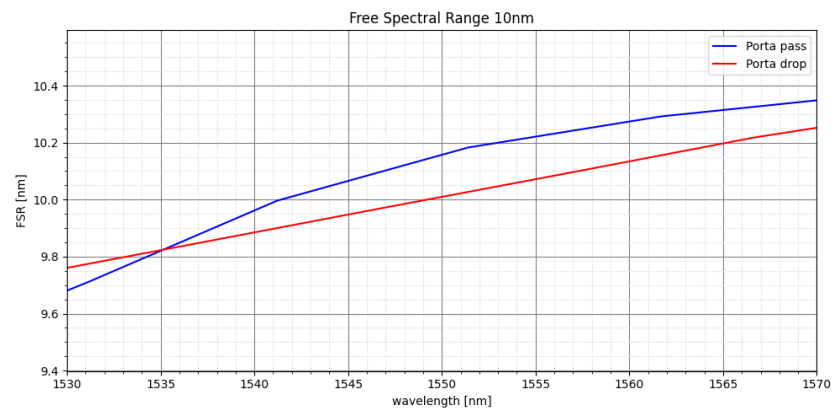


Dispositivos
PDK SiePic

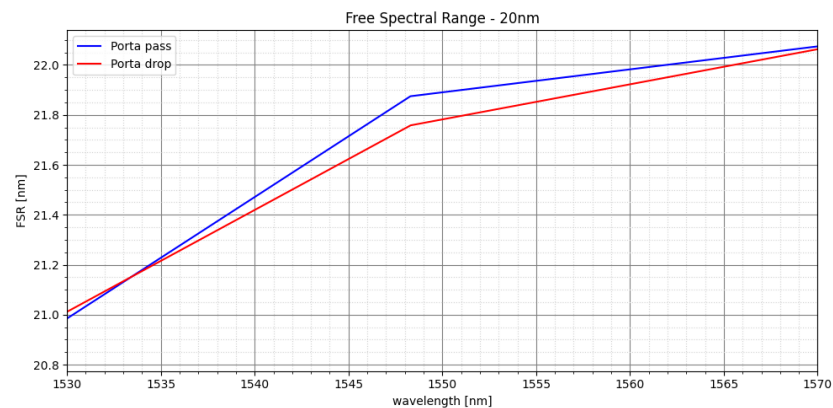
2.1 FSR x Comprimento de onda



FSR = 1nm



FSR = 10nm



FSR = 20nm

Dispositivos
PDK SiePic

3. GDS



3 GDS

