Design Proposal for a Bragg Grating Resonator

First A. Author,

***Abstract*—Placeholder**

I. INTRODUCTION

THIS document is a rough draft of the design report. The results are not yet verified. I just need to submit something for peer review.

II. WAVEGUIDE MODELLING

A. Lumerical MODE

220nmx350nm

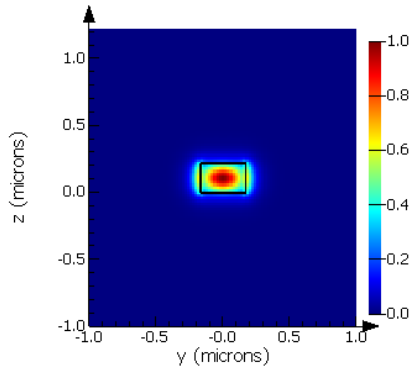
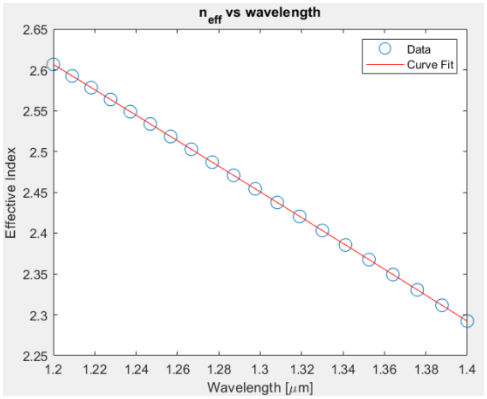
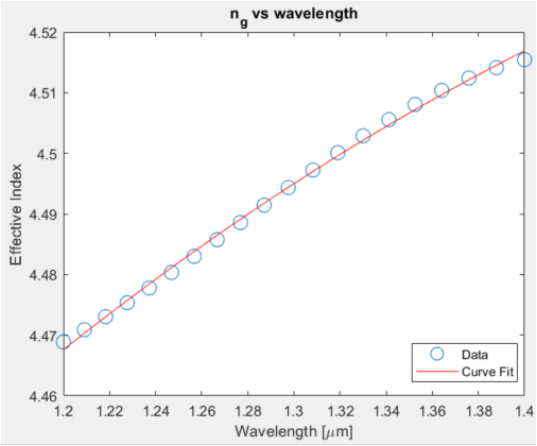


Fig. 1. First TE Mode Electric Field Intensity for Strip Waveguide (at 1320nm)

B. MATLAB





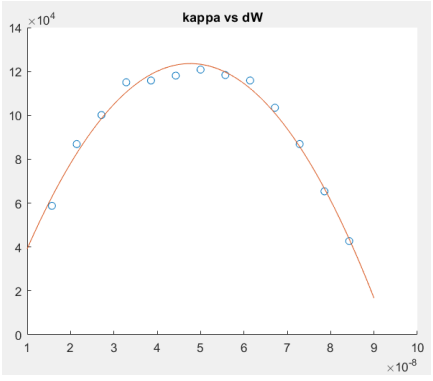
alternate ways to access the same functionalities noted here). Then

in the template is an estimate. Do not adjust line and character spacing to fit your paper to a specific length.

III. BRAGG GRATING CALCULATIONS

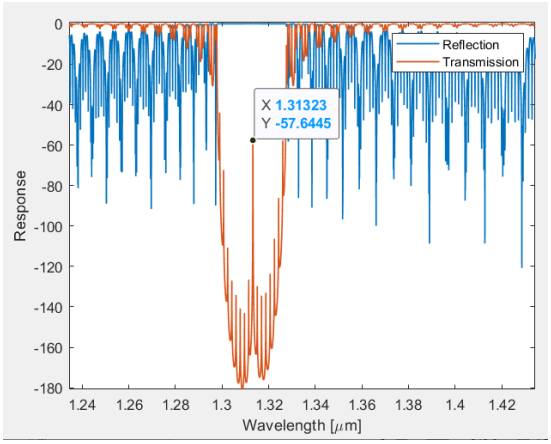
$$\lambda_B = 2n_{\text{eff}}\Lambda$$

Neff = 2.43
Bragg Period = 270nm
Modelled in Lumerical FDTD



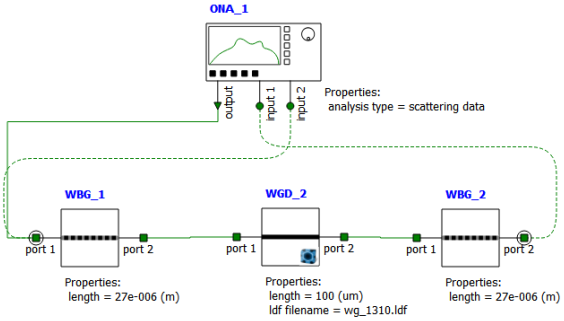
Kappa vs dW

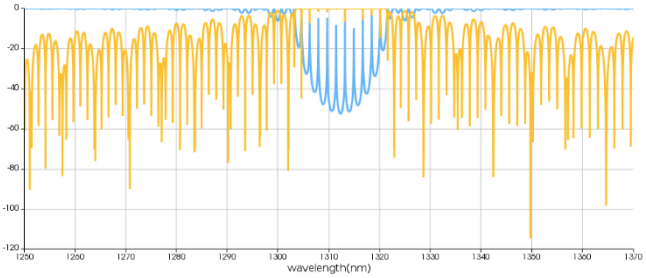
IV. TRANSFER MATRIX METHOD FOR BG+FP+BG



Transmission/Reflection Spectrum

Lumerical Interconnect Circuit





Reflection in orange, transmission in blue

IV. Fabrication

(Insert table of design variations here)

TBD