\chapter{Optimize}

%introduction

In this chapter

For further analysis of the coupling efficiency first thought is to change the relative position between TLF and the waveguide. Another consideration is to change the background conditions. At last, we can reform the structure of the waveguide to find the optimal

\section{coupling through at shifting location}

In vertical direction shift the waveguide in area $-0.5\mu$ m to $+0.5\mu$m

Considering in propagation and transversal direction.

Shifting

The rib waveguide is not $360^{o}$ symmetrical.