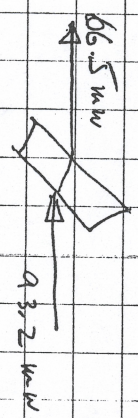


Beam splitter



Power @ 1	58.5 mW	34 mW
Power @ 2	57.3 mW	
Power @ 3	< 0.5 μW	0.4 μW

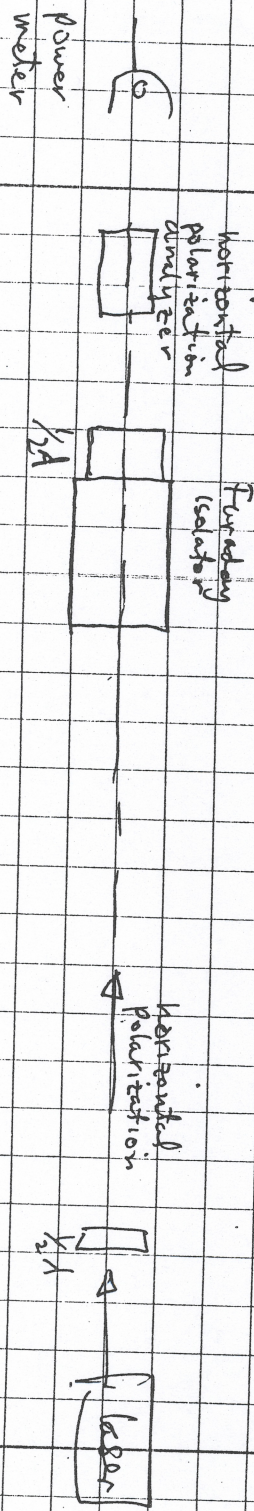
Transmission $T = \frac{57.3}{58.5} = 98\%$

Extinction ratio $E = \frac{0.5 \mu W}{57.3 mW} = 9 \times 10^{-5}$

Reflectivity of BS $\frac{93.2 - 66.5}{93.2} = 29\%$

$$R = \frac{0.4 \mu W}{34 mW \times 0.29} = 4 \times 10^{-5}$$

2. Alignment of output $\frac{1}{2}\lambda$ plate.



1. The polarization of the input laser was set horizontal by moving the power through the Faraday isolator (by rotating the laser polarization) with a $\frac{1}{2}\lambda$ plate.

2. a Brewster angle polarizer (analyzer was set horizontal by marking the horizontal laser power through the analyzer (by rotating the analyzer))

3. The horizontal analyzer was placed at the ~~output~~ output of the Faraday isolator. The output $\frac{1}{2}\lambda$ plate was rotated to maximize the power through the horizontal analyzer.