THEORETICAL DESIGN OF HYPERSECANT
SOLITON BASED DEMUX

CHINMOY MUKHERJEE\textsuperscript{1}* AND ABHIJIT SINHA\textsuperscript{2}

For the design of a communication circuit, we need to propose a high speed and low dispersion model. But we can design de MUX circuit using soliton-based logic gates. A deMUX is a design where single channel can be connected with multi-channel. We analyses the deMUX using solition pulse as a signal and the control line as a trigger pulse. The input pulse is a hypersecant pulse like $f(z,t) = E_0 \sec(h\sigma T)e^{-iz}$. This pulse superposed with trigger pulse under different phase condition.