

LIST OF NOTATIONS

P_r	Probability
ρ	Traffic Load
$A_{k,j}$	Number of Packets Arrivals
i	Input Fiber
j	Output Fiber
λ_i	Input Wavelength
λ_j	Output Wavelength
k	Number of Wavelengths
c	Speed of Light
e	Electron Charge
h	Planck's Constant
k	Boltzmann's Constant
P_s	Power of Light Source
P_r	Received Power
l	Length of the Code
w	Weight of the Code
N	Size of the Network
T_b	Bit Duration
T_c	Chip Duration
l_{FBG}	Length of Fiber Bragg Grating
R_b	Bit Rate
E_b	Bit Energy
$\Pi(t)$	Rectangular Function
B_n	Noise Bandwidth
n	Refraction Index

g	Gain of the Photomultiplier
\bar{g}	Mean Gain
$\overline{g^2}$	Mean Squared Gain
$(\bar{g})^2$	Squared Mean
F	Noise Factor
η	Detector Quantum Efficiency
$i(t)$	Shot Noise
$m(t)$	Modulating Signal
P_{so}	Output Signal Power
P_{no}	Output Noise Power
I_{dc}	Dark Current
N_{oc}	Thermal Noise