

1 THE LIST OF VARIABLES AND SYMBOLS

Table 1.1: Table of variables and Symbols

Variables and Symbols	Explanation
k	length of total message
p	puncture rate
\mathbf{s}	the seeds
H	hash function
RNG	random number generator
\mathbf{m}	input bit
v	seed bits
c	bits per symbol
q	symbol number in a sub-block
\mathbf{X}	output symbols of the mapper
B	beam width of approximate ML decoder
N_s	the total symbol number sent
\mathbf{Y}	observed symbols
\mathbf{h}	coefficients of the channel impulse
w_n	the white noise
L	length of the channel
R	code rate
\overline{M}	memory length of cc
N filter length of LE-MMSE equ	