

1. RSC code $21/37 = [10001/11111]$
2. Trellis depth, $N = 32$

Table 1: codewords with parity bit sequence weight $w_H(\mathbf{h}) = 2$

$w_H(\mathbf{b})$	$a(x)$	$b(x)$	$h(x)$
5	1	$1 + x + x^2 + x^3 + x^4$	$1 + x^4$
8	$1 + x^4$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^8$	$1 + x^8$
11	$1 + x^4 + x^8$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^9 + x^{10} + x^{11} + x^{12}$	$1 + x^{12}$
14	$1 + x^4 + x^8 + x^{12}$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^9 + x^{10} + x^{11} + x^{13} + x^{14} + x^{15} + x^{16}$	$1 + x^{16}$
17	$1 + x^4 + x^8 + x^{12} + x^{16}$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^9 + x^{10} + x^{11} + x^{13} + x^{14} + x^{15} + x^{17} + x^{18} + x^{19} + x^{20}$	$1 + x^{20}$
20	$1 + x^4 + x^8 + x^{12} + x^{16} + x^{20}$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^9 + x^{10} + x^{11} + x^{13} + x^{14} + x^{15} + x^{17} + x^{18} + x^{19} + x^{21} + x^{22} + x^{23} + x^{24}$	$1 + x^{24}$
23	$1 + x^4 + x^8 + x^{12} + x^{16} + x^{20} + x^{24}$	$1 + x + x^2 + x^3 + x^5 + x^6 + x^7 + x^9 + x^{10} + x^{11} + x^{13} + x^{14} + x^{15} + x^{17} + x^{18} + x^{19} + x^{21} + x^{22} + x^{23} + x^{25} + x^{26} + x^{27} + x^{28}$	$1 + x^{28}$

Table 2: codewords with parity bit sequence weight $w_H(\mathbf{h}) = 4$

$w_H(\mathbf{b})$	$a(x)$	$b(x)$	$h(x)$
2	$1+x$	$1+x+x^5$	$1+x+x^4+x^5$
4	$1+x^2$	$1+x+x^5+x^6$	$1+x^2+x^4+x^6$
	$1+x+x^4+x^5$	$1+x^4+x^5+x^9$	$1+x+x^8+x^9$
5	$1+x^4+x^5$	$1+x+x^2+x^3+x^9$	$1+x^5+x^8+x^9$
	$1+x^3+x^4$	$1+x+x^2+x^4+x^8$	$1+x^3+x^7+x^8$
	$1+x^2+x^4$	$1+x+x^4+x^7+x^8$	$1+x^2+x^6+x^8$
	$1+x+x^5$	$1+x^6+x^7+x^8+x^9$	$1+x+x^4+x^9$
	$1+x+x^4$	$1+x^4+x^6+x^7+x^8$	$1+x+x^5+x^8$
6	$1+x^3$	$1+x+x^2+x^3+x^5+x^6+x^7$	$1+x^3+x^4+x^7$
	$1+x^2+x^4+x^6$	$1+x+x^4+x^6+x^9+x^{10}$	$1+x^2+x^8+x^{10}$
	$1+x+x^4+x^5+x^8+x^9$	$1+x^4+x^5+x^8+x^9+x^{13}$	$1+x+x^{12}+x^{13}$

Table 3: codewords arranged according to $w_H(\mathbf{c})$

$w_H(\mathbf{c})$	$a(x)$	$b(x)$	$h(x)$
6	$1+x$	$1+x^5$	$1+x+x^4+x^5$
7	1	$1+x+x^2+x^3+x^4$	$1+x^4$
8	$1+x^2$	$1+x+x^5+x^6$	$1+x^2+x^4+x^6$
	$1+x+x^4+x^5$	$1+x^4+x^5+x^9$	$1+x+x^8+x^9$
	$1+x+x^5+x^6$	$1+x^{10}$	$1+x+x^4+x^6+x^9+x^{10}$
9	$1+x^4+x^5$	$1+x+x^2+x^3+x^9$	$1+x^5+x^8+x^9$
	$1+x^3+x^4$	$1+x+x^2+x^4+x^8$	$1+x^3+x^7+x^8$
	$1+x^2+x^4$	$1+x+x^4+x^7+x^8$	$1+x^2+x^6+x^8$
	$1+x+x^5$	$1+x^6+x^7+x^8+x^9$	$1+x+x^4+x^9$
	$1+x+x^4$	$1+x^4+x^6+x^7+x^8$	$1+x+x^5+x^8$