

# Table and expressions for Increment Decoder

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Z	Y	X	W	D	C	B	A
0	0	0	0	0	0	0	1
0	0	0	1	0	0	1	0
0	0	1	0	0	0	1	1
0	0	1	1	0	1	0	0
0	1	0	0	0	1	0	1
0	1	0	1	0	1	1	0
0	1	1	0	0	1	1	1
0	1	1	1	1	0	0	0
1	0	0	0	1	0	0	1
1	0	0	1	0	0	0	0

$$D = (Z + Y)(Y' + X)(X + W')(X' + W)(Z' + X')$$

$$C = Z'(Z + Y + X)(Y' + X' + W)(X' + Y + W)$$

$$B = (X' + W')(X + W + Z')$$

$$A = (Z' + Y')(Z' + X')W'$$