

# 4b Encoding

Single bit changes

Gray Code

Johnson Code

	<u>b[3:0]</u>	<u>g[3:0]</u>	
	0 0 0 0	0 0 0 0	
	0 0 0 1	0 0 0 1	
	0 0 1 0	0 0 1 1	
	0 0 1 1	0 0 1 0	
	0 1 0 0	0 1 1 0	
	0 1 0 1	0 1 1 1	
	0 1 1 0	0 1 0 1	
Binary Code →	0 1 1 1	0 1 0 0	← Gray Code
	1 0 0 0	1 1 0 0	
	1 0 0 1	1 1 0 1	
	1 0 1 0	1 1 1 1	
	1 0 1 1	1 1 1 0	
	1 1 0 0	1 0 1 0	
	1 1 0 1	1 0 1 1	
	1 1 1 0	1 0 0 1	
	1 1 1 1	1 0 0 0	

16 values

Decimal	4-bit Johnson codes
0	0000
1	0001
2	0011
3	0111
4	1111
5	1110
6	1100
7	1000

t. Johnson codes

8 values