

A check matrix for the $[8, 4]$ Gamma code:

$$\begin{bmatrix} 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 1 & 1 & 0 & 0 \\ 1 & 0 & 0 & 1 & 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 \end{bmatrix}$$

An associated syndrome dictionary:

syndrome transpose	coset leader
0000	000 000 00
0001	000 000 01
0010	000 000 10
0011	<i>000 000 11</i>
0100	000 001 00
0101	000 010 00
0110	000 100 00
0111	<i>000 100 01</i>
1000	001 000 00
1001	010 000 00
1010	100 000 00
1011	<i>010 000 10</i>
1100	<i>001 001 00</i>
1101	<i>001 010 00</i>
1110	<i>001 100 00</i>
1111	<i>010 100 00</i>

Here italics indicate that there would have been other valid choices of coset leader. The coset leaders not in italics are unique in their cosets.