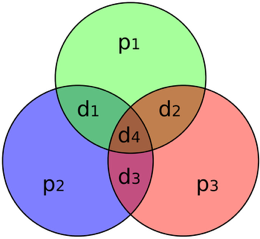
Hamming Code

Figure   
Hamming (7,4)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Bit Position*** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| *Data Bit* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Bits (k) () | Parity Bits (m) () | Hamming Code Bits (n) () | Parity | |
|  |  |  | Odd () | Even () |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Bit Position* | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| ***Hamming code bits*** *Encoded data bits* | | ***p1*** | ***p2*** | ***d1*** | ***p4*** | ***d2*** | ***d3*** | ***d4*** | ***p8*** | ***d5*** | ***d6*** | ***d7*** | ***d8*** | ***d9*** | ***d10*** | ***d11*** | ***p16*** | ***d12*** | ***d13*** | ***d14*** | ***d15*** |
| *Parity bit coverage* | ***p1*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p2*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p4*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p8*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p16*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Hamming CodA diagram of different colors

AI-generated content may be incorrect.e

Figure 2  
Hamming (7,4)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Bit Position*** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| *Data Bit* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Bits (k) () | Parity Bits (m) () | Hamming Code Bits (n) () | Parity | |
|  |  |  | Odd () | Even () |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Bit Position* | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| ***Hamming code bits*** *Encoded data bits* | | ***p1*** | ***p2*** | ***d1*** | ***p4*** | ***d2*** | ***d3*** | ***d4*** | ***p8*** | ***d5*** | ***d6*** | ***d7*** | ***d8*** | ***d9*** | ***d10*** | ***d11*** | ***p16*** | ***d12*** | ***d13*** | ***d14*** | ***d15*** |
| *Parity bit coverage* | ***p1*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p2*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p4*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p8*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***p16*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |