|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bit position** | **13** | **12** | **11** | **10** | **9** | **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** |
| **Position Number** | **1101** | **1100** | **1011** | **1010** | **1001** | **1000** | **0111** | **0110** | **0101** | **0100** | **0011** | **0010** | **0001** |
| **Data bit** | **D9** | **D8** | **D7** | **D6** | **D5** |  | **D4** | **D3** | **D2** |  | **D1** |  |  |
| **Check bit** |  |  |  |  |  | **C8** |  |  |  | **C4** |  | **C2** | **C1** |
| **Word Stores as** | **1** | **1** | **1** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **1** | **0** | **0** |
| **Word fetched as** | **1** | **1** | **0** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **1** | **0** | **0** |
| **Position number** | **1101** | **1100** | **1011** | **1010** | **1001** | **1000** | **0111** | **0110** | **0101** | **0100** | **0011** | **0010** | **0001** |
| **Check Bit** |  |  |  |  |  | **0** |  |  |  | **0** |  | **1** | **1** |

C1 = D1 + D2 + D4 +D5 +D7 +D9 = 1 + 0 + 1 + 0 + 1 + 1 = 0

C2 = D1 + D3 + D4 + D6 + D7 = 1 + 1 + 1 + 0 + 1 = 0

C4 = D2 + D3 +D4 + D8 +D9 = 0 + 1 + 1 +1 + 1 = 0

C8 = D5 + D6 + D7 + D8 +D9 = 0 + 0 + 1 + 1 + 1 = 1

C1 = D1 + D2 + D4 +D5 +D7 + D9 = 1 + 0 + 1 + 0 + 0 + 1 = 1

C2 = D1 + D3 + D4 + D6 + D7 = 1 + 1 + 1 + 0 + 0 = 1

C4 = D2 + D3 +D4 + D8 + D9 = 0 + 1 + 1 + 1 + 1 = 0

C8 = D5 + D6 + D7 + D8 + D9 = 0 + 0 + 0 + 1 + 1 = 0  
  
 1 0 0 0  
 +  
 0 0 1 1  
   
 1 0 1 1

C8C4C2C1 = 1000 + 0011 = 1011 **( Errol at number 11 )**

**>>> ECC WRITE = 1000 ; ECC READ = 0011.**

**>>>> ERROR AT POSITION NUMBER 11. >> bit D7**