|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **A** | **B** | **C** | **D** | **Output** | **minterm** | **maxterm** |
| 0 | 0 | 0 | 0 | 0 |  | A+B+C+D |
| 0 | 0 | 0 | 1 | 1 | A’B’C’D |  |
| 0 | 0 | 1 | 0 | 0 |  | A+B+C’+D |
| 0 | 0 | 1 | 1 | 0 |  | A+B+C’+D’ |
| 0 | 1 | 0 | 0 | 1 | A’BC’D’ |  |
| 0 | 1 | 0 | 1 | 1 | A’BC’D |  |
| 0 | 1 | 1 | 0 | 1 | A’BCD’ |  |
| 0 | 1 | 1 | 1 | 0 |  | A+B’+C’+D’ |
| 1 | 0 | 0 | 0 | 0 |  | A’+B+C+D |
| 1 | 0 | 0 | 1 | 1 | AB’C’D |  |
| 1 | 0 | 1 | 0 | 0 |  | A’+B+C’+D |
| 1 | 0 | 1 | 1 | 1 | AB’CD |  |
| 1 | 1 | 0 | 0 | 0 |  | A’+B’+C+D |
| 1 | 1 | 0 | 1 | 0 |  | A’+B’+C+D’ |
| 1 | 1 | 1 | 0 | 1 | ABCD’ |  |
| 1 | 1 | 1 | 1 | 1 | ABCD |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

minterm F = ∑ (1 , 4 , 5 , 6 , 9 , 11 , 14 , 15)

= A’B’C’D+ A’BC’D’+ A’BC’D+ A’BCD’+ AB’C’D+ AB’CD+ ABCD’+ ABCD

maxterm F = π (0 , 2 , 3 , 7 , 8 , 10 , 12 , 13)

= (A+B+C+D) (A+B+C’+D) (A+B+C’+D’) (A+B’+C’+D’) (A’+B+C+D) (A’+B+C’+D) (A’+B’+C+D) (A’+B’+C+D’)