

| A | B | C | D |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 |

| E | I |
|---|---|
| 0 | 1 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 1 | 0 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 1 | 0 |
| 0 | 0 |
| 1 | 0 |
| 1 | 0 |
| 1 | 1 |

$$E = \bar{A}\bar{B}\bar{C}\bar{D} + ABCD$$

| E | cd | 00 | 01 | 11 | 10 |
|----|----|----|----|----|----|
| ab | 00 | 1 | 0 | 0 | 0 |
| | 01 | 0 | 0 | 0 | 0 |
| | 11 | 0 | 0 | 1 | 0 |
| | 10 | 0 | 0 | 0 | 0 |

RECEIVED
JAN 21 2025

| I | cd | 00 | 01 | 11 | 10 |
|----|----|----|----|----|----|
| ab | 00 | 0 | 0 | 0 | 0 |
| | 01 | 0 | 0 | 1 | 0 |
| | 11 | 0 | 1 | 1 | 1 |
| | 10 | 0 | 0 | 1 | 0 |

$$I = bcd + acd + abd + abc$$

RECEIVED
JAN 21 2025

I needs to be reversed, so I'll add a not gate to the end of that.

Signature: *[Signature]*
Witness:

Date: 1/21/24
Date:

Team Members: