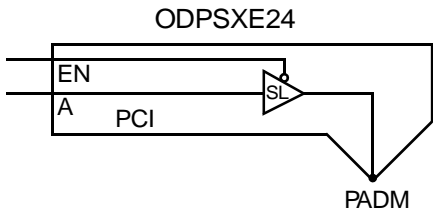


## AMI5HG 0.5 micron CMOS Gate Array

### Description

ODPSXE24 is a 33 MHz PCI, non-inverting, tristate buffer piece with active low enable and controlled slew rate output.

| Logic Symbol  | Truth Table   | Pin Loading |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
|---|---|-------------|---|------|---|---|---|---|---|---|---|---|---|---|--|------|---|--------|----|--------|------|---------|
|  | <table border="1"> <thead> <tr> <th>EN</th> <th>A</th> <th>PADM</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td>L</td> <td>H</td> <td>H</td> </tr> <tr> <td>H</td> <td>X</td> <td>Z</td> </tr> </tbody> </table> | EN          | A | PADM | L | L | L | L | H | H | H | X | Z | <table border="1"> <thead> <tr> <th></th> <th>Load</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>8.2 pF</td> </tr> <tr> <td>EN</td> <td>5.5 pF</td> </tr> <tr> <td>PADM</td> <td>4.93 pF</td> </tr> </tbody> </table> |  | Load | A | 8.2 pF | EN | 5.5 pF | PADM | 4.93 pF |
| EN  | A   | PADM        |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| L   | L   | L           |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| L   | H   | H           |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| H   | X   | Z           |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
|   | Load  |             |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| A   | 8.2 pF  |             |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| EN  | 5.5 pF  |             |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |
| PADM  | 4.93 pF   |             |   |      |   |   |   |   |   |   |   |   |   |   |  |      |   |        |    |        |      |         |

### HDL Syntax

Verilog ..... ODPSXE24 *inst\_name* (PADM, A, EN);

VHDL ..... *inst\_name*: ODPSXE24 port map (PADM, A, EN);

### Power Characteristics

| Parameter                                    | Value | Units   |
|--|-------|---------|
| Static $I_{DD}$ ( $T_J = 85^\circ\text{C}$ ) | TBD   | nA      |
| $EQL_{pd}$                                   | 229.2 | Eq-load |

See page 2-15 for power equation.

### Propagation Delays

Conditions:  $T_J = 25^\circ\text{C}$ ,  $V_{DD} = 5.0\text{V}$ , Typical Process

| From | Delay (ns) | To | Parameter | Capacitive Load (pF) |      |      |      |           |
|------|------------|----|-----------|----------------------|------|------|------|-----------|
|      |            |    |           | 15                   | 50   | 100  | 200  | 300 (max) |
| A    | PADM       |    | $t_{PLH}$ | 1.50                 | 1.92 | 2.41 | 3.33 | 4.28      |
|      |            |    | $t_{PHL}$ | 2.08                 | 2.70 | 3.62 | 5.52 | 7.49      |
| EN   | PADM       |    | $t_{HZ}$  | 3.47                 |      |      |      |           |
|      |            |    | $t_{LZ}$  | 2.49                 |      |      |      |           |
|      |            |    | $t_{ZH}$  | 1.41                 | 1.83 | 2.37 | 3.42 | 4.43      |
|      |            |    | $t_{ZL}$  | 1.46                 | 2.37 | 3.45 | 5.46 | 7.46      |

Delay will vary with input conditions. See page 2-17 for interconnect estimates.

Pad Logic