

M8216/M8226 4-BIT PARALLEL BIDIRECTIONAL BUS DRIVER

Military

- Not Recommended for New Designs
- Data Bus Buffer Driver for M8080A CPU
- Low Input Load Current: 0.25 mA Maximum
- High Output Drive Capability for Driving **System Data Bus**
- 16-Pin Dual-In-Line Package

- 3.40V Output High Voltage for Direct Interface to M8080A CPU
- 3-State Outputs
- Military Temperature Range: -55°C to + 125°C (Tc)
- ± 10% Power Supply Tolerance

The M8216/M8226 is a 4-bit directional bus driver/receiver. All inputs are low power TTL compatible. For driving MOS, the DO outputs provide a high 3.40V VOH, and for high capacitance terminated bus structures, the DB outputs provide a high 50 mA lor capability. A non-inverting (M8216) and an inverting (M8226) are available to meet a wide variety of applications for buffering in microcomputer systems.

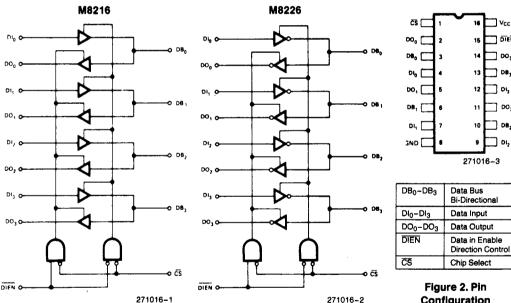


Figure 1. Logic Diagrams

Figure 2. Pin Configuration

Vcc DIEN ¬ ∞, 7 DB. 13 12 7 04

7 DB.

] DI,

11 DO,



A.C. CHARACTERISTICS $T_C = -55^{\circ}C$ to $+125^{\circ}C$, $V_{CC} = +5V \pm 10\%$

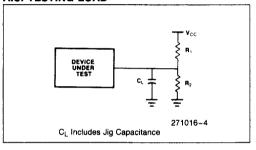
| Symbol | Parameter | Limits | | | Unit | Conditions |
|------------------|-------------------------------------------|--------|--------|------|------|-------------|
| | | Min | Typ(1) | Max | | Contantions |
| T _{PD1} | Input to Output Delay DO Outputs | | 15 | 25 | ns | (Note 2) |
| T _{PD2} | Input to Output Delay DB Outputs M8216 | | 19 | 33 | ns | (Note 2) |
| T _{PD2} | Input to Output Delay DB Outputs M8226 | | 16 | . 26 | ns | (Note 2) |
| TE | Output Enable Time M8216 | | 42 | 75 | ns | (Note 2) |
| TE | Output Enable Time M8226 | | 36 | 62 | ns | (Note 2) |
| T _D | Output Disable Time M8216 | | 16 | 40 | ns | (Note 2) |
| T _D | Output Disable Time M8226 | | 16 | 38 | ns | (Note 2) |

NOTES:

1. Typical values are for $T_C = 25^{\circ}C$, $V_{CC} = 5.0V$.

| Test | CL | R ₁ | R ₂ |
|----------------------------------|--------|----------------|----------------|
| T _{PD1} | 30 pF | 300Ω | 600Ω |
| T _{PD2} | 300 pF | 90Ω | 180Ω |
| T _E , (DO, ENABLE↑) | 30 pF | 10 KΩ | 1 ΚΩ |
| T _E , (DO, ENABLE ↓) | 30 pF | 300Ω | 600Ω |
| T _E , (DB, ENABLE ↑) | 300 pF | 10 ΚΩ | 1 ΚΩ |
| T _E , (DB, ENABLE ↓) | 300 pF | 90Ω | 180Ω |
| T _D , (DO, DISABLE↑) | 5 pF | 300Ω | 600Ω |
| T _D , (DO, DISABLE ↓) | 5 pF | 10 ΚΩ | 1 ΚΩ |
| T _D , (DB, DISABLE ↑) | 5 pF | 90 KΩ | 180Ω |
| T _D , (DB, DISABLE↓) | 5 pF | 10 KΩ | 1 ΚΩ |

A.C. TESTING LOAD



WAVEFORMS

