

# Manchester Encoder

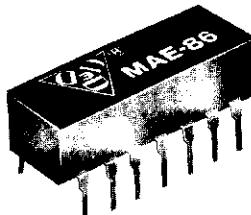
## SERIES: MAE-86

14 pins DIP  
TTL Interfaced

data  
delay  
devices, inc.

### Features:

- TTL input & outputs.
- 14 pins DIP.
- Data rates to 30 MB/S.



### Application:

- Local Area Network (LAN) interfaces.
- Ethernet Bus interfaces.
- IEEE 802 LAN interfaces.
- Fiber optic data links.
- Multidrop Bus interfaces.

### Specifications:

- Operating temperature: 0° to 70°C.
- Temperature coefficient: 100 PPM/°C.
- Supply voltage  $V_{cc}$ : 5 Vdc  $\pm$  5%.
- Power dissipation: 300 mw max.
- $CLK_{IN}$  = 1  $\times$  operating data rates
- $CLK_{IN}$  duty cycle = 50%
- DC parameters: See TTL-Standard Schottky Logic Table on Page 6.

### Description:

An innovating design approach has been used in this Manchester Encoder to reduce the system clock frequency by  $\frac{1}{2}$ . The reduction in system clock eliminates many high frequency problems in PC board lay-out and cross-talk.

Most commercially available Manchester Encoders require an input clock frequency ( $CLK_{IN}$ ) of twice the operating data rates. In the MAE-86 Manchester Encoder the ( $CLK_{IN}$ ) input clock is equal to the operating data rates.

One single unit covers the complete range of operating data rate up to 25 MB/S. Its low profile, standard 14 pins DIP package and low power consumption makes it completely compatible with Schottky TTL circuitry.

