



## LM1596/LM1496 Balanced Modulator-Demodulator

### General Description

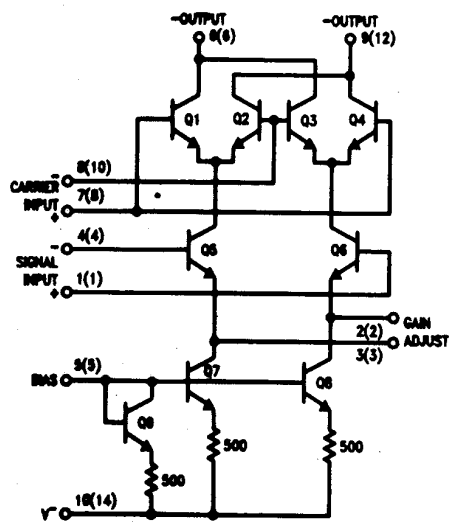
The LM1596/LM1496 are doubled balanced modulator-demodulators which produce an output voltage proportional to the product of an input (signal) voltage and a switching (carrier) signal. Typical applications include suppressed carrier modulation, amplitude modulation, synchronous detection, FM or PM detection, broadband frequency doubling and chopping.

The LM1596 is specified for operation over the  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  military temperature range. The LM1496 is specified for operation over the  $0^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  temperature range.

### Features

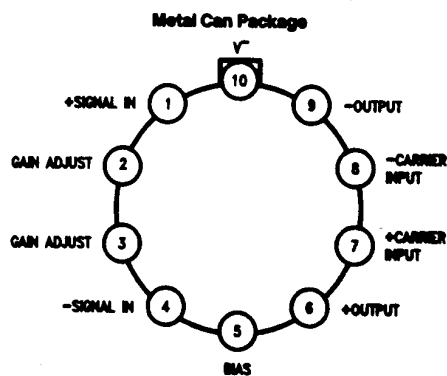
- Excellent carrier suppression  
65 dB typical at 0.5 MHz  
50 dB typical at 10 MHz
- Adjustable gain and signal handling
- Fully balanced inputs and outputs
- Low offset and drift
- Wide frequency response up to 100 MHz

### Schematic and Connection Diagrams



TL/H/7887-1

Numbers in parentheses show DIP connections.

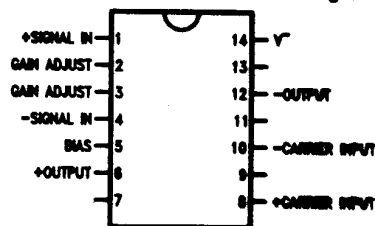


TL/H/7887-2

#### Top View

Note: Pin 10 is connected electrically to the case through the device substrate.  
Order Number LM1496H or LM1596H  
See NS Package Number H00C

#### Dual-In-Line and Small Outline Packages



TL/H/7887-3

Order Number LM1496N or LM1596N  
See NS Package Number M14A or N14A

LM1596/LM1496