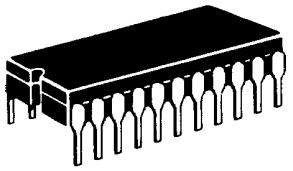
MOTOROLA

MC145422
MC145426

Advance Information

Universal Digital-Loop Transceivers (UDLT)



L SUFFIX
CERAMIC
CASE 736

The MC145422 and MC145426 UDLTs are high-speed data transceivers that provide 80 kilobits per second full duplex data communication over 26 AWG and larger twisted pair cable up to two kilometers in distance. Intended primarily for use in digital subscriber voice/data telephone systems, these devices can also be used in remote data acquisition and control systems. These devices utilize a 256 kilobaud modified differential phase shift keying burst modulation technique for transmission to minimize RFI/EMI and crosstalk. Simultaneous power distribution and duplex data communication can be obtained using a single twisted pair wire.

These devices are designed for compatibility with existing, as well as evolving, telephone switching hardware and software architectures.

The UDLT chip-set consists of the MC145422 master UDLT for use at the telephone switch linecard and the MC145426 slave UDLT for use at the remote digital telset and/or data terminal.

The devices employ CMOS technology in order to take advantage of its reliable low-power operation and proven capability for complex analog/digital LSI functions.

- Provides Full Duplex Synchronous 64 Kilobits-Per-Second Voice/Data Channel and Two Eight Kilobits-Per-Second Signaling Data Channels Over One 26 AWG Wire Pair Up to Two Kilometers
- Compatible with Existing and Evolving Telephone Switch Architectures and Call Signaling Schemes
- Automatic Detection Threshold Adjustment for Optimum Performance Over Varying Signal Attenuations
- Protocol Independent
- Single Five Volt Power Supply
- 22 Pin Package

MC145422 Master UDLT

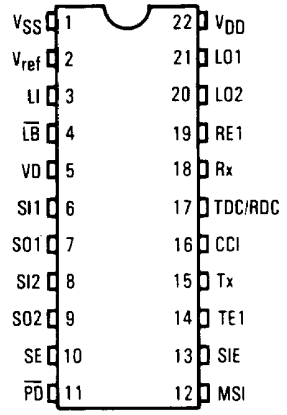
- Pin Controlled Power-Down and Loop-Back Features
- Signaling and Control I/O Capable of Sharing Common Bus Wiring with Other UDLTs
- Variable Data Clock—64 kHz to 2.56 MHz
- Pin Controlled Insertion/Extraction of Eight Kilobits/Second Channel into LSB of 64 Kilobits/Second Channel for Simultaneous Routing of Voice and Data Through PCM Voice Path of Telephone Switch

MC145426 Slave UDLT

- Compatible with MC145500 Series PCM Mono-Circuits
- Pin Controlled Loop-Back Feature
- Automatic Power-Up/Down Feature
- On-Chip Data Clock Recovery and Generation
- Pin Controlled 500 Hz D3 or CCITT Format PCM Tone Generator for Audible Feedback Applications

PIN ASSIGNMENTS

MC145422



MC145426