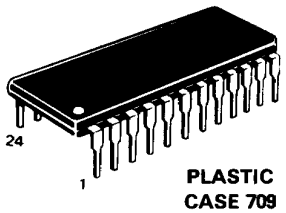
MOTOROLA

**MC145421**
**MC145425**

*Advance Information*

# ISDN Universal Digital Loop Transceivers II (UDLT II)



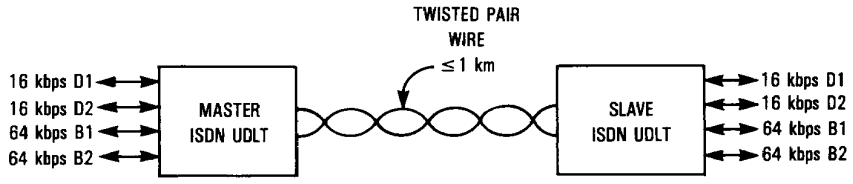

PLASTIC
CASE 709

The MC145421 and MC145425 UDLTs are high-speed data transceivers capable of providing 160 kbps full duplex data communication over 26 awg and larger twisted-pair cable up to 1 km in length. These devices are primarily used in digital subscriber voice and data telephone systems. In addition, the devices meet and exceed the CCITTs recommendations for data transfer rates of ISDNs on a single twisted pair. The devices utilize a 512 kilobaud MDPSK burst modulation technique to supply the 160 kbps full duplex data transfer rates. The 160 kbps rate is provided through four channels. There are two B channels, which are 64 kbps each. In addition, there are two D channels which are 16 kbps each.

The MC145421 and MC145425 UDLTs are designed for upward compatibility with the existing MC145422 and MC145426 80 kbps UDLTs, as well as compatibility with existing and evolving telephone switching hardware and software architectures.

The MC145421 (MASTER) UDLT is designed for use at the telephone switch line card while the MC145425 (SLAVE) UDLT is designed for use at the remote digital telset or data terminal.

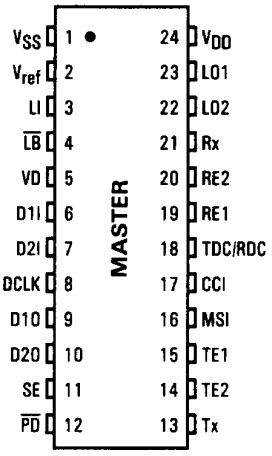
- Employs CMOS Technology, in Order to Take Advantage of Its Proven Capability for Complex Analog and Digital LSI Functions.
- Provides Synchronous Full Duplex 160 kbps Voice and Data Communication in a 2B + 2D Format For ISDN Compatibility.
- Provides the CCITT's Basic Access Data Transfer Rate (2B + D) for ISDNs on a Single Twisted Pair up to 1 km.
- Compatible with Existing and Evolving Telephone Switch Architectures and Call Signalling Schemes.
- Protocol Independent
- Single +5 V Power Supply




160 kbps FULL-DUPLEX
DATA TRANSMISSION

**PIN ASSIGNMENTS**

**MC145421**




**MC145425**