

Chapter 1

Introduction

GENERAL

The Motorola DDS/MR64 is a digital data unit that allows you to connect your computer or other DTE unit directly to the digital network without any other network access device. The unit pumps data at up to 64 kbps in point-to-point or multipoint applications. It combines the functions of a data service unit and a channel service unit (DSU/CSU) into a single compact unit.

In addition to offering Digital Data Service (DDS) operation, the DDS/MR64 can operate as a short haul modem providing full-duplex, serial data communications with either synchronous data from 2.4 to 64 kbps or asynchronous data from 2.4 to 19.2 kbps over a privately owned 4-wire, unloaded, twisted-pair cable system.

The DDS/MR64 is also capable of running asynchronous DTE rates of 38.4 kbps or 57.6 kbps over 56 kbps or 64 kbps lines, synchronous DTE rates of 19.2 kbps or 9600 bps over 56 kbps or 64 kbps lines, and a synchronous or asynchronous DTE rate of 1200 bps over a 2400 bps line.

PHYSICAL DESCRIPTION

The DDS/MR64 is a standalone desktop unit. The front panel (Figure 1-1) contains six Light Emitting Diodes (LED's), three pushbuttons, and an LCD screen. The rear panel (Figure 1-2) contains a power cord, power switch, fuse, DTE connector, and a standard 8-pin DDS jack. The DTE interface connects to the Data Terminal Equipment and the 8-pin jack connects to the DDS line. Internally the unit contains one printed circuit board.

FUNCTIONAL

The DDS/MR64 processes serial synchronous or asynchronous digital data from the DTE for transmission over the DDS network or other limited distance 4-wire, unloaded, twisted-pair cable systems. The receiver contains an automatic equalizer which compensates for the distortion and attenuation caused by the length of the line without any adjustments by the user.

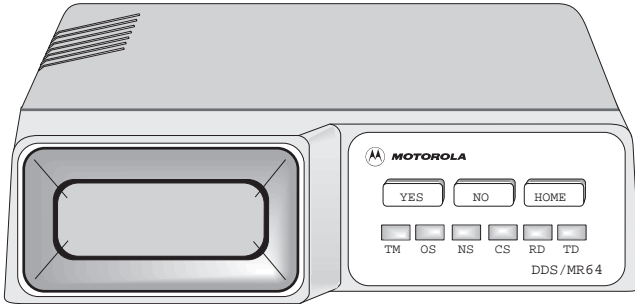


Figure 1-1
Front Panel

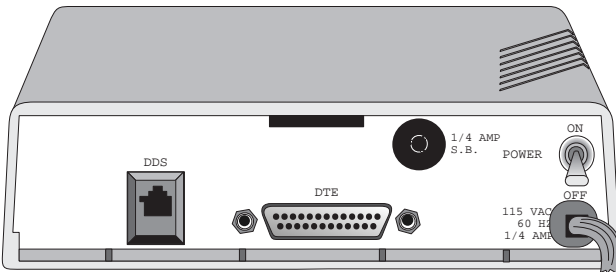


Figure 1-2
Rear Panel

FEATURES

- Data rates from 2.4 kbps to 64 kbps synchronous and 2.4 kbps to 19.2 kbps asynchronous
- Direct connection to the DDS network
- Point-to-point or multipoint transmission
- Bipolar return to zero signaling
- LED indication
- Short haul modem capability up to 150,000 feet providing full-duplex operation on 4-wire private telephone lines.
- Full feature diagnostics
- Liquid Crystal Display (LCD) allow the operator to review or change settings
- Front panel pushbutton configuration and operation
- Nonvolatile memory for configuration storage
- RS232 or CCITT V.35 DTE interface can be selected by switches on the circuit board
- Asynchronous 38.4 kbps or 57.6 kbps DTE rates over 56 kbps or 64 kbps DDS lines.
- Synchronous 19.2 kbps or 9600 bps over 56 kbps or 64 kbps lines.
- Synchronous or asynchronous 1200 bps over 2400 bps lines.

COMPATIBILITY

Compatible with the Motorola DDS/MR series of products with the exception of running the DDS/MR1 or the DDS/MR56 at 64 kbps.

Compatible with Bell 500 Series DSU and CSU equipment.

COMPLIANCE

Compliant with specifications listed in Bell publications 62310 and 41450.

