

# MSD-2

## 2-Port RS-530 Sharing Device

Standalone Chassis  
Options for 1U Rackmount  
Single or Dual Mount Units



### FEATURES / BENEFITS

- ✓ Interface - EIA RS-530, DB-25 Female Connectors
- ✓ Data Rates – Synch or Async to 2.048Mbps
- ✓ Transparent to Data
- ✓ Clocking: Input Port or Port 1 or Port 2 EXT Clock Pins 24,11
- ✓ Handshaking – RTS / CTS or Switch on Data, Option for selectable RTS Holdover via Dip Switch
- ✓ Anti-Streaming – Automatic or Manual for unattended Circuit Restoration
- ✓ Receive Data Broadcast to all Sub-channel Ports
- ✓ Individual Sub-channel Enable / Disable Switches
- ✓ 110/220VAC Switch Selectable
- ✓ Safety: meets new 62368-1
- ✓ Standalone Chassis or 1U Rackmount Options

### DESCRIPTION

The MSD-2 RS-530 provides the network manager with a cost-effective means of expanding existing, leased line polled networks without adding computer ports or communications links. With the MSD-2, two terminals can share the same port and communications link using the contention and control protocols normally resident in the host hardware and software. Once installed, system and network efficiency are increased through higher host processor utilization coupled with the significant decrease in idle time between host / terminal traffic sessions.

Ideal for either synchronous or asynchronous network environments, the MSD-2 is protocol transparent at data rates up to 2.048Mbps. Data arriving at the Master Port is continually broadcast to all Sub-channels. The user is presented with two modes of operation for terminal access. The first mode is the attached terminal device(s) that raises the RTS control signal receives CTS back and is automatically given control of the MSD channel until data transmission is complete. The second mode is the attached terminal device(s) that transition data from Mark to Hold is automatically given control of the MSD until data transmission is complete. This is commonly called the "OR" mode of operation. Clocking in both modes of operation is accomplished from the attached Modem. The unit also supports EXT clocking on sub-channel Ports A/B on pins 24,11 and these clocks may be the same rate or clocked separate rates. The MSD-2 may also be used in broadcast only applications.

The MSD-2 RS-530 features an optional RTS hold over circuit with selectable RTS hold over delay times via 4-position dip Switch. If delay is enabled, when RTS is dropped from the attached sub-channel A or B, the port retains control of the channel until the pre-set time expires. Then either sub-channel can access the master port by raising RTS.

The MSD-2 incorporate optional Anti-Streaming circuitry. If enabled, Anti-Streaming will automatically remove a defective terminal from service if the Data / Control criteria is present for the user predefined clock selection period.

Housed in a sturdy metal enclosure and equipped with a 110/220 VAC switch selectable linear power supply, the MSD-2 RS-530 will provide more than 100,000 hours of reliable service.

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# SPECIFICATIONS

## Application

Multiple sync/async terminal or DTE devices operating in a polled environment, to share one Modem.

## Capacity

Standalone: One Master Port Input Port and 2-Ports for attached RS-530 Sync/Async devices  
1U Rackmount: Houses two MSD-2 Units per 1U Chassis, each with its own internal linear power supply and each with IEC Power Inlet and each with its own 110/220VAC Power Switch

## Interface

Three EIA RS-530 via DB-25 female connectors

## Data Rates

Up to 2.048Mbps

## Data Format

Data transparent at all data rates

## Timing

External Master Port Input; from attached Modem  
EXT Timing Support via Port-A / B on pins 24, 11  
Port-A & Port-B EXT timing may be the same or different clock rates to allow independent clocking

## Handshaking

RTS / CTS  
OR-MODE (Switch on Data)

## Anti-Streaming

Automatic...Selectable time out intervals  
Disable.....Selectable via dip switch

## Terminal Service Modes

Rotational sequence for equal access  
Priority Mode Optional via Dip Switch

## Front Panel

Indicators: Power, CTS, DCD, RXD, TXD Channel Active  
Switches: Enable/Disable of each Sub-channel

## Power Source

100-120 to 200-220VAC @10%, 50/60Hz, 0.16/0.08A, external 110/220 volt select switch, IEC Power Inlet, (2) 5mm Fuses

## Power Draw

@120VAC 60Hz, 0.02 AMP, 1.9 Watts, 3.3VA

## Environmental

Operating Temperature: 50° to 160° F (10° to 60° C) Operational Alt.: 0 to 2000 Meters above sea level Operational Relative Humidity: 10% to 80%  
Non-Operational Temperature: -30 degC to 70 degC  
Non-Operational Alt.: 0 to 50,000 feet above sea level

## Dimensions 1U Rackmount Tray

MSD-2\_Dual-1U or MSD-2\_Single-1U Height ..... 1.75 inches (4.445 CM) Width ..... 17.00 inches (43.180 CM) Depth ..... 9.00 inches (22.860 CM)

## Dimensions Standalone Chassis

MSD-2  
Height ..... 2.53 inches (6.426 CM) Width ..... 8.10 inches (20.574 CM) Depth ..... 8.78 inches (22.301 CM)

## Weight

MSD-2 Standalone Chassis: 3 Pounds (1.36Kg) MSD-2\_Dual 1U Rackmount Chassis: 7 Pounds (3.175Kg) MSD-2\_Single 1U Rackmount Chassis: 3.5 Pounds (1.587Kg)

## MTBF

601,328 Hours  
Benign Ground, Controlled, Telcordia Issue 1

## Approvals

EMI Approvals  
FCC 47CFR, Part 15, Subpart B for conducted emissions from a Class A  
FCC 47CFR, Part 15, Subpart B for radiated emissions from a Class A

## Safety Approvals

Meets UL 62368-1

## Ordering Information

### 1U Rackmount Chassis – Two Units Per Tray

Ordering Part Number: 280000-B  
Model: MSD-2\_Dual-1U RS-530  
Description: MSD-2 RS-530 Dual 1U Rackmount Chassis

### 1U Rackmount Chassis – One Unit Per Tray

Ordering Part Number: 274000-B  
Model: MSD-2\_Single-1U RS-530  
Description: MSD-2 RS-530 Single 1U Rackmount Chassis

## Standalone Chassis

Ordering Part Number: 272000-B  
Model: MSD-2\_Standalone RS-530  
Description: MSD-2 RS-530 Standalone Chassis

## INCLUDED WITH EACH UNIT:

- 1) Operations Manual
- 2) U.S.A. Grounded Power Cord, Part # 713015
- 3) Optional Power Cords  
A) United Kingdom, Part # 713016  
B) Continental Europe, Part # 713017

## EAST COAST DATACOM, INC.

245 Gus Hipp Boulevard, STE 3 • Rockledge, FL 32955-4812 U.S.A.

TEL: (321) 637-9922

WEB SITE: [www.ecdata.com](http://www.ecdata.com)

FAX: (321) 637-9980