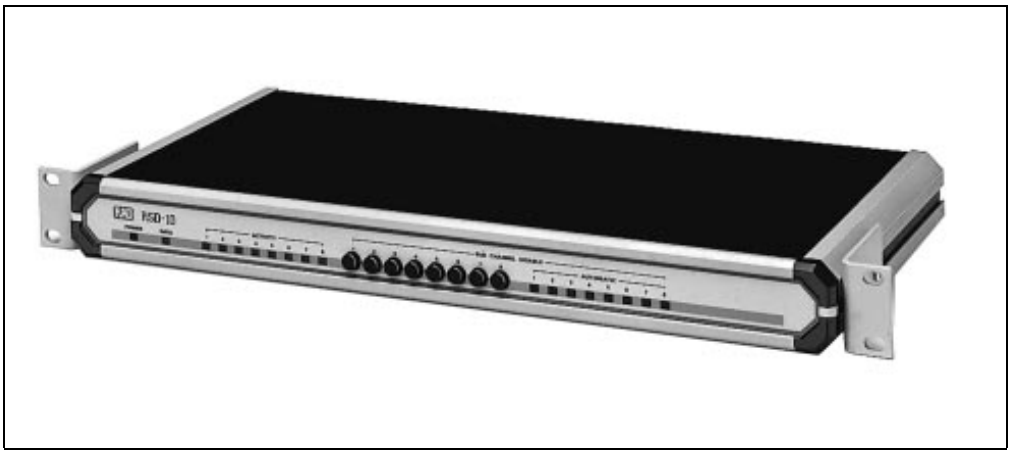
RSD-10

8-Channel Digital Sharing Device

FEATURES

- Operates with any combination of 8 DTEs or DCEs
- Synchronous or asynchronous up to 19.2 kbps
- RTS/DCD or data contention
- DCE/DTE switch for main and each sub-channel
- Automatic disabling of sub-channel in event of streaming
- Individual sub-channel manual disable switches
- Internal or external clocks
- 1U height for minimal rack space
- Cascadeable
- Easy to install and configure



DESCRIPTION

The RSD-10 Digital Sharing Device enables up to 8 modems or terminals to share a master modem, a multiplexer or a computer port in a multipoint environment. It operates at seven selectable data rates up to 19.2 kbps, synchronously or asynchronously.

Three clock modes are supported:
1) Internal
2) External from the main channel
3) External from DCE connected to sub-channel 1.

A built-in buffer overcomes clock differences between the modem clocks connected to the sub-channels and the RSD-10 main channel transmit clock.

An additional buffer can be switch-selected for equipment which *must* provide clock to multiple sub-channels. (Examples are D.D.S. in the U.S., any digital service in other countries, or modems that cannot be set to an external clock.)

Information is broadcasted by the main channel to all sub-channels in parallel. Sub-channels contend to transmit to the main channel by activating RTS/DCD, or by data transition (strap-selectable). If the RTS/DCD or data of a sub-channel is active, the sub-channel's transmit data and control signals are connected to the main channel. When RTS/DCD drops or data transmission ceases, the control circuitry switches to monitor other sub-channels.

A sub-channel is disconnected immediately after it drops RTS/DCD or transmits 16 idle bits.

To prevent blockage to other sub-channels in event of streaming, a sub-channel can be disabled by automatic circuitry if it remains active for longer than a preset time. The automatic disable resets whenever the sub-channel RTS/DCD drops, or 16 idle bits are transmitted (data contention). Front panel indication is provided for each sub-channel disabled by automatic circuitry. The sub-channel can be manually disabled from the front panel as an alternative.

Installation and configuration of the RSD-10 is simple. Minimal strapping adjustments enable easy installation and operation. All necessary crossover connections are performed internally, and only straight-through cables are used to connect the modems or terminals to the RSD-10. The RSD-10 is provided with special hardware for mounting in a 19" rack, occupying 1U in height.

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SPECIFICATIONS

Number of Sub-channels

Eight

Channel Configuration

Lowest priority: Sub-channel 1
Highest priority: Sub-channel 8

Sub-channel Selection

RTS/DCD or data contention (strap-selectable)

Sub-channel Deselection

RTS/DCD off or 16 bits of idle data (strap-selectable)

Sub-channel Disabling

Manual: Front panel switches
Automatic:
If sub-channel remains connected for more than a preset time:
1.7, 13.5 or 108 seconds

Transmit Clock Source

- External derived from main channel
- External derived from sub-channel 1

Data Rates

Asynchronous:
Up to 19.2 kbps
Synchronous:
Internal clock:
1.2, 2.4, 4.8, 7.2, 9.6, 14.4, 19.2 kbps
External clock:
Up to 19.2 kbps

Input and Output Interface

EIA RS-232-C/CCITT V.24, each DCE or DTE

Connectors

Nine D-type 25-pin, female

Controls

Eight manual sub-channel disable push-button switches; one per sub-channel

Indicators

Data: Displays data broadcasted from main channel to sub-channels
Activity: 8 LEDS: indicate which sub-channel has gained access to main channel
Disable: 8 LEDs: indicate if sub-channel has been disabled automatically
ON: RSD-10 power is on

Power

115/230 V, switchable (±10%); 47-63 Hz, 10 watts
-48 VDC (±10%)

Physical

Height:	4.4	cm / 1.7	in (IU)
Width:	43.1	cm / 17	in
Depth:	20.8	cm / 8.2	in
Weight:	2.0	kg / 4.4	lb

Environment

Temperature: 0-50°C /32-122°F
Humidity: Up to 90% non-condensing

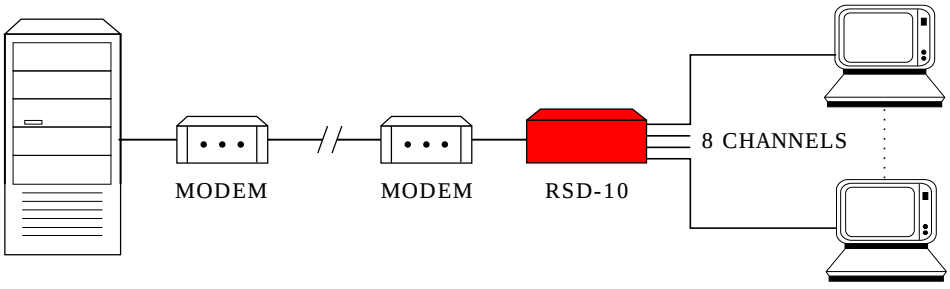
ORDERING

RSD-10/*
Digital Sharing Device

* Specify power supply:
48 for -48 VDC
(default is 115/230 VAC switchable)

Specifications are subject to change without prior notification

APPLICATION



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