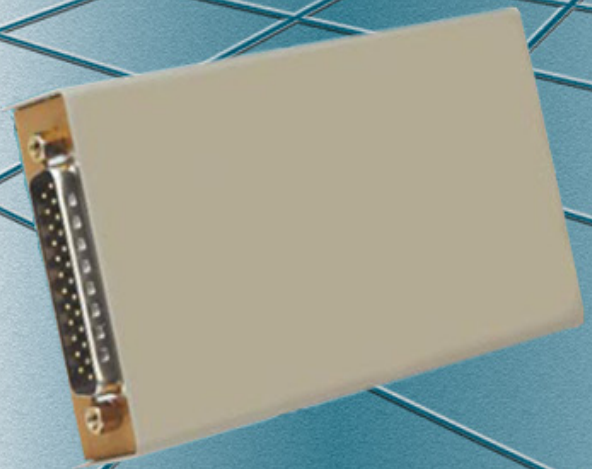


# TCB-V.24

## Tail Circuit Buffer



### FEATURES / BENEFITS

- ✓ Interface – RS-232, DB-25 Female Connectors
- ✓ Data Rates - Up to 128Kbps
- ✓ All Signal Cross Over Provided by TCB-V.24
- ✓ Supports Synchronous data Full or Half Duplex
- ✓ Options for 8, 16, 32 or 64 bit buffers
- ✓ Compact Simple Economical Design
- ✓ CE Approved, RoHS Compliant
- ✓ Sturdy Aluminum Enclosure

### DESCRIPTION

The TCB-V24 provides bidirectional buffering in back-to-back RS-232 modem cross-connection applications such as a Tail Circuit. The 64-bit circular buffers compensate for differences between modem clock rates and limits errors to occasional data losses when the buffer overruns.

Strapping options include the ability to utilize the modem's DCD control signal to re-center the buffer. With this option enabled the outgoing buffer will be centered when DCD turns on and RTS to the other will follow the state of DCD. Otherwise, the buffer will continue to recirculate without interruption.

Data rates up to 128Kbps are supported by the TCB-V24. However, due to cable and driver/receiver delays, the user should be aware that incoming TD at the modem will experience significant clock phase skew relative to the outgoing TXC at higher clock rates. In such cases, to avoid errors the user may need to modify the modem configuration to clock the TD signal on the opposite clock edge.

Synchronous operation in both full and half Duplex is supported. All RS-232 cabling crossover is accomplished in the TCB-V24 allowing straight thru cables. The TCB-V24 also supports Remote Loopback on Pin 21 of the RS-232 interface.

The TCB-V.24 utilizes state of the art digital CMOS technology to provide a feature filled product at a very affordable price. Our Field Programmable Gate Array (FPGA) design has allowed us to offer this product with a variety of user options.

The TCB-V.24 is housed in a sturdy metal enclosure and it's power is derived from the RS- 232 data interface. The unit draws only 8ma of power and can operate on as little as one control signal. Pin 9 on the RS-232 interface allows optional DC voltage at 5-9vdc input at 300ma.

The TCB-V.24 has a three year warranty and a 24 hour turnaround on warranty repairs.

# SPECIFICATIONS

## Application

Provides bidirectional buffering in back-to-back RS-232 modem cross-connection applications such as a Tail Circuit

## Capacity

Two Modem or Multiplexer(DCE) Interfaces

## Data Interface

RS-232 on DB-25 Female Connectors

## Data Format

Synchronous

Data Transparent at all Data Rates

## Buffer Type

64 bit Centered Ring Buffer, optional settings for 8, 16 and 32 bit

## Data Rates

Up to 128Kbps

## Power Source

Fully Line Powered from the RS-232 Data Interface  
Draws Less than 10ma

## Environmental

Operating Temperature.....32° to 122° F (0° to 50° C)  
Relative Humidity.....5 to 95% Non-Condensing  
Altitude.....0 to 10,000 feet

## Dimensions

Height ..... 0.50 inches (1.27 cm)  
Width ..... 1.75 inches (4.44 cm)  
Length ..... 3.90 inches (9.91 cm)

## Weight

1/2 pound (0.225 Kg)

## Warranty

Three Years, Return To Factory

## Regulatory Approvals

CE Approved, RoHS Compliant

## ORDERING INFORMATION

Part Number: 200001

Model: TCB-V.24

Description: RS-232 Tail Circuit Buffer

## INCLUDED WITH EACH UNIT:

1) Operations Manual

For further detailed technical information on this product, contact East Coast Datacom, Inc at:  
[support@ecdata.com](mailto:support@ecdata.com)

## Other East Coast Datacom, Inc. Products

Digital Sharing Devices  
Network Latency Simulators  
Interface Converters  
Modem Eliminators  
Serial Network Adapters  
Data Broadcast Units  
TDM Multiplexers  
Remote Secure Console Server  
Serial Line Driver

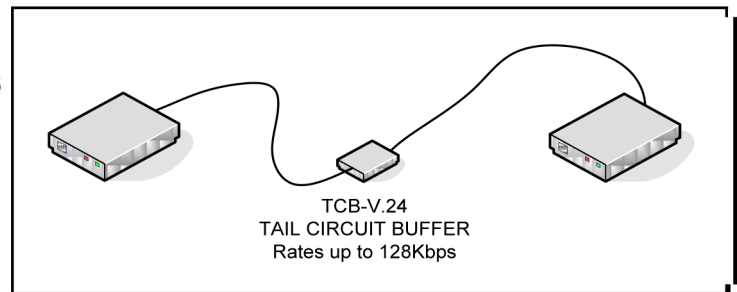


Figure 1 - TYPICAL APPLICATION

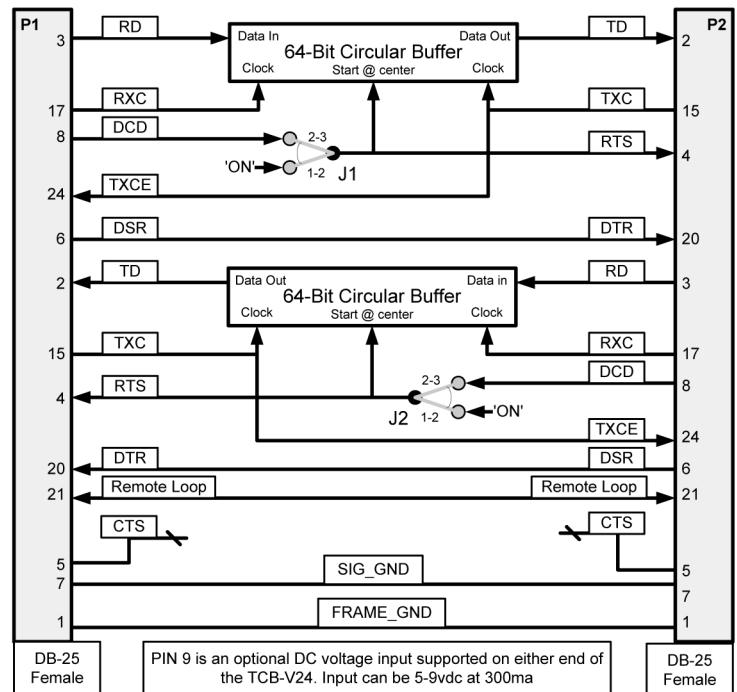


Figure 2- TCB-V.24 Block Diagram

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