

# UDC-SA KIV Adapter

## Interface and Rate Adapter



### FEATURES / BENEFITS

- ✓ Interface - RS-530 to RS-232, also capable of supporting other serial interfaces
- ✓ Data Rates - 1200bps Sync to 2400bps Async
- ✓ Serial Data Interface cards are Interchangeable
- ✓ Supports 8-bit with no parity, or 7-bit with odd parity
- ✓ Status LED's for each Serial Port and Signal
- ✓ 110/220VAC switch selectable or DC Power for -48VDC
- ✓ UL, CSA and CE Approved, RoHS
- ✓ Sturdy Aluminum Enclosure, Standalone or 1U Rackmount

### DESCRIPTION

The UDC-SA, KIV ADAPTER is an interface adapter designed to transmit one-way serial messages received from a synchronous RS-530 DCE, operating at 1200 bps, to an RS-232 asynchronous DTE at 2400 baud. The adapter is able to determine the beginning and end of a message by searching for selected patterns that frame a message. Because async data is character-oriented, and synchronous data is a continuous sequence of data bits, the device must also align incoming message characters with the outgoing async framing (start and stop) bits.

The incoming DCD interface signal controls whether any message data is passed. For a complete message to be transmitted the DCD signal must be asserted for the duration of the received message. If at any point the DCD signal drops, the outgoing transmit line will be put in an idle (mark) state.

Assuming DCD is asserted, the UDC-SA, KIV ADAPTER recognizes the start of a message as an occurrence of a triple ASCII pattern. When one of these selected patterns is recognized, the first of the three ASCII character is assembled in an async framed character (1 start bit, and one or more stop bits) and transmitted. With each subsequent 8 bits received, another async character is transmitted. This will continue until an end-of-message (ETX=03h) pattern is recognized in the byte-aligned received data stream. The ETX is transmitted as the last character in the message.

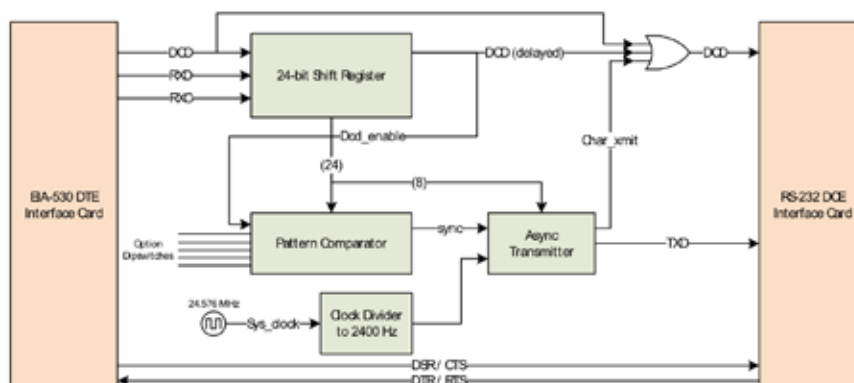
Because the synchronization at the start of a message is three consecutive ASCII characters, there will necessarily be a three-character buffer delay for all messages through the UDC-SA, KIV ADAPTER. To insure that the transmitted DCD is properly aligned with the end-of-message, DCD is also extended for three additional character periods.

User options include the ability to select which of the four available start of message character strings are enabled. Any combination of the four may be enabled through individual dipswitch settings. Another dipswitch selects whether the received data characters are 8-bit with no parity, or 7-bit with odd parity.

The UDC-SA is housed in a sturdy metal enclosure and operates on 110/220VAC.

The UDC-SA has a three year warranty and a 24 hour turnaround on warranty repairs.

UDC-SA KIV Adapter Simplified Block Diagram



# SPECIFICATIONS

## Application

Serial Interface adapter designed to transmit one-way serial messages received from a synchronous RS-530 DCE, operating at 1200 bps, to an RS-232 asynchronous DTE at 2400 baud

## Capacity

One DCE and one DTE

## Serial Data Interface

Primarily RS-530 and RS-232, also supports RS-422/449 Data Format  
Synchronous and Asynchronous

## Message Recognition

Selectable via Dip Switch, triple ASCII pattern

## Data Rates

1200bps Sync and 2400bps Async

## Indicators

POWER, TXD, RXD, TXC, RXC, RTS, CTS, DTR, DCD

## Surge Protection

Main power supply

## Power Source

AC Mains: 100-120 to 200-220VAC @10%, 50/60Hz, 0.16/0.08A, external 110/220 volt select switch, IEC Power Inlet, (2) 5mm Fuses  
DC Mains: DC Voltage, Input Range of -36 to -72vdc  
Current Draw at 48vdc: 75ma @ 3.6watts

## 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 ..... 1.75 inches (4.44 cm)  
Width ..... 9.00 inches (22.86 cm)  
Length ..... 9.0 inches (22.86 cm)

## Weight

Standalone, 4 Pounds (1.814Kg)  
1U Rackmount, 5 Pounds (2.267Kg)

## Warranty

Three Years, Return To Factory

## Regulatory Approvals

UL 60950-1:2003, CAN/CSA-C22.2 No. 60950-1:2003FCC Part 15, EN55022:2006, ICES-003, Class A

## ORDERING INFORMATION

Standalone Pt #: 190000, Model: UDC-SA\_KIV  
Description: UDC-SA KIV Serial Adapter

1U Rackmount Pt #: 225000, Model: UDC-IC\_KIV\_RM

Description: UDC-SA KIV\_RM Serial Adapter

Optional DC Supply

Part Number: 184018

Model: UDC-DC -36 to -72 DC Power Supply

Serial Interface Cards, **Two Cards Required** Per UDC.

PART NUMBER	SERIAL INPUT CARD
129029	RS-530 DTE I/M

PART NUMBER	SERIAL OUTPUT CARD
129014	RS-232 DCE I/M

PART NUMBER	OPTIONAL OUTPUT CARDS
129012	RS-422 DCE I/M
129011	RS-530 DCE I/M

## 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
  - C) Other: Specify Country on Purchase Order

## OPTIONAL ACCESSORIES

- 1) Spare Data Center Fuses
  - A) 160ma Fuse, Qty (2) Part # 714000
  - B) 80ma Fuse, Qty (2) Part # 714001

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

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