

## DESCRIPTION

The **UDC-IC 10 MHz Clock Converter** is intended to accept a standard 10 MHz sinusoidal reference signal, convert it to a typical 5V TTL-level output, and distribute this output to 4 separate devices over individual coax cables.

Each cable driver element is designed to launch a signal through a 50-ohm series termination. With a single high-impedance load at the end of the 50-ohm cable, the load will see the incident signal as a square wave. Reflections back to the source are absorbed for the most part by the series termination in combination with the low-impedance driver.

If the 10MHz Input Sine Wave is within tolerance, the front panel **CLK** and **DCD** LED Indicators will be green. If the 10MHz Input signal is out of tolerance the **CLK** and **DCD** LED indicators will **not be illuminated**.

The 10MHz receiver card is also equipped with a **low signal level detector circuit** that cuts off the converter to prevent compromised clock signals from reaching downstream equipment. This will normally happen when the input signal falls below the minimum +5 dBm level. The front panel indicator, **DCD** will be on when an input signal of sufficient level is seen, and off when the cut-off circuit senses a low level or absent input.

## VOLTAGE SELECTION

It is *very* important to check that the unit is set to the correct voltage setting for your application before applying AC power. Located on the rear of the unit you will find a rotary 110/220 VAC switch. Using a coin or small screwdriver, *gently* turn the switch to the appropriate power position as required for your installation (110 or 220 VAC).

## VOLTAGE SELECTION FUSES

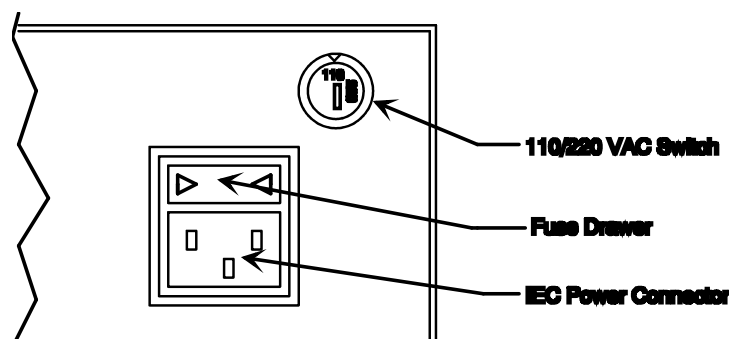
Located on the back or rear of the product you will find an IEC Power receptacle. This receptacle contains a fuse drawer. Two (2) fuses are located in this compartment. For 110 VAC +/- 10% operation the unit is equipped with slow blow 5 x 20mm 160ma Fuses, E.C.D. Part # 714000. For 220 VAC +/- 10% operation the unit is equipped with slow blow 5 x 20mm 80ma Fuses, E.C.D. Part # 714001. Spare fuses may be purchased by calling East Coast Datacom or by contacting the fuse manufacturer:

Little Fuse Part #'s are: 160ma = 218.160 and 80ma = 218.080

Shurter, Inc. Part #'s are: 160ma = 034.3109 and 80ma = 034.3106

## POWER CONNECTION

Before connecting the unit to an AC power source the top cover should be installed with the supplied #4-40 screws. AC power is supplied to the unit through a 2.3m (6.6 ft) cord terminated by a grounded 3-prong plug. Select an appropriate location accessible to and within four to five feet of an AC outlet. The AC Power source **MUST** be grounded or the units Warranty will be void.

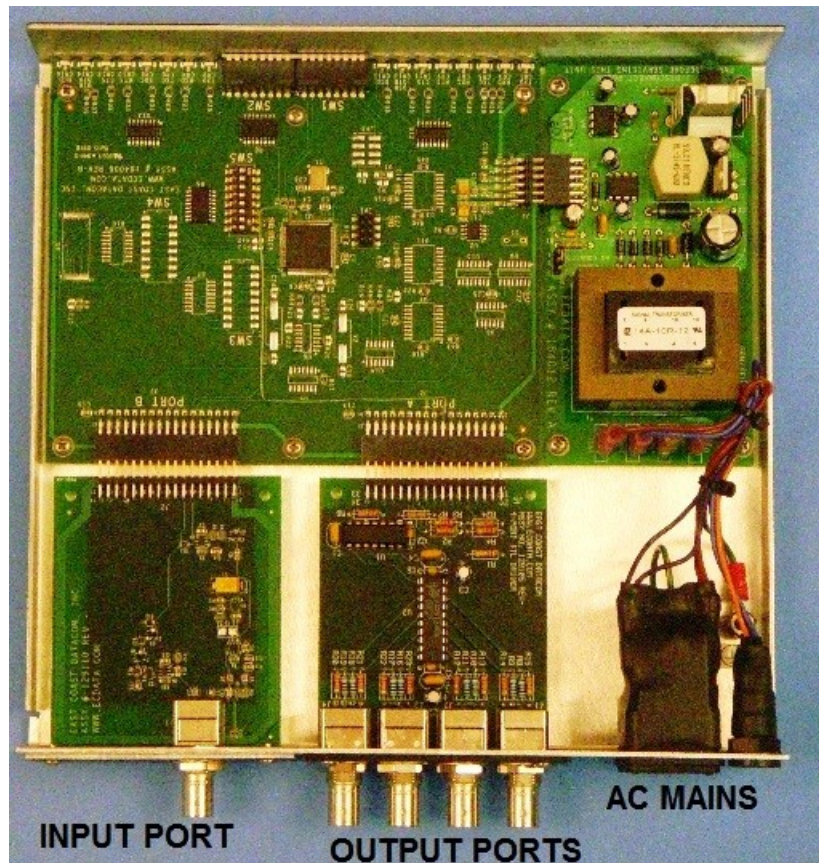


### INSTALLING THE 10 Mhz CLOCK CONVERTER

The UDC-IC 10Mhz Clock Converter is simple to use by connecting a 50-ohm Coax Cable to the **10Mhz Sine Wave INPUT** marked **PORT B** located on the rear panel. Then connect from one to four 50-ohm Coax Cables to the OUTPUT ports 1-4 located in PORT A.

The front panel LED marked PWR, CLK and DCD should be illuminated. If the CLK and the DCD LED's are not illuminated, the UDC-IC 10Mhz Clock Converter is not receiving a good 10Mhz Sine wave.

If you wish to disable the **low signal level detector circuit** that cuts off the converter to prevent compromised clock signals from reaching downstream equipment please contact East Coast Datacom.



## Specifications

### Application

Interconnection of two 10 Mhz systems for sine wave to square wave clock distribution

### Capacity

One Input, Four Outputs

### Rear Panel Data Interfaces

One: 10Mhz Sine Wave Input

Four: 10Mhz Square Wave Outputs

### Data Format

Data Transparent at all Data Rates

### Data Rates

10Mhz

### Front Panel Indicators

POWER and each data channel has DCD and CLK

### 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 (20.86 cm)

Length ..... 9.00 inches (22.86 cm)

*(1U Rack mount Optional Chassis)*

### Weight

3 pounds (1.36Kg)

### Warranty

Three Years, Return To Factory

### Regulatory Approvals

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

### ORDERING INFORMATION

Part Number: 204000

Model: UDC-IC Rackmount

Description: Rackmount UDC-IC Main Unit

Part Number: 129105

Model: TTL-4 I/M

Description: 4-PORT TTL 50-ohm Driver Interface Mod-  
ule

Part Number: 129109

Model: 10Mhz I/M

Description: 10Mhz Receiver/Buffer Interface Module

### INCLUDED WITH EACH UNIT:

- 1) Operations Manual
- 2) Grounded Power Cord
- 3) Jumper Wires

### 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

