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....32º to 122º F (0º to 50º 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

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 Module

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