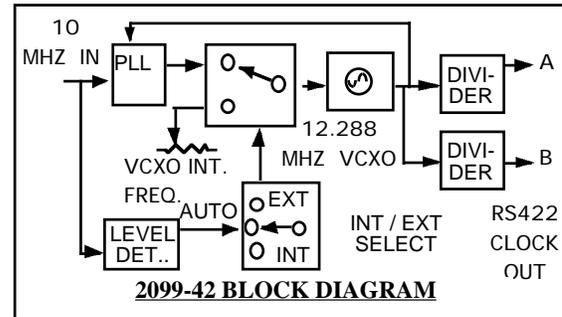
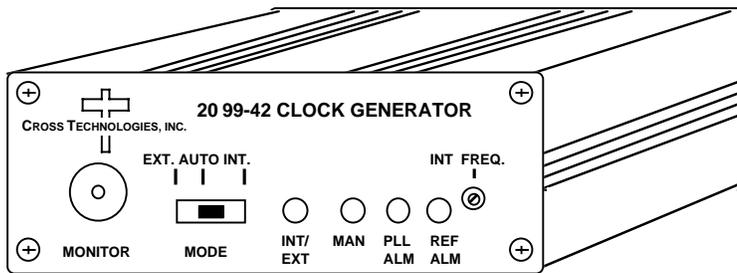


## 2099-42 Clock Generator

The Model 2099-42 Clock Generator provides two RS422 clock signals selectable from 256, 192, 128, 96 or 64 kHz locked to an external 10 MHz reference and generated from a 12.288 MHz VCXO. Level detection circuitry provides an alarm signal if the external 10 MHz signal is removed and automatic switching tunes the VCXO in the PLL to 12.28800 MHz until the 10 MHz clock is restored. LEDs indicate PLL and Level alarms, Manual operation, and selection of internal or external (lock to 10 MHz) control of the VCXO. A front panel switch manually selects internal or external (lock to 10 MHz) control of the VCXO. Diodes on the DC inputs allow operation from redundant power supplies. An open collector indicates Manual operation and relay contacts indicate a major alarm due to loss of PLL lock or 10 MHz reference. The unit is housed in an aluminum extrusion chassis and can be mounted on an 1 3/4", rack panel (Option -R). A 115 VAC wall power supply provides DC power to the 2099-42.



### 2099-42 CLOCK GENERATOR FRONT PANEL AND BLOCK DIAGRAM

#### 2099-42 Technical Specifications

##### **10 MHz Input Characteristics**

Input level 0.5 TO 1.5 V P-P (-4 to +6 dBm into 75 Ω)  
 Input Impedance 75 Ω or > 2 KΩ, selectable

##### **Clock Output Characteristics**

Level RS 422  
 Data Rate 64, 96, 128, 192, 256 kB/s selectable  
 Stability, Ext Ref. Same as reference  
 Stability, Int. Ref. ± 50 ppm  
 Jitter ≤ 1 degree

##### **Controls and Indicators**

Int/AUTO/Ext Switch Switches between internal and external (lock to 10 MHz) control of the VCXO or AUTO select  
 Int. Freq Adjusts frequency of internal VCXO when not locked to external 10 MHz  
 INT/EXT LED LED lights RED if VCXO controlled internally /Green if locked to external 10 MHz reference  
 MAN. LED LED lights RED when Int/AUTO/Ext Switch not in AUTO  
 PLL ALM LED LED lights RED when phase lock loop is unlocked if switch in Auto or Ext Ref  
 REF ALM LED LED lights RED when external reference is removed (< 0.2 V p-p)

##### **Other**

Size, Bench Top 4.7" wide X 1.75" high X 12.5" deep  
 Size, Rack Mount (-R) 19 inch standard chassis 1.75" high X 13.0" deep (Option -R)  
 Power +15VDC, 180 ma; -15VDC, 60ma; via 115 VAC wall power supply

\*+10°C to +40°C; Specifications subject to change without notice