

8020 GPS Master Clock

The 8020 is a GPS (Global Positioning System) Master Clock and Time Code Generator. The unit displays nine digits (Day of Year, Hour, Minute & Second) of UTC (Coordinated Universal Time) as received via the internal 8 channel GPS receiver. Simultaneously, the 8020 generates several types of time code (SMPTE/EBU, IRIG-B & RS232C/ASCII) and an extremely accurate 1PPS signal (+/-45ns). These outputs allow the 8020 to easily interface with new or existing computer, automation and clock systems.



Features

- SMPTE/EBU, IRIG-B, ASCII (RS-232C) Time Code Outputs • Cable Propagation Delay Correction
- Automatic Daylight Savings Time Correction • Loss of GPS Signal Output • Leap Second Correction
- Rugged Rack Mount Enclosure • 4-Hour Battery Back-Up • GPS “Lock” Indicator • 9-Digit .56” LED Display
- Indoor / Outdoor Antenna and 19' Cable • Optional DC Operation for Field and Ground Mobile Applications
- Time Advance/Retard Feature for Synchronization Purposes • Dual 1 PPS Outputs • Time Zone Offset

Included with the 8020 is an indoor/outdoor antenna which is connected to the unit via the provided 19' cable. If additional cable is required, “low-loss” cable, an “in-line” amplifier or, for extra long cable runs where more than one in-line amplifier is used, an “Antenna Power Supply” may be required. Consult the Quartzlock factory for more information.

Software is also supplied with the 8020 permitting the user to continuously update a computer’s DOS or Windows® clock to the UTC (Coordinated Universal Time) available on the ASCII output. Three other programs allow the user to 1) offset the Time Zone displayed and output by the 8020, 2) compensate for cable propagation delay and 3) advance or delay the time output for various synchronizing purposes.

Specifications

Electrical: 117 VAC, 50/60 Hz
Power: 15 Watts Maximum
Mechanical: 1.75" x 19" Rack Mount, 10" Deep
Displays: Nine Digits, Yellow LED, .56" High
Accuracy: 1 PPS @ <45ns
 IRIG-B @ 1ns
 SMPTE @ 0 Frames with Respect to Video Sync, or +/- 6 Frames if Free Running (due to Drop-Frame compensation)
Drift: 33mS/day (if no GPS signal)
Video Input: RS-170A Composite Video/Blackburst, 1 Vpp, 75.

Outputs: 1 PPS: TTL, 20% Duty Cycle
 1 PPS: TTL, 50% Duty Cycle
 IRIG-B: 3 Vpp (mark amplitude), 600.
 Output: drives 100 Slaves @ 4000'
 SMPTE: 600. Balanced or Unbalanced
 RS-232C: ASCII Date & Time @ 9600 Baud, 8 Data, No Parity, 1 Stop
GPS Receiver: Internal 8-Channel
Antenna: Indoor/Outdoor Dome with 19' Cable
Battery: 4-Hour Back-Up of GPS Receiver displays are blank)



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 Specification subject to change without notice
 This issue replaces all previous issues
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