

GPS BASED FREQUENCY STANDARD

The **ES-110** generates a stable source of 10 MHz and 1 PPS using GPS (Global Positioning System) satellites as a reference. The unit provides 10 MHz in both Sine Wave and Square Wave (5 volt logic) form. The 1 PPS output is a 50% duty, 5 volt logic signal, positive-edge coinciding with the UTC seconds change. An **ESE TC90™** Time Code output is also provided for driving remote time displays. Internal DIP switches allow configuration of the Time Code, Time Zone, antenna cable length compensation, and the satellite tracking mode.

If frequency distribution is needed, we offer the **ES-210** a Quad 1x6 1/5/10 MHz Distribution Amplifier. The **ES-210** provides four independent 1x6 Frequency DAs in a single rack-mount enclosure (see page 15).

Features

- Disciplined Temperature-Compensated Crystal Oscillator
- Two 10 MHz Outputs (1 - Sine & 1 - Square)
- Ruggedized Desk-Top Enclosure
- **ESE** Time Code Output
- Phase Coherent 1 PPS Output
- GPS Timing Reference With 1×10^{-8} Accuracy
- Several Options Available



Specifications

Outputs: 10 MHz Sine Wave, BNC, 4 VPP into 50 ohms
 10 MHz Square Wave, 5 VPP CMOS/TTL, BNC
 1 PPS, 50% Duty, 5 VPP CMOS/TTL, BNC
ESE Time Code™ (TC90), Drives 100 Slaves @ 4000', BNC

Accuracy: 1×10^{-8}
GPS Receiver: Internal 12-Channel
Antenna: Indoor/Outdoor with 16' Cable

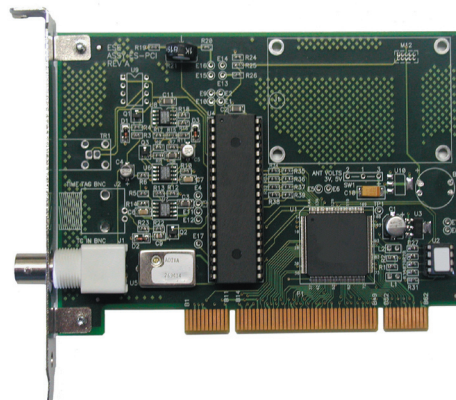
Antenna Input: L1, 1.57542 GHz, TNC
Enclosure: Desk-Top, Black Anodized Aluminum
Dimensions: 1.6" H x 10" W x 4.8" D
Electrical: 117 VAC, 50/60 Hz
Power: 5W maximum
Options: Ant, BBU, DC, J, P, UL

ESE & SMPTE PCI CARD

The **PC-471PCI** is a "PC" card designed to plug into any computer with a vacant PCI slot. The unit continuously reads Time Code (selectable **ESE** TC76, TC89, TC90 and SMPTE Formats L, E, S) and updates the time of the PC. The card may be installed in a 32-bit slot or a 64-bit slot. Windows® (95/98/ME/NT/2000/XP) compatible software is provided which synchronizes the PC clock. The software also allows selection of Time Code, Update Rate and Time Zone Offset.

Features

- Simple Installation & Hands-Off Operation
- Synchronizes PC To Master Clock System
- Reads SMPTE or **ESE** Time Code
- Windows® Software Included
- Time Zone Offset



Specifications

Signaling Protocol: 3.3V or 5 V
Time Code Input: ESE (TC76, TC89, TC90) or SMPTE (Formats L, E, S)
Drift Rate: +/- 1 Second per month
Card Size: 5.25" L x 3.75" H
OS Requirements: Windows® (95/98/ME/NT/2000/XP)
Connector: BNC

