

# Navi-Clock

## Indigenous GPS Time & Frequency Solution

### Features

- GPS-SBAS based time and frequency Receiver
- ♦ Time and Frequency outputs
  - ♦ 1PPS
  - ♦ 10 MHz Sine wave
  - ♦ 10 MHz Square wave
- High stable holdover performance
- Multiple interfaces
  - ♦ BNC connectors (1PPS, 10MHz)
  - ♦ TNC connector (Antenna)
  - ♦ RS-232 on DB-9 connector
- LED based indicator
- Form factor
  - ♦ Navi-Clock: 150mm x 66mm x 54.6mm
- ROHS compliant



Navi-Clock

### Specifications of Navi-Clock

#### GNSS Inputs

GNSS input : GPS with antenna,  
20 meter cable,  
TNC connector

#### Disciplined Timing Output

1PPS : 500msec width, <20ns rise  
time, BNC connector  
1PPS Accuracy : +/- 8nsec  
Voltage level : 0 to 3.3 V

#### Disciplined Frequency Output

10 MHz sine wave : 5V p-p, 50 ohm,  
BNC connector  
10 MHz square wave : 0 to 3.3V, 50 ohm,  
BNC connector  
Frequency stability : 1 PPB /  $1 \times 10^{-9}$   
(In GPS locking condition)  
: 5 PPB /  $5 \times 10^{-9}$   
(Without GPS)

#### Management

M&C Interface : RS-232

#### Environmental Characteristics

Operating Temperature : -5°C to + 55°C

Storage Temperature : -40°C to + 85°C  
Humidity : 95% non-condensing

#### Electrical Characteristics

Supply voltage : 230V AC, 50Hz AC to 12V DC  
adaptor will provide as an  
accessory

#### Part Number

Navi-Clock : NAVI-CLOCK-GPS-100-05-00

#### Accessories

##### Antenna

NAVI-ANT-RG-58-20-00  
(or equivalent) : 35 dB gain; RG-58; 20 m;  
3V Antenna

##### Cable

RS-232 cable : Null modem cross cable  
Power cable : 230V AC, 50Hz to 12V DC  
adaptor

##### CD

Contents : Navika Timing GUI,  
Navi-Clock User Manual and  
Navi-Clock brochure