

## Enhanced Network Time Appliance (ENTA)

### Features

- **Versatile GPS Master Clock**
- **10/100BaseT Network interface with Network Time Protocol (NTP)**
- **Time Code Outputs, IRIG B, IRIG E, Have Quick**
- **4 user programmable serial ports**
- **User Programmable Pulse rates and Analog Clock drivers**
- **High Stability Ovenized oscillator is standard**
- **Single string or dual redundant configuration**



The Enhanced Network Time Appliance is a full function Master Clock that is designed to provide a full suite of precision time outputs. The rich feature set also is fully compliant with the NENA requirements for a Master Clock. The ENTA is available in both single string and optional dual redundant versions.

A broad selection of precision timing outputs are available, including Network Time Protocol (NTP), time codes, analog impulse clocks, ASCII RS232/422 and event timers.

A built in web-server provides a user friendly controls for configuring the unit.

All outputs include signal level monitors to rapid fault detection and isolation.

The ENTA is available either with a built in GPS receiver or IRIG B decoder as the time reference.

A standard feature is a built in oven controlled crystal oscillator that provides continuous timekeeping accuracy in the event that GPS or IRIG signal inputs are lost.

# brandywine communications

## Specifications

### Inputs

Reference Source:

GPS receiver \*

IRIG B reader\*

1PPS with manual entry of time

Unit Select

Input select via dry contact for selection of outputs in redundant operation.

Auxiliary DC power

External 24VDC to drive timer or impulse clock outputs when >75mA drive is required

### Control and display functions

10/100BaseT network port with integrated web server control

SNMP control

TELNET command set

NTP

Display

Front panel display of HH:MM:SS

Power LED

Fault LED

Reset Switch

Recess switch used to restore unit to factory defaults.

### System Specifications

Accuracy

Time accuracy: GPS <30ns

Holdover < 1microsecond/hour

Temperature

Operating -20 to +50C

Storage -55 to +85C

Dimensions 19"W x 1.73"W x 9.5"D 1U rack mount

### Outputs

A) 1PPS

No of outputs: 1

0-5V into TTL or 0-5V into 50 ohm link selectable

Connector: BNC

B) Time codes

IRIG B120 IRIG B 000 DCLS

IRIG E 111 IRIG E 001

CF definitions available for IRIG time codes

NENA IEEE-1344

IRIG B127

Have Quick (option replaces IRIG E001)

Connector: BNC

All outputs include activity monitor

C) RS232/RS485

No of outputs: 4

Message format : 4 independent user defined broadcast

messages Electrical: RS232 or RS485 link selectable

Activity monitor on each output

Connector: DB9

D) 10 MHz

No of outputs: 1

Level 13dBm ( 1V<sub>rms</sub>)

Low phase noise option available

Connector: BNC

Activity monitor

E) Programmable pulse outputs

User Commands per channel: program time, enable channel,

disable channel

No of outputs: 4

Open drain FET, maximum 1A/24VDC switching

Connector: removable terminal block

24VDC power or internal 5V power can be linked to provide 5V

or 24 V output pulse, or open source FET

Resolution: 1ms

*Function:* Each channel can be set as a Mode 1, or two

channels can be combined to operate as Mode 2.

*Mode 1:* Each channel can have up to 128 programmed events

i.e. programmed on time and programmed off time. Cycle can

be set to repeat daily, with weekend/holiday program set

separately.

*Mode 2:* A pair of channels is combined to provide alternating

polarity pulses with the following characteristics to drive analog

impulse clocks

rate 1/sec, pulse width 0.5s

rate 1/30sec, pulse width 1 sec

rate 1/min, pulse width 1sec

Automatic DST change and power failure recovery.

F) Alarm output

Form C relay to indicate unit fault. Link settings for 5V active hi

or active low.

Connector: terminal block

G) 5V utility

Diode isolated 5V@250mA output

Connector: Terminal Block

\* Selected at time of order