brandywine communications

Enhanced Network Time Appliance (ENTA)

Features

- **Versatile GPS Master Clock with IRIG-B reference input**
- **Dual 10/100BaseT Network interface with Network Time Protocol (NTP)**
- **Time Code Outputs, IRIG B, IRIG E, Have Quick**
- **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). A built in web-server provides a user friendly controls for configuring the unit.

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

The ENTA includes both a built in GPS receiver and an IRIG B decoder, accommodating multiple time reference inputs. 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.

Specifications

Inputs

Reference Source:

GPS receiver	Connector BNC
IRIG B reader	Connector BNC
1PPS	Connector BNC

Auxiliary DC power (Option)

Control and display functions

Dual independent 10/100 Base-T ethernet ports with integrated web server control

SNMP control
TELNET command set
NTP

Display

Front panel display of HH:MM:SS (LED colons
indicate GPS lock status)
Power LED
Fault LED

Reset Switch

Recessed reset switch used to restore unit to factory defaults.

Brightness Control Switch

Pushbutton on rear panel to change front panel time display brightness.

System Specifications

Accuracy

Time accuracy:

	GPS	< 30 ns
	IRIG-B	< 10 us
	1PPS	< 30 ns

Holdover < 1 us / hour

Physical

Size: 19" rack-mount 1U high (1.75") 9" deep
Weight: 5lbs nominal

Compliances and Interface Standards

NTP Version 3 [RFC 1305]
SNTP compatible (RFC 2030)
SNMP
Ethernet / IEEE802.3
UDP/IP
ICMP

Outputs

A) 1PPS No of outputs: 1
2.5V or 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) 10 MHz   No of outputs: 1
TTL into 50 ohms
Connector: BNC

D) Alarm output
Form C relay to indicate unit fault.
Link settings for 5V active hi or active low.
Connector: terminal block

E) 5V utility
Diode isolated 5V@250mA output
Connector: Terminal Block

Environmental Conditions

Temperature

Operating	-20 to +50C
Storage	-55 to +85C

Humidity   Up to 95% RH (non-condensing)

Power: 85-264VAC (50/60Hz)
40W max
IEC320 connector with switch and fuse
Fuse 1A 250V
UL60950 compliant

Altitude: 20,000 ft

EMC: FCC Part 15
EN55022
EN55024