

# Time and Frequency NTP Server Model: 8461



## Application - Defense (Military) • SatCom • Wireless

- Range Timing
- Communications Networks
- Satellite Ground Stations
- Test and Measurement Systems

### General Description:

The Model 8461 is a Stratum 1 Network Time Server that is synchronized from an optical IRIG-B DC-level shift link or a wireline Modulated IRIG B link providing time synchronization of <1 microsecond of time reference. The optical link provides a time synchronization bridge to Isolated Network Domains. The NTP server supports NTPv2, v3, v4 and SNTP clients. An on-board OCXO provides holdover capability in the event that synchronization is lost from the IRIG reference.



Configuration and status of the system can be done through the Ethernet interface using a Web browser, or through a command line using Telnet or SSH. An RS-232 I/O is also available for configuration and status using the command line interface. The Model 8461 can be powered from an external wall plug AC/DC power supply or from Power over Ethernet (PoE) capable switches.

Power and Status LED indicators are provided for visual status and a recessed push button reset switch to set the network port IP address to factory default.

### Specifications:

#### Input Time Reference

##### Optical:

Time Code:	IRIG-B002 (year set manually) or IRIG-B006 (year set from time code)
Optical Wavelength:	820 nm
Optical Cable:	Multimode 50/125µm, 62.5/125µm, 100/140 µm and 200 µm
Optical Cable Length:	2,000 meters with 62.5/125 µm optical cable
Connector:	ST

##### Wireline:

Time Code:	IRIG-B122 (year set manually) or IRIG B-126 (year set from time code)
Input Level:	1.0 to 6.0 Vpp
Modulation Ratio:	2:1 to 6:1
Impedance:	50 ohm single ended
Connector:	BNC

##### Ethernet Port

Interface:	10/100 BaseT
Internet Protocol:	IPv4, IPv6
Network Protocols:	HTTP, HTTPS, SSH, TELNET, SNMP, v1,v2, v3, DHCP

Network Time Protocols: NTP v2, v3, v4, SNTP, MD5 Authentication

Connector: RJ-45

##### RS-232 Port

Signal Level:	RS-232
Baud Rate :	9600
Protocol :	8-data bits, 1-stop bit, no parity
Connector:	9-pin female D-sub

##### Power:

External AC/DC wall mount power supply  
Power over Ethernet (PoE) IEEE-802.3af-2003  
7 watts max, type 1 class 3.

##### Environmental:

Operating Temperature:	-40°C to +85°C with PoE, 0°C to +40°C with external AC/DC power
Storage Temperature:	-40°C to +85°C
Humidity:	0 to 95% non-condensing
Transportation Shock and Vibration:	Common Carrier

##### Physical:

Dimensions:	5.1" L x 4.7" W x 1.6" H
Weight:	< 1lbs
Mounting:	Four # 6-32 screws in base
Optional Mounting:	U rack mount adapter

Specifications subject to change without notice.

### TRAK Microwave Corporation

E-mail: [sales@trak.com](mailto:sales@trak.com) • [www.trak.com](http://www.trak.com)

Ph: 813-901-7200 • Fax: 813-901-7491

4726 Eisenhower Boulevard • Tampa, FL 33634-6391 USA

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