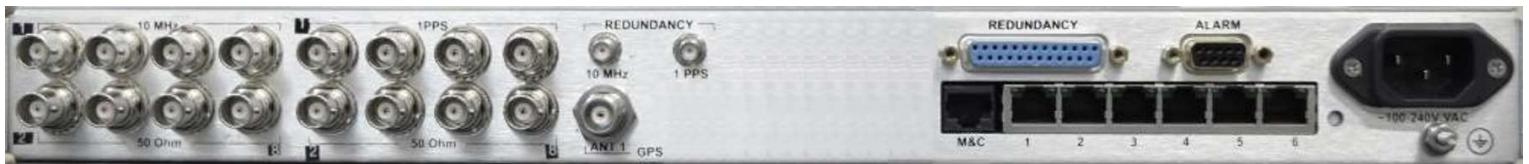


Precise timing and frequency reference system designed for the ASAT System hub.



Reliable and accurate time and reference frequency source for ASAT System hubs. The unit features 32-channel multi-GNSS receiver extracting reference timing information from GPS, GALILEO and GLONASS constellations to provide ASAT System hub with timing and frequency accurate reference source.

In the event of satellite loss of signal, the unit automatically transfers to hold-over mode.

The Time Reference unit provides the following:

- 8 isolated 1PPS outputs.
- 8 isolated low phase noise 10 MHz outputs.
- NTP server.

Specifications

GNSS Receiver

Input connectors	TNC
GNSS channels	32 channels
Frequency stability	2×10^{-12} / day or better
Holdover	+/- 6.0 μ s / day
GPS / GALILEO / SBAS	L1 1575.42 MHz
GLONASS	L1 1597.5-1609.5 MHz

NTP Timing Server

Network time server	RFC 1305 NTP
Network interface	GbE
Transport	UDP/TCP, Ethernet IEEE 802.3

1PPS Output

Outputs	8 individual outputs
Level	5V DC
Drive capability	50 Ohm
Control	Individual on/off per channel
Rise/fall times	< 15 ns
Accuracy	+/- 15 ns
On time	Rising edge on GPS update
Pulse width	configurable from 10-50 μ s
Jitter	+/- 2.5 ns
Connector	<ul style="list-style-type: none">▪ BNC female▪ 50 Ohm▪ 15 dB typical return loss

10MHz Reference Output

Waveform	Sine
Phase noise	<ul style="list-style-type: none">▪ 1: < -100 dBc/Hz▪ 10: < -123 dBc/Hz▪ 100: < -150 dBc/Hz▪ 1K: < -150 dBc/Hz▪ 10K: < -150 dBc/Hz
Harmonics	< -40 dBc
Spurious noise	< -70 dBc
Outputs	8 outputs
Output power	+13 dBm or +6 dBm switchable. \pm 1 dB accuracy
Connector	<ul style="list-style-type: none">▪ BNC female▪ 50 Ohm▪ 15 dB typical return loss

Management

Management interfaces	<ul style="list-style-type: none">▪ Active front panel▪ SNMPv2
Front indications	<ul style="list-style-type: none">▪ Power▪ GPS locked▪ System locked▪ Alarms

Mechanical and environmental

Form factor	Rack mount
Dimensions	17.125 x 1.75 x 10.825 inch W x H x D (435 x 45 x 275 mm)
Weight	14.33 pounds (lb) (6.5Kg)
Power	<ul style="list-style-type: none">▪ 90-260V AC, 50-60 Hz▪ Consumption: 40W
Operating conditions	<ul style="list-style-type: none">▪ 32°F~122°F (0°C~50°C)▪ 10%~90% relative humidity non-condensing

Ordering information

Unit build configurations

16A-900GPS-200 GNSS Disciplined Hub Time Reference.