



UNISYNce 3U

ENABLING NEXT GENERATION CARRIER NETWORK SYNCHRONIZATION ...

FEI, with a 40-year legacy in precision oscillator technologies and more than 20 years of experience designing and manufacturing SSU's for major international carriers, has created a SSU of unprecedented.

- ◆ Reliability
- ◆ Durability
- ◆ Survivability
- ◆ Adaptability
- ◆ Cost efficiency

TOTAL SOFTWARE MANAGEMENT

For the first time NO dedicated hardware assemblies, jumpers, or switches are used to configure common telecom signal formats in the UNISYNce - inbound or outbound.

REMOTE MANAGEMENT

All software management interfaces are remotely accessible via TCP/IP LAN allowing full utilization of Centralized Network Operations Center for monitoring and management.



Features

UNISYNce is designed to operate as a mini Synchronisation Supply Unit (SSU/BITS) for common clock distribution to all Network Elements (NE's) requiring external timing reference source.

It has been designed to comply with all ETSI, Telcordia and ITU-T G.811 and G.812 international telecom recommendations. It is based on a high performance GPS timing receiver and it can be equipped with additional reference input modules to accept two timing reference signals of various formats and sources. It can accommodate up to 12 output timing sources (two in the basic configuration).

The equipment can also be used for computer time synchronization, thanks to its NTP / SNTP server stratum level 1. "Time of day" and IRIG-B interfaces are also available (IRIG-B interface requires an optional plugging module).

An optional GLONASS + GPS solution is also available (16 channels receiver). This one uses GLONASS and GPS satellites constellation in an integrated way, where all visible satellites belonging to both constellations are used simultaneously to improve clock performance.



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UNISYNce 3U PRODUCT SPECIFICATIONS

Input

The UNISYNce can be equipped with 2 bridged input ports. This requires one plugging module per input. Each external input port is independently software configurable for standard signal frequencies as follows:

- DS-1 1544 kbit/s, Framing selectable—SF or ESF
- E-1 or 2048 kHz
- Optional Composite Clock
- Optional 1/5/10 MHz.

Each input is monitored for LOS, AIS, OOF, and BPV when apply. SSM messages are also monitored when available.

Oscillator Options

Standard Quartz ST-3E & Rubidium ST-2

Optional Stratum 2 High Precision Double Oven Quartz Oscillator (DOCXO) - ST- 2 performance at lower cost

System Communications Interfaces

Two craft interfaces

TCP / IP Local Area Network interface via RJ-45

TL-1 agent

SNMP for equipment supervisory

GPS

Single GPS or optional GPS/GLONASS module

Integrated GPS receiver

Optionally, antenna converter allowing to use 300m of RG59 coaxial cable to connect the antenna

Optional NTP / SNTP Server

SNTP version 4 server Stratum 1 compliant to RFC 2030

NTP version 3 server Stratum 1 compliant to RFC 1305

Outputs

Base configuration : two output ports and two auxiliary ports

One additional plugging module provides 10 output ports

All outputs are settable : 2048 kHz or E1

Auxiliary ports (2) are settable : 1, 5 or 10 MHz

1 PPS port

Time distribution interfaces: one IRIG—B and one TOD with PPS signal

Frequency feedback available for 12 outputs

Connecting panel

Bi-impedance connecting area :

- BNC or 1.6/5.6 connectors for 75 Ω asymmetrical outputs
- DB 25 for 120 Ω symmetrical outputs

Environmental

Operating temperature: 0 to 50°C

Humidity: 5 to 95%

RoHS compliant