

## TIMELINK TL-25xx

# Time and frequency Modular equipment

TIMELINK product line is intended to address the following needs:

- time generation (various format are available).
- frequency distribution.

The Timelink product line is by design modular, flexible, upgradable and easy to maintain. Redundancy can be included or not by adding modules.

The Timelink 25 is the third generation of a proven product line concept throughout numerous projects within the space industry, the military industry, the telecom industry and the aeronautical industry. It can be ruggedized so that it sustains harsh environmental conditions.

Its modular approach allows combining without compromising signal quality, frequency distribution and time code generation and distribution.



Touchscreen front face example

## 1. MECHANICAL

It is made of standardized 3U or 6U cabinet (depending on the module number) depth 359 mm (including handles). The modules are by the standard DIN 100\*160mm.

Module width is 6 TE (6\*5.08mm = 30.4mm). Some of the modules are 12 TE or 18 TE (power supply and large OCXO).

Total rack width being 84TE, up to 14 6TE modules can be integrated within a 3U rack.

Modules include a handle allowing total removal of the module. Modules front face has colourless Alodine surface treatment



Back face example

### 2. CABINET CONNECTOR

Cabinet connectors are row a and c DIN41612. Analog critical signals use coaxial insert. The rack is modular to enable time code and frequency signals transport.

The processor module controls the whole rack.

### 3. FRONT FACE

Two types of front face are available:

- Time LCD and color Touch screen
- Time LCD and status LEDS.

Dedicated front face can be done based on the standardized proposal.

#### 3.1 TOUCH SCREEN FRONT FACE

This type includes a red LED LCD seven segments time display and a graphical color display. It allows user friendly in-depth control of the equipment (module status, GNSS data, specific customer implementation)

#### 3.2 LEDS FRONRT FACE

This type includes a red LED LCD seven segments time display and 3 LEDS (Alarm, SYNC, PPS).

### 4. FIRMWARE

#### 4.1 LANGUAGE

Default language is English, on demand a specific language can be implemented.

#### 4.2 REMOTE CONTROL

Remote control is done using TCP/IP either using a proprietary Timelink protocol or SNMP. A default set of command and status information is proposed, it can be upgraded on demand for customer specific applications.

#### 4.3 EQUIPMENT CONFIGURATION

Parameters are included into a SD Card which is extractable at the back of the equipment. The configuration can be done using an external PC or remotely by network connection to the equipment.

Next page lists the main modules available. Specific modules can be made on demand.

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REFERENCE	DESCRIPTION
<b>3U cabinet</b>	
TL25-014	3U rack with touch screen and seven segment LCD time display
TL25-015	3U rack with LEDS and seven segment LCD time display
<b>UC modules (Synchronization and Remote control (http, SNMP, IP))</b>	
TL25-011	Processor modules with GNSS synchronization (TNC connector), local backup oscillator and single-mode optical fiber transceiver.
TL25-012	Processor modules with local backup oscillator and single-mode FO transceiver. Synchronization is done through the optical fiber link.
TL25-079	Processor modules with GNSS synchronization (TNC connector), NMEA synchronization or IRIGB synchronization and local backup oscillator.
<b>Power Supply modules</b>	
TL25-062	AC power supply module
TL25-063	DC power supply module
<b>IRIGB modules</b>	
TL25-309	Modulated IRIGB generator - 3 independent outputs (UTC, Count Down, Launch Time) with output individual LED status and level setup
TL25-309B	Modulated IRIGB generator - 2 independent outputs (combined UTC and Countdown, Local Time) with output individual LED status and level setup
TL25-302	Modulated IRIGB distributor 5 outputs with output individual LED status and level setup – BNC connector
<b>PPS,1,10,20,100Khz modules</b>	
TL25-350	5 ICD-GPS-060 1 PPS outputs
TL25-351	5 TTL PPS outputs
TL25-351	5 TTL 10/20/100KHz outputs
<b>OCXO modules</b>	
TL25-513	5 & 10 Mhz oscillator module, OSTAR choice depending on the requested stability and phase noise
TL25-514	5 & 10 Mhz oscillator module, OCXO choice depending on the requested stability and phase noise
TL25-217	5 & 10 Mhz oscillator module, Standard Rubidium
TL25-518	5 & 10 Mhz oscillator module, High Performance Rubidium
<b>Frequency modules</b>	
TL25-600	5 outputs (1 to 20 Mhz) no filtering
TL25-603	5 outputs 10Mhz with filtering ( no redundancy) and adjustable individual level +5 to +13 dBm
<b>NTP Time modules</b>	
TL25-078	2 isolated NTP interfaces
<b>TIME modules</b>	
TL25-401	ICD-GPS_060, STANAG RS422 time distribution
<b>Switching output modules</b>	
TL25-072	Output switching module
TL25-904	Input switching module (inputs status are centralized by the UC module)
<b>On demand modules</b>	