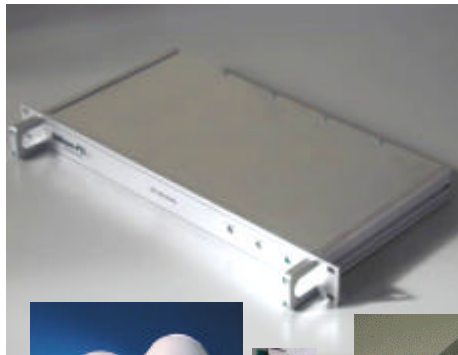




# GPS Receiver



## PRODUCT OVERVIEW

The new GILLAM-FEI GPS receiver equipment includes the different modules that are required for carrying out a high performance frequency reference.

This reference offers performance that complies with standard ITU-T G.811.

The GILLAM-FEI GPS receiver will ensure a powerful management for output reference signals.

Associated with a synchronization unit such as the US4G, this solution offers :

- A high long-term accuracy (from the GPS source)
- A short-term frequency quality (linked to the DPLL performance of the US4G)
- A frequency stability (linked to holdover performance of US4G oscillators)
- And a solid solution (linked to the redundant architecture of the US4G)

## MAIN FEATURES

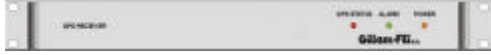
The GILLAM GPS receiver will ensure a powerful management for output reference signals, including:

- Full management for receiver, antenna, oscillator, supply failures
- High performance OVCXO Quartz oscillator and ageing correction circuit
- Oscillator clocks and output interfaces adapted to specific customer needs
- Management for output signal cut ("Squelching") in case of faulty synchronization functions
- Automatic on-site putting into service procedure (Auto-acquisition "Self Survey")
- Local monitoring for the receiver operation: alarm and status LEDs
- Serial supervision interface: Gillam / TSIP protocol
- In option Ethernet supervision interface: TCP/IP 10baseT
- Adaptable connectors panels



## Technical Specifications

---



### Physical Dimensions

- Compact case for integration in GILLAM synchronization units, as the GPS RX for the US4G and the GPS QM for the Synch Quality meter platform SQMP
- Standalone case (19" / ETSI, 1 or 2 U)

### Input Power Supply

Compact Case:       - +12V –12V + 5V  
                          - +15V –15V + 5V  
                          Power failure input for remote indication

Standalone Case:  
Two internal power supplies for -48 V DC or 220V AC or mix configuration power input, with two separated feeders

### Output Interfaces

- PPS                    BNC Connector, TTL levels into 50 Ohm  
                          Update Rate: 1 Hz, PPS Accuracy : UTC 20 nanoseconds (one sigma)
- 2048kHz             1.6 / 5.6, BNC, BT43, etc  
                          ITU-T G.703 §13, 1.5 V peak, 75 W

### Accuracy

Operating Tracking Mode:  $1.16 \times 10^{-12}$  (one day average)

### GPS Receiver

Trimble GPS disciplined clock receiver :  
- L1 frequency, - C/A code (SPS), - 8 channel, - continuous tracking receiver