MICROSYSTEMES
Time-frequency & Networks

SR1050

GPS synchronised Frequency & Time generator

Features

■ The SR1050 is a GPS synchronised Universal Time code generator, IRIG B coded. The equipment is housed in a 19'' , 1 U rack mount.

■ The equipment includes an OCXO oscillator with a long term GPS oscillator disciplining algorithm.

■ On the front face, an alphanumeric LCD display, allows time, satellites visibility & operation mode visualisation. The status of the system is shown by mean of 3 LED's (power supply, satellites tracking, locked).

■ A six keypads keyboard provide the man machine interface and the monitoring of the equipment.

The equipment main function are :

- A frequency reference source with amplifier
- A GPS receiver
- An IRIG B generator
- A digital signal generator (frequency & pulses)
- An output multiplexer allowing the allocation of the different signal type to the programmable outputs.

■ The GPS receiver is an Oncore UT+ MOTOROLA module able to acquire 8 satellites. The module delivers a high precision, top second reference.

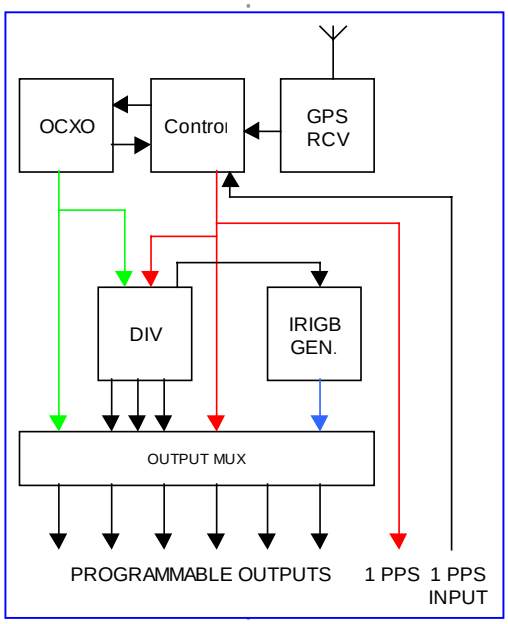
■ The IRIG B generator provides an amplitude modulated 1 kHz analog signal. This signal uses the internal frequency source, it's also automatically phase synchronised on the 1 PPS signal coming from the GPS or from an external source.

■ In case of GPS' time loss, when starting the equipment, the starting hour of the IRIG B generator could be entered using the front face keyboard.

■ The rear face of the equipment holds all the input/output signals. 11 connectors are used :

- GPS antenna input,
- 1 PPS external input,
- 1 PPS output,
- Six user's programmable outputs : 10 MHz sinus, IRIG B, 1 PPS, frequency & TTL pulse (1 PPM, ...
- RS232 serial output for time frame periodic emission
- RS232 link for remote control & management of the equipment

■ A Windows® 95/NT management & control software is provided with the equipment.



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Features

Power supply uses a CEE standard 230V AC connector with fuse, filter & ON/OFF switch.

Specifications

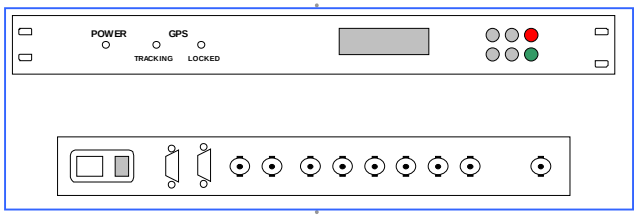
- **1 PPS precision:** ± 50 ns with UT+ Oncore receiver (the receiver is locked on a fixed position)
- **Time signal phase :** ± 200 ns, with regards to the 1PPS reference signal.
- **Generated code :** IRIG B – Amplitude modulated sine signal 1/3, 1/1 - 3 V_{pp} , 50 Ohm.
- **Visualisation :** Universal Time or Local Time.
- **Internal reference :** OCXO 10 MHz or 5 MHz - 1 x 10^{-9} / day
- **Frequency output:** Internal oscillator frequency : 10 or 5 MHz. Level +13 dBm/50 Ohm.
- **Programmable outputs:** 6 independent outputs, able to receives one's of the following signal, according to user's choice : oscillator frequency (sine), IRIG B, 1 PPS, or TTL outputs of the digital generator (frequency divider & 1 PPM).
- **Auxiliary ASCII output :** Serial frame with Year, day of the year, hours, minutes, seconds. programmable emission period
- **Remote control :** Settings & remote control using asynchronous serial link. RS232 levels.
- **GPS antenna:** standard furniture : active antenna with 6 m cable. Other antennas & cables length in options.
- **Connectors :** BNC for analog and pulse signals, 9 pins females Sub'D for serial RS232 links.
- **Dimensions :** Width = 19" (483 mm), Height = 1U (44.5 mm), Depth = 295 mm.
- **Weight :** 5 Kg
- **Consumption :** 30 W
- **MTBF** = 65 000 h

Ordering information

SR1050 - 1 - X 10 MHz OXCO generator

SR1050 - 2 - X 5 MHz OXCO generator

F : French version
U : English version



Front & rear faces

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