PT8616 GPS Genlock and LTC generator (PT5300 option)

Features:

- Integrated option for PT5300 mainframe
- Generates masterclock for PT5300 mainframe
- Generates LTC timecode for following formats:
  - 625 lines, 25 FPS (PAL)
  - 525 lines 30/1,001 FPS (NTSC – drop frame/non-drop frame)
  - 24 FPS
  - 30 FPS
- 2 x independent timeable LTC outputs available
- Absolute time (GPS time) reference for phaselocking of isolated systems
- Rugged active antenna and mounting kit included

General description

The GPS module is an option for the PT5300 mainframe. The PT8616 GPS Genlock module assures you precise video syncronisation, where ever you may be. By using ultra accurate clocks in the GPS satellites as a reference, you are always able to lock your main studio with a broadcast van or a remote studio without physical connection.

The PT8616 generates master clock reference for the PT5300 mainframe, as well as LTC timecode, for common video formats. Both are continuously keept stable and up to date by the GPS information. And as the satellites are calibrated by earth control-stations, the best long term stability is guaranteed. This means hassle free setup of the module, as the parameters only need to be setup once. Hereafter the module does not need further maintenance.

As GPS contact depends on a clear skyview, contact can be lost in case of heavy snow or rain, dense vegetation or tall buildings. The PT8616 is prepared to handle this situation, as a precise, fixed temperature oscillator takes over and becomes the reference clock. When satellite contact is reestablished, the PT8616 smoothly regains the GPS lock without distrubting the system.

The LTC generator includes the following features:

- Timezone select
- Automatic switching for daylight saving time
- Individual timing offset for both LTC outputs
- +/- 500 ms offset range

The PT8616 is delivered with a rugged, weatherproof active antenna, 12 m cable and a mounting kit. This assures you the best possible contact.

Technical Specifications:

GPS active antenna (If other than included antenna is used)

Impedance.....50 Ω

Active amplifier supply voltage.....3.3 V

Max. power consumption.....0.165 W

LTC outputs

Balanced out, 1 x XLR Connectors or unbalanced out, 2 BNC connectors

Output voltage pp (at 50 Ω).....1 Vpp

Output voltage pp (at 1M Ω).....2 Vpp

Output impedance.....50 Ω

Timing.....± 500 ms

Stepsize.....6,7 ns

Stability

Accuracy (absolute PPS drift).....150 ns

Absolute long term drift (Fixed oscillator, when no GPS contact, 1 hr).....< 15 us

Absolute short term drift (Fixed oscillator, when no GPS contact, 5 min).....< 1 us

Supported LTC formats

625 lines, 25 FPS (PAL)
525 lines, 30/1,001 FPS (NTSC – dropframe)
525 lines, 30/1,001 FPS (NTSC – non dropframe)
30 FPS
24 FPS

Standard bootup time (depending on skyview)

Time.....150 sec