



# PT8616 GPS Genlock and LTC Generator (PT5300 option)

**New**

solutions in Audio & Video

- Integrated option for PT5300 mainframe
- Generates master clock for PT5300 mainframe
- 2 x Independent timeable LTC timecode outputs generating the following formats:
  - 625 lines, 25 FPS (PAL)
  - 525 lines 30/1,001 FPS (NTSC – drop frame/non-drop frame)
  - 24 FPS
  - 30 FPS
- Absolute time (GPS time) reference for phase locking of isolated systems
- 180° Rugged active antenna and mounting kit included



The GPS module is an option for the PT5300 mainframe. The PT8616 GPS Genlock module assures you precise video synchronisation, 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 kept 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 sky view, 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 re-established, the PT8616 smoothly regains the GPS lock without disturbing the system.

The LTC generator includes the following features:

- Time zone select
- Selectable switching for day-light saving time
- Individual timing offset for both LTC outputs
- +/- 500 ms offset range

The PT8616 is delivered with a rugged, weatherproof active 180° antenna, 12 m cable and a mounting kit. This assures the best possible communication with the GPS satellites

## Product Data

### GPS active antenna

Impedance	50 $\Omega$
Active amplifier supply voltage	3.3 V
Max. power consumption	0.165 W

### LTC outputs

Balanced out	1 x XLR
<u>Or</u>	
Unbalanced out	2 x BNC
Output voltage pp	1 Vpp
Output impedance	50 $\Omega$
Timing	$\pm$ 500 ms
Step Size	6,7 ns

### Stability

Accuracy	15 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 boot up time (depending on sky view)

Cold start	44 sec
Warm start	18 sec

### The LTC generator includes the following features:

Time zone select
Selectable switching for daylight saving time
1: NONE
2: CONFIRM
3: AUTO
Individual timing offset for both LTC outputs
+/- 500 ms offset range

## PT5300 Series Products

### BASE UNITS

#### PT5300HD

HD-SD VariTime™ Sync Generator, HD base unit, 4 tri-level sync outputs, 2 black burst outputs, genlock

#### PT5300SD

SD VariTime™ Sync Generator, SD base unit, 2 black burst outputs, genlock

### OPTIONS

#### PT8603

SDI Test Signal Generator

#### PT8604

Multiple Parallel Black Burst Output, 6 outputs

#### PT8606

SD-SDI Digital Genlock Module, 1 input

#### PT8608

Dual Black Burst Generator, 2 outputs

#### PT8609

SDI Black/Colour Bar Generator

#### PT8611

Quad Tri-Level Sync Generator, 4 outputs

#### PT8612

Quad HD-SD Serial Digital Generator, 4 outputs

#### PT8613

Dual HD-SD Dual-Link Test Signal Generator Module, 2 x 2 outputs

#### PT8631

Analogue Test Signal Generator

#### PT8632

SDI Test Pattern Generator, Extended

#### PT8632/10

SDI Test Pattern Generator (Extended)  
FuBK 4:3

#### PT8633

SDI Test Pattern Generator, High end

#### PT8635

Dual AES3 digital audio generator, 2 XLR outputs, 2 BNC outputs, Wordclock output

#### PT8637

Time & Clock Interface

## Contact

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