



Model 5010-GPSII

Full Function Time Code Generator/Reader with Character Inserter, GPS and Antenna



Product Description 5010-GPSII

The Evertz 5010-GPSII Time code Master combines the features of our best timecode generator with the ability to produce GPS reference SMPTE/EBU time code anywhere on the face of the globe. The GPS (Global Positioning System) technology provides the 5010-GPSII Time Code Master with an accurate source of time reference. The system is ideally suited for OB or mobile operations and any professional television broadcast application where accurate time reference is a must. The 5010-GPSII system may be programmed to request a time reference from the GPS receiver automatically, daily or on demand. The 5010-GPSII can be ordered in a number of configurations. Model 5010-GPSII is an LTC Generator, Reader, and Character Inserter with Accutime II antenna. Model 5010-VITC-GPSII comes complete with Vertical Interval Time code capability.

Model 5010-GPSII Features:

- Generates Time code in accordance with SMPTE 12M locked to NTSC or PAL video.
- Can be operated as standard time code generator/reader or as a GPS reference time code master.
- Date/Time Zone encoded into user bits according to SMPTE 309M.
- Generates and reads universal co-ordinate time (UTS) or local time in time/date mode.
- Automatic daylight savings time adjustment in time/date mode.
- High resolution Character Inserter, with three Character sizes, 8, 16 and 32 lines, time and user bits separately positionable on raster.
- Reads LTC from 1/30th to 70x play speed. Well-proven input circuitry design permits reliable recovery of even severely distorted code.

- Momentary or continuous Jam-sync modes.
- Time and user bits are presettable from the front panel.
- Parallel control of commonly used functions.
- User bit Transfer from Reader Time or User bits.
- On-screen programming menu.
- GPSII receiver, 50ft of cable, (optional 100 & 400 ft. cables for longer receiver distances).
- Ideal for OB or Mobile applications.
- 2 General purpose outputs can be assigned to several output modes
- Easy mounting and installation.
- Tally output on loss of lock to GPS receiver

Optional VITC:

- Vertical Interval and Longitudinal Time code Generator and Reader
- Separate gen-lock and PGM video inputs.
- Reads VITC over the full shuttle range of most VTR's. Selectable reader line range.
- Set VITC Generator Line numbers from the front panel.
- Translates LTC to VITC or VITC to LTC.

Order Specification Information					
	5010 GPSII	5010 GPSII - VITC	5950	5010	5010 VITC
LTC Generator	✓	✓		✓	✓
Adjustable Output Level	✓	✓		✓	✓
VITC Generator		✓			✓
LTC Reader	✓	✓	✓	✓	✓
VITC Reader		✓	✓		✓
VITC to LTC Translator		✓	✓		✓
LTC to VITC Translator		✓			✓
LTC Re-shaper			✓		
PAL and NTSC	✓	✓	✓	✓	✓
Colour Framing	✓	✓		✓	✓
Drop Frame	✓	✓	✓	✓	✓
Set User Bits (0-9, A-F)	✓	✓		✓	✓
Transfer RDR. Time or UB to GEN, UB	✓	✓		✓	✓
SMPTE <-> EBU time code translator				✓	✓
Date/Time Zone in User Bits	✓	✓		✓	✓
Momentary and continue. Jam- sync.	✓	✓		✓	✓
Character Generator	✓	✓	✓	✓	✓
ON-screen programming menu	✓	✓	✓	✓	✓
GPS Referenced Time Code	✓	✓			
Serial Remote Control				✓	✓
GPI Remote Control	✓	✓		✓	✓
GP Outputs	✓	✓		✓	✓

Specifications:

LTC Generator:

- **Standard:** NTSC 2/4 field: PAL 4/8 field menu selectable.
- **Output:** XLR type 3 pin male connector.
- **Level:** Adjustable, 0.5V to 4.5V pp.
- **Rise Time:** 40 +/- 10 microseconds.
- **Jitter:** <2 microseconds.

GPS Receiver:(5010-GPSII optional)

- **Temperature:** -30°C to +70°C.
- **Humidity:** 95% R.H. Condensing at 60°C.
- **Dimensions:** 5.8"D x 3.9"H (147mm x 100mm).
- **Cable Options:** Standard 50'
Optional 100' (order WA-T76)
Optional 400' (order WA-T11)

VITC Generator: (5010-VITC)

- **Input:** Comp. video 1V pp, 75 Ohm terminated
- **Output:** 2 Comp. video + keyed VITC.
- **Differential Gain:** <0.5%
- **Differential Phase:** <0.5 degrees.

LTC Reader:

- **Standard:** SMPTE, EBU Time code
- **Input:** XLR Type 3 pin female connector 0.2 to 4V pp, balanced or unbalanced.
- **Level:** 0.2 to 4V pp, balanced or unbalanced.
- **Speed:** 1/30th to 70x play speed, fwd and rev, machine dependent.

VITC Reader: (5010-VITC)

- **Input:** Comp. video 1V pp, High Z, BNC Loop.
- **Speed:** Still frame to >40x play.

Character Generator: (5010,5010-VITC)

- **Input:** Comp. video 1V pp, 75 Ohm Terminated
- **Output:** Comp. video 1V pp + keyed high resolution characters, selectable background and sizes.

Serial Remote Control:

- RS-232/422 interface, 9 pin "D" connector. Computer control of all functions, selectable baud rate.

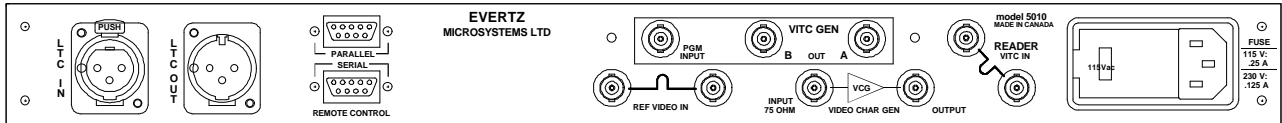
Physical:

- **Dimensions:** 19" W x 1.75" H x 7.75" D. (483mm W x 45mm H x 196mm D)
- **Weight:** 7 lbs. (3.5Kg)

Electrical:

- **Power :** 115/230 V AC, 50/60Hz, 30VA. ETL Listed. Complies with EU Safety Directive.
- **Safety :** ETL Listed
Complies with EU Safety Directive.
- **EMI/RFI :** Complies with FCC Part 15 Class A EU EMC Directive.

5010 and 5010-VITC Rear Panel Layout



The following sections describe the purpose of the rear panel connectors of the model 5010. Figure 2.1 above shows the rear panel connectors provided on the model 5010. Sections 0 to 0 describe the specific signals that should be connected to the model 5010. **Error! Reference source not found. to Error! Reference source not found.** give sample connection diagrams for connecting the model 5010.

Linear Time Code Connections

LTC OUT: A male XLR connector for output of SMPTE/ EBU linear timecode from the translator.
(Balanced)

LTC IN: A female XLR connector for input of SMPTE/ EBU linear timecode for the reader (Balanced)

Vertical Interval Timecode Video Connections (5010-VITC only)

READER VITC IN: A BNC loop used to input video containing vertical interval time code for the VITC reader (model 5010-VITC only).

PGM INPUT/VITC OUT B: A BNC loop for input of program video onto which vertical interval time code is to be inserted. The loop may be reconfigured using internal jumpers so that **PGM INPUT** is a terminated input, and **VITC OUT B** is second output from the VITC generator. (See section 5.2.3 for information on configuring internal jumpers on the VITC generator)

VITC OUT A: A BNC connector which contains the PGM INPUT video with vertical interval timecode inserted.

Character Generator Connections

VIDEO CHAR GEN INPUT: A 75 ohm terminated input of program video onto which characters are to be inserted.

VIDEO CHAR GEN OUTPUT: A BNC connector which outputs the VIDEO CHAR GEN INPUT video with characters inserted. This output is also used to display the on screen programming menu and is normally connected to a video monitor.

Gen Lock Connections

REF VIDEO IN: A BNC loop used to provide a gen-lock reference for the 5010's generator.

Parallel Remote Control Connections

PARALLEL: A 9 pin female 'D' connector used for parallel remote control inputs.

SERIAL: A 9 pin female 'D' connector used for RD-232/422 communications to a computer.

Power Connections

LINE: The model 5010 may be set for either 115v/60 Hz or 230v/50 Hz AC operation. The voltage selector switch is accessible on the rear panel. The line voltage connector contains an integral slow blow fuse (and a spare one).