Symmetricom®

700

Miniature Time Code Generator

KEY FEATURES

- IRIG B Generator and Synchronized Generator

- Compact Size

- Light Weight

- Internal Batteries Allow Output of IRIG B Time Code Through Power Interruptions of Up to Eight Hours

- Alphanumeric Display

Symmetricom's model 700™ miniature time code generator suits applications where compact size, light weight and ease of operation are required. Generator time is set automatically using the IRIG B synchro-nized generator input. Internal batteries enable the generator to output IRIG B time code even if power is interrupted for up to ten hours. The time base of this self-contained unit is maintained by a precision crystal oscillator. A small alphanumeric display provides instant visual feedback of the 700's operation. Options are available to add video time insertion, other time codes, or parallel BCD output.

Standard features include an IRIG B synchronized generator input for rapid synchronization to a master generator. This feature makes the 700 ideal for flightline or remote field applications. IRIG B serial time code (1 kHz amplitude modulated carrier) is output via an SMA connector to drive data recorders, remote displays, or other peripheral timing instrumentation.

The 700 operates on 10.5 to 32 Vdc input via a 6-pin MS connector. A locking toggle switch turns power on/off. Once power is "on," synchronization to an external IRIG B input code is automatic. A red LED lights when power is on or if the 700 system is not locked to the input code, and a green LED lights when input code synchronization is complete.

Optional features allow the 700 series to be configured to the user's specific requirements. These options include Video Time Inserter, 1x10^{-7} TCXO, and Parallel BCD output. Other input/output codes and AC power adapters are also available. Because of the unit's compact size, space reservations may limit the number of options that can be installed. Please consult the factory or your local Symmetricom sales representative with your specific requirements.

Using the 10-digit LED time-of-year display or optional Video Time Inserter, you can preset the generator time in the absence of an external IRIG B input code using the push-button switches and operate the unit as a stand-alone IRIG B generator. The push-button switches also set the operating mode, display intensity, and video time insertion parameters.

Model 700 Miniature Time Code Generator

700 Specifications

GENERAL SPECIFICATIONS

- Synchronized generator input: Synchronizes to a user-supplied 1 kHz amplitude modulated IRIG B time code. 0.1 to 10 Vpp. Approximately 10kΩ to ground input impedance. Synchronizes to within 10 microseconds of reference code input.

- LED indicator: Red indicates power is on. Green indicates locked to IRIG B input code. Flashes red/green when operating on internal battery.

- LED display: Seconds through day of year (DDDHHMMSS) with selectable intensity

- Manual controls: Locking type on/off switch

- Left and right arrows, Enter: Controls for optional display, time preset and Video Time Inserter

- Internal oscillator: 10 MHz, stability 5×10^{-5}, 0°C to +50°C

OUTPUTS

- Time code: 1 kHz amplitude modulated IRIG B days, hours, minutes and seconds, serial time code, 0 to 6 Vpp into 600Ω

- 1 PPS: Test point on front panel

- Size: 2.65" H x 3" W x 5.65 " D (6.73 cm x 7.62 cm x 14.35 cm)

- Finish: Matte black paint with white lettering

MECHANICAL/ENVIRONMENTAL

- Power: 10.5–32 Vdc
- Battery: Provides 4 to 8 hours of operation at 25°C ambient temperature (dependent upon display operation and options)
- Operating temperature: 0°C to +50°C
- Storage temperature: -60°C to +70°C
- Humidity: To 95%, noncondensing
- Weight: 1.7 lbs. (0.77 kg)

OPTIONS

- TCXO oscillator: 10 MHz, stability 5×10^{-7}, 0°C to +50°C
- Video Time Inserter: Inserted time, milliseconds through days, on user's RS-170/A composite video signal. Character size, color, background, and screen placement are user-selectable. Up to two video time inserters can be installed.

- Parallel BCD: Outputs 42 bits of binary coded decimal (BCD) time-of-year, milliseconds through days plus data strobe, via subminiature connector.

- IRIG A time code generation in addition to standard IRIG B
- IRIG G time code generation in addition to standard IRIG B
- AC Power adapter
- Extended battery: 24- to 48-hour generator operation (dependent upon options selected)
- Large capacity chassis height: 3.75 inch (9.52 cm) Used when more than one option is installed and/or when extended battery option is installed.
- Expanded temperature range: -40°C to +70°C

Note: Because of the unit's size, space reservations may limit the number of options that can be installed. Please consult Symmetricom or your local Symmetricom sales representative with your specific requirements.