

gle/GIG-100-R

Compact GNSS synchronized time code generator

Overview

gle/GIG-100-R is a compact, GNSS synchronized, time code generator with selectable IRIG B or G output in a small, rugged enclosure.

Designed for easily deployment, it has multiple output interfaces: baseband IRIG DCLS timecode signals, as well as 1 PPS output, NMEA0183 messages over RS232 with time and position information.



On request, it can be supplied with modulated IRIG B or G outputs instead of DCLS ones.

Control and data communication are supported by an RS232 interface.

Small form factor, low power consumption, and a widely available +5V power supply allow a hassle-free system integration.

Main Characteristics

GNSS engine	Seventy-two channels GPS L1C/A, GLONASS L10F, BeiDou B1 receiver
IRIG Output code	DCLS (without carrier) B or G code. On request, IRIG B or G outputs instead of DCLS ones.
IRIG Output Level	Differential RS-422 level interface for DCLS.
Time Reference	UTC time synchronization with programmable offset, max ± 12 Hours in HH:MM format
PPS signal	Differential RS-422 level interface, period 1000ms, high for 10ms, low for 990ms
NMEA 0183 output	RS-232 level including GPS/UTC Time & Position, 19.2 kbaud, 8 bit, No Parity: \$GNRMC, \$GNVTG, \$GNGGA, \$GNGSA, \$GPGSV, \$GNGLL, \$GNZDA
GNSS Antenna Input	Impedance 50 Ω ; Integrated 3.3VDC BIAS-T power output for external active antenna max. 50mA; Absolute maximum RF input level 10dBm; Suggested GNSS antenna model: Calian TW4421 or equivalent with the following specifications: Minimum LNA gain 15 dB (to compensate for signal loss in RF cable); Maximum LNA gain 30dB; Maximum LNA noise figure 1.5 dB;
LED indicators	L1: OFF = Not powered; RED = Powered with no SVs tracked or missing GNSS solution; GREEN = GNSS solution available; L2: OFF = disciplined oscillator is not synchronized; disciplined oscillator is synchronized.
Timing Accuracy	+/-0.5 PPM (when not locked to GPS / over the entire temp. range)
Temperature	-40 to +85 °C, operating and storage
Operating altitude	from any earth surface level to 8000 m AMSL
Power supply requirements	5VDC (+/-10%), <260mA typ.
Power Connector	Type MS3470L8-33P
Data I/O Connector	Type DSUB 15 socket
RF Antenna Connector	Type SMA socket
Chassis Bonding	Metric M4x0.7 stud

This product is not intended for applications where its failure to perform can be expected to cause damages to properties and/or persons and/or injury to human life.

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Due to continuous developments, specifications are subject to change without prior notice. This product is not intended for applications whose its failure to perform can be expected to cause damages to properties and/or persons and/or injury to human life.

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