

PRODUCT OVERVIEW



INTRODUCTION

TASCAM's CG-1000 master clock generator enhances the audio quality of digital converters, interfaces, and processors – especially in large digital studios.

It's designed around a high-precision OCXO. This oven-controlled crystal oscillator has 0.01PPM accuracy – the highest precision in its class. Jitter Management and Glitch-free Relocking circuits ensure highly-accurate clock outputs by smoothly reacting to dropouts. For applications demanding even more accuracy, a 10MHz input accepts signal from Rubidium or GPS-based generators.

Four video clock outs join the 12 word clock outputs. Two of the word clock outs can be set to alternate speeds, supporting 256fs for Avid systems or downsampling for mixed 96k/48k facilities. The unit can be set from 32kHz to 192kHz sampling rates.

When you're ready to maximize the potential of your digital audio gear, the CG-1000 provides the reliable heartbeat for your studio. Also available are the CG-1800 with video clock and the CG-2000 with redundant power supplies, redundant clock source, and GPO output.

FEATURES

- High-precision OCXO (Oven-Controlled Crystal Oscillator) with 0.01PPM accuracy
- Jitter management circuit for stable clock output
- Glitch-free relocking circuit prevents noise and skipping during clock dropouts and recovery
- 10MHz input for use with Rubidium or GPS clock generators
- Twelve word clock outputs, two of which support 1/2Fs, 1/4Fs, 2xFs, 4xFs, and 256xFs the selected rate
- Two AES/EBU and two S/PDIF outputs
- Four system presets, saved internally with USB drive backup
- Sampling Frequencies from 32kHz to 192kHz are supported
- Panel lock switch to prevent accidental changes
- Tri-level sync support for high-definition video
- Clock Analyzer functions for troubleshooting
- Video and word clock inputs
- AES/EBU clock input
- 1u rack mount size

SPECIFICATIONS

Word/Ext Input

Connector type: BNC
 Input level: 0.5–5.0 Vp-p
 Input impedance: 75/50 Ω (can set to 75/50/OFF in menu)

Supported frequencies

WORD CLOCK: 32/44.1/48/88.2/96/176.4/192 kHz (–4/–0.1/0.0/+0.1/+4% PULL UP/DOWN supported only when 48/96/192 kHz selected)

ATOM: 10.0 MHz

GPS: 10.0 MHz

Permissible frequency deviation: ±10 ppm

AES3/11 Input

AES3/11 INPUT
 Connector type: XLR-3-31
 Input level: 0.2–10 Vp-p
 Input impedance: 110 Ω
 Format: AES11-2003, AES3-2003, IEC60958-4

Supported frequencies:

32/44.1/48/88.2/96/176.4/192 kHz (–4/–0.1/0.0/+0.1/+4% PULL UP/DOWN supported only when 48/96/192 kHz selected)
 Permissible frequency deviation: ±10 ppm

Calibration Input

Connector type: BNC
 Input level: 0.5–5.0 Vp-p
 Input impedance: 50 Ω (can turn ON/OFF in menu)
 Supported frequencies
 ATOM: 10.0 MHz
 GPS: 10.0 MHz, PPS

Word Outputs

Connector type: BNC connector
 Output level: 1.0–3.5Vp-p (can set by 0.5V steps in menu)
 Output impedance: 75 Ω
 Supported frequencies:
 32/44.1/48/88.2/96/176.4/192 kHz
 11.2896/12.288 MHz (Super Clock, only connectors 11/12)
 (–4/–0.1/0.0/+0.1/+4% PULL UP/DOWN supported only when 48/96/192 kHz selected)

AES 3/11 Outputs

Connector type: XLR-3-32 (1: GND, 2: HOT, 3: COLD)
 Output level: 2.5 Vp-p
 Output impedance: 110 Ω
 Format: AES11-2003, AES3-2003, IEC60958-4
 Supported frequencies:
 32/44.1/48/88.2/96/176.4/192 kHz

S/PDIF Outputs

Connector type: RCA pin jack
 Output level: 0.5 Vp-p
 Output impedance: 75 Ω
 Format: IEC60958-3 (S/PDIF)
 Supported frequencies:
 32/44.1/48/88.2/96/176.4/192 kHz (–4/–0.1/0.0/+0.1/+4% PULL UP/DOWN supported only when 48/96/192 kHz selected)

Performance

Internal oscillator

Type: OCXO (oven-controlled crystal oscillator)
 Permitted frequency deviation: ±0.01 ppm (Adjusted value when shipped new from the factory)
 Frequency temperature characteristics: ±0.05 ppm (0 to 40 °C)
 Long-term frequency stability: ±0.005 ppm (daily)
 ±0.5 ppm (annually)

General / Power supply

AC: 100–240 V, 50–60 Hz
 Power consumption: 14 W
 Dimensions (W x H x D): 19" x 1.76" x 11.8"(482.6 x 44.9 x 300.5 mm)
 Weight: 7.3 lbs. (3.3 kg)
 Operating temperature range: 32°–104° F (0°–40° C)