

GUSTARD

C16

High Precision Low Phase Noise 10M Clock Generator

User's manual



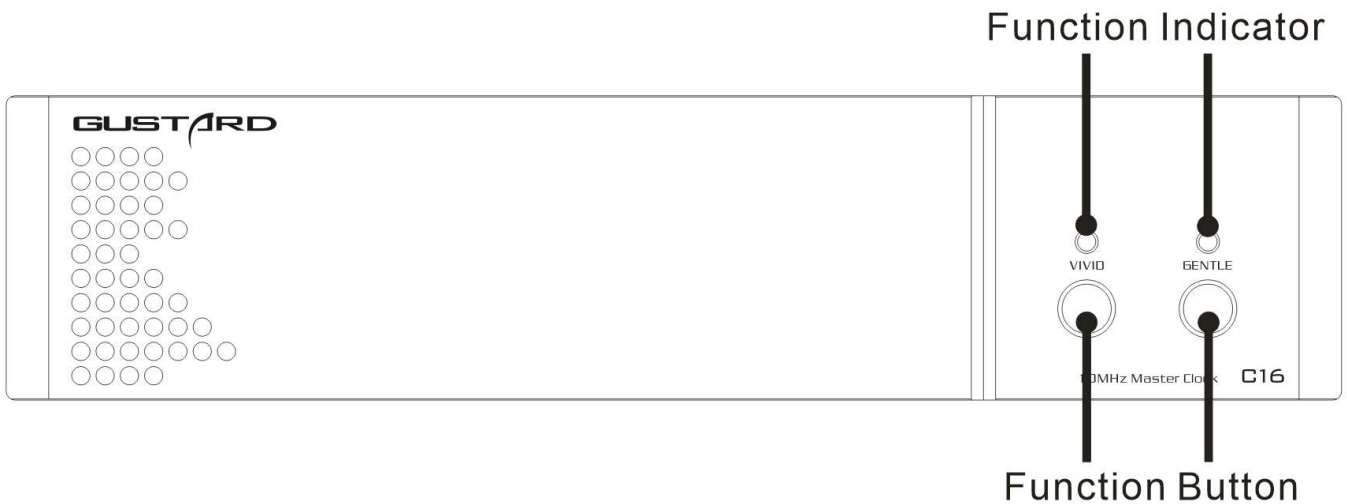
Functions and features:

- **C16 is a 10M high precision low phase noise clock generator;**
- **New customized model SC-cut OCXO with mature product line from large manufacturers in the crystal industry, stable quality;**
- **True low-jitter design with low near-end phase noise. Actual measured performance is more than two orders of magnitude higher than traditional SPXO femtosecond crystals;**
- **With six BNC interface outputs (3 + 3), divided into two types of output: direct output and isolated output;**
- **It adopts square wave output mode, which has better compatibility for back-end equipment than sine wave output;**
- **During the research and development process, the objective performance and subjective listening sensation were optimized specifically for Goethe C16 and future audio digital source equipment;**
- **Not the ultimate performance design regardless of cost, but the selection of a good cost-effective OCXO, which has achieved a good balance between performance and price. The C16 has both subjective and objective audio performance far exceeding that of the traditional SPXO femtosecond crystal, and at the same time the price is relatively friendly.**

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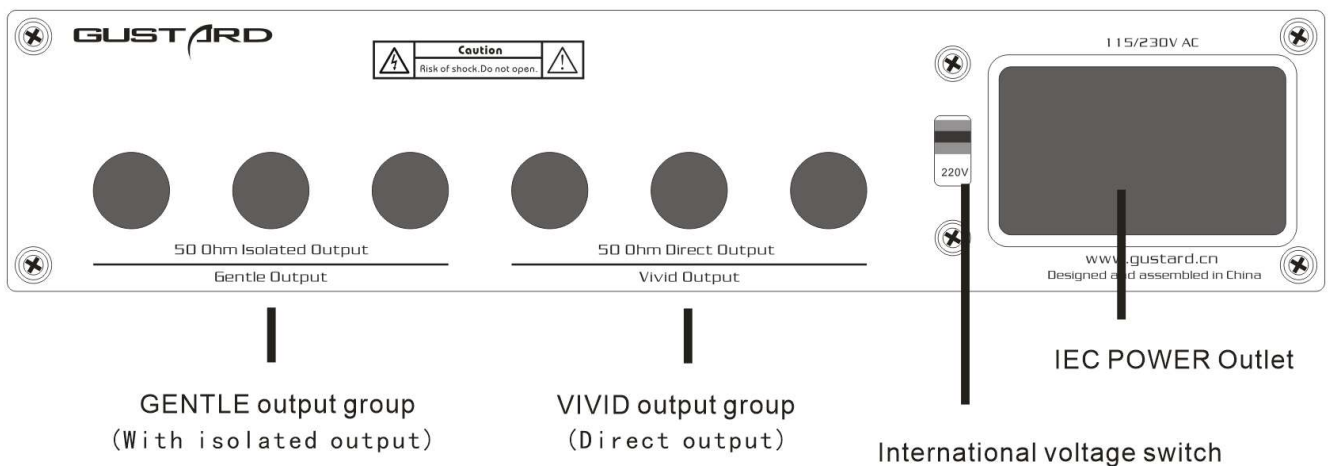
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Front panel



1. The function indicator is used to indicate the start-up, indicating the status of the warm-up, and the output status of the port.
2. VIVID button-enable control of VIVID output group.
3. GENTLE button-enable control of GENTLE output group.

Rear panel



Main functions and operations

1. Intelligent heat engine function:

When the power tailstock switch at the rear of the fuselage is turned on, the C16 enters the warm-up state, and the panel indicators flash at the same time.

2. Automatically turn on the clock output when the machine is finished

When the machine is warmed up for about 15 minutes, the panel indicators are turned on at the same time, and the VIVID group and the GENTLE group are automatically and simultaneously Turn on output



3. Key Function:

When the heat engine is finished:

VIVID is used to enable or disable the VIVID output group. Press the VIVID key, the corresponding indicator is bright to turn on the output, Dim is to turn off the output.

GENTLE is used to enable or disable the GENTLE output group. Press the GENTLE key, the corresponding indicator light is bright to turn on the output, Dim is to turn off the output.

15 minutes warm-up time:

VIVID is used to control the opening and closing of the VIVID output group. Press the VIVID key, the corresponding indicator is always on to turn on the output. Blinking turns off the output.

GENTLE is used to control the opening and closing of the GENTLE output group. Press the GENTLE key, the corresponding indicator light is always on to turn on the output. Blinking turns off the output.

Product parameters

Output frequency: 10 MHz

Output accuracy: $< \pm 300\text{ppb}$

Frequency stability: $< \pm 50\text{ppb}$

Output amplitude: $> 7\text{dBm @ } 50\text{Rz}$

Output waveform: square wave

Output impedance: 50Ω

Near-end phase noise @ 1Hz (TYP): -100dBc

Short stability (Allen variance) (TYP): $2e-12 \text{ s}$

Other specifications:

AC power supply: AC 115V/230V 50/60Hz

Power consumption: $< 15\text{W}$

Dimensions: width 220mm * height 50mm * depth 170mm (without protruding parts)

Weight: 2.5Kg (including packaging)

Product Warranty:

You will enjoy the 2-year free warranty and lifetime maintenance after the date purchasing GUSTARD' s C16 product.

*The manufacturer bears only the freights from Chinese mainland. Part of the freight and tax generated from overseas will be solved by the user with the dealer negotiation.

Free Warranty Service

GUSTARD C16 from the purchasing date in the free warranty period, the user uses the product in normal, and the product fails due to component quality or manufacturing problems.

Beyond the Warranty Service

Belonging to one of the following circumstances, products are no longer provided warranty service.

- a. Products from the date of purchase has exceeded a predetermined warranty period.
- b. Model, barcodes and purchase date do not match the actual product and warranty card.
- c. Without GUSTARD technician permission, unauthorized modifications to the circuit, components or self-repaired product.
- d. Damaging caused by irresistible natural forces.
- e. Beyond the permitted use of environmental damage.
- f. Damaging due to incorrect use or improper storage. Including but not limited to: the voltage is too high to burn the circuits or components; Bumping and resulting in damaging the shell or internal; damaging due to water, oil, liquid and excessive dust; product oxidation or corrosion, etc.
- g. Beyond the warranty period, such as an individual component damage, appearance due to human damage, firmware modifications lead to unable to work by unauthorized users. GUSTARD commits to take reasonable maintenance fees (except large area components or circuit board burned beyond repair). Freight and maintenance costs, material costs are required the user to bear.