

Gustard R30

Gustard R30 True 1-bit DAC User Manual

MODEL: R30

1. Introduction

This manual provides detailed instructions for the setup, operation, and maintenance of your Gustard R30 True 1-bit Digital-to-Analog Converter (DAC). The R30 is designed to deliver high-fidelity audio reproduction through its advanced discrete R-2R architecture and versatile input/output options.



Image 1.1: Front view of the Gustard R30 True 1-bit DAC.

1.1. What's in the Box

- Gustard R30 DAC Unit
- USB Cable
- Remote Control
- Power Cable
- Gustard Card (Warranty/Information)

2. Key Features

The Gustard R30 incorporates several advanced technologies to ensure exceptional audio performance:

2.1. Discrete R-2R Module

The R30 utilizes a discrete R-2R network with precisely matched resistors for digital-to-analog conversion. This architecture aims to reproduce audio signals with high fidelity and natural sound characteristics, distinct from delta-sigma DAC designs.



Image 2.1: Detailed view of the Discrete R-2R DAC module.

2.2. True 1-bit DSD Decoding

The R30 supports native DSD1024 resolution through its true 1-bit DSD DAC architecture. In DIRECT mode, DSD signals are processed without PCM conversion, preserving the original digital stream for authentic playback.

2.3. Versatile Digital Inputs

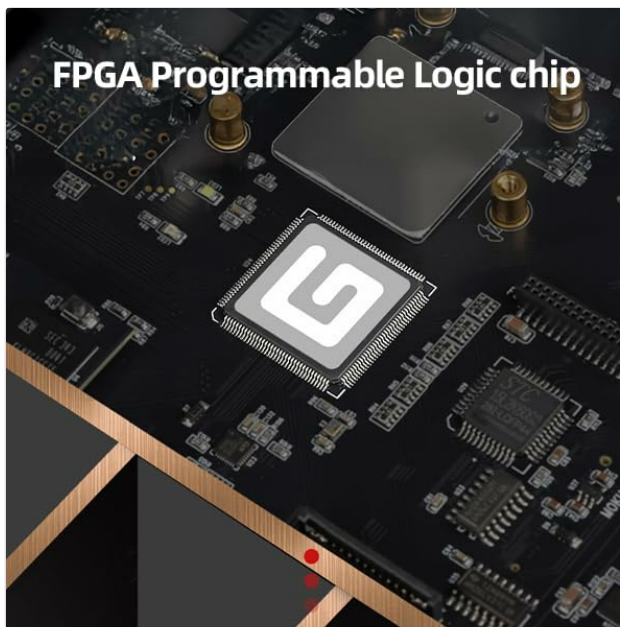
The device offers multiple digital input options, including USB, LAN, Optical, Coaxial, AES, and IIS. USB, LAN, and AES inputs support audio decoding up to PCM 32Bit/768kHz and DSD512, allowing connection to various source devices.

2.4. Flexible Analog Outputs

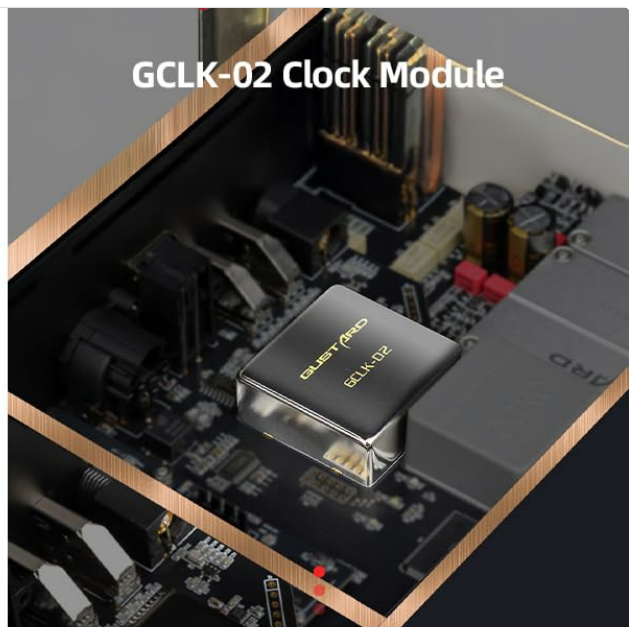
Analog audio outputs are provided via RCA and XLR connections, facilitating integration with power amplifiers, active speakers, and other Hi-Fi audio equipment.

2.5. GCLK-02 Clock Module and External Clock Support

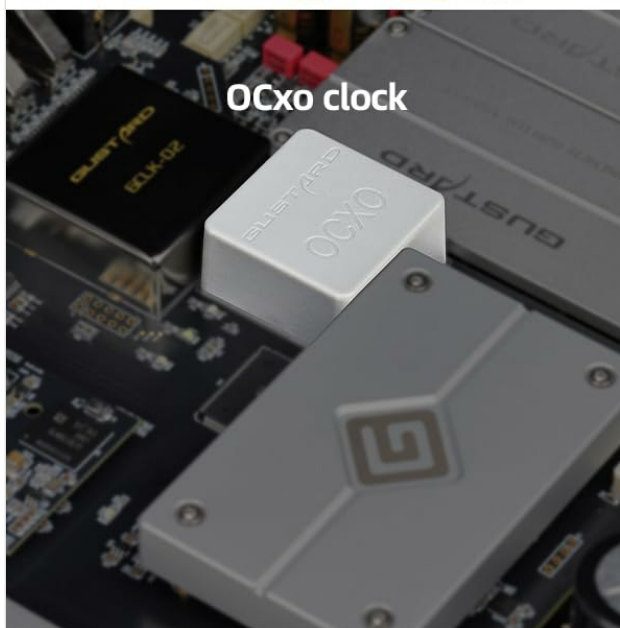
The integrated GCLK-02 clock module utilizes advanced PLL technology for precise clock signal processing. The R30 also supports external 10MHz clock input for further enhancement of audio quality.



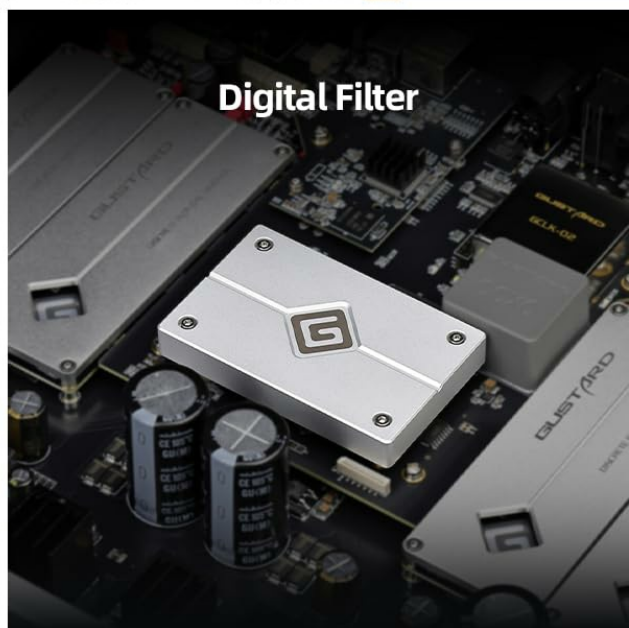
FPGA Programmable Logic chip



GCLK-02 Clock Module



OCXO clock



Digital Filter

Image 2.2: Internal view showing FPGA, GCLK-02 Clock Module, OCXO clock, and Digital Filter.

2.6. Network Streaming Capabilities

The R30 supports various network streaming protocols and services, including Roon Bridge, AirPlay, UPnP/DLNA, HQPlayer NAA, mConnect, BubbleUPnP, and Spotify. Access these features by navigating to <http://r30.local> in a web browser on a connected device.

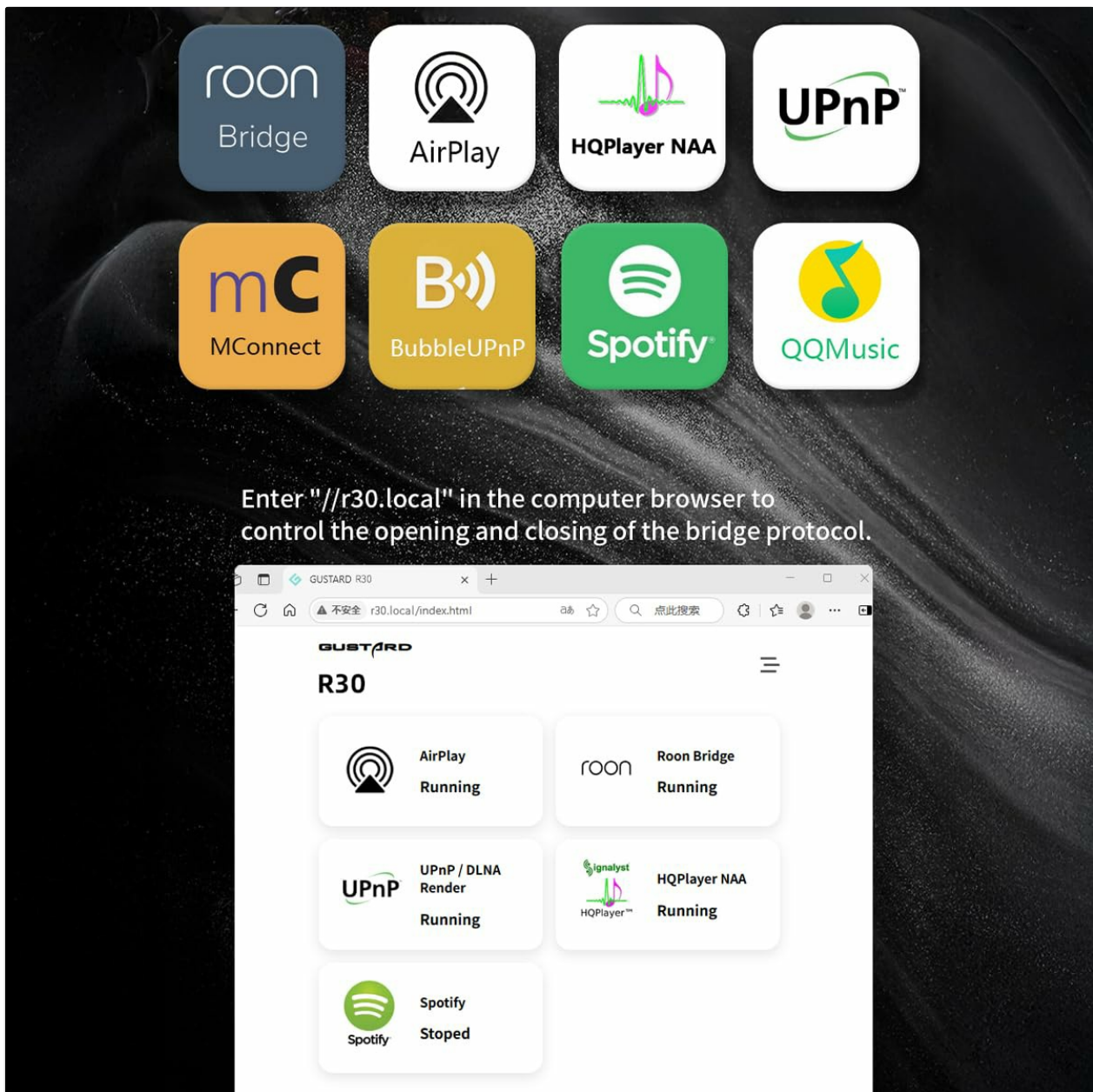


Image 2.3: Supported network streaming applications.

2.7. 12V Trigger System

The DAC-R30 includes 12V trigger input and output, enabling synchronized power on/off with compatible audio components for streamlined system control.

3. Setup

3.1. Placement

Place the R30 on a stable, level surface away from direct heat sources, moisture, and strong electromagnetic fields. Ensure adequate ventilation around the unit.

3.2. Power Connection

1. Connect the provided power cable to the AC inlet on the rear panel of the R30.
2. Plug the other end of the power cable into a suitable AC power outlet.

3.3. Audio Input Connections

Connect your digital audio source(s) to the corresponding input ports on the R30's rear panel:

- **USB:** For connecting to a computer or other USB audio source.
- **Optical (TOSLINK):** For connecting to TVs, CD players, or other optical digital sources.
- **Coaxial (RCA):** For connecting to CD transports or other coaxial digital sources.
- **AES (XLR):** For professional audio equipment with AES/EBU digital output.
- **IIS (HDMI):** For connecting to compatible IIS-enabled audio devices.
- **LAN (Ethernet):** For network streaming from a local network or internet services.

3.4. Audio Output Connections

Connect the R30 to your amplifier or active speakers:

- **RCA Outputs:** Use high-quality RCA cables to connect to the analog inputs of your amplifier or active speakers.
- **XLR Outputs:** Use balanced XLR cables for optimal signal integrity when connecting to compatible balanced inputs on your amplifier or active speakers.

3.5. 12V Trigger Connection (Optional)

If your other audio components support 12V trigger, connect a 12V trigger cable between the R30 and the compatible device to enable synchronized power control.

4. Operation

4.1. Power On/Off

Press the standby switch on the front panel to power on or power off the unit. The display will illuminate upon power-on.

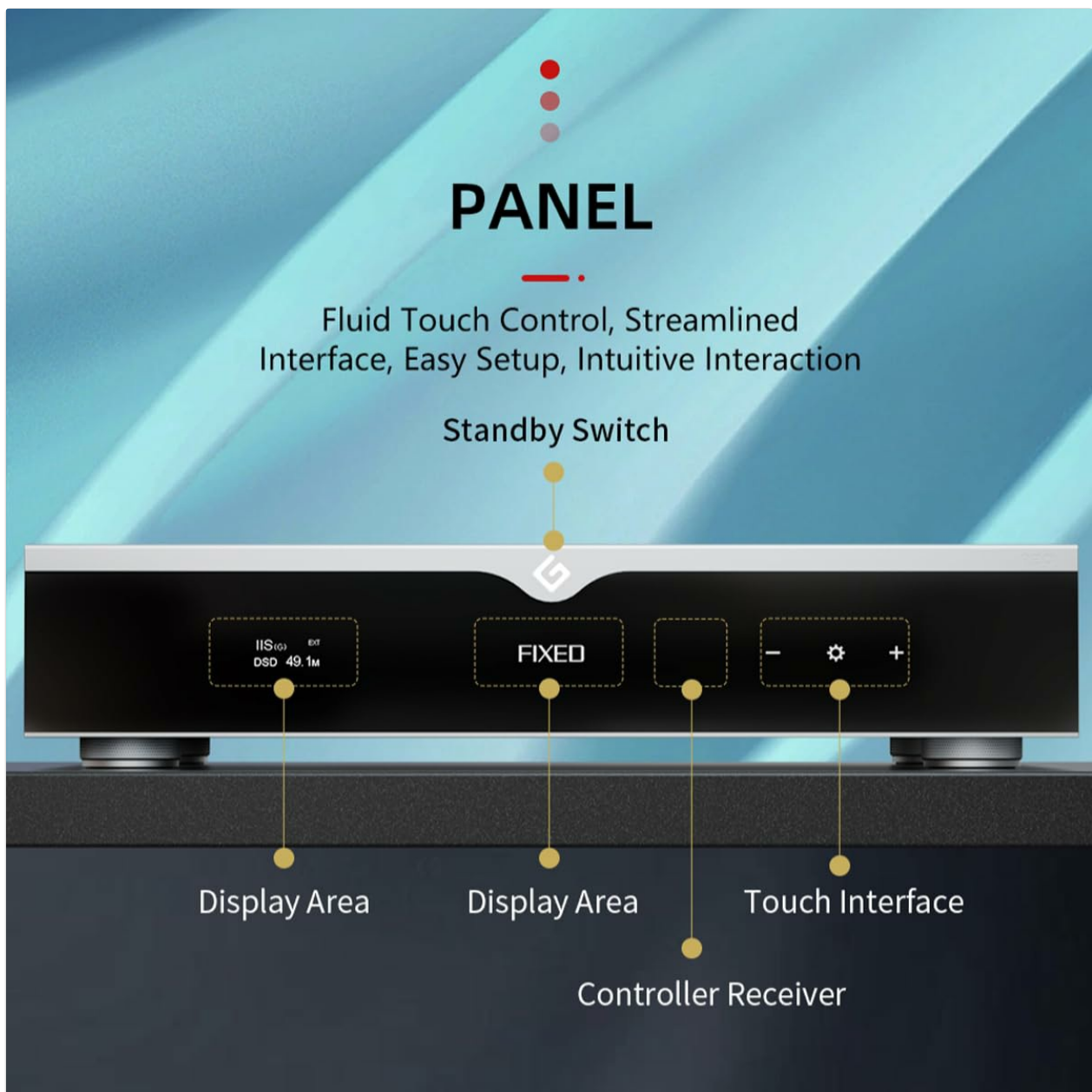


Image 4.1: Front panel layout with display and touch interface.

4.2. Input Selection

Use the touch interface buttons on the front panel or the remote control to cycle through the available digital inputs (USB, Optical, Coaxial, AES, IIS, LAN). The selected input will be indicated on the display.

4.3. Volume Control (Preamp Function)

If using the R30 as a preamp, adjust the volume using the '+' and '-' buttons on the front panel or the remote control. The volume level will be shown on the display. Ensure the volume is set to a safe level before playing audio.

4.4. Network Streaming

To configure and manage network streaming services (Roon Bridge, AirPlay, etc.), open a web browser on a device connected to the same network as the R30 and navigate to <http://r30.local>. Follow the on-screen instructions to enable or disable specific protocols.

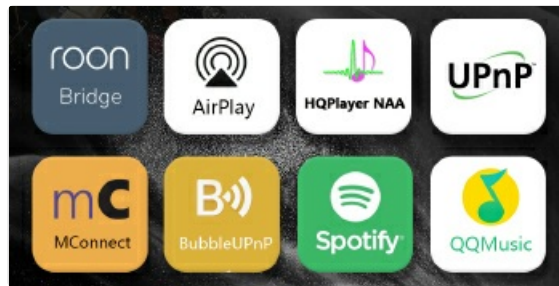


Image 4.2: Supported network streaming protocols.

4.5. Remote Control Functions

The included remote control provides convenient access to power, input selection, volume adjustment, and other settings. Refer to the remote control diagram for specific button functions.



Image 4.3: Gustard R30 DAC and its remote control.

5. Maintenance

To ensure the longevity and optimal performance of your Gustard R30 DAC:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid abrasive cleaners or solvents.
- **Ventilation:** Ensure that the ventilation openings are not obstructed.
- **Storage:** If storing the unit for an extended period, disconnect it from power and store it in a cool, dry place.
- **Power:** Always disconnect the power cable before performing any cleaning or maintenance.

6. Troubleshooting

If you encounter issues with your R30 DAC, refer to the following common troubleshooting steps:

- **No Power:**
 - Check if the power cable is securely connected to both the R30 and the power outlet.
 - Verify that the power outlet is functional.
 - Ensure the standby switch on the front panel is pressed.
- **No Sound Output:**
 - Confirm that the correct input source is selected on the R30.
 - Check all audio cables (RCA/XLR) for secure connections between the R30 and your amplifier/active speakers.
 - Ensure your amplifier/active speakers are powered on and set to the correct input.
 - Adjust the volume level on the R30 and your amplifier.
 - For USB input, ensure the necessary drivers are installed on your computer (if required).
- **Intermittent Audio/Distortion:**
 - Check all cable connections for looseness or damage.
 - Ensure the sample rate and bit depth settings on your source device match the R30's capabilities.
 - Try a different input source or cable to isolate the issue.
- **Network Streaming Issues:**
 - Ensure the R30 is connected to your network via an Ethernet cable.
 - Verify that your network is functioning correctly.
 - Access <http://r30.local> to check the status of streaming services and enable/disable them as needed.
 - Restart your network router and the R30.

7. Specifications





Feature	Specification
Product Dimensions	15.75 x 11.81 x 0.04 inches
Weight	22.05 Pounds
Item Model Number	R30



Feature	Specification
Manufacturer	Gustard
Number of Channels	2
Interface Types	AES, Coaxial, IIS, LAN, Optical, USB
Material	Aluminum

8. Warranty and Support

For warranty information and technical support, please refer to the Gustard Card included in your product packaging or visit the official Gustard website. Contact the seller or manufacturer directly for assistance with product-related issues or service requests.

Related Documents - R30

	<p>Gustard R30 User Manual: Fully Discrete R2R Network Streaming DAC</p> <p>User manual for the Gustard R30, a fully discrete R2R network streaming DAC. This guide details front and rear panel controls, display functions, setup menu options, menu functions like PCM filter and IIS modes, IR remote operation, network streamer setup, product specifications, and warranty information.</p>
	<p>Gustard R26 High-Performance Audio DAC User Manual</p> <p>User manual for the Gustard R26 High-performance Audio DAC, detailing its features, operation, specifications, and warranty information.</p>
	<p>Gustard R26 High-Performance Audio DAC User Manual</p> <p>Detailed user manual for the Gustard R26 High-Performance Audio DAC. Covers MQA technology, front and back panel controls, screen and menu operations, remote control functions, comprehensive specifications, and product warranty information. Essential guide for audiophiles using the Gustard R26.</p>
	<p>GUSTARD X30 High Performance Audio DAC User Manual</p> <p>Comprehensive user manual for the GUSTARD X30 High Performance Audio DAC, detailing its features, operation, settings, specifications, and warranty information.</p>

	<p>GUSTARD DAC-X30 : Manuel d'Utilisateur Complet pour Audio Haute Performance</p> <p>Découvrez le GUSTARD DAC-X30, un DAC audio haute performance. Ce manuel utilisateur détaille les fonctionnalités, les réglages avancés, la télécommande IR et la fonction streamer pour optimiser votre expérience audio.</p>
	<p>Gustard A26 High Performance Audio DAC User Manual</p> <p>Comprehensive user manual for the Gustard A26 High Performance Audio DAC, covering features, operation, specifications, and warranty information. Learn about MQA, input/output options, and menu settings.</p>

Documents - Gustard – R30



[Gustard R30 Fully Discrete R2R Network Streaming DAC User Manual](#)

User manual for the Gustard R30, a fully discrete R2R network streaming DAC. This guide covers front and rear panel controls, setup menu options, menu functions, IR remote operation, network bridge streamer setup, detailed product specifications, and warranty information.

lang:en **score:30** filesize: 1.7 M page_count: 18 document date: 2025-08-18



[Gustard R30 Fully Discrete R2R Network Streaming DAC User Manual](#)

User manual for the Gustard R30, a fully discrete R2R network streaming DAC. Covers front panel, rear panel, display, setup menu, remote control, network streamer, product specifications, and warranty information.

lang:en **score:30** filesize: 1.7 M page_count: 18 document date: 2025-08-22



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lang:en **score:26** filesize: 1.7 M page_count: 18 document date: 2025-08-18

Shenzhen Gustard Technology Co., Ltd.

Family models declaration letter.

Date: September 22, 2022
We
Shenzhen Gustard Technology Co., Ltd.
Of
Rm 302, Bldg 1, Shennan Rd 2B, Guantian, Longhua District, Shenzhen, Guangdong Prov., China.
Product: DAC

Model Name: X18pro
Serial Model: A18pro,A22pro,R26,T26,X26pro,A30,R30,T30,H20pro

All models differences are only the model name and appearance color are different, others are the same
Thank

Sincerely

Signature 

Name: Zhi Wang Date: Sep-22,2022

Title: General manager

[\[pdf\]](#) Decleration of Conformity

Family models declaration letter junexie familymodelsdeclarationletter Shenzhen Gustard Technology Co
Ltd X18PRO DAC 2A8QP 2A8QPX18PRO x18pro

Shenzhen Gustard Technology Co., Ltd. Family models declaration letter. Date:
September 22, 2022 We ... gdong Prov., China. Product: DAC Model Name: X18pro
Serial Model: A18pro,A22pro,R26,T26,X26pro ,A30,**R30**,T30,H20pro All models
differences are only the model name and appearance color are different, ot...
lang:tl score:22 filesize: 214.53 K page_count: 1 document date: 2022-09-22