DENAFRIPS

ARCAS STREAMER

OWNER'S MANUAL
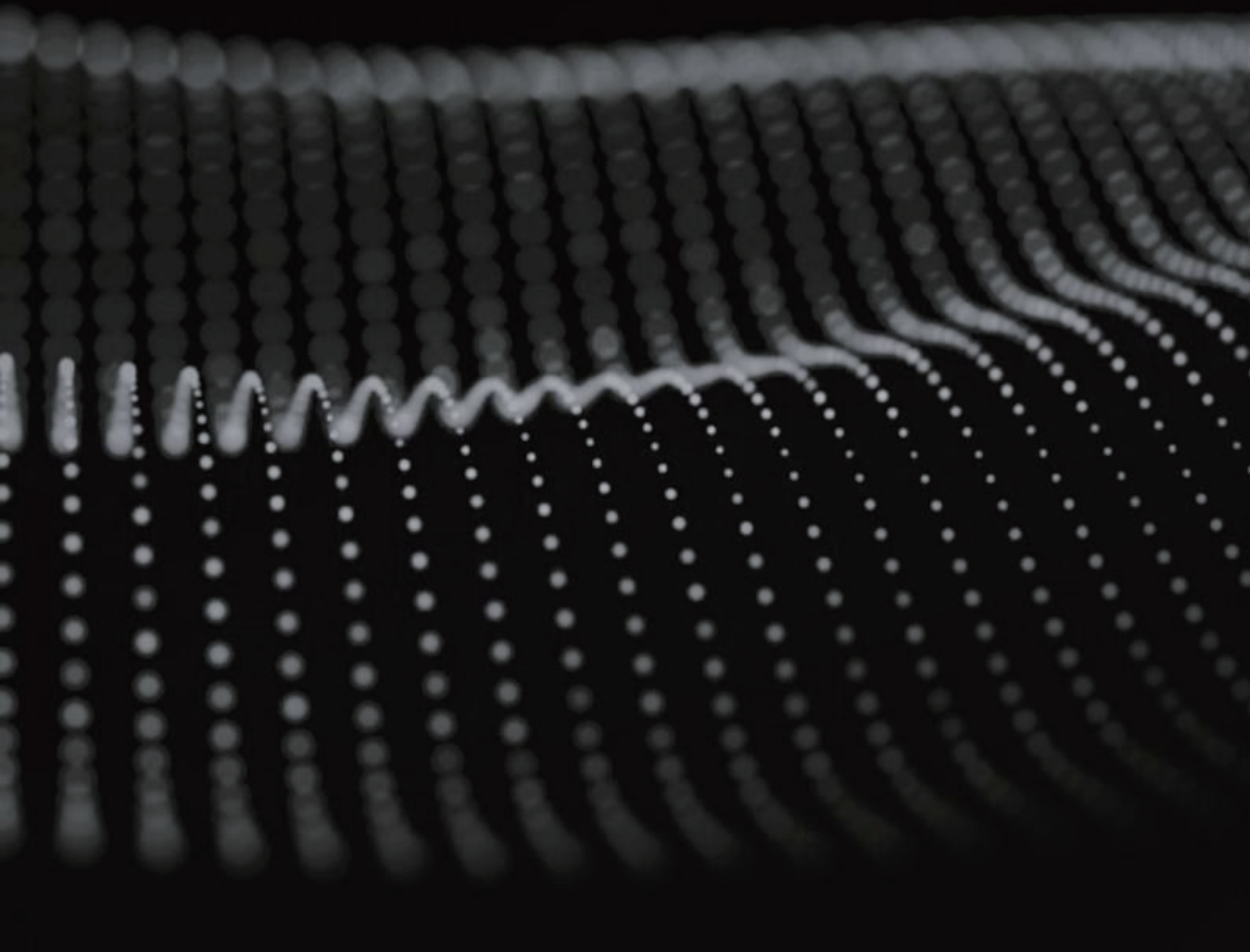
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This STREAMER is designed and built to provide trouble–free performance, but as with all electronic devices it is necessary to observe a few precautions:

1.Unpack the STREAMER carefully.
2.Position the STREAMER on a stable, horizontal surface, i.e. sturdy rack
3.ARCAS can automatically adjust the voltage internally, so there is no power conversion switch at the bottom of the machine.
4.Please connect the AC power cord with earth(ground) pin unless it is absolutely required to reduce hum from the ground loops of the connected devices
5.Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is turned off.
6.Position the power cord and signal interconnects where they are not likely cause trip and fall hazard.
7.Do not use the STREAMER near water, or place water–filled containers on the STREAMER.Entry of liquid into the STREAMER is hazardous and may cause electric shock and/or fire hazard.
8.Do not place the unit under direct sunlight or heat source.
9.Do not remove any covers or try to gain access to the inside. There are no user adjustments or fuses to change without qualification.
10.Clean regularly with a damp soft cloth. Do not use any cleaning agents as it might damage the surface finishing.
11.The electronics in modern hi–fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of the audio system during electrical storms, disconnect the mains plugs.

Thank you for purchasing the DENAFRIPS ARCAS STREAMER,

"ARCAS, the inaugural streamer of DENAFRIPS, designed with a primary focus on deliveringan exceptional sound quality experience."

As a tribute to DENAFRIPS' 12 years of unparalleled digital audio expertise, the ARCAS streamer has been crafted to prioritize sound quality above all else. This remarkable devicesupports roon Bridge , HQPlayer NAA, Airplay, and DLNA, catering toaudiophiles seeking diverse playback options.

ARCAS streamer's capabilities extend beyond its primary features. It offers seamless playbackof local files through USB, SD card, and NAS, empowering users to enjoy their music libraryeffortlessly.
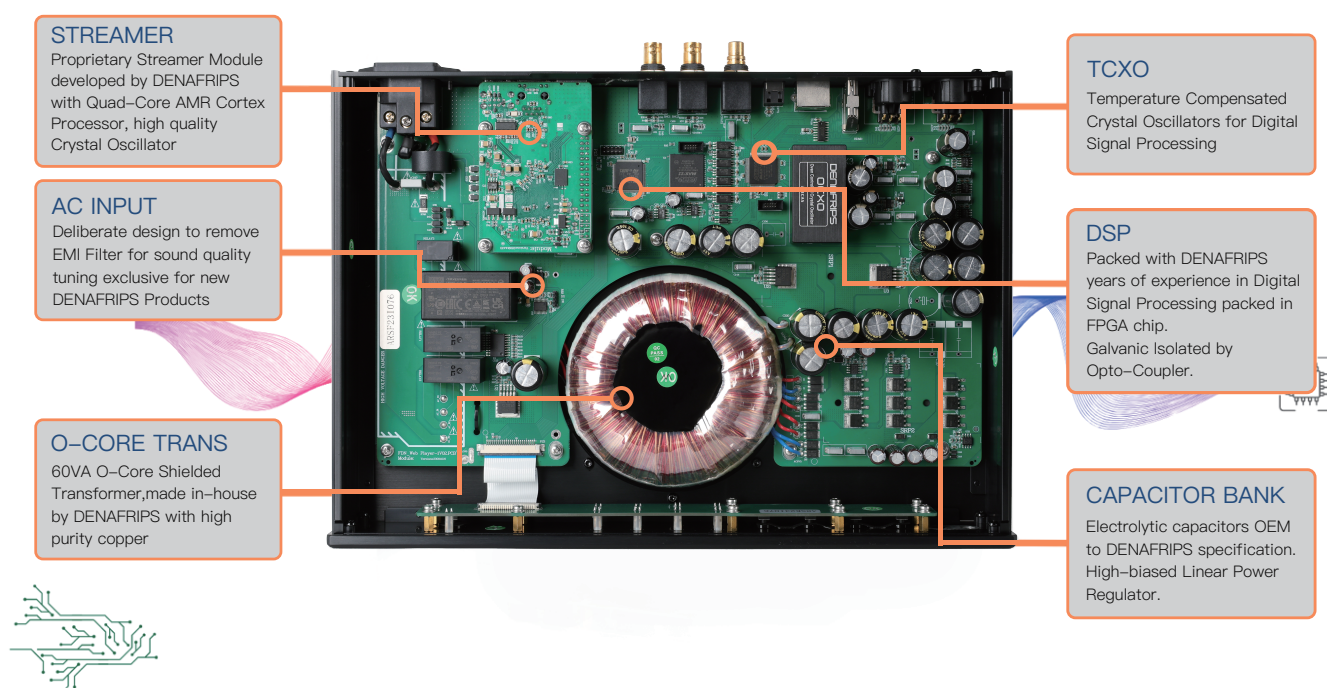
3.1 ADAPTIVE FIFO BUFFER RECLOCKING

The DENAFRIPS approach to address the jitters issue by FIFO BUFFER RECLOCKING. Theadaptive FIFO buffer store the source digital audio data in the memory. These data are readfrom the memory using the low phase noise, precision TCXO FEMTO Clock, located right inthe STREAMER.

This technology is close to the perfection, especially so with the local FEMTO Clock. Thejitter is so small that it can be neglected.

3.2 PROPRIETARY STREAMER MODULE

The ARCAS STREAMER is equipped with a unique Streamer Module – developed by DENAFRIPS engineer in–house – incorporating a Quad–Core AMR Cortex Processor, High Quality CrystalOscillators, LT Fast Transient Response, Low Noise, and LDO Regulators. Tailored OperatingSystem(OS)optimized to deliver a euphoric sound experience

3.3 STREAMER ARCHITECTURE

STREAMER
Proprietary Streamer Module developed by DENAFRIPS with Quad–Core AMR Cortex Processor, high quality Crystal Oscillator

AC INPUT
Deliberate design to remove EMI Filter for sound quality tuning exclusive for new DENAFRIPS Products

O–CORE TRANS
60VA O–Core Shielded Transformer,made in–house by DENAFRIPS with high purity copper

TCXO
Temperature Compensated Crystal Oscillators for Digital Signal Processing

DSP
Packed with DENAFRIPS years of experience in Digital Signal Processing packed in FPGA chip.
Galvanic Isolated by Opto–Coupler.

CAPACITOR BANK
Electrolytic capacitors OEM to DENAFRIPS specification. High–biased Linear Power Regulator.

DIGITAL SIGNAL PROCESSING — The FPGA chip of this product is filled with DENAFRIPS' extensive experience in Digital Signal Processing. Furthermore, the digital signals are safeguarded through Galvanic Isolation using Opto–Couplers

4.1 Quick Start Guide

The ARCAS STREAMER is easy to use. Nonetheless, please read this section to fully understand the functions and features available.

Figure 1.   ARCAS STREAMER Front Panel

Description:

(1) Standby Button
Press the button once to switch on the STREAMER, vice versa, press once to switch the STREAMER into standby mode.
The Standby LED shall be on when the STREAMER is in Standby Mode. The LED shall be dimmed when the STREAMER is in Operating Mode.
(2) LED Status

LED	On State	Off State
SETUP	Device in setup mode	Normal mode
I2S/USB	USB output	Coaxial, Optical, Balanced, I2S output
NET	Network connected	Network disconnected
LOCAL	Playing local files	Using streaming service
STREAM	Streaming service selected	

(3) SETUP Button
Press the button once to enter Setting Mode — SETUP LED On. Press the button once again to exit Setting Mode — SETUP LED Off.

(4) I2S/USB Button
Controls the output: when the I2S/USB LED is on, USB output is selected; when off, Coaxial, Optical, Balanced, and I2S outputs are active.

(5) Source Button
Use the source button to select the desired streaming source the indicator light of the selected streaming source will illuminate.

| roon Roon | HQP | Airplay | DLNA |

(6) Local Button
Press the button once to set the ARCAS Streamer to playback music from local files control via Android based App .

Mobile Application

| Download iOS App | Download Android App |

Download link：https://www.denafrips.com/download-arce

Parameter Settings:

I2S Pin–Out Configuration:

1. Press SETUP button once, SETUP LED on. ARCAS Streamer in Setting Mode
2. In Setting Mode, the push buttons and LEDs on the front panel represent
   a different meaning.

Button	On
I2S/USB	Setting Selection– Left
SOURCE	Setting Selection– Right

3. Press I2S/USB or SOURCE button. The Streaming Service LED will turn on/off
   according. Stop when 'roon' LED is turned on. You are in I2S Setting Mode as
   the 'roon' LED on.
4. Toggle the LOCAL button momentarily, I2S/NET/LOCAL will turn on/off in a fixed
   pattern to denote binary 000–111
5. Set the I2S Pinout to 000
6. Wait for 5s or Press the SETUP button once again to exit Setting Mode
7. STREAMER back in operational mode

I2S Pinout Configuration

Mode	LED			I2S PINOUT						
	I2S	NET	LOCAL	PIN	DATA		BCK		LRCK	
	DATA	BCK	LRCK	Mode	1	3	4	6	7	9
1	0	0	0	1	DATA–	DATA+	BCK+	BCK–	LRCK–	LRCK+
2	1	0	0	2	DATA+	DATA–	BCK+	BCK–	LRCK–	LRCK+
3	0	1	0	3	DATA–	DATA+	BCK–	BCK+	LRCK–	LRCK+
4	1	1	0	4	DATA+	DATA–	BCK–	BCK+	LRCK–	LRCK+
5	0	0	1	5	DATA–	DATA+	BCK+	BCK–	LRCK+	LRCK–
6	1	0	1	6	DATA+	DATA–	BCK+	BCK–	LRCK+	LRCK–
7	0	1	1	7	DATA–	DATA+	BCK–	BCK+	LRCK+	LRCK–
8	1	1	1	8	DATA+	DATA–	BCK–	BCK+	LRCK+	LRCK–

Table 1. I2S PINOUT CONFIGURATION

I2S DSD L/R Channel Configuration:

1. Press SETUP button once, SETUP LED on. ARCAS Streamer in Setting Mode
2. In Setting Mode, the push buttons and LEDs on the front panel represent a different meaning.

Button	On
I2S/USB	Setting Selection– Left
SOURCE	Setting Selection– Right

3. Press I2S/USB or SOURCE button. The Streaming Service LED will turn on/off according. Stop when 'DLNA' LED is turned on. You are in I2S DSD L/R Channel Setting Mode as the 'DLNA' LED on.
4. Toggle the LOCAL button momentarily, LOCAL LED will turn on/off.
   • LOCAL LED Off — I2S DSD Channel Norm
   • LOCAL LED On — I2S DSD Channel Swap
5. Wait for 5s or Press the SETUP button once again to exit Setting Mode
6. STREAMER back in operational mode

External Clock Configuration:

1. Press SETUP button once, SETUP LED on. ARCAS Streamer in Setting Mode
2. In Setting Mode, the push buttons and LEDs on the front panel represent a different meaning.

Button	On
I2S/USB	Setting Selection– Left
SOURCE	Setting Selection– Right

3. Press I2S/USB or SOURCE button. The Streaming Service LED will turn on/off according. Stop when 'Airplay' LED is turned on. You are in External Clock Setting Mode as the 'Airplay' LED on.
4. Toggle the LOCAL button momentarily, NET LED will turn on/off.
 • NET LED Off — ARCAS uses internal clock
 • NET LED On — ARCAS uses external clock
5. Wait for 5s or Press the SETUP button once again to exit Setting Mode
6. STREAMER back in operational mode

Dual AES output configuration:

1. Press the SETUP button once, the SETUP indicator lights up, and ARCAS enters the setup mode.
2. In the setup mode, the buttons and indicators on the front panel will have different functions.

Button	On
I2S/USB	Setting Selection– Left
SOURCE	Setting Selection– Right

3. Press the I2S/USB or SOURCE button and the corresponding streaming service indicator will turn on/off.Stop when the 'HQP' indicator lights up, indicating that you are in dual AES output configuration.
4. Briefly toggle the LOCAL button and the I2S/USB indicator will turn on/off.
   * I2S/USB indicator off — ARCAS is in single AES output mode
   * I2S/USB indicator on — ARCAS is in dual AES output mode
5. Wait 5 seconds or press the SETUP button again to exit setup mode.
6. ARCAS returns to operating mode.

Figure 2. ARCAS STREAMER Rear Panel

Description:

(1) AC Power Input

ARCAS will automatically select the correct voltage.

(2) USB

USB ports for USB Storage Devices local files play.

(3) NET

Ethernet RJ45 Network Port. Connect ARCAS Streamer to the Home Network (Router). The router shall assign an IP address to the ARCAS Streamer. Once the NET LED on the front panel is turned on, the streamer is ready to use.

(4) Digital output interfaces

There are 5 digital output interfaces: USB, COAX, AES, OPT, I2S–A. All outputs can be activated simultaneously.

(5) CLOCK IN

The ARCASStreamer supports the following clock frequencies input, leveraging the high–quality OCXO of the TERMINATOR II or TERMINATOR PLUS DAC, it may be connected to ARCAS CLOCK–IN to improve the sonic performance.

MASTER CLOCK

• 45.1548MHz, 49.152Mhz

NOTE:

The ARCAS STREAMER chassis is connected to the power supply earth.

SPECIFICATIONS

Description	Parameters
Supported Streaming Services	Roon Bridge (Roon Ready pending)
	HQPlayer NAA
	AirPlay (16/44.1kHz)
	DLNA (16/44.1kHz)
DSD	All outputs support DSD64 / 2.8224MHz (DoP)
	I2S output supports DSD512
PCM	All outputs support 24bit / 44.1, 48, 88.2, 96, 176.4, 192kHz
	I2S output supports 384kHz
Digital Output Interfaces	Coaxial x 1
	AES/EBU x 2
	Optical x 1
	HDMI I2S LVDS x 1
	USB
Network Connection	Ethernet RJ45
File Playback from Storage	USB storage devices, SD card, network shared folders (NAS)
Power Requirements	AC115V/50Hz, AC230V/60Hz, globally adaptive voltage
Power Consumption	≤20W
Dimensions	215 x 230 x 45 mm
Weight	3.5 kg

After-Sales Service

1.Thank you very much for choosing DENAFRIPS products. This product comes with a three-year free warranty service. During the warranty period, if the product fails due to non-human factors, we will provide free repair or replacement services.

Within Warranty Period: Within three-year from the date of purchase, under normal use and non-human damage, if there are any product quality or functional issues.	DENAFRIPS provides free repair or replacement of parts and covers the round-trip shipping costs.
Within the Warranty Period: Within three-year from the date of purchase, if any product quality or functional issues occur due to human-caused damage.	The specific charges will be determined based on the actual fault and the cost of replacing parts. Please contact our after-sales service center for a detailed repair quote. The customer is responsible for the round-trip shipping costs.
After the Warranty Period: Paid repair service will be available after the warranty period expires. We will continue to provide repair services for a fee.	Specific charges will be determined based on the actual fault condition and the cost of replacement parts. Please contact our after-sales service center for a detailed repair quote. The customer is responsible for the round-trip shipping costs.

2. The product will not be eligible for free warranty service under any of the following conditions:
   a. The product has exceeded the specified warranty period from the date of purchase.
   b. The product does not match the model, barcode, or purchase date listed on the warranty card.
   c. Unauthorized modification or repair of circuits or components by anyone other than DENAFRIPS technicians.
   d. Damage caused by human factors (such as dropping, impact, water exposure, fire, etc.).
   e. Damage caused by irresistible natural forces (such as earthquakes, floods, lightning strikes, etc.).
   f. Damage caused by exceeding the allowed operating environment.
   g. Damage caused by improper use or storage (including but not limited to: circuit or component burnout due to excessive voltage; damage to the casing or internal components due to impact; damage caused by excessive dust; product oxidation or corrosion, etc.).

3. This warranty policy applies only to customers who purchase products from the official website. For products purchased from distributors, the warranty terms will be governed by the warranty policy established by the seller.

DENAFRIPS

Phone：020-84923054

Email：support@denafrips.com

official website：https://www.denafrips.com/