HOLO AUDIO MAY

DIGITAL ANALOG CONVERTER (DAC)

梅 USER'S MANUAL

Note: Please connect DC power cable *before* AC power cable. Disconnect the AC power *before* disconnecting the DC power. *Failure to do so could potentially cause damage.*

TABLE OF CONTENTS

PRODUCT OVERVIEW

梅

MAY

"The Possibility Of"
by Holo Audio

A new generation DAC of fully discrete resistor network (commonly known as R2R).

FEATURES:

- ❀ The new generation of linear compensation technology solves the accuracy errors caused by resistor tolerance, after compensation, reaching a variance of 0.00005% tolerance accuracy.

- ❀ Proprietary anti-jitter technology that provides a full amplitude of anti-jitter without increasing noise floor and other undesirable effects.

- ❀ Based on this new generation of technology May "梅" can provide a SINAD of >115dB and a dynamic range of >130dB, which represents the performance limit reached by today's most advanced R2R architecture DAC.

- ❀ Using the ultimate performance of PLL+FIFO technology, provides 0.1Hz Third-Order low-pass ability to inhibit jitter. It also uses a high-performance femtosecond VCXO as the PLL clock source. Under the premise of being almost immune to the front-end jitter, it can also lock up to 1.5us-2us @ 1KHz signal with high jitter. (It can lock up to 1.5us-2us @ 1kHz signal with high jitter on the premise of almost being immune front-end jitter).

- ❀ Dual Mono DAC L/R channels are independently powered by their own dedicated transformer in the PSU chassis. This provides better channel separation and more accurate sound stage.

- ❀ Supports USB and I2S up to DSD1024 and PCM1.536MHz sample rates.

- ❀ The USB interface uses proprietary firmware with ultra-low latency, a highly reliable data transmission, ideal USB eye pattern measurements that contributes to 2-4 times higher performance than official firmware.

- ❀ Two sets of independent HDMI-I2S input interfaces are provided, and each set of I2S has a four-way independent circuit, as opposed to standard LVDS chip, making I2S clock signals subject to lower interference and lower jitter. In addition, each group of I2S inputs can be configured with specific pinout configuration, making it compatible with most of the HDMI-I2S digital devices on the market.

SPECIFICATIONS

DIGITAL INPUT

COAXIAL1, COAXIAL2, OPTICAL, AES	PCM 44.1-192K (24bit)
	DSD 64X （DOP）
USB	PCM 44.1K-1.536M (32bit)
	DSD 64-512X （DOP）
	DSD 64-1024X （Native）
I2S1，I2S2	PCM 44.1K-1.536M (32bit)
	DSD 64-1024X

ANALOG OUTPUT

PCM 48K NOS	THD+N 0.00017% @1K(-115dB)
	DNR 130dB
	Voltage Output 2.9Vrms (RCA) , 5.8Vrms (XLR) – Imp 27 Ohm(RCA) and 54 Ohm(XLR)
DSD 128X	THD+N 0.00025% @1K(-112dB)
	DNR 115dB
	Voltage Output 1.45Vrms (RCA), 2.9Vrms (XLR) – Imp 27 Ohm(RCA) and 54 Ohm(XLR)

PHYSICAL CHARACTERISTICS

| Size (Main Box)	430x300x55mm (W x L x H, Dimensions do not include protruding parts）
Size (Power Chassis）	430x300x55mm (W x L x H, Dimensions do not include protruding parts）
Weight	18kg/39.68lbs

CONFIGURATION

Power Input (configurable, see label on bottom of unit for specified input）	220-230V 50/60Hz – Fuse Type 2A SB 5x20mm
	110-115V 50/60Hz – Fuse Type 4A SB 5x20mm
Power consumption	60W

ACCESSORIES

Included Accessories	AC Power Cable x1
	DC Power Cablex1
	USB Cable x1
	Remote Control x1

FRONT PANELS

1. POWER SUPPLY CHASSIS – FRONT PANEL

HOLO AUDIO
MAY
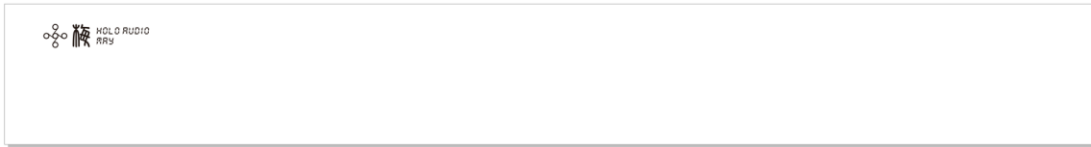
2. DAC (MAIN) CHASSIS – FRONT PANEL

HOLO AUDIO MAY   POWER   MUTE   DISPLAY MODE   OVER SAMPLING   SOURCE   MENU   <---   --->

BUTTON CONFIGURATION

POWER, DISPLAY MODE / MENU, OVER SAMPLING / ←, SOURCE/→

Left of display:

POWER (Indication light is RED when powered in Off-State, and GREEN when ON)   Press and hold this button for 1 second to switch the power on and off. In the off state, all is power is off except for the standby circuit and red indication light, other circuits of the May "梅" will stop working and stop outputting.

Right of display, 4 buttons from left to right:

MUTE   In the silent mode, some of the May "梅" output stage circuit turns off. However, the power consumption is essentially unchanged, and will maintain its *hot* machine state.

DISPLAY MODE / MENU In normal operation (display) mode, press this button to select whether to turn off the display automatically; in configuration (menu) mode, press this button to select the configuration item.

OVER SAMPLING / ←   In Normal (over-sampling) mode, press this button to select oversampling mode. In configuration mode, press this button to change the configuration mode (left).

SOURCE / →   In Normal mode, press this button to select the digital source. In configuration mode, press this button to change the configuration mode. Select the digital input source, including USB (ground isolated), RCA, BNC, AES, fiber optic, I2S-1 and I2S-2.

OVERSAMPLING MODES

- **NOS – NO OVERSAMPLING MODE**: directly converts the original data. Since digital oversampling can cause time domain distortion such as ringing effects, NOS can avoid these problems. Generally speaking, NOS has a significant impact on other performance indicators, but the May "梅" is designed to maintain good performance in NOS mode.

- **OS – OVER SAMPLING MODE**:
    - Super-sampling the PCM to a higher frequency PCM
    - oversampling the DSD to a higher frequency DSD
    - performing a digital to analog conversion.

- **OS PCM – OVER SAMPLING/PCM MODE**: whether it is PCM input or DSD input, always oversample to PCM for digital analog conversion.

- **OS DSD – OVER SAMPLING DIRECT STREAM DIGITAL MODE**: Whether in PCM input or DSD input, super-sampling to DSD mode for digital analog conversion.

CONFIGURATION MODE

How to enter Configuration mode:

In shutdown mode (powered off state, red light indicated) press and hold the menu button and power button to enter menu mode. Then press the menu button to select the configuration mode, press the left button or right button to change the configuration mode.

CONFIGURATION MODE OPTIONS (LEFT TO RIGHT SELECTION)

I2S1 FMT   Select from HOLO, ALT1, ALT2, ALT3. Reference I2S Port Pinout for an explanation and the I2S line sequence. (See page 10)

I2S2 FMT   Select from HOLO, ALT1, ALT2, ALT3. Reference I2S Port Pinout for an explanation and the I2S line sequence. (See page 10)

OUT POL   STANDARD, the analog RCA output is normal polarity, balanced XLR output 1-Ground, 2-Hot, 3-cold.

REVERSED, the analog RCA output is reverse polarity, balanced XLR output 1-Ground, 2-Cold, 3-Hot.

PLL   Select ON to turn on the PLL function and work with all digital input signals to eliminate Jitter.

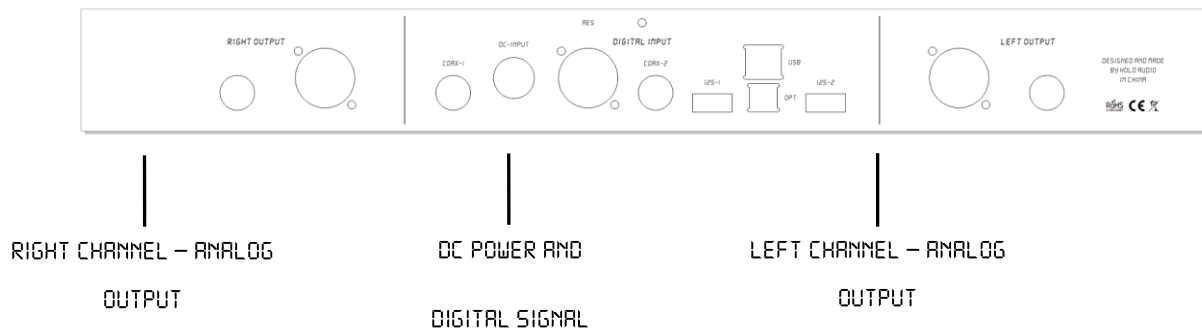Select OFF to turn off the PLL function.

REAR PANELS

Note: please connect DC power *before* AC power. Similarly, disconnect the AC power before disconnecting the DC power supply. ***Failure to do so could potentially cause damage.***
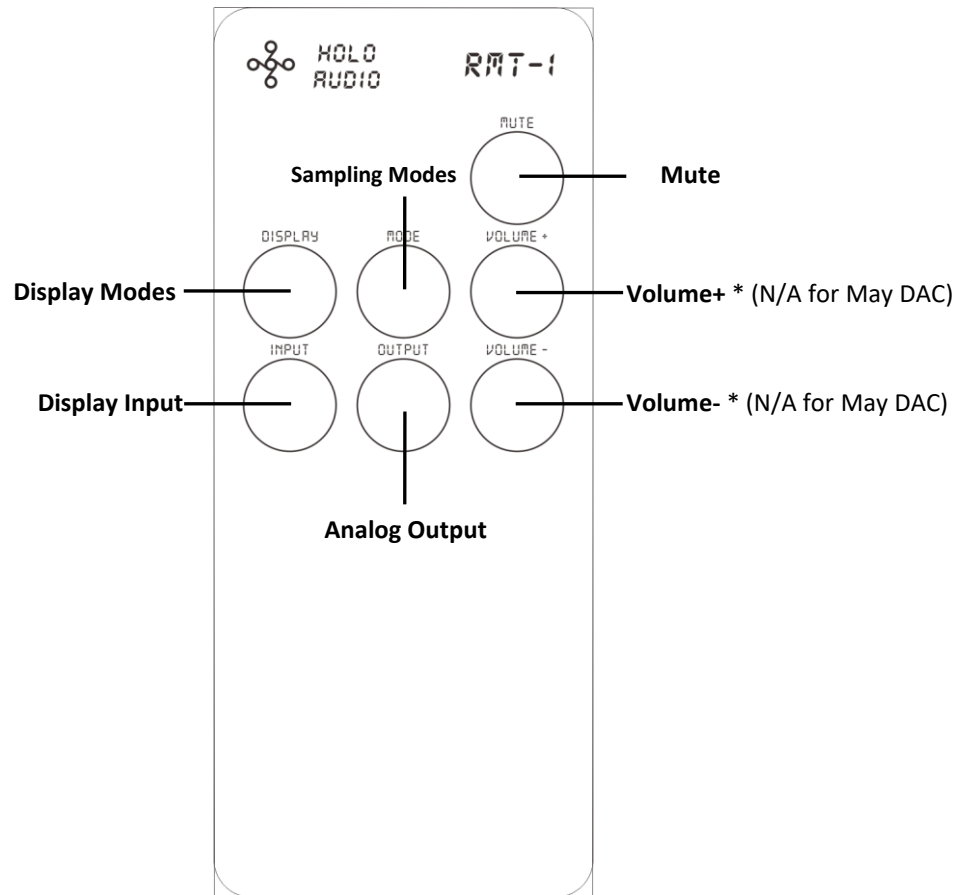
1.POWER SUPPLY CHASSIS – REAR PANEL

DC POWER OUTPUT   AC POWER INPUT

2. DAC (main) – Rear Panel

RIGHT CHANNEL – ANALOG OUTPUT   DC POWER AND DIGITAL SIGNAL   LEFT CHANNEL – ANALOG OUTPUT

REMOTE CONTROL

HOLO AUDIO   RMT-1

MUTE

Sampling Modes — Mute

DISPLAY   MODE   VOLUME +

Display Modes — — Volume+ * (N/A for May DAC)

INPUT   OUTPUT   VOLUME -

Display Input — — Volume- * (N/A for May DAC)

Analog Output

*This is a universal HOLO AUDIO remote. Volume (+/-) is not applicable to the "梅" May DAC as there is no pre-amp built in, will work simultaneously with other HOLO Audio branded products i.e. pre-amps and head-amps.

I2S PORT PINOUT

Using LVDS differential transmission. Physical interface and HDMI consistent, you can use the HDMI cable. But note that the electrical signal transmission is I2S, not conventional HDMI audio and video signals.
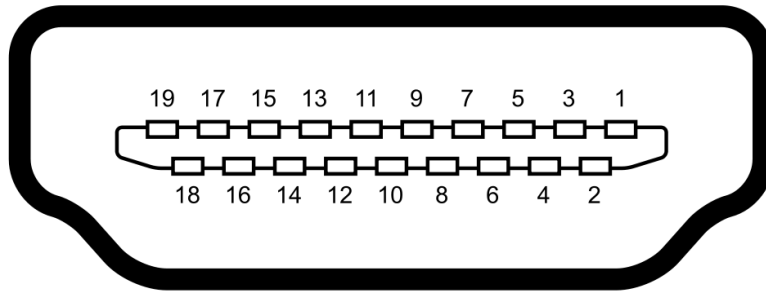
Pin	HOLO		ALT1		ALT2		ALT3	
	PCM	DSD	PCM	DSD	PCM	DSD	PCM	DSD
1	I2S_DATA-	DSD_L-	I2S_DATA+	DSD_L+	I2S_DATA-	DSD_R-	I2S_DATA+	DSD_R+
2	GND	GND	GND	GND	GND	GND	GND	GND
3	I2S_DATA+	DSD_L+	I2S_DATA-	DSD_L-	I2S_DATA+	DSD_R+	I2S_DATA-	DSD_R-
4	I2S_BCLK+	DSD_BCLK+	I2S_BCLK+	DSD_BCLK+	I2S_BCLK+	DSD_BCLK+	I2S_BCLK+	DSD_BCLK+
5	GND	GND	GND	GND	GND	GND	GND	GND
6	I2S_BCLK-	DSD_BCLK-	I2S_BCLK-	DSD_BCLK-	I2S_BCLK-	DSD_BCLK-	I2S_BCLK-	DSD_BCLK-
7	I2S_LRCK-	DSD_R-	I2S_LRCK+	DSD_R+	I2S_LRCK-	DSD_L-	I2S_LRCK+	DSD_L+
8	GND	GND	GND	GND	GND	GND	GND	GND
9	I2S_LRCK+	DSD_R+	I2S_LRCK-	DSD_R-	I2S_LRCK+	DSD_L+	I2S_LRCK-	DSD_L-
10	I2S_MCLK+	DSD_MCLK+	I2S_MCLK+	DSD_MCLK+	I2S_MCLK+	DSD_MCLK+	I2S_MCLK+	DSD_MCLK+
11	GND	GND	GND	GND	GND	GND	GND	GND
12	I2S_MCLK-	DSD_MCLK-	I2S_MCLK-	DSD_MCLK-	I2S_MCLK-	DSD_MCLK-	I2S_MCLK-	DSD_MCLK-
13	NC	NC	NC	NC	NC	NC	NC	NC
14	NC	NC	NC	NC	NC	NC	NC	NC
15	NC	NC	NC	NC	NC	NC	NC	NC
16	RSV	RSV	NC	NC	NC	NC	NC	NC
17	GND	GND	GND	GND	GND	GND	GND	GND
18	NC	NC	NC	NC	NC	NC	NC	NC
19	GND	GND	GND	GND	GND	GND	GND	GND