CARAT-RUBY2

HI-FI AUDIO DAC & HEADPHONE AMP

RUBY2 has original 'hi-fi Audio DAC & Headphone AMP' which has USB input as well as Optical digital input. Using these digital inputs. RUBY2 can be connected with DVD player or normal grade CD player and produce fantastic audio quality.

For digital chipset combination, RUBY2 was designed with PCM1796, Burr Brown and CS8416, Cirrus Logic. For the OPAMP part of analog output, OPA604, Texan Instruments and OPA2134, Burr Brown are used. Total six OPAMPs of three for left part and three for right part are designed as HEXAD style of the isolated dual mono structure.

As before, RUBY2 also took famous audio parts from SANYO OSCON, WIMA, VISHAY DALE, TDK, etc.. Full aluminum case, aluminum cutting knob and 24K gold coating PCB, brass spike, TCXO 1ppm, Toshiba's optical terminal are used for RUBY2.

THE BEST DAC CHIPSET ?

PCM1796, Burr Brown adopted by RUBY2 is normally advertised as 'the best' or 'the highest' like computer's CPU and the combination of PCM1796 and CS8416, Cirrus Logic is experienced for hifi audio components. However we do not agree that the technical specification of digital chipset represent the sound quality of audio components, it is rather for psychological stability of some people who are approaching with computer knowledge, not with hifi audio.

Styleaudio is concerned deeply what are the mostly necessary factors which many audiophiles enjoy the music, not with technical specification. We finally reached to the answer. It is 'We should be faithful to the basics.', such as experienced parts, stable power, efficient circuit design, analog output, etc. We are very proud that RUBY2 was born with these basics and our upmost effort and experience.

DIGITAL (OPTICAL) INPUT

RUBY2 has digital (optical) input as well as USB port. When you connect RUBY2 and DVD player or CD player using digital input, you may enjoy music with the high resolution and density of high quality. RUBY2 has Toshiba's Fiber Optical Toslink which is well known for hifi audio compoents.

HEXAD OP AMP

RUBY2 is designed HEXAD OPAMP style which are combined with three single OPAMP for each left and right analog out part, total six single OPAMP. Styleaudio is using OPA604, Burr-Brown and OPA827 (different from AD827) for HEXAD design and copper plate bock can isolate left and right for balanced design.

However 'combination of HEXAD OP AMP' is recommendation of TI, not Styleaudio's. This recommendation is to preserve the sound signal when designer uses their chipsets by TI. Styleaudio is following this recommendation and rather concentrates on finding the best combination of OP AMPs which accumulated experiences.

PLANNING NEW CITY

Design of the printed circuit boards for our products is very similar to the process of planning a new city. A city planner may not situate factories closely to the area of residence. Similarly, we isolate each circuit of our products from one other, with four discrete and isolated sections: Input, digital conversion, main power and analog. By keeping these sections separate via dedicated DC to DC converters and ensuring that the grounds are isolated, this minimizes the possibility of interference between sections. As the quality of power is also affecting to the sound quality, RUBY2 is using the pure and stable power which is purified on the circuits of various conductors of OSCON and WIMA.

CUSTOM BRASS SPIKE, COPPER PLATE & 24K-GOLD COATING PCB

Normally many DAC products have rubber foot or plastic foot, but RUBY2 has custom brass spike which is used for anti-vibration for high end audio components. Our brass spike is working double vibration prevention with the design of two floors of brass with black nickel coating and polyurethane foot.

Using copper plate block, it is possible to isolate between digital part and analog part, and between left/right analog output. Also 24K double face gold coating PCB can produce the maximized performance of each part.

All electric condenser of Styleaudio products are SANYO's OSCON.
All film condenser of Styleauido products are WIMA.

On RUBY2, there're no mic-in and do not support 5.1 channels, because RUBY2 is pure audio components which is designed only for hifi stereo music.

WITH LAPTOP

It's not possible to upgrade sound-card in the case of laptop. For laptop users, RUBY3 is great solution possibly to enjoy hifi audio quality and RUBY is also supporting MAC OS.

* SUPPORT OS
Mac OS'tm' 9.1 or later English / Japanese edition
Mac OS X 10.0 or later English edition
Mac OS X 10.1 or later Japanese edition SP
Microsoft Window 2000 Professional, XP, Vista, Window 7

MAIN CHIPSET

1. Main DAC : Burr Brown PCM1796
   - 24 bit 192Khz sampling advanced segment audio stereo DAC
   - Dynamic range : 123dB / THD+N : 0.0005%
   - 8x Oversampling Digital filter

2. Digital Controller : Cirrus Logic CS8416
   - 32Khz to 192Khz sample frequency range
   - Low Jitter clock recovery

3. USB controller : TE7022L
   - USB2.0 FS DAC / Fully compliant with USB1.1 specification
   - Input : 32Khz / 16Bit ~ 96Khz/24Bit

4. OPAMP : Total 8pcs (DIP type)
   - Output   : Texas Instruments OPA604 x 2pcs
   - I/V   : Texas Instruments NE5534 x 4pcs
   - Headphone : Burr-Brown OPA2134 x 2pcs

5. Others
   - Recommended aging time   : min 50 hours
   - Including package   : DAC, user manual, USB cable, power adapter