









MUSICIAN STM32F446 Hi-Fi Digital Interface User Manual

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 ARM STM32F446	 Temperature compensated crystal oscillator	 Optical Isolated All Digital Input Interfaces
 Thesycon USB Drive	 FPGA DSP Processing Architecture	 O-type single crystal copper transformer

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Proprietary USB interface

ARM STM32F446 's proprietary USB audio solution is based on the advanced AMR MCU. The redesigned and optimized circuit allows DDC to be used in high-end DDC and computers. It is equipped with an authorized thesycon USB windows platform driver.



DIGITAL OUTPUT

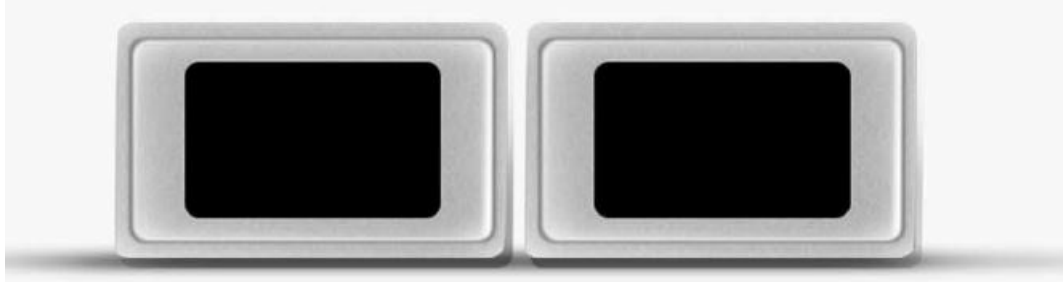
AES/EBU, I²S HDMI LVDS / I²S RJ45 LVCMOS , Optical , Coaxial

DIGITAL INPUT

Clock Input, USB Input

Accurate FEMTO Clock

Pisces is equipped with a dual femto clock, which is powered by an O-type transformer to ensure stability, linearity and femtosecond clock output frequency. Its high reliability can provide high stability and low phase noise frequency signals. The regeneration signal is more accurate, the details are more realistic, and the sound is smooth and natural.



Temperature compensated active crystal oscillator

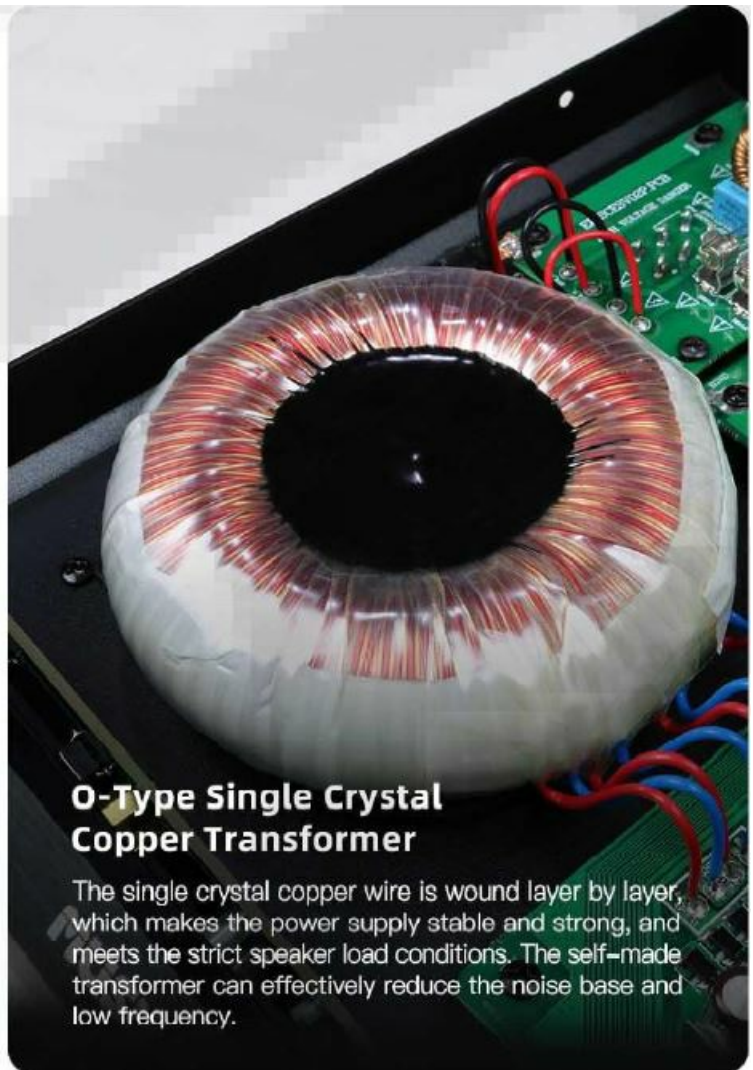
Pisces adopts temperature compensated active crystal oscillator. The temperature compensated crystal oscillator can automatically adjust the external matching capacitance matrix by measuring the temperature, so as to make the frequency more accurate and stable.

Note: each version of crystal oscillator is different, please take the real object as the standard.

The USB input data of Pisces isolation buffer is re timed by FEMTO crystal oscillator, and the low jitter digital output can be connected to any external DAC. It turns the computer audio system into a high-quality transmission system. Once sound waves add Pisces to the digital audio chain, this improvement is obvious.

ARM STM32F446 MCU

Support 24bit/768khz PCM data flow and DSD local processing until dsd1024



O-Type Single Crystal Copper Transformer

The single crystal copper wire is wound layer by layer, which makes the power supply stable and strong, and meets the strict speaker load conditions. The self-made transformer can effectively reduce the noise base and low frequency.

Digital Isolation

The digital signal is completely isolated by 50Mbps high-speed optical coupler. Optical isolation can reduce background noise and achieve high SNR.



Driverless On Mac & Linux

Mac and Linux connections can be used without installing drivers. Licensed thesycon USB driver for Windows platform.





Product Information



Machine weight
(3.5KG)



Basic Parameters

Model	PISCES
Digital Input	USB
External clock input	45.1548MHz / 49.152MHz
Digital Output	AES/EBU , Optical , Coaxial I ² S HDMI LVDS / I ² S RJ45 LVCMOS
DSD	All interfaces support DSD64 (DOP) USB input and I ² S output supports DSD512
PCM	All interface support 24bits / 44.1, 48 , 88.2 , 96 , 176.4 , 192KHz USB input supports 768khz, and I2S output supports 384khz
AC Power Supply	100–240VAC, 50/60Hz (Worldwide Voltage)
Power waste	≤20W
Size	W 250 x D 235 x H 70mm (Height includes base)
Machine weight	3.5KG
Package weight	4.5KG

Documents / Resources

	MUSICIAN STM32F446 Hi-Fi Digital Interface [pdf] User Manual STM32F446 Hi-Fi Digital Interface, STM32F446, Hi-Fi Digital Interface, Digital Interface, Interface
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References

- [User Manual](#)