

Andrian
Audio



完美音质缔造者
安德安音响

designed by guangdong zhuojuyue audio equipment
to learn more about our products
please visit www.jujoy-audio.cn

安德安

让车载音响进入母带时代

Let car audio enter the era of mastering



ANDRIAN AUDIO 安德安 带着为广大音乐爱好者带来更极致的舒适音乐体验的目标，致力于开发和完善最顶级和先进的音响系统，生产出最具质感的产品。安德安的产品在保证硬件与功能最优化的同时，输出的音质保持高保真，音场表现自然耐听。

从CD转盘，到2024的GTS2，从16b/44.1到32b/768、DSD512，从CD碟片到高清蓝牙、流媒体播放，每一步都始于传承、终于超越，用更加便捷的听音方式去传承真实自然的声音本质。

无论是播放器平衡输入至功放的纯模拟被动分频系统，还是经DSP数字处理的主动分频系统，一颗北斗导航厘米级晶振可用于系统主时钟源；为了确保播放器的数字信号以遥遥领先的方式到达 DSP，我们还准备了泰坦实验室最新研发成果 GTDC1，当创新深入灵魂，颠覆车载高保真需求。

ANDRIAN AUDIO with the goal of bringing music lovers a more ultimate and comfortable music experience, ANDRIAN AUDIO is committed to developing and perfecting the top and advanced audio systems and producing the most qualitative products. ANDRIAN AUDIO to ensure the hardware and function of the most optimal at the same time, the output sound quality to maintain high fidelity, the sound field performance of natural listening.

From the CD turntable to the GTS3 of 2024, from 16bit/44.1kHz to 32bit/768kHz DSD512, from CD discs to high-definition Bluetooth and streaming playback... each shows the process from inheritance to transcendence. ANDRIAN AUDIO presents to you the more convenient ways of listening that convey the natural essence of sound.

Whether it's a pure analog passive crossover system from the player's balanced input to the power amplifier, or active crossover system processed through DSP, a Beidou navigation centimeter-level crystal oscillator can be used as the system's master clock source. To ensure that the digital signals from the player reach the DSP in a high quality way, we have also prepared the latest R&D achievement from Titans Audio Lab -the GTDC1. It is a revolution in car audio.

安德安音响 直解母带技术 引领车载HIFI

Direct play Hi-Res music technology leading the hifi in car

32bit/768k

DSD512

AAC

ISO/DFF/DSF

ALAC

FLAC

CUE

WAV



CD播放器

44.1khz/16bit 码率高达1411kbps

CD Player

44.1khz/16bit Code rate up to 1411kbps



6.5倍 6.5 times

高性能设备 - 播放高规格Hi-Res

192khz/24bit 码率高达9416kbps

High Performance Equipment - Plays High Spec Hi-Res

192khz/24bit Code rate up to 9416kbps



17.4倍 17.4 times

旗舰设备 - 至高规格Hi-Res

384khz/32bit 码率高达24576kbps

Flagship Device - Highest Spec Hi-Res

384khz/32bit Code rate up to 24576kbps



34.8倍 34.8 times

安德安 GTS 1 - 纯底层直解母带 DSD Hi-Res

768khz/32bit 码率高达49152kbps

Andrian audio GTS 1 - Pure Underlay Direct Mastering DSD Hi-Res

768khz/32bit Code rate up to 49152kbps



GTS 1 - 车载母带播放器



GTS 1 - Hi-Res Music Car Audio Player

- 18年沉淀, 支持32bit/768khz DSD512 母带格式直读直解 (支持2T移动硬盘)
- 纯底层硬解技术, 至臻至纯的音乐播放形式, 无操作系统束缚一秒开机
- FPGA 异步时钟+FIFO再生技术, 抖动更低, 只为数字信号洁净无暇
- 内置 PLL 锁相环, 支持外部主时钟输入, 为车载HIFI系统注入新核心
- 支持 LDAC/APTX-HD 高清蓝牙解码, 支持外置无线控制显示技术, 支持手机小程序操控
- 针对车载环境运用全隔离电源技术, 内置多路二级稳压和正负电源电路

- 18 years of experience, supports 32bit/768khz DSD512 format direct read and direct decode (supports 2T mobile hard disk)
- Pure underlying hard-decoding technology, to the purest form of audio playback, and no OS constraint to boot up in one second
- FPGA asynchronous clocking + FIFO reuse technology to create lower jitter and clean digital signals
- Built-in PLL phase-locked loop and support for external master clock input provide a new core for the onboard HIFI system
- Supports LDAC/APTX-HD high-definition Bluetooth decoding, external wireless control display technology, and mobile applet control
- Fully isolated power supply technology for onboard environment, with built-in two-stage voltage regulator and positive and negative power supply circuits

产品技术规格 TECHNICAL SPECIFICATIONS

189×168×50 mm

数字输出 Digital Output

总谐波失真+噪声 THD+N & Noise

24bit/192k 1kHz/0dB -141dB

数字抖动 Digital Jitter

199ps

模拟输出 Analog Output

RCA

输出电平 Output Level

2.0 Vrms

频率响应 Frequency Range

±0.5 dB

底噪 Digital Jitter

4.6 uV

总谐波失真+噪声 THD+N & Noise

-102 dB

支持格式 Support Format

WAV: 16bit | 24bit | 32bit-44.1k / 48k / 88.2k / 96k / 176.4k / 192k / 384k / 768k WAV+ CUE

FLAC: 16bit | 24bit|32bit-44.1k / 48k / 88.2k / 96k / 176.4k / 192k / 384k level 0-8

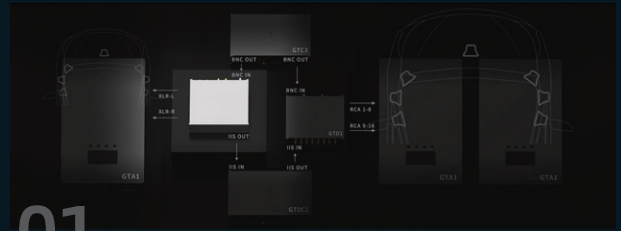
DSD: DSF / DFF DSD64-512 /SACD-ISO

APE: 16bit / 44.1k extra High level

ALAC /AAC /MP3

GTS 1

车载母带播放器

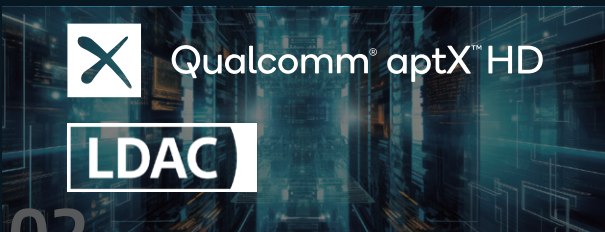


01 NXP Cortex-M7 Core

NXP Cortex-M7 纯底层硬解核心单元

第四代纯底层硬解核心,支持本地直播32bit/768k.DSD512,具备同轴/光纤/IIS输出,专注音频播放,整个CPU只用于音乐还原,一心一意,简单纯粹。

Our fourth-generation underlying hardware decoding core, supports local playback of 32bit/768kHz and DSD512 audio, it features coaxial, optical, and IIS outputs, dedicated to music reproduction. With a single-minded focus and simplicity, it is designed solely for audio fidelity.

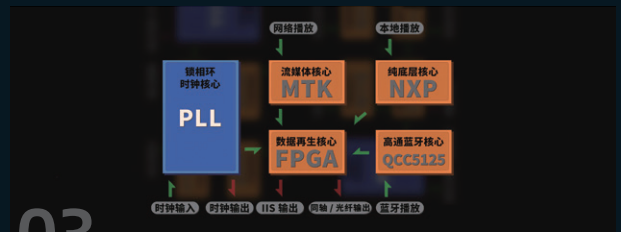


02 Qualcomm Qcc5125 Bluetooth Core

高通 QCC5125 蓝牙核心单元

蓝牙连接,瞬间组建高清LDAC/aptX hd 高清蓝牙 HiFi系统,让蓝牙也拥有可畅享的音色。

Via Bluetooth, it instantly establishes a high-definition LDAC/aptX HD Bluetooth HiFi system, allowing Bluetooth to deliver an enjoyable audio experience with exceptional sound quality.



03 PLL Clock Processing Core

PLL时钟处理核心单元

时钟处理就相当于乐队的指挥!

支持外部时钟输入的精准锁相环核心,如同指挥大师亲临,精准还原每个细节,自然,细腻,感动!

Clock processing is like the conductor of a band! The precision phase-locked loop (PLL) core of us supports external clock input is like a maestro, bringing precise reproduction of every detail, resulting in a natural, delicate, and moving audio experience.



04 FPGA Audio Processing Core

FPGA音频处理核心单元

ARM直解母带级音乐文件,数据传入给自带两路低抖动时钟的FPGA处理核心,利用算法再生低抖动的数字信号,达到低抖动纯净输出,再现母带级音乐文件的每一个细节。

The ARM directly decodes the mastertape-grade music file, and the data is transmitted to the FPGA equipped with two ultra-low-jitter oscillators; the FPGA then uses the algorithm to regenerate the ultra-low jitter digital signals, and achieves the precise output.



05 Multiple Interfaces

多元化接口

数字信号输出具备同轴、光纤、IIS输出(支持 DSD512 PCM768码率传输)、RCA输出;支持模拟输出音量可调,数字输出音量可调;时钟输入接口;满足各种连接需要。

Digital signal output has coaxial, optical outputs, IIS output (supports DSD512 PCM768). RCA outputs. Supports variable analog output, variable volume on digital output. Clock input. Endless possibilities for sound and satisfies various connection needs.



GTC 1 - 车载OCXO音频时钟

GTC 1 - Car OCXO Audio Clock

· OCXO恒温晶振

GTC 1 核心采用 Titansaudiolab 时钟技术, 专属定制的高稳定性/低相噪恒温晶振, 并对其他有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心, 犹如一台超跑引擎, 为系统提供源源不断的强劲动力。

· 强有力的输出驱动

GTC 1 具有3路10MHz输出, 采用 flexible adaptive-Z(阻抗自适应)技术, 可同时为播放器、解码器、DSP 提供高性能时钟信号。

· OCXO Thermostatic Crystals

The GTC 1 core uses Titansaudiolab clocking technology, a customized high stability/low phase noise thermostat, and other parameters related to sound quality that are optimized for the system. The high-performing frequency-optimized thermostat core is like a supercar engine, providing constant power to the system.

· Powerful Output Drive

The GTC 1 features three 10MHz outputs using flexibleadaptive-Z technology to provide high performance clock signals for players, decoders, and DSPs simultaneously.

产品技术规格 TECHNICAL SPECIFICATIONS

189×168×50 mm

输出频率 Output Frequency	10 MHz*3
输出功率 Output Power	10 MHz > 7dBm (500)
输出波形 Output Waveform	3×方波
波形上升时间 Waveform Rise Time	< 2ns
预热时间 Preheating Time	5分钟@基础预热
相位噪声 Phase Noise	< -100dBc@ 1Hz offset < -125dBc@ 10Hz offset < -145dBc@ 100Hz offset < -155dBc@ 1 kHz offset < -160dBc@ above 10kHz offset
相位抖动 Phase Jitter	< 200 FS BW 1HZ-1MHZ
频率精度(出厂时) Frequency accuracy (ex-factory)	< ±0.02ppm

GTC 1

车载OCXO音频时钟



01

Excellent Specialization Framework

优异的专业化构架

GTC 1是一款高性能音频时钟,它使用定制音频优化的恒温晶振核心, Titans设计的FS-1频率转换模块,多路独立驱动10M输出接口,高性能电源与信号隔离方案。

GTC 1 is a high-performance audio clock that uses a custom audio-optimized thermostatic crystal core, a Titans-designed FS-1 frequency conversion module, multiple independently driven 10M output interfaces, and high-performance power supply and signal isolation solutions.

02

High-performance Clock Source

高性能的时钟源头

核心采用高稳定度、低相噪恒温晶振,并对其它有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心,为系统提供源源不断的强劲动力。

The core adopts high stability, low phase noise constant temperature crystal, and other parameters related to sound quality put forward targeted optimization requirements. High-performance audio-optimized thermostatic crystal core, to provide a steady stream of strong power for the system.



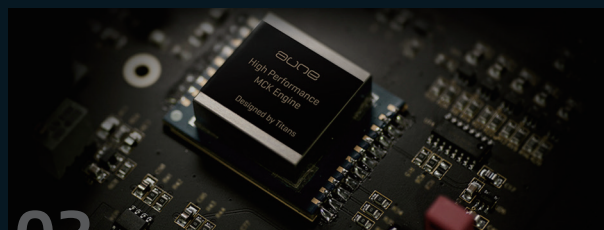
03

Low-loss Frequency conversion

低损耗的频率转换

采用了Titans Audio Lab团队设计的FS-1高性能频率转换模块,它如同一台高性能的变速箱,灵活换档的同时不放过丝毫的动力。

Featuring the FS-1 high-performance frequency conversion module designed by the Titans Audio Lab team, it acts as a high-performance gearbox, flexibly shifting gears without letting go of the slightest bit of power.



04

Innovative Isolation Control Design

创新的隔离控制设计

使用了创新设计的电源隔离与信号隔离电路,将控制与时钟一分为二,互不干扰,保证了时钟电路处于理想的工作状态。

The use of innovatively designed power isolation and signal isolation circuits divides the control and clock into two without interfering with each other, ensuring that the clock circuits are in an ideal working condition.



05

Powerful Output Drive

强有力的输出驱动

具有3路10MHz输出,输出采用flexible adaptive-Z(阻抗自适应)技术,可兼容50R/75R甚至10k输入阻抗的器材,灵活适应将时钟信号无损传递给各种器材。

With three 10MHz outputs, the outputs use flexible adaptive-Z (impedance adaptive) technology, compatible with 50R/75R or even 10k input impedance equipment, flexible adaptation to the clock signal lossless transmission to a variety of equipment.





GTS 2 - 车载流媒体数字播放器

GTS 2 - Streaming Digital Music Player In Car

· GTS2 全新一代流媒体数字播放器, 采用了分布式多核心架构, 实现本地播放、网络播放和蓝牙播放独立运行互不干扰、方便快捷。还创新使用了模拟平衡输出和数字前级音量控制, 是一款操作便捷、连接便利、追求音质的HiFi主机。

· 无论是播放器平衡输入至功放的纯模拟被动分频系统, 还是经DSP数字处理的主动分频系统, 一颗北斗导航厘米级晶振可用于系统主时钟源; 为了确保播放器的数字信号以遥遥领先的方式到达DSP, 我们还准备了泰坦实验室最新研发成果GTDC1, 当创新深入灵魂, 颠覆车载高保真需求。

· GTS2 streaming digital music player for car adopts a distributed multi-core framework, allowing independent operation of local playback, network playback, and Bluetooth playback without interference, providing convenience and efficiency. It also innovatively utilizes analog balanced output and digital preamp volume control, making it a user-friendly and easily connected HiFi host that pursues excellent sound quality.

· Whether it's a pure analog passive crossover system from the player's balanced input to the power amplifier, or an active crossover system processed through DSP, a Beidou navigation centimeter-level crystal oscillator can be used as the system's master clock source. To ensure that the digital signals from the player reach the DSP in a high quality way, we have also prepared the latest R&D achievement from Titans Audio Lab -the GTDC1. It is a revolution in car audio.

产品技术规格 TECHNICAL SPECIFICATIONS

189×168×50 mm

纯底层核心 Pure Base Core

核心功能 Core Functions

NXP主控 / PCM768 DSD512直解直播 / 无系统硬解 一芯一用
 数字模拟全隔离电源 / 外部时钟输入
 IIS / 同轴 / 光纤
 TRS(XLR平衡) / RCA
 数字前级 / 模拟前级 可调音量

数字输出 Digital Output

模拟输出 Analog Output

可调音量 Volume Adjust

流媒体核心 Media Tek Streaming Core

流媒体支持 Streaming Media Support

其他 Others

AIRPLAY / DLNA / NAS / TIDAL / QOBUZ / QQ音乐 等流媒体APP控制
 WIFI天线

高清蓝牙核心 HD Bluetooth Core

LDAC/APTX-hd高清蓝牙 / 蓝牙天线

时钟处理核心 PLL Clock Processing Core

PLL锁相环 / 专属订制低抖动晶体

音频处理核心 Audio Processing Core

FPGA音频处理芯片 / 9038Q2M解码芯片

★ 功能升级: 数字前级可调音量 / 模拟输出: TRS(XLR平衡) / 流媒体核心

GTS 2

车载流媒体数字播放器

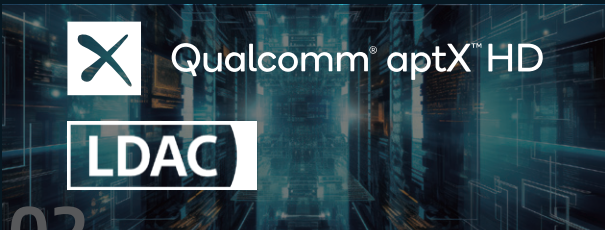
01

Media Tek streaming Core NXP Cortex-M7 Core

Media Tek 流媒体核心单元, NXP Cortex-M7 纯底层硬解核心单元

专属 APP 软件,手机自由操控,支持 AIRPLAY、TIDAL、QOBUZ、QQ 音乐等国内外众多流媒体平台,支持 DLNA 和 NAS,乐随手动。第四代纯底层硬解核心,支持本地直播 32bit/768k、DSD512,具备同轴/光纤/IIS 输出,专注音频播放,整个 CPU 只用于音乐还原,一心一意,简单纯粹。

The exclusive app allows free control via smartphones. It supports a wide range of international streaming media platforms such as AIRPLAY, TIDAL, QOBUZ, QQ Music. It also supports DLNA and NAS, offering seamless music enjoyment at your fingertips. Our fourth-generation underlying hardware decoding core, supports local playback of 32bit/768kHz and DSD512 audio, it features coaxial, optical, and IIS outputs, dedicated to music reproduction. With a single-minded focus and simplicity, it is designed solely for audio fidelity.



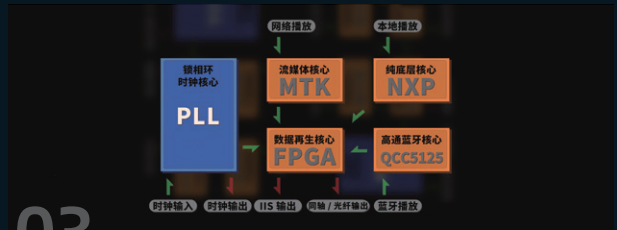
02

Qualcomm Qcc5125 Bluetooth Core

高通 QCC5125 蓝牙核心单元

蓝牙连接,瞬间组建高清 LDAC/aptX hd 高清蓝牙 HiFi 系统,让蓝牙也拥有可畅享的音色。

Via Bluetooth, it instantly establishes a high-definition LDAC/aptX HD Bluetooth HiFi system, allowing Bluetooth to deliver an enjoyable audio experience with exceptional sound quality.



03

PLL Clock Processing Core

PLL 时钟处理核心单元

时钟处理就相当于乐队的指挥!支持外部时钟输入的精准锁相环核心,如同指挥大师亲临,精准还原每个细节,自然,细腻,感动!

Clock processing is like the conductor of a band! The precision phase-locked loop (PLL) core of us supports external clock input is like a maestro, bringing precise reproduction of every detail, resulting in a natural, delicate, and moving audio experience.



04

FPGA Audio Processing Core

FPGA 音频处理核心单元

ARM 直解母带级音乐文件,数据传入给自带两路低抖动时钟的 FPGA 处理核心,利用算法再生低抖动的数字信号,达到低抖动纯净输出,再现母带级音乐文件的每一个细节。

The ARM directly decodes the mastertape-grade music file, and the data is transmitted to the FPGA equipped with two ultra-low-jitter oscillators; the FPGA then uses the algorithm to regenerate the ultra-low jitter digital signals, and achieves the precise output.



05

Multiple Interfaces

多元化接口

数字信号输出具备同轴、光纤、IIS 输出,支持 DSD512 PCM768 码率传输;RCA 输出,TRS→XLR 模拟平衡输出;支持模拟输出音量可调,数字输出音量可调;时钟输入接口,满足您的各种连接需要。

Digital signal output has coaxial, optical, IIS output, supports DSD512 PCM768. RCA outputs, TRS to XLR analog balanced output. Supports variable analog output, variable volume on digital output. It has clock input, satisfies various connection needs.



GTC 2 - 车载OCXO音频时钟

GTC 2 - Car OCXO Audio Clock

· OCXO恒温晶振

GTC 2 核心采用 Titansaudiolab 时钟技术, 专属定制的高稳定性/低相噪恒温晶振, 并对其他有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心, 犹如一台超跑引擎, 为系统提供源源不断的强劲动力。

· 强有力的输出驱动

GTC 2 具有4路10MHz输出, 采用 flexible adaptive-Z(阻抗自适应)技术, 可同时为播放器、解码器、DSP 提供高性能时钟信号。

· OCXO Thermostatic Crystals

The GTC 2 core uses Titansaudiolab clocking technology, a customized high stability/low phase noise thermostat, and other parameters related to sound quality that are optimized for the system. The high-performing frequency-optimized thermostat core is like a supercar engine, providing constant power to the system.

· Powerful Output Drive

The GTC 2 features four 10MHz outputs using flexible adaptive-Z technology to provide high performance clock signals for players, decoders, and DSPs simultaneously.

产品技术规格 TECHNICAL SPECIFICATIONS

260×168×50 mm

输出频率 Output Frequency	10 MHz*4
输出功率 Output Power	10 MHz > 7dBm (500)
输出波形 Output Waveform	4×方波
波形上升时间 Waveform Rise Time	< 2ns
预热时间 Preheating Time	5分钟@基础预热
相位噪声 Phase Noise	< -100dBc@ 1Hz offset < -127dBc@ 10Hz offset < -147dBc@ 100Hz offset < -157dBc@ 1 kHz offset < -160dBc@ above 10kHz offset
相位抖动 Phase Jitter	< 150 FS BW 1HZ-1MHZ
频率精度(出厂时) Frequency accuracy (ex-factory)	< ±0.02ppm

GTC 2

车载OCXO音频时钟



01

Excellent Specialization Framework

优异的专业化构架

GTC 2是一款高性能音频时钟,它使用定制音频优化的恒温晶振核心, Titans设计的FS-1频率转换模块,多路独立驱动10M输出接口,高性能电源与信号隔离方案。

GTC 2 is a high-performance audio clock that uses a custom audio-optimized thermostatic crystal core, a Titans-designed FS-1 frequency conversion module, multiple independently driven 10M output interfaces, and high-performance power supply and signal isolation solutions.



02

High-performance Clock Source

高性能的时钟源头

核心采用高稳定性、低相噪恒温晶振,并对其它有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心,为系统提供源源不断的强劲动力。

The core adopts high stability, low phase noise constant temperature crystal, and other parameters related to sound quality put forward targeted optimization requirements. High-performance audio-optimized thermostatic crystal core, to provide a steady stream of strong power for the system.



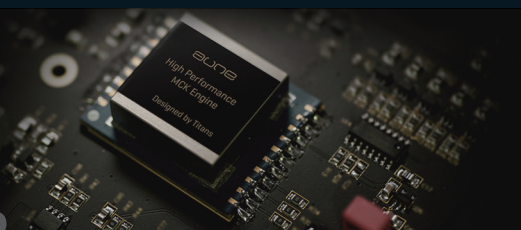
03

Low-loss Frequency conversion

低损耗的频率转换

采用了Titans Audio Lab团队设计的FS-1高性能频率转换模块,它如同一台高性能的变速箱,灵活换档的同时不放过丝毫的动力。

Featuring the FS-1 high-performance frequency conversion module designed by the Titans Audio Lab team, it acts as a high-performance gearbox, flexibly shifting gears without letting go of the slightest bit of power.



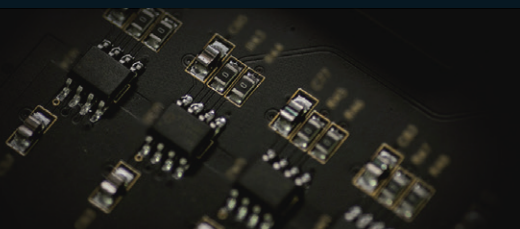
04

Innovative Isolation Control Design

创新的隔离控制设计

使用了创新设计的电源隔离与信号隔离电路,将控制与时钟一分为二,互不干扰,保证了时钟电路处于理想的工作状态。

The use of innovatively designed power isolation and signal isolation circuits divides the control and clock into two without interfering with each other, ensuring that the clock circuits are in an ideal working condition.



05

Powerful Output Drive

强有力的输出驱动

具有4路10MHz输出,输出采用flexible adaptive-Z(阻抗自适应)技术,可兼容50R/75R甚至10k输入阻抗的器材,灵活适应将时钟信号无损传递给各种器材。

With four 10MHz outputs, the outputs use flexible adaptive-Z (impedance adaptive) technology, compatible with 50R/75R or even 10k input impedance equipment, flexible adaptation to the clock signal lossless transmission to a variety of equipment.





GTS 3 - 车载流媒体数字播放器

GTS 3 - Streaming Digital Music Player In Car

· GTS3 全新一代流媒体数字播放器, 采用了分布式多核心架构, 实现本地播放、网络播放和蓝牙播放独立运行互不干扰、方便快捷。还创新使用了模拟平衡输出和数字前级音量控制, 是一款操作便捷、连接便利、追求音质的HiFi主机。

· 无论是播放器平衡输入至功放的纯模拟被动分频系统, 还是经DSP数字处理的主动分频系统, 一颗北斗导航厘米级晶振可用于系统主时钟源; 为了确保播放器的数字信号以遥遥领先的方式到达DSP, 我们还准备了泰坦实验室最新研发成果GTDC1, 当创新深入灵魂, 颠覆车载高保真需求。

· GTS3 streaming digital music player for car adopts a distributed multi-core framework, allowing independent operation of local playback, network playback, and Bluetooth playback without interference, providing convenience and efficiency. It also innovatively utilizes analog balanced output and digital preamp volume control, making it a user-friendly and easily connected HiFi host that pursues excellent sound quality.

· Whether it's a pure analog passive crossover system from the player's balanced input to the power amplifier, or an active crossover system processed through DSP, a Beidou navigation centimeter-level crystal oscillator can be used as the system's master clock source. To ensure that the digital signals from the player reach the DSP in a high quality way, we have also prepared the latest R&D achievement from Titans Audio Lab - the GTDC1. It is a revolution in car audio.

产品技术规格 TECHNICAL SPECIFICATIONS

189×168×50 mm

纯底层核心 Pure Base Core

核心功能 Core Functions

数字输出 Digital Output

模拟输出 Analog Output

可调音量 Volume Adjust

NXP主控 / PCM768 DSD512直解直播 / 无系统硬解 一芯一用

数字模拟全隔离电源 / 外部时钟输入

IIS / 同轴 / 光纤

TRS(XLR平衡) / RCA

数字前级 / 模拟前级 可调音量

流媒体核心 Media Tek Streaming Core

流媒体支持 Streaming Media Support

其他 Others

AIRPLAY / DLNA / NAS / TIDAL / QOBUZ / QQ音乐 等流媒体APP控制

WIFI天线

高清蓝牙核心 HD Bluetooth Core

LDAC/APTX-hd高清蓝牙 / 蓝牙天线

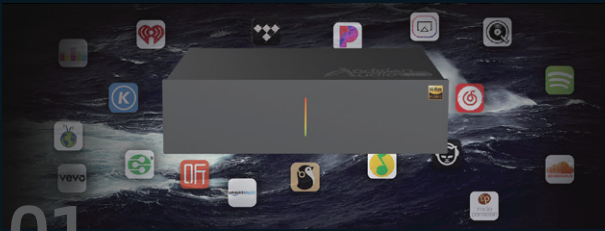
时钟处理核心 PLL Clock Processing Core

PLL锁相环 / 专属定制低抖动晶体

音频处理核心 Audio Processing Core

FPGA音频处理芯片 / 9038Pro解码芯片

★ 功能升级: 数字前级可调音量 / 模拟输出: TRS(XLR平衡) / 流媒体核心 / 9038Pro解码芯片

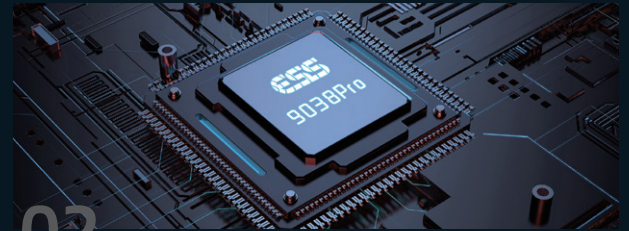


01 GTS 3 Media Tek streaming Core

GTS 3 Media Tek 流媒体核心单元

专属 APP 软件,手机自由操控,支持 AIRPLAY、TIDAL、QOBUZ、QQ 音乐等国内外众多流媒体平台,支持 DLNA和 NAS,乐随手动。

The exclusive app allows free control via smartphones. It supports a wide (ang of international streaming media platforms such as AIRPLAY, TIDAL, QOBUZ, QQ Music.It also supports DLNA and NAS, offering seamless music enjoyment at your fingertips.

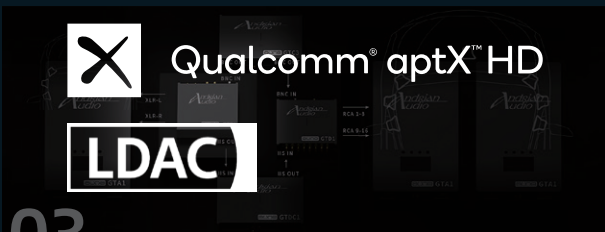


02 9038PRO, The Legend Reborn

9038PRO 传奇再现

GTS3 为 GTS2 限量定制版,DAC搭载了ESS上代旗舰 9038Pro,是一款专注纯模拟试听体验的音乐主机。

The GTS3 is a limited edition of the GTS2, equipped with the previous flagship DAC of ESS the ES9038Pro, it is a music host dedicated to providing an extraordinary listening experience.

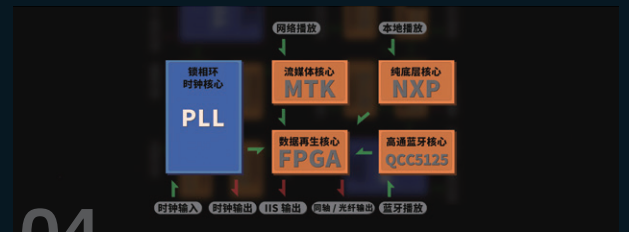


03 NXP Cortex-M7 Core

NXP纯底层硬解核心单元 高通蓝牙核心单元

第四代纯底层硬解核心,支持本地直播32bit/768k、DSD512,具备同轴/光纤 /IIS 输出;蓝牙连接,瞬间组建高清LDAC/aptX hd 高清蓝牙 HiFi系统,让蓝牙也拥有可畅享的音色。

Our fourth-generation underlying hardware decoding core, supports local playback of 32bit/768kHz and DSD512 audio, it features coaxial, optical and IIS outputs, Via Bluetooth, it instantly establishes a high-definition LDAC/aptX HD Bluetooth HiFi system, allowing Bluetooth to deliver an enjoyable audio experience.



04 PLL Clock Processing Core

PLL时钟处理核心单元

时钟处理就相当于乐队的指挥!

支持外部时钟输入的精准锁相环核心,如同指挥大师亲临,精准还原每个细节,自然,细腻,感动!

Clock processing is like the conductor of a band! The precision phase-locked loop (PLL) core of us supports external clock input is like a maestro, bringing precise reproduction of every detail, resulting in a natural, delicate, and moving audio experience.



05 FPGA Audio Processing Core

FPGA音频处理核心单元

ARM直解母带级音乐文件,数据传入给自带两路低抖动时钟的FPGA处理核心,利用算法再生低抖动的数字信号,达到低抖动纯净输出,再现母带级音乐文件的每一个细节。

The ARM directly decodes the mastertape-grade music file, and the data is transmitted to the FPGA equipped with two ultra-low-jitter oscillators; the FPGA then uses the algorithm to regenerate the ultra-low jitter digital signals, and achieves the precise output.

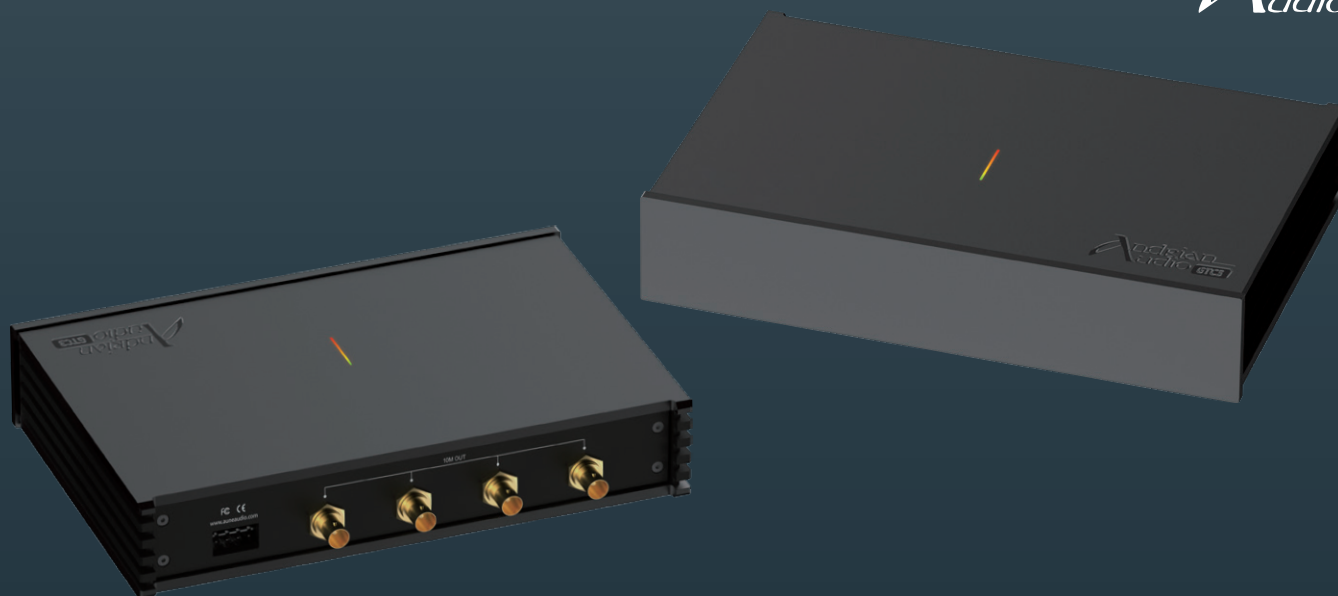


06 GTS 3 Multiple Interfaces

GTS 3 多元化接口

数字信号输出具备同轴、光纤、IIS输出,支持DSD512 PCM768码率传输;RCA输出,TRS→XLR模拟平衡输出;支持模拟输出音量可调,数字输出音量可调;时钟输入接口,满足您的各种连接需要。

Digital signal output has coaxial, optical, IIS output, supports DSD512 PCM768. RCA outputs, TRS to XLR analog balanced output. Supports variable analog output, variable volume on digital output. It has clock input, satisfies various connection needs.



GTC 3 - 车载OCXO音频时钟

GTC 3 - Car OCXO Audio Clock

· OCXO恒温晶振

GTC 3 核心采用 Titansaudiolab 时钟技术, 专属定制的高稳定性/低相噪恒温晶振, 并对其他有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心, 犹如一台超跑引擎, 为系统提供源源不断的强劲动力。

· 强有力的输出驱动

GTC 3 具有4路10MHz输出, 采用 flexible adaptive-Z(阻抗自适应)技术, 可同时为播放器、解码器、DSP 提供高性能时钟信号。

· OCXO Thermostatic Crystals

The GTC 3 core uses Titansaudiolab clocking technology, a customized high stability/low phase noise thermostat, and other parameters related to sound quality that are optimized for the system. The high-performing frequency-optimized thermostat core is like a supercar engine, providing constant power to the system.

· Powerful Output Drive

The GTC 3 features four 10MHz outputs using flexible adaptive-Z technology to provide high performance clock signals for players, decoders, and DSPs simultaneously.

产品技术规格 TECHNICAL SPECIFICATIONS

260×168×50 mm

输出频率 Output Frequency	10 MHz*4
输出功率 Output Power	10 MHz > 7dBm (500)
输出波形 Output Waveform	4×方波
波形上升时间 Waveform Rise Time	< 2ns
预热时间 Preheating Time	15分钟@基础预热
相位噪声 Phase Noise	< -100dBc@ 1Hz offset < -130dBc@ 10Hz offset < -150dBc@ 100Hz offset < -160dBc@ 1 kHz offset < -163dBc@ above 10kHz offset
相位抖动 Phase Jitter	< 100 FS BW 1HZ-1MHZ
频率精度(出厂时) Frequency accuracy (ex-factory)	< ±0.9ppt

GTC 3

车载OCXO音频时钟



01

Excellent Specialization Framework

优异的专业化构架

GTC 2是一款高性能音频时钟,它使用定制音频优化的恒温晶振核心, Titans设计的FS-1频率转换模块,多路独立驱动10M输出接口,高性能电源与信号隔离方案。

GTC 1 is a high-performance audio clock that uses a custom audio-optimized thermostatic crystal core, a Titans-designed FS-1 frequency conversion module, multiple independently driven 10M output interfaces, and high-performance power supply and signal isolation solutions.



03

Low-loss Frequency conversion

低损耗的频率转换

采用了Titans Audio Lab团队设计的FS-1高性能频率转换模块,它如同一台高性能的变速箱,灵活换挡的同时不放过丝毫的动力。

Featuring the FS-1 high-performance frequency conversion module designed by the Titans Audio Lab team, it acts as a high-performance gearbox, flexibly shifting gears without letting go of the slightest bit of power.

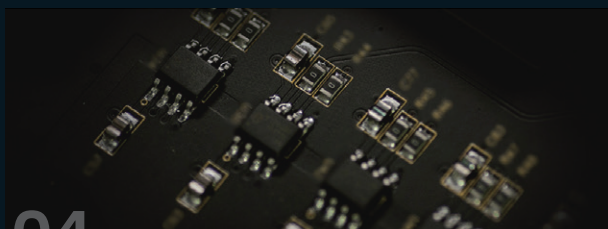
02

High-performance Clock Source

高性能的时钟源头

核心采用高稳定性、低相噪恒温晶振,并对其它有关音质的参数提出了针对性优化要求。高性能的音频优化恒温晶振核心,为系统提供源源不断的强劲动力。

The core adopts high stability, low phase noise constant temperature crystal, and other parameters related to sound quality put forward targeted optimization requirements. High-performance audio-optimized thermostatic crystal core, to provide a steady stream of strong power for the system.



04

Innovative Isolation Control Design

创新的隔离控制设计

使用了创新设计的电源隔离与信号隔离电路,将控制与时钟一分为二,互不干扰,保证了时钟电路处于理想的工作状态。

The use of innovatively designed power isolation and signal isolation circuits divides the control and clock into two without interfering with each other, ensuring that the clock circuits are in an ideal working condition.

05

Powerful Output Drive

强有力的输出驱动

具有4路10MHz输出,输出采用flexible adaptive-Z(阻抗自适应)技术,可兼容50R/75R甚至10k输入阻抗的器材,灵活适应将时钟信号无损传递给各种器材。

With four 10MHz outputs, the outputs use flexible adaptive-Z (impedance adaptive) technology, compatible with 50R/75R or even 10k input impedance equipment, flexible adaptation to the clock signal lossless transmission to a variety of equipment.





GTD 1 - 16CH DSP

GTD 1 - 16CH DSP

- 旗舰级16路车载DSP音频解码器,内置两枚ESS最新旗舰解码芯片ES9039PRO,采用PLL锁相环输入技术,支持外接时钟
- 旗舰级双核解码,支持母带级声音解码,支持 32/768K DSD 512 解码
- 跨级核心DSP芯片- ADISHARC系列,让声音更加清晰准确
- 内置10M输入口,采用最新PLL锁相环技术,为核心DSP和核心DAC同时供应基准时钟,实现整机时钟同步,让声音更加真实、自然
- 采用三个全隔离电源,让数字和模拟和控制完全隔离,纯净音质的源泉
- Flagship 16-channel in-car DSP, ADSP21489 core, built in two ESS latest flagship decoder chip ES9039PR0, PLL phase-locked loop input technology, support external clock
- Flagship dual-core decoding, support master tape level sound decoding, support 32bit/768khz DSD512 format direct decode
- Cross-level core DSP chip - ADI SHARC serie, makes the sound more clear and accurate
- Built in 10M input port, using the latest PLL phase-locked loop technology, for the core DSP and the core DAC at the same time to supply the reference clock to achieve the whole machine clock synchronization
- GTD1 uses three fully isolated power supplies, allowing digital, analog and control completely isolated, the source of pure sound quality

产品技术规格 TECHNICAL SPECIFICATIONS

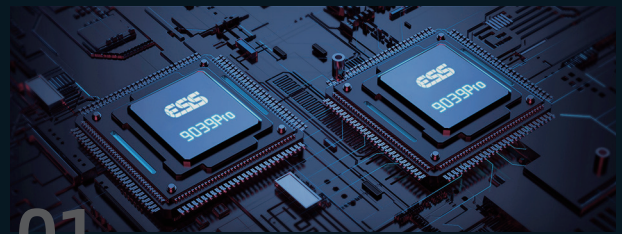
255×163×48mm

DSP芯片 DSP Core	ADSP21489
DAC芯片 DAC Core	9039Pro×2
数字输入 Digital Input	IIS / 同轴 / 光纤
时钟输入 Clock Input	BNC
高电平输入 High Level Input	8组
模拟输出 Analog Output	16路
频响范围 Frequency Range	10Hz~96KHz (±1dB)
信噪比 Signal-To-Noise(S/N)	> 126dB
总谐波失真+噪声 THD+N	< 0.000125% (-118dB)
采样率 Sample Rate	PCM: 44.1KHZ-768KHz / 16-32bit DSD: DSD64 / DSD128 / DSD256 / DSD512



GTD 1

16CH DSP



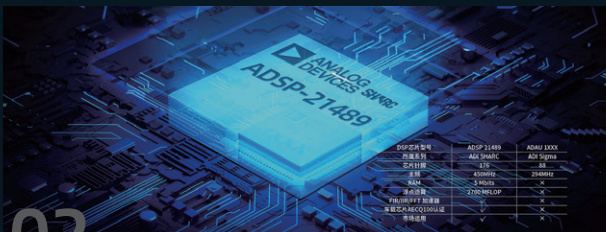
01

Flagship Dual-core Decoding

旗舰级双核解码

ES9039PRO是9038PRO之后的新一代旗舰,支持 32bit/768K DSD 512 解码,是最新旗舰级解码器。

ES9039PRO is the flagship of the new generation after 9038PRO, supporting 32bit/768K DSD512 decoding, which is the latest flagship decoder.



02

Cross-Core DSP Chips ADI SHARC Serie

跨级核心DSP芯片 ADI SHARC 系列

ADI SHARC ADSP21489 拥有极佳的性能和自行编译算法的能力。ADSP 2XXXX系列,属于ADI SHARC高端系列,性能极佳,拥有FIR浮点运算能力,可以自行编译算法,DSP性能开发无上限。

ADI SHARC ADSP21489 has excellent performance and the ability to compile its own algorithms. ADSP 2XXXX series, belongs to ADI SHARC high-end series, with excellent performance, FIR floating-point operation capability, self-compile algorithms, and no limit for DSP performance development.



03

External Clock For Unlimited Sound Possibilities

支持外接时钟 让声音拥有无限可能

内置10M输入口,采用最新PLL锁相环技术,为核心DSP和核心DAC同时供应基准时钟,实现整机时钟同步,让声音更加真实、自然。

Built-in 10M input port, using the latest PLL phase-locked loop technology, for the core DSP and core DAC at the same time to supply the reference clock, to achieve the whole clock synchronization, so that the sound is more real and natural.



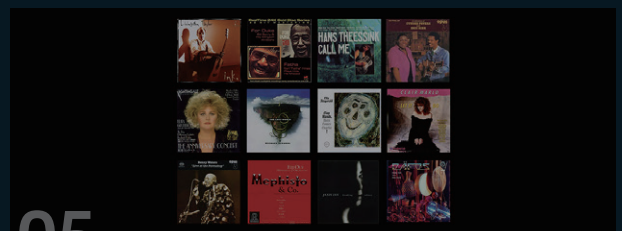
04

Fully Isolated Power Supply For Cleaner Sound

全隔离电源 声音更加纯净

不同于其他DSP的电源架构,GTD1采用三个全隔离电源,让数字和模拟和控制完全隔离,纯净音质的源泉。

Unlike other DSP power supply architectures, GTD1 uses three fully isolated power supplies, allowing digital and analog to be completely isolated from control, the source of pure sound quality.



05

Natural, Musical Tuning Accurate And True

自然富于乐感的调音 准确而真实

调音自然而富于乐感,采用参考级器材现场校准,按照真实乐器表现及基于音乐内涵的理解重现每一帧。

With three 10MHz outputs, the outputs use flexible adaptive-Z (impedance adaptive) technology, compatible with 50R/75R or even 10k input impedance equipment, flexible adaptation to the clock signal lossless transmission to a variety of equipment.



GTDC 1 - 数字处理器

GTC 1 - Digital Processing unit

- GTDC1是一款超低抖动混合锁相技术的数字处理器, 设计为数字音源进行Bit-Perfect级别的抖动抑制
 - 围绕配备高速FPGA与精密锁相环模组的数字电路、基于超低相噪参考源、基站级印刷电路板打造而成
 - 独立编写的FPGA芯片用于数字信号的接收, 支持高达PCM768k, 支持DSD512
 - 飞秒级真同步技术锁相环模组
 - 丰富的I/O 接口, 让你拥有各式各样的端口, 连接形形色色的前后端器材
 - GTDC1使用了真同步技术, 输入输出时钟完全一致的, 即保证了信号真实还原
- The GTDC1 is a digital processing unit using ultra-low-jitter Hybrid PLL technology, designed for Bit-Perfect level jitter rejection for digital audio source
 - Digital circuits with high-speed FPGA and precise PLL module, reference source with ultra-low phase noise and base-station-level PCB
 - Self-designed high-speed FPGA for signal receiving and processing, leading to extraordinary performance and support for up to PCM 768k and DSD512.
 - Femtosecond-level PLL module with genuine synchronization technology
 - With multiple I/O interfaces, GTDC1 equips you with all kinds of connections for all kinds of devices
 - GTDC1 uses genuine synchronization technology to guarantee the uniformity of the input and output of the clock, thus a true signal fidelity is reached

产品技术规格 TECHNICAL SPECIFICATIONS

260×168×50 mm

输入/输出 Input/output

AES:最高可达 24bit/768k或dop256 同轴:最高可达 24bit/768k或dop256
 光纤:最高可达 24bit/192k或dop64 HDMI:最高可达 32bit/768k或dsd512
 Native:通过HDMI 传输PCM/DSD (LVDS收发器)

抖动抑制 Jitter rejection gain

标准模式 - 典型值200:1高于100HZ / 典型值30000:1高于700HZ
 精密模式 - 典型值8000:1高于100HZ / 典型值 100000:1高于700HZ

残留抖动 Residual phase jitter

标准模式 - 典型值2pS (10HZ-100KHz带宽分析)
 精密模式 - 典型值 600fS (10Hz-100k带宽分析)

抖动转折频率 Jitter rejection corner

标准模式 - 20Hz以内 / 精密模式 - 1Hz以内

采样率偏差 Sample rate deviation

标准模式 - < +1000ppm / 精密模式 - < +50ppm

同步误差 Synchronization error

0ppm

音频信号路径 Audio Signal Path

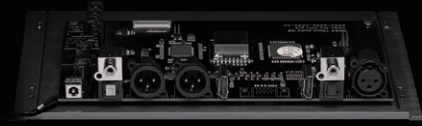
无损处理

环境温度 Ambient temperature

推荐温度 - 15~35°C / 正常工作温度 - 0~50°C

GTDC 1

数字处理器

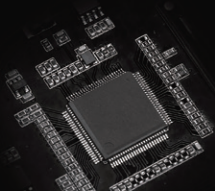


01 Powerful Framemazing Performance

强大架构 强韧性能

绕配备高速FPGA与精密锁相环模组的数字电路、基于超低相噪参考源、基站级印刷电路板打造而成，历时三年的不断优化与迭代，GTDC1展现出全方位的卓越性能。

GTDC1 is outstanding in every way for its digital circuits with high-speed FPGA and precise PLL module, reference source with ultra-low phase noise and base-station-level PCB, let alone its 3 years' development and continuous improvement.



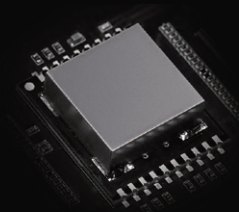
最高支持
DSD512
最高支持
768k

02 High-speed FPGA Core

高速FPGA芯片

高速FPGA来接收并处理数字音频信号。它不仅支持高达PCM 768k, 而且同时支持DSD512, 完全不受传统数字音频接收芯片限制。

high-speed FPGA for signal receiving and processing. Supports for up to PCM 768k and DSD512. GTDC1 isn't limited in any way by commercial digital audio receiver chips on the market.



03 Femtosecond-level PLL Module With Genuine Synchronization Technology

飞秒级真同步技术锁相环模组

核心的内置飞秒级的锁相环模组，其恢复的时钟可以媲美很多低噪声晶振。任何来自前端的抖动类型都可以轻松化解。锁相环电路确保输入输出时钟相位特性完全从而实现真实还原信号。

With the built-in femtosecond-level PLL module, the clock it recovers can compete with many low-noise crystals. GTDC1 will easily eliminate any jitter from the front end. The fully synchronized PLL circuit design guarantees the clock phase between input and output are duplicated.

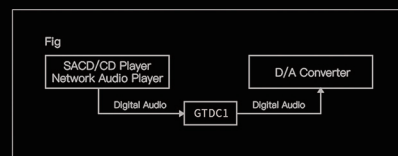


04 I/O Connections

I/O连接

AES、同轴、光纤能让你随心所欲地连接各种数字音源。HDMI Over PCM/DSD 端口，支持32Bit的数字音乐格式。而4-Wire SMA输出品质可以满足你极高的相位噪声传输需求。

AES, coaxial and optical based on S/PDIF protocol gives you the versatility to hook up dozens of different types of digital audio sources. Through HDMI Over PCM/DSD port, you can enjoy 32 bit music files. And the output quality of 4-Wire SMA can satisfy the high demand of phase noise transmission.



05 Application System

系统应用

GTDC1是一款超低抖动混合锁相环技术的数字处理器，设计为数字音源进行Bit-Perfect级别的抖动抑制。通过GTDC1对输出的数字音频信号进行优化处理，可以显著提高音源的音质。

The GTDC1 is a digital processing unit using ultra-low-jitter Hybrid PLL technology, designed for Bit-Perfect level jitter rejection for digital audio source. The GTDC1 can optimize the signals and significantly improve the sound quality.

GTS系列配置对照表

GTS Series Comparison

		GTS1	GTS2	GTS3
纯底层核心	NXP主控 PCM768 DSD512直解直播 无系统硬解 纯粹音质 一芯一用 数字模拟全隔离电源 外部时钟输入 数字输出:IIS/同轴/光纤 数字前级可调音量 模拟输出:TRS(XLR平衡) 模拟输出:RCA 模拟前级可调音量	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	★ ★ ★ ★ ★ ★ ★ ★ ★ ★
流媒体核心	AIRPLAY DLNA NAS TIDAL/QOBUZ/QQ音乐等 流媒体APP控制 WIFI天线		★ ★ ★ ★ ★ ★	★ ★ ★ ★ ★ ★
高清蓝牙核心	LDAC/APTX-hd高清蓝牙 蓝牙天线	★ ★	★ ★	★ ★
时钟处理核心	PLL锁相环 aune订制低抖动晶体	★ ★	★ ★	★ ★
音频处理核心	FPGA音频处理芯片 9038Q2M解码芯片 9038Pro解码芯片	★ ★	★ ★	★ ★



GTRCD 2 - 控制面板

GTECD 2 - Control panel device

· 多样适配 匹配无阻碍

控制面板, 选配应用于GTS 1 / GTS 2 / GTS 3 / GTD 1

产品尺寸, 105×100×23mm

· Multi-Adaptive Matching

Control panel, optionally for GTS 1 / GTS 2 / GTS 3 / GTD 1

Size, 105×100×23mm



GTRCD 1 - 控制面板

GTECD 1 - Control panel device

· 多样适配 匹配无阻碍

控制面板, 选配应用于GTS 1 / GTS 2 / GTS 3 / GTD 1

产品尺寸, 122×50×16.5mm

· Multi-Adaptive Matching

Control panel, optionally for GTS 1 / GTS 2 / GTS 3 / GTD 1

Size, 122×50×16.5mm



AC 3 - 高性能车载音频时钟线

AC 3 - High-performance in-car audio clock cable

· 天生丽质 浩瀚无涯

车载Hi-end系统旗舰数字音频时钟线, 采用航天级制作工艺, 确保在极端环境下依旧稳定工作。

· 精雕细琢 器宇不凡

50欧/40GHZ 顶级线基、BNC接口镀金厚度达3μm、双层纯银编织屏蔽层。

· 千锤百炼 一锤定音

AC3 Golden Dragon, 确保整个车载音响系统, 中正自然的声音风格, 原滋原味的还原音乐本身。

· Born to be beautiful & Enormous potential
AC3 Golden Dragon, our flagship digital audio clock cable for in-vehicle Hi-end systems, aerospace-grade manufacturing process to ensure stable operation in extreme environments.

· Precision R&D & Miraculous works
50ohm / 40GHZ top line base, BNC connector gold plating thickness up to 3um, double layer of pure silver braided shielding layer.

· Elaborate process & Exceptional performance
AC3 Golden Dragon can ensure that the entire car audio system, neutral and natural sound style, to show the original music.



P2 Classe A 两声道放大器

P2 Class A Two-way Amplifier

意大利纯手工制作，功放的机箱、所用螺丝、PCB版全部都是定制而成，纯后级功率放大设计，整个功放的机身表面都进行了镀金处理。

外观工艺做工精良有质感，可以说无论是在音质表现上还是外观工艺上都做到了极致，是代表着欧洲顶级制作工艺和车载Hi-end级功放的极致之作。

Italian handmade, the chassis of the amplifier, the screws used, PCB version are all custom-made, pure rear power amplification design, the entire body of the amplifier surface are gold-plated treatment, the appearance of the process of fine workmanship has a sense of quality, it can be said that both in terms of sound quality performance or appearance of the process to achieve the ultimate, is representative of the top European production process and the ultimate in car Hi-end class amplifier.

产品技术规格 TECHNICAL SPECIFICATIONS

330×190×40 mm

功放型号 Amplifier Item NO.	安德安 P2
电源 Power supply voltage	10.5 - 16 VCC
输出功率 Output Power	4 ohms @ 12V: 60 Watts × 2 Mono 4 ohms @ 12V: 130 Watts × 1
总谐波失真 THD+N	< 0.005%
输入灵敏度 Input sensitivity	0.1 - 8 V
电流消耗 Current consumption	30 A
待机电流 Standby current	1.8 A
输入抗阻 Input impedance	47K Ω
信噪比 Signal to noise	>116 dB
频响范围 Frequency range	+/- 1 dB From 5 Hz - 50K Hz
产品尺寸 Dimensions	330 × 190 × 40 mm
重量 Weight	2.8 kg

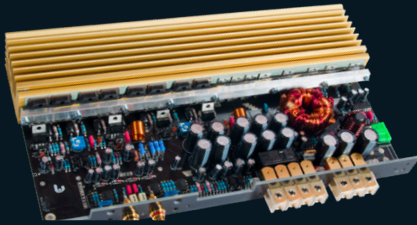


01 High Power Output Driving With Ease

大功率输出 推动毫不费力

P2 Classe A的两路声道都拥有60W的功率输出,这在甲类功放类里已是大功率输出,功率小,驱动力强,对于很多大功率需求的高端扬声器产品也完全能够游刃有余的推动。

P2 Classe A's two channels have 60W power output, which in the class A amplifier class has been a high-power output, small power, strong driving force, for many high-power demand for high-end speaker products can also be fully capable of driving with ease.



03 Lossless Transmission Low Distortion High Fidelity

无损传输 低失真高保真

从电源加入到信号传导皆实现无损传输,减少复杂的前级电路调节,音频信号在整个放大通路中能够做到信号直通,功放低失真高保真。

From the power supply to the signal conduction are to achieve lossless transmission, reducing the complexity of the preamplifier circuit adjustment, audio signals in the entire amplification path to achieve signal pass-through, thus the power amplifier can be low distortion and high fidelity.

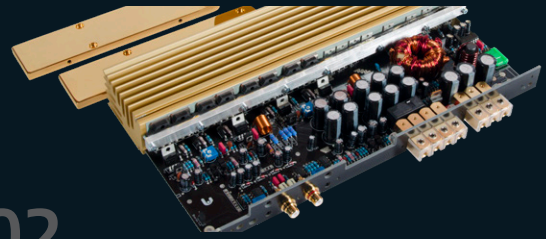


05 Accurately Captures The Details Of The Audio Source

精确捕捉音源细节

信号处理部分,采用顶级发烧元器件,输出阻抗:48千欧,输入信号灵敏度0.4-8V,能精确捕捉音源传输过来的细节。功率放大输出部分,采用低阻抗大电流输出设计,声音在大动态下也有同样精准的还原。

Signal processing part, use top audiophile components, output impedance: 48 kilo-ohm, input signal sensitivity: 0.4-8V, can accurately capture the details of the audio source transmission. Power amplifier output part, using low impedance and high current output design, in the large dynamic, sound also have the same accurate reproduction.



02 Two Channel Pure Rear Hi-end Design

两声道纯后级Hi-end设计

让内部互扰音染做到最低,电路之间的串扰保持最低状态,带来纯洁的干净声底效果。

Internal interferences are minimized, and crosstalk between circuits is kept to a minimum, resulting in a pure, clean sounding bottom end.

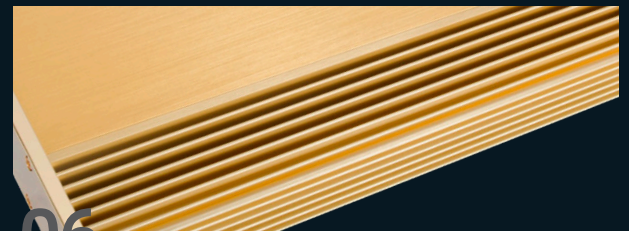


04 Stabilized Output At Full Power

满功率稳定输出

内部的电路设计,电源部分应用的是顶级的环形变压器,在9-15V的电压状态下,都可以满功率稳定输出。

The internal circuit design, the power supply part applies the top-quality toroidal transformer, which can output full power stably under the voltage state of 9-15V.



06 Fast Heat Dissipation High Stability

快速散热 高稳定性

机器的上半边是树杈式深栅格设计,加大了空气流通的面积,能够让机器快速的散热冷却,提升稳定性。

The upper half of the machine is a tree-fork deep grill design, which increases the area of air circulation and enables the machine to quickly dissipate heat and cool down, improving stability.

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