



# Grand Class SL-G700

Network / Super Audio CD Player

Rediscover Music

**Technics**

## Grand Class, High-quality Sound Design

The New SL-G700 Network / Super Audio CD Player. The SL-G700 is a multi-digital player that covers most of the digital audio media available today, from traditional CD/SACD to the latest high-res and many streaming services, and plays them all back in the highest possible quality.



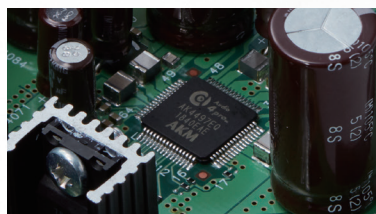
### Premium High-grade D/A Converter and Dual Mono Construction D/A Circuit

For analogue audio output, the D/A circuit is one of the most important circuit blocks since it recreates the original analogue waveform from a digital source, such as a CD. For the D/A converters, Asahi Kasei Microdevices' DAC AK4497, with their high S/N ratio and low distortion, are isolated for the left and right channels. The power supply for the D/A converters is separated into five sections according to the application, and supplied individually. The power supply for the clock employs an original Battery Driven Circuit System to achieve high-accuracy D/A conversion. The Dual Mono Construction and asymmetrical layout eliminate mutual interference between left and right channels, taking the reproduction of sound imaging and sound space recorded in the source to a higher dimension.

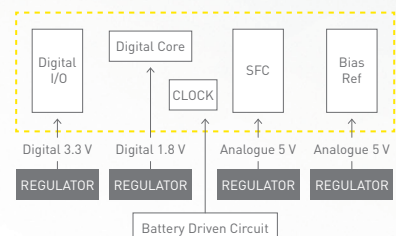
Dual Mono Construction D/A circuit



Asahi-Kasei Flag-Ship Premium DAC AK4497



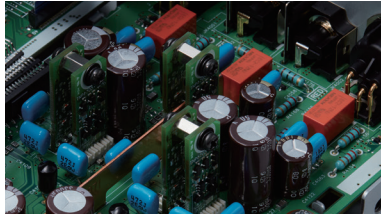
Power Supply for DAC



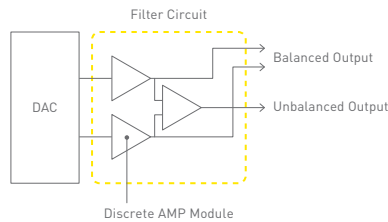
## Discrete AMP Module

For analogue audio output, the filter circuit located after the D/A conversion determines the quality of sound. The SL-G700's filter circuit incorporates not an Opamp IC but an amp module of original discrete construction. The use of low-noise transistors and thin-film resistor suppresses the noise generated inside the circuits. Detailed fine tuning, such as the increase of operating current, has improved the response, S/N ratio and distortion rate. As result, the SL-G700 provides highly linear and faithful sound reproduction without omitting even the smallest nuances recorded in the source.

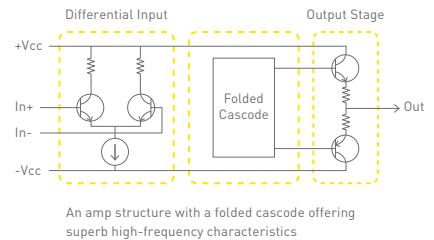
Discrete Amp Module



Filter Circuit after D/A Conversion



Internal Structure of Discrete AMP Module



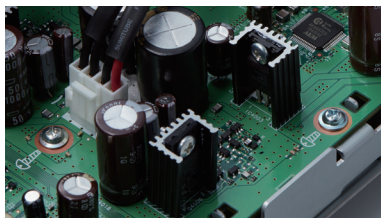
## Battery Driven Clock Generator

In the processing of digital audio signals, the quality of the clock affects the sound quality to a large extent. The best power supply for delicate circuitry such as the Clock block in the DAC and the audio system clock circuit is one entirely isolated from any noise or fluctuations in the mains supply. Technics has extensive experience in isolating the power supply using a battery. This technology creates low-noise digital audio interfaces including D/A converters. Additionally, the audio system clock is supplied from an Ultra Low Jitter Clock Generator. A low-noise power supply and a high-quality clock circuit realise a sound with transparency.

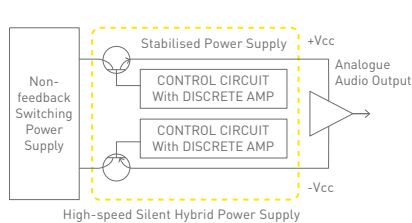
## High-speed Silent Hybrid Power Supply

The quality of power supply is extremely important for high-fidelity sound reproduction. Power supply noise and supply stability directly affect the quality of sound reproduced from audio signals, particularly for analogue audio output. The SL-G700 is equipped with a dedicated power supply unit for analogue audio output. Its non-feedback switching power supply suppresses switching frequency fluctuation. Combined with the original stabilised power supply circuit, this dedicated power supply unit provides stable power with low noise. The discrete circuit structure does not use any general-purpose ICs, and meticulous tuning provides power optimised for analogue circuits, thus realising a high S/N ratio and superb reproduction, the hallmark of Technics sound.

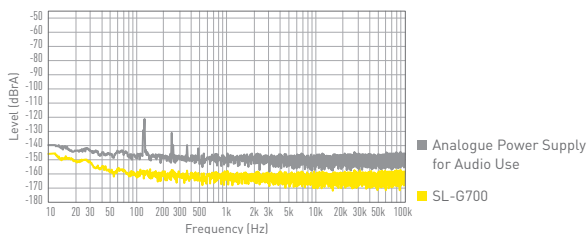
Dedicated Power Supply for Analogue Audio



Power Supply Block Diagram

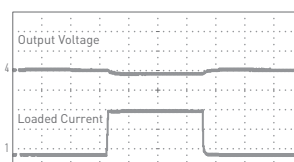


Power Supply Output FFT Level  
Realises a lower noise floor than analogue power supply

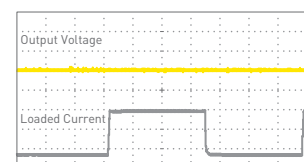


Load Response Characteristic  
Supplies stable voltage against load fluctuations

Analogue Power Supply for Audio Use



SL-G700



## Digital Noise Isolation Architecture

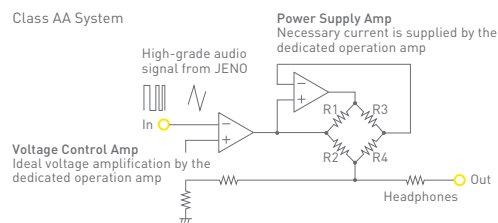
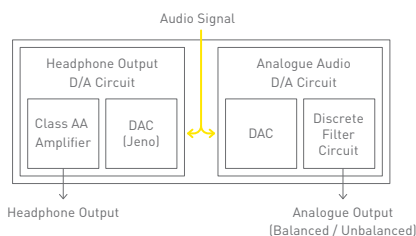
For the USB input terminals, the amplifier includes power conditioners using non-magnetic carbon film resistor with strong protection against magnetic distortion and using capacitors of high-quality ruby mica excellent in characteristics such as low dielectric loss, high voltage resistance, and temperature stability. In addition, pursuing high reproducibility of sound by various noise countermeasures, such as installation of low ESR film capacitor to LAN terminal power supply and isolation by pulse transformer in digital output signal.



## High-quality Headphone Output

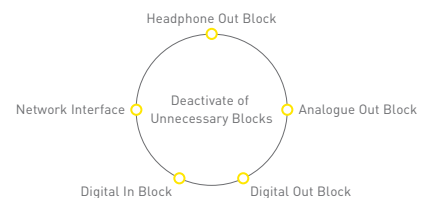
Generally, the analogue output signal (Balanced / Unbalanced) and headphone output signal are generated by the same D/A circuit. The SL-G700 is equipped with a dedicated D/A circuit for headphones which is independent from that for analogue output. This circuitry incorporates Technics' original sound processing LSI, the JENO Engine (Jitter Elimination and Noise-shaping Optimisation). Complete separation of the analogue output from the headphone output has eliminated the mutual interference between the two circuits that serve different purposes. In addition, each circuit receives the most suitable sound tuning. As a result, both outputs provide maximum performance. Furthermore, the SL-G700 is equipped with an operation optimisation system that automatically turns on the JENO Engine when a pair of headphones is connected. This eliminates the adverse effect of the analogue output on the sound quality when headphones are not connected.

What's more, the Class AA System headphone amp uses separate amp circuits for the audio signal voltage amplification and current amplification. The high-grade operation amp amplifies voltage, and the separate operation amp with high power supply capacity amplifies current. This enables high-precision conversion of the high-resolution PWM signal output from the JENO Engine to an analogue signal. Achieving ideal drive of headphones with a wide range of load impedance, it delivers low-distortion sound across a broad frequency range.



## Optimally Activated Circuit System

The Optimally Activated Circuit System allows the operation of various digital modules to be stopped – such as those used for display, analogue and digital interfaces – to minimise the noise generated when music is playing. In addition, the Pure Disc Playback Mode completely shuts off the Network Interface circuit to further raise the sound quality of SACD/CD playback.



## High-quality Parts

The key components that affect the sound quality use carefully selected and repeatedly tuned high-grade parts to assure high-purity, high-quality sound reproduction.

Non-magnetic Carbon Film Resistor



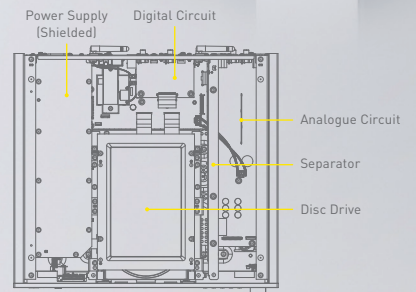
Brass-milled RCA Jack





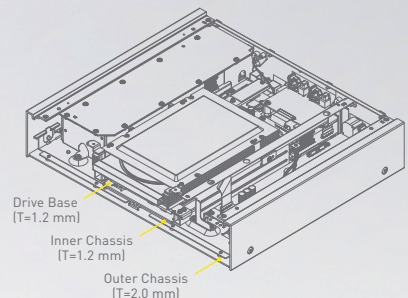
### Four-Section Configuration

In Digital Audio Player, there are a variety of circuits, such as Switching Power Supply which has big energy and the Digital Interface Circuit which handling high frequency signal, and also analogue circuit. The SL-G700 uses a Four-Section construction with partitions installed between the circuit blocks according to the signal level handled and circuit type. This eliminates interference between circuit blocks, thus achieving clear sound quality. Also, the chassis rigidity due to this construction suppresses the vibration of electrical parts, thereby suppressing deterioration in sound quality.



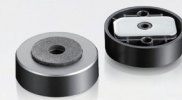
### High-Rigidity Drive Mechanism

In the playback of a disc, the reading accuracy determines the sound quality. The CD drive mechanism features a triple chassis structure to ensure accurate reading and to prevent the vibration from transmitting to the outside of the mechanism. Moreover, the SL-G700 has a stable, aluminium die-cast disc tray with a high-vibration-damping, quiet structure to ensure high-accuracy disc playback.



### High-Rigidity Insulator

The inside of the insulator was enhanced with ribs and a 4-mm-thick iron plate to increase the weight and strength. This high-density insulator is exclusively designed for the SL-G700 and effectively suppresses resonance.



### Supports a Wide Variety of Music Sources and High Connectivity

The SL-G700 supports Bluetooth, Wi-Fi, and AirPlay 2 with its high wireless connectivity. It is also compatible with streaming services, such as Spotify, TIDAL, and Internet Radio, and functions such as the Google Assistant.\*

\* A Google Voice-activated Speaker must be included in the same network.



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# Grand Class SL-G700



## Specification

### Grand Class High-quality Sound

Premium High-grade D/A Converter AK4497, and Dual Mono Construction D/A Circuit, Variable Analogue Audio Output  
Discrete AMP Module  
Battery Driven Clock Generator  
High-speed Silent Hybrid Power Supply  
Digital Noise Isolation Architecture  
Supports Higher Grade Headphone Connection with Integrated Class AA Headphone AMP  
Pure Disc Playback Mode for SACD/CD Playback for Greater Sound Purity  
High-Res Re-master

### High-quality Technics Design

Four-Section Configuration  
High-Rigidity Chassis and Aluminium Die-cast Disc Tray –  
High-Stability SACD Mechanism  
7 mm Thick Aluminium Plate Used for the Front Panel  
Control Port for System Control with SU-G700

### Disc Compatibility

Super Audio CD (2 ch area only), CD, CD-R, CD-RW

### Disc Format

Super Audio CD, CD-DA

### Frequency Response

Super Audio CD: 2 Hz to 50 kHz (-3 dB) / CD: 2 Hz to 20 kHz (-3 dB)

### Dynamic Range (IHF-A)

Super Audio CD: BALANCED: 118 dB (IHF-A) / UNBALANCED: 115 dB (IHF-A)  
CD: BALANCED: 98 dB (IHF-A) / UNBALANCED: 98 dB (IHF-A)

### Signal to Noise Ratio (IHF-A)

BALANCED: 121 dB (IHF-A) / UNBALANCED: 118 dB (IHF-A)

### THD+N

Super Audio CD: 0.0006 % (1 kHz, 0 dB) / CD: 0.0015 % (1 kHz, 0 dB)

### Digital Input Terminal

Coaxial Digital x 1, Optical Digital x 1, USB-A x 2

### Analogue Output Terminal

BALANCED x 1, UNBALANCED x 1  
Support Variable Level Output

\*Network content services are operated by their respective service providers, and service may be discontinued either temporarily or permanently without notice.

Some content may not be available in the country in which you reside.

\*Registration / subscription may be required. Fees may apply.

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[www.technics.com](http://www.technics.com)

Design and specifications subject to change without notice.

### Digital Output Terminal

Coaxial Digital x 1, Optical Digital x 1

### System Port

System Control Input / Output (Ø3.5 mm Jack)

### Headphone Output

Yes (Ø6.3 mm, 110 mV, 32 Ω VOL MAX)

### USB-A / Network Playback Support Codec

WAV / AIFF [32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz / 16, 24, 32 bit]  
FLAC / ALAC [32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz / 16, 24 bit]  
DSD (2.8 MHz, 5.6 MHz, 11.2 MHz)  
AAC [32, 44.1, 48, 88.2, 96 kHz / 16-320 kbps]  
MP3 [32, 44.1, 48 kHz / 16-320 kbps]

### Ethernet Interface

LAN (100 Base-TX / 10 Base-T)

### Wi-Fi

IEEE 802.11 a/b/g/n/ac, 2.4 GHz / 5 GHz Band

### Bluetooth (Support Codec)

Yes (AAC, SBC)

### Power Supply

AC 120 V, 60 Hz

### Power Consumption

38 W

### Dimensions (W x H x D)

430 x 98 x 407 mm  
16-15/16 x 3-7/8 x 16-1/32 inch

### Weight

Approx. 12.2 kg / 26.9 lbs

### Accessories

Remote Control, AC Cord, System Connection Cable,  
Analogue Audio Cable, Operating Instructions