ESOTERIC

GRANDIOSO S1X Power Amplifier

252131

With the birth of the Grandioso M1X, the flagship monoblock power amplifier, the ESOTERIC amplifier design platform has been completely revamped. The Grandioso S1 has now been reborn as the Grandioso S1X, the flagship of a completely different class-A stereo power amplifier.

DÉTAILS DU PRODUIT

New Drive Stage
The newly designed drive stage, a simple 5-parallel push-pull drive with large bipolar transistors, is Class-A (operating range 50W/8) and has a full sound with clear transparency. However, the general characteristics of Class-A, – pure, polished tone – cannot fully describe the true beauty of the S1X.
Vivid colors like a direct heated triode amplier, high-speed transient backed by ample idling current, power, and openness... The S1X’s new Class-A drive stage inherits the powerful and dynamic design concept of the M1X, including large bipolar elements and a powerful power supply section. Regardless of the amplication method, the S1X earnestly pursues what the best amplier should sound like and achieves peerlessly powerful sonic signature people unmistakably recognize as Esoteric sound.

Fidelity
With the agship Grandioso amplifier models, Esoteric is breaking new horizons by pushing the limits of delity in preamp-to-amplier signal transmission. Esoteric’s unique current transmission system “ES-Link Analog” is the ideal method for preamp to amplier transmission where the signal level is extremely low. Compared to the conventional voltage transmission, it transmits approximately 100 times more current, making it less susceptible to noise and sending the full energy of the music to the amplier.
Also, it is not affected by the impedance of the interconnects running between the preamp and amplier, so it maintains a perfect integrity between the output signal of the preamp and the input signal to the amplier.

ES-Link Analog – Esoteric’s unique current transmission
ES-Link Analog is Esoteric’s proprietary current transmission method. By connecting devices that support this method, it is possible to reproduce the sound as if it were being played directly from an analog console in a recording studio.
The sonic signature of ES-Link Analog is powerful, live and dimensional. In conventional voltage transmission, the output impedance of the source device is low, and the input impedance of the target device is high. In other words, the current required for signal transmission tends to be kept low.
Also, due to the resistance component (impedance) of the transmission path (interconnect cable), the voltage of the transmitted signal is attenuated by the level calculated by Ohm's law (voltage = current × resistance) when delivered to the target device. Therefore, a longer the cable causes increased

resistance which has significant affects on that signal.

In contrast, in current transmission, the output impedance of the source device is high and the input impedance of the input device is low, resulting in a "High out, Low in" circuit, and the current level is maintained higher during signal transmission than in voltage transmission, allowing a powerful audio signal delivery.
Also, in current transmission, the current level output from the source device always matches the one on the target device. Imagine using a hose to send water from a faucet to a bucket. As long as there are no holes in the hose, the same amount of water from the faucet will always flow to the bucket, regardless of the length of the hose.

Similarly, if the cable that serves as the transmission path is not divided into multiple paths, all current from the source device will be delivered to the target device, and the current values flowing will always be the same, even if the transmission path is longer. This advantage of accurate transmission of even the smallest signals is evident from the fact that current transmission is widely used in measuring instruments that measure precise signals.

Conventional voltage transmission impedance of the Esoteric products is designed several tens of ohms on out-going circuits and around 100k ohms on in-coming circuits. In contrast, the ES-Link Analog out-going/in-coming circuits are designed approximately 1k on the out-going circuit, and 0 on the in-coming circuit.
If we focus on the current value that flows when transmitting audio signals, the current level of ES-Link Analog transmission when transmitting audio signals at the same level as normal voltage transmission is approximately 100 times higher than the current level flowing in voltage transmission. Consequently, the high current level allows for the full energy of the music to be delivered.

Dynamics
Robust driving power worthy of a agship. The source of this power is Esoteric’s dedicated power supply unit. For ampliers that constantly require high current for Class-A operation, the power supply is the most key component to achieve a powerful and rich sound stage. Thanks to Esoteric’s unique power supply design, the S1X boasts an extremely dynamic musical expression with great precision.

Over-Sized Bare-Mount Power Transformers
The S1X employs the largest toroidal transformers that the S1X chassis can accommodate. The transformers performance, with a much larger size than the size required for actual use, allows for extremely high follow-through to dynamic changes in current supply, resulting in a dynamic and open sound. Also, suppressing transformer vibration results in limiting current ow. For this reason, the S1X dares to employ a bare mounting with the transformer’s metal cover removed.

Power Transformer Dedicated to the Pre-Drive Stages
The S1X’s high resolution sound is also a major feature, allowing the delicate tones of each instrument to be heard clearly, even at the climax of a full orchestra performance. A power supply section dedicated to the pre-drive stage (voltage amplication stage), which handles low-level signals from the preamplier, eliminates the inuence of the main drive stage, which has large current uctuations, and improves resolution.
In addition to the two power transformers for the main drive and pre-drive stages, an R-core power transformer for control is installed in a three-transformer configuration to create a pure power supply with thoroughly low noise.

Dual Mono Rectifier Circuits
Unless it is a monaural source, the left and right music signals are different. The power rectification circuits are designed in dual mono configuration, not shared by both channels, to avoid mutual interference and achieve clear channel separation and resolution.

Multiple Custom Caps in Parallel Configuration
The rectication system also incorporates Grandioso’s unique and thorough attention to detail. The Grandioso custom capacitors are employed for the rectier circuits, while the dual mono and parallel conguration of 6 x 10,000F per channel ensures the high current supply required for Class-A

operation at all times. Therefore, the S1X follows the dramatic changes in musical signals with agility and express dynamism to the fullest extent.

Low Impedance Design
Key wiring sections such as from the primary side to the power supply section, drive stage, etc. employ over-sized pure copper busbars and ultra-thick gauge cables with bolted connections. The low impedance design maximizes the response of the power supply circuits.

Less is More
Considering its massive appearance, this may seem a little surprising. However, the signal paths in the S1X are designed to be as short as possible, and the circuit is surprisingly simple. The clear sound quality is supported by the “subtractive aesthetics,” so to speak, created by the crystallization of advanced engineering.
In general, a Class-A amplifiers generate a lot of heat, and internal temperature stability is extremely important. For this reason, the S1X optimizes the position and circuitry of the temperature compensation circuit to stabilize the temperature of the entire amplifier block. This contributes to high quality sound because it speeds up the stabilization of the idling current after power-on and allows the amplifier elements to operate with their best characteristics.
The phase compensation circuit is a simple 1-pole configuration, and the final stage is coil-less, while the NFB (negative feedback) is kept to a minimum to enhance the dynamism of the music. The minimalist circuit philosophy allows the harmonics (overtones) that are most important to music, but are easily lost, to be retained and rendered expressively.

Depth
Despite the simplicity of the circuit, the S1X has been designed to eliminate any compromise in the quality of reproduction by using a dual monaural conguration from the input stage to the nal stage. The components are among the largest in their class, and the board pattern, which employs a 105µm thick copper foil in key components, and ultra-thick gauge cables with connector connections eliminated as much as possible, are full of the boldness and power that is typical of ampliers. Particularly, the seven busbars in the drive stage are made of luxurious 1.0 mm thick high-purity OFC material, and MOS FET switches without mechanical contacts are employed in the speaker output stage. The reduction in internal impedance provides a powerful grip even on woofers with larger diameters, and the driving force reaches the low-frequency limit point with ease.

Texture
The S1X is not only a powerful unit, but one that also delicately creates a gradation between climax and silence. The audio signal is received by a newly designed balanced input amplier circuit independent of each input stage and transmitted to the amplication stage in a balanced conguration to ensure noise-free and stable amplication. FET switches are also employed for all switching positions in the audio signal path, including input switching, to minimize tonal coloration. Carefully selected high-quality components, such as the IDM-01 (Integrated Discrete-Amplier Module) developed for the C1X preamp, accentuate the texture of the tones.

Versatility
The Grandioso S1X behaves not only as a stand-alone stereo power amplier, but also oers flexibly in a variety of high-end-worthy applications. The system is expandable to a mono-block amplier by deploying two S1Xs, depending on the matched speakers and the operating environment. A mode selector supports conventional stereo mode and bi-amp mode for multi-way speakers with separate HF/LF inputs. You can freely customize the conguration of the Class-A amplier system of your dreams according to the quality and characteristics of the sound you desire. Even if you use multiple ampliers, the power on/off is controllable from the Grandioso C1X preamplier via DC trigger*, allowing sophisticated use suitable for high-end applications.

*3.5mm monaural mini plug cable for connection is sold separately. Please prepare a cable of the appropriate length for your environment.

Biamp mode
When two S1X units are deployed and set to "bi-amp mode," the same audio signal is delivered from the output terminals that were L/R in stereo mode. This means that a single unit can be used as a

monaural power amplifier with two speaker outputs. The output power is the same as when one S1X is deployed in normal stereo mode (50W/8), but as shown in the figure, the HF/LF units of the speaker can be driven by separate power amplifier circuits, enabling a more pure sound of a multi-way system speaker. This mode is effective when resolution is more important than driving power.

Mechanical Perfection
To achieve the unique design goal of “reproducing the master sound,” the S1X chassis optimally controls all vibrations that can affect sound quality. The sleek and clean form of this sports car-like mechanical engineering, pushes the limits of its balance between rigidity and flexibility, and speaks to its high degree of perfection.
For example, the enclosure, which requires rigidity, makes extensive use of aluminum blocks and is thoroughly non-resonant. On the other hand, the top panel, which needs to be free of vibration for an open sound, has a semi-floating structure. Esoteric’s unique patented isolation foot, which integrates a spike and a saucer, also has a special structure that reduces mechanical stress and enhances sound quality. In addition, the large heat sinks of the amplier block have a special wave shape that disperses the peak resonance of the fins and suppresses resonance.

Dual Honeycomb Grille
The most striking feature of the S1X’s exterior is the “dual honeycomb grille” at the top. A honeycomb-shaped opening is employed to improve heat dissipation, and a light-weight top panel is pursued to the last possible degree to enhance the openness of sound. By overlapping two grills of different thicknesses, vibrations are also efficiently dispersed in pursuit of a pure tone. In addition, the layout of the top panel opening is completed with a design that achieves both an elegant appearance and a high degree of heat dissipation performance to control the Class-A heat output.

Caractéristiques

Caractéristiques du produit

Code EAN:	4907034224623
Numéro du fabricant :	GRANDIOSO S1X
Poids du produit :	49.5 kilograms

Dimensions et Poids

Hauteur du produit :	22.1
Largeur du produit :	49.1
Longueur du produit :	53.6
Poids du produit :	48

Entrées audio

RCA :	1
Niveau d'entrée & impédance RCA :	34.5dB gain
XLR :	1
Niveau d'entrée & impédance XLR :	28.5dB gain
ES-link analogique :	1

Amplification

Puissance de sortie (4) :	100
Puissance de sortie (8) :	50

THD :	0.006% (1kHz, 8, 50W)
Rapport S/B :	109
Impédance des enceintes :	4-16
Réponse en fréquence :	5-100000
Sortie A/B :	false
Canaux :	2
12 volt trigger :	In & Out
Gestion de l’énergie	
Consommation d'énergie :	270-310