



SQ700XG



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Archiv Michael-Otto*

The new integrated amplifier ranked in between the best-seller SQ707 and the renowned SQ500 series amplifiers. The most up-to-date circuitry of direct coupling and differential driving under pure complementary configuration ensures the excellent power response combined with extremely low distortion in main- and pre-amplifier stages alike. No comparable component amplifier in this price bracket available today in respect of its power and performance capacities, its attention to human factor in handling and its attractiveness.

CIRCUIT/PERFORMANCE

Preamplifier section is composed by 2-stage direct coupling circuit at equalizer stage with PNP and NPN transistors, which improves linearity and utilization of main power. The withstand input voltage at PHONO terminals is set at 200mV (1KHz) which surpasses that of pre-main amplifiers in this class. Stability is enhanced by feedback given from the 2nd stage collector to the 1st stage emitter.

For better S/N ratio low-noise transistors are adopted and mylar and tantalum types of lower leak current are used as an inter-stage coupling condenser. PNP transistors

which inherently excel in noise figure are specially selected for the equalizer stage, and above all the representative one 2SA493 is mainly utilized throughout whole section of pre-amplifier.

Main amplifier section is composed by full stage direct coupling circuit with dual power supply system and 1-stage differential amplification circuit, which ensures the excellent power character and damping factor throughout whole frequency range from ultra low end to extremely high end. Pure complementary configuration with PNP and NPN power transistors at output stage thoroughly eliminates the cross-over distortion and ensures the most faithful reproduction to the original sounds.

Continuous output is 20W(20W(8 Ω)) with both channels simultaneously driven, and at this rated output both THD and inter-modulation distortion are kept below 0.1%. Power bandwidth is sufficiently wide with 10 - 50,000Hz with constant damping factor of 20(8 Ω) throughout whole audible range. The residual noise is kept below 1mV.

FUNCTION

An attenuator reduces the gain by 1/8, and

is used as a temporary sound subduing switch. Tone controls are of LUX NF type independently arranged for right and left channels with click-stoppers for easy recognition of attenuation and intensification degree. Furthermore for subtle tone correction 2-point turn-over (roll-off) frequency selector is provided both for bass and treble. Also the defeat switch is provided to restore the flat frequency response under the fixed tone control. 2 pairs of speaker terminals are available, either of which can be selected by the speaker switch. Moreover this amplifier is equipped with tape-monitor circuit, DIN connector, and head-phone jack.

MECHANICAL/STYLING

The front control panel is of extruded aluminum with white-gold hair-line finish to give an elegant refined appearance. The knobs are of the same finish. This Amplifier is housed in the case of dignified rose wood finish.

Conjointly with amelioration in performance meticulous care is paid to the human factors in handling - accessibility, soft feeling etc.

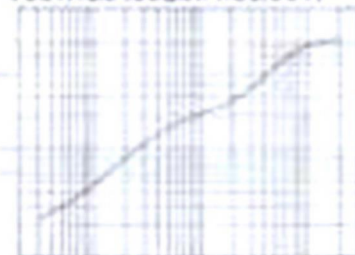
SPECIFICATIONS

MAIN AMPLIFIER	
POWER OUTPUT	140W (70W/channel) 4Ω 80W (40W/channel) 8Ω
THD	less than 0.1% (8Ω, 20W)
INTERMODULATION DISTORTION	less than 0.1% (8Ω, 20W)
POWER BANDWIDTH	10 - 50,000Hz (-3dB, 0.1%)
INPUT SENSITIVITY	430mV (8Ω, 20W)
INPUT IMPEDANCE	40kΩ
RESIDUAL NOISE	less than 0.5mV
DAMPING FACTOR	38(8Ω) 75(16Ω)
PRE AMPLIFIER	
OUTPUT VOLTAGE	PRE OUT : 430mV
OUTPUT IMPEDANCE	PRE OUT : about 100Ω
FREQUENCY RESPONSE	10 - 50,000Hz (-1dB)
THD	less than 0.04% (1kHz, 1V)
INPUT SENSITIVITY	phono-1, phono-2 : 2mV aux-1, aux-2 : 120mV
INPUT IMPEDANCE	phono-1, phono-2 : 50kΩ aux-1, aux-2 : 50kΩ
S/N RATIO	phono-1, phono-2 : more than 60dB aux-1, aux-2 : more than 70dB
MAX. PERMISSIBLE INPUT VOLTAGE	phono : 200mV (1kHz)
RESIDUAL NOISE	less than 45μV
TONE CONTROLS	Lux NP type with turn-over (roll-off) freq. selector. Bass: 250Hz, 500Hz Treble: 2.5kHz, 5kHz

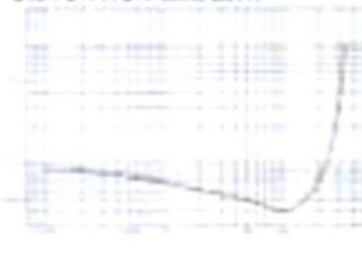
TRANSISTORS AND OTHERS

TRANSISTORS	2SD155(2), 2SA516(2), 2SC495(5), 2SA506(2), KA405C(1), 2SA493B(1), 2SC1000(4)
DIODES	5B1(1), 5B1K-4(1)
VARIATORS	KE205(4)
ANNEXED CONTROLS	attenuator, speaker switch, tone defeat switch, head-phone jack, etc.
POWER CONSUMPTION	100W(BD, max. output, both channels driven)
DIMENSIONS	373mm(W) x 227mm(H) x 125mm(D)
WEIGHT	7.5kg

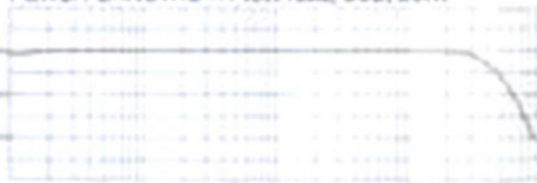
PHONO WITHSTAND INPUT VOLTAGE (Output: REC. OUT)



INTERMODULATION DISTORTION (8Ω, 20W)



POWER BANDWIDTH (8Ω load, 0dB, 20W)



LUX CORPORATION, JAPAN

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