

Technics SU-8011

Stereo Integrated Amplifier



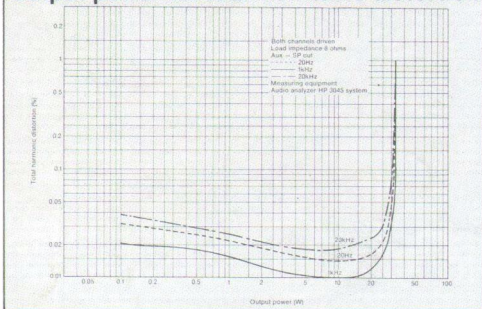
SU-8011 Stereo Integrated Amplifier

Distortion, or more precisely the lack of distortion, has recently been moving into the forefront when there are serious discussions of amplifier specifications. As we all know, the main function of an amplifier is to take the small signals coming from the phono, tuner, tape deck and so forth and amplify these to a level where they can drive a speaker system. The problem that faces designers immediately is that along with a wide bandwidth, which must at the very least extend from 20Hz to 20kHz in a good amp, there is also a need for a clean output. The SU-8011 from Technics is just such an amp. This slim styled integrated amplifier comes at a budget price and incorporates the latest technology to fulfill its primary function of amplifying weak signals with low distortion.

Designed for Low Distortion: 0.08% T.H.D., 20Hz ~ 20kHz, at Rated Output

The SU-8011 is designed to deliver 25W per channel, both channels driven into 8 ohms, with no more than 0.08% total harmonic distortion from 20Hz to 20kHz. This is more than enough power to drive almost any speaker system except for those power

Output power vs. total harmonic distortion



hungry, low efficiency types that waste power needlessly. Here are a few of the "secrets" behind this low 0.08% distortion figure over the entire audio range from 20Hz to 20kHz. Firstly, the SU-8011 incorporates all Technics advanced know-how to keep electromagnetic induction to a minimum. The circuit is so designed that those sections which handle large current do not influence and cause distortion in other components with induction formed by their magnetic fields. Secondly, two special transistors are used in the differential amplifier first stage and all this, with the Class A amp driver stage and 2-stage Darlington connection used in the power IC, adds up to plenty of power and, most important of all, the insignificant distortion figure we mentioned above.

Rugged Stable Power Supply and Floating Coil Transformer

The rugged power supply of the SU-8011 can handle sudden demands for more current that occur when certain types of music with high transients are played and there is no loss of sound clarity nor introduction of crosstalk. Some reasons for this superior performance are the two large capacity 6,800μF capacitors used in the bridged, full-wave rectifier circuit and the use of a newly developed floating coil transformer in which the transformer coils float in a special resin to absorb unwanted vibrations. Thanks to the stability of this power supply and the newly developed floating coil transformer, your music will

come to you with outstanding clarity and free of transformer noise.

Super Quiet Phono Equalizer: 80dB S/N Ratio

This high signal-to-noise ratio of 80dB (at 2.5 mV sens. IHF A) with an MM type cartridge means that you can listen to your favorite music, even the softest passages, without being bothered by noise. You probably wouldn't expect such an outstanding S/N on an amp in this price range but it's yours to enjoy. There is a 2-stage direct coupling MM phono equalizer section with direct coupling of the PNP-NPN transistors.

Remote Action Switch

The remote action switch on the input selector serves a number of important functions. First of all, switching takes place at the ideal place within the circuitry. There is no excessive wiring needed with the result that there's less chance of adverse effects coming from crosstalk and interference from high power current. With the remote action switch, a more logical circuit board design is also possible since there is no need for connection to the front panel.

Other Features

- Main/Remote Speakers
- Tape Monitor Switch
- Loudness Switch
- Separate Bass and Treble Tone Controls



Technical Specifications (DIN 45 500)

AMPLIFIER SECTION

20Hz ~ 20kHz continuous power output both channels driven
25W × 2 (8Ω)
40Hz ~ 16kHz continuous power output both channels driven
25W × 2 (4Ω)
25W × 2 (8Ω)
1kHz continuous power output both channels driven
27W × 2 (4Ω)
27W × 2 (8Ω)
Total harmonic distortion
rated power at 20Hz ~ 20kHz
0.08% (8Ω)
at 40Hz ~ 16kHz
0.15% (4Ω), 0.08% (8Ω)
at 1kHz
0.15% (4Ω) 0.08% (8Ω)
half power at 20Hz ~ 20kHz
0.03% (8Ω)
at 1kHz 0.03% (8Ω)
-26dB power at 1kHz
0.15% (4Ω)
50mW power at 1kHz 0.2% (4Ω)

Intermodulation distortion
rated power at 250Hz: 8kHz
= 4:1, 4Ω 0.15%
rated power at 60Hz: 7kHz
= 4:1, SMPTE, 8Ω 0.08%
Power bandwidth both channels driven, -3dB
5Hz ~ 50kHz (4Ω)
5Hz ~ 60kHz (8Ω)
Residual hum & noise 0.6mV
Damping factor 15 (4Ω), 30 (8Ω)
Headphones output level & impedance 330mV/330Ω
Load impedance
MAIN or REMOTE 4Ω ~ 16Ω
MAIN and REMOTE 8Ω ~ 16Ω
Input sensitivity & impedance
PHONO 2.5mV/47kΩ
TUNER, AUX 150mV/27kΩ
TAPE 1 PLAY BACK 180mV/33kΩ

Phono maximum input voltage at 1kHz, RMS 100mV
S/N
rated power 4Ω
PHONO 74dB (80dB, IHF A)
TUNER, AUX, TAPE 83dB (97dB, IHF A)
-26dB power 4Ω
PHONO 62dB
TUNER, AUX, TAPE 62dB
50mW power 4Ω
PHONO 62dB
TUNER, AUX, TAPE 62dB
Frequency response
PHONO
RIAA standard curve ±1.0dB (30Hz ~ 15kHz)
TUNER, AUX, TAPE
10Hz ~ 50kHz (-1dB)
±0.8dB (20Hz ~ 20kHz)

Tone controls
BASS 50Hz, +10dB ~ -10dB
TREBLE 20kHz, +10dB ~ -10dB
Loudness control (volume at -30dB) 50Hz, +9dB
Output voltage & impedance
REC OUT 150mV
REC/PLAY 30mV/82kΩ
Channel balance AUX, 250Hz ~ 6300Hz ±1.0dB
Channel separation AUX, 1kHz 55dB

GENERAL
Power consumption 300W
Power supply
AC110/120/220/240V, 50/60Hz
Dimensions (W × H × D)
430 × 97 × 240mm
(16-15/16" × 3-13/16" × 9-7/16")
Weight 5.0kg (11.0 lb)

Technics
Matsushita Electric