ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

# NTE7171
# Intergrated Circuit
# 2−Channel 10W AF Power Amplifier for Use in Home Stereo, TV Applications

**Description:**
The NTE7171 is an integrated circut in a 12−Lead SIP type package which seals a high−output power amplifier for TV's and monitors.

**Features:**
- High−Power 2−Channel AF Power Amplifier
- Low Distortion
- Minimum Number of External Parts Required (No Bootstrap Capacitor Required)
- Low Pop Noise at the Time of Power Supply ON/OFF
- Good Ripple Rejection (58dB typ)
- Wide Operating Voltage Range
- External Muting Available
- On−Chip Protector Against Abnormality (Thermal Shutdown, Overvoltage)

**Absolute Maximum Ratings:** ($T_A$ = +25°C unless otherwise specified)
Maximum Supply Voltage, $V_{CC}$max . . . . . 45V
Maximum Output Current, $I_O$peak . . . . . 4A
Allowable Power Dissipation, $P_D$max . . . . . 25W
Operating Temperature Range, Topr . . . . . −20° to +75°C
Storage Temperature Range, Tstg . . . . . −40° to +150°C

**Recommended Operating Conditions:** ($T_A$ = 25°C unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Recommended Supply Voltage | $V_{CC}$ | | − | 32 | − | V |
| | $V_{CC}$ op | | 10 | − | 40 | V |
| Recommened Load Resistance | $R_L$ | | − | 8 | − | Ω |

**Electrical Characteristics:** ($T_A$ = +25°C, $V_{CC}$ = 32V, $R_L$ = 8Ω, f = 1 kHz, Rg = 600Ω, unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Quiescent Current | $I_{CCO}$ | Quiescent | 30 | 60 | 100 | mA |
| | | Muting Switch On | 30 | 56 | 100 | mA |

**Electrical Characteristics (Cont'd):** ($T_A$ = +25°C, $V_{CC}$ = 32V, $R_L$ = 8Ω, f = 1 kHz, Rg = 600Ω, unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Voltage Gain | VG | | 38 | 40 | 42 | dB |
| Voltage Gain Difference | ΔVG | | − | − | 1.5 | dB |
| Output Power | $P_O$ | THD = 1% | 9.0 | 10.0 | − | W |
| | | THD = 3% | 10.0 | 11.5 | − | W |
| Total Harmonic Distortion | THD | Po = 2W | − | 0.05 | 0.20 | % |
| Output Noise Voltage | $V_{NO}$ | $R_g$ = 10kΩ BW = 20Hz to 20kHz | − | 0.25 | 1.0 | mV |
| Ripple Rejection | SVRR | $R_g$ = 10kΩ $f_R$ = 100Hz, $V_R$ = 0 dBm | 45 | 58 | − | dB |
| Crosstalk | CT | $R_g$ = 10kΩ | 45 | 60 | − | dB |
| Muting | $V_{O(MT)}$ | Muting Switch ON, $V_{IN}$ = −5 dBm | − | − | −35 | dBm |

**Pin Connection Diagram**
(Front View)