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NTE1315 Integrated Circuit Module – 2 Power, 2 Channel AF Power Amplifier, 35W Min

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| | |
|--|-------------------------------------|
| Maximum Supply Voltage, V_{CCmax} | $\pm 45\text{V}$ |
| Operating Junction Temperature, T_j | $+150^\circ\text{C}$ |
| Operating Case Temperature, T_C | $+125^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -30° to $+125^\circ\text{C}$ |
| Allowable Load Shorting Time ($V_{CC} = \pm 30\text{V}$, $R_L = 8\Omega$, $f = 50\text{Hz}$, $P_O = 35\text{W}$), t_s | 2sec |
| Thermal Resistance, Junction-to-Case, R_{thJC} | $+2.1^\circ\text{C/W}$ |

Recommended Operating Conditions: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| | |
|--|------------------|
| Recommended Supply Voltage, V_{CC} | $\pm 30\text{V}$ |
| Load Resistance, R_L | 8Ω |

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = \pm 30\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $V_G = 40\text{dB}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------|------------|---|-----------|-----|-----|-------------------|
| Quiescent Current | I_{CCO} | $V_{CC} = \pm 36\text{V}$ | 20 | 40 | 100 | mA |
| Output Power | $P_O (1)$ | THD = 0.4%, $f = 20\text{Hz}$ to 20kHz | 35 | - | - | W |
| | $P_O (2)$ | $V_{CC} = \pm 27\text{V}$, THD = 1.0%, $R_L = 4\Omega$, $f = 1\text{kHz}$ | 40 | - | - | W |
| Total Harmonic Distortion | THD | $P_O = 1.0\text{W}$, $f = 1\text{kHz}$ | - | - | 0.3 | % |
| Frequency Response | f_L, f_H | $P_O = 1.0\text{W}$, -3dB | 20 to 50k | | | Hz |
| Input Resistance | r_i | $P_O = 1.0\text{W}$, $f = 1\text{kHz}$ | - | 55 | - | k Ω |
| Output Noise Voltage | V_{NO} | $V_{CC} = \pm 36\text{V}$, $R_g = 10\text{k}\Omega$ | - | - | 1.2 | mV _{rms} |
| Output Center Voltage | V_N | $V_{CC} = \pm 36\text{V}$ | -70 | 0 | +70 | mV |
| Muting Voltage | V_M | | -2 | -5 | -10 | V |

Pin Connection Diagram
(Front View)

| | |
|-----------|---------------------|
| 18 | Rt Ch Input (-) |
| 17 | Rt Ch Input (+) |
| 16 | GND |
| 15 | Compensation |
| 14 | (-) V _{CC} |
| 13 | Rt Ch Output |
| 12 | Bypass |
| 11 | (+) V _{CC} |
| 10 | Lt Ch Output |
| 9 | (-) V _{CC} |
| 8 | Compensation |
| 7 | Compensation |
| 6 | Muting |
| 5 | Compensation |
| 4 | Compensation |
| 3 | Compensation |
| 2 | Lt Ch Input (+) |
| 1 | Lt Ch Input (-) |

