



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

## 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, $T_{stg}$ .....	$-30^\circ$ 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, $R_L$ .....	$8\Omega$

**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 $20\text{kHz}$	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 $\Omega$
Output Noise Voltage	$V_{NO}$	$V_{CC} = \pm 36\text{V}$ , $R_g = 10\text{k}\Omega$	-	-	1.2	mV <sub>rms</sub>
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)

<b>18</b>	Rt Ch Input (-)
<b>17</b>	Rt Ch Input (+)
<b>16</b>	GND
<b>15</b>	Compensation
<b>14</b>	(-) V <sub>CC</sub>
<b>13</b>	Rt Ch Output
<b>12</b>	Bypass
<b>11</b>	(+) V <sub>CC</sub>
<b>10</b>	Lt Ch Output
<b>9</b>	(-) V <sub>CC</sub>
<b>8</b>	Compensation
<b>7</b>	Compensation
<b>6</b>	Muting
<b>5</b>	Compensation
<b>4</b>	Compensation
<b>3</b>	Compensation
<b>2</b>	Lt Ch Input (+)
<b>1</b>	Lt Ch Input (-)

