



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

NTE7210 Integrated Circuit 2-Channel AF Power Amp for Car Stereo, 5.5W/Ch

Features:

- Dual Channel (5.5W x 2 Typ)
- Low Pop Noise at the Time of Power Supply ON/OFF an Good Starting Balance
- Good Ripple Rejection: 46dB Typ
- Good Channel Separation
- Low Residual Noise ($R_g = 0$)
- On-Chip Protection:
 - Thermal Protection
 - Overvoltage/Surg Protection
 - Adjacent Pins (Pin7-Pin8, Pin6-Pin7) Short Protection

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

Maximum Supply Voltage		
Quiescent ($t = 30\text{s}$), $V_{CC\text{max}1}$	.....	25V
Operating, $V_{CC\text{max}2}$	.....	18V
Surge Supply Voltage ($t \leq 0.2\text{s}$), $V_{CC\text{surge}}$	.....	50V
maximum Output Current (Per Channel), $I_{O\text{peak}}$	.....	3.5A
Allowable Power Dissipation, $P_{d\text{max}}$	.....	15W
Operating Temperature Range, T_{opr}	.....	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	.....	-40° to $+150^\circ\text{C}$

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

Recommended Supply Voltage, V_{CC}	.....	13.2V
Recommended Load Resistance (2 Channels), R_L	.....	4 Ω
Operating Voltage Range, V_{CCop}	.....	10V to 16V

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $f = 1\text{kHz}$, $R_g = 600\Omega$, Note 1 unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}		-	75	150	mA
Voltage Gain	VG		49.5	51.5	53.5	dB
Output Power	P_O	THD = 10%, 2 Channels	5.0	5.5	-	W
Total Harmonic Distortion	THD	$P_O = 1\text{W}$	-	0.2	1.0	%
Input Resistance	r_i		-	30	-	k Ω
Output Noise Voltage	V_{NO}	$R_g = 0$	-	0.6	1.0	mV
		$R_g = 10\text{k}\Omega$	-	1.0	2.0	mV
Ripple Rejection	SVRR	$R_g = 0$, $V_{CCR} = 200\text{mV}$, $f_r = 100\text{Hz}$	-	46	-	dB
Channel Separation	CH_{sep}	$R_g = 10\text{k}\Omega$, $V_O = 0\text{dBm}$	45	55	-	dB

Note 1. With 100 x 100 1.5mm³ Al heat sink.

Pin Connection Diagram
(Front View)

