



ELECTRONICS, INC.  
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**NTE1165**  
**Integrated Circuit**  
**Module, Hybrid, Audio Output, 4.5W**  
**for Car Radio & CB**

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

Power Supply Voltage, $V_{CC}$ .....	18V
Power Dissipation ( $T_C = +75^\circ\text{C}$ ), $P_D$ .....	4.5W
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+125^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{V}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_Q$	$V_{IN} = 0$	–	20	70	mA
Voltage Gain (Closed Circuit)	$G_{VC}$	$f = 1\text{kHz}$ , $R_L = 4\Omega$ , $R_N = 68\Omega$	47	50	53	dB
Power Output	$P_{out}$	$f = 1\text{kHz}$ , $R_L = 4\Omega$ , THD = 10%	4.0	4.5	–	W
Total Harmonic Distortion	THD	$f = 1\text{kHz}$ , $R_L = 4\Omega$ , $P_{out} = 1\text{W}$	–	0.7	2.0	%
Output Noise Voltage	$V_{NO}$	$R_g = 10\text{k}\Omega$ , $R_L = 4\Omega$	–	1.0	5.0	mV
Input Resistance	$R_{in}$	$f = 1\text{kHz}$	–	30	–	k $\Omega$

**Pin Connection Diagram**  
(Front View)



