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## NTE799 Integrated Circuit Four Channel “SQ” Decoder

**Description:**

The NTE799 consists of two high input impedance preamplifiers which are fed with left total,  $L_T$ , and right total,  $R_T$  signals. The preamplifiers each feed two all-phase networks which generate two  $L_T$  signals in quadrature and two  $R_T$  signals in quadrature. The four signals are matrixed to yield left front, left back, right front, and right back signals ( $L_F$ ,  $L_B$ ,  $R_F$ ,  $R_B$ ).

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

Power Supply Voltage,  $V_{CC}$  ..... 25V  
 Power Dissipation ( $T_A = +25^\circ\text{C}$ ),  $P_D$  ..... 750mW  
     Derate Above  $+25^\circ\text{C}$  ..... 6.7mW/ $^\circ\text{C}$   
 Operating Temperature Range,  $T_{opr}$  .....  $0^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-65^\circ$  to  $+150^\circ\text{C}$

**Electrical Characteristics:** ( $V_{CC} = +20\text{V}$ ,  $V_{in} = 0.5V_{(RMS)}$  @ 1kHz,  $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Min	Typ	Max	Unit
Supply Current Drain	11	16	21	mA
Input Impedance	1.8	3.0	–	m $\Omega$
Output Impedance	–	5.0	–	k $\Omega$
Channel Balance ( $L_F/R_F$ )	-1.0	0	+1.0	dB
Voltage Gain $L_F/L_T$ or $R_F/R_T$	-1.0	0	+1.0	dB
Relative Voltage Gain $L_B'/L_F'$ or $R_F/R_T$	-1.0	0	+1.0	dB
Maximum Input Voltage for 1% THD at Output $R_T$ or $L_T$	2.0	–	–	$V_{(RMS)}$
Total Harmonic Distortion $R_T$ or $L_T$	–	0.1	–	%
Signal to Noise Ratio (Short-Circuit Input $V_O = 0.5V_{(RMS)}$ with Output Noise Referenced to Output Voltage, $V_O$ ) (BW = 20Hz to 20kHz)	–	80	–	dB

### Pin Connection Diagram

