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NTE1521 Integrated Circuit TV Sound IF Amp & Detector

Features:

- Differential Peak Detector
- Excellent AM Rejection: 50dB (Typ.)
- Wide Supply Voltage Range: ($V_{CC} = 8V$ to $15V$)

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

Supply Voltage, V_4	15V
Input Voltage, V_2	$0.7V_{rms}$
Power Dissipation (Note 1), P_D	625mW
Operating Temperature Range, T_{opr}	-20° to $+75^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ C$

Note 1. Derate above $T_A = +25^\circ C$ in the proportion of $6.25mW/^\circ C$

Electrical Characteristics: ($T_A = +25^\circ C$, $V_{CC} = 12V$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage Range	V_{CC}		8	-	15	V
Total Current Consumption	I_{CC}		-	-	25	mA
DC Level of Output Signal	V_g	$V_{IN} = 0$	-	5	-	V
Recovered Output Voltage	V_{OD}	$f = 4.5MHz, f_m = 400Hz, \Delta f = \pm 25kHz,$ $V_{IN} = 100mV$	0.8	-	1.6	V_{rms}
Input Limiting Voltage	$V_{IN(lim)}$	$f = 4.5MHz, f_m = 400Hz, \Delta f = \pm 25kHz,$ at -3dB Point	-	-	500	μV_{rms}
AM Rejection Ratio	AMR	$f = 4.5MHz, f_m = 400Hz, \Delta f = \pm 25kHz,$ $V_{IN} = 100mV, \text{Amplitude Mod.} = 30\%$	-	50	-	dB
Total Harmonic Distortion	THD	$f = 4.5MHz, f_m = 400Hz, \Delta f = \pm 25kHz,$ $V_{IN} = 100mV$	-	-	2.0	%
Input Impedance (Pin 2)	r_{ip}	$f = 4.5MHz$	-	17	-	k Ω
	C_{ip}		-	4	-	pF
Output Impedance (Pin 6)	r_{op}	$f = 4.5MHz$	-	2	-	k Ω
	C_{op}		-	3	-	pF

Pin Connection Diagram

