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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, $T_{opr}$ .....	$-20^\circ$ to $+75^\circ C$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ 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	$V_{IN(lim)}$	$f = 4.5MHz, f_m = 400Hz, \Delta f = \pm 25kHz, \text{at } -3dB \text{ Point}$	-	-	500	$\mu V_{rms}$
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 $\Omega$
	$C_{ip}$		-	4	-	pF
Output Impedance (Pin 6)	$r_{op}$	$f = 4.5MHz$	-	2	-	k $\Omega$
	$C_{op}$		-	3	-	pF

### Pin Connection Diagram

