

NTE1072 Integrated Circuit FM-AM IF Amp & AF Amp

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

Supply Voltage (V_{CC}), V_{8-3}	7.5 V
Circuit Current, I_7	20mA
Total Circuit Current, I_{tot}	40mA
Total Power Dissipation, P_T	300mW
Operating Temperature Range, T_{opr}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ\text{C}$

Electrical Characteristics: ($V_{CC} = 5V$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	I_{tot}		5.4	15	23.5	mA
Circuit Current	I_7	$V_7/100\Omega$	3.6	5.7	7.7	mA
	I_9		0.9	2.5	3.75	mA
Bias Reference Voltage	V_{12-16}		1.25	1.5	1.75	V
Detection Output Voltage	FM-IF $V_{O(FM)}$	$f = 10.7\text{MHz}$, $V_{IN} = 10\mu\text{V}$	1.8	3	5	mV
	AM-IF $V_{O(AM)}$	$f = 455\text{kHz}$, $V_{IN} = 32\mu\text{V}$	2.2	3.5	5.6	mV
Output Noise Voltage	V_N	$R_g = 5k\Omega$	—	—	1.2	mV
Output Voltage	V_{7-3}	$f = 1\text{kHz}$, $V_{IN} = 1\text{mV}$	0.35	0.47	0.56	V

Pin Connection Diagram

IF Input AM/FM	1	16	IF Amp Circuit
FM Detector Circuit	2	15	AM Detector Circuit
AF Circuit	3	14	AM Detector Circuit
AF Input	4	13	AM IF Amp Circuit
AF Circuit	5	12	Bypass
GND	6	11	Bypass
AF Output	7	10	Bypass
V_{CC}	8	9	FM Detector Circuit

