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NTE1490
Integrated Circuit
FM/AM Radio Receiver System
16–Lead DIP

Features:

- Stability is improved by use of the full balance DC feedback type differential IF amplifier
- High sensitivity (Input limiting sensitivity is 32dBμ)
- Large detection output (450mV$_{rms}$ typ, 100% mod.)
- Utilizing the external resistance it can be changed freely
- High S/N (77dBμ)
- Wide operation supply voltage

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 8V
Supply Current, I_{CC} 36.4mA
Power Dissipation, P_T 450mW
Operating Ambient Temperature Range, T_{opr} . . . . . –20° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
FM Characteristics						
Quiescent Current	I_o		–	24.7	36.4	mA
Recovered AF Voltage	e_{o1}	106dBμ, R_L = 20k	285	450	600	mV$_{rms}$
Total Harmonic Distortion	THD	50μs, de–emphasis	–	0.3	1.0	%
Limiting Sensitivity	V_{in}(lim)	–3dB point	–	32	37.5	dBμ
Signal to Noise Ratio	S/N	106dBμ compared with e_{O1}	67	77	–	dB
AM Rejection Ratio	AMR	106dBμ AM out as compared with e_{O1}	35	50	–	dB
Signal Meter Output	V_M	106dBμ	1.34	1.60	1.86	V_{DC}
AM Characteristics						
Recovered AF Voltage	e_O2		80	110	160	mV$_{rms}$
Total Harmonic Distortion	THD	74dBμ	–	0.3	2.0	%
Usualy Sensitivity	S_{IF}	e_{o2} = 10mV$_{rms}$	–	31	37	dBμ
Signal to Noise Ratio	S/N_2	74dBμ compared with e_{O2}	–	55	–	dB

FM: f_c = 10.7MHz, fm = 400Hz, ΔF = 75kHz Div

AM: f_c = 455kHz, fm = 400Hz, 30% MOD

Pin Connection Diagram