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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 32dB $\mu$ )
- Large detection output (450mV<sub>rms</sub> typ, 100% mod.)
- Utilizing the external resistance it can be changed freely
- High S/N (77dB $\mu$ )
- Wide operation supply voltage

**Absolute Maximum Ratings:** (T<sub>A</sub> = +25°C unless otherwise specified)

Supply Voltage, V <sub>CC</sub> .....	8V
Supply Current, I <sub>CC</sub> .....	36.4mA
Power Dissipation, P <sub>T</sub> .....	450mW
Operating Ambient Temperature Range, T <sub>opr</sub> .....	-20° to +75°C
Storage Temperature Range, T <sub>stg</sub> .....	-55° to +125°C

**Electrical Characteristics:** (T<sub>A</sub> = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>FM Characteristics</b>						
Quiescent Current	I <sub>Q</sub>		-	24.7	36.4	mA
Recovered AF Voltage	e <sub>O1</sub>	106dB $\mu$ , R <sub>L</sub> = 20k 50μs, de-emphasis	285	450	600	mV <sub>rms</sub>
Total Harmonic Distortion	THD		-	0.3	1.0	%
Limiting Sensitivity	V <sub>in(lim)</sub>	-3dB point	-	32	37.5	dB $\mu$
Signal to Noise Ratio	S/N	106dB $\mu$ compared with e <sub>O1</sub>	67	77	-	dB
AM Rejection Ratio	AMR	106dB $\mu$ AM out as compared with e <sub>O1</sub>	35	50	-	dB
Signal Meter Output	V <sub>M</sub>	106dB $\mu$	1.34	1.60	1.86	V <sub>DC</sub>
<b>AM Characteristics</b>						
Recovered AF Voltage	e <sub>O2</sub>	74dB $\mu$	80	110	160	mV <sub>rms</sub>
Total Harmonic Distortion	THD		-	0.3	2.0	%
Usually Sensitivity	S <sub>IF</sub>	e <sub>O2</sub> = 10mV <sub>rms</sub>	-	31	37	dB $\mu$
Signal to Noise Ratio	S/N <sub>2</sub>	74dB $\mu$ compared with e <sub>O2</sub>	-	55	-	dB

FM: f<sub>c</sub> = 10.7MHz, fm = 400Hz, ΔF = 75kHz Div

AM: f<sub>c</sub> = 455kHz, fm = 400Hz, 30% MOD

### Pin Connection Diagram

