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NTE1541 Integrated Circuit FM IF Amp & Detector for Car Radio

Features:

- FM IF amplifier and limiter
- Demodulated output: 600_mV_{rms} (Max.)
- Total harmonic distortio: 0.3% (Max.)

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

Maximum Supply Voltage, V_{CCmax}	16V
Maximum Input Voltage, V_{IN}	$0.7V_{rms}$
Allowable Power Dissipation (Note 1), P_D	400mW
Operating Temperature Range, T_{opr}	-20° to $+80^\circ C$
Storage Temperature Range, T_{stg}	-40° to $+125^\circ C$

Note 1. Derate by 4mW per $1^\circ C$ when used at temperatures above $+25^\circ C$.

Recommended Operating Conditions: ($T_A = +25^\circ C$ unless otherwise specified)

Supply Voltage, V_{CC}	12V
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Electrical Characteristics: ($T_A = +25^\circ C$, $V_{CC} = 12V$, $f = 10.7MHz$, $f_m = 400Hz$ 100% Modulation)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Current Drain	I_{CC}		8	12	15	V
Output Pin (Pin 7) DC Voltage	V_7		3.7	-	5.2	V
Demodulated Output	V_O	$V_{IN} = 80dB\mu$	400	-	600	mV_{rms}
Input Limiting Voltage	$V_{IN(lim)}$	-3dB limiting	-	50	55	$dB\mu$
Total Harmonic Distortion	THD	$V_{IN} = 80dB\mu$	-	0.2	0.3	%
Signal-to-Noise Ratio	S/N		70	80	-	dB
AM Rejection Ratio	AMR		47	53	-	dB
Output Resistance	R_O	$f = 400Hz$	6.2	7.7	9.5	$k\Omega$

Pin Connection Diagram

