



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE1525 Integrated Circuit FM IF Amplifier

Features:

- Three Stage Differential IF Amplifier
- Differential Peak Detector
- Muting Circuit
- Signal Meter Drive Circuit
- High Recovered Output Voltage: $V_{OD} = 500mV_{rms}$ (Typ)
- Low Distortion: THD = 0.1% (Typ)
- Wide Operating Supply Voltage Range: $V_{CC} = 8V$ to $15V$ (Typ)
- Signal Meter Drive Voltage: $V_3 = 4V$ (Typ)
- Variable Muting Point
- Muting Off at Open Terminal
- Simplified Single Coil Tuning

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

Supply Voltage, V_{CC}	15V
Input Voltage, V_{IN}	0.7V
Power Dissipation, P_D	750mW
Derate above $25^\circ C$	4mW/ $^\circ C$
Operating Temperature Range, T_{opr}	-25° to $+75^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ C$

Electrical Characteristics: ($V_{CC} = 12V$, $f = 10.7MHz$, $f_m = 400Hz$, $T_A = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC}	$V_{IN} = 0$	10	14	18	mA
Input Limiting Voltage	$V_{IN(lim)}$	$\Delta F = \pm 75kHz$ dev. $-3dB$ Limiting	-	50	55	$dB\mu V$
AM Rejection Ratio	AMR	FM: $\Delta F = \pm 75kHz$ dev. AM: 30% Mod. $V_{IN} = 80dB\mu V$	-	50	-	dB
Recovered Output Voltage	V_{OD}	$\Delta F = \pm 75kHz$ dev. $V_{IN} = 80dB\mu V$	300	500	700	mV_{rms}
Total Harmonic Distortion	THD	$\Delta F = \pm 22.5kHz$ dev. $V_{IN} = 80dB\mu V$	-	0.1	-	%
Signal-to-Noise Ratio	S/N	$\Delta F = \pm 75kHz$ dev. $V_{IN} = 80dB\mu V$	-	75	-	dB
Muting Attenuation	MA	$\Delta F = \pm 75kHz$ dev. $V_{IN} = 80dB\mu V$, $V_4 = 0$	-	70	-	dB

Electrical Characteristics (Cont'd): ($V_{CC} = 12V$, $f = 10.7MHz$, $f_m = 400Hz$, $T_A = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Meter Drive Voltage	V_3 (Max)	$V_{IN} = 110dB\mu V$	-	4	-	V
Parallel Input Resistance	r_{ip}	$f = 10.7MHz$, Pin1 - GND	-	5	-	$k\Omega$
Parallel Input Capacitance	c_{ip}		-	4.5	-	pF
Parallel Output Resistance	r_{op}	$f = 10.7 MHz$, Pin6 - GND	-	1.3	-	$k\Omega$
Parallel Output Capacitance	c_{op}		-	4	-	pF
Output Resistance	R_O	$f = 400Hz$, Pin8 - GND	-	7.7	-	$k\Omega$

Pin Connection Diagram
(Front View)

