



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

## NTE1562 Integrated Circuit Programmable Search System for Audio Cassette

**Description:**

The NTE1562 is a monolithic integrated circuit consisting of a program selector capable of automatic item selection with memory for 3 programs. The detection section is provided with protection from misoperation due to noise. Consideration has been given as well to prevention of misoperation when power is applied. The memory section is provided with LED driving outputs, enabling a display of the program selection status.

**Features:**

- Built-in Protective Circuit for Overcurrent
- Detection Operation can be Stopped by External Input
- Provided with a Resetting Function for the Power Supply Switching On
- Wide Range of the Working Power Supply Voltage (4.5V to 14V)

**Applications:**

- Tape Decks
- Radio Cassette Tape Recorders
- Music Centers
- Accompaniment Music Players

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

Supply Voltage,  $V_{CC}$  ..... 14V  
 Power Dissipation (Note 1),  $P_D$  ..... 540mW  
 Operating Temperature Range,  $T_{opr}$  .....  $-25^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-50^\circ$  to  $+125^\circ\text{C}$

Note 1. Derating is done at  $5.4\text{mW}/^\circ\text{C}$  for operation above  $T_A = +25^\circ\text{C}$ .

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 9\text{V}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_Q$		-	10	25	mA
Input Discriminating Voltage	$V_{IN}$	$f = 10\text{kHz}$ , $C_f = 1\mu\text{F}$	-55	-52	-49	dBm
Input Current	$I_{IN}$	$V_{IN} = 0\text{V}$	-	0.2	2.0	$\mu\text{A}$
High-Level Output Voltage	$V_{OH}$	$I_1 = 40\text{mA}$	6.0	7.0	-	V
Low-Level Output Voltage	$V_{OL}$	$I_2 = 1.0\text{mA}$	-	0.3	0.5	V

**Electrical Characteristics (Cont'd):** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 9\text{V}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Limiting Current	$I_{LIM}$		-	120	-	mA
Blank Section Detection Timing	$T_D$	$R_D = 220\text{k}\Omega$ , $C_D = 0.47\mu\text{F}$	55	75	95	ms
Output Pulsewidth	$T_W$	$R_W = 220\text{k}\Omega$ , $C_D = 0.47\mu\text{F}$	55	75	95	ms
Item Detection Time	$T_C$	$R_D = 220\text{k}\Omega$ , $C_D = 2.2\mu\text{F}$	30	75	130	ms
Pin 15 Threshold Voltage	$V_{15TH}$		0.8	1.3	1.8	V
Pin 16 Threshold Voltage	$V_{16TH}$		0.4	0.65	0.9	V
LED Drive Current	$I_{LED}$		7	10	-	mA

**Pin Connection Diagram**

