

## NTE1535 Integrated Circuit TV Sync. Horizontal/Vertical OSC

**Features:**

- Single Chip for Vertical and Horizontal Deflection System
- Synchro Pulse Processing
- Vertical Deflection: Oscillator to Driver, Video Blanking
- Horizontal Deflection: AFC Comparator to Buffer, Video Blanking

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

Maximum Supply Voltage,  $V_{12}, V_{24}$  ..... 14V  
 Allowable Power Dissipation ( $T_A \leq +65^\circ\text{C}$ ),  $P_D$  ..... 750mW  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-55^\circ$  to  $+125^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{12} = V_{24} = 12\text{V}$  unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Gain of Synchro Pulse Amp		–	6.8	–	
Burst Gate Pulse Peak		–	6.7	–	V
Delay Time		–	0.3	–	$\mu\text{s}$
Back Side Delay Time		–	3.7	–	$\mu\text{s}$
Vertical Frequency Holding Range		–	10.5	–	Hz
Pulling In Range		–	10.5	–	Hz
For $V_{CC}$ Varying	$V_{24} = 12\text{V} \pm 1\text{V}$			$\pm 1$	Hz
Oscillator		–	60	–	Hz
Vertical Retracing Period		–	700	–	$\mu\text{s}$
AFC Pulling In Range		–	750	–	Hz
AFC Center Error		–	–	$\pm 100$	Hz
Horizontal Frequency Oscillator		–	15.734	–	Hz
Oscillator Duty Cycle		–	50	–	%
For $V_{CC}$ Varying	$V_{12} = 12\text{V} \pm 1\text{V}$	–	–	$\pm 50$	Hz

### Pin Connection Diagram

Vert Trigger Input	<b>1</b>	<b>24</b>	V <sub>CC</sub>
Bypass	<b>2</b>	<b>23</b>	Video Input
Vertical Output Center Voltage	<b>3</b>	<b>22</b>	Sync Output
Vert Driver Input	<b>4</b>	<b>21</b>	Sync Separator Input
Vert Driver Output	<b>5</b>	<b>20</b>	Time Constant Circuit
GND	<b>6</b>	<b>19</b>	Sync Separator Output
Blanking Pulse Output	<b>7</b>	<b>18</b>	Burst Gate Pulse Output
GND	<b>8</b>	<b>17</b>	Flyback Pulse Input
Hold Down Input	<b>9</b>	<b>16</b>	Bypass
Horiz Buffer Output	<b>10</b>	<b>15</b>	AFC Output
Bypass	<b>11</b>	<b>14</b>	Bypass
V <sub>CC</sub>	<b>12</b>	<b>13</b>	Horiz Sync Input

