



**ELECTRONICS, INC.**  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## **NTE1846 Integrated Circuit NTSC System Single-Chip Color TV Signal Processor**

**Description:**

The NTE1846 is an integrated circuit in a 52-Lead DIP type package designed for use as a color TV signal processor. This device contains signal processing functions for video IF, sound IF, video, color, deflection signals, on a single chip.

Combined with a tuner and a simple output stage of discrete transistors, the NTE1846 enables more rationalized designs for color TV sets.

**Features:**

- Large Integration Enables Rationalization and High Reliability of Equipment and Low Power Consumption.
- A Direct Output Pin for Sound FM Detector is Provided, Applicable to Sound Multiplexing.
- The Most Appropriate Constants can be Set by the Synchronization Separation Input Pins for Horizontal and Vertical Deflection.
- No Horizontal Free Run Frequency Adjustments.
- Capable of AFT Defeat, Sound Muting
- DC Volume Controls Picture Quality, Contrast, Luminance, Color Saturation, Tint, and Volume.

**Application:**

NTSC System Color Television Set

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

Supply Voltage, $V_{CC}$ .....	11V
Power Dissipation, $P_D$ .....	1.4W
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+65^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+125^\circ\text{C}$

**Recommended Operating Conditions:**

Supply Voltage .....	9V
Horizontal Supply Current .....	14mA
Operating Supply Voltage .....	8.5V to 9.5V
Operating Horizontal Supply Currents .....	12mA to 16mA

### Pin Connection Diagram

Electronic Attenuator Control	<b>1</b>	<b>52</b>	RF AGC Output
FM Demodulator Coil	<b>2</b>	<b>51</b>	Video Detector Output
De-Emphasis, Sound Direct I/O	<b>3</b>	<b>50</b>	AFT Output
Audio Driver Output	<b>4</b>	<b>49</b>	Brightness Control
Audio Negative Feedback, Bypass	<b>5</b>	<b>48</b>	SIF Input
IF AGC Filter	<b>6</b>	<b>47</b>	AFT Coil
RF AGC Control	<b>7</b>	<b>46</b>	Video Detector Coil
GND	<b>8</b>	<b>45</b>	Video Detector Coil
VIF Input	<b>9</b>	<b>44</b>	Vertical Synchronization Separation Input
VIF Input	<b>10</b>	<b>43</b>	Synchronizing Output
VIF, SIF Power Supply	<b>11</b>	<b>42</b>	Horizontal Synchronization Separation Input
Horizontal Power Supply	<b>12</b>	<b>41</b>	Pedestal Holding
AFC Filter	<b>13</b>	<b>40</b>	Video Input 1
AFC Flyback Pulse Input	<b>14</b>	<b>39</b>	Video Input 2
32f <sub>H</sub> OSC	<b>15</b>	<b>38</b>	Contrast Control
X-Ray Protector Signal Input	<b>16</b>	<b>37</b>	Video Tone Control
Vertical Synchronizing Signal	<b>17</b>	<b>36</b>	Color Signal Input
Vertical OSC	<b>18</b>	<b>35</b>	GND
Sawtooth Wave Generator Capacitor	<b>19</b>	<b>34</b>	ACC Filter
Rated Current Pull-In	<b>20</b>	<b>33</b>	Killer Filter
Vertical AC/DC Feedback Input	<b>21</b>	<b>32</b>	APC Filter
Vertical Output	<b>22</b>	<b>31</b>	3.58MHz OSC
VCD Power Supply	<b>23</b>	<b>30</b>	Color Saturation Control
Horizontal Pre-Drive Output	<b>24</b>	<b>29</b>	G - Y Demodulated Output
Tint Control	<b>25</b>	<b>28</b>	B - Y Demodulated Output
Video Output	<b>26</b>	<b>27</b>	R - Y Demodulated Output

