**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 discreet 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:** (\(T_A = +25^\circ C\), unless otherwise specified)
- Supply Voltage, \(V_{CC}\) ........................................................................................................ 11V
- Power Dissipation, \(P_D\) ........................................................................................................ 1.4W
- Operating Temperature Range, \(T_{opr}\) ................................................................. \(-20^\circ \) to \(+65^\circ C\)
- Storage Temperature Range, \(T_{stg}\) ................................................................. \(-40^\circ \) to \(+125^\circ C\)

**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

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

1.813 (46.05) Max
.512 (13.0)
.070 (1.77)
1.750 (44.5)
.118 (3.0)
.600 (15.24)