ELECTRONICS, INC.
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NTE7058
Integrated Circuit
Single Chip TV NTSC System

Description:

The NTE7058 combines all the functions required for an NTSC color TV system in a 64–Lead DIP type plastic package. This device is designed to offer a wide capability of applications from fundamental CTV to high–end MPX CTV with a quasi–parallel SIF system, requiring minimal external parts and adjustments. A quasi–parallel SIF system assures buzz–free sound reproduction.

Features:

PIF Section

- 3–Stage Variable Gain PIF Amplifier
- High–Speed Peak AGC with Dual Time Constants
- Single–End AFT Output with Defeat Function
- Delayed RF AGC Output (Reverse AGC)
- Sync Positive–Detected Video Output Polarity
- Internal Black/White Noise Inverter

Quasi–Parallel Intercarrier Detector

- 3–Stage Variable Gain Intercarrier IF Amplifier
- Independent Peak AGC
- Intercarrier Detector with 90° Carrier Shift

SIF Section

- 3–Stage Limiter Amplifier
- Differential Peak Detector
- Separated Detector Output and Electronic Attenuator Input for Multiplex TV Sound Reception
- Excellent Electronic Attenuator
- Preamplifier with NF Terminal

Video Section

- 2^{nd} Order Picture Sharpness (DC Control)
- Contrast Control with Unicolor Function
- Brightness Control with Pedestal Clamping Circuit (Adjustable DC Restoration Ratio)
- Internal Vertical Blanking

Features (Cont'd):

Chroma Section

- ACC Circuit
- Color Control Circuit
- Unicolor Control Circuit
- Adjustment–Free APC Circuit
- Tint Control Circuit with Sync Pulse Output
- Color Differential Outputs

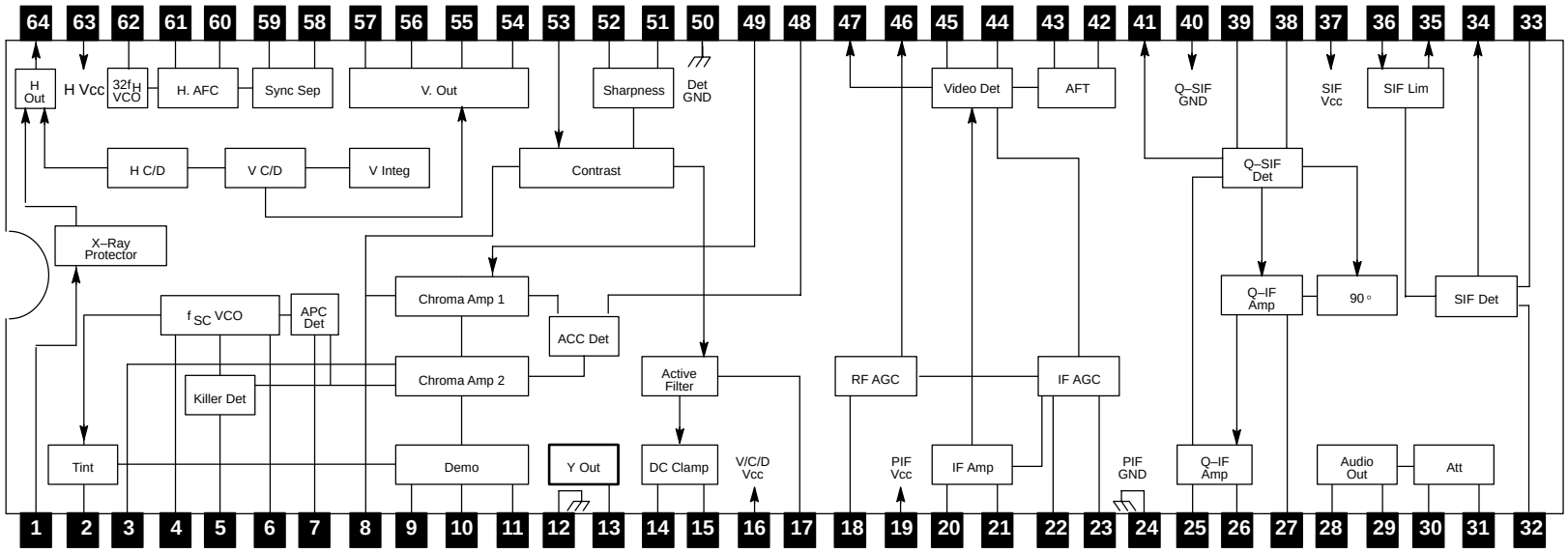
Deflection Section

- Excellent Sync Separator
- Adjustment–Free Countdown System
- Stable Vertical Synchronization
- Sawtooth–Type AFC
- Horizontal Predriver
- X–Ray Protector
- Vertical Drive Amplifier

Absolute Maximum Ratings: (T_A = +25°C)

Power Supply Voltage, V_{CC} 12V
Input Signal Voltage, e_{in} . . . . . $5V_{P–P}$
RF AGC Voltage, $V_{RF\ AGC}$ 15V
Horizontal Section Supply Voltage, $V_{CC}H$ 12V
Power Dissipation, P_D 2660mW
Derate Above T_A = +25°C . . . . . 21.2mW/°C
Operating Temperature Range, T_{opr} . . . . . –20° to +65°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Block Diagram



Pin Connection Diagram