

# INTEGRATED CIRCUITS FOR TV AND RADIO RECEIVERS

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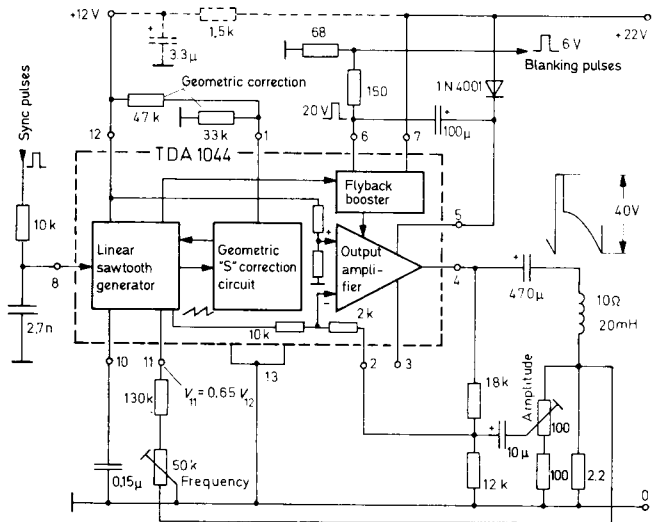
## TDA1044 Frame Scan Circuit for TV Receivers (Batwing Plastic Package)

The TDA1044 is a bipolar integrated circuit containing all stages for the vertical deflection of TV receivers.

The TDA1044 comprises a linear sawtooth generator that can be synchronized with positive or negative pulses. The sawtooth generator receives its supply voltage separately via pin 12. By varying  $V_{12}$  the amplitude of the sawtooth may be altered, so that a frame height control, e.g. coupled with the line width amplitude, may be realized. The internal geometric correction circuit, which can be matched to different screen radii by external resistors, does not require any external RC network and ensures tangential correction of the deflection current.

The integrated output amplifier of the TDA1044 controls the deflection current and an integrated flyback booster circuit ensures low power dissipation of the device. The deflection current in color TV sets is controlled by a complementary pair of power transistors connected to the output of the TDA1044. A negative feedback whose voltage is proportional to the deflection current ensures proportionality between sawtooth voltage and deflection current. In this way temperature dependent variations of the deflection coil resistance cannot affect the frame height.

The TDA1044 operates within a supply voltage range of 11 V to 27 V.



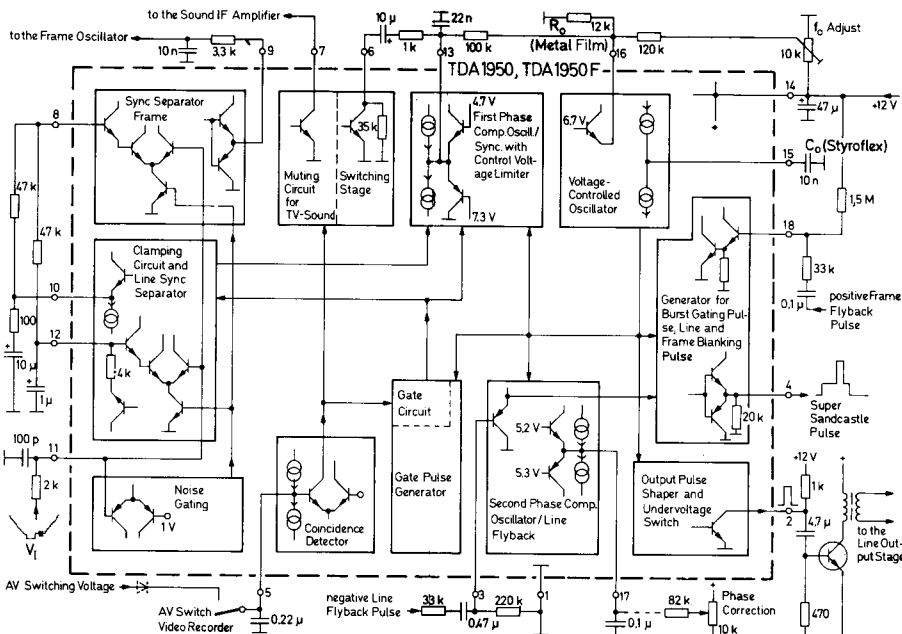
TDA1044 Application Circuit

## TDA1950, TDA1950F Line Circuits for TV Receivers (18-Pin Plastic Package)

The TDA1950 is an advanced version of the well-known TBA950 and TDA9500 line oscillators and comprises all stages for sync separation and line synchronisation in TV receivers. The number of external components is very small.

The separation of the line and frame pulses is carried out in two separate stages. The blanking and the peak rate of the sync pulse are measured by a clamping circuit. A negative video signal is required at the video input, pin 11. The ideal separation level may be adjusted at pin 8.

Pin 7 is used for connecting a mute circuit to the sound channel by using a signal from the coincidence demodulator: the audio output is muted when the line oscillator is not synchronized by a transmitter. The slope and the pull-in range of the phase control are adjusted by external components at pins 13 and 16. The pull-in range is not influenced by the supply voltage. Negative line flyback pulses are required at pin 3 and positive frame flyback pulses at pin 18. Video recording operation is possible by connecting pin 5 to ground or to 12 V. The **TDA1950F** is intended for TV receivers according to French standard.



TDA1950 Application Circuit and Block Diagram  
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