

## Product Overview

### NCP1927: PFC and Flyback Controller for Flat Panel TVs

For complete documentation, see the data sheet.

This combination IC integrates the primary side control blocks - power factor correction (PFC) and flyback controllers with sequencing circuitry - necessary to implement a compact highly efficient Flat Panel TV Switched Mode Power Supply. The PFC controller exhibits near-unity power factor while operating in Critical Conduction Mode (CrM) with an internal frequency clamp. The circuit incorporates all the features necessary for building a robust and compact PFC stage while minimizing the number of external components. The fixed-frequency current-mode flyback controller features a proprietary Soft-Skip™ mode combined with frequency foldback allowing excellent efficiency during light load conditions while achieving very low standby power consumption. Soft-Skip™ dramatically reduces the risk of acoustic noise, therefore allowing the use of inexpensive transformers and capacitors in the clamping network. Frequency jittering and ramp compensation make this controller an excellent fit for converters where ruggedness and components cost are the key constraints.

### Features

- Inverter Enable Output
- Shutdown Pin to Disable IC
- Go To Standby Input
- PFC Skip Mode
- Programmable Overvoltage/Undervoltage Protection
- Flyback Frequency Jittering
- Flyback Frequency Foldback
- Timer-Based Overload Protection with Auto-Recovery
- Flyback Soft-Skip

### Benefits

- Can be used to signal backlight inverter turn-on
- Easy system design
- Disables the PFC in light load for increased efficiency
- Increased efficiency during light load conditions
- Increased robustness
- Softened EMI signature
- Improved light load efficiency
- Increased Robustness
- Improved performance in Standby, reduces the risk of acoustic noise

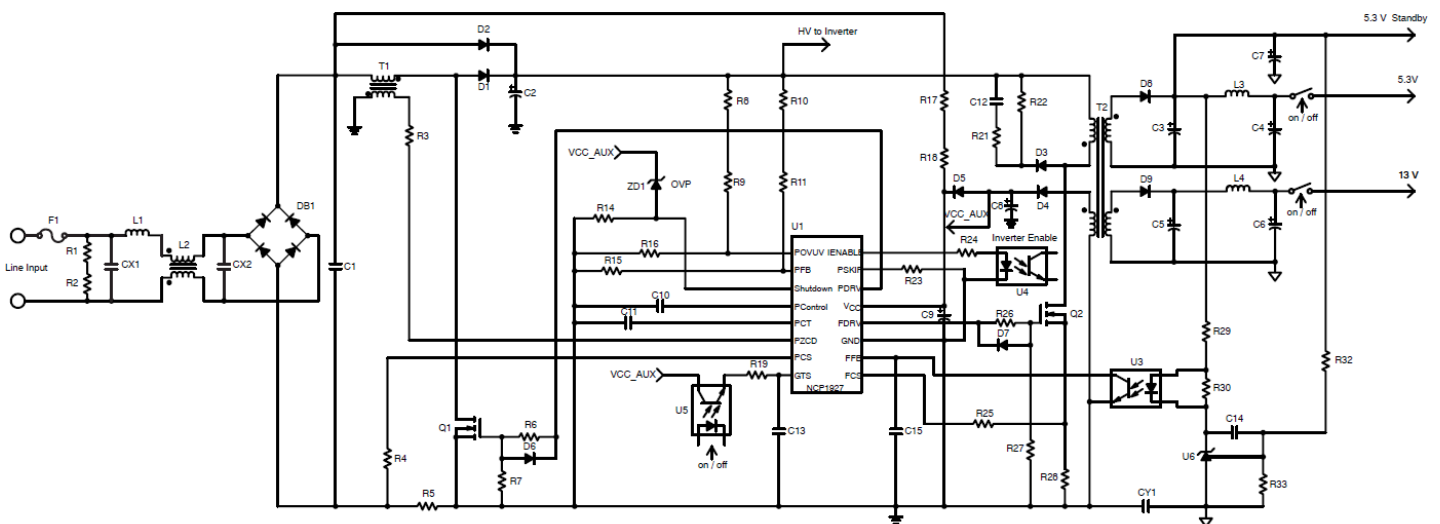
### Applications

- Flat TV power supplies

### End Products

- LCD TV

### Application Diagram



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