

# THV3058

3CH (Buck/Boost) 2CH CP 1CH HVLDO Controller

## Description

THV3058 is a controller IC for multi-channel power supply system with 3 channel PWM DC/DC converters(CH-1 Boost/CH-2, CH-3 Buck) and 2 channel charge pump circuits.

THV3058 contains internal soft start, under voltage protection, over voltage protection and over current protection, which helps reducing the number of external component count and increasing reliability.

Built-in positive and negative charge pump circuits(VGL/VGH) achieve enhanced performance.

Ceramic capacitors are available for output, that provides space-saving and low cost system.

THV3058 is ideal for TFT-LCD bias power supply system.

## Features

- QFN 36 pin package
- Input Voltage range : 9 ~ 15V
- Push Pull output for direct Power MOS driving
- Optimized for ceramic output capacitor
- Complete PWM mode controller
- Positive/Negative charge pumps (PFM mode controller)
- Switching Frequency : 500kHz
- Under Voltage Protection (Timer Latch )
- DC/DC Over Voltage Protection (CH-2, CH-3 : Timer Latch )
- DC/DC Over Current Protection
- UVLO function
- CH-1 Boost Converter
- CH-2 Buck Converter (Reference Voltage:0.85V)
- CH-3 Buck Converter (Output Voltage : 3.3V)
- High Voltage LDO

## Application

- TFT-LCD Bias power supply

## Pin Assignment

