THV3056

3ch Buck/Boost 2ch CP 1ch HVLDO 1ch LVLDO Controller

Description

THV3056 is a 3ch Boost/Buck Controller IC which enables to design simple & low cost multi-channel power supply system. Ch-1 is fixed Boost, ch-2 and ch-3 are fixed Buck. These channels are PWM controllers. The reference voltage of ch-2 is 0.85V and that enables to form the secondary voltage of 1.2V.
VGH pin and VGL pin are selectable Positive/Negative charge pumps and PFM controller.
THV3056 facilitate to design various power supply systems for large scale TFT panels with high voltage LDO and Vcom amplifier.
THV3056 is designed to make phase compensation easy for output ceramic capacitors.
SS1,2,3, SS_SW, DTC_VGH, DTC_VGL and SCP pins help to design user defined soft start time, dead time and timer latch delay time. Utilising SEL1 pin, user can select 2 types of sequence control.
THV3056 is suitable for power supply system of TFT LCD bias.

Features

- QFN 64 pin package
- Input Voltage range : 4.2~ 15.0V
- Push Pull output for direct Power Mos driving
- Optimized for ceramic output capacitor (for output smoothing)
- Complete PWM mode controller
- Positive/Negative charge pumps (selectable PFM mode)
- Adjustable switching frequency
- Timer Latch Protection
- System UVLO function
- Adjustable Soft Start time
- Adjustable Timer Latch Delay time
- Adjustable Dead Time Control
- Ch-1, Boost
- Ch-2, Buck (reference voltage : 0.85V)
- Ch-3, Buck
- High voltage LDO
- 3.3V LDO output
- Vcom amplifier

Applications

- TFT LCD Bias power supply

Pin Asignment