

# Power Management Control IC for TV Platform

## 1. General Description

FA6600 is a high-efficiency power management control IC which is specified for TV platform. FA6600 is used with a 12V power supply and a 3.3V / 5V standby power supply; besides, it integrates two synchronous PWM controllers, two regulators, monitoring, and control functions into a 48 pin QFN/LQFP package.

A brief analog block description of FA6600 describes here. LDO1 provides output current 200mA with output voltage 3.3V  $\pm 2\%$ . LDO2 provides output current 2A with output voltage 0.8V to 2.0V  $\pm 2\%$  and adjusted by external resistors. PWM1 and PWM2 are the synchronous buck PWM DC /DC controllers with internal 600kHz fixed frequency oscillator which cover 0 to 100% duty ratio.

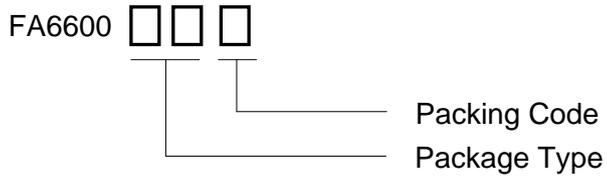
The high performance digital block consists internal soft-start, monitoring and protection functions, LED function which controlled by host and I<sup>2</sup>C interface and provides adjustable linear controllers mechanism for dynamic over-current/ under-voltage use.

FA6600 provides two working modes. At the normal mode, it works with a system supplies 12V power and a 3.3V / 5V standby power. At the suspend mode, it works with supplying 3.3V / 5V standby power or a 12V power supply only system; besides, it can wake up the TV system from the suspend mode by KEYPAD/IR/CEC function calls.

### Features

- ◆ Provide Two LDOs
  - LDO1 output current is 200mA and output voltage is fixed 3.3V  $\pm 2\%$  (STBY5V=5V)
  - LDO2 output current is 2A and output voltage is ranging from 0.8V to 2.0V  $\pm 2\%$
  - Power up soft-start and under-voltage monitoring for the linear regulators
- ◆ Provide Two PWM Controllers
  - PWM1 and PWM2 synchronous buck PWM DC/DC controllers
  - 600 kHz fixed frequency oscillator
  - Full 0 to 100% duty ratio
  - Internal Soft-start
  - Operating by 12V supply voltage
  - Over current protection (OCP)
  - Under voltage protection (UVP)
- ◆ Digital Control Functions
  - Programmable KEYPAD/IR/CEC for FA6600 wake up
  - PWRGD input signal
  - Provide reset signal (RESET OUT) and interrupt signal to host
  - Programmable power LED control
  - Integrate I<sup>2</sup>C interface
- ◆ 48L QFN/LQFP Package, 12V and Standby 3.3V / 5V Operation

## Ordering Information



### Package Type

N: QFN 6x6mm<sup>2</sup>-48L

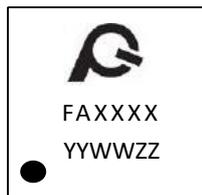
DE: LQFP-48L Exposed pad

### Packing Code

R:Tape & Reel ( QFN 6x6mm<sup>2</sup>-48L )

S:Tray ( LQFP-48L Exposed pad )

## Marking Information



FA: Company Name

XXXX :Product Code

YY: Year 2014→14

WW: Week 01~53

ZZ: Series Code