

DC-DC Converter Controller for Digital Still Camera / AN30210A

Overview

The AN30210A is a DC-DC converter control IC that features low-voltage operation and has a 5 V output channel applicable for self bias and six output channels as PWM DC-DC converter control.

This IC is composed of three step-up outputs, one step-down output, one inverted output and two outputs for a transformer drive. Minimal operating supply voltage of this IC is as low as 1.5 V, so that it can operate with 2 dry-batteries.

A high precision reference voltage of $\pm 1\%$ tolerance is obtained by using synchronized operation for all channels and synchronized rectification on the output circuit of step-down voltage.

Direct MOSFET drive is available.

Feature

- Operating supply voltage range : 1.5 V to 7.2 V
- High-precision reference voltage circuit
--- Vref : $\pm 1\%$
- PWM control and synchronized operation for all channels
- Synchronized rectification on the output circuit of step-down voltage
- On/off (sequence control) pins for all channels or each channel for easy sequence control setup
- Independent soft start-up pin for each channel
- Timer latch short-circuit protection circuit for each channel
- Setting of a dead time with an external resistor
- Fixed duty factor : 86%
Adjustable duty from 0% to 100% with an external resistor
- Realization of low power consumption and high speed operation by 0.6 μm CMOS process

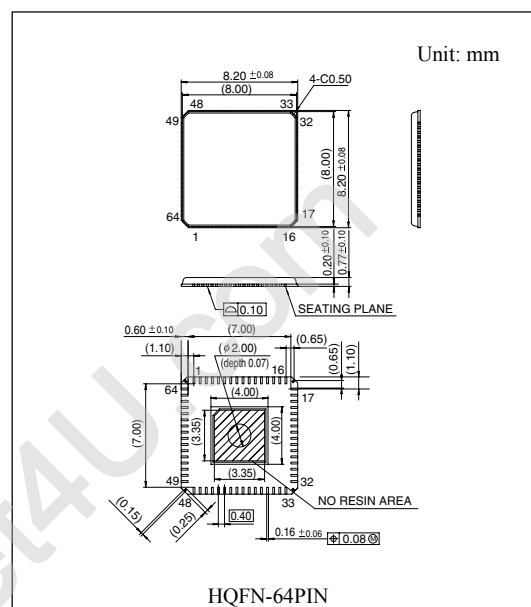
Specification of output channel

| CH | System | Sync. rectification | Power Device | Output Voltage | Output Current | Note |
|----|----------------------|---------------------|--------------|-----------------|----------------|--------------------------|
| - | Step-up | | ○ | 5 V | 50 mA | Self bias voltage for IC |
| 1 | Step-up | | | 5 V | 1 A | For mechanic |
| 2 | Step-up or Step-down | ○ | | 3.3 V | 0.5 A | For I/F Memory |
| 3 | Step-down | ○ | | 1.8 V or 1.5 V | 0.3 A | For DSP |
| 4 | Transformer Drive | | | 15 V -8 V | 30 mA 10 mA | For CCD |
| 5 | Transformer Drive | | | 12.4 V 3.7 V | 30 mA 60 mA | For LCD |
| 6 | Step-up | | | 7 V | 100 mA | For Back Light |

Applications

- Digital still camera

The products and specification are subject to change without any notice. Please ask for the latest Product Standards to guarantee the satisfaction of your product requirements.



Block Diagram

