

## 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.

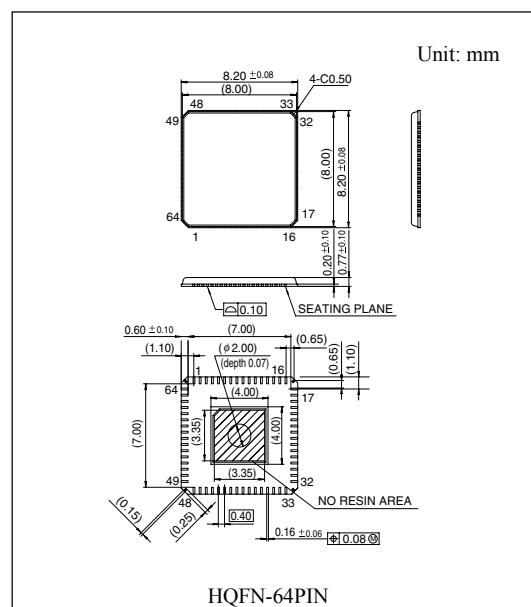
This IC is composed of three step-up outputs, one step-down output, one inverted output and two outputs for a transformer drive. Minimal operating supply voltage of this IC is as low as 1.5 V, so that it can operate with 2 dry-batteries.

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  $\mu\text{m}$  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<br>-8 V    | 30 mA<br>10 mA | For CCD                  |
| 5  | Transformer Drive    |                     |              | 12.4 V<br>3.7 V | 30 mA<br>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.

