

7-Channel DC-DC Converter for DSC

Features

- 95% Efficient DC/DC Converter.
- Highly Integrated 7-CH DC/DC with integrated Power MOSFETs.
- CH1, CH2, CH6 and CH7 Boost-type Synchronous Rectified Current-Mode PWM Converters with true-shutdown function.
- CH2 Buck(G2105B) or Boost(G2105A) for all Battery Application.
- 6 Channel Built-in Synchronous Rectified Current-Mode PWM Converters, 1 Channel Built-in Non-Synchronous Rectified Current-Mode PWM Converters.
- Low Power Consumption (Sleep Mode) <10 μ A.
- Built-In Short-circuit Protection (SCP) and Over Current Protection (OCP) for MOSFETs.
- Built-In Under Voltage Lock Out (UVLO) and Over Load Protection (OLP).
- Built-In Soft-Start Function.
- Selectable CH7 Boost Type with Open LED Protection or Current Regulation Type LED Driver.
- Built-In Power ON/OFF Sequence Control.
- Fixed 2MHz(CH1~CH4) / 1MHz(CH5~CH7) Operating Frequency.
- All Channel with internal compensation
- All Power Switches integrated
- Built-in RTC LDO.
- Build-in thermal shutdown (TSD, 150 $^{\circ}$ C).

General Description

The G2105 provide a complete power supply solution for digital cameras. They improve performance, component count, and size compared to other multi-channel controllers in 2-cell AA(G2105A), 1-cell Li-Ion(G2105B), and multi-battery designs. On-chip MOSFETs provide up to 92~95% efficiency for critical power supplies. All channels DC/DC operate at Fixed 2MHz(CH1~CH4)/ 1MHz(CH5~CH7) Operating Frequency to optimize size, cost, and efficiency.

The G2105 is available in 32-pin TQFN (4X4) package.

Ordering Information

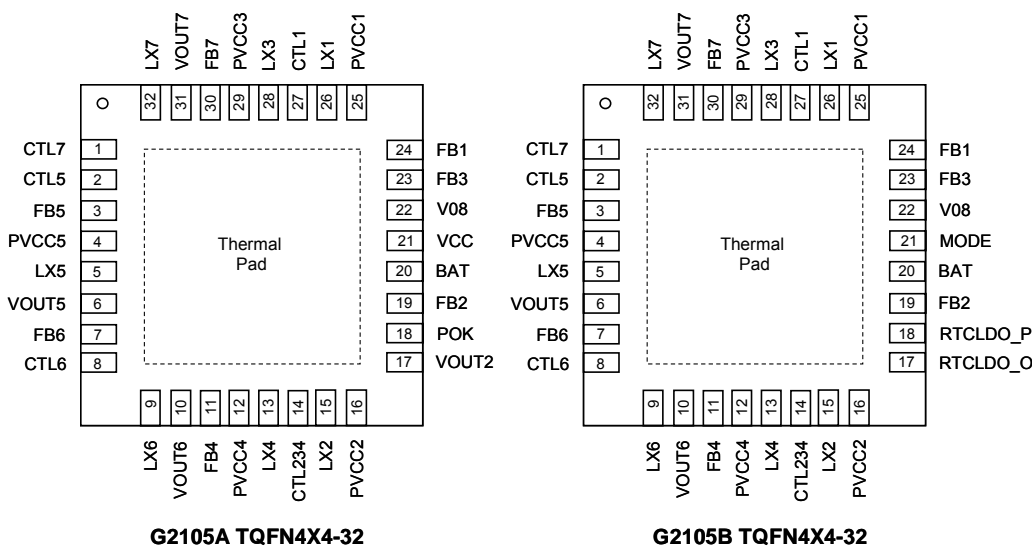
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2105AK11U	2105A	-20 $^{\circ}$ C to +85 $^{\circ}$ C	TQFN4X4-32
G2105BK11U	2105B	-20 $^{\circ}$ C to +85 $^{\circ}$ C	TQFN4X4-32

Note: K1: TQFN4X4-32
 1: Bonding Code
 U: Tape & Reel

Applications

- DSC Power Supply

Pin Configuration



Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

G2105

CH1 Synchronous Rectified Current Mode Step-Up
CH2 Synchronous Rectified Current Mode Step-Up(G2105A)/ Step-Down(G2105B)
CH3 Synchronous Rectified Current Mode Step-Down
CH4 Synchronous Rectified Current Mode Step-Down
CH5 (CCD INV) Current Mode Inverting
CH6 (CCD BST) Synchronous Rectified Current Mode Step-Up
CH7 (LED Driver) Synchronous Rectified Current Mode Step-Up or Current Regulator Type LED Driver