

**4+1 Channel DC-DC converter for DV****Features**

- 1.8V ~ 5.5V BAT Input Voltage Operation.
- 3.0V ~ 5.5V VCC Input Voltage Operation.
- 95% Efficient DC/DC Converter.
- Combine Step-Up and Step-Down for 90% Efficient Boost-Buck and Buck-Boost.
- Highly Integrated 4+1 CH DC/DC with integrated Power MOSFETs.
- CH2 Selectable Buck or Boost for Li-ion Battery Application.
- 4 Channel Built-in Synchronous Rectified Current-Mode PWM Converters.
- Low Power Consumption (Sleep Mode) <10uA.
- Built-In Short-circuit Protection (SCP) and Over Current Protection (OCP) for MOSFETs.
- Built-In Over Voltage Protection (OVP) and Over Load Protection (OLP).
- Built-In Soft-Start Function.
- Built-In Power ON/OFF Sequence Control.
- Built-In RTC LDO
- Built-In RESET function
- Fixed 1MHz Operating Frequency.
- TQFN28 Package (4mm x 4mm).

General Description

The AT1865 provide a complete power supply solution for digital video. They improve performance, component count, and size compared to other multi-channel controllers in 1-cell Li-Ion battery designs. On-chip MOSFETs provide up to 92~95% efficiency for critical power supplies. Channel 1/2/3/4 operate at one fixed frequency of 1MHz to optimize size, cost, and efficiency. Channel 5 operate as LDO.

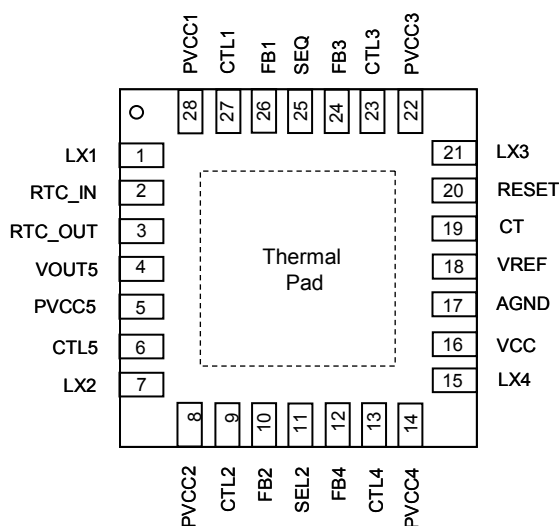
Applications

- DV

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
AT1865RV1U	A1865	0°C to +85°C	TQFN4X4-28

Note: RV: TQFN4X4-28
1: Bonding Code
U: Tape & Reel

Pin Configuration**AT1865 TQFN4X4-28**

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

