# (H) HONEE

# **RG5G Series 1.5V AA Rechargeable Lithium Battery**

# **Technical Character**

**RG5G** Series 1.5V AA (National standard R6) rechargeable lithium battery, non-removable and charge & discharge controller, they have all the complete feature with high power capacity, long cycle life, no memory effect, charge/discharge with the same electrode, control and protection etc. The external electrode, out dimension, discharge voltage are comply to IEC 60086-2 technical standard. It can replace the same specification Alkaline battery, NI-MH battery, Nickel-Cadmium battery and Nickel-Zinc battery. **RG5G** series product has the advantage not only supporting constant current-constant voltage- float current charge control method and DC-DC discharge control method, but also has unique advantages as below:

# Charge & Discharge with the same electrode

There are only two electrodes: Positive pole and Negative pole on the battery, compatible with traditional battery perfectly. The battery can recognize discharge load and charge power automatically, and switch charging and discharging mode from each other rapidly. Both 1.5V discharging and 5V charging are finished by these two electrodes, saving the cost of matched charge adapter.

# **Bulid-in Charging & Discharging controller**

The battery assembles the monitor of li-ion cell and controller for charging & discharging, protection circuit. The charging control function contains float current, constant current, constant voltage, over charge & over temperature protect. The cell monitor's function contains the discharge voltage, current, temperature, residual capacity detection and recognizing discharge load type. The discharging control function contains high efficient DC-DC switch rate, residual capacity release, interdict reverse charge, low capacity voltage indicate, over discharge and over temperature protect.

#### Flexible rate power adapter

The battery can monitor the efficiency of external power automatically, it allows the rated charge current when the external power can provide higher efficiency than the battery permits, and allow the maximum current when external power's efficiency is lower than the battery rated current—this function improve markedly the suitability of charge adapter, a single battery can contains all the power that comply to USB voltage standard.



## Charging monitor and state indicate

The battery can monitor the state of both power supplier and li-ion cell, and indicate the state by the LED light on the body. The indication contains external power insert, mismatch power rate, NG li-ion cell and charging complete, etc.

## Max Open-Curcuit-Voltage control

The OCV can be reduced to below 1.65V within 0.3 seconds after the battery be cut off from the charge power. Avoid the damage caused by the oofy kulun to equipment, this is especially important for the precise equipment with several cells in series.

### High efficient discharge control

There is a special DC-DC switch circuit in the battery, it can swith work mode by PFM/PWM automatically with 3MHz frequency. The switch efficiency is high to 95%, furthermore reducing quiescent consumption.

#### Low power indication

The battery can monitor the residual capacity, the discharge voltage will descend from 1.5V to 1.1V when the residual capacity reduce to about 9%, so as to the product such as digital camera with Gas-Guage can detect the low power state. Even for the simple equipment such as flashlight, it can also judge the low power from the dim light—this function can remind the user of low power, avoid the embarrass of power exhaustion.