

Power Management ICs from ABLIC Inc

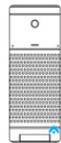
As franchised distributor for **ABLIC Inc**, **APC Embedded** offers a wide range of power management IC products with ultra small footprints and low current consumption for use in consumer, industrial and automotive applications.



Smartphones



Computers



AI speakers



Electric tools



Smart cards



Wearable devices



Wireless earphones



In 2015 ABLIC inherited the **Seiko Instruments** semiconductor business and continues to evolve this, becoming one of the world's leading analogue semiconductor manufacturers. Since 1970 ABLIC has been producing small, low power consumption, high precision analogue semiconductor products. Their strength lies in the low current consumption, low voltage operation and ultra small package technologies.

Available in the UK from APC Technology Group plc, ABLIC's products include:

Switching Regulators (DC-DC Converters) provide low voltage operation, high speed response and high efficiency. In addition they have a range of products suitable for wearable and portable devices including ultra high efficiency, step down type products with ultra low consumption current of 260 nA and a supply divided output that divides the battery voltage.

ABLIC's innovative technology drives high efficiency ratings and high switching frequencies:

- Low voltage operation, 0.9V to 16V input
- Output voltages of 0.7V to 6.5V
- High speed response to load fluctuations
- High efficiency with light load, auto switch PWM/PFM
- Step up and step down
- Built in transistor or with external transistor

Voltage Detectors (Reset ICs) As a leading CMOS voltage detector manufacturer for more than 30 years, ABLIC supports the building of safe, secure power supply circuits. ABLIC voltage detectors are recognised in the industry as high accuracy, low current consumption and compact packages. ABLIC's products feature SENSE pin, manual reset function, external setting of delay time and high withstand voltage.

- World leader in voltage detector sales
- Low current consumption of 270 nA
- Input voltages from 0.8V to 10V
- High detection voltage accuracy of $\pm 0.5\%$

Voltage Regulators (LDO Regulators) feature low current consumption, high withstand voltage, wide operating voltage range, super small packages and high ripple rejection ratio. Their LDO regulators contribute to the low power, stable operation and high reliability of power supply circuits. Features of their product lines include a soft start circuit, an inrush current limit circuit, discharge shunt function, output voltage external setting, output capacitor-less and a supply voltage divided output to meet customers' needs.

A range of advanced voltage regulators with ultra-low current consumption and high ripple rejection ratio.

- The world's smallest class 0.8 x 0.8 x 0.4 mm
- High mounting strength and high power dissipation
- Linear and LDO type voltage regulators
- Input voltages from 1.2V – 50V
- Output voltages from 0.8V-16V

Lithium-ion Battery Protection ICs ABLIC has been developing and producing lithium-ion battery protection ICs since 1993. The range includes approximately 1,750 ICs covering a range of cell counts, applications and protection functions. ABLIC also provides strong support for safety oriented battery pack development.

- 600+ battery protection IC products
- 20 year manufacturing heritage
- High accuracy, low current consumption
- ICs with built in delay timer
- Battery protection, secondary protection, voltage monitoring and overcurrent monitoring
- For 1/2/3/4/5 cell protection and for multi serial cell pack monitoring

Watchdog Timers have a reset function featuring selectable window or timeout modes. Due to the ultra low current consumption, ABLIC watchdog timers are optimal for microcontroller monitoring systems.

- Timeout and window mode are selectable
- Super low current consumption 3.8 (A) typ

Power Sequencers control the power up and down timing of power supply sequence operation. The 'enable output' signal is activated every delay time by inputting an external signal.

- Low current consumption of 3.0 (A) typ
- Enables various sequence operations

Boost Charge Pump ICs provide various power supplies, including boost voltage, by using multiple external capacitors. ABLIC's boost charge pump ICs utilise multiple external capacitors to provide various power supplies such as constant current and boost voltage.

- Boost charge pump for energy harvesting
- Double boost charge pump

Composite ICs The battery backup switching ICs are CMOS ICs designed for use in the switching circuits of primary and backup power supplies. The range of VCOM buffer amplifier and battery backup ICs provide:

- Constant voltage power supply or reset circuit of battery powered equipment, VTR, camera, communications equipment and others
- Lithium-ion secondary battery pack

For more information about our range of ABLIC power management integrated circuits contact our technical sales team on 0330 124 4540 or email embedded@apcplc.com