

# SF30147

Low Power, Low  $I_q$ , High Efficiency Power Management Chip;  
1 DCDC, 4 LDOs, 2 HVSWs, 5 LVSWs

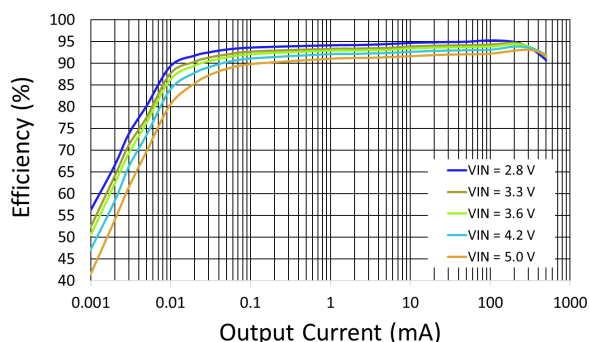
## Product Brief

### Key Features

- System Input Voltage
  - 2.8V~5.5V
- 1× Low Quiescent Current DCDC
  - Output voltage: 1.8V
  - Max. load current: 500mA
  - Low  $I_q$ : 470nA
- 4×LDO
  - Output voltage: 2.65V~3.4V
  - Max. load current: 100mA
  - Low quiescent shutdown current: 10nA
- 2×HVSW
  - Input voltage: 2.8V~5.5V
  - Max. load current: 150mA
  - Low quiescent shutdown current: 12nA
- 5×LVSW
  - Input voltage: 1.8V
  - Max. load current: 3×150mA, 2×100mA
  - Low quiescent shutdown current: 12nA
- Package Size
  - WLCSP25: 2.03×2.03×0.635mm
  - Ball pitch: 0.4mm

### Applications

- Smart watch
- Low-power sensor hub
- Wearable medical device
- Smart door lock
- Voice and gesture remote control



SF30147 is a power management chip featuring ultra-low quiescent current, high-efficiency and high integration, ideal for ultra-low-power wearables and sensor center applications.

SF30147 includes a DCDC converter (Buck) with a fixed output voltage of 1.8V, high conversion efficiency (up to 95%) and ultra-low quiescent operating current (470nA). With an advanced design architecture that provides high conversion efficiency at both heavy and light loads, the Buck is ideally suited for small Li-ion battery power solutions, significantly reducing overall system power consumption and prolong service time.

SF30147 integrates four LDOs, each with a wide input and output voltage range, and can provide a maximum load current of 100mA with a shutdown current of only 10nA.

SF30147 is controlled by a 2-wire serial interface (TWI) and integrates 7 low leakage, low on-resistance load switches for different peripherals: 2 HVSWs which are suitable for peripherals that are directly driven by the battery voltage, e.g., audio amplifiers etc.; and 5 LVSWs, which are suitable for peripherals with a power supply of 1.8V.

The high performance and high integration of SF30147 can simplify PCB design, thereby reducing cost and power consumption and extending battery life.

