Ideal for Portable Equipments

PMICs for Freescale i.MX 6SoloLite

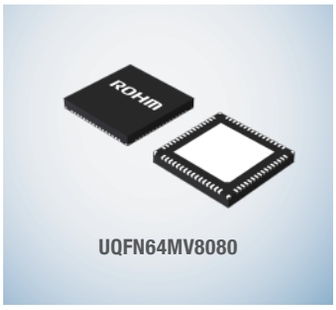
BD71805MWV

Features

- Low Supply current (OFF mode：25μA)
- Functions for battery system in a single package ensures space saving
- 2.5MHz 4ch Buck Regulators with DVS Support
- LDOs 5ch
- 2.0A Li Battery Charger with 30V OVP
- Coulomb Counter with 15bit ΔΣ-ADC
- Real Time Clock with 32kHz Crystal Oscillator
- I²C Interface (100kHz, 400kHz, and 3.4MHz)

Applications

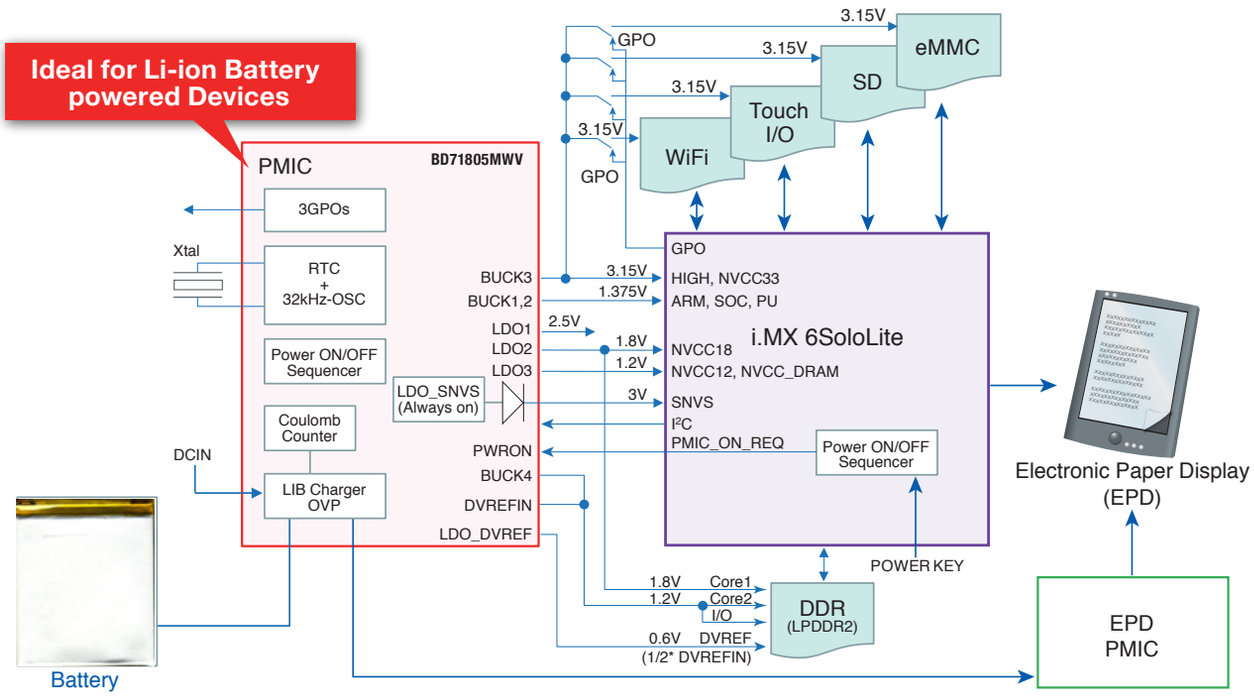
- eReaders
- Portable / Battery-Operated Devices
- Smart Connected Devices



Power Rails

Output Channel	i.MX 6SoloLite Usage example	Power Supply	Output Voltage (Default)	Load Max.	Adjustable range
BUCK1	ARM	PVIN1	1.375V	2,000mA	0.8 to 2.000V(25mV step) [DVS]
BUCK2	SOC/PU	PVIN2	1.375V	1,000mA	0.8 to 2.000V (25mV step) [DVS]
BUCK3	HIGH/ NVCC33_IO,Peripheral, EPD	PVIN3	3.15V	1,000mA	2.6 to 3.35V (50mV step)
BUCK4	LPDDR2(1.2V)	PVIN4	1.2V	1,000mA	1.0 to 2.7V (50mV step)
LDO1	Peripheral	VINL1	2.5V	300mA	0.8 to 3.3V (50mV step)
LDO2	NVCC18_IO/ LPD-DR2(1.8V)	VINL2	1.8V	300mA	0.8 to 3.3V (50mV step)
LDO3	NVCC_1P2V/NVCC_DRAM	VINL2	1.2V	300mA	0.8 to 3.3V (50mV step)
LDO4	DDR_VREF	VIN	0.5*DVREFIN	10mA	0.5 to 1.35V (DVREFIN=BUCK4)
LDO5	SNVS (Always on)	VIN	3.0V	25mA	Fixed

Example of the eReaders Block Diagram



Electrical Characteristics

Part No.	Quiescent circuit current
BD71805MWV	25μA(OFF mode), 150μA(STANDBY mode), 12mA(ON mode)

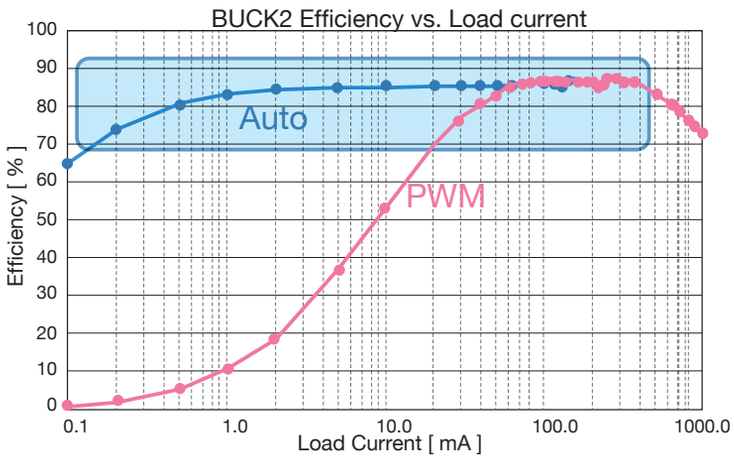
Advantage of BD71805MWV

State-of-the-art high efficiency low power consumption BUCK Converter.

Optimized the low current consumption application

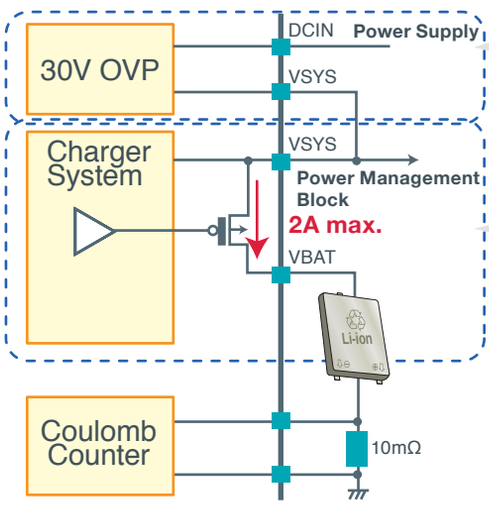
MODE	Current Consumption
SLEEP	12μA(PFM)
STANDBY	12μA(AUTO)

*Specified by design

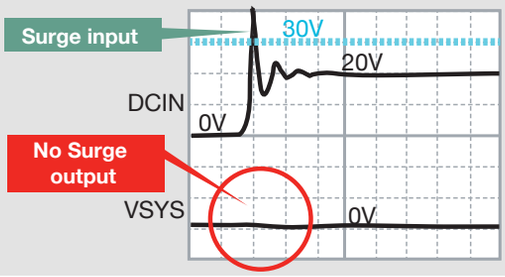


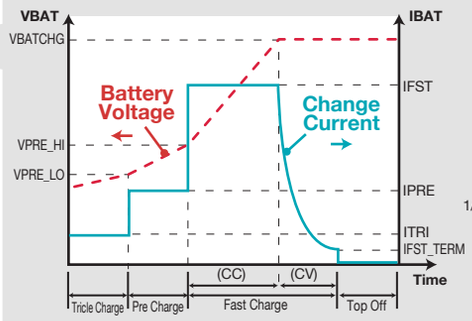
Advanced safe and stable charge control feature.

30V Over Voltage Protection
2A Li-Ion Battery Charger

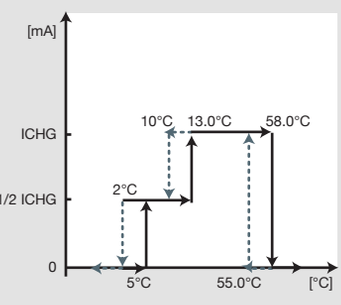


Block Diagram





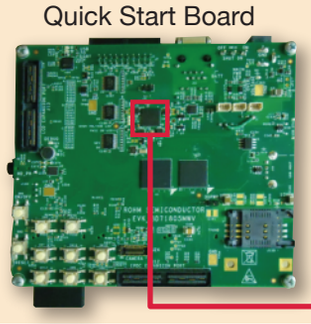
Charging Diagram



Temperature Diagram

ROHM Evaluation Kit for i.MX 6SoloLite Features

Quick Start Board



Features

- For i.MX 6SoloLite SOC Processor
- Functionally equivalent to Freescale EVK
- 8 Gb LPDDR2 memory
- 32 Mb SPI NOR Flash memory
- Battery Charger with integrated 30V
- Audio Codec and Speaker/Headphone Output
- Support 10/100 Ethernet
- Support 3xSD slot
- Support EPDC Display or LCD Display
- JTAG and UART for debug support
- 5V DC input or 1-cell Li Battery
- Linux and Android Board Support Packages

ROHM PMIC (BD71805MWV) on board

See the link below for further details http://www.rohm.com/web/global/ftf2014

The content specified in this document is correct as of February, 2015. 1st

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