Power Management for i.MX50/53 Processors

MC34708

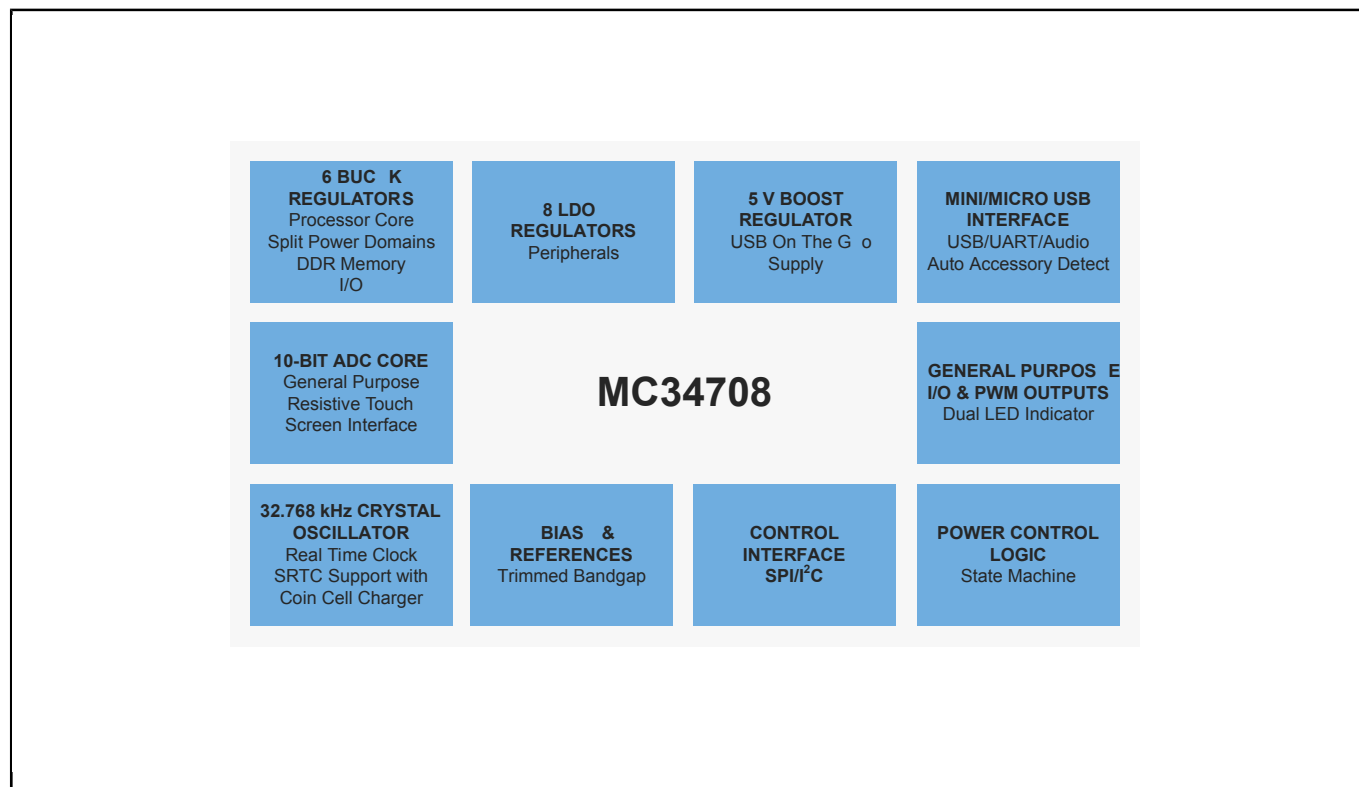**Not Recommended for New Designs**

This page contains information on a product that is not recommended for new designs.

Last Updated: Jun 17, 2025

The MC34708 is not recommended for new designs. We recommend using the MMPF0100 or MC34709.

MC34708 is the PMIC designed specifically for use with the NXP i.MX50 and i.MX53 processor families (Mature processors). It is available in a 8 x 8 and 13 x 13 mm MAPBGA and supports an ambient operating temperature range of -40 to 85 deg. C for various consumer applications. As the companion PMIC on several i.MX reference designs, it is a proven solution, which enables a faster time to market with fewer resources. It integrates six buck and eight LDO regulators to provide power for the processor core, memory and peripherals. A mini/micro USB switch supports USB, UART and audio inputs to help reduce the connector count for a more compact design. In addition, the MC34708 integrates a real-time clock, coin cell charger, 10-bit ADC, 5 V boost regulator for USB-OTG support, PWM generator, resistive touch screen interface, general purpose LED drivers and four GPIOs.

MC34708 Block Diagram

6 BUC K REGULATORS Processor Core Split Power Domains DDR Memory I/O	**8 LDO REGULATORS** Peripherals	**5 V BOOST REGULATOR** USB On The G o Supply	**MINI/MICRO USB INTERFACE** USB/UART/Audio Auto Accessory Detect
10-BIT ADC CORE General Purpose Resistive Touch Screen Interface			**GENERAL PURPOS E I/O & PWM OUTPUTS** Dual LED Indicator
32.768 kHz CRYSTAL OSCILLATOR Real Time Clock SRTC Support with Coin Cell Charger	**BIAS & REFERENCES** Trimmed Bandgap	**CONTROL INTERFACE** SPI/I^2C	**POWER CONTROL LOGIC** State Machine

MC34708

View additional information for Power Management for i.MX50/53 Processors.

Note: The information on this document is subject to change without notice.