



## PRODUCT BULLETIN

Generic Copy

**ISSUE DATE:** 19-Mar-2013  
**NOTIFICATION:** 15540  
**TITLE:** MC34708 Data Sheet and ERRATA Updates  
**EFFECTIVE DATE:** 20-Mar-2013

### **DEVICE(S)**

MPN
MC34708VK
MC34708VKR2
MC34708VM
MC34708VMR2

### **AFFECTED CHANGE CATEGORIES**

- DEVICE SPECIFICATION / ERRATA

### **DESCRIPTION OF CHANGE**

Freescale is revising the datasheet and ERRATA for the MC34708 device. The revision includes updates to tables, figures and wording in various sections of the datasheet and updates to the ERRATA.

Please see updated documents at: [http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=MC34708&fjsp=1&tab=Documentation\\_Tab](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=MC34708&fjsp=1&tab=Documentation_Tab)

Datasheet details are highlighted below:

Update table 3. Pin definition:

Pin TRICKLESEL, Function = I, Description = Connect to VCOREDIG

Pin PRETMR, Function = I, Description = Connect to Ground

Pin BPTHERM, Function = I, Description = Connect to Ground

Update Table 4. Maximum rating:

Update IC core Reference maximum pin voltages.

VCOREREF = 1.5V

VCOREDIG, VDDL = 1.65V

VCORE = 3.6V

VALWAYS = 7.5V

Update LDO regulators maximum pin voltage:

VINPLL, VDACDRV, VUSB2DRV, VGEN2DRV = 4.8 V

LDOVDD = 5.5V

Table 5. Note added to restrict operation at maximum temperature ratings:

Note# 5. Do not operate above 125 °C for extended periods of time. Operation above 150 °C may cause permanent damage to the IC.

Table 10. Update Mode descriptions.

Table 14. Corrected VCOREDIG SPEC

ON mode --> Typ = 1.5V

OFF with good battery and RTC mode --> Typ = 1.2V

Table 82. Modify LED current programming

00=3.5

01=7.0

10=10

11=12

Removed PWMPS mode on all Buck Switching regulators.

Corrected SWBST operating mode PWM to APS

Typical short circuit protection defined to 20% above ILMAX

Remove Noise specifications from all LDO regulators.

Removed Short circuit protection threshold specification from VUSB2, VDAC and VGEN1 and VUSB.

Removed Spurs specification on VDAC and VGEN1.

Changed PSRR specifications for all LDO regulators to typical value only.

Changed typical VPLLpsrr specifications

VIN=UVDET: from 40 to 70 dB

VIN=VNOM+1.0 V, >UVDET: from 60 to 75 dB

Changed typical VUSB2psrr specifications

VIN=VINMIN + 100 mV: from 40 to 30 dB

VIN=VNOM+1.0 V: from 60 to 30 dB

Changed typical VDACpsrr specifications

VIN=VINMIN + 100 mV: from 40 to 50 dB

VIN=VNOM+1.0 V: from 60 to 50 dB

Changed typical VGEN1psrr specifications

VIN=VINMIN + 100 mV: from 60 to 50 dB

VIN=VNOM+1.0 V: from - to 45 dB

Changed typical VUSBpsrr specifications

VIN=VINMIN + 100 mV: from 40 to 65 dB

Specified total series resistance of VGEN2 output capacitance to 60mΩ ±20% including capacitor ESR.

Changed ADC drift over temperate from 1 to 10 LSB.

Updated Bill of materials.

Corrected sensing point for ADC channel 2, from BP to BPSENSE pin.

Table 81. LED driver control option x00 changed the CHRGLEDx status to Off.

Changed section 7.8.4.15 title to Device Detect mode.

Updated figure 38.

ERRATA updates are highlighted below (see ERRATA for complete description):

ERRATA #37: Buck Regulator - Regulator output undershoots in APS mode.

ERRATA #38: Power Up - Part does not power up correctly at a high temperature (>85C).

ERRATA #39: Turn-on event - Battery Attach turn-on event not fully functional.

### **REASON FOR CHANGE**

The datasheet and ERRATA for MC34708 have been updated for corrections and clarification.

### **ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)**

There has been no change made to the current production device.

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#### **NOTE:**

THE CHANGE(S) SPECIFIED IN THIS NOTIFICATION WILL BE IMPLEMENTED ON THE EFFECTIVE DATE LISTED ABOVE. To request further data or inquire about the notification, please enter a [Service Request](#)

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**QUALIFICATION STATUS:** N/A

**QUALIFICATION PLAN:**

N/A

**RELIABILITY DATA SUMMARY:**

N/A

**ELECTRICAL CHARACTERISTIC SUMMARY:**

N/A

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**CHANGED PART IDENTIFICATION:**

N/A

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**ATTACHMENT(S):**

External attachment(s) FOR this notification can be viewed AT:

[15540\\_MC34708.pdf](#)

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