

# Addendum to MC9S08GB60, MC9S08GB32, MC9S08GT60, MC9S08GT32, MC9S08GT16 Data Sheet

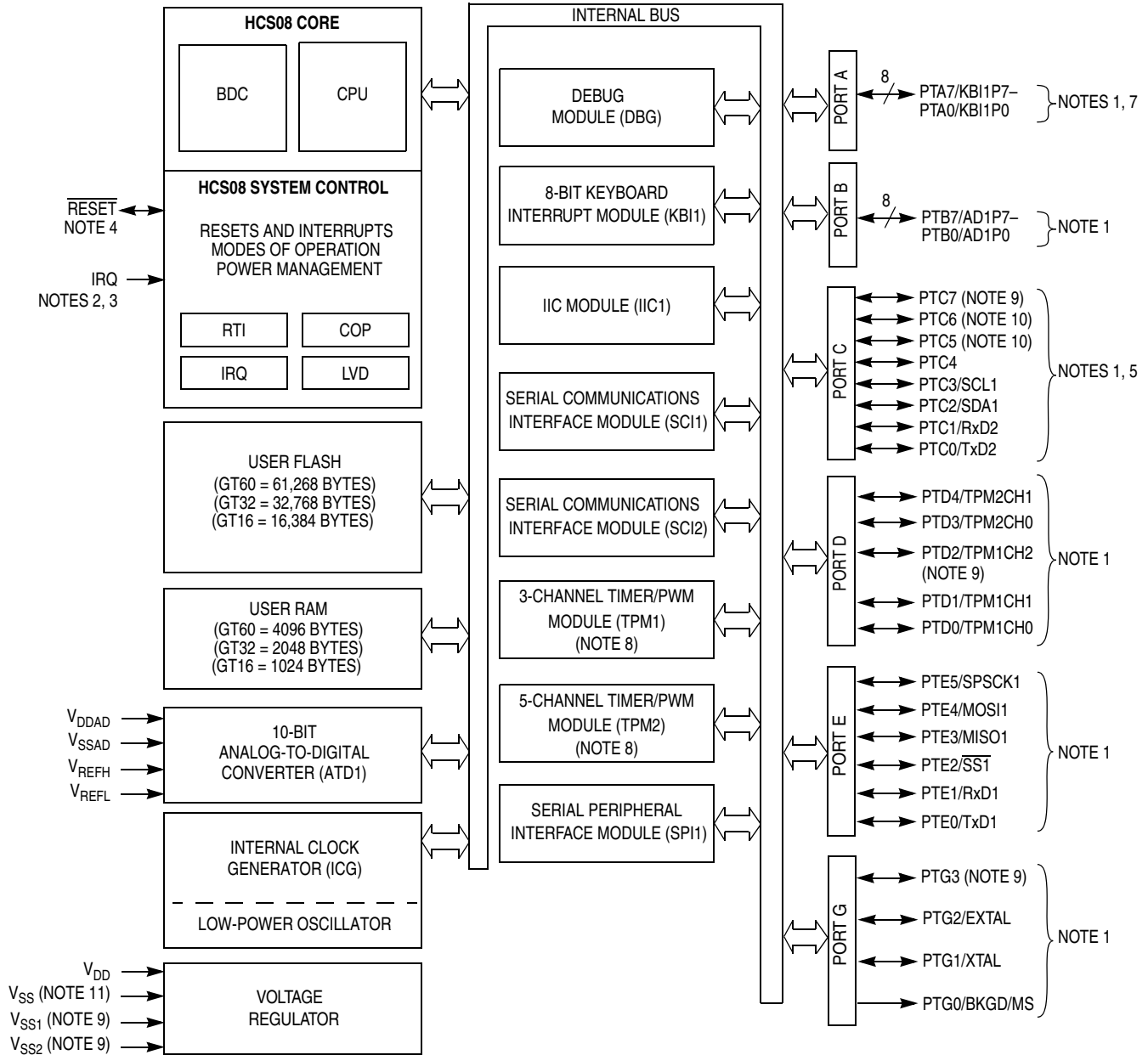
This addendum provides the following changes to the MC9S08GB60, MC9S08GB32, MC9S08GT60, MC9S08GT32, and MC9S08GT16 Data Sheet (Freescale Semiconductor order number MC9S08GB60/D):

- Relace Table A-4 DC Characteristics with the new table found on page 2 of this Addendum
- Replace the MC9S08GTxx Block Diagram with the diagram found on the page 3 of this Addendum.

**Table A-4 DC Characteristics**  
(Temperature Range = -40 to 85°C Ambient)

Parameter	Symbol	Min	Typical <sup>1</sup>	Max	Unit
Low-voltage detection threshold — high range (V <sub>DD</sub> falling) (V <sub>DD</sub> rising)	V <sub>LVDH</sub>	2.08 2.16	2.1 2.19	2.2 2.27	V
Low-voltage detection threshold — low range (V <sub>DD</sub> falling) (V <sub>DD</sub> rising)	V <sub>LVDL</sub>	1.80 1.88	1.82 1.90	1.91 1.99	V
Low-voltage warning threshold — high range (V <sub>DD</sub> falling) (V <sub>DD</sub> rising)	V <sub>LVWH</sub>	2.35 2.35	2.40 2.40	2.5 —	V
Low-voltage warning threshold — low range (V <sub>DD</sub> falling) (V <sub>DD</sub> rising)	V <sub>LVWL</sub>	2.08 2.16	2.1 2.19	2.2 2.27	V

<sup>1</sup> Typicals are measured at 25°C.



**NOTES:**

1. Port pins are software configurable with pullup device if input port.
2. Pin contains software configurable pullup/pulldown device if IRQ enabled (IRQPE = 1).
3. IRQ does not have a clamp diode to V<sub>DD</sub>. IRQ should not be driven above V<sub>DD</sub>.
4. Pin contains integrated pullup device.
5. High current drive
6. PTC[6:5] are not available on the 42-pin SDIP package.
7. Pins PTA[7:4] contain both pullup and pulldown devices. Pulldown available when KBI enabled (KBIPn = 1).
8. Only two timer channels per TPM are bonded out. All channels are available for use as software compare.
9. PTC7, PTD2/TPM1CH2, PTG3, V<sub>SS1</sub>, and V<sub>SS2</sub> are not available on the 44 QFP or 42 SDIP.
10. PTC[6:5] not available on the 42 SDIP.
11. V<sub>SS</sub> is not available on the 48 QFP.

**Figure 1-2. MC9S08GTxx Block Diagram**

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