

MC68HC08 Family Data Sheets

Incorrect Values for 32 kHz Crystal Oscillator Configuration

Description

This erratum applies to data sheets for MC68HC08 family devices that use low frequency crystals as the reference for the Clock Generator Module (CGM). In the electrical specification section of these data sheets, the maximum crystal frequency, feedback bias resistor, and series resistor values may be specified incorrectly. This erratum also includes the typical load capacitance values for a typical 32.768 kHz crystal that will appear in data sheet revisions.

Documents Affected

The following data sheets are affected.

| | |
|---------------|---------------|
| MC68HC908AP64 | MC68HC908GP32 |
| MC68HC08GP32A | MC68HC908GR8 |
| MC68HC908GR16 | MC68HC908LJ12 |
| MC68HC908LJ24 | MC68HLC908QY4 |
| MC68HC908QF4 | MC68HC908SR12 |

Correction

The correct specification is given in the following table.

| Characteristic | Symbol | Min | Typ | Max | Unit |
|---|--|-----|--------|-----|------------|
| Crystal reference frequency | f_{XCLK} , $f_{XTALCLK}$, f_{OSCCLK} | 30 | 32.768 | 100 | kHz |
| Crystal load capacitance ⁽¹⁾ | C_L | — | 12.5 | — | pF |
| Crystal fixed capacitance ⁽²⁾ | C_1 | — | 15 | — | pF |
| Crystal tuning capacitance ⁽³⁾ | C_2 | — | 15 | — | pF |
| Feedback bias resistor | R_B | 1 | 10 | 22 | M Ω |
| Series resistor | R_S | 100 | 330 | 470 | k Ω |

NOTES:

1. Crystal manufacturer value.
2. Capacitor on OSC1 pin. Does not include parasitic capacitance due to package, pin, and board.
3. Capacitor on OSC2 pin. Does not include parasitic capacitance due to package, pin, and board.

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