



Product Change Notification / SYST-30GZAB521

Date:

31-Aug-2022

Product Category:

Digital Temperature Sensors

PCN Type:

Document Change

Notification Subject:

ERRATA - EMC181X/33 Family Silicon Errata and Data Sheet Clarification

Affected CPNs:

[SYST-30GZAB521_Affected_CPN_08312022.pdf](#)

[SYST-30GZAB521_Affected_CPN_08312022.csv](#)

Notification Text:

SYST-30GZAB521

Microchip has released a new Errata for the EMC181X/33 Family Silicon Errata and Data Sheet Clarification of devices. If you are using one of these devices please read the document located at [EMC181X/33 Family Silicon Errata and Data Sheet Clarification](#).

Notification Status: Final

Description of Change: Added fix regarding the devices with Date Code previous to 2206.

Impacts to Data Sheet: None

Reason for Change: To Improve Productivity.

Change Implementation Status: Complete

Date Document Changes Effective: 31 Aug 2022

NOTE: Please be advised that this is a change to the document only the product has not been changed.

Markings to Distinguish Revised from Unrevised Devices: N/A

Attachments:

[EMC181X/33 Family Silicon Errata and Data Sheet Clarification](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

EMC1813T-1E/9R
EMC1813T-2E/9R
EMC1813T-AE/9R
EMC1814T-1E/9R
EMC1814T-2E/9R
EMC1814T-AE/9R
EMC1815T-1E/9R
EMC1815T-2E/9R
EMC1815T-AE/9R
EMC1813T-AE/UN
EMC1814T-AE/UN
EMC1812T-1E/RW
EMC1812T-2E/RW
EMC1812T-AE/RW
EMC1833T-1E/RW
EMC1833T-2E/RW
EMC1833T-AE/RW



EMC1812/13/14/15/33

EMC1812/13/14/15/33 Family Silicon Errata and Data Sheet Clarification

The EMC1812/13/14/15/33 family devices that you received conform functionally to the current Device Data Sheet (DS20005751E), except for the anomalies described in this document.

All of the issues listed here will be addressed in future revisions of the EMC1812/13/14/15/33 silicon.

Contact Microchip Technology for the latest silicon fix.

Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (DS20005751E):

None.

1.0 ADDRESS DECODE RESISTOR CHANGE

For Address Decode versions (-A) of this device before date code **2206**, there is a chance that the device will decode to an incorrect address, particularly when using a 4.7 kΩ resistor.

Work around

For devices with date code before **2206**, use a 4.0 kΩ resistor instead of 4.7 kΩ.

Date Codes that pertain to the issue

Devices that have the address decode feature (devices ending in -A) that have a date code before **2206** are affected by this defect.

Fix

Devices after date code **2206** were adjusted to make up for this failure. This adjustment affected [Table 5-2](#) in the DS20005751E data sheet. Instead of 5% tolerant resistors, 1% resistors are required. Also, the 15 kΩ resistor has changed to 15.8 kΩ, and the 33 kΩ resistor has changed to 47 kΩ. This shift in resistances results in the modified address decode in the table below.

TABLE 1: I²C/SMBus ADDRESS DECODE

Pull-up Resistor on $\overline{\text{THERM}}$ Pin ($\pm 1\%$)	SMBus Address
4.7 kΩ	1111_100 (r/ \overline{w})b
6.8 kΩ	1011_100 (r/ \overline{w})b
10 kΩ	1001_100 (r/ \overline{w})b
15.8 kΩ	1101_100 (r/ \overline{w})b
22 kΩ	0011_100 (r/ \overline{w})b
47 kΩ	0111_100 (r/ \overline{w})b

EMC1812/13/14/15/33

APPENDIX A: DOCUMENT REVISION HISTORY

Rev A (8/2022)

- Added fix regarding the devices with Date Code previous to **2206**.

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