NXP Semiconductors
Data Sheet: Technical Data

Document Number: MC56F834x/833x Addendum
Rev. 1, 05/2022

MC56F834x/833x
Processor Supplement Datasheet

1 MC56F834x/MC56F833x introduction

This addendum provides update to all revisions of the MC56F834x/MC56F833x *Data Sheet*.

Purpose of the addendum is to outline the differences that need to be considered in designing the **MC56F834x/MC56F833x.**

This addendum updates the on-chip temperature sensor accuracy in the following devices

- MC56F8335VFGE
- MC56F8335MFGE
- MP56F8345VFGE
- MC56F8345MFGE
- MC56F8346VFVE
- MC56F8346MFVE
- MC56F8347VPYE
- MC56F8347MPYE
- MC56F8347VVF

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1.1 Temperature Sense

Table 1. Temperature Sense Parametrics

Characterstics	Symbol	Min	Typical	Max	Unit
Slope (Gain)[1]	m	—	7.762	—	mV/°C
Room Trim Temp[1,2]	T_{RT}	24	26	28	°C
Hot Trim Temp. (Industrial)[1,2]	T_{HT}	122	125	128	°C
Hot Trim Temp. (Automotive)[1,2]	T_{HT}	147	150	153	°C
Output Voltage @ V_{DDA_ADC} = 3.3V, T_J =0°C[1]	V_{TSO}	—	1.370	—	V
Supply Voltage	V_{DDA_ADC}	3.0	3.3	3.6	V
Supply Current - OFF	I_{DD-OFF}	—	—	10	µA
Supply Current - ON	I_{DD-ON}	—	—	250	µA
Accuracy[3,1] from -40°C to 150°C Using $V_{TS} = mT + V_{TS0}$	T_{ACC}	-12.5	0	12.5	°C
Resolution[4,5,1]	R_{ES}	—	0.104	—	°C/bit

1 Includes the ADC conversion of the analog Temperature Sense voltage.

2 The ADC is not calibrated for the conversion of the Temperature Sensor trim value stored in the Flash Memory at FMOPT0 and FMOPT1.

3 See Application Note, AN1980, for methods to increase accuracy.

4 Assuming a 12-bit range from 0V to 3.3V.

5 Typical resolution calculated using equation.

2 Revision history

The following table provides a revision history for this data sheet.

Table 2. Revision history

Rev.number	Date	Substantive change(s)
Rev. 1	05/2022	• Initial release

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