

**Microsemi Corporation**

January 30, 2014

**Customer Notification No: CN1308**

**Subject:** Systematic offset updated in external temperature monitor for Fusion® devices

Dear Customer,

Temperature offset for external temperature monitor is updated for Fusion devices in “Table 2-49: Analog Channel Specifications” in the previous Revision 4 of the datasheet.

The following parameters are updated –

- Calibrated systematic offset value for AFS090, AFS250, AFS600 and AFS1500 devices is updated to +/-5°C to reflect the limitation of the manufacturing test equipment. A system-level calibration with post processing is required to achieve a 0°C offset.
- Uncalibrated systematic offset value for AFS250, AFS600 and AFS1500 devices is updated to 5°C.

The updated calibrated and uncalibrated systematic offsets for external temperature monitor in Fusion devices are shown in the following table.

**Table 2-49 • Analog Channel Specifications (continued)**  
**Commercial Temperature Range Conditions, T<sub>J</sub> = 85°C (unless noted otherwise),**  
**Typical: VCC33A = 3.3 V, VCC = 1.5 V**

Parameter	Description	Condition	Min.	Typ.	Max.	Units	
<b>Temperature Monitor Using Analog Pad AT</b>							
External Temperature Monitor (external diode 2N3904, T <sub>J</sub> = 25°C) <sup>4</sup>	Resolution	8-bit ADC		4		°C	
		10-bit ADC		1		°C	
		12-bit ADC		0.25		°C	
	Systematic Offset <sup>5</sup>	AFS090, AFS250, AFS600, AFS1500, uncalibrated <sup>7</sup>			5		°C
		AFS090, AFS250, AFS600, AFS1500, calibrated <sup>7</sup>			±5		°C
	Accuracy			±3	±5	°C	
	External Sensor Source Current	High level, TMSTBx = 0			10		µA
Low level, TMSTBx = 1				100		µA	
Max Capacitance on AT pad					1.3	nF	

**Contact Information:** Microsemi SoC Products Group

For any clarifications or questions, please contact Microsemi SoC Tech Support



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Regards,  
Microsemi Corporation

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