



Compact, Precision Ten Degrees of Freedom Inertial Sensor

Silicon Anomaly

ADIS16448

This anomaly list describes the known bugs, anomalies, and workarounds for the [ADIS16448](#).

Analog Devices, Inc., is committed, through future silicon revisions, to continuously improve silicon functionality. Analog Devices tries to ensure that these future silicon revisions remain compatible with your present software/systems by implementing the recommended workarounds outlined within this document.

PERFORMANCE ISSUES

Table 1. TEMP_OUT Locks Up When Entering External Sampling Clock Mode [er001]

Background	The ADIS16448 provides two options for driving the sampling of gyroscope, accelerometer, and temperature data: internal and external. Users can select the mode by writing either 0 (external sampling clock mode) or 1 (internal sampling clock mode) to SMPL_PRD[0].
Issue	When entering external sampling clock mode (writing 0x00 to SMPL_PRD[7:0]), the internal temperature measurement can lock up and fail to track changes in temperature, which in turn locks up the data in the TEMP_OUT register and can cause the bias error in both gyroscopes and accelerometers to increase.
Workaround	If the application requires use of the external clock, read the LOT_ID1[7:0] bits. If LOT_ID1[7:0] \geq 0x22, this issue does not apply. If LOT_ID1[7:0] < 0x22 and external clock support is a requirement, replace the unit.
Related Issues	None.

ANOMALY STATUS

Reference Number	Description	Status	Date Code
er001	TEMP_OUT Locks Up When Entering External Sampling Clock Mode	Fixed	1708

Rev. 0

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