

This anomaly sheet describes the known bugs, anomalies, and workarounds for the [ADF7023](#) transceiver and relates to Silicon Revision 2.2, which has corresponding silicon revision readback codes of 0x70, 0x23, 0x02, 0x02. See the [ADF7023](#) data sheet for details on how to read the silicon revision codes.

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 here.

### ADF7023 FUNCTIONALITY ISSUES

Silicon Revision Readback	Chip Marking	Silicon Status	Anomaly Sheet	No. of Reported Anomalies
Product Code MSB = 0x70 Product Code LSB = 0x23 Silicon Revision Code MSB = 0x02 Silicon Revision Code LSB = 0x02	ADF7023BCPZ	Release	Rev. B	1

**Table 1. Crystal Oscillator Low Frequency Spurs [er006]**

<b>Background Issue</b>	Under certain conditions, low frequency spurs can be induced in the crystal oscillator of the <a href="#">ADF7023</a> . The crystal oscillator circuit of the <a href="#">ADF7023</a> can exhibit spurs under certain conditions. These spurs are evident at RF at an offset frequency of approximately 7 kHz to 8 kHz. The spurs are more likely to occur with <ul style="list-style-type: none"> <li>• Reduced <math>C_{LOAD}</math></li> <li>• Reduced temperature</li> <li>• Increased XOSC_CAP_DAC value</li> </ul> These spurs do not occur in the condition where the crystal input, XOSC26N, is driven by an external source. See the <a href="#">ADF7023</a> data sheet for details on configuring for crystal oscillator operation.
<b>Workaround</b>	Introducing a series 150 $\Omega$ resistor on Pin 13 XOSC26P ( $R_S$ in Figure 1), together with limiting the XOSC_CAP_DAC setting to a maximum value of 4, will eliminate these spurs over the temperature range of the device.
<b>Related Issues</b>	None.

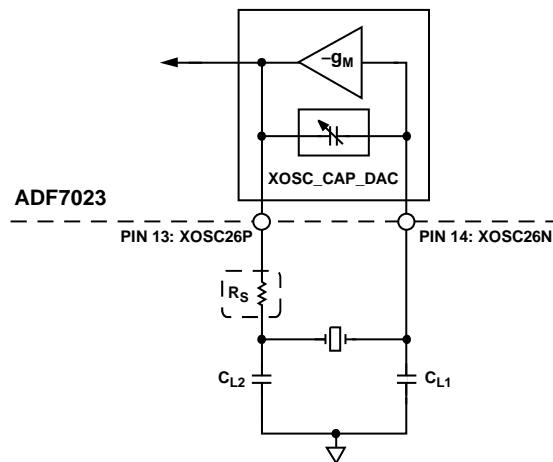


Figure 1. Recommended Crystal Oscillator Configuration

**Rev. B**

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**Document Feedback**

## FUNCTIONALITY ISSUES

Table 2. ADF7023 Functionality Issues

Reference Number	Description	Status
er001	RC Oscillator Accuracy	Fixed
er002	External PA and LNA Enable on ADCIN_ATB3 and ATB4	Fixed
er003	External PA and LNA Enable on XOSC32KP_GP5_ATB1 and XOSC32KN_ATB2	Fixed
er004	Optimum Uncalibrated Image Attenuation	Feature. Refer to the <a href="#">ADF7023</a> data sheet (Rev. B or later)
er005	Receiver Sensitivity at 910 MHz	Feature. Refer to the <a href="#">ADF7023</a> data sheet (Rev. B or later)
er006	Crystal Oscillator Low Frequency Spurs	Open