

ERRATA SHEET

Date: June 20, 2002
Document Release: Version 1.0
Devices Affected: PXAG30

This errata sheet describes both the functional deviations and any deviations from the electrical specifications known at the release date of this document.

Each deviation is assigned a number and its history is tracked in a table at the end of the document.

2002 Jun 20

**XA 16-bit microcontroller
Errata Sheet****PXAG30****IDENTIFICATION:**

The typical PXAG30 devices have the following top-side marking:

PXAG30xxx
XXXXXX
xxxYYWW R

The last letter in the third line (field 'R') will identify the device revision. This Errata Sheet covers the following revisions of the PXAG30:

Revision Identifier (R)	Comment
B	

Field 'YY' states the year the device was manufactured. Field 'WW' states the week the device was manufactured during that year.

ELECTRICAL AND TIMING SPECIFICATIONS DEVIATIONS OF PXAG30**DC.IPD.1: Higher Power-Down Current I_{PD}**

Problem: The Power-Down current I_{PD} may exceed the 100 μ A maximum value specified in the data sheet.

Current values for I_{PD} :
75 μ A typical / 250 μ A max. for $T_{amb} = 0\text{ }^{\circ}\text{C}$ to $70\text{ }^{\circ}\text{C}$ and
80 μ A typical / 300 μ A max. for $T_{amb} = -40\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$.

Note: The operating supply current I_{DD} was reduced by about 50% in Revision B.

FUNCTIONAL DEVIATIONS OF XA-G30**CORE.1: End of Segment Return Error**

Introduction: Memory segments are divided into 64K blocks. The processor normally pre-fetches up to 16 bytes of code.

Problem: With an XA-G30 running in 16 bit mode out of external code space, the code fails if a RET instruction is located within 16 bytes of the end of a 64K segment. (xxxxf0H - xxxfffH) This absolute location may be affected by whatever code precedes the RET instruction, but the problem can occur anywhere in the last 16 bytes of a 64 kB segment.

No such failures have been observed when executing external code in 8-bit mode.

Workaround: Ensure that RET statements are not located within the last 16 bytes of a 64K segment. (e.g. by declaring these memory locations as reserved.)

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PXAG30

ERRATA HISTORY - FUNCTIONAL PROBLEMS

Functional Problem	Short Description	errata occurs in device revision
CORE.1	End of Segment Error	B
DC.IPD.1	Higher Power-Down Current I _{PD}	B