

VS10XX AppNote: RoHS Info

Description

This document gives general info on RoHS compatibility and soldering conditions of VLSI products.

This document applies to VS1011, VS1002, VS1003 and VS1033.

Revision History			
Rev	Date	Author	Description
1.00	2006-05-10	PLe	Initial revision.
1.01	2006-08-02	PLe	Added BGA and SOIC info.

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1 General RoHS Info

Most of VLSI Solution product are available in RoHS compatible packages. All current LQFP48 packaged devices are RoHS compatible. These devices are VS1011E, VS1002D, VS1003B, VS1033. Also the BGA packages used for VS1002D and VS1003B and the SOIC package for the VS1011E are RoHS compatible. Only exception is the VS1011B. VS1011E is a direct RoHS compatible replacement for VS1011B.

Here is the official definition of RoHS:

DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

The restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment.

From 1 July 2006, new electrical and electronic equipment put on the market shall not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).

2 Soldering Temperatures

The LQFP48 package our products use has been qualified up to 240 IR Reflow peak temperature.(MSL3 @ 240 deg C, J STD 020C).

The LQFP48 RoHS (Pb free, green materials) package as well as the BGA-49 RoHS and SOIC-28 RoHS have been qualified up to 260 degC IR Reflow peak temperature. (MSL 3 @ 260 deg C, J STD 020C).

For further information please refer to Jedec standard: J STD 020C "Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface mount Devices".

Free JEDEC standards are available from: <http://www.jedec.org/download/>

Please note that the soldering profile depends on the other components of the product, solder material and assembly process to be used, that is why VLSI Solution can not take responsibility of solder profile to be used.

3 Material Contents Files

For detailed material contents see the web page of each device:

VS1003B: <http://www.vlsi.fi/vs1003/vs1003.shtml>

VS1002D: <http://www.vlsi.fi/vs1002/vs1002.shtml>

VS1011E: <http://www.vlsi.fi/vs1011/vs1011.shtml>

4 Document Version Changes

This chapter describes the most important changes to this document.

Version 1.01, 2006-08-02

- Updated links. Added BGA and SOIC info.

Version 1.00, 2006-05-10

- Initial version.

5 Contact Information

VLSI Solution Oy
Hermiankatu 6-8 C
FIN-33720 Tampere
FINLAND

Fax: +358-3-316 5220
Phone: +358-3-316 5230
Email: mp3@vlsi.fi
URL: <http://www.vlsi.fi/>

Note: If you have questions, first see
<http://www.vlsi.fi/vs1001/faq/>
<http://www.vlsi.fi/vs1011/faq/>
<http://www.vlsi.fi/vs1002/faq/>
<http://www.vlsi.fi/vs1003/faq/>
<http://www.vlsi.fi/appnotes>