



VIA Labs, Inc.

Product Change Notification



Product	VL812 USB 3.0 Hub Controller							
Category		News		Errata		Report	•	Letter
Description	Release Date		Jan18 th , 2013		Revision		1.2	

OFFICES

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PURPOSE

VL812 USB 3.0 Hub IC Revision Change (B1→B2)

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SCOPE

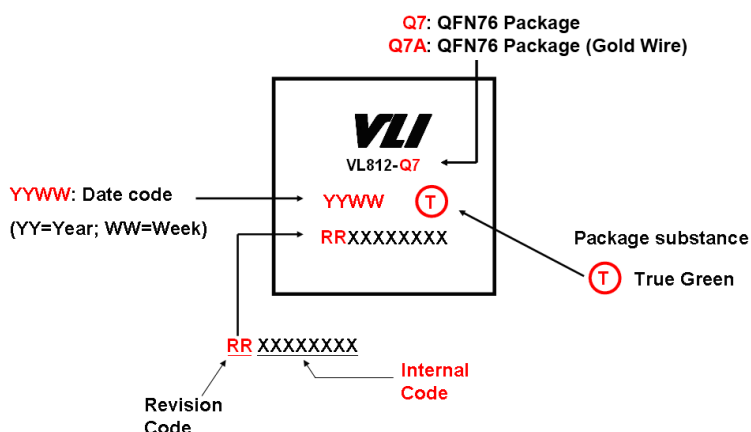
Thank you for choosing VIA Labs USB 3.0 Controllers. This letter contains information regarding VL812 Hub IC Revision Change from B1 version to B2 version.

AFFECTED PRODUCTS

Product Category	Product Name	Revision	Specification	Package Type	Last Buy	Life Cycle Guaranty
USB 3.0 Hub	VL812-Q7	B1	Standard Configuration	QFN-76 9x9 mm	2013/6/28	2014/1/31
USB 3.0 Hub	VL812-Q7A	B1	Gold Wire	QFN-76 9x9 mm	2013/6/28	2014/1/31

IDENTIFYING CHANGED PRODUCTS

VLI VL812 Hub IC top-side marking displays a REVISION CODE in RR format on all IC versions including engineering and evaluation samples to mass production. The revision code denotes the IC REVISION. The previous product has a revision code of B1. The revised product uses B2.



The outer box label can also be used to identify the changed product. The PRODUCT NAME field shows the REVISION CODE.

MANUFACTURER : VLI
PRODUCT NAME : VL812-Q7A T (B1)
PACKAGE : QFN 76
DATE CODE : YYWW



DESCRIPTION OF CHANGES

Revision B2 for VL812 is considered to be a major design change when compared to Revision B1 as defined in accordance with JEDEC Standards. Changed areas include updates to core logic and physical layers.

The primary purpose of the change is to update the hub silicon to reflect the latest updates in the USB-IF Compliance Program and testing methods thereof. The VL812 B1 revision was released in February 2012, and at that time, the USB-IF Compliance Program was not yet ready to certify USB 3.0 hubs since the testing methodology, tools, and specification were not fully defined. For example, the CV, Link, and LVS tests were significantly changed from the timeframe from which the B1 revision was released, though these updates are reflected in the B2 revision. The VL812 B2 revision is fully capable of meeting the latest USB-IF requirements for USB 3.0 Hub certification. VLI regrets that the B1 IC revision cannot achieve USB-IF certification.

The secondary purpose of the change is to offer new FW Update functionality and improved IC reliability and general robustness during ESD testing. VL812 B1 revision IC could only update FW using USB 3.0. Due to customer requests, VIA Labs has enabled FW Update using USB 2.0 for the VL812 B2 revision. FW Update using USB 2.0 is NOT SUPPORTED by the B1 revision.

IMPACT OF CHANGES TO EXISTING PRODUCTS

The majority of the changes from VL812 B1 revision to VL812 B2 revision are for USB-IF Compliance, and do not significantly affect the real-world usage and performance in relation to the end-user experience. VL812 B1 signal integrity, device compatibility, and electrical performance are unchanged.

From manufacturing and PCB perspectives, nothing needs to be changed. All BOM components are the same for both VL812 B1 and B2 revisions. The only thing that needs to be updated between B1 and B2 IC revision is the chip FW.



Thank you for your immediate attention to this Product Change Notice. If you have any questions or concerns, please do not hesitate to contact your VLI representative. Moving forward, the VL812 B2 revision shall be the production version of VL812 USB 3.0 Hub controller.

Sincerely,
VIA Labs, Inc.

To:
(Customer Company)

By:
Name: Terrance Shih
Title:
Date:

By:
Name:
Title:
Date: