



Application Note

Power Module Transition from Non-RoHS to RoHS

Introduction

This document presents application information regarding the transition of Marvell® power modules from non-RoHS (Reduction of Hazardous Substances) to RoHS compliance.

This document provides part number cross-references, descriptions of the differences between the non-RoHS and RoHS parts, and directions for the customer to implement the change.



Note

The table below references Marvell soldering guidelines. That application note is *Recommended Soldering Guidelines for Power Modules in LGA Package*, document number MV-S300918-00. Download this document from the Marvell website.

Non-RoHS Part #	RoHS Part #	Differences Between Non-RoHS and RoHS Parts	Customer Actions
MDD-G15-A0 MDD-G30-A0	88MG815-A0-D 88MG830-A0-D	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number.
MDD-G16-A0 MDD-G31-A0	88MG816-A0-D 88MG831-A0-D	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Physical pin positions/functionality remains unchanged. However, all pin numbers are different. The pin numbering change was made in the RoHS part to comply with the industry standard. This change only requires schematics to be updated. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number and new pin numbers.
MDD-G75-A0	88MG875-A0-D	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Physical pin positions/functionality remains unchanged. However, some pin numbers are different. The pins were renumbered in the RoHS parts after two pins were removed. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number and new pin numbers.



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Non-RoHS Part #	RoHS Part #	Differences Between Non-RoHS and RoHS Parts	Customer Actions
MDD-G76-A0	88MG876-A0-D	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Physical pin positions/functionality remains unchanged. However, some pin numbers are different. The pins were renumbered in the RoHS parts after one pin was removed. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number and new pin numbers.
MDS-G15-A0 MDS-G16-A0 MDS-G30-A0 MDS-G31-A0	88MG815-A0-S 88MG816-A0-S 88MG830-A0-S 88MG831-A0-S	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number.
MDS-G75-A0 MDS-G76-A0	88MG875-A0-S 88MG876-A0-S	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Physical pin positions/functionality remains unchanged. However, some pin numbers are different. The pins were renumbered in the RoHS parts after one pin was removed and one pin was renumbered. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Update schematics with RoHS part number and new pin numbers.
MDT-G15-A0 MDT-G30-A0	88MG815-A0-T 88MG830-A0-T	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Non-RoHS parts use a BGA package (with solder ball) while RoHS parts use an LGA package (no solder ball). This requires only a solder mask change to accommodate a different land pattern on the PCB. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Change solder mask. Update schematics with RoHS part number.
MDT-G16-A0 MDT-G31-A0	88MG816-A0-T 88MG831-A0-T	<ul style="list-style-type: none"> Reflow profile for RoHS parts is different from the profile for non-RoHS parts. Physical Pin positions/functionality remains unchanged. However, all pin numbers are different. The pin numbering change was made in the RoHS parts to comply with the industry standard. This change only requires schematics to be updated. Non-RoHS parts use a BGA package (with solder ball) while RoHS parts use an LGA package (no solder ball). This requires only a solder mask change to accommodate a different land pattern on the PCB. 	<ol style="list-style-type: none"> Refer to the soldering guidelines referenced in the note above this table. Change solder mask. Update schematics with RoHS part number and new pin numbers.

Non-RoHS Part #	RoHS Part #	Differences Between Non-RoHS and RoHS Parts	Customer Actions
MDT-G75-A0	88MG875-A0-T	<ul style="list-style-type: none"> • Reflow profile for RoHS parts is different from the profile for non-RoHS parts. • Physical Pin positions/functionality remains unchanged. However, some pin numbers are different. The pins were renumbered in the RoHS parts after two pins were removed. • Non-RoHS parts use a BGA package (with solder ball) while RoHS parts use an LGA package (no solder ball). This requires only a solder mask change to accommodate a different land pattern on the PCB. 	<ol style="list-style-type: none"> 1. Refer to the soldering guidelines referenced in the note above this table. 2. Change solder mask. 3. Update schematics with RoHS part number and new pin numbers.
MDT-G76-A0	88MG876-A0-T	<ul style="list-style-type: none"> • Reflow profile for RoHS parts is different from the profile for non-RoHS parts. • Physical Pin positions/functionality remains unchanged. However, some pin numbers are different. The pins were renumbered in the RoHS parts after one pin was removed. • Non-RoHS parts use a BGA package (with solder ball) while RoHS parts use an LGA package (no solder ball). This requires only a solder mask change to accommodate a different land pattern on the PCB. 	<ol style="list-style-type: none"> 1. Refer to the soldering guidelines referenced in the note above this table. 2. Change solder mask. 3. Update schematics with RoHS part number and new pin numbers.



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