

Product Advisory (PA)

Subject: Product Improvement – Design Change for the Listed Intersil ISL9538* Products

Publication Date: 7/19/2017

Effective Date: 8/19/2017

Revision Description:

Initial Release

Description of Change:

This notice is to advise our customers of a minor, design revision for the Intersil ISL9538HRTZ* products. The change doubles the programmable range of the phase comparator threshold offset in both the forward and reverse Buck and Buck-Boost modes. The LSB weight was doubled, thereby increasing both the step size and overall range.

Products impacted by the change are:

ISL9538HRTZ ISL9538HRTZ-T ISL9538HRTZ-TK

Reason for Change:

The change improves the detectability of when the phase node crosses through 0V. This improves the light load efficiency of the part. For an updated data sheet, please contact your local sales representative or Starry Tsai (Product Line Marketing) @ starry.tsai.uw@renesas.com.

Product Identification:

There will be no change in the external marking of the packaged parts. The cutover for the material with the improved design is starting with date code 1733. Product affected by this change is identifiable via Intersil's internal traceability system.

Impact on fit, form, function, quality & reliability:

The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the devices. Both the old and new versions have no impact to customer designs using the default setting (000 = 0mV).

Qualification status: Not applicable

Sample availability: 7/19/2017

Device material declaration: Available upon request

Questions or requests pertaining to this change notice, including additional data or samples, must be sent to Intersil within 30 days of the publication date.

For additional information regarding this notice, please contact your regional change coordinator (below)			
Americas: PCN-US@INTERSIL.COM	Europe: PCN-EU@INTERSIL.COM	Japan: PCN-JP@INTERSIL.COM	Asia Pac: PCN-APAC@INTERSIL.COM

Appendix A – Datasheet changes

From:

TABLE 12. CONTROL0 REGISTER 0x39H

BIT	BIT NAME	DESCRIPTION
<15:13>	Forward Buck and Buck-Boost Phase Comparator Threshold Offset	Bit<15:13> adjusts phase comparator threshold offset for forward buck and buck-boost 000 = 0mV 001 = 0.5mV 010 = 1mV 011 = 1.5mV 100 = -2mV 101 = -1.5mV 110 = -1mV 111 = -0.5mV
<12:10>	Forward Boost Phase Comparator Threshold Offset	Bit<12:10> adjusts phase comparator threshold offset for forward boost 000 = 0mV 001 = 0.5mV 010 = 1mV 011 = 1.5mV 100 = -2mV 101 = -1.5mV 110 = -1mV 111 = -0.5mV
<9:8>		Not used

To:

TABLE 12. CONTROL0 REGISTER 0x39H

BIT	BIT NAME	DESCRIPTION
<15:13>	Forward Buck and Buck-Boost Phase Comparator Threshold Offset	Bit<15:13> adjusts phase comparator threshold offset for forward buck and buck-boost. 000 = 0mV 001 = 1mV 010 = 2mV 011 = 3mV 100 = -4mV 101 = -3mV 110 = -2mV 111 = -1mV
<12:10>	Forward and Reverse Boost Phase Comparator Threshold Offset	Bit<12:10> adjusts phase comparator threshold offset for forward and reverse boost. 000 = 0mV 001 = 0.5mV 010 = 1mV 011 = 1.5mV 100 = -2mV 101 = -1.5mV 110 = -1mV 111 = -0.5mV
<9,8,0>	Reverse Buck and Buck-Boost Phase Comparator Threshold Offset	Bit<9,8,0> adjusts phase comparator threshold offset for reverse buck and buck-boost. 000 = 0mV 001 = 1mV 010 = 2mV 011 = 3mV 100 = -4mV 101 = -3mV 110 = -2mV 111 = -1mV