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PRODUCT BULLETIN

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ISSUE DATE:	12-Apr-2016
NOTIFICATION:	17085
TITLE:	MC9S12ZVM, MC9S12ZVL & MC9S12ZVC Reference Manual and Datasheet Update
EFFECTIVE DATE:	13-Apr-2016

DEVICE(S)

MPN
MC912ZVL32MLC
MC912ZVL32MLF
MC912ZVLS32MFM
S912ZVC12F0MKH
S912ZVC12F0MLF
S912ZVC12F0MLFR
S912ZVC12F0VKH
S912ZVC12F0VKHR
S912ZVC12F0VLF
S912ZVC12F0VLFR
S912ZVC19F0MKH
S912ZVC19F0MKHR
S912ZVC19F0MLF
S912ZVC19F0MLFR
S912ZVC19F0VKH
S912ZVC19F0VKHR
S912ZVC64F0MKH
S912ZVC64F0MKHR
S912ZVC64F0MLF
S912ZVC64F0MLFR
S912ZVC64F0VLF
S912ZVC96F0MKH
S912ZVC96F0MLF
S912ZVC96F0MLFR
S912ZVCA19F0MKH

S912ZVCA19F0MLF
S912ZVCA19F0MLFR
S912ZVCA19F0VLF
S912ZVCA19F0VLFR
S912ZVCA19F0WKH
S912ZVCA64F0MLF
S912ZVCA96F0MLF
S912ZVCA96F0MLFR
S912ZVMC12F1MKH
S912ZVMC12F1WKH
S912ZVMC12F2WKH
S912ZVMC12F2WKHR
S912ZVMC64F1MKH
S912ZVMC64F1VKH
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S912ZVML64F2MKHR
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S9S12ZVL16F0CLC

S9S12ZVL16F0CLCR
S9S12ZVL16F0CLF
S9S12ZVL16F0MLC
S9S12ZVL16F0MLCR
S9S12ZVL16F0VLC
S9S12ZVL16F0VLF
S9S12ZVL32F0CLC
S9S12ZVL32F0CLCR
S9S12ZVL32F0CLF
S9S12ZVL32F0MLC
S9S12ZVL32F0MLCR
S9S12ZVL32F0MLF
S9S12ZVL32F0VLC
S9S12ZVL32F0VLCR
S9S12ZVL32F0VLF
S9S12ZVL32F0VLFR
S9S12ZVL8F0CLF
S9S12ZVLS16F0CFM
S9S12ZVLS16F0MFM
S9S12ZVLS1F0CFMR
S9S12ZVLS3F0CFM
S9S12ZVLS3F0MFM
S9S12ZVLS3F0MFMR

AFFECTED CHANGE CATEGORIES

- REFERENCE MANUAL

DESCRIPTION OF CHANGE

The MC9S12ZVM Reference Manual and Datasheet has been updated from revision 2.2 to revision 2.5. The revision history (page4) included in the updated document provides a detailed description of the changes.

The Reference Manual and Datasheet revision 2.5 can be found at:

http://www.nxp.com/products/automotive-products/microcontrollers-and-processors/16-bit-s12-magniv/s12zvm-mixed-signal-mcu-for-automotive-industrial-motor-control-applications:S12ZVM?&fpsp=1&tab=Documentation_Tab

The detail changes for MC9S12ZVM Reference Manual and Datasheet show as below:

1.Added devices to Part ID list Table 1-7(Page 39)
2.Minor corrections to reset source and interrupt vector tables Table 1-17 (Page 68)
3.Added device level POR information Figure 1-8(Page 71)
4.Added constraints to EXTCON, SCS2 and SCS1 bits in CPMU chapter (Page 335)
5.Corrected footnotes and parameter spelling in GDU register summary (Page 702)
6.Noted GDU sense amplifier dependence on GFDE bit (Page 704)
7.Documented that flash option (FOPT) register can be written in special mode (Page 788)
8.Added pulsed absolute maximum rating for HSx pins Table A-2 (Page 873)
9.Added VREG configuration to Run/Wait/Stop current measurement configuration Table A-16(Page 884)
10.Removed de-saturation thresholds from electrical spec. tables(Page 905)
11.Added footnote for GDU tdelon/tdeloff electrical parameters(Page 906)
12.Added max. and min. values for GDU HD signal division through phase mux (Page 906)
13.Removed incorrect limit from BATS electrical parameter table headers (Page 919)
14.Minor correction to PMF chapter (Page 602,603)
15.Noted temperature sensor slope is subject to further characterization (Page 891)
16.Updated temperature sensor electrical specification, Table B-1 (Page 890)
17.Added GDU current sense amp unity bandwidth parameter Table E-1, Table E-2 (Page 907,909)
18.Added GDU current sense input resistance footnote Table E-1, Table E-2 (Page 907,910)
19.Clarified non production mask sets Table 1-4, Table 1-5, Table 1-7 (Page 26,39)
20.Updated ordering information in Appendix L (Page 943)
21.Changed RESET pin input pulse passed parameter minimum specification value from 22ns to 18ns.Table A-13 (Page 883)
22.Replaced Freescale with NXP in logo and page footers

The MC9S12ZVL Reference Manual and Datasheet has been updated from revision 1.04 to revision 1.06. The revision history (page3) included in the updated document provides a detailed description of the changes.

The Reference Manual and Datasheet ver1.06 can be found at:

http://www.nxp.com/products/automotive-products/microcontrollers-and-processors/16-bit-s12-magniv/s12zvl-mixed-signal-mcu-for-automotive-industrial-lin-applications:S12ZVL?&fpsp=1&tab=Documentation_Tab

The detail changes for MC9S12ZVL Reference Manual and Datasheet show as below:

1.Correct part numbers Appendix C, “Ordering Information” (Page 738)
2.Update FTMRZ module name
3.Updated to Device Overview version 1.7 (Page 21)
4.Update to NXP style
5.Add version 0.24 in Table A-1. Revision History Table (Page 671)

The MC9S12ZVC Reference Manual and Datasheet has been updated from revision 1.3 to revision 1.5. The revision history (page2) included in the updated document provides a detailed description of the changes.

The Reference Manual and Datasheet ver1.5 can be found at:

http://www.nxp.com/products/automotive-products/microcontrollers-and-processors/16-bit-s12-magniv/s12zvc-mixed-signal-mcu-for-automotive-industrial-can-applications:S12ZVC?&fpsp=1&tab=Documentation_Tab

The detail changes for MC9S12ZVC Reference Manual and Datasheet show as below:

1.PAD3 pin 16 in LQFP-48 and pin 20 in LQFP-64 renamed from VRH to VRH_0 (Page 43,44)
2.Added Note on page 605 with reference to VRH and VRL connectivity (Page 605)
3.Changed Temperature sensor slope and output voltage Table E-1 item 14 and 15 (Page 726)
4.Added Stop IDD values for 85C and 105C to Table A14 (Page 710)
5.Changed Item 7 RP_PASS in Table A-9 to 22ns (Page 708)

REASON FOR CHANGE

The MC9S12ZVM, MC9S12ZVL and the MC9S12ZVC Reference Manual and Datasheet have been updated to correct errors and provide additional technical clarification on some device features. The limit change is to reflect real characteristics properly.

ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

There is no impact to device form, fit , functionality or reliability.

NOTE:
THE CHANGE(S) SPECIFIED IN THIS NOTIFICATION WILL BE IMPLEMENTED ON THE EFFECTIVE DATE LISTED ABOVE. To request further data or inquire about the notification, please enter a Support Case. Be aware that after you select this link to enter your request, you must choose the topic "Product Change Notification" once on the Salesforce page.

For sample inquiries - please go to www.nxp.com

QUALIFICATION STATUS: N/A

QUALIFICATION PLAN:

N/A

RELIABILITY DATA SUMMARY:

N/A

ELECTRICAL CHARACTERISTIC SUMMARY:

N/A

CHANGED PART IDENTIFICATION:

N/A

ATTACHMENT(S):

External attachment(s) FOR this notification can be viewed AT:
17085_MC9S12ZVM_RM_V2.5.pdf
17085_PCN-Delta-Qualification-Matrix-ZVEI-2_2_4-17085.pdf
17085_MC9S12ZVCRMV1_Rev_1.5.pdf
17085_MC9S12ZVL_RM_v1.06.pdf
