



Customer Information Notification

202203006I : VR5510 Power Management IC Data Sheet Update Rev 5.0 (New Orderable Part Numbers and Technical Clarifications / Corrections)

Note: This notice is NXP Company Proprietary.

Issue Date: Apr 28, 2022 **Effective date:** Apr 29, 2022

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Change Category

- | | | | | |
|--|--|--|---|---|
| <input type="checkbox"/> Wafer Fab Process | <input type="checkbox"/> Assembly Process | <input type="checkbox"/> Product Marking | <input type="checkbox"/> Test Process | <input type="checkbox"/> Design |
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| <input type="checkbox"/> Wafer Fab Location | <input type="checkbox"/> Assembly Location | <input type="checkbox"/> Packing/Shipping/Labeling | <input type="checkbox"/> Test Location | <input type="checkbox"/> Electrical spec./Test coverage |
| <input type="checkbox"/> Firmware | <input checked="" type="checkbox"/> Other: Data Sheet Update (New Orderable Part Numbers and Technical Clarifications / Corrections) | | | |

PCN Overview

Description

NXP Semiconductors announces the data sheet update to revision 5.0 for the VR5510 Power Management IC family products associated with this notification. The new data sheet revision provides updated specification information and technical clarifications / corrections.

The revision history included in the updated document provides a detailed description of the changes. Changes are summarized below.

VR5510 Data Sheet Rev 5.0 Change Summary:

- Section 5: added new parts (MVR5510AMDALES, MVR5510AMBALES, MVR5510AMMALES, MVR5510AVMALEP, MVR5510AMDANES, MVR5510AMBANES, MVR5510AMMANES, and MVR5510AVMANEP)
- Section 8.11: updated Figure 7 (correction of the time between VPRES power up and slot 0 power up)
- Section 22.8.1: Figure 41 (replaced VDDIO by VPRES)
- Section 22.8.2: updated Figure 42 (replaced VDDIO by VPRES)
- Section 20.5: replaced "The STBY_TIMER_EN_OTP bit can be set using I2C commands. The STBY_TIMER_EN bit can only be enabled by OTP." by "The STBY_TIMER_EN_OTP bit can be set by OTP. The STBY_TIMER_EN bit can only be enabled using I2C commands."
- Table 23: updated min and typical value for CIN_HVLDO

7. Section 10.6: added Figure 15

** Documentation changes only for higher output voltage capability, more relaxed output/input capacitor requirement, better information about compensation network, and technical clarifications / corrections - absolutely no changes to the device / product **

New VR5510 revision 5.0 data sheet is attached to this notice and can be accessed at:
<https://www.nxp.com/docs/en/data-sheet/VR5510.pdf>

Corresponding ZVEI Delta Qualification Matrix ID: SEM-DS-02

Reason

The data sheet has been updated to add new orderable part numbers and collect several technical clarifications / corrections.

Identification of Affected Products

Product identification does not change

Anticipated Impact on Form, Fit, Function, Reliability or Quality

No Impact on form, fit, function, reliability or quality

Data Sheet Revision

A new datasheet will be issued

Additional information

Additional documents: view online

Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact NXP "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local NXP Sales Support team.

For specific questions on this notice or the products affected please contact our specialist directly:

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Changed Orderable Part#	12NC	Product Type	Product Description	Package Outline	Package C	Product S	Customer	Product Li	Notes
MVR5510AMBA0ES	935377394557	MVR5510AMBA0ES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBA0ESR2	935377394528	MVR5510AMBA0ESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBA4ES	935410591557	MVR5510AMBA4ES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBA4ESR2	935410591528	MVR5510AMBA4ESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBA5ES	935410537557	MVR5510AMBA5ES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMBA5ESR2	935410537528	MVR5510AMBA5ESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMBA6ES	935410741557	MVR5510AMBA6ES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBA6ESR2	935410741528	MVR5510AMBA6ESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBAHES	935418938557	MVR5510AMBAHES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBAHESR2	935418938528	MVR5510AMBAHESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMBALES	935437461557	MVR5510AMBALES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMBALESR2	935437461528	MVR5510AMBALESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMBA5ES	935437537557	MVR5510AMBA5ES	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMBANESR2	935437576528	MVR5510AMBANESR2	VR5510 ASIL-B	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDA0ES	935377493557	MVR5510AMDA0ES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDA0ESR2	935377493528	MVR5510AMDA0ESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDA4ES	935410732557	MVR5510AMDA4ES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDA4ESR2	935410732528	MVR5510AMDA4ESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDA5ES	935410729557	MVR5510AMDA5ES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDA5ESR2	935410729528	MVR5510AMDA5ESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDA6ES	935410727557	MVR5510AMDA6ES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDA6ESR2	935410727528	MVR5510AMDA6ESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDAHES	935418941557	MVR5510AMDAHES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDAHESR2	935418941528	MVR5510AMDAHESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMDALES	935437574557	MVR5510AMDALES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDALESR2	935437574528	MVR5510AMDALESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDANES	935437579557	MVR5510AMDANES	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMDANESR2	935437579528	MVR5510AMDANESR2	VR5510 ASIL-D	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMMA0ES	935377392557	MVR5510AMMA0ES	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMA0ESR2	935377392528	MVR5510AMMA0ESR2	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMA4ES	935410738557	MVR5510AMMA4ES	VR5510	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMA4ESR2	935410738528	MVR5510AMMA4ESR2	VR5510	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMA5ES	935410736557	MVR5510AMMA5ES	VR5510 QM	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
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MVR5510AMMA6ES	935410734557	MVR5510AMMA6ES	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMA6ESR2	935410734528	MVR5510AMMA6ESR2	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMAHES	935418932557	MVR5510AMMAHES	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMAHESR2	935418932528	MVR5510AMMAHESR2	VR5510 QM	H(V)QFN56WF	SOT684-21 RFS	No	BLC4		
MVR5510AMMALES	935437595557	MVR5510AMMALES	VR5510 QM	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
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MVR5510AMMANES	935437593557	MVR5510AMMANES	VR5510 QM	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AMMANESR2	935437593528	MVR5510AMMANESR2	VR5510 QM	H(V)QFN56WF	SOT684-21 ASM	No	BLC4		
MVR5510AVMA0EP	935411863557	MVR5510AVMA0EP	VR5510 QM	H(V)QFN56	SOT684-21 RFS	No	BLC4		
MVR5510AVMA0EPR2	935411863528	MVR5510AVMA0EPR2	VR5510 QM	H(V)QFN56	SOT684-21 RFS	No	BLC4		
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MVR5510AVMAHEP	935418798557	MVR5510AVMAHEP	VR5510 QM	H(V)QFN56	SOT684-21 RFS	No	BLC4		
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MVR5510AVMANEPR2	935437586528	MVR5510AVMANEPR2	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4		
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PVR5510AMMANESR2	935427611697	PVR5510AMMANESR2	VR5510 QM	H(V)QFN56WF	SOT684-21 ASM	No	BLC4
PVR5510AMXA0ES	935387728699	PVR5510AMXA0ES	VR5510	H(V)QFN56WF	SOT684-21 ASM	No	BLC4
PVR5510AMXA0ESR2	935387728697	PVR5510AMXA0ESR2	VR5510	H(V)QFN56WF	SOT684-21 ASM	No	BLC4
PVR5510AVMA0EP	935405329699	PVR5510AVMA0EP	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4
PVR5510AVMA0EPR2	935405329697	PVR5510AVMA0EPR2	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4
PVR5510AVMA4EP	935405332699	PVR5510AVMA4EP	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4
PVR5510AVMA4EPR2	935405332697	PVR5510AVMA4EPR2	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4
PVR5510AVMA5EP	935405334699	PVR5510AVMA5EP	VR5510 QM	H(V)QFN56	SOT684-21 ASM	No	BLC4
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