



Product/Process Change Notice - PCN 20_0271 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title: AD9545 specifications change as relates to the system clock input and usage of the 2x frequency multiplier.

Publication Date: 21-Sep-2020

Effectivity Date: 21-Sep-2020 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:
Initial Release

Description Of Change:

Specification changes:

System Clock Inputs, XOB and XOB specification table:

- a) Comment added to DIRECT path heading: "Do not enable the frequency doubler when using the direct path."
- b) Removal of the System Clock Input Doubler specification from the Input Frequency Range specification in the DIRECT path section of the table.
- c) Removal of the System Clock Input Doubler Duty Cycle specification from the DIRECT path section of the table.
- d) Addition of a Duty Cycle specification to the DIRECT path section of the table with 40%/60% Min/Max limits.
- e) Comment added to the CRYSTAL path heading: "The crystal resonator path includes an optional frequency doubler".
- f) The Max specification for the crystal resonator increases from 60 MHz to 80 MHz.

Reason For Change:

The integrated system clock PLL of the AD9545 includes a 2x frequency multiplier, which may be incorporated into the input path of the system clock PLL via a register bit setting. The PLL has two input modes, DIRECT and CRYSTAL. When using the DIRECT path, the externally supplied signal source may exhibit duty cycle distortion. Duty cycle distortion is problematic when using the multiplier, because the distortion produces a spurious spectral component at the output of the multiplier with a frequency of 1/2 of the multiplier output frequency (the same frequency as the input frequency). The system clock PLL passes the spur onto the system clock signal, which can indirectly cause the DPLL to unlock. Hence, the data sheet no longer supports using the 2x multiplier in conjunction with the DIRECT path. The specification tables are modified accordingly. However, when using the CRYSTAL path, the internal crystal oscillator naturally provides an output signal with 50% duty cycle, allowing the use of the multiplier with no adverse effects.

Impact of the change (positive or negative) on fit, form, function & reliability:

No impact on fit, form, function or reliability.

Summary of Supporting Information:

No qualification required, datasheet clarification change only.

Supporting Documents None

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

Americas:
PCN_Americas@analog.com

Europe:
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Appendix A - Affected ADI Models

Added Parts On This Revision - Product Family / Model Number (2)

AD9545 / AD9545BCPZ

AD9545 / AD9545BCPZ-REEL7

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	21-Sep-2020	21-Sep-2020	Initial Release

Analog Devices, Inc.

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