

TMS320C641x, TMS320DM64x, TMS320DRA342 ZNZ, ZDK Packages Discontinued and Converted



Abstract

This document should be used in conjunction with the device data sheet and describes the updated package designator for the indicated devices.

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Trademarks

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1 Package Redesign Details

Explanation

The ZNZ and ZDK packages containing Tin-Lead (SnPb) die bumps are being phased out and replaced with completely lead-free CNZ and CDK packages containing Tin-Silver (SnAg) die bumps.

These lead-free packages (CNZ and CDK) offer datasheet equivalent electrical performance, footprint compatibility, using the same BGA map and x-y dimensions as the ZNZ and ZDK packages, respectively.

When referencing the device datasheet, use the new package designators in place of the discontinued package designators throughout the document.

See the following pages for the updated Lead-free CNZ and CDK package drawings.

Table 1-1. Package Designator

Old Package Designators	New Package Designators
ZNZ	CNZ
ZDK	CDK

Reason for Discontinuance

Due to receiving an End-Of-Life notice from the supplier of a tin-lead (SnPb) bump material used in the ZNZ and ZDK packages, we are phasing out devices in the ZNZ and ZDK packages.

These ZNZ and ZDK devices have now been converted to lead-free CNZ and CDK packages, respectively.

Devices Affected

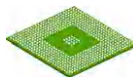
The following table describes the devices affected, the old and new package designators, and references to the device datasheet.

Table 1-2. Devices and Nomenclature

Discontinued Devices	New Devices	Device Data Sheet
TMS320C6412AZNZxxxx	TMS320C6412ACNZxxxx	SPRS219J

Table 1-2. Devices and Nomenclature (continued)

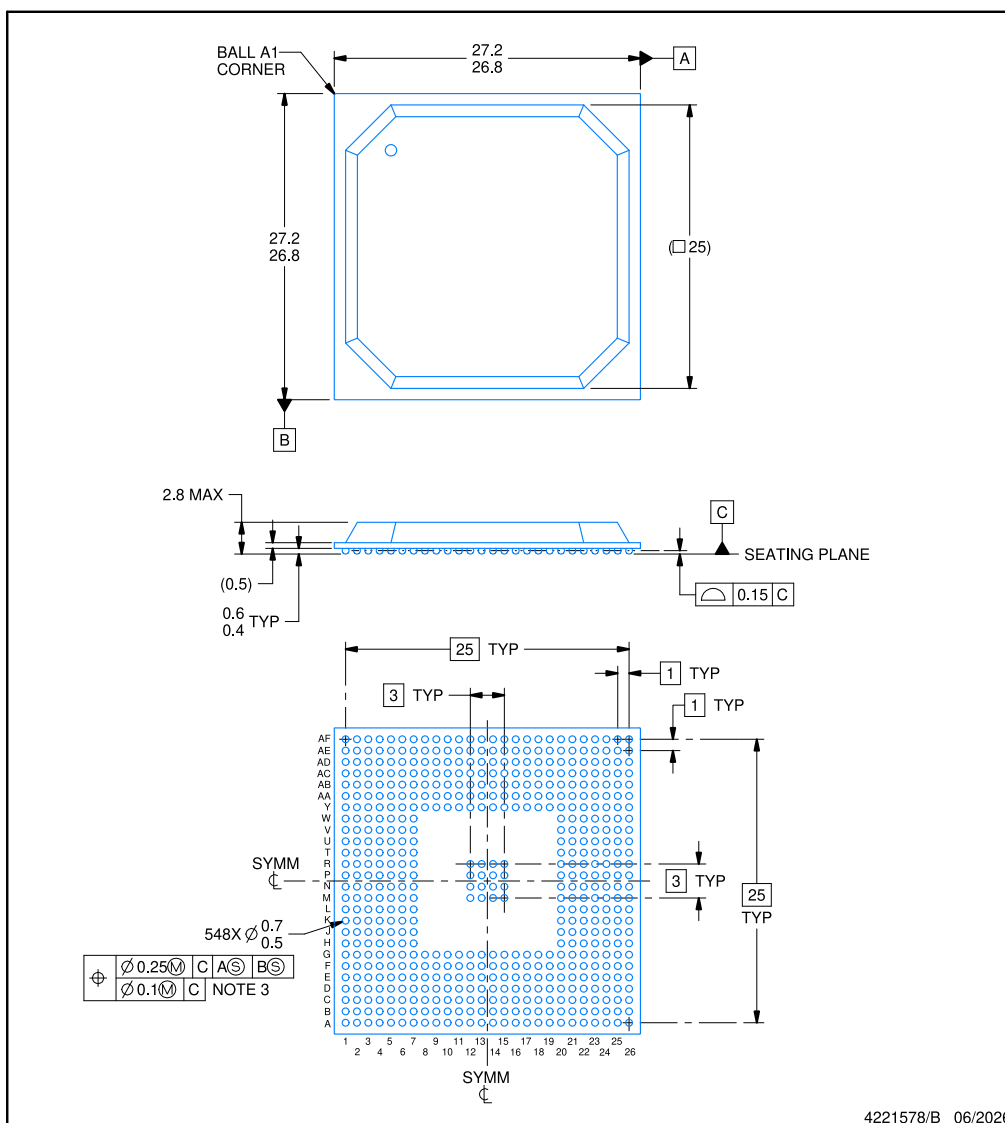
Discontinued Devices	New Devices	Device Data Sheet
TMS320DM640AZDKxxxx	TMS320DM640ACDKxxxx	SPRS222F
TMS320DM640AZNZxxxx	TMS320DM640ACNZxxxx	SPRS222F
TMS320DM642AZDKxxxx	TMS320DM642ACDKxxxx	SPRS200N
TMS320DM642AZNZxxxx	TMS320DM642ACNZxxxx	SPRS200N
TMS320DM643AZNZxxxx	TMS320DM643ACNZxxxx	SPRS269D
TS320DRA342AZDKxxxx	TS320DRA342ACDKxxxx	SPRS577



CNZ0548A

PACKAGE OUTLINE
FCBGA - 2.8 mm max height

BALL GRID ARRAY

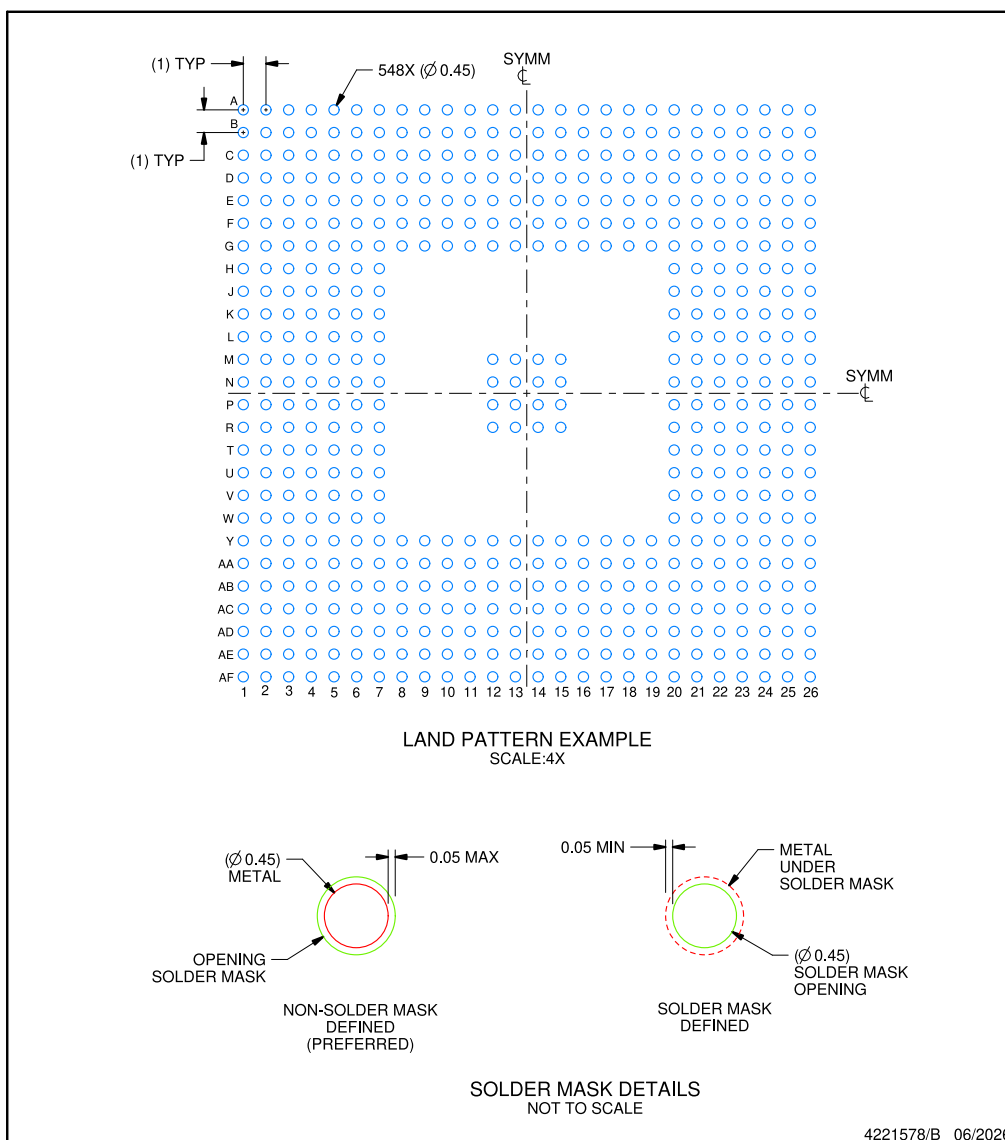


NOTES:

1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. Dimension is measured at the maximum solder ball diameter, parallel to primary datum C.
4. This is a Pb-free bump and solder ball design.

EXAMPLE BOARD LAYOUT**CNZ0548A****FCBGA - 2.8 mm max height**

BALL GRID ARRAY



NOTES: (continued)

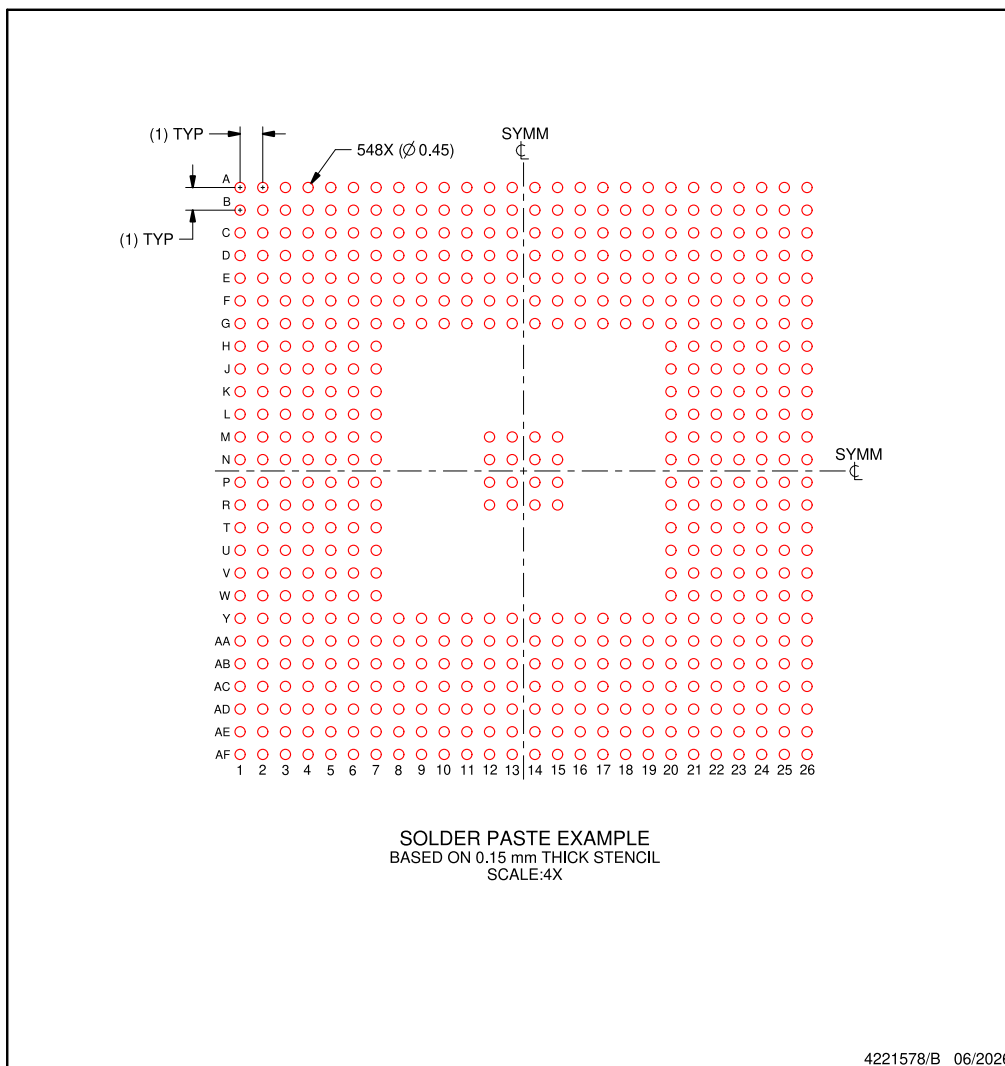
5. Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints.
For information, see Texas Instruments literature number SPRU811 (www.ti.com/lit/spru811).

EXAMPLE STENCIL DESIGN

CNZ0548A

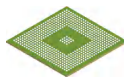
FCBGA - 2.8 mm max height

BALL GRID ARRAY

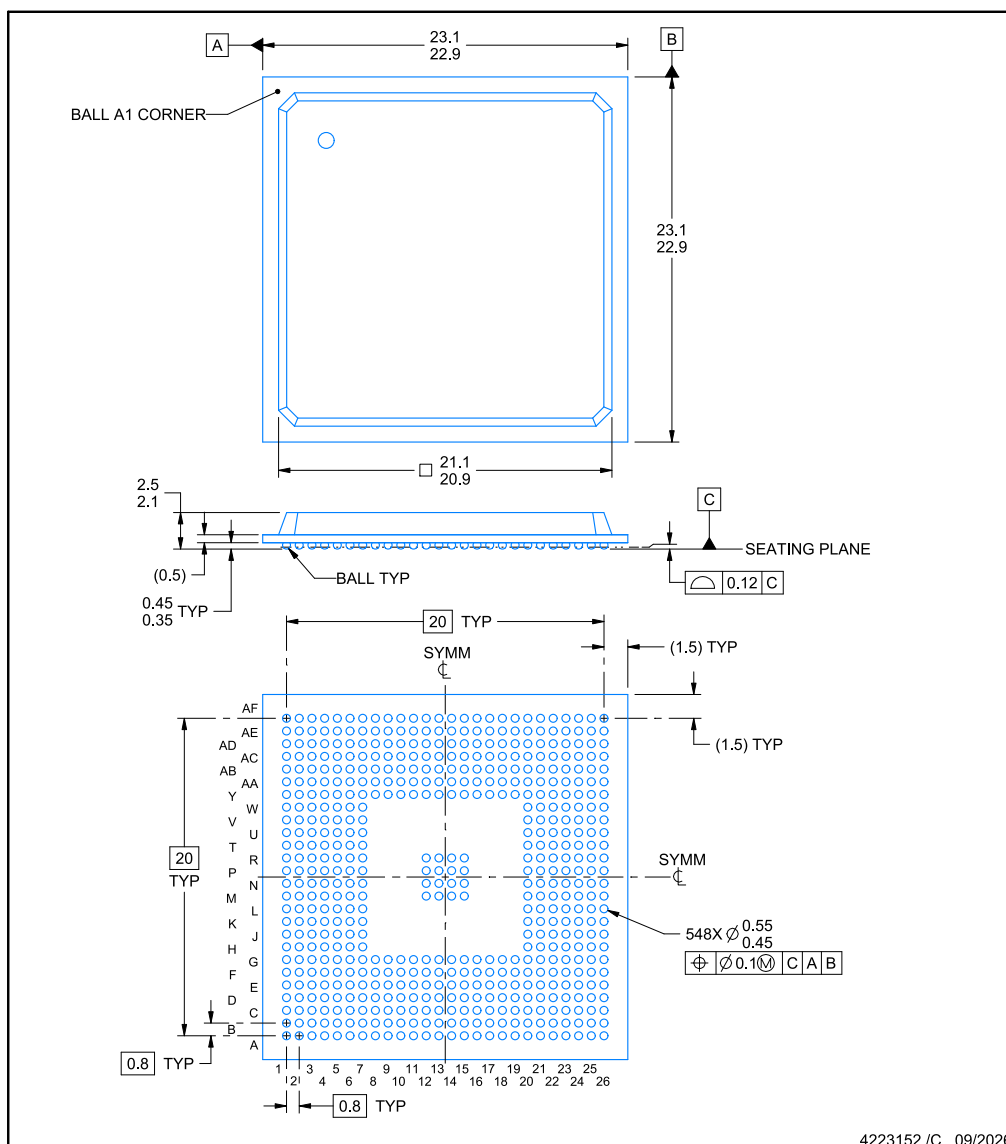


NOTES: (continued)

6. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release.

**CDK0548A****PACKAGE OUTLINE****FCBGA - 2.5 mm max height**

BALL GRID ARRAY

**NOTES:**

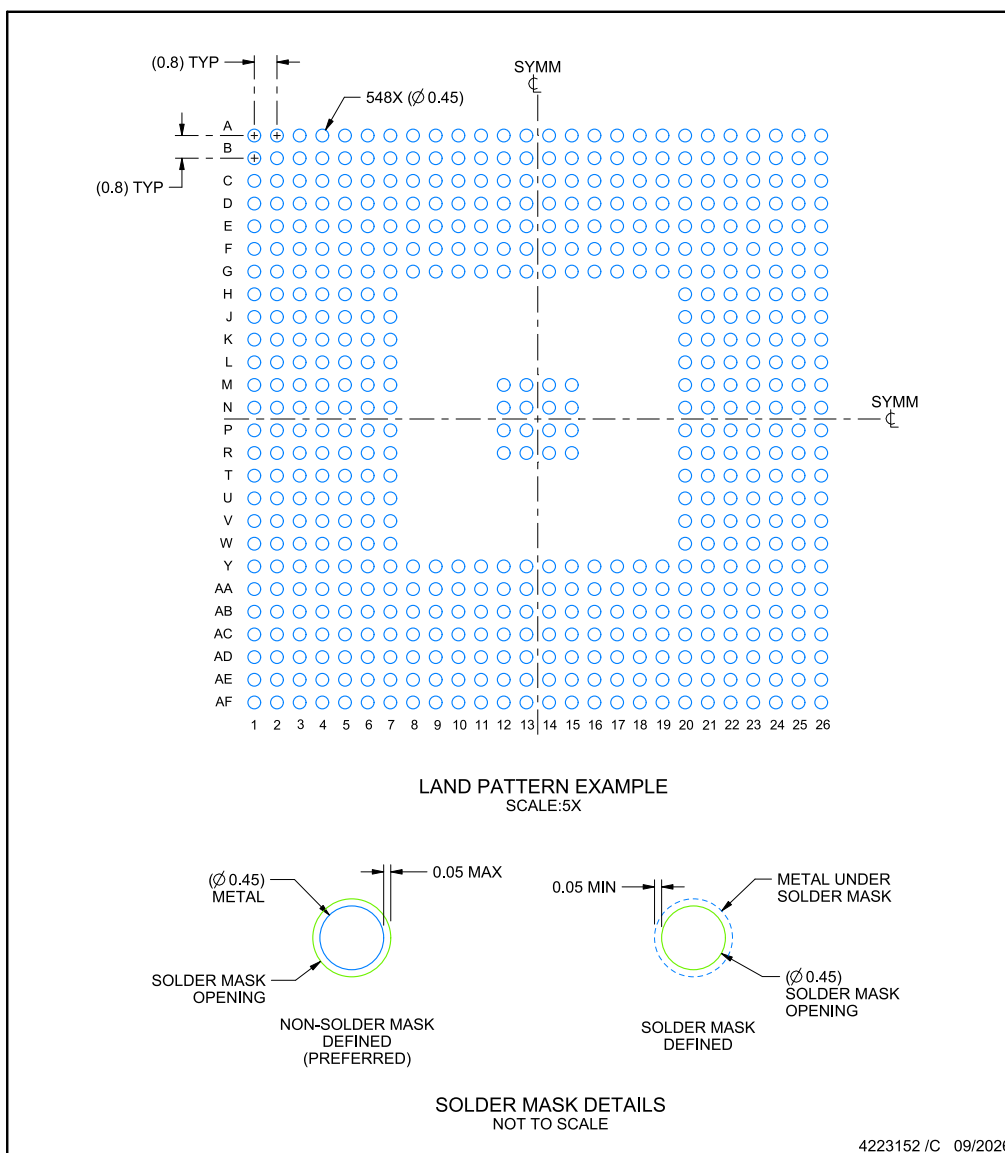
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. Lead-free die bump and solder ball.

EXAMPLE BOARD LAYOUT

CDK0548A

FCBGA - 2.5 mm max height

BALL GRID ARRAY

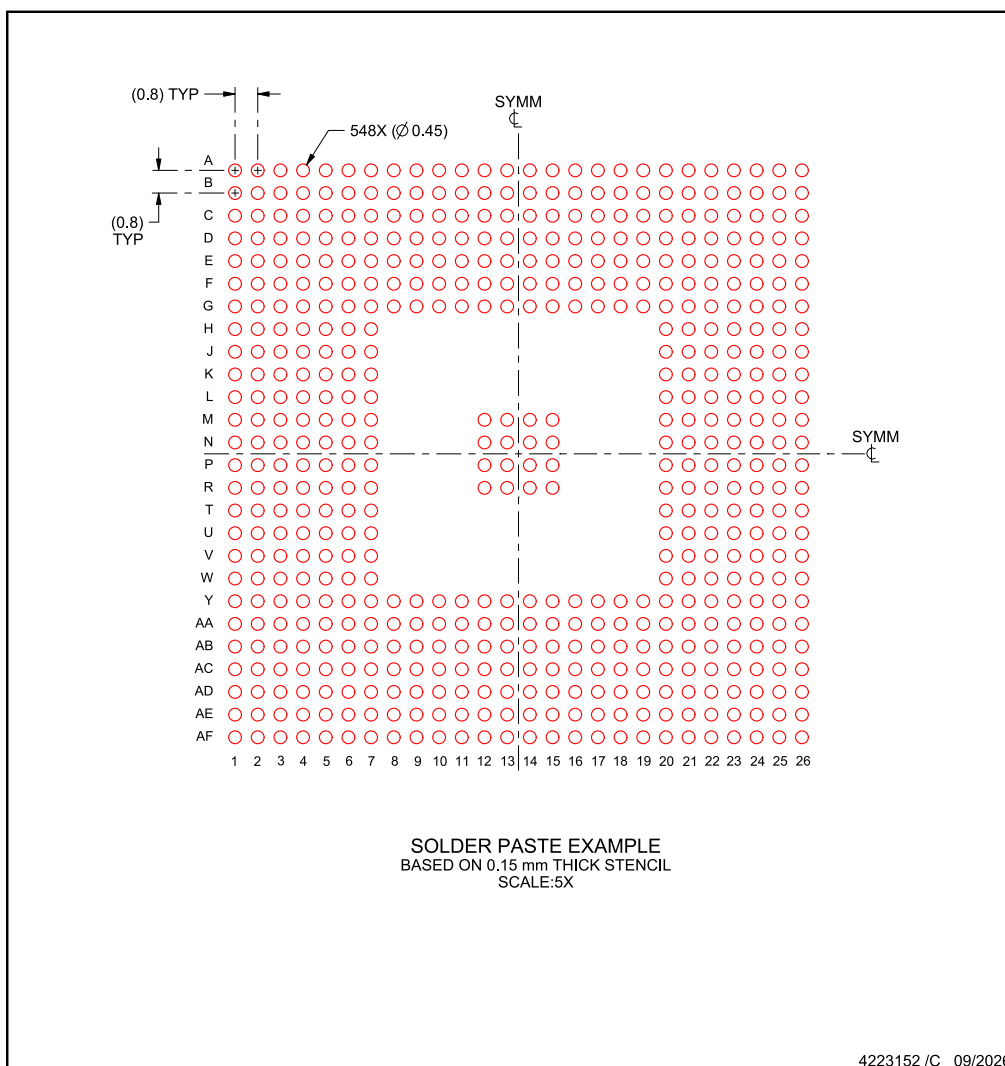


NOTES: (continued)

- Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. For information, see Texas Instruments literature number SSZA002 (www.ti.com/lit/ssza002).

EXAMPLE STENCIL DESIGN**CDK0548A****FCBGA - 2.5 mm max height**

BALL GRID ARRAY



NOTES: (continued)

5. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release.

2 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from July 7, 2026 to September 14, 2026 (from Revision * (July 2026) to Revision A (September 2026))

Page

- Updated CDK ePOD maximum package height from 2.8mm to 2.5mm..... [1](#)

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