Manual Update Sheet

TMS320F281x MicroStar BGA Discontinued and Redesigned

ABSTRACT

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

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Trademarks

MicroStar BGA™ and MicroStar Junior™ are trademarks of Texas Instruments.
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1 Package Redesign Details

Explanation

The devices in the MicroStar BGA™ packaging were redesigned using a laminate nfBGA package. This nfBGA package offers datasheet-equivalent electrical performance. It is also footprint equivalent to the MicroStar BGA. For more details, please refer to this nfBGA Packaging Application Report.

When referencing the device data sheet, use the new package designator in place of the discontiued package designator throughout the document.

The orderable addendum at the end of the device data sheet will reflect the new package designator.

See the following page or the end of the device data sheet for the updated nfBGA package drawing.

Table 1-1. Package Designator

Old Package Designator	New Package Designator
GHH	GBB
ZHH	ZAY

Reason for Discontinuance

Due to an equipment End-Of-Life notice from our substrate supplier, we are phasing out certain MicroStar BGA and MicroStar Junior™ BGA packaging devices and offering a Last Time Buy.

These devices have now been converted to an nfBGA package.

Devices Affected

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

Table 1-2. Devices and Nomenclature

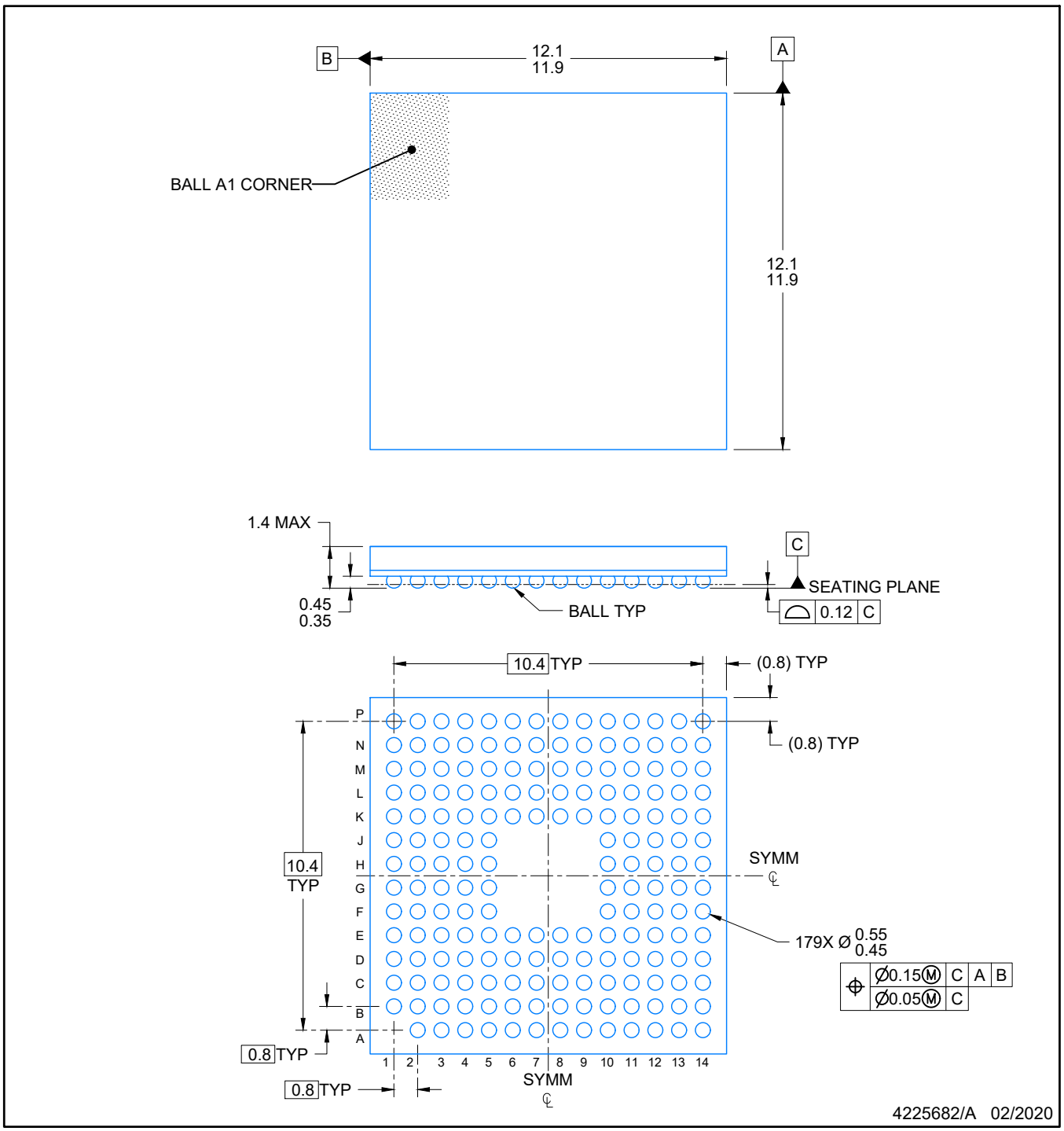
Device	Discontinued MicroStar BGA Device	Redesigned Laminate nfBGA Device	Device Data Sheet
TMS320F281x	TMS320F2812**GHH**A TMS320F2812**GHH**AR TMS320F2812**GHH**Q TMS320F2812**GHH**S	TMS320F2812**GBB**A TMS320F2812**GBB**AR TMS320F2812**GBB**S TMS320F2812**GBB**S	SPRS174
TMS320F281x	TMS320F2812**ZHH**A TMS320F2812**ZHH**AR TMS320F2812**ZHH**S	TMS320F2812**ZAY**A TMS320F2812**ZAY**AR TMS320F2812**ZAY**S	SPRS174

PACKAGE OUTLINE

GBB0179A

NFBGA - 1.4 mm max height

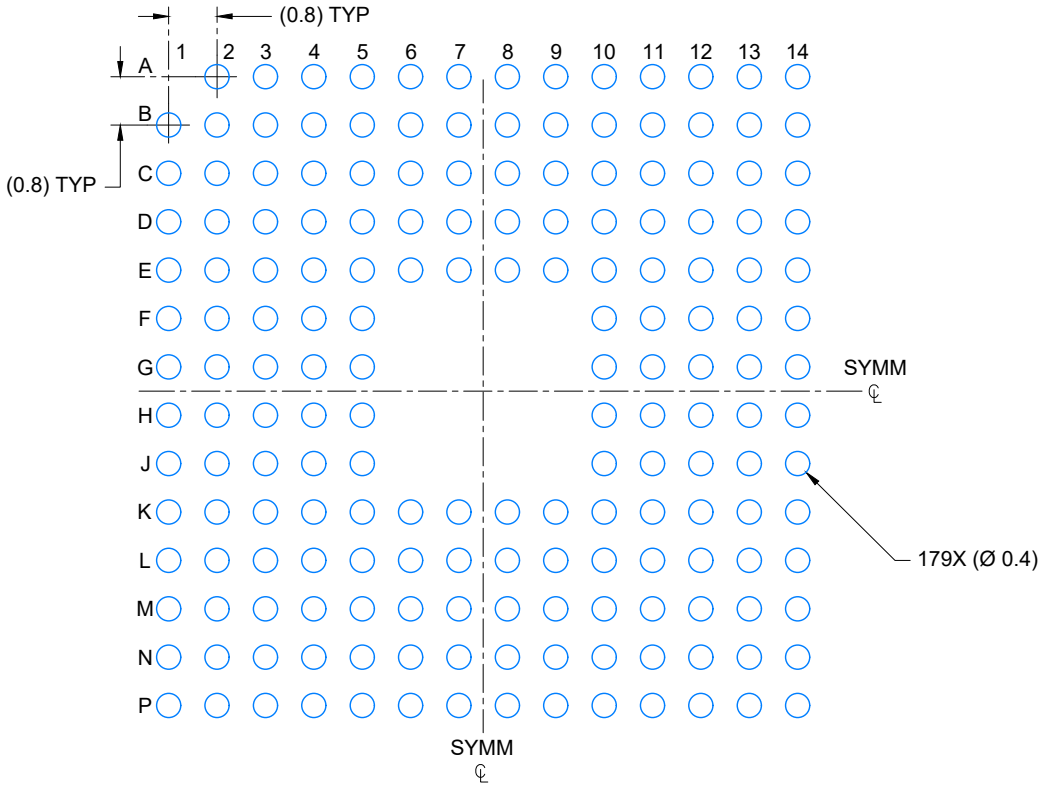
PLASTIC BALL GRID ARRAY



NOTES:

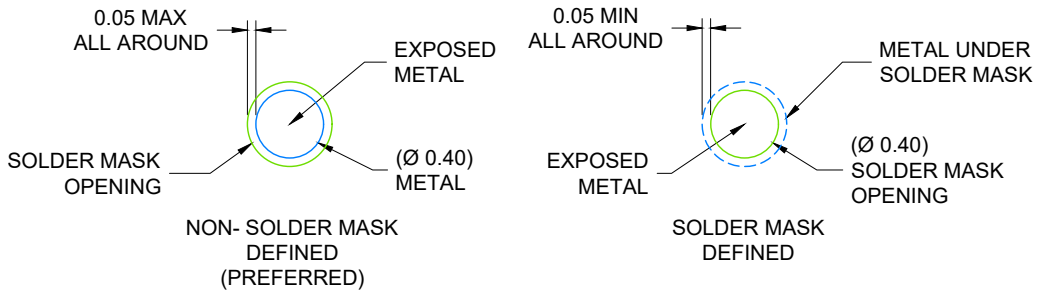
NanoFree is a trademark of Texas Instruments.

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.



LAND PATTERN EXAMPLE

SCALE: 8X



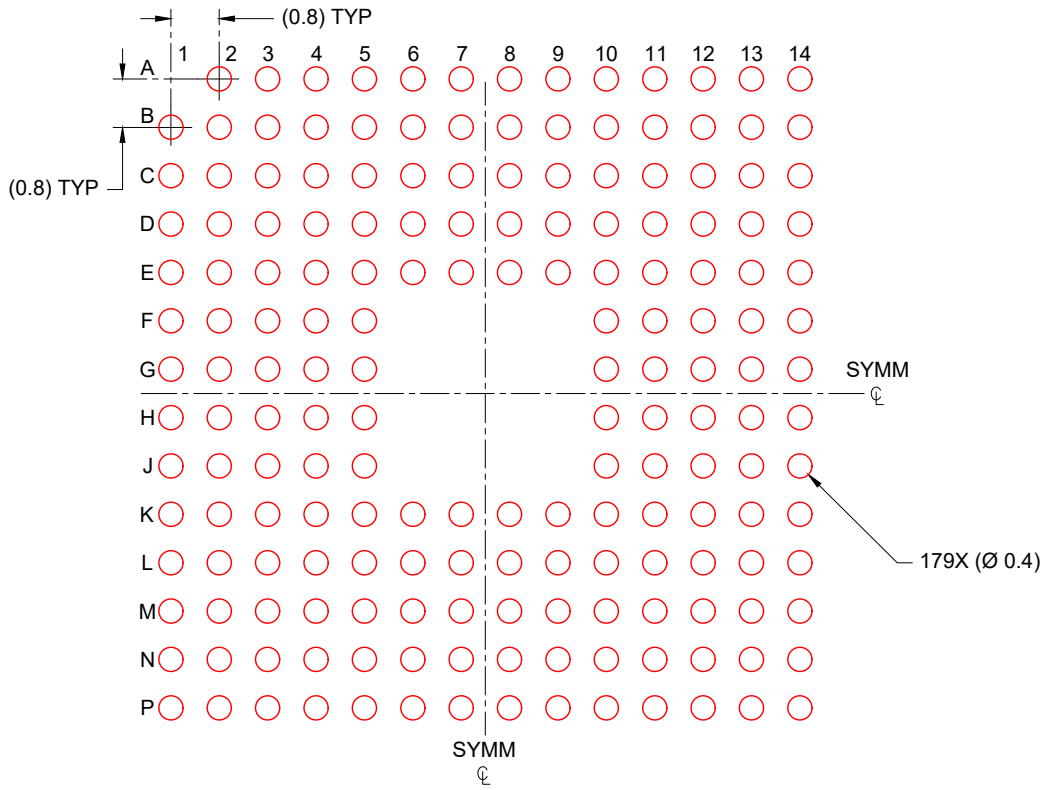
SOLDER MASK DETAILS

NOT TO SCALE

4225682/A 02/2020

NOTES: (continued)

3. Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. Refer to Texas Instruments Literature number SNVA009 (www.ti.com/lit/snva009).



SOLDER PASTE EXAMPLE
BASED ON 0.150 mm THICK STENCIL
SCALE: 8X

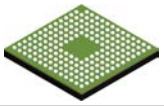
4225682/A 02/2020

NOTES: (continued)

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

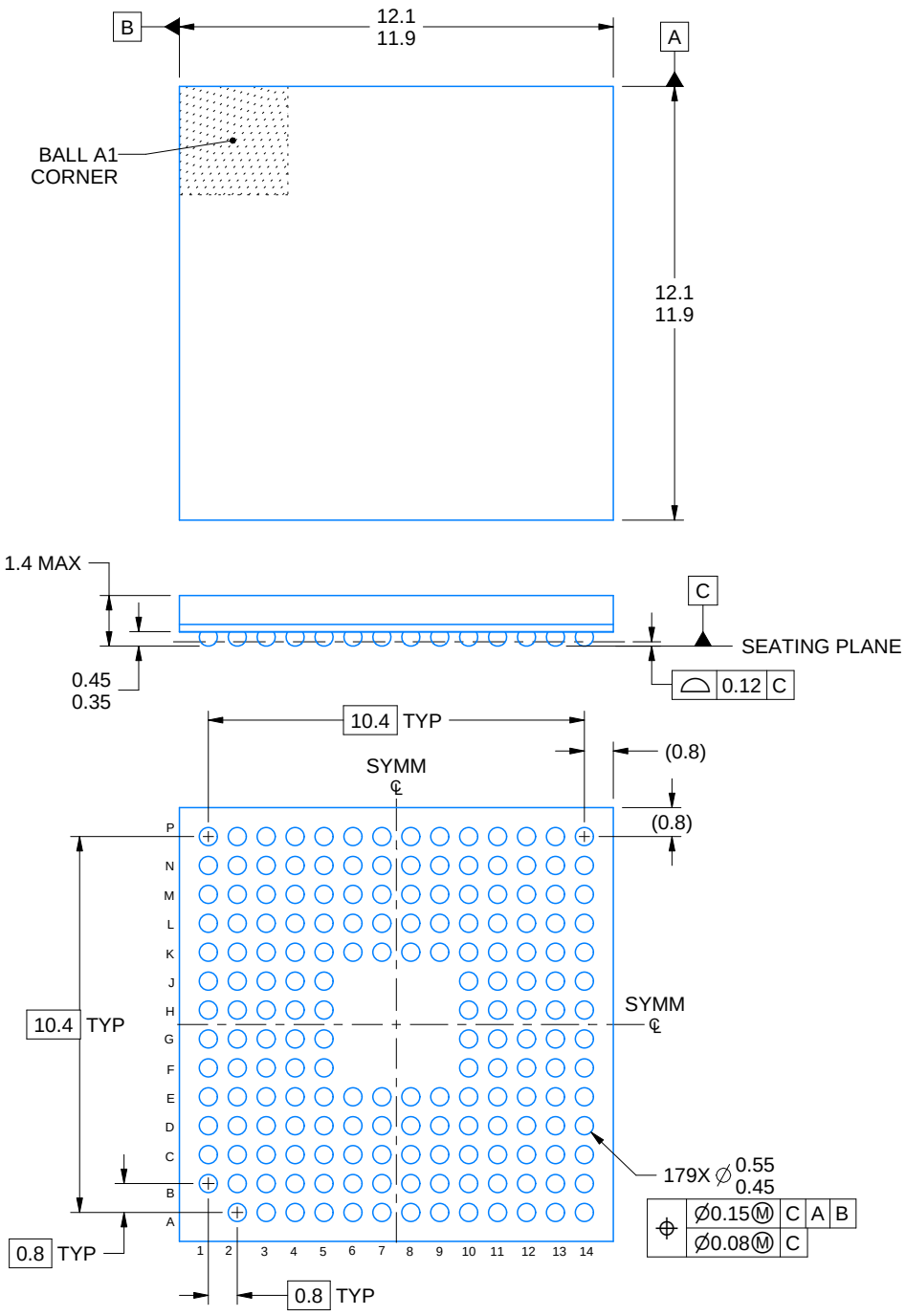
PACKAGE OUTLINE

ZAY0179A



NFBGA - 1.4 mm max height

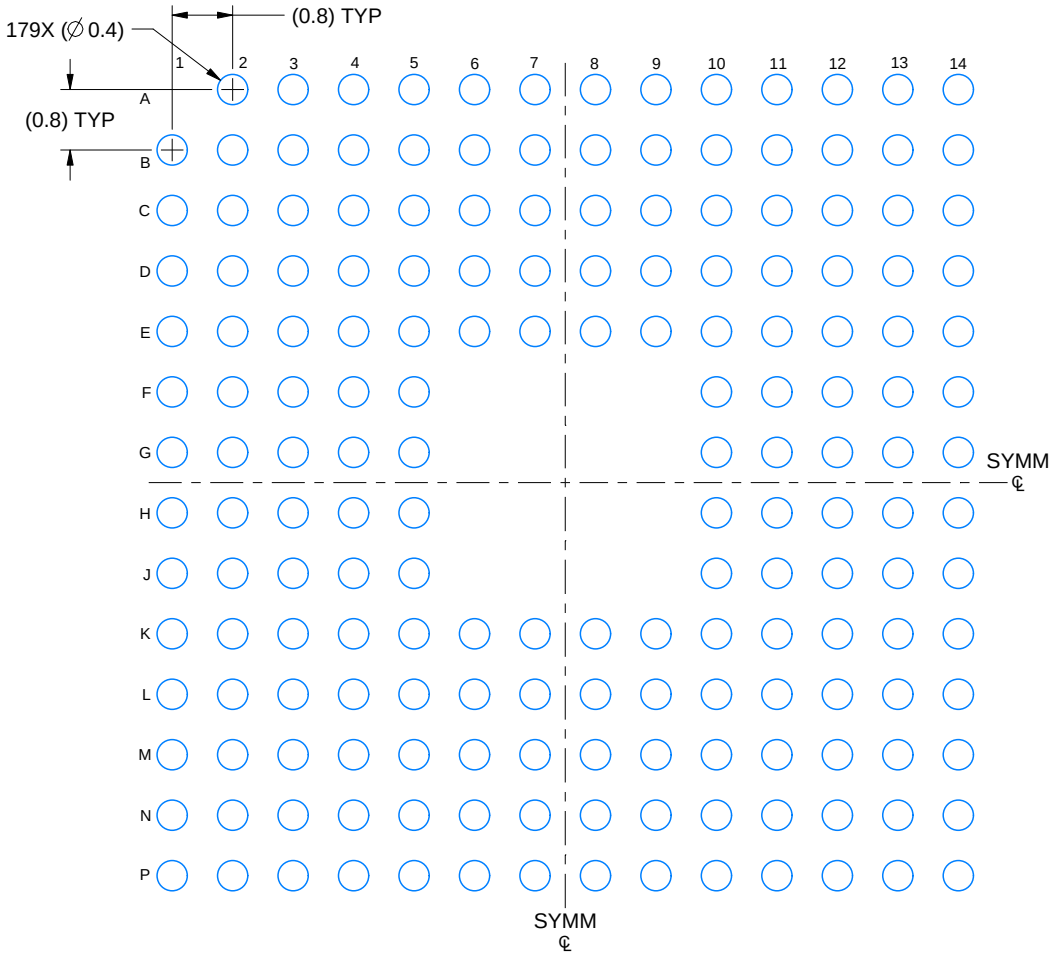
PLASTIC BALL GRID ARRAY



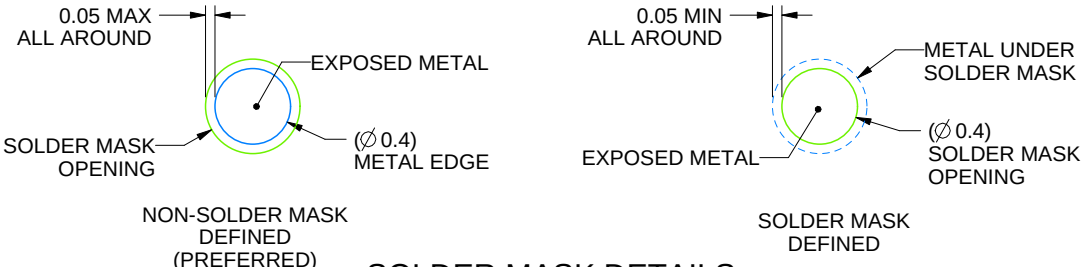
4225014/C 07/2020

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.



LAND PATTERN EXAMPLE
EXPOSED METAL SHOWN
SCALE: 10X

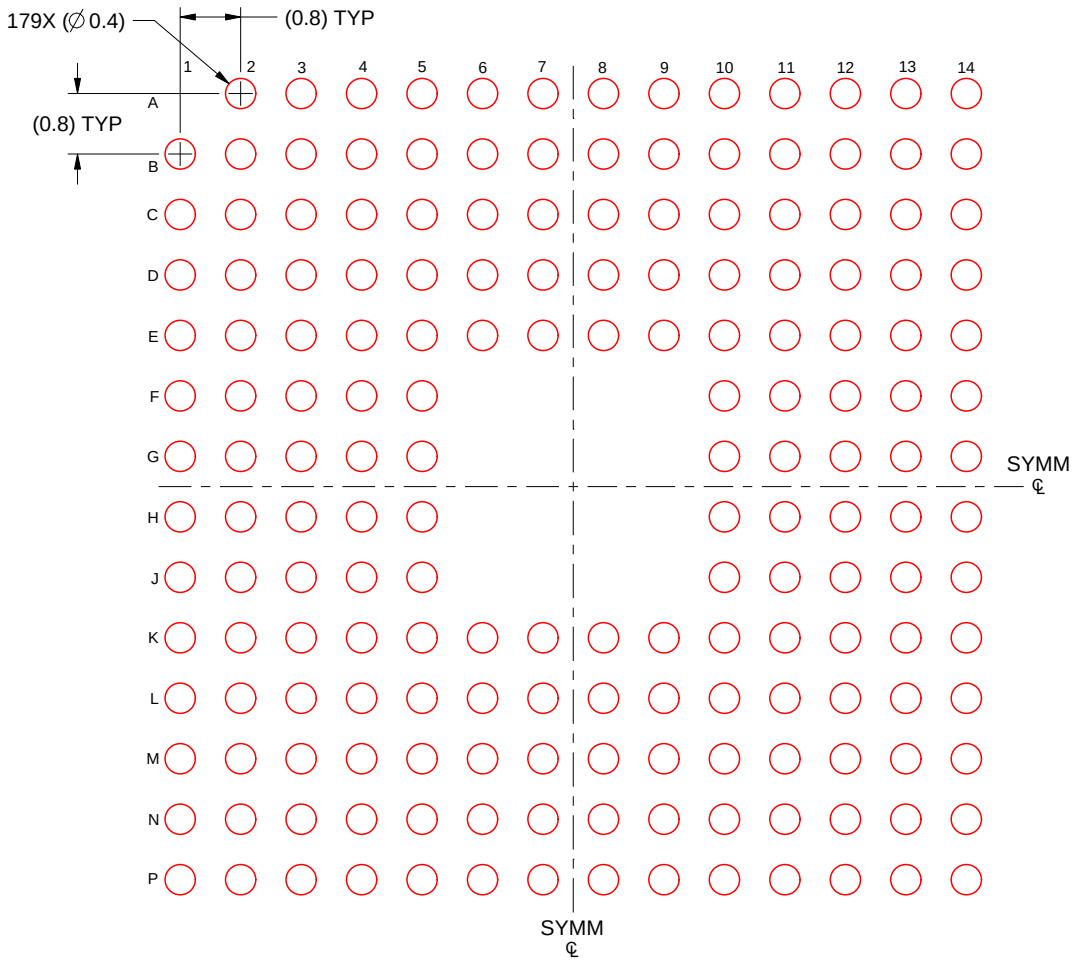


SOLDER MASK DETAILS
NOT TO SCALE

4225014/C 07/2020

NOTES: (continued)

3. Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints.
For information, see Texas Instruments literature number SPRAA99 (www.ti.com/lit/spraa99).



SOLDER PASTE EXAMPLE
BASED ON 0.150 mm THICK STENCIL
SCALE: 10X

4225014/C 07/2020

NOTES: (continued)

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

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265