

Manual Update Sheet

TMS320VC5503/VC5506/VC5507/VC5509A

MicroStar BGA Discontinued and Redesigned



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

MicroStar BGA™ and MicroStar Junior™ are trademarks of Texas Instruments.
All other trademarks are the property of their respective owners.

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 discontinued 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.

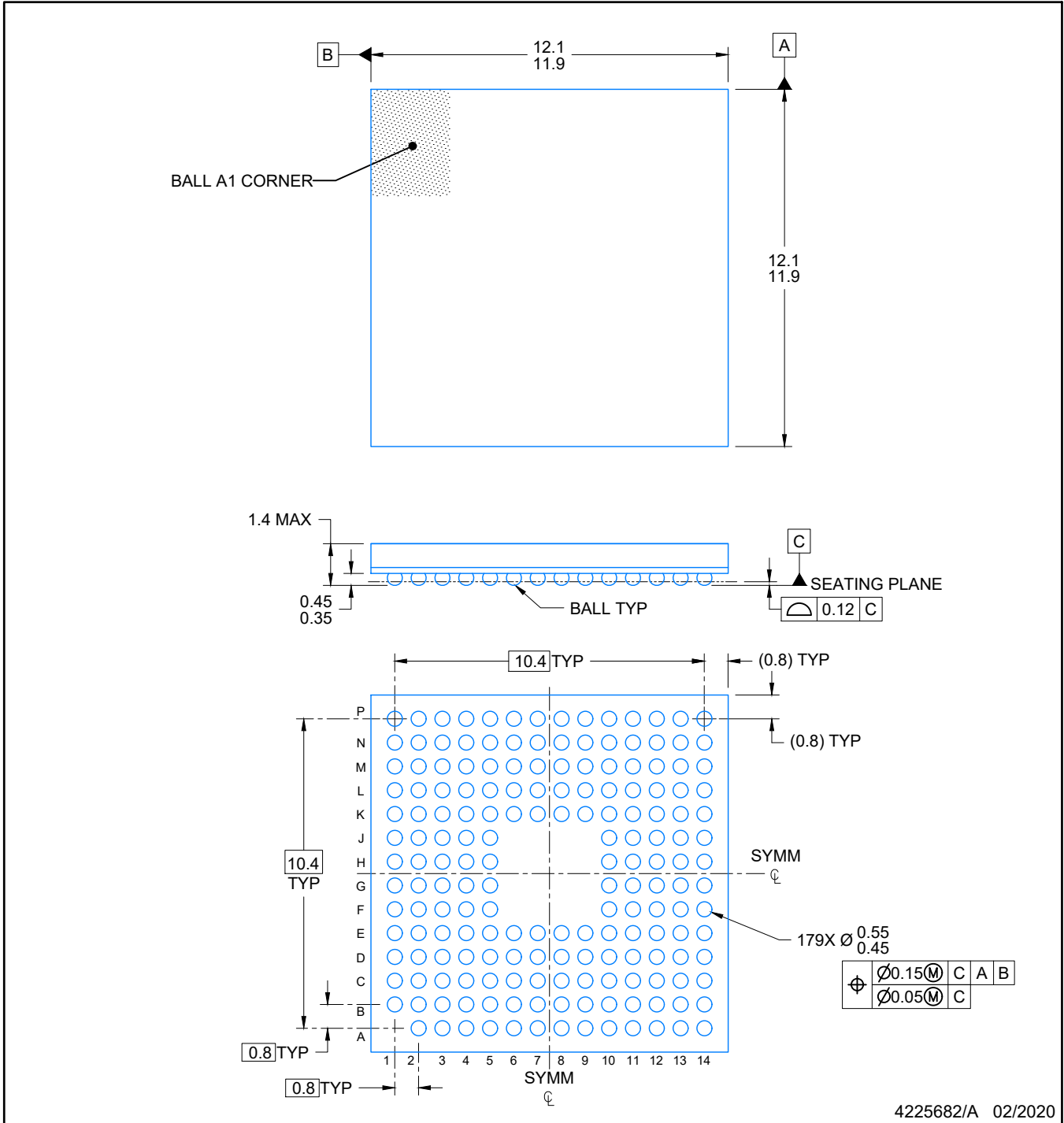
These devices have now been converted to an nfBGA package.

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 Datasheet
TMS320VC5503	TMS320VC5503ZHH	TMS320VC5503ZAY	SPRS245
TMS320VC5506	TMS320VC5506GHH	TMS320VC5506GBB	SPRS375
TMS320VC5506	TMS320VC5506ZHH	TMS320VC5506ZAY	SPRS375
TMS320VC5506	TMS320VC5506ZHHR	TMS320VC5506ZAYR	SPRS375
TMS320VC5507	TMS320VC5507GHH	TMS320VC5507GBB	SPRS244
TMS320VC5507	TMS320VC5507ZHH	TMS320VC5507ZAY	SPRS244
TMS320VC5507	TMS320VC5507ZHHR	TMS320VC5507ZAYR	SPRS244
TMS320VC5509A	TMS320VC5509AGHH	TMS320VC5509AGBB	SPRS205
TMS320VC5509A	TMS320VC5509AGHHR	TMS320VC5509AGBBR	SPRS205
TMS320VC5509A	TMS320VC5509AZHH	TMS320VC5509AZAY	SPRS205
TMS320VC5509A	TMS320VC5509AZHHR	TMS320VC5509AZAYR	SPRS205



4225682/A 02/2020

NOTES:

NanoFree is a trademark of Texas Instruments.

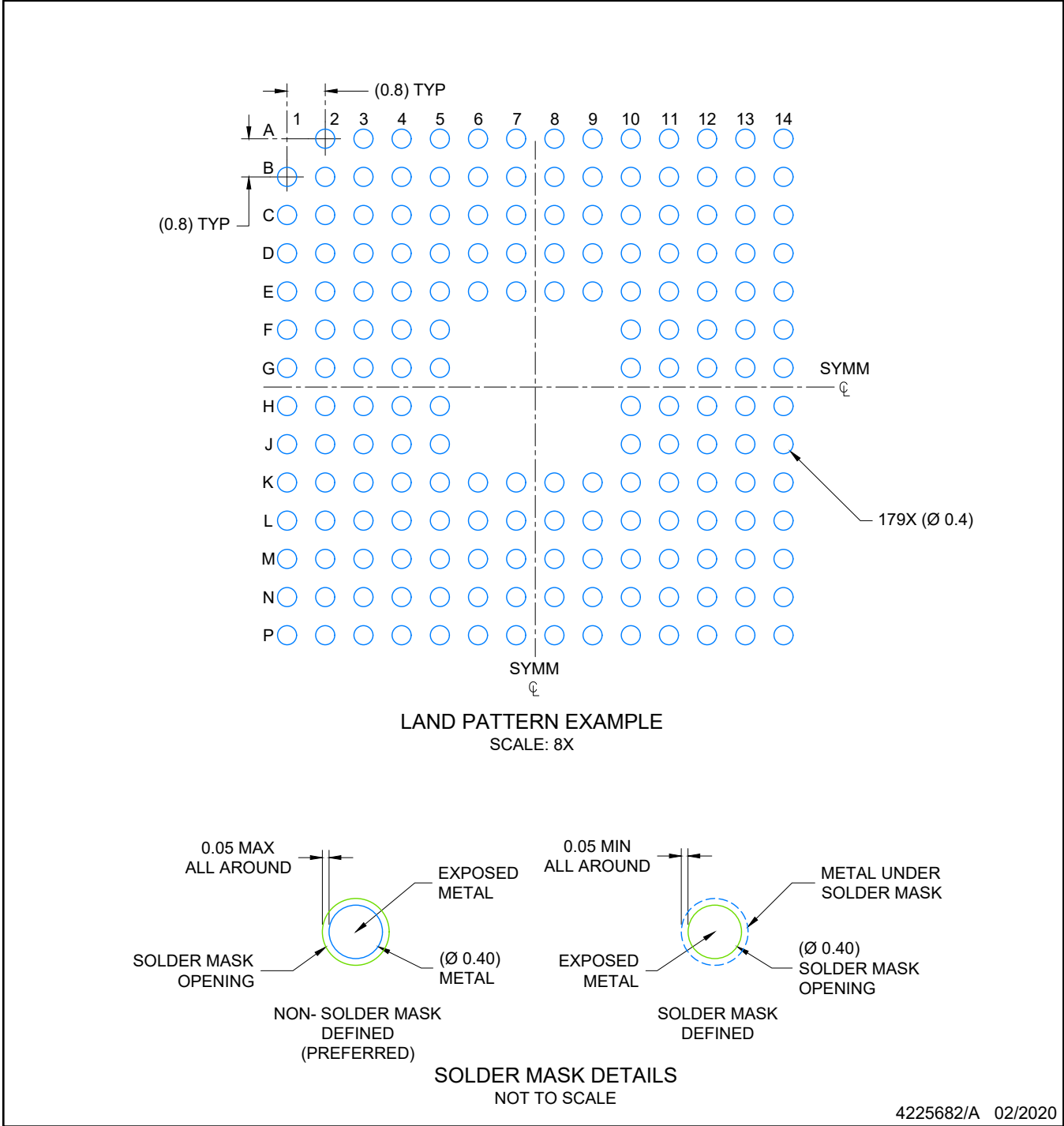
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.

EXAMPLE BOARD LAYOUT

GBB0179A

NFBGA - 1.4 mm max height

PLASTIC BALL GRID ARRAY



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NOTES: (continued)

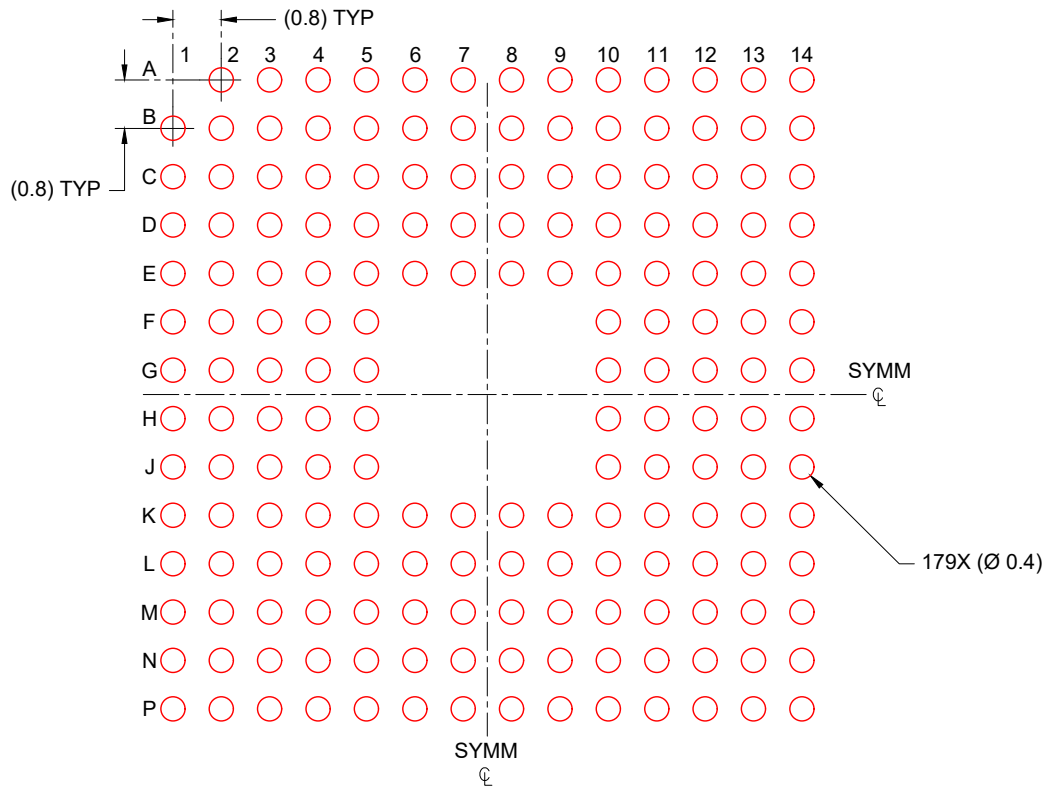
- 3. Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. Refer to Texas Instruments Literature number SNVA009 (www.ti.com/lit/snva009).

EXAMPLE STENCIL DESIGN

GBB0179A

NFBGA - 1.4 mm max height

PLASTIC BALL GRID ARRAY

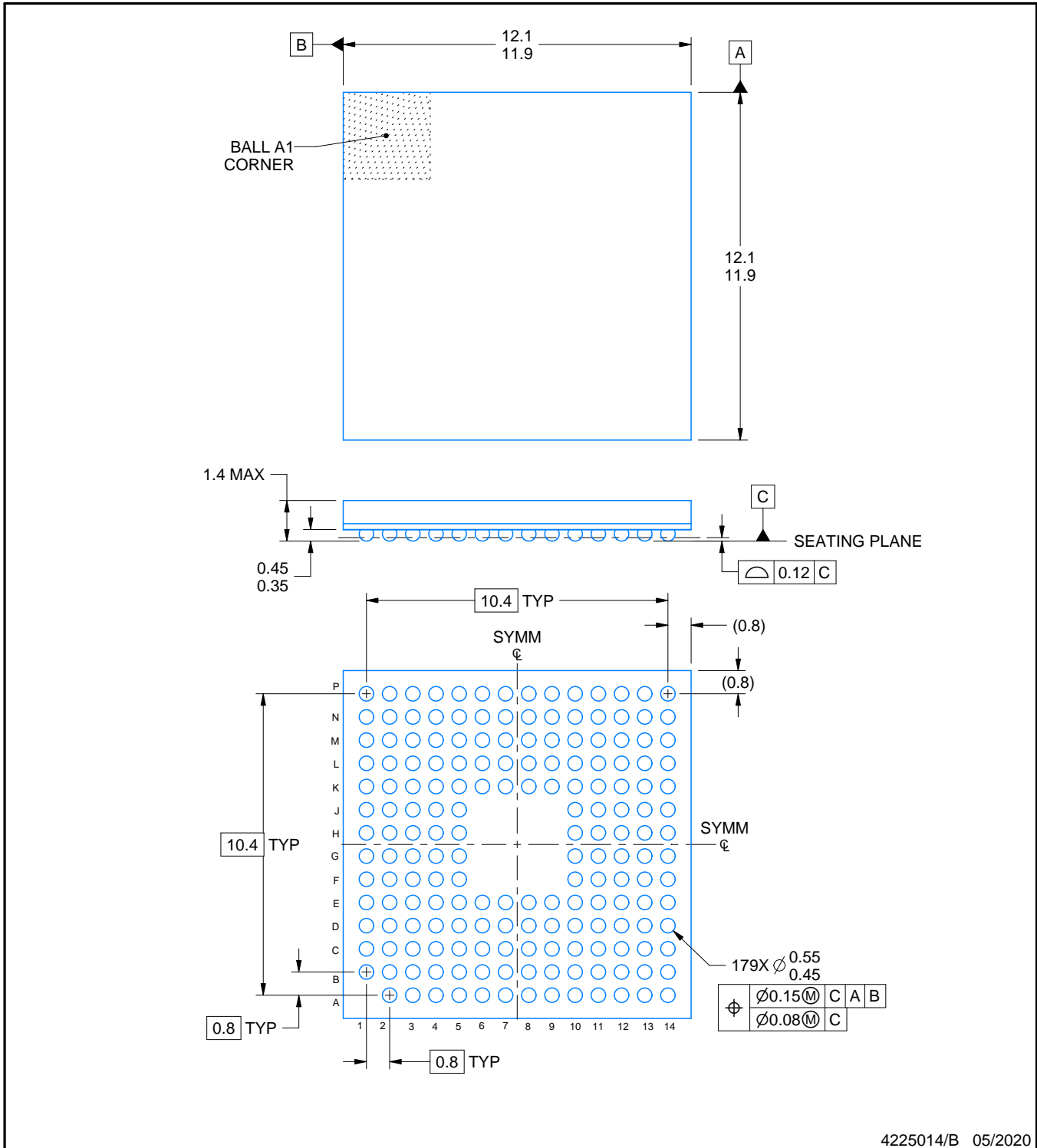
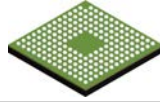


SOLDER PASTE EXAMPLE
BASED ON 0.150 mm THICK STENCIL
SCALE: 8X

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NOTES: (continued)

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



4225014/B 05/2020

NOTES:

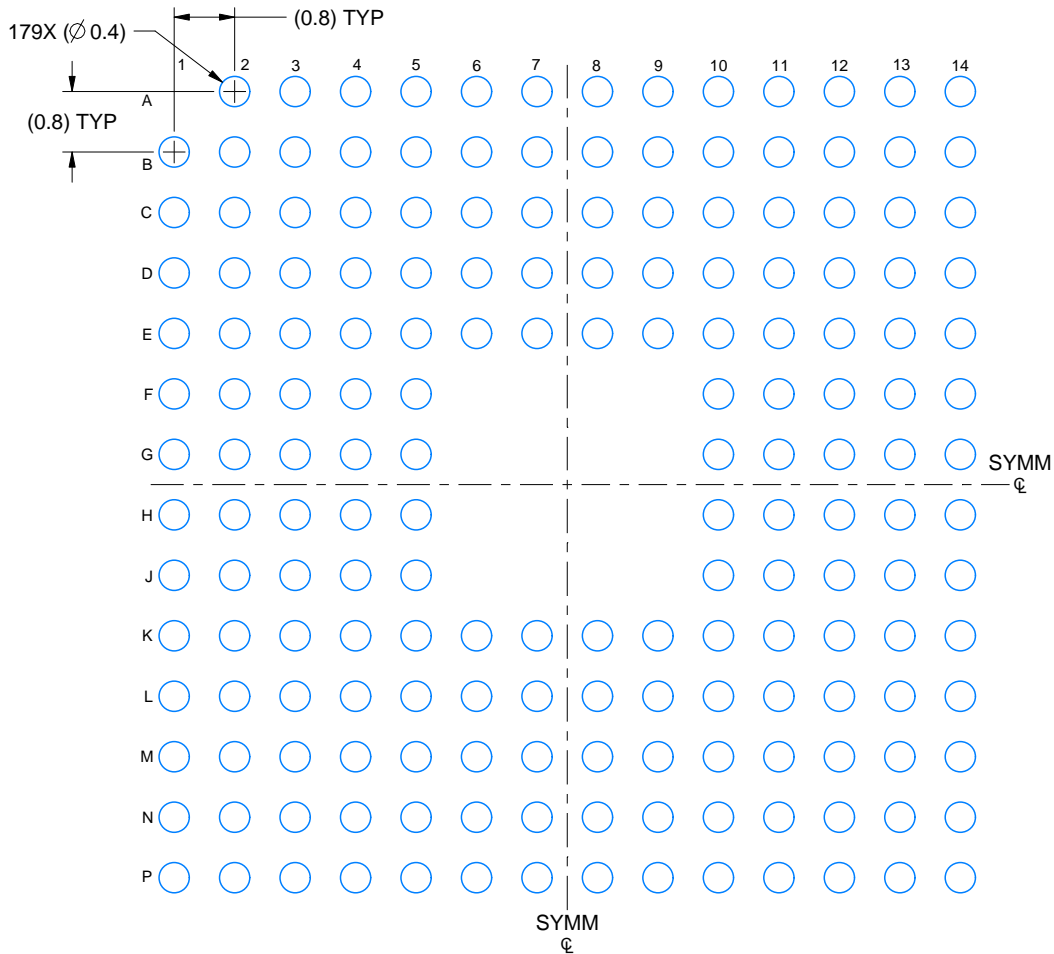
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.

EXAMPLE BOARD LAYOUT

ZAY0179A

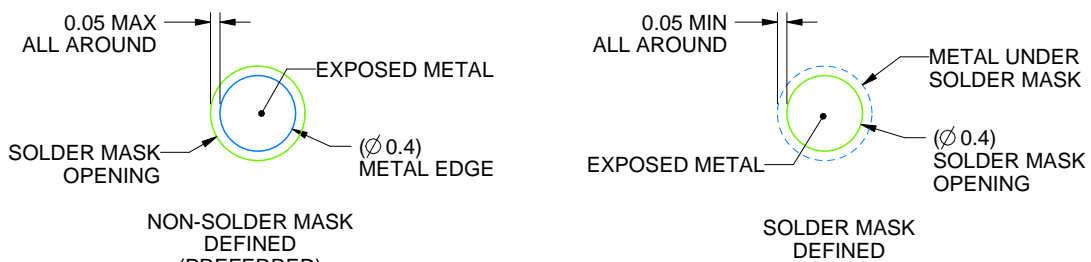
NFBGA - 1.4 mm max height

PLASTIC BALL GRID ARRAY



LAND PATTERN EXAMPLE

EXPOSED METAL SHOWN
SCALE: 10X



SOLDER MASK DETAILS

NOT TO SCALE

4225014/B 05/2020

NOTES: (continued)

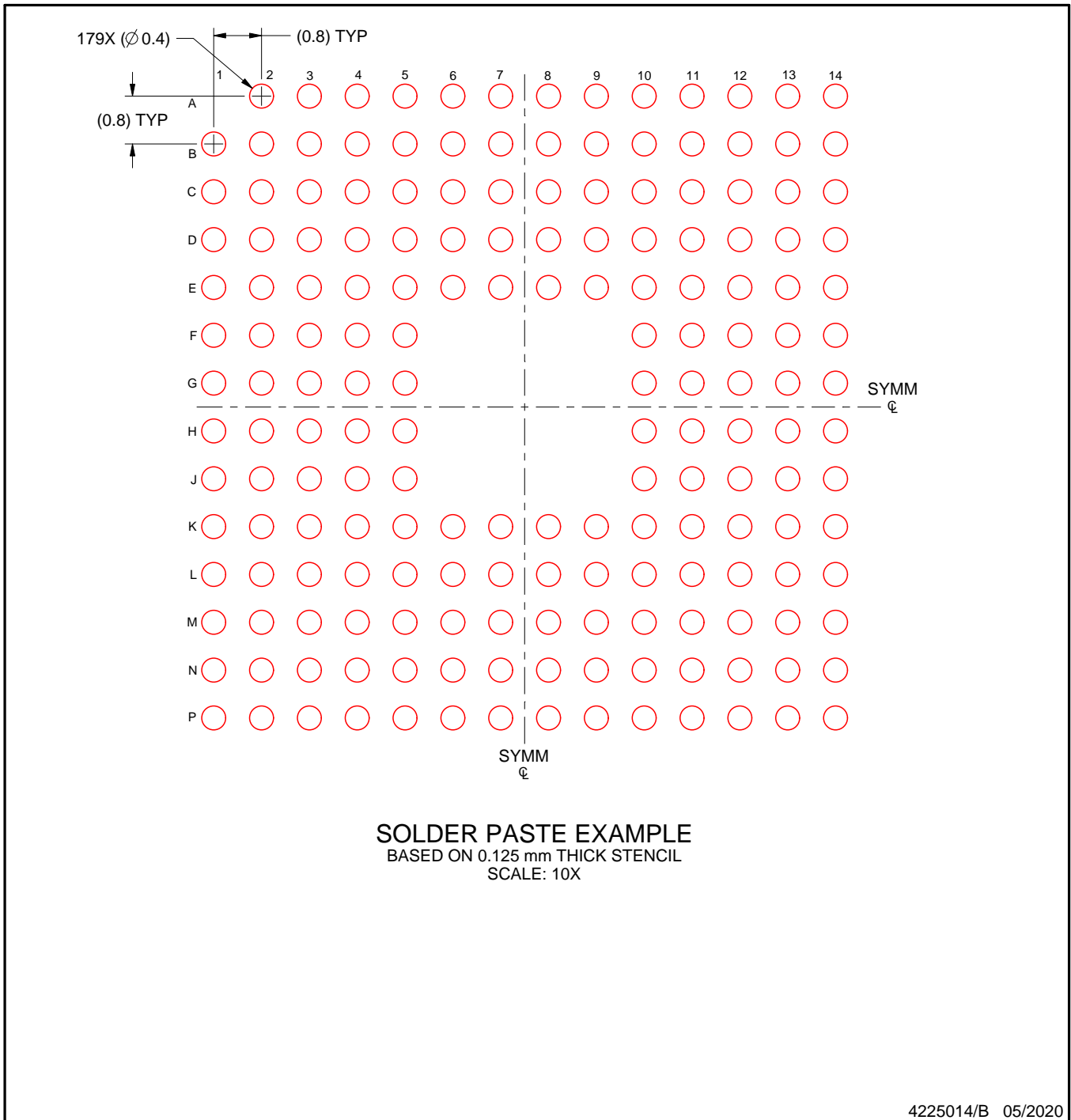
- Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. For information, see Texas Instruments literature number SPRAA99 (www.ti.com/lit/spraa99).

EXAMPLE STENCIL DESIGN

ZAY0179A

NFBGA - 1.4 mm max height

PLASTIC BALL GRID ARRAY



NOTES: (continued)

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

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