Manual Update Sheet

MicroStar BGA Discontinued and Redesigned

Clock and Timing Solutions

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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1 Package Redesign Details

Explanation

The devices in the MicroStar BGA™ packaging were redesigned using a laminate nfBGA package. The nfBGA package offers data sheet-equivalent electrical performance and data sheet-equivalent or better thermal performance. It provides the same X and Y dimensions as MicroStar BGA, and provides pin-to-pin and footprint compatibility. The nFBGA PCB land pattern and stencil recommendations have been updated to achieve better soldering results after extensive testing and evaluation. For more details, please refer to this nfBGA Package 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
ZQL	NMK
ZKE	NMJ

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
CDCU877A	CDCU877A**ZQL**R	CDCU877A**NMK**R	SCAS688D
CDCU877A	CDCU877A**ZQL**T	CDCU877A**NMK**T	SCAS688D
CDCUA877	CDCUA877**ZQL**R	CDCUA877**NMK**R	SCAS769A
CDCUA877	CDCUA877**ZQL**T	CDCUA877**NMK**T	SCAS769A
CDCU2A877	CDCU2A877**ZQL**R	CDCU2A877**NMK**R	SCAS827A
CDCU2A877	CDCU2A877**ZQL**T	CDCU2A877**NMK**T	SCAS827A
SN74SSTU32864	SN74SSTU32864**ZKE**R	SN74SSTU32864**NMJ**R	SCES434
SN74SSTUB32864	SN74SSTUB32864**ZKE**R	SN74SSTUB32864**NMJ**R	SCAS791A
SN74SSTUB32866	SN74SSTUB32866**ZKE**R	SN74SSTUB32866**NMJ**R	SCAS792C

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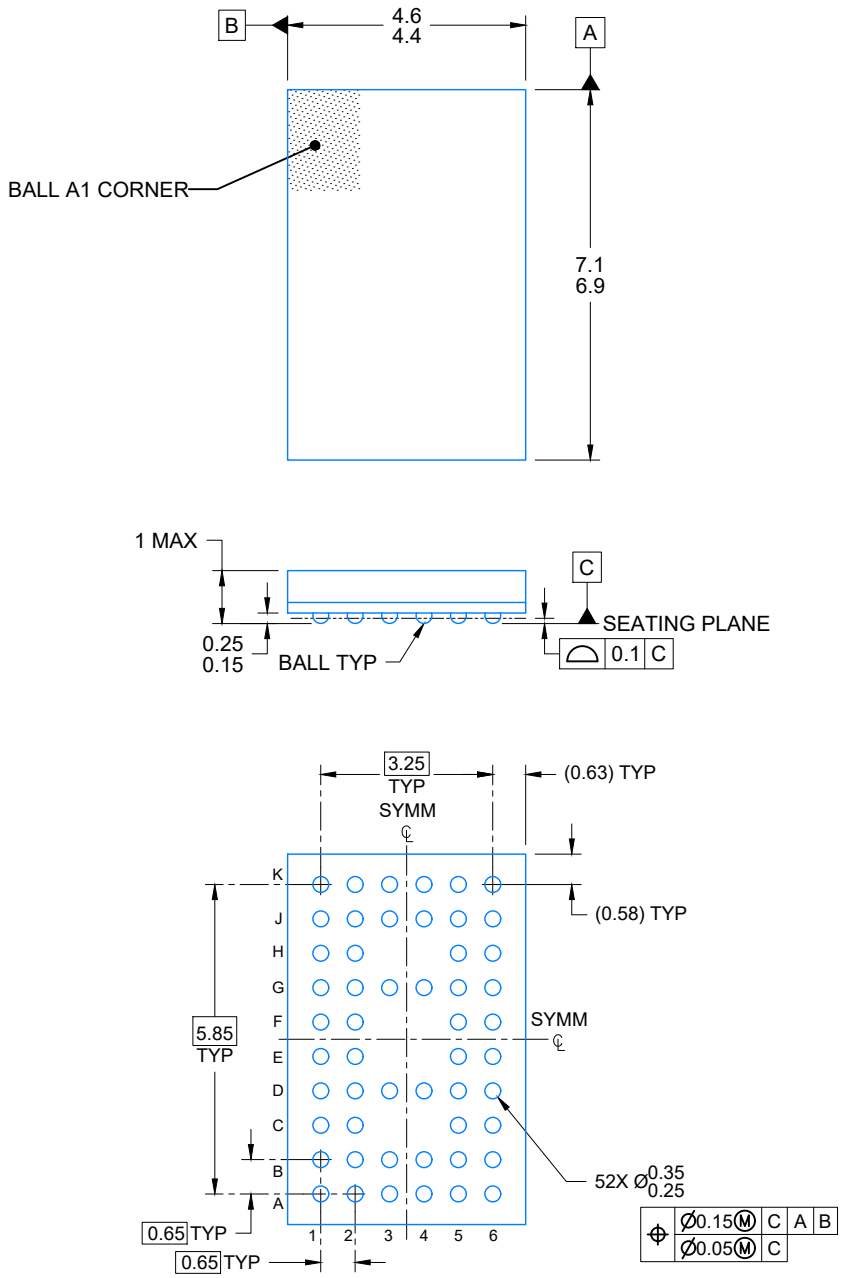
PACKAGE OUTLINE

NMK0052A

NFBGA - 1 mm max height

PLASTIC BALL GRID ARRAY



4225135/A 08/2019

NOTES:

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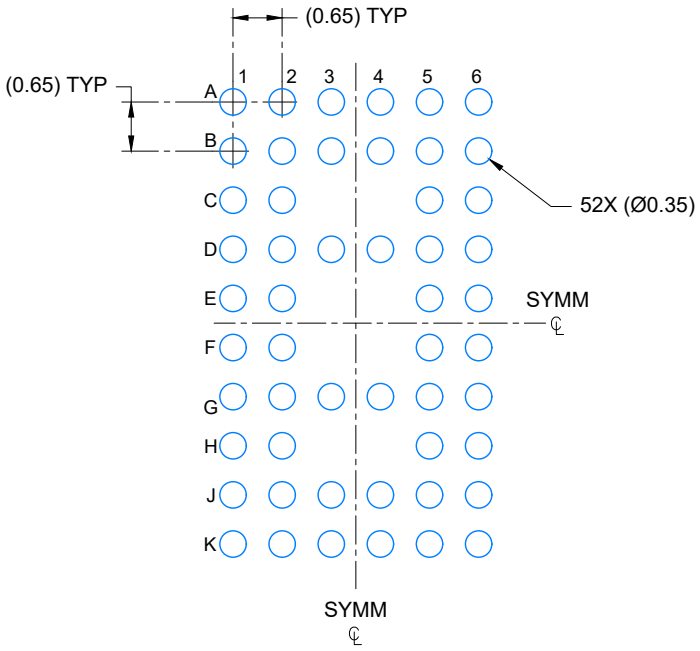
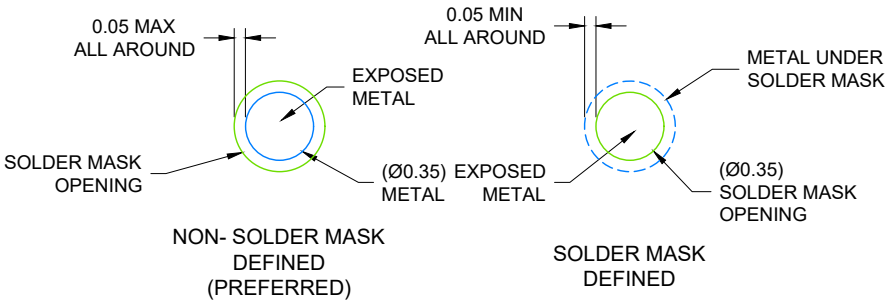
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.



LAND PATTERN EXAMPLE
SCALE: 10X



SOLDER MASK DETAILS
NOT TO SCALE

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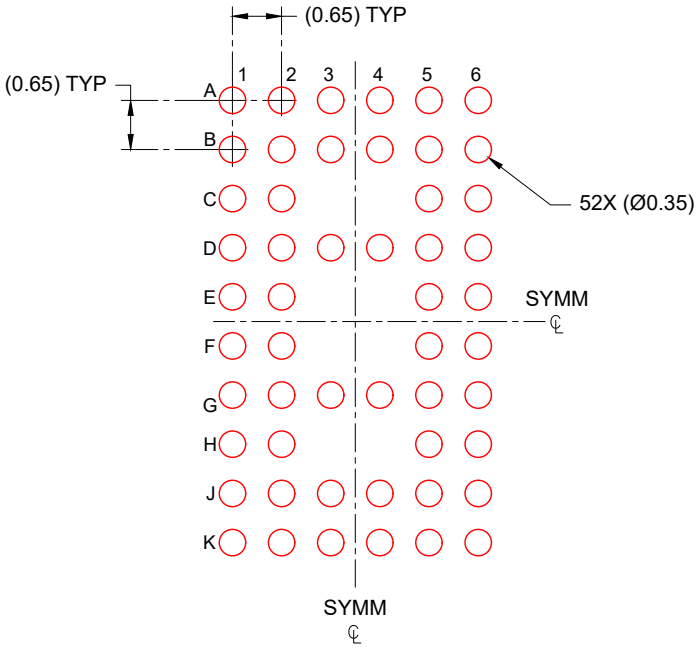
NOTES: (continued)

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).



SOLDER PASTE EXAMPLE
BASED ON 0.125 mm THICK STENCIL
SCALE: 10X

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NOTES: (continued)

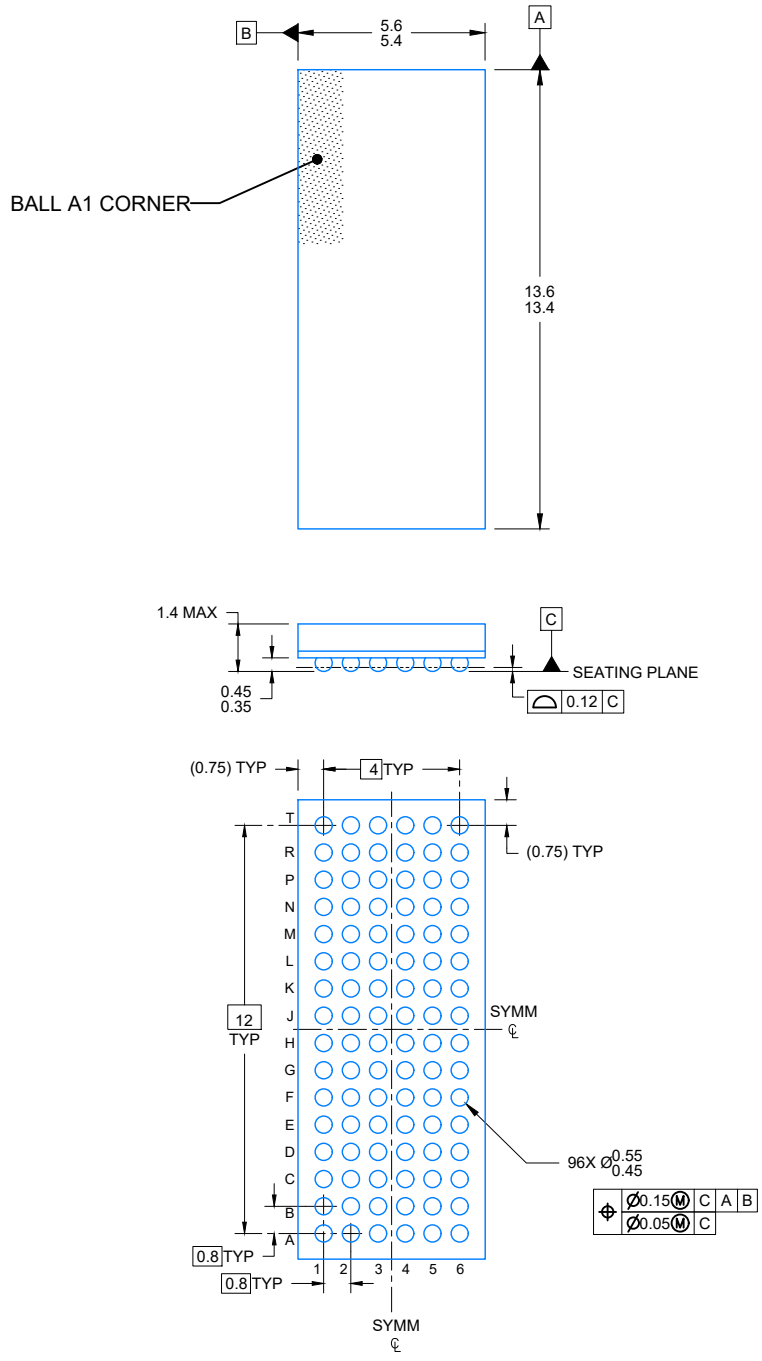
4. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release.

PACKAGE OUTLINE

NMJ0096A

NFBGA - 1.4 mm max height

PLASTIC BALL GRID ARRAY



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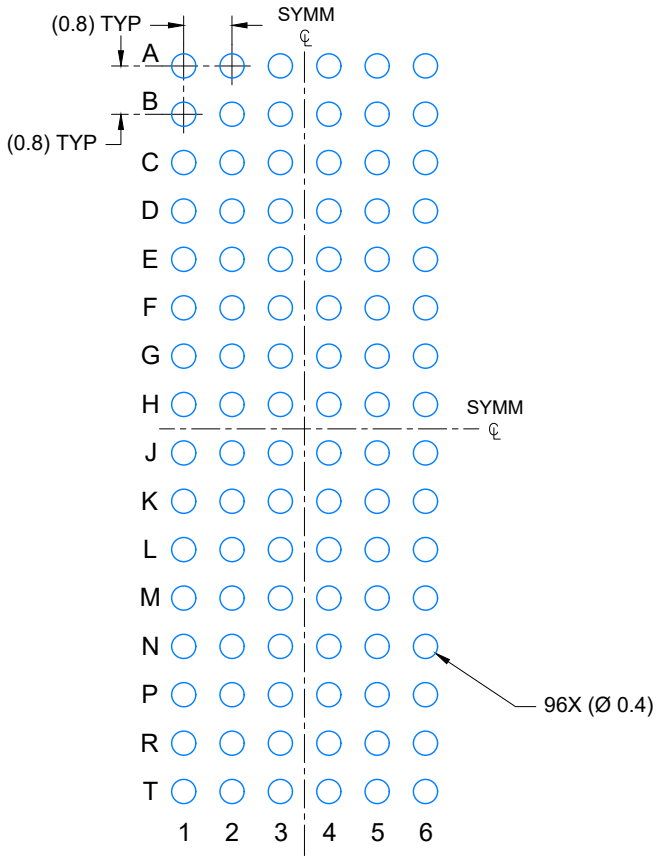
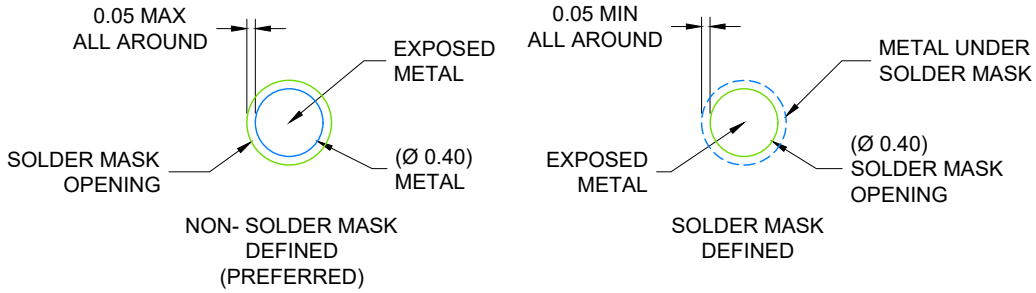
NOTES:

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

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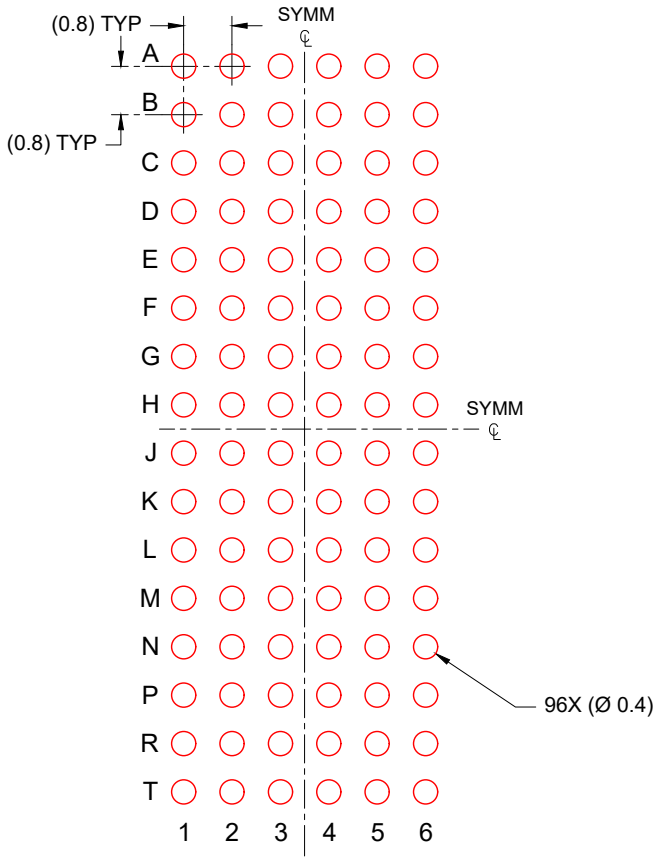
NOTES: (continued)

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).



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.

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