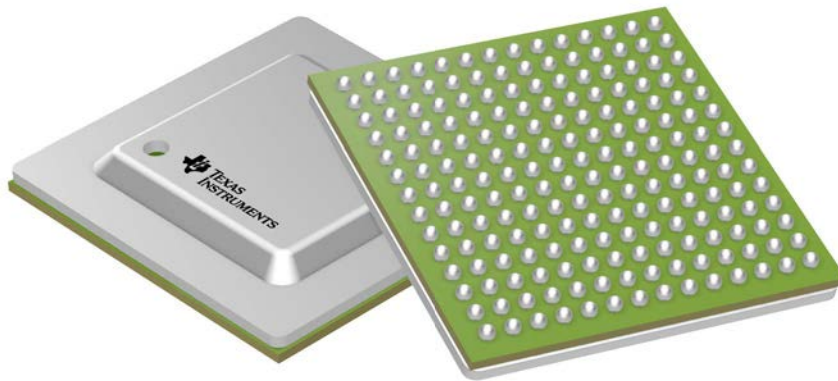


## GENERIC PACKAGE VIEW

**ABB 196**

**FCBGA - 2.94 mm max height**

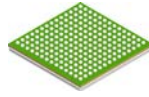
BALL GRID ARRAY



Images above are just a representation of the package family, actual package may vary.  
Refer to the product data sheet for package details.

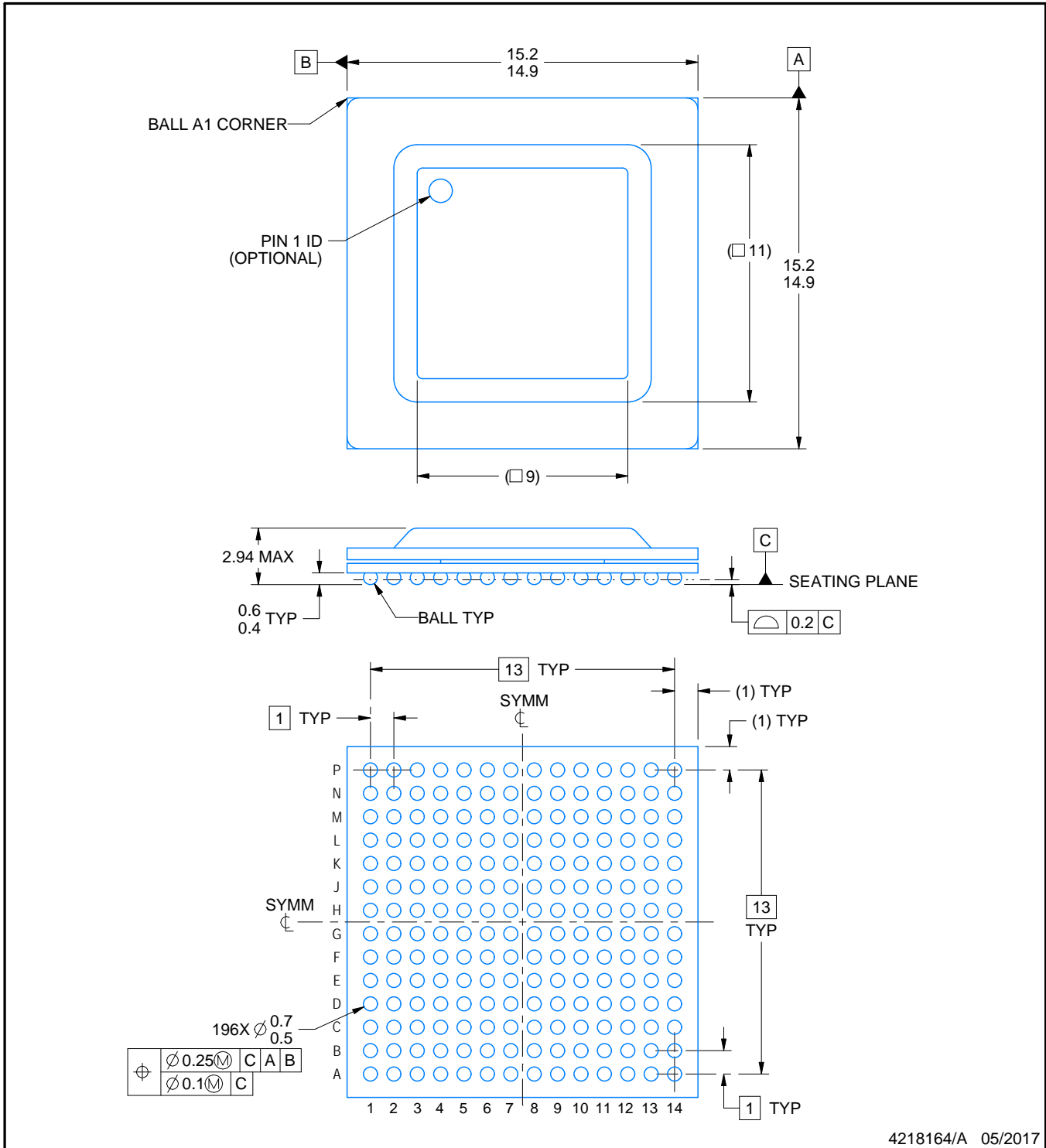
4218196/C

# ABB0196A



# PACKAGE OUTLINE FCBGA - 2.94 mm max height

BALL GRID ARRAY



4218164/A 05/2017

## NOTES:

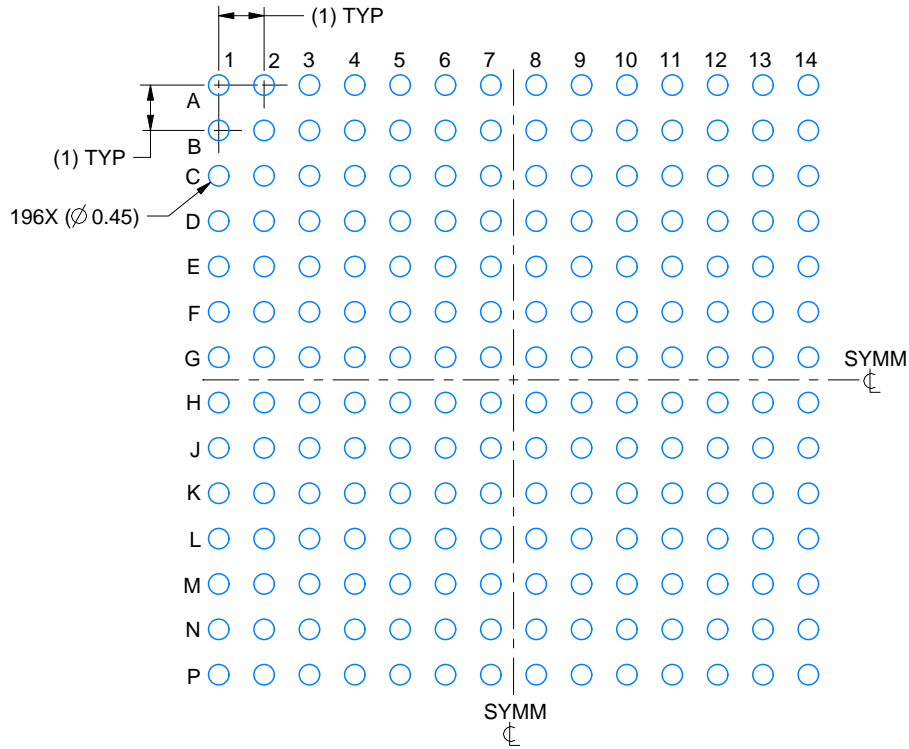
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. Pb-Free die bump and solder ball.

# EXAMPLE BOARD LAYOUT

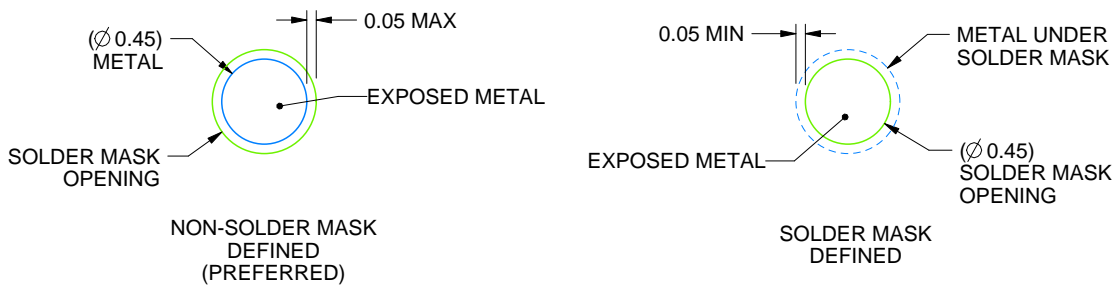
ABB0196A

FCBGA - 2.94 mm max height

BALL GRID ARRAY



LAND PATTERN EXAMPLE  
EXPOSED METAL SHOWN  
SCALE:6X



SOLDER MASK DETAILS  
NOT TO SCALE

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NOTES: (continued)

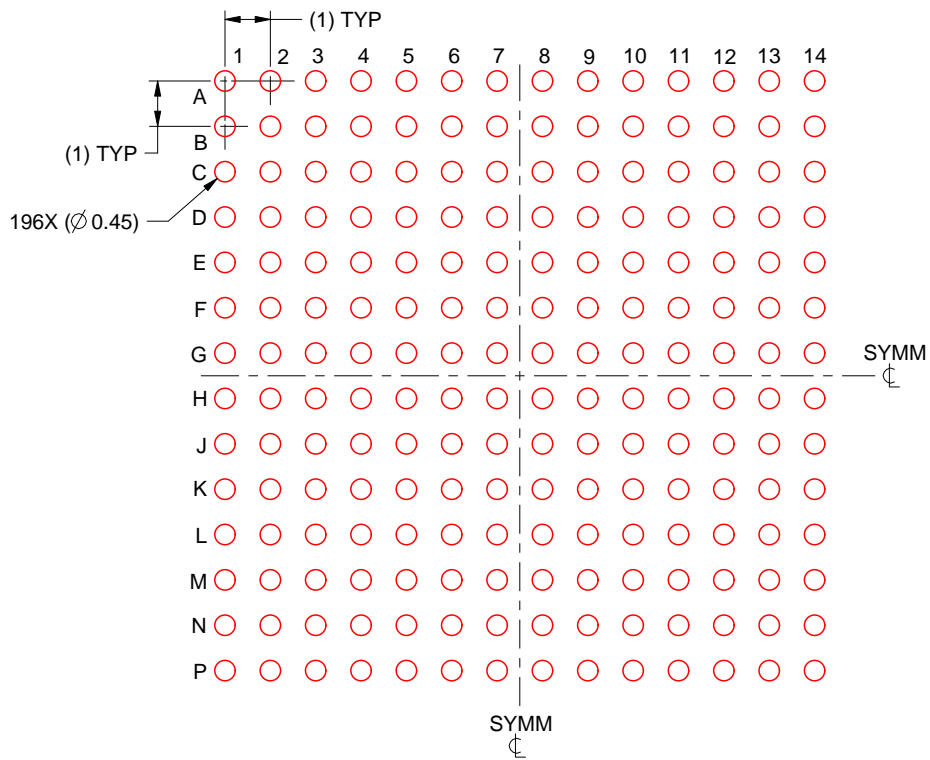
- Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. For more information, see Texas Instruments literature number SPRU811 ([www.ti.com/lit/spru811](http://www.ti.com/lit/spru811)).

# EXAMPLE STENCIL DESIGN

ABB0196A

FCBGA - 2.94 mm max height

BALL GRID ARRAY



SOLDER PASTE EXAMPLE  
BASED ON 0.15 mm THICK STENCIL  
SCALE:6X

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NOTES: (continued)

5. 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  
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