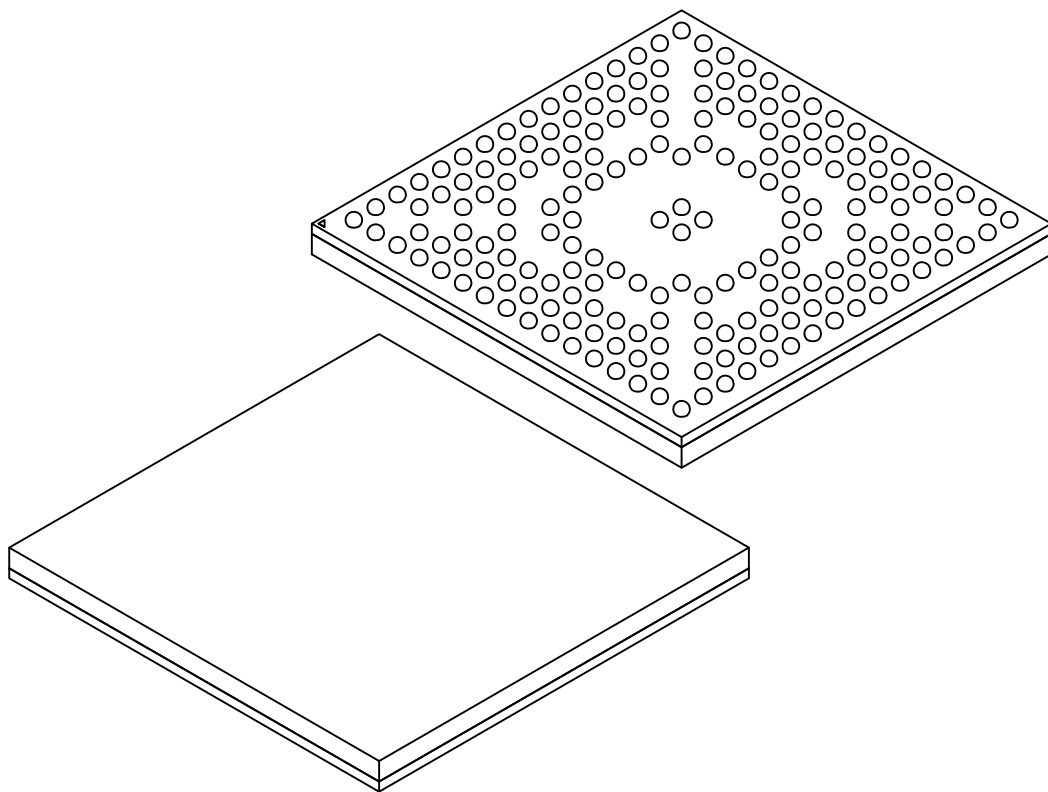


# 196-Lead Thin Fine Pitch Ball Grid Array (4GB) - 11x11x1.2 mm Body [TFBGA]

**Note:** For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



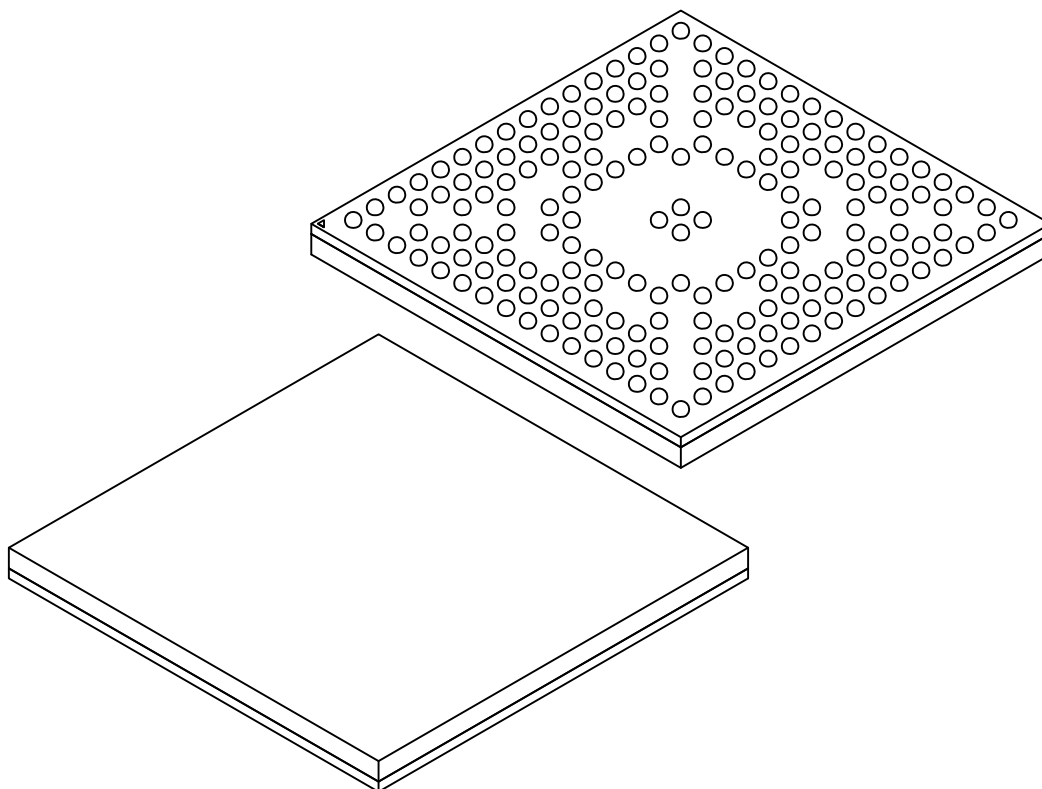
		Units	MILLIMETERS		
Dimension		Limits	MIN	NOM	MAX
Number of Terminals	N		196		
Pitch	e		0.65 BSC		
Overall Height	A		-	-	1.20
Standoff	A1		0.22	-	0.32
Substraight Thickness	S		0.26 REF		
Mold Cap Height	M		0.53 REF		
Overall Length	D		11.00 BSC		
Overall Terminal Pitch	D1		9.75 BSC		
Overall Width	E		11.00 BSC		
Overall Terminal Pitch	E1		9.75 BSC		
Terminal Diameter	b		0.32	-	0.42

**Notes:**

- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Dimensioning and tolerancing per ASME Y14.5M  
BSC: Basic Dimension. Theoretically exact value shown without tolerances.  
REF: Reference Dimension, usually without tolerance, for information purposes only, displayed in parentheses.

## 196-Lead Thin Fine Pitch Ball Grid Array (4GB) - 11x11x1.2 mm Body [TFBGA]

**Note:** For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	196		
Pitch	e	0.65 BSC		
Overall Height	A	-	-	1.20
Standoff	A1	0.22	-	0.32
Substraight Thickness	S	0.26 REF		
Mold Cap Height	M	0.53 REF		
Overall Length	D	11.00 BSC		
Overall Terminal Pitch	D1	9.75 BSC		
Overall Width	E	11.00 BSC		
Overall Terminal Pitch	E1	9.75 BSC		
Terminal Diameter	b	0.32	-	0.42

**Notes:**

- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Dimensioning and tolerancing per ASME Y14.5M  
BSC: Basic Dimension. Theoretically exact value shown without tolerances.  
REF: Reference Dimension, usually without tolerance, for information purposes only, displayed in parentheses.