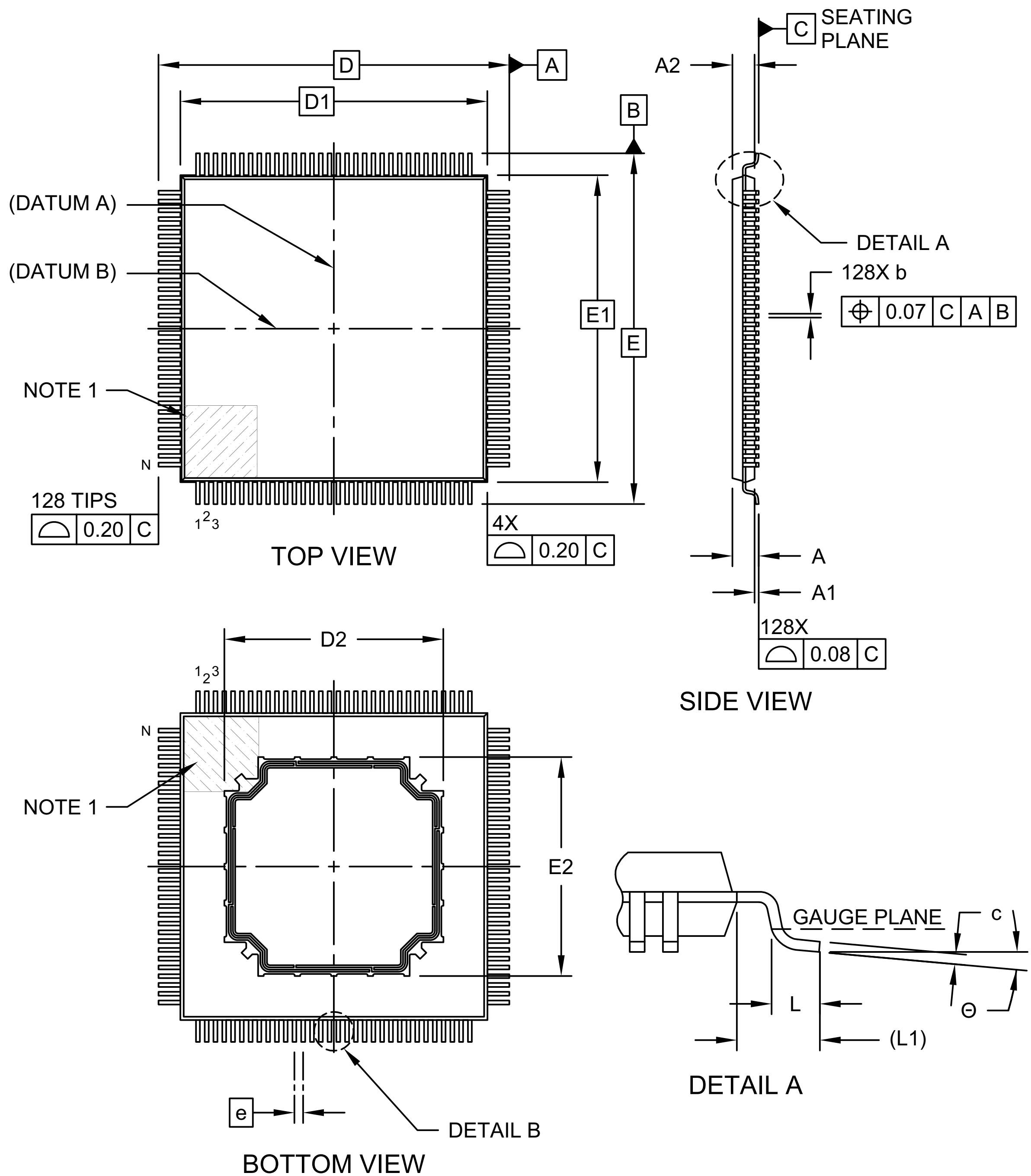
MICROCHIP

128-Lead Thin Quad Flatpack (6XX) - 14x14x1.0 mm Body [TQFP] With 10x10 mm Exposed Pad

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



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128-Lead Thin Quad Flatpack (6XX) - 14x14x1.0 mm Body [TQFP] With 10x10 mm Exposed Pad

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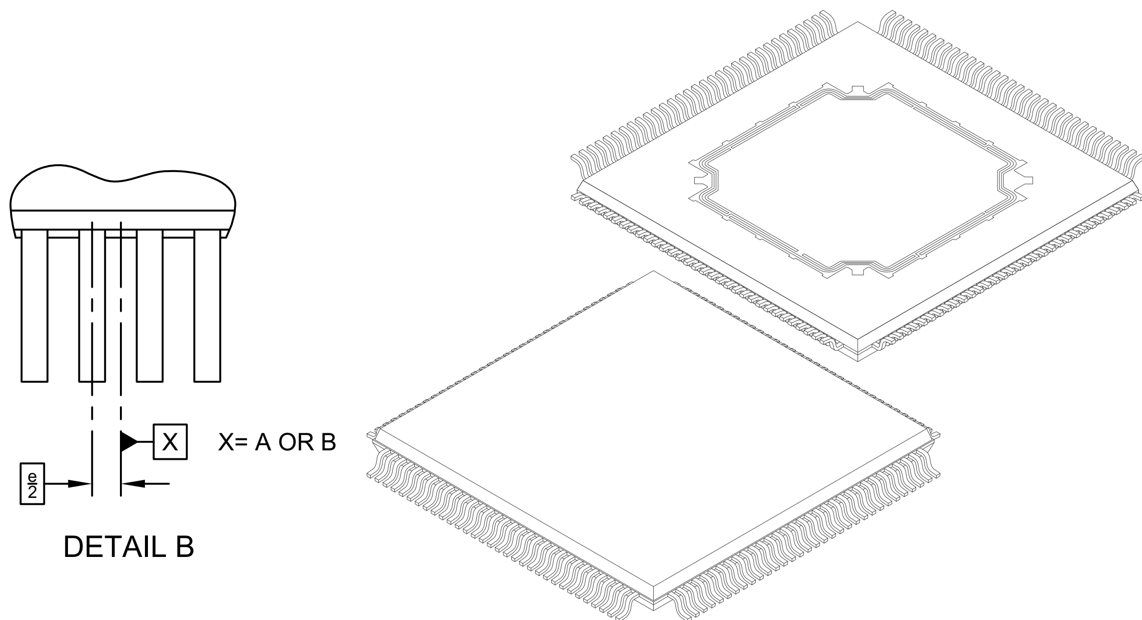

	Units	MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	128		
Pitch	e	0.40 BSC		
Overall Height	A	-	-	1.20
Standoff	A1	0.05	-	0.15
Molded Package Thickness	A2	0.95	1.00	1.05
Overall Length	D	16.00 BSC		
Molded Package Length	D1	14.00 BSC		
Exposed Pad Length	D2	9.85	10.00	10.15
Overall Width	E	16.00 BSC		
Molded Package Width	E1	14.00 BSC		
Exposed Pad Width	E2	9.85	10.00	10.15
Terminal Width	b	0.13	0.18	0.23
Terminal Length	L	0.45	0.60	0.75
Terminal Thickness	c	0.09	-	0.20
Footprint	(L1)	1.00 REF		
Footprint Angle	Θ	0°	-	7°

Notes:

1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. 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.

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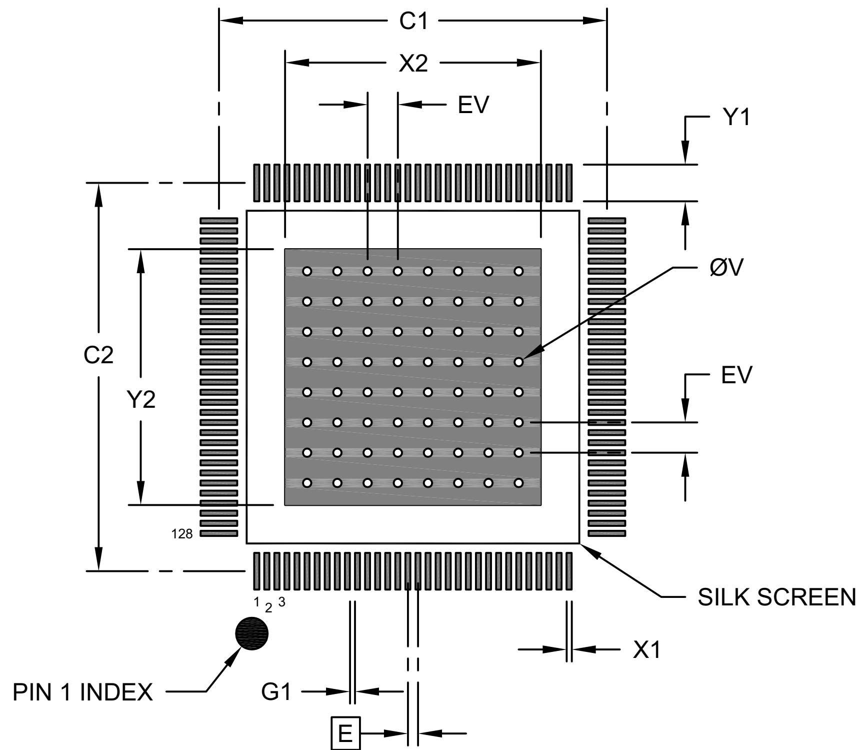

RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E		0.40 BSC	
Center Pad Width	X2			10.50
Center Pad Length	Y2			10.50
Contact Pad Spacing	C1		15.40	
Contact Pad Spacing	C2		15.40	
Contact Pad Width (X128)	X1			0.20
Contact Pad Length (X128)	Y1			1.54
Contact Pad to Contact Pad (X124)	G1	0.20		
Thermal Via Diameter	V		0.33	
Thermal Via Pitch	EV		1.20	

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M
   BSC: Basic Dimension. Theoretically exact value shown without tolerances.
2. For best soldering results, thermal vias, if used, should be filled or tented to avoid solder loss during reflow process

Microchip Technology Drawing C04-2418B

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