


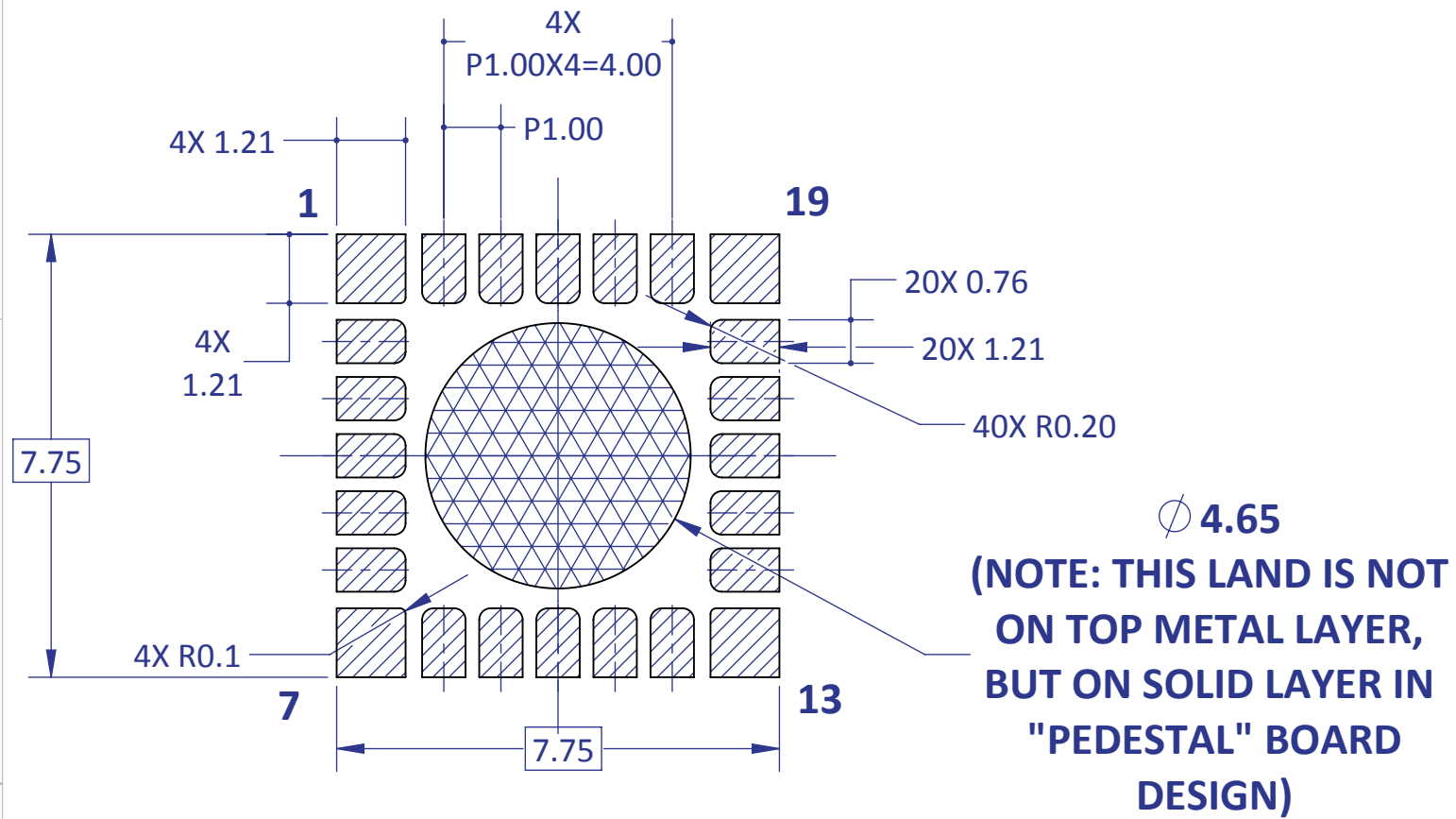
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	INITIAL RELEASE: 1) RELEASING WITH NEW SUBSTRATE, PN: KB-LB2C23	7/25/2012	DAA
B1	REPLACED HEMISPHERIC LENS WITH MUSHROOM LENS.	8/23/2012	DAA
B2	CHANGED FROM DIE TYPE. AS SUCH, UPDATED THE EMITTER PIN OUT TABLE.	9/12/2012	DAA
B3	UPDATED RECOMMENDED MINIMUM LAND, STENCIL, AND SOLDER MASK OPENING REQUIREMENTS TO REFLECT SWITCH TO RECOMMENDING CU "PEDESTAL" MCPCB BOARD DESIGN.	2/26/2013	DAA

Emitter Pin Out				
Ch.	Pin	Function	Dies	String
1	17, 18	Anode	A, B, E	1x3
	23, 24	Cathode		
2	14, 15	Anode	D, F, H	1x3
	2, 3	Cathode		
3	11, 12	Anode	C, G, I	1x3
	5, 6	Cathode		
NC Pins: 1, 4, 7, 8, 9, 10, 13, 16, 19, 20, 21, 22				
DNC pins: none				

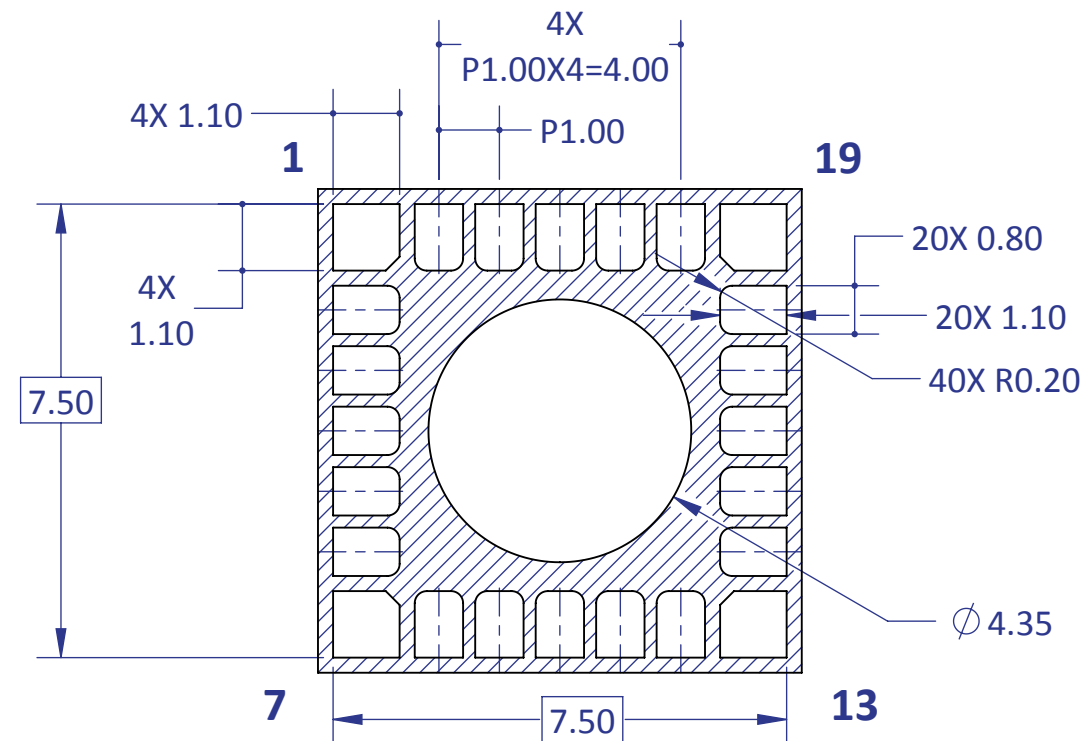
- NOTES:
- TOLERANCE BLOCK DOES NOT APPLY.
 - UNLESS OTHERWISE NOTED ON THE DIMENSIONS, GENERAL TOLERANCE FOR ALL DIMENSIONS IS $\pm 0.20\text{mm}$.

 Third Angle Projection DIMENSIONS ARE IN MILLIMETERS TOLERANCES: .X ± 0.5 .XX ± 0.25 .XXX ± 0.10 Angle $\pm 1^\circ$ MATERIAL: N/A FINISH: N/A	NAME		DATE	LED Engin, Inc. TITLE: LZ9 (9 DIE) LED EMITTER on 7mm x 7mm CERAMIC	
	DRAWN	DAA	07/24/12		
	CHECKED				
	ENG APPR.				
	MFG APPR.			SCALE: 8:1	
	Q.A.				
FILE NAME: LZ9-00XX00-P3_9die-Emitter_RevB(customer)				SHEET 1 OF 2	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LED ENGIN, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LED ENGIN, INC. IS PROHIBITED.		DWG. NO. LZ9-00XX00-P3		REV B3	

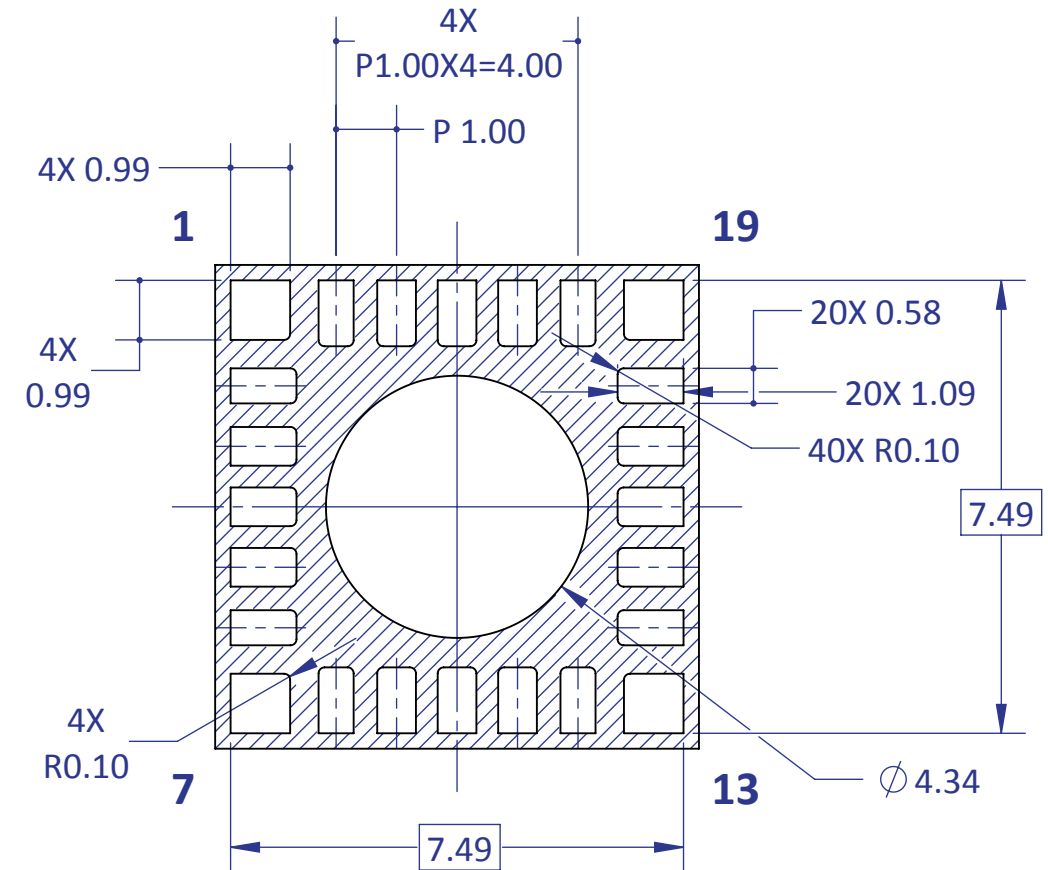
Recommended Exposed Minimum Land Pattern
(NOTE: Recommending Copper "PEDESTAL" MCPCB Board Design)



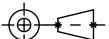
Recommended Solder Mask Openings
(based on Recommended Exposed Minimum Land Pattern)



Recommended 8mil Stencil Apertures
(based on Recommended Exposed Minimum Land Pattern)



NOTE: TOLERANCE BLOCK DOES NOT APPLY.
ALL DIMENSIONS ARE TYPICAL.

 Third Angle Projection		NAME	DATE	<div>LED Engin, Inc.</div> <div>TITLE: LZ9 (9 DIE) LED EMITTER on 7mm x 7mm CERAMIC</div>		
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: .X ± 0.5 .XX ± 0.25 .XXX ± 0.10 Angle ± 1°	DRAWN	DAA	07/24/12			
	CHECKED					
	ENG APPR.					
	MFG APPR.					
MATERIAL:		Q.A.		SIZE B	DWG. NO. LZ9-00XX00-P3	REV B3
N/A	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LED ENGIN, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LED ENGIN, INC. IS PROHIBITED.					
FINISH:						
N/A						
FILE NAME: LZ9-00XX00-P3_9die-Emitter_RevB(customer)				SCALE: 8:1		SHEET 2 OF 2