

**NOTES:**

1. ALL DIMENSIONS AND TOLERANCES REFER TO AGE 144-0894
2. DATUM PLANE IS LOCATED AT MOLDS PARTING LINE AND CONCURRENT WITH LEAD WHERE LEAD EXITS PLASTIC BODY AT BOTTOM OF PARTING LINE.
3. DIMENSIONS A, B, AND D TO BE DETERMINED AT CENTERLINE BETWEEN DIMENSIONS A1 AND A2.
4. DIMENSIONS C1 AND C2 TO BE DETERMINED AT SEATING PLANE.
5. DIMENSIONS D1 AND D2 TO INCLUDE MOLD PROTRUSION.
6. DIMENSION D3 AND E1 DO NOT INCLUDE MOLD PROTRUSION AT DATUM PLANE.
7. DIMENSION D4 IS NUMBER OF TERMINALS.
8. DIMENSION D5 IS NUMBER OF TERMINALS, SMALLER THAN BOTTOM DIMENSIONS AT DATUM PLANE.
9. DIMENSION D6 IS NUMBER OF TERMINALS, SMALLER THAN BOTTOM DIMENSIONS BY OLD MILLIMETERS, AND TIP OF PACKAGE WILL NOT OVERHANG.
10. BOTTOM OF PACKAGE NOT INCLUDE DAMPER PROTRUSION.
11. DIMENSION D7 IS NUMBER OF TERMINALS, SMALLER THAN BOTTOM DIMENSIONS BY OLD MILLIMETERS, AND TIP OF PACKAGE WILL NOT OVERHANG.
12. ALLOWABLE DAMPER PROTRUSION SHALL BE NOT CAUSE THE LEAD WIDTH TO EXCEED THE MAXIMUM b DIMENSION BY MORE THAN 0.08 MM.
13. DAMPER CAN NOT BE LOCATED ON THE LOWER RADII OF THE FOOT.

9. ALL DIMENSIONS ARE IN MILLIMETERS.
10. THE EXPOSED PAD IS CONCURRENT WITH THE TOP OF BOTTOM SIDE OF THE PACKAGE AND NOT ALLOWED TO PROTRUDE BEYOND THAT SURFACE.
11. DIMENSION A1 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
12. THIS DRAWING CONFORMS TO JEDEC REGISTERED OUTLINE MS-066-C.
13. DIMENSION A2 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
14. DIMENSION A3 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
15. DIMENSION A4 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
16. DIMENSION A5 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
17. DIMENSION A6 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
18. DIMENSION A7 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
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109. DIMENSION A98 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
110. DIMENSION A99 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.
111. DIMENSION A100 IS THE DISTANCE FROM THE SEATING PLANE TO THE TIP OF THE LEAD.

(JEDEC VARIATION)  
ALL DIMENSIONS IN MILLIMETERS

S	Y	X	Z	N	T	E
A	MIN.	NDM.	MAX.			
A1	0.05		1.60			13
Ae	1.35	1.40	1.45			
D		22.00 BSC.				4
D1		20.00 BSC.				7.8
E		22.00 BSC.				4
E1		20.00 BSC.				7.8
L	0.45	0.60	0.75			
N		128, 144				
e		0.50 BSC.				9
b	0.17	0.22	0.27			
b1	0.17	0.20	0.23			
ccc						0.08
ddd						0.08

(JEDEC VARIATION)  
ALL DIMENSIONS IN MILLIMETERS

S	Y	X	Z	N	T	E
A	MIN.	NDM.	MAX.			
A1	0.05		1.60			13
Ae	1.35	1.40	1.45			
D		22.00 BSC.				4
D1		20.00 BSC.				7.8
E		22.00 BSC.				4
E1		20.00 BSC.				7.8
L	0.45	0.60	0.75			
N		176 LD				
e		0.40 BSC.				9
b	0.13	0.18	0.23			
b1	0.13	0.16	0.19			
ccc						0.08
ddd						0.07

\* NOTE: THE 128 LEAD IS A COMPACT DEPOPULATION OF THE 144 LEAD MS-066 VARIATION BFL.

AMKOR/ANAM CONFIDENTIAL

AMkor Technology, Inc.  
Chandler, Arizona, USA  
AMkor Technology Singapore, Inc.  
Singapore

AMkor/ANAM  
Solutions

PACKAGE OUTLINE MATRIX, LQFP  
20 X 20 mm BODY, 1.00/0.10 mm FORM,  
1.40 mm THICK (OPTIONAL, #7AD)

PRINTING IS SCALED TO FIT  
DO NOT SCALE DRAWING

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