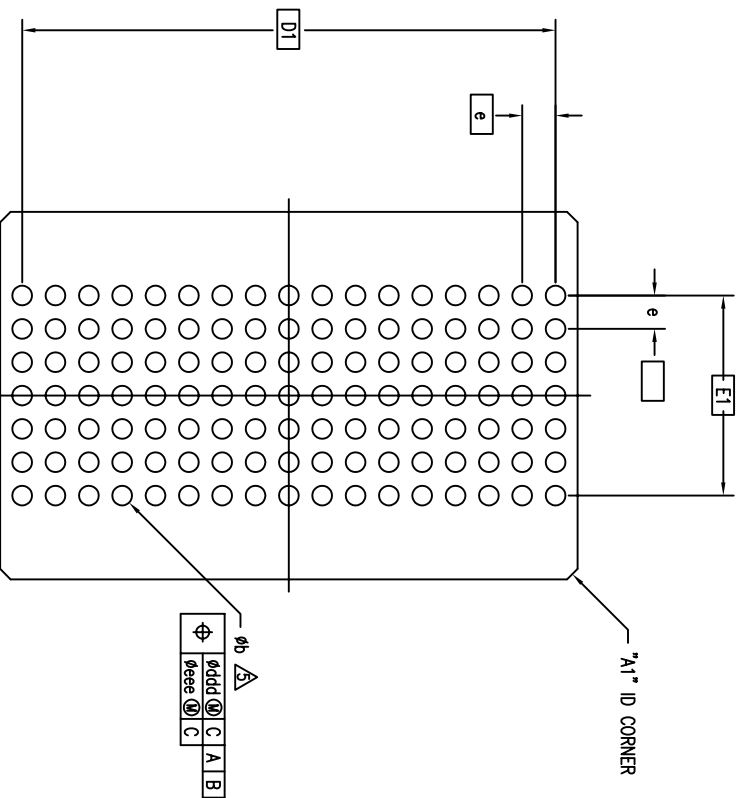
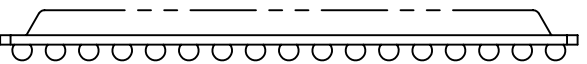
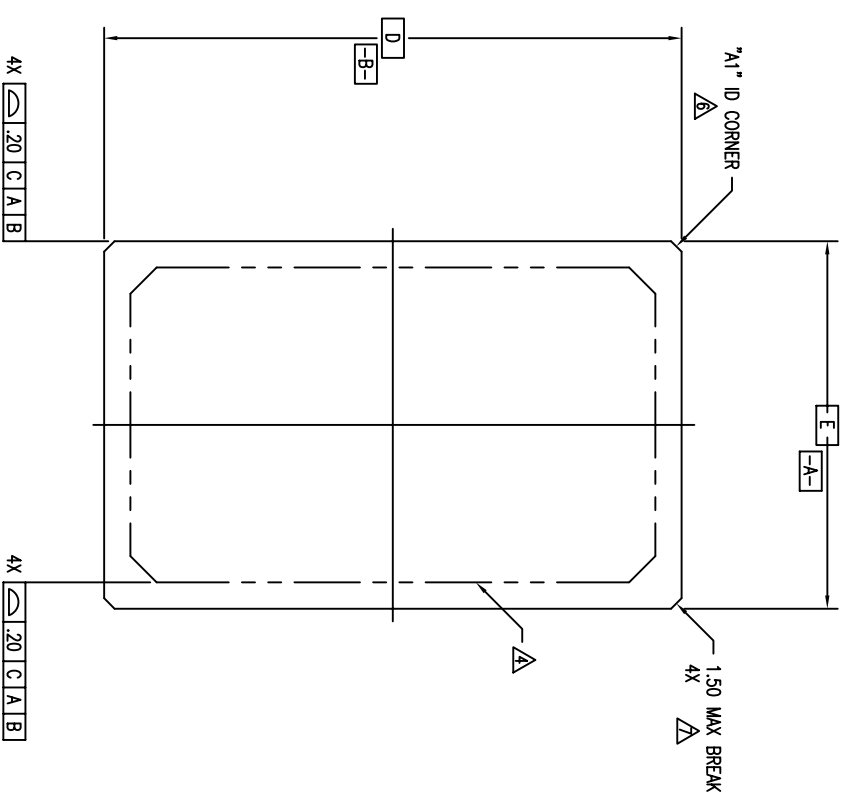
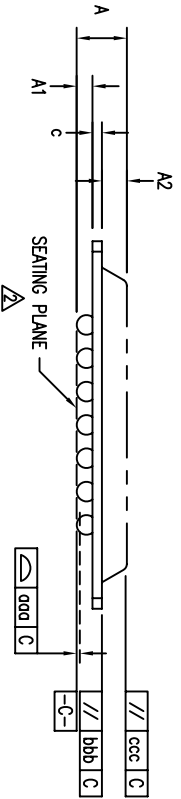



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
03	REMOVE FROM OBSOLETE	10/22/03	T. VU
04	CHANGE PACKAGE BODY TOLERANCE TO MEET JEDEC	04/25/00	T. VU
05	ADD "GREEN" BGS NOMENCLATURE	11/19/04	T. VU
06	COMBINE POD & LAND PATTERN	06/06/13	KS

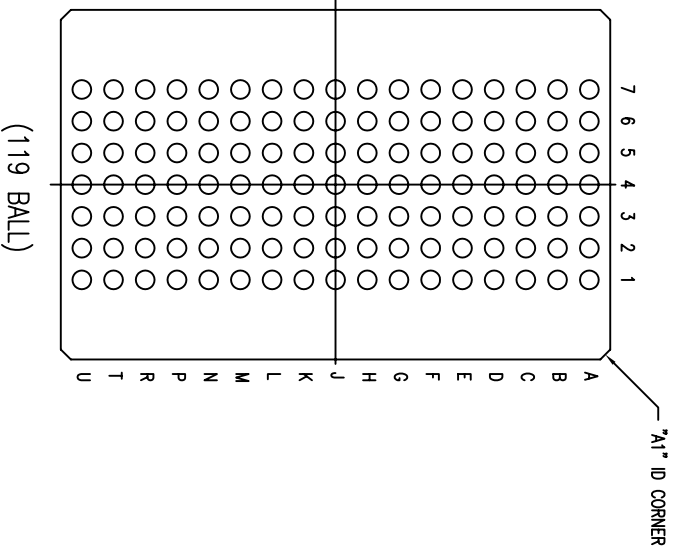


(119 BALL SHOWN)



TOLERANCES UNLESS SPECIFIED		 6024 SILVER CREEK VALLEY ROAD SAN JOSE CA 95138 TEL: 408-284-8200 FAX: 408-284-8591 www.IDT.com	
DECIMAL	±	ANGULAR	±
XXXX±			
XXXX±			
APPROVALS	DATE	TITLE	SIZE   DRAWING No.
DRAWN <i>gry</i>	10/15/97	BG/BGG PACKAGE OUTLINE	C   PSC-4063
CHECKED		14.0 X 22.0 mm BODY	REV
		PBGA	06
DO NOT SCALE DRAWING			SHEET 1 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
03	REMOVE FROM OBSOLETE	10/2/03	T. VU
04	CHANGE PACKAGE BODY TOLERANCE TO MEET JEDEC	04/25/00	T. VU
05	ADD "GREEN" BGG NOMENCLATURE	11/19/04	T. VU
06	COMBINE POD & LAND PATTERN	06/06/13	KS



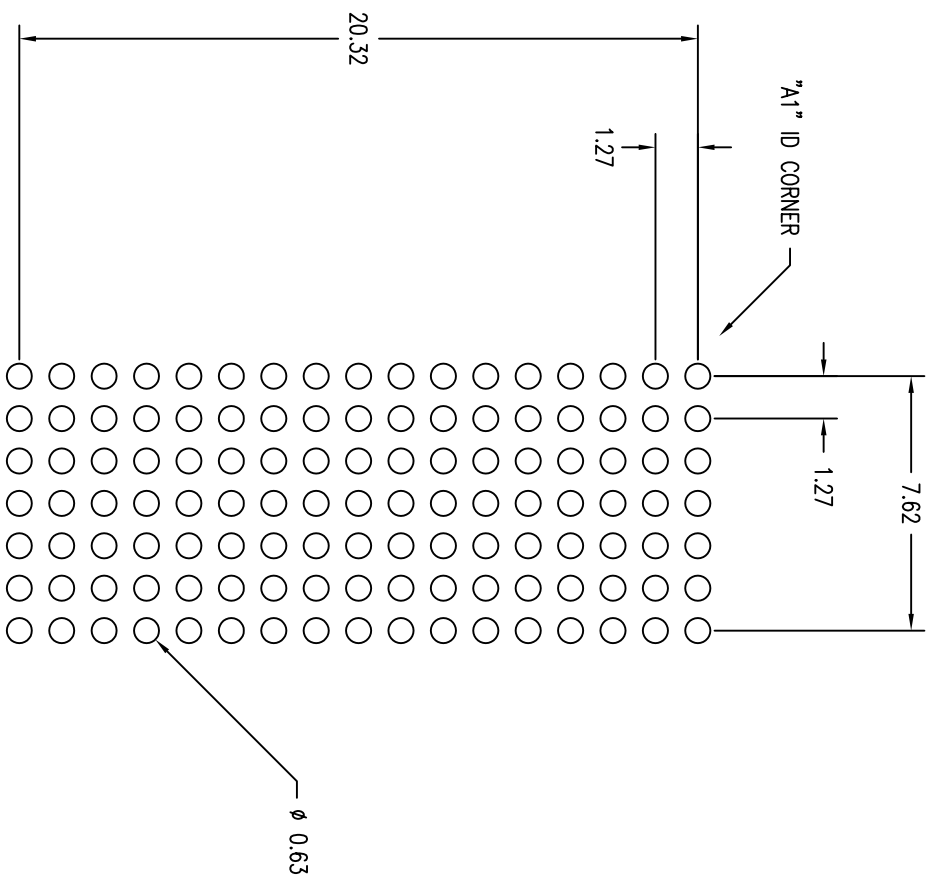
**NOTES:**

- 1 ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5M-1982
- 2 SEATING PLANE AND PRIMARY DATUM  $\boxed{-C-}$  ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS
- 3 "MD" IS THE BALL MATRIX SIZE IN THE "D" DIRECTION  
"ME" IS THE BALL MATRIX SIZE IN THE "E" DIRECTION  
"N" IS THE MAXIMUM ALLOWABLE NUMBER OF SOLDER BALLS  
PACKAGE MAY EXTEND TO EDGE PERIPHERY AND MAY CONSIST OF MOLDING COMPOUND, EPOXY, METAL, CERAMIC OR OTHER MATERIAL
- 4 DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM  $\boxed{-C-}$
- 5 "A1" ID CORNER MUST BE IDENTIFIED. IDENTIFICATION MAY BE BY MEANS OF CHAMFER, METALLIZED OR INK MARK, INDENTATION OR OTHER FEATURE OF THE PACKAGE BODY. MARK MUST BE VISIBLE FROM TOP SURFACE
- 6 ACTUAL SHAPE OF THIS FEATURE IS OPTIONAL
- 8 ALL DIMENSIONS ARE IN MILLIMETERS
- 9 THIS DRAWING CONFORMS TO JEDEC PUBLICATION 95 REGISTRATION MS-028, VARIATION AA

SYMBOL	JEDEC VARIATION			NOTE
	AA			
	MIN	NOM	MAX	
A	-	2.15	2.36	
A1	.50	.60	.70	
A2	-	-	1.20	
D	22.00 BSC			
D1	20.32 BSC			
E	14.00 BSC			
E1	7.62 BSC			
MD	17			3
ME	7			3
N	119			3
e	1.27 BSC			
b	.60	.75	.90	5
c	.51	.56	.61	
qqa	-	-	.15	
bbb	-	-	.25	
ccc	-	-	.35	
ddd	-	-	.30	
eee	-	-	.10	


<b>TOLERANCES</b> UNLESS SPECIFIED DECIMAL            ± ANGULAR           ± XXX± XXXX± XXXXX±		6024 SILVER CREEK VALLEY ROAD SAN JOSE CA 95138 TEL: 408-284-8200 FAX: 408-284-8591 WWW.IDT.COM	
APPROVALS	DATE	TITLE	SIZE
DRAWN: <i>JYJ</i>	10/15/97	BG/BGG PACKAGE OUTLINE 14.0 X 22.0 mm BODY PBGA	DRAWING No. PSC-4063
CHECKED			REV 06
DO NOT SCALE DRAWING			SHEET 2 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
03	REVIVE FROM OBSOLETE	10/2/03	T. VU
04	CHANGE PACKAGE BODY TOLERANCE TO MEET JEDEC	04/25/00	T. VU
05	ADD "GREEN" BGG NOMENCLATURE	11/19/04	T. VU
06	COMBINE POD & LAND PATTERN	06/06/13	KS



LAND PATTERN DIMENSIONS (mm)

TOLERANCES UNLESS SPECIFIED		ANGULAR	
DECIMAL		ANGULAR	
XXX		±	
XXXX			
XXXX±			
APPROVALS	DATE	TITLE	
DRAWN <i>gjt</i>	10/15/97	BG/BGG PACKAGE OUTLINE	
CHECKED		14.0 X 22.0 mm BODY	
		PBGA	
		SIZE	DRAWING No.
		C	PSC-4063
DO NOT SCALE DRAWING		SHEET	3 OF 3
		REV	06



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