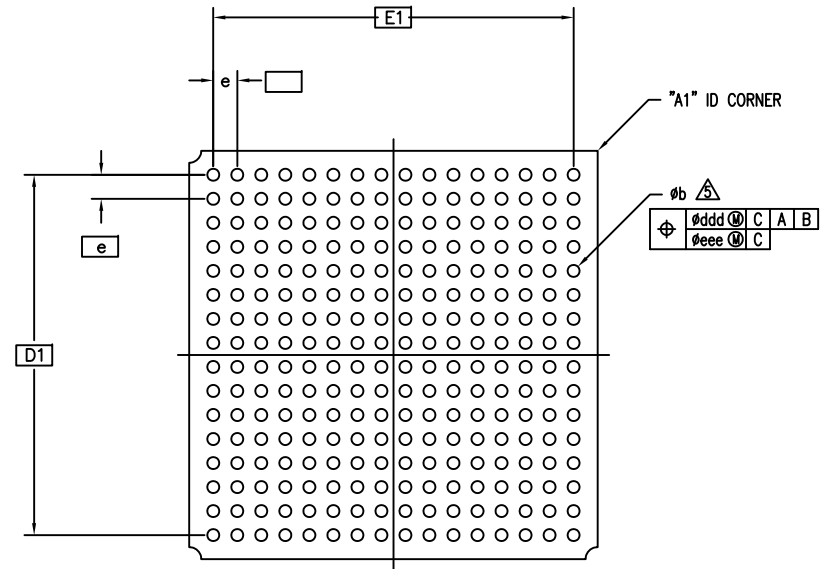
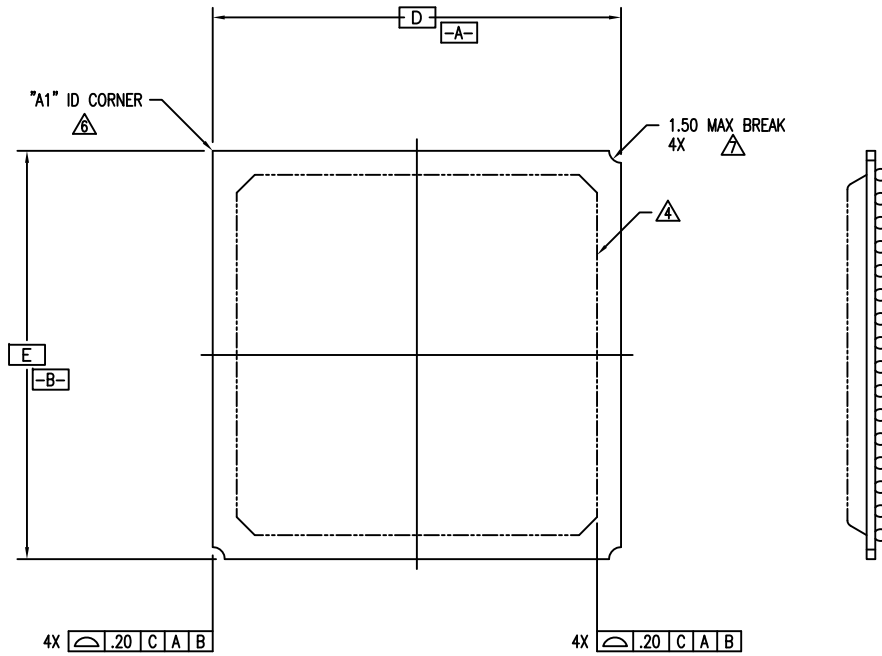
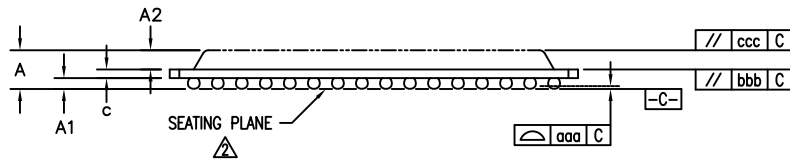


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TU VJ
03	COMBINE POD & LAND PATTERN	06/06/13	KS
04	UPDATED DIM "A" & "c"	01/20/14	CM



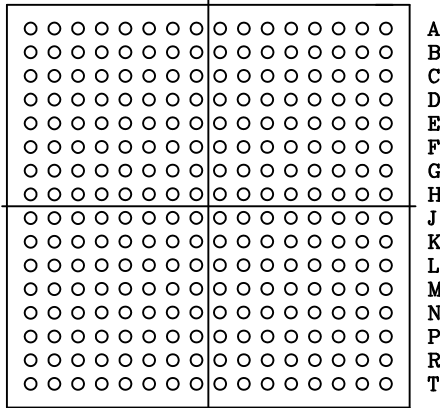
(256 BALL SHOWN)



TOLERANCES UNLESS SPECIFIED		6024 SILVER CREEK VALLEY ROAD SAN JOSE, CA. 95138 www.IDT.com PHONE: (408) 284-8200 FAX: (408) 284-8591	
DECIMAL	ANGULAR		
XX±	±		
XXX±			
XXXX±			
APPROVALS	DATE	TITLE	
DRAWN <i>JV</i>	08/15/99	BB/BBG PACKAGE OUTLINE	
CHECKED		17.0 X 17.0 mm BODY	
		PBGA	
		SIZE	REV
		C	04
		DRAWING No. PSC-4081	
		DO NOT SCALE DRAWING	
		SHEET 1 OF 3	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TU VU
03	COMBINE POD & LAND PATTERN	06/06/13	KS
04	UPDATED DIM "A" & "c"	01/20/14	CM

16 14 12 10 8 6 4 2
15 13 11 9 7 5 3 1



A
B
C
D
E
F
G
H
J
K
L
M
N
P
R
T


(256 SOLDER BALLS)

SYMBOL	JEDEC VARIATION			NOTE
	AAF-1			
	MIN	NOM	MAX	
A	REFER TO TABLE DIM "A"			
A1	.30	.40	.50	
A2	0.75	0.80	0.85	
D	17.00 BSC			
D1	15.00 BSC			
E	17.00 BSC			
E1	15.00 BSC			
MD	16			3
ME	16			3
N	256			3
b	.40	.50	.60	5
c	REFER TO TABLE DIM "c"			
e	1.00 BSC			
aaa	-	-	.20	
bbb	-	-	.25	
ccc	-	-	.35	
ddd	-	-	.30	
eee	-	-	.10	

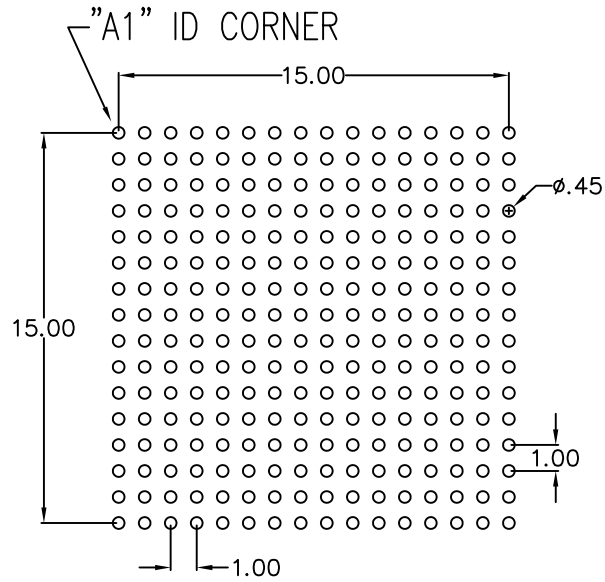
PBGA THICKNESS SCHEDULE		
NO. LAYERS	DIM "A"	DIM "c"
2	1.56 ^{+0.19} _{-0.21}	0.36 ^{+0.04} _{-0.06}
4	1.76±0.21	0.56±0.06

NOTES: UNLESS OTHERWISE SPECIFIED

- ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.
- SEATING PLANE AND PRIMARY DATUM C ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
- "MD" IS THE MAXIMUM SOLDER BALL MATRIX SIZE IN THE "D" DIRECTION. "ME" IS THE MAXIMUM SOLDER 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.
- DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.
- "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.
- ACTUAL SHAPE OF THIS FEATURE IS OPTIONAL.
- ALL DIMENSIONS ARE IN MILLIMETERS.
- THIS DRAWING CONFORMS TO JEDEC PUBLICATION 95 REGISTRATION MO-151 VARIATION AAF-1
EXCEPTIONS:
A1 MIN=0.40
b MIN=0.50

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DECIMAL	ANGULAR	
XX±	±	
XXX±	±	
APPROVALS	DATE	TITLE
DRAWN <i>JY</i>	08/15/99	BB/BBG PACKAGE OUTLINE 17.0 X 17.0 mm BODY PBGA
CHECKED		SIZE
		C DRAWING No.
		PSC-4081
		REV
		04
DO NOT SCALE DRAWING		SHEET 2 OF 3


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TU VU
03	COMBINE POD & LAND PATTERN	06/06/13	KS
04	UPDATED DIM "A" & "c"	01/20/14	CM



RECOMMENDED LAND PATTERN DIMENSION

NOTE:

- 1) ALL dimensions are in mm, Angles in degrees.
- 2) Top down view, as view on PCB.
- 3) NSMD Land Pattern Assumed
- 4) Land Pattern Recommendation as per IPC-7351B generic requirement for surface mount design and Land Pattern.

TOLERANCES UNLESS SPECIFIED		 IDT www.IDT.com	6024 SILVER CREEK VALLEY ROAD SAN JOSE, CA, 95138 PHONE: (408) 284-8200 FAX: (408) 284-8591	
DECIMAL	ANGULAR		TITLE BB/BBG PACKAGE OUTLINE 17.0 X 17.0 mm BODY PBGA	
XX±	±	APPROVALS	DATE	REV
XXX±		DRAWN <i>JY</i>	08/15/99	04
XXXX±		CHECKED		
		SIZE	DRAWING No.	
		C	PSC-4081	
DO NOT SCALE DRAWING				SHEET 3 OF 3