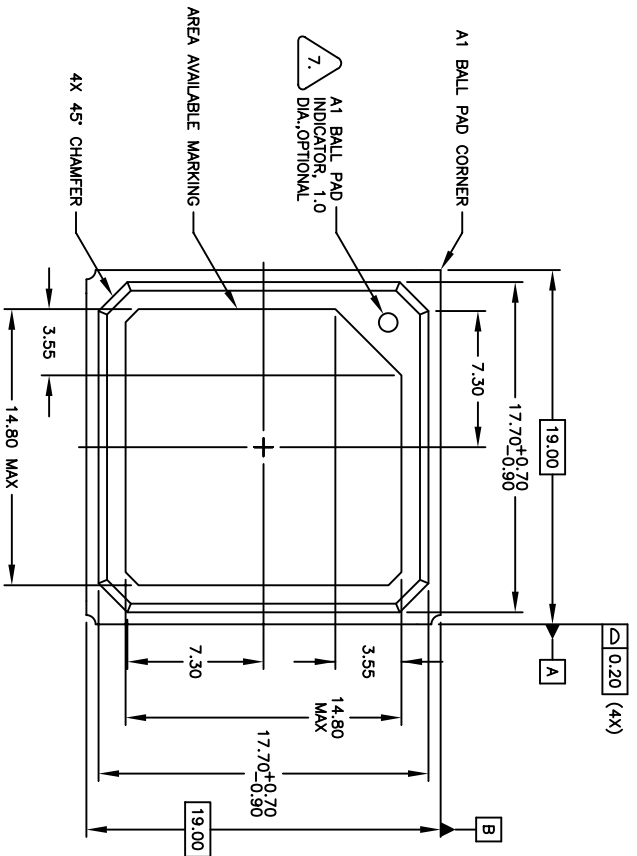
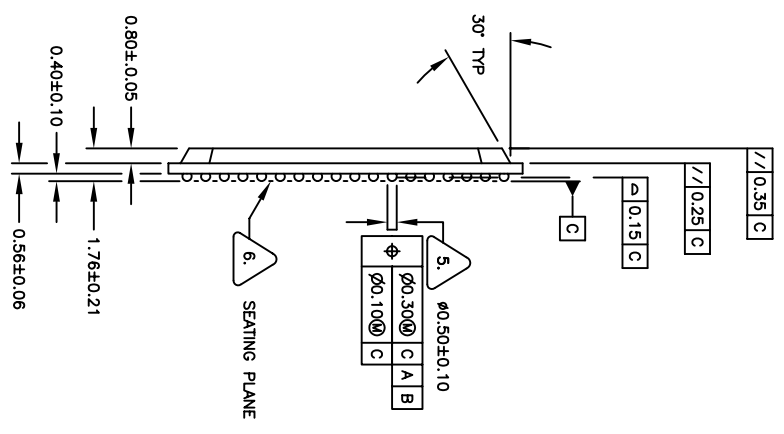


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TV
03	CHANGED MOLD CAP TOLERANCE	02/24/05	TV
04	COMBINE POD & LAND PATTERN	06/05/13	KS



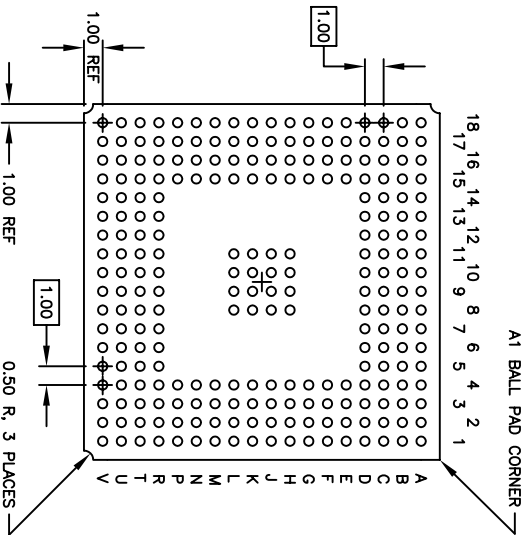
TOP VIEW



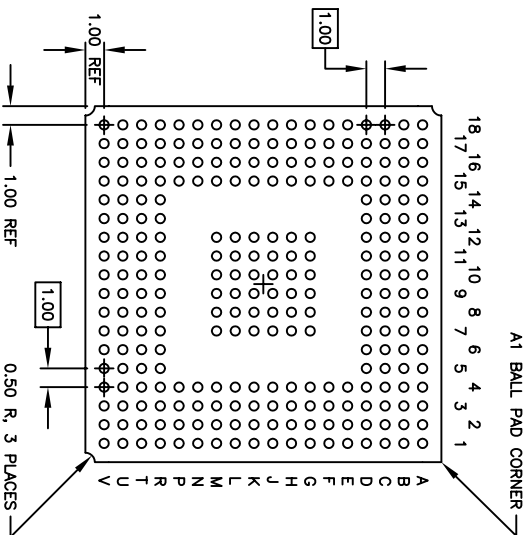
SIDE VIEW

TOLERANCES UNLESS SPECIFIED			6024 SILVER CREEK VALLEY ROAD SAN JOSE CA 95138 TEL (408) 284-8200 FAX (408) 284-8591	
DECIMAL	ANGULAR		www.IDT.com	
XX±			TITLE BB/BBG PACKAGE OUTLINE	
XXX±			19.0 x 19.0 mm BODY 1.0 mm PITCH PBGA	
APPROVALS	DATE	SIZE	DRAWING No.	REV
DRAWN <i>gxp</i>	06/18/01	C	PSC-4104	04
CHECKED				
DO NOT SCALE DRAWING			SHEET 1	OF 4

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TV
03	CHANGED MOLD CAP TOLERANCE	02/24/05	TV
04	COMBINE POD & LAND PATTERN	06/05/13	KS



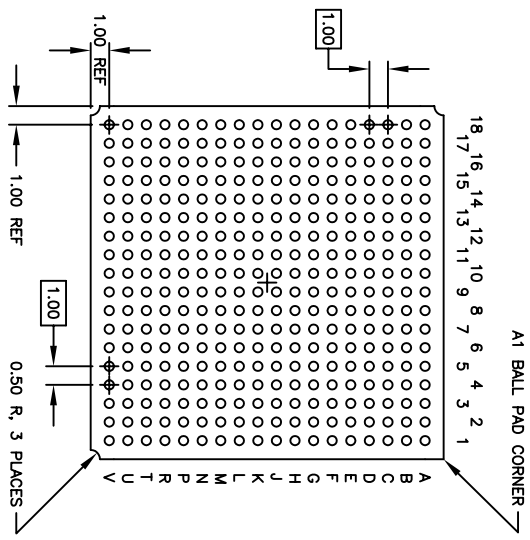
BOTTOM VIEW
240 SOLDER BALLS



BOTTOM VIEW
260 SOLDER BALLS

TOLERANCES UNLESS SPECIFIED		6024 SILVER CREEK	
DECIMAL	ANGULAR	VALLEY ROAD	
XX±		SAN JOSE CA. 95138	
XXXX±		TEL (408) 284-8200	
APPROVALS		FAX (408) 284-8591	
DRAWN <i>ppg/p</i>	DATE	WWW.IDT.COM	
CHECKED	06/18/01	TITLE BB/BBG PACKAGE OUTLINE	
		19.0 x 19.0 mm BODY	
		1.0 mm PITCH PBGA	
		SIZE	DRAWING No.
		C	PSC-4104
		DO NOT SCALE DRAWING	REV
			04
			SHEET 2 OF 4


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BBG NOMENCLATURE	10/20/04	TV
03	CHANGED MOLD CAP TOLERANCE	02/24/05	TV
04	COMBINE POD & LAND PATTERN	06/05/13	KS



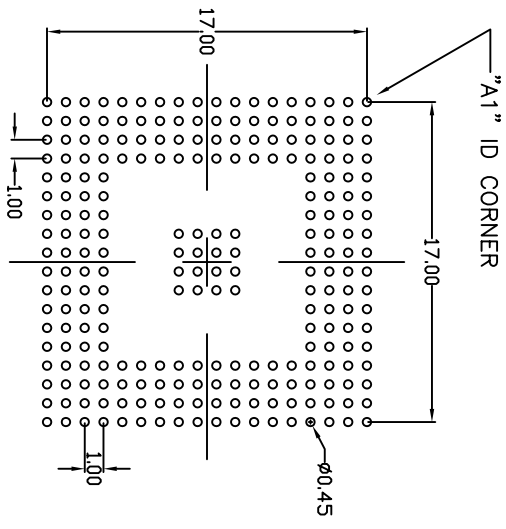
BOTTOM VIEW
324 SOLDER BALLS

NOTES: UNLESS OTHERWISE SPECIFIED

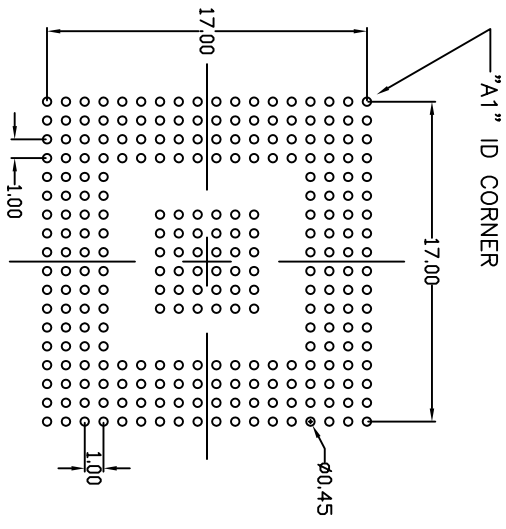
1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.
2. THE BASIC SOLDER BALL GRID PITCH IS 1.00mm.
3. THE MAXIMUM SOLDER BALL MATRIX SIZE IS 18 X 18.
4. THE MAXIMUM ALLOWABLE NUMBER OF SOLDER BALLS IS 324.
5. DIMENSION IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.
6. PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
7. A1 BALL PAD CORNER I.D. FOR PLATE MOLD: TO BE MARKED BY INK. AUTO MOLD: DIMPLE TO BE FORMED BY MOLD CAP.
8. THIS DRAWING CONFORMS TO THE JEDEC REGISTERED OUTLINE MS-034/A, VARIATION AAG-1 EXCEPT FOR A1, D, AND QQQ DIMENSIONS.

TOLERANCES UNLESS SPECIFIED	ANGULAR	 6024 SILVER CREEK VALLEY ROAD SAN JOSE CA, 95138 TEL. (408) 284-8200 FAX (408) 284-8991
XX+	XXX±	
APPROVALS	DATE	
DRAWN <i>pkp</i>	06/18/01	
CHECKED		TITLE BB/BBG PACKAGE OUTLINE 19.0 x 19.0 mm BODY 1.0 mm PITCH PBGA
	SIZE	DRAWING No.
	C	PSC-4104
	DO NOT SCALE DRAWING	
	SHEET	3 OF 4

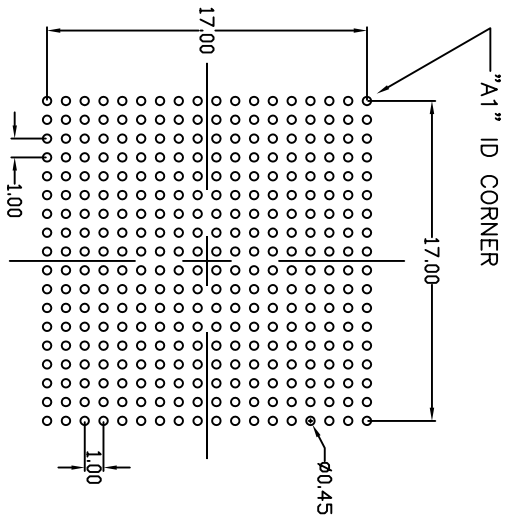
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
02	ADD "GREEN" BFG NOMENCLATURE	10/20/04	TV
03	CHANGED MOLD CAP TOLERANCE	02/24/05	TV
04	COMBINE POD & LAND PATTERN	06/05/13	KS



240 SOLDER BALLS



260 SOLDER BALLS



324 SOLDER BALLS

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			
DECIMAL	ANGULAR		
XX±			
XXX±			
APPROVALS	DATE	TITLE	SIZE
DRAWN 06/19/01		BB/BBG PACKAGE OUTLINE	DRAWING No.
CHECKED		19.0 x 19.0 mm BODY	PSC-4104
		1.0 mm PITCH PBGA	REV 04
			DO NOT SCALE DRAWING
			SHEET 4 OF 4



6024 SILVER CREEK
VALLEY ROAD
SAN JOSE CA, 95138
TEL (408) 284-8200
FAX (408) 284-8591

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