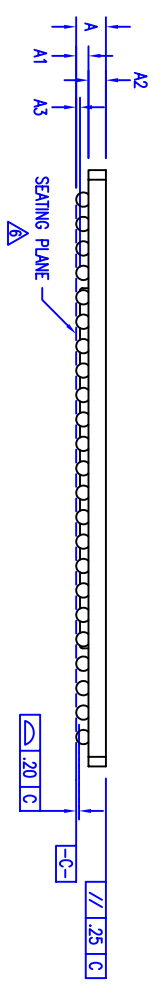
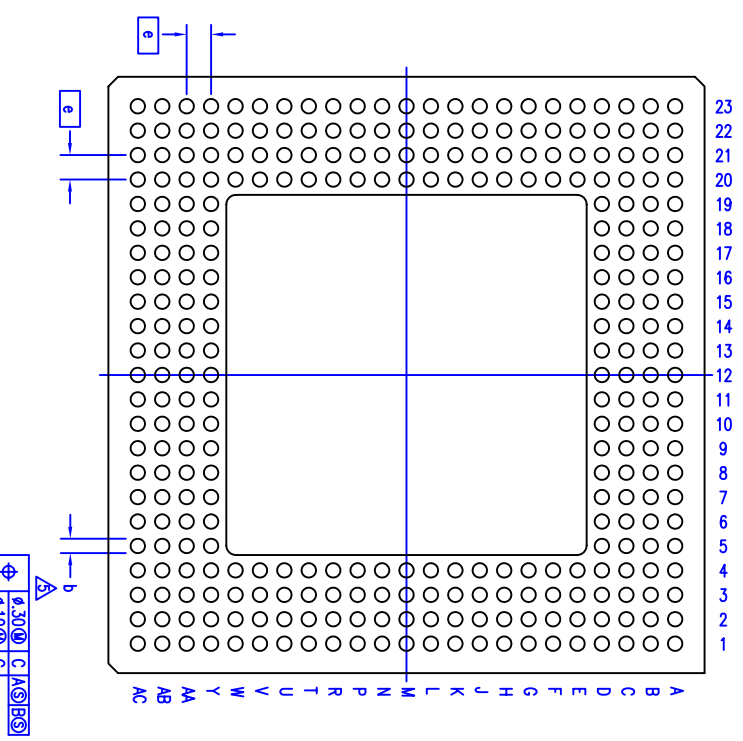
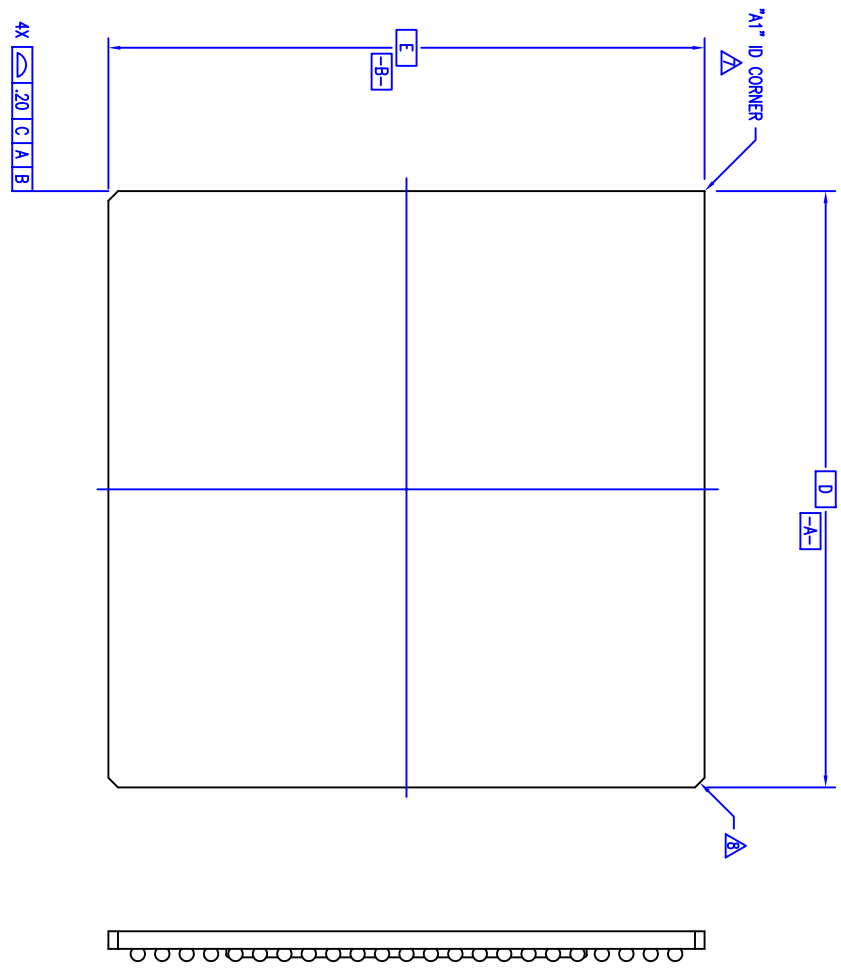


REVISIONS			DATE	APPROVED
REV	DESCRIPTION			
00	INITIAL RELEASE	05/01/00	T. VU	
01	CHANGE A2 DIMENSION	03/25/01	T. VU	
02	ADD HOLE TO GRID PATTERN CORNER FOR GRID PATTERN	06/10/13	KS	



TOLERANCES UNLESS SPECIFIED

DECIMAL	ANGULAR
XXX±	±
XXXX±	
XXXX±	

APPROVALS

DRAWN	DATE	TITLE
STY	05/01/00	BS/RS/BSG 304 PACKAGE OUTLINE
CHECKED		31.0 X 31.0 mm BODY
		SRGA

IDT 6024 SILVER CREEK VALLEY ROAD
 San Jose, CA 95138
 WWW.IDT.COM
 PHONE: (408) 284-8200
 FAX: (408) 492-8674

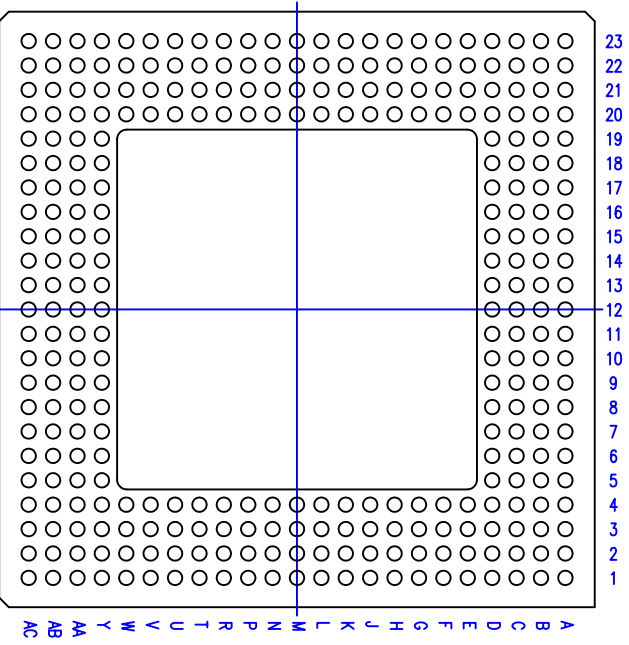
SIZE	DRAWING No.	REV
C	PSC-4083	02

DO NOT SCALE DRAWING SHEET 1 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/01/00	T. WU
01	CHANGE A2 DIMENSION	03/25/01	T. WU
02	ADD MARKING TO VENDOR DRAWING (CHANGE SIZE & GRID MATRIX)	06/10/13	KS

NOTES:

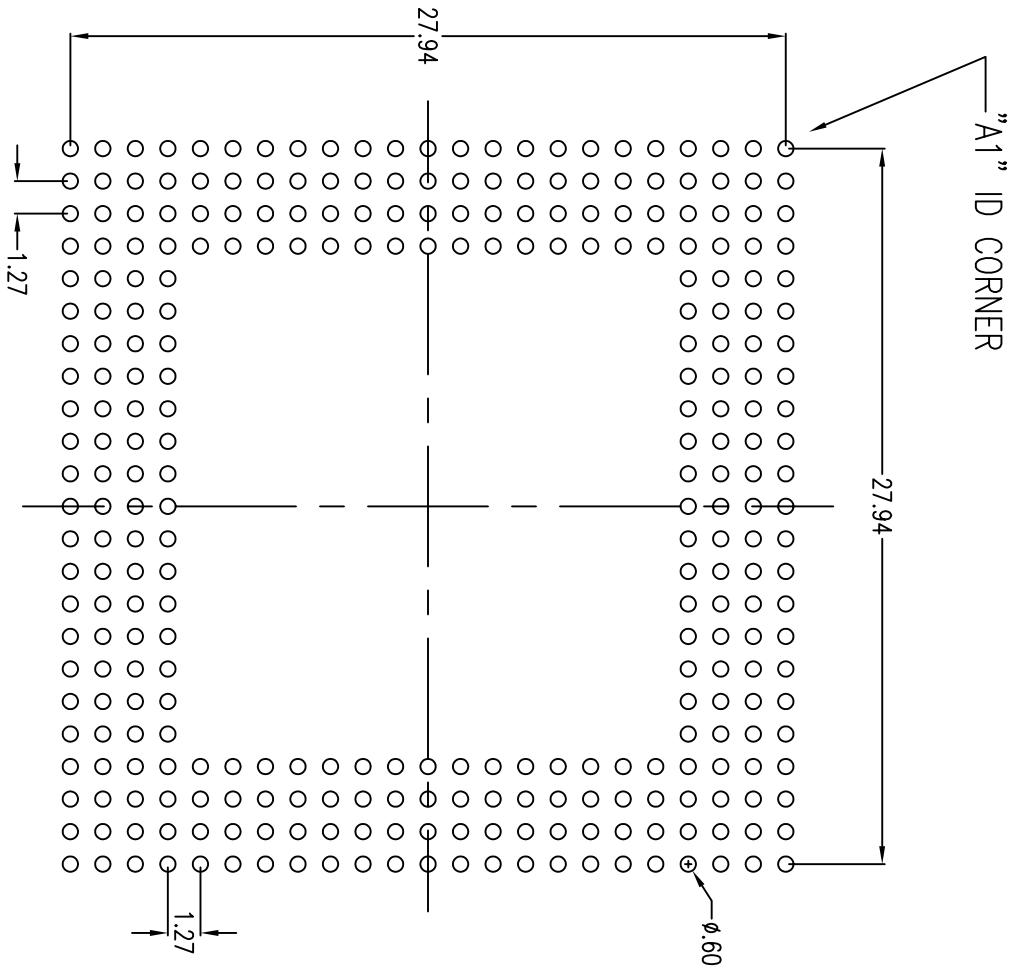
- 1 ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5M-1982
- 2 "e" REPRESENTS THE BASIC SOLDER BALL GRID PITCH
- 3 "M" REPRESENTS THE MAXIMUM SOLDER BALL MATRIX SIZE
- 4 "N" REPRESENTS THE BALLCOUNT NUMBER
- 5 DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM $\boxed{-C-}$
- 6 SEATING PLANE AND PRIMARY DATUM $\boxed{-C-}$ ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS
- 7 "A1" ID CORNER MUST BE IDENTIFIED BY CHAMFER, INK MARK, METALLIZED MARKING, INDENTATION OR OTHER FEATURE ON PACKAGE BODY
- 8 EXACT SHAPE OF EACH CORNER IS OPTIONAL
- 9 THIS OUTLINE CONFORMS TO JEDEC PUBLICATION 95 REGISTRATION MO-192
- 10 ALL DIMENSIONS ARE IN MILLIMETERS



SYMBOL	JEDEC VARIATION			NOTE
	MIN	NOM	MAX	
A	-	-	1.70	
A1	.50	.60	.70	
A2	.80	.90	1.10	
A3	.20	-	-	
D	31.00 BSC			
E	31.00 BSC			
M	23 (DEPOPULATED)			3
N	304			4
e	1.27 BSC			
b	.60	.75	.90	5
CENTER BALL MATRIX	N/A			

TOLERANCES UNLESS SPECIFIED DECIMAL ± ANGULAR XXXX° XXXX° XXXX°		IDT 6024 SILVER CREEK VALLEY ROAD SAN JOSE, CA 95138 WWW.IDT.COM PHONE: (408) 284-8200 FAX: (408) 492-8674	
APPROVALS	DATE	TITLE	SIZE
DRAWN STJ	05/01/00	BS/RS/BSG 304 PACKAGE OUTLINE 31.0 X 31.0 mm BODY SBGA	DRAWING NO. PSC-4083
CHECKED			REV 02
DO NOT SCALE DRAWING		SHEET 2 OF 3	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/01/00	T. VU
01	CHANGE A2 DIMENSION	03/25/01	T. VU
02	ADD RISES AND GREEN NOMENCLATURE CORRECT PCD & LAND PATTERN	06/10/13	KS



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 6024 SILVER CREEK VALLEY ROAD SAN JOSE, CA 95138 WWW.IDT.COM PHONE: (408) 284-8200 FAX: (408) 492-8674	
DECIMAL	±	ANGULAR	
XXX			
XXXX			
APPROVALS	DATE	TITLE	
DRAWN 99	05/01/00	BS/RS/BSG 304 PACKAGE OUTLINE	
CHECKED		31.0 X 31.0 mm BODY	
		SBCA	
SIZE	DRAWING NO.	PSC-4083	REV
C			02
DO NOT SCALE DRAWING		SHEET	3 OF 3