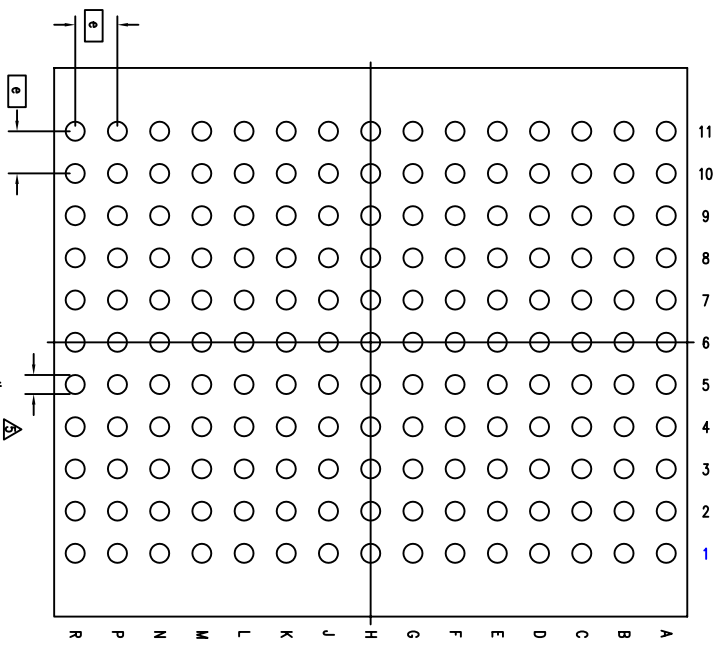
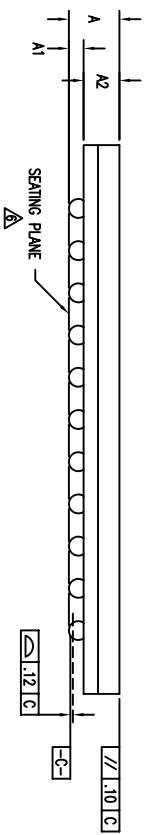
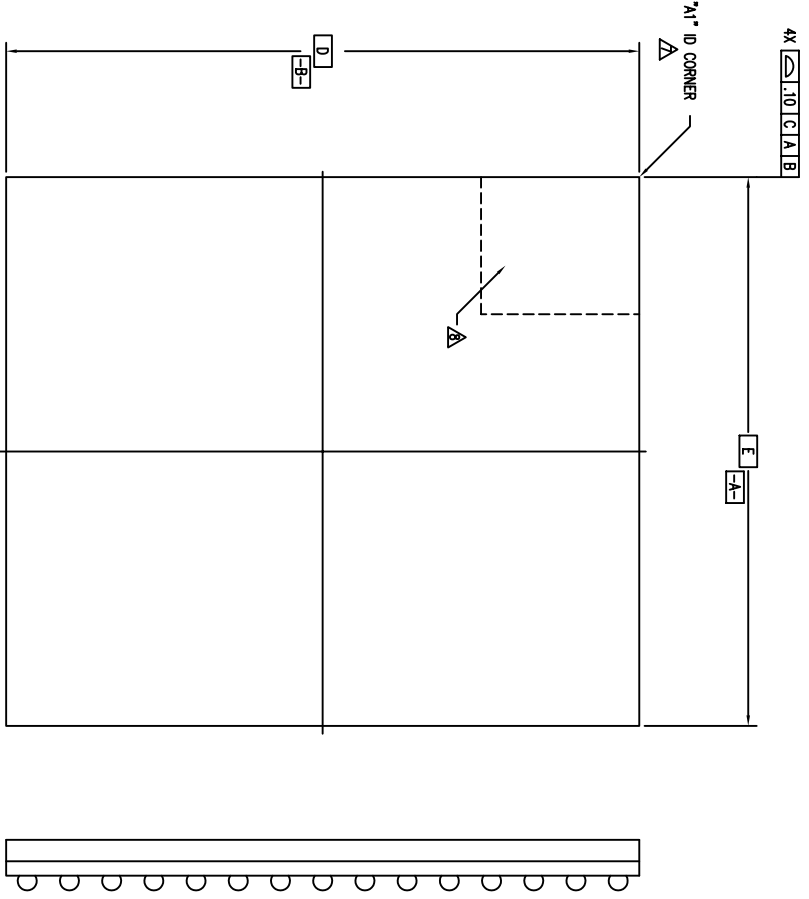
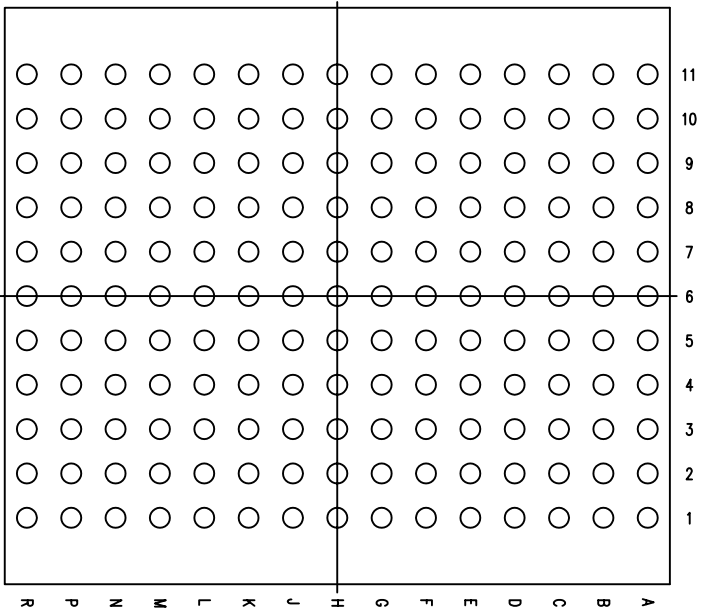


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/07/00	TU WU
01	CHANGE A1 MEASUREMENT	07/27/04	TU WU
02	ADD 'GREAT' BOG NOMENCLATURE	10/15/04	TU WU
03	SEATING PLANE UPDATED TO 0.12MM	08/03/05	TU WU
04	COMBINE P0D & LAND PATTERN	05/23/13	KS



TOLERANCES UNLESS SPECIFIED		6024 SILVER CREEK VALLEY ROAD	
DECIMAL	ANGULAR	SAN JOSE CA 95138	
XX.X .1	±1°	PHONE: (408) 284-8200	
XX.XX .05		FAX: (408) 284-8591	
XX.XX.X .030			
APPROVALS	DATE	TITLE	WWW.IDT.COM
DRAWN 292	05/07/00	BQ PACKAGE OUTLINE	
CHECKED		13.0 X 15.0 mm BODY	
		FPRGA	
		SIZE DRAWING No.	REV
		C	PSC-4086
		DO NOT SCALE DRAWING	SHEET 1 OF 3




(165 BALL)

SYMBOL	JEDEC VARIATION			NOTE
	NOT YET REGISTERED	MIN	NOM	
A	-	-	1.20	
A1	.25	.30	.35	
A2	.78	.85	.92	
D	15.00 BSC			
E	13.00 BSC			
M	11 X 15			3
N	165			4
e	1.00 BSC			
b	.35	.45	.50	5
CENTER BALL MATRIX	N/A			

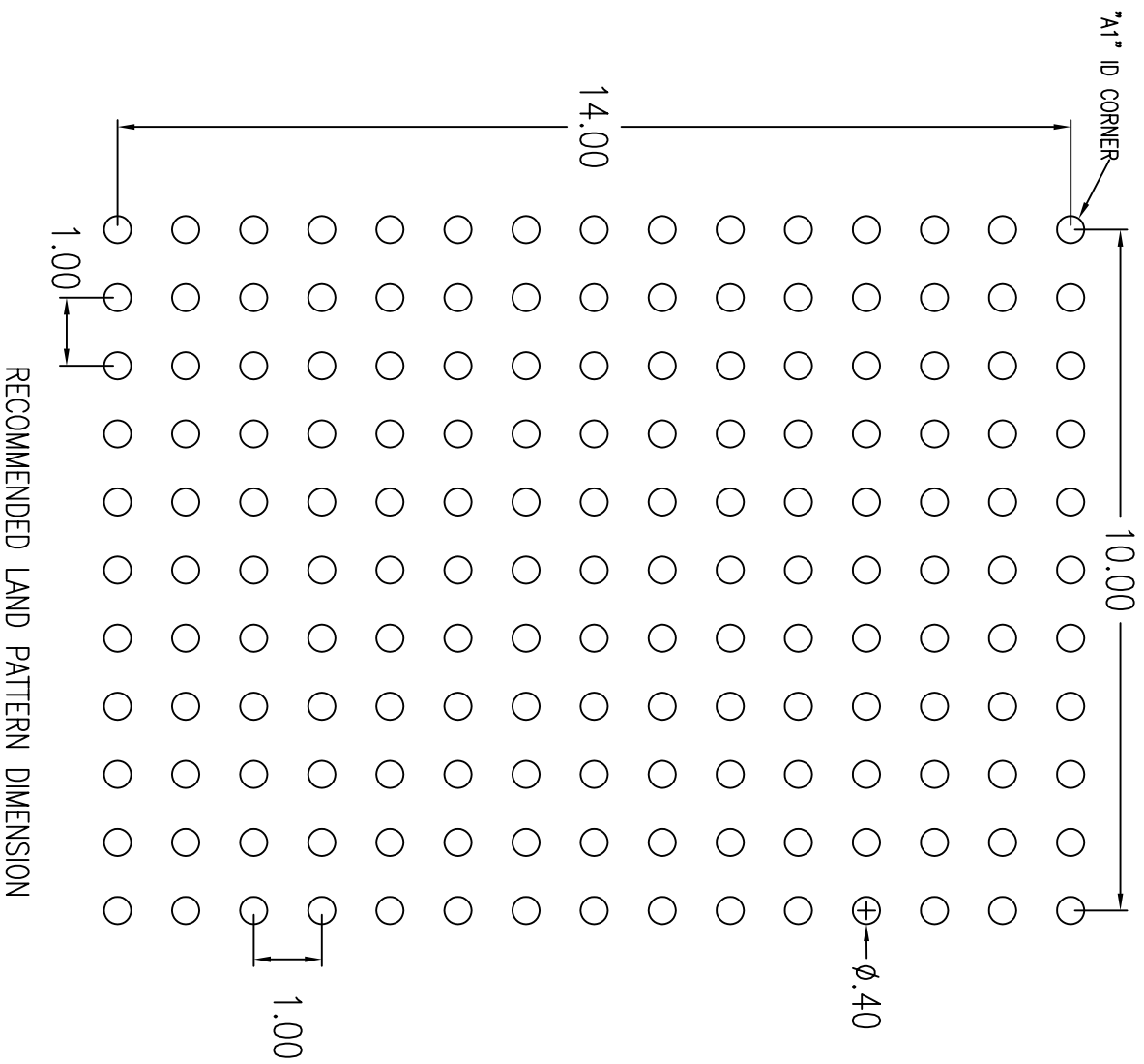
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/01/00	TU WI
01	CHANGE A1 MEASUREMENT	07/27/04	TU WI
02	ADD 'GREED' BSC NOMENCLATURE	10/15/04	TU WI
03	SEATING PLANE UPDATED TO 0.12MM	08/03/05	TU WI
04	COMBINE POD & LAND PATTERN	05/23/13	KS


NOTES:

- 1 ALL DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5M-1994
- 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 ---C---
- 6 SEATING PLANE AND PRIMARY DATUM ---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 IF "A1" ID CORNER IS ON PACKAGE BODY, IT MUST BE LOCATED WITHIN THE ZONE INDICATED
- 9 ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCES UNLESS SPECIFIED DECIMAL ANGULAR X \pm .1 \pm 1° XXX \pm .05 XXX \pm .030		 WWW.IDT.COM	6024 SILVER CREEK VALLEY ROAD SAN JOSE CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-8591
APPROVALS DRAWN 99* CHECKED	DATE 05/01/00		
TITLE BQ PACKAGE OUTLINE 13.0 X 15.0 mm BODY FBPGA		SIZE C	DRAWING No. PSC-4086
DO NOT SCALE DRAWING		REV 04	SHEET 2 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	05/01/00	TU VU
01	CHANGE A1 MEASUREMENT	07/27/04	TU VU
02	ADD "GREEN" BQG NOMENCLATURE	10/15/04	TU VU
03	SEATING PLANE UPDATED TO 0.12MM	08/03/05	TU VU
04	COMBINE POD & LAND PATTERN	05/23/13	KS



TOLERANCES UNLESS SPECIFIED		 8024 SILVER CREEK VALLEY ROAD SAN JOSE CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-8591
DECIMAL	ANGULAR	
XX.X	.1	WWW.IDT.COM
XXXX	.030	
APPROVALS	DATE	TITLE
DRAWN	08/06/12	BQ PACKAGE OUTLINE
CHECKED		13.0 X 15.0 mm BODY
		FBPGA
SIZE	DRAWING No.	REV
C	PSC-4086	04
DO NOT SCALE DRAWING		SHEET 3 OF 3