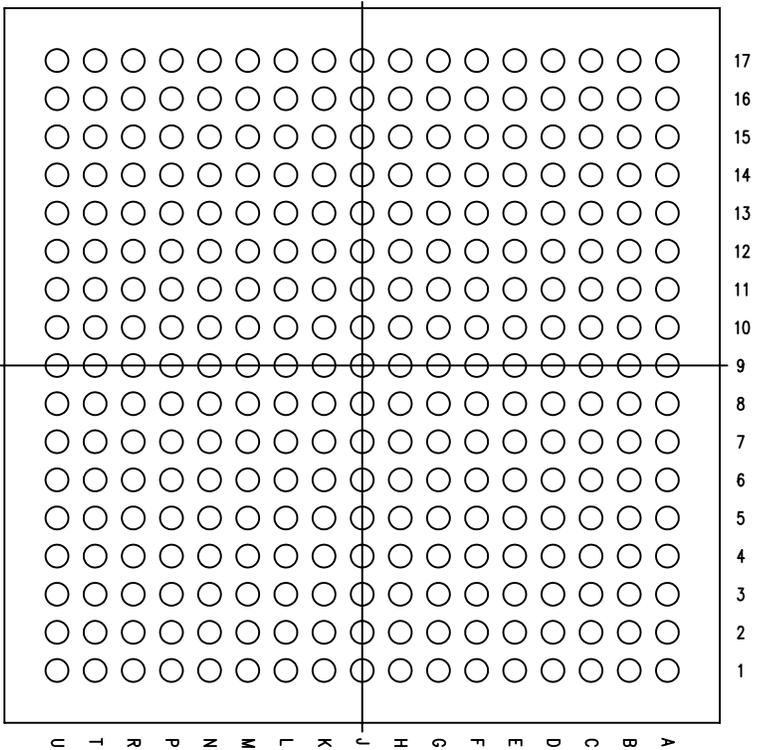


(289 BALL SHOWN)

TOLERANCES UNLESS SPECIFIED		6024 SILVER CREEK	
DECIMAL	ANGULAR	VALLEY ROAD, SAN JOSE, CA 95138	
XXX	F	PHONE: (408) 284-8200	
XXXX		FAX: (408) 284-3572	
XXXXX		WWW.IDT.COM	
APPROVALS	DATE	TITLE	
DRAWN	09/20/07	BFC289 FPBGA PACKAGE OUTLINE	
CHECKED		15.0 X 15.0 mm, 0.8mm PITCH	
SIZE	DRAWING No.	REV	
C	PSC-4219	03	
DO NOT SCALE DRAWING		SHEET 1 OF 4	



(289 BALL)

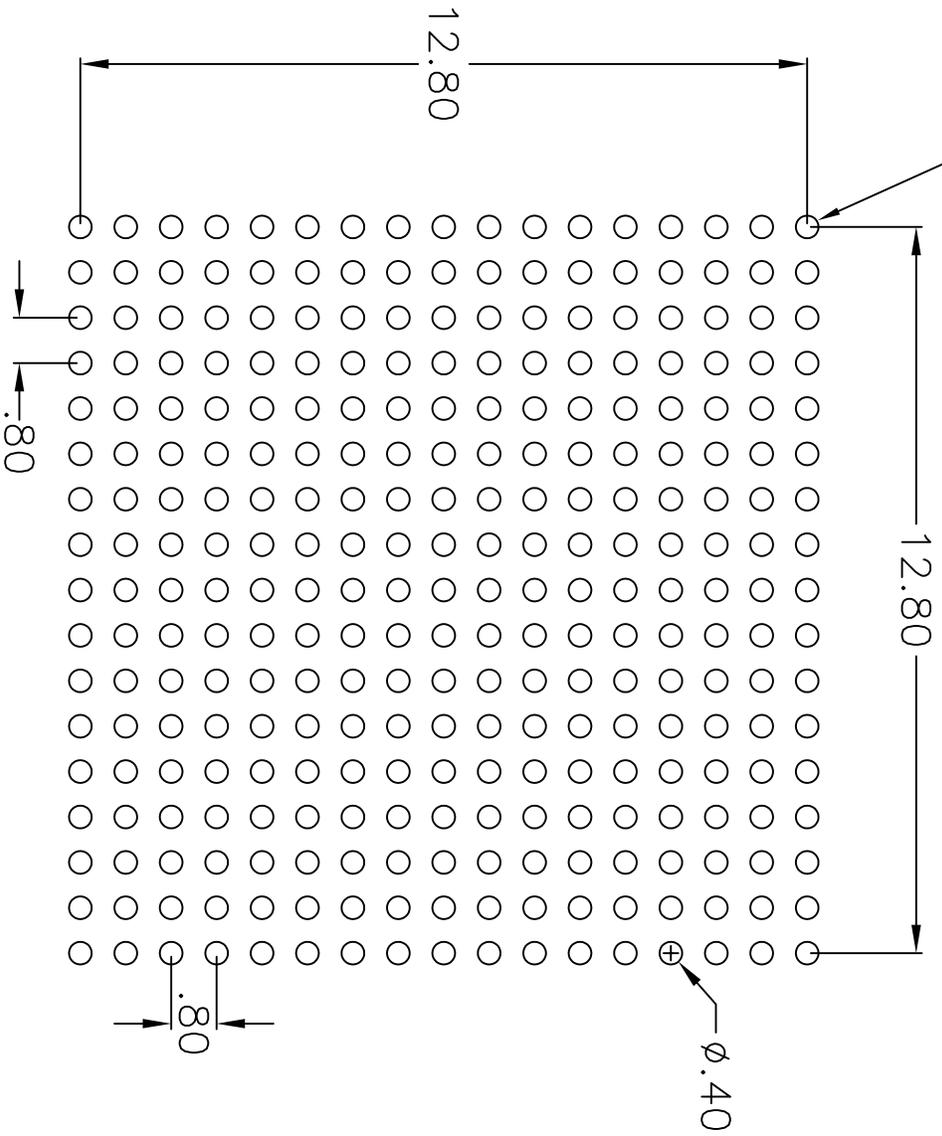
SYMBOL	JEDEC VARIATION MO-205e-AG			NOTE
	MIN	NOM	MAX	
A	1.30	1.40	1.70	
A1	.25	.40	.45	
D	15.00 BSC			
E	15.00 BSC			
M	17 X 17			3
N	289			4
e	.80 BSC			
b	.40	.45	.50	5
CENTER BALL MATRIX	N/A			

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 \square -C-
- 6 SEATING PLANE AND PRIMARY DATUM \square -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		 <p>6024 SILVER CREEK VALLEY ROAD, SAN JOSE, CA 95138 PHONE: (408) 294-8200 FAX: (408) 294-3572</p>
DECIMAL	±	
ANGULAR	±	
XXX±		
APPROVALS	DATE	TITLE
DRAWN CJK	09/20/07	BFG289 FPBGA PACKAGE OUTLINE
CHECKED		15.0 X 15.0 mm, 0.8mm PITCH
SIZE	DRAWING No.	REV
C	PSC-4219	03
DO NOT SCALE DRAWING		SHEET 2 OF 4

"A1" ID CORNER



RECOMMENDED LAND PATTERN DIMENSION

TOLERANCES UNLESS SPECIFIED		6024 SILVER CREEK VALLEY ROAD	
DECIMAL	ANGULAR	San Jose, CA 95138	
XX±.10	±1°	PHONE: (408) 284-8200	
XXXX±.050		FAX: (408) 284-2775	
XXXXX±.0500		www.IDT.com	
APPROVALS	DATE	TITLE BFG289 PACKAGE OUTLINE	
DRAWN /GALG	09/09/12	15.0 x 15.0mm, 0.8 mm PITCH FPBGA	
CHECKED		SIZE DRAWING No. REV	
		C PSC-4219 03	
DO NOT SCALE DRAWING		SHEET 3 OF 4	

