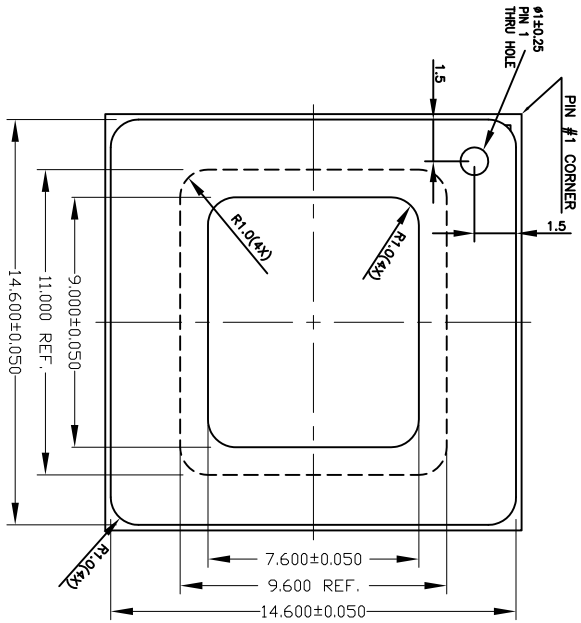
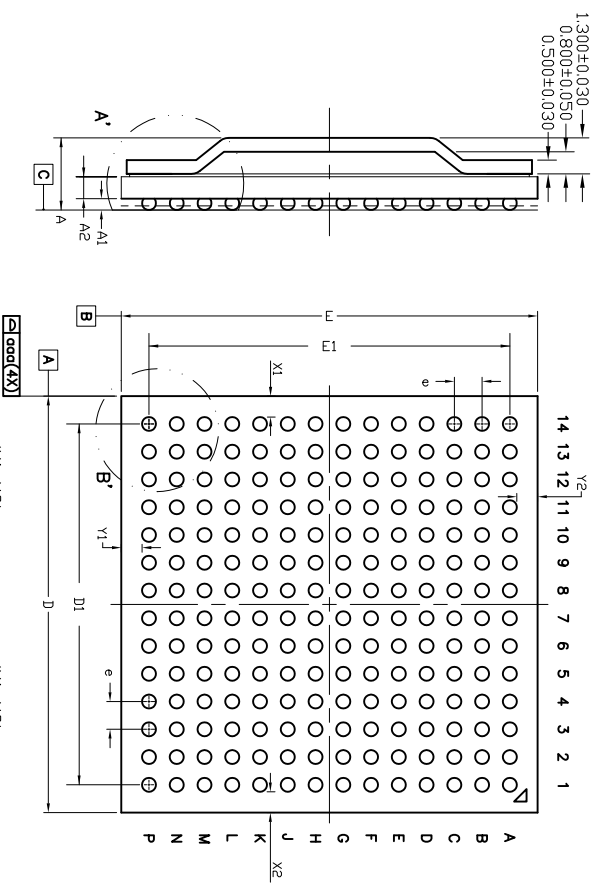


REV	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE	6/11/13	OK LIE

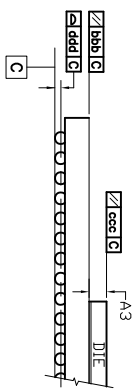
TOP VIEW



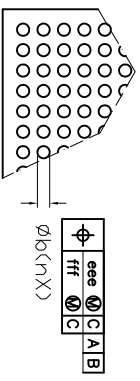
BOTTOM VIEW



SYMBOL	COMMON DIMENSIONS		
	MIN.	NOM.	MAX.
TOTAL THICKNESS	A	2.350	2.850
STAND OFF	A1	0.360	0.460
SUBSTRATE THICKNESS	A2	0.790	REF
THICKNESS FROM SUBSTRATE SURFACE TO DIE BACKSIDE	A3	---	REF
BODY SIZE	D	15,000	BSC
BALL DIAMETER	E	15,000	BSC
BALL WIDTH	b	0.500	BSC
BALL PITCH	e	0.440	0.640
BALL COUNT	n	196	BSC
EDGE BALL CENTER TO CENTER	D1	13,000	BSC
	E1	13,000	BSC
EXPOSE DIE SIZE	D2	---	BSC
	E2	---	BSC
PACKAGE EDGE TOLERANCE	aaa	0.100	BSC
SUBSTRATE PARALLELISM	bbb	0.100	BSC
TOP PARALLELISM	ccc	0.200	BSC
COPLANARITY	ddd	0.150	BSC
BALL OFFSET(PACKAGED)	eee	0.250	BSC
BALL OFFSET (BALL)	fff	0.100	BSC



DETAIL A'

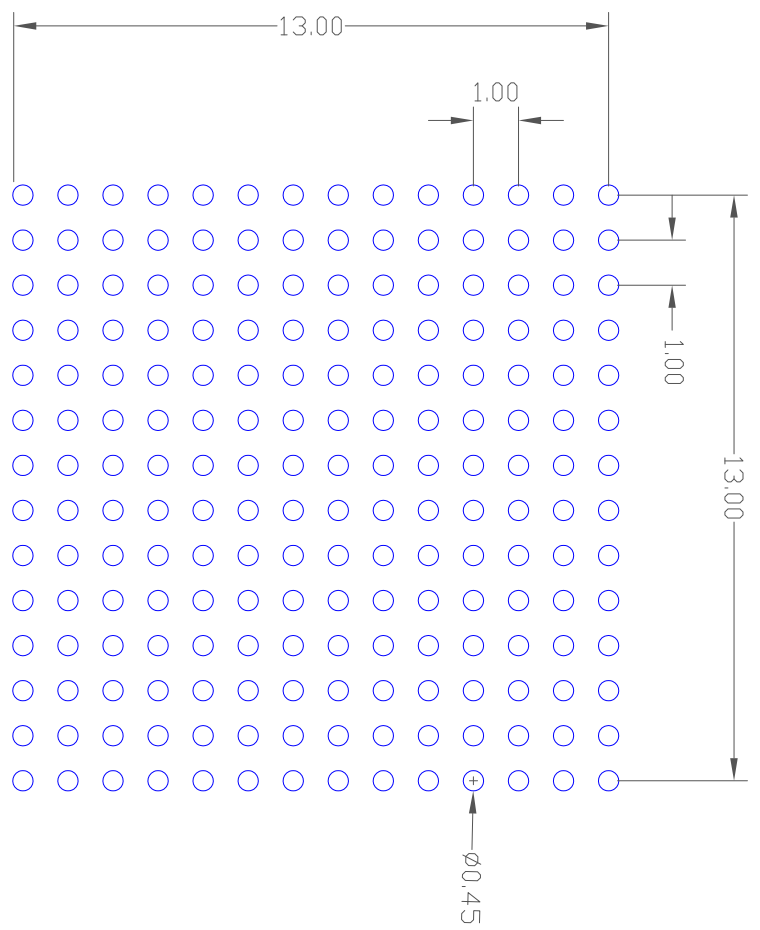


DETAIL B'

TOLERANCES UNLESS SPECIFIED	ANGULAR
DECIMAL	
XX±	
XXXX±	
XXXXX±	
APPROVALS	DATE
DRAWN GJK	6/11/13
CHECKED	
6024 SILVER CREEK VALLEY ROAD, SAN JOSE, CA 95138 PHONE: (408) 284-8200 FAX: (408) 284-3572 WWW.IDT.COM	
TITLE: BLG196 FCBCGA PACKAGE OUTLINE 15.0 X 15.0 mm, 1.0mm PITCH	

SIZE	DRAWING No.	REV
C	PSC-4468	00
DO NOT SCALE DRAWING		
SHEET 1		OF 2

REVISIONS		DATE	APPROVED
REV	DESCRIPTION	8/11/13	CX LEE
00	INITIAL RELEASE		



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		6024 SILVER CREEK	
DECIMAL	ANGULAR	VALLEY ROAD, SAN JOSE, CA 95138	
XXX±		PHONE: (408) 284-8200	
XXXX±		FAX: (408) 284-3572	
XXXX±		WWW.IDT.COM	
APPROVALS	DATE	TITLE	
DRAWN 69%	6/11/13	BLG196 FCBGA PACKAGE OUTLINE	
CHECKED		15.0 X 15.0 mm, 1.0mm PITCH	
SIZE	DRAWING No.	REV	
C	PSC-4468	00	
DO NOT SCALE DRAWING		SHEET 2 OF 2	