



	SYMBOL	COMMON DIMENSIONS		
		MIN.	NOR.	MAX.
TOTAL THICKNESS	A	---	---	1.1
STAND OFF	A1	0.16	---	0.26
SUBSTRATE THICKNESS	A2	0.21		REF
MOLD THICKNESS	A3	0.54		REF
BODY SIZE	D	5		BSC
	E	5		BSC
BALL DIAMETER		0.3		
BALL OPENING		0.275		
BALL WIDTH	b	0.27	---	0.37
BALL PITCH	e	0.5		BSC
BALL COUNT	n	48		
EDGE BALL CENTER TO CENTER	D1	4		BSC
	E1	4		BSC
BODY CENTER TO CONTACT BALL	SD	---		BSC
	SE	---		BSC
PACKAGE EDGE TOLERANCE	aaa	0.1		
MOLD FLATNESS	bbb	0.2		
COPLANARITY	ddd	0.08		
BALL OFFSET (PACKAGE)	eee	0.15		
BALL OFFSET (BALL)	fff	0.08		

Note

1. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane c.
2. Datum c (seating plane) is defined by the spherical crowns of the solder balls.
3. Parallelism measurement shall exclude any effect of mark on top surface of package.



DATE: 02/22/12

DESCRIPTION: 48-Ball, Thin Fine Pitch Ball Grid Array, (TFBGA)

PACKAGE CODE: NE48

DOCUMENT CONTROL #: PD - 2101

REVISION: A