



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M 1994.
3. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC# 10-0131
4. 'e' REPRESENTS THE BASIC SOLDER BALL PITCH.
5. 'N' IS THE NUMBER OF ATTACHED SOLDER BALLS.
6. 'b' IS MEASURABLE AT THE MAXIMUM SOLDER BALL DIAMETER PARALLEL TO THE PRIMARY DATUM [C].
7. DIMENSION 'ddd' IS MEASURED PARALLEL TO PRIMARY DATUM [C].
8. PRIMARY DATUM [C] (SEATING PLANE) IS DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
9. THE OVERALL PACKAGE THICKNESS "A" ALREADY CONSIDERS COLLAPSE BALLS.
10. MARKING SHOWN IS FOR PKG. ORIENTATION ONLY.
11. ALL DIMENSIONS APPLY TO PbFREE (+) PKG. CODES.
12. PKG CODE: X28027FM+1 & X28027FM+2

DIMENSIONAL REFERENCES			
REF.	MIN.	NOM.	MAX.
A	1.200	1.300	1.400
A1	0.360	--	0.460
A3	0.530 REF		
b	0.440	--	0.640
c	0.350 REF		
D	12.000 BSC		
D1	10.400 BSC		
E	17.000 BSC		
E1	15.200 BSC		
e	0.800 BSC		
aaa	0.150		
bbb	0.200		
ddd	0.150		
eee	0.150		
fff	0.080		
N	280		

MAXIM

TITLE:
PACKAGE OUTLINE, 280 BALLS,
FLIP CHIP BGA, 12x17x1.3mm

APPROVAL
EDEN CHEN
08/23/12

DOCUMENT CONTROL NO.
21-0652

REV. 1/1
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