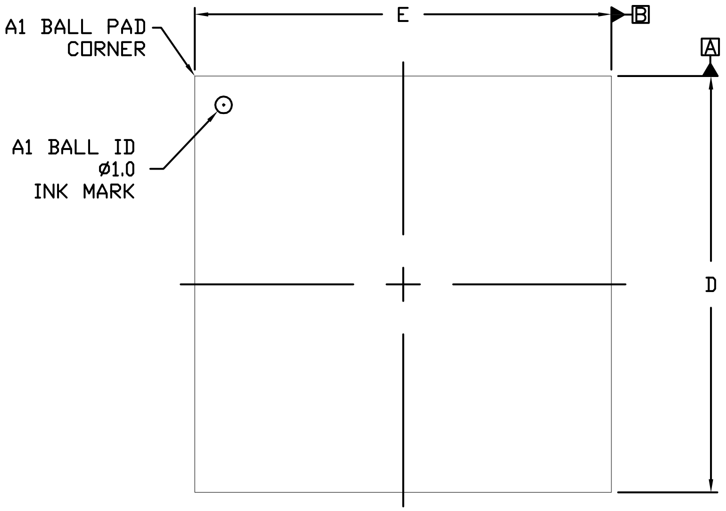
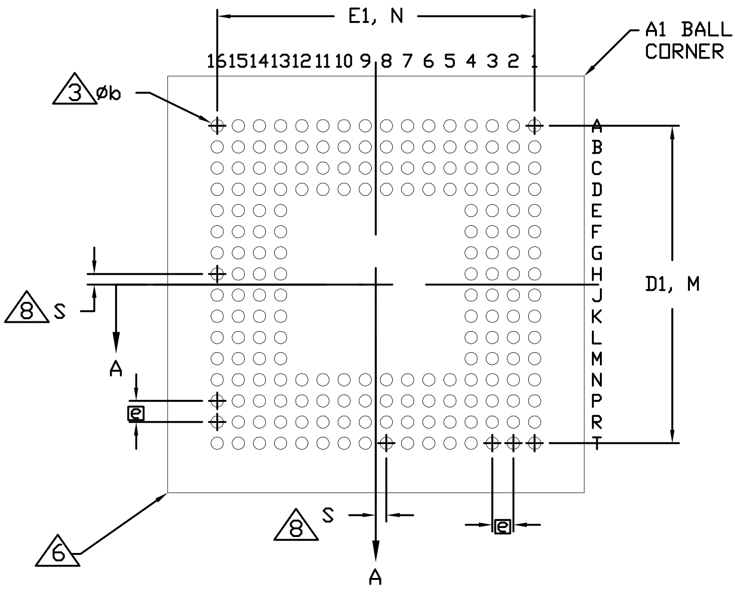
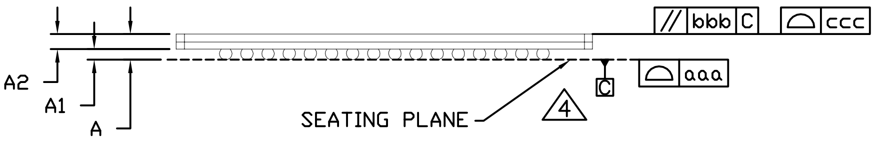


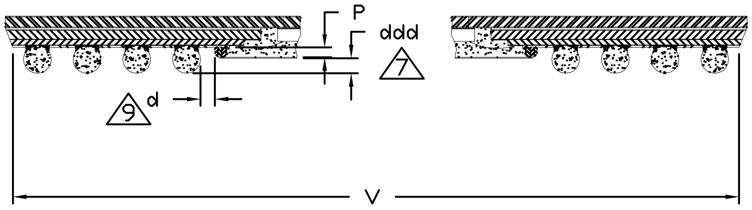
TOP VIEW



BOTTOM VIEW



SIDE VIEW



SECTION 'A-A'

maxim integrated™

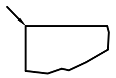
TITLE:
PACKAGE OUTLINE, 192 / 256 BALLS
SBGA, 25x25 / 27x27 MM, 1.27 MM PITCH

APPROVAL	DOCUMENT CONTROL NO.	REV.	
	21-0073	G	1/2

-DRAWING NOT TO SCALE-

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M-1982.
3. DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM 'C'.
4. PRIMARY DATUM 'C' AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
5. THE 192 BALL 25 X 25 MM SBGA HAS 3 ROWS OF BALLS. THE 256 BALL 27 X 27 MM SBGA HAS 4 ROWS OF BALLS. NUMBER OF BALLS SHOWN ARE FOR REFERENCE ONLY.
6. SHAPE AT CORNER.



SINGLE FORM

7. HEIGHT FROM BALL SEATING PLANE TO PLANE OF ENCAPSULANT.
8. "S" IS MEASURED WITH RESPECT TO DATUM 'A' AND 'B' AND DEFINES THE POSITION OF THE CENTER SOLDER BALL IN THE OUTER ROW. WHEN THERE IS AN ODD NUMBER OF SOLDER BALLS IN THE OUTER ROW "S"=.000; WHEN THERE IS AN EVEN NUMBER OF SOLDER BALLS IN THE OUTER ROW THE VALUE "S"=e/2. "S" MAY BE EITHER .000 OR e/2 FOR EACH VARIATION.
9. THE DIMENSION FROM THE OUTER EDGE OF THE RESIN DAM TO THE EDGE OF THE INNERMOST ROW OF SOLDER BALL PADS IS TO BE A MINIMUM OF 0.50mm.
10. "SUPER BGA" IS A REGISTERED TRADEMARK OF AMKOR TECHNOLOGIES.
11. MEETS JEDEC MS034.
12. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC #10-0131.
13. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND PbFREE (+) PKG. CODES.
14. PACKAGE CODE: H192-3, H256-1

	25.0 X 25.0MM PACKAGE			27.0 X 27.0MM PACKAGE			BODY SIZE
SYMBOL	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.	NOTE
A	1.41	1.54	1.67	1.41	1.54	1.67	OVERALL THICKNESS
A1	0.56	0.63	0.70	0.56	0.63	0.70	BALL HEIGHT
A2	0.85	0.91	0.97	0.85	0.91	0.97	BODY THICKNESS
D	24.90	25.00	25.10	26.90	27.00	27.10	BODY SIZE
D1	22.76	22.86	22.96	24.03	24.13	24.23	BALL FOOTPRINT
E	24.90	25.00	25.10	26.90	27.00	27.10	BODY SIZE
E1	22.76	22.86	22.96	24.03	24.13	24.23	BALL FOOTPRINT
M,N	19 x 19			20 x 20			BALL MATRIX
	192			256			# OF BALLS
b	0.60	0.75	0.90	0.60	0.75	0.90	BALL DIAMETER
d	0.6			0.6			MIN DISTANCE ENCAP TO BALLS
e	1.27 BSC			1.27 BSC			BALL PITCH
aaa			0.15			0.15	COPLANARITY
bbb			0.15			0.15	PARALLEL
ccc			0.20			0.20	TOP FLATNESS
ddd 7	0.15	0.33	0.50	0.15	0.33	0.50	SEATING PLANE CLEARANCE
P	0.20	0.30	0.35	0.20	0.30	0.35	ENCAPSULATION HEIGHT
S	0.00 REF.			0.635 REF.			SOLDER BALL PLACEMENT
V	24.2	—	24.9	26.2	—	26.9	V - GROOVE BOTTOM SIZE

maxim integrated™

TITLE:
PACKAGE OUTLINE, 192 / 256 BALLS
SBGA, 25x25 / 27x27 MM, 1.27 MM PITCH

APPROVAL
DOCUMENT CONTROL NO. 21-0073
REV. G
2/2

-DRAWING NOT TO SCALE-