


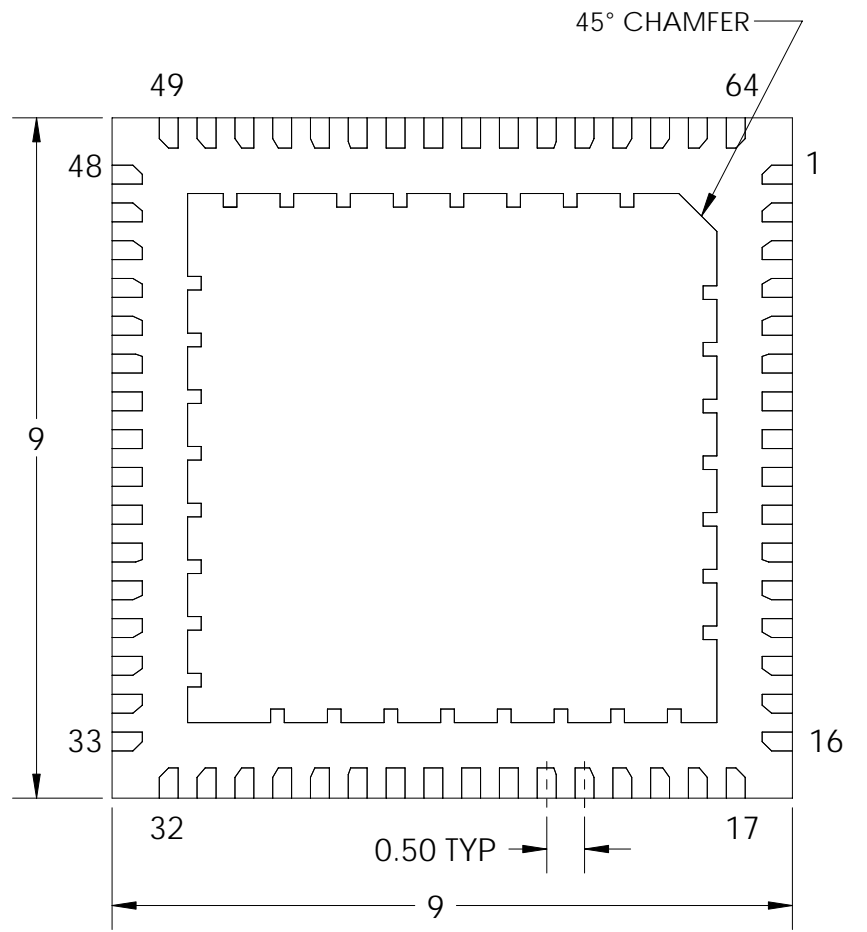
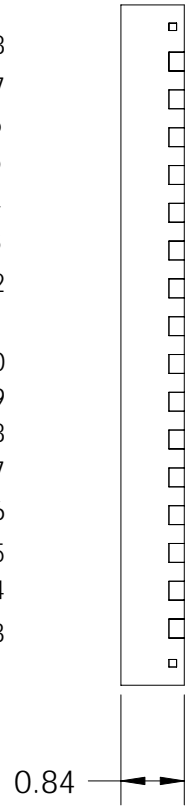
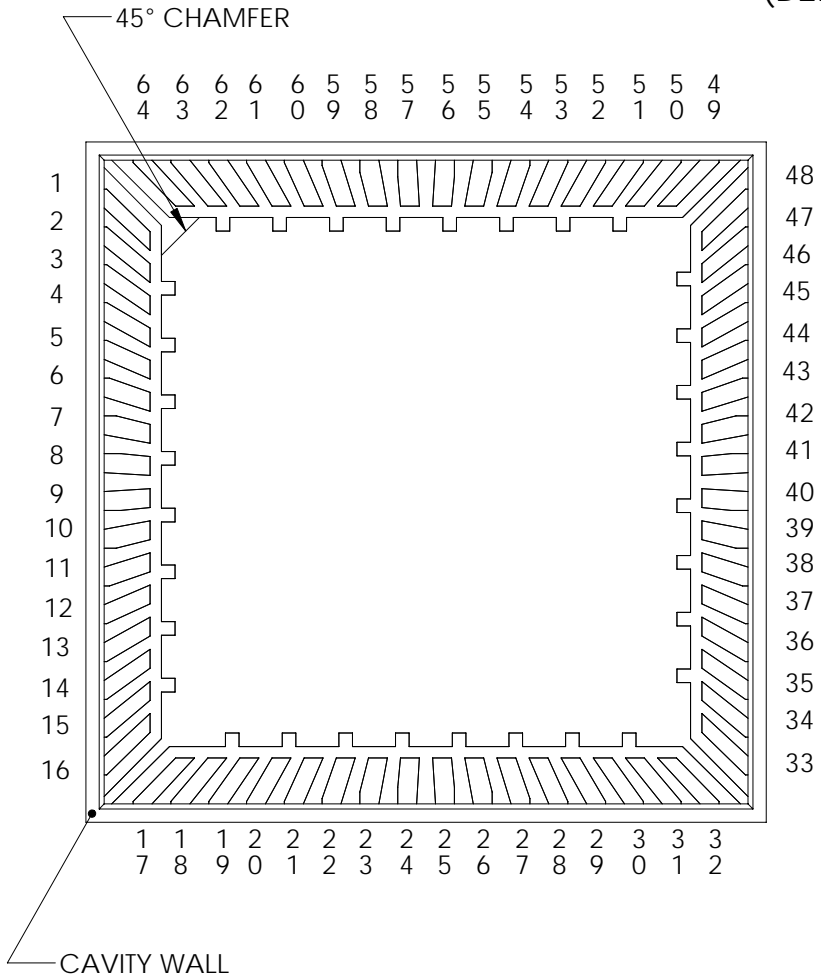
- Notes: (Unless Otherwise Specified)
- 1) BODY; PLASTIC, SEMICONDUCTOR GRADE
 - 2) LEAD FRAME: COPPER, C-194F/H
 - 3) LEAD FRAME PLATING: Ni, Pd, Au
 - 4) FRAME THICKNESS: 0.203mm
 - 5) DIE PAD: 7mm X 7mm
 - 6) JEDEC OUTLINE: MO-220
 - 7) DIMENSIONS: MM

TOLERANCE UNLESS NOTED		APPROVALS		DATE	 TITLE: 64-LEAD 9mm P=0.5 mm M-QFN CAVITY PACKAGE			
X.X	± 0.05	DRAWN	TST	8/21/10				
X.XX	± 0.01	CHECKED						
X.XXX	± 0.005	ENG						
X.XXXX	± 0.0005	MFG						
ALL DIMENSIONS IN <input type="checkbox"/> INCHES <input type="checkbox"/> MILLIMETERS		Q.A.			SCALE	SIZE	DWG. NO.	REV
THIRD ANGLE PROJECTION		CUST			8:1	A	456450 M-QFN64W.5	A
		REVISED			DO NOT SCALE DRAWING			SHEET 1 OF 4

TOP VIEW

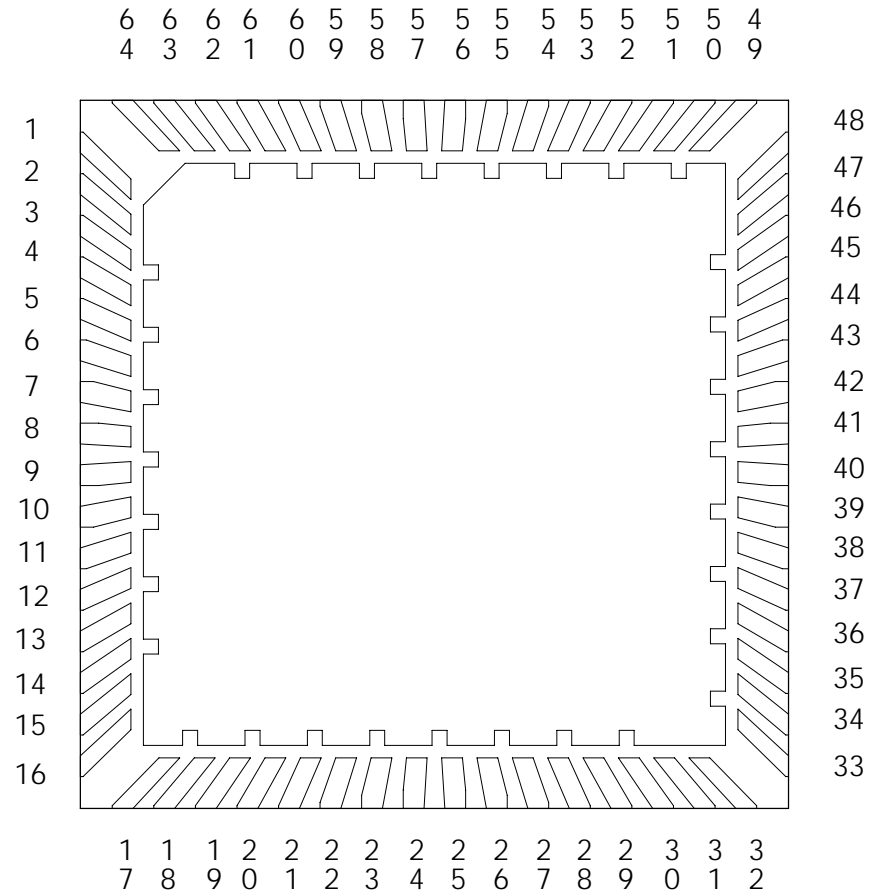
SIDE VIEW
(BEFORE LID ATTACH)

BOTTOM VIEW



TITLE: 64-LEAD 9mm P=0.5 mm M-QFN CAVITY PACKAGE			
SCALE 10:1	SIZE A	DWG. NO. 456450 M-QFN64W.5	REV A
DO NOT SCALE DRAWING			SHEET 2 OF 4

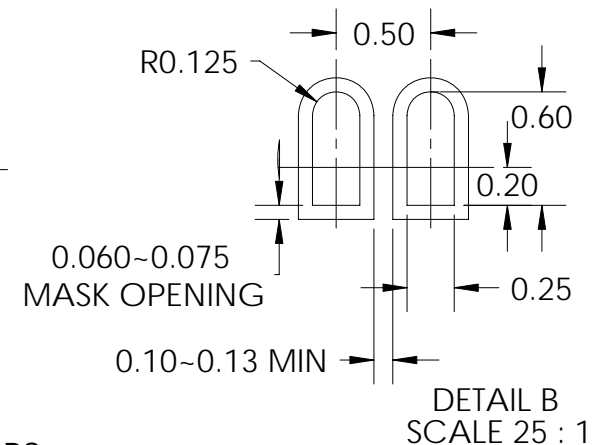
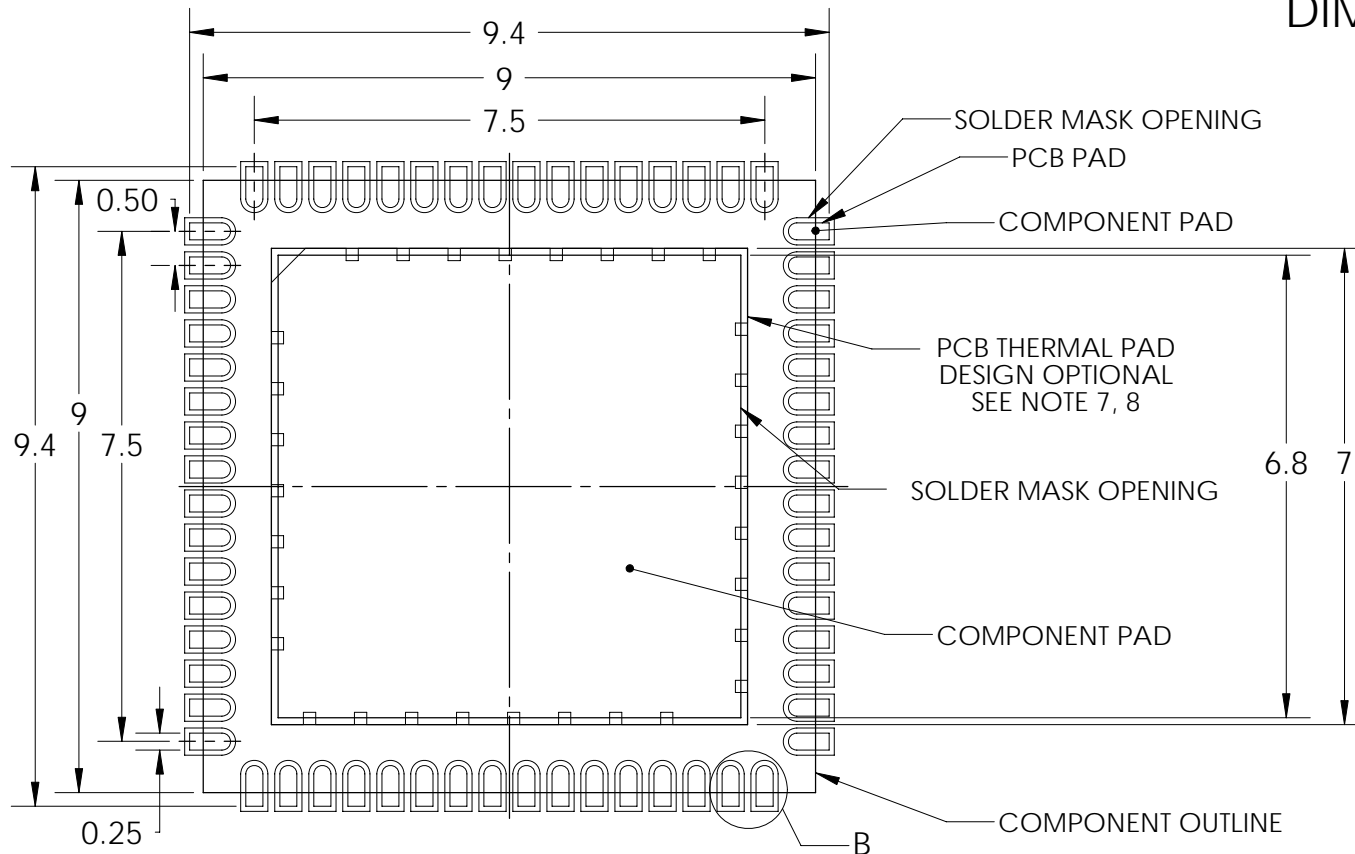
BOND DIAGRAM



TITLE:
64-LEAD 9mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE 11:1	SIZE A	DWG. NO. 456450 M-QFN64W.5	REV A
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RECOMMENDED PC BOARD LAYOUT DIMENSIONS IN MM



Notes: (Unless Otherwise Specified).

- 1) DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE. DESIGNERS SHOULD USE THEIR OWN KNOWLEDGE BASE WHEN DESIGNING THE PCB.
- 2) SURROUND EACH SIDE OF I/O PERIMETER PADS WITH 0.060~0.075 mm (NSMD) SOLDER MASK OPENING (2.4~3.0mils). OPTIONALLY OK TO USE RECTANGLE (NSMD) MASK OPENING AROUND I/O PADS.
- 3) ROUNDED PCB LAND PADS REDUCE SOLDER BRIDGING. PAD CHAMFER ANGLE MAY VARY
- 4) PCB LANDS SHOULD BE 0.2mm LONGER THAN THE PACKAGE I/O PADS.
- 5) THE WIDTH OF PERIMETER PCB PADS SHOULD MATCH (1:1) THE SAME WIDTH AS THE PACKAGE PADS.
- 6) REFER TO INDUSTRY REFERENCES SUCH AS IPC-SM-782 FOR PCB LAND PATTERN DESIGN.
- 7) THERMAL GROUND PADS MAY BE CHANGED TO SUITE REQUIREMENTS OF THE DESIGNER.
 - A. MAKE COPPER THERMAL PAD AS LARGE AS POSSIBLE.
 - B. DRILL MULTIPLE THERMAL VIAS 0.25~0.33mm DIAMETER USING 0.8~1.2mm PITCH GRID.
 - C. PLATE THERMAL VIA BARRELS WITH 1-OUNCE COPPER (18µm).
 - D. TENT (COVER) THERMAL VIAS WITH SOLDER MASK 0.1mm LARGER THEN THE VIA DIAMETER.
- 8) STENCIL DESIGN MAY BE CHANGED TO SUITE REQUIREMENTS OF THE DESIGNER.
 - A. LASER CUT STENCIL 0.125mm (5mil) THICK. APERTURE SIZE-TO-LAND RATIO OF 1:1.
 - B. THE SOLDER PASTE OPENING IN THE THERMAL PAD AREA SHOULD BE A MATRIX ARRAY OF SMALLER APERTURES INSTEAD OF ONE LARGE APERTURE TO CONTROL PASTE AMOUNTS.
 - C. APPLY 50% TO 80% SOLDER PASTE COVERAGE IN THE THERMAL PAD AREA.



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64-LEAD 9mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE	SIZE	DWG. NO.	REV
11:1	A	456450 M-QFN64W.5	A
DO NOT SCALE DRAWING			SHEET 4 OF 4