
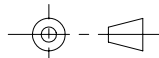


- Notes: (Unless Otherwise Specified)
- 1) BODY; PLASTIC, SEMICONDUCTOR GRADE
 - 2) LEAD FRAME: COPPER, C-194F/H
 - 3) LEAD FRAME PLATING: Ni, Pd, Au
 - 4) FRAME THICKNESS: 0.203mm
 - 5) DIE PAD: 2.5 X 2.5mm
 - 6) JEDEC OUTLINE: MO-220
 - 7) DIMENSIONS: MM

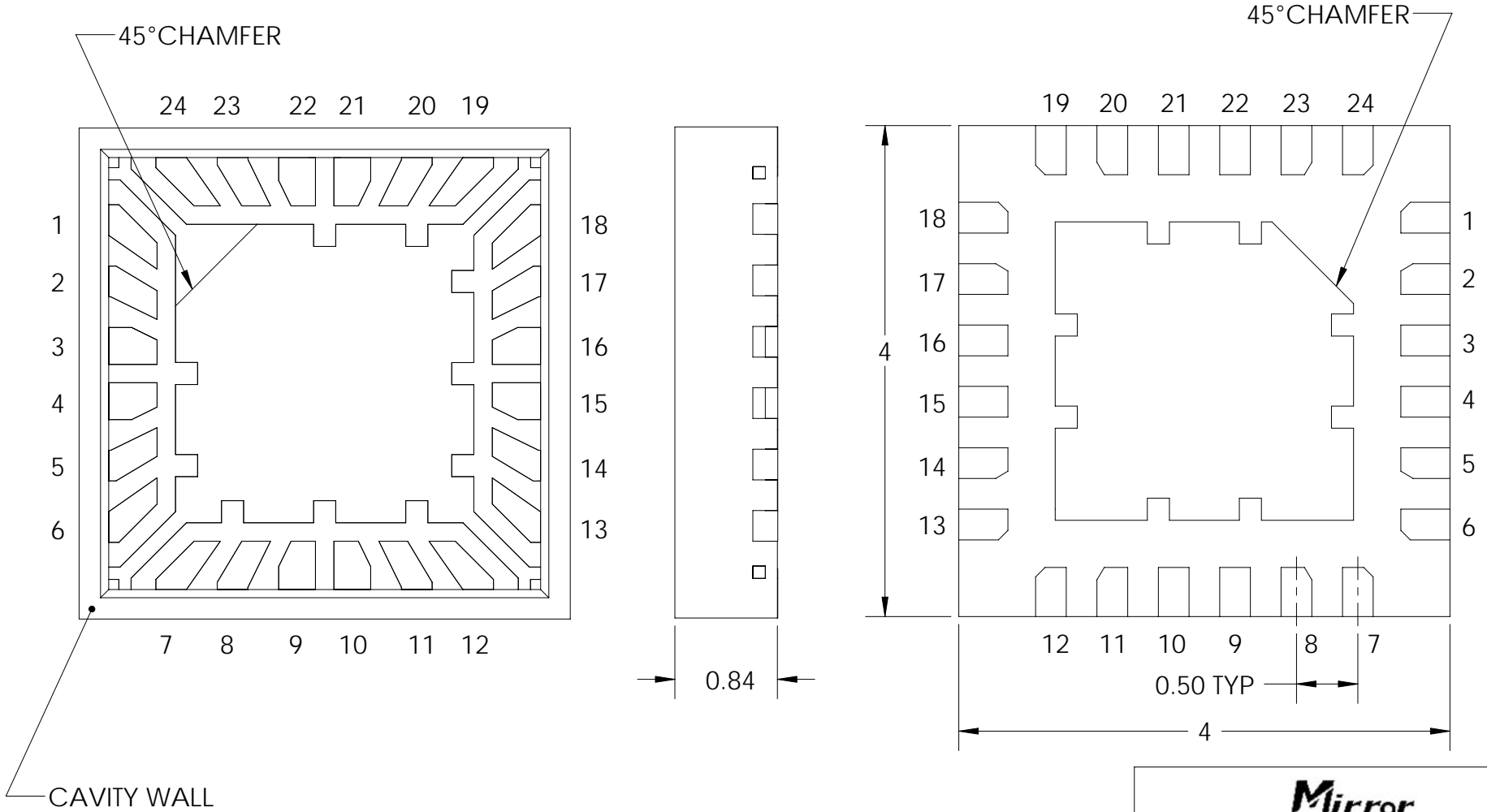
| PLATING THICKNESS | | |
|-------------------|-----------|---------------------------|
| Ni | NICKEL | 0.50-2.00 μm |
| Pd | PALLADIUM | 0.02-0.15 μm |
| Au | GOLD | 0.003-0.015 μm |

| | | | | | | | | | |
|---|----------|-----------|------|--|----------------------|---|--------------|----------|-----|
| TOLERANCE UNLESS NOTED | | APPROVALS | DATE |  TITLE: 24-LEAD 4mm 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 | | | SCALE | | SIZE | DWG. NO. | REV |
| ALL DIMENSIONS IN □ INCHES □ MILLIMETERS | | Q.A. | | | 15:1 | A | 452450 | A | |
| THIRD ANGLE PROJECTION | | CUST | | | DO NOT SCALE DRAWING | | SHEET 1 OF 4 | | |
|  | | REVISED | | | | | | | |

TOP VIEW

SIDE VIEW
(BEFORE LID ATTACH)

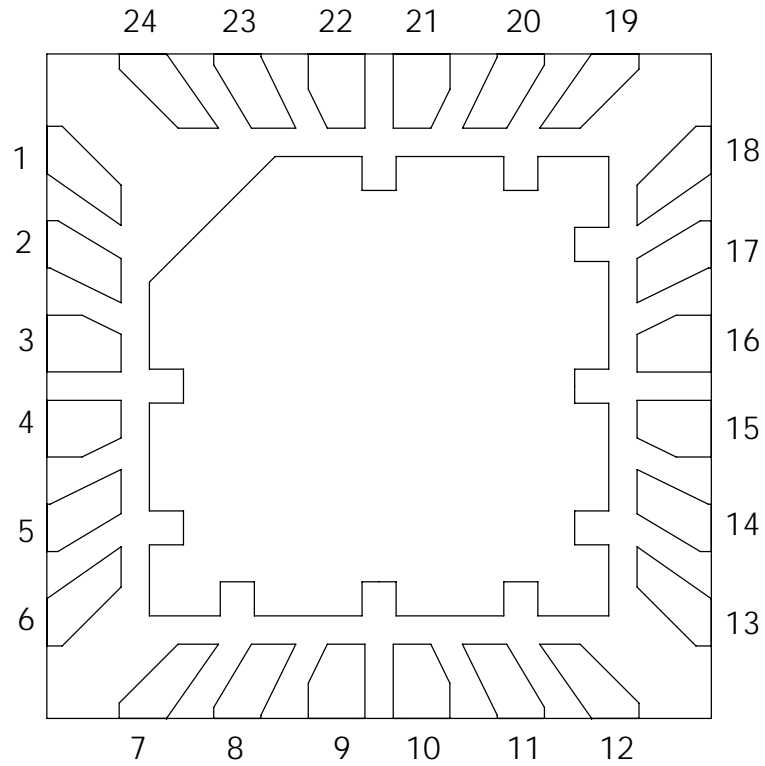
BOTTOM VIEW



TITLE:
24-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

| | | | |
|----------------------|------------------|--|-----------------|
| SCALE 20:1 | SIZE A | DWG. NO. 452450 M-QFN24W.5 | REV A |
|----------------------|------------------|--|-----------------|

BOND DIAGRAM



TITLE:

24-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE
25:1

SIZE
A

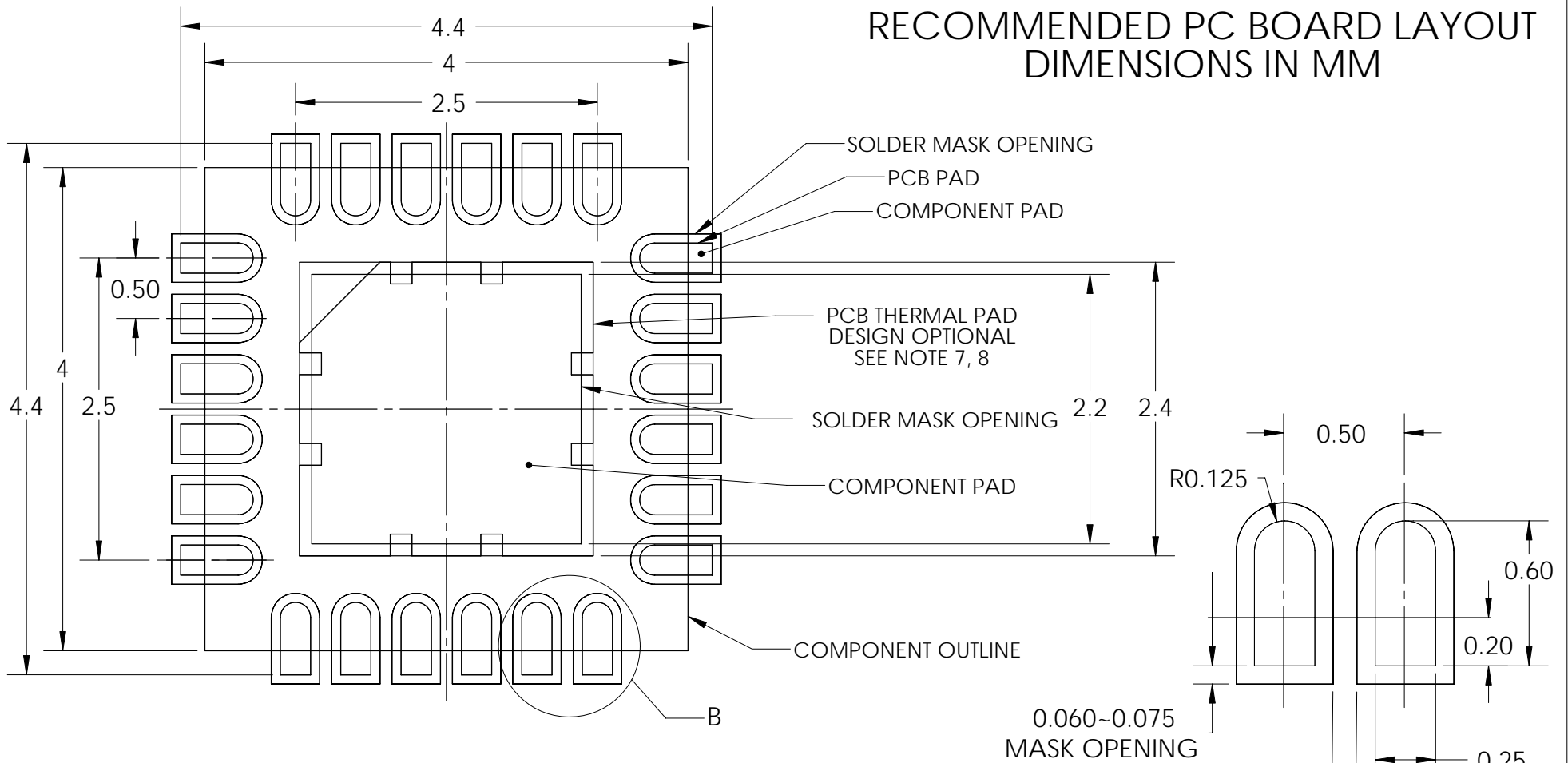
DWG. NO.
452450
M-QFN24W.5

REV
A

DO NOT SCALE DRAWING

SHEET 3 OF 4

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.



TITLE:
24-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

| SCALE | SIZE | DWG. NO. | REV |
|-------|------|----------------------|-----|
| 25:1 | A | 452450 M-QFN24W.5 | A |

DO NOT SCALE DRAWING SHEET 4 OF 4