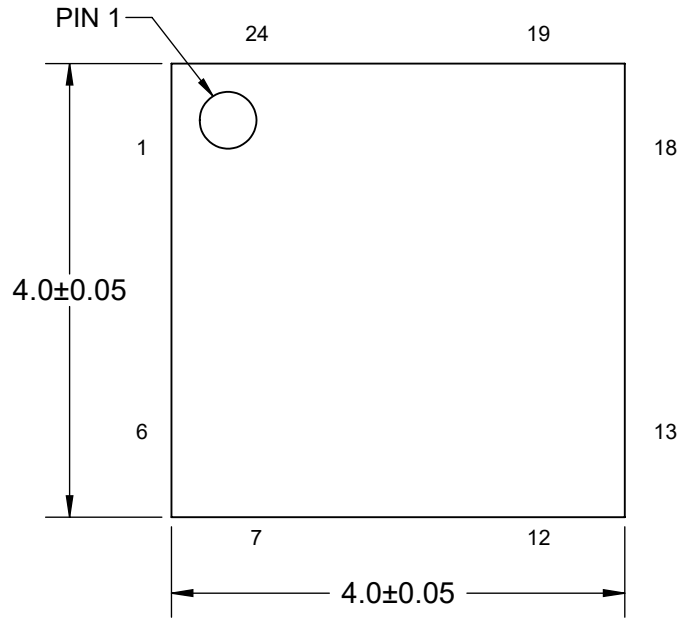
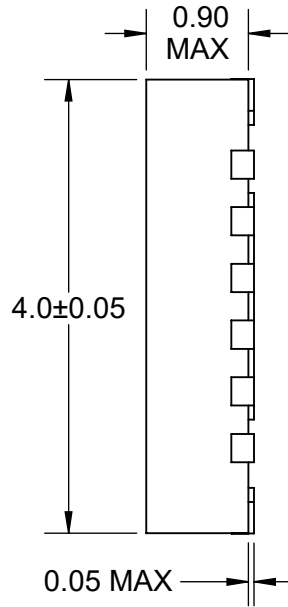


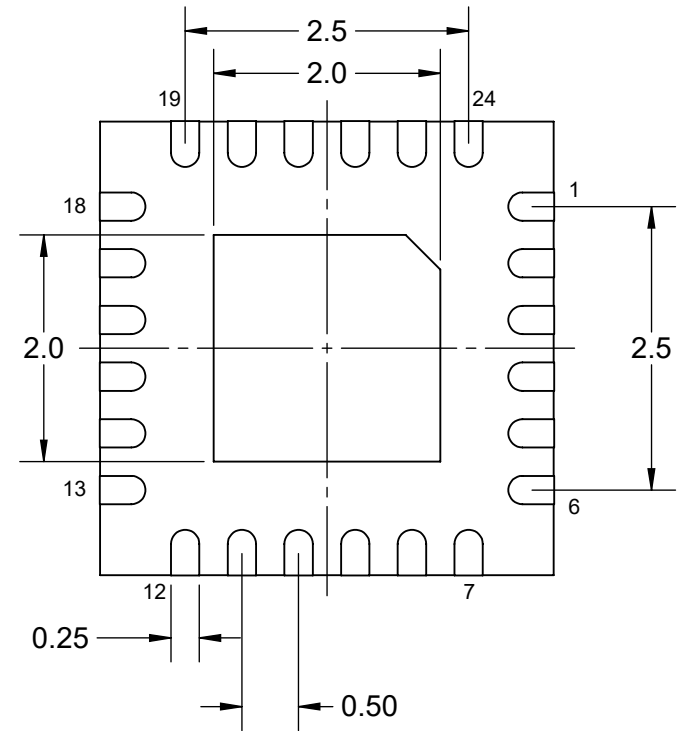
TOP VIEW



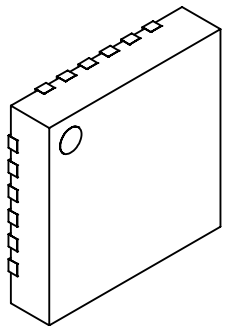
SIDE VIEW



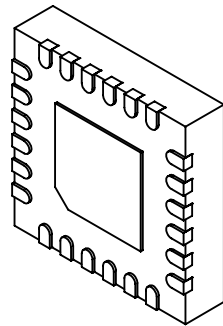
BOTTOM VIEW



MODEL



TOP



BOTTOM

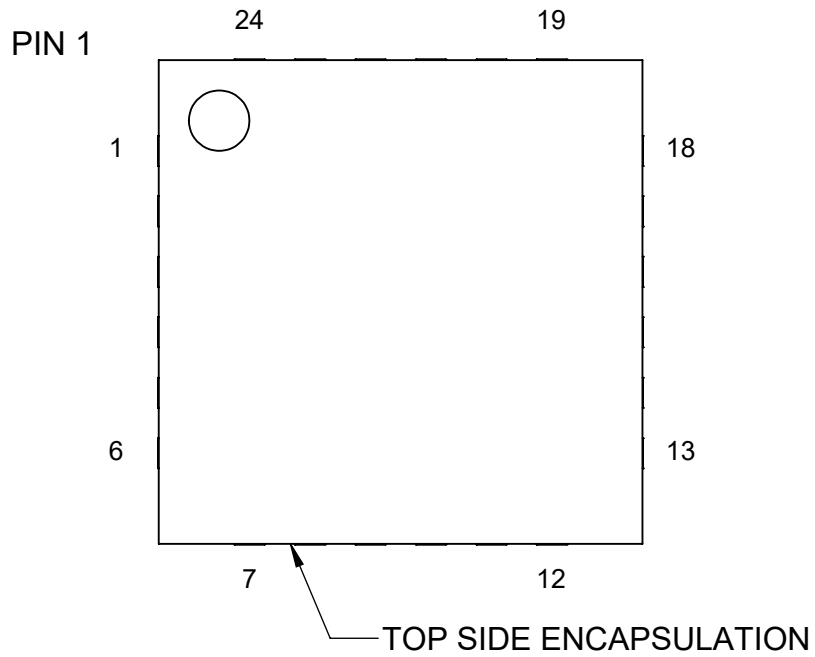
Notes: (Unless Otherwise Specified).

- 1) BODY: PLASTIC, SEMICONDUCTOR GRADE.
- 2) LEAD FRAME: COPPER, C-194 F/H.
- 3) LEAD FRAME PLATING: Ni Pd Au.
- 4) FRAME THICKNESS: 0.203mm.
- 5) DIE PAD: 2.0 x 2.0mm EXPOSED BOTTOM.
- 6) JEDEC OUTLINE: MO-220.
- 7) DIMENSIONS IN mm.

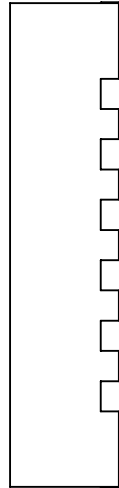
APPROVALS	DATE	TopLine®			
DRAWN T.Au	8/18/2021				
ENG M. Hart	8/18/2021	TITLE 24-LEAD 4mm P0.5mm QFN DAISY CHAIN			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		15:1	A	452441	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 5
REVISED					

DAISY CHAIN PATTERN

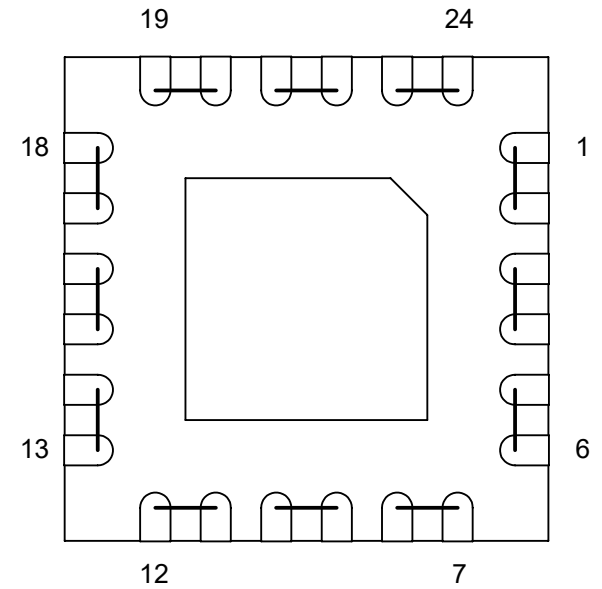
TOP VIEW



SIDE VIEW

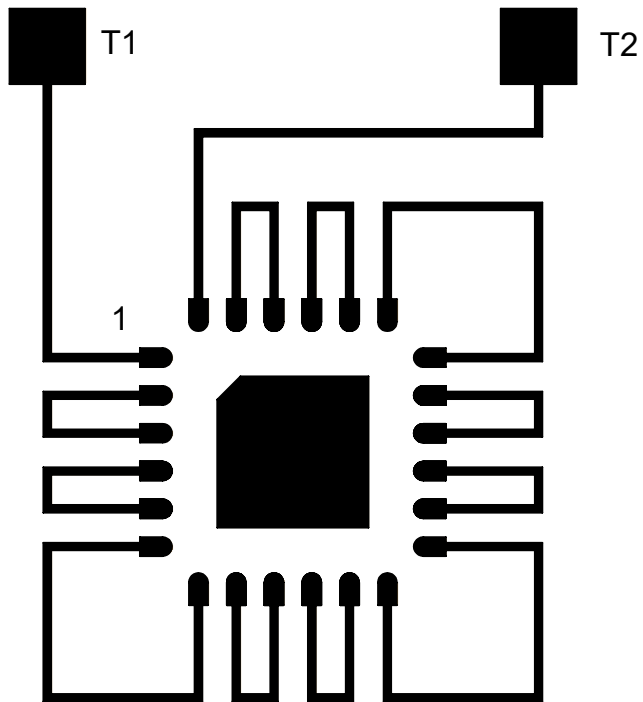


BOTTOM VIEW

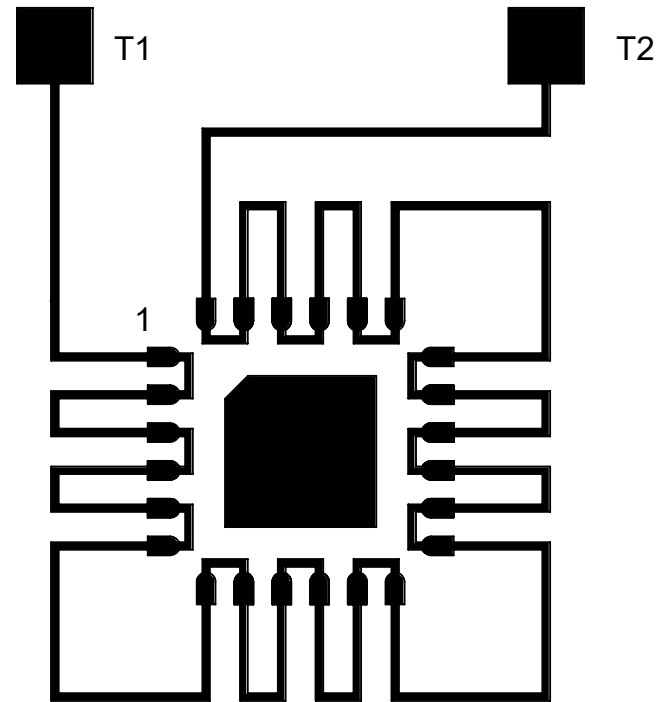


NOTE:
1. PACKAGE DAISY CHAIN BY WIRE BONDING TO INTERNAL BOND PADS.

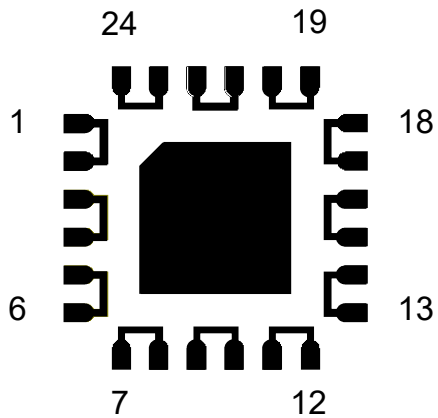
TopLine®			
TITLE 24-LEAD 4mm P0.5mm QFN DAISY CHAIN			
SCALE	SIZE	DRAWING NO.	REV
16:1	A	452441	A
DO NOT SCALE DRAWING			SHEET 2 OF 5



RECOMMENDED
PCB PADS




AFTER MOUNTING
ON PCB

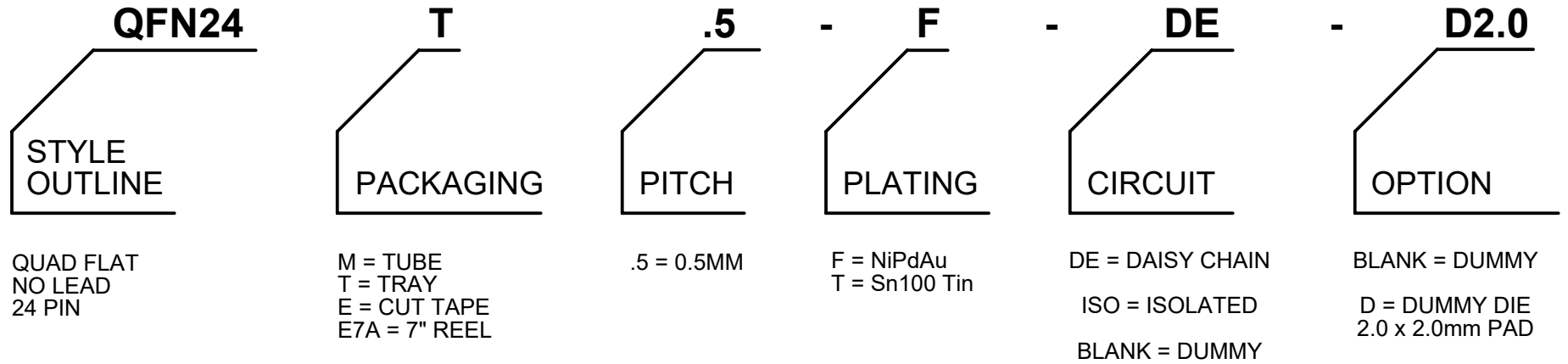


QFN

DAISY CHAIN NET LIST	
PINS	PINS
1 ~ 2	3 ~ 4
5 ~ 6	7 ~ 8
9 ~ 10	11 ~ 12
13 ~ 14	15 ~ 16
17 ~ 18	19 ~ 20
21 ~ 22	23 ~ 24

			
TITLE 24-LEAD 4mm P0.5mm QFN DAISY CHAIN			
SCALE 10:1	SIZE A	DRAWING NO. 452441	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 5

PART NUMBERING SYSTEM

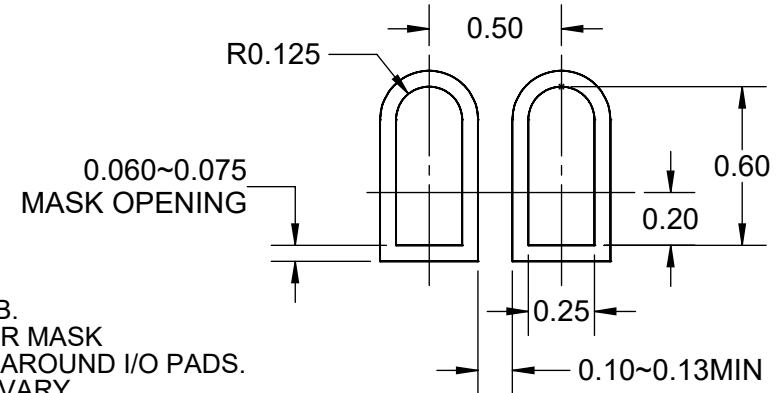
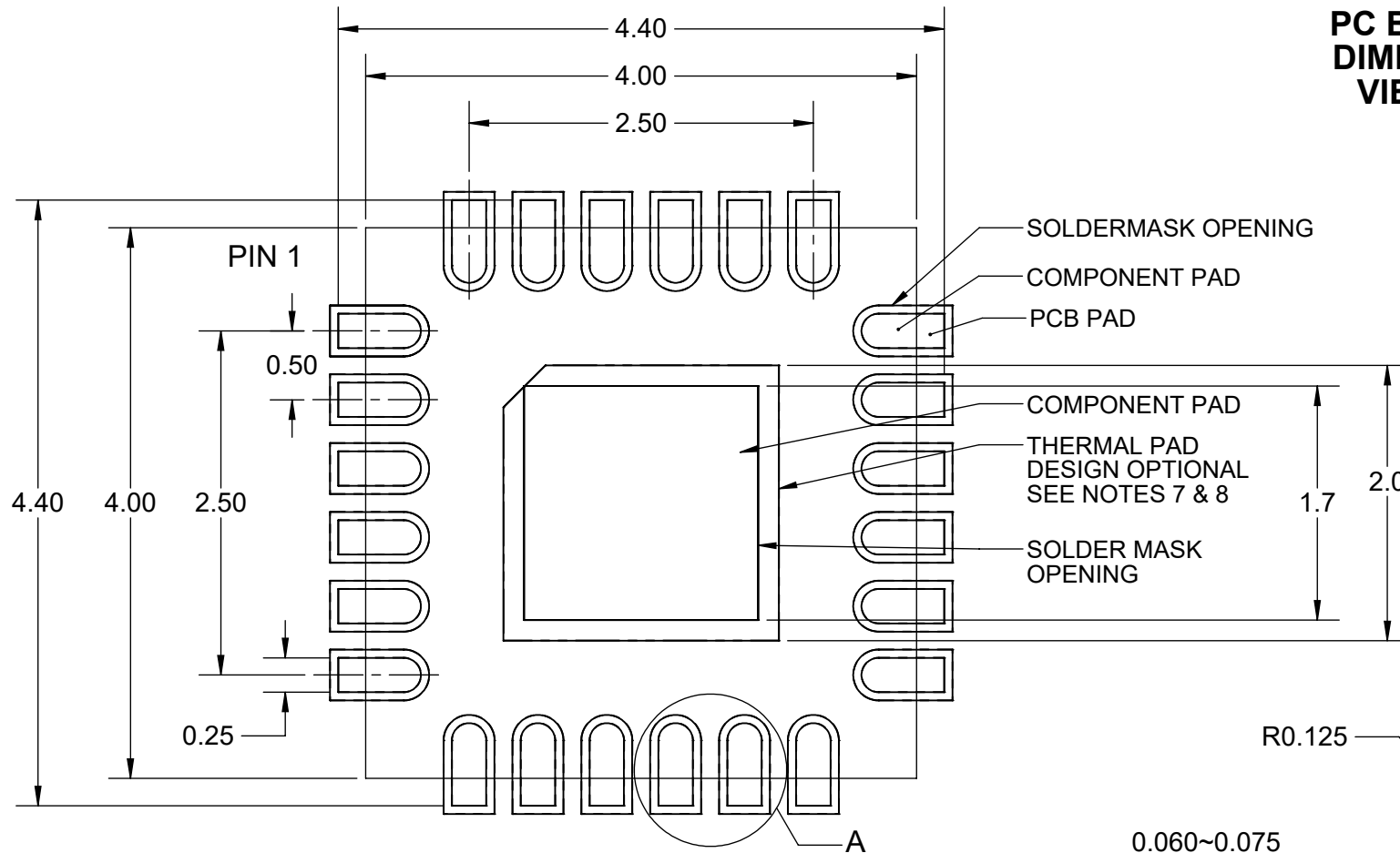


PART NUMBER	DAISY CHAIN	PACKAGING	RoHS Pb-FREE	MSL LEVEL	DUMMY DIE
QFN24T.5-F-DE-D2.0	YES	JEDEC TRAY	YES	1	YES
QFN24E.5-F-DE-D2.0	YES	CUT TAPE	YES	1	YES
QFN24E7A.5-F-DE-D2.0	YES	TAPE & REEL	YES	1	YES
QFN24M.5-T-DE-D2.0	YES	TUBE	YES	1	YES

OTHER PART NUMBER COMBINATIONS AVAILABLE. CONTACT TOPLINE.

TopLine®			
TITLE 24-LEAD 4mm P0.5mm QFN DAISY CHAIN			
SCALE NONE	SIZE A	DRAWING NO. 452441	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 5

**PC BOARD LAYOUT
DIMENSIONS IN MM
VIEW FROM TOP**



**DETAIL A
SCALE 35 : 1**

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 WIDTH OF 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 THAN THE VIA DIAMETER.
- 8) STENCIL DESIGN MAY BE CHANGED TO SUIT 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 PAD AREA.

TopLine®			
TITLE 24-LEAD 4mm P0.5mm QFN DAISY CHAIN			
SCALE 18:1	SIZE A	DRAWING NO. 452441	REV A
DO NOT SCALE DRAWING			SHEET 5 OF 5