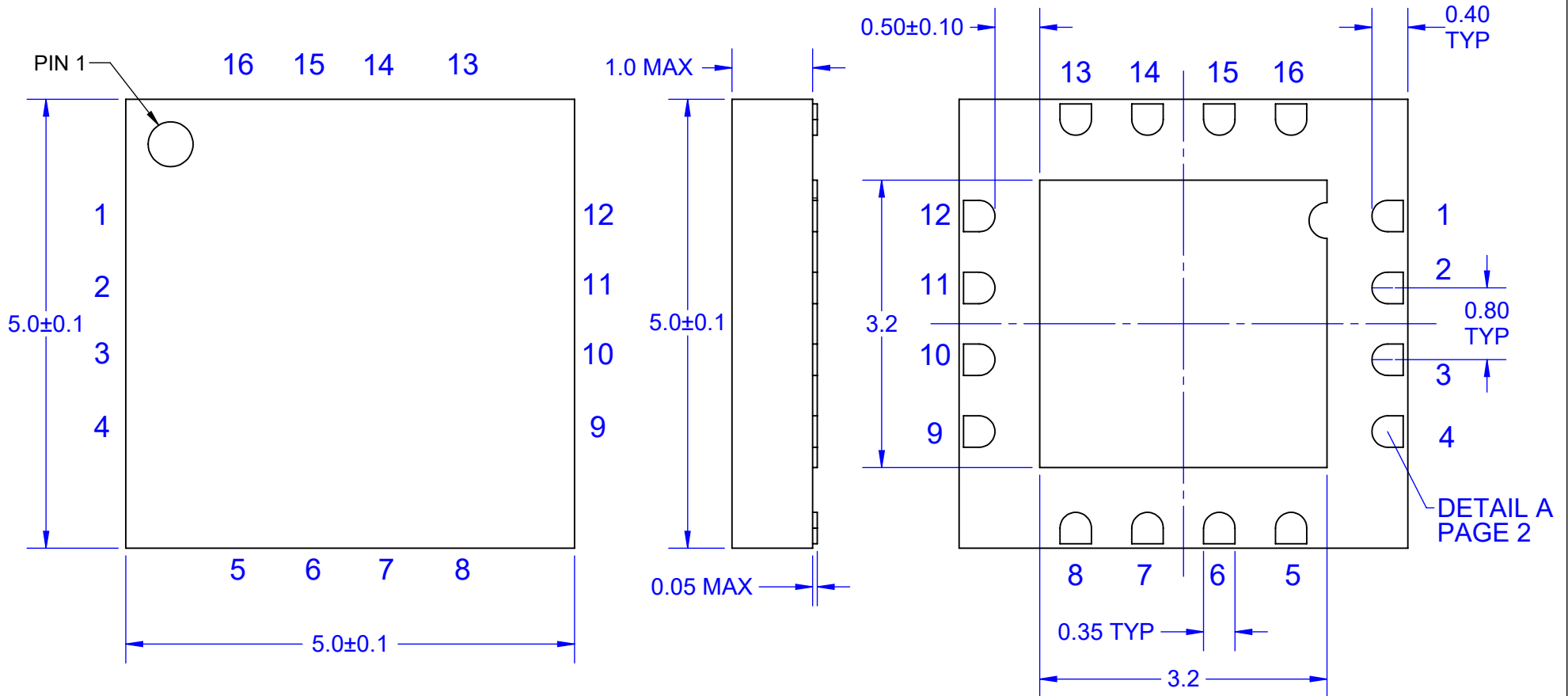


### TOP VIEW

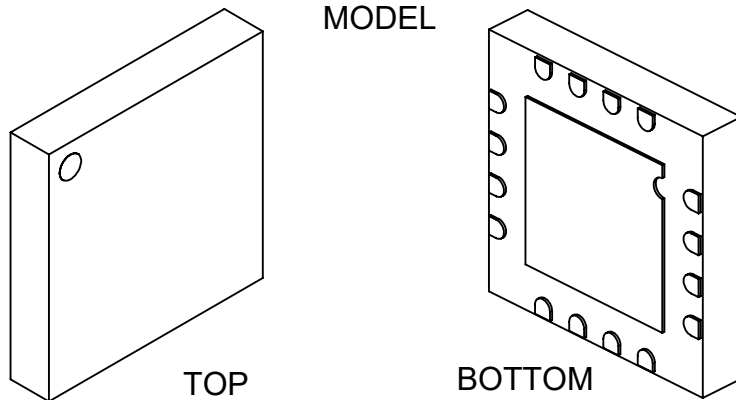
### SIDE VIEW

### BOTTOM VIEW



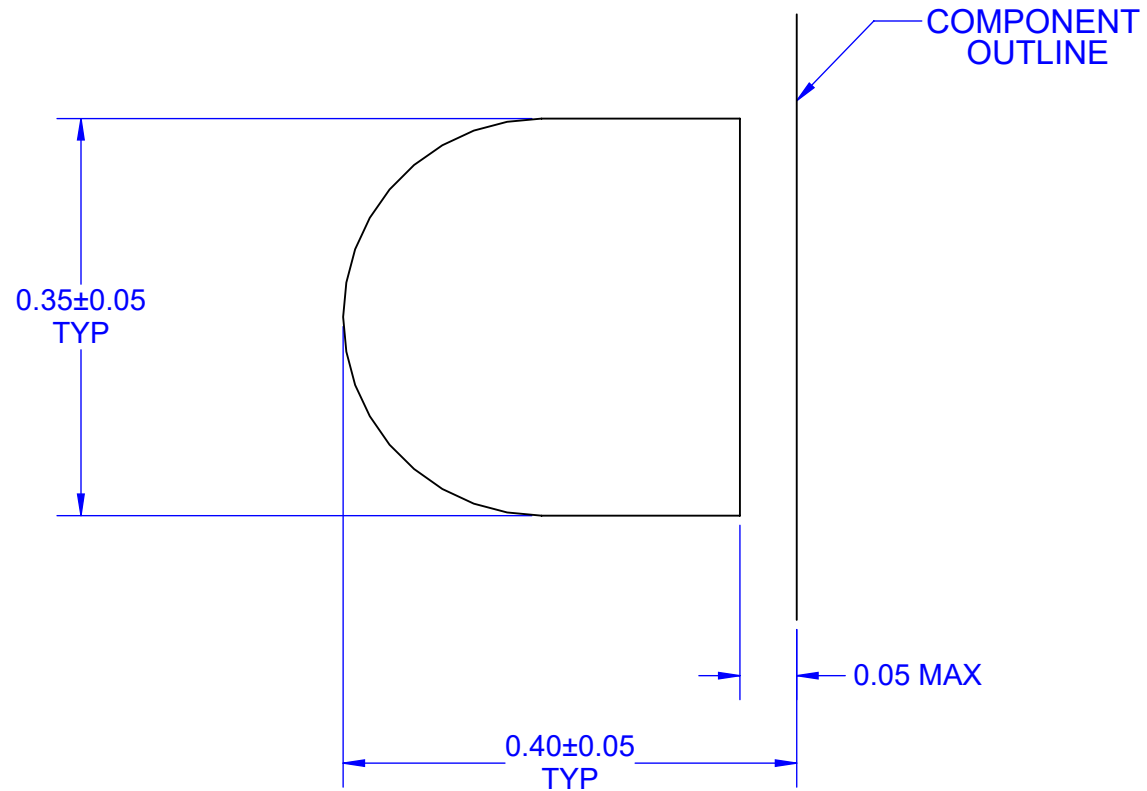
DETAIL A  
PAGE 2

- Notes: (Unless Otherwise Specified).
- 1) BODY: PLASTIC, SEMICONDUCTOR GRADE.
  - 2) SUBSTRATE: BT COPPER 0.038mm.
  - 3) SUBSTRATE PLATING: NiAu.
  - 4) GROUND PAD: 3.2 x 3.2mm (ISOLATED).
  - 5) JEDEC OUTLINE: MO-220.
  - 6) DIMENSIONS mm.



APPROVALS	DATE	<b>TopLine®</b>			
DRAWN T.Au	12/8/2022				
ENG M. Hart	12/8/2022	TITLE QFN CROSS OVER JUMPER 16-LEAD 5mm P0.8mm			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		15:1	A	481699	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 6
REVISED					

# DETAIL A PAD DIMENSIONS



## NOTES:

1. DIMENSIONS mm
2. FLATNESS OF PADS 25~50um

**TopLine**<sup>®</sup>

TITLE QFN CROSS OVER JUMPER  
16-LEAD 5mm P0.8mm

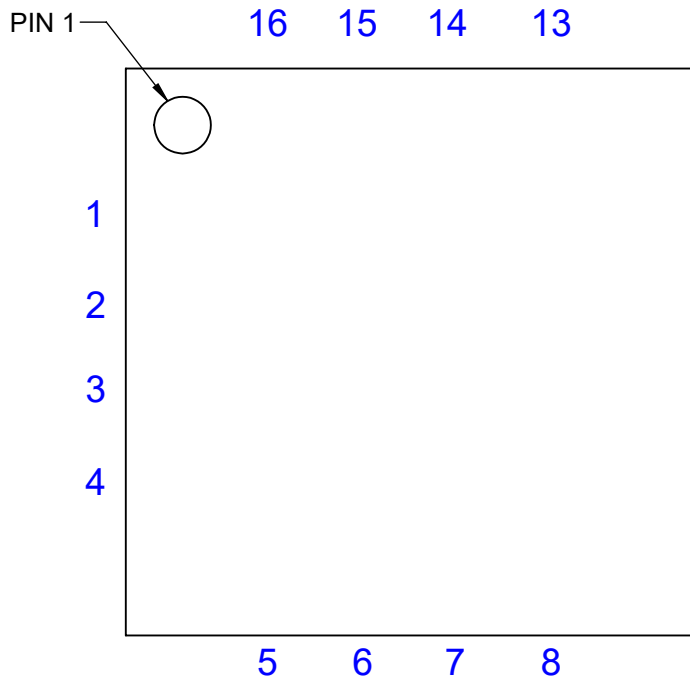
SCALE	SIZE	DRAWING NO.	REV
15:1	A	481699	A

DO NOT SCALE DRAWING

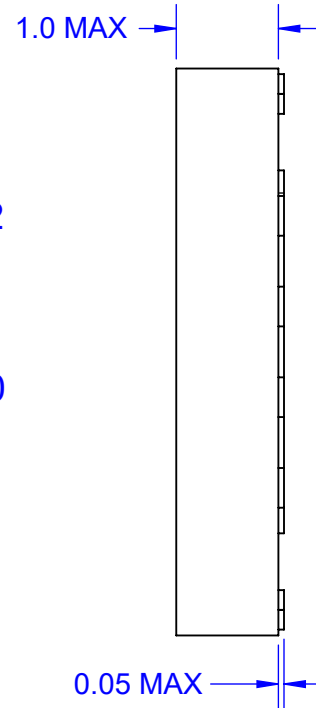
SHEET 2 OF 6

# ELECTRICAL CONNECTION

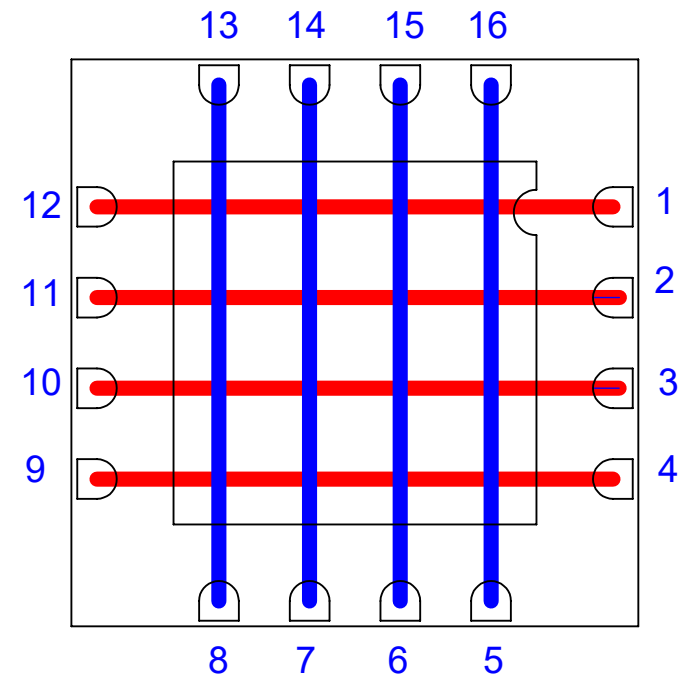
TOP VIEW



SIDE VIEW



BOTTOM VIEW



NOTES:

1. NO ELECTRICAL CONNECTION TO BOTTOM GROUND PAD.
2. ELECTRICAL WIRING INSIDE THE COMPONENT.
3. ELECTRICAL TRACINGS ARE NOT VISIBLE FROM OUTSIDE.

**TopLine**<sup>®</sup>

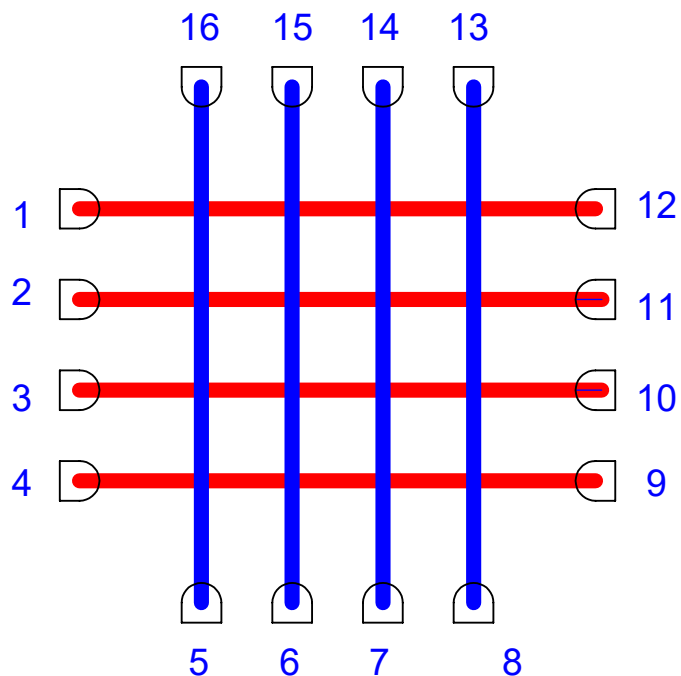
TITLE QFN CROSS OVER JUMPER  
16-LEAD 5mm P0.8mm

SCALE 15:1	SIZE A	DRAWING NO. 481699	REV A
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DO NOT SCALE DRAWING

SHEET 3 OF 6

# ELECTRICAL CONNECTION TOP VIEW



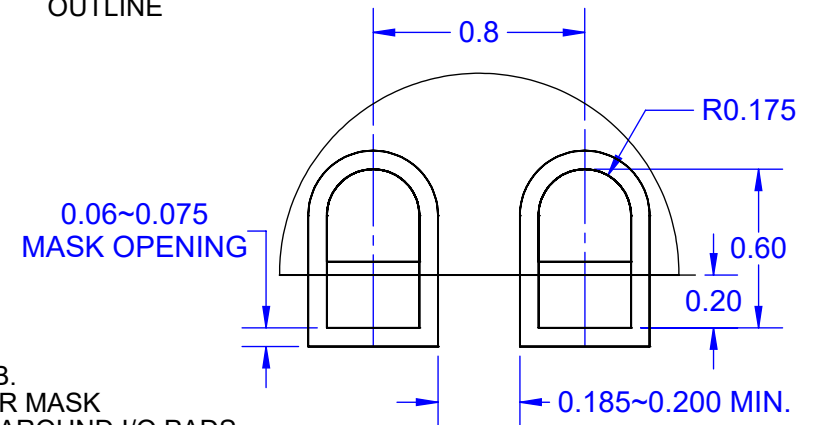
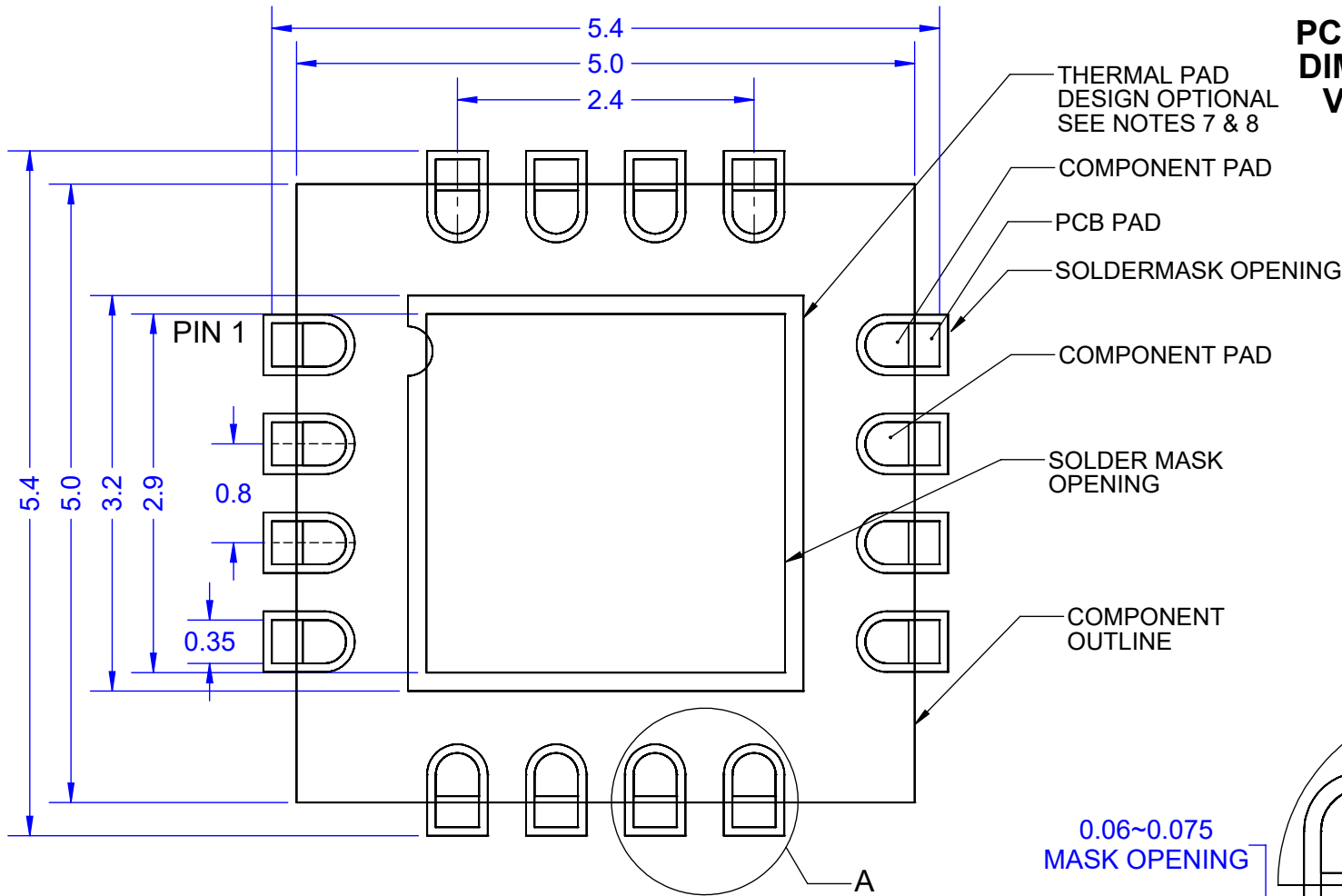
NET LIST	
PINS	PINS
1 ~ 12	5 ~ 16
2 ~ 11	6 ~ 15
3 ~ 10	7 ~ 14
4 ~ 9	8 ~ 13

**NOTES:**

1. NO ELECTRICAL CONNECTION TO BOTTOM GROUND PAD.
2. NORTH-SOUTH PINS DO NOT SHORT WITH EAST-WEST PINS

<b>TopLine®</b>			
TITLE QFN CROSS OVER JUMPER 16-LEAD 5mm P0.8mm			
SCALE 20:1	SIZE A	DRAWING NO. 481699	REV A
DO NOT SCALE DRAWING			SHEET 4 OF 6

# PC BOARD LAYOUT DIMENSIONS IN MM VIEW FROM TOP



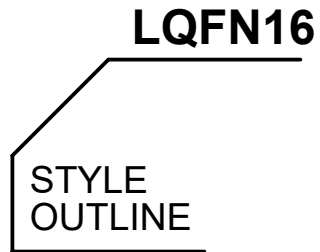
**DETAIL A**  
SCALE 35 : 1

Notes: (Unless Otherwise Specified).

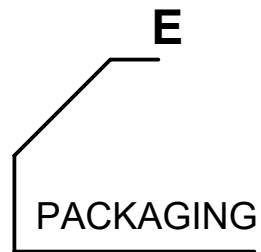
- 1) DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE. DESIGNERS SHOULD USE THEIR OWN KNOWLEDGE BASE WHEN DESIGNING THE PCB.
- 2) SURROUND EACH SIDE OF I/O PERIMETER PADS WITH 0.060~0.075 mm (NSMD) SOLDER MASK OPENING (2.4~3.0mils) OPTIONALLY OK TO USE RECTANGLE (NSMD) MASK OPENING AROUND I/O PADS.
- 3) 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.

<b>TopLine®</b>			
TITLE QFN CROSS OVER JUMPER 16-LEAD 5mm P0.8mm			
SCALE 18:1	SIZE A	DRAWING NO. 481699	REV A
DO NOT SCALE DRAWING			SHEET 5 OF 6

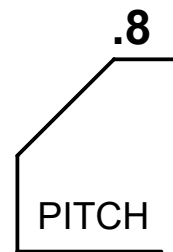
## PART NUMBERING SYSTEM



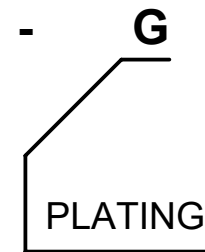
QUAD FLAT  
NO LEAD  
16 LEADS  
BOTTOM  
TERMINAL



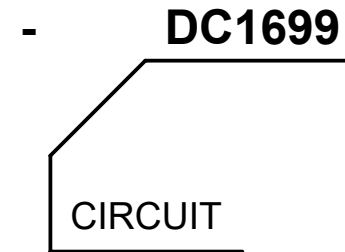
T = TRAY  
E = TAPE  
E7A=7" REEL



.8 = 0.8MM



G = NiAu



DC1699 = JUMPER  
CROSS OVER

- 1 ~ 12
- 2 ~ 11
- 3 ~ 10
- 4 ~ 9
- 5 ~ 16
- 6 ~ 15
- 7 ~ 14
- 8 ~ 13

PART NUMBER	JUMPER	PACKAGING	RoHS Pb-FREE	PLATING THICKNESS
LQFN16T.8-G-DC1699	YES	JEDEC TRAY	YES	NOTE 2
LQFN16E.8-G-DC1699	YES	TAPE	YES	NOTE 2

**NOTES PADS:**

1. BASE METAL: Cu ~35um (1.4mil)
2. PLATING:
  - a. Ni 1.0 ~ 10um (40~400 micro-inch)
  - b. Au 0.5 ~ 2.0um (20 ~80 micro-inch)

<b>TopLine®</b>			
TITLE QFN CROSS OVER JUMPER 16-LEAD 5mm P0.8mm			
SCALE NONE	SIZE A	DRAWING NO. 481699	REV A
DO NOT SCALE DRAWING			SHEET 6 OF 6