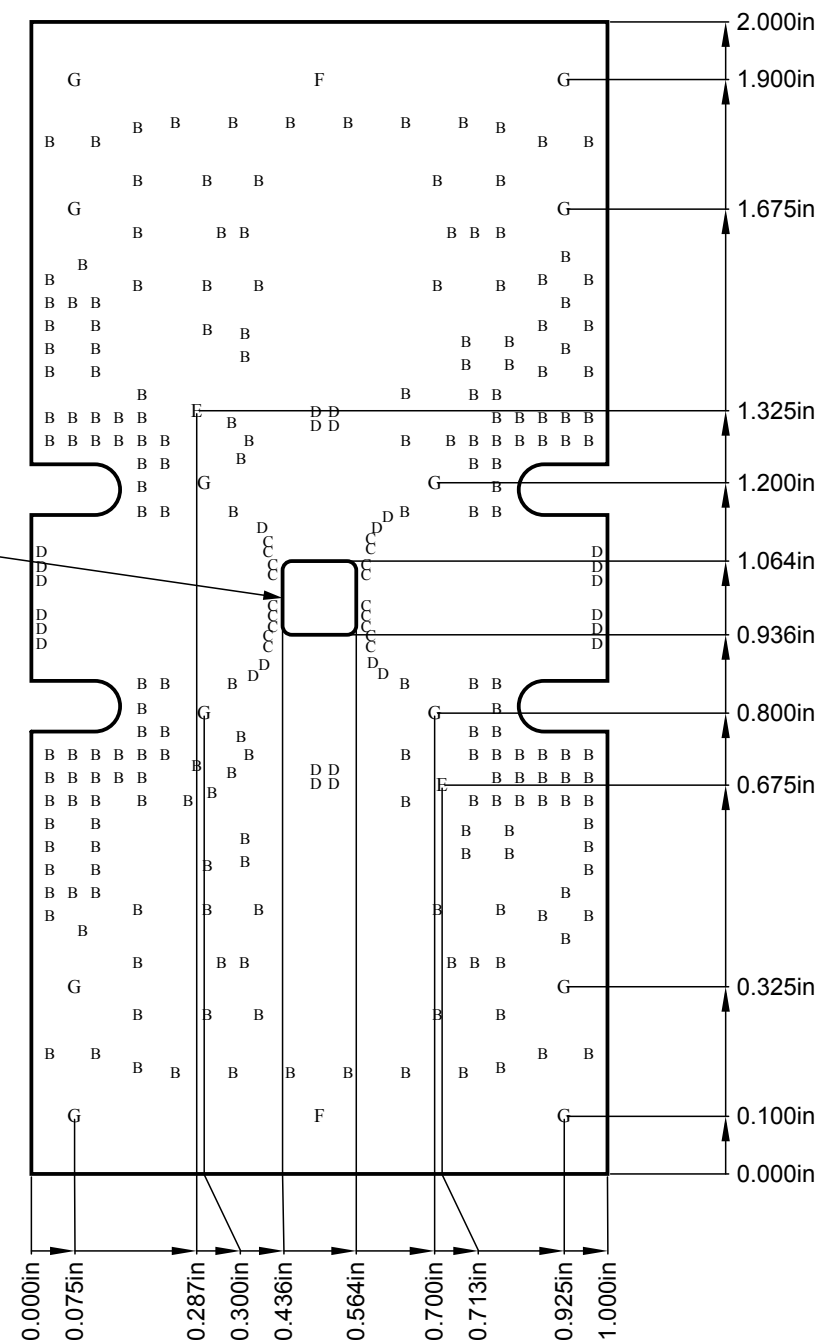


NOTES (UNLESS OTHERWISE SPECIFIED):

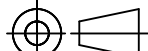
1. BOARD FABRICATION METHODS MUST COMPLY WITH:
FABRICATE IN ACCORDANCE WITH IPC-6018B, per IPC-6011, CLASS 2.
2. ARTWORK FORMAT: GERBER 274X
GERBER DATA SUPPLIED WITH DESIRED FINAL TRACE WIDTHS. PROCESS
COMPENSATION TRACE WIDTH ADJUSTMENTS TO BE DONE BY PCB FABRICATOR
3. MATERIAL:
NUMBER OF LAYERS: 2 LAYERS
METAL 1 (TOP): 0.5oz.
CORE 1: ROGERS 4003C, .008 THICK
METAL 2: 0.5oz.
PREPREG: 1080 STYLE 370HR FR4
METAL 3: 0.5oz.
CORE 3: 370HR, .0161 THICK
METAL 2 (BOTTOM): 0.5oz
SOLDERMASK TOP: LPI (LIQUID PHOTO-IMAGEABLE), GREEN OR LDI (LASER DIRECT IMAGEABLE),
GREEN. MAX FINISH THICKNESS OF SOLDERMASK TO BE 0.001in.
SILKSCREEN TOP: HIGH TEMPERATURE, NON-CONDUCTIVE, WHITE EPOXY BASED INK.
4. FINISH PLATING:
A. METAL 1(TOP) AND METAL 2(BOTTOM):
ELECTROLYTIC FLASH GOLD
NICKEL PLATE per QQ-N-290, CLASS 1, GRADE G, 200µin. (5µm)
GOLD PLATE per ASTM B 488, TYPE III, CODE A, 3-10µin. (0.08-0.25µm)
B. METAL 1(TOP) SELECTIVE ELECTROLYTIC FLASH GOLD PLATING:
GOLD PLATE per ASTM B 488, TYPE III, CODE A, CLASS 1, 50µin. (1.27µm)
PLATING MUST BE FREE FROM CONTAMINATION, STAINS AND DEBRIS.
5. FINISHED BOARD THICKNESS: (0.03in) ±.003IN.
6. COPPER IS PULLED BACK PER GERBER DATA FROM EDGE OF BOARD ON METAL 1 (TOP) AND METAL 2 (BOTTOM).
7. TOLERANCE:
A. PC BOARD OUTLINE: ±0.002in.
B. POSITION OF INTERNAL CUTOOUT RELATIVE TO PCB OUTLINE ± .002.
8. BURRS SHALL NOT EXCEED 0.002in.
9. VIA PLATING/FILLING:
A. ALL VIAS ARE TO BE NON-CONDUCTIVE EPOXY FILLED, OVER-PLATED AND PLANARIZED.
B. ALL OTHER PLATED THRU HOLES TO BE PLATED TO 0.0007 MIN. THICKNESS.
10. METAL 1(TOP) AND METAL4(BOTTOM) AFTER OVERPLATING AND PLANARIZATION SHALL HAVE A MAX ALLOWABLE NEGATIVE FEATURE OF 0.0008in. AND A MAX ALLOWABLE POSITIVE FEATURE OF 0.0003in.
11. FINISHED Cu THICKNESS TO BE .0014 ± .0005.
12. CONDUCTOR WIDTHS AND SPACING TO BE WITHIN 0.001in. OF CAD DATABASE.
13. SOLDERMASK IN PLATED-THRU HOLES IS ACCEPTABLE AS LONG AS IT DOES NOT EXIST ON BACKSIDE OF BOARD.
14. ALL HOLES TO BE LOCATED WITHIN ±0.003 OF CAD DATABASE.
15. NO VENDOR MARKING OR SERIALIZATION ALLOWED.
16. DELIVER BOARDS BAGGED AS SINGLES AND NO ELECTRICAL TEST NEEDED.
17. FLATNESS AT COIN AREA TO BE FLUSH -0.000 TO +0.0014 PROTRUSION.
18. COPPER COIN APERTURE TO BE EDGE PLATED. METAL 1 AND METAL 4 TO BE PLATED COMPLETELY ALONG COPPER APERTURE EDGE
19. COPPER COIN MATERIAL: OXYGEN FREE HIGH CONDUCTIVITY COPPER UWS CDA 101, 102, OR 103, ASTM ASTM B152.
20. FLATNESS AT COIN AREA TO BE FLUSH TO METAL 1 WITHIN +0.001/-0.001.
21. PLATING BETWEEN COPPER COIN AND METAL 1 & METAL 4 TO BE CONTINUOUS, (UNINTERRUPTED).

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| | | | |
|-----|------------------|---------|-----------|
| | REVISION HISTORY | | |
| REV | DESCRIPTION | DATE | APPROVAL |
| A | NEW RELEASE | 10/2/17 | O.MARRUFO |



Copper Slug To Be Placed in Center Of Cutout
17, 18, 19, 20, 21

| | | | | | | |
|--|--|--|----------------|--------------------------------|---------------|--------------|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES | | SAP NO. 285916 | | <div>Qorvo™</div> | | |
| TOLERANCES .XX = ±.01 .XXX = ±.005 .XXXX = ±.0010 ANGLES = ± 0.5° | | APPROVAL AND RELEASE RECORDS MAINTAINED IN PDE | | | | DATE |
| INTERPRET DRAWING PER ANSI/ASME Y14.5 - 2009 | | DESIGNER | O.MARRUFO | TITLE: PCB, QPA1019 EVB | | |
| | | ENGR. | W.Gaiowski | | | |
| <div></div> <div>THIRD ANGLE PROJECTION</div> | | MFG | PDE CONTROLLED | | | |
| | | MANAGER | | | | |
| DO NOT SCALE DRAWING | | Q.A. | | | SIZE B | |
| | | CAGE CODE | 1CVM1 | | | |
| | | | | SCALE: 1:1 | | SHEET 1 OF 5 |

D

C

B

A




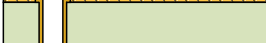





D

C

B

A

Layer Stack Legend

| | Material | Layer | Thickness | Dielectric | Material Type |
|--|------------------|----------------|-----------|---------------|---------------|
|  | | SILKSCREEN TOP | | | Legend |
|  | Surface Material | SOLDERMASK TOP | 0.4mil | Solder Resist | Solder Mask |
|  | Copper | METAL 1 TOP | 0.7mil | | Signal |
|  | Core | | 8.0mil | R4003C | Dielectric |
|  | Copper | Metal 2 GND | 0.7mil | | Signal |
|  | Prepreg | | 4.0mil | | Dielectric |
|  | Copper | Metal 3 GND | 0.7mil | | Signal |
|  | Core | | 16.0mil | | Dielectric |
|  | Copper | METAL 4 BOT | 0.7mil | | Signal |
| Total thickness: 31.2mil | | | | | |

Drill Table

| SYMBOL | COUNT | HOLE SIZE | PLATED | VIA / PAD | DRILL LAYER PAIR |
|--------|-------|--------------|--------|-----------|---------------------------|
| C | 18 | 8.00(0.20) | Plated | Via | METAL 1 TOP - METAL 4 BOT |
| D | 27 | 15.00(0.38) | Plated | Via | METAL 1 TOP - METAL 4 BOT |
| B | 203 | 20.00(0.51) | Plated | Via | METAL 1 TOP - METAL 4 BOT |
| E | 2 | 64.00(1.63) | Plated | Pad | METAL 1 TOP - METAL 4 BOT |
| G | 12 | 100.00(2.54) | Plated | Pad | METAL 1 TOP - METAL 4 BOT |
| F | 2 | 120.00(3.05) | Plated | Pad | METAL 1 TOP - METAL 4 BOT |

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| | | | |
|------------|-----------|--------------|------|
| SIZE | CAGE CODE | DWG. NO. | REV. |
| B | 1CVM1 | QPA1019-4000 | A |
| SCALE: 1:1 | | SHEET 2 OF 5 | |

4

3

2

1

D

D

C

C

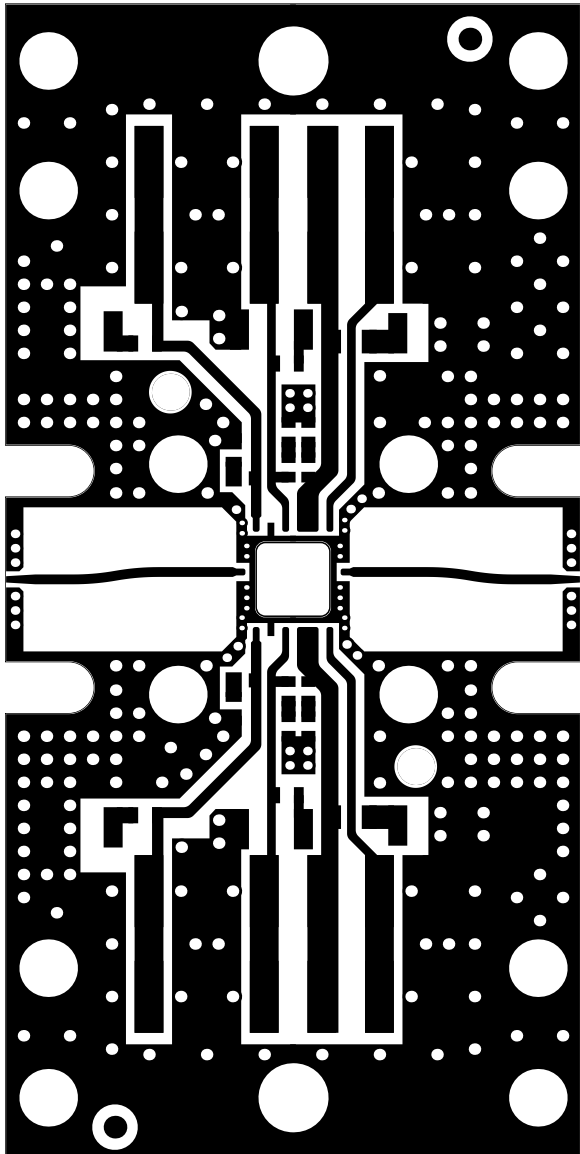
B

B

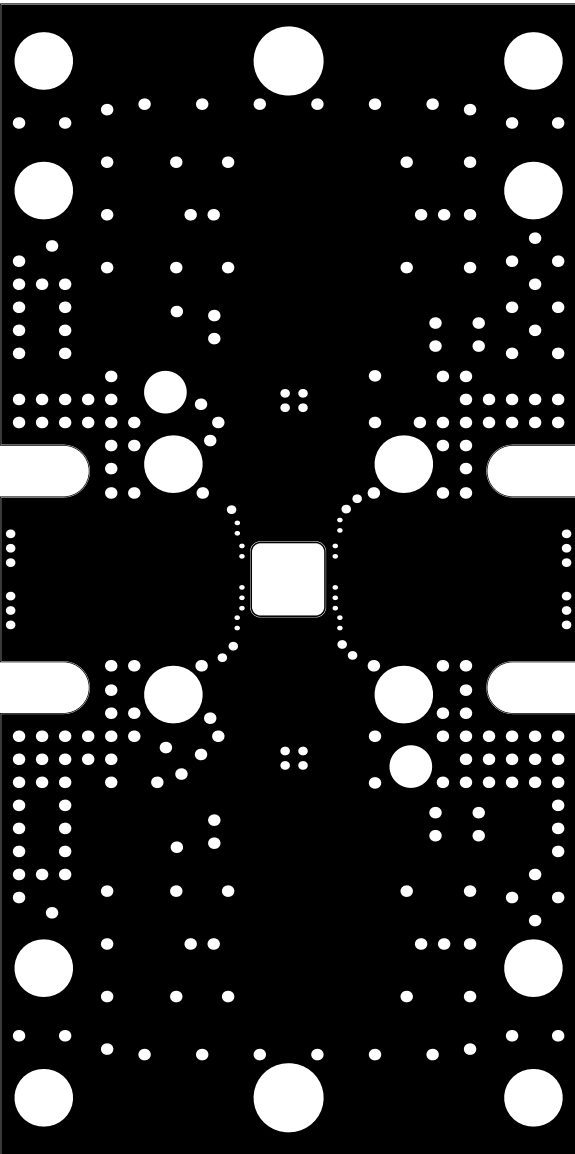
A

A

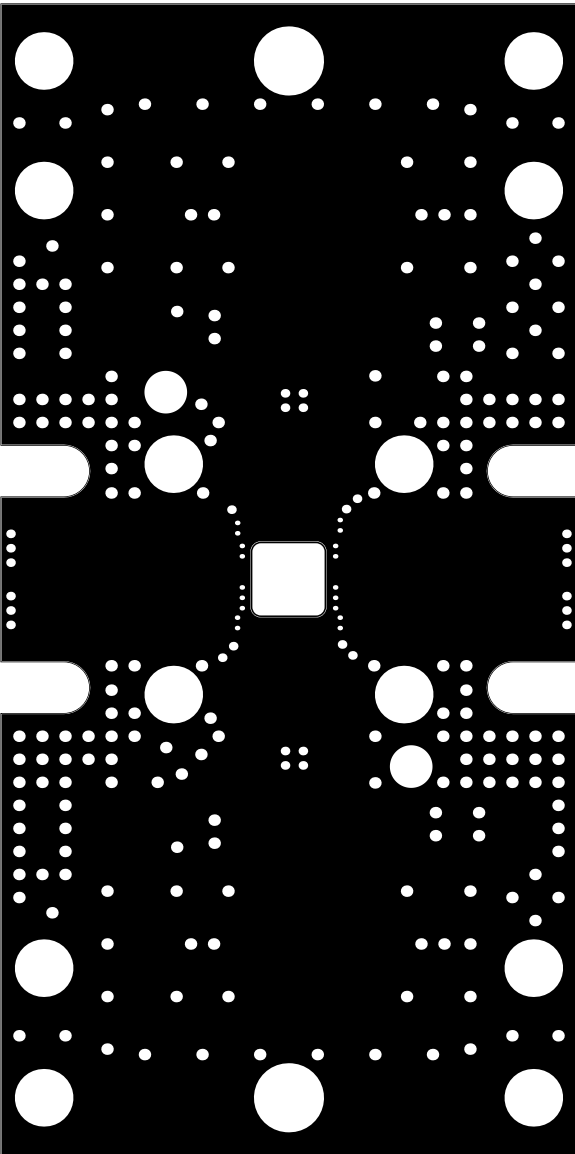
METAL 1 TOP



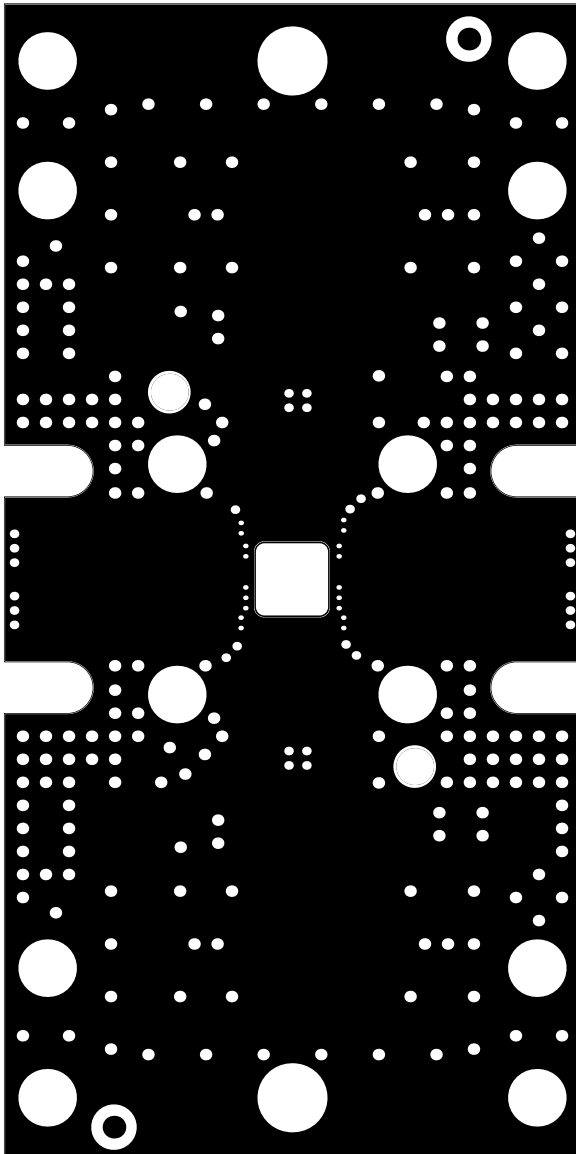
Metal 2 GND



Metal 3 GND



METAL 4 BOT



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| SIZE | CAGE CODE | DWG. NO. | REV. |
|------------|-----------|--------------|------|
| B | 1CVM1 | QPA1019-4000 | A |
| SCALE: 1:1 | | SHEET 3 OF 5 | |

4

3

2

1

D

D

C

C

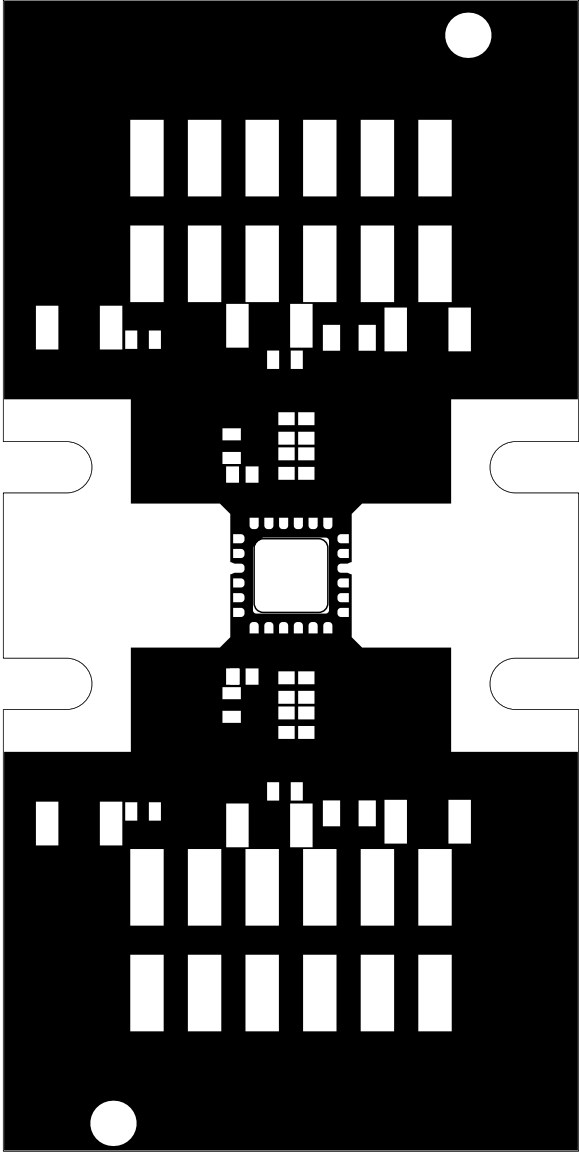
B

B

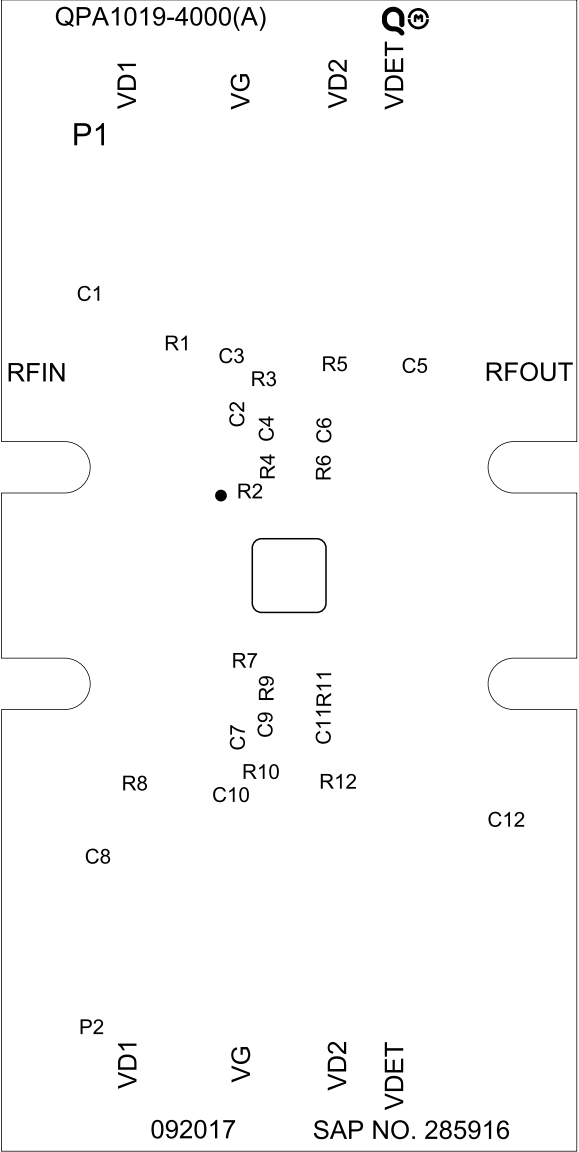
A

A

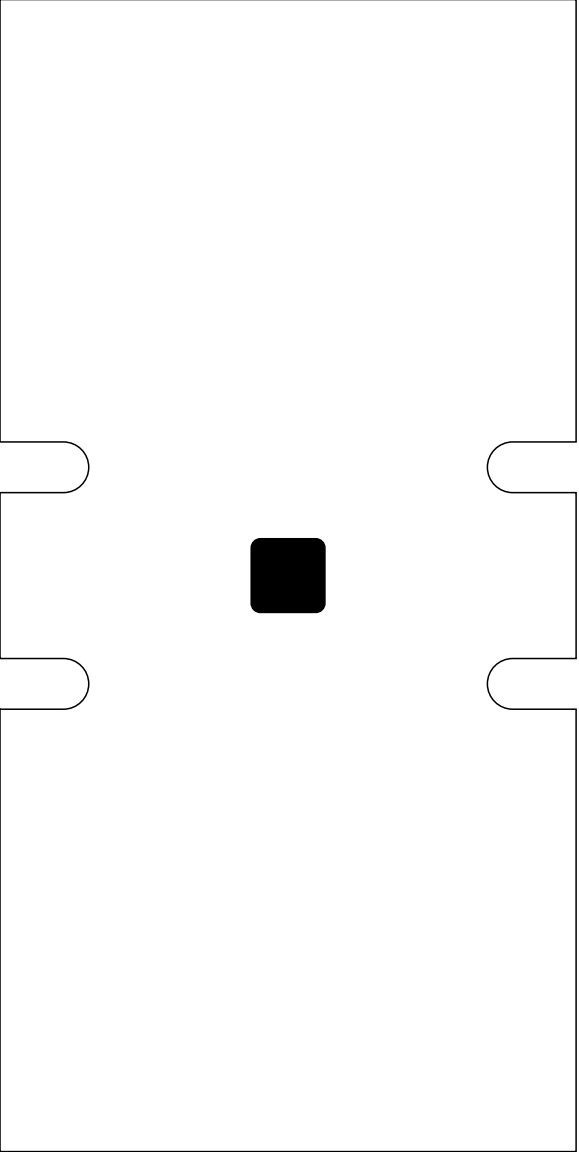
SOLDERMASK TOP



SILKSCREEN TOP



Mechanical 12_CoinCutout



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| SIZE | CAGE CODE | DWG. NO. | REV. |
|--------|-----------|--------------|------|
| B | 1CVM1 | QPA1019-4000 | A |
| SCALE: | 1:1 | SHEET 4 OF 5 | |

D

D

C

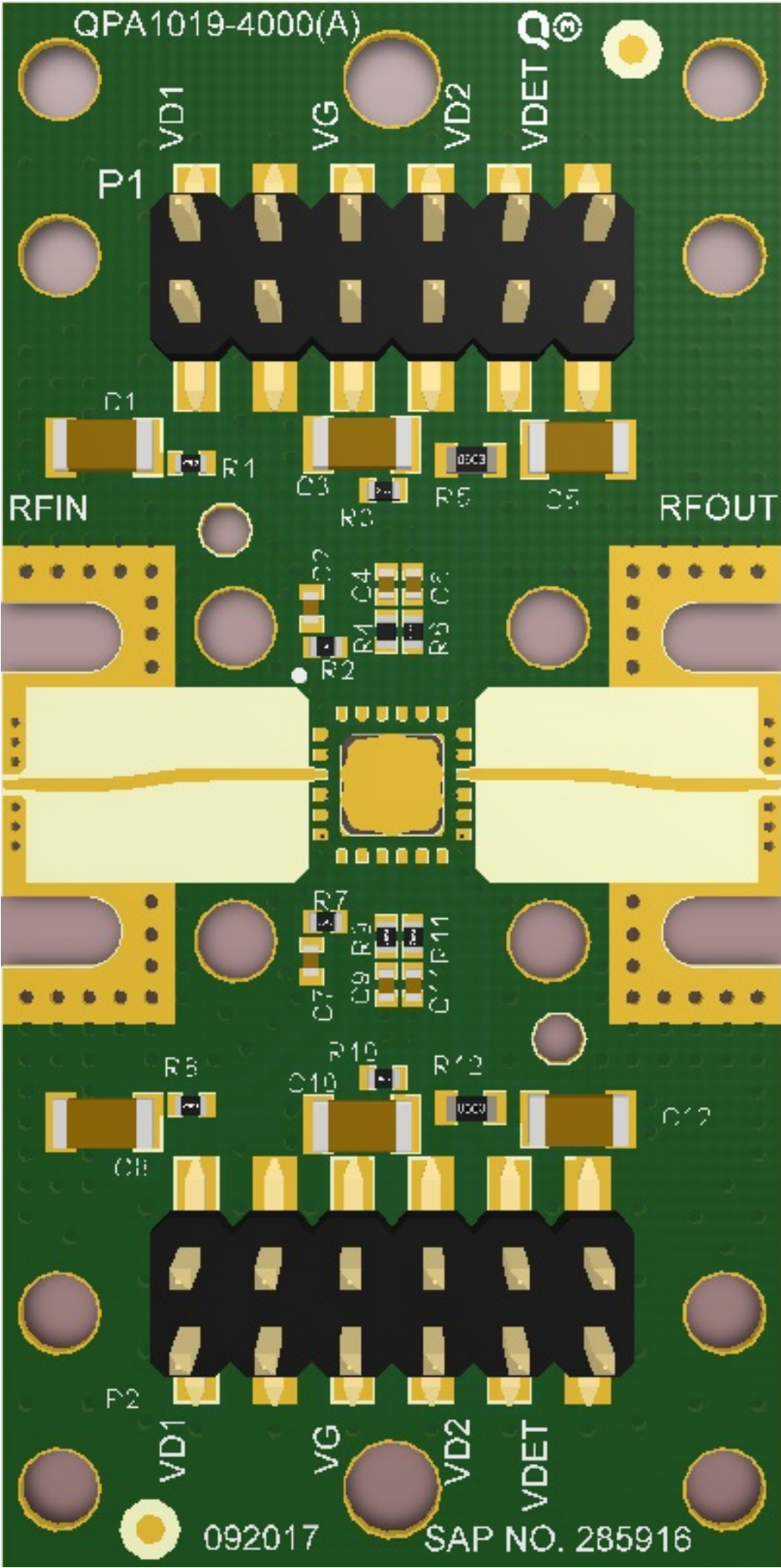
C

B

B

A

A



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| SIZE | CAGE CODE | DWG. NO. | REV. |
|--------|-----------|--------------|------|
| B | 1CVM1 | QPA1019-4000 | A |
| SCALE: | 1:1 | SHEET 5 OF 5 | |