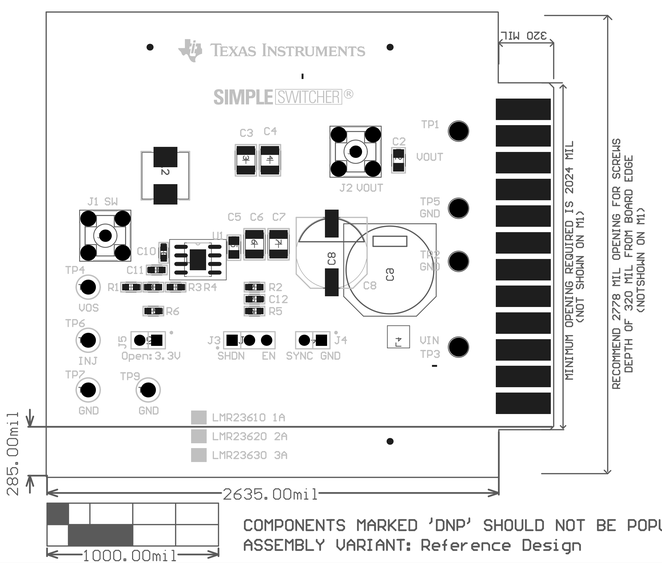
The Stackup Legend below this is static.
If you change the stackup, update the Legend.

Layer Stack Up Detail for: Ref_Design.PcbDoc

| Layer Name | Gerber Document | Copper Thickness | Dielectric Material |
|---|---|---|---|
| Top Solder Mask | (.GTS) | | Solder Resist |
| Top Layer | (.GTL) | 1.4mil | FR-4 |
| Bottom Layer | (.GBL) | 1.4mil | |
| Bottom Solder Mask | (.GBS) | | Solder Resist |

ZZ1 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.
ZZ2 ■ These assemblies are ESD sensitive, ESD precautions shall be observed.
ZZ3 ■ These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
ZZ4 ■ These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.




COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: Reference Design

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
MIN. VIA PAD SIZE: 24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER _____
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER _____
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER _____

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER _____
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER _____
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: .PRJ_Title
DESIGNED FOR: .PRJ_Customer
FILE NAME: PMP15016_Flying Shark.PcbDoc

| | |
|---|---|
| ENGINEER: .PRJ_Engineer | LAYOUT BY: .PCB_Layout |
| SCALE: 1.00 | ALTIUM DESIGNER VERSION: 16.0.9.368 |

| | | | | | |
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| PCB VIEWED FROM TOP SIDE | | BOARD #: .PRJ_Number | REV: .PCB_Rev | SVN REV: Not In VersionControl | |
| LAYER NAME = | | | | | |
| PLOT NAME = | | GENERATED : 6/28/2016 | 4:11:57 PM | TEXAS INSTRUMENTS | |

The Stackup Legend below this is static.
If you change the stackup, update the Legend.

Layer Stack Up Detail for: Ref_Design.PcbDoc

| Layer Name | Gerber Document | Copper Thickness | Dielectric Material |
|---|---|---|---|
| Top Solder Mask | (.GTS) | | Solder Resist |
| Top Layer | (.GTL) | 1.4mil | FR-4 |
| Bottom Layer | (.GBL) | 1.4mil | |
| Bottom Solder Mask | (.GBS) | | Solder Resist |

ZZ1 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.
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ZZ3 ■ These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
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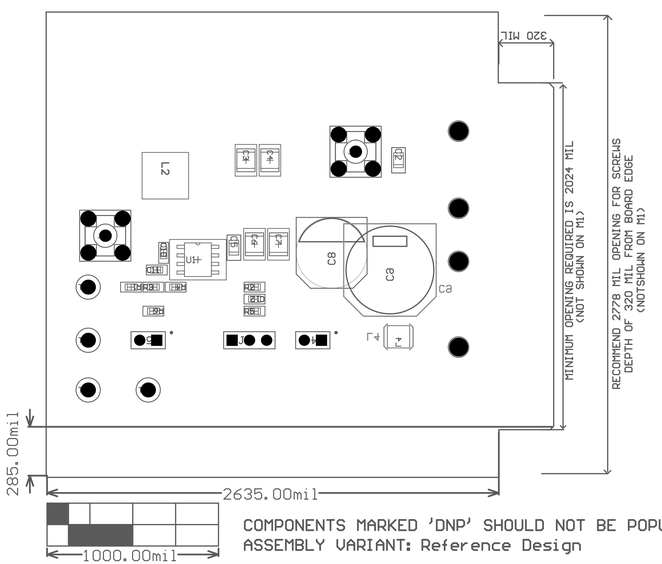


COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: Reference Design

## DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
MIN. VIA PAD SIZE: 24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER _____
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER _____
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER _____

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER _____
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER _____
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: .PRJ_Title
DESIGNED FOR: .PRJ_Customer
FILE NAME: PMP15016_Flying Shark.PcbDoc

| | |
|---|---|
| ENGINEER: .PRJ_Engineer | LAYOUT BY: .PCB_Layout |
| SCALE: 1.00 | ALTIUM DESIGNER VERSION: 16.0.9.368 |

| | | | | | |
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| PCB VIEWED FROM TOP SIDE | | BOARD #: .PRJ_Number | REV: .PCB_Rev | SVN REV: Not In VersionControl | |
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| PLOT NAME = | | GENERATED : 6/28/2016 | 4:12:01 PM | | TEXAS INSTRUMENTS |

The Stackup Legend below this is static.
If you change the stackup, update the Legend.

Layer Stack Up Detail for: Ref_Design.PcbDoc

| Layer Name | Gerber Document | Copper Thickness | Dielectric Material |
|---|---|---|---|
| Top Solder Mask | (.GTS) | | Solder Resist |
| Top Layer | (.GTL) | 1.4mil | FR-4 |
| Bottom Layer | (.GBL) | 1.4mil | |
| Bottom Solder Mask | (.GBS) | | Solder Resist |

ZZ1 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.
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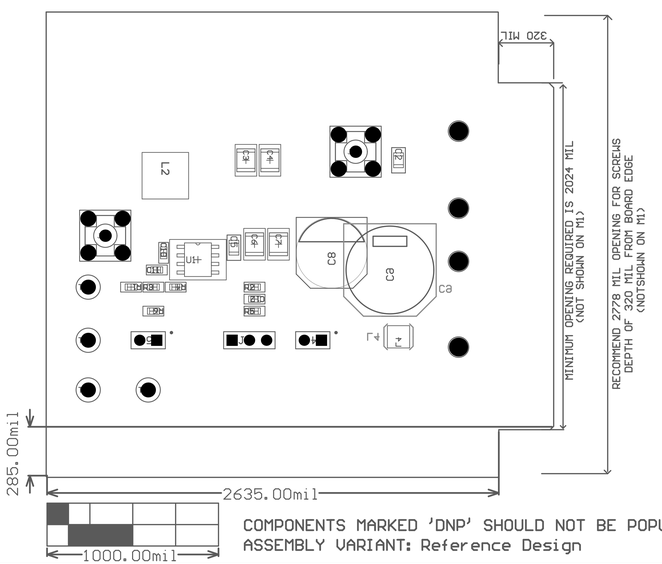


COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: Reference Design

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
MIN. VIA PAD SIZE: 24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER _____
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER _____
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER _____

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER _____
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER _____
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: .PRJ_Title
DESIGNED FOR: .PRJ_Customer
FILE NAME: PMP15016_Flying Shark.PcbDoc

| | |
|---|---|
| ENGINEER: .PRJ_Engineer | LAYOUT BY: .PCB_Layout |
| SCALE: 1.00 | ALTIUM DESIGNER VERSION: 16.0.9.368 |

| | | | | | |
|---|---|---|---|---|---|
| PCB VIEWED FROM TOP SIDE | | BOARD #: .PRJ_Number | REV: .PCB_Rev | SVN REV: Not In VersionControl | |
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| PLOT NAME = | | GENERATED : 6/28/2016 | 4:12:04 PM | | TEXAS INSTRUMENTS |

The Stackup Legend below this is static.
If you change the stackup, update the Legend.

Layer Stack Up Detail for: Ref_Design.PcbDoc

| Layer Name | Gerber Document | Copper Thickness | Dielectric Material |
|---|---|---|---|
| Top Solder Mask | (.GTS) | | Solder Resist |
| Top Layer | (.GTL) | 1.4mil | FR-4 |
| Bottom Layer | (.GBL) | 1.4mil | |
| Bottom Solder Mask | (.GBS) | | Solder Resist |

ZZ1 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.
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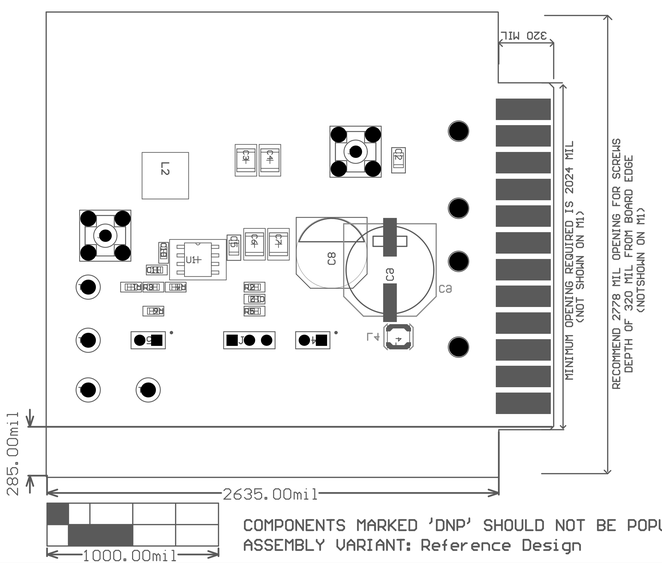


COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.
ASSEMBLY VARIANT: Reference Design

DESIGN INFORMATION

MIN. TRACK WIDTH: 8 MIL
MIN. CLEARANCE: 0.2 mm
MIN. VIA PAD SIZE: 24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL
PER IPC-D-275 CLASS 2 LEVEL C
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER _____
THICKNESS: [X] 62 MIL (1.6mm) +/-10% [ ] OTHER _____
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2
[ ] OTHER +/- _____

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER _____

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER _____
SOLDER RESIST COLOR:
[X] GREEN [ ] BLUE [ ] OTHER _____
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG
[ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER _____
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1
[ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: .PRJ_Title
DESIGNED FOR: .PRJ_Customer
FILE NAME: PMP15016_Flying Shark.PcbDoc

| | |
|---|---|
| ENGINEER: .PRJ_Engineer | LAYOUT BY: .PCB_Layout |
| SCALE: 1.00 | ALTIUM DESIGNER VERSION: 16.0.9.368 |

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| PCB VIEWED FROM TOP SIDE | | BOARD #: .PRJ_Number | REV: .PCB_Rev | SVN REV: Not In VersionControl | |
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