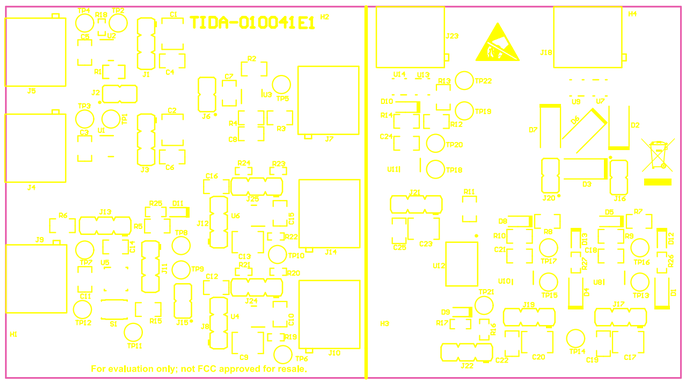
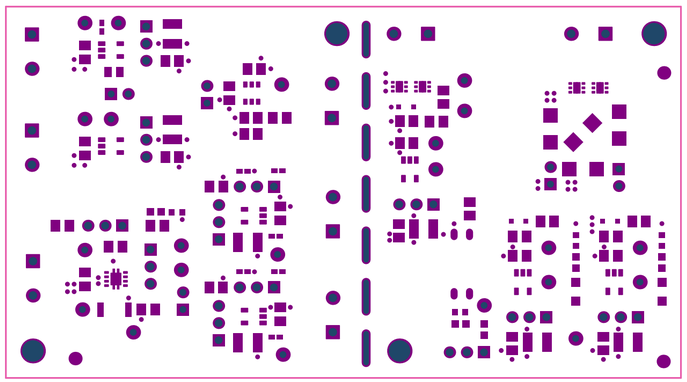
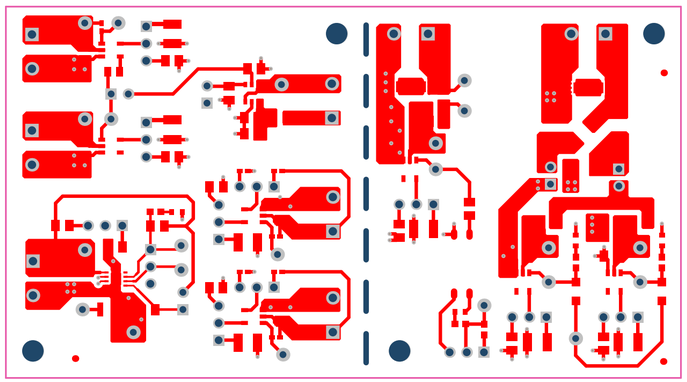


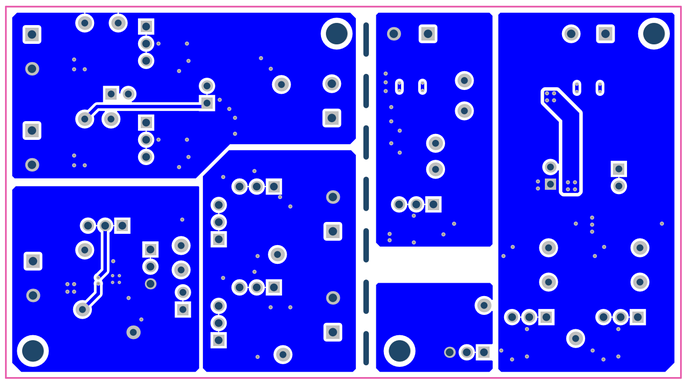
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Top Overlay	TID #: 010041		
PLOT NAME = Top Overlay	GENERATED : 4/5/2019 11:37:38 AM		TEXAS INSTRUMENTS



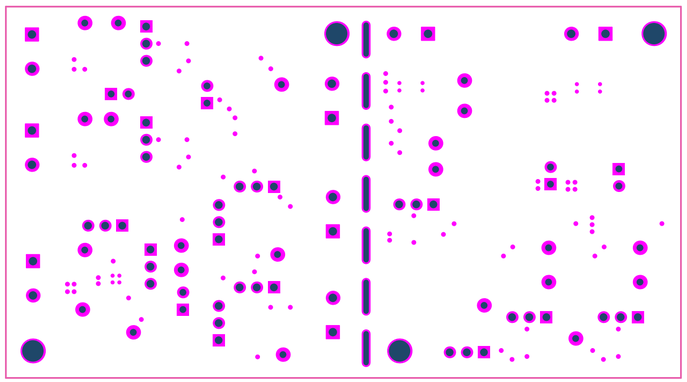
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Top Solder	TID #: 010041		
PLOT NAME = Top Solder Mask	GENERATED : 4/5/2019 11:37:39 AM		TEXAS INSTRUMENTS



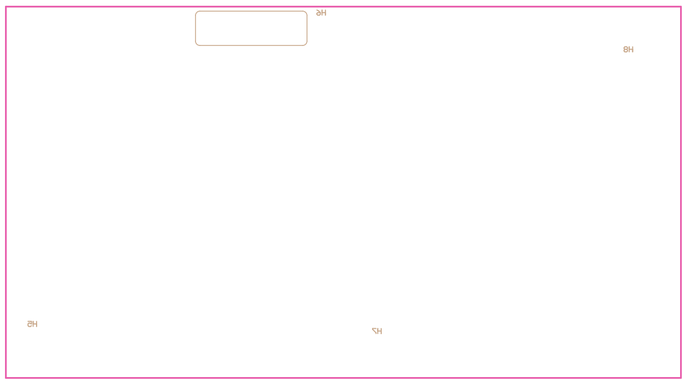
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Top Layer	TID #: 010041		
PLOT NAME = Top Layer	GENERATED : 4/5/2019 11:37:40 AM		TEXAS INSTRUMENTS



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Bottom Layer	TID #: 010041		
PLOT NAME = Bottom Layer	GENERATED : 4/5/2019 11:37:42 AM		TEXAS INSTRUMENTS



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Bottom Solder	TID #: 010041		
PLOT NAME = Bottom Solder Mask	GENERATED : 4/5/2019 11:37:43 AM		TEXAS INSTRUMENTS



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Bottom Overlay	TID #: 010041		
PLOT NAME = Bottom Overlay	GENERATED : 4/5/2019 11:37:44 AM		TEXAS INSTRUMENTS

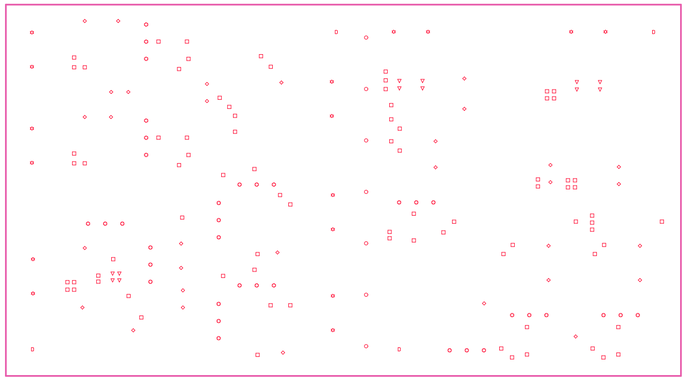
Symbol	Count	Hole Size	Plated	Hole Type
▽	12	7.87mil (0.200mm)	PTH	Round
□	81	12.00mil (0.305mm)	PTH	Round
○	7	32.00mil (0.813mm)	NPTH	Slot
◇	32	40.00mil (1.016mm)	PTH	Round
⯐	36	45.28mil (1.150mm)	PTH	Round
✡	16	49.21mil (1.250mm)	PTH	Round
D	4	125.00mil (3.175mm)	NPTH	Round
	188 Total			

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout

Drill Table

FOR 7.874MIL DRILL +0/-7.874MIL
FOR 12MIL DRILL +0/-12MIL
FOR 16MIL DRILL +0/-16MIL
FOR PTH DRILL +/-3MIL
FOR NPTH DRILL +/-2MIL

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric1	FR-4 High Tg	59.20mil	4.8	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.5	
7	Bottom Overlay				



DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
100MM X 55MM

Number of Layers : 2
MIN. TRACK WIDTH: 10 MIL
MIN. CLEARANCE: 7.874 MIL
MIN. VIA DRILL SIZE: 7.874 MIL

MINIMUM ANNULAR RING 5.90 MIL 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] 63 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 +/- _____

COPPER THICKNESS (FINISHED):
OUTER: [X] 1.4MIL (1oz) [ ] 2MIL (1.4oz) [ ] 2.8MIL (2oz)
INNER SIGNAL: [ ] 1.4MIL (1oz) [ ] 2.8MIL (2oz) [X] N/A

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: VIA TENTING: YES [ ] NO [X]
MICROSECTION: [ ] YES IMPEDANCE CONTROL: YES [ ] NO [X]
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: TIDA-010041
DESIGNED FOR: Public Release
FILE NAME: TIDA-010041-E1.PcbDoc

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME = Drill Drawing	TID #: 010041		
PLOT NAME = Drill Drawing	GENERATED : 4/5/2019 11:37:47 AM		TEXAS INSTRUMENTS

ENGINEER:	LAYOUT BY:
Harsh Misra	Avinash N
SCALE: 1.00	ALTIUM DESIGNER VERSION: 17.1.9.592

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041	REV: E1	SVN REV: Not In VersionControl
LAYER NAME =	TID #: 010041		
PLOT NAME = Board Dimensions	GENERATED : 4/5/2019 11:37:48 AM		TEXAS INSTRUMENTS

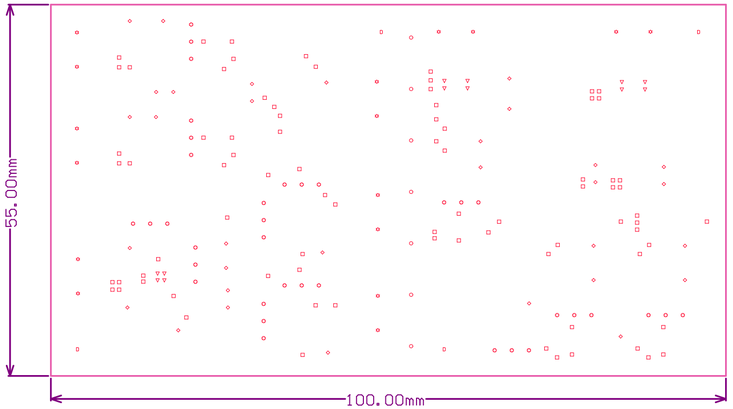
Symbol	Count	Hole Size	Plated	Hole Type
▽	12	7.87mil (0.200mm)	PTH	Round
□	81	12.00mil (0.305mm)	PTH	Round
○	7	32.00mil (0.813mm)	NPTH	Slot
◇	32	40.00mil (1.016mm)	PTH	Round
⯐	36	45.28mil (1.150mm)	PTH	Round
✡	16	49.21mil (1.250mm)	PTH	Round
D	4	125.00mil (3.175mm)	NPTH	Round
	188 Total			

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout

Drill Table

FOR 7.874MIL DRILL +0/-7.874MIL
FOR 12MIL DRILL +0/-12MIL
FOR 16MIL DRILL +0/-16MIL
FOR PTH DRILL +/-3MIL
FOR NPTH DRILL +/-2MIL

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric1	FR-4 High Tg	59.20mil	4.8	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.5	
7	Bottom Overlay				



1000.00mil

DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
100MM X 55MM

Number of Layers : 2
MIN. TRACK WIDTH: 10 MIL
MIN. CLEARANCE: 7.874 MIL
MIN. VIA DRILL SIZE: 7.874 MIL

MINIMUM ANNULAR RING 5.90 MIL 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] 63 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 +/-
COPPER THICKNESS (FINISHED):
OUTER: [X] 1.4MIL (1oz) [ ] 2MIL (1.4oz) [ ] 2.8MIL (2oz)
INNER SIGNAL: [ ] 1.4MIL (1oz) [ ] 2.8MIL (2oz) [X] N/A
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: VIA TENTING: YES [ ] NO [X]
MICROSECTION: [ ] YES IMPEDANCE CONTROL: YES [ ] NO [X]
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: TIDA-010041
DESIGNED FOR: Public Release
FILE NAME: TIDA-010041-E1.PcbDoc

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-010041 REV: E1 SVN REV: Not In VersionControl
LAYER NAME = Drill Drawing	TID #: 010041
PLOT NAME = Fabrication Drawing	GENERATED : 4/5/2019 11:37:53 AM TEXAS INSTRUMENTS

ENGINEER:	LAYOUT BY:
Harsh Misra	Avinash N
SCALE: 1.00	ALTIUM DESIGNER VERSION: 17.1.9.592

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.

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric1	FR-4 High Tg	59.20mil	4.8	
5	Bottom Layer	Copper	1.40mil		
6	Bottom Solder	Solder Resist	0.40mil	3.5	
7	Bottom Overlay				

DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
100MM X 55MM

Number of Layers : 2
MIN. TRACK WIDTH: 10 MIL
MIN. CLEARANCE: 7.874 MIL
MIN. VIA DRILL SIZE: 7.874 MIL
MINIMUM ANNULAR RING 5.90 MIL 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] 63 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 +/- _____
COPPER THICKNESS (FINISHED):
OUTER: [X] 1.4MIL (1oz) [ ] 2MIL (1.4oz) [ ] 2.8MIL (2oz)
INNER SIGNAL: [ ] 1.4MIL (1oz) [ ] 2.8MIL (2oz) [X] N/A
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: VIA TENTING: YES [ ] NO [X]
MICROSECTION: [ ] YES IMPEDANCE CONTROL: YES [ ] NO [X]
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: TIDA-010041

DESIGNED FOR: Public Release

FILE NAME: TIDA-010041-E1.PcbDoc

ENGINEER: Harsh Misra

LAYOUT BY: Avinash N

SCALE: 1.00

ALTIUM DESIGNER VERSION: 17.1.9.592

1000.00mil

COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED.

ASSEMBLY VARIANT: [No Variations]

ALL ARTWORK VIEWED FROM TOP SIDE

LAYER NAME = Bottom Overlay,Bottom Solder,Bottom Layer,Bottom

PLOT NAME = Multilayer Composite Print

BOARD #: TIDA-010041 REV: E1

TID #: 010041

GENERATED : 4/5/2019 11:38:03 AM

SVN REV: Not In VersionControl

TEXAS INSTRUMENTS

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI’s products are provided subject to TI’s Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI’s provision of these resources does not expand or otherwise alter TI’s applicable warranties or warranty disclaimers for TI products.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265