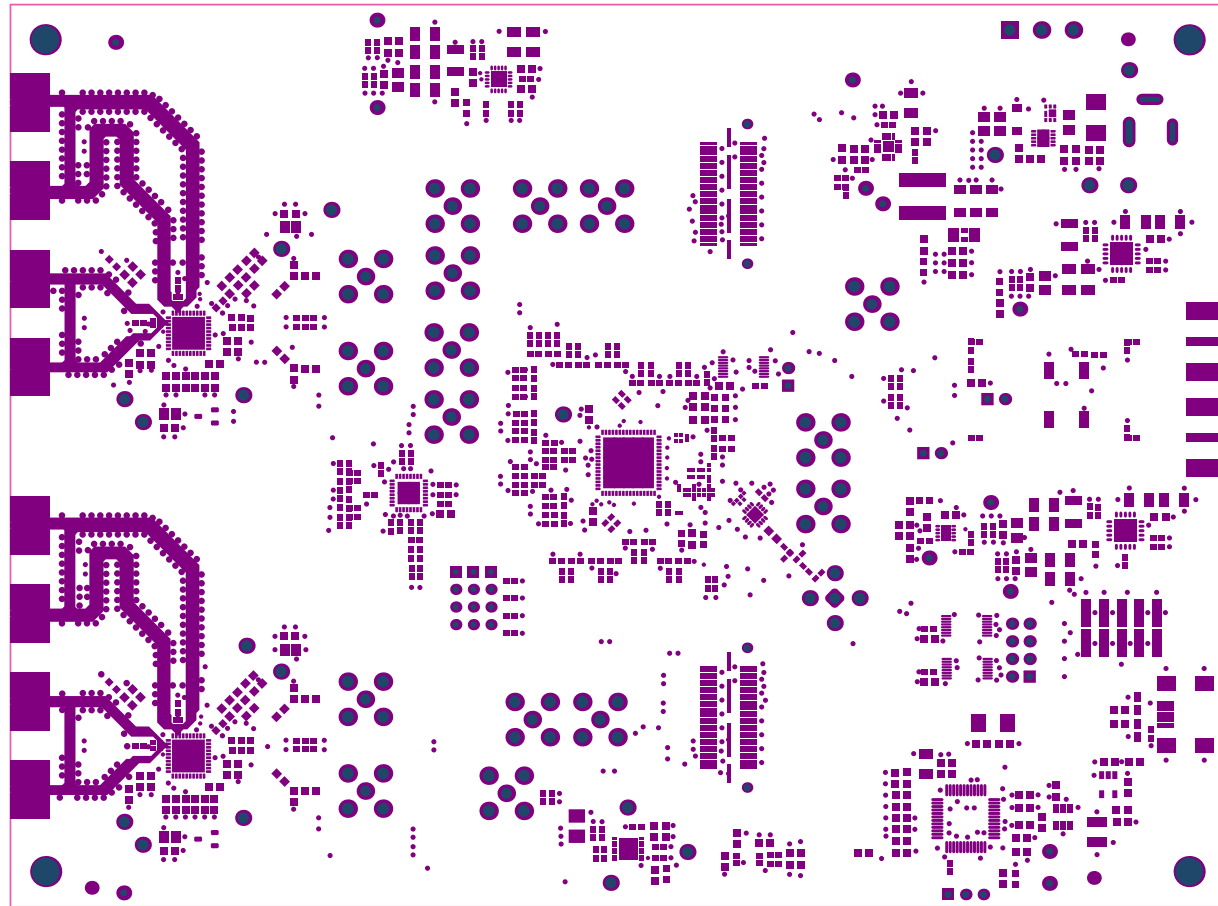
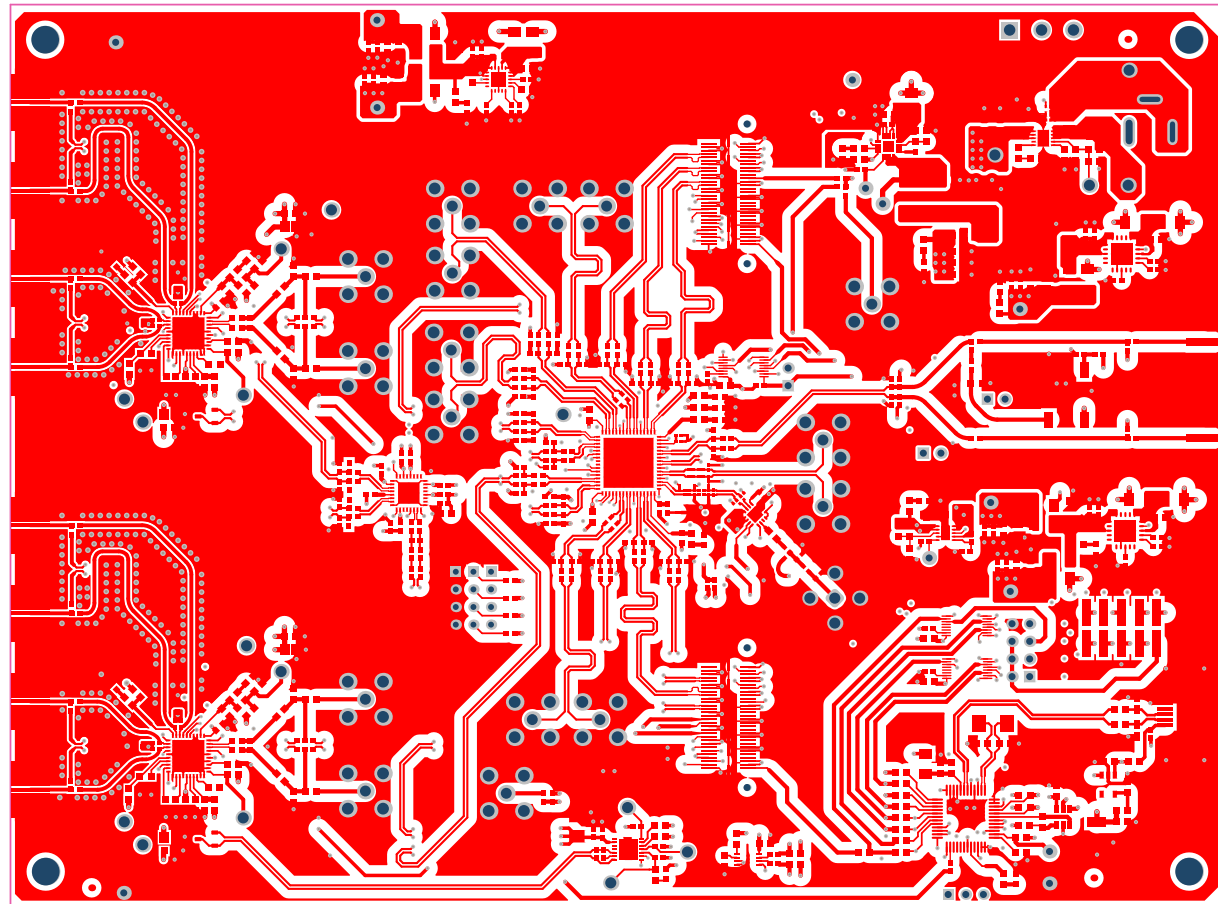


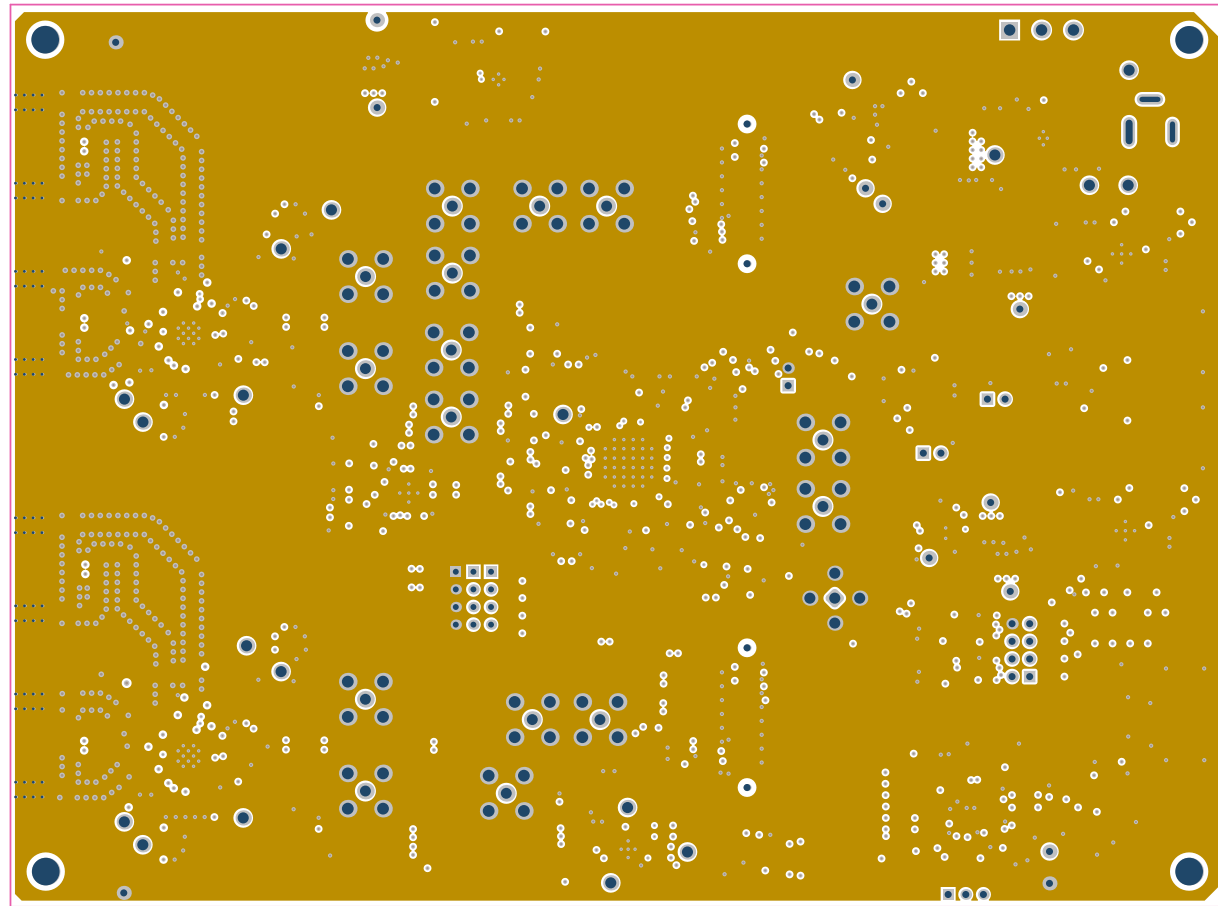
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = TOP OVERLAY	TID #: 01021		
PLOT NAME = Top Overlay	GENERATED : 10/13/2017 5:38:46 PM	TEXAS INSTRUMENTS	



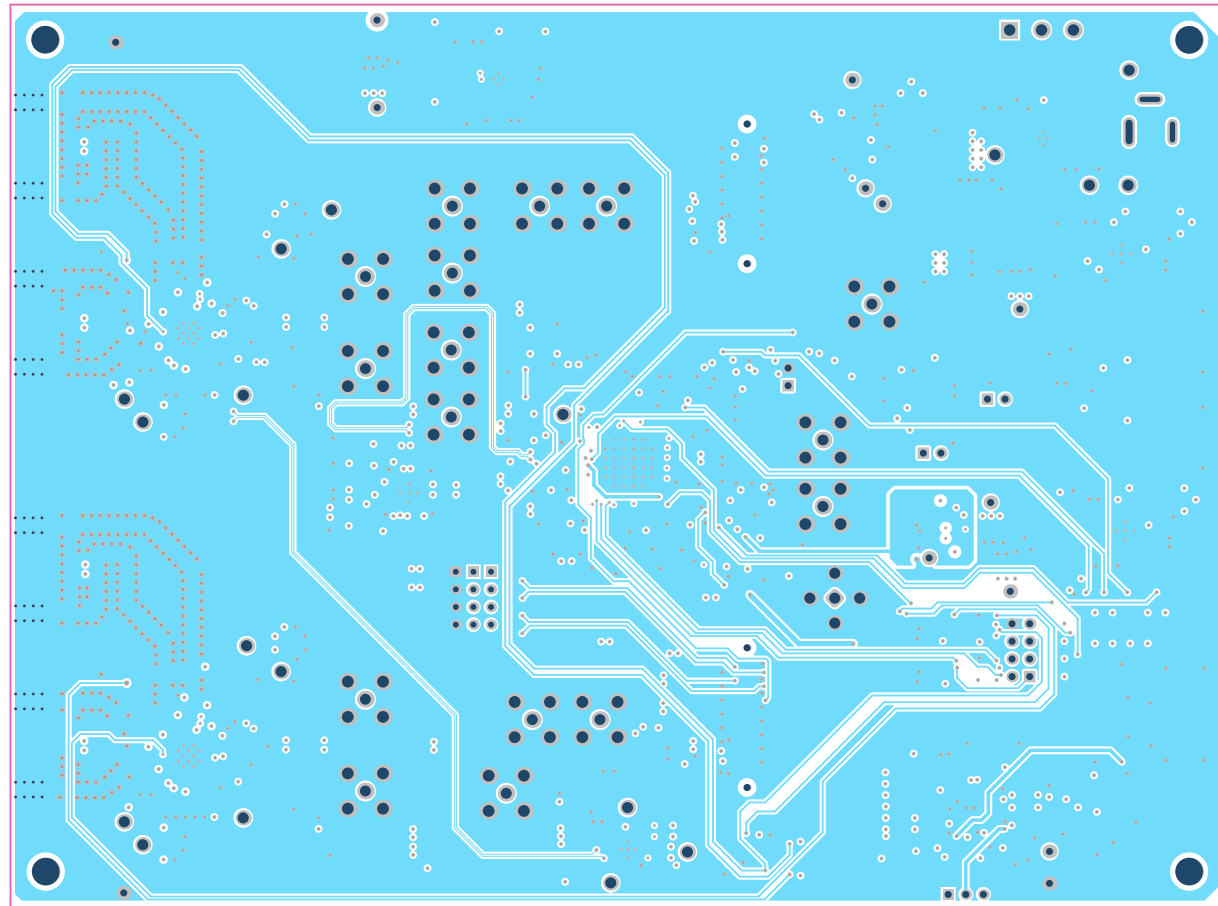
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: e2	SUN REV:
LAYER NAME = TOP SOLDER	TID #: 01021		
PLOT NAME = Top Solder Mask	GENERATED : 10/13/2017 5:38:48 PM	TEXAS INSTRUMENTS	



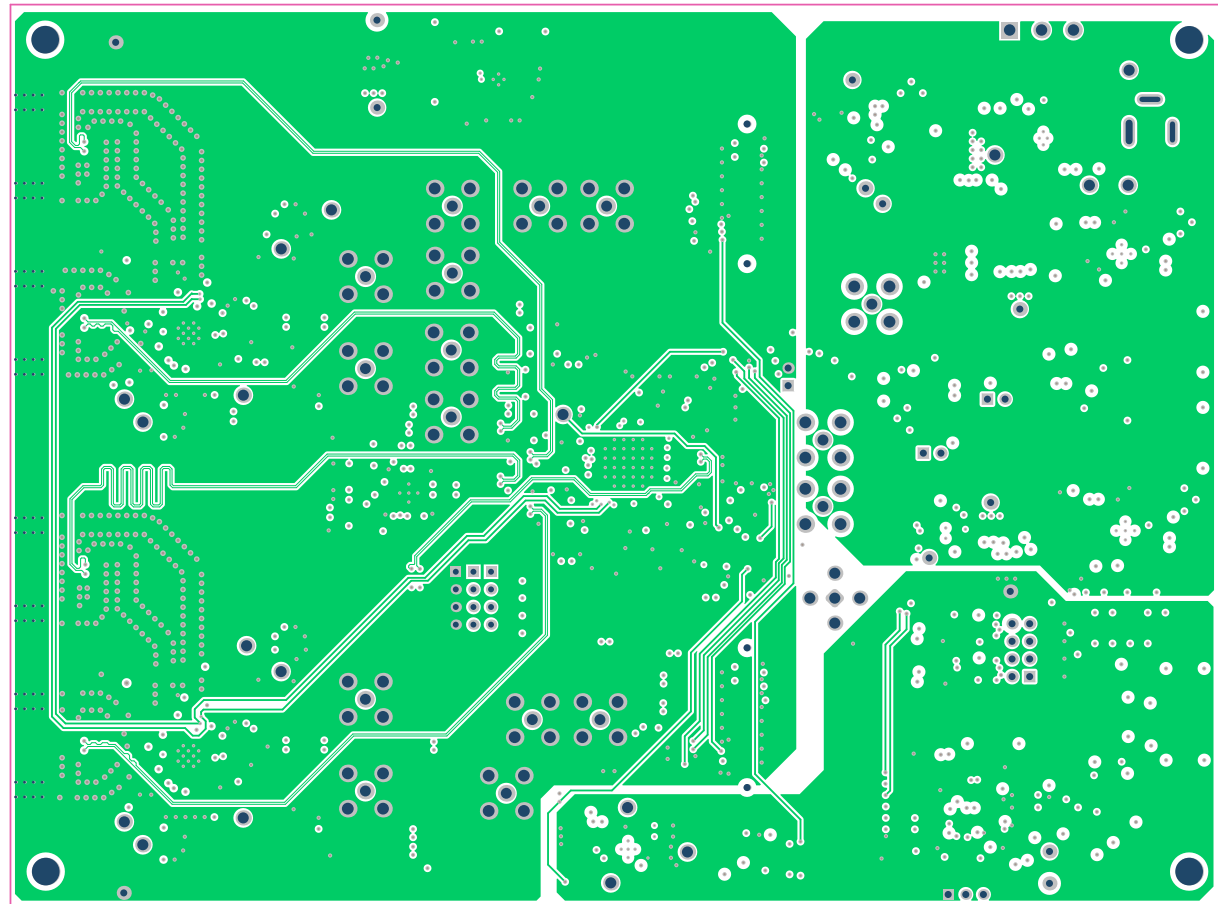
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: e2	SUN REV:
LAYER NAME = TOP LAYER	TID #: 01021		
PLOT NAME = Top Layer	GENERATED : 10/13/2017 5:38:49 PM	TEXAS INSTRUMENTS	



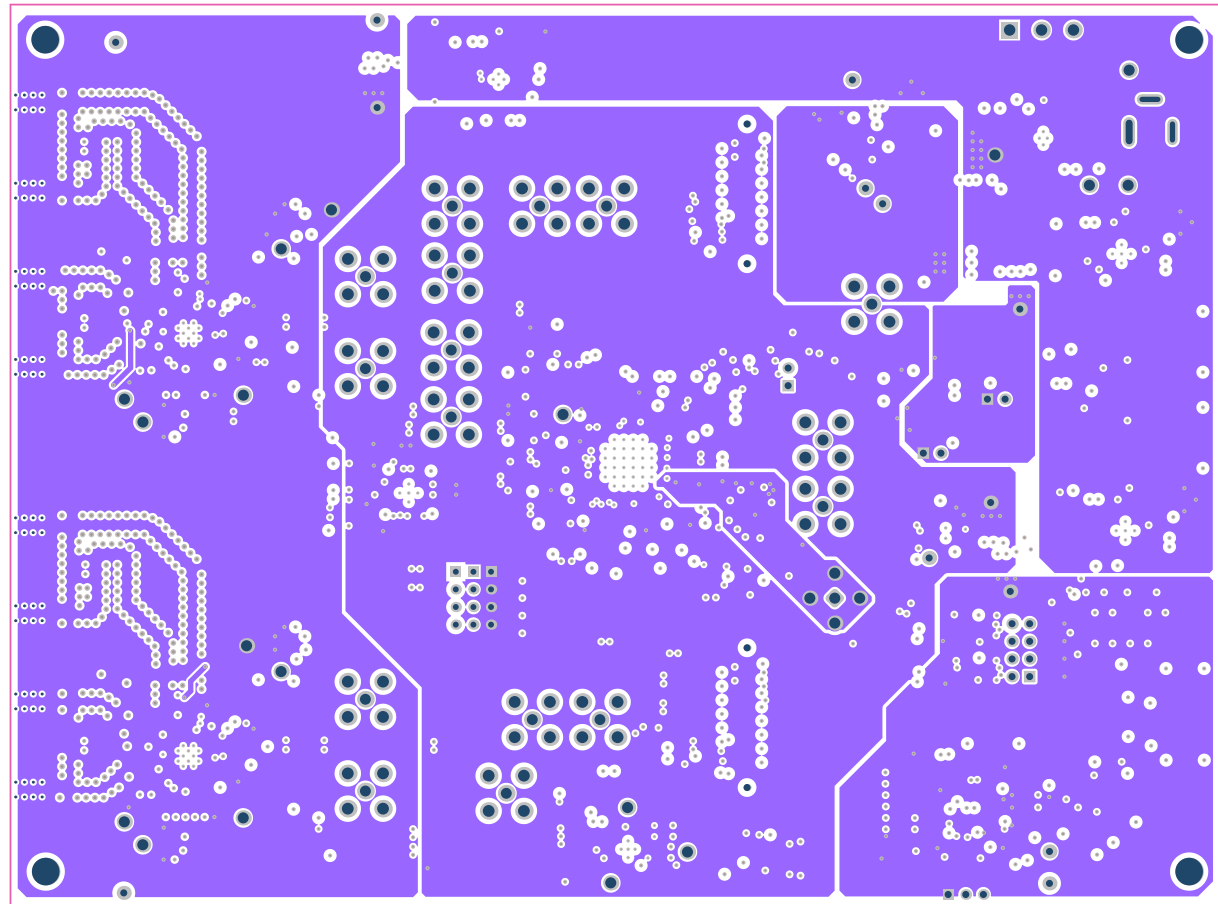
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = GND Layer	TID #: 01021		
PLOT NAME = GND LAYER	GENERATED : 10/13/2017 5:38:50 PM	TEXAS INSTRUMENTS	



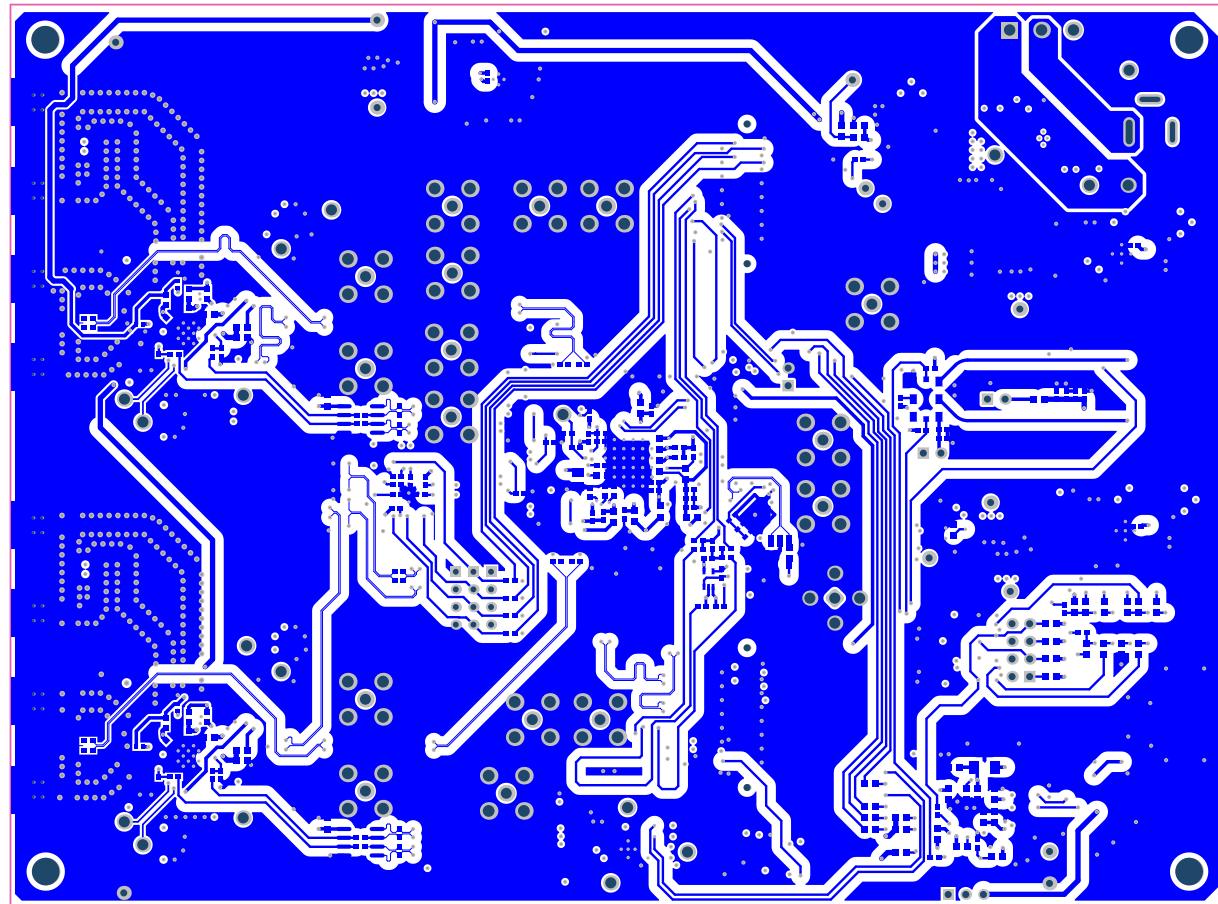
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = Signal Layer2	TID #:01021		
PLOT NAME = Signal Layer 2	GENERATED : 10/13/2017 5:38:51 PM	TEXAS INSTRUMENTS	



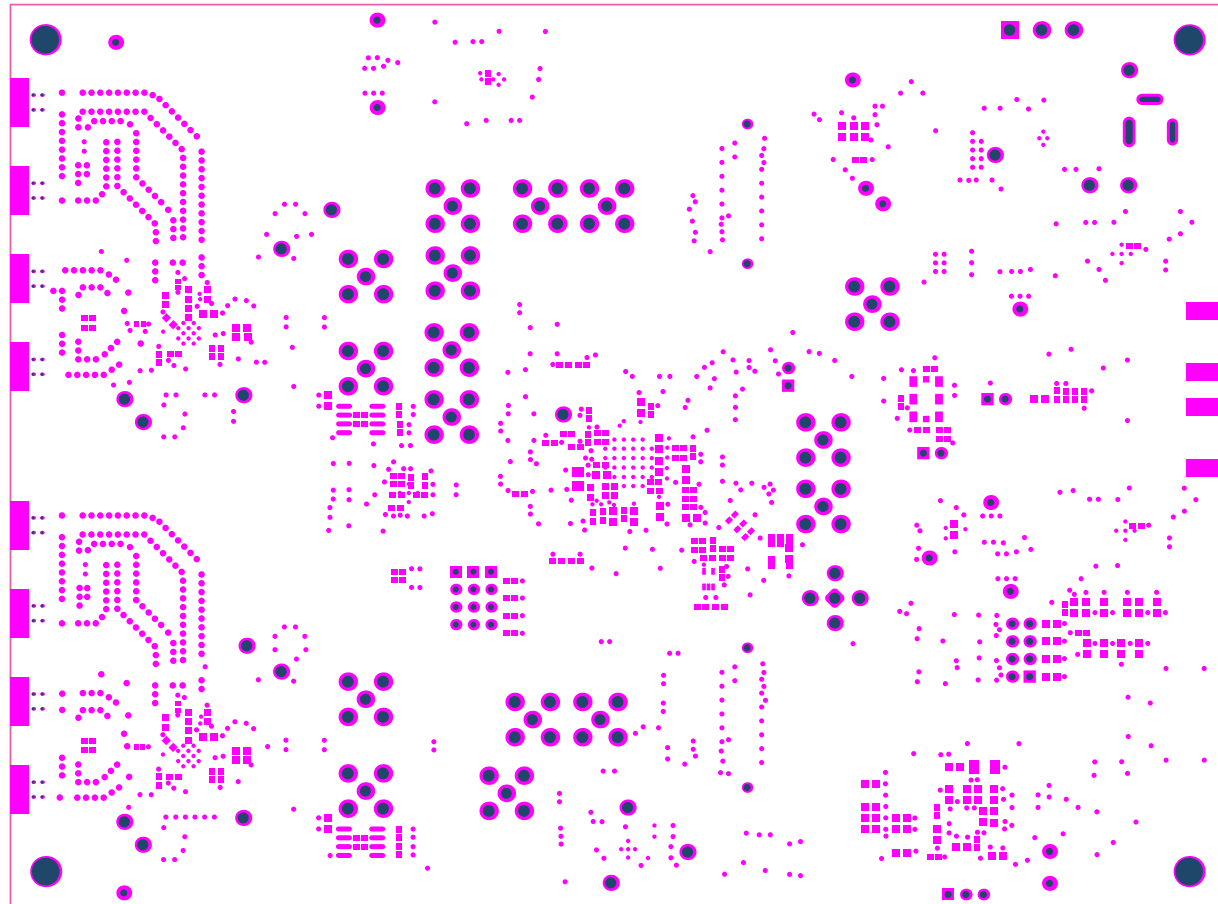
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = Signal Layer1	TID #:01021		
PLOT NAME = Signal Layer 3	GENERATED : 10/13/2017 5:38:52 PM	TEXAS INSTRUMENTS	



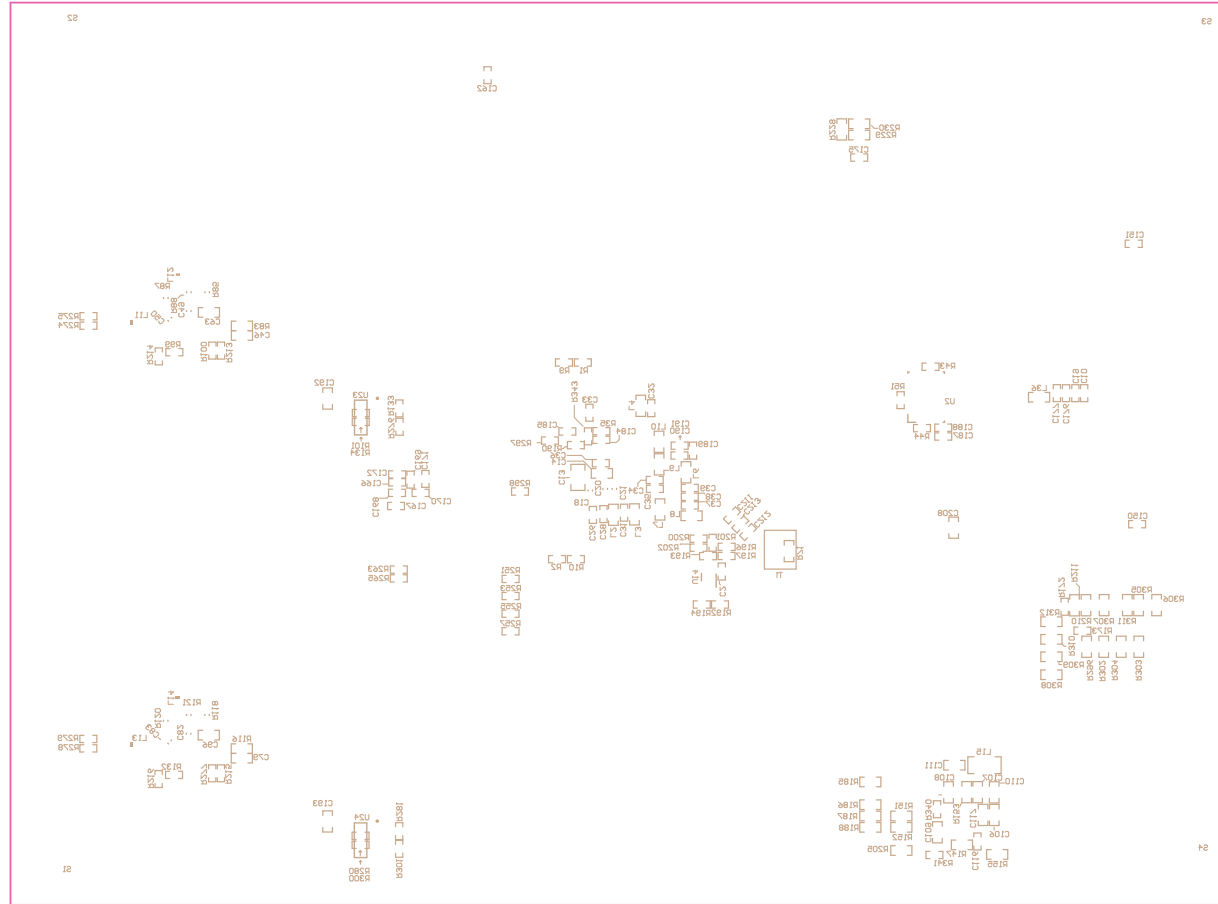
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = PWR Layer	TID #: 01021		
PLOT NAME = PWR LAYER	GENERATED : 10/13/2017 5:38:53 PM	TEXAS INSTRUMENTS	



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = BOTTOM LAYER	TID #: 01021		
PLOT NAME = Bottom Layer	GENERATED : 10/13/2017 5:38:54 PM		TEXAS INSTRUMENTS

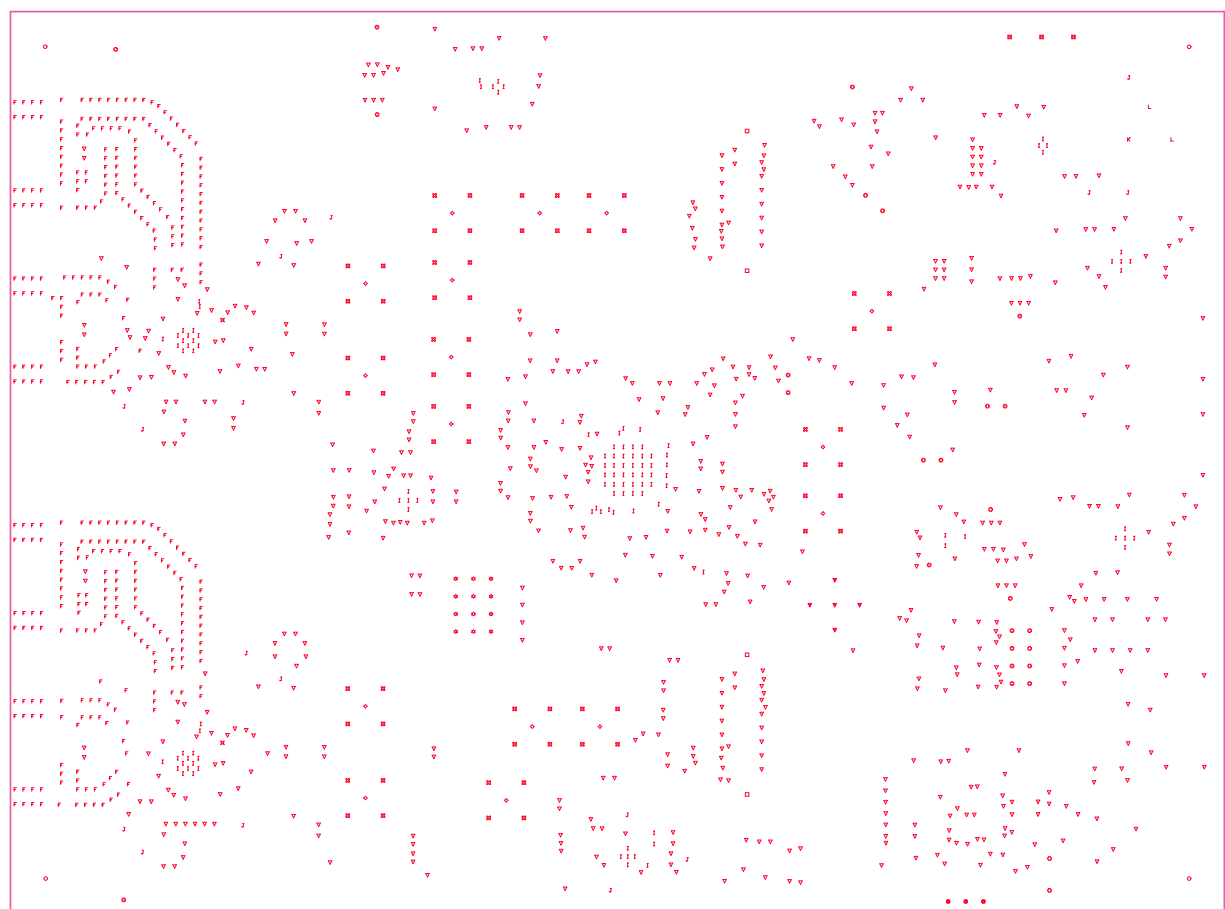


ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = BOTTOM SOLDER	TID #:01021		
PLOT NAME = Bottom Solder Mask	GENERATED : 10/13/2017 5:38:55 PM	TEXAS INSTRUMENTS	



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: e2	SUN REV:
LAYER NAME = BOTTOM OVERLAY	TID #: 01021		
PLOT NAME = Bottom Overlay	GENERATED : 10/13/2017 5:38:56 PM	TEXAS INSTRUMENTS	

1 2 3 4 5 6



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	Rogers4003C	12.00mil	4.2	
5	GND Layer	Copper	0.70mil		
6	Dielectric 4	FR4 370	8.50mil	4.2	
7	Signal Layer 1	Copper	1.40mil		
8	Dielectric 3	FR4 370	14.50mil	4.2	
9	Signal Layer 2	Copper	1.40mil		
10	Dielectric 5	FR4 370	8.50mil	4.2	
11	PWR Layer	Copper	0.70mil		
12	Dielectric 2	FR4 370	8.00mil	4.2	
13	Bottom Layer	Copper	1.40mil		
14	Bottom Solder	Solder Resist	0.40mil	3.5	
15	Bottom Overlay				

IMPEDANCE TABLE:-

Layer	SE IMP (OHM) +/-10%	SE TRACE WIDTH IN MILS	DIFF IMP (OHM) +/-10%	DIFF TRACE WIDTH/SPACING IN MILS	DIFF IMP (OHM) +/-10%	WIDTH/SPACING IN MILS	REFERENCE Layer
Top Layer	50(CPW) 50	22mil 24mil	90 ohms	15mil trace/ 7mil space	100 ohms	12mil trace/ 8mil space	GND Layer
SIGNAL Layer1	50	10.5 mil	90 ohms	-	100 ohms	5.5mil trace/ 6mil space	GND Layer
SIGNAL Layer2	50	10.5 mil	90 ohms	-	100 ohms	5.5mil trace/ 6mil space	PWR Layer
BOTTOM Layer	50	13.5 mil	90 ohms	-	100 ohms	4.25mil trace/ 4.25mil space	PWR Layer

22 mil (CPW) width on top layer should be controlled 50 ohms +/- 5%
 ALL SMA CONNECTORS TO FLUSH TO THE EDGE OF THE BOARD, NO GAP ALLOWED.
 This is especially critical for: RFoutAP, RFoutAM, RFoutBP, and RFoutBM SMA connectors

Symbol	Count	Hole Size	Plated	Hole Type	Via/Pad	Hole Length
I	115	7.87mil (0.200mm)	PTH	Round	Via	-
X	2	10.00mil (0.254mm)	PTH	Round	Via	-
▽	685	12.00mil (0.305mm)	PTH	Round	Via	-
F	375	16.00mil (0.406mm)	PTH	Round	(Mixed)	-
L	2	29.92mil (0.760mm)	PTH	Slot	Pad	120.08mil (3.050mm)
⊗	12	33.46mil (0.850mm)	PTH	Round	Pad	-
K	1	39.76mil (1.010mm)	PTH	Slot	Pad	140.16mil (3.560mm)
⊙	27	40.00mil (1.016mm)	PTH	Round	Pad	-
□	4	40.16mil (1.020mm)	NPTH	Round	Pad	-
⊕	3	40.16mil (1.020mm)	PTH	Round	Pad	-
⊖	16	62.00mil (1.575mm)	PTH	Round	Pad	-
▽	5	62.99mil (1.600mm)	PTH	Round	Pad	-
J	18	63.00mil (1.600mm)	PTH	Round	Pad	-
■	3	64.96mil (1.650mm)	PTH	Round	Pad	-
⊗	64	67.00mil (1.702mm)	PTH	Round	Pad	-
O	4	157.00mil (3.988mm)	NPTH	Round	Pad	-
	1336 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 +/-7.874MIL
 FOR 10MIL DRILL +/-10MIL
 FOR 12MIL DRILL +/-12MIL
 FOR 16MIL DRILL +/-16MIL
 FOR PTH DRILL +/-3MIL
 FOR NPTH DRILL +/-2MIL

DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
 175MM X 130mm

Number of Layers : 6
 MN. TRACK WIDTH: 4.25 MIL
 MN. CLEARANCE: 4.25 MIL
 MN. VIA PAD SIZE: 16 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 FR-4 High Tg OTHER Rogers4003C and FR4 370

THICKNESS: 63 MIL (1.6mm) +/-10% OTHER _____

TOLERANCE: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER +/- _____

BOW & TWIST: ANSI IPC-6012 TYPE 3 CLASS 2
 OTHER +/- _____

COPPER THICKNESS (FINISHED):
 OUTER: 1.4MIL (1oz) 2MIL (1.4oz) 2.8MIL (2oz)
 INNER SIGNAL: 1.4MIL (1oz) 0.7MIL (1/2oz) N/A

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

BOARD FINISH:
 SILKSCREEN: TOP BOTTOM
 SILKSCREEN COLOR: WHITE OTHER _____
 SOLDER RESIST COLOR:
 GREEN BLUE OTHER _____

SURFACE FINISH: IMMERSION GOLD (ENIG) ENEPIG
 IMM. TIN/SILVER OR EQUIV OTHER _____

ARRAY/PANEL: CUT AND TRM PER MECH LAYER 1
 N.C. ROUTE V. SCORE

CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBs
 TO MEET OR EXCEED THE REQUIREMENTS OF:
 ANSI IPC-A-600F CLASS -> 1 2 3
 UL 94V-0 RoHS OTHER PER ORDER

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



TIDA-01021

DESIGNED FOR:
 Public Release

FILE NAME:
 TIDA-01021_E2.PcbDoc

ENGINEER:
 Ajeet Pal

LAYOUT BY:
 Avinash N

SCALE: 0.92

ALTIM DESIGNER VERSION:
 16.1.9.221

ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: E2	SUN REV:
LAYER NAME = DRILL DRAWING	TID #:01021		
PLOT NAME = Drill Drawing	GENERATED : 10/13/2017 5:38:58 PM	TEXAS INSTRUMENTS	

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1 2 3 4 5 6



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-01021	REV: e2	SUN REV:
LAYER NAME =	TID #: 01021		
PLOT NAME = Board Dimensions	GENERATED : 10/13/2017 5:39:01 PM	TEXAS INSTRUMENTS	

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