

TIDA-00639: High-Side Current Sensing of a 600 V DC Bus for a Smart Combiner Box

Getting Started:  
 J11-2, J18-2, J12-2, and J17-2: Four inputs rated to 600 V DC and 16 A.  
 J11-1, J18-1, J12-1, and J17-1: Four outputs that are externally DC combined and connected to a load.  
 J10: Connect an external 5 V DC power supply to power the board.  
 J1, J3, J5, J7, J2, J4, J6, and J8: Set the I2C slave address for the INA226.

Additional Features:  
 J19: MSP launchpad socket.  
 J21: Use for external UART connections.  
 Use test points and additional headers for debug and test of the voltage and current measurements as labeled.

Setting the INA226 I2C Slave Address:  
 The slave address for the INA226 is "1000'A1'A0", where A0 and A1 are set by the configurable jumper settings.

All four INA226 devices can have unique slave addresses by appropriately placing jumpers on headers:

- J1, J3: Channel 1
- J5, J7: Channel 2
- J2, J4: Channel 3
- J6, J8: Channel 4

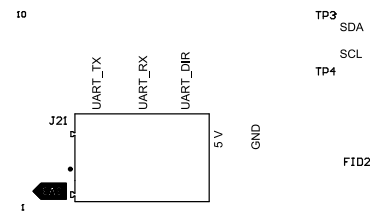
NOTE: Without any jumpers, the slave address is not set. The I2C communication will be unsuccessful.

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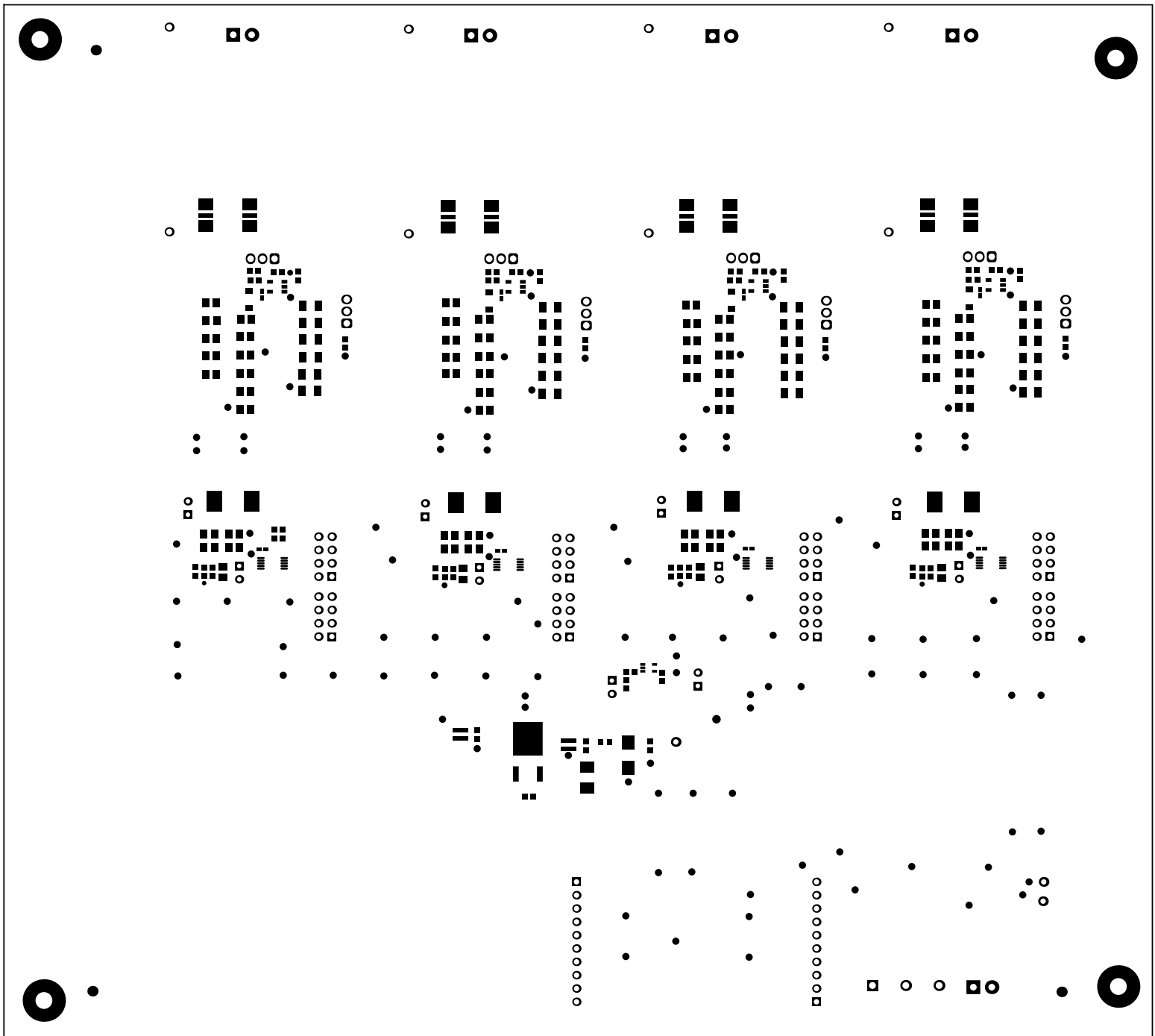
Logo1



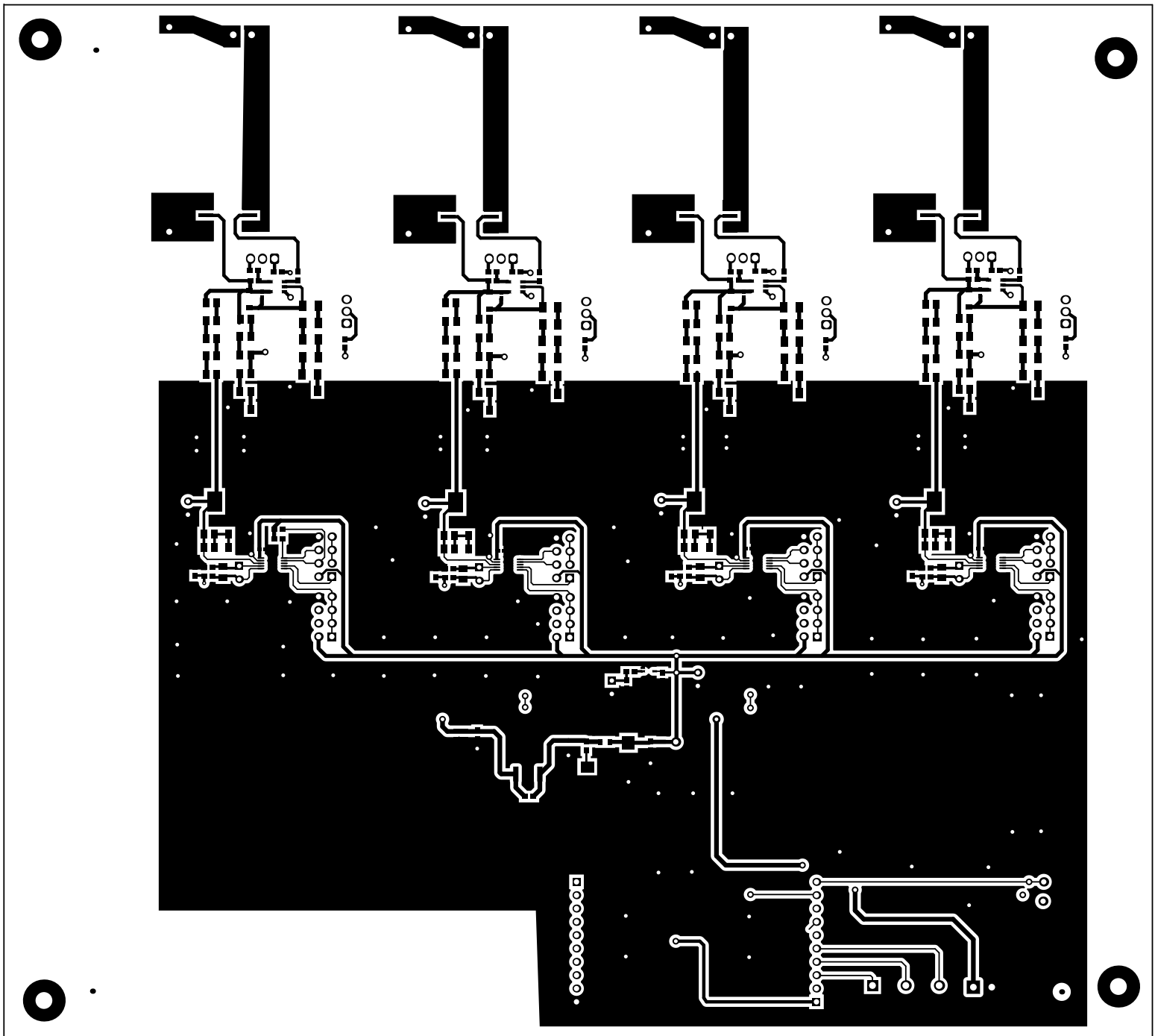
For evaluation only; not FCC approved for resale.



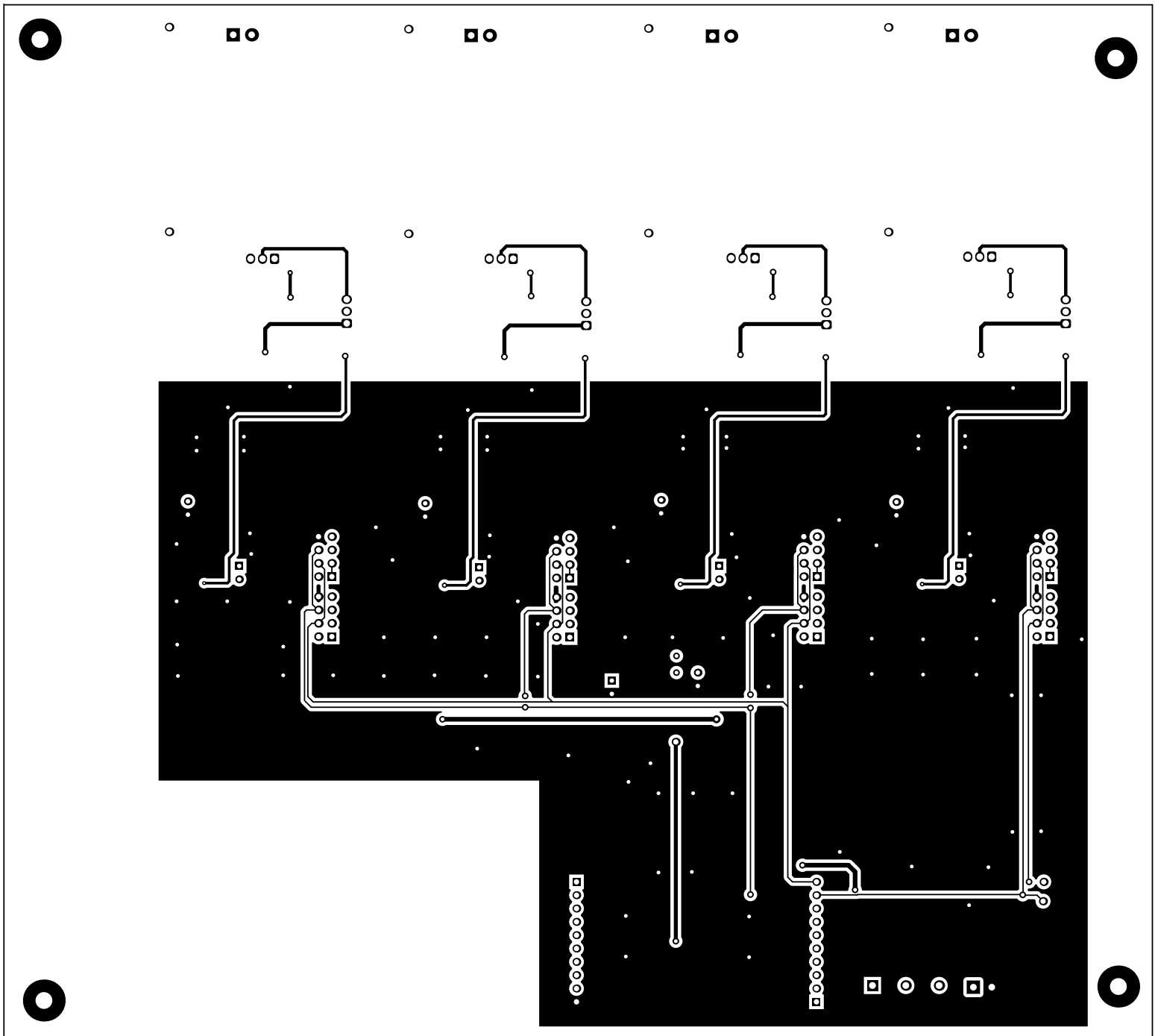
ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-00639	REV: E1	SUN REV: Not In VersionControl
LAYER NAME = Top Overlay	TID #: N/A		
PLOT NAME = Top Overlay	GENERATED : 9/27/2016 8:01:26 PM	TEXAS INSTRUMENTS	



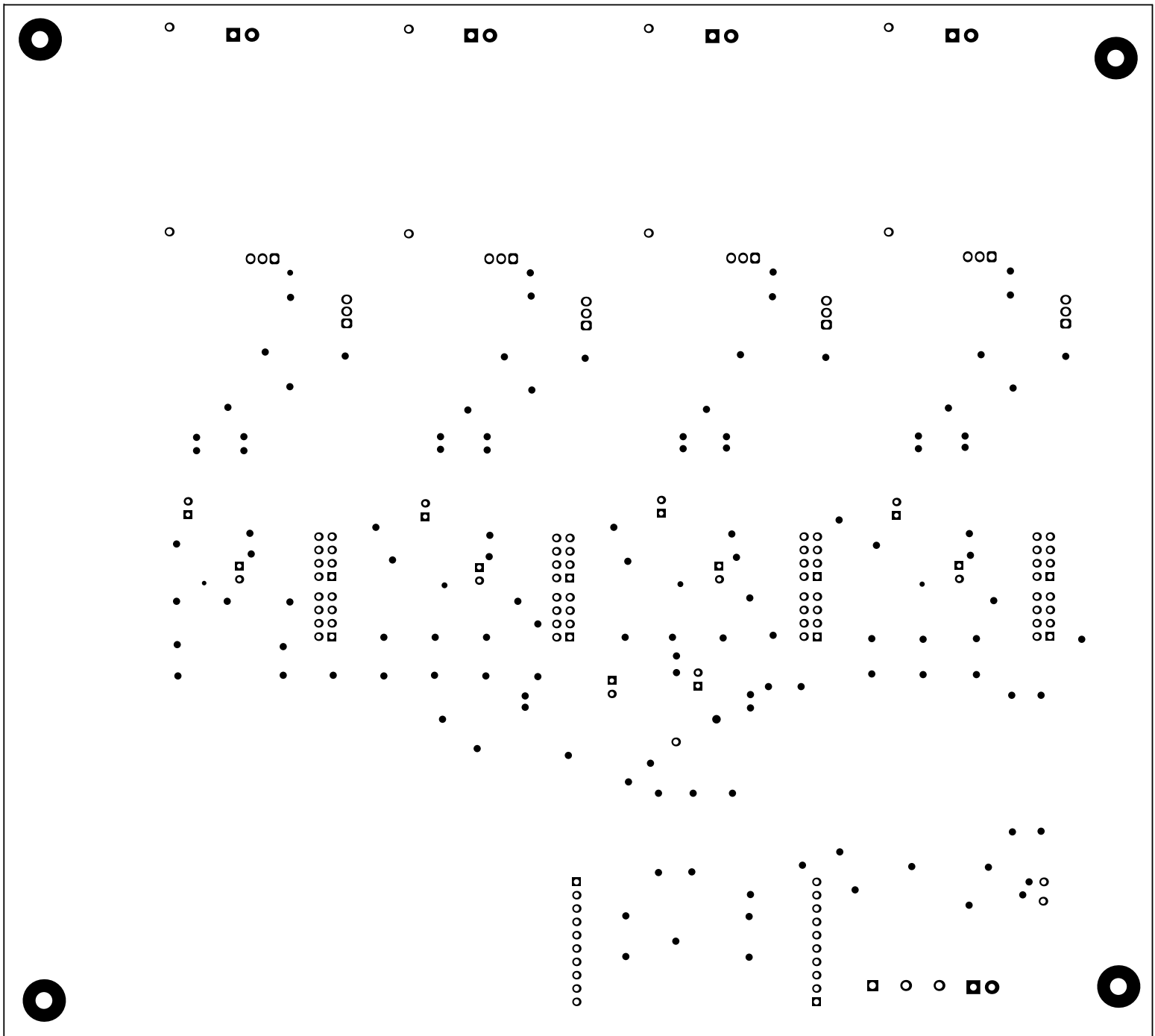
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LAYER NAME = Top Solder	TID #: N/A		
PLOT NAME = Top Solder Mask	GENERATED : 9/27/2016 8:01:29 PM	TEXAS INSTRUMENTS	



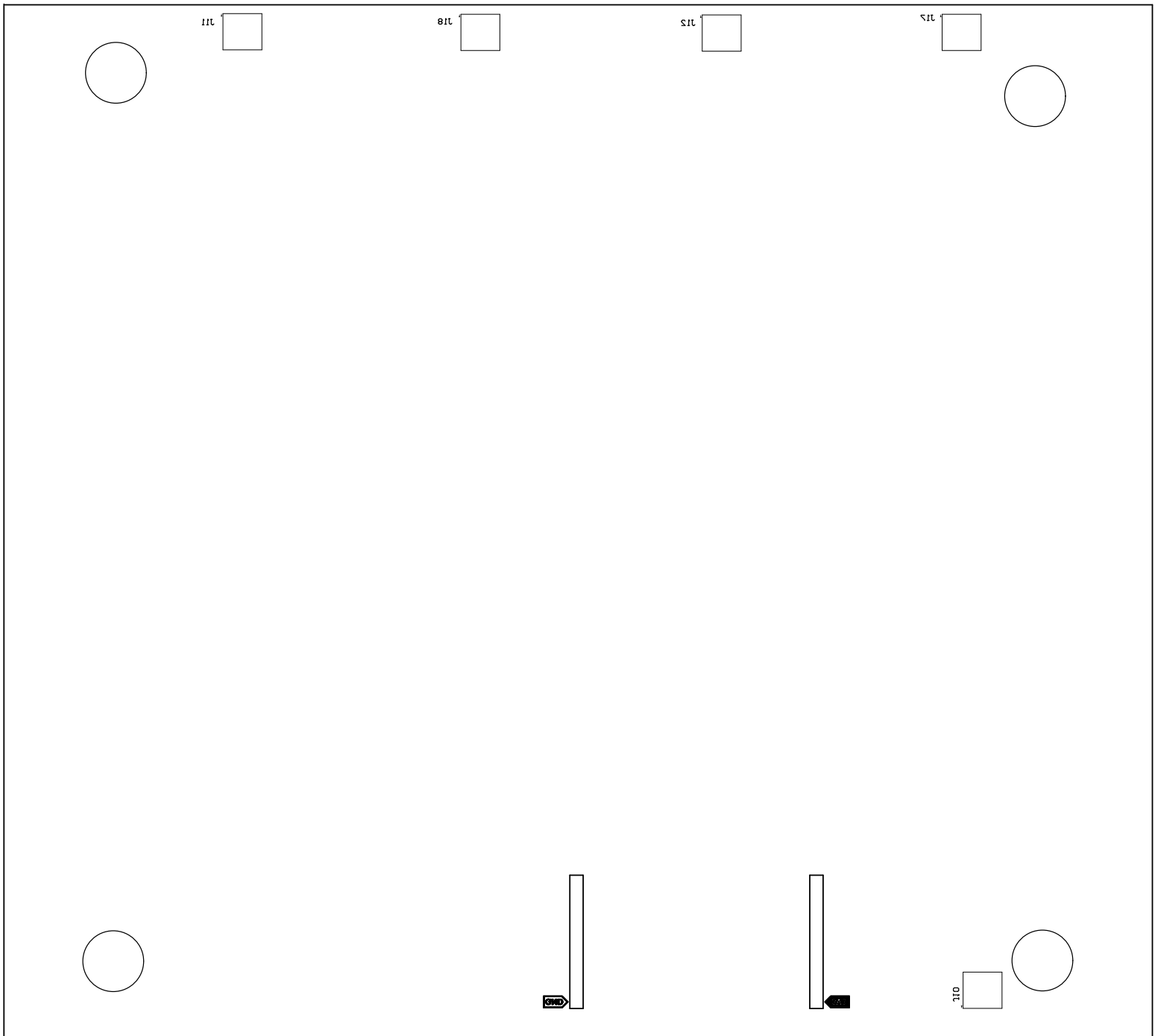
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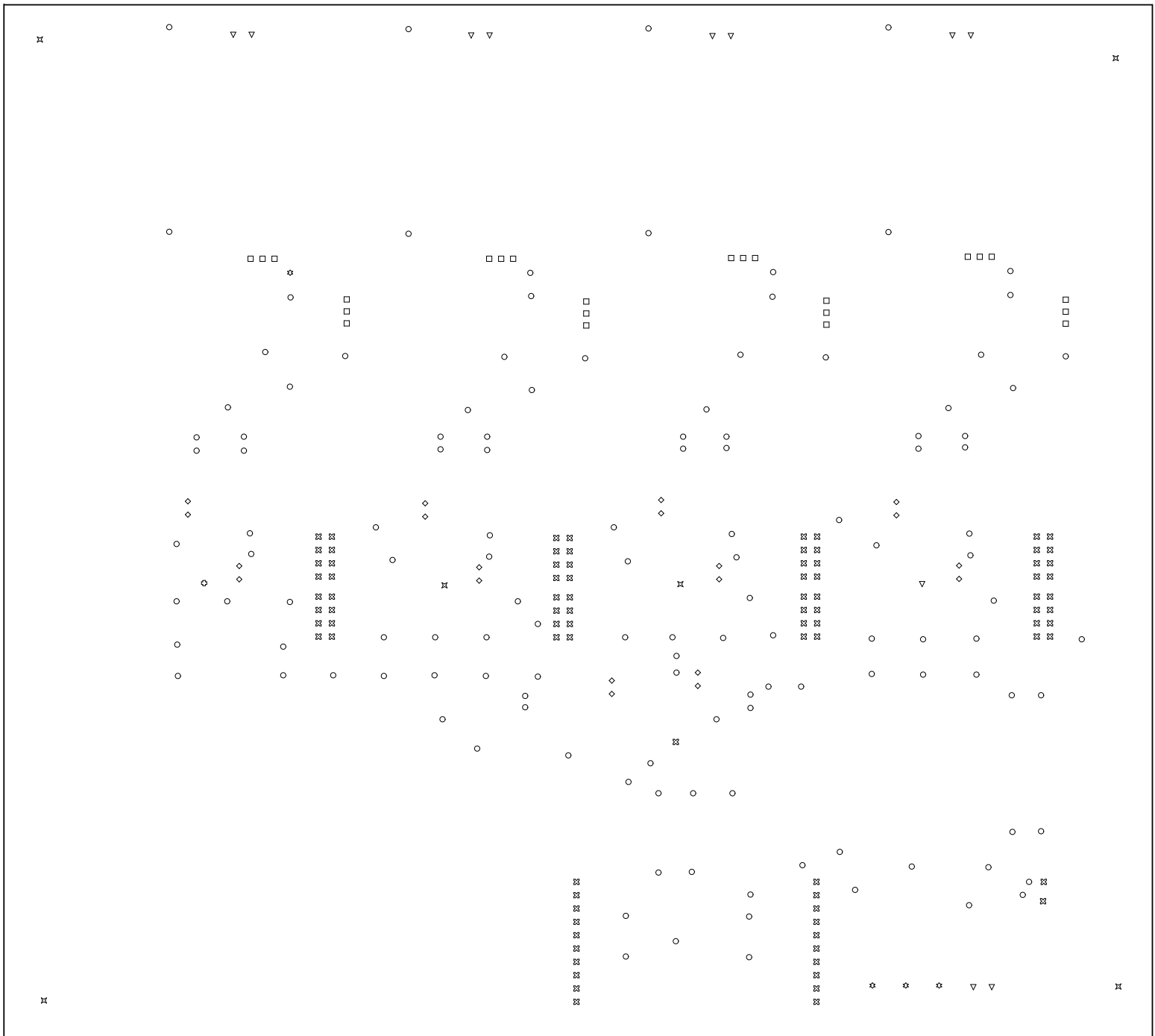
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PLOT NAME = Bottom Layer	GENERATED : 9/27/2016 8:01:31 PM	TEXAS INSTRUMENTS	



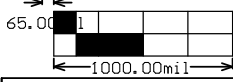
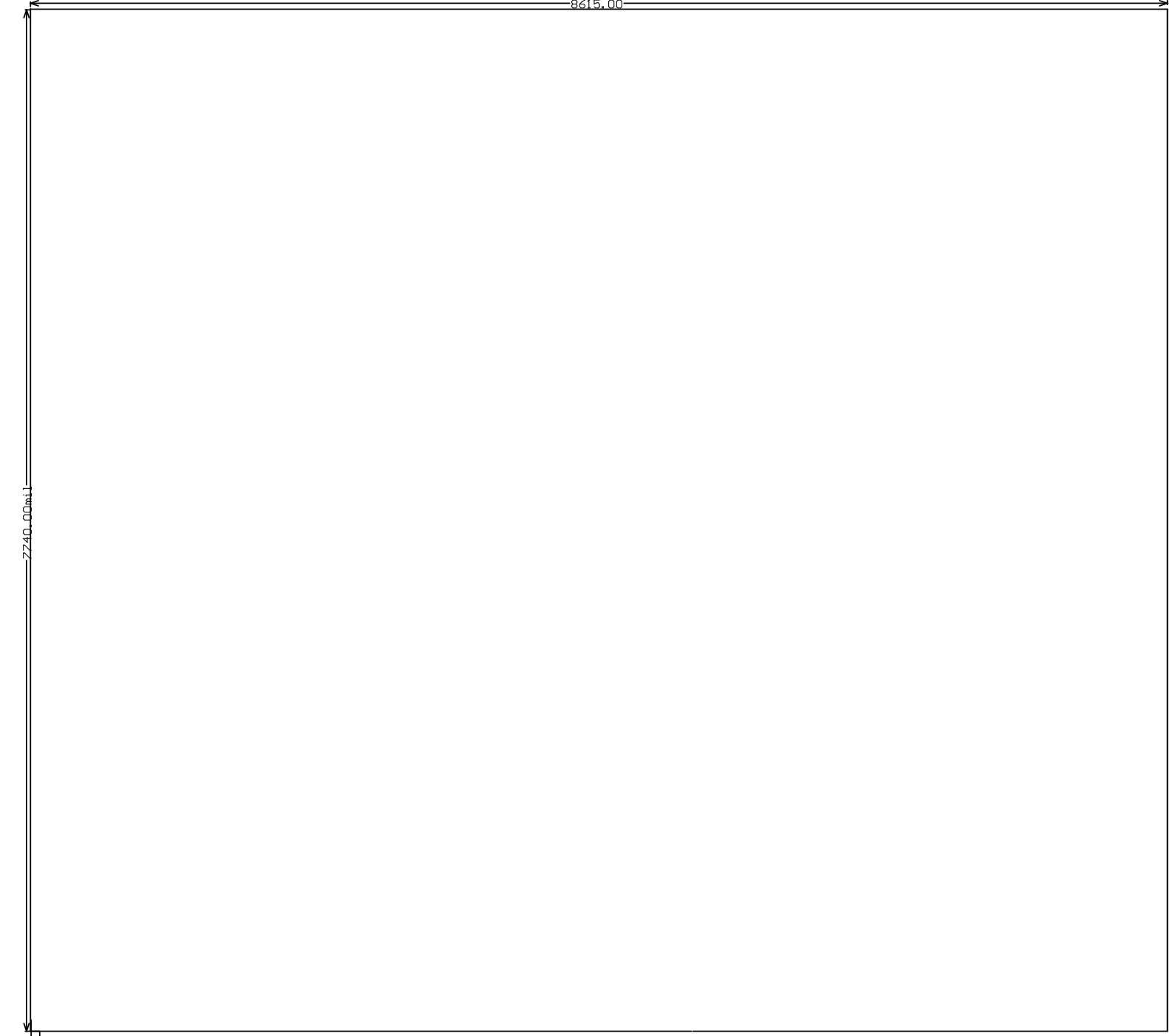
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LAYER NAME = Bottom Solder	TID #: N/A		
PLOT NAME = Bottom Solder Mask	GENERATED : 9/27/2016 8:01:32 PM	TEXAS INSTRUMENTS	



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-00639	REV: E1	SUN REV: Not In VersionControl
LAYER NAME = Bottom Overlay	TID #: N/A		
PLOT NAME = Bottom Overlay	GENERATED : 9/27/2016 8:01:33 PM	TEXAS INSTRUMENTS	



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-00639	REV: E1	SUN REV: Not In VersionControl
LAYER NAME = Drill Drawing	TID #: N/A		
PLOT NAME = Drill Drawing	GENERATED : 9/27/2016 8:01:34 PM	TEXAS INSTRUMENTS	



ALL ARTWORK VIEWED FROM TOP SIDE	BOARD #: TIDA-00639	REV: E1	SUN REV: Not In VersionControl
LAYER NAME = M2 Board Dimensions	TID #: N/A		
PLOT NAME = Board Dimensions	GENERATED : 9/27/2016 8:01:35 PM	TEXAS INSTRUMENTS	



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