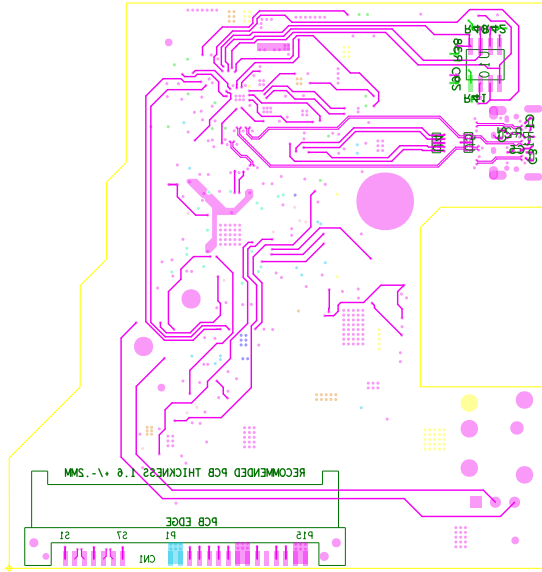
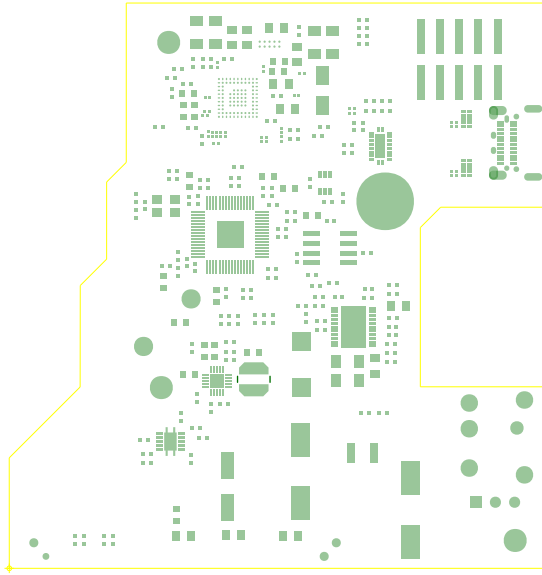


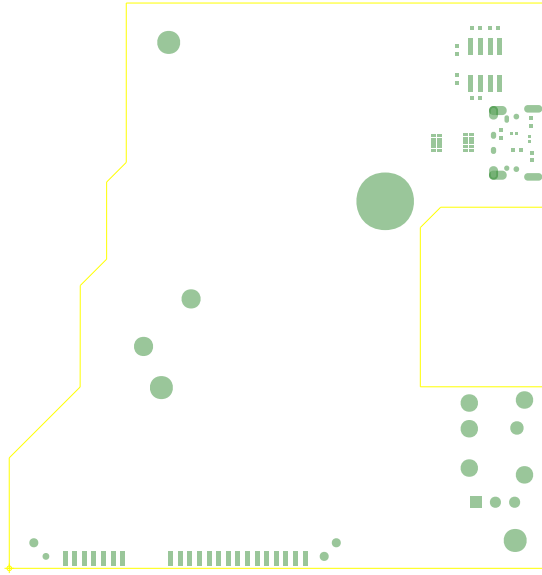
	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP		LAYER DESCRIPTION: LAYER1(X)X(TOP)SIDE	



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: LAYER 4 (XX) BOTTOM SIDE		



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP		LAYER DESCRIPTION: SOLDERMASK TOPXXXX	



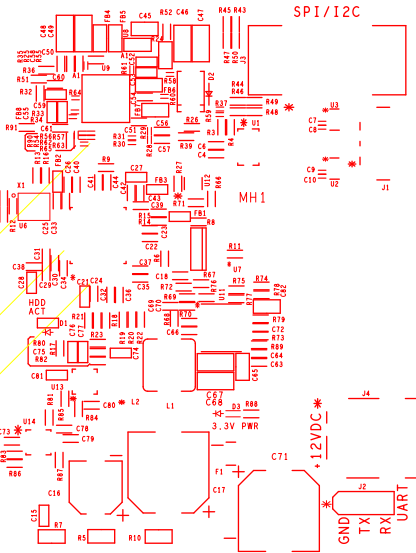
	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP		LAYER DESCRIPTION: XSOLDERMASK XBONDOMK X	

TIDA-00882
REV A

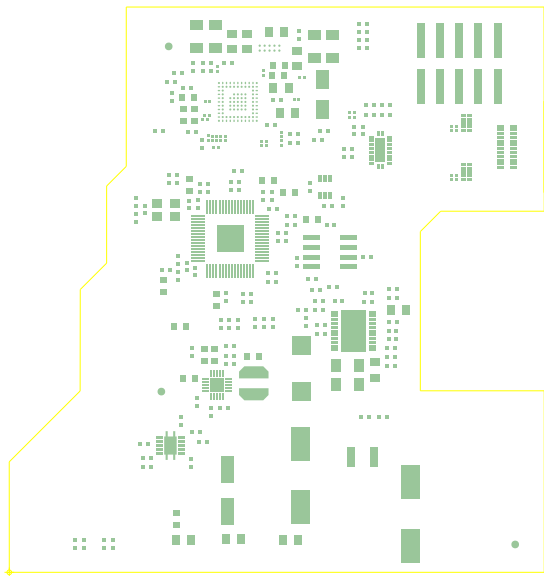
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C15
C16



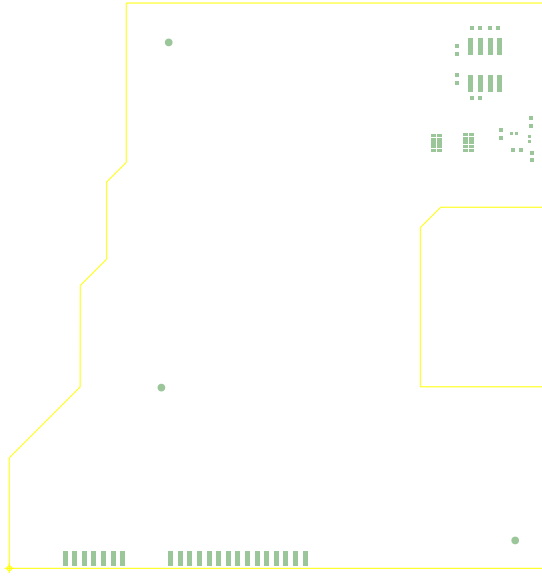
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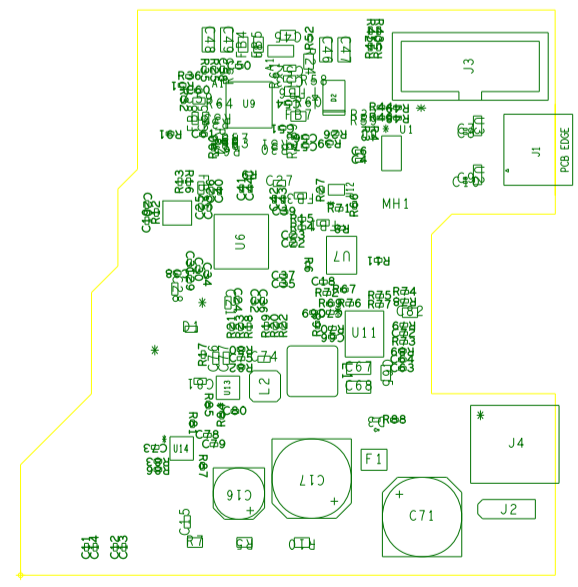
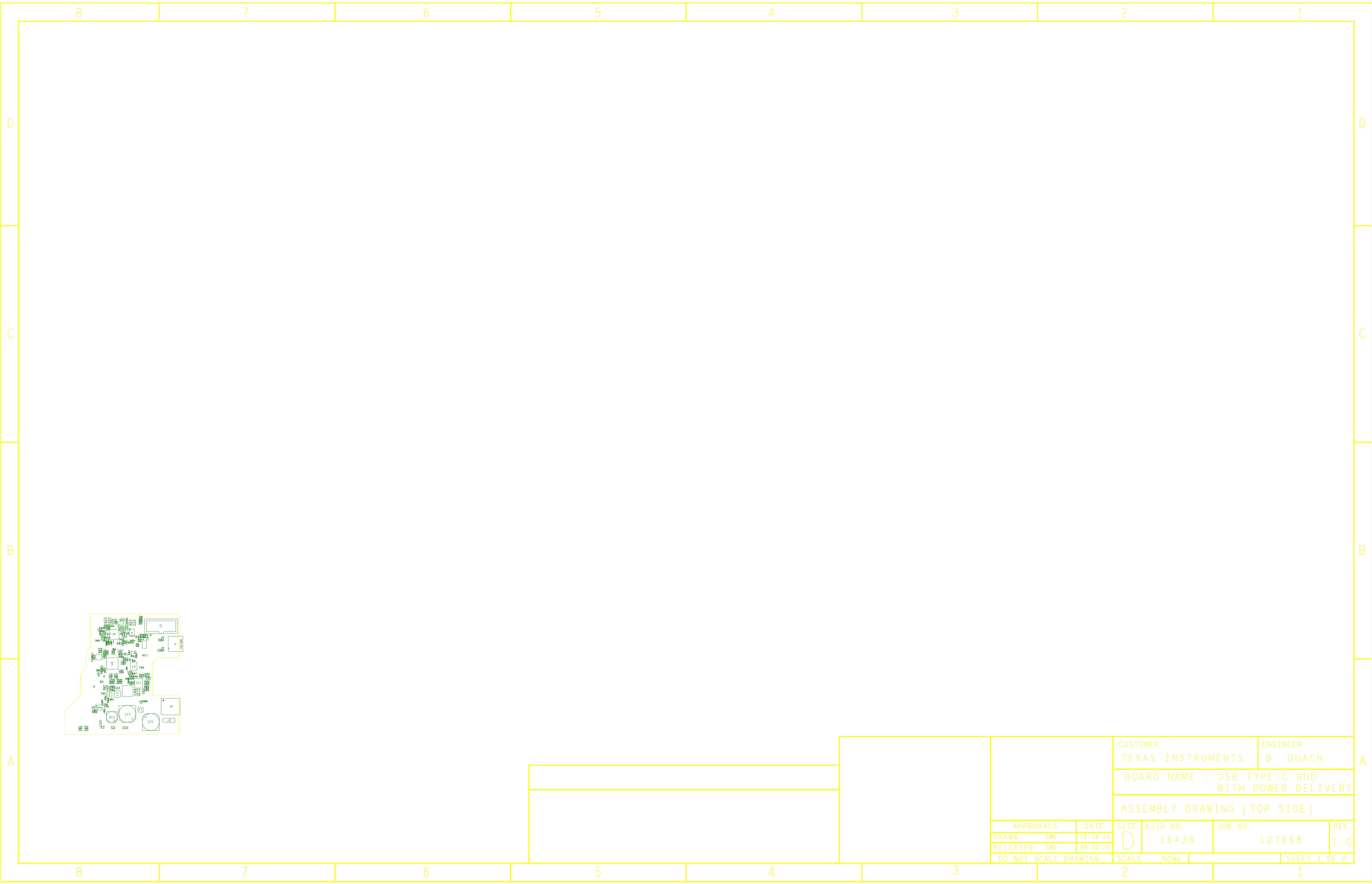
BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
ALL ARTWORK LAYERS VIEWED FROM TOP		LAYER DESCRIPTION: SILKSCREEN\TOPXXXX	



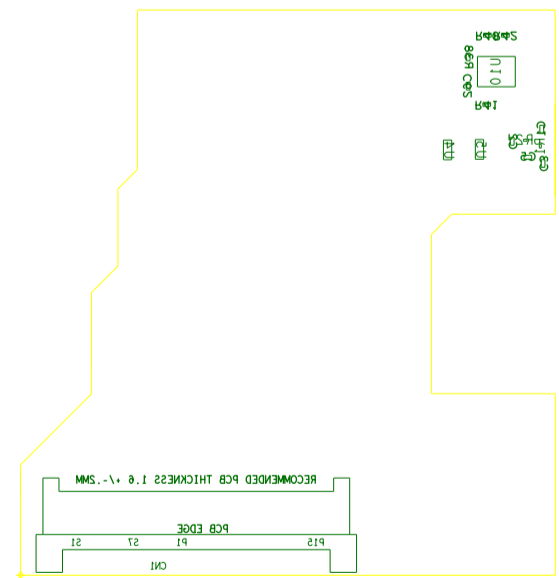
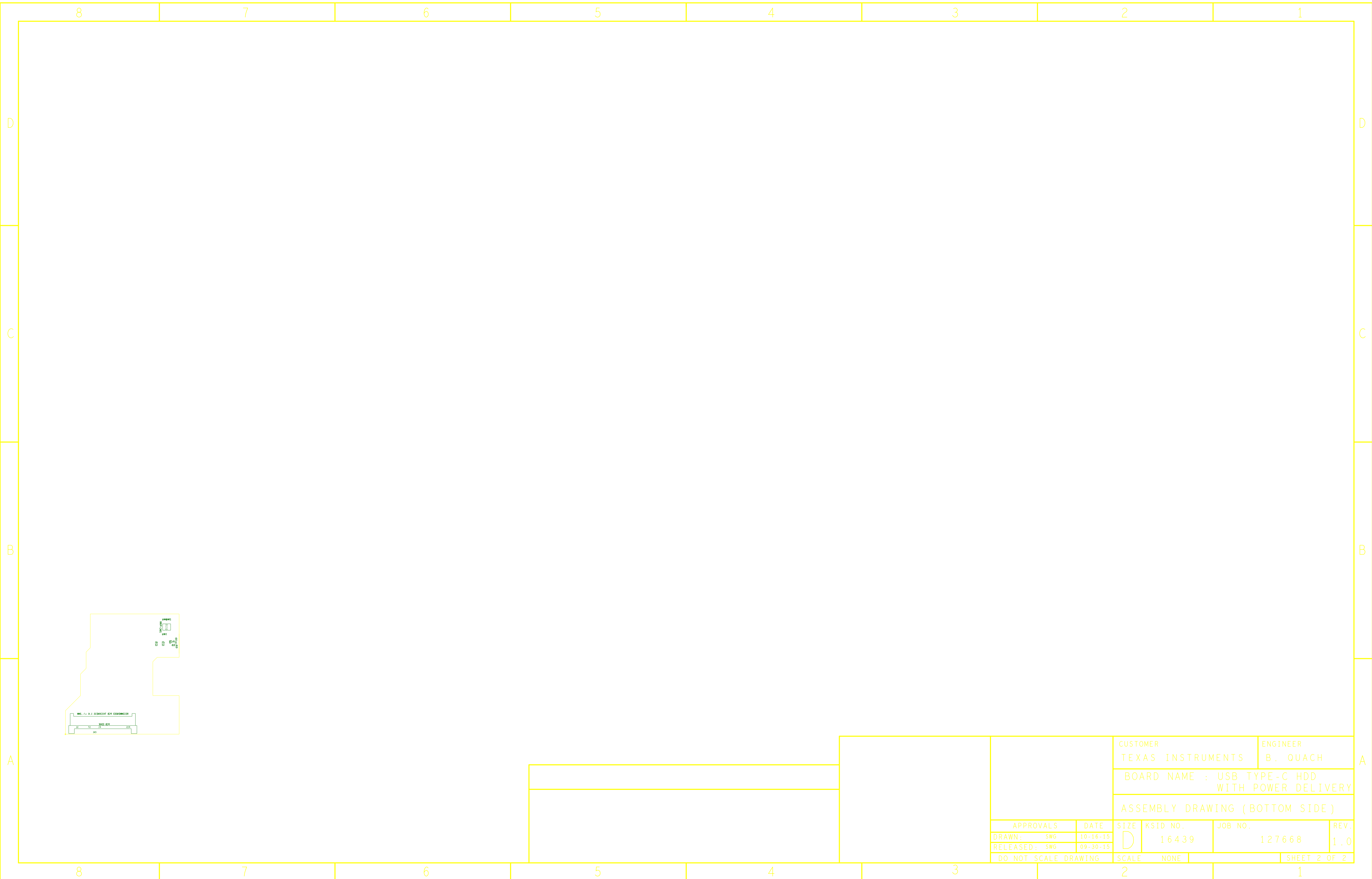
	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: PASTEMASK\TOP\XXXXXX		



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: PASTEMASK BOTTOMXX		



		CUSTOMER		ENGINEER	
		TEXAS INSTRUMENTS		B. QUACH	
		BOARD NAME : USB TYPE-C HDD WITH POWER DELIVERY			
		ASSEMBLY DRAWING (TOP SIDE)			
APPROVALS		DATE	SIZE	KSID NO.	JOB NO.
DRAWN: SWG		10-16-15	D	16439	127668
RELEASED: SWG		09-30-15			1.0
DO NOT SCALE DRAWING		SCALE NONE		SHEET 1 OF 2	



		CUSTOMER TEXAS INSTRUMENTS		ENGINEER B. QUACH	
		BOARD NAME : USB TYPE-C HDD WITH POWER DELIVERY			
		ASSEMBLY DRAWING (BOTTOM SIDE)			
APPROVALS	DATE	SIZE	KSID NO.	JOB NO.	REV.
DRAWN: SWG	10-16-15	D	16439	127668	1.0
RELEASED: SWG	09-30-15	DO NOT SCALE DRAWING		SCALE NONE	SHEET 2 OF 2

8 7 6 5 4 3 2 1

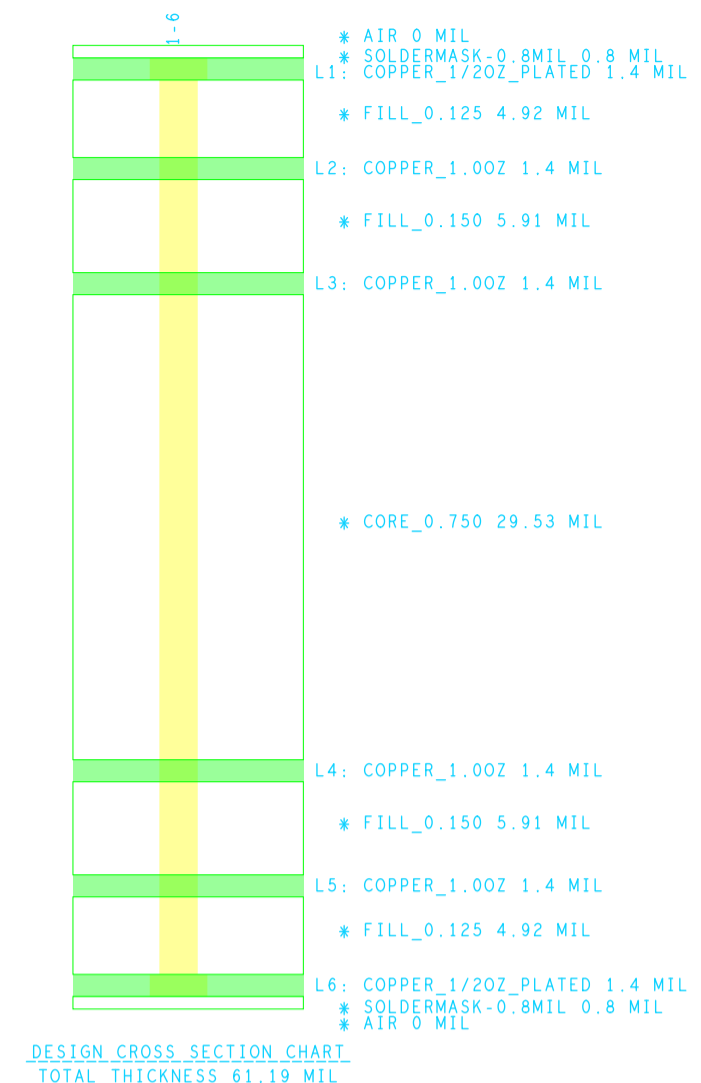


TABLE 1:

LAYER NO.	LAYER NAME	DIFFERENTIAL PAIR IMPEDANCE (OHMS)	DIFF TRACE WIDTH	DIFF TRACE SPACING	SINGLE ENDED IMPEDANCE (OHMS)	SINGLE ENDED TRACE WIDTH	REFERENCE LAYER
LAYER 1	TOP	100 +/- 10% 90 +/- 10%	0.005" 0.0055"	0.0065" 0.0045"	50 +/- 10%	0.0075"	LAYER 2
LAYER 2	L2_GND						
LAYER 3	L3_SIG						
LAYER 4	L2_PWR						
LAYER 5	L3_GND						
LAYER 6	BOTTOM	100 +/- 10% 90 +/- 10%	0.005" 0.0055"	0.0065" 0.0045"	50 +/- 10%	0.0075"	LAYER 5

SPECIAL FAB NOTES:

- 1: FAB SHOP MUST FOLLOW THE SOLDER MASK REVIEW LAYERS.
- 2:

PLACE DRILL CHART HERE:

DRILL CHART: TOP +o BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
○	150.0	+3.0/-3.0	PLATED	1
□	71.0	+3.0/-3.0	PLATED	5
◻	38.0	+3.0/-3.0	PLATED	3
•	17.72	+3.15/-3.15	PLATED	2
•	8.0	+3.0/-8.0	PLATED	592
N	100.0	+2.0/-2.0	NON-PLATED	2
J	70.0	+2.0/-2.0	NON-PLATED	1
^	47.24	+1.97/-0.0	NON-PLATED	3
∩	35.43	+1.97/-0.0	NON-PLATED	1
•	27.56	+3.0/-3.94	NON-PLATED	1
◊	72.83x27.56	+3.15/-3.15	PLATED	2
◊	59.06x19.69	+3.15/-3.15	PLATED	2
◊	51.18x27.56	+3.15/-3.15	PLATED	2
•	29.53x19.69	+3.15/-3.15	PLATED	2
•	39.37x23.62	+3.0/-3.94	NON-PLATED	1

DESIGN INFORMATION

BOARD SIZE (REFER ALSO ARRAY/PANEL PROFILING INFORMATION)
 NUMBER OF LAYERS: 6
 MIN. TRACK WIDTH: 4.0 MIL
 MIN. CLEARANCE: 4.5 MIL
 MIN. VIA PAD/DRILL: 16/08 MIL

MIN. ANNULAR RING 2 MIL EXTERNAL PER IPC-6012C CLASS 2
 REGISTRATION TOLERANCES: METAL +/- X MIL, HOLES +/- X MIL
 IMPEDANCE CONTROL: NONE YES - SEE TABLE 1
 MIXED DIELECTRIC: NO YES
 LAMINATE MATERIAL:
 FR-4 HIGH Tg ROGERS 4350B OTHER: _____
 THICKNESS:
 0.062" +/-10% 0.093" +/-10% OTHER: _____
 TOLERANCE: IPC-6012C TYPE 3 CLASS 2 IPC-6012C TYPE 3 CLASS 2
 OTHER +/- OTHER +/-
 BOW & TWIST:
 IPC-6012C TYPE 3 CLASS 2 IPC-6012C TYPE 3 CLASS 2
 OTHER +/- OTHER +/-
 COPPER THICKNESS (FINISHED):
 OUTER: 1/4 OZ. 1/2 OZ. 1.0 OZ. 2.0 OZ.
 INNER SIGNAL: 1/4 OZ. 1/2 OZ. 1.0 OZ. 2.0 OZ.
 INNER PLANE: 1/4 OZ. 1/2 OZ. 1.0 OZ. 2.0 OZ.
 OTHER: _____

BOARD FINISH:
 SILKSCREEN: TOP BOTTOM
 SILKSCREEN COLOR: WHITE OTHER _____
 SOLDERMASK: (PER IPC-6011,6012)
 TOP BOTTOM
 SOLDERMASK COLOR: GREEN BLUE OTHER _____
 THROUGH-HOLE VIA TREATMENT:
 OPEN TENTED IDENTIFIER: ALL x MIL VIAS
 VIA-FILL USING NON-CONDUCTIVE EPOXY:
 NO YES IDENTIFIER: ALL x MIL VIAS

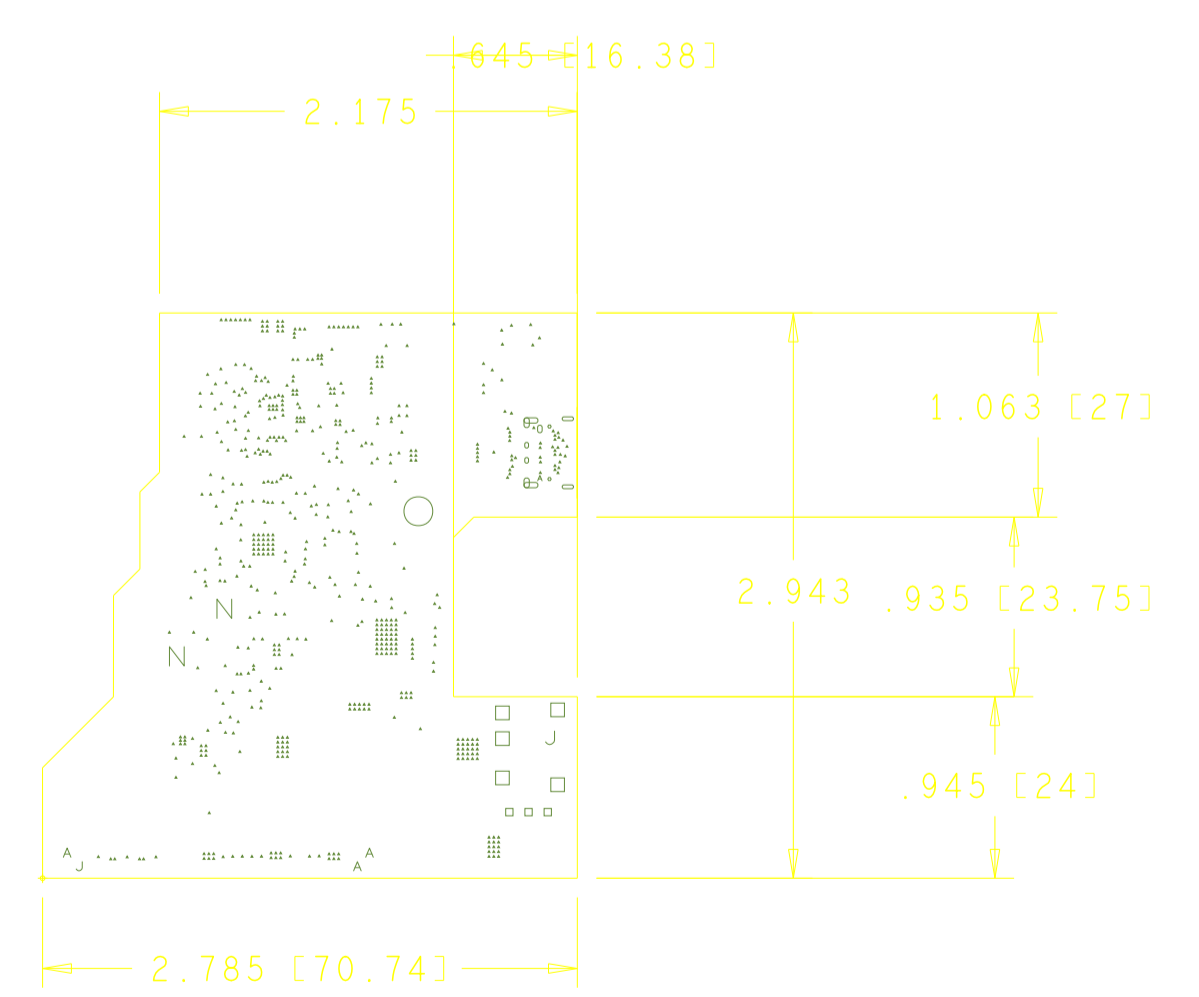
THIEVING ALLOWED: YES NO
 BOARD SURFACE TREATMENT:
 NICKEL/GOLD (ENIG) ORGANIC (OSP) HASL ENEPIG
 IMMERSION TIN OTHER _____
 FOR WIRE BONDING:
 HARD GOLD SOFT GOLD PER SUPPLIED ARTWORK
 ADDITIONAL REQUIREMENTS:
 MICRO-SECTION TDR REPORTS/COUPONS ELECTRICAL TEST
 CERTIFICATES OF COMPLIANCE RoHS UL 94V-0
 VENDOR MARKING:
 VENDOR DATE CODE,UL,LOGO: ETCH SILKSCREEN BREAK-AWAY
 IN AN OPEN AREA WHERE INDICATED (SEE DRAWING)

D

C

B

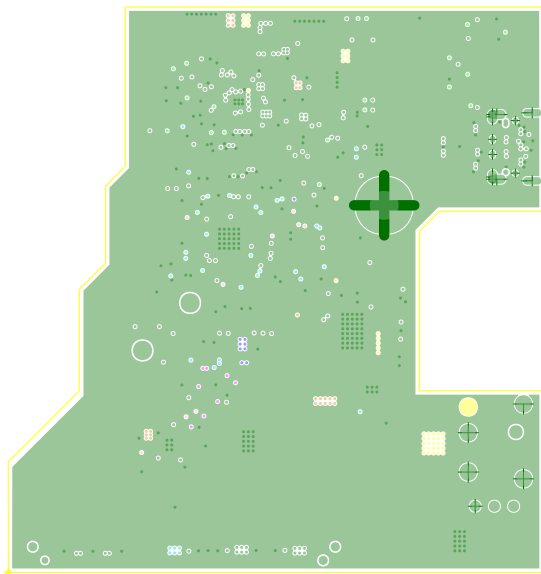
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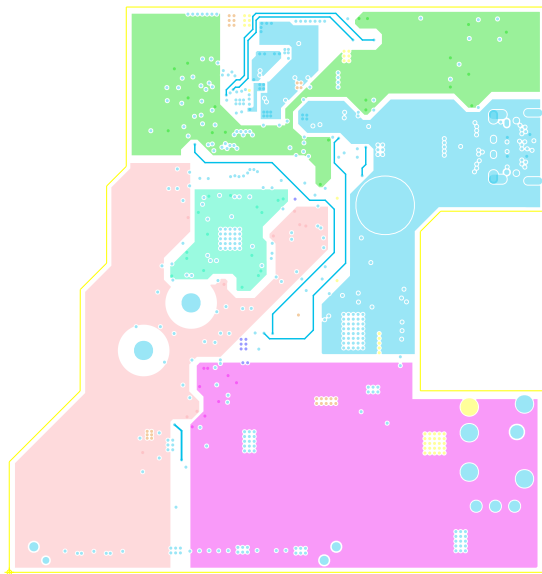
BOARD NAME: USB TYPE-C HDD WITH POWER DELIVER	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
LAYER DESCRIPTION: # MICROCONTROLLER DRIVING			

APPROVALS		DATE		SIZE		KSID NO.		JOB NO.		REV.	
		DRAWN: SWG		10-16-15		D		16439		127668	
RELEASED: SWG		09-30-15		DO NOT SCALE DRAWING		SCALE		NONE		SHEET 1 OF 1	

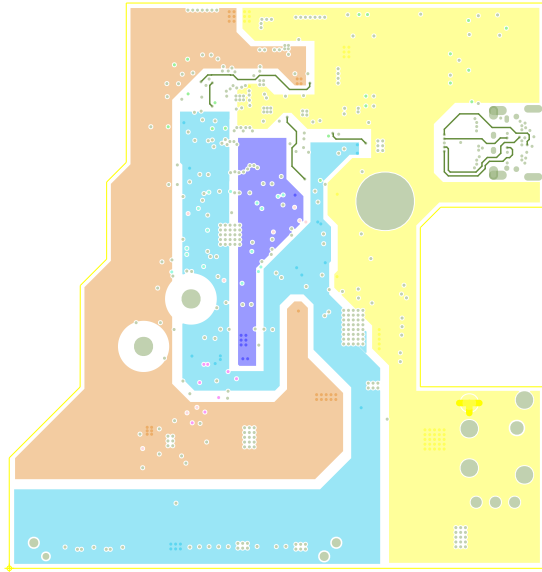
8 7 6 5 4 3 2 1



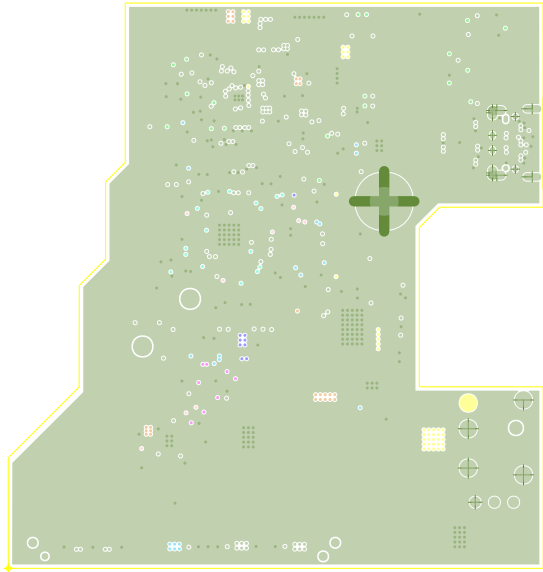
	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: LAYER 2 GND PLANE		



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP		LAYER DESCRIPTION: LAYER 3XXX PWR PLANE	



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: XXXXXXXXXXXXXXXXXXXXX		



	BOARD NAME: USB TYPE-C HDD WITH POWER DELIVERY	BOARD REV: 1.0	KSID: 16439	JOB NUMBER: 127668
	ALL ARTWORK LAYERS VIEWED FROM TOP	LAYER DESCRIPTION: XXXXXXXXXXXXXXXXXXXX		

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