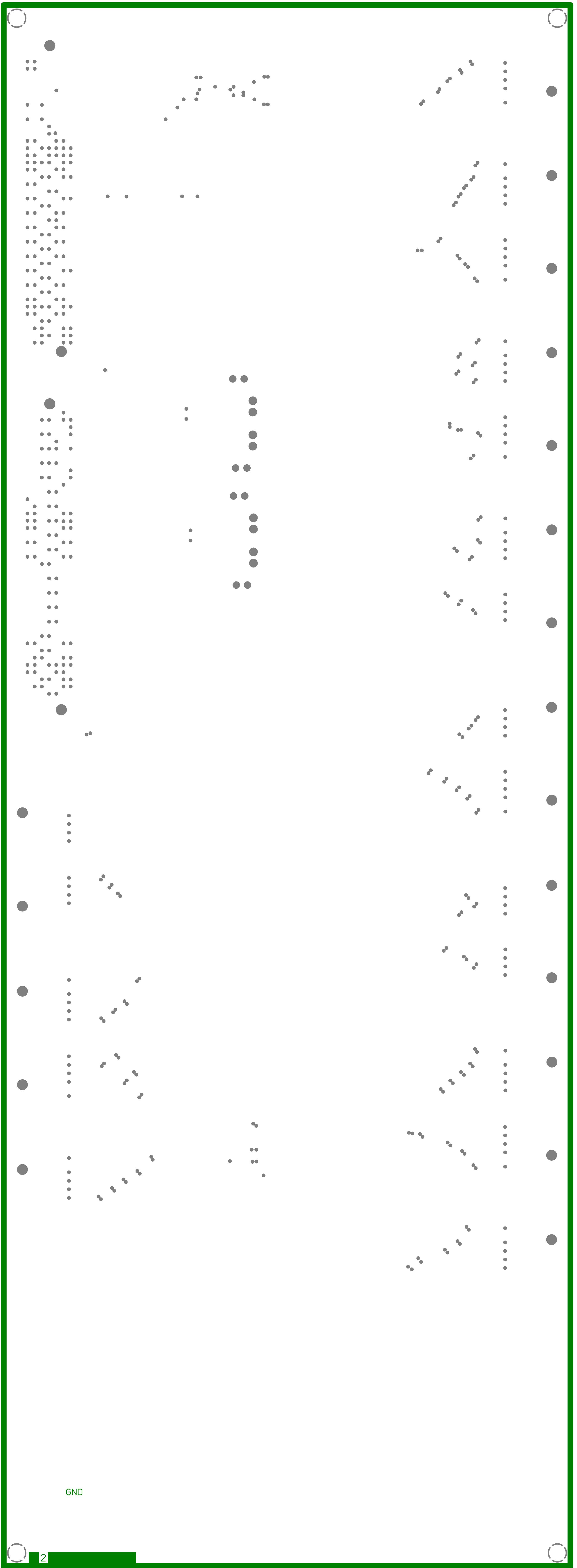


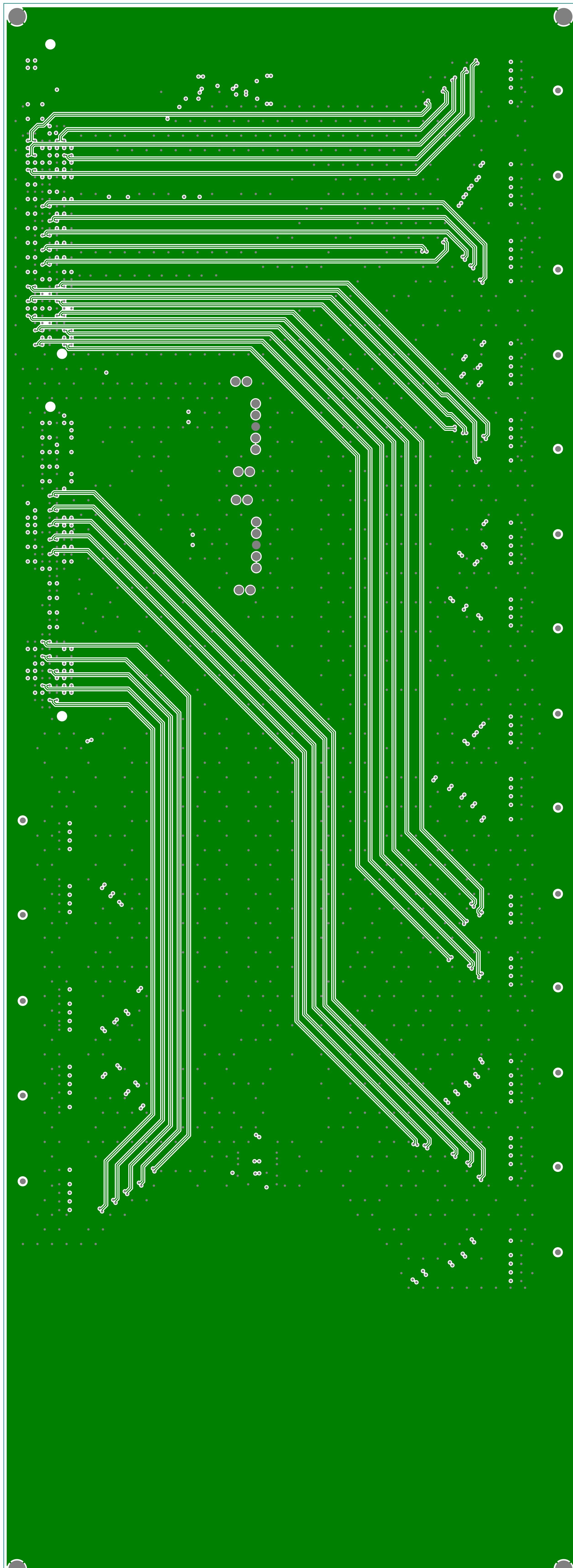
(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Layer_1 Top	SHT 1 OF 17
Atlas 19_2_Coupled Board			
ENGR: A. Young	DATE: 10/21/2020		
CHKR: A. Young	DATE: 11/24/2020		
DSGN: C. Yee	DATE: 11/24/2020		
PC- 256-101-14		REVISION 00	B
12/2/2020 12:59:57 PM Atlas 19_2_Coupled Board			



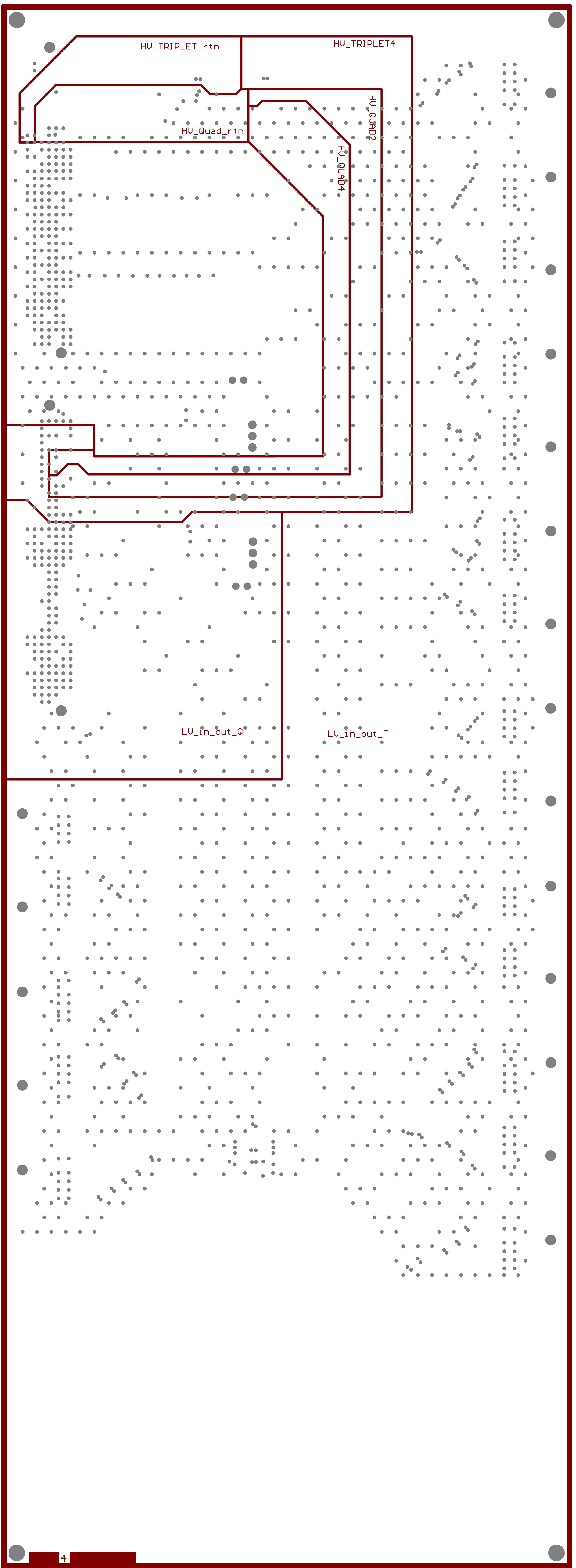
(VIEWED FROM TOP)

SLAC NATIONAL ACCELERATOR LABORATORY	Layer_2 GND Plane 1		SHT 2 OF 17
	Atlas	19_2_Coupled	
	Board		
	PC- 256-101-14	REVISION 00	B
ENGR: A. Young	DATE: 10/21/2020		
CHKR: A. Young	DATE: 11/24/2020		
DSGN: C. Yee	DATE: 11/24/2020		



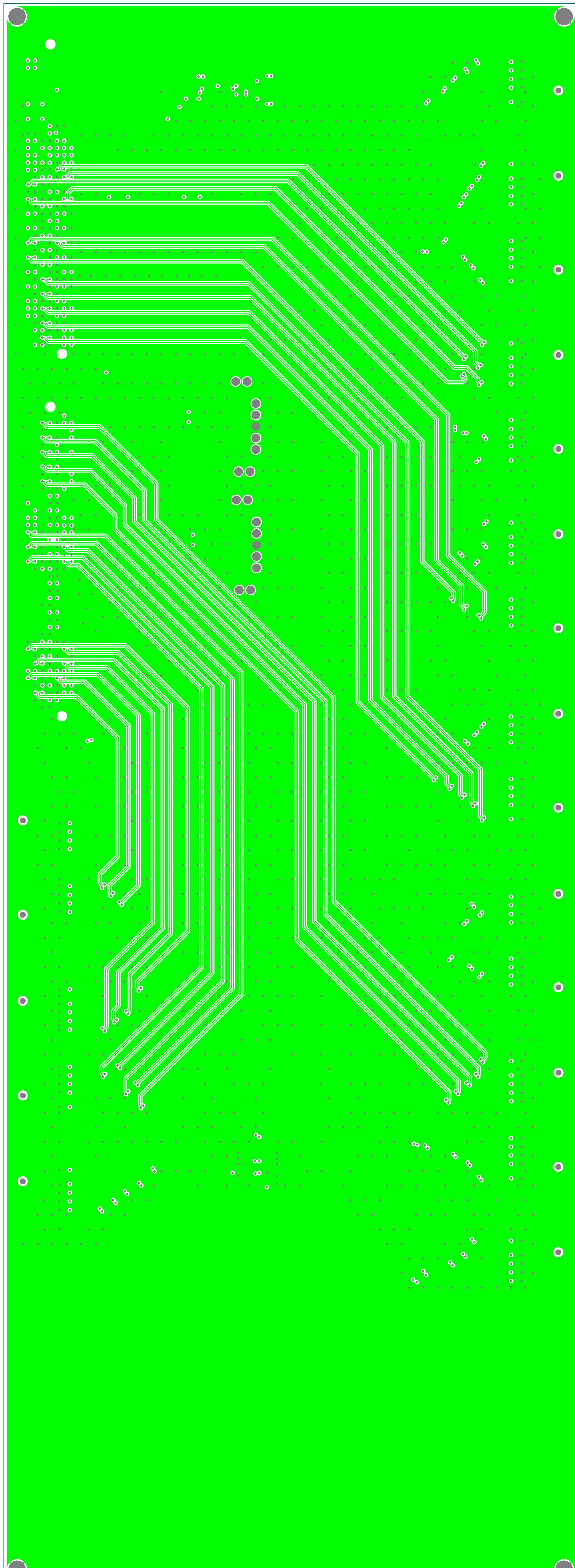
(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Layer_3_Inner_Signal_1	SHT 3 OF 17
ENGR: A. Young		DATE: 10/21/2020	
CHKR: A. Young		DATE: 11/24/2020	
DSGN: C. Yee		DATE: 11/24/2020	
PC- 256-101-14		REVISION 00	B
12/2/2020 12:59:57 PM Atlas 19_2_Coupled Board			



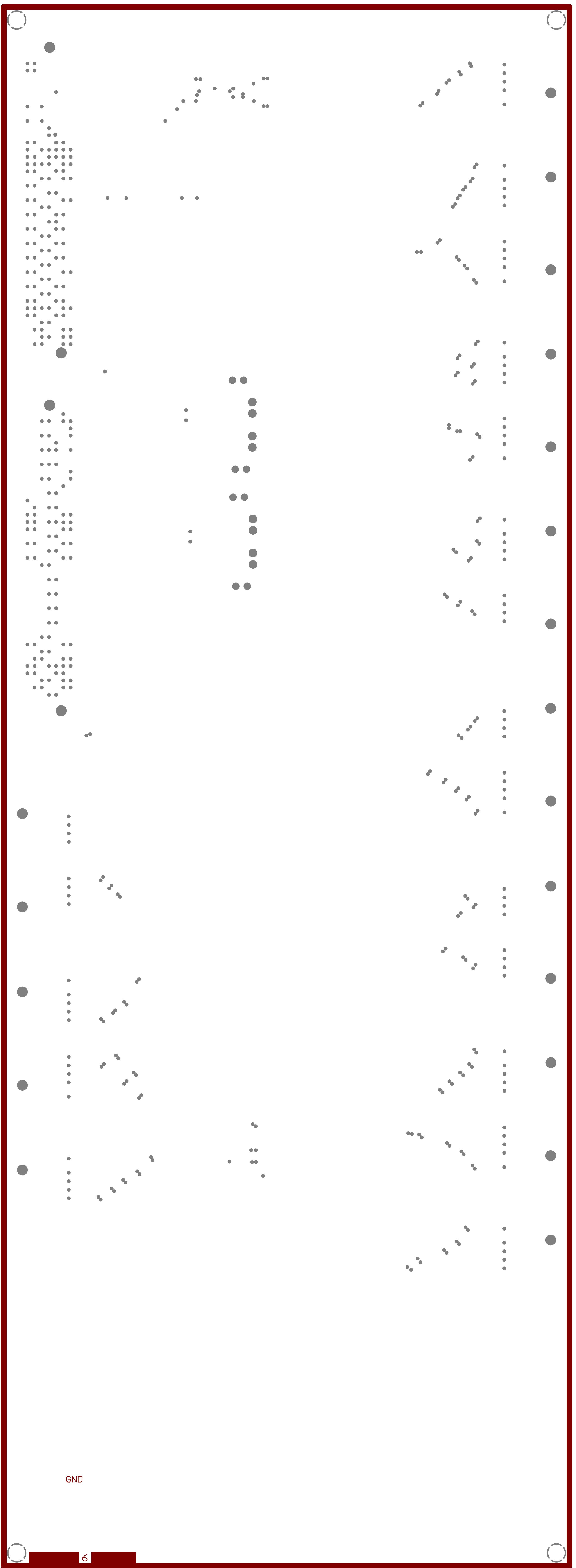
(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Layer_4_Power Plane_2	SHT 4 OF 17
ENGR: A. Young		DATE: 10/21/2020	
CHKR: A. Young		DATE: 11/24/2020	
DSGN: C. Yee		DATE: 11/24/2020	REVISION 00 B



(VIEWED FROM TOP)

SLAC NATIONAL ACCELERATOR LABORATORY		U.S. DEPARTMENT OF ENERGY	Layer_5_Inner_Signal_2	SHT 5 OF 17
ENGR: A. Young		DATE: 10/21/2020		
CHKR: A. Young		DATE: 11/24/2020		
DSGN: C. Yee		DATE: 11/24/2020	PC- 256-101-14	
REVISION 00				B



(VIEWED FROM TOP)



ENGR: A. Young	DATE: 10/21/2020
CHKR: A. Young	DATE: 11/24/2020
DSGN: C. Yee	DATE: 11/24/2020

Layer_6 GND Plane 2

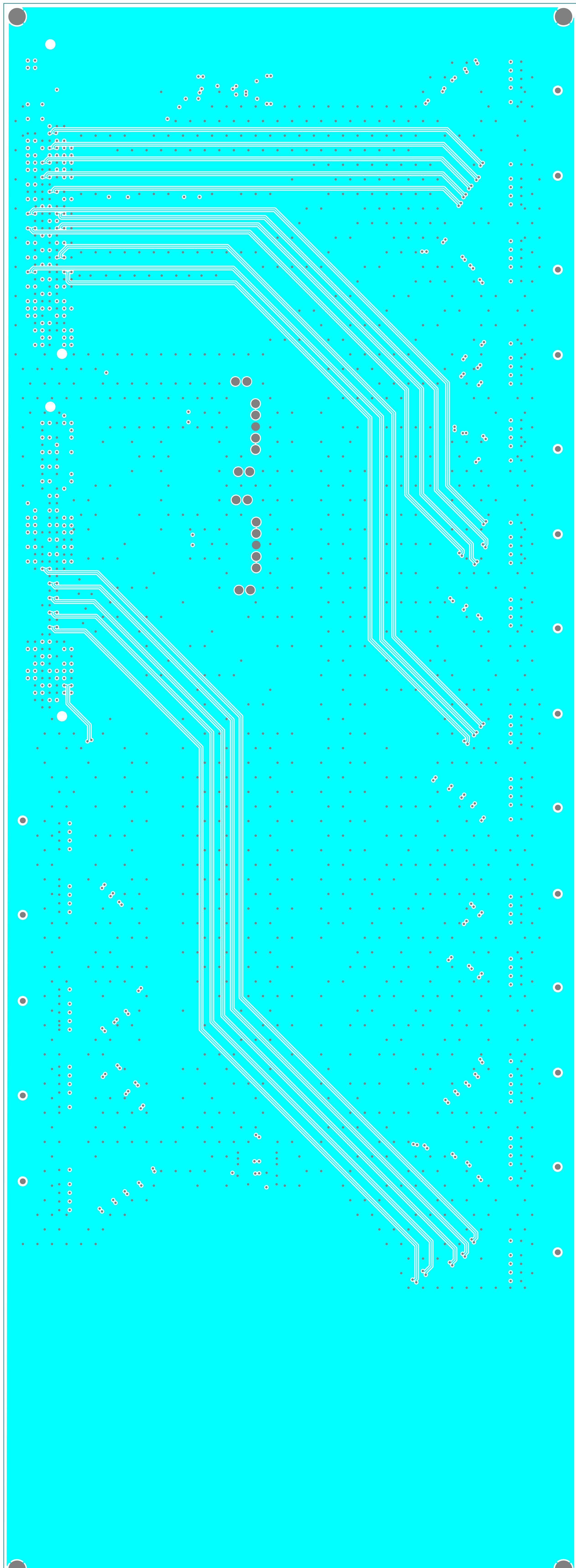
SHT 6 OF 17

Atlas
19_2_Coupled
Board

PC- 256-101-14

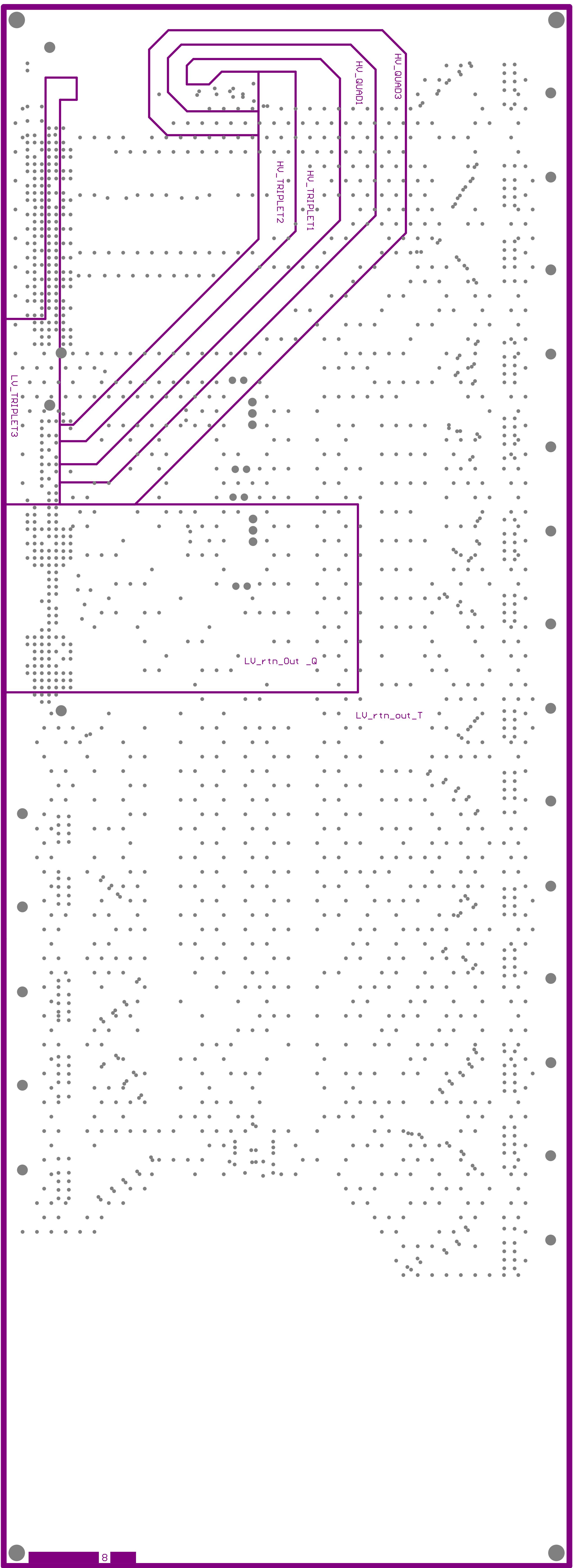
REVISION
00 B

12/2/2020 12:59:58 PM Atlas 19_2_Coupled Board



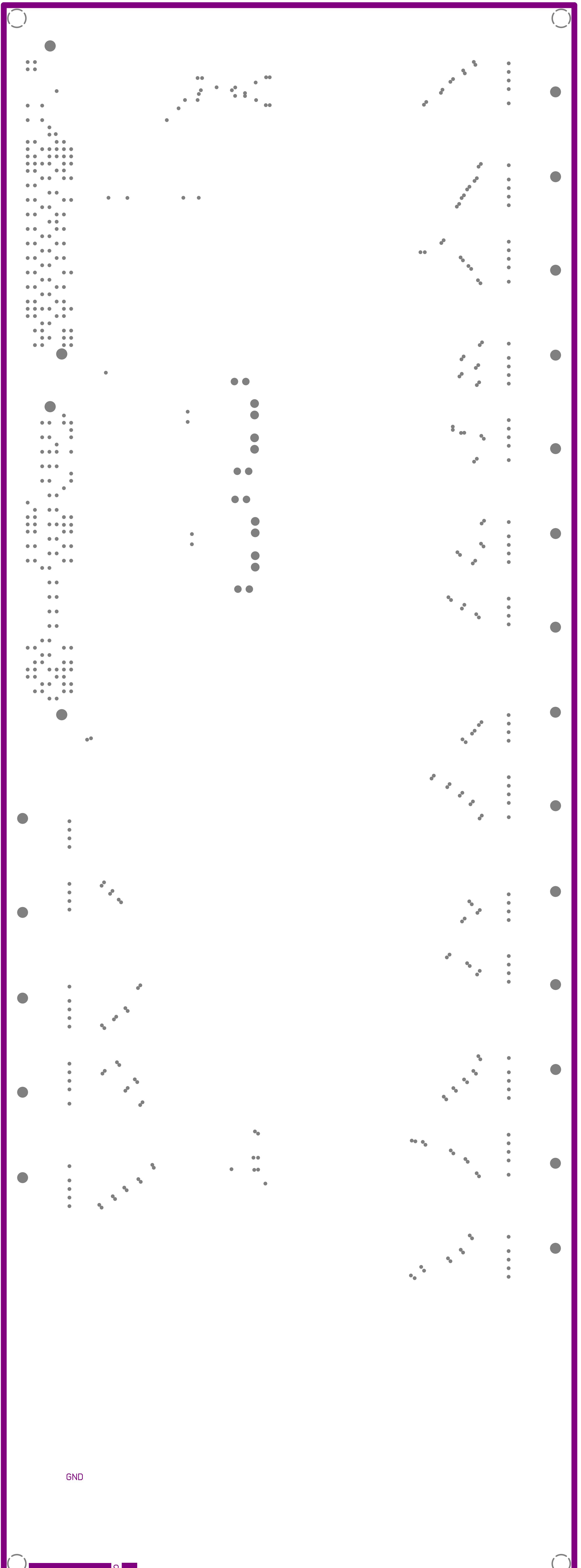
(VIEWED FROM TOP)

SLAC NATIONAL ACCELERATOR LABORATORY		U.S. DEPARTMENT OF ENERGY	Layer_7_Inner_Signal_3	SHT 7 OF 17
ENGR: A. Young		DATE: 10/21/2020		
CHKR: A. Young		DATE: 11/24/2020		
DSGN: C. Yee		DATE: 11/24/2020	PC- 256-101-14	REVISION 00 B



(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Layer_8 Power Plane 2	SHT 8 OF 17
ENGR: A. Young		DATE: 10/21/2020	
CHKR: A. Young		DATE: 11/24/2020	
DSGN: C. Yee		DATE: 11/24/2020	REVISION 00 B



(VIEWED FROM TOP)



U.S. DEPARTMENT OF
ENERGY

NATIONAL ACCELERATOR LABORATORY

ENGR: A. Young	DATE: 10/21/2020
CHKR: A. Young	DATE: 11/24/2020
DSGN: C. Yee	DATE: 11/24/2020

Layer_9 GND Plane 3

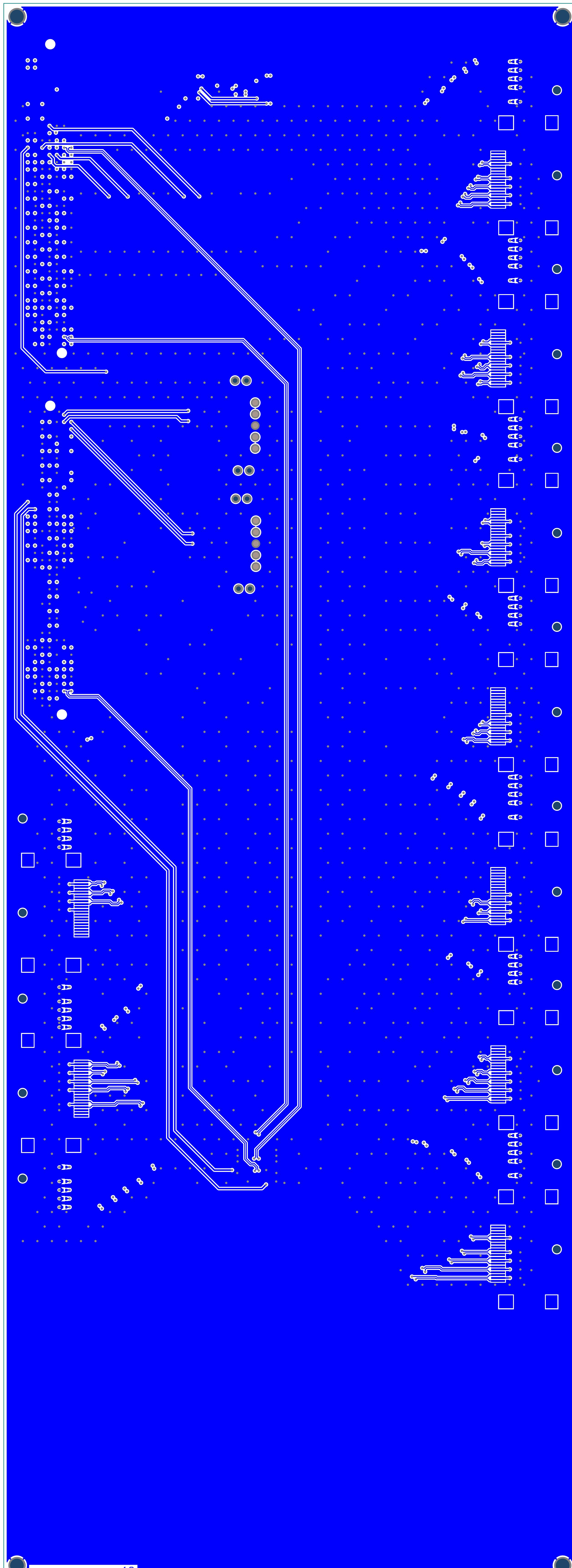
SHT 9 OF 17

Atlas
19_2_Coupled
Board

PC- 256-101-14

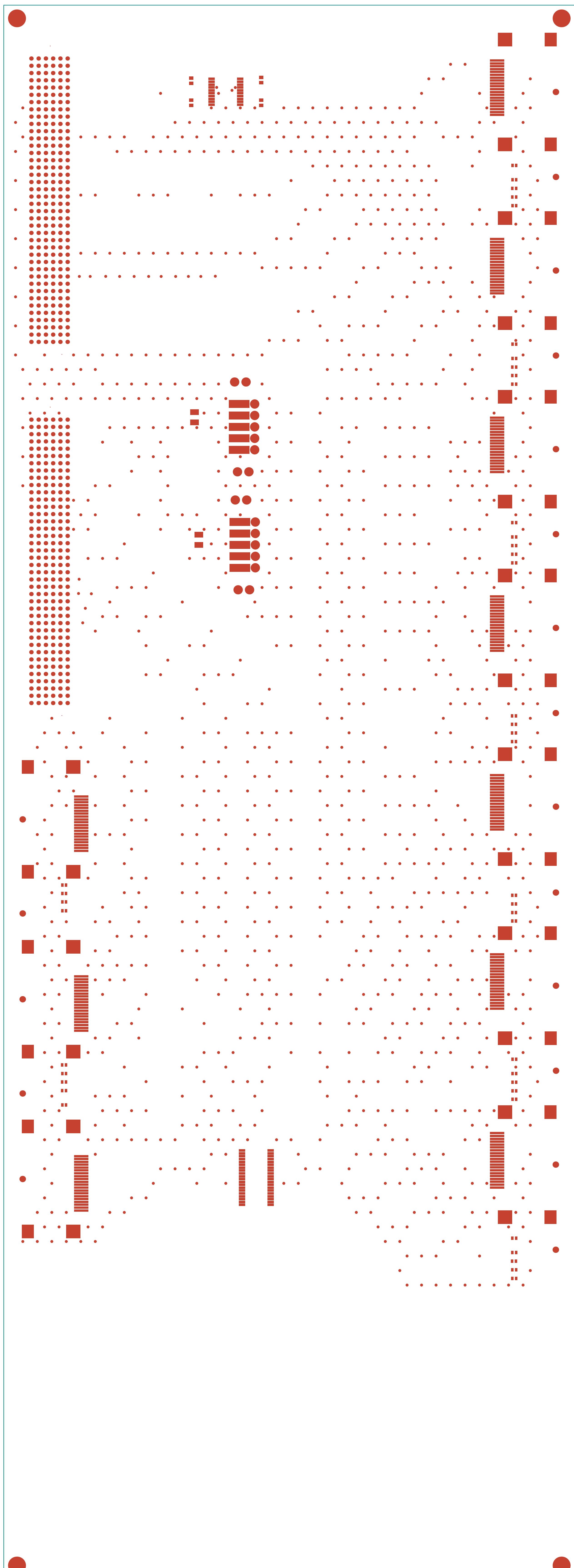
REVISION
00 B

12/2/2020 12:59:58 PM Atlas 19_2_Coupled Board



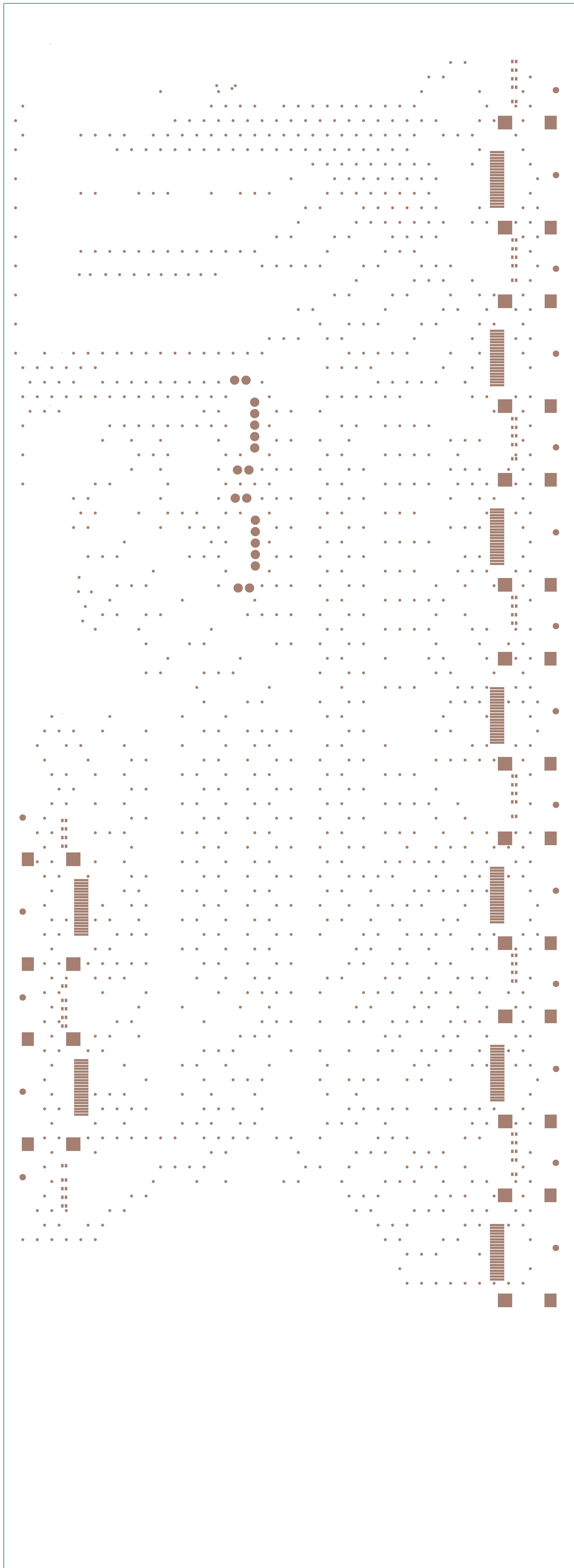
(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Layer_10_Bottom	SHT 10 OF 17
ENGR: A. Young		DATE: 10/21/2020	
CHKR:	A. Young	DATE: 11/24/2020	
DSGN:	C. Yee	DATE: 11/24/2020	
PC- 256-101-14		REVISION 00	B
12/2/2020 12:59:59 PM Atlas 19_2_Coupled Board			

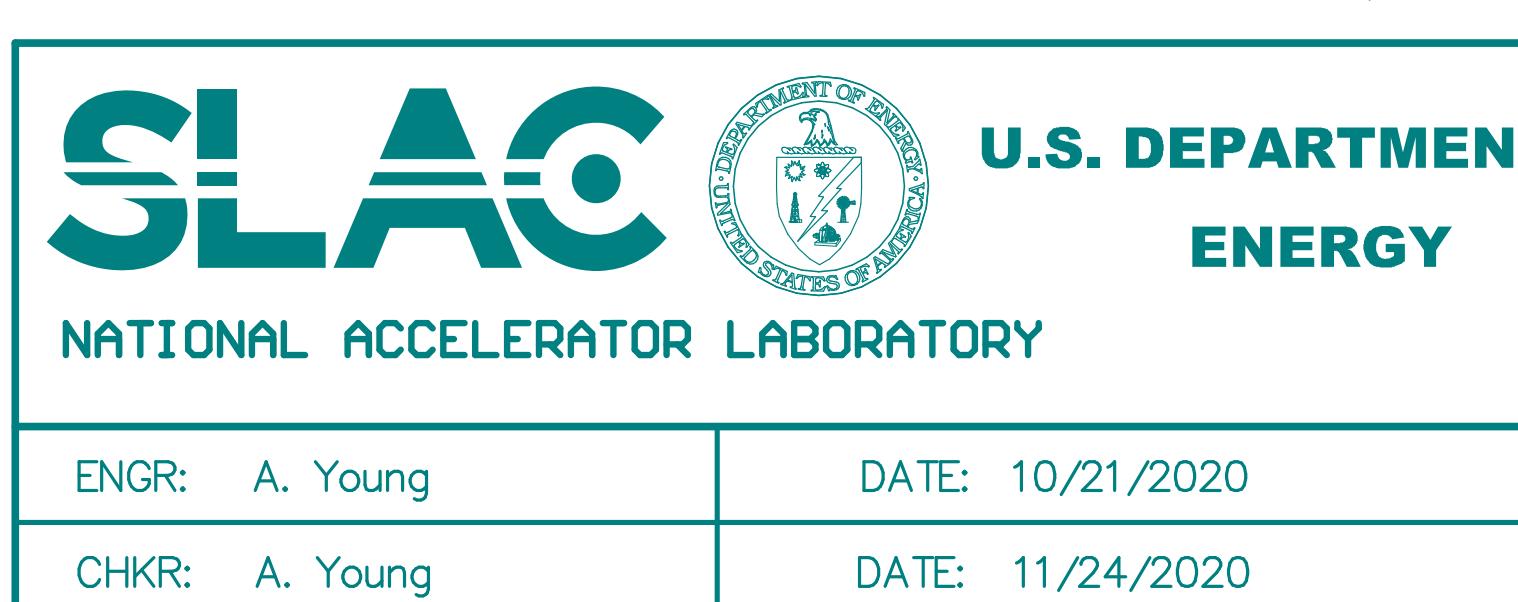


(VIEWED FROM TOP)

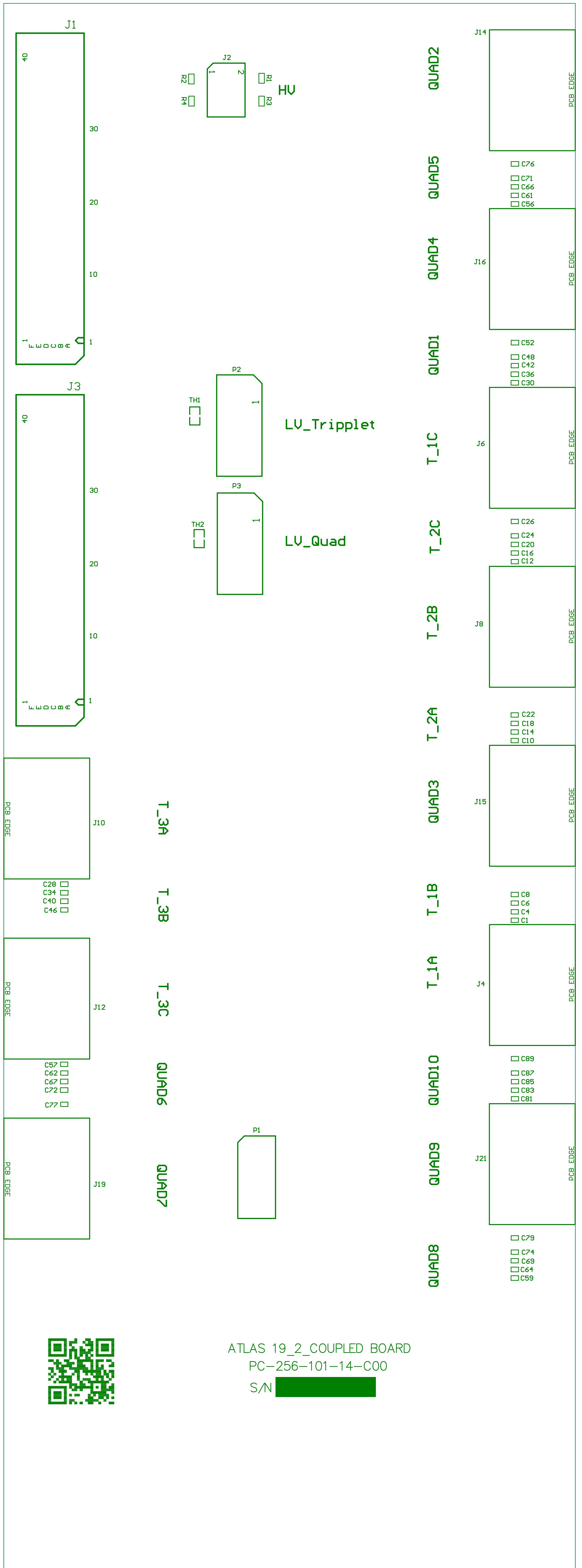
SLAC NATIONAL ACCELERATOR LABORATORY		U.S. DEPARTMENT OF ENERGY	Solder Mask Top	SHT 11 OF 17
ENGR: A. Young		DATE: 10/21/2020		
CHKR: A. Young		DATE: 11/24/2020		
DSGN: C. Yee		DATE: 11/24/2020	PC- 256-101-14	
			REVISION 00	B



(VIEWED FROM TOP)



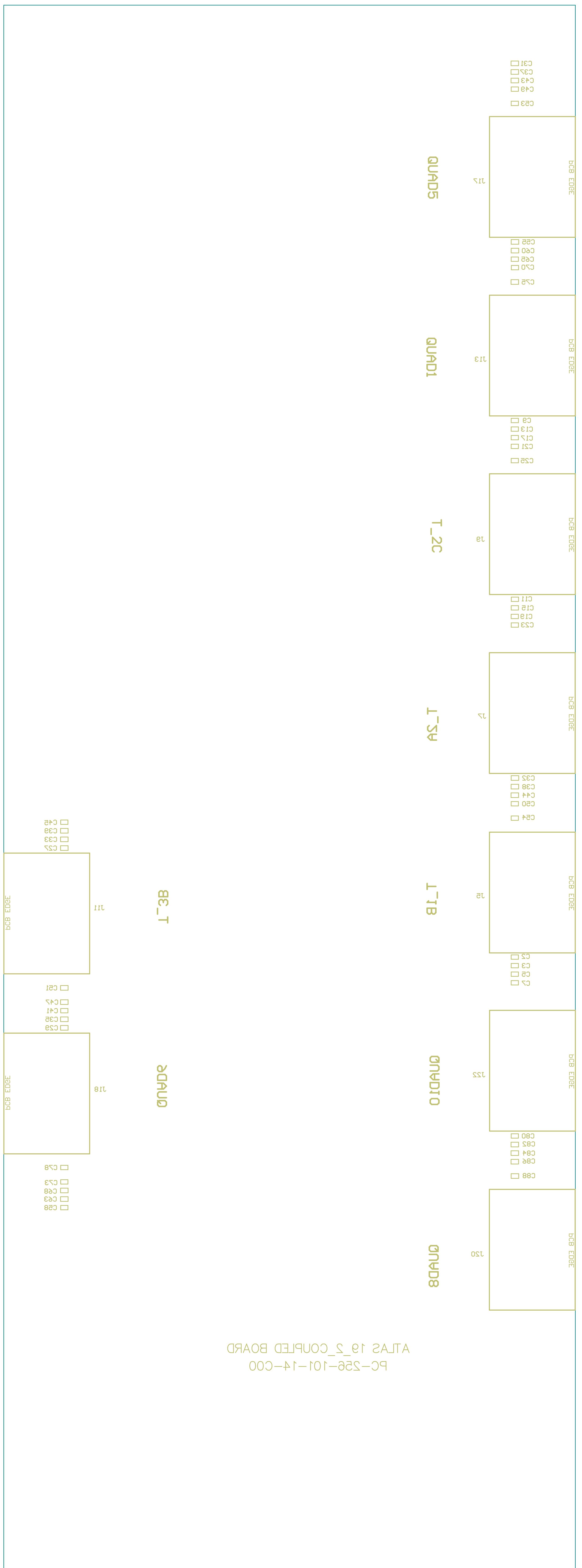
Solder Mask Bottom	SHT 12 OF 17
Atlas 19_2_Coupled Board	
PC- 256-101-14 REVISION 00	B



ATLAS 19_2_COUPLED BOARD
PC-256-101-14-C00
S/N [REDACTED]

(VIEWED FROM TOP)

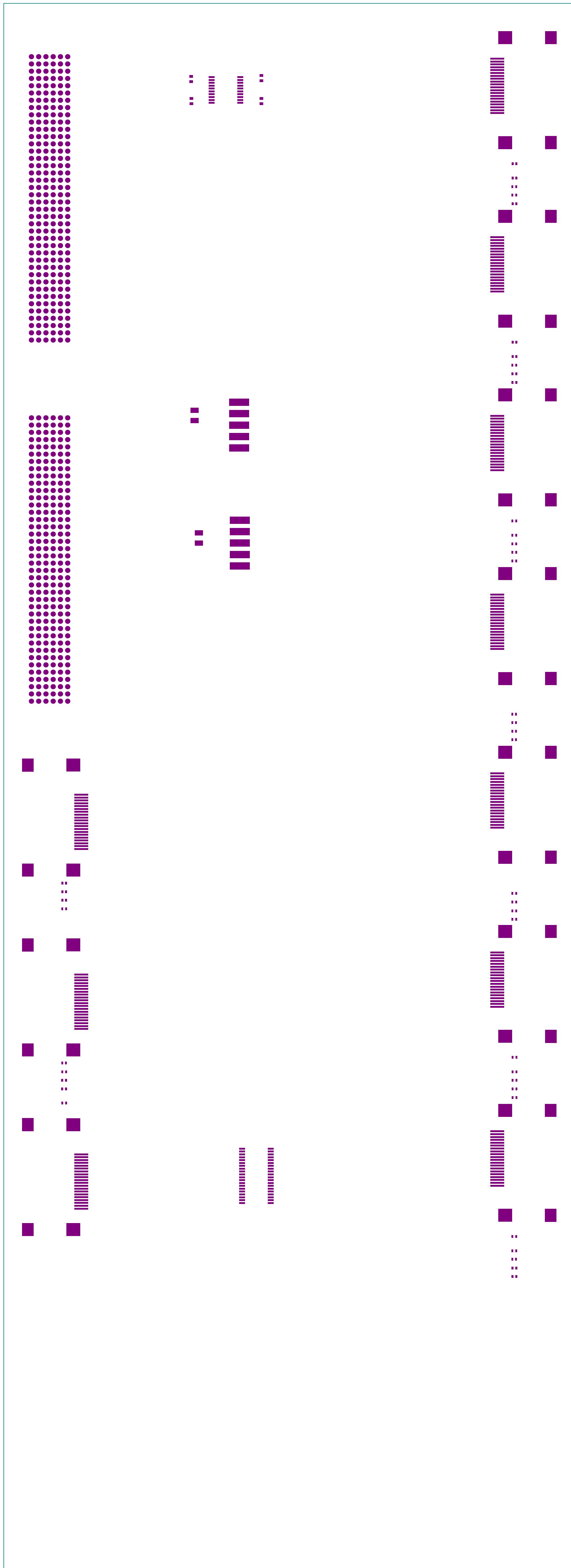
U.S. DEPARTMENT OF ENERGY		SILKSCREEN TOP	SHT 13 OF 17
SLAC	NATIONAL ACCELERATOR LABORATORY	Atlas 19_2_Coupled Board	PC- 256-101-14
ENGR: A. Young	DATE: 10/21/2020		REVISION 00
CHKR: A. Young	DATE: 11/24/2020		B
DSGN: C. Yee	DATE: 11/24/2020		



ATLAS 19_2_COUPLLED BOARD
PC-256-101-14-C00

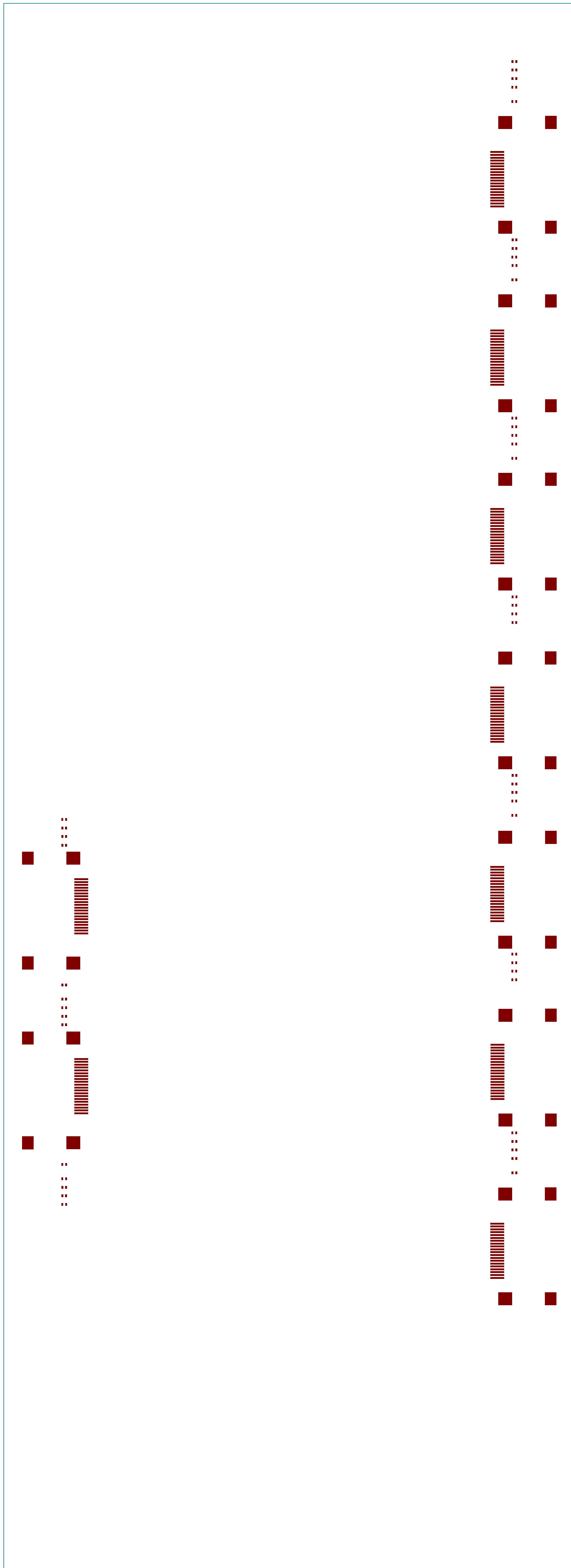
(VIEWED FROM TOP)

U.S. DEPARTMENT OF ENERGY		SILKSCREEN Bottom	SHT 14 OF 17
SLAC NATIONAL ACCELERATOR LABORATORY		Atlas 19_2_Coupled Board	
ENGR: A. Young	DATE: 10/21/2020		
CHKR: A. Young	DATE: 11/24/2020		
DSGN: C. Yee	DATE: 11/24/2020	PC- 256-101-14	REVISION 00 B



(VIEWED FROM TOP)

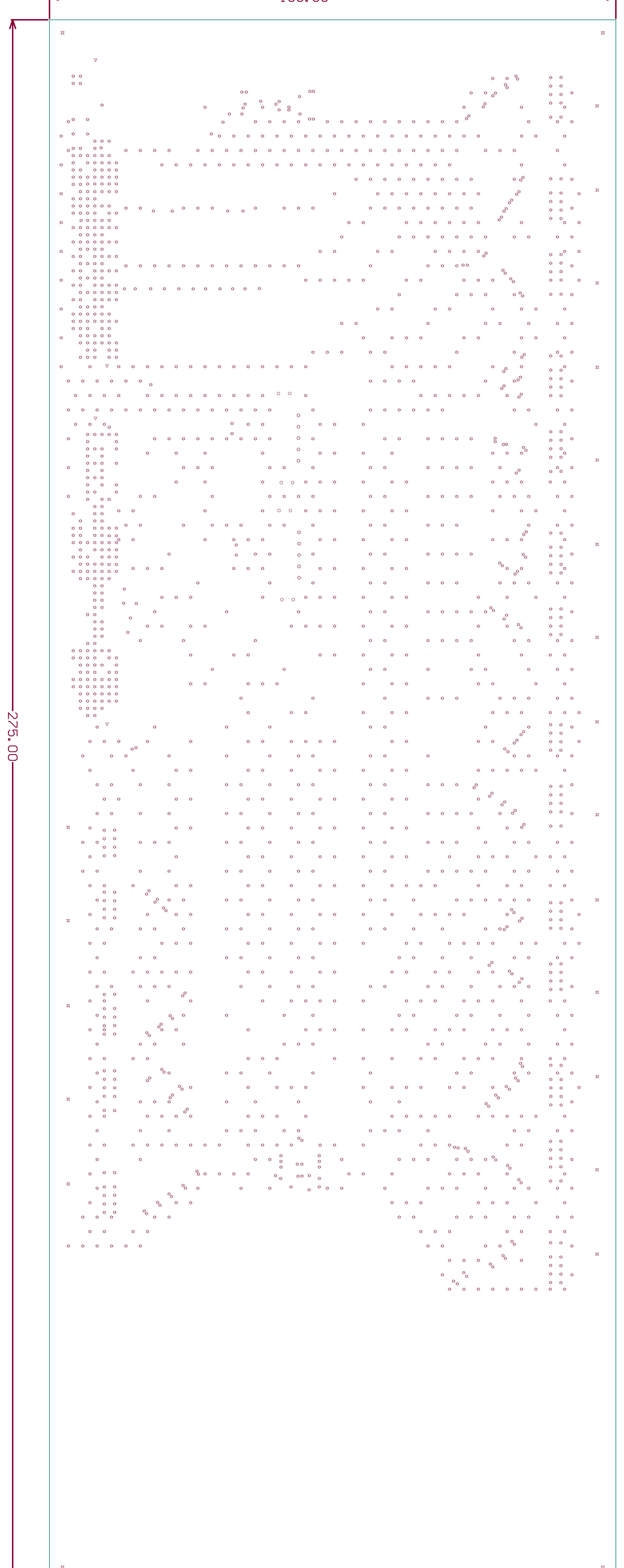
SLAC		U.S. DEPARTMENT OF ENERGY		SOLDER PASTE TOP	SHT 15 OF 17
NATIONAL ACCELERATOR LABORATORY				Atlas	
ENGR:	A. Young	DATE:	10/21/2020	19_2_Coupled	
CHKR:	A. Young	DATE:	11/24/2020	Board	
DSGN:	C. Yee	DATE:	11/24/2020	PC- 256-101-14	REVISION 00 B



(VIEWED FROM TOP)

SLAC		U.S. DEPARTMENT OF ENERGY		SOLDER PASTE BOTTOM	SHT 16 OF 17
NATIONAL ACCELERATOR LABORATORY				Atlas	
ENGR:	A. Young	DATE:	10/21/2020	19_2_Coupled	
CHKR:	A. Young	DATE:	11/24/2020	Board	
DSGN:	C. Yee	DATE:	11/24/2020	PC- 256-101-14	REVISION 00 B

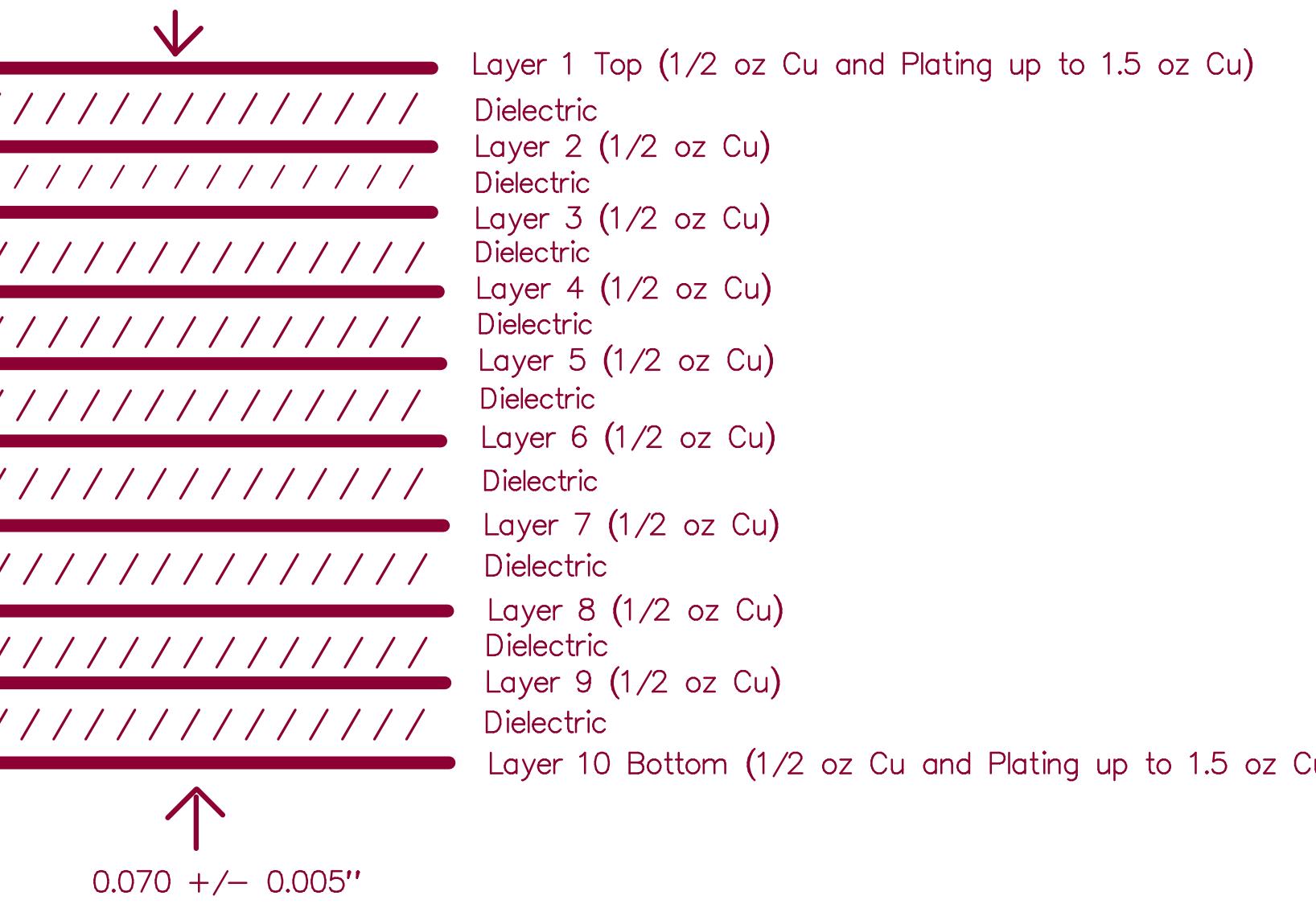
Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Hole Tolerance (+)	Hole Tolerance (-)
◇	1946	0.152mm (6.00mil)	PTH	Round	Layer_1 Top - Layer_10 Bottom	Via	Rounded		
○	8	0.800mm (31.50mil)	PTH	Round	Layer_1 Top - Layer_10 Bottom	Pad	Rounded		
+	10	1.016mm (40.00mil)	PTH	Round	Layer_1 Top - Layer_10 Bottom	Via	Rounded		
☒	19	1.400mm (55.12mil)	NPTH	Round	Layer_1 Top - Layer_10 Bottom	Pad	Rounded		
▽	4	1.448mm (57.00mil)	NPTH	Round	Layer_1 Top - Layer_10 Bottom	Pad	Rounded		
☒	4	2.400mm (94.49mil)	PTH	Round	Layer_1 Top - Layer_10 Bottom	Pad	Rounded		
1991 Total									



Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.40mil	3.5	
1	Layer_1 Top	Copper	0.70mil		
	Dielectric1	isola terragreen	6.60mil	3.45	
2	Layer_2 GND Plane 1	Copper	0.70mil		
	Dielectric2	isola terragreen	7.20mil	3.45	
3	Layer_3 Signal inner 1	Copper	0.70mil		
	Dielectric 3	isola terragreen	6.60mil	3.45	
4	Layer_4 Power Plane 1	Copper	0.70mil		
	Dielectric 4	isola terragreen	7.20mil	3.34	
5	Layer_5 Signal inner 2	Copper	0.70mil		
	Dielectric 5	isola terragreen	6.60mil	3.45	
6	Layer_6 GND Plane 2	Copper	0.70mil		
	Dielectric_6	isola terragreen	7.20mil	3.35	
7	Layer_7 Signal inner 3	Copper	0.70mil		
	Dielectric_7	isola terragreen	6.60mil	3.45	
8	Layer_8 Power Plane 2	Copper	0.70mil		
	Dielectric_8	isola terragreen	7.20mil	3.35	
9	Layer_9 GND Plane 3	Copper	0.70mil		
	Dielectric_9	isola terragreen	7.20mil	3.45	
10	Layer_10 Bottom	Copper	0.70mil		
	Bottom Solder	Solder Resist	0.40mil	3.5	
	Bottom Overlay				

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. BOARD LAYERS = 10
2. MATERIAL: ISOLA TERRAGREEN
3. SEE DETAIL "A" FOR BOARD STACK AND OVERALL FINISHED THICKNESS IS 0.070+/-0.005"
4. PLATE THROUGH ALL HOLES
5. HOLE SIZES IN DRILL CHART ARE FINISHED DIAMETERS, SHALL HAVE A TOLERANCE OF +/- .003".
6. FINISH: ENIG
7. SOLDERMASK: LPI, COLOR=GREEN ON BOTH SIDE.
8. SILKSCREEN: WHITE NON-CONDUCTIVE EPOXY INK
9. BOARD MUST MEET IPC-A-600 CLASS 2, LESS THAN 1.5% BOW AND TWIST, AND UL STANDARDS
10. 100% ELECTRICAL TEST OF ALL NETS.
11. MARK BOARD SHOWING MANUFACTURER ID AND DATE CODE
12. TRIM BOARD ALONG TRIM LINE AND BREAK ALL SHARP EDGES.
13. ALL DIFFERENTIAL PAIRS ARE CONTROLLED IMPEDANCE AT 100 OHMS +/-10% ON LAYER 1, 3, 5, 7 AND 10 (6/5/6).



(VIEWED FROM TOP)

SLAC U.S. DEPARTMENT OF ENERGY NATIONAL ACCELERATOR LABORATORY		Drill Drawing	SHT 17 OF 17
ENGR: A. Young	DATE: 10/21/2020	Atlas 19_2_Coupled Board	
CHKR: A. Young	DATE: 11/24/2020		
DSGN: C. Yee	DATE: 11/24/2020		
PC- 256-101-14		REVISION 00	B
12/2/2020 1:00:00 PM Atlas 19_2_Coupled Board			