

Transmission Line Structure Table

Impedance Id	Transmission Line	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Substack	Clearance	Target Tolerance
1	Edge-Coupled Coated Microstrip	90	90.00	Top Layer	0.20mm	0.20mm	0.25mm	Ground 1	Board Layer Stack	0.13mm	10%
2	Edge-Coupled Coated Microstrip	90	90.00	Bottom Layer	0.20mm	0.20mm	0.25mm	Ground 2	Board Layer Stack	0.13mm	10%

NOTES (Unless otherwise specified)


PCB MATERIAL	FR4 or similar
SOLDER	ENIG per IPC-4552
WASHABLE	YES
COPPER WEIGHT FOR OUTER LAYERS	1oz
PCB PLATING	ENIG per IPC-4552
VIA SIZE	See Drill Table
VIA IN PAD	No
VIA FILL	No
VIA TENTING	Both Sides
SUPPLIER DATE CODE FORMAT	YY/MM
SOLDER MASK COLOR	GRAY
SILK SCREEN COLOR	WHITE
ACCEPTANCE	IPC-A-600 Class II
PCB FINISH	IPC-4552

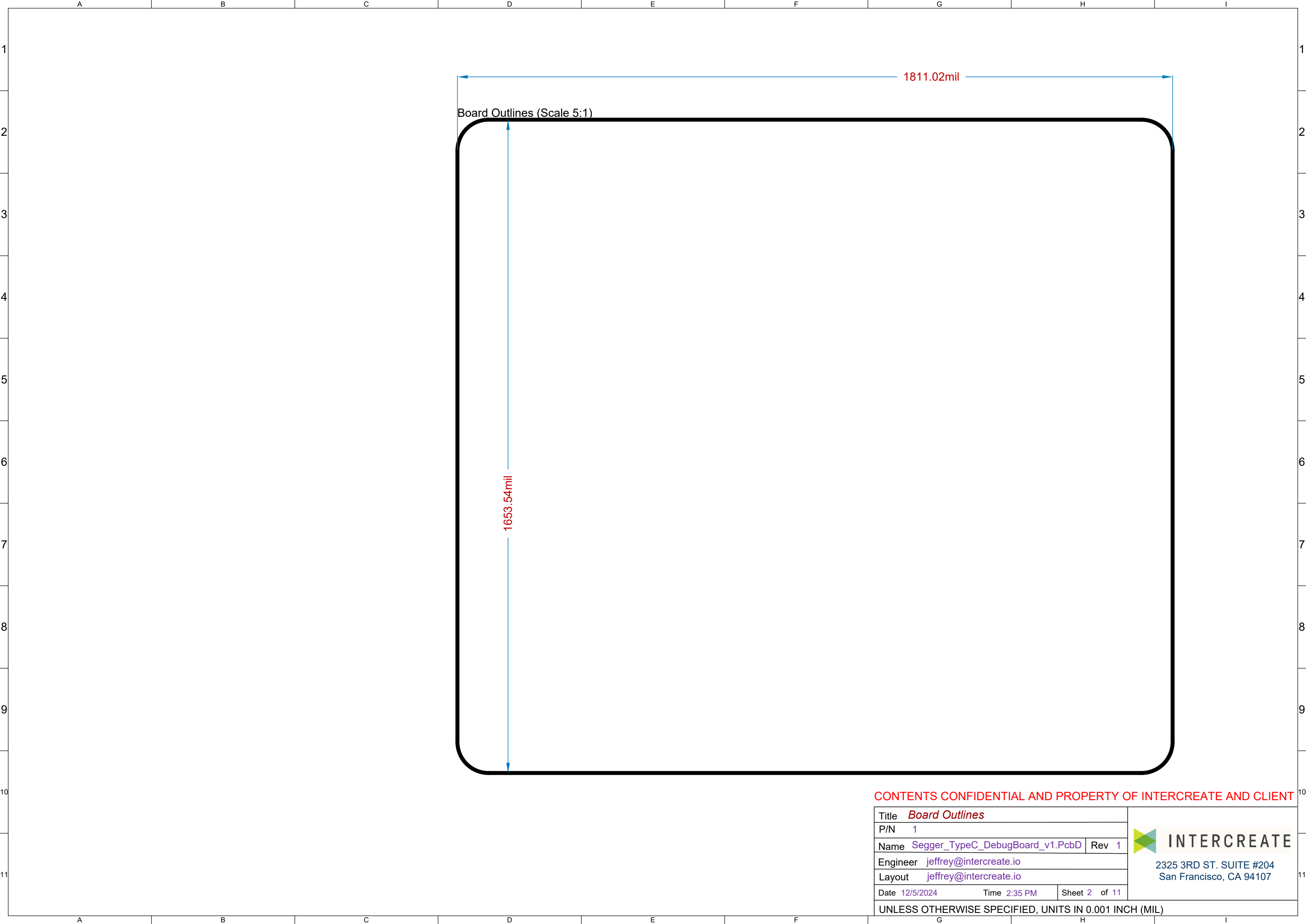
Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber	Dk
	Top Overlay			Legend	GTO	
Surface Material	Top Solder	0.010mm	Solder Resist	Solder Mask	GTS	3.5
Copper	Top Layer	0.036mm		Signal	GTL	
Prepreg		0.100mm	PP-006	Dielectric		4.1
CF-004	Ground 1	0.036mm		Signal	G1	
		1.776mm	FR-4	Dielectric		4.8
CF-004	Ground 2	0.036mm		Signal	G2	
Prepreg		0.100mm	PP-006	Dielectric		4.1
Copper	Bottom Layer	0.036mm		Signal	GBL	
Surface Material	Bottom Solder	0.010mm	Solder Resist	Solder Mask	GBS	3.5
	Bottom Overlay			Legend	GBO	

Total thickness: 2.140mm


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Title FABRICATION DRAWING			 <div>INTERCREATE</div> <div>2325 3RD ST. SUITE #204 San Francisco, CA 94107</div>
P/N 1			
Name Segger_TypeC_DebugBoard_v1.PcbD	Rev 1		
Engineer jeffrey@intercreate.io			
Layout jeffrey@intercreate.io			
Date 12/5/2024	Time 2:35 PM	Sheet 1 of 11	
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			

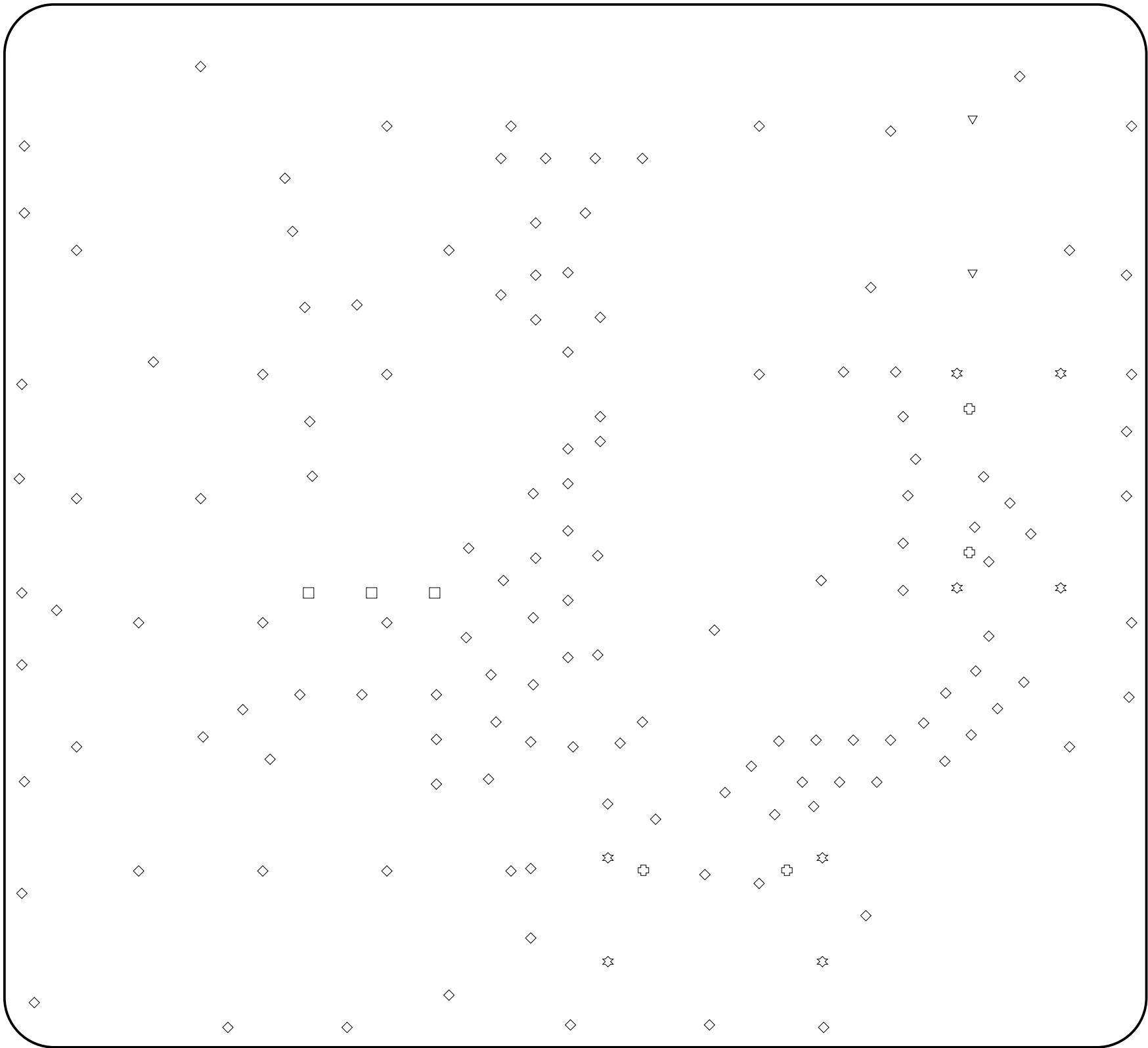


Board Outlines (Scale 5:1)

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Title <i>Board Outlines</i>			<div> INTERCREATE</div> <div>2325 3RD ST. SUITE #204 San Francisco, CA 94107</div>	
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Engineer jeffrey@intercreate.io				
Layout jeffrey@intercreate.io				
Date 12/5/2024	Time 2:35 PM	Sheet 2 of 11		
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Drill Drawing View (Scale 5:1)



Drill Table

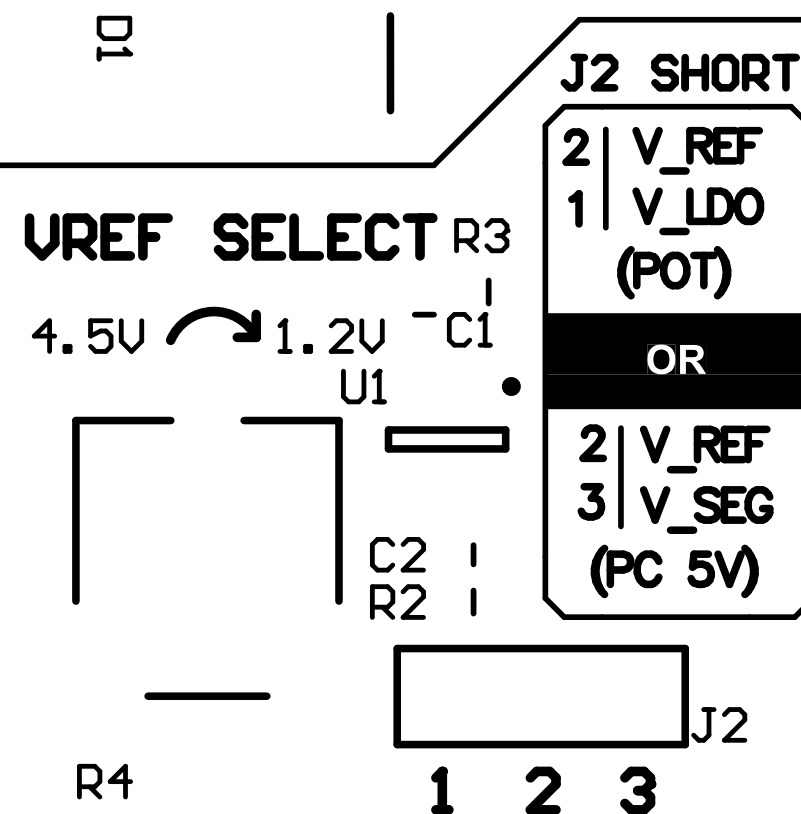
Symbol	Count	Hole Size	Plated
◇	137	10.000mil	Plated
☆	8	23.622mil	Plated
⊞	4	25.591mil	Non-Plated
▽	2	38.976mil	Plated
□	3	43.307mil	Plated
154 Total			

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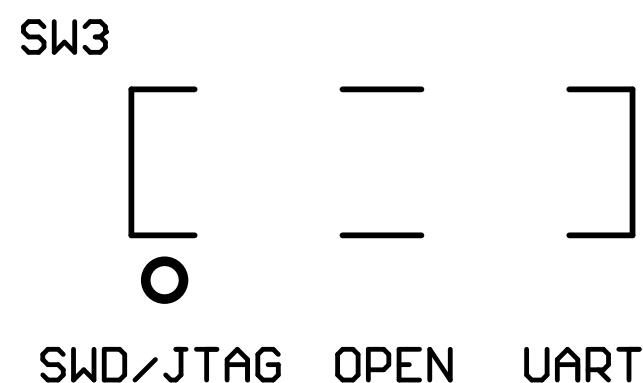
Title DRILL DRAWING			 INTERCREATE 2325 3RD ST. SUITE #204 San Francisco, CA 94107
P/N 1			
Name Segger_TypeC_DebugBoard_v1.PcbD		Rev 1	
Engineer jeffrey@intercreate.io			
Layout jeffrey@intercreate.io			
Date 12/5/2024	Time 2:35 PM	Sheet 3 of 11	
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			

Top Overlay (Scale 5:1)

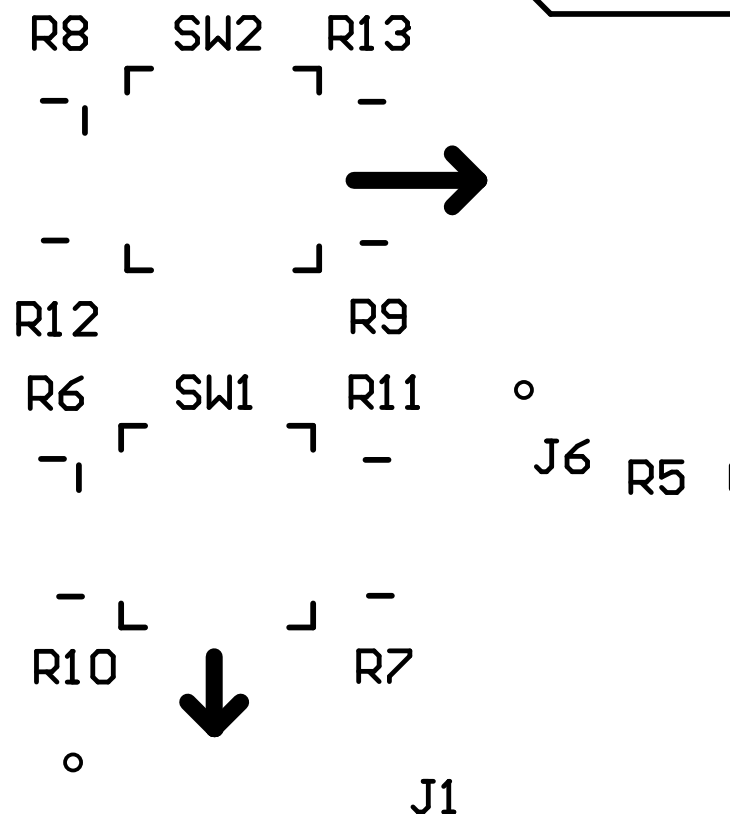
SEGGER J5
20-PIN



SBU ALT. FUNCTION



USB-C
MODE
SELECT



EXTERNAL


☐ **GND**
J4

DO NOT SHORT

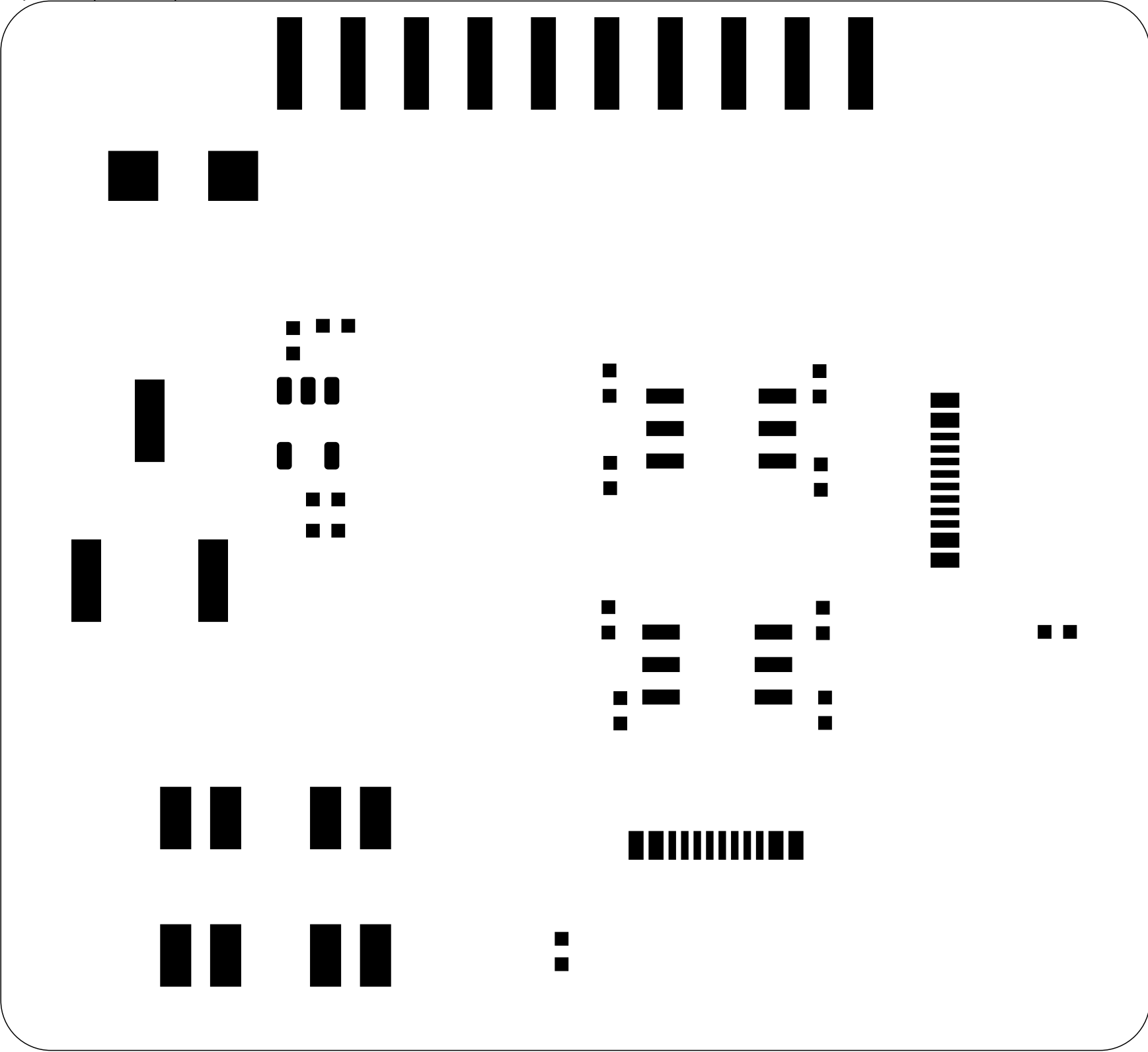
☐ **VBUS**
J3

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Title	TOP LAYER SILKSCREEN		
P/N	1		
Name	Segger_TypeC_DebugBoard_v1.PcbD	Rev	1
Engineer	jeffrey@intercreate.io		
Layout	jeffrey@intercreate.io		
Date	12/5/2024	Time	2:35 PM
		Sheet	4 of 11
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			

 **INTERCREATE**
2325 3RD ST. SUITE #204
San Francisco, CA 94107

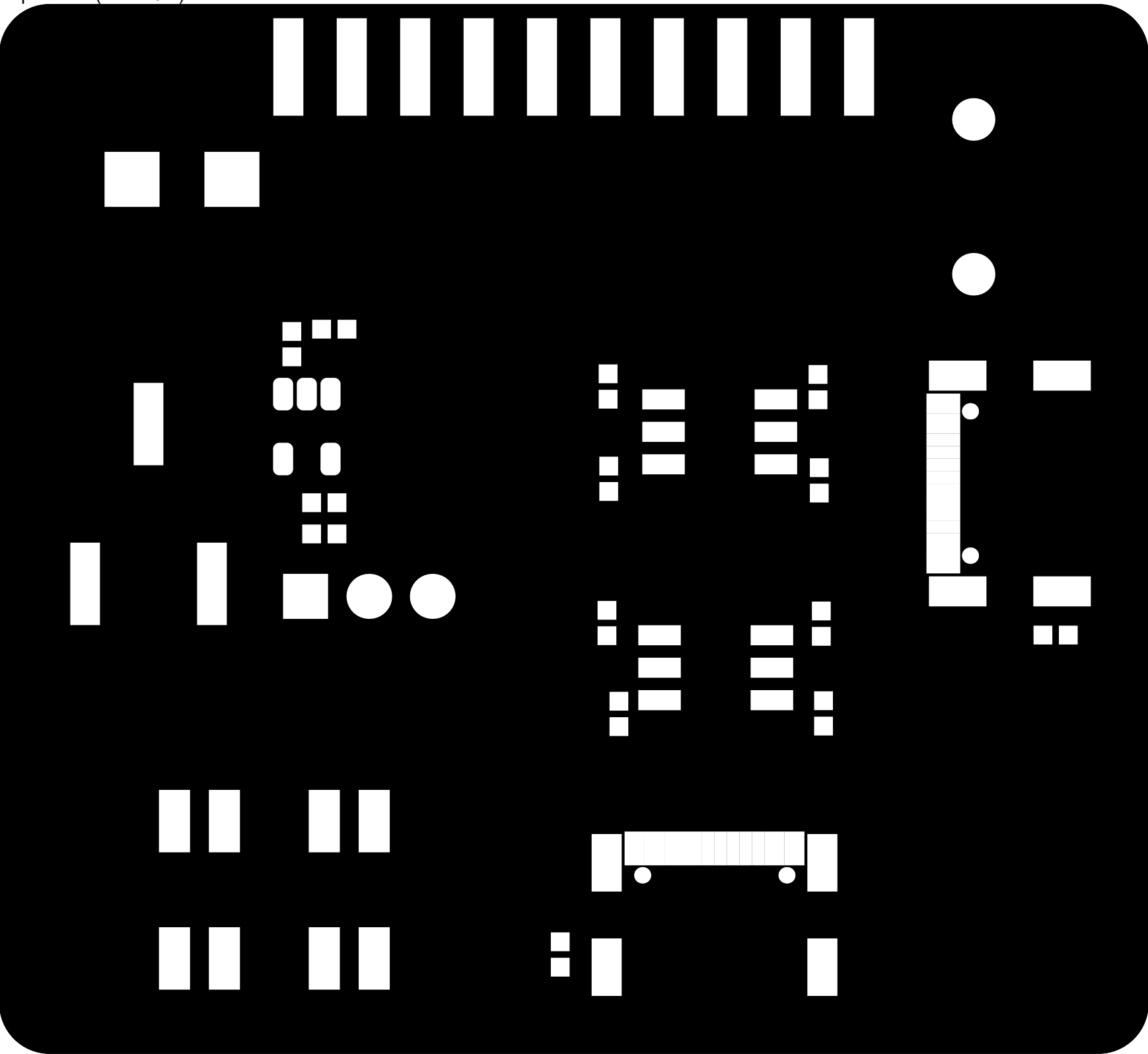
Top Paste (Scale 5:1)




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Title TOP LAYER PASTE			 <div>INTERCREATE</div> <div>2325 3RD ST. SUITE #204 San Francisco, CA 94107</div>
P/N 1			
Name Segger_TypeC_DebugBoard_v1.PcbD	Rev 1		
Engineer jeffrey@intercreate.io			
Layout jeffrey@intercreate.io			
Date 12/5/2024	Time 2:35 PM	Sheet 5 of 11	
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			

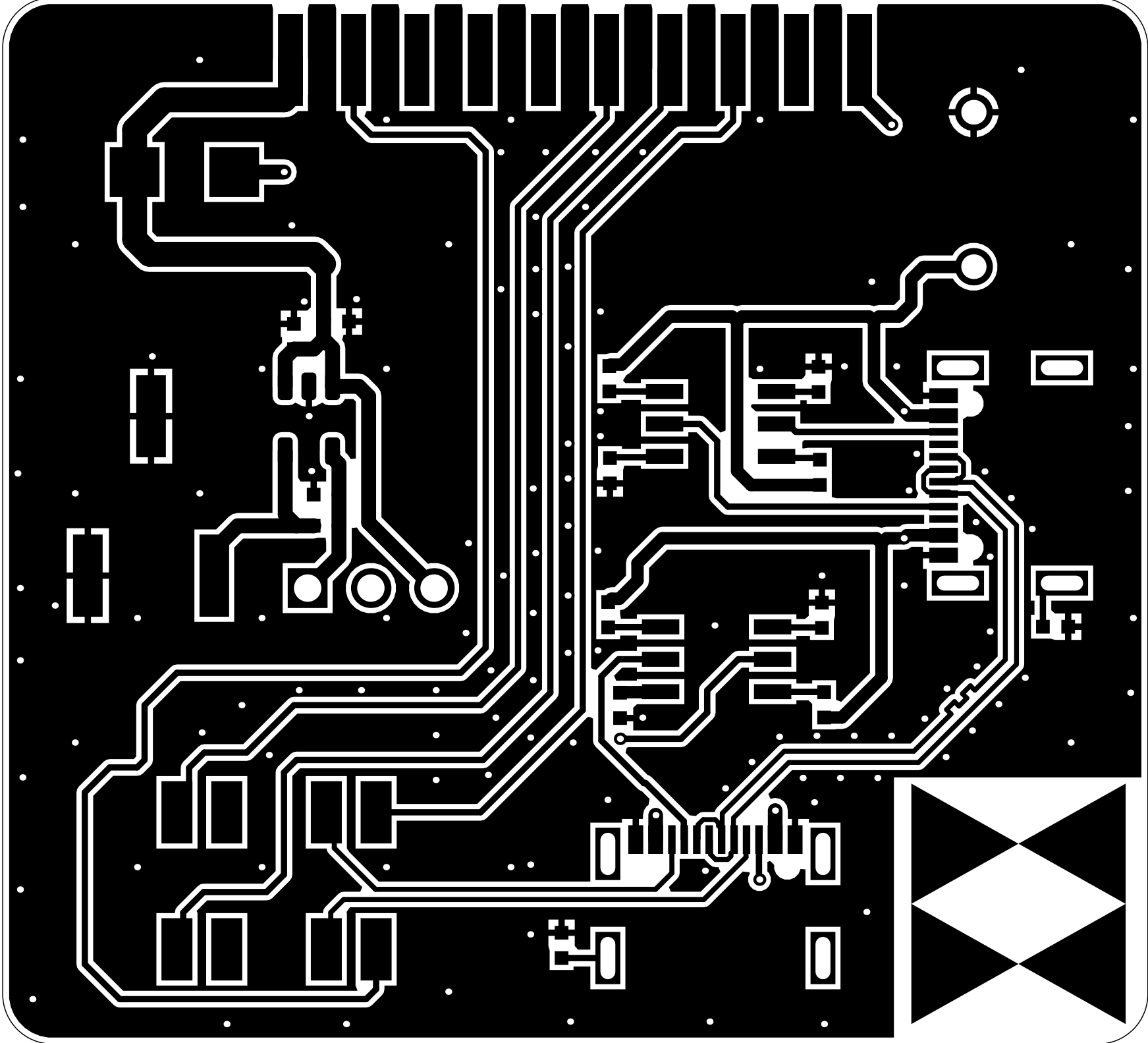
Top Solder (Scale 5:1)




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Title <i>TOP LAYER SOLDERMASK</i>			 INTERCREATE 2325 3RD ST. SUITE #204 San Francisco, CA 94107	
P/N <i>1</i>				
Name <i>Segger_TypeC_DebugBoard_v1.PcbD</i>		Rev <i>1</i>		
Engineer <i>jeffrey@intercreate.io</i>				
Layout <i>jeffrey@intercreate.io</i>				
Date <i>12/5/2024</i>	Time <i>2:35 PM</i>	Sheet <i>6</i> of <i>11</i>		
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)				

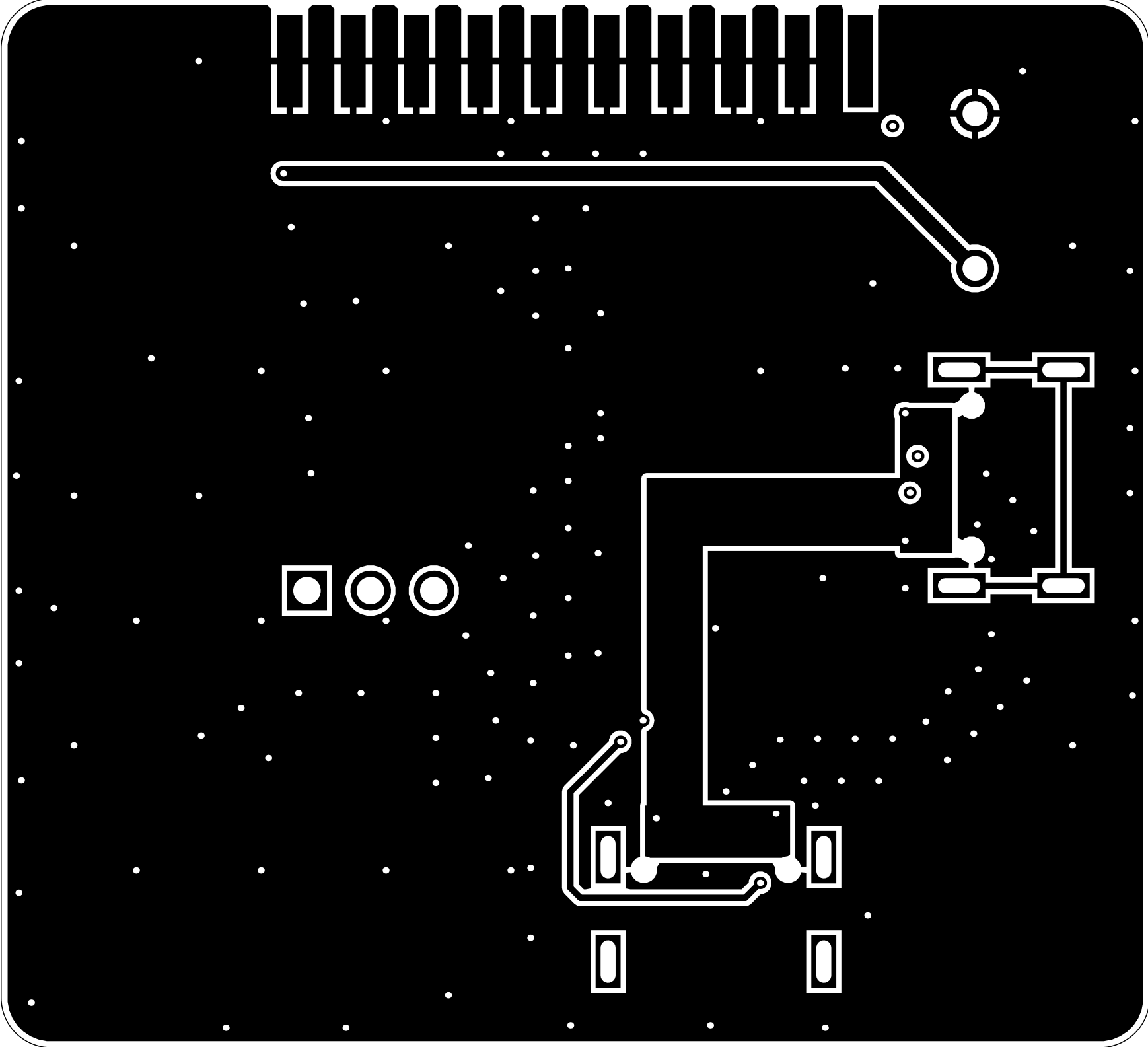
Top Layer (Scale 5:1)




CONTENTS CONFIDENTIAL AND PROPERTY OF INTERCREATE AND CLIENT

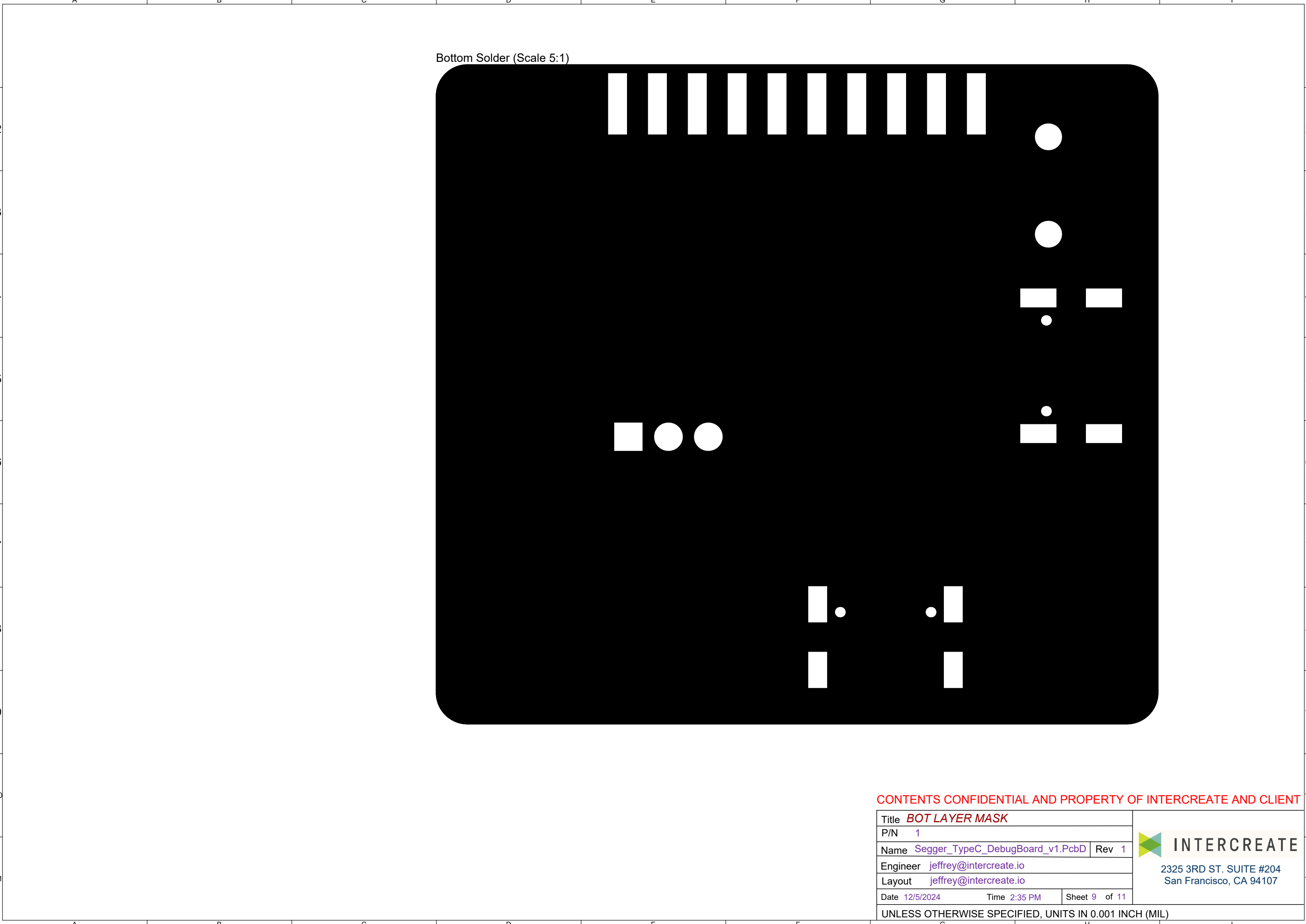
Title <i>TOP LAYER COPPER</i>			 INTERCREATE 2325 3RD ST. SUITE #204 San Francisco, CA 94107
P/N <i>1</i>			
Name <i>Segger_TypeC_DebugBoard_v1.PcbD</i>	Rev <i>1</i>		
Engineer <i>jeffrey@intercreate.io</i>			
Layout <i>jeffrey@intercreate.io</i>			
Date <i>12/5/2024</i>	Time <i>2:35 PM</i>	Sheet <i>7</i> of <i>11</i>	
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			

Bottom Layer (Scale 5:1)




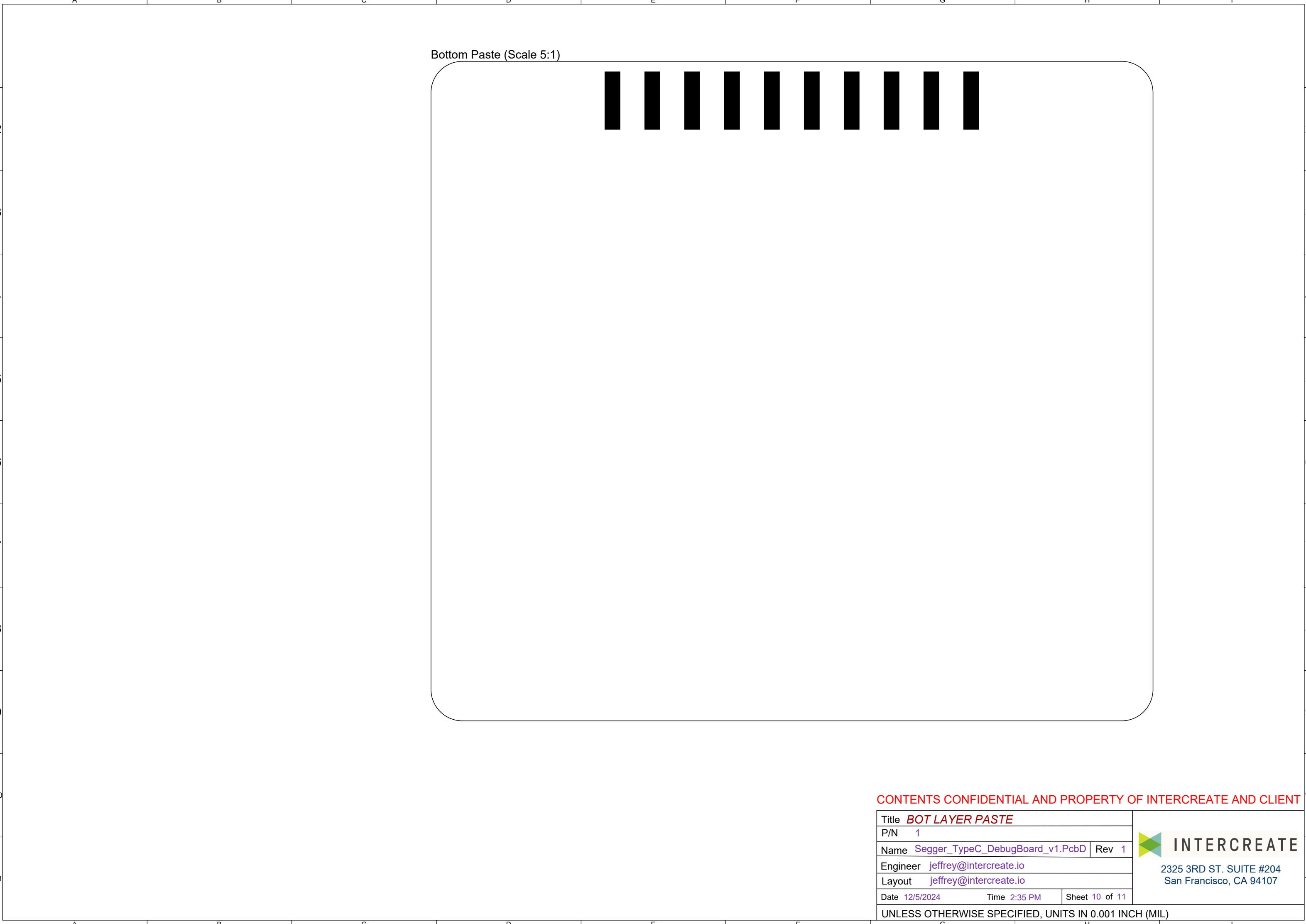
CONTENTS CONFIDENTIAL AND PROPERTY OF INTERCREATE AND CLIENT

Title BOT LAYER COPPER			 INTERCREATE 2325 3RD ST. SUITE #204 San Francisco, CA 94107
P/N 1			
Name Segger_TypeC_DebugBoard_v1.PcbD	Rev 1		
Engineer jeffrey@intercreate.io			
Layout jeffrey@intercreate.io			
Date 12/5/2024	Time 2:35 PM	Sheet 8 of 11	
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Title BOT LAYER MASK			 <div>INTERCREATE</div> <div>2325 3RD ST. SUITE #204 San Francisco, CA 94107</div>
P/N 1			
Name Segger_TypeC_DebugBoard_v1.PcbD		Rev 1	
Engineer jeffrey@intercreate.io			
Layout jeffrey@intercreate.io			
Date 12/5/2024	Time 2:35 PM	Sheet 9 of 11	
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)			





Bottom Overlay (Scale 5:1)

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Title <i>BOT LAYER SILKSCREEN</i>			<div> INTERCREATE 2325 3RD ST. SUITE #204 San Francisco, CA 94107</div>	
P/N 1				
Name Segger_TypeC_DebugBoard_v1.PcbD		Rev 1		
Engineer jeffrey@intercreate.io				
Layout jeffrey@intercreate.io				
Date 12/5/2024		Time 2:35 PM		
UNLESS OTHERWISE SPECIFIED, UNITS IN 0.001 INCH (MIL)				