

Top Sheet

U_Offset_Attenuator
Offset_Attenuator.SchDoc



E3

FD1

Fiducial Mark

FD3

Fiducial Mark

FD2

Fiducial Mark

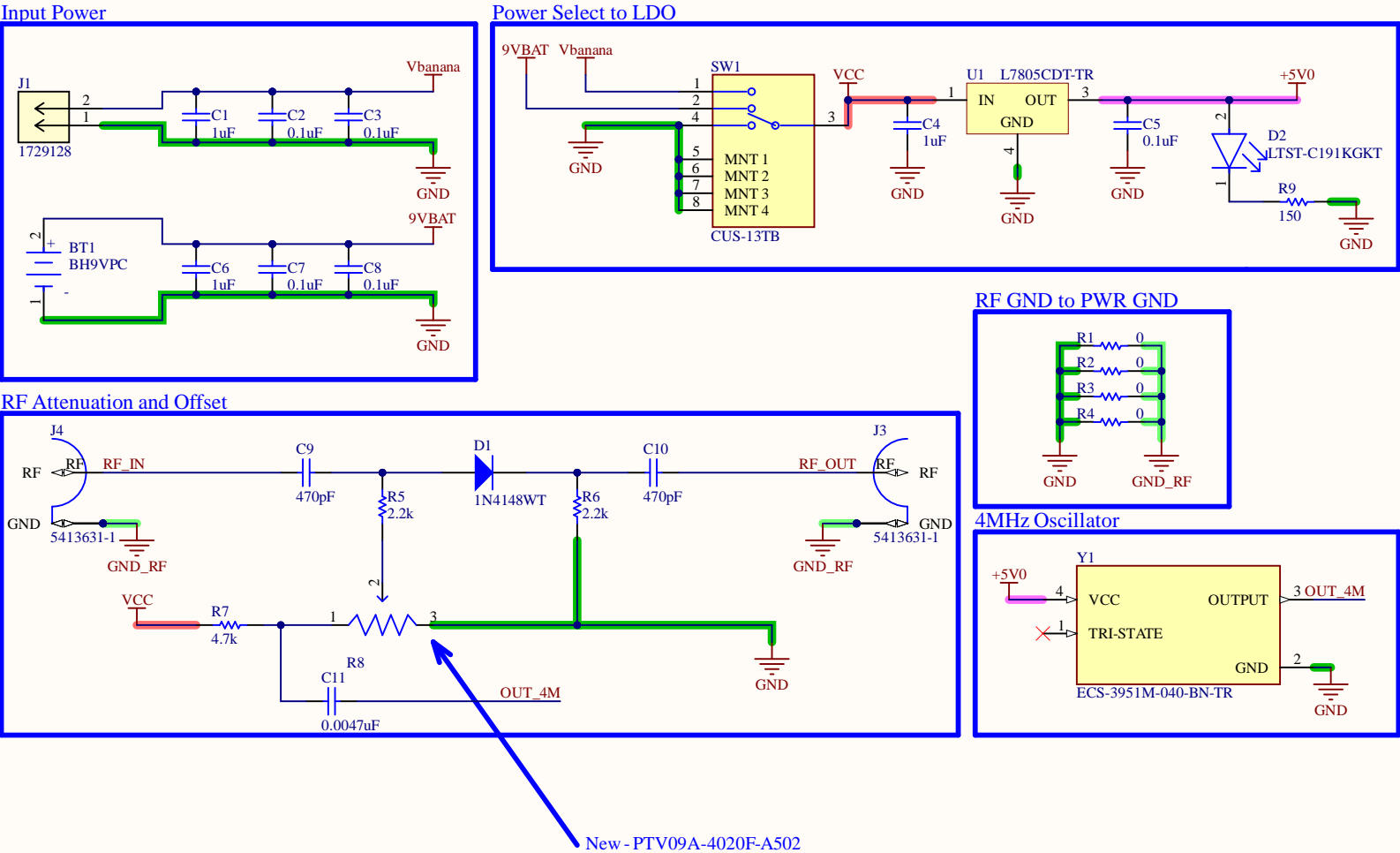
FD4

Fiducial Mark

Title: <i>Top Sheet</i>			Engineer:	Mathew Yerian-French
REV: Rev. 1.0			Engineer:	Nicklas Koeller
Prj: Offset_Attenuator			Engineer:	Con <i>fiducial</i>
Date: 01/22/2024	14:46:25	Sheet: 1 of 2	Reviewed By:	
Variant: STANDARD CONFIG	Edited: 02/16/2023	Approved By:		
File: C:\Users\Public\Documents\Altium\PCB_Project\[Top Sheet].SchDoc				



Offset_Attenuator



Title: Offset_Attenuator			Engineer: Mathew Yerian-French	
REV: Rev. 1.0			Engineer: Nicklas Koeller	
Prj: Offset_Attenuator			Engineer: Con fidential	
Date: 01/22/2024 14:46:25		Sheet: 2 of 2	Reviewed By:	
Variant: STANDARD CONFIG		Edited: 01/22/2024	Approved By:	
File: C:\Users\Public\Documents\Altium\PCB_Project\Offset_Attenuator.SchDoc				



A

B

C

D

Offset Attenuator Requirements

1. CONTROLLING DOCUMENTS:

A. FABRICATE TO THE 'PCB SPECIFICATION SELECTION' ENTERED ON THE WEBSITE.

2. MATERIAL SUBSTITUTION:

A. SUBSTITUTION OF STANDARD MANUFACTURER STACKUP OF INDICATED LAYER COUNT IS ACCEPTABLE.

3. SPECIAL FEATURES

A. NONE

Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
		Units Mils	Confidential
Date:01/22/2024 14:46 of 1 Sheet		Reviewed By:	
Variant: STANDARD CONFIG		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBdxf			



A

B

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D

Offset Attenuator

Layer Stack

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
	Surface Material	0mil	Solder Resist	Solder Mask	GTS
Copper	M1 Top	1mil		Signal	GTL
		44mil	FR-4	Dielectric	
Copper	M4 Bottom	1mil		Signal	GBL
Surface Material	Bottom Solder	0mil	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO

Total thickness: 48mil

Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
		Units: Mils	Confidential
Date: 01/22/2024 24:48 of 1 Sheet		Reviewed By:	
Variant: STANDARD CONFIG		Approved By:	
File: C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBWdf			



A

B

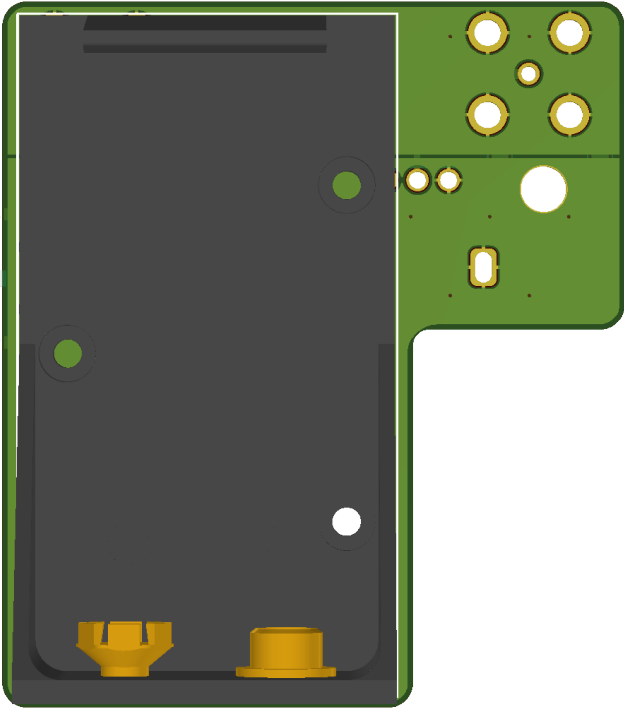
C

D

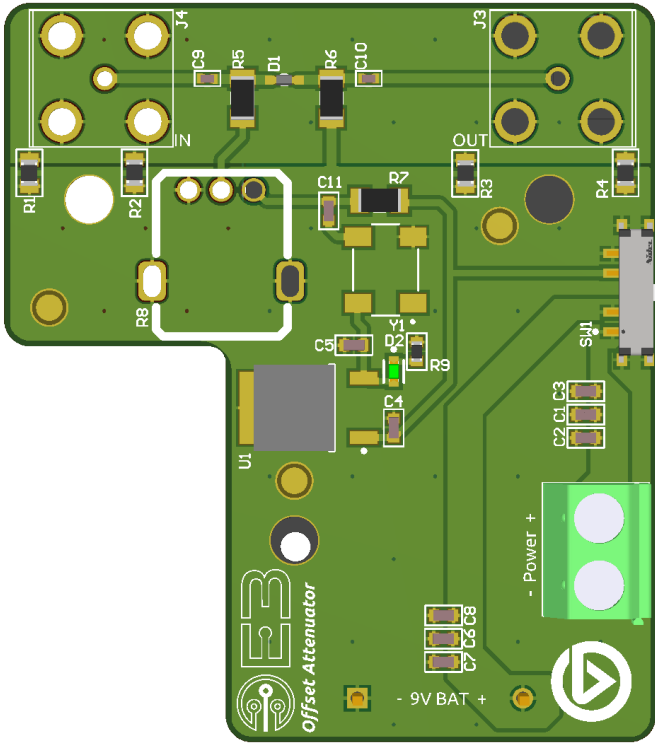
Offset Attenuator

3D Views

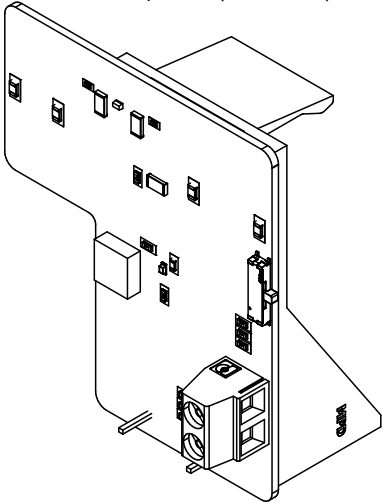
Realistic View



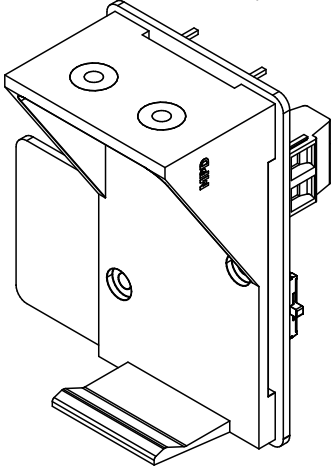
Realistic View



View from Top side (Scale 1:1)



View from Bottom side (Scale 1:1)

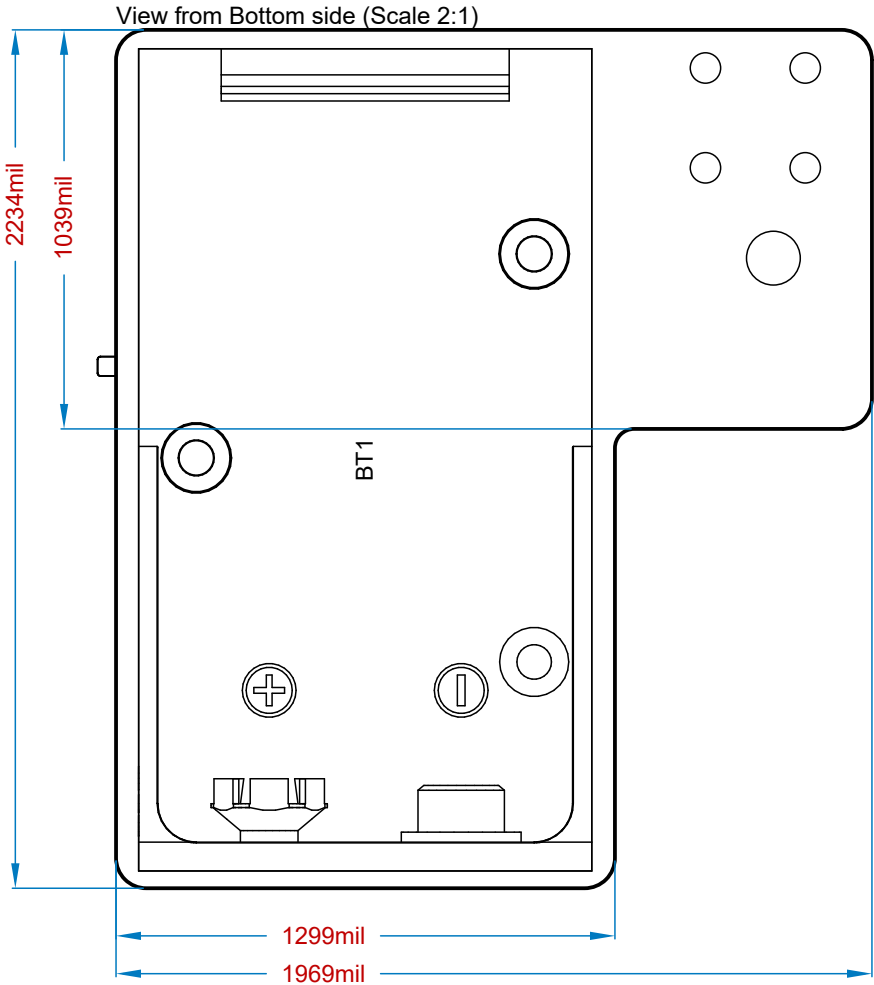
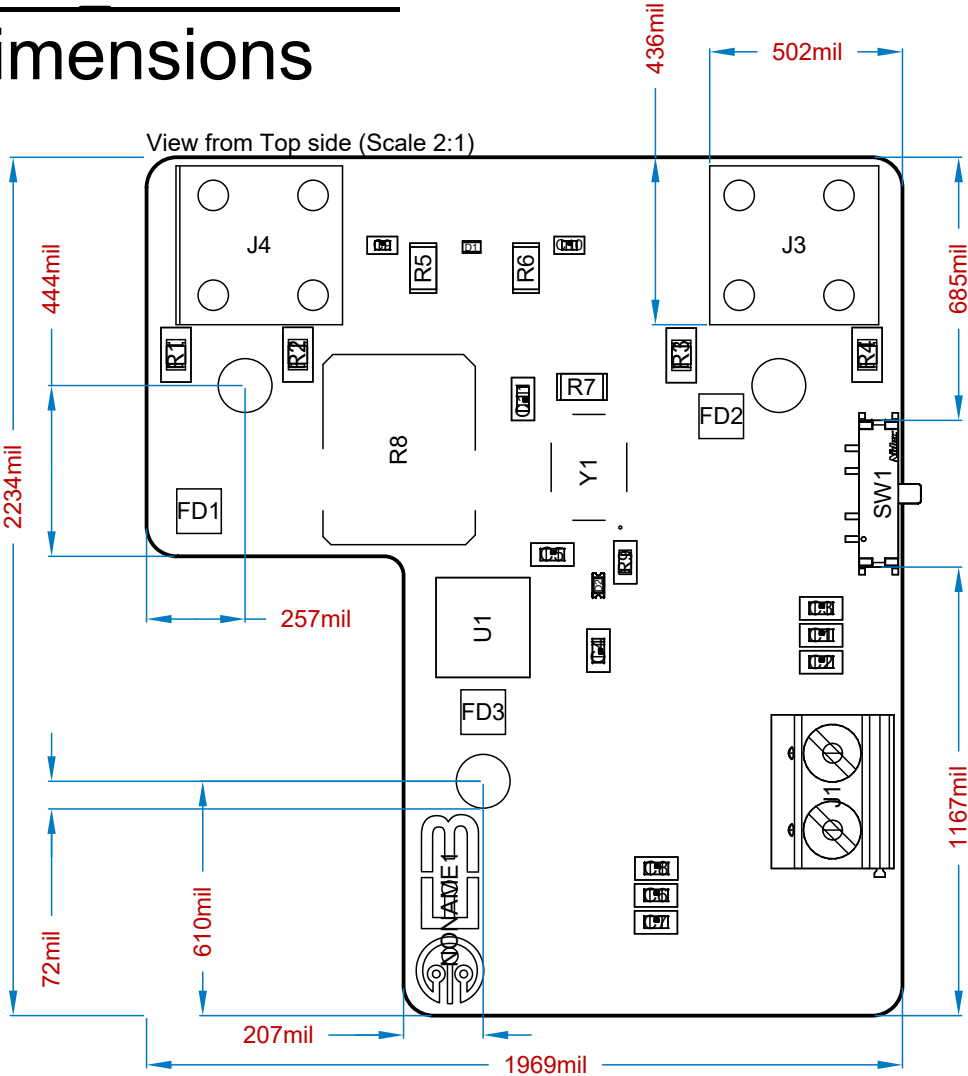


Project		Offset Attenuator	
REV:	Prj:Offset_Attenuator	Engineer:	Mathew Verian-French
Date:01/22/2024	34 of 48	Engineer:	Nicklas Koeller
Variant: STANDARD CONFIG	Edited: 1/22/2024	Engineer:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBWdf		Units Mils	Confidential
		Reviewed By:	
		Approved By:	



Offset Attenuator

Dimensions



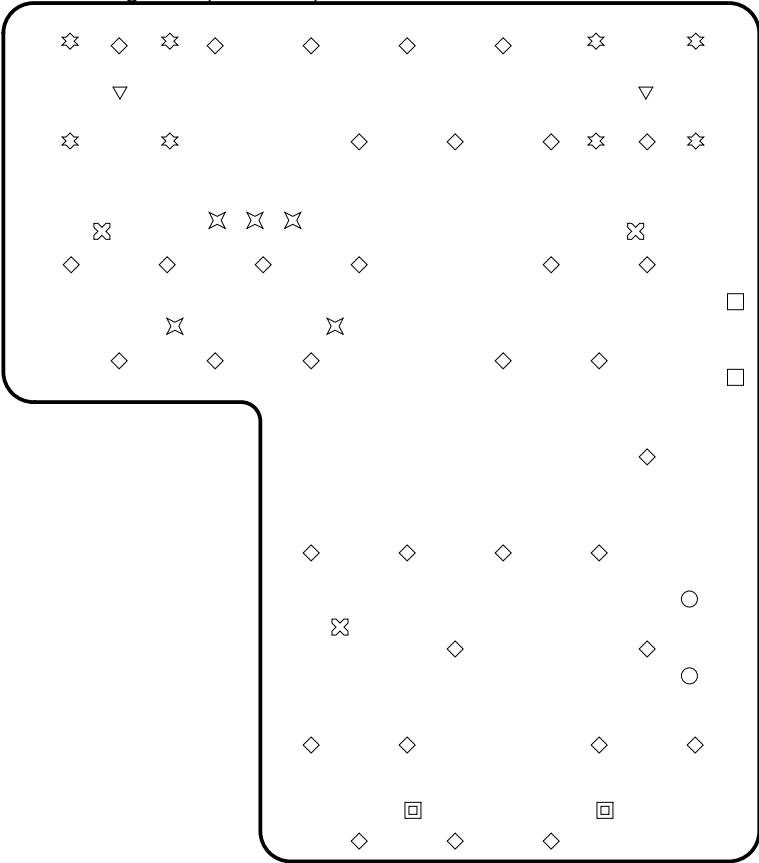
ProjectOffset Attenuator		Engineer: Mathew Verian-French	
REV: Prj:Offset_Attenuator		Engineer: Nicklas Koeller	
Date:01/22/2024 44 of 48 of 1 Sheet of 48		Engineer: Conidential	
Variant: STANDARD CONFIG Edited:1/22/2024		Reviewed By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBDwf		Approved By:	



Offset Attenuator

Drill

Drill Drawing View (Scale 2:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
◇	34	12mil	Plated	
□	2	35mil	Non-Plated	
▣	2	40mil	Plated	
▽	2	46mil	Plated	
○	2	51mil	Plated	
✧	5	53mil	Plated	
✧	8	83mil	Plated	
✧	3	144mil	Plated	
	58 Total			

Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 54:46 of 1 Sheets		Units:	Mils
Variant: STANDARD CONFIG		Reviewed By:	
Edited:1/22/2024		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBDwf			



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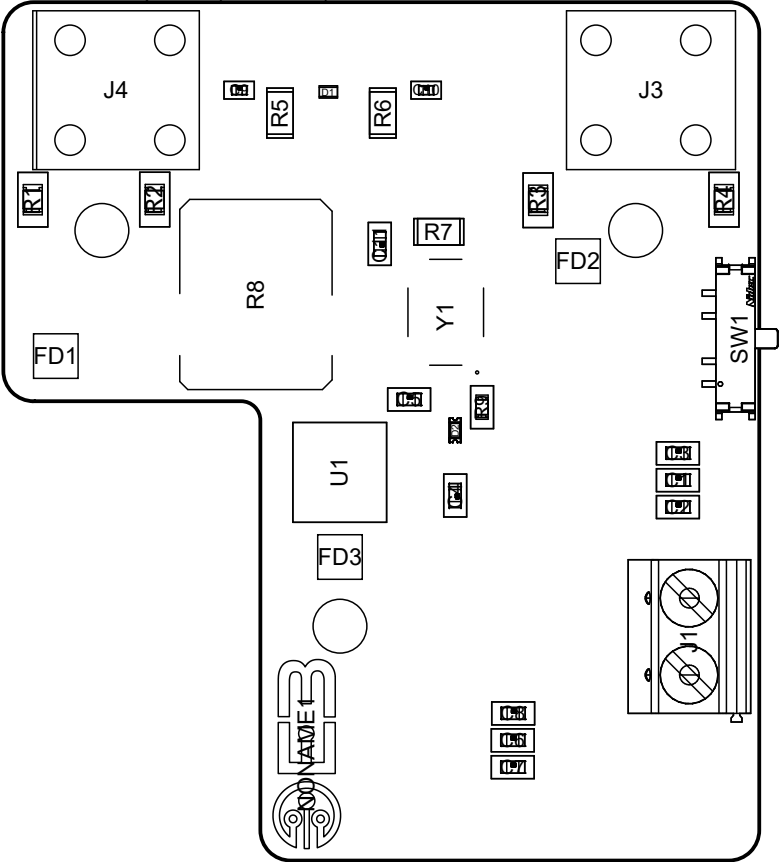
B

C

D

Offset Attenuator
Assembly Top

View from Top side (Scale 2:1)



Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 64*48 of 1 Sheet		Units:Mils	
Variant:STANDARD CONFIG		Reviewed By:	
Edited:01/22/2024		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBWdf			



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A

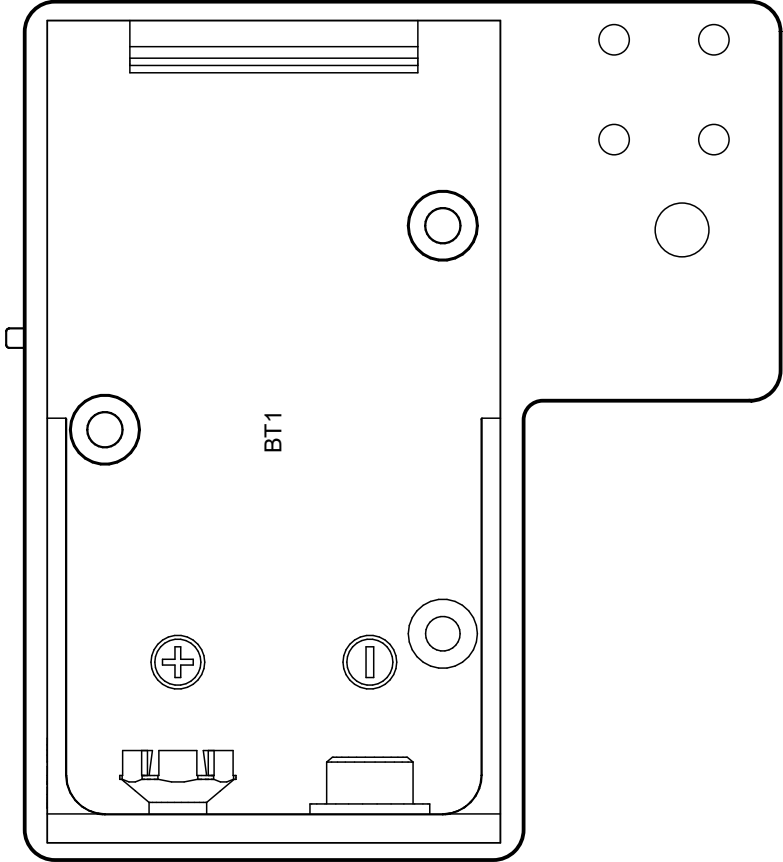
B

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Offset Attenuator
Assembly Bottom

View from Bottom side (Scale 2:1)



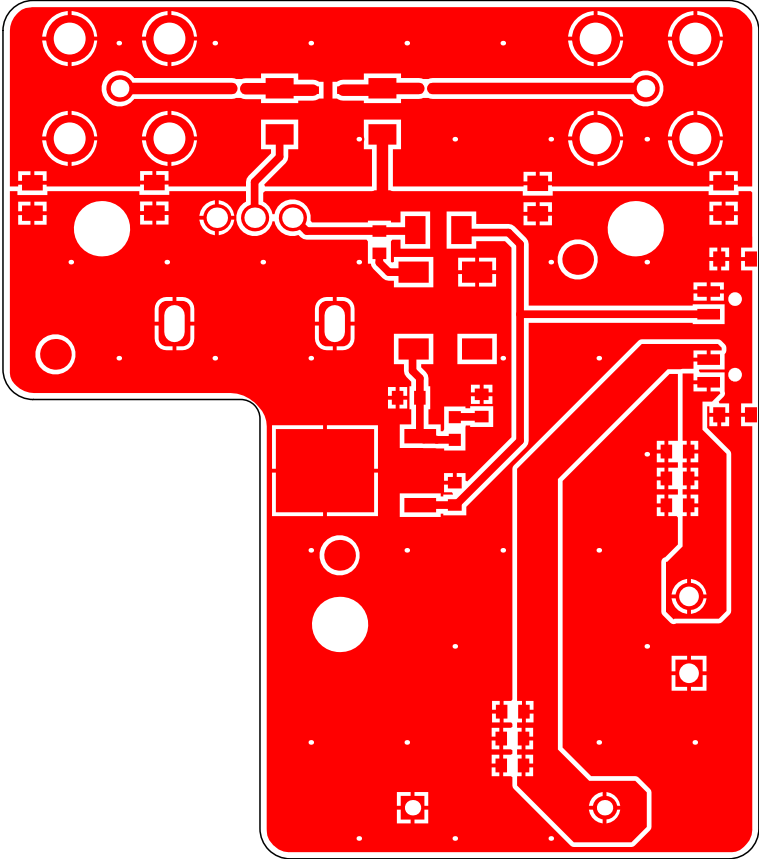
Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 14:48 of 1 Sheet		Units Mils	
Variant: STANDARD CONFIG		Reviewed By:	
Edited:1/22/2024		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBDwf			



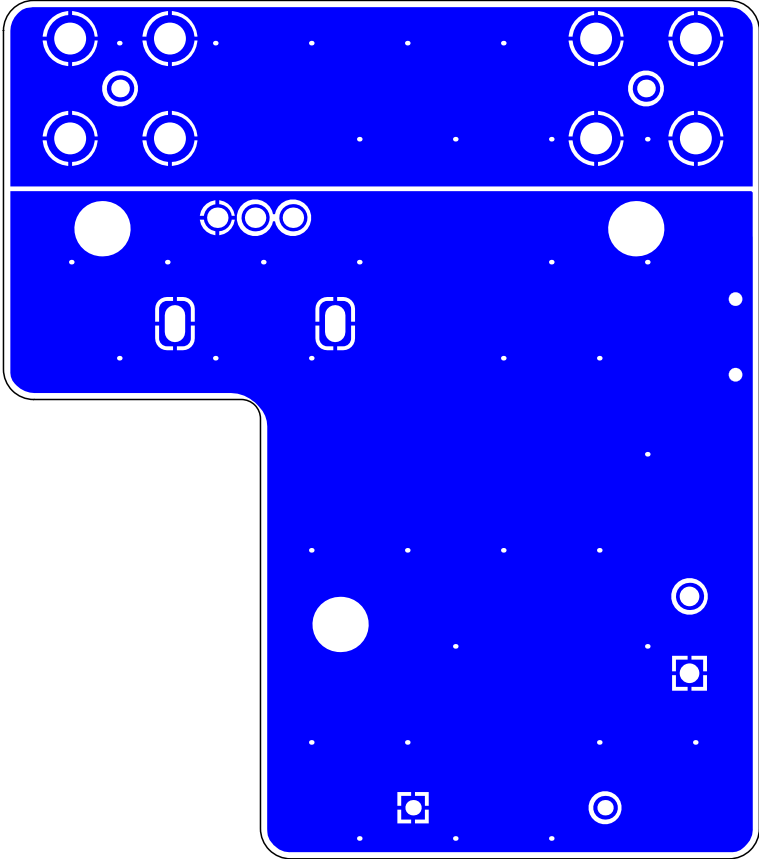
Offset Attenuator

M1 & M4

M1 Top (Scale 2:1)



M4 Bottom (Scale 2:1)



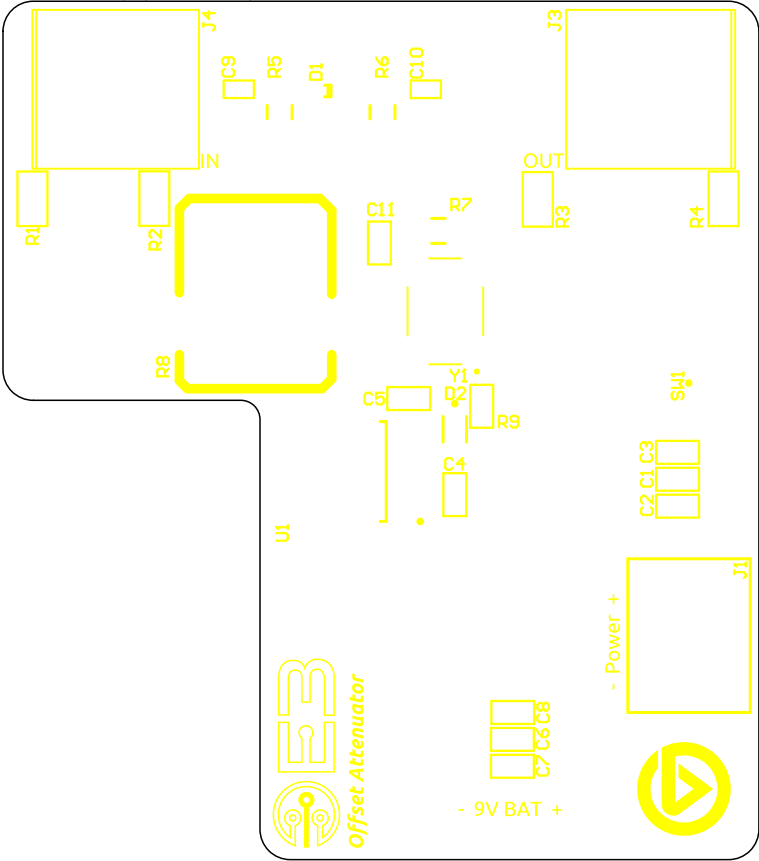
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REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 84*48 of 1 Sheet		Units Mils	
Variant: STANDARD CONFIG		Reviewed By:	
Edited:1/22/2024		Approved By:	
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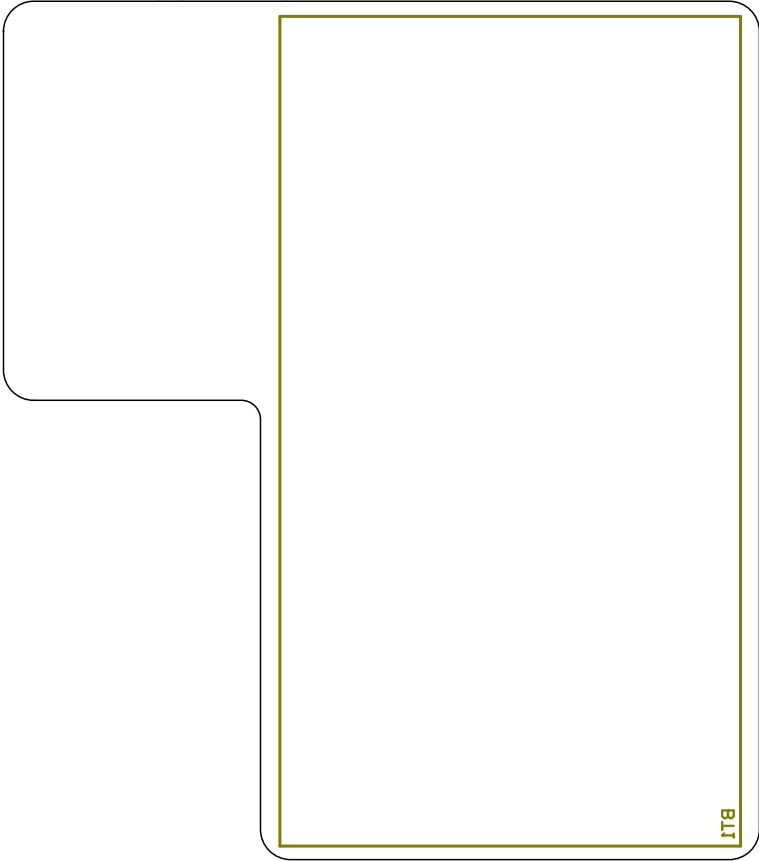
Offset Attenuator

Overlay

Top Overlay (Scale 2:1)



Bottom Overlay (Scale 2:1)



ProjectOffset Attenuator		Engineer: Mathew Yerian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 04:48 of 1 Sheet		Units:Mils	
Variant:STANDARD CONFIG		Reviewed By:	
Edited:1/22/2024		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBDwf			



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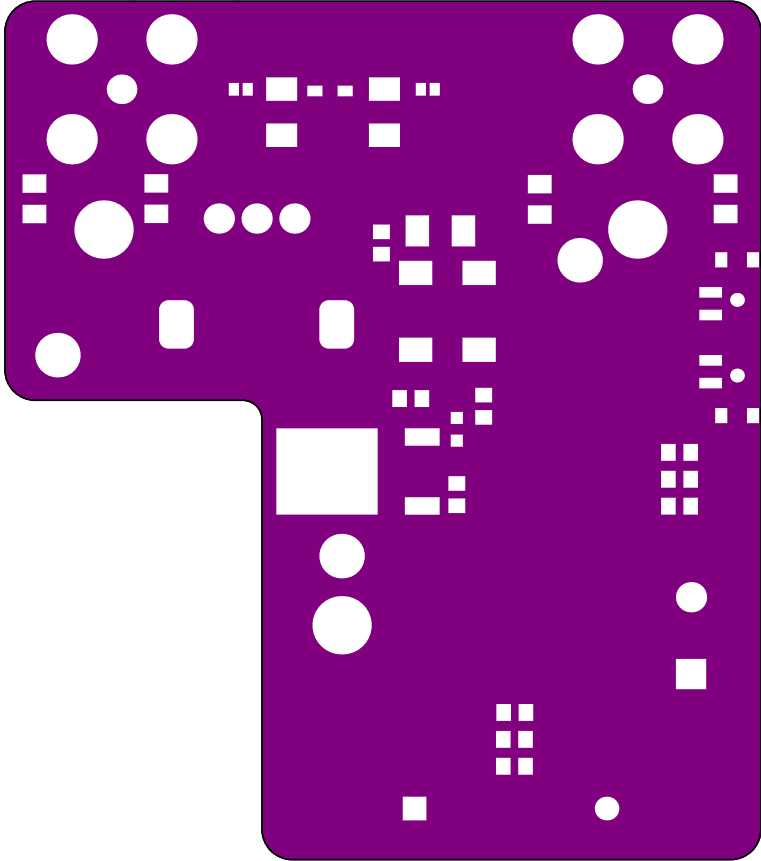
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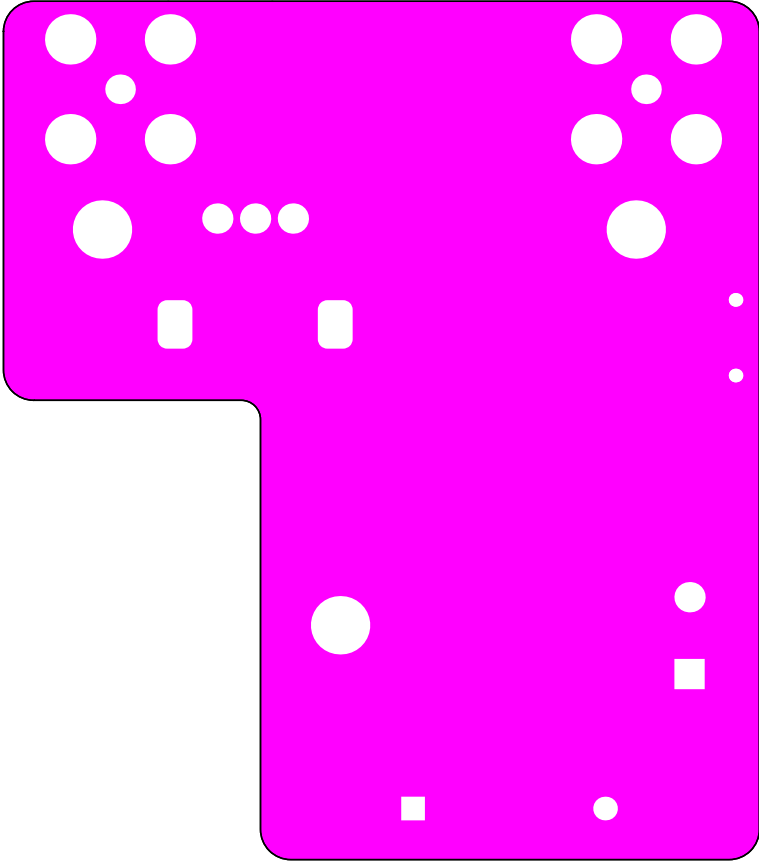
D

Offset Attenuator
Solder Resist

Top Solder (Scale 2:1)



Bottom Solder (Scale 2:1)



Project Offset Attenuator		Engineer: Mathew Verian-French	
REV:		Engineer: Nicklas Koeller	
Prj:Offset_Attenuator		Engineer:	
Date:01/22/2024 10:46 of 1 Sheet		Units:Mils	Confidential
Variant:STANDARD CONFIG		Reviewed By:	
Edited:1/22/2024		Approved By:	
File:C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBdwf			



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A

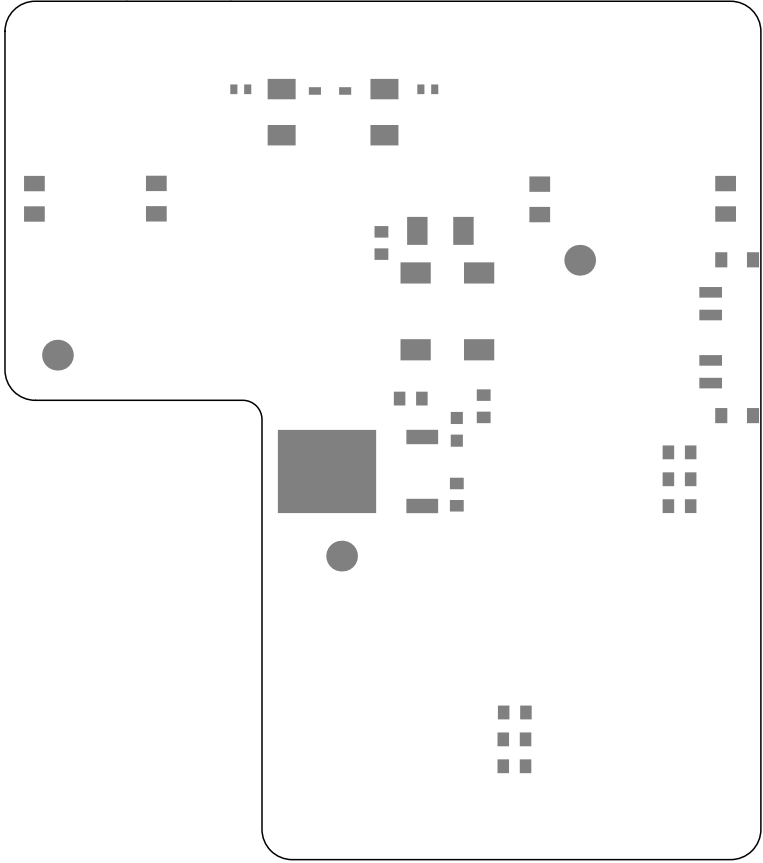
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C

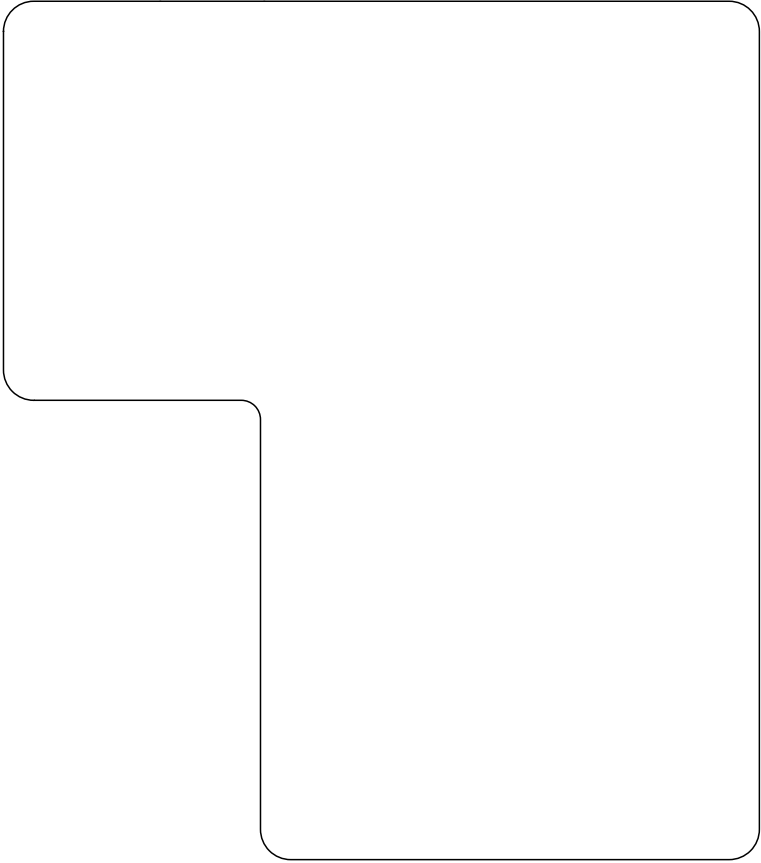
D

Offset Attenuator
Solder Paste

Top Paste (Scale 2:1)

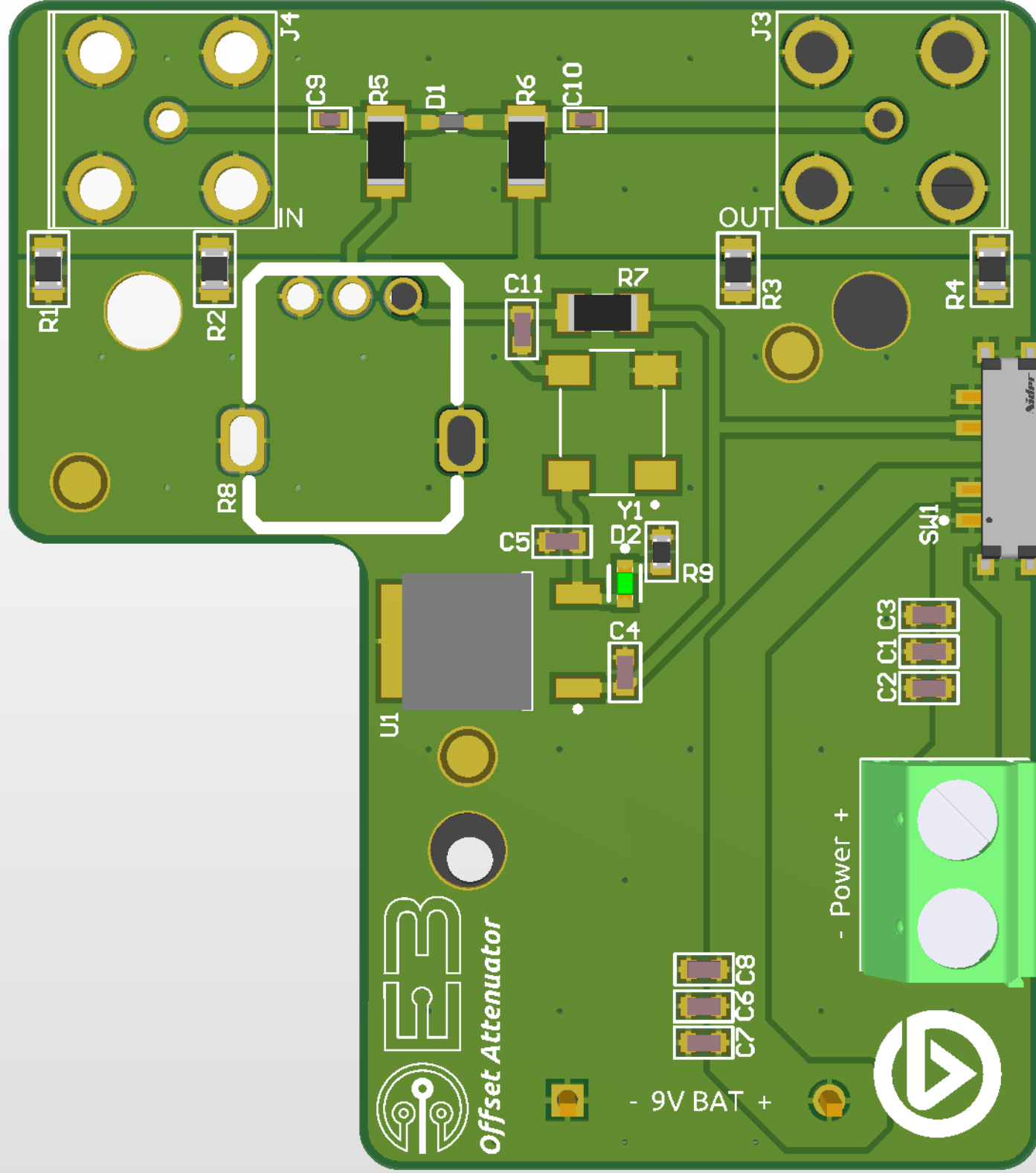


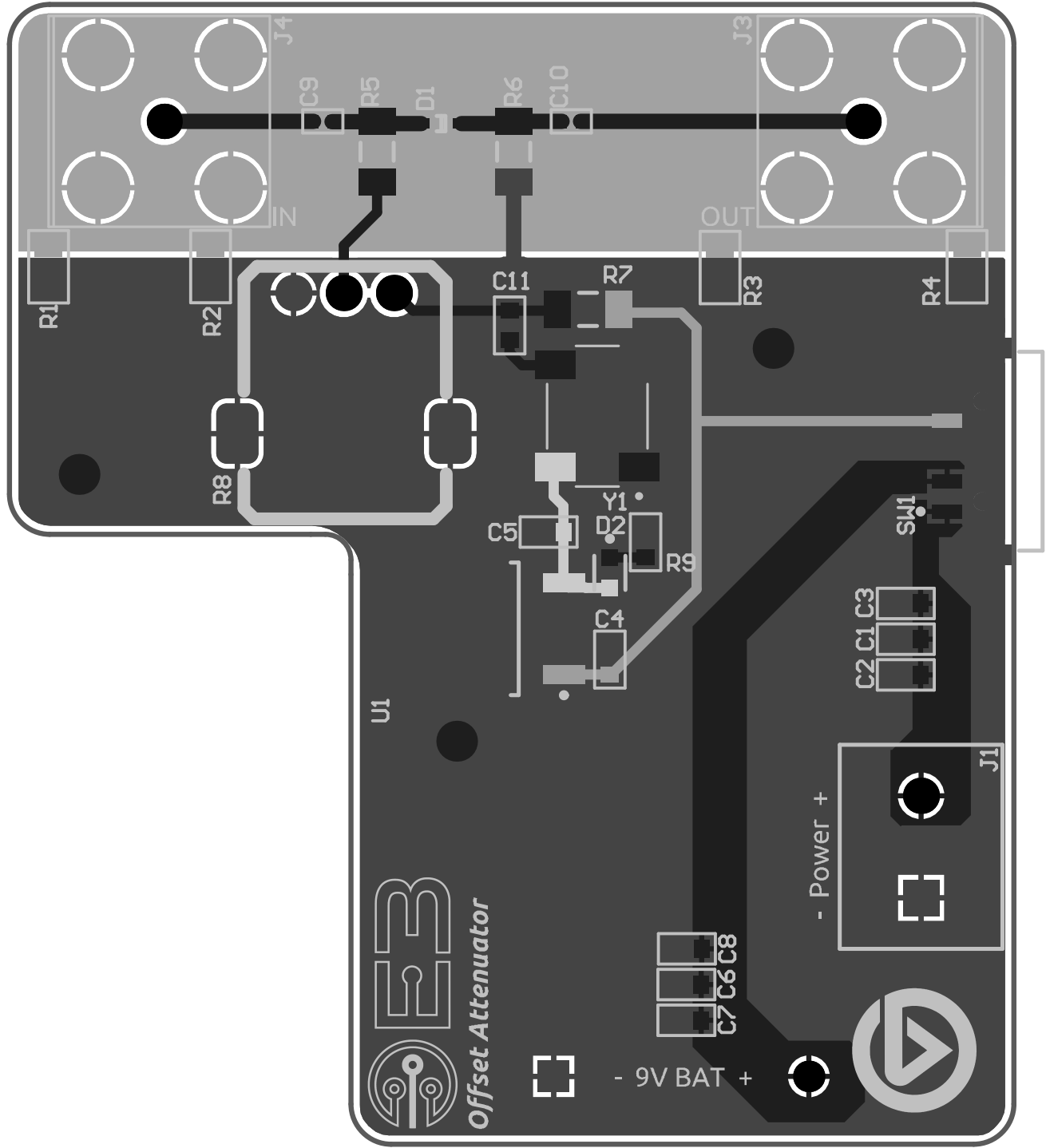
Bottom Paste (Scale 2:1)



Project		Offset Attenuator		Engineer:		Mathew Verian-French	
REV:		Prj:Offset_Attenuator		Engineer:		Nicklas Koeller	
Date:		01/22/2024 11:46 of 1 Sheet		Engineer:			
Variant:		STANDARD CONFIG		Units:		Mils	
File:		C:\Users\Public\Documents\Altium\PCB Project\Offset Attenuator.PCBWdf		Reviewed By:			
				Approved By:			







Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.40mil	3.5	
1	M1 Top		1.38mil		
	Dielectric 2-3	FR-4	44.49mil	3.96	
2	M4 Bottom		1.38mil		
	Bottom Solder	Solder Resist	0.40mil	3.5	
	Bottom Overlay				

Total board thickness: 48.04mil

FABRICATION NOTES

- 1) FABRICATE TO THE 'PCB SPECIFICATION SELECTION' ENTERED ON THE WEBSITE.
- 2) SUBSTITUTION OF DEFAULT MANUFACTURER STACKUP OF INDICATED LAYER COUNT IS ACCEPTABLE.
- 3) NO IMPEDANCE CONTROL



PROJECT	Offset_Attenuator	
ID		
DATE	01/22/2024 14:46:32	
VARIANT	STANDARD CONFIG	
ENGINEER	TYPE HERE	

LAYER
M4 Bottom

Designator	Description	Value	Vendor	Vendor P/N	Manufacturer	Manufacturer P/N	Quantity	Price
[NoValue], R8							2	
BT1	BATTERYHOLDER9V PC PIN				Memory Protection Devices		1	
C1, C4, C6	0603 Ceramic Chip Capacitor - Standard	1uF					3	
C2, C3, C5, C7, C8	0603 Ceramic Chip Capacitor - Standard	0.1uF					5	
C9, C10	0402 Ceramic Chip Capacitor - Standard	470pF					2	
C11	0603 Ceramic Chip Capacitor - Standard	0.0047uF					1	
D1	High Conductance Fast Switching Diode, 75 V, -55 to 150 degC, 2-Pin SOD523F, RoHS				Fairchild Semiconductor		1	
D2	LED GREEN CLEAR SMD						1	
J1	Block, Terminal; 13.5 A; 250 V; 5.08 mm; 26 to 16 AWG; 2; Screw; Solder; 4 kV						1	
J3, J4	Nickel Plating50 Ohm Right Angle Metalized Jack PCB BNC Connector						2	None
R1, R2, R3, R4	0805 Chip Resistor - Standard	0					4	
R5, R6, R7	Chip Resistor, 0 Ohm, +/- 5%, 0.25 W, - 55 to 155 degC, 1206 (3216 Metric)						3	
R9	0603 Chip Resistor - Standard	150					1	
SW1	SWITCH SLIDE SP3T 300MA 4V						1	
U1	Positive Voltage Regulator, 3-Pin DPAK, Tape and Reel						1	
Y1	SMD CLOCK OSCILLATOR						1	None