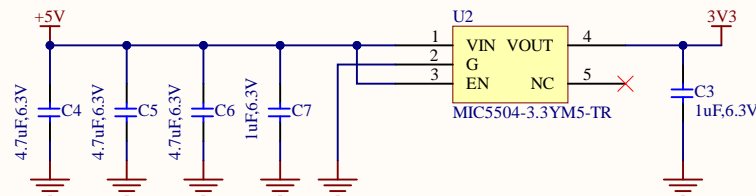


Input



Title		
Size A4	Number	Revision
Date:	7/18/2021	Sheet of
File:	C:\Users\...4-Port USB HUB SCH.SCH.D	Drawn By:

A

B

C

D

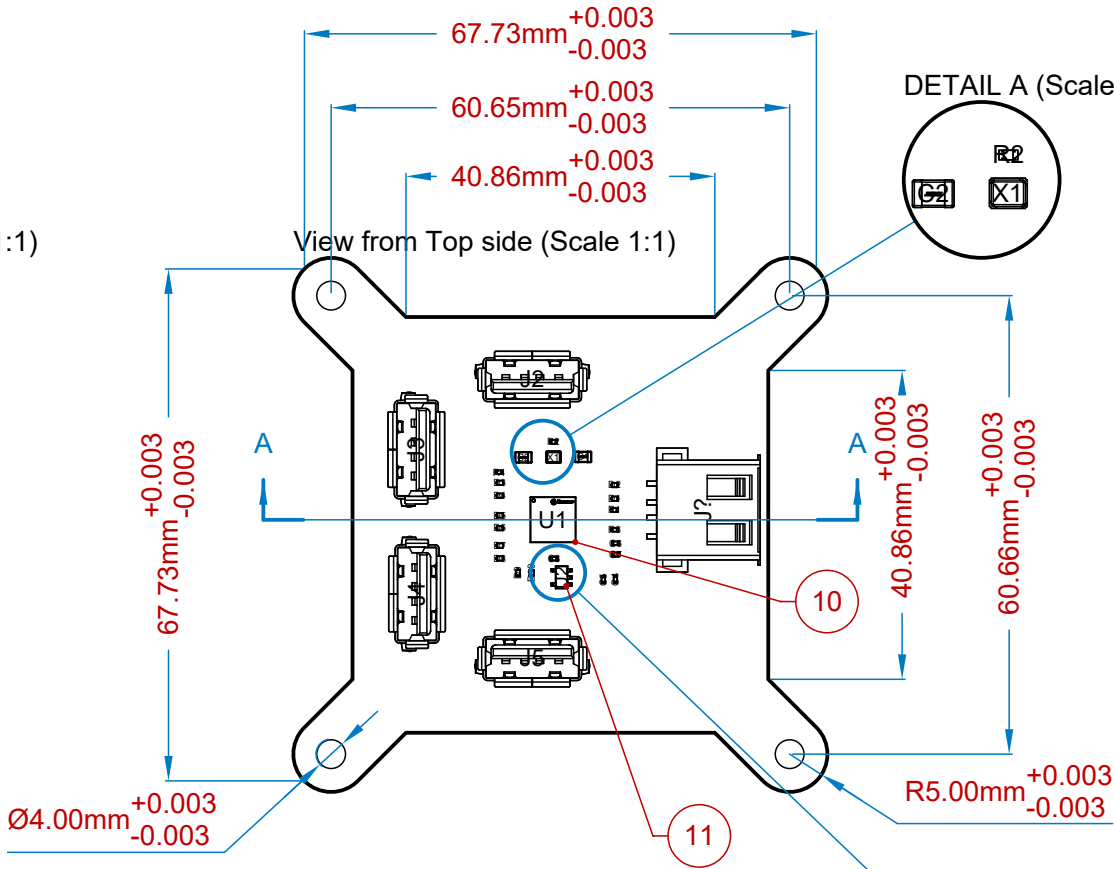
1

1

View from Left side (Scale 1:1)

View from Front side (Scale 1:1)

View from Top side (Scale 2:1)



View from Right side (Scale 1:1)

SECTION A-A (Scale 1:1)

2

2

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF Altium Training. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN

PROPRIETARY AND CONFIDENTIAL

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Altium Training		
		DIMENSIONS ARE IN INCHES	DRAWN		7/18/2021	4 Port USB Hub		
		TOLERANCES:	CHECKED					
		FRACTIONAL±	ENG APPR.					
		ANGULAR: MACH± BEND ±	MFG APPR.					
		TWO PLACE DECIMAL ±						
		THREE PLACE DECIMAL ±						
		INTERPRET GEOMETRIC	Q.A.			PROD_123		
		TOLERANCING PER:	COMMENTS:					
		MATERIAL				SIZE	DWG. NO.	
NEXT ASSY	USED ON	FINISH						
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 1 OF 4

A

B

C

D

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
		1.50mm	FR-4	Dielectric	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 1.59mm					

Bill Of Materials

Line #	Designator	Name	Quantity	Manufacturer Part Number
1	C1, C2	18pF,50V	2	C0805C180J5GACTU
2	C3, C7	1uF,6.3V	2	C0402C105K9PACTU
3	C4, C5, C6	4.7uF,6.3V	3	GRM155R60J475ME47D
4	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10	TVS	10	ESD9B3.3ST5G
5	J1	SMD USB-A	1	USB-A-S-S-B-SM2
6	J2, J3, J4, J5	USB-A	4	KUSBVX-AS1N-B30
7	R1, R3	56K	2	RC0402JR-0756KL
8	R2	1M	1	RC0402FR-071ML
9	R4	12K	1	RC0402JR-0712KL
10	U1	USB2514B-I/M2	1	USB2514B-I/M2
11	U2	MIC5504-3.3YM5-TR	1	MIC5504-3.3YM5-TR
12	X1	24MHz	1	XRCGB24M000F0L00R0

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF Altium Training. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN

PROPRIETARY AND CONFIDENTIAL

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Altium Training		
		DIMENSIONS ARE IN INCHES	DRAWN		7/18/2021	4 Port USB Hub		
		TOLERANCES:	CHECKED					
		FRACTIONAL±	ENG APPR.					
		ANGULAR: MACH± BEND ±	MFG APPR.					
		TWO PLACE DECIMAL ±	Q.A.					
		THREE PLACE DECIMAL ±	COMMENTS:			SIZE	DWG. NO.	
		INTERPRET GEOMETRIC TOLERANCING PER:				PROD_123		
		MATERIAL						
NEXT ASSY	USED ON	FINISH						
APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT:

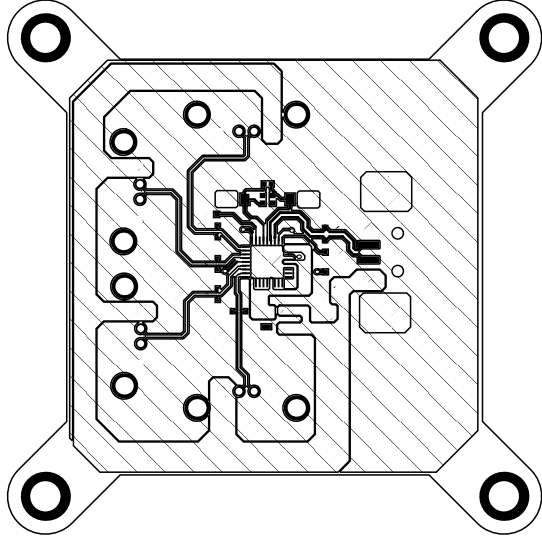
A

B

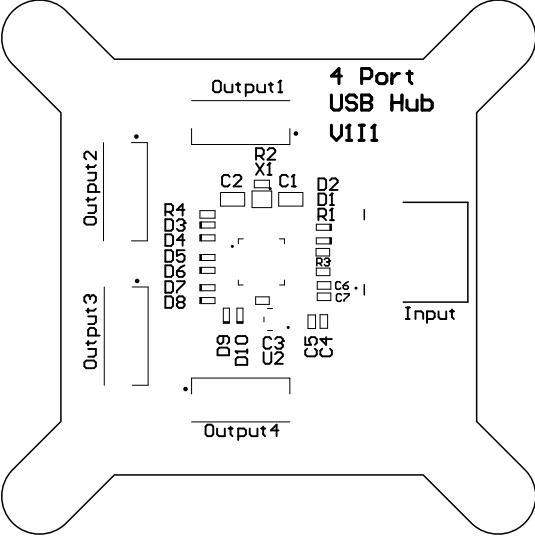
C

D

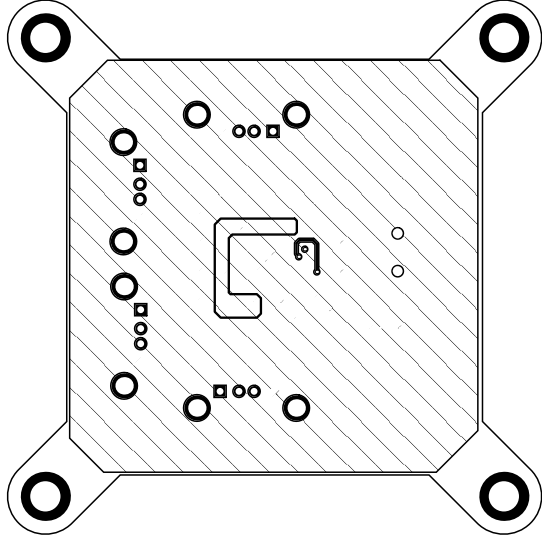
Top Layer (Scale 1:1)



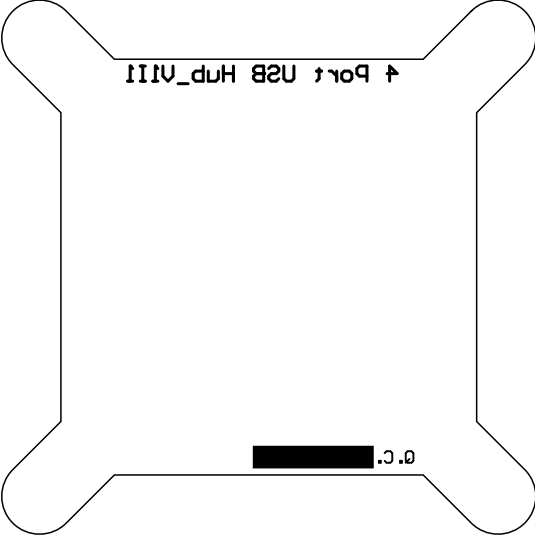
Top Overlay (Scale 1:1)



Bottom Layer (Scale 1:1)



Bottom Overlay (Scale 1:1)



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF Altium Training. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN

PROPRIETARY AND CONFIDENTIAL

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Altium Training		
		DIMENSIONS ARE IN INCHES		DRAWN	7/18/2021	TITLE 4 Port USB Hub		
		TOLERANCES:		CHECKED				
		FRACTIONAL±		ENG APPR.				
		ANGULAR: MACH± BEND ±		MFG APPR.				
		TWO PLACE DECIMAL ±		Q.A.		SIZE DWG. NO. PROD_123		
		THREE PLACE DECIMAL ±		COMMENTS:				
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 3 OF 4

A

B

C

D

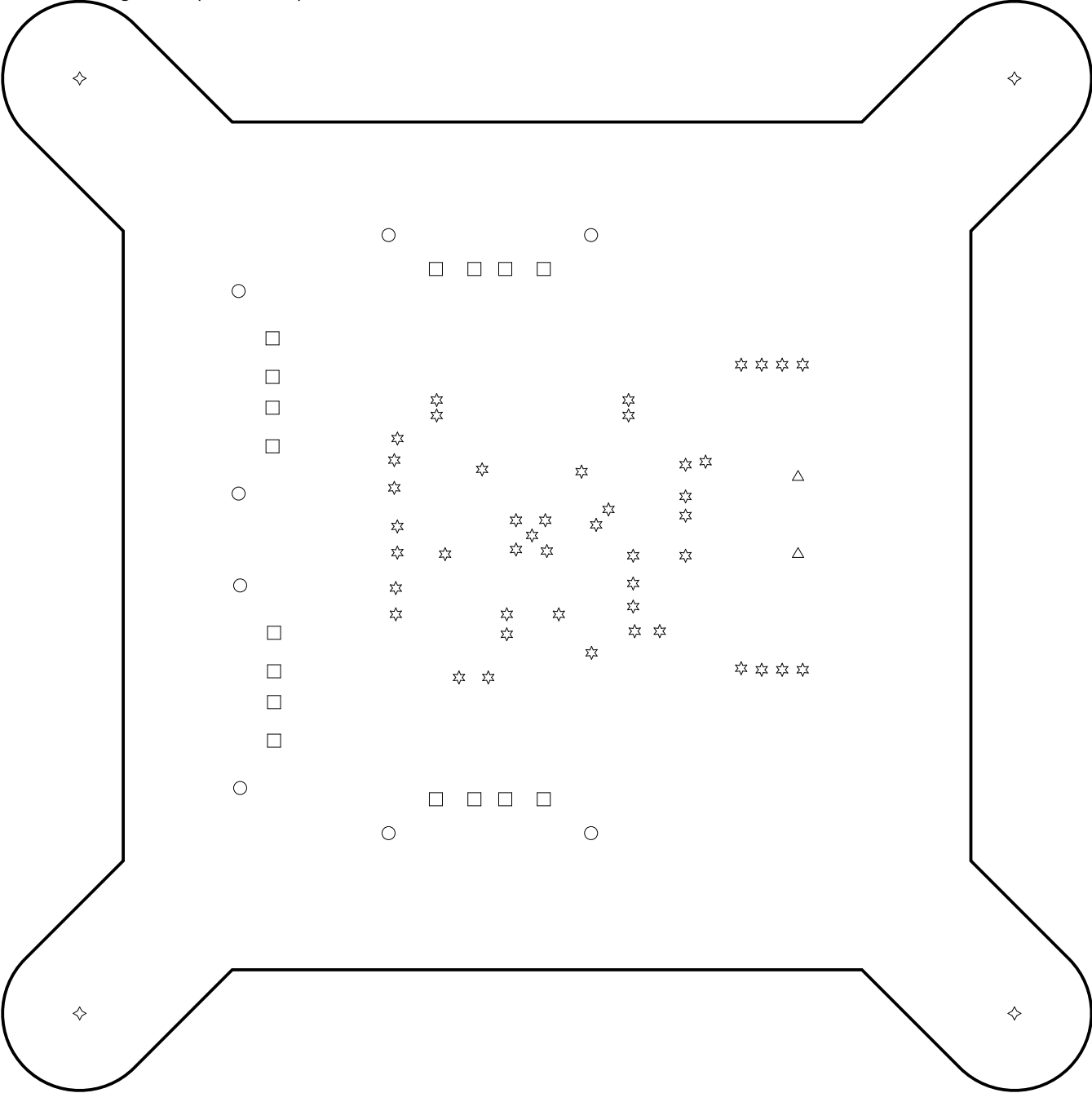
A

B

C

D

Drill Drawing View (Scale 5:2)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Hole Tolerance
☆	45	0.30mm	Plated	Round	Top Layer - Bottom Layer	
□	16	0.90mm	Plated	Round	Top Layer - Bottom Layer	
△	2	1.30mm	Non-Plated	Round	Top Layer - Bottom Layer	
○	8	2.30mm	Plated	Round	Top Layer - Bottom Layer	
◇	4	4.00mm	Plated	Round	Top Layer - Bottom Layer	
75 Total						

1

1

2

2

THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF
Altium Training. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN

PROPRIETARY AND CONFIDENTIAL

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Altium Training		
		DIMENSIONS ARE IN INCHES	DRAWN		7/18/2021	4 Port USB Hub		
		TOLERANCES:	CHECKED					
		FRACTIONAL±	ENG APPR.					
		ANGULAR: MACH± BEND ±	MFG APPR.					
		TWO PLACE DECIMAL ±	Q.A.					
		THREE PLACE DECIMAL ±	COMMENTS:					
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
NEXT ASSY	USED ON	FINISH				SIZE	DWG. NO.	
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 4 OF 4
						PROD_123		

A

B

C

D

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for 4-Port_USB_HUB_Project.PrjPcb

Design Rules Verification Report

Filename : C:\Users\Amit\Documents\AMIT\Github\4-Port_USB_HUB\Design Files\111\4-Po

Warnings 0
Rule Violations 13

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.1mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint (All)	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.1mm) (Max=10mm) (Preferred=0.254mm) (All)	0
Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	4
Hole To Hole Clearance (Gap=0.1mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.1mm) (All),(All)	4
Silk To Solder Mask (Clearance=0.1mm) (IsPad),(All)	4
Silk to Silk (Clearance=0.1mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	1
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff3_90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff4_90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff90'))	0
Matched Lengths(Tolerance=25.4mm) (Disabled)(InDifferentialPairClass('diff90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff2_90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff90'))	0
Matched Lengths(Tolerance=25.4mm) (InDifferentialPairClass('diff1_90'))	0
Height Constraint (Min=0mm) (Max=25.4mm) (Preferred=12.7mm) (All)	0
Total	13

Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	
Hole Size Constraint: (4mm > 2.54mm) Pad Free-1(162.786mm,43.307mm) on Multi-Layer Actual Hole Size = 4mm	
Hole Size Constraint: (4mm > 2.54mm) Pad Free-2(223.442mm,43.307mm) on Multi-Layer Actual Hole Size = 4mm	
Hole Size Constraint: (4mm > 2.54mm) Pad Free-3(223.442mm,103.964mm) on Multi-Layer Actual Hole Size = 4mm	
Hole Size Constraint: (4mm > 2.54mm) Pad Free-4(162.786mm,103.964mm) on Multi-Layer Actual Hole Size = 4mm	

Minimum Solder Mask Sliver (Gap=0.1mm) (All),(All)	
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.1mm) Between Pad U1-1(189.323mm,76.316mm) on Top Layer And Pad	
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.1mm) Between Pad U1-10(190.138mm,71.501mm) on Top Layer And Pad	
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.1mm) Between Pad U1-18(194.138mm,71.501mm) on Top Layer And Pad	
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.1mm) Between Pad U1-27(194.953mm,76.316mm) on Top Layer And Pad	

Silk To Solder Mask (Clearance=0.1mm) (IsPad),(All)	
Silk To Solder Mask Clearance Constraint: (0.095mm < 0.1mm) Between Pad C1-1(195.15mm,82.6mm) on Top Layer And Track	
Silk To Solder Mask Clearance Constraint: (0.095mm < 0.1mm) Between Pad C1-2(196.9mm,82.6mm) on Top Layer And Track	
Silk To Solder Mask Clearance Constraint: (0.095mm < 0.1mm) Between Pad C2-1(189.2mm,82.6mm) on Top Layer And Track	
Silk To Solder Mask Clearance Constraint: (0.095mm < 0.1mm) Between Pad C2-2(187.45mm,82.6mm) on Top Layer And Track	

Net Antennae (Tolerance=0mm) (All)	
Net Antennae: Via (197.1mm,76mm) from Top Layer to Bottom Layer	