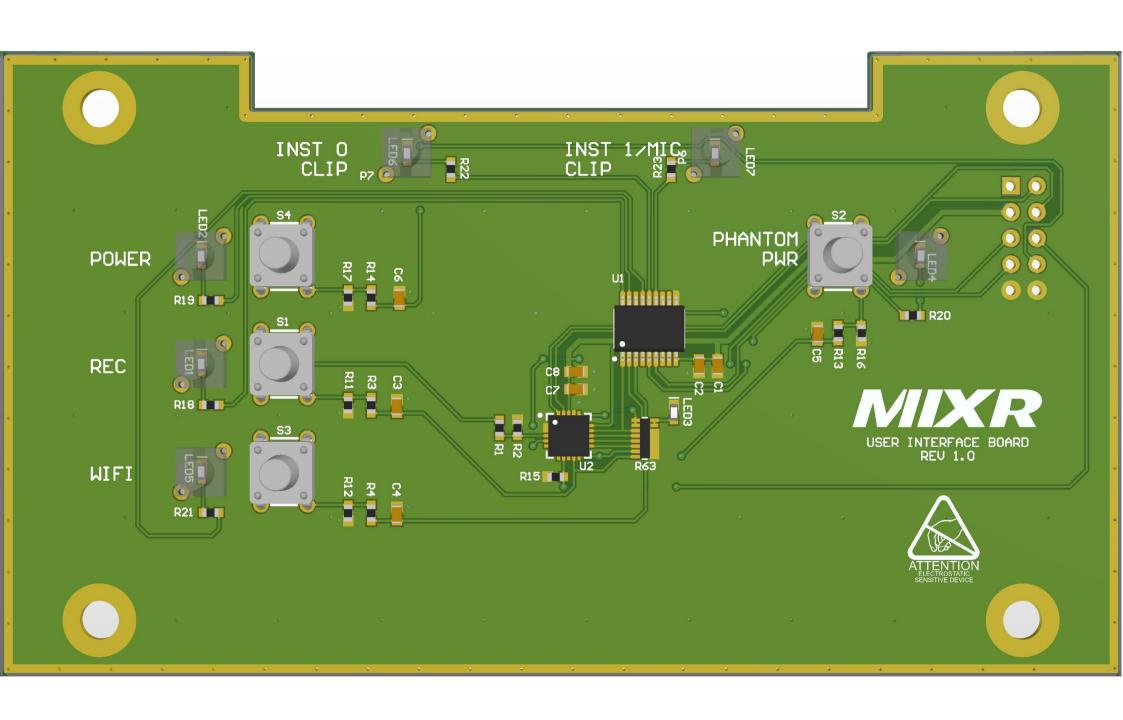
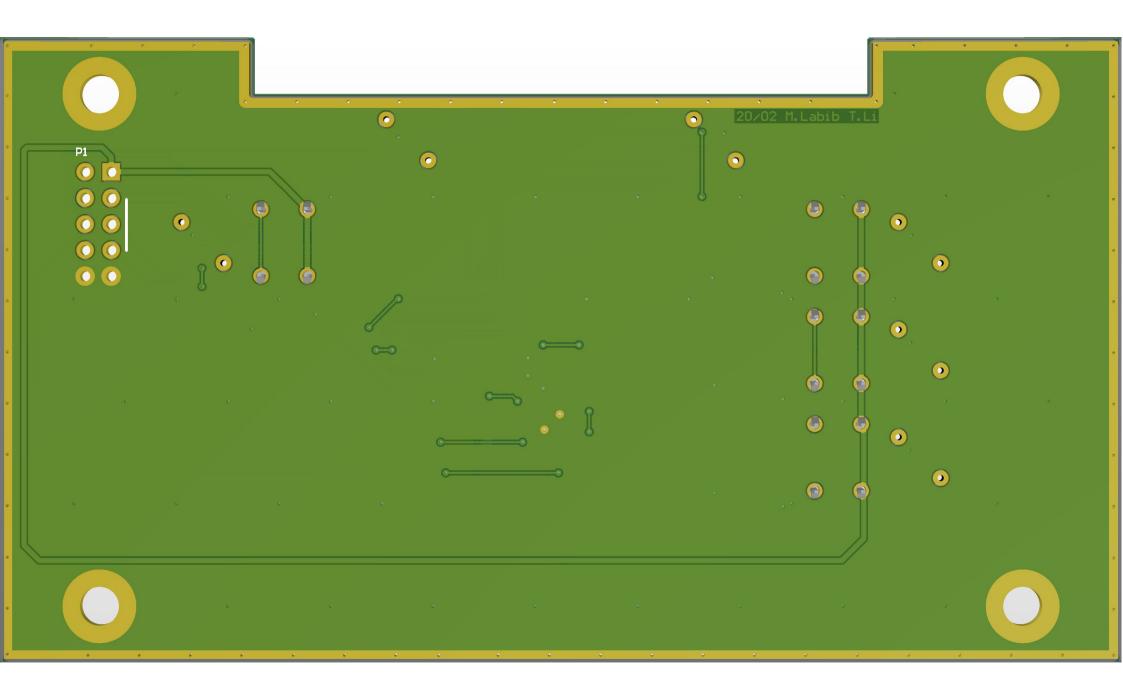


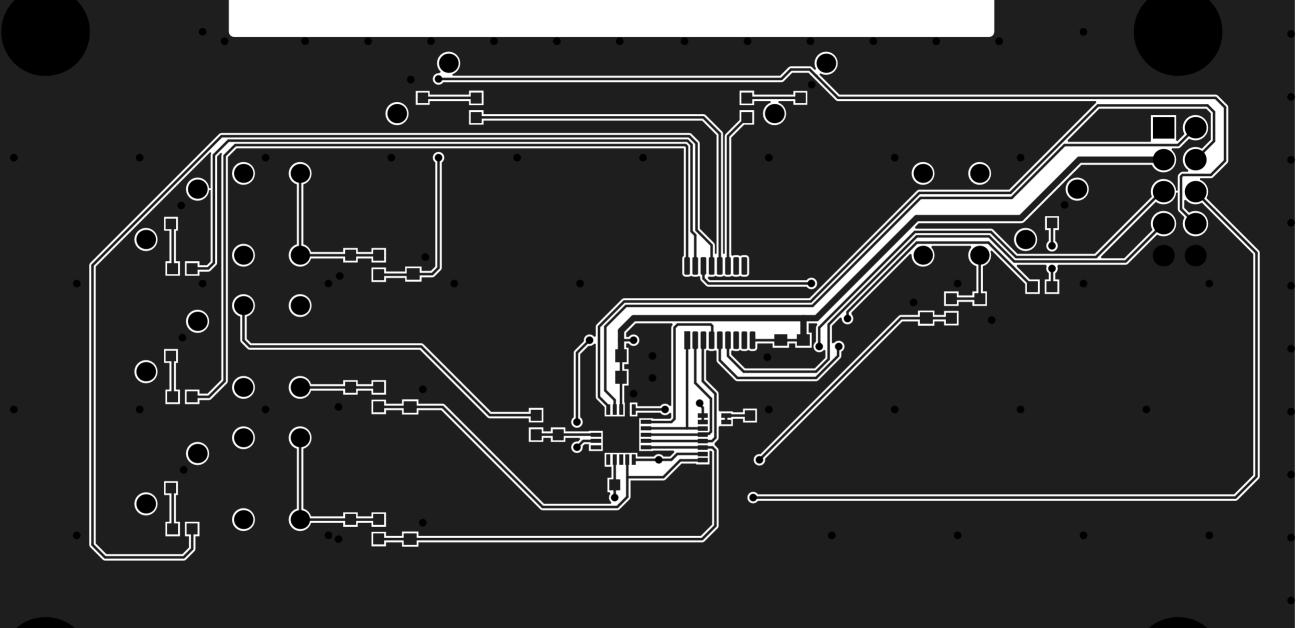
Bill of Materials				
Project:	MIXR User Interface.PrjPcb			
Revision:	1.0			
Project Lead:	Taiping Li			
Generated On:	2020-02-09 9:09 PM			
Production Quantity:	1			
Currency	CAD			
Total Parts Count:	46			

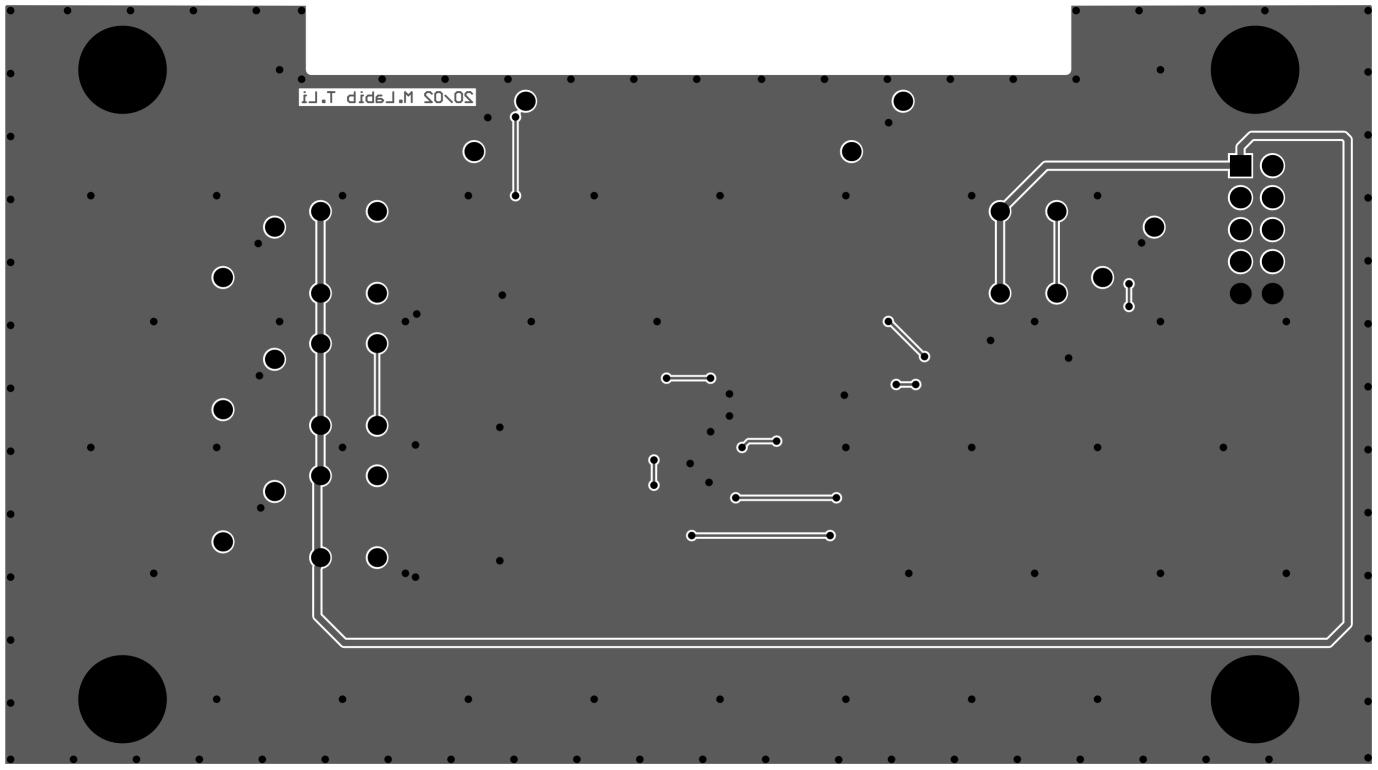


LibRef	Designator	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Quantity	Supplier Subtotal 1
CAP CER 1UF 50V 10% X7R 0603	C1, C8	Taiyo Yuden	UMK107AB7105KA-T	Digi-Key	587-3247-1-ND	0.33267	2	\$ 0.67
CAP CER 0.1UF 50V 10% X7R 0603	C2, C7	Kyocera AVX	06035C104KAT2A	Digi-Key	478-5052-1-ND	0.13307	2	\$ 0.27
CAP CER 0.047UF 10% 25V X7R 0603	C3, C4, C5, C6	KEMET	C0603C473K3RACTU	Digi-Key	399-7931-1-ND	0.14638	4	\$ 0.59
LED GREEN CLEAR 2V 0603	LED1	Wurth Electronics	150060VS75000	Digi-Key	732-4980-1-ND	0.1863	1	\$ 0.19
LED RED CLEAR 2V 0603	LED2, LED4, LED5, LED6, LED7	Wurth Electronics	150060RS75000	Digi-Key	732-4978-1-ND	0.1863	5	\$ 0.93
LED BLUE CLEAR 2.8V 0603	LED3	Vishay Lite-On	LTST-C193TBKT-5A	Digi-Key	160-1827-1-ND	0.59881	1	\$ 0.60
CONN 10POS HEADR FMALE 0.1"	P1	Sullins	SFH11-PBPC-D05-RA-BK	Digi-Key	S9202-ND	1.06	1	\$ 1.06
LIGHT PIPE CLEAR 3MM LENS STRGHT	P2, P3, P4, P5, P6, P7	Bivar	VLP-350-F	Digi-Key	492-1309-ND	0.69196	6	\$ 4.15
RES 0.0 OHM 1/4W 0603	R1, R2	Vishay Dale	CRCW06030000Z0EAHP	Digi-Key	541-0.0SBCT-ND	0.1996	2	\$ 0.40
RES 100K OHM 5% 1/8W 0603	R3, R4, R13, R14	Yageo	RC0603JR-07100KL	Digi-Key	311-100KGRCT-ND	0.13307	4	\$ 0.53
RES 10K OHM 1% 1/10W 0603	R11, R12, R15, R16, R17	Yageo Phycomp	RC0603FR-0710KL	Digi-Key	311-10.0KHRCT-ND	0.13307	5	\$ 0.67
RES 330 OHM 1% 1/10W 0603	R18, R19, R20, R21, R22, R23	TE Connectivity	CRGCQ0603F330R	Digi-Key	A129682CT-ND	0.13307	6	\$ 0.80
RES ARRAY 10K OHM 5% 8RES EXB-2HV103JV	R63	Panasonic	EXB-2HV103JV	Digi-Key	Y1103CT-ND	0.3859	1	\$ 0.39
SW TACTILE SPST-NO 0.05A 12V	S1, S2, S3, S4	E-Switch	TL1105BF160Q	Digi-Key	EG1833-ND	0.25283	4	\$ 1.01
IC LOAD SWITCH 8CH 0.5A 18SSOP	U1	Toshiba	TBD62083AFNG,EL	Digi-Key	TBD62083AFNGELCT-ND	1.86	1	\$ 1.86
IC I/O EXPANDER I2C 8CH 20 QFN	U2	Microchip	MCP23008T-E/ML	Digi-Key	MCP23008T-E/MLCT-ND	1.46	1	\$ 1.46
							Total:	\$ 15.55









Design Rules Verification Report

Filename : C:\Users\Taiping\Documents\FYDP\mixr-hardware\MIXR User Interface\MIXR Us

Warnings 0 Rule Violations 40

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.152mm) (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=0.154mm) (Max=2.54mm) (Preferred=0.2mm) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.5mm) (Conductor Width=0.2mm) (Air Gap=0.2mm)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Minimum Annular Ring (Minimum=0.12mm) (All)	0
Hole Size Constraint (Min=0.3mm) (Max=6.3mm) (All)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.1mm) (Disabled)(All),(All)	0
Silk To Solder Mask (Clearance=0.178mm) (IsPad),(All)	34
Silk to Silk (Clearance=0.254mm) (All),(All)	6
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) (All)	0
Height Constraint (Min=0mm) (Max=30mm) (Prefered=12.7mm) (All)	0
Total	40

Silk To Solder Mask (Clearance=0.178mm) (IsPad),(All)

Silk To Solder Mask Clearance Constraint: (0.093mm < 0.178mm) Between Pad R23-2(64.625mm,49.527mm) on Top Layer And Text "INST 1/MIC

CLIP" (54.25mm,48.025mm) on Top Overlay [Top Overlay] to [Top Solder] clearance [0.093mm]

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Silk To Solder Mask (Clearance=0.178mm) (IsPad),(All)
Silk To Solder Mask Clearance Constraint: (0.177mm < 0.178mm) Between Pad S1-1(24.625mm, 26.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S1-1(24.625mm, 26.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S1-1(24.625mm,33.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S1-1(24.625mm,33.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.131mm < 0.178mm) Between Pad S1-2(29.125mm, 26.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S1-2(29.125mm,26.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.139mm < 0.178mm) Between Pad S1-2(29.125mm,33.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S1-2(29.125mm,33.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.177mm < 0.178mm) Between Pad S2-1(78.625mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S2-1(78.625mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S2-1(78.625mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S2-1(78.625mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.131mm < 0.178mm) Between Pad S2-2(83.125mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S2-2(83.125mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.139mm < 0.178mm) Between Pad S2-2(83.125mm, 43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S2-2(83.125mm, 43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.177mm < 0.178mm) Between Pad S3-1(24.625mm,16.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S3-1(24.625mm,16.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S3-1(24.625mm,22.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S3-1(24.625mm,22.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.131mm < 0.178mm) Between Pad S3-2(29.125mm,16.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S3-2(29.125mm,16.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.139mm < 0.178mm) Between Pad S3-2(29.125mm,22.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S3-2(29.125mm,22.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.177mm < 0.178mm) Between Pad S4-1(24.625mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S4-1(24.625mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S4-1(24.625mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.157mm < 0.178mm) Between Pad S4-1(24.625mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.131mm < 0.178mm) Between Pad S4-2(29.125mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S4-2(29.125mm,37.027mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.139mm < 0.178mm) Between Pad S4-2(29.125mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.168mm < 0.178mm) Between Pad S4-2(29.125mm,43.527mm) on Multi-Layer And Track
Silk To Solder Mask Clearance Constraint: (0.125mm < 0.178mm) Between Pad U2-10(55.625mm,20.777mm) on Top Layer And Text "U2"

Silk to Silk (Clearance=0.254mm) (All),(All)

Silk To Silk Clearance Constraint: (Collision < 0.254mm) Between Text "INST 1/MIC

CLIP" (54.25mm,48.025mm) on Top Overlay And Text "P6" (66.025mm,49.377mm) on Top Overlay Silk Text to Silk Clearan

Silk to Silk (Clearance=0.254mm) (All),(All)

Silk To Silk Clearance Constraint: (0.068mm < 0.254mm) Between Text "INST 1/MIC

CLIP" (54.25mm,48.025mm) on Top Overlay And Text "R23" (63.625mm,48.052mm) on Top Overlay Silk Text to Silk Cleara

Silk to Silk (Clearance=0.254mm) (All),(All)

Silk To Silk Clearance Constraint: (0.162mm < 0.254mm) Between Text "R63" (61.175mm,19.477mm) on Top Overlay And Track Silk To Silk Clearance Constraint: (0.248mm < 0.254mm) Between Text "S2" (80.375mm,43.977mm) on Top Overlay And Track

Silk to silk clearance consulant. (0.240min < 0.234min) between text 32 (60.373min,43.977min) on top overlay And tract

Silk To Silk Clearance Constraint: (0.248mm < 0.254mm) Between Text "S3" (26.275mm,22.977mm) on Top Overlay And Track

Silk To Silk Clearance Constraint: (0.248mm < 0.254mm) Between Text "S4" (26.275mm,43.977mm) on Top Overlay And Track

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