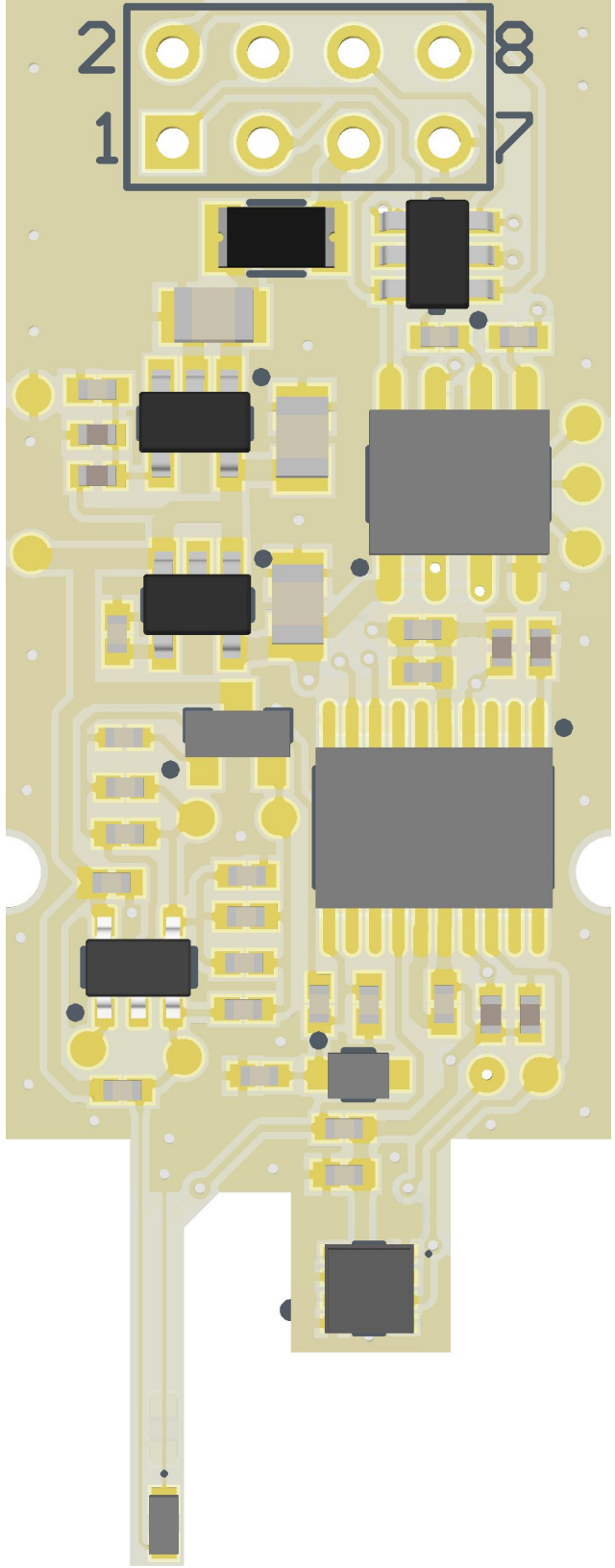
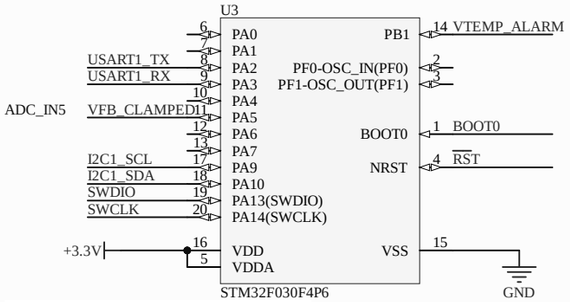
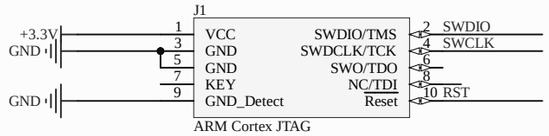

2
8
1
7

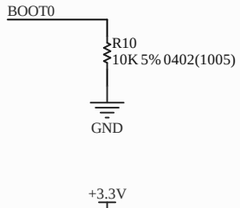
Microcontroller



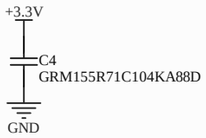
ADC_IN9



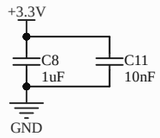
Note: Pull high for UART bootloader

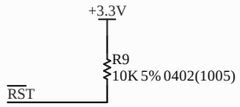


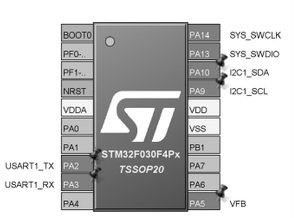
Note: Place near U1 pin 16



Note: Place near U1 pin 5

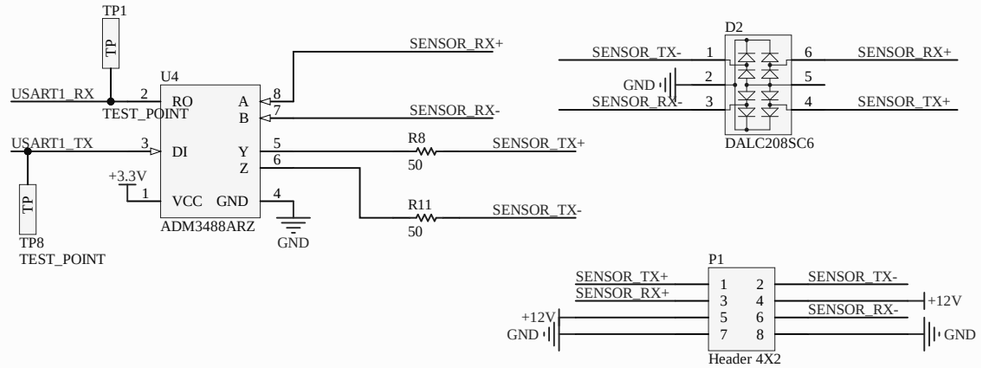






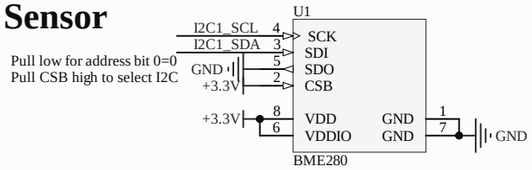
Notes:
-The specific STM32 part is generic, and could be replaced with a similar part from the F0 or F1 family.
-The microcontroller needs to sample an analog value at 200Hz, process it, and send it over a UART

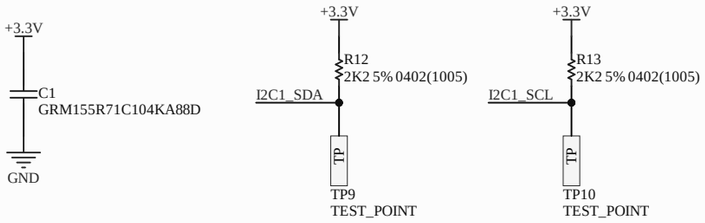
Sensor board connector



Notes:
-RJ485 Power wiring referenced from passive POE, using pinout from 802.3af Mode B
-RJ45 Data wiring referenced from DMX over Cat5
-Alternate PN for TVS: SRV05-4-P-T7, SP724AHTG, NUP4114HMR6T1G, etc

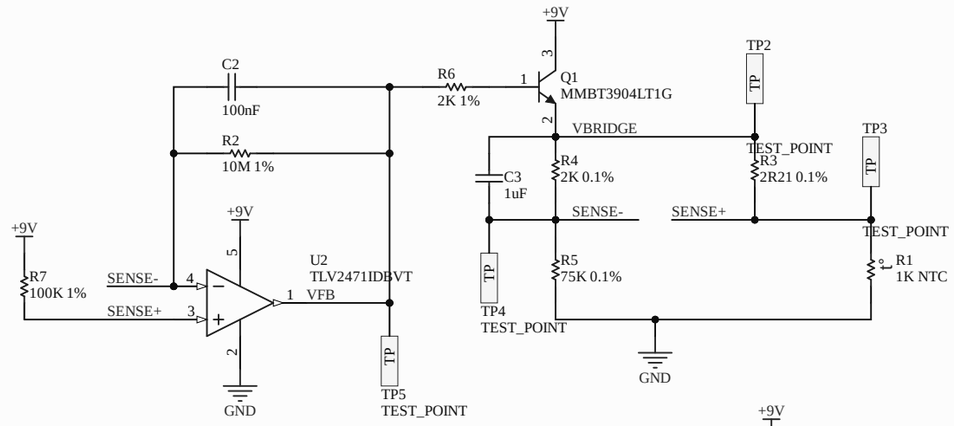
Pressure Sensor

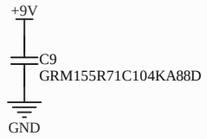




Notes:
-Maximum BIPAP output pressure is 30cm/H20 = 3 kPa
-Sensor should have ideally thousands of counts (?) of sensitivity over this range
-Sensor should withstand high Oxygen environments if possible

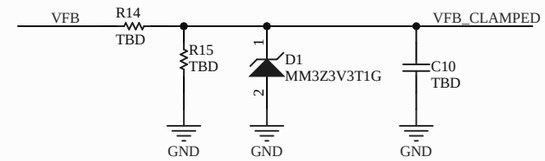
Airflow Sensor





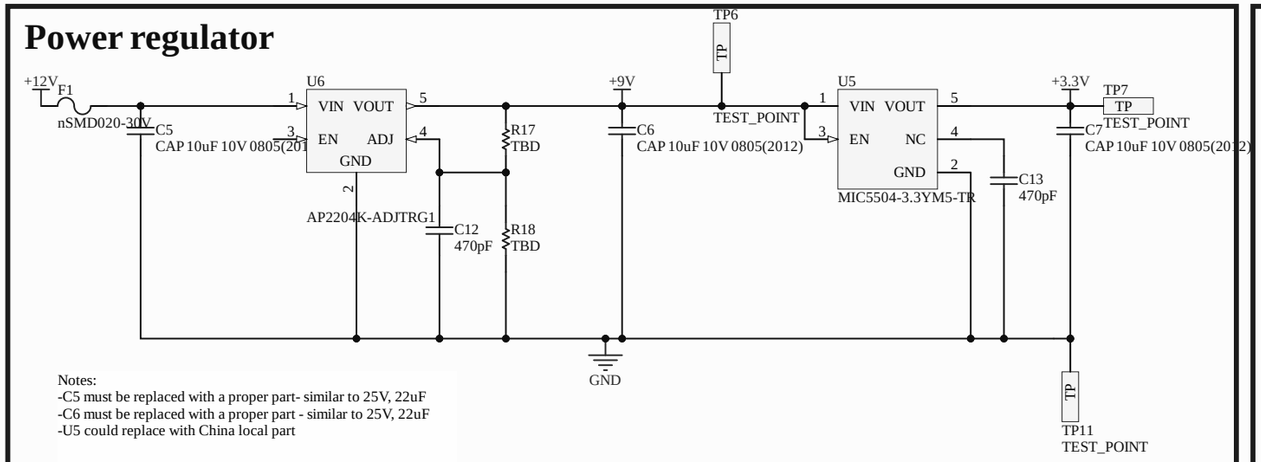
Notes:
-Air speed roughly 0 - .5m/s (could adjust by modifying the mechanical port?)
-Thermal response needs to be fast enough to detect .17-.67 Hz tidal flow
-Circuit will be exposed to Oxygen rich environment

Feedback voltage clamp, divider



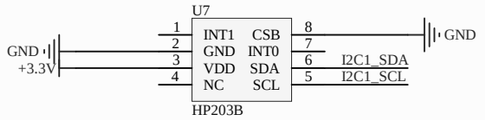
Notes:
-Need a buffer here?
-need capacitor here?

Power regulator



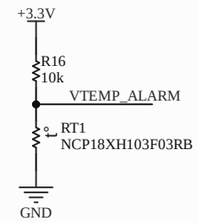
Notes:
-C5 must be replaced with a proper part- similar to 25V, 22uF
-C6 must be replaced with a proper part - similar to 25V, 22uF
-U5 could replace with China local part

Pressure Sensor 2



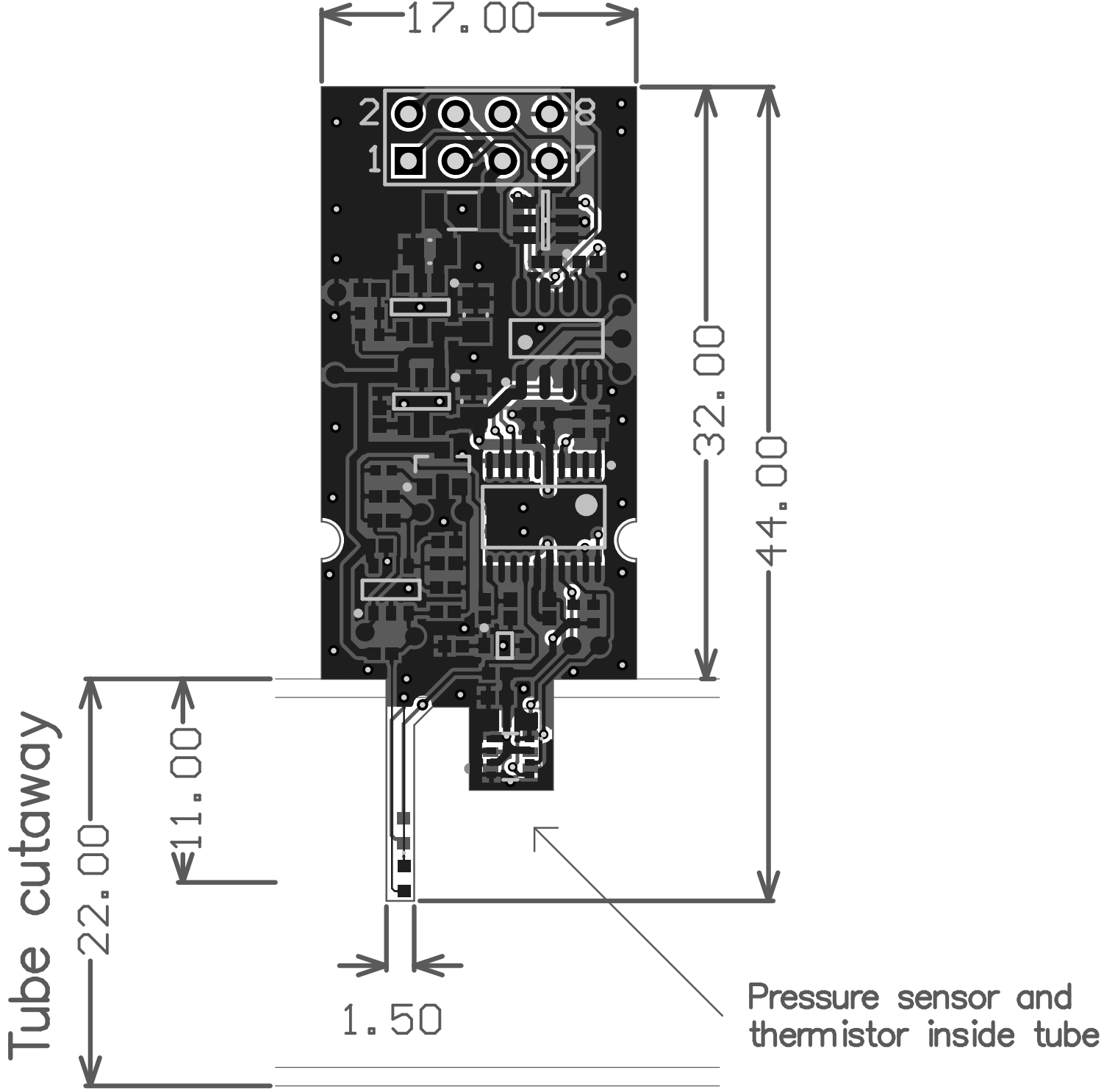
Notes:
-Choose Pressure Sensor 1 or Pressure Sensor 2 based on supply

Monitor thermocouple



Title: Sensor Module		
Project: sensor_module.PrjPcb		Revision: F
Date: 4/14/2020	Time: 4:51:08 PM	Sheet 1 of 1

BLIN KIN LABS



Layer	Name	Material	Thickness	Constant	Gerber
	Top Overlay				GTO
	Top Solder	Solder Resist	0.013mm	3.8	GTS
1	Top Layer	Copper	0.036mm		GTL
	Dielectric 1	FR-4	0.502mm	4.8	
2	Bottom Layer	Copper	0.036mm		GBL
	Bottom Solder	Solder Resist	0.013mm	3.8	GBS
	Bottom Overlay				GBO
Total board thickness:			0.599mm		

Design Rules Verification Report

Filename : C:\Users\matt\Other-Repos\sensor_module\pcb\sensor_module.PcbDoc

Warnings 0
Rule Violations 146

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.2mm) (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=0.2mm) (Max=0.6mm) (Preferred=0.4mm) (All)	5
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm)	0
Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)	87
Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)	50
Silk to Silk (Clearance=0.254mm) (All),(All)	4
Net Antennae (Tolerance=0mm) (All)	0
Room sensor_module (Bounding Region = (114mm, 104mm, 134mm, 150.2mm)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)	0
Total	146

Width Constraint (Min=0.2mm) (Max=0.6mm) (Preferred=0.4mm) (All)
Width Constraint: Track (-14.05mm,-10.125mm)(-14.05mm,-1mm) on Top Layer Actual Width = 0.102mm, Target Width =
Width Constraint: Track (-14.05mm,-10.35mm)(-14.05mm,-10.125mm) on Top Layer Actual Width = 0.102mm, Target Width =
Width Constraint: Track (-14.55mm,-11.475mm)(-14.05mm,-11.475mm) on Top Layer Actual Width = 0.102mm, Target Widt
Width Constraint: Track (-14.7mm,-11.325mm)(-14.55mm,-11.475mm) on Top Layer Actual Width = 0.102mm, Target Width
Width Constraint: Track (-14.7mm,-11.325mm)(-14.7mm,0.825mm) on Top Layer Actual Width = 0.102mm, Target Width =

Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C10-1(-8.3mm,4.275mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C1-1(-9.49mm,-1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C11-1(-6.31mm,14.3mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.237mm < 0.254mm) Between Pad C11-1(-6.31mm,14.3mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.237mm < 0.254mm) Between Pad C11-2(-7.29mm,14.3mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C12-1(-15.41mm,21.036mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.227mm < 0.254mm) Between Pad C12-2(-16.39mm,21.036mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C13-1(-15.35mm,13.685mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C2-1(-15.615mm,8.575mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C3-1(-11.26mm,6.25mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C4-1(-6.2mm,3.31mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C8-1(-7.29mm,13.1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.237mm < 0.254mm) Between Pad C8-1(-7.29mm,13.1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.237mm < 0.254mm) Between Pad C8-1(-7.29mm,13.1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.237mm < 0.254mm) Between Pad C8-2(-6.31mm,13.1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.238mm < 0.254mm) Between Pad C8-2(-6.31mm,13.1mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.017mm < 0.254mm) Between Pad C9-1(-15.01mm,7.2mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.137mm < 0.254mm) Between Pad C9-1(-15.01mm,7.2mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.137mm < 0.254mm) Between Pad C9-2(-15.99mm,7.2mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.147mm < 0.254mm) Between Pad D2-1(-5.25mm,23.85mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.147mm < 0.254mm) Between Pad D2-2(-5.25mm,24.8mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.147mm < 0.254mm) Between Pad D2-4(-7.55mm,25.75mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.147mm < 0.254mm) Between Pad D2-5(-7.55mm,24.8mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.222mm < 0.254mm) Between Pad Q1-1(-12.925mm,10.375mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad Q1-2(-11.025mm,10.375mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.172mm < 0.254mm) Between Pad Q1-3(-11.975mm,12.375mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R10-1(-3.5mm,13.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R10-1(-3.5mm,13.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R10-2(-3.5mm,14.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R11-1(-5.85mm,22.525mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R12-1(-3.8mm,4mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R12-1(-3.8mm,4mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R12-2(-3.8mm,3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.222mm < 0.254mm) Between Pad R12-2(-3.8mm,3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R13-1(-4.9mm,4mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.222mm < 0.254mm) Between Pad R13-2(-4.9mm,3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R14-1(-9.7mm,3.325mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R15-1(-10.896mm,1.779mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R16-1(-8.525mm,0.3mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R17-1(-15.4mm,18.625mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R18-1(-16.4mm,19.775mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R2-1(-15.6mm,9.875mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R3-1(-12.3mm,3.65mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R4-1(-12.275mm,4.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R5-1(-11.25mm,7.4mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.147mm < 0.254mm) Between Pad R6-1(-14.7mm,11.275mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R7-1(-15.675mm,1.375mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.123mm < 0.254mm) Between Pad R7-1(-15.675mm,1.375mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad R8-1(-4.6mm,22.525mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad R9-1(-4.6mm,14.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.149mm < 0.254mm) Between Pad TP3-1(-13.494mm,2.302mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-1(-7.275mm,-3.225mm) on Top Layer And

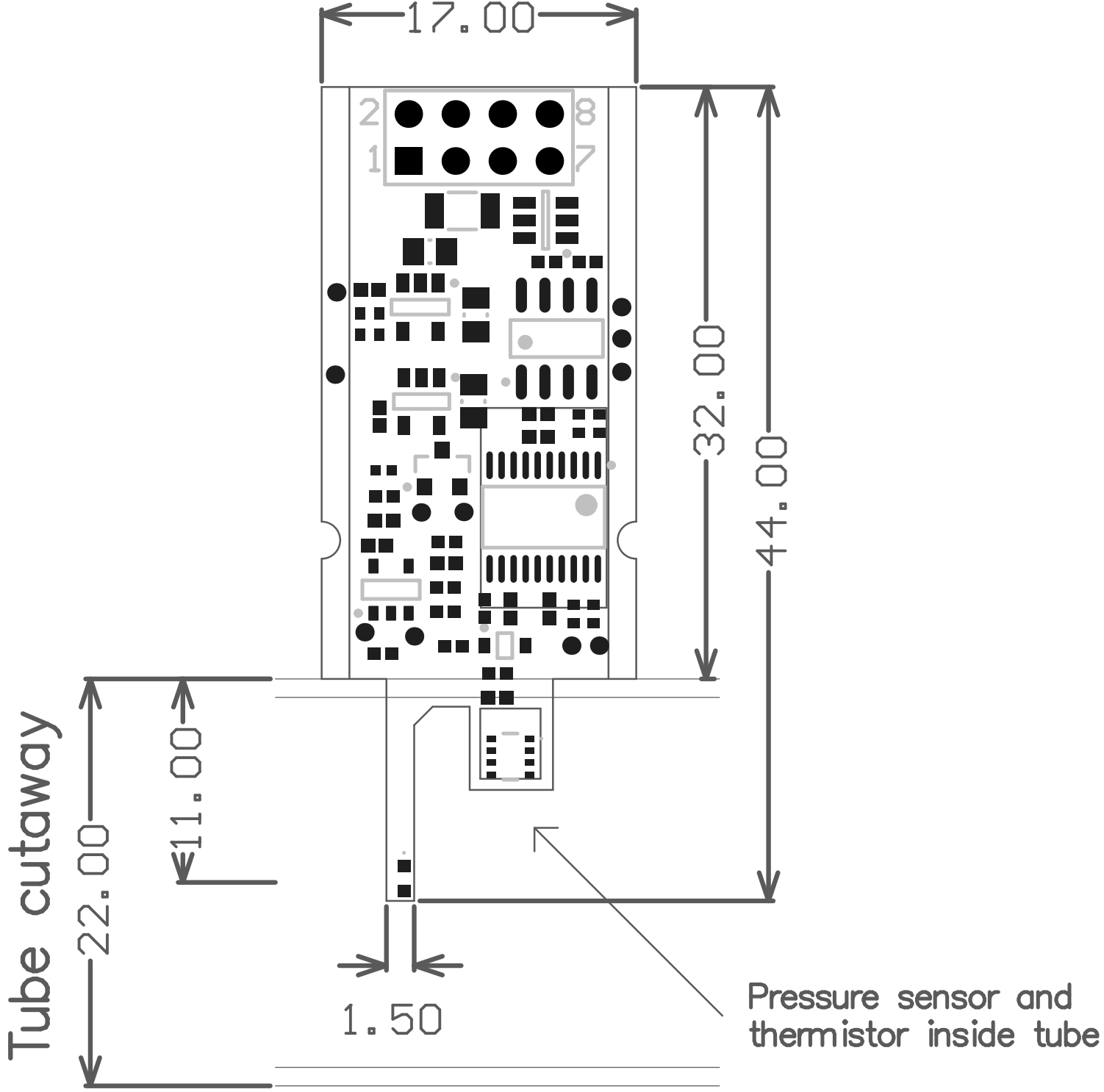
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-2(-7.275mm,-3.875mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-3(-7.275mm,-4.525mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-5(-9.325mm,-5.175mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-6(-9.325mm,-4.525mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U1-7(-9.325mm,-3.875mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U2-1(-15.7mm,3.55mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U2-2(-14.75mm,3.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-1(-3.575mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-10(-9.425mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-11(-9.425mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-12(-8.775mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-13(-8.125mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-14(-7.475mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-15(-6.825mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-16(-6.175mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-17(-5.525mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-18(-4.875mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-19(-4.225mm,5.95mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-2(-4.225mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-3(-4.875mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-4(-5.525mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-5(-6.175mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-6(-6.825mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-7(-7.475mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.097mm < 0.254mm) Between Pad U3-8(-8.125mm,11.55mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.087mm < 0.254mm) Between Pad U5-1(-12.15mm,16.3mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.087mm < 0.254mm) Between Pad U5-2(-13.1mm,16.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad U6-1(-12.225mm,21.4mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad U6-2(-13.175mm,21.4mm) on Top Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-1(-9.38mm,-4.85mm) on Bottom Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-2(-9.38mm,-3.95mm) on Bottom Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-3(-9.38mm,-3.05mm) on Bottom Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-5(-7.22mm,-2.15mm) on Bottom Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-6(-7.22mm,-3.05mm) on Bottom Layer And
Minimum Solder Mask Sliver Constraint: (0.197mm < 0.254mm) Between Pad U7-7(-7.22mm,-3.95mm) on Bottom Layer And

Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)
Silk To Solder Mask Clearance Constraint: (0.051mm < 0.254mm) Between Arc (-11.27mm,16.3mm) on Top Overlay And Pa
Silk To Solder Mask Clearance Constraint: (0.243mm < 0.254mm) Between Arc (-11.325mm,21.4mm) on Top Overlay An
Silk To Solder Mask Clearance Constraint: (0.21mm < 0.254mm) Between Arc (-13.875mm,10.375mm) on Top Overlay An
Silk To Solder Mask Clearance Constraint: (0.042mm < 0.254mm) Between Arc (-5.25mm,23mm) on Top Overlay And Pa
Silk To Solder Mask Clearance Constraint: (0.085mm < 0.254mm) Between Arc (-5.25mm,23mm) on Top Overlay And Pa
Silk To Solder Mask Clearance Constraint: (0.142mm < 0.254mm) Between Arc (-9.715mm,2.765mm) on Top Overlay An
Silk To Solder Mask Clearance Constraint: (0.252mm < 0.254mm) Between Pad C12-1(-15.41mm,21.036mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.252mm < 0.254mm) Between Pad C12-1(-15.41mm,21.036mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C5-1(-13.55mm,23.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C5-1(-13.55mm,23.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C5-2(-11.75mm,23.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.193mm < 0.254mm) Between Pad C5-2(-11.75mm,23.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C6-1(-10.175mm,20.575mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.193mm < 0.254mm) Between Pad C6-1(-10.175mm,20.575mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C6-2(-10.175mm,18.775mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C6-2(-10.175mm,18.775mm) on Top Laye
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C7-1(-10.3mm,15.9mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.193mm < 0.254mm) Between Pad C7-1(-10.3mm,15.9mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C7-2(-10.3mm,14.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.175mm < 0.254mm) Between Pad C7-2(-10.3mm,14.1mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.155mm < 0.254mm) Between Pad F1-1(-9.4mm,25.3mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.155mm < 0.254mm) Between Pad F1-1(-9.4mm,25.3mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.155mm < 0.254mm) Between Pad F1-2(-12.4mm,25.3mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.155mm < 0.254mm) Between Pad F1-2(-12.4mm,25.3mm) on Top Layer An
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-1(-8.45mm,6.71mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-1(-8.45mm,6.71mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-10(-4.55mm,11.79mm) on Bottom Laye
Silk To Solder Mask Clearance Constraint: (0.151mm < 0.254mm) Between Pad J1-10(-4.55mm,11.79mm) on Bottom Laye
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-2(-4.55mm,6.71mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-2(-4.55mm,6.71mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-3(-8.45mm,7.98mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-4(-4.55mm,7.98mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-5(-8.45mm,9.25mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-6(-4.55mm,9.25mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-7(-8.45mm,10.52mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-8(-4.55mm,10.52mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-9(-8.45mm,11.79mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.15mm < 0.254mm) Between Pad J1-9(-8.45mm,11.79mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.25mm < 0.254mm) Between Pad U7-1(-9.38mm,-4.85mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-1(-9.38mm,-4.85mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-2(-9.38mm,-3.95mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-3(-9.38mm,-3.05mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.25mm < 0.254mm) Between Pad U7-4(-9.38mm,-2.15mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-4(-9.38mm,-2.15mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-5(-7.22mm,-2.15mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.25mm < 0.254mm) Between Pad U7-5(-7.22mm,-2.15mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-6(-7.22mm,-3.05mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-7(-7.22mm,-3.95mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.1mm < 0.254mm) Between Pad U7-8(-7.22mm,-4.85mm) on Bottom Layer And
Silk To Solder Mask Clearance Constraint: (0.25mm < 0.254mm) Between Pad U7-8(-7.22mm,-4.85mm) on Bottom Layer And

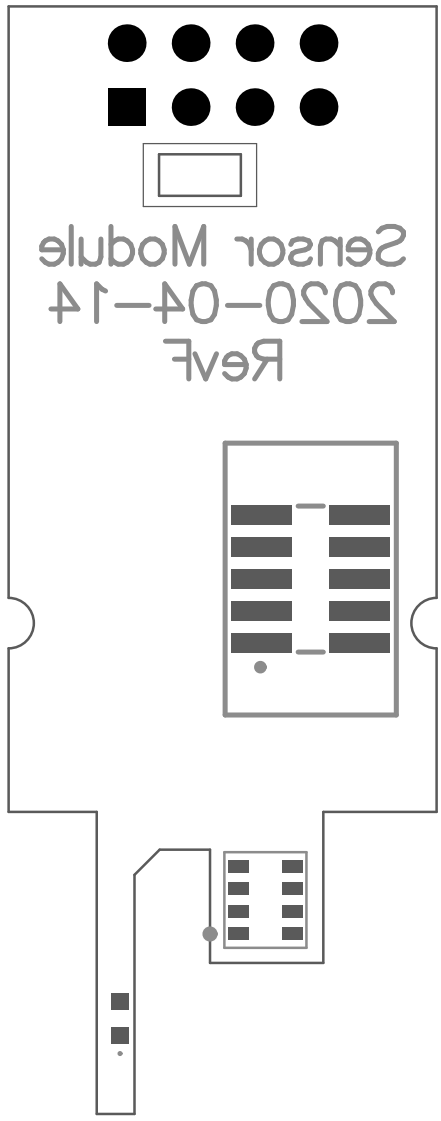
Silk to Silk (Clearance=0.254mm) (All),(All)
Silk To Silk Clearance Constraint: (0.137mm < 0.254mm) Between Text "1" (-15.842mm,27.492mm) on Top Overlay An
Silk To Silk Clearance Constraint: (0.222mm < 0.254mm) Between Text "2" (-16.35mm,30.032mm) on Top Overlay And Trac
Silk To Silk Clearance Constraint: (0.052mm < 0.254mm) Between Text "7" (-4.666mm,27.492mm) on Top Overlay And Trac
Silk To Silk Clearance Constraint: (0.052mm < 0.254mm) Between Text "8" (-4.666mm,30.032mm) on Top Overlay And Trac

Electrical Rules Check Report

Class	Document	Message
Error	sensor_module.SchDoc	+9V contains Output Pin and Power Pin objects (Pin U6-5, Pin U2-5, Pin U5-1).
Error	sensor_module.SchDoc	GND contains Output Pin and Power Pin objects (Pin U1-5, Pin J1-3, Pin J1-5, Pin J1-9, Pin U1-1, Pin U1-7, Pin U2-2, Pin U3-15, Pin U4-4, Pin U5-2, Pin U6-2, Pin U7-2).
Error	sensor_module.SchDoc	Net NetU6_3 contains floating input pins (Pin U6-3)
Warning	sensor_module.SchDoc	Net BOOT0 has no driving source (Pin R10-1, Pin U3-1)
Warning	sensor_module.SchDoc	Net NetC5_2 has no driving source (Pin C5-2, Pin F1-2, Pin U6-1)
Warning	sensor_module.SchDoc	Net NetC12_1 has no driving source (Pin C12-1, Pin R17-1, Pin R18-2, Pin U6-4)
Warning	sensor_module.SchDoc	Net NetU6_3 has no driving source (Pin U6-3)
Warning	sensor_module.SchDoc	Net SENSE+ has no driving source (Pin R1-2, Pin R3-1, Pin R7-2, Pin TP3-1, Pin U2-3)
Warning	sensor_module.SchDoc	Net SENSE- has no driving source (Pin C2-2, Pin C3-2, Pin R2-2, Pin R4-1, Pin R5-2, Pin TP4-1, Pin U2-4)
Warning	sensor_module.SchDoc	Net SENSOR_RX+ has no driving source (Pin D2-6, Pin P1-3, Pin U4-8)
Warning	sensor_module.SchDoc	Net SENSOR_RX- has no driving source (Pin D2-3, Pin P1-6, Pin U4-7)
Warning	sensor_module.SchDoc	Unconnected Pin U6-3 at 1900mil,2400mil



Layer	Name	Material	Thickness	Constant	Gerber
	Top Overlay				GTO
	Top Solder	Solder Resist	0.013mm	3.8	GTS
1	Top Layer	Copper	0.036mm		GTL
	Dielectric 1	FR-4	0.502mm	4.8	
2	Bottom Layer	Copper	0.036mm		GBL
	Bottom Solder	Solder Resist	0.013mm	3.8	GBS
	Bottom Overlay				GBO
Total board thickness:			0.599mm		


Sensor Module
2020-04-14
RevF