

ITEM #	QTY.	PART #	DESCRIPTION
1	1	SEE NOTE #1	PCB ASSEMBLY
2	1	1208225-00	SIL PAD
3	1	1208224-00	HEAT SINK
4	2	SEE NOTE #4	WASHER, NYLON, M3
5	2	SEE NOTE #4	SCREW, PAN HEAD, M3
6	1	MOLEX #42820-2213	MINI FIT SR. SERIES, 2 PIN HEADER, 1x2
7	1	MOLEX #42820-3213	MINI FIT SR. SERIES, 3 PIN HEADER, 1x3
8	1	AMP #1-770974-0	MINI UNIVERSAL SERIES, 16 PIN HEADER, 2x8
9	1	AMP #1-770968-0	MINI UNIVERSAL SERIES, 4 PIN HEADER, 2x2

- NOTES:
- 1) PCB ASSEMBLY TO BE BUILT USING QPL BILL OF MATERIAL: **BOM1207291revP**.
 - 2) WORKMANSHIP STANDARD PER: IPC-J-STD-001E, IPC-A-610E. SOLDERING AND ELECTRICAL CONNECTIONS : IPC-S-815B. OR MORE CURRENT VERSIONS OF THESE STANDARDS.
 - 3) APPLY LABEL OR LABELS WITH THE FOLLOWING INFORMATION:
 - TENNANT PART NUMBER AND REVISION. EXAMPLE: **1207291-04**.
 - NOTE: THIS NUMBER AND REVISION SHOULD MATCH THE RELEASED TENNANT DRAWING.
 - MANUFACTURER'S LABEL WITH SERIAL NUMBER.
 - NOTE: PLACE LABEL(S) SO THEY DO NOT GET COVERED UP BY THE HEATSINK.
 - 4) SCREWS AND WASHERS HOLDING THE HEATSINK (ITEM #8) AND SIL-PAD (ITEM #7):
 - (QTY. 2) SCREW, PAN HEAD, PHILLIPS, M3 X 0.5, 8.0MM LONG, DIN 7985. McMASTER CARR #92005A118
 - OR EQUIVALENT. (ITEM #4)
 - (QTY. 2) WASHER, NYLON, FLAT, #6, 0.14B 0.31D .03. KEYSTONE #3349 OR EQUIVALENT, (ITEM #5).
 - TO BE APPLIED IN (6) LOCATIONS AS SHOWN.
 - SCREW HEAD TO BE ON THE TOP SIDE OF THE PCB AS SHOWN.
 - NYLON WASHERS (ITEM #5) TO BE LOCATED BETWEEN THE SCREW HEAD AND THE PCB(ITEM #6).
 - SCREWS (ITEM #4) TO BE TORQUED TO 0.50 Nm.
 - 5) EACH ASSEMBLY TO HAVE CONTINUITY TEST BETWEEN THE "P1" STUD(= B+) AND THE METAL HEATSINK. NO CONTINUITY = PASS. CONTINUITY = IMPROPERLY INSTALLED SIL-PAD.
 - 6) CONFORMAL COATING APPLIED AS PER NOTES ON SHEET 2 OF 2.
 - 7) EACH ASSEMBLY TO BE ICT TESTED AND FUNCTIONALLY TESTED. FUNCTIONAL TEST TBD.
 - 8) ASSEMBLY TO BE MANUFACTURED PER RoHS/LEAD FREE STANDARDS.
 - 9) AREA BENEATH THE HEATSHINK (BACK SIDE) TO BE FREE OF SOLDER BUMPS. MASK OFF OR PROGRAM WAVE SOLDER SYSTEM TO PREVENT SOLDER BUILD UP IN THIS AREA.
 - 10) APPLY NON-CORROSIVE RTV AS PER NOTES ON SHEET 2 OF 2.

- REV-03 CHANGES:
- 1) QPL BILL OF MATERIAL IS CHANGING TO BOM1207291revN. THE SOFTWARE IS CHANGING.
 - 2) NEW SOFTWARE = Q30054-004: LIGHTNING_SSCRUB_PRODUCTION_UPDATE_1_13.BIN. FIXES CAN MANAGEMENT FOR TENNANT CAPTURE. CHANGES CAN HEARTBEAT FROM 1 TO 3 SECONDS.

- REV-04 CHANGES:
- 1) QPL BILL OF MATERIAL IS CHANGING TO BOM1207291revP, CHANGED TO NON-USB MICRO.

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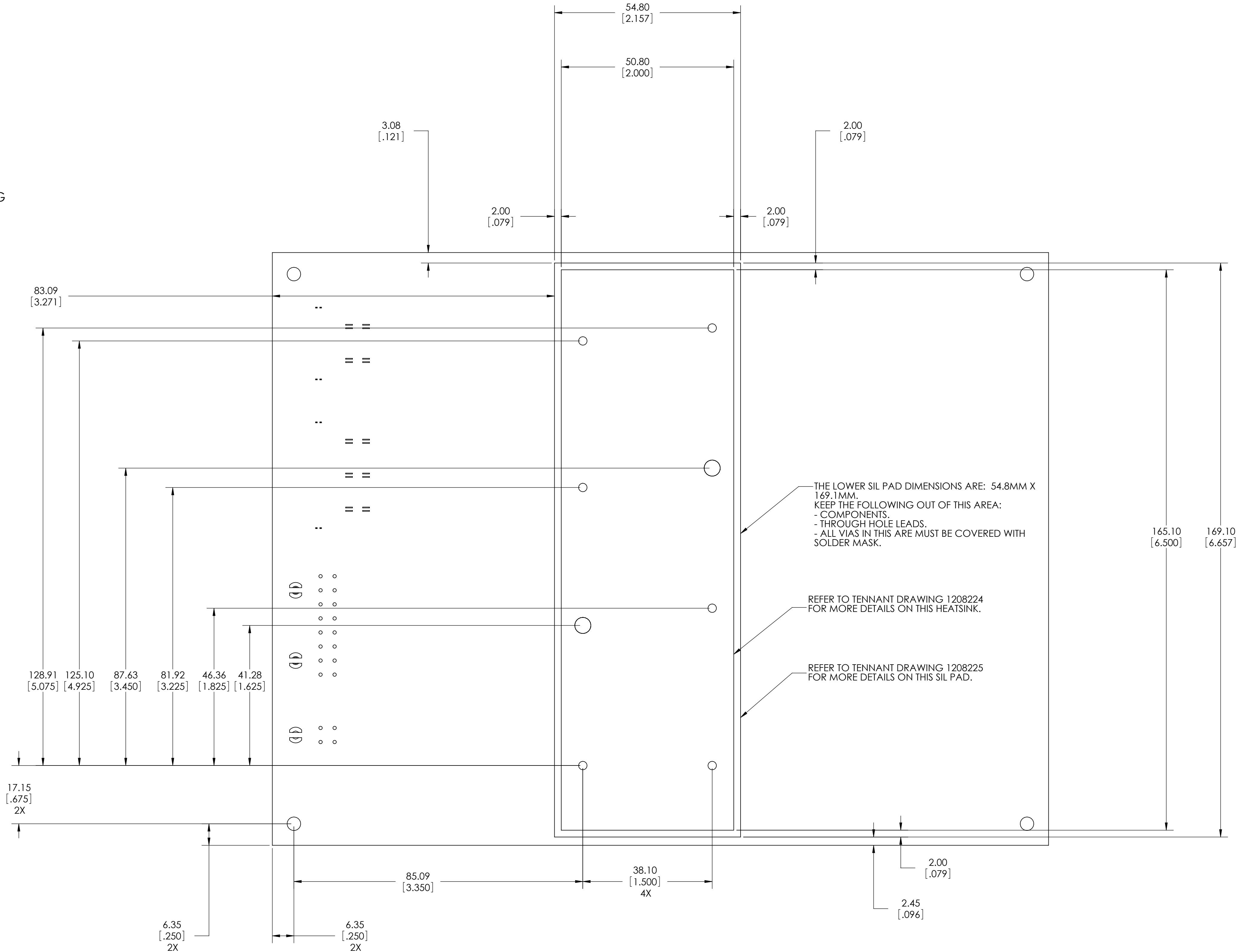
MATERIAL SPECIFICATIONS:	OTHER TREATMENTS AND FINISHES	PAIN T - COLOR	CHANGED BY: JOHN HAEG	DATE: 09/08/2022	REV: 04	ECO	WELDING NOTATION IN ACCORDANCE WITH AWS A2.4-15	GENERAL NOTES	
PART NAME: CIRCUITBOARD ASSY, SIDE SCRUB [T17]		GLOSS PERFORMANCE ACCEPTANCE	MDR:	01/31/2014			UNLESS OTHERWISE SPECIFIED DIMENSION TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-2009 ALL UNTOLERANCED DIMENSIONS ARE BASIC AND CONTROLLED BY:	PRIMARY DIMENSIONS ARE METRIC. REFERENCE DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.	
			DES: JOHN HAEG	02/15/2013			X.X ±0.8 ±[.03] X.XX ±0.25 ±[.010] X.XXX ±0.125 ±[.0049] ANGLES ±05°	PROPRIETARY INFORMATION	
							MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY.	SHEET 1 OF 2	



DWG D SIZE PART NUMBER 1207291

PCB MANUFACTURING NOTES:
REFER TO GERBER FILES FOR PCB MANUFACTURING NOTES.

CONFORMAL COATING AND RTV NOTES:
1) CONFORMAL COATING MATERIAL:
DYMEX CORP. #9-20557.
APPLIED COATING TO BE 91-112(MIC) THICK.
2) MASK OFF THE FOLLOWING AREAS ON THE TOP SIDE OF THE ASSEMBLY:
- CONNECTORS J1, J2, J3, J4, J5, J7.
- THE 4 PCB ASSEMBLY MOUNTING HOLES IN THE CORNERS.
3) MASK OFF THE FOLLOWING AREAS ON THE BOTTOM SIDE OF THE ASSEMBLY:
- THE COMPLETE AREA BELOW THE HEATSINK AND SIL-PAD.
- THE 4 PCB ASSEMBLY MOUNTING HOLES IN THE CORNERS.
4) APPLY NON-CORROSIVE PCB SAFE RTV (LOCTITE 5145 OR EQUIVALENT) AROUND THE FOLLOWING COMPONENTS FOR VIBRATION PROTECTION: C28, C79, C80, C81, C157, C158, C159.
ALSO APPLY RTV BEADS BETWEEN THE 5 LARGE CAPACITORS TO SECURE THEM TOGETHER.
5) MINIMUM RTV BEAD DIAMETER TO BE 3MM.



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MATERIAL SPECIFICATIONS:		OTHER TREATMENTS AND FINISHES		PAINT - COLOR		CHANGED BY: JOHN HAEG	DATE: 09/08/2022
PART NAME: CIRCUITBOARD ASSY, SIDE SCRUB [T17]		GLOSS		PERFORMANCE	ACCEPTANCE	MDR:	01/31/2014
						DES: JOHN HAEG	02/15/2013

WELDING NOTATION IN ACCORDANCE WITH AWS A2.4:RS		UNLESS OTHERWISE SPECIFIED DIMENSION TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-2009 ALL UNTOLERANCED DIMENSIONS ARE BASIC AND CONTROLLED BY:		PRIMARY DIMENSIONS ARE METRIC. REFERENCE DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.	
X.X	±0.8	±[.03]	PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY.	SHEET 2 OF 2	
X.XX	±0.25	±[.010]			
X.XXX	±0.125	±[.0049]			
ANGLES	±05°				

REV	ECO
04	

DWG D SIZE	PART NUMBER 1207291
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