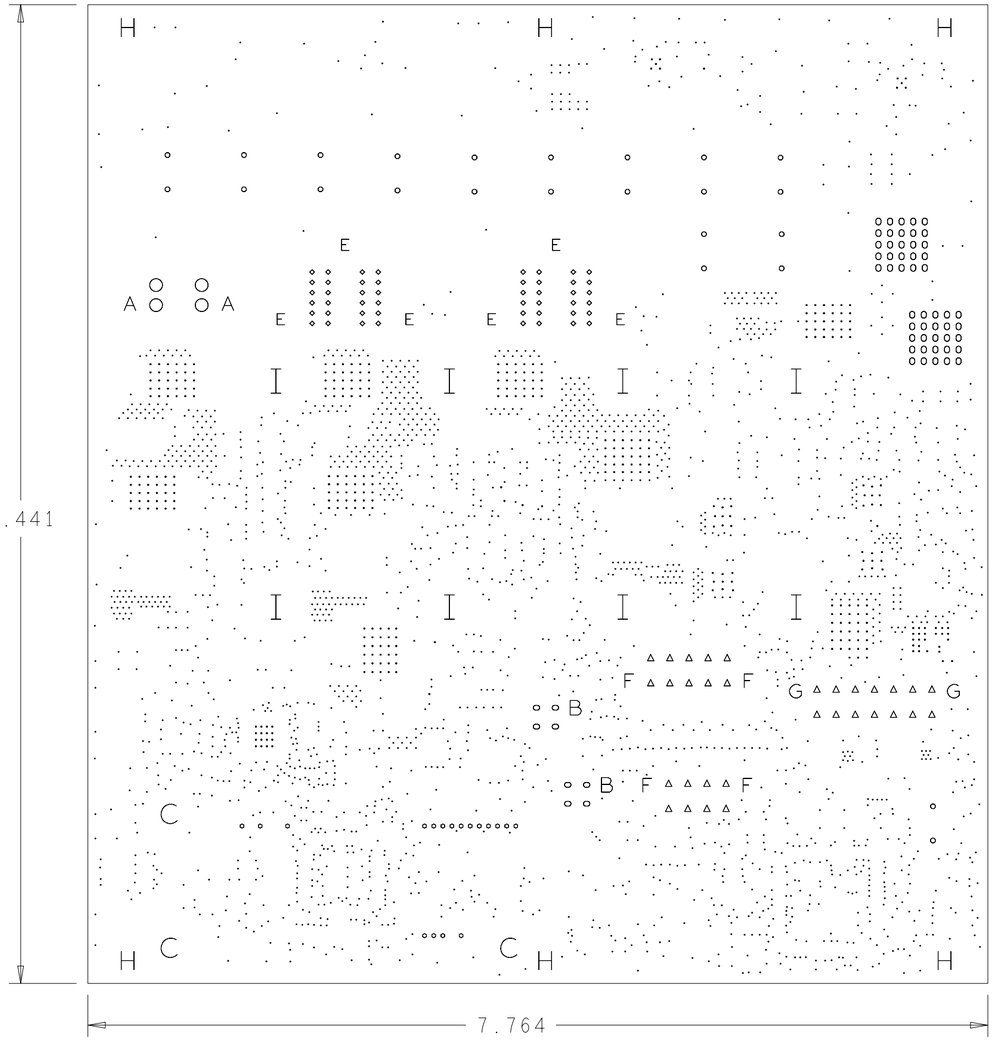
REV	DESCRIPTION	DATE	APPROVED

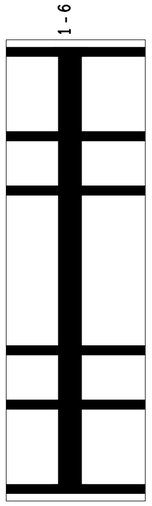


NOTE:

1. MATERIAL SELECTION:
   UL RECOGNIZED ZPMV2 MIN. 130C FLAME CLASS V-0 OR BETTER.
   MINIMUM CTI RATING OF 175. .062 +/- 0.007 THICK MATERIAL PER IPC-4101
   SOLDERABLE SURFACES TO BE ENIG (ELECTROLESS NICKEL IMMERSION GOLD) FINISH
   ALL LAYERS TO BE 2 OZ COPPER FINAL MINIMUM THICKNESS
   ALTERNATE MATERIAL REQUESTS MUST BE APPROVED BY TENNANT.
2. SOLDER RESIST: THE USE OF SOLDER RESIST COATING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF IPC-SM-840. ALL SOLDERABLE SURFACES ARE TO BE FREE OF SOLDER RESIST.
   USE LIQUID PHOTOIMAGEABLE RESIST - COLOR: GREEN
   SOLDER RESIST BRIDGES 0.003" OR LESS MAY BE REMOVED.
3. SILKSCREEN: USE WHITE NON-CONDUCTIVE INK. ALL COMPONENT AND TESTPOINT LANDS ARE TO BE FREE OF INK.
4. MANUFACTURER'S IDENTIFICATION: ADD TO SILKSCREEN ON BOTTOM SIDE.
5. ELECTRICAL BARE BOARD TEST REQUIRED.
6. DRILL SIZES ARE FINISHED SIZE AFTER PLATING.
7. FABRICATE TO MEET EU RoHS DIRECTIVE.
8. PCB MUST HAVE UL 94V-0 AND CTI RATINGS MARKED ON ONE SIDE.
9. MAXIMUM WARP AND TWIST NOT TO EXCEED 0.010 PER LINEAR INCH.
10. MINIMUM ANNULAR RING: 0.002. MINIMUM PLATED WALL THICKNESS 0.001.
11. DIMENSION TOL: XX +/-0.010 | XXX +/-0.005.
12. FABRICATE IN ACCORDANCE WITH IPC-A-600 OR IPC-6012 LATEST REVISION CLASS 2.
13. COPPER THIEVING OF SIGNAL LAYERS IS ALLOWED. SPACING TO ANY EXISTING BOARD FEATURE TO BE 0.060 MINIMUM.
14. ALL 10.1 MIL DIAMETER HOLES TO BE PLUGGED FROM THE TOP SIDE (COMPONENT SIDE) WITH EITHER UV OR THERMALLY CURED PLUGGING MATERIAL. THE PLUGGING MATERIAL SHOULD NOT DRIP OUT OF THE BOTTOM SIDE OF THE PCB.

DRILL CHART: TOP to BOTTOM
ALL UNITS ARE IN MILS

FIGURE	SIZE	TOLERANCE	PLATED	QTY	
·	10.0	+3.0/-3.0	PLATED	2521	
·	10.1	+3.0/-3.0	PLATED	368	14
○	36.0	+3.0/-3.0	PLATED	18	
○	40.0	+3.0/-3.0	PLATED	24	
◇	40.2	+3.1/-3.1	PLATED	48	
△	55.0	+3.0/-3.0	PLATED	32	
○	55.1	+3.0/-3.0	PLATED	8	
○	58.1	+3.0/-3.0	PLATED	50	
O	110.2	+3.0/-3.0	PLATED	4	
A	118.1	+3.0/-3.0	PLATED	2	
B	125.2	+5.0/-5.0	PLATED	2	
C	167.0	+5.0/-5.0	PLATED	3	
E	96.5	+2.0/-2.0	NON-PLATED	6	
F	118.0	+5.0/-5.0	NON-PLATED	4	
G	118.1	+5.0/-5.0	NON-PLATED	2	
H	157.0	+5.0/-5.0	NON-PLATED	6	
I	209.0	+5.0/-5.0	NON-PLATED	8	



* DIELECTRIC - SOLDERMASK
L1: TOP CONDUCTOR - COPPER
* DIELECTRIC - FR-4
L2: IS1 PLANE - COPPER
* DIELECTRIC - FR-4
L3: GND PLANE - COPPER
* DIELECTRIC - FR-4
L4: POWER 2 PLANE - COPPER
* DIELECTRIC - FR-4
L5: POWER PLANE - COPPER
* DIELECTRIC - FR-4
L6: BOTTOM CONDUCTOR - COPPER
* DIELECTRIC - SOLDERMASK

DESIGN CROSS SECTION CHART
TOTAL THICKNESS 0.0612 IN

TENNANT P/N Q25058-004 3/29/2019

UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE
DIMENSIONS ARE IN INCHES	DRAWN	4/22/2019
TOLERANCES ON:	CHECKED	
2 PL DECIMALS +/- .010	ENGRG	
3 PL DECIMALS +/- .006	ISSUED	
ANGLES ±		
FRACTIONS ±		

TENNANT COMPANY

FABRICATION DRAWING

SIZE	FSCM NO	DWG NO
		Q25058-004

SCALE		SHEET
NONE		