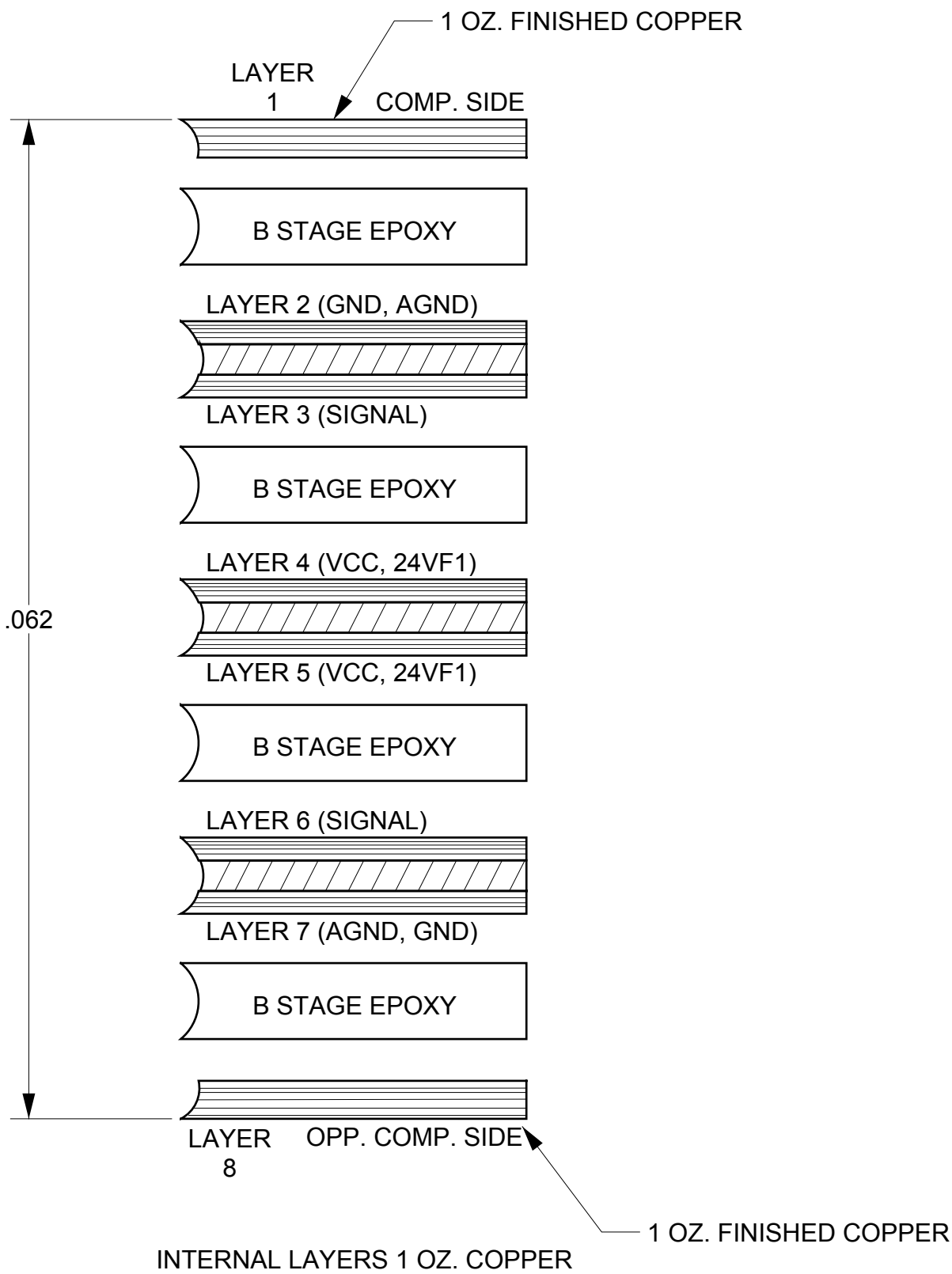
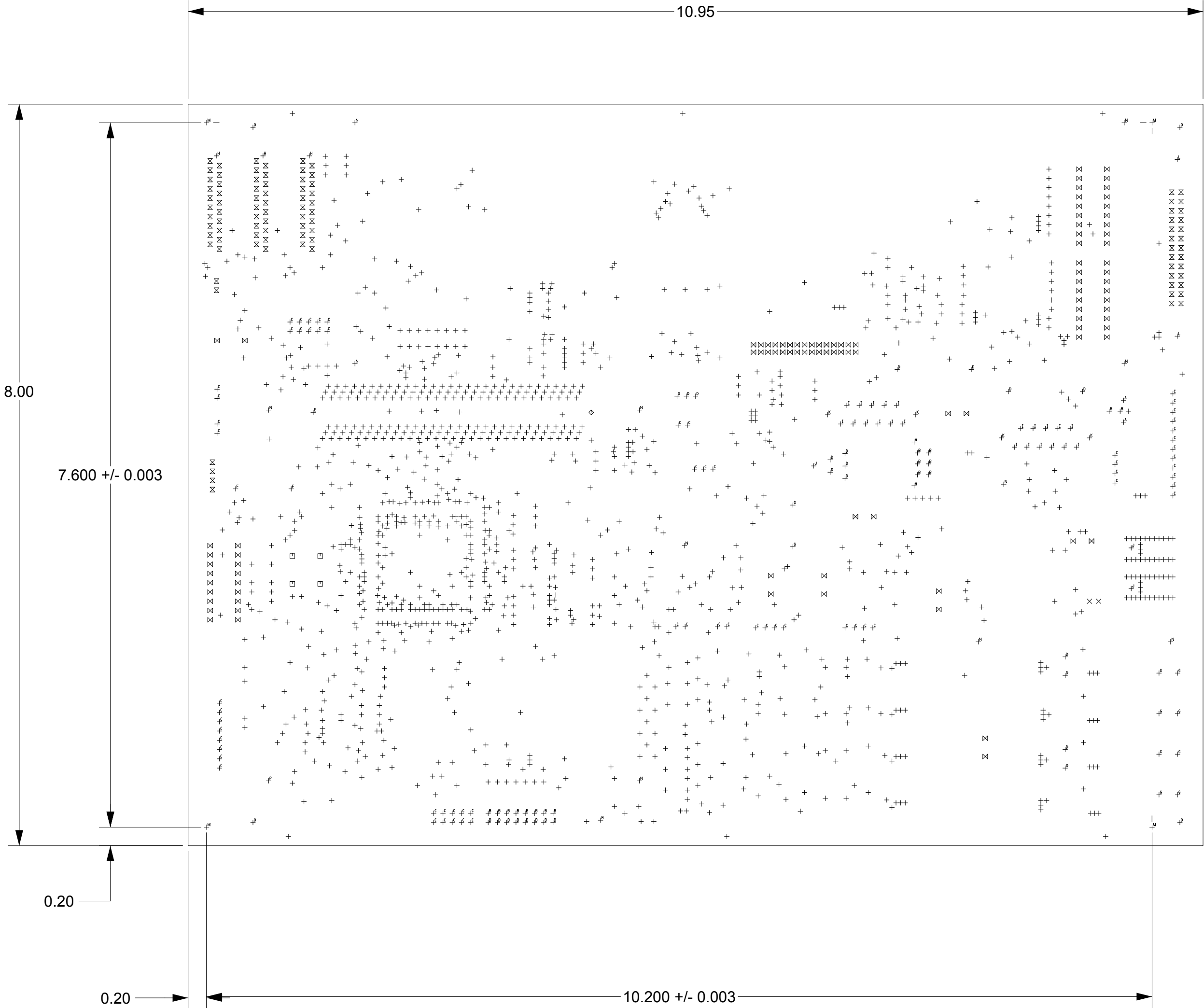


FINISHED HOLE SIZE TABLE

DRILL SYMBOL	DRILL SIZE	COUNT	PLATED	Min/Max
+	0.010	1352	Yes	+0/-0.010
×	0.028	2	Yes	+/-0.003
□	0.030	4	Yes	+/-0.003
⊗	0.035	92	Yes	+/-0.003
⊠	0.038	100	Yes	+/-0.003
⊥ ^B	0.040	25	Yes	+/-0.003
⊥ ^C	0.042	65	Yes	+/-0.003
⊥ ^D	0.046	16	Yes	+/-0.003
⊥ ^E	0.048	2	Yes	+/-0.003
⊥ ^G	0.052	10	Yes	+/-0.003
⊥ ^I	0.060	22	Yes	+/-0.003
⊥ ^J	0.073	3	Yes	+/-0.003
⊥ ^K	0.100	4	Yes	+/-0.003
⊥ ^O	0.157	4	Yes	+/-0.004
⊥ ^P	0.213	1	Yes	+/-0.004
◇	0.032	1	No	+/-0.003
⊥ ^A	0.040	4	No	+/-0.003
⊥ ^F	0.048	1	No	+/-0.003
⊥ ^H	0.060	3	No	+/-0.003
⊥ ^L	0.116	2	No	+/-0.003
⊥ ^M	0.140	4	No	+0.002/-0
⊥ ^N	0.157	11	No	+/-0.004
Total		1728		



NOTES :

- 1.0** RoHS: PCB MUST COMPLY WITH WATERS RoHS REQUIREMENTS DOCUMENT 735001207.
- 2.0** MATERIAL:
2.1 MATERIAL TO BE IN ACCORDANCE WITH IPC-4101/99 OR BETTER.
2.2 MATERIAL SHALL HAVE A DECOMPOSITION TEMPERATURE OF >=325 DEGREES C WITH CTE <=3.5% FROM AMBIENT TO 288 C AND SURVIVE 6 ASSEMBLY REFLOW EXCURSIONS.
2.3 MANUFACTURER MAY ADD THIEVING TO EXTERNAL LAYERS TO IMPROVE COPPER DISTRIBUTION FOR PLATING. THIEVING MUST BE A MINIMUM OF .150 FROM ANY DESIGN FEATURE AND NO THIEVING IS ALLOWED UNDER ANY SURFACE MOUNT COMPONENTS.
- 3.0** SURFACE FINISH:
3.1 ELECTROLESS NICKEL IMMERSION GOLD (ENIG) 2 - 8 MICRO INCHES OF GOLD OVER 100 - 250 MICRO INCHES OF NICKEL, PER IPC-4552.
- 4.0** SOLDERMASK:
4.1 ALL VIAS TO BE PLUGGED FROM THE PRIMARY SIDE WITH SOLDERMASK OR EQUIVALENT PRODUCT PRIOR TO FINAL SOLDERMASK APPLICATION AS PER IPC-4761 TYPE IV-a VIA.
4.2 SOLDERMASK OVER BARE COPPER (SMOBC).
- 5.0** PRINTED CIRCUIT BOARD FABRICATION NOTES AND REGULATORY REQUIREMENTS TO COMPLY WITH WATERS DOCUMENT NUMBER 735001870.
- 6.0** USE ARTWORK PHOTO 610001161 REV A FOR BOARD FABRICATION.
- 7.0** IMPEDANCE:
IMPEDANCE CONTROLLED BOARD. THE FOLLOWING VARIABLES CAN BE CHANGED IN ORDER TO MEET THE IMPEDANCE REQUIREMENTS
LINE WIDTH +/- .001 NOMINAL
DIELECTRIC SPACING BETWEEN LAYERS
DIELECTRIC SPACING TO A PLANE LAYER
- 8.0** CONTROLLED IMPEDANCE REQUIREMENTS FOR SINGLE SIDED SIGNALS AS FOLLOWS:
NOM. TRACE WIDTH OF .006 ON LAYER 1 IS 50 OHMS +/- 10%
NOM. TRACE WIDTH OF .006 ON LAYER 3 IS 50 OHMS +/- 10%
NOM. TRACE WIDTH OF .006 ON LAYER 6 IS 50 OHMS +/- 10%
NOM. TRACE WIDTH OF .006 ON LAYER 8 IS 50 OHMS +/- 10%
- 9.0** TEST IMPEDANCE IN ACCORDANCE WITH IPC APPROVED TIME DOMAIN REFLECTOMETRY OR EQUIVALENT IPC APPROVED METHOD.

UNLESS OTHERWISE SPECIFIED All dimensions are in inches. Remove all burrs and break sharp edges. Tolerances: Decimals .XX = ± .01 .XXX = ± .005 Angles = ± 0°30' SURFACE ROUGHNESS 63✓	DESIGN G.Tancrell	DATE 08-FEB-17	Waters 34 Maple St. Milford MA 01757 USA		
	DRAWN R. Methe	DATE 07-MAR-17			
	ENGR	DATE	PCB 2200 ELEVATOR PERS.		
	ENGR	DATE			
	APPROVED	DATE	SIZE DWG NO D 510001161	REV A	
DO NOT SCALE PRINT			SCALE 1 : 1	MENTOR EXPEDITION	SHEET 1 OF 1