As Built Dimensions for Padplanes and wiremounts 1/26/2017

(The variance quoted means 95% of parts stay within these bounds. One or two (out of 30) have larger variations. As-built dimensions in column one, engineering design request in column two.)

Padplanes

The *prototype* padplanes have an average thickness of 0.132”

Group 1 padplane (13 boards) is claimed in Vendor’s inspection report to be 0.125 ± 0.001”.

Group 1 padplane (13 boards) measured thickness is 0.126 ± 0.002” on first 5 boards.

Group 2 padplane (17 boards) have not arrived as of 1/4/2017

Anode Wire Mount (Right, without connectors)

Thickness:	0.120 ± 0.002”	Design request: 0.125”
Height:	1.316”	Design request: 1.311”
Length:	28.100” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002” gauge stock will fit under edge on a granite table, not larger)	

Anode wire Mount (Left, with connectors)

Thickness:	0.115 ± 0.002”	Design request: 0.125”
Height:	2.862 ± 0.002”	Design request: 2.856” (note this is 2016 updated design)
Length:	28.100” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002” gauge stock will fit under edge on a granite table, not larger)	

Note that there is a CNC error on each board. When cutting the top edge (for gluing wires) the end mill did not travel completely off the end of the board, leaving a positive radius of curvature on the board. This ends up looking like a horn on one end of the board and will affect the alignment of the wiremount when laying this edge on a granite table and gluing the wiremount to the strongback. The height of the horn is 0.003”. The top edge is probably flat to ± 0.001 after this horn is removed. The horn appears on the left side of the board when looking at it attached to the strongback and wires up. The horn will not be removed before the parts travel to LBL.

Shield Wire Mount (Right, with Cu strip and dimple)

Thickness:	0.183 ± 0.001”	Design request: 0.177”
Height:	1.390 ± 0.002”	Design request: 1.389”
Length:	28.100” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002” gauge stock will fit under edge on a granite table, not larger)	

Shield Wire Mount (Left, simple)

Thickness:	0.184 ± 0.002”	Design request: 0.177”
Height:	1.394 ± 0.001”	Design request: 1.389”
Length:	28.100” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002’ gauge stock will fit under edge on a granite table, not larger)	

GG Wire Mount (Right, Aluminum Piece, with Notch and trough for wires)

Thickness:	0.097 ± 0.001” (upper)	Design request: 0.097”
	0.172 ± 0.001” (lower)	Design request: 0.170”
Width/Height	0.473” (upper)	Design request: 0.472”
	1.545 ± 0.003 (lower)	Design request: 1.545”
Length:	28.1” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002’ gauge stock will fit under edge on a granite table, not larger)	

GG Wire Mount (Left, Aluminum Piece, simple)

Thickness:	0.138 ± 0.002” (upper)	Design request: 0.140”
	0.172 ± 0.001” (lower)	Design request: 0.170”
Width/Height	0.472” (upper)	Design request: 0.472”
	1.587 ± 0.002” (lower)	Design request: 1.588”
Length:	28.100” (no precise information, only one measurement with imprecise tool)	
Flatness:	± 0.002” (0.002’ gauge stock will fit under edge on a granite table, not larger)	

GG Insulator Board (Right, with solder dots)

Thickness:	0.059 ± 0.001”	Design request: 0.065” (2 layers with 4 mil glue incl
	(Some confusion here: request varies from drawing to drawing, 0.065 to 0.080)	
Width:	0.472 ± 0.003”	Design request: 0.470”
Length:	28.100” (no precise information, only one measurement with imprecise tool)	

GG Insulator Board (Left, blank – no solder dots)

Thickness:	0.031 ± 0.001”	Design request: 0.032”
Width:	0.472 ± 0.008”	Design request: 0.470”
	(thin board, width variation may be due to position of micrometer)	
Length:	28.100” (no precise information, only one measurement with imprecise tool)	