

# Bud Box

MEMSDuino

Lafe Spietz

NIST

Summer 2024

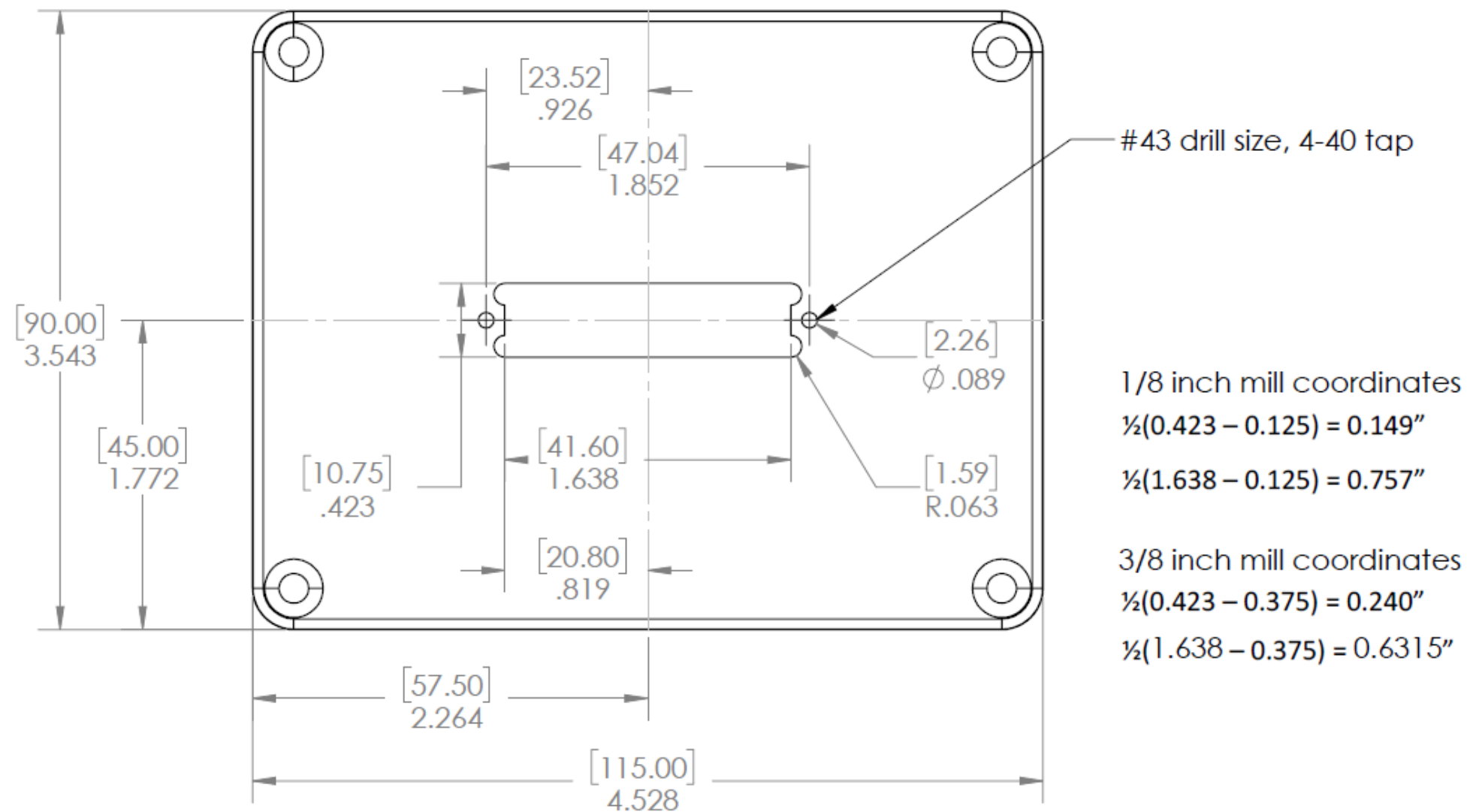
# Tools and parts

- Bud Industries AN-1304-A diecast aluminum box: \$12.93
- Assmann A-DF 25 PP/Z DB25 board mount connector: \$1.17
- McMaster Carr 91075A462 4-40 standoffs:  $2 \times \$3.73 = \$7.46$
- 4-40 tap
- #43 drill bit for 4-40 tapped holes
- 1/8" mill tool
- 3/8" mill tool
- Center drill
- 1/8" drill bit
- (none of these machine tools are needed if you outsource the machining)

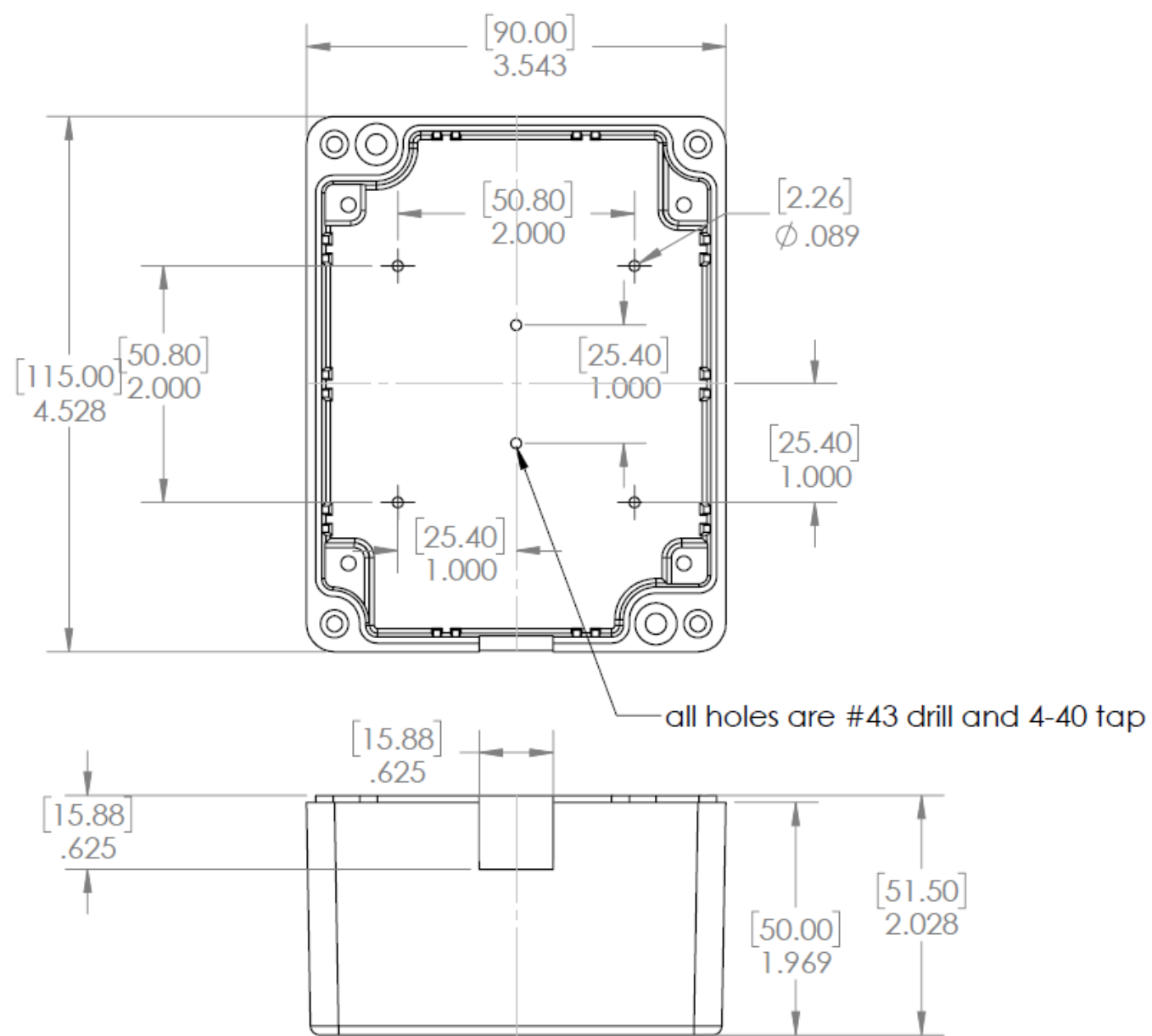
# AN-1304-A Diecast Aluminum Enclosure from Bud Industries



<https://www.onlinecomponents.com/en/productdetail/bud-industries/an1304a-48608718.html>



AN-1304-A-lid-machined



AN-1304-A-machined-box

# Dsub Lid Assembly



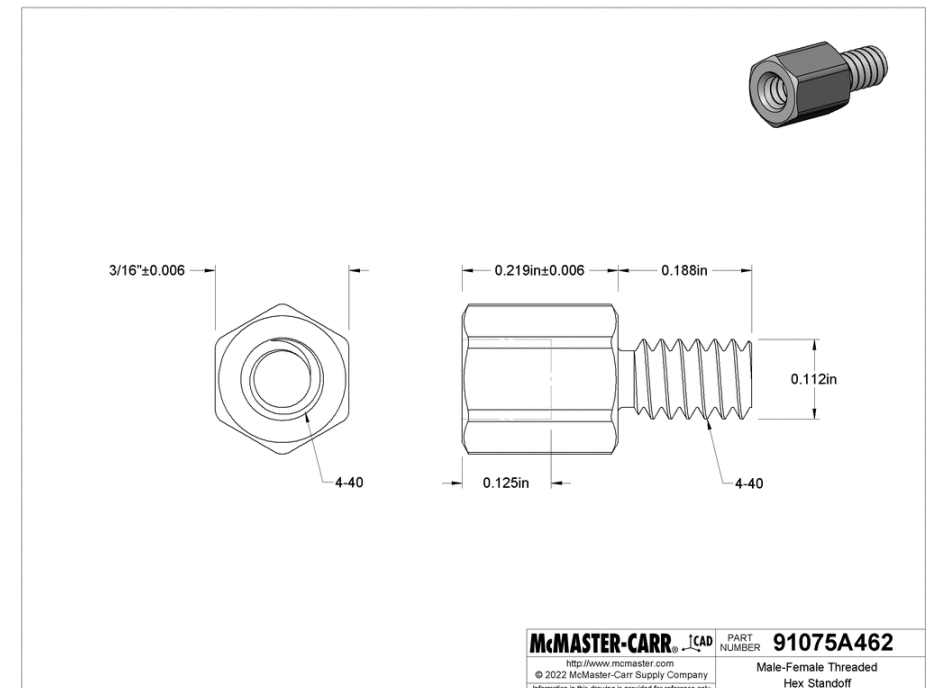
Use pliers to tighten standoffs

<https://www.digikey.com/en/products/detail/assmann-wsw-components/A-DF-25-PP-Z/1241794>



## A-DF 25 PP/Z

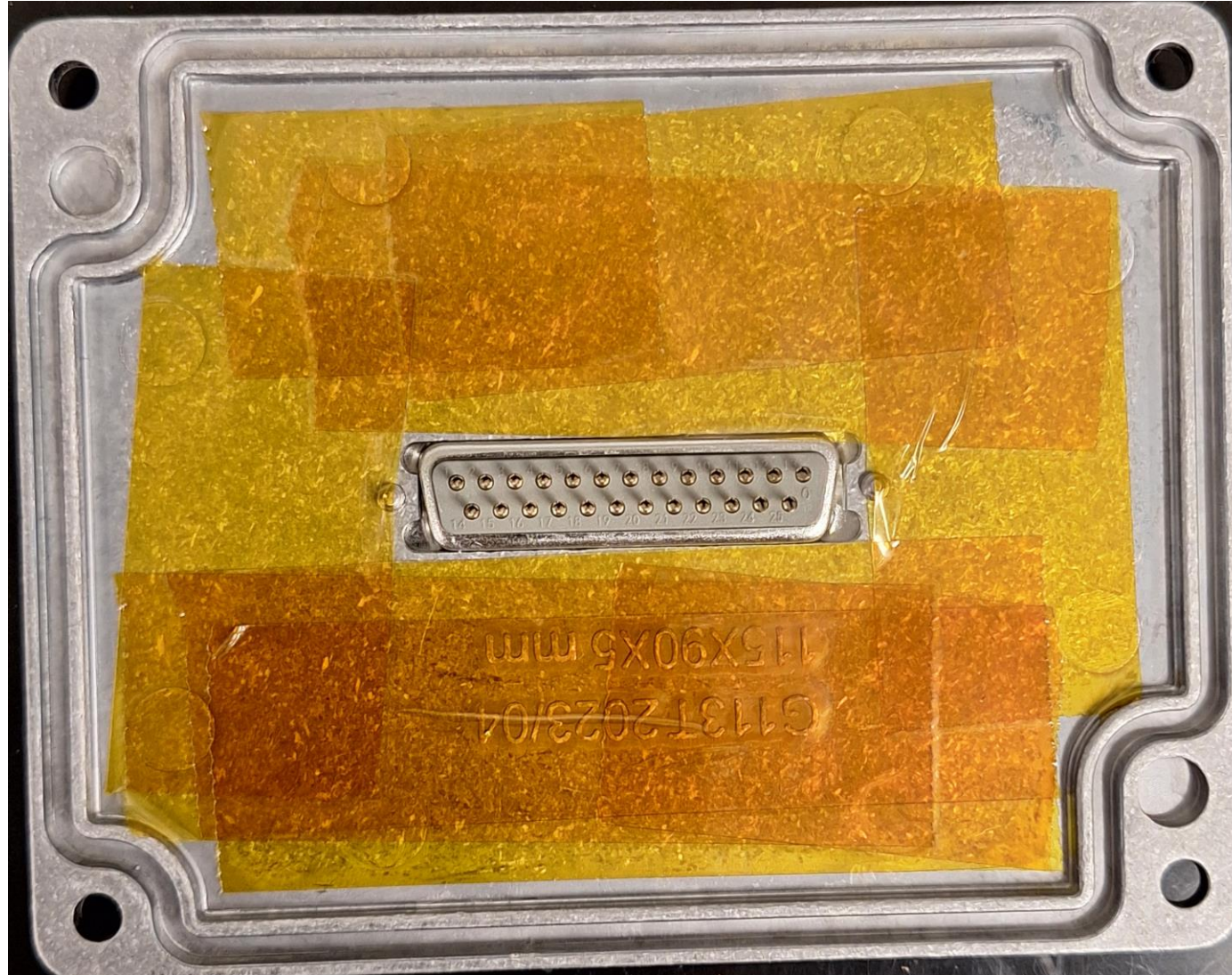
DigiKey Part Number	AE10940-ND
Manufacturer	Assmann WSW Components
Manufacturer Product Number	A-DF 25 PP/Z
Description	CONN D-SUB RCPT 25POS VERT SLDR
Manufacturer Standard Lead Time	23 Weeks



<https://www.mcmaster.com/91075A462/>



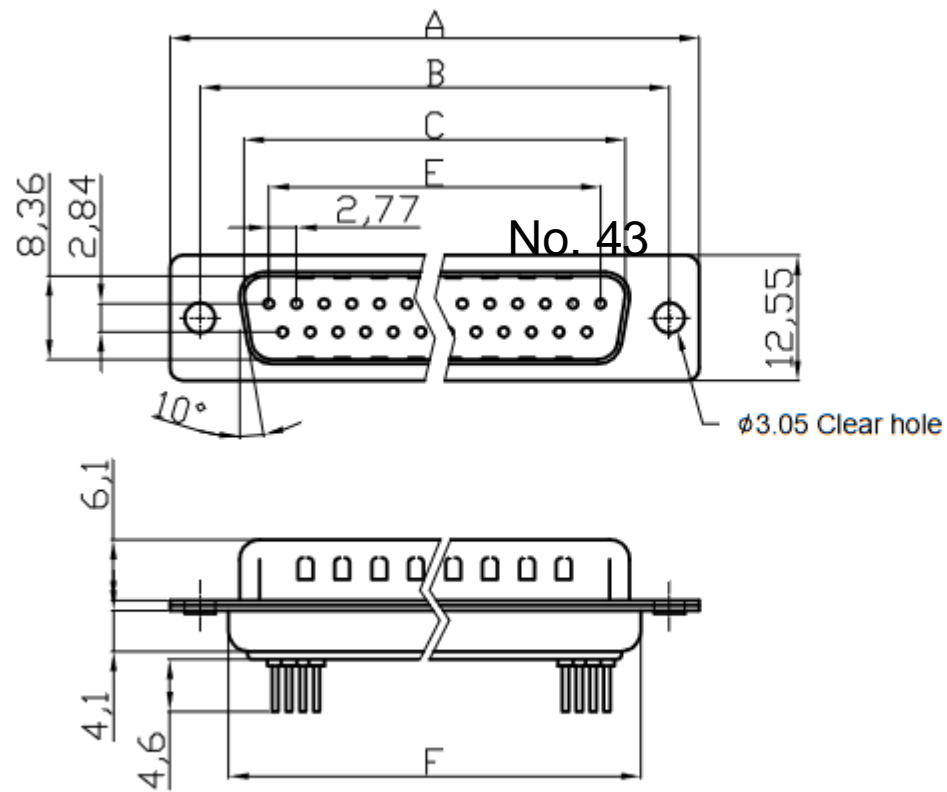
# Adding polyimide tape to the lid



This must be assembled *before* the circuit board is soldered to the DB25 connector!

Prevent potential shorts

# Board mount/panel mount DB25



Dimensions

Positions	A	B	C	E	F
09	30.81	24.99	16.92	11.08	19.20
15	39.20	33.30	25.25	19.39	27.70
25	53.04	47.04	38.96	33.24	41.10
37	69.40	63.50	55.42	49.86	57.30
50	66.90	61.11	52.86	44.32	55.10

Cutout is 10.72 mm x 41.10 mm

