ADC16x250-8 Coax rev 2 Top side

ADC A U5 | ADC B U6 | ADC C U7 | ADC D U8

in2 T2 | in6 T6 | in10 T10 | in14 T14

in4 T4 | in8 T8 | in12 T12 | in16 T16

WARNING. The H2 SMB cable to T14 must curve around the M3 screw!

E F G H

4 2 3 1

POWER RESET

ADC16x250-8 Coax rev 2 Top side

ADC A U5 | ADC B U6 | ADC C U7 | ADC D U8

in2 T2 | in6 T6 | in10 T10 | in14 T14

in4 T4 | in8 T8 | in12 T12 | in16 T16

WARNING. The D2 SMB cable to T14 must curve around the M3 screw!

A B C D

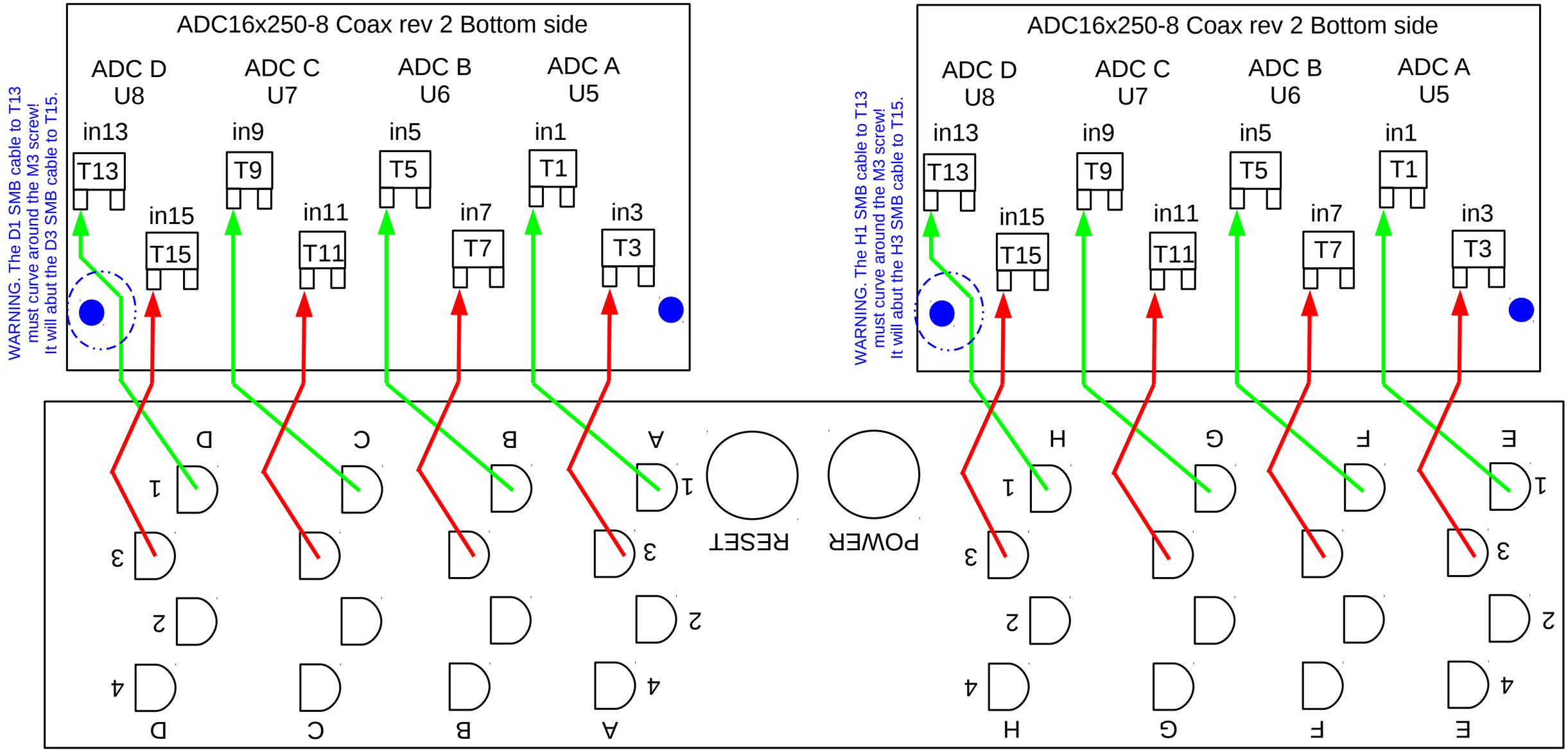
4 2 3 1

Zdok+ slot 1

1U faceplate view from the etched/labeled face

Zdok+ slot 0

Not to scale



Zdok+ slot 0

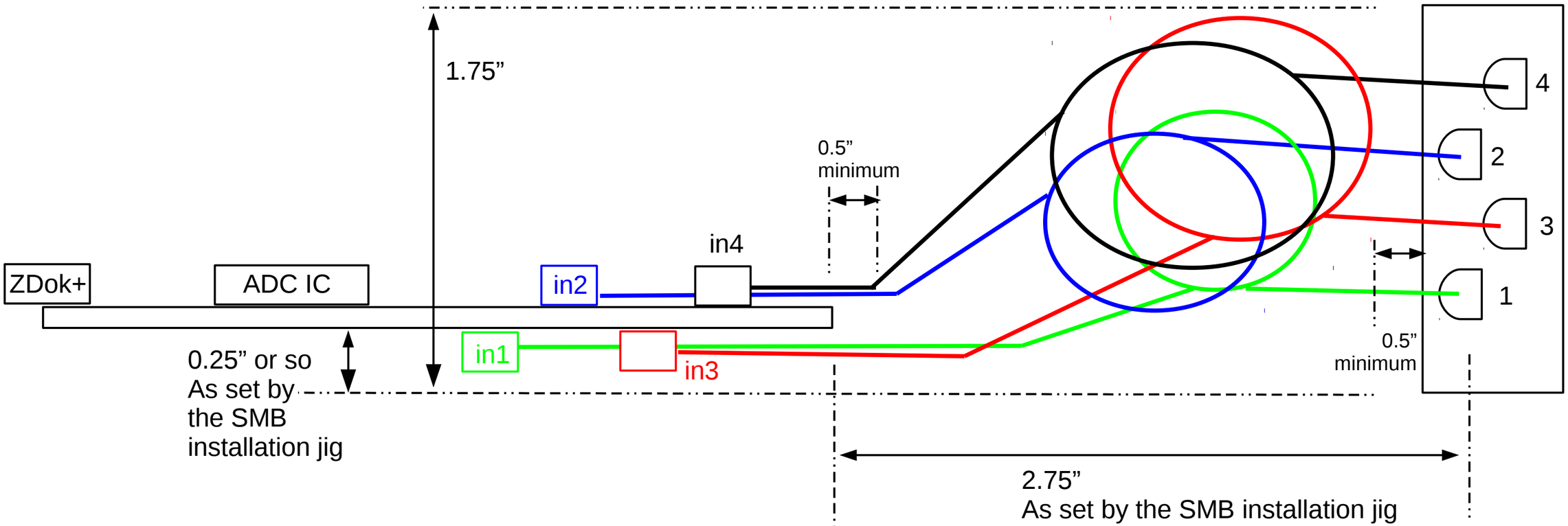
1U faceplate view from the etched/labeled face

Zdok+ slot 1

Not to scale

Side View of the face plate and ADC16x250-8 coax rev 2 boards showing the coils in the SMB input coax cables.

The coils must remain within the available 1U (1.75”) vertical space. And the roughly 2.75” horizontal space as set by the SMB alignment jig (documented elsewhere).
The coils will be ovals of smaller diameter 0.75” at minimum to 1.5” or so at maximum.



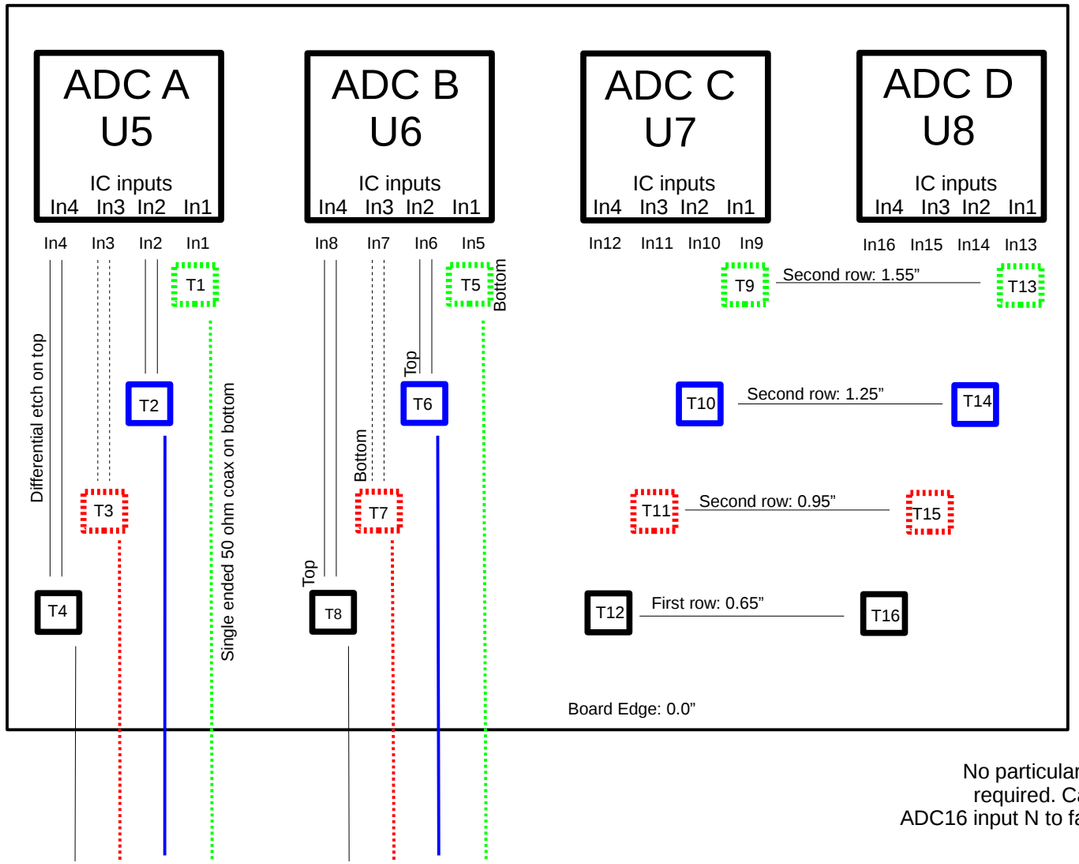
In the sketch above all the coax cables were cut to the same length of approximately 9”. This combined with the different distances from the front panel to the PCB mounted baluns causes the black and red coils for inputs numbered 4 and 3 to be larger than the blue and green coils for inputs 2 and 1.

However, it is acceptable for each cable to be a custom length if that in any way eases their assembly. In which case all “service loops” could be the same size.

Not to scale

In any case, the total path lengths from antenna to ADC will need to be calibrate using external (astronomical) observations.

ADC16x250-8 Coax rev 2 Top side



0 .165 .33 .495 (gap of .28) .775 .94 1.11 1.27 approximate X spacing in inches for coax rev 2 board

0 0.11 0.22 0.33 (gap of .34) 0.67 0.78 0.89 1.00 approximate X spacing in inches for coax rev 1 board (all in 1 row)

Balun spacing for Coax rev 2 relative to Coax rev 1:
Closest opposite side baluns on the same chip:0.34” versus 0.11”
Closest same side baluns on the same chip: 0.446” versus 0.33”
Closest opposite side baluns for 2 chips: 0.67” versus 0.34”
Closest same side baluns for 2 chips: 0.775” versus 0.45”

Not to scale

ADC16x250-8 Coax rev 2 Top side