Options for LTZ-High Stability Resistor:

120R: Footprint 3.81/5.08mm for S102K/J or VHP202

2x70k: Footprint 3.81/5.08/10.16mm S102 or PTF56

12K/1K: Populate either both resistors or the divider

Footprint 12k/1k: 3.81/5.08mm for S102 or VHP202
Footprint divider: 2.54mm for VSR144 or VHD200

Usable references:

LTZ1000 6.9...7.2V
6.9V / 1333R * 1000R = 5.17V -> +-10.34Vinmax
7.2V / 1333R * 1000R = 5.40V -> +-10.80Vinmax
Dont populate jumpers JP1/2!
Noise:
1.2µVpp 0.1-10Hz
Quad-LTZ: LTZ / sqrt(4) = 0.6µVpp 0.1-10Hz

ADR1000 6.62V +-50mV
6.62V / 1250R * 1000R = 5.29V -> +-10.58Vinmax
Populate jumpers JP1/2!
Noise:
0.6µVpp 0.1-10Hz
Quad-LTZ: LTZ / sqrt(4) = 0.3µVpp 0.1-10Hz
Achieving 0.3µVpp would necessitate a
lower noise OP/resistor-frontend though

Thermal noise:
40°C BW=10Hz
100R -> 4.1nVrms/27nVpp
1k -> 13.1nVrms/90nVpp
10k -> 41.5nVrms/280nVpp

OPA388 -> 140nVpp
ADA4522 -> 117nVpp
OPA189 -> 100nVpp

Individual Ref access
for Popcorn/Drift-Test

7.2V/12500R=
0.58mA

3333R or 2500R
depending on
jumpersetting
160nVpp

5mW

1k
274nVpp

1.93mA

10.8V/8000R=
1.35mA

6.3mW
172nVpp

6.3mW
172nVpp

Common-mode bias: 5Vref/2

Heater current lane for the
approximate 240mA

ca 5mA * 0.1R = 500µV
1.93mA/4 * 0.1R = 49µV
= 549uV
Assuming populated quad array and
directly connected Gnd-sense-pins

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