



Target performance specifications for SRS projects

- * Nominal resistance standards with thermal stabilization
- * Values 1 Ohm, 10 Ohm, 100 Ohm, 1kOhm, 10kOhm, 100kOhm, 1Meg
- * Resistive elements: VPG BMF VHP101 or similar
- * 24 hour stability : <0.1 ppm (8 digit) in +18°C to +28°C ambient range
- * Output tempco : <0.1ppm/K
- * Stabilized temperature : +35 to +45 °C range, stability 10mK or better
- * Configuration : Single elements or hand-selected arrays
- * Heater : Integrated analog controller, heater mounted to copper thermal anchor
- * Power input : dual 12VDC, 1A supply max (to support Battery+Mains in OR operation)
- * Thermal sensor : RTD or NTCs (2 per block, one for heater, one for external 4-wire)

BOM cost estimate :

- * Resistors : \$200
- * LTC posts : \$100
- * Other connectors : \$50
- * PCBs : \$20
- * Copper block : \$50
- * RTD : \$30
- * Insulation : \$30
- * Box : \$100
- * Electronic parts : \$50
- * Wires : \$50
- Total around : \$680