

Low-Noise LDO Selection Worksheet

Capture design targets to shortlist parts fast.

- Vout target (min/typ/max), load current I_{max}, ambient temperature range.
- Noise / PSRR targets: μV_{rms} bandwidth, noise density @1 kHz, PSRR @100 kHz / 1 MHz.
- Dropout headroom across VIN; brownout profile and UVLO constraints.
- I_q budget (active / standby), enable/disable control and sequencing.
- C_{OUT}/ESR stability window; ceramic class (X5R/X7R), ESL / placement notes.
- NR/BYP plan: value and startup delay target; soft-start requirements.
- Thermal dissipation: $P_{\text{diss}} = (V_{\text{in}} - V_{\text{out}}) \times I_{\text{load}}$, package R θ JA, copper area.
- Protections needed: OCP, OTP, short-circuit, reverse current, pre-bias behavior.
- Compliance & notes: pinout/footprint constraints, pin-compatible candidates.