



# Calibration Deck

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## Cal Deck Overview

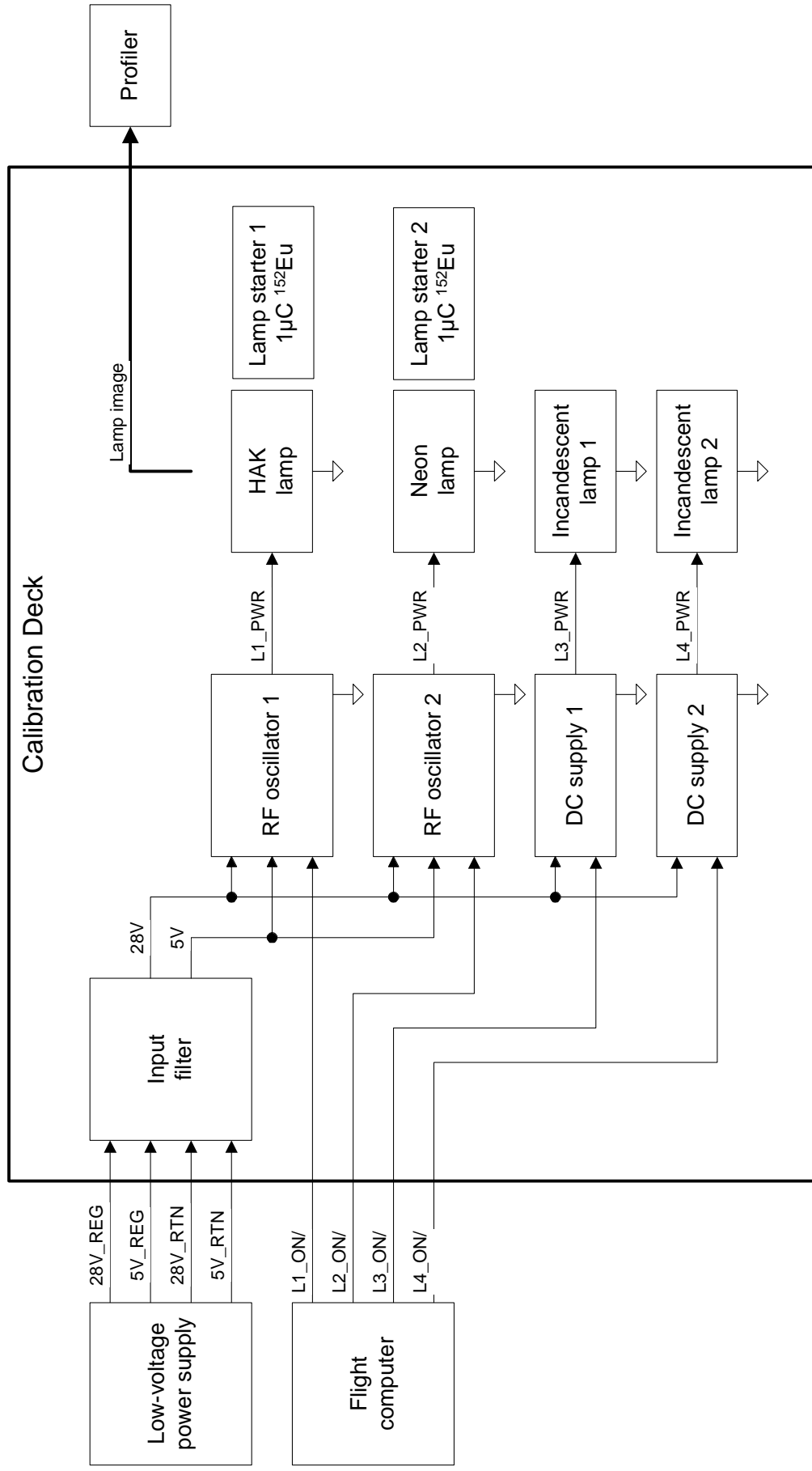
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**TIDI**

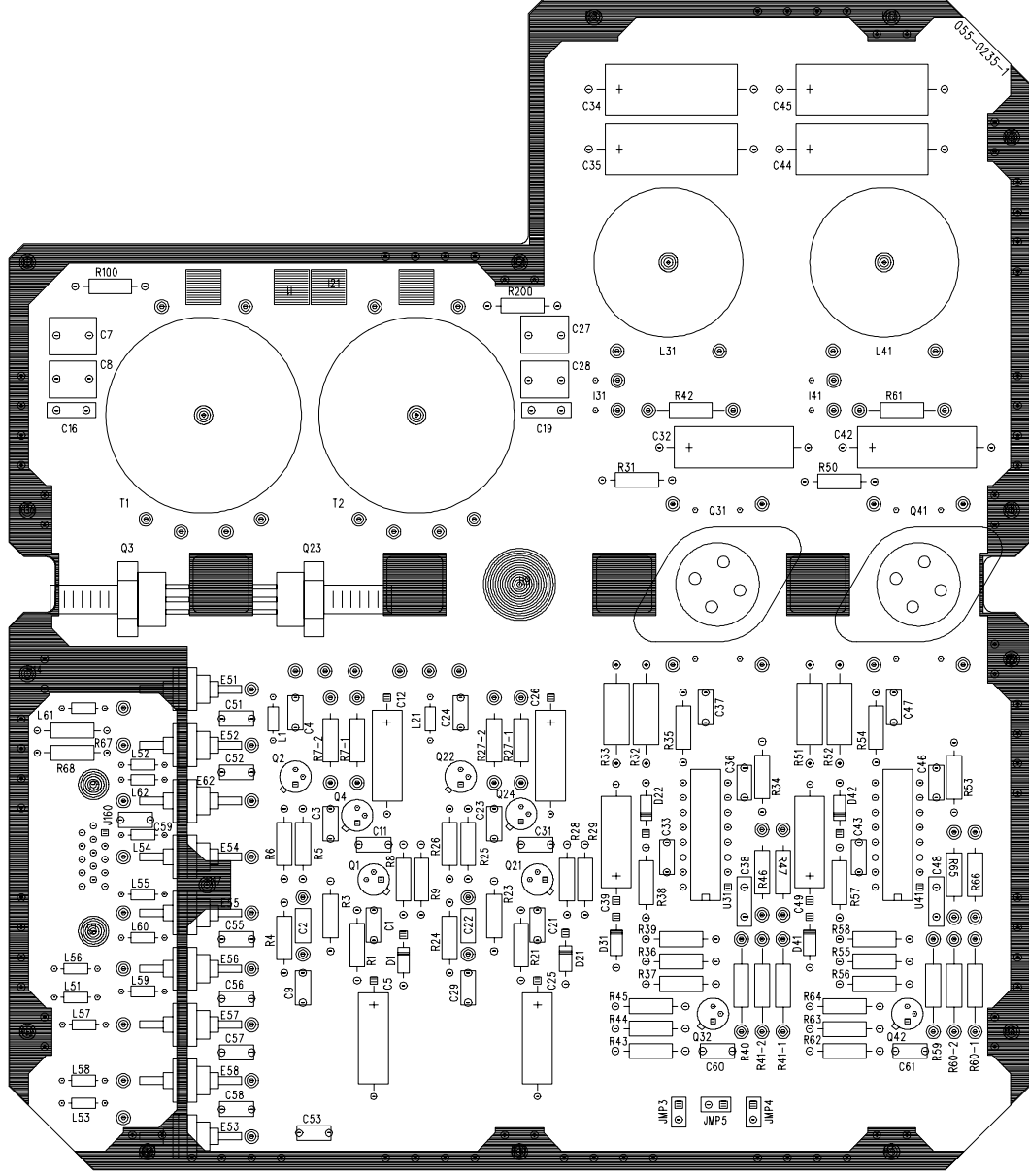
- **HRDI Design Heritage**
  - Cal lamps have worked well throughout their expected lifetime
  - No electronic malfunctions to date
- **Provide RF power for two rare-gas calibration lamps**
- **Provide DC power for two incandescent calibration lamps**
- **Provide two radioisotope lamp starters**
- **Provide lamp image to Profiler via fiber-optic cable**

- **Separate EMI filtering on each I/O lead**
- **RF oscillators for rare-gas lamp power**
  - 5 MHz sine wave, 800 V p-p
- **DC supplies for incandescent lamp power**
  - 5V @ 115 mA
  - Pulse-width modulator, 80 kHz, 0.2 to 0.25 duty factor
- **Calibration lamp sources**
  - 1 helium-argon-krypton (HAK) lamp
  - 1 neon lamp
  - 2 incandescent lamps
- **Radioisotope lamp starters**
  - 1 uC <sup>152</sup>Eu for each rare-gas lamp

# Cal Deck Block Diagram



# Cal Deck PCB Layout



# Cal Deck Assembly

