FEAST2

DC-DC Point Of Load in distributed power systems where either radiation tolerance or magnetic field tolerance, or both, are required.

The typical power distribution of LHC trackers does not use local voltage conversion and regulation and the low voltage front-end electronics is directly powered by supplies located tens of meters away. This scheme is not compatible with upgraded detectors with large current consumption for improved performance.

This technology, a radiation and magnetic field tolerant DC-DC Point-Of-Load (POL), enables distribution at higher voltage with local on-detector conversion to the voltage required by the electronics, considerably decreasing the current in the cables.

AREA OF EXPERTISE

- Aerospace

CONTACT PERSON

aurelie.pezous@cern.ch

Find out more at:
kt.cern

FEATURES

- Input voltage 5 to 12V.
- Continuous 4A load capability.
- Adjustable switching frequency 1-3MHz.
- Synchronous Buck topology with continuous mode operation.
- High bandwidth feedback loop (150kHz) for good transient performance.
- Protection Over-Current (OVC) and Over-Temperature (OTP).
- Protection Input Under Voltage Lock Out (ULVO).
- Radiation tolerant:TID up to >200Mrad(Si).

APPLICATIONS

- Avionics
- Space