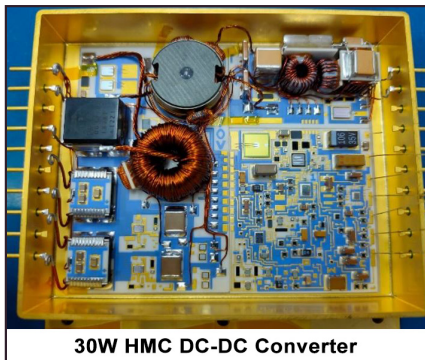


30W HMC DC-DC Converter

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed 30W HMC DC-DC Converter to meet Electrical performance with High Reliability requirements for Space Application with minimum size and weight. HMC DC-DC Converters developed for Space Application adopting Innovative Thick Film Process technology developed and qualified for Space application.



Salient Features

- ✦ Meets Electrical performance with High Reliability requirements for Space Application.
- ✦ Minimum size and weight.

Major Specifications

The main features of the 30W HMC DC-DC Converter are as follows:

- ✦ Converter design meets high reliability requirements and provides output voltages of +5V, +15V and -15V.
- ✦ Components (in die form) used are compliant to MIL-38534 QML-V or Class-K
- ✦ Hybrid design and fabrication processes comply to ISRO-PAS-206 guidelines.
- ✦ Innovative thick film process technology with special subassemblies adopted for realisation of the power hybrid which is housed in custom designed package of Molybdenum base and Kovar ring.
- ✦ The Converter performance suits typical space electronic systems up to 30W, covering requirements of EMI, regulation, thermal dissipation and standard protection features.

The main specifications are as follows:

- ✦ Input voltage range : 26-42V
- ✦ Triple outputs ($\pm 15V$ and $+5V$) delivering up to 30W.
- ✦ Built-in EMI filter capable of meeting ISRO Standards (based on MIL-461C).
- ✦ Converter shutdown feature.
- ✦ Efficiency : 75%
- ✦ Switching frequency : 250 KHz
- ✦ Short circuit, over load and under voltage lockout protections.
- ✦ Telemetry monitoring feature.
- ✦ Size : 3.5"x3.5"x0.65"
- ✦ Weight : 245 gms

Technology Transfer

URSC-ISRO offers to transfer technology of HMC DC-DC Converter (30W) developed by URSC to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

Technology Transfer & Industry Coordination Division (TTID),
Programme Planning and Evaluation Group (PPEG),

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🌐 <https://www.ursc.gov.in/industry/index.jsp>