#### INDIAN SPACE RESEARCH ORGANISTION



# 10W X-BAND LTCC BASED TR MODULE



Space Applications Centre (SAC) has developed 10W X-band LTCC based Transmit Receive (TR) module. Utilizing cutting edge technologies like LTCC packaging, GaAs MMICs, laser hermetic sealing; the TRM exuberates best in class performance and minimum SWaP. This robust design enables production worthy TRM with repeatable performance.

### Salient Features

- 10 W transmit peak power
- Low noise figure receiver
- Inbuilt receiver protection for reflected transmit power
- Antenna duplexing
- In-built calibration
- Digital control of Gain and phase

### **Potential Applications**

- Active phased array antenna based spaceborne SAR imaging satellites for civilian & strategic applications.
- Airborne SAR for surveillance imaging.
- AESA (nose radar) for fighter jets.
- Ground based intercepting and tracking RADARs

### Technology

- GaAs based custom MMICs
- LTCC based RF packaging
- Laser sealable hermetic package
- High Thermal conductivity materials

Note: Detailed & undisclosed specifications can be revealed only after approval of competent authority and signing of NDA with SAC/ISRO.

## Technology Transfer

SAC/ISRO offers to transfer this technology of 10W X band TR Module developed by SAC to industries in India with adequate experience and facilities. Enterprises interested in obtaining knowhow may register and submit their proposal to IN-SPACe, Ahmedabad

https://www.inspace.gov.in

#### For more details, contact:

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