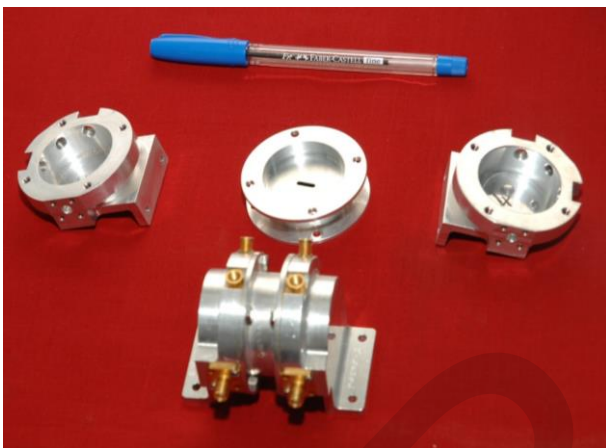
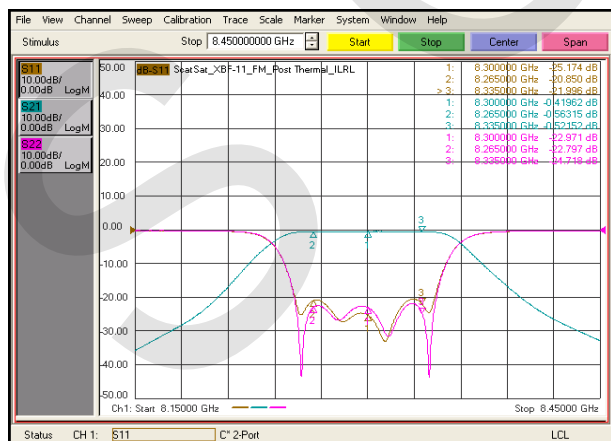


## Dual Mode Cavity Filter

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed a dual-mode cavity filter for X-band data transmission system. It is a circular waveguide filter uses a novel technique for QPSK modulator and power amplifier to suppress the spurious signal.



**Dual-Mode Cavity Filter**



**Measured Response of Dual-mode cavity filter**

### Salient Features

- ❖ Waveguide Filter with high Q
- ❖ Low insertion loss
- ❖ Good impedance match
- ❖ Less size and mass
- ❖ Good Selectivity
- ❖ Free from corona / Multipaction

## Major Specifications

PARAMETER	VALUE
Centre Frequency	: 8300 MHz
1-dB Bandwidth	: > 70MHz
Insertion loss	: 1 dB (max.)
Return loss	: > 15 dB
Group Delay	: < 4.0 nsec
Rejection @ 8.45 GHz	: 30.0 dB typical
Power Handling Requirement	: 4 watts
RF Interface	: SMA Jack
Size	: 73 mm*63 mm*53mm typical
Mass	: 100 grams typical

## Technology Transfer

URSC-ISRO offers to transfer technology of Dual-mode cavity filter 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),

📍 U R Rao Satellite Centre (URSC), ISRO, HAL Airport Road,  
Vimanapura Post, Bangalore – 560 017.

✉ Email-id: tt-icd@ursc.gov.in

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