

ADVANCED TECHNOLOGIES FROM ISRO

Interest Exploration Note

TT / 09 / 07 / SAC

Two Channel Monopulse Tracking Receiver

The Indian Space Research Organisation (ISRO) has developed a Two Channel Monopulse Tracking Receiver which will find applications in large earth stations for tracking both GEO and LEO satellites.

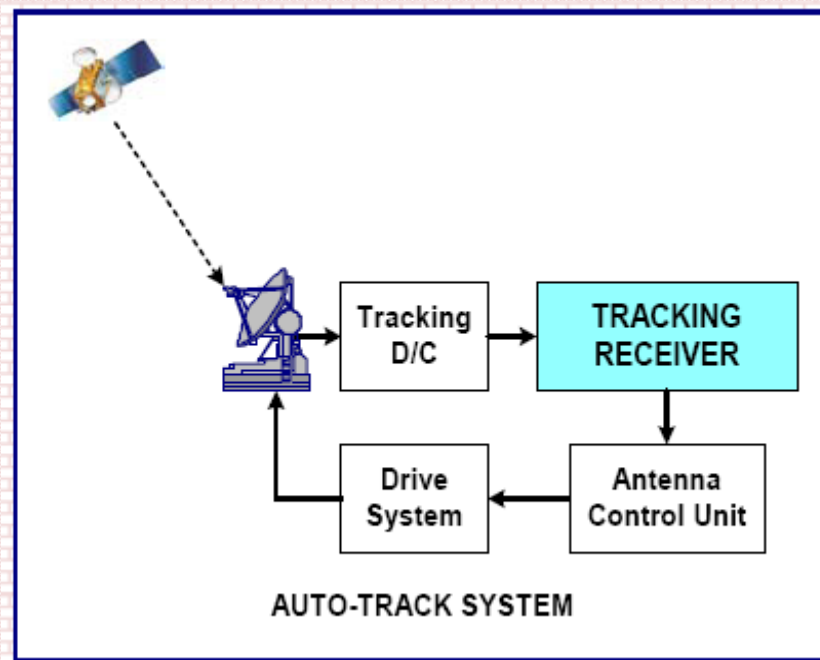
The two channel monopulse tracking receiver is one of the subsystems of auto track system in large earth stations. The tracking receiver receives two signals at IF corresponding to the *sum channel* and *error channel* of the feed assembly. It uses AGC and coherent demodulation to derive output voltages proportional to azimuth and elevation errors. These output voltages are used by antenna control unit to correct off-pointing.



TWO CHANNEL MONOPULSE TRACKING RECEIVER

SALIENT FEATURES

- Wide tracking range : 70 MHz \pm 250 KHz
- Wide dynamic range : 70 dB
- Low input C/No threshold : 40 dB-Hz
- Selectable loop BW : 300 Hz, 1 KHz & 3 KHz
- User friendly operation from local and remote
- Save / recall configuration for different satellites
- Programmable sweep range and sweep rate
- 19" rack mountable 3U chassis



APPLICATION(S)

This tracking receiver is useful in large earth stations for tracking both GEO and LEO satellites. It meets the stringent requirements of large earth stations at lower cost.

CURRENT INSTALLATIONS

Master Control Facility (MCF), Hassan, India

TECHNOLOGY TRANSFER FROM ISRO

ISRO is willing to offer the know-how of this technology to entrepreneurs / industries in India. Capable manufacturing industries in acquiring this know-how may write with details of their present activities, requirements and plans for implementation, infrastructure and technical expertise available with them, their own market assessment, if any, and plans for diversification to the address given below. Alternatively, you can also fill in the response form provided in this website.

For further details, please contact:

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