CDMA TT&C Transmitter

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed CDMA TT&C Transmitter to carry out telemetry functions of co-located satellites using CDMA technique. It co-locates multiple satellites in the same orbital slot with single TTC frequency but each having a different Pseudo Random codes.

CDMA TTC Transmitter

Salient Features

- Overcomes the frequency interference issues encountered due to overcrowding in the coveted Geostationary Orbit.
- Enables a tenfold increase in the number of collocated satellites without any adjacent channel interference using CDMA technology.
- Re-configurability and flexibility as number of users can be increased by assigning new codes whereas in other multiple access techniques this kind of flexibility is not possible.

Major Specifications

- Data Rate : 2 kbps
- Chip Rate : 4 Mcps
- CDMA Scheme : Direct Sequence Spread Systems (DSSS)
- Modulation Scheme : BPSK
- Output Power : ≥36 dBm
- Size : 220 x 250 x 108 mm^3
- Mass : 3.0 kg
- Power : 30.0 W (on 70V raw Bus)

Technology Transfer

URSC-ISRO offers to transfer this technology of CDMA TT&C Transmitter 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.

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