Space Sector Reforms
Opening up of Indian Space Sector

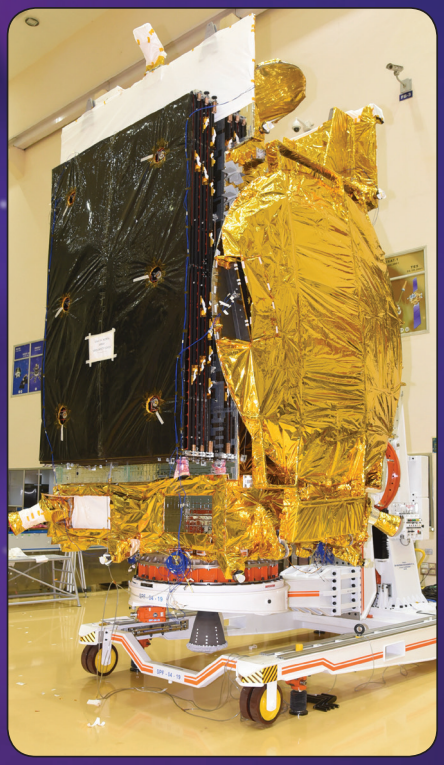
NSIL's 1st Demand-Driven Mission

GSAT-24

Ariane-5 VA257

GSAT-24 is the first demand driven satellite configured by ISRO, owned, operated and funded by NewSpace India Limited for commercial user.

This communication satellite is configured with the primary objective to augment satellite based DTH and VSAT services in BSS Ku-band. It carries 24 Ku-band transponders with an enhanced EIRP of 53.5 dBW with the coverage over Indian mainland, Andaman & Nicobar and Lakshadweep islands.



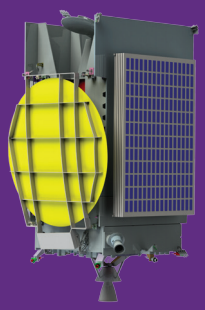
GSAT-24
Salient features

- S/C Mass : 4181.3 kg
- Application : DTH
- Payload: 24 Ku-Band Transponders
- Life : 15 Years

Commercial user:
M/s TataPlay

Applications

- Enhanced EIRP results in more DTH channels within the same spectrum, more HD channels or system robustness with additional rain fade margin.
- Satellite based interactive educational services for class room connectivity employing DTH quality broadcast.
- Telecommunications and emerging applications like digital cinema, high speed backhaul links, bulk-data transfer etc.



Brief Description

Title	Description
Payload	• 24 numbers of BSS Ku-band 36MHz Transponders • 1 number of FSS Ku-band 225MHz Transponder • 2 numbers of Ku-band Beacons • Ø 2.5m Ku-band Transmit/Receive Gregorian Antenna
Orbit / location	Geo-synchronous orbit / 83° East longitude
Mission life	>15 years
Platform	I-3K Enhanced
Dry Mass	1774.9kg
Lift - off Mass	4181.3kg
Power	• 70V Fully Regulated bus • 8.5 kW payload power • 12 kW Power Generation (EOL) using 5 Solar panels in each wing • 2 numbers of 180Ah Li-Ion battery for eclipse operations
Control System	• Body stabilized momentum biased system with momentum wheels for synchronous orbit operations • 3-axis attitude control system using thrusters in Transfer Orbit • Configured with Star trackers, Earth sensors, Gyro and Sun sensors
Propulsion System	• Bipropellant system with 16 thruster configuration • 440N Liquid Apogee Motor (LAM) with 250 area ratio • 2 numbers of 1207 litre propellant tank • 2 numbers of 67 litre pressurant tank
TTC System	• Telemetry, Tracking & Command Systems in both C-band and Ku-band • 1553B bus for data transfer
Launcher	Ariane-5 VA257
Launch Date	• 23rd June 2022, 02:33hrs Indian Standard Time (IST) • 22nd June 2022, 21:03hrs Universal Time (UT)

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