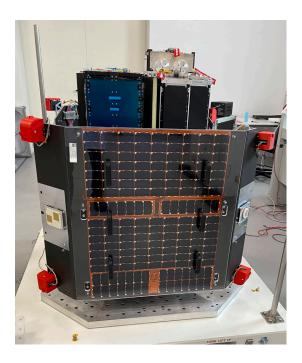
ION

SPACE TRANSPORTATION. (RE)INVENTED.

ION Satellite Carrier is an orbital transfer vehicle (OTV) designed, manufactured, and operated by D-Orbit. Our orbital transportation portfolio includes satellite launch and deployment services, hosted payload services, and a set of add-on services that includes mission analysis and design, platform engineering support, software development, acceptance tests, pre-deployment orbital maneuvers, and ground transportation.



LAUNCH AND DEPLOYMENT SERVICES

ION Launch Service: an end-to-end launch procurement, hosting, and deployment service that leverages ION Satellite Carrier. ION hosts a batch of spacecraft into its onboard dispensers, carries them throughout its mission, and releases them individually into precise orbital slots according to the needs of the customers.

DPOD Launch Service: a CubeSat launch service that relies on third-party compatible launchers equipped with D-Orbit's proprietary DPOD and DCUBE dispensers, which are market leaders in terms of launch vibration protection and lateral protrusion allowance.

ION HOSTED PAYLOAD SERVICES

ION Satellite Carrier offers a plug-and-play mechanical, electrical, and data interface to quickly integrate experiments and instruments onboard and operate them from the ground as subsystem of ION itself.

EXTRAS

A set of services that includes mission analysis and design, platform engineering, software development, acceptance testing, and transportation. It enables platform integrators and satellite operators to complement internal skillsets and speed up the development cycle of their space systems.



ION SATELLITE CARRIER

ION Satellite Carrier is able to modify its own orientation, altitude, and local time of ascending node (LTAN) to quickly deploy satellites into precise and independent orbital slots, allowing customers to start their missions faster and in optimal operational conditions.

ION FEATURES:

- A versatile payload bay: ION can host multiple combinations of CubeSat form factors, or microsatellites, up to 160 kg of mass, with industry record protrusion allowance.
- **Ability to perform orbital maneuvers**: change of altitude and inclination, true anomaly phasing, RAAN shift.
- **Precise deployment**: each satellite is deployed independently, following a command from the ground, with personalized attitude, pointing, and impulse.
- **Fast dispersion**: up to 85% faster constellations deployment, with wider spacecraft separation, faster signal acquisition, and a stable collision-free formation.
- **Guaranteed deployment**: a triple fault-tolerant mechanism guarantees the release of all satellites that may not be released nominally before the end of the mission.



DEPLOYMENT OPTIONS

Depending on their needs and mission requirements, customers can choose two deployment options:

PRECISION DEPLOYMENT: ION's ability to release each satellite in a different orbital position, with the attitude, pointing, and impulse needed. Thanks to its propulsion module and attitude control unit, ION Satellite Carrier can modify its altitude and orientation. By calibrating the spring release mechanism, each satellite receives the desired impulse. The release is ground-initiated, so customers can release their satellites right above their ground station or in specific light conditions. Precision deployment can be achieved either using ION, or a combination of ION and our proprietary dispensers.

STANDARD DEPLOYMENT: a deployment service that relies on third-party compatible launchers equipped with our DPOD and DCUBE dispensers.