PLATFORM

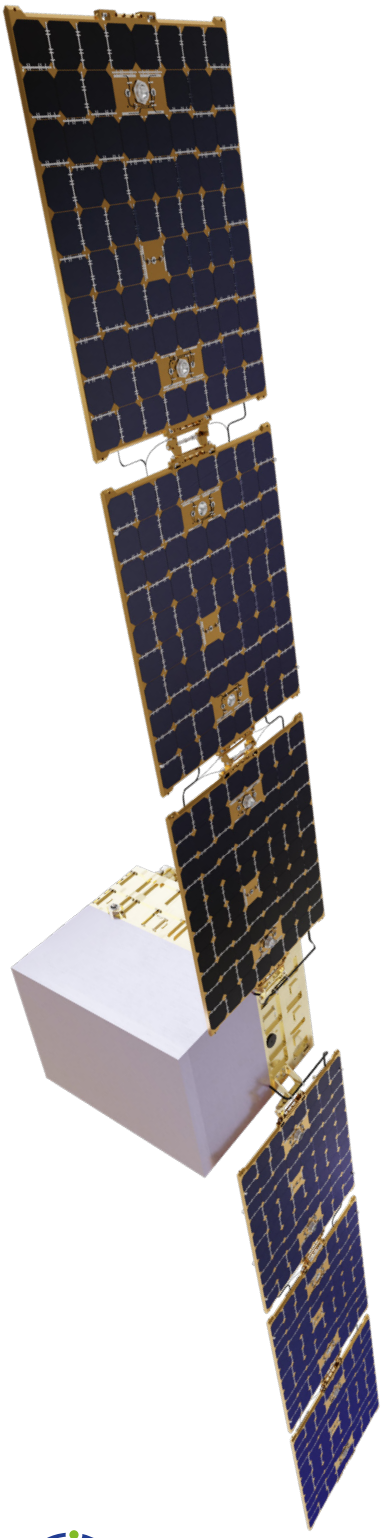
NEBULA

Terran Orbital is proud to present the Nebula-class spacecraft platform, a standard point of departure that accommodates the largest payload mass available on a standard 15” ESPA port, as well as the flexibility to use a 24” ESPA Grande instead (or similar interface). It is ideal for small satellite constellations for commercial customers or defense applications due to the option for Type 1 encryption.

Nebula comes with Terran Orbital’s standard microsat EPS architecture and builds on the entire product line of satellite buses and common modules for avionics and GNC algorithms. The reaction wheels on this platform have been sized to allow the spacecraft to maintain agility, and the bus is designed from the ground up to be compatible with rideshare requirements.

Nebula supports commercially available custom payloads, and easily accommodates those with odd shapes. It includes a propulsion system ideal for phasing a constellation into its mission orbit, station keeping, and disposal. The previous-generation Nebula bus, called Zuma, was used to fulfill the bus requirement for the Space Development Agency’s Tranche 0 Transport Layer.

Terran Orbital employs top-of-the-line automation and modern manufacturing processes to support the delivery of hundreds of buses annually. From order to launch, in quantities from one to a constellation of one hundred, Terran Orbital accelerates the delivery of mission solutions.



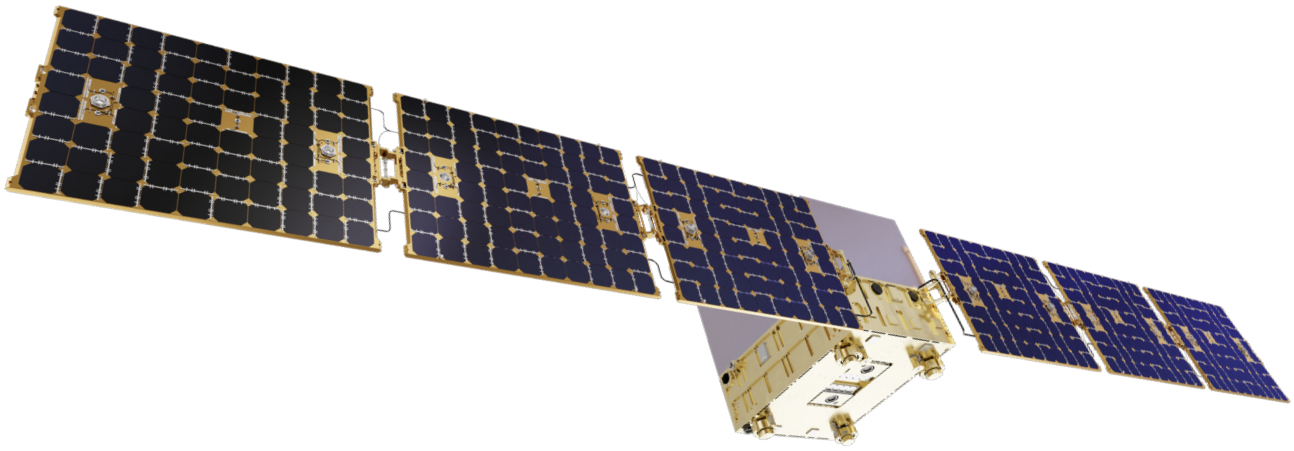
KEY BENEFITS

- Flexible launch configuration on 15” ESPA or 24” ESPA Grande (or equivalent)
- Optional Type 1 encryption (DoD/Intel)
- Open deck plan allows for easy accommodation of oddly shaped payloads

TERRAN ORBITAL™

PLATFORM

NEBULA



BASELINE MODULES INCLUDED

- Flight Computers (2)
- Watchdog
- Backplane
- 66V Battery Modules (8-12)
- 66V MPPT (2)
- 66V Load Controller
- 28V High Power Point of Load (varies)
- 28V Low Power Point of Loads (varies)
- Coarse Sensors (4)
- Gyro Assembly
- Star Trackers (3)
- GPS (2)
- Magnetorquers (3)
- Reaction Wheels (4)
- LDRR (2)
- MDR (2)

SPECIFICATIONS*

Configuration	ESPA or ESPA Grande
Applications	LEO
Native Orbits	400km-1200km
Launch Mass (Wet)**	250kg
Available Payload Mass	up to 130kg
Max Solar Array Power	1kW
Redundancy	Dual-string
Power System	66V system power 28V, 12V, 9V rails available for payload
Communication Data Rate	S-band: 125 Kbps uplink 2 Mbps downlink X-Band: 650 Mbps downlink
Propulsion	2150s hall effect standard, options available
Thrust	1.1mN
Dimensions without Solar Panels	82cm x 58cm x 39cm
Pointing Accuracy	10 to 50 arcseconds higher accuracy available

*** For additional spacecraft specifications or to configure a platform for your requirements, please contact a sales professional.**

**** maximum mass may not be supported on all launch vehicles or with all deployers.**

MADE IN U. S. A.

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