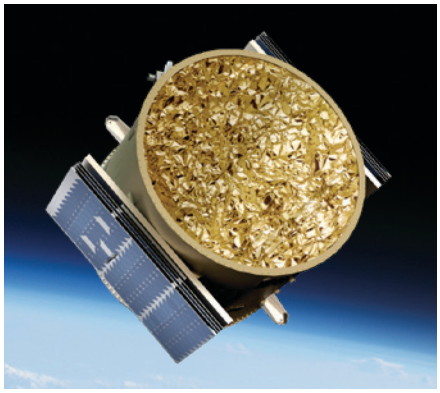
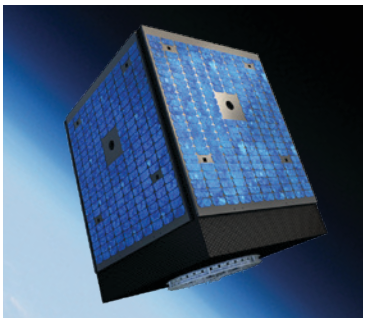
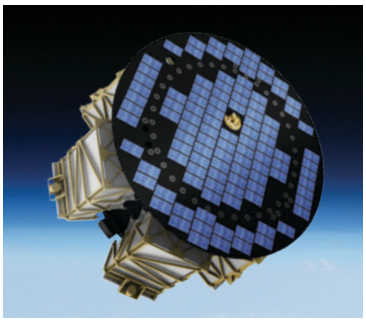
METEOR

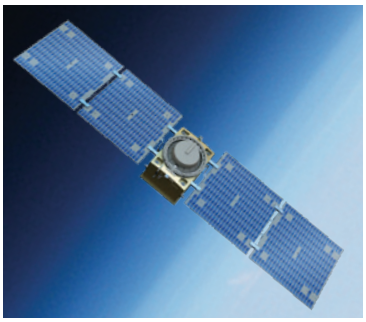
MEDIUM CLASS SPACECRAFT BUS



METEOR is a Medium Class Spacecraft Bus product family used for a variety of missions in LEO including High LEO (1000 to 1200 km). METEOR is ideal for pathfinder constellation missions or other disaggregated mission types. METEOR leverages the same core avionics from Moog's Space Vehicle family that have been demonstrated in missions from LEO to the Moon. The hydrazine propulsion system provides enough capability for a controlled deorbit from High LEO. The relatively high thrust can be used for collision avoidance or other rapid orbit changes. The simple and robust all aluminum structure derived from Moog's ESPA provides radiation shielding and can support a range of payload configurations.







KEY FEATURES

- Avionics leveraging Moog's BRE440™ Rad-Hard CPU
- LEO up to 1200 km with 2-5 year life
- Flexible flight software is payload and mission configurable
- High-thrust hydrazine propulsion system
- 3-Axis stabilized platform with reaction wheels and torque rods
- Single string but layered GNC sensor suite provides resiliency
- Modular power system can be expanded up to 1 kW payload power
- Can be stacked or dual launch in NSSL-class launch vehicles

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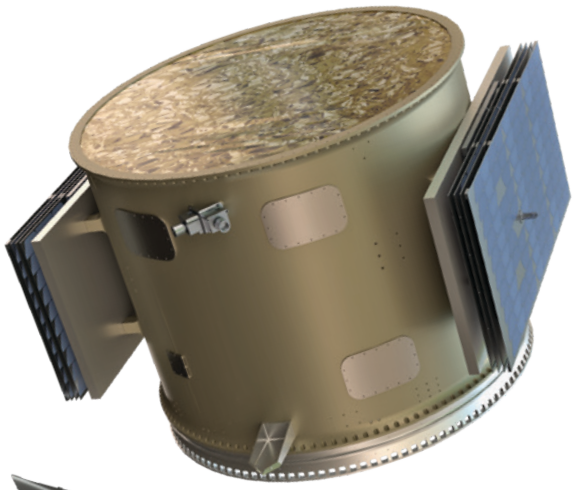
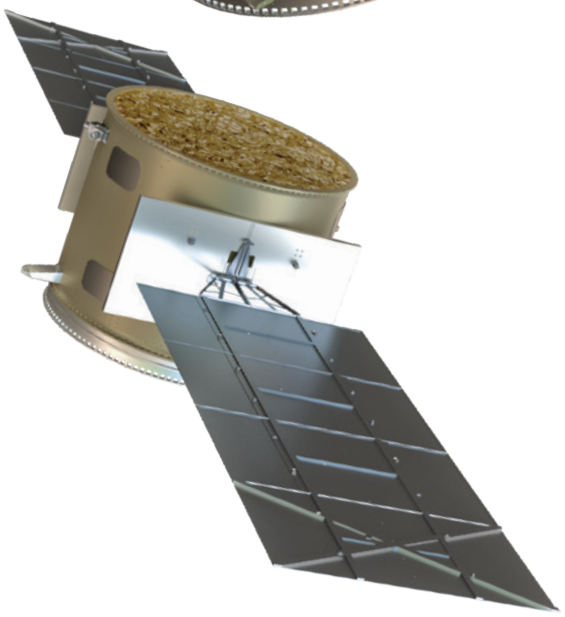
METEOR MEDIUM CLASS SMALL SPACECRAFT BUS

SPECIFICATIONS	
Characteristic	**Performance / interfaces**
Orbit	500 to 1200 km
Mission Life	2-5 years (depends on orbit)
Radiation	25.5 kRad total dose with 0.200" Al shielding
Radiation Effects	Availability due to SEU of >99% over 1 year
Example Payload Power (Orbit and Mission Dependent)	~750 W OAP Payload Power
Bus Mass	650 kg Bus Dry Mass
Bus Volume	Ø62" x 47" Tall
Orbital Position Knowledge	<4 m
Attitude Knowledge Telemetry Accuracy	<40 arc-sec (1 sigma)
Pointing Accuracy	<60 arc-sec (1 sigma)
Attitude (Pointing) Stability/Jitter	Jitter < 10 arc-sec
Velocity Accuracy	0.1 m/s
Maximum Slew Rate	>0.6 deg/s
Maximum Slew Acceleration	>0.003 deg/sec^2 (point-to-point)
Delta-V	>400 m/s (with 750 kg Payload mass)
Payload Interfaces (Data)	2 x SpaceWire, 4xDiscretes, 1 x GPS 1PPS (via LVDS)
Payload Interfaces (Power)	28 [25/33] VDC Unregulated Bus Voltage (multiple 1.2 A switches)
Payload Interfaces (Mechanical)	Ø62" (Top Mounted) or Multiple 42"x46"x56" (Port/Side Mounted)
Payload Mass	750 kg or more (Top Mounted) or up to 700 kg (Port/Side Mounted)





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SPACE AND DEFENSE GROUP

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