

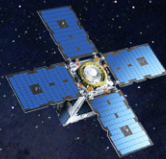
# GA-150



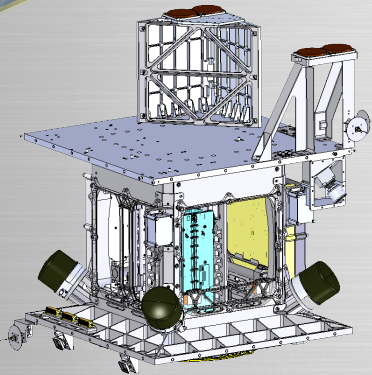
**TSIS-2**



**GAZelle**



**OTB**



Resilient, modular, and configurable ESPA bus design supporting a variety of Comms and ISR missions

Customizable to operate over a wide range of orbits including all inclinations, and compatible with multiple launch vehicles

Utilizes standard payload interfaces to enable seamless integration and mission-ready delivery times

Compact spacecraft design exceeds prototype and residual ops requirements and conforms to small payload launch vehicle envelope

## GA-150 PARAMETER

## GA-150 VALUE

## SPACECRAFT (S/V) CAPABILITY

|       |   |
|-------|---|
| Orbit | LEO (400-1000 km), all inclinations (Configurable for other orbits) |
|-------|---|

|                     |                      |
|---------------------|----------------------|
| Mass (Basic/Launch) | Up to 100 kg/ 150 kg |
|---------------------|----------------------|

|        |   |
|--------|---|
| Volume | ESPA-compatible (Configurable for other launches) |
|--------|---|

|                 |                      |
|-----------------|----------------------|
| Mission/Program | TSIS-2, GAZelle, OTB |
|-----------------|----------------------|

|                              |  |
|------------------------------|--|
| Launch Vehicle Compatibility | Falcon 9, Electron, Alpha (Others as required) |
|------------------------------|--|

|             |            |
|-------------|------------|
| Design Life | 3-10 years |
|-------------|------------|

|               |                              |
|---------------|------------------------------|
| Stabilization | 3-axis, 0.03 deg, 3 $\sigma$ |
|---------------|------------------------------|

|         |                |
|---------|----------------|
| Voltage | 28 V +/- 6 Vdc |
|---------|----------------|

|                                    |   |
|------------------------------------|---|
| Telemetry, Tracking & Command Rate | S-band, Up to 38 kbps uplink, 2 Mbps downlink |
|------------------------------------|---|

|                   |                                     |
|-------------------|-------------------------------------|
| Mission Data Rate | X-band, Up to 300 Mbps; OCT capable |
|-------------------|-------------------------------------|

|                  |   |
|------------------|---|
| On-board Storage | >8 Gbytes, Additional storage options available |
|------------------|---|

|            |  |
|------------|--|
| Propulsion | Xenon Hall, Traditional Hydrazine, Butane (Electric and green options available); Up to 300 m/s $\Delta v$ |
|------------|--|

## PAYLOAD (P/L) ACCOMMODATION CAPABILITY

|      |             |
|------|-------------|
| Mass | Up to 50 kg |
|------|-------------|

|          |   |
|----------|---|
| OAP/Peak | Up to 180 W/300 W (Customizable for mission needs)<br>Payload accommodation: power conversion available (6 V, 12 V, and 28 V) |
|----------|---|

|        |                                       |
|--------|---------------------------------------|
| Volume | Variable up to ~100 cubic centimeters |
|--------|---------------------------------------|

|                      |                                |
|----------------------|--------------------------------|
| Field of Regard/View | Hemispherical unobstructed FoV |
|----------------------|--------------------------------|

|                       |                                |
|-----------------------|--------------------------------|
| Mission Data Handling | Up to 300 Mbps from P/L to S/V |
|-----------------------|--------------------------------|

|                        |  |
|------------------------|--|
| Command/Data Interface | Fully configurable (i.e. LVSD, RS422, SpaceWire) |
|------------------------|--|

|                 |  |
|-----------------|--|
| Thermal Control | Up to 5 bus-controlled heater switches |
|-----------------|--|

|                |   |
|----------------|---|
| Heat Rejection | Configurable heat management system available |
|----------------|---|