PAS 381S (15") Separation System

Low Shock Satellite Separation System for your mission
The RUAG 381S Separation System is the smallest member of our family of Low Shock Separation Systems designed for interfacing small sized spacecraft with Launcher Vehicles. It has been developed to fit the ESPA 15" adapter interface.

The Separation System includes a low shock clamp band separation system, interface rings, umbilical connection and a separation spring set. With our CBOD-LT™ Separation System Release Mechanism we can provide the unique combination of high load capability and a low shock release.

Building on heritage and reliability
The PAS 381S Separation System is based on the already flight proven systems at RUAG. Developed for over 30 years, the RUAG Space product family to date includes a broad range of Separation Systems, spanning diameters from 381 mm to 2624 mm (15" to 103").

Our Separation Systems have an outstanding flight record. To date more than 630 in-orbit separations have been carried out with a success rate of 100%! Our customer base includes launch service providers, satellite builders, government entities and national space agencies. We work closely with the customers during the spacecraft design phase to establish a fully compatible design.
### Main characteristics of PAS 381S

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unit</th>
<th>Value&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolt pretension (nominal)</td>
<td>kN</td>
<td>11</td>
</tr>
<tr>
<td>Mass</td>
<td>kg</td>
<td>3.7</td>
</tr>
<tr>
<td>Separated mass</td>
<td>kg</td>
<td>0.98</td>
</tr>
</tbody>
</table>

#### Dimensions

- **Height**<sup>2</sup>: mm 79

**I/F**
- Passive ring: 24 x 1/4 inch bolts placed on a diameter of 381 mm (15 inch ESPA I/F)
- Active ring: 24 x 1/4 inch bolts placed on a diameter of 381 mm (15 inch ESPA I/F)

**Initiator type**
- Pacific Scientific 103377-449
- Hi-Shear PC23-250
- ASI PD22240024-009
- USI 1F01084-1

**Separation springs**
- **No. of springs**: pcs 4 to 24
- **Spring energy**<sup>3</sup>: Joule 1.1

**Release type**
- Low shock < 100 g’s @ 1 kHz

**Shock output**
- Low shock < 100 g’s @ 1 kHz

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<sup>1</sup> Mass of the standard system including passive ring. Can be optimized to meet specific needs.

<sup>2</sup> Height includes separation springs, active and passive rings.

<sup>3</sup> Energy per spring.

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Illustrative Drawing and Nominal Release Envelopes