

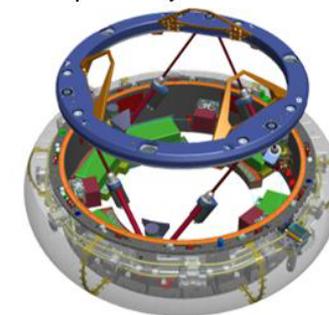
NASA Docking System (NDS) Block 0

Post-CDR Configurations SEZ29101800-3XX

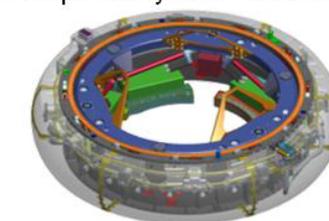


Dash Number	NDS (-301)	NDS (-303)	NDS (-304)	NDS (-305)
Status	In Development	Avail on Request	Avail on Request	Available on Request
Specification Max Weight (lb)	750	✓	711	TBD*
Host Power	120 VDC	28 VDC	✓	28 VDC
NDS Tunnel Height (in.) Flange-to-Flange	15	✓	✓	8.92
Dynamic Seal or Seal Surface	Seal	✓	✓	✓
Host Leak Check Port	NDS Tunnel	✓	✓	Host tunnel
Motorized Separation System	Yes	✓	✓	✓
Motorized Transfer Umbilicals	Power/Data	✓	✓	✓
Power & Data Umbilical Interface	Internal to NDS	✓	✓	External Panel
SCS Actuators	Yes	✓	✓	✓
SCS Magnets	Yes	✓	✓	✓
SCS Magnet Striker	Yes	✓	No	✓
Hooks	12 Active/Passive	✓	12 Active	✓
Pyrotechnic Hook Release	Yes	✓	No	✓
Ready-To-Hook Sensors	3	✓	✓	✓
Soft Capture Sensors	3	✓	✓	✓
Undocking Complete Sensors	2	✓	✓	✓
Electrical Boxes Mounting	Integral to NDS	✓	✓	Mounted to Host
Box Electrical Cable Length/Routing	Integral to NDS	✓	✓	Host extension cables, TBD length
Hermetic Pass Thru for NDS control	Integral to NDS	✓	✓	In Host Structure
NDS S/W Interface to Host	EIA422 or MIL-STD-1553	✓	✓	✓
NDS control and heater control thru single host serial port	One serial port per channel (A&B)	✓	✓	✓
MMOD Shield	Integral to NDS	✓	✓	Host Provided
Passage Way Closeout	Integral to NDS	✓	✓	✓
Life	231 days	✓	✓	✓
Active Docking Cycles	4	✓	✓	✓
Passive Docking Cycles	50	✓	None	✓

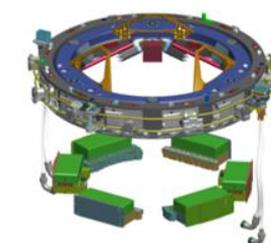
Ready to Dock (Active Mode)
Soft Capture System Extended



Ready to Dock/Launch
(-301 Passive Mode)
Soft Capture System Retracted



Ready to Dock/Launch
(-305 Passive Mode)
Electrical Boxes mounted in host



- ◆ 301: Core: 120VDC power, integrated electronics
- ◆ 302: RETIRED – Originally intended for ISS use
- ◆ 303: Low Voltage: Same as 301 except 28VDC power input
- ◆ 304: Abated: Same as 301 except reduced functionality/reduced mass, selected missions
- ◆ 305: Short: Reduced height; 28 VDC electronics boxes remotely mounted

*305 mass Includes electrical boxes but does not include host provided h/w

Configs Baselined 06/14/11
[Confirm latest in DDMS](#)
[Docking System Config Baseline](#)