

ID	Requirement text	Verification	Test number	Status
F	The experiment shall measure the temperature distribution in each block of ice.	I	-	tbd
	The pressure above each ice block shall be measured.	I	-	tbd
	The penetration depth of the heat probes shall be measured.	I	-	tbd
	All acquired data shall be stored on a reliable data storage device.	A, R	-	tbd
	All acquired data except for the camera data shall be sent to the ground station via RXSM downlink.	I	-	tbd
	The power for the heat probes shall be provided by NiMH batteries.	R	-	tbd
	The power for the other electric components shall be provided by RXSM.	R	-	tbd

P	The temperature sensors shall measure in a range of -60 to 0 °C or greater.	R	-	tbd
	The temperature sensors shall measure with an accuracy of 0.5 °C or better.	R	-	tbd
	The temperature data shall be acquired with a sample rate of 1 Hz or higher.	R	-	tbd
	The pressure sensors shall measure in a range of 0 to 5 mbar or greater.	R	-	tbd
	The pressure sensors shall measure with an accuracy of 1 mbar or better.	R	-	tbd
	The pressure data shall be acquired with a sample rate of 20 Hz or higher.	R	-	tbd
	The penetration depth shall be measured with an accuracy of 0.5 mm or lower.	T	Test 1	tbd
	The force sensors shall measure in a range of 0 to 40 N.	R	-	tbd
	The force sensors shall measure with an accuracy of 0.039 N or better.	R	-	tbd
	The force data shall be acquired with a sample rate of 2 Hz or higher.	R	-	tbd
	The batteries shall provide 180 W of power for at least 3 min of experiment time.	A	-	tbd
	The total power consumption shall be below 200 W.	A	-	tbd
	There shall be enough storage for 30 min of data acquisition.	A	-	tbd
	All data shall be stored with a redundancy factor of 2 or more.	R	-	tbd

D	The temperature in each ice block shall be measured by a 3x3 temperature sensor matrix.	I	-	tbd
	The pressure shall be measured by differential pressure sensors.	I	-	tbd
	The penetration depth shall be measured indirectly using force sensors on each spring-loaded heat probe.	I	-	tbd
	The data rate sent to the RXSM for downlink shall be below 20 kbit/s.	A	-	tbd
	There shall be no electrical connection of electronic components to the rocket structure.	R	-	tbd
	No electronics shall be enabled during radio silence.	R	-	tbd
	The experiment shall operate in the temperature profile of the REXUS vehicle flight and launch.	T	Test 2	tbd
	The experiment shall operate in the vibration profile of the REXUS vehicle flight and launch.	T	Test 2	tbd

O	The battery's temperature shall not exceed the operational window.	A	-	tbd
	The heat probes shall be turned off in case of over heating.	R	-	tbd
	The experiment shall accept a request for radio silence at any time while on the launch pad.	R	-	tbd
	The experiment shall be able to conduct measurements autonomously in case connection with the ground segment is lost.	R	-	tbd
	The experiment shall be able to enter a secure mode after landing (sensitive equipment shall be disabled, moving parts locked).	R	-	tbd

Verification Methods: [T]est, [I]nspection, [A]nalysis/Similarity, [R]eview of design