

System specifications

ADCS

ID	Requirements
RQ03-ADCS-1	The components shall work between -40 and 80°C
RQ03-ADCS-2	The components shall resist to radiation exposures between 4 Krad/yr and 40Krad/yr
RQ03-ADCS-3	The components shall work in a magnetic field (between 25 and 50 μ T at our altitude)
RQ05-ADCS-1	The dimensions of the card on which will be the ADCS shall not exceed 10cm*10cm
RQ06-ADCS-1	The mass of the module shall be between 20 and 30% of the total mass
RQ07-ADCS-1	Power consumption shall not exceed 2W

ACT

ID	Requirements
RQ01-ACT-1	The actuators can change the attitude along each axis separatly
RQ03- ACT-1	The Z+ face of the CubeSat should face earth with an inclination inferior to 5°

RQ04- ACT-1	The ADCS shall be able to perform attitude correction with a precision of +/- 5° along the X Axis
RQ04- ACT-2	The ADCS shall be able to perform attitude correction with a precision of +/- 5° along the Y Axis
RQ04- ACT-3	The ADCS shall be able to perform attitude correction with a precision of +/- 5° along the Z Axis
RQ04- ACT-4	The ADCS shall be able to perform the DETUMBLING

SENS

ID	Requirements
RQ03-SENS-1	Each sensors will provides his measures to the CTRL on demand
RQ05-SENS-1	If the SENS can analyze his values, it will return a warning
RQ06-SENS-1	Each sensor should have different warning in case of fail
RQ08-SENS -1	SENS shall process a measurement session in less than ... s TBD

CTRL

ID	Requirements
RQ07-CTRL-1	The attitude shall be determined with a precision of +/- 5° along the X Axis
RQ07-CTRL-2	The attitude shall be determined with a precision of +/- 5° along the Y Axis

RQ07-CTRL-3	The attitude shall be determined with a precision of +/- 5° along the Z Axis
RQ08- CTRL-1	The wanted attitude shall be determined with a precision of +/- 5° along the X Axis
RQ08- CTRL-2	The wanted attitude shall be determined with a precision of +/- 5° along the Y Axis
RQ08- CTRL-3	The wanted attitude shall be determined with a precision of +/- 5° along the Z Axis
RQ09- CTRL-1	The CTRL shall be able to determine the correction necessary for the attitude along the X Axis
RQ09- CTRL-2	The CTRL shall be able to determine the correction necessary for the attitude along the Y Axis
RQ09- CTRL-3	The CTRL shall be able to determine the correction necessary for the attitude along the Z Axis
RQ09- CTRL-4	The CTRL shall determine the action necessary for each ACT