



Customized **ADCS** Solutions

SUN/EARTH SENSORS



CubeSense are CMOS-imager based Sun and Earth sensors with a wide FOV, low power usage and high accuracy. CubeSense is available in two different formats, one being a PC104 sized board with two sensor heads featuring full redundancy on memory, and the other being a highly compact single sensor head with integrated electronics.

www.cubespace.co.za

These sensors provide Sun/Earth measurements with <0.2 deg (3-sigma) accuracy over the entire FOV. The sun sensors are completely immune against albedo effects, making them highly robust and versatile. All sensors are calibrated in our state-of-the-art dark, clean, optics calibration room, using a sun-simulator and highly accurate rotation stage. CubeSense has flight heritage for a wide variety of missions and orbits.

SUN/EARTH SENSORS



PHYSICAL

	CubeSense	CubeSense S	CubeSense N
	PC104 size board, with two sensors. Soldered or harnessed.	Compact Sun sensor with integrated electronics	Compact Nadir sensor with integrated electronics
Mass	80g	30g	30g
Operating Temperature	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
Vibration	14g RMS	14g RMS	14g RMS
Radiation	24kRad	24kRad	24kRad



ELECTRICAL

Supply Voltage	3V3	3V3	3V3
Average Power	150mW	100mW	100mW
Peak Power	360mW	200mW	200mW
Communications	12C/UART	12C/UART	12C/UART



PERFORMANCE

Accuracy (3-sigma)	<0.2°	<0.2°	<0.2°
Update Rate	1Hz	2Hz	2Hz
FOV	~180°	~180°	~180°



ORDER INFO

Lead Time	3 Months	3 Months	3 Months
Price	4 800 USD	2 800 USD	2 800 USD
Flight Heritage	>10 Years	While the standard CubeSense hardware and electronics are used, in this format the sensor has not yet flown.	

Notes:
