

# SENSORS

Compact range of Sun, Star, Horizon, and Magnetometers



## NEW PRODUCT PARTNERSHIP

### Introducing the Auriga Processing Unit

We are delighted to announce the product partnership between CubeSpace and Sodern!

Sodern's Auriga™ star tracker, known for its compact design and suitability for small satellite constellations, brings heritage of over 50 years and more than 1,500 units successfully operating in orbit.

With the in-house development of the Auriga processing unit, customers can seamlessly integrate the Auriga™ star tracker directly with our Turn-Key ADCS. This makes it an ideal choice for missions that demand high pointing accuracy, wider maneuvering capabilities, and exceptional performance throughout the orbit.

Auriga™ – Star Tracker



Auriga Processing Unit





## FINE SUN SENSOR

## EARTH HORIZON SENSOR

## STAR TRACKER\*

## PERFORMANCE

Accuracy [°]	0.2° (roll and elevation) 2-sigma	1° (roll and elevation) 3-sigma	0.01°, 35" (cross-axis)* 0.022°, 80" (roll)* 3-sigma
Max slew rate [°/s]	70	14	0.3

## PHYSICAL

Mass [g]	15	18	71
Dimensions [mm]	35x24x22	35x24x20	43x34.6x61.3
Detection field of view [°] (Horizontal/vertical)	166	90/80	24/20
Detection field of view [°] (Diagonal)	176	90	32
Total Sun and Earth Exclusion Angle [°]	NA	NA	70

## POWER AND DATA

Data bus	CAN/RS485/UART/I2C		CAN/UART/RS-485
Connector	Molex Micro-Lock Plus		
Update rate [Hz]	Up to 2	Up to 2	Up to 1
Supply voltage [V]	3.3	3.3	3.3
Peak power [mW]	174	280	280
Average power [mW]	100	200	170

\*Preliminary Specifications

## DEPLOYABLE MAGNETOMETER

## COMPACT MAGNETOMETER

## PERFORMANCE

Noise per channel [3-sigma] [nT]	50	120
Linearity Error (Full Scale) [%]	0.6	0.6
Sensitivity [nT]	13	25
Field Measurement Range [G]	±8	±8

## PHYSICAL

Mass [g]	16	6
Dimensions [mm] *Height with protrusion is 9.6	17x82x6.5*	24x24x7.8

## POWER AND DATA

Data bus	CAN/UART/RS-485	CAN/UART/I2C/RS-485
Connector	Molex Micro-Lock Plus	
Update rate [Hz]	5	6
Supply voltage [V]	3.3	3.4
Peak power [mW]	230	
Average power [mW]	50	
Deployment power [mW]	2 350	N/A

## AURIGA PROCESSING UNIT

## PHYSICAL

Mass [g]	55.5
Dimensions [mm]	74.3 x 52.5 x 14.05

## POWER &amp; DATA

Data bus	CAN/UART/RS-485
Connector	Molex Micro-Lock Plus
Update rate [Hz]	5
Supply voltage [V]	3.3 and 5.0
Peak power [mW]	347 / 396 [ 1 OH / 2 OH ]
Average power [mW]	326 / 381 [ 1 OH / 2 OH ]

## QUALIFICATION TEST

Radiation	24 kRad
Vibration	14.16g RMS (NASA GEVS)
Shock	1500g
Thermal (Vacuum) [°C]	-20 to 80 °C
Thermal (Hot & Cold Start) [°C]	-35 to 70 °C



The Gold Standard in Control Systems for Satellites up to 1 Ton