OSCP

MK2Z-3

IMU with optical gyroscopes on up to three axes

The MK2Z-3 extends the MK2Z prototype's optical gyroscope to the other two axes: one enclosure, configured with optical gyroscopes on one, two or all three axes. Values are design targets, not measured results, and may change during development.



1, 2 or 3 axes	≤0.01 °/hr	1 enclosure	MK2Z	RS-422 / CAN-FD	2027
OPTICAL GYROSCOPES, BY CONFIGURATION	GYRO BIAS STABILITY, DESIGN TARGET	FOR EVERY CONFIGURATION	PROTOTYPE IT BUILDS ON	HOST INTERFACE	SAMPLES PLANNED

DESIGN TARGETS

Optical gyroscope axes	One, two or three, by configuration
Enclosure	One enclosure for every configuration
Platform	Builds on the MK2Z prototype
Gyro bias stability	0.01 °/hr or better
Host interface	RS-422 or CAN-FD, as the MK2 family

MK2Z PROTOTYPE REFERENCE

Z in-run bias stability	0.02 °/hr typical, 0.01 minimum
Z angle random walk	0.009 to 0.01 °/√hr
Z dynamic range	±600 °/s
Z bias repeatability	Turn-on: 0.06 °/hr warm, 0.1 °/hr cold
MEMS gyroscopes	X, Y, Z • <1.0 °/hr typical in-run bias
Host interface	RS-422 or CAN-FD variant
Output data rate	0, 100 or 500 Hz, selectable
Power consumption	4.5 W typical • 7.5 W max
Operating temperature	−40 to +70 °C
Dimensions • mass	83 × 86.5 × 65 mm • 475 g

APPLICATIONS

- Small satellites
- Launch vehicles
- Landers and rovers
- Re-entry capsules
- Endurance UAVs
- Subsea vehicles
- Aerospace
- Defence and security
- Autonomous vehicles

OPTICAL GYROSCOPE AXES



MK2Z
Prototype • optical Z axis plus three MEMS axes



MK2Z-3
In development • optical on 1, 2 or 3 axes

AVAILABILITY

Status	In development; design targets may change
Samples	Planned for 2027
Contact	info@oscp.com to discuss evaluation