



SELECTED ALTERNATIVE SOLUTION FOR IMU AND GYROS

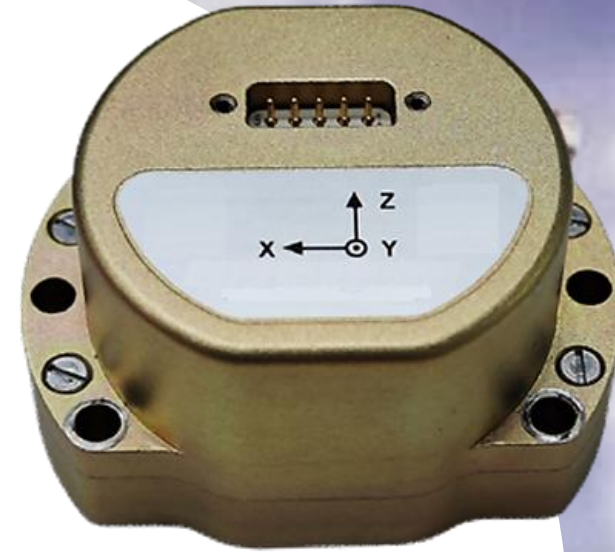


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U4930-A/B

ALTERNATIVE FOR HG4930

MEMS Based IMU -- TACTICAL GRADE



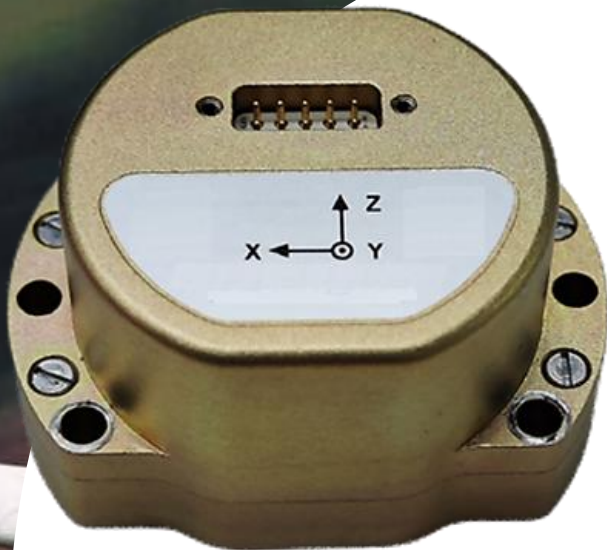
GYROSCOPES

Maximum dynamic range	$\pm 400/400^\circ/\text{sec}$
Full temperature zero bias stability (3σ)..	$2/3^\circ/\text{hr}$
Bias in-run stability (10s, 1σ)	$0.3/0.8^\circ/\text{hr}$
Bias in-run repeatability (10s, 1σ).....	$0.3/0.5^\circ/\text{hr}$
Noise (Random walk).....	$0.02/0.05^\circ/\sqrt{h}$
Scale factor nonlinearity.....	100ppm

ACCELEROMETERS

.....	$\pm 30\text{ g}$
.....	2 mg
.....	0.05 mg
.....	0.05 mg
.....	$0.03\text{ m/s}/\sqrt{h}$
.....	100ppm

Size	64.8 x 47 x 35.3 mm
Weight	$130 \pm 10\text{ g}$
Interface	RS422



U4930-C

ALTERNATIVE FOR HG1930

MEMS Based IMU -- TACTICAL GRADE

GYROSCOPES

ACCELEROMETERS

Maximum dynamic range	± 500 °/sec	± 30 g
Full temperature zero bias stability (3σ)..	30°/hr	2 mg
Bias in-run stability (10s, 1σ)	2°/hr	0.05 mg
Bias in-run repeatability (10s, 1σ).....	1°/hr	0.05 mg
Noise (Random walk).....	0.1°/√h	0.03 m/s/ √ h
Scale factor nonlinearity.....	100ppm	100ppm

Size	64.8 x47 x 35.3 mm
Weight	130±10 g
Interface	RS422

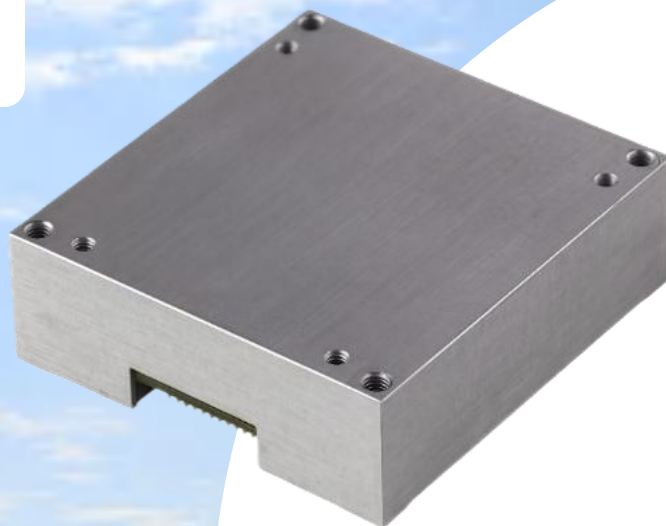
U1925

ALTERNATIVE FOR HG1925

MEMS Based IMU -- TACTICAL GRADE

	GYROSCOPES	ACCELEROMETERS
Dynamic range — X/Y,Z Axis.....	±9000/500°/sec	±20~24 g
Zero position (full temperature).....	0.1°	20mg
Bias stability (10s, 1σ).....	20°/hr	2 mg
Bias instability (Allan)	5°/hr	0.05 mg
Bias in-run repeatability (10s, 1σ).....	20°/hr	0.05 mg
Non-orthogonality.....	0.001	0.001
Scale factor nonlinearity.....	300ppm	300ppm
Size	Φ55×15 mm	
Weight	6 g	
Interface	RS422	





U16488-C/D/E

ALTERNATIVE FOR ADIS16488

MEMS Based IMU -- TACTICAL GRADE

	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	 $\pm 480/500^\circ/\text{sec}$	 $\pm 16/20/40 \text{ g}$
Full temperature zero bias stability (1σ)..	 $50^\circ/\text{hr}$	 $0.3/0.5 \text{ mg}$
Bias instability (Allan curve)	 $0.3\sim 0.8^\circ/\text{hr}$	 $0.02 \sim 0.04 \text{ mg}$
Bias in-run stability (10s, 1σ)	 $3^\circ/\text{hr}$	 0.02 mg
Bias in-run repeatability (10s, 1σ).....	 $1.5^\circ/\text{hr}$	 0.02 mg
Noise (Random walk).....	 $0.08/0.03^\circ/\sqrt{\text{h}}$	 $0.01 \text{ m/s}/\sqrt{\text{h}}$
Scale factor nonlinearity.....	 $25/100 \text{ ppm}$	 100 ppm

MAGNETOMETER

BAROMETER

..... $\pm 8 \text{ gauss}$	 $300\sim 1100 \text{ mbar}$
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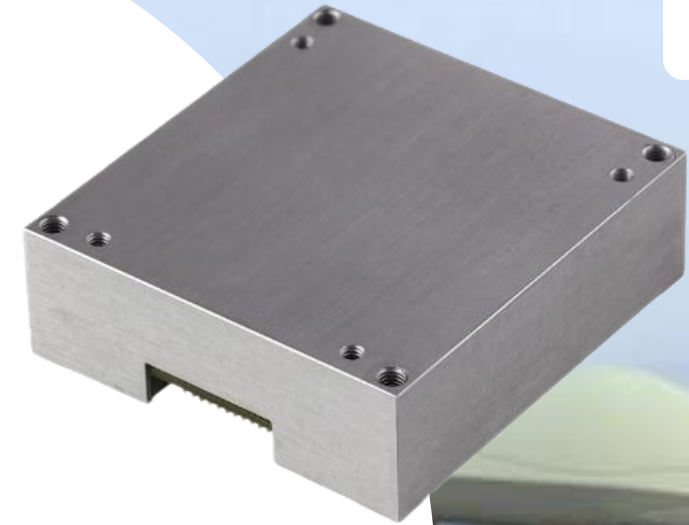
Size	 $47 \times 44 \times 14 \text{ mm}$
Weight	 50 g
Interface	 SPI/UART

U16495-A/B

ALTERNATIVE FOR ADIS16495

MEMS Based IMU -- TACTICAL GRADE

	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	±350/±500 °/sec	±20/40 g
Full temperature zero bias stability (1σ)..	20°/hr	1/3 mg
Bias in-run stability (10s, 1σ)	3°/hr	0.05/0.25 mg
Bias in-run repeatability (10s, 1σ).....	1/5°/hr	0.05/0.5 mg
Noise (Random walk).....	0.1/0.15 °/√h	0.03 m/s/ √ h
Scale factor nonlinearity.....	100ppm	200ppm
	MAGNETOMETER	BAROMETER
U16495-A	±8 gauss	300~1100 mbar
Size	47 x44 x 14 mm	
Weight	50 g	
Interface	SPI/UART	





U16575

ALTERNATIVE FOR ADIS16575

MEMS Based IMU -- TACTICAL GRADE

	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	 ± 500 °/sec	 ± 8 g
Full temperature zero bias stability (3σ)..	 $100^\circ/\text{hr}$	 3 (XY)/ 6 (Z) mg
Bias in-run stability (10s, 1σ)	 $5^\circ/\text{hr}$	 0.1 mg
Bias in-run repeatability (10s, 1σ).....	 $5^\circ/\text{hr}$	 0.03 mg
Noise (Random walk).....	 0.2 °/ $\sqrt{\text{h}}$	 0.03 m/s/ $\sqrt{\text{h}}$
Scale factor nonlinearity.....	 150ppm	 200ppm

MAGNETOMETER

..... ± 8 gauss

Size	$22.4 \times 22.3 \times 13.7$ mm
Weight	12 ± 2 g
Interface	SPI/UART

U5000

ALTERNATIVE FOR STIM320

MEMS Based IMU -- TACTICAL GRADE



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	 ± 500 °/sec	 ± 30 g
Full temperature zero bias stability (3σ)..	 30° /hr	2 mg
Bias in-run stability (10s, 1σ)	 2° /hr	0.05 mg
Bias in-run repeatability (10s, 1σ).....	 1° /hr	0.05 mg
Noise (Random walk).....	 0.1 °/ $\sqrt{h}$	 0.03 m/s/ $\sqrt{h}$
Scale factor nonlinearity.....	100ppm	100ppm
Size	44.8 x38.6 x 21.5 mm	
Weight	52 g	
Interface	RS422	



U6300

ALTERNATIVE FOR STIM300

MEMS Based IMU -- TACTICAL GRADE

	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	 ± 450 °/sec	 ± 20 g
Bias in-run stability (10s, 1σ)	 1° /hr	0.1 mg
Full temp bias in-run stability.....	 5° /hr	0.15 mg
Noise (Random walk).....	 0.03 °/ $\sqrt{h}$	0.02 m/sec/ $\sqrt{h}$
Scale factor nonlinearity.....	100ppm	100ppm
Size	44.8 x38.6 x 10 mm	
Weight	60 g	
Interface	RS422	

UF200-N

ALTERNATIVE FOR LN200

FOG and MEMS ACC Combined IMU -- TACTICAL GRADE



GYROSCOPES

ACCELEROMETERS

Maximum dynamic range	±500°/sec	±30 g
Zero bias.....	1°/hr	1 mg
Bias stability (10s,1σ).....	0.5°/hr	0.03 mg
Full temperature zero bias stability	0.5°/hr	0.03 mg
Noise (Random walk).....	0.02°/√h	0.015 m/s/ √ h
Scale factor nonlinearity.....	200ppm	5 ppm

Size	Φ88.9 x 89.55 mm
Weight	500 g
Interface	RS422/RS232





M3G-210/220

ALTERNATIVE FOR STIM200/202

3-Axis MEMS Gyroscope -- TACTICAL GRADE

Dynamic Range.....	±500°/s
Measuring Axis.....	3 Axis
Full Temperature Zero Bias(3σ)	30°/hr
Zero Bias Stability (10s).....	2°/hr
Zero Bias Repeatability (1σ).....	1°/hr
Random Walk Coefficient	0.1°/√h
The Scale Factor of Nonlinearity.....	100ppm (1σ)
Cross-coupling (rad).....	0.001ppm
Bandwidth.....	200Hz
Power Supply.....	5~12V
Power Consumption.....	1.5W
Impact Resistance.....	500g, 1ms, 1/2 sine
Vibration Conditions.....	6.06grms, 20~2000Hz
Communication Protocol.....	RS422
Operating Temperature.....	-40~+80℃
Pack and Size.....	44.8*38.6*21.5mm
Weight.....	50±5g



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**Unmanned Aerial
Vehicles**



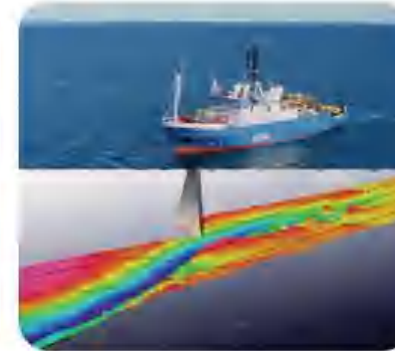
Satellites



Autonomous Vehicles



**Remotely Operated
Underwater Vehicles**



**Maritime Echosounder
Application**



**Petroleum Extraction
and Exploration**