



INERTIAL MEASUREMENT UNITS



麦新敏微

The Leader in China Inertial Sensor Market



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U300-A INDUSTRIAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	± 100 °/sec	± 10 / ± 20 / ± 40 g
Bias in-run stability (Allan)	5 °/hr	0.08 mg
Bias repeatability	5 °/hr	0.12 mg
Noise (Random walk)	0.12 °/ \sqrt{h}	0.1 m/sec/ \sqrt{h}
Scale factor error	0.1%FS	0.15 %FS
Size	59.6 x 59 x 23.5 mm	
Weight	120 g	



U300-B INDUSTRIAL GRADE

MEMS Inertial Measurement Unit

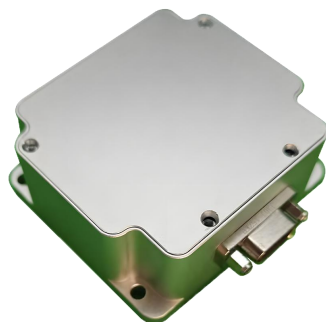


	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	$\pm 125 / \pm 250 / \pm 500 / \pm 1000$ °/sec	$\pm 3 / \pm 6 / \pm 12 / \pm 24$ g
Bias in-run stability (Allan)	7 °/hr	0.08 mg
Bias repeatability	7 °/hr	0.18 mg
Noise (Random walk)	0.12 °/ \sqrt{h}	0.09 m/sec/ \sqrt{h}
Scale factor error	0.1 %FS	0.1 %FS
Size	22 x 22 x 7.4 mm	
Weight	7 g	

U3000

INDUSTRIAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	± 100 °/sec	± 10 / ± 20 / ± 40 g
Bias in-run stability (Allan)	3 °/hr	0.05 mg
Bias repeatability	3 °/hr	0.12 mg
Noise (Random walk)	0.09 °/ \sqrt{h}	0.03 m/sec/ \sqrt{h}
Scale factor error	0.08 %FS	0.1 %FS
Size	59.6 x 53.4 x 24 mm	
Weight	120 g	



U3500 INDUSTRIAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	±400 °/sec	±12 /±16 /±24 g
Bias in-run stability (Allan)	5.1 °/hr	0.06 mg
Bias repeatability	7 °/hr	2.52 mg
Noise (Random walk)	0.6 °/√h	0.08 m/sec/√h
Scale factor error		0.5 %FS
Size	22 x 22 x 10 mm	
Weight	8 g	

U5000 TACTICAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	± 400 °/sec	± 10 g
Bias stability (10s)	3 °/hr	0.15 mg
Bias repeatability	3 °/hr	0.15 mg
Noise (Random walk)	0.15 °/ \sqrt{h}	0.17 m/sec/ \sqrt{h}
Scale factor error	0.015 %FS	0.05 %FS
Size	44.8 x 38.6 x 21.5 mm	
Weight	60 g	





U6300 TACTICAL GRADE

MEMS Inertial Measurement Unit

	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	± 450 °/sec	± 20 g
Bias in-run stability (Allan)	0.1~0.5 °/hr	0.01mg
Full-temperature bias stability	5 °/hr	0.15 mg
Noise (Random walk)	0.02 °/√h	0.02 m/sec/√h
Scale factor error	0.01 %FS	0.01 %FS
Size	38.6*44.8*10 mm	
Weight	50 g	

U6488 TACTICAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	+450 °/sec	+20 g
Bias in-run stability (Allan)	1~4 °/hr	0.0005~0.15 mg
Full-temperature bias stability	5~8 °/hr	0.15~1 mg
Noise (Random walk)	0.03~0.08 °/√h	0.02~0.05 m/sec/√h
Scale factor error	0.01 %FS	0.01 %FS
Size	47 x 44 x 14 mm	
Weight	40 g	

U7000 TACTICAL GRADE

MEMS Inertial Measurement Unit



GYROSCOPES

Maximum dynamic range	± 400 °/sec
Bias in-run stability (Allan)	0.1 °/hr
Bias repeatability	1 °/hr
Noise (Random walk)	0.05 °/ \sqrt{h}
Scale factor error	0.01 %FS
Size	44.8 x 38.6 x 21.5 mm
Weight	55 g

ACCELEROMETERS

± 30 g
0.015 mg
0.1 mg
0.01 m/sec/ \sqrt{h}
0.05 %FS



UF100A TACTICAL GRADE

High Precision FOG Based Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	$\pm 300/\pm 500$ °/sec	± 10 g
Bias in-run stability (Allan)	0.05 °/hr	0.02 mg
Bias repeatability	0.2 °/hr	0.1 mg
Noise (Random walk)	0.04 °/√h	0.01 m/sec/√h
Scale factor error	100 ppm	300 ppm
Size	$\phi 89 \times 78.5$ mm	
Weight	600 g	

UF300A NAVIGATION GRADE

High Precision FOG Based Inertial Measurement Unit



GYROSCOPES

ACCELEROMETERS

Maximum dynamic range	± 300 °/sec	± 10 g
Bias in-run stability (1σ , 10s)	0.03 °/hr	0.05 mg
Bias repeatability (1σ)	0.03 °/hr	0.05 mg
Noise (Random walk)	0.003 °/√h	0.007 m/sec/√h
Scale factor error	10 ppm	100 ppm
Size	145 x 122 x 125 mm	
Weight	1800 \pm 50 g	



UF300B/UF300C TACTICAL GRADE

High Precision FOG Based Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	$\pm 300/\pm 1000$ °/sec	± 10 g
Bias in-run stability (1σ , 10s)	0.08/0.1 °/hr	0.05/0.07 mg
Bias repeatability (1σ)	0.08/0.1 °/hr	0.05/0.07 mg
Noise (Random walk)	0.008/0.01 °/√h	0.007/0.01 m/sec/√h
Scale factor error	60/60 ppm	200/300 ppm
Size	145 x 122 x 125 mm	
Weight	1800 ±50 g	

UF100A TACTICAL GRADE

High Performance FOG Based Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	+300/+500 °/sec	±10 g
Bias in-run stability (Allan)	0.05 °/hr	0.02 mg
Bias repeatability	0.2 °/hr	0.1 mg
Noise (Random walk)	0.04 °/√h	0.01 m/sec/√h
Scale factor error	100 ppm	300 ppm
Size	ø89 × 78.5 mm	
Weight	600 g	



UF3X80-A/UF3X80-B TACTICAL GRADE

High Performance FOG Based Inertial Measurement Unit



GYROSCOPES	
Maximum dynamic range	±500 °/sec
Bias in-run stability (1σ, 10s)	0.3/0.5 °/hr
Bias repeatability (1σ)	0.3/0.5 °/hr
Noise (Random walk)	0.03/0.02 °/√h
Scale factor error	30/50 ppm
Size	φ80 × 70 mm
Weight	680 ±50 g

ACCELEROMETERS
..... Can be customized
according to customer's
requirement either made by
MEMS Accelerometers or by
Quartz Accelerometers

UF3X90-A/UF3X90-B TACTICAL GRADE

High Precision FOG Based Inertial Measurement Unit



GYROSCOPES

Maximum dynamic range	$\pm 500^{\circ}/\text{sec}$
Bias in-run stability (1σ , 10s)	0.1/0.2 $^{\circ}/\text{hr}$
Bias repeatability (1σ)	0.1/0.2 $^{\circ}/\text{hr}$
Noise (Random walk)	0.01/0.02 $^{\circ}/\sqrt{\text{h}}$
Scale factor error	30/50 ppm
Size	$\varnothing 90 \times 78 \text{ mm}$
Weight	780 $\pm 50 \text{ g}$

ACCELEROMETERS

..... Can be customized according to customer's requirement either made by MEMS Accelerometers or by Quartz Accelerometers



UF3X100-A/UF3X100-B NAVAIGATION GRADE

High Performance FOG Based Inertial Measurement Unit



	GYROSCOPES
Maximum dynamic range	±500 °/sec
Bias in-run stability (1σ, 10s)	0.05/0.1 °/hr
Bias repeatability (1σ)	0.05/0.1 °/hr
Noise (Random walk)	0.005/0.003 °/√h
Scale factor error	30/30 ppm
Size	100 x 100 x 95 mm
Weight	950 ±50 g

ACCELEROMETERS
..... Can be customized according to customer's requirement either made by MEMS Accelerometers or by Quartz Accelerometers

UF500 TACTICAL GRADE

High Performance FOG and Quartz Flexible Accl Combined IMU



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	$\pm 360^\circ/\text{sec}$	$\pm 50\text{ g}$
Bias in-run stability (1σ , 10s)	$0.1^\circ/\text{hr}$	0.02 mg
Bias repeatability (1σ)	$0.8^\circ/\text{hr}$	0.1 mg
Noise (Random walk)	$0.08^\circ/\sqrt{\text{h}}$	$0.007\text{ m/sec}/\sqrt{\text{h}}$
Scale factor error	100 ppm	300 ppm
Size	$80 \times 80 \times 60\text{ mm}$	
Weight	$950 \pm 50\text{ g}$	



UF600 TACTICAL GRADE

High Performance FOG and MEMS Accelerometer Combined IMU



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	±360 °/sec	±50 g
Bias in-run stability (Allan)	0.1 °/hr	0.05 mg
Bias repeatability (1σ)	0.8 °/hr	0.3 mg
Noise (Random walk)	0.08 °/√h	0.01 m/sec/√h
Scale factor error	100 ppm	100 ppm
Size	80 x 80 x 60 mm	
Weight	950 ±50 g	

UF700 TACTICAL GRADE

High Performance FOG and Quartz Flexible Accl Combined IMU



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range	±800 °/sec	±30 g
Bias in-run stability (Allan)	0.5 °/hr	0.06 mg
Bias repeatability (1σ)	0.5 °/hr	0.06 mg
Noise (Random walk)	0.05 °/√h	0.01 m/sec/√h
Scale factor error	100 ppm	100 ppm
Size	80 x 80 x 60 mm	
Weight	1000 g	





The Leader in China Inertial Sensor Market



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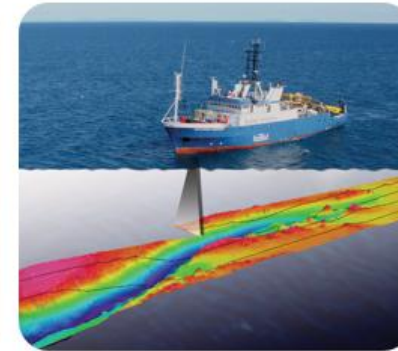
Satellites



Autonomous Vehicles



Remotely Operated
Underwater Vehicles



Maritime Echosounder
Application



Petroleum Extraction
and Exploration