



# INERTIAL MEASUREMENT UNITS



麦新敏微

The Leader in China Inertial Sensor Market



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# U300-B INDUSTRIAL GRADE

MEMS Inertial Measurement Unit



	<b>GYROSCOPES</b>	<b>ACCELEROMETERS</b>
Maximum dynamic range .....	$\pm 250 / \pm 500 / \pm 1000$ °/sec	$\pm 6 / \pm 12 / \pm 24$ g
Bias in-run stability (Alan) .....	7 °/hr	0.08 mg
Bias in-run repeatability (Alan) .....	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 .....	$\pm 100$ °/sec .....	$\pm 10$ / $\pm 20$ / $\pm 40$ g .....
Bias in-run stability (Alan) .....	3 °/hr .....	0.05 mg .....
Bias in-run repeatability (Alan) .....	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 59 x 23.5 mm	
Weight .....	120 g	





# U3500 INDUSTRIAL GRADE

**MEMS Inertial Measurement Unit**



	<b>GYROSCOPES</b>	<b>ACCELEROMETERS</b>
Maximum dynamic range .....	±400 °/sec	±12 /±16 /±24 g
Bias in-run stability (Alan) .....	5.1 °/hr	0.06 mg
Bias in-run repeatability (Alan) .....	7 °/hr	2.52 mg
Noise (Random walk) .....	0.36 °/√h	0.08 m/sec/√h
Scale factor error .....	0.05 %FS	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 .....	$\pm 400$ °/sec .....	$\pm 30$ g .....
Bias in-run stability (Alan) .....	0.5 °/hr .....	0.01 mg .....
Bias in-run repeatability (Alan) .....	3 °/hr .....	0.01 mg .....
Noise (Random walk) .....	0.08 °/ $\sqrt{h}$ .....	0.17 m/sec/ $\sqrt{h}$ .....
Scale factor error .....	0.01 %FS .....	0.1 %FS .....
Size .....	44.8 x 38.6 x 21.5 mm	
Weight .....	60 g	



# U7000 TACTICAL GRADE

MEMS Inertial Measurement Unit



	GYROSCOPES	ACCELEROMETERS
Maximum dynamic range .....	$\pm 400$ °/sec .....	$\pm 30$ g .....
Bias in-run stability (Alan) .....	0.1 °/hr .....	0.015 mg .....
Bias in-run repeatability (Alan) .....	1 °/hr .....	0.015 mg .....
Noise (Random walk) .....	0.05 °/ $\sqrt{h}$ .....	0.01 m/sec/ $\sqrt{h}$ .....
Scale factor error .....	0.01 %FS .....	0.1 %FS .....
Size .....	44.8 x 38.6 x 21.5 mm	
Weight .....	55 g	

# UF100A TACTICAL GRADE

High Performance FOG Based Inertial Measurement Unit



	<b>GYROSCOPES</b>	<b>ACCELEROMETERS</b>
Maximum dynamic range .....	$\pm 300/\pm 500$ °/sec	$\pm 10$ g
Bias in-run stability (Alan) .....	0.05 °/hr	0.02 mg
Bias in-run repeatability (Alan) .....	0.2 °/hr	0.1 mg
Noise (Random walk) .....	0.02 °/ $\sqrt{h}$	0.01 m/sec/ $\sqrt{h}$
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



	<b>GYROSCOPES</b>	<b>ACCELEROMETERS</b>
Maximum dynamic range .....	$\pm 300/\pm 1000$ °/sec .....	$\pm 10$ g .....
Bias in-run stability (1 $\sigma$ , 10s) .....	0.05 °/hr .....	0.05 mg .....
Bias in-run repeatability (1 $\sigma$ , 10s) .....	0.05 °/hr .....	0.05 mg .....
Noise (Random walk) .....	0.005 °/ $\sqrt{h}$ .....	0.007 m/sec/ $\sqrt{h}$ .....
Scale factor error .....	50 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



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



# UF3X80-A/UF3X80-B TACTICAL GRADE

High Performance FOG Based Inertial Measurement Unit



	<b>GYROSCOPES</b>
Maximum dynamic range .....	±500 °/sec
Bias in-run stability (1σ, 10s) .....	0.3/0.2 °/hr
Bias in-run repeatability (1σ, 10s) .....	0.3/0.2 °/hr
Noise (Random walk) .....	0.03/0.02 °/√h
Scale factor error .....	50/50 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 .....	±500 °/sec
Bias in-run stability (1σ, 10s) .....	0.2/0.1 °/hr
Bias in-run repeatability (1σ, 10s) .....	0.2/0.1 °/hr
Noise (Random walk) .....	0.02/0.01 °/√h
Scale factor error .....	30/20 ppm
Size .....	φ90 × 78 mm
Weight .....	780 ±50 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) .....	0.05/0.03 °/hr
Bias in-run repeatability (1σ, 10s) .....	0.05/0.03 °/hr
Noise (Random walk) .....	0.005/0.003 °/√h
Scale factor error .....	30/20 ppm
Size .....	100 x 100 × 95 mm
Weight .....	950 ±50 g

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





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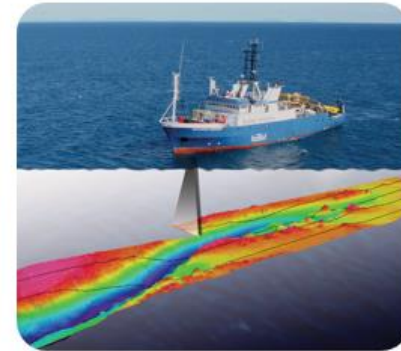
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