

## Parameter Index

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### Gyro Accuracy

Model	TLH-IMU-370D-06J	TLH-IMU-370D-05J	TLH-IMU-350D-03J	TLH-IMU-160D-04J	TLH-IMU-600M-31A
Measuring range	$\pm 450^\circ /s$	$\pm 450^\circ /s$	$\pm 300^\circ /s$	$\pm 300^\circ /s$	$\pm 300^\circ /s$
Bandwidth	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz
Zero bias repeatability	$\leq 0.03^\circ /h, (1\sigma)$	$\leq 0.07^\circ /h, (1\sigma)$	$\leq 0.3^\circ /h, (1\sigma)$	$\leq 0.1^\circ /h + 10^\circ /h, (1\sigma)$	$10^\circ /h, (1\sigma)$
Zero bias repeatability	$\leq 0.03^\circ /h, (1\sigma)$	$\leq 0.07^\circ /h, (1\sigma)$	$\leq 0.3^\circ /h, (1\sigma)$	$\leq 0.1^\circ /h + 10^\circ /h, (1\sigma)$	$10^\circ /h, (1\sigma)$
Random walk coefficient	$0.003^\circ / \sqrt{h}$	$0.006^\circ / \sqrt{h}$	$0.02^\circ / \sqrt{h}$	$0.01^\circ / \sqrt{h} + 0.2^\circ / \sqrt{h}$	$0.2^\circ / \sqrt{h}$

### Accelerometer Accuracy

Model	TLH-IMU-370D-06J	TLH-IMU-370D-05J	TLH-IMU-350D-03J	TLH-IMU-160D-04J	TLH-IMU-600M-01M
Measuring range	$\pm 20$ g (or $\pm 30$ g optional)	$\pm 20$ g (or $\pm 30$ g optional)	$\pm 20$ g (or $\pm 30$ g optional)	$\pm 6$ g	$\pm 6$ g
Bandwidth	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz	$\geq 200$ Hz
Resolution	$\leq 70$ $\mu$ g	$\leq 70$ $\mu$ g	$\leq 70$ $\mu$ g	$\leq 100$ $\mu$ g	$\leq 100$ $\mu$ g
Zero bias	$\leq 0.1$ mg	$\leq 0.1$ mg	$\leq 0.1$ mg	$\leq 0.5$ mg	$\leq 0.5$ mg
Zero bias stability, $1\sigma$	$\leq 50$ $\mu$ g	$\leq 50$ $\mu$ g	$\leq 50$ $\mu$ g	$\leq 200$ $\mu$ g ( $1\sigma$ )	$\leq 200$ $\mu$ g ( $1\sigma$ )
Zero bias repeatability, $1\sigma$	$\leq 50$ $\mu$ g	$\leq 50$ $\mu$ g	$\leq 50$ $\mu$ g	$\leq 200$ $\mu$ g ( $1\sigma$ )	$\leq 200$ $\mu$ g ( $1\sigma$ )
Scale factor nonlinearity	$\leq 40$ ppm	$\leq 40$ ppm	$\leq 40$ ppm	$\leq 200$ ppm	$\leq 200$ ppm

## System Parameters

Model	TLH-IMU-370D-06J	TLH-IMU-370D-05J	TLH-IMU-350D-03J	TLH-IMU-160D-04J	TLH-IMU-600M-31A
Operating temperature	-40°C ~+65°C				-40°C~ +85°C
Storage temperature	-55°C ~+85°C				-55°C~ +105°C
Vibration	5g@20~2000 Hz				5g@20~2000Hz
Impact	40g, 11ms, 1/2 Sine				40g, 11ms, 1/2Sine
Power supply voltage	18~36 VDC	18~36 VDC	9~36VDC	9~36VDC	9~36VDC
Power consumption	28W@28VDC	15W@28VDC	5W@28 VDC	5W@28 VDC	1W@12 VDC
Dimensions (mm )	148.5*148.5*145.5	104*97*72	60*60*40	60*60*40	60.3*51*24
Weight (kg)	≤4	≤1.5	≤1	≤0.25	≤60
Communication interface	RS232*2 (RTK and data line); RS422*2 (data line); CAN*1 (odometer and data line); PPS*1 (synchronous)	RS422*2 (data line); PPS*1 (synchronization)			RS232/RS422, PPS