

战术级IMU



IMU4000-01

Model	IMU4000-01 (High-range/shock)	
Sensor parameter	Gyro	Accelerometer
Measurement range	± 4000 deg/s axis 1-2-3	$\pm 100g$ axis 1,2,3 (or $\pm 30g$ axis 1,2,3)
Bias repeatability	≤ 50 deg/hr 1σ (On-Off repeatability at Tconst) ≤ 300 deg/hr (over temperature range)	≤ 7.5 mg (On-Off repeatability) < 75 mg (one year-typical)
Bias instability	≤ 2.5 deg/hr (Allan Variance minimum at Tconst)	Short term Stability $\leq 0.5mg$ ($\pm 30g$ FS) $\leq 1.5mg$ ($\pm 100g$ FS)
Random Walk	≤ 0.15 deg/ $\sqrt{\text{hr}}$ (Allan variance)	$900\mu g/\sqrt{\text{hz}}$ $0.009\text{m/s}/\sqrt{\text{hz}}$ ($0 \leq \text{BW} \leq 100$)
Scale Factor repeatability	< 3500 ppm	300 ppm (typical one year) (Max < 1000 ppm)
Band Width, Phase (When Phase Shift= -90)	$> 30\text{Hz}$	$> 30\text{Hz}$
Shock	100g, 11ms Saw-tooth	
Vibration	6G rms 20~2000Hz	
Operating Temperature	-20~+50 (-40~+71) ° C	
Size	diameter: 60mm height: 40mm	
Weight	200g	