

计量测试

## 位标器动平衡测试系统中相位测量的实现

江恒<sup>1</sup>,张莉<sup>2</sup>,叶红霞<sup>3</sup>,夏振中<sup>4</sup>

1.武汉军械士官学校,湖北 武汉 430075; 2.武汉邮电科学院电信器件公司,湖北 武汉 430074; 3.中船重工第七二二研究所,湖北 武汉 430071; 4.湖北电信武汉分公司,湖北 武汉 430075

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摘要

提出了一种新的相位测量方法。该方法可准确检测从位标器陀螺仪输出的钟形光电脉冲信号峰值点的位置,并以其为时间基准点进行相位测量,同时判断被测2个信号之间的时间间隔以及超前与滞后关系。针对在现场中的干扰因素,提出了相应的解决措施。试验证明该方法电路简单,测量速度快,精度高,可靠性好。

关键词 [位标器陀螺仪](#) [相位测量](#) [单片机](#)

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## Phase measurement in dynamical balance testing system of coordinator

JIANG Heng<sup>1</sup>,ZHANG Li<sup>2</sup>,YE Hong-xia<sup>3</sup>,XIA Zhen-zhong<sup>4</sup>

1.Dept.of Optoelectronic Engineering, Wuhan Ordnance N.C.O Academy of PLA, Wuhan 430075, China; 2.Wuhan Telecommunication Devices Co.,Ltd,Wuhan 430074,China; 3. Wuhan Maritime Communication Institute, Wuhan 430071, China; 4. Wuhan Branch of Hubei Telecom Corporation, Wuhan 430075, China

**Abstract** A novel method for phase measurement is presented. In the method, the position of the bell-like optoelectronic pulse peak signal from a coordinator gyroscope was accurately measured, and the position was used as time reference to measure the phase. The time interval between two signals and their phase lead or lag was determined. Some measures were taken to overcome the disturbance in the ambient environment. The experiment proves that the method enables simple circuit as well as fast, accurate and reliable measurement.

**Key words** [coordinator gyroscope](#) [phase measurement](#) [single chip microprocessor](#)

DOI:

通讯作者 江恒 [snowiceworldjh@sina.com](mailto:snowiceworldjh@sina.com)

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