

手动影像测量仪配置规格书

M 2010



1. M2010 产品配置表

M2010 product configuration table

序 号 NO.	品 名 Product name	规格/品牌 Specifications / brand	单位 unit	数量 Quant	备注 Remar
1	仪器机身 Instrument body	采用大理石底座，立柱、工作台面 Marble base, column, countertop	台	1	
2	CCD	高分辨率彩色 CCD High resolution color CCD	个	1	
3	镜头 Lens	连续变倍镜头 Continuous zoom lens	个	1	
4	光栅尺 Scale	高精度光栅尺,分辨率 0.0005mm High precision grating scale, resolution 0.0005mm	条	2	
5	传动 Transmission	精无牙珠螺杆 Fine toothless screw	条	3	



6	精准测量软件 Precision	专业精准手动测量软件 Professional precision manual measurement software	套	1	
8	导轨 Guide	双 V 滚珠导轨 Double V ball guide	组	3	
9	软件加密狗 Software dongle	M 系列定制 M series customization	个	1	
10	光学校正片 Optical correction film	M 系列定制 M series customization	块	1	
11	视频采集卡 Video capture card	JINUOSH 定制 JINUOSH customization	块	1	
12	数据采集 data collection	JINUOSH 定制 JINUOSH customization	块	1	
13	匹配电脑 Matching computer	联想电脑 Lenovo	台	1	
14	显示器 Monitor	联想 17" 液晶显示器 Lenovo 17 inch LCD monitor	台	1	
15	键盘 Keyboard	光电套装 Photoelectric suit	个	1	
16	鼠标 Mouse	光电套装 Photoelectric suit	个	1	
17	连接电缆 Connecting cables	AC&DC	条	6	
18	用户手册 User manual	M 系列专用 M series dedicated	本	1	
19	软件使用说明书 Software instruction manual	M 系列专用 M series dedicated	本	1	

2. M2010 规格及参数

M2010 Specifications and parameters

仪 器 型 号 Instrument type		M2010
工 作 台 Table	大理石台尺寸 (mm) Marble table size (mm)	350*220
	玻璃台尺寸 (mm) Glass table size (mm)	230*130
	运动行程 (mm) Movement stroke (mm)	X:200mm Y:100mm
	调焦行程 (mm) Focusing stroke (mm)	(Z 轴) 200mm (Z Axis)

测量与瞄准系统 Measurement and aiming system	高分辨率摄像机 (CCD) High resolution camera (CCD)
	连续变倍物镜倍率:0.7-4.5X 工作距离:90mm Continuous zoom objective magnification: 0.7-4.5X Working distance: 90mm
	视频放大倍率: 20-230X 显示分辨率:0.0005mm Video magnification: 20-230X Display resolution: 0.0005mm
	精准影像 2D 测量软件 Precision Image 2D Measurement Software
示值误差 Indication error	$X, Y \leq (3+L/200) \mu m$ (L 为被测长度单位:mm) $X, Y \leq (3 + L / 200) \mu m$ (L is the measured length unit: mm)
照明系统 Lighting system	环形表面光源及透射光源均为 LED, 亮度可调。 The ring surface light source and the transmission light source are LEDs, and the brightness is adjustable.
外形尺寸 (mm) (长×宽×高) Dimensions (mm) (length × width × height)	500*700*1000
仪器重量 (kg) Instrument weight (kg)	170kg
玻璃台承重 Glass table bearing	20kg
仪器电源 Instrument power	220V (AC) 50HZ

3. M2010 产品特点

M2010 product features

一、硬件: Hardware:	
1	采用大理石底座, 立柱、工作台面。稳定性好, 结构刚性强 It has a marble base, columns and countertops. Good stability and strong structural rigidity
2	两层工作台结构,减少机械误差,保证 X、Y 水平运动精度; Two-layer workbench structure reduces mechanical errors and ensures X and Y horizontal motion accuracy;
3	大理石工作台面, 平面度好, 硬度好, 不易划伤, 经久耐用; Marble work surface, good flatness, good hardness, not easy to scratch, durable;
4	工作台 X、Y 向垂直度高, 保证坐标测量精度达 $3+L/150$ 即使工件没有摆正也可达到很高的测量精度; The X and Y directions of the table are high, ensuring the coordinate measurement accuracy of $3+L/150$. Even if the workpiece is not square, the measurement accuracy can be achieved.
5	Z 轴升降采用平衡锤结构, 保证 Z 轴升降平稳而且手感一致; The Z-axis lifting adopts a balanced hammer structure to ensure that the Z-axis rises and falls smoothly and the hand feel is consistent;

6	单轴线性补偿精度达 $3+L/200$ ，非线性补偿达 $3+L/250$ ； Single-axis linearity compensation accuracy of $3 + L / 200$, nonlinear compensation up to $3 + L / 250$;
7	一体式机台支架，使操作更加方便，符合人体工学； One-piece machine stand makes operation more convenient and ergonomic;
二、软件: Software:	
1	软件有类似 EXCEL 报表功能。测量数据可与 EXCEL 数据无缝连接 The software has similar EXCEL reporting capabilities. Measurement data can be seamlessly connected to EXCEL data
2	自动输出公差并能以颜色、声音、标识报警，最特别的是可进行产品适时尺寸跟踪。 Automatically output tolerances and alarms with color, sound, and logo, and most specifically for timely product size tracking.
3	在影像测量行业首次引入了亚像素测量功能，对测量者没有任何专业要求。相对同行产品，为使用者节省 3/5 至少的测量时间，极大的提升了测量效率。 The sub-pixel measurement function was introduced for the first time in the image measurement industry, and there is no professional requirement for the measurer. Compared with the peer products, it saves users 3/5 at least the measurement time, which greatly improves the measurement efficiency.
4	可以测量各种复杂图形包括曲线。 Various complex graphics including curves can be measured.
5	强大的拍地图功能，可实现虚拟测量。 Powerful map capture for virtual measurements.

5. 售后服务:After service

一 技术培训:Technical training:

- 1). 目的与要求: 旨在对测量机系统操作人员提供系统使用和坐标测量技术基本培训。 参加该培训人员要求具备计量基础知识、计算机应用知识特别是 AUTOCAD 知识尤佳。

Purpose: It is intended to systemic provide basic measuring technique to operator

Trainee: The trainee should have the knowledge of basic measuring, computer application. Especially, AUTOCAD

- 2). 时间: 甲方免费为乙方提供培训，学会为止，确保乙方无障碍使用甲方产品。

Time: The bargainor provide training of free charge till the trainee can master the skills that they can correct use the equipment.

- 3). 地点: 乙方现场。

Place: the buyer' s appointed position

- 4). 参加人: 乙方品质部主管及测试相关人员共 3-5 人。

Attendee: The buyer' s quality supervisor and relevant testing operator.

二 保修与维护:Maintenance:

1. 硬件维护:Hardware maintenance:

甲方向乙方提供优良的电话和网上技术咨询服务，协助乙方解决测量过程中遇到的各种问题。

The bargainor provide good technical counseling by telephone and net to helping solve measurement the various problems encountered.

- 保修期内:Within guarantee

在乙方按甲方提供的说明书正常使用情况下，自货物签收玖拾日内产品有质量问题（不包括乙方自行拆卸和损坏），甲方免费退换。从乙方验收合格之日起，甲方负责免费保修 12 个月，终身维护。

In the condition of the buyer proper use following manual, quality problem (don't include disassembly and damage by the buyer) within 90days from the product is signed in. the bargainor will replace other set for free. Within 18 months from sign for, the bargainor will keep in good repair for free, maintenance in all lifetime.

● 保修期满:Out of the guarantee

*甲方负责为用户提供计量测试技术咨询服务。每年度为仪器进行系统检查、调试、校正。确保仪器运行的稳定性

The bargainor provide the technical counseling in lifetime. And yearly implement system checking, debugging, proofreading to ensure the instrument stability

* 甲方以成本价终身为用户提供设备保修服务。

The bargainor provide the service of repairing in lifetime base on cost price.

* 甲方设有备品备件库，终身负责为用户以成本价提供备品备件服务。

The bargainor have the store house, provide the store in lifetime base on cost price

* 甲方负责以优惠价终身为乙方提供技术升级、改造等售后增值服务。

The bargainor provide the technical upgrade, updated in lifetime base on preferential price

2. 软件：甲方定期综合客户使用状况以及公司内部升级需要，不定期终身免费对乙方软件进行升级。

Software: the bargainor regularly summary the status of customer using and upgrade requirement in company ,aperiodically software upgraded for free for the buyer

三 售后服务时效:Efficiency

甲方接到乙方设备故障请求服务电话，4小时内响应，根据乙方要求甲方须在48小时内至乙方现场排除设备故障，特殊情况及节假日除外。

The bargainors will response within 4 hours after receiving the buyer's notice of equipment trouble. .And solve the trouble within 48hours in the buyer's side.