



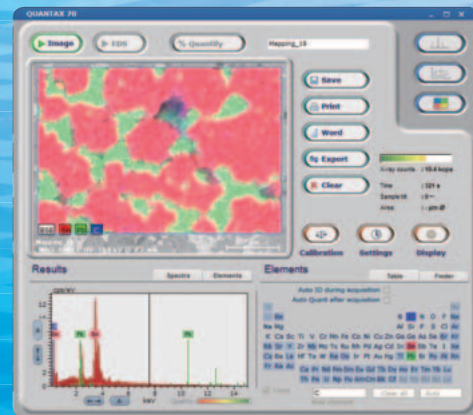
\*Typical Configuration of TM3000 with Quantax70  
\*Built-in EDX detector

# Quantax 70

- Light Element detection from Boron upwards.
- Linescan, Mapping and multiple Point Analysis available.
- No LN<sub>2</sub> required. Quick and Easy Analysis obtained within minutes.
- Image and elemental data displayed on the same monitor.



Point/Line Analysis



Mapping

## Detector

Detector type	Silicon drift detector (SDD)
Detection area	30mm <sup>2</sup>
Energy resolution	154eV (CuKα) (equivalent to 137eV with Mn-Kα)
X-ray window	For light element detection
Detection element	B <sub>5</sub> ~Am <sub>95</sub>
Thermal cycle	Detector cool down on demand.
Cooling method	2 stage Peltier cooling (No fan, No liquid nitrogen needed) Cooling temperature about -25°C Cooling is not needed when not in use. No detector warm-up needed during venting or sample changing. After power supply is turned on and cooling starts, it can be used in two minutes.

## MIN SVE signal processing unit

Multi-Channel analyzer	4,096 channels (5eV/ch)
Signal processor	Up to 60,000cps output count rate

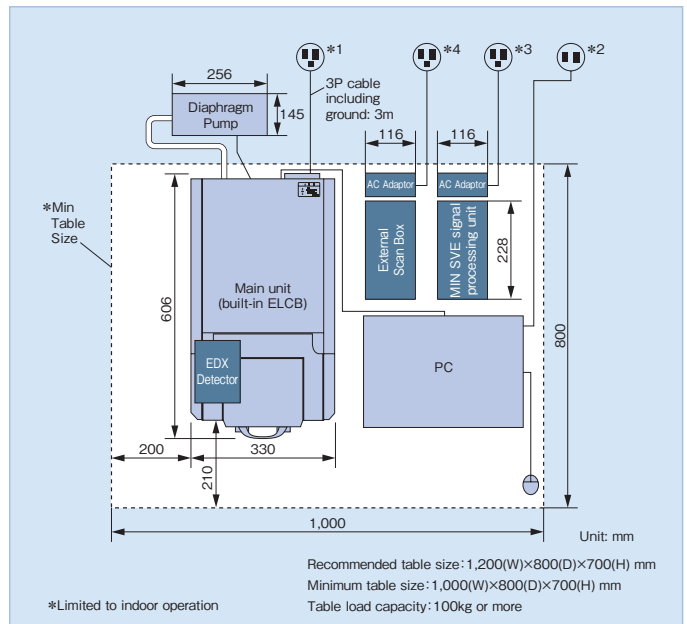
## External Scan Box

Interface to TM3000 notebook	USB 2.0 or Ethernet
Interface to microscope	via DBC cable

## Software

Spectrum Display	Scale expansion in vertical and horizontal direction, Automatic scaling, KLM marker display
Qualitative analysis	Automatic ID and manual peak ID
Quantitative analysis	Standardless quantitative analysis, normalize to 100%
Image capture	1,024 × 768, 640 × 480, 320 × 240 pixel
X-ray mapping	1,024 × 768, 640 × 480, 320 × 240 pixel Displays as single element map Display of several maps as overlaid image Overlay of single and mixed element map with BSE image Color of each map can be changed
Line analysis	Flexible line positioning in all directions Individual selection of line colors for each element Overlay of line scan profile with scan image Display of line scan spectrum
Spot/area analysis	Spot can be positioned anywhere on the image Single circle but can be moved and resized (10-768pixels). Analysis results of spot: Display of spectrum, results table and graphic display Automatic element ID of spot Automatic quantification of spot Manual selection/deselection of elements
Data reporting	Report template for printing Export of spectra to Bitmap, Tiff, JPEG, Excel 2007 and Text Export of spectra and results to Microsoft® Word 2007

## Reference Example of TM3000 and Quantax70 Installation



\*Periodical maintenance is required for this apparatus

## Dimensions and Weight (Width × Depth × Height, Weight)

Detector (housed within TM3000)	145 × 130 × 105mm, 1.5kg
MIN SVE signal processing unit	228 × 116 × 66mm, 1.0kg
External Scan Box	228 × 116 × 66 mm, 1.0kg

## Installation Conditions

Room temperature	15~30°C	
Humidity	45~70%RH or less	
Power (TM3000)*1	Single-phase AC100~240V (±10%) 50/60Hz 500VA, 3P cable	
Grounding	100 ohm or less	
Power (PC)*2	Single-phase AC100~240V (±10%) 50/60Hz 80VA, 2P cable	
Power (Quantax70)	MIN SVE signal processing unit*3	Single-phase AC100~240V (±10%) 50/60Hz 25VA, 3P cable
	External Scan box*4	Single-phase AC100~240V (±10%) 50/60Hz 15VA, 3P cable

## Required PC Specifications

OS	Windows® 7 Professional (32bit)
CPU	Intel® Core™ 2 Duo P8700 or compatible CPU
Memory size	2GB
Monitor resolution	15.4 type, WXGA 1,280 × 800 pixels
Interface connector	USB 2.0, PC card slot

\*Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.

\*Intel is registered trademarks of Intel Corp. or its affiliated companies in the United States and/or other countries.

\*Specifications of a PC are subject to change.

Notice: For connect operation, follow the instruction manual when using the instrument.

Specifications in this catalog are subject to change with or without notice, as Hitachi High-Technologies Corporation continues to develop the latest technologies and products for our customers.

Copyright (C) Hitachi High-Technologies Corporation 2010 All rights reserved.

Bringing the frontier to the forefront.

Hitachi High-Technologies Corporation

Tokyo, Japan

<http://www.hitachi-hitec.com/em/world/>

24-14, Nishi-shimbashi, 1-chome, Minato-ku Tokyo, 105-8717, Japan

*For further information, please contact your nearest sales representative.*