Energy Dispersive X-ray Spectrometer
Quantax 70

- Light Element detection from Boron upwards.
- Linescan, Mapping and multiple Point Analysis available.
- No LN₂ required. Quick and Easy Analysis obtained within minutes.
- Image and elemental data displayed on the same monitor.

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

**Detector**
- **Detector type**: Silicon drift detector (SDD)
- **Detection area**: 30mm²
- **Energy resolution**: 154eV (CuKa) (equivalent to 137eV with MnKa)
- **X-ray window**: For light element detection
- **Detection element**: B³⁻/Ar⁺
- **Thermal cycle**: Detector cool down on demand.
- **Cooling method**: 2 stage Petlier cooling (No fan, No liquid nitrogen needed)
  - Cooling temperature: -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**

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<th>Feature</th>
<th>Description</th>
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<td>Scale expansion in vertical and horizontal direction, Automatic scaling, KLM marker display</td>
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<td>Qualitative analysis</td>
<td>Automatic ID and manual peak ID</td>
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<tr>
<td>Quantitative analysis</td>
<td>Standardless quantitative analysis, normalize to 100%</td>
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<td>Image capture</td>
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**Reference Example of TM3000 and Quantax70 Installation**

**Dimensions and Weight (Width × Depth × Height, Weight)**
- **Detector (housed within TM3000)**: 145 x 130 x 105mm, 1.5kg
- **MIN SVE signal processing unit**: 228 x 116 x 66mm, 1.0kg
- **External Scan Box**: 228 x 116 x 66mm, 1.0kg

**Installation Conditions**
- **Room temperature**: 15~30°C
- **Humidity**: 45~70%RH or less
- **Power (TM3000)**<sup>1</sup>: Single-phase AC100~240V (±10%) 50/60Hz 500VA, 3P cable
- **Grounding**: 100 ohm or less
- **Power (PC)**<sup>1</sup>: Single-phase AC100~240V (±10%) 50/60Hz 80VA, 2P cable
- **Power (Quantax70)**: Single-phase AC100~240V (±10%) 50/60Hz 25VA, 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 x 800 pixels
- **Interface connector**: USB 2.0, PC card slot

<sup>1</sup> Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.

<sup>2</sup> Intel is a registered trademark of Intel Corp. or its affiliated companies in the United States and/or other countries.

<sup>3</sup> Specifications of a PC are subject to change.

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

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