



## TECHNICAL SPECIFICATIONS

**HITACHI**  
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# X-MET8000 Optimum Geo

### Analyser:

- Handheld EDXRF analyser.
- 10mm<sup>2</sup>, high resolution silicon-drift detector (SDD).
- BOOST™ technology for up to 10 times the sensitivity of other HHXRFs.
- Rh target X-ray tube (4 W; 45 kV max., 200 µA max.).
- Automatic 6-position filter changer.
- Measurement spot size: 10.7 mm x 9.4 mm.
- Operating temperature: -10 °C to +50 °C.

### Screen and operating system:

- 4.3" Blanview touch screen.
- Display resolution: 480 (H) x 800 (V) dots.
- 32 GB internal memory.
- Capable of holding 100,000 results with spectra and images (if camera fitted).
- Graphical user interface available in 14 languages: Chinese traditional and simplified, English, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish and Turkish.

### Calibrations:

- Factory-loaded robust fundamental parameters (FP) for various applications including soil, mining and metal alloys.
- Customer specific calibrations with optional calibration software.

### Analytical range:

- From Mg to U, up to 40 elements depending on application.



### Batteries:

- Rechargeable, removable, located inside handle.
- 6.8 Ah Li-ion batteries (Quantity: 2).
- Up to 10-12 hours battery life.
- 110/230 V 50/60 Hz battery charger.

### Storage and transportation:

- Waterproof carrying and storage case for X-MET and accessories.
- Case dimensions: 415 mm (L) x 325 mm (W) x 170 mm (H).
- Neck/shoulder lanyard.
- Wrist strap.
- Optional holster and belt.

### Radio module:

- Radio module XMDS2770 (X-MET8000) is handheld material analyser using 'WIFI, IEEE 802.11b/g/n and Bluetooth 4.0 module' made by Texas Instruments (FCC ID:Z64-WL18SBMOD, IC ID:4511-WL18SBMOD).
- The device has USB port for transferring data from the device, The EUT uses battery which can be charged when it is connected to the device or via separate charger.
- EN 300 328: Maximum TX power for 2.4 GHz Wi-Fi (E.I.R.P) is 16.87dBm and for Bluetooth (E.I.R.P) is 15.61 dBm

### Standard accessories:

- SS316 check sample.
- Soil or mining CRM (depending on package), blank check sample.
- Battery charger, with UK, US, Euro and Australia plug adapters (charging time: ~8 hours).
- Two Li-ion batteries.
- USB cable.
- USB Memory stick containing the User Manual and the Safety Manual (available in 14 languages).
- Light radiation shield.
- Background plate.
- Light travel stand with safety shield.
- WiFi and Bluetooth connectivity.

### Optional accessories:

- Integrated camera.
- Integrated GPS.
- Benchtop stand (weight: 9.5 kg; internal chamber size: 188 mm L x 188 mm W x 146 mm H).
- Bluetooth barcode scanner.
- Bluetooth printer.
- X-MET pole.
- Bipod.

### Radiation safety:

- Password protection.
- Infrared proximity sensor.
- Count rate sensor.
- Fail-safe warning lights.

### Analyser's connectivity ports:

- USB 2.0.
- Bluetooth 2.0 (EDR).
- WiFi 802.11 b/g.

### PC software (standard):

- Spectrum Display – enables to select analysis condition, collect, view and compare samples spectra.
- Report Generator - enables the creation of customised reports.
- Calibration software – enables the user to create a customised empirical calibration using customer's standards for unique applications.

### Optional integrated camera:

- Images can be saved, viewed on the X-MET display, and added to reports.
- For accurate positioning of the analyser on the sample.
- Magnification: x6.
- Image size: 640 pixels x 480 pixels.
- Image area on sample: approx. 7.5 mm x 6 mm.
- Camera technology: CMOS.

### Optional integrated GPS receiver:

- Collects and saves location coordinates along with analysis results.
- Compatible external GPS receiver via Bluetooth for high accuracy applications.

### Reliability:

- CE and CB approved.
- IP54 rated (NEMA 3 equivalent): splash water and dust proof.
- Tested to MIL-STD-810G for vibration, drop and shock (Method 514.6, Procedure I, Category 4; Method 516.6, Procedures I and IV).
- Registered product: 2 year factory warranty; excludes consumables; 90-day warranty on batteries.

### Dimensions:

- 93 mm (W) x 210 mm (L) x 272 mm (H).

### Weight:

- 1.3 kg without battery.
- 1.5 kg with battery

Note:

In the interests of continued product improvement, Hitachi reserves the right to change any part of the description and specification without notice.