

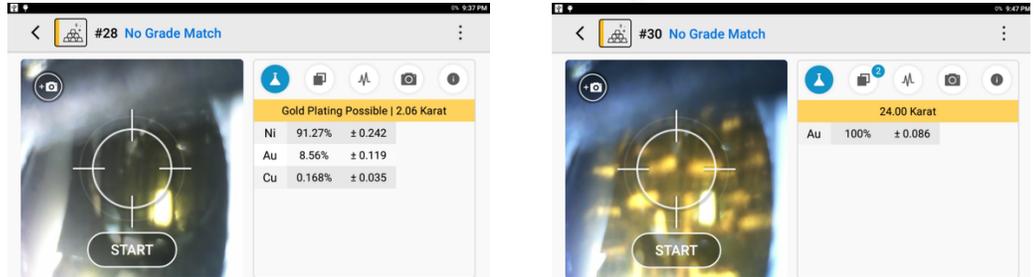


SciAps PowerHouse PM Specifications

The world's first *truly portable*, battery-powered benchtop analyzer for precious metals — engineered for accuracy, speed, and safety.

- Battery-powered + Portable
- Fast, Precise Results
- Plating Alert Technology

SciAps PowerHouse Precious Metals is the world's first truly portable, battery-powered benchtop analyzer engineered specifically for gold karating and precious-metals analysis. Designed for accuracy, speed, and operator safety, PowerHouse PM delivers fast, precise results in a compact, secure platform that works equally well on the bench or in the field. Built around advanced silicon drift detector (SDD) technology—typically found only in higher-priced systems—PowerHouse PM provides superior accuracy and precision at a price point comparable to entry-level PiN diode analyzers.



The system features:

- **Built-in Plating Alert Technology**, helping users avoid being misled by plated or coated materials.
- **An enhanced library** that supports luxury watch authentication and fraud detection by making it easier to uncover substituted materials and counterfeit components.
- **A standard 3 mm analysis spot** with an integrated targeting scope ensures precise placement on the area of interest.
- **Two integrated cameras**—one for targeting and one for sample viewing—allow full visual confirmation during testing.
- **A leaded glass window** maintains clear visibility of the sample throughout the measurement process.

PowerHouse PM delivers blazing speed, providing a karat read-out in approximately one second and reliably distinguishing low-karat alloys from 24-karat (999) gold in as little as ten seconds.

Designed with security and safety in mind, PowerHouse PM features an interlocked, closed-beam design with full shielding, providing **zero radiation exposure to the operator**. Unlike handheld analyzers, its benchtop form factor offers added security and reduces the risk of loss while still delivering true portability. The unit operates on either battery or AC power and includes a fold-out carry handle, making it easy to move between locations without sacrificing performance.

Weighing approximately **19.35 lbs. (8.78 kg) with the battery** installed, PowerHouse PM is built for real-world mobility. The analyzer includes a locking lid and supports hot-swappable batteries for uninterrupted operation. Standard battery life is approximately 4–6 hours, and with an additional battery, users can take advantage of hot-swap capability to extend runtime for as long as needed.

PowerHouse PM delivers highly repeatable karat and precious-metal results in seconds, including precise differentiation of high-purity gold grades such as 3N (99.9%) versus 4N (99.99%), with precision down to $\pm 0.01\%$.

For more information, or to schedule a demonstration:

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SciAps



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**Ready for
the Real World**



Trusted by jewelers, refiners, and precious metal buyers across the globe, the PowerHouse X makes karating, alloy identification, and fraud detection easier and faster than ever.

 [YouTube.com/SciAps](https://www.youtube.com/SciAps)

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Weight	19.35 lbs. (8.78 kg) with battery
Dimensions	10.1" x 13.8" x 13.4" (256 x 350 x 340mm)
Excitation Source	4 W X-ray Tube. 40 kV, W anode
Detector	7mm ² silicon drift detector (active area). < 170eV resolution FWHM at 5.95 keV Mn K-alpha line
Available Apps	Precious Metals
Environmental Temperature Range	10F to 130F at 25% (-12.2C to 54.44C) duty cycle
Analytical Range	Precious Metals app is 24 elements standard. Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, W, Ir, Pt, Au, Pb, Bi, Zr, Mo, Ru, Rh, Pd, Ag, Cd, Sn and Sb. Additional elements may be added upon user request
Processing Electronics and Host Processing	1.2 GHz quad ARM Cortex A53 64/32-bit; RAM: 2 GB LP-DDR3; Storage: 16 GB eMMC (storage)
Pulse Processor	12 bit with digitization rate of 80 MSPS 8K channel CA USB 2.0 for high-speed data transfer to host processor. Digital filtering implemented in FPGA for high throughput pulse processing, 20 nS - 24 uS peaking time
Power	1 on-board rechargeable Li-ion battery, 2 nd battery is optional, rechargeable inside device or with external charger, AC power, hot-swap capability (one battery at a time)
Display	7-inch color capacitive touchscreen — 400 MHz Qualcomm Adreno 306 2D/3D graphics accelerator
Comms/Data Transfer	Wi-Fi, Bluetooth, USB connectivity to most devices, including SciAps Profile Builder PC Software. GPS capable. Cloud data management options available
Calibration	Fundamental Parameters
Calibration Check	External 316 stainless standard for calibration verification and energy scale validation
Sample Viewing	Internal high-resolution camera for sample viewing and targeting. Second macro-camera for photo documentation, reading and storing 2D/3D barcodes and QR codes.
Security	Password protected usage (user level) and internal settings (admin)
Regulatory	CE, RoHS, USFDA registered, Canada RED Act.

Seen at JCK Las Vegas — *Immediate Sales on the Spot!*
“Best-looking benchtop analyzer out there.”
– Industry engineers and users agree.