

XF-A7 is a precious metal analyzer developed by CFAN Instrument. It can be widely used in gold recycling, jewelry factories, exhibition halls, banks, quality inspection centers and other industries. The instrument adopts an USA AMPTEK customized Si-PIN detector, an embedded computer with a 10-core CPU and a touchscreen monitor. It provides the fast and accurate analysis.



Specifications

- Input voltage: AC100~240V, 50Hz
- Package size: 805*535*435mm
- Machine size: 345*477*350mm
- Sample chamber size: 306*248*124mm
- Rated power: 150W
- Gross weight: 55KG
- Net weight: 38KG
- Noise: 50dB
- Operating environment:
 - Temperature: 15°C~31°C
 - Humidity: <70% (Noncondensing)

Features

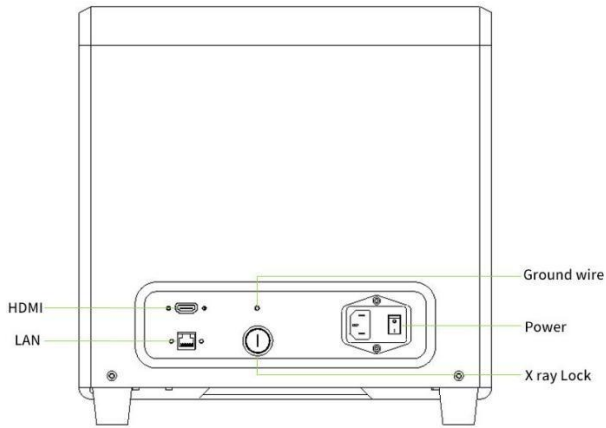
- Analysis elements: K(No.19)~U(No.92)
- Analyze up to 30 elements at the same time.
- Coating warning
- Rhenium and tungsten detection warning
- Identify artificial and natural gemstones.
- Test Sample: metal/gemstone
- Analysis range:
 - ◆ Precious metal: 0.010%~99.999%
- Precision:
 - ◆ Precious metals: $\pm 0.03\%$ (9999 gold)
- Support the multi-point continuous test with high efficiency.
- Connect the scale for weight readings and calculate prices.
- Automatically calculate the average value and RSD of multiple results.
- Visible samples with lead glass

Core Components

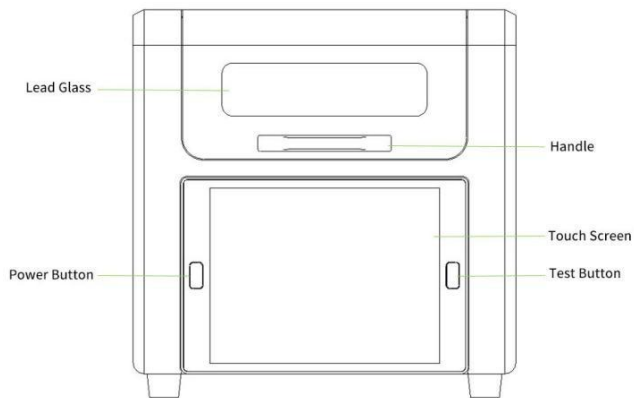
- Detector: USA AMPTEK customized Si-PIN
 - Detector area: 6mm²
 - Resolution: 145 $\pm$ 5eV
- Embedded computer: Intel i3 10-core
- HV power supply: 50KV/1mA digital HV
- X-ray tube: 50KV/1mA
 - Window material: aluminium
 - Target material: wolfram
 - Focus: $\Phi 0.5\text{mm}$
- Collimator: $\Phi 2.0\text{mm}$

Hardware Interface

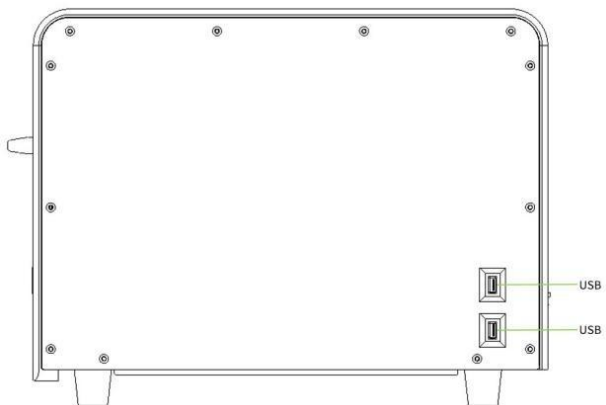
Back



Front

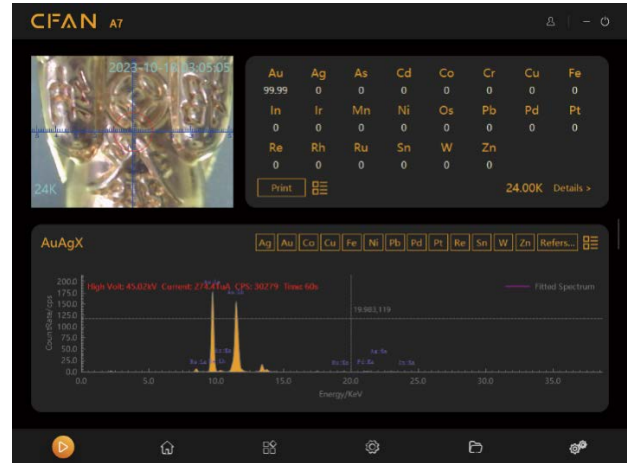


Right

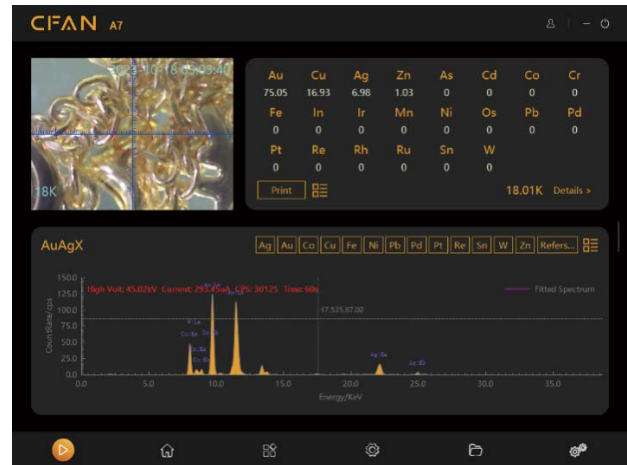


Test case

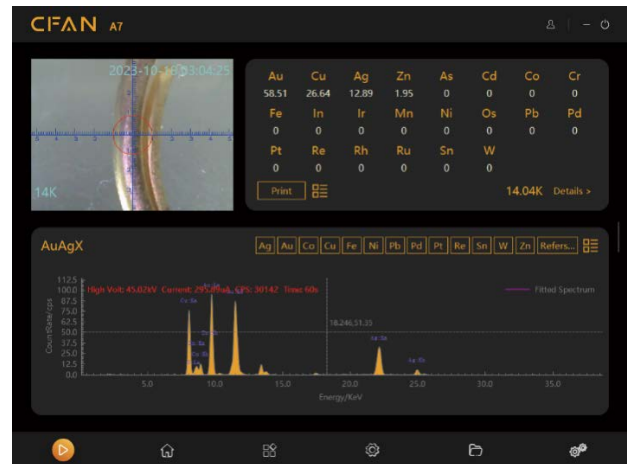
- 24K Gold



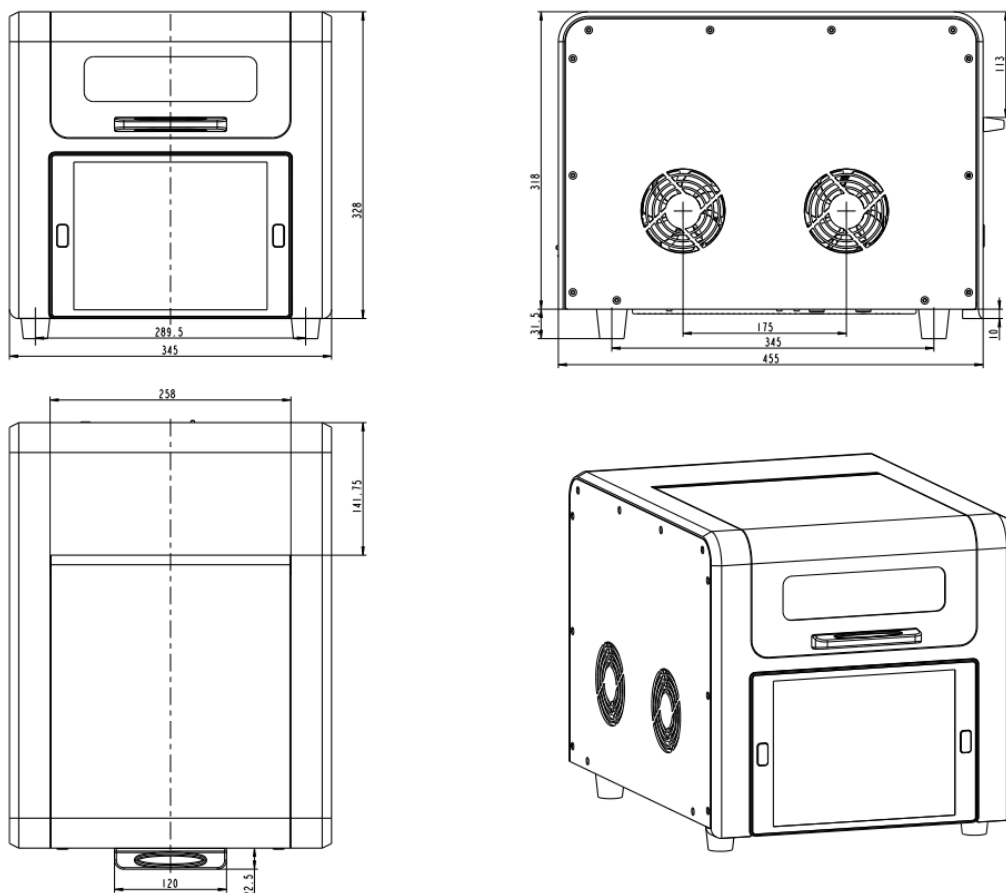
- 18K Gold



- 14K Gold



Product Size



Attachment List

Number	Name	Quantity	Specification
1	Ground cable	1	2m
2	Power cable	1	220V 1.8m
3	Network cable	1	1.8m
4	Jewelry holder	1	Φ132mm
5	Calibration silver block	1	Φ30mm H13mm
6	Attachment box	1	210*132*55mm
7	Thermal printer	1	185*135*57mm
8	USB wireless card	1	300Mbps
9	Dust cover	1	470*450*380mm
10	Silicone pad	2	Compatible with the sample chamber
11	USBHUB	1	4 USB ports

Maintenance & Calibration

- **XF-A7** needs to be placed in a dry environment at a normal temperature. If it is not used for a long time, please unplug the power cable and cover the machine with a dust cover.
- If there is any visible dirt on the metal shell of the spectrometer, clean it with a diluted neutral detergent and a soft cloth, and then wipe off the moisture with a dry cloth. (Do not use the alcohol for cleaning.)
- There is an X-ray lock on the back of the instrument. Please turn it to the right position before testing.
- Preheat 5 minutes during the initial startup every day. Do not cancel the preheating process unless it is in an emergency.
- If you have not used it for a long time, it is necessary to turn on the machine to test any sample for half an hour every week to keep the X-ray tube dry.
- Use the calibration sliver block and select “Peak Adjust” to let the XF-A7 correct parameters. Suggest calibrating once a week.

Cautions

- The X-ray is still excited during the test after the test is completed. If the sample chamber is opened during testing, the system will stop the X-ray production; if the chamber is opened after testing, the system will interrupt the power of the X-ray tube to ensure safety.
- Make sure to use the Uninterruptible Power Supply (UPS) because the power supply failure of the embedded computer may result in lost files. Make sure to shut the instrument off before turning off the power.
- The testing film can prevent dust from falling into the interior of the instrument. The film should be replaced if there is any damage.
- The standard test duration is 60 seconds. When the duration is less than 60s, the test result will be slightly inaccurate.