DATA SHEET

GOLDMAX® XGM- 550+

Microanalytik Instruments Pvt. Ltd. -presents

GOLDMAX series **6th Generation** XRF with High Performance X-Ray Fluorescence for Fast and Non-destructive Material Analysis and Coating Thickness Measuring Instruments Analysis of Jewellery, Coins and Precious Metals

Description

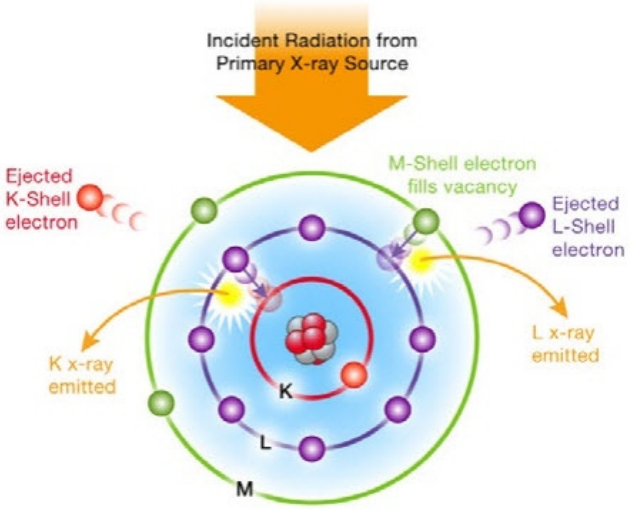
The GOLDMAX X-RAY FSDD is latest Innovation in field of XRF it is more than two times better than conventional SDD technology because of very less noise and better count rate.

They are well suited for the non - destructive coating thickness measurement and material analysis to trace even very small amount of metal presence because of very high count rate.

The GOLDMAX XGM - 550+ Instruments are specially well designed for Hallmarking Centers, Jewellery Ornaments, even with very complex compositions or small concentrations can be possible with high accuracy rate because of better resolution ≤122 eV than those old SDD technologies.

XRF Principle

X-ray fluorescence analysis has it's basis in the phenomenon that, when atoms in a material sample are excited by the primary X-ray radiation, electrons from innermost shells are released, the resultant vacancies are filled by electron from the outer shells.



During these transitions, fluorescent radiation is generated that is characteristic for each elements.
This is ready by the detector and provides information on the composition of the samples.

Applications

Because ED-XRF is capable of detrminatio the composition of materials and measuring thin coatings and coating systems, there is a wide variety of applications for this technology,
Example include :

- In the electronics and semiconducto r industries, thin Gold, Palladium and Nickel coatings are as certained on contacts or on traces.
- In the Jewellery industries or showrooms, precious metal refining, Hallmarking Centres, Assay Centres, Bullion Merchants, accurate knowledge of the composition of precious metal alloys is required.
- For manufacturers and importers of electronic goods, it is critical to be able to monitor compliance with the Restriction of Hazardous substances (RoHS) Directive.
- The toy industry also dependent on thereliable detection of harmful substances.
- X - RAY measurement systems are optimally suited for all these purposes.

Typical fields of application

- Gold Testing / Touch Shop
- Gold Bullion and Jewellery Valuer
- Platinum and Silver

Advance Features

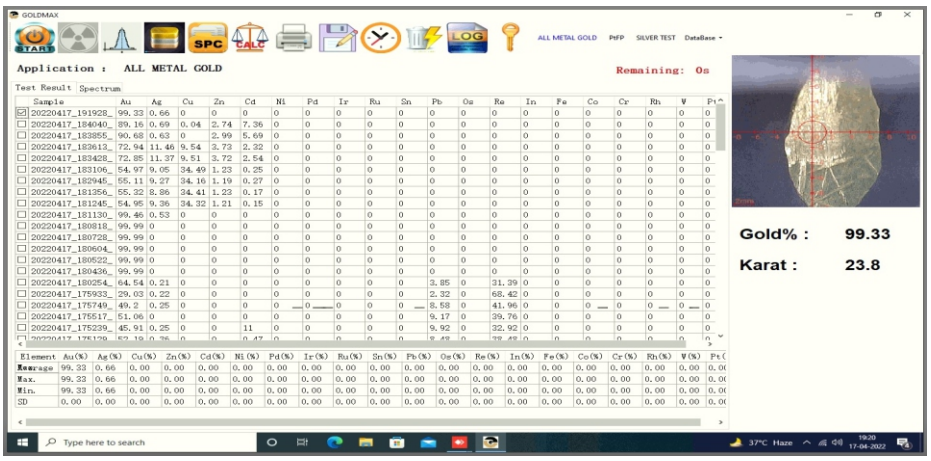
- Inbuilt Automation (HUID) features as per BIS
- Technological alternative to fire assay for elemental analysis
- On the spot certification of Karat content, (0-24 KARAT)
- Identification impurities & Powder like Ir, Ru, Rh, Ni, Pb, Fe, Co, Sn, Os, In, Ga and other elements from Sulfur (S) - Uraium (U)
- Analysis of Platinum, Gold, Silver and other precious alloys
- Silver Analysis is also possible
- Verification of Gold content in scrap Gold
- Outstanding accuracy and long term stability are characteristics of all GOLDMAX Instruments
- X - RAY systems the necessity of recalibration is dramatically reduced, saving time and effort for high accuracy tasks calibration can be performed at any time
- The fundamental parameter method by GOLDMAX allows for the analysis of solid and liquid specimens as well as coating systems without calibration
- Reduce your measurements time (15-30 Seconds)
- Improved Results
- **Faster than previous generation**
- **Update of electronic configurations**

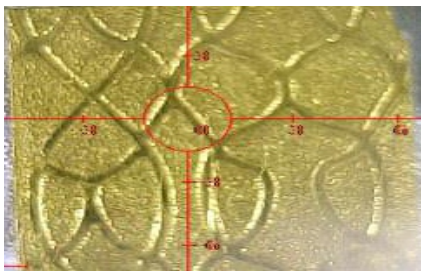
GOLDMAX® X-Ray FSDD XGM-550+

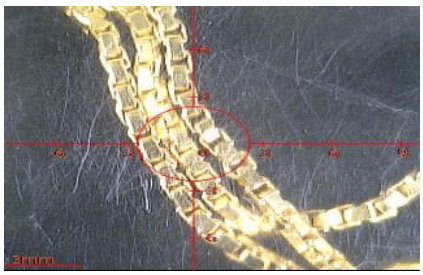
Technical Specification

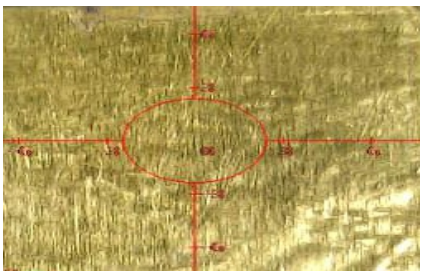
Parameter	GOLDMAX XGM - 550+
Element Range	Elements can be identified from S (16) - U (92)
Design	Bench Top unit with upwards opening hood
Measuring Direction	Bottom to Top
X-Ray Tube	Micro-Focus TungstenTube with Be window
High Voltage	Adjustable 50 KV
Aperture (Collimator)	Fixed Collimator Ø 1.0 mm or as per demand
X-Ray Detector	FSDD (Fast Silicon Drift Detector) with peltier cooling
Resolution (Mn-Ka)	≤ 122 eV FWHM resolution at 5.9 keV
Count Rate	Count Rate > 1,000,000 CPS
Sample View	Color CCTV High Resolution camera systems, Magnification between 20X
Sample Stage	Fixed Sample Support
Sample Positioning	Manually
Power Supply	110 to 230V AC, 50/60 Hz, Max 120W
Dimensions	550 x 420 x 310 mm LxWxH
Weight	35 Kg Approx
Environment Temp Range	10 - 40 °c

Advance Features









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