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Technical note

## Scanning Electron Microscopy/ Energy Dispersive X-Ray Spectroscopy (SEM/EDX)

Carl Zeiss AG SUPRA 25 FE-SEM with Oxford EDAX XMAX80 INCA

Carl Zeiss AG SIGMA HD VP FE-SEM with Oxford EDAX XMAX80 INCA

A **SEM (Scanning Electron Microscope)** can be utilized for high magnification imaging of almost all materials. With SEM in combination with EDX (Energy Dispersive X-Ray Spectroscopy) it is also possible to find out which elements are presented in the area being viewed. A SEM-EDX is a powerful problem-solving instrument to not only identify but also quantify the elemental composition as part of a failure analysis.



### Key Features

- Ultra-high resolution over the full high voltage range.
- High probe current for fast X-Ray analysis and mapping.
- Combine Scanning electron microscopy and elemental analytics: Oxford XMAX80 EDX.
- Short analytical working distance of 8.5mm for simultaneous high-resolution imaging and X-Ray analysis.

### Strength

- Quick, "first look" compositional analysis.
- Get analytical data at half the probe current and twice the speed.
- Achieve complete, shadow-free analytics in FE-SEM. Profit from using a short analytical working distance of 8.5mm and a take-off angle of 35°.
- Obtain crisp images in variable pressure mode with the VPSE.

### Services

ALS Pathumthani offers qualitative and semi-quantitative analysis by SEM/ EDX to surfaces of solid samples for the identification of contaminants, internal structure of Electronics devices as well as determination of coating thickness by cross-section (destructive).

#### ABOUT ALS

With more than a decade of sophisticated testing experience, ALS Pathumthani has a diverse range of sampling, testing, and consulting services for the Electronics industry. We have dedicated technical staff to deliver reliable and timely analytical solutions for customer testing needs. We specialize in micro-contaminant and RoHS analysis, offering tailored analytical

packages that are specific to client requirements and needs. We are ready to deploy our world-class services to additional industries to support Thailand's industry growth. ALS provides the wide range of professional services for Electronics, Semi Conductor, Automotive, Telecommunication, and Wear-Check analysis (Tribology).

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