

## EpiNet – in-situ monitoring control software

EpiNet is LayTec's control and analysis software for EpiTT, EpiCurve® TT and Pyro 400 products. With EpiNet LayTec provides a user-friendly software tool with outstanding monitoring and diagnostic capabilities. Two different packages are available: Basic and Premium, depending on customer needs.

### Features

#### Measurements

- Measurement of emissivity corrected pyrometry, multi wavelength reflectometry and wafer curvature. Asphericity can be measured when using EpiCurve® TT AR (Advanced Resolution)
- Full linescan capabilities included (available during run and post run)
- Display of measurements as time resolved datasets, linescans and pseudo-3D color plot

#### Data handling

- Full integration of Pyro 400 and VCSEL-Add-On (spectral measurements)
- Storage of evaluated temperature and curvature data in a MS SQL data base
- Run Type management for easy repetition of identical or similar runs
- Storage and post-growth recalculation of measured raw data

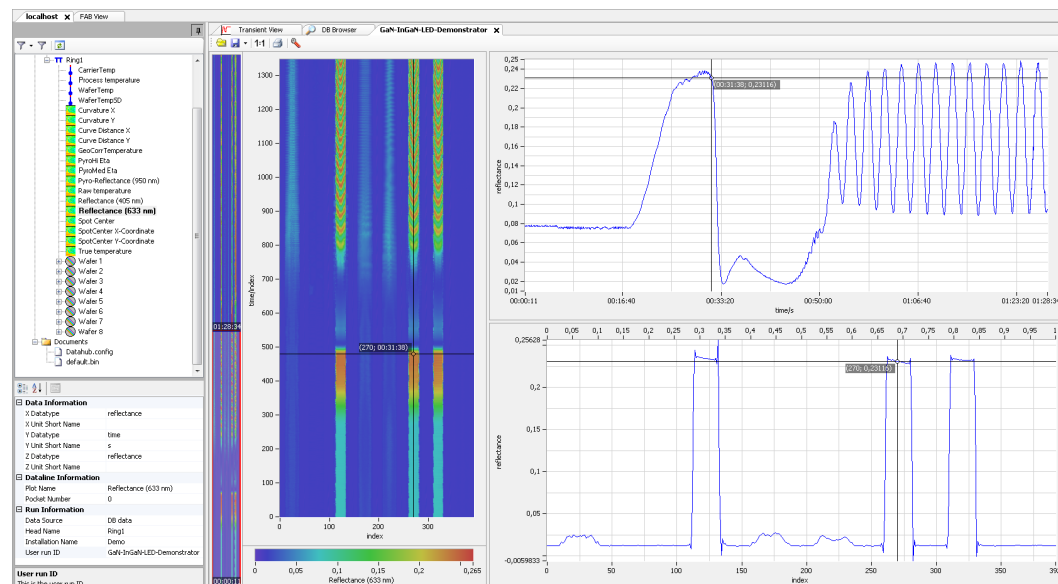
#### Advanced analysis

- Analysis recipe for synchronized step-by-step analysis for the growth process
- Fast determination of growth rate, layer thickness, and optical constants even for very thin layer
- Composition analysis of AlGaAs and AlInGaP
- Statistical analysis: average, maximum, minimum and standard deviation determination of slope (e.g. temperature, curvature...)
- Calculation of oscillation period and number of oscillations
- In-spec / out-of-control-limits / out-of-spec evaluation for all analysis results for all analysis steps
- Data processing of the measured data such as noise reduction, drift compensation, spike removal, shifting and scaling
- VCSEL DBR and special GaN/ Si related analyses

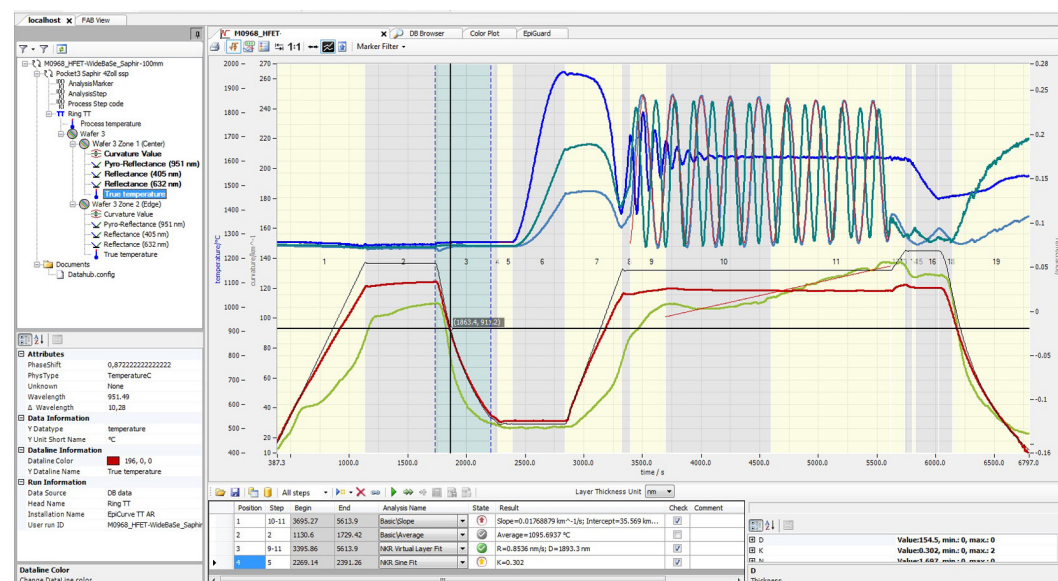
## Further features

- EpiCurve® TT or EpiTT and Pyro 400 integration in one single computer
- Easy-to-use AbsoluT calibration display for temperature calibration
- Windows 10 64bit compatibility

### Color plot



## Expert analysis



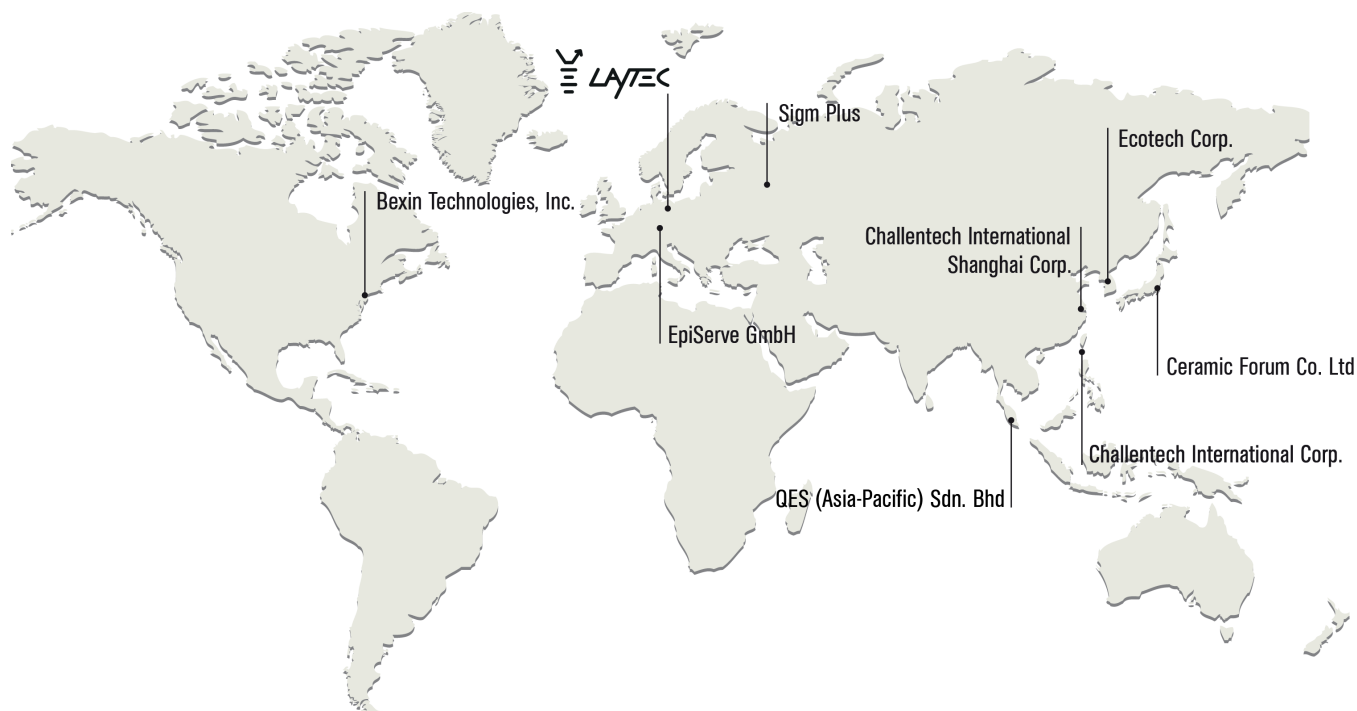
**EpiNet licence package**

- Basic / OEM package for basic operation and data analysis
- Premium package for advanced analysis and process understanding
- Additional licences for specific features

For more information about licence packages please contact [sales@laytec.de](mailto:sales@laytec.de).

<b>Hardware requirements</b>	EpiNet is developed to support LayTec's current line of metrology systems: EpiTT, EpiCurve® TT, Pyro 400 and similar systems.
<b>Office Environment</b>	EpiNet is compatible to most Windows 7, 10 and 11 computers. It is recommended to use Windows 10 64bit and a 21+ inch monitor.
<b>Measurement Environment</b>	EpiNet is developed and tested within a certain hardware and software setup due to hardware timings and driver compatibility. EpiNet is actively developed solely on the current and therefore recommended measurement PC setups.
<b>Standard Setup*</b>	<ul style="list-style-type: none"> <li>– Mainboard: Supermicro X11SSH-LN4F</li> <li>– RAM: 16GB ECC DDR4 RAM or more</li> <li>– CPU: Intel Core i3-7100 or better (Intel Core-i3/ Intel XEON-E3 CPUs)</li> <li>– SSD with 1TB or better</li> <li>– Chassis: 1HE</li> </ul>
<b>Upgrade and Replacement Setup for older Systems</b>	<ul style="list-style-type: none"> <li>– Mainboard: Advantech AIMB-786</li> <li>– RAM: 8GB DDR4 RAM or more</li> <li>– CPU: Intel Core i3-7100 or better</li> <li>– SSD with 500GB or better</li> <li>– Chassis: 4HE</li> </ul>
<b>Upgrade Paths*</b>	<p>Systems from 2015 and above generally support Windows 10 64bit and the newest EpiNet version. We recommend an „SSD upgrade“ containing a pre-configured setup for easy integration and minimal downtime.</p> <p>Due to Windows 10 CPU restrictions systems from before 2015 will most likely need a hardware upgrade. Please contact our sales team directly for more information.</p> <p>* Please keep in mind that LayTec will not take responsibility for data loss and/or damage to software or hardware in case of customer changes to the system. This includes settings and additional applications. Profound changes would be: changing BIOS settings or installing intrusive software like virus scanners. Please ask our customer support if a specific action is applicable. Measurement systems are not designed for Internet access! Perform regular data backups to counter data loss.</p>

# Global Network



We are the leading manufacturer of integrated optical metrology systems for all thin-film processes. LayTec systems can be customized for every specific process. For your specific application please contact LayTec directly or your local LayTec representative:

Challentech International (Shanghai) Corp.\*  
CHINA  
[www.challentech.com.cn](http://www.challentech.com.cn)

Challentech International Corp.\*  
TAIWAN R.O.C.  
[www.challentech.com.tw](http://www.challentech.com.tw)

Ecotech Corp.\*  
REPUBLIC OF KOREA

Bexin Technologies Inc.  
(for MBE metrology systems)  
NORTH AMERICA

Sigm Plus\*  
(inactive due to current export  
regulations)  
RUSSIA  
[www.siplus.ru](http://www.siplus.ru)

EpiServe GmbH  
(for MBE metrology systems)  
GERMANY  
[www.episerve.de](http://www.episerve.de)

Ceramic Forum Co. Ltd.\*  
JAPAN  
[www.ceramicforum.co.jp/en.html](http://www.ceramicforum.co.jp/en.html)

QES (Asia-Pacific) Sdn. Bhd\*  
MALAYSIA  
[www.qesnet.com](http://www.qesnet.com)

\* provide technical service as well

Specifications are subject to further technical development and may differ from those given in the data sheet. In certain cases, performance may be limited by reactor type and/or growth conditions. Please consult our technical sales team to see how LayTec metrology can best serve your specific application.

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Developed,  
manufactured and  
qualified in Germany.

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