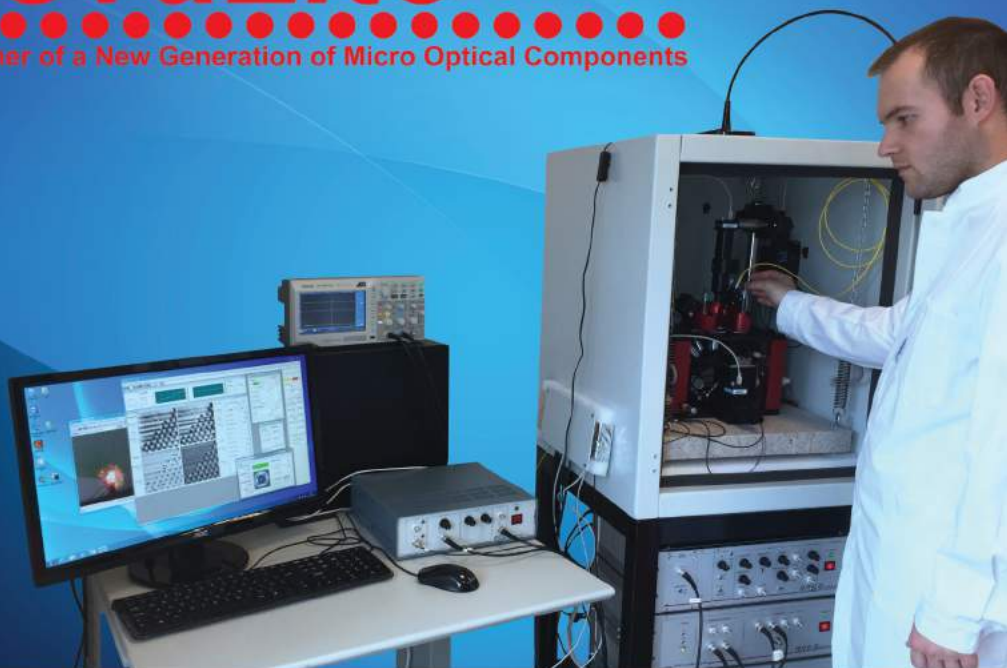


LovaLite

Designer of a New Generation of Micro Optical Components



● Services

Engineering
Optical characterization
Consulting
Research & Development

● Lensed Fibers

Polymer
Ball lens
Glass lens
Custom

● Scanning probe

AFM, STM, SNOM
SNOM, AFM Micro-tips
Calibration

● Bundle

High power
Vacuum
Linear array

● Microscopy

Laboratory microscope
Inverted Microscope
Binocular

● Telecom

Powermeter
Mechanical splice

Lovalite SAS
10 rue de la mission
25480 Ecole-Valentin - France

+33 (0)3 81 53 26 25
info@lovalite.com
www.lovalite.com



Services

Located in Franche-Comté, the region of Micro-Technologies, **LovaLite**, an innovating company specialized in the design and manufacturing of nano-components, is offering a wide range of services.

LovaLite's technical statecraft had been awarded several times by the Association Française des Professionnels de l'Optiques, by the Ministry of Research and by the Senate.

LovaLite's offer of service in nano-technology engineering is commensurate with your needs in liability, accuracy and excellence. **LovaLite** is used to deal with industrial requests that couldn't be solved by the usual channels. The company is responsive and the spirit of service will match your expectations.



Our team :

- ✓ Brahim Dahmani, PhD, Electronic & Instrumentation.
- ✓ Dusan Nedeljkovic, PhD, Optics & Photonics.
- ✓ Vincent Parat, PhD, Optics & Photonics.

Applications

Thanks to **LovaLite**, you can access an international network of high level scientific partnerships, able to deal with a wide range of applications.

- | | |
|----------------------------|-----------------------------|
| • Integrated optics | • Design of optical systems |
| • Optical characterization | • Consulting activities |
| • Research & Development | |

QUALIFIED PERSONNEL

- R&D engineers
- Photonics
- Optics
- Modeling
- Lidar

ACCESS TO TECHNOLOGY CENTERS

- Clean room
- Evaporator
- Focus Ion beam
- Scanning Electron Microscope
- High Performance Computing

WIDE RANGE OF INSTRUMENT

- Atomic Force Microscope (AFM)
- Scanning Tunneling Microscope (STM)
- Near-field Scanning Optical Microscope (SNOM)

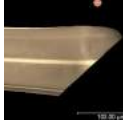
ADVANCED FACILITIES

- Optics
- Goniometer
- Measure instrument
- Modeling software solutions
- Fibre hot puller



Lensed Fibers

LovaLite offers a range of micro-lensed fibres for your applications requiring to focus the beam out of the fibres. Different technologies are available:



Px000 : TAPER POLYMER MICRO-LENS

Unique manufacturing process allowing self alignment on fibre core.

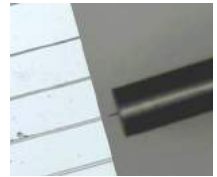
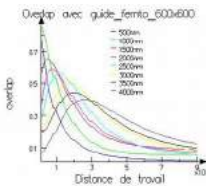
Very high coupling efficiency.

Suitable for small waveguide sizes.

Radius of curvature 1000nm 2000nm 3000nm

Working distance Less than 5µm

Can be customized to obtain the required mode size (optimization based on the structure of your waveguide)



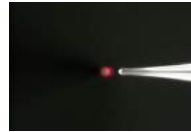
FML : GLASS MICRO-LENS

Taper glass lens at the end of the fibre

Spot size 2µm

Working Distance 5µm

Can be customized on request



BLF : BALL LENSED FIBRE

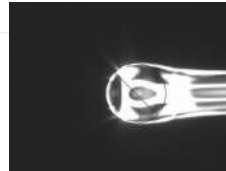
Glass lens at the end of the fibre

Diameter 50µm 100µm 200µm

Spot size 10µm 15µm

Working distance Up to 250µm 300µm

Can be customized upon request



Lensed fibers available on SMF28 and PM1550 fibers and can be connectorized on request

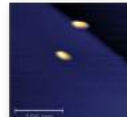
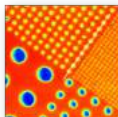
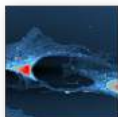
Fibre	Mode Field Diameter	Core Diameter	Clad Diameter	Jacket	N.A.
SMF28	9,2µm @ 1310nm	N/A	125µm	250µm (acrylate)	0,14
	Infrared applications (single-mode at the telecom wavelengths, 1310nm & 1550nm). Can be used in collection mode in the visible range.				
PM1550	3.4µm @ 450nm	n/a	125µm	250µm (acrylate)	0.12
	Visible range applications (single-mode in the visible)				

Connector	FC/PC	FC/APC	SMA
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AFM

With more than 15 years experience **A.P.E. Research** has developed several advanced Scanning Probe Microscope systems in order to provide the needed research tools for Universities and Research Centers active in the field of nanotechnology.

A100 AFM is a versatile high resolution atomic force microscope suited to a wide variety of applications including surface science, semiconductor technology, chemistry and polymers, optoelectronics, bioscience and medicine.



KEY FEATURES

- Integrated acoustic and vibration damping system
- Ease of Use
- Easily interchangeable samples
- Automatic tip / sample approach
- High Versatility
- **A100 support major SPM techniques but not restricted to the following:**
 - Contact
 - Force modulation
 - Electric properties
 - Magnetic force microscopy
 - Non-contact
 - Lateral force
 - Phase imagine
 - Semi-contact
 - Force curves analysis
 - STM

SCANNING SYSTEM

Scanning stage with absolute positioning system and strain gauge sensors.

XY Scan size

- 100µm x 100µm (high voltage mode)
- 10µm x 10µm (low voltage mode)

Z scan size

- 10µm (high voltage mode)
- 1µm (low voltage mode)

Resolution (high voltage mode)

- 2nm (closed loop)
- 0.2nm (open loop)

Resolution:

- 0.16nm (high voltage mode)
- 0.02nm (low voltage mode)

Closed loop linearity 0,1%

AFM HEAD

• AFM Head with holder for commercial cantilevers. The holder can be removed to easy mount cantilevers. The head also houses laser, photodiode sensor with preamplifier.

SPM CONTROL UNIT

• SPM Control Unit and PC (equipped with a multi input-output board) drives the scanner, data acquisition and sample motion. Tip to sample distance is controlled by ultra-low noise analog feedback, digitally driven by PC. High speed and temporal precision are provided by hardware timing.

ACQUISITION SOFTWARE

• Software runs under Windows and is composed of a multi-window applications for instrument control and data acquisition. The software comes equipped with simple filters for immediate analysis of acquired images. The software controls all the parameters of the instrument.

ACCESSORIES

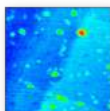
- A.P.E. Research have developed additional AFM tools for specific measurement modes (EFM, MFM, STM, Phase Imaging, CAFM, KPM, Nanolithography, etc.)
- The system can be equipped of various kind of scanners for different working ranges.



STM

Scanning tunneling microscopy (STM) has proven to be an invaluable tool for probing different surfaces and providing both topographic and spectroscopic information with atomic-scale spatial resolution. This technique has been successfully applied to various samples and has widened its field of application from standard metal and semiconductor characterization to the direct visualization of organic molecules deposited on conductive substrate.

A.P.E. Research has developed a compact STM able to image the sample surface with sub-angstrom precision vertically and true atomic resolution laterally. Scanning with the pA STM allows easy and fast operation in air for a wide range of materials. Furthermore, with pA STM set-up, it is possible to operate in a controlled environment or perform "in liquid drop" imaging.



KEY FEATURES

- Atomic resolution
- Low tunneling currents (up to 500fA)
- Working modes: imaging at constant tunnel current, imaging at constant height, I-V spectroscopy, etc.

pA STM SCANNING SYSTEM

Standard scanner technical data

XY piezotube scan size		Z piezotube scan size	
• 10µm x 10µm (high voltage mode)	• 650nm x 650µm (low voltage mode)	• 1,2µm (high voltage mode)	
Resolution		Resolution	
• 1.5Å (high voltage mode)	• 0.1Å (low voltage mode)	• 0.2Å (high voltage mode)	
		Translation stage	
		• 5mm x 5mm XY	• 13mm (4mm servo-assisted) Z

STM HEAD WITH TIP HOLDER

- The head houses low current amplifier with 10^{10} V/A gain that makes possible to get images from 2pA to 2nA. Other amplifiers with different gain are available on request.
- Sample bias: -10V to +10V with step < 1mV

SPM CONTROL UNIT

- SPM Control Unit and PC (equipped with a multi input-output board) drives the scanner, data acquisition and sample motion. Tip to sample distance is controlled by ultra-low noise analog feedback, digitally driven by PC. High speed and temporal precision are provided by hardware timing.

ACQUISITION SOFTWARE

- Software runs under Windows and is composed of a multi-window applications for instrument control and data acquisition. The software comes equipped with simple filters for immediate analysis of acquired images. The software controls all the parameters of the instrument.

ACCESSORIES

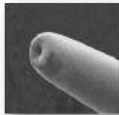
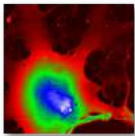
- pA STM can be equipped with additional tools to enhance the instrument capabilities.



TriA SNOM

The scanning near-field optical microscopy technique (also known as SNOM or NSOM) is a member of the scanning probe microscopy family, allowing the detection of the optical properties at resolutions below the optical diffraction limit.

The **TriA SNOM** system is a powerful and well-designed universal scientific SNOM applicable to almost all areas to characterize any type of sample surface, biological and not biological samples. Based on scanning probe technology brings a small optical probe very close to the sample surface, in the region called "near- field", and it allows the collecting of optical signals providing image resolution below 100nm.



WORKING MODES

- **SNOM Topography:** The image obtained is the result of signals acquisition in xyz axis that allows to measure detailed surface morphology and nanostructures on a nanometric scale.
- **SNOM Optical Reflection:** image is obtained with near-field light that interacts locally with a superficial layer of the sample, giving information on structures confined within 30-100 nm (depending on the tip aperture) below sample surface.
- **SNOM Optical Transmission:** the image results from the light transmitted through the whole thickness of the sample. While in conventional optical microscope all the sample is illuminated, SNOM near-field light interacts only locally producing signals point by point. SNOM optical transmission images are comparable with conventional optical images but their lateral resolution is more than 10 times higher.
- **SNOM Optical Back-Reflection:** image is created by the near-field light that is back-reflected into the fiber, after local interaction with the sample surface.

SCANNING SYSTEM

Scanning stage with absolute positioning system and strain gauge sensors.

XY scan size		Z scan size	
• 100µm x 100µm (high voltage mode)	• 10µm x 10µm (low voltage mode)	• 10µm (high voltage mode)	• 1µm (low voltage mode)
Resolution (high voltage mode)		Resolution	
• 2nm (closed loop)	• 0.2nm (open loop)	• 0.16nm (high voltage mode)	• 0.02nm (low voltage mode)
Closed loop linearity	0,1%		

Maximum sample size: can accommodate samples with different geometries and sizes up to 30mm diameter.

SPM CONTROL SYSTEM

- Composed by a digitally controlled analog feedback that combines the flexibility of computer controlled parameters with the high resolution and low noise of an analogue implementation. This detection scheme provides sub-nanometric vertical resolution in the images and all collected signals are distortions free. Electronics supports STM, AFM and SNOM heads, performs different kinds of spectroscopy and can acquire several user-defined auxiliary channels.

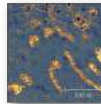
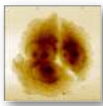


TriA SPM

TriA – SPM is an innovative high resolution imaging and probing system. It is mainly dedicated to the studies of biomaterials (nucleic acids, peptides and proteins, cells and tissues, etc.) as well to thin films samples. The direct observation of the sample using the integrated inverted light microscope widens the range of applications from hard material surfaces to biological sample.

TriA SPM provides simultaneously double optical sample observation (upright and inverted) for common optical microscopy techniques along with SPM techniques for transparent and opaque samples, without sacrificing the SPM (AFM or SNOM) or optical performance.

The optical setup is coupled with high definition video system with real time image capture capabilities, ensuring the sample and probe continuous monitor and documentation.



KEY FEATURES

• Ease of Use	AFM Mode: supports major SPM techniques* but not restricted to the following			
• Double optical system	• Contact AFM mode	• Non-contact mode	• Semi-contact	• Phase imaging
• Automatic tip sample approach				
• Easily interchangeable Samples	• Lateral force microscopy	• Force curves analysis	• Electric properties	• Magnetic force microscopy
• High Versatility	SNOM Mode			
• Integrated acoustic and vibration damping system	• Topography	• Reflection	• Back-reflection	• Transmission

SCANNING SYSTEM

Scanning stage with absolute positioning system and strain gauge sensors.

XY Scan size		Z scan size	
• 100µm x 100µm (high voltage mode)	• 10µm x 10µm (low voltage mode)	• 10µm (high voltage mode)	• 1µm (low voltage mode)
Resolution (high voltage mode)		Resolution	
• 2nm (closed loop)	• 0.2nm (open loop)	• 0.16nm (high voltage mode)	• 0.02nm (low voltage mode)
Closed loop linearity	0,1%		

Maximum sample size: can accommodate samples with different geometries and sizes up to 30mm diameter.

SPM CONTROL SYSTEM

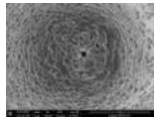
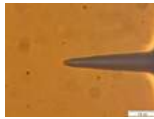
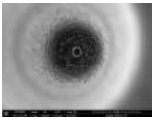
• Composed by a digitally controlled analog feedback that combines the flexibility of computer controlled parameters with the high resolution and low noise of an analogue implementation. This detection scheme provides sub-nanometric vertical resolution in the images and all collected signals are distortions free. Electronics supports STM, AFM and SNOM heads, performs different kinds of spectroscopy and can acquire several user-defined auxiliary channels.



SNOM tips

Optical Micro Tips for Near Field Microscopy (SNOM) applications

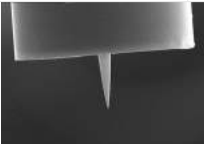
- ✓ Light proof aluminium coating on titanium layer
- ✓ All our tips are individually light leakage proved at 400µW, 532nm
- ✓ Ready for tuning forks (10mm jacket stripping)



P200

- Very high light transmission
- Focused Ion Beam aperture for high precision
- Each tip is provided with individual SEM picture

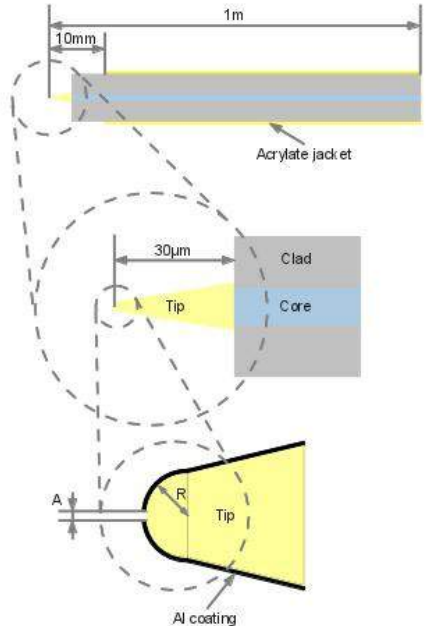
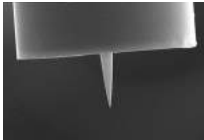
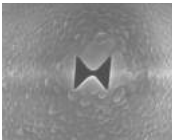
Apex radius	200nm
Shear force adapted	(35 ± 5µm length)
Aperture	50-100nm (other on request)



P200-BT

- Very high light transmission
- Focused Ion Beam "bow-tie" aperture for polarization selection
- Efficiency optimized at telecom wavelengths
- Each tip is provided with individual SEM picture

Shear force adapted	(35 ± 5µm length)
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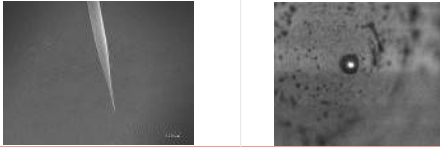


SNOM tips

E50 : GLASS PULLED TIPS High resolution AFM topology combined with SNOM features

- High resolution AFM topology combined with SNOM features

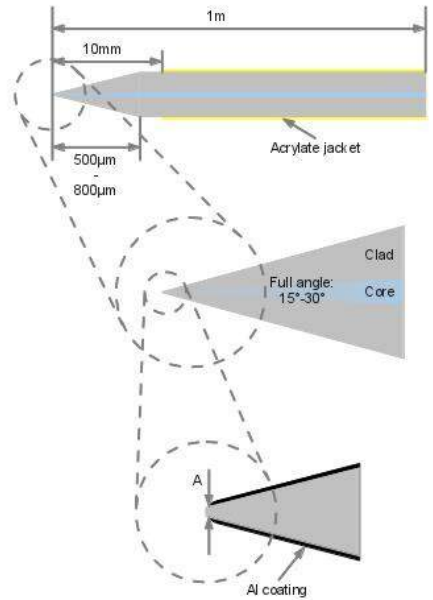
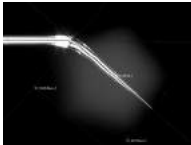
Apex radius	50nm
Length	1m (other on request)
Aperture	100nm (other on request)



E50-B : BENT GLASS TIPS

- Bent glass SNOM tips for horizontal positioning of the fibre

Bending angle	30°
Length	1,5mm – 2mm
Aperture	100nm



Fibre	Mode Field Diameter	Core Diameter	Clad Diameter	Jacket	N.A.
SMF28	9,2µm @ 1310nm	N/A	125µm	250µm (acrylate)	0,14
	Infrared applications (single-mode at the telecom wavelengths, 1310nm & 1550nm). Can be used in collection mode in the visible range.				
SM450	3.4µm @ 450nm	n/a	125µm	250µm (acrylate)	0.12
	Visible range applications (single-mode in the visible)				
HPSC10	n/a	10µm	125µm	245µm (acrylate)	0.1
	For demanding UV/visible applications, requiring a low level of fibre fluorescence (pure silica core fibre), such as Raman spectroscopy, quantum dots fluorescence, etc. Multi-mode fibre with a very good collection.				



AFM Tips

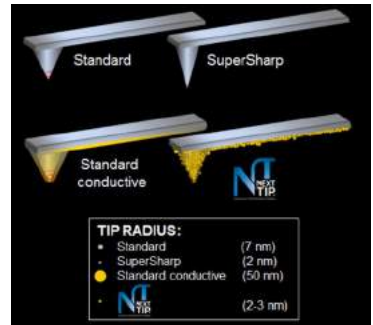
The technology is based on the coating of the AFM tips with nanoparticles of controlled size and chemical composition.

The deposition is performed under Ultra High Vacuum conditions what guaranties the purity of the nanoparticles.

The nanoparticles deposited at the end of the tips do act as the final probes in microscopy, enhancing the spatial resolution with the intrinsic physical and chemical properties of the nanoparticles.

AFM tips from Next-Tip have been coated with a special layer of 2-3 nm diameter nanoparticles that allows High-Resolution mapping in both topography and Kelvin probe in tapping mode.

For Kelvin probe microscopy, the coating is fully conductive along all the cantilever.

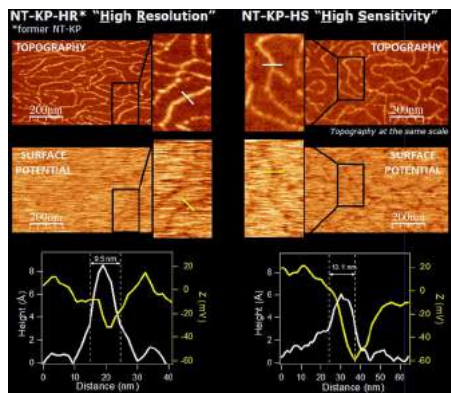


NT-KP: Kelvin Probe

NT-KP tips have been coated with a special layer of Au nanoparticles that allows High-Resolution mapping and Kelvin probe microscopy. The coating is fully conductive along all the cantilever.

General Features

Chip composition	Silicon
Pyramidal cantilever	225 μm (length), 30 μm (width) and 3 μm (thickness)
Cantilever composition	silicon
Tip composition	silicon
Tip coating	Au
Resonance frequency	75kHz
Force constant	2,8N/m
Tip height	10-15 μm
Tip radius	Nanoparticle (2-3nm)
Reflex coating:	No (upon request)





AFM Tips

NT-SS-I: Super Sharp 300 kHz

NT-SS tips have been coated with a special layer of Au nanoparticles that allows High-Resolution mapping in topography. The coating is fully conductive along all the cantilever.

General Features

Chip composition	Silicon		
Pyramidal cantilever	125 µm (length)	30 µm (width)	4 µm (thickness)
Cantilever composition	silicon		
Tip composition	silicon		
Tip coating	Au		
Resonancefrequency	300kHz		
Force constant	42N/m		
Tip height	10-15µm		
Tip radius	Nanoparticle (2-3nm)		
Reflex coating:	No (upon request)		

NT-SS-II: Super Sharp 75 kHz

NT-SS tips have been coated with a special layer of Au nanoparticles that allows High-Resolution mapping in topography. The coating is fully conductive along all the cantilever.

General Features

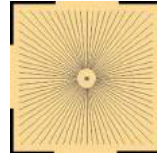
Chip composition	Silicon		
Pyramidal cantilever	125 µm (length)	30 µm (width)	3 µm (thickness)
Cantilever composition	silicon		
Tip composition	silicon		
Tip coating	Au		
Resonancefrequency	75kHz		
Force constant	2,8N/m		
Tip height	10-15µm		
Tip radius	Nanoparticle (2-3nm)		
Reflex coating:	No (upon request)		



Calibration

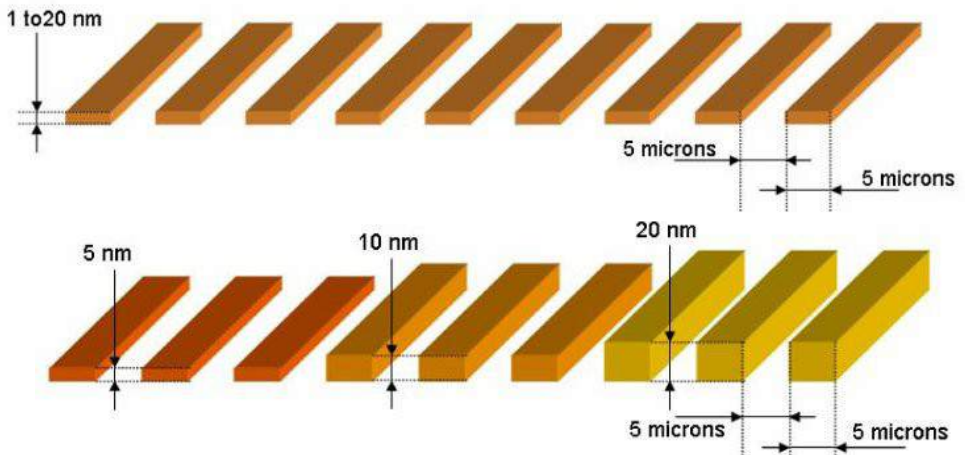


SILIOS Technologies has developed and patented standards for calibrating vertical dimensions under the twenty nanometer level for both AFMs and SPMs. It proposes different step heights ranging from 1 to 20 nm. The calibration standards can be supplied separately or gathered in a single standard.



Step Height Ranges		Specifications	
Code	Step Height range: ³	Chip size:	5mm x 5mm x 0.5mm
SIL020 ¹	20nm	Effective area:	1mm x 1mm
SIL010 ¹	10nm	Material:	SiO ₂ or Si
SIL005 ¹	5nm	Grating pitch:	5µm
SIL001 ²	1mm	Configuration:	classic or stairs
¹ Available		Tolerances	±1nm (typical)
² Under development			
³ Nominal value may vary by ±2nm			
Option 1	SILIOS certified (optical and mechanical measurements)		
Option 2	Certification from an accredited laboratory (ISO5436 based)		

Grating Configuration





Bundle

LovaLite and Fibertech Optica provide FIBER OPTIC ASSEMBLIES for research, industrial, medical and military applications.

We have the capabilities from custom design, engineering, prototyping through to volume production.



FiberTech Optica

Mapped or Structured	Vaccum
 <ul style="list-style-type: none"> • single or multi-branch • arbitrary geometries and fibre distribution • large fibre counts <p><i>"serpentine" mapped 2D array Specialized reflectance probe</i></p>	 <ul style="list-style-type: none"> • penetrating receptacle feedthroughs • single or multiple fibres <p><i>Receptacle feedthrough with NPT thread and SMA connectors</i></p>
High Power	Reflectance Probe
 <ul style="list-style-type: none"> • Free standing fibers • Single fibre or bundle construction • Epoxy free light path <p><i>Free standing bundle of 37 fibres</i></p>	 <ul style="list-style-type: none"> • Arbitrary excitation/collection geometries • Industrial or laboratory grade <p><i>29-around-1 curved tip probe</i></p>
Linear Arrays	Multiple Branch
 <ul style="list-style-type: none"> • small fibre core sizes (<50µm) • stripped fibres • tightly packed or spaced <p><i>Array of 50µm fibres inside SMA connector. Slit of 19 fibres spaced 2mm apart</i></p>	 <ul style="list-style-type: none"> • any number of branches • custom fiber distribution • variable branch length <p><i>128 branch 2D array</i></p>
Needles	Industrial
 <ul style="list-style-type: none"> • single or multiple fibres • straight or angle polished • smallest diameter 250µm <p><i>6-around-1 needle, 950µm in diameter</i></p>	 <ul style="list-style-type: none"> • lengths up to 350m • rugged, with multiple levels of protection • reinforced connectors/ferrules • high temperature/pressure <p><i>300 fibre bundle, 10m long</i></p>



Microscope

Hund microscopes are famous for stable microscopic results. The high and constant quality "Made in Germany" in conjunction with consultancy from our experts turn any instrument into a save investment.

hund
WETZLAR

Industrial Laboratory Microscope

- Designed for industrial quality control
- Incident light for investigation of metals, ceramics and composite materials
- Transmitted light for transparent materials or powders
- Available as incident-light or incident/transmitted-light version
- Wide range of long working distance objectives
- Comprehensive range of accessories



Stereo Microscope

- Versatile microscope for industrial & biological applications
- Industrial production & quality control
- Preparation/investigation of large biological samples
- Transmitted & incident light (LED or external illumination)
- Wide zoom range & large field of view
- Wide range of application-specific accessories
- Adaptation of cameras through trinocular tube



Inverted Microscope

- The ideal instrument for the observation of cell cultures
- Application specific configurations
- Holding frames for culture vessels & Petri dishes
- Available in different contrasting techniques
- Different optical outfits (objectives, condensers)
- Wide range of accessories
- Outstanding price/performance ratio





Microscope

Educational Microscope

- Ideal for use in rough classroom environment
- Compact and robust design
- Optimal image through Köhler illumination
- Configuration dedicated to education



Laboratory Microscope

- Dedicated to medical & biological research
- Application-specific configurations
- Darkfield version for alternative practitioners
- Available in different contrasting techniques
- Fluorescence (HBO and LED illumination)
- Different optical outfits (objectives, condensers)
- Wide range of accessories



Lab Routine Microscope

- The ideal instrument for the observation of cell cultures
- Robust and easy to operate
- Available in different contrasting techniques
- LED fluorescence retrofitable
- Different optical outfits (objectives, condensers)
- Wide range of accessories





Powermeter

PM-212



The PM 212 optical power meter is a small, pocket size low cost item. The small size does not prevent the optical meter fulfilling all technical requirements for field equipment.

The unit can be easily carried in the pocket or on the the belt. It can be placed within rack mount ODF's with the display on the top or on the side.

The NiMH rechargeable battery ensures long term working time with a minimum life time of 5 years

The unit is able to store 100 measurements which can be uploaded to PC and managed with SmartProtocol software.

PM-800



The PM-800 optical power meter is designed to measure absolute or relative optical power in optical networks

The AWD (Auto Wavelength Detection) function facilitates the tester settings and eliminates the operator's failure. The memory capacity allows storage and uploading of up to 3000 measurements including memory position or fiber number, wavelength, absolute value or relative value and insertion loss. The SmartProtocol PC evaluation software supports memory download and test report generation.

The rechargeable battery ensures long term working with a minimum service life of 5 years. Batteries can be charged via a USB port or external AC/DC adaptor. The microprocessor controlled charging process ensures optimal battery status and extended operation time.

The PM-800H can measure a high level of optical power, up to 27 dBm.

PM-830



The PM-830 FTTX optical power meter is designed for simultaneous measurement and display of all signals – voice, data and video

The FTTX tester is also perfect for testing PON services during activation and maintenance. The memory capacity allows storage and uploading of up to 2000 measurements. The stored data can be easily exported to Excel, Word or any other application.

Two Versions of PM-830 FTTX meter available:

Single port	Dual port
Designed for measurement at end sides of optical lines, it requires disconnection the active device from the optical lines for measurements.	Allows measurements of uninterrupted optical lines with the connected active device, pass-through testing.



Light Source

LS-800



The LS-800 optical Light Source is a small size low cost item which fulfils all necessary technical field equipment requirements. Available in seven working wavelengths 850, 1300, 1310, 1490, 1550, 1625 nm and a visible 650 nm laser source

The modulation and AWD (Auto Wavelength Detection) functions are available when interacting with the PM-800 Power meter

The rechargeable battery ensures long term working with a minimum life time of 5 years. Batteries can be charged via a USB port or external AC/DC adaptor. Batteries can be charged via a USB port or external AC/DC adaptor. The microprocessor controlled charging process ensures optimal battery status and extended operation time.

The changeable connector/adaptor design allows the simple exchange of optical PC or APC connectors (FC, SC or ST) and easy cleaning of the output connector ferrule after removing the connector adaptor. LC/PC and LC/APC are also available.

PM-800



designed for simultaneous three wavelength testing of optical lines, specially in FTTX projects. It combines 1310 nm, 1550 nm and 1490 nm output wavelengths at one output port. In cooperation with PM 830 FTTX power meter it allows simultaneously measurement and display of all three wavelengths. If required it is possible to measure at one or two wavelengths.

The changeable connector/adaptor design allows the simple exchange of optical PC or APC connectors (FC, SC or ST) and easy cleaning of the output connector ferrule after removing the connector adaptor. LC/PC and LC/APC are also available.



Splice

KeyQuick - MS100



Epoxy-free, V groove technology. The transparent body enables immediate splice verification by Visual Fault Locator-Fibre Optic Checker of 900um cable and 250um bare fibre and with typical insertion loss at 0.1dB and an installation time of 30 seconds this makes it the ideal FTTH solution. No special tooling required.

Features		Specification	
No Epoxy required	Fibre Size	250 or 900 um	
No Tool or Jig required	Assemble Time	30 seconds	
Transparent body for immediate connecting confirmation	Mean Insertion Loss	0.1 dB	
Universal for 250 or 900 um Fibres	Return Loss, Typical	-60 dB	
30 seconds for connecting	Pull Strength	5N	
Mean Insertion Loss 0.1 dB	Operating Temperature	-40°C ~ +75°C	
Releasable after Connecting	Material	Engineering Plastics & Index matching gel (IMG)	
	Dimensions, L x W x H	38 mm x 3.8 mm x 6.5 mm	

LS-001

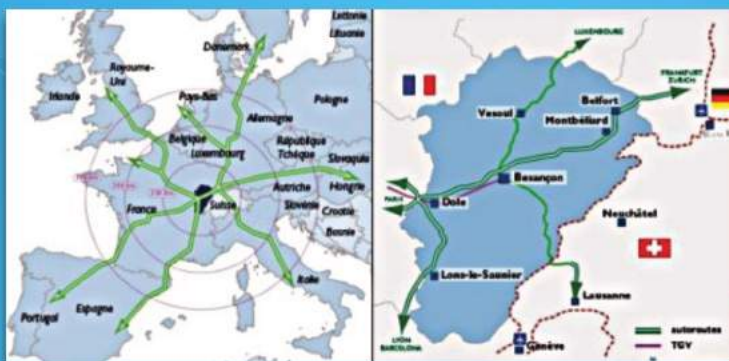


Le LS-001 est un composant pour vos connexions de fibres optiques par épissure. Ce composant va permettre aux installateurs de fibres optiques de réaliser rapidement et facilement leurs jonctions tout en obtenant des résultats très intéressants.

Features		Specification	
Based on unique box-building crimping technology.	Fibre Size	250 or 900 µm	
Precision metallic alloy components with co-axial self centering, excellent and durable optical property.	Assemble Time	about 60s (after fibre preparation)	
Uninterrupted fitting and connecting technology, hence signals are not impacted by external force.	Mean Insertion Loss	≤ 0.1 dB	
The naked fiber, tight buffer and cable, etc., can fully meet the environmental requirements from the final customer	Return Loss, Typical	≤ -40 dB	
Integrated protection of the casing to withstand harsh outdoor environment.	Pull Strength	≥ 5 N	
Axially firm fitting of optical fibers, reducing any performance degradation due to the matching gel.	Operating Temperature	-40°C ~ +75°C	
Applications for FTTx optical fiber splicing, repairing any damaged lines, firm and reliable splicing of fibers.	Mise en œuvre (temps moyen)	150 sec	

LovaLite

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