

Non-contact «point» sensors

Fiber optic cables

E2000 «push/pull» connector

Model	Length	Core ϕ	ϕ max	Sheath	Connector type
E50-3	3 m	50/125 μ m	2.8 mm	Standard	E2000
E50-4	4 m	50/125 μ m	2.8 mm	Standard	E2000
E50-10	10 m	50/125 μ m	2.8 mm	Standard	E2000
E20-2	2 m	10/20 μ m	1.9 mm	Standard	E2000
E50-2-M	2 m	50/125 μ m	5 mm	Metal armored	E2000
E50-4-M	4 m	50/125 μ m	5 mm	Metal armored	E2000
E50-10-M	10 m	50/125 μ m	5 mm	Metal armored	E2000



Standard E2000 connector optical fiber



Metallic armored E2000 connector optical fiber

FC/APC connector

Model	Length	Core ϕ	ϕ max	Sheath	Connector type
F50-3	3 m	50/125 μ m	2.8 mm	Standard	FC/APC
F50-4	4 m	50/125 μ m	2.8 mm	Standard	FC/APC
F50-10	10 m	50/125 μ m	2.8 mm	Standard	FC/APC
F20-2	2 m	10/20 μ m	1.9 mm	Standard	FC/APC
F50-3-M	3 m	50/125 μ m	5 mm	Metal armored	FC/APC
F50-4-M	4 m	50/125 μ m	5 mm	Metal armored	FC/APC
F50-10-M	10 m	50/125 μ m	5 mm	Metal armored	FC/APC
F20-4-M	4 m	10/20 μ m	5 mm	Metal armored	FC/APC
F20-10-M	10 m	10/20 μ m	5 mm	Metal armored	FC/APC
F50-5-M	5 m	10/20 μ m	5 mm	Metal armored	FC/APC
F50-10-M	10 m	10/20 μ m	5 mm	Metal armored	FC/APC



Standard FC/APC connector optical fiber



Metallic armored FC/APC connector optical fiber

Accessories

Mechanical accessories

Model	Description
ST3	Single turret Mechanical assembly allowing to combine one magnifier with three different chromatic lenses.
DT3x3	Double turret Mechanical assembly allowing to combine three magnifiers with three different chromatic lenses.

The new concept of Modular Optical Pen (consisting of the combination of a chromatic objective and an achromatic magnifier) offers the major opportunity to design a more flexible combination : the MULTIPEN which can be available in two different configurations : ST and DT.

Based on a microscope turret, the MULTIPEN ST consists of the combination of one achromatic magnifier with three different chromatic lenses, thus offering three different depths of field in one single mechanical assembly.

The MULTIPEN DT (for double turret) comprises a second turret equipped with three different magnifiers, thus offering three different spot sizes for each of the three chromatic objectives. This corresponds to nine different Modular Optical Pens in one single mechanical assembly.



Light source and exchange bulbs

Model	Description
XE LINE 500	500 Watts xenon arc generator including a bundle of fibers, lighting area: 40 mm x 0.2 mm External light source ofr CCS, CHR, MPLS controllers and vision system.
XS300	300 Watts Xenon Arc Generator External light source for CCS and CHR controllers
LED300	Multichannel illuminator: 18 LEDS (5W, white light) including a bundle of fibers, lighting area: 11 mm x 0.2 mm. External light source for MPLS and vision system.
LED100	Multichannel illuminator: 9 LEDS (5W, white light) including a bundle of fibers, lighting area: 4.8 mm x 0.2 mm. External light source for MPLS and vision system.
XE-125	125 W exchange Xenon Arc bulb
XE-175	175 W exchange Xenon Arc bulb
XE-300	300 W exchange Xenon Arc bulb
HL50W	Pack of 5 exchange Halogen lamps of 50 W (for CHR150 controllers)

Non-contact «point» sensors

SENSORS

3D SYSTEMS

SPECTRO
COLORIMETERS

GONIO
PHOTOMETERS

OPTICAL
COMPONENTS



XS300 Light source

NEW PRODUCT 2010



XE LINE 500 Light source

NEW PRODUCT 2010



LED300 Light source

■ Measurement standards

Model	Description
GS10	10 μm depth groove (non calibrated, optional DKD calibration certificate)
RS08	Roughness standard, $R_a \sim 0.8 \mu\text{m}$ (optional DKD calibration certificate)
FS140	140 mm diameter optical flat (ZERODUR uncoated)

■ Softwares

Model	Description
CCSMAN	CCS Manager software
CHRMON	CHR Monitor software
CHRSET	CHR Setup Software
STILDLL	STILDLL (Dynamic Link Library) for CHR 150 and CCS controllers
OPTMIMAX	Min/Max software for CHR 150
OPTLVDT	LVDT-type output for CHR 150

■ DLL for CCS and CHR controllers

The “STILDLL” provides a powerful high-level software development toolkit enabling an easy interfacing of STIL’s sensors to custom applications.

It may be used with all CCS and CHR controllers.

DLL Compatibility
ANSI-C programs Microsoft Visual C++™ compilers (6, 7, 8 and .net versions) Microsoft Visual C++™ MFC LabView™

The main features of the DLL are:

- Initialize and connect to the sensor through RS232, Ethernet or USB2;
- Get/Set the sensor settings, e.g.:
 - Sampling rate,
 - Measuring mode (Distance/Thickness),
 - Optical pen selection,
 - Digital output settings (data selection, ascii/binary mode, baud rate...)
 - Analog output settings (data selection, scaling of the data on the 0-5V range),
- Measure the sensor «Dark» signal,
- Enable/disable hardware trigger mode,
- Launch measurement with other processes,
- Synchronize the measurement with other processes,
- Get the sensor status and the «last error» parameter.

The “STILDLL” is delivered with a detailed User Manual and a large number of code samples.

Non-contact «point» sensors

■ CHR Setup Software

CHR Setup is a useful software utility to configure the CCS and the CHR sensors, to display and save the measured data.

The CHR Setup Software offers a full palette of advanced features, including real time visualization of the signals delivered by the sensor on-board spectrometer.

The user-friendly interface enables the operator to view and to modify all the sensor's settings:

- Acquisition rate and temporal averaging,
- Optical pen selection,
- Measuring mode (distance or thickness measurement),
- Digital output configuration,
- Analog output configuration.

These signals may be captured, saved and compared with reference signals.

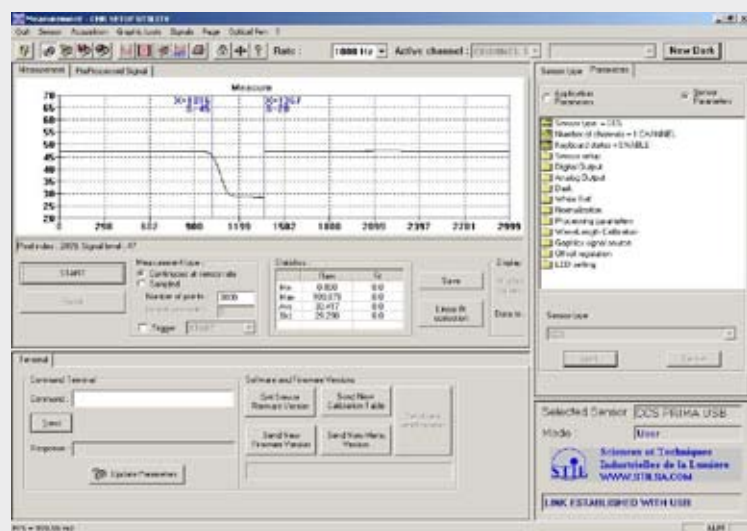
This feature is very useful for adjusting the position of the optical pen relatively to the sample, or for analyzing the sensor performance in particularly difficult measuring conditions (very low signal to noise ratio, sample located at the very end of the measuring range, measuring the thickness of thin layers,...).

This interface comprises a dedicated Command Terminal allowing to send ASCII commands to the sensor and to view its response. Example: by typing in "\$TRG", the operator may implement and test the triggered operation mode.

Thanks to this software, measurements may be easily configured (sensor rate, number of points to measure, trigger mode) and launched. The operator may select the data for display: Distance, Thickness, Intensity... This data is displayed in real time in the graphic window. Moreover, it may be saved on the hard disk or sent to the printer.

At the end of the measurement, statistical information (minimum, maximum, average, standard deviation) is automatically displayed.

This utility facilitates maintenance tasks, by a single mouse click the operator may interrogate the sensor for its serial number or send a new firmware version.



Minimal computer configuration

Windows XP™

512 MB RAM, 1 GHz

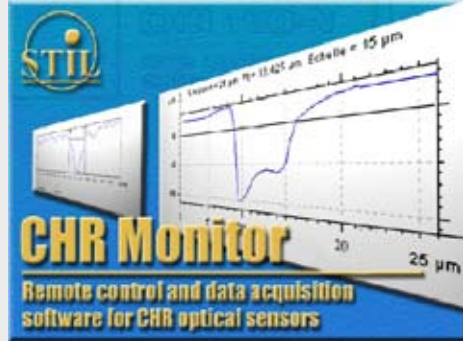
RS232, Ethernet or USB port (depending on the sensor type)

■ CHR Monitor Software

The **CHR Monitor** software allows to display, to print and to save the signal delivered by CHR sensors.

A simple mouse click offers the possibility to:

- Launch the Dark Signal acquisition;
- Select:
 - The optical pen connected to the CHR sensor,
 - The parameters to be displayed (altitude, intensity...),
 - The Acquisition and sampling rates,
 - The temporal averaging factor.



Available operating modes

- Continuous visualization
- Acquisition (N measurements) at a constant sampling rate
- Acquisition in CMM mode (altitude statement)

Licence

The program requires a “dongle” (hardware) to be installed on the parallel port. A printer or any other parallel port device may still be connected to the parallel port through the “dongle”.

Minimal computer configuration

- Windows 2000 / NT
- 256 MB RAM, 1 GHz
- Serial port

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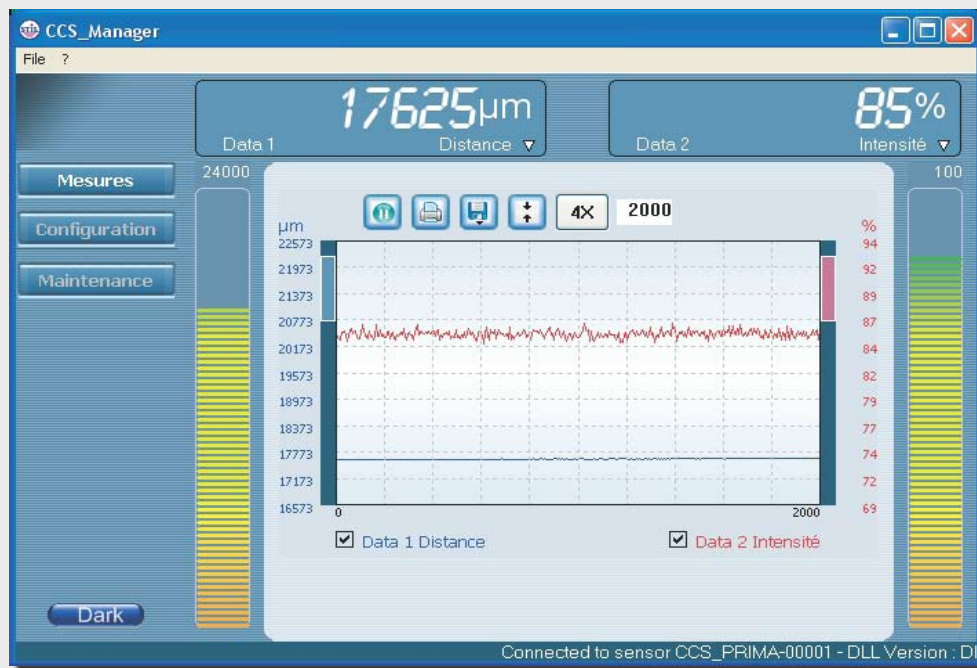
■ CCS Manager Software

The **CCS Manager** software is a powerful software which allows to start measuring with your new CCS sensor in minutes.

Thanks to its very user-friendly interface, the CCS Manager software is the simplest way to get accurate measurements from the sensor and to have a full control over all the settings of your CCS sensor.

Moreover, CCS Manager provides advanced maintenance functions :

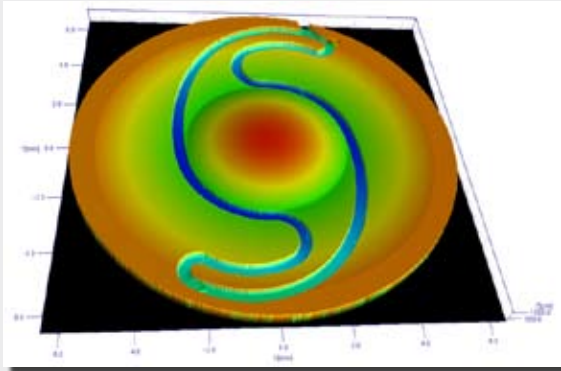
- Update of the sensor's firmware to take advantage of the latest enhancements and the new functions developed by STIL's engineers.
- In situ calibration of your controller.
- Download to the sensor's memory of additional calibration tables allowing to use more optical pens with your CCS controller.
- Unique «Diagnostics» function, allowing to record the current status of the sensor into a file, which can be directly sent by email to STIL's Application and Support department. Thanks to these detailed information, our engineers are able to give help and advice in minutes, even if the product is used thousands of kilometers away from our premises.



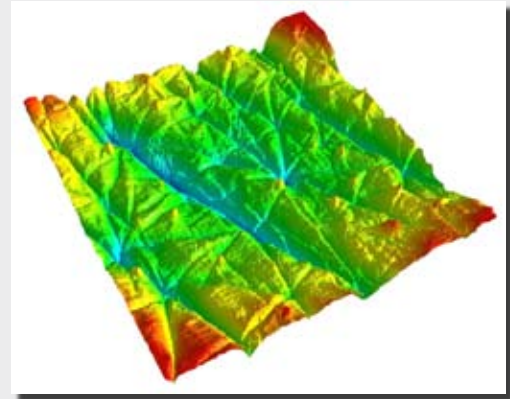
Minimal computer configuration

Windows XP™
512 MB RAM, 1 GHz
RS232 or USB port (depending on the sensor type)

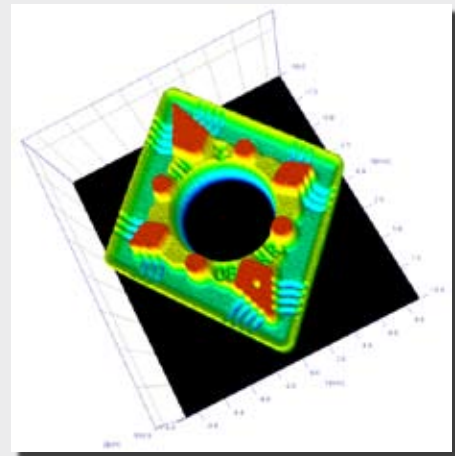
3D measurement examples: chromatic confocal technology



Photoengraved lens

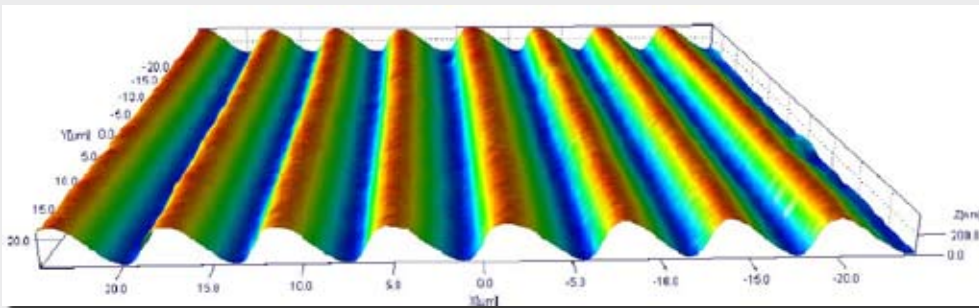


Human Skin measurement

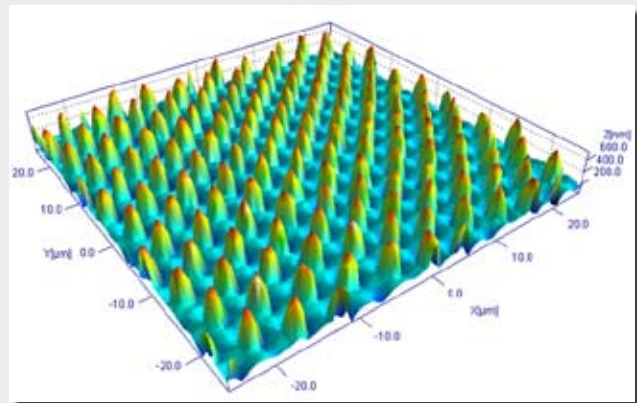


Surface microtopography of a TF insert

3D measurement examples: confocal spectral interferometry



Commercial grating



Solar cells