All Digital
Time Domain Imaging™
SXGA-3DM
For fast bit-plane sequencing applications

Forth Dimension Displays offers the SXGA-3DM spatial light modulator (SLM) solution specifically designed to meet the demands of optical metrology system builders.

The SXGA-3DM is a fast switching, all digital, high performance reflective SLM product featuring Forth Dimension Displays' industry proven SXGA (1280 x 1024) Time Domain Imaging™ display with an application specific display interface.

The interface allows the system builder to precisely time their images on the device under test. Bi-directional trigger signals (either to the interface or from it) ensure accurate synchronization with other system components such as cameras or translation tables. With storage for 768 full resolution 1-bit images, the interface allows offline set up for online optimization with no controlling PC required.

The microdisplay offers SXGA resolution, digitally precise images in a high fill factor liquid crystal on silicon package. Already recognised as the leading microdisplay for high-end near-to-eye display systems, the quality and precision of image are also available to the 3D metrology market. The SXGA-3DM from ForthDD offers a solution designed to meet current and future demands of optical metrology applications.

BENEFITS

High resolution, SXGA (1280 x 1024 pixel)

40 Microsecond switching liquid crystal enables the rapid rendering of complex patterns

>96% fill factor: accurate image projection with no visible structure

All digital grey scale – linear response Time Domain Imaging™

Powerful GUI and API

Reduced design-in time

FEATURES

Small form factor

Flexible synchronization

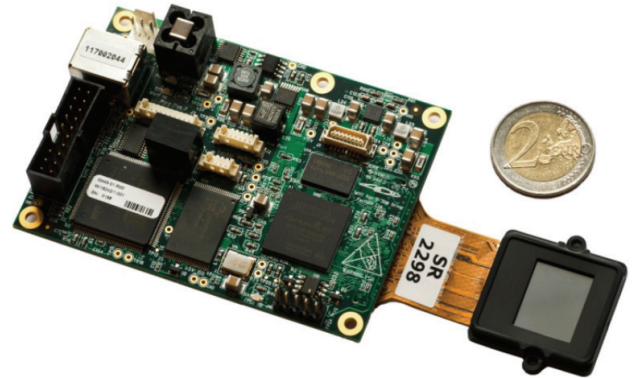Non-volatile storage for 768 bit-planes and associated sequences

One system can perform multiple measurements

Flexible LED interface, optional LED driver board

Direct drive

Variable display addressing sequences

RS232 / USB interface for system control

APPLICATIONS

High resolution structured illumination

Coded Aperture Compressive Temporal Imaging

3D AOI and SPI systems

Super Resolution and Confocal Microscopy

Lattice Light Sheet Microscopy

Structured Light Projection

Inline 3D component inspection
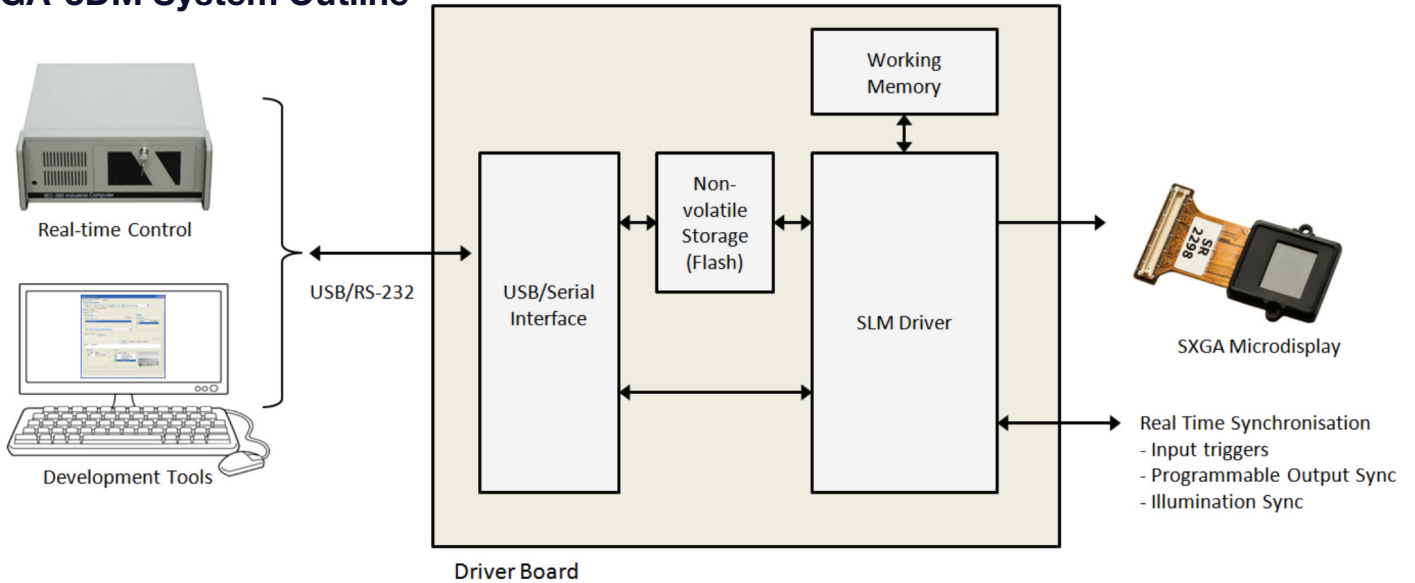
3D Optical profiling

4D FORTH DIMENSION DISPLAYS

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All Digital
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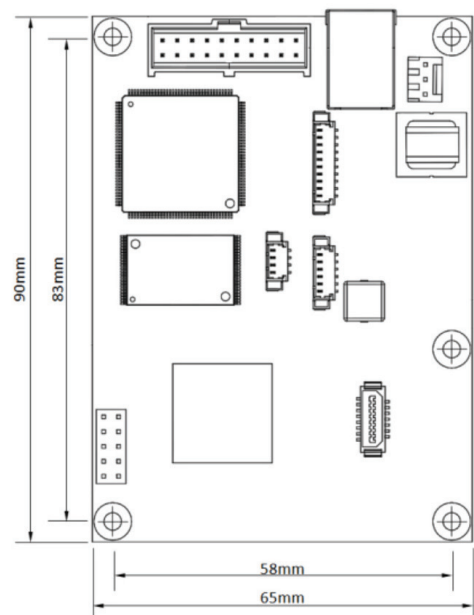# SXGA-3DM
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SXGA-3DM System Outline

Outline Specifications

Resolution	SXGA (1280 x 1024 pixel)
Non-volatile Storage Capacity	768 x 1-bit SXGA resolution bit-planes
Maximum Refresh Rate	3.2KHz Binary / 240Hz 8-bit Greyscale
Interfaces	USB 2.0 / RS-232
Synchronisation	Isolated Input Triggers Programmable Isolated Output Sync Isolated Illumination Sync
Power	+12VDC / 3.5W (including Microdisplay)
Weight	54g (Driver Board & Microdisplay)
Operational Temp Range	-10°C to +50°C

Driver Board Outline Dimensions

For further information or to receive a quotation please contact:

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