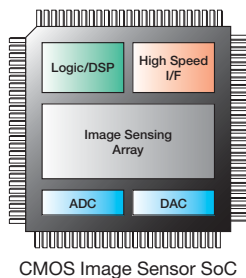


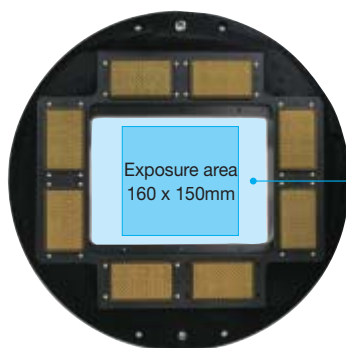
CMOS Image Sensor Test Solution

New, high-parallel test solution incorporates high-speed interface technology to enable evaluation and production test of advanced CMOS image sensors.



Module Configuration Scenario

- 800MDM
- PMU32
- DPS500mA
- 1.2GICAP
- 2048 ch Frog Unit



User area:
252 x 208mm

2048ch Frog Unit (4400)
H7-910922

High-speed, CMOS image sensors with good image quality are widely used in mobile handsets, smart-phones and digital cameras, however there is a growing demand for leading-edge, ultra-high-definition resolution products such as SLR digital cameras and HD Video (HDV). These new class of high-definition products are fueling the need for higher performance yet more cost-efficient test solutions.

ADVANTEST's T2000 responds to this challenge with capabilities to test a wide variety of CMOS image sensors providing a full complement of features including high-resolution dual bank image capture memory and per site Image Processing Engine for optimized concurrent test data storage and transfer.

In addition, T2000 modular architecture delivers a high-speed, low-cost solution, owing to a combination of high speed capture module, high instrument channel count, 2048ch pogo interface and a large-area light source unit, high multi-site testing for ultra high-volume manufacturing is achieved.

Flexible support for multifunction image sensors

CMOS image sensors are now incorporating functions such as AD/DA and other SoC circuits. T2000 modular architecture enables testing of these complex devices by configuring the tester with optimal instrument configurations to meet the test requirements at the lowest cost of test.

1.2Gbps high-speed image capture

The module's high-speed image-capture interface supports a variety of CMOS image sensors including mobile, DSC, DSLR, CAM, and industrial CIS. In addition, the large dual bank capture memory enables simultaneous data storage and data transfer to the image processing engine, minimizing test times significantly.

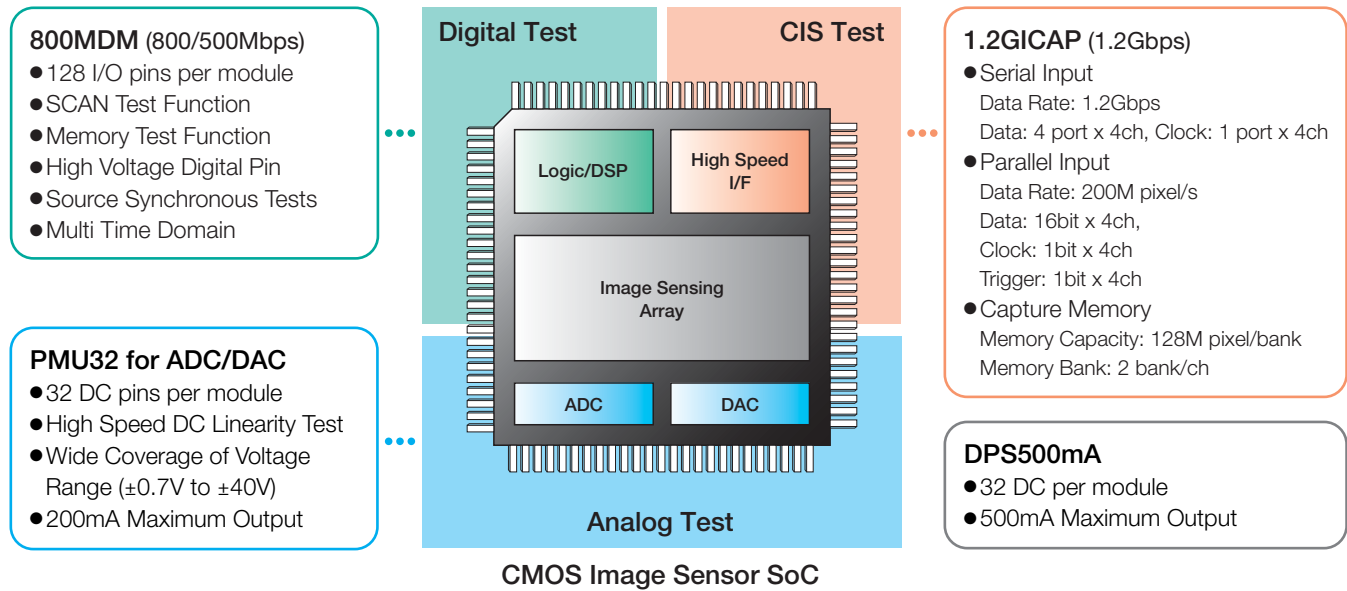
- Differential input:
 - Serial data: 1.2Gbps, 4 lanes x 4 channel
 - Parallel data: 200M pixels/s, 16 bits x 4 channel
- Large capture memory: 128M pixels x 2 banks
 - Capable of storing continuous image data of up to 255 frames

Parallel testing up to 64 devices

The module's ultra high-volume simultaneous measurement capability enables uniquely high productivity and a significant cost savings for image sensor testing. And, most importantly, the system's optimized, and uniform light source and large user area enables 64-parallel testing of ultra-high-density and quality, as well as high-performance devices.

- 440mm probe card and 2048ch Frog Unit (pogo interface)
 - User area: 252 x 208mm
 - Large exposure area: 160 x 150mm

■ T2000 module configuration for CMOS image sensor testing



T2000 Image Sensor Test System Specifications

System Configuration		T2000 LSMF + EXMFIS + IS46TH
Digital Frequency		125/250/500/800Mbps (800MDMA)
Capture Rate	Serial	1.2Gbps
	Parallel	200M pixel/s
	Memory	400M pixel/s
Capture Memory Size (pixel/site)		128M
Image Capture Bit		8 to 16bit
Multi-Site Test		64
Image Processing Engine		16 Engine Module (Quad Core CPU)
Image Processing Memory		4GB (16GB)
Digital Module	Architecture	Per Pin (Multi Time Domain)
	Channel	128ch/Module (Max. 2048ch)
	VGCS/VECTOR	128M
DPS		DPS500mA: 8V/500mA, 12V/200mA Parallel Drive 1 to 32
Analog Option		PMU32 (AAWGD/BBWGD)
Performance Board User Area		252 x 208mm
Lighting Area		160 x 150mm
Parallel Capture Mode	Channel	16bit, 1 clock, 5 enable
	Digital Module	No need
	PMU	PMU on Module
	Image Capture	Synchronized with device output

- Please refer to product manual for complete system specifications.
- Specifications may change without notification.

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