Vacuum Interface Tester

SIGMA
MTS 300

> Up to 3,456 pins
> Small footprint (< 1m^2)
> Vacuum interface and cable interface available
> Short measuring paths
> Available as Lambda edition for real parallel testing

ΛAMBDA edition

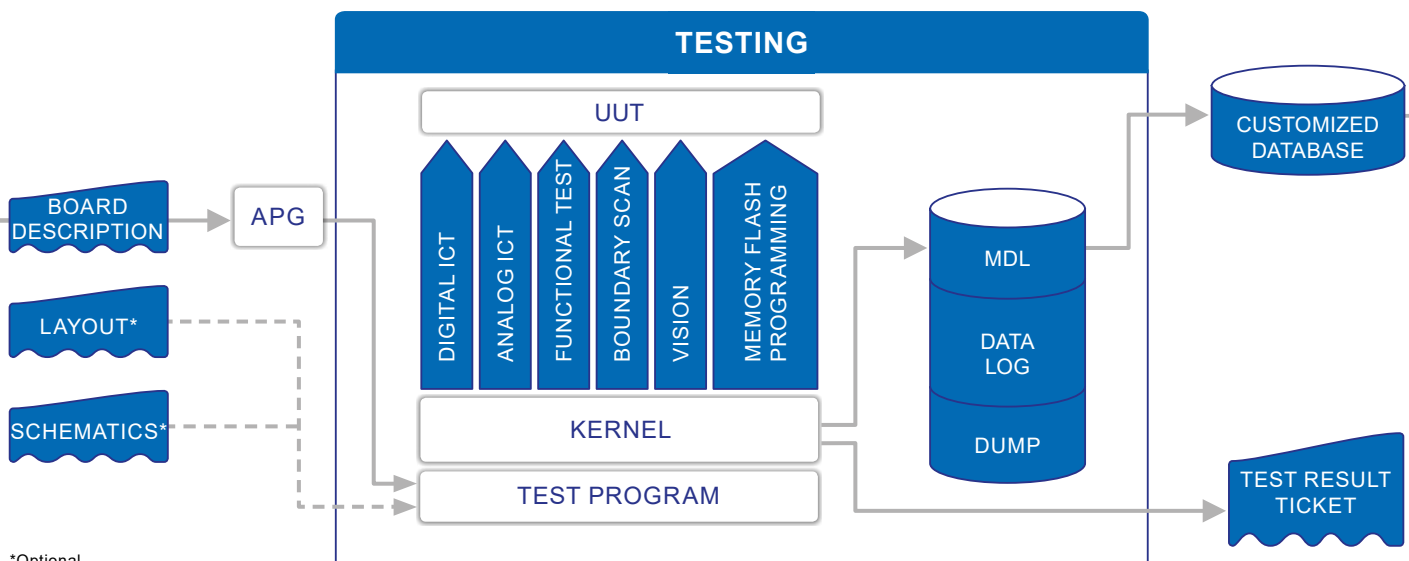The Sigma is multifunctional: it offers plenty of space for modules and functions, with little space required.

be multifunctional

Test System Software

CITE
COMPUTER INTEGRATED
TEST ENVIRONMENT

TESTING

UUT

DIGITAL ICT	ANALOG ICT	FUNCTIONAL TEST	BOUNDARY SCAN	VISION	MEMORY FLASH PROGRAMMING

BOARD DESCRIPTION → APG

LAYOUT*

SCHEMATICS*

KERNEL

TEST PROGRAM

MDL

DATA LOG

DUMP

CUSTOMIZED DATABASE

TEST RESULT TICKET

*Optional

Sigma Hardware Base System

Footprint	
930 mm width x 830 mm height x 900 mm depth	
Controller	
Industrial standard PC	
AMU Module (ICT measurements)	
Quadrature measurement bridge	
Guard ratio	1:1000
3 voltage sources	(AC/DC) 0 - 100 V
Voltage frequency	DC to 100 kHz
Current	Up to 250 mA
Measurement	
Voltage	(AC/DC) up to 100 V
Current	(AC/DC) up to 100 mA
Resistors	0.1 Ohm - 100 MOhm
Capacitors	1 pF to 100 mF
Inductors	10 µH to 10 H
Kelvin measurement	
Diode and zener forward and backward direction up to 100 V	
Transistor, optocoupler etc. active test	

Analog or Hybrid System

Up to 3,456 channels in steps of 128	
MUX Module (Analog ICT)	
6-Bus Matrix for 128 pins each	
Hybrider digitaler Treiber/Sensor	
Up to 3,456 in steps of 64/128	
Input/output	+5 V/±10 V in 20 mV resolution
Max. current	±500 mA (backdriving) or 50 mA for static D/S operation
Speed	Up to 10 MHz pattern rate
Tristate-capable /Automatic driver-monitoring/Logic levels programmable per pin	

Hardware Options

UPC Module (Programmable power supplies)	
Short-circuit monitoring via software and hardware	
Software-controlled on/off switching	
Separate force and sense lines	
Thermal shutdown	
UPC02-09	9 V / 10 A
UPC02-25	24 V / 5 A
UPC02-45	45 V / 3.5 A
MTC Module (Frequency/time measurement card)	
Up to 100 MHz	
MSM Module (DC/AC source and measurement card)	
Additional precise U/I signal sources (floating)	
Additional precise U/I measurement (floating)	
FailSim Module (Verification of test program quality)	
Simulates defective component to improve actual error detection	
External Modules	
For example IEEE, PXI, USB, RS232, CAN, LIN and much more	

Test System Software (included)

Program development
Automatic Program Generator (APG) generates test programs using the board description (manual or automatical generation).
Library for analog and digital IC´s.
Functional test enhancements using Menu Aided Programming (MAP).
Test program code language based on Visual Basic (VB) 6, VB .NET and/or table based GenFast.
Translation of test programs from common test systems and all MTS test systems.
Recording test results (failing data and/or complete measurement results) to use for repair and traceability.
Program debugging
Powerful debugging using table based GenFast (mainly for analog ICT) and/or all functionality provided by Visual Basic 6 and VB .NET.
Single step mode execution available.
Debug window for displaying measurement results.
Possibility to make changes to all command parameters and directly seeing their impact.
Layout viewer, schematics viewer (optional), highlighting failing component to support debug work.
Selftest
Checks the hardware of test system and localizes faulty modules (diagnosis down to relay-level).
QCAM (test stability report)
Reports the stability and quality of a test program. Makes debugging easy and efficient.

Software Options

C-LINK Software (Design to Manufacturing)
Automatic generation of fixture-data, net lists, parts lists, layout data etc.
QMAN Software (Paperless Repair)
Paperless repair, statistics, quality data management, fault catalogue.
Boundary Scan
Boundary Scan software integration: development, execution and diagnostics.

Company

Since 1980 Digitaltest is a strong partner of the electronics industry and has years of experience in development, implementation and support of automated test equipment (ATE) for electronic printed circuit boards. The complete product portfolio of the global company includes hardware technology, software to automate the production and evaluate the production process with its quality management software.

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