

SYSTEM CASCON™

SYSTEM CASCON™

The quality of a JTAG/Boundary Scan system is significantly determined by the performance and architecture of the used software.

In 1991 GOEPEL electronic has been globally first to develop an integrated Boundary Scan software development environment named **SYSTEM CASCON**.

Since then the uniqueness of the Boundary Scan workbench has been continuously expanded through the integration of new intelligent tools, along with innovative system extensions and improvements of the user interface.

Today SYSTEM CASCON is available in its fourth generation. It is the only software package, which achieved the status of an open graphical JTAG/Boundary Scan operating system. Its architecture comprehensively supports the philosophy of Extended JTAG/Boundary Scan, which – compared to other solutions – provides

a far superior test coverage and more diverse system functions by adding further test, programming and emulation methods to the native JTAG/Boundary Scan procedures.

Several thousand globally delivered system solutions confirm the market-leading position of SYSTEM CASCON in industrial applications. Software updates are globally available via our customer web site **GENESIS**.

To perfectly address the needs of development, production and customer service, the software packages are available in dedicated performance classes as **Development Stations** (DS) and **Test/Execution Stations** (TS/ES). In-system-programming (ISP) tasks can be executed with **CASCON POLARIS** editions. The **CASCON GALAXY** version supports ISP and test methods.



CASCON POLARIS™

CASCON POLARIS™

CASCON POLARIS is a powerful, flexible and user-friendly development and operating environment for JTAG/Boundary Scan in-system-programming, which has proven in industry for 20 years. Application specific versions for special needs in laboratory, production and service environments are available. Combining CASCON POLARIS with GOEPEL electronic's controllers and accessories, users can configure high performance JTAG/Boundary Scan programmers for various performance classes.



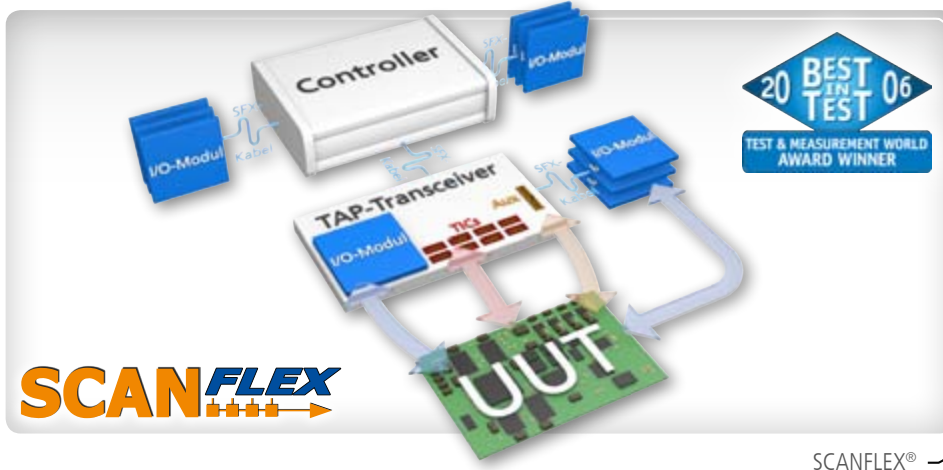
CASCON GALAXY®

CASCON GALAXY®

CASCON GALAXY is available in four different editions: Advanced, Classic, Standard and Base. The feature set is configurable according customer requirements and can be upgraded up to the most powerful edition. All software functions are accessible via an intuitive graphical user interface. CASCON GALAXY is based on software modules with an adaptable set of features, which are all integrated into a common software interface.

ITAG/Boundary Scan

Hardware: SCANFLEX®



SFX/PCI 1149

SCANFLEX®

SCANFLEX (SFX) is a revolutionary hardware platform, which supports a broad range of technological possibilities that arise from current and future standards. SCANFLEX Boundary Scan test systems are characterised by ultimate performance, flexibility and modularity. SCANFLEX goes even further adding new fields of application for analogue and mixed-signal tests, no competing solutions have been providing. A central Boundary Scan controller manages the entire control of the SCANFLEX system. Moreover, it handles the simultaneous generation and dynamic distribution of serial and parallel test vectors. All SCANFLEX controllers are available in three performance classes:

- **Performance class A:** 20 MHz test clock, scan architecture: Data Buffer
- **Performance class B:** 50 MHz test clock, scan architecture: SPACE II
- **Performance class C:** 80 MHz test clock, scan architecture: SPACE II-S

SFX/PCI 1149

Boundary Scan controller for **PCI** slot operation.



SFX/PCIe 1149



SFX/PXI 1149



SFX/PXIe 1149

SFX/PCIe 1149

Boundary Scan controller with **PCI Express** interface.

SFX/PXI 1149

Boundary Scan controller for **PXI** bus.

SFX/PXIe 1149

Boundary Scan controller for **PXI Express** bus.

ITAG/Boundary Scan

SCANFLEX® Controllers



SFX/ASL 1149

SFX/ASL 1149

Boundary Scan controller for **Gigabit Ethernet**, **USB 2.0** and **Cabled PCI Express**.



SFX/LXI 1149

SFX/LXI 1149

Boundary Scan controller for **LXI** bus, **USB 2.0** and **Gigabit-Ethernet**.



SFX/PEC 1149

SFX/PEC 1149

Boundary Scan controller for **Cabled PCI Express**.



SFX/PXI 1149/C2

SFX/PXI 1149/C2

Boundary Scan controller for **PXI** bus **with integrated** compact version of TAP Transceiver **SFX-TAP2**.



SFX/PXI 1149/C4

SFX/PXI 1149/C4

Boundary Scan controller for **PXI** bus **with integrated** compact version of TAP Transceiver **SFX-TAP4**.



SFX/PXIe 1149/C2

SFX/PXIe 1149/C2

Boundary Scan controller for **PXI Express** bus **with integrated** compact version of TAP Transceiver **SFX-TAP2**.

JTAG/Boundary Scan

SCANFLEX® Controllers • SCANFLEX® TAP Transceivers



SFX/PXIe 1149/C4

SFX/PXIe 1149/C4

Boundary Scan controller for **PXI Express** bus with **integrated** compact version of TAP Transceiver **SFX-TAP4**.



SFX/COMBO 1149

SFX/COMBO 1149

Boundary Scan controller for **Gigabit Ethernet** and **USB 2.0 with integrated** compact version of TAP Transceiver **SFX-TAP4**.

Additionally, the SFX/COMBO 1149 is equipped with **two analogue 10-bit I/O channels, three slots for SCANFLEX I/O Modules** and **four TIC slots**, whereby the first one is provided with a **TIC 020/VarioTAP** by default.

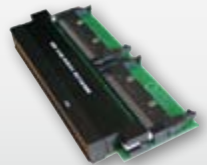


SFX/PXI 1149/C4-FXT

SFX/PXI 1149/C4-FXT

Boundary Scan controller for **PXI** bus with **integrated** compact version of TAP Transceiver **SFX-TAP4/FXT**. The **distance** between controller and active external TIC modules may reach **up to 4 m** without performance loss.

Additionally, the interface receiver VPC 160/192 is available as an interface based on a 192-pin receiver from Virginia Panel.

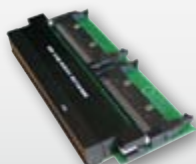


SFX/PXIe 1149/C4-FXT

SFX/PXIe 1149/C4-FXT

Boundary Scan controller for **PXI Express** bus with **integrated** compact version of TAP Transceiver **SFX-TAP4/FXT**. The **distance** between controller and active external TIC modules may reach **up to 4 m** without performance loss.

Additionally, the interface receiver VPC 160/192 is available as an interface based on a 192-pin receiver from Virginia Panel.



SFX-TAP2

SFX-TAP2

Desktop TAP Transceiver

- two Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP4

SFX-TAP4

Desktop TAP Transceiver

- four Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels

JTAG/Boundary Scan

SCANFLEX® TAP Transceivers



SFX-TAP6

SFX-TAP6

Desktop TAP Transceiver

- six Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP7

SFX-TAP7

Desktop TAP Transceiver

- seven Test Access Ports (TAPs)
- three SFX I/O slots
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP8-S & SFX-TAP8

SFX-TAP8-S & SFX-TAP8

Desktop TAP Transceiver

- eight Test Access Ports (TAPs)
- two SFX I/O slots
- 32 PIP channels
- two analogue 10-bit I/O channels

SFX-TAP8 configurable with

- either eight TAPs and two SFX I/O slots
- or seven TAPs and three SFX I/O slots



SFX-TAP16/G-DT

SFX-TAP16/G-DT

Desktop TAP Transceiver

- for gang test and programming tasks
- 16 slots for TAP slot cards
 - 16 slots for power slot cards (PSCs)
 - 19" housing



SFX-TAP2/C

SFX-TAP2/C

Compact TAP Transceiver

- for industrial applications
- two Test Access Ports (TAPs)



SFX-TAP4/C

SFX-TAP4/C

Compact TAP Transceiver

- for industrial applications
- four Test Access Ports (TAPs)

JTAG/Boundary Scan

SCANFLEX® TAP Transceivers



SFX-TAP4/CR

SFX-TAP4/CR

Compact TAP Transceiver

- specifically for the integration into flying probe testers
- four Test Access Ports (TAPs)



SFX-TAP8/C

SFX-TAP8/C

TAP Transceiver

- for industrial applications
- eight Test Access Ports (TAPs)
- two SFX I/O slots
- 19" housing



SFX-TAP2/FXT

SFX-TAP2/FXT

Desktop TAP Transceiver

- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- two Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP4/FXT

SFX-TAP4/FXT

Desktop TAP Transceiver

- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- four Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP6/FXT

SFX-TAP6/FXT

Desktop TAP Transceiver

- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- six Test Access Ports (TAPs)
- one SFX I/O slot
- 32 PIP channels
- two analogue 10-bit I/O channels



SFX-TAP7/FXT

SFX-TAP7/FXT

Desktop TAP Transceiver

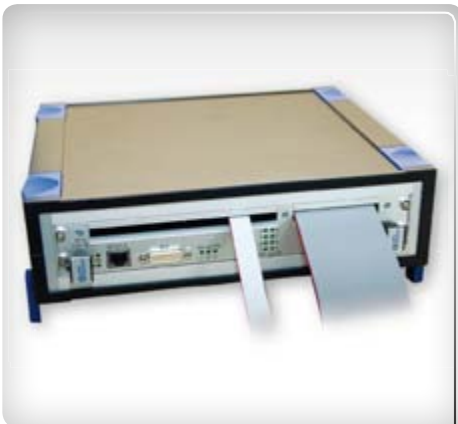
- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- seven Test Access Ports (TAPs)
- three SFX I/O slots
- 32 PIP channels
- two analogue 10-bit I/O channels

JTAG/Boundary Scan

SCANFLEX® TAP Transceivers • Integration



SFX-TAP8-S/FXT



SFX-TAP8/FXT



SFX-TAP8/C/FXT

SFX-TAP8-S/FXT

Desktop TAP Transceiver

- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- eight Test Access Ports (TAPs)
- two SFX I/O slots
- 32 PIP channels
- two analogue 10-bit I/O channels

SFX-TAP8/FXT

Desktop TAP Transceiver

- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- either eight Test Access Ports (TAPs) and two SFX I/O slots
- or seven Test Access Ports (TAPs) and three SFX I/O slots

SFX-TAP8/C/FXT

TAP Transceiver

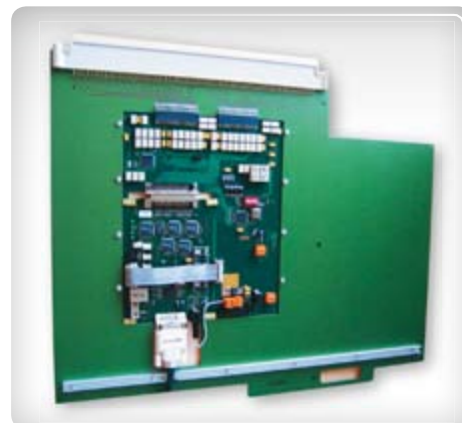
- for industrial applications
- distance between TAP Transceiver and active external TIC modules may reach up to 4 m
- either eight Test Access Ports (TAPs) and two SFX I/O slots
- or seven Test Access Ports (TAPs) and three SFX I/O slots
- 19" housing



SFX-TAPx/228x-XXX



SFX-TAPx/88xx-XXX



SFX-TAP4/3070-PIC

SFX-TAPx/228x-XXX

TAP Transceiver for **Teradyne TS 12x/LH/LX/228x** with up to eight TAPs and high-speed scan up to 80 MHz.

SFX-TAPx/88xx-XXX

TAP Transceiver for **Teradyne 88xx Spectrum TSSE** with up to eight TAPs and high-speed scan up to 80 MHz.

SFX-TAP4/3070-PIC

TAP Transceiver for **Agilent i3070** with four TAPs and high-speed scan up to 80 MHz; **slot card**.

JTAG/Boundary Scan

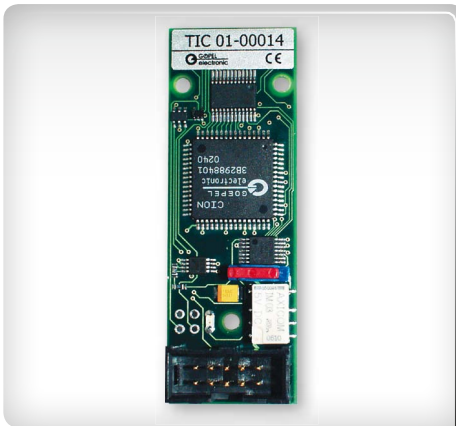
Integration • TAP Interface Cards



SFX-TAP4/3070-PPC

SFX-TAP4/3070-PPC

TAP Transceiver for **Agilent i3070** with four TAPs and high-speed scan up to 80 MHz; **Performance-Port card**.



TIC 01

TIC 01

TAP Interface Card

- programmable TAP input comparator level 0 to 3 V
- programmable TAP output voltage level 1.8 to 4.5 V
- programmable input and output impedance
- TAP read back function
- TAP interface protection
- relay switched 5 V output signal



TIC 02/S & TIC 02/SR

TIC 02/S & TIC 02/SR

TAP Interface Card

- TAP input comparator level 0 to 3 V
- TAP output voltage level 1.2 to 3.65 V
- relay switched 5 V output signal
- test bus signals buffered close to UUT
- wire-wrap terminals included
- TAP interface protection

TIC 02/SR additionally includes

- disconnection of the test bus via relay



TIC 02/LV & TIC 02/LVR

TIC 02/LV & TIC 02/LVR

TAP Interface Card

- TAP input comparator level 0 to 2 V
- TAP output voltage level 0.5 to 2 V
- relay switched 5 V output signal
- test bus signals buffered close to UUT
- wire-wrap terminals included
- TAP interface protection

TIC 02/LVR additionally includes

- disconnection of the test bus via relays
- Supply voltages +12 V and ± 5 V required



TIC 020/VarioTAP

TIC 020/VarioTAP

TAP Interface Card

- with multi bus interface for extended VarioTAP support
- programmable TAP input comparator level 0 to 3 V
- programmable TAP output voltage level 1.8 to 4.5 V
- programmable input and output impedance
- TAP read back function
- TAP interface protection
- relay switched 5 V output signal



TIC 02/PMU

TIC 02/PMU

TAP Interface Card

- TAP input comparator level 0 to 3 V
- TAP output voltage level 1.65 to 3.6 V
- relay switched 5 V output signal
- test bus signals buffered close to UUT
- wire-wrap terminals included
- TAP interface protection
- disconnection of the test bus via relay
- additional precision measurement unit (PMU) for unpowered open/short tests

JTAG/Boundary Scan

TAP Interface Cards • I/O Modules



TIC 03/S & TIC 03/SR

TIC 03/S & TIC 03/SR

TAP Interface Card

- TAP input comparator level 0 to 3 V
- TAP output voltage level 1.65 to 3.6 V
- relay switched 5 V output signal
- test bus signals buffered close to UUT
- wire-wrap terminals included
- TAP interface protection
- extended temperature range -40 °C to 80 °C

TIC 03/SR additionally includes

- disconnection of the test bus via relay



SFX-1000

SFX-1000

The **prototype module** SFX-1000 features programmable functions and a perfboard area for customer specific circuits.



SFX-1149.4

SFX-1149.4

This **analogue test bus I/O module** has been developed to support analogue testing according to IEEE 1149.4.



SFX-5296

SFX-5296

Digital I/O module featuring 96 independent asymmetrical channels. I/O voltage levels between 1.8 V and 5 V can be assigned in three groups with 32 channels each. Channels can be synchronised via IEEE 1149.1 TAP.



SFX-5350

SFX-5350

The **differential I/O module** SFX-5350 features 50 channels. Due to its integrated VarioCore technology it is user configurable as onboard programmer, test instrument or verification tool.



SFX-5364

SFX-5364

The **digital I/O module** SFX-5364 features 64 freely programmable channels. Due to its integrated VarioCore technology it is flexibly configurable for structured Boundary Scan operation or for protocol-based full speed tests up to 100 MHz.

JTAG/Boundary Scan

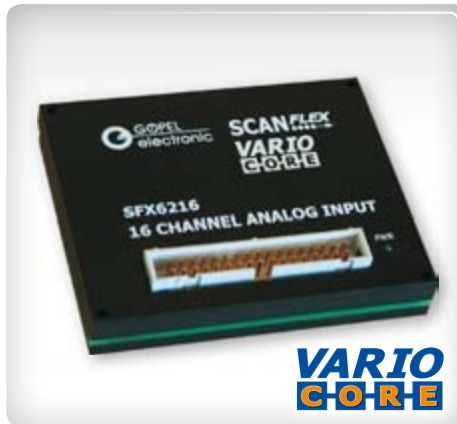
I/O Modules • Bus Access Cables



SFX-5704

SFX-5704

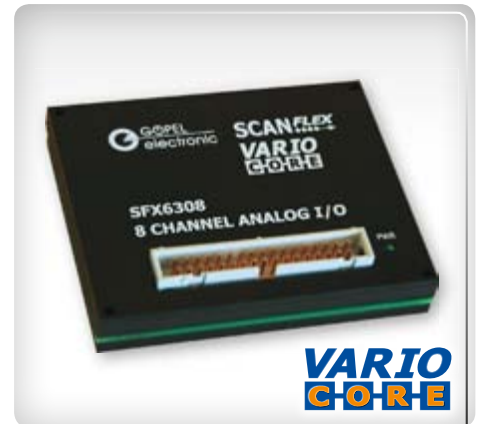
The **Mixed signal I/O module** SFX-5704 features four independent channels, configurable as input, output, bi-directional or tri-state mixed signal channels.



SFX-6216

SFX-6216

The **analogue input module** SFX-6216 features 16 channels (multiplexed 4x4). The module is provided with the flexible functionality of the integrated VarioCore technology.



SFX-6308

SFX-6308

The **analogue I/O module** SFX-6308 features four analogue inputs and outputs each. It is provided with the flexible functionality of the integrated VarioCore technology.



SFX-9305 & Bus Access Cables

SFX-9305

The **multi port bus I/O module** SFX-9305 features five ports. Each port can be equipped with an interface cable (**Bus Access Cables**: BAC 9305-x) and configured for various bus interfaces. The SFX-9305 includes the VarioCore technology.



BAC 9305-USB2.0/H

BAC 9305-USB2.0/H

Bus Access Cable with USB 2.0 signal conditioning (USB plug type A) for testing USB device interfaces.



BAC 9305-USB2.0/S

BAC 9305-USB2.0/S

Bus Access Cable with USB 2.0 signal conditioning (USB plug type B) for testing USB host interfaces.

JTAG/Boundary Scan

Bus Access Cables



BAC 9305-LAN10/100



BAC 9305-LAN1G



BAC 9305-Bluetooth

BAC 9305-LAN10/100

Bus Access Cable with 10/100 Mbit signal conditioning (RJ-45) for testing Ethernet interfaces.

BAC 9305-LAN1G

Bus Access Cable with Gigabit signal conditioning (RJ-45) for testing Ethernet interfaces.

BAC 9305-Bluetooth

Bus Access Cable with Bluetooth interface in a mini desktop box for testing Bluetooth interfaces.



BAC 9305-RS232



BAC 9305-RS422/485



BAC 9305-CAN/HS

BAC 9305-RS232

Bus Access Cable for testing RS232 interfaces.

BAC 9305-RS422/485

Bus Access Cable for testing RS422/485 interfaces.

BAC 9305-CAN/HS

Bus Access Cable for testing CAN high-speed interfaces.

JTAG/Boundary Scan

Bus Access Cables • SFX Carriers



BAC 9305-CAN/LS



BAC 9305-LIN



SFX-Carrier5

BAC 9305-CAN/LS

Bus Access Cable for testing CAN low-speed interfaces.

BAC 9305-LIN

Bus Access Cable for testing LIN interfaces.

SFX-Carrier5

Desktop multi module **carrier** for up to five **SFX I/O modules**. Each SFX I/O slot can be synchronised via IEEE 1149.1 TAP.



SFX-Carrier5/C



SFX-Carrier10 & SFX-Carrier10/C



SFX-Carrier15 & SFX-Carrier15/C

SFX-Carrier5/C

Multi module **carrier** in a 19" housing **for** up to five **SFX I/O modules**. Each SFX I/O slot can be synchronised via IEEE 1149.1 TAP.

SFX-Carrier10 & SFX-Carrier10/C

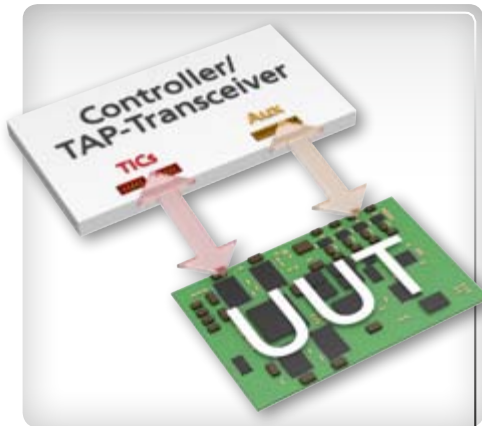
Multi module **carrier** in a desktop or 19" housing **for** up to ten **SFX I/O modules**. Each SFX I/O slot can be synchronised via IEEE 1149.1 TAP.

SFX-Carrier15 & SFX-Carrier15/C

Multi module **carrier** in a desktop or 19" housing **for** up to 15 **SFX I/O modules**. Each SFX I/O slot can be synchronised via IEEE 1149.1 TAP.

JTAG/Boundary Scan

SCANBOOSTER™ • PicoTAP



SCANBOOSTER™



SCANBOOSTER™/USB(-FXT)



SCANBOOSTER™/PEC(-FXT)

SCANBOOSTER™

The **SCANBOOSTER** family complements the available range of SCANFLEX solutions with a **self-contained product line in the lower and medium performance range.**

SCANBOOSTER™/USB(-FXT)

SCANBOOSTER/USB features two separate, programmable TAPs and supports a programmable TCK frequency of up to 16 MHz. Both TAPs are independently programmable concerning output voltage, input voltage comparator threshold, output impedance and input impedance.

The SCANBOOSTER/USB-FXT version uses active external test probes (exclusively). The distance between controller and TAP head may reach up to 4 m without performance loss.

SCANBOOSTER™/PEC(-FXT)

The SCANBOOSTER/PEC, which is controlled via cabled PCI Express, features two separate, programmable TAPs and supports a programmable TCK frequency of up to 16 MHz. Both TAPs are independently programmable concerning output voltage, input voltage comparator threshold, output impedance and input impedance.

The SCANBOOSTER/PEC-FXT version uses active external test probes (exclusively). The distance between controller and TAP head may reach up to 4 m without performance loss.



SCANBOOSTER™/PCI(e)-DT



UCM3070



PicoTAP

SCANBOOSTER™/PCI(e)-DT

SCANBOOSTER/PCI-DT and SCANBOOSTER/PCIe-DT consist of an external controller base unit and a PCI and PCI Express slot card, respectively. Cabled PCI Express can bridge a distance of up to 5 m.

UCM3070

The UCM3070 card has been developed as plug-in module for the utility card of the Agilent i3070.

The module features two separate, programmable TAPs and supports a programmable TCK frequency of up to 16 MHz. Both TAPs are independently programmable concerning output voltage, input voltage comparator threshold, output impedance and input impedance.

PicoTAP

For newcomers: the smallest JTAG/Boundary Scan Controller in the world

- small, compact and portable
- includes USB 2.0 and a Test Access Port
- project development within a very short time
- suitable for development, production and service
- fully compatible with GOEPEL electronic's software and hardware
- no extra cabling: can be directly plugged onto the board to be tested (standard 10-pin connector)

accessories and kits see page 21

JTAG/Boundary Scan

CION Module™



CION Module™/FXT48A / 96A / 192A



CION Module™/FXT96



CION Module™/FXT114S

CION Module™/FXT48A / 96A / 192A

CION modules FXT48A / 96A / 192A with 48, 96 or 192 digital I/O channels have been developed for integration into test fixtures. The core part of the modules consists of several special CION ASICs and a comprehensive analogue circuitry. These modules allow for an extended JTAG/Boundary Scan test coverage for non Boundary Scan digital circuit clusters and connectors as well as numerous analogue tests and voltage measurements.

CION Module™/FXT96

The CION Module/FXT96 is a test board with 96 bi-directional test channels. I/O voltage levels between 1.8 V and 5 V can be assigned in three groups with 32 channels each. The module has been designed for mixed voltage applications with single-ended signals.

CION Module™/FXT114S

The CION Module/FXT114S has been developed for integration into test fixtures and enables a structured test of serial high-speed interfaces according to IEEE 1149.6. The digital module features 114 parallel test channels for IEEE 1149.1, 50 of which do support even IEEE 1149.6.



CION Module™/DIMM168



CION Module™/SO-DIMM200



CION Module™/SO-DIMM200-1

CION Module™/DIMM168

The CION Module/DIMM168 has been designed to test DIMM168 interfaces according to JEDEC standard JESD21-C. The core part of the module consists of several special CION ASICs. The module enables an extended JTAG/Boundary Scan test coverage for all terminals including power and ground pins. It features an automatic voltage detection.

CION Module™/SO-DIMM200

The CION Module/SO-DIMM200 has been designed to test DDR2-SO-DIMM200 interfaces. Using four CION assemblies and the automatic voltage detection it enables the test of all signal and power pins according to JEDEC standard JESD79-2C.

CION Module™/SO-DIMM200-1

The CION Module/SO-DIMM200-1 has been designed to test DDR1-SO-DIMM200 interfaces. Using four CION assemblies and the automatic voltage detection it enables the test of all signal and power pins according to JEDEC standard JESD79-2C.

ITAG/Boundary Scan

CION Module™



CION Module™/SO-DIMM204-3

CION Module™/SO-DIMM204-3

The CION Module/SO-DIMM204-3 has been designed to test DDR3-SO-DIMM204 interfaces according to JEDEC standard. The core part of the module consists of a special CION ASIC and an FPGA. The module enables an extended JTAG/Boundary Scan test coverage for all DDR3 interface signals including most of the power and ground pins.



CION Module™/DIMM240

CION Module™/DIMM240

The CION Module/DIMM240 extends JTAG/Boundary Scan test resources. Based on its CION ASIC it provides 192 Boundary Scan channels to test logic states.



CION Module™/DIMM240-3

CION Module™/DIMM240-3

The CION Module/DIMM240-3 has been designed to test DDR3-DIMM240 interfaces according to JEDEC standard. The core part of the module consists of a special CION ASIC and an FPGA. The module enables an extended JTAG/Boundary Scan test coverage for all DDR3 interface signals including most of the power and ground pins.



CION Module™/SO-DIMM244

CION Module™/SO-DIMM244

The CION Module/SO-DIMM244 has been designed to test DDR2-Mini-DIMM244 interfaces according to JEDEC standard JESD792C. The core part of the module consists of several special CION ASICs. The module facilitates an extended JTAG/Boundary Scan test coverage for all terminals including power and ground pins. It features an automatic voltage detection.



CION Module™/PCI32-64

CION Module™/PCI32-64

The CION Module/PCI32-64 has been designed to provide extended JTAG/Boundary Scan tests of 3.3 V and 5 V PCI sockets (e.g. on motherboards), including automatic voltage recognition. Each PCI signal can be switched to input, output, bi-directional or tri-state – independent of the other signals.



CION Module™/PCIe-x1

CION Module™/PCIe-x1

The CION Module/PCIe-x1 allows for the structural test of PCI-Express x1 slots as per IEEE 1149.1/6. The core part of the module is a CION ASIC, along with differential test channels. To run the test, the module is directly inserted into the PCI-Express slot to be tested and controlled via a TAP.

JTAG/Boundary Scan

CION Module™ • CION Fixture™ • PXI Modules



CION Module™/PCle-x4



CION Fixture™/AMC



CION Fixture™/PCI32-64

CION Module™/PCle-x4

The CION Module/PCle-x4 allows for the structural test of PCI-Express x4 slots as per IEEE 1149.1/6. The core part of the module is a CION ASIC, along with differential test channels. To run the test, the module is directly inserted into the PCI Express slot to be tested and controlled via a TAP.

CION Fixture™/AMC

The CION Fixture/AMC has been developed for AMC single slot modules. It can be installed on motherboards or in housings. Slot 1 is reserved for CION Module/FXT1 14S. This combination can be used to increase testability of boards with AMC interface.

CION Fixture™/PCI32-64

This fixture is a 3-slot PCI test adapter, which supports PCI boards with 32-bit and 64-bit data bus width. Slot 1 is reserved for CION Module/PCI32-64. The combination of both cards has been developed for JTAG/Boundary Scan test of PCI cards. The test is executed via the PCI interface.



CION Fixture™/PCle-x16



PXI 5120 Boundary Scan Power Supply



PXI 5296

CION Fixture™/PCle-x16

The CION Fixture/PCle-x16 is a 2-slot PCI Express test adapter, which supports PCI Express cards with 1, 4, 8, 12 and 16 lanes. Slot 1 is reserved for CION Module/PCle-x1 or CION Module/PCle-x4. The combination of both cards has been developed for the JTAG/Boundary Scan test of PCI cards. The test is run via the PCI Express interface.

PXI 5120 Boundary Scan Power Supply

Power supply module supports 3.3 V and 5 V PXI and cPCI racks with two independent and galvanically insulated voltage outputs.

PXI 5296

Digital I/O module for PXI and cPCI racks featuring 96 independent asymmetrical channels. I/O voltage levels between 1.8 V and 5 V can be assigned in three groups with 32 channels each. Channels can be synchronised via IEEE 1149.1 TAP.

JTAG/Boundary Scan PXI Modules



PXI 52192

PXI 52192

Digital I/O module for PXI and cPCI racks featuring 192 independent asymmetrical channels. I/O voltage levels between 1.8 V and 5 V can be assigned in six groups with 32 channels each. Channels can be synchronised via IEEE 1149.1 TAP.



PXI 5350

PXI 5350

The module features 50 bi-directional, differential I/O channels. LVDS, BLVDS and LVPECL are supported.



PXI 5396

PXI 5396

Digital I/O module featuring 96 channels. Based on GOEPPEL electronic's CION component the module runs in PXI and cPCI racks. The PXI 5396 module enables a combination of structural Boundary Scan test and functional tests up to 100 MHz clock rate.



PXI 5396-DT

PXI 5396-DT

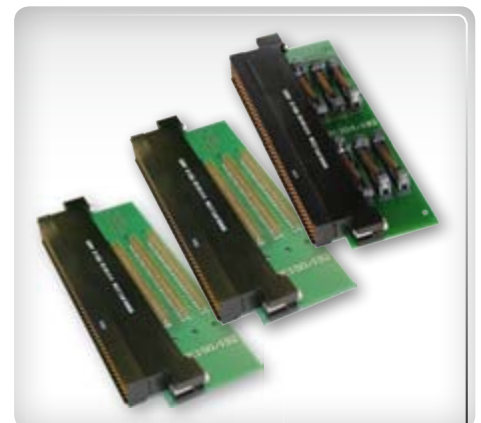
The two-component digital I/O module consists of a PXI based interface module and a remote desktop module featuring 96 channels with integrated VarioCore technology. The desktop module offers a Virginia Panel compatible interface. The distance between both modules may reach up to 5 m without performance loss. The PXI 5396-DT module enables a combination of structural Boundary Scan test and functional tests up to 100 MHz clock rate.



PXI 5396-FXT

PXI 5396-FXT

The two-component digital I/O module features 96 channels with integrated VarioCore technology to run fixture applications in PXI racks. The front-end module offers a Virginia Panel compatible interface. Its distance from the PXI interface may reach up to 5 m without performance loss. The PXI 5396-FXT module enables a combination of structural Boundary Scan test and functional tests up to 100 MHz clock rate.



Various Interface Receivers

Interface Receivers

Based on 192-pin receiver from Virginia Panel:

VPC 50/192 for PXI 5350

VPC 150/192 for PXI 5296, PXI 52192 and PXI 5396

VPC 204/192 for PXI 5396

JTAG/Boundary Scan

Accessories • Bundles



Boundary Scan Probe



CION™



SFX/Board Grabber

Boundary Scan Probe

The Boundary Scan Probe is a tool to debug boards and JTAG/Boundary Scan ICs. It can be used like a virtual Boundary Scan pin and provides a comprehensive feature-set for static and dynamic logic-shift functions.

CION™

The development of CION technology (Configurable I/O Network) implemented a sum of customer requests regarding a new generation of JTAG/ Boundary Scan modules to be installable in active test fixtures.

The unique CION ASIC enables GOEPEL electronic to offer remarkably efficient and flexible solutions. This CMOS ASIC offers configurable I/O features combined with excellent Boundary Scan functionality. Due to its wide range of operating voltages it supports many signal classes up to mixed level applications.

SFX/Board Grabber

The SFX/Board Grabber is a universal tool to adapt JTAG/Boundary Scan boards and modules. Signals can be flexibly probed via clips, connectors or freely positionable magnetic test nails. Additional magnetic contact probes can be arranged to access every board position. They can be used as additional Boundary Scan pins or to contact measurement equipment and provide a simple and reliable means to contact smallest pads or component pins. The board grabber is available in sizes L, XL and XXL.



goJTAG Kit



goJTAG Demo Board



goJTAG Demo Kit

goJTAG Kit

This bundle consists of the **goJTAG** software and the **PicoTAP** controller including a USB cable. Windows XP, Windows Vista and Windows 7 are supported.

goJTAG Demo Board

The simple access into Boundary Scan.

- two Boundary Scan components (buffer, PLD)
- failure switch
- push button
- serial flash memory
- RAM
- LED

goJTAG Demo Kit

Bundle, consisting of **goJTAG Kit** and **goJTAG Demo Board**.

ITAG/Boundary Scan Bundles • Desktop Tester JULIET



SCANBOOSTER™ Designer Studio



Scan Coach Board



Scan Coach Kit/USB

SCANBOOSTER™ Designer Studio

The SCANBOOSTER Designer Studio has been developed for rapid verification of prototypes at design, production and service level. System delivery includes hardware and software tools which are immediately ready to use.

Scan Coach Board

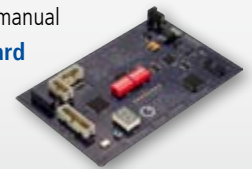
Simple Boundary Scan training board.

- two Boundary Scan components (PLDs)
- failure switch
- RAM
- LED

Scan Coach Kit/USB

Bundle consists of

- **PicoTAP** controller
- **CASCON GALAXY** Advanced Edition (restricted to Scan Coach Board)
- TAP cable
- USB dongle
- tutorial and user manual
- **Scan Coach Board**



ESA Coach



ESA Coach Kit/PCI



JULIET

ESA Coach

Complex training board for Boundary Scan, VarioTAP and chip-embedded instruments.

- Atmel AT91SAM9G45 MCU (ARM)
- Xilinx FPGA
- I2C-Flash
- NOR-Flash
- NAND-Flash
- SD-DDR2-RAM
- graphics display
- analogue potentiometer
- digital I/Os
- LAN
- USB
- RS232
- temperature sensor
- failure switch

ESA Coach Kit

Bundle consists of

- **SCANBOOSTER/PCI-DT** controller
- **CASCON GALAXY** Advanced Edition (restricted to VarioTAP Coach II)
- TAP cable
- USB dongle
- tutorial and user manual
- **ESA Coach**



JULIET

A professional JTAG/Boundary Scan tester, suitable for production environment. It integrates the entire system electronics and the UUT adaptation in a single device. The tester features a mechanical interface for interchangeable fixtures to adapt UUTs via probes or connectors. In addition, an exchangeable, unpopulated fixture without probes or cables, the **JULIET Bare Cassette**, is available and prepared for UUT adaptation.

