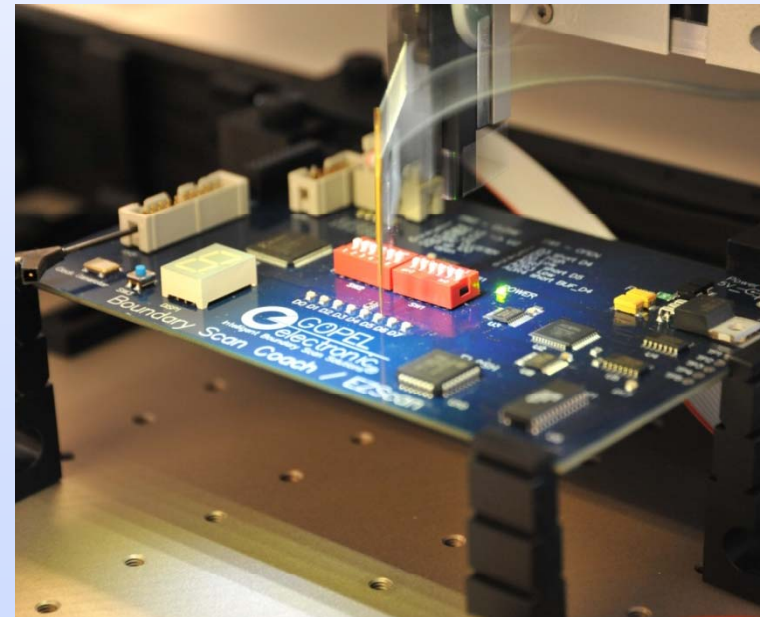
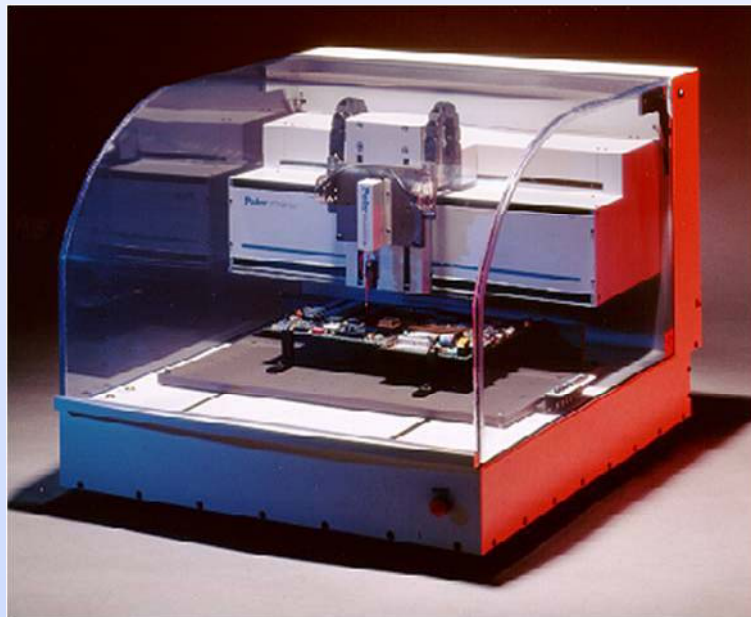
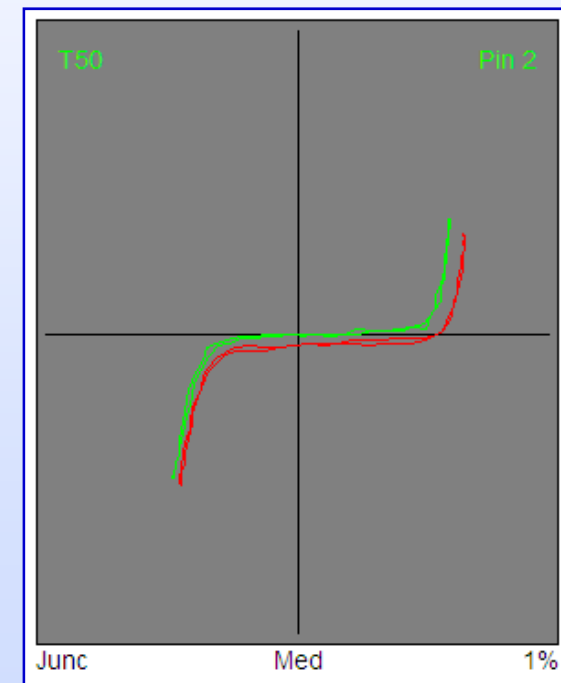
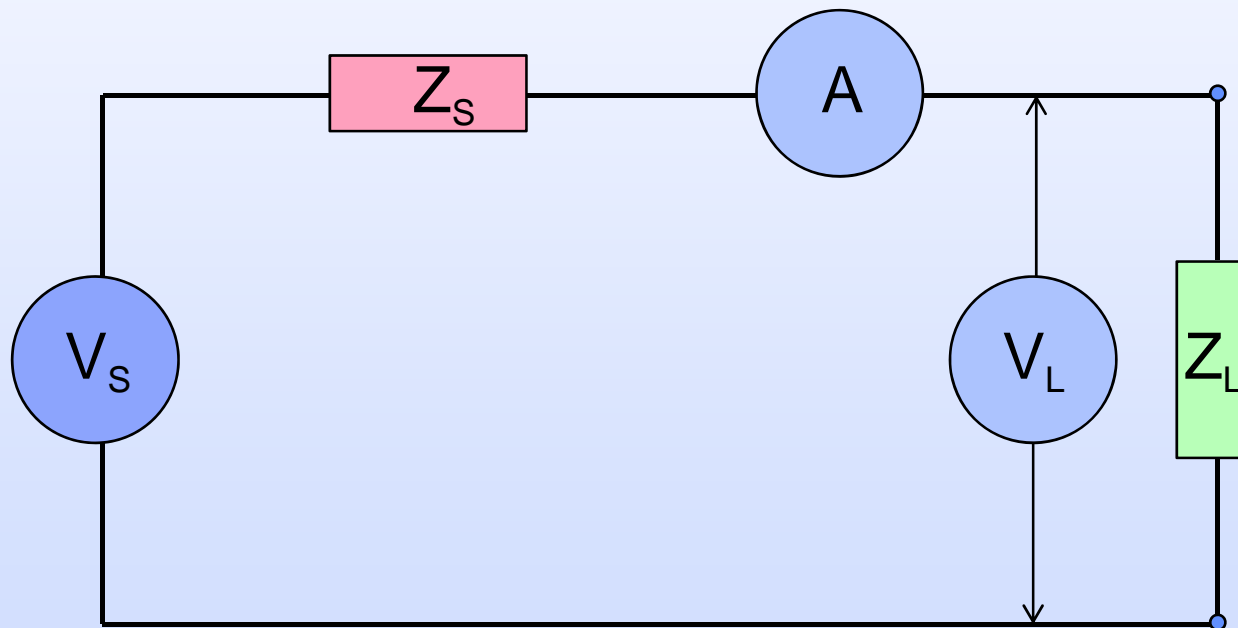


# Exklusive Fehlerdiagnose durch Systemintegration- Polar GRS500 Flying Prober und CASCON GALAXY®

Hermann Reischer  
[www.polarinstruments.com](http://www.polarinstruments.com)



# Das Knotenimpedanz-Funktionsprinzip



## GRS500 Knotenimpedanzanalyse

- Findet typische Fertigungsfehler, defekte Bauteile
- Keine Bauteilbibliothek erforderlich
- Technologieunabhängig
- Test im stromlosen Zustand
- Einfache Programmierung (Gutmuster)
  
- Eingeschränkte Erkennung bauteilinterner Fehler
- Misst keine Bauteilwerte/Toleranzen
- Keine dynamische/thermische Fehler
- Interpretationsfähigkeit durch Bediener nötig

Polar Instruments GRS500 Pro - [C:\Programme\National Instruments\ActiveTest\_Demoboard\Goepel\GOEPEL\_ScanCoach\_Demoboard.grs]

File Prober Display / Info Enhance Data Manual Programming Keep Out Areas Test Points TestList Configure Window Help

Test List

Component	Package	Pins	T/P	NI-Pass	NI-Diff
✓ D5		2	1	1	0
✓ D6		2	1	1	0
✓ D7		2	1	1	0
✓ D8		2	1	1	0
✓ U3		20	20	20	0
✓ U2		44	9	9	0
✓ U8		20	10	10	0
✓ U5		14	12	12	0
✓ U4		14	7	7	0

U5 2

Cam

Signature View - [U5]

Board View

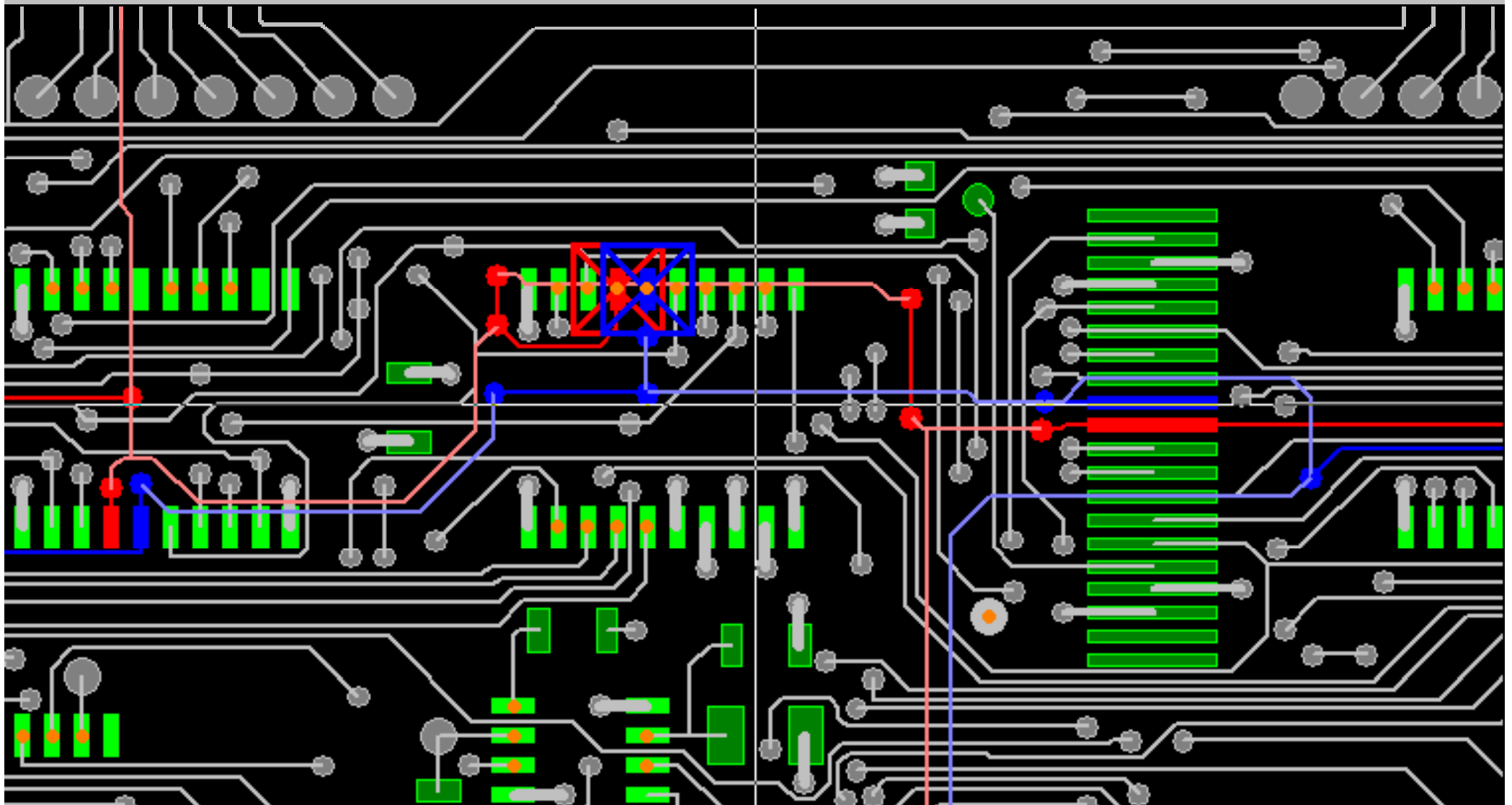
Layer 1 Top\_Layer Fault 1 Fault 2

Abs Inch X 14,196 Y 7,959 Rel Inch X 14,196 Y 7,959 d 16,275

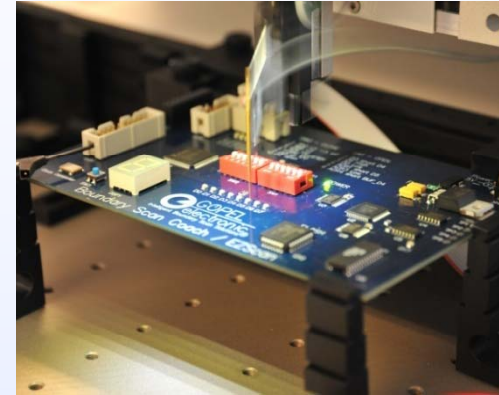
Layer **1 Top**

Fault 1 D2

Fault 2 D3

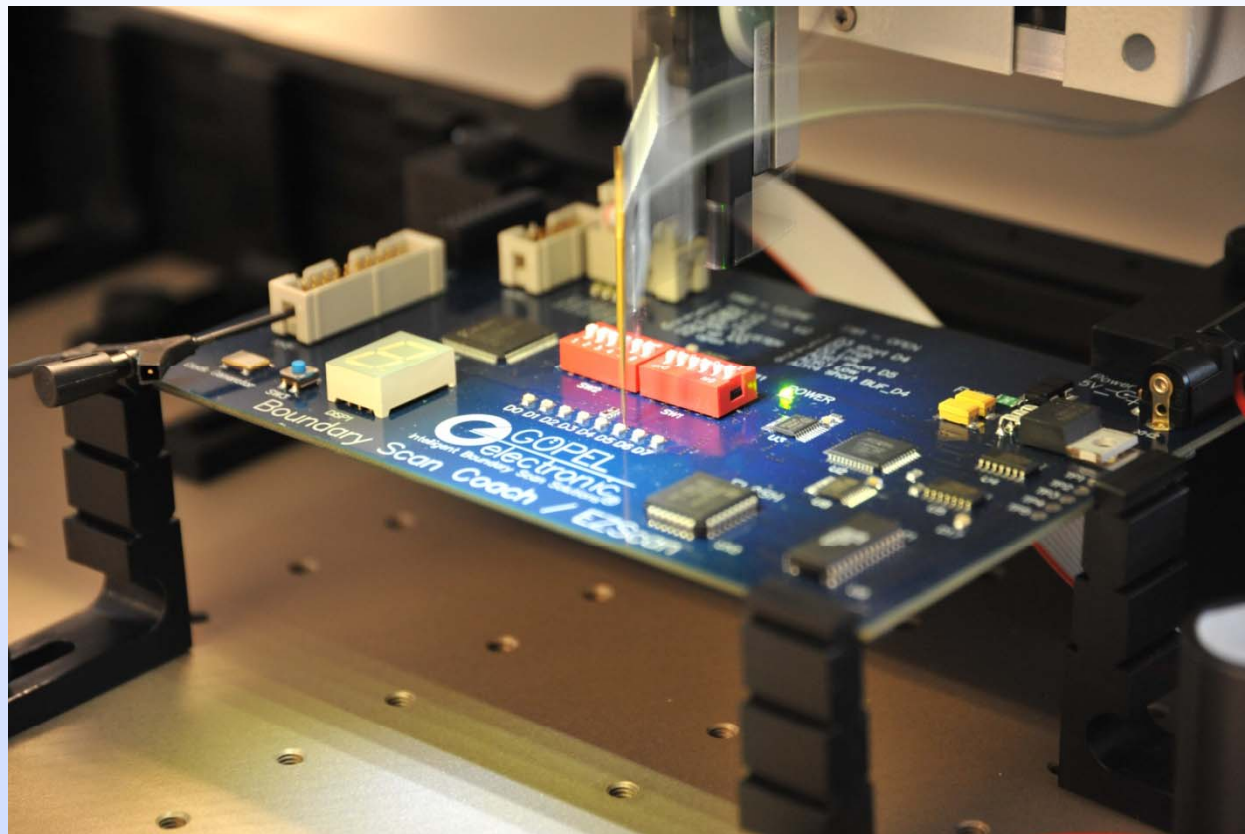


## Kombination Flying Probe – JTAG/Boundary Scan



- Nadel des Flying Probers → virtuelle Boundary Scan Zelle
- Erhöhung der Diagnosetiefe, z.B. Ermitteln ungelöteter Pins an Netzen mit nur einer Boundary Scan Zelle
- sehr hohe Fehlerabdeckung auch bei hochkompakten Flachbaugruppen
- hohe Flexibilität, da kein prüflingsspezifischer Adapter nötig
- einfache Testprogrammerstellung, da jedes Testverfahren technologiespezifisch angewendet wird

# Flying Probe/Boundary Scan Test



Boundary Scan Test in Kombination mit Logikpegelmessungen über den GRS500

## Drei Boundary Scan Integrationsstufen:

GRS500 Controller

Base Package: CASCON GALAXY TS Runtime Edition, ScanBooster USB, NI TestStand\*, LabVIEW\*

Full Package: CASCON GALAXY Failure Diagnostics Edition, Scanflex Hardware (SFX-1149-A, SFX-TAP2)

Advanced Package: CASCON GALAXY , Scanflex Controller SFX/PCI-1149B, SFX-TAP2, SFX 5704

\*von Polar beigestellte  
National Instruments®  
Softwarekomponente



## GRS500 Controller

GRS500 Software

NI LabVIEW\*

TestStand\*

Step	Description	Flow Properties
Prober Home	Action, Create ExternalInstruments; Call_Ext...	
Prober Connect Only	Action, Call_ExternalInstruments(Locals.GRS)...	
QUIT PowerOn	Action, T00_Auto_EXIT_Power-On/4	
Prober MoveTo U9-Pin16	Action, Call_ExternalInstruments(Locals.GRS)...	
ProberDown	Action, Call_ExternalInstruments(Locals.GRS)...	
Test(01) U9-Pin16	Numeric Limit Test, 4.5 <= x <= 5.5, V, T01_Au...	Post Action
ConfPat Test(01)	Action, T01_Menu_U9-Pin16_IDCH/4/4	
ProberUp	Action, Call_ExternalInstruments(Locals.GRS)...	
Prober MoveTo U7-Pin4	Action, Call_ExternalInstruments(Locals.GRS)...	
ProberDown	Action, Call_ExternalInstruments(Locals.GRS)...	
Test(02) U7-Pin4	Numeric Limit Test, 4.5 <= x <= 5.5, vol, T02_...	Post Action

Cascon

RS232

USB

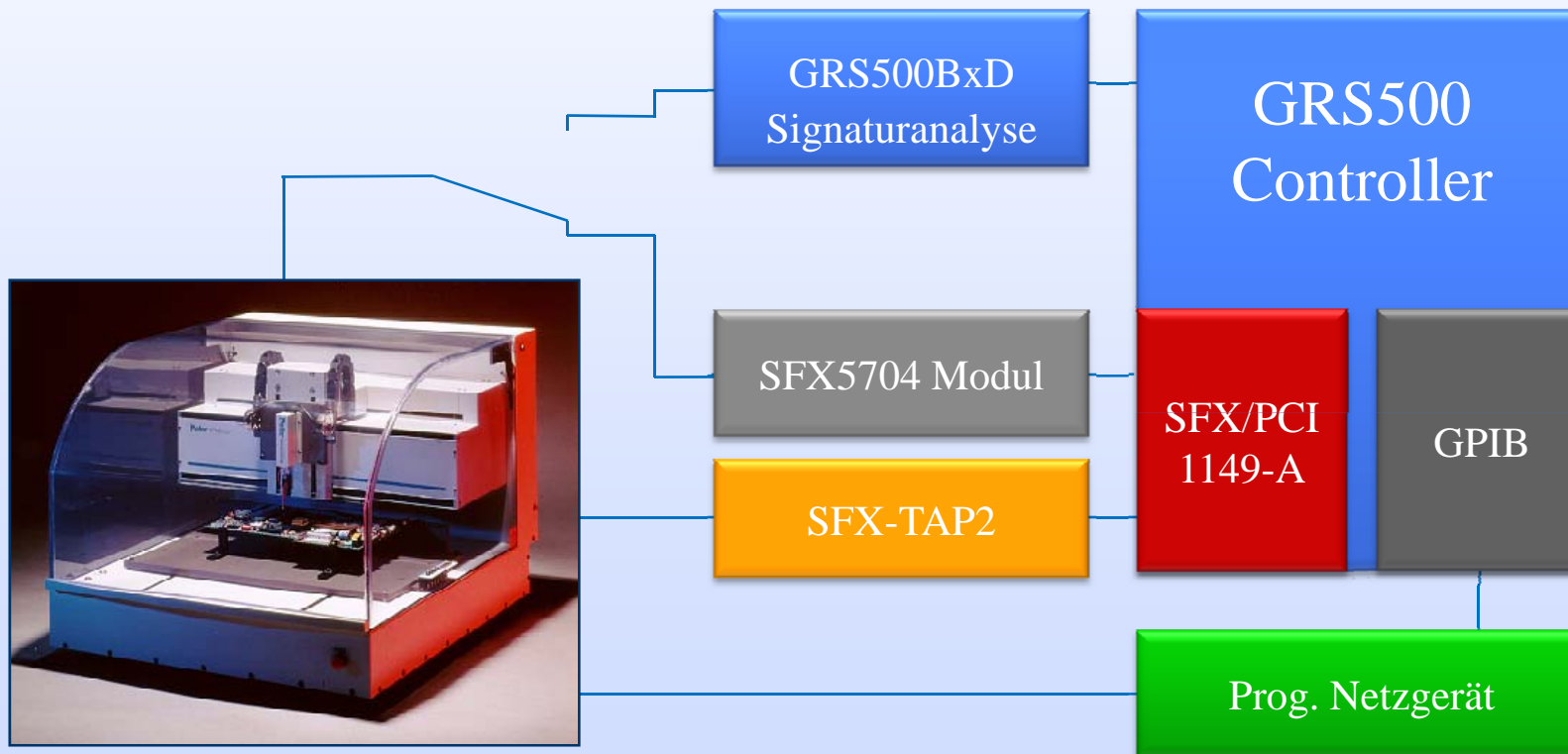
GPIB

TCP/IP

TAP

\*von Polar beigestellte  
National Instruments®  
Softwarekomponente

# Polar - Göpel Boundary Scan Integration „Advanced Package“



Polar GRS500 Flying Prober

# „Advanced Package“-Komponenten



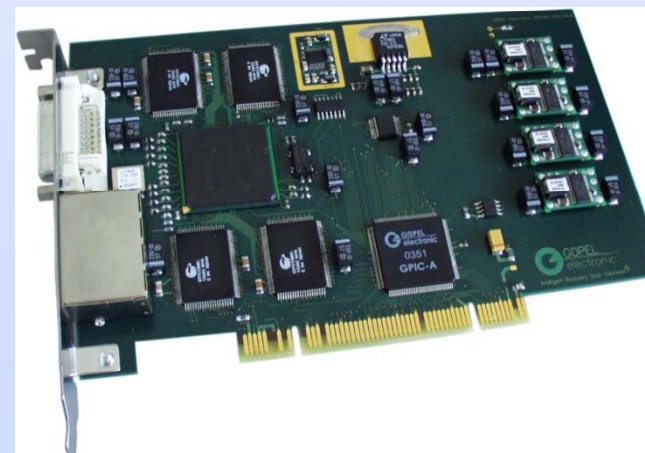
SFX5704 Modul



Carrier 5 Gehäuse



SFX-TAP2 Modul



SFX/PCI 1149-A Boundary Scan Controller

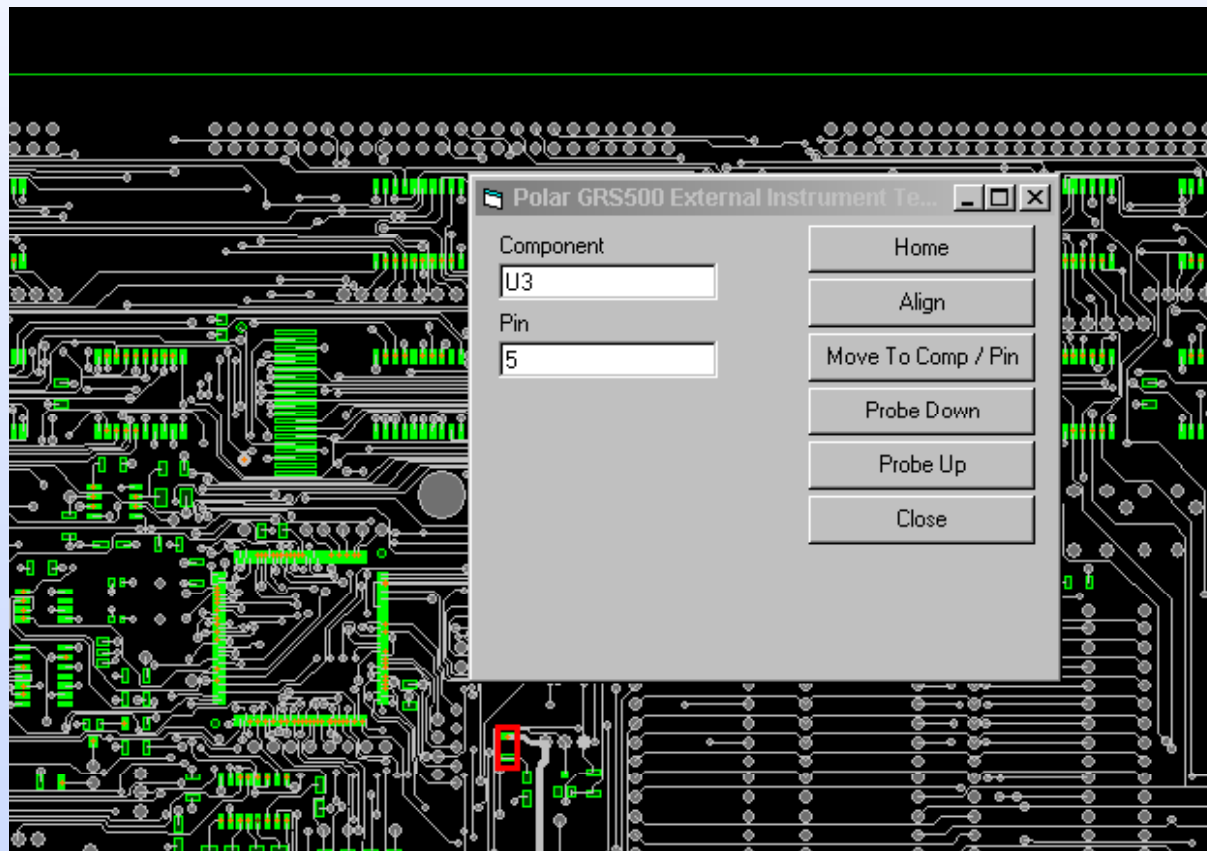
# Tester Konfiguration in CASCON GALAXY

The screenshot displays the 'Tester configuration - Jenlex' application window. It features a menu bar with 'File', 'Configuration', 'Modules', and 'Wiring List'. The main area is divided into several sections:

- Module types:** A list of available module types such as Polar\_GR5500, PXI 52192, SFX 5704, and various SFX TAP models.
- System modules:** A tree view showing the configuration of the 'Jenlex' system. Selected modules include SFX\_Controller\_1 (with an 'Auto Detect' link), SFX\_TAP\_2\_1, SFX-Carrier\_1, and Polar\_GR5500\_1.
- Project modules:** A list of project-specific modules like External\_Testpattern\_1.
- Removed modules:** A section for modules that have been removed from the configuration.

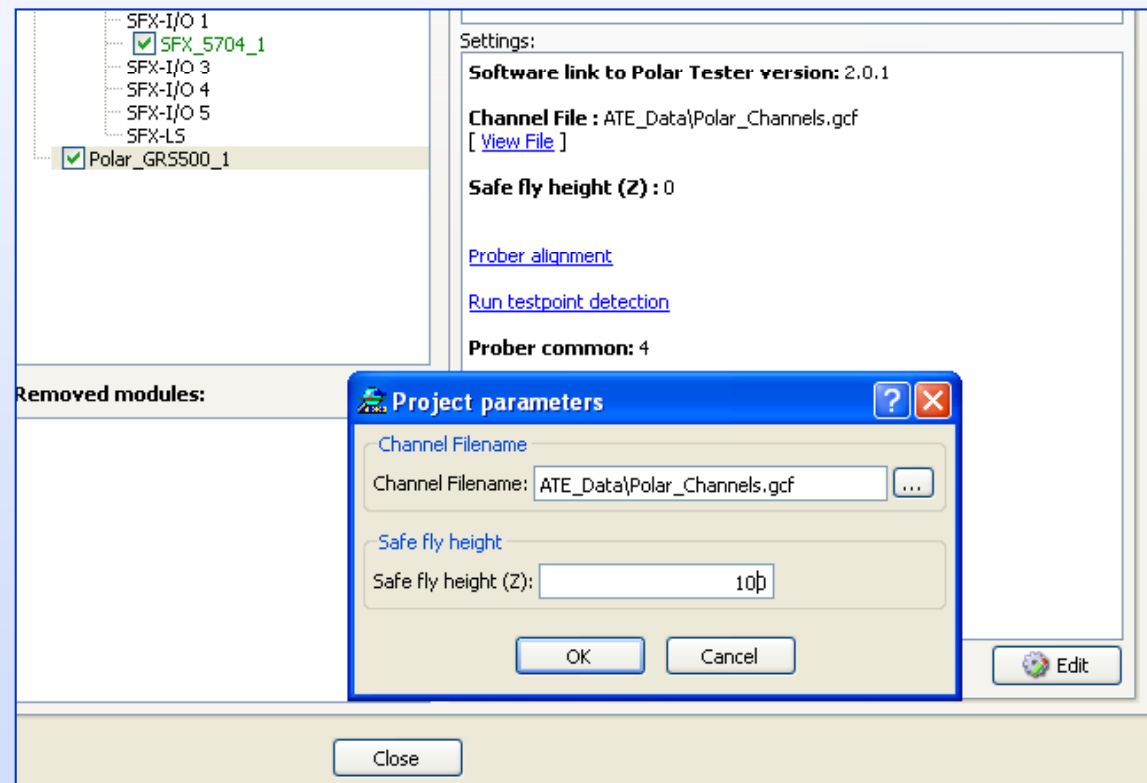
On the right side, the configuration for 'Polar\_GR5500\_1 (Polar\_GR5500)' is shown, including tabs for 'System parameters', 'Project parameters', and 'Messages'. A 'System parameters' dialog box is overlaid on the main window, showing a dropdown menu for 'Used Device' currently set to 'SFX\_5704\_1'. The dialog also includes 'OK' and 'Cancel' buttons.

# Steuerung des GRS500 aus CASCON GALAXY über ActiveX Schnittstelle



# Einstellen der sicheren Flughöhe in CASCON

- Einstellen der Mindestflughöhe
- Angabe der Kanaldatei (\*.gcf – Göpel Channel File), enthält Name des Testpunktes, Netzname, laufende Nummer, Koordinaten und Verwendung des Kanals



# Einstellung der Stromversorgung

- 3 Versorgungskanäle
- Steuerung über GPIB
- Einstellung von Stromaufnahme Min/Max

The screenshot displays the 'Tester configuration - SFX\_Polar' software interface. A 'Project parameters' dialog box is open in the foreground, showing settings for three channels. The main configuration window in the background shows a tree view of system modules and a detailed view of the 'Polar\_GR5500\_1' module.

**Project parameters dialog:**

- Channel Filename: Polar\_Channels.gcf
- Safe fly height (Z): 1600
- PST 3202 Settings:
  - Enable PST-3202
  - Board Id: 0
  - Address: 5
  - Delay in ms: 300
- Channel 1: Voltage 0,00 V, Current 0,00 A, Tolerance - I Max 0,00 A, Tolerance - I Min 0,00 A
- Channel 2: Voltage 5,00 V, Current 0,20 A, Tolerance - I Max 0,20 A, Tolerance - I Min 0,02 A
- Channel 3: Voltage 0,00 V, Current 0,00 A, Tolerance - I Max 0,00 A, Tolerance - I Min 0,00 A

**Main configuration window (Polar\_GR5500\_1):**

- System parameters:
  - Comment:
  - Settings:
    - Software link to Polar Tester version: 2.0.1
    - Channel File : Polar\_Channels.gcf [ View File ]
    - Safe fly height (Z) : 1600
    - Prober alignment
    - Run testpoint detection
    - Prober common: nothing selected
    - PST 3202 Settings:
      - Board Id: 0
      - Address: 5
      - Delay: 300 ms

Channel	Current	Voltage	IMin	IMax
1	0 A	0 V	0 A	0 A
2	0.2 A	5 V	0.02 A	0.2 A
3	0 A	0 V	0 A	0 A

# Prober Alignment

- Bezugspunkte
- Baugruppenposition
- Einspannhöhe

The screenshot shows the 'Tester configuration - Jenlex' window with the following components:

- Module types:** A list of hardware components including Polar\_GRS500, PXI 52192, PXI rack (16), PXI rack (8), SCANBOOSTER/PCI, SFX 1149.4, SFX 5704, SFX Carrier, SFX Controller, SFX Controller (PXI), SFX DIO, SFX TAP 2, SFX TAP 2 Compact, SFX TAP 2 Compact Rev 2, SFX TAP 4, SFX TAP 4 Compact, SFX TAP 4 CR, SFX TAP 4 PIC, SFX TAP 4 PPC, SFX TAP 6, and SFX TAP 8.
- System modules:** A tree view under 'Jenlex' showing a hierarchy of modules: SFX\_Controller\_1 (with 'Auto Detect' button), SFX\_TAP\_2\_1, SFX-I/O, SFX-LS, SFX-LS 1, SFX\_Carrier\_1, SFX-I/O 1, SFX\_5704\_1, SFX-I/O 3, SFX-I/O 4, SFX-I/O 5, and SFX-LS. The 'Polar\_GRS500\_1' module is highlighted at the bottom.
- Project modules:** A list containing 'External\_Testpattern\_1' and 'External\_Testpattern\_Parallel\_1'.
- Removed modules:** An empty list with a red 'X' icon.
- Polar\_GRS500\_1 (Polar\_GRS500) settings:**
  - System parameters, Project parameters, Messages tabs.
  - Comment field.
  - Settings section:
    - Software link to Polar Tester version: 2.0.1
    - Channel File : ATE\_Data\Polar\_Channels.gcf [View File]
    - Safe fly height (Z) : 0
    - Prober alignment: (with a link to a dialog box)
    - Run testpoint detection
    - Prober common: 4
  - Edit button.
- Select switchable commons dialog box:**
  - Title: Select switchable commons
  - Select switchable commons section with four radio buttons:
    - Common 1 (unchecked)
    - Common 2 (unchecked)
    - Common 3 (unchecked)
    - Common 4 (checked)
  - OK button.



# Run Testpoint Detection

The screenshot displays the CASCON GALAXY 4.5.3a software interface. The main window is titled "Tester configuration - Jenlex" and shows a configuration for the "Polar\_GRS500\_1 (Polar\_GRS500)" module. The interface is divided into several panes:

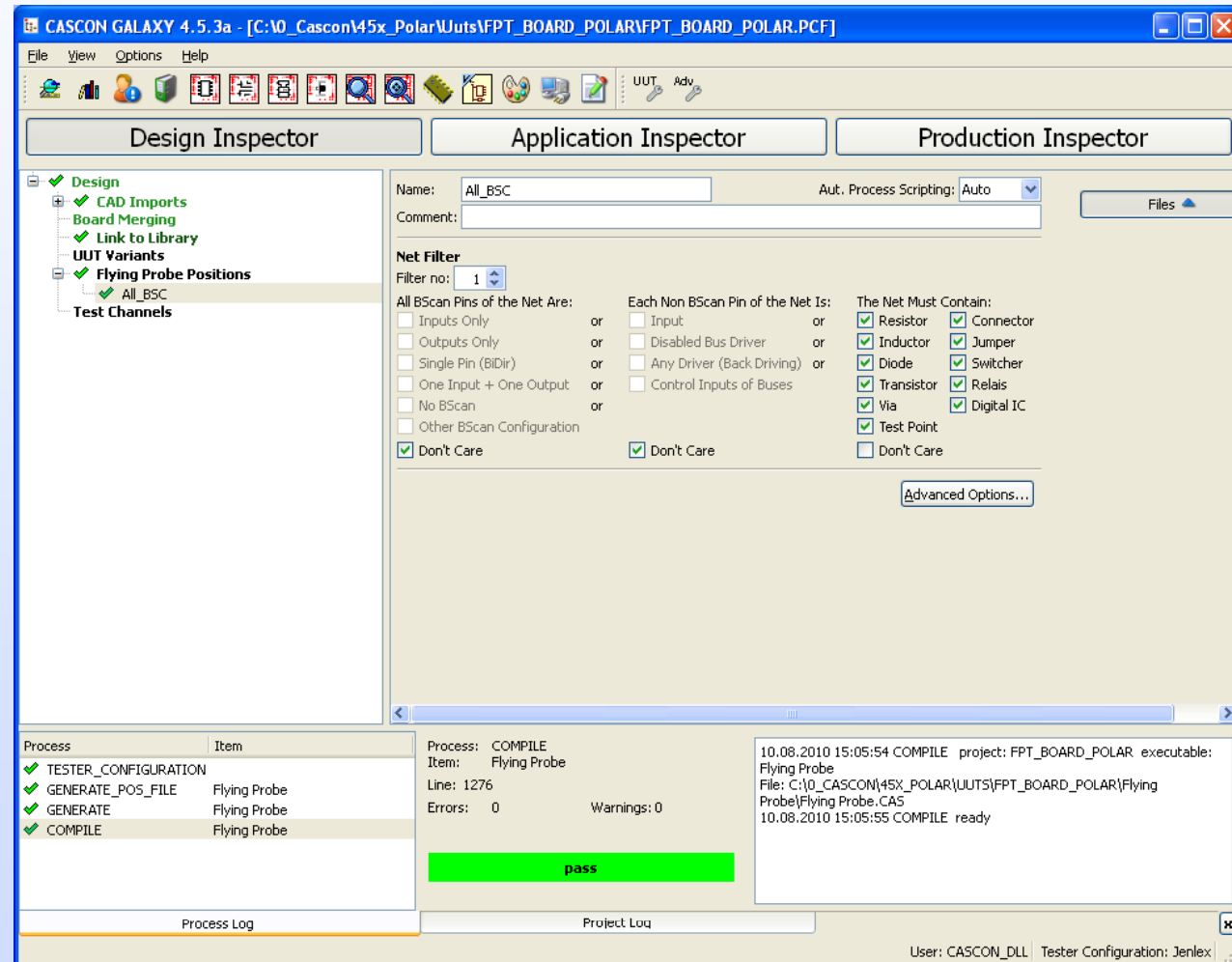
- Editor:** Shows a text file with channel definitions, including a "Goepel Channel File" and a "tester configuration: Polar\_GRS500\_1".
- Module types:** Lists various hardware components like "Polar\_GRS500", "PXI rack (16)", "SCANBOOSTER/PCI", "SFX 1149.4", "SFX 5704", "SFX Carrier", "SFX Controller", "SFX Controller (PXI)", "SFX DIO", "SFX TAP 2", "SFX TAP 2 Compact", "SFX TAP 2 Compact Rev 2", "SFX TAP 4", "SFX TAP 4 Compact", "SFX TAP 4 CR", "AP 4 PIC", "AP 4 PPC", "AP 6", and "AP 8".
- System modules:** Shows a tree view of the system configuration, including "Jenlex", "SFX\_Controller\_1 [Auto Detect]", "SFX\_TAP\_2\_1", "SFX-I/O", "SFX-LS", "SFX-LS 1", "SFX\_Carrier\_1", "SFX-I/O 1", "SFX\_5704\_1", "SFX-I/O 3", "SFX-I/O 4", "SFX-I/O 5", "SFX-LS", and "Polar\_GRS500\_1".
- Removed modules:** Lists "external\_Testpattern\_1" and "external\_Testpattern\_Parallel\_1".
- Board View:** A graphical representation of the PCB layout with testpoints highlighted in green and yellow.
- Settings:** Includes "Software link to Polar Tester version: 2.0.1", "Channel File: ATE\_Data\Polar\_Channels.gcf", "Safe fly height (Z): 0", "Prober alignment", "Run testpoint detection:", and "Prober common: 4".
- GRS500 tester module dialog:** A small pop-up window indicating "38 accessible channels detected." with an "OK" button.

The status bar at the bottom shows "User: CASCON\_DLL | Tester Configuration: Jenlex | Line: 1 | Col: 1".

Abgleich – zugängliche Testpunkte und Boundary Scan Netze in CASCON

# Testgenerierung

- Flying Probe Positions aus \*.gcf Kanaldatei
- Auswahl der Netzkategorie
- Einstellen von Netzfilter



The screenshot shows the CASCON GALAXY 4.5.3a software interface. The main window is titled 'CASCON GALAXY 4.5.3a - [C:\0\_Cascon\45x\_Polar\Wuts\FPT\_BOARD\_POLAR\FPT\_BOARD\_POLAR.PCF]'. The interface is divided into three tabs: 'Design Inspector', 'Application Inspector', and 'Production Inspector'. The 'Design Inspector' tab is active, showing a tree view of the design structure. The 'Application Inspector' tab is also visible, showing the 'Net Filter' configuration for the selected net 'All\_BSC'. The 'Net Filter' configuration includes a 'Name' field set to 'All\_BSC', a 'Comment' field, and a 'Filter no.' dropdown set to '1'. The configuration is divided into three sections: 'All BScan Pins of the Net Are:', 'Each Non BScan Pin of the Net Is:', and 'The Net Must Contain:'. The 'All BScan Pins of the Net Are:' section has 'Don't Care' selected. The 'Each Non BScan Pin of the Net Is:' section has 'Don't Care' selected. The 'The Net Must Contain:' section has several options checked: Resistor, Connector, Inductor, Jumper, Diode, Switcher, Transistor, Relais, Via, and Test Point. An 'Advanced Options...' button is located below the configuration fields. At the bottom of the interface, there is a 'Process Log' and a 'Project Log' section. The 'Process Log' shows a list of items with their status: 'TESTER\_CONFIGURATION' (checked), 'GENERATE\_POS\_FILE' (checked), 'GENERATE' (checked), and 'COMPILE' (checked). The 'Project Log' shows the following information: 'Process: COMPILE', 'Item: Flying Probe', 'Line: 1276', 'Errors: 0', 'Warnings: 0', and a timestamp '10.08.2010 15:05:54 COMPILE project: FPT\_BOARD\_POLAR executable: Flying Probe'. A green 'pass' button is visible in the Project Log area. The status bar at the bottom right indicates 'User: CASCON\_DLL | Tester Configuration: Jenlex'.

# Definition Pegelgruppen

- Systempegelgruppen
- Bauteilbezogene Pegel
- Netzbezogene Pegel

The screenshot shows the 'Level Group Assignments' dialog box. It is divided into several sections:

- Net List:** A table with columns 'Net' and 'Level Group'.
 

-3.4V	LVTTTL_3V3
3.3V	LVTTTL_3V3
5V	CMOS_5V
NETJ1_2	LVTTTL_3V3
- Dev filter:** A checkbox labeled 'Only digital ICs' is checked.
- Device List:** A table with columns 'Device', 'Device Type', and 'Level Group(s)'.
 

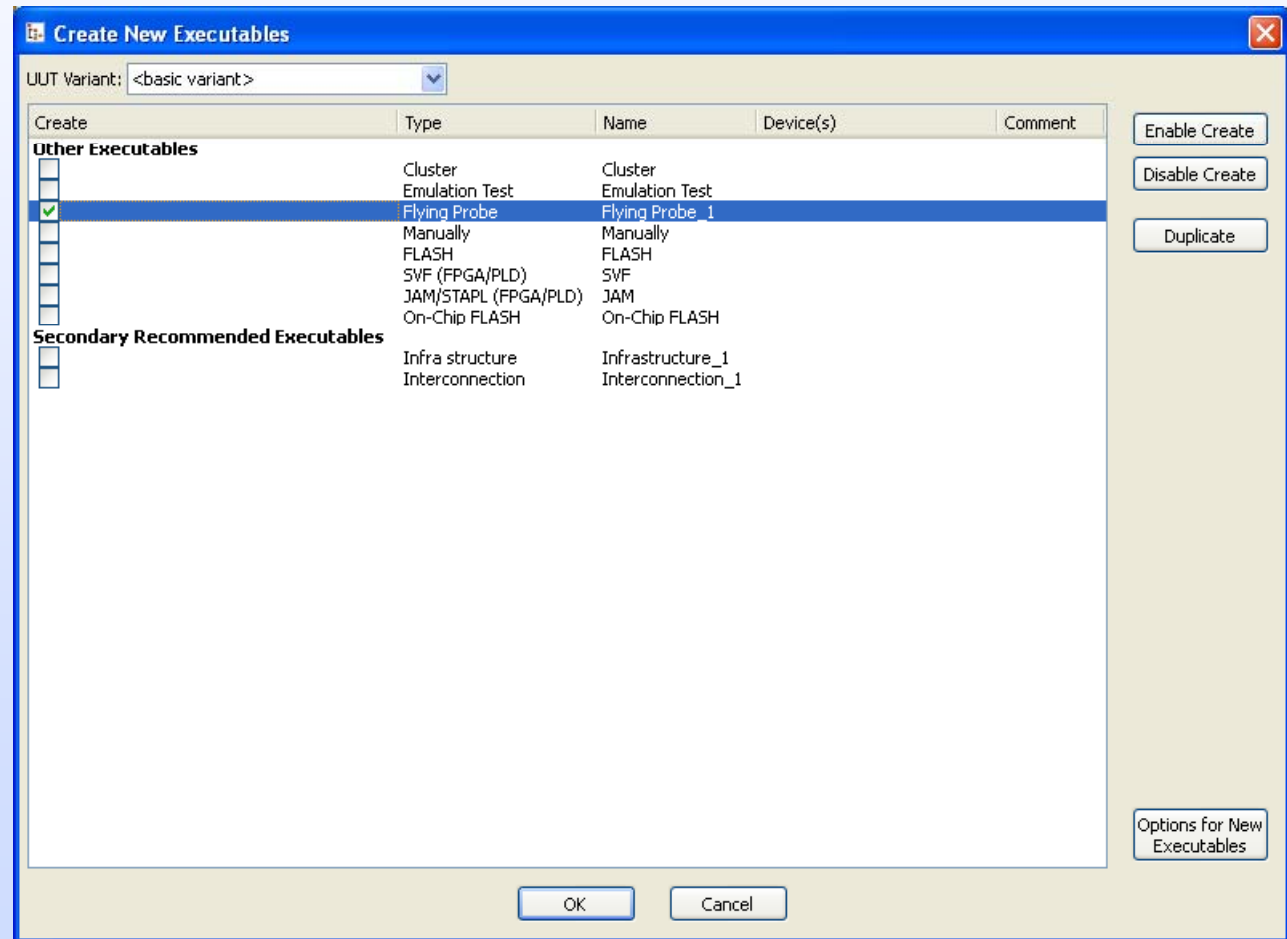
U1	XC9536XL-10VQ44C	LVTTTL_3V3
U2	XC9536-10VQ44C	LVTTTL_3V3
U3	MIC29150-3.3BT	LVTTTL_3V3
U4	74AHC1G04	LVTTTL_3V3
U5	74LVT244A	LVTTTL_3V3
U6	MAX8895ESA	LVTTTL_3V3
- Level groups:** A list containing 'CMOS\_5V' and 'LVTTTL\_3V3'. 'CMOS\_5V' is selected.
- Net filter:** A checked checkbox and an empty text field.
- Net List (Right):** A list of nets with their assigned level groups.
 

/TRST	LVTTTL_3V3
5V_EXT	LVTTTL_3V3
5V_TAP	LVTTTL_3V3
D0	LVTTTL_3V3
D0_5	LVTTTL_3V3
D1	LVTTTL_3V3
D1_R	LVTTTL_3V3
D1_S	LVTTTL_3V3
D2	LVTTTL_3V3
D2_PD	LVTTTL_3V3
D3	LVTTTL_3V3
D4	LVTTTL_3V3
D5	LVTTTL_3V3
D6	LVTTTL_3V3
D7	LVTTTL_3V3
GND	<conflict>
LED0	
LED1	
LED2	
LED3	
LED4	
LED5	
- Pins of device:** A table with columns 'Port', 'Pin', and 'Net'. It is currently empty.
- HC, AHC, AC:** A text box containing 'HC, AHC, AC'.
- Drive parameters:**
  - Drive high : 5.000 V
  - Drive low : 0.000 V
  - Expect high : 3.500 V
  - Expect low : 1.500 V
- Pins of net: 5V\_TAP:** A table with columns 'Device', 'Port', and 'Pin'.
 

J1		#3
XH1		#10
XH2		#10

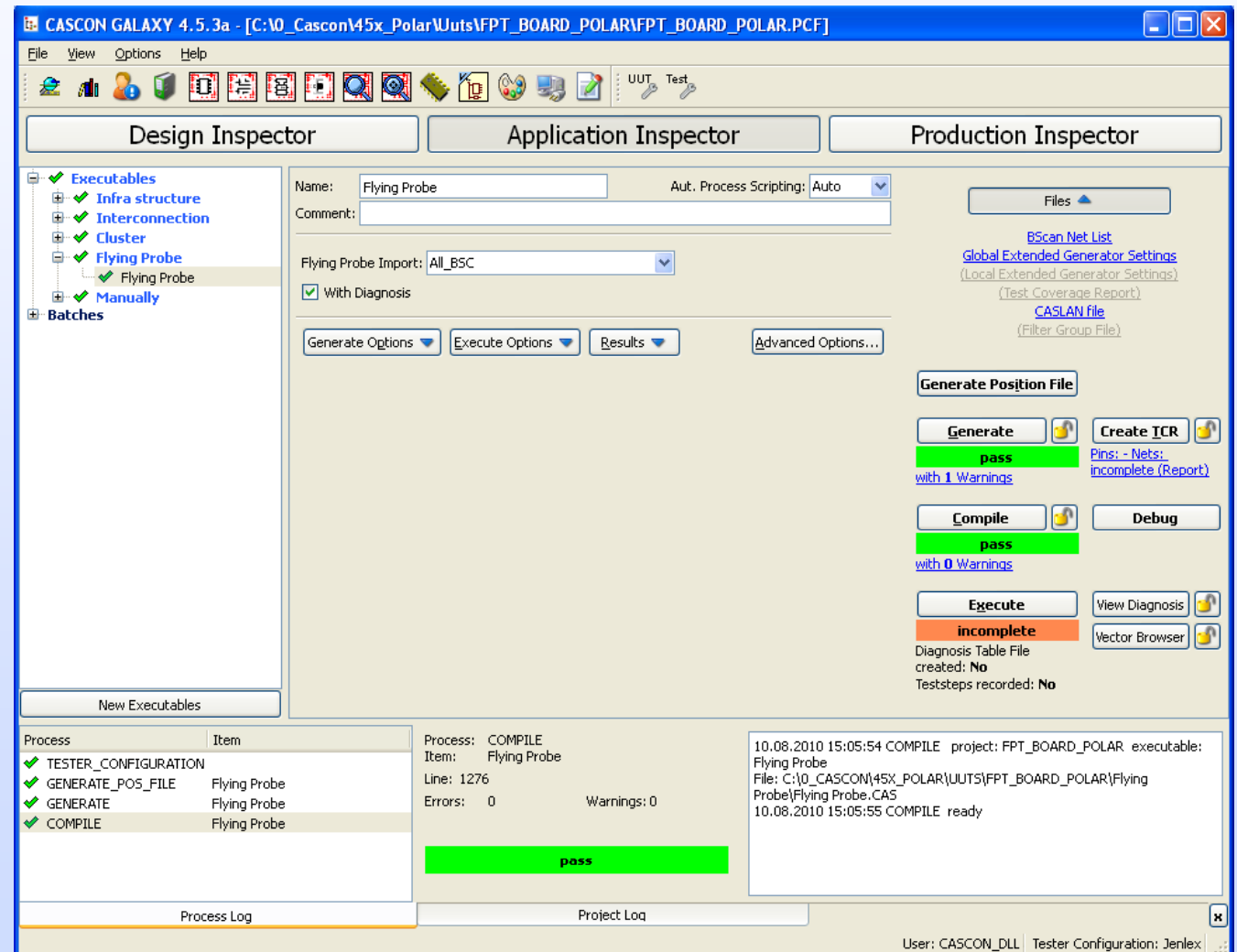
# Anlegen eines neuen Flying Probe Tests in CASCON

- Application Inspector – „New“
- Auswahl „Flying Probe“



# Generierung des Flying Probe Tests

- Testgenerierung mittels ATPG
- Automatische Wegoptimierung



The screenshot shows the CASCON GALAXY 4.5.3a software interface. The main window is titled "CASCON GALAXY 4.5.3a - [C:\0\_Cascon\45x\_Polar\Uuts\FPT\_BOARD\_POLAR\FPT\_BOARD\_POLAR.PCF]". The interface is divided into three tabs: Design Inspector, Application Inspector, and Production Inspector. The Application Inspector tab is active, showing the configuration for the "Flying Probe" test.

On the left, a tree view shows the project structure under "Executables":

- ✓ Infra structure
- ✓ Interconnection
- ✓ Cluster
- ✓ Flying Probe
- ✓ Flying Probe
- ✓ Manually

The main configuration area includes:

- Name: Flying Probe
- Aut. Process Scripting: Auto
- Comment: (empty)
- Flying Probe Import: All\_BSC
- With Diagnosis
- Buttons: Generate Options, Execute Options, Results, Advanced Options...

On the right, there are several buttons and status indicators:

- Files (dropdown)
- Links: BScan Net List, Global Extended Generator Settings, (Local Extended Generator Settings), (Test Coverage Report), CASLAN file, (Filter Group File)
- Generate Position File section:
  - Generate: **pass** with 1 Warnings
  - Create ICR: Pins: - Nets: incomplete (Report)
  - Compile: **pass** with 0 Warnings
  - Debug
  - Execute: **incomplete**
  - View Diagnosis
  - Vector Browser
  - Diagnosis Table File created: No
  - Teststeps recorded: No

At the bottom, there are two log windows:

- Process Log:**

Process	Item
✓ TESTER_CONFIGURATION	
✓ GENERATE_POS_FILE	Flying Probe
✓ GENERATE	Flying Probe
✓ COMPILE	Flying Probe
- Project Log:**

```

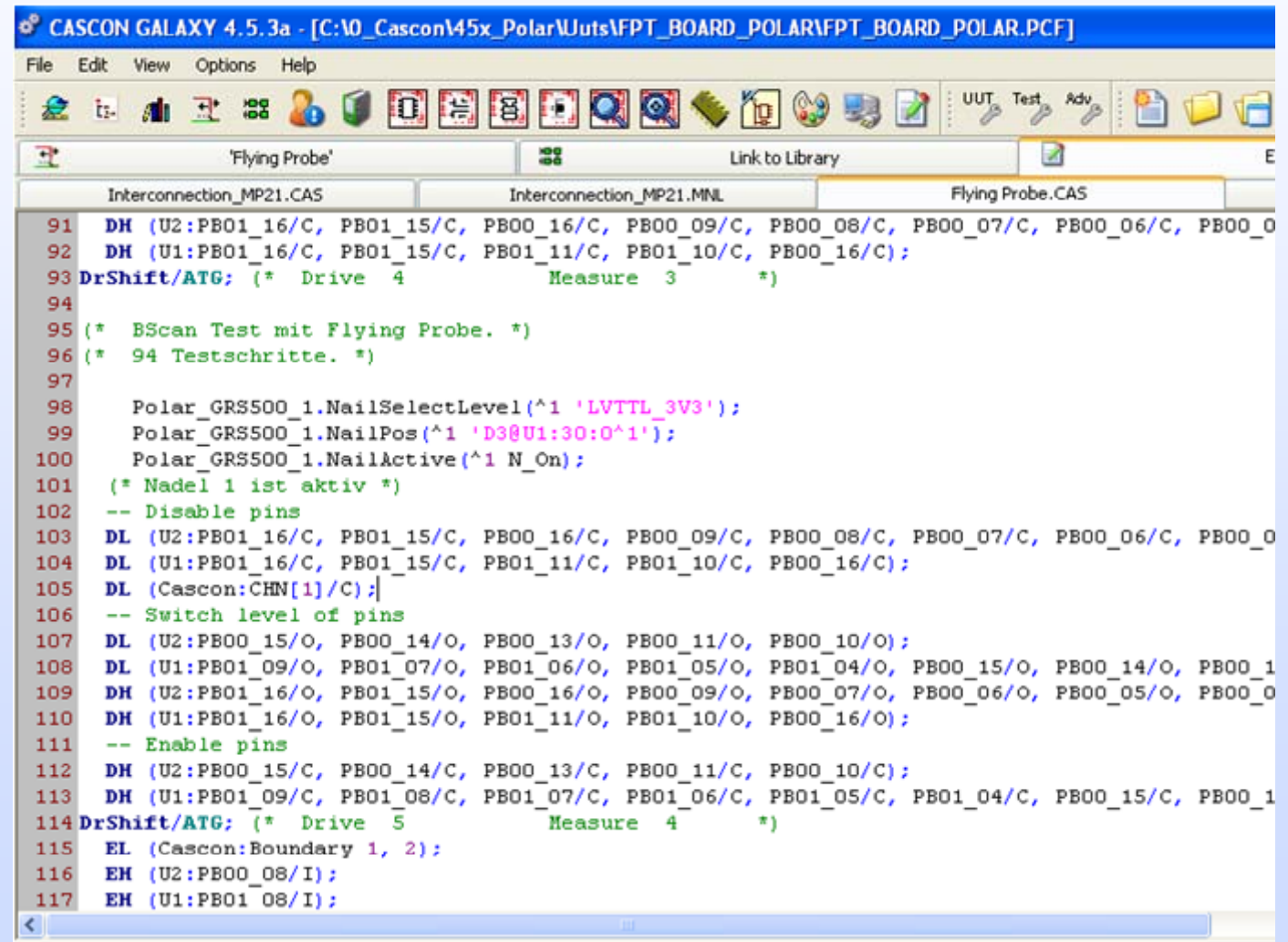
Process: COMPILE
Item: Flying Probe
Line: 1276
Errors: 0      Warnings: 0

10.08.2010 15:05:54 COMPILE project: FPT_BOARD_POLAR executable: Flying Probe
File: C:\0_CASCON\45X_POLAR\UUTS\FPT_BOARD_POLAR\Flying Probe\Flying Probe.CAS
10.08.2010 15:05:55 COMPILE ready
            
```

At the bottom right, the status bar shows: User: CASCON\_DLL | Tester Configuration: Jenlex

# Das CASLAN Programm

- Setzen der Pegelgruppe
- Positionieren
- Aktivieren der Probe

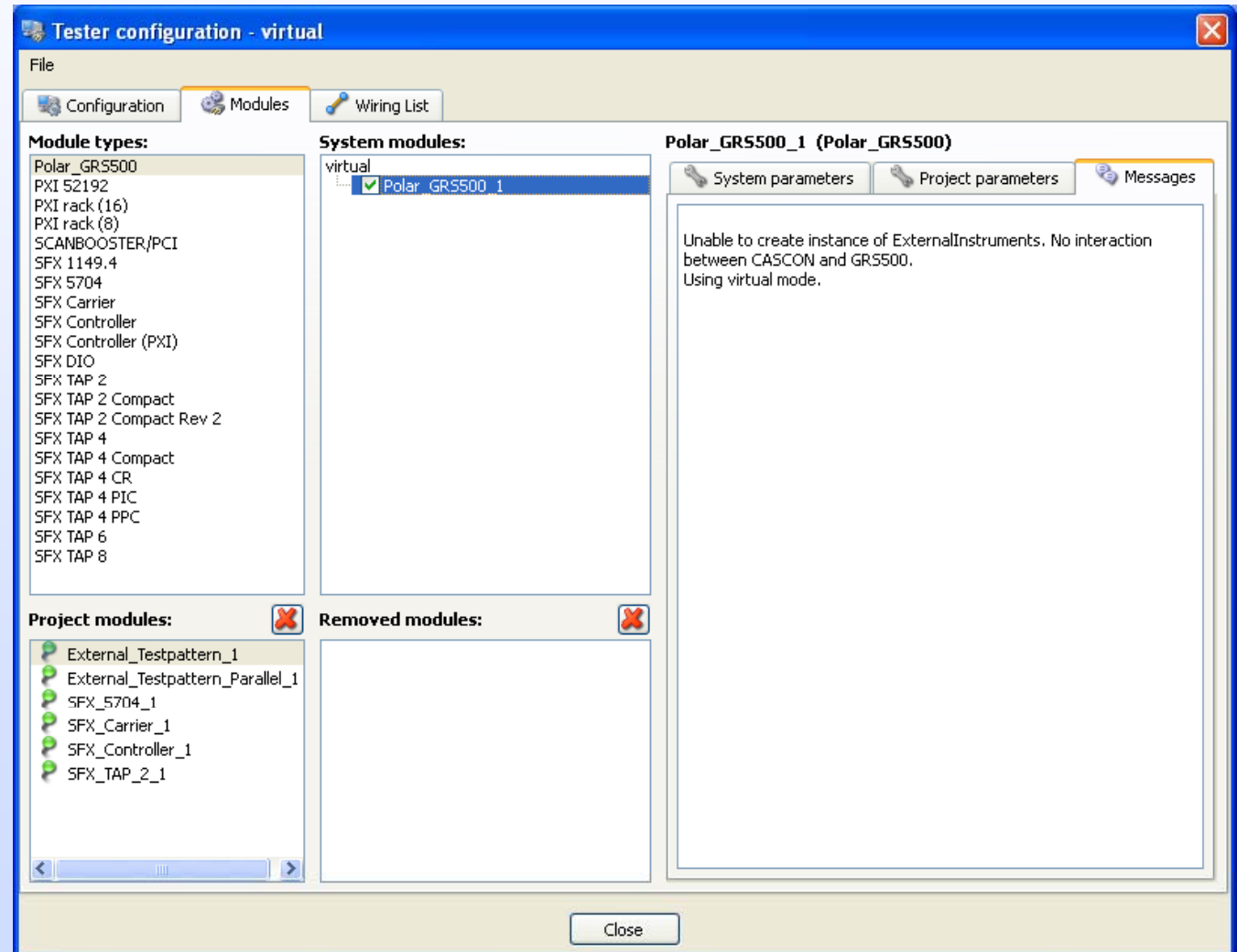


```

CASCON GALAXY 4.5.3a - [C:\NO_Cascon\45x_Polar\Wuts\FPT_BOARD_POLAR\FPT_BOARD_POLAR.PCF]
File Edit View Options Help
...
'Flying Probe'
Interconnection_MP21.CAS Interconnection_MP21.MNL Flying Probe.CAS
91 DH (U2:PB01_16/C, PB01_15/C, PB00_16/C, PB00_09/C, PB00_08/C, PB00_07/C, PB00_06/C, PB00_0
92 DH (U1:PB01_16/C, PB01_15/C, PB01_11/C, PB01_10/C, PB00_16/C);
93 DrShift/ATG; (* Drive 4 Measure 3 *)
94
95 (* BScan Test mit Flying Probe. *)
96 (* 94 Testschritte. *)
97
98 Polar_GRS500_1.NailSelectLevel(^1 'LVTTL_3V3');
99 Polar_GRS500_1.NailPos(^1 'D3@U1:30:0^1');
100 Polar_GRS500_1.NailActive(^1 N_On);
101 (* Nadel 1 ist aktiv *)
102 -- Disable pins
103 DL (U2:PB01_16/C, PB01_15/C, PB00_16/C, PB00_09/C, PB00_08/C, PB00_07/C, PB00_06/C, PB00_0
104 DL (U1:PB01_16/C, PB01_15/C, PB01_11/C, PB01_10/C, PB00_16/C);
105 DL (Cascon:CHN[1]/C);
106 -- Switch level of pins
107 DL (U2:PB00_15/O, PB00_14/O, PB00_13/O, PB00_11/O, PB00_10/O);
108 DL (U1:PB01_09/O, PB01_07/O, PB01_06/O, PB01_05/O, PB01_04/O, PB00_15/O, PB00_14/O, PB00_1
109 DH (U2:PB01_16/O, PB01_15/O, PB00_16/O, PB00_09/O, PB00_07/O, PB00_06/O, PB00_05/O, PB00_0
110 DH (U1:PB01_16/O, PB01_15/O, PB01_11/O, PB01_10/O, PB00_16/O);
111 -- Enable pins
112 DH (U2:PB00_15/C, PB00_14/C, PB00_13/C, PB00_11/C, PB00_10/C);
113 DH (U1:PB01_09/C, PB01_08/C, PB01_07/C, PB01_06/C, PB01_05/C, PB01_04/C, PB00_15/C, PB00_1
114 DrShift/ATG; (* Drive 5 Measure 4 *)
115 EL (Cascon:Boundary 1, 2);
116 EH (U2:PB00_08/I);
117 EH (U1:PB01_08/I);
    
```

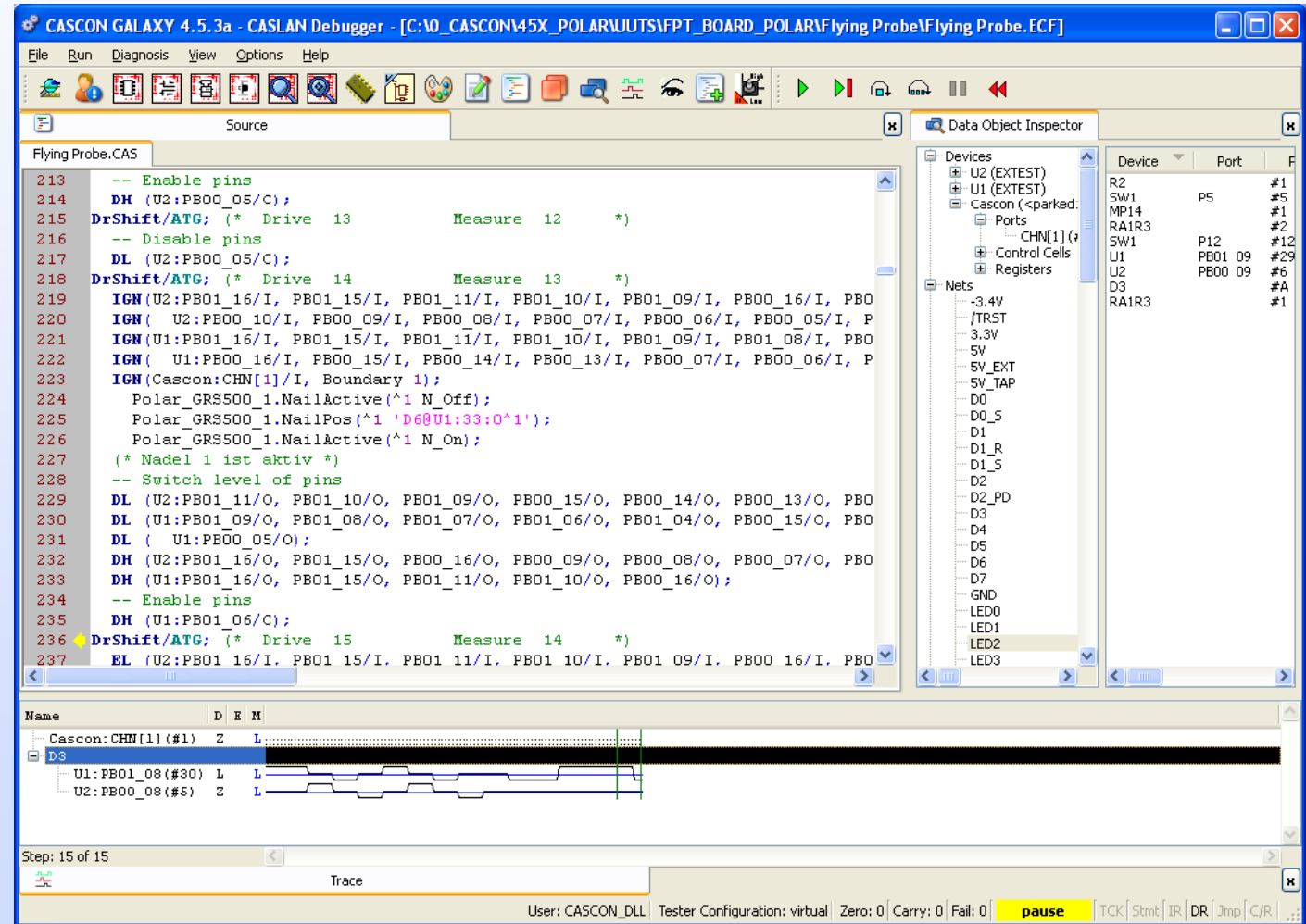
# Testausführung – virtueller Modus

- Zur Simulation des Flying Probe Tests
- Keine Testhardware nötig
- Erzeugung der Kanaldaten



# Der Debugger

- Genaue Schaltungs- und Signalanalyse
- Schrittweise Ausführung des CASLAN Codes
- Setzen von Haltepunkten
- Timingdiagramm

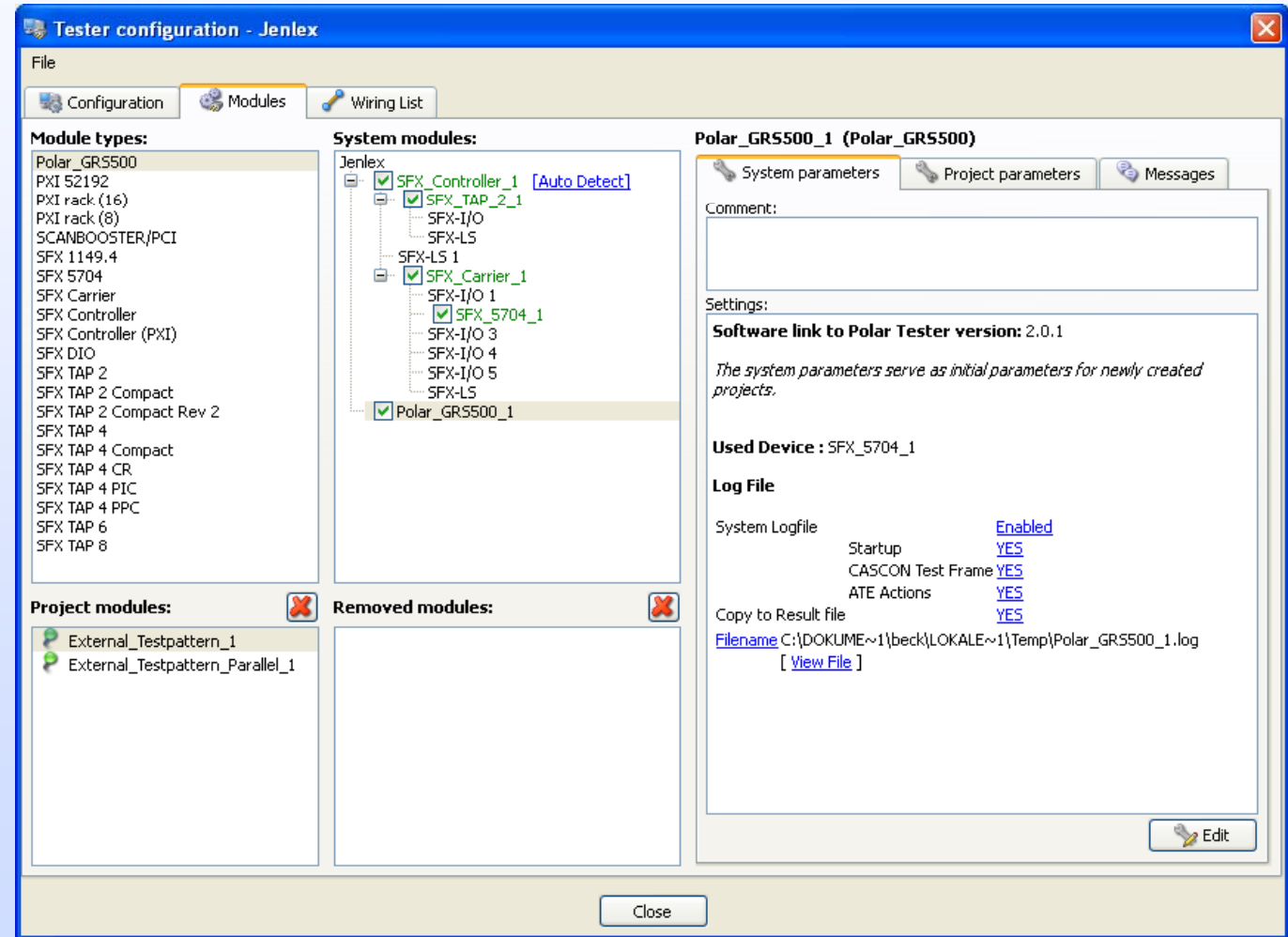


The screenshot displays the CASCON GALAXY 4.5.3a debugger interface. The main window shows the source code for 'Flying Probe.CAS'. The code includes various commands such as 'Enable pins', 'DrShift/ATG', 'DL', and 'EL', along with pin configurations and measurements. The 'Data Object Inspector' on the right shows a tree view of devices and nets, including 'U2 (EXTST)', 'U1 (EXTST)', and 'Nets'. The bottom section shows a timing diagram with waveforms for 'U1:PB01\_08 (#30)' and 'U2:PB00\_08 (#5)'. The status bar at the bottom indicates the user is 'CASCON\_DLL' and the configuration is 'virtual'.



# Die Log-Funktion

- Aufzeichnung der Kommunikation zwischen Polar GRS500 und CASCON
- Zur schnellen Fehleranalyse

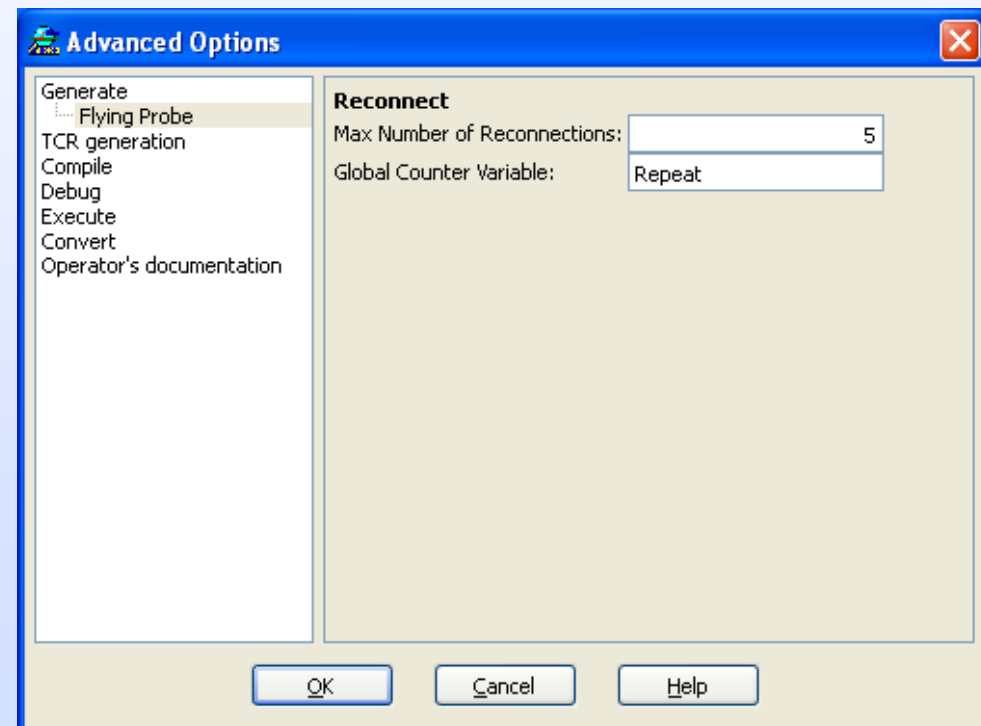


The screenshot shows the 'Tester configuration - Jenlex' window with the following sections:

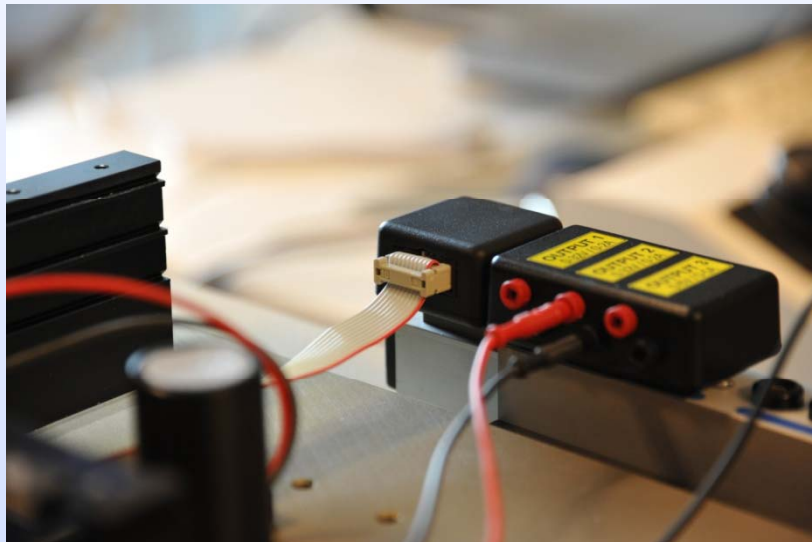
- Module types:** A list of hardware components including Polar\_GRS500, PXI 52192, PXI rack (16), PXI rack (8), SCANBOOSTER/PCI, SFX 1149.4, SFX 5704, SFX Carrier, SFX Controller, SFX Controller (PXI), SFX DIO, SFX TAP 2, SFX TAP 2 Compact, SFX TAP 2 Compact Rev 2, SFX TAP 4, SFX TAP 4 Compact, SFX TAP 4 CR, SFX TAP 4 PIC, SFX TAP 4 PPC, SFX TAP 6, and SFX TAP 8.
- System modules:** A tree view under 'Jenlex' showing a hierarchy of modules: SFX\_Controller\_1 (with 'Auto Detect' link), SFX\_TAP\_2\_1, SFX-I/O, SFX-LS, SFX-LS 1, SFX\_Carrier\_1, SFX-I/O 1, SFX\_5704\_1, SFX-I/O 3, SFX-I/O 4, SFX-I/O 5, SFX-LS, and Polar\_GRS500\_1.
- Project modules:** External\_Testpattern\_1 and External\_Testpattern\_Parallel\_1.
- Removed modules:** An empty list with a red 'X' icon.
- Polar\_GRS500\_1 (Polar\_GRS500) settings:**
  - System parameters, Project parameters, Messages
  - Comment: (empty text area)
  - Settings:
    - Software link to Polar Tester version: 2.0.1
    - The system parameters serve as initial parameters for newly created projects.
    - Used Device : SFX\_5704\_1
    - Log File:
      - System Logfile: Enabled
      - Startup: YES
      - CASCON Test Frame: YES
      - ATE Actions: YES
      - Copy to Result file: YES
      - Filename: C:\DOKUME~1\beck\LOKALE~1\Temp\Polar\_GRS500\_1.log
      - [ View File ]
  - Edit button

# Rekontaktierung bei Kontaktfehlern

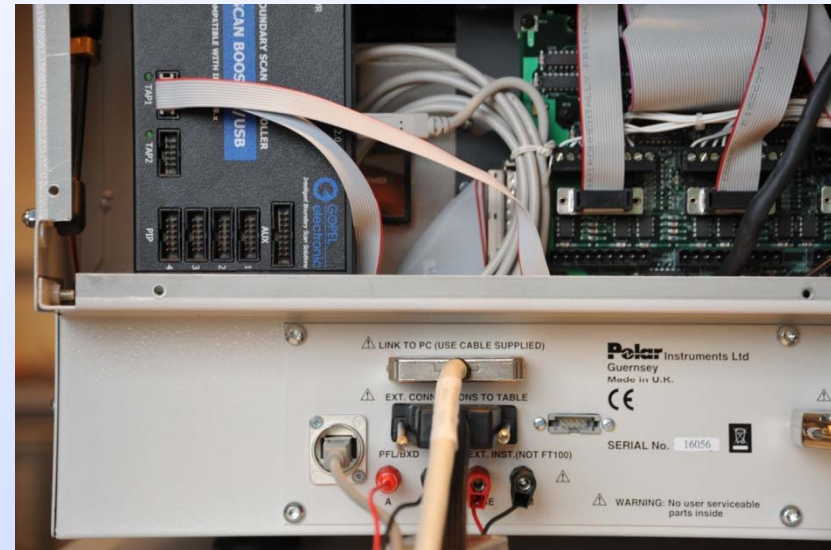
- Automatische Kontaktierwiederholung bei Kontaktfehlern



# Boundary Scan Test Hardwareintegration in GRS500 Flying Prober



TAP-Anschluss auf Verfahrtsch



Integrierter GÖPEL Boundary Scan TAP

## Zusammenfassung

- Virtuelle Boundary Scan Zelle über Flying Probe Nadel
- Basisintegration mit LabVIEW, TestStand, CASCON
- Fortgeschrittene Integration mit „Advanced Package“ Paket
- Direkte Ansteuerung des Polar GRS500 aus CASCON
- Vollautomatische Programmgenerierung in CASCON inklusive Flying Probe-Verfahrenbefehle
- Steuerung der Stromversorgung aus CASCON
- Erhöhung der Prüftiefe

**Vielen Dank!**



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