

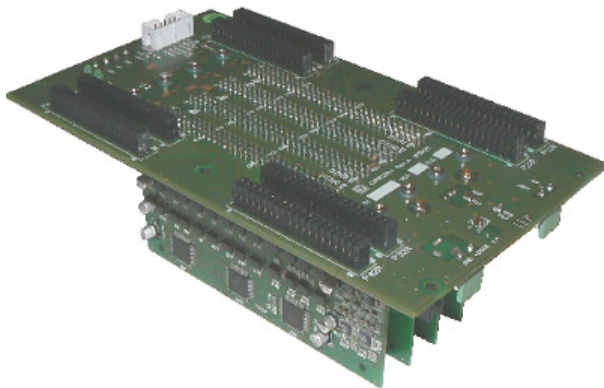


Model: SIMPLEX-4 Modular I/O Scan system

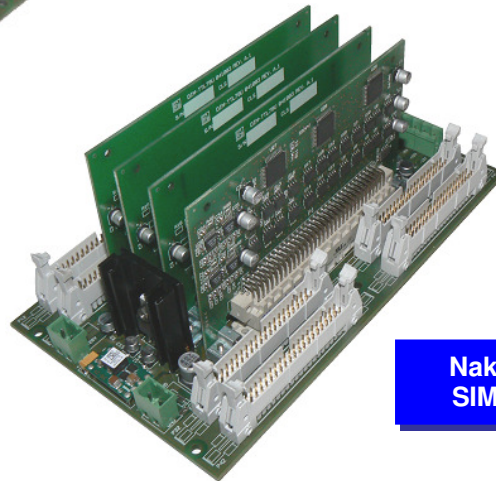
Description

The SIMPLEX4 system is the ideal low cost solution for the creation of fixtures for JTAG tests of low-to-midrange complexity electronic boards. SIMPLEX4 can control up to 312 independent I/Os, is equipped with both standard TTL digital connections and interfaces with different electrical levels such as RS232, RS485, LVDS, Current loop and discrete high voltage (15-28V).

The SIMPLEX4 system can be supplied as a naked board or complete, boxed in a 280x170x90mm aluminum unit, with Ethernet integrated JTAG controllers.



**Naked version
SIMPLEX4-NB**



**Naked version
SIMPLEX4-NT**

Common features

- Modular test system with up to 312 independent I/Os
- Low cost, low customization time
- High mechanical reliability, DIN41612 connectors with screw terminals
- Compatible with standard JTAG/IEEE 1149.1 boundary-scan
- 5V tolerant LVTTTL Logic levels, LVSD, RS485, RS232, discrete High voltage, OPTO isolated (current loop)
- I/O configuration provided by 4 BSPIO modules
- TCK clock with high average frequency (10MHz), set to typical UUT frequency
- Auto Test capability for all BSPIO drivers

Naked version features

- Size: 191x107x80mm, Weight: 0.4Kg
- 5V Stabilized external power supply (Not Included)
- 3V3 internal power supply

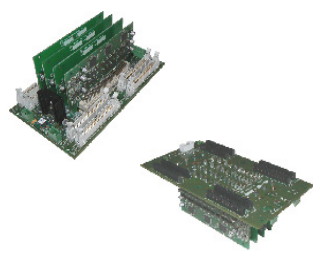
Boxed version features

- Size: 280x170x90mm
- Weight: 3Kg
- Optional integrated 1MHz JTAG controller
- 100Mbit Ethernet Port for JTAG controller
- 1 TAP dedicated to BSPIO control
- 1 TAP available on front panel
- 5V and 3V3 internal power supply
- 12VDC Unregulated external power supply (Included)

The main component of the system is a CARRIER4 board that hosts 4 BSPIOs and 8x40 way male connectors on the same side as the BSPIO (SIMPLEX4-NT) or 8x40 way female connectors on the opposite side (SIMPLEX4-NB).

The male connectors of the SIMPLEX-NT version can be connected to the UUT by standard 40 way IDC cables. The female connectors of the SIMPLEX-NB version can host a connection board to the UUT together with 2.54mm pitch male header connectors.

Basic hardware available

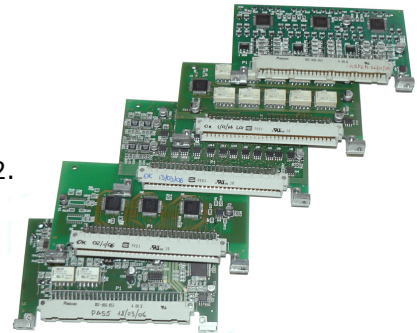
GEB P.N. (*1)	DESCRIPTION	Illustrazione
SIMPLEX4-NT-XX	Simplex4 naked board with 8x40 way male lock connectors on TOP side	
SIMPLEX4-WT-XX	Simplex4 naked board with 8X40 way wire wrap terminal on TOP side	
SIMPLEX4-NB-XX	Simplex4 naked board with 8x40 way female connectors on BOTTOM side	
SIMPLEX4-WB-XX	Simplex4 naked board with 8X40 way wire wrap terminal on BOTTOM side	

Note (*1): XX indicates the mounted BSPIO configuration.

BSPIO (Boundary Scan Parallel I/O) configuration

The CARRIER4 board hosts 4 BSPIOs that can be chosen among:

- BSPIO-TTL78U, 78 I/O TTL 5V tolerance
- BSPIO-STDIF1688, I/O 16xRS485, 8xLVDS, 8+8xRS232.
- BSPIO-DIO888, 24 I/O discrete independent.
- BSPIO-OPTO1212, 12 input OPTO, 12 output OPTO
- BSPIO-LVDSx39, 39 IO LVDS
- BSPIO-RS485x39, 39 IO RS485



The table below indicates possible BSPIO configurations for the SIMPLEX4 system. Other configurations are available upon request.

Conf. BSPIO	TTL I/O	485 I/O	LVDS I/O	232 I+O	OPTO I+O	DISC. I/O
A0	312	0	0	0	0	0
A1	234	16	8	8+8	0	0
A2	156	32	16	16+16	0	0
A3	234	0	0	0	12+12	0
A4	234	0	0	0	0	24
A5	156	0	0	0	12+12	24
A6	156	16	8	8+8	0	24
A7	78	16	8	8+8	12+12	24
A8	234	0	39	0	0	0
A9	156	0	78	0	0	0

Customization

The SIMPLEX4 is delivered fully assembled, tested and completed with software for the INFRA, INTER and SELF tests for the drivers and receivers of the BSPIOs (test sequences for JTAG Technologies AEX managers). The system includes ADP and NET LIST files for the integration with JTAG Technology tools.



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