NATIONAL INSTRUMENTS — Silver Alliance Partner

6TL-08, The Compact Tester.

For small to medium quantities of PC Board testing, 6TL developed a new powerful entry level test platform, the 6TL-08.

With over 25 Years of experience in test, 6TL learned that there is a need for flexible, reliable and affordable test systems, without having to compromise for future developments and limiting yourself to dedicated functionality of most available test solutions in the Market. With the 6TL-08 we developed a modular system that can start as a very low cost entry level test platform using MS-Excel as test sequencer but is ready to expand to a full featured PXI-Based tester running Labview or Teststand for more complex test solutions, without having to invest in a whole new tester platform. All modules of the 6TL-08 are also ready to be used in a larger system if needed.
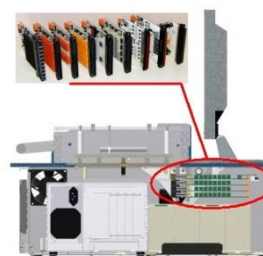
The 6TL-08 is developed using all **advantages of the 6TL tester concept**. Hart of the system is a reliable and accurate linear mechanical pushdown mechanism with a 12mm linear travel, using an easy to exchange transparent pusher plate, enabling the 6TL-08 to push down the UUT (Unit Under Test) onto the bed of nails. The Bed of nails is a low cost, fast and easy to exchange cassette system. A VPC 90 series compatible Interconnect interface guarantees signal integrity and a fast and error free exchange of cassettes for minimal 20.000 cycles. The interface is flexible and has space for up to eight 6TL-YAVModules or VPC 90 Series modules. The interface can be equipped with signal, coax (Up to 40GHZ), power (Up to 50Amp), air and fibre-optic contacts in any needed configuration. YAVModules all are equipped with a VPC Mass Interconnect Receiver module and are mounted directly into the receiver of the cassette interface eliminating expensive cabling between instrumentation and Interface.

Exchangeable cassette.

- Stand-alone system with modular options to customize the 6TL-08 to your exact needs.
- Fast Changeover time from one to another test application, in less than 1 minute
- Low cost fixture cassettes with 8-position-ITA, VPC 90 Series compatible.
- High quality Mass Interconnect interface (>20.000 mating & un-mating cycles)
- Space for up to 8 YAVModules and/or VPC 90 series connectors for PXI or other Instrumentation.
- Two compact models for 300x200mm or 500x200mm PCB sizes
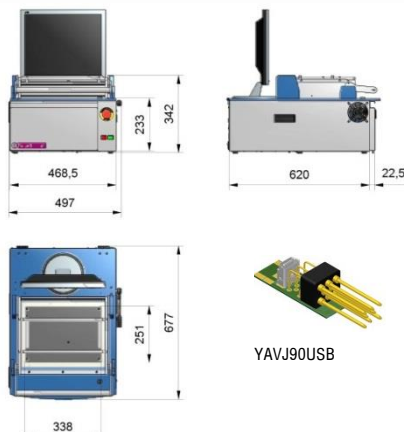- Fast ergonomic manual close & start test operation and 100% Upgradeable and reconfigurable.

Options:

- ISP (In-System programming) Fast Programmer supports 3000+ devices and up to eight uploads in parallel or via JTAG.
- PXI chassis with embedded PC and touch screen. Up to four PXI modules (Digitizer, Arbitrary Wave Generator, etc.)
- Switching and Measurement YAVModules: Matrix, Multiplexer, Coaxial, Pneumatic, Power relays, etc.
- Expansion room for additional Power Supplies, Loads, Barcode / Data Matrix Reader, Label or test report printer, 4 slot PXI rack.
- Boundary Scan resources unit, compatible with XJTAG, JTAG Technologies and Goepel. Build-in Jtag Interface USB-IEEE 1149
- LabView / TestStand from National Instrument and expandable with up to four PXI instruments (Optional PXI chassis needed)
- Remote operator interface (MMI, Man Machine Interface) and Light Tower.

The purpose of the 6TL-08 Compact testing platform is to cover most common testing and in-system programming (ISP) needs with a reduced initial budget, including a low cost cassette fixture system with a manual linear push mechanism. The base enclosure contains a standard eight Slots, fixture receiver, compatible with VPC 90 Series Mass Interconnect Modules and the 6TL Engineering intelligent YAVModules.

The platform can operate in stand-alone mode, using our MSES test executive software running on our YAV90MMU module (Low cost option, programming using an Excel spreadsheet, with up to 1000 programming steps) or on an optional embedded PC, using LabView / TestStand, Visual Basic or any other software. The optional four slot PXI chassis enables you to add any High frequency, SMUs, stimulus, measurement, communications or digitizing instruments available from any PXI module vendor. Any Instrumentation Bus or rack & stack instruments can be implemented using the free slots in the VPC compatible interface. YAVJ90USB and YAVJ90RJ45 modules are available for compatibility with USB and LAN connections. The interchangeable fixture cassette includes an eight Slot ITA, probe-, moving- and pusher-plate, with self-alignment and storage tooling. Optional the fixture identifier device YAVCANCON2 can be added. The overall cost is kept low and the system permits a short implementation time with minimum budged. The unit is fully prepared for a large production with the capability to start the test sequence automatically ones the UUT has been changed and the fixture is closed. As all options are plug-and-play and based on standard of the shelf components, the station never becomes obsolete and remains fully reconfigurable for any additional future projects. More information can also be found on www.6TLEngineering.com.
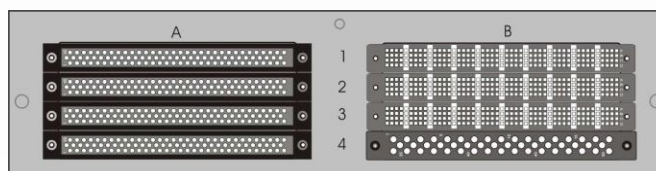
YAVJ90USB

(Dimensions shown: 468,5 · 497 · 233 · 342 · 620 · 22,5 · 251 · 677 · 338)

Technical data

P/N	H710008Nx	H710008Wx
Platform		
Overall dimensions (LxWxH)	465x320x600 [18x12,6x23,6"]	
Weight in basic configuration	27 kg [60 lib]	
Top surface material	Aluminium anodized blue	Aluminium anodized blue
Enclosure	Steel	Steel
DUT limits		
PCB Max. dimensions (LxW)	337x200 [12x7.9]	
Max. Components high on top	50 [2"]	50 [2"]
Max. Components high on bott.	25 [1"]	25 [1"]
Max. number of test points	1000	1000
Power requierements		
L-N-PE	180 … 265 VAC	180 … 265 VAC
Power consumption (W)	260	260
Enviromental Conditions		
Ambient temperature	0 … 45 ºC	0 … 45 ºC

x = Basic or Advanced or Plus

Power consumption not include options like PSU's or other not standard devices.

Platform Ordering Information

P/N	Description	Basic H710008yB	Advanced H710008yA	Plus H710008yP
H71000800 (N) or H71000801 (W)	Compact Testing Platform with DUT mechanical pressure system and 8 slots receiver, including: • IEC Inlet plug with switch and protection fuse and 2x IEC Outputs • 24VDC 100W Power Supply • 8 In/16 Outputs CAN bus Interface with 2 pushbuttons w/light • YAV90MMU Ethernet to CAN gateway multiplexed measurement unit	√	√	√
AA413 AAxxx	Fixture kit for 250x337 mm Max.PCB: Probes plate, moving plate and pusher's plate, centering columns and 8 slots ITA for VPC 90 series modules	Option	Option	Option
AA412	Foldable Keyboard with trackball kit. Magnetic lock. 17" VGA Monitor	None	√	√
H61005000	Mini-ITX Computer System Intel Core 2 Duo. 230VAC power supply. Expansion Slot • 4 ports USB • 2 ports OS/2 • 1 port COM • 1 Port Parallel • 1 Port RJ45 (LAN) • Audio sockets (Specifications subject to change)	None	√	None
AA429	PXI-Express Chassis NI 1071 w/Controller. 4 Slots • 4 ports USB • 1 Ports DVI-I • 1 Express Card • 1 port COM • 1 Port Parallel • 1 Port GPIB • 1 Trigger	None	None	√
AA414	EN 954-1, EN ISO 13849-1 E-STOP kit, with pushbutton, safety relay and two contactors	Option	Option	Option
800808K	CAN bus Man Machine Interface (MMI) with Test Step display and navigator	Option	Option	Option

Switching preferred configurations

P/N	Description	A1	A2	A3	A4	B1	B2	B3	B4
YAV90MMU	LAN-CAN Interface Mux. Measurement Unit		✱						
YAV90CIN	12 Power relays w/Shunt for current measurement	✱							
YAV904X8	32-Channel 2-Wire 2-A Multiplexer			✱					
510104136	Receiver 96 Pins tripaddle module				✱				
YAV9JTAG	Digital Boundary Scan Resources Unit					✱			
JAV9JTAH	Digital and Analog Boundary Sacn Resources Unit						✱		
YAV90832	80 I/O's Multifunction board							✱	
YAV91501	2,5 GHz 50R SMB Multiplexer								✱

Look also on our website to learn more about the 6TL modular concept.