PEAKGROUP

No Compromise Solutions

PEAKGROUP

PEAKTEST

PEAKPRODUCTION

PEAKSOFTWARE

The Peak Group is a proven provider of electronic components, automated test and measurement solutions supporting every stage of the assembly process from component testing to highly complex functional solutions.

With over 35 years' experience of delivering innovation in the defence, aerospace, medical, rail, automotive, power generation and industrial electronics markets across the globe.

The Peak Group offers a holistic approach to ensure that all aspects of the product lifecycle are supported from prototype through to service and repair.

CONTENTS

THE PEAK GROUP OF COMPANIES

PEAKTEST

Peak Test

Founded in 1986, Peak Test is the UK leader in the distribution of test probes and receptacles and has achieved ISO 9001:2015 certification. It carries the most comprehensive range of probes, many of which are available ex-stock for next day delivery. Our probe range includes ATE, High Current, Radio Frequency and Kelvin Measurement, Wire Harness Test, Fine Pitch and Battery Contacts and many more.

Peak Test are also the UK distributor for Virginia Panel Corporation (VPC) Mass Interconnect, Optomistic LED Test and Voltera Prototype PCB Printer.

PEAKPRODUCTION

Peak Production

Founded in 1984 as a manufacturer of ATE in-circuit test (ICT) fixtures, as the UK electronics market evolved, Peak Production evolved and grew with the majority of our business now in delivering automated test solutions and high-end functional fixtures.

Peak Production manufacture a comprehensive range of test equipment, from simple test boxes used by sub-contract manufacturers to stand alone high specification test racks and systems used in the aerospace and defence industries. As UK distributor for Virginia Panel Corporation (VPC) we make full use of their mass interface connection products within our own designs. We are a Gold Alliance partner with National Instruments, Solutions Partner with Keysight Technologies, System Integrator with Pickering and GATE partner with Goepel.

When you purchase from Peak Production, you purchase the whole process. We design, manufacture and assemble all our fixtures and systems in house.

PEAKSOFTWARE

Peak Software

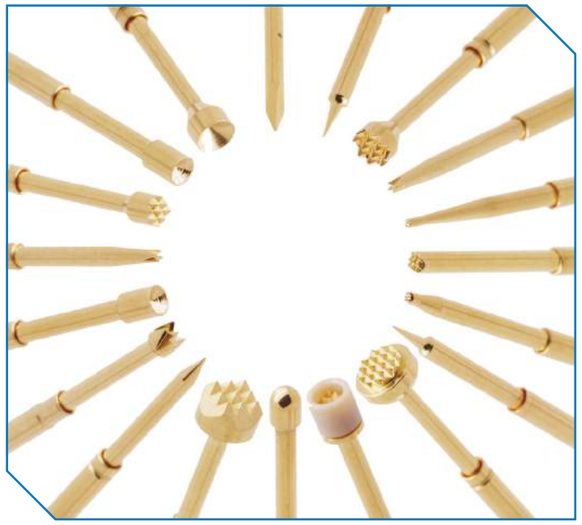
With extensive experience and leading-edge technical knowledge acquired since the company was founded in 1984, we take a consultative approach to understanding and supporting the needs of your business, choosing the most effective development approach.

Experienced in several platforms including NI Labview/Test Stand and Visual Studio (Microsoft – Visual Basic .net). We can provide software for a complete solution or an individual part within a system. The solutions we offer include Analysis Tools such as WRAP and Boundary Scan to check for connectivity of components and their operation.

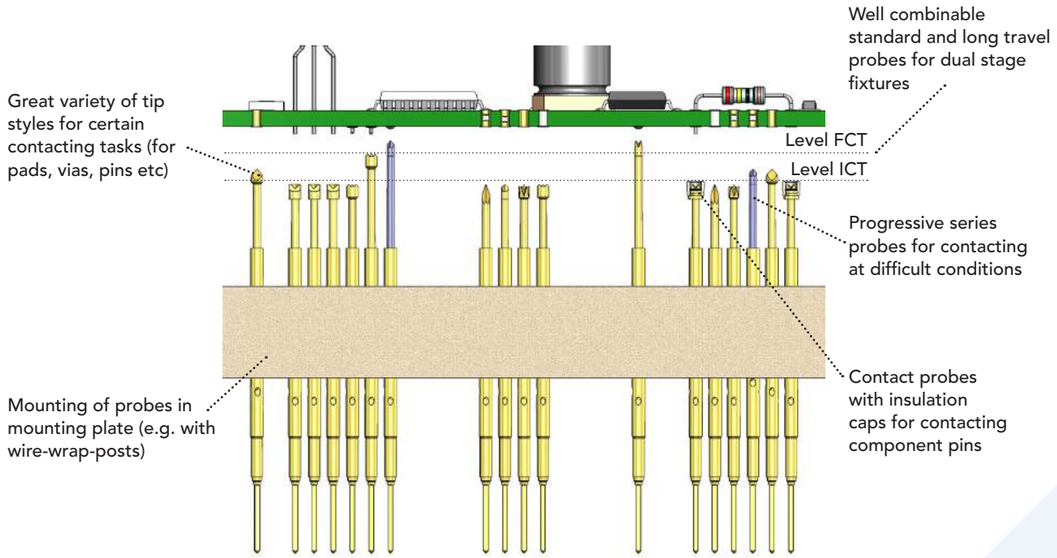
TEST PROBES

Why Contact Probes? Spring contact probes are used for a reliable low-wear contacting of electric and electronic devices.

Typical applications are PCB test, wire harness and connector test or the use as charging and battery contacts of cordless electronic devices. Contact probes are available in a large variety of tip styles, dimensions and spring forces, some even with additional integrated functions.

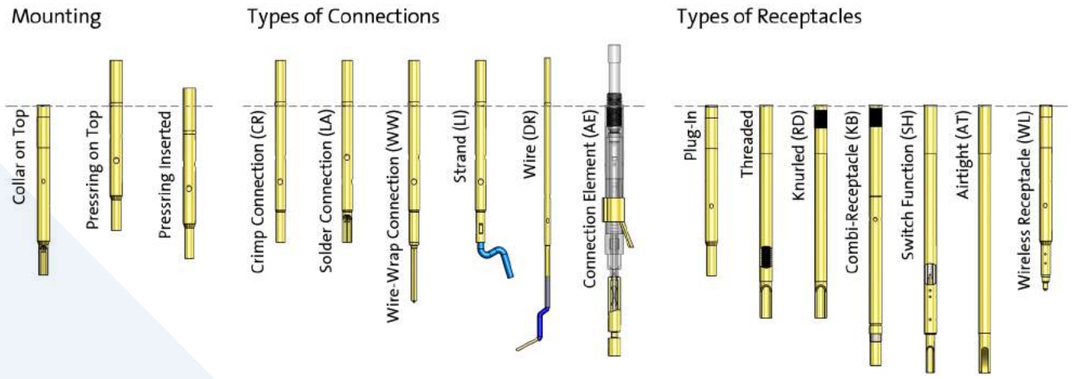


Contacting of PCBs with Typical Spring Contact Probes (Dual Stage Fixture)



Tools and accessories for probes can also be provided. The range includes brushes to maintain the life cycle, PCB drills and insertion and removal tools.

For simple replacement, Spring Contact Test Probes are typically mounted into receptacles. These are also referred to as 'housing units'. Push fit probes simply plug into the receptacles and threaded probes screw into the relevant receptacles. Receptacles are available with different types of electrical connection.



TEST PROBES

Contact Probes for ICT/FCT (In-Circuit & Functional Test)

- For standard centres 50 mil, 75 mil and 100 mil
- For fine pitches of e.g. 30 mil and 40 mil
- Great variety of tip styles, spring forces and further centres
- Insulation caps for verification of sufficient pin lengths
- Lead free, high progressive series also available on request for selected series and tip styles

Interface Probes

- Tester specific standardised probes and pins
- For test systems ATG, Genrad, Luther & Mälzer, Digitaltest, Teradyne, Scorpion etc.
- Probes with sensor plates for TestJet or FrameScan

Accessories for Test Fixtures

- Pre-assembled interface blocks
- Test connectors with appropriate floating holder for contacting USB, HDMI or RJ interfaces
- Board markers

Threaded Probes

- Secure seat of the probes even when exposed to vibrations
- Great variety of centres, lengths and tip styles
- For continuity test of wire harnesses
- Simple mounting of probes by appropriate tools

Step Probes

- For position and presence test of contacts within connector cavities
- Specific dimensions for individual connectors
- More than 300 versions available
- Innovative tools for mounting probes in a limited space

Probes for Position Test

- Switch probes for presence test of components or connector elements
- Function as opener or closer
- Optional with rolling ball as contact element
- Switch probes with two switch points (off-on-off)
- Exact position measurement with position sensor systems

Push Back Probes

- High spring forces for push back test (“terminal push out”)
- Twist proof spade tip styles
- Different switch concepts possible: switch function in the probe, in the receptacle or by a second level

Fine Pitch Probes

- For centres smaller than 50 mil
- Minimum centre down to 0.3mm/12 mil
- Double plunger probe for mounting in mounting plates (test heads)
- Application in front-end and back-end test

Short Travel Probes

- For applications at limited available space
- For contacting higher components
- Spring travel usually below 3mm
- Use also in non-test applications, e.g. as interface between two devices (signal and power transmission)

Battery Contacts

- A charging contact for direct soldering into or onto a PCB
- Use in non-test applications, e.g. charging stations for cordless devices
- For products with low-wear releasable electrical connections
- Current shortest probe has a length of 2.7mm

High Current Probes

- Specific probe design with low ohmic resistance
- Optimised contact to the DUT
- Contacting of power-pins, high current interfaces etc.
- High current contacting of flat blade connectors
- Applications in burn-in test and functional test

Coaxial High Current Probes

- For 4-wire measurement according to the Kelvin method
- Suitable for high currents up to 600 Amp continuous current
- Floated mounting for adaption to the DUT
- Application in high volume production of batteries and accumulator cells

Coaxial Kelvin Probes

- For 4-wire measurement according to the Kelvin method
- Suitable for applications with limited space
- Also for small centres down to 87 mil
- Application in measuring very low resistances

Coaxial Radio Frequency Probes

- Contacting of standard RF connectors
- For Fakra, HSD and mini coax connectors
- For SMA, SMB, SMC connectors
- For contacting of small SMD switch connectors
- For contacting directly onto the PCB

Optomistic Products®

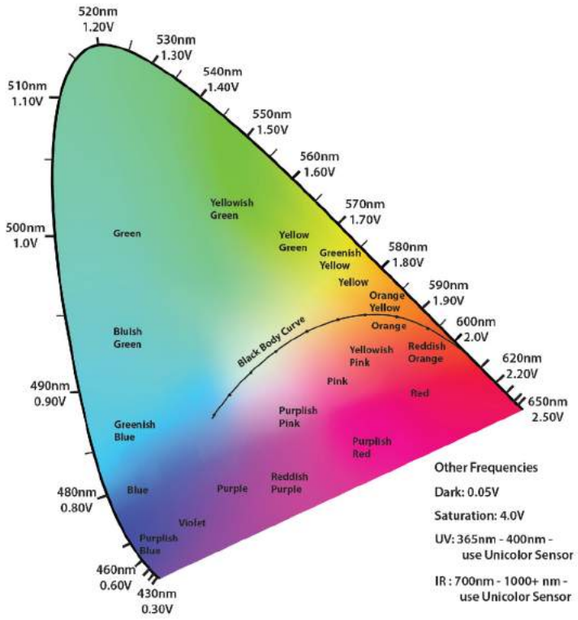
Optomistic Products are a leader in LED Test and have been providing solutions for over 27 years

Optomistic Products innovative Two-Part technology customises each Universal LightProbe for every LED test requirement or mechanical constraint.

A unique method available to connect more than one Probe to each Sensor provides efficiency on time, space and cost!

Part 1:
Choose the best ULP S2 Sensor for your application. All ULP S2 Sensors are pre-programmed to suit specific LED requirements. They offer non-conductive housing which is ideal for today's high-density test fixtures.

Part 2:
Choose the best fibre optic probe for your application. Universal LightProbe™ Fiber-Optic Probes come in over 30 models, which allows for precise requirements in spacing, alignment and working distance from the LED's, as well as LED's that are difficult to access.



Universal LightProbe Advantages for LED Test

- Provides the LED test equivalent to an electrical probe for ICT test
- Converts light to an analog or digital voltage output – no third party software necessary
- Compatible with platforms such as Keysight 3070 – the ATE software simply sets the PASS/FAIL limits for the correct colour or intensity voltage of the LED
- Provides flexibility to measure single or multiple LEDs in a cost-effective way
- Only Optomistic Products offers the unique 'Tridents' solution – for reliable testing of 3 LEDs with a single Sensor, cutting costs by as much as 50%.

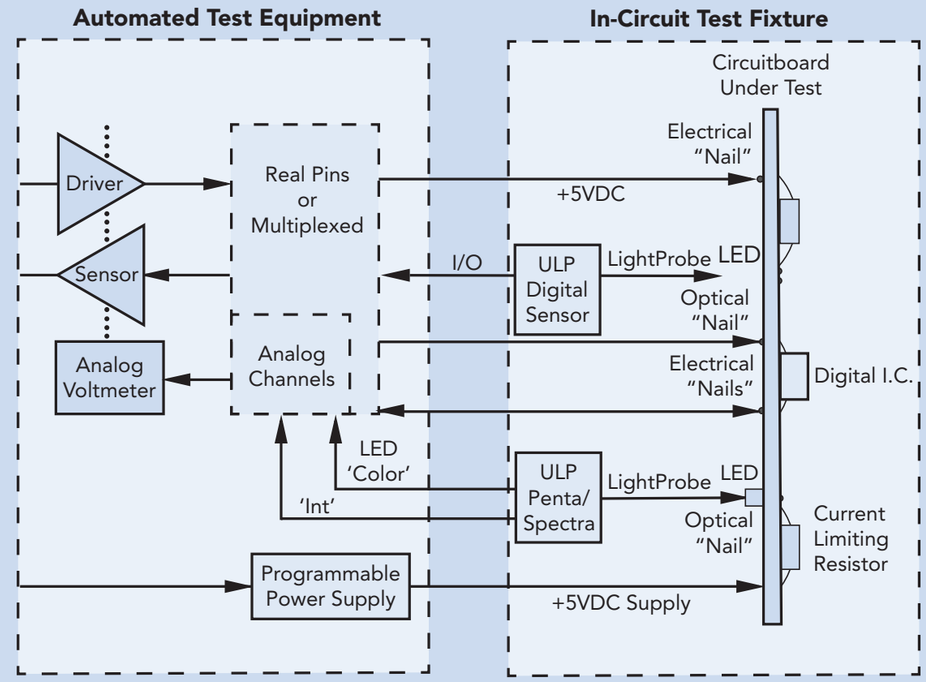
Sensor – Test Requirement

- Digital or Analog output
- Single Colour/Colour Binning
- On/Off Digital Output
- Blinking LEDs
- Very Dim or Very Bright LEDs

Fiber-Optic Probe – Mechanical Constraint

- Compensate for LED Misalignment
- Easily Test Side-Facing LEDs
- Closely-Spaced LEDs
- Difficult to Access LEDs
- Hundreds of LEDs

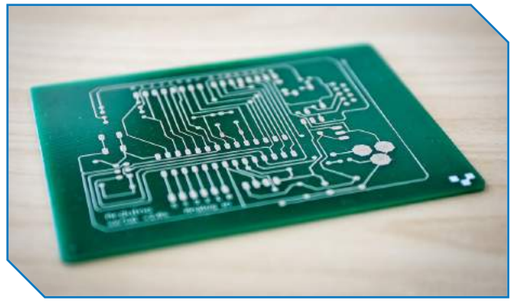
ULP/ICT Compatability
(Typical Configuration)

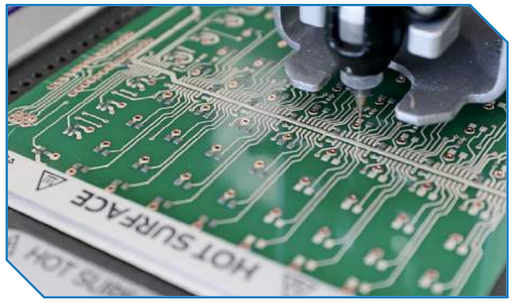


Prototype on your desktop with the Voltera V-One PCB Printer

Printing circuit boards is easy

The Voltera V-One uses an additive approach to create circuit boards. Ink is dispensed precisely where it is needed without any waste.



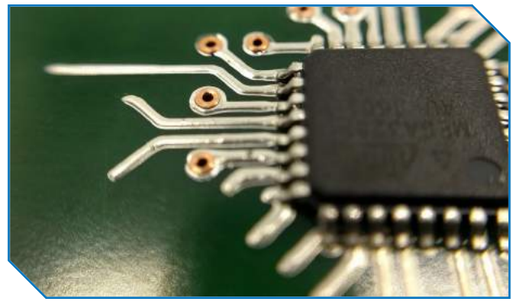


Development platforms have become the easiest starting point for many projects. Take your breadboard projects to the next level with your own personal shields.

Get started quickly on projects with the Arduino® Uno, Arduino® Mega, Raspberry Pi™ B+, and the Particle Photon.

Drill double-sided boards

Reduce the number of machines and interfaces in your workflow. The V-One Drill attachment brings CNC drilling to the V-One platform.

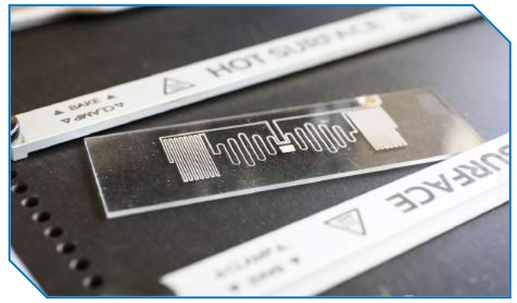


The V-One's unique magnetic attachments makes tool changing a breeze. Use the drilling attachment to quickly make vias and through holes in your double-sided boards.

Copper rivets make an electrical connection between top and bottom layers and drill bits can also be purchased.

Solder in seconds

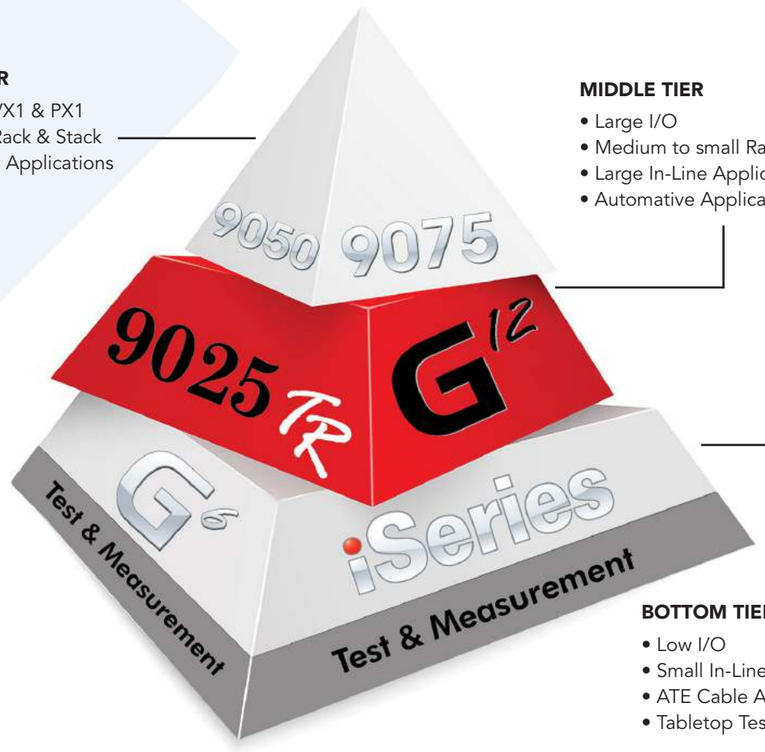
Focus on designing, not soldering. Regardless if your boards come from a factory, or from your desk - just mount them on the V-One and off you go.



Save money in stencil costs by skipping them altogether. The V-One makes populating your prototype boards a breeze.

In just a few minutes you can have paste on boards printed by the V-One or traditionally fabricated by a factory.

Virginia Panel Corporation



TOP TIER
- Large VX1 & PX1
- Large Rack & Stack
- Military Applications

MIDDLE TIER
- Large I/O
- Medium to small Rack & Stack
- Large In-Line Applications
- Automative Applications

BOTTOM TIER
- Low I/O
- Small In-Line Applications
- ATE Cable Applications
- Tabletop Test-PCI

Mass Interconnect Solutions from Virginia Panel Corporation (VPC) Products

Since 1959, VPC has designed and manufactured its high quality Mass InterConnects at its headquarters in Waynesboro, Virginia. As connector needs for the test and measurement industry have evolved, so has VPC, with a product range supporting commercial, military, telecommunications, aerospace, medical, automotive, and consumer electronic applications.

All wiring assemblers are trained to comply with soldering and inspection per IPC J-STD-001. VPC complies with IPC/WHMA-A-620 with three certified IPC trainers in-house and all assemblers having IPC-620A application specialist certification. VPC is capable of producing to all IPC classes (Classes 1, 2 and 3) depending on the customer's requirements. VPC is an ISO 9001:2015 certified business.

VPC has one goal - to provide the customer with the most advanced, high quality connector interface available in the market.

Virginia Panel solutions are designed to accommodate an array of ATE chassis sizes/configurations, including PXI, LXI, SCXI, GPIB, and VXI applications.

Our products provide easily reconfigurable and scalable solutions to your specific testing needs. Readily stocked and standard products keep costs down and ensure that you will receive your Mass InterConnect Solution quickly for speedy integration. VPC's solutions offer modular flexibility and address a wide range of signal, power, coaxial, and pneumatic I/O requirements.

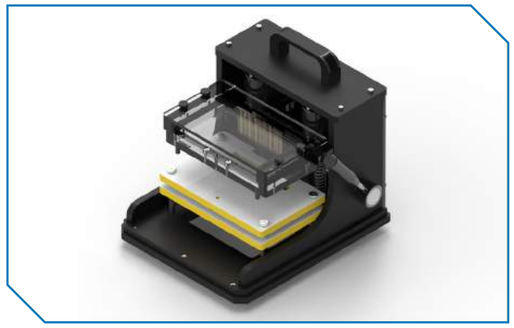
High performance cable assemblies and patchcords ensure quality connections and fast assembly of your Mass InterConnect Solution.

FIXTURES

Peak Production's standard range of fixtures are designed, manufactured and assembled in the UK giving full control of any customisation required. For more challenging projects our inhouse design team draw on over 35 years of experience to provide innovative and reliable solutions.

Overhead CAM

- Precision alignment of product to probes
- Single or double-sided probing
- Easily interchangeable product and probe plates



Description	Part Number	Overall Dimensions W x D x H (mm)
Overhead cam fixture	PKOCM-2	270 x 225 x 200
Replaceable set of plates	PKOCM-PL	190 x 120
Custom	N/A	As Specified

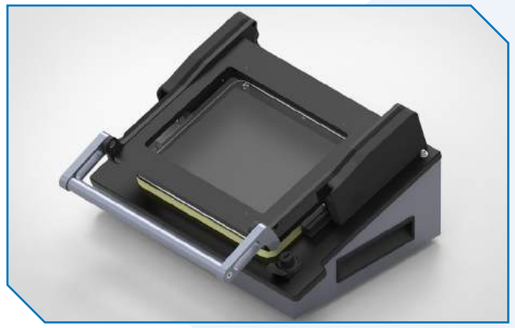
Advanced Parallel Action Fixture

- Single action with final parallel engagement
- Precision alignment
- Electrical/Pneumatic Shot Lock option
- High Voltage Safety Option
- RF option
- Sloping base for best ergonomics
- Interchangeable probe and pressure plates
- Custom Rear interface available for most test systems

Description	Part Number	Overall Dimensions W x D x H (mm)
Advanced A4 Fixture Kit	A4P-FIXT	500 x 600 x 300
Advanced A3 Fixture Kit	A3P-FIXT	700 x 600 x 300
Advanced A3.5 Fixture Kit	A3.5P-FIXT	900 x 600 x 300
Custom	N/A	As Specified

Compact Fixture

- Single action
- Simple customising and wiring
- Sloping base for best ergonomics
- Interchangeable probe and pressure plates



Description	Part Number	Overall Dimensions (mm)
Standard A5 Fixture Kit	MPA5	350 x 260 x 190
Extended Base A5 Fixture Kit	MPA5-X	450 x 260 x 190
Custom	N/A	As Specified

Advanced Parallel Action Cassette Receiver

- Single action with final parallel engagement
- Precision alignment
- Electrical/Pneumatic Shot Lock option
- High Voltage Safety Option
- RF option
- VPC iDOCK internal interface
- Interchangeable probe and pressure plates
- Sloping base for best ergonomics
- Custom Rear interface available for most test systems

Description	Part Number	Overall Dimensions W x D x H (mm)
Advanced A4 Fixture Kit	A4P-RCV-VPC	500 x 600 x 300
Advanced A4 Cassette	A4P-CASS-VPC	260 x 330 x 160
Advanced A3 Fixture Kit	A3P-RCV-VPC	700 x 600 x 300
Advanced A3 Cassette	A3P-CASS-VPC	480 x 330 x 160
Advanced A3.5 Fixture Kit	A3.5P-RCV-VPC	900 x 600 x 300
Advanced A3.5 Cassette	A3.5P-CASS-VPC	680 x 330 x 160
Custom	N/A	As Specified

CUSTOM ATE SYSTEMS

Peak Production has been producing custom test solutions for over 35 years, all are designed, manufactured and built in the UK by in-house project teams. Projects vary in size from simple fixture based solutions to complex multi rack systems.

Under Work Surface Solution

Typically 10U or less with a base unit beneath the work surface connected via an umbilical cable to a work surface test enclosure or fixture.

- Base unit encloses and protects test equipment
- Safety interlocking supports high voltage requirements
- Multiple sizes and options available

Test Trolley

Entry level option for standalone portable test solutions, extended width chassis gives full use of U space and easy access for calibration and service while still allowing passage through a stand door.

- Interface Options
  - Custom harness interface
  - Umbilical to Test Enclosure/Fixture
  - Mass interconnect interface
- Enhanced Air flow
- Large hinged doors allowing access
- Enhanced space for easy wiring
- Integrated Keyboard Tray
- Customisable panels
- Power box and safety circuits
- 14U internal capacity

Test Desk

Expansion on the Test Trolley giving more internal space and extended work surface with fixture guide rails, while still allowing passage through a stand door.

- Mass interconnect interface
- Fixture slides and interface
- Enhanced Air flow
- Large hinged doors allowing access
- Enhanced space for easy wiring
- Integrated Keyboard Tray
- Customisable panels
- Power box and safety circuits
- Full depth 14 U capacity
- Part depth 9 U capacity

Single Rack

Reinforced exterior frame encloses a standard 19" sub frame giving a robust and reliable solution that allows full utilisation of U space with easy access for calibration and service. Available as standard width or extra wide to accommodate all ancillary equipment. Optional removable Fixture table supports all interfacing requirements.

- 36U to 42 U capacity
- 2 width options
- Mass interconnect interface
- Fixture slides and interface
- Enhanced Air flow
- Large hinged doors allowing access
- Enhanced space for easy wiring
- Customisable panels
- Power box and safety circuits
- Optional removable Fixture table with integrated Keyboard Tray
- Fully customisable

CUSTOM ATE SYSTEMS

Dual Rack

Extra reinforced exterior frame encloses two standard 19" sub frames with three extension areas to support wiring and ancillary equipment ensuring all U space is utilised with easy access for Calibration and Service. Optional removable Fixture table supports all interfacing requirements.

- 2 x 37U to 42 U capacity
- Mass interconnect interface
- Fixture slides and interface
- Enhanced Air flow
- Large hinged doors allowing access
- Enhanced space for easy wiring
- Customisable panels
- Power box and safety circuits
- Optional Fixture table with integrated Keyboard Tray
- Fully customisable

Custom Robot based solutions

Peak Production takes 35 years of test solution experience and integrates it seamlessly with the latest robot solutions. After a holistic review of the customer requirements Peak Production selects from several robot vendors the appropriate robot type to achieve the desired speed, handling and flexibility to not only meet our customers' requirements today but to future proof the solution for their requirements tomorrow.

Peak Production offers solutions from simple standalone collaborative robots to complex integrated multi-robot production lines.

WHAT WE DO

Our in-house design team of Mechanical, Electrical and Software Engineers are skilled at taking differing levels in detail of requirements and delivering test solutions that exceed our customers' expectations.

Project teams are formed to ensure that all cross-discipline requirements are understood and managed as the project progresses through the build and into final commissioning.

In-house production capabilities

- Mechanical
  - Variety of modern CNC machines for soft and metal materials
  - Multiple 3D printers producing plastic and metal production quality parts.
- Electrical
  - PCB assembly
  - Wiring harnesses and cable assemblies
  - Custom rack wiring

Deliverables

Each project has its own requirements but common elements are: -

- Comprehensive documentation pack
- CE Marking
- Traceability for all parts via bonded stores
- Export Control
- RoHS compliance
- Ongoing support contract

Quality

- Certification to ISO 9001:2015 reinforces to Peak Production and Peak Test customers that we operate a Quality Management System (QMS) in accordance with the standard.
- Peak Production is an IPC member and all technicians are certified to IPC certification A-610 and A-620.

Certificate Number 2008
ISO9001

Certificate Number 2405
ISO 9001

PARTNERS

The Peak Group prides itself not only on a coveted partnership with its customers but also the long standing and trusted relationship with its suppliers enabling the Peak Group to "Stand on the shoulders of giants" and deliver "No Compromise Solutions" to our customers.

National Instruments Gold Alliance Partner

Keysight Technologies Strategic Solutions Partner

pickering

GOPEL electronic GATE Select Partner

PEAKGROUP

No Compromise Solutions

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