

Interconnect Solutions

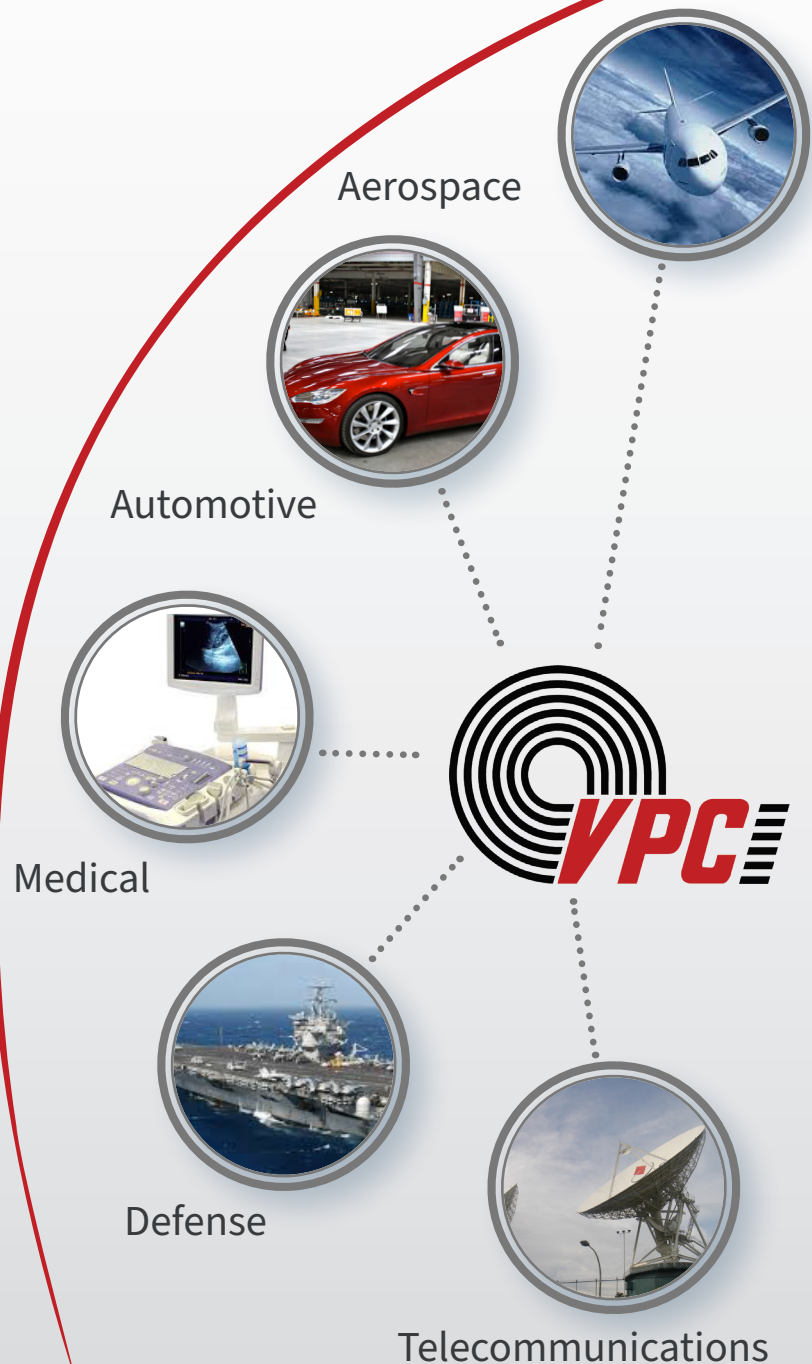


Standardizing with VPC

VPC offers over 60 years of unparalleled experience and expertise in the field of mass interconnect.

Standardizing with the industry leader in mass interconnect that boasts over half a century of success stories, ensures your program will always have the benefit and support it needs to grow and evolve.

- **Protect and extend** the life of expensive test equipment
- **Increase throughput** by quickly and easily standardizing one tester to multiple UUTs
- Both **standard and customized solutions** to meet your specific needs
- A **dedicated team of engineers** to help you design and meet your system requirements
- **Simplified** cable and patchcord management
- Wiring configurations for virtually **any type** of test and measurement instrumentation



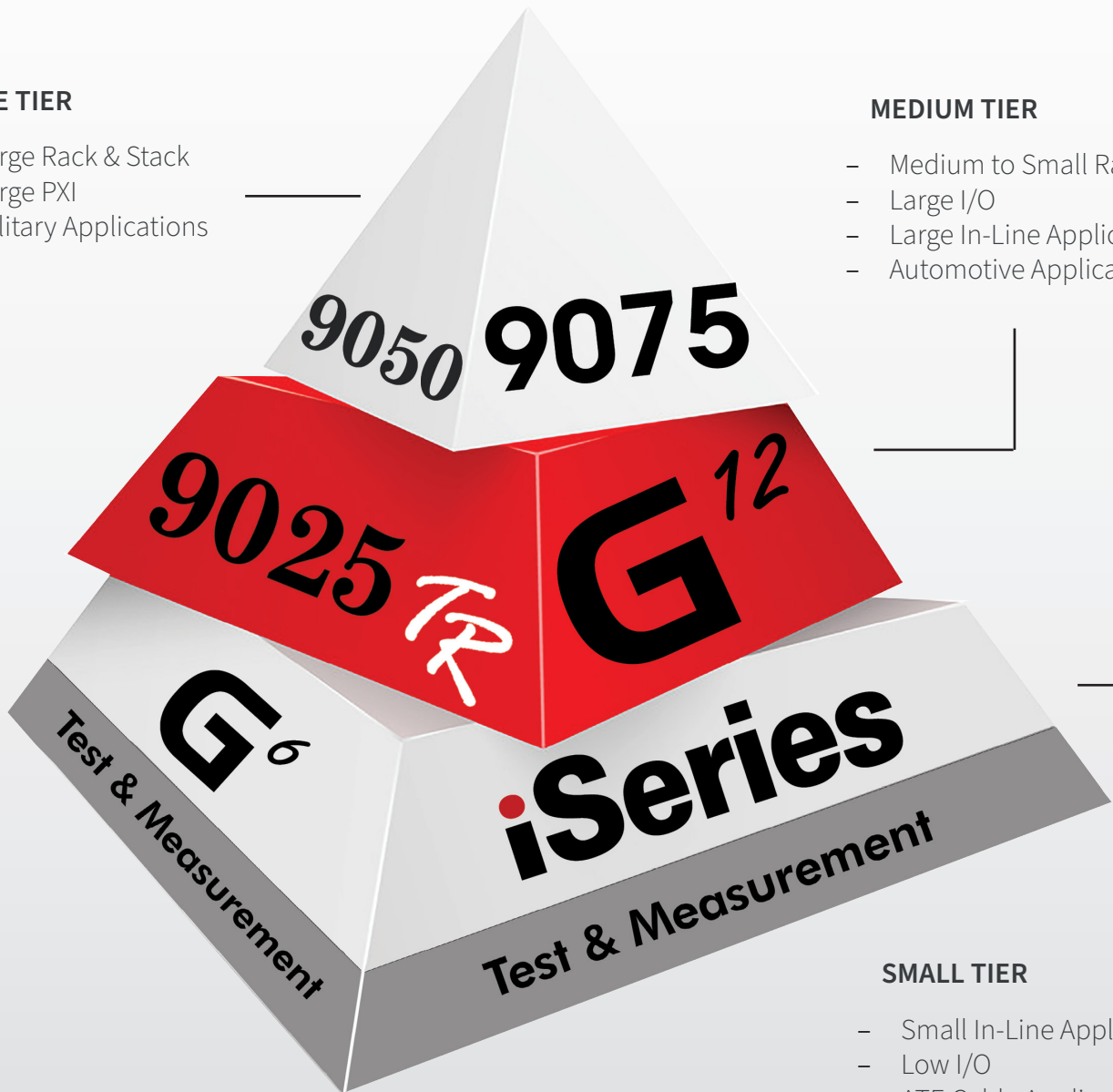
Product Scalability

LARGE TIER

- Large Rack & Stack
- Large PXI
- Military Applications

MEDIUM TIER

- Medium to Small Rack & Stack
- Large I/O
- Large In-Line Applications
- Automotive Applications



SMALL TIER

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

Mapping out a VPC Mass Interconnect Solution

Interchangeable Test Adapter (ITA) Mates to the receiver and manages ITA modules, PCB adapters, cable assemblies and patchcords for connection to the Unit Under Test (UUT).

Cable Assemblies PCB Adapters or test card configurations with instrument-specific connector(s) that accept COTS (commercial off-the-shelf) cables.

Receiver Connectors Mount to either an ITA enclosure or rack panel for secondary or primary test connections via handheld ITA.

ITA Connectors Handheld ITA connectors that mate with receiver connectors as a secondary connector or directly to the receiver from the UUT.

ITA modules
(Not visible- mounted in ITA frame) Mate with receiver modules with identical configuration. May serve as final connection to the UUT.

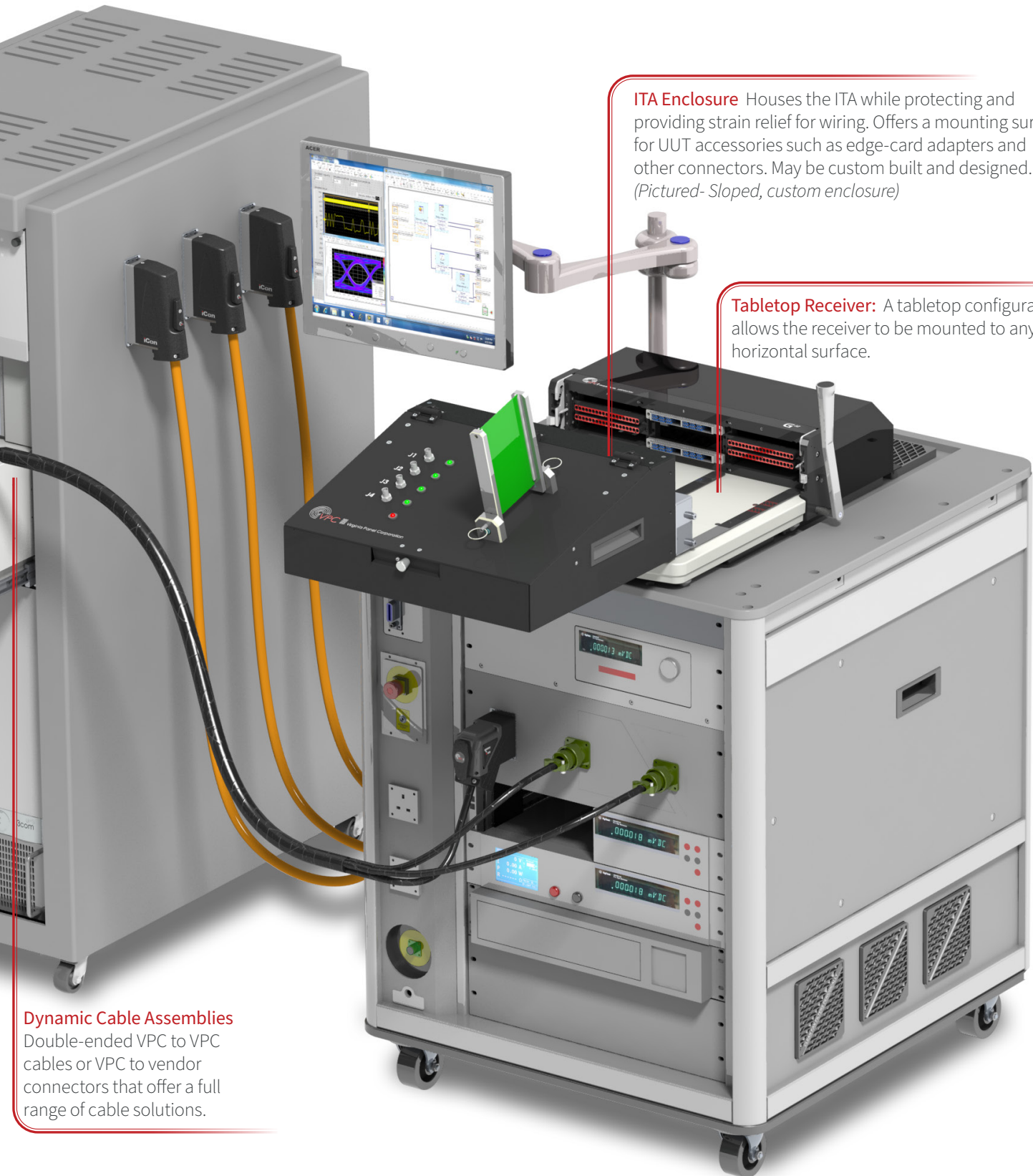
Receiver modules Mate with ITA modules. Available in varying densities with multiple configurations including signal, power, RF/coax, pneumatic, vacuum, thermocouple or fiber optic.

Units Under Test (UUTs) Actual units or devices being tested.

Receiver Interconnect device that manages receiver modules, patchcords, cable assemblies and/or PCB adapters for connection to test instrumentation. Mates with ITA frame.



For more information on designing a VPC Mass Interconnect Solution consult VPC's **Design Guide** by scanning the QR code or visiting vpc.com/resources/literature.



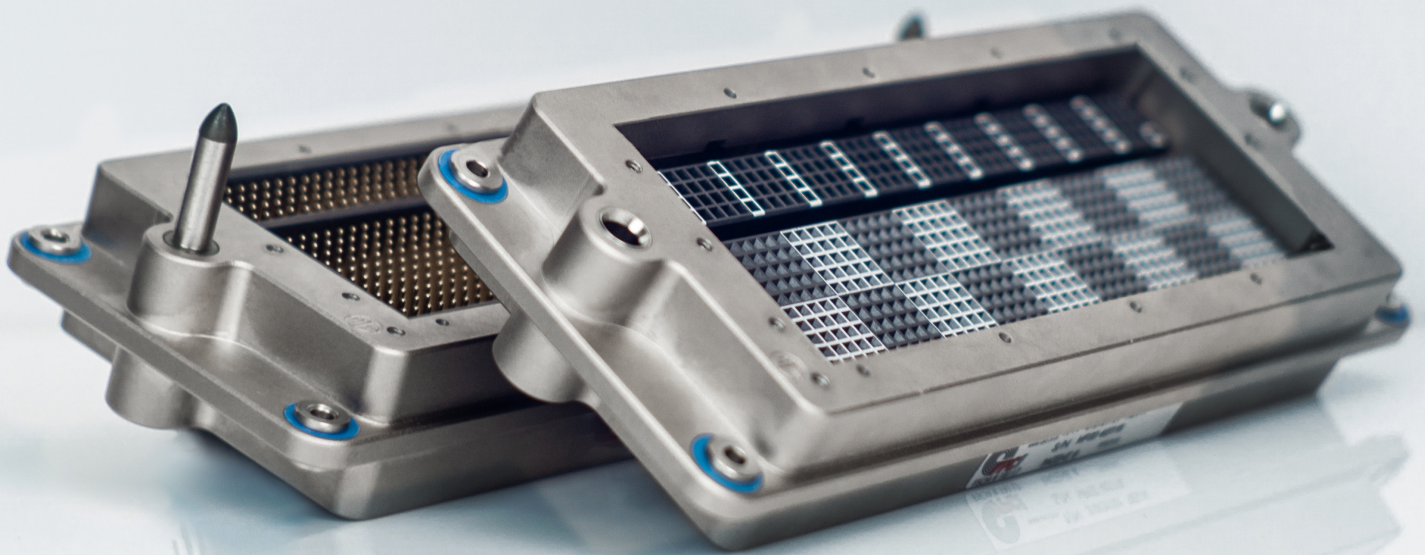
ITA Enclosure Houses the ITA while protecting and providing strain relief for wiring. Offers a mounting surface for UUT accessories such as edge-card adapters and other connectors. May be custom built and designed. *(Pictured- Sloped, custom enclosure)*

Tabletop Receiver: A tabletop configuration allows the receiver to be mounted to any horizontal surface.

Dynamic Cable Assemblies

Double-ended VPC to VPC cables or VPC to vendor cables that offer a full range of cable solutions.

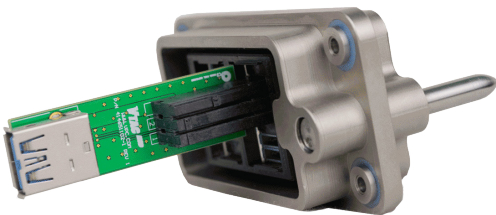
iDock Series



D1 & D3/4

FEATURES

- Ideal for high volume testing using a material handler
- D1 engages up to 160 signal contacts with VPC iCon modules
- D3/4 engages up to 672 signal contacts with VPC iCon or 90 Series modules
- Floating bushings ensure a successful mate each time



VPC's extended product line includes four automatic docking connectors: the D1, D3/D4, D12, and D25. Each feature an engageless frame for use with automatic test handling equipment to mate test adapters. Automatic docking connectors reduce the time it takes to test, making them an ideal solution for production or manufacturing environments. Automatic docking connectors also minimize operator interaction, which reduces the opportunity for error.



D12 & D25

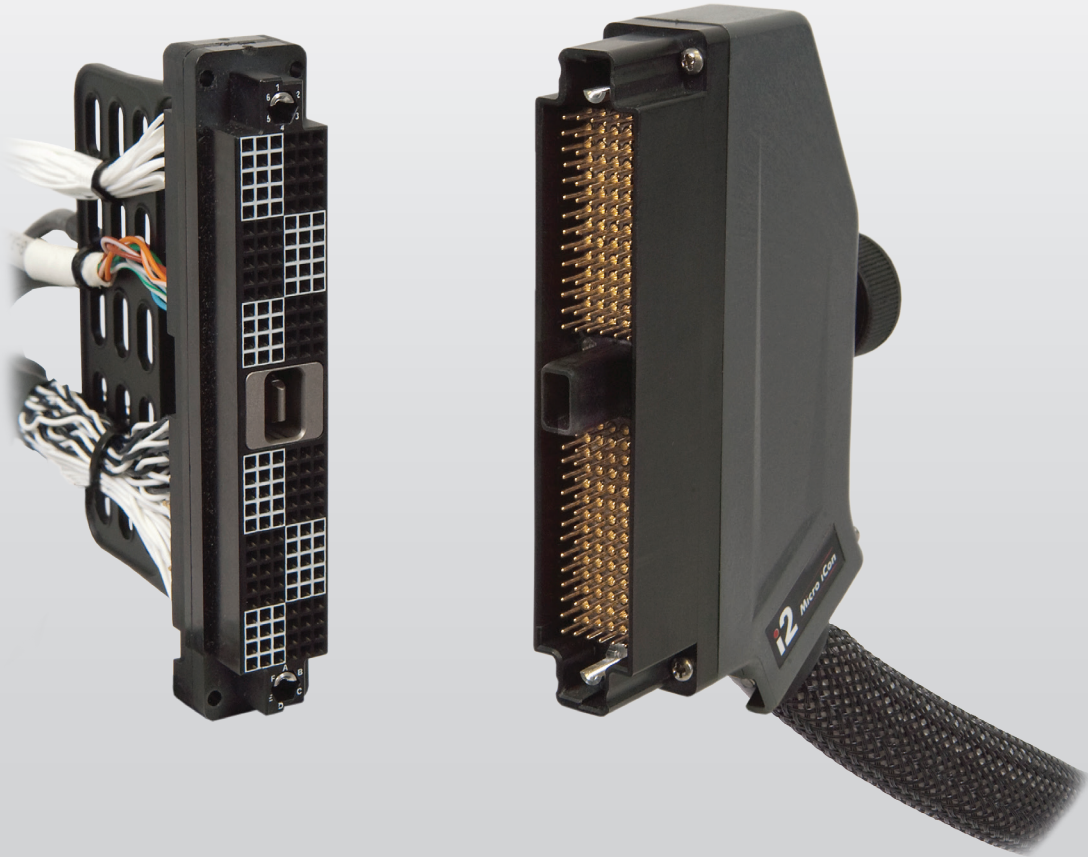


FEATURES

- Ideal for high volume testing using a material handler and connecting test fixtures to a test system
- D12 engages up to 2,880 signal contacts with up to twelve 90 Series modules
- D25 engages up to 5,952 signal contacts with up to twenty-five 90 Series modules
- D12 and D25 offer full system testing integrity even when partially loaded

The iDock Series offers reliable transmission options for signal, power, high current, high voltage, coax, high speed data and fiber optic. The flexible, modular design of iDock Series connectors allows the user to consolidate a variety of connection types into individual connector solutions. iDock Series connectors can be used for automatic docking or in a reliable frame format for rack and panel applications.

i2 Micro iCon



i2 Micro iCon



FEATURES

- 168 signal points available with QuadraPaddle™ Technology
- Hybrid option with 120 signal points and 12 micro coax/micro power pins
- 30° cable exit for vertical stackability
- 0.8" footprint for horizontal stackability

The i2 Micro iCon is a slim-line, low I/O connector capable of discrete-wiring and horizontal or right-angle PCB mounting. Because of its 0.8" profile, high-density with PCB connection capability and tested reliability, the i2 Micro iCon is the choice of connector for a major U.S. Military platform testing new digital and legacy radio systems, radar, avionics and other devices.

i2 MX



i2 MX



FEATURES

- Multiple modular inserts allow for maximum flexibility
- EMI-shielding option ensures performance and signal integrity
- Unique cable exit provides maximum cable bundle capacity
- Removable, all-metal ITA backshell

The i2 MX offers a configurable solution with multiple I/O inserts and optional EMI shielding in a slim 0.8" footprint. With multiple modular inserts to choose from, the i2 MX offers the flexibility to create the ideal configuration for a variety of test application needs.

i1



i1



FEATURES

- The ultimate option for low I/O needs
- Removable backshell and engaging mechanism for easy wire access
- PCB-mountable
- Quick connect 180° half-turn engagement handle
- Engineered for at least 10,000 cycles
- Hybrid modules available for additional I/O options

The i1 accepts all standard iCon modules, offering a variety of I/O options, including the VPC's high power 150 amp contact. Its small size enables both vertical and horizontal stackability. The i1 connector was chosen by a major automated test company to quickly and easily changeover automated mixed-signal functional tests for assemblies in an electronics manufacturing environment.

iCon



iCon



FEATURES

- Removable backshell and engaging mechanism for easy wire access
- PCB-mountable
- Quick connect 180° half-turn engagement handle
- Engineered for at least 10,000 cycles
- Hybrid modules available for additional I/O options

The iCon is a PCB-mountable rack and pin connector. Leading aviation manufacturers test complex electrical sub-systems using the iCon because it allows for the use of common interface cables and offers quick set-up. The iCon also allows high-end automobile manufacturers to create custom and configurable test systems with off-the-shelf components and standard test interfaces.

G6 & G10



G6 & G10



FEATURES

- Cable mount ITA includes slide-off EMI-shielded cover
- G6 engages up to 1,440 signal contacts, G10 engages up to 2,400 signal contacts
- Precise signal integrity with the QuadraTrack engagement system
- Reliable connectivity beyond 20,000 cycles
- Accommodates wired and PCB connections
- Often used in automotive manufacturing testing

The X Factor. VPC recommends leaving room for future expansion. The G6x and G10x offer increased I/O and are compatible with standard G6 and G10 ITAs.

S6



S6

FEATURES



- Up to 1,440 points in only 1U-3U of rack space
- Tabletop, slide or rack mount versions available
- Supports signal, power, coax, pneumatic, thermocouple, twinax and fiber optic
- Reliable connectivity beyond 20,000 cycles
- Easy glide docking with smooth engagement handles
- Ideal for connecting test fixtures to a test system

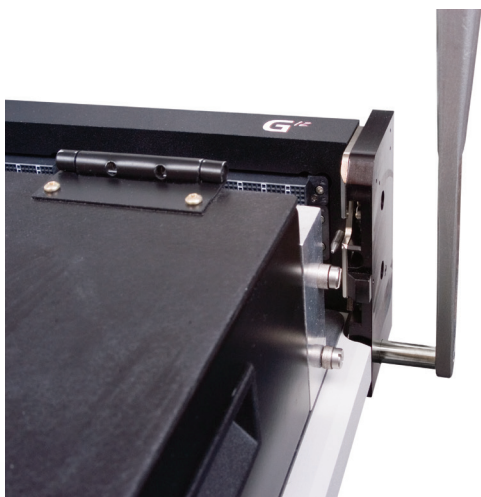
The S6 low-profile solution supports up to 1,440 contact points in a minimal 1U-3U of rack space. The robust and reliable S6 provides repeatable test capabilities for small and intermediate size test applications. This also makes it ideal for in-line test applications. Includes an optional back cover to protect wiring from the receiver to the test instrument.

G12



**G12x shown*

G12

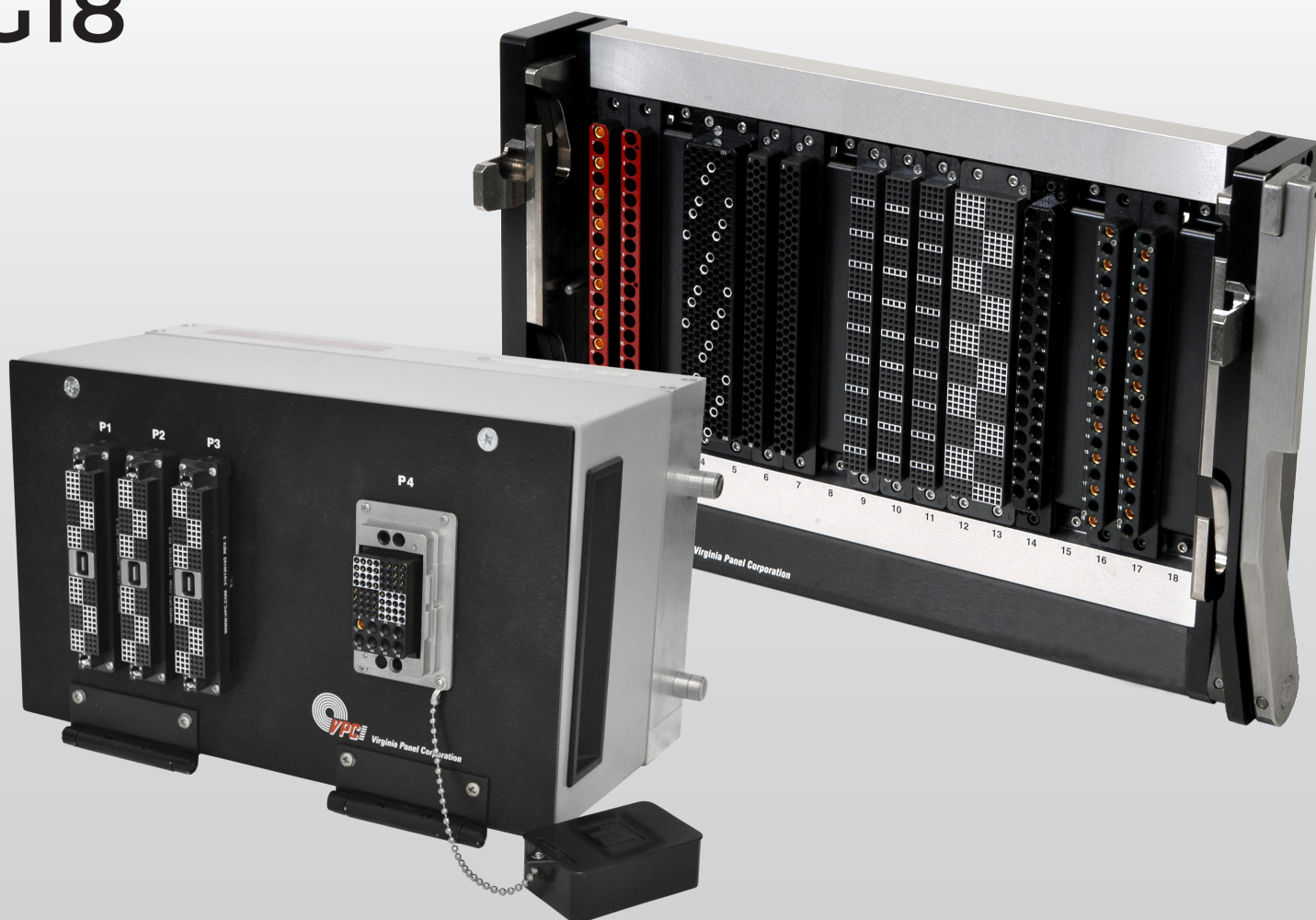


FEATURES

- G12 offers precise engagement of over 2,800 signal points in a 3U rack height
- Expand with the G12x and get over 4,300 signal points in a 5U rack height
- Easy glide docking for fixture guidance
- Reliable connectivity beyond 20,000 cycles

One of VPC's most popular interconnect products, the G12 offers I/O options to meet virtually any connectivity requirement and is available in both slide and tabletop configurations. It is ideal for commercial, contract manufacturing, automotive and other high-volume testing environments. Leave room for expansion with the G12x and add space for an additional six modules with up to 1,500 more signal points.

G18



G18

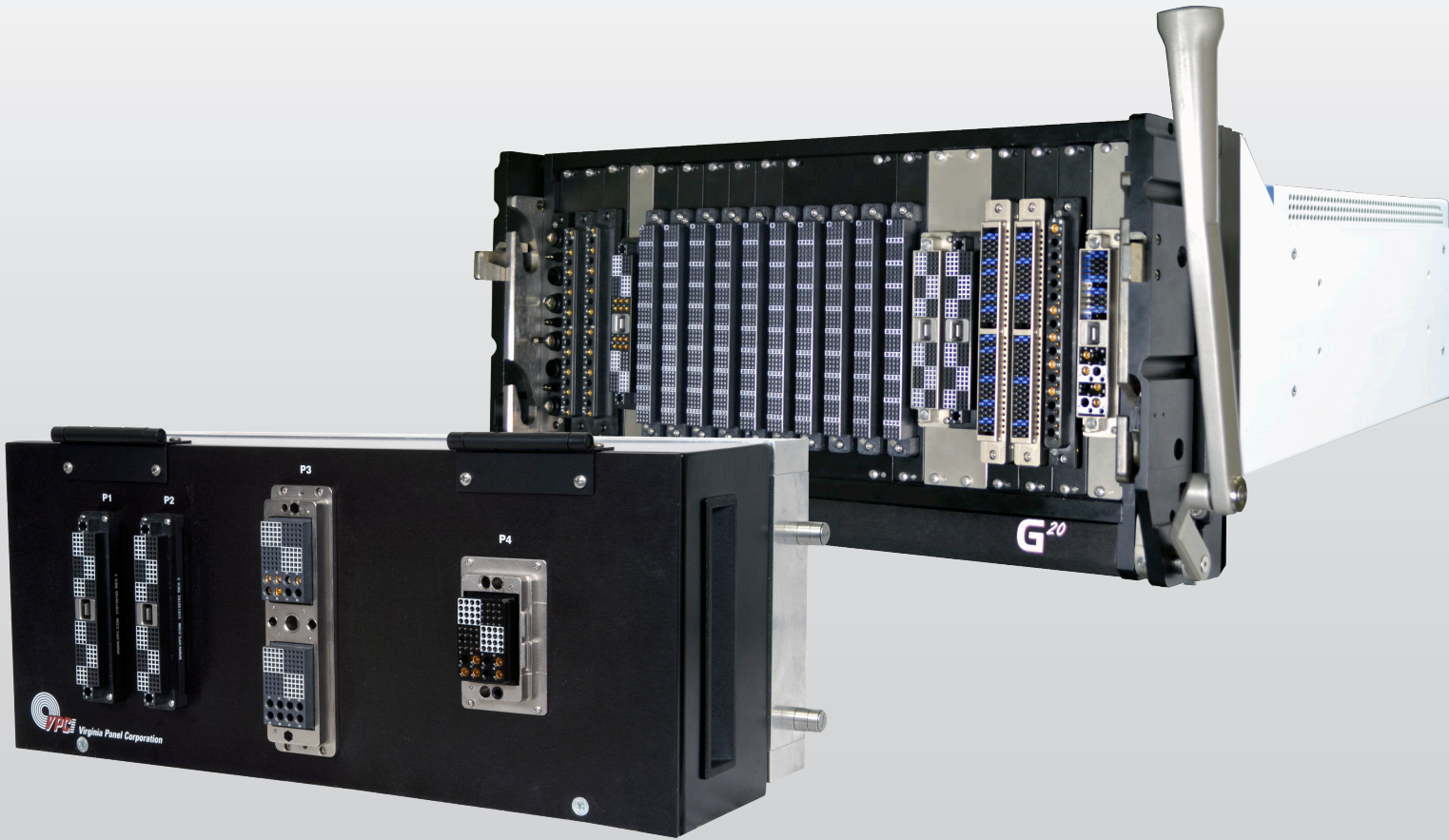


FEATURES

- Ideal solution for an 18-slot PXI chassis
- Engages up to 4,320 contacts in one motion
- Slide mount option supports up to 180 lbs.
- QuadraTrack engaging mechanism ensures precise signal integrity

The G18 is a high-density Interconnect capable of supporting a wide variety of I/O options in various configurations.

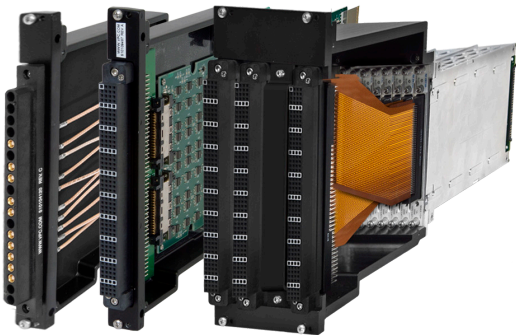
G20



Pull-Thru

FEATURES

- 0.8" centers correspond with PXI system slot requirements
- Accepts all standard 90 Series and i2 modules
- Enables pull through removal of connector modules and instrumentation
- Multiple configurations and I/O options from 20-48 modules with G20, G20x and G40x



The industry standard for pull-thru systems since 2004, VPC's line of pull-thru solutions allows a variety of module configurations, enabling integration of multiple I/O options with room to expand. From the 20 module G20 to the double-tiered G40x, VPC offers pull-thru solutions for every application need.

9025TR



9025TR

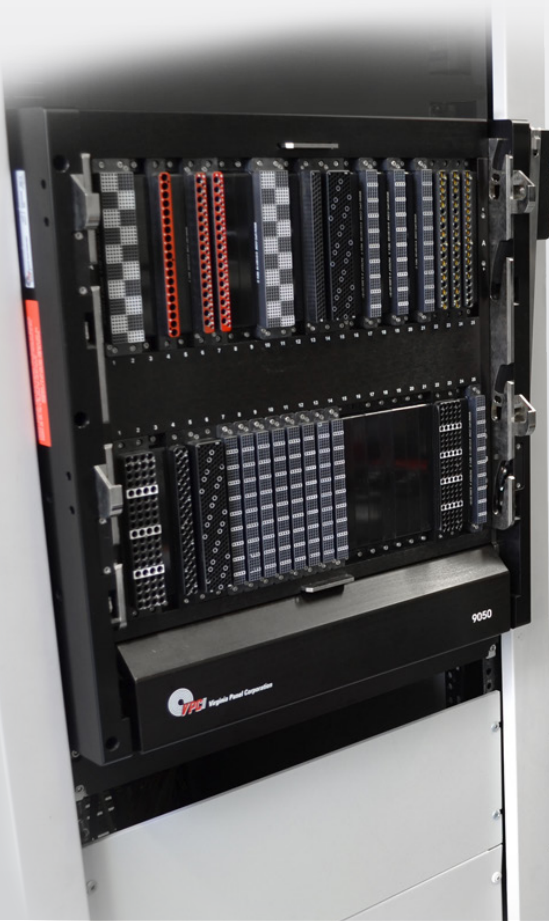
FEATURES

- Handle which can be installed on either the right or left side of the receiver
- Precise signal integrity maintained by QuadraTrack engagement
- Engineered for over 20,000 cycles
- Available as 9025 model without platform



The 9025 is ideal for rack/slide mounting applications or vertical hinged mounting. Designed with room for expansion and rapid changeover, the 9025/9025TR is the main interface for high speed test and measurement systems involving radio frequency and microwave applications.

9050 & 9075



9050 & 9075

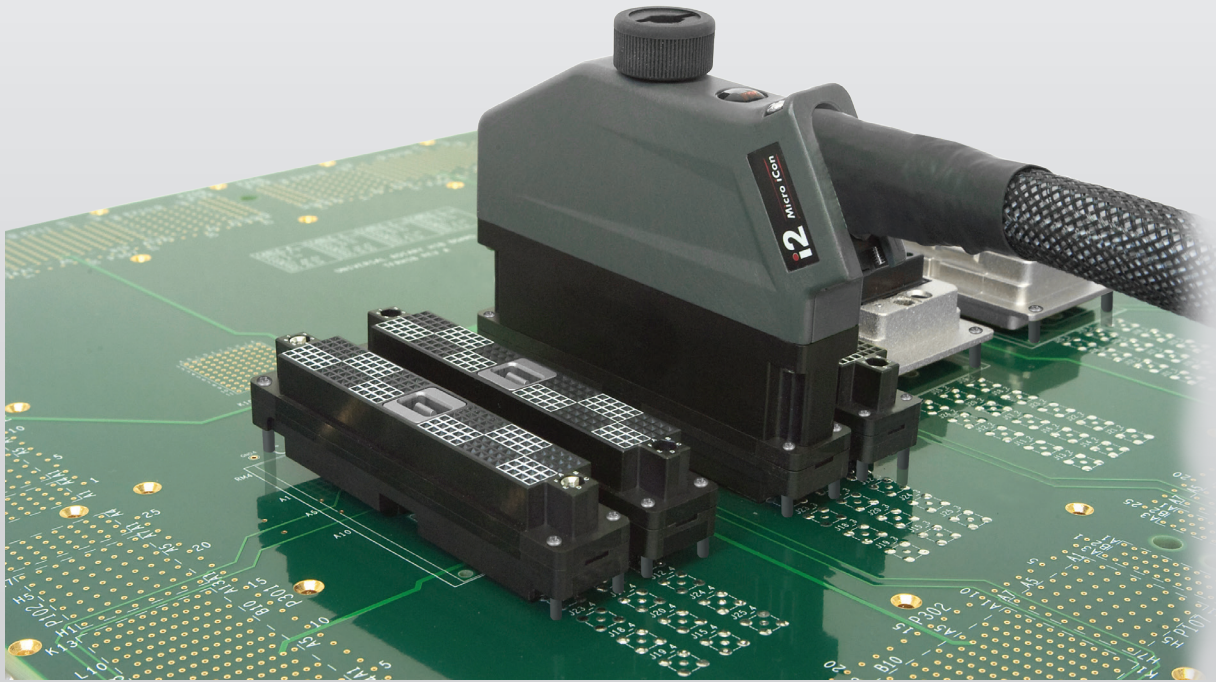


FEATURES

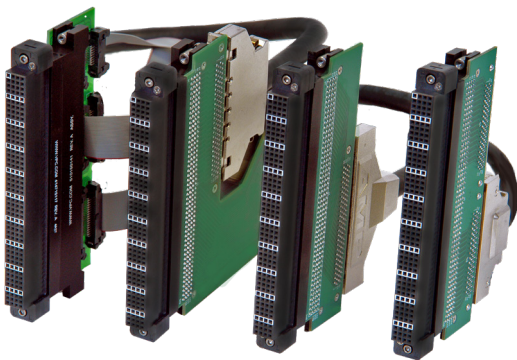
- Interchangeable connector modules for custom interfaces
- Platform configuration supports up to 180 lbs.
- Reliable connectivity beyond 20,000 cycles
- Ideal for high I/O needs and advanced mass interconnect requirements

The rack mountable 9050 and 9075 receivers are designed to accept the 9025 ITA in addition to their own ITAs. The size and versatility of the 9050 and 9075 make them ideal for meeting advanced mass interconnect requirements and a wide range of I/O needs. They are widely used by the US Military to test electronic, electromechanical and electro-optical equipment assemblies; as well as circuit cards for weapons systems, radar systems and communications gear.

PCB Solutions



PCB Solutions



FEATURES

- Connect directly to PCB with right angle headers
- Available in configurations that incorporate common PXI connectors
- Available in VPC's QuadraPaddle™ and TriPaddle configurations
- Consolidate connections for rapid integration and efficiency

VPC offers several PCB adapter solutions that support our 90 Series and iSeries product lines. Choose from right angle or direct wire to board mounting. Wire to board connections use twin female QuadraPaddle™ contacts to connect directly to male headers on a PCB. Right angle solderless headers enable connection to PCB adapters or virtually any custom PCB.

MODULES, CONTACTS AND PATCHCORDS

VPC offers a wide selection of interchangeable modules and contacts, allowing you to create an interconnect solution for countless testing specifications with the ability to modify as requirements change.

All VPC modules are designed to allow maximum I/O without compromising the contact life cycle. Every contact is engineered to withstand frequent changeover, with many rated up to 20,000 cycles.

VPC can also configure and assemble customized patchcords with pre-terminated contacts- a cost-effective and time-saving alternative for any wired system build.

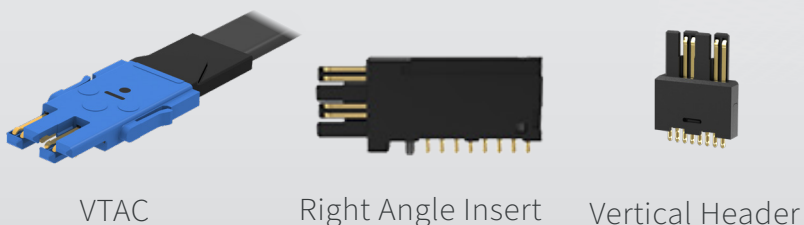
Visit vpc.com for the most up-to-date product offerings and specifications.

Power



- Mini power rated to 65 amps with 8 AWG wire
- High-density micro power rated to 21 Amps
- High power rated to 150 Amps
- Over 10,000 cycle life

High Speed

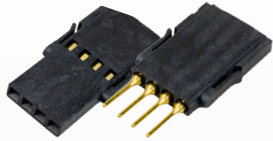


- 12.5+ Gbps per differential pair
- 50μ" gold-plated and self-aligned contacts
- i2 MX accommodates 22 VTAC inserts
- 100 Ω differential impedance
- 150,000 mating cycles

Signal



QuadraPaddle™



SIM QuadraPaddle™



TriPaddle

- QuadraPaddle™ compact size allows for high density
- QuadraPaddle™ – 5 Amp operating current
TriPaddle – 7-10 Amp operating current
- Plug and play simplicity
- Long lasting – over 20,000 cycle life
- SIM QuadraPaddle™ accepts 22-28 AWG patchcords

Fiber & Pneumatic



Fiber Optic



Pneumatic



Mini Pneumatic

- Polymer optical fiber (POF) supports low speed, short distance applications
- Mini multimode fiber supports higher speed fiber optic needs
- Mini pneumatic contacts (available in 4mm and 6 mm) fit into iCon mini power, mini coax and 90 Series modules

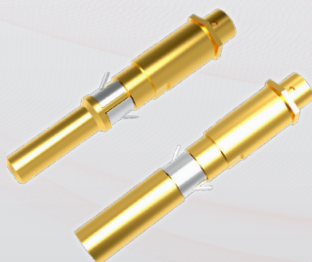
Coax/RF



Micro Coax



Mini Coax



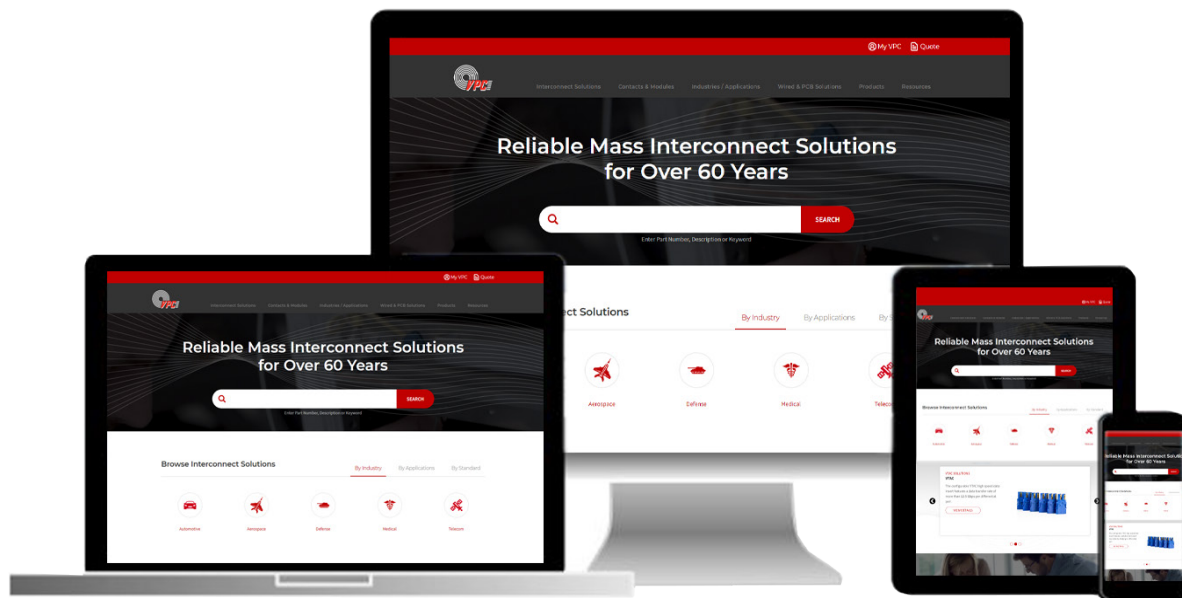
50 GHz Coax



26 GHz Coax

- Micro coax vertical header available
- Micro coax rated to 3 GHz using RG316 or RG178 and a maximum of 10.5 GHz using RG316 double shielded
- Robust mini coax designed for minimal crosstalk with 50 and 75 Ohm impedance
- 26 GHz coax contact uses Flex 402 wire and offers the best density for higher frequency requirements
- High density 50 GHz contact that fits hybrid micro coax modules (available in patchcords only)

For more information regarding the latest product releases, visit vpc.com



Technical information in this document is subject to change without notice.

© 2021 Virginia Panel Corporation. All rights reserved.

Last Revision: 11/24/20

**NORTH & SOUTH AMERICA**

1400 New Hope Road
Waynesboro, VA 22980
United States
Phone +1 540 932 3300
vpc.com/contact-us/

EUROPE & MIDDLE EAST

Auenstrasse 56
80469 Munich
Germany
Phone +49 173 20 15 082
info.emea@vpc.com

ASIA & AUSTRALIA

Room 1501, No. 198, Lane 158
West Tailin Rd, Pudong New
Area
Shanghai, China 200123
Phone +861 391 671 7264
info.asia@vpc.com