2025

Q3 NEWSLETTER

NEW ENGLAND EDITION

THE PROTEQ PULSE

Your Quarterly Connection to the Pulse of the Industry -

PROTEQ SOLUTIONS

TABLE OF CONTENTS

CONTACT
INFORMATION

FRESH NEW LOOK. SAME TRUSTED PARTNER

At **ProTEQ Solutions**, we've built our reputation as a trusted Tier-One Manufacturers' Representative by connecting world-class test and measurement manufacturers with customers across New England and the Mid-Atlantic. With decades of combined expertise, we don't just represent products, we deliver complete solutions that empower engineers, researchers, and organizations to push the limits of innovation.

Our strength lies in more than our portfolio. We bring deep technical knowledge, consultative support, and a commitment to simplifying the buying process. By bridging the gap between manufacturers and end-users, we streamline procurement, shorten lead times, and provide unmatched access to cutting-edge technologies in RF, environmental, compliance, and precision testing.

The **ProTEQ** advantage is clear: dedicated regional coverage, long-standing industry relationships, and a customer-first approach that ensures measurable value long after a purchase. For our partners, that means stronger market reach and brand visibility. For our customers, it means confidence that every solution is tailored to their unique needs.

At **ProTEQ Solutions**, we don't just represent technology, we enable progress, building lasting value at every step

We are proud to serve as your trusted partner, and we thank you for the opportunity to continue building progress with you. We are grateful for the partnerships that make innovation possible, and we look forward to achieving more, side by side. We value your trust and remain committed to delivering lasting solutions that continue to shape the future of test and measurement. Thank you for continuing to let **ProTEQ Solutions** be your trusted partner as we move innovation forward - together.

Aldo Guarino Gary Holbrook Chris Poling

Cincinnati Sub-Zero

BATTERY TEST CHAMBERS

As the demand for reliable battery systems accelerates, from consumer electronics to electric vehicles, rigorous testing is more crucial than ever. CSZ brings decades of experience in environmental and battery test systems, offering a comprehensive line of chambers tailored for battery testing.

Wide Range of Applications

- Scales from bench-top units to walk-in/drive-in chambers, covering everything from small cells to full EV battery packs.
- Compatible with multiple chemistries including lithium-ion, NiMH, lead-acid, and solid-state batteries.
- Integrates seamlessly with battery cyclers, DAQ systems, and monitoring solutions to create a complete test platform.

Performance You Can Count On

- Temperature Range: –70 °C to +190 °C (–94 °F to +375 °F)
- Humidity Control: 10 %–95 % RH (optional)
- Chamber Types: Reach-in, walk-in, drive-in, and custom designs
- Ramp Rate Options: Adjustable heating and cooling rates to meet specific testing protocols.
- Uniformity & Stability: Engineered airflow systems ensure consistent conditions across all chamber sizes.

Built-In Safety & Hazard Mitigation

Battery testing involves risks like venting, fire, and thermal runaway. CSZ designs safety into every chamber, aligned with EUCAR hazard classifications:

- Explosion-resistant lighting
- Redundant high/low temperature limits
- Programmable door interlocks
- Pressure relief/blow-out ports
- Fire suppression (CO_2 or inert gas)
- Fresh air or GN_2 purge systems
- Gas detection (O_2, H_2, CO) with alarms & interlocks

User-Friendly Controls

Every chamber includes the EZT-570 Touchscreen Controller with:

- Intuitive profile programming (99 steps / 1,000 cycles)
- Real-time data logging & trend plotting
- Remote operation via Ethernet or USB

REXGEAR

Your Power Solution Expert

IT8000 Series High Power Regenerative DC Electronic Load （5KW to 2MW)

- Max voltage/current/power: 2250V, ±120A, ±18kw
- Expandable power up to 1152kW parrallel.
- Recover DC energy to local grid with efficiency up to 95%
- 8 operation modes: CC/CV/CW/CP/CC+CV/ CV+CR/CR+CC/CC+CV+CW+CR

IT6500 Series (800W~6kW) Wide-range DC Power Supply

- Max voltage/current/power: 1000V, 1200A, 800W
- High power density: 30kW in 3U
- High current up to 1200A
- Programmable output with wide-range high-power

IT-M3300 Series Regenerative DC Electronic Load (1U ½ Rack 200W to 800W)

- Max voltage/current/power: 600V, ±12A, ±800W
- Battery discharge test: restore energy effectively from the grid
- 1U Half rack, best for low-power power module testing
- Programmable voltage and current rise and fall time

IT-M3800 Series Regenerative DC Electronic Load (1KW to 12kW)

- Max voltage/current/power: 1500V, 610A, 6kW
- Wide mode: CC/CV/CW/CP/CC+CV/ CV+CR/CR+CC/CC+CV+CW+CR
- 1U Half rack, can perform as a DC load and feed back power to the grid.
- High-precision output and measurement with multiple protection functions.

IT6000D series (5kW~2MW) High Power Programable DC Power Supply

- Max voltage/current/power: 1000V, 1200A, 800W
- Max voltage/current/power: 2250V, 120A, 18kw
- High power density: 18kW in 3U, expandable up to 2MW parallelling
- Stable and High power, with current up to 2040 by paralleling
- Capable switching between CV and CC priority mode

IT-M3900D series (1700W~12kW) Compact Size High Power DC Power Supply

- Max voltage/current/power: 1500V, 510A, 6kW
- 1U Half rack, best for low-power power module testing
- High current in 2U parrallel format
- Optical Fiber cables without EMI effection.

Vibration Test Systems

Water Cooled

Key Features & Capabilities

- **Comprehensive Test Modes** — Supports a full suite of vibration profiles: sinusoidal sweep, random vibration, resonance search & dwell, classical shock, combined modes, transient simulation, and road spectrum simulation
- **Standards Compliance** — Testing conforms to major technical standards such as GB, IEC, UL, and others to ensure reliability and broad acceptance.
- **Modular & Expandable Control** — The vibration controller is modular, with distributed data processing and scalable channels to expand function or capacity.

Mechanical

Key Features & Capabilities

- **Transport Vibration Simulation** — It replicates the kinds of vibration stresses products face during handling, shipping, and operation
- **Standards Compliance** — Testing conforms to major technical standards such as GB, IEC, UL, and others to ensure reliability and broad acceptance.
- **Versatility** — Suited for a wide range of product types: from electronic devices and batteries to mechanical parts and instrumentation.

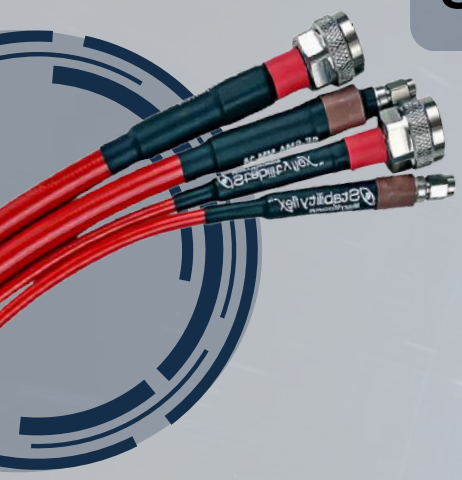
Air Cooled

Key Features & Capabilities

- **Full Vibration Modes** — Supports sinusoidal, random, resonance search & dwell, classical shock, road spectrum simulation, and hybrid modes under one roof.
- **Long-Duration Operation** — Designed for extended use with stable performance, making it ideal for endurance and reliability testing.
- **Vertical & Horizontal Testing** — Offers flexibility in orientation (vertical/horizontal) via an installation of a vibration-resistant base.

maury

StabilityFlex Low Profile Cables Series

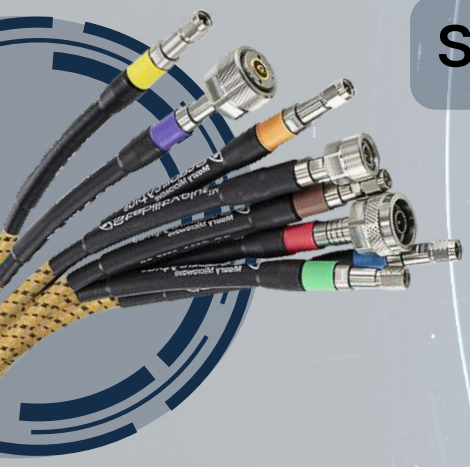


StabilityFlex™ ultra-flexible cable assemblies are the industry's best flexible daily-use lab cable assembly. Designed for general testing applications, it offers excellent value, high flexibility at a low cost. **StabilityFlex™** is the ideal assembly for reliable and repeatable measurements when used with microwave & RF test instrumentation and employs color-coded connectors to reduce potential for connection mistakes. They are available with SMA, Type N, 2.92mm and 2.4mm connectors up to 50 GHz.

Features & Benefits

- Ultra-flexible
- Excellent value
- Low insertion loss
- Reliable and repeatable measurements
- Amplitude and phase stable with flexure
- High mating-cycle durability
- Color-coded connectors

StabilityPlus Cables Series



StabilityPlus™ phase-stable cable assemblies set the standard for high-performance ruggedized microwave/RF cable assemblies. Designed specifically for phase-stable and amplitude-stable applications, **StabilityPlus™** offers excellent measurement repeatability even after cable flexure. With a ruggedized, durable construction, S**tabilityPlus™** will outlast and outperform other assemblies resulting in a reduced total cost-of-test. **Stability Plus'™ i**s equally suited for for daily use with VNA's as well as high-end test instrumentation. **StabilityPlus™** employs color-coded connectors to reduce potential for connection mistakes and is available with TNCA, SMA, Type N, 7mm, 3.5mm, 2.92mm, 2.4mm, 1.85mm, and 1mm connectors up to 110 GHz.

Features & Benefits

- The industry's best amplitude and phase stability with flexure
- Flexible to facilitate easy installation
- Durable, ruggedized and crush-resistant
- Color-coded connectors to avoid damage caused by connector mismatches

StabilityPlus Low Profile Cables Series

StabilityPlus™ Low Profile phase-stable cable assemblies set the standard for high-performance low-profile microwave/RF cable assemblies. **StabilityPlus'™ Low Profile** shares the same industry-leading electrical performance as **StabilityPlus™**, and its light weight, superior flexibility and small form factor make it ideal for daily use with high-density and fragile applications. **StabilityPlus™ Low Profile** also employs color-coded connectors and is available with TNCA, SMA, Type N, 7mm, 3.5mm, 2.92mm, 2.4mm and 1.85mm connectors up to 67 GHz.

Features & Benefits

- Stable and repeatable electrical performance
- Small profile for tight spacing requirements
- Flexible to facilitate easy installation
- Lightweight for use with smaller DUTs
- Color-coded connectors to avoid damage caused by connector mismatches

EXPLORE MAURY'S BEST IN CLASS RANGE OF CABLE ASSEMBLIES

StabilityVNA Cables Series

StabilityVNA™ test port cable assemblies are the industry's highest performing VNA cables. **StabilityVNA™** offers superior amplitude and phase stability with flexure, thereby improving measurement accuracy while reducing measurement uncertainty and increasing confidence in measurements. Its superior flexibility and anti-skid band ensures the cables can be arbitrarily positioned with no spring-back or stress on DUTs. Its increased crush resistance and flex cycles enhances longevity and can lead to years of uninterrupted use. **StabilityVNA™** employs color-coded connectors to reduce potential for connection mistakes

Features & Benefits

- Industry's best phase stability with flexure improves measurement accuracy and ensures repeatable and reliable measurements
- Superior flexibility and anti-skid band ensures the cables can be arbitrarily positioned with no spring-back or stress on DUT
- Increased crush resistance and flex cycles enhances longevity and can lead to years of uninterrupted use
- Color-coded connectors reduce potential for connection mistakes

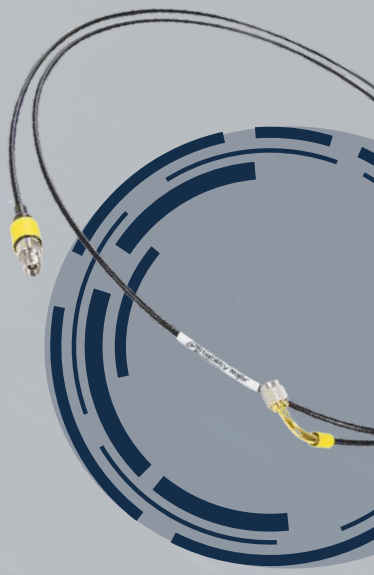
StabilityTVAC Cable Series

Thermal Vacuum (TVAC) chambers simulate space-like conditions for testing space components. To test devices inside the chamber, specifically designed T&M components and cable assemblies are crucial to withstand the pressure and temperature effects. Changes in vacuum conditions can damage cable assemblies if not properly addressed, requiring connectors with slow pressure changes. **Maury's Stability TVAC** series employs vented connectors that allow air to escape quickly, enabling rapid pressurization/ depressurization cycles and minimizing delays in testing. Cable assemblies in **TVAC** chambers experience thermal expansion and contraction, which can affect performance and lead to permanent degradation. Stability **TVAC** cable assemblies undergo thermal conditioning to relieve mechanical stresses, ensuring reliable performance across varying temperatures.

Features & Benefits

- Low outgassing
- Thermally conditioned & vented connectors
- Phase stable with flexure
- High power handling
- Low insertion loss

StabilityWafer Cables Series



StabilityWafer™ on-wafer probing cable assemblies have been specifically designed to empower accurate and repeatable on-wafer measurements when used with coaxial wafer probes. Its small outer diameter, light weight and superior flexibility allow for the tight spacing typically required for on-wafer measurements and eliminate pressure on the wafer probes that would cause a loss of contact with the device-under-test. **StabilityWafer™** is available with standard straight connectors, as well as right-angle (short 90°), extended 90° and extended 83° ferules.

Features & Benefits

- Stable and repeatable electrical performance
- Small profile for tight spacing requirements
- Flexible to facilitate easy installation
- Lightweight for use with smaller DUTs
- Color-coded connectors to avoid damage caused by connector mismatches

HYPERLABS

HYBERLABS 110 GHz components deliver unmatched bandwidth, ultra-flat performance, and rock-solid signal integrity, empowering engineers to push the limits of speed and precision with confidence.

1. **HL9349** Broadband DC Feeder (13 kHz to 110 GHz)
2. **HL9409** Broadband Balun (500 kHz to 100 GHz)
3. **HL9449** Broadband Bias Tee (160 kHz to 110 GHz, 175 mA)
4. **HL8439** Broadband DC Block (16 kHz to 110 GHz)

Hyperlabs 110 GHz components set the benchmark for ultra-high-frequency performance, delivering unmatched bandwidth, flat insertion loss, and superior signal integrity for today's fastest applications. Engineered with advanced materials and proprietary design topologies, these bias tees, DC blocks, attenuators, and splitters ensure clean, low-distortion transmission from DC through 110 GHz—supporting the most demanding data rates and test environments. Trusted across the industry for their precision and reliability, Hyperlabs solutions empower engineers to push performance boundaries with confidence.

1 - HL9349 Broadband DC Feeder (13 kHz to 110 GHz)

The HL9349 is an ultra-broadband DC feeder with a typical insertion loss of 2.5 dB from 13 kHz to 110 GHz.

A DC feeder functions similarly to a bias tee, but without a DC blocking capacitor on the RF input.

The HL9349 allows for the insertion of a DC bias current or voltage onto the RF circuit path with minimal perturbation of the impedance of a 50 ohm transmission line.

These devices can be used for biasing amplifiers, lasers, optical modulators, and other devices. Applications include 224 Gbps PAM4 communications systems, optical communication systems, highspeed data systems, level shifting, and cascading.

2 - HL9409 Broadband Balun (500 kHz to 100 GHz)

The HL9409 is an ultra-broadband 180° signal splitter and combiner that offers excellent amplitude and phase match over an industry-best bandwidth of 500 kHz to 100 GHz.

This ROHS-compliant product is suitable for use in 224 Gbps PAM4 communications systems, high-speed analog-to-digital conversion, frequency response testing for differential devices, and many other applications.

For other high-performance balun products, please see our complete line of ultra-broadband baluns.

3 - HL9449 Broadband Bias Tee (160 kHz to 110 GHz, 175 mA)

The HL9449 is an ultra-broadband bias tee with a maximum insertion loss of 2.5 dB from 160 kHz to 110 GHz.

These devices block any existing DC signal and allows for the insertion of a DC bias current into a circuit with minimal perturbation of the impedance of a 50 ohm transmission line.

These devices can be used for biasing amplifiers, lasers, optical modulators, and other devices.

Applications include 224 Gbps PAM4 communications systems, optical communication systems, high-speed data systems, level shifting, cascading, and interfacing between devices with incompatible DC operating points.

4 - HL8439 Broadband DC Block (16 kHz to 110 GHz)

The HL8439 is an ultra-broadband DC Block with a typical insertion loss of < 2 dB over an industry-best bandwidth of 16 kHz to 110 GHz.

The DC block will remove DC bias from the input signal to prevent damage to DC-sensitive devices or equipment.

These devices are suitable for use in 224 Gbps PAM4 communications systems, optical communication systems, high-speed data systems, level shifting, cascading, and interfacing between devices with incompatible DC operating points.

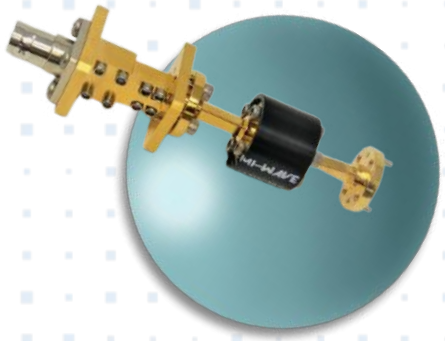
They can also be used to improve RF power measurements when a power meter with DC sensitivities is used.

MI-WAVE
Millimeter Wave Products Inc.

Mi-Wave 870 Series Broadband Calibrated RF Noise Sources

The Gold Standard in High-Frequency Noise Sources

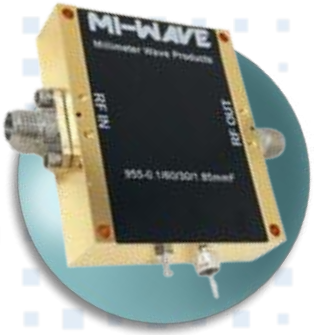




Mi-Wave's 870 Series Broadband Calibrated Noise Sources, spanning 18 to 110 GHz, set the industry benchmark for precision, stability, and speed. Engineered with tailored responses to minimize ripple and deliver exceptional ENR flatness, these sources provide unmatched accuracy for calibration, system verification, and advanced R&D. Trusted across aerospace, telecom, and defense, the 870 Series ensures cleaner measurements, faster results, and absolute confidence—making it the gold standard in high-frequency testing.

High-Power & Low Noise Power Amps to 110GHz

Power Without Limits: Mi-Wave's Wide-Band Amplifiers



Mi-Wave's High-Power & Wide-Band RF Power Amplifiers deliver superior gain, output power, and bandwidth coverage across frequencies up to W-band. Engineered for unmatched linearity and efficiency, these amplifiers ensure reliable, distortion-free performance in the most demanding aerospace, telecom, and defense applications. With rugged construction and precision design, Mi-Wave amplifiers provide the power and stability engineers need to push systems further and faster—making them the trusted choice for high-frequency amplification.

TRANSCAT®

CALIBRATION SERVICES • TEST & MEASUREMENT INSTRUMENTS

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"BRIDGING INNOVATION AND INDUSTRY"

PROTEQ SOLUTIONS

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