MULTI-CHANNEL MICROWAVE SOLUTIONS

TELEDYNE
STORM MICROWAVE
Everywhereyoulook™

High value microwave and electronic interconnect solutions

www.teledynestorm.com

MULTI-CHANNEL MICROWAVE SOLUTIONS

WHO

Teledyne Storm Microwave maintains a dedicated engineering staff for the design and manufacture of multi-channel microwave harness assemblies for a range of military and commercial applications.

More than 35 years of microwave cable design and manufacturing expertise goes into every Teledyne Storm harness assembly, while an unwavering focus on customer service results in solutions that consistently exceed our customers' expectations.

WHERE

Our multi-channel harnesses are found in a wide range of airborne, ground, and sea-based systems, including:

- Active Electronically Scanned Arrays (AESA)
- Synthetic Aperture Radar (SAR)
- Unmanned Aerial Vehicles (UAVs)
- Test Labs and Diagnostic Units
- Digital Radios
- Airborne Combat Radar
- Mixed-Signal Applications
- Remote Sensing Satellites and Aircraft

WHY

Combining multiple cables into one wiring harness can provide a variety of advantages:

- Durability
- Simplified Wire Management
- Simplified Wiring Installation
- Guaranteed Correct Connection
- Increased Connector Density
- Added Cable Protection

STANDARD HARNESSES

Standard harnesses are used to connect multiple channels between modules and boxes, multiple channels between individual bulkhead connectors, or are mounted directly on bulkheads or panels. Examples of these configurations:

For design options, visit our Web site at www.teledynestorm.com

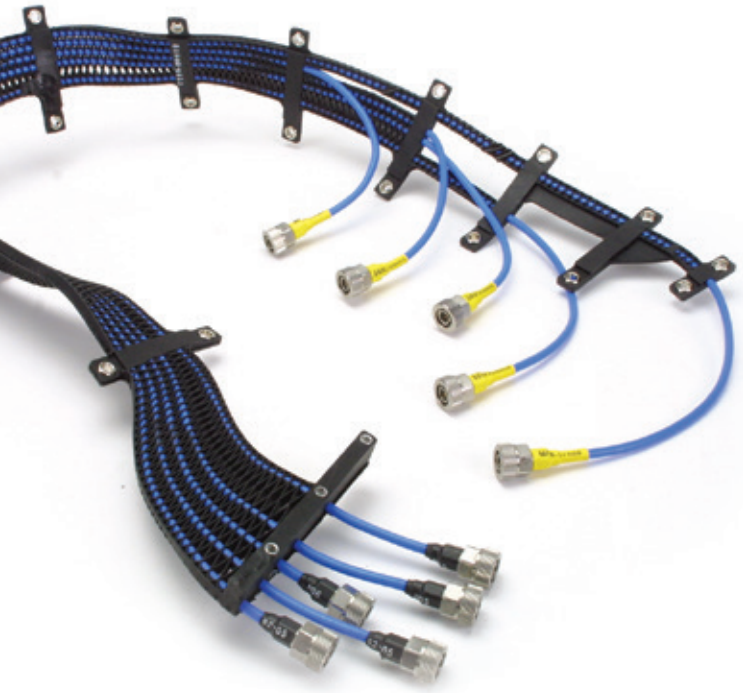
CUSTOM HARNESSES

Teledyne Storm Microwave can provide custom harnesses in a wide variety of configurations engineered to suit your specific application. We handle all cable assembly processes—from design through manufacture—in-house, carefully assessing application requirements in order to maximize both performance and durability.

Consult with your Teledyne Storm representative or contact us directly at 630.754.3300 to discuss your needs.

CAPABILITIES

- Vector network analyzers for checking VSWR, insertion loss, and phase up to 40 GHz
- Proprietary precision phase matching equipment
- Custom molding
- Thermal cycling and curing chambers
- In-house cable design and production
- Dedicated harness design and engineering staff
- Quick-turn prototype team



CASE STUDY

THE CHALLENGE

A customer is developing a large, ship-borne, S-band radar as part of a radar suite for collecting data on ballistic missiles in flight. The radar is critical to efforts by the State Department and Department of Defense to collect data at worldwide locations for the purpose of treaty verification.

The design requires wiring harnesses that will provide phase temperature stability, phase flex stability, and shielding, while at the same time meeting an array of mechanical and environmental requirements.
The design life is 30 years.

THE SOLUTION

Teledyne Storm's team responds by creating an armored harness utilizing a jacketed semi-rigid cable. This combination has the potential to deliver the desired phase stability, shielding, and mechanical and environmental performance, in a package that can be expected to function for 30 years.

The team rapidly builds prototypes, testing and perfecting various concepts until harnesses with the right combination of performance are found. Once the proper design is developed, Teledyne Storm's attention to process control and quality inspections ensures correct execution and delivery of the harnesses.

THE RESULT

The customer receives qualified harnesses which meet their unique and demanding performance requirements.

MORE THAN 35 YEARS EXPERIENCE SUPPLYING

MICROWAVE INTERCONNECT PRODUCTS

DEFENSE ELECTRONICS

For needs ranging from high power to high density. *Flexible* and *semi-rigid* products to withstand the severe conditions of shipboard, airborne or ground-based operations. A low-density PTFE dielectric *reduces attenuation* by up to 30% over conventional materials.

RADAR

Radar systems, including phased array. Products and processes optimize *phase tracking* over flexure and temperature. *Miniature* products with *blindmate* connector interfaces such as GPO® and GPPO® allow increased packing density.

WIRELESS SYSTEMS

The *outstanding thermal stability* of our semi-rigid products eliminates dielectric expansion during automated soldering processes.

TEST EQUIPMENT/ SYSTEMS

Where our interconnects are used extensively due to their *rugged construction* and reputation for consistent performance.

GPO and GPPO are registered marks of Corning Gilbert Inc.

Contact Teledyne Storm Microwave For *Your* Solution

TELEDYNE
STORM MICROWAVE
Everywhereyoulook™

10221 Werch Drive
Woodridge, Illinois 60517

Tel 630.754.3300
Fax 630.754.3500
Toll Free 888.347.8676
storm_microwave@teledyne.com

AS9100/ISO 9001 REGISTERED

www.teledynestorm.com

Approved for Public Release 16-007

11/16