

Engineering Your Success with Coast™ Custom Cables



From AlphaWire



AlphaWire

Cables you trust. Service you deserve.

Get the Market-Specific Custom Cable You Need

Medical



With the medical market's trends of microminiaturization and higher performance requirements, we continue to develop capabilities to provide smaller hybrid and composite cables with ultra-high flexibility, autoclavable, low noise, low-elongation, and high tensile strength.

We offer a range of medical-grade Class VI and FDA-approved materials

Medical Applications

- Imaging/Radiology
 - MRI
- Minimally-invasive surgical instruments
 - Endoscopy
 - Arthroscopy
 - Laparoscopy
 - GYN
 - Orthopedic
 - Cardiac
- Patient monitoring
- Implantables
- Dental

Semiconductor



From wafer handling to packaging, Alpha Wire can help you make semiconductor equipment faster, more reliable, and easier to maintain. Whether refurbishing or developing new equipment, our extensive line of wire, cable, and accessories provides unrivaled performance and durability in the harshest environments. We offer low-outgassing cables.

Semiconductor Applications

- Wafer fabrication
- Lasers
- Vacuum deposition

Industrial



Our range of industrial automation cables combines the industry-leading quality and exceptional reliability you expect from Alpha Wire, with the performance to meet the rigorous requirements of the major automation communication architectures.

Industrial Applications

- Automation
- Automotive
- Instrumentation
- Power supplies
- Agriculture
- Security
- Sensing
- Robotics
- Lighting

Energy



With our broad range of wire and cable for the energy industry, we can satisfy your demanding requirements in energy applications—from flex cables that can withstand the harsh environments of wind power systems to solar cable and photovoltaic wire for solar energy systems.

Energy Applications

- Power generation
 - turbine engines
- Oil and Gas
- Nuclear
- Solar
- Wind

Entertainment

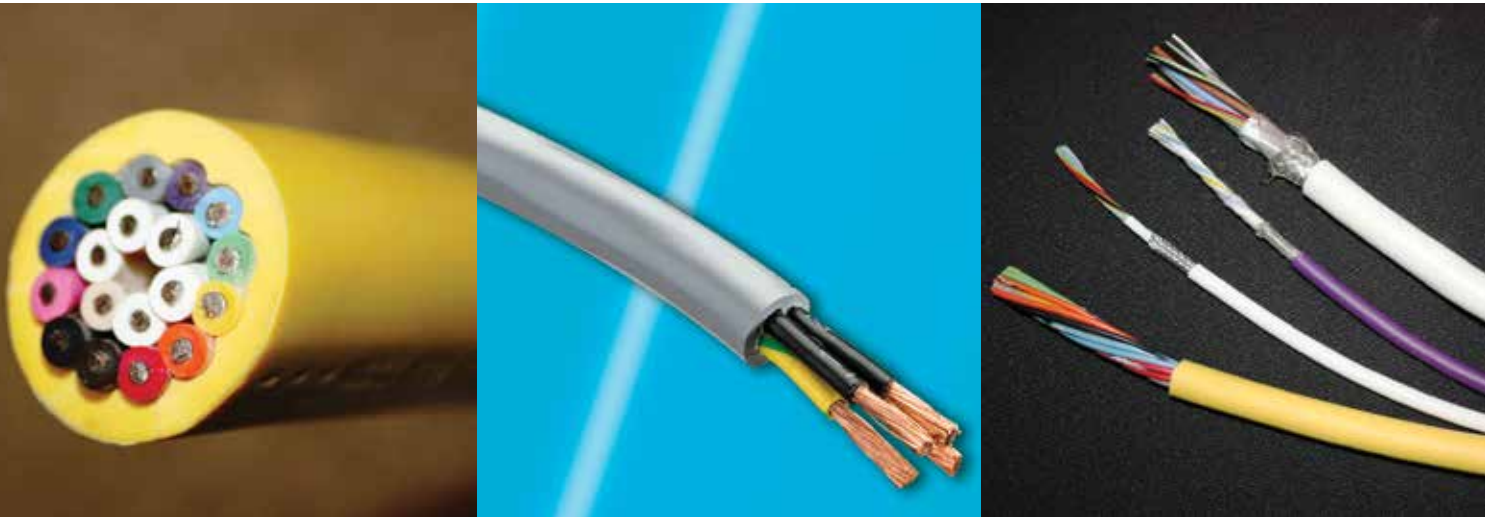


Whether you need something as simple as a power cord or a cable that can maintain audio-video signal integrity in a noisy environment, you'll find the breadth and depth of products to ensure an optimum solution to your application.

Entertainment Applications

- Audio
- Lighting
- Video

The Right Cable . . . Just the Way You Want It



Turn to Alpha Wire to get the precise custom cable needed for your application. We offer you more choice in materials and configurations, sizes and shielding options, and have the ability to fulfill your request fast—with minimum order quantities as low as 100 feet.

More Choice in Cable Configurations

Custom Engineered to Your Specifications and Designs

- Multiconductor cables
- Multipair cables
- Microminiature cables
- Coaxial cables
- Microcoaxial cables
- Hybrid cables
- Composite cables
- Power cables
- Lead wires
- Litz wires
- Flat, ribbon, zip cables
- Flat, round braids
- Retractable coil cords

Conductor Materials

Conductors: 50 AWG to 4/0 AWG

Copper

- Bare copper
- Tinned copper
- Silver-plated copper
- Nickel-plated copper
- Copper alloys

Specialty

- Magnet wire
- Tinsel wire
- Thermocouple wire

Fibers and Yarns

- Carbon fiber (.5K - 12K)
- Metalized carbon fiber
- Aramid fiber
- Stainless steel yarn

Precious Metals and Alloys

- Silver, platinum, gold
- Other exotic materials

Insulating and Jacketing Compounds

Thermoplastics

- PVC, SR-PVC
- PP
- PE
- PUR
- Nylon
- TPE
- TPR
- TPA
- mPPE

Thermosets

- XLPE

Fluoropolymers

- PTFE
- FEP
- PFA
- ETFE
- PVDF

Silicones — Thermosets

- Silicone
- Flame-retardant silicone
- High-voltage silicone

Rubbers

- Neoprene
- Thermoplastic vulcanite
- Melt-processible rubber

Shielding

Application: Overall and individual conductors/pairs

Types: Foil, braid, spiral, Supra-Shield® foil + braid

Flexing

Flex types: Rolling, bending, torsional, continuous

Flex cycles: Up to 20 million

Ratings

Temperature: -80° to +450°C

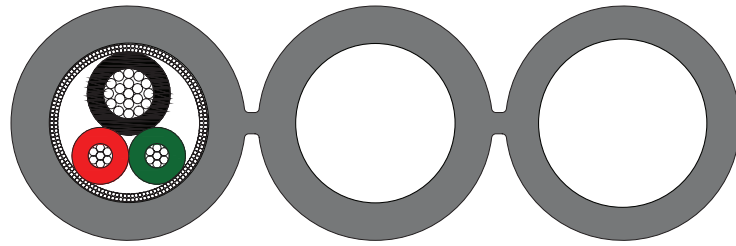
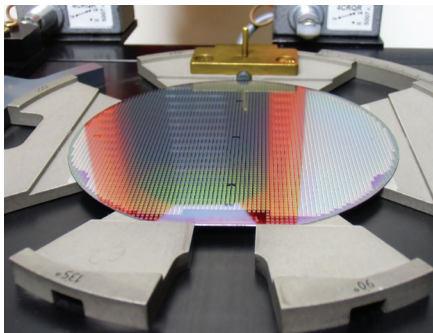
Electrical: 30, 150, 300, 600, 1000 V . . . up to 75 kV

Approvals

UL, CSA, CE, IEC, ISO
USP Class VI, ISO 10933
RoHS, REACH

Mechanical/Environmental

- Abrasion resistance
- Oil resistance
- Chemical/solvent resistance
- Sunlight resistance
- Sterilizable
- Low outgassing



*Cable with
Integrated
Lumens*

Packaging

Reeled in small or large put ups, cut to length, custom printing, custom jacket colors, 100' minimum order

Other

Can design custom cables with lumens

Manufactured Products

Value-Added Capabilities

- Cable assembly with Tier 2 partners
- Coil cords
- Custom packaging
- Cut-to-length
- Dying
- Etching
 - Non-chemical
 - PTFE materials
 - Connector end for assembly

- Marking
- Spooling (UL, CSA)
- Stripping
- Stripping
- Tinning
- Twisting

Intellectual Property (IP) Protection

The custom specifications provide IP protection, as each part number and specification are unique to each customer requirement. The custom specification requires customer approval with formal written consent as part of the PO acknowledgment process, and prevents any design changes or material substitutions without a new spec revision level and approval.

Get started today by visiting our website to find your custom cable.

www.alphawire.com/customcable

Contact Alpha about other custom cable options.



Custom Cable Design Worksheet

Custom cable design requires detail when designing with our team of engineers. We work with you to optimize your design, giving you the best match of electrical, mechanical, and environmental properties. Below are some items to consider when determining the design of your custom cable.

Design:

Wire Size, Stranding, Plating:

Insulation:

Temperature Rating:

Voltage Rating:

No. of Conductors:

Color Code:

Filler:

Binder:

Shield:

Jacket:

Color:

Temperature Rating:

Voltage Rating:

Printing:

Overall Construction Details:

Special Requirements:

Critical Requirements:

Put-ups:

Reel:

Special Packaging:

Minimum Length:

If you need in-depth design assistance, our Application Design Engineering team is available to assist you. Visit www.alphawire.com/customquote and we'll get back to you promptly regarding your custom cable requirements.

**The cables you trust.
The service you deserve.**

Every application is critical and wire failure is not an option when the safety of equipment and patients is paramount. Specify Alpha Wire's Coast cable for custom cable applications, since the integrity of your system is only as robust as the products you use.

**Service and support,
second-to-none**

Selecting the correct cable for your critical application is essential to overall system reliability, performance, and safety. So we make it easy for you to select the right cable for your specific application. Our online resources include a wire and cable selection

guide, technical information, and our full product catalog.

Can't find what you're looking for? Design the cable to your specification. It's easy, just visit **[www.alphawire.com!](http://www.alphawire.com)**

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