

Shipboard Cable — IEEE 1580 / MIL-DTL-24643

Naval & Commercial Vessel | Flame / Smoke / Halogen-Free | IEEE 1580 · MIL-SPEC

PRODUCT OVERVIEW

Mirabel Energy USA shipboard cable is manufactured to IEEE 1580 — the definitive North American standard for power, control, and instrumentation cable for use aboard naval and commercial vessels. IEEE 1580 imposes stringent requirements on flame resistance, smoke density, halogen content, and toxicity — designed to protect crew and ship systems in the enclosed, fire-vulnerable environments of shipboard compartments where standard industrial cable constructions are not acceptable. Mirabel shipboard cable is also available to MIL-DTL-24643 for naval vessel applications requiring full military specification compliance. IEC 60092 designs are available for international commercial vessel classification (ABS, DNV, Lloyd's Register, Bureau Veritas) requirements. All constructions feature tinned copper conductors for corrosion resistance in the salt air environment, XLPE or EPR insulation, and LSZH (Low Smoke Zero Halogen) or LSOH outer jackets that dramatically reduce toxic gas generation and smoke obscuration in shipboard fire events.

600V – 5kV Voltage Rating	90°C Temperature Rating	LSZH / Halogen-Free Jacket Requirement	IEEE 1580 Listed Standard
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APPLICATIONS

- US Navy surface combatant and submarine power and control wiring
- Commercial tanker, bulk carrier, and container ship electrical systems
- Coast Guard and other government vessel power distribution
- Offshore supply vessel (OSV) and anchor handling vessel power cable
- Cruise ship power, control, and lighting circuit wiring
- LNG carrier and chemical tanker electrical systems

KEY SPECIFICATIONS

- IEEE 1580 Type P (power) and Type C (control) constructions available
- MIL-DTL-24643 naval specification versions available on request
- Tinned copper conductors — corrosion resistant in salt air environments
- XLPE or EPR insulation — 90°C temperature rating, moisture resistant
- LSZH (Low Smoke Zero Halogen) jacket — IEC 60754 / IEEE 1202 compliant
- Passes IEEE 1202 vertical tray flame test and smoke density requirements
- IEC 60092 designs available for ABS, DNV, LR, and BV class certification
- Available in armored (interlocked Al armor) and unarmored constructions

TECHNICAL SPECIFICATIONS

Parameter	IEEE 1580 Power	IEEE 1580 Control
Voltage Rating	600V – 5kV	300V – 600V
Temperature Rating	90°C	90°C
Conductor	Tinned Cu stranded	Tinned Cu stranded
Insulation	XLPE or EPR	XLPE or EPR
Jacket	LSZH	LSZH
Flame Test	IEEE 1202 / ASTM E119	IEEE 1202
Standard	IEEE 1580 / IEC 60092	IEEE 1580 / IEC 60092

CONDUCTOR SIZES & CONFIGS #18 AWG – 500 kcmil 1/C, 3/C, multi-conductor IEEE 1580 Type P and C	STOCKING LOCATIONS Reno, NV · Houston, TX Standard & project-phased delivery	OEM REPRESENTATIVE GCP Energy LLC — Salt Lake City, UT portal.gcpenergy.us
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