



## Raychem Cat 7 Ethernet Cable

Rugged, Lightweight 10 Gb/s Constructions for Military Marine and Defense Systems

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## Description

TE Connectivity (TE) introduces Cat 7 Ethernet cables for Military Marine and Defense Systems. Achieve 10 Gb/s speeds while helping to meet the demands of harsh military and marine environments. Raychem Cat 7 cables are individually shielded, 4 pair cables meeting the electrical requirements of IEC 61156-6 for Category 7 cable.

## APPLICATIONS

- Radar
- Missile Warning Systems
- Radio Communication
- Networking
- Remote Weapon Systems
- Fire Control

## MARKETS

- Military Marine
- Military Ground Defense Systems
- UAVs

### VERSATILE

- Compatible with TE's connectors, backshells and termination products
- Zerohal jackets available for low smoke and low toxicity requirements
- Fluid diesel resistant version available

### PERFORMANCE DRIVEN

- Tested in accordance with IEC 61156-6 for Category 7 cable
- 92% braid coverage compared to industry standard of 40% (enhanced high frequency performance)
- Improved flexibility



**TE Components . . . TE Technology . . . TE Know-how . . .**  
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem  
SEACON | Rochester | DEUTSCH

Empower Engineers to Solve Problems, Moving the World Forward.



## Performance Characteristics

### MATERIALS

- Conductor:** 24 AWG stranded tin coated copper and 23 AWG solid bare copper
- Dielectrics:** Foamed PE
- Shields:** Individually aluminized wrapped pairs + round braid(s)
- Outer Jackets:** ZeroHal and FDR-25
- Available Jacket Colors:** black, white, brown, red, orange, yellow, green, blue, violet, gray – dependent on jacket material

### ENVIRONMENTAL

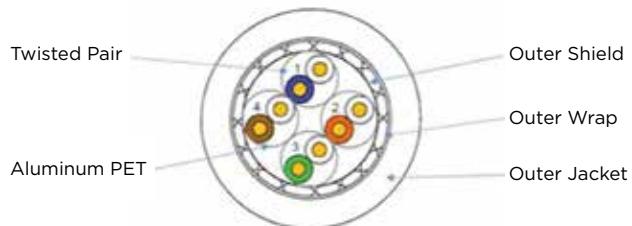
- Temperature Range:** -25°C to +75°C
- Ruggedized low smoke, ZeroHal jacket approved to Def Stan 61-12 Part 31
- Resistant to fluids found in defense applications

### STANDARDS

- Ethernet Cable:** IEC 61156-6 for Category 7 cables
- Environmental Testing:** WCD2015 & WCD2002 (dependent on jacket material)

### ELECTRICALS

- Standard Impedance (Nom):** 100 Ω @ 1-600 MHz
- Attenuation (Max.) at 600 MHz:** dependent upon conductor type
- Mutual Capacitance (Max.) at 1 kHz:** 5.6 nF/100 m
- DC Resistance (Nom.) at 20°C:** 145 ohm/1km



Part Description	Temperature Range (°C)	Cable OD (mm/in), Nom.
<b>Ground Systems</b>		
C7X-24B114XK1FA	-25 to 75°C	8.700 / 0.343
C7X-24B114XL1FA	-25 to 75°C	9.300 / 0.366
<b>Marine</b>		
C7X-24B114XK18A	-25 to 75°C	8.700 / 0.343
C7X-24B114XL18A	-25 to 75°C	9.300 / 0.366
C7X-23A914XK18A	-25 to 75°C	8.200 / 0.323

Additional constructions and custom designs available upon request — please contact your local Account Representative for questions

### SPECIAL INSTALLATION INSTRUCTIONS

In order for the system to achieve 10GigE performance using our Cat 7 cable, a matched impedance connector, such as our TE CeeLok FAS-X must be used. including a 360 degree EMI backshell. Additionally, attention needs to be paid to the connectorization process by minimizing the length of the unshielded portion of the pairs as they are prepared for termination into the connector and backshell.



## LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit [te.com](http://te.com) to chat with a Product Information Specialist.

### Technical Support

[te.com/support-center](http://te.com/support-center)

North America	+1 800 522 6752	Asia Pacific	+86 400 820 6015
North America (Toll)	+1 717 986 7777	Japan	+81 044 844 8180
EMEA/South Africa	+800 0440 5100	Australia	+61 2 9554 2695
EMEA (Toll)	+31 73 624 6999	New Zealand	+64 (0) 9 634 4580
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Consult TE for the latest dimensions and design specifications.

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