

DATASHEET

Industrial CAT6 Ethernet Cable

Military Tactical Kevlar-Armored Cable Protects Ethernet Connections



PRODUCT HIGHLIGHTS

- Kevlar-armored cable
- Category 6 for up to 1000BaseT connections
- Shielded for the best noise immunity
- High flexibility for easy routing and repeated bending
- Extreme temperature support in the harshest environments

APPLICATIONS

- Military and aerospace
- Ground forces tactical communications

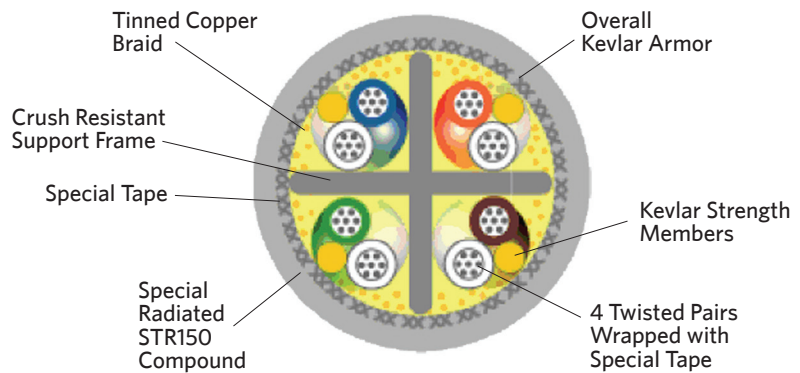
PLEASE CONTACT



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FLEXIBLE. RELIABLE. POWERFUL.

Provided by master distributor A.E. Petsche, Sixnet's kevlar-armored super cable will protect your Ethernet connections indoors or out. Its high reliability and superior ruggedness make it the perfect choice for the harshest of industrial and defense applications. Designed for high crush and impact resistance, our cable is super strong yet flexible. The end result will make your job easier, providing assurance that your connections will be reliable for many years to come.



FEATURES & BENEFITS

Rugged for the Harshest Applications

- **Protect military Ethernet connections**
- **Provide superior jacket protection**
 - Kevlar-armored
 - Category 6 for up to 1000BaseT
 - Resists UV and fungus growth

Super Strong Highly Flexible Design

- **Flexes to failure**
- **Offers superior pulling strength**
 - IEC 61156-1 standards
 - Crush and impact strength
 - Dielectric strength: 700 VAC/1 minute

TRANSMISSION PERFORMANCE

Freq. MHZ	Attenuation dB/100m 20°C		PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ELFEXT dB		ELFEXT dB	
	Typical	Cat. 6	Typical	Cat. 6	Typical	Cat. 6	Typical	Cat. 6	Typical	Cat. 6	Typical	Cat. 6
1	2.4	2.5	75.0	72.3	78.0	75.3	22.0	20.0	90.0	65.0	93.0	68.0
4	4.5	4.6	66.0	63.3	69.0	66.3	25.0	23.0	90.0	53.0	93.0	56.0
10	7.0	7.2	60.0	57.3	63.0	60.4	28.0	25.0	80.0	45.0	83.0	48.0
20	9.9	10.2	56.0	52.8	59.0	55.8	28.0	25.0	80.0	39.0	83.0	42.0
30	12.2	12.6	53.0	50.1	56.0	53.1	27.0	23.8	70.0	35.5	73.0	38.5
100	23.1	23.9	45.0	42.3	48.0	45.3	24.0	21.1	63.0	25.0	66.0	28.0
150	28.9	29.8	43.0	39.7	46.0	42.7	22.0	18.8	60.0	21.5	63.0	24.5
200	33.9	35.0	41.0	37.8	44.0	40.8	21.0	18.0	58.0	19.0	61.0	22.0
250	38.4	39.6	38.0	36.3	41.0	39.3	20.0	17.3	55.0	17.0	58.0	20.0

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SPECIFICATIONS

Cable Mechanical

- Overall construction: 4 twisted pairs cabled around a central frame with Kevlar-strength strands and separation tape wrapped, braided shield, Kevlar-strength armor wrap, special tape wrap and STR150 jacket
- Conductors: 4 pair, stranded
- Conductor size: 23/7 AWG
- Conductor material: tinned copper
- Insulation: color coded per TIA / EIA-568-B (Blue+white, orange+white, green+white, brown+white)
- Insulation size: OD 0.047" (1.2 mm) nominal
- Insulation material: FEP compound
- Outer shield: tin copper braid, 75% coverage
- Jacket material: special radiated STR150 compound
- Jacket color: black
- Jacket protection: resists UV and fungus growth
- Jacket chemical resistance: highly resistant to many chemicals & substances (organic and inorganic)
- Jacket OD: 0.38" (9.7 mm) nominal
- High crush resistance: 400N/1cm min.
- Overall weight: 0.09 lbs/ft (135 Kg/Km)
- Min. bend radius: 2.0" (50 mm)
- Operating temperature: -50°C to +150°C
- Storage temperature: -50°C to +160°C
- Flame test compliance: CMR, IEC 60332-3x

Cable Electrical

- Compliance: category 6 per TIA/EIA 568B
- Impedance: 100+/- 15 Ohms (1-250 MHz)
- DC resistance: 75 Ohms/KM @ 20°C
- Resistance unbalance: 2% max @ 20°C
- Pair capacitance: 48 pF/m nominal @ 1KHz
- Capacitance unbalance: 1.6 pF/m max
- Nominal Velocity of Propagation: 70%
- Attenuation and N.E.X.T.: see table pg 1
- Dielectric strength: 700 VAC/1 minute
- Insulation resistance: 5000 MOhm-km min
- Applicable standards: IEC 61156, ISO/IEC 11801, RoHS 2002/95/EC and TIA/EIA 568B

RJ45 Plug for Cordsets

- Connector type: RJ45 plug, shielded
- Contact material: phosphor bronze (CuSn)
- Contact plating: gold (Au) 1.3 um (50u")
- Contact under-plating: Nickel (Ni)
- Housing material: polycarbonate, UL94V-0
- Mating cycles: 500 cycles minimum
- Max. current and voltage: 1.5 A and 125 V
- Withstand voltage: 1000 VAC
- Contact resistance: 20 milliohms maximum
- Insulation resistance: 500 megohms
- Hazardous substances: ELV and RoHS compliant

SELECTION GUIDE: CONTACT A.E. PETSCHER AT +1 937 431 5430 TO ORDER

Model	Description
ET-CAT6M-100B	100 meter bulk reel
ET-CAT6M-300B	300 meter bulk reel
ET-CAT6M-#xx	CAT5E cordsets with connectors (example: EB-CAT5E-10CD)

Key:

= length in meters up to 100

C = 1 mail RJ45 connector

D = D38999/26WA35PN cadmium finish (RoHS versions available - contact A.E. Petsche)

G = Aero 8 pin AE90-365-BN9-9PN cadmium finish (RoHS versions available - contact A.E. Petsche)

ABOUT SIXNET

Celebrating 35 years in operation, Sixnet provides innovative machine-to-machine (M2M) connectivity to industrial customers and markets worldwide. Sixnet's flexible solutions enable organizations to cost-effectively increase business productivity. By integrating powerful enterprise-class networking with rugged reliability, Sixnet meets the standards of the most demanding industrial applications in industries such as power & energy, banking & retail, transportation, video & security, utilities, military, mobile data, maritime and more. Based in Ballston Lake, NY, the company has offices across North America, Asia and Europe.

For more information, visit www.aepetsche.com, email wire@aepetsche.com or call +1 937 431 5430



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