



Product: [NH50117SE](#)

Industrial Ethernet CAT7 4PR Strand AWG24/7 S/FTP Fire Resistant

Product Description

Industrial Ethernet CAT7, S/FTP, 4P24AWG/7, Tinned Strand copper Conductors, Foam Polyolefin Insulation, Individual Shielded Pair + Braid shield,LASH Jkt,Fire Resistant

Technical Specifications

Product Overview

Suitable Applications:	This Category 7 Cable is a cable standard for Gigabit Ethernet, capable to continue transmitting data even when being directly attacked by fire.
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Construction Details

Conductor

Size	Stranding	Material	No. of Pairs	No. of Elements
24 AWG	Stranded	BC - Bare Copper	4	8

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	8.5 mm (0.33 in)	1. Blue & White , 2. Orange & White , 3. Green & White, 4. Brown & White

Inner Shield

Element	Shield Type	Material
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)

Outer Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Outer Jacket1 Table Notes:	Outer Jacket Color: Grey (or per customer's request)
Overall Cable Diameter (Nominal):	8.5 +/-0.4 mm

Electrical Characteristics

Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
95@20 °C Ohm/km	100 Ohm

Delay

Max. Delay Skew
30 ns/70m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	4.0 dB/60m	65.0	62.0	65.0	62.0	19.0
16	8.1 dB/60m	65.0	62.0	57.5	54.5	8.1
100	20.8 dB/60m	62.9	59.9	44.4	41.4	12.0
250	33.8 dB/70m	56.9	53.9	37.8	34.8	8.0
500	8.0 dB/60m	52.4	49.4	32.6	29.6	8.0

6o0	54.6 dB/60m	51.2	48.2	31.3	31.3	8.0
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Mechanical Characteristics

Temperature

UL Temperature
-40°C to + 80°C

Standards and Compliance

Environmental Suitability:	UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60331-23
Data Category:	Category 7
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = 0.5 %, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 μS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3, IEC 61034-2 - Smoke Density Min. Transmittance = 70%

Product Notes

Notes:	Mechanical Characteristics: 1. IRM 902 Mineral oil resistance at 100 for 72h: Tensile Strength (Mpa): ± 30% of original, Elongation (%): ±40% of original, 2. IRM 903 Fuel resistance at 70 for 168h: Tensile Strength (Mpa): ± 30% of original Elongation (%): ± 40% of original, 3. N-Sodium hydroxide solution alkali resistance at 23 for 168h:Tensile Strength (Mpa): ± 30% of original, Elongation (%): 100%, Ozone resistance at (0.025~0.03)%/25/24h:No crack
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History

Update and Revision:	Revision Number: 0.2 Revision Date: 12-15-2025
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