TECHNICAL SPECIFICATION

1. GENERAL INFORMATION

1.1 Scope

Product type	Application
U/UTP 4 pairs Cat5E Lan Cable 24AWG	ethernet network system

1.2 Reference

The following standards were used as reference documents for the cables provided by Navigator:

ANSI/TIA-568-2-D	Generic Telecommunications Cabling for Customer Premises
IEC 11801	Information technology – Generic cabling for customer premises
IEC 61156	Multicore and symmetrical pair/quad cables for digital communications
BS EN 50288	Multi-element metallic cables used in analogue and digital communication and control

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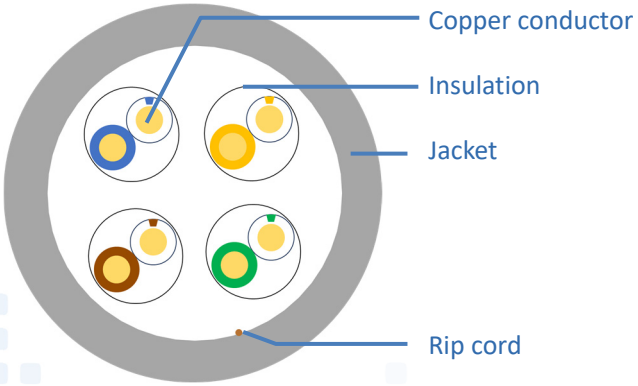
2. PRODUCT INFORMATION

2.1 Product Images



2.2 Features & Application

- Solid bare copper provides better performance than copper clad aluminum
- Rated for1G Base-T Ethernet
- Tested with a Fluke cable analyzer
- Stranded Conductors for High Flex Applications

2.3 Product specifications

Physical parameters	**Conductor**	**Material**	Solid bare copper
		Wire Gauge	24AWG
	Insulation	**Material**	HDPE
		Diameter – mm (in)	0.89 (0.035)
	Core color		1.white – blue/blue 2.whte – orange/orange 3.whiite – green/green 4.whiite – brown/brown
	Sheath	**Material**	PVC/LSZH
		Thickness – mm (in)	0.55(0.022)
		Diameter – mm (in)	5.2(0.205)
		Color	Optional
	Storage temperature - °C (°F)		0~40 (32~104)
	Operation temperature - °C (°F)		-20~60 (-4~140)
Electrical parameters	**Conductor resistance @ 20°C (68 °F)**		≤9.38Ω/100m (≤ 2.86Ω/100ft)
	Electrical resistance unbalance between pairs @ 20°C (68 °F)		≤2.5%
	Insulation resistance @ 20°C (68 °F)		＞5000MΩ/km (8046.72MΩ/mi)
	Pair to Ground Capacitance Unbalance (0.8KHz to 1KHz)		≤160pF/100m (48/77 pF/100ft)

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	Mutual capacitance of a pair	≤5.6nF/100m (1.71nF/100ft)

2.3 Test performance

Frequency	Z_c	Insertion Loss	Return Loss	NEXT	PSNEXT	ACRF	PSACRF
MHz	Ω	dB/100m	dB	dB/100m	dB/100m	dB/100m	dB/100m
1.0	100±15	≤2.04	≥20.0	≥65.30	≥62.30	≥64.00	≥61.00
4.0		≤4.05	≥23.0	≥56.27	≥53.27	≥51.96	≥48.96
8.0		≤5.77	≥24.5	≥51.75	≥48.75	≥45.94	≥42.94
10.0		≤6.47	≥25.0	≥50.30	≥47.30	≥44.00	≥41.00
16.0		≤8.25	≥25.0	≥47.24	≥44.24	≥39.92	≥36.92
25.0		≤10.42	≥24.3	≥44.3	≥41.30	≥36.00	≥33.12
31.25		≤11.71	≥23.6	≥42.89	≥39.89	≥34.12	≥31.12
62.5		≤16.99	≥21.5	≥38.36	≥35.36	≥28.08	≥25.08
100		≤21.98	≥20.1	≥35.30	≥32.30	≥24.00	≥21.00

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