

TECHNICAL SPECIFICATION

1. GENERAL INFORMATION

1.1 Scope

Product type	Application
U/UTP 4 pairs Cat6A Lan Cable 23AWG	ethernet network system

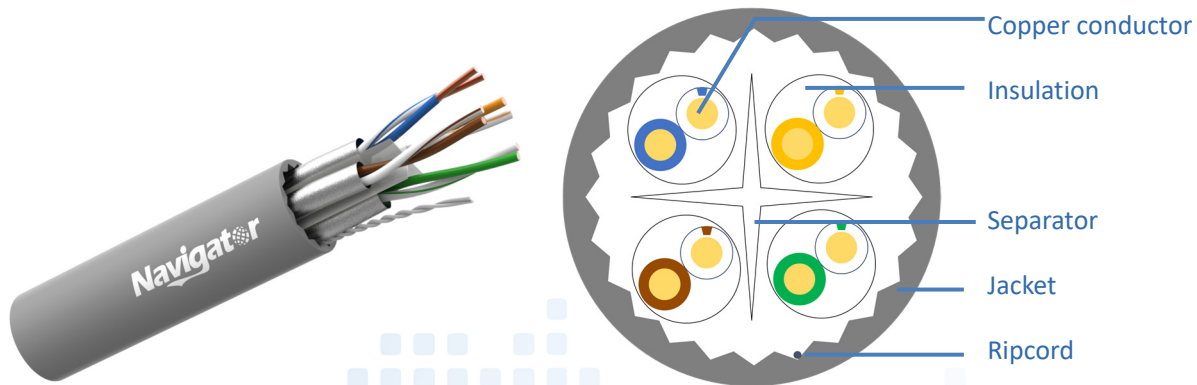
1.2 Reference

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

2. PRODUCT INFORMATION

2.1 Product Images



2.2 Features & Application

- Solid bare copper provides better performance than copper clad aluminum
- Rated for 1G/10G Base-T Ethernet
- Tested with a Fluke cable analyzer

2.3 Product specifications

Physical parameters	Conductor	Material	Solid bare copper
		Wire Gauge	23AWG
	Insulation	Material	HDPE
		Diameter – mm (in)	1.02 (0.040)
	Core color		1.white – blue/blue 2.white – orange/orange 3.whiite – green/green 4.whiite – brown/brown
	Wire pair shield		PE
	Sheath	Material	PVC/LSZH
		Thickness – mm (in)	0.55(0.022)
		Diameter – mm (in)	6.9(0.272)
		Color	Optional
Electrical parameters	Storage temperature - °C (°F)		0~40 (32~104)
	Operation temperature - °C (°F)		-20~60 (-4~140)
	Conductor resistance @ 20°C (68 °F)		≤ 7.3Ω/100m (≤ 2.23Ω/100ft)
	Electrical resistance unbalance between pairs @ 20°C (68 °F)		≤2.5%
	Insulation resistance @ 20°C (68 °F)		> 5000MΩ/km (8046.72MΩ/mi)
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	≤2.0	≥20.0	≥74.3	≥72.3	≥67.8	≥64.8
4.0		≤3.8	≥23.0	≥65.3	≥63.3	≥55.8	≥52.8
10.0		≤5.9	≥25.0	≥59.3	≥57.3	≥47.8	≥44.8
16.0		≤7.5	≥25.0	≥56.2	≥54.2	≥43.7	≥40.7
20.0		≤8.4	≥25.0	≥54.8	≥52.8	≥41.8	≥38.8
31.25		≤10.5	≥23.6	≥51.9	≥49.9	≥37.9	≥34.9
62.5		≤14.9	≥21.5	≥47.4	≥45.4	≥31.9	≥28.9
100		≤19.0	≥20.1	≥44.3	≥42.3	≥27.8	≥24.8
200		≤27.5	≥18.0	≥39.8	≥37.8	≥21.8	≥18.8
250		≤31.0	≥17.3	≥38.3	≥36.3	≥19.8	≥16.8
300		≤34.2	≥17.3	≥37.1	≥34.1	≥18.3	≥15.3
500		≤45.3	≥17.3	≥33.8	≥30.8	≥13.8	≥10.8