TECHNICAL SPECIFICATION

1. GENERAL INFORMATION

1.1 Scope

Product type	Application
SF/UTP 4 pairs Cat6 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

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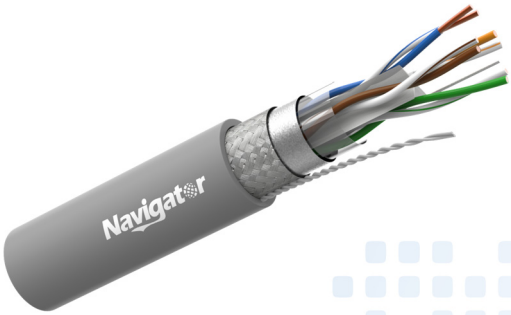
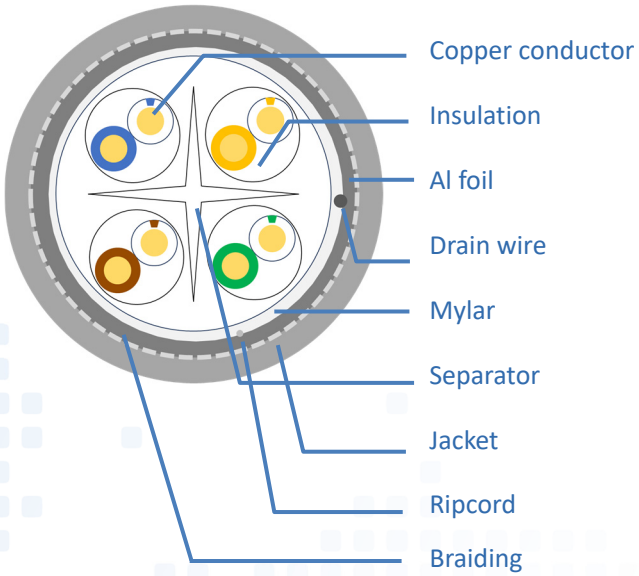
2. PRODUCT INFORMATION

2.1 Product Images





2.2 Features & Application

- Less Susceptible to RFI/EMI in Noisy Environments
- 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)	1.14 (0.045)
	Core color		1.white – blue/blue 2.whte – orange/orange 3.whiite – green/green 4.whiite – brown/brown
	Separator		PE
	Inner shield		Aluminum foil
	Drain Wire – mm (in)		TC - 0.4 (0.016)
	Outer shield		Al/TC Braid
	Sheath	**Material**	PVC/LSZH/PE
		Thickness – mm (in)	0.55(0.022)
		Diameter – mm (in)	7.9(0.311)
		Color	Optional
	Storage temperature - °C (°F)		0~40 (32~104)
	Operation temperature - °C (°F)		-20~60 (-4~140)

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Electrical parameters	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
8.0		≤5.3	≥24.5	≥60.8	≥58.8	≥49.7	≥46.7
10.0		≤6.0	≥25.0	≥59.3	≥57.3	≥47.8	≥44.8
16.0		≤7.6	≥25.0	≥56.2	≥54.2	≥43.7	≥40.7
20.0		≤8.5	≥25.0	≥54.8	≥52.8	≥41.8	≥38.8
25.0		≤9.5	≥24.3	≥53.3	≥51.3	≥39.8	≥36.8
31.25		≤10.7	≥23.6	≥51.9	≥49.9	≥37.9	≥34.9
62.5		≤15.4	≥21.5	≥47.4	≥45.4	≥31.9	≥28.9
100		≤19.8	≥20.1	≥44.3	≥42.3	≥27.8	≥24.8
200		≤29.0	≥18.0	≥39.8	≥37.8	≥21.8	≥18.8
250		≤32.8	≥17.3	≥38.3	≥36.3	≥19.8	≥16.8

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