

**LONGTRONIC® EtherCAT Category 5e**

P/N: ZL5208044

Version: A02

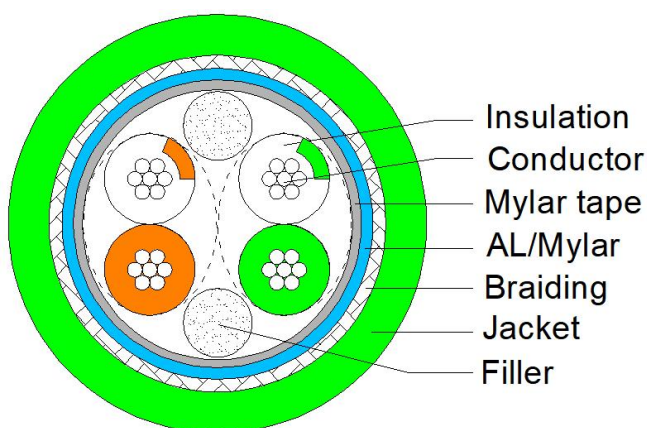
**SF/UTP 2x2x24AWG/7 PVC**

Date: 2025-05-16

**Description**

The cable is used for data transmission with characteristic impedance for 100ohm. Double screened design supported excellent EMC performance. Application for fixed and Occasional movement installation.

24AWG/7 BC conductor, HDPE insulation, Filler, Mylar tape, AL/Mylar overall screen, Tinned copper braiding overall screen, PVC jacket.

**Design**


Conductor	7*0.20mm stranded bare copper wire	
Insulation	HDPE	
	OD: 1.13±0.05mm	
	Color: Pair 1: Orange, White/Orange	Pair 2: Green, White/Green
Filler	Cotton rope	
Cabling	Two pairs and filler stranded together to a core with Mylar tape	
Overall screen	AL/Mylar tape	
	Tinned copper braiding, coverage ≥ 85%	
Jacket	PVC	
	Color : Green (Similar to RAL 6018)	
	Thickness: approx 0.80mm	
	OD: 6.5±0.3mm	
Marking:	ZHAOLONG □ LONGTRONIC® □ ETHERNET □ EtherCAT □ SF/UTP □ 2PR □ 24AWG/7 □	
	PVC □ IEC60332-1 □ XXXXXX □ ****m	

Note:

1. □ means blank;
2. XXXXXX means batch number;
3. \*\*\*\*m means meter

**Electrical Characteristics(20°C)**

Conductor resistance	≤ 145 Ω/km
Resistance unbalance	≤ 2.0 % within a pair ≤ 5.0 % between pairs
Dielectric strength	DC 1.0 kV for 1 min.
Insulation resistance	≥ 5000 MΩ·km
Capacitance unbalance	≤ 1600 pF/km at 800 Hz or 1000 Hz
Transfer impedance	Grade 1 (IEC 61156-5)
Coupling attenuation	Type Ib (IEC 61156-5)

**Transmission characteristics (20°C)**

Reference standard	ANSI/TIA-568.2-D
Delay skew	≤ 25 ns/100m

Frequency ( MHz )	Attenuation dB Max.	RL dB Min.	NEXT dB Min.	PS NEXT dB Min.	ACR-F dB Min.	PS ACR-F dB Min.
1.00	3.0	19.0	60.0	57.0	58.6	55.6
4.00	3.9	19.0	54.8	51.8	46.6	43.6
8.00	5.5	19.0	50.0	47.0	40.6	37.5
10.00	6.2	19.0	48.5	45.5	38.6	35.6
16.00	7.9	19.0	45.2	42.2	34.5	31.5
20.00	8.9	19.0	43.7	40.7	32.6	29.6
25.00	10.0	18.0	42.1	39.1	30.7	27.7
31.25	11.2	17.1	40.5	37.5	28.7	25.7
62.50	16.2	14.1	35.7	32.7	22.7	19.7
100.00	21.0	12.0	32.3	29.3	18.6	15.6

Note: Category 5e Permanent link test extreme length 60m.

**Other Characteristics**

Operating temperature	Fixed: -40°C to 80°C
Installation temperature	-20°C to 60°C
Min. Bending radius	Fixed: 4D( Cable diameter) Occasional movement: 8D( Cable diameter)
UV resistance	300h (UL 1581)
Oil resistance	IRM 902, 70°Cx4h ( EN 50290-2-22 )
Flame resistance	IEC 60332-1-2, FT2
This cable meets RoHS requirements	

**Packing information**

Packaging	500m / drum
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