

FTP cat.5e Copper with Messenger

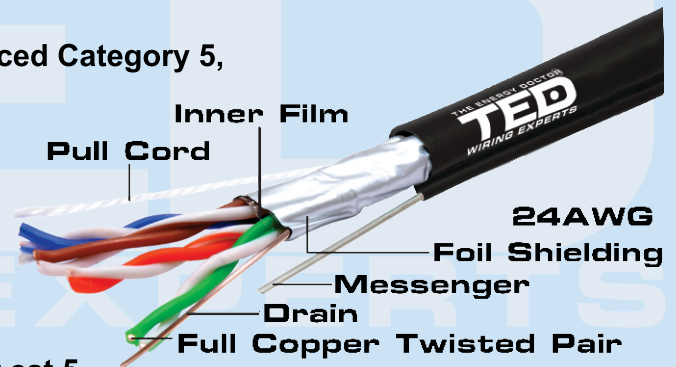
Category 5e (cat.5e) cable, also known as Enhanced Category 5, is designed to support full-duplex Fast Ethernet operation and Gigabit Ethernet.

The performance requirements have been raised slightly in the new standard.

Cat.5e has stricter specifications for Power Sum Equal-Level Far-End Crosstalk (PS-ELFEXT), Near-End Crosstalk (NEXT), Attenuation, and Return Loss (RL) than those for cat.5.

Like cat.5, cat.5e is a 100 MHz standard, but it has the capacity to handle bandwidth superior to that of cat.5.

Cat.5 cable is typically used for Ethernet networks running at 100 Mbps.



Construction									
Conductor	4 x 2 x 0.5 mm Full Copper 24 AWG								
Messenger	1.3mm Solid Steel With PVC, Nominal Diameter 2.5mm								
Insulation	0.9 mm High-Density PE								
Diameter Over Insulation / Nominal Outer Diameter	0.88 mm / 5.6 mm								
Mechanical Characteristics									
Sheath Tensile Strength	25 MPa								
Minimum Bending Radius	50 mm								
Normal Weight	50 kg/km								
Operating Temperature	-20°C +70°C								
Installation Temperature	-5°C +40°C								
Product Length	500m in Wooden Drum								
Electrical Performance									
Conductor Resistance	87 Ohms/km								
Transmission Frequency (MHz)	4	8	10	16	20	25	31.25	62.5	100
Attenuation (dB/100m)	4.1	5.8	6.5	8.2	9.3	10.4	11.7	17	22
Near End Crosstalk NEXT (dB/100m)	56.3	51.8	50.3	47.2	45.8	44.3	42.9	38.4	35.3
Powersum Near End Crosstalk PS NEXT (dB/100m)	53.3	48.8	47.3	44.2	42.8	41.3	39.9	35.4	32.3
Return Loss (dB/100m)	33	33	33	32	33	34	28	29	24
Equal Level Far End Crosstalk ELFEXT (dB/100m)	51.8	45.7	43.8	39.7	37.8	35.8	33.8	27.9	23.8
Powersum Equal Level Far End Crosstalk (dB/100m)	48.8	42.7	40.8	36.7	34.8	32.8	30.9	24.9	20.8
Characteristic Impedance (Ohms)	98+/-15								
Screw (ns/100m)	45								
Nominal Velocity of Propagation (%)	69								
Propagation Delay, max. 100 MHz (ns/100m)	550								
Coupling Attenuation at 30 MHz	70								

Due to continuous product improvements, program specifications are subject to change without notice