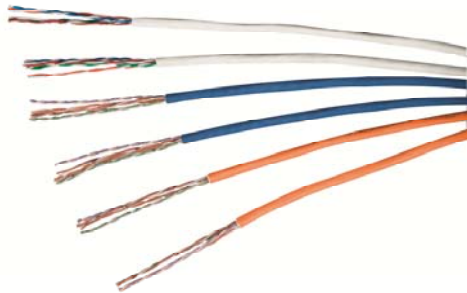


Volition™ Category 5e cable 100Ω, UTP



Belonging to the 3M™ Volition™ Network Solutions, UTP Category 5e cable will deliver the best performance when used with the 3M™ RJ45 jacks, to give highest margins over Category 5e / TIA/EIA 568 and ISO 11801 and EN 50173 Class D standards.

The cable sheath has length marking which is easy and convenient for the installer and gives a clear identification of cable and link lengths.

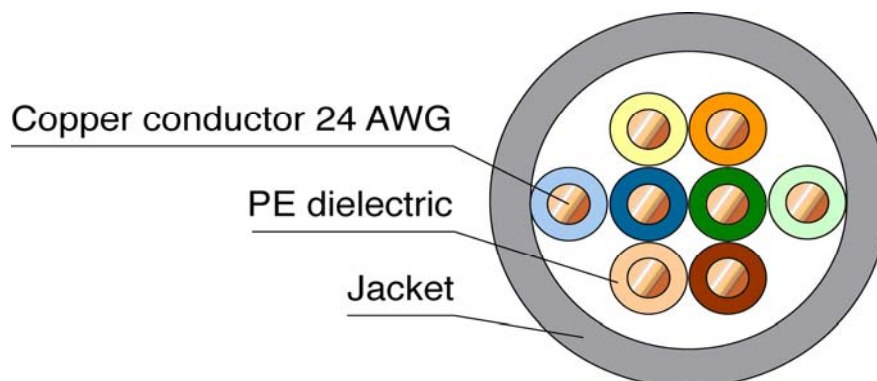
As a 3M™ branded product, it offers 3M™ system identity for corporate and warranty approval.

Features

- Excellent electrical performance
- Length marking on the cable sheath
- Low smoke zero halogen(LSOH) , PVC and PE versions available

Benefits

- Good headroom over Category 5e Performance
- Installer friendly
- Solution for all levels of fire protection or UV resistance



Reference Standards

IEC 61156-5; ANSI/TIA-568-C.2

Transmission Performance according to ANSI/TIA-568-C.2 Cat.5e

Frequency (MHz)	Fitted Impedance (Ω)	Attenuation (dB) Max.	NEXT (dB) Min.	PSNEXT (dB) Min.	ACRF (dB) Min.	PSACRF (dB) Min.
1	100 \pm 15	2.0	65.3	62.3	63.8	60.8
4		4.1	56.3	53.3	51.7	48.7
10		6.5	50.3	47.3	43.8	40.8
16		8.2	47.3	44.3	39.7	36.7
20		9.3	45.8	42.8	37.7	34.7
31.25		11.7	42.9	39.9	33.9	30.9
62.5		17.0	38.4	35.4	27.8	24.8
100		22.0	35.3	32.3	23.8	20.8

Frequency (MHz)	Return Loss (dB) Min.	Propagation Delay (ns) Max.	Delay Skew (ns) Max.
1	20.0	570.0	45
4	23.0	552.0	
10	25.0	545.4	
16	25.0	543.0	
20	25.0	542.0	
31.25	23.6	540.4	
62.5	21.5	538.6	
100	20.1	537.6	

Specification

Construction

Conductor : Bare copper wire AWG24
 Insulation : Polyethylene, nom. 0.90mm
 Outer jacket : PVC, LOSH or PE
 Cable diameter : 4.9mm+/- 0.3mm

Technical characteristics at 20°C

DC resistance : Max. 9.38 Ω / 100m
 Resistance unbalance : max. 2%
 Insulation resistance(500V) : min. 5000 M Ω /Km
 Mutual capacitance : nom. 5.1 nf/100m at 1kHz
 Capacitance unbalance(pair to ground) : max. 160 pf/100m
 Nominal velocity of propagation : nom. 67%
 Dielectric strength : 1kV/ 1min.

Ordering Information

Volition™, Category 5e cable, 100 Ω
 Volition™ Cat.5e Cable, UTP, PVC, 4 pairs, 305m box
 Volition™ Cat.5e Cable, UTP, LSOH, 4 pairs, 305m box
 Volition™ Cat.5e Cable, UTP, PE, 4 pairs, 305m box

Ref. No.

VOL-5EUP4-305
 VOL-5EUL4-305
 VOL-5EUPE4-305

Important Notice

The details contained in this literature have been carefully prepared from information available to 3M at the time of its production. However, it is not intended to be relied upon for purposes of product specification and you should contact your sales representative if specification details are required. Because of the wide variety of processes and conditions in which these products may be used, the user should first carry out tests to determine the suitability of the products for the particular use intended. All questions of warranty and liability relating to 3M products are governed by the selling 3M subsidiary's Terms of Sale subject where applicable to the prevailing law.
 3M is trademark of the 3M company. SID is a trademark of Quante AG.



3M Telecommunications