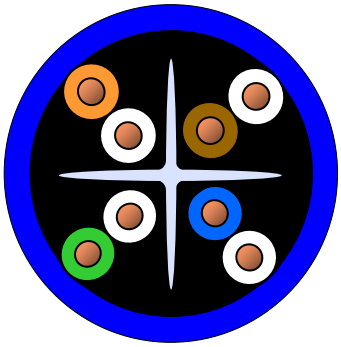
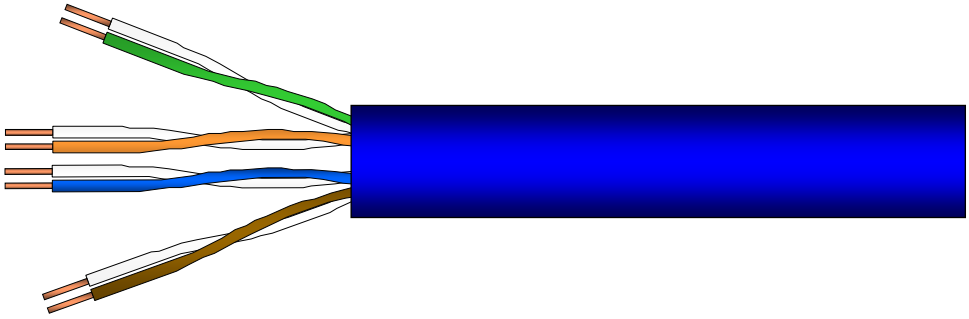
Category 5E

UTP Data Cable

HellermannTyton Network Sciences





Cabling Application	Applicable Standards
Structured Cable for Campus, Riser & Horizontal Installation	ISO/IEC 11801 – 2nd Edition
Compatible with all Known Connection systems according to EN50173	EN 50173; EN 50288-3-1
Approved by BASEC 067/001/010	ANSI/TIA/EIA-568-B.2-2001
	Fire Propagation Test : UL 1581 VW1(PVC only); IEC 60332.1;EN50256-2-1

Cable construction			
Conductor	**Bare Cu Wire**	Outside Diameter of Conductor	**0.50 mm**
Insulator Material	**PE**	Outside Diameter of Insulation	**0.90 mm**
Number of Twisted Pairs	**4**	Outside Diameter of Sheath	**4.75 mm**
Sheath Material	**PVC or OHLS**	Weight PVC (OHLS)	27(31) kg/km
		Sheath Colour	**PVC – Grey** **LS0H - Purple**
		Sheath Printing (up to 24 characters)	Batch No. & Metre marking

Cable Properties		Electrical Characteristics @ 20 ºC	
Min. Installation Bend Radius	**8 x Dia**	Characteristic imped. (1-10&20-100Mhz)	**100±15 Ω**
Min. Installed Bending Radius	**4 x Dia**	Characteristic impedance (10-20Mhz)	**100±12 Ω**
Max. Installation Tension	**100N**	DC Conductor Loop Resistance	**19 Ω/100m**
Max. Installed Tension	**Zero**	Max. Resistance unbalance	**≤2%**
Installation Temp. Range Installed	**0 to 50ºC**	Nominal Velocity of Propagation	**66%**
Operating Temp. Range	**-20 to 60ºC**	Nominal Capacitance	**50 pF/m**
		Max. Capacitance unbalance	**1600 pF/km**
		Insulation Resistance (500V)	**≥2000 MΩ.km**

Packaging	
Box Sizes	**'Reelex'**
Length per Box	**305 m**
Box Dimensions (LxHxW)	350x350x225mm
Weight (approx.)	**10.0 kg**

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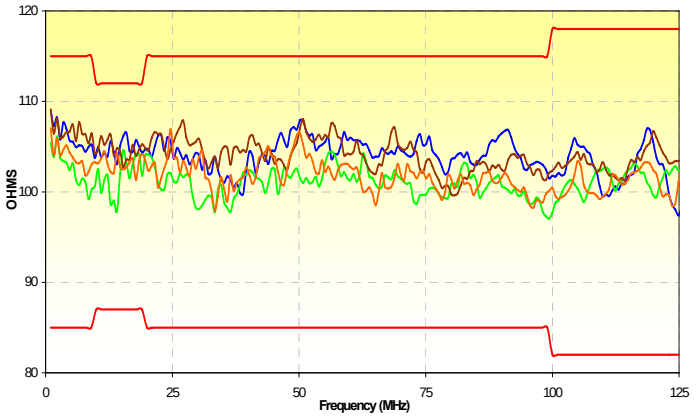
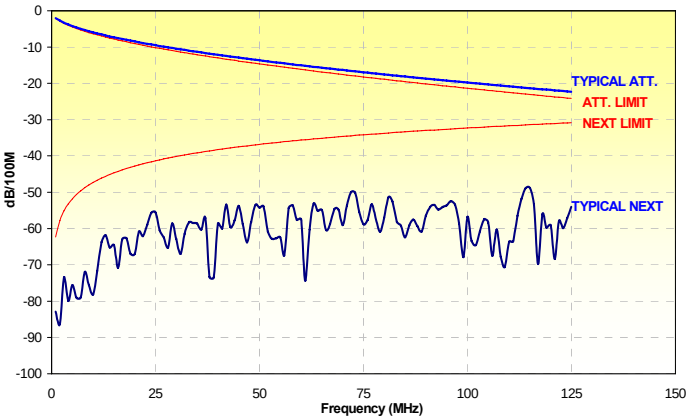
Performance

Impedance



Attenuation & NEXT



Ordering

Category 5E UTP PVC 305m Grey	**CA082**
Category 5E UTP PVC 305m Blue	**CA083**
Category 5E UTP LS0H 305m Purple	**CA075**

Applications Supported

Network Sciences Category 5E UTP cable is designed to support any data or voice system that is capable of running over a Category 5E system. When used with Category 5E patch panels and outlets from the Network Sciences range the combined performance exceeds the Category 5E/Class D-2000 link and channel requirements. The chart below shows the performance requirements of today's networking protocols.

Protocol	Common Pairs	Bit Rate	Bandwidth	Cabling Class used*
Analogue Voice Systems	1	Analogue	< 1MHz	Category 5 (Class D)
Digital Voice Systems	1	Analogue	< 1MHz	Category 5 (Class D)
ISDN	1 & 3	64/128Kbits	< 1MHz	Category 5 (Class D)
ICL	2 & 4	1Mbits	<16MHz	Category 5 (Class D)
10BaseT	2 & 3	10Mbits	16MHz	Category 5 (Class D)
4/16 Mbit Token Ring	1 & 3	4/16Mbits	20MHz	Category 5 (Class D)
100BaseT	2 & 3	100Mbits	32MHz	Category 5 (Class D)
100BaseT4	1, 2, 3 & 4	100Mbits	16MHz	Category 5 (Class D)
155 ATM	2 & 4	155Mbits	100MHz	Category 5E (Class D-2000)
AS400	1 & 2	2Mbits	<16MHz	Category 5 (Class D)
IBM 3270	1 & 2	1Mbits	<16Mhz	Category 5 (Class D)
Baseband Video CCTV, etc.	1	Analogue	<10MHz	Category 5 (Class D)
Building Management Systems	1, 2, 3 & 4	Analogue	<1MHz	Category 5 (Class D)
1000BaseTx	1, 2, 3 & 4	1Gbits	100MHz	Category 5E (Class D-2000)
1000BaseT	2&3	1Gbits	200MHz	Category 6 (Class E-2000)

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