molex®

UTP LSZH Cable,
PowerCat 5e 4-pair, 305m

Features summary

Category 5e compliant. The PowerCat 5e cable is a basic element of the PowerCat 5e line of products designed for high speed network applications (eg. Gigabit Ethernet 1000Base-T). 4 pair FTP with different pitch for each pair. Small outside diameter, high flexibility. Available in 305m lengths and packed in carton boxes for easy transportation and laying in troughs. The cable does not feed fire and goes out when the source of fire is removed. Recommended as a basic product for horizontal cabling.
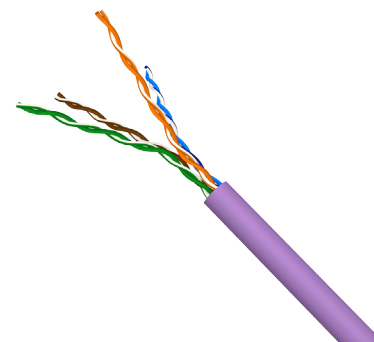
Colour coding
Pair 1:	white-blue/blue
Pair 2:	white-orange/orange
Pair 3:	white-green/green
Pair 4:	white-brown/brown

Electric parameters:

Resistance [Ω/km]:	98
Nominal propagation:	value printed on a cable

Mechanical parameters:

Conductor size [mm]:	24 AWG (0.51mm)
Insulated conductor diameter [mm]:	≤ 1.0
Single pair shield:	none
Pair number:	4
Cable shield:	none
Outside cable diameter [mm]:	≤ 5.50
Temperature range [°C]	
during installation:	0 °C to +50 °C
during operation:	-20 °C to +60 °C
Acceptable bend radius	
during installation:	8 x cable size
during operation:	4 x cable size
Sheath:	LSZH (IEC -332.1)
Sheath colour:	purple
Shipping weight [kg]:	11.5

Transmission parameters:

Insertion Loss [1-100MHz]	$\leq 1.967\sqrt{f} + 0.023\,(f) + 0.050/\sqrt{f}$	dB/100
Next [1-100MHz]	$\geq 35.3 - 15 \cdot \log(f/100)$	dB
PS NEXT [1-100MHz]	$\geq 32.3 - 15 \cdot \log(f/100)$	dB
ELEXT [1-100MHz]	$\geq 23.8 - 20 \cdot \log(f/100)$	dB
PS ELFECT [1-100MHz]	$\geq 20.8 - 20 \cdot \log(f/100)$	dB
RL [1≤f<10MHz]	$20 + 5 \cdot \log(f)$	dB
RL [10≤f<20MHz]	25	dB
RL [20≤f≤100MHz]	$25 - 7 \cdot \log(f/20)$	dB
Propagation delay [1-100MHz]	$534 \cdot 36/\sqrt{f}$	ns/100m
Delay Skew [1-100MHz]	45	ns/100m

REFERENCE INFORMATIONS

Part number	Name
39-504-5E	UTP LSZH Cable, PowerCat 5e 4-pair, 305m

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