Datacable - Twisted Pair - Category 5E

SPEEDLAN® – up to 300 MHz | **XLAN-200 U/UTP 24-4P**
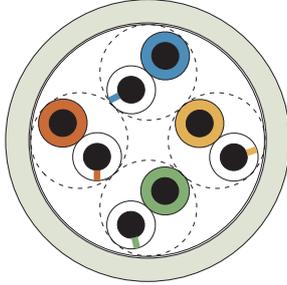
300 MHz	Frequency range	DA 4	Number of double cores
Z 100Ω	Impedance		Overall screening
AWG 24	Dimension of conductor	◎	Cable make up
⦿	Cable elements		

Type	Number of double cores	Fire load value kWh/m	Outer diameter approx. mm	Weight approx. kg/km
XLAN-200 U/UTP 24-4P	4	0,127 (0,088)	5,0	31 (28)
Values in ( ) are valid for FRNC-version				

Specification

Application
Unshielded data transmission cable for 300 MHz.

Very compact designed and approved unshielded data cable with rather good system reserves (far better than Cat.5E). Usable for high demands and all current data services as well as Gigabit Ethernet.

Usable for:
10BaseT, 100BaseT, 1000BaseT, ATM 155 Mbit/s, TP-PMD 125 Mbit/s, CDDI/TPDDI, Token Ring 4/16 Mbit/s, ISDN, analogue telefony.

Construction details
Conductor: solid, bare copper wire Ø 0,51 mm
Insulation: PE
Colour code: WT-BU/BU; WT-OR/OR; WT-GN/GN; WT-BN/BN
Cable make up: cores twisted to pairs (**UTP**),
              pairs cabled together
Sheath: PVC, grey (approx. RAL 7035)

Note
Also available with halogenfree (LSOH, FRNC) sheath according to EN 50167 (**XLAN-200 U/UTP 24-4P FRNC**); orange

Cable Marking
XLAN-200 U/UTP 24-4P CAT.5E ISO/IEC 11801 PMD P/N...
<JTTT> ✳ SPEEDLAN ✳ <00000m>

Electrical Details (at 20°C)

Standard	Category 5e (TIA/EIA-568-A-5) Category 5 (EN50288-2-1, ISO/IEC 11801, EN50173)
Loop resistance	≤ 186,6 Ω/km
Insulation resistance	≥ 10 GΩkm
Mutual capacitance (at f=800Hz)	nom. 50 nF/km
Capacitance unbalance k (at f=800Hz)	≤ 100 pF/500m
Capacitance unbalance e (at f=800Hz)	≤ 750 pF/500m
Propagation Delay (NVP)	nom. 71%
Impedance Z ≥ 1 MHz	100±15 % Ω
Dielectric strength	1000V/50Hz conductor/conductor 1000V/50Hz conductor/shield
Temperature range during installation for stationary conditions	−5 up to +50 °C −30 up to +70 °C

Frequency	f	MHz		1	4	10	16	20	31,25	62,5	100	155	200	300
Attenuation	α	dB/100m	max.*)	2,1	4,3	6,6	8,2	9,2	11,8	17,1	22,0	-	-	-
			typ.	2,1	4,1	6,2	7,7	8,6	10,7	15,4	19,5	24,9	28,6	35,5
NEXT	α_{NN}	dB	min.**)	65,3	56,3	50,3	47,3	45,8	42,9	38,4	35,3	-	-	-
			typ.	70	61	55	52	51	48	45	43	40	38,0	36,5
ACR		dB	min.	63,2	52,0	43,7	39,1	36,6	31,1	21,3	13,3	-	-	-
			typ.	67,9	56,9	48,8	44,3	42,4	37,3	29,6	23,5	15,1	9,4	1,0
PSNEXT	α_{PSNEXT}	dB	min.**)	62,9	53,3	47,3	44,3	42,8	39,9	35,4	32,3	-	-	-
			typ.	70	61	55	51	49	46	41	37	34	32	30
ELFEXT	α_{ELFEXT}	dB	min.**)	63,8	51,7	43,8	39,7	37,7	33,9	27,8	23,8	-	-	-
			typ.	70	59	51	46	44	40	34	30	26	24	19
Return Loss	R_L	dB	min **)	20	23	25	25	25	23,6	21,5	20,1	-	-	-
			typ.	22	25	27	27	27	25,5	23,5	22,0	20,8	20	18,7

*) Category 5 – values according to ISO/IEC11801, EN 50173, EN50288-2-1   **) Category 5E – values according to TIA/EIA-568-A-5