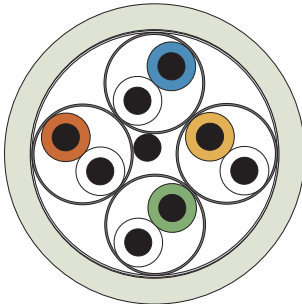


# Datacable - Twisted Pair - Category 6+

**SPEEDLAN®** – up to 550 MHz

**XLAN-550 S/STP 24-4P**



550 MHz	Frequency range	DA 4	Number of double cores
Z 100Ω	Impedance	S	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-550 S/STP 24-4P Values in ( ) are valid for FRNC-version	4	0,236 (0,172)	7,1	58 (53)

## Specification

### Application

Overall shielded data transmission cable for 550 MHz with individually shielded pairs.

Shielded data cable with very high system reserves (far better than Cat.6) and rather good EMV characteristics. Usable for high quality requirements, all current data services as well as Gigabit Ethernet. Price attractive alternative for cablings near to Cat.7.

Usable for:

10BaseT, 100BaseT, 1000BaseT, ATM 155 Mbit/s, TP-PMD 125 Mbit/s, CDDI/TPDDI, Token Ring 4/16 Mbit/s, ISDN, analogue telephony, Cable-Sharing

### Construction details

Conductor: solid, bare copper wire Ø 0,52 mm  
 Insulation: Skin-foam-skin PE  
 Colour code: WT/BU; WT/OR; WT/GN; WT/BN (acc. to IEC 708)  
 Cable make up: cores twisted together, aluminium laminated PET-foil - aluminium outside (STP),  
 tinned drain wire Ø 0,5 mm  
 shielded pairs cabled together  
 Screening: aluminium laminated PET-foil (S),  
 Sheath: PVC, grey (approx. RAL 7035)

### Note

Also available with halogenfree (LSOH, FRNC) sheath according to EN 50167  
 (XLAN-550 S/STP 24-4P FRNC); orange

### Cable Marking

XLAN-550 S/STP 24-4P CAT.6 ISO/IEC 11801 550 MHz PMD P/N... <JTtT> \* SPEEDLAN \* <00000m>

## Electrical Details (at 20°C)

Standard	Category 6 acc. to prEN50288-5-1 Category 5E acc. to (TIA/EIA-568-A-5 ISO/IEC 11801, EN 50173)
Loop resistance	≤ 186,6 Ω/km
Insulation resistance	≥ 10 GΩkm
Mutual capacitance (at f=800Hz)	nom. 42 nF/km
Capacitance unbalance k (at f=800Hz)	≤ 100 pF/500m
Capacitance unbalance e (at f=800Hz)	≤ 750 pF/500m
Propagation Delay (NVP)	nom. 77 %
Transfer impedance R <sub>K</sub> at 10 MHz	≤ 40 mΩ/m
Impedance Z 1≤f≤100MHz 100<f≤200MHz	100±15 % Ω 100±18% 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	250	300	500	550
Attenuation	α	dB/100m	max. <sup>1)</sup>	2,1	3,8	6,0	7,6	8,5	10,8	15,5	19,9	25,3	29,2	33,0	36,6	-	-
			typ.	1,9	3,7	5,9	7,5	8,4	10,6	15,4	19,5	24,5	28,0	30,7	33,5	45,0	48,0
NEXT	α <sub>NN</sub>	dB	min. <sup>1)</sup>	66	66	60	57	55,5	52,6	48,1	45	42,2	40,7	39,1	37,8	-	-
			typ.	>90	>90	>90	>90	>90	90	85	80	77	74	71	69	63	61
ACR		dB	min. <sup>1)</sup>	63,9	62,2	54,0	49,4	47,0	41,8	32,6	25,1	16,9	11,3	6,1	1,2	-	-
			typ.	>88	>86	>84	>82	>81	79,4	69,6	60,5	52,5	46,0	40,3	35,5	18,0	13,0
Return Loss	R <sub>L</sub>	dB	min	23	23	23	23	23	23	23	23	21,1	20,0	-	-	-	-
			typ.	>25	>25	>25	>25	>25	>25	>25	>25	23	22	21	20	18	17,5

<sup>1)</sup> Category 6 – values according to EN50288-5-1