



DATA SHEET

2170149

**UNITRONIC® LAN STP/S-H PiMF 500 MHz
CAT.6e DUPLEX 2 x (4 x 2 x AWG23/1)
halogen free**

Valid from:

22.01.2007

Application

UNITRONIC® LAN STP/S-H PiMF 500 MHz CAT.6e DUPLEX 2 x (4 x 2 x AWG23/1) is a halogen free pair twisted (TP) **CATEGORY 6e High Speed Data Transmission Cable in DUPLEX version** (2 single cables connected by a partition wall).

It meets the requirements of Standards EIA/TIA-568, TSB-36 und ISO/IEC IS 11801 „Universal Cabling for Customer Premises“ according to Class E.

EIA	=	ELECTRONIC INDUSTRIES ASSOCIATION
TIA	=	TELECOMMUNICATION INDUSTRIES ASSOCIATION
TSB	=	TECHNICAL SYSTEMS BULLETIN
TPDDI	=	TWISTED PAIR DISTRIBUTED DATA INTERFACE
CDDI	=	COPPER DISTRIBUTED DATA INTERFACE

Design

Conductor	Solid bare copper wire 0.57 mm Ø (AWG23)		
Core insulation	Cellular PE (Polyethylene)		
Stranding	Cores to pairs, pairs to cable core		
Colour code of every single cable	Pair 1	white - blue	
	Pair 2	white - orange	
	Pair 3	white - green	
	Pair 4	white - brown	
Screening	Pair screening by Aluminium laminated plastic foil (STP/S PiMF) Overall screening by tinned copper braiding (STP/S PiMF)		
Outer sheath	Halogen free compound, flame retardant according to IEC 60332-1, grey RAL 7035		
Outer diameter	approx. 7.1 x 14.6mm		

Electrical properties at 20°C

DC resistance (loop)			max. Ω/km	154
Operating voltage (not for power purposes)			peak V	125
Mutual capacitance	at 800	Hz	nF/km	ca. 47
Impedance	at 1 -100	MHz	Ω	100 ± 15



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Values of every single cable:

f MHz	Attenuation (dB/100m)		NEXT (dB)		ACR (dB/100m)	
	nom.	max. CAT.6e	nom.	min. CAT.6e	nom.	min. CAT.6e
4	3,5	3,8	100,0	71,3	96,5	67,5
10	5,5	6,0	100,0	65,3	94,5	59,3
20	7,9	8,5	100,0	60,8	92,1	52,3
31,25	10,0	10,7	100,0	57,9	90,0	47,2
62,5	14,4	15,5	100,0	53,4	85,6	37,9
100	18,3	19,9	100,0	50,3	81,7	30,4
200	26,1	29,1	95,0	45,8	68,9	16,7
250	29,3	33,0	93,0	44,3	63,7	11,3
300	32,1	36,6	92,0	43,1	59,9	6,5
500	42,0	49,2	89,0	39,8	47,0	-9,4

Signal speed

approx. 0.75c

Test voltage

core/core

U_{eff} V

1000

Mechanical and thermal properties

Minimum bending radius

(8 x D) approx. mm

57

Permissible temperature range

moved
fixed

°C -5 up to +50

°C -30 up to +70

Flame retardant

according to IEC 60332-1

Marking on outer sheath:

LAPP KABEL STUTTGART **UNITRONIC® LAN STP/S-H PiMF 500 MHz CAT.6e DUPLEX**
2 x (4 x 2 x AWG23/1) ROHS ART.2170149