



DATA SHEET	2170143
UNITRONIC® LAN STP/S PiMF 500 MHz CAT.6e 4 x 2 x AWG23/1	valid from: 22.01.2007

Application

UNITRONIC® LAN STP/S PiMF 500 MHz CAT.6e 4 x 2 x AWG23/1 is a twisted pair (TP) **CATEGORY 6e High Speed Data Transmission Cable** It meets the requirements of Standards EIA/TIA-568, TSB-36 and ISO/IEC IS 11801 „Universal Cabling for Customer Premises” according 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 twisted to pairs, pairs twisted to cable core	
Colour code	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	PVC, flame retardant according to IEC 60332-1, grey RAL 7035	
Outer diameter	7,1 mm	

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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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

ca. 0,75c

Test voltage 1 min.

Core/core

U_{eff} V 1000

Mechanical and thermal characteristics

Minimum bending radius

(8 x D) ca. mm 57

Permissible temperature range

moved
fixed

°C -5 bis +50
°C -30 bis +70

Flame retardant

according to IEC 60332-1

Marking on the outer sheath:

LAPP KABEL STUTTGART **UNITRONIC® LAN STP/S PiMF 500 MHz CAT.6e** 4 x 2 x AWG23/1 ROHS
ART. 2170143