Datasheet

bda connectivity

U/FTP(500-6A) 4x2xAWG23/1-FRNC

Product-Nr.: 3931

Usage

In modern data networks, 4-pair data cables for system-neutral network cabling have been in use for years. These so-called twisted pair data cables are also successfully used in professional audio technology. Especially in large audio control rooms, such as sports stadiums, the management of digital audio signals is just as complex as the network in electronic data processing. The intermediate storage and provision of audio data is also made considerably easier by digital technology.

Construction

Photo	Colours and design may differ from the picture
Number of cores	8
Number of pairs	4
Inner conductor dimensions	23 AWG
Inner Conductor material	Cu bare
Insulation dimensions [mm]	1,20
Insulation material	Skin-Foam-Skin Polyolefin
Colours	blue-white, orange-white, green-white, brown-white
Pair stranding	2,40mm 4 pairs wrapped with foil
Jacket wall thickness [mm]	0,60
Jacket dimensions [mm]	7,00
Jacket material	FRNC grey

Electrical Properties

Characteristic impedance [Ω]	100 ± 5 (1-500 MHz)
Capacitance approx. [pF/m]	40 (1kHz, nominal)
Capacity unbalance [pF/m]	≤ 1,6 (1kHz)
DC resistance inner conductor [Ω/km]	< 77
Resistance unbalance	≤ 2%
Insulation resistance [MΩ*km]	≥ 500 (500V)
Nominal velocity of propagation [approx.]	75 - 77%
Propagation delay [ns/100m]	< 534 (+36/(f)$^{1'2}$ ns/100m)
Delay skew [ns/100m]	< 25
Test voltage AC [kV AC]	n.s
Operating voltage [V]	< 72 V dc
Coupling attenuation	IEC 61156-5 Typ. III
Transfer impedance [mΩ/m]	n.a
Power line segregation	ISO/IEC 14763-2 & EN50174-2 Class C

Mechanical Properties

Min. bending radius (static) [mm]	28
Min. bending radius (dynamic) [mm]	56
Max. tensile strength [N]	150
Operating temperature range [°C]	-20 / +60

Storage temperature range [°C]	-20 / +60
Installation temperature range [°C]	0 / +50
UV-resistance	Limited

Transmission properties [20°C]

f [MHz]	a [dB/100m] max.	NEXT dB min.	PS NEXT dB min.	ACRF dB min.	PS-ACRF [dB/100m] max.	rl dB min.	Delay ns/100m max.	TCL dB min.	EL-TCTL dB min.	PS-ANEXT dB min.	PS-AACRF dB min.
1.0	2.0	74.3	72.3	67.8	64.8	20.0	570	40.0	35.0	67.0	67.0
10.0	5.9	59.3	57.3	47.8	44.8	25.0	545	40.0	15.0	67.0	58.2
20.0	8.3	54.8	52.8	41.8	38.8	25.0	542	37.0	9.0	67.0	52.2
25.0	9.3	53.3	51.3	39.8	36.8	24.3	541	36.0	7.0	67.0	50.2
30.0	10.2	52.1	50.1	38.3	35.3	23.8	541	35.2	5.5	67.0	48.7
62.5	14.9	47.4	45.4	31.9	28.9	21.5	539	32.0	NS	65.6	42.3
100.0	19.0	44.3	42.3	27.8	24.8	20.1	538	30.0	NS	62.5	38.2
200.0	27.5	39.8	37.8	21.8	18.8	18.0	537	27.0	NS	58.0	32.2
250.0	31.0	38.3	36.3	19.8	16.8	17.3	536	26.0	NS	56.5	30.2
300.0	34.2	37.1	35.1	18.3	15.3	16.8	536	25.2	NS	55.3	28.7
400.0	40.0	35.3	33.3	15.8	12.8	15.9	536	24.0	NS	53.5	26.2
500.0	45.3	33.8	33.8	13.8	10.8	15.2	536	23.0	NS	52.0	24.2

Alle Angaben verstehen sich, falls nicht anders angegeben, als Nennwert. Änderungen in Konstruktion und Ausführung vorbehalten.

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