S/FTP cable 4x2xAWG23, Category 7, 1000 MHz, LSOH, Euroclass D_{ca} - s2, d1, a1

P/N: **KE1000HS23-Dca**

10 Gigabit | Cat.7 | 1000 MHz | LS0H

D_{ca} s2,d1,a1

features

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, overall braid, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- enables also transmission of non-standard protocols used in hospitals, residential areas (home networking) and so on
- tested in bandwidth up to 1000 MHz
- suitable for enviroments with higher level of electromagnetic interference

application

- primary (Campus), secondary (Riser), tertiary (Horizontal)
- IEEE 802.3: 10GBASE-T; 100BASE-TX; 1000BASE-T; 10GBASE-T
- IEEE 802.5: 16 MB; ISDN; TPDDI; ATM
- high bandwidth digital applications with low BER
- multimedia transmissions like digital and analog video and voice (for specific protocol related details contact your supplier)

construction

Conductor	bare copper wire, AWG 23
Insulation	foamskin polyethylene, Ø 1,33 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated PET foil
Cable lay up	4 pairs to the core
Overall screen	braid 30%
Sheath	LSOH, gray RAL7035
Outer cable diameter	7,6 mm

reaction to fire and fire safety

Reaction to fire	D_{ca} - s2, d1, a1	
Fire safety	flame retardancy	IEC 60332-1-1, IEC 60332-1-2
	smoke performance	IEC 61034-1, IEC 61034-2
	halogen acidity	IEC 60754-1, IEC 60754-2

mechanical properties

Min. bending radius	installation	60 mm
	operation	30 mm
Temperature range	installation	0 °C až +50 °C
	operation	-20 °C až +60 °C
Max. tensile load	100 N (10 kg)	

electrical properties at 20°C

Loop resistance	-	≤ 165 Ω/ km
Resistance unbalance	-	< 2%
Insulation resistance	(500V)	≥ 2000 MΩ x km
Capacity	at 800 Hz	nom. 43 nF/ km
Capacity unbalance	(pair/ground)	≤ 1500 pF/ km
Characteristic impedance	pri 100 MHz	(100 ± 15) Ω
	(100 - 250) MHz	(100 ± 20) Ω
	(250 - 600) MHz	(100 ± 25) Ω
Nominal velocity of propagation (NVP)	-	cca 78%
Propagation delay	Nominal	≤ 427 ns/100 m
Delay skew	Nominal	≤ 12 ns/100 m
Test voltage	(DC, 1 min) core/core; core/screen	1000 V
Transfer impendance	at 1 MHz	≤ 12 mΩ/ m
	at 10 MHz	≤ 10 mΩ/ m
	at 30 MHz	≤ 30 mΩ/ m
Coupling attenuation	(Type II)	≥ 80 dB
Segregation classification acc. EN 50174-2	-	D

transmission properties at 20°C

f (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
4,0	3,70	78,00	75,00	97,0	94,0	78,00	75,00	23,01
10,0	5,86	78,00	75,00	95,0	92,0	75,30	72,30	25,00
16,0	7,41	78,00	75,00	93,0	90,0	71,22	68,22	25,00
31,2	10,41	78,00	75,00	90,0	87,0	65,40	62,40	23,64
62,5	14,88	75,46	72,46	86,0	83,0	59,38	56,38	21,54
100,0	19,00	72,40	69,40	83,0	80,0	55,30	52,30	20,11
250,0	30,97	66,43	63,43	62,0	59,0	47,34	44,34	17,30
500,0	45,26	61,92	58,92	48,0	45,0	41,32	38,32	17,30
600,0	50,10	60,73	57,73	40,0	37,0	39,74	36,74	17,30
900,0	63,01	58,09	55,09	23,0	20,0	36,22	33,22	15,50
1000,0	66,93	57,40	54,40	17,0	14,0	35,30	32,30	15,10

This product is certified on a component level by FORCE Technology international independent laboratories according to ISO/IEC 11801-1:2017 (Ed.1.0) / ISO/IEC 11801-2:2017 (Ed.1.0), IEC 61156-5:2012 (Ed.2.1), EN 50173-1:2018 / EN 50173-2:2018, EN 50288-4-1:2013, IEC 60332-1-1:2015 (Ed.1.1) / IEC 60332-1-2:2015 (Ed.1.1), IEC 60754-2:2011 (Ed.2.0), IEC 61034-1:2013 (Ed. 3.1) / IEC 61034-2:2013 (Ed.3.1).

Mass production of this product is under permanent supervision of third party international laboratories performing FORCE Technology EC VERIFIED quality audit of the manufacturer's production.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.