

P/N: KE1200HS23-Dca

S/FTP cable 4x2xAWG23, Category 7_A, 1200 MHz, LSOH, Euroclass D_{ca} - s2, d2, a1





Features

- each pair individually shielded with AL/PET foil, overall copper 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 a bandwidth up to 1200 MHz
- suitable for enviroments with higher level of electromagnetic interference

Application

- primary (Campus), secondary (Riser), tertiary (Horizontal)
- IEEE 802.3an: 10BASE-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 1,38 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs to the core
Overall screen	braid 30%
Sheath	LSOH, grey RAL 7035
Outer cable diameter	7,6 mm



Reaction to fire and flame resistance

Reaction to fire	D _{ca} – s2, d2, a1			
	flame retardancy	IEC 60332-1-1, IEC 60332-1-2		
Fire safety	smoke performance	IEC 61034-1, IEC 61034-2		
	halogen acidicy	IEC 60754-2		

Mechanical properties

installation	61 mm
operation	31 mm
installation	0 °C to +50 °C
operation	-20 °C to +60 °C
	100 N (10 kg)
	operation installation

Electrical properties at 20°C

Loop resistance	-	≤ 165 Ω/km		
Resistance unbalance	_	≤ 2 %		
Insulation resistance	(500V)	≥ 2 000 MΩ x km		
Capacity	at 800 Hz	nom. 43 nF/km		
Capacity unbalance	(pair/ground)	≤ 1500 pF/km		
Characteristic impedance	1–100 MHz	100 ± 15 Ω		
Nominal velocity of propagation (NVP)	_	ca. 78 %		
Propagation delay	Nominal	≤ 439 ns/100 m		
Delay skew	Nominal	≤ 12 ns/100 m		
Test voltage	(DC, 1 min) core/core; core/screen	1 000 V		
	at 1 MHz	≤ 12 mΩ/m		
Transfer impendance	at 10 MHz	≤ 10 mΩ/m		
	at 30 MHz	≤ 30 mΩ/m		
Coupling attenuation	Typ II (≥ 55 dB @ 100 MHz)	≥ 80 dB		
Segregation classification acc. EN 50174-2	-	d		



Transmission properties at 20°C

f (MHz)	Attenuation (dB/100 m)	NEXT (dB min)	PS-NEXT (dB min)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (dB)
1,0	1,8	100,0	97,0	98,0	95,0	105,0	103,00	20,0
4,0	3,4	100,0	97,0	97,0	94,0	93,00	91,00	23,0
10,0	5,4	100,0	97,0	95,0	92,0	85,00	83,00	25,0
16,0	6,8	100,0	97,0	93,0	90,0	81,00	79,00	25,0
20,0	7,7	100,0	97,0	92,0	89,0	79,00	77,00	25,0
31,2	9,6	100,0	97,0	90,0	87,0	75,00	73,00	24,0
62,5	13,7	100,0	97,0	86,0	83,0	69,00	67,00	22,0
100,0	17,4	100,0	97,0	83,0	80,0	65,00	63,00	20,0
125,0	18,6	95,0	92,0	76,0	73,0	63,00	61,00	19,0
155,0	19,5	95,0	92,0	75,0	69,0	61,00	59,00	19,0
175,0	22,1	92,0	89,0	70,0	67,0	60,00	58,00	18,0
200,0	25,0	92,0	89,0	67,0	64,0	59,00	57,00	18,0
250,0	28,1	90,0	87,0	62,0	59,0	57,00	55,00	17,0
300,0	30,9	89,0	86,0	58,0	55,0	55,00	53,00	17,0
450,0	37,4	87,0	84,0	50,0	47,0	52,00	50,00	17,0
600,0	44,8	85,0	82,0	40,0	37,0	49,00	47,00	17,0
1000,0	58,4	82,0	79,0	24,0	21,0	45,00	43,00	17,0
1200,0	65,2	82,0	79,0	17,0	17,0	43,00	41,00	15,0



The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision, which also carries out the assessment and verification of constant performance (AVCP) in the System 3.