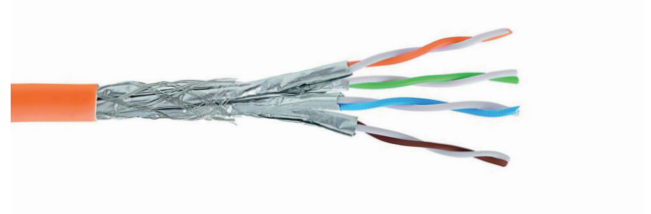
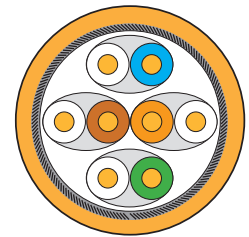


# S/FTP cable 4x2xAWG22, Category 7<sub>A</sub>, 1200 MHz, LSOH, Euroclass B2<sub>ca</sub> - s1a, d1, a1



P/N: KE1200HS22R-B2ca

10 Gigabit
Cat. 7<sub>A</sub>
1200 MHz
LSOH
B2<sub>ca</sub>



## 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 environments 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 802.3af, at, bt: PoE, PoE+, PoE++/4PPoE
- IEEE 802.5 16 MB; ISDN; TPDDI; ATM
- high bandwidth digital applications with low BER
- multimedia transmissions like digital and analog video and voice

## Construction

Conductor	bare copper wire, AWG 22
Insulation	foamskin polyethylene, Ø 1,45 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, orange RAL 2003
Outer cable diameter	8,2 mm

## Reaction to fire and flame resistance

Reaction to fire	B2 <sub>ca</sub> – s1a, 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 60754-2

## Mechanical properties

Min. bending radius	installation	66 mm
	operation	33 mm
Temperature range	installation	0 °C to +50 °C
	operation	-20 °C to +60 °C
Max. tensile load	100 N (cca 10 kg)	

## 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)	—	cca. 76%
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
Transfer impedance	at 1 MHz	≤ 12 mΩ/m
	at 10 MHz	≤ 10 mΩ/m
	at 30 MHz	≤ 30 mΩ/m
Coupling attenuation		≥ 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	15,1
1200,0	65,2	82,0	79,0	17,0	17,0	43,00	41,00	13,3



The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commission, which also carries out the assessment and verification of constant performance (AVCP) in the System 1+.