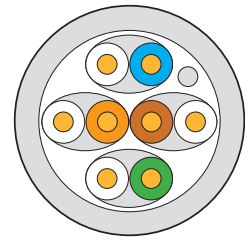
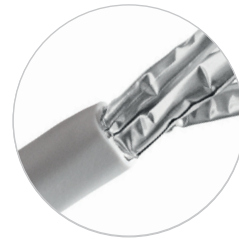
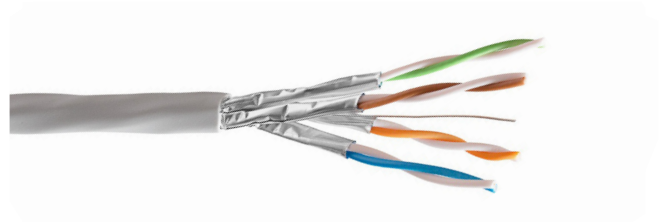
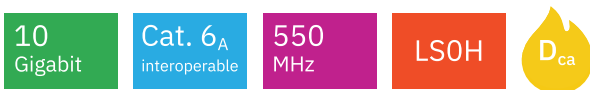


STP cable 4x2xAWG23, Category 6_A, 550 MHz, LSOH Euroclass D_{ca} - s2, d2, a1

P/N: KE550HS23/1E-Dca



Features

- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in a bandwidth up to 550 MHz

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

Construction

Conductor	bare copper wire, AWG 23
Insulation	foamskin polyethylene, Ø 1,28 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs to the core
Sheath	LSOH, gray RAL 7035
Outer cable diameter	6,9 mm

Reaction to fire and flame resistance

Reaction to fire	D _{ca} – s2, d2, 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	56 mm
	operation	28 mm
Temperature range	installation	0 °C to +50 °C
	operation	-20 °C to +60 °C
Max. tensile load	100 N (10 kg)	
Cable weight (netto)	46 kg/km	

Electrical properties at 20°C

Loop resistance	—	≤ 145 Ω/km
Resistance unbalance	—	≤ 2 %
Insulation resistance	(500V)	≥ 5 000 MΩ x km
Capacity	at 800 Hz	nom. 43 nF/km
Capacity unbalance	(piar/ground)	≤ 800 pF/km
Characteristic impedance	1 – 100 MHz	100 ± 15 Ω
	100 – 250 MHz	100 ± 20 Ω
	250 – 500 MHz	100 ± 25 Ω
Nominal velocity of propagation (NVP)	—	ca. 78 %
Propagation delay	Nominal	≤ 500 ns/100 m
Delay skew	Nominal	≤ 20 ns/100 m
Test voltage	(DC, 1 min) core/core; core/screen	1 000 V
Transfer impedance	at 1 MHz	≤ 50 mΩ/m
	at 10 MHz	≤ 100 mΩ/m
	at 30 MHz	≤ 200 mΩ/m
	at 100 MHz	≤ 1 000 mΩ/m
Coupling attenuation	Typ II (≥ 55 dB @ 100 MHz)	Alien crosstalk (ANEXT, AFEXT) is proven by design

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	1,9	100,0	97,0	97,0	94,0	103,0	100,0	—
4,0	3,5	100,0	97,0	96,0	93,0	103,0	100,0	26,0
10,0	5,5	100,0	97,0	94,0	91,0	96,0	93,0	29,0
16,0	6,9	100,0	97,0	92,0	89,0	92,0	90,0	29,0
20,0	7,8	100,0	97,0	91,0	88,0	90,0	87,0	29,0
31,2	9,7	100,0	97,0	89,0	86,0	86,0	83,0	28,0
62,5	13,8	100,0	97,0	85,0	82,0	80,0	77,0	27,0
100,0	17,7	99,0	96,0	82,0	80,0	76,0	73,0	25,0
125,0	19,6	94,0	91,0	74,0	71,0	74,0	71,0	24,0
155,5	22,3	93,0	90,0	71,0	68,0	72,0	69,0	24,0
175,5	23,4	92,0	89,0	69,0	66,0	72,0	69,0	23,0
200,0	25,3	91,0	88,0	66,0	63,0	70,0	67,0	23,0
250,0	28,7	89,0	86,0	61,0	58,0	68,0	65,0	22,0
300,0	32,3	88,0	85,0	57,0	54,0	66,0	63,0	22,0
400,0	38,0	86,0	83,0	47,0	45,0	63,0	60,0	21,0
500,0	41,2	84,0	81,0	39,0	36,0	60,0	57,0	20,0
550,0	43,5	83,0	80,0	33,0	30,0	58,0	55,0	18,0



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 61156-5:2020 (Ed. 3.0), EN 50173-1:2018 / EN 50173-2:2018, EN 50288-10-1:2012, TIA-568.2-D:2018, IEC 60332-1-1:2015 (Ed. 1.1) / IEC 60332-1-2:2015 (Ed. 1.1), IEC 60754-2:2019 (Ed. 2.1), IEC 61034-1:2019 (Ed. 3.2) / IEC 61034-2:2019 (Ed. 3.2).

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 Commission, which also carries out the assessment and verification of constant performance (AVCP) in the System 3.