

STP cable 4x2xAWG23, Category 6_A , 550 MHz, LSOH, Euroclass B2_{ca} - s1, d1, a1

P/N: KE550HS23/1E-B2ca



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, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550 MHz

application

- primary (Campus), secondary (Riser), tertiary (Horizontal)
- IEEE 802.3: 10BASE-T; 100BASE-TX; 1000BASE-T; 10GBASE-T
- IEEE 802.5: 16 MB; ISDN; FDDI; ATM
- high bandwidth digital applications with low BER

construction

Conductor	bare copper wire, AWG23
Insulation	foamskin polyethylene, Ø 1,3 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs to the core
Sheath	LSOH, orange RAL 2003
Outer cable diameter	7,5 mm

reaction to fire and flame resistance

Reaction to fire	B2 _{ca} - s1, 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 to +50 °C
	operation	-20 °C to +60 °C
Max. tensile load	100 N	
Cable weight (netto)	48 kg / km	

electrical properties at 20°C

Loop resistance	-	≤ 145 Ω/ km
Resistance unbalance	-	≤ 2%
Insulation resistance	(500V)	≥ 5000 MΩ x km
Capacity	at 800 Hz	nom. 43 nF/ km
Capacity unbalance	(pair/ground)	≤ 1500 pF/ km
Characteristic impedance	at 100 MHz	(100 ± 5) Ω
	(100 - 250) MHz	(100 ± 10) Ω
Nominal velocity of propagation (NVP)	-	cca 75%
Propagation delay	Nominal	≤ 450 ns/100 m
Delay skew	Nominal	≤ 15 ns/100 m
Test voltage	(DC, 1 min) core/core; core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 50 mΩ/ m
	at 10 MHz	≤ 100 mΩ/ m
	at 30 MHz	≤ 200 mΩ/ m
	at 100 MHz	≤ 1000 mΩ/ m
Coupling attenuation	Typ II (≥ 55dB@100MHz)	Alien crosstalk (ANEXT, AFEXT) is proven by design

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)
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 61156-5:2012 (Ed. 2.1), 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 60754-2:2011 (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

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+

