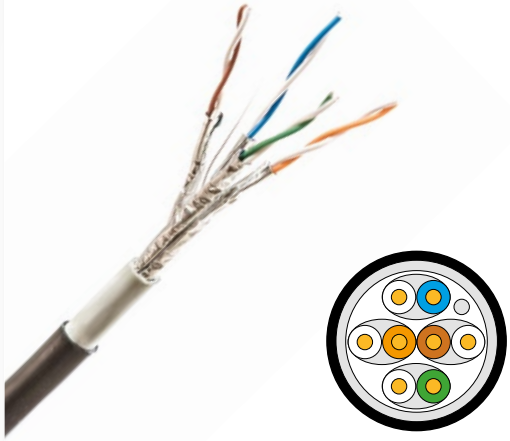
Outdoor / direct burial STP cable 4x2xAWG23 Category 6_A , 550 MHz, with double-sheath

P/N: **KE500S23OUT**

10 Gigabit | Cat.6_A interoperable | 550 MHz | OUTDOOR



features

- suitable for outdoor and industrial environment
- double sheath with total thickness of 1.7 mm
- extremely resistant to mechanical damage and environmental influences
- resistant to moisture, water and UV radiation
- cable core is identical with construction of KE500S23/1E
- enables transmission of all high-speed protocols including 10GBASE-T
- characterized up to 550 MHz

application

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

construction

Conductor		bare copper wire, Ø 0.56 mm (AWG23)
Insulation		foamskin polyethylene, Ø 1.3 mm
Twisting		2 cores to the pair
Pair screen		high perfomance STP: Al-laminated plastic foil
Cable lay up		4 pairs to the core
Sheath	outer	PE, black RAL9005
	inner	LSOH, gray RAL7035
Outer cable diameter		8,8 mm
Outer PE sheath thickness		0,9 mm
Inner sheath thickness		0,8 mm

mechanical properties

Min. bending radius	installation	72 mm
	operation	36 mm
Temperature range	installation	0 °C až +50 °C
	operation	-20 °C až +70 °C
Max. tensile load	100 N (10 kg)	
Weight	67 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 78%
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 impendance	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 max)	NEXT (dB min)	PS-NEXT (dB min)	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 3P international independent laboratories according to ISO/IEC 11801:2011 (Ed.2.2) Category 6_A, EN 50173-1:2011, ANSI/TIA 568-C.2 Category 6A, IEC 61156-5 2nd edition, EN 50288-10-1:2012. IEC 60332-1-2, IEC 61034-1, IEC 61034-2 amendment 1, IEC 60754-2. Mass production of this product is carried out under the supervision of 3P laboratories.

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