



## Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)

IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;

IEEE 802.5 16 MB; ISDN; TPDDI; ATM

## Standards

EIA/TIA 568-B.2-1 6/2002

ISO/IEC 11801 2<sup>nd</sup> ed.; IEC 61156-5

EN 50173-1; EN 50288-6-1

## Flame resistance

LSZH (LSOH): IEC 60332-1; IEC 60754-2; IEC 61034

## Construction

Conductor	bare copper wire, $\varnothing$ 0.55 mm (AWG23)
Insulation	Polyethylene, $\varnothing$ 1.0 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core non metallic cross separator (spline)
Sheath	LSZH (LSOH), grey RAL 7032

## Mechanical properties

Minimum bending radius

Temperature range

Installation	8 x D
Installed	4 x D
during operation	-10°C upto + 60°C
during installation	0°C upto + 50°C

**KELine®**  
**Cable****U/UTP 4x2x0.55(AWG23) CAT.6 LSOH**  
**100Ω Data Cable ISO/IEC 11801****U/UTP****Electrical properties****at 20°C±5°C**

DC loop resistance	≤ 176Ω/km
Resistance unbalance	≤ 2%
Insulation resistance (500 V)	≥ 5000 MΩxkm
Capacitance at 1 kHz	nom. 56 nF/km
Capacitance unbalance (pair to ground)	≤ 1500 pF/km
Characteristic impedance	(1 – 100 MHz) (100 ± 15) Ω
	(100 – 250 MHz) (100 ± 22) Ω
Nominal velocity of propagation	Approx. 69%
Propagation delay	Maximum 545 ns/100 m
Delay skew	Maximum 45 ns/100 m
Test voltage (DC, 1 min)	1000 V
Core/Core	

**Transmission characteristics acc. to Category 6****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)
	Max.	Nom.	Min.	Nom.	Min	Nom.	Min.	Nom.	Min.	Nom.	Min	No m	Min.	Nom.	
1	2.0	1.9	74	78	72	75	72.0	76.1	70.0	73.1	68	82	65	80	20
4	3.8	3.8	65	69	63	66	61.2	65.2	59.2	62.2	56	70	53	68	23
10	6.0	6.0	59	63	57	60	53.0	57.0	51.0	54.0	48	62	45	60	25
16	7.6	7.6	56	60	54	57	48.4	52.3	46.4	49.3	44	58	41	56	25
20	8.5	8.5	55	59	53	56	46.5	50.0	44.5	47.0	42	56	39	54	25
31.2	10.7	10.7	52	56	50	53	41.3	45.0	39.3	42.0	38	52	35	50	23.6
62.5	15.4	15.1	47	51	45	48	31.5	36.0	29.5	33.0	32	46	29	44	21.5
100.0	19.8	19.1	44	48	42	45	24.1	28.9	22.1	25.9	28	42	25	40	20.1
125	22.5	21.3	43	47	41	44	20.5	25.2	18.5	22.2	26	40	23	38	19.5
155.5	25.4	23.8	42	45	40	42	16.6	21.3	14.6	18.3	24	38	21	36	18.8
175	27.1	25.3	41	44	39	41	13.9	19.1	11.9	16.1	23	37	20	35	18.4
200	29.0	27.0	40	44	38	41	10.8	16.5	8.8	13.5	22	36	19	34	18.0
250	32.8	32.0	38	42	36	39	5.0	10.0	2.0	7.0	20	34	17	32	17.3
300		36.1		41		38		4.8		1.8		32		30	

**Technical data**

Product code	Designation	Brand name	Colour	Outer diameter mm	Fire load		Weight	Copper content	Tensile force
					MJ/km	kWh/m			
KE300U23LSOH	U/UTP 4x2x0.55AWG23	KELine	grey	6.0	358	0.099	42	20.5	100N

**Marking : KELine Giga+ UTP 4x2x0.55mm LSZH-1 ISO/IEC 11801 3143535 ETL VERIFIED TO TIA/EIA 568-B.2-1 CAT6 KE300U23LSOH ZYYMMDDHHmm (\*)**

Where:

(\*) = Decreasing sequential length marking in meters from 305 m to 001 m with ± 0.5% for length marking tolerance