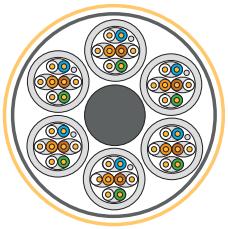
Trunk cabel /jack-jack/, STP 6x4x2xAWG23, Category 6_A, 500 MHz, LSOH

P/N: KE-TC6AHD-xxx



10 Gigabit | Cat. 6_A interoperable | 500 MHz | LSOH | HD HIGH DENSITY

Features

- allows to easily and quickly implement any necessary changes in a data center without a need to outsource other installation capacity
- simplifies and streamlines a management of cable routes
- enables transmission of all high-speed protocols including 10GBASE-T
- cable characterized up to 550 MHz
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people

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

Mechanical properties of keystone jack HD

Suitable for installing on cables	with solid wires	from 0,51 mm to 0,64 mm (AWG 24 – AWG 22)
	with stranded wires (special plastic insert)	from AWG27/7 to AWG 26/7
Required installation depth		sockets with angled faceplates 10 – 35 mm
		sockets with straight faceplates 35 mm
Insertion/extraction cycles		min. 750
Temperature range	operation	-40°C to +70°C
IDC reterminations		min. 20
Contact pin material		phosphor-bronze alloy coated with 50 µ of gold
IDC contacts material		high strenght phosphor-bronze alloy
IDC contacts plating		100 micron tin alloy

Electrical properties of keystone jack HD at 20°C

Current rating	1,25 A max
Contact resistance of spring	20 mΩ max
Contact resistance of IDC	2,5 mΩ max
Dielectric strenght	1 000 V DC/AC 1 min. C to C
	1 500 V DC/AC 1 min. C to panel
Insulation resistance	500 MΩ

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Transmission properties of keystone jack HD at 20°C

f (MHz)	Attenuation (dB max)	NEXT (dB min)	PS-NEXT (dB min)	FEXT (dB min)	Return loss (dB min)	TCL (dB min)	PS-ANEXT (dB min)	PS- AFEXT (dB min)
1,0	0,1	75,0	72,0	75,0	30,0	40,0	72,0	72,0
4,0	0,1	75,0	72,0	71,1	30,0	40,0	72,0	72,0
10,0	0,1	74,0	70,0	63,1	30,0	40,0	72,0	72,0
16,0	0,1	69,9	65,9	59,0	30,0	40,0	72,0	72,0
20,0	0,1	68,0	64,0	57,1	30,0	40,0	72,0	72,0
31,2	0,1	64,1	60,1	53,2	30,0	38,1	72,0	72,0
62,5	0,16	58,1	54,1	47,2	30,0	32,1	72,0	71,1
100,0	0,2	54,0	50,0	43,1	28,0	28,0	70,5	67,0
155,0	0,24	50,2	46,2	39,3	25,0	25,0	66,7	63,2
200,0	0,28	48,0	44,0	37,1	22,0	22,0	64,5	61,0
250,0	0,32	46,0	42,0	35,1	20,0	20,0	62,5	59,0
300,0	0,35	43,7	39,7	33,6	18,5	18,5	61,0	57,5
400,0	0,4	39,9	35,9	31,1	16,0	16,0	58,5	55,0
500,0	0,45	37,0	33,0	29,1	14,0	14,0	56,5	53,0

Construction of trunk cable

Cable core	STP 6x4x2xAWG23
Outer cable diameter	25 mm
Copper conductor diameter	AWG 23

Construction of cable

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

Mechanical properties of trunk cable

Min. bending radius	installation	200 mm
	operation	100 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)		56 kg/100 m

Electrical properties of the individual wires at 20°C

Loop resistance	—	≤ 145 Ω/km
Resistance unbalance	—	≤ 2 %
Insulation resistance	(500 V)	≥ 5 000 MΩ x km
Capacity	at 800 Hz	nom. 43 nF/km
Capacity unbalance	(pair/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 woltage	(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	Type II (≥ 55 dB @ 100 MHz)	Alien crosstalk (ANEXT, AFEXT) is proven by design

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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

All components of this product are certified on a component level by GHMT and FORCE Technology international independent laboratories according to: ISO/IEC 11801-1: 2017 (Ed. 1.0), IEC 60603-7-51:2010 (Ed. 1.0) for keystone and 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) for cable. Mass production of this product is carried out under the supervision of FORCE Technology laboratories.