



CAT.5E HDC Cable

The CAT.5E HDC cable is a double-shielded twisted pair cable that optimizes video signal transmission of IDK's HDC series product (twisted pair cable extenders and splitters), MSD and FDX series products (products with extending function).

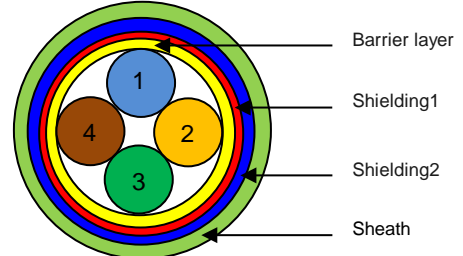
The CAT.5E HDC cable is certified to 500 MHz bandwidth at distance up to 328 ft. (100 m) and verified to meet requirements specified by HDBaseT Alliance. The double-shielded structure protects video signal from outside interference. In order to maximize the performance of the CAT.5E HDC cable, use IDK's transmitters and receivers with STP's RJ-45 connector and keep the cable grounded.

The CAT.5E HDC cable can transmit 4K video up to 328 ft. (100 m) when it is connected to IDK's 4K product.

If connecting 4K compliant product, the CAT.5E HDC cable can transmit video signals of 4K resolution up to 328ft. (100 m).

PoH-compliant devices can be powered.

Specification							
Structure	SF / UTP 4 Unshielded Twisted pair, 24 AWG solid tinned annealed copper Double shielding: Double-faced aluminum foil tape + Tinned annealed copper wire braid (Density: 90% or more)						
Certification	UL20276 (Rating 176°F ((80 °C)), 30 V)						
Standards	ANSI / TIA-568-C.2 Enhanced Category 5						
RoHS	Yes						
Operating temperature range	14 °F to 140°F (-10 °C to +60 °C)						
Printing on sheath	xxxM AWM 20276 VW-1 80C 30V E59568-A IDK Corporation CAT.5E HDC-CABLE AWG24-4P-SASB HDBaseT (TM) Recommended Cable Meter marks ("xxxM") are printed with a distance of one meter						
Others	Indoor use, Ethernet, meeting ANSI/TIA-568-C.2 Enhanced Category5 (Bandwidth: 500 MHz)						
Physical Characteristics							
Conductor	Material	Annealed copper					
	Outside dia.	0.02" (0.51 mm)					
	Stranding	Solid					
Insulation	Material	Polyolefin					
	Nominal thickness	0.009" (0.245 mm)					
	Outside dia.	0.039" (1.0 mm)					
Twisted pair	Insulation color	Blue / White (Blue), Orange / White (Orange) Green / White (Green), Brown / White (Brown)					
		Four (4) Unshielded twisted pairs (8 in total)					
Barrier layer		Plastic tape lap winding					
Double shielding	Shielding1	Double-faced aluminum foil polyester tape lap winding					
	Shielding2	Tinned annealed copper wire braid (Density: 90% or more)					
Sheath	Material	Lead-free · Heat-resistant PVC					
	Nominal thickness	0.021" (0.55 mm)					
	Color	RAL 6018 Yellow green					
Outside dia.		0.259" (6.6 mm)					
Frame resistance		UL1581 VW-1					
Weight		About 28.7 lbs.(13.0 kg) / 656 ft. (200 m)					
Mechanical Characteristics							
Maximum recommended pulling tension		110 N					
Minimum bend radius		1.2" (30 mm)					
Electrical Characteristics							
Conductor resistance		93.8 Ω / Km or less (68°F ((20 °C))					
Insulation resistance		2,500 MΩ · km or more					
Dielectric strength AC		500 V · min.					
Characteristic impedance		100 ± 15 Ω (1 MHz to 500 MHz)					
Capacitance		56.0 nF / km or less (1 kHz)					
Transmission Characteristics		*Frequencies that exceeds TIA or ISO are just for your information.	100 m = approx. 330 feet				
Frequency (MHz)	Insertion Loss :IL @20C (dB / 100 m)	Near End Crosstalk Loss : NEXT (dB)	Power Sum NEXT : PSNEXT (dB)	ACR to FEXT Ratio : ACRF (dB / 100 m)	Power Sum ACRF : PSACRF (dB / 100 m)	Return Loss : RL (dB)	Propagation Delay : DELAY (ns / 100 m)
0.772	1.8	81.7	79.7	77.4	74.9	—	—
1	2.0	79.3	77.8	77.2	73.3	33.5	531
4	3.8	72.1	68.9	64.5	62.0	36.0	512
8	5.3	61.2	60.0	58.6	56.2	30.0	507
10	5.9	69.2	61.2	56.7	54.2	30.5	506
16	7.5	59.9	59.1	52.7	50.3	33.9	504
20	8.4	54.8	53.2	50.8	48.4	31.4	503
25	9.3	50.3	49.9	48.9	46.5	32.8	502
31.25	10.4	56.2	55.4	47.1	44.6	32.7	501
62.5	14.7	44.0	43.6	42.5	39.9	31.7	499
100	18.5	52.3	49.7	40.6	37.6	31.0	498
200*	26.5	50.8	43.0	32.7	30.9	29.0	497
250*	29.8	43.0	39.7	31.8	28.4	26.3	497
300*	32.9	37.3	36.4	28.1	27.7	22.1	497
400*	38.4	38.2	35.2	29.1	25.0	24.7	497
500*	43.0	33.7	31.5	30.8	27.4	25.7	496
Propagation Delay Skew : SKEW		Maximum: 21.2 ns / 100 m, Minimum: 19.9 ns / 100 m					



Insulation colors
1. Blue / White (Blue), 2. Orange / White (Orange)
3. Green / White (Green), 4. Brown / White (Brown)

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Models	
Cable without connectors	HDC-C5E-xx or xxx The length can be specified from 1 m to 200 m by the meter. (e.g. HDC-C5E-08: The length is 8 m; HDC-C5E-123: The length is 123 m)
Cable with connectors (Both ends / One end)	HDC-C5E- xx or xxx A or B "A": Both ends; "B": One end A: The length can be specified from 1 m to 150 m by the meter. B: The length can be specified from 1 m to 200 m by the meter. (e.g. HDC-C5E-08A: Both ends, 8 m; HDC-C5E-123B: One end 123 m)
Parts for attaching connectors (Optional)	Two (2) shielded RJ-45 connectors, two (2) connector covers (RAL 6018 Yellow green), and two (2) seals of 0.3" (8 mm)-aluminum foil tape for braid We recommend these parts to maximize the performance of the CAT.5E HDC cable. Please contact us for details.

■ Features

- Engineered for optimizing video signal transmission of IDK's HDC series product (twisted pair cable extenders and splitters) , MSD and FDX series products (products with extending function)
- Meets requirements specified by HDBaseT Alliance
- Double-shielded structure: Provides additional protection video signal from outside interference
- Certified to 500 MHz bandwidth at distance up to 328 ft. (100 m)
- 4K video signal transmission up to 328 ft. (100 m) available (when using with IDK's 4K products)
- Long reach mode: up to 492 ft. (150 m), 1080p (24 bit) or less, with IDK's HDBaseT products supporting 328 ft. (100 m)
- PoH-compliant devices can be powered
- Connectors can be attached easily
- Employs highly-reliable 24 AWG solid copper conductor
- SF /UTP design: overall braid and foil shield / four (4) unshielded twisted pairs
- Easy installation: Braid density is 90% or more but flexible
- Cable length can be specified by the meter
- Meter marks for every 1 meter on the sheath

■ Photos

Cable without connector



Cable with connectors




Parts for attaching connectors (Optional)

Shielded RJ-45 connector, connector cover (RAL 6018 Yellow green), and seals of 0.3" (8 mm)-aluminum foil tape for braid


■ Ordering code

 Example:
 Cat5e STP cable, 10 m, with both ends

HDC-C5E-10A


- ① : Length [m] can be specified from 1 m by the meter
 Both ends: Can be specified from 1 m to 150 m
 One end: Can be specified from 1 m to 200 m
- ② : A: Both ends or B: One end