

# Category 6A UTP Cable

Category 6A Unshielded Twisted Pair Cable, UL Listed, RoHS Compliant

Infinique’s Category 6A (Augmented Category) UTP UL listed cable has been designed for high network performance of up to 550 MHz over distances of up to 100 meters. It provides considerable margin above all electrical transmission performance requirements specified in ISO/IEC 11801 Class EA and ANSI/TIA-568C.2 standards and supports 10 Gigabit Ethernet (10GBASE-T). The cable construction has tighter twists and in-built longitudinal separators to reduce alien crosstalk (AXT) coupling between adjacent cables.

Infinique’s Category 6A UTP Cable is also available with a LSOH jacket with flame retardant standards as defined in IEC 60332-1, and smoke emission standards IEC61034. These cable are supplied on 305 or 500 meter reels with sequential meter marking. Infinique Category 6A UTP Cable is backwards compatible and provides flexibility to protect network investments well into the future.

With guaranteed significant channel margin over the entire frequency range, from 1 to 500 MHz for the entire channel link, Infinique Cat.6A UTP cable can transmit data, voice, video and PoE Power over Ethernet standard (POE 802.3af) allowing data and power connection for POE equipments.

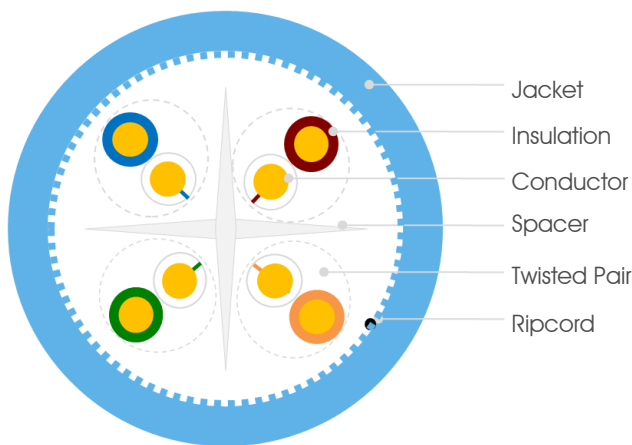
It is certified to the ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class EA standards and supports applications such as, Ethernet 10BASE-T, 100BASE-T (Fast Ethernet), 1000BASE-T (Gigabit Ethernet as specified in 10GBASE-T standards), 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM and Token Ring 4/16.

Collectively with other Infinique’s Category 6A products, Cat.6A UTP Cable is the right solution for voice, data and video transmission needs.

## Features and Benefits

- Certification**  
 ETL Verified for performance as per ANSI/TIA-568-C.2 and ISO/IEC 11801 standards
- Reliable Performance**  
 Channel performance in a 4-connector configuration up to 100 meters and meets ANSI/TIA-568-C.2 Category 6 and ISO 11801 Class EA standards at swept frequencies up to 500MHz
- Higher Bandwidth**  
 100 Ohm 4-pair construction with center spacer provides the extra margin of performance required for high bandwidth applications
- Performance Warranty**  
 Qualifies for the Infinique’s 25 Years System Performance Link Warranty

## CABLE CONSTRUCTION



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## ELECTRICAL SPECIFICATIONS

DC Resistance	<9.5Ω /100m
DC Resistance Unbalance	Max 5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<330 pF/100m
Characteristic Impedance	1 – 100MHz: 100 Ω ± 15%; 1 – 350MHz: 100 Ω ± 18%; 1 – 500MHz: 100 Ω ± 25%,
Insulation Resistance	> 5000 MΩ x km
Propagation Speed	10MHz (NVP*c): 0,79c
NVP Value (Nominal Velocity of Propagation)	70%
Signal Propagation Delay	>10MHz: 4,2ns/m
Delay Skew	<45ns/100m

## MATERIAL SPECIFICATIONS

Conductor	Solid Bare Copper 23 AWG   Ø (mm): 0.57mm
Insulation	Material: Halogen Free Foam/Skin F-PE   Ø (mm): 1.03±0.005mm; Thickness: Avg: 0.65±0.05mm
Cabling	Four Unshielded Twisted Pairs
Pairing	1 - Blue/White-Blue; 2 - Orange/White-Orange; 3 - Green/White-Green; 4 - Brown/White-Brown
Spacer	PE (Polyethylene)
Rip Cord	Nylon Thread
Outer Jacket	Flame Retardant CMX Cable Jacket; Diameter: 6.9 ±0.4mm
Fire Protection	CMR, Safety Standard: UL 1581 VW-1
Pulling Tension Max	110N (25lbf)
Bend Radius	One Time: 4 x O.D. Installation: 8 x O.D.
Operating Temperature	-20°C ~ 60°C
Storage Temperature	-20°C ~ 75°C
Installation Temperature	0°C ~ 60°C

## TRANSMISSION PERFORMANCE

Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS NEXT (dB)	ELFEXT (dB/100m)	PS ELFEXT (dB/100m)	RL (dB)
1	2.1	74.3	72.3	67.8	64.8	20.0
4.0	3.8	65.3	63.3	55.8	52.8	23.0
8.0	5.3	60.8	48.8	49.7	46.7	24.5
10.0	5.9	59.3	57.3	47.8	44.8	25.0
16.0	7.5	56.2	54.2	43.7	40.7	25.0
20.0	8.4	54.8	52.8	41.8	38.8	25.0
25.0	9.4	53.3	41.3	39.8	36.8	24.3
31.25	10.5	51.9	49.9	37.9	34.9	23.6
62.5	15.0	47.4	45.4	31.9	28.9	21.5
100	19.1	44.3	42.3	27.8	24.8	20.1
200	27.6	39.8	37.8	21.8	18.8	18.0
250	31.1	38.3	36.3	19.8	16.8	17.3
300	34.3	37.1	35.1	18.3	15.3	16.8
500	45.3	33.8	31.8	13.8	10.8	15.2
*550	44.7	33.2	31.2	13.0	10.0	14.9

\*Frequency values above industry standards are for information only.

## STANDARDS

ETL Verified for performance as per ANSI/TIA-568-C.2 and ISO/IEC 11801 Class EA Channel standards.

EN 50173 MICE Environmental Requirements.

Flame Retardant as per IEC 60332-1 and EN 50266-2-1

Non Corrosive as per IEC 60754-2 and EN 50267

Low Smoke Emission as per IEC 61034 and EN 50268

## PACKING

Mefer Marking: INFINIQUE CANADA CAT.6A UTP 4PR 23 AWG ETL VERIFIED TO ANSI/TIA-568-C.2, ISO/IEC 11801, UL LISTED + \*\*\*\*m +PRODUCTION DATE SN

500m (1640ft) packed in No-Snag Cable De-reeler Box with Plastic Reinforced Handle Grips

## ORDERING INFORMATION

Part Number	Description
INC6AU4IBR-500	Category 6A UTP Cable, 23 AWG Cable, CMR Jacket, ETL Verified, UL Listed, RoHS, 500m
INC6AU4IBL-500	Category 6A UTP Cable, 23 AWG Cable, LSOH Jacket, ETL Verified, UL Listed, RoHS, 500m

For different color cable jackets, replace IB in the Part Number with the required cable jacket color code BK-Black; BL-Blue; GR-Green; GY-Gray; IB-Ice Blue; OR-Orange; PR-Purple; RD-Red; WT-White; YW-Yellow



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