DATASHEET

CAT6 U/UTP PVC CABLE

COPPER DATA CABLES



A **Category 6 U/UTP** data cable **tested to 500 MHz** and **recommended by the HDBaseT Alliance**, making it an ideal choice for high speed data networks and HDBaseT video, audio and control links across a home or building. Four twisted pairs of **23 AWG bare copper** with HDPE insulation are protected by a flexible **PVC sheath**, giving a compact **6.2 mm** overall diameter that is easy to route and terminate. Manufactured in accordance with **TIA/EIA 568-C.2** and **ISO/IEC 11801**, the cable is CPR classified **Eca** to EN 50575 and flame retardant to BS EN 60332-1-2. Its 450/750 V rating means it can be installed where Band II mains cables are present. Available in **11 sheath colours** for easy circuit identification.

Dimensions: Ø 6.2 ± 0.2 mm

Weight: 46 kg/km

Performance: Tested to 500 MHz

FEATURES & BENEFITS

- Category 6 U/UTP construction, tested to 500 MHz
- HDBaseT recommended for video, audio, data and control
- 4 pairs of 23 AWG bare copper conductors
- HDPE insulation for stable transmission performance
- Compact 6.2 mm PVC sheath, easy to install
- Rated 450/750 V for installation alongside Band II cables
- Available in 11 sheath colours

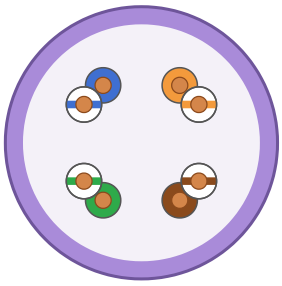
APPLICATIONS & COMPLIANCE

- Structured cabling and high speed data networks
- HDBaseT AV distribution in homes and buildings
- Manufactured to TIA/EIA 568-C.2 and ISO/IEC 11801
- CPR classification Eca (EN 50575:2014+A1:2016)
- Flame retardant to BS EN 60332-1-2
- RoHS3 compliant; CE – LVD 2014/35/EU, CPR 305/2011

TECHNICAL SPECIFICATION

Properties		Value
Conductor		Bare copper, 23 AWG (solid)
Insulation		High density polyethylene (HDPE)
Number of pairs		4
Sheath		Polyvinyl chloride (PVC)
Overall diameter		6.2 ± 0.2 mm
Weight		46 kg/km
Bend radius	Fixed	4 x OD
	Flexing	8 x OD
Temperature	Fixed	-20 °C to +60 °C
	Flexing	-10 °C to +60 °C

TECHNICAL DRAWING



- Bare copper conductor (23 AWG)
- HDPE insulation
- 4 twisted pairs
- PVC outer sheath

Pair identification: White/Blue – Blue/White, White/Orange – Orange/White, White/Green – Green/White, White/Brown – Brown/White. Not to scale.

Non-contractual pictures. Specifications subject to change without notice. FT-EN-CAT6-U/UTP_2026-11 © Telenco

ELECTRICAL CHARACTERISTICS

Properties	Value
Max. conductor resistance at 20 °C	≤ 9.38 Ω/100 m
Max. resistance unbalance	≤ 2.5 %
Nominal impedance (1–100 MHz)	100 ± 15 Ω
Mutual capacitance	≤ 5.6 nF/100 m
Capacitance unbalance to earth	≤ 330 pF/100 m
NVP	68.5 %
Max. delay skew	≤ 45 ns/100 m
Voltage rating (EN 50525-1)	450/750 V*
Test voltage	2.5 kV AC

**Suitable for installation where Band II 450/750 V cables are present. Not suitable for connection to mains supply.*

STANDARDS

Properties	Value
Manufactured to	TIA/EIA 568-C.2, ISO/IEC 11801
CPR classification	Eca (EN 50575:2014+A1:2016)
Flame retardant	BS EN 60332-1-2
Approval	HDBaseT recommended
RoHS3 compliance	Yes
CE compliant	LVD (2014/35/EU), CPR (305/2011)

TRANSMISSION PERFORMANCE

FREQUENCY (MHz)	1	4	10	16	20	31.25	62.5	100	200	250	300	400	500
Attenuation (dB)	1.9	3.5	5.5	7.0	7.9	10.0	14.4	18.6	27.4	31.1	34.0	41.1	47.1
Return loss (dB)	19.1	21.0	21.0	20.0	19.5	18.5	16.0	14.0	11.0	10.0	9.2	8.0	7.0
NEXT (dB)	65.0	64.1	57.8	54.6	53.1	50.0	45.1	41.8	36.0	35.3	34.0	31.9	30.4
PS NEXT (dB)	62.0	61.8	55.5	52.2	50.7	47.5	42.7	39.3	34.3	32.7	31.4	29.3	27.6
ACRF (dB)	64.2	52.1	44.2	40.1	38.2	34.3	28.3	24.2	18.2	16.2	14.6	12.1	10.2
PSACRF (dB)	61.2	49.1	41.2	37.1	35.2	31.3	25.3	21.2	15.2	13.2	11.6	9.1	7.2

COLOUR OPTIONS



Black	Blue	Brown	Red	White	Grey	Violet	Pink	Orange	Yellow	Green
00	01	02	03	04	05	06	07	08	09	10

ORDERING INFORMATION

CODE	MODEL	DESCRIPTION	PAIRS	OVERALL Ø	WEIGHT
TBC	C6TXX-E00	Cat6 U/UTP PVC cable, 23 AWG	4	6.2 ± 0.2 mm	46 kg/km

XX = sheath colour code from the colour options table, e.g. C6T01-E00 = Blue.

Non-contractual pictures. Specifications subject to change without notice. FT-EN-CAT6-UUTP_2026-11 © Telenco