GIGANEED

TECHNICAL DATASHEET

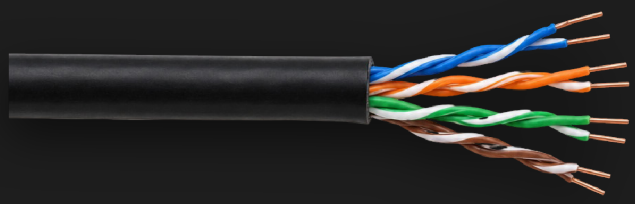
CAT 6A

U/UTP

Outdoor network cable (data / LAN)

CAT 6A U/UTP OUTDOOR (4 × 2 × 23 AWG)

CABLE TODAY · WONDERFUL TOMORROW



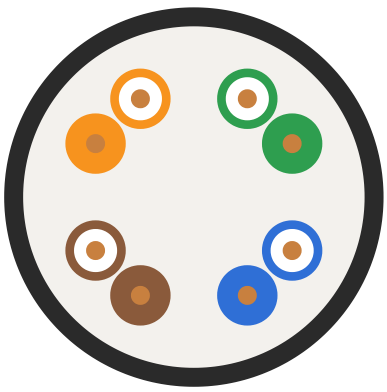
500 MHz | 10 Gbit/s | Outdoor | Black LDPE jacket | 4P × 23 AWG | Fca

OVERVIEW

The GIGA-C6A-U-EXT brings 10 Gbit/s to outdoor links: its four unshielded twisted pairs of solid annealed copper, 23 AWG, are protected by a weather-resistant black low-density polyethylene (LDPE) jacket. Specified up to 500 MHz, it connects buildings, access points and remote cameras. 6.7 mm diameter, 305 m box or 500 m reel.

CONSTRUCTION

Make-up	8 insulated conductors in 4 twisted pairs
Conductor	Solid annealed copper, 23 AWG
Insulation	HDPE
Screen	None (U/UTP)
Jacket	LDPE, black
Outer diameter	6.7 ± 0.5 mm
Colour code	Orange, green, blue, brown (with whites)
Reaction to fire (CPR)	Fca



- Black LDPE jacket
- 4 twisted pairs
- Copper conductors 23 AWG

MECHANICAL CONDITIONS

Operating	Max. tensile load	Diameter
–30 °C to +70 °C	10 kg	6.7 mm

GIGANEED

CAT 6A U/UTP (4 x 2 x 23 AWG)

STANDARDS

- ANSI/TIA/EIA-568-B.2
- ISO/IEC 11801
- EN 50173
- EN 50575 (CPR)

ELECTRICAL PROPERTIES

Impedance (1–250 MHz)	100 ± 15 Ω
Impedance (250–500 MHz)	100 ± 22 Ω
Conductor resistance	≤ 93.8 Ω/km at 20 °C
Resistance unbalance	≤ 5 %
Capacitance unbalance	≤ 45 nF/km at 1 kHz
Velocity of propagation (NVP)	68 %

FREQUENCY PERFORMANCE

Frequency	Attenuation	NEXT	PS-NEXT	ACR-F	PS ACR-F	RL	Delay
(MHz)	dB/100 m · max	dB · min	dB · min	dB/100 m · min	dB/100 m · min	dB · min	ns/100 m · max
1	2.1	74.3	72.3	67.8	64.8	20.0	570.0
4.0	3.8	65.3	63.3	55.8	52.8	23.0	552.0
8.0	5.3	60.8	58.8	49.7	46.7	24.5	546.7
10.0	5.9	59.3	57.3	47.8	44.8	25.0	545.4
16.0	7.5	56.2	54.2	43.7	40.7	25.0	543.0
20.0	8.4	54.8	52.8	41.8	38.8	25.0	542.1
25.0	9.4	53.3	51.3	39.8	36.8	24.3	541.2
31.25	10.5	51.9	49.9	37.9	34.9	23.6	540.4
62.5	15.0	47.4	45.4	31.9	28.9	21.5	538.6
100	19.1	44.3	42.3	27.8	24.8	20.1	537.6
200	27.6	39.8	37.8	21.8	18.8	18.0	536.5
250	31.1	38.3	36.3	19.8	16.8	17.3	536.3
300	34.3	37.1	35.1	18.3	15.3	16.8	536.1
500	45.3	33.8	31.8	13.8	10.8	15.2	535.6

T568B COLOUR CODE

Pair 2	1	White-orange	2	Orange
Pair 3	3	White-green	6	Green
Pair 1	5	White-blue	4	Blue
Pair 4	7	White-brown	8	Brown

In T568A the orange and green pairs are swapped.

APPLICATIONS

- 10GBASE-T (10 Gbit/s)
- 1000BASE-T (Gigabit Ethernet)
- 10BASE-T, 100BASE-T (IEEE 802.3)
- 100BASE-VG-AnyLAN
- ATM 55/155 Mbit/s

PACKAGING

Reference	Packaging	Length	Jacket
GIGA-C6A-U-EXT	Box	305 m	Black LDPE
GIGA-C6A-U-EXT	Reel	500 m	Black LDPE

Specifications may change without notice. Ref. GIGA-C6A-U-EXT.