

# Cat.6 UTP Non-Booted Cables Series

Technical Data Sheet

CableMAX Model No. **CM-1001XXXXBSTK**

Digi-Key Series: **CM-10016U**

Rev 250822

Length	Black	Blue	Grey	Green	Orange	Red	White	Yellow	Purple
0.5ft.	CM-100100BKBSTK	CM-100100BLBSTK	CM-100100GYBSTK	CM-100100GNBSTK	CM-100100ORBSTK	CM-100100RDBSTK	CM-100100WTBSTK	CM-100100YWBSTK	CM-100100PUBSTK
1ft.	CM-100101BKBSTK	CM-100101BLBSTK	CM-100101GYBSTK	CM-100101GNBSTK	CM-100101ORBSTK	CM-100101RDBSTK	CM-100101WTBSTK	CM-100101YWBSTK	CM-100101PUBSTK
1.5ft.	CM-100107BKBSTK	CM-100107BLBSTK	CM-100107GYBSTK	CM-100107GNBSTK	CM-100107ORBSTK	CM-100107RDBSTK	CM-100107WTBSTK	CM-100107YWBSTK	CM-100107PUBSTK
2ft.	CM-100102BKBSTK	CM-100102BLBSTK	CM-100102GYBSTK	CM-100102GNBSTK	CM-100102ORBSTK	CM-100102RDBSTK	CM-100102WTBSTK	CM-100102YWBSTK	CM-100102PUBSTK
3ft.	CM-100103BKBSTK	CM-100103BLBSTK	CM-100103GYBSTK	CM-100103GNBSTK	CM-100103ORBSTK	CM-100103RDBSTK	CM-100103WTBSTK	CM-100103YWBSTK	CM-100103PUBSTK
4ft.	CM-100100BKBSTK	CM-100100BLBSTK	CM-100100GYBSTK	CM-100100GNBSTK	CM-100100ORBSTK	CM-100100RDBSTK	CM-100100WTBSTK	CM-100100YWBSTK	CM-100100PUBSTK
5ft.	CM-100104BKBSTK	CM-100104BLBSTK	CM-100104GYBSTK	CM-100104GNBSTK	CM-100104ORBSTK	CM-100104RDBSTK	CM-100104WTBSTK	CM-100104YWBSTK	CM-100104PUBSTK
6ft.	CM-100103BKBSTK	CM-100103BLBSTK	CM-100103GYBSTK	CM-100103GNBSTK	CM-100103ORBSTK	CM-100103RDBSTK	CM-100103WTBSTK	CM-100103YWBSTK	CM-100103PUBSTK
7ft.	CM-100105BKBSTK	CM-100105BLBSTK	CM-100105GYBSTK	CM-100105GNBSTK	CM-100105ORBSTK	CM-100105RDBSTK	CM-100105WTBSTK	CM-100105YWBSTK	CM-100105PUBSTK
8ft.	CM-100148BKBSTK	CM-100148BLBSTK	CM-100148GYBSTK	CM-100148GNBSTK	CM-100148ORBSTK	CM-100148RDBSTK	CM-100148WTBSTK	CM-100148YWBSTK	CM-100148PUBSTK
9ft.	CM-100149BKBSTK	CM-100149BLBSTK	CM-100149GYBSTK	CM-100149GNBSTK	CM-100149ORBSTK	CM-100149RDBSTK	CM-100149WTBSTK	CM-100149YWBSTK	CM-100149PUBSTK
10ft.	CM-100106BKBSTK	CM-100106BLBSTK	CM-100106GYBSTK	CM-100106GNBSTK	CM-100106ORBSTK	CM-100106RDBSTK	CM-100106WTBSTK	CM-100106YWBSTK	CM-100106PUBSTK
12ft.	CM-100147BKBSTK	CM-100147BLBSTK	CM-100147GYBSTK	CM-100147GNBSTK	CM-100147ORBSTK	CM-100147RDBSTK	CM-100147WTBSTK	CM-100147YWBSTK	CM-100147PUBSTK
15ft.	CM-100107BKBSTK	CM-100107BLBSTK	CM-100107GYBSTK	CM-100107GNBSTK	CM-100107ORBSTK	CM-100107RDBSTK	CM-100107WTBSTK	CM-100107YWBSTK	CM-100107PUBSTK
20ft.	CM-100114BKBSTK	CM-100114BLBSTK	CM-100114GYBSTK	CM-100114GNBSTK	CM-100114ORBSTK	CM-100114RDBSTK	CM-100114WTBSTK	CM-100114YWBSTK	CM-100114PUBSTK
25ft.	CM-100108BKBSTK	CM-100108BLBSTK	CM-100108GYBSTK	CM-100108GNBSTK	CM-100108ORBSTK	CM-100108RDBSTK	CM-100108WTBSTK	CM-100108YWBSTK	CM-100108PUBSTK
30ft.	CM-100119BKBSTK	CM-100119BLBSTK	CM-100119GYBSTK	CM-100119GNBSTK	CM-100119ORBSTK	CM-100119RDBSTK	CM-100119WTBSTK	CM-100119YWBSTK	CM-100119PUBSTK
35ft.	CM-100118BKBSTK	CM-100118BLBSTK	CM-100118GYBSTK	CM-100118GNBSTK	CM-100118ORBSTK	CM-100118RDBSTK	CM-100118WTBSTK	CM-100118YWBSTK	CM-100118PUBSTK
40ft.	CM-100120BKBSTK	CM-100120BLBSTK	CM-100120GYBSTK	CM-100120GNBSTK	CM-100120ORBSTK	CM-100120RDBSTK	CM-100120WTBSTK	CM-100120YWBSTK	CM-100120PUBSTK
50ft.	CM-100109BKBSTK	CM-100109BLBSTK	CM-100109GYBSTK	CM-100109GNBSTK	CM-100109ORBSTK	CM-100109RDBSTK	CM-100109WTBSTK	CM-100109YWBSTK	CM-100109PUBSTK
75ft.	CM-100110BKBSTK	CM-100110BLBSTK	CM-100110GYBSTK	CM-100110GNBSTK	CM-100110ORBSTK	CM-100110RDBSTK	CM-100110WTBSTK	CM-100110YWBSTK	CM-100110PUBSTK
100ft.	CM-100111BKBSTK	CM-100111BLBSTK	CM-100111GYBSTK	CM-100111GNBSTK	CM-100111ORBSTK	CM-100111RDBSTK	CM-100111WTBSTK	CM-100111YWBSTK	CM-100111PUBSTK
125ft.	CM-100190BKBSTK	CM-100190BLBSTK	CM-100190GYBSTK	CM-100190GNBSTK	CM-100190ORBSTK	CM-100190RDBSTK	CM-100190WTBSTK	CM-100190YWBSTK	CM-100190PUBSTK
150ft.	CM-100112BKBSTK	CM-100112BLBSTK	CM-100112GYBSTK	CM-100112GNBSTK	CM-100112ORBSTK	CM-100112RDBSTK	CM-100112WTBSTK	CM-100112YWBSTK	CM-100112PUBSTK
175ft.	CM-100191BKBSTK	CM-100191BLBSTK	CM-100191GYBSTK	CM-100191GNBSTK	CM-100191ORBSTK	CM-100191RDBSTK	CM-100191WTBSTK	CM-100191YWBSTK	CM-100191PUBSTK
200ft.	CM-100115BKBSTK	CM-100115BLBSTK	CM-100115GYBSTK	CM-100115GNBSTK	CM-100115ORBSTK	CM-100115RDBSTK	CM-100115WTBSTK	CM-100115YWBSTK	CM-100115PUBSTK

## Specifications

\* Information listed represents all cables within this series

### Cable Specifications:

CAT6 UTP 4 X 1P[24AWG(7/0.175mm±0.008mm BC)]  
CM PVC JACKET OD: 5.3±0.20mm

### Standard Reference:

- All Category 6 Requirements as Per ANSI/TIA, ISO/IEC, and CENELEC EN Standards
- ANSI/TIA-5682-D Cat.6
- ISO/IEC 3rd Edition 11801 Class E
- We Implemented RoHS Compliance for the Requirement of European Union Issued Directive 2011/65/EU

### Physical characteristic

- Rated temperature: 75°C
- Installation temperature: -20-60°C
- Operating temperature: -20-75°C
- Min bending radius:15xOD in Operation:10xOD after operation

### Application

- 1000BASE-T Gigabit Ethernet
- 10BASE-T, 100BASE-TX Fast Ethernet (IEEE 802.3)
- 100 VG - AnyLAN(IEEE802.12)
- 250MHz Broadband Video Voice, T1, ISDN

## Compliance

Compliant with TIA/EIA standard by UL & ETL; RoHS Compliant



1000BASE-T, 100BASE-TX, 10BASE-T Ethernet (IEEE 802.3), 100VG-AnyLAN (IEEE 802.12), T1, ISDN

# Electrical Performance

CABLE CONSTRUCTION		
Conductor	Material	Stranded Bare Copper
	Nom.O.D (mm)	7/0.175±0.008mm 24AWGx4P
Insulation HDPE	Average Thickness(mm)	0.2
	Insulation Dia.(±0.05mm)	0.75
	Unaged Elongation	Min. 300%
	Unaged Tensile Strength	Min.1.683 Kgf/mm <sup>2</sup>
Code Color	1 Blue/Blue*White	2 Orange/Orange*White
	3 Green/Green*White	4 Brown/Brown*White
Jacket CM PVC	Average Thickness (mm)	0.6
	Outer Dia.(±0.20mm)	5.3
	Unaged Elongation	Min. 100%
	Unaged Tensile Strength	Min.1.407 Kgf/mm <sup>2</sup>
	Aging at 100°C for 168Hrs	Min. elongation retention:50% Min. tensile strength retention:75%
Marking	YFC CAT.6 UTP ISO/IEC 11801 & EN 50288 & ANSI/TIA-568.2-D ETL/3P VERIFIED ▲ 24AWGX4P PATCH TYPE CM(UL) E164469-B3	

CHARACTERISTICS	
Dielectric Strength of Insulation	1500 V dc / 1 minute
Insulation Resistance Test	Min. 5000 MΩ·Km
Conductor Resistance	Max. 11.25 Ω/100m at 20°C
Resistance Unbalance	Max. 2%
Capacitance Unbalance	Max. 220 pF/100m

TECHNICAL PERFORMANCE				
TIA Cat 6 Channel Test				
Frequency (MHz)	Insertion Loss	RL Min (dB)	NEXT Min (dB)	
1	3.0	19.0	65.0	
4	4.0	19.0	63.0	
8	5.7	19.0	58.2	
10	6.3	19.0	56.6	
16	8.0	18.0	53.2	
20	9.0	17.5	51.6	
25	10.1	10.1	50.0	
31.25	11.4	16.5	48.4	
62.25	16.5	14.0	43.4	
100	21.3	12.0	39.9	
200	31.5	9.0	34.8	
250	35.9	8.0	33.1	
Frequency (MHz)	PSNEXT (dB/100m)	ACR-F (dB/100m)	PS ACR-F (dB/100m)	Impedance (Ohms)
1	62.0	63.3	60.3	100±15
4	60.5	51.2	48.2	
8	55.6	45.2	42.2	
10	54.0	43.3	40.3	
16	50.6	39.2	36.3	
20	59.0	37.2	34.2	
25	47.3	35.3	32.3	
31.25	45.7	33.4	30.4	
62.25	40.6	27.3	24.3	
100	37.1	23.3	20.3	
200	31.9	17.2	14.2	
250	30.2	15.3	12.3	

## Configuration

### Cable Cross-Section Structure

