Cat.5E Shielded Cables Series (FTP)

Technical Data Sheet

CableMAX Model No. CM-1006XXXXBSTK   **Digi-Key Series:** CM-10065ES   **Rev 250619**

Length	Black	Blue	Grey	Green	Orange	Red	White	Yellow	Purple
0.5ft.	CM-100614BKBSTK	CM-100614BLBSTK	CM-100614GYBSTK	CM-100614GNBSTK	CM-100614ORBSTK	CM-100614RDBSTK	CM-100614WTBSTK	CM-100614YWBSTK	CM-100614PUBSTK
1ft.	CM-100601BKBSTK	CM-100601BLBSTK	CM-100601GYBSTK	CM-100601GNBSTK	CM-100601ORBSTK	CM-100601RDBSTK	CM-100601WTBSTK	CM-100601YWBSTK	CM-100601PUBSTK
1.5ft.	CM-100617BKBSTK	CM-100617BLBSTK	CM-100617GYBSTK	CM-100617GNBSTK	CM-100617ORBSTK	CM-100617RDBSTK	CM-100617WTBSTK	CM-100617YWBSTK	CM-100617PUBSTK
2ft.	CM-100602BKBSTK	CM-100602BLBSTK	CM-100602GYBSTK	CM-100602GNBSTK	CM-100602ORBSTK	CM-100602RDBSTK	CM-100602WTBSTK	CM-100602YWBSTK	CM-100602PUBSTK
3ft.	CM-100603BKBSTK	CM-100603BLBSTK	CM-100603GYBSTK	CM-100603GNBSTK	CM-100603ORBSTK	CM-100603RDBSTK	CM-100603WTBSTK	CM-100603YWBSTK	CM-100603PUBSTK
4ft.	CM-100600BKBSTK	CM-100600BLBSTK	CM-100600GYBSTK	CM-100600GNBSTK	CM-100600ORBSTK	CM-100600RDBSTK	CM-100600WTBSTK	CM-100600YWBSTK	CM-100600PUBSTK
5ft.	CM-100604BKBSTK	CM-100604BLBSTK	CM-100604GYBSTK	CM-100604GNBSTK	CM-100604ORBSTK	CM-100604RDBSTK	CM-100604WTBSTK	CM-100604YWBSTK	CM-100604PUBSTK
6ft.	CM-100615BKBSTK	CM-100615BLBSTK	CM-100615GYBSTK	CM-100615GNBSTK	CM-100615ORBSTK	CM-100615RDBSTK	CM-100615WTBSTK	CM-100615YWBSTK	CM-100615PUBSTK
7ft.	CM-100605BKBSTK	CM-100605BLBSTK	CM-100605GYBSTK	CM-100605GNBSTK	CM-100605ORBSTK	CM-100605RDBSTK	CM-100605WTBSTK	CM-100605YWBSTK	CM-100605PUBSTK
10ft.	CM-100606BKBSTK	CM-100606BLBSTK	CM-100606GYBSTK	CM-100606GNBSTK	CM-100606ORBSTK	CM-100606RDBSTK	CM-100606WTBSTK	CM-100606YWBSTK	CM-100606PUBSTK
12ft.	CM-100620BKBSTK	CM-100620BLBSTK	CM-100620GYBSTK	CM-100620GNBSTK	CM-100620ORBSTK	CM-100620RDBSTK	CM-100620WTBSTK	CM-100620YWBSTK	CM-100620PUBSTK
15ft.	CM-100607BKBSTK	CM-100607BLBSTK	CM-100607GYBSTK	CM-100607GNBSTK	CM-100607ORBSTK	CM-100607RDBSTK	CM-100607WTBSTK	CM-100607YWBSTK	CM-100607PUBSTK
20ft.	CM-100616BKBSTK	CM-100616BLBSTK	CM-100616GYBSTK	CM-100616GNBSTK	CM-100616ORBSTK	CM-100616RDBSTK	CM-100616WTBSTK	CM-100616YWBSTK	CM-100616PUBSTK
25ft.	CM-100608BKBSTK	CM-100608BLBSTK	CM-100608GYBSTK	CM-100608GNBSTK	CM-100608ORBSTK	CM-100608RDBSTK	CM-100608WTBSTK	CM-100608YWBSTK	CM-100608PUBSTK
35ft.	CM-100618BKBSTK	CM-100618BLBSTK	CM-100618GYBSTK	CM-100618GNBSTK	CM-100618ORBSTK	CM-100618RDBSTK	CM-100618WTBSTK	CM-100618YWBSTK	CM-100618PUBSTK
50ft.	CM-100609BKBSTK	CM-100609BLBSTK	CM-100609GYBSTK	CM-100609GNBSTK	CM-100609ORBSTK	CM-100609RDBSTK	CM-100609WTBSTK	CM-100609YWBSTK	CM-100609PUBSTK
75ft.	CM-100610BKBSTK	CM-100610BLBSTK	CM-100610GYBSTK	CM-100610GNBSTK	CM-100610ORBSTK	CM-100610RDBSTK	CM-100610WTBSTK	CM-100610YWBSTK	CM-100610PUBSTK
100ft.	CM-100611BKBSTK	CM-100611BLBSTK	CM-100611GYBSTK	CM-100611GNBSTK	CM-100611ORBSTK	CM-100611RDBSTK	CM-100611WTBSTK	CM-100611YWBSTK	CM-100611PUBSTK
125ft.	CM-100635BKBSTK	CM-100635BLBSTK	CM-100635GYBSTK	CM-100635GNBSTK	CM-100635ORBSTK	CM-100635RDBSTK	CM-100635WTBSTK	CM-100635YWBSTK	CM-100635PUBSTK
150ft.	CM-100612BKBSTK	CM-100612BLBSTK	CM-100612GYBSTK	CM-100612GNBSTK	CM-100612ORBSTK	CM-100612RDBSTK	CM-100612WTBSTK	CM-100612YWBSTK	CM-100612PUBSTK
175ft.	CM-100636BKBSTK	CM-100636BLBSTK	CM-100636GYBSTK	CM-100636GNBSTK	CM-100636ORBSTK	CM-100636RDBSTK	CM-100636WTBSTK	CM-100636YWBSTK	CM-100636PUBSTK
200ft.	CM-100613BKBSTK	CM-100613BLBSTK	CM-100613GYBSTK	CM-100613GNBSTK	CM-100613ORBSTK	CM-100613RDBSTK	CM-100613WTBSTK	CM-100613YWBSTK	CM-100613PUBSTK

* Information listed represents all cables within this series

Specifications

- **Cable Specifications:**
  CAT5E F/UTP 4 X 1P[26AWG(7/0.16mm±0.008mm BC)]+MYLAR+D(7/0.12TC)+AL
  CM PVC JACKET OD: 5.6±0.20mm

- **Standard Reference:**
  - All Category 5e Requirements as Per ANSI/TIA, ISO/IEC, and CENELEC EN Standards
  - ANSI/TIA-5682-D Cat.5e
  - ISO/IEC 3nd Edition 11801 Class D
  - 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)
    100MHz Broadband Video Voice, T1, ISDN

Compliance

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

Electrical Performance

CABLE CONSTRUCTION

Conductor	Material	Stranded Bare Copper
	Nom.O.D (mm)	7/0.16±0.008mm 26AWGx4P
Insulation HDPE	Average Thickness(mm)	0.20
	Insulation Dia.(±0.05mm)	0.87
	Unaged Elongation	Min. 300%
	Unaged Tensile Strength	Min.1.683 Kgf/mm²
Code Color	1 Blue/Blue*White	2 Orange/Orange*White
	3 Green/Green*White	4 Brown/Brown*White
Mylar	COVERAGE 100% OVERLAP25%min	
DRAIN	Material	TC
	Size (±0.008mm)	7/0.12
AL	COVERAGE 100% OVERLAP25%min	
Jacket CM PVC	Average Thickness (mm)	0.55
	Outer Dia.(±0.20mm)	5.6
	Unaged Elongation	Min. 100%
	Unaged Tensile Strength	Min.1.407 Kgf/mm²
	Aging at 100℃ for 168Hrs	Min. elongation retention:50%
		Min. tensile strength retention:75%
Marking	YFC FTP CAT.5E 350MHZ PATCH ISO/IEC 11801 & EN 50288 & 3P CONFORMS FOR GIGABIT ETHERNET ▲ 26AWGX4P 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. 17.89 Ω/100m at 20℃
Resistance Unbalance	Max. 2%
Capacitance Unbalance	Max. 220 pF/100m

TECHNICAL PERFORMANCE

TIA Cat 5E Channel Test

Frequency (MHz)	Insertion Loss	RL Min (dB)	NEXT Min (dB)
1	3.0	17.0	60.0
4	4.5	17.0	53.5
8	6.3	17.0	48.6
10	7.1	17.0	47.0
16	9.1	17.0	43.6
20	10.2	17.0	42.0
25	11.4	16.0	40.3
31.25	12.9	15.1	38.7
62.25	18.6	12.1	33.6
100	24.0	10.0	30.1

Frequency (MHz)	PSNEXT (dB/100m)	ACR-F (dB/100m)	PS ACR-F (dB/100m)	Impedance (Ohms)
1	57.0	57.4	54.4	
4	50.5	45.4	42.4	
8	45.6	39.3	36.3	
10	44.0	37.4	34.4	
16	40.6	33.3	30.3	
20	39.0	31.4	28.4	100±15
25	37.3	29.4	26.4	
31.25	35.7	27.5	24.5	
62.25	30.6	21.5	18.5	
100	37.1	17.4	14.4	

Configuration

Cable Cross-Section Structure

JACKET
Mylar
AL
DRAIN
CONDUCTOR
INSULATION