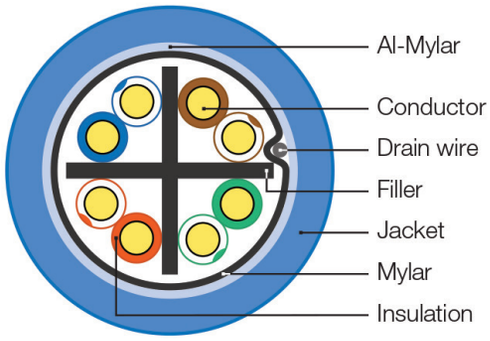
Part no. FUTP4-C6-SOLID-OUTDOOR-40-305

Category 6 F/UTP, 23AWG Solid Bare Copper Outdoor Cable, CMX



PRODUCT DESCRIPTION

Category 6 Outdoor CMX is ideal for voice, data, video and security communication mediums for all your network installation requirements. Manufactured to the highest quality standards and approved by 3rd party organizations such as UL and ETL, Hyperline Cable, when compared to TIA guidelines; meets or surpasses the specifications in every category. The cable construction is comprised of 8 x 23-gauge solid bare copper cores with an overall metal foil screen with drain wire. Insulated with high density polyethylene insulation and organized into four color coded twisted pair sets of conductors. Hyperline Cat 6 CMX cable is easy to use during installations and pulls smoothly with no kinks.

USAGE & ENVIRONMENTAL CONDITION

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius	≥ 4 times of overall diameter	
Maximum pulling tension	≤ 110 N	

APPLICATIONS

- Structured cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- Overall metal shielded providing good protection from EMI noise.
- IEEE 802.3ab 1000BASE-T, 1000BASE-TX and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

PERFORMANCE COMPLIANCE

- UL 444
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)

PHYSICAL & ELECTRICAL CHARACTERISTICS

at 20 °C	
Temperature & voltage rating	75°C / 300V
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω/100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ•m
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

FEATURES

- High performance of transmission
- High quality of safety property
- Sunlight resistant
- Protection from EMI noise
- For outdoor use
- Sweep frequency up to 400 MHz (Enhanced) verified to 250 MHz
- Meets/exceeds ANSI/TIA-568-C.2 specification
- Meets ISO/IEC 11801 (Editional2.2)
- Meets IEC 61156-5 (Edition2.0)
- Flame Test –UL 2556 (CMX)
- Quick Count marking system in feet

ELECTRICAL PERFORMANCE COMPARISON (At 20 °C)

Frequency (MHz)	INSERTION LOSS		NEXT		PS.NEXT		ACR	
	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline
	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m
1	2.0	2.0	74.3	74.3	72.3	72.3	72.3	72.2
4	3.8	3.7	65.3	65.2	63.3	63.2	61.5	61.4
8	5.3	5.3	60.8	60.7	58.8	58.7	55.4	55.4
10	6.0	5.9	59.3	59.3	57.3	57.3	53.3	53.3
16	7.6	7.5	56.2	56.2	54.2	54.2	48.6	48.6
20	8.5	8.4	54.8	54.7	52.8	52.7	46.3	46.3
25	9.5	9.5	53.3	53.3	51.3	51.3	43.8	43.8
31.25	10.7	10.6	51.9	51.8	49.9	49.8	41.2	41.2
62.5	15.4	15.3	47.4	47.3	45.4	45.3	32.0	31.9
100	19.8	19.8	44.3	44.3	42.3	42.3	24.5	24.5
200	29.0	28.9	39.8	39.7	37.8	37.7	10.8	10.8
250	32.8	32.8	38.3	38.3	36.3	36.3	5.4	5.4
300		36.4		37.1		35.1		0.7
350		39.7		36.1		34.1		N.A.
400		42.9		35.2		33.2		N.A.

Frequency (MHz)	PS.ACR		ACRF		PS.ACRF		RETURN LOSS	
	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline
	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m
1	70.3	70.2	67.8	67.8	64.8	64.8	20.0	20.0
4	59.5	59.4	55.8	55.7	52.8	52.7	23.0	23.0
8	53.4	53.4	49.7	49.7	46.7	46.7	24.5	24.5
10	51.3	51.3	47.8	47.8	44.8	44.8	25.0	25.0
16	46.6	46.6	43.7	43.7	40.7	40.7	25.0	25.0
20	44.3	44.3	41.8	41.7	38.8	38.7	25.0	25.0
25	41.8	41.8	39.8	39.8	36.8	36.8	24.3	24.3
31.25	39.2	39.2	37.9	37.9	34.9	34.9	23.6	23.6
62.5	30.0	29.9	31.9	31.8	28.9	28.8	21.5	21.5
100	22.5	22.5	27.8	27.8	24.8	24.8	20.1	20.1
200	8.8	8.8	21.8	21.7	18.8	18.7	18.0	18.0
250	3.5	3.4	19.8	19.8	16.8	16.8	17.3	17.3
300		N.A.		18.2		15.2		16.7
350		N.A.		16.9		13.9		16.3
400		N.A.		15.7		12.7		15.8

Values above 250MHz are for information only

ELECTRICAL SPECIFICATIONS (At 20 °C)

Frequency (MHz)	Propagation Delay	
	TIA-568-C.2	Hyperline
	Max. dB/100m	Max. dB/100m
1	570	570
4	552	552.00
8	545	546
10	543	545
16	542	543
20	541	542
25	540	541
31.25	539	540
62.5	538	538
100	537	537
150	536	536
200		536
250		536
300		536
350		535
400		535

Values above 250MHz are for information only

MATERIALS & CONSTRUCTION

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Polyolefin (PO)	
	Color code & diameter	Blue & white/blue Stripe	1.08 ± 0.02 mm
		Orange & white/orange stripe	1.05 ± 0.02 mm
		Green & white/green stripe	1.08 ± 0.02 mm
		Brown & white/brown stripe	1.05 ± 0.02 mm
Twisted	Description	Left hand direction	
Filler	Material	Polyolefin (PO)	
Assembly	Description	Left hand direction	
Jacket	Material	Polyethylene (PE)	
	Diameter	7.20 ± 0.2 mm	
	Thickness	0.50 ± 0.05 mm	
	Color	Per Hyperline standard	
Shield	Material	Al Mylar tape 100 % coverage and mylar side facing out	

MATERIALS & CONSTRUCTION

Drain wire	Material	24AWG solid tinned copper
Nominal Velocity of Propagation	(NVP) 69%	
NRTL Program	c(UL)us listed CMX ETL Verified	
Marking	Hyperline FUTP4-C6-SOLID-CMX-XX --- E303448 F/UTP 4PR 23AWG C(UL)US CMX OUTDOOR --- ETL VERIFIED TO ANSI/TIA-568-C.2 CAT 6 400MHz WW/YY XXXXFT-A	

ORDERING

Part Number	Product Description
FUTP4-C6-SOLID-OUTDOOR-40-305	Category 6 Outdoor CMX, F/UTP, 23 AWG, Black 305 Meter/1000 FT Reel